

PR860 Specifications



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.

GENERAL SPECIFICATIONS

Specification	Low Band	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	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 Lilon 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 Lilon Battery	12.8 ounces (358 grams)			
Average Battery Life @ 5-5-90 Duty Cycle*	Low Power 17 hours With Impres NiMH Battery 16 hours With Impres NiMH FM Battery 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	Low Band	VHF	UHF
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%	3% Typical		
Rated Max. Dev.			
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	Low Band	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