Commercial Portable Two-Way Radio

Motorola CP185™

Enhanced functionality, reliable communication—
for a higher level of productivity

CP185™

Reliable communication with enhanced functionality— making it easier to get the job done.

In today's business environment, easy, discreet and prompt communication with your workforce is vital to improving response time, empowering employees to accomplish more in less time and increasing customer satisfaction. Motorola's two-way radios provide a durable, high-quality voice communication solution that helps your business increase productivity and serve your customers in the best manner possible.

Ideal for educational institutions, retail and hospitality businesses, service and manufacturing industries and many other demanding, professional applications, the Motorola CP185 brings you a robust two-way radio solution. With its extensive feature set, ergonomic shape for comfortable use plus a durable, lightweight, compact design, you get just what it takes to enhance communication while increasing efficiency and productivity.

CP185 Enhanced Functionality Benefits

The strong performance and extensive features of the CP185 Commercial Portable Radio provides simple, intuitive operation and helps ensure clear, dependable communication.

- **Easy-to-handle, lightweight, compact design.**

- Built-in simple voice scrambling for **increased privacy.**

- VOX ready for **hands-free communication**— users can focus on the job at hand.

- 5 programmable buttons—enabling easy, **one-touch to up to 10 user-selected features.**

- **Multi-channel capability**—16 channels to support communication amongst all your employees.

- **X-Pand™ Technology**—providing crisp, clear and strong audio quality in virtually any noisy environment.

- Standard LiIon battery provides **up to 11 hours (5/5/90 duty cycle) of battery life at high power** to meet the demands of your employee's work shift. A high-capacity battery option is available for those with longer shift requirements or increased communication needs.

- **Rapid-rate drop-in charging**—charge radios in less than 3 hours with the included drop-in charger.

- **High power**—5 watt (VHF) / 4 watt (UHF)— adjustable power levels help extend battery life.

- Repeater capability when **increased coverage** is required.

- **Talkaround capability** enabling communication even when a repeater is not being used.

- Tighter specifications: -70 dB adjacent channel selectivity provides **enhanced rejection of interference** from strong signals on adjacent channels so you can get your message through clearly.

- **Meets Military 810 C, D, E and F standards** to stand up to the most demanding conditions.

CP185 Portable Radio

1 Large, sturdy rotary channel selector makes changing channels quick and easy.

2 Large ON/OFF/Volume control makes adjusting volume quick and easy.

3 LED indicator indicates radio Transmit, Receive, Scan and Monitor status.

4 Large, textured PTT button—easy to find and use without looking.

5 Side programmable buttons enable instant access to up to four user-determined functions.

6 Accessory connector provides convenient access for audio accessories.

7 Programming port supports programming the radio via Customer Programming Software application.

8 Front left/right buttons for navigating menu, sub-menu or parameter selections in front panel programming mode.

9 Front Programmable Buttons—
  P1: S-Monitor, L-Sticky Monitor
  P2: S-Scan, L-Nuisance Ch. Delete
  P3: S-Power Level, L-Unassigned

Standard Package

• CP185 Portable Radio

• Stubby Antenna

• LiIon 1500 mAh Battery

• Rapid Charger and Power Supply

• 2″ Belt Clip

• Quick Reference Guide

• 2-Year Limited Warranty

Programmable Features

The following functions can be assigned as short press (press and release) or long press (press and hold for 1 second) in the side and front programmable buttons:

FEATURE:	FUNCTION:
Backlight	Toggles backlight display between ON and OFF.
Channel Alias	Toggles display between Channel Number and Channel Alias.
Keypad Lock	Locks or unlocks all buttons except PTT, Side Programmable Buttons, Rotary Channel Knob and ON/OFF/Volume knob.
Monitor	Monitors the channel for any activity as long as the button is pressed.
Nuisance Channel Delete	Removes unwanted channel(s) temporarily from scan list during scan.
TPL/DPL	Enables or disables radio from requiring matching TPL/DPL to unsquelch.
Power Level	Selects required power level: High or Low.
Reverse Burst	Select the Reverse Burst Type: None, 180 or 240.
Channel Scan	Starts or stops channel scan.
Scrambling	Enables or disables the scrambling feature for the selected channel.
Scrambling Code Select	Selects either one of the two scrambling codes available.
Squelch Level	Selects desired squelch level: Normal or Tight.
Sticky Monitor	The radio monitors continually until you press this button again.
Talkaround	Allows the user to toggle between Repeater and Talkaround mode operations.
Volume Set	Controls the audio and alert tone levels. The button emits a continuous tone while the button is pressed to indicate the current volume level.
VOX	Enables or disables VOX feature for the selected channel.

CP185™ Radio Accessories

The CP185 offers a full range of Motorola Original® audio, energy and carrying accessories to customize a radio solution specific to your needs. Headsets offer a comfortable, easy communication option when you need your hands free to focus on your operations. A high capacity battery is available to support long shifts common in the retail and hospitality businesses and soft leather carry cases are available as a lightweight and comfortable carrying solution.

This radio also supports Mag One™ audio accessories, which provide an affordable option for light-duty radio users.

Part #	Description
Audio	
Remote Speaker Microphones	
PMMN4029	Remote Speaker Microphone, Submersible (IP57)
PMMN4013	Remote Speaker Microphone with 3.5mm Audio Jack (IP54)
PMMN4008	Remote Speaker Microphone (Mag One)
Remote Speaker Microphone Accessories	
AARLN4885	Receive-Only Covered Earbud with Coiled Cord
PMLN4620	Receive-Only D-Shell Earpiece
RLN4941	Receive-Only Earpiece with Translucent Tube and Rubber Eartip
WADN4190	Receive-Only Flexible Earpiece
Headsets	
HMN9013	Lightweight Headset, Over-the-head, Adjustable, Single-Muff with Swivel Boom Microphone and In-line PTT
PMLN5003	Lightweight Temple Transducer with In-line PTT button and Microphone
PMLN4445	Ultra Lightweight Headset with Boom Microphone and In-line PTT/VOX Switch (Mag One)
Earsets	
PMLN5001	D-Style Earpiece with In-line Microphone and PTT
PMLN4443	Ear Receiver with In-line Microphone and PTT/VOX Switch (Mag One)
PMLN4442	Earbud with In-line Microphone and PTT/VOX Switch (Mag One)
PMLN4444	Earset with Boom Microphone and In-line PTT/VOX switch (Mag One)
Surveillance Kits and Associated Accys	
HMN9754	2-Wire Surveillance Kit, Beige (2-wire - rubber eartip style)
RLN6232	Low Noise Kit (Includes Rubber Tips with Acoustic Tube), black
RLN6241	Low Noise Kit (Includes Rubber Tips with Acoustic Tube), beige
RLN6230	Extreme Noise Kit (Includes Foam Earplugs with Acoustic Tube), black
RLN6231	Extreme Noise Kit (Includes Foam Earplugs with Acoustic Tube), beige
RLN6242	Quick Disconnect acoustic tube

Part #	Description
Batteries and Chargers	
PMNN4082	Battery, NiMH 1300 mAh min.
PMNN4081	Battery, LiIon 1500 mAh min.
PMNN4080	Battery, High Capacity LiIon 2150 mAh min.
PMLN5398	Single Unit Rapid Charger Kit, 110V (Includes PMLN5228 & EPNN9288)
PMLN5228	Single Unit Charger Base
EPNN9288	Switchmode Power Supply, 110V with US plug
Carry Devices	
HLN9844	Spring Action 2" Belt Clip
PMLN5334	Soft Leather Carry Case with D-Ring
Antennas	
PMAD4012	VHF Stubby, 136-155 MHz, 9 cm
HAD9742	VHF Stubby, 146-162 MHz, 9 cm
HAD9743	VHF Stubby, 162-174 MHz, 9 cm
PMAD4013	VHF Stubby, 155-174 MHz, 9 cm
PMAD4014	VHF Whip, 136-155 MHz, 14 cm
PMAD4015	VHF Whip, 155-174 MHz, 14 cm
NAD6579	VHF Whip, 148-161 MHz, 19 cm
NAE6483	UHF Whip, 403-520 MHz, 16.5 cm
PMAE4003	UHF Stubby, 430-470 MHz, 9 cm
PMAE4006	UHF Stubby, 465–495 MHz, 9 cm
HAD9338	VHF Heliflex, 136-162 MHz, 15.5 cm
NAD6502	VHF Heliflex, 146-174 MHz, 15 cm

PMLN5228

PMLN5334

PMMN4013

HMN9013

HMN9754

PMLN5001

CP185™ Radio Specifications

General Specifications

	CP185	
	VHF - 136-174 MHz	UHF - 435-480 MHz
Channel Capacity	16	
Channel Spacing	12.5 / 25 kHz switchable	
Model Numbers	AAH03KEF8AA7AN	AAH03RDF8AA7AN
FCC ID	AZ489FT3822	AZ489FT4883
IC ID	109U-89FT3822	109U-89FT4883
FCC Emissions Designators	11K0F3E	16K0F3E
Dimensions (H x W x L)	4.72 x 2.28 x 1.46 in. (120 x 58 x 37 mm)	
Weight (with LiIon)	12.34 ounces (350 g)	
Average Battery Life @ 5-5-90% Duty Cycle[1] LiIon battery NiMH battery High Capacity LiIon battery	up to 11 hours up to 10 hours up to 16 hours	

Transmitter

	CP185	
	VHF	UHF
RF Output	2 to 5W	2 to 4W
Frequency Stability[2]	±2.5 ppm	
Spurs and Harmonics	-63dBc (-26dBm @ 5W; -27dBm @ 4W)	
FM Hum and Noise Ratio[2]	> 40 dB	
Modulation Limiting[2] (12.5/25 kHz)	≤2.5 kHz / ≤5 kHz	
Audio Response	+ 1 to -3 dB	
Audio Distortion[2]	< 5%	

Receiver

	CP185	
	VHF	UHF
Sensitivity[2] (12 dB SINAD)	< -119 dBm (.25uV)	
Adjacent Channel Selectivity[2] (12.5/25 kHz)	-65 dB / -70 dB	
Intermodulation[2] (12.5/25 kHz)	>70 dB	
Spurious Rejection[2]	>70 dB	
Audio Distortion[2]	< 5%	
Hum and Noise Radio[2] (12.5/25 kHz)	> 40 dB	
Conducted Emission	< -57 dBm	
Audio Output @ <5% Distortion	500 mW (at 24 ohm)	

Military Standards

Applicable MIL–STD	810C		810D		810E		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	II
High Temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.1	–	503.2	I/A1C3	503.3	I/A1C3	503.4	I
Solar Radiation	505.1	II	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, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	–
Salt Fog	509.1	–	509.2	–	509.3	–	509.4	–
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I
Blowing Sand	–	–	510.2	II	510.3	II	510.4	II
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV

Environmental Specifications

Operating Temperature Range	-30°C to +60°C (Radio)
Water and Dust Intrusion	IP54, MIL-STD

[1] 5% receive, 5% transmit, 90% standby
[2] All electrical specifications and methods refer to EIA/TIA 603 standards. Specifications shown are typical and subject to change without notice.

Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements. Radio frequencies subject to availability. Version 1 10/08

7

<Dealer Logo>

<Dealer Name1>

<Dealer Name2>

<Dealer Address & Phone1>

<Dealer Address & Phone2>

<Dealer Website1>

<Dealer Website2>

<Channel Identifier1>

<Channel Identifier2>

CP185 Version 1 09/08