

# Two-Way Portable Radios

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MOTOROLA, the Stylized M Logo, ASTRO Digital SABER, EX500, EX600, EX600•XLS, GP300, GP350, GTX, GTX LTR, GTX Privacy Plus, HT90, HT440, HT600, HT750, HT1000, HT1250, HT1250•LS, HT1250•LS+, JT1000, LTS2000, MT500, MT1000, MT2000, MTS2000, MTX•LS, MTX800, MTX838, MTX850, MTX850•LS, MTX950, MTX900, MTX8000, MTX8250, MTX8250•LS, MTX9000, MTX9250, MX300, MX300-R, MX300-S, MX300-T, MX800, P10, P50, P100, P110, P200, P1225, P1225•LS, SABER, SP10, SP21, SP50, SP50+, STX, VISAR, XTS2500, XTS3000, XTS3500 and XTS5000 are registered in the U.S. Patent and Trademark Office. All other product or service names are the property of their respective owners.

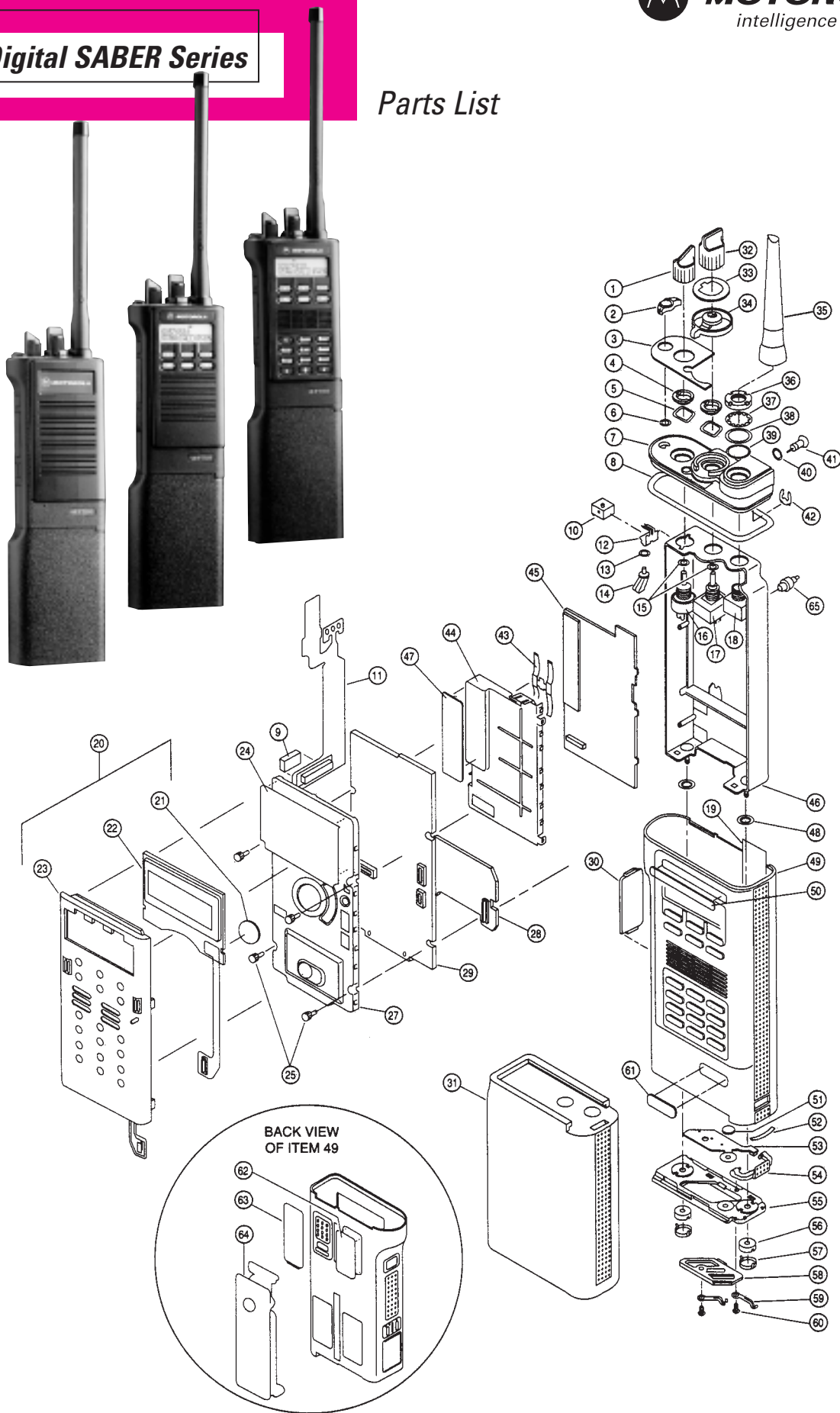
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# ASTRO Digital SABER Series

## Parts List





# ASTRO Digital SABER Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>3602631J06</b>	Knob, On/Off/Volume
2	<b>NTN5068A</b>	Kit, Programmable Button and Switch; includes item 6
3	<b>1302647J01</b>	Escutcheon
4	<b>0205163Q02</b>	Nut, Spanner (2 req'd)
5	<b>0402838X01</b>	Washer, Special (2 req'd)
6	----	"O" Ring, Switch; part of item 2 – not available
7	<b>6402641J04</b>	Control Top
8	<b>3205082E80</b>	"O" Ring, Control Top
9	<b>7505501R04</b>	Pad
10	<b>4005221R03</b>	Switch, Top Button
11	<b>8402805X04</b>	Flex, Control Top/PTT
12	<b>0705319R02</b>	Clip, Switch Retaining
13	<b>3205082E61</b>	"O" Ring, Light Pipe
14	<b>6102638J01</b>	Lens, Light Pipe
15	<b>3205082E01</b>	"O" Ring, (2 req'd)
16	<b>1805629V03</b>	Potentiometer, On/Off/Volume Control
17	<b>4002622J03</b>	Switch, Mode/Zone Selector
18	<b>4005187W02</b>	Switch, Antenna
19	<b>1405182M03</b>	Insulator, Universal Connector
20	<b>NTN7637C</b>	Shield, Non-Display Front (Includes items 21 and 23, not 22)
	or	
	<b>NTN7638C</b>	Shield, Display Front (Includes items 21 thru 23) item has been cancelled
21	<b>1405568W01</b>	Insulator, Speaker Magnet
22	<b>0105950T02</b>	Assembly, Display Board; includes Display Flex, LCD, and Display Circuit Board
23	<b>NTN7637C</b>	Assembly, Front Shield (includes Speaker/Microphone Flex and item 21)
24	----	Insulator, Controller Shield – not available
25	<b>0305150X01</b>	Screws, Controller Shield (4 req'd)
26	----	Not Used
27	<b>2605844V02</b>	Shield, Controller
28	----	Board Kit, Option; Typical – not available
29	<b>NTN7749G</b>	Board Kit, Controller
30	<b>4505022P02</b>	Lever, PTT
31	<b>NTN4593DR</b>	Battery, Medium Capacity NiCd
	or	
	<b>NTN4595DR</b>	Battery, Ultra-High Capacity NiCd
	or	
	<b>NTN7014BR</b>	Battery, Medium Capacity NiMH
32	<b>3602632J02</b>	Knob, Mode/Zone Selector
33	<b>1302646J01</b>	Escutcheon
34	<b>4502640J01</b>	Lever, Switch
35	<b>8505518V01</b>	Antenna, VHF Wide-Band Helical (136-174 MHz)
	or	
	<b>8505644V01</b>	Antenna, VHF Helical (136-151 MHz)
	or	
	<b>8505644V02</b>	Antenna, VHF Helical (151-162 MHz)
	or	

REF. NO.	PART NO.	DESCRIPTION
	<b>8505644V03</b>	Antenna, VHF Helical (162-174 MHz)
	or	
	<b>8505644V04</b>	Antenna, UHF Helical (403-435 MHz)
	or	
	<b>8505644V05</b>	Antenna, UHF Helical (435-470 MHz)
	or	
	<b>8505644V06</b>	Antenna, UHF Helical (470-512 MHz)
	or	
	<b>8505241U05</b>	Antenna, UHF Wide-Band Whip (403-512 MHz)
	or	
	<b>8505241U03</b>	Antenna, 800 MHz Whip
	or	
	<b>NAF4000B</b>	Antenna, 800 MHz Dipole
	or	
	<b>8505241U06</b>	Antenna, 800 MHz Stubby Quarterwave
36	<b>0205591R01</b>	Nut, Antenna Switch
37	<b>0400139731</b>	Lockwasher
38	<b>0405659W01</b>	Washer, Antenna Switch
39	<b>3205082E21</b>	"O" Ring, Antenna Switch
40	<b>3205082E59</b>	"O" Ring, Remote Connector
41	<b>0905702V02</b>	Plug, External Antenna
42	<b>4205622W04</b>	Clip, RF Ground
43	<b>4105875U01</b>	Clip, PA (part of item 44) item has been cancelled
44	----	Shield, Center (includes item 43) – not available
45	<b>NLD8892R</b>	Board Kit, RF (VHF)
46	<b>0105953T12</b>	Chassis (includes 2 stud screws)
47	----	Insulator, RF Shield – not available
48	<b>3205422Q01</b>	Seal, Stud (2 req'd)
49	<b>REX1105A</b>	Housing Kit, Model I
	or	
	<b>REX1104A</b>	Housing Kit, Model II
	or	
	<b>REX1103A</b>	Housing Kit, Model III (shown) Note: housing kits include items 19, 30, 50 thru 60, 62, 67 and the Universal Flex
50	<b>3305521W02</b>	Label, Nameplate
51	<b>3205472M02</b>	Seal, Port
52	<b>4105775Q01</b>	Spring, Latch
53	<b>3205783T02</b>	Elastomer, Baseplate
54	<b>5505333Q01</b>	Latch, Battery
55	<b>6405847N03</b>	Baseplate
56	<b>0205415Q03</b>	Nut, Slotted Spanner (2 req'd)
57	<b>4205416Q01</b>	Cap, Nut Retaining (2 req'd)
58	<b>4205669T01</b>	Retainer, Baseplate
59	<b>3905453Q01</b>	Contact, Power (2 req'd)
60	<b>0305706Q02</b>	Screw (2 req'd)
61	<b>3305522W01</b>	Label, Astro
62	<b>3305521W03</b>	Label, FLASHport
63	<b>NTN7061A</b>	Kit, Universal Connector Cover
64	<b>NTN7309A</b>	Kit, Belt Clip
65	<b>4505886V03</b>	Actuator, Antenna Switch



## Portable Accessories

### Chargers

#### Single Unit Rapid Universal Tri-Chemistry Chargers

Tri-chemistry chargers support Nickel Cadmium, Nickel Metal Hydride, and Lithium-Ion batteries.

**NTN1667A** 110V Universal Charger

**NTN1668A** 220V Universal Charger

**NTN1669A** 240V Universal Charger



NTN1667A

#### impres™ Smart Energy System



WPLN4111AR

The impres smart energy system ensures maximum talk-time and optimized battery cycle life through the use of its advanced charging algorithm and automatic reconditioning features. The smart energy system reconditions impres batteries when they need it automatically, keeping them in peak condition. Its advanced conditioning features allow batteries to be safely left on

the charger for extended periods of time without incurring the damaging heat build-up which can rob batteries of cycle life. In addition, batteries left on the charger are kept fully charged so they are always ready when you need them. The impres system reconditions batteries when they need it based on their usage pattern. Talk time and cycle life are optimized and the need for manual maintenance programs reduced or eliminated. This rapid-rate tri-chemistry charging system will also charge existing legacy batteries and supports multiple radio platforms including Saber, XTS, and HT1000 series portables.

**WPLN4108BR** impres Smart Energy System Multi-Unit Charger

**WPLN4109BR** impres Smart Energy System Multi-Unit Charger  
220V/240V

**WPLN4111AR** impres Smart Energy System Single-Unit Charger

**5889254E01** Battery Adapter (required for batteries NTN4537, NTN4592, NTN7014 and NTN8818)

### Chargers

#### impres™ Multi-Unit Charger with Display Modules

The impres Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impres battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time (NiCd and NiMH only) which lets the user know when the impres battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage and charge status and the version of the charger and display modules.

**WPLN4130AR** Multi-Unit  
Charger with Display  
Modules

**RLN5382A** Charger  
Display Module for  
impres multi-unit charger  
version 1.3 or later

**RLN5591A** Charger  
Display Module for  
impres multi-unit charger  
version 1.2 or earlier



WPLN4130AR

#### impres™ Bundle Packs

Provide significant savings on the impres products by bundling a charger and two batteries together as a smart energy system package.

**RLN5261A** impres Charger with two HNN9033AR batteries

**RLN5444B** impres Multi-Unit Charger with six HNN9033AR Batteries

**RLN5264A** impres Charger with two HNN9034AR batteries

**RLN5442A** impres Multi-Unit Charger with six HNN9034AR Batteries

## ASTRO Digital SABER Series

### Portable Accessories

#### Motorola Conditioning Charger (MCC)

##### Motorola Conditioning Chargers

The MCC utilize negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified NiCd and NiMH batteries in approximately an hour. The MCC controls heat buildup due to its charging and termination algorithms and maintenance mode allows batteries to be safely left on the charger for extended periods of time. And now there is an Instant Fault Detection (IFD) feature which detects faulty radio batteries in seconds, which notifies the user that the battery will not operate at peak performance. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.

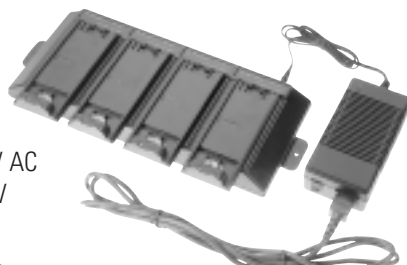
**WPPN4002BR** Base Charge Unit Only, 110V AC  
(order adapter plate separately)

**WPPN4006AR** Base Charge Unit Only, 220V AC  
(order adapter plate separately)

**WPPN4001BR** Adapter  
Only, 7V

**WPLN4096AR** Base 110V AC  
(includes Base Unit and 7V  
adapter)

**WPPN4065BR** Multi Unit  
Charger, 4-Station Base (order  
adapter plates separately)



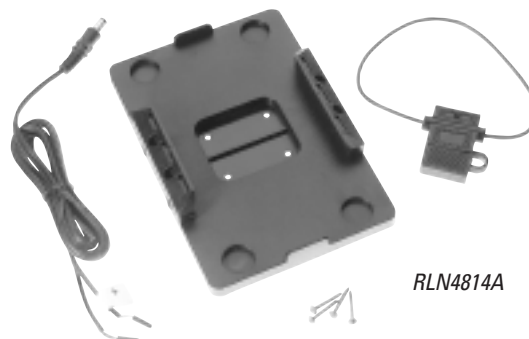
**WPPN4065BR**  
Shown with Adapter Plates

#### Motorola Conditioning Charger (MCC)

**3080384G15** Cigarette Lighter Adapter Cord

**3080384M21** DC Hard Wire Cable, for vehicular installation  
(included in RLN4814A)

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola  
Conditioning Charger



**RLN4814A**

##### Porta-Pocket Charger

The Porta-Pocket Charger provides a regular rate 16-hour charge to nickel cadmium (NiCd) batteries.

**NTN5563B** Porta-Pocket  
Charger, 110V AC, regular  
rate, includes AC power  
supply/cable

**NKN6289A** 12V DC Ignition  
Wiring Cable, includes dash  
mount bracket

**NKN6290B** 12V Cigarette  
Lighter Receptacle Cable, includes dash mount bracket



**NTN5563B**

## ASTRO Digital SABER Series

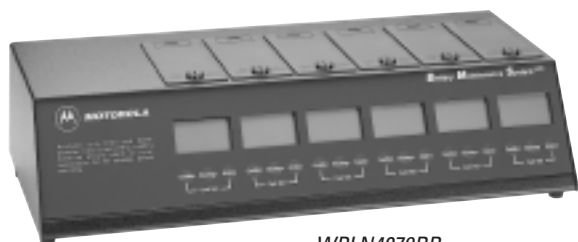
## Portable Accessories

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

#### **Increase the useful life of your batteries.**

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field Upgrade Kit or WPLN4079AR, WPLN4080AR, and WPLN4081AR; allows these units to support Li-ion battery chemistries

**NDN4005B** Three-Station, 110V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

#### **BMS<sup>plus</sup> Adapters**

**TDN9434A** NiCd Adapter, 7.5V for use with NTN7058A

**WPPN4066AR** NiCd and NiMH adapter, 7.5V compatible with same batteries as TDN9450A adapter plus NTN8251AR

**WPPN4087AR** NiCd and NiMH Adapter, 7.5V compatible with same batteries as TDN9450A adapter plus NTN8251AR

**WPPN4091AR** Li-ion Only Adapter

**TDN9450A** NiCd Adapter, 7.5V, for use with NTN4537CR, NTN4538DR, NTN4592CR, NTN4593DR, NTN4595DR, NTN4596DR and NTN4992CR

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter Plates**

**RL-772703** Ruggedized Adapter, SABER-R

**RL-71203** Standard Battery Adapter, SABER

\* Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## ASTRO Digital SABER Series

## Portable Accessories

### Carrying Accessories

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio and battery and permit audio to be heard clearly.

#### Medium Capacity Nickel Cadmium Batteries



NTN5644A

**NTN5578A** Leather Standard Snap Carry Case with Belt Loop (order T-Strap separately)

**NTN5644A** Leather Swivel Snap Carry Case (order T-strap and swivel belt loop separately)

**NTN8124A** High Activity Leather Swivel Snap Carry Case (order with NTN8039 for swivel belt loop and T-strap separately)

**NTN7574B** Nylon Standard Snap Carry Case with Belt Loop (includes T-strap)



NTN8124A

#### Ultra High Capacity Nickel Cadmium Batteries

**NTN7572A** Leather Standard Snap Carry Case with Belt Loop (order T-strap separately)



NTN7572A

**NTN7573A** Leather Swivel Snap Carry Case (order T-strap and swivel belt loop separately)

**NTN8125A** High Activity Leather Swivel Snap Carry Case (order T-strap and either NTN8039 or NTN8040 swivel belt loop separately)

**NTN7391A** Nylon Standard Snap Carry Case for use with ruggedized radios (includes T-strap)

**NTN7847A** Nylon Swivel Snap Carry Case for use with ruggedized radios with 2.5" (swivel belt loop and T-strap included)

**NTN7529B** Nylon Standard Snap Carry Case with Belt Loop (includes T-strap)

### Carrying Accessories

#### T-Straps

**NTN7758A** Leather case T-Strap

**NTN7846A** Nylon case T-Strap



4282421J06

#### Belt Loops

**4282421J06** 2.5" Leather Swivel Belt Loop

**4205857B01** 3.0" Leather Swivel Belt Loop

#### High Activity Belt Loops

The below listed leather swivel belt loops are for use ONLY with the high activity leather swivel snap carry case.

**NTN8039B** 2.5" Leather Swivel Belt Loop

**NTN8040B** 3" Leather Swivel Belt Loop



NTN8039B

#### High Activity Button

**PHN6141A** Removable "D" button used in conjunction with high-activity belt loop

#### Belt Clip

**NTN7309A** Removable Belt Clip Attachment

#### Carrying Strap

**NTN5243A** Adjustable Black Carrying Strap, attaches to "D" rings on case



NTN5243A



## ASTRO Digital SABER Series

## Portable Accessories

### Carrying Accessories

#### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602



HLN6602A

#### Break-a-Way Chest Pack



RLN4570A

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack

#### RadioPAK™

It's different from all other holders or cases: more comfortable, more useful, and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"



RLN4815A

### Audio Accessories

#### Remote Speaker Microphone (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and back cover clip.

**\*NMN6217B** Remote Speaker Microphone with 6' Coil Cord



NMN6217B

#### Public Safety Microphone (PSM)

**NMN6227B** 30" Public Safety Mic with Straight

**NMN6234B** 24" Public Safety Mic with Straight Cord

**NMN6236B** 18" Public Safety Mic with Straight Cord

*Note:* The public safety speaker/mic is not compatible with Saber or System Saber radios and is not recommended for the use with VHF. Antennas are not included with the public safety speaker/mic. The public safety speaker/mic utilizes the same antenna as the Astro Saber

**NTN5581A** Thumbscrew for Standard Screw Replacement



NMN6236B

#### RSM and PSM Accessories

##### Antennas for PSM

**8505309N09** 400-430 MHz

**8505309N10** 440-470 MHz

**8505309N11** 470-512 MHz

##### Velcro Patch

**NLN8410A** Velcro Patch Pin Attachment for Speaker/Microphone Assemblies

*\* Intrinsically safe*

## Portable Accessories

### Audio Accessories



RLN4295A

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord to back of microphone.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip

#### Miscellaneous Connector Cover

**NTN7061A** Universal Connector Cover



NTN7061A

#### CommPort: Integrated Microphone/Receiver System

The CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions. Astro Digital Saber Radios require 4305909W01 coaxial antenna connector; must be ordered separately.

**\*NTN1623A** Integrated Ear Microphone/Receiver System with Palm PTT, includes NTN5664A Hirose adapter.

**\*NTN1721A** Integrated Ear Microphone/Receiver System with Ring PTT, includes NTN5664A Hirose adapter.

**\*NTN1738A** Integrated Ear Microphone/Receiver System with Snap-on Side PTT; includes NTN5664D adapter

**NNTN4185A** Integrated Microphone/Receiver System with Remote Push-to-Talk Body Switch; includes NTN5664A Hirose adapter



NTN1623A

### Audio Accessories

**NKN6526A** Replacement Snap on side PTT Cable for NTN1738A

**NKN6507A** Replacement Palm PTT Cable for NTN1623A

**NKN6524A** Replacement Ring PTT Cable for NTN1721A

**NNTN4189A** Replacement Remote Push-To-Talk Body Switch

**NTN8821A** CommPort Maintenance Kit, includes replacement ear tubes (quantity 10), windscreens (quantity 2) and microphone seal strips (quantity 10)

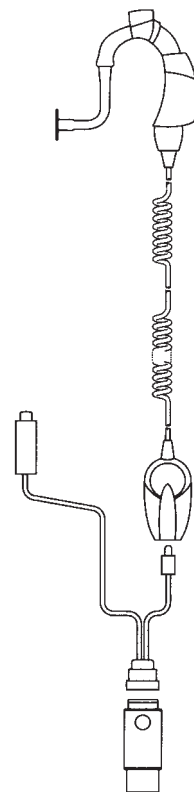
**NTN8986A** Adhesive Pads (quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (quantity 10), for secure attachment to ear

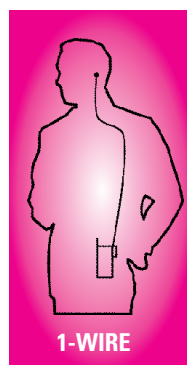
**RLN5037A** Replacement Ear Tubes (Quantity 10)

**4285838B01** Replacement Collar Clip

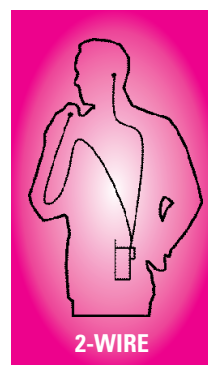
**4202006A01** Replacement Back Cover Clip



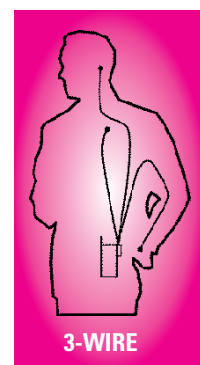
NTN1623A



1-WIRE



2-WIRE



3-WIRE

\* Intrinsicly Safe



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## Portable Accessories

### Audio Accessories

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discreet communications.

The following Surveillance Kits require NTN5664D adapter.



ZMN6032A

**NSN6050A** Surveillance Kit, Receive-only (1-Wire Kit)

**\*ZMN6032A** Surveillance Kit with Microphone and PTT Combined (2-Wire Kit)

**\*ZMN6031A** Surveillance Kit with Microphone and PTT Separate (3-Wire Kit)



ZMN6031A

**\*†ZMN6038A** Surveillance Kit with Microphone and PTT Combined, Extra Loud Earpiece (exceeds OSHA limits) (2-Wire Kit)

**\*†ZMN6039A** Surveillance Kit with Microphone and PTT Separate, Extra Loud Earpiece (exceeds OSHA limits) (3-Wire Kit)

**NTN5664D** Surveillance Accessory Adapter (with keyload capability). Requires Astro Antenna Adapter, 4305909W01 (order separately.)

\* Intrinsically Safe

† Extra Loud Earpiece (exceeds OSHA limits)

### Audio Accessories

#### Noise Kits



NTN8370A

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB of noise reduction

**NTN8371A** Low Noise Kit; includes rubber eartip for low noise environments, does not provide hearing reduction

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Beige Replacement Standard Rubber Eartips; for use with NTN8371A, (pack of 25)

**5080371E75** Black Replacement Standard Rubber Eartips; for use with NTN8371A, (pack of 25)

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. Does not provide hearing protection.

There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

**RLN4760A** Small Custom Earpiece, right ear

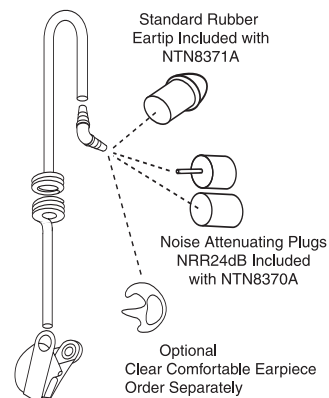
**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



Acoustic Tube with Earphone

## ASTRO Digital SABER Series

## Portable Accessories

### Surveillance Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX). Interface Module needs to be ordered separately for EMS to work.



**BDN6641A**  
Requires  
interface module,  
sold separately

**\*BDN6677A** Ear Microphone for standard noise levels (up to 95 db), black

**\*BDN6678A** Ear Microphone for standard noise levels (up to 95 db), beige

**\*BDN6641A** Ear Microphone for high noise levels (up to 105 db), grey

#### Interface Modules For EMS



**BDN6643B**

**\*BDN6642B** Push-To-Talk Only Interface Module

**\*BDN6643B** Push-To-Talk and Voice-Activated Interface Module

#### Optional Accessories for EMS

**0180300E25** Earguard with Adjustable Loop

**0180358B38** Remote Push-To-Talk Ring Switch

### Audio Accessories

**0180300E83** Remote Push-To-Talk Body Switch

**0180358B32** Earholder, Black, Size Small; secures ear mic in ear

**0180358B33** Earholder, Black, Size Medium; secures ear mic in ear

**0180358B34** Earholder, Black, Size Large; secures ear mic in ear



**0180300E83**



**0180358B33**

**0180358B35** Earholder, Clear, Size Small; secures ear mic in ear

**0180358B36** Earholder, Clear, Size Medium; secures ear mic in ear

**0180358B37** Earholder, Clear, Size Large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

#### Lightweight Headsets

Lightweight headset allows for high clarity, hands free, discreet two-way communications while adding comfort for extended wear in moderate noise environments.

**\*NMN6050B** Lightweight Headset with Boom Microphone, to be worn on a helmet or safety glasses; requires NTN5913A adapter cable

**\*NTN5913A** Headset Adapter Cable with Bayonet Jack

\* Intrinsically Safe



<https://www.motorola.com/businessonline>

## Antennas

### Audio Accessories

#### Heavy Duty Headsets

Heavy duty headsets include noise canceling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125dB. The Push-to-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. Heavy duty headsets require radio adapter cable to be ordered separately.

**BDN6645A** Push-To-Talk Headsets with Boom Microphone; requires adapter cable BDN6640A; noise reduction rating =24dB



BDN6645A



BDN6635B

**BDN6635B** Voice Activated (VOX) Headset with Boom Microphone; requires adapter cable BDN6640A; noise reduction rating =24dB

**\*BDN6636B** Voice Activated (VOX) Headset with Throat Microphone; requires adapter cable BDN6640A; noise reduction rating =24dB



BDN6636B

**\*BDN6640A** Radio Adapter Cable

\* Intrinsically Safe

### Portable Antennas

#### Heliflex Antennas

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

##### VHF Band

###### 8505644V01

Helical 136-150.8 MHz

###### 8505644V02

Helical 150-162 MHz

###### 8505644V03

Helical 162-174 MHz

###### 8505518V01

Helical 136-174 MHz

##### UHF Band

###### 8505644V04

Helical 403-433 MHz

###### 8505644V05

Helical 435-470 MHz

###### 8505644V06

Helical 470-520 MHz



8505644V01



8505644V03



8505644V04

## ASTRO Digital SABER Series

## Antennas, Batteries

### Portable Antennas

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### **8505241U05**

Flexible Whip, 403-520MHz, 6"

##### **8505241U03**

Flexible Whip, 806-869MHz, 7"

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

**NAF4000B** Dipole, 806-869MHz, 8"

#### Stubby Antenna

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**\*8505241U06** Stubby, 806-941MHz, 4"



8505241U05



NAF4000B



8505241U06

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN4593DR**

Volts: 7.5

Avg. mAh: 1100

Height: 3-1/4"

Intrinsically Safe: No

Part Number: **NTN4595DR**

Volts: 7.5

Avg. mAh: 1800

Height: 4"

Intrinsically Safe: No

Part Number: **NTN4657AR**

Volts: 7.5

Avg. mAh: 1100

Height: 4"

Intrinsically Safe: No

CSA: Yes

Part Number: **NTN4538DR**  
(Submersible)

Volts: 7.5

Avg. mAh: 1100

Height: 3-1/4"

Intrinsically Safe: Yes

Part Number: **NTN4596DR**  
(Submersible)

Volts: 7.5

Avg. mAh: 1800

Height: 4"

Intrinsically Safe: Yes



NTN4596DR

\* 8505241U06 is a broad band antenna that operates in the 800/900MHz band



<https://www.motorola.com/businessonline>

## ASTRO Digital SABER Series

### Batteries

#### Portable Batteries

Part Number: **NTN4992CR**

(Submersible)

Volts: 7.5

Avg. mAh: 1800

Height: 4"

Intrinsically Safe: Yes

Part Number: **NTN7058AR**

(Submersible/  
Ruggedized)

Volts: 7.5

Avg. mAh: 1800

Height: 4"

Intrinsically Safe: Yes



NTN7058AR

#### Nickel Metal Hydride Premium

Part Number: **NTN7014BR**

Volts: 7.5

Avg. mAh: 950

Height: 3-1/4"

Intrinsically Safe: No

Part Number: **NTN8251AR**

Volts: 7.5

Avg. mAh: 1650

Height: 3-1/4"

Intrinsically Safe: Yes

#### Portable Batteries

#### Lithium-ion Premium

Part Number: **NTN8818A**

Volts: 7.2

Avg. mAh: 1700

Height: 2-3/8"

Intrinsically Safe: No

#### Nickel-Cadmium impres™

To maximize impres battery features and benefits, an impres charger must be used.

Part Number: **HNN9033AR**

Volts: 7.5

Avg. mAh: 1800

Height: 4"

Intrinsically Safe: No

Part Number: **HNN9034AR**

Volts: 7.5

Avg. mAh: 1800

Height: 4"

Intrinsically Safe: Yes



HNN9033AR

## Service Aids, Manuals

### Service Aids

#### Battery Eliminator

The battery eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.

**RTL4224A** Battery Eliminator

#### Torque Screwdriver

Measure the amount of torque being applied. Built-in magnified dial. Calibrations clearly marked.



**RSX4043A** Adjustable Torque Screwdriver

**6680321B79** Torque Bit, for Power Contact Screws

**6680321B86** Torque Bit, for Controller Shield Screws

**6680370B88** Torque Bit, for 16 Position Select or Switch Spanner Nut

**6680370B89** Torque Bit, for Slotted-Spanner Baseplate Nut

**6680371B03** Torque Bit, for Frequency Switch & Volume Pot Spanner Nut

**6680371B34** Torque Bit, for RX/TX Switch Spanner Nut

#### Housing Eliminator

**REX4200A** Housing Eliminator

#### Adapter

**5880384G68** SMA to BNC RF Adapter



#### Radio Test and Programming Cable

Used with portable radio test set, RTX4005B, for transmitter, receive alignment and performance checks. Also used in programming radio.

**RKN4046A** Radio Interface Box/Radio/Test Set Cable

### Service Aids

#### Radio Service Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. IBM 366 is recommended for these products. Requires interface box and appropriate cables.

**RVN4100P** Programming Software

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer and interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01).



**RLN4008E** Radio Interface Box

**0180357A57** AC Power Pack, 110V

**0180358A56** AC Power Pack, 220V

**3080369B71** IBM to RIB Cable, 25 Pin

**3080369B72** IBM to RIB Cable, 9 Pin

### Manuals

**0180305J46** Ear Microphone System and Temple Transducer CD-ROM

**0180305J70** impres™ System CD-ROM

**6881076C05** Basic Service Manual

**6881076C10** Detailed Service Manual

**6881072C75** ASTRO Digital SABER I VHF, UHF, 800 MHz Operator/User's Manual

**6881072C80** ASTRO Digital SABER II, III, VHF, UHF, 800 MHz Operator/User's Manual

**6881098E85** ASTRO Digital SABER VHF, UHF, 800 MHz Radio Service Software Manual

## ***CP100 Series***

### *Parts List*



(Exploded view not available)



**CP100 Series****Parts List**

REF.  
NO. PART NO. DESCRIPTION

REF.  
NO. PART NO. DESCRIPTION

(Parts list not available)

## CP100 Series

## Portable Accessories

### Chargers



NNTN4075AR

**NNTN4075AR** 2-Hour Drop-In Charger; users can either place the entire radio or battery only into the tray for a quick charge in approximately 2 hours.



NNTN4028BR

**NNTN4028BR** Multi-Unit Charger; provides drop-in charging of 6 radios or batteries from a single outlet. Required for use of the CP100 cloning feature, which allows split-second cloning of all programming and user menu settings.

**NNTN4019AR** Drop-In Charging Tray; the entire radio, or battery only, can be placed into the tray for a full charge in 10 hours. (Requires NNTN4077)

**NNTN4077A** 10-Hour Plug-In Charger; ships standard with CP100 radio.

### Carry Accessories

#### Carry Case

Durable leather with protective window provides extra protection in tough work areas, while still allowing for easy operation.

**NNTN4020A** Leather Carry Case and Clip



NNTN4020A

#### Belt Holster

**NNTN4106A** Swivel belt carry holster



NNTN4106A

#### Belt

**4200865599** 1.75" wide leather belt

#### Chest Pack

This lightweight harness is designed for a safe and secure means of carrying portable radios in a variety of applications and environments. Includes a radio holder, pen holder and secured pocket for spare batteries, tools, and other communication devices. Can be comfortably worn on the chest, with adjustable straps to fit most body shapes and heights.



HLN6602A

**HLN6602A** Universal Chestpack

**1505596Z02** Replacement Strap for HLN6602

## CP100 Series

## Portable Accessories

### Carry Accessories



RLN4570A

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4815A

#### RadioPak™

Worn around the waist, it holds Two-way radios, iDEN® portables or cellular phones...keeping them right at hand. Includes a separate 6 x 8 inch zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK Radio/Utility Case

**4280384F89** Universal RadioPAK belt lengthener, fits waists larger than 40"

### Audio Accessories

#### Remote Speaker Microphone

A handy accessory for Retail and Manufacturing workers; allows talking and listening without reaching for a radio. Microphone clips securely onto shirt or collar.

**HMN9051A** Remote speaker microphone



HMN9051A



RLN4294A



RLN4295A

#### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet of shirts or jackets and attach around cord or back of microphone. Allows reliable communications in hostile environments with velcro or clip style strap.

**RLN4294A** Velcro Epaulet Strap

**RLN4295A** Small clip epaulet strap

## CP100 Series

## Portable Accessories

### Audio Accessories

#### Earbud

Personnel can receive communication discreetly with this unobtrusive earpiece.

**HMN9004A** Receive-only Earbud (single wire)



#### Earbud with Push-to-Talk Microphone

Users can simply reach for the Push-to-Talk button for easier communication – there's no need to remove the radio from the belt or case. Earbud fits comfortably into the ear. Microphone attaches to collar or sleeve. Recommended for Restaurant, Hospitality, and Education applications.

**HMN8435A** Earbud with Push-To-Talk Microphone (two wire)



HMN8435A



BDN6774A

#### Earpiece with Microphone

Fits over ear for clear reception in noisy environments. Users can work with hands-free ease.

**BDN6774A**  
Earpiece with Microphone



BDN6774A

### Audio Accessories

#### Ultra-Light Headset with Boom Microphone and In-Line Push-to-Talk (PTT)

This sleek headset is ideal for Education, Retail and Hospitality users who value a sophisticated look. Features unobtrusive behind-the-head design with a flexible boom microphone and miniature in-line PTT button.

**RLN5580A**  
Ultra-Light Headset



RLN5580A



BDN6773A

#### Lightweight Headset with Swivel Boom Microphone

This versatile headset lets users talk hands-free for hands-down convenience. A winner with Retail, Restaurant and Property Management applications.

**BDN6773A** Lightweight Headset with Swivel Boom Microphone

## CP100 Series

## Batteries, Manuals

### Portable Batteries

#### Nickel Metal Hydride Premium

Part Number: **NTN8971BR**

Volts: 4.8

Avg. mAh: 1500

Height: 4"

Intrinsically Safe: No

### Manuals

**6804112J99**

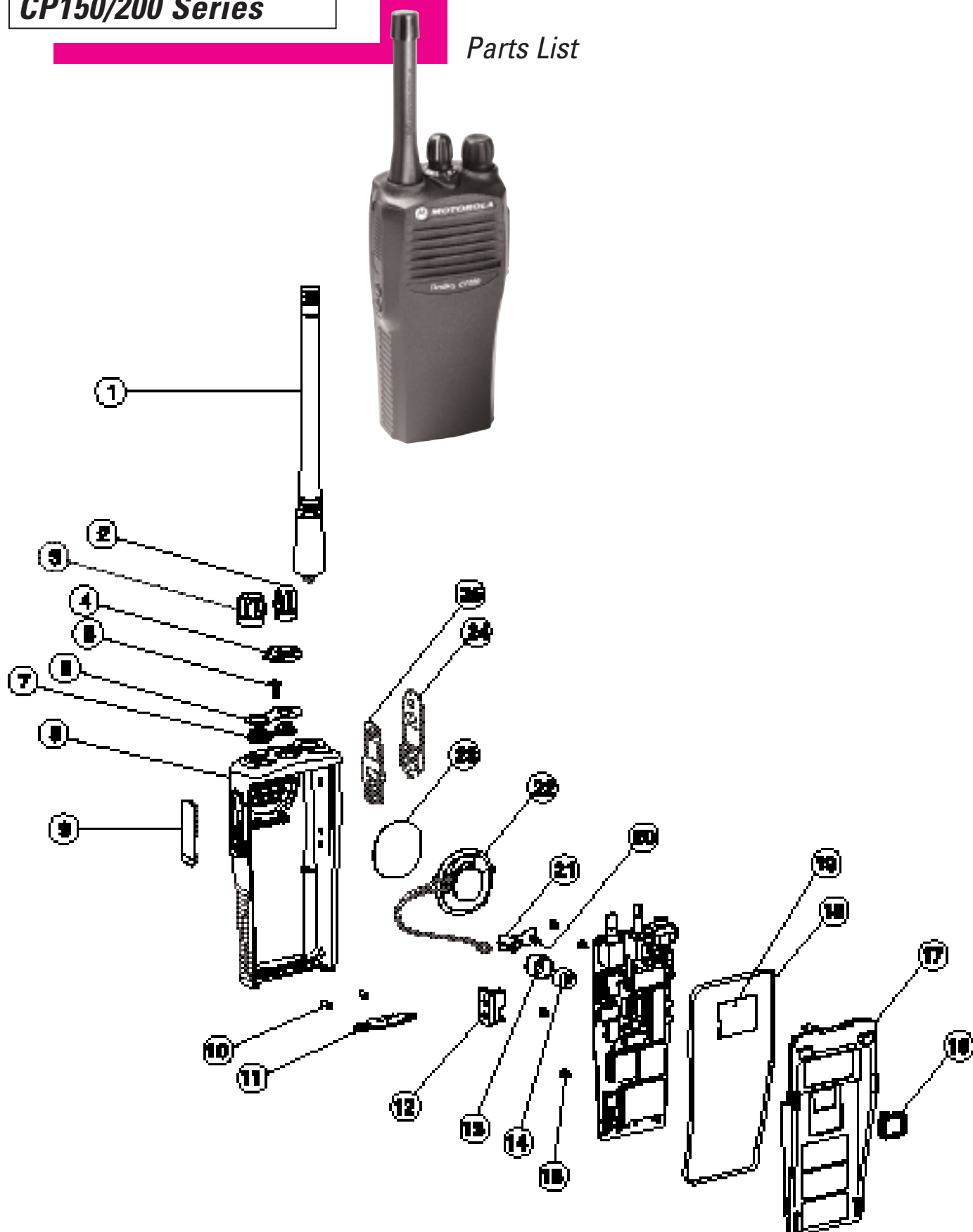
CP100 User Guide

### Notes



## CP150/200 Series

### Parts List



## CP150/200 Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	----	Antenna (see antennas page)
2	<b>3680530Z02</b>	Knob, Frequency
3	<b>3680529Z01</b>	Knob, Volume
4	<b>1386440Z01</b>	Escutcheon, Top; 4 Ch.
	<b>1386440Z02</b>	Escutcheon, Top; 16 Ch.
5	<b>6186446Z01</b>	Lightpipe
6	<b>3386443Z01</b>	Label, Escutcheon Seal
7	<b>3286432Z01</b>	Seal, Control Shaft
8	<b>1586390Z01</b>	Housing, Front
9	<b>3886441Z01</b>	Cap, Dust
10	<b>4105944K01</b>	Spring, latch; 2 used
11	<b>5586445Z01</b>	Latch assembly
12	<b>1586437Z01</b>	Shroud, audio jack
13	<b>0786469Z01</b>	Boot, microphone
14	<b>5080258E16</b>	Microphone
15	<b>0304726J05</b>	Screws, chassis; 4 used

REF. NO.	PART NO.	DESCRIPTION
16	<b>3286435Z01</b>	Seal, battery contact block
17	<b>2786389Z01</b>	Chassis
18	<b>3286431Z02</b>	Seal, main O-ring
19	<b>7586436Z01</b>	Pad, PA interface
20	<b>0386434Z01</b>	Screws, speaker retainer; 2 used
21	<b>0786433Z02</b>	Retainer, speaker
22	<b>5005679X04</b>	Speaker
23	<b>3586092Z02</b>	Felt, speaker
24	<b>4586439Z01</b>	PTT, plastic
25	<b>3886489Z01</b>	PTT, rubber

#### NON-REFERENCED ITEMS

<b>3386488Z01</b>	Nameplate, Motorola
<b>3386409Z01</b>	Nameplate, Radius CP200
<b>3386409Z02</b>	Nameplate, Radius CP150



## CP150/200 Series

## Portable Accessories

### Chargers



WPLN4138AR

**WPLN4138AR** Single-unit Rapid Rate Tri-chemistry Desktop Charger; lightweight and compact unit charger rapidly charges CP150 and CP200 NiCd and Li-ion batteries within two hours

**WPLN4137AR** Single-unit Rapid Rate Tri-chemistry Desktop Charger (Base Only)

**EPNN7994A** Rapid Rate Charger Transformer (U.S.)

**EPNN7997A** 10-Hour Plug-In Charger; slow-rate charger plugs directly into the radio accessory connector (For use with the NNTN4496 NiCd battery only)

### Carry Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in nylon and leather.

**HLN9701B** Nylon Carry Case with Belt Loop and D-shaped Rings



HLN9701B

**RLN5383A** Hard Leather Carry Case with Belt Loop and D-shaped Rings



RLN5385A

**RLN5384A** Hard Leather Carry Case with High Activity 2.5" Swivel Belt Loop

**RLN5385A** Hard Leather Carry Case with High Activity 3" Swivel Belt Loop

#### Carrying Strap

**NTN5243A** Shoulder Carry Strap; for use with Carry Cases with "D" rings

#### Belt Clip

**HLN8255B** 3" Spring action belt clip

## CP150/200 Series

### Portable Accessories

#### Carry Accessories

##### Waterproof Bag

**HLN9985B** Waterproof Bag; includes a large carry strap

##### Chest Pack

This lightweight harness is designed for a safe and secure means of carrying portable radios in a variety of applications and environments. Includes a radio holder, pen holder and secured pocket for spare batteries, tools, and other communication devices. Can be comfortably worn on the chest, with adjustable straps to fit most body shapes and heights.

**HLN6602A** Universal Chestpack

**1505596Z02** Replacement Strap for HLN6602



HLN6602A



RLN4815A

##### RadioPAK™

Worn around the waist, it holds Two-way radios, iDEN® portables or cellular phones...keeping them right at hand. Includes a separate 6 x 8 inch zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK  
Radio/Utility Case

**4280384F89** Universal RadioPAK  
belt lengthener, fits waists larger  
than 40"

#### Audio Accessories

##### Remote Speaker Microphone

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and black cover clothing clip.

**HMN9030A**

Remote speaker microphone



HMN9030A



RLN4294A



RLN4295A

##### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet of shirts or jackets and attach around cord or back of microphone. Allows reliable communications in hostile environments with velcro or clip style strap.

**RLN4294A** Velcro Epaulet Strap

**RLN4295A** Small clip epaulet strap

## CP150/200 Series

## Portable Accessories

### Audio Accessories

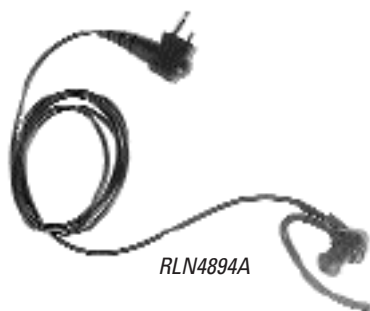
#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

**HMN9727B** Receive-only Surveillance Kit, beige (single-wire)

**RLN4894A** Receive-only Surveillance Kit, black (single-wire)

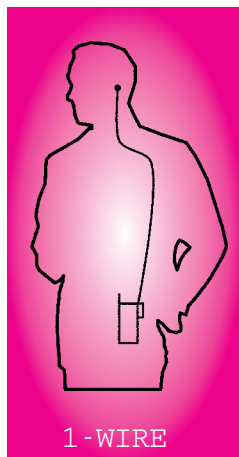
**RLN5198AP** Beige Two-wire Surveillance Kit with Clear Comfortable Acoustic Tube – Resale Packaged



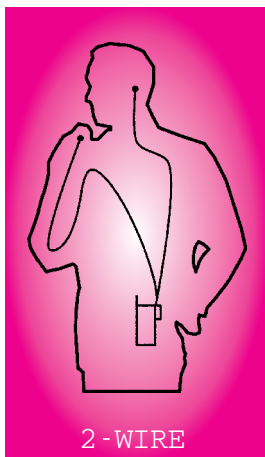
#### Surveillance Kit Replacement Accessories

**5080371E73** Standard rubber eartips, pack of 25, Beige

**5080371E75** Standard rubber eartips, pack of 25, Black



1 - WIRE



2 - WIRE

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme noise kit, includes 2 foam earplugs for loud environments, provides 24dB of noise reduction

**NTN8371A** Low noise kit, includes rubber eartip for low noise environments, does not provide hearing reduction

**5080384F72** Replacement foam plugs; pack of 50 (For use with NTN8370A)

**5080371E73** Replacement standard rubber eartips (for use with NTN8371A), beige

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2-, and 3-wire). This earpiece is made of easy to clean chemically inert, hypoallergenic material. Does not provide hearing protection.

There are 3 items needed to make this product work:

1. Clear comfortable earpiece
2. Clear acoustic tube assembly (NTN8371A)
3. Surveillance kits

**RLN4760A** Small custom earpiece, right ear

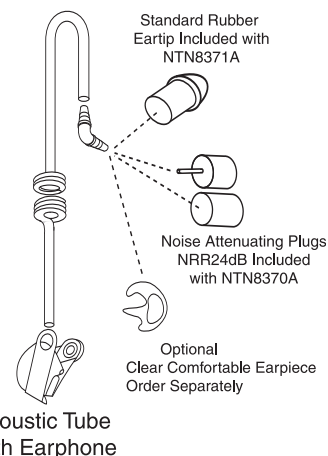
**RLN4763A** Small custom earpiece, left ear

**RLN4761A** Medium custom earpiece, right ear

**RLN4764A** Medium custom earpiece, left ear

**RLN4762A** Large custom earpiece, right ear

**RLN4765A** Large custom earpiece, left ear



Acoustic Tube with Earphone



RLN4760A



RLN4763A

## CP150/200 Series

### Portable Accessories

#### Audio Accessories

##### Flexible Ear Receiver

Single wire, receive only earpiece provides discrete receipt of communication. Adjustable earloop fits comfortably and securely outside of the ear. Security clamp is recommended and must be ordered separately.

**BDN6720A** Black Flexible ear receiver earpiece without volume control

**7580372E11** Replacement Foam Ear Cushion for BDN6720A



BDN6720A

##### Pellet Style Earpieces



HMN9036A

The Pellet Style Earpiece allows the user to receive communication discreetly and is comfortable for extended wear use.

**HMN9036A** Earbud with Microphone and Push-to-Talk (two wire and not recommended for use with PL codes above 225 Hz)

**HLN9132A** Single-Wire Receive Only Earbud (single wire and not recommended for use with PL codes above 225 Hz)

##### Ultra-light Headset

Designed with a sleek new look that fits right in with Restaurant and Hospitality industries. Lightweight, behind-the-head style design provides comfort and mobility. Includes flexible boom microphone and in-line Push-to-Talk button.

**RLN5411A** Ultra-light Headset



RLN5411A

#### Audio Accessories

##### Ultra-light Earpiece

Small and lightweight, this earpiece clips comfortably to the ear and features a boom microphone and in-line PTT.

**PMMN4001A** Ultra-light earpiece with microphone and push-to-talk



PMMN4001A

##### Lightweight Headsets

Lightweight headsets allow for high clarity, hands free, discrete two way communications while adding comfort for extended wear in moderate noise environments. No adapter required.

**RMN4016A** Lightweight single muff headset with swivel boom microphone for left or right ear operation with in line PTT button



RMN4016A

**HMN9013A** Lightweight adjustable headset with swivel boom microphone

**REX4648A** Replacement foam earpad and windscreen kit for RMN4016A and HMN9013A,

## CP150/200 Series

### Portable Accessories

#### Audio Accessories

##### NFL Style Lightweight Headset

This single-muff headset takes its styling cue from the Motorola headsets used by NFL coaches in football stadiums around the country. Ergonomically-designed for all-day comfort, it's ideal for both sports and special events. Features a noise canceling boom microphone and in-line Push-To-Talk. Large Motorola logo adds a sporty appearance.



RLN5238A

**RLN5238A** NFL Style Lightweight Headset

##### Medium Weight Headsets

Medium weight headsets offer high clarity sound with the additional hearing protection necessary for providing consistent, clear two way radio communication in harsh, noisy situations.



HMN9021A

**HMN9021A** Medium weight muff headset, over the head noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)



HMN9022A

**HMN9022A** Medium weight dual muff headset, behind the head (can be worn with helmet); noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)

**BDN6647F** Medium weight single speaker headset with boom microphone (HLN8096 security clamp recommended - order separately complete with internal VOX)

**3580371E59** Replacement windscreen (for boom microphone); for use with BDN6647F

**5080371E66** Replacement earpad for BDN6647F

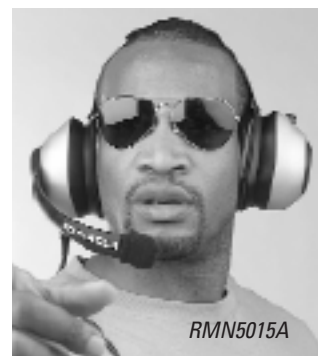
#### Audio Accessories

##### Racing Headset

Same headset worn by pit crews on the CART racing circuit. Heavy duty, behind the head headset with noise cancelling swivel boom microphone. Noise reduction rating = 24dB (adapter cable required and sold separately)

**RMN5015A** Racing Headset

**RKN4090A** Adapter Cable for Racing Headset (RMN5015)



RMN5015A

##### Heavy Duty Headsets

Heavy duty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units.



BDN6648C

**BDN6648C** Heavy duty headset with noise cancelling boom microphone, noise reduction rating = 24dB

## CP150/200 Series

## Antennas, Batteries, Manuals



**MOTOROLA**  
intelligence everywhere™

### Portable Antennas

#### VHF

##### NAD6502AR

6" VHF Heliflex 146-174 MHz

##### HAD9742A

3" Stubby 146-162 MHz

##### HAD9743A

3" Stubby 162-174 MHz



HAD9743A

#### UHF

##### NAE6483AR

6" Flexible whip 403-520 MHz

##### NAE6522AR

6" Flexible whip 403-520 MHz



NAE6483AR

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NNTN4496AR**

Volts: 7.5

Avg. mAh: 1100

Height: 4-3/4"

Intrinsically Safe: No

#### Lithium-ion Premium

Part Number: **NNTN4497AR**

Volts: 7.5

Avg. mAh: 1800

Height: 4-3/4"

Intrinsically Safe: No

### Programming Software

#### RVN4191A

Commercial Series Programming Software

### Manuals

#### 6880309N61

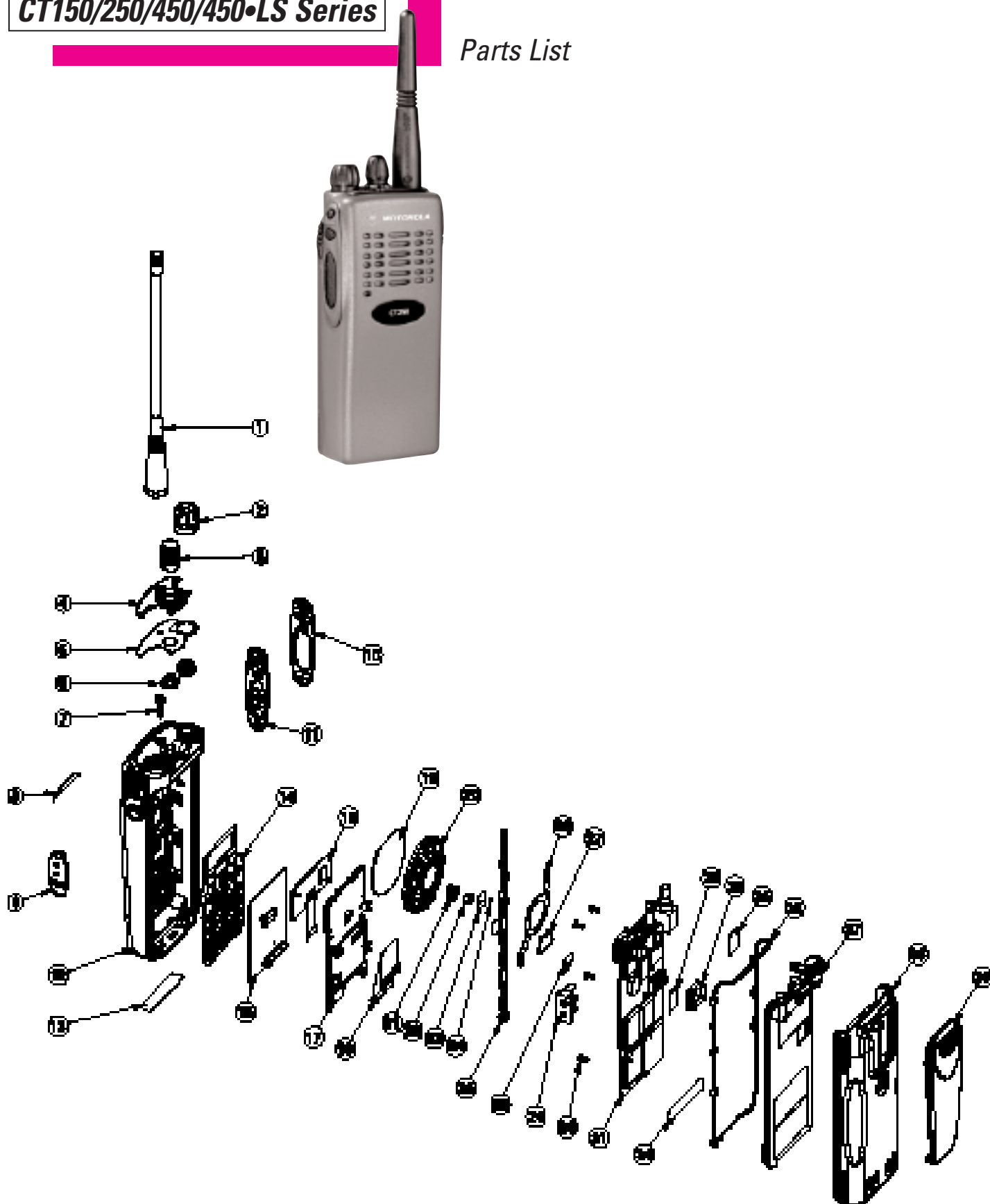
Basic Service Manual



<https://www.motorola.com/businessonline>

# CT150/250/450/450•LS Series

## Parts List





# CT150/250/450/450•LS Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	---	Antenna (see antennas page)	17	<b>4285609Z04</b>	Retainer Keypad
2	<b>3680529Z01</b>	Knob, Volume	18	<b>8480475Z03</b>	Flex, Keypad/Controller
3	<b>3680530Z02</b>	Knob, Frequency	19	<b>3585606Z02</b>	Felt, Speaker
4	<b>1385620Z01</b>	Escutcheon, Top	20	<b>5085738Z01</b>	Speaker
	<b>1385620Z03</b>	Escutcheon, Top, LTR	21	<b>1480577C01</b>	Boot, Microphone
5	<b>3385703Z01</b>	Label, Escutcheon	22	<b>5013920A04</b>	Microphone
6	<b>3280722Z01</b>	Seal, Control Shaft	23	<b>8485687Z01</b>	Flex, Microphone
7	<b>6185621Z01</b>	Lightpipe, Tx	24	<b>2113740A55</b>	Capacitor Chip Reel CL1 +/-30 100
8	<b>HKLN4189A</b>	CT150 Nameplate	25	<b>0980727Z01</b>	Connector, Wire
	<b>HLN6821A</b>	CT250 Nameplate	26	<b>4285601Z01</b>	Retainer, Speaker
	<b>HLN6822A</b>	CT450 Nameplate	27	<b>1480724Z01</b>	Insulator, Speaker
	<b>HLN6823A</b>	CT450•LS Nameplate	28	<b>3980667Z01</b>	Contact Finger
9	<b>3885617Z02</b>	Dust Cap	29	<b>1585608Z01</b>	Shroud, Jack
10	<b>1385619Z01</b>	Bezel, Side Control	30	<b>0304726J04</b>	Screw, Torx T-6(M2X4.5)
11	<b>7585618Z01</b>	Keypad, Side Control	31	---	Main Board (refer to service manual)
12	<b>1585616Z01</b>	Housing, Front (CT150/CT250)	32	<b>7580556Z01</b>	Pad, Thermal
	<b>1585616Z02</b>	Housing, Front (CT450/CT450•LS)	33	<b>3280534Z01</b>	Seal, Module Battery
	<b>1585616Z03</b>	Housing, Front (CT450•LS)	34	<b>3380564Z01</b>	Label, FCC
13	<b>1380649Z03</b>	Escutcheon, FM models only	35	<b>7585706Z01</b>	Pad, Chassis
14	<b>7585623Z02</b>	CT450•LS Limited Keypad	36	<b>3280536Z01</b>	Gasket, "O" ring
	<b>7585623Z03</b>	CT450•LS Full Keypad	37	<b>2780518Z03</b>	Chassis
	<b>7585942Z01</b>	CT450 Full Keypad	38	---	Battery (refer to battery page)
15	<b>0104009J11</b>	Keypad Board Assembly (CT450/CT450•LS)	39	<b>HLN9714A</b>	Spring Belt Clip 2.5"
16	<b>5104949J08</b>	Display Module (CT450/CT450•LS)			

## CT150/250/450/450•LS Series

### Portable Accessories

#### Chargers

##### Single Unit Charger

**AAPMTN4038B** 120 Volt Single Unit Rapid Rate Charger with power supply; charges both NiCd and NiMH batteries in just 90 minutes



AAPMTN4038B

##### Multiple Unit Charger

**RLN5218A** Multi-Unit Rapid Rate Charger; charges both NiCd and NiMH batteries in just 90 minutes

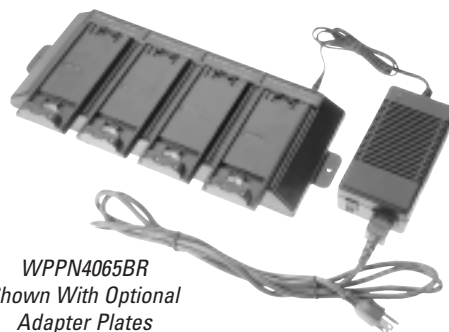


#### Motorola Conditioning Charger (MCC)

The MCC utilize negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified nickel cadmium (NiCd) and nickel metal hydride (NiMH) batteries in approximately one-to-two hours. The MCC controls heat buildup due to its charging and termination algorithms and its maintenance mode allows batteries to be safely left on the charger for extended periods of time. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.

##### WPPN4065BR

Motorola Conditioning Charger, Four-Station Base Only, 110V (requires Adapter Plate)



WPPN4065BR

Shown With Optional Adapter Plates

##### WPPN4002BR

110V AC Base Charge Unit only (order adapter plates separately)

**WPPN4006AR** 220V AC Base Charge Unit only (order adapter plates separately)

**WPPN4082BR** 7V Adapter Plate only

**WPLN4107BR** MCC Kit includes both base unit and 7V adapter, 110V AC

**WPLN4106AR** MCC Kit includes both base unit and 7V adapter, 220V AC

**3080384G15** Cigarette Lighter Adapter Cord for Motorola Conditioning Charger

**RLN4814A** Mounting bracket for Motorola single unit conditioning charger

**3080384M21** DC hard wire cable for vehicular installation (included with RLN4814A)



3080384G15

**HLN9179A** Quick-Release Attachment for Mounting Bracket RLN4814

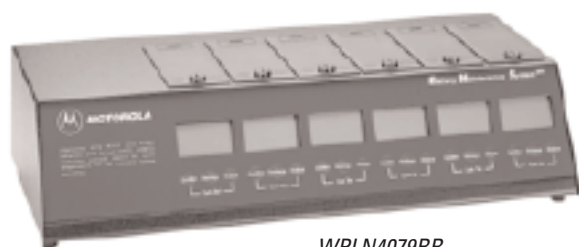
**HLN9228A** Mounting accessories - Clam shell mounting bracket

## CT150/250/450/450•LS Series

### Portable Accessories

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing batteries. It supports NiCd, NiMH, and Li-ion battery chemistries and tracks battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundred of 2-way, cellular, and camcorder batteries. Includes serial printer\* port (RS-232)



WPLN4079BR

**WPLN4079BR** Six-station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-station, 230V AC, 50/60 Hz

**NDN4005B** Three-station 110V AC, 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-station 230V AC, 50/60 Hz (does not support Li-ion or 3-cell batteries)

**WPPN4085AR** BMS<sup>plus</sup> Li-ion Field Upgrade Kit (for WPLN4079AR BMS<sup>plus</sup> models)

#### BMS<sup>plus</sup> Adapter

**WPPN4083AR** Adapter compatible with both NiCd and NiMH batteries (Note: if used with TDN9430, requires installation of upgrade kit CDN6142)

#### Carry Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio and battery and permit audio to be heard clearly.

##### Carry Cases for CT150/250

**RLN4865A** Hard leather carry case with belt loop

**RLN4866A** Hard leather carry case with swivel clip

**RLN4867A** Soft leather carry case with belt clip

**RLN4868A** Nylon carry case with belt loop



RLN4866A



RLN4874A

##### Carry Cases for CT450

**RLN4874A** Hard leather carry case with belt loop

**RLN4873A** Hard leather carry case with swivel clip

**RLN4871A** Soft leather carry case with belt clip

**RLN4868A** Nylon carry case with belt loop

##### Carry Cases for CT450•LS

**RLN4871A** Soft leather carry case with belt clip

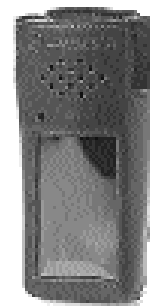
**RLN4873A** Hard leather carry case with swivel clip

**RLN4878A** Hard leather carry case with swivel; limited keypad models only

**RLN4874A** Hard leather carry case with belt loop

**RLN4879A** Hard leather carry case with belt loop; limited keypad models only

**RLN4868A** Nylon carry case with belt loop



RLN4871A

\* Compatible with the STAR Micronics SP200 Series printers (and other printers with STAR emulation); available from any STAR Micronics distributor.

## CT150/250/450/450•LS Series

### Portable Accessories

#### Carry Accessories



HLN9844A

##### **Belt Clip**

**HLN9714A** 2.5" Spring action belt clip

**HLN9844A** 2" Spring action belt clip

##### **Belt**

**4200865599** 1.75" wide leather belt

##### **Carrying Strap**

**NTN5243A** Shoulder Carry Strap; for use with Carry Cases with D-rings



NTN5243A

##### **Waterproof Bag**

**HLN9985B** Waterproof Bag; includes a large carry strap



HLN6602A

##### **Chest Pack**

This lightweight harness is designed for a safe and secure means of carrying portable radios in a variety of applications and environments. Includes a radio holder, pen holder and secured pocket for spare batteries, tools, and other communication

devices. Can be comfortably worn on the chest, with adjustable straps to fit most body shapes and heights.

**HLN6602A** Universal Chestpack

**1505596202** Replacement Strap for HLN6602

#### Carry Accessories

##### **Break-A-Way Chest Pack**

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

##### **RadioPak™**



RLN4815A

Worn around the waist, it holds Two-way radios, iDEN® portables or cellular phones...keeping them right at hand. Includes a separate 6 x 8 inch zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK belt lengthener, fits waists larger than 40"

##### **Universal Holders**

The RLN4943A is a great solution for forklift operators. The gooseneck bracket can be mounted inside the forklift and adjusted to the correct height for each individual driver. The universal holder will accommodate any Motorola Radio. The quick release can easily be mounted to a wheelchair with gooseneck allowing for adjustment of radio position.

**RLN4943A** Universal holder with gooseneck bracket

**RLN4944A** Wheelchair quick release assembly

**RLN4945A** Universal holder with gooseneck bracket and wheelchair quick release assembly



RLN4943A

## CT150/250/450/450•LS Series

### Portable Accessories

#### Audio Accessories

##### Remote Speaker Microphone



Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and black cover clothing clip.

**\*HMN9030A**  
Remote Speaker Microphone

##### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet of shirts or jackets and attach around cord or back of microphone. Allows reliable communications in hostile environments with velcro or clip style strap.

**RLN4294A** Velcro Epaulet Strap

**RLN4295A** Small clip epaulet strap



#### Audio Accessories

##### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

**\*HMN9727B** Receive-only Surveillance Kit, beige (single-wire)

**RLN4894A** Receive-only Surveillance Kit, black (single-wire)

**\*HMN9752B** Receive-only Surveillance Kit with volume control, beige

**HMN9754D** Surveillance Kit with microphone and push to talk combined, beige (two-wire)



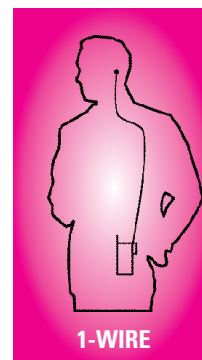
**RLN4895A** Surveillance Kit with microphone and push to talk combined, black (two-wire)

**RLN5198AP** Beige Two-wire Surveillance Kit with Clear Comfortable Acoustic Tube - Resale Packaged

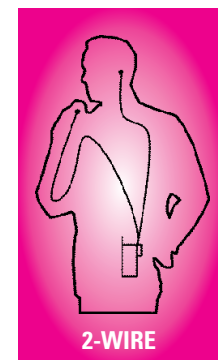
##### Surveillance Kit Replacement Accessories

**5080371E73** Standard rubber eartips, pack of 25, Beige

**5080371E75** Standard rubber eartips, pack of 25, Black



1-WIRE



2-WIRE

\* Intrinsically safe



## CT150/250/450/450•LS Series

### Portable Accessories

#### Audio Accessories

##### **Surveillance Kits with Extended Wear Comfort Earpiece**

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube. Users hear transmissions clearly, while the clear tube provides a discreet appearance.



**RLN5318A** Two-Wire Comfort Earpiece with Combined Microphone and Push-To-Talk

**RLN5317A** Two-Wire Comfort Earpiece with Combined Microphone and Push-To-Talk



#### Audio Accessories

##### **Completely Discrete Earpiece**

Enables users to communicate with ease, in full privacy, without visible equipment. This miniaturized receiver is discretely hidden in the ear, where it fits comfortably for long periods at a time. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Average battery life is approximately 100 hours and includes an end-of-life battery circuit generating a warning signal when the battery needs to be changed.

Kit includes wireless receiver plus an inductive neckloop. Just remove the earpiece on any standard 2- or 3- wire Motorola surveillance kit (sold separately) and plug in the neckloop to use. Kit includes 6 spare batteries and 5 replacement ear wax guards.



**RLN4922A** Completely Discrete Earpiece Kit

**RLN4919A** Replacement Ear Wax Guards, 5 per pack

**RNN4005A** Replacement 1.4V Battery, 6 per pack

## CT150/250/450/450•LS Series

## Portable Accessories

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme noise kit, includes 2 foam earplugs for loud environments, provides 24dB of noise reduction

**NTN8371A** Low noise kit, includes rubber eartip for low noise environments, does not provide hearing reduction

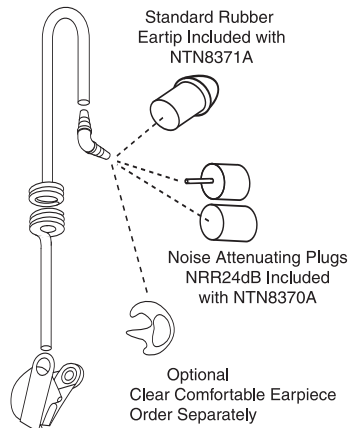
**5080384F72** Replacement foam plugs; pack of 50  
(For use with NTN8370A)



NTN8370A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2-, and 3-wire). This earpiece is made of easy to clean chemically inert, hypoallergenic material. Does not provide hearing protection. There are 3 items needed to make this product work:



Acoustic Tube  
with Earphone

1. Clear comfortable earpiece
2. Clear acoustic tube assembly (NTN8371A)
3. Surveillance kits

**RLN4760A** Small custom earpiece, right ear

**RLN4763A** Small custom earpiece, left ear

**RLN4761A** Medium custom earpiece, right ear

**RLN4764A** Medium custom earpiece, left ear

**RLN4762A** Large custom earpiece, right ear

**RLN4765A** Large custom earpiece, left ear



RLN4760A

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments make it ideal for high noise environments. Available in PTT or voice activated (VOX).



BDN6646C

**\*BDN6646C** Ear microphone for standard noise levels (up to 95dB) with push to talk interface (HLN8096 security clamp is recommended and must be ordered separately)

**BDN6706B** Ear microphone for standard noise levels (up to 95dB) with push to talk voice activated interface module (HLN8096 security clamp is recommended and must be ordered separately)

\* Intrinsically safe



## CT150/250/450/450•LS Series

### Portable Accessories

#### Audio Accessories

##### Ear Microphone System (EMS) Accessories

**0180358B38** Ring Push-To-Talk Switch for Ear Microphone System

**0180300E83** Remote Push-to-Talk Body Switch

**0180300E25** Earguard with adjustable loop, secures ear mic in ear



0180358B38



0180358B33

**0180358B32** Small size black earholder secures microphone in ear

**0180358B33** Medium size black earholder secures microphone in ear

**0180358B34** Large size black earholder secures microphone in ear

**0180358B35** Small size clear earholder secures microphone in ear

**0180358B36** Medium size clear earholder secures microphone in ear

**0180358B37** Large size clear earholder secures microphone in ear

**4280369E44** Replaceable belt clip with screws

**5080358B28** Medium size black eartips (10 per pack)

**5080358B29** Large size black eartips (10 per pack)

**5080358B30** Medium size beige eartips (10 per pack)

**5080358B31** Large size beige eartips (10 per pack)

##### Flexible Ear Receiver

Single wire, receive only earpiece provides discrete receipt of communication. Adjustable earloop fits comfortably and securely outside of the ear. Security clamp is recommended and must be ordered separately.

**\*BDN6720A** Black Flexible ear receiver earpiece without volume control

**7580372E11** Replacement Foam Ear Cushion for BDN6720A



BDN6720A

#### Audio Accessories

##### Pellet Style Earpieces

The Pellet Style Earpiece allows the user to receive communication discreetly and is comfortable for extended wear use.

**HMN9036A** Earbud with Microphone and Push-To-Talk

**HLN9132A** Single-Wire Receive Only Earbud



HMN9036A

##### Ultra-Lite Headset

Designed with a sleek new look that fits right in with Restaurant and Hospitality industries. Lightweight, behind-the-head style design provides comfort and mobility. Includes flexible boom microphone and in-line Push-To-Talk button.

**RLN5411A** Ultra-light Headset



RLN5411A

##### Ultra-Lite Earpiece

**PMMN4001A** Ultra-lite earpiece with microphone and push to talk



PMMN4001A

\* Intrinsically safe

## Portable Accessories

### Audio Accessories

#### Lightweight Headsets



RMN4016A

Lightweight headsets allow for high clarity, hands free, discrete two way communications while adding comfort for extended wear in moderate noise environments. No adapter required.

**RMN4016A** Lightweight single muff headset with swivel boom microphone for left or right ear operation with in-line PTT button

**\*HMN9013A** Lightweight adjustable headset with swivel boom microphone (HLN8096 security clamp recommended ordered separately, compatible with internal VOX)

**REX4648A** Replacement foam earpad and windscreen kit for RMN4016A, HMN9013A, BDN6773A, NMN6245A, AARMN4018A and AARMN4013A

#### NFL Style Lightweight Headset

This single-muff headset takes its styling cue from the Motorola headsets used by NFL coaches in football stadiums around the country. Ergonomically-designed for all-day comfort, it's ideal for both sports and special events. Features a noise canceling boom microphone and in-line Push-to-Talk. Large Motorola logo adds a sporty appearance.

**RLN5238A** NFL Style Lightweight Headset



RLN5238A

### Audio Accessories

#### Medium Weight Headsets

Medium weight headsets offer high clarity sound with the additional hearing protection necessary for providing consistent, clear two way radio communication in harsh, noisy situations.



HMN9021A

**HMN9021A** Medium weight muff headset, over the head noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)

**HMN9022A** Medium weight dual muff headset, behind the head (can be worn with helmet); noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)



HMN9022A

**BDN6647F** Medium weight single speaker headset with boom microphone (HLN8096 security clamp recommended – order separately complete with internal VOX)

**3580371E59** Replacement windscreen (for boom microphone); for use with BDN6647F

**5080371E66** Replacement earpad for BDN6647F

\* Intrinsically safe

## Portable Accessories

### Audio Accessories

#### Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot coiled cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable. Hardhat not included.

**RMN4052A**

**RMN4052A** Tactical Headband Style Headset, grey; noise reduction rating of 24dB

**RMN4053A**

**RMN4053A** Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB

### Audio Accessories

#### Hardhat Mount Headset with Noise-Canceling Boom Microphone

Ideal for two-way communication in high noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot coiled cord assembly. Requires separate in-line PTT adapter cable. Hardhat not included.

**RMN4051A**

**RMN4051A** Two-Way Hardhat Mount Headset, black

**RKN4094A** In-Line PTT Adapter Cable; for use with RMN4051A, RMN4052A and RMN4053A

#### Racing Headset

Racing Headset - Same headset worn by pit crews on the CART racing circuit. Heavy Duty, behind the head Headset with Noise Cancelling Swivel Boom Microphone. Noise Reduction Rating = 24dB (adapter cable required and sold separately)

**RMN5015A** Racing Headset

**RKN4090A** Adapter Cable for Racing Headset (RMN5015)

**RMN5015A**

#### Heavy Duty Headsets

Heavy duty headsets include noise-canceling boom microphones and can be worn with or without a hardhat. The Push-to-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units.

**\*BDN6648C** Heavy duty headset with noise cancelling boom microphone, noise reduction rating =24dB

**BDN6648C**

\* Intrinsicly safe

## CT150/250/450/450•LS Series

### Antennas

#### Antennas

##### Stubby Antennas for CT150/CT250/CT450

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

###### **PMAD4012A**

VHF Stubby Antenna, 136-155 MHz

###### **PMAD4025A**

VHF Stubby Antenna, 150-161 MHz

###### **PMAD4013A**

VHF Stubby Antenna, 155-174 MHz

###### **PMAE4002A**

UHF Stubby Antenna, 403-430 MHz

###### **8504762J08**

UHF Stubby Antenna, 430-470 MHz



PMAD4012A

##### Flexible Whip Antennas for CT150/CT250/CT450

Flexible whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

###### **8504762J01**

VHF Flexible Whip Antenna, 136-155 MHz

###### **PMAD4023A**

VHF Flexible Whip Antenna, 150-161 MHz

###### **8504762J02**

VHF Flexible Whip Antenna, 155-174 MHz

###### **NAE6483AR**

UHF Flexible Whip Antenna, 403-512 MHz

###### **NAD6579A**

VHF Flexible Whip Antenna, 148-161 MHz

###### **NAD6502AR**

VHF Heliflex Antenna, 146-174 MHz



NAD6502A

#### Antennas

##### Stubby Antennas for CT450•LS

Stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

###### **PMAE4006A**

UHF Stubby Antenna, 465-490 MHz

###### **PMAE4008A**

UHF Stubby Antenna, 465-512 MHz

###### **PMAE4007A**

UHF Stubby Antenna, 490-512 MHz

##### Flexible Whip Antennas for CT450•LS

Flexible whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

###### **NAE6483AR**

UHF Flexible Whip Antenna, 403-512 MHz



NAE6483AR

## CT150/250/450/450•LS Series



**MOTOROLA**  
intelligence everywhere™

### Miscellaneous Accessories, Batteries

#### Miscellaneous

##### Assistive Turning Knobs

Customers who wear large gloves...people with mobility or dexterity limitations...virtually anyone with limited hand use will appreciate this added convenience. Set of two specially designed knobs for volume control and channel changing on all Professional Series and CT series radios.

**RLN4890A** Assistive  
turning knobs



RLN4890A

##### Option Board

**AARLN4855A** Option  
Board DTMF Decode

#### Portable Batteries

##### Nickel-Cadmium Premium

Part Number: **PMNN4021AR**

Volts: 7.5

Avg. mAh: 1100

Height: 4-13/16"

Intrinsically Safe: No

##### Nickel Metal Hydride Premium

Part Number: **PMNN4018AR**

Volts: 7.5

Avg. mAh: 1250

Height: 4-13/16"

Intrinsically Safe: No

Part Number: **PMNN4019AR**

Volts: 7.5

Avg. mAh: 1200

Height: 4-13/16"

Intrinsically Safe: Yes



PMNN4018AR

## CT150/250/450/450•LS Series

### Service Aids, Software, Manuals



**MOTOROLA**  
intelligence everywhere™

#### Service Aids

**AA0180305G54** Battery Eliminator Cable

**AA0180305H20** Battery Eliminator Fixture

**AA8180384J58** Housing Eliminator

**AAPMKN4003A** Cloning Cable 2.5mm

**AAPMKN4004A** Test/Programming Cable

**RKN4073A** Cloning cable (Multi language manual)

**RKN4075A** Ribless programming cable provide interface between computer and radio - not compatible with rib. (Multi language manual)

**RLN4460C** Portable test set, enables connection to audio/accessory jack; allows switching from radio testing

**RLN4510A** Battery eliminator 7.5V regulator, work in combination with shop battery block (AA0180305G54)

#### Manuals

**0180305J46**

Ear Microphone System and Temple Transducer CD-ROM

**6881093C20**

CT150/CT250 Portable User Guide

**6881093C22**

Basic Service Manual English

**6881093C55**

Detailed Service Manual English

**6881093C16**

CT450 Portable User Guide

**6881093C21**

CT450•LS Portable User Guide

**6881093C78**

User Manual for Vehicular Adapters

#### Programming Software

**HVN6053E** Programming Software

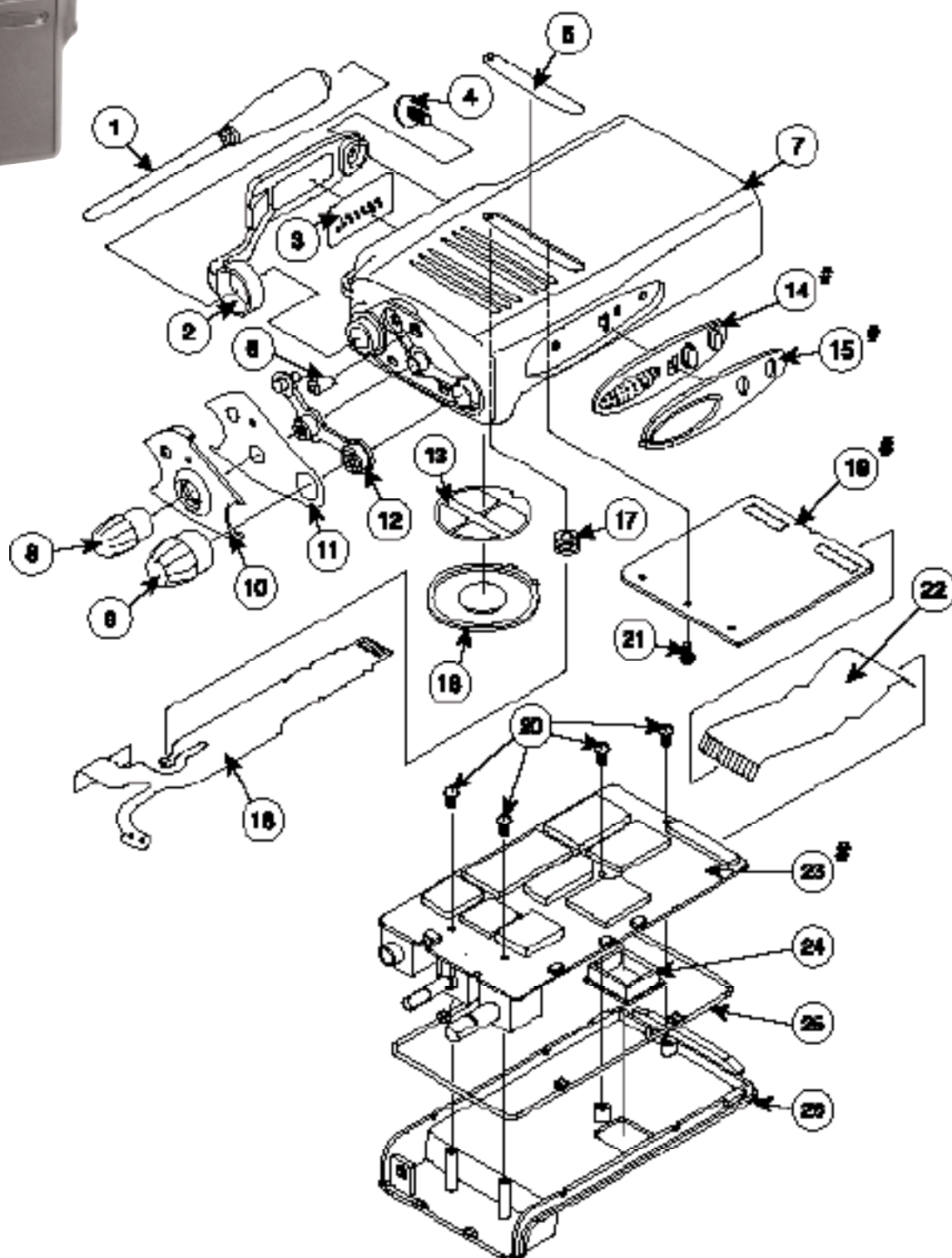
**8264934B01** Programming Firmware for Vehicular Adapters



<https://www.motorola.com/businessonline>

## EX500 Series

### Parts List





## EX500 Series

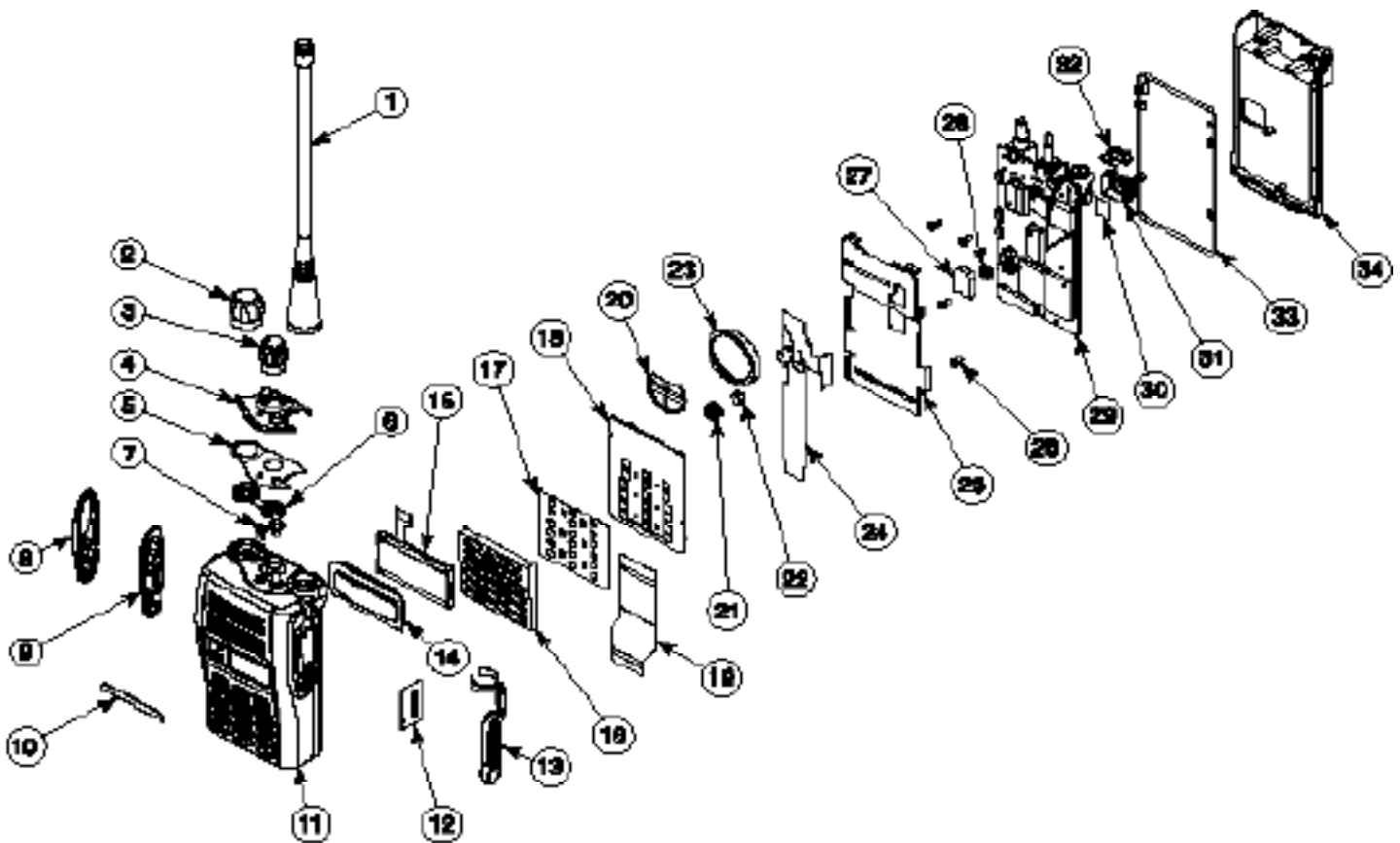
### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	----	Antenna (refer to antenna section)
2	<b>JMLN4638A</b>	Dust Cover
3	<b>1385905Z01</b>	Universal Connector Seal
4	<b>0302020P03</b>	Screw for Dust Cover
5	<b>HKLN4054A</b>	EX500 Name Plate
6	<b>6102001P10</b>	Light Pipe
7	<b>0104031G98</b>	EX500 Non Key Housing
8	<b>3680530Z02</b>	Frequency Knob
9	<b>3680529Z01</b>	Volume Knob
10	<b>1302012P06</b>	Top Plastic Plate
11	<b>3385906Z01</b>	Top Sheet
12	<b>3202000P15</b>	Top Seal Rubber
13	<b>3502416P03</b>	Speaker Mesh

REF. NO.	PART NO.	DESCRIPTION
14	Part of item 7	PTT Rubber
15	Part of item 7	PTT Plastic Cover
16	<b>5005679X01</b>	Speaker
17	<b>1480577C01</b>	Boot Microphone
18	<b>8404079G05</b>	Flex PCB Universal
19	----	
20	<b>0385913Z02</b>	4 M2x4 Philips Screws
21	<b>0385913Z02</b>	1 M2x1 Philips Screws
22	<b>8404078G03</b>	Flex PCB RF Controller
23	----	
24	<b>3280534Z01</b>	Seal Contact
25	<b>3285892Z01</b>	"O" ring
26	<b>1502001P31</b>	Chassis

## EX600/600•XLS Series

### Parts List



## EX600/600•XLS Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	----	Antenna (refer to antenna section)	19	<b>8404078G03</b>	Flex RF Controller
2	<b>3680529Z01</b>	Volume Knob	20	<b>3586092Z01</b>	Speaker Felt
3	<b>3680530Z02</b>	Channel Selector Knob	21	<b>1480577C01</b>	Microphone Boot
4	<b>1386160Z01</b>	Top Plastic Plate (EX600)	22	<b>5013920A04</b>	Microphone
	<b>1386160Z02</b>	Top Plastic Plate (EX600•XLS)	23	<b>5086094Z01</b>	Speaker
5	<b>3385906Z01</b>	Top Sheet	24	<b>8486095Z01</b>	Flex, Universal Connector
6	<b>3286159Z01</b>	Control Top Seal	25	<b>4286097Z01</b>	Keypad Retainer
7	<b>6186158Z01</b>	Lightpipe	26	<b>0386104Z01</b>	Chassis Screw
8	<b>1386091Z01</b>	PTT Bezel	27	<b>1480503Z01</b>	Backup Battery Boot
9	<b>7586090Z01</b>	PTT Rubber	28	<b>6080656Z01</b>	Battery Backup
10	<b>HKLN4055A</b>	EX600 Nameplate	29	----	RF Board (must order back cover kit)
	<b>HKLN4187A</b>	EX600•XLS Nameplate	30	<b>7580556Z01</b>	Thermal Pad
11	<b>1586088Z01</b>	Front Cover Assembly	31	<b>3280534Z01</b>	Battery Module Seal
12	<b>1385905Z01</b>	Escutcheon, Universal Connector	32	<b>1485673Z01</b>	Antenna Nut Insulator
13	<b>JMLN4638A</b>	Dust Cover	33	<b>3285892Z01</b>	Main "O" Ring
14	<b>7580540Z01</b>	LCD Front Pad	34	<b>2786154Z01</b>	Chassis
15	<b>5104949J11</b>	LCD Module			
16	<b>7586096Z01</b>	Main Keypad			
17	<b>4086199Z01</b>	Keypad Polydome			
18	----	Controller Board (must order front cover kit)			

## EX500/600/600•XLS Series

### Portable Accessories

#### CHARGERS

Single and multi-unit chargers can rapidly charge batteries on or off the radio in one to three hours. Multi-unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola.

**AAHTN3000D** 120V Rapid Rate Single Unit Intellicharger

**AAHTN3003D** 120V Six-Unit Rapid Rate Charger

**NLN7967A** Wall Mount Kit for Six-Unit Charger



AAHTN3003D

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter Plates**

**RL-77255** Adapter Plates

## EX500/600/600•XLS Series

### Portable Accessories

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories is available for your comfort and convenience. The carrying cases are available in sizes to fit your radio and battery and permit audio to be heard clearly.

##### EX500 Carrying Cases

**PMLN4421B** Soft Leather Carry Case with Fixed Swivel Clip – The case protects the radio while allowing audio to be clearly heard

**PMLN4471A** Hard Leather Carry Case with Swivel and D-Rings

**PMLN4470A** Nylon Case with Belt Loop and D-Rings

##### EX600 Carrying Cases

**PMLN4520A** Hard Leather Carry Case with Swivel and D-Rings

**PMLN4521A** Soft Leather Carry Case with fixed Swivel Clip and D-Ring



PMLN4421B



JMZN4023A

##### Carrying Accessories

**JMZN4023A** Plastic Carry Hoster with Swivel Belt Clip – lightweight carry holster provides convenient means for carrying the radio; the swivel belt clip provides the ability to rotate the radio to a comfortable position

**JMZN4020A** Radio Handstrap – attaches to the radio allowing it to be worn around the wrist

**HLN9985B** Waterproof Bag, includes large carrying strap

##### Belt

**4200865599** 1.75" wide leather belt

##### Shoulder Carry Strap

**NTN5243A** Shoulder Carry Strap attaches to D-strap rings on carry cases to provide added comfort

#### Carrying Accessories

##### Carry Packs

**HLN6602A** Universal Chest Pack with Radio Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602A



RLN4570A



HLN6602A

**RLN4570A** Break-A-Way Chest Pack. All the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. Of pressure. Perfect for railroads, manufacturing locations construction sites and anywhere safety is a concern



RLN4815A

**RLN4815A** RadioPAK™ Radio/Utility Case. It's different from all other holders or cases: more comfortable, more useful and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women

**4280384F89** Universal RadioPAK™ Belt Lengthener; Fits Waists Larger than 40"

## EX500/600/600•XLS Series

### Portable Accessories

#### Audio Accessories

##### Remote Speaker Microphones (RSM)

Allows the user to talk and listen without removing the radio from the belt, case or charger. This water resistant compact unit has a coiled cord, PTT switch and back cover clothing clip.

**\*JMMN4073A** Remote Speaker Microphone with 2.5mm audio jack

**PMLN4393A** Flexible Ear Receiver with 2.5mm connector for use with remote speaker microphone JMMN4073A



##### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet of shirts or jackets and attach around cord to back of microphone. Allows reliable communications in hostile environments with velcro or clip style strap.

**RLN4294A** Velcro epaulet strap

**RLN4295A** Small clip epaulet strap



#### Audio Accessories

##### Completely Discreet Earpiece

Remain discretely in touch with this miniaturized receiver. All messages received through the user's two way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola surveillance kit providing completely discrete two way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Must be used in conjunction with a Motorola surveillance kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neck completely discrete communication.

**RLN4922A** Complete Discreet Earpiece Kit includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4V Battery, 6 per pack



\* Intrinsically safe

## EX500/600/600•XLS Series

### Portable Accessories

#### Audio Accessories

##### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments.



JMMN4064A

**\*JMMN4064A** PTT or Voice Activated Interface Module

**\*BDN6768A** Standard Ear Microphone (for noise levels up to 95dB)--Black. Requires JMMN4064A



BDN6768A

**\*BDN6769A** Standard Ear Microphone (for noise levels up to 95dB) – Beige. Requires JMMN4064A

**\*BDN6770A** High Noise Level Ear Microphone (up to 105dB)-- Gray. Requires JMMN4064A

#### Audio Accessories

##### Ear Microphone Accessories



0180358B38

**\*0180358B38** Finger Push-To-Talk Switch



0180300E83

**\*0180300E83** Body Push-To-Talk Switch



0180300E25

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear

**0180358B32** Earholder, black size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

##### General Audio Accessories

**\*PMLN4519A** Earbud with Microphone and PTT combined, transmit and receive, black (2-wire); no adapter required

##### Accessory Audio Adapter

The accessory audio adapter with 3.5mm plug allows Visar audio accessories to be used with the EX500 and EX600 radios

**\*PMLN4455A** Accessory Audio Adapter with 3.5mm plug

*\* Intrinsically safe*



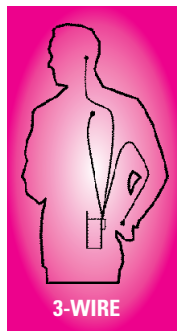
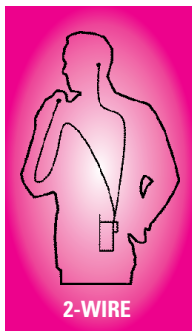
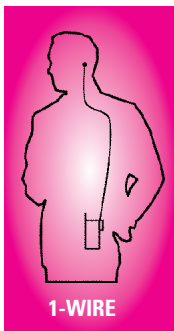
## Portable Accessories

### Audio Accessories

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications. Surveillance Kits require PMLN4455A Audio Adapter

- \***BDN6664A** Receive-only Earpiece (1-wire), beige
- \***†BDN6665A** Receive-only Earpiece (1-wire), beige
- \***†BDN6666A** Receive-only Earpiece with volume control (1-wire), beige
- \***BDN6726A** Receive-only Earpiece (1-wire), black
- \***†BDN6727A** Receive-only Earpiece (1-wire), black
- \***BDN6728A** Receive-only Earpiece with volume control (1-wire), black
- \***BDN6667A** 2-wire Surveillance Kit with combined microphone and PTT button, beige
- \***BDN6729A** 2-wire Surveillance Kit with combined microphone and PTT button, black
- \***†BDN6669A** Earpiece Assembly with microphone and PTT combined (2-wire), beige
- \***†BDN6731A** Earpiece Assembly with microphone and PTT combined (2-wire), black
- \***BDN6668A** 3-wire Surveillance Kit with separate microphone and PTT button, beige
- \***BDN6730A** 3-wire Surveillance Kit with separate microphone and PTT button, black
- \***†BDN6670A** Earpiece Assembly with microphone and PTT separate (3-wire), beige
- \***BDN6732A** Earpiece Assembly with microphone and PTT separate (3-wire), black



### Audio Accessories

#### Flexible Ear Receiver

\***BDN6719A** Flexible Ear Receiver, black earpiece without volume control – flexible earloop and speaker which rests external to the ear; requires PMLN4455A audio adapter

#### Pellet Style Earpieces

- \***BDN6780A** Single Earbud with combined Mic/PTT; requires PMLN4455A audio adapter
- \***BDN6781A** Single Earbud Receive-only, black; requires PMLN4455A audio adapter

#### Noise Kits

**NTN8370A** Extreme Noise Kit Acoustic Tube; requires PMLN4455A audio adapter

**NTN8371A** Low Noise Kit Acoustic Tube; requires PMLN4455A audio adapter

#### Lightweight Headsets



This headset allows for high clarity discreet two-way communications while adding the comfort necessary for extended wear in moderate noise environments

\***JMMN4066A** Lightweight Headset with Boom Microphone and In-Line PTT (no adapter required)

**RLN5590A** Lightweight Headset with Boom Microphone (no adapter required)

\***NMN6245A** Ultralite Headset with Boom Microphone and In-Line PTT, earbud-style receiver; requires PMLN4455 audio adapter

\***NMN6246B** Ultralite Headset with Boom Microphone and In-Line PTT; requires PMLN4455 audio adapter



† Extra Loud Earpiece (exceeds OSHA limits)

\* Intrinsically safe

## EX500/600/600•XLS Series

### Portable Accessories

#### Audio Accessories

##### Heavy Duty Headsets

Heavy duty headsets include noise cancelling boom microphones and can be worn with or without a hardhat. The push-to-talk switch is located on the earcup.



BDN6635B

**BDN6635B** Voice-activated headset with boom microphone; requires adapter cable RKN4093A; noise reduction rating = 24 dB



BDN6636B

**BDN6636B** Voice-activated headset with throat microphone; requires adapter cable RKN4093A; noise reduction rating = 24 dB



BDN6645A

**BDN6645B** Push-to-talk headset with boom microphone; requires adapter cable RKN4093A; noise reduction rating = 24 dB

#### Audio Accessories

##### Racing Headset



RMN5015A

Motorola is the official wireless equipment supplier of CART, so whether your playing field is a racetrack, construction site or other challenging environment, you can count on this racing headset for superior comfort and dependable operation.

**RMN5015A** Racing Headset; requires adapter cable RKN4093A; noise reduction rating = 24 dB

**RKN4093A** Radio Adapter Cable

##### Miscellaneous Audio Accessories

**RLN4890A** Assistive Turning Knobs. If your job requires you to wear large gloves, or if you have mobility or dexterity limitations, you will appreciate this added feature. Set of two specially designed knobs for volume control and channel changing.



RLN4890A

**JMLN4638A** Accessory Dust Cover – protects the audio side connector

## EX500/600/600•XLS Series

## Antennas, Batteries

### Portable Antennas

#### Heliflex Antenna

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

**NAD6502AR** VHF Heliflex Antenna, 146-174 MHz

#### Stubby Antenna

Stubby antennas are ideal when the radio is worn on the belt because the short antenna is non-obtrusive.

##### **PMAD4012A**

VHF 9cm Stubby Antenna, 136-155 MHz

##### **PMAD4025A**

VHF 9cm Stubby Antenna, 150-161 MHz

##### **PMAD4013A**

VHF 9cm Stubby Antenna, 155-174 MHz

##### **PMAE4002A**

UHF 9cm Stubby Antenna, 403-430 MHz

##### **8504762J08**

UHF 9cm Stubby Antenna, 438-470 MHz

##### **PMAE4006A**

UHF Stubby Antenna, 465-490 MHz



PMAD4013A

#### Flexible Whip Antenna

Flexible whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### **8504762J01**

VHF Whip Antenna 136-155 MHz

##### **PMAD4023A**

VHF Whip Antenna 150-161 MHz

##### **8504762J02**

VHF Whip Antenna 155-174 MHz

##### **NAE6483AR**

UHF Flexible Whip Antenna 403-520 MHz

##### **NAD6579A**

Whip, 148-161 MHz



NAE6483AR

### Portable Batteries

#### Lithium-ion Premium

Part Number: **JMNN4023AR**

Volts: 7.2

Avg. mAh: 1000

Height: 4"

Intrinsically Safe: No

Part Number: **JMNN4024BR**

Volts: 7.2

Avg. mAh: 1300

Height: 4"

Intrinsically Safe: No

#### Nickel Metal Hydride Premium

Part Number: **JMNN4025AR**

Volts: 7.5

Avg. mAh: 700

Height: 4"

Intrinsically Safe: Yes

## EX500/600/600•XLS Series

## Service Aids, Manuals

### Service Aids

#### Test Set

Portable test set enables connection to audio/accessory jack. Allows switching from radio testing.

**RLN4460C** Test Box for Portables and Mobiles

#### Cables

**AAJMKN4124A** Cloning Cable

**AAJMKN4123A** Programming/Test Cable, Connects Radio to RIB

#### Radio Interface Box

Radio interface box enables communication between radio and computer's serial communications adapter.

**RLN4008E** Radio Interface Box (RIB)

**3080369B72** 9 Pin Computer Interface Cable, Connects Computer's Serial Communications Adapter to RIB



RLN4008E



0180357A57

**0180357A57** Wall Mounted Power Supply, 120V AC, Used to Supply Power to RIB (RLN4008E)

### Manuals

**6881094C00**

Basic Service Manual EX500/EX600/EX600•XLS

**6881093C98**

User Manual EX500

**6881094C70**

User Manual EX600

**6881094C21**

EX500/EX600/EX600•XLS Detailed Service Manual

**6881095C10**

EX600•XLS User guide

**HKLN4118A**

EX500 User manual

**HKLN4119A**

EX600 User manual

**0180305J46**

Ear Microphone System and Temple Transducer CD-ROM

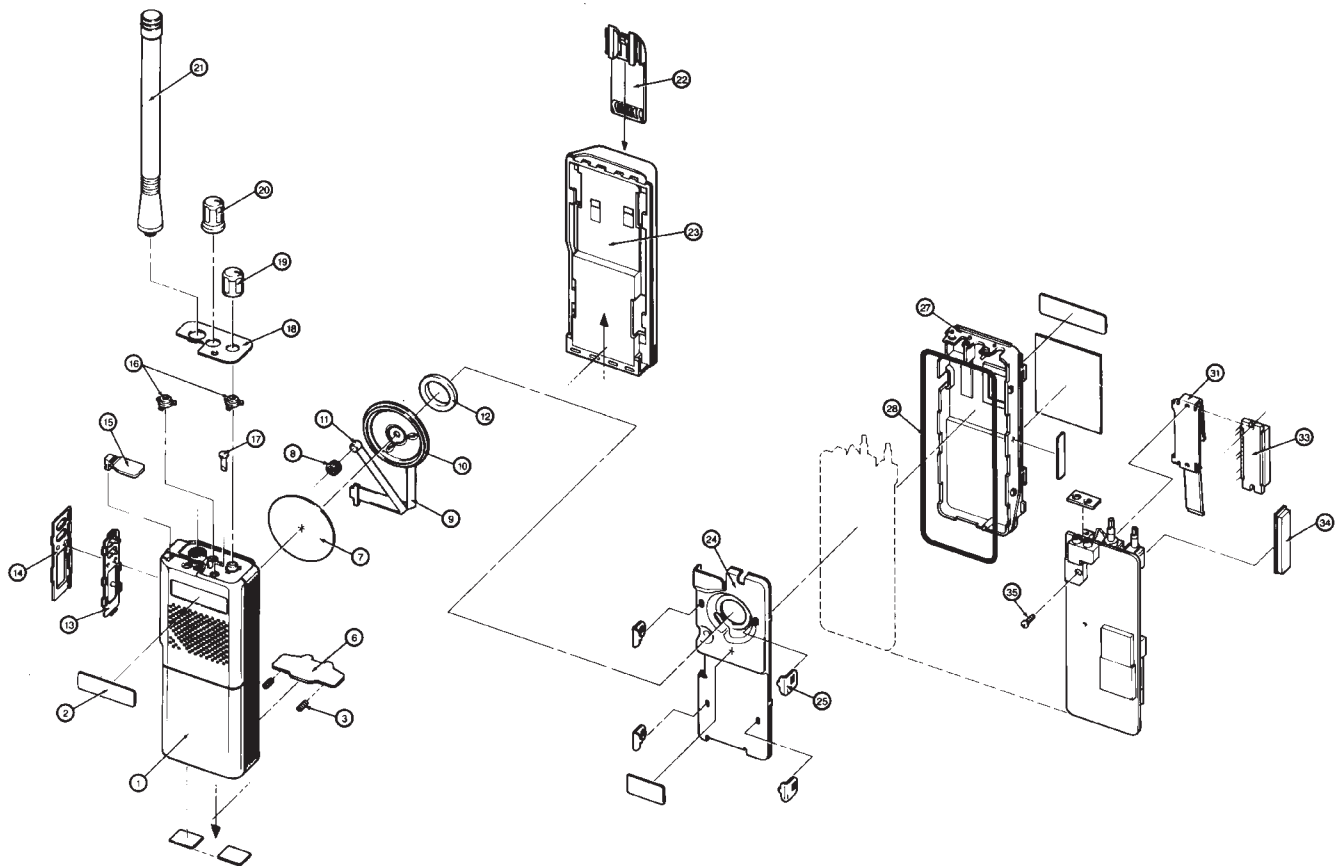
#### Programming Software

Due to licensing requirements, software cannot be ordered through the Motorola web site. At this time, please contact our representative by calling 1-800-422-4210 to place your order.

**HVN9025L** For EX Series Radios; Programs Customer Features/Frequencies (CPS CD-ROM format only)

## GP300 Series

### Parts List



## GP300 Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>1580562C01</b>	Housing, Radio	19	<b>3680146S03</b>	Knob, Volume
2	<b>1380992Z03</b>	Label, Name	20	<b>3680147S07</b>	Knob, Freq., 16-Position
3	<b>4105944K01</b>	Spring, Coil		<b>3680147S08</b>	Knob, Freq., 8-Position
6	<b>5580438B01</b>	Latch, Battery		<b>3680147S10</b>	Knob, Freq., 2-Position
7	<b>3580998Z04</b>	Felt, Speaker	21	—	Antenna — not available; see Service Manual
8	<b>1405874T02</b>	Boot, Mic.	22	<b>HLN9724A</b>	Belt Clip
9	<b>3080560D01</b>	Cable, Speaker/Mic.	23	—	Battery, — not available; see Service Manual
10	<b>5005589U05</b>	Speaker	24	<b>2680532C01</b>	Shield Front
11	<b>5013920A01</b>	Microphone Cartridge	25	<b>4280190R04</b>	Clip, Locking
	<b>1405299L02</b>	Boot	27	<b>2780549B01</b>	Chassis
	<b>7505564S02</b>	Pad	28	<b>3280545C01</b>	Gasket, Chassis
12	<b>7580107A02</b>	Pad, Speaker	31	<b>4280126S01</b>	Clip, P.A.
13	<b>7580437C01</b>	Keypad, PTT	33	—	P.A. Module
14	<b>1380159S01</b>	Bezel, PTT		<b>5105385Y49</b>	146-174 MHz
15	<b>3880428C02</b>	Dust Cap		<b>5113829D03</b>	403-440 MHz
16	<b>3280960Y01</b>	Seal		<b>5105492X79</b>	440-470 MHz
17	<b>6180968Y01</b>	Light Pipe	34	—	Receiver Module (for reference only)
18	<b>1380507B02</b>	Escutcheon, 2-Position	35	<b>0300136783</b>	Screw
	<b>1380507B03</b>	Escutcheon, 8-Position			
	<b>1380507B04</b>	Escutcheon, 16-Position			

## Portable Accessories

### Chargers

Single unit chargers available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola. Rapid chargers charge batteries in approximately one hour. Standard chargers charge batteries in approximately 16 hours.

#### Single Unit Chargers, Rapid Rate

**HTN9042A** Single Unit, Intellicharge Rapid Charger 110 Volts

**HTN9043A** Single Unit, Intellicharge Rapid Charger, European Plug, 220 Volts

**HTN9044A** Single Unit, Intellicharge Rapid Charger, United Kingdom Plug, 240 Volts



HTN9042A

#### Single Unit Chargers, Standard Rate



HTN9702A

**HTN9702A** Single Unit, Standard Charger 110 Volts 10 hour charger

**HTN9804A** Single Unit, Standard Charger European Plug, 220 Volts 10 hour charger



HTN9805A

**HTN9805A** Single Unit, Standard Charger United Kingdom Plug, 240 Volts 10 hour charger

### Chargers

#### Multiple Unit Chargers

They can charge up to six batteries in approximately one hour and are available in a variety of voltages for domestic and international applications.

**HTN9748C** Multiple Unit, One Hour Rapid Charger, 110 Volts (NiCd only)

**HTN9811C** Multiple Unit, One Hour Rapid Charger, European Plug, 220 Volts (NiCd only)

**HTN9812C** Multiple Unit, One Hour Rapid Charger United Kingdom Plug, 240 Volts



HTN9811C



HTN9060A

**HTN9060A** Multiple Unit, 90 minute Rapid Charger 110 Volts (NiCd and NiMH)

**HTN9061A** Multiple Unit, 90 minute Rapid Charger European Plug, 220 Volts (NiCd and NiMH)

**HLN9293A** Wall Mounting Bracket for 90 minute multi-unit charger (Use with HTN9060 and HLN9061)

**HLN9944A** Wall Mounting Bracket for Multiple Unit Chargers



HLN9944A



## GP300 Series

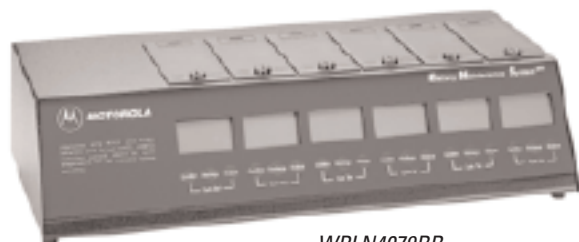
## Portable Accessories

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing batteries. It supports NiCd, NiMH, and Li-ion battery chemistries and tracks battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundred of 2-way, cellular, and camcorder batteries. Includes serial printer\* port (RS-232)

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

### BMS<sup>plus</sup> Adapters

**TDN9437A** Adapter, belt clip required for use with HNN9628B and HNN9710A batteries

**TDN9662A** Adapter, for battery without belt clip for HNN9628B

**TDN9438A** Adapter, for use with HNN8308A and HNN9808B batteries



TDN9437A

### Motorola Conditioning Charger (MCC)

The MCC utilizes negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified NiCd and NiMH batteries in approximately an hour. The MCC controls heat buildup due to its charging and termination algorithms, and maintenance mode allows batteries to be safely left on the charger for extended periods of time. And now there is an Instant Fault Detection (IFD) feature which detects faulty radio batteries in seconds, which notifies the user that

the battery will not operate at peak performance. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.



WPPN4002BR

**WPPN4002BR** 110V AC Base Charge Unit only

**WPPN4006AR** 220V AC Base Charge Unit only

**WPPN4005CR** 7 Volt Adapter only

**WPLN4088CR** MCC Kit, 110V AC; includes both base unit and 7V adapter

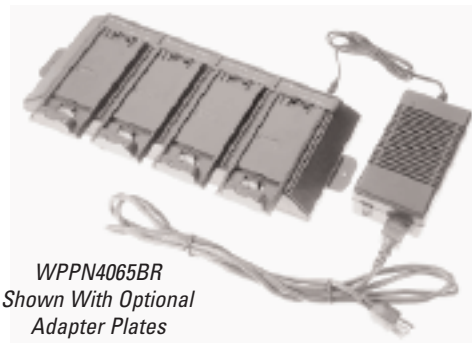
**WPLN4089CR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Vehicular Mounting Bracket for Motorola single unit conditioning charger

### MCC Multi-Unit Conditioning Charger

**WPPN4065BR**  
Four-station Base, 110V. (Order adapter plates separately)



WPPN4065BR  
Shown With Optional  
Adapter Plates

\* Compatible with the STAR Micronics SP200 Series printers (and other printers with STAR emulation); available from any STAR Micronics distributor.

## GP300 Series

## Portable Accessories

### Motorola Conditioning Charger (MCC)

#### Vehicular Mounting

**RLN4814A** Vehicular Mounting Bracket and Hard Wire Cable for Single Unit Motorola Conditioning Chargers

**3080384M21** DC Hard Wire Cable, for vehicular installation (included in RLN4814A)

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### BOS II Adapter

**RL-71883** Standard Adapter (GP300, LTS 2000 and GTX/GTX LTR)

### Vehicular Charger



RLN4833A

A great traveling companion that ensures constant communications while on the road. Allows the battery to rapid charge while using the radio. Users can receive communication immediately once the charger is disconnected, and transmit

from a previously "dead" battery in just 5 minutes. Includes voltage regulated lighter adapter, custom charger base, mounting bracket and coil cord. Ideal for public safety, utility and construction. Compatible with P1225, GP300, GTX, LTS2000, P110 radios.

**RLN4833A** Travel Charger

#### Travel Charger Mounting Bracket

**0780384K84** Universal Mounting Bracket for Travel Charger, includes screws and nylon cord

#### Travel Charger AC Transformer

Travel Charger AC Transformer connects to the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use.

**2580600E05** 120V (US)

**2580600E06** 230V (Euro)

**2580600E07** 230V (U.K.)

**2580600E08** 220V (Argentina)

#### Vehicular Charger Bracket

**HLN9719A** Vehicular Charger Adapter/Bracket, 12 Volts for use with Rapid Rate Chargers HTN9630A, HTN9802A, HTN9803A, HTN9167, HTN9168, HTN9169, HTN9042, HTN9043, or HTN9044



HLN9719A

## GP300 Series

## Portable Accessories

### Vehicular Battery Eliminator

The battery eliminator helps save battery life by eliminating the need for a battery while in a vehicle. The battery eliminator operates off of a vehicle's electrical system and is ideal when a radio is frequently used in a vehicle.

**HK N8036B** Battery Eliminator

**6580379E53** 3 Amp Mini Blade Fuse  
Replacement for HK N8036



HK N8036B

### Housing Kits

**HLN3002A** 2-Channel Housing Kit with Speaker and Flex

**HLN3003A** 8-Channel Housing Kit with Speaker and Flex

**HLN3169A** 16-Channel Housing Kit with Speaker and Flex

### Conversion Kit

**HLN9578A** 25kHz to 12.5kHz conversion kit for GP300 and GP350

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

#### Nylon Carrying Cases

**HLN9750B** Nylon Carrying Case with Belt Loop

**HLN9017A** Nylon Carrying Case for fully approved FM 1200 mAh battery

#### Leather Carrying Cases

**HLN9873A** Standard Leather Carrying Case with Swivel and D-Rings (for use with shoulder strap)

**HLN9720A** Standard Leather Carrying Case with Belt Loop and D-Rings (for use with shoulder strap)

**HLN9721A** Slim Leather Carrying Case with Belt Loop and D-Rings (for use with shoulder strap)

**HLN9008A** Leather Case with Belt Loop for fully approved FM 1200 mAh battery and D-Rings (for use with shoulder strap)

**HLN9009A** Leather Case with Swivel for fully approved FM 1200 mAh battery and D-Rings (for use with shoulder strap)



HLN9750B



HLN9873A

## GP300 Series

## Portable Accessories

### Carrying Accessories

#### DTMF Carrying Cases

**HLN9970A** DTMF Standard Leather Carrying Case with Belt Loop and D-Rings (use with shoulder strap)

**HLN8411A** DTMF Leather Carrying Case with Swivel and D-Rings (use with shoulder strap)

**HLN9011A** DTMF Leather Carrying Case with Swivel – fully approved FM 1200 mAh battery and D-Rings (use with shoulder strap)

#### Belt Clips

**HLN9724A** 2-1/2" Belt Clip

**HLN8255B** 3" Spring Action Belt Clip

**NTN5533A** Replacement Belt Clip 3"

#### Belt

**4200865599** 1.75" wide leather belt for all models



HLN9149AR

#### Swiveller

**TDN1002A** Swiveller; includes holster, belt and strap

**HLN9149AR** Swivel Belt Loop Adapter (GP300 – for use with HLN9720, HLN972, HLN9750, HLN9011, HLN9970 carrying cases)

**HLN9035A** Replacement Swivel Belt Loop 2-1/2"

**NTN8040B** 3" Swivel Belt Loop

**TDN1003A** Replacement/Spare Swiveller Button

#### Carrying Holder

**HLN9076B** Molded Carrying Holder with 3" Spring Action Belt Clip

**HLN8414A** Chest Pack Carrying Holder

**HLN9985B**

Waterproof Bag, includes large Carrying strap



HLN9076B

HLN8414A

### Carrying Accessories

#### Wrist Strap

**HLN8052A** Wrist Strap

#### Carry Strap

**NTN5243A** Shoulder Carrying Strap (GP300—use with leather carrying cases with D-Rings and nylon cases with HLN9149AR)



NTN5243A



HLN9974B

#### Straps

**HLN9084A** Replacement Strap for molded carrying holder – HLN9076

**HLN9973A** Replacement Strap for nylon and leather carrying cases (GP300 – for leather carrying case)

**HLN9975A** Replacement Strap for DTMF leather carrying case (HLN8411, HLN9970, and HLN9011)

**HLN9974B** Replacement Strap for carrying cases (GP300 – for leather carrying case)

#### Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.



HLN6602A

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pouch

**1505596Z02**

Replacement Strap for HLN6602A

## GP300 Series

## Portable Accessories

### Carrying Accessories

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A



#### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

RLN4815A

#### Vehicular Holder

The portable radio holder slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"



TDN9327A

#### Miscellaneous Carrying Accessories

**RLN4943A** Universal Holder with Gooseneck Bracket provides flexible mounting solutions for portable radios

**RLN4945A** Universal Holder with Gooseneck Bracket and Wheelchair Quick Release Assembly

**RLN4944A** Wheelchair Quick Release Assembly

### Audio Accessories

#### Remote Speaker Microphone (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and back cover clip.

**\*HMN9030A** Remote Speaker Microphone with coil cord and clothing clip on the back cover.



HMN9030A

#### RSM Accessories

**HKN9094A** Replacement cord for HMN9030A

**4205823V01** Belt Clip

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord or back of microphone.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip

#### MicJackets

The MicJackets provide protections to the "head" of the remote speaker microphone. MicJackets are ideal for environments where the user's remote speaker microphone is exposed to dust, dirt and metal particles.

**RLN4904A** MicJacket Kit (compatible with microphones HMN9275 and HMN9030)

\* Intrinsicly safe



## GP300 Series

## Portable Accessories

### Audio Accessories

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

**\*HMN9727B** Receive-Only Surveillance Kit, beige (single-wire)

**RLN4894A** Receive-Only Surveillance Kit, black (single-wire)



HMN9752BR

**\*HMN9752B** Receive-Only Surveillance Kit with Volume Control, beige (single-wire),

**\*HMN9754D** Two-Wire Surveillance Kit with Microphone and Push-To-Talk Combined, beige



HMN9754DR

**RLN4895A** Two-Wire Surveillance Kit with Microphone and Push-To-Talk Combined, black

#### Surveillance Kits with Extended Wear Earpiece

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube. Users can hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5317A** Comfort earpiece with combined microphone and push-to-talk; beige (2-wire kit)

**RLN5318A** Comfort earpiece with combined microphone and push-to-talk; black (2-wire kit)

#### Replacement Items

**5080371E69** Small Rubber Eartips, Pack of 25, Beige

**5080371E71** Small Rubber Eartips, Pack of 25, Black

**5080371E73** Standard Rubber Eartips, Pack of 25, Beige

**5080371E75** Standard Rubber Eartips, Pack of 25, Black

**5080369E40** Earloop, Plastic, Beige

**5080370E92** Earloop, Plastic, Black

**5880377E06** Plastic Earloop Adapter

**5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Beige

**5080370E90** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Black

**5080386B90** Ear Insert Tips, Pack of 25

### Audio Accessories

#### Completely Discrete Earpiece

Enables users to communicate with ease, in full privacy, without visible equipment. This miniaturized receiver is discretely hidden in ear, where it fits comfortably for long periods at a time. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Average battery life is approximately 100 hours and includes an end-of-life battery circuit generating a warning signal when the battery needs to be changed.

Kit includes wireless receiver plus an inductive neckloop. Just remove the earpiece on any standard 2- or 3-wire Motorola surveillance kit (sold separately) and plug in the neckloop to use. Kit includes 6 spare batteries and 5 replacement ear wax guards.



RLN4922A

**RLN4922A** Completely Discrete Earpiece Kit

#### Replacement Items

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4 Volt Battery, 6 per pack

#### Pellet Style Earpieces

The Pellet Style Earpiece allows the user to receive communications discreetly and is comfortable for extended wear.

**HMN9036A** Earbud with Clip Microphone and PTT

**HLN9132A** Receive-Only Earbud

*\*Intrinsically safe*

## GP300 Series

## Portable Accessories

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E69** Small Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige

**5080371E73** Standard Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige

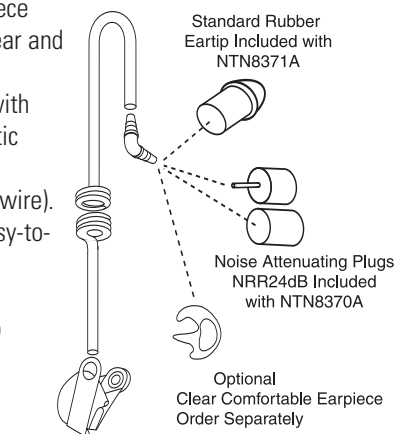


NTN8370A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1, 2 and 3 wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



Acoustic Tube with Earphone

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).

**\*BDN6646C** Ear Microphone for standard noise levels (up to 95dB) with Push-To-Talk interface, (HLN8096 security clamp is recommended and must be ordered separately)

**\*BDN6706B** Ear Microphone for standard noise levels (up to 95dB) with Push-To-Talk/voice-activated interface module, (HLN8096 security clamp is recommended and must be ordered separately)



BDN6646C

#### Ear Microphone System (EMS) Accessories

**5080371E73** Rubber Ear Inserts for single wire and two wire earpieces – quantity 25

**\*0180358B38** Finger Push-To-Talk Switch for ear microphone system

**0180300E83** Body Switch Push-To-Talk for ear microphone system



0180358B38



0180358B33

**0180358B32** Earholder, Black, Size Small

**0180358B33** Earholder, Black, Size Medium

**0180358B34** Earholder, Black, Size Large

**0180358B35** Earholder, Clear, Size Small

**0180358B36** Earholder, Clear, Size Medium

**0180358B37** Earholder, Clear, Size Large

**4280369E44** Replaceable Belt clip with Screws

\* Intrinsically safe



## GP300 Series

## Portable Accessories

### Audio Accessories

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

**HLN8096A** Audio Accessory Security Clamp

#### Flexible Ear Receiver

**BDN6720A** Flexible Ear Receiver — earpiece without volume control (flexible earloop and speaker which rests external to ear), (HLN8096 security clamp is recommended and must be ordered separately)

**7580372E11** Replacement Foam Ear Cushion for BDN6720, BDN6717 and BDN6719

#### Add-On Retrofit Kits

**\*HLN3748A** DTMF Retrofit for 16 channel models (applicable on shipments after 3/15/92); Factory Mutual Approved radios must be returned to the depot for retrofitting

#### Ultra-Light Headset

Designed with a sleek new look that fits right in with Restaurant and Hospitality industries. Lightweight, behind-the-head style design provides comfort and mobility. Includes flexible boom microphone and in-line Push-To-Talk button.

**\*RLN5411A** Ultra-light Headset



RLN5411A

### Audio Accessories

#### Lightweight Headset

**RMN4016A** Lightweight Single Muff Adjustable Headset with Swivel Boom Microphone and in-line PTT button

**\*HMN9013A** Lightweight Single Muff Adjustable Headset with Swivel Boom Microphone

**REX4648A** Replacement Foam Earpad and Windscreen Kit for RMN4016A and HMN9013A

**\*HMN9787D** Headset with Swivel Boom Microphone



HMN9013A

#### Medium Weight Headsets

**\*HMN9021A** Medium Weight Dual Muff Headset, over the head noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)

**\*HMN9022A** Medium Weight Dual Muff Headset, behind the head (can be worn with helmet); noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)

#### Replacement Parts for HMN9021A and HMN9022A

**7580376E34** Replacement Foam Earseals (1 pair)

**1580376E32** Replacement Cloth Cover for Earseals (1 pair)

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for windscreen

**3080384L77** Replacement Cable

**4204004K01** Replacement Adjustable Headstrap for HMN9022A

**BDN6647F** Medium Weight Single Speaker Headset with Boom Microphone (HLN8096 security clamp recommended — order separately-comp with Internal VOX)

**5080371E66** Replacement Earpad for BDN6647

**3580371E59** Replacement Windscreen (for boom microphone) for use with BDN6647

## GP300 Series

## Portable Accessories

### Audio Accessories

#### Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable RKN4094A. Hardhat not included.



RMN4053A

**RMN4052A** Tactical Headband Style Headset, grey; noise reduction rating of 24dB

**RMN4053A** Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB

#### Hardhat Mount Headset with Noise-Canceling Boom Microphone



RMN4051B

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4094A. Hardhat not included.

**RMN4051B** Two-Way Hardhat Mount Headset, black

#### Adapter Cables

**RKN4094A** In-Line PTT Adapter Cable. For use with RMN4051, RMN4052, and RMN4053.

#### Replacement Earseals for Headsets

**RLN4923A** Includes Two Replacement Snap-In Earseals; recommended replacement interval is once every six months to ensure constant level of attenuation, hygiene and comfort. For use with RMN4051, RMN4052, and RMN4053.

### Audio Accessories

#### Heavy Duty Headset

**\*BDN6648C** Heavy Duty Headset with Noise Cancelling Boom Microphone, noise reduction rating = 24dB



BDN6648C

#### Racing Headset for Two-Way Radios

Motorola is the Official Wireless Equipment supplier of CART®, so whether your customer's playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.



RMN5015A

**RMN5015A** Racing Headset for two-way radios (adapter cable required)

**RKN4090A** Adapter Cable

#### NFL Style Lightweight Headset

This single-muff headset takes its styling cue from the Motorola headsets used by the NFL coaches in football stadiums around the country. Ergonomically-designed for all-day comfort, it's ideal for both sports and special events. Features a noise cancelling boom microphone and in-line Push-To-Talk. Large Motorola logo adds a sporty appearance.

**RLN5238A** NFL Style Lightweight Headset



RLN5238A

\* Intrinsicly safe

## GP300 Series

## Portable Antennas, Batteries



### Portable Antennas

#### Heliflex

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

**HAD9338AR** VHF Heliflex,  
136-150.8 MHz, 6"

**NAD6502AR** VHF Heliflex,  
146-174 MHz, 6"

**8505816K24** Heliflex Stubby,  
403-430 MHz, 3"

**NAE6522AR** Stubby,  
438-470 MHz, 3"

**8505816K26** Heliflex Stubby,  
470-512 MHz, 3"



NAD6502AR

#### Flexible Whip

Flexible whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**NAE6483AR** Flexible Whip, 403-520 MHz, 6"

#### Tunable VHF

**HAD9728B** VHF Kit,  
146-174 MHz, 6"



HAD9728B

#### Stubby

Stubby antennas are ideal when the radio is worn on the belt because the short antenna is non-obtrusive.

**HAD9742A** Stubby,  
146-162 MHz, 3"

**HAD9743A** Stubby,  
162-174 MHz, 3"



HAD9743A

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN8133C**

Volts: 7.5

Avg. mAh: 1200

Height: 5-1/2"

Intrinsically Safe: Yes

Part Number: **HNN8308A**

Volts: 7.5

Avg. mAh: 600

Height: 5-1/2"

Intrinsically Safe: No

Slim: Yes

Part Number: **HNN9628B**

Volts: 7.5

Avg. mAh: 1200

Height: 5-1/2"

Intrinsically Safe: No

Part Number: **HNN9701A**

Volts: 7.5

Avg. mAh: 1100

Height: 5-1/2"

Intrinsically Safe: Yes

Part Number: **HNN9808B**

Volts: 7.5

Avg. mAh: 600

Height: 5-1/2"

Intrinsically Safe: Yes

Slim: Yes

#### Nickel-Cadmium Power

Part Number: **WPNN4044AR**

Volts: 7.5

Avg. mAh: 1000

Height: 5-1/2"

Intrinsically Safe: No

## GP300 Series

## Service Aids, Software, Manuals



**MOTOROLA**  
intelligence everywhere™

### Service Aids



5885705M02

#### Adapters

**5885705M02** Remote BNC-RF Adapter, For Use With GP300 Only

**5880384G68** SMA to BNC Adapter

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6008278J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.



3080369B71

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, Rib to 9 pin D

#### Programming Cable

Connects radio interface box to radio for programming.

**HKN9857A** Radio Programming Cable

#### Cloning Cable

**HKN9755A** Allows the radio to be duplicated from a master radio by transferring programmed data from one radio to another.

### Service Aids

#### Test Set Cable

**RKN4034** Connects radio to RTX4005 Test Box

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts



0180357A57

#### Cross Connect Adapter (CCA)

**HKKN4003A** Cat-5 Crossover Cable, 6'

**HKLN4126A** CCA Adapter for CP300, P1225, SP50

### Software

#### Programming Software

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables, order separately.

**HVN9128D** Programming Software, 3-1/2" diskettes (includes manual and storage box)

### Manuals

**6880901Z83**

Operators Manual

**6880901Z93**

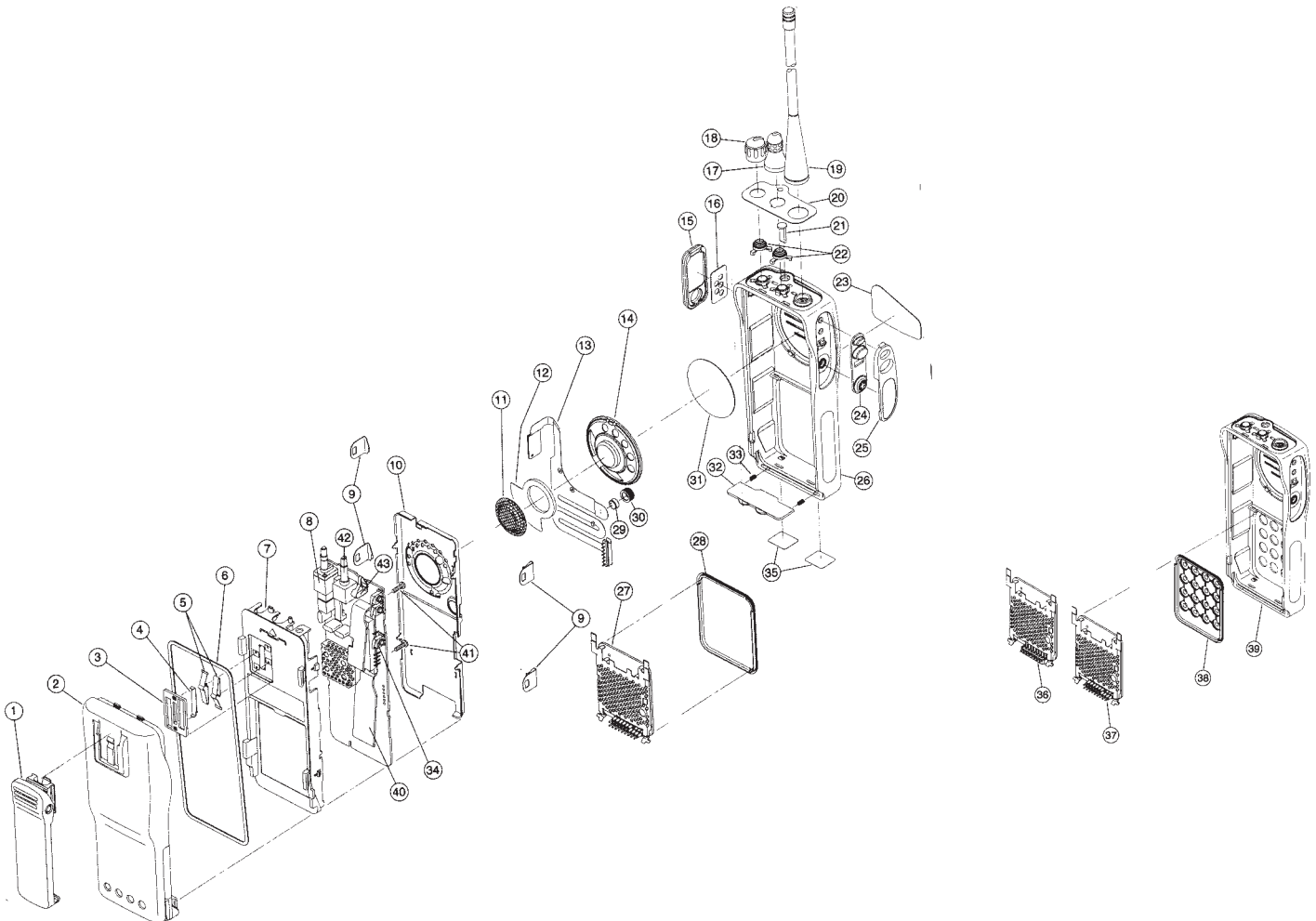
Service Manual



<https://www.motorola.com/businessonline>

## GP350 Series

### Parts List



# GP350 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>HLN8255B</b>	Clip, Spring Belt
2	<b>HNN9360B</b>	Battery (See Battery Section)
	or	
	<b>HNN9361A</b>	Battery, FM (See Battery Section)
3	<b>1380463E01</b>	Escutcheon, Battery Contact
4	<b>3980571E01</b>	Contact, Programming
5	<b>3980457E01</b>	Contact, Battery
6	<b>3280545C01</b>	Gasket, Chassis
7	<b>0180708Y67</b>	Chassis
8	<b>1880143S05</b>	Potentiometer, Volume
9	<b>4280190R04</b>	Clip, Locking; 4 used
10	<b>2680465E01</b>	Shield, Main
11	<b>3980546B02</b>	Contact, Speaker
12	<b>7580506C02</b>	Pad, Speaker
13	<b>0180416U06</b>	Flex, Speaker/Mic
14	<b>5005589U05</b>	Speaker
15	<b>1580484E01</b>	Cover, Universal
16	<b>1380458E01</b>	Escutcheon, Universal
17	<b>3680147S07</b>	Knob, Freq. 16 Pos.
	<b>3680147S10</b>	Knob, Freq. 2 Pos.
18	<b>3680146S03</b>	Knob, Volume
19	----	Antenna (See Antenna Section)
20	<b>1380471E01</b>	Escutcheon, 16 Pos
21	<b>6180968Y01</b>	Lightpipe
22	<b>3280960Y01</b>	Seal, Control; 2 Used
23	<b>3380469E01</b>	Label, Name
24	<b>7580466E01</b>	Keypad, Push-To-Talk

REF. NO.	PART NO.	DESCRIPTION
25	<b>1380467E01</b>	Bezel, Push-To-Talk
26	<b>1580450E01</b>	Housing, Radio
27	<b>NTN8313A</b>	Assy, Analog Scrambler (Optional)
28	<b>7580575E01</b>	Pad, Option Board
29	<b>0180416U06</b>	Microphone
30	<b>1480577C01</b>	Boot, Microphone
31	<b>3580998Z04</b>	Felt, Speaker
32	<b>5580438B01</b>	Latch, Battery
33	<b>4105944K01</b>	Spring, Coil; 2 Used
34	<b>4080447U05</b>	Switch, Snap (PB401, 2, 3)
35	<b>HLN9480A</b>	Label, FM Intrinsic
	or	
36	<b>HLN3747A</b>	8 Channel Retro Kit
37	<b>NTN8313A</b>	Assy, Analog Scrambler w/DTMF
38	<b>7580470E01</b>	Keypad, 16 Key
39	<b>1580450E02</b>	Housing, DTMF
40	<b>4280126S01</b>	Clip, P.A.
41	<b>0300136783</b>	Screw; 2 Used
42	<b>4080650D01</b>	Switch, Frequency (SW401T)
43	<b>3980515C02</b>	Contact, Antenna (J1)
44	<b>2680958Z04</b>	Shield, Mixer
45	<b>2680968Z04</b>	Shield, VCO, Front
46	<b>2680970Z04</b>	Shield, Synthesizer, Front
47	<b>2680136S04</b>	Shield, Harmonic Filter (UHF Only)
48	<b>2680970Y04</b>	Shield, Synthesizer Rear
49	<b>2680966Y04</b>	Shield, VCO Rear



## Portable Accessories

### Chargers

Single unit chargers are available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola.

#### Single Unit Chargers, Rapid Rate

**HTN9042A** Single Unit Intellicharger, 110V, (90 minute charge time)

**HTN9043A** Single Unit Intellicharger, 220V, European plug (90 minute charge time)

**HTN9044A** Single Unit Intellicharger, 240V, UK plug (90 minute charge time)



HTN9042A

#### Single Unit Chargers, Standard Rate

**HTN9702A** 120V, 10 hour standard rate charger

**HTN9804A** Single Unit Standard Charger, 220V, European plug

**HTN9805A** Single Unit Standard Charger, 240V, UK plug



HTN9702A

### Chargers

#### Multi-Unit Chargers

Multi-unit chargers can charge up to six batteries in approximately one hour and are available in a variety of voltages for domestic and international applications.

**HTN9748A** 120V, 6-unit, 1 Hour Rapid Rate Charger (NiCd only)

**HTN9811C** 220V, 6-unit, 1 Hour Rapid Rate Charger, European plug (NiCd only)

**HTN9812C** 240V, 6-unit, 1 Hour Rapid Rate Charger, United Kingdom plug (NiCd only)

**HTN9060A** 120V, 6-unit, 90 Minute Rapid Rate Charger (NiCd and NiMH)

**HTN9061A** 220V, 6-unit, 90 Minute Rapid Rate Charger, European plug (NiCd and NiMH)

**HLN9944A** Wall Mounting Bracket for multiple unit chargers



HTN9748C

#### Travel Charger Kit

Travel charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.

**RLN4833A**

Travel Charger Kit



RLN4833A

#### Vehicular Battery Eliminator

The battery eliminator saves useful battery life by drawing power from a vehicle's battery. Simply replace the portable battery with the battery eliminator and plug in the cigarette lighter adapter.

**HLN9452A** Battery Eliminator, vehicular



## GP350 Series

## Portable Accessories

### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.

**WPPN4002BR** Base Charge Unit Only, 110V AC

**WPPN4006AR** Base Charge Unit Only, 220V AC

**WPPN4007BR** Adapter Only, 7V

**WPLN4094BR** Motorola Conditioning Charger Kit, 110V AC (includes base unit and 7V adapter)

**WPLN4095BR** Motorola Conditioning Charger Kit, 220V AC (includes base unit and 7V adapter)

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger



WPLN4094BR

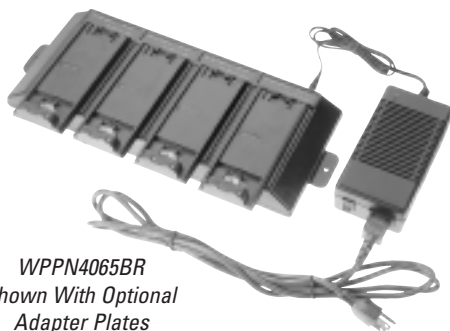


**3080384M21** DC Hard Wire Cable, for vehicular installation (included in RLN4814A)

**3080384G15** Cigarette Lighter Adapter

**WPPN4065BR** Four-Station Base, 110V (order adapter plates separately)

3080384G15



WPPN4065BR  
Shown With Optional  
Adapter Plates

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

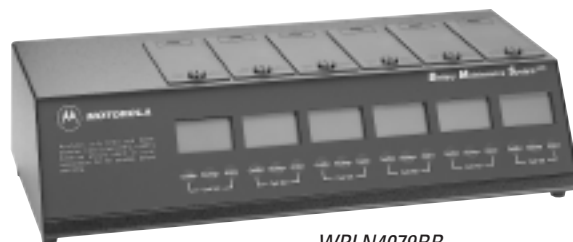
Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing batteries. It supports NiCd, NiMH, and Li-ion battery chemistries and tracks battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundred of 2-way, cellular, and camcorder batteries. Includes serial printer\* port (RS-232)

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**NDN4005B** Three-Station, 110V AC, 50/60 Hz

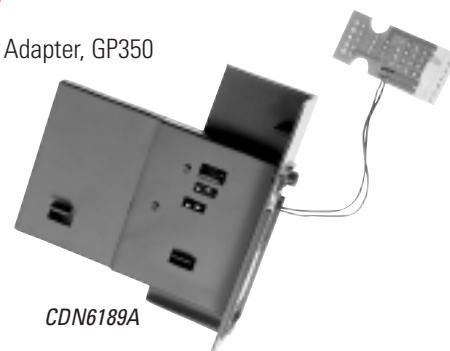
**NDN4006B** Three-Station, 230V AC, 50/60 Hz



WPLN4079BR

### BMS<sup>plus</sup> Adapter

**CDN6189A** Standard Adapter, GP350



CDN6189A

**RKN4037A** Cable/Clip Lead 7.5V Adapter

\* Compatible with the STAR Micronics SP200 Series printers (and other printers with STAR emulation); available from any STAR Micronics distributor.

## GP350 Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

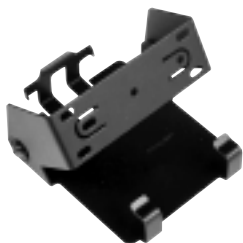
**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapters

**RL-71883** Standard Adapter (GP300, LTS2000 and GTX/GTX LTR)

### Vehicular Chargers



HLN9719A

**HLN9719A** Vehicular Charger Adapter/Bracket, 12V (for use with rapid rate chargers HTN9630, HTN9802, HTN9803, HTN9167, HTN9168, HTN9169, HTN9042, HTN9043, or HTN9044)

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio and battery and permit audio to be heard clearly.

#### DTMF Carrying Cases

**HLN9418A** DTMF Standard Leather Carrying Case with Swivel

**HLN9420A** DTMF Standard Leather Carrying Case with Belt Loop

**HLN9417A** Standard Leather Carrying Case with Belt Loop and D-Rings (for use with shoulder strap)



HLN9417A



HLN9323A

**HLN9323A** Standard Leather Carrying Case with Swivel

#### Nylon Carrying Cases

**HLN9416A** Nylon Carrying Case with Belt Loop



HLN9416A

#### Carrying Case Accessories

##### Belt Clip

**HLN8255B** 3" Spring Action Belt Clip

##### Belt

**4200865599** 1.75" wide leather belt for all models



HLN9974B

##### Swivel Belt Loops

**NTN8039A** Replacement Swivel Belt Loop, 2-1/2" (used with **HLN9323** and **HLN9418** carry cases)

**NTN8040A** Replacement Swivel Belt Loop, 3"

##### Straps

**HLN9973A** Replacement Strap for nylon and leather carrying cases

**HLN9974B** Replacement Strap for carrying cases

## GP350 Series

## Portable Accessories

### Carrying Accessories

#### Waterproof Bag

**HLN9985B** Waterproof Bag, includes large carrying strap



HLN6602A

#### Chestpack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602A

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

### Carrying Accessories

#### RadioPAK™



RLN4815A

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

#### Vehicular Holder

The vehicular radio holder slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"



TDN9373A

#### Miscellaneous Carrying Accessories

**RLN4943A** Universal Holder with Gooseneck Bracket provides flexible mounting solutions for portable radios

**RLN4945A** Universal Holder with Gooseneck Bracket and Wheelchair Quick Release Assembly

**RLN4944A** Wheelchair Quick Release Bracket

## GP350 Series

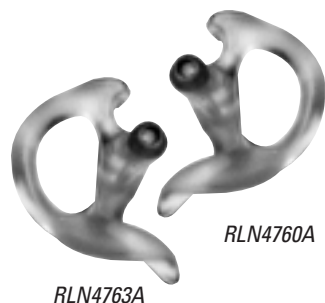
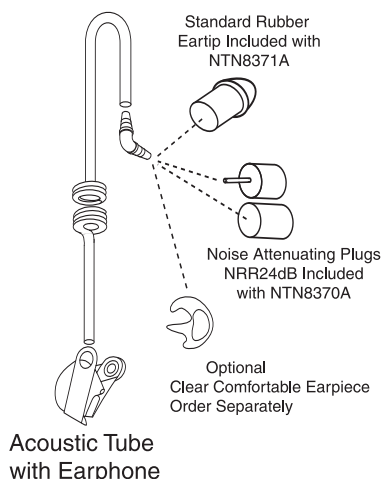
## Portable Accessories

### Audio Accessories

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1, 2 and 3 wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. Does not provide hearing protection. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left, ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

### Audio Accessories

#### Lightweight Headset

**\*HMN9046A** Lightweight Single Muff, Adjustable Headset with Swivel Boom Microphone

**HMN9013A** Lightweight Single Muff, Adjustable Headset with Swivel Boom Microphone. Requires HLN9482A audio adapter

**REX4648A** Replacement Windscreen for Boom Microphones and Foam Earpad for Lightweight Headsets



#### Remote Speaker Microphone (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and clothing clip on back cover.

**\*HMN9031A** Remote Speaker Microphone with Coiled Cord and Clip Back

**HKN9096A** Replacement Coil Cord for HMN9031A



\* Intrinsically safe

## GP350 Series

## Portable Accessories

### Audio Accessories

#### MicJackets

The MicJackets provide protection to the “head” of the remote speaker microphone. MicJackets are ideal for environments where the user's remote speaker microphone is exposed to dust, dirt, and metal particles.

**RLN4904A** MicJacket Kit (Compatible with HMN9031A)

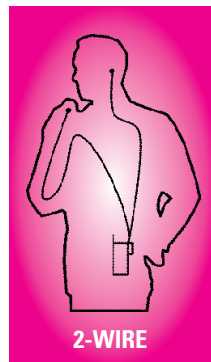
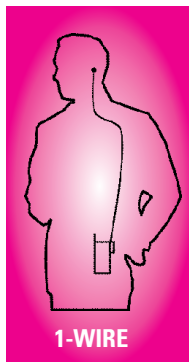
#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

**HMN9042A** Receive-only Surveillance Kit (single-wire)

**HMN9043A** Receive-only Surveillance Kit with volume control (single-wire)

**HMN9044A** Two-wire Surveillance Kit with Microphone and Push-To-Talk Combined



### Audio Accessories

#### Surveillance Replacement Items

**5080371E69** Small Rubber Eartips, Pack of 25, Beige

**5080371E73** Standard Rubber Eartips, Pack of 25, Beige

**5880377E06** Plastic Earloop Adapter

**5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Beige

**5080369E40** Earloop, Plastic, Beige

**5080384F72** Replacement foam plugs; pack of 50 (For use with NTN8370A)

**5080386B90** Ear insert tips; pack of 25

#### Completely Discrete Earpiece

Enables users to communicate with ease, in full privacy, without visible equipment. This miniaturized receiver is discretely hidden in ear, where it fits comfortably for long periods at a time. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Average battery life is approximately 100 hours and includes an end-of-life battery circuit generating a warning signal when the battery needs to be changed. Kit includes wireless receiver plus an inductive neckloop. Just remove the earpiece on any standard 2- or 3-wire Motorola surveillance kit (sold separately) and plug in the neckloop to use. Kit includes 6 spare batteries and 5 replacement ear wax guards.



**RLN4922A** Completely Discrete Earpiece Kit

**RLN4919A** Replacement Ear Wax Guards, 5 per pack

**RNN4005A** Replacement 1.4 Volt Battery, 6 per pack



## Portable Accessories

### Audio Accessories

#### Noise Kits



NTN8370A

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Earpiece Adapter Kit, includes 2 foam earplugs for loud environments and provides 24dB of noise reduction rating

**NTN8371A** Low Noise Earpiece Adapter Kit, includes rubber eartip for low noise environments; does not provide hearing protection

**5080384F72** Replacement Foam Plugs – pack of 50 (use with NTN8370), noise reduction rating = 24dB



NTN8371A

#### Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable RKN4096A. Hardhat not included.



RMN4052A

**RMN4052A** Tactical Headband Style Headset, grey; noise reduction rating of 24dB

**RMN4053A** Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB



RMN4053A

### Audio Accessories

#### Medium Weight Headsets



HMN9021A

**\*HMN9021A** Medium Weight Dual Muff Headset, over the head noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)

**\*HMN9022A** Medium Weight Dual Muff Headset, behind the head (can be worn with helmet); noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)

#### Replacement Parts for HMN9021A and HMN9022A

**7580376E34** Replacement Foam Earseals (1 pair)

**1580376E32** Replacement Cloth Cover for Earseals (1 pair)

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for windscreen

**3080384L77** Replacement Cable

**4204004K01** Replacement Adjustable Headstrap for HMN9022A, HMN9021A and NMN6259A

**BDN6647F** Medium Weight Single Speaker Headset with Boom Microphone (HLN8096 security clamp recommended – order separately-comp with Internal VOX)

**5080371E66** Replacement Earpad for BDN6647

**3580371E59** Replacement Windscreen (for boom microphone) for use with BDN6647



BDN6647F

\* Intrinsically safe

## GP350 Series

## Portable Accessories, Antennas, Kits



### Audio Accessories

#### Hardhat Mount Headset with Noise-Canceling Boom Microphone

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4096A. Hardhat not included.



RMN4051A

**RMN4051A** Two-Way Hardhat Mount Headset, black

**RKN4096A** In-Line PTT Adapter Cable for GP350 radios

#### Replacement Earseals for Headsets

**RLN4923A** Includes Two Replacement Snap-In Earseals; recommended replacement interval is once every six months to ensure constant level of attenuation, hygiene and comfort. For RMN4051, RMN4052, RMN4053A, RMN4054A, RMN4055A, RMN4056A and RMN4057A.

#### Heavy Duty Headset

**HMN9050A** Heavy Duty Headset with Noise-cancelling Boom Microphone with Push-To-Talk Button; noise reduction rating = 24 dB

#### Miscellaneous Audio Accessories

\***HLN9482A** Audio Accessory Adapter. Adapts all GP300 audio accessories to the GP350.

### Portable Antennas

#### Heliflex Antenna

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

##### NAD6502AR

Heliflex, 146-174MHz, 6"

#### Stubby Antenna

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

##### HAD9742A

Stubby, 146-162MHz, 3"

##### HAD9743A

Stubby, 162-174MHz, 3"

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### NAE6483AR

Flexible Whip, 413-520MHz, 6"



NAD6502AR

HAD9743A

NAE6483AR

### Retrofit Kits

**HLN3085A** DTMF Retrofit Kit for 16-Channel Models Only

### Conversion Kit

**HLN9578A** 25kHz to 12.5kHz Conversion Kit for GP350

\* Intrinsically safe



<https://www.motorola.com/businessonline>



## GP350 Series

## Portable Batteries, Service Aids

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN9360B**

Volts: 7.5

Avg. mAh: 1200

Height: 5-1/2"

Intrinsically Safe: No

Part Number: **HNN9361A**

Volts: 7.5

Avg. mAh: 1000

Height: 5-1/2"

Intrinsically Safe: Yes

### Service Aids

#### Accessory Adapter

**HLN9482A** Accessory Adapter

**0380475E01** Replacement Screw  
for HLN9482A

**5885705M02** BNC to RF Adapter  
(for use with GP300 & GP350 models)



5885705M02

#### Cloning Cable

**HKN9755A** Cloning Cable

#### Programming Cable

**HKN9857A** Programming Only Cable

#### Programming Assembly

Program GP350 radios faster, more reliably and with greater efficiency than ever before. Includes banana plugs for power supply and RS232 computer connector.

**RKN4071A** GP350 Programming Assembly

## GP350 Series

## Service Aids, Manuals

### Service Aids

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.



RLN4008E

**RLN4008E** Radio Interface Box

**RKN4034A** Cable, Connects Radio to Radio Interface Box

**0180357A57** AC Power Pack, 110V

**0180358A56** AC Power Pack, 220V

**3080369B71** 25 Pin PC to RIB Cable

**RLN4438A** 25 Pin F to 9 Pin M Adapter

### Service Aids

#### Radio Service Software

This software enables you to add or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables; order separately.

**HVN9128D** Programming Software, includes 3-1/2" diskette, manual, binder, and storage box

### Manuals

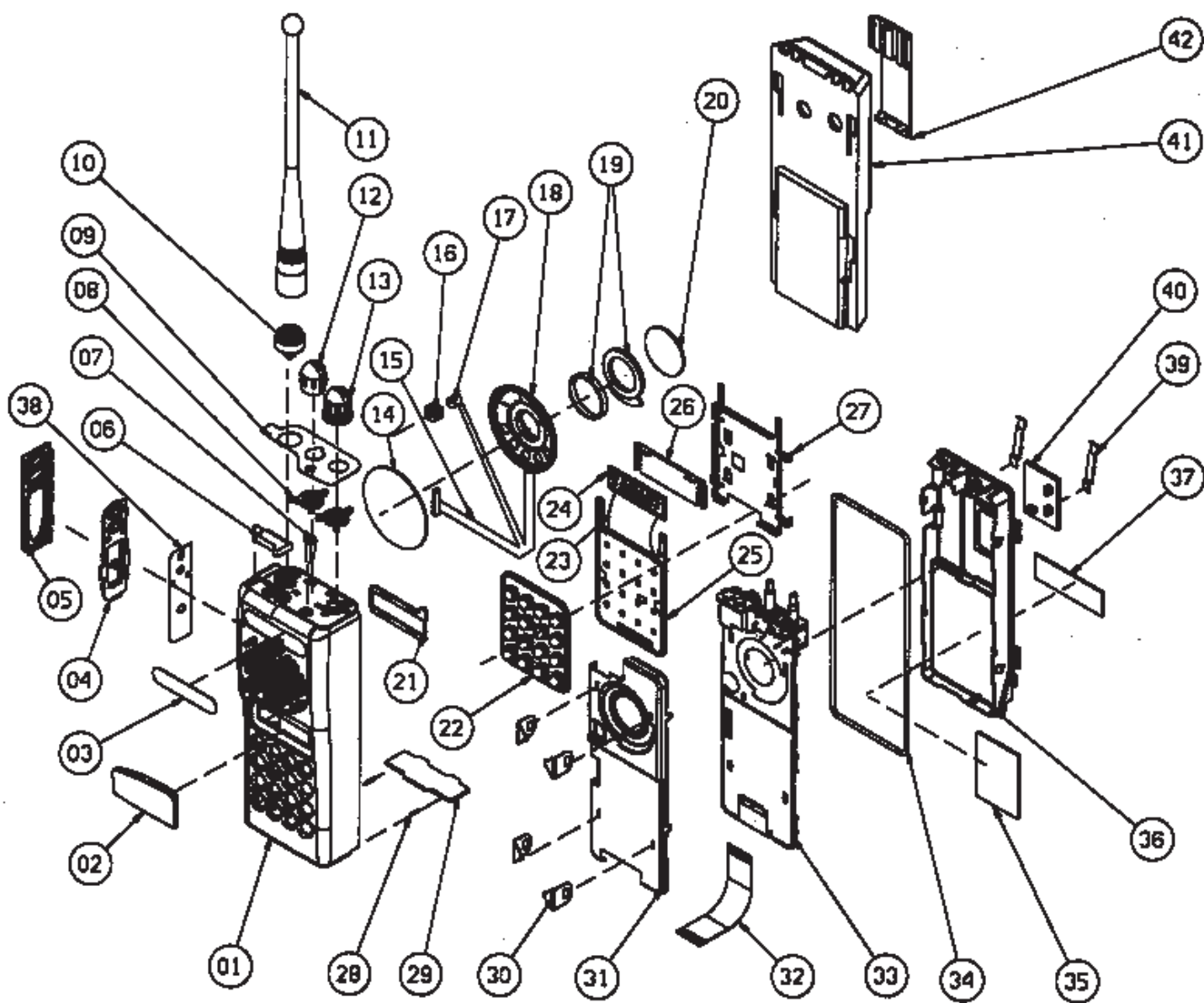
**6880904Z07** Service Manual

**6880904Z01** User Guide

**6880904Z09** Radio Service Software (RSS) Manual

**6880904Z02** User Guide, French

*Parts List*



# GTX/GTX LTR/GTX PrivacyPlus Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>1580421K01</b>	Front Housing
2	---	LCD cover, part of 1580421K01 (cannot be ordered separately)
4	<b>3286074C01</b>	PTT Keypad
5	<b>1380159S01</b>	PTT Bezel
6	<b>3880428C02</b>	Dust Cap
7	<b>6180687K01</b>	Light Pipe
8	<b>3280960Y01</b>	Seal, 2 used
9	<b>1386080C01</b>	Escutcheon
10	<b>5880636V01</b>	Antenna Adapter
11	<b>8505241U03</b>	Antenna Whip
12	<b>3680448K01</b>	Frequency Knob
13	<b>3680447K01</b>	Volume Knob
14	<b>3580998Z04</b>	Speaker Felt
15	<b>3080560D01</b>	Speaker/Mic Cable
16	<b>1480577C01</b>	Microphone Boot
17	<b>5013920A03</b>	Microphone
18	<b>5005589U05</b>	Speaker
19	<b>7580506C02</b>	Speaker Pad
20	<b>3980546B02</b>	Front-Shield ground Contact
21	<b>7580685K01</b>	Pad
22	<b>7585650L01</b>	Keypad
23*	---	Heat-Sealed Flexible Cable
24*	---	LCD, 7 Segments, 8 Characters, 8 Annunciators

REF. NO.	PART NO.	DESCRIPTION
25	<b>FEN1648DR</b>	Logic Board, Assembled, for GTX
	<b>FEN1656FR</b>	Logic Board, Assembled, for GTX/GTX LTR
26	<b>6180687K01</b>	Light Pipe
27	<b>2680402K01</b>	Logic Board Shield
28	<b>4105944K01</b>	Battery Latch Spring, 2 used
29	<b>5580438B01</b>	Latch
30	<b>4280190R04</b>	Shield Clip, 4 used
31	<b>2680532C01</b>	Front Shield
32	<b>8408051Y01</b>	RF-to-Logic Flexible Circuit
33	<b>FUF5690A</b>	RF Board, Assembled
34	<b>3286063C01</b>	"O" Ring Gasket
35	<b>1480610B01</b>	Chassis Insulator
36	<b>2780549B01</b>	Chassis
37*	---	FCC Label – not available
38	<b>3286074C01</b>	Pad PTT
39	<b>3980188R01</b>	Contact, B+/B–
40	<b>FLN8517A</b>	Battery Filter Board, Assembled
41	<b>HNN9628B</b>	Battery
42	<b>HLN9724A</b>	Standard Belt Clip
	or	
	<b>HLN8255B</b>	Spring Action Belt Clip

\* Not field repairable



## Portable Accessories

### Chargers

#### Single Unit Chargers – Intellicharge™ Rapid Rate

The single unit Intellicharger utilizes an enhanced charging algorithm that will help maximize the life of your batteries. It will rapid charge both NiCd and NiMH batteries in approximately 1 hour.

**HTN9042A** Intellicharge Rapid Rate Charger, 110V

**HTN9043A** Intellicharge Rapid Rate Charger, 220V

**HTN9044A** Intellicharge Rapid Rate Charger, UK Plug, 240V



HTN9042A

#### Single Unit Chargers Standard Rate

Single unit standard chargers can charge NiCd batteries in approximately 16 hours.

**HTN9702A** Single Unit Standard Charger, 110V



HTN9702A

**HTN9804A** Single Unit Standard Charger, European plug, 220V

**HTN9805A** Standard Charger, United Kingdom plug, 240V

### Chargers

#### Multi-Unit Chargers

Multi unit chargers can charge up to six batteries in approximately one hour and are available in a variety of voltages.

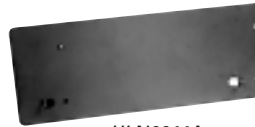
**HTN9748C** Multiple Unit, One Hour Rapid Charger, 110V (NiCd only)

**HTN9811C** Multiple Unit, One Hour Rapid Charger, European plug, 220V (NiCd only)

**HTN9812C** Multiple Unit, One Hour Rapid Charger, United Kingdom plug, 240V

**HTN9060A** Multiple Unit, 90 Minute Rapid Charger, 110V (NiCd and NiMH)

**HTN9061A** Multiple Unit, 90 Minute Rapid Charger, European Plug, 220V (NiCd and NiMH)



HLN9944A

**HLN9944A** Wall Mounting Bracket for multiple unit chargers

#### Travel Charger

**RLN4833A** Travel Charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.



RLN4833A

#### Travel Charger Mounting Bracket

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

## Portable Accessories

### Chargers

#### Travel Charger AC Transformer

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)

#### Vehicular Chargers

This vehicular charger is designed to easily charge your batteries in a vehicle by adapting a single unit, rapid rate charger to the cigarette lighter receptacle. This is ideal when a radio is often used in a vehicle

**HLN9719A** Vehicular Charger, One Hour, 12V

#### Vehicular Battery Eliminator

The battery eliminator saves useful battery life by drawing power from a vehicle's battery. Simply replace the portable battery with the battery eliminator and plug in the cigarette lighter adapter.

**HKN8036B** Vehicular Battery Eliminator



*HKN8036B*

### Motorola Conditioning Charger (MCC)

The MCC utilize negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified NiCd and NiMH batteries in approximately an hour. The MCC controls heat buildup due to its charging and termination algorithms and maintenance mode allows batteries to be safely left on the charger for extended periods of time. And now there is an Instant Fault Detection (IFD) feature which detects faulty radio batteries in seconds, which notifies the user that the battery will not operate at peak performance. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.

**WPLN4088CR** MCC Kit, 110V AC (includes base unit and 7V adapter)

**WPLN4089CR** MCC Kit, 220V AC (includes base unit and 7V adapter)

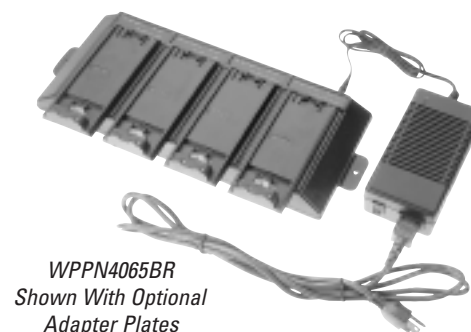
**WPPN4002BR** Base Charge Unit Only, 110V AC (order adapter plates separately)

**WPPN4006AR** Base Charge Unit Only, 220V AC (order adapter plates separately)

**WPPN4065BR** Four-Station Base, 110V (order adapter plates separately)



*WPPN4002BR  
Shown with  
Optional Cigarette  
Lighter Adapter*



*WPPN4065BR  
Shown With Optional  
Adapter Plates*

**WPPN4005CR** Adapter Only, 7V

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger

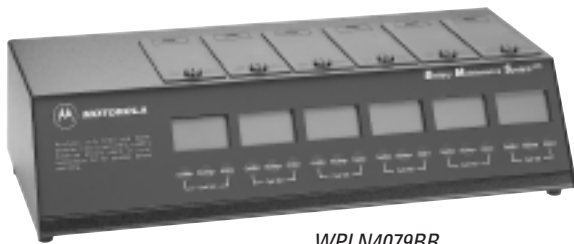
**3080384M21** DC Hard Wire Cable, for vehicular installation (included in RLN4814A)

## ***GTX/GTX LTR/GTX PrivacyPlus Series***

## ***Portable Accessories***

### ***Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)***

Increase the useful life of your batteries using interchangeable battery adapters (sold separately). The BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing on NiCd, NiMH, Li-ion batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



**WPLN4079BR**

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field Upgrade Kit for WPLN4079AR, WPLN4080AR and WPLN4081AR; allows these units to support Li-ion battery chemistries

**NDN4005B** Three-Station, 110V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

### ***BMS<sup>plus</sup> Adapter***

**TDN9437A** Adapter, for use with HNN9701A batteries

**TDN9662A** Adapter, for use with HNN9628A batteries

**TDN9438A** Adapter, for use with HNN8308A and HNN9808B batteries

### ***Battery Optimizing System II (BOS II)***



**WPLN4124AR**

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### ***BOS II Adapter***

**RL-71883** Standard Adapter

\* Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.



## Portable Accessories

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

#### Standard Belt Loop Carry Cases

**HLN9428A** DTMF Leather Carry Case with Belt Loop for use with Standard Battery

**HLN9429A** DTMF Leather Carry Case with Belt Loop for use with FM approved 1100 mAh Battery

**HLN9431A** DTMF Leather Carry Case with Belt Loop for use with FM approved 600 mAh Slim Battery



HLN9428A

#### High Activity Swivel Carry Cases

The following carry cases have a high activity swivel "D" button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high activity applications.

**HLN9421A** DTMF Leather Carry Case with high activity Swivel belt loop for use with standard battery

**HLN9426A** DTMF Leather Carry Case with high activity Swivel belt loop for use with FM approved 1100 mAh Battery

**HLN9427A** DTMF Leather Carry Case with high activity Swivel belt loop for use with FM approved 600 mAh Battery



HLN9421A

#### Carry Holder

**HLN9076B** Molded Carry Holder (high capacity battery)

**HLN8044A** Strap for Molded Carry Holder, snap

### Carrying Accessories

#### T-Straps

**HLN9975A** Strap for DTMF, snap

#### Belt Clips

**HLN9724A** Belt Clip, 2-1/2"

**HLN8255B** Spring action 3" Belt Clip

#### Belt

**4200865599** 1.75" wide leather belt for all models

#### Carrying Strap

**NTN5243A** Adjustable Black Carrying Strap attaches to "D" ring on case



NTN5243A

#### Swiveller

**TDN1002A** Swiveller, includes holster belt and strap

**TDN1003A** Spare Swiveller Button

**HLN9149AR** Swivel Belt Loop Adapter for use with HLN9421, HLN9426, HLN9427

## Portable Accessories

### Carrying Accessories

#### ChestPack

**HLN6602A** Universal Chest Pack with Radio Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A



RLN4570A

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack

### Carrying Accessories

#### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder is worn around waist with adjustable belt; includes attached 6" by 8" zippered pouch for other job necessities

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"



#### Waterproof Bag

**HLN9985B** Waterproof Bag; includes large carrying strap

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2-3/4"

**TDN9373A** Portable Radio Hanger for door panels up to 3-1/4"



TDN9327A

## Portable Accessories

### Audio Accessories

#### Remote Speaker Microphone (RSM)

The remote speaker microphone is a water-resistant compact unit that allows the user to talk and listen without removing the radio from the belt, case or charger. It has a coiled cord, push-to-talk switch and clothing clip on the back cover.

**\*HMN9030A** Remote Speaker/Microphone



HMN9030A

#### RSM Accessories

##### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord to back of microphone.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip



RLN4295A

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discreet communications.



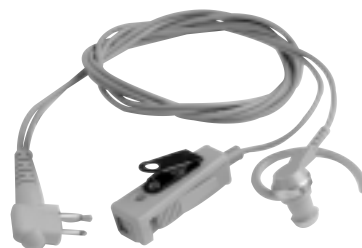
HMN9752B

**\*HMN9727B** Receive-only Surveillance Kit, Beige (1-Wire)

**RLN4894A** Receive-only Surveillance Kit, Black (1-Wire)

**\*HMN9752B** Receive-only Surveillance Kit with Volume Control, Beige (1-Wire)

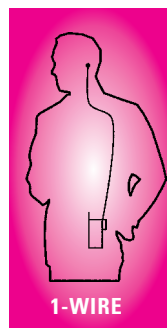
### Audio Accessories



HMN9754DR

**\*HMN9754D** Surveillance Kit with Microphone and Push-To-Talk Combined, Beige (2-Wire)

**RLN4895A** Surveillance Kit with Microphone and Push-To-Talk Combined, Black (2-Wire)



1-WIRE



2-WIRE

#### Replacement Items

**5080369E38** Standard Earpiece Assembly, includes earphone, earloop and eartip, Beige

**5080370E90** Standard Earpiece Assembly, includes earphone, earloop and eartip, Black

**5080369E39** Extra Loud Assembly, includes earphone, earloop and eartip, Beige

**5080370E91** Extra Loud Assembly, includes earphone, earloop and eartip, Black

**5080369E40** Plastic Urethane Earloop, Beige

**5080370E92** Plastic Urethane Earloop, Black

**5080371E69** Beige Small Rubber Eartip, Pack of 25

**5080371E71** Black Small Rubber Eartip, Pack of 25

**5080371E73** Beige Standard Rubber Eartip, Pack of 25

**5080371E75** Black Standard Rubber Eartip, Pack of 25

**5080377E06** Plastic Eartip Adapter

**5080386B90** Ear insert tips, Pack of 25

**RLN4919A** Ear wax guards, Pack of 5

\* Intrinsicly safe

## Portable Accessories

### Audio Accessories

#### Completely Discreet Earpiece

Remain discreetly in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discreet two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discreet communication.



RLN4922A

**RLN4922A** Earpiece Completely Discreet Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear Wax Guards, pack of 5

**RNN4005A** 1.4V Battery, pack of 6

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories to provide additional comfort and flexibility. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB of noise reduction

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments, does not provide hearing protection

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)



NTN8370A



NTN8371A

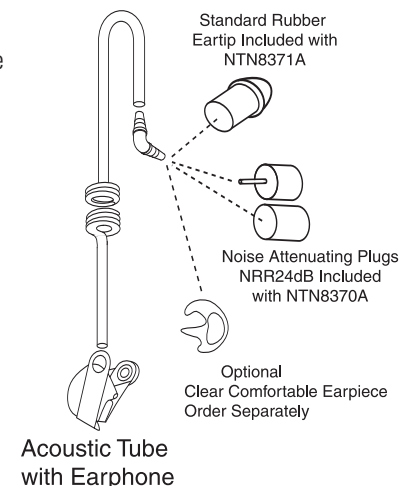
**5080371E73** Standard Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige

**5080371E75** Standard Rubber Eartips, Pack of 25 (for use with NTN8371A), Black

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. Does not provide hearing protection.

- There are 3 items needed to make this product work:
1. Clear Comfortable Earpiece
  2. Clear Acoustic Tube Assembly (NTN8371A)
  3. Surveillance Kits



## Portable Accessories, Antennas

### Audio Accessories



RLN4760A

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear



RLN4763A

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

### Flexible Ear Receiver

This receive only earpiece contains a flexible earloop and speaker which rests external to the ear.

**BDN6720A** Flexible Ear Receiver

**7580372E11** Replacement Foam Ear Cushion for BDN6720A

### Ultralight Headset

**\*RLN5411A** Lightweight, behind-the-head style design provides comfort and mobility. Includes flexible boom microphone and in-line Push-To-Talk button.



RLN5411A

### Lightweight Headset

Lightweight headsets allow for high clarity, hands free, discreet two-way communications while adding comfort necessary for extended wear in moderate noise environments.

**\*RMN4016A** Lightweight Single Speaker Headset with Swivel Boom Microphone for right or left ear operation and in-line PTT

**REX4648A** Replacement Foam Earpad and Windscreen for RMN4016A

### Miscellaneous Accessories

**RLN4943A** Universal Holder with Gooseneck Bracket; provides flexible mounting solutions for portable radios

**RLN4945A** Universal Holder with Gooseneck Bracket and Wheelchair Quick Release Assembly

**RLN4944A** Wheelchair Quick Release Bracket

**FLN8660A** Accessory Clamp; ensures secure connection for all your radio accessories



RLN4943A

### Portable Antennas

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**8505241U03**

Flexible Whip, 806-870MHz, 7"

**8505241U04**

Flexible Whip, 896-941MHz, 7"

#### Stubby Antenna

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive. This is a broad band antenna that can be used for both 800MHz and 900MHz applications.

**\*\*8505241U06**

Stubby, 806-941MHz, 4"



8505241U06

\* Intrinsically safe

\*\* 8505241U06 is a broad band antenna that operates in the 800/900MHz band



## Batteries

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN8133C**

Volts: 7.5

Avg. mAh: 1200

Height: 5.5"

Intrinsically Safe: Yes

Part Number: **HNN8308A**

Volts: 7.5

Avg. mAh: 600

Height: 5.5"

Intrinsically Safe: No

Slim: Yes

Part Number: **HNN9628B**

Volts: 7.5

Avg. mAh: 1200

Height: 5.5"

Intrinsically Safe: No



*HNN9628B*

### Portable Batteries

Part Number: **HNN9701A**

Volts: 7.5

Avg. mAh: 1100

Height: 5.5"

Intrinsically Safe: Yes

Part Number: **HNN9808B**

Volts: 7.5

Avg. mAh: 600

Height: 5.5"

Intrinsically Safe: Yes

Slim: Yes

#### Nickel-Cadmium Power

Part Number: **WPNN4044AR**

Volts: 7.5

Avg. mAh: 1000

Height: 5.5"

Intrinsically Safe: No



## Service Aids, Manuals

### Service Aids

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer.

**RLN4008E** Radio Interface Box



RLN4008E

#### Programming Cable

Connects radio interface box to radio for programming.

**HKN9857A** Programming/Test Cable



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

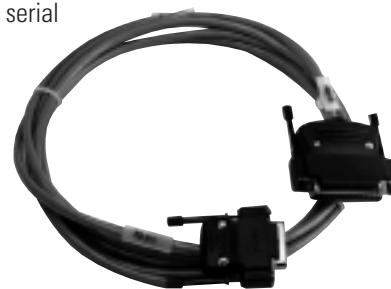
### Service Aids

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Programming Software

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables, order separately.

**RVN4150H** Programming Software, 3-1/2" diskette (includes manual and storage box)

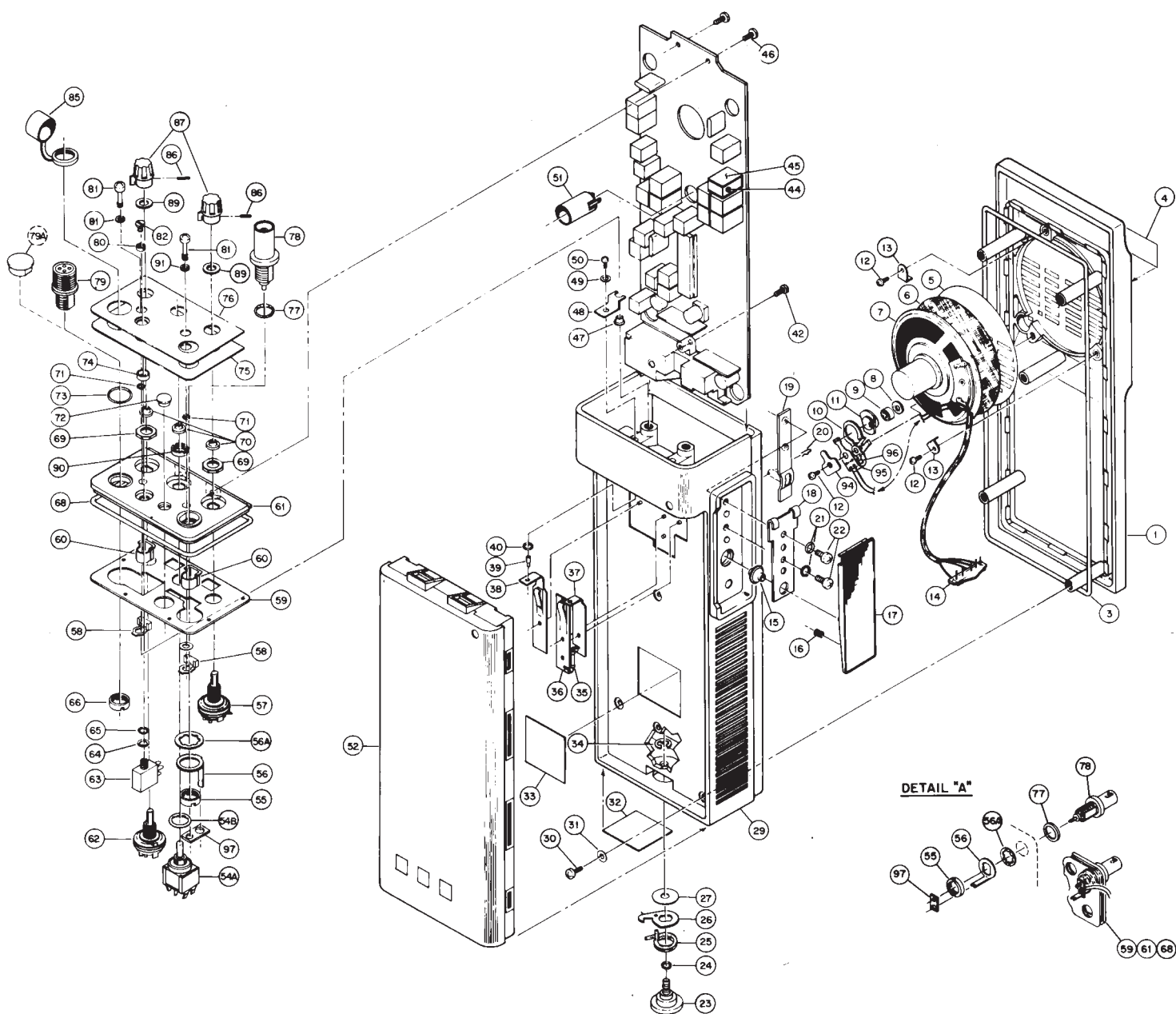
### Manuals

<b>6802946C80</b>	User Manual, 800 & 900 Privacy Plus
<b>6802945C75</b>	Service Manual, 800 Privacy Plus, LTR
<b>6802948C65</b>	User Manual, 800 & 900 LTR
<b>6802948C90</b>	Service Manual, 900 Privacy Plus, LTR
<b>6802948C70</b>	RSS Manual only

LTR is a registered trademark of EF Johnson Company

# HT90 Series

## Parts List



*Replacement parts may no longer be available*

# HT90 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>0105950G05</b>	Assembly, Front Cover; Standard
2	----	Not used
3	<b>3205472P09</b>	Gasket, Seal
4	<b>3305153J01</b>	Label, Nameplate
5	<b>1105932J01</b>	Adhesive, Felt
6	<b>3505152J01</b>	Felt, Speaker
7	<b>5005181E02</b>	Speaker, (LS401)
8	<b>7505182J01</b>	Pad, Microphone Boot
9	----	Microphone (MK401) P/O RPX4654A
10	----	Bracket, Microphone P/O RPX4654A
11	----	Boot, Microphone P/O RPX4654A
12	<b>0300138651</b>	Screw, Phillips: 2-56 x 5/32"
13	<b>4205670D01</b>	Clamp, Speaker
14	----	Connector (P401) P/O RPX4654A
15	<b>3205332K01</b>	Seal
16	<b>4182093A07</b>	Spring, Actuator; coiled
17	<b>4505177J01</b>	Actuator, Push-to-Talk
18	<b>0705175J01</b>	Bracket, Actuator
19	<b>4105176J01</b>	Spring, Actuator
20	<b>2205390M01</b>	Pin, Retainer
21	<b>3205082E13</b>	Gasket, "O" Ring
22	<b>0305466C02</b>	Screw, Special; 4-40 x 0.140"
23	<b>4605170J01</b>	Stud, Latch
24	<b>3205082E14</b>	Gasket, "O" Ring
25	<b>4105172J01</b>	Spring, Latch
26	<b>5505150L01</b>	Latch, Pawl
27	<b>0405171J01</b>	Washer, Teflon
28	----	Not used
29	----	Assembly, Housing; includes items 36, 37, 38, 39 & 40
	<b>0105954G94</b>	Standard
	or	
	<b>0105954G95</b>	Silverized
30	<b>0300120621</b>	Screw, Phillips; 4-40 x 1/4"
31	<b>0484345A06</b>	Washer, Seal
32	----	Label, FCC Identification, not field replaceable
33	----	Label, Frequency; not field replaceable
34	<b>4210219A25</b>	Retainer, E-Clip
35	<b>6505214E01</b>	Fuse (F501)
36	----	Contact, Strap
37	----	Contact, Positive
38	----	Contact, Negative
39	----	Bushing, Strap
40	----	Gasket, "O" Ring
		*Items 36, 37, 38, & 40 are not field replaceable; order applicable Housing Assembly (item 2).
41	----	Not used
42	<b>0305887J01</b>	Screw, Slotted; 4-40 x 3/16"
44	<b>0105953G48</b>	PTT Switch (S202)
45	<b>0705162J01</b>	Bracket, PTT Switch
46	<b>0305887J01</b>	Screw, Slotted; 4-40 x 3/16"
47	<b>4305936J01</b>	Bushing, Shoulder
48	<b>3905567L02</b>	Contact
49	<b>0400008406</b>	Lockwasher
50	<b>0300138651</b>	Screw, Phillips; 2-56 x 1/8"
51	<b>4305209J01</b>	Sleeve
52	----	Battery (see page 90)
53	----	Not used

REF. NO.	PART NO.	DESCRIPTION
54A	<b>4005120E03</b>	Switch, Frequency; Toggle (S201)
54B	<b>3205082E17</b>	Seal, "O" Ring
55	<b>0205050E05</b>	Nut, Spanner
56	<b>2905658K01</b>	Lug
56A	----	Lockwasher, Internal Tooth (p/o item 78)
57	<b>0105956H97</b>	Switch, Volume/On-Off (R202/S204)
58	<b>3905195J02</b>	Contact
59	----	Plate, Retainer
60	----	Bushing
61	----	Panel, Control
		**Items 59, 60, and 61 are not field repairable; order Assembly 0105956H87
62	<b>0105956H99</b>	Switch, PL/Squelch Control
63	<b>0105950G12</b>	Jack, Speaker (J02) (S203-R201)
64	<b>0405662K01</b>	Washer, Insulating
65	<b>3205082E15</b>	Seal, "O" Ring
66	<b>0205050E07</b>	Nut, Spanner
67	----	Not used
68	<b>3205082E38</b>	Seal, "O" Ring
69	<b>0205629L02</b>	Nut, Hex
70	<b>3205933J02</b>	Seal, Switch
71	<b>3205082E11</b>	Seal, "O" Ring
72	<b>3805216J02</b>	Plug, Seal
73	<b>3205082E12</b>	Seal, "O" Ring
74	<b>4305206J01</b>	Sleeve
75	<b>6405208J01</b>	Plate, Pressure
76		Escutcheon, Graphic; for Basic Carrier Squelch Models
	<b>1305181J01</b>	or
	<b>1305181J02</b>	Universal, Carrier Squelch Models
	or	
	<b>1305181J09</b>	Basic, PL Squelch Models
	or	
	<b>1305181J10</b>	Universal, PL Squelch Models
77	<b>3205082E28</b>	Seal, "O" Ring
78	<b>0900855268</b>	Connector, Antenna (J203) BNC
79	<b>RPX4630A</b>	Connector, Universal (J201)
79A	<b>3805216J01</b>	Plug, Seal (Basic Models)
80	<b>0205050E01</b>	Nut, Spanner
81	<b>0305662D17</b>	Screw, Captive
82	<b>0310129A24</b>	Screw, Slotted; Nylon
83	----	Not used
84	----	Not used
85	<b>3205217J01</b>	Seal, Cap
86	<b>0383174C02</b>	Screw, Set
87	<b>3605207J03</b>	Knob, Volume and Squelch
88	----	Not used
89	<b>0405171J02</b>	Washer, Nylon; Black
90	<b>0282653D07</b>	Nut, Spanner
91	<b>0400009777</b>	Lockwasher, No. 4
93	----	Not used
94	<b>1405135P01</b>	Insulator, Mic.
97	<b>8405878L02</b>	Circuit Board, Printed (see Detail "A")

**Cancelled Product HT90: Aftermarket support criteria has been met for spare parts. Items may no longer be available.**

## HT90 Series

## Portable Accessories

### Chargers

#### Single Unit Chargers

These units are capable of charging a battery in or out of the radio and automatically revert to a trickle charge rate when fully charged. The rapid charge battery must be used in a rapid charger to attain the 1 hour charge rate. Visual indication when the battery is fully charged is provided by the rapid charger.



NLN7493A

**NLN7493A** Compact Standard Charge 120V AC

**NLN7647A** Standard Charge, 240V AC

**NLN7648A** Rapid Charge, 240V AC

#### Multiple Unit Chargers

These 6 compartment units accommodating either radio or battery alone can be desk, wall, or rack mounted. A switch is provided for either 117V or 234V AC operation. Other features are similar to the single unit chargers.

For systems where cost and space are the overriding concerns, the compact single unit charger with plug-in transformer is the answer. This unit will charge the radio only at the standard 16 hour charge rate.



NLN7966B

**NLN7966B** Rapid Charge,  
120/240V AC

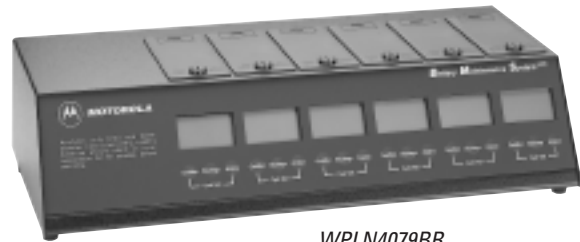


NLN7967A

**NLN7967A** Wall Mounting  
Kit, for 6 unit charger

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**NDN4005B** Three-Station, 110V AC, 50/60 Hz

**NDN4006B** Three-Station, 230V AC, 50/60 Hz

#### BMS<sup>plus</sup> Adapter

**TDN9440A** Standard Adapter, HT90

#### Optional Adapters

**\*\*TDN9432A** Adapter, Universal Alligator Clip Lead

**\*\*TDN9527A** Adapter, Universal Dip Switch

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

\*\*Universal adapters available as an option to accommodate all radio types.

## HT90 Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS Adapter

**RL-71163** Standard Adapter, HT90

### Optional Adapters

**RL-70115** Adapter, Universal; services Li-ion

**RL-70110** Adapter, Universal; service NiCd and NiMH

### Carrying Accessories



NLN7444A

### Carrying Cases

Carrying case accessories provide added protection for your radio while enhancing a quality appearance. T-strap not included.

**NLN7444A** Urethane Case, Standard

**NLN7693A** Urethane Case, swivel belt loop not included

### Carrying Strap

**NTN5243A** Carrying Strap



NTN5243A



4205297G03

### T-Strap

**4205297G03** Nylon T-Strap

### Belt

**4200865599** 2" Wide  
Leather Belt, for all models

### Swivel Belt Loop

**4282421J06** Leather, 2.5"



4200865599

## Portable Accessories

### Audio Accessories



**NSN6008A** Lapel Speaker

**NMN6095A** Speaker/Microphone with  
Coil Cord



**NMN6095A**



**RLN4295A**

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with clip style strap.

**RLN4295A** Epaulet Strap, Small Clip



**5083693B04**

**5083693B04** Earpiece with  
Volume Control

#### Mobile Microphone

**HMN1001B** Mobile Microphone



**HMN1001B**

### Audio Accessories

#### Headsets

All headset accessories include adapter cables and can be plugged directly into radio. No additional equipment is required.

Low to moderate noise level (less than 100 dB) lightweight headset with Electret condenser microphone and single speaker. *NOTE:* Cannot be worn with headgear.

**BDN6247A** In-line push-to-talk switch

**BDN6248A** Pendant-thumb push-to-talk switch



**BDN6247A**

High noise level headset (up to 115 dB) with military noise-cancelling microphone and dual speaker. *NOTE:* Can be used with or without hard hat or fire helmet.

**BDN6261A** Body/foot switch that can be belt mounted

#### Listen Only Headphones

For all portables and pagers provided with earphone jack. Headphones are equipped with a 40 inch cable terminated with micro plug.

**BDN6268A** Lightweight headphone with single speaker

**BDN6269A** Noise-attenuating headphone with dual speakers

**BDN6270A** Noise attenuating headphone with dual speaker for use with or without hard hat or fire helmet



**BDN6270A**



## HT90 Series

### Portable Accessories

#### Audio Accessories

##### Heavyduty Headsets

Heavyduty headsets include Noise-Cancelling Microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125 dB. The Push-To-Talk switch is located on the earcup. The Vox module is contained within the headset on voice activated units. Heavy-duty headsets require radio adapter cable.



BDN6645A

**BDN6645A** Push-To-Talk Headset with Boom Microphone, Requires Adapter Cable



BDN6635B

**BDN6635B** Voice-activated Headset with Boom Microphone, Requires Adapter Cable

#### Audio Accessories



BDN6636B

**BDN6636B** Voice-activated Headset with Throat Microphone, Requires Adapter Cable

**BDN6637A** Radio Adapter Cable

##### Helmet Kits

The following DO NOT include headgear.  
*NOTE:* All helmet and face mask kits require a radio cable assembly (order separately).

Industrial/Police helmet kits for Bullard (Industrial) headgear with military noise-cancelling microphone.

**BDN6275A** Single Speaker



BDN6275A

Helmet kit for Seer 1601, 1602 1/2 Shell (Police) headgear with military noise-cancelling microphone.

**BDN6277A** Single Speaker

## HT90 Series

## Portable Accessories, Antennas



### Audio Accessories

#### Cable Assemblies

**NOTE:** All helmet kits require one of the following cable assemblies:

**BDN6288A** Cable assembly for Industrial Radio helmet kit with pendant-thumb push-to-talk switch



BDN6288A

**BDN6292A** Cable assembly for Police Radio helmet kit with handlebar push-to-talk switch for belt mounted control box (only applies to BDN6291A)

#### Ear Mics

Single unit microphone and speaker worn in the ear. Eliminates the need for handheld microphones or conventional headsets. Compact, rugged design allows use under hearing protectors and protective clothing. Order cable separately.



RMN4001B

**RMN4001B** Ear Mic, EM200

**0180359A51** Optional PTT Ring Switch for RMN4001A only



0180359A51

**0180356B97** Optional PTT Ring Switch for RMN4001B only

### Portable Antennas

#### Heliflex

Each antenna is color coded on the connector indicating frequency.

**8505183K06** 136-142 MHz  
Dip Coated, Red

8505183K06

**8505183K07** 142-150 MHz  
Dip Coated, Yellow

**8505183K04** 150-162 MHz  
Dip Coated, Black

8505183K04

**8505183K05** 162-174 MHz  
Dip Coated, White

**8505183K01** 440-470 MHz  
Dip Coated, Black

**8505309N07** 470-512 MHz  
Dip Coated, White

**8505309N01** 136-150 MHz  
Injection Molded, Red

8505183K01

**8505309N02** 142-150 MHz  
Injection Molded, Yellow

**8505309N03** 150-156 MHz  
Injection Molded, Black

**8505309N08** 156-162 MHz  
Injection Molded, Orange

8505309N01

**8505309N04** 162-174 MHz  
Injection Molded, White

**8505309N05** 403-440 MHz  
Injection Molded, Yellow

**8505309N06** 440-470 MHz  
Injection Molded, Black

8505309N05

**8505309N07** 470-512 MHz  
Injection Molded, White

#### Flexible Whip-PVC Dip Coated

**8505182K01** 403-512 MHz

8505182K01

#### Flexible Whip-Molded

**NAE6340B** 403-512 MHz

## HT90 Series

## Batteries, Service Tools & Aids, Manuals



**MOTOROLA**  
intelligence everywhere™

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NLN7434A**  
Volts: 12.5  
Avg. mAh: 630  
Height: 6-3/16"  
Intrinsically Safe: Yes

Part Number: **NLN7435A**  
Volts: 12.5  
Avg. mAh: 630  
Height: 6-3/16"  
Intrinsically Safe: Yes



NLN7435A

### Service Tools

**6605607E01** Tuning Tool, Tunable Coils and Trimmer Caps



6605607E01

**6683006J01** Spline Wrench (0.06"), Fits Screws on Volume, Frequency, and Squelch Knobs



6683006J01

### Service Aids

#### Radio Test Cables

Used with RTX4005, Portable Radio Test Set, for transmitter, receiver alignment and performance checks.

**RTK4038B** Test Cable, Testing Done with Radio Front Cover Off

### Manuals

#### 136-174 MHz

**6881022C75**

Models H23/H33HMB/HMU 2W, 5W  
Service Manual

#### 406-512 MHz

**6881022C80**

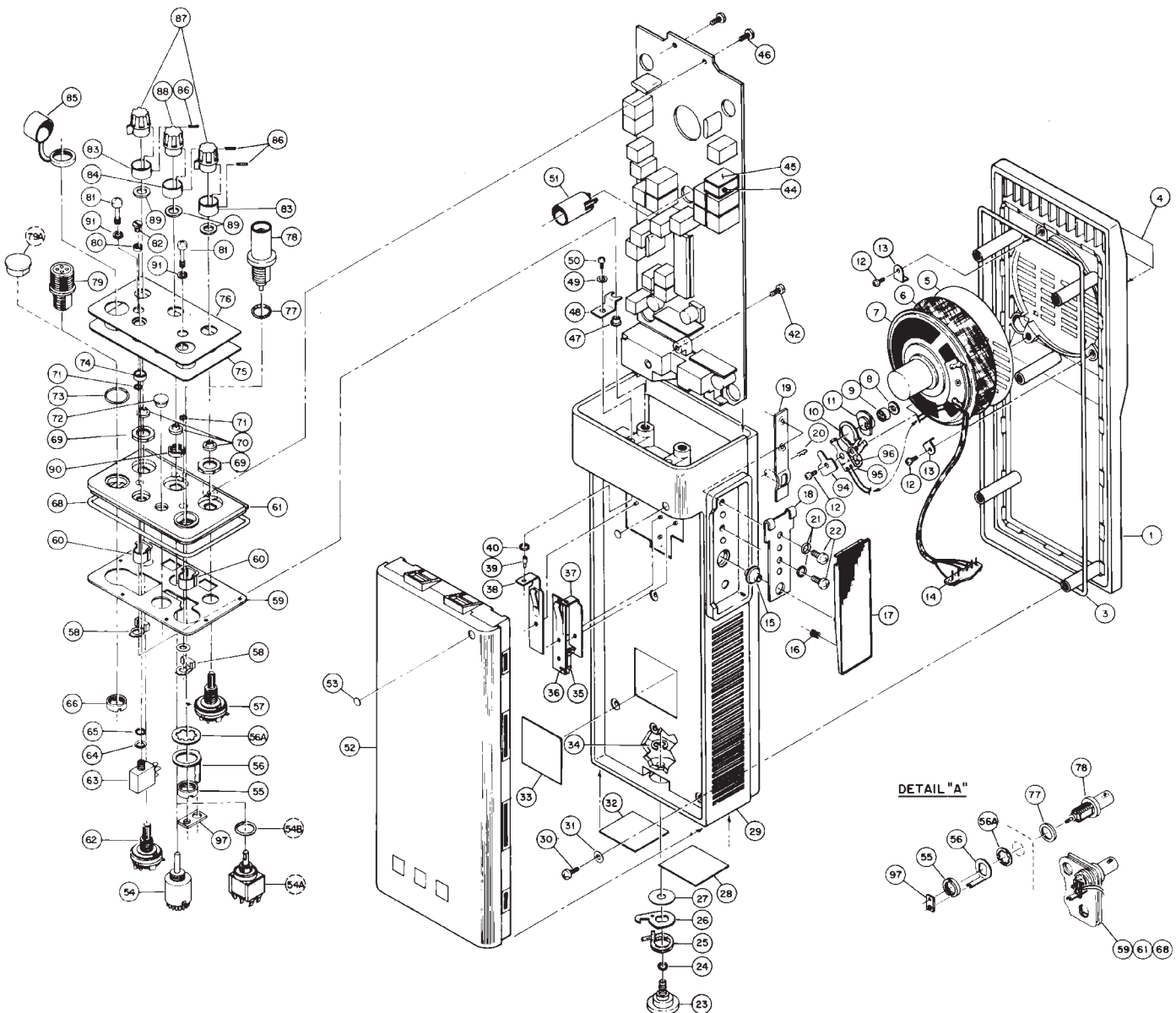
Models H24/H34HMB/HMU 1W, 4W  
Service Manual



<https://www.motorola.com/businessonline>

# HT440 Series

## Parts List



*Replacement parts may no longer be available*

# HT440 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>0105950G03</b>	Assembly, Front Cover; Standard
3	<b>3205082E10</b>	Gasket, Seal
4	<b>3305153J02</b>	Label, Nameplate
5	<b>1105932J01</b>	Adhesive, Felt
6	<b>3505152J01</b>	Felt, Speaker
7	<b>5005181E02</b>	Speaker (LS401)
8	<b>7505182J01</b>	Pad, Microphone Boot
9	----	Microphone (MK401) P/O RPX4654A
10	----	Bracket, Microphone P/O RPX4654A
11	----	Boot, Microphone P/O RPX4654A
12	<b>0300138651</b>	Screw, Phillips; 2-56 x 5/32"
13	<b>4205670D01</b>	Clamp, Speaker
14		Connector (P401) P/O RPX4654A
15	<b>3205332K01</b>	Seal
16	<b>4182093A07</b>	Spring, Actuator; coiled
17	<b>4505177J01</b>	Actuator, Push-to-Talk
18	<b>0705175J01</b>	Bracket, Actuator
19	<b>4105176J01</b>	Spring, Actuator
20	<b>2205390M01</b>	Pin, Retainer
21	<b>3205082E13</b>	Gasket, "O" Ring
22	<b>0305466C02</b>	Screw, Special; 4-40 x 0.140"
23	<b>4605170J01</b>	Stud, Latch
24	<b>3205082E14</b>	Gasket, "O" Ring
25	<b>4105172J01</b>	Spring, Latch
26	<b>5505150L01</b>	Latch, Pawl
27	<b>0405171J01</b>	Washer, Teflon
28	----	Label, Factory Mutual; not field replaceable
29	<b>0105950G08</b>	Assembly, Housing, includes
	or	items 36, 37, 38, 39 and 40 Standard
	<b>0105954G93</b>	Silverized
30	<b>0300120621</b>	Screw, Phillips; 4-40 x 1/4"
31	<b>0484345A06</b>	Washer, Seal
32	----	Label, FCC Identification;
		not field replaceable
33	----	Label, Frequency; not field replaceable
34	<b>4210219A25</b>	Retainer, E-Clip
35	<b>6505214E01</b>	Fuse (F501) Axial Lead 2 Amp
36	----	Contact, Strap
37	----	Contact, Positive
38	----	Contact, Negative
39	----	Bushing, Strap
40	----	Gasket "O" Ring
		*Items 36, 37, 38, 39 and 40 are not field
		repairable; order applicable Housing Assembly
		(item 29)
41	----	Not used
42	<b>0305887J01</b>	Screw, Slotted; 4-40 x 3/16"
44	<b>0105953G48</b>	PTT Switch (S202)
45	<b>0705162J01</b>	Bracket, PTT Switch
46	<b>0305887J01</b>	Screw, Slotted; 4-40 x 3/16"
47	<b>4305936J01</b>	Bushing, Shoulder
48	<b>3905567L02</b>	Contact
49	<b>0400008406</b>	Lockwasher
50	<b>0300138651</b>	Screw, Phillips; 2-56 x 1/8"
51	<b>4305209J01</b>	Sleeve
52	----	See Battery Section
53	----	Label, Intrinsically Safe Identification;
		not field replaceable
54	<b>4005119E01</b>	Switch, Frequency; Rotary (S201) 4 Freq. Models
54A	<b>4005120E03</b>	Switch, Frequency; Toggle (S201) 2 Freq. Models
54B	<b>3205082E17</b>	Seal, "O" Ring
55	<b>0205050E05</b>	Nut, Spanner
56	<b>2905196J01</b>	Lug
56A	----	Lockwasher, Internal Tooth (P/O item 78)

REF. NO.	PART NO.	DESCRIPTION
57	<b>0105956H97</b>	Switch, Volume/On-Off (R202/S204)
58	<b>3905195J02</b>	Contact
59	----	Plate, Retainer, see item 61
60	----	Bushing, see item 61
61	----	Panel, Control, see item 61
		**Items 59, 60 and 61 are not field
		repairable; order Assembly: 0105956H87
62	<b>0105956H99</b>	Switch, PL/Squelch Control (S203/R201)
63	<b>0105950G12</b>	Jack, Speaker (J202)
64	<b>0484345A06</b>	Washer, Insulating
65	<b>3205082E15</b>	Seal, "O" Ring
66	<b>0205050E07</b>	Nut, Spanner
68	<b>3205472P05</b>	Seal, "O" Ring
69	<b>0205629L02</b>	Nut, Hex
70	<b>3205933J02</b>	Seal, Switch
71	<b>3205082E11</b>	Seal, "O" Ring
72	<b>3805216J02</b>	Plug, Seal
73	<b>3205082E12</b>	Seal, "O" Ring
74	<b>4305206J01</b>	Sleeve
75	<b>6405208J01</b>	Plate, Pressure
76		Escutcheon, Graphic; for:
	<b>1305181J01</b>	Basic, 2-Freq., Carrier Squelch Models
	or	
	<b>1305181J02</b>	Universal, 2-Freq., Carrier Squelch Models
	or	
	<b>1305181J03</b>	Basic, 4-Freq., Carrier Squelch Models
	or	
	<b>1305181J04</b>	Universal, 4-Freq., Carrier Squelch Models
	or	
	<b>1305181J09</b>	Basic, 2-Freq., PL Squelch Models
	or	
	<b>1305181J10</b>	Universal, 2-Freq., PL Squelch Models
	or	
	<b>1305181J11</b>	Basic, 4-Freq., PL Squelch Models
	or	
	<b>1305181J12</b>	Universal, 4-Freq., PL Squelch Models
	or	
77	<b>3205082E28</b>	Seal, "O" Ring
78	<b>0900855268</b>	Connector, Antenna (J203)
79A	<b>3805216J01</b>	Plug, Seal (Basic Models)
80	<b>0205050E01</b>	Nut, Spanner
81	<b>0305662D17</b>	Screw, Captive
82	<b>0310129A24</b>	Screw, Slotted; Nylon
83	<b>1305106K02</b>	Bezel (located under volume and squelch knobs)
84	<b>1305106K03</b>	Bezel (located under frequency knob)
85	<b>3205217J01</b>	Seal, Cap
86	<b>0383174C04</b>	Screw, Set
87	<b>3605207J03</b>	Knob, Volume and Squelch
88	<b>3605207J02</b>	Knob, Frequency (4-Freq. Models only)
89	<b>0405171J02</b>	Washer, Nylon; Black
90	<b>0282653D05</b>	Nut, Spanner (used with 4-Freq. switch)
	or	
	<b>0282653D07</b>	Nut, Spanner (used with 2-Freq. switch)
91	<b>0400009777</b>	Lockwasher, #4
94	<b>1405135P01</b>	Insulator, Mic.
95	----	Mic., Flexible P.W.B. P/O 0105954J12
96	----	Capacitor (C401) P/O 0105954J12
97	<b>8405878L02</b>	Circuit Board, Printed (See Detail "A")

**Cancelled Product HT440: Aftermarket support criteria has been met for spare parts. Items may no longer be available.**

## HT440 Series

## Portable Accessories

### Chargers

#### Single Unit Chargers

These units are capable of charging a battery in or out of the radio and automatically revert to a trickle charge rate when fully charged. The rapid charge battery must be used in rapid charger to attain the 1 hour charge rate. Visual indication when the battery is fully charged is provided by the rapid charger.



NLN7493A

**NLN7493A** Compact Standard Charge, 120V AC

#### Multiple Unit Chargers

These 6 compartment units accommodating either radio or battery alone can be desk, wall, or rack mounted. A switch is provided for either 117V or 234V AC operation.



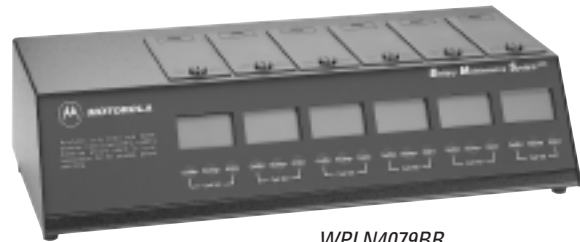
NLN7967A

**NLN7966B** Rapid Charge,  
120/240V AC

**NLN7967A** Wall Mounting Kit, for  
6-unit charger

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**NDN4005B** Three-Station, 110V AC, 50/60 Hz

**NDN4006B** Three-Station, 230V AC, 50/60 Hz

#### BMS<sup>plus</sup> Adapter

**TDN9440A** Standard Adapter, HT440

#### Optional Adapters

\*\* **TDN9432A** Adapter, Universal Alligator Clip Lead

\*\* **TDN9527A** Adapter, Universal Dip Switch

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

\*\*Universal adapters available as an option to accommodate all radio types.



## HT440 Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapter

**RL-71163** Standard Adapter, HT440

### Optional Adapters

**RL-70115** Adapter, Universal; services Li-ion

**RL-70110** Adapter, Universal; service NiCd and NiMH

### Carrying Accessories



NLN7444A

### Carrying Cases

Carrying case accessories provide added protection for your radio when enhancing a quality appearance. T-strap not included.

### Standard

**NLN7444A** Urethane Case

### Swivel

**NLN7693A** Urethane Case, swivel belt loop not included

### Carrying Strap

**NTN5243A** Carrying Strap



4205297G03



NTN5243A

### T-Strap

**4205297G03** Nylon T-Strap

### Belt

**4200865599** 2" Wide Leather Belt, for all models

### Swivel Belt Loop

**4282421J06** Leather, 2-1/2"



4200865599

## Portable Accessories

### Audio Accessories



NSN6008A

#### Lapel Speaker

**NSN6008A** Lapel Speaker

#### Remote Speaker/Microphone

**NMN6094A** Speaker/Microphone  
with Coil Cord



NMN6094A



RLN4295A

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with clip style strap.

**RLN4295A** Epaulet Strap, Small Clip



5083693B04

#### Earpiece

**5083693B04** Earpiece with  
Volume Control

#### Mobile Microphone

**HMN1001B** Mobile Microphone



HMN1001B

### Audio Accessories

#### Headsets

All headset accessories include adapter cables and can be plugged directly into radio. No additional equipment is required.

Low to moderate noise level (less than 100 dB) lightweight headset with Electret condenser microphone and single speaker. NOTE: Cannot be worn with headgear.

**BDN6247A** In-line push-to-talk switch

**BDN6248A** Pendant-thumb push-to-talk switch



BDN6247A

High noise level headset (up to 115dB) with military noise-cancelling microphone and dual speaker. NOTE: Can be used with or without hard hat or fire helmet.

**BDN6261A** Body/foot switch that can be belt mounted



BDN6270A

#### Listen Only Headphones

For all portables and pagers provided with earphone jack. Headphones are equipped with a 40 inch cable terminated with micro plug.

**BDN6268A** Lightweight headphone with single speaker

**BDN6269A** Noise-attenuating headphone with dual speakers

**BDN6270A** Noise attenuating headphone with dual speaker for use with or without hard hat or fire helmet

## HT440 Series

## Portable Accessories

### Audio Accessories

#### Heavyduty Headsets

Heavyduty headsets include Noise-Cancelling Microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125dB. The Push-To-Talk switch is located on the earcup. The Vox module is contained within the headset on voice activated units. Heavy-duty headsets require radio adapter cable.



BDN6645A

**BDN6645A** Push-To-Talk Headset with Boom Microphone, Requires Adapter Cable



BDN6635B

**BDN6635B** Voice-activated Headset with Boom Microphone, Requires Adapter Cable



BDN6636B

**BDN6636B** Voice-activated Headset with Throat Microphone, Requires Adapter Cable

**BDN6637A**  
Radio Adapter Cable

### Audio Accessories

#### Helmet Kits

The following DO NOT include headgear.  
NOTE: All helmet and face mask kits require a radio cable assembly (order separately).



BDN6275A

Industrial/Police helmet kits for Bullard (Industrial) headgear with military noise-cancelling microphone.

**BDN6275A** Single Speaker

Helmet kit for Seer 1601, 1602 1/2 Shell (Police) headgear with military noise-cancelling microphone.

**BDN6277A** Single Speaker

#### Cable Assemblies

NOTE: All helmet kits require one of the following cable assemblies:



BDN6288A

**BDN6288A** Cable assembly for Industrial Radio helmet kit with pendant-thumb push-to-talk switch

**BDN6292A** Cable assembly for Police Radio helmet kit with handlebar push-to-talk switch for belt mounted control box (only applies to BDN6291A)

## HT440 Series

## Portable Accessories, Antennas

### Audio Accessories

#### Ear Mics

Single unit microphone and speaker worn in the ear. Eliminates the need for handheld microphones or conventional headsets. Compact, rugged design allows use under hearing protectors and protective clothing. Order cable separately.



**RMN4001B** Ear Mic, EM200



**0180359A51** Optional PTT Ring Switch for RMN4001A only

0180359A51

Cost effective alternative to the EM200, the EM150 operates the same but includes hardwired interface cable. (PTT ring switch is not compatible with this unit)

**RMN4007A** Ear Mic, EM150



RMN4007A

### Portable Antennas

#### Heliflex

Rugged and flexible each antenna is tested and tuned to give you maximum power and performance. Each antenna is color coded on the connector indicating frequency.

**8505183K06** 136-142 MHz  
Dip Coated, Red

**8505183K07** 142-150 MHz  
Dip Coated, Yellow

**8505183K04** 150-162 MHz  
Dip Coated, Black

**8505183K05** 162-174 MHz  
Dip Coated, White

**8505183K01** 440-470 MHz  
Dip Coated, Black

**8505309N07** 470-512 MHz  
Dip Coated, White

**8505309N01** 136-150 MHz  
Injection Molded, Red

**8505309N02** 142-150 MHz  
Injection Molded, Yellow

**8505309N03** 150-156 MHz  
Injection Molded, Black

**8505309N08** 156-162 MHz  
Injection Molded, Orange

**8505309N04** 162-174 MHz  
Injection Molded, White

**8505309N05** 403-440 MHz  
Injection Molded, Yellow

**8505309N06** 440-470 MHz  
Injection Molded, Black

**8505309N07** 470-512 MHz  
Injection Molded, White

#### Flexible Whip-PVC Dip Coated

**8505182K01** 403-512 MHz

#### Flexible Whip-Molded

**NAE6340B** 403-512 MHz

8505183K06

8505183K04

8505183K01

8505309N01

8505309N05

8505182K01

## HT440 Series



**MOTOROLA**  
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## Batteries, Service Tools

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NLN7694A**

Volts: 12.5

Avg. mAh: 630

Height: 6-3/16"

Intrinsically Safe: No

Part Number: **NLN7640A**

Volts: 12.5

Avg. mAh: 630

Height: 6-3/16"

Intrinsically Safe: Yes



NLN7694A

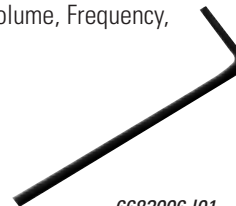
### Service Tools

**6605607E01** Tuning Tool, Tunable Coils and Trimmer Caps



6605607E01

**6683006J01** Bristol Tool, For Screws on Volume, Frequency, and Squelch Knobs

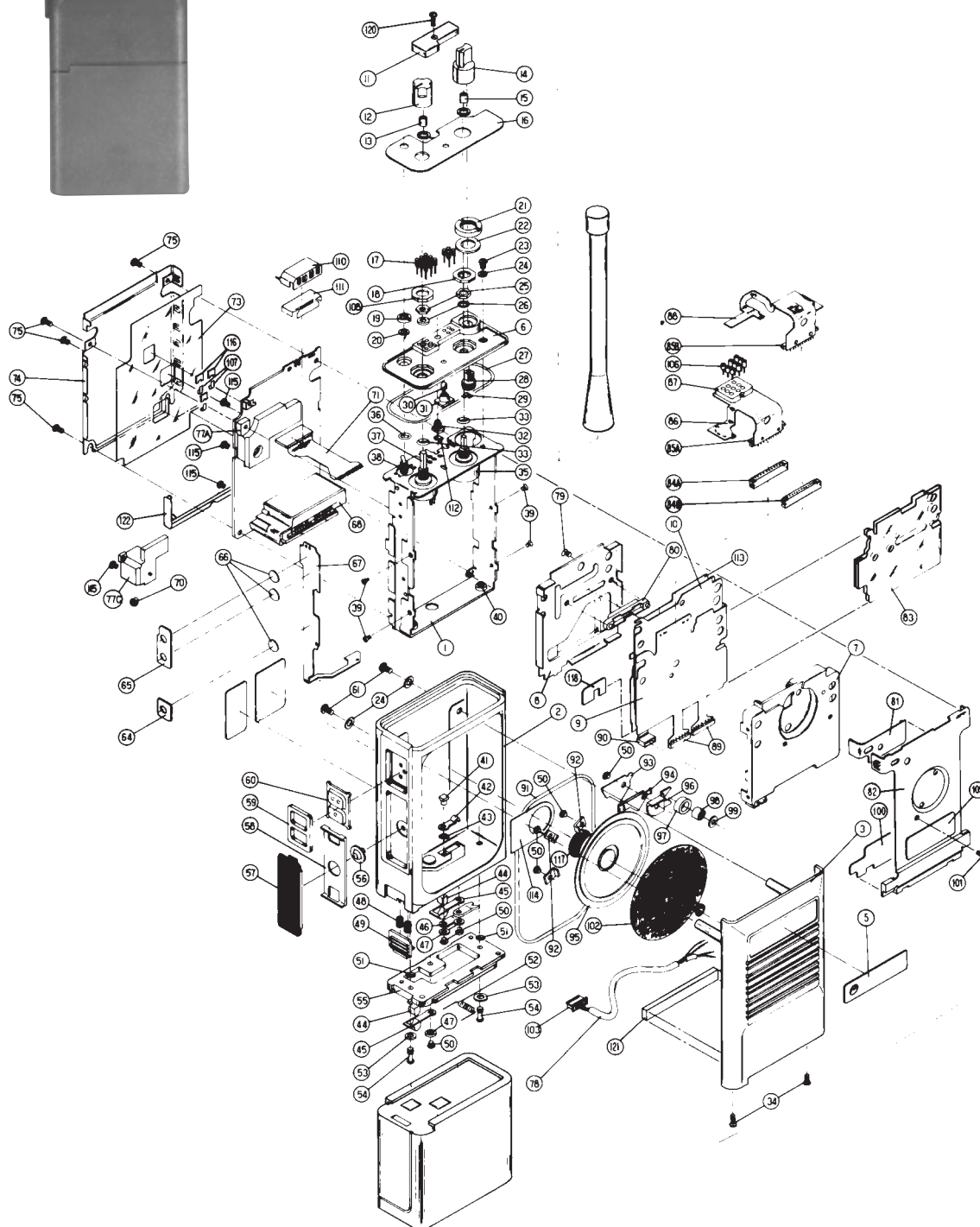


6683006J01



## HT600 Series

### Parts List





# HT600 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	0105956M63	Assembly, Frame; includes: *Item 1 Frame *Item 40	34	0300132342	Screw, Phillips; 2-56 x 1/4"	84A	See Note	*Jack (J2), part of item 9
2	0105955N18	Assembly, Housing; includes: *Item 2 Housing *Items 56, 58, 59, and 60	35	4005148Q05	Switch, Frequency (S2)	84B	See Note	*Jack (J1), part of item 9
3	1505527P01	Cover, Front	36	3205141Q03	Gasket, "O" Ring	85A	See Note	*Jack (P2), part of item 86
5	3305543P01	Nameplate, Front	37	1805100Q04	Switch/Pot, On-Off/Volume (S1/R140)	85B	See Note	*Jack (P1), part of item 88
6	0105951N41	Assembly, Top Control Panel; includes: *Item 6 Panel *Items 17, 28, 29, and 32	38	4005101Q01	Switch, PL (S3)	86	----	Assembly, Volume Pot Flex; includes: *Item 86 Volume Pot Flex *Items 85A and 106
7	----	Carrier, Flex Top	39	0300140369	Screw, Flat Hd.; 2-56 x 1/8"	88	0105956M68	Assembly, Frequency Switch Flex; includes: *Item 88 Frequency Switch Flex *Item 85B
8	----	Shield, Bottom	40	See Note	*Insert, Frame; part of item 1	89A	See Note	*Jack (J3), part of item 9
9	----	Assembly, Controller Flex; includes: *Item 9 Controller Flex *Items 10, 80, 84, 89, and 90 (The Controller Flex Assembly also includes electrical parts. See Note)	41	4605945K05	Contact Stud, Battery	89B	See Note	*Jack (J4), part of item 9
10	See Note	*Shield, Center; part of item 9	42	3905127Q01	Contact, B+	90	See Note	*Jack (J5), part of item 9
11	0102706J99	Cover, Dust	43	3205082E24	Gasket, "O" Ring	91	3205141Q01	Gasket, "O" Ring
12	0105951N79	Assembly, Knob; includes: *Item 12 Knob *Item 13	44	0705830C02	Support, Contact	92	4205140Q01	Clamp, Speaker
13	4205123Q02	Clip, Push; part of item 12	45	3905421C13	Contact, Battery	93	1405135P01	Insulator, Microphone
14	0105950N92	Assembly, Knob; includes: *Item 14 Knob *Item 15	46	2905124Q01	Lug	94	See Note	*Flex, Microphone; part of item 98
15	See Note	*Clip, Push; part of item 14	47	0400002625	Lockwasher, Split #2	95	5005155Q03	Speaker (LS1)
16	1305676R01	Escutcheon (2-Freq. Radios)	48	4105944K01	Spring, Battery Latch	96	4205139Q01	Retainer, Microphone
	or		49	5505536P01	Latch	97	See Note	*Boot, Microphone; part of item 98
17	1305676R02	Escutcheon (6-Freq. Radios)	50	0300139444	Screw, Phillips Hd.; 2-56 x 5/32"	98	0105956M62	Assembly, Microphone; includes: *Item 98 Microphone *Items 78, 94, 97, 98, and 103
		*Pin, Contact (P7); (not field replaceable, order top control panel assembly 0105951N41)	51	3205082E03	Gasket, "O" Ring	99	----	Pad, Microphone Boot
18	0405218Q01	Washer	52	6505214E05	Fuse (F1)	101	0300138620	Screw, Flat Phillips Hd.; 2-56 x 7/16"
19	0205163Q01	Nut, Spanner	53	0400009761	Lockwasher, Split #4	102	3505143Q04	Felt, Speaker
20	0405162Q01	Washer, Flat	54	0305941K01	Screw	103	See Note	*Plug (P5), part of item 98
21	0205765L02	Nut, Spanner	55	6405531P02	Plate, Base	105	----	Not used
22	0405216L04	Washer, Flat	56	3805236Q01	*Actuator, PTT part of item 2	106	See Note	*Sockets (J7), part of item 86
23	0300136785	Screw, Phillips Hd., 4-40 x 3/16"	57	4505535P01	Lever, PTT	107	3905509R02	Contact, 3 req'd
24	0484345A06	Washer, Seal	58	4205534P01	*Retainer, PTT part of item 2	108	0405534R01	Washer, Flat
25	0205629L02	Nut, Hex; 2 req'd	59	6405186Q01	*Plate, Actuator Button; part of item 2	109	5402446J01	Label, Instruction
26	0405162Q02	Washer, Flat; 2 req'd	60	3805187Q01	*Button, Actuator; part of item 2	110	----	Shield, I-F
27	3205141Q02	Gasket, "O" Ring	61	0305137Q04	Screw, Phillips; 4-40 x 1/2"	111	1405496R01	Insulator, I-F Shield
28	See Note	*Bushing, Antenna; part of item 6	64	See Note	*Seal, Dome (PTT); part of item 67	112	3905130N01	Contact Strip
29	See Note	*Lug, Antenna; part of item 6	65	See Note	*Seal, Dome, (Mon); part of item 67	113	2605573S01	Shield
30	4805729G24	LED, Bicolor (CR413A/CR413B)	66	See Note	*Contact, Snap Dome; part of item 67	114	1405299Q01	Insulator, Speaker
31	3205131S01	Seal, LED	67	0105951N40	Assembly, B+ PTT Flex; includes: *Item 67 Flex *Items 64, 65, and 66	115	0300136771	Screw, Phillips; 2-56 x 3/16"
32	----	Stud, Insert; part of item 6	68	----	Housing, VCO	117	7505501R02	Pad, Speaker
33	3205082E01	Gasket, "O" Ring	70	----	Screw, Flat - not available	118	2605762R01	Shield, Controller Flex
			74	2605775R02	Shield, Main Back	120	0305103S01	Screw, Captive
			75	0300136783	Screw, Phillips Hd.; 2-56 x 5/16"	121	7505501R03	Pad, Front Cover
			76	----	Not used	122	2605123S01	Shield, Back
			77B	----	Not used			
			77C	2605578P02	Heatsink (Low Power Models)			
			78	See Note	*Tubing, Heat Shrink; part of item 98			
			79	0300138620	Screw, Phillips; 2-56 x 5/16"			
			80	See Note	*Header, part of item 9			
			81	1405753R01	Insulator, Front Shield			
			82	2605711R03	Shield Front			
			83	----	Insulator, Flex			

\*111NOTE: Not field replaceable, order parent Assembly.

**Cancelled Product HT600:**  
**Aftermarket support criteria has been met for spare parts. Items may no longer be available.**

## HT600 Series

## Portable Accessories

### Chargers

#### Rapid/Regular Rate Desktop Chargers

A variety of chargers are available to fit the charging capabilities of your batteries. Choose rapid or regular rate, single unit chargers. The rapid chargers are equipped with red and green lights to indicate rapid charging or charge complete. All desktop units will accept any of the three battery sizes, with or without radio attached.



NTN4633C

**NTN4636A** Desktop, Regular Charge Rate, 220V, 50-60 Hz, (supplied with 2 prong plug)

**NTN4633C** Desktop, Rapid Charge Rate, 117V

**NTN4634B** Desktop, Rapid Charge Rate, 220V, 50-60 Hz, (supplied with 2 prong plug)

#### Compact Chargers

The compact charger provides a 16 hour charge rate. The charger's small size and weight make it ideal for users who occasionally charge their radio at home.

**NTN4666B** Compact, Regular Charge Rate, 117V

**NTN4667A** Compact, Regular Charge Rate, 220V, 50-60 Hz, (supplied with 2 prong plug)

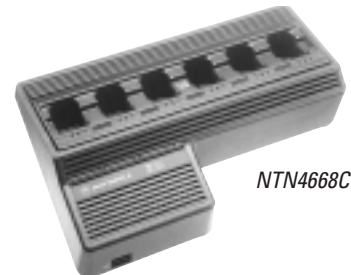


NTN4666B

### Chargers

#### Multi-Unit Chargers

**NTN4668C** Multi-Unit Desktop, Rapid Rate, 117V AC, 50-60 Hz



NTN4668C



NLN7967A

**NLN7967A** Wall Mount for 6 Unit Charger

#### Vehicular Chargers

**\*NTN5438A** 12V DC, Vehicular Charger (16 hour charge rate) PAC-RT compatible

**NKN6428A** 12V Cable Kit. (Only required if not used with a PAC-RT/mobile system)

**NTN5368A** RF Adapter (Utilizes universal connector, incompatible with audio accessories)



NTN5368A

**NKN6408A** RF Cable Kit (Does not include antenna)



NKN6408A

*\*Not compatible with Kits NKN6149A, NKN6150A and NKN6151A.*

## HT600 Series

### Portable Accessories

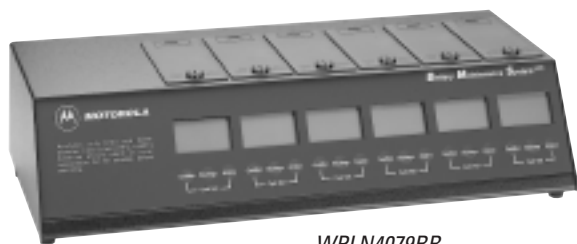
#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

#### **BMS<sup>plus</sup> Adapter**

**TDN9441A** Standard Adapter, HT600

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter**

**RL-71173** Standard Adapter, HT600

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.



## HT600 Series

## Portable Accessories

### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.



WPPN4009AR

**WPPN4009BR** 110V AC  
Base Charge Unit with  
Adapter Plate

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Mounting Bracket for Motorola  
Conditioning Chargers

### MCC Multi-Unit Conditioning Chargers

**WPPN4074BR** Four-station, 110V with permanent adapter plates

**WPPN4075BR** Four-station, 220V with permanent adapter plates

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are made of top quality leather and are available in sizes designed to fit your radio and battery. Cases are available with standard belt loop or swivel back covers, with a restraining T-strap.



NTN5460B

#### Standard

**NTN5460B** Leather Carry Case with  
T-Strap and Spacer, for High or Medium  
Capacity Battery (Snap)

#### Swivel

**NTN5461B** Leather Carry Case with T-Strap, Spacer and  
2-1/2" Belt Loop, for High or Medium Capacity Battery (Snap)

**NTN5883A** Leather Carry Case with T-strap, Spacer, and Belt Loop,  
for High or Medium Capacity Battery (Snap), fits 3" Belt

**NTN5450B** Leather DTMF Swivel Carry Case, Long (Snap),  
fits 2-1/4" Belt

**NTN5884A** Leather DTMF Carry Case, Long (Snap), fits 3" Belt

## HT600 Series

## Portable Accessories

### Carrying Accessories

#### Belt Loops

4282421J06 Swivel Belt Loop, 2-1/2"

4205857B01 Swivel Belt Loop, 2"



NTN4813B

#### Belt Clip

NTN4813B Belt Clip, 1-1/2"

NTN5389B Belt Clip, 2-1/4"

NTN5602A Public Safety Full 3" Clip,  
Black Aluminum



4282421J06

#### Belt Clip Carry Holder

NTN4814C Belt Clip Carry Holder,  
fits 2-1/4" Belt

NTN5827A Belt Clip Carry Holder,  
fits 3" Belt



NTN4814C

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

TDN9327A Portable Radio Hanger, for  
Door Panels up to 2-3/4"

TDN9373A Portable Radio Hanger, for  
Door Panels 2-3/4" to 3-1/4"



TDN9327A

### Carrying Accessories



NTN5243A

#### Carrying Strap

NTN5243A Carrying Strap, Black

#### Belt

4200865599 1-3/4" Wide Leather  
Belt, for all models



4200865599



4205386S01

#### T-Straps

4205386S03 T-strap, Nylon for Leather  
Carrying Cases (Snap)

4205386S01 T-Strap, Nylon for Leather  
Carrying Cases (Velcro)

4205447R03 T-Strap, Urethane, for Carry  
Holder (Snap)



4205447R03

#### Spacer

Enables light capacity battery to fit in a small case and medium capacity battery to fit in a medium case. Spacer is included in every carry case.

4305525R02 Spacer (spare)

#### Button Back Cover

NTN5497A T-Bar Button Back Cover Kit,  
Black (order swivel belt loop separately)



NTN5497A

## HT600 Series

## Portable Accessories

### Carrying Accessories

#### Universal Carry Accessories

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt.

Includes attached 6" by 8" zippered pouch for other job necessities

**RLN4570A** Break-A-Way Chest Pack; all of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"



HLN6602A

### Audio Accessories

**NTN5050A** UHF Public Safety Speaker Microphone with velcro back and straight cord (order antenna and velcro patch separately)

#### Antennas for Public Safety Microphones

**8505309N09** .....400-440 MHz

**8505309N10** .....440-470 MHz

**8505309N11** .....470-512 MHz



**NLN8410A** Velcro pin attachment

NLN8410A

#### Ear Piece

**5083693B01** Earphone and volume control (requires NTN4812B)

**5083693B04** Earpiece and Volume Control (2.5 mm)

**5880378B84** 2.5 to 3.5 Jack Adapter

**5880380B35** 3.5 to 2.5 Jack Adapter

**NTN4812B** Earphone Jack Adapter

### Audio Accessories

#### Remote Speaker Microphone

This speaker microphone provides remote talk and listen capability. By attaching the microphone to the universal connector, you can use the remote speaker microphone to transmit or receive while the radio remains comfortably on the belt in the case.



NMN6156B

**NMN6145B** Remote Speaker Microphone with Clip, Coil Cord and 2.5 mm Earphone Jack

**NMN6156B** Remote Speaker/ Microphone with Clip and Coil Cord

**NTN5493A** UHF Public Safety Remote Speaker Microphone with Clip Back and Straight Cord (Order required antenna separately)



BDN6717B

#### Flexible Ear Receiver

**BDN6717B** Ear receiver with 3.5 mm plug rests on the outside of the ear, to be used with adapter NTN4812

#### Surveillance

**ZMN6031A** Three wire surveillance accessory with microphone and push-to-talk separate. Factory Mutual Approved. Requires NTN5075B

**ZMN6032A** Two wire surveillance accessory with microphone and push-to-talk combined. Factory Mutual Approved. Requires NTN5075B

**NTN5075B** Hirose Adapter for Two- and Three-Wire Surveillance Accessories.



ZMN6031A



## HT600 Series

## Portable Accessories

### Audio Accessories



RLN4294A



RLN4295A

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with Velcro or clip style strap.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip

#### Ear Mics

Single unit microphone and speaker worn in the ear. Eliminates the need for handheld microphones or conventional headsets. Compact, rugged design allows use under hearing protectors and protective clothing. Order cable separately.

**RMN4001B** Ear Mike, EM200



RMN4001B

**0180359A39** Interface Cable for HT600

**0180359A51** Optional PTT Ring Switch for RMN4001A only

**0180356B97** Optional PTT Ring Switch for RMN4001B Only



0180359A51

### Audio Accessories

#### Ear Microphone System

This compact unit picks up the voice through bone vibrations in the ear canal. Ideal for use in high noise environments. Available in PTT or Voice activated (VOX) capabilities for total hands free communications. Order Interface Module separately.



BDN6677A

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95 dB), Black

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95 dB), Beige

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105 dB), Grey



BDN6657B  
(shown with BDN6677A)

#### Interface Modules

**\*BDN6656B** Push-To-Talk Interface Module

**\*BDN6657B** Voice-Activated Interface Module

#### Optional Accessories

**0180300E25** Earguard with Adjustable Loop

**\*0180358B38** Remote Push-To-Talk Ring Switch



0180358B38

**0180358B32** Earholder, Black, Size Small; Secures microphone in ear



0180358B33

**0180358B33** Earholder, Black, Size Medium; Secures microphone in ear

**0180358B34** Earholder, Black, Size Large; Secures microphone in ear

**0180358B35** Earholder, Clear, Size Small; Secures microphone in ear

**0180358B36** Earholder, Clear, Size Medium; Secures microphone in ear

**0180358B37** Earholder, Clear, Size Large; Secures microphone in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

\* Intrinsicly safe

## HT600 Series

## Portable Accessories

### Audio Accessories

#### Headsets

High noise level headset (up to 125 dB) with noise cancelling microphone and push-to-talk switch located on ear cup. Vox module contained within headset on voice activated units. Factory Mutual Approved. NOTE: Can be worn with or without hard hat or fire helmet.



BDN6645A

**BDN6639A** Radio Adapter Cable for BDN6635, BDN6636 and BDN6645

**BDN6645A** Push-To-Talk Headset with Boom Microphone, Requires Adapter Cable.

**BDN6635B** Voice-Activated Headset with Boom Microphone, Requires Adapter Cable, Includes 110V Charger

**BDN6636B** Voice-Activated Headset with Throat Microphone, Requires Adapter Cable, Includes 110V Charger

**RMN4015A** Lightweight Headset with Swivel Boom Microphone, single speaker and in-line PTT



BDN6636B

**0180357B05** Spare Vox Headset Charger

**6881126E79** Instruction Manual for BDN6645A

**6881126E78** Instruction Manual for BDN6635B and BDN6636B

### Audio Accessories

#### Vehicular Adapter Accessories

The Basic MVA console kits may be ordered separately. These items allow use of the portable radio in a mobile application. Order antenna separately.



NSN6054A

**NSN6054A** 12-watt External Speaker

**HMN1035C** Microphone, Heavy-Duty Palm

**HMN1056D** Microphone, Compact Palm

**HMN3013A** Microphone, DTMF



HMN1056D

## HT600 Series



**MOTOROLA**  
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## Antennas, Batteries

### Portable Antennas

#### Heliflex Antenna

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

##### 8505816K01

Heliflex Molded, 136-150.8 MHz, 6.5"

##### 8505816K21

Heliflex Molded, 150.8-162 MHz, 6"

##### 8505816K23

Heliflex Molded, 162-174 MHz, 6"

##### 8505816K24

Heliflex Molded, 403-433 MHz, 3"

##### 8505816K25

Heliflex Molded, 440-470 MHz, 3"

##### 8505816K26

Heliflex Molded, 470-512 MHz, 3"

8505816K23

8505816K26

#### Flexible Whip

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### 8505247K06

Flexible Whip, 403-512 MHz, 5.5"

8505247K06

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN4564B**

Volts: 10

Avg. mAh: 550

Height: 2-7/16"

Intrinsically Safe: Yes



NTN4564B

Part Number: **NTN4584BR**

Volts: 10

Avg. mAh: 630

Height: 2-7/16"

Intrinsically Safe: No

Part Number: **NTN5414BR**

Volts: 10

Avg. mAh: 1100

Height: 3-5/16"

Intrinsically Safe: No



NTN5414BR

Part Number: **NTN5415B**

Volts: 10

Avg. mAh: 1000

Height: 3-5/16"

Intrinsically Safe: Yes

#### Nickel Metal Hydride Premium

Part Number: **NTN7016A**

Volts: 10

Avg. mAh: 950

Height: 2-7/16"

Intrinsically Safe: No



NTN7016A



<https://www.motorola.com/businessonline>

## HT600 Series

## Service Tools, Aids

### Alignment Tool

**6605106N01** Tuning Tool, Adjusts Tunable Coils, Preselector, Reference Oscillator Frequency and Trimmer Capacitors



6605106N01

### Service Tools



RSX4043A

6680371B34

6680321B86

**RSX4043A** Torque Screwdriver, Order Bits Separately

**6680321B86** #0 Phillips Bit for Radio Screws

**6680321B79** #1 Phillips Power Bit for Radio Screws

**6680370B95** Spanner Tool Bit for Toggle Switch Nut

**6680371B34** Spanner Bit for Antenna Bushing

**6680371B03** Nut Driver Bit for Volume Control and Frequency Select Switch

### Service Aids

#### Battery Eliminator

The Battery Eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.

**RTL4226B** Battery Eliminator



RTL4226B

### Service Aids

#### Battery Adapter

Replaces radio housing during servicing and provides easy mounting for battery eliminator, RTL4226B.

**1580368B62** Battery Adapter



1580368B62

#### Cloning Cable

Enables the frequencies, squelch codes, squelch and deviation settings to be duplicated from one radio to another. Only identical models and sub-models are compatible for cloning.



NKN6376A

**NKN6376A**  
Cloning Cable

#### Antenna Adapters

**NTN5368A** Adapter for HT600

**NKN6408A** Cable Adapter for HT600



RTK4205C

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RTK4205C**

Test and Programming Cable

## HT600 Series

## Service Aids, Manuals

### Service Aids

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and a 9 volt snap type battery (6082728J01), order separately.



RLN4008E

**RLN4008E** Radio Interface Box

#### Computer Interface Cable

Used to connect computer's serial adapter to radio interface box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71



REN4000A

#### Controller Flex Extender

Allows access to all electrical points on the controller flex and the interior of the RF board for troubleshooting purposes.

**REN4000A**  
Controller Flex Extender

#### Wall Mounted Power Supply

Used to supply power to the radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts



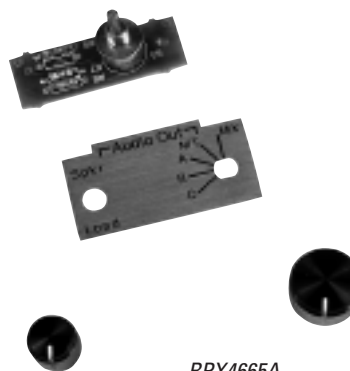
0180357A57

### Service Aids

#### Field Modification Kit

Allows for quick field modification of RTX4005 "A" test sets to provide operation with the HT600 Radio.

**RPX4665A** Field Modification, RTX4005A



RPX4665A

#### Programming Aid

Enables programming of the DTMF pad from outside of HT600 DTMF optioned radios.

**0180358A59** Programming Aid

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Compatible with IBM, XT, AT, Model 30 50, 60 and 80. Requires Radio Interface Box and proper cables, order separately.

**RVN4005H** Programming Software, 3-1/2" diskettes (includes manual and software box)

### Manuals

**6881065C75**

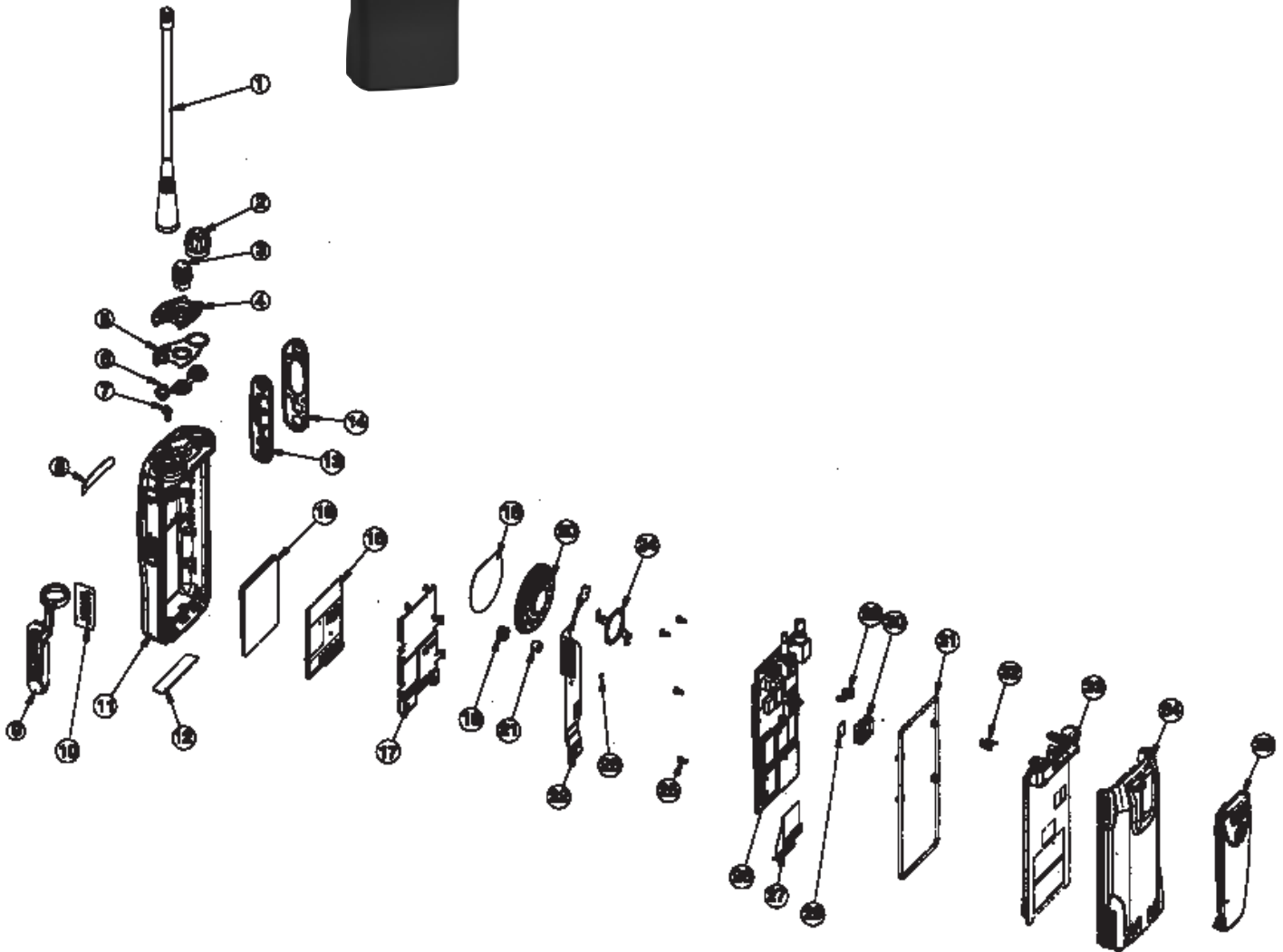
Service Manual

**0180305J46**

Ear Microphone System and Temple Transducer CD-ROM

## HT750 Series

### Parts List





## HT750 Series

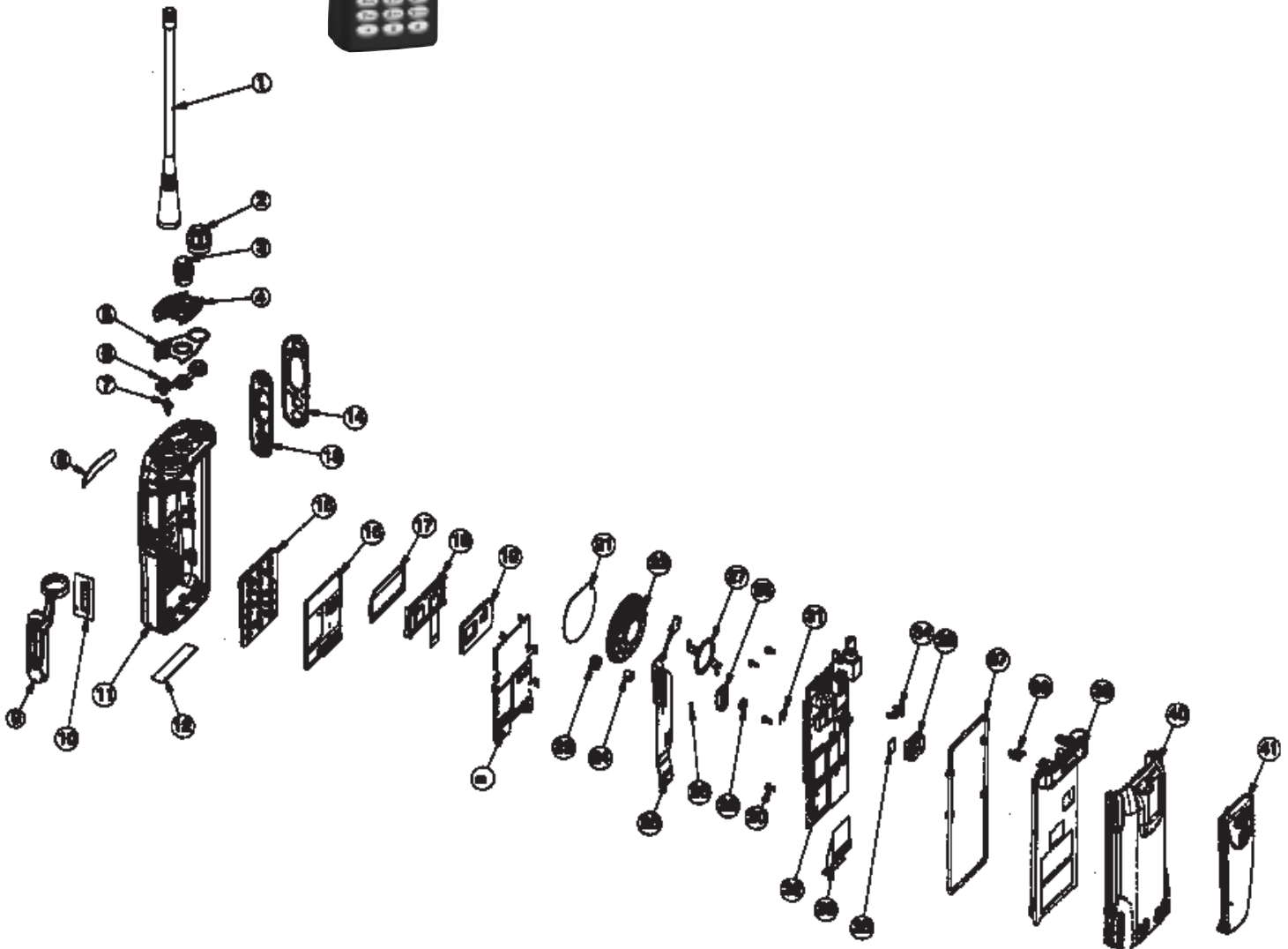
### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	---	Antenna (see service manual)
2	<b>3680529Z01</b>	Knob, Volume
3	<b>3680530Z02</b>	Knob, Channel Selector
4	<b>1380525Z01</b>	Escutcheon, Top
5	<b>3385681Z01</b>	Escutcheon, Label
6	<b>3280533Z03</b>	Seal, Control Top
7	<b>6180527Z01</b>	Litepipe, Tx
8	---	Nameplate, PRO5150 DTMF Nameplate, PRO5150 – not available
9	<b>HLN9820A</b>	Dust Cover, Universal Connector
10	<b>1386058A01</b>	Escutcheon, Universal Flex
11	<b>1580666Z03</b>	Front Cover, Basic
	<b>1580666Z04</b>	Front Cover with Keypad (DTMF)
12	Not Field Replaceable	Escutcheon, FM
13	<b>7580532Z01</b>	Keypad, Side Control
14	<b>1380528Z01</b>	Bezel, Side Control
15	<b>7585680Z03</b>	Keypad, Blank
	<b>7585680Z04</b>	Keypad, Full
16	<b>0104007J99</b>	Keypad Board Assembly

REF. NO.	PART NO.	DESCRIPTION
17	<b>4280498Z01</b>	Retainer, Keypad PCB
18	<b>3586057A01</b>	Felt Speaker
19	<b>1480577C01</b>	Boot, Microphone
20	<b>5085738Z01</b>	Speaker
21	<b>5013920A04</b>	Microphone
22	<b>8480549Z07</b>	Flex, Speaker-Microphone
23	<b>2113740A41</b>	Capacitor, 33pF
24	<b>4280504Z01</b>	Retainer, Speaker
25	<b>0304726J04</b>	Screw
26	See detailed service manual	Ctrl/RF Board Assembly
27	<b>8480475Z03</b>	Flex, Keypad/Controller
28	<b>1485673Z01</b>	Insulator, Antenna
29	<b>7580556Z01</b>	Pad, Thermal
30	<b>3280534Z01</b>	Seal, Contact
31	<b>3280536Z01</b>	Gasket, "O" Ring
32	<b>3980698Z01</b>	Contact, Ground, Compliant, VHF
33	<b>2780518Z01</b>	Chassis
34	---	Battery (see service manual)
35	<b>HLN9714A</b>	Beltclip

## HT1250 Series

### Parts List



# HT1250 Series

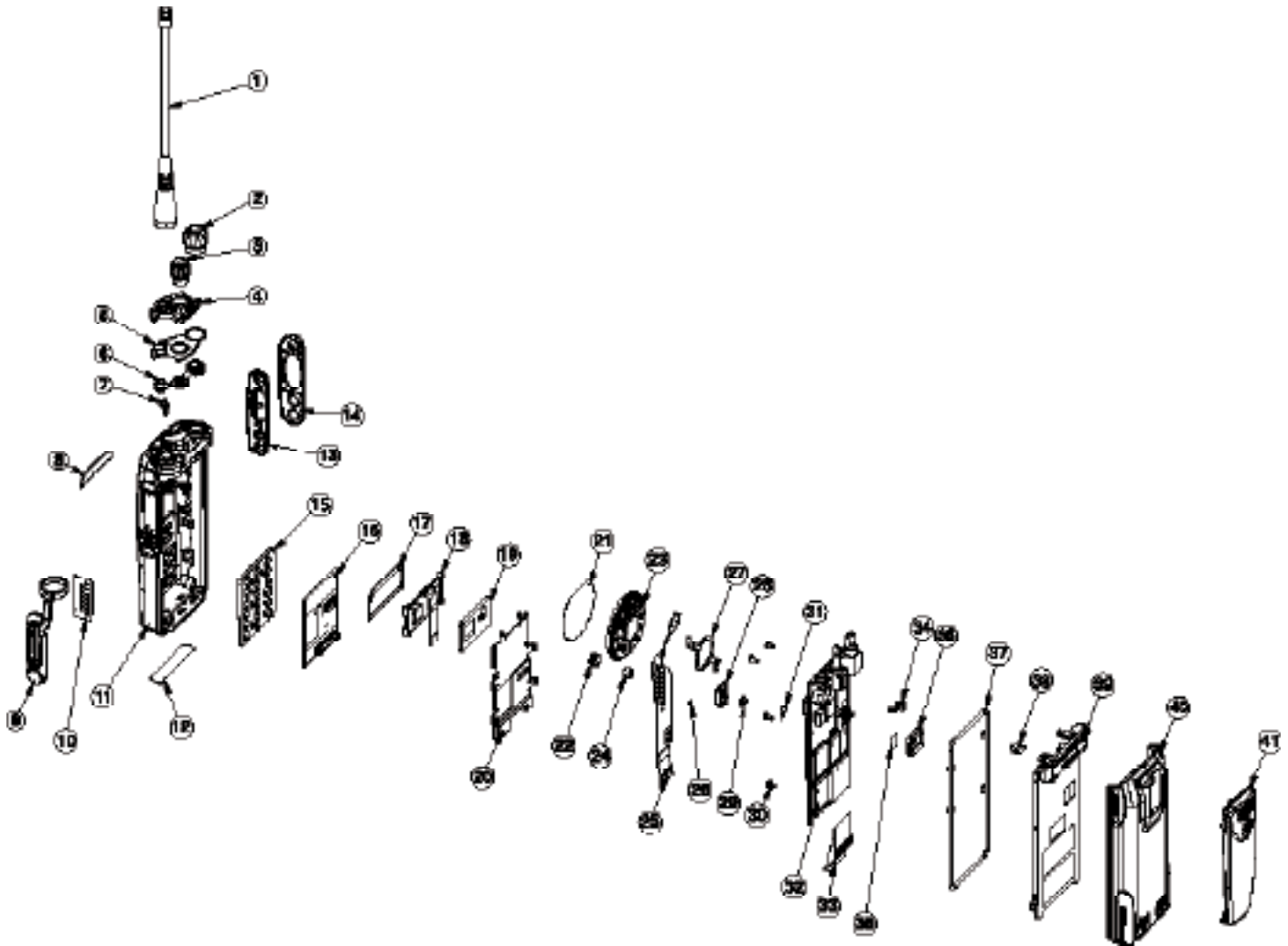
## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	---	Antenna (see service manual)
2	<b>3680529Z01</b>	Knob, Volume
3	<b>3680530Z02</b>	Knob, Channel Selector
4	<b>1380525Z01</b>	Escutcheon, Top
5	<b>3385681Z01</b>	Escutcheon, Label
6	<b>3280533Z03</b>	Seal, Control Top
7	<b>6180527Z01</b>	Litepipe, Tx
8	---	Nameplate, PRO7150 – not available Nameplate, PRO7350 – not available Nameplate, PRO7450 – not available
9	<b>HLN9820A</b>	Dust Cover, Universal Connector
10	<b>1386058A01</b>	Escutcheon, Universal Flex
11	<b>1580666Z01</b>	Front Cover with DTMF
	<b>1580666Z02</b>	Front Cover without DTMF
12	---	Escutcheon, FM – not field replaceable
13	<b>7580532Z01</b>	Keypad, Side Control
14	<b>1380528Z01</b>	Bezel, Side Control
15	<b>7586175Z01</b>	Keypad, Basic
	<b>7585680Z02</b>	Keypad, Full
16	<b>0104007J99</b>	Keypad Board Assembly
17	<b>7580540Z01</b>	Pad Display
18	<b>5104949J09</b>	LCD Module
19	<b>7580637Z01</b>	Pad, LCD Back
20	<b>4280498Z01</b>	Retainer, Keypad PCB
21	<b>3586057A01</b>	Felt Speaker
22	<b>1480577C01</b>	Boot, Microphone
23	<b>5085738Z01</b>	Speaker
24	<b>5013920A04</b>	Microphone

REF. NO.	PART NO.	DESCRIPTION
25	<b>8480549Z07</b>	Flex, Speaker-Microphone
26	<b>2113740A41</b>	Capacitor, 33pF
27	<b>4280504Z01</b>	Retainer, Speaker
28	<b>1480503Z01</b>	Boot, Backup Battery
29	<b>6062884K01</b>	Backup Battery
30	<b>0304726J04</b>	Screw
31	<b>3980667Z01</b>	Contact, Finger
32	See detailed manual	Ctrl/RF Board Assembly
33	<b>8480475Z03</b>	Flex, Keypad/Controller
34	<b>1485673Z01</b>	Insulator, Antenna
35	<b>7580556Z01</b>	Pad, Thermal
36	<b>3280534Z01</b>	Seal, Contact
37	<b>3280536Z01</b>	Gasket, "O" Ring
38	<b>3980698Z01</b>	Contact, Ground, Compliant
39	<b>2780518Z01</b>	Chassis
40	---	Battery (see service manual)
41	<b>HLN9714A</b>	Beltclip

## HT1250•LS Series

### Parts List



## HT1250•LS Series

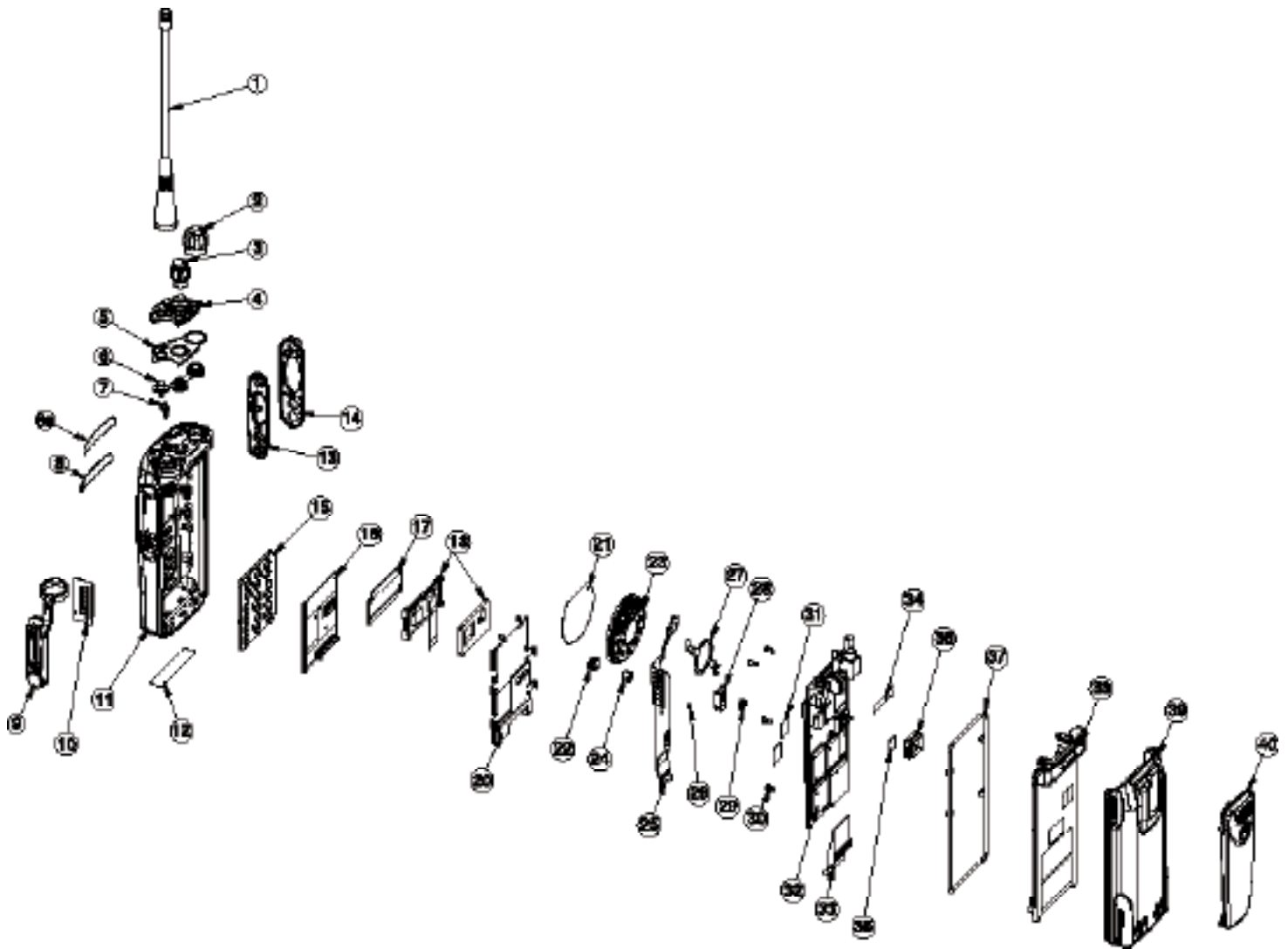
### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	Please refer to antenna section	Antenna
2	<b>3680529Z01</b>	Knob, Volume
3	<b>3680530Z01</b>	Knob, Channel Selector
4	<b>1380525Z01</b>	Escutcheon, Top
	<b>1380525Z03</b>	Escutcheon, Top (dotted), HT1250•LS
4a	<b>3385681Z01</b>	Knob, Channel Selector Interior
5	<b>3380644Z01</b>	Escutcheon, Label
6	<b>3280533Z01</b>	Seal, Control Top
7	<b>6180527Z01</b>	Litepipe, Tx
8	<b>HLN9962</b>	Nameplate, HT1250
	<b>HLN9964</b>	Nameplate, HT1250•LS
9	<b>1586059A01</b>	Dust Cover, Universal Connector
10	<b>1386058A01</b>	Escutcheon, Universal Flex
11 1	<b>580666Z01</b>	Front Cover with Limited Keypad
	<b>1580666Z02</b>	Front Cover with Full Keypad
12	Not Field Replaceable	Escutcheon, FM
13	<b>7580532Z01</b>	Keypad, Side Control
14	<b>1380528Z01</b>	Bezel, Side Control
15	<b>7586175Z01</b>	Keypad, Basic
	<b>7585680Z02</b>	Keypad, Full
16	<b>0104007J99</b>	Keypad Board Assembly
17	<b>7580540Z01</b>	Pad Display
18	<b>5104949J05</b>	LCD Module
19	<b>7580637Z01</b>	Pad, LCD Back

REF. NO.	PART NO.	DESCRIPTION
20	<b>4280498Z01</b>	Retainer, Keypad PCB
21	<b>3586057A01</b>	Felt Speaker
22	<b>1480577C01</b>	Boot, Microphone
23	<b>5085962A02</b>	Speaker
24	<b>5013920A04</b>	Microphone
25	<b>8480549Z01</b>	Flex, Speaker-Microphone
26	<b>2113740A41</b>	Capacitor, 33pF
27	<b>4280504Z01</b>	Retainer, Speaker
28	<b>1480503Z01</b>	Boot, Backup Battery
29	<b>6062884G01</b>	Backup Battery
30	<b>0304726J04</b>	Screw
31	<b>3980667Z01</b>	Contact, Finger
32	---	Ctrl/RF Board Assembly
33a	<b>8480475Z02</b>	Flex, Keypad/Controller
33b	<b>2780518Z03</b>	Chassis
34	<b>1480652Z01</b>	Insulator, Antenna
35	<b>7580556Z01</b>	Pad, Thermal
36	<b>3280534Z01</b>	Seal, Contact
37	<b>3280536Z01</b>	Gasket, O-Ring
38	<b>3980698Z01</b>	Contact, Ground, Compliant
39	<b>2780518Z01</b>	Chassis
40	Please refer to battery section	Battery
41	<b>HLN9714</b>	Beltclip

## HT1250•LS+ Series

### Parts List





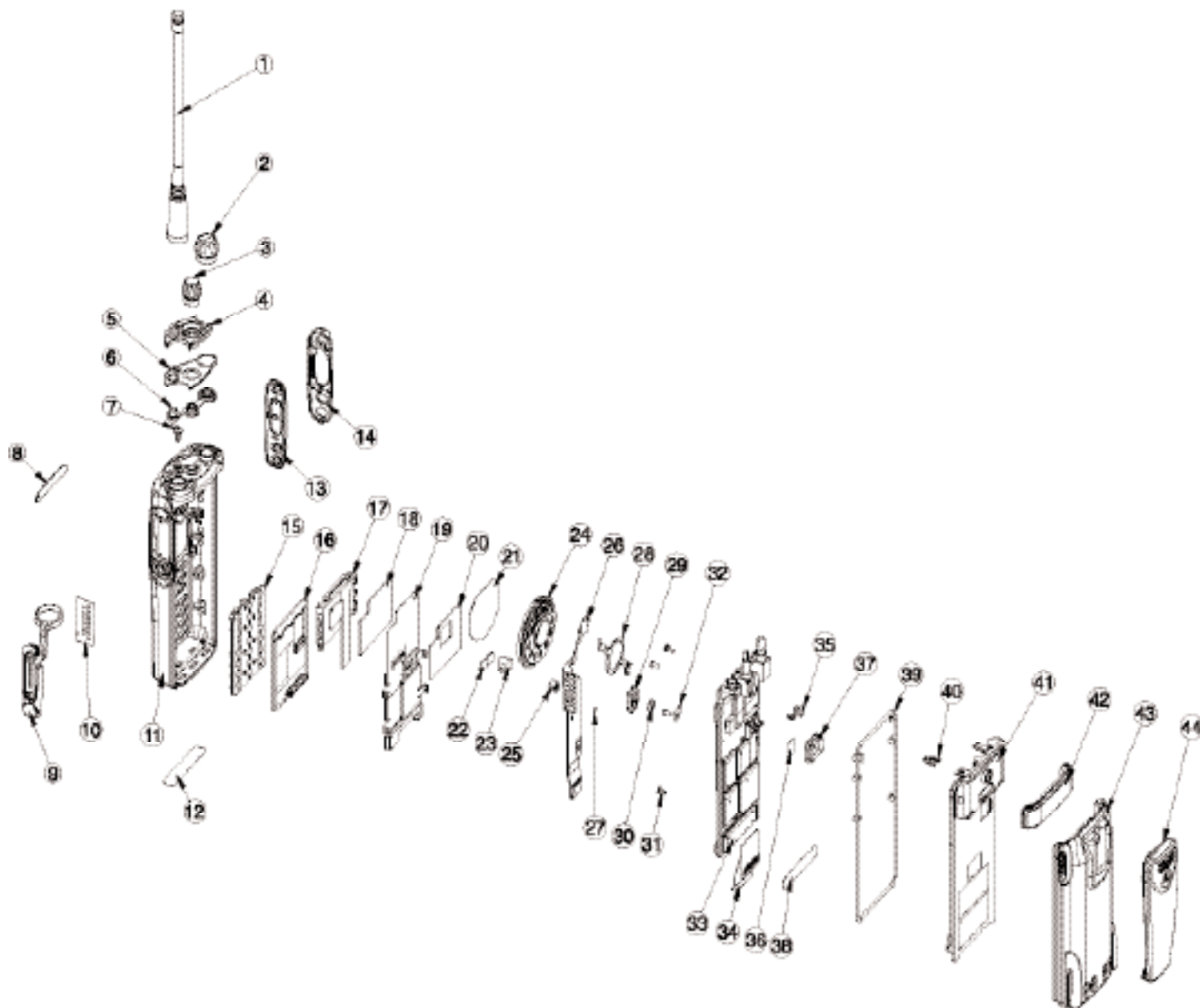
## HT1250•LS+ Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	Please refer to antenna section	Antenna	20	<b>4286266Z01</b>	Retainer, Keypad PCB
2	<b>3280529Z01</b>	Knob, Volume	21	<b>3586057A02</b>	Felt, Speaker
3	<b>3280530Z02</b>	Knob, Frequency	22	<b>1480577C01</b>	Boot, Microphone
4	<b>1380525Z03</b>	Escutcheon, Top (Dotted)	23	<b>5085738Z03</b>	Speaker
5	<b>3385681Z01</b>	Escutcheon, Label	24	<b>5013920A04</b>	Microphone
6	<b>3280533Z03</b>	Seal, Control Top	25	<b>8480549Z07</b>	Flex Speaker-Microphone
7	<b>6180527Z01</b>	Litepipe, Tx	26	<b>2113740A41</b>	Cap, 33pF
8	<b>3380565Z27</b>	Nameplate, HT1250•LS + 200 MHz	27	<b>4280504Z01</b>	Retainer, Speaker
	<b>3380565Z28</b>	Nameplate, HT1250•LS + 700 MHz	28	<b>1480503Z01</b>	Boot, Backup Battery
8a	<b>3386269Z01</b>	Escutcheon, Motorola logo	29	<b>6080656Z01</b>	Backup Battery
9	<b>1586059A01</b>	Dust Cover, Univ Conn	30	<b>0304726J05</b>	Screw
10	<b>1386058A01</b>	Escutcheon, Univ Flex	31	<b>7580671Z01</b>	Pad
11	<b>1586335Z01</b>	Front Cover Limited KPD	32	---	Ctrl/RF Board Assembly
	<b>1586335Z02</b>	Front Cover DTMF	33	<b>8480475Z03</b>	Flex, Keypad/Controller
12	---	Escutcheon, FM (Not field replaceable)	34	<b>7585746Z01</b>	Pad, EMI, 700 MHz
13	<b>7580532Z01</b>	Keypad, Side Control	35	<b>7580556Z01</b>	Pad, Thermal
14	<b>1380528Z01</b>	Bezel, Side Control	36	<b>3280534Z01</b>	Seal, Contact
15	<b>7586265Z01</b>	Keypad, Basic	37	<b>3280536Z01</b>	Gasket, O-Ring
	<b>7586265Z02</b>	Keypad, Full	38	<b>2780518Z03</b>	Chassis
16	<b>0104015J14</b>	PassPort Keypad Board Assembly	39	Please refer to battery section	Battery
17	<b>7580540Z02</b>	Pad Display	40	<b>HLN9714</b>	Beltclip
18	<b>5104949J09</b>	LCD Module			

## HT1550•XLS Series

### Parts List



## HT1550•XLS Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	Please refer to antenna section	Antenna	23	<b>1405368W01</b>	Boot, Mic
2	<b>3280529Z01</b>	Knob, Volume	24	<b>5085738Z03</b>	Speaker
3	<b>3680530Z01</b>	Knob, Frequency	25	<b>5005227J08</b>	Microphone
4	<b>1380525Z03</b>	Escutcheon, Top (Dotted)	26	<b>8480549Z01</b>	Flex, Univ Conn
5	<b>3380644Z01</b>	Escutcheon, Label	27	<b>2113740A41</b>	Cap, 33pF
6	<b>3280533Z01</b>	Seal, Control Top	28	<b>4280504Z01</b>	Retainer, Speaker
7	<b>6180527Z01</b>	Litepipe, Tx	29	<b>1480503Z01</b>	Boot, Backup Battery
8	<b>HKLN4011A</b>	Nameplate, HT1550•XLS	30	<b>6062884G01</b>	Backup Battery
9	<b>1586059A01</b>	Dust Cover, Univ Conn	31	<b>0304726J04</b>	Screw
10	<b>1386058A01</b>	Escutcheon, Univ Flex	32	<b>3980667Z01</b>	Contact, Finger (For UHF)
11	<b>1580666Z02</b>	Front Cover DTMF	33	Typical	Ctrl/RF Board Assembly
12	<b>1380649Z01</b>	*Escutcheon, FM (Not field replaceable)	34	<b>8485615Z02</b>	Flex, Keypad/Controller
13	<b>7580532Z01</b>	Keypad, Side Control	35	<b>1480652Z01</b>	Insulator, Antenna
14	<b>1380528Z01</b>	Bezel, Side Control	36	<b>7580556Z01</b>	Pad, Thermal
15	<b>7586065A01</b>	Keypad	37	<b>3280534Z01</b>	Seal, Contact
	<b>7586065A02</b>		38	<b>3380564Z01</b>	Label, Warning
16	<b>0104008J38</b>	Keypad Board Assembly	39	<b>3280536Z02</b>	Gasket, O-Ring
17	<b>5105385Y57</b>	LCD Module	40	<b>3980698Z01</b>	Contact, Ground (For VHF)
18	<b>7585659Z01</b>	Pad, Retainer Front	41	<b>2780518Z02</b>	Chassis
19	<b>4285660Z01</b>	Retainer, Keypad Board	42	<b>1586178A01</b>	Shroud, Chassis
20	<b>7585659Z02</b>	Pad, Retainer Back	43	Please refer to battery section	Battery
21	<b>3586057A01</b>	Felt, Speaker	44	<b>HLN9714</b>	Beltclip
22	<b>3586170A01</b>	Felt, Mic			

## Portable Accessories

### Chargers

#### Single and Six-Unit Chargers

Chargers can rapidly charge spare batteries in one to three hours.

**AAHTN3000D** 120V Rapid Rate  
Single Unit Intellicharger

**AAHTN3003D** 120V Six-Unit Rapid  
Rate (U.S. plug)

**NLN7967A** Wall Mount Kit for Six-  
Unit Charger

**HLN9793A** Charger Insert Spacer –  
compatible with “A” version chargers only

**HLN9794B** Charger Insert Spacer – compatible with “B” or later  
version chargers only



AAHTN3000D

#### MUC Accessories

**NLN7967A** Wall mount kit for multi-unit charger

### Chargers

#### Motorola Conditioning Chargers

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.

**WPLN4107BR** MCC Kit, 110V AC  
(includes both base unit and 7V adapter)

**WPLN4105AR** MCC Kit, 220 V AC  
(includes base unit and 7V adapter)

**WPLN4106AR** MCC Kit, 220V AC (includes both base unit  
and 7V adapter)

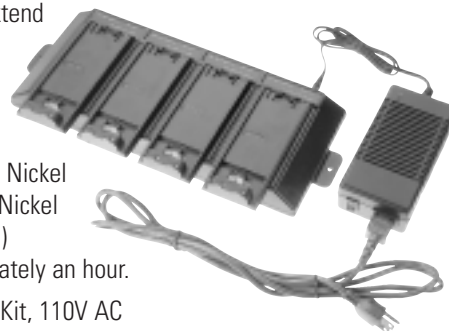
**WPPN4002BR** 110V AC Base Charge Unit only (order adapter  
plates separately)

**WPPN4006AR** 220V Base Charge Unit Only (order adapter  
plates separately)

**WPPN4065BR** Multi Unit Conditioning Charger, Four-Station  
Base, 110V (order adapter plate separately)

**WPPN4082AR** 7V Adapter Only

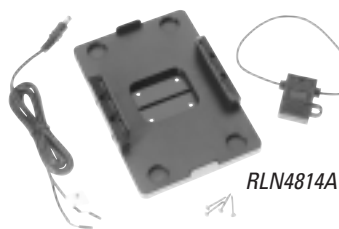
**3080384G15** Cigarette Lighter Adapter Cord



WPPN4065BR  
Shown With Optional  
Adapter Plates

**3080384M21** Hard Wire DC  
Cable. Ships standard with  
the RLN4814 Vehicular  
Mounting Kit

**RLN4814A** Vehicular  
Mounting Bracket for  
single unit Motorola  
Conditioning Charger



RLN4814A

**HLN9179** Quick-Release Attachment for Mounting Bracket RLN4814

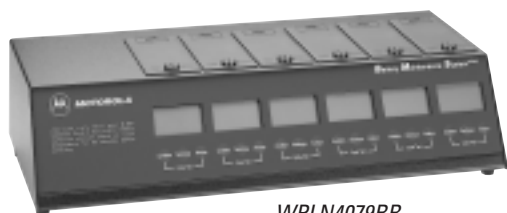
**HLN9228** Clamshell Attachment for Mounting Bracket RLN4814

## Portable Accessories

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

#### **Increase the useful life of your batteries.**

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field Upgrade Kit for WPLN4079AR, WPLN4080AR and WPLN4081AR; allows these units to support Li-ion battery chemistries

**NDN4005B** Three-Station, 110V AC, 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC, 50/60 Hz (does not support Li-ion or 3-cell batteries)

#### **BMS<sup>plus</sup> Adapter**

**WPPN4079AR** Adapter compatible with both Nickel Cadmium and Nickel Metal Hydride batteries. (Note: If used with TDN9430, requires installation of upgrade kit CDN6142.)

**WPPN4080AR** Adapter compatible with NiCd, NiMH, and Li-ion batteries, requires Li-ion capable BMSPlus

### Vehicular Charger



RLN5233A

**RLN5233A** Vehicular Charger

This 12V DC charger is ideal for mobile customers. Capable of charging NiCd, NiMH, and Li-ion batteries. This durable unit comes with a metal mounting bracket. Its drop-in design makes it ideal for public safety users.

### Travel Charger

**RLN4883A** Travel Charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.



RLN4883A

#### **Travel Charger Mounting Bracket**

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

#### **Travel Charger AC Transformer**

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use.

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)

## Portable Accessories

### Vehicular Adapters



**AAEN1006B** Vehicular Adapter – VHF (136-174 MHz) Turns your portable radio into a mobile. Antenna adapter allows automatic switching to external vehicle-mounted antenna (antenna sold separately). Includes, hand-held mobile microphone, cables, battery spacers and installation kit. Recommend 3dB gain antenna.

**AAEN1007B** Vehicular Adapter – UHF (403-470 MHz) Turns your portable radio into a mobile. Antenna adapter allows automatic switching to external vehicle-mounted antenna (antenna sold separately). Includes, hand-held mobile microphone, cables, battery spacers and installation kit. Recommend 3dB gain antenna.

**GSN6059A** 13 Watt External Speaker. Used with AAEN1006 and AAEN1007 vehicular adapters

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

**ENLN4103A** Replacement VHF Antenna Adapter

**ENLN4104A** Replacement UHF Antenna Adapter

**ENKN4002A** Programming Cable for Vehicular Adapters (required when using external speaker and/or with LS radios)

**ENLN4117A** Vehicle Connector Kit

**GKN6270A** DC Power cable - Interconnects radio to power supply (HT1250•LS+ - not compatible with 200 & 700 MHz models)

**GMN6146C** Mobile Microphone

### Software and Manuals for Vehicular Adapters **AAEN1006B and AAEN1007B (included in kits)**

**8264934B01** Programming Firmware

**6881093C78** User Manual

**6881093C79** Technical Manual

### Battery Optimizing System II (BOS II)



**WPLN4124AR**

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### **BOS II Adapter**

**RL-76345** Standard Adapter

## HT750/1250/1250•LS/1250•LS+/1550•XLS Series

## Portable Accessories

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio and battery and permit audio to be heard clearly.

#### HT750 STANDARD MODEL

##### Nickel Cadmium and Nickel Metal Hydride Carrying Cases

**HLN9665A** Standard Leather Case with Belt Loop

**HLN9676A** Standard Leather Case with Swivel

**HLN9701B** Nylon Carry Case



HLN9676A



HLN9701B

##### Lithium-ion Battery Cases

**HLN9652A** Standard Leather Case with Belt Loop

**HLN9670A** Standard Leather Case with Swivel

**HLN9701B** Nylon Case

#### HT750 KEYPAD MODELS AND ALL HT1250 MODELS

##### Nickel Cadmium and Nickel Metal Hydride Battery Carrying Cases

**HLN9689A** Standard Leather DTMF Case with Belt Loop

**HLN9694A** Standard Leather DTMF Case with Swivel

**HLN9701B** Nylon Case

##### Lithium-ion Battery Cases

**HLN9677A** Standard Leather DTMF Case with Belt Loop

**HLN9690A** Standard Leather DTMF Case with Swivel

**HLN9701B** Nylon Case

### Carrying Accessories

#### HT1250 LIMITED KEYPAD RADIOS

##### Nickel Cadmium and Nickel Metal Hydride Battery Carrying Cases

**HLN9946A** Hard Leather Case with Belt Loop

**HLN9998A** Hard Leather Case with Swivel Belt Loop

**HLN9701B** Nylon Case

##### Lithium-ion Battery Cases

**HLN9945A** Hard Leather Case with Belt Loop

**HLN9955A** Hard Leather Case with Swivel Belt Loop

**HLN9701B** Nylon Case

#### HT1550 KEYPAD MODELS

**HLN9695A** Leather DTMF Case with Belt Loop (for use with Li-ion Batteries)

**HLN9698A** Leather DTMF Case with Belt Loop (for use with NiMH & NiCd Batteries)

**HLN9699A** Leather DTMF Case with Swivel (for use with Li-ion Batteries)

**HLN9700A** Leather DTMF Case with Swivel (for use with NiMH & NiCd Batteries)

#### Belt Clips

**HLN9714A** Spring Action 2-1/2" Belt Clip

**HLN9844A** 2 Inch Standard belt clip holder



**HT750/1250/1250•LS/1250•LS+/1550•XLS Series**

## Portable Accessories

### Carrying Accessories

#### Belt Loops

**NTN8039B** 2.5" High activity swivel belt loop

**NTN8040B** 3" High activity swivel belt loop

#### Belt

**4200865599** 1.75" wide leather belt

#### Shoulder Carry Strap

**NTN5243A** Shoulder Carry Strap attaches to D-strap rings on carry cases to provide added comfort

#### Waterproof Bag

**HLN9985B** Waterproof Bag Includes a large carry strap

#### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations construction sites and anywhere safety is a concern

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

### Carrying Accessories

#### RadioPAK™

It's different from all other holders or cases: more comfortable, more useful and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.



RLN4815A

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

#### Universal Holders

**RLN4943A** Universal holder with gooseneck bracket

**RLN4944A** Wheelchair quick release assembly

**RLN4945A** Universal holder with gooseneck bracket and wheelchair quick release assembly



RLN4943A

## HT750/1250/1250•LS/1250•LS+/1550•XLS Series

## Portable Accessories

### Audio Accessories

#### Remote Speaker Microphones (RSM)

The remote speaker microphone is a water-resistant compact unit that allows the user to talk and listen without removing the radio from the belt, case or charger. It has a coiled cord, push-to-talk switch and clothing clip on the back cover.

**\*AAHMN9052E** Remote Speaker Microphone

**\*AAHMN9053E** Noise Canceling Remote Speaker Microphone with 3.5mm Audio Jack

**AAHKN9055A**  
Replacement Cable for RSM's



AAHMN9052E

#### Public Safety Speaker Microphones (PSM)

Public safety speaker microphones are specially designed to help cancel ambient noise during transmission. Coverage is increased with included UHF antenna (450-470 MHz).

**\*AAHMN9054C** UHF Public Safety Speaker Microphone (includes UHF antenna, swivel clip, volume toggle switch, and 3.5mm earpiece jack).

**\*AAHMN9057C** VHF Public Safety Speaker Microphone (includes VHF antenna, swivel clip, volume toggle switch, and 3.5mm earpiece jack).

**RKN4101A** 18" Replacement Cable, compatible with AAHMN9054 and AAHMN9057

**RKN4100A** 24" Replacement Cable, compatible with AAHMN9054 and AAHMN9057

**RKN4102A** 30" Replacement Cable, compatible with AAHMN9054 and AAHMN9057

### Audio Accessories

#### RSM and PSM Accessories

**\*AARLN4885B** Receive-only Earbud with black coiled cord and 3.5mm Adapter for use with AAHMN9053A, AAHMN9054A and AAHMN9057A

**\*RLN4941A** Receive-only Earpiece with 3.5mm Plug, Translucent Tube and Rubber Eartip for use with AAHMN9054B and AAHMN9057B

**\*WADN4190A** Flexible Ear Receiver to be used with the Remote Speaker Microphone Public Safety Microphone

**RMN4054B** Receive-only Hardhat Mount Headset; mounts easily to hardhats with slots and provides 22dB of noise reduction; for use with AAHMN9053A, AAHMN9054A and AAHMN9057A. (hardhat not included)

**RMN4055A** Receive-only Headband Style Headset provides 24dB of noise reduction; for use with AAHMN9053E, AAHMN9054C and AAHMN9057C

**\*AAHLN9716A** Audio Accessory Adapter. Used to connect Receive-only Headsets to Radio

**REX4410B** Replacement Paddle PTT Kit for RSMs and PSMs

#### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet of shirts or jackets and attach around cord to back of microphone. Allows reliable communications in hostile environments with velcro or clip style strap.

**RLN4294A** Velcro epaulet strap

**RLN4295A** Small clip epaulet strap



RLN4294A



RLN4295A

*\* Intrinsically Safe*



<https://www.motorola.com/businessonline>

## Portable Accessories

### Audio Accessories

#### Remote Speaker Microphone with Bluetooth™ Wireless Technology

Work and communicate in a cord-free environment. Motorola is on the front line of Bluetooth wireless technology by providing users of two-way radios the first wireless remote speaker microphone. This wireless remote speaker microphone communicates to a two-way radio through an adapter equipped with Bluetooth Wireless Technology and an adapter-capable battery that is attached to a Motorola two-way radio. The user simply turns on the radio and the wireless remote speaker microphone-the Bluetooth technology does the rest! The adapter and remote speaker microphone with Bluetooth Wireless Technology "connect" and link to each other wirelessly. Compatible with Motorola HT750 and HT1250 radios only.

**HLN3156A** Wireless remote speaker microphone kit; includes remote speaker microphone with Bluetooth wireless technology (HMN3158) and radio adapter with Bluetooth wireless technology (HHLN4125A); Adapter-capable battery (HNN9003AR) is required but sold separately



HLN3156A

**HMN3158A** Remote speaker microphone with Bluetooth wireless technology; requires radio adapter (HHLN4125A) and adapter-capable battery (HNN9003AR)

**HHLN4125A** Radio adapter with Bluetooth Wireless Technology

**HNN9003AR** Adapter-Capable NiMH Battery, 1200 mAh, 7.5 volt

**RLN5213A** Bluetooth leather swivel carry case; accommodates HT750 or HT1250 two-way radio with Radio Adapter (HHLN4125) and Adapter Capable Battery (HNN9003AR), both sold separately

**RLN5321A** Carry Case for Remote Speaker Microphone with Bluetooth Wireless Technology; Key Features: Belt clip, belt loop and armband which give users a variety of options for securing their remote speaker microphone

### Audio Accessories

#### MicJackets

MicJackets provide speaker microphone users with a way to further protect the "head" of their microphone from dust, dirt, metal particles, sweat, body oils and other on-the-job grime; MicJackets also allow the user to handle or interact with the speaker microphone in a more hygienic way



RLN5009A

**RLN5008A** MicJacket, compatible with HMN9052 Remote Speaker Microphone

**RLN5009A** MicJacket, compatible with HMN9053 Remote Speaker Microphone

**RLN5010A** MicJacket, compatible with HMN9054 and HMN9057 Public Safety Speaker Microphones

#### CommPort: Integrated Microphone/Receiver System

The CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1723A** Integrated Ear Microphone/Receiver System w/Palm PTT (includes AAHLN9717 radio adapter)

**\*NTN1724A** Integrated Ear Microphone/Receiver System with Ring PTT (includes AAHLN9717 adapter)

**\*NTN1722A** Integrated Ear Microphone/Receiver System with PTT on Radio Adapter (includes AAHLN9717 Adapter)

**\*NNTN4187A** Integrated Ear Microphone/Receiver System with Body Push-to-Talk Body Switch (includes AAHLN9717 Radio Adapter)



NTN1723A

\* Intrinsically safe

## HT750/1250/1250•LS/1250•LS+/1550•XLS Series

## Portable Accessories

### Audio Accessories



NTN1737A

**\*NNTN4188A** Replacement Body Switch Push-to-Talk Cable for NNTN4187A

**\*NTN1737A** Integrated Microphone/Receiver with Snap-On-Side PTT

**NKN6510A** Replacement Palm PTT Cable for NTN1723A

**NKN6508A** Replacement Cable for NTN1722A

**NKN6512A** Replacement Ring PTT Cable for NTN1724A

**NKN6525A** Replacement Cable with Snap-On-Side PTT for the NTN1737

**NTN8821A** CommPort Maintenance Kit, includes replacement ear tubes (quantity 10), windscreens (quantity 2) and microphone seal strips (quantity 10)

**NTN8986A** Adhesive Pads (Quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (Quantity 10) for secure attachment to ear

**RLN5037A** Replacement Ear Tubes (qty 10)

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip

### Flexible Ear Receiver

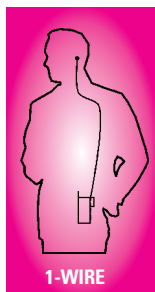
The flexible ear receiver contains a flexible earloop and speaker and rests external to the ear.

**\*ENMN4013A** Flexible Ear Receiver

**7580372E11** Replacement foam ear cushions for ENMN4013A



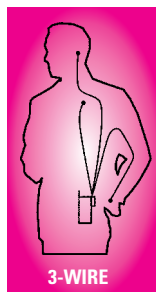
ENMN4013A



1-WIRE



2-WIRE



3-WIRE

### Audio Accessories

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discreet communications.

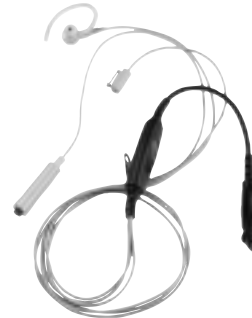
**\*AARMN4021A** Receive Only Earpiece without Volume Control (beige) (1-wire)

**\*AARMN4022A** Earpiece with Microphone and PTT Combined (beige) (2-wire)

**\*AARMN4028A** Receive Only Earpiece without Volume Control (black) (1-wire)



AARMN4028A



ENMN4017A

**\*AARMN4029A** Earpiece with Microphone and PTT Combined (black) (2-wire)

**\*ENMN4014A** Earpiece with Microphone and PTT separate (black) (3-wire)

**\*ENMN4017A** Earpiece with Microphone and PTT separate (beige) (3-wire)

**RLN5315A** Two-Wire Comfort Earpiece with Combined Microphone and Push-To-Talk; black (HT750/1250)

**RLN5316A** Two-Wire Comfort Earpiece with Combined Microphone and Push-To-Talk; beige (HT750/1250)

#### Replacement Items

**5080371E73** Standard Rubber Eartips, Pack of 25, Beige

**5080371E75** Standard Rubber Eartips, Pack of 25, Black

**5080369E40** Earloop, Plastic, Beige

**5080370E92** Earloop, Plastic, Black

**5880377E06** Plastic Earloop Adapter

**5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Beige

**5080369E90** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Black

\* *Intrinsically safe*

## Portable Accessories

### Audio Accessories

#### Surveillance Kits with Extended-Wear Comfort Earpiece

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube (NTN8371A). Users hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5315A** Comfort Earpiece with Microphone and PTT combined, Black (2-wire kit)

**RLN5316A** Comfort Earpiece with Microphone and PTT combined, Beige (2-wire kit)

#### Completely Discreet Earpiece

Remain discreetly in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discreet two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. **Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discreet communication.**



RLN4922A

**RLN4922A** Completely Discreet Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4V Battery, 6 per pack

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments provides 24 dB noise protection.



NTN8370A

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments; does not provide hearing protection

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Replacement Standard Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige

**5080371E75** Replacement Small Rubber Eartips, Pack of 25 (for use with NTN8371A), Black

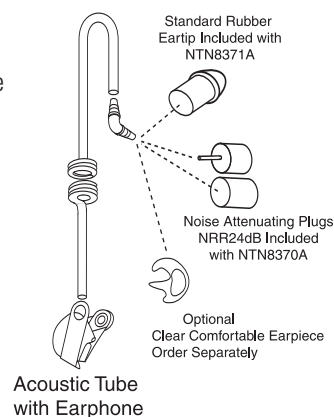


NTN8371A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. Does not provide hearing protection. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits





## HT750/1250/1250•LS/1250•LS+/1550•XLS Series

## Portable Accessories

### Audio Accessories

**RLN4760A** Small Custom Earpiece, right ear

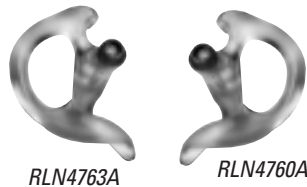
**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



RLN4763A

RLN4760A

### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX). Interface Module required.



BDN6677A

*Requires interface module, sold separately*

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95dB, black)

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB, beige)

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105dB)

### Audio Accessories

#### Optional Accessories For EMS

**0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk Body Switch

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear

**0180358B32** Earholder, black size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

0180300E83



**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear



0180300E25

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

### Interface Modules for EMS

**\*AARMN4044A** Push-To-Talk Only Interface Module

**\*AARMN4045A** Push-To-Talk or Voice-Activated Interface Module

*\* Intrinsically safe*



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## Portable Accessories

### Audio Accessories

#### Temple Transducer



RMN4048A

The temple transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of this accessory rests on the temples and is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and

bone directly into the inner ear where it is received by the user. It features an in-line PTT and noise canceling boom microphone. The temple transducer enhances communication and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning, and fire alarms, the intercom, traffic and even casual conversations with their co-workers.

**\*RMN4048A** Temple Transducer

#### Ultra-Lite Headset

This headset is an ultra-lite behind the head-style headset that features a flexible boom microphone and in-line PTT, and is intended for low to moderate noise environments.

**\*ENMN4012A**  
Ultra-lite Headset



ENMN4012A

### Audio Accessories

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands free, discreet two-way communications while adding comfort necessary for extended wear in moderate noise environments.

**\*AARMN4018B** Lightweight Headset with Swivel Boom Microphone with In-Line PTT



AARMN4018B



AARMN4017A

**\*AARMN4031B** Lightweight Headset with Swivel Boom Microphone; no in-line PTT

**\*AARMN4017B** Ultralite Headset with Boom Microphone, ear bud style receiver

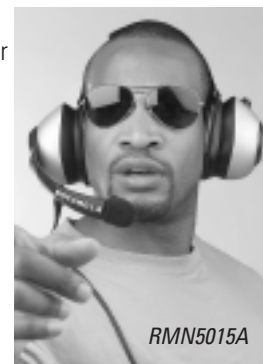
**REX4648A** Replacement Foam Earpad and Windscreen Kit for AARMN4018B and AARMN4013A

#### Racing Headset

Motorola is the official wireless equipment supplier of CART®, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.

**RMN5015A** Racing Headset (adapter cable required)

**RKN4091A** Adapter Cable



RMN5015A

\* Intrinsically safe



## Portable Accessories

### Audio Accessories

#### Medium Weight Headsets

Medium weight dual-muff headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*AARMN4019A** Over the Head with In-Line PTT and Noise Canceling Swivel Boom Microphone; provides 24dB of noise reduction

**\*AARMN4032A** Over the Head with Noise Canceling Swivel Boom Microphone; provides 24dB of noise reduction

**RMN4051A** Hardhat Mount Headset; Mounts easily to hardhats with slots. Provides 22dB of noise reduction. Requires RKN4097A Adapter cable, hardhat not included

**RKN4097A** Radio Adapter Cable with In-Line PTT for use with RMN4051A

**\*ENMN4016A** Medium-Duty Behind-the-Head Headset with Swivel Boom Microphone and in-line PTT; provides 24dB of noise reduction



RMN4051A

#### Replacement Items

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Cover for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement "O" ring for windscreen

### Audio Accessories

#### Tactical Medium Weight Headsets

Same high-clarity sound and additional hearing protection as our standard Medium Weight Headsets while including two microphones on the outside of each earcup which reproduces the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times but never more than 82dB. Includes on/off volume control on earcups.

**RMN4052A** Tactical Headband Style Headset, Grey. Provides 24dB of noise reduction. Requires RKN4097A Adapter cable



RMN4052A



RMN4053A

**RMN4053A** Tactical Hardhat Mount Headset; Mounts easily to hardhats with slots. Provides 22dB of noise reduction. Requires RKN4097A Adapter cable, hardhat not included

**RKN4097A** Radio Adapter Cable with In-Line PTT for use with RMN4052A and RMN4053A

**RLN4923A** Two Replacement Earseals for RMN4051A, RMN4052A and RMN4053A

#### Heavyduty Headsets

Heavyduty headsets include noise canceling boom microphones and can be worn with or without a hardhat. The Push-To-Talk switch is located on the earcup.

**\*AARMN4020B** Push-To-Talk or Voice Activated Headset with noise canceling boom microphone; noise reduction rating =24dB

\* Intrinsicly safe

## Miscellaneous Accessories, Antennas

### Miscellaneous

**RLN4890A** Assistive Turning Knobs. If your job requires you to wear large gloves, or if you have mobility or dexterity limitations, you will appreciate this added feature. Set of two specially designed knobs for volume control and channel changing.

**HLN9820A** Accessory Dust Cover

### Antennas

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**8504762J01** Flexible Whip,  
136-155 MHz

**PMAD4023A** Flexible Whip,  
150-161 MHz

**8504762J02** Flexible Whip,  
155-174 MHz

**NAE6483AR** Flexible Whip,  
403-520 MHz

**NAB6064A** Heliflex, 29.7-50 MHz

**NAD6579A** Whip, 148-161 MHz



NAE6483AR

#### Stubby Antennas

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**PMAD4012A** Stubby, 136-155 MHz

**PMAD4025A** Stubby, 150-161 MHz

**PMAD4013A** Stubby, 155-174 MHz

**PMAE4002A** Stubby, 403-433 MHz

**8504762J08** Stubby, 438-470 MHz

**PMAE4006A** Stubby, 465-490 MHz



PMAD4013A

## Batteries

### Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN9011AR**  
Volts: 7.5  
Avg mAh: 1200  
Height: 4-13/16"  
Intrinsically Safe: Yes

Part Number: **HNN9012AR**  
Volts: 7.5  
Avg mAh: 1300  
Height: 4-13/16"  
Intrinsically Safe: No

#### Nickel Metal Hydride Premium

Part Number: **HNN9008AR**  
Volts: 7.5  
Avg mAh: 1500  
Height: 4-13/16"  
Intrinsically Safe: No

Part Number: **HNN9003AR**  
(Bluetooth™)  
Volts: 7.5  
Avg. mAh: 1200  
Height: 4-13/16"  
Intrinsically Safe: No



HNN9008AR

### Batteries

Part Number: **HNN9009AR**  
Volts: 7.5  
Avg mAh: 1900  
Height: 4-13/16"  
Intrinsically Safe: No

Part Number: **HNN9010AR**  
Volts: 7.5  
Avg mAh: 1800  
Height: 4-13/16"  
Intrinsically Safe: Yes

Part Number: **HNN9003AR**  
(Bluetooth™)  
Volts: 7.5  
Avg mAh: 1200  
Height: 4-13/16"  
Intrinsically Safe: No

#### Powerline

Part Number: **WPNN4045AR**  
Volts: 7.5  
Avg mAh: 1200  
Height: 4-13/16"  
Intrinsically Safe: No

#### Lithium-ion Premium

Part Number: **HNN9013CR**  
Volts: 7.5  
Avg mAh: 1150  
Height: 4-13/16"  
Intrinsically Safe: No

## HT750/1250/1250•LS/1250•LS+/1550•XLS Series

## Options Boards, Housing Options, Service Aids

### Option Boards

Get the most out of your HT Professional Radios with powerful feature upgrades

**AAHLN9725C** Voice Storage Option Board

**AAHLN9729C** DTMF Decode Option Board

### Mandown Option Board

The mandown alarm functionality will trigger the radio's internal software emergency routine if the radio is horizontal for longer than a pre-programmed time. Anti-movement alarm functionality will trigger the radio's internal software emergency routine if the radio is stationary (unmoved) for longer than a pre-programmed time (requires radio and OSS programming).

**AAENLN4150A** Mandown Option Board Kit (for HT1250 UHF & VHF Models Only)

### Faceplate/Housing Options

#### HT750 Models

**1580384L88** Yellow Housing, No Keypad

**1580384L91** Yellow Housing for Keypad models

**1580666Z03** Black Housing, No Keypad

**1580666Z04** Black Housing for Keypad models

#### HT1250 Models

**1580384L93** Yellow Housing for Full Keypad models

**1580384L94** Yellow Housing for Limited Keypad models

**1580666Z01** Black Housing for Limited Keypad models

**1580666Z02** Black Housing for Full Keypad models

**1580666Z08** Camouflage Housing for Full Keypad models

**1580666Z09** Camouflage Housing for Limited Keypad models

**REX4681A** Housing kit for HT1250 and HT1250•LS+ Limited Keypad

### Service Aids

**RLN4460C** Portable Test Set; Enables connection to audio/accessory jack. Allows switching from radio testing.

**HVN9025L** CPS/Tuner Software; Programs customer features/frequencies (CD-ROM format only)

**AARKN4075A** Ribless Programming Cable; Provides interface between computer and radio, ideal for field programming. (Not compatible with RIB.)

**AARKN4074A** Programming Cable/Test Cable; Connects radio to RIB (RLN4008E)

**RLN4008E** Radio Interface Box; Enables communications between radio and computer's serial communications adapter.



RLN4008E

**5885705M02** BNC Adapter; Adapts radio antenna port to BNC cable test equipment

**RKN4073A** Cloning cable (Multi-language manual)

**HT750/1250/1250•LS/1250•LS+/1550•XLS Series****Service Aids,  
Manuals****Service Aids**

**RLN4510A** Battery Eliminator 7.5V Regulator; Work in combination with Shop Battery Block (AA0180305G54)

**0180357A57** Wall-mounted Power Supply (120V AC); Used to supply power to RIB

**AA0180305G54** Shop Battery Block; Interconnects radio to power supply. Provides for troubleshooting of radio when housing is removed.

**AA8180384F68** Bench Testing Housing Eliminator

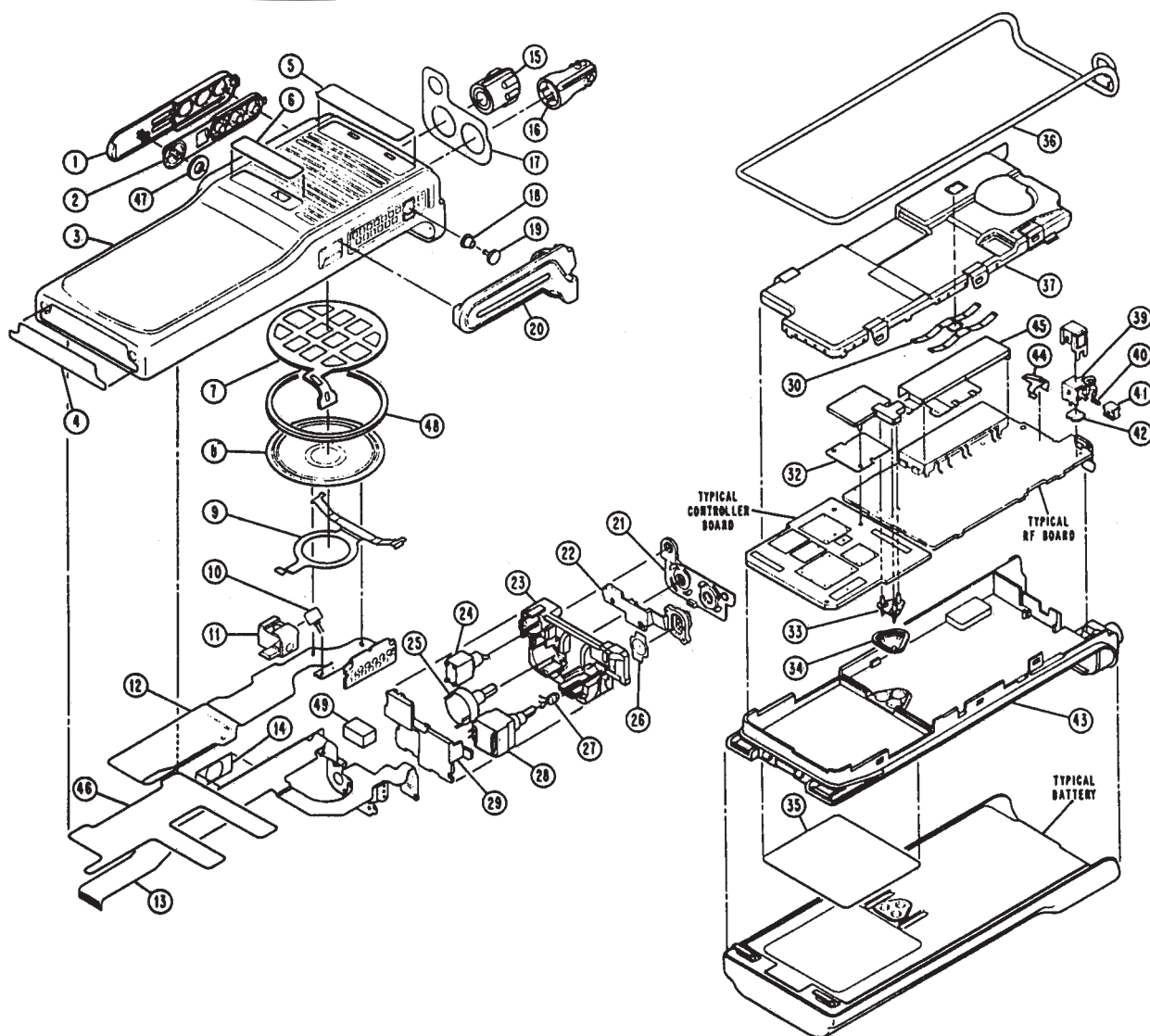
**3080369B72** Computer Interface Cable; Connects computer's serial communications adapter to RIB (RLN4008E)

**Manuals**

<b>6881089C97</b>	HT750 User Manual
<b>6881088C37</b>	HT1250 User Manual
<b>6880906Z54</b>	Basic Service Manual
<b>6881088C46</b>	Detailed Service Manual
<b>6864110R11</b>	HT1250•LS+ 200 & 700 MHz User Manual
<b>6864110R12</b>	HT1250•LS+ 200 & 700 MHz Detailed Service Manual
<b>6864110R15</b>	HT1250•LS+ 200 & 700 MHz Basic Service Manual
<b>6881088C42</b>	HT1250•LS+ User Manual
<b>6881093C79</b>	Technical Manual (included with vehicular adapters)
<b>0180305J46</b>	Ear Microphone System and Temple Transducer CD-ROM

## HT1000 Series

### Parts List



# HT1000 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>4505896U02</b>	Lever, PTT
2	<b>3205902U01</b>	Seal, PTT, and Actuator for S404, S405, S406 S408
3	<b>1505627V05</b>	Cover, Front
4	----	Label, Agency Approval; not field replaceable
5	<b>3305183R55</b>	Label, Motorola
6	<b>3305183R56</b>	Label, HT1000
7	<b>3505535X02</b>	Felt, Speaker
8	See Note 1	Speaker (LS401) – not available
9	<b>0705470V01</b>	Bracket, Speaker Retainer
10	See Note 1	Microphone (MK401) – not available
11	<b>1405330W02</b>	Boot, Microphone
12	<b>8405310W04</b>	FLEX, Front Cover/Display
13	<b>8405333W03</b>	FLEX, Controls
14	<b>3905517V01</b>	Popple, PTT (p/o S406)
15	<b>3605253V01</b>	Knob, On/Off/Volume
16	<b>3605254V02</b>	Knob, Frequency
	<b>3605254V02</b>	2-Frequency Radios
	or	
	<b>3605254V03</b>	8-Frequency Radios
	or	
	<b>3605254V01</b>	16-Frequency Radios
17	<b>1305872U02</b>	Escutcheon, Control Top
	<b>1305872U02</b>	2-Frequency Radios
	or	
	<b>1305872U03</b>	8-Frequency Radios
	or	
	<b>1305872U01</b>	16-Frequency Radios
18	<b>3205160W01</b>	Seal, Actuator; for S101
19	<b>2205159W01</b>	Pin, Actuator; for S101
20	<b>3205514W01</b>	Seal, Accessory Connector
21	<b>3205177Z01</b>	Seal, Control Top
22	<b>3205178Z01</b>	Seal, Emergency Button
23	<b>2705877U01</b>	Housing, Switch
24	See Note 1	Switch, Toggle (S402) – not available

REF. NO.	PART NO.	DESCRIPTION
25	See Note 1	Potentiometer/Switch On/Off/Volume Control (R401/S403) – not available
26	<b>3905329W01</b>	Popple, Emergency Button
27	See Note 1	LED (CR702A/CR702B) – not available
28	See Note 1	Switch, Frequency (S401) – not available
29	<b>1505632V01</b>	Cover, Switch Housing
30	----	Spring, PA; not field replaceable, order front shield (item 37) – not available
32	<b>8405247V01</b>	FLEX, Jumper
33	See Note 2	Plug, Connector (P404) – not available
34	<b>3205820V01</b>	Seal, Connector Plug
35	----	Label, Rear; Information; not field replaceable
36	<b>3205176Z01</b>	“O” Ring, Contoured/Seal, Antenna
37	<b>2605891U03</b>	Shield, Front
38	<b>4005831W01</b>	Bracket, RF Switch
39	----	Housing, RF Switch
40	<b>4105266V01</b>	Spring, RF Switch
41	<b>4405524V01</b>	Piston, RF Switch
42	----	Circuit Board, RF Switch
43	<b>1505892U06</b>	Chassis (Rear Cover)
44	<b>3905838V01</b>	Contact, Antenna Shield Ground (800 MHz and 900 MHz radios only)
45	<b>2605898U01</b>	Shield, PA (800 MHz and 900 MHz radios only)
46	<b>7505334W01</b>	Pad, Sound Dampening
47	<b>0405717W01</b>	Washer, PTT Seal
49	<b>7505393N33</b>	Pad, Shock

### NOTES:

1. Refer to electrical parts list (miscellaneous) for part number and complete description.
2. Refer to electrical parts list (transceiver board) for part number and complete description.



## HT1000 Series

## Portable Accessories

### Chargers

Single unit chargers are available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola. All chargers listed are rapid rate and will fully charge your battery in less than 3 hours.

#### Single Unit Compact Bi-Chemistry Chargers – Rapid Rate

The bi-chem charger has the power supply built into the line cord giving the user a smaller base unit for easier storage. It also utilizes an enhanced charging algorithm that will help maximize the life of your batteries. It will rapid rate charge both NiCd and NiMH batteries.

**RPX4747A** Compact Bi-Chem Charger, 110V

**RPX4748A** Compact Bi-Chem Charger, 230V Euro plug

**RPX4749A** Compact Bi-Chem Charger, 230V UK plug

### Chargers

#### Multiple Unit Charger (MUC)

Multi-unit chargers offer six pockets that can be used to rapid charge 1 to 6 batteries simultaneously. The batteries can be charged with the radios or separately. They will rapid rate charge both NiCd and NiMH batteries.

**NTN1177D** Six-Pocket, rapid rate 110V

**NTN1178D** Six-Pocket, rapid rate, 220V (supplied with 2 prong cord)

**NTN1179D** Six-Pocket, rapid rate, 240V (supplied with 3 flat prong cord)



NTN1177D

#### MUC Accessories

**NLN7967A** Wall Mount

#### Travel Charger

**RLN4884B** Travel Charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.



RLN4884B

#### Travel Charger Mounting Bracket

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

#### Travel Charger AC Transformer

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)

## HT1000 Series

### Portable Accessories

#### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified nickel cadmium (NiCd) and nickel metal hydride (NiMH) batteries in approximately an hour.

**WPLN4090BR** MCC Kit, 110V AC; includes both base unit and 7V adapter

**WPLN4091BR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**WPPN4002BR** 110V AC Base Charge Unit Only (order adapter plate separately)

**WPPN4006AR** 220V AC Base Charge Unit Only (order adapter plate separately)

**WPPN4065BR** Multi-Unit Conditioning Charger Four Station Base 110V (order adapter plate separately)

**WPPN4004BR** 7 Volt Adapter Only

**3080384G15** Cigarette Lighter Adapter Cord; MCC multi-unit conditioning charger

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger

**3080384M21** DC Hard wire cable for vehicular installation (included in RLN4814A)



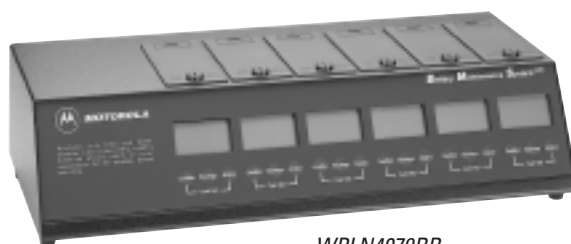
WPPN4002BR

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

##### **Increase the useful life of your batteries.**

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field upgrade kit for WPLN4079AR, WPLN4080AR and WPLN4081AR allows these units to support Li Ion battery chemistries

**NDN4005B** Three-station 110V AC, 50/60 Hz

**NDN4006B** Three-station 230V AC, 50/60 Hz

##### **BMS<sup>plus</sup> Adapter**

**TDN9435C** Adapter Compatible with NiCd Batteries Only

**CDN6364A** Adapter Compatible with Both NiCd and NiMH Batteries



TDN9435C

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## HT1000 Series



## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapter

**RL-72403** Standard Adapter

### impres™ Smart Energy System



WPLN4111AR

The impres smart energy system ensures maximum talk-time and optimized battery cycle life through the use of its advanced charging algorithm and automatic reconditioning features. The smart energy system reconditions impres batteries when they need it, automatically, keeping them in peak condition. Its advanced conditioning features allow batteries to be safely left on

the charger for extended periods of time without incurring the damaging heat build-up which can rob batteries of cycle life. In addition, batteries left on the charger are kept fully charged so they are always ready when you need them. The impres system reconditions batteries when they need it based on their usage pattern. Talk time and cycle life are optimized and the need for manual maintenance programs reduced or eliminated. This rapid-rate tri-chemistry charging system will also charge existing legacy batteries and supports multiple radio platforms including Saber, XTS, and HT1000 series portables.

**WPLN4111AR** impres Single Unit Charger

**WPLN4108BR** impres Multi-Unit Charger

### impres™ Multi-Unit Charger with Display Modules

The impres Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impres battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time (NiCd and NiMH only) which lets the user know when the impres battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage and charge status and the version of the charger and display modules.

**WPLN4130AR** Multi-Unit Charger with Display Modules

**RLN5382A** Charger Display Module for impres multi-unit charger version 1.3 or later

**RLN5591A** Charger Display Module for impres multi-unit charger version 1.2 or earlier (Requires unit to be sent to the Rockford Service Center – instruction sheet provided)



WPLN4130AR

## HT1000 Series

## Portable Accessories

### impres™ Smart Energy System

#### impres™ Bundle Packs

Provide significant savings on the impres products by bundling a charger and batteries together as a smart energy system package.

**RLN5265A** impres™ single unit charger with two HNN9029AR batteries

**RLN5266A** impres™ single unit charger with two HNN9028AR batteries

**RLN5439B** impres™ multi unit charger with six HNN9029AR batteries

**RLN5440B** impres™ multi unit charger with six HNN9028AR batteries

#### Vehicular Charger

This 12V DC charger is ideal for mobile customers; it charges portable radio NiCd batteries in rapid charge mode (in less than 3 hours) until full charge is obtained and then switches to trickle charge mode. A microprocessor controls the charge rate. This durable unit comes with a metal mounting bracket and is PAC-RT compatible.

**TDN9816A** Vehicular Charger



TDN9816A

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

#### Standard Belt Loop Carrying Cases



NTN7247A

**NTN7238A** Leather Carry Case with Belt Loop and T-Strap for use with high capacity battery

**NTN7239A** Leather Carry Case with Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4018B** DTMF Leather Carry Case with Belt Loop for use with high and ultra-high capacity batteries

**NTN7247A** Nylon Carry Case with Belt Loop and Strap for use with high and ultra-high capacity batteries

#### High Activity Swivel Carrying Cases

The following carrying cases have a high activity swivel "D" button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high activity applications versus standard swivel cases while allowing the radio to swing freely with body movements.

**NTN8035B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8037B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8036B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery



NTN8036A

## HT1000 Series

## Portable Accessories

### Carrying Accessories



NTN8038A

**NTN8038B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4017B** DTMF Leather Carry Case with 3.0" High Activity Swivel Belt Loop and Antenna Strap for use with high and ultra-high capacity battery

#### T-Strap

**NTN7782A** T-Strap for leather Carry Cases

**NTN7376A** T-Strap for nylon carry cases

#### Belt Loops

**NTN8039B** 2.5" High Activity Swivel Belt Loop

**NTN8040B** 3.0" High Activity Swivel Belt Loop

**NTN1534A** High-activity "D" button and 2.5" belt loop

**NTN1535A** High-activity "D" button and 3.0" belt loop

#### Belt Clips

**4205638V07** 3" Belt clip

**4205638V09** 2.5" Belt clip



4200865599

#### Belt

**4200865599** 1.75" Wide Black Belt



NTN5243A

#### Carrying Strap

**NTN5243A** Shoulder Carry Strap, allows easy carrying of radio in a case when not wearing a belt

### Carrying Accessories

#### Waterproof Bag

**HLN9985B** Waterproof bag includes large carrying strap

#### Swiveller

**TDN9684A** Swiveller, includes clip button, holster and belt



TDN9684A

#### Swiveller Replacement Accessories

**TDN9690A** Clip button, mounts on battery

**TDN9688A** Holster, compatible with all buttons

**TDN9687A** Belt, 2" nylon



TDN9687A

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.



TDN9327A

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"

#### Universal Holders

**RLN4943A** Universal holder with gooseneck bracket

**RLN4944A** Wheelchair quick release assembly

**RLN4945A** Universal holder with gooseneck bracket and wheelchair quick release assembly



## HT1000 Series

## Portable Accessories

### Carrying Accessories

#### Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pouch

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

#### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"



### Audio Accessories

#### Remote Speaker Microphones (RSM)

Allows you to talk and listen without removing the radio from the belt case or charger. Ideal for high noise level environments. These water resistant microphones include coil cord assembly, 3.5mm earjack, swivel clothing clip and quick disconnect latch.

**\*NMN6193C** Remote Speaker Microphone

**\*NMN6191C** Noise Cancelling Remote Speaker Microphone



NMN6193B

**0104010J46** Replacement Coil Cord Cable Assembly for Remote Speaker Microphones

**RLN5002A** MicJacket Kit; compatible with NMN6191 and NMN6193 remote speaker microphones

#### Public Safety Speaker Microphones (PSM)

Public Safety Speaker Microphones include straight cord assembly, 3.5mm earjack, swivel clothing clip, quick disconnect latch, antenna connector, receiver, and audio high/low volume push button. Antenna must be ordered separately. Use radio antennas on page 162.

**\*NMN6228C** 30" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6243B** 18" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6244B** 24" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**0104004J29** 30" Public Safety Microphone Cable

**0104004J46** 18" Public Safety Microphone Cable

**0104004J47** 24" Public Safety Microphone Cable

**REX4410C** PTT Paddle Replacement Lit for Remote and Public Safety Microphones

**RLN5004A** MicJacket Kit; compatible with NMN6228, NMN6243 and NMN6244 remote speaker microphones

*\* Intrinsically safe*

## HT1000 Series

## Portable Accessories

### Audio Accessories

#### RSM Accessories

##### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile environments.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip



##### Audio Accessories for the RSM

Plugged into the 3.5mm earjack on the RSM audio adapter, these audio accessories will mute the speaker on the RSM allowing the user to discretely hear all incoming messages. Ideal for noisy environments. The following audio accessories can also be plugged directly into the radio with the BDN6676D audio adapter.

**BDN6781A** Pellet Style Earpiece

**BDN6719A** Flexible Ear Receiver

#### Headsets for the RSM and PSM

**RMN4056A** Receive-Only Dual Muff Headband Style Headset; provides 24dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RMN4057A** Receive-Only Hardhat Mount mounts easily to hardhats with slots and provides 22dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)



### Audio Accessories

#### CommPort: Integrated Microphone/Receiver System

CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1624A** Integrated Ear Microphone/Receiver System w/Palm PTT (includes BDN6676D 3.5mm Jack Adapter)

**\*NTN1625A** Integrated Ear Microphone/Receiver System with PTT on radio adapter (includes BDN6676D 3.5mm Jack Adapter)

**\*NTN1663A** Integrated Ear Microphone/Receiver System w/Ring PTT (includes BDN6676 3.5mm Jack Adapter)

**\*NTN1736A** CommPort integrated microphone/receiver with snap on side push-to-talk (PTT)

**\*NNTN4186A** Integrated Microphone/Receiver with Body Push-to-talk Button

**NKN6510A** Replacement Cable for NTN1624

**NKN6508A** Replacement Cable for NTN1625

**NKN6512A** Replacement Cable for NTN1663

**NKN6525A** Replacement cable with snap on side PTT

**NNTN4188A** Replacement Remote Push-to-Talk Body Switch

**NTN8821A** CommPort Maintenance Kit, Includes Replacement Ear Tubes (Quantity 10), Windscreens (Quantity 2) and Microphone Seal Strips (Quantity 10)

**NTN8986A** Adhesive Pads (Quantity 90) for secure attachment to ear

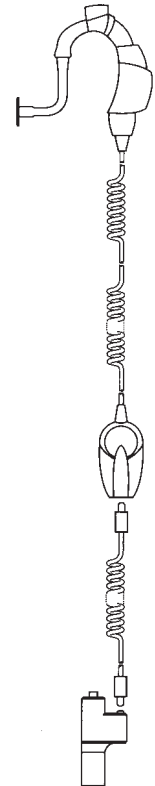
**NTN8988A** Ear Straps (Quantity 10), for secure attachment to ear

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip

**RLN5037A** Replacement Ear tubes (Quantity 10)

\* Intrinsically safe



NTN1625



## HT1000 Series

## Portable Accessories

### Audio Accessories

#### Surveillance Accessories

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

The following surveillance accessories require the BDN6676D (3.5 mm threaded adapter jack) that attaches to the radio, unless being used with speaker/microphone.

Receive-only Surveillance Kit (1 Wire)

**\*BDN6664A** Beige

**\*BDN6665A** Beige

**BDN6726A** Black

**BDN6727A** Black



BDN6664A

Receive-only Surveillance Kit with Volume Control (1 Wire)

**\*BDN6666A** Beige

**BDN6728A** Black



BDN6666A

Surveillance Kit with Microphone and Push-To-Talk Combined (2 Wire)

**\*BDN6667A** Beige

**\*BDN6669A** Beige

**BDN6729A** Black

**BDN6731A** Black



BDN6667A

Surveillance Kit with Microphone and Push-To-Talk Separate (3 Wire)

**\*BDN6668A** Beige

**\*BDN6670A** Beige

**BDN6730A** Black

**BDN6732A** Black

**\*BDN6676D** 3.5mm Jack Adapter with Quick Disconnect Latch



BDN6668A

### Audio Accessories

#### Surveillance Kit Replacement Accessories

**5080369E38** Standard Earpiece Assembly, includes earphone, earloop and eartip, beige

**5080370E90** Standard Earpiece Assembly includes earphone, earloop and eartip, black

**5080369E39** Extra Loud Assembly, includes earphone, earloop and eartip, beige

**5080370E91** Extra Loud Earpiece Assembly, includes earphone, earloop and eartip, black

**5080369E40** Plastic Urethane Earloop, beige

**5080370E92** Plastic Urethane Earloop, black



5080369E39



5080370E92

**5080371E73** Standard Rubber Eartip, beige, pack of 25

**5080371E75** Standard Rubber Eartip, black, pack of 25

**5080377E06** Plastic Eartip Adapter, pack of 10

#### Surveillance Kits with Extended Wear Earpiece

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube. Users can hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5311A** Beige Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk; requires BDN6676D audio adapter

**RLN5312A** Black Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk; requires BDN6676D audio adapter

**RLN5313A** Receive-Only Comfort Earpiece, black

**RLN5314A** Receive-Only Comfort Earpiece, beige



RLN5311A

\* Intrinsically safe

## Portable Accessories

### Audio Accessories

#### Completely Discrete Earpiece

Remain discretely in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discrete two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discrete communication.

**RLN4922A** Completely Discrete Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear  
Wax Guards,  
5 per pack

**RNN4005A** 1.4V  
Battery, 6 per pack



RLN4922A

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Replacement Standard Rubber Eartips; pack of 25 (for use with NTN8371A), beige

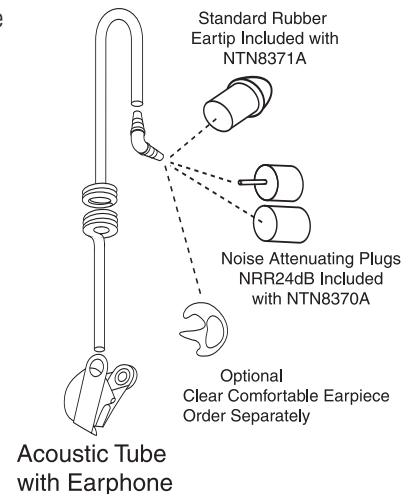


NTN8370A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

## HT1000 Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).

**Interface Module needs to be ordered separately for EMS to work.**

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95dB, black)

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB, beige)

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105dB)



BDN6641A  
Shown with  
interface module



BDN6708B

#### Interface Module For EMS

**\*BDN6708B** Push-To-Talk Interface Module

**\*BDN6671B** Push-To-Talk or Voice-Activated Interface Module

### Audio Accessories

#### Optional Accessories For EMS

**\*0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk Body Switch

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear



0180358B38

**0180358B32** Earholder, black size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear



0180358B33

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

#### Flexible Ear Receiver

The flexible ear receiver contains a flexible earloop and speaker, and rests external to the ear.

**BDN6719A** Ear Receiver with 3.5 mm Threaded Plug, requires adapter BDN6676D unless being used with speaker microphone

**7580372E11** Replacement Foam Ear Cushions for BDN6719A



BDN6719A

\* Intrinsicly safe

## HT1000 Series

## Portable Accessories

### Audio Accessories

#### Pellet Style Earpieces

**BDN6780A** Single Earbud with Microphone and Push-To-Talk, requires adapter BDN6676D, unless being used with speaker microphone

**BDN6781A** Single Earbud, receive only; requires adapter BDN6676D unless being used w/speaker microphone

**7580372E70** Replacement Foam Ear Cushion for Pellet Earpieces



BDN6780A

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands-free, discrete two-way communication, while adding comfort necessary for extended wear in moderate noise environments. Requires BDN6676D Audio Adapter.

**\*NMN6245A** Single Muff Adjustable Lightweight Headset with Boom Microphone and In-line Push-To-Talk Switch (requires BDN6676D adapter)

**\*NMN6246B** Ultralite Headset with Boom Microphone and In-line Push-To-Talk Switch; ear bud style receiver (requires BDN6676B adapter)

**\*NMN1020A** Lightweight Headset with Boom Microphone to be worn on a helmet or safety glasses. Includes NKN6498A adapter cable. Requires BDN6676D adapter. FM approved.

**\*NKN6498A** Headset Adapter Cable for use with NMN1020A

**REX4648A** Replacement Foam Earpad and Windscreen Kit for NMN6245A

**5080574E02** Foam Earpads for use with NMN6245A, 10 per pack

### Audio Accessories

#### Temple Transducer

The Temple Transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of the accessory rests on the temples and it is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and bone directly into the inner ear where it is received by the user. It features an in-

line PTT and noise canceling boom microphone. The Temple Transducer enhances communications and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning and fire alarms, the intercom, traffic, and even casual conversations with their co-workers.

**\*RMN4049A** Temple Transducer



RMN4049A

#### Racing Headset

Motorola is the Official Wireless Equipment supplier of CART, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.

**RMN5015A** Racing Headset (Requires radio adapter cable BDN6673B)



RMN5015A

\* Intrinsicly safe

## HT1000 Series

## Portable Accessories

### Audio Accessories

#### Medium Weight Headsets

Medium Weight Headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*NMN6258A** Medium Weight Headset, over the head with In-Line PTT, Noise Reduction Rating = 24dB

**\*NMN6259A** Medium Weight Headset, behind the head with In-Line PTT, Noise Reduction Rating = 24dB

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement "O"-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6259A

**RMN4051A** Hardhat Mount Headset mounts easily to hardhats with slots and provides 22dB of noise reduction; requires RKN4095A adapter cable, hardhat not included

**RKN4095A** Radio Adapter Cable with In-Line PTT for use with RMN4051A



NMN6258A

#### Tactical Medium Weight Headsets

Same high-clarity sound and additional hearing protection as our standard medium weight headsets while including two microphones on the outside of each earcup which reproduces the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times but never more than 82dB. Includes on/off volume control on ear cups.

**RMN4052A** Tactical Headband Style Headset, grey; provides 24dB of noise reduction and requires RKN4095A adapter cable



RMN4052A

### Audio Accessories

**RMN4053A** Tactical Hardhat Mount Headset mounts easily to hardhats with slots; provides 22dB of noise reduction and requires RKN4095A adapter cable, hardhat not included

**RKN4095A** Radio Adapter Cable with IN-Line PTT for use with RMN4051A and RMN4053A

**RLN4923A** Two Replacement Snap-in Earseals; Recommended replacement interval is once every six months to ensure constant level of attenuation hygiene and comfort for RMN4051A, RMN4052A, and RMN4053A.

#### Heavyduty Headsets

Heavyduty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. Heavyduty headsets require radio adapter cable BDN6673B, to be ordered separately.



BDN6645A

**\*BDN6645A** Push-To-Talk Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB

**\*BDN6635B** Voice-activated Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB



BDN6635B

**\*BDN6636B** Voice-activated Headset with Throat Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB



BDN6636B

**\*BDN6673B** Radio Adapter Cable

\* Intrinsicly safe



## HT1000 Series

## Antennas

### Portable Antennas

#### Flexible Whip Antennas

Antenna has a one-piece finish and steel core for optimal strength and better radiation characteristics. Provides more comfort when radio is worn on the belt.

##### **8505241U05**

Flexible Whip, 403-520MHz, 6"

##### **8505241U03**

Flexible Whip, 806-870MHz, 7"

##### **8505241U04**

Flexible Whip, 896-941MHz, 7"

8505241U05

#### Helical Antennas

Helical are sturdy and dependable for years of failsafe communication. Each antenna is designed and built to quality standards. The skirt at the base of the connector helps to seal out damaging elements. Connector is made of plated brass material for long life.

##### **8505644V01**

Helical, 136-151MHz, 6"

##### **8505644V02**

Helical, 151-162MHz, 6"

##### **8505644V03**

Helical, 162-174MHz, 6"

##### **8505644V04**

Helical, 403-435MHz, 3"

##### **8505644V05**

Helical, 435-470MHz, 3"

##### **8505644V06**

Helical, 470-520MHz, 3"

8505644V01

8505644V03

8505644V04

### Portable Antennas

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

##### **NAF4000B**

Dipole, 806-869MHz, 8"

##### **8505884R02**

Dipole, 896-941MHz, 8"

NAF4000B

8505884R02

#### Wideband Antenna

Wideband antenna is ideal when radio is used in different frequencies since one antenna will cover all ranges.

**8505518V01** Wideband, 136-174MHz, 6"

#### Stubby Antenna

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive. This is a broadband antenna that can be used for both 800MHz and 900MHz applications.

##### **8505241U06\***

Stubby, 806-941MHz, 4"

8505241U06

\*8505241U06 is a broadband antenna that operates in the 800/900 MHz band

## HT1000 Series

## Miscellaneous Accessories, Batteries



**MOTOROLA**  
intelligence everywhere™

### Miscellaneous Accessories

#### Replacement Kit

**REX4398A** 2/8/16 Channel Cosmetic Replacement Kit

#### Public Safety Tilt Switch

An external emergency switch that is activated when the unit is tilted at a greater than 60 degree angle. Delay times are factory programmed for 8 seconds and are not field programmable. The emergency feature must be programmed into the radio to enable the tilt switch option. FM approved. Not compatible with the JT1000.

**NTN7660A** Public Safety Tilt Switch

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN7143CR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: No



NTN7143CR

Part Number: **NTN7144CR**

Volts: 7.5

Avg. mAh: 1500

Height: 6"

Intrinsically Safe: No

Part Number: **NTN7146AR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: Yes

Part Number: **NTN7147AR**

Volts: 7.5

Avg. mAh: 1300

Height: 6"

Intrinsically Safe: Yes



NTN7147AR

Part Number: **NTN7149BR**

Volts: 7.5

Avg. mAh: 1300

Height: 6"

Intrinsically Safe: Yes

CSA: Yes

Part Number: **NTN7150AR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: Yes

MSHA: Yes





## HT1000 Series

## Batteries, Service Aids

### Portable Batteries

Part Number: **NTN7341AR**

Volts: 7.5

Avg. mAh: 1400

Height: 6"

Intrinsically Safe: Yes



NTN7372AR

Part Number: **NTN7372AR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: Yes

### Nickel Metal Hydride Premium

Part Number: **WPNN4013A**

Volts: 7.5

Avg. mAh: 2000

Height: 6"

Intrinsically Safe: No



WPNN4013A

Part Number: **WPNN4037A**

Volts: 7.5

Avg. mAh: 1900

Height: 6"

Intrinsically Safe: Yes

### Nickel-Cadmium impres™

Part Number: **HNN9028AR**

Volts: 7.5

Avg. mAh: 1500

Height: 6"

Intrinsically Safe: No

Part Number: **HNN9029AR**

Volts: 7.5

Avg. mAh: 1500

Height: 6"

Intrinsically Safe: Yes

### Service Aids

#### Cloning Cable

Allows another radio to be duplicated from a master radio by transferring programmed data from one radio to another.

**RKN4036D** Cloning Cable

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.



RLN4008E

**RLN4008E** Radio Interface Box

#### Computer Interface Cable

Used to connect computer's serial adapter to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005B, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RKN4035D** Radio Test and Programming Cable

#### Wall Mounted Power Supply

Used to supply power to radio interface box RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts



0180357A57

## HT1000 Series

## Service Aids, Manuals

### Service Aids

#### Battery Eliminator

**RLN1014A** The Battery Eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.



RLN1014A

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Requires interface box and appropriate cables, must be ordered separately.

**RVN4098H** Programming Software

#### Option Boards

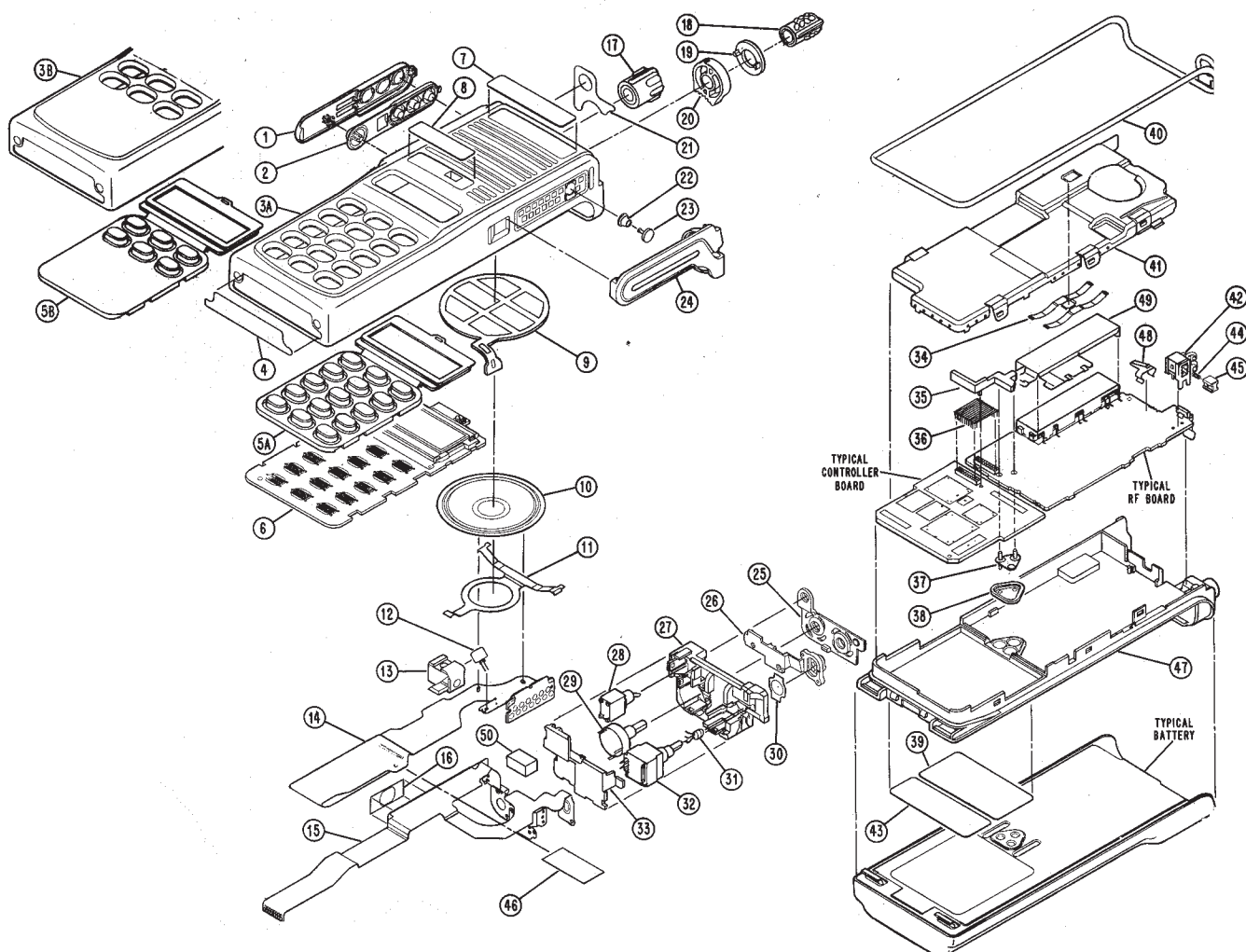
**NTN8313A** Analog Voice Scrambler Advantage Board, for use with HT1000 only. *NOT APPROVED* for installation in FM approved models.

### Manuals

<b>6881200C15</b>	HT1000/JT1000/MT2000 & MTX8000/9000 Radio Theory
<b>6881200C40</b>	HT1000/JT1000 & MT2000 Service Manual
<b>6881200C25</b>	MTX8000/9000 Service Manual
<b>6881079C50</b>	HT1000 Operator's Manual
<b>6881078C45</b>	JT1000 Operator's Manual
<b>6881076C65</b>	MT2000 Operator's Manual
<b>6881072C10</b>	MTX8000/9000 B3 Operator's Manual
<b>6881072C40</b>	MTX8000/9000 B5/B7 Operator's Manual
<b>0180305J46</b>	Ear Microphone System and Temple Transducer CD-ROM
<b>0180305J70</b>	impres™ System CD-ROM

# JT1000 Series

## Parts List



# JT1000 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>4505896U02</b>	Lever, PTT	27	<b>2705877U01</b>	Housing, Switch
2	<b>3205902U01</b>	Seal, PTT, and Actuator for S404, S405, S406, and S408	28	----	Switch, Toggle (S402) – not available
3A	<b>1505637V04</b>	Cover, Front; Full Keypad	29	----	Potentiometer/Switch, On/Off/Volume Control (R401/S403) – not available
3B	<b>1505637V05</b>	Cover, Front; Limited Keypad	30	<b>3905329W01</b>	Popple, Emergency Button
4	----	Label, Agency Approval; not field replaceable	31	----	LED (CR702A/CR702B) – not available
5A	<b>7505870U01</b>	Keypad, 15-key	32	----	Switch, Frequency (S401) – not available
5B	<b>7505870U02</b>	Keypad, 6-key	33	<b>1505632V01</b>	Cover, Switch Housing
6	<b>5105238U83</b>	Module, Display	34	----	Spring, PA; not field replaceable, order front shield (item 41)
7	<b>3305183R55</b>	Label, Motorola	35	<b>4205507X01</b>	Strain Relief
8	<b>3305409X06</b>	Label, JT1000	36	<b>8405247V01</b>	Connector, Strip (P301/P704) Flex, Jumper (early version radios)
9	<b>3505535X02</b>	Felt, Speaker	37	----	Plug, Connector (P404) – not available
10	----	Speaker (LS401) – not available	38	<b>3205820V02</b>	Seal, Connector Plug
11	<b>0705470V01</b>	Bracket, Speaker Retainer	39	----	Label, Rear; Information; not field replaceable
12	----	Microphone – not available	40	<b>3205176Z01</b>	“O” Ring, Contoured/Seal, Antenna
13	<b>1405330W02</b>	Boot, Microphone	41	<b>2605891U03</b>	Shield, Front
14	<b>8405310W04</b>	Flex, Front Cover/Display	42	----	Switch, RF (S101) – not available
15	<b>8405641V02</b>	Flex, Controls	43	----	Label, Barcode; not field replaceable
16	<b>3905517V01</b>	Popple, PTT (part of S406)	44	<b>4105266V01</b>	Spring, RF Switch
17	<b>3605253V01</b>	Knob, On/Off/Volume	45	<b>4405524V01</b>	Piston, RF Switch
18	<b>3605636V01</b>	Knob, Frequency	46	<b>1405307X01</b>	Insulator
19	<b>1305633V01</b>	Ring, Concentric; Escutcheon	47	<b>1505892U06</b>	Chassis (Rear Cover)
20	<b>3605635V01</b>	Knob, Concentric Ring	48	<b>3905838V01</b>	Contact, Antenna Shield Ground (800 MHz and 900 MHz radios only)
21	<b>1305698V01</b>	Escutcheon, Control Top	49	<b>2605898U01</b>	Shield, PA (800 MHz and 900 MHz radios only)
22	<b>3205160W01</b>	Seal, Actuator; for S101	50	<b>7505393N33</b>	Pad, Shock
23	<b>2205159W01</b>	Pin, Actuator; for S101			
24	<b>3205514W01</b>	Seal, Accessory Connector			
25	<b>3205177Z01</b>	Seal, Control Top			
26	<b>3205178Z01</b>	Seal, Emergency Button			

## Portable Accessories

### Chargers

Single unit chargers are available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola. All chargers listed are rapid rate and will fully charge your battery in less than 3 hours.

#### Single Unit Desktop Chargers – Rapid Rate

The desktop charger has the power supply built into the base unit and will charge both NiCd and NiMH batteries.



NTN1168A

**NTN1168A** Rapid Rate Desktop Charger, 110V

**NTN1169A** Rapid Rate Desktop Charger, 220V (supplied with 2 prong cord)

**NTN1170A** Rapid Rate Desktop Charger, 240V (supplied with 3 flat prong cord)

#### Single Unit Compact Bi-Chemistry Chargers – Rapid Rate

The bi-chem charger has the power supply built into the line cord giving the user a smaller base unit for easier storage. It also utilizes an enhanced charging algorithm that will help maximize the life of your batteries. It will rapid rate charge both NiCd and NiMH batteries.

**RPX4747A** Compact Bi-Chem Charger, 110V

**RPX4748A** Compact Bi-Chem Charger, 230V Euro plug

**RPX4749A** Compact Bi-Chem Charger, 230V UK plug

### Chargers

#### Multiple Unit Charger (MUC)

Multi-unit chargers offer six pockets that can be used to rapid charge 1 to 6 batteries simultaneously. The batteries can be charged with the radios or separately. They will rapid rate charge both NiCd and NiMH batteries.

**NTN1177D** Six-Pocket, rapid rate 110V

**NTN1178D** Six-Pocket, rapid rate, 220V (supplied with 2 prong cord)

**NTN1179D** Six-Pocket, rapid rate, 240V (supplied with 3 flat prong cord)



NTN1177D

#### AC Line Cords

**3060665A04** 120V Interchangeable line cord

**3060665A05** 220V Interchangeable line cord with 2 prong Euro plug

#### MUC Accessories

**NLN7967A** Wall Mount

#### Travel Charger

**RLN4884B** Travel Charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.



RLN4884B

#### Travel charger Mounting Bracket

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

#### Travel Charger AC Transformer

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)

## JT1000 Series

## Portable Accessories

### Chargers

#### impres™ Smart Energy System



WPLN4111AR

The impres smart energy system ensures maximum talk-time and optimized battery cycle life through the use of its advanced charging algorithm and automatic reconditioning features. The smart energy system reconditions impres batteries when they need it, automatically, keeping them in peak condition. Its advanced conditioning features allow batteries to be safely left on the charger for extended

periods of time without incurring the damaging heat build-up which can rob batteries of cycle life. In addition, batteries left on the charger are kept fully charged so they are always ready when you need them. The impres system reconditions batteries when they need it based on their usage pattern. Talk time and cycle life are optimized and the need for manual maintenance programs reduced or eliminated. This rapid-rate tri-chemistry charging system will also charge existing legacy batteries and supports multiple radio platforms including Saber, XTS, and HT1000 series portables.

**WPLN4111AR** impres Single Unit Charger

**WPLN4108BR** impres Multi-Unit Charger

#### impres™ Multi-Unit Charger with Display Modules

The impres Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impres battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time (NiCd and NiMH only) which lets the user know when the impres battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage and charge status and the version of the charger and display modules.

**WPLN4130AR** Multi-Unit Charger with Display Modules



WPLN4130AR

### Chargers

#### impres™ Bundle Packs

Provide significant savings on the impres products by bundling a charger and batteries together as a smart energy system package.

**RLN5265A** impres single unit charger with two HNN9029AR batteries

**RLN5266A** impres single unit charger with two HNN9028AR batteries

**RLN5439B** impres multi unit charger with six HNN9029AR batteries

**RLN5440B** impres multi unit charger with six HNN9028AR batteries

### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified nickel cadmium (NiCd) and nickel metal hydride (NiMH) batteries in approximately one to two hours.

**WPLN4090BR** MCC Kit, 110V AC; includes both base unit and 7V adapter

**WPLN4091BR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**WPPN4002BR** 110V AC Base Charge Unit Only (order adapter plate separately)

**WPPN4006AR** 220V AC Base Charge Unit Only (order adapter plate separately)

**WPPN4065BR** Multi-Unit Conditioning Charger Four Station Base 110V (order adapter plate separately)

**3080384G15** Cigarette Lighter Adapter Cord; MCC multi-unit conditioning charger

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger



WPPN4002BR



## JT1000 Series

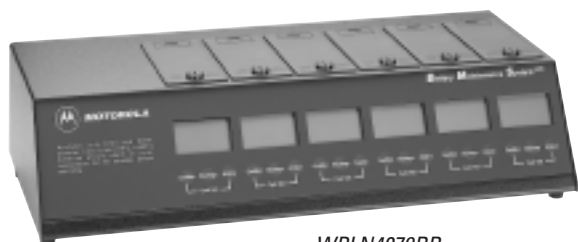
### Portable Accessories

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

##### **Increase the useful life of your batteries.**

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



TDN9435C

##### **BMS<sup>plus</sup> Adapter**

**TDN9435C** Adapter Compatible with NiCd Batteries Only

**CDN6364A** Adapter Compatible with Both NiCd and NiMH Batteries

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use

navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

##### **BOS II Adapter**

**RL-72403** Standard Adapter

##### **Vehicular Charger**

This 12V DC charger is ideal for mobile customers; it charges portable radio NiCd batteries in rapid charge mode (in less than 3 hours) until full charge is obtained and then switches to trickle charge mode. A

microprocessor controls the charge rate. This durable unit comes with a metal mounting bracket and is PAC-RT compatible.

**TDN9816A** Vehicular Charger



TDN9816A

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.



## JT1000 Series

### Portable Accessories

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

##### Standard Belt Loop Carrying Cases



NTN7247A

**NTN7238A** Leather Carry Case with Belt Loop and T-Strap for use with high capacity battery

**NTN7239A** Leather Carry Case with Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4018B** DTMF Leather Carry Case with Belt Loop for use with high and ultra-high capacity batteries

**NTN7247A** Nylon Carry Case with Belt Loop and Strap for use with high and ultra-high capacity batteries

##### High Activity Swivel Carrying Cases

The following carrying cases have a high activity swivel "D" button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high activity applications versus standard swivel cases while allowing the radio to swing freely with body movements.

**NTN8035B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8037B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8036B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery



NTN8036A

#### Carrying Accessories



NTN8038A

**NTN8038B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4017B** DTMF Leather Carry Case with 3.0" High Activity Swivel Belt Loop and Antenna Strap for use with high and ultra-high capacity battery

##### T-Strap

**NTN7782A** T-Strap for leather Carry Cases

**NTN7376A** T-Strap for nylon carry cases

##### Belt Clips

**4205638V07** 3" Belt clip

**4205638V09** 2.5" Belt clip

##### Belt Loops

**NTN8039B** 2.5" High Activity Swivel Belt Loop

**NTN8040B** 3.0" High Activity Swivel Belt Loop



4200865599

##### Belt

**4200865599** 1.75" Wide Black Belt

##### Carrying Strap

**NTN5243A** Shoulder Carry Strap, allows easy carrying of radio in a case when not wearing a belt



NTN5243A

##### High Activity Button

**NTN8036B** "D" Button, high activity

## JT1000 Series

### Portable Accessories

#### Carrying Accessories

##### Swiveller

**TDN9684A** Swiveller, includes clip button, holster and belt

##### Swiveller Replacement Accessories

**TDN9690A** Clip button, mounts on battery

**TDN9688A** Holster, compatible with all buttons

**TDN9687A** Belt, 2" nylon



TDN9684A



TDN9687A

##### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"



TDN9327A

#### Carrying Accessories

##### Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pouch

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

##### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A



##### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

## JT1000 Series

## Portable Accessories

### Audio Accessories



NMN6193B

#### Remote Speaker Microphones (RSM)

Allows you to talk and listen without removing the radio from the belt case or charger. Ideal for high noise level environments. These water resistant microphones include coil cord assembly, 3.5mm earjack, swivel clothing clip and quick disconnect latch.

**\*NMN6193B** Remote Speaker Microphone

**\*NMN6191B** Noise Cancelling Remote Speaker Microphone

**0104004J26** Replacement Coil Cord Cable Assembly for Remote Speaker Microphones

#### Public Safety Speaker Microphones (PSM)

Public Safety Speaker Microphones include straight cord assembly, 3.5mm earjack, swivel clip, quick disconnect latch, antenna connector, and receiver, audio high/low volume push button. Antenna must be ordered separately. Use radio antennas on page 180.

**\*NMN6228C** 30" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6243B** 18" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6244B** 24" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**0104004J29** 30" Public Safety Microphone Cable

**0104004J46** 18" Public Safety Microphone Cable

**0104004J47** 24" Public Safety Microphone Cable

**REX4410C** PTT Paddle Replacement Kit for Remote and Public Safety Microphones

### Audio Accessories

#### RSM Accessories

##### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile environments.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip



RLN4294A



RLN4295A

#### Pellet Style Earpieces

Pellet style earpieces allow the user to receive communication discreetly and is comfortable for extended wear.



BDN6780A

**BDN6780A** Pellet Style Earpiece with Clip Microphone and Push-To-Talk button. Requires BDN6676D audio adapter.

**BDN6781A** Receive-only Pellet Style Earpiece. Requires BDN6676D audio adapter unless being used with speaker microphone.

**5780372E70** Replacement Foam Ear Cushion for Pellet Earpieces

#### Flexible Ear Receiver

Earpiece contains a flexible earloop and speaker and rests on the outside of the ear.

**BDN6719A** Ear Receiver with 3.5mm Threaded Plug, requires adapter BDN6676D unless being used with speaker microphone

**7580372E11** Replacement Foam Ear Cushions for BDN6719A



BDN6719A

\* Intrinsically safe

## Portable Accessories

### Audio Accessories

#### Headsets for the RSM and PSM

**RMN4056A** Receive-Only Dual Muff Headband Style Headset; provides 24dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RMN4057A** Receive-Only Hardhat Mount mounts easily to hardhats with slots and provides 22dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RLN4923A** Replacement Earseals for RMN4056A and RMN4057A



RMN4056A

#### CommPort: Integrated Microphone/Receiver System



NTN1623A

CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1624A** Integrated Ear Microphone/Receiver System w/Palm PTT (includes BDN6676D radio adapter)

**\*NTN1625A** Integrated Ear Microphone/Receiver System (includes BDN6676D radio adapter)

**NTN1623A** CommPort integrated ear microphone/receiver system w/palm PTT (Includes Hirose adapter) Requires Astro antenna adapter 4305909W01 (order separately)

### Audio Accessories

**\*NTN1663A** Integrated Ear Microphone/Receiver System w/Ring PTT (includes BDN6676 3.5mm Jack Adapter)

**\*NTN1736A** Integrated Ear Microphone/Receiver System with snap-on side PTT (includes BDN6676D radio adapter)

**\*NNTN4186A** Integrated Ear Microphone/Receiver System with body PTT (includes BDN6676D radio adapter)

**\*NKN6510A** Replacement Cable for NTN1624

**NKN6508A** Replacement Cable for NTN1625

**NKN6512A** Replacement Cable for NTN1663

**NNTN4188A** Replacement Remote Push-to-Talk Body Switch

**NTN8821A** CommPort Maintenance Kit, Includes Replacement Ear Tubes (Quantity 10), Windscreens (Quantity 2) and Microphone Seal Strips (Quantity 10)

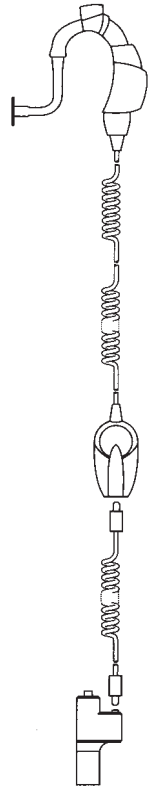
**NTN8986A** Adhesive Pads (Quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (Quantity 10), for secure attachment to ear

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip

**RLN5037A** Replacement Ear tubes (Quantity 10)



NTN1625

\* Intrinsically safe

## Portable Accessories

### Audio Accessories

#### Surveillance Accessories

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

The following surveillance accessories require the BDN6676D (3.5 mm threaded adapter jack) that attaches to the radio.

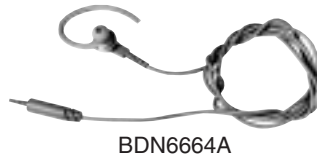
Receive-only Surveillance Kit (1-Wire)

**\*BDN6664A** Beige

**\*BDN6665A** Beige

**BDN6726A** Black

**BDN6727A** Black



BDN6664A

Receive-only Surveillance Kit with Volume Control (1-Wire)

**\*BDN6666A** Beige

**BDN6728A** Black



BDN6666A

Surveillance Kit with Microphone and Push-To-Talk Combined (2-Wire)

**\*BDN6667A** Beige

**\*BDN6669A** Beige

**BDN6729A** Black

**BDN6731A** Black



BDN6667A

Surveillance Kit with Microphone and Push-To-Talk Separate (3-Wire)

**\*BDN6668A** Beige

**\*BDN6670A** Beige

**BDN6730A** Black

**BDN6732A** Black

**\*BDN6676D** 3.5mm Jack Adapter with Quick Disconnect Latch



BDN6668A

### Audio Accessories

#### Surveillance Kits with Extended Wear Earpiece

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube. Users can hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5311A** Beige Two-Wire Comfort Earpiece with Combined Microphone and Push-To-Talk; requires BDN6676D audio adapter

**RLN5312A** Black Two-Wire Comfort Earpiece with Combined Microphone and Push-To-Talk; requires BDN6676D audio adapter

**RLN5313A** Receive-Only Comfort Earpiece, black

**RLN5314A** Receive-Only Comfort Earpiece, beige

#### Surveillance Kit Replacement Accessories

**5080369E38** Standard Earpiece Assembly, includes earphone, earloop and eartip, beige

**5080370E90** Standard Earpiece Assembly includes earphone, earloop and eartip, black

**5080369E39** Extra Loud Assembly, includes earphone, earloop and eartip, beige

**5080370E91** Extra Loud Earpiece Assembly, includes earphone, earloop and eartip, black

**5080369E40** Plastic Urethane Earloop, beige

**5080370E92** Plastic Urethane Earloop, black



5080369E39



5080370E92



5080370E41

**5080369E41** Wire Earloop

**5080371E69** Small Rubber Eartip, beige, pack of 25

**5080371E71** Small Rubber Eartip, black, pack of 25

**5080371E73** Standard Rubber Eartip, beige, pack of 25

**5080371E75** Standard Rubber Eartip, black, pack of 25

**5880377E06** Plastic Eartip Adapter, pack of 10

\* Intrinsicly safe



## JT1000 Series

## Portable Accessories

### Audio Accessories

#### Completely Discrete Earpiece

Remain discretely in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discrete two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. **Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discrete communication.**

**RLN4922A** Completely Discrete Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4V Battery, 6 per pack



RLN4922A

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

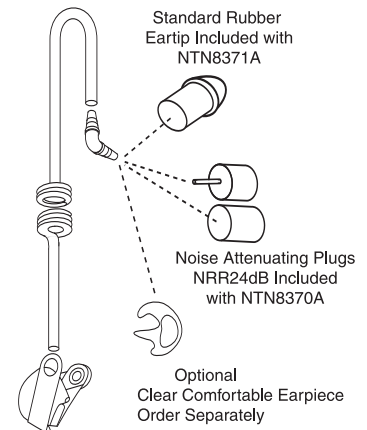


NTN8370A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



Acoustic Tube with Earphone

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



## JT1000 Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX). Interface Module needs to be ordered separately for EMS to work

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95dB, black)

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB, beige)

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105dB)



**BDN6641A**  
Requires  
interface module  
sold separately



**BDN6708B**

#### Interface Module For EMS

**\*BDN6708B** Push-To-Talk Interface Module

**\*BDN6671B** Push-To-Talk or Voice-Activated Interface Module

### Audio Accessories

#### Optional Accessories For EMS

**\*0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk Body Switch

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear

**0180358B32** Earholder, black size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)



**0180358B38**



**0180358B33**

\* Intrinsically safe

## Portable Accessories

### Audio Accessories

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands-free, discrete two-way communication, while adding comfort necessary for extended wear in moderate noise environments. Requires BDN6676D Audio Adapter.

**\*NMN6245A** Single Muff Lightweight Headset with In-line Push-To-Talk Switch (requires BDN6676D adapter)

**\*NMN6246B** Ultralite Headset with Boom Microphone and In-line Push-To-Talk Switch; ear bud style receiver (requires BDN6676B adapter)



NMN6245A

**\*NMN1020A** Lightweight Headset with Boom Microphone to be worn on a helmet or safety glasses. Includes NKN6498A adapter cable. Requires BDN6676D adapter. FM approved.

**NKN6498A** Headset Adapter Cable for use with NMN1020A

**REX4648A** Replacement Foam Earpad and Windscreen Kit for NMN6245A

**5080574E02** Foam Earpads for use with NMN6245A, 10 per pack

#### Temple Transducer



RMN4049A

The Temple Transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of the accessory rests on the temples and it is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and bone directly into

the inner ear where it is received by the user. It features an in-line PTT and noise canceling boom microphone. The Temple Transducer enhances communications and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning and fire alarms, the intercom, traffic, and even casual conversations with their co-workers.

**\*RMN4049A** Temple Transducer

### Audio Accessories

#### Medium Weight Headsets

Medium Weight Headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*NMN6258A** Medium Weight Headset, over the head with In-Line PTT, Noise Reduction Rating = 24dB



NMN6258A

**\*NMN6259A** Medium Weight Headset, behind the head with In-Line PTT, Noise Reduction Rating = 24dB

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6259A

**RMN4051A** Hardhat Mount Headset mounts easily to hardhats with slots and provides 22dB of noise reduction; requires RKN4095A adapter cable, hardhat not included

**RKN4095A** Radio Adapter Cable with In-Line PTT for use with RMN4051A

\* Intrinsicly safe

## JT1000 Series

## Portable Accessories

### Audio Accessories

#### Tactical Medium Weight Headsets

Same high-clarity sound and additional hearing protection as our standard medium weight headsets while including two microphones on the outside of each earcup which reproduces the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times but never more than 82dB. Includes on/off volume control on ear cups.

**RMN4052A** Tactical Headband Style Headset, grey; provides 24dB of noise reduction and requires RKN4095A adapter cable

**RMN4053A** Tactical Hardhat Mount Headset mounts easily to hardhats with slots; provides 22dB of noise reduction and requires RKN4095A adapter cable, hardhat not included

**RKN4095A** Radio Adapter Cable with In-Line PTT for use with RMN4051A and RMN4053A

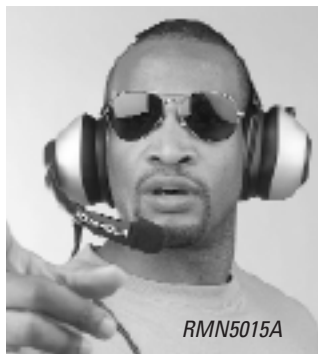
**RLN4923A** Two Replacement Snap-in Earseals; Recommended replacement interval is once every six months to ensure constant level of attenuation hygiene and comfort for RMN4051A, RMN4052A, and RMN4053A.



RMN4052A

#### Racing Headset

Motorola is the Official Wireless Equipment supplier of CART®, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.



RMN5015A

**RMN5015A** Racing Headset (Requires BDN6673B radio adapter cable)

### Audio Accessories

#### Heavyduty Headsets



BDN6645A  
(shown with BDN6673B)

**\*BDN6645A** Push-To-Talk Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB



BDN6636B  
(shown with BDN6673B)

Heavyduty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125 dB. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. Heavyduty headsets require radio adapter cable BDN6673B, to be ordered separately.



BDN6635B  
(shown with BDN6673B)

**\*BDN6635B** Voice-activated Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB

**\*BDN6636B** Voice-activated Headset with Throat Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB

**\*BDN6673B** Radio Adapter Cable

\* Intrinsically safe

## JT1000 Series

## Antennas

### Portable Antennas

#### Flexible Whip Antennas

Antenna has a one-piece finish and steel core for optimal strength and better radiation characteristics. Provides more comfort when radio is worn on the belt.

##### 8505241U05

Flexible Whip, 403-520MHz, 6"

##### 8505241U03

Flexible Whip, 806-870MHz, 7"

##### 8505241U04

Flexible Whip, 896-941MHz, 7"

8505241U05

#### Helical Antennas

Helical are sturdy and dependable for years of failsafe communication. Each antenna is designed and built to quality standards. The skirt at the base of the connector helps to seal out damaging elements. Connector is made of plated brass material for long life.

##### 8505644V01

Helical, 136-151MHz, 6"

##### 8505644V02

Helical, 151-162MHz, 6"

##### 8505644V03

Helical, 162-174MHz, 6"

##### 8505644V04

Helical, 403-435MHz, 3"

##### 8505644V05

Helical, 435-470MHz, 3"

##### 8505644V06

Helical, 470-520MHz, 3"

8505644V01

8505644V03

8505644V04

### Portable Antennas

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

##### NAF4000B

Dipole, 806-869MHz, 8"

##### 8505884R02

Dipole, 896-941MHz, 8"

NAF4000B

8505884R02

#### Wideband Antenna

Wideband antenna is ideal when radio is used in different frequencies since one antenna will cover all ranges.

**8505518V01** Wideband, 136-174MHz, 6"

#### Stubby Antenna

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive. This is a broadband antenna that can be used for both 800MHz and 900MHz applications.

##### 8505241U06\*

Stubby, 806-941MHz, 4"

8505241U06

#### Vehicular Antenna Kit

Allows users to convert their portable radio into a mobile application. Comes complete with mobile antenna, custom cable adapter and connector.

**RAF4001ARG** Vehicular antenna kit

### Replacement Kit

**REX4398A** 2/8/16 Channel Cosmetic Replacement Kit

*\*8505241U06 is a broadband antenna that operates in the 800/900 MHz band*

## JT1000 Series

### Batteries

#### Portable Batteries

##### Nickel-Cadmium impres™

Part Number: **HNN9028AR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 6"  
Intrinsically Safe: No

Part Number: **HNN9029AR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 6"  
Intrinsically Safe: Yes

##### Nickel-Cadmium Premium

Part Number: **NTN7143CR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: No

Part Number: **NTN7144CR**  
Volts: 7.5  
Avg. mAh: 1400  
Height: 6"  
Intrinsically Safe: No

Part Number: **NTN7146AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: Yes

Part Number: **NTN7147AR**  
Volts: 7.5  
Avg. mAh: 1300  
Height: 6"  
Intrinsically Safe: Yes

Part Number: **NTN7149BR**  
Volts: 7.5  
Avg. mAh: 1300  
Height: 6"  
Intrinsically Safe: No  
CSA: Yes



NTN7143CR



NTN7147AR

#### Portable Batteries

Part Number: **NTN7150AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: No  
MSHA: Yes

Part Number: **NTN7341AR**  
Volts: 7.5  
Avg. mAh: 1400  
Height: 6"  
Intrinsically Safe: Yes

Part Number: **NTN7372AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: Yes

Part Number: **HNN9004AR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 6"  
Intrinsically Safe: No  
Bluetooth™: Yes



NTN7372AR

##### Nickel Metal Hydride Premium

Part Number: **WPNN4013A**  
Volts: 7.5  
Avg. mAh: 2000  
Height: 6"  
Intrinsically Safe: No

Part Number: **WPNN4037A**  
Volts: 7.5  
Avg. mAh: 1900  
Height: 6"  
Intrinsically Safe: Yes



WPNN4013A

## Service Aids

### Service Aids

#### Cloning Cable

Allows another radio to be duplicated from a master radio by transferring programmed data from one radio to another.

**RKN4036D** Cloning Cable

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E

### Service Aids

#### Computer Interface Cable

Used to connect computer's serial adapter to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005B, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RKN4035D** Radio Test and Programming Cable



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts



## JT1000 Series

## Service Aids, Manuals

### Service Aids

#### Battery Eliminator

**RLN1014A** The Battery Eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.



RLN1014A

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Requires interface box and appropriate cables, must be ordered separately.

**RVN4098H** Programming Software

#### Option Boards

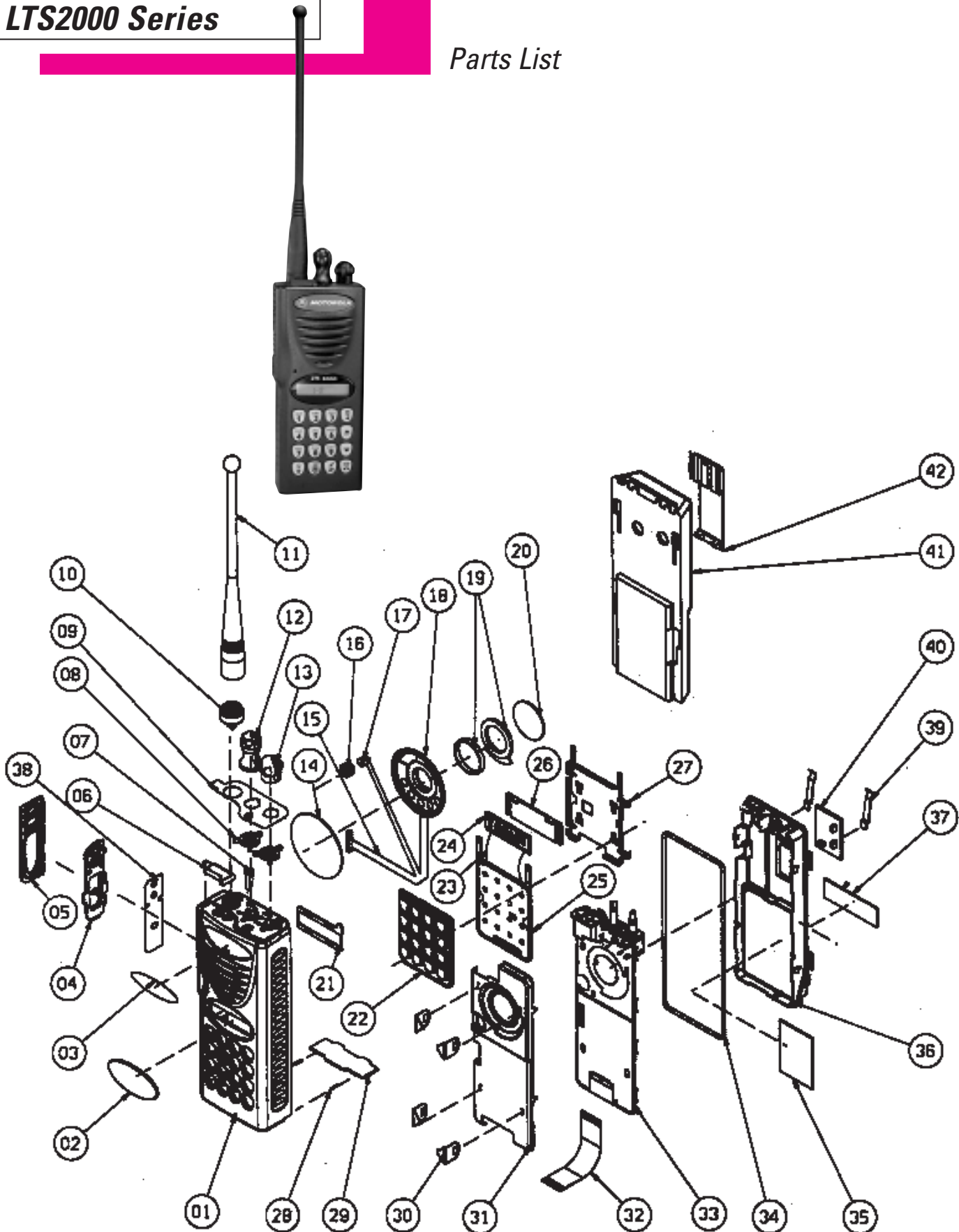
**NTN8313A** Analog Voice Scrambler Advantage Board, for use with HT1000 only. NOT APPROVED for installation in FM approved models.

### Manuals

<b>6881200C15</b>	HT1000/JT1000/MT2000 & MTX8000/9000 Radio Theory
<b>6881200C40</b>	HT1000/JT1000 & MT2000 Service Manual
<b>6881200C25</b>	MTX8000/9000 Service Manual
<b>6881079C50</b>	HT1000 Operator's Manual
<b>6881078C45</b>	JT1000 Operator's Manual
<b>6881076C65</b>	MT2000 Operator's Manual
<b>6881072C10</b>	MTX8000/9000 B3 Operator's Manual
<b>6881072C40</b>	MTX8000/9000 B5/B7 Operator's Manual
<b>0180305J46</b>	Ear Microphone System and Temple Transducer CD-ROM

## LTS2000 Series

### Parts List



# LTS2000 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>1580422K02</b>	Front Housing
2	---	LCD Cover, part of 1580422K02 (cannot be ordered separately)
3	<b>3380455K01</b>	Name Plate
4	<b>7580430K01</b>	PTT Keypad
5	<b>1380431K01</b>	PTT Bezel
6	<b>3880428C02</b>	Dust Cap
7	<b>6180687K01</b>	Light Pipe
8	<b>3280960Y01</b>	Seal, 2 used
9	<b>1380463K01</b>	Escutcheon
10	<b>5880636V01</b>	Antenna Adapter
11	<b>8505241U03</b>	Antenna Whip
12	<b>3680433K01</b>	Frequency Knob
13	<b>3680432K01</b>	Volume Knob
14	<b>3580998Z04</b>	Speaker Felt
15	<b>3080560D01</b>	Speaker/Mic Cable
16	<b>1480577C01</b>	Microphone Boot
17	<b>5013920A03</b>	Microphone
18	<b>5005589U05</b>	Speaker
19	<b>7580506C02</b>	Speaker Pad
20	<b>3980546B02</b>	Front-Shield Ground Contact
21	<b>7580685K01</b>	Pad
22	<b>7580428K02</b>	Keypad
23*	---	Heat-Sealed Flexible Cable
24*	---	LCD, 7 segments, 8 characters, 8 annunciators

REF. NO.	PART NO.	DESCRIPTION
25	---	Logic Board, Assembled (see manual depending on frequency)
26	<b>6180687K01</b>	Light Pipe
27	<b>2680402K01</b>	Logic Board Shield
28	<b>4105944K01</b>	Battery Latch Spring, 2 used
29	<b>5580438B01</b>	Latch
30	<b>4380190R04</b>	Shield Clip, 2 used
31	<b>2680532C01</b>	Front Shield
32	<b>8408051Y01</b>	RF-to-Logic Flexible Circuit
33	<b>FUF5690A</b>	RF Board, Assembled
34	<b>3286063C01</b>	"O" Ring gasket
35	<b>1480610B01</b>	Chassis Insulator
36	<b>2780549B01</b>	Chassis
37*	---	FCC Label
38	<b>3286074C01</b>	Pad PTT
39	<b>3980188R01</b>	Contact, B+/B-
40	<b>FLN8517A</b>	Battery Filter Board
41	<b>HNN9628B</b>	Battery
42	<b>HLN9724A</b>	Standard Belt Clip
	or	
	<b>HLN8255B</b>	Spring Action Belt Clip

\*Not field repairable

## Portable Accessories

### Chargers

#### Single Unit Intellichargers, Rapid Rate

The single unit Intellicharger utilizes an enhanced charging algorithm that will help maximize the life of your batteries. It will rapid rate charge both NiCd and NiMH batteries in approximately one hour.

**HTN9042A** Single Unit,  
intellicharge rapid charger, 110V

**HTN9043A** Single Unit,  
intellicharge rapid charger, 220V,  
Euro plug

**HTN9044A** Single Unit,  
intellicharge rapid charger, 240V,  
UK plug



HTN9042A

#### Single Chargers, Standard Rate

The single unit standard charger charges NiCd batteries only in approximately 16 hours.

**HTN9702A** Single Unit, standard charger, 110V



HTN9702A

**HTN9804A** Single Unit,  
standard charger, 220V,  
Euro plug

**HTN9805A** Single Unit,  
standard charger, 240V,  
UK plug

### Chargers

#### Multi-Unit Chargers

Multi-unit chargers can charge up to six batteries in approximately one hour and are available in a variety of voltages

**HTN9748C** 120V, 6 Unit, 1 Hour Rapid Rate Charger  
(for NiCd batteries)

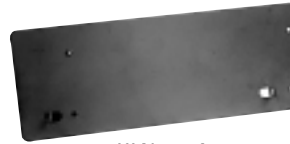
**HTN9811C** 220V, 6 Unit, 1 Hour Rapid Rate Charger  
(for NiCd batteries)

**HTN9812C** 240V, 6 Unit, 1 Hour Rapid Rate Charger  
(for NiCd batteries)

**HTN9060A** 120V, 6 Unit, 90 Minute Rapid Rate Charger  
(for NiCd and NiMH batteries)

**HTN9061A** 220V, 6 Unit, 90 Minute Rapid Rate Charger  
(for NiCd and NiMH batteries)

**HLN9944A** Wall Mounting  
Bracket for multiple unit



HLN9944A

#### Travel Charger

A great traveling companion that ensures constant communication while on the road. Allows the battery to rapid charge while using the radio. Users can receive communication immediately once the charger is connected, and transmit from a previously "dead" battery in just 5 minutes. This light and compact unit includes a voltage regulated lighter adapter, custom charger base, mounting bracket and coil cord. Ideal for public safety, utility and construction markets.

**RLN4833A** Travel Charger



RLN4833A

## LTS2000 Series

## Portable Accessories

### Chargers

#### Travel Charger Mounting Bracket

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

#### Travel Charger AC Transformer

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use.

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)

#### Vehicular Charger

The vehicular charger is designed to easily charge your batteries in a vehicle by adapting a single unit, rapid rate charger to the cigarette lighter receptacle. This is ideal when a radio is often used in a vehicle.



HLN9719A

**HLN9719A** Vehicular Charger Adapter/Bracket, 12 Volts for use with Rapid Rate Chargers HTN9630, HTN9802, HTN9803, HTN9167, HTN9168, or HTN9169

### Motorola Conditioning Charger (MCC)

The MCC utilize negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified NiCd and NiMH batteries in approximately an hour. The MCC controls heat buildup due to its charging and termination algorithms and maintenance mode allows batteries to be safely left on the charger for extended periods of time. And now there is an Instant Fault Detection (IFD) feature which detects faulty radio batteries in seconds, which notifies the user that the battery will not operate at peak performance. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.

**WPPN4002BR** Base Charge Unit with Adapter Plate, 110VAC (order adapter plates separately)

**WPPN4006CR** Base Charge Unit with Adapter Plate, 220V AC (order adapter plates separately)

**WPPN4005CR** Adapter only, 7V

**WPLN4088CR** MCC Kit, 110V AC (includes base unit and 7V adapter)

**WPLN4089CR** MCC Kit, 220V AC (includes base unit and 7V adapter)

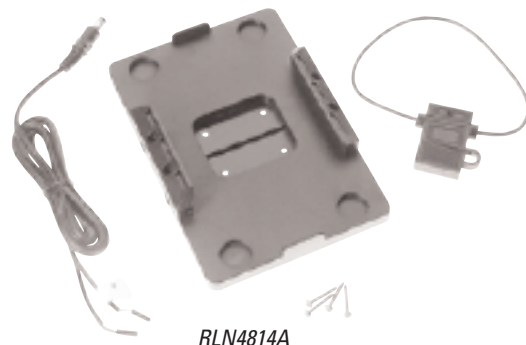
**WPPN4065BR** Multi-Unit, four station base, 110V (order adapter plates separately)

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger



WPPN4002BR



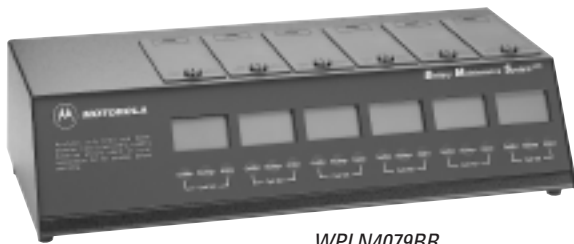
RLN4814A

## LTS2000 Series

### Portable Accessories

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Increase the useful life of our batteries using interchangeable battery adapters (sold separately). The BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing on NiCd, NiMH, Li-ion batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field Upgrade Kit or WPLN4079AR, WPLN4080AR, and WPLN4081AR; allows these units to support Li-ion battery chemistries

**NDN4005B** Three-Station, 110V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

#### **BMS<sup>plus</sup> Adapter**

**TDN9437A** Adapter, for use with HNN9628A and HNN9701A batteries

**TDN9438A** Adapter, for use with HNN8308A and HNN9808A batteries

**TDN9662A** Adapter, for use with HNN9628A

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter**

**RL-71883** Standard Adapter, LTS2000

\* Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.



## LTS2000 Series

## Portable Accessories

### Vehicular Holders

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2-3/4"

**TDN9373A** Portable Radio Hanger for door panels to, 2-3/4" to 3-1/4"



### Carrying Accessories

#### High Activity Swivel Carry Cases

The following carry cases have a high activity swivel "D" button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high activity applications.

**HLN9421A** DTMF Leather Carry Case with High Activity Swivel Belt Loop for use with standard battery

**HLN9426A** DTMF Leather Carry Case with High Activity Swivel Belt Loop for use with FM Approved 1100 mAh Battery

**HLN9427A** DTMF Leather Carry Case with High Activity Swivel Belt Loop for use with FM approved 600 mAh battery



HLN9421A

#### Carry Holder

**HLN9076B** Molded Carry Holder (high capacity battery)

**HLN8044A** Strap for molded carry holder, snap

### Carrying Accessories

#### Carrying Cases

Carrying cases provide a convenient way to carry your radio while protecting it from the environment. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



HLN9428A

#### Standard Belt Loop Carry Cases

**HLN9428A** DTMF Leather Carry Case with Belt Loop for use with Standard Battery

**HLN9429A** DTMF Leather Carry Case with Belt Loop for use with FM Approved 1100 mAh Battery

**HLN9431A** DTMF Leather Carry Case with Belt Loop for use with FM Approved 600 mAh Slim Battery

## LTS2000 Series

### Portable Accessories

#### Carrying Accessories

##### Belt Loops



NTN8039B

**NTN8039B** 2-1/2" Replacement Swivel Belt Loop for high activity swivel cases



NTN8040B

**NTN8040B** 3" Replacement Swivel Belt Loop for high activity swivel Cases

##### Belt Clips

**HLN9724A** Belt Clip, 2-1/2"

**HLN8255B** Spring Action Belt Clip, 3"

##### Belt

**4200865599** 1-3/4" wide leather belt

##### T-Strap

**HLN9975A** Strap for DTMF carry case, snap

HLN9975B



NTN5243A

##### Carrying Strap

**NTN5243A** Carry Strap, black nylon, adjustable length, attaches to "D" rings on carrying cases

##### Swiveller

**TDN1002A** Swiveller (includes holster, belt and strap)

#### Carrying Accessories

##### Waterproof Bag

**HLN9985B** Waterproof Bag, includes large carrying strap

##### Chestpack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

##### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570

##### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"



RLN4815A

## LTS2000 Series

## Portable Accessories

### Audio Accessories

#### Remote Speaker Microphone (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant microphone includes: 6.0" coiled cord assembly, and swivel clip

**HMN9030A** Remote Speaker Microphone



HMN9030A

#### RSM Accessories



RLN4295A

#### Epaulet Strap

Black leather epaulet strap secures remote speaker to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile environments.

**RLN4295A** Epaulet Strap, Small Clip

### Audio Accessories

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discreet communications.



HMN9752B

**HMN9727B** Receive-only Surveillance Kit, beige (1-Wire)

**RLN4894A** Receive-only Surveillance Kit, black (1-Wire)

**HMN9752B** Receive-only Surveillance Kit with Volume Control, beige (1-Wire)

**HMN9754D** Surveillance Kit with Microphone and Push-To-Talk Combined, beige (2-Wire)

**RLN4895A** Surveillance Kit with Microphone and Push-To-Talk Combined, black (2-Wire)



HMN9754D

#### Surveillance Replacement Items

**5080371E73** Standard Rubber Eartips, pack of 25, beige

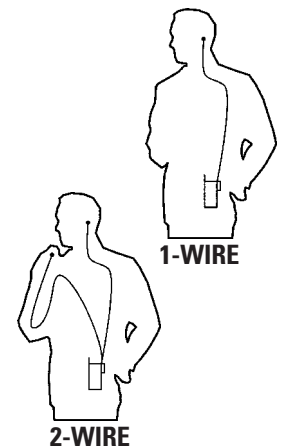
**5080371E75** Standard Rubber Eartips, pack of 25, black

**5080369E40** Earloop, plastic, beige

**5080370E92** Earloop, plastic, black

**5880377E06** Plastic Earloop Adapter

**5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), beige



## Portable Accessories

### Audio Accessories

#### Noise Kits

This lightweight translucent tube attaches to Motorola surveillance accessories to provide additional flexibility and comfort. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB of noise reduction

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments, does not provide hearing reduction



NTN8370A

#### 5080384F72

Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Beige Replacement Standard Rubber Eartips; for use with NTN8371A (Pack of 25)



NTN8371A

**5080371E75** Black Replacement Standard Rubber Eartips; for use with NTN8371A (Pack of 25)

### Audio Accessories

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371, clear acoustic tube assembly and most surveillance kits (1-, 2-, and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are three items need to make this product work:

- 1) Clear Comfortable Earpiece,
- 2) Clear Acoustic Tube Assembly (NTN8371), and
- 3) Surveillance Kits.

**RLN4760A** Small Custom Earpiece, right ear

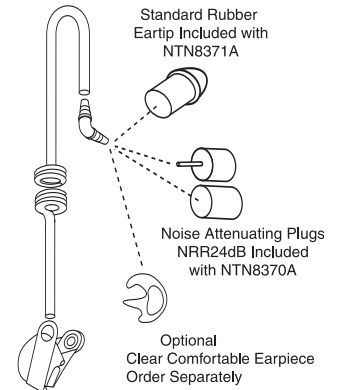
**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

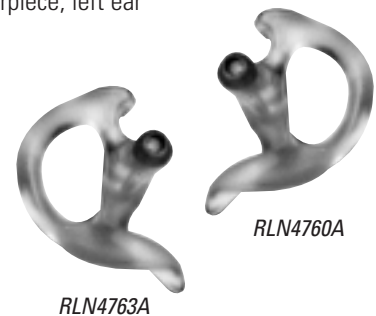
**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



Acoustic Tube with Earphone



RLN4760A

RLN4763A

## LTS2000 Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).

**Interface Module needs to be ordered separately for EMS to work.**

**BDN6677A** Ear Microphone for Standard Noise Levels (up to 95dB, black)

**BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB, beige)

**BDN6641A** Ear Microphone for High Noise Levels (up to 105dB)



**BDN6641A**  
Requires  
interface module  
sold separately



**BDN6708B**

#### Interface Module For EMS

**BDN6708B** Push-To-Talk Interface Module

**BDN6671B** Push-To-Talk or Voice-Activated Interface Module

### Audio Accessories

#### Optional Accessories For EMS

**0180358B38** Remote Push-To-Talk Ring Switch

**0180300E25** Earguard with adjustable loop, secures ear mic in ear



**0180358B38**



**0180358B33**

**0180358B32** Small size black earholder secures microphone in ear

**0180358B33** Medium size black earholder secures microphone in ear

**0180358B34** Large size black earholder secures microphone in ear

**0180358B35** Small size clear earholder secures microphone in ear

**0180358B36** Medium size clear earholder secures microphone in ear

**0180358B37** Large size clear earholder secures microphone in ear

**4280369E44** Replaceable belt clip with screws

**5080358B28** Medium size black eartips (10 per pack)

**5080358B29** Large size black eartips (10 per pack)

**5080358B30** Medium size beige eartips (10 per pack)

**5080358B31** Large size beige eartips (10 per pack)

#### Flexible Ear Receivers

This receiver-only earpiece contains a flexible earloop and speaker which rests external to the ear.

**BDN6720A** Flexible Ear Receiver

**7580372E11** Replacement Foam Ear Cushion for BDN6720

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands free, discreet two-way communications while adding comfort necessary for extended wear in moderate noise environments.

**\*RMN4016A** Lightweight Single Speaker Headset with Swivel Boom Microphone for left or right ear operation and In-line PTT button

**REX4648A** Replacement Foam Earpad and Windscreen for RMN4016A



**RMN4016A**

\* Intrinsically safe

## LTS2000 Series

## Accessories, Antennas, Batteries



### Audio Accessories

#### Completely Discreet Earpiece

Remain discreetly in touch with the miniaturized Phonak Phonito receiver. All messages received through the user's two-way radio are inductively relayed to the wireless Phonito in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discreet two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discreet communication.



RLN4922A

**RLN4922A** Completely Discreet Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guard

**RLN4919A** Replacement Ear Wax Guards, 5 per pack

**RNN4005A** Replacement 1.4V Battery, 6 per pack

### Portable Antennas

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**8505241U03** Flexible Whip, 806-870MHz, 7"

#### Stubby Antenna

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**\*8505241U06** Stubby, 806-941MHz, 4"



8505241U06

\* 8505241U06 is a broad band antenna that operates in the 800/900MHz band

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN8133C**

Volts: 7.5

Avg. mAh: 1200

Height: 5-1/2"

Intrinsically Safe: Yes

Part Number: **HNN8308A**

Volts: 7.5

Avg. mAh: 600

Height: 5-1/2"

Intrinsically Safe: No

Slim: Yes

Part Number: **HNN9628B**

Volts: 7.5

Avg. mAh: 1200

Height: 5-1/2"

Intrinsically Safe: No

Part Number: **HNN9701A**

Volts: 7.5

Avg. mAh: 1100

Height: 5-1/2"

Intrinsically Safe: Yes

Part Number: **HNN9808B**

Volts: 7.5

Avg. mAh: 600

Height: 5-1/2"

Intrinsically Safe: Yes

Slim: Yes



HNN9628B

#### Powerline

Part Number: **WPNN4044AR**

Volts: 7.5

Avg. mAh: 1000

Height: 5-1/2"

Intrinsically Safe: No



## LTS2000 Series

## Service Aids, Manuals

### Service Aids

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer.

RLN4008E

**RLN4008E** Radio Interface Box

#### Programming Cable

Connects radio interface box to radio for programming.

**HKN9857A** Programming/Test Cable



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

### Service Aids

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Programming Software

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Radio Interface Box and proper cables, order separately.

**RVN4156N** Programming Software, 3-1/2" diskette (includes manual and storage box)

### Manuals

**6802945C85**

User Manual

**6802945C75**

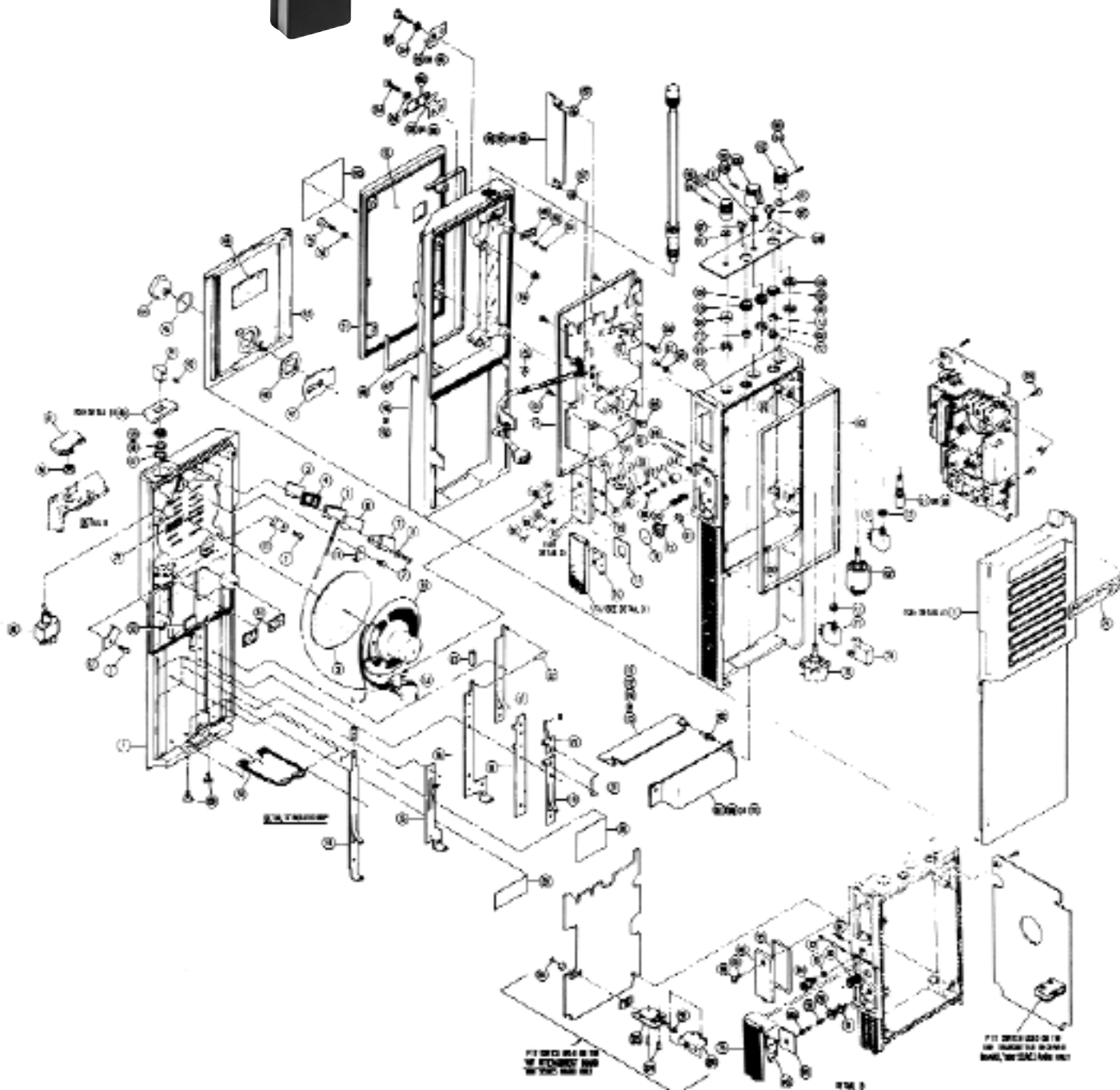
Service Manual

**0180305J46**

Ear Microphone System and Temple Transducer CD-ROM

## MT500 Series

### Parts List



*Replacement parts may no longer be available*

## MT500 Series

### Parts List

#### H23BBB, H33BBB, H23BBU, H33BBU, H24BBB, H34BBB, H24BBU, H34BBU

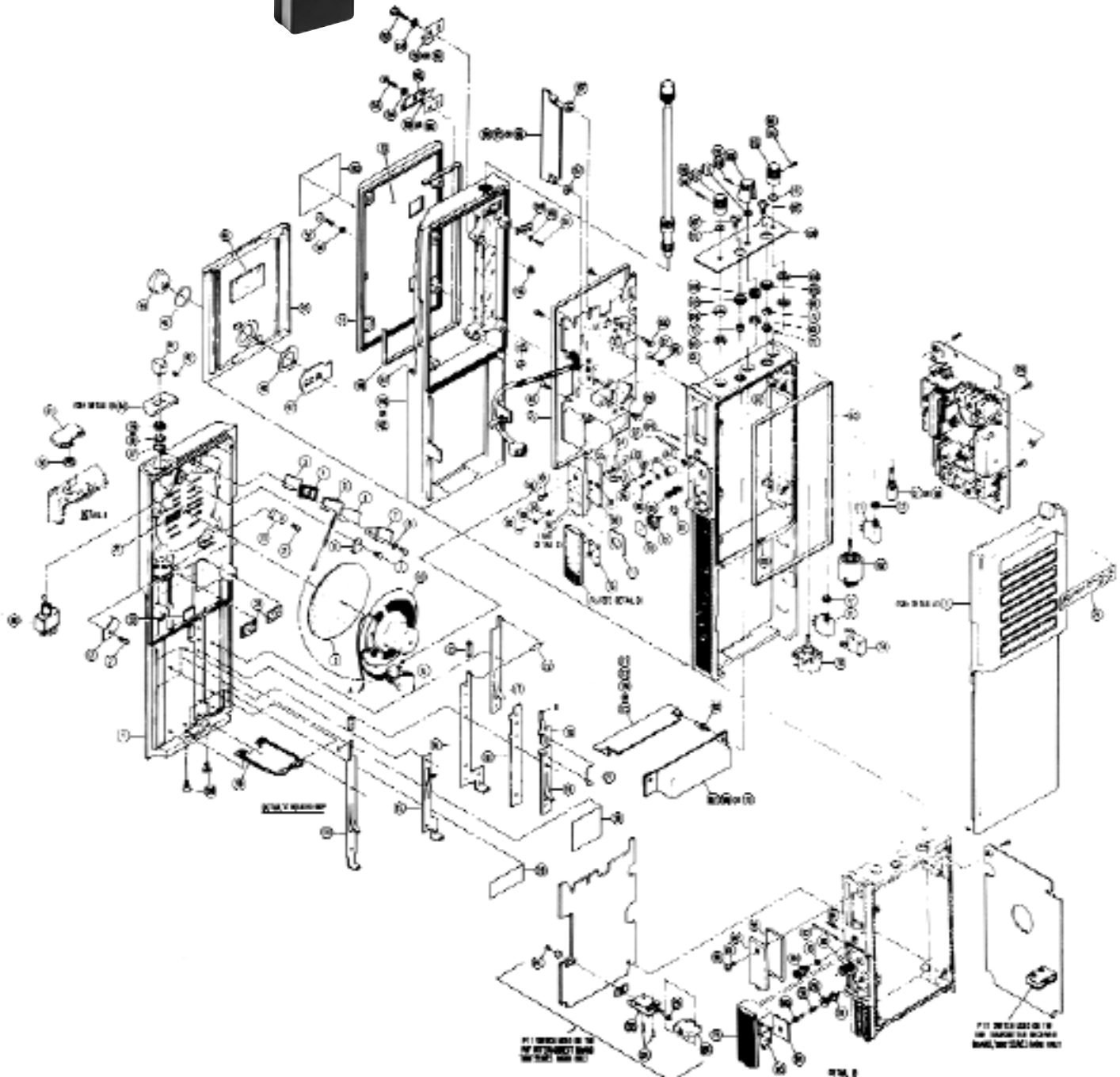
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>1505660D01</b>	Front Cover (Slimline Extended, Omni Extended)		<b>1505699D01</b>	Cover, Rear (Omni Short)
	<b>1505633D01</b>	Front Cover (Slimline Short, Omni Short)	52	<b>7505083E01</b>	Pad (Omni Extended, Omni Short)
2	<b>0300138651</b>	Machine Screw (2-56 x 1/8" Phillips Pan Hd)	53	<b>7505533F02</b>	Pad (Omni Extended, Omni Short)
3	<b>3505450B01</b>	Felt, Mic	54	<b>0484345A06</b>	Washer Seal
5	<b>5982575J02</b>	Mic Cartridge	55	<b>0305662D09</b>	Screw, Captive (Slimline Extended, Slimline Short)
6	<b>7582745J02</b>	Pad Clamp		<b>0305662D11</b>	Screw, Captive (Omni Extended, Omni Short)
7	<b>0705672D01</b>	Mic Bracket	56	<b>0300139444</b>	Latch, Screw
8	<b>0405314E01</b>	Washer, Spring	57	<b>1405359E01</b>	Insulator, Contact (Slimline Extended, Slimline Short)
9	<b>3505370C01</b>	Cloth Felt Grille	59	<b>NLN4181A</b>	Latch Assembly (Slimline Extended, Slimline Short)
10	<b>5005334D01</b>	Speaker		<b>NLN4182A</b>	Latch Assembly (Omni Extended, Omni Short)
11	<b>4205670D01</b>	Clamp, Speaker	62	<b>0300138661</b>	Screw, Mach (2-56 x 3/16")
12	<b>4205671D01</b>	Clamp, Speaker	63	<b>0300136666</b>	Screw, Mach (2-56 x 1/4")
13	<b>0105956C63</b>	Recept, Conn Assembly, Short Frame	64	<b>0705640D01</b>	Frame, Extended (Slimline Extended, Omni Extended)
13	<b>0105958C87</b>	Recept, Conn Assembly, Extended Frame		<b>0705547D01</b>	Frame, Short (Slimline Short, Omni Short)
14	<b>4205573A01</b>	Strap, Contact Neg	65	<b>3282172J11</b>	Gasket, Frame (Slimline Extended, Slimline Short, Omni Short)
15	<b>4205575A01</b>	Contact, Sen		<b>3205744J01</b>	Gasket, Frame (Omni Extended)
16	<b>4205283E01</b>	Strap Contact Charge	66	<b>4305661D01</b>	Bushing, Cover mtg
17	<b>4205576A01</b>	Strap Contact	67 or 68	<b>1805333E01</b>	Pot Cermet Alternate
18	<b>1405282E01</b>	Contact	69	<b>0282653D03</b>	Nut, Special
19	<b>4205269G01</b>	Strap Contact Positive	70	<b>REX4060A</b>	Potentiometer Control Switch
20	<b>4205573A01</b>	Strap Contact Positive	71	<b>0905786J01</b>	Jack, Micro
21	<b>6505214E01</b>	Fuse	72	<b>4305052E02</b>	Bushing, Shoulder
22	<b>4880388B70</b>	Rectifier, Silicon	73	<b>0205050E01</b>	Nut, Special
23	<b>1482392E05</b>	Insulator Paper	74	<b>2605054E01</b>	Shield, Antenna
24	<b>3305537E01</b>	Name Plate	75	<b>4505784D01</b>	Lever
27	<b>1110019A88</b>	Adhesive, Silicone Rubber	76	<b>4105783D03</b>	Spring, Actuator (PTT)
28	<b>1300868710</b>	Label, Patent	77	<b>RPX4217A</b>	Gasket (PTT)
30	<b>3205315E01</b>	Gasket, Plug	78	<b>3905834K07</b>	Contact, Disc (PTT)
31	<b>3805115E01</b>	Plug, Cover	79	<b>3905195G01</b>	Contact, Feed-thru (PTT)
36	<b>4005061E01</b>	Switch, Toggle, SPDT	80	<b>3205082E02</b>	Seal, "O" Ring
37	<b>3205082E01</b>	Gasket, "O" Ring	81	<b>4105267E01</b>	Spring, Compression
38	<b>0405081E01</b>	Washer, Special	82	<b>2205084E01</b>	Pin, Spring
39	<b>0205050E03</b>	Nut, mtg	83	<b>0405249E01</b>	Washer, Insert
40	<b>1305057E07</b>	Escutcheon, Switch	84	<b>0305246E01</b>	Screw, Set
41	<b>3605114E01</b>	Knob, Switch	85	<b>4305781D01</b>	Insert, Threaded
42	<b>0383174C04</b>	Screw, Set	86	<b>4605154E01</b>	Stud
43	<b>1505697D01</b>	Cover, Battery			
44	<b>3805908D01</b>	Button			
45	<b>0405910D01</b>	Washer			
46	<b>0405316E01</b>	Washer Spring			
47	<b>5505907D01</b>	Latch			
48	<b>7505083E01</b>	Pad			
50	<b>2605045E01</b>	Shield, Antenna Tube (Slimline Extended, Slimline Short)			
51	<b>1505698D01</b>	Cover, Rear (Slimline Short)			
	<b>1505943D01</b>	Cover, Rear (Omni Extended)			
	<b>1505039E01</b>	Cover, Rear (Slimline Extended)			

(Continued on page 199)

**Cancelled Product MT500: Aftermarket support criteria has been met for spare parts. Items may no longer be available.**

## MT500 Series

### Parts List



*Replacement parts may no longer be available*

## MT500 Series

### Parts List

#### H23BBB, H33BBB, H23BBU, H33BBU, H24BBB, H34BBB, H24BBU, H34BBU

REF.  
NO. PART NO. DESCRIPTION

87	<b>0405248E01</b>	Washer, Stud
88	<b>3905456F01</b>	Pin, Contact
89	<b>3205082E03</b>	Gasket, "O" Ring
90	<b>4105424F03</b>	Spring, Compression
91	<b>4205463E02</b>	Ring, Retaining
92	<b>0905677D03</b>	Receptacle
93	<b>0300139684</b>	Screw (0-80 x 1/8" Fill Hd)
94	<b>4105197G03</b>	Contact
95	<b>4605072E01</b>	Block (Slimline Extended, Slimline Short, Omni Short, Omni Extended)
96	<b>4105197G01</b>	Contact
97	<b>0400134190</b>	Washer
98	<b>0300138651</b>	Mach Screw (2-56 x 1/8" SST)
99	<b>3205661G01</b>	Seal, "O" Ring
100	<b>1110019A88</b>	Adhesive, RTU Silicone Rubber (Omni Extended, Slimline Short, Omni Short)
101	<b>1110019A63</b>	Sealant Compound
102	<b>4005120E01</b>	Switch, Toggle (Slimline Short, Slimline Extended)
	<b>4005053E01</b>	Switch, Rotary (Omni Extended)
	<b>4005119E01</b>	Switch, Rotary (Omni Short)
103	<b>0282653D07</b>	Nut, Special (Slimline Extended, Slimline Short)
	<b>0282653D05</b>	Nut, Special (Omni Extended, Omni Short)
104	<b>7583562H02</b>	Pad, Rubber
105	<b>4305051E01</b>	Bushing, Insulator
106	<b>1305621D05</b>	Escutcheon (Slimline Extended, Slimline Short)
107	<b>0310129A24</b>	Screw, Jack
108	<b>3605114E01</b>	Knob, Switch (Slimline Extended, Slimline Short)
	<b>3605254K05</b>	Knob, Control (Omni Extended, Omni Short)
109	<b>0383174C04</b>	Setscrew
111	<b>0482418B97</b>	Washer, Teflon
112	<b>3605254K01</b>	Knob, Volume
113	<b>3605254K03</b>	Knob, Squelch
114	<b>0383174C02</b>	Setscrew
119	<b>0310129A24</b>	Screw, Jack (Slimline Extended, Slimline Short)
120	<b>7508356H01</b>	Pad, Rubber (Slimline Extended, Slimline Short)
121	<b>4305051E01</b>	Bushing, Insulator (Slimline Extended, Slimline Short)
122	<b>1305621D01</b>	Escutcheon (Slimline Extended, Slimline Short)

REF.  
NO. PART NO. DESCRIPTION

123	<b>7583562H02</b>	Pad, Rubber (Slimline Extended, Slimline Short)
124	<b>0482418B97</b>	Washer, Teflon (Slimline Extended, Slimline Short)
131	<b>0300139939</b>	Machine Screw (2-56 x 1/8" Fit Head)
133	<b>0705261E01</b>	Bracket, Switch
134	<b>0505095E09</b>	Eyelet
136	<b>4005265E01</b>	Switch, Micro
138	<b>0205250E01</b>	Nut (PTT)
139	<b>4105252E01</b>	Spring (PTT)
140	<b>4705251E01</b>	Actuator, (PTT)
141	<b>3205077E01</b>	Gasket, Switch
142	<b>1505212E02</b>	Cover, Receptacle
143	<b>4105783D03</b>	Spring, Actuator
144	<b>RPX4072A</b>	Stud, Heat Sink
146	<b>1505858D01</b>	Housing, Sleeve (Omni Extended)
	<b>1505651D01</b>	Housing, Sleeve (Omni Short)
148	<b>3282172J11</b>	Gasket, Frame (Omni Extended, Omni Short)
149	<b>4205860D01</b>	Clip, Antenna
150	<b>0405314E03</b>	Spring, Washer (Omni Extended, Omni Short)
151	<b>0305493F01</b>	Machine Screw (2-56 x 3/16")
	<b>0305044E01</b>	Screw, Special (Omni Extended, Omni Short)
153	<b>0300115356</b>	Machine Screw (2-56 x 5/16")
154	<b>0400400139</b>	Lock Washer (2 split)
155	<b>0200115676</b>	Nut (2 hex)
156	<b>4605798E01</b>	Post, Guide
157	<b>0205797E01</b>	Nut
158	<b>4205445E04</b>	Clip
159	<b>4205445E03</b>	Clip
160	<b>4205445E02</b>	Clip
161	<b>4205445E01</b>	Clip
162	<b>4605800E01</b>	Screw, Guide (Omni Extended)
165	<b>NLN4645A</b>	Tone PL Deck (Universal) (Omni Short, Omni Extended)
	<b>NLN4644A</b>	Tone PL Deck (Basic) (Omni Short, Omni Extended)
167	<b>NLN4211A</b>	Optional Deck (Tone PL) (Omni Extended, Slimline Extended)
169	<b>NLN4961A</b>	Optional Deck (Selective Call) (Omni Extended, Slimline Extended)

**Cancelled Product MT500: Aftermarket support criteria has been met for spare parts. Items may no longer be available.**





## MT500 Series



### Portable Accessories

#### Chargers



NLN5223A

#### Mounting Bracket and Leg Kits for Multi-Unit Chargers

**NLN5223A** Standard Rate  
Chargers

#### Vehicular Antenna Adapter Cable

**NKN6260A** Vehicular Antenna  
Adapter Cable



NKN6260A

#### Power Cable Kits

**NKN6150A** 12V Input Cable

**NKN6151A** 12V (Lighter  
Receptacle Cable)



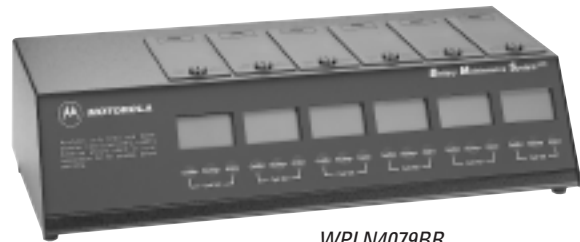
NKN6150A

#### Power Amp Cable

**NKN6300A** Power Amp Cable, DC Negative Ground

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**NDN4005B** Three-Station, 110V AC, 50/60 Hz

**NDN4006B** Three-Station, 230V AC, 50/60 Hz

#### BMS<sup>plus</sup> Adapters

**TDN9721A** Standard Adapter, MT500

**TDN9439A** Adapter

#### Optional Adapters

\*\* **TDN9432A** Adapter, Universal Alligator Clip Lead

\*\* **TDN9527A** Adapter, Universal Dip Switch

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

\*\*Universal adapters available as an option to accommodate all radio types.



## MT500 Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapters

**RL-71142** Standard Adapter, MT500, 500 mAh

**RL-71151** Standard Adapter, MT500, 225, 250, 275 mAh

### Optional Adapters

**RL-70115** Adapter, Universal; services Li-ion

**RL-70110** Adapter, Universal; service NiCd and NiMH

### Carrying Accessories

#### Carrying Cases

Standard carrying cases with snap-on/off perforated full covers provide maximum protection, yet permit audio to be heard clearly. T-strap covers permit easy access to all controls. (Radios with rigid loop antenna must use T-strap cover). Sturdy black leather construction. Heavy-duty snaps on integral belt loop permit quick attachment and release (fits belts up to 2-1/2"). For over the shoulder carry, the adjustable sturdy black nylon carrying strap is recommended.



NLN6778B

#### Standard Carrying Cases

**NLN6778B** Leather Omni Long Housing Case and Cover

**NLN6777B** Leather Omni Short Housing Case and Cover

**NLN6738B** Leather Slimline Long Case and Cover



NLN6738B

## MT500 Series

### Portable Accessories

#### Carrying Accessories

##### Detachable Swivel Carrying Cases

(Note: Cover, T-Strap and belt loop must be ordered separately)

Swivel carrying cases attach to belt loop attachment by inverting radio. Radio swings freely on belt loop attachment, adjusting to body movements walking or sitting. Sewn belt loop attachment fits belts up to 2-1/2".



1505276F02

**1505276F03** Leather Omni Long Housing Carry Case

**1505276F01** Leather Omni Short Housing Carry Case

**1505276F02** Leather Slimline Short

**1505276F04** Leather Slimline Long

##### MT500 Unit ID Priority Scan Carrying Cases

**NLN4789A** Leather with swivel back, includes nylon hold down strap

**NLN4787A** Leather with standard back, includes nylon hold down strap

##### Touch Code Carrying Case

**NLN5940A** Omni, Slimline, Standard Back, includes nylon hold-down strap

**NLN5941A** Omni, Long, Standard Back, includes nylon hold-down strap



NLN4789A

Radio can be worn on belt without carrying case by replacing conventional back cover on radio with a back cover having a permanent belt clip.

##### Back Cover with Belt Clip

**NLN4449A** Slimline, Long 1-5/8"



NLN4449A

#### Carrying Accessories

##### Belt Loop

**4205857B01** 2", Leather Belt Loop

##### Swivel Belt Loop

**4282421J06** 2-1/2", Swivel Belt Loop

##### Belt Loop Snap

**NLN5442A** Detachable Leather Belt Loop, Snap, 2-1/2"



4205857B01

##### Full Covers

**1582535J02** All Models, Leather



1582535J02



4205297G03

4205297G02

##### Hold Down Straps

**4205297G03** Nylon, Standard Hold Down Strap

**4205297G02** Nylon, Unit ID Hold Down Strap

## MT500 Series

## Portable Accessories

### Carrying Accessories

#### Chest Pack

Chest pack keeps radio on chest for maximum hands-free operation. Ideal where body movements might expose radio to damage. Detachable straps go over shoulder and around wrist. (The basic model MT500 radio is suggested as the universal side connector is obstructed when the chest pack is used).

**HLN6602A** Chestpack



HLN6602A



4200865599

#### Belt

**4200865599** All Models,  
2" Leather



NTN5243A

#### Carrying Strap

**NTN5243A** All Models

### Audio Accessories

All accessories listed are compatible with Universal models. Only the NSN6008 Lapel Speaker and the NSN6011 Earpiece are compatible with Basic models.

**NSN6008A** Lapel Speaker



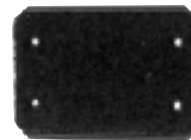
NSN6008A

**5083693B04** Earpiece With  
Volume Control

**5005178K01** Earpiece Without  
Volume Control



5083693B04



NLN8410A

**NLN8410A** Velcro Patch Pin Attachment

## MT500 Series

## Portable Accessories, Antennas

### Audio Accessories

**NMN6064A** Noise Cancelling  
Headset/With Boom Mic  
(Requires NLN4477A)

**NMN6065A** Noise  
Cancelling Headset/With  
Cup Mic (Requires NLN4477A)

**NLN4477A** Quick Disconnect  
Adapter for NMN6089A, NMN6065A,  
NMN6064A



NMN6064A

### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with Velcro or clip style strap.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip



RLN4294A



RLN4295A

### Portable Antennas

#### Heliflex

Heliflex antennas are especially practical where antenna height considerations are present because of their short and flexible design. Each antenna is tested and tuned to provide excellent reception and transmission. Each antenna is color coded on the connector indicating frequency.

**8505195H01** 30-35 MHz

**8505195H02** 35-40 MHz

**8505195H03** 40-45 MHz

**8505195H04** 45-50 MHz

**8582283J05** 132-142 MHz

**8582283J06** 142-150 MHz

**8582283J01** 150-162 MHz

**8582283J02** 162-174 MHz

**8505146B04** 450-470 MHz

**8505146B05** 470-512 MHz



8505195H01



8582283J05

## MT500 Series

Antennas,  
Batteries,  
Service Tools



**MOTOROLA**  
intelligence everywhere™

### Portable Antennas

#### Collapsible

Collapsible antennas extend well above body shielding for good reception and transmission. Antenna is protected from damage by collapsing inside the radio.

**8505509E01** 136-162 MHz



#### Flexible Whip

Each antenna is tested and tuned to give you maximum power and performance.

**NAE6050B** 406-512 MHz



### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NLN4463B**

Volts: 15

Avg. mAh: 550

Height: 2-8/16"

Intrinsically Safe: Yes

Part Number: **NLN4462B**

Volts: 15

Avg. mAh: 550

Height: 2-8/16"

Intrinsically Safe: No

### Service Tools



**NLN4605A** Tuning Tool Kit, Consists of 6605142J01 VHF Power Amp Tuning Tool, 6605607E01 Channel Elements and tunable Coils Tuning Tool, 6683006J01, 0.06 Spline Wrench, and 6683006J02 Preselector Tuning Tool.

**5505717E01** Spanner Wrench

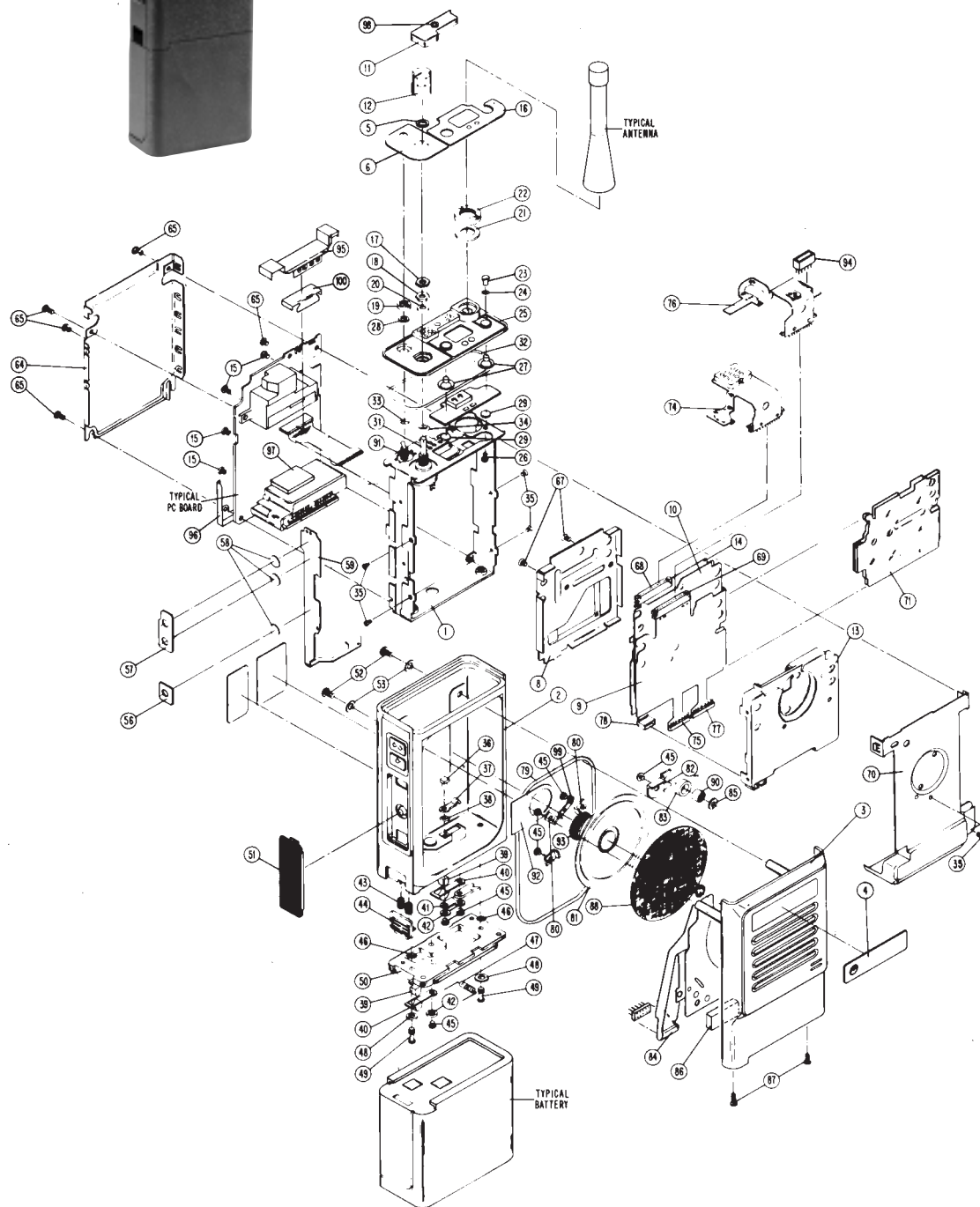
5505717E01



<https://www.motorola.com/businessonline>

# MT1000 Series

## Parts List



*Replacement parts may no longer be available.*



# MT1000 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	----	Assembly, Frame
2	<b>NHN6419A</b>	Kit, Housing; includes items 36 thru 51
3	<b>NTN4956A</b>	Kit, Front Cover; includes items 45, 79 thru 86
4	<b>3305260Q01</b>	Nameplate, Front
6	<b>1305564R01</b>	Escutcheon, On/Off Volume
7	<b>REX1151A</b>	Kit, 99 Channel, Controller Flex; includes items 8, 9, 10, 13, 14, 67, 68, 69, 75, 77, 78
9	----	Assembly, Controller Flex; part of item 7
10	----	Shield, Center; Top Carrier Side; part of item 7
11	<b>0102706J99</b>	Cover, Dust
12	<b>0105951N79</b>	Assembly, Knob; Volume
14	----	Shield, Center; Bottom Carrier Side; part of item 7
15	<b>0300136771</b>	Screw, Phillips 2-56 x 3/16" (4 req'd)
16	<b>1305563R01</b>	Escutcheon, Display
	<b>1305676R07</b>	Escutcheon, 16 Channel
17	<b>0405534R01</b>	Washer, Flat; Octagonal (Volume Pot)
18	<b>0205629L02</b>	Nut, Hex; Volume Pot
19	<b>0205163Q01</b>	Nut, Spanner; Mode Select Switch
20	<b>0405162Q02</b>	Washer, Flat; Volume Pot
21	<b>0405216L04</b>	Washer, Flat, Antenna
22	<b>0205764L02</b>	Nut, Spanner
23	<b>0205562R02</b>	Nut, Plate
24	<b>3205556R02</b>	Seal, Nut Plate
25	<b>0105958N64</b>	Assembly, Control Top, 90 Channel
	<b>0105951N41</b>	Assembly, Control Top, 16 Channel
26	<b>0305573R01</b>	Screw, Phillips Hd.; 2-56 x 5/16"
27	<b>3805558R02</b>	Elastomer, Switch (2 req'd)
28	<b>0405162Q01</b>	Washer, Flat
29	<b>7505561R01</b>	Pad, LCD (2 req'd)
31	<b>1805100Q04</b>	Switch/Pot, On-Off/Volume (S1/R140)
32	<b>3205141Q02</b>	Gasket, "O" Ring; Control Top
33	<b>3205141Q03</b>	Gasket, "O" Ring; Mode Select Switch
34	<b>3205082E01</b>	Gasket, "O" Ring; Volume Pot
35	<b>0300140369</b>	Screw, Flat Hd.; 2-56 x 1/8" (5 req'd)
36	<b>4605945K05</b>	Contact Stud, Battery
37	<b>3905237Q01</b>	Contact, B+
38	<b>3205082E24</b>	Gasket, "O" Ring
39	<b>RPX4636A</b>	Battery Contact Replacement
41	<b>2905124Q01</b>	Lug (2 req'd)
42	<b>0400002625</b>	Lockwasher, Split # (3 req'd)
43	<b>4105944K01</b>	Spring, Battery Latch (2 req'd)
44	<b>5505536P01</b>	Latch
45	<b>0300139444</b>	Screw, Phillips; 2-56 x 5/32" (7 req'd)
46	<b>3205082E03</b>	Gasket, "O" Ring (2 req'd)
47	<b>6505214E05</b>	Fuse (F1)
48	<b>0400009761</b>	Lockwasher, Split #4 (2 req'd)
49	<b>0305941K01</b>	Screw, Captive 4-40 (2 req'd)

REF. NO.	PART NO.	DESCRIPTION
50	<b>6405531P02</b>	Plate, Base
51	<b>4505535P01</b>	Lever, PTT
52	<b>0305137Q04</b>	Screw, Phillips Hd.; 4-40 x 1/2" (2 req'd)
53	<b>0484345A06</b>	Washer, Seal (2 req'd)
56	<b>3205231Q01</b>	Seal, Dome (PTT); part of item 59
57	<b>3205196Q01</b>	Seal, Dome (Mon); part of item 59
58	<b>3905834K04</b>	Contact, Snap Dome; part of item 59
59	<b>0105951N40</b>	Assembly, B+/PTT Flex; includes items 56, 57, 58
64	<b>0102704J74</b>	Assembly, Main Back Shield, UHF
65	<b>0300136783</b>	Screw, Phillips Hd.; 2-56 x 5/16" (5 req'd)
67	<b>0300138620</b>	Screw, Phillips; 2-56 x 5/16" (2 req'd)
68	<b>0905467R01</b>	Jack (J2)
69	<b>0905467R01</b>	Jack (J1)
70	<b>0105951P28</b>	Assembly, Front Shield
71	----	Insulator, Flex
74	<b>0105958N56</b>	Assembly, Volume Pot Flex, 90 Channel
75	<b>0905577P01</b>	Jack (J3)
76	<b>0105958N55</b>	Assembly, Frequency Flex
	<b>0105950P96</b>	Assembly, Frequency Flex, 16 Channel
77	<b>0905577P01</b>	Jack (J4)
78	<b>0905504R01</b>	Jack (J5)
79	<b>3205141Q01</b>	Gasket, "O" Ring
80	<b>4205140Q01</b>	Clamp, Speaker (3 req'd)
81	<b>5005155Q03</b>	Speaker (LS1)
82	<b>6880309E50</b>	Retainer, Microphone
83	<b>1405299L01</b>	Boot, Microphone; part of item 84
84	<b>0102700J81</b>	Assembly, Microphone Flex (MK1); includes items 81, 83, 89, and 90
85	<b>7505564S01</b>	Pad, Microphone Boot
86	<b>7505501R03</b>	Pad, Front Cover
87	<b>0300132342</b>	Screw, Phillips; 2-56 x 1/4"
88	<b>3505152J01</b>	Felt, Speaker
90	----	Cartridge, Microphone; part of item 84
91	<b>4005101Q02</b>	Switch (S3)
92	<b>1405299Q01</b>	Insulator, Speaker
93	<b>7505501R02</b>	Pad, Speaker
94	----	(P501) part of item 76
96	<b>2605123S01</b>	Shield, PC Board; Bottom
97	----	Assembly, Buffer Shield
98	<b>0305103S01</b>	Screw, Captive
99	<b>3905178S01</b>	Contact, Grounding
100	<b>1405496R01</b>	Insulator
101	<b>0300139939</b>	Screw, Phillips; 2-56 x 5/32"

**Cancelled Product MT1000: Aftermarket support criteria has been met for spare parts. Items may no longer be available.**

## MT1000 Series

## Portable Accessories

### Chargers

Choose rapid or regular rate, single unit chargers or rapid rate, multiple unit charger. The rapid chargers are equipped with red and green lights to indicate rapid charging and charge complete. All desktop chargers will accept any of the battery sizes, with or without radio attached.



NTN4633C

#### Single Unit

**NTN4636A** Desktop, Regular Charge Rate, 220V, 50-60 Hz (supplied with 2-prong plug)

**NTN4633C** Desktop, Rapid Charge Rate, 117V

**NTN4634B** Desktop, Rapid Charge Rate 220V, 50-60 Hz (supplied with 2-prong plug)

#### Compact Chargers

The charger's small size and light weight make it easy to transport.

**NTN4666B** Compact, Regular Charge Rate, 117V

**NTN4667A** Compact, Regular Charge Rate, 220V, 50-60 Hz (supplied with 2-prong plug)



NTN4666B

### Chargers

#### Vehicular Chargers

**\*NTN5438A** 12V DC, 16 Hour Charge Rate

**NKN6428A** 12V Cable Kit (Only required if not used with PAC•RT)

**NTN5368A** RF Adapter, Utilizes Universal Connector (incompatible with audio accessories)



NTN5368A



NKN6408A

**NKN6408A** RF Cable Kit

#### Charger Multi-Unit Mounts

**NLN7967A** Wall Mount



NLN7967A

\* Not compatible with cable kits NKN6149A, NKN6150A, and NKN6151A

## MT1000 Series

### Portable Accessories

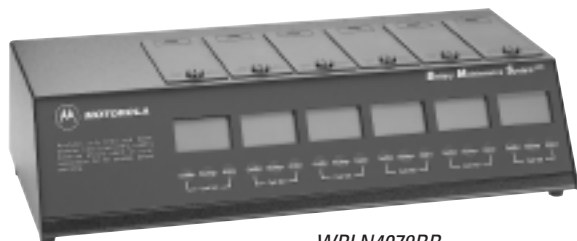
#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

#### **BMS<sup>plus</sup> Adapter**

**TDN9441A** Standard Adapter, MT1000

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapters**

**RL-71173** Standard Adapter, MT1000

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## MT1000 Series

### Portable Accessories

#### Motorola Conditioning Charger (MCC)



WPPN4009BR

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.

**WPPN4009BR** 110V AC Base Charge Unit with adapter plates

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Mounting Bracket for single unit Motorola Conditioning Charger

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



NTN5460B

##### Standard

**NTN5460B** Leather Carry Case with T-Strap and Spacer, for High or Medium Capacity Battery (Snap)

##### Swivel

**NTN5461B** Leather Carry Case with T-Strap, Spacer and 2-1/2" Swivel Belt Loop, for High or Medium Capacity Battery (Snap)

**NTN5883A** Leather Carry Case with T-Strap, Spacer, and Swivel Belt Loop for High or Medium Capacity Battery (Snap), Fits 3" Belt

**NTN5450B** Leather DTMF Swivel Carrying Case, Long (Snap), Fits 2-1/4" Belt

**NTN5884A** Leather DTMF Swivel Carrying Case, Long (Snap), Fits 3" Belt



NTN5461B

##### Carry Holders

**NTN4814C** Belt Clip Carry Holder, Fits 2-1/4" Belt

## MT1000 Series



**MOTOROLA**  
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## Portable Accessories

### Carrying Accessories

#### Spacer

**4305525R02** Spacer for Carry Case, Spare



HLN6602A

#### Chest Pack

**HLN6602A** Universal Chest Pack with radio holder, pen holder and velcro secured pocket

**1505596Z02**  
Replacement strap for HLN6602

**RLN4570A** Break-A-Way Chest Pack; all of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure.

#### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger, for Door Panels up to 2-3/4"

**TDN9373A** Portable Radio Hanger, for Door Panels 2-3/4" to 3-1/4"

#### Belt Loops

**4282421J06** Swivel Belt Loop, 2-1/2"

**4205857B01** Swivel Belt Loop, 3"



4282421J06

### Carrying Accessories

#### Belt Clips

**NTN4916B** Belt Clip, 1-1/2"

**NTN4924B** Belt Clip, 2-1/4"

**NTN5602A** Public Safety Size Belt Clip 3"  
Black Aluminum



NTN4916B

#### Belt

**4200865599** 1-3/4" Belt, Black



4200865599

#### Carrying Strap

**NTN5243A** Carrying Strap, Black



NTN5243A

#### T-Strap

**4205386S03** T-Strap, Nylon for Leather Carrying Cases (Snap)

**4205386S01** T-Strap, Nylon for Leather Carrying Cases (Velcro)



4205386S01



4205447R03

**4205447R03** T-Strap, Urethane, for Carry Holder (Snap)

#### Button Back Cover

**NTN5497A** T-Bar Button Back Cover Kit, Black



<https://www.motorola.com/businessonline>

## MT1000 Series

### Portable Accessories

#### Audio Accessories

##### Remote Speaker Microphone

Provides remote talk and listen capability. By attaching the microphone to the universal connector, located on the top of the radio, you can use the remote speaker microphone to transmit or receive while the radio remains comfortably on the belt or in the case.



NMN6156B

**NMN6145B** Remote Speaker Microphone with Clip, Clip Cord and 2.5 mm Earphone Jack

**NMN6156B** Remote Speaker/Microphone with Clip and Coil Cord

**NTN5050A** Public Safety Remote Speaker/ Microphone with Velcro Back UHF Models Only (requires antenna and velcro patch, order separately)

**NTN5493A** Public Safety Remote Speaker Microphone with Clip Back, UHF Models Only (order required antenna separately)

##### Antennas for Public Safety Speaker/Microphones

**8505309N09** Speaker/Microphone Antenna, 400-440 MHz

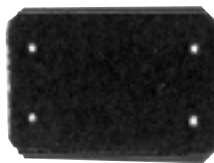
**8505309N10** Speaker/Microphone Antenna, 440-470 MHz

**8505309N11** Speaker/Microphone Antenna, 470-512 MHz



8505309N10

#### Audio Accessories



NLN8410A

**NLN8410A** Velcro Patch Pin Attachment

##### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with Velcro or clip style strap.



RLN4294A

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip



RLN4295A

##### Earpiece

**5083693B01** Earpiece and Volume Control (requires NTN4812B 3.5mm Earpiece Jack Adapter)

**5083693B04** Earpiece and Volume Control (3.5 mm)

**5880378B84** 3.5 mm to 2.5 mm Jack Adapter



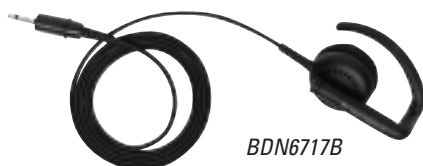
## MT1000 Series

## Portable Accessories

### Audio Accessories

#### Flexible Ear Receiver

**BDN6717B** Ear receiver with 3.5 mm plug, to be used with adapter NTN4812



BDN6717B



NTN4812B

**NTN4812B** Earphone Jack Adapter

#### Surveillance

**NTN5075B** Hirose Adapter for Two-and Three-Wire Surveillance Accessories

**ZMN6031A** Three-wire surveillance accessory with earpiece, microphone and push-to-talk as separate pieces. Factory Mutual Approved. Requires NTN5075B



ZMN6031A

**ZMN6032A** Two-wire surveillance accessory with earpiece, microphone and push-to-talk. Microphone and PTT are combined. Factory Mutual Approved. Requires NTN5075B



ZMN6032A

#### Ear Mics

Single unit microphone and speaker worn in the ear. Eliminates the need for handheld microphones or conventional headsets. Compact, rugged design allows use under hearing protectors and protective clothing. Order cable separately.

**RMN4001B** Ear Mic



RMN4001B

### Audio Accessories

**0180359A39** Interface Cable



0180359A39

**0180359A51** Optional PTT Ring Switch for RMN4001A only

**0180356B97** Optional PTT Ring Switch for RMN4001B Only

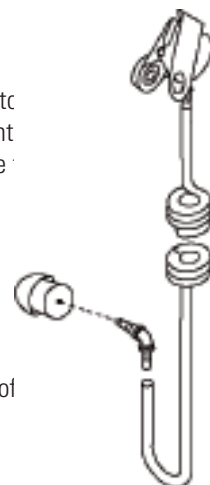
#### Noise Kits

Lightweight translucent tube attaches to Motc surveillance accessories. Clothing clip prevent accessory from being pulled from the ear due to movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs. Pack of use with NTN8370A)



NTN8371A

#### Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material.

There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



RLN4763A

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left, ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

## MT1000 Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone

This compact unit picks up the voice through bone vibrations in the ear canal. Ideal for use in high noise environments. Available in PTT or Voice activated (VOX) capabilities for total hands free communications. **Order Interface Module separately.**

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95dB), Black

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB), Beige



BDN6677A

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105dB), Grey



BDN6657B  
(shown with BDN6677A)

#### Interface Module

**\*BDN6656B** Push-To-Talk Interface Module

**\*BDN6657B** Voice-Activated Interface Module

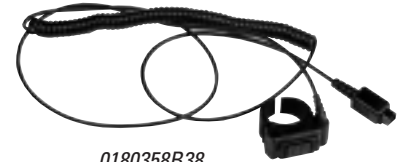
### Audio Accessories

#### Optional Accessories

**\*0180358B38** Remote Push-To-Talk Ring Switch

**0180300E25** Earguard with Adjustable Loop

**0180358B32** Earholder, Black, Size Small; Secures ear mic in ear



0180358B38

**0180358B33** Earholder, Black, Size Medium; Secures ear mic in ear

**0180358B34** Earholder, Black, Size Large; Secures ear mic in ear

**0180358B35** Earholder, Clear, Size Small; Secures ear mic in ear

**0180358B36** Earholder, Clear, Size Medium; Secures ear mic in ear

**0180358B37** Earholder, Clear, Size Large; Secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)



0180358B33

\* Intrinsically safe

## MT1000 Series



**MOTOROLA**  
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## Portable Accessories

### Audio Accessories



BDN6645A

**BDN6639A** Radio Adapter Cable

**BDN6645A** Push-To-Talk Headset with Boom Microphone, Requires Adapter Cable

**BDN6635B** Voice-Activated Headset with Boom Microphone, Requires Adapter Cable, Includes 110V Charger

**BDN6636B** Voice-Activated Headset with Throat Microphone, Requires Adapter Cable, Includes 110V Charger

**RMN4015A** Lightweight Headset with Swivel Boom Microphone, Single Speaker and In-line PTT



BDN6636B

**0180357B05** Spare Vox Headset Charger

**6881126E79** Instruction Manual for BDN6645A

**6881126E78** Instruction Manual for BDN6635B and BDN6636B

### Headsets

High noise level headset (up to 125 dB) with noise cancelling microphone and push-to-talk switch located on ear cup. Vox module contained within headset on voice activated units. Factory Mutual Approved. *NOTE:* Can be worn with or without hard hat or fire helmet.

### Vehicular Adapter

**NSN6054A** 12-Watt External Speaker



NSN6054A

**HMN1056D** Microphone, Compact Palm

**HMN1035C** Microphone, Heavy-Duty Palm

**HMN3013A** Microphone, DTMF



HMN1056D



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## MT1000 Series

## Antennas, Batteries

### Portable Antennas

#### Heliflex Antenna

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

#### Heliflex

##### \*NAB6064A

Heliflex, 30-50 MHz, 12"

##### 8505816K22

Heliflex Molded, 136-150.8 MHz, 6.5"

##### 8505816K21

Heliflex Molded, 150.8-162 MHz, 6"

##### 8505816K23

Heliflex Molded, 162-174 MHz, 6"

##### 8505816K24

Heliflex Molded, 403-433 MHz, 3"

##### 8505816K25

Heliflex Molded, 440-470 MHz, 3"

##### 8505816K26

Heliflex Molded, 470-512 MHz, 3"



### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN4823BR**

Volts: 10

Avg. mAh: 550

Height: 2-7/16"

Intrinsically Safe: Yes



NTN4823BR

Part Number: **NTN5447BR**

Volts: 10

Avg. mAh: 1100

Height: 3-5/16"

Intrinsically Safe: No



NTN5447BR

Part Number: **NTN5448BR**

Volts: 10

Avg. mAh: 1100

Height: 3-5/16"

Intrinsically Safe: Yes

\*NAB6064A is an uncut antenna. Cutting instructions and chart supplied with antenna

## MT1000 Series

### Batteries, Tools

#### Portable Batteries

##### Nickel Metal Hydride Premium

Part Number: **NTN7015A**  
Volts: 10  
Avg. mAh: 950  
Height: 2-7/16"  
Intrinsically Safe: No

##### Alkaline

Part Number: **NTN4870B**  
Volts: (NA)  
Avg. mAh: 2100  
Height: 3-1/4"  
Intrinsically Safe: No

#### Alignment Tool

##### Tuning Tool

**6605106N01** Tuning Tool, Adjusts Tunable Coils, Preselector, Reference Oscillator Frequency, and Trimmer Capacitors



6605106N01

#### Service Tools

##### Torque Screwdriver



RSX4043A

**RSX4043A** Torque Screwdriver, Order Bits Separately

**6680321B86** #0 Phillips Bit for Radio Screws

**6680321B79** #1 Phillips Power Bit for Radio Screws

**6680370B95** Spanner Bit, for Toggle Switch Spanner Nut

**6680371B34** Spanner Bit, for Antenna Bushing

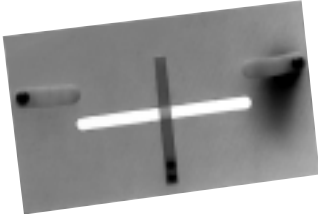
**6680371B03** Nut Driver Bit for Volume Pot. Rotary Switch Nuts

## MT1000 Series

## Service Tools, Aids

### Service Tools

#### Controller Flex Hold Down Fixture



0180371B37

Provides a secure mount for the MT1000 controller flex when removing and replacing I.C. chip carriers and chip components using the Surface Mount Service Center.

**0180371B37** Controller Flex Hold Down Fixture

### Service Aids

#### Battery Eliminator

The battery eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.

**RTL4226B** Battery Eliminator



RTL4226B

#### Cloning Cable

Enables the frequencies, squelch codes, squelch and deviation settings to be duplicated from one radio to another. Only identical models and sub-models are compatible for cloning.

**NKN6376A** Cloning Cable



NKN6376A

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E

#### Wall Mounted Power Supply

Used to supply power to radio interface box RLN4008E.

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts



0180357A57



## MT1000 Series

## Service Aids, Manuals

### Service Aids

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RTK4205C** Test and Programming Cable



REN4000A

#### Controller Flex Extender

Allows access to all electrical points on the controller flex and the interior of the RF board for troubleshooting purposes.

**REN4000A**  
Controller Flex Extender

#### Battery Adapter

Replaces radio housing during servicing and provides easy mounting for battery eliminator, RTL4226A.

**1580368B62** Battery Adapter



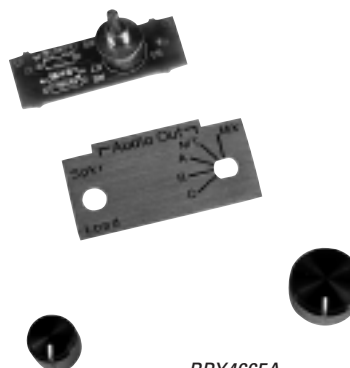
1580368B62

### Service Aids

#### Field Modification Kit

Allows for quick field modification of RTX4005 "A" test sets to provide operation with the MT1000 Radio.

**RPX4665A** Field Modification, RTX4005A



RPX4665A

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Compatible with IBM, XT, AT Model 30, 50, 60 and 80. Requires Radio Interface Box and proper cables, order separately.

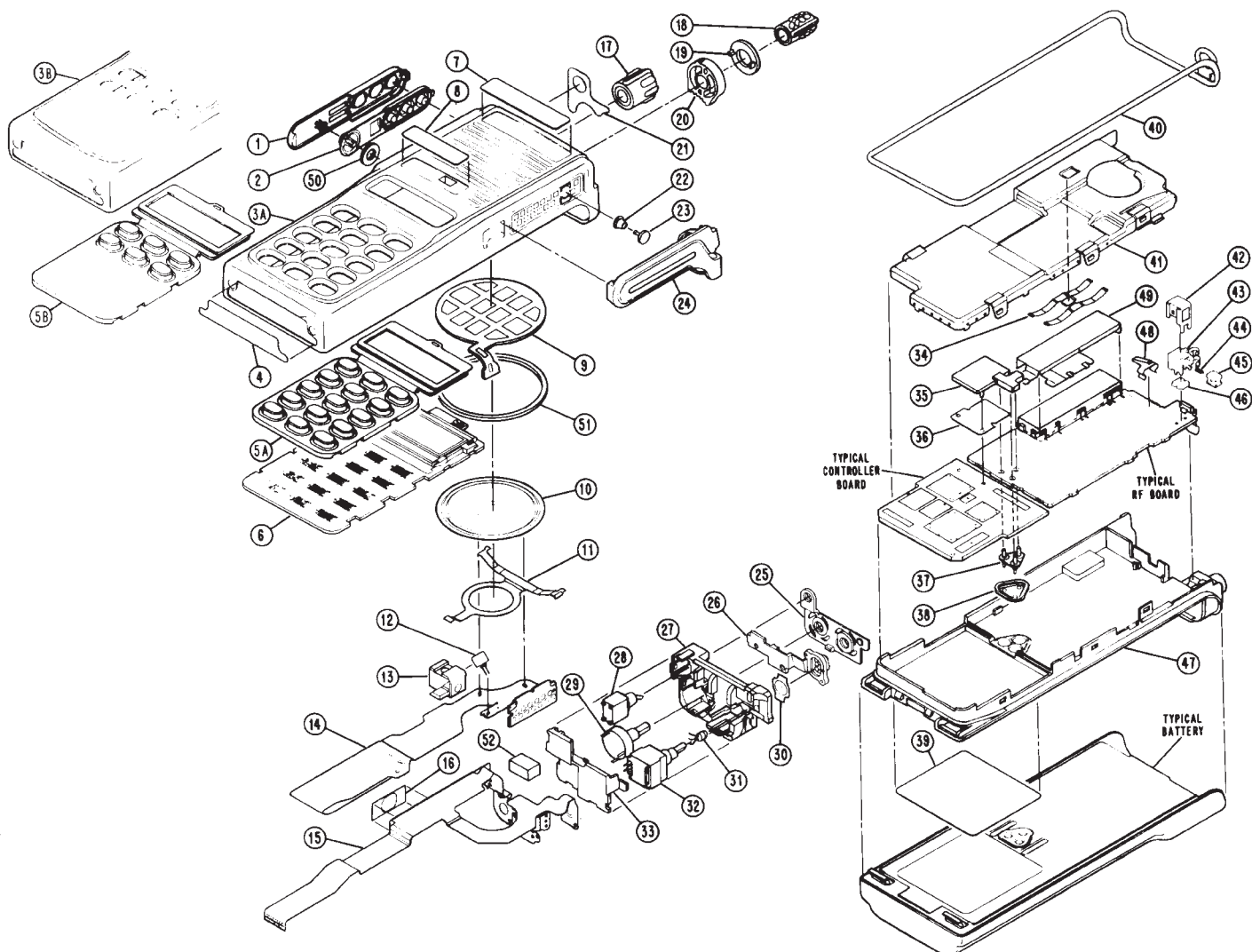
**RVN4017K** Programming Software (includes manual and storage box)

### Manuals

- 6881067C40** VHF/UHF Service Manual
- 6881061C35** Operating Instructions Manual
- 0180305J46** Ear Microphone System and Temple Transducer CD-ROM

# MT2000 Series

## Parts List



# MT2000 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>4505896U02</b>	Lever, PTT
2	<b>3205902U01</b>	Seal, PTT, and Actuator for S404, S405, S406 and S408
3A	<b>1505637V04</b>	Cover, Front; Full Keypad
3B	<b>1505627V04</b>	Cover, Front; Limited Keypad
4	----	Label, Agency Approval; not field replaceable
5A	<b>7505870U01</b>	Keypad, 15-key
5B	<b>7505870U02</b>	Keypad, 6-key
6	<b>5105238U83</b>	Module, Display
7	<b>3305183R55</b>	Label, Motorola
8	<b>3305183R70</b>	Label, MT2000
9	<b>3505535X02</b>	Felt, Speaker
10	See Note 1	Speaker (LS401) – not available
11	<b>0705470V01</b>	Bracket, Speaker Retainer
12	See Note 1	Microphone (MK401) – not available
13	<b>1405330W02</b>	Boot, Microphone
14	<b>8405310W04</b>	FLEX, Front Cover/Display
15	<b>8405333W03</b>	FLEX, Controls
16	<b>3905517V01</b>	Popple, PTT (p/o S406)
17	<b>3605253V01</b>	Knob, On/Off/Volume
18	<b>3605636V01</b>	Knob, Frequency
19	<b>1305633V01</b>	Ring, Concentric; Escutcheon
20	<b>3605635V01</b>	Knob, Concentric Ring
21	<b>1305698V01</b>	Escutcheon, Control Top
22	<b>3205160W01</b>	Seal, Actuator; for S101
23	<b>2205159W01</b>	Pin, Actuator; for S101
24	<b>3205514W01</b>	Seal, Accessory Connector
25	<b>3205177Z01</b>	Seal, Control Top
26	<b>3205178Z01</b>	Seal, Emergency Button
27	<b>2705877U01</b>	Housing, Switch
28	See Note 1	Switch, Toggle (S402) – not available
29	See Note 1	Potentiometer/Switch, On/Off/Volume Control (R401/S403) – not available

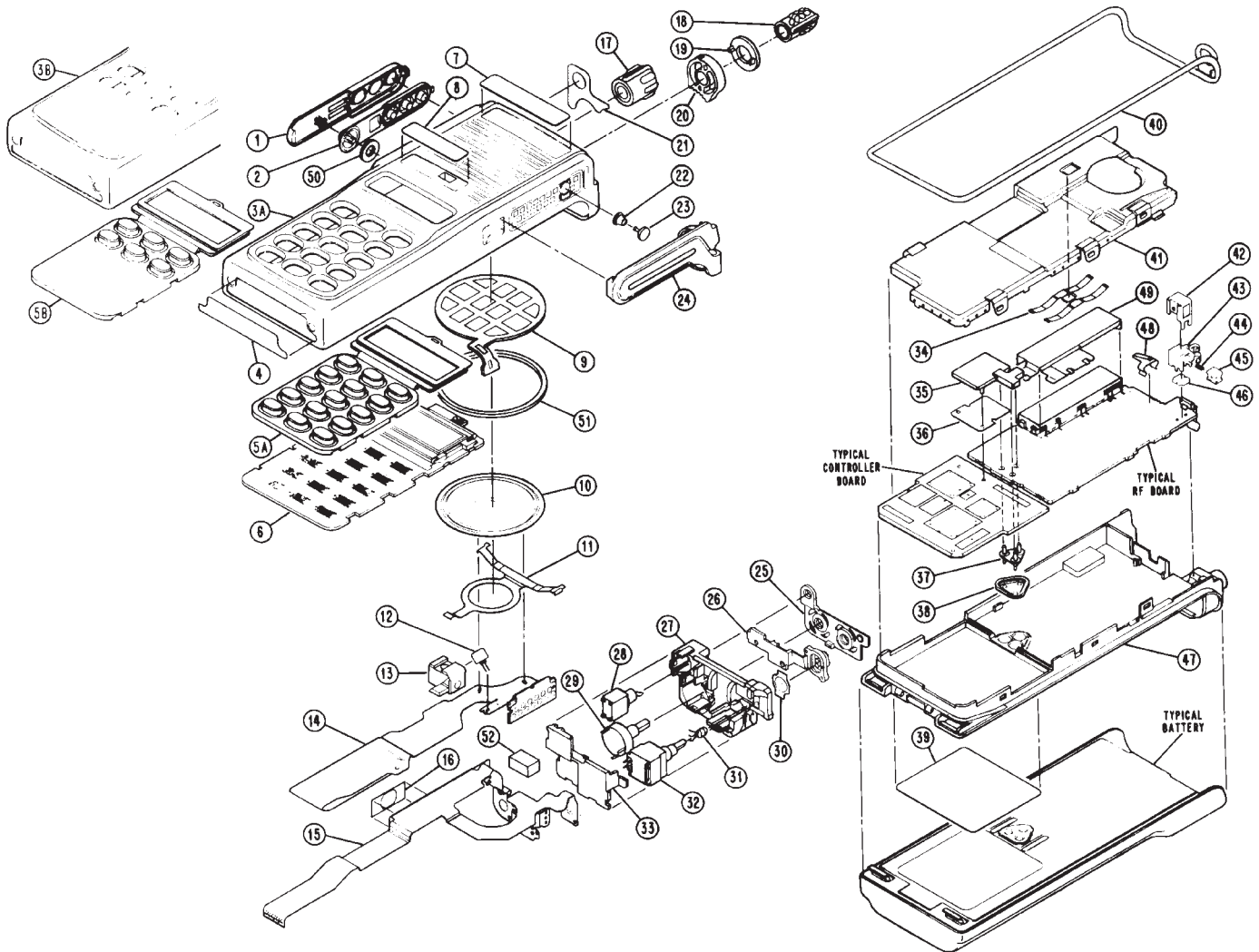
REF. NO.	PART NO.	DESCRIPTION
30	<b>3905329W01</b>	Popple, Emergency Button
31	See Note 1	LED (CR702A/CR702B) – not available
32	See Note 1	Switch, Frequency (S401) – not available
33	<b>1505632V01</b>	Cover, Switch Housing
34	----	Spring, PA; not field replaceable, order front shield
35	<b>4205507X01</b>	Strain Relief
36	<b>8405247V01</b>	FLEX, Jumper
37	See Note 2	Plug, Connector, (P404) – not available
38	<b>3205820V01</b>	Seal, Connector Plug
39	----	Label, Rear; Information; not field replaceable
40	<b>3205176Z01</b>	“O” Ring, Contoured/Seal, Antenna
41	<b>2605891U03</b>	Shield, Front – item cancelled
42	<b>4005831W01</b>	Bracket, RF Switch
43	----	Housing, RF Switch
44	<b>4105266V01</b>	Spring, RF Switch
45	----	Piston, RF Switch
46	----	Circuit Board, RF Switch
47	<b>1505892U06</b>	Chassis (Rear Cover)
48	<b>3905838V01</b>	Contact, Antenna Shield Ground (800 MHz and 900 MHz radios only)
49	<b>2605898U01</b>	Shield, PA (800 MHz and 900 MHz radios only)
50	<b>0405717W01</b>	Washer, PTT Seal
51	----	Spacer, Speaker – not available
52	<b>7505393N33</b>	Pad, Shock

### NOTES:

1. Refer to electrical parts list (miscellaneous) for part number and complete description.
2. Refer to electrical parts list (transceiver board) for part number and complete description.

# MTS2000 Series

## Parts List



# MTS2000 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>4505896U02</b>	Lever, PTT	26	<b>3205177Z01</b>	Seal, Emergency Button
2	<b>3205902U01</b>	Seal, PTT, and Actuator for S404, S405, S406, and S408	27	<b>2705877U01</b>	Housing, Switch
3A	<b>1505637V04</b>	Cover, Front; Full Keypad	30	<b>3905329W01</b>	Popple, Emergency Button
3B	<b>1505637V05</b>	Cover, Front; Limited Keypad	33	<b>1505632V01</b>	Cover, Switch Housing
4	----	Label, Agency Approval; not field replaceable	34	----	Spring, PA; not field replaceable, order front shield (item 41)
5A	<b>7505870U01</b>	Keypad, 15-key	35	<b>4205507X01</b>	Strain Relief
5B	<b>7505870U02</b>	Keypad, 6-key	36	<b>8405247V01</b>	FLEX, Jumper
6	<b>5105238U83</b>	Module, Display	38	<b>3205820V01</b>	Seal, Connector Plug
7	<b>3305183R55</b>	Label, Motorola	39	----	Label, Rear; Information; not field replaceable
8	<b>3305409X05</b>	Label, MTS2000	40	<b>3205176Z01</b>	"O" Ring, Contoured/Seal, Antenna
9	<b>3505535X02</b>	Felt, Speaker	41	<b>2605891U03</b>	Shield, Front – item cancelled
11	<b>0705470V01</b>	Bracket, Speaker Retainer	42	<b>4005831W01</b>	Bracket, RF Switch
13	<b>1405330W02</b>	Boot, Microphone	43	----	Housing, RF Switch
14	<b>8405310W04</b>	FLEX, Front Cover/Display	44	<b>4105266V01</b>	Spring, RF Switch
15	<b>8405333W03</b>	FLEX, Controls	45	<b>4405524V01</b>	Piston, RF Switch
16	<b>3905517V01</b>	Popple, PTT (p/o S406)	46	----	Circuit Board, RF Switch
17	<b>3605253V01</b>	Knob, On/Off/Volume	47	<b>1505892U06</b>	Chassis (Rear Cover)
18	<b>3605636V01</b>	Knob, Frequency	48	<b>3905838V01</b>	Contact, Antenna Shield Ground (800 MHz and 900 MHz radios only)
19	<b>1305633V01</b>	Ring, Concentric; Escutcheon	49	<b>2605898U01</b>	Shield, PA (800 MHz and 900 MHz radios only)
20	<b>3605635V01</b>	Knob, Concentric Ring	50	<b>0405717W01</b>	Washer, PTT Seal
21	<b>1305698V01</b>	Escutcheon, Control Top	52	<b>7505393N33</b>	Pad, Shock
22	<b>3205160W01</b>	Seal, Actuator; for S101			
23	<b>2205159W01</b>	Pin, Actuator; for S101			
25	----	Seal, Control Top – not available			

## MT2000/MTS2000 Series

### Portable Accessories

#### Chargers

Single unit chargers are available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola. All chargers listed are rapid rate and will fully charge your battery in less than 3 hours.

#### Single Unit Compact Bi-Chemistry Chargers – Rapid Rate

The bi-chem charger has the power supply built into the line cord giving the user a smaller base unit for easier storage. It also utilizes an enhanced charging algorithm that will help maximize the life of your batteries. It will rapid rate charge both NiCd and NiMH batteries.

**RPX4747A** Compact Bi-Chem Charger, 110V

**RPX4748A** Compact Bi-Chem Charger, 230V Euro plug

**RPX4749A** Compact Bi-Chem Charger, 230V UK plug

#### Chargers

#### Multiple Unit Charger (MUC)

Multi-unit chargers offer six pockets that can be used to rapid charge 1 to 6 batteries simultaneously. The batteries can be charged with the radios or separately. They will rapid rate charge both NiCd and NiMH batteries.



NTN1177D

**NTN1177D** Six-Pocket, rapid rate 110V

**NTN1178D** Six-Pocket, rapid rate, 220V (supplied with 2 prong cord)

**NTN1179D** Six-Pocket, rapid rate, 240V (supplied with 3-flat prong cord)

#### MUC Accessories

**NLN7967A** Wall Mount

#### Vehicular Charger

This 12V DC charger is ideal for mobile customers. It charges portable radio NiCd batteries in rapid charge mode (in less than 3 hours) until full charge is obtained and then switches to trickle charge mode. A microprocessor controls the charge rate: this durable unit comes with a metal mounting bracket and is PAC-RT compatible.



TDN9816A

**TDN9816A** Vehicular Charger



## MT2000/MTS2000 Series

### Portable Accessories

#### Chargers

##### **Vehicular Travel Charge**

A great traveling companion that ensures constant communication while on the road.

Allows the battery to rapid charge while using the radio; users can receive communication immediately once the charger is connected, and transmit from a previously "dead" battery in just 5 minutes. This light and compact unit includes a voltage regulated lighter adapter, custom charger base, mounting bracket, and coil cord. Ideal for public safety, utility and construction markets.



**RLN4884B** Vehicular Travel Charger

##### **Travel Charger AC Transformer**

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)

##### **Travel Charger Mounting Bracket**

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

#### Motorola Conditioning Charger (MCC)

The MCC utilizes negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified NiCd and NiMH batteries in approximately an hour. The MCC controls heat buildup due to its charging and termination algorithms and maintenance mode allows batteries to be safely left on the charger for extended periods of time. And now there is an Instant Fault Detection (IFD) feature which detects faulty radio batteries in seconds, which notifies the user that the battery will not operate at peak performance. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.

**WPPN4002BR** 110V AC  
Base Charge Unit Only (order  
adapter plate separately)

**WPPN4006AR** 220V AC  
Base Charge Unit Only (order  
adapter plate separately)

**WPPN4006BR** Multi-Unit  
Conditioning Charger Four  
Station Base 110V (order adapter plate separately)

**WPPN4004BR** 7 Volt Adapter Only

**WPLN4090BR** MCC Kit, 110V AC; includes both base unit  
and 7V adapter

**WPLN4091BR** MCC Kit, 220V AC; includes both base unit  
and 7V adapter

**3080384G15** Cigarette Lighter Adapter Cord; MCC multi-unit  
conditioning charger

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola  
Conditioning Charger

**3080384M21** DC Hard Wire Cable, for vehicular installation  
(included in RLN4814A)



**WPPN4002BR**

## MT2000/MTS2000 Series

### Portable Accessories

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

##### **Increase the useful life of your batteries.**

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

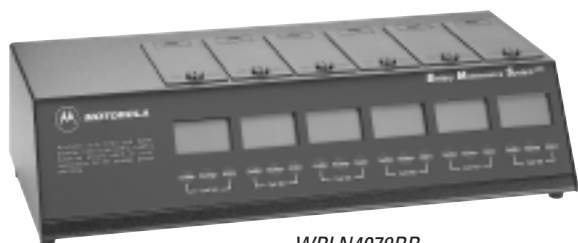
**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field Upgrade Kit or WPLN4079AR, WPLN4080AR, and WPLN4081AR; allows these units to support Li-ion battery chemistries

**NDN4005B** Three-Station, 110V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)



WPLN4079BR



TDN9435C

##### **BMS<sup>plus</sup> Adapter**

**TDN9435C** Adapter Compatible with NiCd Batteries Only

**CDN6364A** Adapter Compatible with Both NiCd and NiMH Batteries

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

##### **BOS II Adapter**

**RL-72403** Standard Adapter

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## MT2000/MTS2000 Series

### Portable Accessories

#### *impres™ Smart Energy System*



WOLN4111AR

The impres™ smart energy system ensures maximum talk-time and optimized battery cycle life through the use of its advanced charging algorithm and automatic reconditioning features. The smart energy system reconditions impres batteries when they need it automatically, keeping them in peak condition. It's advanced conditioning features allow batteries to be safely

left on the charger for extended periods of time without incurring the damaging heat build-up which can rob batteries of cycle life. In addition, batteries left on the charger are kept fully charged so they are always ready when you need them. The impres system reconditions batteries when they need it based on their usage pattern. Talk time and cycle life are optimized and the need for manual maintenance programs reduced or eliminated. This rapid-rate tri-chemistry charging system will also charge existing legacy batteries and supports multiple radio platforms including Saber, XTS, and HT1000 series portables.

**WPLN4111AR** impres Smart Energy System Single Unit Charger

**WPLN4108BR** impres Smart Energy System Multi-Unit Charger

#### *impres™ Smart Energy System*

##### *impres™ Multi-Unit Charger with Display Modules*

The impres Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impres battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time which lets the user know when the impres battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage and charge status including the version of the charger and display modules.

**WPLN4130AR** impres Multi-Unit Charger with Display Modules

**RLN5591A** Charger Display Module for impres multi-unit charger version 1.2 or earlier

**RLN5382A** Charger Display Module for impres multi-unit charger version 1.3 or later



WPLN4130AR

##### *impres™ Bundle Packs*

Provide significant savings on the impres products by bundling a charger and batteries together as a smart energy system package.

**RLN5265A** impres Charger with two HNN9029AR batteries

**RLN5266A** impres Charger with two HNN9028AR batteries

**RLN5439B** impres Multi-Unit Charger with six HNN9029AR batteries

**RLN5440B** impres Multi-Unit Charger with six HNN9028AR batteries

## MT2000/MTS2000 Series

### Portable Accessories

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio and battery and permit audio to be heard clearly.



NTN7247A

##### Standard Belt Loop Carrying Cases

**NTN7238A** Leather Carry Case with Belt Loop and T-Strap for use with high capacity battery

**NTN7239A** Leather Carry Case with Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4018B** DTMF Leather Carry Case with Belt Loop for use with high and ultra-high capacity batteries

**NTN7247A** Nylon Carry Case with Belt Loop and Strap for use with high and ultra-high capacity batteries

##### High Activity Swivel Carrying Cases

The following carrying cases have a high activity swivel "D" button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high activity applications versus standard swivel cases while allowing the radio to swing freely with body movements.

**NTN8035B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8037B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8036B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery



NTN8036B

#### Carrying Accessories

**NTN8038B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4017B** DTMF Leather Carry Case with 3.0" High Activity Swivel Belt Loop and Antenna Strap for use with high and ultra-high capacity battery



NTN8038B

##### T-Strap

**NTN7782A** T-Strap for leather carry cases

**NTN7376A** T-Strap for nylon carry cases

##### Belt Loops

**NTN8039B** 2.5" High Activity Swivel Belt Loop

**NTN8040B** 3.0" High Activity Swivel Belt Loop

**NTN1534A** High-activity "D" button and 2.5" belt loop

**NTN1535A** High-activity "D" button and 3.0" belt loop



NTN8039B

##### High Activity Button

**NTN8063A** Removable "D" button used in conjunction with high-activity belt loop

##### Belt

**4200865599** 1.75" Wide Black Belt



4200865599

##### Belt Clips

**4205638V09** 2.5" Contoured Belt Clip

**4205638V07** 3.0" Contoured Belt Clip



NTN5243A

##### Carrying Strap

**NTN5243A** Shoulder Carry Strap, allows easy carrying of radio in a case when not wearing a belt

## MT2000/MTS2000 Series



**MOTOROLA**  
intelligence everywhere™

### Portable Accessories

#### Carrying Accessories

##### Swiveller

**TDN9684A** Swiveller, includes clip button, holster and belt

##### Swiveller Replacement Accessories

**TDN9690A** Clip button, mounts on battery



NTN9684A

**TDN9688A** Holster, compatible with all buttons

**TDN9687A** Belt, 2" nylon



TDN9687A

##### Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pouch

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

##### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

#### Carrying Accessories

##### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

##### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"



TDN9327A



RLN4815A

##### Waterproof Bag

**HLN9985B** Waterproof bag includes large carrying strap

##### Universal Holders

**RLN4943A** Universal holder with gooseneck bracket

**RLN4944A** Wheelchair quick release assembly

**RLN4945A** Universal holder with gooseneck bracket and wheelchair quick release assembly





## MT2000/MTS2000 Series

## Portable Accessories

### Audio Accessories

#### Remote Speaker Microphones (RSM)



NMN6193C

Allows you to talk and listen without removing the radio from the belt case or charger. Ideal for high noise level environments. These water resistant microphones include a coil cord, 3.5mm earjack, swivel clothing clip and quick disconnect latch.

**\*NMN6193C**

Remote Speaker Microphone

**\*NMN6191C** Noise Cancelling Remote Speaker Microphone

**0104010J46** Replacement Coil Cord Cable Assembly for Remote Speaker Microphones

**RLN5002A** MicJacket Kit; compatible with NMN6228, NMN6243 and NMN6244 remote speaker microphones

#### Public Safety Speaker Microphones (PSM)

Public Safety Speaker Microphones include straight cord assembly, 3.5mm earjack, swivel clip, quick disconnect latch, antenna connector, and receiver, audio high/low volume push button. Antenna must be ordered separately.

**\*NMN6228C** 30" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6243B** 18" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6244B** 24" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**0104004J29** 30" Public Safety Microphone cable

**0104004J46** 18" Public Safety Microphone cable

**0104004J47** 24" Public Safety Microphone cable

**REX4410C** PTT Paddle Replacement Kit for remote and Public safety Microphones

\* Intrinsically safe

### Audio Accessories

#### RSM Accessories

##### Epaulet Straps

Black leather epaulet strap secures remote speaker microphone to epaulet straps on shirt or jacket and



RLN4295A

accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile environments.



RLN4294A

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip

#### CommPort: Integrated Microphone/Receiver System

The CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.



NTN1624A



NTN1625

**\*NTN1624A** Integrated Ear Microphone/Receiver System with Palm PTT (includes BDN6676D 3.5mm Jack Adapter)

**\*NTN1625A** Integrated Ear Microphone/Receiver System with PTT on Radio Adapter (includes BDN6676D 3.5mm Jack Adapter)

**\*NTN1663A** Integrated Ear Microphone/Receiver System with Ring PTT (includes BDN6676D 3.5mm Jack Adapter)

**\*NTN1736A** Integrated Ear Microphone/Receiver System with Snap-on Side PTT (includes BDN6676D radio adapter)

**NNTN4186A** Integrated Ear Microphone/Receiver System with Remote Push-to-Talk Body Switch (includes BDN6676D 3.5mm jack adapter)

**NKN6510A** Replacement Palm PTT Cable for NTN1624

**NKN6508A** Replacement Cable for NTN1625



## MT2000/MTS2000 Series

### Portable Accessories

#### Audio Accessories

- NNTN4188A** Replacement Body Switch PTT Cable  
**NKN6525A** Replacement Snap-on PTT Cable for NTN1736A  
**NKN6512A** Replacement Ring PTT Cable for NTN1663A  
**NTN8821A** CommPort Maintenance Kit, Includes Replacement Ear Tubes (Quantity 10), Windscreens (Quantity 2) and Microphone Seal Strips (Quantity 10)  
**NTN8986A** Adhesive Pads (Quantity 90) for secure attachment to ear  
**NTN8988A** Ear Straps (Quantity 10), for secure attachment to ear  
**4285838B01** Replacement Collar Clip  
**4202006A01** Replacement Back Cover Clip  
**RLN5037A** Replacement Ear Tubes (Quantity 10)

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discreet communications.

The following surveillance accessories require the **BDN6676D** (3.5 mm threaded adapter jack) that attaches to the radio.

Receive-only Surveillance Kit (1-Wire)

- \***BDN6664A** Beige  
\*†**BDN6665A** Beige  
**BDN6726A** Black  
†**BDN6727A** Black



BDN6664A

Receive-only Surveillance Kit with Volume Control (1-Wire)

- \***BDN6666A** Beige  
**BDN6728A** Black



BDN6666A

#### Audio Accessories

Surveillance Kit with Microphone and Push-To-Talk Combined (2-Wire)

- \***BDN6667A** Beige  
\*†**BDN6669A** Beige  
**BDN6729A** Black  
**BDN6731A** Black

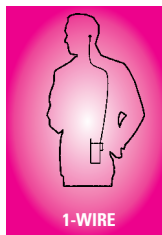


BDN6667A

Surveillance Kit with Microphone and Push-To-Talk Separate (3-Wire)

- \***BDN6668A** Beige  
\*†**BDN6670A** Beige  
**BDN6730A** Black  
†**BDN6732A** Black

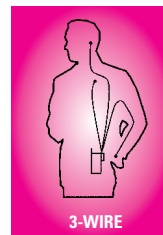
\***BDN6676D** 3.5mm Jack Adapter with Quick Disconnect Latch



1-WIRE



2-WIRE



3-WIRE

#### Surveillance Kit Accessories

- 5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, Eartip)  
**5080369E39** Extra Loud Earpiece Assembly (includes Earphone, Earloop, Eartip)  
**5080369E40** Plastic Urethane Earloop  
**5080371E69** Small Rubber Eartips, Pack of 25, Beige  
**5080371E71** Small Rubber Eartips, Pack of 25, Black  
**5080371E73** Standard Rubber Eartips, Pack of 25, Beige  
**5080371E75** Standard Rubber Eartips, Pack of 25, Black  
**5080370E90** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip)  
**5080370E91** Extra Loud Earpiece Assembly (includes Earphone, Earloop, and Eartip)  
**5080370E92** Earloop, Plastic, Black  
**5880377E06** Plastic Earloop Adapter

\* Intrinsically safe

† Extra Loud Earphone (exceeds OSHA limits)

## MT2000/MTS2000 Series

### Portable Accessories

#### Audio Accessories

##### Surveillance Kits with Extended Wear Comfort Earpiece

These kits include a comfort earpiece with a rubber eartip and a clear comfortable acoustic tube. Users hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5311A** Comfort Earpiece with Microphone and PTT combined, Beige (2-wire kit)

**RLN5312A** Comfort Earpiece with Microphone and PTT combined, Black (2-wire kit)

**RLN5313A** Receive Only Comfort Earpiece, Black (1-wire kit)

**RLN5314A** Receive Only Comfort Earpiece, Beige (1-wire kit)



##### Completely Discreet Earpiece

Remain discreetly in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discreet two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discreet communication.



**RLN4922A** Completely Discreet Earpiece Kit

##### Replacement Items

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4 Volt Battery, 6 per pack

#### Audio Accessories

##### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Beige Replacement Standard Rubber Eartips; for use with NTN8371A, (pack of 25)

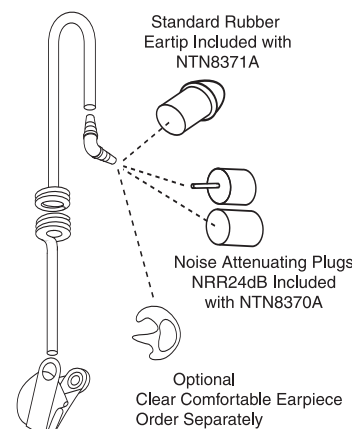
**5080371E75** Black Replacement Standard Rubber Eartips; for use with NTN8371A, (pack of 25)



##### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1, 2 and 3 wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



Acoustic Tube  
with Earphone

## MT2000/MTS2000 Series

## Portable Accessories

### Audio Accessories

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear



RLN4763A

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



RLN4760A

### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX). Interface Module needs to be ordered separately for EMS to work

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95dB, black)

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB, beige)

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105dB)



BDN6641A

Shown with interface module

### Audio Accessories

#### Interface Module For EMS

**\*BDN6708B** Push-To-Talk Interface Module

**\*BDN6671B** Push-To-Talk or Voice-Activated Interface Module



BDN6708B

#### Optional Accessories For EMS

**\*0180358B38** Remote Push-To-Talk Ring Switch

**\*0180300E83** Remote Push-To-Talk Body Switch



0180358B38



0180300E25

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear

**0180358B32** Earholder, black size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)



0180358B33

\* Intrinsicly safe

## MT2000/MTS2000 Series

### Portable Accessories

#### Audio Accessories

##### Flexible Ear Receiver

Features a flexible earloop and speaker which rests external to the ear.

**BDN6719A** Flexible Ear Receiver with 3.5 mm Threaded Plug, requires adapter BDN6676D unless being used with speaker microphone

**7580372E11** Replacement Foam Ear cushion for BDN6719A



BDN6719A

##### Pellet Style Earpieces

The pellet style earpiece allows the user to receive communication discreetly and is comfortable for extended wear.

**BDN6780A** Single Earbud with Microphone and Push-To-Talk, requires adapter BDN6676D, unless being used with speaker microphone

**BDN6781A** Single Earbud, receive only; requires adapter BDN6676D unless being used with speaker microphone

**7580372E70** Replacement Foam Ear Cushion for Pellet Earpieces

##### Lightweight Headsets

Lightweight headsets allow for high clarity, hands free, discreet two-way communication while adding comfort for extended wear in moderate noise environments. Requires BDN6676 Audio Adapter.



NMN6245A

**\*NMN6245A** Single Muff Lightweight Headset with In-line Push-To-Talk Switch (requires BDN6676D adapter)

**REX4648A** Replacement Foam Earpad and Windscreen Kit for NMN6245A

**5080574E02** Foam Earpads for use with NMN6245A, 10 per pack

#### Audio Accessories

**\*NMN6246A** Ultralite Headset with Boom Microphone and In-line Push-To-Talk Switch; ear bud style receiver (requires BDN6676D adapter)

**\*NMN1020A** Lightweight Headset with Boom Microphone to be worn on a helmet or safety glasses. Includes NKN6498A adapter cable. Requires BDN6676D adapter.

**\*NKN6498A** Headset Adapter Cable for use with NMN1020A



NMN6246A

##### Medium Weight Headsets

Medium Weight Headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*NMN6258A** Medium Weight Headset, over the head with In-Line PTT, Noise Reduction Rating = 24dB

**\*NMN6259A** Medium Weight Headset, behind the head with In-Line PTT, Noise Reduction Rating = 24dB

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6259A

##### Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable RKN4095A. Hardhat not included.

\* Intrinsically safe

## MT2000/MTS2000 Series

### Portable Accessories

#### Audio Accessories

**RMN4052A** Tactical Headband Style Headset; provides 24dB of noise reduction and requires RKN4095A adapter cable.



RMN4053A

**RMN4053A** Tactical Hardhat Mount Headset; mounts easily to hardhats with slots. Provides 22dB of noise reduction and requires RKN4095A adapter cable; hardhat not included.



RMN4052A

**RKN4095A** Radio Adapter Cable with In-Line PTT for use with RMN4051A, RMN4052A and RMN4053A

#### Racing Headset for Two-Way Radios

Motorola is the official wireless equipment supplier of CART®, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.



RMN5015

**RMN5015A** Racing headset for two-way radios (Adapter Cable required)

**BDN6673B** Adapter Cable for XTS2500, XTS3000, XTS3500 and XTS5000

#### Audio Accessories

##### Temple Transducer

The temple transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of this accessory rests on the temples and is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and bone directly into the inner ear where it is received by the user. It features an in-line PTT and noise canceling boom microphone. The temple transducer enhances communication and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning, and fire alarms, the intercom, traffic and even casual conversations with their co-workers.



RMN4049A

**\*RMN4049A** Temple Transducer

#### Hardhat Mount Headset with Noise-Canceling Boom Microphone



RMN4051A

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4095A. Hardhat not included.

**RMN4051A** Two-Way Hardhat Mount Headset, black

#### Adapter Cable

**RKN4095A** In-Line PTT Adapter Cable. For use with RMN4051, RMN4052, and RMN4053.

#### Replacement Earseals for Headsets

**RLN4923A** Includes Two Replacement Snap-In Earseals; recommended replacement interval is once every six months to ensure constant level of attenuation, hygiene and comfort. For use with RMN4051, RMN4052, and RMN4053.

*\* Intrinsically safe*



## MT2000/MTS2000 Series

## Portable Accessories, Antennas

### Audio Accessories

#### Heavyduty Headsets

Heavyduty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125 dB. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. **Heavyduty headsets require radio adapter cable BDN6673B to be ordered separately.**

**\*BDN6645A** Push-To-Talk Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB



BDN6645A



BDN6635B

**\*BDN6635B** Voice-activated Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB

**\*BDN6636B** Voice-activated Headset with Throat Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB



BDN6636B

**BDN6673B** Radio Adapter Cable

#### Receive Only Headset

**RMN4056B** Receive only dual muff headband style headset, provides 24 dB of noise reduction for use with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RMN4057B** Receive only hardhat mounts easily to hardhats with slots and provides 22dB of noise reduction, for use with all remote and public safety microphones with 3.5mm threaded jack (can be plugged into radio with BDN6676D adapter)

### Portable Antennas

Injection molded for rugged environments. Each antenna is tested and tuned to give maximum power and performance.

#### Flexible Whip Antennas

Antenna has a one-piece finish and steel core for optimal strength and better radiation characteristics. Provides more comfort when radio is worn on the belt.

##### 8505241U05

Flexible Whip, 403-520MHz, 6"

##### 8505241U03

Flexible Whip, 806-870MHz, 7"

##### 8505241U04

Flexible Whip, 896-941MHz, 7"



8505241U05

#### Helical Antennas

Helical antennas are sturdy and dependable for years of failsafe communication. Each antenna is designed and built to quality standards. The skirt at the base of the connector helps to seal out damaging elements. Connector is made of plated brass material for long life.

##### 8505644V01

Helical, 136-151MHz, 6"

##### 8505644V02

Helical, 151-162MHz, 6"

##### 8505644V03

Helical, 162-174MHz, 6"

##### 8505644V04

Helical, 403-435MHz, 3"

##### 8505644V05

Helical, 435-470MHz, 3"

##### 8505644V06

Helical, 470-520MHz, 3"



8505644V01



8505644V03



8505644V04

\* Intrinsically safe



## MT2000/MTS2000 Series

## Antennas, Batteries

### Portable Antennas

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

##### NAF4000B

Dipole, 806-869MHz, 8"

##### 8505884R02

Dipole, 896-941MHz, 8"



#### Wideband Antenna

Wideband antenna is ideal when radio is used in different frequencies since one antenna will cover all ranges.

**8505518V01** Wideband, 136-174MHz, 6"

#### Stubby Antenna

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive. This is a broadband antenna that can be used for both 800MHz and 900MHz applications.

##### \*8505241U06

Stubby, 806-941MHz, 4"



### Replacement Kits

**REX4395A** 15 Key Cosmetic Replacement Kit

**REX4396A** 6 Key Cosmetic Replacement Kit

**REX4397A** Top Display Cosmetic Replacement Kit

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN7143CR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: No



NTN7143CR

Part Number: **NTN7144CR**

Volts: 7.5

Avg. mAh: 1500

Height: 6"

Intrinsically Safe: No



NTN7144CR

Part Number: **NTN7146AR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: Yes

Part Number: **NTN7147AR**

Volts: 7.5

Avg. mAh: 1300

Height: 6"

Intrinsically Safe: Yes

\* 8505241U06 is a broadband antenna that operates in the 800/900MHz band

## MT2000/MTS2000 Series

### Batteries

#### Portable Batteries

Part Number: **NTN7149BR**

Volts: 7.5

Avg. mAh: 1300

Height: 6"

Intrinsically Safe: No

CSA: Yes

Part Number: **NTN7150AR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: No

MSHA: Yes

Part Number: **NTN7341AR**

Volts: 7.5

Avg. mAh: 1400

Height: 6"

Intrinsically Safe: Yes

Part Number: **NTN7372AR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: Yes



NTN7372AR

#### Portable Batteries

##### Nickel Metal Hydride Premium

Part Number: **WPNN4013A**

Volts: 7.5

Avg. mAh: 2000

Height: 6"

Intrinsically Safe: No



WPNN4013A

Part Number: **WPNN4037A**

Volts: 7.5

Avg. mAh: 1900

Height: 6"

Intrinsically Safe: Yes

##### Nickel-Cadmium impres™

Part Number: **HNN9028AR**

Volts: 7.5

Avg. mAh: 1500

Height: 6"

Intrinsically Safe: No



HNN9028AR

Part Number: **HNN9029AR**

Volts: 7.5

Avg. mAh: 1500

Height: 6"

Intrinsically Safe: Yes

## MT2000/MTS2000 Series

## Service Aids, Manuals

### Service Aids



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RKN4035D** Radio Test and Programming Cable

#### Battery Eliminator

The battery eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.

**RLN1014A** Battery Eliminator

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E

#### Cloning Cable

Allows another radio to be duplicated from a master radio by transferring programmed data from one radio to another.

**RKN4036D** Cloning Cable

### Service Aids

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Requires interface box and appropriate cables, must be ordered separately.

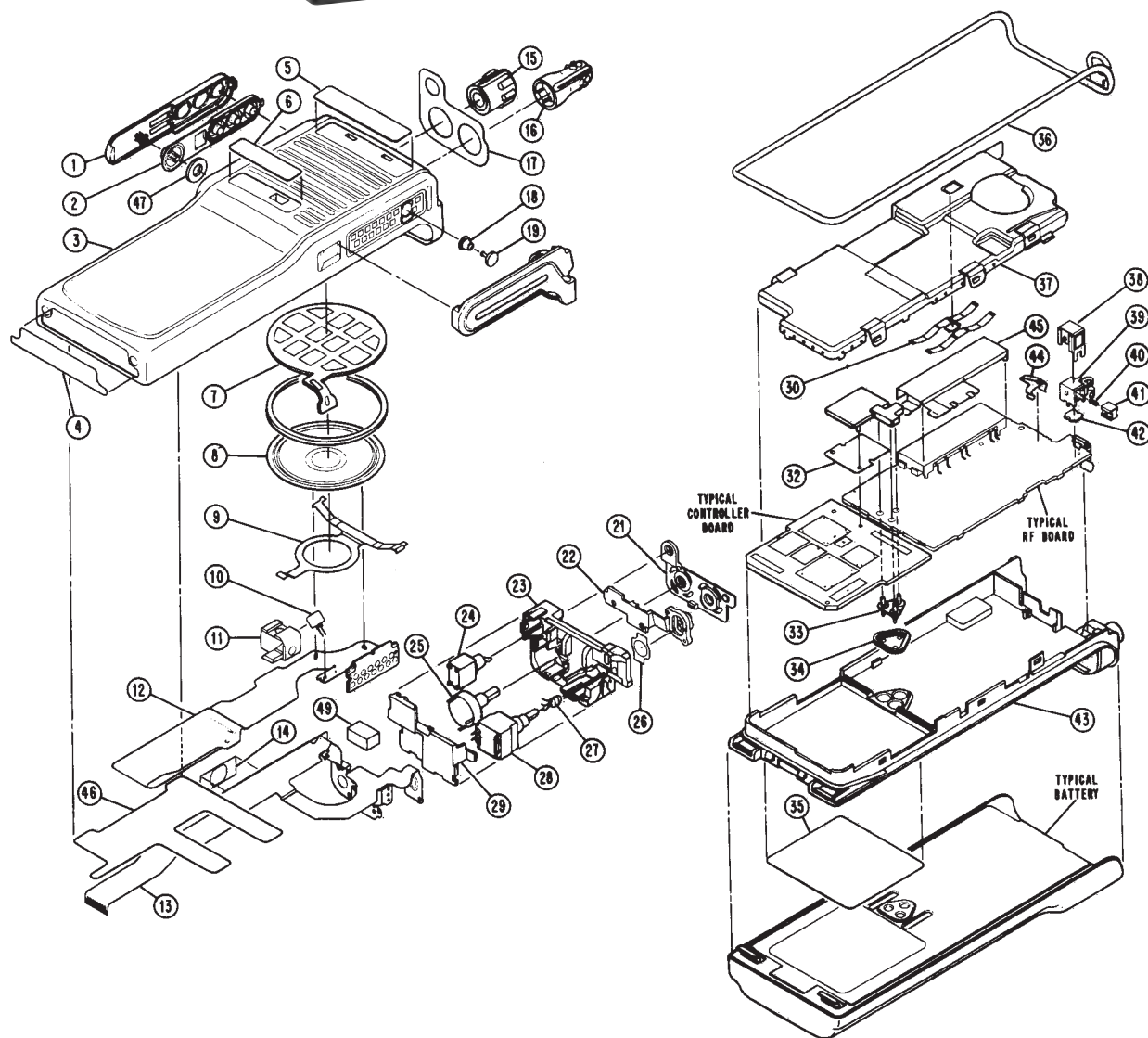
**RVN4176M** Programming Software

### Manuals

<b>6881200C15</b>	Theory and Troubleshooting Manual
<b>6881200C25</b>	Service Manual
<b>6881200C40</b>	Maintenance Manual
<b>6881076C65</b>	Operator Manual
<b>0180305J46</b>	Ear Microphone System and Temple Transducer CD-ROM
<b>0180305J70</b>	impres™ System CD-ROM

# MTX•LS Series

## Parts List



# MTX•LS Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>4505896U02</b>	Lever, PTT
2	<b>3205902U01</b>	Seal, PTT, and Actuator for S404 S405, S406, and S408
3A	<b>1505627V05</b>	Cover, Front
4	----	Label, Agency Approval; not field replaceable
5	<b>3305183R55</b>	Label, Motorola
6	<b>3305252X18</b>	Label, MTX-LS
7	<b>3505535X02</b>	Felt, Speaker
8		Speaker (LS401)
9	<b>0705470V01</b>	Bracket, Speaker Retainer
10		Microphone (MK401)
11	<b>1405330W02</b>	Boot, Microphone
12	<b>8405310W04</b>	Flex, Front Cover/Display
13	<b>8405641V01</b>	Flex, Controls
14	<b>3905517V01</b>	Popple, PTT (p/o S406)
15	<b>3605253V01</b>	Knob, On/Off/Volume
16		Knob, Frequency
	<b>3605254V02</b>	2-Frequency Radios
	or	
	<b>3605254V01</b>	16-Frequency Radios
17		Escutcheon, Control Top
	<b>1305872U02</b>	2-Frequency Radios
	or	
	<b>1305872U01</b>	16-Frequency Radios
18	<b>3205160W01</b>	Seal, Actuator; for S101
19	<b>2205159W01</b>	Pin, Actuator; for S101
20	<b>3205514W01</b>	Seal, Accessory Connector
21	<b>3205177Z01</b>	Seal, Control Top
22	<b>3205178Z01</b>	Seal, Emergency Button

REF. NO.	PART NO.	DESCRIPTION
23	<b>2705877U01</b>	Housing, Switch
24		Switch, Toggle (S402)
25		Potentiometer/Switch, On/Off/Volume Control (R401/S403)
26	<b>3905329W01</b>	Popple, Emergency Button
27		LED (CR702A/CR702B)
28		Switch, Frequency (S401)
29	<b>1505632V01</b>	Cover, Switch Housing
30	----	Spring, PA; not field replaceable, order front shield (item 37)
31	<b>4205507X01</b>	Strain Relief
32		Connector, Strip (P301/P704)
	or	
	<b>8405333W03</b>	Flex, Jumper (early version radios)
33		Plug, Connector (P404)
34	<b>3205820V02</b>	Seal, Connector Plug
35	----	Label, Rear; Information; not field replaceable
36	<b>3205176Z01</b>	"O" Ring, Contoured/Seal, Antenna
37	<b>2605891U02</b>	Shield, Front
38		Switch, RF (S101)
39	----	Label, Barcode; not field replaceable
40	<b>4105266V01</b>	Spring, RF Switch
41	<b>4405524V01</b>	Piston, RF Switch
42	<b>1405307X01</b>	Insulator
43	<b>REX4575A</b>	Chassis (Rear Cover)
45	<b>3905838V01</b>	Contact, Antenna Shield Ground (800 MHz and 900 MHz radios only)
46	<b>7505334W01</b>	Pad, Sound Dampening
49	<b>7505393N33</b>	Pad, Shock



## Portable Accessories

### Chargers

Single unit chargers are available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola. All chargers listed are rapid rate and will fully charge your battery in less than 3 hours.

#### Single Unit Compact Bi-Chemistry Chargers – Rapid Rate

The bi-chem charger has the power supply built into the line cord giving the user a smaller base unit for easier storage. It also utilizes an enhanced charging algorithm that will help maximize the life of your batteries. It will rapid rate charge both NiCd and NiMH batteries.

**RPX4747A** Compact Bi-Chem Charger, 110V

**RPX4748A** Compact Bi-Chem Charger, 230V Euro plug

**RPX4749A** Compact Bi-Chem Charger, 230V UK plug

### Chargers

#### Multiple Unit Charger (MUC)

Multi-unit chargers offer six pockets that can be used to rapid charge 1 to 6 batteries simultaneously. The batteries can be charged with the radios or separately. They will rapid rate charge both NiCd and NiMH batteries.

**NTN1177D** Six-Pocket,  
rapid rate 110V

**NTN1178D** Six-Pocket,  
rapid rate, 220V  
(supplied with  
2 prong cord)

**NTN1179D** Six-Pocket,  
rapid rate, 240V (supplied with 3 flat prong cord)



NTN1177D

#### MUC Accessories

**NLN7967A** Wall Mount

#### Travel Charger

**RLN4884A** Travel Charger  
kit includes a cigarette  
lighter adapter attached to  
a rapid charger and  
mounting bracket. Allows  
radio to be used while  
it is charging.



RLN4884A

#### Travel charger Mounting Bracket

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

#### Travel Charger AC Transformer

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)



## MTX•LS Series

### Portable Accessories

#### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified nickel cadmium (NiCd) and nickel metal hydride (NiMH) batteries in approximately an hour.

**WPLN4090BR** MCC Kit, 110V AC; includes both base unit and 7V adapter

**WPLN4091BR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**WPPN4002BR** 110V AC Base Charge Unit Only (order adapter plate separately)

**WPPN4006AR** 220V AC Base Charge Unit Only (order adapter plate separately)

**WPPN4065AR** Multi-Unit Conditioning Charger Four Station Base 110V (order adapter plate separately)

**WPPN4004AR** 7 Volt Adapter Only

**3080384G15** Cigarette Lighter Adapter Cord; MCC multi-unit conditioning charger

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger



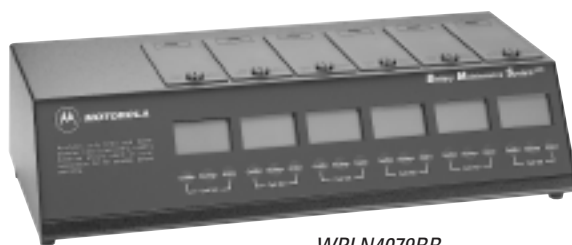
WPPN4002BR

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

##### **Increase the useful life of your batteries.**

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

##### **BMS<sup>plus</sup> Adapter**

**TDN9435C** Adapter Compatible with NiCd Batteries Only

**CDN6364A** Adapter Compatible with Both NiCd and NiMH Batteries



TDN9435C

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use

navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapter

**RL-72403** Standard Adapter

### Vehicular Charger

This 12V DC charger is ideal for mobile customers; it charges portable radio NiCd batteries in rapid charge mode (in less than 3 hours) until full charge is obtained and then switches to trickle charge mode. A microprocessor controls the charge rate. This durable unit comes with a metal mounting bracket and is PAC-RT compatible.

**TDN9816A** Vehicular Charger



TDN9816A

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

#### Standard Belt Loop Carrying Cases



NTN7247A

**NTN7238A** Leather Carry Case with Belt Loop and T-Strap for use with high capacity battery

**NTN7239A** Leather Carry Case with Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4018B** DTMF Leather Carry Case with Belt Loop for use with high and ultra-high capacity batteries

**NTN7247A** Nylon Carry Case with Belt Loop and Strap for use with high and ultra-high capacity batteries

#### High Activity Swivel Carrying Cases

The following carrying cases have a high activity swivel "D" button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high activity applications versus standard swivel cases while allowing the radio to swing freely with body movements.

**NTN8035B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8037B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8036B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery



NTN8036B

## MTX•LS Series

### Portable Accessories

#### Carrying Accessories



NTN8038A

**NTN8038B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4017B** DTMF Leather Carry Case with 3.0" High Activity Swivel Belt Loop and Antenna Strap for use with high and ultra-high capacity battery

#### T-Strap

**NTN7782A** T-Strap for leather Carry Cases

**NTN7376A** T-Strap for nylon carry cases

#### Belt Loops

**NTN8039B** 2.5" High Activity Swivel Belt Loop

**NTN8040B** 3.0" High Activity Swivel Belt Loop



4200865599

#### Belt

**4200865599** 1.75" Wide Black Belt

#### Carrying Strap

**NTN5243A** Shoulder Carry Strap, allows easy carrying of radio in a case when not wearing a belt



NTN5243A

#### Carrying Accessories

#### Swiveller

**TDN9684A** Swiveller, includes clip button, holster and belt



TDN9684A

#### Swiveller Replacement Accessories

**TDN9690A** Clip button, mounts on battery

**TDN9688A** Holster, compatible with all buttons

**TDN9687A** Belt, 2" nylon



TDN9687A

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"



TDN9327A

## MTX•LS Series

## Portable Accessories

### Carrying Accessories

#### Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pouch

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

#### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"



### Audio Accessories

#### Remote Speaker Microphones (RSM)

Allows you to talk and listen without removing the radio from the belt case or charger. Ideal for high noise level environments. These water resistant microphones include 6.0' coil cord assembly, 3.5mm earjack, swivel clip and quick disconnect latch.

**\*NMN6193C** Remote Speaker Microphone

**\*NMN6191C** Noise Cancelling Remote Speaker Microphone



NMN6193C

**0104010J46** Replacement Coil Cord Cable Assembly for Remote Speaker Microphones

#### Public Safety Speaker Microphones (PSM)

Public Safety Speaker Microphones include straight cord assembly, 3.5mm earjack, swivel clip, quick disconnect latch, antenna connector, and receiver, audio high/low volume push button. Antenna must be ordered separately. Use radio antennas on page 253.

**\*NMN6228C** 30" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6243B** 18" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6244B** 24" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**0104004J29** 30" Public Safety Microphone Cable

**0104004J46** 18" Public Safety Microphone Cable

**0104004J47** 24" Public Safety Microphone Cable

**REX4410C** PTT Paddle Replacement Lit for Remote and Public Safety Microphones

\* Intrinsically safe

## MTX•LS Series

### Portable Accessories

#### Audio Accessories

##### RSM Accessories

###### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile environments.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip



###### Audio Accessories for the RSM

Plugged into the 3.5mm earjack on the RSM audio adapter, these audio accessories will mute the speaker on the RSM allowing the user to discretely hear all incoming messages. Ideal for noisy environments. The following audio accessories can also be plugged directly into the radio with the BDN6676D audio adapter.

**BDN6781A** Pellet Style Earpiece

**BDN6719A** Flexible Ear Receiver

##### Headsets for the RSM and PSM

**RMN4056B** Receive-Only Dual Muff Headband Style Headset; provides 24dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)



**RMN4057B** Receive-Only Hardhat Mount mounts easily to hardhats with slots and provides 22dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

#### Audio Accessories

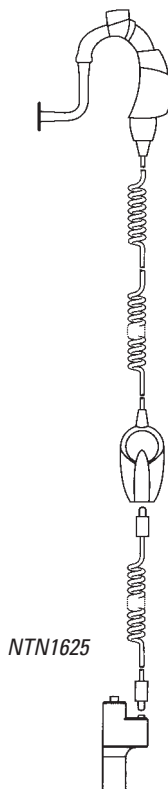
##### CommPort: Integrated Microphone/Receiver System

CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1624A** Integrated Ear Microphone/Receiver System w/Palm PTT (includes BDN6676D 3.5mm Jack Adapter)



**\*NTN1625A** Integrated Ear Microphone/Receiver System with PTT on radio adapter (includes BDN6676D 3.5mm Jack Adapter)



## Portable Accessories

### Audio Accessories

**\*NTN1663A** Integrated Ear Microphone/Receiver System with Ring PTT (includes BDN6676 3.5mm Jack Adapter)

**NTN1736A** CommPort™ with Snap-on Side PTT

**NNTN4186A** CommPort Integrated Microphone/Receiver with Body Push-To-Talk Button

**NNTN4188A** Replacement Remote Push-To-Talk Body Switch

**NKN6510A** Replacement Cable for NTN1624

**NKN6508A** Replacement Cable for NTN1625

**NKN6512A** Replacement Cable for NTN1663

**NKN6525A** Replacement cable with snap on side PTT

**NTN8821A** CommPort Maintenance Kit, Includes Replacement Ear Tubes (Quantity 10), Windscreens (Quantity 2) and Microphone Seal Strips (Quantity 10)

**NTN8986A** Adhesive Pads (Quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (Quantity 10), for secure attachment to ear

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip

**RLN5037A** Replacement Ear tubes (Quantity 10)

### Audio Accessories

#### Surveillance Accessories

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

The following surveillance accessories require the BDN6676D (3.5 mm threaded adapter jack) that attaches to the radio, unless being used with speaker/microphone.

Receive-only Surveillance Kit (1-Wire)

**\*BDN6664A** Beige

**\*BDN6665A** Beige

**BDN6726A** Black

**BDN6727A** Black



BDN6664A

Receive-only Surveillance Kit with Volume Control (1-Wire)

**\*BDN6666A** Beige

**BDN6728A** Black



BDN6666A

Surveillance Kit with Microphone and Push-To-Talk Combined (2-Wire)

**\*BDN6667A** Beige

**\*BDN6669A** Beige

**BDN6729A** Black

**BDN6731A** Black



BDN6667A

Surveillance Kit with Microphone and Push-To-Talk Separate (3-Wire)

**\*BDN6668A** Beige

**\*BDN6670A** Beige

**BDN6730A** Black

**BDN6732A** Black

**\*BDN6676D** 3.5mm Jack Adapter with Quick Disconnect Latch



BDN6668A

\* Intrinsicly safe



## MTX•LS Series

## Portable Accessories

### Audio Accessories

#### Surveillance Kit Replacement Accessories

**5080369E38** Standard Earpiece Assembly, includes earphone, earloop and eartip, beige

**5080370E90** Standard Earpiece Assembly includes earphone, earloop and eartip, black

**5080369E39** Extra Loud Assembly, includes earphone, earloop and eartip, beige

**5080370E91** Extra Loud Earpiece Assembly, includes earphone, earloop and eartip, black

**5080369E40** Plastic Urethane Earloop, beige

**5080370E92** Plastic Urethane Earloop, black

**5080371E73** Standard Rubber Eartip, beige, pack of 25

**5080371E75** Standard Rubber Eartip, black, pack of 25

**5880377E06** Plastic Eartip Adapter, pack of 10



5080369E39



5080370E92

### Audio Accessories

#### Completely Discrete Earpiece

Remain discretely in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discrete two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discrete communication.

**RLN4922A** Completely Discrete Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4V Battery, 6 per pack



RLN4922A

## Portable Accessories

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)



NTN8370A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

**RLN4760A** Small Custom Earpiece, right ear

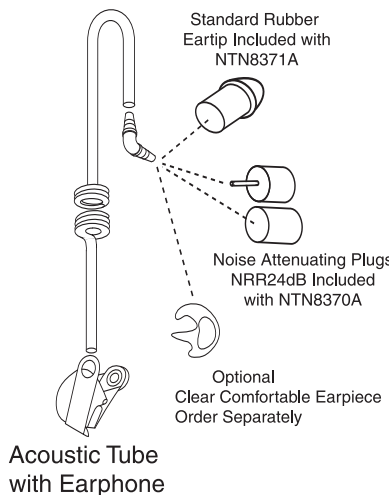
**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX). Interface Module needs to be ordered separately for EMS to work

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95dB, black)

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB, beige)

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105dB)



BDN6641A  
Requires  
interface module,  
sold separately

#### Interface Module For EMS

**\*BDN6708B** Push-To-Talk Interface Module

**\*BDN6671B** Push-To-Talk or Voice-Activated Interface Module



BDN6708B

\* Intrinsically safe

## MTX•LS Series

## Portable Accessories

### Audio Accessories

#### Optional Accessories For EMS

**\*0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk Body Switch

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear



0180358B38



0180358B33

**0180358B32** Earholder, black size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

#### Flexible Ear Receiver

**BDN6719A** Ear Receiver with 3.5 mm Threaded Plug, requires adapter BDN6676D unless being used with speaker microphone

**7580372E11** Replacement Foam Ear Cushions for BDN6719A



BDN6719A

### Audio Accessories

#### Pellet Style Earpieces

**BDN6780A** Single Earbud with Microphone and Push-To-Talk, requires adapter BDN6676D, unless being used with speaker microphone

**BDN6781A** Single Earbud, receive only; requires adapter BDN6676D unless being used with speaker microphone



BDN6780A

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands-free, discrete two-way communication, while adding comfort necessary for extended wear in moderate noise environments. Requires BDN6676D Audio Adapter.

**\*NMN6245A** Single Muff Lightweight Headset with In-line Push-To-Talk Switch (requires BDN6676D adapter)

**\*NMN6246B** Ultralite Headset with Boom Microphone and In-line Push-To-Talk Switch; ear bud style receiver (requires BDN6676B adapter)

**\*NMN1020A** Lightweight Headset with Boom Microphone to be worn on a helmet or safety glasses. Includes NKN6498A adapter cable. Requires BDN6676D adapter. FM approved.

**NKN6498A** Headset Adapter Cable for use with NMN1020A

**REX4648A** Replacement Foam Earpad and Windscreen Kit for NMN6245A

**5080574E02** Foam Earpads for use with NMN6245A, 10 per pack

\* Intrinsicly safe

## Portable Accessories

### Audio Accessories

#### Medium Weight Headsets

Medium Weight Headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*NMN6258A** Medium Weight Headset, over the head with In-Line PTT, Noise Reduction Rating = 24dB

**\*NMN6259A** Medium Weight Headset, behind the head with In-Line PTT, Noise Reduction Rating = 24dB

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6259A

**RKN4095A** Radio Adapter Cable with IN-Line PTT for use with RMN4051A



NMN6258A

#### Tactical Medium Weight Headsets

Same high-clarity sound and additional hearing protection as our standard medium weight headsets while including two microphones on the outside of each earcup which reproduces the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times but never more than 82dB. Includes on/off volume control on ear cups.

**RMN4052A** Tactical Headband Style Headset, grey; provides 24dB of noise reduction and requires RKN4095A adapter cable



RMN4052A

### Audio Accessories

**RMN4053A** Tactical Hardhat Mount Headset mounts easily to hardhats with slots; provides 22dB of noise reduction and requires RKN4095A adapter cable, hardhat not included

**RKN4095A** Radio Adapter Cable with IN-Line PTT for use with RMN4051A and RMN4053A

**RLN4923A** Two Replacement Snap-in Earseals; Recommended replacement interval is once every six months to ensure constant level of attenuation hygiene and comfort for RMN4051A, RMN4052A, and RMN4053A.

#### Heavyduty Headsets



BDN6645A  
(shown with BDN6673B)

Heavyduty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125 dB. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. Heavyduty headsets require radio adapter cable BDN6673B, to be ordered separately.

**\*BDN6645A** Push-To-Talk Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB



BDN6635B  
(shown with BDN6673B)

**\*BDN6635B** Voice-activated Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB



BDN6636B  
(shown with BDN6673B)

**\*BDN6636B** Voice-activated Headset with Throat Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB

**\*BDN6673B** Radio Adapter Cable

\* Intrinsically safe

## Antennas

### Portable Antennas

#### Flexible Whip Antennas

Antenna has a one-piece finish and steel core for optimal strength and better radiation characteristics. Provides more comfort when radio is worn on the belt.

##### **8505241U05**

Flexible Whip, 403-520MHz, 6"

##### **8505241U03**

Flexible Whip, 806-870MHz, 7"

##### **8505241U04**

Flexible Whip, 896-941MHz, 7"



8505241U05

#### Helical Antennas

Helical are sturdy and dependable for years of failsafe communication. Each antenna is designed and built to quality standards. The skirt at the base of the connector helps to seal out damaging elements. Connector is made of plated brass material for long life.

##### **8505644V01**

Helical, 136-151MHz, 6"

##### **8505644V02**

Helical, 151-162MHz, 6"

##### **8505644V03**

Helical, 162-174MHz, 6"

##### **8505644V04**

Helical, 403-435MHz, 3"

##### **8505644V05**

Helical, 435-470MHz, 3"

##### **8505644V06**

Helical, 470-520MHz, 3"



8505644V01



8505644V03



8505644V04

### Portable Antennas

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

##### **NAF4000B**

Dipole, 806-869MHz, 8"

##### **8505884R02**

Dipole, 896-941MHz, 8"



NAF4000B

8505884R02

#### Wideband Antenna

Wideband antenna is ideal when radio is used in different frequencies since one antenna will cover all ranges.

**8505518V01** Wideband, 136-174MHz, 6"

#### Stubby Antenna

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive. This is a broadband antenna that can be used for both 800MHz and 900MHz applications.

##### **\*8505241U06**

Stubby, 806-941MHz, 4"



8505241U06

### Miscellaneous Accessories

#### Replacement Kit

**REX4398A** 2/8/16 Channel Cosmetic Replacement Kit

#### Public Safety Tilt Switch

An external emergency switch that is activated when the unit is tilted at a greater than 60 degree angle. Delay times are factory programmed for 8 seconds and are not field programmable. The emergency feature must be programmed into the radio to enable the tilt switch option. FM approved. Not compatible with the JT1000.

**NTN7660A** Public Safety Tilt Switch

*\*8505241U06 is a broadband antenna that operates in the 800/900 MHz band*

## Batteries

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN7143CR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: No



NTN7143CR

Part Number: **NTN7144CR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 6"  
Intrinsically Safe: No

Part Number: **NTN7146AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: Yes

Part Number: **NTN7147AR**  
Volts: 7.5  
Avg. mAh: 1300  
Height: 6"  
Intrinsically Safe: Yes



NTN7147AR

Part Number: **NTN7149BR**  
Volts: 7.5  
Avg. mAh: 1300  
Height: 6"  
Intrinsically Safe: Yes  
CSA: Yes

Part Number: **NTN7150AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: Yes  
MSHA: Yes

### Portable Batteries

Part Number: **NTN7341AR**  
Volts: 7.5  
Avg. mAh: 1400  
Height: 6"  
Intrinsically Safe: Yes



NTN7341AR

Part Number: **NTN7372AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: Yes

#### Nickel Metal Hydride Premium

Part Number: **WPNN4013A**  
Volts: 7.5  
Avg. mAh: 2000  
Height: 6"  
Intrinsically Safe: No

Part Number: **WPNN4037A**  
Volts: 7.5  
Avg. mAh: 1900  
Height: 6"  
Intrinsically Safe: Yes



WPNN4013A

#### Nickel-Cadmium impres™

Part Number: **HNN9028AR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 6"  
Intrinsically Safe: No

Part Number: **HNN9029AR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 6"  
Intrinsically Safe: Yes



## MTX•LS Series

## Service Aids, Manuals

### Service Aids

#### Battery Eliminator

The Battery Eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.

**RLN1014A** Battery Eliminator



RLN1014A



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RKN4035D** Radio Test and Programming Cable

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E

### Service Aids

#### Cloning Cable

Allows another radio to be duplicated from a master radio by transferring programmed data from one radio to another.

**RKN4036D** Cloning Cable

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Requires interface box and appropriate cables, must be ordered separately.

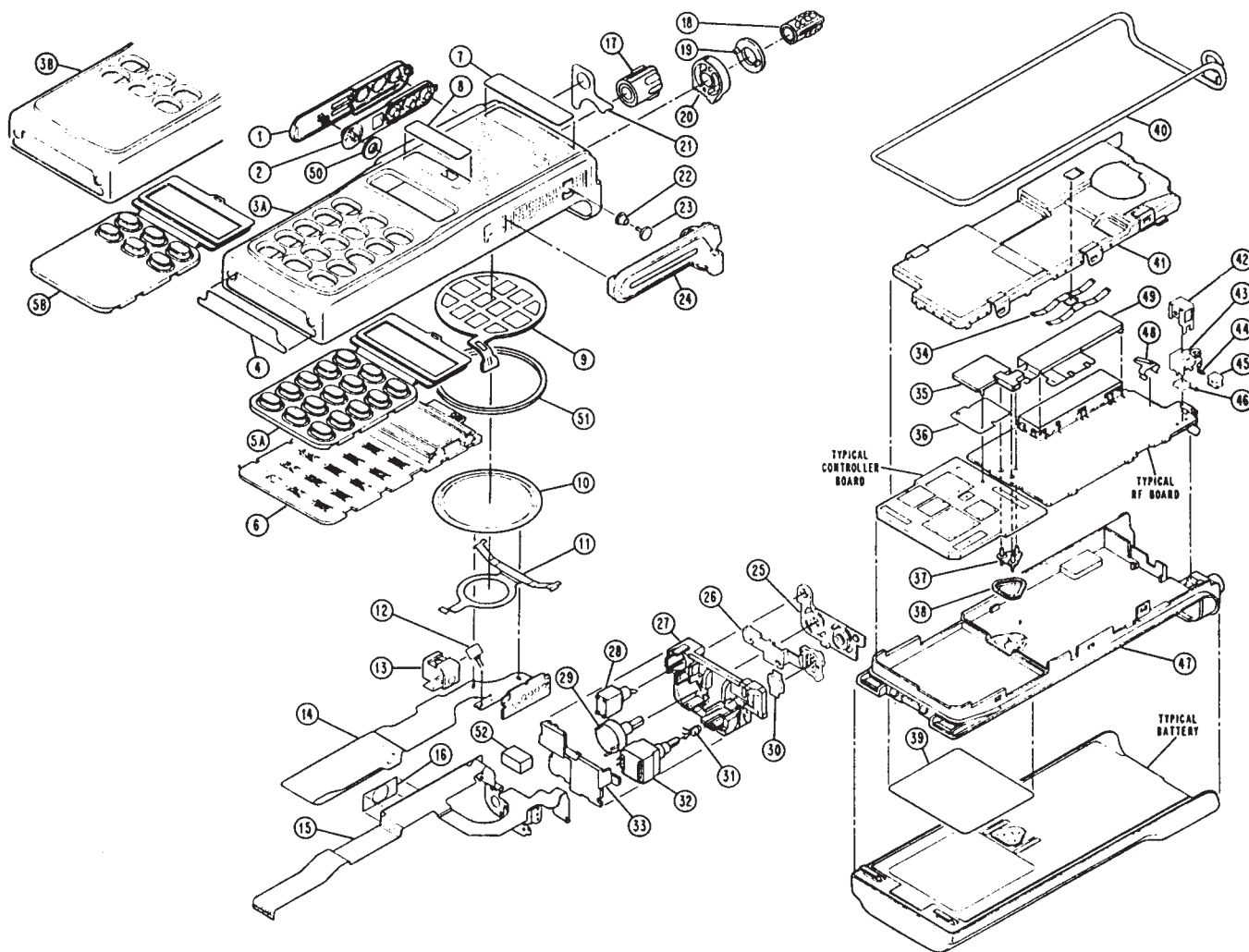
**RVN4138B** Programming Software

### Manuals

<b>6881200C15</b>	Theory and Troubleshooting Manual
<b>6881200C25</b>	Service Manual
<b>6881200C40</b>	Maintenance Manual
<b>6881076C65</b>	Operator Manual
<b>0180305J46</b>	Ear Microphone System and Temple Transducer CD-ROM

# MTX800 Series

## Parts List



Replacement parts are no longer available

## MTX800 Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION
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REF. NO.	PART NO.	DESCRIPTION
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**Cancelled Product MTX800:**  
**Aftermarket support criteria has**  
**been met for spare parts. Items**  
**are no longer available.**

## MTX800 Series

### Portable Accessories

#### Chargers

A variety of chargers are available to fit the charging capabilities of your batteries. Choose rapid or regular rate, single, multiple or compact units.



NTN4633C

#### Single Unit

**NTN4633C** Single Unit,  
Rapid Rate Charge, 117V



NTN4666B

#### Compact

**NTN4666B** Compact,  
Regular Rate Charge, 117V

**NTN4667A** Compact,  
Regular Rate Charge, 220V

#### Vehicular Charger

**NTN5438A** Vehicular Charger 12V  
DC. (16 Hour Charge Rate)

**NKN6428A** 12V Cable Kit. (Only  
required if not used with PAC-RT).



NTN5438A

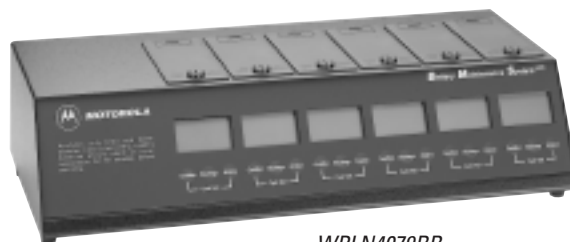
#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

#### BMS<sup>plus</sup> Adapter

**TDN9441A** Standard Adapter, MTX800

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## MTX800 Series

### Portable Accessories

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapters**

**RL-71173** Standard Adapter, MTX800

#### Motorola Conditioning Charger (MCC)



WPPN4009BR

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.

**WPPN4009BR** 110V AC  
Base Charge Unit with  
adapter plates

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Mounting Bracket for single unit conditioning chargers

## MTX800 Series

### Portable Accessories

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



NTN5460B

##### Standard

**NTN5460B** Leather Carrying Case, Spacer and T-Strap, for High or Medium Capacity Batteries (Snap)



NTN5461B

##### Swivel

**NTN5461B** Leather Carrying Case with T-Strap, Spacer and Belt Loop for High or Medium Capacity Batteries (Snap)

**NTN5450B** Leather DTMF Carrying Case, Long (Snap)



NTN4814C

##### Belt Clip Carry Holder

**NTN4814C** Belt Clip Carry Holder



4205386S01

##### T-Straps

**4205386S03** T-Strap, Snap

**4205386S01** T-Strap, Velcro

#### Carrying Accessories

**4205447R03** T-Strap for Belt Clip Carry Holder, Snap



4205447R03



HLN6602A

**HLN6602A** Universal Chestpack with radio holder, pen holder and velcro secured pocket

**1505596Z02** Replacement Strap for HLN6602A

**RLN4570A** Break-A-Way Chest Pack; all of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure.

##### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

##### Carrying Strap

**NTN5243A** Adjustable Carrying Strap



NTN5243A

##### Spacer

**4305525R02** Spacer for Carrying Cases



NTN4916B

##### Belt Clips

**NTN4916B** Belt Clip, 1-1/2"

**NTN4924B** Belt Clip, 2-1/4"

**NTN5602A** Public Safety Full 3" Clip Black Aluminum



## MTX800 Series

### Portable Accessories

#### Carrying Accessories



4282421J06

##### **Belt Loops**

**4282421J06** Swivel Belt Loop, 2-1/2"

**4205857B01** Swivel Belt Loop, 3"



NTN5497A

##### **Button Back Cover**

**NTN5497A** T-Bar Button Back Cover Kit, Black

##### **Belt**

**4200865599** 2" Wide Leather Belt, for all models



4200865599

##### **Portable Radio Hanger**

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger, for Door Panels up to 2-3/4"

**TDN9373A** Portable Radio Hanger, for Door Panels 2-3/4" to 3-1/4"



NMN6156B

##### **Remote Speaker/Microphone**

**NMN6145B** Remote Speaker Microphone, with Clip, Coil Cord and 2.5 mm Earphone Jack

**NMN6156B** Remote Speaker Microphone, with Coil Cord, Clip Back

**NLN8410A** Velcro Pin Patch Attachment

#### Audio Accessories

##### **Epaulet Strap**

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with Velcro or clip style strap.



RLN4294A

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip



RLN4295A

##### **Ear Microphone**

This compact unit picks up the voice through bone vibrations in the ear canal. Ideal for use in high noise environments. Available in PTT or Voice activated (VOX) capabilities for total hands free communications. **Order Interface Module separately.**

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95 dB), Black

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95 dB), Beige



BDN6677A

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105 dB), Grey

##### **Interface Module**

**\*BDN6679B** Push-To-Talk Interface Module

**\*BDN6680B** Voice-Activated Interface Module



BDN6680B

(shown with BDN6677A)

\* Intrinsically safe

## MTX800 Series

### Portable Accessories

#### Audio Accessories

##### Optional Accessories

**\*0180358B38** Remote  
Push-To-Talk Ring Switch

**0180300E25** Earguard  
with Adjustable Loop

**0180358B32** Earholder,  
Black, Size Small



0180358B38



0180358B33

**0180358B33** Earholder, Black,  
Size Medium

**0180358B34** Earholder, Black,  
Size Large

**0180358B35** Earholder, Clear,  
Size Small

**0180358B36** Earholder, Clear,  
Size Medium

**0180358B37** Earholder, Clear,  
Size Large

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

#### Audio Accessories

##### Earpiece

**5083693B01** Earpiece and Volume Control, 3.5 mm  
(requires NTN4812B)

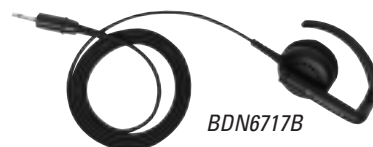
**5083693B04** Earpiece and Volume Control (2.5 mm)

**5880378B84** 3.5 to 2.5 mm Jack Adapter

##### Ear Receiver

**BDN6717B** Ear receiver with  
3.5 mm plug, to be used  
with adapter NTN4812

**NTN4812B** Earphone Jack Adapter  
(MTX800 only)



BDN6717B



NTN4812B

##### Surveillance

**ZMN6031A** Three-wire surveillance accessory with earpiece,  
microphone and push-to-talk as separate pieces. Factory Mutual  
Approved. Requires NTN5075B.



ZMN6032A

**ZMN6032A** Two-wire surveillance  
accessory with earpiece,  
microphone and push-to-talk.  
Microphone and PTT are  
combined. Factory Mutual  
Approved. Requires NTN5075B.

**NTN5075B** Hirose Adapter for  
Two- and Three-Wire Surveillance  
Accessories

\* Intrinsically safe

## MTX800 Series

## Portable Accessories

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs. Pack of 50 (for use with NTN8370A)

#### Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material.

There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left, ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

### Audio Accessories

#### Headsets

All headset accessories include radio cables and can be plugged directly into radio. No additional equipment is required.

#### Low to Moderate Noise Levels



BDN6478A

Lightweight headset with electret condenser microphone and single speaker.

Not for use with headgear.

**BDN6477A**

In-Line Push-To-Talk

**BDN6478A** Pendant-Thumb Push-To-Talk

#### High Noise Levels (to 115 dB)

Noise-attenuating headset with military noise cancelling microphone and dual speaker.

Not for use with headgear.

**BDN6485A** In-Line Push-To-Talk

**BDN6482A** Pendant-Thumb Push-To-Talk

Can be worn with or without hardhat or helmet.

**BDN6486A** Pendant-Thumb Push-To-Talk

Headset with bone conduction microphone and dual speaker.

For use with respirator or face mask

**BDN6489A** Body Switch Push-To-Talk

## MTX800 Series

## Portable Accessories

### Audio Accessories

High noise level headset (up to 125 db) with noise cancelling microphone and push-to-talk switch located on earcup. Vox module contained within headset on voice activated units. Intrinsically safe.  
*NOTE:* Can be worn with or without hard hat or fire helmet.



BDN6645A

#### **BDN6639A**

Radio Adapter Cable

#### **BDN6645A**

Push-To-Talk Headset with Boom Microphone, Requires Adapter Cable BDN6639A

**BDN6635B** Voice-Activated Headset with Boom Microphone, Requires Adapter Cable BDN6639A

**BDN6636B** Voice-Activated Headset with Throat Microphone, Requires Adapter Cable BDN6639A



BDN6636B



RMN4015A

**RMN4015A** Lightweight Headset with Swivel Boom Microphone, Single Speaker and In-line PTT

### Audio Accessories

#### **Helmet Accessories**

All helmet and face mask kits require a radio cable assembly.

#### **Industrial Helmet Accessories**

Hardhat kit includes military noise-cancelling microphone. Choice of single or dual speaker, for use with the Bullard 302/303. Requires the following cable kits.

**BDN6275A** Single Speaker Helmet Kit

#### **Police Helmet Accessories**

Police helmet kit has military noise-canceling microphone with choice of single or dual speaker.

#### **Single Speaker**

**BDN6277A** Seer 1601,1602 Helmet Kit

#### **Dual Speaker**

**BDN6359A** Bell MC400 (BT400) Full Coverage Helmet Kit

**BDN6363A** Bell SD600 (BT600) 1/2 Shell Helmet Kit

**BDN6492A** Cable Kit, includes transmit switch, volume control, microphone electronics, and remote push-to-talk jack built into a belt-mounted control box

**BDN6292A** Handlebar PTT switch for belt mounted control box (For use with BDN6492 Cable Kit)

### Vehicular Adapter

The Basic MVA console kits may be ordered separately. These items allow use of the portable radio in a mobile application (MTX810 only). Order antenna separately.

**NSN6054A** 12 Watt External Speaker

**HMN1035C** Microphone, Heavy-Duty Palm

**HMN1056D** Microphone, Compact Palm

**HMN3013A** Microphone, DTMF

## MTX800 Series



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## Antennas, Batteries

### Portable Antennas

#### Flexible Whip

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### **8505241U03**

Flexible Whip, 806-870 MHz, 7"

NAF4000B



#### Vehicular Antenna Kit

Allows user to convert their portable radio into a mobile application. Comes complete with mobile antenna, cable custom adapter and connector.

##### **RAF4001ARG** Vehicular Antenna Kit

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

##### **NAF4000B**

Dipole, 806-869MHz, 8"

#### Stubby Antenna

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

##### **\*8505241U06**

Stubby, 806-941MHz, 4"

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN4823BR**

Volts: 10

Avg. mAh: 550

Height: 2-7/16"

Intrinsically Safe: Yes

Part Number: **NTN5447BR**

Volts: 10

Avg. mAh: 1100

Height: 3-5/16"

Intrinsically Safe: No



NTN5447BR

Part Number: **NTN5448BR**

Volts: 10

Avg. mAh: 1000

Height: 3-5/16"

Intrinsically Safe: Yes

#### Nickel Metal Hydride Premium

Part Number: **NTN7015A**

Volts: 10

Avg. mAh: 950

Height: 2-7/16"

Intrinsically Safe: No

#### Alkaline

Part Number: **NTN4870B**

Volts: (NA)

Avg. mAh: 2100

Height: 3-5/16"

Intrinsically Safe: No

*\*8505241U06 is a broad band antenna that operates in the 800/900MHz band*



<https://www.motorola.com/businessonline>

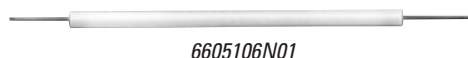
## MTX800 Series

### Tools, Service Aids

#### Alignment Tools/Service Tools

##### Tuning Tool

**6605106N01** Tuning Tool, Adjusts Tunable Coils and Potentiometers



6605106N01

##### Torque Screwdriver

**RSX4043A** Torque Screwdriver,  
Order Bits Separately



RSX4043A

**6680371B34** Spanner Bit, for  
Antenna Bushing Nut

6680371B34

**6680371B03** Hex Nut Driver Bit,  
for Volume Pot and Rotary  
Switch Nuts

6680321B86

**6680370B95** Spanner Bit, for Toggle Switch Spanner Nut

**6680321B86** Phillips Bit #0 for Housing and Chassis Screws

**6680342A66** Spanner Bit for Antenna Retainer Connector

#### Service Aids

##### Battery Eliminator



RTL4226B

The battery eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.

**RTL4226B** Battery Eliminator

##### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.



RLN4008E

**RLN4008E** Radio Interface Box

##### Wall Mounted Power Supply

Used to supply power to radio interface box RLN4008E.

**0180357A57** Wall Mounted Power Supply,  
110 Volts

**0180358A56** Wall Mounted Power Supply,  
220 Volts



0180357A57

##### Computer Interface Cable

Used to connect computer's serial adapter to radio interface box.

**3080369B71** Cable, RIB  
25 pin D

**3080369B72** Cable, RIB to  
9 pin D



3080369B71



## MTX800 Series

### Service Aids, Manuals

#### Service Aids

##### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RTK4205C** Test and Programming Cable



1580368B62

##### Battery Adapter

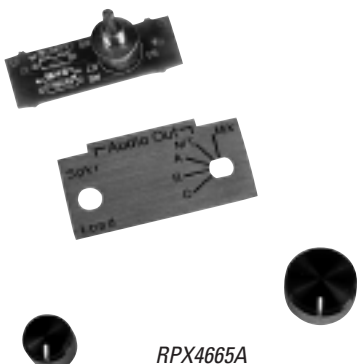
Replaces radio housing during servicing and provides easy mounting for battery eliminator, RTL4226B.

**1580368B62** Battery Adapter

##### Field Modification Kit

Allows for quick field modification of RTX4005 "A" test sets to provide operation with MTX800 Radios.

**RPX4665A** Field Modification Kit, RTX4005A



RPX4665A

#### Service Aids

##### Reference Oscillator Tuner

**RPX4726A** Reference Oscillator  
Frequency Adjustment



RPX4726A

##### SMA to BNC Adapter

**5880384G68** SMA to BNC Adapter

##### Programming Software

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables, order separately.

**RVN4013K** Programming Software, 3-1/2" diskette (includes manual and storage box)

#### Manuals

**6881049C60**

Operating Instructions Manual

**6881062C15**

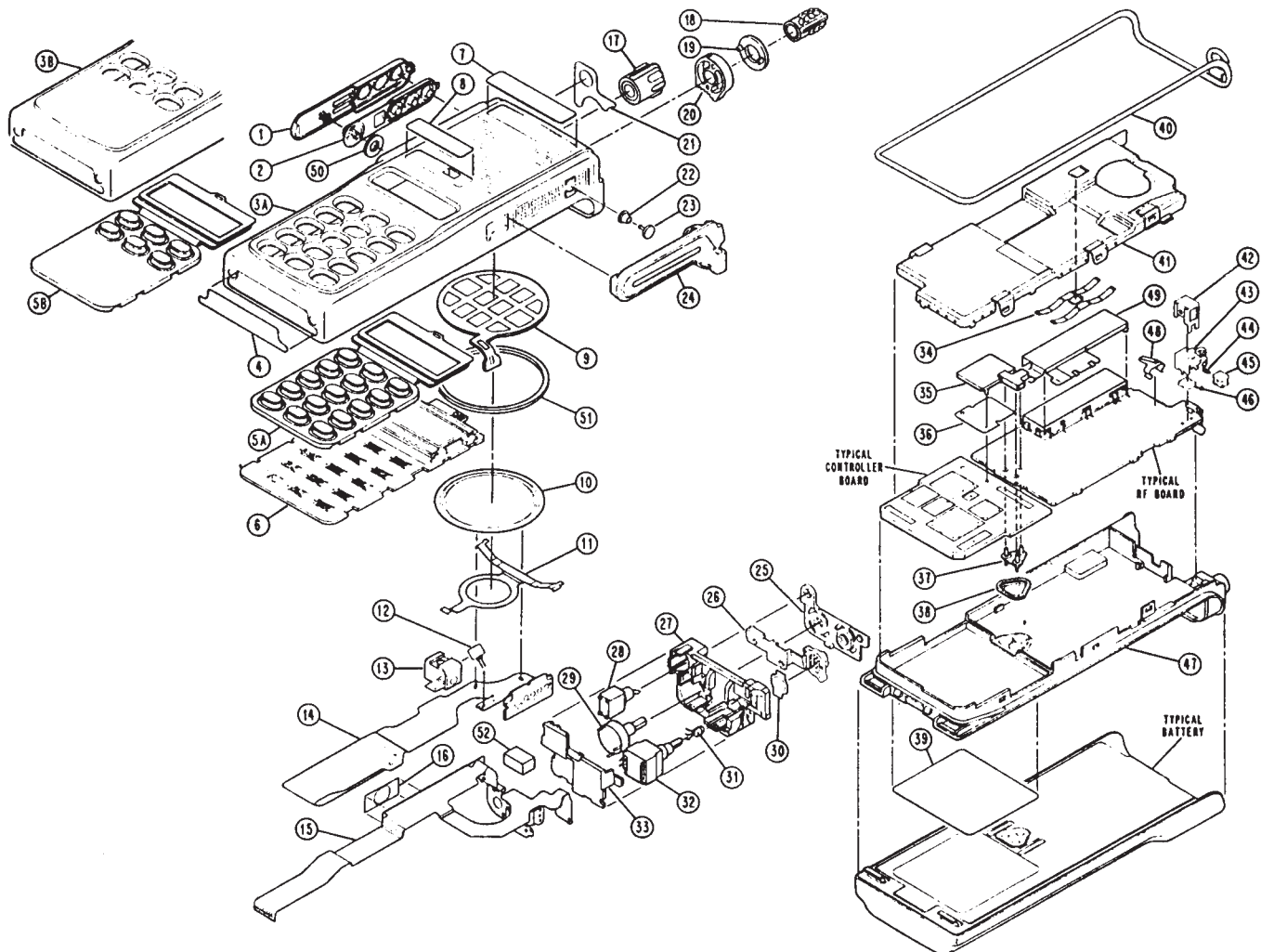
Theory Maintenance Manual/Service Manual

**0180305J46**

Ear Microphone System and Temple  
Transducer CD-ROM

# MTX838/MTX8000 Series

## Parts List



# MTX838/MTX8000 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>4505896U02</b>	Lever, PTT	20	<b>3605635V01</b>	Knob, Concentric Ring
2	<b>3205902U01</b>	Seal, PTT, and Actuator for S404, S405, S406, and S408	21	<b>1305698V01</b>	Escutcheon, Control Top
3A	<b>1505637V06</b>	Cover, Front; Full Keypad	22	<b>3205160W01</b>	Seal, Actuator; for S101
3B	<b>1505637V05</b>	Cover, Front; Limited Keypad	23	<b>2205159W01</b>	Pin, Actuator; for S101
4	----	Label, Agency Approval; not field replaceable	24	<b>3205514W01</b>	Seal, Accessory Connector
5A	<b>7505870U01</b>	Keypad, 15-key	25	<b>3205177Z01</b>	Seal, Control Top
5B	<b>7505870U02</b>	Keypad, 6-key	26	<b>3205178Z01</b>	Seal, Emergency Button
6	<b>5105238U83</b>	Module, Display	27	<b>2705877U01</b>	Housing, Switch
7	<b>3305183R55</b>	Label, Motorola	30	<b>3905329W01</b>	Popple, Emergency Button
8	<b>3305183R70</b>	Label, MT2000	33	<b>1505632V01</b>	Cover, Switch Housing
	or		34	----	Spring, PA; not field replaceable, order front shield (item 41)
	<b>3305409X05</b>	Label, MTS2000	35	<b>4205507X01</b>	Strain Relief
	or		36	<b>8405247V01</b>	FLEX, Jumper
	<b>3305183R94</b>	Label, MTX8000	38	<b>3205820V01</b>	Seal, Connector Plug
	or		39	----	Label, Rear; Information; not field replaceable
	<b>3305183R73</b>	Label, MTX9000	40	<b>3205176Z01</b>	"O" Ring, Contoured/Seal, Antenna
	or		41	----	Shield, Front
	<b>3305183R78</b>	Label, MTX838	42	<b>4005831W01</b>	Bracket, RF Switch
	or		43	----	Housing, RF Switch
	<b>3305183R94</b>	Label, MTX2000	44	<b>4105266V01</b>	Spring, RF Switch
9	<b>3505535X02</b>	Felt, Speaker	45	<b>4405524V01</b>	Piston, RF Switch
10	<b>5005213W05</b>	Speaker (LS401)	46	----	Circuit Board, RF Switch
11	<b>0705470V01</b>	Bracket, Speaker Retainer	47	<b>1505892U06</b>	Chassis (Rear Cover)
12	<b>5005227J07</b>	Microphone (MK401)	48	<b>3905838V01</b>	Contact, Antenna Shield Ground (800 MHz and 900 MHz radios only)
13	<b>1405330W02</b>	Boot, Microphone	49	<b>2605898U01</b>	Shield, PA (800 MHz and 900 MHz radios only)
14	<b>8405310W04</b>	FLEX, Front Cover/Display	50	<b>0405717W01</b>	Washer, PTT Seal
15	<b>8405333W03</b>	FLEX, Controls	52	<b>7505393N33</b>	Pad, Shock
16	<b>3905517V01</b>	Popple, PTT (p/o S406)			
17	<b>3605253V01</b>	Knob, On/Off/Volume			
18	<b>3605636V01</b>	Knob, Frequency			
19	<b>1305633V01</b>	Ring, Concentric; Escutcheon			

## MTX838/MTX8000 Series

### Portable Accessories

#### Chargers

Single unit chargers are available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola. All chargers listed are rapid rate and will fully charge your battery in less than 3 hours.

#### Single Unit Compact Bi-Chemistry Chargers – Rapid Rate

The bi-chem charger has the power supply built into the line cord giving the user a smaller base unit for easier storage. It also utilizes an enhanced charging algorithm that will help maximize the life of your batteries. It will rapid rate charge both NiCd and NiMH batteries.

**RPX4747A** Compact Bi-Chem Charger, 110V

#### Multiple Unit Charger (MUC)

Multi-unit chargers offer six pockets that can be used to rapid charge 1 to 6 batteries simultaneously. The batteries can be charged with the radios or separately. They will rapid rate charge both NiCd and NiMH batteries.



NTN1177D

**NTN1177D** Six-Pocket, rapid rate 110V

**NTN1178D** Six-Pocket, rapid rate, 220V  
(supplied with 2 prong cord)

**NTN1179D** Six-Pocket, rapid rate, 240V  
(supplied with 3 flat prong cord)

#### MUC Accessories

**NLN7967A** Wall Mount

#### Chargers

#### Travel Charger

**RLN4884B** Travel Charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.



RLN4884A

#### Travel Charger Mounting Bracket

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

#### Travel Charger AC Transformer

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)

## MTX838/MTX8000 Series



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### Portable Accessories

#### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified nickel cadmium (NiCd) and nickel metal hydride (NiMH) batteries in approximately an hour.

**WPPN4002BR** 110V AC  
Base Charge Unit Only  
(order adapter  
plate separately)

**WPPN4006AR** 220V AC  
Base Charge Unit Only  
(order adapter  
plate separately)

**WPPN4065BR** Multi-Unit Conditioning Charger Four Station Base  
110V (order adapter plate separately)

**WPPN4004BR** 7 Volt Adapter Only

**WPLN4090BR** MCC Kit, 110V AC; includes both base unit and  
7V adapter

**WPLN4091BR** MCC Kit, 220V AC; includes both base unit and  
7V adapter

**3080384G15** Cigarette Lighter Adapter Cord; MCC multi-unit  
conditioning charger

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola  
Conditioning Charger

**3080384M21** DC Hard wire cable for vehicular installation (included  
in RLN4814A)



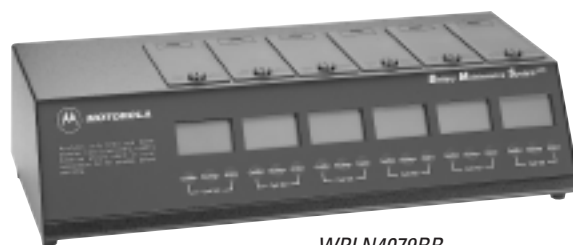
WPPN4002BR

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

##### **Increase the useful life of your batteries.**

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field upgrade kit for WPLN4079AR, WPLN4080AR and WPLN4081AR allows these units to support Ni-ion battery chemistries

**NDN4005B** Three-station 110V AC, 50/60 Hz

**NDN4006B** Three-station 230V AC, 50/60 Hz

#### **BMS<sup>plus</sup> Adapters**

**TDN9435C** Adapter Compatible  
with NiCd Batteries Only

**CDN6364A** Adapter Compatible  
with Both NiCd and  
NiMH Batteries



TDN9435C

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.



<https://www.motorola.com/businessonline>

## MTX838/MTX8000 Series

### Portable Accessories

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter**

**RL-72403** Standard Adapter

#### impres™ Smart Energy System

The impres smart energy system ensures maximum talk-time and optimized battery cycle life through the use of its advanced charging algorithm and automatic reconditioning features. The smart energy system reconditions impres batteries when they need it, automatically, keeping them in peak condition. It's advanced conditioning features allow batteries to be safely left on the charger for extended periods of time without incurring the damaging heat build-up which can rob batteries of cycle life. In addition, batteries left on the charger are kept fully charged so they are always ready when you need them. The impres system reconditions batteries when they need it based on their usage pattern. Talk time and cycle

life are optimized and the need for manual maintenance programs reduced or eliminated. This rapid-rate tri-chemistry charging system will also charge existing legacy batteries and supports multiple radio platforms including Saber, XTS, and HT1000 series portables.



WPLN4111AR

**WPLN4111AR** impres Single Unit Charger

**WPLN4108BR** impres Multi-Unit Charger

#### **impres™ Multi-Unit Charger with Display Modules**

The impres Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impres battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time (NiCd and NiMH only) which lets the user know when the impres battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage and charge status and the version of the charger and display modules.

**WPLN4130AR** Multi-Unit Charger with Display Modules

**RLN5382A** Charger

Display Module for impres multi-unit charger version 1.3 or later

**RLN5591A** Charger

Display Module for impres multi-unit charger version 1.2 or earlier. (Requires unit to be sent to the Rockford Service Center – instruction sheet provided)



WPLN4130AR



## MTX838/MTX8000 Series

### Portable Accessories

#### *impres™ Smart Energy System*

##### *impres™ Bundle Packs*

Provide significant savings on the impres products by bundling a charger and batteries together as a smart energy system package.

**RLN5265A** impres™ single unit charger with two HNN9029AR batteries

**RLN5266A** impres™ single unit charger with two HNN9028AR batteries

**RLN5439B** impres™ multi unit charger with six HNN9029AR batteries

**RLN5440B** impres™ multi unit charger with six HNN9028AR batteries

##### *Vehicular Charger*

This 12V DC charger is ideal for mobile customers; it charges portable radio NiCd batteries in rapid charge mode (in less than 3 hours) until full charge is obtained and then switches to trickle charge mode. A microprocessor controls the charge rate. This durable unit comes with a metal mounting bracket and is PAC-RT compatible.

**TDN9816A** Vehicular Charger



TDN9816A

#### *Carrying Accessories*

##### *Carrying Cases*

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

##### *Standard Belt Loop Carrying Cases*



NTN7247A

**NTN7238A** Leather Carry Case with Belt Loop and T-Strap for use with high capacity battery

**NTN7239A** Leather Carry Case with Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4018B** DTMF Leather Carry Case with Belt Loop for use with high and ultra-high capacity batteries

**NTN7247A** Nylon Carry Case with Belt Loop and Strap for use with high and ultra-high capacity batteries

##### *High Activity Swivel Carrying Cases*

The following carrying cases have a high activity swivel "D" button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high activity applications versus standard swivel cases while allowing the radio to swing freely with body movements.

**NTN8035B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8037B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8036B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery



NTN8036A

## MTX838/MTX8000 Series

### Portable Accessories

#### Carrying Accessories



NTN8038A

**NTN8038B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4017B** DTMF Leather Carry Case with 3.0" High Activity Swivel Belt Loop and Antenna Strap for use with high and ultra-high capacity battery

#### T-Strap

**NTN7782A** T-Strap for leather Carry Cases

**NTN7376A** T-Strap for nylon carry cases

#### Belt Clips

**4205638V07** 3" Belt clip

**4205638V09** 2.5" Belt clip

#### Belt Loops

**NTN8039B** 2.5" High Activity Swivel Belt Loop

**NTN8040B** 3.0" High Activity Swivel Belt Loop

**NTN1534A** High-activity "D" button and 2.5" belt loop

**NTN1535A** High-activity "D" button and 3.0" belt loop

**NTN80363A** "D" Button, High Activity



4200865599

#### Belt

**4200865599** 1.75" Wide Black Belt

#### Carrying Strap

**NTN5243A** Shoulder Carry Strap, allows easy carrying of radio in a case when not wearing a belt



NTN5243A

#### Waterproof Bag

**HLN9985B** Waterproof bag includes large carrying strap

#### Carrying Accessories

#### Swiveller

**TDN9684A** Swiveller, includes clip button, holster and belt

#### Swiveller Replacement Accessories

**TDN9690A** Clip button, mounts on battery

**TDN9688A** Holster, compatible with all buttons

**TDN9687A** Belt, 2" nylon



TDN9684A



TDN9687A

#### Portable Radio Hanger



TDN9327A

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"

#### Universal Holders

**RLN4943A** Universal holder with gooseneck bracket

**RLN4944A** Wheelchair quick release assembly

**RLN4945A** Universal holder with gooseneck bracket and wheelchair quick release assembly

## MTX838/MTX8000 Series

### Portable Accessories

#### Carrying Accessories

##### Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pouch

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

##### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

##### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"



#### Audio Accessories

##### Remote Speaker Microphones (RSM)

Allows you to talk and listen without removing the radio from the belt case or charger. Ideal for high noise level environments. These water resistant microphones include 6.0' coil cord assembly, 3.5mm earjack, swivel clip and quick disconnect latch.

**\*NMN6193C**

Remote Speaker Microphone

**\*NMN6191BC** Noise Cancelling Remote Speaker Microphone



NMN6193C

**0104010J46** Replacement Coil Cord Cable Assembly for Remote Speaker Microphones

**RLN5002A** MicJacket Kit; compatible with NMN6191 and NMN6193 remote speaker microphones

##### Public Safety Speaker Microphones (PSM)

Public Safety Speaker Microphones include straight cord assembly, 3.5mm earjack, swivel clip, quick disconnect latch, antenna connector, and receiver, audio high/low volume push button. Antenna must be ordered separately. Use radio antennas on page 283.

**\*NMN6228C** 30" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6243B** 18" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6244B** 24" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**0104004J29** 30" Public Safety Microphone Cable

**0104004J46** 18" Public Safety Microphone Cable

**0104004J47** 24" Public Safety Microphone Cable

**REX4410C** PTT Paddle Replacement Lit for Remote and Public Safety Microphones

**RLN5004A** MicJacket Kit; compatible with NMN6228, NMN6243 and NMN6244 remote speaker microphones

\* Intrinsically safe

## MTX838/MTX8000 Series

### Portable Accessories

#### Audio Accessories

##### RSM Accessories

###### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile environments.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip



###### Audio Accessories for the RSM

Plugged into the 3.5mm earjack on the RSM audio adapter, these audio accessories will mute the speaker on the RSM allowing the user to discretely hear all incoming messages. Ideal for noisy environments. The following audio accessories can also be plugged directly into the radio with the BDN6676D audio adapter.

**BDN6781A** Pellet Style Earpiece

**BDN6719A** Flexible Ear Receiver

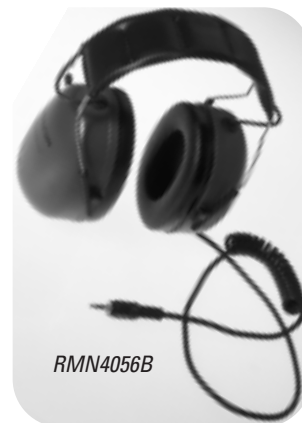
#### Audio Accessories

##### Headsets for the RSM and PSM

**RMN4056B** Receive-Only Dual Muff Headband Style Headset; provides 24dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RMN4057B** Receive-Only Hardhat Mount mounts easily to hardhats with slots and provides 22dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RLN4923A** Replacement Earseals for RMN4056A and RMN4057A



##### CommPort™: Integrated Microphone/Receiver System

CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1624A** Integrated Ear Microphone/Receiver System w/Palm PTT (includes BDN6676D 3.5mm Jack Adapter)



NTN1623A

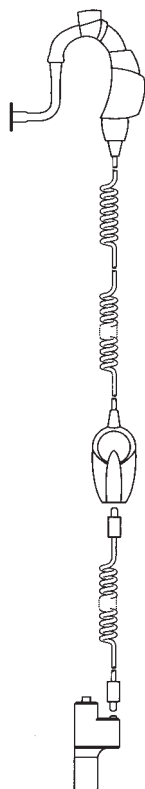
\* Intrinsically safe

# MTX838/MTX8000 Series

## Portable Accessories

### Audio Accessories

**\*NTN1625A** Integrated Ear Microphone/Receiver System with PTT on radio adapter (includes BDN6676D 3.5mm Jack Adapter)



NTN1625

**\*NTN1663A** Integrated Ear Microphone/Receiver System w/Ring PTT (includes BDN6676 3.5mm Jack Adapter)

**NNTN4186A** CommPort Integrated Microphone/Receiver with Body Push-To-Talk Button

**NTN1736A** CommPort Integrated Microphone/Receiver with Snap-on Side Push-To-Talk (PTT)

**NNTN4188A** Replacement Remote Push-To-Talk Body Switch

**\*NKN6510A** Replacement Cable for NTN1624

**NKN6508A** Replacement Cable for NTN1625

**NKN6512A** Replacement Cable for NTN1663

**NKN6525A** Replacement Cable with Snap-on Side PTT

**NTN8821A** CommPort Maintenance Kit, Includes Replacement Ear Tubes (Quantity 10), Windscreens (Quantity 2) and Microphone Seal Strips (Quantity 10)

**NTN8986A** Adhesive Pads (Quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (Quantity 10), for secure attachment to ear

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip

**RLN5037A** Replacement Ear tubes (Quantity 10)

### Audio Accessories

#### Surveillance Accessories

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

The following surveillance accessories require the BDN6676D (3.5 mm threaded adapter jack) that attaches to the radio, unless being used with speaker/microphone.

Receive-only Surveillance Kit (1-Wire)

**\*BDN6664A** Beige

**\*BDN6665A** Beige

**BDN6726A** Black

**BDN6727A** Black



BDN6664A

Receive-only Surveillance Kit with Volume Control (1-Wire)

**\*BDN6666A** Beige

**BDN6728A** Black



BDN6666A

Surveillance Kit with Microphone and Push-To-Talk Combined (2-Wire)

**\*BDN6667A** Beige

**\*BDN6669A** Beige

**BDN6729A** Black

**BDN6731A** Black



BDN6667A

Surveillance Kit with Microphone and Push-To-Talk Separate (3-Wire)

**\*BDN6668A** Beige

**\*BDN6670A** Beige

**BDN6730A** Black

**BDN6732A** Black

**\*BDN6676D** 3.5mm Jack Adapter with Quick Disconnect Latch



BDN6668A

\* Intrinsicly safe



## MTX838/MTX8000 Series

### Portable Accessories

#### Audio Accessories

##### Surveillance Kit Replacement Accessories

**5080369E38** Standard Earpiece Assembly, includes earphone, earloop and eartip, beige

**5080370E90** Standard Earpiece Assembly includes earphone, earloop and eartip, black

**5080369E39** Extra Loud Assembly, includes earphone, earloop and eartip, beige

**5080370E91** Extra Loud Earpiece Assembly, includes earphone, earloop and eartip, black

**5080369E40** Plastic Urethane Earloop, beige

**5080370E92** Plastic Urethane Earloop, black



5080369E39



5080370E92



5080370E41

**5080369E41** Wire Earloop

**5080371E69** Small Rubber Eartip, beige, pack of 25

**5080371E71** Small Rubber Eartip, black, pack of 25

**5080371E73** Standard Rubber Eartip, beige, pack of 25

**5080371E75** Standard Rubber Eartip, black, pack of 25

**5880377E06** Plastic Eartip Adapter, pack of 10

##### Surveillance Kits with Extended Wear Earpiece

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube. Users can hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5311A** Beige Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk; requires BDN6676D audio adapter

**RLN5312A** Black Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk; requires BDN6676D audio adapter

**RLN5313A** Receive-Only Comfort Earpiece, black

**RLN5314A** Receive-Only Comfort Earpiece, beige

#### Audio Accessories

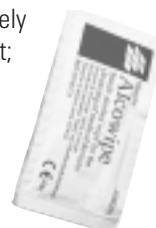
##### Completely Discrete Earpiece

Remain discretely in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discrete two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. **Must be used in conjunction with a Motorola Surveillance Kit.** Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discrete communication.

**RLN4922A** Completely Discrete Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4V Battery, 6 per pack



RLN4922A



## MTX838/MTX8000 Series

## Portable Accessories

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Replacement Standard Rubber Eartips; pack of 25, beige

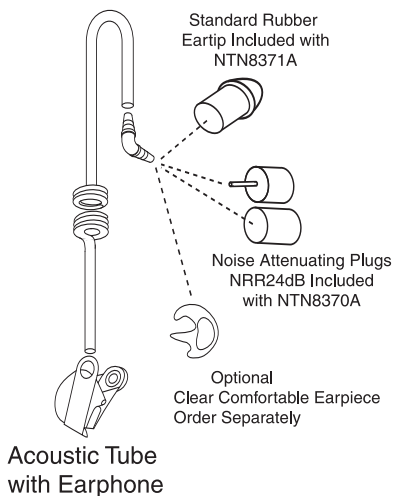


NTN8370A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).

**Interface Module needs to be ordered separately for EMS to work.**

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95dB, black)

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB, beige)

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105dB)



BDN6641A

Requires interface module sold separately



BDN6708B

#### Interface Module For EMS

**\*BDN6708B** Push-To-Talk Interface Module

**\*BDN6671B** Push-To-Talk or Voice-Activated Interface Modul

\* Intrinsically safe

## MTX838/MTX8000 Series

### Portable Accessories

#### Audio Accessories

##### Optional Accessories For EMS

**\*0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk Body Switch

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear



0180358B38



0180358B33

**0180358B32** Earholder, black size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

##### Flexible Ear Receiver

**BDN6719A** Ear Receiver with 3.5 mm Threaded Plug, requires adapter BDN6676D unless being used with speaker microphone

**7580372E11** Replacement Foam Ear Cushions for BDN6719A



BDN6719A

#### Audio Accessories

##### Pellet Style Earpieces

**BDN6780A** Single Earbud with Microphone and Push-To-Talk, requires adapter BDN6676D, unless being used with speaker microphone

**BDN6781A** Single Earbud, receive-only; requires adapter BDN6676D unless being used w/speaker microphone



BDN6780A

**5780372E70** Replacement Foam Ear Cushion for Pellet Earpieces

##### Lightweight Headsets

Lightweight headsets allow for high clarity, hands-free, discrete two-way communication, while adding comfort necessary for extended wear in moderate noise environments. Requires BDN6676D Audio Adapter.

**\*NMN6245A** Single Muff Lightweight Headset with In-line Push-To-Talk Switch (requires BDN6676D adapter)

**\*NMN6246B** Ultralite Headset with Boom Microphone and In-line Push-To-Talk Switch; ear bud style receiver (requires BDN6676B adapter)

**\*NMN1020A** Lightweight Headset with Boom Microphone to be worn on a helmet or safety glasses. Includes NKN6498A adapter cable. Requires BDN6676D adapter. FM approved.

**\*NKN6498A** Headset Adapter Cable for use with NMN1020A

**REX4648A** Replacement Foam Earpad and Windscreen Kit for NMN6245A

**5080574E02** Foam Earpads for use with NMN6245A, 10 per pack

## MTX838/MTX8000 Series

### Portable Accessories

#### Audio Accessories

##### Temple Transducer

The Temple Transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of the accessory rests on the temples and it is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and bone directly into the inner ear where it is received by the user. It features an in-line PTT and noise canceling boom microphone. The Temple Transducer enhances communications and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning and fire alarms, the intercom, traffic, and even casual conversations with their co-workers.

**RMN4049A** Temple Transducer



RMN4049A

##### Racing Headset

Motorola is the Official Wireless Equipment supplier of CART®, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.

**RMN5015A** Racing Headset  
(Requires radio adapter cable BDN6673B)



RMN5015A

#### Audio Accessories

##### Medium Weight Headsets

Medium Weight Headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*NMN6258A** Medium Weight Headset, over the head with In-Line PTT, Noise Reduction Rating = 24dB

**\*NMN6259A** Medium Weight Headset, behind the head with In-Line PTT, Noise Reduction Rating = 24dB

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6259A

**RMN4051A** Hardhat Mount Headset mounts easily to hardhats with slots and provides 22dB of noise reduction; requires RKN4095A adapter cable, hardhat not included

**RKN4095A** Radio Adapter Cable with In-Line PTT for use with RMN4051A



NMN6258A

\* Intrinsically safe

## MTX838/MTX8000 Series

### Portable Accessories

#### Audio Accessories

##### Tactical Medium Weight Headsets



RMN4052A

Same high-clarity sound and additional hearing protection as our standard medium weight headsets while including two microphones on the outside of each earcup which reproduces the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times but never more than 82dB. Includes on/off volume control on ear cups.

**RMN4052A** Tactical Headband Style Headset, grey; provides 24dB of noise reduction and requires RKN4095A adapter cable

**RMN4053A** Tactical Hardhat Mount Headset mounts easily to hardhats with slots; provides 22dB of noise reduction and requires RKN4095A adapter cable, hardhat not included

**RKN4095A** Radio Adapter Cable with In-Line PTT for use with RMN4051A and RMN4053A

**RLN4923A** Two Replacement Snap-in Earseals; Recommended replacement interval is once every six months to ensure constant level of attenuation hygiene and comfort for RMN4051A, RMN4052A, and RMN4053A.

#### Audio Accessories

##### Heavyduty Headsets

Heavyduty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. Heavyduty headsets require radio adapter cable BDN6673B, to be ordered separately.



BDN6645A

**\*BDN6645A** Push-To-Talk Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB

**\*BDN6635B** Voice-activated Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB



BDN6635B



BDN6636B

**\*BDN6636B** Voice-activated Headset with Throat Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB

**\*BDN6673B** Radio Adapter Cable

\* Intrinsicly safe

## MTX838/MTX8000 Series

### Antennas

#### Portable Antennas

##### Flexible Whip Antennas

Antenna has a one-piece finish and steel core for optimal strength and better radiation characteristics. Provides more comfort when radio is worn on the belt.

###### **8505241U05**

Flexible Whip, 403-520MHz, 7"

###### **8505241U03**

Flexible Whip, 806-870MHz, 7"

###### **8505241U04**

Flexible Whip, 896-941MHz, 7"



8505241U05

##### Helical Antennas

Helical are sturdy and dependable for years of failsafe communication. Each antenna is designed and built to quality standards. The skirt at the base of the connector helps to seal out damaging elements. Connector is made of plated brass material for long life.

###### **8505644V01**

Helical, 136-174MHz, 6"

###### **8505644V02**

Helical, 151-162MHz, 6"

###### **8505644V03**

Helical, 162-174MHz, 6"

###### **8505644V04**

Helical, 403-435MHz, 3"

###### **8505644V05**

Helical, 435-470MHz, 3"

###### **8505644V06**

Helical, 470-520MHz, 3"



8505644V01



8505644V03



8505644V04

#### Portable Antennas

##### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

###### **NAF4000B**

Dipole, 806-869MHz, 8"

###### **8505884R02**

Dipole, 896-941MHz, 8"



NAF4000B

8505884R02

##### Wideband Antenna

Wideband antenna is ideal when radio is used in different frequencies since one antenna will cover all ranges.

**8505518V01** Wideband, 136-174MHz, 6"

##### Stubby Antenna

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive. This is a broadband antenna that can be used for both 800MHz and 900MHz applications.

###### **\*8505241U06**

Stubby, 806-941MHz, 4"



8505241U06

\*8505241U06 is a broadband antenna that operates in the 800/900 MHz band

## MTX838/MTX8000 Series

## Miscellaneous Accessories, Batteries



### Miscellaneous Accessories

#### Replacement Kit

**REX4398A** 2/8/16 Channel Cosmetic Replacement Kit

#### Public Safety Tilt Switch

An external emergency switch that is activated when the unit is tilted at a greater than 60 degree angle. Delay times are factory programmed for 8 seconds and are not field programmable. The emergency feature must be programmed into the radio to enable the tilt switch option. FM approved. Not compatible with the JT1000.

**NTN7660B** Public Safety Tilt Switch

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN7143CR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: No

Part Number: **NTN7144CR**

Volts: 7.5

Avg. mAh: 1500

Height: 6"

Intrinsically Safe: No

Part Number: **NTN7146AR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: Yes

Part Number: **NTN7147AR**

Volts: 7.5

Avg. mAh: 1300

Height: 6"

Intrinsically Safe: Yes

Part Number: **NTN7149BR**

Volts: 7.5

Avg. mAh: 1300

Height: 6"

Intrinsically Safe: Yes

CSA: Yes

### Portable Batteries

Part Number: **NTN7150AR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: Yes

MSHA: Yes

Part Number: **NTN7341AR**

Volts: 7.5

Avg. mAh: 1400

Height: 6"

Intrinsically Safe: Yes

Part Number: **NTN7372AR**

Volts: 7.5

Avg. mAh: 1200

Height: 6"

Intrinsically Safe: Yes

#### Nickel-Cadmium impres™

Part Number: **HNN9028AR**

Volts: 7.5

Avg. mAh: 1500

Height: 6"

Intrinsically Safe: No

Part Number: **HNN9029AR**

Volts: 7.5

Avg. mAh: 1500

Height: 6"

Intrinsically Safe: Yes

#### Nickel Metal Hydride Premium

Part Number: **WPNN4013A**

Volts: 7.5

Avg. mAh: 2000

Height: 6"

Intrinsically Safe: No

Part Number: **WPNN4037A**

Volts: 7.5

Avg. mAh: 1900

Height: 6"

Intrinsically Safe: Yes



NTN7372AR



WPNN4013A



## MTX838/MTX8000 Series

### Service Aids, Manuals

#### Service Aids

##### Battery Eliminator

The Battery Eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.

**RLN1014A** Battery Eliminator



RLN1014A



0180357A57

##### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

##### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RKN4035D** Radio Test and Programming Cable

##### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E

#### Service Aids

##### Cloning Cable

Allows another radio to be duplicated from a master radio by transferring programmed data from one radio to another.

**RKN4036D** Cloning Cable

##### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

##### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Requires interface box and appropriate cables, must be ordered separately.

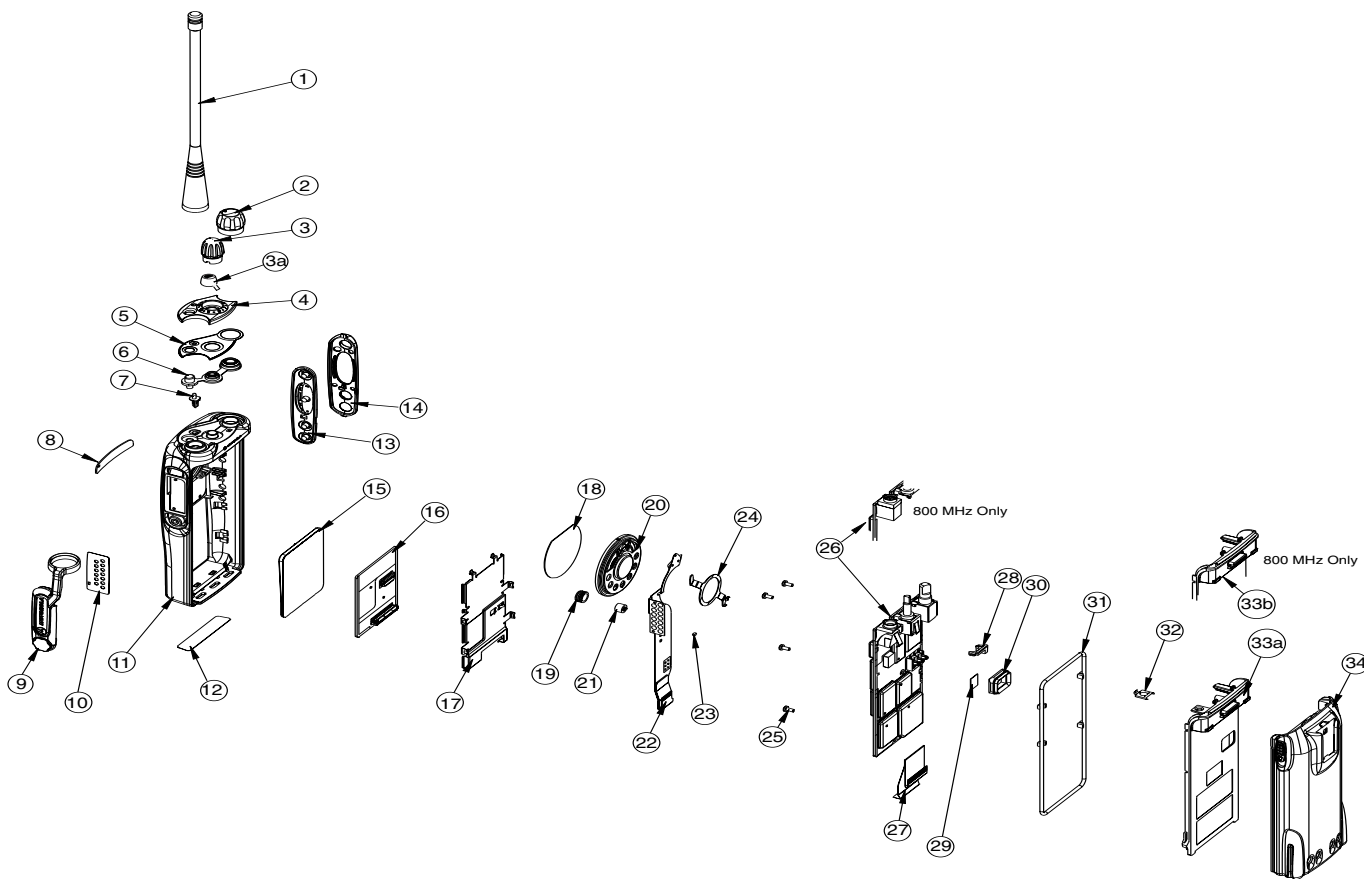
**RVN4176M** Programming Software

#### Manuals

<b>6881200C15</b>	Theory and Troubleshooting Manual
<b>6881200C25</b>	Service Manual
<b>6881200C40</b>	Maintenance Manual
<b>6881076C65</b>	Operator Manual
<b>0180305J46</b>	Ear Microphone System and Temple Transducer CD-ROM
<b>0180305J70</b>	impres System CD-ROM

# MTX850/850•LS Series

## Parts List



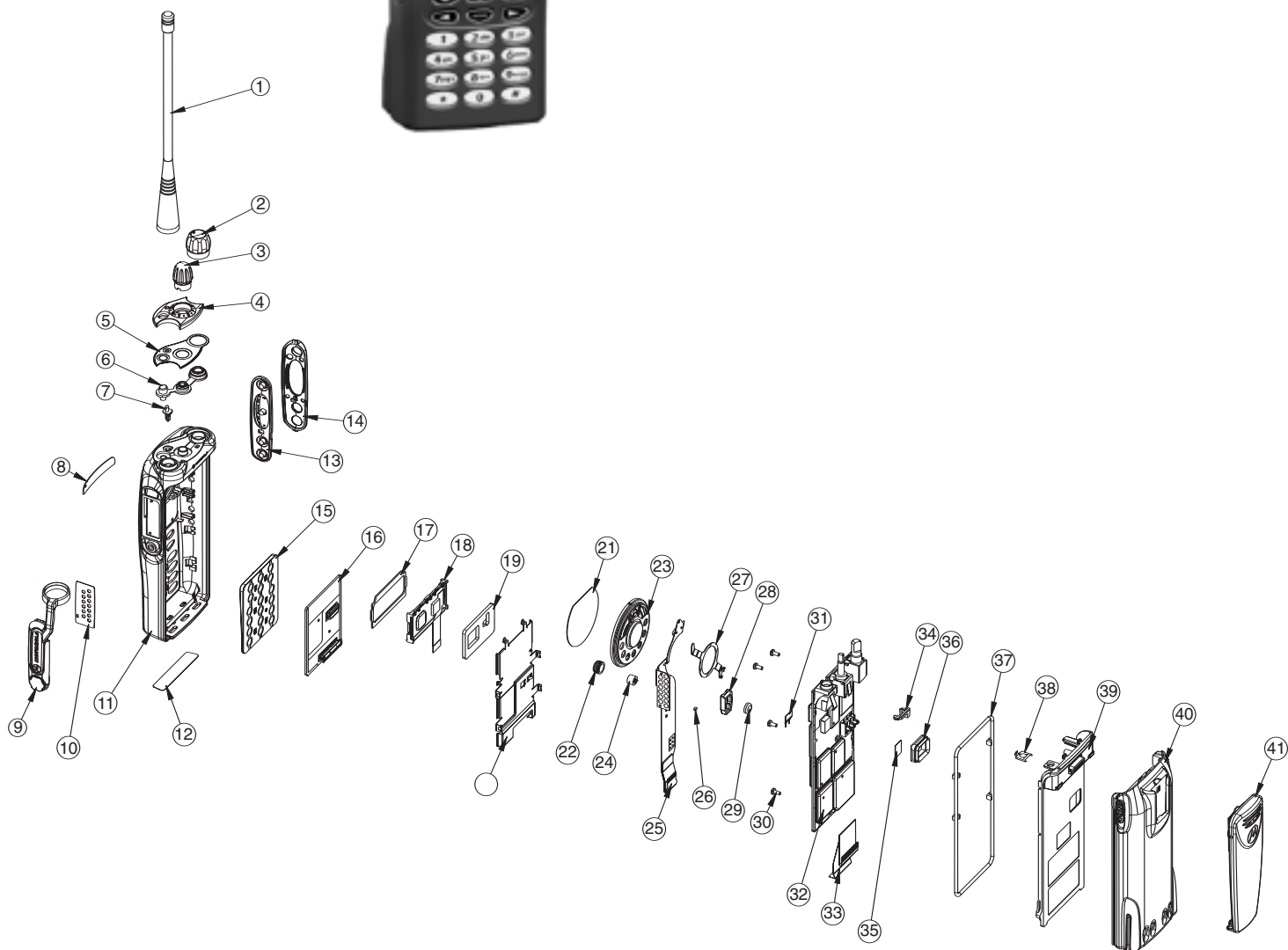
## MTX850/850•LS Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	----	Antenna - Refer to antenna section	18	<b>3586057A01</b>	Cloth Speaker
2	<b>3680529Z01</b>	Knob, Volume	19	<b>1480577C01</b>	Boot, Microphone
3	<b>RLN4890A</b>	Assistive turning knobs (Includes Volume and Channel Knobs)	20	<b>5085738Z01</b>	Speaker
	<b>3680530Z02</b>	Knob (Frequency)	21	<b>5013920A04</b>	Microphone Mini Electret
4	<b>1380525Z01</b>	Escutcheon, Top	22	<b>8480549Z07</b>	Flex, Universal Connector
5	<b>3385681Z01</b>	Label Escutcheon	23	<b>2113740A41</b>	Cap Chip Reel CL1 +/-30 33
6	<b>3280533Z03</b>	Seal (Control Top)	24	<b>4280504Z01</b>	Retainer, Speaker
7	<b>6180527Z01</b>	Lightpipe	25	<b>0304726J04</b>	Screw, Torx T-6 (M2X4.5)
8	<b>HHLN4178</b>	MTX850LS Nameplate	26	----	Controller/RF Board Assembly - refer to service manual for details
	<b>HHLN4216A</b>	MTX850 Nameplate	27	<b>8480475Z03</b>	Flex, Controller-Keypad
9	<b>HLN9820</b>	Dust Cover	28	<b>1485673Z01</b>	Insulator
10	<b>1386058A01</b>	Escutcheon, Universal Connector	29	<b>7580556Z01</b>	Pad, Thermal
11	<b>1580666Z03</b>	Cover, Front, Assy Popular Basic	30	<b>3280534Z01</b>	Seal, Module Battery
12	----	Escutcheon, FM (not field replaceable)	31	<b>3280536Z01</b>	Gasket, O-Ring Waris
13	<b>7580532Z01</b>	Keypad, Side Control	32	<b>3980698Z01</b>	Contact, Ground
14	<b>1380528Z01</b>	Bezel, Side Control	33a	<b>2780518Z01</b>	Chassis, Waris
15	<b>7585680Z03</b>	Keypad (Pop Basic)	33b	<b>2780518Z03</b>	Chassis
16	<b>0104007J99</b>	Waris Keypad Board	34	----	Battery – refer to battery section
17	<b>4280498Z01</b>	Retainer, Plate	35	<b>HLN9714A</b>	Spring Belt Clip 2.5"

# MTX8250/8250•LS Series

## Parts List



# MTX8250/8250•LS Series

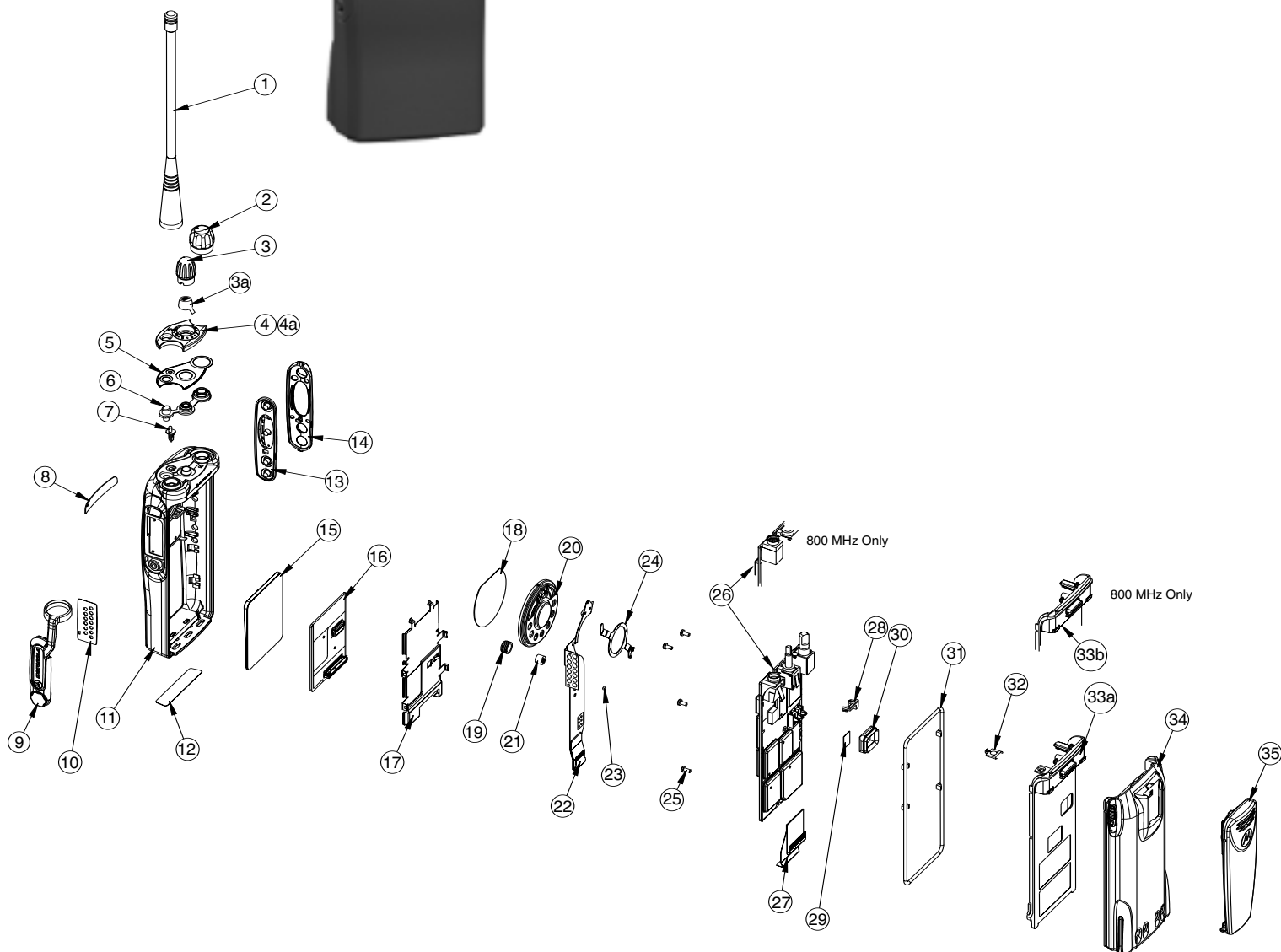
## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	----	Antenna
2	<b>3680529Z01</b>	Knob, Volume
3	<b>3680530Z01</b>	Knob, Channel Selector
or	<b>RLN4890</b>	Assistive Turning Knobs (Includes Volume and Channel Knobs)
4	----	Escutcheon, Top
	<b>1380525Z01</b>	16 Channel
	<b>1380525Z03</b>	Dotted
5	<b>3380644Z01</b>	Escutcheon, Label
6	<b>3280533Z01</b>	Seal, Control Top
7	<b>6180527Z01</b>	Litepipe, Tx
8		Nameplate
	<b>HHLN4217</b>	MTX8250
	<b>HHLN4181</b>	MTX8250-LS
9	<b>1586059A01</b>	Dust Cover, Universal Connector
10	<b>1386058A01</b>	Escutcheon, Universal Flex
11	<b>1580666Z05</b>	Front Cover – Basic
	<b>1580666Z02</b>	Front Cover – DTMF
12	----	Escutcheon, FM
		(not field replaceable)
13	<b>7580532Z01</b>	Keypad, Side Control
14	<b>1380528Z01</b>	Bezel, Side Control
15	----	Keypad
	<b>7586065A01</b>	Basic
	<b>7586065A02</b>	Full
	<b>7585680Z07</b>	Full, Privacy Plus
16	<b>0104015J14</b>	Keypad, Board Assembly

REF. NO.	PART NO.	DESCRIPTION
17	<b>7580540Z01</b>	Pad Display
18	<b>5104949J05</b>	LCD Module
19	<b>7580637Z01</b>	Pad, LCD Back
20	<b>4280498Z01</b>	Retainer, Keypad PCB
21	<b>3586057A01</b>	Felt Speaker
22	<b>1480577C01</b>	Boot, Microphone
23	<b>5085962A02</b>	Speaker
24	<b>5013920A04</b>	Microphone
25	<b>8480549Z01</b>	Flex, Speaker/Microphone
26	<b>2113740A41</b>	Capacitor, 33pF
27	<b>4280504Z01</b>	Retainer, Speaker
28	<b>1480503Z01</b>	Boot, Backup Battery
29	<b>6062884G01</b>	Backup Battery
30	<b>0304726J04</b>	Screw
31	<b>3980667Z01</b>	Contact, Finger
32	----	Controller/RF Board Assembly
33	<b>8485615Z02</b>	Flex, Keypad/Controller
34	<b>1480652Z01</b>	Insulator, Antenna
35	<b>7580556Z01</b>	Pad, Thermal
36	<b>3280534Z01</b>	Seal, Contact
37	<b>3280536Z02</b>	Gasket, "O" Ring
38	<b>3980698Z01</b>	Contact, Ground, Compliant, VHF
39	----	Chassis
	<b>2780518Z01</b>	Chassis
	<b>2780518Z04</b>	800 MHz only
40	----	Battery (refer to battery section)
41	<b>HLN9714</b>	Belt Clip

# MTX950 Series

## Parts List





## MTX950 Series

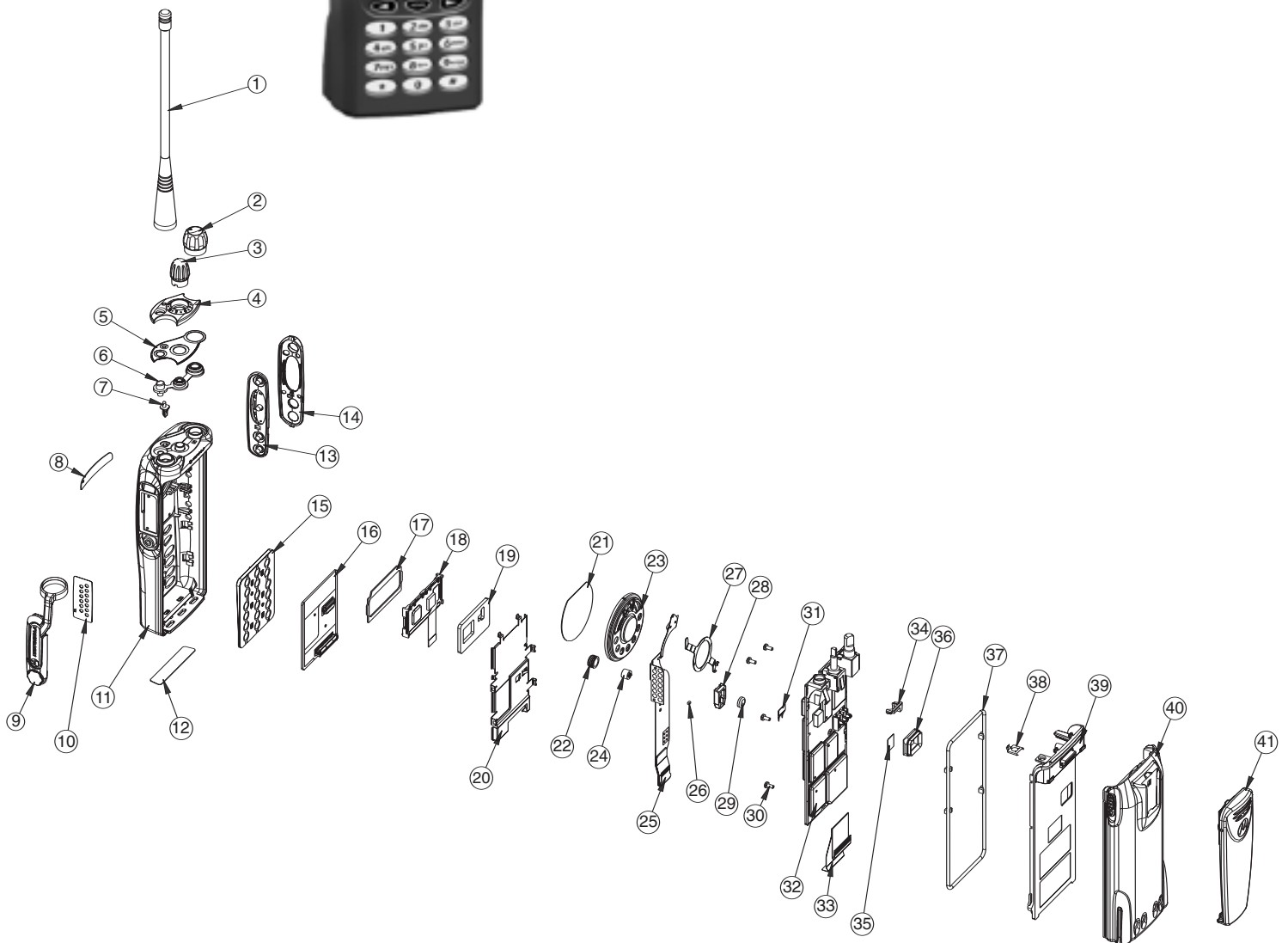
### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	----	Antenna
2	<b>3680529Z01</b>	Knob, Volume
3	<b>3680530Z02</b>	Knob, (FREQ)
4	<b>1380525Z01</b>	Escutcheon, Top
5	<b>3385681Z01</b>	Label, Escutcheon
6	<b>3280533Z03</b>	Seal (Control Top)
7	<b>6180527Z01</b>	Lightpipe
8	<b>HHLN4218</b>	MTX 950 Nameplate
9	<b>HLN9820</b>	Dust Cover
10	<b>1386058A01</b>	Escutcheon, Universal Connector
11	<b>1580666Z03</b>	Cover, Front Assembly Popular Basic
12	----	Escutcheon, FM (not field replaceable)
13	<b>7580532Z01</b>	Keypad, Side Control
14	<b>1380528Z01</b>	Bezel, Side Control
15	<b>7585680Z03</b>	Keypad, (Popular Basic)
16	<b>0104007J99</b>	WARIS, Keypad Board
17	<b>4280498Z01</b>	Retainer, Plate
18	<b>3586057A01</b>	Cloth, Speaker

REF. NO.	PART NO.	DESCRIPTION
19	<b>1480577C01</b>	Boot, Microphone
20	<b>5085738Z01</b>	Speaker
21	<b>5013920A04</b>	Microphone, Mini Electret
22	<b>8480549Z07</b>	Flex, Universal Connector
23	<b>2113740A41</b>	Cap, Chip Reel CL1 +/-30 33
24	<b>4280504Z01</b>	Retainer, Speaker
25	<b>0304726J04</b>	Screw, TORX T-6(M2X4.5)
26	----	Ctrl/ RF Board Assembly
27	<b>8480475Z03</b>	Flex, Controller-Keypad
28	<b>1485673Z01</b>	Insulator
29	<b>7580556Z01</b>	Pad, Thermal
30	<b>3280534Z01</b>	Seal, Module Battery
31	<b>3280536Z01</b>	Gasket, O-Ring WARIS
32	<b>3980698Z01</b>	Contact, Ground
33a	<b>2780518Z01</b>	Chassis, WARIS
33b	<b>2780518Z03</b>	Chassis
34	----	Battery – Refer to battery section
35	<b>HLN9714</b>	Spring, Belt Clip 2"

## MTX9250 Series

### Portable Accessories



# MTX9250 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	----	Antenna - Refer to Antenna Section
2	<b>3680529Z01</b>	Knob, Volume
3	<b>3680530Z02</b>	Knob, (FREQ)
4	<b>1380525Z01</b>	Escutcheon, Top
	<b>1380525Z03</b>	Escutcheon, Top
5	<b>3385681Z01</b>	Label, Escutcheon
6	<b>3280533Z03</b>	Seal (Control Top)
7	<b>6180527Z01</b>	Lightpipe
8	<b>HHLN4219</b>	MTX 9250 Nameplate
9	<b>HLN9820</b>	Dust Cover
10	<b>1386058A01</b>	Escutcheon, Universal Connector
11	<b>1580666Z02</b>	Cover, Front Assembly Preferred DTMF
12	----	Escutcheon, FM (not field replaceable)
13	<b>7580532Z01</b>	Keypad, Side Control
14	<b>1380528Z01</b>	Bezel, Side Control
15	<b>7585745Z04</b>	Keypad, Prime MPT
	<b>7585680Z07</b>	Keypad
16	<b>0104007J99</b>	WARIS Keypad Board
17	<b>7580540Z01</b>	Pad, LCD Front
18	<b>5104949J05</b>	WARIS, LCD Display Module
19	<b>7580637Z01</b>	Pad, LCD Back
20	<b>4280498Z01</b>	Retainer, Plate

REF. NO.	PART NO.	DESCRIPTION
21	<b>3586057A01</b>	Cloth, Speaker
22	<b>1480577C01</b>	Boot, Microphone
23	<b>5085738Z01</b>	Speaker
24	<b>5013920A04</b>	Microphone, Mini Electret
25	<b>8480549Z07</b>	Flex, Universal Connector
26	<b>2113740A41</b>	Cap, Chip Reel CL1 +/-30 33
27	<b>4280504Z01</b>	Retainer, Speaker
28	<b>1480503Z01</b>	Boot, Backup Battery
29	<b>6062884K01</b>	Battery, Rechargeable Lithium M
30	<b>0304726J04</b>	Screw, TORX T-6(M2X4.5)
31	<b>3980667Z01</b>	Contact, Finger
32	----	Ctrl/ RF Board Assembly
33	<b>8485615Z02</b>	Flex, Controller-Keypad
34	<b>1485673Z01</b>	Insulator
35	<b>7580556Z01</b>	Pad, Thermal
36	<b>3280534Z01</b>	Seal, Module Battery
37	<b>3280536Z02</b>	Gasket, O-Ring WARIS
38	<b>3980698Z01</b>	Contact, Ground
39	<b>2780518Z01</b>	Chassis, WARIS
	<b>2785737Z02</b>	Chassis, 800MHz Prime
40	----	Battery – Refer to Battery Section
41	<b>HLN9714</b>	Spring, Belt Clip 2"

## Portable Accessories

### Chargers

#### Single and Six-Unit Chargers

Single and six-unit chargers can rapidly charge spare batteries on or off the radio in one to three hours. These tri-chemistry chargers feature rapid, trickle, and maintenance modes. The maintenance mode "revert to rapid" feature ensures batteries remain fully charged even when left on the charger for extended periods of time. Multi-unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola.



AAHTN3000D

**AAHTN3000D** Single Unit Rapid Rate Charger, 120V (US plug)

**AAHTN3001C** Single Unit Rapid Rate Charger, 230V (Euro plug)

**AAHTN3003D** Six-unit Rapid Rate Charger, 120V (US plug)

**NLN7967A** Wall Mount Kit for Six-unit Charger

**HLN9793A** Charger Insert Spacer - Compatible with "A" version chargers only

**HLN9794B** Charger Insert Spacer - Compatible with "B" version or later chargers only

#### Travel Charger

**RLN4883A** A great traveling companion that ensures constant communication while on the road. Allows the battery to rapid charge while using the radio.

Includes: Voltage Regulated Lighter Adapter, Customer Charger Base, and Coil Cord. Ideal for public safety, utility, and construction.



RLN4883A

#### Vehicular Charger

12V DC charger ideal for people who need a hard-wired sturdy vehicular solution. Includes charger, mounting bracket and hard wire cable. Supports NiCd, NiMH and Li-ion batteries.



RLN5233A

**RLN5233A** Vehicular Charger

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### BOS II Adapter

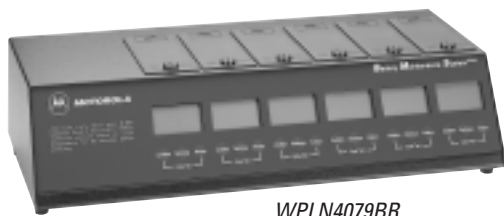
**RL-76345** Adapter Plate

## MTX850/850•LS/8250/8250•LS/950/9250 Series

## Portable Accessories

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing batteries. It supports NiCd, NiMH, and Li-ion battery chemistries and tracks battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundred of 2-way, cellular, and camcorder batteries. Includes serial printer\* port (RS-232)



WPLN4079BR

**WPLN4079BR** BMSPlus, Six-Station, 110V AC, 50/60 Hz

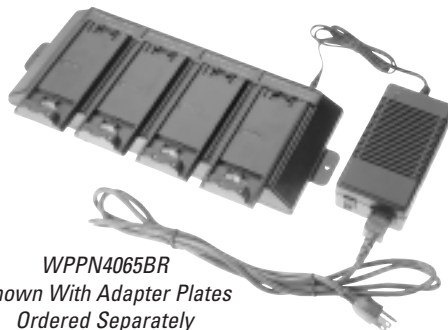
**WPLN4080BR** BMSPlus, Six-Station, 230V AC, 50/60 Hz

**WPPN4079AR** HT750/HT1250, NiCd and NiMH

**WPPN4080AR** HT750/HT1250 NiCd, NiMH and Li-ion

### Motorola Conditioning Charger (MCC)

The MCC utilizes negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified NiCd and NiMH batteries in approximately an hour. The MCC controls heat buildup due to its charging and termination algorithms, and maintenance mode allows batteries to be safely left on the charger for extended periods of time. And now there is an Instant Fault Detection (IFD) feature which detects faulty radio batteries in seconds, which notifies the user that the battery will not operate at peak performance. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.



WPPN4065BR

*Shown With Adapter Plates  
Ordered Separately*

### Motorola Conditioning Charger (MCC)

**WPPN4065BR** Motorola Multi-unit conditioning charger, 110V AC (Adapter plates sold separately)

**WPPN4082BR** Adapter Plate Only, 7V (MTX8250 and MTX8250-LS)

**WPLN4107BR** MCC Kit, 110V AC (includes base unit and 7V adapter)

**WPLN4106AR** MCC Kit, 220V AC (includes base unit and 7V adapter)

**3080384G15** Optional Cigarette Lighter Adapter Cord

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger



RLN4814A

**HLN9179A** Quick-Release Attachment for Mounting Bracket RLN4814A

**HLN9162A** 5" Goose Neck Attachment for Mounting Bracket RLN4814

**HLN9154A** Non-Locking Attachment for Mounting Bracket RLN4814A

**HLN9228A** Clamshell Attachment for Mounting Bracket RLN4814A

\* Compatible with the STAR Micronics SP200 Series printers (and other printers with STAR emulation); available from any STAR Micronics distributor.

## Portable Accessories

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio and battery and permit audio to be heard clearly. Belt loop and nylon cases feature "D" rings that allow the cases to be attached to a carrying strap. Swivel model cases secure to a belt loop and allow the case to swing freely from side to side. The swivel latch system also allows the radio and case to be removed from the belt loop by simply inverting the case and lifting it up and out of the belt loop.

**HLN9652A** Standard leather carry case, short, plain, belt loop, thin battery

**HLN9665A** Standard leather carry case, short, plain, belt loop, standard battery

**HLN9670A** Standard leather carry case, short, plain, swivel, thin battery

**HLN9676A** Standard leather carry case, short, plain, swivel, standard battery

**HLN9677A** Standard leather carry case, short, DTMF, belt loop, thin battery

**HLN9689A** Standard leather carry case, short, DTMF, belt loop, standard battery

**HLN9690A** Standard leather carry case, short, DTMF, swivel, thin battery

**HLN9694A** Standard leather carry case, short, DTMF, swivel, standard battery

**HLN9701B** Nylon carry case, with belt loop; popular and preferred



HLN9676A

#### Carrying Accessories

**HLN9714A** Spring Action 2-1/2" Belt Clip

**HLN9952A** Belt Clip Carry Holder – one size fits all

**NTN5243A** Shoulder Carrying Strap allows easy carrying of radio in a case when not wearing a belt

**4200865599** 1.75" Wide Leather Belt (black)

### Carrying Accessories

#### Carry Packs

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602A



RLN4570A

**RLN4570A** Break-A-Way Chest Pack. All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes separate 6"x8" zippered pouch for other on the job necessities. Adjustable nylon weave belt; fits both men and women.

**4280384F89** Universal RadioPAK™ Belt Lengthener; Fits Waists Larger than 40"

**HLN9985B** Waterproof Bag includes large carrying strap

### Audio Accessories

#### Remote Speaker Microphones (RSM)

The remote speaker microphone is a water-resistant compact unit that allows the user to talk and listen without removing the radio from the belt, case or charger. It has a coiled cord, push-to-talk switch and clothing clip on the back cover.

**\*AAHMN9052E** Remote Speaker Microphone

**\*AAHMN9053E** Noise Canceling Remote Speaker Microphone with 3.5mm Audio Jack

**AAHKN9055A** Replacement Cable for RSM's



AAHMN9052E

\* Intrinsically safe



## Portable Accessories

### Audio Accessories

#### RSM and PSM Accessories

**\*AARLN4885B** Receive-only Earbud with black coiled cord and 3.5mm Adapter for use with AAHMN9053A, AAHMN9054A and AAHMN9057A

**RLN4941A** Receive-only Earpiece with 3.5mm Plug, Translucent Tube and Rubber Eartip for use with AAHMN9054B and AAHMN9057B

**\*RMN4054B** Receive-only Hardhat Mount Headset; mounts easily to hardhats with slots and provides 22dB of noise reduction; for use with AAHMN9053A, AAHMN9054A and AAHMN9057A. (hardhat not included)

**RMN4055A** Receive-only Headband Style Headset provides 24dB of noise reduction; for use with AAHMN9053C

**RLN4923A** Two Replacement Snap-in Earseals for RMN4054A and RMN4055A

**REX4410C** Replacement Paddle PTT Kit for RSM's and PSM's



RLN5009A

#### MicJackets

MicJackets provide speaker microphone users with a way to further protect the "head" of their microphone from dust, dirt, metal particles, sweat, body oils and other on-the-job grime; MicJackets also allow the user to handle or interact with the speaker microphone in a more hygienic way.

**RLN5008A** MicJacket, compatible with HMN9052 Remote Speaker Microphone

**RLN5009A** MicJacket, compatible with HMN9053 Remote Speaker Microphone

### Audio Accessories

#### CommPort: Integrated Microphone/Receiver System

The CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1723A** Integrated Ear Microphone/Receiver System w/Palm PTT (includes AAHLN9717 radio adapter)

**\*NTN1724A** Integrated Ear Microphone/Receiver System with Ring PTT (includes AAHLN9717 adapter)

**\*NTN1722A** Integrated Ear Microphone/Receiver System with PTT on Radio Adapter (includes AAHLN9717 Adapter)

**\*NNTN4187A** Integrated Microphone/Receiver System with Remote Push-to-Talk Body Switch (includes AAHLN9717 radio adapter)



NTN1723A

\* Intrinsically safe

## Portable Accessories

### Audio Accessories



NTN1737A

**\*NTN1737A** Integrated Microphone/Receiver with Snap-On-Side PTT

**NKN6510A** Replacement Palm PTT Cable for NTN1723A

**NKN6508A** Replacement Cable for NTN1722A

**NKN6512A** Replacement Ring PTT Cable for NTN1724A

**NKN6525A** Replacement Cable with Snap-On-Side PTT for the NTN1737A

**NNTN4188A** Replacement Body Switch Push-to-Talk Cable for NNTN4187A

**NTN8821A** CommPort Maintenance Kit, includes replacement ear tubes (quantity 10), windscreens (quantity 2) and microphone seal strips (quantity 10)

**NTN8986A** Adhesive Pads (Quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (Quantity 10) for secure attachment to ear

**RLN5037A** Replacement Ear Tubes (qty 10)

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip

### Flexible Ear Receiver

The flexible ear receiver contains a flexible earloop and speaker and rests external to the ear.

**\*ENMN4013A** Flexible Ear Receiver

**7580372E11** Replacement Foam Ear Cushions for ENM4013A



ENMN4013A

### Audio Accessories

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discreet communications.

**\*AARMN4021A** Receive-only Earpiece (beige) (1-wire)

**\*AARMN4022A** Earpiece with Microphone and PTT Combined (beige) (2-wire)

**\*AARMN4028A** Receive-only Earpiece (black) (1-wire)

**\*AARMN4029A** Earpiece with Microphone and PTT Combined (black) (2-wire)



AARMN4028A

**\*ENMN4014A** Earpiece with Microphone and PTT separate (black) (3-wire)

**\*ENMN4017A** Earpiece with Microphone and PTT separate (beige) (3-wire)



ENMN4017A

#### Replacement Items

**5080371E73** Standard Rubber Eartips, Pack of 25, Beige

**5080371E75** Standard Rubber Eartips, Pack of 25, Black

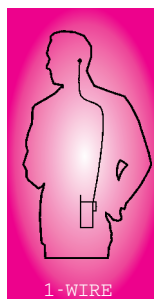
**5080369E40** Earloop, Plastic, Beige

**5080370E92** Earloop, Plastic, Black

**5880377E06** Plastic Earloop Adapter

**5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Beige

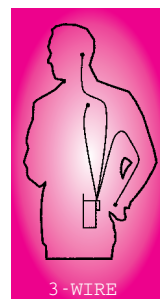
**5080369E90** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Black



1-WIRE



2-WIRE



3-WIRE

\* Intrinsicly safe

## Portable Accessories

### Audio Accessories

#### Completely Discreet Earpiece

Remain discreetly in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discreet two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. **Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discreet communication.**



RLN4922A

**RLN4922A** Completely Discreet Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4V Battery, 6 per pack

#### Surveillance Kits with Extended Wear Earpiece

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube (NTN8371A). Users can hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5316A** Comfort earpiece with combined microphone and push-to-talk; beige (2-wire kit)

**RLN5315A** Comfort earpiece with combined microphone and push-to-talk; black (2-wire kit)

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments provides 24 dB noise protection.



NTN8370A

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments; does not provide hearing protection

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Replacement Standard Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige

**5080371E75** Replacement Small Rubber Eartips, Pack of 25 (for use with NTN8371A), Black

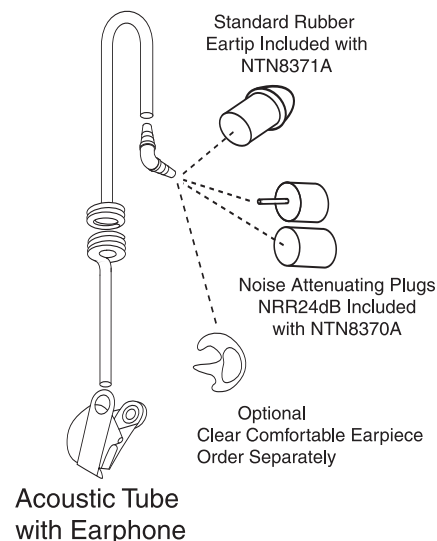


NTN8371A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. Does not provide hearing protection. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



\* Intrinsically safe

## Portable Accessories

### Audio Accessories

**RLN4760A** Small Custom Earpiece, right ear

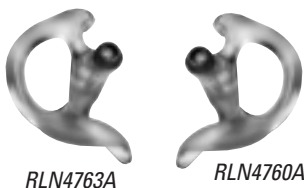
**RLN4763A** Small Custom Earpiece, left, ear

**RLN4761A** Medium Custom  
Earpiece, right ear

**RLN4764A** Medium Custom  
Earpiece, left ear

**RLN4762A** Large Custom Earpiece,  
right ear

**RLN4765A** Large Custom Earpiece, left ear



### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX). **Interface Module required.**



**BDN6641A**  
Requires  
interface module  
sold separately

**\*BDN6677A** Ear Microphone for Standard Noise Levels  
(up to 95dB, black)

**\*BDN6678A** Ear Microphone for Standard Noise Levels  
(up to 95dB, beige)

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105dB)

### Interface Modules for EMS

**\*AARMN4044A** Push-To-Talk Only Interface Module

**\*AARMN4045A** Push-To-Talk or Voice-Activated Interface Module

### Audio Accessories

#### Optional Accessories For EMS

**0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk  
Body Switch

**0180300E25** Earguard with Adjustable  
Loop; secures ear mic in ear

**0180358B32** Earholder, black size small;  
secures ear mic in ear

**0180358B33** Earholder, black, size medium;  
secures ear mic in ear



**0180300E83**

**0180358B34** Earholder, black,  
size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures  
ear mic in ear

**0180358B36** Earholder, clear, size medium;  
secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures  
ear mic in ear



**0180300E25**

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

\* Intrinsically safe

## Portable Accessories

### Audio Accessories



RMN4048A

#### Temple Transducer

The temple transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of this accessory rests on the temples and is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and

bone directly into the inner ear where it is received by the user. It features an in-line PTT and noise canceling boom microphone. The temple transducer enhances communication and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning, and fire alarms, the intercom, traffic and even casual conversations with their co-workers.

**\*RMN4048A** Temple Transducer

#### Ultra-Lite Headset

This headset is an ultra-lite behind the head-style headset that features a flexible boom microphone and In-line PTT, and is intended for low to moderate noise environments.

**\*ENMN4012A** Ultra-lite Headset



ENMN4012A

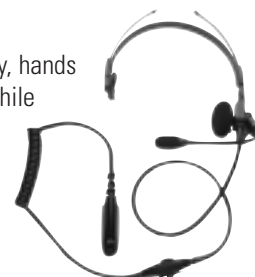
### Audio Accessories

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands free, discreet two-way communications while adding comfort necessary for extended wear in moderate noise environments.

**\*AARMN4018B** Lightweight Headset with Swivel Boom Microphone with In-Line PTT

**\*AARMN4031A** Lightweight Headset with Swivel Boom Microphone; no In-line PTT



AARMN4018B



AARMN4017A

**\*AARMN4017B** Ultralite Headset with Boom Microphone, ear bud style receiver

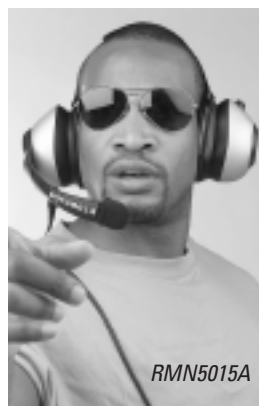
**REX4648A** Replacement Foam Earpad and Windscreen Kit for AARMN4018A and AARMN4013A

#### Racing Headset

Motorola is the official wireless equipment supplier of CART®, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.

**\*RMN5015A** Racing Headset (adapter cable required)

**RKN4091A** Adapter Cable



RMN5015A

\* Intrinsically safe



## Portable Accessories

### Audio Accessories

#### Medium Weight Headsets

Medium weight dual-muff headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*AARMN4019A** Over the Head with In-Line PTT and Noise Canceling Swivel Boom Microphone; provides 24dB of noise reduction

**\*AARMN4032A** Over the Head with Noise Canceling Swivel Boom Microphone; provides 24dB of noise reduction

**RMN4051B** Hardhat Mount Headset; Mounts easily to hardhats with slots. Provides 22dB of noise reduction. Requires RKN4097A Adapter cable, hardhat not included

**RKN4097A** Radio Adapter Cable with In-Line PTT for use with RMN4051A

**\*ENMN4016A** Medium-Duty Behind-the-Head Headset with Swivel Boom Microphone and In-line PTT. Provides 24dB of noise reduction.

#### Replacement Items

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Cover for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for windscreen



RMN4051B

### Audio Accessories

#### Tactical Medium Weight Headsets

Same high-clarity sound and additional hearing protection as our standard Medium Weight Headsets while including two microphones on the outside of each earcup which reproduces the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times but never more than 82dB. Includes on/off volume control on earcups.

**RMN4052A** Tactical Headband Style Headset, Grey. Provides 24dB of noise reduction. Requires RKN4097A Adapter cable

**RMN4053A** Tactical Hardhat Mount Headset; Mounts easily to hardhats with slots. Provides 22dB of noise reduction. Requires RKN4097A Adapter cable, hardhat not included



RMN4052A



RMN4053A

**RKN4097A** Radio Adapter Cable with In-Line PTT for use with RMN4052A and RMN4053A

**RLN4923A** Two Replacement Earseals for RMN4051A, RMN4052A and RMN4053A

#### Heavyduty Headsets

Heavyduty headsets include noise canceling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125dB. The Push-To-Talk switch is located on the earcup.

**\*AARMN4020B** Push-To-Talk or Voice Activated Headset with noise canceling boom microphone; noise reduction rating = 24dB

\* Intrinsically safe



## MTX850/850•LS/8250/8250•LS/950/9250 Series



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## Portable Accessories, Antennas

### Miscellaneous



RLN4890A

**RLN4890A** Assistive Turning Knobs. If your job requires you to wear large gloves, or if you have mobility or dexterity limitations, you will appreciate this added feature. Set of two specially designed knobs for volume control and channel changing.

**AAHLN9725C** Used with MTX8250•LS radios only Voice Storage Option Board (Field install only)

**HLN9820A** Accessory Dust Cover

### Antennas

#### Stubby Antennas

Stubby antennas are ideal when the radio is worn on the belt because the short antenna is non-obtrusive.

**8505241U06** 800/900 MHz  
1/2 Wave Stubby 806-942 MHz

8505241U06



#### Flexible Whip Antenna

Flexible whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**8505241U03** 800 MHz 1/2 Wave Whip 806-870 MHz



<https://www.motorola.com/businessonline>

## Batteries, Service Aids

### Batteries

#### Nickel-Cadmium Premium

Part Number: **HMN9011AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 4-13/16"  
Intrinsically Safe: Yes

Part Number: **HMN9012AR**  
Volts: 7.5  
Avg. mAh: 1300  
Height: 4-13/16"  
Intrinsically Safe: No

#### Nickel Metal Hydride Premium

Part Number: **HNN9008AR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 4-13/16"  
Intrinsically Safe: No

Part Number: **HNN9009AR**  
Volts: 7.5  
Avg. mAh: 1900  
Height: 4-13/16"  
Intrinsically Safe: No

Part Number: **HNN9010AR**  
Volts: 7.5  
Avg. mAh: 1800  
Height: 4-13/16"  
Intrinsically Safe: Yes



*HNN9008AR*

### Batteries

#### Nickel Metal Hydride PowerLine

Part Number: **WPNN4045AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 4-13/16"  
Intrinsically Safe: No

#### Lithium-ion Premium

Part Number: **HNN9013CR**  
Volts: 7.2  
Avg. mAh: 1500  
Height: 4-13/16"  
Intrinsically Safe: No

### Service Aids

#### Test Set

Portable test set enables connection to audio/accessory jack. Allows switching from radio testing.

**RLN4460C** Portable test set, enables connection to audio/accessory jack; allows switching from radio testing

#### Cables

**AARKN4074A** HT Series Programming/Test Cable – programming cables require a Radio Interface Box (RIB), also compatible with RLN4460A used for radio testing (Multi-Language Manual)

**RKN4073A** Used on MTX-LS radios only Cloning Cable (Multi-Language manual)

**RKN4074A** Programming/Test Cable, Connects Radio to RIB, also compatible with RLN4460 used for radio testing (Multi-Language manual)

**RKN4075A** Ribless Programming Cable provide interface between computer and radio – not compatible with RIB (Multi-Language manual)

**MTX850/850•LS/8250/8250•LS/950/9250 Series****Service Aids,  
Manuals****Service Aids****Adapters**

**5885705M02** BNC Adapter, Adapts Radio Antenna Port to BNC Cable Test Equipment

**Battery Eliminator**

**RLN4510A** Battery Eliminator, 7.5V Regulator (works with shop battery block 0180305G54)

**AA0180305G54** Battery Eliminator Cable, requires RLN4510A – 7.5V

**Housing Eliminator**

**AA8180384F68** Bench Testing Housing Eliminator

**Programming Software**

*Due to licensing requirements, software cannot be ordered through the Motorola web site. At this time, please contact our representative by calling 1-800-422-4210 to place your order.*

**HVN9025L** For MTX-LS Series radios, programs customer features/frequencies (CPS CD-ROM format only)

**HVN9067E** North American CPS CD; includes Universal Turner, HVN904A (note: includes CD + 68 getting started manual)

**H5177P** Programming Software (CPS) 3-year subscription; includes HVN9025G and HVN9067A; programming/test cable AARKN4074A

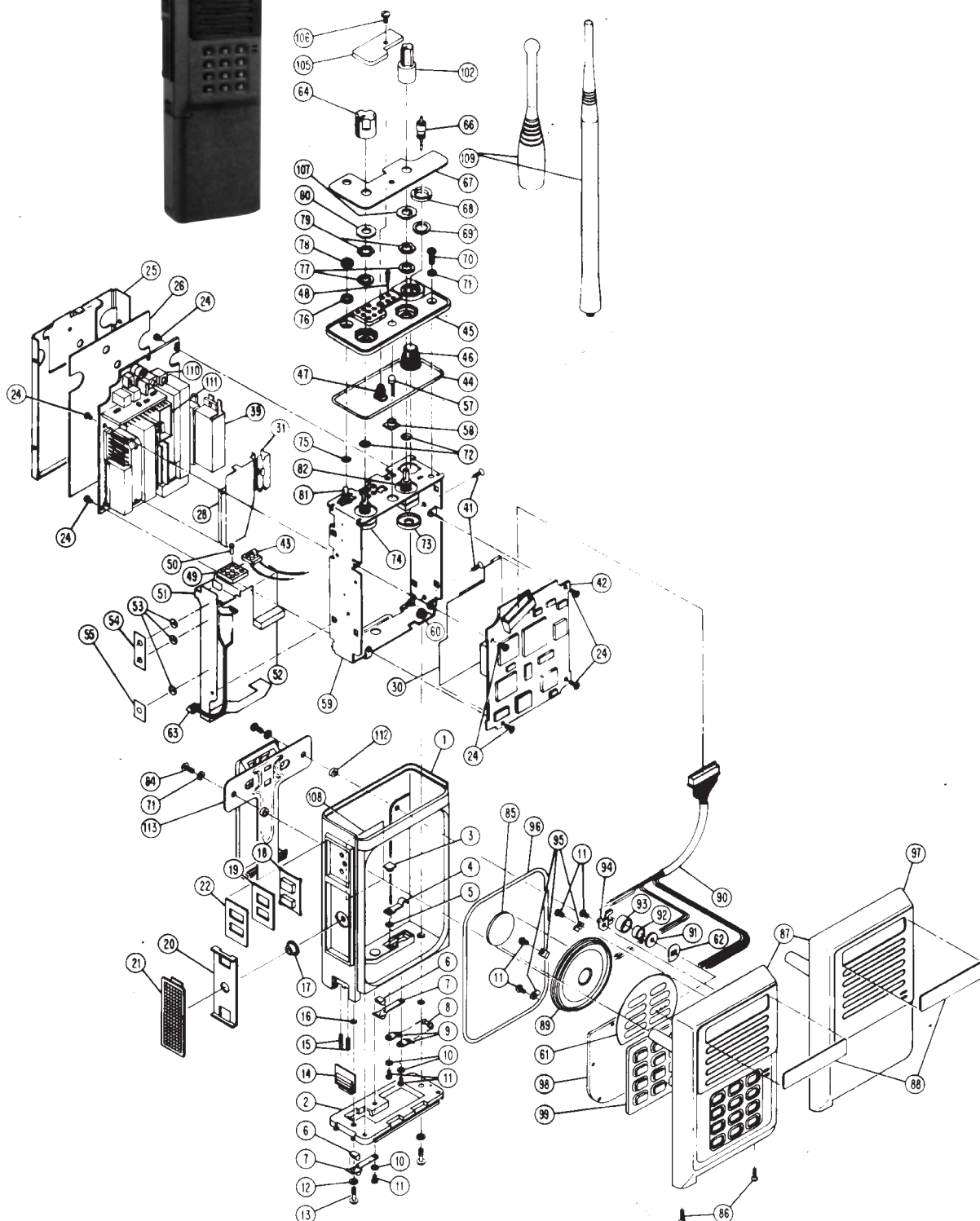
**Manuals**

<b>0180305J46</b>	Ear Microphone System and Temple Transducer CD-ROM
<b>6880906Z54</b>	Basic service manual
<b>6881088C46</b>	Detailed service manual
<b>6881093C80</b>	MTX850/LS User manual
<b>6881093C81</b>	MTX8250/LS User manual
<b>HHLN4233B</b>	MTX8250/MTX9250 User Manual



# MTX900 Series

## Parts List



Replacement parts are no longer available

## MTX900 Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION
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REF. NO.	PART NO.	DESCRIPTION
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***Cancelled Product MTX900:  
Aftermarket support criteria has  
been met for spare parts. Items  
are longer be available.***

## MTX900 Series

## Portable Accessories

### Chargers

A variety of chargers are available to fit the charging capabilities of your batteries. Choose rapid or regular rate, single, multiple or compact units.

#### Single Unit

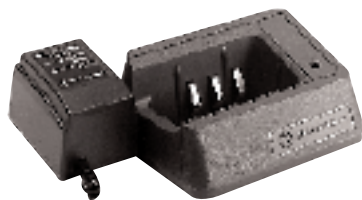
**NTN4633C** Single Unit,  
Rapid Rate Charge, 117V

**NTN4634B** Single Unit,  
Rapid Rate Charge, 220V

**NTN4636A** Single Unit, Regular Rate Charge, 220V



NTN4633C



NTN4666B

#### Compact

**NTN4666B** Compact,  
Regular Rate Charge, 117V

**NTN4667A** Compact,  
Regular Rate Charge, 220V

#### Multiple Unit

**NTN4668C** Multi-Unit  
Charger, Rapid Rate, 117V

**NLN7967A** Wall Mount  
for Six Unit Charger



NTN4668C



NTN5438A

#### Vehicular Charger

**NTN5438A** Vehicular Charger  
12V DC (16 Hour Charge Rate)

**NKN6428A** 12V Cable Kit. (Only  
required if not used with  
PAC•RT)

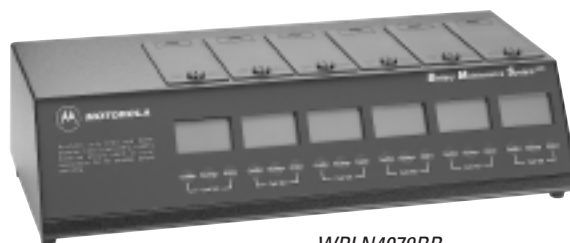
### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

#### BMS<sup>plus</sup> Adapter

**TDN9441A** Standard Adapter, MTX-900

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.



## MTX900 Series

### Portable Accessories

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter**

**RL-71173** Standard Adapter, MTX900

#### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.

**WPPN4009BR** 110V AC  
Base Charge Unit with  
adapter plate

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Mounting Bracket for single unit conditioning chargers



WPPN4009BR

## MTX900 Series

### Portable Accessories

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



NTN5460B

##### Standard

**NTN5460B** Leather Carrying Case, Spacer and T-Strap, for High or Medium Capacity Batteries (Snap)

##### Swivel

**NTN5461B** Leather Carrying Case with T-Strap, Spacer and Belt Loop, for High or Medium Capacity Batteries (Snap)

**NTN5450B** Leather DTMF Swivel Long (Snap)



NTN4814C

##### Belt Clip Carry Holder

**NTN4814C** Belt Clip Carry Holder



NTN5461B

#### Carrying Accessories

##### T-Straps

**4205386S03** T-Strap, Snap

**4205386S01** T-Strap, Velcro

**4205447R03** T-Strap for Belt Clip Carry Holder, Snap



4205386S01



4205447R03



HLN6602A

##### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602A

##### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

**RLN4570A** Break-A-Way Chest Pack; all of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure.

## MTX900 Series



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## Portable Accessories

### Carrying Accessories

#### Spacer

**4305525R02** Spacer for Carrying Cases



4305525R02

#### Belt Clips

**NTN4916B** Belt Clip, 1-1/2"

**NTN4924B** Belt Clip, 2-1/4"

**NTN5602A** Public Safety Full 3" Clip Black Aluminum



NTN4916B

#### Belt Loops

**4282421J06** Swivel Belt Loop, 2-1/2"

**4205857B01** Swivel Belt Loop, 2"



4282421J06

#### Button Back Cover Kit

**NTN5497A** T-Bar Button Back Cover Kit, Black



NTN5497A

#### Belt

**4200865599** 2" Wide Leather Belt, for all models



4200865599

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for Door Panels up to 2-3/4"

**TDN9373A** Portable Radio Hanger for Door Panels 2-3/4" to 3-1/4"



TDN9327A

### Audio Accessories

#### Remote Speaker/ Microphone

**NMN6156B** Remote Speaker Microphone with Coil Cord, Clip Back



NMN6156B

**NMN6145B** Remote Speaker Microphone with Clip, Coil Cord, and 2.5 mm Earphone Jack

**NMN6129B** UHF Public safety microphone (Antenna and velcro patch must be ordered separately)

**NLN8410A** Velcro Pin Patch Attachment



RLN4294A

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with Velcro or clip style strap.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip



RLN4295A



<https://www.motorola.com/businessonline>

## MTX900 Series

### Portable Accessories

#### Audio Accessories

##### Earpiece

**5083693B01** Earpiece and Volume Control (requires NTN4812B)

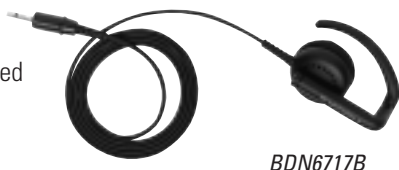
**5083693B04** Earpiece and Volume Control (3.5 mm)

##### Ear Receiver

**BDN6717B** Ear receiver with 3.5 mm plug, to be used with adapter NTN4812B

##### NTN4812B

Earphone Jack Adapter



BDN6717B

##### Ear Microphone System

This compact unit picks up the voice through bone vibrations in the ear canal. Ideal for use in high noise environments. Available in PTT or Voice-activated (VOX) capabilities for total hands free communications. Order Interface Module separately.



BDN6677A

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95 db), Black

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95 db), Beige

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105 db), Grey



BDN6641A

(Shown with BDN6680B)

##### Interface Module

**\*BDN6679B** Push-To-Talk Interface Module

**\*BDN6680B** Voice-Activated Interface Module

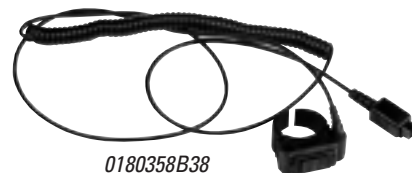
#### Audio Accessories

##### Optional Accessories

##### \*0180358B38

Remote Push-To-Talk Ring Switch

**0180300E25** Earguard with Adjustable Loop



0180358B38

**0180358B32** Earholder, Black, Size Small; secures ear mic in ear

**0180358B33** Earholder, Black, Size Medium; secures ear mic in ear

**0180358B34** Earholder, Black, Size Large; secures ear mic in ear

**0180358B35** Earholder, Clear, Size Small; secures ear mic in ear

**0180358B36** Earholder, Clear, Size Medium; secures ear mic in ear

**0180358B37** Earholder, Clear, Size Large; secures ear mic in ear



0180358B33

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

##### Optional Surveillance

**ZMN6031A** Three wire surveillance accessory with earpiece, microphone and push-to-talk as separate pieces. Factory Mutual Approved. Requires NTN5075B.



ZMN6031A

\* Intrinsically safe

## MTX900 Series

## Portable Accessories

### Audio Accessories

**ZMN6032A** Two-wire surveillance accessory with earpiece microphone and push-to-talk. Microphone and PTT are combined. Factory Mutual Approved. Requires NTN5075B



ZMN6032A

**NTN5075B** Hirose Adapter for two- and three-wire Surveillance Accessories.

### Noise Kits

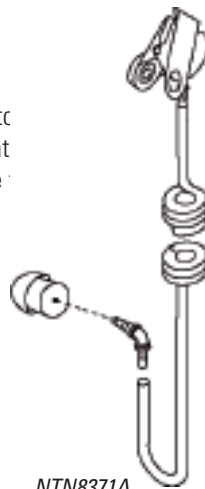
Lightweight translucent tube attaches to Motc surveillance accessories. Clothing clip prevent accessory from being pulled from the ear due to movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs. Pack of 50 (for use with NTN8370A)

**5080371E73** Replacement Standard Rubber Eartips. Pack of 25 (for use with NTN8371A), beige



NTN8371A



RLN4763A

### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert,

hypoallergenic material.

There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left, ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

### Audio Accessories

#### Headsets

All headset accessories include radio cables and can be plugged directly into radio. No additional equipment is required.

#### Low to Moderate Noise Levels (Up to 90 dB)

Lightweight headset with electret condenser microphone and single speaker.

*Not for use with headgear.*

**BDN6477A** In-Line Push-To-Talk



BDN6478A

**BDN6478A** Pendant-Thumb Push-To-Talk

#### High Noise Levels (to 115 dB)

Noise-attenuating headset with military noise-cancelling microphone and dual speaker.

*Not for Use With headgear*

**BDN6482A** Pendant-Thumb Push-To-Talk

**BDN6485A** In-Line Push-To-Talk

*Can be worn with or without hardhat or helmet*

**BDN6486A** Pendant-Thumb Push-To-Talk

## MTX900 Series

## Portable Accessories

### Audio Accessories

#### High noise level headset (up to 125 db)

Heavy-duty headset with noise cancelling microphone and push-to-talk switch located on earcup. VOX module contained within headset on voice activated units. Factory Mutual Approved. *NOTE:* Can be worn with or without hard hat or fire helmet.

##### BDN6639A Adapter Cable

**BDN6645A** Push-To-talk Headset with Boom Microphone, Requires Adapter Cable



*BDN6645A  
(Shown with  
adapter cable  
BDN6639A)*

**BDN6635B** Voice-Activated Headset with Boom Microphone, Requires Adapter Cable



*BDN6635B  
(Shown with  
adapter cable  
BDN6639A)*

**BDN6636B** Voice-Activated Headset with Throat Microphone, Requires Adapter Cable



*BDN6636B*

#### Lightweight Headset

**RMN4015A** Lightweight Headset with Swivel Boom Microphone, Single Speaker and In-line PTT



*RMN4015A*

### Audio Accessories

#### Helmet Accessories

All helmet and face mask kits require a radio cable assembly.

#### Industrial Helmet Accessories

Hardhat kit includes military noise-cancelling microphone. Choice of single or dual speaker, for use with the Bullard 302/303. Requires one of the following cable kits.

#### Single Speaker

**BDN6275A** Helmet Kit

#### Police Helmet Accessories

Police helmet kit has military noise-cancelling microphone with choice of single or dual speaker.

#### Single Speaker

**BDN6362A** Bell SD600 (BT600) 1/2 Shell Helmet Kit

**BDN6277A** Seer 1601,1602 Helmet Kit

#### Dual Speaker

**BDN6363A** Bell SD600 (BT600) 1/2 Shell Helmet Kit

**BDN6492A** Cable Kit, Includes transmit switch, volume control, microphone electronics, and remote push-to-talk jack built into a belt-mounted control box

**BDN6292A** Handlebar PTT switch for belt mounted control box (For use with BDN6492 Cable Kit)



## MTX900 Series

## Portable Accessories, Antennas



### Vehicular Adapter

The Basic MVA console kits may be ordered separately. These items allow use of the portable radio in a mobile application. Order antenna separately.

**NSN6054A** 12-Watt External Speaker



NSN6054A

**HMN1056D** Microphone, Compact Palm

**HMN1035C** Microphone, Heavy-Duty Palm

**HMN3013A** Microphone, DTMF



HMN1056D

### Portable Antennas

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**8505241U04**

Flexible Whip, 896-941MHz, 7"

#### Vehicular Antenna Kit

Allows user to convert their portable radio into a mobile application. Comes complete with Mobile Antenna, Cable, Custom Adapter and Connector.

**RAF4001ARG**

Vehicular Antenna Kit

#### Dipole Antenna

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

**8505884R02**

Dipole, 896-941MHz, 8"



8505884R02

#### Stubby Antennas

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**\*8505241U06**

Stubby, 806-941MHz, 4"



8505241U06

\* 8505241U06 is a broad band antenna that operates in the 800/900 MHz band.



<https://www.motorola.com/businessonline>

## MTX900 Series

## Batteries, Service Aids

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN4823BR**  
Volts: 10  
Avg. mAh: 550  
Height: 2-7/16"  
Intrinsically Safe: Yes



NTN4823BR

Part Number: **NTN5447BR**  
Volts: 10  
Avg. mAh: 1100  
Height: 3-5/16"  
Intrinsically Safe: No

Part Number: **NTN5448BR**  
Volts: 10  
Avg. mAh: 1000  
Height: 3-5/16"  
Intrinsically Safe: Yes

#### Nickel Metal Hydride Premium

Part Number: **NTN7015A**  
Volts: 10  
Avg. mAh: 950  
Height: 2-7/16"  
Intrinsically Safe: No

#### Alkaline

Part Number: **NTN4870B**  
Volts: (NA)  
Avg. mAh: 2100  
Height: 3-5/16"  
Intrinsically Safe: No

### Service Aids

#### Battery Eliminator

The battery eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.

**RTL4226B** Battery Eliminator



RTL4226B

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E

#### Computer Interface Cable

Used to connect computer's serial adapter to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable to 9 pin D



3080369B71

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN40008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

## MTX900 Series

## Service Aids, Tools, Manuals

### Service Aids

#### Radio Test and Programming Cable

Cable Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RTK4205C** Test and Programming Cable

#### Battery Adapter



1580368B62

Replaces radio housing during servicing and provides easy mounting for battery eliminator, RTL4226B.

**1580368B62** Battery Adapter

#### Field Modification Kit

Allows for quick field modification of RTX4005 "A" test sets to provide operation with MTX800 Radios.

**RPX4665A** Field Modification Kit RTX4005A



RPX4665A

### Service Tools

#### SMA to BNC Adapter

**5880384G68** SMA to BNC Adapter

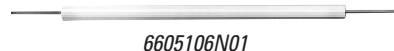
#### Programming Software

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables, order separately.

**RVN4033J** Programming Software, 3-1/2" diskette (includes manual and storage box)

#### Tuning Tool

**6605106N01** Tuning Tool, Adjusts Tunable Coils and Potentiometers



6605106N01



RSX4043A

#### Torque Screwdriver

**RSX4043A** Torque Screwdriver, Order Bits Separately

**6680371B34** Spanner Bit, for Antenna Bushing Nut

**6680371B03** Hex Nut Driver Bit, for Volume Pot and Rotary Switch Nuts

**6680370B95** Spanner Bit, for Toggle Switch Spanner Nut

**6680321B86** Phillips Bit #0 for Housing and Chassis Screws

**6680342A66** Spanner Bit for Antenna Retainer Connector



6680321B86

### Manuals

**6881069C30**

Service Manual

**6881054C40**

Theory/Maintenance Manual

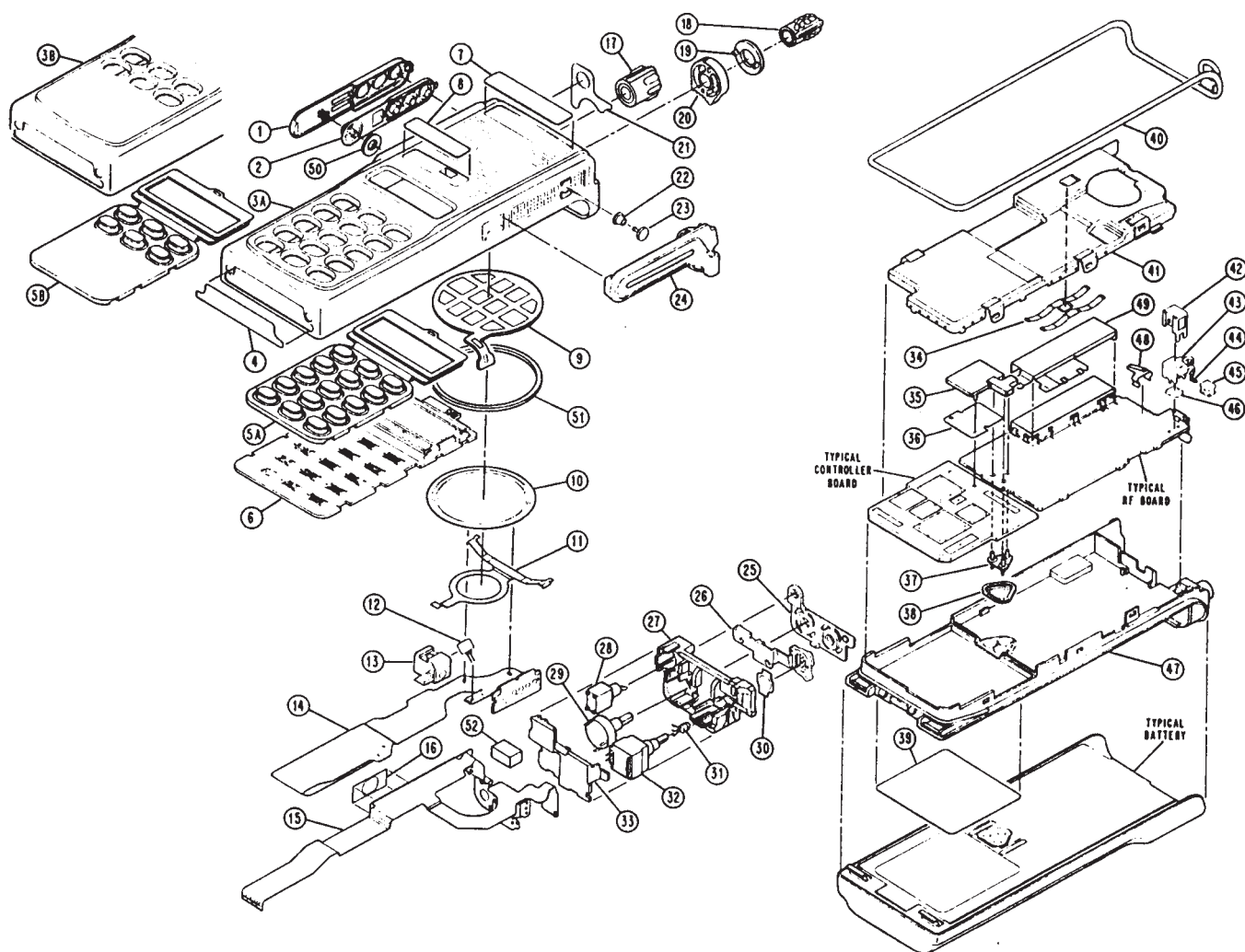
**6881054C35**

Operating Conventional Manual/Trunked Manual

**0180305J46**

Ear Microphone System and Temple Transducer CD-ROM

## Parts List



# MTX9000 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>4505896U02</b>	Lever, PTT	30	<b>3905329W01</b>	Popple, Emergency Button
2	<b>3205902U01</b>	Seal, PTT, and Actuator for S404, S405, S406, and S408	31	See Note 1	LED (CR702A/CR702B) – not available
3A	<b>1505637V04</b>	Cover, Front; Full Keypad	32	See Note 1	Switch, Frequency (S401) – not available
3B	<b>1505637V05</b>	Cover, Front; Limited Keypad	33	<b>1505632V01</b>	Cover, Switch Housing
4	----	Label, Agency Approval; not field replaceable	34	----	Spring, PA; not field replaceable, order front shield (item 41)
5A	<b>7505870U01</b>	Keypad, 15-key	35	<b>4205507X01</b>	Strain Relief
5B	<b>7505870U02</b>	Keypad, 6-key	36	<b>8405247V01</b>	FLEX, Jumper
6	<b>5105238U83</b>	Module, Display	37	See Note 2	Plug, Connector (P404) – not available
7	<b>3305183R55</b>	Label, Motorola	38	<b>3205820V01</b>	Seal, Connector Plug
8	<b>3305183R73</b>	Label, MTX9000	39	----	Label, Rear; Information; not field replaceable
9	<b>3305535X02</b>	Felt, Speaker	40	<b>3205176Z01</b>	"O" Ring, Contoured/Seal, Antenna
10	See Note 1	Speaker (LS401) – not available	41	<b>2605891U02</b>	Shield, Front
11	<b>0705470V01</b>	Bracket, Speaker Retainer	42	<b>4005831W01</b>	Bracket, RF Switch
12	See Note 1	Microphone (MK401) – not available	43	----	Housing, RF Switch
13	<b>1405330W02</b>	Boot, Microphone	44	<b>4105266V01</b>	Spring, RF Switch
14	<b>8405310W04</b>	FLEX, Front Cover/Display	45	<b>4405524V01</b>	Piston, RF Switch
15	<b>8405333W03</b>	FLEX, Controls	46	----	Circuit Board, RF Switch
16	<b>3905517V01</b>	Popple, PTT (p/o S406)	47	<b>1505892U06</b>	Chassis (Rear Cover)
17	<b>3605253V01</b>	Knob, On/Off/Volume	48	<b>3905838V01</b>	Contact, Antenna Shield Ground (800 MHz and 900 MHz radios only)
18	<b>3605636V01</b>	Knob, Frequency	49	<b>2605898U01</b>	Shield, PA (800 MHz and 900 MHz radios only)
19	<b>1305633V01</b>	Ring, Concentric; Escutcheon	50	<b>0405717W01</b>	Washer, PTT Seal
20	<b>3605635V01</b>	Knob, Concentric Ring	52	<b>7505393N33</b>	Pad, Shock
21	<b>1305698V01</b>	Escutcheon, Control Top			
22	<b>3205160W01</b>	Seal, Actuator; for S101			
23	<b>2205159W01</b>	Pin, Actuator; for S101			
25	<b>3205177Z01</b>	Seal, Control Top			
26	<b>3905329W01</b>	Seal, Emergency Button			
27	<b>2705877U01</b>	Housing, Switch			
28	See Note 1	Switch, Toggle (S402) – not available			
29	See Note 1	Potentiometer/Switch, On/Off/Volume Control (R401/S403) – not available			

### NOTES:

1. Refer to electrical parts list (miscellaneous) for part number and complete description.
2. Refer to electrical parts list (transceiver board) for part number and complete description.

## MTX9000 Series

### Portable Accessories

#### Chargers

Single unit chargers are available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola. All chargers listed are rapid rate and will fully charge your battery in less than 3 hours.

#### Single Unit Compact Bi-Chemistry Chargers – Rapid Rate

The bi-chem charger has the power supply built into the line cord giving the user a smaller base unit for easier storage. It also utilizes an enhanced charging algorithm that will help maximize the life of your batteries. It will rapid rate charge both NiCd and NiMH batteries.

**RPX4747A** Compact Bi-Chem Charger, 110V

**RPX4748A** Compact Bi-Chem Charger, 230V Euro plug

**RPX4749A** Compact Bi-Chem Charger, 230V UK plug

#### Chargers

#### Multiple Unit Charger (MUC)

Multi-unit chargers offer six pockets that can be used to rapid charge 1 to 6 batteries simultaneously. The batteries can be charged with the radios or separately. They will rapid rate charge both NiCd and NiMH batteries.

**NTN1177D** Six-Pocket, rapid rate 110V

**NTN1178D** Six-Pocket, rapid rate, 220V (supplied with 2 prong cord)

**NTN1179D** Six-Pocket, rapid rate, 240V (supplied with 3 flat prong cord)



NTN1177D

#### MUC Accessories

**NLN7967A** Wall Mount

#### Travel Charger

**RLN4884A** Travel Charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.



RLN4884A

#### Travel Charger Mounting Bracket

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

#### Travel Charger AC Transformer

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)



## MTX9000 Series

### Portable Accessories

#### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified nickel cadmium (NiCd) and nickel metal hydride (NiMH) batteries in approximately an hour.

**WPLN4090BR** MCC Kit, 110V AC; includes both base unit and 7V adapter

**WPLN4091BR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**WPPN4002BR** 110V AC Base Charge Unit Only (order adapter plate separately)

**WPPN4006AR** 220V AC Base Charge Unit Only (order adapter plate separately)

**WPPN4065BR** Multi-Unit Conditioning Charger Four Station Base 110V (order adapter plate separately)

**WPPN4004BR** 7 Volt Adapter Only

**3080384G15** Cigarette Lighter Adapter Cord; MCC multi-unit conditioning charger

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger

**3080384M21** DC Hard wire cable for vehicular installation (included in RLN4814A)



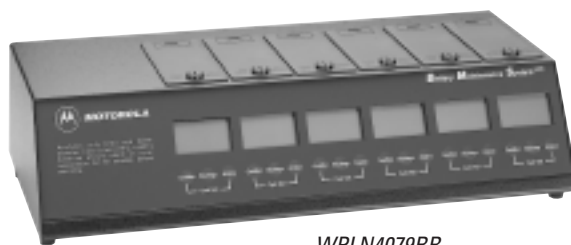
WPPN4002BR

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

##### **Increase the useful life of your batteries.**

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS Plus field upgrade kit for WPLN4079AR, WPLN4080AR and WPLN4081AR allows these units to support Li-ion battery chemistries

**NDN4005B** Three-Station 110V AC, 50/60 Hz

**NDN4006B** Three-Station 230V AC, 50/60 Hz



TDN9435C

##### **BMS<sup>plus</sup> Adapter**

**TDN9435C** Adapter Compatible with NiCd Batteries Only

**CDN6364A** Adapter Compatible with Both NiCd and NiMH Batteries

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## MTX9000 Series



### Portable Accessories

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### BOS II Adapter

**RL-72403** Standard Adapter

#### impres™ Smart Energy System



WPLN4111AR

The impres smart energy system ensures maximum talk-time and optimized battery cycle life through the use of its advanced charging algorithm and automatic reconditioning features. The smart energy system reconditions impres batteries when they need it, automatically, keeping them in peak condition. It's advanced conditioning

features allow batteries to be safely left on the charger for extended periods of time without incurring the damaging heat build-up which can rob batteries of cycle life. In addition, batteries left on the charger are kept fully charged so they are always ready when you need them. The impres system reconditions batteries when they need it based on their usage pattern. Talk time and cycle life are optimized and the need for manual maintenance programs reduced or eliminated. This rapid-rate tri-chemistry charging system will also charge existing legacy batteries and supports multiple radio platforms including Saber, XTS, and HT1000 series portables.

**WPLN4111AR** impres single unit charger

**WPLN4108BR** impres multi unit charger

#### impres™ Multi-Unit Charger with Display Modules

The impres Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impres battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time which lets the user know when the impres battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage and charge status including the version of the charger and display modules.

**WPLN4130AR** Multi-Unit Charger with Display Modules

**RLN5382A** Charger Display Module for impres multi-unit charger version 1.3 or later

**RLN5591A** Charger Display Module for impres multi-unit charger version 1.2 or earlier. (Requires unit to be sent to the Rockford Service Center – instruction sheet provided)



WPLN4130AR

## MTX9000 Series

### Portable Accessories

#### impres™ Smart Energy System

##### impres™ Bundle Packs

Provide significant savings on the impres products by bundling a charger and batteries together as a smart energy system package.

**RLN5265A** impres™ single unit charger with two HNN9029AR batteries

**RLN5266A** impres™ single unit charger with two HNN9028AR batteries

**RLN5439B** impres™ multi unit charger with six HNN9029AR batteries

**RLN5440B** impres™ multi unit charger with six HNN9028AR batteries

#### Vehicular Charger

This 12V DC charger is ideal for mobile customers; it charges portable radio NiCd batteries in rapid charge mode (in less than 3 hours) until full charge is obtained and then switches to trickle charge mode. A microprocessor controls the charge rate. This durable unit comes with a metal mounting bracket and is PAC-RT compatible.

**TDN9816A** Vehicular Charger



TDN9816A

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

##### Standard Belt Loop Carrying Cases



NTN7247A

**NTN7238A** Leather Carry Case with Belt Loop and T-Strap for use with high capacity battery

**NTN7239A** Leather Carry Case with Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4018B** DTMF Leather Carry Case with Belt Loop for use with high and ultra-high capacity batteries

**NTN7247A** Nylon Carry Case with Belt Loop and Strap for use with high and ultra-high capacity batteries

##### High Activity Swivel Carrying Cases

The following carrying cases have a high activity swivel "D" button and belt loop. To remove case from belt loop, rotate case 180 degrees and slide case upward, out of the holder. Case stays on belt more securely in high activity applications versus standard swivel cases while allowing the radio to swing freely with body movements.

**NTN8035B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8037B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with high capacity battery

**NTN8036B** Leather Carry Case with 2.5" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery



NTN8036B

## MTX9000 Series

### Portable Accessories

#### Carrying Accessories



NTN8038A

**NTN8038B** Leather Carry Case with 3.0" High Activity Swivel Belt Loop and T-Strap for use with ultra-high capacity battery

**NDN4017B** DTMF Leather Carry Case with 3.0" High Activity Swivel Belt Loop and Antenna Strap for use with high and ultra-high capacity battery

#### T-Strap

**NTN7782A** T-Strap for leather Carry Cases

**NTN7376A** T-Strap for nylon carry cases

#### Belt Clips

**4205638V07** 3" Belt clip

**4205638V09** 2.5" Belt clip

#### Belt Loops

**NTN8039B** 2.5" High Activity Swivel Belt Loop

**NTN8040B** 3.0" High Activity Swivel Belt Loop

**NTN1534A** High-activity "D" button and 2.5" belt loop

**NTN1535A** High-activity "D" button and 3.0" belt loop

**NTN8063A** "D" Button, High-activity



4200865599

#### Belt

**4200865599** 1.75" Wide Black Belt

#### Carrying Strap

**NTN5243A** Shoulder Carry Strap, allows easy carrying of radio in a case when not wearing a belt



NTN5243A

#### Waterproof Bag

**HLN9985B** Waterproof bag includes large carrying strap

#### Carrying Accessories

#### Swiveller

**TDN9684A** Swiveller, includes clip button, holster and belt



TDN9684A

#### Swiveller Replacement Accessories

**TDN9690A** Clip button, mounts on battery

**TDN9688A** Holster, compatible with all buttons

**TDN9687A** Belt, 2" nylon



TDN9687A

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"



TDN9327A

#### Universal Holders

**RLN4943A** Universal holder with gooseneck bracket

**RLN4944A** Wheelchair quick release assembly

**RLN4945A** Universal holder with gooseneck bracket and wheelchair quick release assembly

## MTX9000 Series

## Portable Accessories

### Carrying Accessories

#### Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pouch

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

#### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"



### Audio Accessories

#### Remote Speaker Microphones (RSM)

Allows you to talk and listen without removing the radio from the belt case or charger. Ideal for high noise level environments. These water resistant microphones include coil cord, 3.5mm earjack, swivel clothing clip and quick disconnect latch.

##### \*NMN6193B

Remote Speaker Microphone

**\*NMN6191C** Noise Cancelling Remote Speaker Microphone



NMN6193B

**0104010J46** Replacement Coil Cord Cable Assembly for Remote Speaker Microphones

**RLN5002A** MicJacket Kit; compatible with NMN6191 and NMN6193 remote speaker microphones

#### Public Safety Speaker Microphones (PSM)

Public Safety Speaker Microphones include straight cord assembly, 3.5mm earjack, swivel clothing clip, quick disconnect latch, antenna connector, and receiver, audio high/low volume push button. Antenna must be ordered separately. Use radio antennas on page 333.

**\*NMN6228C** 30" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6243B** 18" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**\*NMN6244B** 24" Noise-Cancelling Public Safety Speaker/Microphone, straight cord

**0104004J29** 30" Public Safety Microphone Cable

**0104004J46** 18" Public Safety Microphone Cable

**0104004J47** 24" Public Safety Microphone Cable

**REX4410C** PTT Paddle Replacement Lit for Remote and Public Safety Microphones

**RLN5004A** MicJacket Kit; compatible with NMN6228, NMN6243 and NMN6244 remote speaker microphones

\* Intrinsically safe



## MTX9000 Series

### Portable Accessories

#### Audio Accessories

##### RSM Accessories

###### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile environments.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip



###### Audio Accessories for the RSM

Plugged into the 3.5mm earjack on the RSM audio adapter, these audio accessories will mute the speaker on the RSM allowing the user to discretely hear all incoming messages. Ideal for noisy environments. The following audio accessories can also be plugged directly into the radio with the BDN6676D audio adapter.

**BDN6781A** Pellet Style Earpiece

**BDN6719A** Flexible Ear Receiver

##### Headsets for the RSM and PSM

**RMN4056B** Receive-Only Dual Muff Headband Style Headset; provides 24dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RMN4057B** Receive-Only Hardhat Mount mounts easily to hardhats with slots and provides 22dB of noise reduction; for use with all Remote and Public Safety Microphones with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RLN4923A** Replacement Earseals for RMN4056A and RMN4057A



#### Audio Accessories

##### CommPort: Integrated Microphone/Receiver System

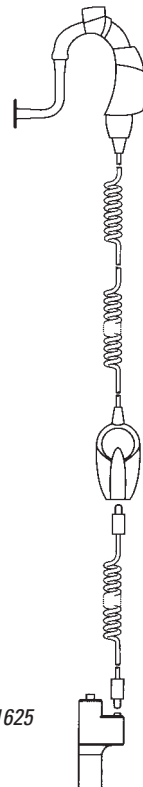
CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1624A** Integrated Ear Microphone/Receiver System w/Palm PTT (includes BDN6676D 3.5mm Jack Adapter)



**\*NTN1625A** Integrated Ear Microphone/Receiver System with PTT on radio adapter (includes BDN6676D 3.5mm Jack Adapter)

**\*NTN1663A** Integrated Ear Microphone/Receiver System with Ring PTT (includes BDN6676 3.5mm Jack Adapter)





## MTX9000 Series

## Portable Accessories

### Audio Accessories

**NNTN4186A** CommPort(TM) Integrated Microphone/Receiver with Body PTT

**NTN1736A** CommPort integrated microphone/receiver with snap on side PTT

**NNTN4188A** Replacement Remote Push-to-Talk Body Switch

**NKN6510A** Replacement Cable for NTN1624

**NKN6508A** Replacement Cable for NTN1625

**NKN6512A** Replacement Cable for NTN1663

**NKN6525A** Replacement cable with snap on side PTT

**NTN8821A** CommPort Maintenance Kit, Includes Replacement Ear Tubes (Quantity 10), Windscreens (Quantity 2) and Microphone Seal Strips (Quantity 10)

**NTN8986A** Adhesive Pads (Quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (Quantity 10), for secure attachment to ear

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip

**RLN5037A** Replacement Ear tubes (Quantity 10)

### Audio Accessories

#### Surveillance Accessories

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

The following surveillance accessories require the BDN6676D (3.5 mm threaded adapter jack) that attaches to the radio, unless being used with speaker/microphone.

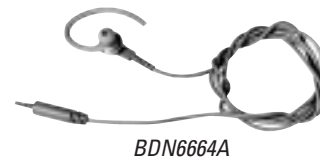
Receive-only Surveillance Kit (1-Wire)

**\*BDN6664A** Beige

**\*BDN6665A** Beige

**BDN6726A** Black

**BDN6727A** Black



Receive-only Surveillance Kit with Volume Control (1-Wire)

**\*BDN6666A** Beige

**BDN6728A** Black



Surveillance Kit with Microphone and Push-To-Talk Combined (2-Wire)

**\*BDN6667A** Beige

**\*BDN6669A** Beige

**BDN6729A** Black

**BDN6731A** Black



Surveillance Kit with Microphone and Push-To-Talk Separate (3-Wire)

**\*BDN6668A** Beige

**\*BDN6670A** Beige

**BDN6730A** Black

**BDN6732A** Black

**\*BDN6676D** 3.5mm Jack Adapter with Quick Disconnect Latch



\* Intrinsicly safe

## MTX9000 Series

### Portable Accessories

#### Audio Accessories

##### Surveillance Kit Replacement Accessories

**5080369E38** Standard Earpiece Assembly, includes earphone, earloop and eartip, beige

**5080370E90** Standard Earpiece Assembly includes earphone, earloop and eartip, black

**5080369E39** Extra Loud Assembly, includes earphone, earloop and eartip, beige

**5080370E91** Extra Loud Earpiece Assembly, includes earphone, earloop and eartip, black

**5080369E40** Plastic Urethane Earloop, beige

**5080370E92** Plastic Urethane Earloop, black

**5080371E69** Small Rubber Eartip, beige, pack of 25

**5080371E71** Small Rubber Eartip, black, pack of 25

**5080371E73** Standard Rubber Eartip, beige, pack of 25

**5080371E75** Standard Rubber Eartip, black, pack of 25

**5880377E06** Plastic Eartip Adapter, pack of 10



5080369E39



5080370E92

##### Surveillance Kits with Extended Wear Earpiece

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube. Users can hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5311A** Beige Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk; requires BDN6676D audio adapter

**RLN5312A** Black Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk; requires BDN6676D audio adapter

**RLN5313A** Receive-Only Comfort Earpiece, black

**RLN5314A** Receive-Only Comfort Earpiece, beige

#### Audio Accessories

##### Completely Discrete Earpiece

Remain discretely in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discrete two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. **Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discrete communication.**

**RLN4922A** Completely Discrete Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4V Battery, 6 per pack



RLN4922A

## MTX9000 Series

## Portable Accessories

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Replacement Standard Rubber Eartips; pack of 50 (for use with NTN8371A), beige

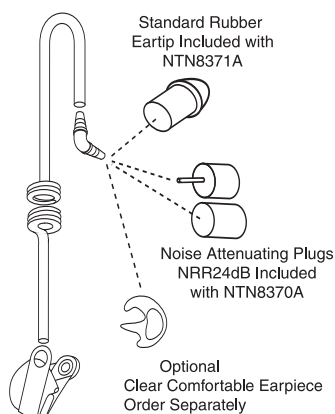


NTN8370A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



Acoustic Tube  
with Earphone

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX). Interface Module needs to be ordered separately for EMS to work

**\*BDN6677A** Ear Microphone for Sta Noise Levels (up to 95dB, black)

**\*BDN6678A** Ear Microphone for Sta Noise Levels (up to 95dB, beige)

**\*BDN6641A** Ear Microphone for Hig Noise Levels (up to 105dB)



BDN6641A  
Shown with  
interface module



BDN6708B

#### Interface Module For EMS

**\*BDN6708B** Push-To-Talk Interface Module

**\*BDN6671B** Push-To-Talk or Voice-Activated Interface Module

\* Intrinsically safe

## MTX9000 Series

## Portable Accessories

### Audio Accessories

#### Optional Accessories For EMS

**\*0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk Body Switch

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear



0180358B38



0180358B33

**0180358B32** Earholder, black size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

#### Flexible Ear Receiver

**BDN6719A** Ear Receiver with 3.5 mm Threaded Plug, requires adapter BDN6676D unless being used with speaker microphone

**7580372E11** Replacement Foam Ear Cushions for BDN6719A



BDN6719A

### Audio Accessories

#### Pellet Style Earpieces

**BDN6780A** Single Earbud with Microphone and Push-To-Talk, requires adapter BDN6676D, unless being used with speaker microphone

**BDN6781A** Single Earbud, receive only; requires adapter BDN6676D unless being used with speaker microphone



BDN6780A

**5780372E70** Replacement Foam Ear Cushion for Pellet Earpieces

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands-free, discrete two-way communication, while adding comfort necessary for extended wear in moderate noise environments. Requires BDN6676D Audio Adapter.

**\*NMN6245A** Single Muff Lightweight Headset with In-line Push-To-Talk Switch (requires BDN6676D adapter)

**\*NMN6246B** Ultralite Headset with Boom Microphone and In-line Push-To-Talk Switch; ear bud style receiver (requires BDN6676B adapter)

**\*NMN1020A** Lightweight Headset with Boom Microphone to be worn on a helmet or safety glasses. Includes NKN6498A adapter cable. Requires BDN6676D adapter. FM approved.

**\*NKN6498A** Headset Adapter Cable for use with NMN1020A

**REX4648A** Replacement Foam Earpad and Windscreen Kit for NMN6245A

**5080574E02** Foam Earpads for use with NMN6245A, 10 per pack

\* Intrinsically safe

## MTX9000 Series

### Portable Accessories

#### Audio Accessories

##### Temple Transducer



RMN4049A

The Temple Transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of the accessory rests on the temples and it is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and bone directly into the

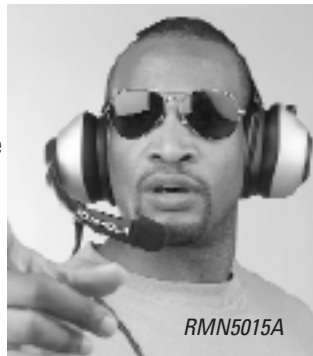
inner ear where it is received by the user. It features an in-line PTT and noise canceling boom microphone. The Temple Transducer enhances communications and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning and fire alarms, the intercom, traffic, and even casual conversations with their co-workers.

**RMN4049A** Temple Transducer

##### Racing Headset

Motorola is the Official Wireless Equipment supplier of CART®, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.

**RMN5015A** Racing Headset  
(Requires radio adapter cable BDN6673B)



RMN5015A

#### Audio Accessories

##### Medium Weight Headsets

Medium Weight Headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*NMN6258A** Medium Weight Headset, over the head with In-Line PTT, Noise Reduction Rating = 24dB

**\*NMN6259A** Medium Weight Headset, behind the head with In-Line PTT, Noise Reduction Rating = 24dB

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6259A

**RMN4051A** Hardhat Mount Headset mounts easily to hardhats with slots and provides 22dB of noise reduction; requires RKN4095A adapter cable, hardhat not included

**RKN4095A** Radio Adapter Cable with In-Line PTT for use with RMN4051A



NMN6258A

## Portable Accessories

### Audio Accessories

#### Tactical Medium Weight Headsets



RMN4052A

Same high-clarity sound and additional hearing protection as our standard medium weight headsets while including two microphones on the outside of each earcup which reproduces the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times but never more than 82dB. Includes on/off volume control on ear cups.

**RMN4052A** Tactical Headband Style Headset, grey; provides 24dB of noise reduction and requires RKN4095A adapter cable

**RMN4053A** Tactical Hardhat Mount Headset mounts easily to hardhats with slots; provides 22dB of noise reduction and requires RKN4095A adapter cable, hardhat not included

**RKN4095A** Radio Adapter Cable with In-Line PTT for use with RMN4051A and RMN4053A

**RLN4923A** Two Replacement Snap-in Earseals; Recommended replacement interval is once every six months to ensure constant level of attenuation hygiene and comfort for RMN4051A, RMN4052A, and RMN4053A.

### Audio Accessories

#### Heavyduty Headsets

Heavyduty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125 dB. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. Heavyduty headsets require radio adapter cable BDN6673B, to be ordered separately.



BDN6645A

**\*BDN6645A** Push-To-Talk Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB

**\*BDN6635B** Voice-activated Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB



BDN6635B



BDN6636B

**\*BDN6636B** Voice-activated Headset with Throat Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB

**\*BDN6673B**  
Radio Adapter Cable

\* Intrinsically safe



## MTX9000 Series

## Antennas, Miscellaneous Accessories



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### Portable Antennas

#### Flexible Whip Antennas

Antenna has a one-piece finish and steel core for optimal strength and better radiation characteristics. Provides more comfort when radio is worn on the belt.

##### **8505241U05**

Flexible Whip, 403-520MHz, 6"

##### **8505241U03**

Flexible Whip, 806-870MHz, 7"

##### **8505241U04**

Flexible Whip, 896-941MHz, 7"



8505241U05

#### Helical Antennas

Helical are sturdy and dependable for years of failsafe communication. Each antenna is designed and built to quality standards. The skirt at the base of the connector helps to seal out damaging elements. Connector is made of plated brass material for long life.

##### **8505644V01**

Helical, 136-151MHz, 6"

##### **8505644V02**

Helical, 151-162MHz, 6"

##### **8505644V03**

Helical, 162-174MHz, 6"

##### **8505644V04**

Helical, 403-435MHz, 3"

##### **8505644V05**

Helical, 435-470MHz, 3"

##### **8505644V06**

Helical, 470-520MHz, 3"



8505644V01



8505644V03



8505644V04

### Portable Antennas

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

##### **NAF4000B**

Dipole, 806-869MHz, 8"

##### **8505884R02**

Dipole, 896-941MHz, 8"



NAF4000B

8505884R02

#### Wideband Antenna

Wideband antenna is ideal when radio is used in different frequencies since one antenna will cover all ranges.

**8505518V01** Wideband, 136-174MHz, 6"

#### Stubby Antenna

This quarterwave stubby antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive. This is a broadband antenna that can be used for both 800MHz and 900MHz applications.

##### **\*8505241U06**

Stubby, 806-941MHz, 4"



8505241U06

### Miscellaneous Accessories

#### Replacement Kit

**REX4398A** 2/8/16 Channel Cosmetic Replacement Kit

#### Public Safety Tilt Switch

An external emergency switch that is activated when the unit is tilted at a greater than 60 degree angle. Delay times are factory programmed for 8 seconds and are not field programmable. The emergency feature must be programmed into the radio to enable the tilt switch option. FM approved. Not compatible with the JT1000.

**NTN7660A** Public Safety Tilt Switch

*\*8505241U06 is a broadband antenna that operates in the 800/900 MHz band*



<https://www.motorola.com/businessonline>

## MTX9000 Series

### Batteries

#### Portable Batteries

##### Nickel-Cadmium Premium

Part Number: **NTN7143CR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: No



NTN7143CR

Part Number: **NTN7144CR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 6"  
Intrinsically Safe: No

Part Number: **NTN7146AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: Yes

Part Number: **NTN7147AR**  
Volts: 7.5  
Avg. mAh: 1300  
Height: 6"  
Intrinsically Safe: Yes

Part Number: **NTN7149BR**  
Volts: 7.5  
Avg. mAh: 1300  
Height: 6"  
Intrinsically Safe: Yes  
CSA: Yes



NTN7147AR

Part Number: **NTN7150AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: Yes  
MSHA: Yes

#### Portable Batteries

Part Number: **NTN7341AR**  
Volts: 7.5  
Avg. mAh: 1400  
Height: 6"  
Intrinsically Safe: Yes



NTN7372AR

Part Number: **NTN7372AR**  
Volts: 7.5  
Avg. mAh: 1200  
Height: 6"  
Intrinsically Safe: Yes

##### Nickel Metal Hydride Premium

Part Number: **WPNN4013A**  
Volts: 7.5  
Avg. mAh: 2000  
Height: 6"  
Intrinsically Safe: No

Part Number: **WPNN4037A**  
Volts: 7.5  
Avg. mAh: 1900  
Height: 6"  
Intrinsically Safe: Yes



WPNN4013A

##### Nickel-Cadmium impres™

Part Number: **HNN9028AR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 6"  
Intrinsically Safe: No

Part Number: **HNN9029AR**  
Volts: 7.5  
Avg. mAh: 1500  
Height: 6"  
Intrinsically Safe: Yes

## MTX9000 Series

## Service Aids, Manuals

### Service Aids

#### Battery Eliminator

The Battery Eliminator acts like a battery with a cable to access a DC external power supply. It is ideal to inspect transmitters and receivers on incoming radios. Reverse supply polarity protection and input fuse protection are provided.

**RLN1014A** Battery Eliminator



RLN1014A



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RKN4035D** Radio Test and Programming Cable

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E

### Service Aids

#### Cloning Cable

Allows another radio to be duplicated from a master radio by transferring programmed data from one radio to another.

**RKN4036D** Cloning Cable

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Requires interface box and appropriate cables, must be ordered separately.

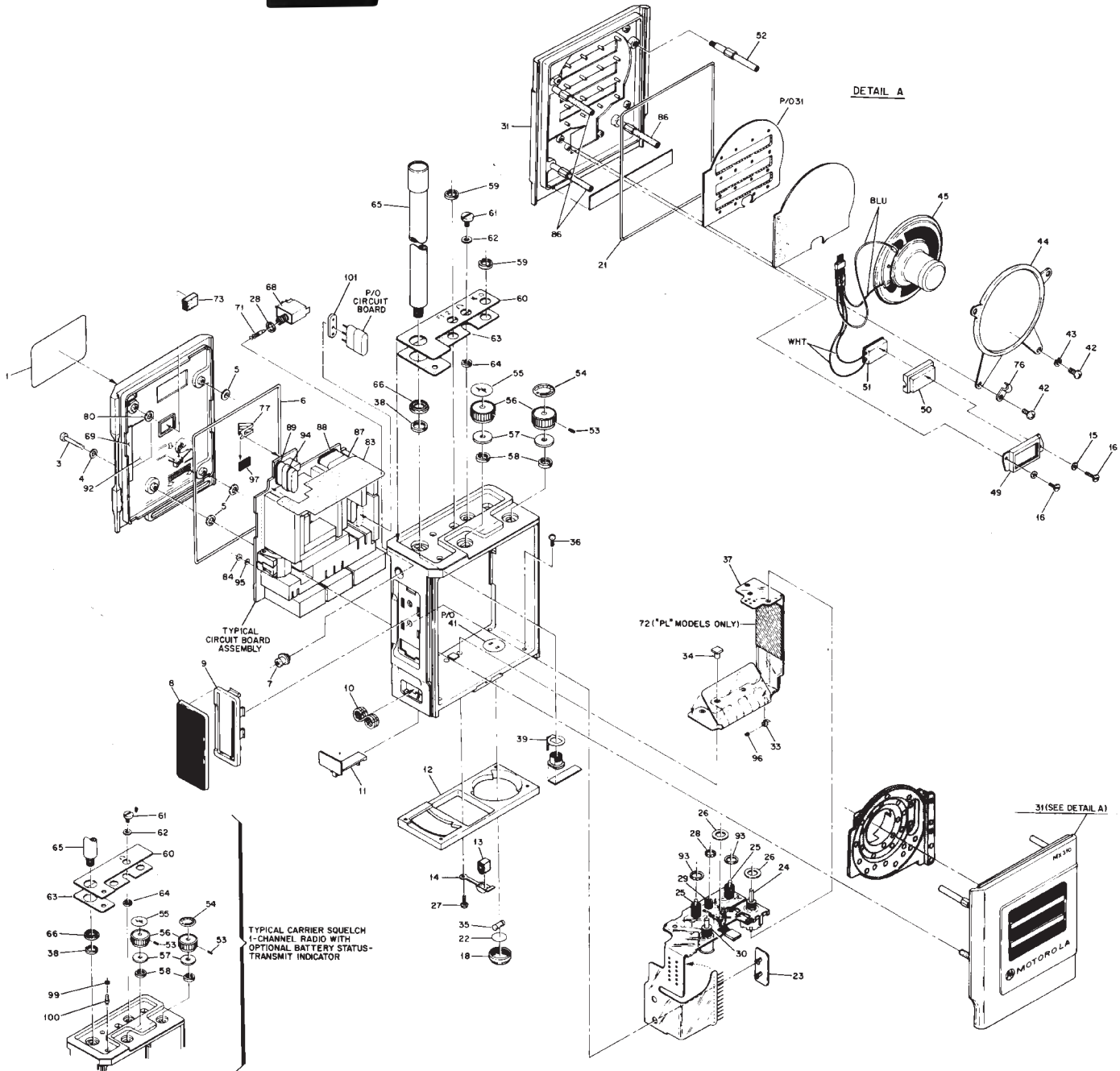
**RVN4176M** Programming Software

### Manuals

<b>6881200C15</b>	Theory and Troubleshooting Manual
<b>6881200C25</b>	Service Manual
<b>6881200C40</b>	Maintenance Manual
<b>6881076C65</b>	Operator Manual
<b>0180305J46</b>	Ear Microphone System and Temple Transducer CD-ROM
<b>0180305J70</b>	impres™ System CD-ROM

# MX300 Series

## Parts List



**Replacement parts are no longer available**

## MX300 Series

### Parts List

#### MX 310, H23AAB, H24AAB

REF. NO.	PART NO.	DESCRIPTION
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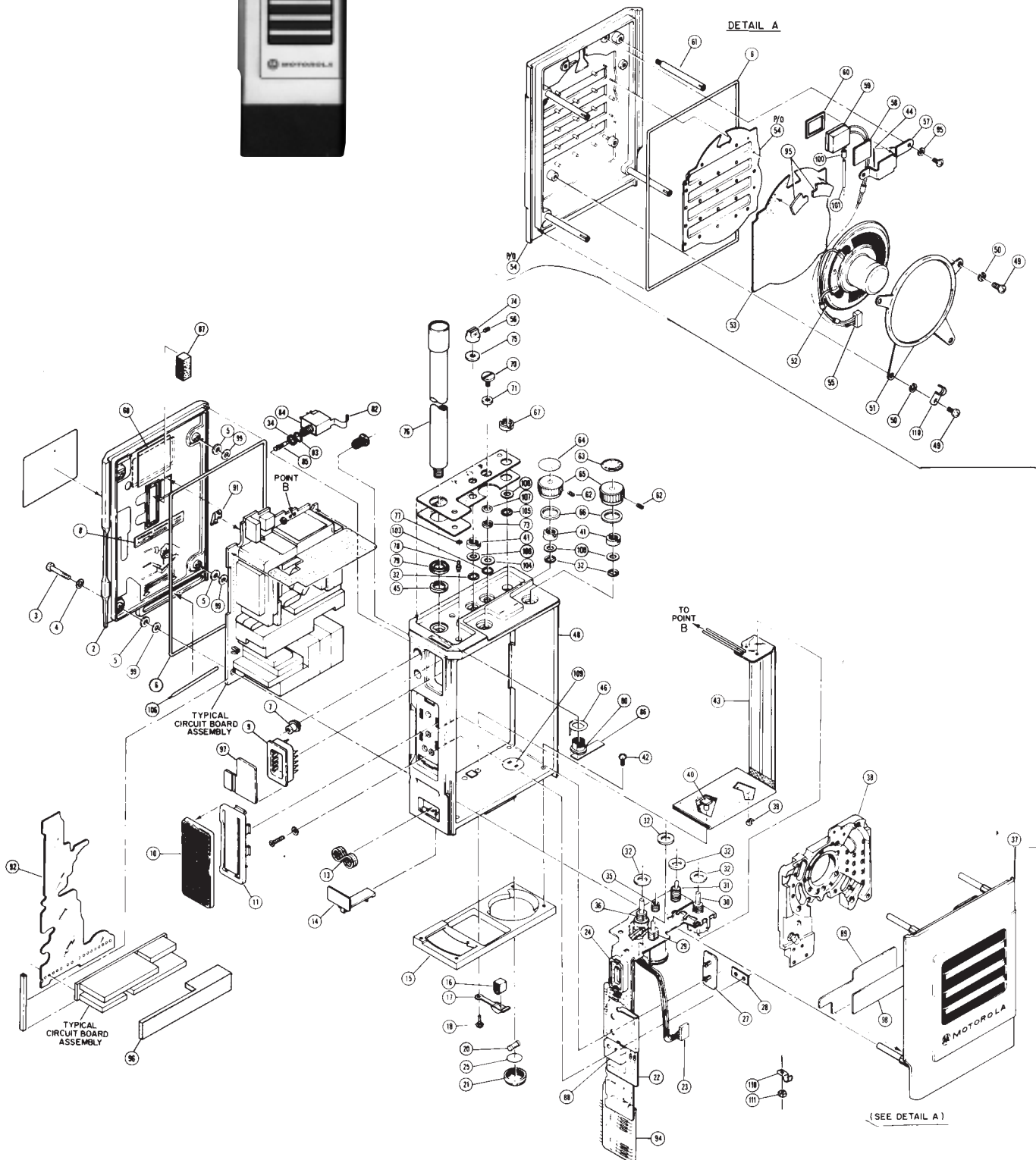
REF. NO.	PART NO.	DESCRIPTION
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**Cancelled Product MX300:**  
**Aftermarket support criteria has**  
**been met for spare parts. Items**  
**are no longer available.**



# MX300 Series

## Portable Accessories



**Replacement parts are no longer available**



## MX300 Series



**MOTOROLA**  
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### Parts List

**MX320, MX330, MX340, MX350, MX360, H23AAU, H24AAU, H33AAU, H43AAU, H44AAU**

REF. NO.	PART NO.	DESCRIPTION
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REF. NO.	PART NO.	DESCRIPTION
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**Cancelled Product MX300:**  
**Aftermarket support criteria has**  
**been met for spare parts. Items**  
**are no longer available.**



<https://www.motorola.com/businessonline>

## MX300 Series

## Portable Accessories

### Chargers

#### Single Unit Chargers

Single unit chargers are designed for desktop use and are capable of charging a battery on or off the radio. When the battery is fully charged, the charger automatically resets to a trickle charge rate. Rapid charge batteries must be charged in the rapid charge unit to attain the rapid charge rate. Visual indication is provided in the rapid charger when the battery is fully charged.

**NLN8858A** Single Unit,  
1 Hour, Rapid Charger,  
117 Volts

**\*NLN4038A** Single Unit,  
1 Hour, Rapid Charger,  
220 Volts

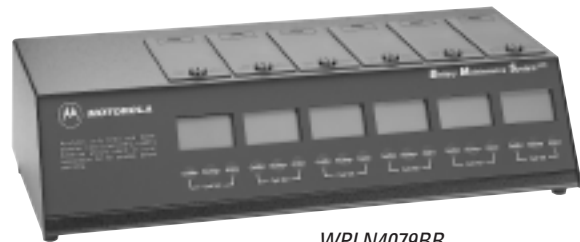
**\*NLN4036A** Single Unit,  
14 Hour, Standard  
Charger, 220 Volts



NLN8858A

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\*\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**NDN4005B** Three-Station, 110V AC, 50/60 Hz

**NDN4006B** Three-Station, 230V AC, 50/60 Hz

#### BMS<sup>plus</sup> Adapter

**TDN9445A** Standard Adapter, MX300

#### Optional Adapters

†**TDN9432A** Adapter, Universal Alligator Clip Lead

†**TDN9527A** Adapter, Universal Dip Switch

\* Unit is supplied without line cord plug.

\*\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

† Universal adapters available as an option to accommodate all radio types.

## MX300 Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapters

**RL-71181** Standard Adapter, MX300, 500-700 mAh

**RL-71182** Standard Adapter, MX300, 1100-1400 mAh

**RL-71183** Standard Adapter, MX300, 2000-2800 mAh

### Optional Adapters

**RL-70115** Adapter, Universal; services Li-ion

**RL-70110** Adapter, Universal; service NiCd and NiMH

### Audio Accessories

#### UHF Surveillance Accessories

**NMN6092A**  
UHF Surveillance  
Accessory



NMN6092A



NMN6070B



NMN6071B



NMN6072A

#### Remote Speaker/Microphones

Remote speaker/microphone allows user to talk and listen without removing radio from belt or carrying case. Ideal in high noise level areas. Straight and coil cord remote units have back clip for attachment to upper garment. Wired earpiece available for all models.

**NMN6070B** Remote Speaker Microphone Straight Cord with Clip Back

**NMN6071B** Remote Speaker Microphone Coil Cord with Clip Back

**NMN6072A** UHF Public Safety Microphone with High/Low Switch and PTT, order Velcro Patch and Antenna separately.

Antennas for NMN6072A

**8505309N10** Heliflex, 404-430 MHz,

**8505309N09** Heliflex, 440-470 MHz

**8505309N11** Heliflex, 470-512 MHz

## MX300 Series

### Portable Accessories

#### Audio Accessories

##### **Epaulet Strap**

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with Velcro or Clip style strap.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip



RLN4294A

##### **Velcro Patch**

**NLN8410A** Velcro Patch Pin Attachment, (for NMN6072A Microphone)

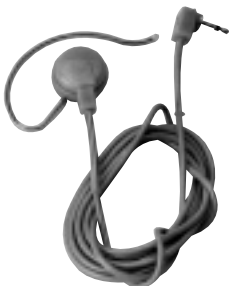


RLN4295A

##### **Earpiece**

**5005178K01** Earpiece, Without Volume Control

**5080332A41** Plastic Insert for Earpiece



5005178K01



NLN8410A

#### Audio Accessories

##### **Headset/Microphones**

Maintain portable two-way communications in high ambient noise areas with noise cancelling accessories. Both weatherproof models can be worn with or without a safety type helmet.



NMN6065A

##### **NMN6065A**

Noise Canceling Headset/Microphone with Cup Microphone

##### **NMN6064A**

Noise Canceling Headset/Microphone with Boom Microphone



NMN6064A

**NKN6207A** Adapter Kit (required for noise cancelling headsets)

## MX300 Series

## Portable Accessories

### Audio Accessories

#### Ear Mics

Single unit microphone and speaker worn in the ear. Eliminates the need for handheld microphones or conventional headsets. Compact, rugged design allows use under hearing protectors and protective clothing. Order cable separately.

**RMN4001B** Ear Mic, EM200

**0180359A41** Interface Cable for MX300

**0180359A51** Optional PTT Ring Switch for RMN4001A only

**0180356B97** Optional PTT Ring Switch for RMN4001B only



RMN4001B



0180359A51

Cost effective alternative to the EM200, the EM150 operates the same but includes hardwired interface cable. (PTT ring switch is not compatible with this unit)

**RMN4007A** Ear Mic, EM150



RMN4007A

### Carrying Accessories

#### Carrying Cases

Standard black leather carrying cases with snap-on/off perforated full covers provide protection yet permit clear audio. T-strap covers permit easy access to all controls. The over-the-shoulder adjustable sturdy black nylon carrying strap snaps onto the belt loop case and provides a convenient way to wear a radio. Swivel carrying cases attach to belt loop attachment by inverting radio. Radio swings freely on belt loop attachment, adjusting to body movements.



1505333D07

#### MX310 Series Standard

**1505333D03** Carrying Case for Medium Capacity Battery

**1505333D05** Carrying Case for Medium High Capacity Battery

**1505333D07** Carrying Case for High Capacity Battery

#### MX320 Series Standard

**1505333D03** Carrying Case for Light and Medium Capacity Battery, with 2-1/2" Belt Loop

**1505333D04** Carrying Case for Medium High Capacity Battery, with 2-1/2" Belt Loop

**1505333D06** Carrying Case for High Capacity Battery and/or Non-Rechargeable Battery, with 2-1/2" Belt Loop

**1505333D08** Carrying Case for Ultra-High Capacity Battery, with 2-1/2" Belt Loop



1505333D03

## MX300 Series

## Portable Accessories

### Carrying Accessories

#### MX320 Series Swivel

**NLN4121A** Carrying Case for High Capacity Battery and/or Non-Rechargeable Battery, with 3" Belt Loop

**NLN4123A** Carrying Case for Ultra-High Capacity Battery, with 3" Belt Loop



1505333D07

#### MX330 Series Standard

**1505333D03** Carrying Case for Light Capacity Battery, with 2-1/2" Belt Loop

**1505333D04** Carrying Case for Medium Capacity Battery, with 2-1/2" Belt Loop

**1505333D05** Carrying Case for Med-Light Capacity Battery, with 2-1/2" Belt Loop

**1505333D07** Carrying Case for High Capacity Battery and/or Non-Rechargeable Battery, with 2-1/2" Belt Loop

**1505333D09** Carrying Case for Ultra-High Capacity Battery, with 2-1/2" Belt Loop

#### MX340 Series Standard

**1505333D04** Carrying Case for Light and Medium Capacity Battery, with 2-1/2" Belt Loop

**1505333D06** Carrying Case for Med-High Capacity and/or Non-Rechargeable Battery, with 2-1/2" Belt Loop

**1505333D08** Carrying Case for High Capacity and/or Non-Rechargeable Battery, with 2-1/2" Belt Loop

**1505333D09** Carrying Case for Ultra-High Capacity Battery, with 2-1/2" Belt Loop



1505333D08

### Carrying Accessories

#### MX340 Series Swivel

**NLN4121A** Carrying Case for Med-High Capacity Battery, with 3" Belt Loop

**NLN4123A** Carrying Case for High Capacity and/or Non-Rechargeable Battery, with 3" Belt Loop



NLN4121A

#### MX350 Series Standard

**1505333D05** Carrying Case for Light Capacity Battery, with 2-1/2" Belt Loop

**1505333D06** Carrying Case for Medium Capacity Battery, with 2-1/2" Belt Loop

**1505333D08** Carrying Case for Med-High Capacity and/or Non-Rechargeable Battery, with 2-1/2" Belt Loop

**1505333D9** Carrying Case for High Capacity Battery, with 2-1/2" Belt Loop

**1505333D10** Carrying Case for Ultra-High Capacity Battery, with 2-1/2" Belt Loop



1505333D10



## MX300 Series



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## Portable Accessories

### Carrying Accessories

#### MX350 Series Swivel

**NLN4121A** Carrying Case for Medium Capacity Battery, with 3" Belt Loop

**NLN4123A** Carrying Case for Med-High Capacity and/or Non-Rechargeable Battery, with 3" Belt Loop

#### MX360 Series Standard

**1505333D07** Carrying Case for Light and Medium Capacity Battery, with 2-1/2" Belt Loop

**1505333D09** Carrying Case for Med-High Capacity Battery, with 2-1/2" Belt Loop

**1505333D10** Carrying Case for High Capacity and/or Non-Rechargeable Battery, with 2-1/2" Belt Loop

**1505333D11** Carrying Case for Ultra-High Capacity Battery, with 2-1/2" Belt Loop



NLN4125A



1505333D11

### Carrying Accessories

#### Cover

**1505332D01** Cover for Carrying Case



1505332D01

#### Carry Holders

**NLN8862B** Carry Holder, Swivel. Belt loop not included.

**NLN8861B** Carry Holder, Belt Loop

#### Carrying Strap

**NTN5243A** 60" Carrying Strap



NTN5243A



NLN8862B

#### UHF and VHF 3" Belt Clip Back Cover

**NLN7320A** MX360



4205360D01

#### T-Strap

**4205360D01** For All Carrying Cases

#### Belt

**4200865599** 1-3/4" Wide Leather Belt, for all models

**4205857B01** 2" Spare Belt Loop, for swivel cases



4200865599



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## MX300 Series

## Mobile Op Accessories, Antennas



### Mobile Operation Accessories

All MX300 series portables are universal converta-com. Palm-type mobile microphone with coil cord and push-to-talk switch provides true mobile transmission key lock, power cables, push button release for portable are included.

#### Converta-Com Console Extenders

**1505716D02** Converta-Com Console 1.5" Extender Pocket (Standard)



#### Microphone

**TMN6054A**  
Remote Microphone

TMN6054A

### Portable Antennas

#### Heliflex

Each antenna is tested and tuned to give maximum power and performance. Antenna's connector is color coded indicating frequency. These antennas are ideal for VHF and UHF MX300 radios because of their rugged and flexible design.

**8505355K03** 403-430 MHz  
for use on Public Safety  
Speaker/Microphone

**8505355K04** 440-470 MHz  
for use on Public Safety  
Speaker/Microphone

**8505309N11** 470-512 MHz  
for use on Public Safety  
Speaker/Microphone



8505355K03



8505355K04

### Portable Antennas

**8505816K01** 136-150 MHz  
Injection Molded

**8505816K21** 150-162 MHz  
Injection Molded

**8505816K23** 162-174 MHz  
Injection Molded

**8505816K24** 403-433 MHz  
Injection Molded

**8505816K25** 438-470 MHz  
Injection Molded

**8505816K26** 470-512 MHz  
Injection Molded

**8505491J02** 150-162 MHz  
PVC Dip Coated

**8505491J03** 162-174 MHz  
PVC Dip Coated

**8505491J04** 403-440 MHz  
PVC Dip Coated

**8505491J05** 440-470 MHz  
PVC Dip Coated

**8505491J06** 470-512 MHz  
PVC Dip Coated



8505816K01



8505816K23



8505491J05

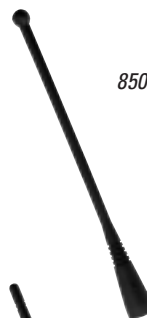
#### Flexible

Slightly longer than helical antenna and provides better radiation characteristics.

**8505247K06** 403-512 MHz, Molded

**NAF4000B** 806-870 MHz, Molded

**8505268F01** 403-512 MHz,  
PVC Dip Coated



8505247K06



NAF4000B

## MX300 Series



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## Batteries, Service Tools & Aids, Manuals

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NLN5860D**  
Volts: 7.5  
Avg. mAh: 1400  
Height: 3-2/16"  
Intrinsically Safe: Yes

### Service Tools

**6682186E01** Tuning Tool

**6605168F01** Wrench, Antenna  
Bushing Nut and Fuse Cap  
(800 MHz only)



6682186E01



6605168F01

### Service Aids

#### Radio Test Cable

Used with RTX4005 portable radio test set for transmitter, receiver alignment and performance checks.

**RTK4021A** Test Cable



RTK4021A

#### RF Adapter Cable

**SKN6028A** RF Adapter Cable, connects to radio jack, other end terminated with type BNC male.



SKN6028A

### Service Manuals

#### 406-512 MHz

**6881007C06**

Models H24/H34AAU 1W & 2W "A" Models Service Manual

**6881013C75**

Models H44AAU 5W "A" Models Service Manual

**6881007C10**

Models H24/H34/H44AAU "A" Models Theory/Maintenance Manual

**6881007C55**

Models H24/H34/H44AAU Operating Instructions

**6881009C40**

Models H24H/34AAU1140A, 1160A, 1180A, 3140A, 3160A, 3180A, 6140A, 6160A, 6180A Service Manual

**6881013C75**

Models H44AAU1140A, 1160A, 1180A, 3140A, 3160A, 3180A, 6140A, 6160A, 6180A Service Manual

#### 806-850 MHz

**6881007C55**

Models H35AAU Operating Instructions

**6881015C85**

Models H35AAU Service Manual

### MX300 Digital Voice Protection

**6881015C40**

Models H23/H33/43AXU, and H24/34/44 Instruction Manual

### MX300 Series Converta-Com

#### 136-174 MHz, 406-512 MHz

**6881010C75**

Model N1244A Mobile Radio Console Instruction Manual

**6881010C80**

Model N1244R Mobile Radio Console Operating Instructions

### MX300 Series Power Amplifiers

#### 136-174 MHz, 406-512 MHz

**6881013C30**

Model N1254A 60W Power Amplifier for use with N1244A Converta-Com Consoles, Instruction Manual

#### Miscellaneous

**6881030C65**

MDC-600, MDC-1200, Modat, and Select 5 Signaling Options Service Manual

**6881106C06**

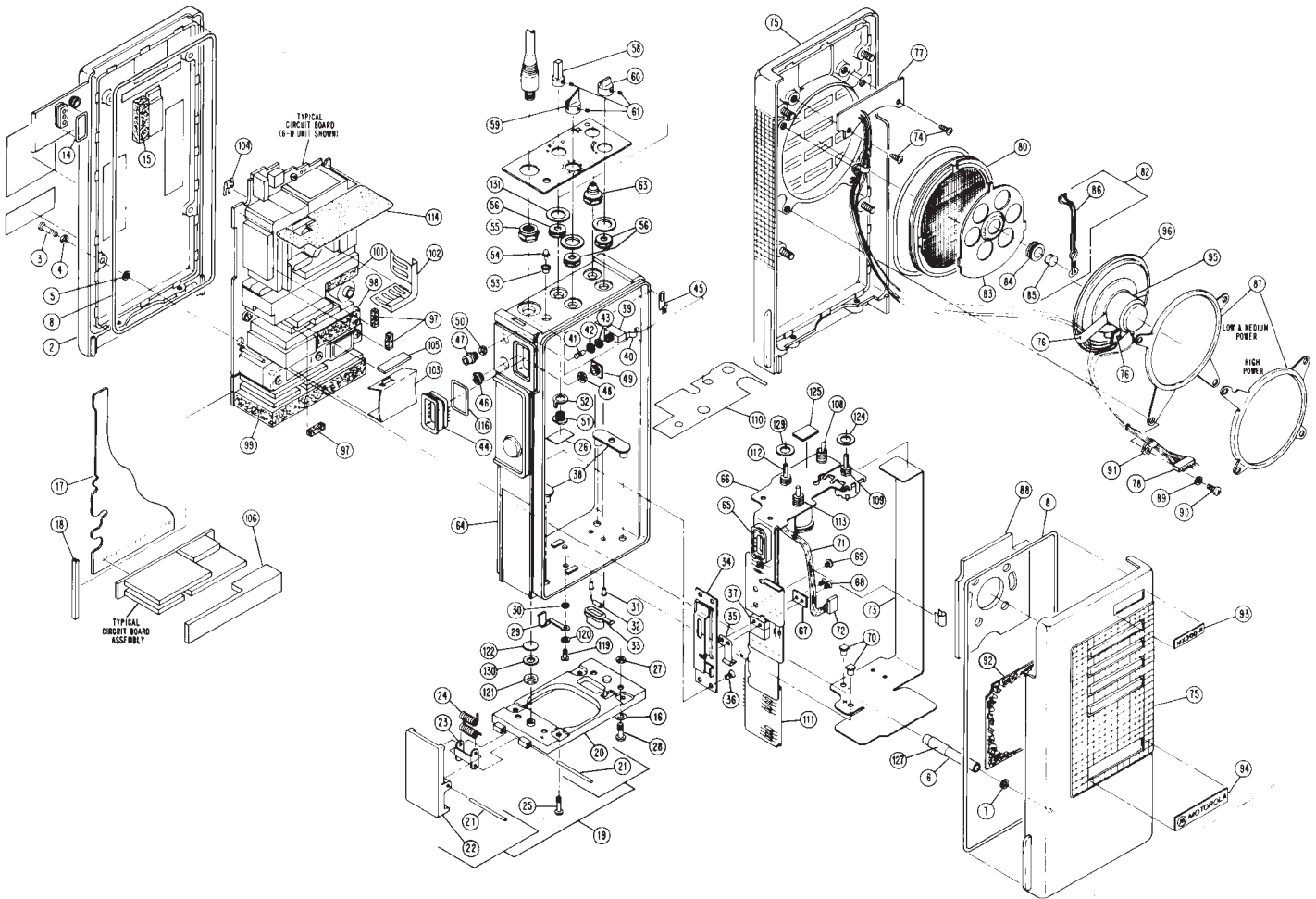
Routine Maintenance Procedures Manual



<https://www.motorola.com/businessonline>

# MX300-R Series

## Parts List



**Replacement parts are no longer available**

## MX300-R Series

### Parts List

#### MX310, H23AAB, H24AAB

REF. NO.	PART NO.	DESCRIPTION
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REF. NO.	PART NO.	DESCRIPTION
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**Cancelled Product MX300-R:**  
**Aftermarket support criteria has**  
**been met for spare parts. Items**  
**are no longer available.**



## MX300-R Series

## Portable Accessories

### Chargers

#### Single Unit Chargers

Single unit chargers are designed for desktop use and are capable of charging a battery on or off the radio. When the battery is fully charged, the charger automatically resets to a trickle charge rate. Rapid charge batteries must be charged in the rapid charge unit to attain the rapid charge rate. Visual indication is provided in the rapid charger when the battery is fully charged.

**NLN8858A** Single Unit,  
1 Hour, Rapid Charger,  
117 Volts

**\*NLN4038A** Single Unit,  
1 Hour, Rapid Charger,  
220 Volts

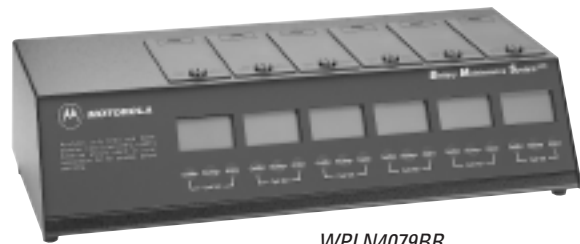
**\*NLN4036A** Single Unit,  
14 Hour, Standard  
Charger, 220 Volts



NLN8858A

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\*\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**NDN4005B** Three-Station, 110V AC, 50/60 Hz

**NDN4006B** Three-Station, 230V AC, 50/60 Hz

#### BMS<sup>plus</sup> Adapter

**TDN9444A** Standard Adapter, MX300-R

#### Optional Adapters

†**TDN9432A** Adapter, Universal Alligator Clip Lead

†**TDN9527A** Adapter, Universal Dip Switch

\* Unit is supplied without line cord plug.

\*\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

† Universal adapters available as an option to accommodate all radio types.



## MX300-R Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapter

**RL-71283** Standard Adapter, MX300-R

### Optional Adapters

**RL-70115** Adapter, Universal; services Li-ion

**RL-70110** Adapter, Universal; service NiCd and NiMH

### Audio Accessories

#### UHF Surveillance Accessories

**NMN6092A**  
UHF Surveillance  
Accessory



NMN6092A



NMN6070B



NMN6071B



NMN6072A

#### Remote Speaker/Microphones

Remote speaker/microphone allows user to talk and listen without removing radio from belt or carrying case. Ideal in high noise level areas. Straight and coil cord remote units have back clip for attachment to upper garment. Wired earpiece available for all models.

**NMN6070B** Remote Speaker Microphone Straight Cord with Clip Back

**NMN6071B** Remote Speaker Microphone Coil Cord with Clip Back

**NMN6072A** UHF Public Safety Microphone with High/Low Switch and PTT, order Velcro Patch and Antenna separately.

Antennas for NMN6072A

**8505309N10** Heliflex, 404-430 MHz,

**8505309N09** Heliflex, 440-470 MHz

**8505309N11** Heliflex, 470-512 MHz

## MX300-R Series

### Portable Accessories

#### Audio Accessories

##### Velcro Patch

**NLN8410A** Velcro Patch  
Pin Attachment,  
(for NMN6072A Microphone)



NLN8410A

##### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with Velcro or Clip style strap.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip



RLN4294A



RLN4295A

#### Audio Accessories

##### Headset/Microphones

Maintain portable two-way communications in high ambient noise areas with noise cancelling accessories. Both weatherproof models can be worn with or without a safety type helmet.



NMN6065A

##### NMN6065A

Noise Canceling  
Headset/Microphone with  
Cup Microphone



NMN6064A

##### NMN6064A

Noise Canceling  
Headset/Microphone with  
Boom Microphone

**NKN6207A** Adapter Kit  
(required for noise  
cancelling headsets)



NKN6207A

**NKN6363A**  
Headset Adapter Cable

## MX300-R Series

## Portable Accessories, Antennas



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### Carrying Accessories

#### Carrying Cases

Standard black leather carrying cases with snap-on/off perforated covers provide protection yet permit clear audio. Swivel carrying cases attach to belt loop attachment by inverting radio. Radio swings freely on belt loop attachment, adjusting to body movements.

#### Standard

**NTN4272A** Carrying Case with Belt Loop and Strap



NTN4272A

#### Swivel

**NTN4273A** Carrying Case with Strap



NTN5243A

#### Carrying Strap

**NTN5243A**  
60" Carrying Strap (1-3/4" W),  
Requires Leather  
Carrying Case

#### Belt

**4200865599**  
1-3/4" Wide Leather  
Belt, For All Models



4200865599

**4205857B01**  
2" Spare Belt Loop,  
For Swivel Cases

### Portable Antennas

#### Heliflex

Each antenna is tested and tuned to give maximum power and performance. Antenna's connector is color coded indicating frequency.

**8505491J02** 150-162 MHz,  
PVC Dip Coated

**8505491J03** 162-174 MHz,  
PVC Dip Coated

**8505491J04** 403-440 MHz,  
PVC Dip Coated

**8505491J05** 440-470 MHz,  
PVC Dip Coated

**8505491J06** 470-512 MHz,  
PVC Dip Coated

**8505816K01** 136-150 MHz,  
Molded

**8505816K21** 150-162 MHz,  
Molded

**8505816K23** 162-174 MHz,  
Molded

**8505816K24** 403-433 MHz,  
Molded

**8505816K25** 450-470 MHz,  
Molded

**8505816K26** 470-512 MHz,  
Molded



8505491J05



8505816K01



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## MX300-R Series

## Antennas, Service Tools

### Portable Antennas

#### Flexible

Slightly longer than helical antenna and provides better radiation characteristics.

#### 8505268F01

403-512 MHz, PVC Dip Coated

#### 8505247K06

403-512 MHz, Molded



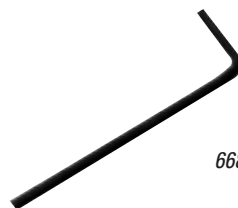
8505247K06

### Service Tools

#### 6682186E01 Tuning Tool



6682186E01



6683006J01

**6683006J01** Spline  
Wrench, (0.06"), Volume  
Squelch and Frequency  
Select Knobs

**6605168F01** Wrench,  
Antenna Bushing Nut and  
Fuse Cap (800 MHz only)



6605168F01

## MX300-R Series

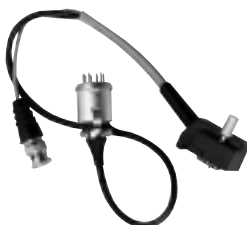
## Service Aids, Manuals

### Service Aids

#### Radio Test Cable

Used with RTX4005 portable test set for transmitter, receiver alignment and performance checks.

**RTK4021A** Test Cable



RTK4021A



SKN6028A

#### RF Adapter Cable

**SKN6028A** RF Adapter Cable, connects to radio jack, other end terminated with type BNC male.

### Service Manuals

#### 136-174 MHz

- 6881036C65** MX300-R Portable Radio H449 Option
- 6881036C70** MX300-R VHF Service Manual
- 6881037C80** MX300-R Marine Radio Operating Instructions

### Digital Voice Protection Manuals

#### 136-174 MHz

- 6881035C85** H23, 33, 43SXU1144AN & SXU3144AN Series Operating Instructions
- 6881035C80** H23, 33, 43SXU1144AN & SXU3144AN Series Theory/Maintenance Manual

#### 406-512 MHz

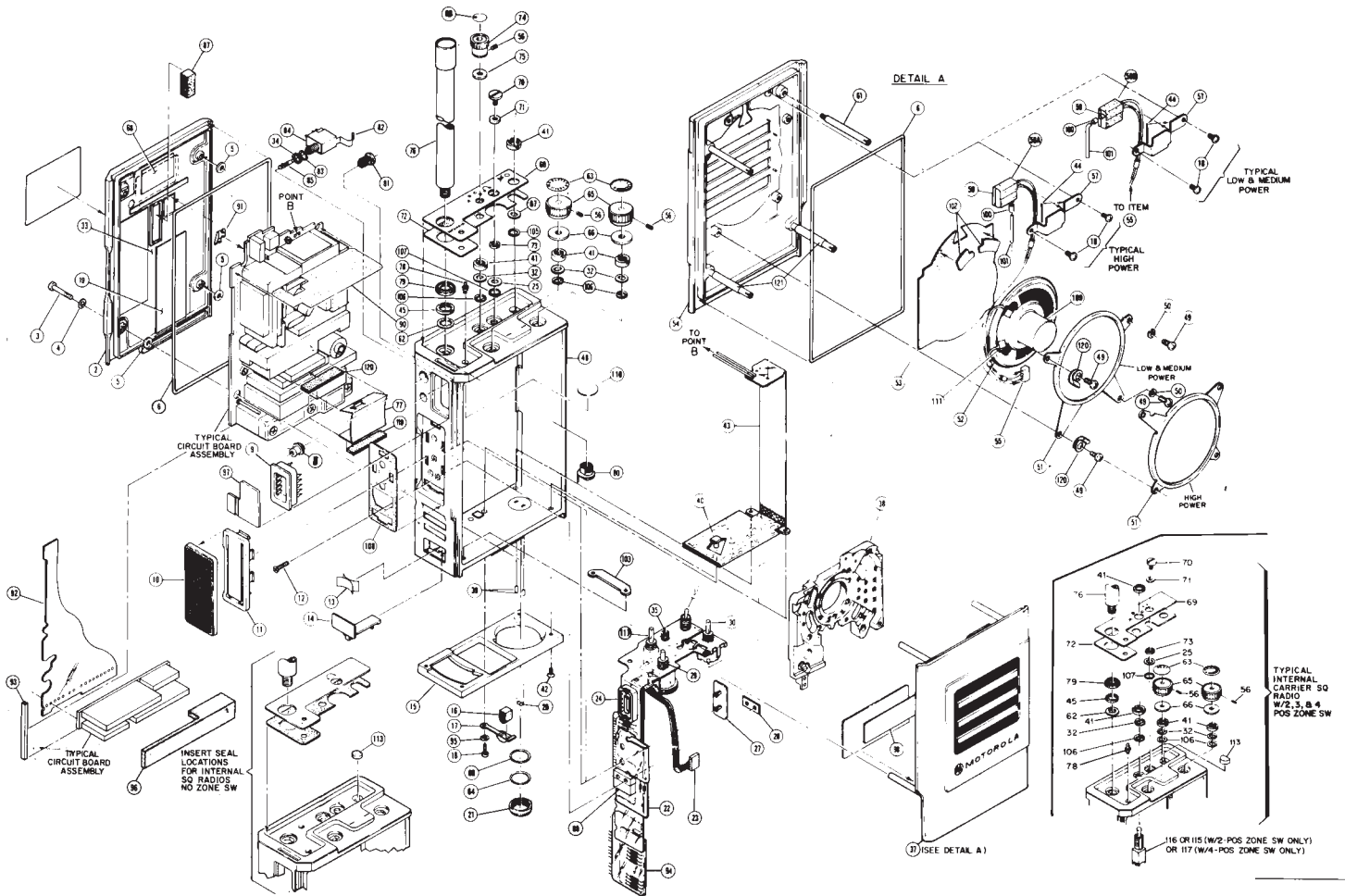
- 6881035C85** H24, 34, 43SXU3144AN & SXU3144AN Series Operating Instructions
- 6881035C75** H24, 34, 43SXU1144AN/SXU3144AN Series Service Manual
- 6881035C80** H24, 34, 43SXU1144AN & SXU3144AN Series Theory/Maintenance Manual

#### Miscellaneous

- 6881030C65** Models DMC600, MDC1200, Modat, and Select 5 Signaling Options Service Manual
- 6881035C95** Vehicular Adapter Operating Instructions
- 6881038C25** Vehicular Adapter Instruction Manual

# MX300-S Series

## Parts List



Replacement parts may no longer be available



# MX300-S Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
2	---	Back Cover Kits:*	42	<b>0305714J01</b>	Screw, Phillips; 2-56	75	<b>0405342C01</b>	Washer, Thrust
	<b>NLN7322A</b>	MX330	44	<b>1405424D04</b>	Insulator, Teflon	76	---	Antenna, Refer to Antenna Section
	<b>NLN7323A</b>	MX340	45	<b>0205543E01</b>	Nut, Mounting	77	<b>4205896J01</b>	Clamp, Ground
	<b>NLN7324B</b>	MX350	46	<b>2905548E01</b>	Lug, Antenna	78	<b>0105952G54</b>	LED (CR303)
	<b>NLN7325B</b>	MX360	48	---	Frame*	79	<b>1405545E01</b>	Insulator
		include:		<b>RPX4615A</b>	MX330 Series (NLN5298A)	81	---	P/O Item 48
		a. Cover, Back; (item 2)		<b>RPX4616A</b>	MX340 Series (NLN5299A)	82	<b>2605767C05</b>	Shield, Jack
	<b>1505315F09</b>	MX330		<b>RPX4617A</b>	MX350 Series (NLN5300A)	83	<b>0405294F01</b>	Washer
	<b>1505315F10</b>	MX340		<b>RPX4618A</b>	MX360 Series (NLN5301A)	84	<b>0905505C02</b>	Jack (J401)
	<b>1505315F15</b>	MX350	49	<b>0305466C01</b>	Screw, 4-40	85	<b>0105585H01</b>	Assembly, Plug; Spring; 2nd insulator
	<b>1505315F16</b>	MX360	50	<b>0400009743</b>	Washer, No. 4 Split			
		b. items 3, 4, 5, 6, 8, 19, 26, 33, 68, 87, 99, & 104	51	<b>0705423C01</b>	Bracket, Ring	87	<b>7505585C01</b>	Pad, Pressure
3	<b>0382210E15</b>	Screw, Captive		<b>0705875C01</b>	or Bracket, Ring; for Hi Power Models	88	<b>4082159D01</b>	Switch (S304)
4	<b>0405465C01</b>	Washer, Seal; .112 x .245 x .012	52	<b>5005181E02</b>	Speaker (LS401)	90	<b>1405939D01</b>	Insulator
5	<b>0405818D01</b>	Washer, Flat; .180 x .096 x .010	53	<b>3505866N01</b>	Cover, Speaker; felt	91	<b>3905188D03</b>	Spring, Grounding
6	---	Gasket, "O" Ring	54	---	Cover	92	<b>8405268K01</b>	Flex Circuit, Interconnect
	<b>3282172J11</b>	MX330		<b>0105957B51</b>	MX330 Series	93	---	Bracket, Rail Mounting
	<b>3282172J12</b>	MX340, MX350, MX360		<b>0105959B38</b>	MX340 Series		<b>0705829C02</b>	2-unit length (1.125")
7	<b>0105952G99</b>	Nut, Retainer; special		<b>0105959B39</b>	MX350 Series		<b>0705829C03</b>	2-unit length (1.320")
9	<b>1505673C01</b>	Housing, Connector; J402		<b>0105959B40</b>	MX360 Series	94	<b>NLN7292A</b>	Flex, Freq.
10	<b>3205427C04</b>	Boot	55	<b>2805551D01</b>	Connector, Plug (P403)	95	<b>0400002625</b>	Lockwasher, Internal Tooth
11	<b>4505509C03</b>	Actuator	56	<b>0305480E02</b>	Setscrew	96	<b>7505890C01</b>	Pad, "Digital PL" Contour
12	<b>0305685F01</b>	Screw, Phillips; 2-64	57	<b>0705779M01</b>	Bracket, Microphone	97	<b>3205163E01</b>	Boot
13	<b>4105414C01</b>	Sprint, Latch	58	<b>1405445G02</b>	Insulator	98	---	Insulator
14	<b>5505417C01</b>	Latch, Battery			(for Hi Power Models)		<b>1405576E02</b>	MX330 Series
16	<b>0705830C02</b>	Support, Battery Contact	58B	<b>1405445G01</b>	Insulator (for Low/Med Power Models)		<b>1405576E03</b>	MX340 Series
17	<b>RPX4636A</b>	Contact, Battery	59	<b>0105953D67</b>	Microphone (MK401)		<b>1405576E05</b>	MX360 Series
18	<b>0300138651</b>	Screw, Slotted; 2-56 x 1/8"	60	<b>0405342C04</b>	Washer, Rubber Seal	99	<b>0484345A06</b>	Washer, Nylon
20	<b>6505214E02</b>	Fuse (F401)	61	<b>4305467C02</b>	Spacer, Stand-Off	100	<b>3705144E01</b>	Tubing, Flexible
21	<b>3805881D01</b>	Cap, Fuse	62	<b>0400139731</b>	Washer		<b>3705412F01</b>	(for Hi Power Models) or Tubing, Flexible (for Low & Medium Power Models)
22	<b>NLN7561A</b>	Flex Circuit, Control	63	<b>3304737J01</b>	Insert, Decal	101	<b>4705143E01</b>	Pipe, Sound
23	<b>0105957D83</b>	Connector, Plug (J303)	64	<b>0405342C05</b>	Washer, Mylar	102	<b>7505705D01</b>	Pad (High Power Only)
24	<b>0905675C01</b>	Socket (J302)	65	<b>3605510C01</b>	Knob, Short	103	<b>6405782J01</b>	Nut Plate, Left
25	<b>0405342C02</b>	Washer, Steel		<b>3605430G07</b>	or Knob, Long	104	<b>5400865436</b>	Label, FCC
27	<b>4205506C01</b>	Strain Relief, Snap-in	66	<b>0405555C02</b>	Washer, Thrust	105	<b>0405126L01</b>	Seal
28	<b>6405683F01</b>	Plate, Nut	67	<b>0405342C06</b>	Washer, Nylon	106	<b>0405757E03</b>	Seal
29	<b>4005605J01</b>	Switch (S502)	68	<b>1305436E01</b>	Decal, Patent No.	107	<b>0405757E01</b>	Seal
30	<b>RPX4253A</b>	Resistor (R308)	69	---	Escutcheon	108	<b>3205255G01</b>	Seal, PTT
31	<b>4005190D01</b>	Switch (S303)		<b>1305107E62</b>	Multi-channel "Private-Line" Models, with Internal Carrier Squelch, LED, and no zone switch	109	<b>7505191E02</b>	Boot, Speaker
32	<b>0405342C03</b>	Washer				110	<b>0482519J01</b>	Washer, Sponge Seal
33	<b>6405535D06</b>	Insulator, Ground Shield		<b>1305107E65</b>	Multi-channel "Private-Line" Models, with External Carrier Squelch, LED, and no zone switch	111	<b>1482392E07</b>	Insulator, Speaker Lug (Qty 2)
34	<b>3205295F01</b>	Gasket				113	<b>4305359G01</b>	Seal, Insert (for PL Switch)
35	<b>0905537F02</b>	Jack (J301)		<b>1305107E48</b>	Multi-channel "Private-Line" Models, with Internal Carrier Squelch, LED, and 2-position zone switch	115	<b>4005728G01</b>	Switch, Toggle (2-position), S501A
36	<b>1805430C02</b>	Resistor (R311A) External				116	<b>4005745G01</b>	Switch, Toggle (3-position), S501B
37	---	Front Cover Kits; includes: items 6, 18, 44, 49, 50, 52, 53, 54, 57, 58, 59, 61, 95, 100, 101, and 102		<b>1305107E50</b>	Multi-channel "Private-Line" Models, with Internal Carrier Squelch, LED, and 4-position zone switch	117	<b>4005830H01</b>	Switch, Rotary (4-position), S501C
	<b>NLN7420A</b>	MX330 Series (Lo/Med Power)	70	<b>0305857C01</b>	Screw, Cap	118	<b>4205540J01</b>	Clip, Ground
	<b>NLN7421A</b>	MX340 Series (Lo/Med Power)	71	<b>0483799H04</b>	Washer, Insulating	119	<b>7505897J01</b>	Pad, Shock
	<b>NLN7424A</b>	MX340 Series (High Power)	72	<b>1105092E02</b>	Adhesive Tape, Escutcheon	120	<b>4205624L01</b>	Strap
	<b>NLN7425A</b>	MX350 Series (High Power)	73	<b>0205256C02</b>	Nut, Speaker Jack			
	<b>NLN7426A</b>	MX360 Series (High Power)	74	<b>3605429G07</b>	Knob			
38	<b>7505589E03</b>	Pad, Contour		<b>3605577C01</b>	or Knob, Rotary Switch			
39	<b>0905602C07</b>	Socket, Fuse; p/o item 43						
40	<b>4605461C01</b>	Stud, Battery Contact						
41	<b>0282653D05</b>	Nut, Mounting; special						

**Cancelled Product MX300-S:**  
**Aftermarket support criteria has been met for spare parts. Items may no longer be available.**

## MX300-S Series

### Portable Accessories

#### Chargers

##### Single Unit Chargers

Single unit chargers are ideal for desktop use, and are capable of charging a battery on or off the radio. When the battery is fully charged, the charger automatically resets to a trickle charge rate. To obtain rapid charge rate batteries must be charged in the unit. Visual indication is provided in the rapid charger when the battery is fully charged.

**NLN8858A** Single Unit,  
1 Hour, Rapid Charger,  
117 Volts

**\*NLN4038A** Single Unit,  
1 Hour, Rapid Charger,  
220 Volts

**\*NLN4036A** Single Unit,  
14 Hour, Standard Charger,  
220 Volts

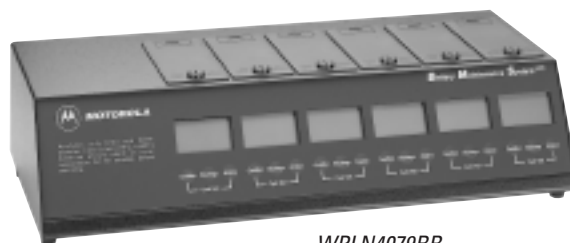


NLN8858A

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\*\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**NDN4005B** Three-Station, 110V AC, 50/60 Hz

**NDN4006B** Three-Station, 230V AC, 50/60 Hz

##### BMS<sup>plus</sup> Adapter

**TDN9445A** Standard Adapter, MX300

##### Optional Adapters

†**TDN9432A** Adapter, Universal Alligator Clip Lead

†**TDN9527A** Adapter, Universal Dip Switch

*\*Unit is supplied without line cord plug.*

*\*\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.*

*†Universal adapters available as an option to accommodate all radio types.*

## MX300-S Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapters

**RL-71181** Standard Adapter, MX300-S, 500-700 mAh

**RL-71182** Standard Adapter, MX300-S, 1100-1400 mAh

**RL-71183** Standard Adapter, MX300-S, 2000-2800 mAh

### Optional Adapters

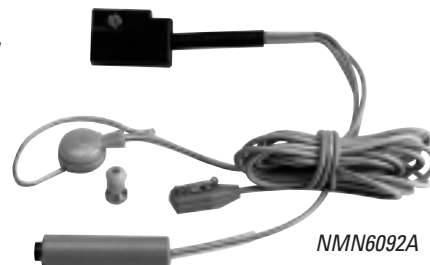
**RL-70115** Adapter, Universal; services Li-ion

**RL-70110** Adapter, Universal; service NiCd and NiMH

### Audio Accessories

#### UHF Surveillance Accessories

**NMN6092A** UHF  
Surveillance Accessory



NMN6092A

#### Remote Speaker/Microphones

Remote speaker/microphone allows user to talk and listen without removing radio from belt or carrying case. Ideal in high noise level areas. Straight and coil cord remote units have back clip for attachment to upper garment. Wired earpiece available for all models.

**NMN6070B** Remote Speaker  
Microphone Straight Cord with  
Clip Back



NMN6070B



NMN6071B

**NMN6071B** Remote Speaker  
Microphone Coil Cord with Clip Back

## MX300-S Series

### Portable Accessories

#### Audio Accessories

**NMN6072A** UHF Public Safety  
Microphone with High/Low Switch  
and PTT; order Velcro Patch and  
Antenna Separately

Antennas for NMN6072A

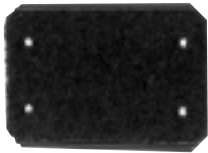
**8505309N09** 404-430 MHz, Heliflex

**8505309N10** 440-470 MHz, Heliflex

**8505309N11** 470-512 MHz, Heliflex



NMN6072A



NLN8410A

#### Velcro Patch

**NLN8410A** Velcro Patch Pin Attachment,  
(for NMN6072A Microphone)

#### Epaulet Strap

Black leather epaulet straps secure  
remote speaker microphones to epaulet  
of shirts or jackets and attach around  
cord. Allows reliable communications in  
hostile environments with Velcro or Clip  
style strap.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip



RLN4294A



RLN4295A



5005178K01

#### Earpiece

**5005178K01** Earpiece, Without  
Volume Control

**5080332A41** Plastic Insert for Earpiece

#### Audio Accessories

#### Headset/Microphone

Maintain portable two-way communications in high ambient noise  
areas with noise cancelling accessories. Noise cancelling headsets  
can be worn with or without a helmet

**NMN6065A** Noise Cancelling  
Headset/Microphone with  
Cup Microphone



NMN6065A



NMN6064A

**NMN6064A** Noise Cancelling  
Headset/Microphone with  
Boom Microphone

**NKN6207A** Adapter Kit  
(required for noise  
cancelling headsets)

**NKN6363A** Headset  
Adapter Cable



NKN6207A

## MX300-S Series

### Portable Accessories

#### Carrying Accessories

##### Carrying Cases

Standard black leather carrying cases with snap-on/off perforated full covers provide protection, yet permit clear audio. T-strap covers permit easy access to all controls. The over-the-shoulder adjustable sturdy black nylon carrying strap snaps onto the belt loop case and provides a convenient way to wear a radio. Swivel carrying cases attach to belt loop attachment by inverting radio. Radio swings freely on belt loop attachment, adjusting to body movements.

**1505333D03** Standard Carrying Case for Light and Medium Capacity Battery, with 2-1/2" Belt Loop, MX320, MX330

**1505333D04** Standard Carrying Case Med-High Capacity Battery, with 2-1/2" Belt Loop, MX320, MX330, MX340



1505333D03

**1505333D05** Standard Carrying Case for Med-Light Capacity Battery, with 2-1/2" Belt Loop, MX330, MX350



1505333D07

**1505333D06** Standard Carrying Case for High Capacity Battery and/or Non-Rechargeable Battery, with 2-1/2" Belt Loop, MX320, MX340, MX350

**1505333D07** Standard Carrying Case for High Capacity and/or Non-Rechargeable Battery, with 2-1/2" Belt Loop, MX330, MX360

#### Carrying Accessories



1505333D08

**1505333D09** Standard Carrying Case for Ultra-High Capacity Battery, with 2-1/2" Belt Loop, MX330, MX340, MX350, MX360



1505333D10

**1505333D10** Standard Carrying Case for Ultra-High Capacity Battery, with 2-1/2" Belt Loop, MX350, MX360

**1505333D11** Standard Carrying Case for Ultra-High Capacity Battery, with 2-1/2" Belt Loop

**NLN4121A** Swivel Carrying Case for High Capacity and/or Non-Rechargeable Battery, with 3" Belt Loop, MX320, MX340, MX350

## MX300-S Series

### Portable Accessories

#### Carrying Accessories



NLN4124A

#### Cover

**1505332D01** Cover for Carrying Case



1505332D01

#### Carry Holders

**NLN8862B** Carry Holder, Swivel, 3 inch

**NLN8861B** Carry Holder Belt Loop for 2 1/2 inch Belt, 1 3/4 inch wide, 60 inch long



NLN8861B

#### Carrying Accessories

#### Carrying Strap

**NTN5243A** 60 inch Carrying Strap, Requires Leather Carrying Case



NTN5243A

#### UHF and VHF 3 inch Belt Clip Back Cover

**NLN7320A** MX360



4205360D01

#### T-Strap

**4205360D01** For All Carrying Cases

#### Belt

**4200865599** 1-3/4 inch Wide Leather Belt, For All Models



4200865599

**4205857B01** 2 inch Spare Belt Loop, For Swivel Cases



## MX300-S Series

### Accessories, Antennas

#### Mobile Operation Accessories

##### Converta-Com Console Extenders

**1505716D02** Converta-Com Console 1.5" Extender Pocket (Standard)



TMN6054A

##### Microphone

**TMN6054A**  
Remote Microphone

##### Speakers

**NSN6026A** 5 Watt Audio

#### Portable Antennas

##### Heliflex

Each antenna is tested and tuned to give maximum power and performance. Antenna's connector is color coded indicating frequency. These antennas are ideal for VHF and UHF MX300 radios because of their rugged and flexible design.

**8505355K03** 403-430 MHz,  
For Use On Public Safety,  
Speaker/Microphone

**8505355K04** 440-470 MHz,  
For Use On Public Safety,  
Speaker/Microphone

**8505816K01** 136-150 MHz,  
Injection Molded

**8505816K21** 150-162 MHz,  
Injection Molded

**8505816K23** 162-174 MHz,  
Injection Molded

**8505816K24** 403-433 MHz,  
Injection Molded

**8505816K25** 450-470 MHz,  
Injection Molded

**8505816K26** 470-512 MHz,  
Injection Molded

**8505491J02** 150-162 MHz,  
PVC Dip Coated

**8505491J03** 162-174 MHz,  
PVC Dip Coated

**8505491J04** 403-440 MHz,  
PVC Dip Coated

**8505491J05** 440-470 MHz,  
PVC Dip Coated

**8505491J06** 470-512 MHz,  
PVC Dip Coated



8505355K04



8505816K01



8505491J05

## MX300-S Series



**MOTOROLA**  
intelligence everywhere™

Antennas,  
Batteries, Service  
Tools & Aids

### Portable Antennas

#### Flexible

Slightly longer than helical antenna and provides better radiation characteristics.

**8505247K06** 403-512 MHz, Molded

**NAF4000B** 806-870 MHz, Molded

**8505268F01** 403-512 MHz, PVC Dip Coated

**8505309N11** 470-512 MHz,  
For Use On Public Safety  
Speaker/Microphone



8505247K06



8505247K04

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NLN5860D**

Volts: 7.5

Avg. mAh: 1400

Height: 3-2/16"

Intrinsically Safe: Yes

### Service Tools

#### Alignment Tools

**6682186E01** Tuning Tool



6682186E01

**6605168F01** Wrench,  
Antenna Bushing Nut and  
Fuse Cap (800 MHz only)



6605168F01

### Service Aids

#### Radio Test Cable

Used with RTX4005 portable test set for transmitter, receiver alignment and performance checks

**RTK4021A** Test Cable



RTK4021A



SKN6028A

#### RF Adapter Cable

**SKN6028A** RF Adapter Cable, connects to radio jack, other end terminated with type BNC male

## MX300-S Series

### Manuals

#### Manuals

<b>6881022C05</b>	Models H23/H24/H33/H34 H43SSU, H43SXU, H44SSU, and H44SXU Operating Instructions, 136-174MHz/406-512 MHz
<b>6881022C10</b>	Models H23/H33/H43SSU 1W, 2.5W, & 6W Service Manual, 136-174 MHz
<b>6881022C50</b>	Models H43SMU Marine Radio Operating Instructions, 136-174 MHz
<b>6881022C55</b>	Models H43SMU Marine Radio Service Manual, 136-174 MHz
<b>6881024C85</b>	Models H23/H33/H43SSU 12.5 kHz Channel Spacing Service Sheet (Suppl. to 6881022C10), 136-174 MHz
<b>6881042C95</b>	Service Manual for radios with Basic SECURENET Digital Voice Protection, 136-174 MHz
<b>6881022C15</b>	Models H24/H34/H44SSU 1W, 2W & 4W Service Manual, 406-512 MHz

#### Manuals

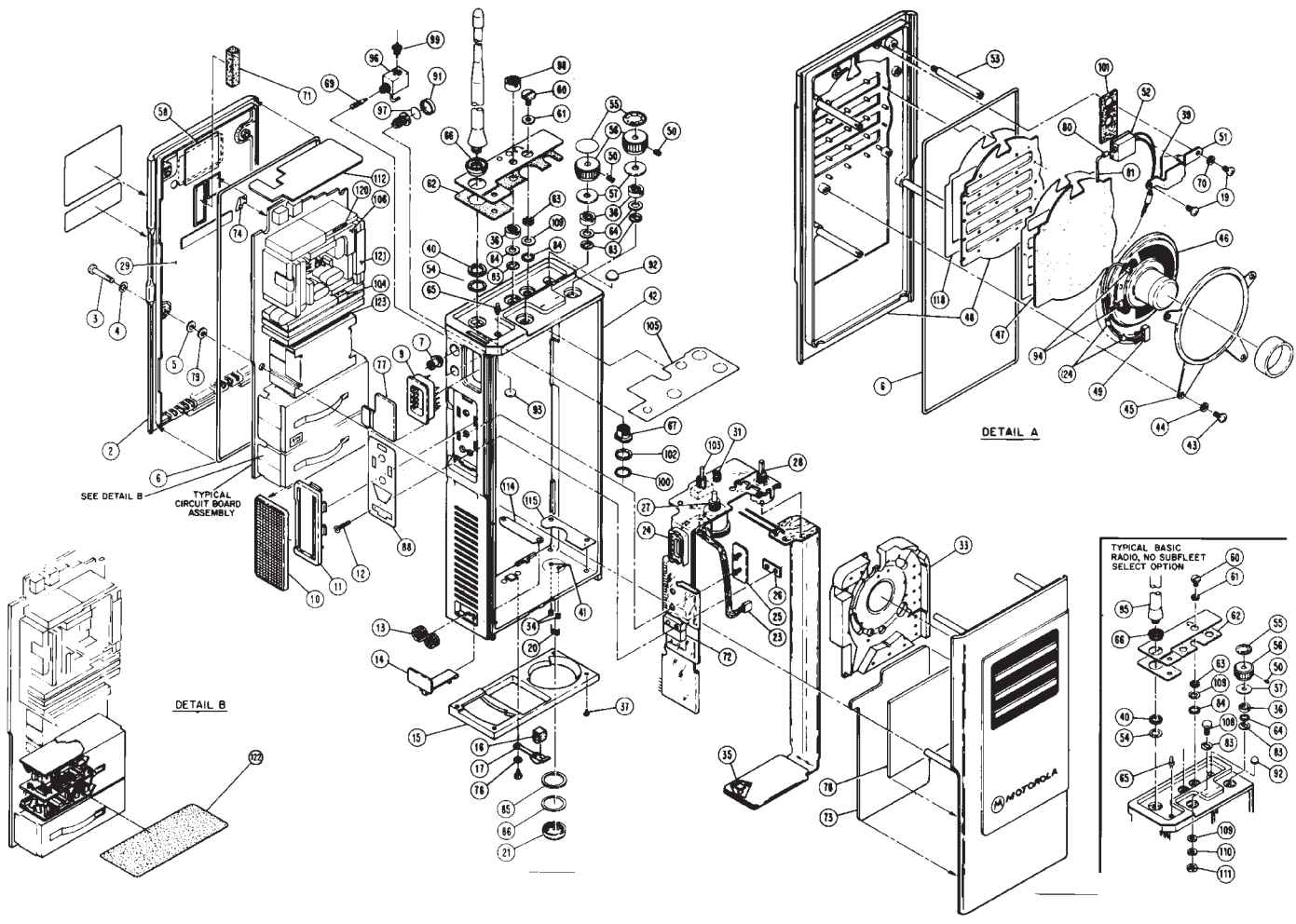
<b>6881036C85</b>	Models H23, H33, H43SXU Series Service Manual, 136-174 MHz
<b>6881036C90</b>	Models H24, H34, H44SXU Series Service Manual, 406-512 MHz
<b>6881036C95</b>	Models H23, H24, H33, H34, H43SXU and H44SXU Series Theory/Maintenance Manual, 136-174 MHz
<b>6881031C85</b>	Data Encryption Standard (DES) Options (Suppl. to 6881036C85 and 6881036C90), 136-174 MHz
<b>6881039C65</b>	With Digital Voice Protection Service Manual, 136-174 MHz

#### Miscellaneous

<b>6881030C65</b>	MDC600, MDC1200, Modat, and Select 5 Signalling Options Service Manual
<b>6881043C90</b>	Operating Instructions for Radios with Basic SECURENET Digital Protection
<b>6881043C05</b>	Supplement for Radios with Basic SECURENET Option
<b>6881047C65</b>	SECURENET Operating Instructions

# MX300-T Series

## Parts List



**Replacement parts are no longer available**

## ***MX300-T Series***

### ***Parts List***

REF. NO.	PART NO.	DESCRIPTION
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REF. NO.	PART NO.	DESCRIPTION
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***Cancelled Product MX300-T:  
Aftermarket support criteria has  
been met for spare parts. Items  
are no longer available.***



## MX300-T Series

## Portable Accessories

### Chargers

#### Single Unit Chargers

When the battery is fully charged, the charger automatically resets to a trickle charge rate. Rapid charge batteries must be charged in the rapid charge rate.

**NLN8858A** Single Unit,  
1 Hour, Rapid Charger,  
117 Volts

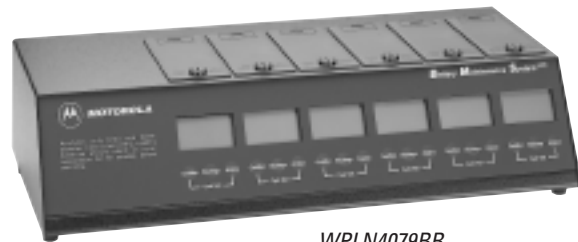


NLN8858A

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**NDN4005B** Three-Station, 110V AC, 50/60 Hz

**NDN4006B** Three-Station, 230V AC, 50/60 Hz

#### BMS<sup>plus</sup> Adapter

**TDN9445A** Standard Adapter, MX300

#### Optional Adapters

**\*\*TDN9432A** Adapter, Universal Alligator Clip Lead

**\*\*TDN9527A** Adapter, Universal Dip Switch

*\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.*

*\*\*Universal adapters available as an option to accommodate all radio types.*



## MX300-T Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapters

**RL-71181** Standard Adapter, MX300-T, 500-700 mAh

**RL-71182** Standard Adapter, MX300-T, 1100-1400 mAh

**RL-71183** Standard Adapter, MX300-T, 2000-2800 mAh

### Optional Adapters

**RL-70115** Adapter, Universal; services Li-ion

**RL-70110** Adapter, Universal; service NiCd and NiMH

### Audio Accessories

#### Headsets

The noise cancelling type headsets all but eliminate outside interference in high noise environments. The earpiece headset rests lightly, but firmly on the ear and eliminates need for a headband.



NMN6065A

**NMN6065A** Noise Cancelling Headset Microphone with Cup Microphone (requires cable adapter)

**NMN6064A** Noise Cancelling Headset Microphone with Boom Microphone (requires cable adapter)

**NKN6207A** Cable Adapter



NMN6064A

## MX300-T Series

## Portable Accessories

### Audio Accessories

**5005178K01** Earpiece without volume control

#### Remote Speaker/Microphone



Remote speaker/microphone allows user to talk and listen without removing radio from belt or carrying case. Ideal in high noise level areas. Straight and coil cord remote units have back clip for attachment to upper garment. Wired earpiece available for all models.

**NMN6070B** Remote Speaker Microphone Straight Cord with Clip Back

**NMN6071B** Remote Speaker Microphone Coil Cord with Clip Back



RLN4294A



RLN4295A

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip

### Carrying Accessories

#### Carrying Cases

Standard black leather carrying cases with snap-on/off perforated full covers provide protection, yet permit clear audio. Swivel carrying cases attach to belt loop attachment by inverting radio. Radio swings freely on belt loop attachment, adjusting to body movements.



1505333D07



1505333D10

#### Standard

**1505333D07** Carrying Case with Belt Loop for Light and Medium Battery Capacity

**1505333D10** Carrying Case with Belt Loop for High and Ultra High Battery Capacity

#### Carry Holders

**NLN8861B** Radio Holder, Belt Loop

**NLN8862B** Radio Holder, Swivel, MX360 Series. Belt loop not included.



NLN8862B

## MX300-T Series



**MOTOROLA**  
intelligence everywhere™

Accessories,  
Antennas, Batteries,  
Service Tools & Aids

### Carrying Accessories

#### Cover

**1505332D01** Carrying Case Cover



1505332D01

#### T-Strap

**4205360D01** Carrying Case Strap



4205360D01

#### Carrying Strap

**NTN5243A** 60" Carrying Strap,  
Requires Leather Carrying Case



NTN5243A

#### Belt

**4200865599** 1-3/4" Wide Leather Belt, For All Models

**4205857B01** 2" Spare Belt Loop, For Swivel Cases

### Portable Antennas

#### Heliflex

Antenna is tested and tuned to give maximum power and performance.

**NAF4000B** 806-870 MHz, Molded



NAF4000B

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NLN5860D**

Volts: 7.5

Avg. mAh: 1400

Height: 3-2/16"

Intrinsically Safe: Yes

### Service Tools

#### Alignment Tools

**6682186E01** Tuning Tool



6682186E01



6605168F01

**6605168F01** Wrench, Antenna Bushing Nut and Fuse Cap (800 Mhz only)

### Service Aids

#### Radio Test Cable

Used with RTX4005 portable test set for transmitter, receiver alignment and performance checks.

**RTK4021A** Test Cable



RTK4021A



SKN6028A

#### RF Adapter Cable

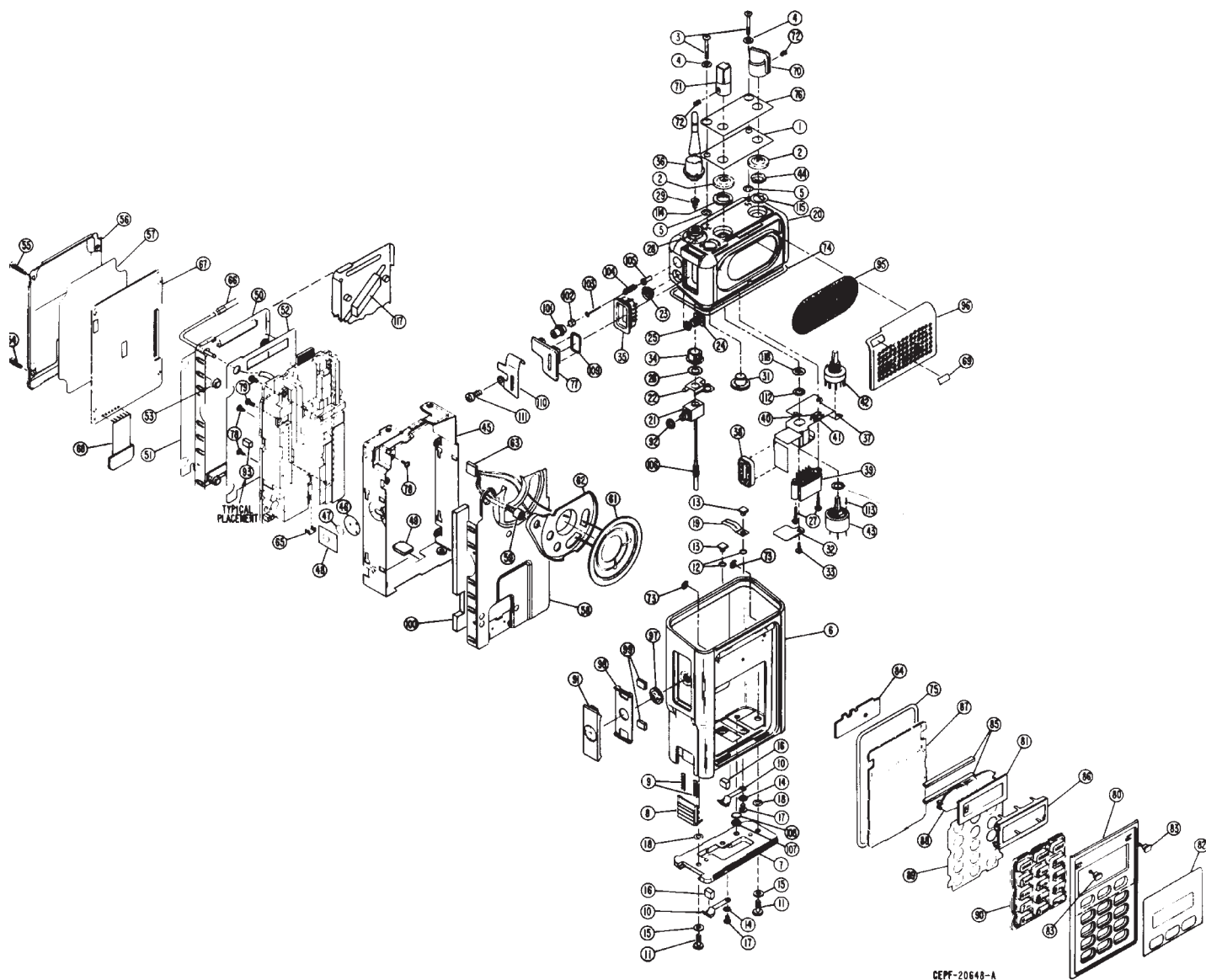
**SKN6028A** RF Adapter Cable, connects to radio jack, other end terminated with type BNC male



<https://www.motorola.com/businessonline>

# MX800 Series

## Parts List



*Replacement parts may no longer be available*

# MX800 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	----	Plate, Escutcheon
2	<b>3205933J02</b>	Seal, Switch
3	<b>0305941K04</b>	Screw, Control Top; #4-40 Captive
4	----	Lockwasher, #4
5	----	"O" Ring
6	<b>0105957K69</b>	Lower Housing Kit (includes items 97 & 98)
7	<b>6405473N01</b>	Baseplate
8	<b>5505727N01</b>	Latch, Battery
9	<b>4105944K01</b>	Spring, Latch
10	<b>3905421C13</b>	Contact, Battery
11	<b>0305941K02</b>	Screw, Baseplate; #4-40
12	<b>3205082E24</b>	"O" Ring
13	<b>4605945K03</b>	Bushing, B+
14	<b>0400002625</b>	Lockwasher, #2
15	<b>0400009761</b>	Lockwasher, #4
16	<b>0705830C02</b>	Support, Contact
17	<b>0300138651</b>	Screw, #2-56 x 1/8"; Phillips, Panhead
18	<b>3205082E11</b>	"O" Ring
19	----	Contact, B+
20	<b>NTN5206C</b>	Upper Housing Kit, with 2-pos rotary switch
	or	
	<b>NTN5205C</b>	Upper Housing Kit, with 16-pos rotary switch
21	<b>0105952M69</b>	RF Switch Assembly (includes items 22 & 106)
22	<b>0405483P01</b>	Washer, RF Jack
23	<b>0205578M01</b>	Nut, Stud
24	<b>4305577M01</b>	Stud
25	<b>3205472P07</b>	"O" Ring, Stud
26	<b>3205639F03</b>	Gasket
27	<b>0300140383</b>	Screw #2-56 x 9/16"; Phillips, Panhead
28	<b>0205588M01</b>	Nut, Antenna Seal
29	<b>0905771F02</b>	Pin, Coaxial
30	----	Not Used
31	<b>3905698N01</b>	Switch, Control
32	<b>6405187P01</b>	Plate, Control Switch
33	<b>0300136782</b>	Screw, #2-56 x 3/16"; Phillips, Panhead
34	----	Bushing, Antenna (not field replaceable; order item 20)
35	<b>1505673C03</b>	Connector, Side (J601)
36	<b>8505241U06</b>	Antenna, 800 MHz Whip
	or	
	<b>NAF4000B</b>	Antenna, 800 MHz Dipole
37	----	Control Flex Assembly with 2-position Rotary Switch (includes items 38-44, 114, & 115)
	or	
	----	Control Flex Assembly with 16-position Rotary Switch (includes items 38-44, 114, & 115)
38	<b>0905675C01</b>	Socket, Side Connector
39	<b>0905463Q01</b>	Connector, 20-Pin (J1)

REF. NO.	PART NO.	DESCRIPTION
40	----	Resistor – not available (See Electrical Parts List - R613)
41	----	Resistor – not available (See Electrical Parts List - R605)
42	----	Potentiometer – not available (See Electrical Parts List - R601)
43	<b>4005640Q08</b>	Switch, Rotary
44	<b>0200140458</b>	Nut, Volume Switch
45	----	Frame Assembly – not available (includes items 46-49)
46	----	PCB, PTT
47	----	Contact, Snap-Dome (not field replaceable; order item 45)
48	----	Seal, Dome (not field replaceable; order item 45)
49	----	Insulator, B+ (not field replaceable; order item 45)
51	----	Insulator, Logic (not field replaceable; order item 50)
52	----	Insulator, RF (not field replaceable; order item 50)
53	----	Standoff (not field replaceable; order item 50)
54	----	Screw, #2-56; Phillips, Panhead
55	<b>0305731J06</b>	Screw, #2-56; Phillips, Panhead
56	<b>NTN5108A</b>	Rear Shield Kit (includes item 57)
57	----	Insulator, Rear (not field replaceable; order item 56)
58	<b>NTN5646B</b>	Front Shield Kit (includes items 59-63 & 100)
59	----	Microphone (See Transceiver Board Parts List - MK501) – not available
60	----	Not Used
61	----	Speaker (See Transceiver Board Parts List - LS501) – not available
62	<b>4205790T01</b>	Boot, Microphone
65	<b>4205474P01</b>	Clip, B+
66	<b>0905006P01</b>	Plug, Coax; RF
68	<b>8405758N03</b>	Interconnect, Display
69	<b>3305206P01</b>	Label, Emergency
70	<b>3605295P01</b>	Knob, Volume Switch
71	<b>3605295P02</b>	Knob, Rotary Switch
72	<b>0305480E02</b>	Screw Set; #4-40 x 3/32"
73	<b>4210219A55</b>	E-Clip, Front Cover
74	<b>3205082E66</b>	"O" Ring, Control Top
75	<b>3205082E67</b>	"O" Ring, Front Cover
76	<b>1305711N10</b>	Escutcheon, 1-16
77	<b>3205606P01</b>	Seal, Side
78	<b>0300136783</b>	Screw, #2-56 x 5/16"; Phillips, Panhead
79	<b>0300139444</b>	Screw, #2-56 x 5/32"; Phillips, Panhead
80	----	Front Cover Kit, 15-key (includes items 81-90)
	or	
	<b>NTN5712A</b>	Front Cover Kit, Plain (includes items 82 & 83)

REF. NO.	PART NO.	DESCRIPTION
82	<b>1305954N09</b>	Escutcheon, Front Cover, 15-Key
	or	
	----	Escutcheon, Front Cover, Plain
83	<b>4205842R01</b>	Retainer, Front Cover
84	<b>6405761S01</b>	Plate, LCD Back-up
85	<b>2805397L09</b>	Elastomer, LCD
86	<b>1305955N01</b>	Bezel, LCD
87	----	Display Board Kit, with LCD/LED (not field replaceable; order item 80)
88	----	Light Pipe, LCD (not field replaceable; order item 80)
89	----	Shield, Static (not field replaceable; order item 80)
90	----	Keypad, 15-key (not field replaceable; order item 80)
91	<b>4505369Q01</b>	Lever, PTT
92	<b>3205853H02</b>	Gasket
93	----	Pad, RF
94	----	Not Used
95	----	Felt, Speaker (not field replaceable; order item 20)
96	----	Grille, Upper Housing (not field replaceable; order item 20)
97	----	Actuator, PTT (not field replaceable; order item 6)
98	----	Retainer, PTT (not field replaceable; order item 6)
99	<b>1105668K35</b>	Pad, Urethane
100	<b>1405784P01</b>	Insulator, Front
101	----	Nut, Retainer
102	<b>1405664J01</b>	Insulator, Plunger
103	<b>4405829J01</b>	Plunger, RF Switch
104	<b>4105836J01</b>	Spring, RF Switch
105	<b>1405787C01</b>	Insulator, Spring
106	<b>0905006P02</b>	Socket, Coax; RF (P4)
107	<b>3205082E25</b>	"O" Ring, Port
108	----	Seal, Port
109	<b>3205473P04</b>	"O" Ring, Side Seal
110	<b>NTN5023A</b>	Retainer, Side Seal (Optional)
111	----	Screw, Captive; #6-32 x 0.19" (Optional)
113	----	Pin, Stop
114	----	Nut, Rotary Switch
115	----	Washer, Retaining
116	----	Not Used
117	----	Pad, Urethane; Center Shield (not field replaceable; order item 50)
118	----	Washer, Doubled

**Cancelled Product MX800:**  
**Aftermarket support criteria has  
been met for spare parts. Items  
may no longer be available.**

## MX800 Series

## Portable Accessories

### Chargers

#### Single Unit Chargers

Single Unit Chargers are best suited for small system users, or users without centralized charging facilities. They are capable of charging batteries while they are on or off of the radio. When the battery is fully charged, a visual indication is given and the charger automatically reverts to a trickle charge rate. Actual charging time varies directly with battery capacity.



NLN8858A

**NLN8858A** Rapid  
Charge, 117 Volt

#### Adapter Kit

**NTN4529A** Adapter Kit, for  
6-Unit Charger (for Wall or Rack  
Mount Applications)



NTN4529A

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### BOS II Adapter

**RL-71223** Standard Adapter for MX800



## MX800 Series

### Portable Accessories

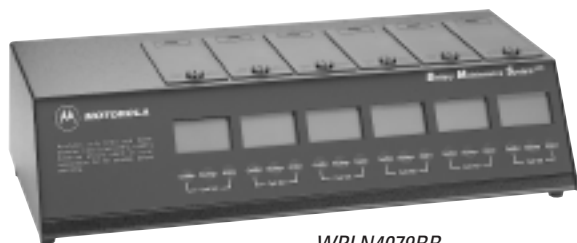
#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

#### BMS<sup>plus</sup> Adapter

**TDN9451A** Standard Adapter for MX800

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



NTN4968A

##### Swivel

**NTN4968A** Carry Case and Swivel Belt Loop Holder, For Medium Capacity Battery (Order Velcro T-Strap Separately)

**NTN4969A** Carry Case and Swivel Belt Loop Holder, For High Capacity Battery (Order Velcro T-Strap Separately)

##### Carry Holder

**NTN4350A** Carry Holder with Belt Loop, For All Models



NTN4350A

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.



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## MX800 Series

## Portable Accessories

### Carrying Accessories

#### T-Strap

**4205713P02** Nylon, Velcro, for all models



4205713P02



NTN4971A

#### Full Cover

**NTN4971A** Full Cover, Velcro, for all models

#### Belt

**4200865599** 1.75" Belt, for all models



4200865599

#### Carrying Strap

**NTN5243A** Carrying Strap, for all models



NTN5243A

#### Belt Loop

**4205857B01** 2" Belt Loop, for Swivel Case

### Audio Accessories

#### Remote Speaker Microphone

Remote speaker microphones allow the user to talk and listen without removing the radio from its belt carry case or charger. It has a top-mounted speaker for improved audio reception and audio input.

**\*NMN6176A** Remote Speaker Microphone with Coil Cord, Clip Back, 2.5 mm Earpiece Jack and Earpiece (NTN4742A)



NMN6176A

**\*NMN6177A** Remote Speaker Microphone with Coil Cord and Clip Back

#### Public Safety Remote Speaker Microphone

This microphone is very similar to the remote speaker microphones, as it is weatherized, and has the top-mounted speaker for better audio. There is an antenna for improved coverage.

**\*NMN6175A** Public Safety Remote Speaker Microphone, with Clip Back, 800-900 MHz Antenna Included



NMN6175A

\* Intrinsically safe

## MX800 Series

## Portable Accessories

### Audio Accessories

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphone to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with velcro or clip style strap.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip

**NTN4742A** Earpiece without Volume Control

**NTN4664A** Three wire surveillance accessory with earpiece microphone, and push-to-talk as separate pieces.



#### Ear Microphone System

This compact unit picks up the voice through bone vibrations in the ear canal. Ideal for use in high noise environments. Available in PTT or Voice-activated (VOX) capabilities for total hands free communications. Order Interface Module separately.

**\*BDN6677A** Ear Microphone for Standard Noise Levels (up to 95 db), Black

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95 db), Beige

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105 db), Grey



### Audio Accessories

#### Interface Module

**\*BDN6644B** Push-To-Talk Only Interface Module

#### Optional Accessories

**\*0180358B38** Remote Push-To-Talk Ring Switch

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear



**0180358B32** Earholder, Black, Size Small; secures ear mic in ear

**0180358B33** Earholder, Black, Size Medium; secures ear mic in ear

**0180358B34** Earholder, Black, Size Large; secures ear mic in ear

**0180358B35** Earholder, Clear, Size Small; secures ear mic in ear

**0180358B36** Earholder, Clear, Size Medium; secures ear mic in ear

**0180358B37** Earholder, Clear, Size Large; secures ear mic in ear



**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

\* Intrinsically safe

## Portable Accessories

### Audio Accessories

#### Headsets

All headset accessories include adapter cables and can be plugged directly into radio. No additional equipment is required.

Low to moderate noise level (less than 100 dB) lightweight headset with Electret condenser microphone and single speaker.

*NOTE: Cannot be worn with headgear.*

**BDN6350A** In-line push-to-talk switch

**BDN6351A** Pendant-thumb push-to-talk switch

High noise level (to 115 dB) noise-attenuating headset with military noise-cancelling microphone and dual speaker. *NOTE: Cannot be worn with headgear.*

**BDN6358A** In-line push-to-talk switch

**BDN6356A** Body/foot switch that can be belt mounted

High noise level headset (up to 115 dB) with bone conduction microphone and dual speaker. *NOTE: for use with respirator or face mask kit.*

**BDN6314A** Body/foot switch that can be belt mounted

### Audio Accessories

High noise level headset (Up to 125 dB) with noise-cancelling microphone and push-to-talk switch located on earcup. Vox module contained within headset on voice activated units. Intrinsically safe.

*NOTE: Can be worn with or without hardhat or fire helmet.*

**BDN6638A** Adapter Cable for BDN6645, BDN6635, and BDN6636

**BDN6645A** Push-To-Talk Headset with Boom Microphone; Requires Adapter Cable BDN6638A



**BDN6645A**  
(Shown with adapter cable BDN6638A)

**BDN6635B** Voice-Activated Headset with Boom Microphone; Requires Adapter Cable BDN6638A; includes 110V Charger



**BDN6635B**  
(Shown with adapter cable BDN6638A)



**BDN6636B**  
(Shown with adapter cable BDN6638A)

**BDN6636B** Voice-Activated Headset with Throat Microphone; Requires Adapter Cable BDN6638A; Includes 110V Charger

**0180357B05** Spare VOX Headset Charger 110V

## MX800 Series

## Portable Accessories, Antennas



### Audio Accessories

#### Helmet Kits

The following DO NOT include headgear. *NOTE: All helmet and face mask kits require a radio cable assembly (order separately).*

Industrial/Police helmet kits for Bullard (Industrial) headgear with military noise-cancelling microphone.

**BDN6275A** Single Speaker

Bell BT600 1/2 Shell headgear with military noise-cancelling microphone (cable assembly required, order separately)

**BDN6362A** Single Speaker (Police)

#### Cable Assemblies

*NOTE: All helmet kits require one of the following cable assemblies:*

**BDN6315A** Cable assembly for Police Radio helmet kit with transmit switch, volume control, microphone electronics and a push-to-talk jack built into a belt mounted control box

**BDN6292A** Cable assembly for Police Radio helmet kit with handlebar push-to-talk switch for belt mounted control box (only applies to BDN6315A)

### Portable Antenna

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

#### NAF4000B

Dipole, 806-869MHz, 8"



## MX800 Series

## Batteries, Service Aids

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN4326A**

Volts: 7.5

Avg. mAh: 1300

Height: 2-7/16"

Intrinsically Safe: No



NTN4326A

Part Number: **NTN4327C**

Volts: 7.5

Avg. mAh: 1800

Height: 3-11/16"

Intrinsically Safe: No



NTN4327C

Part Number: **NTN4500A**

Volts: 7.5

Avg. mAh: 1800

Height: 3-11/16"

Intrinsically Safe: Yes



NTN4500A

Part Number: **NTN4534A**

Volts: 7.5

Avg. mAh: 1300

Height: 2-7/16"

Intrinsically Safe: Yes

### Service Aids

#### Battery Eliminator

Allows use of external power supply to power radio.

**RTL4199A** Battery Eliminator



RTL4199A

#### Battery Block Adapter

Transceiver can be connected to the battery eliminator with this adapter so it remains functional when out of the radio.

**RTL4206A** Battery Block Adapter



RTL4206A

#### RF Adapter Cable

Control the radio locally while taking transmitter measurements by attaching this adapter to the universal side connector.

**RTK4087A** RF Cable Adapter



RTK4087A

#### SMA to BNC Adapter

Make transmitter measurements while the portable is connected to the portable test set. The adapter connects the antenna jack.

**5880384G68** SMC to BNC Adapter



## MX800 Series

## Service Aids, Manuals

### Service Aids

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.



RLN4008E

**RLN4008E** Radio Interface Box

#### Computer Interface Cable

Used to connect computer's serial adapter to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box RLN4008E.

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

### Service Aids

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Compatible with IBM XT, AT, MODEL 30, 50, 60, and 80. Requires interface box and appropriate cables, must be ordered separately.

**RVN4073B** Programming Software

### Manuals

**6881064C40**

Service Manual

**6881064C35**

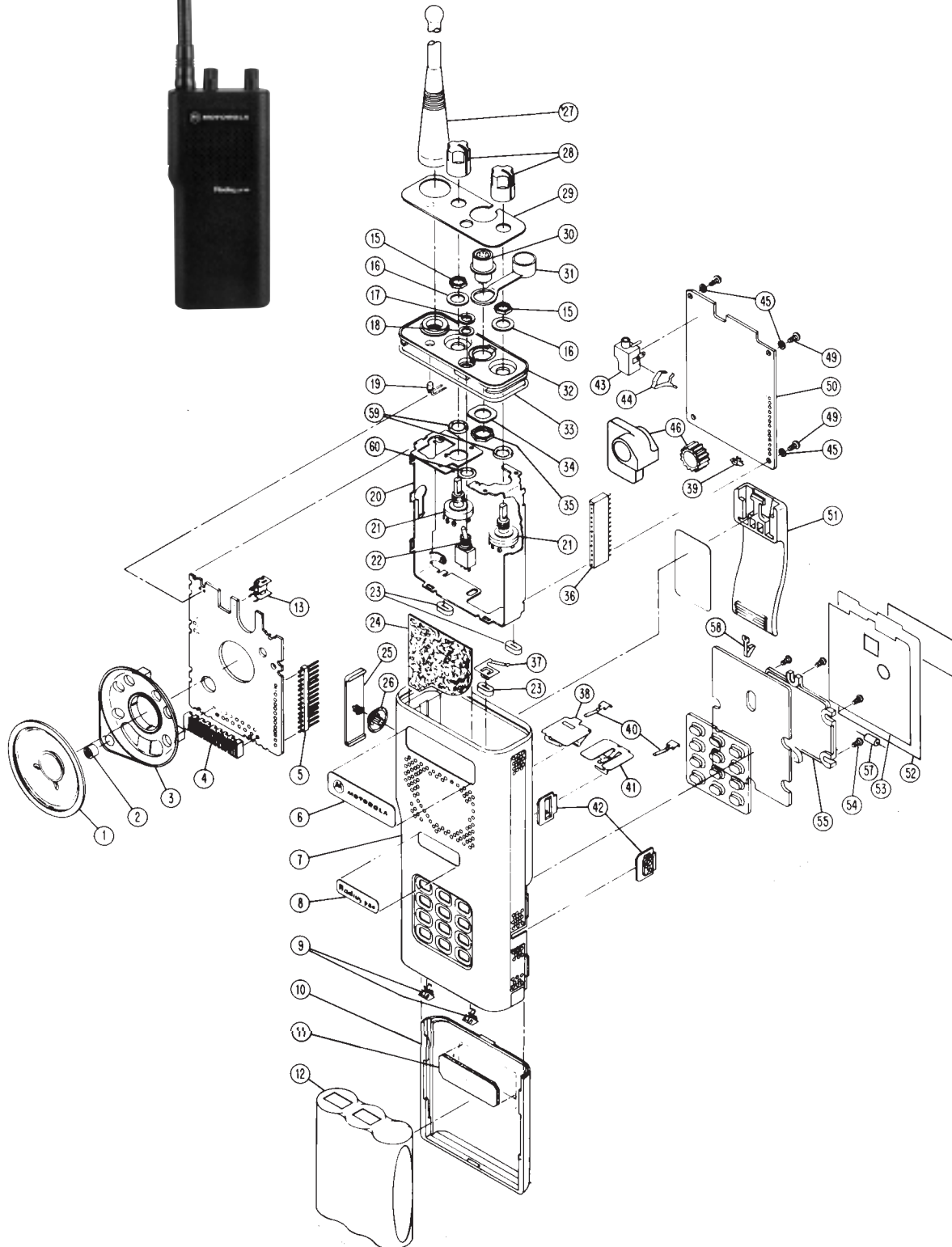
Operating Instructions

**0180305J46**

Ear Microphone System and Temple Transducer CD-ROM

## P10 Series

### Parts List



**Replacement parts may no longer be available**

# P10 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>0180701Y91</b>	Speaker, 28 ohm
2	<b>5005227J02</b>	Microphone
3	<b>4205344S01</b>	Retainer, Microphone/Speaker
4	<b>0905348T01</b>	Audio/Option Interconnect
5	<b>2805542S01</b>	Plug, 14-Pin
6	<b>1305540S01</b>	Label, Motorola
	<b>1305540S02</b>	Label, Private
7	<b>1505276T01</b>	Housing, Low Power
8	<b>1305541S02</b>	Label, Radius P10
9	<b>3905354S01</b>	Contact, Charging
10	<b>1505279T01</b>	Cover, Battery
11	<b>1105668K66</b>	Pad, Battery
12	<b>HNN9044AR</b>	Battery Pack, Six Cell
13	<b>4005286S01</b>	Switch, PTT
15	<b>0205629L02</b>	Nut, Potentiometer
16	<b>0405162Q02</b>	Washer, Potentiometer
17	<b>0205163Q01</b>	Nut, Toggle Switch Spanner
18	<b>0400139507</b>	Washer, Toggle Switch
19	---	LED
21	<b>1805509S01</b>	Potentiometer
22	---	Switch, Toggle – notavailable
23	<b>3205530S01</b>	Seal, Frame
24	<b>3505488S01</b>	Felt, Speaker
25	<b>4505283T01</b>	Lever, PTT
26	<b>3805296S01</b>	Actuator, PTT
27	<b>NAE6483AR</b>	Antenna, UHF
28	<b>0105951N79</b>	Knob, Potentiometer

REF. NO.	PART NO.	DESCRIPTION
29	<b>1305489S01</b>	Escutcheon, P10
32	<b>1505281T03</b>	Control Top
33	<b>3205082E77</b>	"O" Ring, Control Top
34	<b>0405216L04</b>	Washer, Accessory Connector
35	<b>0205765L03</b>	Nut, Accessory Connector
36	<b>0905539S01</b>	Jack, 14-Pin
37	<b>3905741S01</b>	Contact, B+ PCB
38	<b>3905736S01</b>	Contact, Battery; Negative
39	<b>4205474P03</b>	Clip, B+ Transceiver Board
40	<b>3905497S01</b>	Clip, Frame
41	<b>3905740S01</b>	Contact, Battery B+
42	<b>5505284T01</b>	Latch, Battery
43	<b>0905511S02</b>	Jack, RF
44	<b>3905337T01</b>	Contact, Antenna
45	<b>0405683D04</b>	Lockwasher
46	<b>2605642S01</b>	Heatsink
49	<b>0300136782</b>	Screw, Frame
51	<b>HLN9115A</b>	Belt Clip
52	<b>8405690S04</b>	PCB, Battery
53	<b>1105707S07</b>	Adhesive, Battery PCB
54	<b>0305073P01</b>	Screw, Option Board
55	<b>3205572T01</b>	Washer, Option Board
57	<b>4880388B70</b>	Diode, Battery PCB
58	<b>3905860S01</b>	Contact, Option Board
59	<b>3205082E01</b>	Seal, Potentiometer
60	<b>3205141Q03</b>	Seal, Toggle Switch

**Cancelled Product P10: Aftermarket support criteria has been met for spare parts. Items may no longer be available.**

## P10 Series

## Portable Accessories

### Chargers

#### Single Unit Chargers

Single unit Chargers are best suited for small system users, or users without centralized charging facilities.



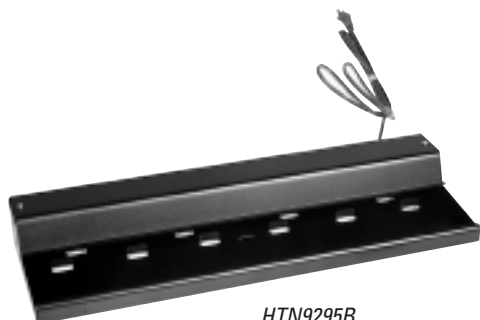
HTN9046DR

**HTN9046DR** Single Unit Charger,  
Standard Rate, 117V

**HTN9026CR** Single Unit Charger,  
Rapid Rate, 117V

**HTN9342A** Single Unit Charger, Standard Rate, 220V, European Plug

**HTN9425B** Single Unit Charger, Rapid Rate, 220V European Plug



HTN9295B

**HTN9295B** Multi-Unit charger Conversion Kit. Provides a convenient means for housing from 1 to 6 single unit battery chargers. Each charger operates independently. Approved for use with HTN9046 and HTN9026 only. This is not a multi-unit charger.

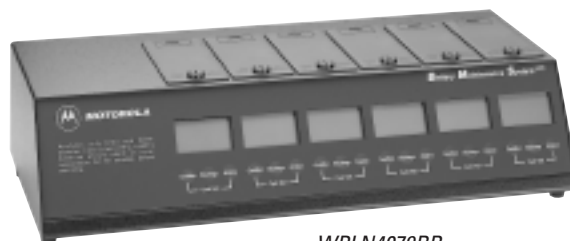
### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

#### BMS<sup>plus</sup> Adapters

**TDN9446A** Standard Adapter, 4 and 5 Watt P10, 630-650 mAh

**TDN9447A** Standard Adapter, 2 Watt P10, 550 mAh

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## P10 Series

### Portable Accessories

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter**

**RL-71292** Standard Adapter, P10

#### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) cellular batteries in approximately an hour.



WPPN4002BR

**WPPN4002BR** 110V AC  
Base Charge Unit only

**WPPN4006AR** 220V AC  
Base Charge Unit only

**WPPN4008BR** 7 Volt  
Adapter only

**WPLN4092BR** MCC Kit, 110V AC; includes both base unit and 7V adapter

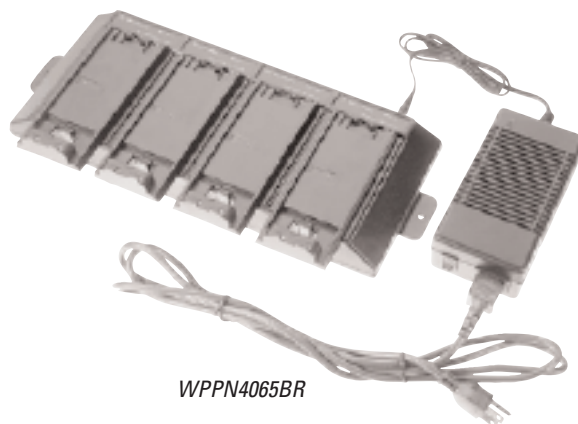
**WPLN4093BR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Mounting Bracket for single unit conditioning charger

#### **MCC Multi-Unit Conditioning Charger**

**WPPN4065BR** Four-station Base, 110V. (Order adapter plates separately)



WPPN4065BR

## P10 Series

### Portable Accessories

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



HLN9147A

**HLN9147A** Nylon Carry Case, Low Power

**HLN9148A** Nylon Carry Case, High Power

**HLN9116A** Leather Carry Case with Belt Loop, Low Power

**HLN9146A** Leather Carry Case with Belt Loop, High Power

##### Belt Clip

**HLN9115A** Belt Clip



HLN9115A

##### Belt

**4200865599** 1.75" wide leather belt

#### Carrying Accessories

##### Shoulder Strap

**HLN9150A** Shoulder Strap



HLN9150A

##### Swivel Adapter

**HLN9149AR** Swivel Adapter for Leather Belt Loop Cases



HLN9149AR

##### Universal Carry Accessories

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602



HLN6602A

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

**RLN4570A** Break-A-Way Chest Pack; all of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure.



## P10 Series



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## Portable Accessories, Antennas

### Audio Accessories



RLN4295A

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with clip style strap.

**RLN4295A** Epaulet Strap, Small Clip

**HMN9083D** Remote Speaker Microphone with Coiled Cord

### Portable Antennas

#### Heliflex Antennas

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

##### NAD6502AR

Heliflex, 146-174MHz, 6"



NAD6502AR

##### HAD9337A

Heliflex, 163-175MHz, 5"

##### 8505816K24

Heliflex, 403-430MHz, 3"

##### 8505816K25

Heliflex, 440-470MHz, 3"



8505816K26

##### 8505816K26

Heliflex, 470-512MHz, 3"

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### NAE6483AR

Flexible Whip, 403-520MHz, 6"



NAE6483AR



<https://www.motorola.com/businessonline>

## P10 Series

## Batteries, Service Tools

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN9027A**

Volts: 11.25

Avg. mAh: 630

Height: 3-3/8"

Intrinsically Safe: No



HNN9027A

Part Number: **HNN9044AR**

Volts: 7.5

Avg. mAh: 550

Height: 2-3/16"

Intrinsically Safe: No



HNN9044AR

Part Number: **HNN9233A**

Volts: 7.5

Avg. mAh: 550

Height: 2-3/16"

Intrinsically Safe: Yes

Part Number: **HNN9234A**

Volts: 11.25

Avg. mAh: 550

Height: 3-3/8"

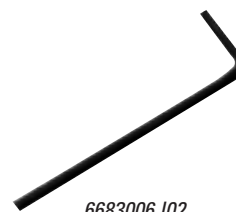
Intrinsically Safe: Yes

### Service Tools

#### Tuning Tools

**6683006J02** Spline Wrench, for  
Preselector Tuning Slugs

**6680343A15** Thin Blade Screwdriver, for  
RF Power Amplifier Alignment



6683006J02

#### Torque Screwdriver

**RSX4043A** Adjustable Torque  
Screwdriver, Order Bits Separately

**6680371B03** Hex Socket Bit, for  
Volume and Squelch Nuts

**6680370B95** Spanner Bit, for  
Frequency Toggle Switch

**6680334B38** 1" Adapter  
Extension, Required for  
6680388A58, and 6605853S01



RSX4043A

## ***P10 Series***



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## ***Service Aids, Manuals***

### ***Service Aids***

#### ***RF Adaptor Cable***

RF Adapter Cable connects radio RF directly to test equipment.

**RKN4000A** RF Adapter Cable Terminated with BNC Female,  
Opposite End Fits Antenna Ferrule on Radio.

### ***Manuals***

#### **6881068C60**

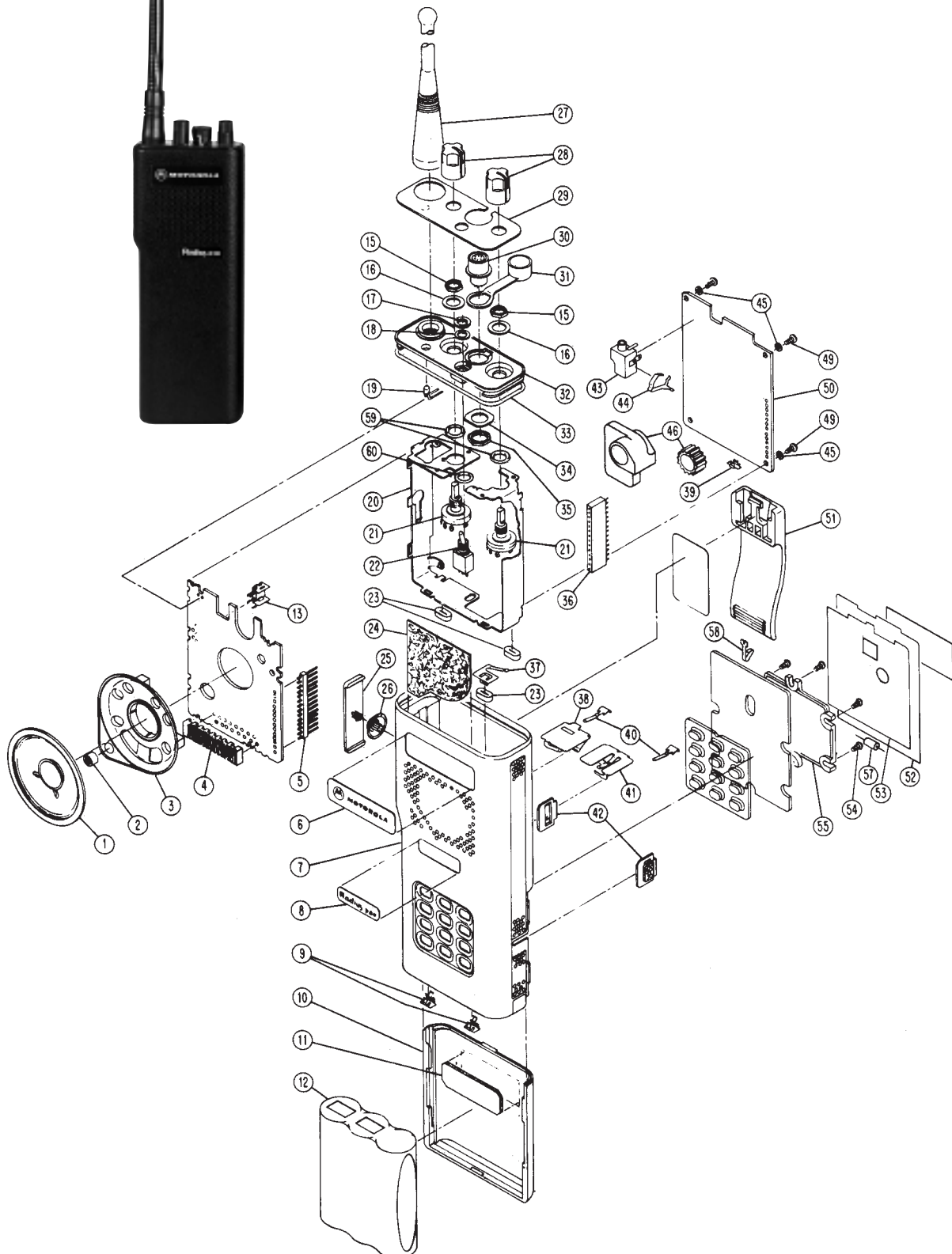
Instruction Manual, 150.8-162 MHz High  
Band/VHF and 450-470 UHF/450



<https://www.motorola.com/businessonline>

## P50 Series

### Parts List



*Replacement parts may no longer be available*

## P50 Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>0180701Y91</b>	Speaker, 28 ohm
2	<b>5005227J02</b>	Microphone
3	<b>4205344S01</b>	Retainer, Microphone/Speaker
4	<b>0905348T01</b>	Audio/Option Interconnect
5	<b>2805542S01</b>	Plug, 14-Pin
6	<b>1305540S01</b>	Label, Motorola
	<b>1305540S02</b>	Label, Private
7	<b>1505276T01</b>	Housing
8	<b>1305541S01</b>	Label, Radius P50
9	<b>3905354S01</b>	Contact, Charging
10	<b>1505279T01</b>	Cover, Battery
11	<b>1105668K66</b>	Pad, Battery
12	---	Battery Pack; See Service Manual
13	<b>4005286S01</b>	Switch, PTT
15	<b>0205629L02</b>	Nut, Potentiometer
16	<b>0405162Q02</b>	Washer, Potentiometer
17	<b>0205163Q01</b>	Nut, Toggle Switch Spanner
18	<b>0400139507</b>	Washer, Toggle Switch
19	---	LED
20	<b>0705201T03</b>	Frame Housing, Finished
	and	
	<b>1505281T03</b>	Housing, Finished
21	<b>1805509S01</b>	Potentiometer
22	---	Switch, Toggle
23	<b>3205530S01</b>	Seal, Frame
24	<b>3505488S01</b>	Felt, Speaker
25	<b>4505283T01</b>	Lever, PTT
26	<b>3805296S01</b>	Actuator, PTT
27	---	Antenna; See Service Manual
28	<b>0105951N79</b>	Knob, Potentiometer

REF. NO.	PART NO.	DESCRIPTION
29	<b>1305489S02</b>	Escutcheon, P50
30	<b>0905336N01</b>	Connector, Accessory (P50 only)
31	<b>3805285T01</b>	Dust Cap (P50 only)
32	<b>1505281T03</b>	Control Top
33	<b>3205082E77</b>	"O" Ring, Control Top
34	<b>0405216L04</b>	Washer, Accessory Connector
35	<b>0205765L03</b>	Nut, Accessory Connector
36	<b>0905539S01</b>	Jack, 14-Pin
37	<b>3905741S01</b>	Contact, B+ PCB
38	<b>3905736S01</b>	Contact, Battery Negative
39	<b>4205474P03</b>	Clip, B+ Transceiver Board
40	<b>3905497S01</b>	Clip, Frame
41	<b>3905740S01</b>	Contact, Battery B+
42	<b>5505284T01</b>	Latch, Battery
43	<b>0905511S02</b>	Jack, RF
44	<b>3905337T01</b>	Contact, Antenna
45	<b>0405683D04</b>	Lockwasher
46	<b>2605642S01</b>	Heatsink
49	<b>0300136782</b>	Screw, Frame
51	<b>HLN9115A</b>	Belt Clip
52	<b>8405690S04</b>	PCB, Battery
53	<b>1105707S07</b>	Adhesive, Battery PCB (Low Power)
	or	
	<b>1105707S06</b>	Adhesive, Battery PCB (High Power)
54	<b>0305073P01</b>	Screw, Option Board
55	<b>3205572T01</b>	Washer, Option Board
57	<b>4880388B70</b>	Diode, Battery PCB
58	<b>3905860S01</b>	Contact, Option Board
59	<b>3205082E01</b>	Seal, Potentiometer
60	<b>3205141Q03</b>	Seal, Toggle Switch

**Cancelled Product P50: Aftermarket support criteria has been met for spare parts. Items may no longer be available.**

## P50 Series

## Portable Accessories

### Chargers

#### Single Unit Chargers

Single unit chargers are best suited for small system users, or users without centralized charging facilities.

**HTN9046DR** Single Unit Charger,  
Standard Rate, 117V

**HTN9026CR** Single Unit Charger,  
Rapid Rate, 117V



HTN9046DR

**HTN9425B** Single Unit Charger, Rapid Rate, 220V,  
European Plug

**HTN9342A** Single Unit Charger, Standard Rate, 220V, European Plug

**HTN9295B** Multi-Unit Charger Conversion Kit. Provides a convenient means for housing from 1 to 6 single unit battery chargers. Each charger operates independently. Approved for use with HTN9046 and HTN9026 only. **This is not a multi-unit charger.**

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

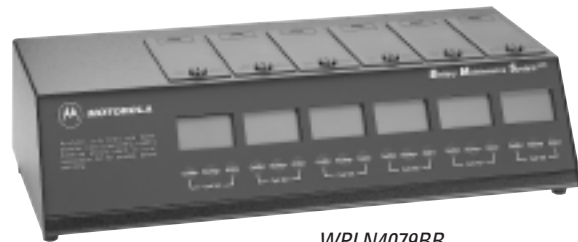
Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field upgrade kit for WPLN4079AR, WPLN4080AR and WPLN4081AR allows these units to support Li-ion battery chemistries



WPLN4079BR

#### BMS<sup>plus</sup> Adapters

**TDN9446A** Standard Adapter, 4 and 5 Watt P50, 630-650 mAh

**TDN9447A** Standard Adapter, 2 Watt P50, 550 mAh

\* Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## P50 Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapters

**RL-71292** Standard Adapter, P50

### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.



WPPN4002BR

**WPPN4002BR** 110V AC  
Base Charge Unit only

**WPPN4006AR** 220V AC  
Base Charge Unit only

**WPPN4008BR** 7 Volt  
Adapter only

**WPLN4092BR** MCC Kit, 110V AC; includes both base unit and 7V adapter

**WPLN4093BR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Mounting Bracket for single unit conditioning chargers

### MCC Multi-Unit Conditioning Charger

**WPPN4065BR** Four-station Base, 110V. (Order adapter plates separately)



## P50 Series

## Portable Accessories

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



**HLN9147A** Nylon Carry Case, Low Power

**HLN9148A** Nylon Carry Case, High Power

**HLN9116A** Leather Carry Case with Belt Loop, Low Power

**HLN9146A** Leather Carry Case, High Power

**HLN9184A** Leather Carry Case, Low Power, DTMF

**HLN9185A** Leather Carry Case, High Power, DTMF



**HLN9116A**

#### Belt Clip

**HLN9115A** Belt Clip

#### Belt

**4200865599** 1.75" wide leather belt



**HLN9115A**

### Carrying Accessories

#### Shoulder Strap

**HLN9150A** Shoulder Strap



**HLN9150A**



**HLN9149A**

#### Swivel Adapter

**HLN9149AR** Swivel Adapter for Leather Belt Loop Cases



**HLN6602A**

#### Universal Carry Accessories

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

**RLN4570A** Break-A-Way Chest Pack; all of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure.

## P50 Series

## Portable Accessories, Antennas



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### Audio Accessories

#### Headsets/Speaker Microphone

**5005125R05** Headset with Boom  
Microphone (without VOX)

**HMN9083D** Remote Speaker  
Microphone with Coiled Cord

**NSN6050A** Earpiece without  
Volume Control



5005125R05

#### Earmolds

**5083851B01** Earmold, Right Ear

**5083851B02** Earmold, Left Ear



RLN4295A

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with clip style strap.

**RLN4295A** Epaulet Strap, Small Clip

#### Ear Mics

Single unit microphone and speaker worn in the ear. Eliminates the need for handheld microphones or conventional headsets. Compact, rugged design allows use under hearing protectors and protective clothing. Order cable separately.

**0180359A51** Optional PTT Ring Switch for  
RMN4001B only

**0180356B97** Optional PTT Ring Switch for  
RMN4001B only



0180359A51

### Portable Antennas

#### Heliflex Antennas

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

##### \*NAB6064A

Heliflex, 30-50MHz, 12"

##### NAD6502AR

Heliflex, 146-174MHz, 6"

##### HAD9337A

Heliflex, 163-175MHz, 5"



NAD6502AR

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### NAE6483AR

Flexible Whip, 403-520MHz, 6"



NAE6483AR

\*NAB6064A is an uncut antenna. Cutting instructions and chart supplied with antenna



<https://www.motorola.com/businessonline>

## P50 Series

## Batteries, Alignment & Service Tools



### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN9027A**

Volts: 11.25

Avg. mAh: 630

Height: 3-3/8"

Intrinsically Safe: No



HNN9027A

Part Number: **HNN9044AR**

Volts: 7.5

Avg. mAh: 550

Height: 2-3/16"

Intrinsically Safe: No

Part Number: **HNN9233A**

Volts: 7.5

Avg. mAh: 550

Height: 2-3/16"

Intrinsically Safe: Yes

Part Number: **HNN9234A**

Volts: 11.25

Avg. mAh: 550

Height: 3-3/8"

Intrinsically Safe: Yes

Part Number: **HNN9018AR**

Volts: 7.5

Avg. mAh: 1200

Height: 3-3/8"

Intrinsically Safe: No

### Alignment Tools

**6683006J02** Spline Wrench, for Preselector  
Tuning Slugs



6683006J02

**6605106N01** Alignment Tool, for Coil Tuning



6605106N01

**6680343A15** Thin Blade  
Screwdriver, for RF Power  
Amplifier Alignment



6680343A15

### Service Tools

**RSX4043A** Adjustable  
Torque Screwdriver  
(Order Bits Separately)



RSX4043A

**6680371B03** Hex  
Socket Bit, for Volume  
and Squelch Nuts

**6680370B95** Spanner  
Bit, for Frequency  
Toggle Switch

**6680334B38** 1" Adapter Extension Bit, Required for 6680388A58,  
and 6605853S01

## P50 Series

## Service Tools, Aids, Manuals

### Service Tools

#### Programming Software For P50+

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Compatible with IBM XT, AT Model 30, 50, 60, and 80. Requires Radio Interface Box and proper cables, order separately.

**RVN4134B** Programming Software (includes manual and storage box)

### Service Aids

#### RF Adapter Cable

Connect radio RF directly to test equipment.

**RKN4000A** RF Adapter Cable  
Terminated with BNC Female,  
Opposite End Fits Antenna on Radio



RKN4000A



RLN4008E

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer.

**RLN4008E** Radio Interface Box

### Service Aids

#### Wall Mounted Power Supply

Used to supply power to radio interface box , RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

#### Programming Cable

Connects radio interface box to radio for programming.

**0180358A62** Programming Cable

#### Computer Interface Cable

Used to connect computers serial adapter to Radio Interface Box.

**3080369B71** Cable, RIB to  
25 pin D

**3080369B72** Cable, RIB to  
9 pin D



3080369B71

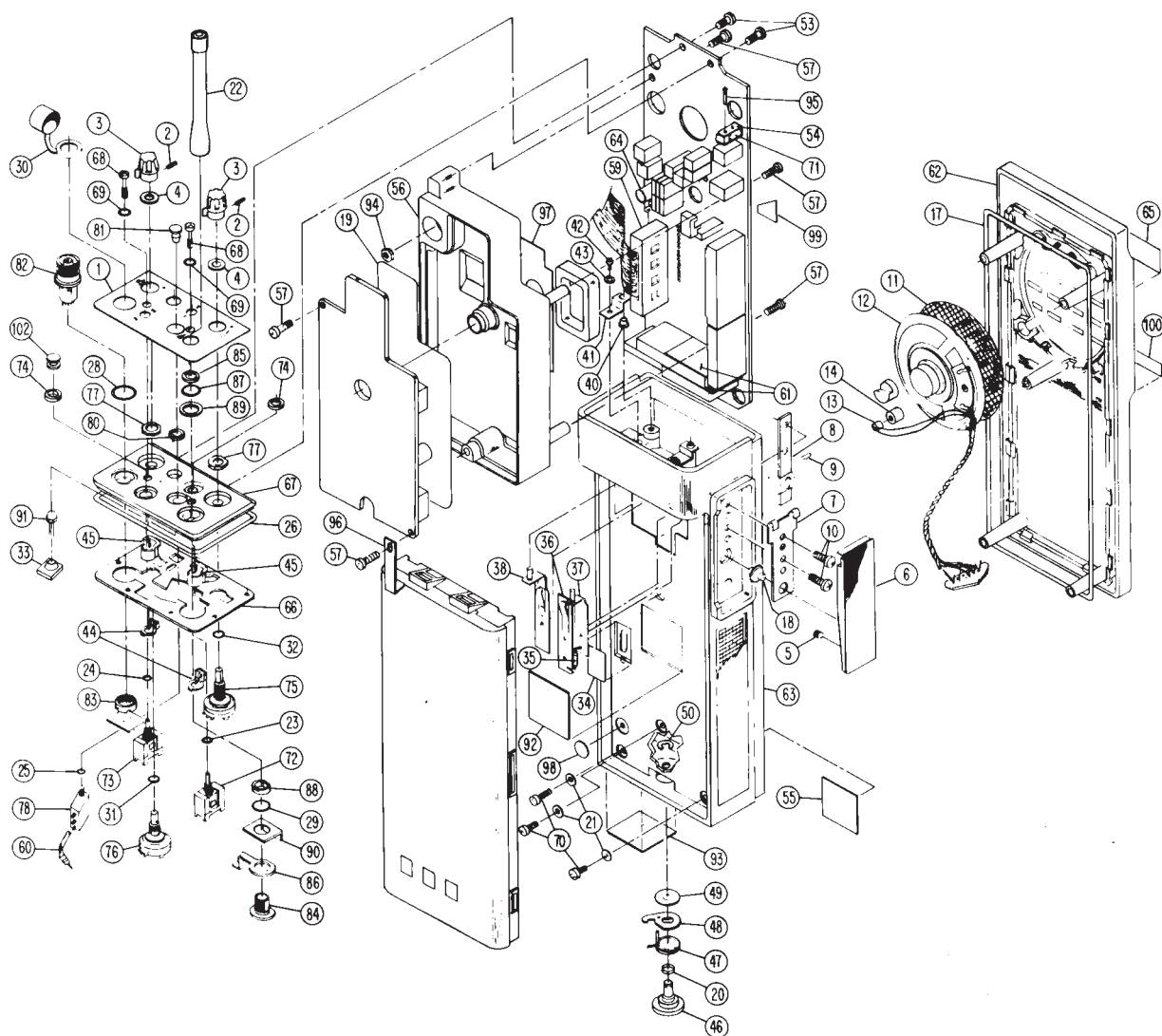
### Manuals

**6881068C60**

Instruction Manual, 150.8-162 MHz High  
Band/VHF and 450-470 UHF/450

## P100 Series

### Parts List



*Replacement parts may no longer be available*

# P100 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>1305227Q01</b> or <b>1305227Q02</b>	Escutcheon (High/Low Power Models only)
2	<b>0383174C02</b>	Screw, Set
3	<b>3605207J03</b>	Knob, Volume and Squelch
4	<b>0405171J02</b>	Washer, Nylon; Black
5	<b>4182093A07</b>	Spring, Actuator; Coiled
6	<b>4505244Q01</b>	Actuator, Push-to-Talk
7	<b>0705175J01</b>	Bracket, Actuator
8	<b>4105176J01</b>	Spring, Actuator
9	<b>2205390M01</b>	Pin, Retainer
10	<b>0305466C02</b>	Screw, Special; 4-40 x 0.140"
11	<b>3505143Q04</b>	Adhesive, Felt
12	<b>5005234Q01</b>	Speaker (LS401)
13	<b>5013920A01</b> <b>1405299L02</b> <b>7505564S02</b>	Microphone (MK401) Boot Pad
14	<b>1405219Q01</b>	Boot, Microphone
17	<b>3205220Q01</b>	Gasket, Seal
18	<b>3205332K01</b>	Seal
19	----	Insulator – not available
20	<b>3205082E14</b>	Gasket
21	<b>0484345A06</b>	Washer, Seal
22	----	Antenna
23	<b>3205141Q03</b>	Seal, "O" Ring (Freq. Sw)
24	<b>3205141Q03</b>	Seal, "O" Ring (Power Sw)
25	<b>3205082E22</b>	Seal, "O" Ring (RF Jack)
26	<b>3205082E38</b>	Seal, "O" Ring (Control Top)
28	<b>3205082E12</b>	Seal, "O" Ring
29	<b>3205082E21</b>	Seal, "O" Ring
30	----	Seal, Cap
31	<b>3205082E01</b>	Seal, "O" Ring (Sq. Sw)
32	<b>3205082E01</b>	Seal, "O" Ring (Vol. Sw)
33	----	Seal, LED
35	<b>6505214E01</b>	Fuse, (F501), 2 Amp
36	*	Contact, Positive
37	*	Contact, Strap
38	*	Contact, Negative
39	----	Not used
40	----	Bushing, Shoulder
41	<b>3905567L02</b>	Contact
42	<b>0300139444</b>	Screw, Machine 2-56 x 5/32"
43	<b>0400008406</b>	Lockwasher
44	----	Contact
45	**	Bushing
46	<b>4605170J01</b>	Stud, Latch
47	----	Spring, Latch
48	<b>5505150L01</b>	Latch, Pawl
49	<b>0405171J01</b>	Washer, Teflon
50	<b>4210219A25</b>	Retainer, E-Clip
53	<b>0305887J01</b>	Screw, Slotted; 4-40 x 3/16"
55	<b>1305436E01</b>	Label, Patent
56	<b>2602129J01</b>	Shield, Heat Sink

REF. NO.	PART NO.	DESCRIPTION
57	<b>0300139444</b>	Screw, Machine 2/56 x 5/32"
59	<b>0905297Q01</b>	Connector, Flex
60	<b>2905540C01</b>	Lug, Coax
61	<b>1105668K16</b>	Pad, Urethane
62	----	Front Cover – not available
63	----	Assembly, Housing; includes items 36, 37, & 38 – not available
65	<b>3305214Q01</b>	Label, Nameplate
66	**	Plate, Retainer
67	**	Panel, Control
68	<b>0305662D17</b>	Screw, Captive
69	<b>0482418B09</b>	Insulator
70	<b>0300120621</b>	Screw, Phillips; 4-40 x 1/4"
71	----	Switch, PTT (S202)
72	<b>4005233Q01</b>	Switch, Freq. (S201) Toggle
73	<b>4005233Q01</b>	Switch, Pwr. (S203) Toggle
74	<b>0205163Q01</b>	Nut, Spanner
75	<b>1805223Q01</b>	Switch, Volume/On-Off (R202/S204)
76	<b>1805223Q01</b>	Switch, Squelch PL/Disable (R201/S205)
77	<b>0205629L02</b>	Nut, Hex
78	<b>0905786J01</b>	Jack, Antenna
79	----	Not used
80	----	Nut, Spanner – not available
81	<b>0310129A24</b>	Screw, Slotted Nylon
82	<b>RPX4630A</b>	Connector, Universal
83	<b>0205050E07</b>	Nut, Spanner
84	<b>4305199Q01</b>	Bushing, Antenna
85	<b>0205765L02</b>	Nut, Antenna
86	----	Lug, Antenna – not available
87	<b>0405216L04</b>	Washer, Flat
88	<b>1405208L01</b>	Insulator, Antenna Bushing
89	<b>1405210L02</b>	Insulator, Antenna Nut
90	<b>1405232Q01</b>	Insulator, Lug
91	----	LED
92	----	Label, Freq.; not field replaceable
93	----	Label, FCC; not field replaceable
94	<b>0200007007</b>	Nut, Transistor
95	----	Rivet, PTT; not field replaceable
96	----	Strap, Module Retainer
98	<b>3205678R01</b>	Seal
99	----	Ground, Plate
100	<b>3305717R01</b>	Nameplate
101	----	Not used
102	----	Seal, Plug (Low Power only)

\*Items 36, 37, & 38 are not field repairable; order applicable Housing Assembly (item 63).

\*\*Items 45, 66, & 67 are not field repairable; order Assembly: 0105955N66.

**Cancelled Product P100: Aftermarket support  
criteria has been met for spare parts. Items  
may no longer be available.**

## P100 Series

## Portable Accessories

### Chargers

Single unit, compact, or multi-unit chargers are available. Provides quick and accurate charge for all RADIUS batteries. The multi-unit charger can be wall or rack mounted; order separately.

#### Single Unit

**NTN4881B** Compact, Regular Charge Rate, 117V

**4305341T01** Spacer, for Standard Chargers, Allows Battery Charging Without the Radio

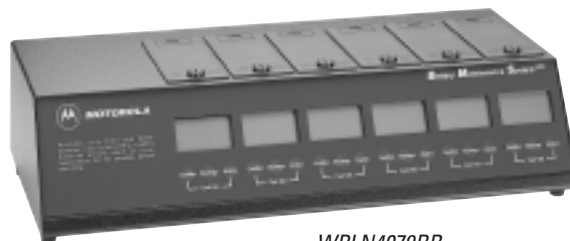
### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

#### BMS<sup>plus</sup> Adapter

**TDN9449A** Standard Adapter, P100

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.



## P100 Series

### Portable Accessories

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### BOS II Adapter

**RL-71163** Standard Adapter

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



NTN1032B

**NTN1032B** Urethane Carry Case, for Standard Battery



NTN1033B

**NTN1033B** Urethane Carry Case, Swivel for Standard Battery (order swivel belt loop separately)

**NTN5549A** Leather carry case for medium capacity batteries

**NTN5548A** Leather carry case with belt loop for medium capacity batteries



NTN4865C

##### Carry Holder

**NTN4865C** Belt Clip, Carry Holder for Standard Battery



4282421J06

##### Swivel Belt Loop

**4282421J06** 2-1/2" Swivel Belt Loop

## P100 Series

## Portable Accessories

### Carrying Accessories



NTN5243A

#### Carrying Strap

**NTN5243A** Carrying Strap, Black

#### Belt

**4200865599** 1.75" Wide Leather Belt, for all models



4200865599

### Universal Carry Accessories



HLN6602A

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

**RLN4570A** Break-A-Way Chest Pack; all of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure.



RLN4570A

### Audio Accessories

#### Remote Speaker/Microphone

**NTN4849A** Remote Speaker/Microphone with Coil Cord



NTN4849A

#### Ear Piece

**NTN5633A** Ear Piece



RLN4295A

#### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord. Allows reliable communications in hostile environments with clip style strap.

**RLN4295A** Epaulet Strap, Small Clip

#### Ear Mikes

Single unit microphone and speaker worn in the ear. Eliminates the need for handheld microphones or conventional headsets. Compact rugged design allows use under hearing protectors and protective clothing. Order cable separately.

**RMN4001B** Ear Mike, EM200



RMN4001B

**0180359A51** Optional PTT Ring Switch for RMN4001A only

**0180356B97** Optional PTT Ring Switch for RMN4001B only



0180359A51

## P100 Series

## Antennas, Batteries, Tools

### Portable Antennas

#### Heliflex Antenna

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

##### HAD9338AR

Heliflex, 136-150.8 MHz, 6"

##### NAD6502AR

Heliflex, 150.8-162 MHz, 6"

##### HAD9337A

Heliflex, 163-175 MHz, 5"



NAD6502AR



NAE6483AR

#### Flexible Whip

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### NAE6483AR

Flexible Whip, 403-520 MHz, 6"

### Alignment Tools

**6605106N01** Tuning Tool, Adjusts Tunable Coils (except L300, Preselector Ref Oscillator Frequency, and Trimmer Caps)



6605106N01

**6680384B73** Tuning Tool, Adjusts Tunable L300 Coil

### Service Tools



RSX4043A

6680371B34

6680321B86

**RSX4043A** Adjustable Torque Screwdriver, Order Bits Separately

**6680371B34** Spanner Tool Bit, for Antenna Bushing Nut

**6680371B03** Nut Driver Bit, for Volume Switch Nut

**6680370B95** Spanner Tool Bit, for Toggle Switch Nut

**6680321B79** Phillips Power Bit #1, for Radio Screws

**6680321B86** Phillips Bit #0, for Radio Screws

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN5451B**

Volts: 10

Avg. mAh: 1100

Height: 5-7/16"

Intrinsically Safe: No



NTN5451B



## Service Aids

### Service Aids

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

#### Interface Cable

Used to connect computer's serial adapter to radio interface box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

### Service Aids

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RTK4038B** Test and Programming Cable, Testing Done with Radio Front Cover Off

#### Battery Eliminator/Program Cable

Allows use of external power supply to power radio. Also used to program radio parameters. Reverse supply polarity/input protection provided.



RTK4208B

**RTK4208B** Battery Eliminator/Program Cable

## P100 Series

### Service Aids, Manuals

#### Service Aids



2680367B50

#### Heat Sink

Allows the power transistor to be heatsinked during troubleshooting.

**2680367B50** Heat Sink

#### Manuals

**6881050C80**

Maintenance Manual, VHF

**6881055C40**

Operating Manual, 6 Channel

**6881055C50**

Maintenance Manual, UHF

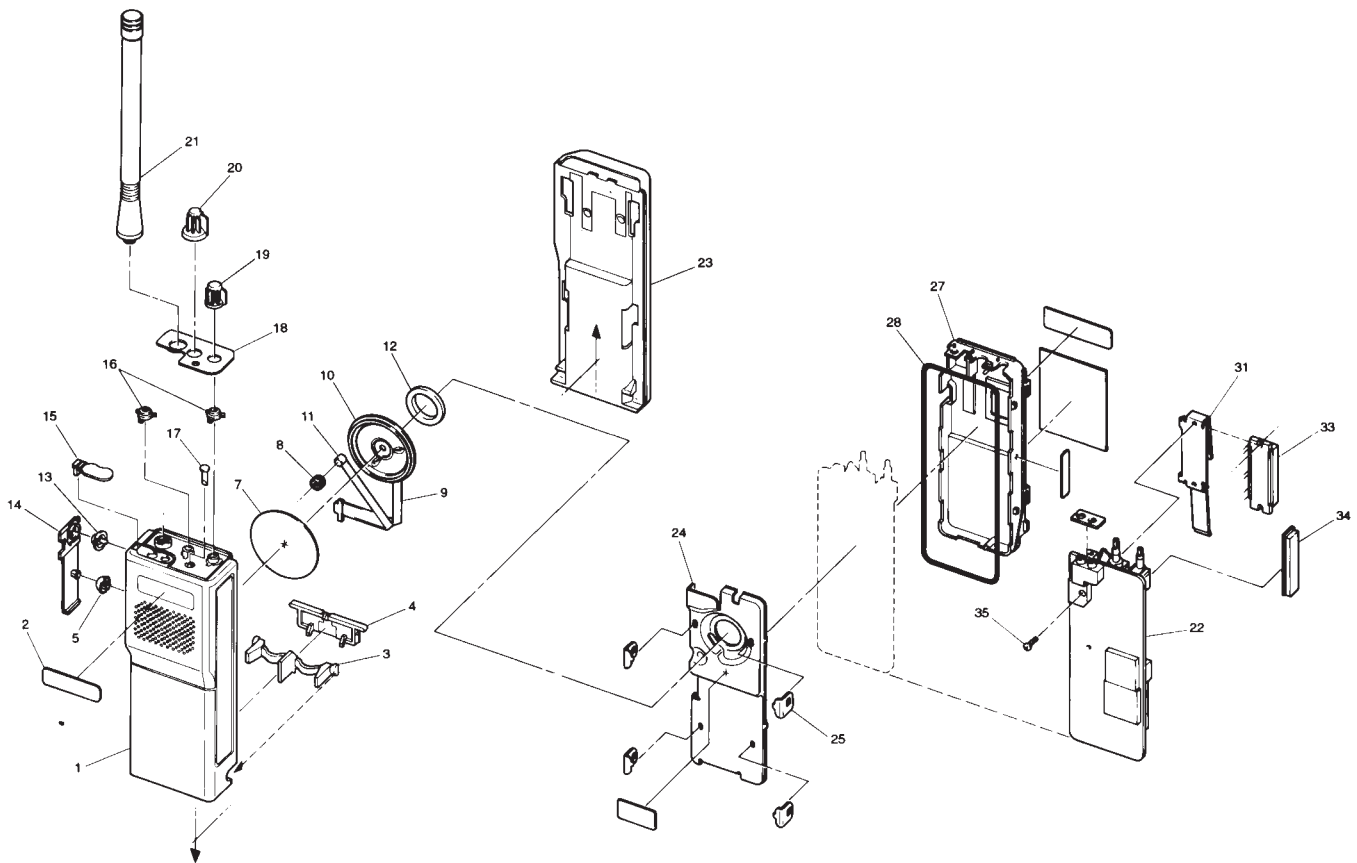
#### Programming Software

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables, order separately.

**RVN4134B** Programming Software, 3-1/2" and 5-1/4" diskettes  
(includes manual and storage box)

# P110 Series

## Parts List



## P110 Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>1580576B03</b>	Housing, Radio
2	<b>1380581B01</b>	Label, Name
3	<b>5580577B01</b>	Battery Latch
4	<b>6480585B01</b>	Cover, Plate
5	<b>3805296S01</b>	Actuator, PTT
6	----	Not used
7	<b>3580998Z04</b>	Felt, Speaker
8	<b>1405874T02</b>	Boot, Mic.
9	<b>3080560D01</b>	Cable, Speaker/Mic.
10	<b>5005589U05</b>	Speaker
11	<b>6880309E50</b>	Microphone
12	<b>7580578B01</b>	Pad, Speaker
13	<b>7580578B01</b>	Monitor Key
14	<b>1380580B01</b>	Bezel, PTT
15	<b>3880627C02</b>	Dust Cap
16	<b>3280960Y01</b>	Seal
17	<b>6180968Y01</b>	Light-Pipe
18	<b>1380582B01</b>	Escutcheon, 2-Channel
	<b>1380582B02</b>	Escutcheon, 4-Channel
19	<b>3680584B01</b>	Knob, Freq., 2-Channel
20	<b>3680584B02</b>	Knob, Freq., 4-Channel
21	----	Antenna (see accessories)

REF. NO.	PART NO.	DESCRIPTION
22	----	Main BD – not available
23	----	Battery (see accessories)
24	<b>2680532C01</b>	Shield Front
25	<b>4280190R04</b>	Clip, Locking
27	<b>2780549B01</b>	Chassis
28	<b>3280545C01</b>	Gasket, Chassis
31	<b>4280126S01</b>	Clip, P.A.
33	----	P.A. Module
	<b>VHF</b>	
	<b>5105385Y49</b>	146-174 MHz
	<b>UHF</b>	
	<b>5113829D03</b>	403-440 MHz
	<b>5105492X79</b>	403-470 MHz
	<b>5180110R03</b>	465-495 MHz
	<b>5180110R04</b>	490-512 MHz
34	----	Receiver Module (for reference only)
35	<b>0300136783</b>	Screw

#### NON-REFERENCED ITEMS

<b>2113740A41</b>	33pF Chip capacitor soldered across the leads of the microphone (item 11).
-------------------	--



## Portable Accessories

### Chargers

Single unit chargers available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola. Rapid chargers charge batteries in approximately one hour. Standard chargers charge batteries in approximately 16 hours.

#### Single Unit Chargers, Rapid Rate

**HTN9042A** Single Unit, Intellicharge Rapid Charger 110 Volts

**HTN9043A** Single Unit, Intellicharge Rapid Charger, European Plug, 220 Volts

**HTN9044A** Single Unit, Intellicharge Rapid Charger, United Kingdom Plug, 240 Volts



HTN9042A

#### Single Unit Chargers, Standard Rate



HTN9702A

**HTN9702A** Single Unit, Standard Charger 110 Volts, 10 hour charger

**HTN9804A** Single Unit, Standard Charger European Plug, 220 Volts, 10 hour charger



HTN9805A

**HTN9805A** Single Unit, Standard Charger United Kingdom Plug, 240 Volts, 10 hour charger

### Chargers

#### Multiple Unit Chargers

They can charge up to six batteries in approximately one hour and are available in a variety of voltages for domestic and international applications.

**HTN9748C** Multiple Unit, One Hour Rapid Charger, 110 Volts (NiCd only)

**HTN9811C** Multiple Unit, One Hour Rapid Charger, European Plug, 220 Volts (NiCd only)

**HTN9812C** Multiple Unit, One Hour Rapid Charger United Kingdom Plug, 240 Volts (NiCd only)



HTN9811C



HTN9060A

**HTN9060A** Multiple Unit, 90 minute Rapid Charger 110 Volts (NiCd and NiMH)

**HTN9061A** Multiple Unit, 90 minute Rapid Charger European Plug, 220 Volts (NiCd and NiMH)

**HLN9293A** Wall Mounting Bracket for 90 minute multi-unit charger (Use with HTN9060 and HLN9061)

**HLN9944A** Wall Mounting Bracket for Multiple Unit Chargers



HLN9944A

#### Charger Conversion Kits

**HLN9405B** Six-Unit Charger Conversion Kit, 120V

**HLN9406A** Six-Unit Charger Conversion Kit, 220V

**HLN9407A** Six-Unit Charger Conversion Kit, 240V

## P110 Series



**MOTOROLA**  
intelligence everywhere™

## Portable Accessories

### Chargers

#### Travel Charger

**RLN4833A** Travel Charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord



RLN4833A

#### Travel Charger AC Transformer

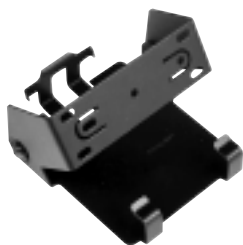
Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)



HLN9719A

#### Vehicular Charger Bracket

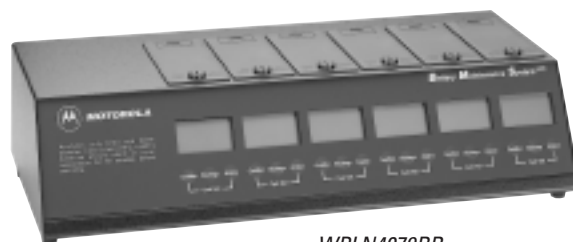
**HLN9719A** Vehicular Charger Adapter/Bracket, 12 Volts for use with Rapid Rate Chargers HTN9630A, HTN9802A, HTN9803A, HTN9167, HTN9168, HTN9169, HTN9042, HTN9043, or HTN9044

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing batteries. It supports NiCd, NiMH, and Li-ion battery chemistries and tracks battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundred of 2-way, cellular, and camcorder batteries. Includes serial printer\* port (RS-232)

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

#### BMS<sup>plus</sup> Adapter

**TDN9437A** Adapter, belt clip required

**TDN9662A** Adapter, for battery without belt clip



TDN9437A

\* Compatible with the STAR Micronics SP200 Series printers (and other printers with STAR emulation); available from any STAR Micronics distributor.



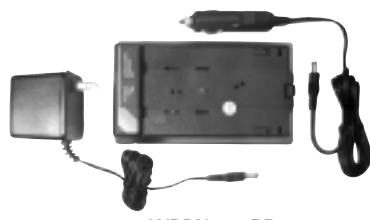
<https://www.motorola.com/businessonline>

## P110 Series

### Portable Accessories

#### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.



WPPN4002BR

**WPPN4002BR** 110V AC  
Base Charge Unit only

**WPPN4006AR** 220V AC  
Base Charge Unit only

**WPPN4005CR** 7 Volt  
Adapter only

**WPLN4088CR** MCC Kit,  
110V AC; includes both  
base unit and 7V adapter

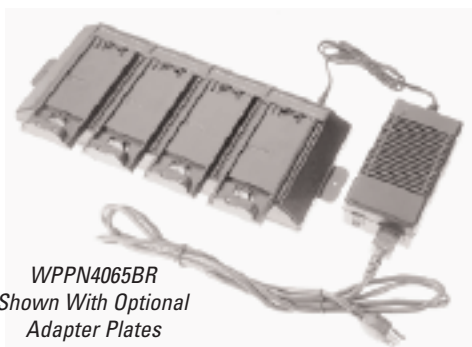
**WPLN4089CR** MCC Kit, 220V AC; includes both base unit  
and 7V adapter

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Vehicular Mounting Bracket for Motorola single unit  
conditioning charger

#### MCC Multi-Unit Conditioning Charger

**WPPN4065BR**  
Four-station Base,  
110V. (Order  
adapter plates  
separately)



WPPN4065BR  
Shown With Optional  
Adapter Plates

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### BOS II Adapter

**RL-71883** Standard Adapter,

*\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.*

## P110 Series

## Portable Accessories

### Vehicular Battery Eliminator

The battery eliminator helps save battery life by eliminating the need for a battery while in a vehicle. The battery eliminator operates off of a vehicle's electrical system and is ideal when a radio is frequently used in a vehicle.

**HK8036B** Battery Eliminator

**6580379E53** 3 Amp Mini Blade Fuse Replacement for HK8036



HK8036B

### Housing Kits

**HLN3005A** 2-Channel P110 Housing Kit

**HLN3006A** 4-Channel P110 Housing Kit

**HLN3044A** 6-Channel P110 Housing Kit

### Conversion Kit

**HLN9578A** 25kHz to 12.5kHz conversion kit

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

#### Nylon Carrying Cases

**HLN9750B** Nylon Carrying Case with Belt Loop

**HLN9017A** Nylon Carrying Case for fully approved FM 1200 mAh battery

#### Leather Carrying Cases

**HLN9873A** Standard Leather Carrying Case with Swivel and D-Rings (for use with shoulder strap)

**HLN9720A** Standard Leather Carrying Case with Belt Loop and D-Rings (for use with shoulder strap)

**HLN9721A** Slim Leather Carrying Case with Belt Loop and D-Rings (for use with shoulder strap)

**HLN9008A** Leather Case with Belt Loop for fully approved FM 1200 mAh battery and D-Rings (for use with shoulder strap)

**HLN9009A** Leather Case with Swivel for fully approved FM 1200 mAh battery and D-Rings (for use with shoulder strap)

#### DTMF Carrying Cases

**HLN9970A** DTMF Standard Leather Carrying Case with Belt Loop and D-Rings (use with shoulder strap)

**HLN8411A** DTMF Leather Carrying Case with Swivel and D-Rings (use with shoulder strap)

**HLN9011A** DTMF Leather Carrying Case with Swivel – fully approved FM 1200 mAh battery and D-Rings (use with shoulder strap)



HLN9750B



HLN9873A

## P110 Series

### Portable Accessories

#### Carrying Accesories

##### Belt Clips

**HLN9724A** 2-1/2" Belt Clip

**HLN8255B** 3" Spring Action Belt Clip

**NTN5533A** Replacement Belt Clip 3"

##### Belt

**4200865599** 1-3/4" wide leather belt for all models

##### Swiveller

**TDN1002A** Swiveller; includes holster, belt and strap



HLN9149AR

**HLN9149AR** Swivel Belt Loop Adapter (GP300 – for use with HLN9720, HLN972, HLN9750, HLN9011, HLN9970 carrying cases)

**HLN9035A** Replacement Swivel Belt Loop 2-1/2"

**NTN8040B** 3" Swivel Belt Loop

**TDN1003A** Replacement/Spare Swiveller Button

##### Carrying Holder

**HLN9076B** Molded Carrying Holder with 3" Spring Action Belt Clip

**HLN8414A** Chest Pack Carrying Holder

**HLN9985B** Waterproof Bag, includes large Carrying strap



HLN9076B



HLN8414A

#### Carrying Accesories

##### Wrist Strap

**HLN8052A** Wrist Strap

##### Carry Strap

**NTN5243A** Shoulder Carrying Strap (GP300—use with leather carrying cases with D-Rings and nylon cases with HLN9149AR)



NTN5243A

##### Straps

**HLN9084A** Replacement Strap for molded carrying holder—HLN9076

**HLN9973A** Replacement Strap for nylon and leather carrying cases (GP300—for leather carrying case)

**HLN9975A** Replacement Strap for DTMF leather carrying case (HLN8411, HLN9970, and HLN9011)

**HLN9974B** Replacement Strap for carrying cases (GP300—for leather carrying case)



HLN9974B

##### Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.



HLN6602A

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pouch

**1505596Z02** Replacement Strap for HLN6602A

## P110 Series



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## Portable Accessories

### Carrying Accessories

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A



#### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

RLN4815A

#### Vehicular Holder

The portable radio holder slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"



TDN9327A

### Audio Accessories

#### Remote Speaker Microphone (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and back cover clip.

**\*HMN9030A** Remote Speaker Microphone with Coil Cord and clothing clip on the back cover



HMN9030A

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

**\*HMN9727B** Receive-only Surveillance Kit, beige (single wire)

**RLN4894A** Receive-only Surveillance Kit, black (single wire)

**\*HMN9752B** Receive-only Surveillance Kit with Volume Control, beige (single wire),



HMN9752BR

**HMN9754D** Two-wire Surveillance Kit with Microphone and Push-To-Talk Combined, beige



HMN9754DR

**RLN4895A** Two-wire Surveillance Kit with Microphone and Push-To-Talk Combined, black (two wire)

\* Intrinsically safe



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## P110 Series

## Portable Accessories

### Audio Accessories

#### Replacement Items

- 5080371E69** Small Rubber Eartips, Pack of 25, Beige
- 5080371E71** Small Rubber Eartips, Pack of 25, Black
- 5080371E73** Standard Rubber Eartips, Pack of 25, Beige
- 5080371E75** Standard Rubber Eartips, Pack of 25, Black
- 5080369E40** Earloop, Plastic, Beige
- 5080370E92** Earloop, Plastic, Black
- 5880377E06** Plastic Earloop Adapter
- 5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Beige
- 5080370E90** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Black

#### Surveillance Replacement Items

- 5080386B90** Ear insert tips; pack of 25

#### Completely Discrete Earpiece

Enables users to communicate with ease, in full privacy, without visible equipment. This miniaturized receiver is discretely hidden in ear, where it fits comfortably for long periods at a time. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Average battery life is approximately 100 hours and includes an end-of-life battery circuit generating a warning signal when the battery needs to be changed.

Kit includes wireless receiver plus an inductive neckloop. Just remove the earpiece on any standard 2- or 3-wire Motorola surveillance kit (sold separately) and plug in the neckloop to use. Kit includes 6 spare batteries and 5 replacement ear wax guards.

**RLN4922A** Completely Discrete Earpiece Kit



RLN4922A

#### Replacement Items

- RLN4919A** Ear Wax Guards, 5 per pack
- RNN4005A** 1.4 Volt Battery, 6 per pack

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E69** Small Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige

**5080371E73** Standard Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige



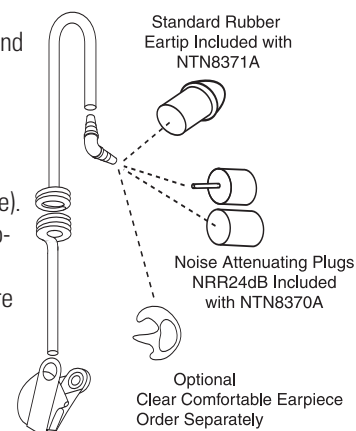
NTN8370A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

Acoustic Tube with Earphone



**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



## P110 Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).

**\*BDN6646C** Ear Microphone for standard noise levels (up to 95dB) with Push-To-Talk interface, (HLN8096 security clamp is recommended and must be ordered separately)

**\*BDN6706B** Ear Microphone for standard noise levels (up to 95dB) with Push-to-Talk voice-activated interface module, (HLN8096 security clamp is recommended and must be ordered separately)



BDN6646C

#### Ear Microphone System (EMS) Accessories

**5080371E73** Rubber Ear Inserts for single wire and two wire earpieces — quantity 25

**\*0180358B38** Finger Push-to-Talk Switch for ear microphone system

**0180300E83** Body Switch Push-to-Talk for ear microphone system



0180358B38



0180358B33

- 0180358B32** Earholder, Black, Size Small
- 0180358B33** Earholder, Black, Size Medium
- 0180358B34** Earholder, Black, Size Large
- 0180358B35** Earholder, Clear, Size Small
- 0180358B36** Earholder, Clear, Size Medium
- 0180358B37** Earholder, Clear, Size Large

\* Intrinsically safe



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### Audio Accessories

**4280369E44** Replaceable Belt clip with Screws

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

**HLN8096A** Audio Accessory Security Clamp

#### Flexible Ear Receiver

**BDN6720A** Flexible Ear Receiver—earpiece without volume control (flexible earloop and speaker which rests external to ear), (HLN8096 security clamp is recommended and must be ordered separately)

**7580372E11** Replacement Foam Ear Cushion for BDN6720

#### Add-On Retrofit Kits

**\*HLN3748A** DTMF Retrofit for 16 channel models (applicable on shipments after 3/15/92); Factory Mutual Approved radios must be returned to the depot for retrofitting

#### Ultra-Light Headset

**\*RLN5411A** Lightweight, behind-the-head style design provides comfort and mobility. Includes flexible boom microphone and in-line Push-to-Talk button



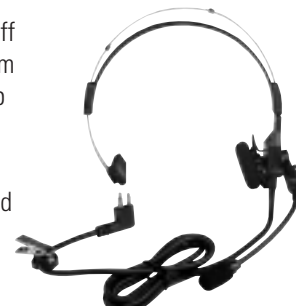
RLN5411A

#### Lightweight Headset

**RMN4016A** Lightweight Single Muff Adjustable Headset with Swivel Boom Microphone and In-line PTT button

**\*HMN9013A** Lightweight Single Muff Adjustable Headset with Swivel Boom Microphone (HLN8096 security clamp recommended ordered separately; compatible with Internal VOX)

**REX4648A** Replacement Foam Earpad and Windscreen Kit for RMN4016A and HMN9013A



HMN9013A

## Portable Accessories

### Audio Accessories

#### Medium Weight Headsets



**\*HMN9021A** Medium Weight Dual Muff Headset, over the head noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)



**\*HMN9022A** Medium Weight Dual Muff Headset, behind the head (can be worn with helmet); noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)

#### Replacement Parts for HMN9021A and HMN9022A

**7580376E34** Replacement Foam Earseals (1 pair)

**1580376E32** Replacement Cloth Cover for Earseals (1 pair)

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for windscreen

**3080384L77** Replacement Cable

**4204004K01** Replacement Adjustable Headstrap for HMN9022A

**BDN6647F** Medium Weight Single Speaker Headset with Boom Microphone (HLN8096 security clamp recommended – order separately-comp with Internal VOX)

**5080371E66** Replacement Earpad for BDN6647

**3580371E59** Replacement Windscreen (for boom microphone) for use with BDN6647

### Audio Accessories

#### Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable RKN4094A. Hardhat not included.

**RMN4052A** Tactical Headband Style Headset, grey; noise reduction rating of 24dB

**RMN4053A** Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB

#### Hardhat Mount Headset with Noise-Canceling Boom Microphone

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4094A. Hardhat not included.



**RMN4051A** Two-Way Hardhat Mount Headset, black

#### Adapter Cables

**RKN4094A** In-Line PTT Adapter Cable. For use with RMN4051, RMN4052, and RMN4053.

\* Intrinsically safe

## P110 Series



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## Portable Accessories, Antennas

### Audio Accessories

#### Replacement Earseals for Headsets

**RLN4923A** Includes Two Replacement Snap-In Earseals; recommended replacement interval is once every six months to ensure constant level of attenuation, hygiene and comfort. For use with RMN4051, RMN4052, and RMN4053.

#### Heavy Duty Headset

**\*BDN6648C** Heavy Duty Headset with Noise Cancelling Boom Microphone, noise reduction rating = 24dB



BDN6648C

### Portable Antennas

#### Heliflex

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

**HAD9338AR** VHF Heliflex,  
136-162 MHz, 6"

**NAD6502AR** VHF Heliflex,  
146-174 MHz, 6"

**8505816K24** Heliflex Stubby,  
403-430 MHz, 3"

**8505816K25** Stubby,  
440-470 MHz, 3"

**8505816K26** Heliflex Stubby,  
470-512 MHz, 3"



NAD6502AR

#### Flexible Whip

Flexible whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**NAE6483AR** Flexible Whip, 403-520 MHz, 6"

#### Tunable VHF

**HAD9728B** VHF Kit,  
146-174 MHz, 6"

#### Stubby

Stubby antennas are ideal when the radio is worn on the belt because the short antenna is non-obtrusive.

**HAD9742A** Stubby,  
146-162 MHz, 3"

**HAD9743A** Stubby,  
162-174 MHz, 3"



HAD9728B



HAD9743A

\* Intrinsicly safe



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## ***P110 Series***

## ***Batteries, Service Aids***

### ***Portable Batteries***

#### ***Nickel-Cadmium Premium***

Part Number: **HNN8148B**

Volts: 7.5

Avg. mAh: 1100

Height: 6"

Intrinsically Safe:: No

### ***Service Aids***

#### ***Radio Interface Box***

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6008278J01), order separately.

**RLN4008E** Radio Interface Box



*RLN4008E*

#### ***Computer Interface Cable***

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** 25 Pin PC Cable

connects the RIB to  
9 pin computer port

**3080369B72** 9 Pin PC Cable to  
connect RIB to computer port



*3080369B71*

## P110 Series

## Service Aids, Software, Manuals



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### Service Aids

#### Programming Cable

Connects radio interface box to radio for programming.

**HKN9857A** Radio Programming Cable

#### Cloning Cable

**HKN9755A** Allows the radio to be duplicated from a master radio by transferring programmed data from one radio to another.

#### Test Set Cable

**RKN4034A** Connects radio to RTX4005 Test Box



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

### Software

#### Programming Software

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables, order separately.

**HVN9852J** Programming Software

### Instruction Manuals

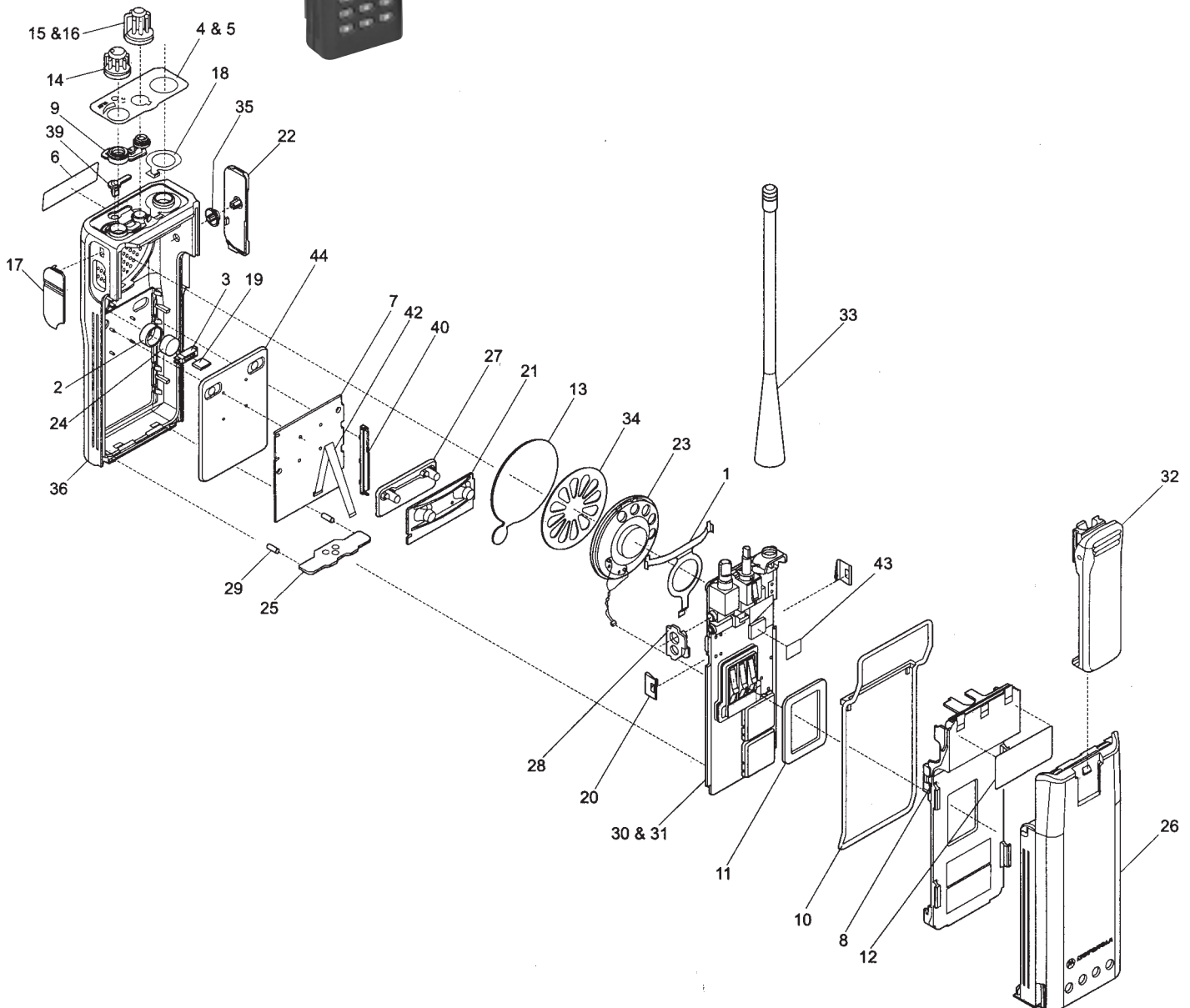
<b>6880901Z83</b>	Operators Manual
<b>6880902Z30</b>	P110 Service Manual
<b>6880902Z28</b>	P110 Owners Manual



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# P1225 Series

## Parts List



# P1225 Series

## Parts List

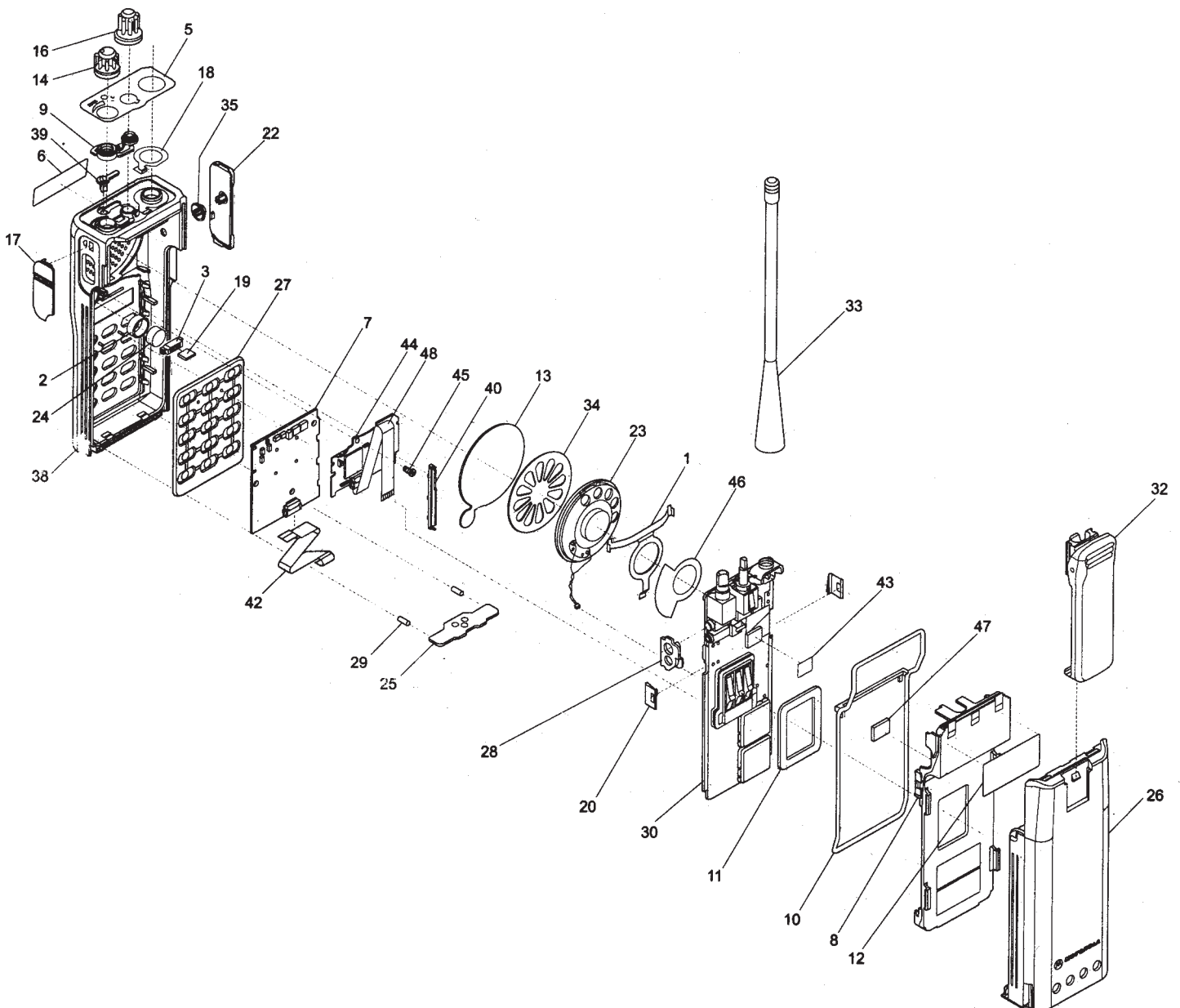
REF. NO.	PART NO.	DESCRIPTION
1	<b>0705470V01</b>	Retainer, speaker
2	<b>0780665E01</b>	Boot, microphone
3	<b>0780693E01</b>	Connector, support, microphone
4	<b>1380668E03</b>	Escutcheon, 2-channel
5	<b>1380668E04</b>	Escutcheon, 16-channel
6	<b>1380670E01</b>	Escutcheon, nameplate
7	---	Option Board Kit – not available
8	<b>2780675E03</b>	Chassis
9	<b>3280466U01</b>	Seal, control top
10	<b>3280677E01</b>	Seal, "O" ring
11	<b>3280678E01</b>	Gasket, battery interface
12	---	Label, FCC – not available
13	<b>3580413U01</b>	Felt, speaker
14	<b>3680461U01</b>	Knob, volume
15	<b>3680584B01</b>	Knob, freq., 2-channel
16	<b>3680584B05</b>	Knob, freq., 16-channel
17	<b>3880679E01</b>	Dust Cap
18	<b>3980458U01</b>	Contact, rf ground
19	<b>3980682E02</b>	Contact, microphone
20	<b>4280456U01</b>	Clip, chassis; 2 required
21	<b>4280490U01</b>	Retainer, keypad

REF. NO.	PART NO.	DESCRIPTION
22	<b>4580683E01</b>	Lever, PTT
23	<b>5080468U02</b>	Speaker
24	<b>5080455U01</b>	Microphone
25	<b>5580462U01</b>	Latch, battery
26	---	Battery Pack, NiCad
27	<b>7580686E01</b>	Keypad
28	<b>0780552U02</b>	Plate, jack support
29	<b>4105944K01</b>	Spring, battery latch; 2 used
30	---	Board, UHF – not available
31	---	Board, VHF – not available
33	---	Antenna, standard – not available
34	<b>3502018X01</b>	Disk, speaker
35	<b>3880469U01</b>	Button, PTT
36	<b>1580671E05</b>	Housing, basic
39	<b>6180464U01</b>	Light Pipe
40	<b>4280664U01</b>	Support, DTMF
42	<b>3080512U05</b>	Cable, flex
43	<b>1480616U02</b>	Pad, thermal, heatsink
44	<b>7580539U01</b>	Keypad (for option board)
45	<b>7580506C02</b>	Pad, speaker
46	<b>7580581V01</b>	Pad, xtal



# P1225•LS Series

## Parts List



## P1225•LS Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>0705470V01</b>	Retainer, speaker
2	<b>0780665E01</b>	Boot, microphone
3	<b>0780693E01</b>	Connector, support, microphone
5	<b>1380668E05</b>	Escutcheon, control top
6	<b>1380670E02</b>	Escutcheon, nameplate
7	<b>HLN3065B</b>	Board, DTMF board
8	<b>2780675E03</b>	Chassis
9	<b>3280466U01</b>	Seal, control top
10	<b>3280677E01</b>	Seal, O-ring
11	<b>3280678E01</b>	Gasket, battery interface
12	---	Label, FCC
13	<b>3580413U01</b>	Felt, speaker
14	<b>3680461U01</b>	Knob, volume
16	<b>3680528V01</b>	Knob, freq.
17	<b>3880484V01</b>	Dust Cap
18	<b>3980458U01</b>	Contact, rf ground
19	<b>3980682E02</b>	Contact, microphone
20	<b>4280456U01</b>	Clip, chassis; 2 used
22	<b>4580683E01</b>	Lever, PTT
23	<b>5080468U02</b>	Speaker
24	<b>5080455U01</b>	Microphone
25	<b>5580462U01</b>	Latch, battery

REF. NO.	PART NO.	DESCRIPTION
26	<b>HNN9049A</b>	Battery Pack, NiCad
27	<b>7580498V01</b>	Keypad
28	<b>0780485V01</b>	Plate, jack support
29	<b>4105944K01</b>	Spring, battery latch; 2 required
30	---	Board, UHF – not available
33	---	Antenna, standard – not available
34	<b>3502018X01</b>	DISK, speaker
35	<b>3880469U01</b>	Button, PTT
38	<b>0180420V03</b>	Housing/Lens Assy.
39	<b>6180464U01</b>	Light Pipe
40	<b>4280664U01</b>	Support, DTMF
42	<b>3080512U02</b>	Cable, flex
43	<b>1480616U02</b>	Pad, thermal, heatsink
44	<b>0180433V01</b>	Board, display
45	<b>0380652V01</b>	Screw, 2.2 x 6mm
46	<b>7580506C02</b>	Pad, speaker
47	<b>7580581V01</b>	Pad, xtal
48	<b>3080512U02</b>	Cable, flex

#### NON-REFERENCED ITEMS

<b>3980671U01</b>	Pad, conductor
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## Portable Accessories

### Chargers

Single unit chargers are available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola.

#### Single Unit Chargers, Rapid Rate



HTN9042A

**HTN9042A** Single Unit Intellicharger, 110V, (90 minute charge time for NiCd batteries)

**HTN9043A** Single Unit Intellicharger, 220V, European plug (90 minute charge time for NiCd batteries)

**HTN9044A** Single Unit Intellicharger, 240V, UK plug (90 minute charge time for NiCd batteries)

#### Single Unit Chargers, Standard Rate

**HTN9702A** 120V, 10 hour Standard Rate Charger

**HTN9804A** Single Unit Standard Charger, 220V, European plug

**HTN9805A** Single Unit Standard Charger, 240V, UK plug

**HLN9405B** Six-Unit Charger Conversion Kit, 120V

**HLN9406A** Six-Unit Charger Conversion Kit, 220V

**HLN9407A** Six-Unit Charger Conversion Kit, 240V



HTN9702A

### Chargers

#### Multiple Unit Charger (MUC)

Multi-unit chargers offer six pockets that can be used to rapid charge 1 to 6 batteries simultaneously. The batteries can be charged with the radios or separately. Ideal for multi-shift operations.

**HTN9748C** 120V, 6-unit, 1 Hour Rapid Rate Charger (NiCd only)

**HTN9811C** 220V, 6-unit, 1 Hour Rapid Rate Charger, European plug (NiCd only)

**HTN9812C** 240V, 6-unit, 1 Hour Rapid Rate Charger, United Kingdom plug

**HTN9060A** 120V, 6-unit, 90 Minute Rapid Rate Charger (NiCd and NiMH)

**HTN9061A** 220V, 6-unit, 90 Minute Rapid Rate Charger, European plug (NiCd and NiMH)



HTN9748C

#### Travel Charger

**RLN4833A** Travel Charger kit includes a cigarette lighter adapter attached to a rapid charger and mounting bracket. Allows radio to be used while it is charging.



RLN4833A

#### Travel Charger Mounting Bracket

**0780384K84** Universal Mounting Bracket for Travel Charger. Includes screws and nylon cord.

#### Travel Charger AC Transformer

Travel charger AC transformer adapts onto the cigarette lighter adapter cord to allow it to be plugged into an AC wall outlet for indoor use

**2580600E05** Transformer 120V (US)

**2580600E06** Transformer 230V (Euro)

**2580600E07** Transformer 230V (U.K.)

**2580600E08** Transformer 220V (Argentina)

## P1225/P1225•LS Series

## Portable Accessories

### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified nickel cadmium (NiCd) and nickel metal hydride (NiMH) batteries in approximately an hour.

**WPLN4084BR** Motorola Conditioning Charger Kit, 110V AC (includes base unit and 7V adapter)



WPLN4084BR

**WPLN4085AR** Motorola Conditioning Charger Kit, 220V AC (includes base unit and 7V adapter)

#### WPPN4065BR

Four-Station Base, 110V (order adapter plates separately)

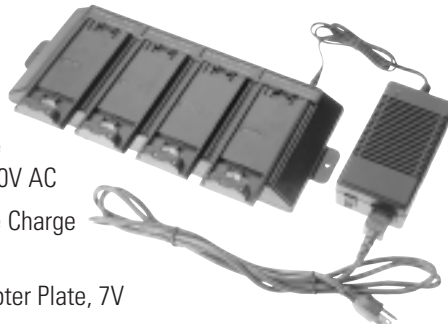
**WPPN4002BR** Base Charge Unit Only, 110V AC

**WPPN4006AR** Base Charge Unit Only, 220V AC

**WPPN4020AR** Adapter Plate, 7V

**3080384G15** Cigarette Lighter Adapter

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger



WPPN4065BR

### Vehicular Charger Bracket



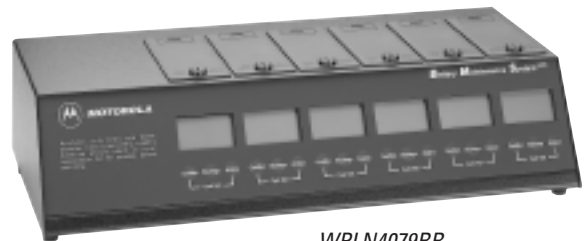
HLN9719A

**HLN9719A** Vehicular Charger Adapter/Bracket, 12V (for use with rapid rate chargers HTN9042, HTN9630, HTN9802 or HTN9803)

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

#### Increase the useful life of your batteries.

Using interchangeable battery adapters (sold separately), the BMSplus is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh). The BMSplus offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

#### BMS<sup>plus</sup> Adapter

**CDN6353A** Adapter, 7.5V, 110 mAh, for HNN9049A and HNN9050A batteries



CDN6353A

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor; and other printers with STAR emulation.

## P1225/P1225•LS Series

### Portable Accessories

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### BOS II Battery Adapter

**RL-75830** Standard Adapter, RADIUS P1225

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio and battery and permit audio to be heard clearly.

##### Nylon Carry Cases

**HLN9416A** Nylon Carry Case with Belt Loop



HLN9416A

##### Leather Carry Cases

**HLN9417A** Standard Leather Carry Case with Belt Loop and D-Rings (for use with shoulder strap)

**HLN9323A** Standard Leather Carry Case with Swivel



HLN9417A



HLN9323A

## P1225/P1225•LS Series

## Portable Accessories

### Carrying Accessories

#### DTMF Carry Cases

**HLN9238A** DTMF Display  
Leather Carry Case with Swivel

**HLN9239A** DTMF Display  
Leather Carry Case with Belt  
Loop and D-Rings – for use  
with shoulder strap  
(P1225•LS, fits full and keypad  
radio models)

**RLN4804A** DTMF Display  
Leather Case with Swivel  
(fits standard 3-key portable)

**RLN4805A** DTMF Display  
Leather Case with Belt Loop  
(fits standard 3-key portable)



HLN9238A



HLN8414A

#### General Carry Cases

**HLN8414A** Chest Pack  
Carry Holder

**HLN9985A** Waterproof Bag,  
includes large carrying strap

#### Wrist Strap

**HLN8052A** Wrist Strap

#### Carrying Straps

**NTN5243A** Shoulder Carry Strap)

**HLN9973A** Replacement Strap for  
nylon and leather carry cases

**HLN9974B** Replacement Strap for  
carry cases (P1225 – for DTMF  
carry cases)

**HLN9015A** Replacement Strap for leather carry  
cases (for use with HLN9416, HLN9417, HLN9323,  
and HLN9239 carry cases)



NTN5243A

### Carrying Accessories

#### Belt Clips

**HLN9724A** 2-1/2" Belt Clip

**HLN8255B** 3" Spring Action Belt Clip

#### Belt

**4200865599** 1-3/4" wide leather belt for all models

#### Swiveller

**HLN9149AR** Swivel Belt Loop Adapter

**NTN8039B** 2-1/2" Swivel Belt Loop for  
leather cases (P1225 – same belt loop in  
the HLN9323 and HLN9238)

**NTN8040B** 3" Swivel Belt Loop

**HLN9035A** Replacement Swivel Belt  
Loop 2-1/2" (for use with HLN9416,  
HLN9417, HLN9323, and HLN9239 carry cases)

**4205857B01** Replacement Belt Loop, Swivel 3" (for use with  
HLN9416, HLN9417, HLN9323, and HLN9239 carry cases)



HLN9149AR

## P1225/P1225•LS Series

### Portable Accessories

#### Carrying Accessories

##### Chest Pack

Carry the radio mounted on chest with adjustable straps over shoulders and around waist.

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pouch

##### 1505596Z02

Replacement Strap for HLN6602A



HLN6602A



RLN4570A

##### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack

#### Carrying Accessories

##### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities.

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

##### Portable Radio Holder

The portable radio holder slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2.75"

**TDN9373A** Portable Radio Hanger for door panels up to 3.25"



RLN4815A



TDN9327A



## P1225/P1225•LS Series

## Portable Accessories

### Audio Accessories

#### Remote Speaker Microphone (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and back cover clothing clip.

##### \*HMN9030A

Remote Speaker Microphone



HMN9030A

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discrete communications.

\*HMN9727B Receive-only Surveillance Kit, beige (single-wire)

RLN4894A Receive-only Surveillance Kit, black (single-wire)



HMN9752BR

\*HMN9752B Receive-only Surveillance Kit with Volume Control, beige (single-wire),



HMN9754D

\*HMN9754D Surveillance Kit with Microphone and Push-To-Talk Combined, beige (two-wire),

RLN4895A Surveillance Kit with Microphone and Push-To-Talk Combined, black (two-wire)

### Audio Accessories

#### Surveillance Kit With Extended Wear Comfort Earpiece

Low-noise enhancement already attached for extra convenience. Users can hear transmissions clearly, while the clear tube provides a discreet appearance.

RLN5317A Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk; beige

RLN5318A Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk; black

#### Replacement Items

5080371E69 Small Rubber Eartips, Pack of 25, Beige

5080371E71 Small Rubber Eartips, Pack of 25, Black

5080371E73 Standard Rubber Eartips, Pack of 25, Beige

5080371E75 Standard Rubber Eartips, Pack of 25, Black

5080369E40 Earloop, Plastic, Beige

5080370E92 Earloop, Plastic, Black

5880377E06 Plastic Earloop Adapter

5080369E38 Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Beige

5080370E90 Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Black

\* Intrinsically safe



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## P1225/P1225•LS Series

## Portable Accessories

### Audio Accessories

#### Completely Discrete Earpiece

Enables users to communicate with ease, in full privacy, without visible equipment. This miniaturized receiver is discretely hidden in ear, where it fits comfortably for long periods at a time. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Average battery life is approximately 100 hours and includes an end-of-life battery circuit generating a warning signal when the battery needs to be changed.

Kit includes wireless receiver plus an inductive neckloop. Just remove the earpiece on any standard 2- or 3-wire Motorola surveillance kit (sold separately) and plug in the neckloop to use. Kit includes 6 spare batteries and 5 replacement ear wax guards.

**RLN4922A** Completely Discrete Earpiece Kit



#### Replacement Items

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4 Volt Battery, 6 per pack

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E69** Small Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige

**5080371E73** Standard Rubber Eartips, Pack of 25 (for use with NTN8371A), Beige



NTN8370A

### Audio Accessories

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material.

There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

**RLN4760A** Small Custom Earpiece, right ear

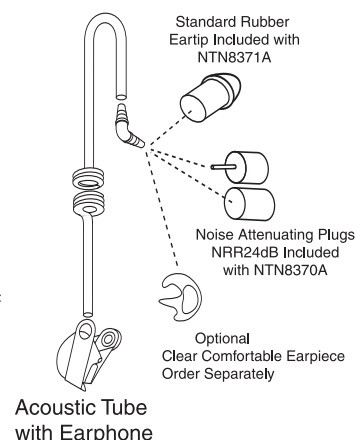
**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



Acoustic Tube with Earphone



RLN4760A

RLN4763A

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).



BDN6646C

**\*BDN6646C** Ear Microphone for standard noise levels (up to 95dB) with Push-To-Talk interface, (HLN8096 security clamp is recommended and must be ordered separately)

**\*BDN6706B** Ear Microphone for standard noise levels (up to 95 dB) with Push-to-Talk voice-activated interface module, (HLN8096 security clamp is recommended and must be ordered separately)

\* Intrinsically safe

## P1225/P1225•LS Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone System (EMS) Accessories

**5080371E73** Rubber Ear Inserts for single wire and two wire earpieces — quantity 25

**\*0180358B38** Finger Push-to-Talk Switch for ear microphone system

**0180300E83** Body Switch Push-to-Talk for ear microphone system



0180358B38

**0180358B32** Earholder, Black, Size Small

**0180358B33** Earholder, Black, Size Medium

**0180358B34** Earholder, Black, Size Large

**0180358B35** Earholder, Clear, Size Small

**0180358B36** Earholder, Clear, Size Medium

**0180358B37** Earholder, Clear, Size Large

**4280369E44** Replaceable Belt clip with Screws



0180358B33

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

**HLN8096A** Audio Accessory Security Clamp

#### Flexible Ear Receiver

**BDN6720A** Flexible Ear Receiver—earpiece without volume control (flexible earloop and speaker which rests external to ear), (HLN8096 security clamp is recommended and must be ordered separately)

**7580372E11** Replacement Foam Ear Cushion for BDN6720

#### Pellet Style Earpieces

Allows the user to receive and transmit communication discretely

**HLN9132A** Earbud

**HMN9036A** Earbud with clip microphone and PTT

### Audio Accessories

#### Add-On Retrofit Kits

**\*HLN3748A** DTMF Retrofit for 16 channel models (applicable on shipments after 3/15/92); Factory Mutual Approved radios must be returned to the depot for retrofitting

#### Ultra-light Headset

**\*RLN5411A** Designed with a sleek new look that fits right in with Restaurant and Hospitality industries. Lightweight, behind-the-head style design provides comfort and mobility. Includes flexible boom microphone and in-line push-to-talk button.



RLN5411A

#### Ultra-light Earpiece with Microphone and Push-To-Talk

**PMMN4001A** Small and lightweight, this earpiece clips comfortably to the ear and features a boom microphone and in-line PTT

#### Lightweight Headset



HMN9013A

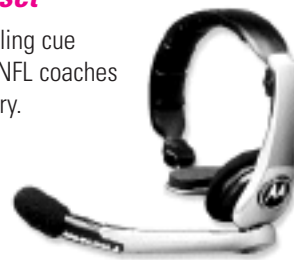
**RMN4016A** Lightweight Single Muff Headset with Swivel Boom Microphone for left or right ear operation with in-line PTT button

**\*HMN9013A** Lightweight Adjustable Headset with Swivel Boom Microphone (HLN8096 security clamp recommended ordered separately; compatible with Internal VOX)

**REX4648A** Replacement Foam Earpad and Windscreen Kit for RMN4016A and HMN9013A

#### NFL Style Lightweight Headset

This single-muff headset takes its styling cue from the Motorola headsets used by NFL coaches in football stadiums around the country. Ergonomically-designed for all-day comfort, it's ideal for both sports and special events. Features a noise canceling boom microphone and in-line Push-To-Talk. Large Motorola logo adds a sporty appearance.



RLN5238A

**RLN5238A** NFL Style Lightweight Headset

\* Intrinsically safe



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## P1225/P1225•LS Series

## Portable Accessories

### Audio Accessories



HMN9021A

#### Medium Weight Headsets

**\*HMN9021A** Medium Weight Dual Muff Headset, over the head noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)

**\*HMN9022A** Medium Weight Dual Muff Headset, behind the head (can be worn with helmet); noise reduction rating = 24dB (HLN8096 security clamp recommended ordered separately)



HMN9022A

#### Replacement Parts for HMN9021A and HMN9022A

**7580376E34** Replacement Foam Earseals (1 pair)

**1580376E32** Replacement Cloth Cover for Earseals (1 pair)

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for windscreen

**3080384L77** Replacement Cable

**4204004K01** Replacement Adjustable Headstrap for HMN9022A

**BDN6647F** Medium Weight Single Speaker Headset with Boom Microphone (HLN8096 security clamp recommended – order separately-comp with Internal VOX)

**5080371E66** Replacement Earpad for BDN6647

**3580371E59** Replacement Windscreen (for boom microphone) for use with BDN6647

### Audio Accessories

#### Noise-Canceling Headsets with Boom Microphone

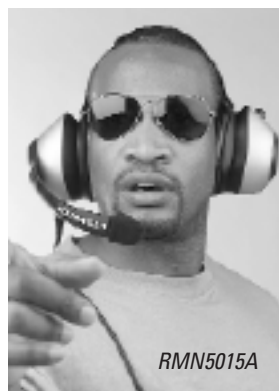
Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable RKN4094A. Hardhat not included.



RMN4053A

**RMN4052A** Tactical Headband Style Headset, grey; noise reduction rating of 24dB

**RMN4053A** Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB



RMN5015A

#### Racing Headset

Racing Headset - Same headset worn by pit crews on the CART racing circuit. Heavy Duty, behind the head Headset with Noise Cancelling Swivel Boom Microphone. Noise Reduction Rating = 24dB (adapter cable required and sold separately)

**RMN5015A** Racing Headset (Requires RKN4090A radio adapter cable)

## P1225/P1225•LS Series

## Portable Accessories, Antennas



**MOTOROLA**  
intelligence everywhere™

### Audio Accessories

#### Hardhat Mount Headset with Noise-Canceling Boom Microphone

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4094A. Hardhat not included.

**RMN4051A** Two-Way Hardhat Mount Headset, black



RMN4051A

#### Adapter Cables

**RKN4094A** In-Line PTT Adapter Cable for GP300, SP50 and P1225 radios. For use with RMN4051, RMN4052, and RMN4053.

#### Replacement Earseals for Headsets

**RLN4923A** Includes Two Replacement Snap-In Earseals; recommended replacement interval is once every six months to ensure constant level of attenuation, hygiene and comfort. For use with RMN4051, RMN4052, and RMN4053.



BDN6648C

#### Heavy Duty Headset

**\*BDN6648C** Heavy Duty Headset with Noise Cancelling Boom Microphone, noise reduction rating = 24dB

### Portable Antennas

#### Heliflex Antenna

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

**8505816K24** UHF Heliflex Stubby, 403-430 MHz, 3"

**NAE6522AR** UHF Heliflex Stubby, 440-470 MHz, 3"

**8505816K26** UHF Heliflex Stubby, 470-512 MHz, 3"

**HAD9338AR** VHF Heliflex, 136-150.8 MHz, 6"

**NAD6502AR** VHF Heliflex, 146-174 MHz, 6"



8505816K24

NAD6502AR

#### Tunable VHF antenna

Tunable VHF antenna kit gives the best coverage.

**HAD9728B**  
VHF Kit, 146-174MHz, 6"

HAD9728B

#### Stubby Antenna

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**HAD9742A**  
Stubby, 146-162MHz, 3"

**HAD9743A**  
Stubby, 162-174MHz, 3"

NAE6483AR

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**NAE6483AR**  
Flexible Whip, 403-520MHz, 6"

HAD9743B

\* Intrinsically safe



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## P1225/P1225•LS Series

### Batteries, Service Aids

#### Batteries

##### Nickel-Cadmium Premium

Part Number **HNN9049A**

Volts: 7.5

Avg. mAh: 1200

Height: 5-1/2"

Intrinsically Safe: No



HNN9049A

Part Number **HNN9050A**

Volts: 7.5

Avg. mAh: 1200

Height: 5-1/2"

Intrinsically Safe: Yes

##### Nickel Metal Hydride Premium

Part Number **HNN9051A**

Volts: 7.5

Avg. mAh: 1400

Height: 5-1/2"

Intrinsically Safe: No

#### Service Aids

##### Programming Stand

**HLN9359A** Programming Stand

##### Radio Interface Box (RIB)

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and a 9 volt snap type battery (6088278J01), order separately.



RLN4008E

**RLN4008E** Radio Interface Box

##### Computer Interface Cable

Used to connect computer's serial adapter to Radio Interface Box.



3080369B71

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D

##### Wall Mounted Power Supply

Used to supply power to the radio interface box, RLN4008E.



0180357A57

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

## **P1225/P1225•LS Series**

## *Service Aids, Manuals*

### **Service Aids**

#### **AT to XT Computer Adapter**

**RLN4438A** Allows 3080369B72 to plug into a XT style communications port

#### **Test Set Cable**

**RKN4034A** Connects radio to RTX4005 Test Box

#### **Programming Software**

Utilizing your personal computer, this software enables you to add or reprogram the P1225 as your requirements change. Requires Radio Interface Box, proper cables, and programming stand order separately.

**HVN9054D** Programming Software (includes RSS Getting Started Manual and storage box)

#### **Minimum Platform Requirements**

- 80386 Microprocessor
- 4 MB of RAM
- HDD (Hard Disk Drive) 30 MB or higher
- Microsoft® Windows™ 3.1 or higher
- 1.44 MB 3.5 in FDD (Floppy Disk Drive)
- Two (2) serial ports
- One (1) parallel (printer) port

#### **Recommended Platform Requirements**

- 80486 Microprocessor
- 8 MB of RAM
- HDD 80 MB or higher
- Microsoft® Windows™ 3.1 or higher
- 1.44 MB 3.5 in FDD
- Two (2) serial ports
- Mouse or trackball
- One (1) parallel (printer) port

### **Manuals**

**6880904Z94**

Service Manual

**HLN9234B**

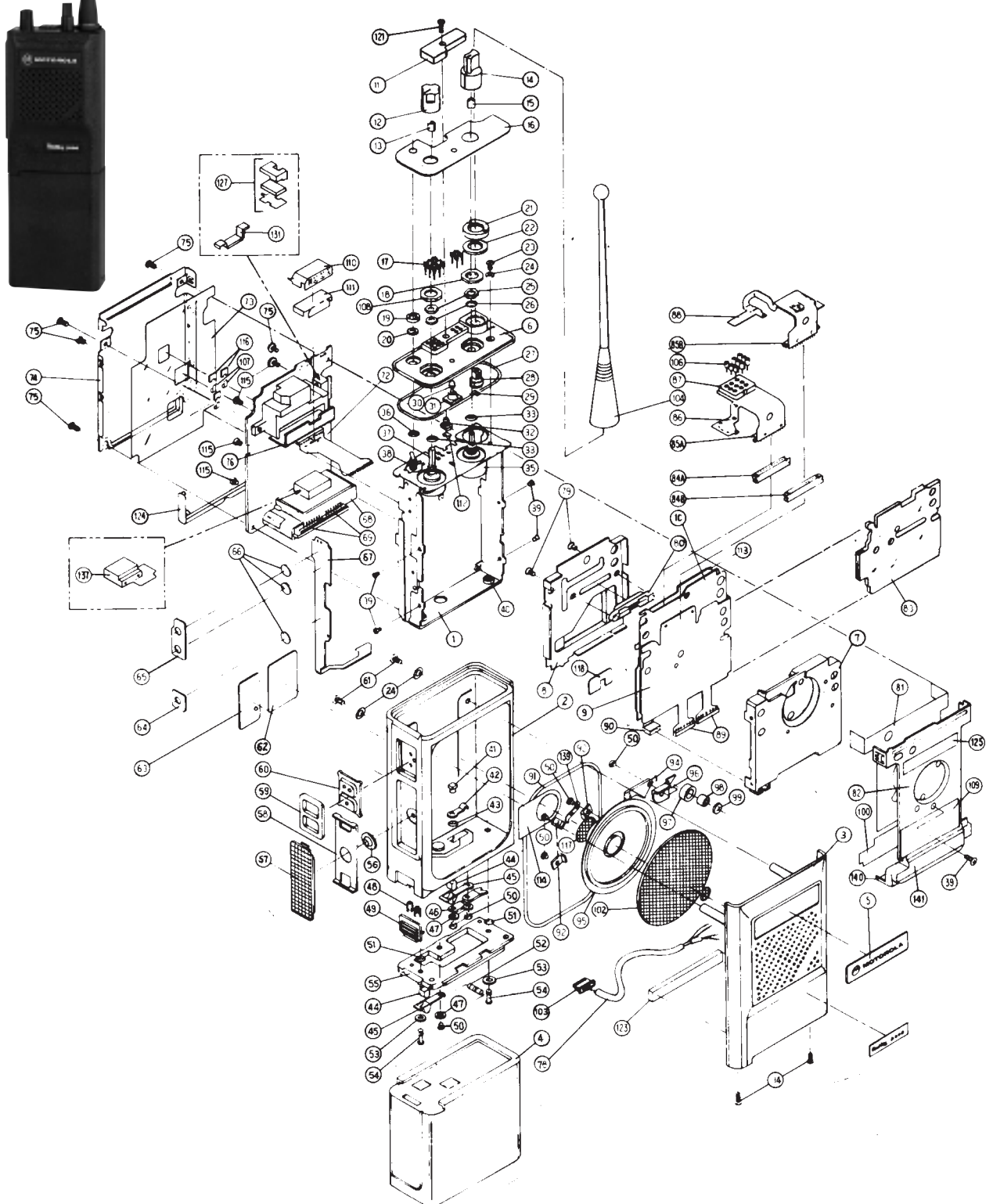
Operator Manual Kit





## P200 Series

### Parts List



*Replacement parts may no longer be available*

# P200 Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>0105956M63</b>	Assembly, Frame; includes: *Item 1 frame *Item 40
2	<b>0105952Q46</b>	Assembly, Housing; includes: *Item 2 Housing *Items 56, 58, 59 and 60
3	----	Cover, Front
4	----	Battery
5	<b>1305541S05</b>	Nameplate, Front
6	<b>0105951N41</b>	Assembly, Top Control Panel; includes: *Item 6 Panel *Items 17, 28, 29, and 32
7	<b>1505765R01</b>	Carrier, Flex Top
8	----	Shield, Bottom
9	----	Assembly, Controller Flex; includes: *Item 9 Controller Flex *Items 10, 80, 84, 89, 90 and 118 (The controller flex assembly also includes electrical parts. See note)
10	----	*Shield, Center; part of item 9
11	----	Cover, Dust
12	<b>0105951N79</b>	Assembly, Knob; includes: *Item 12 Knob *Item 13
13	----	*Clip, Push; part of item 12
14	<b>0105950N92</b>	Assembly, Knob; includes: *Item 14 Knob *Item 15
15	----	*Clip, Push; part of item 14
16	<b>1305676R14</b> or <b>1305676R15</b>	Escutcheon (6-freq. radios) Escutcheon (2-freq. radios)
17	----	*Pin, Contact (P7); part of item 6. See note
18	<b>0405218Q01</b>	Washer
19	<b>0205163Q01</b>	Nut, Spanner
20	<b>0405162Q01</b>	Washer, Flat
21	<b>0205765L02</b>	Nut, Spanner
22	<b>0405216L04</b>	Washer, Flat
23	<b>0300186785</b>	Screw, Phillips Hd., 4-40 x 3/16"
24	<b>0484345A06</b>	Washer, Seal
25	<b>0205629L02</b>	Nut, Hex, 2 req'd
26	<b>0405162Q02</b>	Washer, Flat; 2 req'd
27	<b>3205141Q02</b>	Gasket, "O" Ring
28	----	*Bushing, Antenna; part of item 6
29	----	Lug, Antenna; part of item 6
30	<b>4805729G24</b>	LED, Bicolor (CR413A/CR413B)
31	<b>3205131S01</b>	Seal, LED
32	----	*Stud, Insert; part of item 6
33	<b>3205082E01</b>	Gasket, "O" Ring
34	<b>0300132342</b>	Screw, Phillips; 2-56 x 1/4"
35	<b>4005148Q05</b>	Switch, Frequency (S2)
36	<b>3205141Q03</b>	Gasket, "O" Ring
37	<b>1805100Q04</b>	Switch/Pot, On-Off/Volume (S1/R140)
38	<b>4005101Q02</b>	Switch, PL (S3)
39	<b>0300140369</b>	Screw, Flat Hd.; 2-56 x 1/8"
40	----	*Insert, Frame; part of item 1

REF. NO.	PART NO.	DESCRIPTION
41	<b>4605945K05</b>	Contact Stud, Battery
42	<b>3905127Q01</b>	Contact, B+
43	<b>3205082E24</b>	Gasket, "O" Ring
44	<b>0705830C02</b>	Support, Contact
45	<b>3905421C13</b>	Contact, Battery
46	<b>2905124Q01</b>	Lug
47	<b>0400002625</b>	Lockwasher, Split #2
48	<b>4105944K01</b>	Spring, Battery Latch
49	<b>5505536P01</b>	Latch
50	<b>0300139444</b>	Screw, Phillips Hd.; 2-56 x 5/32"
51	<b>3205082E03</b>	Gasket, "O" Ring
52	<b>6505214E05</b>	Fuse, (F-1)
53	<b>0400009761</b>	Lockwasher, Split #4
54	<b>0305941K01</b>	Screw
55	<b>6405531P02</b>	Plate, Base
56	----	*Actuator, PTT; part of item 2
57	<b>4505535P01</b>	Lever, PTT
58	----	*Retainer, PTT; part of item 2
59	----	*Plate, Actuator Button; part of item 2
60	----	*Button, Actuator; part of item 2
61	<b>0305137Q04</b>	Screw, Phillips; 4-40 x 5/16"
62	----	Label FCC
63	----	Label
64	----	*Seal, Dome (PTT); part of item 67
65	----	*Seal, Dome (Mon); part of item 67
66	----	*Contact, Snap Dome; part of item 67
67	<b>0105951N40</b>	Assembly, B+ /PTT Flex; includes: *Item 67/Flex *Items 64, 65 and 66
68	----	Housing, VCO
69	<b>2805144Q01</b>	Plug (P3, P4)
70	<b>0300139939</b>	Screw, Flat Hd.; 2-56 x 5/32"
72	----	Typical Circuit Board
73	----	Insulator, Back Shield
74	<b>2605775R02</b>	Shield, Main Back
75	<b>0300136783</b>	Screw, Phillips Hd.; 2-56 x 5/16"
76	----	Shield, Heatsink
78	----	*Tubing, Heat Shrink; part of item 9
79	<b>0300138620</b>	Screw, Phillips; 2-56 x 5/16"
80	----	*Header, part of item 9
81	----	Insulator, front shield; part of item 82
82	----	*Assembly, Front Shield; includes items 81, 100, 109 and 125
83	----	Insulator, Flex
84A	----	*Jack (J2), part of item 9
84B	----	*Jack (J1), part of item 9
85A	----	*Jack (P2), part of item 86
85B	----	*Jack (P1), part of item 88
86	----	Assembly, Volume Pot Flex; includes: *Item 86 Volume Pot Flex *85A, 87 and 106
87	----	*Header, part of item 86
88	<b>0105956M68</b>	Assembly, Frequency Switch Flex; includes: *Item 88 Frequency Switch Flex *Item 85B

REF. NO.	PART NO.	DESCRIPTION
89A	----	*Jack (J3), part of item 9
89B	----	*Jack (J4), part of item 9
90	----	*Jack (J5), part of item 9
91	<b>3205141Q01</b>	Gasket, "O" Ring
92	<b>4205140Q01</b>	Clamp, Speaker
93	----	Not used
94	----	*Flex, Microphone; part of item 98
95	<b>5005155Q03</b>	Speaker (LS1)
97	----	*Boot, Microphone; part of item 98
98	<b>0105956M62</b>	Assembly, Microphone; includes: *Item 98 Microphone *Items 78, 94, 97, 98 and 103
99	<b>7505564S01</b>	Pad, Microphone Boot
100	<b>1405141S01</b>	Insulator, part of item 82
102	<b>3505152J01</b>	Felt, Speaker
103	<b>2805250Q01</b>	*Plug (P5), part of item 98
104	----	Antenna (See antennas supplied in this section)
105	----	Not used
106	----	*Sockets (J7), part of item 86
107	<b>3905509R02</b>	Contact, 3 req'd
108	<b>0405534R01</b>	Washer, Flat
109	----	Label, Instruction, part of item 82
110	----	Shield, I-F; includes item 111
111	<b>1405496R01</b>	Insulator, I-F Shield
112	<b>3905130N01</b>	Contact Strip
113	----	Shield
114	<b>1405299Q01</b>	Insulator, Speaker
115	<b>0300136771</b>	Screw, Phillips; 2-56 x 3/16"
116	----	Support, Rubber
117	<b>7505501R02</b>	Pad, Speaker
118	<b>2605762R01</b>	Shield, Controller Flex, part of item 9
121	<b>0305103S01</b>	Screw, Captive #4-40
123	<b>7505501R03</b>	Pad, Front Cover
124	<b>2605123S01</b>	Shield, Back
125	----	Label, Instruction; part of item 82
127	----	Assembly, Antenna Switch
133	----	Insulator, Buffer
135	<b>0705168S01</b>	Spacer, Connector
137	----	Assembly, Buffer Shield
138	----	Shield, Trimmer Pot
139	<b>3905178S01</b>	Contact, Front Cover
140	<b>2605149S01</b>	Shield, VCO Side
141	<b>2605150S01</b>	Shield, VCO Top
142	----	Insulator, Front Shield

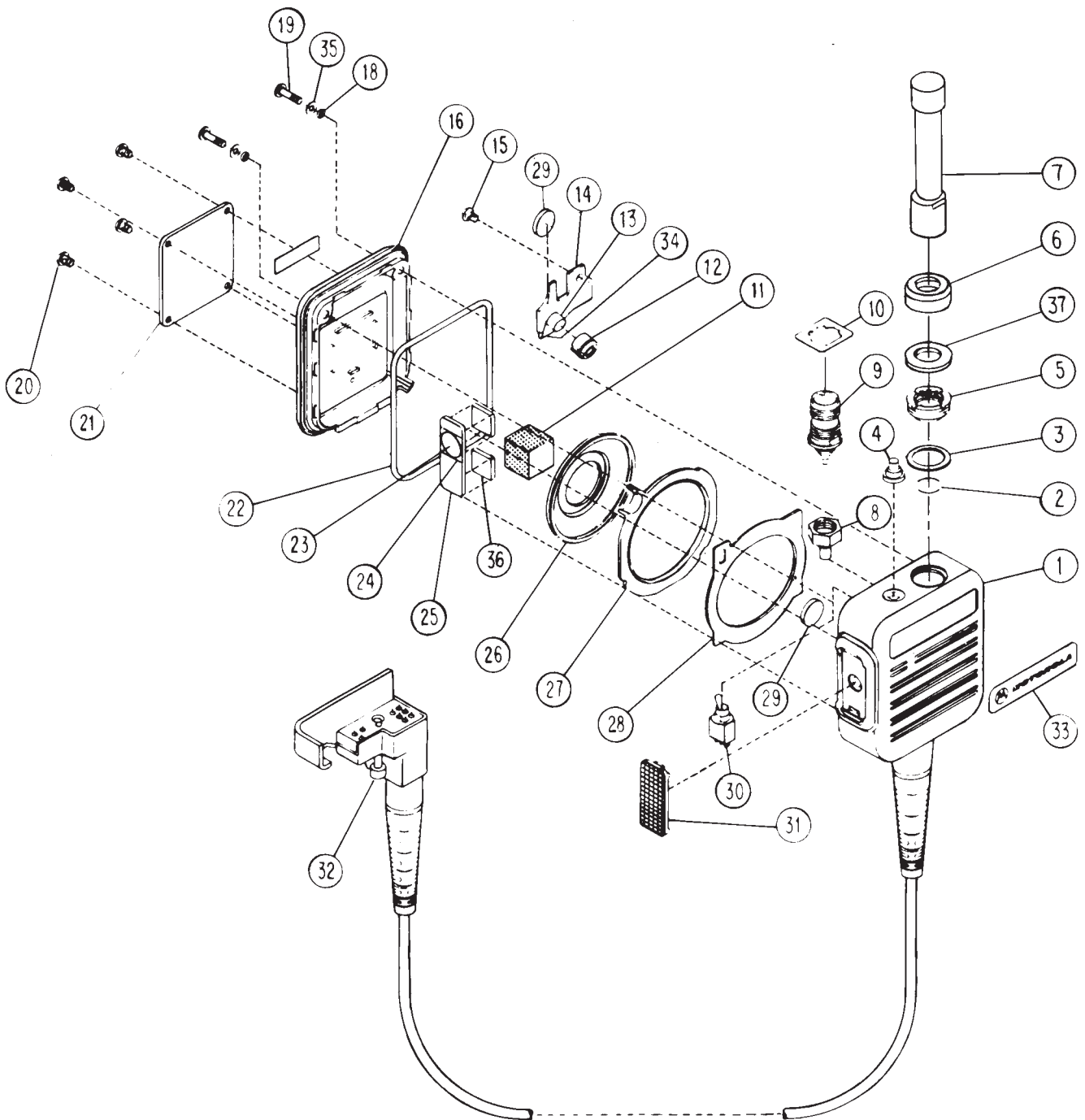
\* NOTE: Refer to Electrical Parts List for part number  
and description.

\* Not field replaceable, order parent ASSEMBLY.

**Cancelled Product P200:**  
**Aftermarket support criteria has  
been met for spare parts. Items  
may no longer be available.**



## Parts List



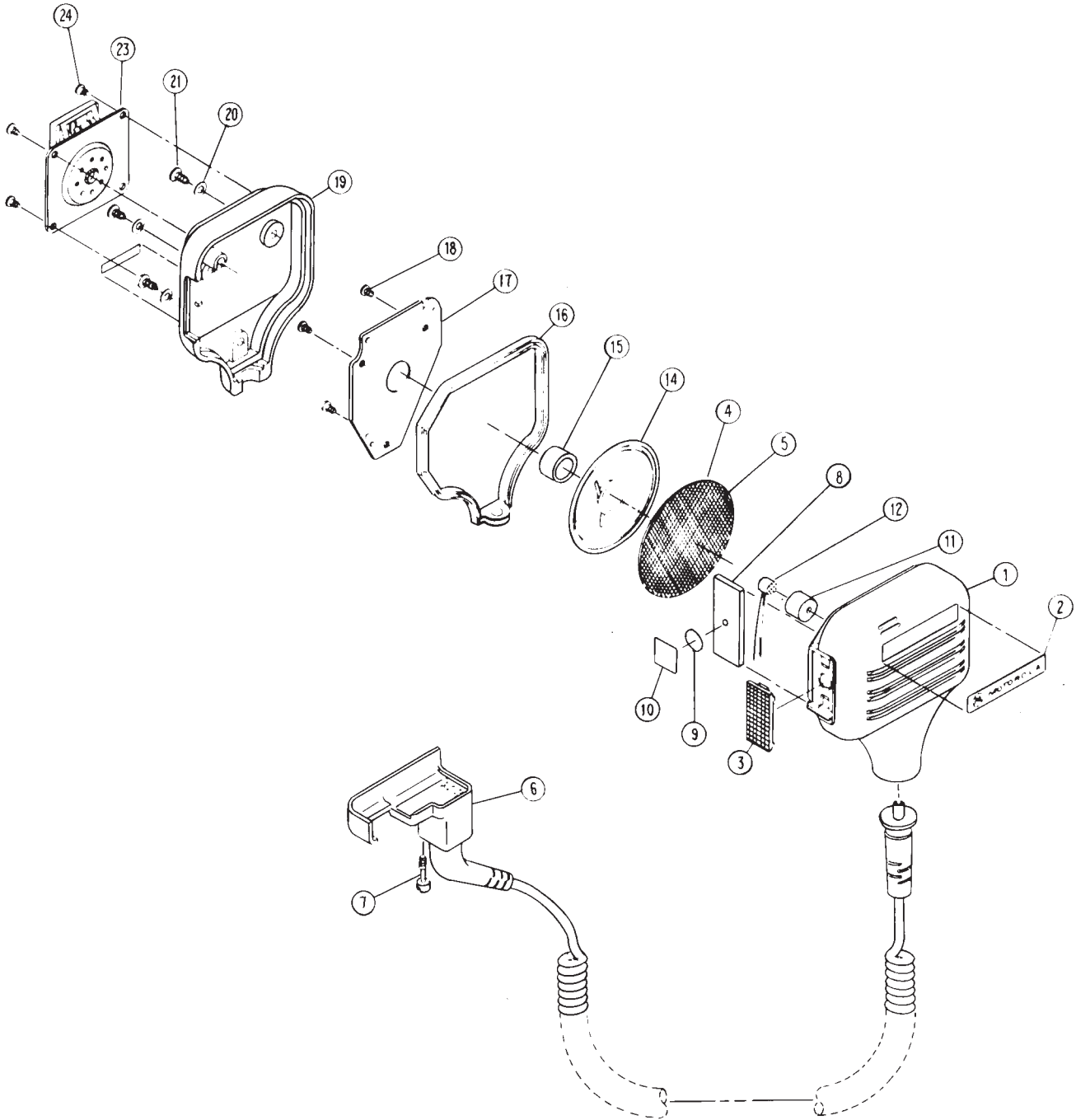
## Parts List

### Speaker Microphone Assembly NTN5559A

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>0105954P63</b>	Assembly, Housing, Cable and Accessory Connector; includes items 28, 29, 31 and 32	8	<b>0205541C01</b>	Nut, Special	26	<b>5005910P04</b>	Speaker, (LS1)
2	<b>3205082E69</b>	Gasket, "O" Ring	9	<b>0905261B01</b>	Connector, RF	27	<b>4305407R01</b>	Spacer, Speaker
3	<b>0405465C02</b>	Washer, Plastic	10	<b>0405327S01</b>	Washer, Bearing	28	<b>3205190R01</b>	Pad, Seal
4	<b>0205791P01</b>	Nut, Toggle Seal	11	<b>7582154D33</b>	Pad, Speaker	29	<b>7505136L03</b>	Pad, Silicon Sponge (2 req'd)
5	<b>0205326S01</b>	Nut, Antenna	12	<b>1405490Q01</b>	Boot, Microphone	30	<b>4005680K04</b>	Switch, Toggle (S2)
6	<b>3205325S01</b>	Seal, Washer	13	<b>5005227J02</b>	Microphone (MK1)	31	<b>4505211R03</b>	Lever, PTT
7	<b>8505355K03</b> (400-440 MHz)	Antenna (must be ordered separately)	14	<b>0105954P68</b>	Printed Circuit Board, Main	32	<b>0305425R02</b>	Screw, Captive
	<b>8505355K04</b> (440-470 MHz)	Antenna (must be ordered separately)	15	<b>0300139047</b>	Screw, Cutting	33	<b>3305269R01</b>	Label, Nameplate
	<b>8505309N11</b> (470-512 MHz)	Antenna (must be ordered separately)	16	<b>0105955P12</b>	Assembly, Cover	34	<b>8405213S01</b>	Printed Circuit, Flexible
			18	<b>3205082E03</b>	Gasket, "O" Ring (2 req'd)	35	<b>0405465C01</b>	Washer, Plastic (2 req'd)
			19	<b>0382210E19</b>	Screw, Cover-captive: #4-40 (2 req'd)	36	<b>1405424D04</b>	Insulator (2 req'd)
			20	<b>0300139939</b>	Screw, Pad Retainer (4 req'd)	37	<b>0405910D01</b>	Washer, Insulator
			21	<b>7505385P01</b>	Pad, Hook			
			22	<b>3205082E63</b>	Gasket, "O" Ring			
			23	<b>3905834K07</b>	Dome, PTT (S1)			
			24	<b>3205264L06</b>	Seal, PTT			
			25	<b>8405296R02</b>	Printed Circuit Board, PTT			

## P200 Series

### Parts List



## P200 Series



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### Parts List

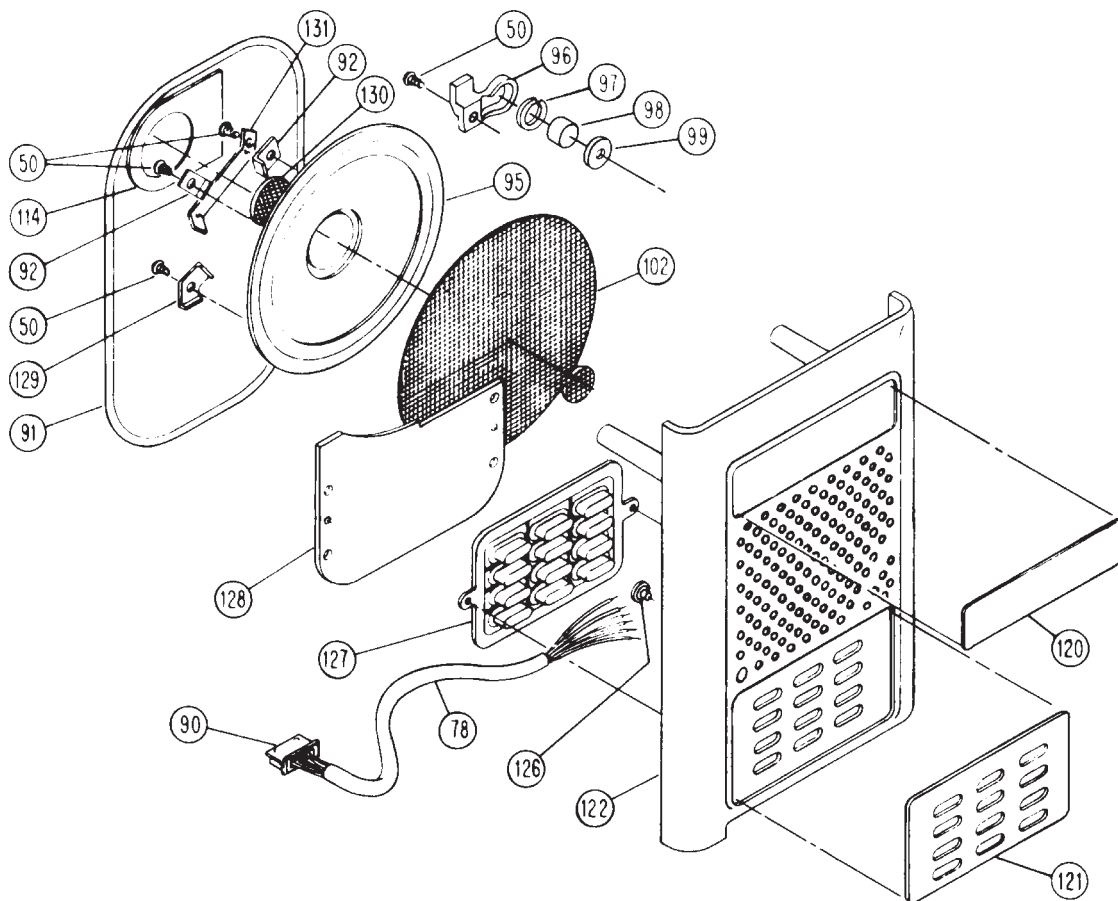
#### Speaker Microphone Assembly NTN6153A

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>0102701J97</b>	Assembly, Front Housing; includes items 1 thru 5	9	<b>3905834K04</b>	Switch, Snap Dome Contact (S1)	19	<b>1505172Q01</b>	Housing, Back
2	<b>3305259Q01</b>	Nameplate, Motorola	10	<b>3205231Q01</b>	Seal, Dome	20	<b>0484345A06</b>	Washer, Seal, 3 used
3	<b>4505182Q01</b>	Lever, PTT	11	<b>1405219Q01</b>	Boot, Microphone	21	<b>0305137Q02</b>	Screw, Phillips, 3 used
4	<b>3505152J01</b>	Grille, cloth	12	<b>0105953N48</b>	Assembly, Microphone (MK1); includes items 11 and 12	23	<b>0105959N54</b>	Assembly, Belt Clip; includes items 23 and 24
5	<b>1105461R01</b>	Adhesive	13	----	Not used	24	<b>0300139444</b>	Screw, Phillips; 2-56 x 5/32", 4 used
6	<b>NKN6416B</b>	Assembly, Cable and Connector; includes items 6 and 7	14	<b>5005910P04</b>	Speaker (LS1)			
7	<b>0305425R01</b>	Screw, Captive	15	<b>7505283Q02</b>	Pad, Speaker			
8	<b>0105953N46</b>	Assembly, Printed Circuit Board; includes electrical components	16	<b>3205690R01</b>	Gasket			
			17	<b>6405689R01</b>	Plate, Housing Mounting			
			18	<b>0300139444</b>	Screw, Phillips, 2-56 x 5/32", 3 used			



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## Parts List





# P200 Series



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## Parts List

### DTMF FRONT COVER NTN5554A, NTN5555A, NTN5553A

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
50	<b>0300139444</b>	Screw, #2-56 x 5/32"	99	<b>7505564S01</b>	Pad, Microphone	131	<b>3905178S01</b>	Contact, Front Cover
78	<b>3700132526</b>	Tube, Heat-shrink	102	<b>3505152J01</b>	Felt, Speaker	132	<b>0405179S01</b>	Washer
90	<b>2805250Q02</b>	Connector, 6-pin (P5)	114	<b>1405299Q01</b>	Insulator, Speaker			
91	<b>3205141Q01</b>	"O" Ring, Front Cover	120	<b>1305540S03</b>	Nameplate, Front			
92	<b>4205140Q01</b>	Clamp, Speaker	121	<b>1305728R02</b>	Escutcheon			
95	<b>5005155Q03</b>	Speaker	122	----	*Front Cover			
96	<b>4202036J01</b>	Retainer, Microphone	126	----	*Switch, Actuator			
97	----	Not used	127	----	*Switch, Keypad			
98	<b>5013920A01</b>	Microphone	128	----	*Circuit Board			
	<b>1405299L02</b>	Boot	129	<b>0705456R01</b>	Bracket, Speaker/PCB			
	<b>7505564S02</b>	Pad	130	<b>7505501R02</b>	Pad, Speaker			

*\*Not field replaceable.*

*Order applicable DTMF Front Cover Kit: NTN5554A, NTN5555A or NTN5553A.*



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## P200 Series

### Portable Accessories

#### Chargers

##### Single Unit

**NTN5538C** Rapid Charger

**NTN5540B**  
Compact Charger



NTN5538C

##### Multi-Unit



NTN4668C

**NTN4668C** Six Unit Rapid  
Rate Charger

**NLN7967A** Wall Mount for  
Six Unit Charger



NLN7967A

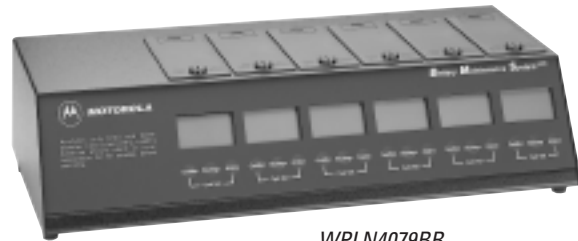
#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

##### BMS<sup>plus</sup> Adapter

**TDN9441A** Standard Adapter, P200

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## P200 Series



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### Portable Accessories

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter**

**RL-71163** Standard Adapter, P200

#### Motorola Conditioning Charger (MCC)



WPPN4009BR

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.

**WPPN4009BR** 110V AC  
Base Charge Unit with  
adapter plates

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Mounting Bracket for single unit conditioning chargers



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## P200 Series

## Portable Accessories

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

#### Swivel

**NTN5450B** Leather Carry Case, DTMF Access for High Capacity or Alkaline Batteries

**NTN5549A** Leather Carry Case, for Medium Capacity Batteries

**NTN5461B** Leather Carry Case, for High Capacity or Alkaline Batteries



NTN5450B



NTN5460B

#### Standard

**NTN5548A** Leather Carry Case with Belt Loop for Medium Capacity Batteries

**NTN5460B** Leather Carry Case with Belt Loop for High Capacity or Alkaline Batteries

#### Carry Holder

**NTN4814C** Urethane Carry Holder with Attached Belt Clip



NTN4814C

#### T-Straps

**4205386S01** T-Strap for Velcro Carry Cases

**4205386S03** T-Strap, Snap

**4205447R03** T-Strap for Belt Clip Carry Holder, Snap



4205386S01

**NTN5243A** Carry Case Shoulder Strap

### Carrying Accessories

**4305525R02** Spacer for use with Medium Capacity Batteries in Large Carry Cases



4305525R02

#### Belt Clip

**NTN5533A** 3" Belt Clip



NTN5533A

#### Swivel Belt Loop

**4205857B01** 2" Swivel Belt Loop



4205857B01

#### Belt

**4200865599** 1.75" wide leather belt



NLN8410A

**NLN8410A** Velcro Pin Patch Attachment for use with Public Safety Remote Speaker Mic

#### Universal Carry Accessories

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602



HLN6602A

**RLN4815A** Universal RadioPAK™ with Radio Holder. Worn around waist with adjustable belt. Includes attached 6" by 8" zippered pouch for other job necessities

**4280384F89** Universal RadioPAK™ belt lengthener; fits waists larger than 40"

**RLN4570A** Break-A-Way Chest Pack; all of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow that allow the entire pack to be pulled off with approximately 10 lbs of pressure.

## P200 Series



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## Portable Accessories

### Carrying Accessories



TDN9327A

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting.

**TDN9327A** Portable Radio Hanger for Door Panels up to 2-3/4"

**TDN9373A** Portable Radio Hanger for Door Panels 2-3/4" to 3-1/4"

### Audio/Signalling Accessories

#### Audio and Signalling Accessories

**NSN6008A** Lapel Speaker  
(Requires both Adapters)

**ZMN6032A** Surveillance Microphone,  
PTT Earpiece (Requires NTN5560C)

**5083693B01** Earpiece with Volume Control  
(Requires NTN5557A)

**5005178K01** Earpiece without  
Volume Control (Requires  
NTN5557A and 5880378B84  
When Not Used with NMN6145B)

**NTN5557A** Earphone Jack Adapter

NTN5557A

**5880378B84** 2.5mm to 3.5mm  
Jack Adapter

**NTN5560C** Audio Accessory  
Adapter, Hirose



NSN6008A



5005178K01



NTN5560C

### Audio/Signalling Accessories



NMN6156B

**NMN6156B** Remote Speaker  
Microphone

**NMN6145B** Remote Speaker  
Microphone with Earpiece Jack

**5005178K01** Receive-only Earpiece  
(for use with NMN6145B)

**NTN5554A** DTMF Standard Tone  
Retrofit Kit

#### Epaulet Strap

Black leather epaulet straps  
secure remote speaker  
microphones to epaulet of shirts  
or jackets and attach around cord.  
Allows reliable communications  
in hostile environments with  
Velcro or clip style strap.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip



RLN4294A



RLN4295A

#### Ear Microphone System

This compact unit picks up the voice through bone vibrations in the ear canal. Ideal for use in high noise environments. Available in PTT or Voice-activated (VOX) capabilities for total hands free communications.

**Order Interface  
Module separately.**

**BDN6677A** Ear Microphone  
for Standard Noise Levels  
(up to 95 db), Black

**BDN6678A** Ear Microphone  
for Standard Noise Levels  
(up to 95 db), Beige

**BDN6641A** Ear Microphone for High  
Noise Levels (up to 105 db), Grey



BDN6677A



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## Portable Accessories

### Audio/Signalling Accessories

#### Interface Module

**BDN6656B** Push-To-Talk Interface Module

**BDN6657B** Voice-Activated Interface Module

#### Optional Accessories

**0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote push-to-talk body switch

**0180300E25** Earguard with Adjustable Loop



0180358B38



0180358B83



0180358B33

**0180358B32** Earholder, Black, Size Small

**0180358B33** Earholder, Black, Size Medium, secures ear mic in ear

**0180358B34** Earholder, Black, Size Large, secures ear mic in ear

**0180358B35** Earholder, Clear, Size Small, secures ear mic in ear

**0180358B36** Earholder, Clear, Size Medium, secures ear mic in ear

**0180358B37** Earholder, Clear, Size Large, secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

### Audio/Signalling Accessories

#### Headsets

Heavy duty headsets include Noise-Cancelling Microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125 dB. The Push-To-Talk switch is located on the earcup. The Vox module is contained within the headset on voice activated units. Heavy duty headsets require radio adapter cable.

**BDN6645A** Push-To-Talk Headset with Boom Microphone, Requires Adapter Cable



BDN6645A  
(Shown with adapter cable BDN6673B)



BDN6635B  
(Shown with adapter cable BDN6673B)

**BDN6635B** Voice-Activated Headset with Boom Microphone, Requires Adapter Cable

**BDN6636B** Voice-Activated Headset with Throat Microphone, Requires Adapter Cable



BDN6636B  
(Shown with adapter cable BDN6673B)

**BDN6673B** Radio Adapter Cable

## P200 Series

## Portable Accessories, Antennas



### Audio/Signalling Accessories

#### Lightweight Headset

**RMN4015A** Lightweight Headset with Swivel Boom Microphone, Single Speaker and In-line PTT

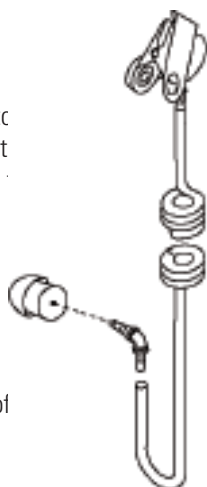
#### Noise Kits

Lightweight translucent tube attaches to Motc surveillance accessories. Clothing clip prevent accessory from being pulled from the ear due movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs. Pack of use with NTN8370A)



NTN8371A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material.

There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left, ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



RLN4763A

RLN4760A

### Portable Antennas

#### Heliflex Antennas

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

##### 8505816K22

Heliflex Molded, 136-150.8MHz, 6.5"

##### 8505816K21

Heliflex Molded, 150.8-162MHz, 6"

##### 8505816K23

Heliflex Molded, 162-174MHz, 6"

##### 8505816K24

Heliflex Molded, 403-430MHz, 3"

##### 8505816K25

Heliflex Molded, 440-470MHz, 3"

##### 8505816K26

Heliflex Molded, 470-512MHz, 3"

##### 8505309N09

Antennas for public safety microphones-400-440 MHz

##### 8505309N10

Antennas for public safety microphones- 440-470 MHz

##### 8505309N11

Antennas for public safety microphones- 470-512 MHz



8505816K22



8505816K23



8505816K24





## P200 Series

## Batteries, Service Tools

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN5521B**

Volts: 10

Avg. mAh: 1100

Height: 3-5/16"

Intrinsically Safe: No



NTN5521B

Part Number: **NTN5531B**

Volts: 10

Avg. mAh: 630

Height: 2-7/16"

Intrinsically Safe: No



NTN5531B

Part Number: **NTN5545B**

Volts: 10

Avg. mAh: 1000

Height: 3-5/16"

Intrinsically Safe: Yes



NTN5545B

### Service Tools

**RSX4043A** Adjustable  
Torque Screwdriver (Order  
Bits Separately)

**6680371B34** Spanner Tool Bit,  
for Antenna Bushing Nut

**6680371B03** Nut Driver Bit,  
for Volume and rotary Switch Nuts

**6680370B95** Spanner Tool Bit,  
for Toggle Switch Nut



RSX4043A



6680321B86

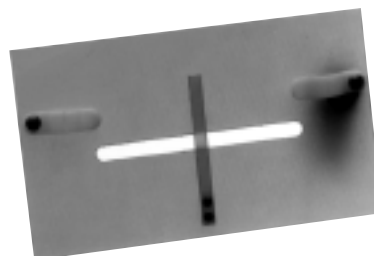
**6680321B79** Phillips Power Bit  
#1, for Radio Screws

**6680321B86** Phillips Bit #0, for Radio Screws

#### Control Flex Hold Down Fixture

Provides a secure mount for the Radius P200 controller flex when removing and replacing I.C. Chip Carriers and components using the Surface Mount Service Center.

**0180371B37** Controller Flex Hold Down Fixture



0180371B37

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer.

**RLN4008E** Radio Interface Box



RLN4008E

#### Programming Cable

Connects radio interface box to radio for programming.

**0180358A62** Programming Cable

## P200 Series



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## Service Aids, Manuals

### Service Aids



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

#### RF Adapter Cable

Connect radio RF directly to test equipment.

**RKN4000A** RF Adapter Cable Terminated with BND Female, Opposite End Fits Antenna on Radio



RKN4000A

#### Cloning Cable

**NKN6376A** Allows a P200 radio to be duplicated from a master radio by transferring programmed data from one radio to another

#### Controller Flex Extender Fixture

**REN4000A** Eases in troubleshooting of controller flex and RF board

#### Reference Oscillator Tuner Box

**RPX4726A** Tuning the Alternate Oscillator for low band



RTL4226B

#### Battery Eliminator

**RTL4226B** Interconnects radio to power supply

### Service Aids

#### Battery Adapter

**1580368B62** Connects radio to battery eliminator without main housing

#### Radio Text Cable

Interconnects the radio with RTX4005B radio test set.

**RTK4205C** Test Cable Used with RTX4005B

#### Radio/Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Programming Software

Utilizing your personal computer, this software enables you to add/or reprogram frequencies as your requirements change. Compatible with IBM XT, At Model 30, 50, 60, and 80. Requires Radio Interface Box and proper cables, order separately.

**RVN4134B** Programming Software (includes manual and storage box)

### Manuals

**6881059C25** 146-174 MHz

**6881059C30** 403-470 MHz

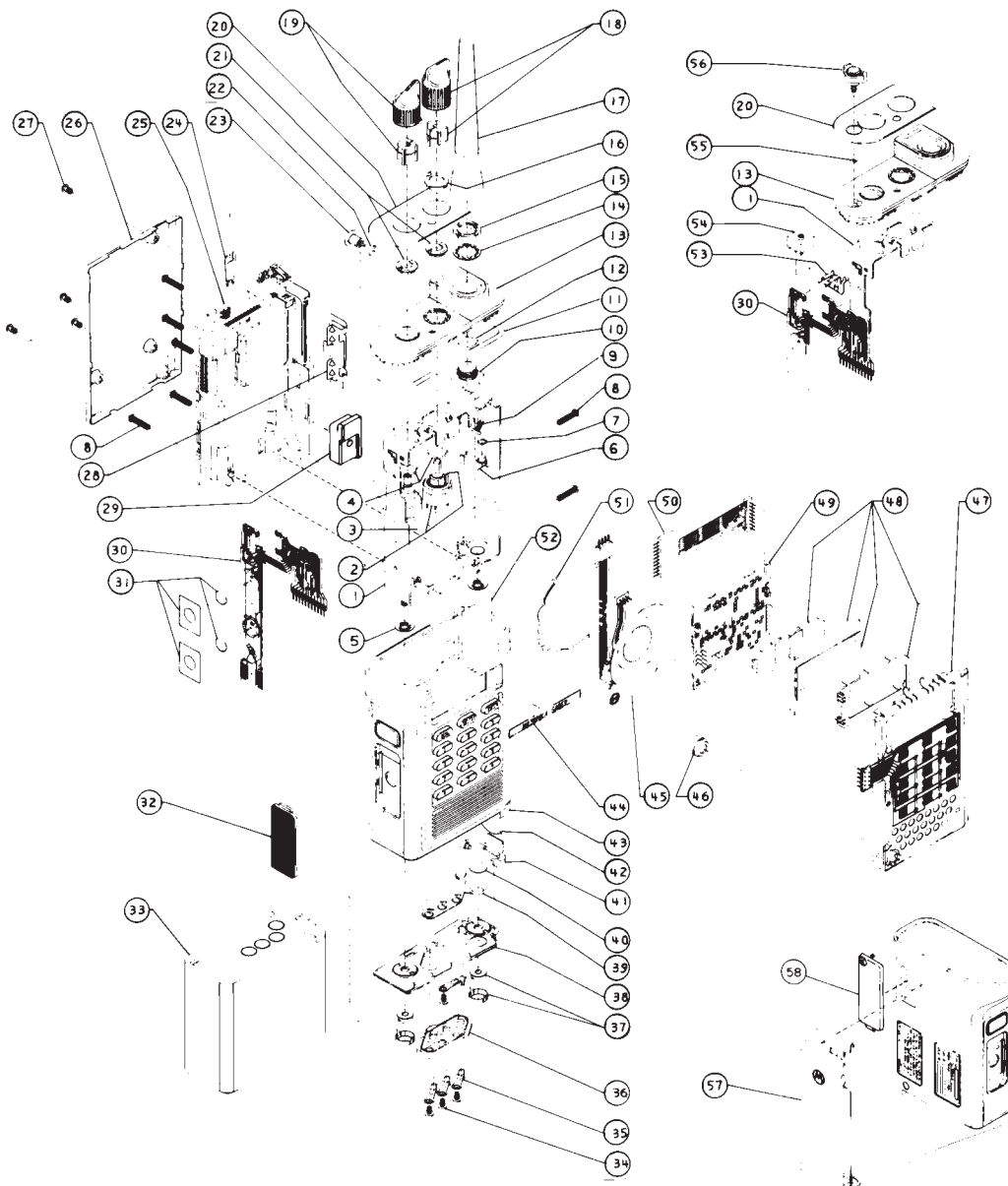
**0180305J46** Ear Microphone System and Temple Transducer CD-ROM



<https://www.motorola.com/businessonline>

# SABER Series

## Parts List



## Parts List

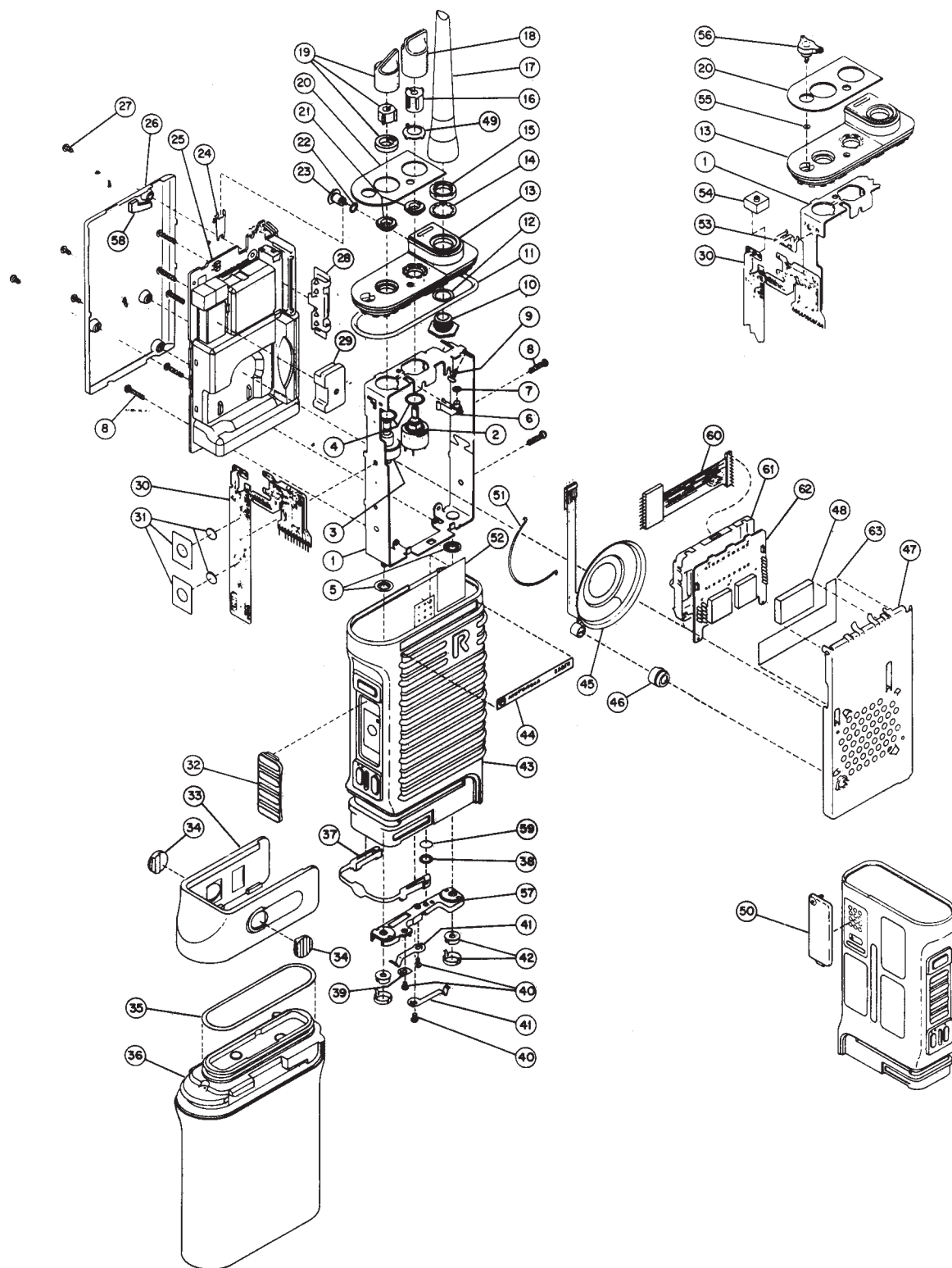
### SABER I, II, III VHF/UHF

REF. NO.	PART NO.	DESCRIPTION
1	<b>RPX4695A</b>	Assembly, Frame Stud (includes item 5)
2	<b>RPX4689A</b>	Kit, Frequency Switch (S823) (includes item 4)
3	<b>RPX4690A</b>	Kit, On/Off Switch (S800)/Volume Control (R800) (includes item 4)
4	<b>3205082E68</b>	Gasket, "O" Ring (2 req'd) (part of items 2 and 3)
5	<b>3205422Q01</b>	Seal, Stud (2 req'd) (part of item 1)
6	<b>6105436Q01</b>	Lightpipe, LED
7	<b>3205082E59</b>	Gasket, "O" Ring
8	<b>0300138542</b>	Screw, Module, Ph Pah Hd; 2-56 x 3/8" (7 req'd)
9	<b>0305381L02</b>	Screw, Top Panel; 2-32 (2 req'd)
10	<b>RPX4693A</b>	Kit, Antenna Bushing (includes item 12)
11	<b>3205082E80</b>	Gasket, "O" Ring (part of item 13)
12	<b>3205082E58</b>	Gasket, "O" Ring (part of item 10)
13	<b>RPX4692A</b>	Kit, Control Top Panel (includes item 11)
14	<b>0400139731</b>	Lockwasher, Internal Tooth
15	<b>0205765L02</b>	Nut, Antenna Bushing
16	<b>0405781Q01</b>	Washer, Detent
17	<b>8505816K01</b>	Antenna, VHF Helical (136-150 MHz)
	or	
	<b>8505816K21</b>	Antenna, VHF Helical (150-162 MHz)
	or	
	<b>8505816K23</b>	Antenna, VHF Helical (162-174 MHz)
	or	
	<b>8505816K24</b>	Antenna, UHF Helical (403-432 MHz)
	or	
	<b>8505816K25</b>	Antenna, UHF Helical (440-470 MHz)
	or	
	<b>8505816K26</b>	Antenna, UHF Helical (460-512 MHz)
	or	
	<b>8505247K06</b>	Antenna, UHF Helical (403-512 MHz)
18	<b>RPX4699A</b>	Kit, Frequency Knob
19	<b>REX4105A</b>	Knob, Replacement
20	<b>1305622Q01</b>	Escutcheon, 12-Frequency
	or	
	<b>1305622Q11</b>	Escutcheon, 12-Frequency Emergency
	or	
	<b>1305622Q04</b>	Escutcheon, 12-Frequency Submersible
	or	
	<b>1305622Q13</b>	Escutcheon, 12-Frequency Emergency, Submersible
21	<b>0205916P01</b>	Nut, Spanner (2 req'd)
22	<b>3205082E61</b>	Gasket, "O" Ring (part of item 23)
23	<b>RPX4691A</b>	Kit, RF Connector (includes items 22, 24)
24	<b>4205852N01</b>	Contact, Ground, RF (part of item 23)
25	<b>NLD8160B</b>	Assembly, VHF Main PC Board
	<b>NLE9450B</b>	Assembly, UHF Main PC Board
26	<b>NTN4647A</b>	Assembly, Back Shield (includes item 27)
27	<b>0305706Q01</b>	Screw, Captive (4 req'd) (part of item 26)
28	<b>4205577Q01</b>	Clip, Ground
29	<b>1405387R01</b>	Boot, Oscillator
30	<b>RPX4700A</b>	Kit, PTT/Controls Flex (includes item 31)
	or	
	<b>RPX4701A</b>	Kit, PTT/Controls Flex Assembly (includes items 2, 3, 31)

REF. NO.	PART NO.	DESCRIPTION
31	<b>RPX4694A</b>	Kit, Contact Snapdome (S803, 805) (2 req'd) (part of item 30)
32	<b>4505022P02</b>	Lever, PTT, (part of item 43)
33	<b>NTN4593DR</b>	Battery, 1100mAh
	or	
	<b>NTN4538DR</b>	Battery, FM, 1100mAh
	or	
	<b>NTN4596DR*</b>	Battery, FM, 1800mAh
34	<b>0305706Q02</b>	Screw, Baseplate Ph Pan Hd; 2-56 x 3/32" (4 req'd) (part of item 43)
35	<b>3905453Q01</b>	Contact, Power (4 req'd) (part of item 43)
36	<b>4205669T01</b>	Retainer, Baseplate (part of item 43)
37	<b>RPX4696A</b>	Kit, Slotted Spanner Nut (2 req'd) (part of item 43)
38	<b>6405847N03</b>	Baseplate, (part of item 43)
39	<b>3205701Q01</b>	Seal, Elastomer (part of item 43)
40	---	Seal, Vacuum Port (part of item 43)
41	<b>5505333Q01</b>	Latch, Battery (part of item 43)
42	<b>4105775Q01</b>	Spring, Latch (part of item 43)
43	<b>NHN6395A</b>	Assembly, Housing, SABER I (includes items 32, 34 thru 42, 44, and 45)
	<b>NHN6422A</b>	Assembly, Housing, SABER II
	<b>NHN6397B</b>	Assembly, Housing, SABER III
44	<b>3305183R03</b>	Label, Bottom Nameplate, SABER I (part of item 43)
	<b>3305183R01</b>	Label, Top Nameplate, SABER I (part of item 43)
	<b>3305183R02</b>	Label Name plate, SABER II and III
45	<b>0105950T07</b>	Assembly, Speaker/Microphone Flex SABER II (8K Display)
	<b>0105950T06</b>	Assembly, Speaker/Microphone Flex SABER II (2K Display)
46	<b>1405490Q02</b>	Boot, Microphone
47	<b>RPX4697A</b>	Kit, Speaker Bracket, SABER (includes item 48)
48	<b>7505641N03</b>	Pad, Speaker Bracket (part of item 47)
49	<b>0105953T53</b>	Controller PC Board
50	<b>8405681U01</b>	Flex Circuit, LCD Interconnect
51	<b>4205872S01</b>	Retainer, Speaker
52	<b>1405182M03</b>	Insulator, Universal Connector
53	---	Bracket, Switch (optional) -- not available
54	<b>4005221R03</b>	Switch, Dual-Functional (S801) (optional)
55	<b>3205082E68</b>	Gasket, "O" Ring (optional)
56	<b>3605392U03</b>	Knob, Push-Only
	or	
	<b>NTN5068A</b>	Knob, Push and Rotate
	or	
57	<b>NTN4741B</b>	Assembly, Belt Clip Non-Referenced Parts, SABER II and III
	<b>RPX4702A</b>	Keypad with Bracket
	<b>RPX4703A</b>	Kit, LCD
58	<b>NTN7061A</b>	Universal Connector

\* Intrinsically Safe

## Parts List



# SABER I R Series

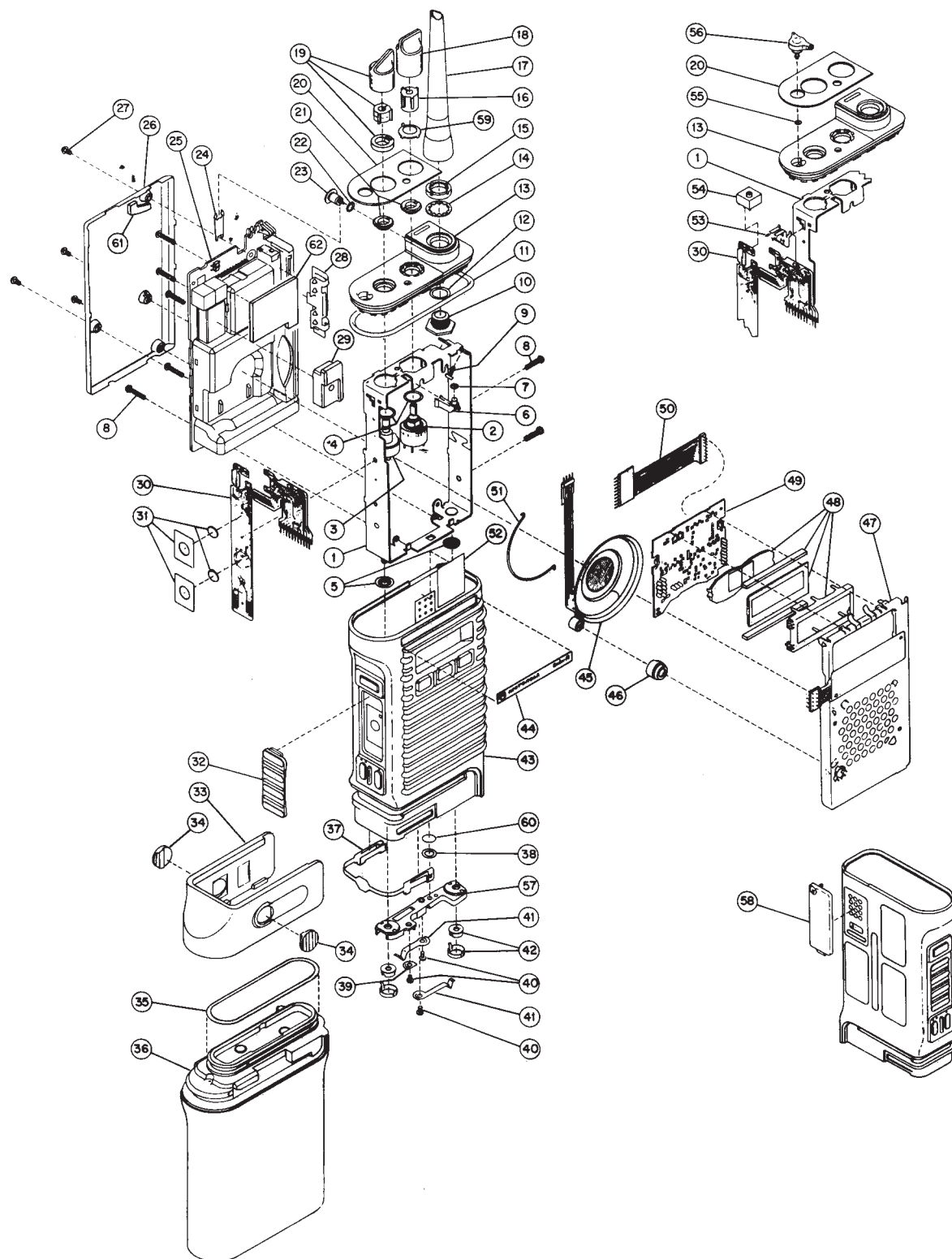
## Parts List

### SABER I R / Systems SABER I R

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>RPX4695A</b>	Kit, Frame Stud (includes item 5)	29	<b>1405343S01</b>	Boot, Oscillator (SABER I)
2	<b>RPX4689A</b>	Kit, Frequency Switch (S823) (includes item 4)	30	<b>RPX4700A</b>	Kit, PTT/Controls Flex (includes item 31)
3	<b>RPX4690A</b>	Kit, On/Off Switch (S800)/Volume Control (R800) (includes item 4)		or	
4	<b>3205082E62</b>	Gasket, "O" Ring (2 req'd) (part of items 2 and 3)		<b>RPX4701A</b>	Kit, PTT/Controls Flex Assembly (includes items 2, 3, 31)
5	<b>3205422Q01</b>	Seal, Stud (2 req'd) (part of item 1)	31	<b>RPX4694A</b>	Kit, Contact Snapdome (S803, 805) (2 req'd) (part of item 30)
6	<b>6105436Q01</b>	Lightpipe, LED			
7	<b>3205082E59</b>	Gasket, "O" Ring	32	<b>4505315V01</b>	Lever, PTT (part of item 43)
8	<b>0305714J10</b>	Screw, Module, PH Pan Hd; 7-56 x .400" (7 req'd)	33	<b>4205292V01</b>	Slide (part of item 43)
9	<b>0300140332</b>	Screw, Top Panel; 2-28 x .187" (2 req'd)	34	<b>3805294V01</b>	Button (2 req'd) (part of item 43)
10	<b>RPX4693A</b>	Kit, Antenna Bushing (includes item 12)	35	<b>3205082E85</b>	"O" Ring, Battery (part of item 36)
11	<b>3205082E80</b>	Gasket, "O" Ring (part of item 13)	36	<b>NTN7058AR</b>	Battery, Submersible, 1500 mAh (includes item 35)
12	<b>3205082E58</b>	Gasket, "O" Ring (part of item 10)			
13	<b>RPX4692A</b>	Kit, Control Top Panel (includes item 11)	37	<b>4105293V01</b>	Spring (part of item 43)
14	<b>0400139731</b>	Lockwasher, Internal Tooth	38	<b>3205300V01</b>	Seal, Elastomer (part of item 43)
15	<b>0205591R01</b>	Nut, Antenna Bushing	39	<b>3905291V02</b>	Lockwasher (part of item 43)
16	----	Insert, Frequency Knob (part of item 18) (SABER only)	40	<b>0305706Q02</b>	Screw, Baseplate PH Pan Hd; 2-56 x .332" (3 req'd) (part of item 43)
	or		41	<b>3905291V01</b>	Contact, Power (2 req'd) (part of item 43)
	<b>4305141R03</b>	Insert, Frequency Knob (Systems SABER only)	42	<b>RPX4696A</b>	Kit, Slotted Spanner Nut (2 req'd) (part of item 43)
17	<b>8505816K01</b>	Antenna, VHF Helical (136-150.8 MHz)			
	or		43	<b>NHN6524A</b>	Assembly, Housing (SABER I) (includes items 32 thru 34, 37 thru 42, 57, and 59)
	<b>8505816K21</b>	Antenna, VHF Helical (146-162 MHz)			
	or		44	<b>3305183R63</b>	Label, Nameplate (SABER I R)
	<b>8505816K23</b>	Antenna, VHF Helical (157-178 MHz)		or	
	or			<b>3305183R64</b>	Label, Nameplate (Systems SABER I)
	<b>8505247K06</b>	Antenna, UHF Whip (403-520 MHz)	45	<b>0105950T06</b>	Assembly, Speaker/Microphone Flex, SABER I
	or		46	<b>1405490Q02</b>	Boot, Microphone
	<b>8505477T02</b>	Antenna, MB Helical (74-88 MHz)	47	<b>RPX4697A</b>	Kit, Speaker Bracket (SABER I) (includes item 48)
18	<b>RPX4699A</b>	Kit, Frequency Knob (includes item 16) (SABER only)	48	<b>7505641N03</b>	Pad, Speaker Bracket (part of item 47)
	or		49	<b>0405781Q01</b>	Washer, Detent (even number of switch positions)
	<b>REX4659A</b>	Kit, Frequency Knob, Low-Profile (includes item 16) (SABER only)		or	
	or			<b>0405781Q01</b>	Washer, Detent (odd number of switch positions)
	<b>3605526Q01</b>	Knob, Frequency (Systems SABER only)	50	<b>NTN7061A</b>	Cover, Universal Connector
19	<b>REX4105A</b>	Kit, Volume Knob	51	<b>4205872S01</b>	Retainer, Speaker
	or		52	<b>1405182M03</b>	Insulator, Universal Connector
	<b>REX4659A</b>	Kit, Volume Knob, Low Profile	53	<b>0705319R02</b>	Bracket, Switch (optional)
20	<b>1305622Q01</b>	Escutcheon, 12-Frequency	54	<b>4005221R03</b>	Switch, Dual-Function (S801) (optional)
	or		55	---	Gasket, "O" Ring (optional) – not available
	<b>1305622Q11</b>	Escutcheon, 12-Frequency Emergency	56	<b>NTN5076B</b>	Kit, Push-Only Knob (includes item 55)
	or			or	
	<b>1305622Q04</b>	Escutcheon, 12-Frequency, Submersible		<b>NTN5068B</b>	Kit, Push-and-Rotate Knob (includes item 55)
	or			or	
	<b>1305622Q03</b>	Escutcheon, 12-Frequency Emergency Submersible		<b>NTN5069A</b>	Kit, Rotate-Only Knob (includes item 55)
21	<b>0205916P01</b>	Nut, Spanner (2 req'd)		or	
22	<b>3205082E61</b>	Gasket, "O" Ring (part of item 23)		<b>4305607S01</b>	Plug, Seal
23	<b>RPX4691A</b>	Kit, RF Connector (includes items 22, 24)	57	<b>6405296V01</b>	Baseplate (part of item 43)
24	<b>4205852N01</b>	Contact, Ground, RF (part of item 23)	58	<b>7505934Q05</b>	Pad, Backshield (part of item 26)
25	<b>NLD8750A</b>	Kit, VHF SECURENET Main PC Board (SABER only)	59	<b>3205472M03</b>	Seal, Vacuum Port (part of item 43)
	or		60	<b>8405681U01</b>	Flex Circuit, LCD Interconnect (Systems SABER I R only)
	<b>NLE4150B</b>	Kit, UHF SECURENET Main PC Board (SABER only)			
	or		61	---	Shield, LCD Board (Systems SABER I R only) – not available
	<b>NLD8880B</b>	Kit, VHF SECURENET Main PC Board (Systems SABER only)	62	<b>0105953T52</b>	Assembly, Controller PC Board (Systems SABER I R only)
	or				
	<b>NLE4200C</b>	Kit, UHF SECURENET Main PC Board (Systems SABER only)	63	---	Insulator, Front Shield (Systems SABER I R only)
26	<b>NTN4647A</b>	Assembly, Back Shield (includes items 27, 58)			
27	<b>0305706Q01</b>	Screw, Captive (4 req'd) (part of item 26)			
28	<b>4205577Q01</b>	Clip, Ground			



## Parts List





# SABER II R Series

## Parts List

### SABER II R

REF. NO.	PART NO.	DESCRIPTION
1	<b>RPX4695A</b>	Kit, Frame Stud (includes item 5)
2	<b>RPX4689A</b>	Kit, Frequency Switch (S823) (includes item 4)
3	<b>RPX4690A</b>	Kit, On/Off Switch (S800)/Volume Control (R800) (includes item 4)
4	<b>3205082E62</b>	Gasket, "O" Ring (2 req'd) (part of items 2 and 3)
5	<b>3205422Q01</b>	Seal, Stud (2 req'd) (part of item 1)
6	<b>6105436Q01</b>	Lightpipe, LED
7	<b>3205082E59</b>	Gasket, "O" Ring
8	<b>0305714J10</b>	Screw, Module, Ph Pan Hd; 7-56 x .400" (7 req'd)
9	<b>0300140332</b>	Screw, Top Panel; 2-28 x .187" (2 req'd)
10	<b>RPX4693A</b>	Kit, Antenna Bushing (includes item 12)
11	<b>3205082E80</b>	Gasket, "O" Ring (part of item 13)
12	<b>3205082E58</b>	Gasket, "O" Ring (part of item 10)
13	<b>RPX4692A</b>	Kit, Control Top Panel (includes item 11)
14	<b>0400139731</b>	Lockwasher, Internal Tooth
15	<b>0205591R01</b>	Nut, Antenna Bushing
16	----	Insert, Frequency Knob (part of item 18)
17	<b>8505816K01</b>	Antenna, VHF Helical (136-150.8 MHz)
	or	
	<b>8505816K21</b>	Antenna, VHF Helical (146-162 MHz)
	or	
	<b>8505816K23</b>	Antenna, VHF Helical (157-178 MHz)
	or	
	<b>8505247K06</b>	Antenna, UHF Whip (403-520 MHz)
	or	
	<b>8505477T02</b>	Antenna, MB Helical (74-88 MHz)
18	<b>RPX4699A</b>	Kit, Frequency Knob (includes item 16)
	or	
	<b>REX4659</b>	Kit, Frequency Knob, Low-Profile (includes item 16)
19	<b>REX4105A</b>	Kit, Volume Knob
	<b>REX4659A</b>	Kit, Volume Knob, Low-Profile
20	<b>1305622Q01</b>	Escutcheon, 12-Frequency
	or	
	<b>1305622Q11</b>	Escutcheon, 12-Frequency Emergency
21	<b>0205916P01</b>	Nut, Spanner (2 req'd)
22	<b>3205082E61</b>	Gasket, "O" Ring (part of item 23)
23	<b>RPX4691A</b>	Kit, RF Connector (includes items 22, 24)
24	<b>4205852N01</b>	Contact, Ground, RF (part of item 23)
25	<b>NLD8750A</b>	Kit, VHF SECURENET Main PC Board
	or	
	<b>NLE4150B</b>	Kit, UHF SECURENET Main PC Board
26	<b>NTN4647A</b>	Assembly, Back Shield (includes item 27)
27	<b>0305706Q01</b>	Screw, Captive (4 req'd) (part of item 26)
28	<b>4205577Q01</b>	Clip, Ground
29	<b>REX4121A</b>	Boot, Reference Oscillator, SABER II
30	<b>RPX4700A</b>	Kit, PTT/Controls Flex (includes item 31)
	or	
	<b>RPX4701A</b>	Kit, PTT/Controls Flex Assembly (includes items 2, 3, 31)

REF. NO.	PART NO.	DESCRIPTION
31	<b>RPX4694A</b>	Kit, Contact Snapdome (2 req'd) (part of item 30)
32	<b>4505315V01</b>	Lever, PTT (part of item 43)
33	<b>4205292V01</b>	Slide (part of item 43)
34	<b>3805294V01</b>	Button (2 req'd) (part of item 43)
35	<b>3205082E85</b>	"O" Ring, Battery (part of item 36)
36	<b>NTN7058AR</b>	Battery, Submersible, 1500 mAh (includes item 35)
37	<b>4105293V01</b>	Spring (part of item 43)
38	<b>3205300V01</b>	Seal, Elastomer (part of item 43)
39	<b>3905291V02</b>	Lockwasher (part of item 43)
40	<b>0305706Q01</b>	Screw, Baseplate Ph Pan Hd; 2-56 x 3/32" (3 req'd) (part of item 43)
41	<b>3905291V01</b>	Contact, Power (2 req'd) (part of item 43)
42	<b>RPX4696A</b>	Kit, Slotted-Spanner Nut (2 req'd) (part of item 43)
43	<b>NHN6524A</b>	Assembly, Housing SABER II (includes items 32 thru 34, 37 thru 42, 57, 60)
44	<b>3305183R63</b>	Label, Nameplate SABER II R
45	----	Assembly, Speaker/Microphone Flex – not available
46	<b>1405490Q02</b>	Boot, Microphone
47	<b>RPX4702A</b>	Assembly, LCD/Speaker Bracket
48	<b>RPX4703A</b>	Kit, LCD Assembly (part of item 49)
49	<b>REX4204A</b>	Assembly, Display PC Board (VHF and UHF radios) (includes item 48)
	or	
	----	Assembly, Display PC Board (MB radios) (includes item 48)
50	<b>8405712U01</b>	Flex Circuit, LCD Interconnect
51	<b>4205872S01</b>	Retainer, Speaker
52	<b>1405182M03</b>	Insulator, Universal Connector
53	<b>0705319R02</b>	Bracket, Switch (optional)
54	<b>4005221R03</b>	Switch, Dual-Function (S801) (optional)
55	<b>3205082E68</b>	Gasket, "O" Ring (optional)
56	<b>NTN5076B</b>	Kit, Push-Only Knob (includes item 55)
	or	
	<b>NTN5068A</b>	Kit, Push-and-Rotate Knob (includes item 55)
	or	
	<b>NTN5069A</b>	Lit, Rotate-Only Knob (includes item 55)
	or	
	<b>4305607S01</b>	Plug, Seal
57	<b>6405296V01</b>	Baseplate (part of item 43)
58	<b>NTN7061A</b>	Cover, Universal Connector
59	<b>0405781Q01</b>	Washer, Detent (even number of switch positions)
	or	
	----	Washer, Detent (odd number of switch positions)
60	<b>3205472M03</b>	Seal, Vacuum Port (part of item 43)
61	<b>7505934Q05</b>	Pad, Backshield (part of item 26)
62	----	Pad, DVP

## Portable Accessories

### Chargers

#### Single Unit Rapid Universal Tri-Chemistry Chargers

Tri-chemistry chargers support Nickel Cadmium, Nickel Metal Hydride, and Lithium-ion batteries.

**NTN1667A** 110V Universal Charger

**NTN1668A** 220V Universal Charger

**NTN1669A** 240V Universal Charger



NTN1667A

#### impres™ Smart Energy System



WPLN4111AR

The impres smart energy system ensures maximum talk-time and optimized battery cycle life through the use of its advanced charging algorithm and automatic reconditioning features. The smart energy system reconditions impres batteries when they need it automatically, keeping them in peak condition. It's advanced conditioning features allow batteries to be safely left on the charger for extended periods of

time without incurring the damaging heat build-up which can rob batteries of cycle life. In addition, batteries left on the charger are kept fully charged so they are always ready when you need them. The impres system reconditions batteries when they need it based on their usage pattern. Talk time and cycle life are optimized and the need for manual maintenance programs reduced or eliminated. This rapid-rate tri-chemistry charging system will also charge existing legacy batteries and supports multiple radio platforms including Saber, XTS, and HT1000 series portables.

**WPLN4111AR** impres Smart Energy System Single Unit Charger

**WPLN4108BR** impres Smart Energy System Multi-Unit Charger

**WPLN4109BR** impres Multi-Unit charger 220V/240V

**5889254E01** Battery Adapter (required for batteries NTN4537, NTN4592, NTN7014 and NTN8818)

### Chargers

#### impres™ Multi-Unit Charger with Display Modules

The impres Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impres battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time (NiCd and NiMH only) which lets the user know when the impres battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage and charge status and the version of the charger and display modules.

**WPLN4130AR** impres Multi-Unit Charger with Display Modules

**RLN5382A** Charger Display Module for impres multi-unit charger version 1.3 or later

**RLN5591A** Charger Display Module for impres multi-unit charger version 1.2 or earlier



WPLN4130AR

#### impres™ Bundle Packs

Provide significant savings on the impres products by bundling a charger and batteries together as a smart energy system package.

**RLN5261A** impres Charger with two HNN9033AR batteries

**RLN5444B** impres Multi-Unit Charger with six HNN9033AR batteries

**RLN5264A** impres Charger with two HNN9034AR batteries

**RLN5442B** impres Multi-Unit Charger with six HNN9034AR batteries

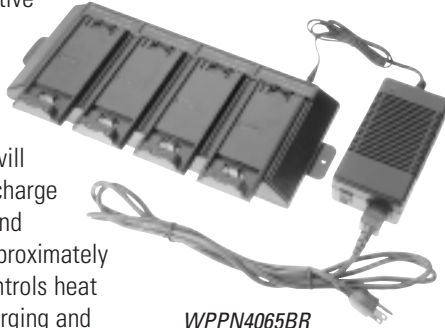
## SABER Series

### Portable Accessories

#### Chargers

##### Motorola Conditioning Charger (MCC)

The MCC utilize negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified NiCd and NiMH batteries in approximately an hour. The MCC controls heat buildup due to its charging and termination algorithms and maintenance mode allows batteries to be safely left on the charger for extended periods of time. And now there is an Instant Fault Detection (IFD) feature which detects faulty radio batteries in seconds, which notifies the user that the battery will not operate at peak performance. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.



**WPPN4065BR**  
shown with four  
**WPLN4001BR**  
adapters

**WPPN4002BR** Base Charge Unit Only, 110V AC  
(order adapter plates separately)

**WPPN4006AR** Base Charge Unit Only, 220V AC  
(order adapter plates separately)

**WPPN4001BR** Adapter Only, 7V

**WPLN4096AR** Base 110V AC (includes base unit and 7V adapter)

**WPPN4065BR** Multi-Unit Charger, four-station base, 110V  
(order adapter plates separately)

**3080384G15** Cigarette Lighter Adapter Cord

**3080384M21** DC Hard Wire Cable, for vehicular installation  
(included in RLN4814A)

**RLN4814A** Mounting Bracket for Motorola single unit  
Conditioning Charger

#### Chargers

##### Porta-Pocket Charger



**NTN5563B**

The Porta-Pocket Charger provides a regular rate 16-hour charge to nickel cadmium (NiCd) batteries.

**NTN5563B** Porta-Pocket Charger, 110V AC, regular rate, includes AC power supply/cable

**NKN6289A** 12V DC Ignition Wiring Cable, includes dash mount bracket

**NKN6290B** 12V Cigarette Lighter Receptacle Cable, includes dash mount bracket

## SABER Series

## Portable Accessories

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Increase the useful life of our batteries. Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing NiCd, NiMH, Li-ion batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries. Includes printer port\* (Serial-RS-232C port-uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field Upgrade Kit or WPLN4079AR, WPLN4080AR, and WPLN4081AR; allows these units to support Li-ion battery chemistries

**NDN4005B** Three-Station, 110V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

### BMS<sup>plus</sup> Adapters

**TDN9450A** NiCd Adapter, 7.5V, for use with NTN4537CR, NTN4538DR, NTN4592CR, NTN4593DR, NTN4595DR, NTN4596DR and NTN4992CR

**TDN9434A** NiCd Adapter, 7.5V for use with NTN7058AR SABER R

**WPPN4087AR** NiCd and NiMH Adapter, 7.5 V compatible with same batteries as TDN9450A adapter plus NTN8251AR

**WPPN4091AR** Li-ion Only Adapter

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Adapters

**RL-72703** Ruggedized Adapter, SABER-R

**RL-71203** Standard Battery Adapter, SABER

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## SABER Series

## Portable Accessories

### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio and battery and permit audio to be heard clearly.

#### Light Capacity Batteries



NTN5579A

**NTN5579A** Leather Swivel Snap Carry Case (order T-strap and swivel belt loop separately)

#### Medium Capacity Batteries

**NTN5577A** Leather Standard Snap Carry Case Belt Loop (order T-strap separately)

**NTN5580A** Leather Swivel Snap Carry Case (order T-strap and swivel belt loop separately)



NTN5577A

#### Ultra High Capacity Batteries

**NTN5578A** Leather Standard Snap Carry Case with Belt Loop (order T-strap separately)

**NTN5644A** Leather Swivel Snap Carry Case (order T-strap and swivel belt loop separately)

#### Nylon Carry Cases

**NTN7062A** Nylon Standard Carry Case with Belt Loop (includes T-strap) for Saber-R only

**NTN7216A** Nylon Swivel Carry Case (Includes T-strap swivel belt loop) for Saber-R only

### Carrying Accessories

#### T-Straps

**NTN5575A** Leather Snap T-Strap for system Saber only

**NTN5574A** Leather Snap T-Strap for all other Saber models

**RLN5373A** Leather Snap T-Strap for carrying case NTN5579 (for use with Li-ion Battery)



NTN5574A

#### Belt Loops

**4282421J06** 2.5" Leather Swivel Belt Loop

**4205857B01** 3" Leather Swivel Belt Loop

**PLN7648A** Removable "D" Button. Used in conjunction with swivel belt loop.



4205857B01

#### Belt Clips

**NTN4741B** Removable Belt Clip Attachment

**NTN4788B** Removable Belt Clip Attachment, (SECURENET RADIOS)



NTN4741B

#### Belt

**4200865599** 1.75" wide leather belt for all models



NTN5243A

#### Carrying Strap

**NTN5243A** Adjustable Black Carrying Strap attaches to "D" ring on case



HLN6602A

#### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602



## Portable Accessories

### Carrying Accessories

#### Break-a-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

#### RadioPAK™



RLN4815A

It's different from all other holders or cases: more comfortable, more useful, and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

### Audio Accessories

#### Remote Speaker Microphone (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and back cover clip.

**\*NMN6128C** Remote Speaker/Microphone

**\*NMN6166C** Remote Speaker Microphone with 2.5 mm Earphone Jack



NMN6128C

**NMN6225B** Remote Speaker/Microphone with Coil Cord and Telco Plug

**5005178K01** Earpiece with Cable for use with NMN6166C

#### UHF Public Safety Microphone (PSM)

This water-resistant microphone includes a high-low audio switch and straight cord. The external antenna provides additional antenna height for better radiation pattern.

**\*NMN6129B** UHF Public Safety Microphone (antenna and Velcro patch must be ordered separately)

**NMN6154B** UHF Public Safety Microphone with 2.5 mm Earphone Jack (antenna, earphone, and Velcro patch must be ordered separately)

**5005178K01** Earpiece with Cable for use with NMN6154B



NMN6225B



NMN6129B

\*Intrinsically Safe

# SABER Series

## Portable Accessories

### Audio Accessories

#### RSM and PSM Accessories

##### Microphone Accessories

Antennas for PSM

**8505309N09** 400-440 MHz

**8505309N10** 440-470 MHz

**8505309N11** 470-512 MHz

##### Velcro Patch

**NLN8410A** Velcro Patch  
PinAttachment for  
speaker/microphone assemblies



NLN8410A

##### Epaulet Strap

Black leather epaulet straps  
secure remote speaker microphones to epaulet of shirts or jackets  
and attach around cord to back of microphone.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip

#### Miscellaneous Accessories

##### Connector Cover

**NTN7061A** Universal Connector Cover



NTN7061A

##### MicJackets

MicJackets provide speaker microphone users with a way to further  
protect the "head" of their microphone from dust, dirt, metal  
particles, sweat, body oils and other on-the-job grime; MicJackets  
also allow the user to handle or interact with the speaker  
microphone in a more hygienic way.

**RLN4908A** MicJacket, compatible with NMN6128

**RLN5001A** MicJacket,  
compatible with NMN6166

**RLN5002A** MicJacket,  
compatible with NMN6225

**RLN4911A** MicJacket,  
compatible with NMN6154

**RLN5004A** MicJacket,  
compatible with NMN6129



RLN5002A

### Audio Accessories

#### Surveillance Kits

Surveillance accessories allow the user to privately receive  
communications with the earpiece and are ideal when environments  
require discreet communications.

**The following Surveillance Kits require NTN5664D adapter:**

**NSN6050A** Receive-only Surveillance Kit (1-Wire kit)

**\*ZMN6032A** Surveillance Kit with Microphone and PTT Combined  
(2-Wire Kit)



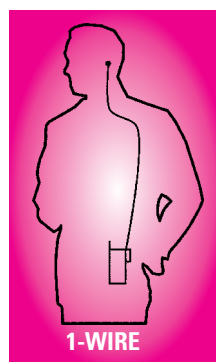
ZMN6031A

**\*ZMN6031A** Surveillance Kit with Microphone and PTT Separate  
(3-Wire Kit)

**\*†ZMN6038A** Surveillance Kit with Microphone and PTT Combined,  
Extra Loud Earpiece (exceeds OSHA limits) (2-Wire Kit)

**\*†ZMN6039A** Surveillance Kit with Microphone and PTT Separate,  
Extra Loud Earpiece (exceeds OSHA limits) (3-Wire Kit)

**NTN5664D** Surveillance Accessory Adapter (with keyload capability)



1-WIRE



2-WIRE



3-WIRE

\* Intrinsically Safe

† Extra Loud Earphone (exceeds OSHA limits)



## Portable Accessories

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments, provides 24dB of noise reduction

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments, does not provide hearing reduction

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Beige Replacement Standard Rubber Eartips; for use with NTN8371A, (pack of 25)

**5080371E75** Black Replacement Standard Rubber Eartips; for use with NTN8371A, (pack of 25)

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This

earpiece is made of easy-to-clean chemically inert, hypoallergenic material. Does not provide hearing protection.

There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

**RLN4760A** Small Custom Earpiece, right ear

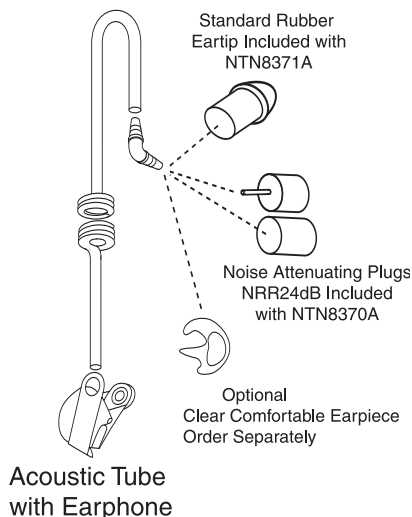
**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



### Audio Accessories

#### Completely Discreet Earpiece

Remain discreetly in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discreet two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discreet communication.

**RLN4922A** Completely Discreet Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear wax guards, pack of 5

**RNN4005A** 1.4V Battery, pack of 6



## SABER Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX). Interface Module needs to be ordered separately for EMS to work



**BDN6677A**  
Requires  
interface module,  
sold separately

**\*BDN6677A** Ear Microphone for standard noise levels (up to 95 db), black

**\*BDN6678A** Ear Microphone for standard noise levels (up to 95 db), beige

**\*BDN6641A** Ear Microphone for high noise levels (up to 105 db), grey

#### Interface Modules For EMS

**\*BDN6642B** Push-To-Talk Only Interface Module

**\*BDN6643B** Push-To-Talk and Voice-Activated Interface Module



**BDN6643B**

### Audio Accessories

#### Optional Accessories for EMS



**0180300E83**

**0180300E25** Earguard with Adjustable Loop

**\*0180358B38** Remote Push-To-Talk Ring Switch

**\*0180300E83** Remote Push-To-Talk Body Switch

**0180358B32** Earholder, black, size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)



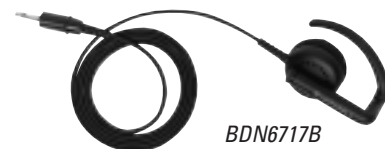
**0180358B33**

#### Flexible Ear Receiver

Plugs directly into the NTN5212B adapter or the earjack on the speaker/mics. Earpiece utilizes a foam ear cushion and flexible earloop that rests over the ear.

**BDN6717B** Ear Receiver with 2.5 mm Plug

**NTN5212B** Earjack Accessory Adapter; allows use of any audio accessory with a 2.5 mm connection



**BDN6717B**

\* Intrinsically Safe

## Portable Accessories

### Audio Accessories



NTN1623A

#### **CommPort: Integrated Microphone/Receiver System**

The CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1623A** Integrated Ear Microphone/Receiver System w/Palm PTT (includes NTN5664D adapter)

**\*NTN1721A** Integrated Ear Microphone/Receiver System w/Ring PTT (includes NTN5664D adapter)

**\*NTN1738A** Integrated Ear Microphone/Receiver System with Snap-on Side PTT (includes NTN5664D adapter)

**\*NNTN4185A** Integrated Ear Microphone/Receiver System with Remote Push-To-Talk Body Switch (includes NTN5664D adapter)

### Audio Accessories

**NKN6524A** Replacement Ring PTT Cable for NTN1721A

**NKN6507A** Replacement Palm PTT Cable for NTN1623A

**NKN6526A** Replacement Snap on side PTT Cable for NTN1738A

**NNTN4189A** Replacement Remote Push-to-Talk Body Switch Cable for NNTN4185A

**NTN8821A** CommPort Maintenance Kit, includes replacement ear tubes (quantity 10), windscreens (quantity 2) and microphone seal strips (quantity 10)

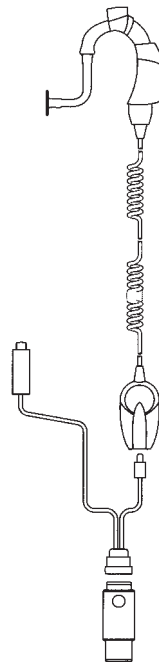
**NTN8986A** Adhesive Pads (quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (quantity 10), for secure attachment to ear

**RLN5037A** Replacement Ear Tubes (pack of 10)

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip



NTN1623A

\* Intrinsically safe

## SABER Series

## Portable Accessories

### Audio Accessories

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands-free, discreet two-way communications while adding comfort necessary for extended wear in moderate noise environments.

**\*NMN6050B** Lightweight Headset with Boom Microphone, to be worn on a helmet or safety glasses; requires NTN5913A adapter cable

**\*NTN5913A** Headset Adapter Cable with Bayonet Jack



NMN6050B

#### Heavy Duty Headsets

Heavy duty headsets include noise canceling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125db. The push-to-talk switch is located on the earcup. The Voice Activated (VOX) module is contained within the headset on voice activated models. Heavy duty headsets require radio adapter cable to be ordered separately.



BDN6645A  
(Shown with adapter  
cable BDN6640A)

**BDN6645A** Push-to-Talk Headset with Boom Microphone, requires adapter cable BDN6640A; noise reduction rating = 24db

**BDN6635B** Voice Activated (VOX) Headset with Boom Microphone, requires adapter cable BDN6640A; noise reduction rating = 24db.

**\*BDN6636B** Voice Activated (VOX) Headset with Throat Microphone, requires adapter cable BDN6640A; noise reduction rating = 24db.

**\*BDN6640A** Radio Adapter Cable

### Audio Accessories

#### Vehicular Adapter

The SVA console kits, allow use of the portable radio in a mobile application. Order antenna separately.

**NNSN6054A** 12-Watt External Speaker

**HMN1056D** Microphone, compact palm

**HMN1035C** Microphone, heavy-duty palm

**NMN6150A** Microphone, full-featured display (all other Saber Models except Startsite Saber SST/ATS)

**NMN6169A** Microphone, full-featured systems Saber display (compatible only with system Saber)

**NTN7227E** SVA charging console includes power cables and hardware



NNSN6054A

## SABER Series

## Antennas, Batteries

### Heliflex Antennas

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

#### UHF Band

**8505816K24** 403-430 MHz Heliflex, 3"

**8505816K25** 440-470 MHz Heliflex, 3"

**8505816K26** 470-512 MHz Heliflex, 3"

#### High Band

**8505816K22** 136-150.8 MHz Heliflex, 6.5"

**8505816K21** 150.8-162 MHz Heliflex, 6"

**8505816K23** 162-174 MHz Heliflex, 6"

**8505816K01** 136-150.8 MHz Heliflex, 6.5"



### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN4593DR**

Volts: 7.5

Avg. mAh: 1100

Height: 3-1/4"

Intrinsically Safe: No

Part Number: **NTN4595DR**

Volts: 7.5

Avg. mAh: 1800

Height: 4"

Intrinsically Safe: No

Part Number: **NTN4657AR**

Volts: 7.5

Avg. mAh: 1100

Height: 4"

Intrinsically Safe: No

CSA: Yes

Part Number: **NTN4538DR**  
(Submersible)

Volts: 7.5

Avg. mAh: 1100

Height: 3-1/4"

Intrinsically Safe: Yes

Part Number: **NTN4596DR**  
(Submersible)

Volts: 7.5

Avg. mAh: 1800

Height: 4"

Intrinsically Safe: Yes



## SABER Series



**MOTOROLA**  
intelligence everywhere™

### Batteries

#### Portable Batteries

Part Number: **NTN4992CR**  
(Submersible)  
Volts: 7.5  
Avg. mAh: 1800  
Height: 4"  
Intrinsically Safe: Yes

Part Number: **NTN7058AR**  
(Submersible/  
Ruggedized)  
Volts: 7.5  
Avg. mAh: 1800  
Height: 4"  
Intrinsically Safe: Yes



NTN7058AR

#### Nickel Metal Hydride Premium

Part Number: **NTN7014BR**  
Volts: 7.5  
Avg. mAh: 950  
Height: 3-1/4"  
Intrinsically Safe: No

Part Number: **NTN8251AR**  
Volts: 7.5  
Avg. mAh: 1650  
Height: 3-1/4"  
Intrinsically Safe: Yes

#### Portable Batteries

##### Lithium-ion Premium

Part Number: **NTN8818A**  
Volts: 7.2  
Avg. mAh: 1700  
Height: 2-3/8"  
Intrinsically Safe: No

##### Nickel-Cadmium *impres*™

To maximize *impres* battery features and benefits, an *impres* charger must be used.

Part Number: **HNN9033AR**  
Volts: 7.5  
Avg. mAh: 1800  
Height: 4"  
Intrinsically Safe: No

Part Number: **HNN9034AR**  
Volts: 7.5  
Avg. mAh: 1800  
Height: 4"  
Intrinsically Safe: Yes



HNN9033AR



<https://www.motorola.com/businessonline>

# SABER Series

## Service Tools, Aids

### Service Tools



RSX4043A



6680370B89

**RSX4043A** Torque Screwdriver,  
Order Bits Separately

**6680370B89** Spanner Wrench,  
Removes Spanner Nuts at the  
Bottom of the Radio

**6680371B34** Spanner Tool,  
Removes Antenna Nut

**6680370B88** Spanner Tool,  
Removes Nuts for Volume Control  
and Channel Selector Switch

**6680321B78** Phillips Power Bit #0,  
Removes Radio Screws

**\*6680371B02** Button Screwdriver Bit,  
Removes Button Screw



6680321B78

### Service Aids



REN4001C

#### Housing Eliminator

Replace radio housing while servicing  
unit. Electrical test points can be  
accessed on back of RF board.

**REN4001C** Housing Eliminator

#### Battery Eliminator

The Battery eliminator acts like a battery with a  
cable to access a DC external power supply. It is  
ideal to inspect transmitters and receivers on  
incoming radios. Reverse power supply polarity  
protection and input fuse protection are  
provided.

**RTL4224A** Battery Eliminator



RTL4224A

### Service Aids

#### Field Modification Kit

Allows for quick field  
modification of RTX4005 "A"  
test sets to provide operation  
with the radio.

**RPX4665A** Field Modification  
Kit, RTX4005A



RPX4665A

#### Radio Interface Box

Links radio programming cable and  
computer interface. Provides  
required voltage shift to enable  
communications between radio and  
computer. Requires computer  
interface cable and programming  
cable, and a 9 volt snap type battery  
(6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E

#### Computer Interface Cable

Used to connect computers  
serial adapter to radio  
interface box.

**3080369B71** Cable, RIB to  
25 pin D

**3080369B72** Cable, RIB to  
9 pin D



3080369B71

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E.

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

\* for Public Safety Remote Speaker Microphone Accessory (NMN6129A) only.



## SABER Series

## Service Aids, Manuals

### Service Aids

#### Radio Test and Programming Cable



RTK4203A

Used with Portable Radio Test Set, RTX4005, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RTK4203C** Test and Programming Cable

#### RF Adapter Cable

Must be used in conjunction with REN4001A housing eliminator. Radio housing must be removed.

**0180358A63** RF Adapter Cable  
Terminated with BNC Male, Other End Mates with Radio Side Connector



0180358A63

#### Battery Load Tester

Tests battery under simulated load conditions. Has self contained voltmeter that shows battery voltage.

**RTL4237A** Battery Load Tester



RTL4237A

### Service Aids

#### Test Cable

Used with Securenet equipped R2000 Series System Analyzers to test Saber radios with Securenet options. This cable is used with RTL4200A junction box and is part of RPX1013A Accessory Kit.

**0180358A60** Test Cable

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Compatible with IBM XT, AT, Model 30 50, 60 and 80. Requires Radio Interface Box and proper cables; order separately.

**RVN4002K** Programming Software, 3-1/2" Diskette (includes manual and storage box)

### Manuals

<b>6881065C60</b>	Saber I Instructions Manual
<b>6881065C65</b>	Saber II, III Instruction Manual
<b>6881043C90</b>	SecureNet High Band Service Manual
<b>6881045C75</b>	SecureNet UHF Band Service Manual
<b>6881067C10</b>	Systems Saber and Saber ATS Service Manual
<b>6881066C95</b>	System Saber, UHF Service Manual
<b>0180305J46</b>	Ear Microphone System and Temple Transducer CD-ROM
<b>0180305J70</b>	impres™ System CD-ROM

## ***SP10 Series***

### *Parts List*



(Exploded view not available)

## SP10 Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION
	<b>0780471C04</b>	Battery Frame
	<b>1380450D01</b>	VHF Battery Frame Escutcheon
	<b>1380450D02</b>	UHF Battery Frame Escutcheon
	<b>1580657B08</b>	Battery Cover
	<b>1380475C02</b>	Front Label
	<b>1580656B04</b>	Housing (order Speaker Felt and Front Label separately)
	<b>3580666B01</b>	Speaker Felt
	<b>3880502C01</b>	PTT Actuator

REF. NO.	PART NO.	DESCRIPTION
	<b>3880667B01</b>	Accessory Cover
	<b>4580469C02</b>	PTT/Monitor Lever
	<b>5505264T01</b>	Battery Cover Latch
	<b>7580469D01</b>	Monitor Switch Pad (red)
	<b>3680574C01</b>	Volume Control Knob
	<b>5080468C01</b>	Microphone
	<b>5005910P12</b>	Speaker
	<b>0180534D02</b>	B+/B- Contact Assembly

## SP10 Series

## Portable Accessories

### Chargers

#### Chargers

Single unit chargers available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola.



#### Single Unit Chargers, Rapid Rate

**HTN9026CR** Single Unit Charger, 3 Hour Rapid Rate, 120V

**HTN9425B** Single Unit Charger, 3 Hour Rapid Rate, 220V, European plug

**HLN8251A** 3-Hour Vehicular Charger Adapter and Bracket

#### Single Unit Chargers, Standard Rate

**HTN8232A** Wall Charging Adapter, Standard Rate, 120V (18-20 hrs for standard models, and 10 hrs for compact)

**HTN9002A** Wall Charging Adapter, Standard Rate, 220V (18-20 hrs for standard models, and 10 hrs for compact), European plug

**HLN8371A** 10 Hour Desktop Charging Tray, Standard Rate, 120V (requires the use of HTN8232 or HTN9002 shipped standard with all radios)



HLN8371A

#### Charger Conversion Kits

Provides a convenient means for housing from one to six single battery chargers. Each charger operates independently.

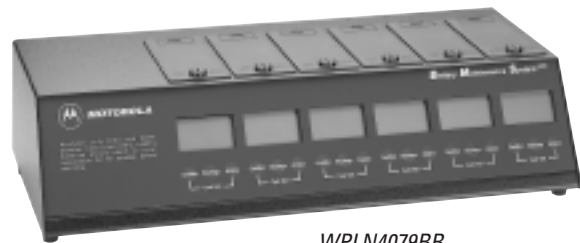
**HTN9295A** Multi-unit Charger Conversion Kit (accommodates up to six HLN8371 or HTN9026, purchased separately)

**HLN9113A** Desktop Charger, Converter Kit (compatible with HLN8371, HTN9026 or HTN9425); when added to your radio, this drop-in charger converter kit allows you to drop the entire radio into a desk top or spare battery charger

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

#### BMS<sup>plus</sup> Adapter

**TDN9447A** Standard Adapter, SP10

\*Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## SP10 Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS Battery Adapter

**RL-71292** Standard Adapter, SP10

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in nylon and leather.

**HLN9836A** Nylon Carrying Case with Belt Loop

**HLN9837A** Leather Carrying Case with Belt Clip



HLN9836A

HLN9837A

#### Belt Clips

**PMLN4124A** Replacement Belt Clip

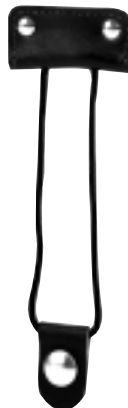
**HLN8255B** 3" Spring Action Belt Clip

#### Belt

**4200865599** 1.75" wide leather belt for all models



HLN9149AR



HLN9974B

#### Swiveller

**HLN9149AR** Swivel Belt Loop Adapter

#### Straps

**HLN9974B** Replacement Strap for carrying cases

#### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602



HLN6602A

## SP10 Series

### Portable Accessories

#### Carrying Accessories

##### Break-a-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A

#### Carrying Accessories

##### Remote Speaker Microphones (RSM)

Allow you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and clothing clip on the back cover.

**HMN9051A**  
Remote Speaker Microphone



HMN9051A



RLN4815A

##### RadioPAK™

It's different from all other holders or cases: more comfortable, more useful, and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

##### Pellet Style Earpieces

Allows the user to receive and transmit communication discretely.

**HMN9004A** Receive-only Earbud (single wire)

**HMN8435A** Earbud with Clip Microphone and PTT (two wire)

**7580372E70** Replacement Foam Ear Cushions (pack of 10)



HMN8435A

##### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments and provides 24dB of noise reduction

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments; does not provide hearing protection

**5080384F72** Replacement Foam Plugs – pack of 50 (use with NTN8370), noise reduction rating = 24dB



NTN8370A

NTN8371A



## SP10 Series

## Portable Accessories

### Audio Accessories

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communication with the earpiece and are ideal when environments require discrete communication.

**HMN8433A** Receive-only Surveillance Kit

**5080371E69** Small Rubber Eartips, pack of 25, Beige

**5080371E73** Standard Rubber Eartips, pack of 25, Beige

**5880377E06** Plastic Earloop Adapter

**5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Beige

**5080369E40** Earloop, Plastic, Beige



HMN8433A



HMN9040A

#### Flexible Ear Receiver

**HMN9040A** Flexible Ear Receiver, receive only (flexible earloop and speaker which rests external to ear)

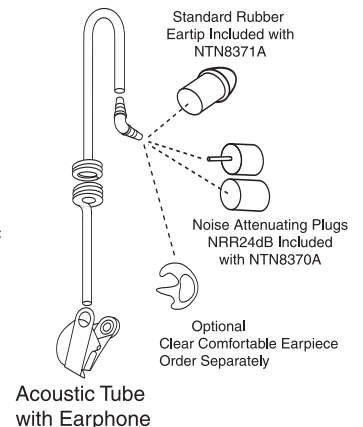
**7580372E11** Replacement Ear Cushion for HMN9040A

### Audio Accessories

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

#### Completely Discrete Earpiece

Enables users to communicate with ease, in full privacy, without visible equipment. This miniaturized receiver is discretely hidden in ear, where it fits comfortably for long periods at a time. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Average battery life is approximately 100 hours and includes an end-of-life battery circuit generating a warning signal when the battery needs to be changed. Kit includes wireless receiver plus an inductive neckloop. Just remove the earpiece on any standard 2- or 3-wire Motorola surveillance kit (sold separately) and plug in the neckloop to use. Kit includes 6 spare batteries and 5 replacement ear wax guards.

**RLN4922A** Completely Discrete Earpiece Kit

#### Replacement Items

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4 Volt Battery, 6 per pack



## SP10 Series

## Portable Accessories, Antennas



### Audio Accessories

#### Headsets

**BDN6774A** Earpiece with Microphone (worn over ear with streamlined boom microphone)

**4280376E47** Replacement Over-the-Ear Loop for BDN6774A

**RLN5580A** Ultra-Light Headset with Boom Microphone and In-Line Push-to-Talk (PTT)



BDN6774A



RLN5580A



BDN6773A

**BDN6773A** Lightweight Single Muff Adjustable Headset with Swivel Boom Microphone

**BDN6775A** External VOX (voice-activation) Adapter (for use with BDN6773 or BDN6774)

**REX4648A** Replacement Windscreen (for boom microphone) and Foam Ear Pad for BDN6773A

### Portable Antennas

#### Heliflex Antenna

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

##### HAD9338AR

Heliflex, 136-162MHz, 6"



NAE6483AR

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### NAE6483AR

Flexible Whip, 403-520MHz, 6.5"

#### Stubby Antennas

These stubby quarterwave antennas are ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**HAD9742A** Stubby, 146-162MHz, 3"

**HAE9001A** Stubby, 462-470MHz, 3"

#### External Antennas

VHF Mag Mount Antennas

**HAD8437A** VHF Magnetic Mount External Antenna, Includes Antenna, Magnetic Mount and HLN8262A

**HAE8438A** UHF Magnetic Mount External Antenna, Includes Antenna, Magnetic Mount and HLN8262A

**HLN8262A** External Antenna Adapter (BNC Connector)



HAE8438A

## SP10 Series



**MOTOROLA**  
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## Batteries, Service Aids, Manuals

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN9044AR**

Volts: 7.5

Avg. mAh: 550

Height: 2-3/16"

Intrinsically Safe: No



HNN9044AR

### Service Aids

**HLN3987A** Interference Eliminator, PL Retrofit Kit  
for Open Squelch Models

**HLN8425A** Operating Instructions/Business  
Information Kit

**HLN3001A** Service Kit, Contains Service Manual, Removal Tool,  
Tuning Tool and Extra Color Dots

#### Dot Label Kit

**HLN9029A** Dot Label Kit

#### Tuning Tool

**6680619C01** Tuning Tool

#### Test Set Cable

**RKN4034A** RIB/Radio Test Set Cable

### Manuals

**6880902Z53** Service Manual

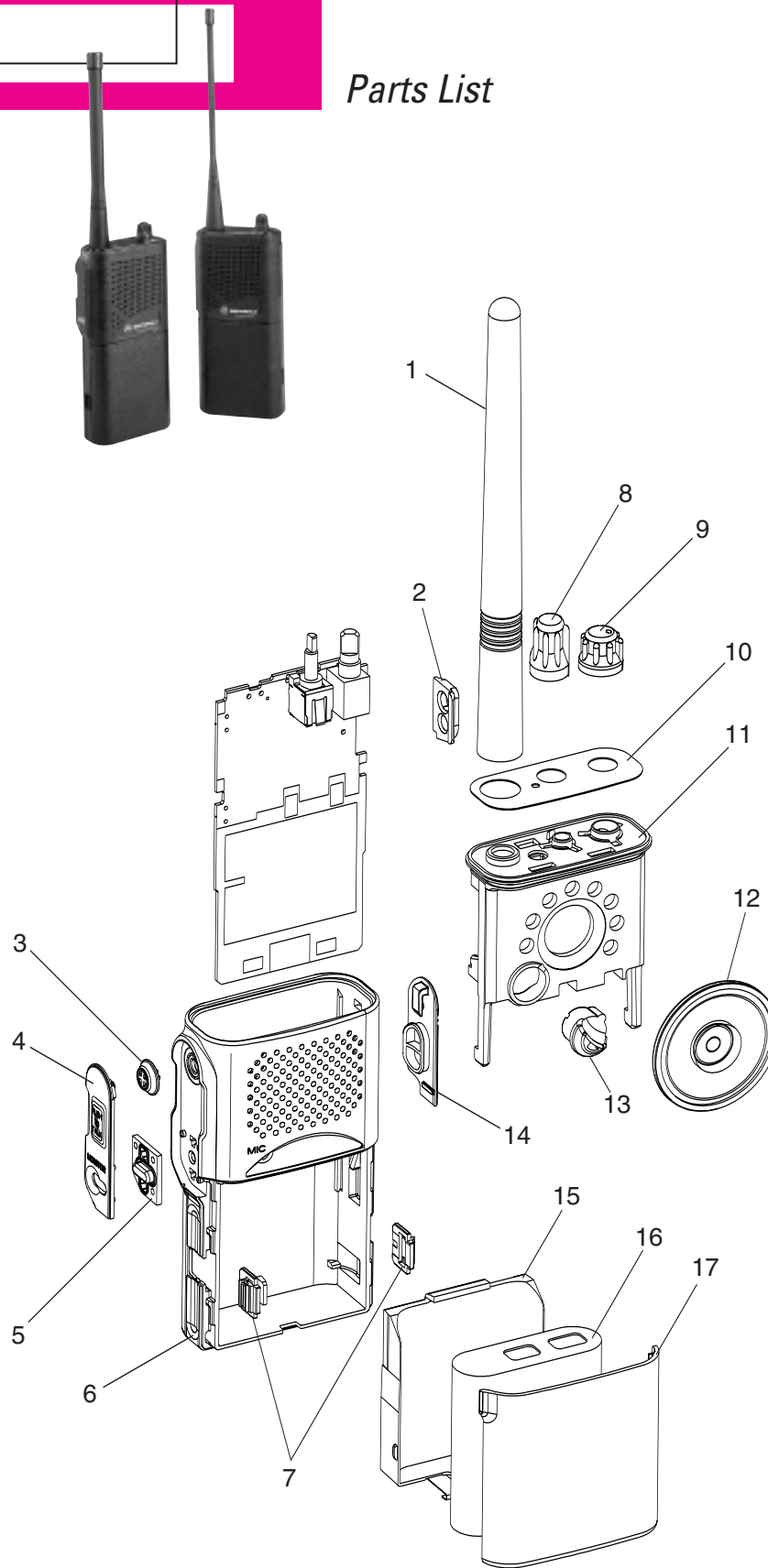
**6880903Z55** User Manual



<https://www.motorola.com/businessonline>

## SP21 Series

### Parts List



## SP21 Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>HAD9338AR</b>	VHF Antenna
	<b>NAE6483AR</b>	UHF Antenna
	<b>HAD9742A</b>	VHF Stub Antenna 151-159
	<b>HAE9001A</b>	Antenna, UHF Stubby
2	<b>0780632C01</b>	Support, Optional Jack
3	<b>3805296S01</b>	Button, ACTR PTT
4	<b>4580469C02</b>	Lever, PTT/Mon
5	<b>7580469D03</b>	Keypad Monitor Process, Black
6	<b>1580689U09</b>	Housing, Black
7	<b>5505264T01</b>	Latch, Battery
8	<b>3680684U01</b>	Knob, Frequency 2 Ch (2 & 4 channel models only)
9	<b>3680532E01</b>	Knob, Volume
10	<b>0180683U01</b>	Assy Ant Plate Esc 1 Ch (1-channel models only)
	<b>0180683U01</b>	Assy Ant Plate Esc 1 Ch (2-channel models only)
	<b>0180683U02</b>	Assy Ant Plate Esc 2 Ch

REF. NO.	PART NO.	DESCRIPTION
11	<b>1586378A01</b>	Cover, Control Top
12	<b>5080468C02</b>	Mic
13	<b>5086346A01</b>	Speaker
14	<b>3880688U01</b>	Cap, Dust, Accessory
15	<b>0180680U01</b>	Assy, Tray
16		Battery pack – refer to battery page
17	<b>1580690U09</b>	Battery Cover, Black

#### NON-REFERENCED ITEMS:

<b>HLN8255B</b>	Spring, Belt Clip, Black
<b>1380685U22</b>	Escutcheon, SP21
<b>3280466C01</b>	"O" Ring, Main
<b>6180968Y01</b>	Lightpipe, LED
<b>3580686U01</b>	Felt, Speaker

## SP21 Series

## Portable Accessories

### Chargers

#### Chargers

Single unit chargers available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola.



HTN9026CR

#### Single Unit Chargers, Rapid Rate

**HTN9026CR** Single Unit Charger, 3 Hour Rapid Rate, 120V

**HTN9425B** Single Unit Charger, 3 Hour Rapid Rate, 220V, European plug

#### Vehicular Charger

**HLN8251A** 3-Hour Vehicular Charger Adapter and Bracket (for use with HTN9026CR Charger)

#### Single Unit Chargers, Standard Rate

**HTN8232A** Wall Charging Adapter, Standard Rate, 120V (18-20 hrs for standard models, and 10 hrs for compact)

**HTN9002A** Wall Charging Adapter, Standard Rate, 220V (18-20 hrs for standard models, and 10 hrs for compact), European plug

**HLN8371A** 10 Hour Desktop Charging Tray, Standard Rate, 120V (requires the use of HTN8232 or HTN9002 shipped standard with all radios)



HLN8371A

#### Charger Conversion Kits

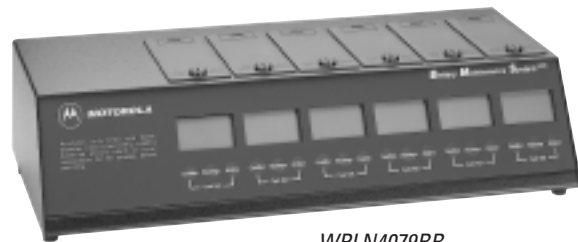
Provides a convenient means for housing from one to six single battery chargers. Each charger operates independently.

**HTN9295B** Multi-unit Charger Conversion Kit (accommodates up to six HLN8371 or HTN9026, purchased separately)

**HLN9113A** Desktop Charger, Converter Kit (compatible with HLN8371, HTN9026 or HTN9425); when added to your radio, this drop-in charger converter kit allows you to drop the entire radio into a desk top or spare battery charger

### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

#### BMS<sup>plus</sup> Adapter

**TDN9447A** Standard Adapter, SP10

\* Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## SP21 Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four Station, 100-240V AC (UK/Euro line cords)

### BOS II Battery Adapter

**RL-71292** Standard Adapter, SP21

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in nylon and leather.

**HLN9836A** Nylon Carrying Case with Belt Loop

**HLN9837A** Leather Carrying Case with Belt Clip



HLN9837A



HLN9836A

#### Belt Clips

**PMLN4124A** Replacement Belt Clip

**HLN8255B** 3" Spring Action Belt Clip

#### Belt

**4200865599** 1.75" wide leather belt for all models

#### Swiveller

**HLN9149AR** Swivel Belt Loop Adapter



HLN9149AR



HLN9974B

#### Straps

**HLN9974B** Replacement Strap for carrying cases

#### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602



HLN6602A

## SP21 Series

## Portable Accessories

### Carrying Accessories

#### Break-a-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4570A



RLN4815A

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

#### RadioPAK™

It's different from all other holders or cases: more comfortable, more useful, and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

### Audio Accessories

#### Remote Speaker Microphones (RSM)

Allow you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. This water resistant compact unit has a coiled cord, PTT switch and clothing clip on the back cover.

**HMN9051A**  
Remote Speaker Microphone



HMN9051A

### Audio Accessories

#### MicJackets

The MicJackets provide protection to the "head" of the remote speaker microphone. MicJackets are ideal for environments where the user's remote speaker microphone is exposed to dust, dirt, and metal particles.

**RLN4904A** MicJacket Kit (compatible with microphone HMN9051)



RLN4904A

#### Pellet Style Earpieces

Allows the user to receive and transmit communication discreetly.

**HMN9004A** Receive-only Earbud (single wire)

**HMN8435A** Earbud with Clip Microphone and PTT (two wire)

**7580372E70** Replacement Foam Ear Cushion for pellet earpieces



HMN8435A

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance kits. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments and provides 24dB of noise reduction

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments; does not provide hearing protection

**5080384F72** Replacement Foam Plugs—pack of 50 (use with NTN8370), noise reduction rating = 24dB



NTN8370A

NTN8371A





## SP21 Series

## Portable Accessories

### Audio Accessories

#### Surveillance Kits

Surveillance accessories allow the user to privately receive communication with the earpiece and are ideal when environments require discreet communication.

**HMN8433A** Receive-only Surveillance Kit



HMN8433A



HMN9040A

#### Flexible Ear Receiver

**HMN9040A** Flexible Ear Receiver, receive-only (flexible earloop and speaker which rests external to ear)

**7580372E11** Replacement Ear Cushion for HMN9040A

#### Surveillance Replacement Items

**5080371E73** Standard Rubber Eartips, Pack of 25, Beige

**5080371E75** Standard Rubber Eartips, Pack of 25, Black

**5880377E06** Plastic Earloop Adapter

**5080369E38** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Beige

**5080369E40** Earloop, Plastic, Beige

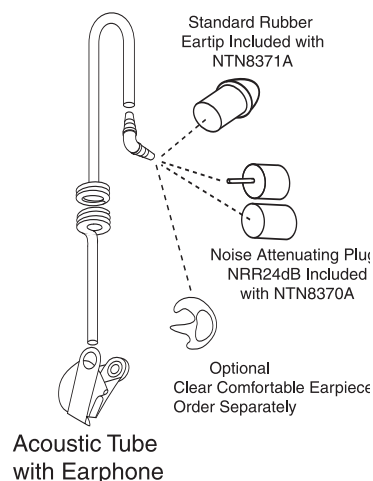
**5080371E69** Small rubber eartips pack of 25, Beige

### Audio Accessories

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits



Acoustic Tube with Earphone

**RLN4760A** Small Custom Earpiece, right ear

**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear

## SP21 Series

## Portable Accessories, Antennas

### Audio Accessories

#### Headsets

**BDN6774A** Earpiece with Microphone (worn over ear with streamlined boom microphone)

**4280376E47** Replacement over the ear loop for BDN6774A



BDN6774A



BDN6773A

**BDN6773A** Lightweight Style Single Muff Adjustable Headset with Swivel Boom Microphone

**BDN6775A** External Vox (voice-activation) Adapter (for use with BDN6773 or BDN6774)

**REX4648A** Replacement Windscreen (for boom microphone) and Foam Ear Pad



RLN5580A

**RLN5580A** Ultra-Light Headset with Boom Microphone and In-Line Push-To-Talk (PTT)

### Portable Antennas

#### Heliflex Antenna

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

**HAD9338AR**

Heliflex, 136-162MHz, 6"



NAE6483AR

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**NAE6483AR**

Flexible Whip, 403-520MHz, 6"

#### Stubby Antennas

These stubby quarterwave antennas are ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**HAD9742A** Stubby, 146-162MHz, 3"

**HAE9001A** Stubby, 462-470MHz, 3"

#### External Antennas

VHF Mag Mount Antennas

**HAD8437A** VHF Magnetic Mount External Antenna, Includes Antenna, Magnetic Mount and HLN8262A

**HAE8438A** UHF Magnetic Mount External Antenna, Includes Antenna, Magnetic Mount and HLN8262A

**HLN8262A** External Antenna Adapter (BNC Connector)



HAE8438A

## SP21 Series



**MOTOROLA**  
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## Batteries, Service Aids, Manuals

### Batteries

#### Nickel-Cadmium Premium

Part Number: **HNN9044AR**

Volts: 7.5

Avg. mAh: 550

Height: 2-3/16"

Intrinsically Safe: No



HNN9044AR

### Service Aids

**HLN3987A** Interference Eliminator, PL Retrofit Kit  
for Open Squelch Models

**HLN8425A** Operating Instructions/Business Information Kit

**HLN3001A** Service Kit, Contains Service Manual, Removal Tool,  
Tuning Tool and Extra Color Dots

#### Dot Label Kit

**HLN9029A** Dot Label Kit

#### Tuning Tool

**6680371B38** Tuning Tool

#### Test Set Cable

**RKN4034A** RIB/Radio Test Set Cable

### Manuals

**6880902Z53** User Manual

**6880903Z55** Service Manual

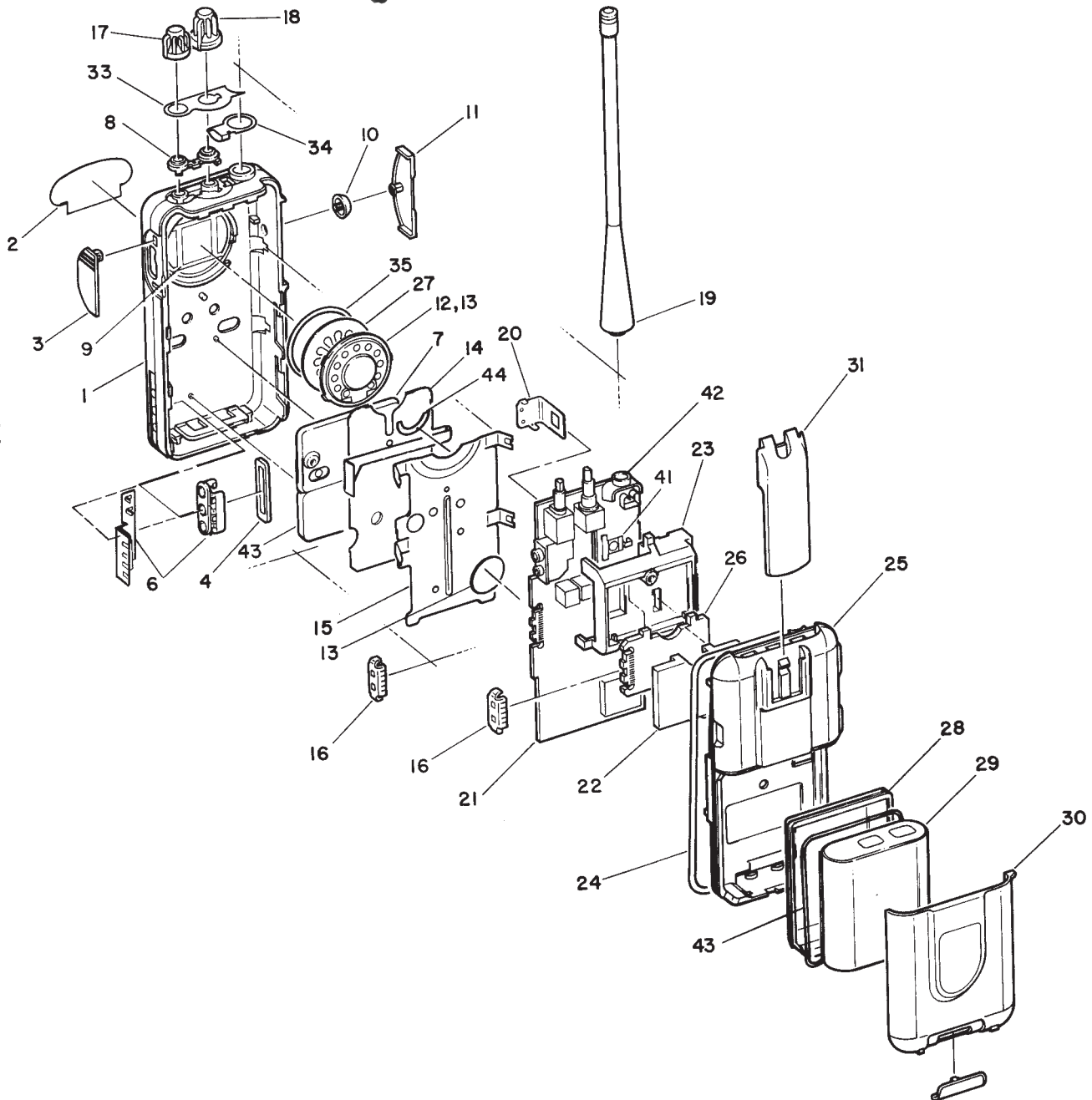
**HLN8425D** Business User Info Kit



<https://www.motorola.com/businessonline>

## SP50/SP50+ Series

### Parts List



# SP50/SP50+ Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>1580423D04*</b>	Housing, Standard
2	<b>1380416D03</b>	Nameplate, SP50
	<b>1380416D04</b>	Nameplate, SP50+
3	<b>3880430D01</b>	Dust Cap
4	<b>0780414D01</b>	Support, charging contacts, Compact
5	<b>0402838X01</b>	Washer, Special (2 req'd)
6	<b>0180621D02</b>	Assy, charging contact, Standard
7	<b>7580437D04</b>	Keypad
8	<b>3280511D01</b>	Seal, control shaft
9	<b>3580539D01</b>	Felt, Speaker
10	<b>3880502C04</b>	Actuator, PTT
11	<b>4580434D01</b>	Lever, PTT
12	<b>5005256W01</b>	Speaker
13	<b>7580418D01</b>	Pad, speaker, 3 used, Compact 4 used, Standard
16	<b>4285776M01</b>	Clip, flex connector
17	<b>3680583B01</b>	Knob, volume
18	<b>3680431D03</b>	Knob, frequency 10-channel
	<b>3680431D02</b>	Knob, frequency 6-channel
	<b>3680431D01</b>	Knob, frequency 2-channel
19	----	Antenna (see Antenna Section)
20	<b>4280578D01</b>	Clip, PA chassis
21	----	PCB, main board – not available
22	----	Shield, option board – not available
24	<b>3280545C01</b>	"O" Ring, gasket, Compact
	<b>3280545C02</b>	"O" Ring, gasket, Standard

REF. NO.	PART NO.	DESCRIPTION
25	<b>1580420D01</b>	Cover, back, Compact
	<b>1580571D01</b>	Cover, back, Standard
26	----	PCB, option board – not available
27	<b>2680537D01</b>	Disc, speaker
28	<b>0180616D01</b>	Frame, battery, Compact
	<b>0180620D03</b>	Frame, battery, Standard
29	----	Battery (see accessories)
30	<b>0180415E03</b>	Assy, battery latch cover, Compact
	<b>0180415E04</b>	Assy, battery latch cover, Standard
31	----	Clip, belt (see accessories)
33	<b>1380512D03</b>	Escutcheon, top plate, 10-channel
	<b>1380512D02</b>	Escutcheon, top plate, 6-channel
	<b>1380512D01</b>	Escutcheon, top plate, 2-channel
34	<b>3980514D03</b>	Contact, RF ground
35	<b>7580538D01</b>	Ring, Speaker
41	<b>4280543D01</b>	Clip, PA ground (must be discarded and replaced when repairing Q104)
42	<b>0280689C04</b>	Nut, Antenna
43	<b>3280612D03</b>	"O" Ring, battery frame, Compact
	<b>3205082E67</b>	"O" Ring, battery frame, Standard
44	<b>1480541D01</b>	Pad, speaker support

\* If older standard housing (D02) is being replaced with D04, the D02 charging contact assembly must be used.

## SP50/SP50+ Series

## Portable Accessories

### Chargers

#### Chargers

Single unit chargers are available in either desktop or compact styles for small system users. Multiple unit chargers can be wall or rack mounted and are ideal for multi-shift operations. All chargers are specifically designed to meet the requirements of batteries manufactured by Motorola.

#### Single Unit Chargers, Rapid Rate

**HTN9013B** 120 Volt 3 Hour Desktop Charger (SP50 standard models – do not recommend use of the wall charging adapter (HTN8232) due to charging time of 18-20 hours)



HTN9013B

**HTN9015B** 220 Volt, European Plug, 3 Hour Desktop Charger (SP50 standard models—do not recommend use of the wall charging adapter (HTN8232) due to charging time of 18-20 hours)

**HTN9059A** 240 Volt, UK Plug, 3 Hour Desktop Charger (SP50 standard models—do not recommend use of the wall charging adapter (HTN8232) due to charging time of 18-20 hours)

#### Single Unit Chargers, Standard Rate



HTN9014C

**HTN9014C** 120 Volt—10 hour desktop charger (SP50 standard models—do not recommend use of the wall charging adapter (HTN8232) due to charging time of 18-20 hours)

**HTN9016C** 220 Volt, European Plug, 10 Hour Desktop Charger (SP50 standard models—do not

recommend use of the wall charging adapter (HTN8232) due to charging time of 18-20 hours)

**HTN9058B** 240 Volt, UK Plug, 10 Hour Desktop Charger (SP50 Standard models—do not recommend use of the wall charging adapter (HTN8232) due to charging time of 18-20 hours)

### Chargers

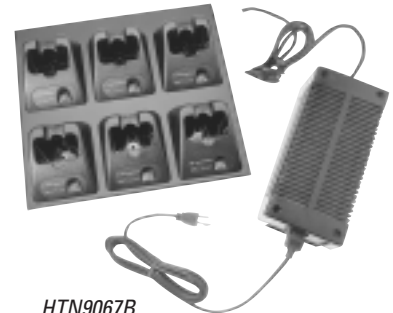
**HTN8232A** Wall Charging Adapter, 120V (18-20 hrs for standard models, and 10 hrs for compact)

**HTN9002A** Wall Charging Adapter, 220V (18-20 hrs for standard models, and 10 hrs for compact), European plug

**HTN9057A** Wall Charging Adapter, 240V (18-20 hrs for standard models, and 10 hrs for compact). UK plug

#### Multi-Unit Chargers

Multi-unit chargers can charge up to six batteries and are available in a variety of voltages for domestic and international applications.



HTN9067B

**HTN9067B** 120 Volt, Six-Unit, 3 Hour Multi-Unit Charger

**HLN9090B** Six-Unit Charger Conversion Kit, 120V (for use with HTN9013)

**HTN9068A** Six-Unit Multi-Unit Charger, Rapid Rate, 220V, European Plug

**HLN9091A** Six-Unit Charger Conversion Kit, 220V (for use with HTN9015)

**HTN9070A** Six-Unit Multi-Unit Charger, Rapid Rate, 240V, UK Plug

**HLN9200A** Six-Unit Charger Conversion Kit, 240V (for use with HTN9059A)

**HLN9293A** Wall Mount Bracket, use with multi-unit charger

## SP50/SP50+ Series

### Portable Accessories

#### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified nickel cadmium (NiCd) and nickel metal hydride (NiMH) batteries in approximately an hour.

**WPPN4002BR** Base Charge Unit Only, 110V AC

**WPPN4006AR** Base Charge Unit Only, 220V AC

**WPPN4065BR** Four-Station Base, 110V (order adapter plates separately)

**WPPN4008BR**

Adapter Only, 7V

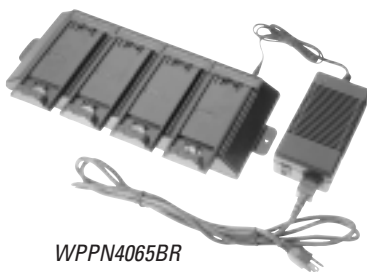
**WPLN4092BR** Motorola Conditioning Charger Kit, 110V AC (includes base unit and 7V adapter)

**WPLN4093BR** Motorola Conditioning Charger Kit, 220V AC (includes base unit and 7V adapter)

**3080384G15** Cigarette Lighter Adapter

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger

**3080384M21** DC Hard Wire Cable for Vehicular Installation (included in RLN4814A)



WPPN4065BR



WPLN4092BR

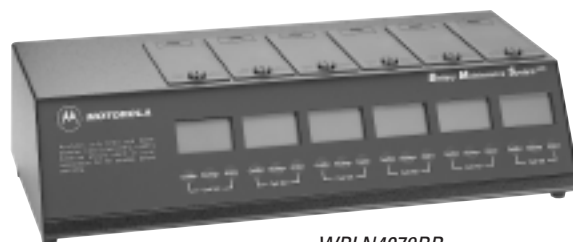


3080384G15

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**NDN4005B** Three-Station, 110V AC, 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC, 50/60 Hz (does not support Li-ion or 3-cell batteries)

#### BMS<sup>plus</sup> Field Upgrade Kit

**WPPN4085BR** BMS<sup>plus</sup> Field Upgrade Kit for WPLN4079AR, **WPLN4080AR** and WPLN4081AR allows these units to support Li-ion battery chemistries

#### BMS<sup>plus</sup> Adapter

**TDN9447A** Standard Adapter, SP50

\* Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.



## SP50/SP50+ Series

## Portable Accessories

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mA to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the battery's State of Health (SoH)

- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

### BOS II Battery Adapter

**RL-71292** Standard Adapter, SP50

### Miscellaneous

Battery discharge tester determines a battery's delivered capacity by discharging a fully charged battery. LED indicates cycle status by turning "ON" when fully charged battery is placed in adapter, and "OFF" when discharge is complete. Plug-in adapters allow one console to discharge most batteries. No AC power source required (console powered by discharging battery).

**RLN4048A** Battery Adapter, MTS2000

**RKN4037A** Cable/Clip Lead, 7.5V

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio and battery and permit audio to be heard clearly.

#### Leather Carrying Cases

**HLN9125B** Hard Leather Carrying Case with Belt Loop – SP50 standard models only

**HLN9122B** Hard Leather Carrying Case with Belt Loop – SP50+ compact models only

**HLN9129B** Hard Leather Carrying Case with Swivel (SP50 standard model size case with spacer included for use with SP50+ compact models)



HLN9125B

#### DTMF Carrying Cases

**HLN9128B** DTMF Leather Carrying Case with Swivel (SP50 standard model ships with a spacer for use with SP50+ compact models)



HLN9128B

#### Nylon Carrying Cases

**HLN9126A** Nylon Carrying Case with Belt Loop – SP50 standard models only

**HLN9127A** Nylon Carrying Case with Belt Loop – SP50+ compact models only



HLN9127A

#### Belt Clips

**HLN9724A** 2-1/2" Belt Clip

**HLN8255B** 3" Spring Action Belt Clip

#### Belt

**4200865599** 1-3/4" wide leather belt for all models



HLN9149AR

#### Swiveller

**HLN9149AR** Swivel Belt Loop Adapter

## SP50/SP50+ Series

## Portable Accessories

### Carrying Accessories

#### Straps

**4280379E59** Replacement Strap for "A" version HLN9122, HLN9125, HLN9128 and HLN9129

**4280379E58** Replacement Strap for "B" version HLN9122, HLN9125, HLN9128 and HLN9129

#### Waterproof Bag

**HLN9985B** Waterproof Bag, includes large carrying strap

#### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket

**1505596Z02** Replacement Strap for HLN6602



HLN6602A



RLN4570A

#### Break-a-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4815A

#### RadioPAK™

It's different from all other holders or cases: more comfortable, more useful, and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

### Carrying Accessories

#### Portable Radio Hanger

**TDN9327A** Portable Radio Hanger – for door panels up to 2-3/4" (slides over and hangs from the panel in vehicle); radio belt clip is required

**TDN9373A** Portable Radio Hanger – for door panels up to 2-3/4" to 3-1/4" (slides over and hangs from the panel in vehicle); radio belt clip is required



TDN9373A

#### Miscellaneous Carrying Accessories

Universal Holder with Gooseneck Bracket provides flexible mounting solutions for portable radios

**RLN4943A** Universal Holder with Gooseneck Bracket

**RLN4945A** Universal Holder with Gooseneck Bracket and Wheelchair Quick Release Assembly

**RLN4944A** Wheelchair Quick Release Assembly

### Audio Accessories



HMN9030A

#### Remote Speaker Microphones

Allows you to talk and listen without removing the radio from the belt, case or charger. This water resistant compact unit has a coiled cord, PTT switch and clothing clip on back cover.

**HMN9030A**

Remote Speaker Microphone

**HKN9094A** Replacement Cord for HMN9030

#### MicJackets

The MicJackets provide protection to the "head" of the remote speaker microphone. MicJackets are ideal for environments where the user's remote speaker microphone is exposed to dust, dirt, and metal particles.

**RLN4904A** MicJacket Kit (compatible with microphone HMN9030)



RLN4904A

## SP50/SP50+ Series

## Portable Accessories

### Audio Accessories

#### Pellet Style Earpieces

Allows the user to receive and transmit communication discreetly.

**HMN9036A** Earbud with Clip Microphone and PTT

**HLN9132A** Receive-only Earbud

**7580372E70** Replacement Foam Ear Cushion for Pellet Earpieces (pack of 10)



HMN9036A

#### Ultra-Lite Earpiece with Microphone and Push-to-Talk

Small and lightweight, this earpiece clips comfortably to the ear and features a boom microphone and in-line PTT.

**PMMN4001A** Ultra-lite Earpiece with microphone and push-to-talk.



PMMN4001A

#### Flexible Ear Receiver

**BDN6720A** Flexible Ear Receiver – earpiece without volume control (flexible earloop and speaker which rests external to ear)

**7580372E11** Replacement Foam Ear Cushion for BDN6720A

#### Completely Discreet Earpiece

Enables users to communicate with ease, in full privacy, without visible equipment. This miniaturized receiver is discreetly hidden in ear, where it fits comfortably for long periods at a time. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Average battery life is approximately 100 hours and includes an end-of-life battery circuit generating a warning signal when the battery needs to be changed.

Kit includes wireless receiver plus an inductive neckloop. Just remove the earpiece on any standard 2- or 3-wire Motorola surveillance kit (sold separately) and plug in the neckloop to use. Kit includes 6 spare batteries and 5 replacement ear wax guards.

**RLN4922A** Completely Discreet Earpiece Kit

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4 Volt Battery, 6 per pack

### Audio Accessories

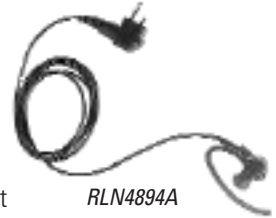
#### Surveillance Kits

Surveillance accessories allow the user to privately receive communication with the earpiece and are ideal when environments require discreet communication

**HMN9727B** Receive-only Surveillance Kit, beige (single-wire)

**RLN4894A** Receive-only Surveillance Kit, black (single-wire)

**HMN9752B** Receive-only Surveillance Kit with volume control, beige (single-wire)



RLN4894A



HMN9754D

**HMN9754D** Two-wire Surveillance Kit with microphone and push-to-talk combined, beige, FM approved

**RLN4895A** Two-wire Surveillance Kit with microphone and push-to-talk combined, black

**RLN5198A** Retail packaged surveillance kit (HMN9754D) with low noise kit

#### Surveillance Kits with Extended Wear Earpiece

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube. Users can hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5317A** Two-wire Comfort Earpiece with Combined Microphone and Push-To-Talk, beige

**RLN5318A** Two-wire Comfort Earpiece with Combined Microphone and Push-To-Talk, black

## SP50/SP50+ Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).



BDN6646C

**\*BDN6646C** Ear Microphone for standard noise levels (up to 95dB) with Push-To-Talk interface, (HLN8096 security clamp is recommended and must be ordered separately)

**\*BDN6706B** Ear Microphone for standard noise levels (up to 95dB) with Push-To-Talk/voice-activated interface module, (HLN8096 security clamp is recommended and must be ordered separately)

#### Ear Microphone System (EMS) Accessories

**5080371E73** Rubber Ear Inserts for single wire and two wire earpieces — quantity 25

**\*0180358B38** Finger Push-To-Talk Switch for ear microphone system

**0180300E83** Body Switch Push-To-Talk for ear microphone system



0180358B38



0180358B33

**0180358B32** Earholder, Black, Size Small

**0180358B33** Earholder, Black, Size Medium

**0180358B34** Earholder, Black, Size Large

**0180358B35** Earholder, Clear, Size Small

**0180358B36** Earholder, Clear, Size Medium

**0180358B37** Earholder, Clear, Size Large

**4280369E44** Replaceable Belt clip with Screws

### Audio Accessories

#### Lightweight Headsets

Lightweight headsets allow for high clarity, hands free, discreet two-way communications while adding comfort for extended wear in moderate noise environments.

**RLN5238A** NFL-style Lightweight Single-muff Headset similar in design to headsets used by NFL coaches. Features a noise cancelling boom microphone and in-line push to talk. Large Motorola logo adds a sporty appearance.



RLN5238A



HMN9013A

**HMN9013A** Lightweight Single-muff Adjustable Headset with Swivel Boom Microphone

**HLN9133A** VOX Adapter Kit for use with HMN9013

**REX4648A** Replacement Windscreen Microphone and Foam Ear Pad for use with HMN9013

**RMN4016A** Lightweight Single-muff Adjustable Headset with Swivel Boom Microphone and in-line PTT button

**RLN5411A** Ultra-light Behind-the-Head Headset with Flexible Boom Microphone and in-line push-to-talk



RLN5411A

\* Intrinsically safe

## SP50/SP50+ Series

## Portable Accessories

### Audio Accessories

#### Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable. Hardhat not included.

**RMN4052A** Tactical Headband Style Headset, grey; noise reduction rating of 24dB



RMN4053A



RMN4052A

**RMN4053A** Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB

#### Hardhat Mount Headset with Noise-Canceling Boom Microphone

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4094A. Hardhat not included.

**RMN4051B** Two-Way Hardhat Mount Headset, black



RMN4051B

#### Adapter Cables

**RKN4094A** In-Line PTT Adapter Cable for GP300, SP50, SP50+ and P1225 radios. For use with RMN4051A, RMN4052A, and RMN4053A.

### Audio Accessories

#### Replacement Earseals for Headsets

**RLN4923A** Includes Two Replacement Snap-In Earseals; recommended replacement interval is once every six months to ensure constant level of attenuation, hygiene and comfort. For RMN4051A, RMN4052A, and RMN4053A.

#### Medium Weight Headsets

Medium weight headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communication in harsh, noisy situations.

**HMN9021A** Medium Weight Dual Muff Headset, over the head noise reduction rating = 24dB



HMN9021A



BDN6647F

**HMN9022A** Medium Weight Dual Muff Headset, behind the head (can be worn with helmet); noise reduction rating = 24dB

**BDN6647F** Medium-weight Headset with Swivel Boom Microphone, Single Speaker



## SP50/SP50+ Series

## Portable Accessories, Antennas



### Audio Accessories

#### Replacement Items for HMN9021A & HMN9022A

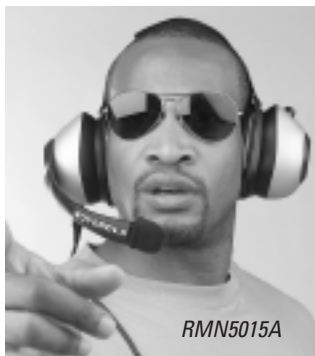
- 7580376E34** Replacement Foam Earseals (1 pair)
- 1580376E32** Replacement Cloth Cover for Earseals (1 pair)
- 5080548E02** Replacement Windscreen for Boom Microphone
- 3280376E35** Replacement O-ring for windscreen
- 3080384L77** Replacement Cable
- 4204004K01** Replacement Adjustable Headstrap for HMN9022A

#### Replacement Items for BDN6647F

- 5080371E66** Replacement Earpad for BDN6647
- 3580371E59** Replacement Windscreen (for boom microphone) for use with BDN6647

### Racing Headset

Motorola is the Official Wireless Equipment supplier of CART®, so whether your customer's playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.



RMN5015A

**RMN5015A** Heavy Duty, behind the head Headset with Noise Cancelling Swivel Boom Microphone. Noise Reduction Rating = 24dB (adapter cable required and sold separately)

**RKN4090A** Adapter Cable for Racing Headset (RMN5015)

### Portable Antennas

#### Heliflex Antenna

Motorola Heliflex antennas are specifically engineered for maximum output and greatest communication coverage.

##### NAD6502AR

VHF Heliflex, 146-174MHz, 6"

NAD6502AR

#### Stubby Antennas

These stubby quarterwave antennas are ideal when radio is worn on the belt because the short antenna is non-obtrusive.

##### NAE6522AR

UHF Heliflex Stubby, 438-470MHz, 3"

##### HAD9742A

Stubby, 146-162MHz, 3"

##### HAD9743A

Stubby, 162-174MHz, 3"

HAD9743A

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### NAE6483AR

Flexible Whip, 403-520MHz, 6"

NAE6483AR



## SP50/SP50+ Series



## Batteries, Option Boards, Kits

### Batteries

Part Number: **HNN9018AR**

Volts: 7.5

Avg. mAh: 1200

Height: 3-3/8"

Intrinsically Safe: No

(SP50 standard models only)



HNN9018A

Part Number: **HNN9044AR**

Volts: 7.5

Avg. mAh: 550

Height: 2-3/16"

Intrinsically Safe: No

(SP50+ compact models only)



HNN9044AR

### Option Boards

**HLN3026A** Quik-Call II Advantage Board

**HLN3042A** SmarTrunk II™\* Advantage Board

### Housing Kits

**HNN9203A** Compact 2-Channel Housing Kit

**HNN9205A** Standard 2-Channel Housing Kit

**HNN9206A** Standard 6-Channel Housing Kit

**HNN9207A** Standard 10-Channel Housing Kit

### Retrofit Kits

**HLN3024B** DTMF 6-Channel Encoder and Keypad Retrofit Kit for Standard Models

**HLN3046B** DTMF 10-Channel Encoder and Keypad Retrofit Kit for Standard Models

**HLN3047A** DTMF 2-Channel Encoder and Keypad Retrofit Kit for Compact Models

\* SmarTrunk II is a Trademark of SmarTrunk Systems, Inc.



## SP50/SP50+ Series

## Service Aids, Manuals

### Service Aids

#### Programming Stand

**HLN9102A** Programming Stand

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables, order separately.

**HVN9012D** Programming Software, 3-1/2" diskette (includes manual and storage box)

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap battery (6082728J01), order separately.



RLN4008E

**RLN4008E** Radio Interface Box

**RKN4034A** RIB/Radio/Test Set Cable, connects radio to RTX4005 Test Box

**0180357A57** AC Power Pack, 110V

**0180358A56** AC Power Pack, 220V

### Service Aids

#### Programming Cable

**3080369B71** IBM to RIB Cable, 25 pin

**3080369B72** IBM to RIB Cable, 9 pin

**RLN4438A** 25 pin F to 9 pin M Adapter

#### Antenna Adapter

**HLN9087A** Antenna Adapter

#### Cloning Cable

**HKN9755A** Cloning Cable

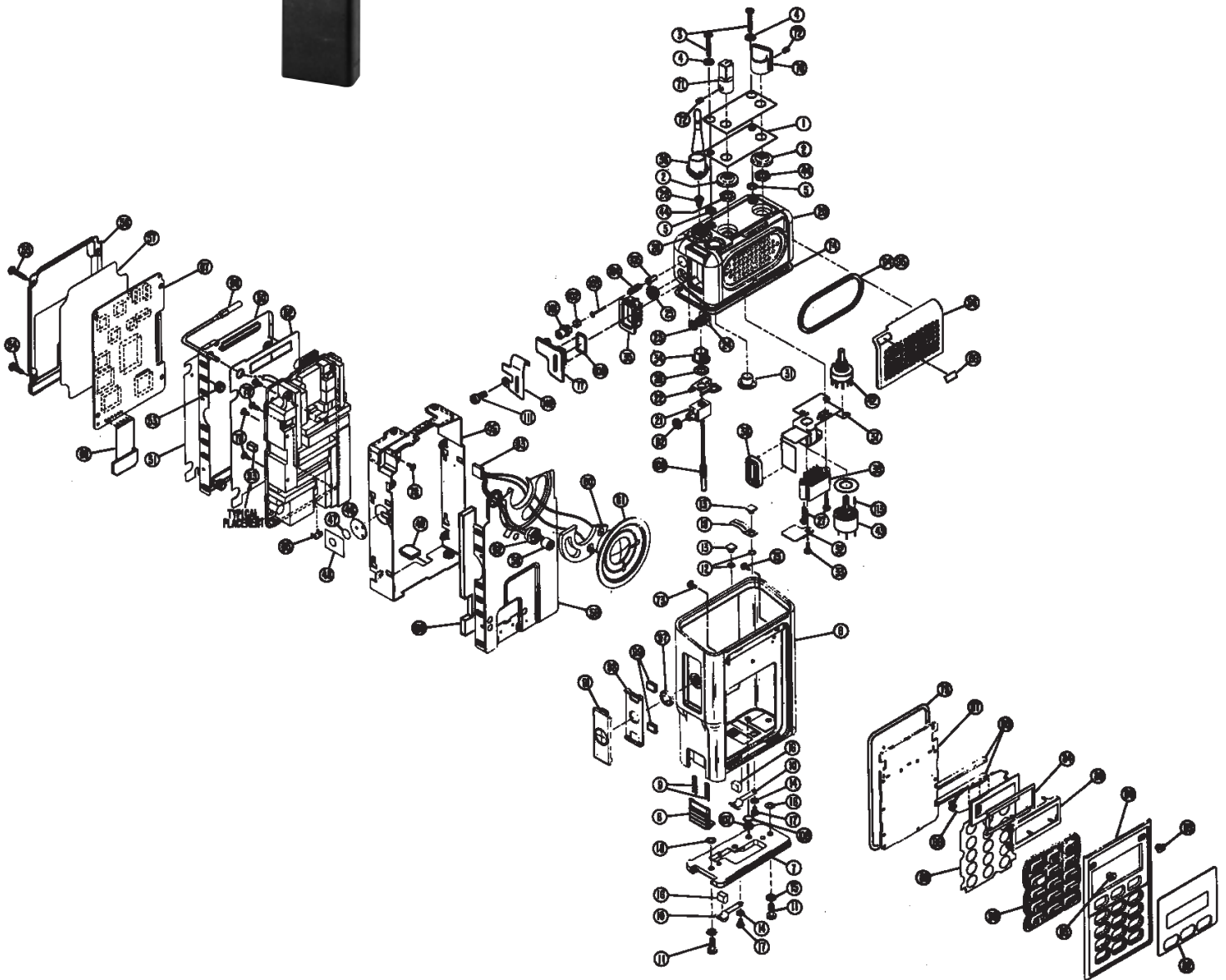
### Manuals

**6880903Z24** VHF, UHF Service Manual

**6880903Z23** Users Training Guide

# STX Series

## Parts List



*Replacement parts may no longer be available*

# STX Series

## Parts List

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	----	Plate, Escutcheon	46	----	PCB, PTT (not field replaceable; order item 45)	84	----	Insulator, LCD (not field replaceable; order item 80 or 81)
2	<b>3205933J02</b>	Seal, Switch (some models require only one)	47	----	Contact, Snap-Dome (not field replaceable; order item 45)	85	----	Elastomer, LCD (not field replaceable; order item 80 or 81)
3	<b>0305941K04</b>	Screw, Control Top, #4-40 HEXBTN	48	----	Seal, Dome (not field replaceable; order item 45)	86	----	Bezel, LCD (not field replaceable; order item 80 or 81)
4	----	Lockwasher, #4	49	----	Insulator, B+	87	----	Display Board Kit w/ LCD/LED (not field replaceable; order item 80)
5	<b>3205082E11</b>	"O" Ring	51	----	Insulator, Logic – not available	88	----	Light Pipe, LCD (not field replaceable; order item 80)
6	<b>0105957K69</b>	Lower Housing Kit (includes items 97 and 98)	52	----	Insulator, RF – not available	89	----	Shield, Static (not field replaceable; order item 80)
7	<b>6405473N01</b>	Baseplate	53	----	Standoff (not field replaceable; order item 50)	90	----	Keypad, 3-Key (not field replaceable; order item 80)
8	<b>5505727N01</b>	Latch, Battery	54	----	Screw, #2-56 PHLPAN	91	<b>4505369Q01</b>	Lever, PTT
9	<b>4105944K01</b>	Spring, Latch	55	<b>0305731J06</b>	Screw, #2-56 PHLPAN	92	<b>3205853H02</b>	Gasket
10	<b>3905421C13</b>	Contact, Battery	56	<b>NTN4519A</b>	Rear Shield Kit (includes item 57)	93	----	Pad, RF
11	<b>0305941K02</b>	Screw, Baseplate, #4-40	57	----	Insulator, Rear – not available	94	----	Retainer, Membrane (not field replaceable; order item 20)
12	<b>3205082E24</b>	"O" Ring	58	<b>2605723N01</b>	Shield, Front	95	----	Membrane (not field replaceable; order item 20)
13	<b>4605945K03</b>	Bushing, B+	59	<b>5005227J02</b>	Front Shield Kit (includes items 59-63 and 100)	96	----	Grille, Upper Housing (not field replaceable; order item 20)
14	<b>0400002625</b>	Lockwasher, #2	60	<b>1105477N01</b>	Microphone (see Transceiver Board Parts List), (MK501)	97	----	Actuator, PTT (not field replaceable; order item 6)
16	<b>0705830C02</b>	Support, Contact	61	<b>5005269T03</b>	Adhesive, Speaker	98	----	Retainer, PTT (not field replaceable; order item 6)
17	<b>0300138651</b>	Screw, #2-56 x 1/8" PHLPAN	62	----	Speaker, Transducer, 8 ohms, LS501	99	<b>1105668K35</b>	Pad, Urethane
18	<b>3205082E11</b>	"O" Ring	63	<b>0905212P02</b>	Boot, Microphone	100	----	Insulator, Front – not available
19	----	Contact, B+	65	<b>4205474P01</b>	Connector, Speaker/Mic. (J2)	101	----	Nut, Retainer
20	----	Upper Housing Kit w/o Rotary Switch (includes items 34 and 94-96)	66	<b>0905006P01</b>	Clip, B+	102	<b>1405664J01</b>	Insulator, Plunger
21	<b>0105952M69</b>	Upper Housing Kit w/ Rotary Switch (includes items 34 and 94-96)	68	<b>8405758N03</b>	Plug, Coax, RF	103	<b>4405829J01</b>	Plunger, RF Switch
22	<b>0405483P01</b>	RF Switch; Kit (includes items 22 and 106)	69	<b>3305206P01</b>	Interconnect, Display	104	<b>4105836J01</b>	Spring, RF Switch
23	<b>0205578M01</b>	Washer, RF Jack	70	<b>3605295P01</b>	Label, Emergency	105	<b>1405787C01</b>	Insulator, Spring
24	<b>4305577M01</b>	Nut, Stud	71	<b>3605295P02</b>	Label, Volume Set	106	<b>0905006P02</b>	Socket, Coax, RF (P4)
25	<b>3205472P07</b>	Stud	72	<b>0305480E02</b>	Knob, Volume Switch	107	<b>3205082E25</b>	"O" Ring, Port
26	<b>3205639F03</b>	"O" Ring, Stud	73	----	Knob, Subfleet Switch (used only on Rotary Switch Models)	108	----	Seal, Port
27	<b>0300140383</b>	Gasket	74	<b>3205082E66</b>	Screw, Set. #4-40 x 3/32" (only one used on Non-Rotary Switch Models)	109	<b>3205473P04</b>	"O" Ring, Side Seal
28	<b>0205588M01</b>	Screw, #2-56 x 9/16" PHLPAN	75	<b>3205082E67</b>	Screw, Front Cover	110	<b>NTN5023A</b>	Retainer, Side Seal
29	<b>0905771F02</b>	Nut, Antenna Seal	77	<b>3205606P01</b>	"O" Ring, Control-Top			
31	<b>3905698N01</b>	Pin, Coaxial	78	<b>0300136783</b>	"O" Ring, Front Cover			
32	<b>6405187P01</b>	Switch, Control	79	<b>0300139444</b>	Seal, Side			
33	<b>0300136782</b>	Plate, Control Switch	80	<b>RPX1020A</b>	Screw, #2-56 x 5/16" PHLPAN			
34	----	Screw, #2-56 x 3/16" PHLPAN		<b>RPX1021A</b>	Screw, #2-56 x 5/32" PHLPAN			
35	<b>1505673C03</b>	Bushing, Antenna (not field replaceable; Order item 20)		<b>RPX1023A</b>	Plain Front Cover Kit (includes items 82 and 83)			
36	<b>NAF4000B</b>	Connector, Side (J601)			3-Key Front Cover Kit (includes items 81-90)			
37	----	Antenna, 800MHz Dipole			12-Key Front Cover Kit (includes items 82, 83, 87, 89 and 90)			
38	<b>0905675C01</b>	Control-Flex Kit w/o Rotary Switch (includes items 38-42)						
39	<b>0905463Q01</b>	Socket						
40	<b>1805799P01</b>	Connector, 20-Pin (J1)						
41	<b>0905675C01</b>	Potentiometer, (R601, Volume, On/Off)						
42	<b>1805799P01</b>	Switch, Subfleet (Optional)						
43	<b>RPX4689A</b>	Nut, Switch						
44	<b>0200140458</b>	Frame Kit (includes items 46-49) – not available						
45	----							

**Cancelled Product STX Series:**  
**Aftermarket support criteria has been met for spare parts. Items may no longer be available.**

## STX Series

## Portable Accessories

### Chargers



NLN8858A

#### Single Unit Chargers

They are capable of charging batteries while they are on or off of the radio. When the battery is fully charged, a visual indication is given (if it is a rapid charger) and the

charger automatically reverts to a trickle charge rate. Actual charging time varies directly with battery capacity

**NLN8858A** Rapid Charge, 117 Volt

#### Adapter Kit

**NTN4529A** Adapter Kit, for 6 Unit Charger (for wall or rack mount applications)

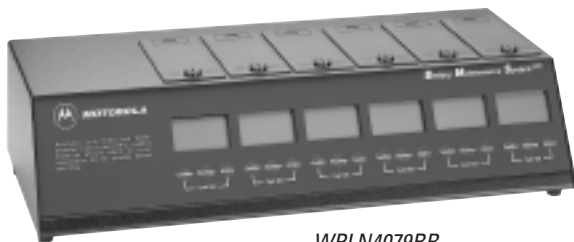
### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh).

The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz



WPLN4079BR

#### BMX<sup>plus</sup> Adapter

**TDN9451A** Standard Adapter, STX

### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### BOS II Adapter

**RL-71223** Standard Adapter

\* Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## STX Series

### Portable Accessories

#### Motorola Conditioning Charger (MCC)

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately one to two hours.



WPPN4002BR

**WPPN4002BR** 110V AC Base Charge Unit only

**WPPN4006AR** 220V AC Base Charge Unit only

**WPPN4000BR** 7 Volt Adapter only

**WPLN4098AR** MCC Kit, 110V AC; includes both base unit and 7V adapter

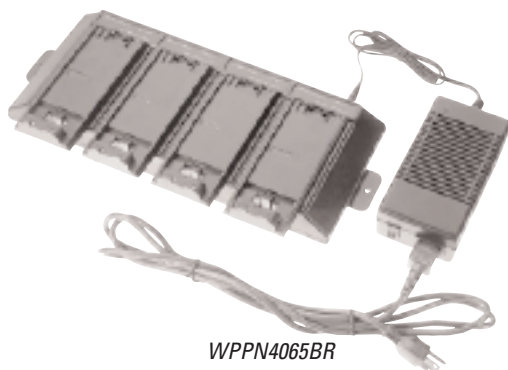
**WPLN4099BR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**3080384G15** Cigarette Lighter Adapter Cord

**RLN4814A** Mounting Bracket for Motorola single unit conditioning chargers

#### MCC Multi-Unit Conditioning Charger

**WPPN4065BR** Four-station Base, 110V. (Order adapter plates separately)



WPPN4065BR

#### Carrying Accessories

##### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.



NTN4968A

##### Swivel Carry Cases

**NTN4968A** Leather Carry Case and Swivel Belt Loop Holder, For Medium Capacity Battery (Order Velcro T-strap separately)

**NTN4969A** Leather Carry Case and Swivel Belt Loop Holder, For High Capacity Battery (Order Velcro T-strap separately)



NTN4350A

##### Carry Holder

**NTN4350A** Plastic Carry Holder with Belt Loop, for all models

## STX Series

### Portable Accessories

#### Carrying Accessories



##### **T-Strap**

**4205713P02** Nylon, Velcro,  
For All Models

4205713P02

##### **Full Cover**

**NTN4971A** Full Cover, Velcro,  
For All Models



NTN4971A

##### **Belt**

**4200865599** 1.75" Wide Leather  
Belt, For All Models



4200865599



NTN5243A

##### **Carrying Strap**

**NTN5243A** Carrying Strap,  
For All Models

##### **Belt Loop**

**4205857B01** Belt Loop, for Swivel Case, 2"

**4282421J06** Swivel Belt Loop, 2.5"

#### Carrying Accessories



NMN6176A

##### **Remote Speaker Microphone**

Remote speaker microphones allow the user to talk and listen without removing the radio from its carry case or carry holder. It has a top-port speaker for improved audio reception and audio input.

**NMN6176A** Remote Speaker Microphone with Coil Cord, Clip Back, 2.5 mm Earpiece Jack and Earpiece (NTN4742A)

**NMN6177A** Remote Speaker Microphone with Coil Cord and Clip Back

##### **Public Safety Remote Speaker Microphone**

This microphone is very similar to the remote speaker microphones, as it is weatherized, and has the top-port speaker for better audio. There is an antenna for improved coverage.

**NMN6175A** Public Safety Remote Speaker Microphone, with Clip Back, 800-900MHz Antenna Included

**8505241U06** Antenna



NMN6175A



RLN4294A

##### **Epaulet Strap**

Black leather epaulet straps secure remote speaker microphone to epaulet of shirts or jackets and attach around cord.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, Small Clip

**NTN4664A** Three wire surveillance accessory with earpiece, microphone, and push-to-talk as separate pieces.

**NTN4742A** Earpiece without Volume Control



RLN4295A



## STX Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone System

This compact unit picks up the voice through bone vibrations in the ear canal. Ideal for use in high noise environments. Available in PTT or Voice-activated (VOX) capabilities for total hands free communications. Order Interface Module separately.



BDN6677A

#### Ear Microphones

**BDN6677A** Ear Microphone for Standard Noise Levels (up to 95 dB), Black

**BDN6678A** Ear Microphone for Standard Noise Levels (up to 95 dB), Beige

**BDN6641A** Ear Microphone for High Levels (up to 105 dB), Grey



BDN6641A  
Shown with  
interface module

#### Interface Modules

**BDN6644B** Push-To-Talk Interface Module

#### Ear Microphone Optional Accessories

**0180300E25** Earguard with Adjustable Loop

**0180358B38**

Remote Push-To-Talk Ring Switch

**0180358B32** Earholder, Black, Size Small

**0180358B33** Earholder, Black, Size Medium



0180358B38



0180358B33

**0180358B34** Earholder, Black, Size Large

**0180358B35** Earholder, Clear, Size Small

**0180358B36** Earholder, Clear, Size Medium

**0180358B37** Earholder, Clear, Size Large

### Audio Accessories

#### Ear Microphone Accessories (cont'd)

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, Black, Size Medium (10 per pack)

**5080358B29** Eartips, Black, Size Large (10 per pack)

**5080358B30** Eartips, Beige, Size Medium (10 per pack)

**5080358B31** Eartips, Beige, Size Large (10 per pack)

#### Ear Mics

Single unit microphone and speaker worn in the ear. Eliminates the need for handheld microphones or conventional headsets. Compact, rugged design allows use under hearing protectors and protective clothing. Order cable separately.



RMN4001B

**RMN4001B** Ear Mic

**0180359A42** Interface Cable for STX

**0180359A51** Optional PTT Ring Switch for RMN4001A Only

**0180356B97** Optional PTT Ring Switch for RMN4001B Only



0180359A51



## STX Series

## Portable Accessories

### Audio Accessories

#### HMN1015A Remote Microphone

#### TAF6041A

806-866MHz Roof Top Antenna

HMN1015A



### Headsets

All headset accessories include adapter cables and can be plugged directly into radio. No additional equipment is required.

Low to moderate noise level (less than 100 dB) lightweight headset with Electret condenser microphone and single speaker.

*NOTE: Cannot be worn with headgear.*

#### BDN6350A In-line push-to-talk switch

#### BDN6356A Body/foot switch that can be belt mounted

#### BDN6358A In-line push-to-talk switch

High noise level headset (up to 115 dB) with noise cancelling microphone and dual speaker. *NOTE: for use with respirator or face mask kit.*

#### BDN6314A Body/foot switch that can be belt mounted

### Audio Accessories

High noise level headset (up to 125 dB) with noise-cancelling microphone and push-to-talk switch located on earcup. Vox module contained within headset on voice activated units. Factory Mutual Approved. *NOTE: Can be worn with or without hardhat or fire helmet.*

#### BDN6645A Push-To-Talk Headset with Boom Microphone, Requires Adapter Cable.

#### BDN6635B Voice-Activated Headset with Boom Microphone, Requires Adapter Cable, Includes 110V Charger



BDN6645A  
(Shown with adapter cable BDN6638A)



BDN6636B  
(Shown with adapter cable BDN6638A)

#### BDN6636B Voice-Activated Headset with Throat Microphone, Requires Adapter Cable, Includes 110V Charger

#### 0180357B05 Spare VOX Headset Charger 110V

#### BDN6638A Adapter Cable for BDN6635, BDN6636 and BDN6645

#### 6881126E79 Instruction Manual for BDN6645A

#### 6881126E78 Instruction Manual for BDN6635 and BDN6636 Headsets

## STX Series



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## Portable Accessories, Batteries

### Audio Accessories

#### Helmet Kits



BDN6275A

The following DO NOT include headgear.  
*NOTE: All helmet and face mask kits require a radio cable assembly (order separately).*

Industrial/Police helmet kits for Bullard (Industrial) headgear with military noise cancelling microphone.

**BDN6275A** Single Speaker

Bell BT400 (Police) full coverage headgear with military noise-cancelling microphone (cable assembly required, order separately)

**BDN6362A** Single Speaker (Police)

**BDN6363A** Dual Speaker (Police)

#### Cable Assemblies

*NOTE: All helmet kits require one of the following cable assemblies:*

**BDN6315A** Cable assembly for Police Radio helmet kit with transmit switch, volume control, microphone electronics and a push-to-talk jack built into a belt mounted control box

**BDN6292A** Cable assembly for Police Radio helmet kit with handlebar push-to-talk switch for belt mounted control box (only applies to BDN6315A)

### Portable Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN4326A**

Volts: 7.5

Avg. mAh: 1300

Height: 2-7/16"

Intrinsically Safe: No



NTN4326A

Part Number: **NTN4327C**

Volts: 7.5

Avg. mAh: 1800

Height: 3-11/16"

Intrinsically Safe: No



NTN4327C

Part Number: **NTN4500A**

Volts: 7.5

Avg. mAh: 1800

Height: 3-11/16"

Intrinsically Safe: Yes



NTN4500A

Part Number: **NTN4534A**

Volts: 7.5

Avg. mAh: 1300

Height: 2-7/16"

Intrinsically Safe: Yes



NTN4534A



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## STX Series

## Antennas, Tools, Service Aids

### Portable Antennas

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

##### NAF4000B

Dipole, 806-869MHz, 8"

NAF4000B



#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

##### 8505241U03

Flexible Whip, 806-870MHz, 7"



8505241U06

#### Stubby Antenna

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

##### \*8505241U06

Stubby, 806-941MHz, 4"

### Alignment Tools

#### Tuning Tools

**6605106N01** Tuning Tool, Adjusts Squelch Threshold

**6605147J01** Tuning Tool, for Potentiometers, Local Oscillator Coil, Quad Detector



6605106N01

### Service Aids

#### Battery Block Adapter

Transceiver can be connected to the battery eliminator with this adapter, so it remains functional when out of the radio.

**RTL4206A** Battery Block Adapter



RTL4206A

*\*8505241U06 is a broad band antenna that operates in the 800/900MHz band*

## STX Series

## Service Aids, Manuals

### Service Aids

#### RF Adapter Cable

Control the radio locally while taking transmitter measurements by attaching this adapter to the universal side connector.

**RTK4087A** RF Cable Adapter



RTK4087A

#### Radio Test Cable

Used with RTX4005 Portable Radio Test Set for transmitter, receiver alignment and performance checks.

**RTK4006A** Test Cable

#### SMA to BNC Adapter

Make transmitter measurements while the portable is connected to the portable test set. The adapter connects the antenna jack.

**5880384G68** RF Adapter

### Manuals

#### STX Series

**6881040C25** Models H25/35TJB5170AN, H25/35TJC5170AN, H25/35STC5170AN, H25/35STD5170AN, H25/35STE5170AN Service Manual

**6881041C65** Model N1352A Instruction Manual

**6881069C65** Models H25STC/D/E, H25TJB/C, H35STC/D/E, H35TJB/C Theory/Maintenance Manual

**6881049C90** SMARTNET Operating Instructions

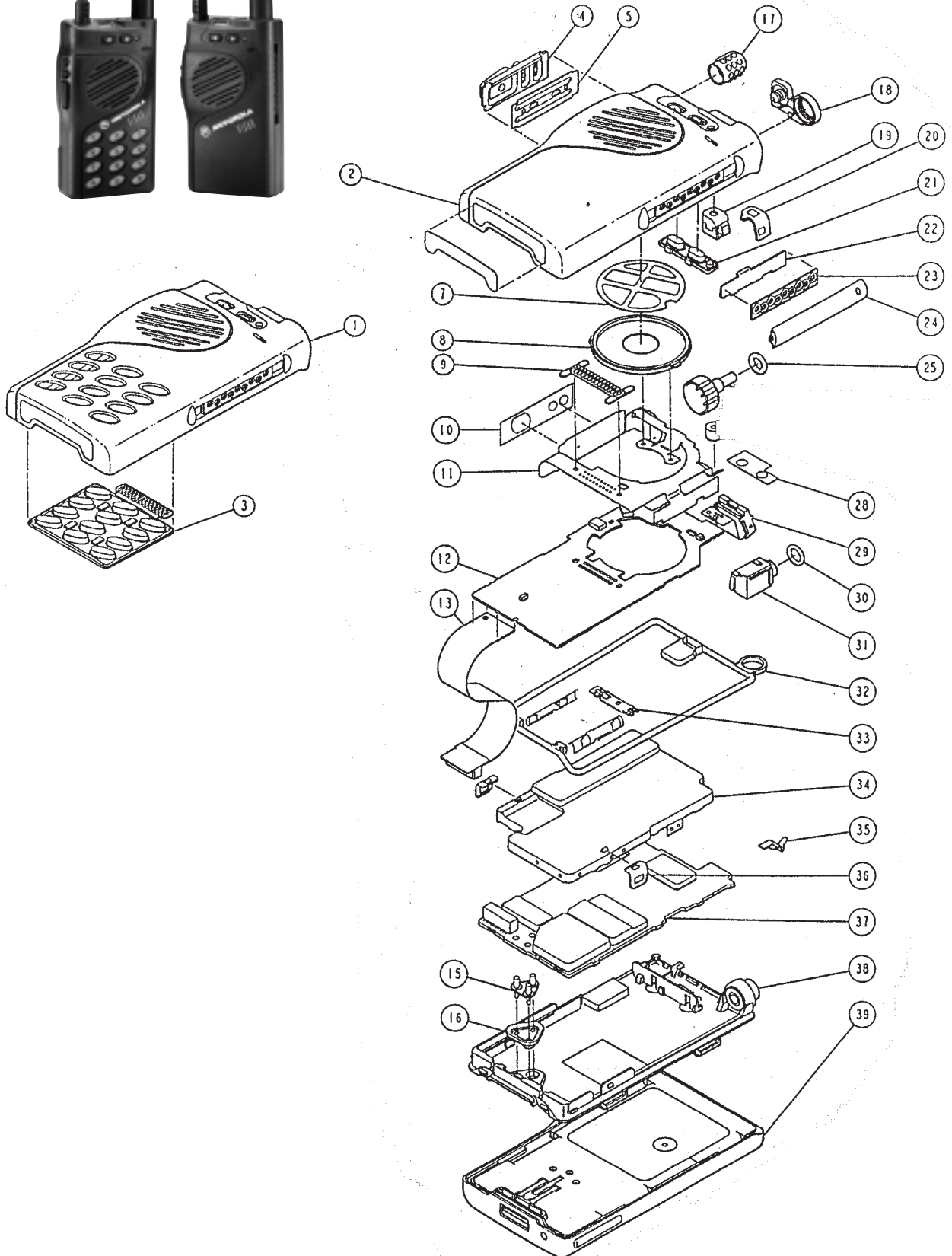
#### STX Converta Com

**6881041C65** Service Operating Manual

**0180305J46** Ear Microphone System and Temple Transducer CD-ROM

# VISAR Series

## Parts List



# VISAR Series



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## Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>REX4402A</b>	Cover, Front DTMF
1A*	<b>REX4402A</b>	Front Housing Replacement Kit
2	<b>1505776Y01</b>	Cover, Front Non-Keypad
3	<b>7505541X01</b>	Keypad, 12 Key
3A*	<b>7505118X01</b>	Keypad, 12 Key
4	<b>7505585X01</b>	Keypad, PTT
5	<b>6405498X01</b>	Plate, PTT
7	<b>3505366W01</b>	Screen, Speaker
8	<b>5005256W01</b>	Speaker
9	<b>7505312Y01</b>	Pad, Control Flex
9A*	<b>3205634W01</b>	Pad, Control Flex
10	<b>3905530X01</b>	Snapdome, Controls
11	<b>8405768X02</b>	Flex, Controls
12	----	Controller Board – not available
13	<b>8405396W01</b>	Flex, Interconnect
15	<b>3905861X04</b>	Contact, Battery Probe Assembly
16	<b>3205119X01</b>	Seal, Pogo
17	<b>3605385W01</b>	Knob, Volume
18	<b>3885746A01</b>	Dustcap, Jack
18A*	<b>3885746A01</b>	Dustcap, Jack
19	<b>1405368W01</b>	Boot, Microphone
20	<b>3505384W01</b>	Felt, Microphone

REF. NO.	PART NO.	DESCRIPTION
21	<b>7505392W01</b>	Keypad, Frequency
22	<b>REX4044A</b>	Assembly, Wedge Contact
24	<b>3805110X01</b>	Dustcap, Universal
25	<b>3205379W01</b>	Seal, Pot
26	<b>1805642V01</b>	Potentiometer, Volume
28	<b>3905814X01</b>	Snapdome, Frequency
	<b>0180620D03</b>	Frame, battery, Standard
29	<b>5105279V98</b>	Assembly, LCD
30	<b>3205381W01</b>	Seal, Jack
31	----	Jack – not available
32	----	“O” Ring, Main – not available
32A*	<b>3205377W01</b>	“O” Ring, Main
33	<b>4205811X01</b>	Clip, Printed Circuit Board
34	<b>2605799X01</b>	Shield, Main
35	<b>3905912Y01</b>	Contact, Antenna
36	<b>4205378W01</b>	Clip, Main Shield
37	----	Transceiver Board – not available
38	<b>1505807Y05</b>	Cover, Rear
38A*	<b>1505371W01</b>	Cover, Rear
39	----	Battery – not available

\*AN models will show suffix at end of radio model number



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## VISAR Series

## Portable Accessories

### Chargers

#### Dual Unit Enhanced Desktop Chargers

The dual unit charger is designed to sequentially charge two batteries and can charge each battery in one to three hours. The charger will ship with a power cord. The charger is designed to operate with the use of interchangeable plug-in line cords. Additional line cords may be purchased separately.

**NTN1402A** Dual Unit Desktop Charger, Rapid Charge, 120V, with three step charging cycle

**NTN1403A** Dual Unit Desktop Charger, Rapid Charge, 220V, with three step charging cycle

**NTN1404A** Dual Unit Desktop Charger, Rapid Charge, 240V, with three step charging cycle

#### Charger Line Cords

The following charger line cords can be used on the dual unit rapid rate charger to provide versatility for worldwide charging capability.

**3060665A04** 120V Interchangeable Line Cord

**3060665A05** 220V Interchangeable Line Cord with 2-prong Euro Plug

**3002120F02** 240V Interchangeable Line Cord with 3-prong U.K. Plug



#### Six Pocket Charger

**NTN7621D** Six-Pocket Charger, Rapid Rate, 120V

**NTN7622D** Six-Pocket Charger, Rapid Rate, 220V, 2-prong Euro plug

**NTN7623D** Six-Pocket Charger, Rapid Rate, 240V, 3-prong U.K. plug

#### Vehicular Battery Eliminator

The battery eliminator saves useful battery life by drawing power from a vehicle's battery. Simply replace the portable battery with the battery eliminator and plug in the cigarette lighter adapter.

**NDN4003A** Vehicular Battery Eliminator



### Motorola Conditioning Charger (MCC)

#### Motorola Conditioning Charger (MCC)

The MCC utilize negative pulse charging technology that will help extend battery life and enhance battery operation. It will safely condition and charge your specified NiCd and NiMH batteries in approximately an hour. The MCC controls heat buildup due to its charging and termination algorithms and maintenance mode allows batteries to be safely left on the charger for extended periods of time. And now there is an Instant Fault Detection (IFD) feature which detects faulty radio batteries in seconds, which notifies the user that the battery will not operate at peak performance. Optional accessories are available allowing these chargers to be used in both AC and DC environments providing optimal charging flexibility.



**WPPN4002BR**  
Shown With Optional  
Cigarette Lighter Adapter

**WPLN4100CR** MCC Kit, 110V AC; includes both base unit and 7V adapter

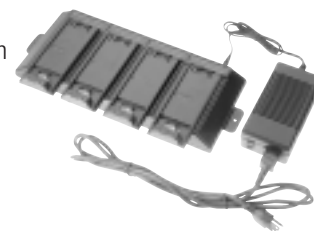
**WPLN4101BR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**WPPN4002BR** 110V AC Base Charge Unit Only (order adapter separately)

**WPPN4006AR** 220V AC Base Charge Unit Only (order adapter separately)

**WPPN4065BR** Multi-Unit Conditioning Charger, Four-Station Base, 110V (order adapter plates separately)

**WPPN4003CR** Adapter Only, 7V  
**3080384G15** Cigarette Lighter Adapter Cord



**WPPN4065BR**  
Shown with adapter plates

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger

**3080384M21** DC Hard Wire Cable, for vehicular installation (included in RLN4814A)

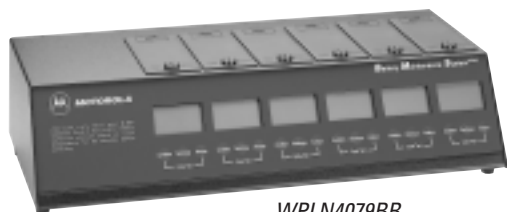


## VISAR Series

### Portable Accessories

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Increase the useful life of our batteries. Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing on NiCd, NiMH, Li-ion batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundreds of 2-way, cellular, and camcorder batteries with printer port\* (Serial-RS-232C port-uses female 9-pin to male 25-pin cable).



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMSPlus field Upgrade Kit or WPLN4079AR and WPLN4080AR

**NDN4005B** Three-Station, 110V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

#### **BMS<sup>plus</sup> Adapters**

**TDN9717A** NiCd Battery Adapter, VISAR

**CDN6141A** NiMH Battery Adapter, VISAR

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter**

**RL-73183** Standard Adapter, VISAR

\* Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## Portable Accessories

### Carrying Accessories

#### Carrying Cases

Full coverage carrying cases provide a convenient way to carry your radio while protecting it from the environment. There are cases that are designed to fit all VISAR radios and battery configurations. You may select from nylon or leather construction and a variety of other accessories.



NDN4010A

#### Carrying Cases for Medium Capacity batteries



TDN9659C

**NDN4010A** Hard Leather DTMF Carry Case with 2.5" Swivel Belt Loop

**NDN4011A** Hard Leather Carry Case with 2.5" Swivel Belt Loop

**TDN9659C** Soft Leather Carry Case with Belt Loop and Wrist Strap

**TDN9657B** Nylon Carry Case with Belt Loop



TDN9657C

#### Carrying Cases for High and Ultra High Capacity batteries



NDN4013A

**NDN4012A** Hard Leather DTMF Carry Case with 2.5" Swivel Belt Loop

**NDN4013A** Hard Leather Carry Case with 2.5" Swivel Belt Loop

**TDN9660C** Soft Leather Carry Case with Belt Loop and Wrist Strap

**TDN9658B** Nylon Carry Case with Belt Loop

#### Carry Holders

**NTN7632A** Plastic Carry Holder with 1-1/2" Belt Clip, fits all VISAR radios and battery configurations

**NTN7633A** Plastic Carry Holder with 2-1/2" Belt Clip, fits all VISAR radios and battery configurations



NTN7633A

### Carrying Accessories

#### Carrying Accessories

**TDN9675B** Soft Leather Wrist Strap

**4200865599** Black Leather Belt, 1.75"

**4205638V09** Belt Clip, 2.5"

**NTN5243A** Adjustable Black Shoulder Carrying Strap, attaches to "D" rings on case

#### Swiveller Carrying System



TDN9684A

The swiveller secures your radio by locking into a belt mounted holster bracket. The swiveller keeps your radio secure while allowing it to swivel 360 degrees. The swiveller carrying system is available as a kit which consists of the nylon belt, holster, utility strap, and button configuration or sold separately.

**TDN9684A** Swiveller Kit, includes nylon belt, holster, utility strap, and clip button

**TDN9687A** Nylon Belt, 2" wide

**TDN9688A** Holster, compatible with all buttons

**TDN9689A** Utility Strap

**TDN9690A** Clip Button, mounts on carry holder

#### Miscellaneous Accessories

**RLN4943A** Universal Holder with Gooseneck Bracket; provides flexible mounting solutions for portable radios

**RLN4945A** Universal Holder with Gooseneck Bracket and Wheelchair Quick release assembly

**RLN4944A** Wheelchair Quick Release Bracket



RLN4943A

## VISAR Series

## Portable Accessories

### Carrying Accessories

#### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder, and Velcro Secured Pouch

**1505596Z02** Replacement Strap for HLN6602A



HLN6602A

#### Break-A-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs. of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4815A

#### RadioPAK™

**RLN4815A** Universal RadioPAK™ with Radio Holder is worn around waist with adjustable belt (includes attached 6" by 8" zippered pouch for other job necessities)

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting.

**TDN9327A** Hanger, fits door panels up to 2-3/4" wide

**TDN9373A** Hanger, fits door panels 2-3/4" to 3-1/4" wide



TDN9327A

### Audio Accessories

#### Remote Speaker Microphone (RSM)



NMN6196A

The remote speaker microphone is a water-resistant compact unit that allows the user to talk and listen without removing the radio from the belt, case or charger. It has a coiled cord, push-to-talk switch and clothing clip on the back cover.

**\*NMN6196A**

Remote Speaker Microphone

#### RSM Accessories

##### Epaulet Strap

Black leather epaulet straps secure remote speaker microphones to epaulet of shirts or jackets and attach around cord to back of microphone.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip



RLN4295A

##### MicJackets

MicJackets provide speaker microphone users with a way to further protect the "head" of their microphone from dust, dirt, metal particles, sweat, body oils and other on-the-job grime; MicJackets also allow the user to handle or interact with the speaker microphone in a more hygienic way.

**RLN4903A** Micjacket, compatible with NMN6196A remote speaker microphone

\* Intrinsicly Safe

## Portable Accessories

### Audio Accessories

#### Surveillance Accessories

Surveillance accessories allow the user to privately receive communications with the earpieces and are ideal when environments require discreet communications. The following 3.5 mm threaded surveillance accessories plug directly into the top of the radio. No additional adapter is required.

Receive-only Surveillance Kit (1-Wire)

\*BDN6664A Beige

\*†BDN6665A Beige

\*BDN6726A Black

\*†BDN6727A Black



BDN6664A



Receive-only Surveillance Kit with Volume Control (1-Wire)

\*BDN6666A Beige

\*BDN6728A Black



BDN6667A

Surveillance Kit with Microphone and Push-To-Talk Combined (2-Wire)

\*BDN6667A Beige

\*†BDN6669A Beige

\*BDN6729A Black

\*†BDN6731A Black



BDN6668A

Surveillance Kit with Microphone and Push-To-Talk Separate (3-Wire)

\*BDN6668A Beige

\*†BDN6670A Beige

\*BDN6730A Black

\*†BDN6732A Black

### Audio Accessories

#### Surveillance Kit Replacement Accessories

**5080369E38** Standard Earpiece Assembly, includes earphone, earloop and eartip, beige

**5080370E90** Standard Earpiece Assembly includes earphone, earloop and eartip, black

**5080369E39** Extra Loud Assembly, includes earphone, earloop and eartip, beige

**5080370E91** Extra Loud Earpiece Assembly, includes earphone, earloop and eartip, black



5080369E39



5080370E92

**5080369E40**

Plastic Urethane Earloop, beige

**5080370E92**

Plastic Urethane Earloop, black

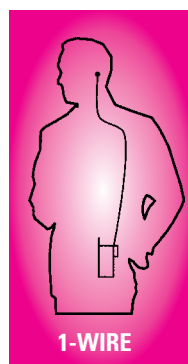
**5080371E69** Small Rubber Eartip, beige, pack of 25

**5080371E71** Small Rubber Eartip, black, pack of 25

**5080371E73** Standard Rubber Eartip, beige, pack of 25

**5080371E75** Standard Rubber Eartip, black, pack of 25

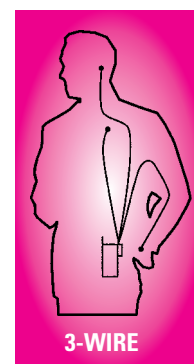
**5880377E06** Plastic Eartip Adapter, pack of 10



1-WIRE



2-WIRE



3-WIRE

\* Intrinsically Safe

\*† Extra Loud Earphone (Exceeds OSHA limits)

## VISAR Series

## Portable Accessories

### Audio Accessories

#### Completely Discreet Earpiece

Remain discreetly in touch with this miniaturized receiver. All messages received through the user's two-way radio are inductively relayed to the wireless earpiece in the user's ear. Inductive neckloop is easily hidden under the user's clothing for covert operations. Neckloop attaches to the user's Motorola Surveillance Kit providing completely discreet two-way communications. Security operatives, public safety officials, and private investigators can communicate with ease without any visible equipment. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Must be used in conjunction with a Motorola Surveillance Kit. Just remove the earpiece on any standard 2- or 3-wire surveillance kit and plug in the neckloop for completely discreet communication.

**RLN4922A** Completely Discreet Earpiece Kit; includes wireless earpiece, inductive neckloop, 6 spare batteries and 5 spare ear wax guards

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4V Battery, 6 per pack



RLN4922A

### Audio Accessories

#### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments; provides 24dB noise protection

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments

**5080384F72** Replacement Foam Plugs, pack of 50 (for use with NTN8370A)

**5080371E73** Beige Replacement Standard Rubber Eartips; for use with NTN8371A, (pack of 25)

**5080371E75** Black Replacement Standard Rubber Eartips; for use with NTN8371A, (pack of 25)



NTN8370A

#### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

**RLN4760A** Small Custom Earpiece, right ear

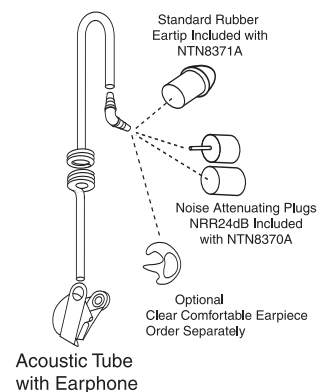
**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

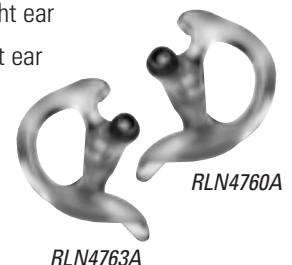
**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



Acoustic Tube with Earphone



RLN4760A

RLN4763A

## Portable Accessories

### Audio Accessories

#### Flexible Ear Receiver

The flexible ear receiver is ideal for situations where ambient noise can distract radio communications. It has an adjustable rubberized earloop that can be worn on either ear for maximum comfort. The durable cable with strain relief provides enhanced sound quality and reception. No additional adapter is required.

**BDN6719A** Flexible Ear Receiver with 3.5mm Threaded Plug, black with foam ear cushion

**7580372E11** Foam Ear Cushion for BDN6719A



BDN6719A

#### Pellet Style Earpieces



BDN6780A

The pellet style earpiece allows the user to receive communication discreetly and is comfortable for extended wear.

**BDN6780A** Single Earbud with Microphone and PTT

**BDN6781A** Single Earbud, receive only, black

**7580372E70** Replacement Foam Ear Cushion for Pellet Earpieces

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX). Interface module needs to be ordered separately for EMS to work.

**BDN6768A** Ear Microphone, for standard noise levels up to 95dB, black

**BDN6769A** Ear Microphone, for standard noise levels up to 95dB, beige

**BDN6770A** Ear Microphone, for high noise levels up to 105dB, gray



BDN6768A

#### Interface Modules

**BDN6771A** Push-to-Talk Only Interface Module

**BDN6779A** Voice Activated Transmit and Push-To-Talk



BDN6779A



## VISAR Series

## Portable Accessories

### Audio Accessories

#### Optional Accessories (EMS)

**0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk Body Switch

**0180300E25** Earguard with Adjustable Loop; secures ear mic in ear



0180358B38



0180358B33

**0180358B32** Earholder, black, size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

### Audio Accessories

#### Lightweight Headsets

Lightweight headsets allow for high-clarity, hands free, discreet two-way communications while adding comfort necessary for extended wear in moderate-noise environments. No adapter required.

**\*NMN6245A** Single Speaker Lightweight Headset with In-Line Push-To-Talk Switch

**NMN6246B** Ultralite Headset with Boom Microphone and In-Line Push-To-Talk Switch, ear bud style receiver

**REX4648A** Replacement Foam Earpad and Windscreen Kit for NMN6245A

**5080574E02** Foam Ear Pads for NMN6245A, 10 per package

**5080550E03** Headset Ear Rest

**5080550E04** Headset Microphone Windscreen



NMN6246B

\* Intrinsically Safe



<https://www.motorola.com/businessonline>



## Portable Accessories

### Audio Accessories

#### Medium Weight Headsets

Medium weight headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**NMN6260A** Medium Weight, Over-the-Head Dual Muff Headset with Inline PTT Switch; headset provides 24dB of noise reduction

**NMN6261A** Medium Weight, Behind-the-Head Dual Muff Headset with Inline PTT Switch; headset provides 24 dB of noise reduction; can be worn with hardhat



NMN6260A



NMN6261A

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6261A

#### Receive Only Headsets

Receive only headsets are the right choice for high noise environments where users must hear information clearly, but seldom need to transmit. Dual muff headsets feature easily replaceable earseals filled with liquid and foam combination to provide excellent sealing and comfort.

**RMN4056B** Receive only dual muff headband style headset, provides 24 dB of noise reduction for use with a 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RMN4057B** Receive only hardhat mounts easily to hardhats with slots and provides 22dB of noise reduction, for use with all remote and public safety microphones with 3.5mm threaded jack (can be plugged into radio with BDN6676D adapter)

### Audio Accessories

#### Heavy Duty Headsets

Heavy duty headsets include noise-cancelling microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125 dB. The Push-to-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. Heavy duty headsets require radio adapter cable. Provides 24dB of noise reduction.

**\*BDN6645A** Push-to-Talk Headset with Boom Microphone; requires adapter cable BDN6772A



BDN6645A



BDN6635B

**\*BDN6635B** Voice-Activated Headset with Boom Microphone; requires adapter cable BDN6772A

**\*BDN6636B** Voice-Activated Headset with Throat Microphone; requires adapter cable BDN6772A

**\*BDN6772A** Radio Adapter Cable



BDN6636B

\* Intrinsically Safe

## VISAR Series

## Portable Accessories, Antennas



### Replacement Kits

**REX4399A** VISAR DTMF Cosmetic Replacement Kit, includes DTMF Front Cover, Volume Knob, Dust Cap, 12-Key Keypad, Frequency Keypad, and PTT Keypad

**REX4400A** VISAR Cosmetic Replacement Kit, includes Front Cover, Volume Knob, Dust Cap, Audio Jack Dust Cap, Frequency Keypad, and PTT Keypad

**REX4380A** VISAR Knob/Seal Replacement Kit, includes Volume Knob, Dust Cap, and Audio Jack Dust Cap

**REX4417A** VISAR side connector piece part kit, includes housing, clip PCB (printed circuit board) with pogo pins, base plate and base plate seal



REX4399A

### Antennas

#### Helical Antennas

Helical are sturdy and dependable for years of failsafe communication. Each antenna is designed and built to quality standards. The skirt at the base of the connector helps to seal out damaging elements. Connector is made of plated brass material for long life.

**8505834W01** Helical, 136-150.8MHz, 5"

**8505834W02** Helical, 150.8-178MHz, 5"

**8505834W03** Helical, 162-178MHz, 5"

**8505644V01** Helical, 136-151MHz, 6"

**8505644V02** Helical, 151-162MHz, 6"

**8505644V03** Helical, 162-174MHz, 6"

**8505644V04** Helical, 403-435MHz, 3"

**8505644V05** Helical, 435-470MHz, 3"

**8505644V06** Helical, 470-520MHz 3"



8505834W02



8505644V04

#### Flexible Whip Antenna

Flexible whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when the radio is worn on the belt.

**8505241U05**

Flexible Whip, 403-520MHz, 6"

**8505241U03**

Flexible Whip, 806-870MHz, 7"



8505241U05

#### Stubby Antenna

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**\*8505241U06**

Stubby, 806-941MHz, 4"



8505241U06

\* 8505241U06 is a broad band antenna that operates in the 800/900MHz band



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## VISAR Series

## Batteries, Service Aids

### Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN7395BR**

Volts: 7.5

Avg. mAh: 1200

Height: 4"

Intrinsically Safe: No



NTN7395BR

Part Number: **NTN7398BR**

Volts: 7.5

Avg. mAh: 1200

Height: 4"

Intrinsically Safe: Yes



NTN7398BR

#### Nickel Metal Hydride Premium

Part Number: **NTN7394CR**

Volts: 7.5

Avg. mAh: 1300

Height: 4"

Intrinsically Safe: No

Part Number: **NTN7396BR**

Volts: 7.5

Avg. mAh: 600

Height: 4"

Intrinsically Safe: No

Part Number: **NTN7397CR**

Volts: 7.5

Avg. mAh: 1300

Height: 4"

Intrinsically Safe: Yes



NTN7397CR

### Service Aids

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Computer Interface Cable; RIB to 25 pin D

**3080369B72** Computer Interface Cable; RIB to 9 pin D

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio programming cable and a 9 volt snap type battery (6082728J01) or wall mount power supply; order separately.



RLN4008E

**RLN4008E** Radio Interface Box (RIB)

#### Wall Mounted Power Supply

Used to supply power to Radio Interface Box.

**0180357A57** Wall Mounted Power Supply (110 volts)

**0180358A56** Wall Mounted Power Supply (220 volts)



0180357A57

## VISAR Series

## Service Aids, Manuals

### Service Aids

#### Program/Test Cable

Acts as a link between RIB and radio; required to program radio.

**3080371E46** Program/Test Cable

#### Shop Battery Eliminator

**RLN4327A** Shop Battery Eliminator; connects radio to bench power supply for testing



#### SMA to BNC Adapter

**5880384G68** SMA to BNC Adapter; adapts radio's antenna port to BNC cabling of test equipment

5880384G68

#### Portable Test Set

**RLN4460C** Portable Test Set; enables connection to the universal connector



#### Field Modification Kit

**RPX4665A** Field Modification Kit; allows switching for radio testing



RPX4665A

### Service Aids

#### Cloning Cable

**RKN4043A** Cloning Cable; allows a radio to be duplicated from a master radio by transferring programmed data from one radio to another

#### Programming Software

This software enables you to add or reprogram frequencies as your requirements change. Requires Radio Interface Box and proper cables; order separately.

**RVN4123G** PRIVACY PLUS Programming Software, includes 3-1/2" diskette, manual, binder, and storage box

**RVN4098H** Conventional Programming Software; includes 3-1/2" diskette, manual, binder, and storage box

### Manuals

**6881073C75**

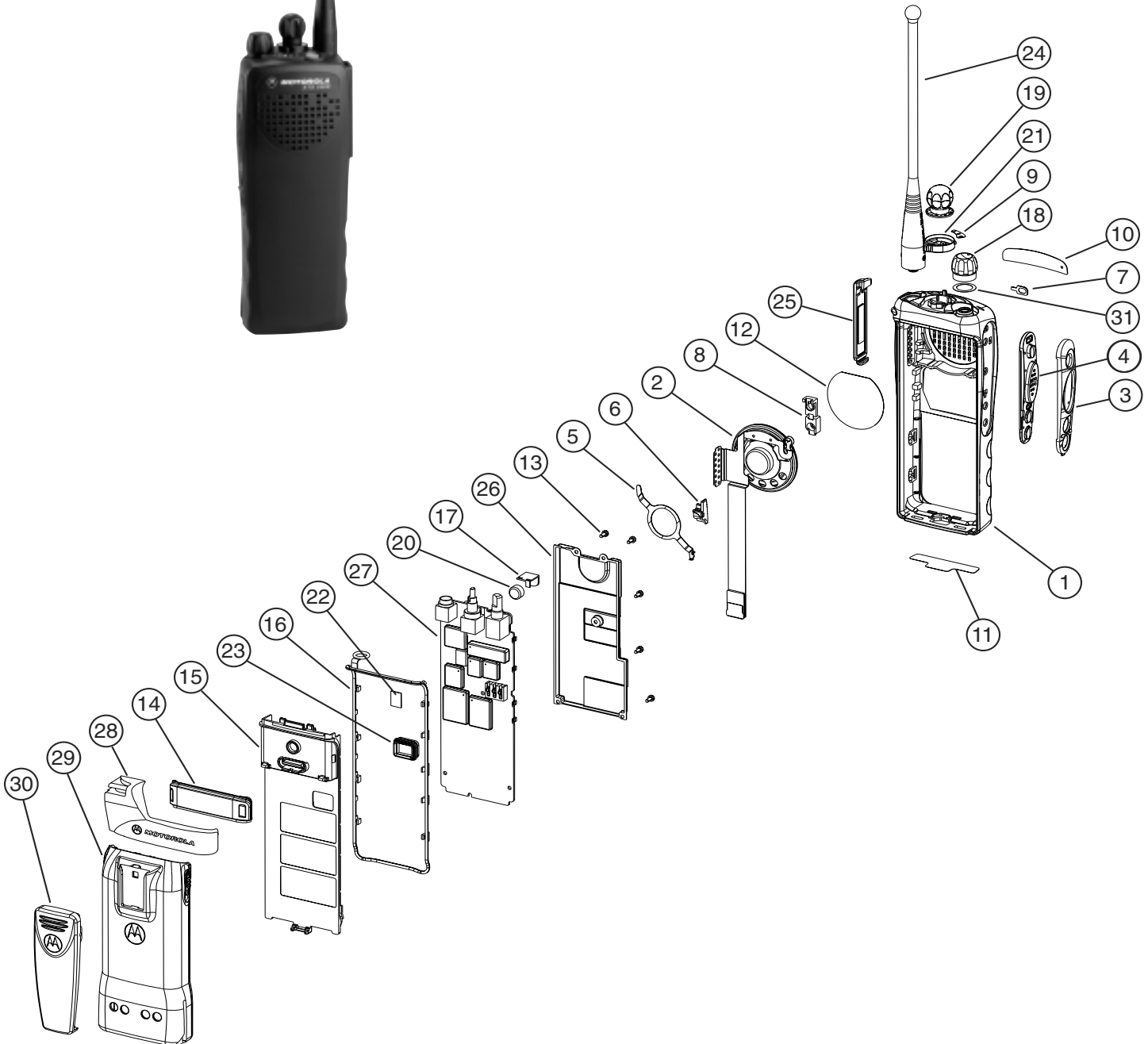
Service and Theory Manual

**6881073C70**

Operator Manual, Conventional

# XTS2500 Series

## Parts List



## XTS2500 Series

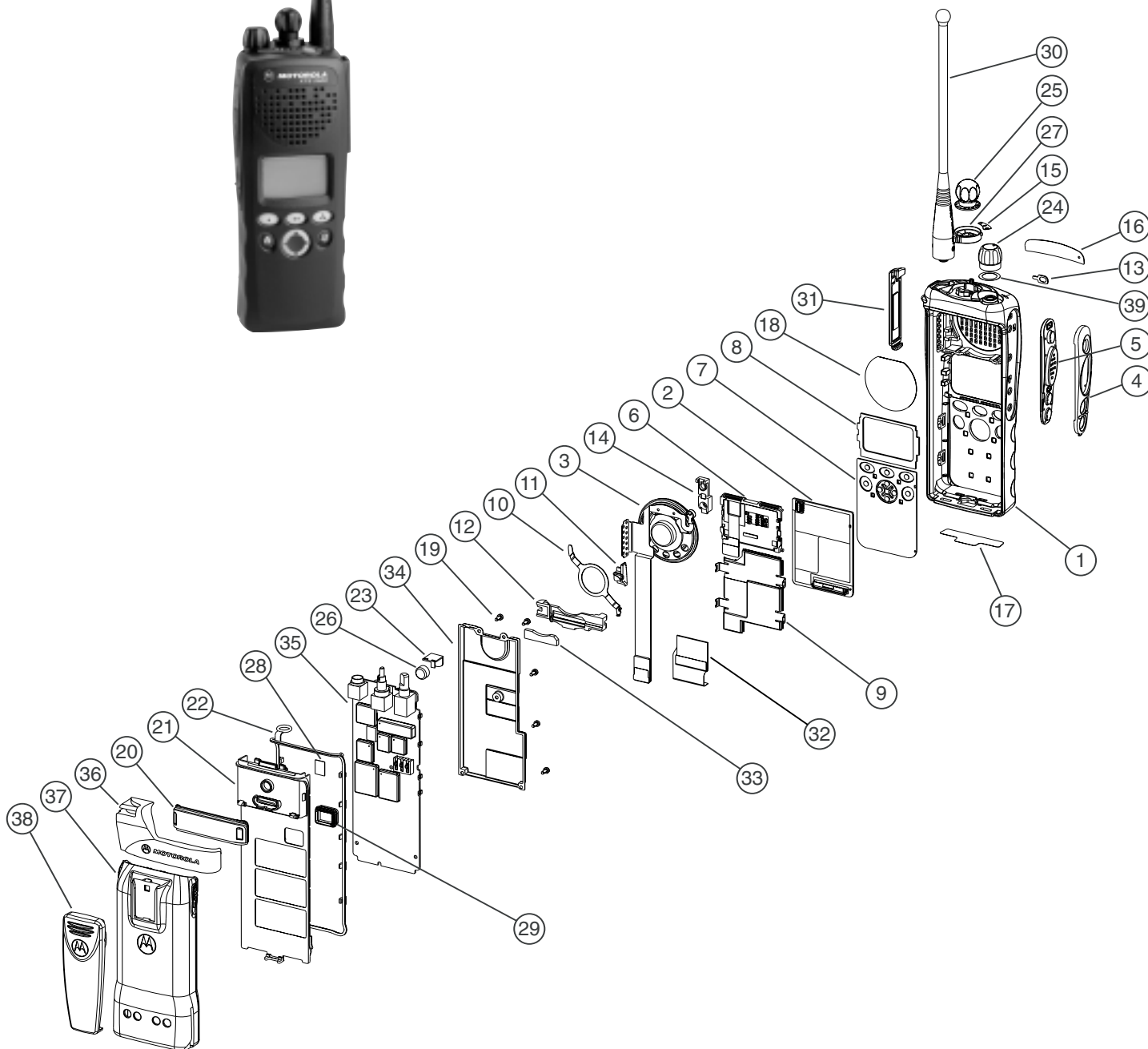
### Parts List

#### Model I

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>1585746D01</b>	Cover, Front Assembly Kit	17	<b>4285633D01</b>	Retaining Clip
2	<b>8485939D01</b>	Assembly, Speaker/Microphone/Universal Connector Flex	18	<b>3680529Z01</b>	Knob, Volume
3	<b>1385149D01</b>	Bezel, PTT	19	<b>3685779C01</b>	Knob, Frequency (W/ D- Clip)
4	<b>1385149D01</b>	Keypad, PTT/ Side Controls	20	<b>6003710K08</b>	Battery, Backup
5	<b>4285446D01</b>	Retainer, Speaker	21	<b>4585782C01</b>	Lever, Concentric Switch
6	<b>4285632D01</b>	Retainer, Microphone Boot	22	<b>7585382D01</b>	Pad, Thermal
7	<b>3585469D01</b>	Microphone Felt	23	<b>3280534Z01</b>	Seal, Contact
8	<b>1485218D01</b>	Boot, Microphone	24	---	Antenna (see antenna page)
9	<b>1385855C01</b>	Label, ABC	25	<b>1505579Z01</b>	Dust Cover, Universal Conn.
10	<b>3385466D01</b>	Nameplate, Front	26	<b>2685785C01</b>	Main Shield
11	<b>3385511D01</b>	Label, Bottom	27	---	RF Board
12	<b>3585339D01</b>	Speaker Mesh	28	<b>4385665D01</b>	Adaptor, Remote Speaker Mic.
13	<b>0385563D01</b>	Screw	29	---	Battery (see battery page)
14	<b>1585405D01</b>	Shroud	30	<b>HLN6853A</b>	Belt Clip 2-1/4"
15	<b>2785889D01</b>	Chassis Cover, Rear		<b>HLN9844A</b>	Belt Clip 2"
16	<b>3285270D01</b>	Seal, Main O- ring	31	<b>0485667D01</b>	Washer, Teflon

# XTS2500 Series

## Parts List





## XTS2500 Series

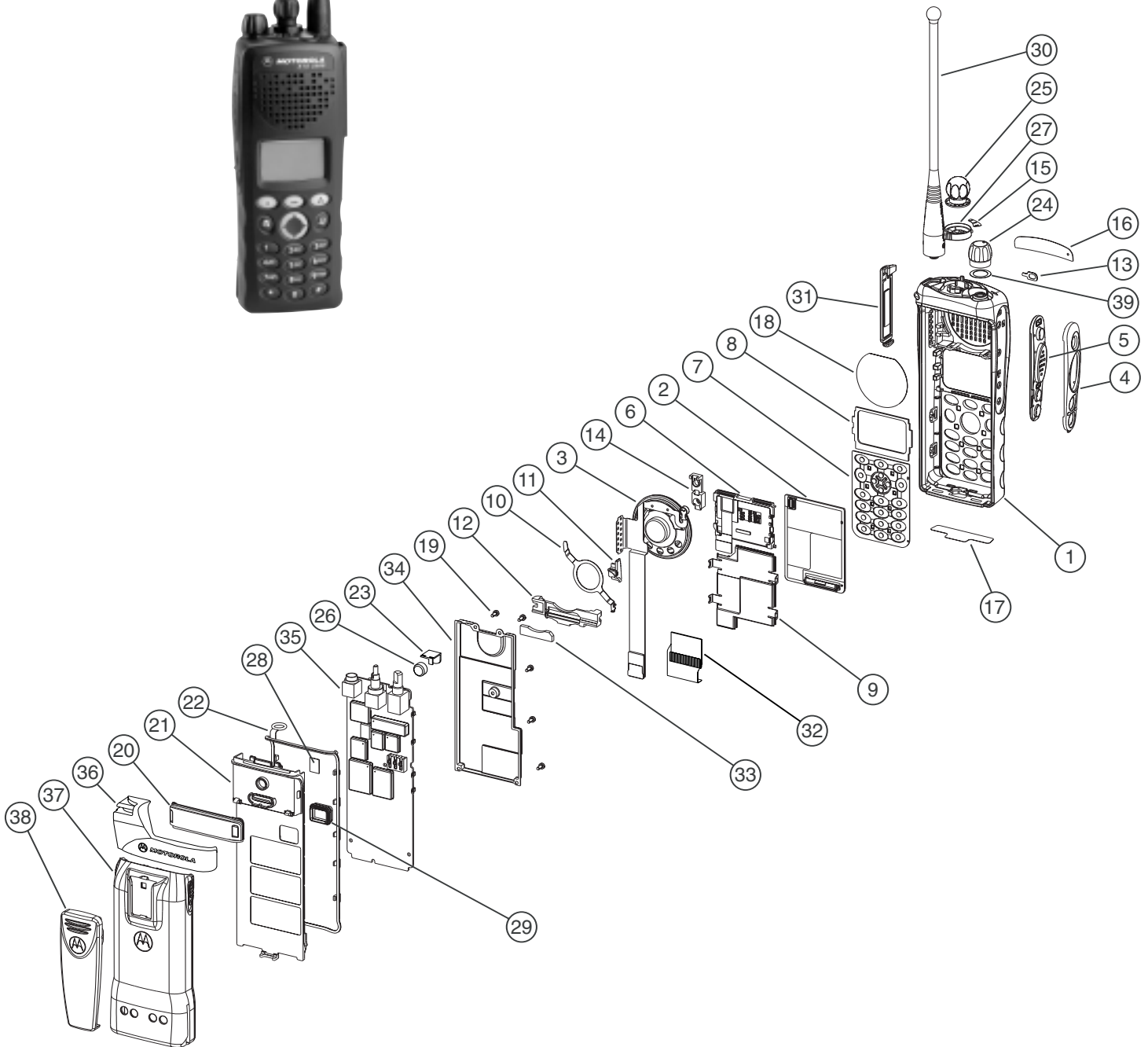
### Parts List

#### Model II

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>1585746D02</b>	Cover, Front Assembly Kit	21	<b>2785787C01</b>	Chassis Cover, Rear
2	<b>0185947D01</b>	Board, Model II	22	<b>3285270D01</b>	Seal, Main O- ring
3	<b>8485939D01</b>	Assembly, Speaker/Microphone/Universal Connector Flex	23	<b>4285633D01</b>	Retaining Clip
4	<b>1385149D01</b>	Bezel, PTT	24	<b>3680529Z01</b>	Knob, Volume
5	<b>7585959C01</b>	Keypad, PTT/ Side Controls	25	<b>3685779C01</b>	Knob, Frequency (W/ D- Clip)
6	<b>7285726C01</b>	Display Module	26	<b>6003710K08</b>	Battery, Backup
7	<b>7585776C02</b>	Keypad, Limited	27	<b>4585782C01</b>	Lever, Concentric Switch
8	<b>7585915C01</b>	Pad, Shock LCD	28	<b>7585382D01</b>	Pad, Thermal
9	<b>4285214D01</b>	Retainer, Keypad	29	<b>3280534Z01</b>	Seal, Contact
10	<b>4285446D01</b>	Retainer, Speaker	30	---	Antenna (see antenna page)
11	<b>4285632D01</b>	Retainer, Microphone Boot	31	<b>1505579Z01</b>	Dust Cover, Universal Conn.
12	<b>4385717D01</b>	Spacer, Plastic	32	<b>8485268D01</b>	Board, Jumper Flex
13	<b>3585469D01</b>	Microphone Felt	33	<b>7585737D01</b>	Spacer Pad
14	<b>1485218D01</b>	Boot, Microphone	34	<b>2685785C01</b>	Main Shield
15	<b>1385855C01</b>	Label, ABC	35	---	RF Board
16	<b>3385466D01</b>	Nameplate, Front	36	<b>4385665D01</b>	Adaptor, Remote Speaker Mic.
17	<b>3385511D01</b>	Label, Bottom	37	---	Battery (see battery page)
18	<b>3585339D01</b>	Speaker Mesh	38	<b>HLN6853A</b>	Belt Clip 2-1/4"
19	<b>0385563D01</b>	Screw		<b>HLN9844A</b>	Belt Clip 2"
20	<b>1585405D01</b>	Shroud	39	<b>0485667D01</b>	Washer, Teflon

# XTS2500 Series

## Parts List



## XTS2500 Series

### Parts List

#### Model III

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>1585746D03</b>	Cover, Front Assembly Kit	21	<b>2785889D01</b>	Chassis Cover, Rear
2	<b>0185948D01</b>	Keypad Board, Model III	22	<b>3285270D01</b>	Seal, Main O- ring
3	<b>8485939D01</b>	Assembly, Speaker/Microphone/Universal Connector Flex	23	<b>4285633D01</b>	Retaining Clip
4	<b>1385149D01</b>	Bezel, PTT	24	<b>3680529Z01</b>	Knob, Volume
5	<b>7585959C01</b>	Keypad, PTT/ Side Controls	25	<b>3685779C01</b>	Knob, Frequency (W/ D- Clip)
6	<b>7285726C01</b>	Display Module	26	<b>6003710K08</b>	Battery, Backup
7	<b>7585776C01</b>	Keypad, Full	27	<b>4585782C01</b>	Lever, Concentric Switch
8	<b>7585915C01</b>	Pad, Shock LCD	28	<b>7585382D01</b>	Pad, Thermal
9	<b>4285214D01</b>	Retainer, Keypad	29	<b>3280534Z01</b>	Seal, Contact
10	<b>4285446D01</b>	Retainer, Speaker	30	---	Antenna (see antenna page)
11	<b>4285632D01</b>	Retainer, Microphone Boot	31	<b>1505579Z01</b>	Dust Cover, Universal Conn.
12	<b>4385717D01</b>	Spacer, Plastic	32	<b>8485268D01</b>	Board, Jumper Flex
13	<b>3585469D01</b>	Microphone Felt	33	<b>7585737D01</b>	Spacer Pad
14	<b>1485218D01</b>	Boot, Microphone	34	<b>2685785C01</b>	Main Shield
15	<b>1385855C01</b>	Label, ABC	35	---	RF Board
16	<b>3385466D01</b>	Nameplate, Front	36	<b>4385665D01</b>	Adaptor, Remote Speaker Mic.
17	<b>3385511D01</b>	Label, Bottom	37	---	Battery (see battery page)
18	<b>3585339D01</b>	Speaker Mesh	38	<b>HLN6853A</b>	Belt Clip 2-1/4"
19	<b>0385563D01</b>	Screw		<b>HLN9844A</b>	Belt Clip 2"
20	<b>1585405D01</b>	Shroud	39	<b>0485667D01</b>	Washer, Teflon

## XTS2500 Series

## Portable Accessories

### Chargers

#### Single Unit Universal Tri-Chemistry Chargers

Tri-Chem chargers support Nickel Cadmium, Nickel Metal Hydride and Lithium-ion batteries.

**NTN1667A** Single Unit, universal tri-chem rapid charge, 110V

**NTN1668A** Single Unit, universal tri-chem rapid charge, 220V

**NTN1669A** Single Unit, universal tri-chem rapid charge, 240V

#### Multi-Unit Chargers



NTN1177D

Ideal charger for multi-shift operation or centrally located equipment rooms where spare batteries are always required. They can accommodate up to 6 batteries at once.

**NTN1177D** Multi-Unit, rapid rate, 110V; supports NiCd and NiMH batteries

**NTN1178D** Multi-Unit, rapid rate, 220V (not for Lithium-ion)

**NTN1179D** Multi-Unit, rapid rate, 240V (not for Lithium-ion)

**NLN7967A** Wall mount kit for multi unit charger

### Motorola Conditioning Charger

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.



WPPN4065BR  
Shown With Optional  
Adapter Plates

**WPPN4065BR** Multi-Unit Conditioning Charger four-station base; 110V (Order adapter plates separately)

**WPLN4168AR** Motorola Conditioning Charger (MCC) Kit; includes MCC charger base, AC transformer and adapter plate

**WPPN4002BR** Motorola Conditioning Charger (MCC) 110V AC base charge unit only

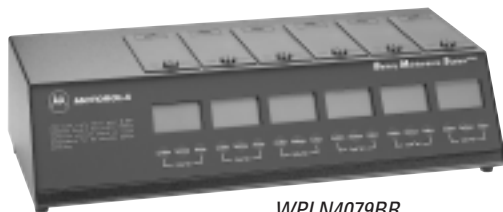
**WPPN4098AR** MCC Adapter Plate for Motorola Conditioning Charger (MCC); compatible with either WPPN4002AR or WPPN4065AR chargers

## XTS2500 Series

### Portable Accessories

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing batteries. It supports NiCd, NiMH, and Li-ion battery chemistries and tracks battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundred of 2-way, cellular, and camcorder batteries. Includes serial printer\* port (RS-232)



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4097AR** XTS2500 Battery Adapter - NiCd & NiMH

**NDN4005B** Three-station 110V AC, 50/60 Hz

**NDN4006B** Three-station 230V AC, 50/60 Hz

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accomodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter**

**RL-79520** Adapter

\* Compatible with the STAR Micronics SP200 Series printers (and other printers with STAR emulation); available from any STAR Micronics distributor.

## XTS2500 Series

## Portable Accessories

### Chargers

#### impres™ Rapid Rate Charger



WPLN4111AR

The impres rapid-rate tri-chemistry charger supports existing legacy batteries and several radio platforms including Saber, XTS, and HT1000/MTS2000 series portables. Its advanced charging algorithm helps ensure optimal performance from the radio battery and allows batteries to be safely left on the charger (fully charged) for extended periods of time. impres smart batteries are currently under

development for the XTS2500 radio and will provide additional advanced features such as automatic reconditioning, end of service life display, charge resume, to name but a few.

**WPLN4111AR** impres Rapid Rate Charger

**WPLN4108BR** impres Multi-Unit Charger

#### Travel Charger

This compact Travel Charger mounts inside a vehicle for convenient battery charging throughout the workday, helping to assure users that they will never be out of touch due to lack of power. It has a voltage-regulated lighter adapter that plugs into the



RLN4884A

vehicle's socket, and includes a mounting bracket with nylon strap to hold the Two-way radio in place. Designed to charge batteries on or off the radio; users can use their radio while charging. A maintenance mode keeps batteries charged without damaging heat buildup, and the charging algorithm provides for cool charging of the battery. A recharge mode rapid charges batteries to compensate for capacity loss caused when radios are kept in receive or transmit mode.

**RLN4884B** Travel charger

### Carrying Accessories

#### Carrying Cases

**NNTN4115A** High Activity Swivel Leather Carry Case with 3.0" Swivel Belt Loop, T-Strap and "D" Rings

**NNTN4116A** High Activity Swivel Leather Carry Case with 2.5" Swivel Belt Loop, T-Strap and "D" Rings

**NNTN4117A** Leather Carry Case with Belt Loop, T-Strap and "D" Rings

**NTN7247A** Nylon Carry Case with Snap Belt Loop and T-Strap



NTN7247A



HLN9844A

#### Belt Clips

**HLN6853A** 2.25" Spring Action Belt Clip

**HLN9844A** 2" Removable Belt Clip Attachment

#### Belt

**4200865599** 1.75" wide leather belt

#### Carrying Straps

**NTN5243A** Adjustable Black Shoulder Carrying Strap, attaches to "D" rings on case

#### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket.

**1505596202**  
Replacement Strap  
for HLN6602



HLN6602A

## XTS2500 Series

## Portable Accessories

### Carrying Accessories



RLN4570A

#### Break-a-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4815A

#### RadioPAK™

It's different from all other holders or cases: more comfortable, more useful and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2-3/4"

**TDN9373A** Portable Radio Hanger for door panels 2-3/4" to 3-1/4"



TDN9373A

### Audio Accessories

#### Remote Speaker Microphones (RSM)



NMN6193B

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. These water resistant microphones include: a coiled cord, 3.5mm earjack, swivel clothing clip, and quick disconnect latch.

**\*NMN6193C** Remote Speaker Microphone

**\*NMN6191C** Noise Canceling Remote Speaker Microphone

**0104010J46** Replacement Coil Cord Cable Assembly for remote speaker microphones

#### RSM and PSM Accessories

##### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile high movement applications.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip



RLN4294A



RLN4295A

\* Intrinsically safe



## XTS2500 Series

## Portable Accessories

### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).

**Interface module needs to be ordered separately for EMS to work.**

**\*BDN6677A** Ear Microphone  
for standard noise levels  
(up to 95 dB), black

**\*BDN6678A** Ear Microphone  
for Standard Noise Levels  
(up to 95 dB), beige

**\*BDN6641A** Ear Microphone  
for High Noise Levels  
(up to 105 dB), grey



**BDN6677A**  
Requires  
Interface Module  
sold separately

#### Interface Modules For EMS

**\*BDN6708B** Push-To-Talk Interface Module

**\*BDN6671B** Push-To-Talk and Voice-Activated Interface Module

#### Optional Accessories for EMS



**0180358B33**

**0180300E25** Earguard with Adjustable Loop

**0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk  
Body Switch

**0180358B32** Earholder, black, size small;  
secures ear mic in ear

**0180358B33** Earholder, black, size medium;  
secures ear mic in ear

**0180358B34** Earholder, black, size large;  
secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

### Audio Accessories

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

#### CommPort: Integrated Microphone/Receiver System

The CommPort system contains a miniature microphone and receiver, and connects to your two way radio, making it possible to hear and speak under the most adverse conditions.



**NTN1624A**

**NTN1624A** Integrated Ear Microphone/Receiver System with Palm  
PTT (includes BDN6676D 3.5mm jack adapter)

**NTN1625A** Integrated Ear Microphone/Receiver System with PTT on  
radio adapter (includes BDN6676D 3.5mm jack adapter)

\* Intrinsically safe

## XTS2500 Series

### Portable Accessories

#### Audio Accessories

**NTN1663A** Integrated Ear Microphone/Receiver System with ring PTT (includes BDN6676D 3.5mm jack adapter)



NTN1663A

**NTN1736A** Integrated Microphone/Receiver System with Snap-on side Push-To-Talk (PTT)

**NNTN4186A** Integrated Microphone/Receiver System with body PTT

**NKN6510A** Replacement Palm PTT Cable for NTN1624A

**NKN6508A** Replacement Cable for NTN1625A

**NKN6512A** Replacement Ring PTT Cable for NTN1663A

**NKN6525A** Replacement Snap-on PTT Cable for NTN1736A

**NTN8821A** CommPort Maintenance Kit; includes replacement ear tubes (quantity 10) windscreens (pack of 2) and microphone seal strips (pack of 10)

**NTN8986A** Adhesive Pads (pack of 90) for secure attachment to ear

**NTN8988A** Ear Straps (pack of 10) for secure attachment to ear

**RLN5037A** Replacement Tubes (pack of 10)

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement BackCover Clip

#### Audio Accessories

##### **Temple Transducer**

The temple transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of this accessory rests on the temples and is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and bone directly into the inner ear where it is received by the user. It features an in-line PTT and noise canceling boom microphone. The temple transducer enhances communication and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning, and fire alarms, the intercom, traffic and even casual conversations with their co-workers.

**\*RMN4049A**  
Temple Transducer



RMN4049A

\* Intrinsicly safe



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## XTS2500 Series

## Portable Accessories

### Audio Accessories

#### Racing Headset for Two-Way Radios



Motorola is the official wireless equipment supplier of CART®, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.

**RMN5015A** Racing headset for two-way radios (Adapter Cable required)

**BDN6673B** Adapter Cable for XTS2500, XTS3000, XTS3500 and XTS5000

#### Medium Weight Headsets

Medium weight headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*NMN6258A** Medium Weight Headset, over the head with In-Line PTT, noise reduction rating = 24dB

**\*NMN6259A** Medium Weight Headset, behind the head with In-Line PTT, noise reduction rating = 24dB

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6259A



NMN6258A

### Audio Accessories

#### Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable RKN4095A. Hardhat not included.

**RMN4052A** Tactical Headband Style Headset, grey; noise reduction rating of 24dB



RMN4053A



RMN4052A

**RMN4053A** Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB

#### Hardhat Mount Headset with Noise-Canceling Boom Microphone

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4095A. Hardhat not included.

**RMN4051A** Two-Way Hardhat Mount Headset, black



RMN4051A

#### Adapter Cables

**RKN4095A** In-Line PTT Adapter Cable. For use with RMN4051, RMN4052, and RMN4053.

\* Intrinsically Safe

## XTS2500 Series

## Portable Accessories, Batteries



### Audio Accessories

#### Heavyduty Headsets

Heavyduty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125dB. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. Heavyduty headsets require radio adapter cable BDN6673B to be ordered separately.



BDN6645A

**\*BDN6645A** Push-To-Talk Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB



BDN6635B

**BDN6635B** Voice-activated Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB



BDN6636B

**\*BDN6636B** Voice-activated Headset with Throat Microphone; requires adapter cable BDN6673B; noise reduction rating=24dB

**\*BDN6673B** Radio Adapter Cable

### Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN9815AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 4-13/16"  
Intrinsically Safe: No

Part Number: **NTN9816AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 4-13/16"  
Intrinsically Safe: Yes

#### Nickel Metal Hydride Premium

Part Number: **NTN9858AR**  
Volts: 7.5  
Avg mAh: 1800  
Height: 4-13/16"  
Intrinsically Safe: No

Part Number: **NTN9857AR**  
Volts: 7.5  
Avg mAh: 1800  
Height: 4-13/16"  
Intrinsically Safe: Yes

\* Intrinsically Safe



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## XTS2500 Series

## Antennas, Service Tools

### Antennas

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**8505241U03** Flexible Whip,  
1/2 Wavelength, 806-870MHz, 7"

**8505241U11** Flexible Whip,  
Dual Band, 700-800MHz

#### Dipole Antennas

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

**NAF4000B** Dipole, 806-870MHz, 8"

#### Stubby Antenna

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**8505241U06** Stubby, 806-941MHz, 4";  
is a broad band antenna that  
operates in the 800/900MHz band



NAF4000B



8505241U06

### Service Tools

#### Battery Eliminator

The Battery Eliminator acts like a battery with a cable to access a DC external power supply.

**REX4424A** Battery Eliminator

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E.

**0180357A57** Wall Mounted Power  
Supply, 110 Volts

**0180358A56** Wall Mounted Power  
Supply, 220 Volts

## XTS2500 Series

## Service Aids, Manuals

### Service Aids

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to  
25 pin D

**3080369B72** Cable, RIB to  
9 pin D



3080369B71

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005B, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RKN4035D** Radio Test and Programming Cable

#### Programming Cable

**RKN4105A** Programming Cable, USB, XTS2500

**RKN4106A** Programming Cable, RS232, XTS2500

#### Test Box

Portable test set, enables connection to audio/accessory jack. Allows switching from radio testing.

**RLN4460C** Test Box

#### Probes

**RTL4208A** RF Probe, 50 ohm High Frequency

**RT-5144/48/0** Needle-Fine Test Probes for  
High Density Circuitry (Black)

**RT-5144/48/2** Needle-Fine Test Probes for  
High Density Circuitry (Red)

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Requires interface box and appropriate cables, must be ordered separately.

**RVN4181H** Radio Service Software

### Manuals

**6881074C70** VHF, UHF, 800MHz CPS Manual

**6881094C04** Basic VHF, UHF, 800 MHz  
Operation/User's Manual

**6881094C05** Limited Feature VHF, UHF, 800MHz  
Operation/User's Manual

**6881094C06** Full Feature VHF, UHF, 800 MHz  
Operation/User's Manual

**6881094C09** Basic Service Manual

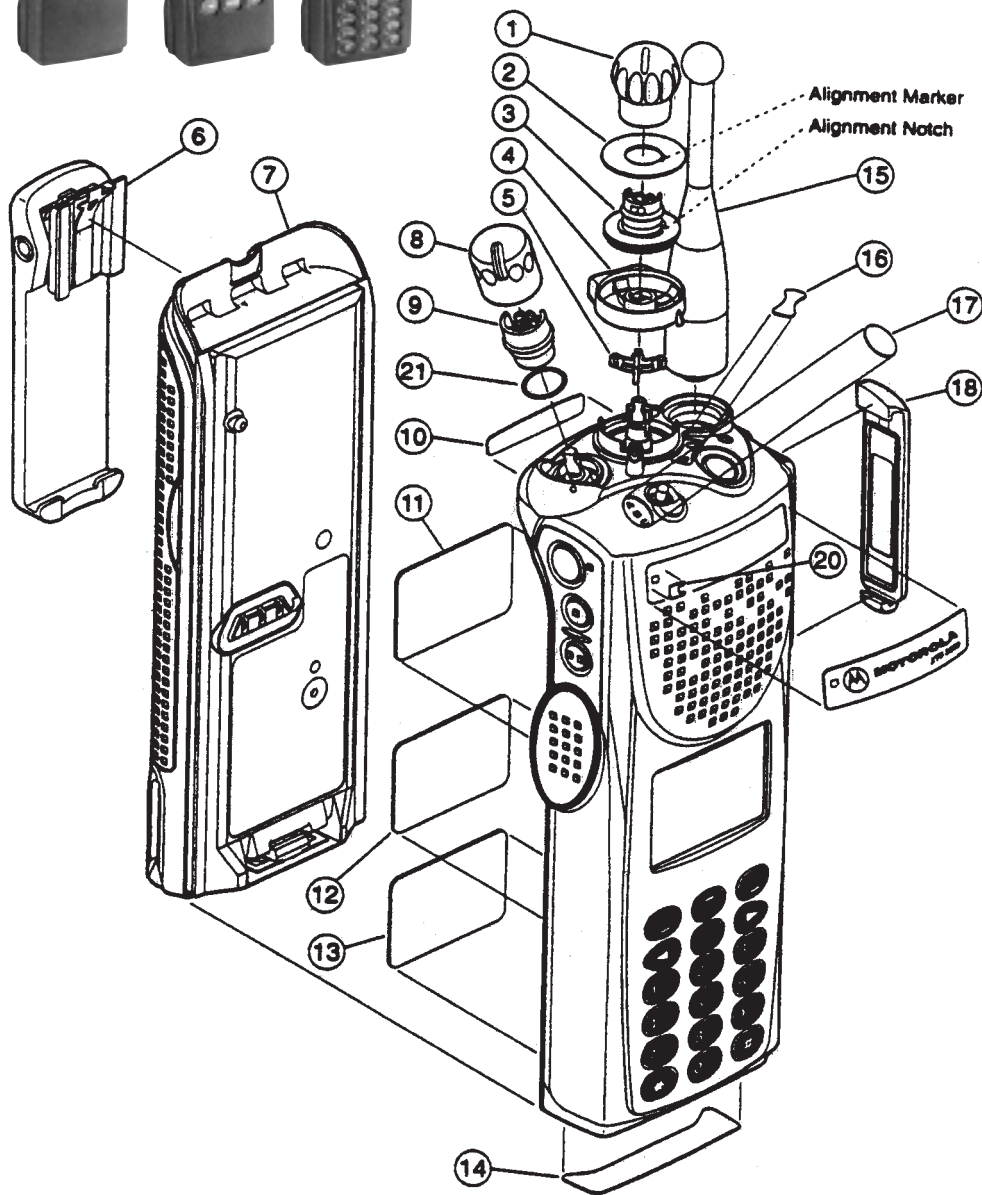
**6881094C10** Detailed Service Manual

**0180305J46** Ear Microphone System and Temple  
Transducer CD-ROM



# XTS3000/XTS3500 Series

## Parts List





## XTS3000/XTS3500 Series

### Parts List

REF. NO.	PART NO.	DESCRIPTION
1	<b>3605370Z01</b>	Knob, Frequency
2	<b>1305374Z01</b>	Escutcheon, Frequency
3	<b>4305373Z01</b>	Insert Retainer, Frequency
4	<b>4505375Z01</b>	Lever, Secure Frequency
5	<b>6105376Z01</b>	Lightpipe Indicator/Stop, Frequency
6	<b>NTN8266B</b>	Clip, Belt
7	<b>NTN8294BR</b>	Battery, NiCd
8	<b>3605371Z01</b>	Knob, Volume
9	<b>4305372Z01</b>	Insert Retainer, Volume Knob
10	----	Label, Motorola, Back; not field repairable
11	----	Label, Flashport; not field repairable
12	----	Label, Radio Serial number; not field repairable
13	----	Label, Approval Agency; not field repairable
14	----	Label, Bottom; not field repairable

REF. NO.	PART NO.	DESCRIPTION
15	<b>8505241U03</b> or <b>NAF4000B</b> or <b>8505241U06</b>	Antenna, 800 MHz Whip (806-870 MHz) Antenna, 800 MHz Dipole (806-870 MHz) Antenna, 800 MHz Stubby Quarterwave (806-870 MHz)
16	----	Escutcheon, Concentric Switch (optional); not field repairable
17	----	Escutcheon, Toggle (optional); not field repairable
18	<b>1505579Z01</b>	Cover, Dust, Universal Connector
19	<b>3305573Z01</b>	Label, Motorola, Front
20	<b>3505586Z01</b>	Gortex
21	<b>3205379W01</b>	"O" Ring

## XTS3000/XTS3500 Series

### Portable Accessories

#### Chargers

##### Single Unit Universal Tri-Chemistry Chargers

Tri-Chem chargers support Nickel Cadmium, Nickel Metal Hydride and Lithium-ion batteries.

**NTN1667A** Single Unit, universal tri-chem rapid charge, 110V

**NTN1668A** Single Unit, universal tri-chem rapid charge, 220V

**NTN1669A** Single Unit, universal tri-chem rapid charge, 240V

##### Multi-Unit Chargers



NTN1177D

Ideal charger for multi-shift operation or centrally located equipment rooms where spare batteries are always required. They can accommodate up to 6 batteries at once.

**NTN1177D** Multi-Unit, rapid rate, 110V (not for Lithium-ion)

**NTN1178D** Multi-Unit, rapid rate, 220V (not for Lithium-ion)

**NTN1179D** Multi-Unit, rapid rate, 240V (not for Lithium-ion)

#### Chargers

##### Motorola Conditioning Charger

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.

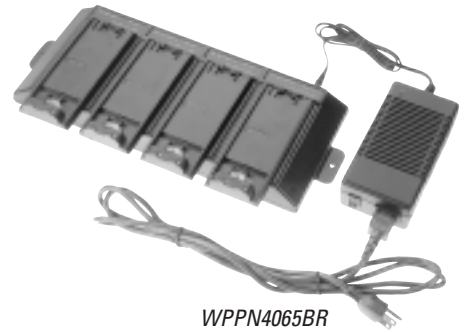
**WPLN4086CR** MCC Kit, 110V AC; includes both base unit and 7V adapter

**WPLN4087CR** MCC Kit, 220V AC; includes both base unit and 7V adapter

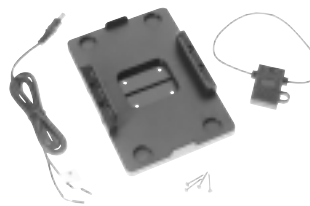
**WPPN4021CR** 7 Volt Adapter plate only

**WPPN4065BR** Multi-Unit Conditioning Charger Four-station Base, 110V; (order adapter plates separately)

**3080384G15** Cigarette Lighter Adapter Cord



WPPN4065BR  
Shown With Optional  
Adapter Plates



RLN4814A

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger

**3080384M21** DC Hard Wire Cable, for vehicular installation (included in RLN4814A)

**3060665A04** 120V Interchangeable line cord

## ***XTS3000/XTS3500 Series***

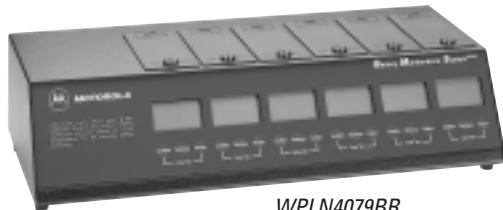
## ***Portable Accessories***

### ***Chargers***

#### ***Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)***

##### ***Increase the useful life of your batteries.***

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle test on batteries; tracking battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3 year warranty. Its easy-to-use design supports hundreds of 2-way, cellular and camcorder batteries with printer port\* (Serial-RS-232C port – uses female 9-pin to male 25-pin cable).



**WPLN4079BR**

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field Upgrade Kit for WPLN4079AR, WPLN4080AR and WPLN4081AR; allows these units to support Li-ion battery chemistries

**NDN4005B** Three-Station, 110V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-Station, 230V AC 50/60 Hz (does not support Li-ion or 3-cell batteries)

#### ***BMS<sup>plus</sup> Adapters***

**WPPN4019AR** Adapter, NiCd only

**WPPN4022AR** Adapter, NiCd and NiMH

**WPPN4086AR** Adapter; NiCd, NiMH and Li-ion

### ***Chargers***

#### ***Battery Optimizing System II (BOS II)***



**WPLN4124AR**

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### ***BOS II Adapter***

**RL-75765** Adapter, XTS3000

\* Compatible with the STAR Micronics SP200 series printers, available from any STAR Micronics distributor, and other printers with STAR emulation.

## ***XTS3000/XTS3500 Series***

### ***Portable Accessories***

#### ***Chargers***

##### ***impress™ Bundle Packs***

Provide significant savings on the impress™ products by bundling a charger and batteries together as a Smart Energy System package.

**RLN5263A** impress Charger with two HNN9031AR batteries

**RLN5262A** impress Charger with two HNN9023AR batteries

**RLN5441B** impress Multi-Unit Charger with six HNN9032AR batteries

**RLN5443B** impress Multi-Unit Charger with six HNN9031AR batteries

**RLN5486A** impress Single-Unit Charger Bundle Includes 1 WPLN4111 impress charger and 2 NNTN4436AR Intrinsically Safe (FM) batteries. For XTS3000, XTS3500 and XTS5000 Two-way radios.

**RLN5487A** impress Single-Unit Charger Bundle Includes 1 WPLN4111 impress charger and 2 NNTN4437AR ruggedized batteries. For XTS3000, XTS3500 and XTS5000 Two-way radios.

**RLN5489B** impress multi-bundle XTS 1800 NiMH; Intrinsically Safe (Only with applicable Intrinsically Safe products)

**RLN5490B** impress multi-bundle XTS 1800 NiMH; Intrinsically Safe (Only with applicable Intrinsically Safe products)

##### ***impress™ Smart Energy System***



**WPLN4111AR**

The impress™ smart energy system ensures maximum talk-time and optimized battery cycle life through the use of its advanced charging algorithm and automatic reconditioning features. The smart energy system reconditions impress batteries when they need it automatically, keeping them in peak condition. It's advanced conditioning features allow batteries to be safely left on

the charger for extended periods of time without incurring the damaging heat build-up which can rob batteries of cycle life. In addition, batteries left on the charger are kept fully charged so they are always ready when you need them. The impress system reconditions batteries when they need it based on their usage pattern. Talk time and cycle life are optimized and the need for manual maintenance programs reduced or eliminated. This rapid-rate tri-chemistry charging system will also charge existing legacy batteries and supports multiple radio platforms including Saber, XTS, and HT1000 series portables.

**WPLN4111AR** impress Smart Energy System Charger

**WPLN4108BR** impress Smart Energy System Multi-Unit Charger

#### ***Chargers***

##### ***impress™ Multi-Unit Charger with Display Modules***

The impress Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impress battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time (NiCd and NiMH only) which lets the user know when the impress battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage, charge status and the version of the charger and display modules.

**WPLN4130AR** Multi-Unit Charger with Display Modules

**RLN5382A** Charger Display Module for impress multi-unit charger version 1.3 or later

**RLN5591A** Charger Display Module for impress multi-unit charger version 1.2 or earlier (Requires unit to be sent to the Rockford Service Center – instruction sheet provided)



**WPLN4130AR**

##### ***Vehicular Charger***

This vehicular charger is a 12V DC that supports nickel cadmium (NiCd), nickel metal hydride (NiMH), and Lithium Ion (Li-ion) batteries for XTS3000, XTS3500 and XTS5000. A microprocessor senses the type of battery installed and controls the rate of charge accordingly. Batteries are charged at a rapid rate until fully charged at which point the unit reverts to a trickle charge. Batteries can be charged while on the radio or stand alone. The radio can be operated while in the charger and this unit is PAC RT compatible. The vehicular charger consists of a console, mounting hardware, and a supply cable.



**NTN9176B** Vehicular Charger

**NTN9176B**

## ***XTS3000/XTS3500 Series***

## ***Portable Accessories***

### ***Chargers***

#### ***Travel Charger***

This compact Travel Charger mounts inside a vehicle for convenient battery charging throughout the workday, helping to assure users that they will never be out of touch due to lack of power. It has a voltage-regulated lighter adapter that plugs into the vehicle's socket, and includes a mounting bracket with nylon strap to hold the Two-way radio in place. Designed to charge batteries on or off the radio; users can use their radio while charging. A maintenance mode keeps batteries charged without damaging heat buildup, and the charging algorithm provides for cool charging of the battery. A recharge mode rapid charges batteries to compensate for capacity loss caused when radios are kept in receive or transmit mode.



RLN4884A

**RLN4884B** Travel charger

#### ***Vehicular Adapters***

Allows customers to adapt XTS3000, XTS3500 and XTS5000 portables for mobile operation. Provides in-vehicle rapid and trickle charging for nickel cadmium (NiCd), nickel metal hydride (NiMH), and Lithium-ion (Li-ion) batteries. These units offer quick radio release and dead battery operation and are powered by attaching their supply cable to the 12V battery inside a police car, utility truck or other vehicle. Connectors are provided for the vehicle antenna, mobile microphone and optional amplified loudspeaker (HSN1000B). There is also a general interface connector for additional accessories. A color LED indicates battery recharge status. For XTVA operation, a microphone and RF switch (NTN8327A) are required. The required mobile microphone and optional loudspeaker allow for operation of the portable radio that is similar to that of a mobile.

**NTN8561E** XTS Vehicular Adapter, Closed Face, Mini-UHF

**NTN8560E** XTS Vehicular Adapter, Open Face with limited keypad access, Mini-UHF

**NTN1607E** XTS Vehicular Adapter, Closed Face, BNC

**NTN1606E** XTS Vehicular Adapter, Open Face with limited keypad access, BNC

### ***Chargers***

Adding accessories to the vehicular adapters requires one of the following two kits:

**NTN8941A** XTVA Data Cable Kit

**NTN8943A** XTVA Accessory Adapter Kit

#### ***Additional Accessories for the Vehicular Adapters***

**HMN4069E** Standard White Palm Microphone

**PLN7737B** Hand Held Control Head

**NTN8940B** Trunnion (Required)

**HSN1000B** External Speaker Amplified, 6 Watts

**HLN9330B** Emergency Foot Switch

**GLN7280A** Emergency Pushbutton

**6685687A01** Tool Wrench for RF Switch (Required)

**NTN8327A** RF Adapter (Required)

**NKN6455A** MTVA PA/Speaker Cable

## ***XTS3000/XTS3500 Series***

### ***Portable Accessories***

#### ***Carrying Accessories***

##### ***Carrying Cases***

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

##### ***Model I Radios Only***

**NTN8387A** Leather Carry Case with Belt Loop and T-Strap

**NTN8385B** High Activity Swivel Leather Carry Case with 2.5" Swivel Belt Loop and T-Strap

**NTN8386B** High Activity Swivel Leather Carry Case with 3.0" Swivel Belt Loop and T-Strap

**NTN8725A** High Activity Nylon Carry Case with Belt Loop and T-Strap



NTN8385B

##### ***Model II & III Radios Only***



NTN8382B

**NTN8382B** Leather Carry Case with Belt Loop and T-Strap

**NTN8380C** High Activity Swivel Leather Carry Case with 2.5" Swivel Belt Loop and T-Strap



NTN8380C

**NTN8381C** High Activity Swivel Leather Carry Case with 3.0" Swivel Belt Loop and T-Strap Nylon Carry Case

**NTN8725A** High Activity Nylon Carry Case with Belt Loop and T-Strap

**NTN9184A** Leather Carry Case with Belt Loop for Clamshell Battery



NTN8381C

#### ***Carrying Accessories***

##### ***Carrying Case Accessories***

##### ***T-Straps***

**NTN8383A** Leather T-Strap Plain Action Snap

**NTN8384A** Leather T-Strap Hard Action Snap

##### ***High Activity Belt Loops***



NTN8039B

**NTN8039B** 2.5" Leather Swivel Belt Loop

**NTN8040B** 3.0" Leather Swivel Belt Loop



NTN8040B

**NTN9179A** High Activity Swivel 3.0" Belt Loop with "D" clip for battery

**NTN9212A** "D" clip for battery (for use with NTN9213A only)

**NTN9213A** 3.0" Belt Loop, High Activity

##### ***Belt Clips***

**NTN8266A** Standard Removable Belt Clip Attachment

**NTN8460A** 3.0" Removable Belt Clip Attachment

##### ***Belt***

**4200865599** 1.75" wide leather belt

##### ***Carrying Strap***

**NTN5243A** Adjustable Black Carrying Strap; attaches to "D" ring on case

##### ***Chest Pack***

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket.

**1505596Z02**  
Replacement Strap for HLN6602A



HLN6602A



## XTS3000/XTS3500 Series

## Portable Accessories

### Carrying Accessories



RLN4570A

#### Break-a-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4815A

#### RadioPAK™

It's different from all other holders or cases: more comfortable, more useful and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2-3/4"

**TDN9373A** Portable Radio Hanger for door panels 2-3/4" to 3-1/4"



TDN9327A

### Audio Accessories

#### Remote Speaker Microphones (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. These water resistant microphones include: coiled cord, 3.5mm earjack, swivel clothing clip, and quick disconnect latch.

**\*NMN6193C** Remote Speaker Microphone

**\*NMN6191C** Noise Canceling Remote Speaker Microphone

**0104010J46** Replacement Coil Cord Cable Assembly for remote speaker microphones



NMN6193B

#### Public Safety Speaker/Microphones (PSM)

Public safety speaker microphones include straight cord assembly, 3.5mm earjack, swivel clip, quick disconnect latch, antenna connector, and receive audio high/low toggle switch. Antenna must be ordered separately. Use radio antennas on page XXX. Requires NTN8327A RF adapter.

**\*NMN6247A** Public Safety Microphone with Straight Cord, 30"; requires NTN8327A

**\*NMN6250A** Public Safety Microphone with Straight Cord, 24"; requires NTN8327A

**\*NMN6251A** Public Safety Microphone with Straight Cord, 18"; requires NTN8327A

**\*NTN8327A** RF Adapter; required for use with public safety microphone



NMN6247A

*\* Intrinsically safe*



## XTS3000/XTS3500 Series

### Portable Accessories

#### Audio Accessories



#### **XTS Series Commander™ Remote Speaker Microphone**

The Commander Remote Speaker Microphone is enhanced with controls normally found only on the radio itself. You can take command of communication with a Push-to-Talk (PTT) Button, Emergency Button, Volume Control, 16-Channel Select Knob and 2 Programmable Buttons. This water resistant Remote Speaker Microphone also features a receive-

only 3.5mm earphone jack to allow for discrete conversations. What's more, the controls are specially designed for users who wear large gloves: the buttons are large, and the channel selector knob provides tactile feedback at each position. Compatible with XTS3000, XTS3500 and XTS5000 two-way radios. Intrinsically Safe (FM) when used with Intrinsically Safe XTS3000, XTS3500 and XTS5000 radios.

**\*RMN5021A** XTS Series Commander Remote Speaker Microphone

#### **Receive-only Earpieces for Commander RSM**

**AARLN4885B** Receive-only foam earpiece with 3.5mm adapter

**RLN4941A** Receive-only earpiece with 3.5mm plug, translucent tube and rubber eartip

**WADN4190A** Flexible Ear Receiver to be used with the Remote Speaker Microphone Public Safety Microphone

#### **Epaulet Strap**

Black leather epaulet strap secures remote speaker microphone to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile high movement applications.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip



#### Audio Accessories

#### **Surveillance Kits**

Surveillance accessories allow the user to privately receive communications with the earpiece and are ideal when environments require discreet communications.

**The following surveillance accessories require the BDN6676D (3.5 mm threaded adapter jack) that attaches to the radio.**

Receive-only Surveillance Kit (1-Wire)

**\*BDN6664A** Beige

**\*†BDN6665A** Beige

**BDN6726A** Black

**†BDN6727A** Black



**BDN6664A**

Receive-only Surveillance Kit with Volume Control (1-Wire)

**\*BDN6666A** Beige

**BDN6728A** Black



**BDN6666A**

\* Intrinsically Safe  
† Extra Loud Earphone (Exceeds OSHA Limits)

## XTS3000/XTS3500 Series

## Portable Accessories

### Audio Accessories

Surveillance Kit with Microphone and Push-To-Talk Combined (2-Wire)

- \*BDN6667A Beige
- \*†BDN6669A Beige
- BDN6729A Black
- †BDN6731A Black



BDN6667A

Surveillance Kit with Microphone and Push-To-Talk Separate (3-Wire)

- \*BDN6668A Beige
- \*†BDN6670A Beige
- BDN6730A Black
- †BDN6732A Black



BDN6668A



BDN6676D

- \*BDN6676D 3.5mm Jack Adapter with Quick Disconnect Latch

### Audio Accessories

#### Surveillance Kit Accessories

**5080369E38** Standard Earpiece Assembly (earphone, earloop, eartip), Beige

**5080369E39** Extra Loud Earpiece Assembly (earphone, earloop, eartip), Beige

**5080369E40** Plastic Urethane Earloop, Beige

**5080369E41** Wire Earloop

**5080371E69** Small Rubber Eartip, Pack of 25, Beige

**5080371E71** Small Rubber Eartips, Pack of 25, Black

**5080371E73** Standard Rubber Eartips, Pack of 25, Beige

**5080371E75** Standard Rubber Eartips, Pack of 25, Black

**5080369E90** Standard Earpiece Assembly (includes Earphone, Earloop, and Eartip), Black

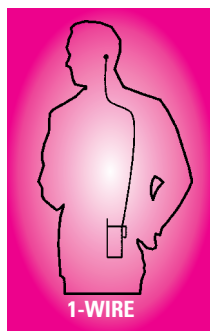
**5080370E91** Extra Loud Earpiece Assembly (includes Earphone, Earloop, and Eartip)

**5080370E92** Earloop, Plastic, Black

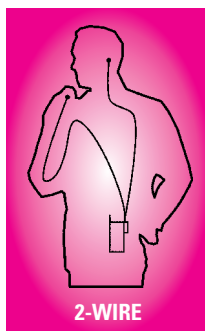
**5880377E06** Plastic Earloop Adapter



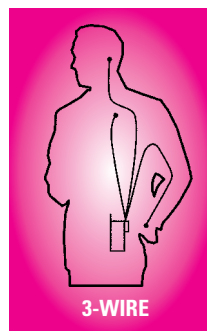
5080369E39



1-WIRE



2-WIRE



3-WIRE

\* Intrinsically Safe

† Extra Loud Earphone (Exceeds OSHA Limits)



<https://www.motorola.com/businessonline>

## XTS3000/XTS3500 Series

### Portable Accessories

#### Audio Accessories

##### Completely Discreet Earpiece

Enables users to communicate with ease, in full privacy, without visible equipment. This miniaturized receiver is discreetly hidden in ear, where it fits comfortably for long periods at a time. Small as it is, it offers a full range of audio functions including automatic squelch, automatic gain control and noise filtering. Average battery life is approximately 100 hours and includes an end-of-life battery circuit generating a warning signal when the battery needs to be changed.

Kit includes wireless receiver plus an inductive neckloop. Just remove the earpiece on any standard 2 or 3 wire Motorola surveillance kit (sold separately) and plug in the neckloop to use. Kit includes 6 spare batteries and 5 replacement ear wax guards.

**RLN4922A** Completely Discreet Earpiece Kit

##### Replacement Items

**RLN4919A** Ear Wax Guards, 5 per pack

**RNN4005A** 1.4 Volt Battery, 6 per pack

##### Noise Kits

Lightweight translucent tube attaches to Motorola surveillance accessories. Clothing clip prevents the accessory from being pulled from the ear due to body movement or head rotation.

**NTN8370A** Extreme Noise Kit, includes 2 foam earplugs for loud environments provides 24 dB noise protection.

**NTN8371A** Low Noise Kit, includes rubber eartip for low noise environments; does not provide hearing protection

**5080384F72** Replacement Foam Plugs; pack of 50 (for use with NTN8370A)

**5080371E73** Replacement Standard Rubber eartips, Pack of 25 (for use with NTN8371A), Beige



RLN4922A



NTN8370A

#### Audio Accessories

##### Surveillance Kits with Extended-Wear Comfort Earpiece

These kits include a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube. Users hear transmissions clearly, while the clear tube provides a discreet appearance.

**RLN5311A** Comfort Earpiece with Microphone and PTT combined, Beige (2-wire kit)

**RLN5312A** Comfort Earpiece with Microphone and PTT combined, Black (2-wire kit)

**RLN5313A** Receive-only Comfort Earpiece, Black

**RLN5314A** Receive-only Comfort Earpiece, Beige

##### Clear Comfortable Earpiece

The clear comfortable earpiece forms to the inside of your ear and is perfect for low noise environments. Compatible with the NTN8371A, clear acoustic tube assembly, and most surveillance kits (1-, 2- and 3-wire). This earpiece is made of easy-to-clean chemically inert, hypoallergenic material. Does not provide hearing protection. There are 3 items needed to make this product work:

1. Clear Comfortable Earpiece
2. Clear Acoustic Tube Assembly (NTN8371A)
3. Surveillance Kits

**RLN4760A** Small Custom Earpiece, right ear

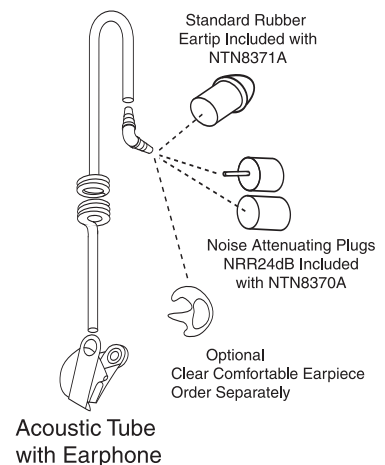
**RLN4763A** Small Custom Earpiece, left ear

**RLN4761A** Medium Custom Earpiece, right ear

**RLN4764A** Medium Custom Earpiece, left ear

**RLN4762A** Large Custom Earpiece, right ear

**RLN4765A** Large Custom Earpiece, left ear



Acoustic Tube  
with Earphone



RLN4760A



RLN4763A

## XTS3000/XTS3500 Series

### Portable Accessories

#### Audio Accessories

##### Ear Microphone System (EMS)

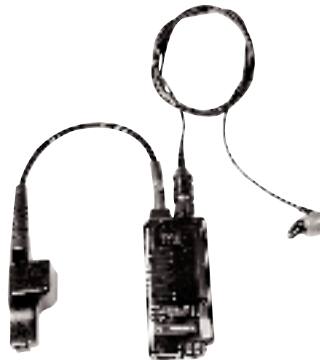
This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).

**Interface module needs to be ordered separately for EMS to work.**

**\*BDN6677A** Ear Microphone for standard noise levels (up to 95dB), black

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95dB), beige

**BDN6641A** Ear Microphone for High Noise Levels (up to 105dB), grey



BDN6641A

Shown with Interface Module

##### Interface Modules For EMS

**\*BDN6708B** Push-To-Talk Interface Module

**\*BDN6671B** Push-To-Talk and Voice-Activated Interface Module

##### Optional Accessories for EMS

**0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk Body Switch

**0180300E25** Earguard with Adjustable Loop

**0180358B32** Earholder, black, size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear



0180358B33

#### Audio Accessories

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

##### Flexible Ear Receiver



BDN6719A

The Flexible Ear Receiver contains a flexible earloop and speaker and rests external to the ear.

**BDN6719A** Ear Receiver with 3.5 mm Threaded Plug, requires BDN6676D adapter unless being used with speaker/microphone

**7580372E11** Replacement Foam Ear Cushions for BDN6719A

##### Pellet Style Earpieces

**BDN6780A** Single Earbud with Microphone and Push-To-Talk. Requires BDN6676D adapter.

**BDN6781A** Single Earbud, receive only. Requires BDN6676D adapter

**7580372E70** Replacement Foam Ear Cushion for Pellet Earpieces



BDN6780A

\* Intrinsically Safe

## XTS3000/XTS3500 Series

### Portable Accessories

#### Audio Accessories

##### CommPort: Integrated Microphone/Receiver System

The CommPort system contains a miniature microphone and receiver, and connects to your two-way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1624A** Integrated Ear Microphone/Receiver System with Palm PTT (includes BDN6676 3.5mm jack adapter)



**\*NTN1625A** Integrated Ear Microphone/Receiver System with PTT on Radio Adapter (includes BDN6676 3.5mm jack adapter)

**\*NTN1663A** Integrated Ear Microphone/Receiver System with Ring PTT (includes BDN6676 3.5mm Jack adapter)



**\*NTN1736A** Integrated Ear Microphone/Receiver System with snap-on side PTT (includes BDN6676D radio adapter)

**NNTN4186A** Integrated Microphone/Receiver System with Remote Push-to-Talk Body Switch (includes BDN6676 3.5mm jack adapter)

**NKN6510A** Replacement Palm PTT Cable for NTN1624A

**NKN6508A** Replacement Cable for NTN1625A

**NKN6512A** Replacement Ring PTT Cable for NTN1663A

**NKN6525A** Replacement Snap-on PTT Cable for NTN1736A

#### Audio Accessories

**NNTN4188A** Replacement Remote Push-to-Talk Body Switch for NTN4186A

**NTN8821A** CommPort Maintenance Kit, includes replacement ear tubes (quantity 10), windscreens (quantity 2) and microphone seal strips (quantity 10)

**NTN8986A** Adhesive Pads (Quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (Quantity 10) for secure attachment to ear

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip

**RLN5037A** Replacement Ear Tubes (pack of 10)

##### Temple Transducer

The temple transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of this accessory rests on the temples and is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and bone directly into the inner ear where it is received by the user. It features an in-line PTT and noise canceling boom microphone. The temple transducer enhances communication and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning, and fire alarms, the intercom, traffic and even casual conversations with their co-workers.



RMN4049A

**\*RMN4049A** Temple Transducer

##### Lightweight Headsets

Lightweight headsets allow for high clarity, hands-free, discrete two-way communication, while adding comfort necessary for extended wear in moderate noise environments. Requires BDN6676D Audio Adapter.

**NMN6246B** Ultralite headset with boom microphone and in line push to talk switch, ear bud style

**NMN6245A** Single Muff Adjustable Lightweight Headset with Boom Microphone and In-line PTT

\* Intrinsicly Safe



## XTS3000/XTS3500 Series

### Portable Accessories

#### Audio Accessories

##### Racing Headset for Two-Way Radios

Motorola is the official wireless equipment supplier of CART®, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.



RMN5015A

**RMN5015A** Racing headset for two-way radios (Adapter Cable required)

**\*BDN6673B** Adapter Cable for XTS2500, XTS3000, XTS3500 and XTS5000

##### Medium Weight Headsets

Medium weight headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**NMN6258A** Medium Weight Headset, over the head with In-Line PTT, noise reduction rating = 24dB

**NMN6259A** Medium Weight Headset, behind the head with In-Line PTT, noise reduction rating = 24dB

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6259A



NMN6258A

#### Audio Accessories

##### Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable RKN4095A. Hardhat not included.

**RMN4052A** Tactical Headband Style Headset, grey; noise reduction rating of 24dB



RMN4053A



RMN4052A

**RMN4053A** Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB

##### Receive-only Headsets

Receive-only headsets are the right choice for high noise environments where users must hear information clearly, but seldom need to transmit. Dual muff headsets feature easily replaceable earseals filled with liquid and foam combination to provide excellent sealing and comfort.

**RMN4056B** Receive-only Dual Muff Headband-style Headset, provides 24 dB of noise reduction for use with all remote and public safety microphones with 3.5mm threaded jack (can be plugged directly into radio with BDN6676D adapter)

**RMN4057B** Receive-only Hardhat mounts easily to hardhats with slots and provides 22dB of noise reduction, for use with all remote and public safety microphones with 3.5mm threaded jack (can be plugged into radio with BDN6676D adapter)

\* Intrinsicly safe

## XTS3000/XTS3500 Series

### Portable Accessories

#### Audio Accessories

##### Hardhat Mount Headset with Noise-Canceling Boom Microphone

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4095A. Hardhat not included.

**RMN4051B** Two-Way Hardhat Mount Headset, black



RMN4051B

##### Adapter Cables

**RKN4095A** In-Line PTT Adapter Cable. For use with RMN4051, RMN4052, and RMN4053.

##### Replacement Earseals for Headsets

**RLN4923A** Includes Two Replacement Snap-In Earseals; recommended replacement interval is once every six months to ensure constant level of attenuation, hygiene and comfort. For use with RMN4051, RMN4052, and RMN4053.

#### Audio Accessories

##### Heavyduty Headsets

Heavyduty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125 dB. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. **Heavyduty headsets require radio adapter cable BDN6673B to be ordered separately.**



BDN6645A

**\*BDN6645A** Push-To-Talk Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating =24dB



BDN6635B

**\*BDN6635B** Voice-activated Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating =24dB



BDN6636B

**\*BDN6636B** Voice-activated Headset with Throat Microphone; requires adapter cable BDN6673B; noise reduction rating =24dB

**\*BDN6673B**  
Radio Adapter Cable

\* Intrinsically Safe



## ***XTS3000/XTS3500 Series***

### ***Batteries***

#### ***Batteries***

##### ***Nickel-Cadmium Premium***

Part Number: **NTN8294BR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: No

Part Number: **NTN8295AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: Yes

Part Number: **NTN8297AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: Yes  
Rugged: Yes



*NTN8294BR*

##### ***Nickel-Cadmium impres™***

Part Number: **HNN9031AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: No

Part Number: **HNN9032AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: Yes

##### ***Nickel Metal Hydride impres™***

Part Number: **NNTN4436AR**  
Volts: 7.5  
Avg. mAh: 2000 (1800 min)  
Height: 6-1/8"  
Intrinsically Safe: Yes

Part Number: **NNTN4437AR**  
Volts: 7.5  
Avg. mAh: 2000 (1800 min)  
Height: 6-1/8"  
Intrinsically Safe: Yes

#### ***Batteries***

##### ***Nickel Metal Hydride Premium***

Part Number: **NTN8299BR**  
Volts: 7.5  
Avg mAh: 1800  
Height: 6-1/8"  
Intrinsically Safe: Yes

Part Number: **NTN8923AR**  
Volts: 7.5  
Avg mAh: 1800  
Height: 6-1/8"  
Intrinsically Safe: No

Part Number: **RNN4007AR**  
Volts: 7.5  
Avg mAh: 3500  
Height: 6-1/8"  
Intrinsically Safe: Yes

Part Number: **RNN4006B**  
Volts: 7.5  
Avg mAh: 3500  
Height: 6-1/8"  
Intrinsically Safe: No



*NTN8299BR*

##### ***Lithium-ion Premium***

Part Number: **NTN8610BR**  
Volts: 7.2  
Avg mAh: 1650  
Height: 6-1/8"  
Intrinsically Safe: No

##### ***Alkaline Premium Battery Shells***

**NTN9177A** Disposable Battery Shell – Black

**NTN9103A** Disposable Battery Shell – Orange



## ***XTS3000/XTS3500 Series***

## ***Antennas, Miscellaneous***

### ***Antennas***

#### ***Flexible Whip Antenna***

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**8505241U05** Flexible Whip, 403-520MHz, 6"

**8505241U03** Flexible Whip, 806-870MHz, 7"

8505241U05



#### ***Helical Antennas***

Helical are sturdy and dependable for years of failsafe communication. Each antenna is designed and built to quality standards. The skirt at the base of the connector helps to seal out damaging elements. Connector is made of plated brass material for long life.

**8505644V01** Helical, 136-151MHz, 6"

**8505644V02** Helical, 151-162MHz, 6"

**8505644V03** Helical, 162-174MHz, 6"

**8505644V04** Helical, 403-435MHz, 3"

**8505644V05** Helical, 435-470MHz, 3"

**8505644V06** Helical, 470-520MHz 3"



8505644V01



8505644V03



8505644V04

### ***Antennas***

#### ***Dipole Antennas***

Dipole molded antennas are injection molded in lasting polyurethane. The wide skirt at the bottom of the connector protects against damaging environmental elements. The dipole antenna is ideal when strong and solid signal clarity is demanded.

**NAF4000B** Dipole, 806-870MHz, 8"



NAF4000B

#### ***Wideband Antenna***

Wideband antenna is ideal when radio is used in different frequencies since one antenna will cover all ranges.

**8505518V01** Wideband, 136-174MHz, 6"

#### ***Stubby Antenna***

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**8505241U06** Stubby, 806-941MHz, 4"; is a broad band antenna that operates in the 800/900MHz band



8505241U06

### ***Miscellaneous***

#### ***Public Safety Tilt Switch***

**NTN7660B** Public Safety Tilt Switch. An external emergency switch that is activated when the unit is tilted at a greater than 60 degree angle. The emergency feature must be programmed in radio to enable the tilt position.

## ***XTS3000/XTS3500 Series***

## ***Service Tools, Aids, Manuals***

### ***Service Tools***

#### ***Battery Eliminator***

The Battery Eliminator acts like a battery with a cable to access a DC external power supply.

**REX4424A** Battery Eliminator

#### ***Radio Interface Box***

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E



0180357A57

#### ***Wall Mounted Power Supply***

Used to supply power to radio interface box, RLN4008E.

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

#### ***SMA to BNC Adapter***

Make transmitter measurements while the portable is connected to the portable test set. The adapter connects the antenna jack. SMA and BMC adapter, adapts radio's antenna port to BNC cabling of test equipment.

**5880384G68** SMA to BNC Adapter

### ***Service Aids***

#### ***Computer Interface Cable***

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### ***Radio Test and Programming Cable***

Used with Portable Radio Test Set, RTX4005B, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RKN4035D** Radio Test and Programming Cable

#### ***Probes***

**RT-5144/48/0** Needle-Fine Test Probes for High Density Circuitry (Black)

**RT-5144/48/2** Needle-Fine Test Probes for High Density Circuitry (Red)

### ***Manuals***

**6881074C70** VHF, UHF, 800MHz Radio Service Software Manual

**6881083C70** I VHF, UHF, 800MHz User's Guide

**6881083C75** II and VHF, UHF, 800MHz User's Guide

**6881083C85** Basic Service Manual

**6881083C90** Detailed Service Manual

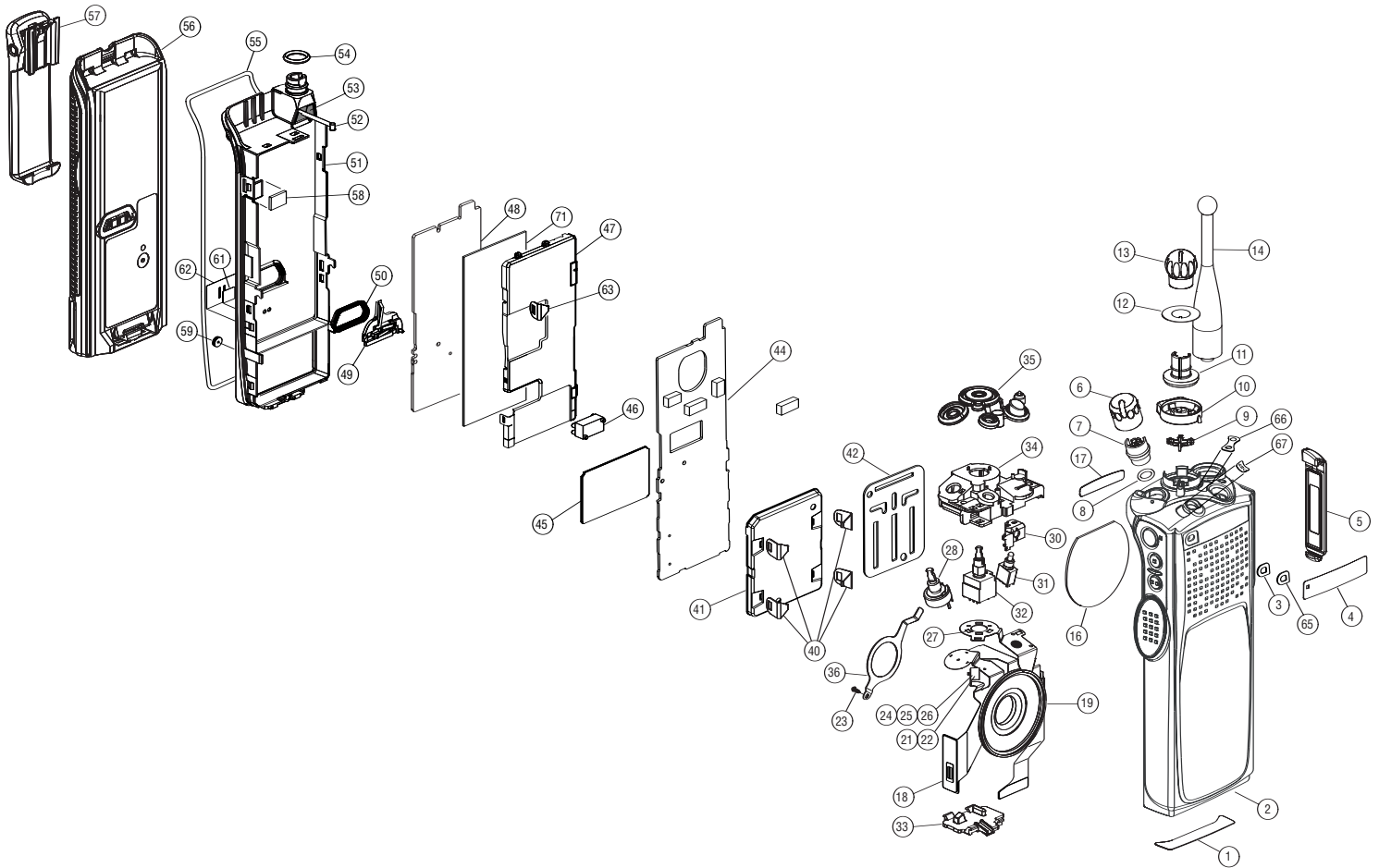
**6881090C63** II and VHF, UHF 800MHz user's guide

**0180305J46** Ear Microphone System and Temple Transducer CD-ROM

**0180305J70** impres™ System CD-ROM

# XTS5000 Series

## Parts List



# XTS5000 Series

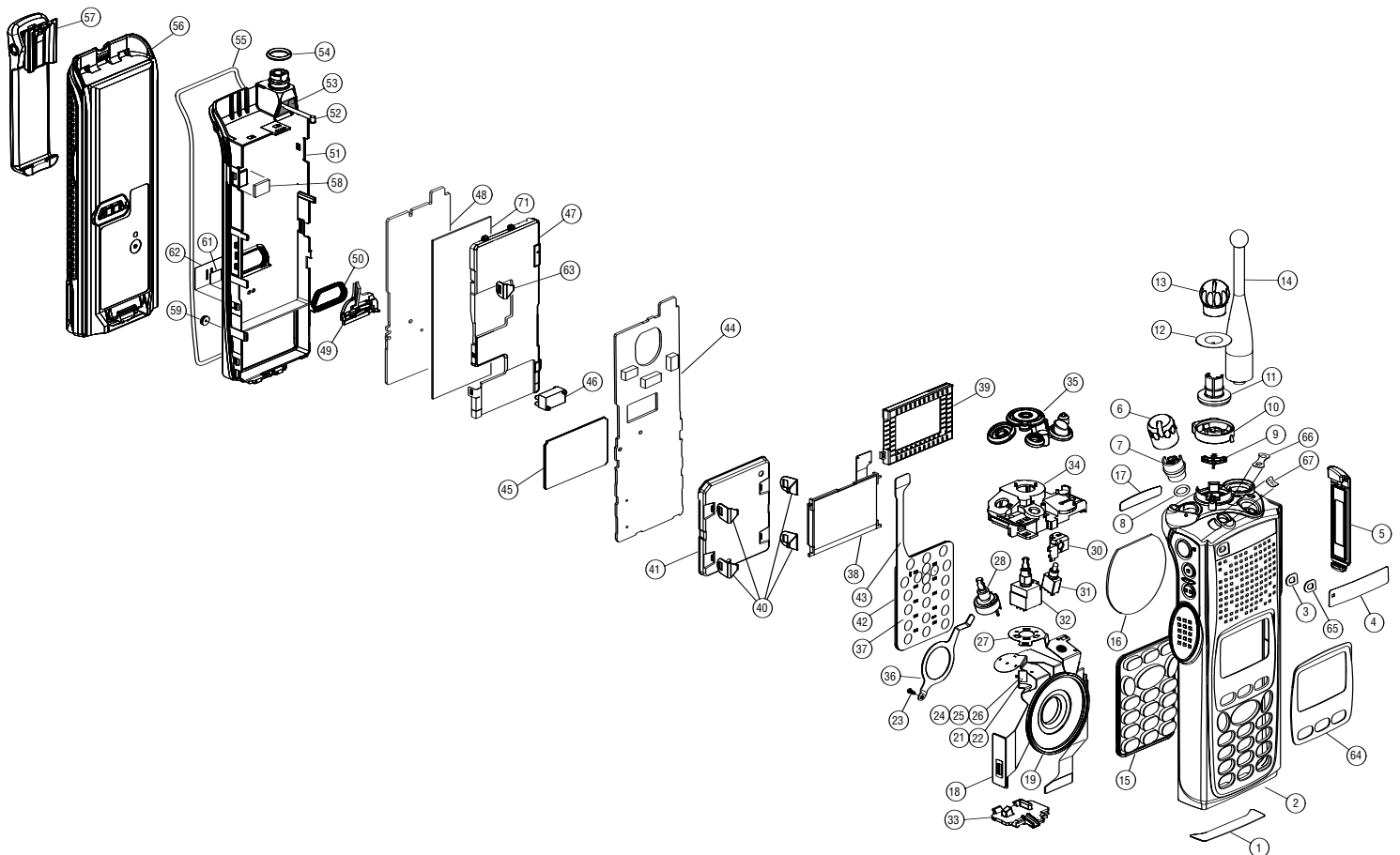
## Parts List

### Model I

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>3305630Z01</b>	Label, Motorola Bottom (part of item 2)	26	<b>0660076B05</b>	Resistor, 150k $\Omega$ (part of item 18)
2	<b>1585468D07</b>	Assembly, Model I Housing (Standard Models)	27	<b>4805729G99</b>	LED, Green/Red (5 req'd) (part of item 18)
	or	(includes items 1, 3, 4, 5, 16, 17, and 65 thru 67)	28	<b>1805629V04</b>	Potentiometer, Volume (part of item 18)
	<b>1585468D10</b>	Assembly, Model I Housing (R Models)	30	<b>1486164A02</b>	Boot, Microphone Boot (part of item 18)
	or	(includes items 1, 3, 4, 5, 16, 17, and 65 thru 67)	31	<b>4005572W04</b>	Switch, Toggle, 3 Pos. A/B/C (part of item 18)
	<b>1585468D13</b>	Assembly, Model I Housing (Yellow R Model)	32	<b>4002622J04</b>	Switch, Frequency (part of item 18)
		(includes items 1, 3, 4, 5, 16, 17, and 65 thru 67)	33	<b>0705357Z01</b>	Bracket, Controls Bottom (part of item 18)
3	<b>3285757D01</b>	Membrane, Microphone (part of item 2)	34	<b>0705352Z01</b>	Bracket, Controls (part of item 18)
4	<b>3385221D01</b>	Label, Motorola Front (part of item 2)	35	<b>3205354Z02</b>	Seal, Controls
	or		36	<b>4285400D01</b>	Retainer, Speaker
	<b>3385221D02</b>	Label, Motorola Front (R Model) (part of item 2)	40	<b>4205631Z01</b>	Clip, Control Locking (Part of item 41) (4 req'd)
	or		41	<b>2685567D01</b>	Shield, Controller Front (Includes items 40 and 42)
	<b>3385221D03</b>	Label, Motorola Front (Yellow R Model)	42	<b>4285288D01</b>	Retainer (Part of item 41)
		(part of item 2)	44	<b>NTN9564C</b>	Kit, VOCON Board
5	<b>1505579Z01</b>	Cover, Universal Connector (part of item 2)	45	----	Kit, Encryption UCM II
6	<b>3605371Z01</b>	Knob, Volume	46	<b>2885866A01</b>	Connector, Compression, 26-Pin
7	<b>4305372Z01</b>	Insert, Volume Knob Retainer	47	<b>2685220D06</b>	Shield, RF with Insulator and Clip (Includes item 63)
8	<b>3205379W01</b>	"O"-Ring, Volume Torque	48	<b>NUF3577A</b>	Kit Transceiver Board, 700/800MHz
9	<b>6105376Z01</b>	Lightpipe, Indicator	49	<b>0985973B01</b>	Assembly, B+
10	<b>4505375Z01</b>	Lever, Secure		or	
11	<b>4305373Z02</b>	Insert, Frequency Knob Retainer		----	Assembly, B+ (R Models)
12	<b>1305374Z03</b>	Escutcheon, Frequency Dial	50	<b>3205351Z01</b>	Seal, B+
13	<b>3605370Z01</b>	Knob, Frequency		or	
14	<b>8505241U03</b>	Antenna, 800MHz Whip (806-870MHz)		<b>3205351Z02</b>	Seal, B+ (R Models)
	or		51	<b>2785219D01</b>	Assembly, Casting
	<b>8505241U06</b>	Antenna, 800MHz Stubby 1/4 Wave (806-870MHz)		or	
	or			<b>2785219D04</b>	Assembly, Casting (R Models)
	<b>8505241U11</b>	Antenna, 700/800MHz Whip (764-870MHz)	52	<b>3005664Z01</b>	Assembly, Coaxial Cable
16	<b>3585340D01</b>	Mesh, Speaker (part of item 2)	53	<b>7505487Z01</b>	Pad, Coaxial
17	<b>3305574Z01</b>	Label, Motorola back (part of item 2)	54	<b>3205082E96</b>	Gasket, O-Ring Bushing
	or		55	<b>3205349Z03</b>	Seal, Main
	<b>3305574Z02</b>	Label, Motorola back (Yellow R Model)	56	----	Battery, NiCd, Ultra-High Capacity
		(part of item 2)	57	<b>NTN8266B</b>	Kit, Belt Clip
18	<b>0105956T85</b>	Assembly, Controls Universal Flex (includes items 19, 21, 22, 24 thru 28, and 30 thru 34)	58	<b>3262737D01</b>	Pad, Thermal
19	<b>5085272D01</b>	Speaker (part of item 18)	59	<b>3285688D01</b>	Plug, Vacuum Test Port
21	----	Microphone, Electret (part of item 18)	61	<b>3285877B02</b>	Seal, Port
		(not field replaceable)	62	<b>3385873B01</b>	Label, Seal
22	----	Capacitor, 56pF (part of item 18)	63	<b>4285704D01</b>	Clip, RF Locking (Part of item 47)
		(not field replaceable)	65	<b>3585741D01</b>	Mesh, Microphone (part of item 2)
23	<b>0300140332</b>	Screw, Tapping - 28 x 3/16	66	<b>3385658D01</b>	Escutcheon, Concentric Switch (part of item 2)
24	<b>0660076A93</b>	Resistor, 68k $\Omega$ (part of item 18)	67	<b>3385657D01</b>	Escutcheon, Toggle (part of item 2)
25	<b>0660076A96</b>	Resistor, 91k $\Omega$ (part of item 18)	71	<b>7585936D01</b>	Pad

# XTS5000 Series

## Parts List



# XTS5000 Series

## Parts List

### Model II & III

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	<b>3305630Z01</b>	Label, Motorola Bottom (part of item 2)	25	<b>0660076A96</b>	Resistor, 91k $\Omega$ (part of item 18)
2	<b>1585468D08</b>	Assembly, Model II Housing (Standard Models)	26	<b>0660076B05</b>	Resistor, 150k $\Omega$ (part of item 18)
	or	(includes items 1, 3, 4, 5, 16, 17, and 64 thru 67)	27	<b>4805729G99</b>	LED, Green/Red (5 req'd) (part of item 18)
	<b>1585468D11</b>	Assembly, Model II Housing (R Models)	28	<b>1805629V04</b>	Potentiometer, Volume (part of item 18)
	or	(includes items 1, 3, 4, 5, 16, 17, and 64 thru 67)	30	<b>1486164A02</b>	Boot, Microphone Boot (part of item 18)
	<b>1585468D14</b>	Assembly, Model II Housing (Yellow R Model)	31	<b>4005572W04</b>	Switch, Toggle, 3 Pos. A/B/C (part of item 18)
		(includes items 1, 3, 4, 5, 16, 17, and 64 thru 67)	32	<b>4002622J04</b>	Switch, Frequency (part of item 18)
	<b>1585468D09</b>	Assembly, Model III Housing (Standard Models)	33	<b>0705357Z01</b>	Bracket, Controls Bottom (part of item 18)
	or	(includes items 1, 3, 4, 16, 17, and 64 thru 67)	34	<b>0705352Z01</b>	Bracket, Controls (part of item 18)
	<b>1585468D12</b>	Assembly, Model III Housing (R Models)	35	<b>3205354Z02</b>	SealL, Controls
	or	(includes items 1, 3, 4, 16, 17, and 64 thru 67)	36	<b>4285400D01</b>	Retainer, Speaker
	<b>1585468D15</b>	Assembly, Model III Housing (Yellow R Model)	37	<b>2685567D03</b>	Assembly, Keypad Flex, Model III
		(includes items 1, 3, 4, 5, 16, 17, and 64 thru 67)		or	(Includes items 41 and 43)
3	<b>3285757D01</b>	Membrane, Microphone (part of item 2)		<b>2685567D02</b>	Assembly, Keypad Flex, Model II
4	<b>3385221D01</b>	Label, Motorola Front (part of item 2)			(Includes item 41 and 43)
	or		38	<b>7285726C01</b>	Module, LCD
	<b>3385221D02</b>	Label, Motorola Front (R Models) (part of item 2)	39	<b>7585189D01</b>	Pad, Display Locator
	or		40	<b>4205631Z01</b>	Clip, Control Locking (part of item 41) (4 req'd)
	<b>3385221D03</b>	Label, Motorola Front (Yellow R Models)	41	<b>2685567D01</b>	Shield, Controller Front (Includes items 40 and 42)
		(part of item 2)	42	----	Retainer (Part of item 41)
5	<b>1505579Z01</b>	Cover, Universal Connector (part of item 2)	43	<b>8485188D01</b>	Flex, Keypad, Model III (part of item 37)
6	<b>3605371Z01</b>	Knob, Volume		or	
7	<b>4305372Z01</b>	Insert, Volume Knob Retainer		<b>8485187D01</b>	Flex, Keypad, Model III (part of item 37)
8	<b>3205379W01</b>	"O"-Ring, Volume Torque	44	<b>NTN9564C</b>	Kit, VOCON Board
9	<b>6105376Z01</b>	Lightpipe, Indicator	45	----	Kit, Encryption UCM II
10	<b>4505375Z01</b>	Lever, Secure	46	<b>2885866A01</b>	Connector, Compression, 26-Pin
11	<b>4305373Z02</b>	Insert, Frequency Knob Retainer	47	<b>2685220D06</b>	Shield, RF with Insulator and Clip (Includes item 63)
12	<b>1305374Z03</b>	Escutcheon, Frequency Dial	48	<b>NUF3577A</b>	Kit, Transceiver Board, 700/800MHz
13	<b>3605370Z01</b>	Knob, Frequency	49	<b>0985973B01</b>	Assembly, B+
14	<b>8505241U03</b>	Antenna, 800MHz Whip (806-870MHz)		or	
	or			----	Assembly, B+ (R Models)
	<b>NAF4000B</b>	Antenna, 800MHz Dipole (806-870MHz)	50	<b>3205351Z01</b>	Seal, B+
	or			or	
	<b>8505241U06</b>	Antenna, 800MHz Stubby 1/4 Wave (806-870MHz)		<b>3205351Z02</b>	Seal, B+ (R Models)
	or		51	<b>2785219D01</b>	Assembly, Casting
	<b>8505241U11</b>	Antenna, 700/800MHz Whip (764-870MHz)		or	
15	<b>7585104D01</b>	Keypad, Model III		<b>2785219D04</b>	Assembly, Casting (R Models)
	or		52	<b>3005664Z01</b>	Assembly, Coaxial Cable
	<b>7585104D02</b>	Keypad, Model II	53	<b>7505487Z01</b>	Pad, Coax
16	<b>3585340D01</b>	Mesh, Speaker (part of item 2)	54	<b>3205082E96</b>	Gasket, O-Ring Bushing
17	<b>3305574Z01</b>	Label, Motorola Back (part of item 2)	55	<b>3205349Z03</b>	Seal, Main
	or		56	----	Battery, NiCd, Ultra-High Capacity
	<b>3305574Z02</b>	Label, Motorola Back (Yellow R Models)	57	<b>NTN8266B</b>	Kit, Belt Clip
		(part of item 2)	58	<b>3262737D01</b>	Pad, Thermal
18	<b>0105956T85</b>	Assembly, Controls Universal Flex (includes items 19, 21, 22, 24 thru 28, and 30 thru 34)	59	<b>3285688D01</b>	Plug, Vacuum Test Port
19	<b>5085272D01</b>	Speaker (part of item 18)	61	<b>3285877B02</b>	Seal, Port
21	----	Microphone, Electret (part of item 18)	62	<b>3385873B01</b>	Label, Seal
		(not field replaceable)	63	<b>4285704D01</b>	Clip, RF Locking (Part of item 47)
22	----	Capacitor, 56pF (part of item 18)	64	<b>3385419C01</b>	Bezel, Display (part of item 2)
		(not field replaceable)	65	<b>3585741D01</b>	Mesh, Microphone (part of item 2)
23	<b>0300140332</b>	Screw, Tapping - 28 x 3/16	66	<b>3385658D01</b>	Escutcheon, Concentric Switch (part of item 2)
24	<b>0660076A93</b>	Resistor, 68k $\Omega$ (part of item 18)	67	<b>3385657D01</b>	Escutcheon, Toggle (part of item 2)
			71	<b>7585936D01</b>	Pad





## XTS5000 Series

## Portable Accessories

### Chargers

#### Single Unit Universal Tri-Chemistry Chargers

Tri-Chem chargers support Nickel Cadmium, Nickel Metal Hydride and Lithium-ion batteries.

**NTN1667A** Single Unit, universal tri-chem rapid charge, 110V

**NTN1668A** Single Unit, universal tri-chem rapid charge, 220V

**NTN1669A** Single Unit, universal tri-chem rapid charge, 240V

#### Multi-Unit Chargers



NTN1177D

Ideal charger for multi-shift operation or centrally located equipment rooms where spare batteries are always required. They can accommodate up to 6 batteries at once.

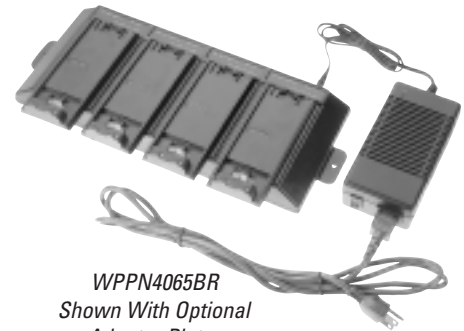
**NTN1177D** Multi-Unit, rapid rate, 110V; supports NiCd and NiMH batteries

**NTN1178D** Multi-Unit, rapid rate, 220V (not for Lithium-ion)

**NTN1179D** Multi-Unit, rapid rate, 240V (not for Lithium-ion)

### Motorola Conditioning Charger

The MCC will help extend battery life and enhance battery operation. It will safely condition and charge your specified Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH) batteries in approximately an hour.



WPPN4065BR  
Shown With Optional  
Adapter Plates

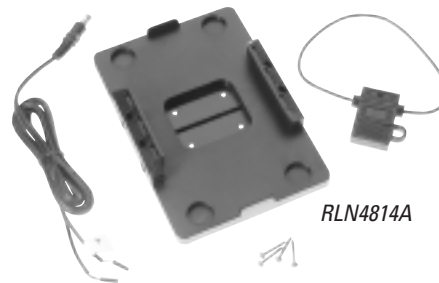
**WPLN4086CR** MCC Kit, 110V AC; includes both base unit and 7V adapter

**WPLN4087CR** MCC Kit, 220V AC; includes both base unit and 7V adapter

**WPPN4021CR** 7 Volt Adapter plate only

**WPPN4065BR** Multi-Unit Conditioning Charger Four-station Base, 110V; (order adapter plates separately)

**3080384G15** Cigarette Lighter Adapter Cord



RLN4814A

**RLN4814A** Vehicular Mounting Bracket for single unit Motorola Conditioning Charger

**3080384M21** DC Hard Wire Cable for vehicular installation (included in RLN4814A)

**HLN9179A** Quick-Release Attachment for Mounting Bracket RLN4814

**HLN9228A** Mounting accessories – Clam shell mounting bracket

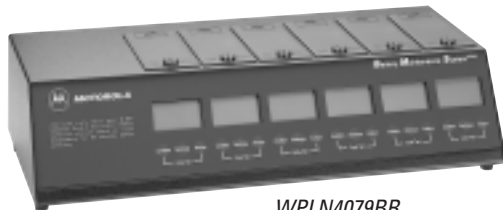
## XTS5000 Series

### Portable Accessories

#### Battery Maintenance System<sup>plus</sup> (BMS<sup>plus</sup>)

##### **Increase the useful life of your batteries.**

Using interchangeable battery adapters (sold separately), the BMS<sup>plus</sup> is capable of charging and discharging, analyzing, conditioning and cycle testing batteries. It supports NiCd, NiMH, and Li-ion battery chemistries and tracks battery voltage and capacity (mAh). The BMS<sup>plus</sup> offers a 3-year warranty. Its easy-to-use design supports hundred of 2-way, cellular, and camcorder batteries. Includes serial printer\* port (RS-232)



WPLN4079BR

**WPLN4079BR** Six-Station, 110V AC, 50/60 Hz

**WPLN4080BR** Six-Station, 230V AC, 50/60 Hz

**WPPN4085AR** BMS<sup>plus</sup> field Upgrade Kit for WPLN4079AR, WPLN4080AR and WPLN4081AR; allows these units to support Li-ion battery chemistries.

**NDN4005B** Three-station 110V AC, 50/60 Hz (does not support Li-ion or 3-cell batteries)

**NDN4006B** Three-station 230V AC, 50/60 Hz (does not support Li-ion or 3-cell batteries)

#### **BMS<sup>plus</sup> Adapters**

**WPPN4019AR** Adapter, NiCd only

**WPPN4022AR** Adapter, NiCd and NiMH

**WPPN4086AR** Adapter, NiCd, NiMH and Li-ion

#### Battery Optimizing System II (BOS II)



WPLN4124AR

No other battery analyzer matches the speed, accuracy, and versatility of the Battery Optimizing System II. Ideal for large fleet, public safety, and all other users who rely on their battery performance. Now with increased power, more sophisticated programming options, and easier to use navigation paths, optimizing your batteries was never easier. Key features include:

- Support for NiCd, NiMH, Li-ion, and SLA batteries
- 100 watt power supply and programmable from 100 mAh to 4 amps per station
- Interchangeable adapters accommodate all major brands
- Includes a variety of user programs and allows for customizable programming
- Proprietary recondition cycle restores NiCd and NiMH batteries
- Increased processing power and testing resolution – including a three minute Quicktest that measures the batteries State of Health (SoH)
- Printer output for reports and labels
- Three year warranty

**WPLN4124AR** BOS II, Four-Station, 100-240V AC (US line cord)

**WPLN4125AR** BOS II, Four-Station, 100-240V AC (UK/Euro line cords)

#### **BOS II Adapter**

**RL-75765** Adapter, XTS5000

\* Compatible with the STAR Micronics SP200 Series printers (and other printers with STAR emulation); available from any STAR Micronics distributor.

## XTS5000 Series

## Portable Accessories

### Chargers

#### impress™ Smart Energy System



WPLN4111AR

The impress™ smart energy system ensures maximum talk-time and optimized battery cycle life through the use of its advanced charging algorithm and automatic reconditioning features. The smart energy system reconditions impress batteries when they need it automatically, keeping them in peak condition.

It's advanced conditioning features allow

batteries to be safely left on the charger for extended periods of time without incurring the damaging heat build-up which can rob batteries of cycle life. In addition, batteries left on the charger are kept fully charged so they are always ready when you need them. The impress system reconditions batteries when they need it based on their usage pattern. Talk time and cycle life are optimized and the need for manual maintenance programs reduced or eliminated. This rapid-rate tri-chemistry charging system will also charge existing legacy batteries and supports multiple radio platforms including Saber, XTS, and HT1000 series portables.

**WPLN4111AR** impress Smart Energy System Charger

**WPLN4108BR** impress Smart Energy System Multi-Unit Charger

#### impress™ Multi-Unit Charger with Display Modules

The impress Multi-Unit Charger with Charger Display Modules has a two-line LCD screen for each of its six charger pockets that provides users with a host of valuable battery information. When a calibrated impress battery is inserted into a pocket, it provides the current battery mAh and percent of rated capacity which allows the user to immediately know the status of the battery without having to charge and discharge the battery. Additionally, the unit displays the remaining charge time which lets the user know when the impress battery will be ready for use. Additional information displayed includes: battery serial and part number information, battery chemistry, voltage and charge status including the version of the charger and display modules.

**WPLN4130AR** Multi-Unit Charger with Display Modules

**RLN5382A** Charger Display Module for impress multi-unit charger version 1.3 or later

**RLN5591A** Charger Display Module for impress multi-unit charger version 1.2 or earlier (Requires unit to be sent to the Rockford Service Center – instruction sheet provided)



WPLN4130AR

### Chargers

#### impress™ Bundle Packs

Provide significant savings on the impress™ products by bundling a charger and batteries together as a Smart Energy System package.

**RLN5263A** impress Charger with two HNN9031AR batteries

**RLN5262A** impress Charger with two HNN9023AR batteries

**RLN5486A** impress Charger with two NNTN4436AR Intrinsically Safe (FM) batteries.

**RLN5487A** impress Charger with two NNTN4437AR ruggedized batteries.

**RLN5441B** impress Multi-Unit Charger with six HNN9032AR batteries

**RLN5443B** impress Multi-Unit Charger with six HNN9031AR batteries

**RLN5489B** impress Multi-unit Charger with six NNTN4436AR batteries

**RLN5490B** impress Multi-unit Charger with six NNTN4437AR batteries

#### Vehicular Charger

This vehicular charger is a 12V DC that supports nickel cadmium (NiCd), nickel metal hydride (NiMH), and Lithium Ion (Li-ion) batteries for XTS3000, XTS3500 and XTS5000. A microprocessor senses the type of battery installed and controls the rate of charge accordingly. Batteries are charged at a rapid rate until fully charged at which point the unit reverts to a trickle charge. Batteries can be charged while on the radio or stand alone. The radio can be operated while

in the charger and this unit is PAC RT compatible. The vehicular charger consists of a console, mounting hardware, and a supply cable.

**NTN9176B** Vehicular Charger



NTN9176B

## ***XTS5000 Series***

## ***Portable Accessories***

### ***Chargers***

#### ***Travel Charger***

This compact Travel Charger mounts inside a vehicle for convenient battery charging throughout the workday, helping to assure users that they will never be out of touch due to lack of power. It has a voltage-regulated lighter adapter that plugs into the vehicle's socket, and includes a mounting bracket with nylon strap to hold the Two-way radio in place. Designed to charge batteries on or off the radio; users can use their radio while charging. A maintenance mode keeps batteries charged without damaging heat buildup, and the charging algorithm provides for cool charging of the battery. A recharge mode rapid charges batteries to compensate for capacity loss caused when radios are kept in receive or transmit mode.



**RLN4884B** Travel charger

#### ***Vehicular Adapters***

Allows customers to adapt XTS3000, XTS3500 and XTS5000 portables for mobile operation. Provides in-vehicle rapid and trickle charging for nickel cadmium (NiCd), nickel metal hydride (NiMH), and Lithium Ion (Li-ion) batteries. These units offer quick radio release and dead battery operation and are powered by attaching their supply cable to the 12V battery inside a police car, utility truck or other vehicle. Connectors are provided for the vehicle antenna, mobile microphone and optional amplified loudspeaker (HSN1000B). There is also a general interface connector for additional accessories. A color LED indicates battery recharge status. For XTVA operation, a microphone and RF switch (NTN8327A) are required. The required mobile microphone and optional loudspeaker allow for operation of the portable radio that is similar to that of a mobile.

**NTN8561F** XTS Vehicular Adapter, Closed Face, Mini-UHF

**NTN8560F** XTS Vehicular Adapter, Open Face with limited keypad access, Mini-UHF

**NTN1607F** XTS Vehicular Adapter, Closed Face, BNC

**NTN1606F** XTS Vehicular Adapter, Open Face with limited keypad access, BNC

Adding accessories to the vehicular adapters requires one of the following two kits:

**NTN8941A** XTVA Data Cable Kit

**NTN8943A** XTVA Accessory Adapter Kit

### ***Chargers***

#### ***Additional Accessories for the Vehicular Adapters***

**HMN4069E** Standard White Palm Microphone

**PLN7737B** Hand Held Control Head

**NTN8940B** Trunnion (Required)

**HSN1000B** External Speaker Amplified, 6 Watts

**HLN9330B** Emergency Foot Switch

**GLN7280A** Emergency Pushbutton

**6685687A01** Tool Wrench for RF Switch (Required)

**NTN8327A** RF Adapter (Required)

**NKN6455A** MTVA PA/Speaker Cable

## XTS5000 Series

## Portable Accessories

### Carrying Accessories

#### Carrying Cases

A variety of carrying accessories are available for your comfort and convenience. The carrying cases are available in sizes designed to fit your radio & battery and permit audio to be heard clearly.

##### Model I Radios Only

**NTN8387A** Leather Carry Case with Belt Loop and T-Strap

**NTN8385B** High Activity Swivel Leather Carry Case with 2.5" Swivel Belt Loop and T-Strap

**NTN8386B** High Activity Swivel Leather Carry Case with 3.0" Swivel Belt Loop and T-Strap

**NTN8725A** High Activity Nylon Carry Case with Belt Loop and T-Strap



NTN8385B

##### Model II & III Radios Only



NTN8382B

**NTN8382B** Leather Carry Case with Belt Loop and T-Strap

**NTN8380C** High Activity Swivel Leather Carry Case with 2.5" Swivel Belt Loop and T-Strap



NTN8380C

**NTN8381C** High Activity Swivel Leather Carry Case with 3.0" Swivel Belt Loop and T-Strap Nylon Carry Case

**NTN8725A** High Activity Nylon Carry Case with Belt Loop and T-Strap

**NTN9184A** Leather Carry Case with Belt Loop for Clamshell Battery



NTN8381C

### Carrying Accessories

#### Carrying Case Accessories

##### T-Straps

**NTN8383A** Leather T-Strap Plain Action Snap

**NTN8384A** Leather T-Strap Hard Action Snap

##### High Activity Belt Loops



NTN8039B

**NTN8039B** 2.5" Leather Swivel Belt Loop

**NTN8040B** 3.0" Leather Swivel Belt Loop

**NTN9179A** High Activity Swivel 3.0" Belt Loop with "D" clip for battery



NTN8040B

**NTN9212A** "D" clip for battery (for use with NTN9213A only)

**NTN9213A** 3.0" Belt Loop, High Activity

##### Belt Clips

**NTN8266A** Standard Removable Belt Clip Attachment

**NTN8460A** 3.0" Removable Belt Clip Attachment

##### Belt

**4200865599** 1.75" wide leather belt

##### Carrying Strap

**NTN5243A** Adjustable Black Carrying Strap; attaches to "D" ring on case

##### Chest Pack

**HLN6602A** Universal Chest Pack with Radio Holder, Pen Holder and Velcro Secured Pocket.

**1505596Z02** Replacement Strap for HLN6602



HLN6602A



## XTS5000 Series

## Portable Accessories

### Carrying Accessories



RLN4570A

#### Break-a-Way Chest Pack

All of the same features as the original chest pack (HLN6602A) plus break-a-way tabs that allow the entire pack to be pulled off with approximately 10 lbs of pressure. Perfect for railroads, manufacturing locations, construction sites and anywhere that safety is a concern.

**RLN4570A** Break-A-Way Chest Pack



RLN4815A

#### RadioPAK™

It's different from all other holders or cases: more comfortable, more useful and more stylish. Worn around the waist, it holds two-way, iDEN portables or cellular phones right at hand. Includes a separate 6"x8" zippered pouch for other on-the-job necessities. Adjustable nylon weave belt; fits both men and women.

**RLN4815A** RadioPAK™ Radio/Utility Case

**4280384F89** Universal RadioPAK™ Belt Lengthener; fits waists larger than 40"

#### Portable Radio Hanger

The portable radio hanger slides over and hangs from the door panel in a vehicle. The radio's belt clip slides onto the portable hanger allowing convenient, easy mounting. Two sizes are available to fit door panels.

**TDN9327A** Portable Radio Hanger for door panels up to 2-3/4"

**TDN9373A** Portable Radio Hanger for door panels 2-3/4" to 3-1/4"



TDN9327A

### Audio Accessories

#### Remote Speaker Microphones (RSM)

Allows you to talk and listen without removing the radio from the belt, case or charger. Ideal for high noise level environments. These water resistant microphones include: a coiled cord, 3.5mm earjack, swivel clothing clip, and quick disconnect latch.

**\*NMN6193C** Remote Speaker Microphone

**\*NMN6191C** Noise Canceling Remote Speaker Microphone

**0104010J46** Replacement Coil Cord Cable Assembly for remote speaker microphones



NMN6193C

#### Public Safety Speaker/Microphones (PSM)

Public safety speaker microphones include straight cord assembly, 3.5mm earjack, swivel clip, quick disconnect latch, antenna connector, and receive audio high/low toggle switch. Antenna must be ordered separately. Use radio antennas on page 572. Requires NTN8327A RF adapter.

**\*NMN6247A** Public Safety Microphone with Straight Cord, 30"; requires NTN8327A

**\*NMN6250A** Public Safety Microphone with Straight Cord, 24"; requires NTN8327A

**\*NMN6251A** Public Safety Microphone with Straight Cord, 18"; requires NTN8327A



NMN6247A

\* Intrinsically Safe

## XTS5000 Series

## Portable Accessories

### Audio Accessories

#### XTS Series Commander™ Remote Speaker Microphone

The Commander Remote Speaker Microphone is enhanced with controls normally found only on the radio itself. You can take command of communication with a Push-to-Talk (PTT) Button, Emergency Button, Volume Control, 16-Channel Select Knob and 2 Programmable Buttons. This water resistant Remote Speaker Microphone also features a receive-only 3.5mm earphone jack to allow for discrete conversations. What's more, the controls are specially designed for users who wear large gloves: the buttons are large, and the channel selector knob provides tactile feedback at each position. Compatible with XTS3000, XTS3500 and XTS5000 two-way radios. Intrinsically Safe (FM) when used with Intrinsically Safe XTS3000, XTS3500 and XTS5000 radios.

**\*RMN5021A** Commander Remote Speaker Microphone

#### RSM and PSM Accessories

##### Epaulet Strap

Black leather epaulet strap secures remote speaker microphone to epaulet straps on shirt or jacket and accommodates back clip in leather cut-outs. Snap closure secures remote speaker microphone cord to allow reliable communications in hostile high movement applications.

**RLN4294A** Epaulet Strap, Velcro

**RLN4295A** Epaulet Strap, small clip

##### RF Adapter

**\*NTN8327A** RF Adapter; required for use with public safety microphone



### Audio Accessories

#### Ear Microphone System (EMS)

This compact unit picks up the voice through bone vibrations in the ear canal. The miniature earpiece leaves the hands free and face unobscured when worn by rescue and hazard protection personnel, who still retain the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communications with protective masks are as clear as communications without. And its high speech clarity under noisy environments makes it ideal for high noise environments. Available in PTT or Voice Activated (VOX).

**Interface module needs to be ordered separately for EMS to work.**

**\*BDN6677A** Ear Microphone for standard noise levels (up to 95 dB), black

**\*BDN6678A** Ear Microphone for Standard Noise Levels (up to 95 dB), beige

**\*BDN6641A** Ear Microphone for High Noise Levels (up to 105 dB), grey



**BDN6641A**  
Requires  
interface module  
sold separately

#### Interface Modules For EMS

**\*BDN6708B** Push-To-Talk Interface Module

**\*BDN6671B** Push-To-Talk and Voice-Activated Interface Module

#### Optional Accessories for EMS

**0180300E25** Earguard with Adjustable Loop

**0180358B38** Remote Push-To-Talk Ring Switch

**0180300E83** Remote Push-To-Talk Body Switch

**0180358B32** Earholder, black, size small; secures ear mic in ear

**0180358B33** Earholder, black, size medium; secures ear mic in ear

**0180358B34** Earholder, black, size large; secures ear mic in ear

**0180358B35** Earholder, clear, size small; secures ear mic in ear

**0180358B36** Earholder, clear, size medium; secures ear mic in ear

**0180358B37** Earholder, clear, size large; secures ear mic in ear

**4280369E44** Replaceable Belt Clip with Screws



**0180358B33**

\* Intrinsically Safe



## XTS5000 Series

## Portable Accessories

### Audio Accessories

**5080358B28** Eartips, black, size medium (10 per pack)

**5080358B29** Eartips, black, size large (10 per pack)

**5080358B30** Eartips, beige, size medium (10 per pack)

**5080358B31** Eartips, beige, size large (10 per pack)

### CommPort: Integrated Microphone/Receiver System

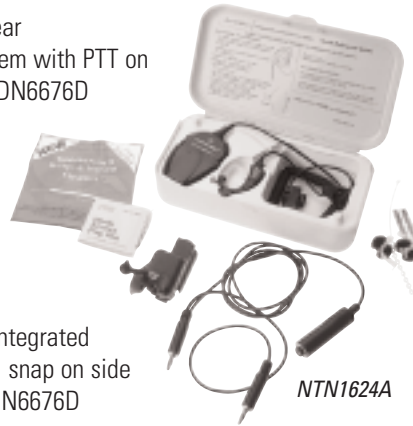
The CommPort system contains a miniature microphone and receiver, and connects to your two way radio, making it possible to hear and speak under the most adverse conditions.

**\*NTN1624A** Integrated ear microphone/receiver system with palm PTT (includes BDN6676D 3.5mm jack adapter)

**\*NTN1625A** Integrated ear microphone/receiver system with PTT on radio adapter (includes BDN6676D 3.5mm jack adapter)

**\*NTN1663A** Integrated ear microphone/receiver system with ring PTT (includes BDN6676D 3.5mm jack adapter)

**\*NTN1736A** CommPort integrated microphone/receiver with snap on side Push-To-Talk (includes BDN6676D 3.5mm jack adapter)



NTN1624A

**NNTN4186A** Integrated Microphone/Receiver System with Remote Push-To-Talk Body Switch (includes BDN6676D 3.5mm jack adapter)

**NKN6510A** Replacement Palm PTT Cable for NTN1624A

**NKN6508A** Replacement Cable for NTN1625A

**NKN6512A** Replacement Ring PTT Cable for NTN1663A

**NKN6525A** Replacement Snap-on PTT Cable for NTN1736A

**NNTN4188A** Replacement Remote Push-to-Talk Body Switch

**NTN8821A** CommPort Maintenance Kit, includes replacement ear tubes (quantity 10), windscreens (quantity 2) and microphone seal strips (quantity 10)

**NTN8986A** Adhesive Pads (quantity 90) for secure attachment to ear

**NTN8988A** Ear Straps (quantity 10) for secure attachment to ear

**4285838B01** Replacement Collar Clip

**4202006A01** Replacement Back Cover Clip

**RLN5037A** Replacement Ear Tubes (pack of 10)

### Audio Accessories

### Temple Transducer

The temple transducer represents a significant achievement in headset design and functionality. It allows the user to receive audio without covering the ear. The receiver portion of this accessory rests on the temples and is capable of converting the receive audio from a two-way radio into sound vibration. The sound vibration is transmitted through the surrounding human tissue and bone directly into the inner ear where it is received by the user. It features an in-line PTT and noise canceling boom microphone. The temple transducer enhances communication and safety by not impairing the user's hearing of external sound environment, such as from machinery and equipment, warning, and first alarms, the intercom, traffic and even casual conversations with their co-workers.

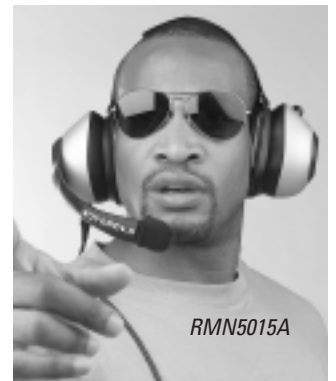
**\*RMN4049A** Temple Transducer

### Racing Headset for Two-Way Radios

Motorola is the official wireless equipment supplier of CART®, so whether your customers' playing field is a racetrack, construction site or other challenging environment, they can count on this Racing Headset for superior comfort and dependable operation.

**RMN5015A** Racing headset for two-way radios (Adapter Cable required)

**BDN6673B** Adapter Cable for XTS2500, XTS3000, XTS3500 and XTS5000



RMN5015A

\* Intrinsicly Safe



<https://www.motorola.com/businessonline>

## Portable Accessories

### Audio Accessories

#### Medium Weight Headsets

Medium weight headsets offer high-clarity sound with the additional hearing protection necessary for providing consistent, clear two-way radio communications in harsh, noisy situations.

**\*NMN6258A** Medium Weight Headset, over the head with In-Line PTT, noise reduction rating = 24dB

**\*NMN6259A** Medium Weight Headset, behind the head with In-Line PTT, noise reduction rating = 24dB

**7580376E34** Replacement Foam Earseals, 1 pair

**1580376E32** Replacement Cloth Covers for Earseals, 1 pair

**5080548E02** Replacement Windscreen for Boom Microphone

**3280376E35** Replacement O-ring for Windscreen

**4204004K01** Replacement Adjustable Headstrap for NMN6259A



NMN6258A

### Audio Accessories

#### Noise-Canceling Headsets with Boom Microphone

Ideal for two-way communication in extremely noisy environments. Dual-muff tactical headsets include two microphones on the outside of the earcups which reproduce the ambient sound back into the headset. Harmful sounds are suppressed to a safe level and low sounds are amplified up to 5 times the original level, but never more than 82dB(A). Includes on/off volume control on earcups and 3-foot curly cord. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. Requires separate in-line PTT adapter cable RKN4095A. Hardhat not included.

**RMN4052A** Tactical Headband Style Headset, grey; noise reduction rating of 24dB



RMN4052A



RMN4053A

**RMN4053A** Tactical Hardhat Mount Headset, grey; noise reduction rating of 22dB

#### Hardhat Mount Headset with Noise-Canceling Boom Microphone

Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable earseals are filled with liquid and foam combination to provide excellent sealing and comfort. 3-foot curly cord assembly. Requires separate in-line PTT adapter cable RKN4095A. Hardhat not included.

**RMN4051B** Two-Way Hardhat Mount Headset, black

#### Adapter Cables

**RKN4095A** In-Line PTT Adapter Cable. For use with RMN4051, RMN4052, and RMN4053.



RMN4051B

\* Intrinsically safe

## XTS5000 Series

## Portable Accessories, Batteries



### Audio Accessories

#### Heavyduty Headsets

Heavyduty headsets include noise-cancelling boom microphones and can be worn with or without a hardhat. Headsets are for use in noise levels up to 125 dB. The Push-To-Talk switch is located on the earcup. The VOX module is contained within the headset on voice activated units. **Heavyduty headsets require radio adapter cable BDN6673B to be ordered separately.**



BDN6645A

**\*BDN6645A** Push-To-Talk Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB



BDN6635B

**BDN6635B** Voice-activated Headset with Boom Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB



BDN6636B

**\*BDN6636B** Voice-activated Headset with Throat Microphone; requires adapter cable BDN6673B; noise reduction rating = 24dB

**\*BDN6673B** Radio Adapter Cable

### Batteries

#### Nickel-Cadmium Premium

Part Number: **NTN8294BR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: No

Part Number: **NTN8295AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: Yes

Part Number: **NTN8297AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: Yes  
Ruggedized: Yes



NTN8294BR

#### Nickel-Cadmium impres™

Part Number: **HNN9031AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: No

Part Number: **HNN9032AR**  
Volts: 7.5  
Avg mAh: 1525  
Height: 6-1/8"  
Intrinsically Safe: Yes

#### Nickel Metal Hydride impres™

Part Number: **NNTN4436AR**  
Volts: 7.5  
Avg. mAh: 2000 (1800 min.)  
Height: 6-1/8"  
Intrinsically Safe: Yes

Part Number: **NNTN4437AR**  
Volts: 7.5  
Avg. mAh: 2000 (1800 min.)  
Height: 6-1/8"  
Intrinsically Safe: Yes  
Ruggedized: Yes

\* Intrinsically Safe



<https://www.motorola.com/businessonline>

## XTS5000 Series

## Batteries, Antennas, Miscellaneous

### Batteries

#### Nickel Metal Hydride Premium

Part Number: **NTN8299BR**

Volts: 7.5

Avg mAh: 1700

Height: 6-1/8"

Intrinsically Safe: Yes



NTN8299BR

Part Number: **NTN8923AR**

Volts: 7.5

Avg mAh: 1800

Height: 6-1/8"

Intrinsically Safe: No

Part Number: **RNN4006B**

Volts: 7.5

Avg mAh: 3500

Height: 6-1/8"

Intrinsically Safe: No

Part Number: **RNN4007AR**

Volts: 7.5

Avg mAh: 3500

Height: 6-1/8"

Intrinsically Safe: Yes

#### Lithium-ion Premium

Part Number: **NTN8610BR**

Volts: 7.5

Avg mAh: 1650

Height: 6-1/8"

Intrinsically Safe: No

#### Alkaline Premium Battery Shells

**NTN9177A** Disposable Battery Shell – Black

**NTN9103A** Disposable Battery Shell – Orange

### Antennas

#### Flexible Whip Antenna

Flexible Whip antennas have a one-piece finish and steel core for optimal radiation characteristics. Provides more comfort when radio is worn on the belt.

**8505241U03** Flexible Whip,  
1/2 Wavelength, 806-870MHz, 7"

**8505241U11** Flexible Whip,  
Dual Band, 700-800MHz

#### Stubby Antenna

This stubby quarterwave antenna is ideal when radio is worn on the belt because the short antenna is non-obtrusive.

**8505241U06** Stubby,  
806-941MHz, 4"; is a broad band  
antenna that operates in  
the 800/900MHz band



8505241U06

### Miscellaneous

#### Public Safety Tilt Switch

**\*NTN7660B** Public Safety Tilt Switch. An external emergency switch that is activated when the unit is tilted at a greater than 60 degree angle. The emergency feature must be programmed in radio to enable the tilt position.

\* Intrinsically safe

## XTS5000 Series

## Service Tools, Aids, Manuals

### Service Tools

#### Battery Eliminator

The Battery Eliminator acts like a battery with a cable to access a DC external power supply.

**REX4424A** Battery Eliminator

#### Radio Interface Box

Links radio programming cable and computer interface together. Provides required voltage shift to enable communications between radio and computer. Requires computer interface cable, radio test and programming cable, and 9 volt snap type battery (6082728J01), order separately.

**RLN4008E** Radio Interface Box



RLN4008E



0180357A57

#### Wall Mounted Power Supply

Used to supply power to radio interface box, RLN4008E.

**0180357A57** Wall Mounted Power Supply, 110 Volts

**0180358A56** Wall Mounted Power Supply, 220 Volts

#### Computer Interface Cable

Used to connect computer's serial port to Radio Interface Box.

**3080369B71** Cable, RIB to 25 pin D

**3080369B72** Cable, RIB to 9 pin D



3080369B71

#### Radio Test and Programming Cable

Used with Portable Radio Test Set, RTX4005B, for transmitter, receiver alignment and performance checks. Also used in programming radio.

**RKN4035D** Radio Test and Programming Cable

### Service Aids

#### Programming Cable

**RKN4105A** Programming Cable, USB, XTS2500

**RKN4106A** Programming Cable, RS232, XTS2500

#### Test Box

Portable test set, enables connection to audio/accessory jack. Allows switching from radio testing.

**RLN4460C** Test Box

#### Probes

**RTL4208A** RF Probe, 50 ohm High Frequency

**RT-5144/48/0** Needle-Fine Test Probes for High Density Circuitry (Black)

**RT-5144/48/2** Needle-Fine Test Probes for High Density Circuitry (Red)

#### Programming Software

Utilizing your personal computer, this software enables you to add or reprogram frequencies as your requirements change. Requires interface box and appropriate cables, must be ordered separately.

**RVN4181H** Radio Service Software

### Manuals

**6881074C70** VHF, UHF, 800MHz Radio Service Software Manual

**6881083C70** I VHF, UHF, 800MHz User's Guide

**6881083C75** II and VHF, UHF, 800MHz User's Guide

**6881083C85** Basic Service Manual

**6881083C90** Detailed Service Manual

**0180305J46** Ear Microphone System and Temple Transducer CD-ROM

**0180305J70** impres™ System CD-ROM

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