

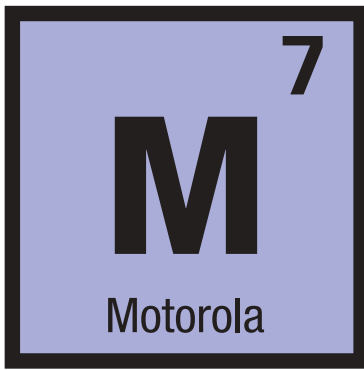
*Seven Essential Elements of  
Solid Two-Way Communication*

**CP150™**  
**CP200™** PORTABLES  
**CM200™**  
**CM300™** MOBILES

Two-Way Radios & Accessories



**Radius®**



***Motorola M7:  
Delivering All the Elements  
You Need to Succeed***

Whether it's a solid, a liquid, or a gas, everything in the universe requires certain elements to make it what it is – including Motorola radios.

We've identified seven essential elements Motorola radios must have to meet your communication needs:

- **Value** to ensure you get the most for your communication dollars
- **Reliability** so you can depend on your radio, even in harsh environments
- **Ease of Use** for simple operation and customization
- **Audio Quality** to get your message through loud and clear
- **Size and Weight** to provide easy and convenient installation in almost any vehicle
- **Programmable** to customize features of each radio for each user
- **Range and Battery Life** that lets you reach coworkers across the street or across town with the power to talk as long as you need

Only by including all these elements can a two-way radio deliver the superb quality Motorola stands for – and the solid communication tools you require. And that's exactly what the newest Radius® Commercial Series two-way radios deliver. The CP150 and CP200 portables and the CM200 and CM300 mobiles provide users with the next level of M7.

## ***Motorola – A Name You Know and Trust***

For 75 years, Motorola has been a leader in creating state-of-the-art wireless communications for you. The Radius CP150 and CP200 portable and the CM200 and CM300 mobile two-way radios uphold that standard of excellence. Each radio is backed by a limited two-year\* warranty on parts and labor. So when you select one of these two-way radios, you will experience the same exceptional quality you have come to expect from all Motorola products.

Motorola's durability is unmatched in the industry.



## ***Exceptional Durability***

There's a reason why Motorola two-way radios are built to last. Motorola's rugged and reliable radios, including the Radius CP150 and CP200 portables and the CM200 and CM300 mobiles, undergo rigorous testing in the design process. We use U.S. Military Standards and Accelerated Life Testing, so you can be assured Motorola radios will hold up under demanding conditions. These tests are designed to simulate very harsh environments, including:

**Rain** – Steady rainfall and wind for 30 minutes on every surface.

**Salt Fog** – 48 hours of exposure to an atomized salt solution.

**Dust** – 6 hours of blowing dust on all surfaces.

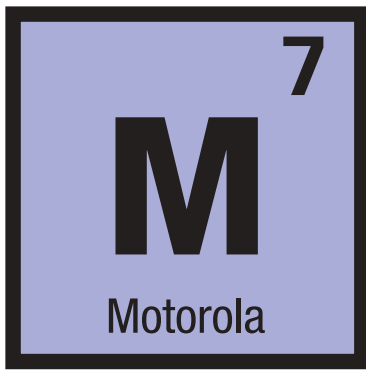
**Vibration** – Up to 9 hours of exposure to vibration that simulates the rigors a radio could undergo while being transported.

**Shock** – 18 shocks with a minimum G force of 40 Gs each.

In addition to these test the CP150 and CP200 portables are also subjected to the following:

**Temperature Storage** – multiple hours of exposure to temperatures as low as -70° F followed by multiple hours of exposure to temperatures as high as 160° F.

\*Radio accessories are covered by Motorola's One-year Limited Accessory Warranty..



**The CP150 and CP200 Radios:  
High Performance at a Competitive Price**

The new Radius CP150™ and C200™ portable two-way radios deliver the quality features you want at a very competitive price. To provide either range that's best for your business, the CP150 radio is available in 2W UHF and VHF models. The CP200 radio is available in both 4W UHF and 5W VHF models. Powerful 500 mW audio output penetrates noisy environments, providing the clear, crisp audio at any volume. A lightweight, ergonomic design makes these radios comfortable to carry and operate, even while wearing gloves. A range of battery choices along with rapid recharging capabilities help ensure your radio is ready when you are. Programmable option buttons make it easy to customize your radio with your choice of features.



- Large, Textured Push-to-Talk Button
- Two Programmable Option Buttons  
*Supports a choice of up to four favorite functions with short/long press.*



- Large Rotary Channel Selector
- Rotary On/Off and Volume Control
- Tricolor LED
- Accessory Connector
- 3 Inch Spring Action Belt Clip  
*Located on radio back.*
- Rugged, Die-Cast Chassis
- Battery Latch lock  
*Located on radio bottom.*



# CP150™ CP200™

## Portable Series

Two-Way Radios

### CP150 and CP200 Features

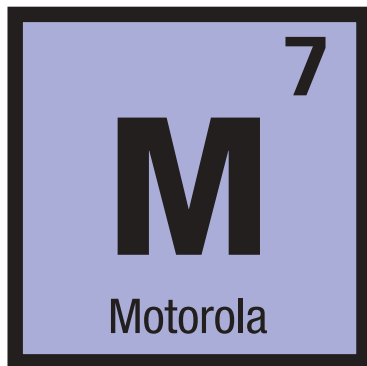
- 4/16 Conventional Channels
- Large Rotary Channel Selector  
*Changes channels quickly and easily*
- Rotary On/Off and Volume Control
- Tricolor LED  
*Indicates radio status and battery levels*
- Accessory Connector  
*Convenient access for audio accessories*
- 3 Inch Spring Action Belt Clip  
*Attaches radio firmly to belt*
- Rugged, Die-Cast Chassis  
*With polycarbonate housing for greater protection*
- Large, Textured Push-to-Talk Button  
*Easy to find and use, even when wearing gloves*
- Two Programmable Option Buttons  
*Supports your choice of up to four product features*
- Privacy Codes (42 standard TPL codes, 84 standard DPL codes and non-standard codes)
- System Scan and Auto Scan
- Single Priority Scan  
*(frequently scans higher priority channel)*
- Battery Latch Lock  
*Secures battery*
- 2-year Standard Warranty

### Additional CP200 Programmable Features

*In addition to the above features, the CP200 portable radio offers the following signaling features:*

- Quik-Call II™ Selective Call/Call Alert  
*Lets individuals or groups receive selective pages via radio tones.*
- MDC Push-to-Talk Radio ID  
*Sends unique ID information when transmitting.*





## *MAKE SURE YOUR CP150 AND CP200 RADIOS ARE READY FOR ACTION*

No question, CP150™ and CP200™ radios get plenty of use: their ergonomic features and lightweight design make them the constant companions of retail, hospitality, education, and security professionals. With this collection of high-performance accessories, you can easily tailor CP150 and CP200 radios to your exact working requirements.

The CP150/CP200 is perfect for, but not limited to, the following:

### ***Education***

Managing administration or security on large campuses requires keeping in touch with your colleagues. The CP150 and CP200 portable radios give you easy contact with colleagues who can help you keep everything under control.

### ***Hospitality***

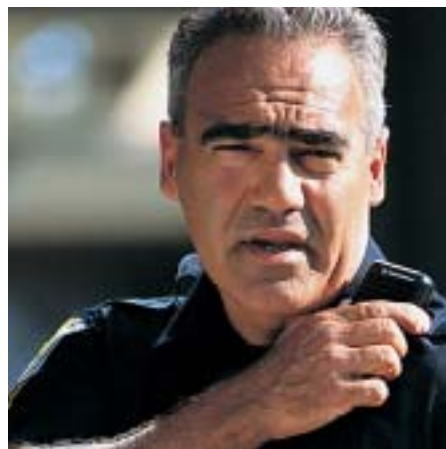
Whether you're coordinating staff for a conference or requesting a quick room change for a last-minute guest, you need communication that won't slow you down. The lightweight, ergonomically designed CP150 and CP200 portable radios are comfortable enough to use and carry all day.

### ***Retail***

In the retail industry, great customer service depends on fast response. The CP150 and CP200 radios let you connect at the touch of a button with store or stockroom personnel to get the information you need – when you need it.

### ***Security***

When an alarm signals illegal entry into the building you're securing, you don't have a moment to lose. The CP150 and CP200 radios give you the up-to-the-minute communication you need to alert coworkers or request backup at the touch of a button.



## Advanced Communication Accessories

### SECURITY PERSONNEL WORK EFFICIENTLY WITH AN EAR MICROPHONE SYSTEM

This miniature earpiece system picks up voice through bone vibrations in the ear canal, permitting direct hearing and speaking. Users' hands remain free, and their vision is unobscured. Sound quality is clear and true even when worn with protective masks or breathing apparatus. And it provides high speech clarity even in noisy environments.

#### **BDN6646C**

##### **Ear Microphone System (EMS) with PTT Interface**

For standard noise levels (up to 95dB)

#### **BDN6706B**

##### **Ear Microphone System (EMS) with Voice Activated/PTT Interface**

For standard noise levels (up to 95dB)

#### **0180300E83**

##### **Body Switch Push-to-Talk for Ear Microphone System**

Provides greater convenience to users. Users who wear large gloves or cumbersome uniforms can more easily reach this switch. Includes a swivel clip that allows positioning anywhere on the user's clothing.

#### **0180358B38**

##### **Push-to-Talk Ring Switch for Ear Microphone System**

Slips over the user's finger of choice.

#### **0180300E25**

##### **Earguard with Adjustable Loop for Ear Microphone System**

##### **Earholder for Ear Microphone System**

Secures microphone in ear. Choice of sizes in black or clear.

**0180358B32 — Black, Small**

**0180358B33 — Black, Medium**

**0180358B34 — Black, Large**

**0180358B35 — Clear, Small**

**0180358B36 — Clear, Medium**

**0180358B37 — Clear, Large**



Ear Microphone System (EMS) with PTT Interface.



Earholder for Ear Microphone System



0180300E83

Body Switch Push-to-Talk for Ear Microphone System . . . users who wear large gloves or cumbersome uniforms can more easily reach this switch.

**Audio Accessories**

**HMN9036A**  
**HMN9036AP – Resale Packaged**  
**Earbud with Microphone and Push-to-Talk**  
 Pellet-style earpiece allows user to communicate discreetly and is comfortable for extended periods of time. Clip microphone securely attaches to shirt.

**HLN9132A**  
**Single-Wire Receive Only Earbud**  
 Ideal for users who need to receive information frequently, but seldom need to transmit.

**BDN6720A**  
**BDN6720AP – Resale Packaged**  
**Black Flexible Ear Receiver**  
 Receive only earpiece contains a flexible ear loop and speaker worn on the outside of the ear.

**HMN9727B**  
**HMN9727BP – Resale Packaged**  
**Beige Receive Only Earpiece**  
 Allows user to privately receive communication; ideal when discreet communication is important.

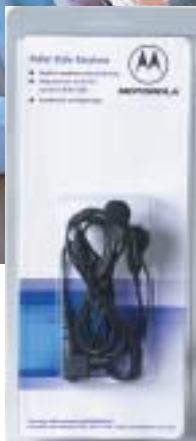
**RLN4894A**  
**Black Receive Only Earpiece**  
 Allows user to privately receive communication; ideal when discreet communication is important.

**HMN9752B**  
**Beige Receive Only Earpiece with Volume Control**  
 Allows user to privately receive communication; ideal when discreet communication is important. User can change volume without having to reach for the radio.

**Earpiece Assembly with Microphone and Combined Push-to-Talk**  
 Two-wire accessory allows users to transmit and receive discreetly.  
**HMN9754D - Beige**  
**RLN4895A - Black**



HMN9036A



HMN9036AP



RLN4894A





NTN8371A

**RLN5198AP - Beige  
Two-wire Surveillance Kit with Clear  
Comfortable Acoustic Tube**

Includes a comfort earpiece with a rubber ear tip and a clear comfortable acoustic tube. Users can hear transmissions clearly, while the clear tube provides a discreet appearance.

**NTN8370A - Extreme Noise Kit**

Includes two foam earplugs designed for use in loud environments. Provides 24dB of noise reduction. Compatible with Motorola 1, 2 and 3-wire surveillance accessories.

**NTN8371A - Low Noise Kit**

Includes rubber ear tip for low noise environments; does not provide hearing protection. Compatible with Motorola 1, 2 and 3-wire surveillance accessories.



Clear Comfortable Earpiece

- RLN4760A - Small, Right Ear**
- RLN4761A - Medium, Right Ear**
- RLN4762A - Large, Right Ear**
- RLN4763A - Small, Left Ear**
- RLN4764A - Medium, Left Ear**
- RLN4765A - Large, Left Ear**
- Clear Comfortable Earpiece**

Designed to form to the inside of the ear; perfect for low noise environments. Made of easy-to-clean, chemically-inert hypo-allergenic material. Requires NTN8371A Clear Acoustic Tube Assembly and a Motorola Surveillance Kit for operation.

**Audio Accessories**

**AUDIO ACCESSORIES FOR ENHANCED COMMUNICATION**

**HMN9013A  
Adjustable Headset with Swivel Boom Microphone**

Single-muff adjustable headset with swivel boom microphone allows for high-clarity, hands-free communication for extended wear in moderately noisy environments. Works with radio Push-to-Talk button.

**HMN9021A  
Medium Weight Dual Muff Headset**

Over-the-head style, medium weight headset offers clarity sound with the additional protection necessary for providing clear two-way radio communication in harsh, noisy environments. Noise reduction of 24dB.

**HMN9022A  
Medium Weight Dual Muff Headset**

Behind-the-head style, medium weight headset offers high clarity sound with the additional protection necessary for providing clear two-way radio communication in harsh, noisy environments. Can be worn with most hardhats. Noise reduction of 24dB.

**RLN5238A  
NFL® Style Lightweight Headset**

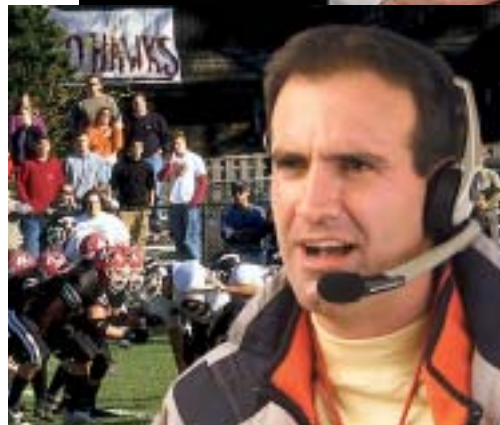
Ergonomically-designed for all-day comfort; ideal for both sports and special events. Features a noise-canceling boom microphone and in-line Push-to-Talk. Large Motorola logo adds a sporty appearance.

**RLN5411A  
Ultra-Lightweight Behind-The-Head Headset**

Sleek design provides all day comfort for restaurant and hospitality professionals. Includes flexible boom microphone and in-line Push-to-Talk.

**RLN5500A  
Accessory Retainer Clip**

Holds audio accessories securely to radio in demanding environments.



*Adjustable Headset with Swivel Boom Microphone, above, lets users talk hands-free in real comfort.*

*NFL Style Lightweight Headset (left) is ergonomically-designed for all-day comfort*

*Remote Speaker Microphone with Coil Cord and Swivel Clip is ideal for moderate noise level environments.*

**HMN9030A  
Remote Speaker Microphone with Coil Cord and Swivel Clip**

Allows users to talk and listen without removing the radio from the belt, case or charger. Ideal for moderate noise level environments. This water-resistant microphone includes a 6-foot Coiled Cord Assembly, and Swivel Clip.



**BDN6648C**  
**Heavy-Duty Headset**

Behind-the-head style with noise reduction rating of 24dB; can be worn with most hard hats. Includes noise-canceling boom microphone and Push-to-Talk switch located on the earcup. VOX module is contained within the headset.

**RMN4016A**  
**Lightweight Headset with In-line Push-to-Talk**

Single-muff adjustable headset with swivel boom microphone and in-line Push-to-Talk allows for high-clarity, hands-free communication while adding the comfort necessary for extended wear in moderately noisy environments. In-line Push-to-Talk adds convenience for communication without having to reach for the radio.

**RMN5015A**  
**Racing Headset**

Heavy-duty behind-the-head style can be worn with most hard hats. Noise-canceling swivel boom microphone and noise reduction rating of 24dB make this ideal for high-noise environments; racing teams like CART use it in the pits for dependable communication. Radios require Adapter Cable sold separately below.

**RKN4090A**  
**Radio Adapter Cable**

For use with CP150 and CP200 Two-way radios and RMN5015A Racing Headset.

**PMMN4001A**  
**Ultra-Light Earpiece with Microphone and In-line Push-to-Talk**

Small and lightweight earpiece clips comfortably to the ear. Has boom microphone and in-line Push-to-Talk button for added convenience.



*This Heavy-Duty Headset has a noise reduction rating of 24dB, providing exceptional performance in challenging noise environments.*

**Antennas**

**NAD6502AR**  
**VHF Heliflex Antenna, 146-174 MHz**

**HAD9742A**  
**VHF Stubby Antenna, 146-174 MHz**

**HAD9743A**  
**VHF Stubby Antenna, 162-174 MHz**

**NAE6483AR**  
**6 Inch Flexible Whip Antenna, 403-520 MHz**

**NAE6522AR**  
**UHF Heliflex Stubby Antenna, 438-470 MHz**



*CP200 with a VHF 162-174 MHz stubby antenna.*

## Carry Cases

### **RLN5383A**

#### **Leather Carry Case with Belt Loop and D-shaped Rings**

Protects radio in demanding environments.

### **RLN5384B**

#### **Leather Carry Case with High-Activity 2.5 Inch Swivel Belt Loop**

Protects radio in demanding environments. Swivel design moves from side to side to accommodate the user's position. Holds case securely to belt loop while allowing easy removal of the radio.

### **RLN5385B**

#### **Leather Carry Case with High-Activity 3 Inch Swivel Belt Loop**

Protects radio in demanding environments. Swivel design moves from side to side to accommodate the user's position. Wide 3" belt loop accommodates wider belts. Holds case securely to belt loop while allowing easy removal of the radio.



RLN5385B

### **HLN8255B**

#### **3 Inch Spring Action Clip**

Simple and easy to use solution for users who want a low cost, lightweight carrying accessory and do not require the protection of a carry case. Designed to withstand rigorous environments. Ships standard with the CP150 and CP200 radios.

### **HLN9701B**

#### **Nylon Carry Case with Belt Loop and D-shaped Rings**

Ideal solution for those users who want a lightweight carrying accessory combined with the protection of a carry case.



## ACCESSORIES FOR GREATER CONVENIENCE

### **Portable Radio Hangers**

Slides over and hangs from the door panel in a vehicle; radio attaches easily with the belt clip. Available in two sizes.

#### **TDN9327A — Portable Radio Hanger**

For door panels up to 2.75 inches.

#### **TDN9373A — Portable Radio Hanger**

For door panels up to 3.25 inches.

## Chargers

### **WPLN4138AR** **Single-unit Rapid Rate Tri-chemistry Desktop Charger**

Lightweight and compact unit charger rapidly charges CP150 and CP200 NiCd and Li-ion batteries within two hours.

### **EPNN7997A** **10-Hour Plug-in Charger**

Slow-rate charger plugs directly into the radio accessory connector. For use with the NNTN4496AR NiCd battery only.

### **WPLN4161AR** **6-Pocket Rapid Rate Multi-Unit Charger**

Offers six pockets that can be used to rapid charge 1 to 6 batteries simultaneously. Batteries can be charged with the radios or separately. Charges NiMH, NiCd and Li-ion. 120V.



**WPLN4161AR**  
*Batteries can be charged with  
the radios or separately.  
Radios sold separately.*

*enhanced . . .*

## Batteries

### **NNTN4497AR** **1800 mAh Li-ion Battery**

Li-ion batteries offer the best power-to-weight ratio of all battery chemistries, and do not demonstrate memory effect. Provides up to 17 hours of CP150 radio talk time or up to 14 hours of CP200 radio talk time. With built-in circuit protection.

### **NNTN4496AR** **1100 mAh NiCd Battery**

Ideal for cold weather environments, this NiCd battery provides more watt-hours of operation per shift than any other battery chemistry.



WPLN4138AR



**The CM200 and CM300 Radios:  
Excellence in Design**

Great care was taken in the design process of the CM200™ and CM300™ to ensure ruggedness and reliability, ease of use and functionality. Some things you'll notice about Motorola's new mobiles:

They feature large controls that are easy to grip or press even when wearing gloves. The powerful 4-watt 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 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.

Everything that goes in or on a Motorola radio is carefully considered, reviewed, designed, reviewed again and manufactured to extremely high-quality standards and these radios really show it.



# CM200™

Mobile Series  
Two-Way Radios

**CM200 Features**

- 4 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 codes and non-standard codes)
- Single Priority Scan allows user to listen for activity on multiple channels
- Quik-Call II™ Decode Selective Call/Call Alert  
*Selective Call: Allows receipt from specific group or individual*  
*Call Alert: Receives notification from a specific group or individual user with an alert tone and lighted LED*
- MDC 1200 Push-to-Talk Identification Encode: Sends unique digital ID information when transmitting (PTT ID), which can be displayed on radios equipped with MDC decode
- 2-year Standard Warranty

**CM200 Programmable Features**

(Users can choose up to 4.)

- **Scan On/Off**  
*Enables/disables scan mode of operation*
- **High/Low Power**  
*Adjusts transmit power to accommodate user 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 your 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*
- **Escalart**  
*Increases volume of unanswered alarm alert*



# CM300™

Mobile Series  
Two-Way Radios

MOTOROLA M7



- **32 Channels**
- **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-Watt Front-Projecting Speaker**
- **4 Programmable Buttons (P1, P2, P3, P4)**  
*Customize shortcuts for up to 8 favorite features with a short/long press (4 more than CM200)*
- **Red/Yellow/Green LED Indicators**
- **Up/Down Channel Selector and Menu Scroll Buttons**
- **Rotary On/Off/Volume Control**

## CM300 Features

- 32 Channels
- Audio Indicator Tones
- VHF and UHF Frequencies
- Time-Out Timer
- Busy Channel Lockout
- Escalert (increases volume of unanswered alarm alert)
- 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 codes and non-standard 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

## CM300 Programmable Features

(Users can choose up to 8.)

- **2-Channel Home Revert**  
*Returns to 1 or 2 favorite channels*
- **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*
- **High/Low Power**  
*Adjusts transmit power to accommodate user 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 your scan mode if you no longer want to hear activity on that channel*
- **Scan On/Off**  
*Enables/disables scan mode of operation*
- **VOX On/Off**  
*Enables/disables voice-operated transmit functionality for the current channel*
- **Escalert**  
*Increases volume of unanswered alarm alert*
- **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)*
- **Quik-Call II™ Encode/Decode Selective Call/Call Alert**  
*Selective Call: Calls a specific group or individual*  
*Call Alert: Notifies a specific group or individual user with an alert tone and lighted LED*
- **MDC 1200 Signaling (PTT ID, Selective Radio Inhibit Decode, Radio Check Decode)**  
*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 from reaching stolen or inactive radios*  
*Radio Check Decode: Dispatcher can determine remotely if radio is powered on without disturbing user*
- **2-year Standard Warranty**

**MAKE SURE YOUR CM200 AND CM300 RADIOS ARE READY FOR ACTION**

The CM200 and CM300 are new commercial mobile radios ideal for use by smaller organizations: users who are new to two-way mobile radios and those who are price-sensitive. The CM200/CM300 is perfect for, but not limited to, the following:

***Agriculture***

Small size makes mounting in a tractor, combine, pickup truck or almost any farm vehicle easy. This unit enables cohesive coordination of agricultural tasks, as well as emergency response, when necessary. And because it's mounted inside the vehicle, it helps keeps the work flowing no matter what the weather.

***Hospitality***

You can improve customer service with immediate communication between your base station, portables and mobiles. It's ideal for weather extremes on the golf course, ski hill or seaside resort, it's mounted inside the vehicle. And the small size makes installation easy in almost any vehicle, even a golf cart.

***Manufacturing***

You can communicate effectively in noisy environments with powerful 4-watt speaker and improved audio. These units are lightweight and the small size make mounting easy in forklifts, delivery trucks and other vehicles. It's perfect for control station applications where you need to communicate with portables on the floor and mobiles on the road.

***Retail/Delivery Services***

Now you can quickly and effectively coordinate shipping to maximize efficiency and service. You can handle order changes and prioritize delivery schedules at any time. Avoid miscommunication or frequent repeated messages with powerful, clear audio.

***Taxi and Limousine Services***

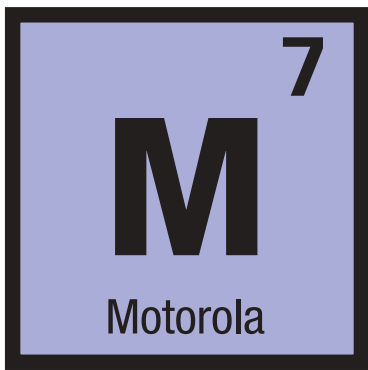
This unit allows you to quickly and easily alert drivers regarding passenger pickup. It helps drivers keep their eyes on the road with audio indicators that "beep" for features and functions, including channel changes. And its durable design stands up to potholes and rough roads.

***Transportation/Fleet***

Conveniently ensures that all drivers are clear on their responsibilities and headed in the right direction. You can change routes or priorities at a moment's notice with the touch of a button and this unit provides an immediate link when drivers need assistance. It is an extremely economic solution for school transportation fleets







## CM200/CM300 Radio Accessories

A variety of Motorola Original® and Certified Accessories are available for the CM200™ and CM300™ radios to expand the capabilities of the radios and create a customized communication solution for your business. Motorola Original® Accessories carry a one-year limited warranty. Several M1225 accessories are compatible with the CM200 and CM300.

- **Audio Accessories – microphones and speakers**  
*Make it easy to hear and be heard*
- **Hands-Free Accessories**  
*Improve operating convenience and safety*
- **Desktop Base Station Accessories – power supplies, stands**  
*Set up an efficient, centralized base station*
- **Mounting Accessories**  
*Customize the mobile's mounting for added convenience*
- **Antenna Accessories**  
*Transmission and reception is everything*
- **Mobile Data Accessories**  
*Information is power with mobile data and GPS*
- **Public Address Accessories**  
*Get the word out to everyone in the immediate area*
- **Alarm Accessories**  
*Provide a warning or an alert*
- **Installation Accessories**  
*Make sure your radios are installed properly*



## Audio Accessories

### MICROPHONE ACCESSORIES HELP GET THE WORD OUT



#### HMN3413A

##### Compact Palm Microphone with Clip

Comes with a 7-foot coil cord and clip. Ships standard with CM200 and CM300 radios.

#### HMN3596A

##### Compact Palm Microphone

Comes with a 7-foot coil cord.

#### HMN1035C

##### Heavy-Duty Palm Microphone

Large design provides easier use by glove wearers. Comes with a 10.5-foot coil cord.

#### RMN5029A

##### Enhanced Keypad Microphone

Backlit 12-digit DTMF keypad generates tones for accessing telephone systems through a repeater equipped with telephone interconnect. Comes with a 7-foot coil cord with clip.

#### HLN9073B

##### Microphone Hang-Up Clip

Mounts in vehicle to secure mobile microphone. Compatible with all Motorola microphones. Installation required.

#### HLN9414A

##### Universal Hang-Up Clip

Compatible with all Motorola microphones. No installation required.

#### AAREX4617A

##### Telephone-Style Handset

Ideal for users wanting to conduct private conversations. Ergonomically-designed, easy to hold. Includes cup and hardware.



*Telephone-Style Handset is ideal for users wanting to conduct private conversations.*

*Heavy-Duty Palm Microphone is larger, providing easier use for glove wearers.*



AAREX4617A



*the perfect fit . . .*

**EXTERNAL SPEAKERS AND  
PUBLIC ADDRESS SYSTEMS  
FOR HIGH-NOISE ENVIRONMENTS**

**HSN8145B**

**External 7.5 Watt Speaker**

Offers a high level of radio volume output.

**RLN5288A**

**Public Address Kit**

Includes two cables for mobile connection to public address box and speaker cables. Requires HSN1000B speaker.

**HSN1000B**

**Amplified External Speaker for Public Address Audio**

6 Watt. Required for use with RLN5288A.

**HKN9324AR**

**Public Address/Speaker Cable**

15 foot length. One cable per speaker required.

**RSN4001A**

**External 13 Watt Speaker**

Ideal for extremely noisy environments.



*External 7.5 Watt Speaker shown with Desktop Microphone, radio and power supply. All sold separately.*

*Amplified External Speaker for Public Address Audio Kit.*

*External 13 Watt Speaker is perfect for noisy environments.*

**Hands-Free Accessories**

**HANDS-FREE  
ACCESSORIES  
PROVIDE GREATER  
CONVENIENCE**

**AARMN4027A  
Visor Microphone**

Mounts to visor for convenient hands-free operation. Provides wind noise reduction. For use in conjunction with push-to-talk accessories RLN4856A, RLN4857A or RLN4858A.

**RLN4856A  
Foot Switch with Push-to-Talk**

Mounts to floor of vehicle; to be used in conjunction with visor microphone.

**RLN4857A  
Pushbutton with Push-to-Talk**

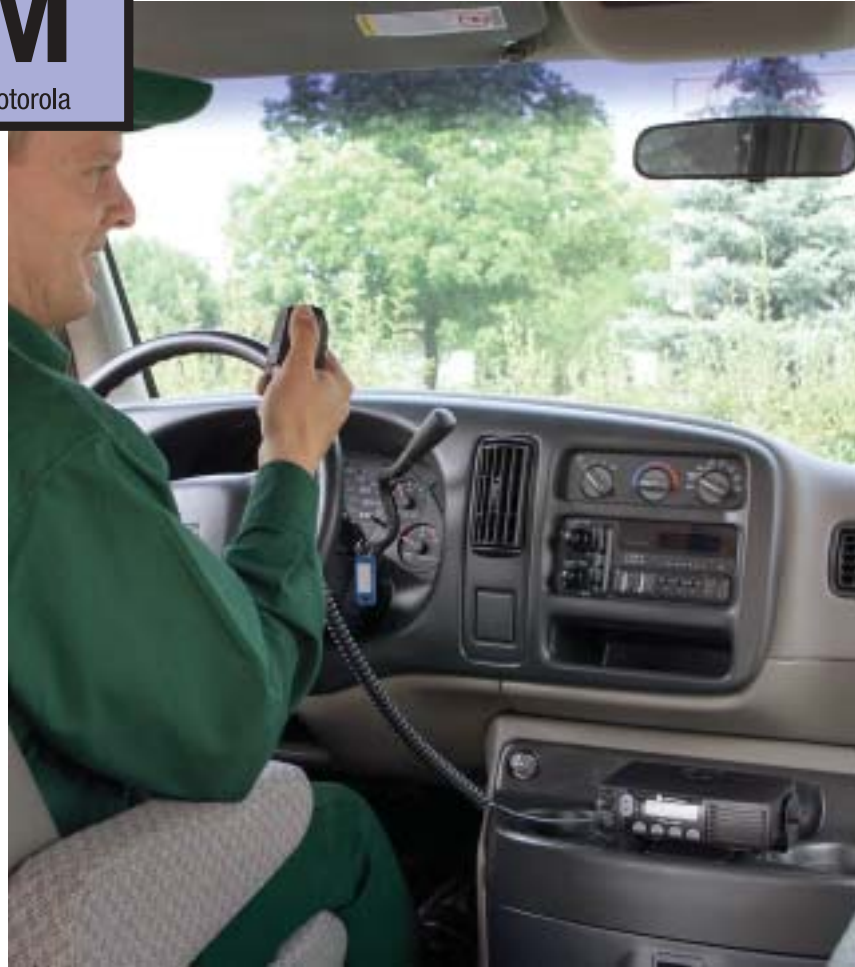
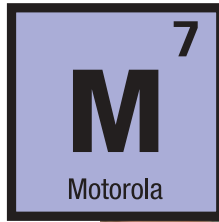
Can be held in the hand, or mounted to the vehicle with touch fasteners. To be used in conjunction with visor microphone.

**RLN4858A  
Gooseneck Mount with Push-to-Talk**

Mounts to steering wheel column; to be used in conjunction with visor microphone.

**RLN4836AR  
Emergency Foot Switch**

Lets user notify the base station quickly and discreetly of trouble. Sends signal to base station and activates the microphone.



*Use the Visor Microphone and Pushbutton with Push-to-Talk for convenient hands-free operation.*



*Hands-free and professional  
installation options for  
greater convenience.*

**INSTALLATION AND  
MISCELLANEOUS ACCESSORIES**

**HKN4137AR  
Low-Power Cable**

Connects battery to radio chassis. 1-45W, 12V.

**HKN4191B  
High-Power Cable**

Connects battery to radio chassis. 40-60W, 12V.

**HLN9242A  
16-Pin Accessory Kit with Expanded Connector**

Allows existing 16-pin connector accessories to be modified for enhanced reliability when used with CM Series mobile radios. Includes 9 wires with lugs, 1 connector housing, 16 crimping terminals, 2 tie straps and 1 extraction tool.

**HKN9327BR  
Ignition Switch Cable with Housing Connector**

Provides mobile users with the option of having the radio turn on when they start the ignition. Cable connects radio chassis to battery. Requires HLN9242A Kit.

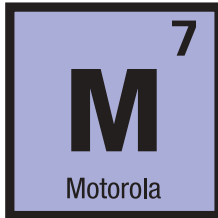
**HLN9328C  
External Alarm Relay Cable – Horns and Lights**

**GLN7282A  
Alarm Buzzer Kit**

*better  
faster  
productivity  
solutions . . .*

### Mounting Accessories

#### MOUNTING ACCESSORIES FREE DASHBOARD SPACE



**GLN7324A**  
**Low-Profile Mounting Bracket**  
Keeps radio tucked up under the dash; can also be positioned for floor mounting.

**GLN7317A**  
**High-Profile Mounting Bracket**  
Keeps radio tucked up under the dash, with extra clearance so radio can be tilted for a better view. Can also be positioned for floor mounting.

**HLN9227A**  
**Gooseneck Mounting Bracket**  
Handles a wide range of mounting challenges, and provides better viewing of display. Allows for mounting on a vertical surface.

**HLN8097A**  
**Removable Slide Mount**  
Ideal for users who move radios from vehicle to vehicle; radio slips in and out of mount.



*The Low-Profile Mounting Bracket keeps radio tucked up under the dash.*



*With a Removable Slide Mount the radio slips in and out of mount.*

*on the move . . .*



**HAD4006A - VHF 136-144MHz, 1/4 Wave Roof Mount**  
**HAD4007A - VHF 144-152MHz, 1/4 Wave Roof Mount**  
**HAD4008A - VHF 152-162MHz, 1/4 Wave Roof Mount**  
**HAD4009A - VHF 162-174MHz, 1/4 Wave Roof Mount**

**HAD4014A - VHF 140-174MHz, 3dB Gain Roof Mount**

**RAD4000A - VHF Antenna Only, 140-174MHz**

**RAD4000AMB - VHF 140-174MHz, 3dB Gain Magnetic Mount**

**HAE4003A\* - UHF 450-470MHz, 1/4 Wave Roof Mount**

**RAE4004ARB - UHF 450-470MHz, 5dB Gain Roof Mount**  
**RAE4004AMB - UHF 440-470MHz, 5dB Gain Magnetic Mount**

**TAE6053A - UHF 430-450MHz, 1/4 Wave Roof Mount**

\*Quantity discounts available.



*High-Profile Mounting Bracket keeps radio tucked up under the dash, with extra clearance so radio can be tilted for a better view. Shown here with CM300 and Standard Microphone. Sold separately.*

## Mobile Data Accessories

### GET EVERYONE MOVING WITH THESE MOBILE DATA ACCESSORIES

#### **RDN7368A** **Mobile Display Terminal**

Provides mobile status reporting and text messaging through its internal data modem. Features a 4x40 backlit LCD screen, 14-button status keypad, 5 serial ports for peripheral interfaces, and 6 auxiliary I/Os.

#### **RDN7367A** **Mobile Display Terminal with GPS**

As RDN7368, but also equipped with an Automatic Vehicle Location (AVL) device compatible with Global Positioning System technology.

#### **RDN7369A** **Stand-Alone Modem with GPS**

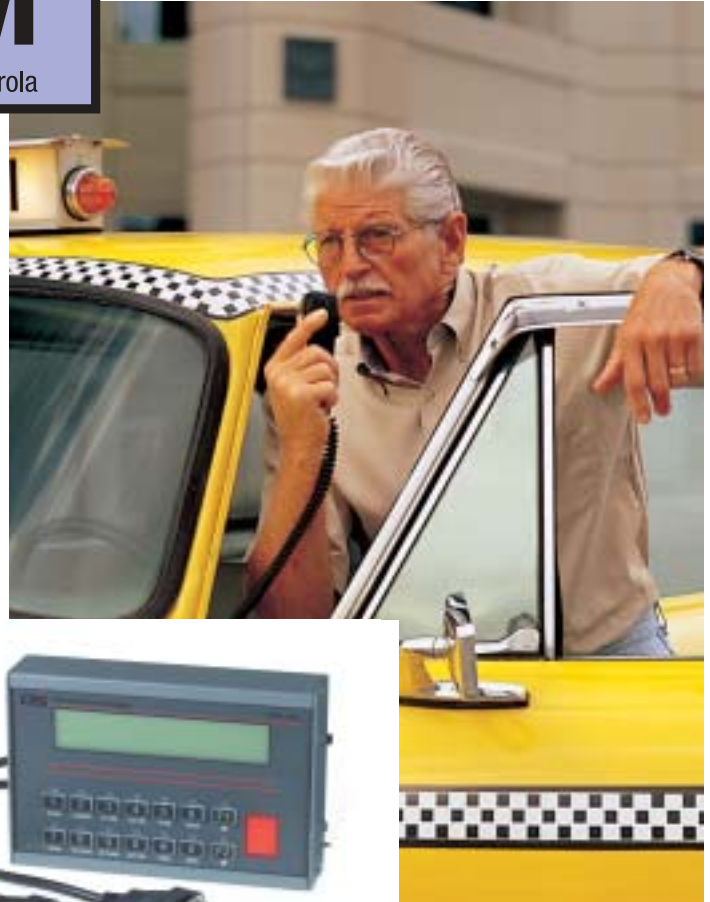
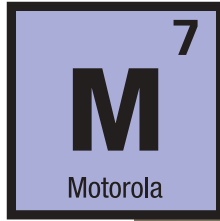
A cost-efficient way to add an Automatic Vehicle Location (AVL) device compatible with Global Positioning System technology. Also provides additional serial ports and auxiliary I/Os.

#### **RDN7364A** **Base Radio Channel Controller**

A radio channel controller and modem that interfaces with the base radio; required with every radio channel or wireless circuit used within the fleet.

#### **RDN7372A** **Fixed Mount GPS Active Antenna**

#### **RDN7375A** **Magnetic Mount GPS Antenna**



*Mobile Display Terminal is available with Automatic Vehicle Location system. Sold separately.*



**RDN7374A**  
*Programming Software*

**RDN7377A**  
*MAPS (US) Regional Software*

**RDN7378A**  
*AVL Messaging Status Software*

**RDN7380A**  
*Mobile Programming Hardware*

**RDN7738A**  
**Serial Breakout Unit**  
 Allows for multi-channel applications; up to 8 channel controllers can be interfaced to the base computer system. Units can also be daisy-chained together to further increase capacity. Ideal for taxi, ready-mix, education services and other markets. Use optional cables below to add two-way radio connector.

**RDN7739A**  
**3 Foot Flying Lead Cable**

**RDN7740A**  
**15 Foot Flying Lead Cable**

*top priority . . .*



# CP150™/CP200™ Portable Two-Way Radio Specifications\*

## General Specifications

	VHF	UHF
Frequency:	136-162 MHz 146-174 MHz	438-470 MHz, CP200 Only: 403-440 MHz, 465-495 MHz
Channel Capacity:	4 or 16 Channels	4 or 16 Channels
Power Supply:	7.2 Volts ± 20%	7.2 Volts ± 20%
Dimensions: with 1100 mAh NiCd and 1800 mAh Li-ion Batteries: with 1400 mAh NiMH Battery:  with 1600 mAh Slim Li-ion Battery:	127.5mm H x 61.5mm W x 45mm D (5.0" H x 2.4" W x 1.75" D) 127.5mm H x 61.55mm W x 43mm D (5.0" H x 2.4" W x 1.69" D) 127.5mm H x 61.55mm W x 42mm D (5.0" H x 2.4" W x 1.65" D)	127.5mm H x 61.5mm W x 45mm D (5.0" H x 2.4" W x 1.75" D) 127.5mm H x 61.55mm W x 43mm D (5.0" H x 2.4" W x 1.69" D) 127.5mm H x 61.55mm W x 42mm D (5.0" H x 2.4" W x 1.65" D)
Weight: with 1800 mAh Li-ion Battery: with 1600 mAh Slim Li-ion Battery: with 1400 mAh NiMH Battery: with 1100 mAh NiCd Battery:	370g (13.04 oz.) 374g (13.19 oz.) 444g (15.66 oz.) 425g (14.98 oz.)	370g (13.04 oz.) 374g (13.19 oz.) 444g (15.66 oz.) 425g (14.98 oz.)
Average Battery Life @ 5-5-90 Duty Cycle: 1800 mAh Li-ion: 1600 mAh Slim Li-ion: 1400 mAh NiMH: 1100 mAh NiCd:	2W                      5W 17 Hrs.                14 Hrs. 14 Hrs.                12 Hrs. 11 Hrs.                10 Hrs. 9 Hrs.                 8 Hrs.	2W                      4W 17 Hrs.                14 Hrs. 14 Hrs.                12 Hrs. 11 Hrs.                10 Hrs. 9 Hrs.                 8 Hrs.
FCC Designation:	ABZ99FT3045	ABZ99FT4056, ABZ99FT4057, ABZ99FT4058

## Receiver Specifications

	VHF 12.5 kHz	VHF 20/25/30 kHz	UHF 12.5 kHz	UHF 20/25/30 kHz
Sensitivity: (12 dB EIA SINAD)	0.25 uV (typical)	0.25 uV (typical)	0.25 uV (typical)	0.25 uV (typical)
Adjacent Channel Selectivity:	-65 dB	-70 dB	-60 dB	-70 dB
Intermodulation:	-70 dB	-70 dB	-70 dB	-70 dB
Frequency Stability: (-30° C to +60° C)	0.00025%	0.00025%	0.00025%	0.00025%
Spur Rejection:	-75 dB	-75 dB	-75 dB	-75 dB
Image and 1/2 I-F Rejection:	-70 dB	-70 dB	-70 dB	-70 dB
Audio Output @ < 5% Distortion:	500mW	500mW	500mW	500mW

## Transmitter Specifications

	VHF	VHF	UHF	UHF
RF Output:	Low 2W	High 5W	Low 2W	High 4W
Channel Spacing:	12.5/20/25 kHz	12.5/20/25 kHz	12.5/20/25 kHz	12.5/20/25 kHz
Frequency Stability: (-30° C to +60° C)	0.00025%	0.00025%	0.00025%	0.00025%
Spurs/Harmonics:	-36 dBm < 1 GHz -30 dBm > 1 GHz	-36 dBm < 1 GHz -30 dBm > 1 GHz	-36 dBm > 1 GHz -30 dBm > 1 GHz	-36 dBm > 1 GHz -30 dBm > 1 GHz
Audio Response: (from 6 dB/oct. Preemphasis, 300 to 3000 Hz)	+1, -3 dB	+1, -3 dB	+1, -3 dB	+1, -3 dB
Audio Distortion: @ 1000 Hz, 60% Rated Max. Dev.	<3%	<3%	<3%	<3%
FM Noise:	-40 dB (12.5 kHz) -45 dB (25 kHz)	-40 dB (12.5 kHz) -45 dB (25 kHz)	-40 dB (12.5 kHz) -45 dB (25 kHz)	-40 dB (12.5 kHz) -45 dB (25 kHz)
FCC Modulation: 20/25/30 kHz 12.5 kHz	16KOF3E 11KOF3E	16KOF3E 11KOF3E	16KOF3E 11KOF3E	16KOF3E 11KOF3E

## CP150/CP200 Portable Military Standards

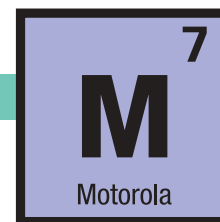
	810C	810C	810D	810D	810E	810E	810F	810F
	Methods	Procedures	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure:	500.1	1	500.2	2	500.3	2	500.4	1
High Temperature:	501.1	1, 2	501.2	1, 2	501.3	1, 2	501.4	1, 2
Low Temperature:	502.1	1	502.2	1, 2	502.3	1, 2	501.4	1, 2
Temperature Shock:	503.1	1	503.2	1	503.3	1	503.4	1
Solar Radiation	505.1	1	505.2	1	505.3	1	505.4	1
Rain:	506.1	1, 2	506.2	1, 2	506.3	1, 2	506.4	1
Humidity	507.1	2	507.2	2, 3	507.3	2, 3	507.4	3
Salt Fog:	509.1	1	509.2	1	509.3	1	509.4	1
Dust:	510.1	1	510.2	1	510.3	1	510.4	1
Vibration:	514.2	8, 10	514.3	1	514.4	1	514.5	1
Shock:	516.2	1, 2, 5	516.3	1, 4	516.4	1, 4	516.5	1

## 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.

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

## General Specifications



MOTOROLA M7

	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	ABZ99FT3049 (45W) AZ492FT3805 (25W) ABZ99FT3046 (45W)
		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

These documents can be found in the Resource Center at

<https://www.motorola.com/businessonline>

*For more information, please call:*



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REV 1-11/04

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