At **Motorola, Quality Counts.**

PR400™ | PM400™
Portable and Mobile Series
Two-Way Radios and Accessories

With LTR® Trunking!

MOTOROLA
intelligence everywhere™

PR400

PM400

P1   P2

P1   P2   P3   P4

The Motorola Difference

Motorola has developed two-way radios with a number of key factors in mind to provide you with great quality and enhanced value. These key factors represent the essential elements you depend on and expect in your communication – and Motorola brings them all together for you!

- **Value** to ensure you get the most for your communication dollars
- **Reliability** so you can depend on your radio, even in harsh environments
- **Ease of Use** for simple operation and customization
- **Audio Quality** to get your message through loud and clear
- **Size and Weight** to provide convenient installation or easy portability
- **Battery Life** to give you the power you need to communicate – as long as you need
- **Programmable** to customize features of each radio for each user
- **Range** that lets you reach coworkers across the street or across town

Motorola – A Name You Know and Trust

For 75 years, Motorola has been a leader in creating state-of-the-art wireless communication for people like you. The PR400 portable and PM400 mobile two-way radios continue to uphold that standard of excellence that Motorola is known for. Each radio is backed by a limited two-year* warranty on parts and labor. So when you select the PR400 or PM400, you will experience the same exceptional quality you have come to expect from Motorola products.

Superb Performance, More Channels … Still Affordable

The PR400 portable and PM400 mobile two-way radios are easy to use. The time-tested durability of Motorola's two-way radios represents an exceptional value when you consider the life span of the radios and minimal downtime for replacement parts and repairs.

The PR400 and PM400 are ideal for small businesses and companies that need reliable communication that delivers every time, while also providing an affordable communication solution with the features you need and Motorola's renowned quality.

The PR400 and PM400 two-way radios are ideal for many businesses and industries including:

- **Agriculture**
- **Hospitality**
- **Light Construction**
- **Light Industrial**
- **Manufacturing**
- **Public Administration**
- **Delivery Services**
- **Security**
- **Taxi and Limousine Services**
- **Transportation/Fleet**
- **Utilities**

Trunked Radio Systems

A trunked radio system allows a large number of users to share a relatively small number of frequencies without interfering with each other. The air time of all the repeaters in the trunked system is pooled, which maximizes the amount of air time available to any one radio, and minimizes channel/talkgroup congestion.

Some of the benefits of trunked two-way radio systems are:

- No channel/talkgroup monitoring required prior to transmission.
- Improved system access.
- Automatic channel/talkgroup selection.
- Increased privacy among members of the same group.

LTR Trunked Systems

LTR (Logic Trunked Radio) is a transmission-based trunking protocol developed by the E.F. Johnson Company for primarily single-site trunking applications. In transmission trunking, a repeater is used for only the duration of a single transmission. Once a transmission is completed, that repeater becomes available to other users. This means that a conversation comprised of many transmissions may occur over several different channels/talkgroups within the LTR system. This method of trunking provides system efficiency by making repeaters available to all users after every transmission. When an LTR trunked radio user wants to communicate with other people, the user's radio sends a "channel/talkgroup request" to the home repeater. The system then sends back a "channel/talkgroup grant" to the user's radio. The channel/talkgroup grant message contains the number of a "go to" repeater to tell the radio which repeater to use. This "go to" repeater can be the same as the radio's home repeater or another repeater in the system. The radio uses the "go to" repeater for transmission. Once the transmission has ended, this repeater is available for other users.

*Radio accessories are covered by Motorola's one-year accessories warranty.

Why Are the PR400 and PM400 Right for You?

• More channels provide you with options, flexibility and control over your communication.

• Motorola dealers can help program your favorite features so each portable and mobile radio can be customized to best suit the needs of the individual radio user.

• Upgrading is easy because the PR400 and PM400 radios share compatible accessories with some of Motorola's most popular two-way radios.

• All of the PR and PM Series radios come standard with an option board port for future expandability and added flexibility.

• The PR400 is available in three models that vary by display, channels and features so there is a perfect model for every level of manager and employee.

• The PR400 and PM400 have a high-quality speaker that provides noticeably clear, crisp audio with minimum distortion at maximum power.

• The PM400 offers the most features and channels of any Motorola mobile in our Commercial Series and can be mounted in just about any vehicle. It also serves as an ideal desktop base station in the office or on the factory floor.

• Motorola Original® replacement parts are on hand and easily available so radio repairs can be turned around quickly.

• They are LTR-capable and offer a competitive array of LTR features and functionality across all bands and models of the PR400 and PM400 radios.

• You can now software upgrade your existing PR400 and PM400 to become LTR-capable via a simple flash upgrade tool available on MOL or via CD-ROM on demand.

PR400 Portable with No Display or Keypad

PR400 Features

- **16 Conventional Channels**
- **Up to 16 LTR Talkgroups**
- **Mixed Assignment of Conventional Personalities and LTR Talkgroups**
- **Up to 4 Sites and 16 Talkgroups in LTR**
- **Up to 20 Repeaters per Site in LTR**
- **Up to 4 Universal IDs per System in LTR**
- **Up to 16 Universal IDs per Radio in LTR**
- **UHF and VHF Frequencies**
- **Up to 4 Programmable Features**
- **Busy Channel Lockout**
- **Transmit Time-Out Timer**
- **Voice-Operated Transmit** (requires voice-activated microphone)
- **TPL Standard and Non-Standard Reverse Burst (for better compatibility with fleets)**
- **Privacy Codes** (42 standard TPL codes, 84 standard DPL codes and non-standard codes)
- **System Scan and Auto Scan**
- **Single and Dual Priority Scan** (frequently scans higher-priority channels)
- **Revert Scan** (radio moves automatically to last landed scan channel when exiting scan mode)
- **Scan Talkback** (respond to transmission while scanning)
- **Option Board Expandability**
- **Quik-Call II™ Selective Call/Call Alert Decode**
  – Selective Call: Calls a specific group or individual
  – Call Alert: Notifies a specific group or individual user with an alert tone and lighted LED
- **MDC1200 Signaling**
  – PTT ID Encode: Sends unique four-digit ID (Caller ID) information when transmitting on the current MDC system
  – Selective Radio Inhibit Decode: Dispatcher can remotely disable radio to prevent transmission from reaching stolen or inactive radios
  – Radio Check Decode: Dispatcher can determine remotely if radio is powered on without disturbing user
- **DTMF Signaling**
  – PTT ID Encode: Sends unique one- to eight-digit ID (Caller ID) information when transmitting on the current DTMF system, which can be displayed on radios equipped with DTMF decoding capabilities
- **2-Year Standard Warranty**

Note: All standard features listed here also are included on the Full Display and Limited Keypad model.

PR400 Programmable Features
(You can choose up to 4)

- **High/Low Power**
  Adjusts transmit power to accommodate user environment
- **Tight/Loose Squelch**
  Tight squelch helps minimize interference from undesired strong signals; loose squelch helps weak signals to be heard
- **Repeater/Talkaround**
  Unit-to-unit communication, bypassing the repeater
- **VOX On/Off**
  Enables/disables voice-operated transmit functionality for the current channel (Can also program VOX headset sidetone)
- **Option Board On/Off**
  Enables/disables option board functionality for the current personality
- **Battery Indicator**
  Displays battery charge level via LED
- **Volume Set**
  Sets preferred volume level for radio speaker
- **Nuisance Channel Delete**
  Temporarily deletes a specific channel from your scan mode if you no longer want to hear activity on that channel
- **Monitor**
  Monitors the selected channel for any activity
- **Sticky Permanent Monitor**
  Allows continuous channel monitoring
- **2 Memory Channels**
  Direct access to up to 2 memory channels
- **Escalert™**
  Increases volume of unanswered alarm alert
- **System Scan in LTR Mode**
- **User-Programmable Scan List and Phone List**

• **LTR Site Information**
  – *Area ID*
  – *Disconnect Words*
  – *Data Invert Rx/Tx*

• **LTR Repeater Information**
  – *Repeater Number*
  – *Interconnect option*
  – *Channel Spacing (12.5kHz / 20kHz / 25kHz)*
  – *Companding mode*
  – *Rx/Tx Frequency (MHz) and Offset*
  – *Reference Frequency (MHz)*

• **LTR Talkgroup Information**
  – *Home Repeater designation*
  – *Scan List Edit*
  – *Call Light*
  – *Telephone Interconnect*
  – *Cue Tone*
  – *Rx ID Range*
  – *Tx ID Range*
  – *Tx Inhibit ID Range*
  – *MDC Signaling System*
  – *Power Level (High or Low)*

• **LTR Universal ID (UID) Information**
  – *Rx ID Number*
  – *Call Light*
  – *Tx Inhibit*

16 Channels/Up to 16 LTR Talkgroups

Antenna
Choice of antenna options for your specific needs

Large Rotary Channel Selector
Fixed rotary knob changes channels quickly and easily

Rotary On/Off/Volume Control

Tri-Color LED Indicator
Indicates radio status and battery levels

Accessory Connector with Dust Cover
Convenient access for audio accessories

Microphone/Speaker
Larger, with improved components for enhanced audio

3" Belt Clip
Attaches radio firmly to belt

Rugged, Die-Cast Chassis
With polycarbonate housing for greater protection

Two Programmable Option Buttons (S1, S2)
Support up to 4 favorite features

Large, Textured Push-to-Talk Button
Easy to find and use, even when wearing gloves

Battery Latch Lock
Secures battery in case the radio is dropped

PR400 Portable Standard Package

• **Radio**
• **1600 mAh Slim Lithium-ion Battery**
• **90-Minute Rapid Charger**
• **3" Spring Belt Clip**
• **Antenna (VHF Heliflex or UHF Whip)***
• **User Guide**
• **Safety Manual**
• **2-Year Radio Warranty**

*Motorola offers a variety of antenna options, such as the UHF Heliflex Stubby Antenna (NAE6522) shown throughout this brochure and VHF Stubby Antenna (HAD9742/HAD9743).

LTR Trunking Signaling Features

• MDC 1200 Signaling
• PTT-ID Encode
• Radio Check Decode
• Selective Radio Inhibit Decode
• Data-Operated Squelch (DOS)
• Pre-Time

PR400 Portable with Full Display and Limited Keypad

PR400 Additional Features

The Full Display/Limited Keypad model has all of the same regular and programmable features as the Non-Display model plus the following:

• 32 Conventional Channels

• Up to 100 LTR Talkgroups

• Up to 10 Sites and 100 Talkgroups in LTR

• Mixed Assignment of Conventional Personalities and LTR Talkgroups

• Up to 20 Repeaters per Site in LTR

• Up to 4 Universal IDs per System in LTR

• Up to 40 Universal IDs per Radio in LTR

• Up to 8 Programmable Features

• Supports Up to 16 Scan Lists of Up to 16 Channels Per List

• User-Editable Standard TPL/DPL Codes

• User-Editable Scan List

• Lights On/Off
   Keypad and display backlights

• Tones On/Off

• Call Tone Tagging
   Tag a special tone for a particular call

• Quik Call II™ Signaling
   – Selective Call Encode: Calls a specific group or individual
   Call Alert Encode: Notifies a specific group or individual user with an alert tone and lighted LED

• DTMF Signaling
   – Selective Call/Call Alert Encode

LTR Trunking Signaling Features

• MDC 1200 Signaling

• PTT-ID Encode

• PTT-ID Decode

• Radio Check Decode

• Selective Radio Inhibit Decode

• Data-Operated Squelch (DOS)

• Pre-Time

32 Channels/Up to 100 LTR Talkgroups

Large Rotary Channel Selector
Continuous rotary knob changes channels quickly and easily

Backlit 8-Character Alphanumeric Display with User-Friendly Icons
Display indicates radio status and battery levels and allows for viewing of channel names and Caller IDs, so users know who's contacting them on the radio

Menu Scroll Buttons
Allow user to change channels and access menu features

Four Programmable Option Buttons (S1, S2, P1, P2)
2 side and 2 front buttons support up to 8 favorite features

PR400 Additional Programmable Features

(You can choose up to 8)

- **Phone Mode**
  Provides access to telephone interconnect through a repeater

- **Menu Mode Enter/Exit**
  Access to radio menu and to select a menu option

- **Radio Call**
  Allows a user to initiate Quik-Call II™ and/or DTMF Call Alert or Selective Call Encode from a call list

- **Scan List Edit**
  Allows user to add/remove channels from current scan list

- **System Scan in LTR mode**

- **Phone Mode and Phone System Assignment in LTR**

- **User-Programmable Scan List and Phone List**

- **LTR Site Information**
    - *Area ID*
    - *Disconnect Words*
    - *Data Invert Rx/Tx*

- **LTR Repeater Information**
    - *Repeater Number*
    - *Interconnect Option*
    - *Channel Spacing (12.5kHz / 20kHz / 25kHz)*
    - *Companding Mode*
    - *Rx/Tx Frequency (MHz) and Offset*
    - *Reference Frequency (MHz)*

- **LTR Talkgroup Information**
    - *Home Repeater Designation*
    - *Scan List Edit*
    - *Call Light*
    - *Telephone Interconnect*
    - *Cue Tone*
    - *Rx ID Range*
    - *Tx ID Range*
    - *Tx Inhibit ID Range*
    - *MDC Signaling System*
    - *Power Level (High or Low)*

- **LTR Universal ID (UID) Information**
    - *Rx ID Number*
    - *Call Light*
    - *Tx Inhibit*

Excellence in Design

Great care was taken in the design process of the PR400 and PM400 to not only help ensure ruggedness and reliability, but ease of use and functionality.

What's in a test? Motorola's radios must survive multiple drops from a height of five feet onto a hard surface to surpass our durability standards. And Motorola's Accelerated Life Test dishes out the equivalent of five years of abuse over a period of just three to five weeks. Our comprehensive testing is intended to design and develop a tough, high-quality radio that serves you for the long term.

PR400 Portable with Full Display and Full Keypad

PR400 Additional Features

The Full Display/Full Keypad model has all of the same regular and programmable features as the Non-Display and Limited Keypad models plus the following:

• 64 Conventional Channels
• Up to 100 LTR Talkgroups
• Mixed Assignment of Conventional Personalities and LTR Talkgroups
• Up to 10 Sites and 100 Talkgroups in LTR
• Up to 20 Repeaters per Site in LTR
• Up to 4 Universal IDs per System in LTR
• Up to 40 Universal IDs per Radio in LTR
• Up to 8 Programmable Features
• User-Editable Standard and Non-Standard TPL/DPL Codes
• Keypad Tones On/Off
• Manual Access Repeater: Send DTMF tones to repeater
• User-Editable Phone List
• Speed Dial for Radio Call Encode

LTR Trunking Signaling Features

• MDC 1200 Signaling
• PTT-ID Encode
• PTT-ID Decode
• Radio Check Decode
• Selective Radio Inhibit Decode
• Data-Operated Squelch (DOS)
• Pre-Time

64 Channels/Up to 100 LTR Talkgroups

Large Rotary Channel Selector
Continuous rotary knob changes channels quickly and easily

Backlit 8-Character Alphanumeric Display with User-Friendly Icons
Display indicates radio status and battery levels and allows for viewing of channel names and Caller IDs, so users know who's contacting them on the radio

Four Programmable Option Buttons (S1, S2, P1, P2)
2 side and 2 front buttons support up to 8 favorite features

Menu Scroll Buttons
Allows user to change channels and access menu features

Full DTMF Keypad

PR400 Additional Programmable Features

(You can choose up to 8)

- **Speed Dial**
- **Keypad Lock/Unlock**
  Allows user to lock/unlock keypad access to prevent unauthorized phone use

- **System Scan in LTR mode**
- **Phone Mode and Phone System Assignment in LTR**
- **User-Programmable Scan List and Phone List**

- **LTR Site Information**
  – *Area ID*
  – *Disconnect Words*
  – *Data Invert Rx/Tx*

- **LTR Repeater Information**
  – *Repeater Number*
  – *Interconnect Option*
  – *Channel Spacing (12.5kHz / 20kHz / 25kHz)*
  – *Companding Mode*
  – *Rx/Tx Frequency (MHz) and Offset*
  – *Reference Frequency (MHz)*

- **LTR Talkgroup Information**
  – *Home Repeater Designation*
  – *Scan List Edit*
  – *Call Light*
  – *Telephone Interconnect*
  – *Cue Tone*
  – *Rx ID Range*
  – *Tx ID Range*
  – *Tx Inhibit ID Range*
  – *MDC Signaling System*
  – *Power Level (High or Low)*

- **LTR Universal ID (UID) Information**
  – *Rx ID Number*
  – *Call Light*
  – *Tx Inhibit*

- **DTMF (Full-Keypad) Specific Features**
  – *DTMF Last Number Redial in Phone Mode*
  – *Auto DTMF Access/De-access Code*
  – *Manual Entry of DTMF Access/De-access Code*

Batteries and Chargers

All PR400 radios come standard with a lightweight 1600 mAh Slim Lithium-ion battery. It's easy to carry, does not suffer from memory effect and can be charged in 90 minutes with Motorola's new rapid charger included in the standard package. There's also a new FM-certified "intrinsically safe" NiMH 1300 mAh battery option.

Whether you select our nickel-cadmium, nickel-metal hydride or lithium-ion battery, remember to only charge it with a Motorola Original® battery charger.

Because you need to hear and be heard

The PR400 and PM400 use Motorola's X-Pand™ technology to compress the speaker's voice at transmission and expand it at the receiving end while simultaneously reducing extraneous noise. X-Pand improves the signal-to-noise ratio to improve audio quality, particularly at 12.5kHz channel spacing.

PR400 Accessories

MOTOROLA ORIGINAL® BATTERIES are ruggedly designed for lasting durability and system tested with Motorola two-way radios to ensure optimum performance. We offer various chemistry and capacity alternatives, allowing you to select the ideal battery for your needs. NiCd is best suited for extreme-temperature operation, and provides the maximum number of charge/discharge cycles. Li-ion and NiMH batteries offer extended duty cycles – providing more talk time per shift.

BATTERIES

NNTN4496AR – 1100 mAh NiCd Battery

NNTN4497AR – 1800 mAh Li-ion Battery

NNTN4851A – 1400 mAh NiMH Battery

NNTN4852A* – 1300 mAh NiMH FM Battery

NNTN4970A – 1600 mAh Slim Li-ion Battery

NNTN4970A
Slim Li-ion Batteries

ANTENNAS

HAD9742A – VHF Stubby Antenna, 146-162 MHz
HAD9743A – VHF Stubby Antenna, 162-174 MHz
NAE6522AR – UHF Heliflex Stubby Antenna, 438-470 MHz
8505816K26 – UHF Heliflex Stubby Antenna, 470-512 MHz
Stubby antennas are ideal for wearing radio on the belt because the antenna is non-obtrusive.

NAD6502AR – VHF Heliflex Antenna, 146-174 MHz
Heliflex antennas, specifically engineered for maximum output and greatest coverage.

NAE6483AR – 6-Inch Flexible Whip Antenna, 403-512 MHz
Has a one-piece finish and a steel core for optimal radiation characteristics.

NAE6483AR
6-Inch Flexible
Whip Antenna

NAD6502AR
VHF Heliflex
Antenna

* Intrinsically Safe (FM)

CHARGERS

WPLN4138AR
Desktop Rapid 90-Minute Charger 120 Volt
Rapid-rate desktop charger will charge your battery
within two hours. Lightweight and compact design
supports NiCd, NiMH, and Li-ion battery chemistries.

WPLN4155AR – 10-Hour Desktop Charger 120 Volt
Lightweight and compact unit charger will charge
the NNTN4496AR NiCd battery overnight.
(For use with NNTN4496AR NiCd battery only.)

WPLN4161AR – 120 Volt 6-Unit Rapid Rate Charger
Multi-unit chargers offer six pockets that can be used
to rapid charge one to six batteries simultaneously.
The batteries can be charged with the radios or
separately. They will rapid-rate charge NiMH, NiCd
and Li-ion batteries.

EPNN7994A – Rapid Rate Charger Transformer 120 Volt
Lightweight and compact charger transformer
plugs directly into the radio accessory connector.
(For use with NiCd, NiMH, and Li-ion batteries.)

EPNN7997A – 10-Hour Plug-in Charger 120 Volt
Slow-rate charger plugs directly into the radio
accessory connector.
(For use with NNTN4496AR NiCd battery only.)

WPLN4138AR
Desktop Rapid 90-Minute Charger

WPLN4161AR
6-Unit Rapid-Rate Charger

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CARRY ACCESSORIES

HLN9701B – Nylon Carry Case with Belt Loop and D-rings
Ideal solution for those users who want a lightweight carrying accessory combined with the protection of a carry case.

RLN5644A – 2-Inch Spring Action Clip
HLN8255B – 3-Inch Spring Action Clip
Simple and easy-to-use solution for users who want a low-cost, lightweight carrying accessory and do not require the protection of a carry case.

RLN5383A – Leather Carry Case with Belt Loop and D-rings, Non-Display Models
RLN5498A – Hard Leather Carry Case with Belt Loop, Full Display Models
RLN5640A – Hard Leather Carry Case with 2.5-Inch Belt Loop, Limited Display Models
Made from natural leather, these form-fitting carry cases provide access to radio keys, display, PTT and side connector while protecting the radio. The belt loop allows the cases to be worn comfortably and snaps allow the cases to be more easily removed from the belt.

RLN5384B – Leather Carry Case with High-Activity 2.5-Inch Swivel Belt Loop, Non-Display Models
RLN5496A – Hard Leather Carry Case with 2.5-Inch Belt Loop, Full Display Models
RLN5641A – Hard Leather Carry Case with 2.5-Inch Belt Loop, Limited Display Models
Made from natural leather, these form-fitting carry cases provide access to radio keys, display, PTT, and side connector while protecting the radio. The swivel belt loops allow the radio and case to rotate from side to side – providing added comfort for portable users. And, swivel cases can be inverted and removed from the belt loop for added convenience.

RLN5385B – Leather Carry Case with High-Activity 3-Inch Swivel Belt Loop, Non-Display Models
RLN5497A – Hard Leather Carry Case with 3-Inch Belt Loop, Full Display Models
RLN5642A – Hard Leather Carry Case with 3-Inch Belt Loop, Limited Display Models
Swivel design moves from side to side to accommodate user's position. Wide 3-inch belt loop accommodates wider belts. Holds case securely to belt loop while allowing easy removal of radio.

NTN5243A – Shoulder Carry Strap
Attaches to D-rings on carry cases to provide added comfort.

PORTABLE RADIO HANGERS

TDN9327A – Portable Radio Hanger for Door Panels up to 2.75 Inches
TDN9373A – Portable Radio Hanger for Door Panels up to 3.25 Inches

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

RLN4570A – Break-A-Way Chest Pack

*RLN5641A
Hard Leather Carry Case with
2.5-Inch Belt Loop*

*HLN9701B
Nylon Carry Case with
Belt Loop and D-rings*

*RLN5385B
Leather Carry Case with High-Activity
3-Inch Swivel Belt Loop*

EAR MICROPHONE ACCESSORIES

The Ear Microphone System (EMS) works in standard noise levels (up to 95dB). These compact units pick up voice through bone vibrations in the ear canal. The miniature ear-piece leaves the hands free and face unobscured, so the user retains the ability for direct hearing and speaking. For personnel required to wear breathing apparatus, communication with protective masks is as clear as communication without masks. And, its high speech clarity makes the EMS ideal for high-noise environments. Available in Push-to-Talk (PTT) or Voice Activated (VOX). Push-to-Talk accessories are available to enhance the use of the Ear Microphone System.

BDN6646C*
Ear Microphone System, with Push-to-Talk Interface

BDN6706B*
Ear Microphone System, with Voice-Activated and Push-to-Talk Interface

0180358B38* – Ring Switch Push-to-Talk

0180300E83* – Body Switch Push-to-Talk

REMOTE SPEAKER MICROPHONE

HMN9030A* – Remote Speaker Microphone
This compact unit allows the user to talk and listen without removing the radio from the belt, case and charger. Includes coiled cord, Push-to-Talk switch and swivel clothing clip.

MISCELLANEOUS

RLN5500A – Accessory Retainer Clip
Holds audio accessories securely to radio.

BDN6646C
Ear Microphone System, with PTT Interface

0180300E83
Body Switch Push-to-Talk

HMN9030A
Remote Speaker Microphone

* Intrinsically Safe (FM)

SURVEILLANCE ACCESSORIES AND EARPIECES

BDN6720A – Black Flexible Ear Receiver
Receive-only earpieces contain a flexible ear loop and speaker worn on the outside of the ear.

HLN9132A – Single-Wire Receive-Only Earbud
Ideal for users who need to receive information frequently, but seldom need to transmit.

HMN9036A – Earbud with Microphone and Push-to-Talk
Pellet-style earpieces allow users to communicate discreetly and are comfortable for extended periods of time. Clip microphones securely attach to shirt.

HMN9727B* – Beige Receive-Only Earpiece
Allows user to privately receive communication; ideal when discreet communication is important.

HMN9754D* – Beige
Earpiece Assembly with Microphone and Combined Push-to-Talk
RLN4895A* – Black
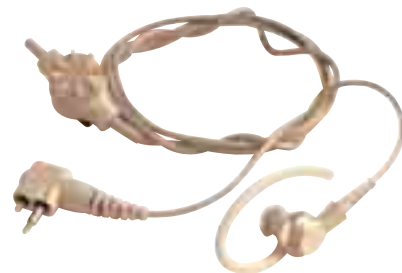**Earpiece Assembly with Microphone and Combined Push-to-Talk**
Two-wire accessory allows users to transmit and receive discreetly.

HMN9752B* – Beige Receive-Only Earpiece with Volume Control
Allows user to privately receive communication; ideal when discreet communication is important. User can change volume without having to reach for the radio.

RLN4894A
Black Receive-Only Earpiece
Allows user to privately receive communication; ideal when discreet communication is important.

*BDN6720A – Black
Flexible Ear Receiver*

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

*HMN9754D – Beige
Earpiece Assembly with Microphone and
Combined Push-to-Talk*

*HMN9752B – Beige
Receive-Only Earpiece with
Volume Control*

*RLN4894A
Black Receive-Only Earpiece*

* Intrinsically Safe (FM)

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PMMN4001A – Ultra-Light Earpiece with Microphone and In-line Push-to-Talk
Lightweight headsets allow for high-clarity, hands-free, discreet two-way communication while adding comfort necessary for extended wear in moderate-noise environments. No adapter required.

RLN5317A – Beige
Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk
RLN5318A – Black
Two-Wire Comfort Earpiece with Combined Microphone and Push-to-Talk
Surveillance Kits 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. Basic model includes a comfort earpiece with a rubber ear tip and a clear, comfortable acoustic tube.

NTN8370A – Extreme Noise Kit
Includes two foam earplugs designed for use in loud environments. Provides 24dB of noise reduction. Compatible with Motorola one-, two- and three-wire surveillance accessories.

NTN8371A – Low-Noise Kit
Includes rubber ear tip for low-noise environments; does not provide hearing protection. Compatible with Motorola one-, two- and three-wire surveillance accessories.

RLN4760A Custom Clear Comfortable Earpiece – Right Ear, Small

RLN4761A Custom Clear Comfortable Earpiece – Right Ear, Medium

RLN4762A Custom Clear Comfortable Earpiece – Right Ear, Large

RLN4763A Custom Clear Comfortable Earpiece – Left Ear, Small

RLN4764A Custom Clear Comfortable Earpiece – Left Ear, Medium

RLN4765A Custom Clear Comfortable Earpiece – Left Ear, Large

Designed to form to the inside of the ear; perfect for low-noise environments. Made of easy-to-clean, chemically-inert hypoallergenic material. Requires NTN8371A Clear Acoustic Tube Assembly and a Motorola Surveillance Kit for operation.

RLN4763A
Custom Clear
Comfortable
Earpiece

PMMN4001A
Ultra-Light Earpiece with
Microphone and In-line PTT

RLN5317A – Beige
Two-Wire Comfort Earpiece with
Combined Microphone and PTT

RLN5318A – Black
Two-Wire Comfort Earpiece with
Combined Microphone and PTT

NTN8371A
Low-Noise Kit

HEADSETS

BDN6647F*
Medium-Weight Single-Muff Headset with Boom Microphone
Medium-weight design offers high-clarity sound with the additional hearing protection necessary for providing virtually constant, clear radio communication in harsh, noisy situations.

BDN6648C – Heavy-Duty Headset
Behind-the-head style with noise reduction rating of 24dB; can be worn with most hard hats. Includes noise-canceling boom microphone and Push-to-Talk switch located on the earcup. VOX module is contained within the headset.

HMN9013A* – Lightweight Single-Muff Headset
Single-muff adjustable headset with swivel boom microphone allows for high-clarity, hands-free communication for extended wear in moderately noisy environments. Works with the radio's Push-to-Talk button.

HMN9021A
Medium-Weight, Over-the-Head Dual-Muff Headset
Over-the-head style with noise-reduction rating of 24dB. Medium-weight design offers high-clarity sound with the additional hearing protection necessary for providing virtually constant, clear radio communication in harsh, noisy situations.

HMN9022A
Medium-Weight, Behind-the-Head Dual-Muff Headset
Behind-the-head style can be conveniently worn with most hard hats. Noise-reduction rating of 24dB. High-clarity sound with the additional hearing protection necessary for providing virtually constant, clear radio communication in harsh, noisy situations.

HMN9013A
Lightweight Single-Muff Headset

HMN9022A
Medium-Weight, Behind-the-Head Dual-Muff Headset

* Intrinsically Safe (FM)

RMN4051B – Black Two-way Hardhat Mount Headset with Noise-Canceling Boom Microphone
RMN4054B – Receive-Only Hardhat Mount Headset
RMN4055B – Receive-Only Headband-Style Headset
Ideal for two-way communication in high-noise environments; mounts easily to hardhats with slots, excellent noise reduction of 22dB. Easily replaceable ear seals are filled with liquid and foam combination to provide excellent sealing comfort. Three-foot coiled-cord assembly. Requires RKN4094A separate in-line Push-to-Talk (PTT) adapter cable.

RKN4094A – In-Line Push-to-Talk (PTT) Adapter Cable
For use with RMN4051B, RMN4054B and RMN4055B.

RLN5238A
NFL®-Style Lightweight, Single-Muff Headset with In-line Push-to-Talk
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.

RLN5411A – Ultra-Lightweight, Behind-the-Head Headset
Sleek design provides all-day comfort for professionals. Includes flexible boom microphone and in-line Push-to-Talk.

RMN4016A* – Lightweight Headset with In-Line Push-to-Talk
Single-muff adjustable headset with swivel boom microphone and in-line Push-to-Talk allows for high-clarity, hands-free communication while adding the comfort necessary for extended wear in moderately noisy environments. In-line Push-to-Talk adds convenience for communication without having to reach for the radio.

RMN5015A – Racing Headset
Heavy-duty, behind-the-head style can be worn with most hard hats. Noise-canceling swivel boom microphone and noise-reduction rating of 24dB make this ideal for high-noise environments; racing teams like CART use it in the pits for dependable communication. Radios require adapter cable RKN4090A (sold separately).

RKN4090A – Radio Adapter Cable
For use with PR400 two-way radio and RMN5015A Racing Headset.

* Intrinsically Safe (FM)

HMN9021A
Medium-Weight Dual-Muff Headset

RLN5238A
NFL®-Style Lightweight, Single-Muff Headset with In-line Push-to-Talk

RMN5015A
Racing Headset

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PM400 Mobile

64 Channels/LTR Talkgroups

**8-Character Alphanumeric Display
with User-Friendly Icons**
*Assign a name to each channel for
ease of use*

**Up/Down Channel Selector and
Menu Scroll Buttons**

4-Watt Front-Projecting Speaker

**Die-Cast Housing with Polycarbonate
Outer Casing**

4 Programmable Buttons (P1, P2, P3, P4)
*Customize shortcuts for up to 8 favorite
features with a short/long press*

Red/Yellow/Green LED Indicators

Rotary On/Off/Volume Control

PM400 Features

- **64 Conventional Channels**
- **Up to 100 LTR Talkgroups**
- **Mixed Assignment of Conventional Personalities and LTR Talkgroups**
- **Up to 10 Sites and 100 Talkgroups in LTR**
- **Up to 20 Repeaters per Site in LTR**
- **Up to 4 Universal IDs per System in LTR**
- **Up to 40 Universal IDs per Radio in LTR**
- **Up to 8 Programmable Features**
- **VHF and UHF Frequencies**
- **Transmit Time-Out Timer**
- **Busy Channel Lockout**
- **Voice-Operated Transmit** (requires voice-activated microphone)
- **Private-Line/Digital Private-Line Code Editing**
- **TPL Standard and Non-Standard Reverse Burst** (for better compatibility with fleets)
- **Privacy Codes** (42 standard TPL codes, 84 standard DPL codes and non-standard codes)
- **System Scan and Auto Scan**
- **Supports Up to 16 Scan Lists of Up to 16 Channels Each**
- **Single- and Dual-Priority Scan** (frequently scans higher-priority channels)

- **Revert Scan** (radio moves automatically to last-landed scan channel when exiting scan mode)
- **Scan Talkback** (respond to transmission while scanning)
- **Adjustable Backlight Intensity**
- **Quik-Call II™ Signaling Encode/Decode**
    - Selective Call: Calls a specific group or individual
    - Call Alert: Notifies a specific group or individual user with an alert tone and lighted LED
- **MDC1200 Signaling**
    - PTT ID Encode/Decode: Sends unique four-digit (Caller ID) information when transmitting on the current MDC system
    - Selective Radio Inhibit Decode: Dispatcher can remotely disable radio to prevent transmission from reaching stolen or inactive radios
    - Radio Check Decode: Dispatcher can determine remotely if radio is powered on without disturbing user
    - Emergency Encode: Causes an MDC Emergency Signal to be transmitted on the current MDC system
- **DTMF Signaling**
    - PTT ID Encode: Sends unique one- to eight-digit ID (Caller ID) information when transmitting on the current DTMF system, which can be displayed on

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radios equipped with DTMF decoding capabilities
– Selective Call/Call Alert Encode
• **Call Tone Tagging** (special tone for a particular call)
• **2-Year Standard Warranty**

LTR Trunking Signaling Features

• MDC 1200 Signaling
• PTT-ID Encode
• PTT-ID Decode
• Radio Check Decode
• Selective Radio Inhibit Decode
• Data-Operated Squelch (DOS)
• Pre-Time

PM400 Programmable Features

(You can choose up to 8)

• **2-Channel Home Revert**
  Returns to 1 or 2 favorite channels
• **Volume Set**
  Sets preferred volume level for radio speaker
• **Silent Monitor/Open Squelch**
  Silent monitor causes radio to remain silent when there is no channel activity; open squelch monitor causes "white noise" to be heard when there is no channel activity
• **Sticky Permanent Monitor**
  Allows continuous channel monitoring
• **High/Low Power**
  Adjusts transmit power to accommodate user environment
• **Repeater Talkaround**
  Unit-to-unit communication, bypassing the repeater
• **Local/Distance**
  Local mode reduces interference from nearby radios; distance mode helps improve range
• **Tight/Loose Squelch**
  Tight squelch helps minimize interference from undesired strong signals; loose squelch helps weak signals to be heard
• **Nuisance Channel Delete**
  Temporarily deletes a specific channel from your scan mode if you no longer want to hear activity on that channel
• **Scan On/Off**
  Enables/disables scan mode of operation
• **VOX On/Off**
  Enables/disables voice-operated transmit function for the current channel
• **Escalert**
  Increases volume of unanswered alarm alert
• **Menu Mode**
  Access to radio menu and to select a menu option
• **Option Board On/Off**
  Enables/disables option board functionality for the current personality
• **Phone Mode**
  Provides access to telephone interconnect through a repeater
• **Speed Dial**
  Initiates a phone call to a preprogrammed recipient with the press of a DTMF key (requires a DTMF keypad microphone)
• **Radio Call**
  Allows user to initiate Quik-Call II™ and/or DTMF Call Alert or Selective Call Encode from a call list
• **Scan List Edit**
  Allows user to add/remove channels from current scan list
• **External Alarm**
  Activates a warning or alert by triggering flashing headlights, a siren or a horn (requires an external alarm accessory and an accessory connector pin to be programmed for external alarm through CPS)
• **System Scan in LTR mode**
• **Phone Mode and Phone System Assignment in LTR**
• **User-Programmable Scan List and Phone List**
• **LTR Site Information**
  – *Area ID*
  – *Disconnect Words*
  – *Data Invert Rx/Tx*
• **LTR Repeater Information**
  – *Repeater Number*
  – *Interconnect Option*
  – *Channel Spacing (12.5kHz / 20kHz / 25kHz)*
  – *Companding Mode*
  – *Rx/Tx Frequency (MHz) and Offset*
  – *Reference Frequency (MHz)*
• **LTR Talkgroup Information**
  – *Home Repeater Designation*
  – *Scan List Edit*
  – *Call Light*
  – *Telephone Interconnect*
  – *Cue Tone*
  – *Rx ID Range*
  – *Tx ID Range*
  – *Tx Inhibit ID Range*
  – *MDC Signaling System*
  – *Power Level (High or Low)*
• **LTR Universal ID (UID) Information**
  – *Rx ID Number*
  – *Call Light*
  – *Tx Inhibit*
• **DTMF (Full-Keypad) Specific Features**
  – *DTMF Last Number Redial in Phone Mode*
  – *Auto DTMF Access/De-access Code*
  – *Manual Entry of DTMF Access/De-access Code*

Standard PM400 Product Package

• Radio with Rear-Mounted Connectors for Power, 16-Pin Accessory and Mini-U Antenna
• Low-Profile Mounting Bracket
• Heavy-Duty Microphone with Hang-Up Clip
• Standard Power Cable
• User Guide
• Safety Booklet
• 2-Year Standard Warranty

PM400 RADIO ACCESSORIES

Motorola offers an extensive assortment of Motorola Original® Accessories and Motorola Certified Accessories that allows you to customize the PM400 radio to your unique communication needs. Motorola Original Accessories are system tested specifically with the PM400 radio and they carry a one-year limited warranty.

- **Microphone Accessories** – microphones and speakers
  Make it easy to hear and be heard
- **Hands-Free Accessories**
  Help improve operating convenience
- **Public Address Accessories**
  Get the word out to everyone in the immediate area
- **Mounting Accessories**
  Customize the mobile's mounting for added convenience
- **Desktop Base Station Accessories** – power supplies and stands
  Set up an efficient, centralized base station
- **Alarm Accessories**
  Provide a warning or an alert
- **Installation Accessories**
  Make sure your radios are installed properly
- **Antenna Accessories**
  Transmission and reception is everything
- **Mobile Data Accessories**
  Information is power with mobile data and GPS

MOTOROLA
ORIGINAL ®

MICROPHONE ACCESSORIES

HMN1035C – Heavy-Duty Palm Microphone with 10.5-ft. Coil Cord
Durable microphone is larger and designed for easy use while
wearing gloves. Ships standard with PM400 radios.

HMN3413A
Compact Palm Microphone with 7-ft. Coil Cord with Clip

RMN5029A
Enhanced Keypad Microphone with 7-ft. Coil Cord with Clip
The enhanced keypad microphone features a backlit 12-digit with
Clip DTMF keypad that generates the standard tones needed by
users to access telephone communication systems through a
repeater equipped with telephone interconnect.

HMN3596A – Compact Palm Microphone with 7-ft. Coil Cord
Replacement compact microphone.

AAREX4617A – Telephone-Style Handset
Telephone-style handset is ideal for those who want the ability
to conduct private conversation; users can transmit and receive
messages through this ergonomically designed, easy-to-hold
handset. Includes cup and hardware.

HLN9073B – Microphone Hang-Up Clip
Compatible with all Motorola microphones. Regular hard
mounted clip – installation required. Mounts in vehicle
to secure mobile microphone.

HLN9414A – Universal Hang-Up Clip
Compatible with all Motorola microphones.
No installation required.

*Telephone-Style Handset is ideal for users
wanting to conduct private conversations.*

*AAREX4617A
Telephone-Style Handset*

*HMN1035C
Heavy-Duty Palm Microphone*

*HMN3596A
Compact Palm Microphone
with power supply and PM400*

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The PM400 is compatible with most Motorola portable and mobile radio accessories.

EXTERNAL SPEAKERS AND PUBLIC ADDRESS SYSTEMS

HSN8145B – External 7.5-Watt Speaker
Speaker offers a high level of radio volume output which can be beneficial for users in high-noise environments.

RSN4001A – External 13-Watt Speaker
For extremely noisy environments, this speaker offers a higher level of radio volume output so users can communicate.

RLN5288A – Public Address Kit
Includes two cables for mobile connection to public address box and speaker cables. Requires HSN1000B speaker.

HSN1000B – 6-Watt Amplified External Speaker
Required for use with RLN5288A, Public Address Kit. For Public Address Audio.

HKN9324AR – 15-ft. Public Address/Speaker Cable
One cable is required per speaker.

HSN8145B
External 7.5-Watt Speaker

HSN1000B
Amplified External
Speaker for Public
Address Audio Kit

RSN4001A
External 13-Watt Speaker

HANDS-FREE ACCESSORIES

AARMN4027A – Visor Microphone
Visor microphone for use with external Push-to-Talk accessories. Microphone mounts to vehicle's visor for convenient hands-free operation of the radio. Provides wind noise reduction. Must be used in conjunction with other hands-free Push-to-Talk accessories such as the pushbutton with Push-to-Talk, foot switch with Push-to-Talk or gooseneck mount with Push-to-Talk.

RLN4856A – Foot Switch with Push-to-Talk
Foot switch with Push-to-Talk feature provides hands-free operation of radio in the vehicle, allowing the user to transmit messages without using a mobile microphone. Foot switch mounts to the vehicle's floor and must be used in conjunction with the visor microphone (AARMN4027A).

RLN4857A – Pushbutton with Push-to-Talk
Pushbutton with Push-to-Talk feature provides hands-free operation of a radio in a vehicle, allowing the user to transmit messages without using a mobile microphone. Must be used in conjunction with the visor microphone (AARMN4027A). Push-to-Talk button can be held in the hands or mounted in the vehicle with touch fasteners.

RLN4858A – Gooseneck Mount with Push-to-Talk
Gooseneck mount with Push-to-Talk feature provides hands-free operation of a radio in a vehicle, allowing the user to transmit messages without using a mobile microphone. The gooseneck Push-to-Talk button mounts to the steering wheel column and must be used in conjunction with the visor microphone (AARMN4027A).

RLN4836AR – Emergency Foot Switch
Emergency foot switch enables the user to notify the base station quickly and discreetly that he or she is in an emergency situation. Pressing the foot switch sends a signal to the base station and activates the microphone to allow communication with the base station.

MOUNTING ACCESSORIES

GLN7324A – Low-Profile Mounting Bracket

The low-profile mounting bracket is used to keep the radio tucked up under the dash. Mounting bracket can also be positioned for floor mounting of a radio.

GLN7317A – High-Profile Mounting Bracket

The high-profile mounting bracket is used to keep the radio tucked up under the dash. It offers more clearance between the dash and the radio than does the low-profile bracket, but with added room to allow the user to tilt the radio for a better view when needed. In addition, it can be positioned for floor mounting of the radio.

HLN9227A – 8-Inch Gooseneck Mounting Bracket

The gooseneck mounting bracket is perfect for a range of mounting challenges. The gooseneck raises the mobile for better viewing of display. Additionally, the user can adjust the bottom "foot" to mount on a vertical surface when no other convenient location is available.

RLN4779A – Key Lock Mount Bracket

Key lock mount bracket allows the mobile to be mounted and locked and gives radio users extra protection from theft by requiring use of a key to lock/unlock the radio from its position in the mounting bracket.

GLN7317A
High-Profile Mounting Bracket

HLN8097A – Removable Slide Mount

Removable slide mount is ideal if users frequently move the radio from one vehicle to another. The radio easily slips in and out of the slide mount so users can take it with them when they leave the vehicle.

ALARM ACCESSORIES

HLN9328C – External Alarm Relay Cable - Horn and Lights

GLN7282A – Alarm Buzzer Kit

HLN8097A
Removable Slide Mount

INSTALLATION ACCESSORIES

HKN4137AR – 12 Volt, 1-45 Watt Low-Power Cable
Cable used to connect the battery to the radio chassis.

HKN4191B – 12 Volt, 40-60 Watt High-Power Cable
Cable used to connect the battery to the radio chassis.

HLN9242A – 16-Pin Accessory Kit with Expanded Connector
Kit allows existing 16-pin connector accessories to be modified for enhanced connector reliability when used with CM Series mobiles. Includes 9 wires with lugs, 1 connector housing, 16 crimping terminals, 2 tie straps and 1 extraction tool.

HKN9327BR – Ignition Switch Cable with Housing Connector
Cable is used to connect the battery to the radio chassis and is an option for mobile radio users who want their mobiles to turn on when they start the ignition. Requires HLN9242.

ANTENNAS

For optimum range and quality, it is important to match the PM Series mobile radio's frequency with the proper Motorola Original® antenna. Every unit needs one. Seven VHF and four UHF models are available for the various PM400 configurations. These are available as standard 1/4 wave models or can include 3dB, 3.5dB or 5dB signal gain. A permanent roof-mount antenna is a reliable and secure option. However, some users who periodically remove the radio from their vehicles may prefer a magnetic-mount antenna.

VHF
HAD4006A – VHF 136-144 MHz, 1/4 Wave Roof Mount
HAD4007A – VHF 144-152 MHz, 1/4 Wave Roof Mount
HAD4008A – VHF 150.8-162 MHz, 1/4 Wave Roof Mount
HAD4009A – VHF 162-174 MHz, 1/4 Wave Roof Mount

RAD4000A – VHF Antenna Only, 140-174 MHz

HAD4014A – VHF 140-174 MHz, 3dB Gain Roof Mount
RAD4000AMB – VHF 140-174 MHz, 3dB Gain Magnetic Mount

UHF
HAE4003A – UHF 450-470 MHz, 1/4 Wave Roof Mount
TAE6053A – UHF 430-450 MHz 1/4 Wave Roof-Mount Antenna

RAE4004ARB – UHF 450-470 MHz, 5dB Gain Roof Mount
RAE4004AMB – UHF 440-470 MHz, 5dB Gain Magnetic Mount

DESKTOP BASE STATION ACCESSORIES

The PM400 converts easily to a desktop base station when a desktop microphone and desktop tray are utilized.

HMN3000B – Desktop Microphone, Black
Black desktop microphone makes transmissions easy when the mobile radio is being used from a desktop because the microphone and Push-to-Talk button are larger. Microphone can help expedite transmissions because the user doesn't have to keep picking up the mobile microphone.

RLN5391A – Desktop Tray without Speaker
Ideal for securing the mobile in place in a desktop environment.

RLN5390A – Desktop Tray with Speaker
Ideal for securing the mobile in place in a desktop environment. Includes speaker for increased volume when receiving calls in high-noise areas.

HPN4002B – Power Supply and Cable (1-25 Watt Models)
1-25 watt power supply for use with low-power radios in order to provide power for mobiles in a desktop environment.

HPN4001B – Power Supply and Cable (25-60 Watt Models)
25-60 watt power supply for use with high-power radios in order to provide power for mobiles in a desktop environment.

**HKN4139A
Power Cable of Low-Power Control Stations 12 Volt
(1-25 Watt Models)**
Replacement Cable.

**HKN9455A
Power Cable of High-Power Control Stations 12 Volt
(25-60 Watt Models)**
Replacement Cable.

MOBILE DATA

Mobile data accessories greatly expand the function and versatility of the PM Series radios. Fleet dispatchers and drivers can benefit from several Global Positioning System options that can locate and map traveling vehicles. All of the necessary hardware and software is available from Motorola to truly customize the PM400 user's capabilities.

RDN7364A – Base Radio Channel Controller

RDN7367A – Mobile Display Terminal with GPS

RDN7368A – Mobile Display Terminal

RDN7369A – Stand-Alone Modem with GPS

RDN7372A – Fixed-Mount GPS Active Antenna

RDN7373A – Mobile Printer

RDN7374A – Programming Software

RDN7375A – Magnetic-Mount GPS Antenna

RDN7377A – MAPS (US) Regional

RDN7378A – AVL Messaging Status Software

RDN7380A – Mobile Programming Hardware

RDN7738A – Serial Breakout Unit

RDN7739A – 3-ft. Flying Lead Cable

RDN7740A – 15-ft. Flying Lead Cable

RDN7368A
Mobile Display Terminal

PM400 Accessories

PR400 Portable Two-Way Radio Specifications*

General Specifications

	VHF	UHF
Frequency	146-174MHz	403-440MHz, 438-470MHz, 465-495MHz
Channel Capacity	16, 32 or 64	16, 32 or 64
Power Supply	7.5 Volts +/- 20%	7.5 Volts +/- 20%
FCC Description	ABZ99FT3045	ABZ99FT4057, ABZ99FT4056, ABZ99FT4058

No Display or Keypad

	DIMENSIONS H w/o knobs x W @spkr x D @ spkr w/o belt clip	WEIGHT (w/ radio, battery, and belt clip, w/o antenna)
1100 mAh NiCd	130mm H x 62mm W x 45mm D (5.12″ H x 2.4″ W x 1.75″ D)	430 g (15.17 oz)
1300 mAh NiMH Intrinsically Safe (FM)	130mm H x 62mm W x 45mm D (5.12″ H x 2.4″ W x 1.75″ D)	449 g (15.83 oz)
1400 mAh NiMH	130mm H x 62mm W x 43mm D (5.12″ H x 2.4″ W x 1.69″ D)	446 g (15.73 oz)
1600 mAh Slim Li-ion	130mm H x 62mm W x 42mm D (5.12″ H x 2.4″ W x 1.65″ D)	377 g (13.30 oz)
1800 mAh Li-ion	130mm H x 62mm W x 45mm D (5.12″ H x 2.4″ W x 1.75″ D)	376 g (13.26 oz)

Full Display and Limited Keypad

	DIMENSIONS H w/o knobs x W @spkr x D @ spkr	WEIGHT (w/ radio, battery, and belt clip, w/o antenna)
1100 mAh NiCd	130mm H x 62mm W x 45mm D (5.12″ H x 2.4″ W x 1.75″ D)	451 g (15.91 oz)
1300 mAh NiMH Intrinsically Safe (FM)	130mm H x 62mm W x 45mm D (5.12″ H x 2.4″ W x 1.75″ D)	469 g (16.54 oz)
1400 mAh NiMH	130mm H x 62mm W x 43mm D (5.12″ H x 2.4″ W x 1.69″ D)	467 g (16.47 oz)
1600 mAh Slim Li-ion	130mm H x 62mm W x 42mm D (5.12″ H x 2.4″ W x 1.65″ D)	397 g (14.0 oz)
1800 mAh Li-ion	130mm H x 62mm W x 45mm D (5.12″ H x 2.4″ W x 1.75″ D)	396 g (13.97 oz)

Full Display and Full Keypad

	DIMENSIONS H w/o knobs x W @spkr x D @ spkr	WEIGHT (w/ radio, battery, and belt clip, w/o antenna)
1100 mAh NiCd	130mm H x 62mm W x 45mm D (5.12″ H x 2.4″ W x 1.75″ D)	451 g (15.91 oz)
1300 mAh NiMH Intrinsically Safe (FM)	130mm H x 62mm W x 45mm D (5.12″ H x 2.4″ W x 1.75″ D)	469 g (16.54 oz)
1400 mAh NiMH	130mm H x 62mm W x 43mm D (5.12″ H x 2.4″ W x 1.69″ D)	467 g (16.47 oz)
1600 mAh Slim Li-ion	130mm H x 62mm W x 42mm D (5.12″ H x 2.4″ W x 1.65″ D)	397 g (14.0 oz)
1800 mAh Li-ion	130mm H x 62mm W x 45mm D (5.12″ H x 2.4″ W x 1.75″ D)	396 g (13.97 oz)

Average Battery Life

BATTERY	CAPACITY (mAh)	HI-PWR 5W Talk Time (hrs)	LO-PWR 1W Talk Time (hrs)
1100 mAh NiCd	1100	8	10
1300 mAh NiMH Intrinsically Safe (FM)	1300	9	11
1400 mAh NiMH	1400	10	13
1600 mAh Slim Li-ion	1600	12	17
1800 mAh Li-ion	1800	14	19

*All specifications subject to change without notice.

PR400 Portable Two-Way Radio Specifications*

Receiver Specifications

	VHF 12.5kHz	VHF 20/25/30kHz	UHF 12.5kHz	UHF 20/25/30kHz
Frequency	146-174MHz		403-440MHz, 438-470MHz, 465-495MHz	
Sensitivity 12dB SINAD	0.25µV (typical)		0.25µV (typical)	
Adjacent Channel Selectivity	-65 dB	-70 dB	-65 dB	-70 dB
Intermodulation	-70 dB		-70 dB	
Frequency Stability (-30 C to +60 C)	0.00025%		0.00025%	
Spur Rejection	-75 dB		-75 dB	
Image and 1/2 I-F Rejection	-70 dB		-70 dB	
Audio Output @ <5% Distortion	500 mW		500 mW	

Transmitter Specifications

	VHF	VHF	UHF	UHF
RF Output	Low	High	Low	High
	1W	5W	1W	4W
Frequency	146-174MHz		403-440MHz, 438-470MHz, 465-495MHz	
Channel Spacing	12.5/20/25kHz		12.5/20/25kHz	
Frequency Stability (-30 C to +60 C)	0.00025%		0.00025%	
Spurs/Harmonics	-36 dBm < 1GHz		-36 dBm < 1GHz	
	-30 dBm > 1GHz		-30 dBm > 1GHz	
Audio Response (from 6 dB/oct. Premphasis, 300 to 3000Hz)	+1, -3 dB		+1, -3 dB	
Audio Distortion @ 1000 Hz, 60% Rated	< 3%		< 3%	
FM Noise	-40 dB (12.5kHz)		-40 dB (12.5kHz)	
	-45 dB (25kHz)		-45 dB (25kHz)	
FCC Modulation				
20/25/30 kHz	16K0F3E		16K0F3E	
12.5 kHz	11K0F3E		11K0F3E	

Portable Military Standards 810 C, D, E & F

	810C		810D		810E		810F	
Applicable MIL-STD	Methods	Procedures	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	2	500.3	2	500.4	1
High Temp	501.1	1, 2	501.2	1, 2	501.3	1, 2	501.4	1, 2
Low Temp	502.1	1	502.2	1, 2	502.3	1, 2	501.4	1, 2
Temp Shock	503.1	1	503.2	1	503.3	1	503.4	1
Solar Radiation	505.1	1	505.2	1	505.3	1	505.4	1
Rain	506.1	1, 2	506.2	1, 2	506.3	1, 2	506.4	1
Humidity	507.1	2	507.2	2, 3	507.3	2, 3	507.4	3
Salt Fog	509.1	1	509.2	1	509.3	1	509.4	1
Dust	510.1	1	510.2	1	510.3	1	510.4	1
Vibration	514.2	8, 10	514.3	1	514.4	1	514.5	1
Shock	516.3	1, 2, 5	516.3	1, 4	516.4	1, 4	516.5	1

PR400 Environmental Specifications

Operating Temperature	- 30 C to + 60 C
Storage Temperature	- 40 C to + 85 C
ESD	IEC 801-2 KV
Water and Dust Intrusion	IP 54

*All specifications subject to change without notice.

PM400 Mobile Two-Way Radio Specifications[*]

General Specifications

	VHF		UHF	
Channel Capacity	64		64	
Technical RF Output	Low	High	Low	High
	1-25W	25-45W	1-25W	25-40W
Frequency	146-174MHz		438-470MHz, 465-495MHz	
Dimensions (H * W * L)	1.73" x 6.67" x 4.64"		1.73" x 6.67" x 4.64"	
	(44mm x 169mm x 118mm)		(44mm x 169mm x 118mm)	
Weight (radio only)	2.25 lbs (1.02 Kg)		2.25 lbs (1.02 Kg)	
Current Drain: Standby	0.3A		0.3A	
Rx@ rated, external 8 ohm speaker	1.5A		1.5A	
Transmit	7A (25W)	9.5A (45W)	8A (25W)	9A (40W)
FCC Description	AZ492FT3805 (25W)		AZ492FT4856 (25W)	
	ABZ99FT3046 (45W)		ABZ99FT4048 (40W), AZ99FT4049 (40W)	

Receiver

	VHF		UHF	
Frequencies	146-174MHz		438-470MHz, 465-495MHz	
Channel Spacing	12.5/20/25kHz		12.5/20/25kHz	
Frequency Stability (-30 C + 60 C, +25 C)	+/-2.5ppm		+/-2.5ppm	
Sensitivity (12dB Sinad)	0.35µV (12.5kHz) 0.3µV (25kHz)		0.35µV (12.5kHz) 0.3µV (25kHz)	
	typical		typical	
Intermodulation	65dB (12.5kHz)	75dB (25kHz)	60dB (12.5kHz)	70dB (25kHz)
Adjacent Channel Selectivity	65dB (12.5kHz)	75dB (25kHz)	60dB (12.5kHz)	70dB (25kHz)
Spurious Rejection	75dB		70dB	
Rated Audio (extended audio with 4 ohm speaker)	4W internal	13W external	4W internal	13W external
Audio Distortion @ Rated Audio	3% typical		3% typical	
Hum and Noise	-40 dB (12.5kHz)		-35 dB (12.5kHz)	
	-45 dB (25kHz)		-40 dB (25kHz)	
Audio Response	+1, -3 dB		+1, -3 dB	
Conducted Spurious Emission	-57 dBm < 1GHz		-57 dBm < 1GHz	
	-47 dBm > 1GHz		-47 dBm > 1GHz	

Transmitter

	VHF		UHF	
Frequencies	146-174MHz		438-470MHz, 465-495MHz	
Channel Spacing	12.5/20/25kHz		12.5/20/25kHz	
Frequency Stability (-30 C + 60 C, +25 C)	+/-2.5ppm		+/-2.5ppm	
Modulation Limiting	+/-2.5kHz (12.5kHz)		+/-2.5kHz (12.5kHz)	
	+/-4kHz (20kHz)		+/-4kHz (20kHz)	
	+/-5kHz (25kHz)		+/-5kHz (25kHz)	
FM Hum and Noise	-40 dB (12.5kHz)		-35 dB (12.5kHz)	
	-45 dB (25kHz)		-40 dB (25kHz)	
Conducted/Radiated Spurious Emission: 1-25 W	-36 dBm < 1GHz		-36 dBm < 1GHz	
	-30 dBm > 1GHz		-30 dBm > 1GHz	
25-45 W	-26dBm		-26dBm	
Adjacent Channel Power	-60 dB (12.5kHz)		-60 dB (12.5kHz)	
	-70 dB (25kHz)		-70 dB (25kHz)	
Audio Response	+1, -3 dB		+1, -3 dB	
Audio Distortion	3% typical		3% typical	
FM Modulation	11K0F3 (12.5kHz)		11K0F3 (12.5kHz)	
	16K0F3E (25kHz)		16K0F3E (25kHz)	

[*]All specifications subject to change without notice.

PM400 Mobile Military Standards

Applicable MIL - STD	810C		810D		810E	
	Methods	Procedures	Methods	Procedures	Methods	Procedures
Temperature Shock	503.1	I	503.2	I	503.3	I
Solar Radiation	505.1	I	505.2	I	505.3	I
Salt Fog	509.1	I (48 Hours)	509.2	I (48 Hours)	509.3	I (48 Hours)
Vibration	–	–	514.3	I. Cat. 1	514.4	I. Cat. 1
Shock	516.2	I, III	516.3	I, V	516.4	I, V
Rain	506.1	II	506.2	II	506.3	II
Dust	510.1	I	510.2	I	510.3	I

Accelerated Life Test

Motorola's Accelerated Life Test (ALT) is a developmental process of rigorous laboratory testing that simulates years of field use. Motorola has a firm commitment to quality and reliability. These radios have been designed, manufactured and tested to achieve high levels of component and workmanship quality. Motorola radios are designed to minimize costly repairs and downtime.

PM400 Environmental Specifications

Operating Temperature	- 30 C to + 60 C
Storage Temperature	- 40 C to + 85 C
Thermal Shock	- 40 C to + 80 C
Humidity	95% RH @ 8Hr
Water and Dust Intrusion	IP 54
Packing Test	Impact test

Exceptional Durability

There's a reason why Motorola two-way radios are built to last. Motorola's rugged and reliable radios, including the PR and PM Series radios, undergo rigorous testing in the design process. We use U.S. Military Standards and Motorola's Accelerated Life Test, so you can be assured Motorola radios will hold up under demanding conditions. These tests are designed to simulate very harsh environments, including:

Rain – steady rainfall and wind for 30 minutes on every surface. Ideal for agriculture, light construction, utility and public administration personnel who work outdoors in any type of weather.

Salt Fog – 48 hours of exposure to an atomized salt solution. Hospitality staff, utility workers and public administration personnel working near oceans or around winter salt applications will appreciate our radios' resistance to salt corrosion.

Dust – 6 hours of blowing dust on all surfaces. Ideal for agriculture, light construction, utility and public administration workers who are exposed to a variety of dusty environments.

Vibration – up to 9 hours of exposure to vibration that simulates the rigors that portables and mobiles could undergo while being transported. Because portables are carried by the radio user, it's important they hold up to extensive vibration tests, and mobiles must withstand the rigors of the road. Light construction and industrial workers, agriculture, utility and public administration staff expect a radio to withstand any vibrations.

Shock – 18 shocks with a minimum G force of 40 Gs each make these portables and mobiles ideal for light construction and light industrial, agriculture, public administration, utilities and anyone who has dropped a radio at some time.

PR400 and PM400 Radios Are Right For Your Business

The PR400 and PM400 were designed for radio users who are looking to upgrade their communication systems or may be new to using two-way mobile radios and want Motorola quality with the most features available. Here are just some of the businesses in which PR400 and PM400 radios are ideal:

Agriculture
- Mounting the PM400 is easy in a tractor, combine, pickup truck or almost any farm vehicle
- Using portables and mobiles in your operations can help coordinate a myriad of agricultural tasks, as well as emergency response, if necessary

Hospitality
- Improve your customer service with immediate communication between a base station, portables and mobiles
- These durable radios can withstand weather extremes on golf courses, ski hills or at seaside resorts

Light Construction
- If you need efficient, coordinated communication with field personnel, especially in a fleet of vehicles, PM400 mobiles and PR400 portables help you meet your completion dates
- These radios are built to survive harsh conditions and temperature extremes

Light Industrial
- The small size and light weight of PR400 portables make carrying these radios easy
- The large, powerful speaker and improved audio help you communicate effectively in noisy work environments

Manufacturing
- The PM400 is perfect for desktop base station applications to communicate with portables on the floor and mobiles on the road
- Small size and light weight make mounting easy in forklifts, delivery trucks and other vehicles

Public Administration
- The PM400 and PR400 are ideal to coordinate communications for park and recreation departments, salt trucks, snow and trash removal, maintenance crews, parking patrol and more
- Mobiles and portables enable you to efficiently assign duties and monitor follow-up

Delivery Services
- Desktop base stations help coordinate shipping to maximize efficiency and customer service
- Mobile and portable radios enable you to handle order changes and prioritize delivery schedules at any time

Security
- Users can quickly communicate issues between a dispatcher with a desktop base station, and portables and mobiles allow security staff members to stay in touch
- Connect by phone with police or emergency services with telephone interconnect

Taxi and Limousine Services
- Alert drivers with mobile radios regarding passenger pick-up
- Mobiles help drivers keep their eyes on the road with audio indicators that "beep" for features and functions, including channel changes
- Portables are an ideal option if drivers have to communicate outside of the vehicle

Transportation/Fleet
- Use a desktop base station to ensure all your drivers are clear on their responsibilities and headed in the right direction
- Change routes or priorities immediately with the touch of a button
- Mobile and portable radios provide an immediate link when drivers need assistance

Utilities
- Effectively dispatch and manage employees with mobiles and portables for routine maintenance or critical, time-sensitive tasks
- Mobiles and portables are engineered for rugged reliability and clear communication in outdoor situations and extreme weather conditions

For more information:

MOTOROLA

Malcolm Baldrige
National Quality Award
2002 Award Recipient

Motorola's Commercial, Government and Industrial Solutions Sector (CGISS) is a recipient of the prestigious 2002 Malcolm Baldrige National Quality Award, in recognition of its commitment to performance excellence and quality achievement.