

# Hard-working



**The heavyweight features you desire in a two-way radio, now available in a durable, lighter-than-expected model.** The PR860 Professional Series two-way radio from Motorola is the perfect option for safety professionals as well as businesses specializing in construction, manufacturing and public utilities.

Easy to handle and operate, the PR860 offers superb audio quality and programming options normally found in higher-end radios. The rugged construction also makes it tough enough to operate in the most challenging environments.

In addition, when used with an IMPRES™ charger, your PR860 IMPRES batteries will maintain their capacity longer, thus maximizing your talktime.

## PR860 Additional Features

### Quik-Call II™ and MDC1200 Signaling

Send and receive information in a variety of ways including:

- **Selective Call (Decode)** Receive a call from a specific group or individual
- **Call Alert (Decode)** Receive alerts of incoming calls when you're a short distance from your radio

### MDC1200 Signaling Only:

- **Push-to-Talk ID (Encode)** Identify your outgoing calls
- **Radio Check (Decode)** Lets others check your radio status
- **Emergency (Encode)** Alerts dispatcher in urgent situations
- **Selective Radio Inhibit (Decode)** Allows system owner to disable stolen or missing radios

## PR860 Standard Package

- IMPRES™ Li-ion 2000 mAh Battery
- IMPRES Single Unit Rapid Charger
- Low Band, VHF or UHF Antenna
- 2.5" Belt Clip
- User Guide CD
- 2-Year Standard Warranty

For more information, please contact:



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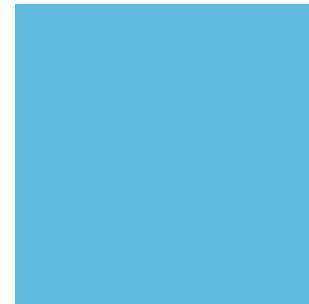
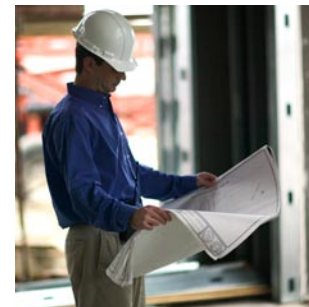
MD-PR860TRIFOLDA

Rev. 1  
05/06

# PR860 Professional Series

## Two-Way Radios and Accessories

**Strengthening the Link:**  
Two-Way Radios for a Stronger,  
More Secure Community



# PR860

## PR860 Features

### 16 Channels

### Large Raised Channel and On/Off Volume Knobs

Easy to operate when wearing gloves

### Programmable Emergency Button

Alerts dispatcher in an emergency situation

### X-Pand™ Voice Compression

Crisp, clear audio quality

### Adjustable Power Levels

Helps preserve battery life

### Priority Channel Scan

Frequently scan higher priority channels

### Sealed Accessory Connector

Customize audio solutions to meet your needs

### Internal VOX

Hands-free operation with headset

### 3 Programmable Side Buttons and Large Textured Push-To-Talk Button

Easy access to favorite features. Easy to operate when wearing gloves and provides good tactile response

### IMPRES™ Energy System

Battery, charging and reconditioning system that automates battery maintenance, optimizes cycle life and maximizes talktime



## GENERAL SPECIFICATIONS

Specification	Lowband	VHF	UHF	
Model Numbers	AAH45BEC9AA3_N AAH45CEC9AA3_N	AAH45KDC9AA3_N	AAH45RDC9AA3_N AAH45SDC9AA3_N	
Frequency Range	29.7-42.0 MHz 35.0-50.0 MHz	136-174 MHz	403-470 MHz 450-512 MHz	
Frequency Stability (-30°C to +60°C, 25°C Ref.)	±10 PPM		±5 PPM @ 25 kHz ±2.5 PPM @ 12.5 kHz	
Channel Capacity	16 Channels			
Channel Spacing	12.5/20/25 kHz			
Power Supply	7.5 volts rechargeable battery			
Dimensions: H x W x D				
With IMPRES NiMH Battery	5.40 in. x 2.26 in. x 1.60 in. (137mm x 57.5mm x 40mm)			
With IMPRES NiMH FM Battery	5.40 in. x 2.26 in. x 1.60 in. (137mm x 57.5mm x 40mm)			
With IMPRES Li-ion Battery	5.40 in. x 2.26 in. x 1.60 in. (137mm x 57.5mm x 40mm)			
Weight				
With IMPRES NiMH Battery	17.5 ounces (488 grams)			
With IMPRES NiMH FM Battery	17.5 ounces (488 grams)			
With IMPRES Li-ion Battery	12.8 ounces (358 grams)			
Average Battery Life @ 5-5-90 Duty Cycle*	Low Power 17 hours 16 hours 18 hours	High Power 11 hours 10 hours 11 hours	Low Power 17 hours 16 hours 18 hours	High Power 13 hours 13 hours 14 hours
Sealing	Passes rain testing per IP54 and MIL-STD 810E			
Shock	Meets MIL-STD-810-C, D & E and TIA/EIA 603			
Vibration	Meets MIL-STD-810-C, D & E and TIA/EIA 603			
Dust	Meets MIL-STD-810-C, D & E and IP54			
Humidity	Meets MIL-STD-810-C, D & E and TIA/EIA 603			
FCC Descriptions	29.7-50 MHz: AZ489FT1625 136-174 MHz: AZ489FT3794 403-470 MHz: AZ489FT4826 450-512 MHz: AZ489FT4834			

\* 5% receive, 5% transmit, 90% standby

## TRANSMITTER

Specification	Lowband	VHF	VHF
Power Output NiMH @ 7.5V	1-6 W	1-5 W	1-4 W
Spurs/Harmonics	-36 dBm < 1 GHz, -30 dBm > 1 GHz		
Audio Response (from 6 dB/oct. Pre-Emphasis, 300 to 3000 Hz)	+1 to -3 dB		
Audio Distortion @ 1000 Hz, 60% Rated Max. Dev.	3% Typical		
Modulation Limiting	±5.0 kHz @ 20 kHz	±2.5 kHz @ 12.5 kHz ±4.0 kHz @ 20 kHz 5.0 kHz @ 25 kHz	
Conducted/Radiated Emissions	66 dBw		
FM Hum and Noise	-40 dB		
FM Modulation	11KOF3E, 16KOF3E		

## RECEIVER

Specification	Lowband	VHF	UHF
Sensitivity (12 dB SINAD) EIA	0.30 µV Typical	0.35 µV Typical	
Sensitivity (20 dB SINAD) ETS	0.5 µV Typical		
Intermodulation per EIA	-65 dB		
Adjacent Channel Selectivity ETS	60 dB @ 12.5 kHz, 70 dB @ 25 kHz		
Spurious Rejection	70 dB		
Rated Audio	0.5 W		
Audio Distortion @ Rated Audio	3% Typical		
Hum and Noise (with LLE enabled)	-45 dB @ 20/25 kHz	-45 dB @ 12.5 kHz/50 dB @ 25 kHz	
Audio Response (0.3 - 3 kHz)	+1 to -3 dB		
Conducted Spurious Emission per FCC Part 15	-57 dBm < 1 Ghz -47 dBm > 1 Ghz		

Specifications subject to change without notice. All electrical specifications and methods refer to EIA/TIA 603 standards. Professional Series radios meet or exceed requirements of MIL STD 810 C, D, E

## Portable Military Standards 810 C, D, & E

Applicable MIL-STD	810C		810D		810E	
	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	2	500.3	2
High Temperature	501.1	1,2	501.2	1,2	501.3	1,2
Low Temperature	502.1	2	502.2	1,2	502.3	1,2
Temperature Shock	503.1	1	503.2	1	503.3	1
Solar Radiation	505.1	1	505.2	1	505.3	1
Rain	506.1	1,2	506.2	1,2	506.3	1,2
Humidity	507.1	2	507.2	2,3	507.3	2,3
Salt Fog	509.1	1	509.2	1	509.3	1
Dust	510.1	1	510.2	1	510.3	1
Vibration	514.2	8,10	514.3	1	514.4	1
Shock	516.2	1,2,5	516.3	1,4	516.4	1,4

## Did you know?

The PR860 weighs less than a can of soda.

(12.8 oz. with IMPRES Li-ion battery)

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30°C to +60°C
Storage Temperature	-55°C to +85°C
Humidity	95% RH @ 8 Hr.
ESD	IEC 801-2 KV
Water Intrusion	IP54

## FACTORY MUTUAL APPROVALS

The PR860 is Factory Mutual approved and Canadian Standard Association approved as intrinsically safe for use in Classes I, II, and III, Division 1, Groups C, D, E, F and G, as well as non-incendive use in Class I, Division 2, Groups A, B, C and D on models ordered with the Factory Mutual option, and battery.

## 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.

