LCD Icon / STATUS INDICATION IN RADIO

Icon Name	Icon	Radio Status
Received Signal Strength Indicator (RSSI)		The number of bars displayed represents the radio signal strength and is only displayed while the radio is in receiving mode.
Message Icons		New message/unread message
		Inbox is full
		Sent successfully
		Send failed
		Send in-progress
Call Icons		Private Call
		Group Call/All Call
Power Icons	L or H	Radio is set at low power (L) or high power (H)
Scan Icons		Scan feature is enabled
		Priority scan detects activity on channel/group designated as Priority 1 (if • is blinking) or Priority 2 (if • is steady)
Monitor		Selected channel is being monitored
Tones Disable		Tones are turned off
Emergency Icon		Radio is in Emergency mode
Privacy Icon		The Privacy feature is enabled
Talkaround Icon		The radio is currently configured for direct radio to radio communication.

Notes:

RCA Communications Systems

www.rcacommunicationssystems.com
products@rcacommunicationssystems.com
(877) 822-2915

Created in U.S.A.

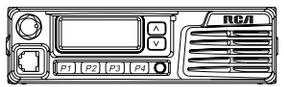
RCA Communications Systems

BRM350D Mobile Two-Way Radio

Complete User Manual at: **RCACommunicationsSystems.com**

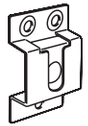
QUICK START GUIDE

What's Included:

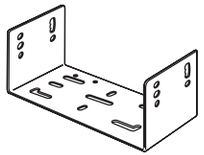


BRM350D
Mobile Radio

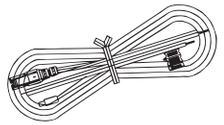
MM301HD
Mobile Mic



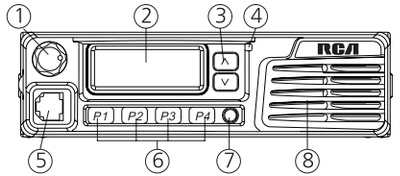
Microphone Hanger



Mounting Bracket



DC Power Cable



1. Volume Control (Programmable)
2. LCD Display
3. Channel Selector (Programmable)
4. LED Indicator
5. Microphone Jack
6. Buttons P1 - P4 (Programmable)
7. On / Off Button
8. Internal Speaker

TRANSCEIVER PREPARATION

Installation/Tools Needed

- Electric drill with 6mm bit or above
- Cross head screwdriver
- Hex socket sleeve (used for mounting 5mm × 16mm self-tapping screw)

When installing your transceiver, be sure to select a safe, convenient location. If you're installing inside your vehicle, choose a location that minimizes danger to your passengers and yourself while the vehicle is in motion. Consider installing the unit so that knees or legs will not strike the unit during vehicle operation. Try to pick a well ventilated location that is shielded from direct sunlight for your installation location.

Install the mounting bracket in the vehicle using the supplied self-tapping screws (4), flat washers (4), and spring washers (4). Position the bracket so that the 3 long screw hole positions on the side of the mounting bracket are towards the rear of the bracket. (Figure 1)

Use the 3 screw positions on the side of the mounting bracket to determine the appropriate angle of the transceiver. (Figure 2) Position the transceiver, then insert and tighten the supplied hexagon SEMS screws (4) and flat washers (4). (Figure 3) Double check that all hardware is securely fastened to ensure that vehicle vibration will not loosen the bracket or transceiver.

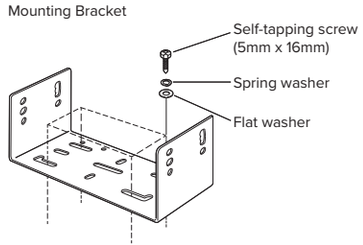


Figure 1

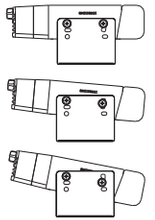


Figure 2

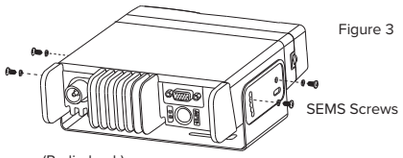


Figure 3

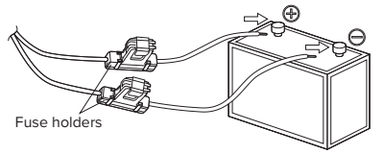
DC Power Cable Connection

Mobile Operation

Your vehicle battery must have a nominal rating of 12V. Never connect the transceiver to a 24V battery. Be sure to use a 12V vehicle battery that has sufficient current capacity. If the current to the transceiver Is insufficient, the display may darken during transmission, or transmit output power may drop excessively.

1. Route the DC power cable supplied with the transceiver directly to the vehicle's battery terminals using the shortest path from the transceiver. If using a noise filter, it should be installed with an insulator to prevent it from touching metal on the vehicle. We recommend you do not use the power outlet/cigarette lighter socket as some power outlets have an unacceptable voltage drop. The entire length of the cable must be dressed so it is isolated from heat, moisture and the engine secondary (high voltage) ignition system/cables.
2. After the cable Is In place, wrap heat-resistant tape around all fuse holders to protect it from moisture and tie down the full run of cable.
3. To prevent the risk of short circuiting, disconnect other wiring from the negative (-) battery terminal before connecting the transceiver.

Figure 4



4. Confirm the correct polarity of the connections, then attach the power cable to the battery terminals; red connects to the positive (+) terminal and black connects to the negative (-) terminal. Use the full length of the supplied cable without cutting off excess even If the cable is longer than required. In particular, never remove the fuse holders from the cable. (Figure 4)
5. Reconnect any wiring removed from the negative terminal.
6. Connect the DC power cable to the transceiver's power supply connector. Press the connectors firmly together until the locking tab connectors firmly together until the locking tab clicks. (Figure 5)

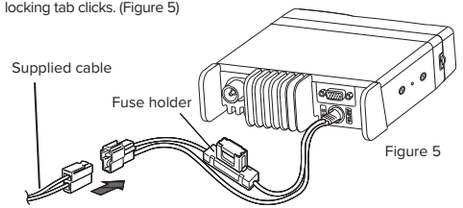


Figure 5

Antenna Connection

Before operating the radio, install an efficient, well-tuned antenna. The success of your radio installation will depend largely on the type and installation of your antenna. The transceiver will provide excellent results if the antenna system and radio installation are handled properly. (Figure 6)

Use a 50 Ω impedance antenna and low-loss coaxial feed line that has a characteristic impedance of 50 Ω to match the transceiver input impedance. Coupling the antenna to the transceiver via feed lines having an impedance other than 50 Ω reduces the efficiency of the antenna system and can cause interference to nearby broadcast television and radio receivers, and other electronic equipment.

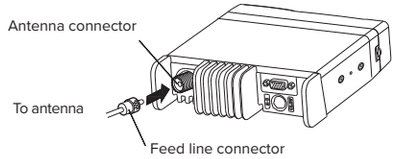


Figure 6

Caution:

- **Transmitting without first connecting an antenna or other matched load may damage the transceiver. Always connect the antenna to the transceiver before transmitting.**
- **All fixed stations should be equipped with a lightning arrester to reduce the risk of fire, electric shock, and transceiver damage.**

Accessory Connections
External Speaker

If you plan to use an external speaker, choose a speaker with an impedance of 8 Ω. The external speaker jack accepts a 1/8" (3.5 mm) mono (2-conductor) plug. (Figure 7)

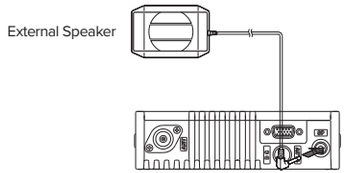


Figure 7

Microphone Jack

For voice communications, connect a 600 Ω microphone equipped with an 8-pin modular plug into the modular socket on the front of the main unit. Press firmly on the plug until the locking tab clicks. (Figure 8)

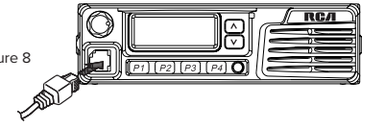


Figure 8

Microphone Hanger

Attach the supplied microphone hanger using included screws in an easy to access location that will not interfere with vehicle operation. (Figure 9)

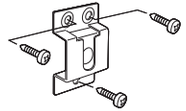


Figure 9

Operational Status Indicators

Your radio indicates its operational status through the following:

- Display Icons
- Call Icons
- Sent Item Icons
- LED Indicator
- Audio Tones

Display Icons

The LCD display shows radio status, text entries, and menu entries. The following icons will appear on the radio's display. (see chart)

Audio Tones

Alert tones provide you with audible indications of the radio's status or the radio's response to data received.
Continuous Tone - A monotone sound.
Sounds continuously until termination.
Periodic Tone - Sounds periodically depending on the duration set by the radio.
Repetitive Tone - A single tone that repeats itself until it is terminated by the user.
Momentary Tone - Sounds only once for a short period of time defined by the radio.

Making and Receiving Calls

1. Hold the microphone about 2" from your mouth when speaking and press the [**PTT**] (push to talk) button. (Figure 10) The red LED lights during call.
2. Release [**PTT**] to return to the receive/listen (RX) mode. To receive your radio must be switched to the proper channel and set with matching signaling or Color Code and Group ID if used in digital mode.

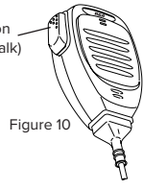


Figure 10

Note on PTT: If the Talk Permit Tone is enabled, wait until the short alert tone ends before talking.

During a call, if the Channel Free Indication feature is enabled on your radio (programmed by your RCA Communications Systems Dealer), you will hear a short alert tone the moment the target radio (the radio that is receiving your call) releases the PTT button, indicating the channel is free for you to respond. You will also hear the Channel Free Indication tone if your call is interrupted, for example, when the radio receives an Emergency Call.