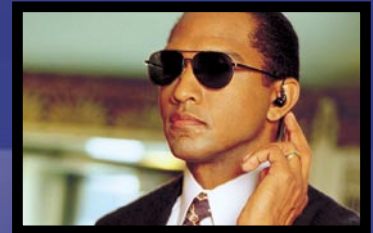
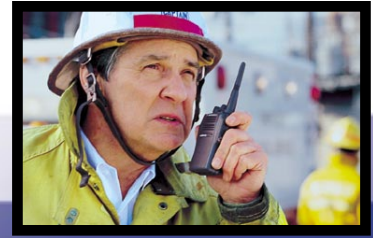


MOTOROLA EX500 EXPERT SERIES

Portable Two-Way Radio



Programmable Emergency Button

Dedicated button that sounds alarm or alerts dispatcher in urgent situations

16 Channels

X-Pand™ Audio Enhancement

Clearer, crisper audio quality

Internal VOX

Voice-operated transmission capability with optional headset allows hands-free operation

3 Programmable Buttons

Immediate access to your favorite features

- **Adjustable Power Levels**
Help optimize coverage and battery life
- **Priority Channel Scan**
Program radio to more frequently scan transmissions on your most important channel, to help ensure you don't miss critical calls
- **Monitor/Permanent Monitor**
Quickly and easily monitor a specific channel at the touch of a button
- **Repeater Talkaround**
Unit-to-unit communication allows radio to bypass the repeater when necessary, to help ensure continuous radio contact

Quik Call II™ and MDC1200 Signaling

Send and receive information in a variety of ways, including:

- **Push-to-Talk ID (Encode)**
Identifies your outgoing calls on other users' radios
- **Selective Call (Decode)**
Lets you receive a specific group or individual call
- **Call Alert (Decode)**
Notifies you of incoming calls when you're a short distance away from your radio
- **Radio Check (Decode)**
Tells others whether your radio is activated
- **Emergency (Encode)**
Sounds an alarm or alerts dispatcher in urgent situations
- **Selective Radio Inhibit (Decode)**
Allows system owner to disable stolen or missing radios



Practicality and Power

Ideal for high-level professionals who want powerful yet streamlined communication tools, the compact Motorola EX500 portable radio has what it takes to make all the right connections. Its sleek, ergonomic design makes this Expert Series radio easy to hold and carry — and it's so lightweight you can take it virtually anywhere. The Motorola EX500 radio's exceptional features deliver solid functionality and remarkable ease-of-use. Flexible scanning and monitoring capabilities allow you to stay on top of critical transmissions. Three programmable buttons and a range of signaling capabilities offer the tools you require to communicate steadily and efficiently. With the Motorola EX500 radio, you'll have everything you need to perform at your best.

GENERAL

| SPECIFICATION | VHF/UHF |
|-------------------------------------|---|
| Channel Capacity | 16 Channels |
| Dimensions (with Li-Ion Battery) | 3.74" x 1.04" x 2.17" 95mm x 26.5mm x 55.1mm |
| Weight (with Li-Ion Battery) | 8.8 ounces / 250 grams |
| Power Supply | Rechargeable battery 7.5 V |
| Average Battery Life @ 5/5/90 Cycle | |
| Slim Li-Ion Battery | Low Power: 10 hours High Power: 7 hours |
| High Capacity Li-Ion Battery | Low Power: 10 hours High Power: 14 hours |

TRANSMITTER

| SPECIFICATION | VHF/UHF |
|--|---|
| Frequencies | 136-174 MHz 403-470 MHz 450-512 MHz |
| Channel Spacing | 12.5 kHz/20/25 kHz |
| Freq. Stability (-30° C to 60° C, +25° Ref.) | ±2.5 ppm @12.5 kHz ±4 ppm @20/25 kHz |
| Power | 1 W, 5 W, 136-174 MHz 1 W, 4 W, 403-470 MHz 1 W, 4 W, 450-512 MHz |
| Modulation Limiting | ±2.5 KHz @12.5 kHz ±4 KHz @20 kHz ±5 KHz @25 kHz |
| FM Hum & Noise | -34 dB @12.5 kHz -40 dB @20/25 kHz |
| Conducted/Radiated Emission | -36 dBm < 1 GHz -30 dBm > 1 GHz |
| Adjacent Channel Power | -60 dBc @12.5 kHz -70 dBc @20/25 kHz |
| Audio Response (300 - 3000 Hz) | +1 to -3dB of a 6 dB/octave pre-emphasis |
| Audio Distortion | 3% |

For more information, please contact:



MOTOROLA

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www.motorola.com/cgiss

MD-EX500-01

RECEIVER

| SPECIFICATION | VHF/UHF |
|--|---|
| Frequencies | 136-174 MHz 403-470 MHz 450-512 MHz |
| Channel Spacing | 12.5/20/25 kHz |
| Freq. Stability (-30° C to 60° C, +25° Ref.) | ±2.5 ppm @12.5 kHz ±4 ppm @20/25 kHz |
| Sensitivity (12 dB SINAD) | 0.35 µV |
| Intermodulation | 70 dB |
| Adjacent Channel Selectivity | 60 dB @ 12.5 kHz 70 dB @ 20/25 kHz |
| Spurious Rejection | 70 dB |
| Rated Audio | 0.5 W |
| Audio Distortion @ Rated Audio | 3% typical |
| Hum and Noise | -34 dB @12.5 kHz -40 dB @20/25 kHz |
| Conducted Spurious Emission | -57 dBm < 1 GHz -47 dBm > 1 GHz |

NOTE: All RX Hum and Noise numbers assume a low level expander is used.

**PORTABLE MILITARY STANDARDS
 810 C, D & E**

| | 810C | | 810D | | 810E | |
|-----------------|---------|------------|---------|------------|---------|------------|
| Applicable | Methods | Procedures | Methods | Procedures | Methods | Procedures |
| Low Pressure | 500.1 | 1 | 500.2 | 2 | 500.3 | 2 |
| High Temp | 501.1 | 1,2 | 501.2 | 1,2 | 501.3 | 1,2 |
| Low Temp | 502.1 | 2 | 502.2 | 1,2 | 502.3 | 1,2 |
| Temp. 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 |
| Shock | 516.2 | 1,2,5 | 516.3 | 1,4 | 516.4 | 1,4 |
| Vibration | 514.2 | 8,10 | 514.3 | 1 | 514.4 | 1 |

ENVIRONMENTAL

| PARAMETER | SPECIFICATION |
|-------------------------------------|--|
| Operating Temperature Radio only | -30 to 60° C |
| Storage Temperature | -55 to 85° C |
| Thermal Shock | -40 to 85° C |
| Humidity | 95% RH @ 8 Hr. |
| Sand Dust | Blowing Dust: 5 Hr. Non-operating IP54 |
| Vibration | SINE 10-60Hz 30 min/axis |
| Drop Test | 42 drops from 48" height 42 drops from 121.9cm height |
| Flame Resistance | UL94 HB |
| ESD | IEC 801-2 KV |
| Water Intrusion | IP54 |
| Packing Test | 5 feet |