



# Motorola CP1660

## Commercial Portable Two-Way Radio



**Full keypad** provides easy accessibility to change channels or place a selective call (DTMF signaling).

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

Built-in DTMF signaling provides **caller identification** and **private communication**.

VOX ready for **hands-free communication**—keeps users hands free for the job at hand.

Tighter specifications provide **enhanced rejection of interference** so you can get your message through clearly.

X-Pand technology provides **crisp, clear and strong audio quality**.

**Multi-channel capability**—99 channels to support communication amongst all your employees.

**User programmable** feature allows customization of radio profiles while on the go.

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 Lilon battery option is available for those with longer shift requirements or increased communication needs.

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

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

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

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

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

**A wide range of Motorola Original® audio, energy and carrying accessories**, as well as **Mag One™ audio accessories**, provide an affordable option for light duty radio users.

Recommended Accessories#

**PMMN4013**—Remote Speaker Microphone with 3.5mm audio jack, IP54

**PMLN5003**—Lightweight Temple Transducer with In-line Microphone and PTT

**PMLN5001**—D-Style Earpiece with In-line Microphone and PTT

**PMLN4442**—Earbud with In-line Microphone and PTT/VOX switch (Mag One)

**HMN9754**—2-Wire Surveillance Kit, Beige

#For a complete listing of accessories, please refer to the accessories brochure AF4-06-015

### Enhanced functionality, ease of use, reliable communication

Easy and prompt communication with your workforce is vital to improving response time, strengthening employee efficiency and increasing customer satisfaction. Motorola's two-way radios provide a durable, high-quality voice communication solution that helps your business increase productivity and provide excellent customer service.

Ideal for light manufacturing, retail, hospitality services, property and real estate management. The Motorola CP1660 Commercial Portable radio brings you quality features you need at a competitive price. With its full keypad for increased ease of use, extensive feature set, and ergonomic shape for comfortable handling in a durable, lightweight, compact design, you can enhance communication while increasing efficiency and productivity.

# CP1660 Radio Specifications\*

## General Specifications

	CP1660	
	VHF	UHF
Frequency Range*	136-174MHz	350-390MHz 403-438MHz 403-446MHz 435-480MHz
Memory Channels	99 CH	
Channel Spacing	12.5/25 kHz switchable	
Operating Temperature Range	-30°C to +60°C (Radio)	
Dimensions (H X W X D) with Lilon battery NiMH battery High Capacity Lilon battery	120 x 55 x 35.5 mm 120 x 55 x 36.5 mm 120 x 55 x 40.7 mm	
Weight with Lilon battery NiMH battery High Capacity Lilon battery	335.0 gm 394.5 gm 342.0 gm	
Average Battery Life @5-5-90% Duty Cycle, with Lilon battery NiMH battery High Capacity Lilon battery	High Power up to 11 hrs up to 9 hrs up to 16 hrs	
Sealing	Passes rain testing per IP54	
Shock & Vibration	Diecast with impact resistance polycarbonate housing, Meets MIL-STD810C/D/E/F	
Dust & Humidity	Weather resistant housing Meets MIL-STD810C/D/E/F	

## Transmitter

	CP1660			
	VHF		UHF	
RF Output	High Power 5W	Low Power 1W	High Power 4W	Low Power 1W
Spurs and Harmonics	9kHz - 1GHz < -36dBm > 1GHz < -30dBm			
Frequency Stability (-30°C to +60°C)	±/± 2.5ppm			
FM Hum & Noise	> 40dB			
Modulation Limiting	≤ 5kHz (25kHz) ≤ 2.5kHz (12.5kHz)			
Audio Response (from 6dB/oct pre-emphasis, 300-3000Hz)	≤ ±1/-3dB			
Audio Distortion @ 1kHz tone, 60% rated max dev.	<5%			

## Receiver

	CP1660	
	VHF	UHF
Sensitivity (12dB SINAD)	< -119 dBm (0.25uV)	
Adjacent Channel Selectivity	> 70dB (25kHz), >65dB (12.5kHz)	
Intermodulation	>70dB	
Spurious Rejection	>70dB	
Audio Distortion	<5%	
Hum and Noise	>40dB	
Conducted Emission	< -57dBm for below 1GHz < -47dBm for above 1GHz	
Audio Output @ <5% Distortion	500mW (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, II
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
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, V	516.3	I, IV, VI	516.4	I, IV, VI	516.5	I, IV, VI

\*Availability subject to country's laws and regulations. Radios meet applicable regulatory requirements.

All specifications subject to change without notice.

Specifications are not representative of all radios and may vary in different radios.

\*Radio frequencies subject to availability.



Stringent Motorola Accelerated Life Testing simulating five years of hard use in real life. EA RS-2169 in Shock, Vibration, Dust, Humidity, IP54 for Sealing.



Compliance with ISO 9001 Standard on international quality system assurance on design, development, production, installation and servicing of a product.



Stamp of Approval from the U.S. Military for use in rough environments.



To ensure compliance with RF energy exposure standards and regulations, use only Motorola-approved batteries and accessories. Use of non-Motorola-approved batteries and accessories may result in RF energy exposure standards being exceeded.



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