



# CM200/CM300

Mobile Series Two-Way Radios

2-Year Standard Warranty



## CM200/CM300 Features

- 4 Channels / 32 Channels
- Audio Indicator Tones
- VHF and UHF Frequencies
- Time-Out Timer
- Busy Channel Lockout
- Voice-Operated Transmit (requires voice-activated microphone)
- TPL Standard and Non-Standard Reverse Burst (for better compatibility with existing fleets)
- Privacy Codes (42 standard TPL codes, 84 standard DPL and non-standard codes)
- Single Priority Scan allows user to listen for activity on multiple channels. CM200 Only.
- Decode Selective Call/CallAlert Using Quik-Call II™ Signaling  
Selective Call: Allows receipt from specific group or individual  
Call Alert: Receives notification from specific group or individual user with alert tone and lighted LED
- Push-to-Talk Identification Using MDC 1200 Signaling  
Encode: Sends unique digital ID information when transmitting (PTT ID), which can be displayed on radios equipped with MDC decode

## CM200/CM300 Programmable Features

(Choose up to 4 for the CM200 and up to 8 for CM300.)

- **Scan On/Off**  
Enables/disables scan mode of operation
- **High/Low Power**  
Adjusts transmit power to accommodate environment
- **Repeater Talkaround**  
Unit-to-unit communication, bypassing the repeater
- **Local/Distance**  
Local mode reduces interference from nearby radios; distance mode helps improve range
- **Tight/Loose Squelch**  
Tight squelch helps minimize interference from undesired weak signals; loose squelch helps weak signals to be heard
- **Nuisance Channel Delete**  
Temporarily deletes a specific channel from scan mode if you no longer want to hear activity on that channel
- **Volume Set**  
Sets preferred volume level for radio speaker
- **Silent Monitor/Open Squelch**  
Silent monitor causes radio to remain silent when there is no channel activity. Open squelch monitor causes "white noise" to be heard when there is no channel activity
- **VOX On/Off**  
Enables/disables voice-operated transmit functionality for the current channel
- **Escalert**  
Increases volume of unanswered alarm alert

## CM300 has these additional features!

### CM300 Comes With...

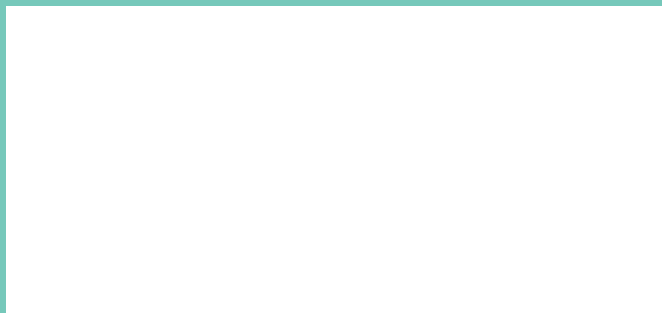
- Escalert (increases volume of unanswered alarm alert)
- Menu Mode
- System Scan and Auto Scan
- Supports Up to 16 Scan Lists of Up to 16 Channels Each
- Single and Dual Priority Scan (frequently scans higher-priority channels)
- Revert Scan (radio moves automatically to last landed scan channel when exiting scan mode)
- Customizable Audio Indicator Tones
- Adjustable Backlight Intensity

### Programmable Features...

(Choose up to 8)

- **2-Channel Home Revert**  
Returns to 1 or 2 favorite channels
- **Menu Mode**  
Access to radio menu and to select a menu option
- **Option Board On/Off**  
Enables/disables option board functionality for the current personality
- **Phone Mode**  
Provides access to telephone interconnect through a repeater
- **Speed Dial**  
Initiates a phone call to a preprogrammed recipient with the press of a DTMF key (requires DTMF keypad)
- **Radio Call**  
Allows a user to initiate Quik-Call II™ and/or DTMF Call Alert or Selective Call Encode from a call list
- **Scan List Edit**  
Allows user to add/remove channels from current scan list
- **External Alarm**  
Activates a warning or alert by triggering flashing headlights, a siren or a horn (requires an external alarm accessory and an accessory connector pin to be programmed for external alarm through CPS)

For more information, contact:



- Option Board Expandability
- Selective Radio Inhibit Decode:  
Dispatcher can remotely disable radio to prevent transmission from reaching stolen or inactive radios  
Radio Check Decode:  
Dispatcher can determine remotely if radio is powered on without disturbing user

# CM200™/CM300™ Mobile Two-Way Radio Specifications\*



## General Specifications

	VHF	UHF
Channel Capacity:	4 (CM200) 32 (CM300)	4 (CM200) 32 (CM300)
Technical RF Output:		
Low Power:	1-25W	1-25W
High Power:	25-45W	25-40W
Frequency:	136-162 MHz (CM300 only) 146-174 MHz	438-470 MHz
Dimensions: ( H * W * L )	1.73" x 6.67" x 4.64" (44mm x 169mm x 118mm)	1.73" x 6.67" x 4.64" (44mm x 169mm x 118mm)
Weight: (Radio only)	2.25 lbs (1.02 Kg)	2.25 lbs (1.02 Kg)
Current Drain: Standby	0.3A	0.3A
Rx@ rated, external 8 ohm speaker	1.5A	1.5A
Transmit	7A (25W), 9.5A (45W)	8A (25W), 9A (40W)
FCC Description:	136-162 146-174	AZ492FT4856 (25W) ABZ99FT4048 (40W)

## Receiver Specifications

	VHF	UHF
Channel Spacing:	12.5/20/25 kHz	12.5/20/25 kHz
Frequency Stability: (-30 C to +60 C)	+/-2.5 ppm	+/-2.5 ppm
Sensitivity: (12 dB EIA SINAD)	0.35 uV (12.5 kHz), 0.3 uV (25 kHz) typical	0.35 uV (12.5 kHz), 0.3 uV (25 kHz) typical
Intermodulation:	65 dB (12.5 kHz), 75 dB (25 kHz)	60 dB (12.5 kHz), 70 dB (25 kHz)
Adjacent Channel Selectivity:	65 dB (12.5 kHz), 75 dB (25 kHz)	60 dB (12.5 kHz), 70 dB (25 kHz)
Spurious Rejection:	75 dB	70 dB
Rated Audio: (Extended audio with 4 ohm speaker)	4W internal, 13W external	4W internal, 13W external
Audio Distortion @ Rated Audio:	3% typical	3% typical
Hum and Noise:	-40 dB (12.5 kHz) -45 dB (25 kHz)	-35 dB (12.5 kHz) -40 dB (25 kHz)
Audio Response:	TIA603 & ETS300	TIA603 & ETS300
Conducted Spurious Emission:	-57 dBm < 1 GHz -47 dBm > 1 GHz	-57 dBm < 1 GHz -47 dBm > 1 GHz

## Transmitter Specifications

	VHF	UHF
Channel Spacing:	12.5/20/25 kHz	12.5/20/25 kHz
Frequency Stability: (-30 C to +60 C)	+/-2.5 ppm	+/-2.5 ppm
Modulation Limiting:	+/-2.5 kHz (12.5 kHz) +/-4 kHz (20 kHz) +/-5 kHz (25 kHz)	+/-2.5 kHz (12.5 kHz) +/-4 kHz (20 kHz) +/-5 kHz (25 kHz)
FM Hum and Noise:	-40 dB (12.5kHz) -45 dB (25 kHz)	-35 dB (12.5 kHz) -40 dB (25 kHz)
Conducted/Radiated Spurious Emission:		
1-25 W	-36 dBm < 1 GHz -30 dBm > 1 GHz	-36 dBm < 1 GHz -30 dBm > 1 GHz
25-45 W	-26 dBm	-26 dBm
Adjacent Channel Power:	-60 dB (12.5 kHz) -70 dB (25 kHz)	-60 dB (12.5 kHz) -70 dB (25 kHz)
Audio Response:	TIA603	TIA603
Audio Distortion:	3% typical	3% typical
FM Modulation:	11K0F3 (12.5 kHz) 16K0F3E (25 kHz)	11K0F3 (12.5 kHz) 16K0F3E (25 kHz)

## CM200/CM300 Mobile Military Standards

	810C		810D		810E	
	Methods	Procedures	Methods	Procedures	Methods	Procedures
Temperature Shock:	503.1	I	503.2	I	503.3	I
Solar Radiation:	505.1	I	505.2	I	505.3	I
Rain:	506.1	II	506.2	II	506.3	II
Salt Fog:	509.1	I (48 Hours)	509.2	I (48 Hours)	509.3	I (48 Hours)
Water & Dust Intrusion:	510.1	I	510.2	I	510.3	I
Vibration:	-	-	514.3	I, Cat. 1	514.4	I, Cat. 1
Shock:	516.2	I, III	516.3	I, V	516.4	I, V

## Environmental Specifications

Operating Temperature:	-30° C to +60° C
Storage Temperature:	-40° C to +85° C
Thermal Shock:	-40° C to +80° C
Humidity:	95% RH @ 8 Hour
Water & 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.

\*All specifications subject to change without notice.



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