SPECIFICATION SHEET

CM300™

Mobile Two-way Radio

- Rotary on/off/volume control
- Up/down channel selector and menu scroll buttons
- Red/yellow/green LED indicators
- 8-character alphanumeric display with user-friendly icons: assign a name to each channel for ease of use.
- Die-cast housing with polycarbonate outer casing
- 4 programmable buttons: customize shortcuts for up to 8 favorite features with a short/long press

All CM300 models include:

- Standard or compact microphone
- Standard or low profile installation bracket
- Standard power cable
- Safety Manual
- Two-year warranty

Features

CM300 Mobile:

- 32 Channels
- Audio Indicator Tones
- Time-Out Timer
- Busy Channel Lockout
- Escalert
  Increases alarm volume of unanswered calls
- Voice-Operated Transmit
  Requires voice-activated microphone
- TPL Standard and Non-Standard Reverse Burst
  For better compatibility with existing fleets
- Privacy Codes Include:
  42 standard TPL codes, and 84 standard and non-standard DPL codes
- 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
- Option Board Expandability
- Quik-Call II Encode/Decode Includes:
  Selective Call: Calls a specific group/individual
  Call Alert: Notifies a specific group/individual with an alert tone and lighted LED
- MDC 1200 Signaling Includes:
  PTT ID Encode/Decode: Sends unique digital ID information when transmitting (PTT ID), which can be displayed on radios equipped with MDC decode
  Selective Radio Inhibit Decode: Dispatcher can remotely disable radio to prevent transmission to stolen or inactive radios
  Radio Check Decode: Dispatcher can monitor remotely if radio is powered on

Programmable Features: Choose up to 8

- 2-Channel Home Revert
  Returns to 1 or 2 favorite channels
- Volume Set
- Silent Monitor/Open Squelch
  Silent monitor causes radio to remain silent; open squelch has audible "white noise" when there is no channel activity
- High/Low Power
- 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, and loose squelch helps weak signals be heard
- Nuisance Channel Delete
  Temporarily deletes a specific channel from scan mode
- Scan On/Off
- VOX On/Off
  Enables/disables voice-operated transmit functionality for the current channel
- Escalert
  Increases alert volume of unanswered calls
- Menu Mode
- Option Board On/Off
- Phone Mode
  Provides access to telephone interconnect through a repeater
- Speed Dial – Requires DTMF keypad
  Initiates a phone call to a preprogrammed recipient with the press of a DTMF key
- Radio Call
  Initiates Quik-Call II and/or DTMF Call Alert or Selective Call Encode from a call list
- Scan List Edit
  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 through CPS)

A compact radio that provides better and faster fleet productivity solutions

This radio features large controls that are easy to grip or press even when wearing gloves. The powerful 4W speaker is forward-facing (instead of on top of the radio) for superior clarity. Three color LED indicators (red, yellow, green) show visible feedback of transmit, scan and monitor status. The microphone and controls are located on the left, closest to the driver for easy reach, and bright visual indicators can be read at a glance. Both features that help drivers keep their eyes on the road. With its 8-character alphanumeric display, 4 programmable buttons and 32 channels, this radio supports access to an expanded feature set for a large workforce. This radio is ideal for retail, hospitality, manufacturing, delivery services and taxi and limousine companies.

GENERAL SPECIFICATIONS

	CM300™ VHF	CM300™ UHF
Frequency	136-162 MHz 146-174 MHz	438-470 MHz
Channel Capacity	32 Channels	
Technical RF Output Low Power High Power	 1-25W 25-45W	
Dimensions: H x W x L	1.73 x 6.67 x 4.64 inches, 44 x 169 x 118mm	
Weight – Radio only	2.25 lbs, 1.02 Kg	
Current Drain Standby Rx @ rated, external 8 ohm speaker Transmit	 0.3A 1.5A 8A (25W), 9A (40W)	
FCC Designation 136-162 MHz 146-174 MHz 438-470 MHz	 ABZ99FT3049 (45W) AZ492FT3805 (25W) ABZ99FT3046 (45W)	 AZ492FT4856 (25W) ABZ99FT4048 (40W)

RECEIVER SPECIFICATIONS

	CM300 VHF	CM300 UHF
Channel Spacing*	12.5/20/25 kHz	
Sensitivity: 12dB EIA SINAD (typical)	0.35 uV (12.5 kHz), 0.3 uV (25 kHz)	
Adjacent Channel Selectivity	65 dB (12.5 kHz) 75 dB (25 kHz)	60 dB (12.5 kHz) 70 dB (25 kHz)
Intermodulation	65 dB (12.5 kHz) 70 dB (25 kHz)	60 dB (12.5 kHz) 70 dB (25 kHz)
Frequency Stability: -30° C to +60° C	+/-2.5 ppm	
Spurious Rejection	-75 dB	-70 dB
Rated Audio: Extended audio with 4 ohm speaker	4W internal, 13W external	
Audio Distortion @ Rated Audio	3% typical	
Hum and Noise	-40 dB (12.5 kHz) -45 dB (12.5 kHz)	-35 dB (12.5 kHz) -40 dB (12.5 kHz)
Audio Response	TIA603 and ETS300	
Conducted Spurious Emission	-57 dBm < 1 GHz, -47 dBm > 1 GHz	

TRANSMITTER SPECIFICATIONS

	CM300 VHF	CM300 UHF
Channel Spacing*	12.5/20/25 kHz	
Frequency Stability: -30° C to +60° C	+/-2.5 ppm	
Modulation Limiting	+/-2.5 kHz (12.5 kHz) +/-4 kHz (20 kHz) +/-5 kHz (25 kHz)	
Conducted/Radiated Spurious Emission 1-25 W 25-45 W	 -36 dBm < 1 GHz, -30 dBm > 1 GHz -26 dBm	
Adjacent Channel Power	-60 dB (12.5 kHz) -70 dB (25 kHz)	
Audio Response	TIA603	
Audio Distortion	3% typical	
FM Hum and Noise	-40 dB (12.5 kHz) -45 dB (25 kHz)	-35 dB (12.5 kHz) -40 dB (25kHz)
FCC Modulation	11K0F3 (12.5 kHz) 16K0F3E (25 kHz)	

MOBILE MILITARY STANDARDS 810 C, D, and E

	MIL-STD 810C		MIL-STD 810D		MIL-STD 810E	
	Method	Procedures	Method	Procedures	Method	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 and 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

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 and Dust Intrusion	IP 54
Packing Test	Impact test

* Availability of new 25 kHz equipment may be restricted due to Narrowbanding regulations in your country. Please check with your frequency coordinator and/or regulatory agency for the latest information on Narrowbanding.

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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MOTOROLA

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