

# *CP200 Series*

Portable Two-way Radios

CP200

CP200·XLS – Limited Keypad

CP200·XLS – Full Keypad



# Motorola— a name you know and trust.

Motorola is a company of firsts with a rich heritage of innovation. We continue to invent what's next—connecting people, delivering mobility and making technology personal. Whether you need a simple yet reliable communication solution or a solution with enhanced functionality to organize multiple work groups, the CP200 Series of two-way radios help keep you and your team working efficiently. Featuring a lightweight, ergonomic design, powerful audio output and operation on both conventional and LTR trunking systems, the CP200 Series portable two-way radios help keep your work force connected. The result—increased productivity for your business.

## **Exceptional Durability**

With superb durability, Motorola's radios are built to last. Motorola's rugged and reliable radios, undergo rigorous testing in the design process. We use U.S. Military Standards and Accelerated Life Testing, so you can be assured Motorola radios will hold up under demanding conditions. These tests are designed to simulate very harsh environments, including:

Rain—Steady rainfall and wind for 30 minutes on every surface.

Salt Fog—48 hours of exposure to an atomized salt solution.

Dust—6 hours of blowing dust on all surfaces.

Vibration—Up to 9 hours of exposure to vibration that simulates the rigors a radio could undergo while being transported.

Shock—18 shocks with a minimum G force of 40 Gs each.

## **Service Offerings**

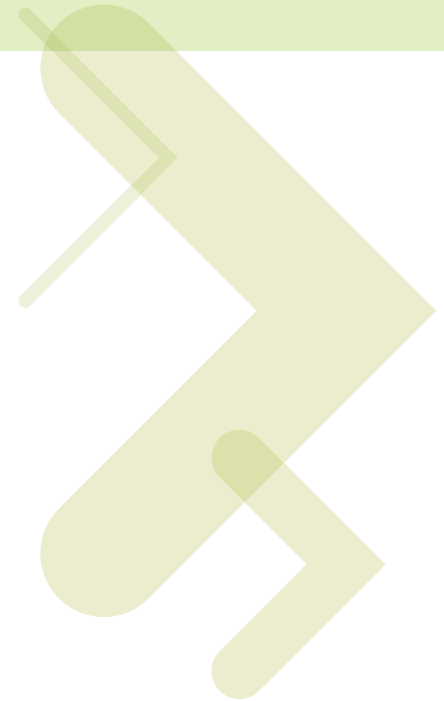
Even with the quality you have come to expect from Motorola, the every day use of your radios requires on-going maintenance to help ensure your radios are operating at peak performance. Managing the in-house repair and maintenance of your subscriber radios takes a dedicated staff of technicians, as well as an ongoing investment in diagnostic equipment, repair tools, and the technical training to keep up to speed on the latest technology. Motorola has made that investment and can help you easily and cost effectively keep your radios in top operating condition to ensure optimal efficiency and productivity. You can rely on Motorola to support your radio system with these Subscriber Repair service offerings:

### **• Repair Service Advantage (RSA)**

Repair Service Advantage is a post-warranty service offering that extends the service coverage of Motorola subscriber portable or mobile radios. RSA can be purchased as an option to new radio purchases and is available in 1, 2 or 3-year increments. (US only)

### **• Extended Warranty**

In addition to the 2-year standard warranty, Extended Warranty is available for a total of 3 or 5 year coverage. (Canada only)



# CP200 portable two-way radio

The design and simple operation of the CP200 portable two-way radio makes it ideal for education, hospitality, retail and security organizations. This radio features a large, textured push-to-talk button, X-Pand™ technology for crisp, clear audio and two programmable buttons for quick access to frequently used features—all in a lightweight, durable design.



### All CP200 models include:

- Li-Ion 2250 mAh Battery
- Rapid Rate Charger
- Antenna – VHF Heliflex or UHF Whip
- 3 Inch Belt Clip
- Safety and Warranty Booklet
- 2-Year Warranty

## Features

### CP200 Portable:

- 4/16 Conventional Channels
- Large Rotary Channel Selector  
Changes channels quickly and easily
- Rotary On/Off and Volume Control
- Tricolor LED  
Indicates radio status and battery levels
- Accessory Connector  
Convenient access for audio accessories
- 3 Inch Spring Action Belt Clip  
Attaches radio firmly to belt
- Rugged, Die-Cast Chassis  
With polycarbonate housing for greater protection
- Large, Textured Push-to-Talk Button  
Easy to find and use, even when wearing gloves
- Two Programmable Option Buttons  
Supports your choice of up to four product features
- Privacy Codes Include:  
42 standard TPL codes, 84 standard DPL codes and non-standard codes
- System Scan and Auto Scan
- Single Priority Scan  
Frequently scans higher priority channel
- Battery Latch Lock  
Secures battery
- Quik-Call II™ Signaling  
Call Alert  
Selective Call
- MDC 1200 Signaling  
Selective Radio Inhibit  
Radio Check  
Selective Inhibit  
Push-to-Talk ID
- DTMF Signaling  
DTMF Push-to-Talk ID
- 2-year Standard Warranty

### Programmable Features: You can choose up to 4

- Sticky Monitor/Monitor
- Repeater/Talk Around
- Scan
- VOX
- Squelch
- Nuisance Channel Delete
- Power Level

# CP200·XLS portable two-way radio

The expanded features of the CP200·XLS portable two-way radio makes it a perfect fit for local delivery services, taxi and limousine services and manufacturing organizations. Featuring both conventional and LTR® trunking capability, the CP200·XLS enables you to efficiently organize a large workforce. With both a limited keypad and full keypad model, the CP200·XLS also features an 8 character alpha-numeric display, four programmable buttons for quick access to up to eight programmable features and X-Pand™ technology for crisp, clear audio—all in a lightweight, durable design.



- 128 Channels:  
Up to 100 LTR Talkgroups
- Large Rotary Channel Selector  
Continuous rotary knob changes channels quickly and easily
- Backlit 8-Character Alphanumeric Display with User-Friendly Icons  
Display indicates radio status, battery levels and allows for viewing of channel names and Caller IDs
- Menu Scroll Buttons  
Change channel and access menu features
- Four Programmable Buttons:  
S1, S2, P1, P2  
Two side and two front buttons support up to 8 favorite features
- Full DTMF Keypad

Limited and Full Keypad models available.



**All CP200-XLS portable models include:**

- Li-Ion 2250 mAh Battery
- Rapid Rate Charger
- Antenna – VHF Heliflex or UHF Whip
- 3 Inch Belt Clip
- Quick Reference/Safety and Warranty Guide
- 2-Year Warranty

## Features

**CP200-XLS Limited and Full Keypad Portables:**

- 128 Conventional Channels
- Up to 100 LTR Talkgroups
- Up to 10 Sites and 100 Talkgroups in LTR
- Mixed Assignment of Conventional Personalities and LTR Talkgroups
- Up to 20 Repeaters per Site in LTR
- Up to 4 Universal IDs per System in LTR
- Up to 40 Universal IDs per Radio in LTR
- Up to 8 Programmable Features
- Supports up to 16 Scan Lists of up to 16 Channels Per List – Limited Keypad only
- User-Editable Standard TPL/DPL Codes
- User-Editable Scan List
- Lights On/Off  
Keypad and display backlights

- Tones On/Off
- Call Tone Tagging  
Tag a special tone for a particular call
- Quik-Call II™ Signaling Includes:  
Selective Call Encode: Calls a specific group or individual  
Call Alert Encode: Notifies a specific group/individual with an alert tone and lighted LED
- DTMF Signaling Includes:  
Selective Call/Call Alert Encode/Decode
- LTR Trunking Signaling Features:  
MDC 1200 Signaling  
PTT-ID Encode  
PTT-ID Decode  
Radio Check Decode

Selective Radio Inhibit Decode  
Data-Operated Squelch (DOS)  
Pre-Time

The Full Keypad model has all of the same regular features as the Limited Keypad model plus the following:

- Dialing a Phone Number
- Manual Access Repeater  
Send DTMF tones to repeater
- User-Editable Phone List
- Speed Dial for Radio Call Encode

**Programmable Features:** You can choose up to 8

- **Menu Mode**  
Access to the radio menu and the ability to select a menu option
- **Monitor**  
Monitor radio traffic
- **Repeater/Talkaround**  
Toggle between using the repeater or transmitting directly to another radio
- **Revert Memory Channel**  
Instant access to the home channel/talkgroup
- **Store Memory Channel**  
Store current channel/talkgroup to the home channel/talkgroup
- **Home Revert Auto Key**  
Keys up the radio and transmits an MDC PTT ID (LTR only)
- **Voice Operated Transmission (VOX)**  
Hands-free operation with an audio accessory

- **Keypad Lock/Unlock**  
Lock/unlock keypad to prevent unauthorized usage
- **Radio Call**  
Initiate Quik-Call II and/or DTMF Call Alert or Selective Call Encode from a call list
- **Scan/Nuisance Channel/Talkgroup Delete**  
Initiate or stop a scan and delete a nuisance channel/talkgroup while scanning
- **Edit Scan List**  
Add, delete or prioritize channels / talkgroups
- **Phone Mode**  
Place and receive telephone calls through the repeater
- **Escalert**  
Increase the volume of the alarm tones when a radio call is not answered
- **Squelch**  
Toggle squelch level between tight and normal squelch

- **Power Level**  
Change transmit power between high and low power
- **Lights**  
Switch keypad and display backlights on or off

The Full Keypad model has all of the same programmable features as the Limited Keypad model plus the following:

- **Speed Dial**
- **DTMF (Full-Keypad) Specific Features**  
DTMF Last Number Redial in Phone Mode  
Auto DTMF Access/De-access Code  
Manual Entry of DTMF Access/De-access Code

## Motorola Original® accessories provide a custom communication solution.

Each Motorola Original accessory is performance-matched specifically to your CP200 and CP200-XLS radios; designed, built and tested to meet the same quality standards. They provide enhanced functionality, and exceptional reliability in real-life usage.

### Audio Solutions

*Earpieces and lightweight headsets* provide comfortable and easy-to-wear solutions for long shifts—common in retail or hospitality environments. *Temple Transducers* are an innovative accessory that allows easy radio communication without blocking your external environment sounds. *Medium-weight headsets* provide durability and protection in more rugged and noisy environments. *Surveillance Kits* and the *Ear Microphone System* provide discreet options for security teams. *Mag One™ by Motorola accessories* are a cost-effective solution for light-duty users.

### Batteries

*NiCD and NiMH batteries* perform in more rugged environments, while *Li-ion batteries* provide a lightweight battery solution. For longer shifts or unusually heavy use, a *high capacity Li-ion battery* will provide extended talk time.

### Chargers

*Rapid and slow-rate chargers* are available to meet specific charging needs. The *rapid-rate charger* will charge batteries within three hours, while the *10-hour charger* can be used when overnight charging is convenient. A *rapid-rate, multi-unit charger* can charge up to six batteries at one time, while the *multi-unit charger conversion kit* allows you to convert your *single-unit chargers* into an efficient, cost-effective multi-unit charging station.

### Carrying Accessories

You'd be surprised how much time can be saved when each user's radio is always in the same place—made easy by a versatile selection of carry accessories. *Leather and nylon carry cases* provide protection in rugged environments and are available in different sizes to support non-display and keypad models. *Chest packs and RadioPAks™* provide additional pouches for other on-the-job necessities.

For a complete listing of Motorola Original accessories and part numbers, please see the Accessory and Battery Catalog (RC-3-1008).



PMMN4013



RLN5318



PMLN5003



NNTN4970



WPLN4161

**CP SERIES PORTABLE SPECIFICATIONS**

**GENERAL SPECIFICATIONS**

	CP200 VHF	CP200 UHF	CP200-XLS VHF	CP200-XLS UHF
Frequency	136-162 MHz 146-174 MHz	403-440 MHz 438-470 MHz 465-495 MHz	136-162 MHz 146-174 MHz	403-440 MHz 438-470 MHz 465-495 MHz
Channel Capacity	4 or 16 Channels		128 Channels	
Power Supply	7.5 Volts ± 20%		7.5 Volts ± 20%	
Dimensions with Battery				
2250 mAh Li-Ion	127.5 x 61.50 x 45mm (5.0 x 2.4 x 1.75 inches)		127.5 x 61.50 x 45mm (5.0 x 2.4 x 1.75 inches)	
1600 mAh Slim Li-Ion	127.5 x 61.55 x 42mm (5.0 x 2.4 x 1.65 inches)		127.5 x 61.55 x 42mm (5.0 x 2.4 x 1.65 inches)	
1400 mAh NiMH	127.5 x 61.55 x 43mm (5.0 x 2.4 x 1.69 inches)		127.5 x 61.55 x 43mm (5.0 x 2.4 x 1.69 inches)	
950 mAh NiCd	127.5 x 61.50 x 45mm (5.0 x 2.4 x 1.75 inches)		127.5 x 61.50 x 45mm (5.0 x 2.4 x 1.75 inches)	
Weight with Battery				
2250 mAh Li-Ion	370 g (13.04 oz)		370 g (13.04 oz)	
1600 mAh Slim Li-Ion	374 g (13.19 oz)		374 g (13.19 oz)	
1400 mAh NiMH	444 g (15.66 oz)		444 g (15.66 oz)	
950 mAh NiCd	425 g (14.98 oz)		425 g (14.98 oz)	
Average Battery Life <sup>1</sup>	1W 5W	1W 4W	1W 5W	1W 4W
2250 mAh Li-Ion	17 Hrs 14 Hrs	17 Hrs 14 Hrs	17 Hrs 14 Hrs	17 Hrs 14 Hrs
1600 mAh Slim Li-Ion	14 Hrs 12 Hrs	14 Hrs 12 Hrs	14 Hrs 12 Hrs	14 Hrs 12 Hrs
1400 mAh NiMH	11 Hrs 10 Hrs	11 Hrs 10 Hrs	11 Hrs 10 Hrs	11 Hrs 10 Hrs
950 mAh NiCd	9 Hrs 8 Hrs	9 Hrs 8 Hrs	9 Hrs 8 Hrs	9 Hrs 8 Hrs
FCC Designation	ABZ99FT3039 ABZ99FT3045	ABZ99FT4056 ABZ99FT4057 ABZ99FT4058	ABZ99FT3039 ABZ99FT3045	ABZ99FT4056 ABZ99FT4057 ABZ99FT4058

**RECEIVER SPECIFICATIONS**

	CP200 VHF	CP200 UHF	CP200-XLS VHF	CP200-XLS UHF
Frequency	12.5 kHz 20/25/30 kHz <sup>2</sup>	12.5 kHz 20/25/30 kHz <sup>2</sup>	12.5 kHz 20/25/30 kHz <sup>2</sup>	12.5 kHz 20/25/30 kHz <sup>2</sup>
	136-162 MHz 146-174 MHz	403-440 MHz 438-470 MHz 465-495 MHz	136-162 MHz 146-174 MHz	403-440 MHz 438-470 MHz 465-495 MHz
Sensitivity <sup>2</sup> (12dB EIA SINAD)	0.25 µV	0.25 µV	0.25µV	0.25µV
Adjacent Channel Selectivity <sup>2</sup>	-65 dB -70 dB	-60 dB -70 dB	-65 dB -70 dB	-60 dB -70 dB
Intermodulation <sup>2</sup>	-70 dB -70 dB	-70 dB -70 dB	-70 dB -70 dB	-70 dB -70 dB
Frequency Stability <sup>2</sup> (-30° to +60° C)	0.00025%	0.00025%	0.00025%	0.00025%
Spurious Rejection <sup>2</sup>	-75 dB	-75 dB	-75 dB	-75 dB
Image and 1/2 I-F Rejection <sup>2</sup>	-70 dB	-70 dB	-70 dB	-70 dB
Audio Output <sup>2</sup> @ < 5% Distortion	500mW	500mW	500mW	500mW

**TRANSMITTER SPECIFICATIONS**

	CP200 VHF	CP200 UHF	CP200-XLS VHF	CP200-XLS UHF
RF Output	1W / 5W	1W / 4W	1W / 5W	1W / 4W
Frequency	136-162 MHz 146-174 MHz	403-440 MHz 438-470 MHz 465-495 MHz	136-162 MHz 146-174 MHz	403-440 MHz 438-470 MHz 465-495 MHz
Channel Spacing	12.5/20/25 kHz <sup>2</sup>		12.5/20/25 kHz <sup>2</sup>	
Frequency Stability (-30° to +60° C)	0.00025%		0.00025%	
Spurs/Harmonics <sup>2</sup>	-36 dBm < 1 GHz, -30 dBm > 1 GHz		-36 dBm < 1 GHz, -30 dBm > 1 GHz	
Audio Response <sup>2</sup>	+1, -3 dB		+1, -3 dB	
From 6dB/octave Preemphasis, 300 to 3000 Hz				
Audio Distortion <sup>2</sup>	< 3%		< 3%	
@ 1000 Hz, 60% Rated Maximum Deviation				
FM Noise <sup>2</sup>	-40 dB (12.5 kHz) -45 dB (25 kHz) <sup>3</sup>		-40 dB (12.5 kHz) -45 dB (25 kHz) <sup>3</sup>	
FCC Modulation				
20/25/30 kHz <sup>2</sup>	16KOF3E 11KOF3E	16KOF3E 11KOF3E	16KOF3E 11KOF3E	16KOF3E 11KOF3E
12.5 kHz				

**PORTABLE MILITARY STANDARDS 810 C, D, E and F**

	MIL-STD 810C		MIL-STD 810D		MIL-STD 810E		MIL-STD 810F	
	Method	Procedures	Method	Procedures	Method	Procedures	Method	Procedures
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	I
High Temperature	501.1	I, II	501.2	I, II	501.3	I, II	501.4	I, II
Low Temperature	502.1	I	502.2	I, II	502.3	I, II	501.4	I, II
Temperature 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**

Operating Temperature	-30° to +60° C
Storage Temperature	-40° to +85° C
ESD	IEC 801-2 KV
Thermal Shock	-40° to +80° C
Humidity	95% RH @ 8 Hour
Water and Dust Intrusion	IP 54
Packing Test	Impact test

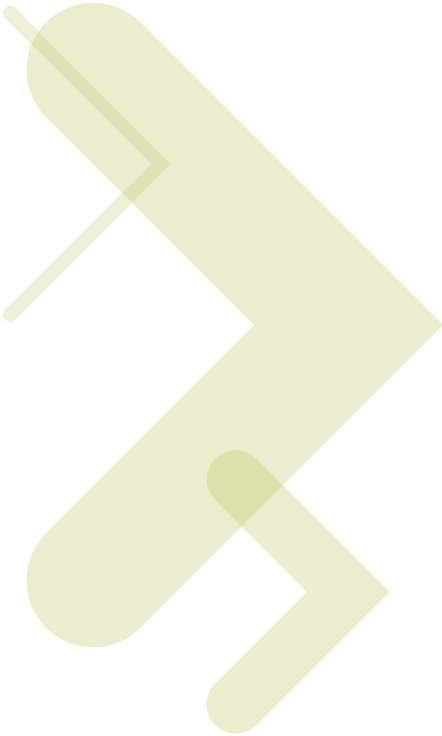
**Accelerated Life Test**

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.

<sup>1</sup> 5% receive, 5% transmit, 90% standby.

<sup>2</sup> All electrical specifications and methods refer to EIA/TIA 603 standards. Specifications shown are typical and subject to change without notice.

<sup>3</sup> 25 kHz not available in the US on new equipment after 1/1/2011.



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