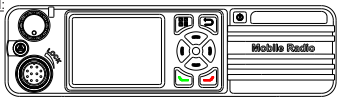
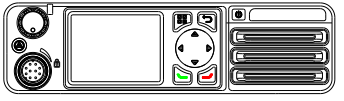
DM8000-1/DM8100-1 QUICK START GUIDE

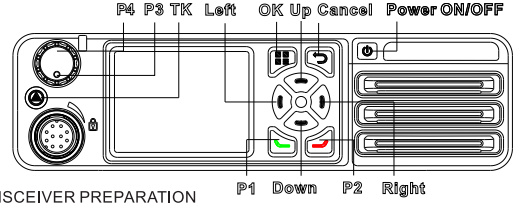
What's Included:

DM8000-1



DM8100-1





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
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.

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 2 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

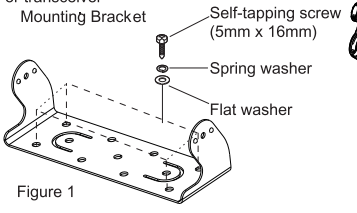


Figure 1

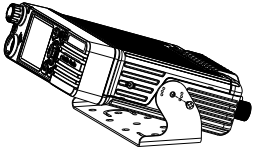


Figure 2

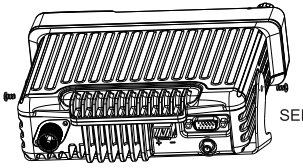


Figure 3

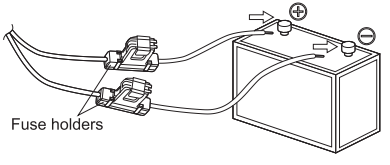
DC Power Cable Connection

Mobile Operation

Your vehicle battery must have a nominal rating of 13.8V. Never connect the transceiver to a 24V battery. Be sure to use a 13.8V 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)

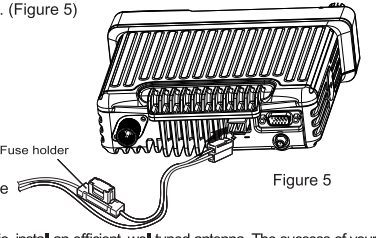


Figure 5

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.

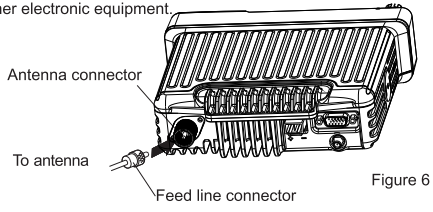


Figure 6

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

Microphone Jack

For voice communications, connect a 600Ω microphone equipped with an 10-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 7)

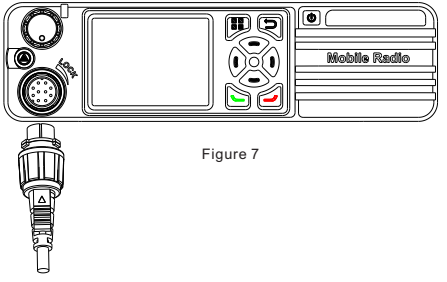
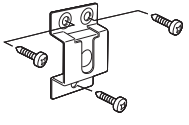


Figure 7

Microphone Hanger

Attach the supplied microphone hanger using included screws in an easy to access location that will not interfere with vehicle operation.(Figure 8)



Microphone hanger screws - 3mm x 10mm

Figure 8

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 9) 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.

PTT Button
(Push to talk)

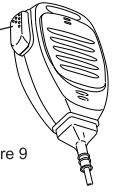


Figure 9

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 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.

Guidelines:
Do not remove the RF Exposure Label from the device.
User awareness instructions should accompany device when transferred to other users.
Do not use this device if the operational requirements described herein are not met.

FCC Warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference , and (2) this device must accept any interference received , including interference that may cause undesired operation .

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver .
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected .
—Consult the dealer or an experienced radio / TV technician for help.

ISED Warning:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil contient des émetteurs/récepteurs sans licence qui sont conformes aux RSS sans licence d'Innovation, Sciences et Développement économique Canada. L'exploitation est soumise aux deux conditions suivantes :
(1) Cet appareil ne doit pas causer d'interférences.
(2) Cet appareil doit accepter toute interférence, y compris les interférences qui pourraient causer un fonctionnement indésirable de l'appareil.

RF Exposure Requirements:
This equipment complies with FCC&ISEDC radiation exposure limits set forth for an controlled environment . This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
This equipment should be installed and operated with minimum distance 55cm between the radiator& your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements FCC et ISEDC établies pour un environnement contrôlé.
Cet émetteur ne doit pas être colocalisé ou fonctionner en conjonction avec une autre antenne ou émetteur.
Cet équipement doit être installé et utilisé avec une distance minimale de 55cm entre le radiateur et votre corps.

Operating Instructions:
Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) key. To receive calls, release the PTT key. Transmitting 50% of the time, or less, is important because the radio generates measurable RF energy only when transmitting (in terms of measuring for standards compliance).

Ne transmettez pas plus que le facteur de service nominal de 50 % du temps. Pour transmettre (parler), appuyez sur la touche Push-To-Talk (PTT). Pour recevoir des appels, relâchez la touche PTT. La transmission 50 % du temps, ou moins, est importante parce que la radio génère une énergie RF mesurable uniquement lors de la transmission (en termes de mesure de conformité aux normes).

The maximum antenna gain is 0dBi for VHF.