

# PM400™

## Mobile Two-Way Radios

### With LTR® Trunking



Built in versatility that's ideal for Agriculture, Construction, Manufacturing, Transportation and Utilities.



### Conventional/LTR Programmable Features

- **64 Conventional Channels**
- **System Scan**
- **12.5/20/25 kHz Switchable Channel Spacing**
- **Dual Priority Scan** (Conventional Only)
- **2 Memory Channels** (Conventional Only)
- **Busy Channel Lockout** (Conventional Only)
- **Option Board Expandability**
- **High/Low Power Settings**
- **Local/Distance Mode**
- **Time-Out Timer**

Great care was taken in the design of the PM400 to ensure its ruggedness and reliability as well as its ease of use and functionality. 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. The PM400 is ideal for many businesses and industries such as agriculture, hospitality, light construction, light industrial, manufacturing, public administration, delivery services, security, taxi and limousine services, transportation/fleet and utilities.

### Conventional/LTR Signaling Features

- **MDC1200 Emergency** (Encode - Conventional Only)
- **MDC1200 PTT ID** (Numeric ID - Encode/Decode)
- **MDC1200 Selective Radio Inhibit** (Decode)
- **MDC1200 Radio Check** (Decode)
- **Quik Call II™ Call Alert** (Encode/Decode - Conventional Only)
- **Quik Call II™ Selective Call** (Encode/Decode - Conventional Only)
- **DTMF PTT ID** (Encode - Conventional Only)
- **DTMF Call Alert** (Encode - Conventional Only)
- **DTMF Selective Call** (Encode - Conventional Only)

### LTR Features

- **Up to 100 Talkgroups**
- **Mixed Assignment of Conventional Personalities & LTR® Talkgroups**
- **Up to 10 Sites & 100 Talkgroups**
- **Up to 20 Repeaters per Site**
- **Up to 4 Universal IDs per System**
- **Up to 40 Universal IDs per Radio**
- **User Programmable Scan & Phone Lists**
- **Data Operated Squelch (DOS)**



# Specifications

| GENERAL                                       | VHF  | UHF  |
|---|--|--|
| Frequency:                                    | 146-174 MHz  | 438-470, 465-495MHz  |
| Channel Capacity:                             | 64   | 64   |
| Technical RF Output:                          | Low:1-25W, High: 25W   | Low:1-25W, High: 25-40W  |
| Dimensions: (H x W x D)                       | 1.73 x 6.67 x 4.64 inch (44 x 169 x 118 mm)  | 1.73 x 6.67 x 4.64 inch (44 x 169 x 118 mm)                                |
| Weight:(radios only)                          | 2.25 lbs (1.02 Kg)   | 2.25 lbs (1.02 Kg)   |
| Current Drain:                                | Standby: 0.3A<br>Rx@ rated, external 8 ohm speaker: 1.5A<br>Transmit: 7A (25W), 9.5A (45W) | 0.3A<br>1.5A<br>8A (25W), 9A (40W)   |
| FCC Designation:                              | AZ492FT3805 (25W), ABZ99FT3046 (25-45W)  | AZ492FT4856 (25W), ABZ99FT4048 (25-40W)<br>ABZ99FT4049 (25-40W)            |
| <b>RECEIVER</b>                               |  |  |
| Frequency:                                    | 146-174 MHz  | 438-470, 465-495 MHz   |
| Channel Spacing:                              | 12.5/20/25 kHz   | 12.5/20/25 kHz   |
| Sensitivity: (12dB EIA SINAD)                 | 0.35µV (12.5 kHz) typical, 0.3µV (25 kHz) typical  | 0.35µV (12.5 kHz) typical, 0.3µV (25 kHz) typical                          |
| Adjacent Channel Selectivity:                 | 65dB (12.5 kHz), 75dB (25 kHz)   | 60dB (12.5 kHz), 70dB (25 kHz)   |
| Intermodulation:                              | 65dB (12.5 kHz), 75dB (25 kHz)   | 60dB (12.5 kHz), 70dB (25 kHz)   |
| Frequency Stability: (-30° C to +60° C)       | +/-2.5ppm  | +/-2.5ppm  |
| 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:                                | -40dB (12.5 kHz)<br>-45dB (25 kHz)   | -35dB (12.5 kHz)<br>-40dB (25 kHz)   |
| Audio Response:                               | +1, -3dB   | +1, -3dB   |
| Conducted Spurious Emission:                  | -57dBm < 1GHz<br>-47dBm > 1GHz   | -57dBm < 1GHz<br>-47dBm > 1GHz   |
| <b>TRANSMITTER</b>                            |  |  |
| Frequency:                                    | 146-174 MHz  | 438-470, 465-495 MHz   |
| Channel Spacing:                              | 12.5/20/25 kHz   | 12.5/20/25 kHz   |
| Frequency Stability: (-30° to +60° C, +25° C) | +/-2.5ppm  | +/-2.5ppm  |
| Modulation Limiting:                          | +/-2.5 kHz (12.5 kHz) +/-4 kHz (20 kHz) +/-5 kHz (25 kHz)                                  | +/-2.5 kHz (12.5 kHz) +/-4 kHz (20 kHz) +/-5 kHz (25 kHz)                  |
| FM Hum and Noise:                             | -40dB (12.5 kHz), -45dB (25 kHz)   | -35dB (12.5 kHz), -40dB (25 kHz)   |
| Conducted/Radiated Spurious Emission:         |  |  |
| 1-25 W  | -36dBm < 1GHz<br>-30dBm > 1GHz   | -36dBm < 1GHz<br>-30dBm > 1GHz   |
| 25-45 W                                       | -26dBm   | -26dBm   |
| Adjacent Channel Power :                      | -60dB (12.5 kHz), -70dB (25 kHz)   | -60dB (12.5 kHz), -70dB (25 kHz)   |
| Audio Response:                               | +1, -3dB   | +1, -3dB   |
| Audio Distortion:                             | 3% typical   | 3% typical   |
| FM Modulation:                                | 11K0F3 (12.5 kHz), 11K0F3 (12.5 kHz)<br>16K0F3E (25 kHz), 16K0F3E (25 kHz)                 | 11K0F3 (12.5 kHz), 11K0F3 (12.5 kHz)<br>16K0F3E (25 kHz), 16K0F3E (25 kHz) |

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

|                    | MIL-STD 810C   | MIL-STD 810D   | MIL-STD 810E   |
|--------------------|----------------|----------------|----------------|
| Applicable MIL-STD | Method: Proc   | Method: Proc   | Method: Proc   |
| Temp. 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       | 509.2: I       | 509.3: I       |
| Vibration:         | 514.3: I Cat 1 | 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       |

## 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 @ 8 Hrs   |
| Water and Dust Intrusion: | IP54             |
| Packing Test:             | Impact Test      |

## 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.

\*All specifications subject to change without notice.

