

# PR400™

## Portable Two-Way Radios With LTR® Trunking



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



### PR400 Conventional Features

- **16, 32 and 64 Conventional Channel Models**
- **12.5/25 kHz Switchable Channel Spacing**
- **8 Character Alphanumeric Display** (32/64 Channel Models)
- **2 Programmable Buttons** (16 Channel Model)
- **4 Programmable Buttons** (32/64 Channel Models)
- **X-Pand™ Technology**
- **Dual Priority Scan**
- **Option Board Expandability**

### Programmable Features

- **Monitor**
- **High/Low Power Settings**
- **Channel Scan**
- **Nuisance Channel Delete**
- **2 Memory Channels**
- **PL/DPL Edit** (32/64 Channel Models)
- **Repeater/Talkaround**
- **Volume Set**
- **Tight/Normal Squelch**
- **VOX On/Off**
- **Battery Indicator** (32/64 Channel Models)

The PR400 is perfect for new two-way radio users, small organizations and firms that want an affordable solution with a maximum number of features and Motorola's renowned quality.

### PR400 LTR Features

- **Up to 4 Sites & 16 Talkgroups** (16 Channel Model)
- **Up to 10 Sites & 100 Talkgroups** (32/64 Channel Models)
- **Up to 20 Repeaters per Site**
- **Up to 4 Universal IDs per System** (16 Channel Model)
- **Up to 16 Universal IDs per System** (32/64 Channel Models)
- **UHF and VHF Frequencies**
- **Combined System Scan**
- **User Programmable Scan & Phone Lists**
- **Data Operated Squelch (DOS)**

### Conventional/LTR Signaling Features

In addition, the LTR portable radio offers the following signaling features:

#### All Models:

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

#### 32 and 64 Channel Models:

- **MDC1200 PTT ID** (Numeric ID - Decode)
- **Quik Call I™ Call Alert** (Encode - Conventional Only)
- **Quik Call I™ Selective Call** (Encode - Conventional Only)
- **DTMF Call Alert** (Encode - Conventional Only)
- **DTMF Selective Call** (Encode - Conventional Only)



# Specifications

| GENERAL           | VHF                      | UHF                                   |
|-------------------|--------------------------|---------------------------------------|
| Frequency:        | 136-162, 146-174 MHz     | 403-440, 438-470, 465-495 MHz         |
| Channel Capacity: | 16, 32 or 64             | 16, 32 or 64                          |
| Power Supply:     | 7.5 Volts +/- 20%        | 7.5 Volts +/- 20%                     |
| FCC Description:  | ABZ99FT3039, ABZ99FT3045 | ABZ99FT4057, ABZ99FT4056, ABZ99FT4058 |

| NO DISPLAY OR KEYPAD   | 1100 mAh NiCd                                | 1300 mAh NiMH                                | 1400 mAh NiMH                                | 1600 mAh Slim Li-ion                         | 1800 mAh Li-ion                              |
|--|--|--|--|--|--|
| Dimensions: (without knobs or belt clip)<br>(H x W x D)      | 130 x 62 x 45 mm<br>(5.12 x 2.4 x 1.75 inch) | 130 x 62 x 45 mm<br>(5.12 x 2.4 x 1.75 inch) | 130 x 62 x 43 mm<br>(5.12 x 2.4 x 1.69 inch) | 130 x 62 x 42 mm<br>(5.12 x 2.4 x 1.65 inch) | 130 x 62 x 45 mm<br>(5.12 x 2.4 x 1.75 inch) |
| Weight: (with radio, battery and belt clip, without antenna) | 430 g (15.17 oz)                             | 449 g (15.83 oz)                             | 446 g (15.73 oz)                             | 377 g (13.30 oz)                             | 376 g (13.26 oz)                             |

| FULL DISPLAY AND LIMITED KEYPAD                              | 130 x 62 x 45 mm                             | 130 x 62 x 45 mm                             | 130 x 62 x 43 mm                             | 130 x 62 x 42 mm                             | 130 x 62 x 45 mm                             |
|--|--|--|--|--|--|
| Dimensions: (without knobs or belt clip)<br>(H x W x D)      | 130 x 62 x 45 mm<br>(5.12 x 2.4 x 1.75 inch) | 130 x 62 x 45 mm<br>(5.12 x 2.4 x 1.75 inch) | 130 x 62 x 43 mm<br>(5.12 x 2.4 x 1.69 inch) | 130 x 62 x 42 mm<br>(5.12 x 2.4 x 1.65 inch) | 130 x 62 x 45 mm<br>(5.12 x 2.4 x 1.75 inch) |
| Weight: (with radio, battery and belt clip, without antenna) | 451 g (15.91 oz)                             | 469 g (16.54 oz)                             | 467 g (16.47 oz)                             | 397 g (14.0 oz)                              | 396 g (13.97 oz)                             |

| FULL DISPLAY AND FULL KEYPAD                                 | 130 x 62 x 45 mm                             | 130 x 62 x 45 mm                             | 130 x 62 x 43 mm                             | 130 x 62 x 42 mm                             | 130 x 62 x 45 mm                             |
|--|--|--|--|--|--|
| Dimensions: (without knobs or belt clip)<br>(H x W x D)      | 130 x 62 x 45 mm<br>(5.12 x 2.4 x 1.75 inch) | 130 x 62 x 45 mm<br>(5.12 x 2.4 x 1.75 inch) | 130 x 62 x 43 mm<br>(5.12 x 2.4 x 1.69 inch) | 130 x 62 x 42 mm<br>(5.12 x 2.4 x 1.65 inch) | 130 x 62 x 45 mm<br>(5.12 x 2.4 x 1.75 inch) |
| Weight: (with radio, battery and belt clip, without antenna) | 451 g (15.91 oz)                             | 469 g (16.54 oz)                             | 467 g (16.47 oz)                             | 397 g (14.0 oz)                              | 396 g (13.97 oz)                             |

| AVERAGE BATTERY LIFE     | 1100 mAh | 1300 mAh | 1400 mAh | 1600 mAh | 1800 mAh |
|--------------------------|----------|----------|----------|----------|----------|
| Capacity (mAh):          | 1100 mAh | 1300 mAh | 1400 mAh | 1600 mAh | 1800 mAh |
| Hi-Power (5W) Talk Time: | 8 hrs    | 9 hrs    | 10 hrs   | 12 hrs   | 14 hrs   |
| Lo-Power (1W) Talk Time: | 10 hrs   | 11 hrs   | 13 hrs   | 17 hrs   | 19 hrs   |

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

| TRANSMITTER   | VHF                              | VHF                              | UHF                              | UHF                              |
|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| RF Output:  | Low: 2W                          | High: 5W                         | Low: 1W                          | High: 4W                         |
| Frequency:  | 136-162, 146-174 MHz             | 136-162, 146-174 MHz             | 403-440, 438-470, 465-495 MHz    | 403-440, 438-470, 465-495 MHz    |
| Channel Spacing:  | 12.5/20/25 kHz                   | 12.5/20/25 kHz                   | 12.5/20/25 kHz                   | 12.5/20/25 kHz                   |
| Frequency Stability: (-30° C to +60° C)                     | 0.00025%                         | 0.00025%                         | 0.00025%                         | 0.00025%                         |
| Spurs/Harmonics:  | -36dBm <1GHz, -30dBm >1GHz       | -36dBm <1GHz, -30dBm >1GHz       | -36dBm >1GHz, -30dBm >1GHz       | -36dBm >1GHz, -30dBm >1GHz       |
| Audio Response: (from 6dB/oct. Preemphasis, 300 to 3000 Hz) | +1, -3dB                         | +1, -3dB                         | +1, -3dB                         | +1, -3dB                         |
| Audio Distortion: @ 1000 Hz, 60% Rated                      | <3%                              | <3%                              | <3%                              | <3%                              |
| FM Noise:   | -40dB (12.5 kHz), -45dB (25 kHz) | -40dB (12.5 kHz), -45dB (25 kHz) | -40dB (12.5 kHz), -45dB (25 kHz) | -40dB (12.5 kHz), -45dB (25 kHz) |
| FCC Modulation:   | 11K0F3E, 16K0F3E                 | 11K0F3E, 16K0F3E                 | 11K0F3E, 16K0F3E                 | 11K0F3E, 16K0F3E                 |

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

|                  | MIL-STD 810C     | MIL-STD 810D     | MIL-STD 810E     | MIL-STD 810F     |
|------------------|------------------|------------------|------------------|------------------|
|                  | Method: Proc/Cat | Method: Proc/Cat | Method: Proc/Cat | Method: Proc/Cat |
| Low Pressure:    | 500.1: I         | 500.2: II        | 500.3: II        | 500.4: I         |
| High Temp:       | 501.1: I, II     | 501.2: I, II     | 501.3: I, II     | 501.4: I, II     |
| Low Temp:        | 502.1: I, II     | 502.2: I, II     | 502.3: I, II     | 501.4: I, II     |
| Temp. Shock:     | 503.1: I         | 503.2: I         | 503.3: I         | 503.4: I         |
| Solar Radiation: | 505.1: I         | 505.2: I         | 505.3: I         | 505.4: I         |
| Rain:            | 506.1: I, II     | 506.2: I, II     | 506.3: I, II     | 506.4: I         |
| Humidity:        | 507.1: II        | 507.2: II, III   | 507.3: II, III   | 507.4: III       |
| Salt Fog:        | 509.1: I         | 509.2: I         | 509.3: I         | 509.4: I         |
| Blowing Dust:    | 510.1: I         | 510.2: I         | 510.3: I         | 510.4: I         |
| Vibration:       | 514.2: VIII, X   | 514.3: I         | 514.4: I         | 514.5: I         |
| Shock:           | 516.3: I, II, V  | 516.3: I, IV     | 516.4: I, IV     | 516.5: I         |

## 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: | IP54             |

## 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.



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MD-EU-PR400SINGLE