

# CP100 Commercial Series

Single Channel Two-Way Radio

Ideal for businesses seeking clear and reliable performance at an economical price.



- *Easy to use and cost-efficient*
- *121 Private Line Codes provide plenty of communication options with 83 digital (DPL) and 38 analog private lines (PL)*
- *Built-in scrambling feature helps ensure interference-free communication*
- *Extended life NiMH battery helps maximize talk time*
- *Backup AA battery capacity gives users valuable power source flexibility*
- *Rugged, Durable Design Meets or exceeds Mil Spec 810 C,D, E, F and IP54 testing standards*

## CP100 Single Channel Radio: Solid Performance at an Affordable Price

The single channel CP100 two-way radio is the perfect choice for businesses seeking clear, reliable performance at a very economical price. Its rugged, ergonomic design makes the CP100 durable enough to withstand harsh conditions and easy to hold and carry, even while wearing gloves. An extended life NiMH battery helps maximize talk time, and backup AA battery capacity gives users valuable power source flexibility. The radio's built-in scrambling feature and 121 private lines provide plenty of options to ensure interference-free communication. Easy to use and cost-efficient, the CP100 single channel radio delivers the capabilities you need to maximize effectiveness and maintain competitive advantage.

# specifications

## GENERAL

Operating Frequency Range:	VHF (151-159 MHz) / UHF (461-470 MHz)
Channel Bandwidth:	12.5 kHz / 25 kHz
Channel Capacity:	1
Subaudible Signaling System:	PL, DPL
Mode of Operation:	Simplex
Talk Range:*	Up to 6 Miles
Power Supply Voltage:	4.8 Volt DC (Four AA batteries or NiMH Pack )
Temperature Range:	-30° to +60° C
High Humidity:	Satisfies TIA/EIA 603 Specification
Vibration Stability:	Satisfies TIA/EIA 603 Specification
Shock Stability:	Satisfies TIA/EIA 603 Specification
Battery Life:	(5/5/90 duty cycle) 13 Hours with NiMH Battery Pack, 22 Hours with four AA Batteries
Dimensions: (H x W x D)	5.28 x 2.52 x 1.49 inches
Weight:	5.8 oz (radio alone), 9.8 oz with NiMH Battery Pack, 9.2 oz with four AA Batteries
Seal Integrity:	IP54 (with battery door installed), Mil Spec 810 C, D, E, F
Emission, Modulation, and Transmission Designation:	11K0F3E /

\* Talk range may vary depending on terrain and conditions.

## RECEIVER

Radiated Spurious Emissions:	-57dBm
Reference Sensitivity:	-121dBm
(12dB SINAD)	(0.2 uV)
Adjacent Channel Rejection:	55dB
Spurious Response Rejection:	55dB
Intermodulation Rejection:	55dB
Audio Frequency Response: (variance from a true 6dB per octave de-emphasis curve referenced to 1 kHz, from 300 Hz to 3 kHz)	+1 to -3dB
Hum and Noise Ratio: (non-companded)	50dB
Audio Distortion @ 500 mW:	10%
Audio Squelch Sensitivity:	8-12dB SINAD
Acoustic Audio Output: (maximum)	90dB SPL

## TRANSMITTER

	VHF/UHF
Carrier Output Power Rating:	2W
Carrier Frequency Stability:	2.5 ppm
Modulation Limiting:	+/- 2.5 & 5 kHz
Audio Sensitivity:	8 mV
Audio Distortion:	5%
Audio Frequency Response (variance from a true 6dB per octave pre-emphasis curve referenced to 1 kHz, from 300 Hz to 3 kHz)	+1 to -3dB
FM Hum and Noise Ratio: (non-companded)	45dB
Radiated Spurious Emissions: (10 uW)	-20dBm
Adjustable Channel Power Ratio:	60dBc

## VHF/UHF

## SUMMARY OF MIL SPEC RESULTS

Test:	Mil Spec 810 C, D, E, F Test Conditions
Shock:	Section 516.5, Procedures 1, 2, 4
Rain:	Section 506.4, Procedure 1
Temperature:	Shock Section 503.4, Procedure 2
Sand and Dust:	Section 510.4, Procedure 3
High Temperature:	Section 501.4, Procedure 2
Low Temperature:	Section 502.4, Procedure 2
Humidity:	Section 507.4
Salt Fog:	Section 509.4

## SUMMARY OF IP54 TEST RESULTS

IP54 Standard	Testing Requirements	Passing Requirements	Comments
Rain:	Spray nozzle that rotates +/- 180 degrees over the turntable. The unit is placed on the turntable for 10 minutes.	If any water has penetrated, it cannot interfere with radio operation or impair safety.	None
Dust:	Units exposed to Talcum powder in a contained chamber.	The dust cannot interfere with the correct operation of the equipment or impair safety.	Silica powder is used in the dust chamber.

