

## *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 Lilon 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
- Lilon 1500 mAh Battery
- Rapid Charger and Power Supply
- 2" Belt Clip
- Quick Reference Guide
- 2-Year Limited Warranty



# 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	AZ489H13822	AZ489H14883
IC ID	109U-89H-13822	109U-89H-14883
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 Lilon)	12.34 ounces (350 g)	
Average Battery Life @ 5-5-90% Duty Cycle <sup>1</sup>		
Lilon battery	up to 11 hours	
NIMH battery	up to 10 hours	
High Capacity Lilon battery	up to 16 hours	

## Transmitter

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

## Receiver

	CP185	
	VHF	UHF
Sensitivity <sup>2</sup> (12 dB SINAD)	< -119 dBm (125µW)	
Adjacent Channel Selectivity <sup>2</sup> (12.5/25 kHz)	-65 dB / -70 dB	
Intermodulation <sup>2</sup> (12.5/25 kHz)	>70 dB	
Spurious Rejection <sup>2</sup>	>70 dB	
Audio Distortion <sup>2</sup>	< 5%	
Hum and Noise Ratio <sup>2</sup> (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, III/A1	501.3	I/A1, III/A1	501.4	I/Hot, III/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 <sub>z</sub> , 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

<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.