

USER'S GUIDE *LM100/m100*

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WELCOME

Congratulations on your purchase of the Motorola Dispatch Plus Mobile, representing the state-of-the-art in digital communications technology.

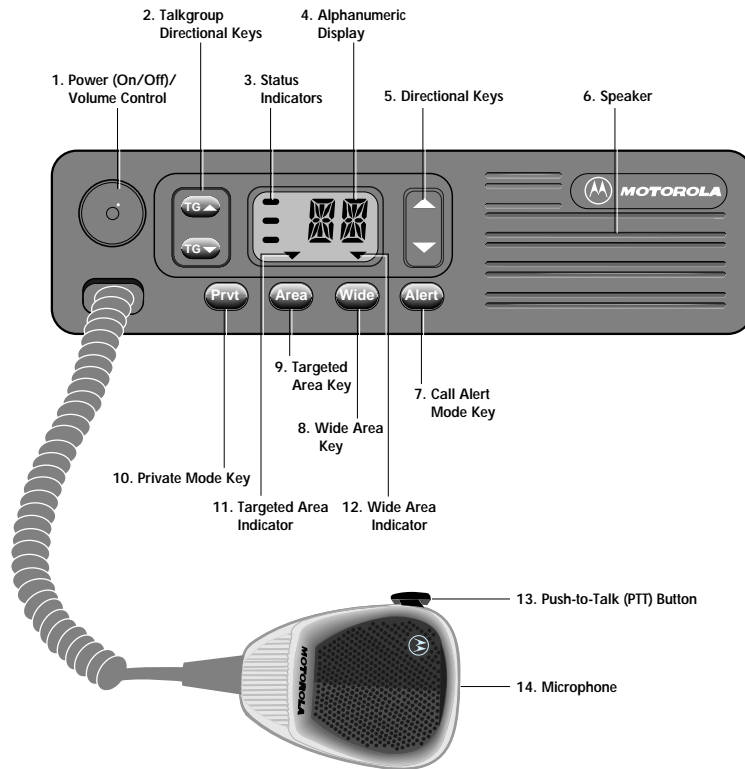
The Motorola Dispatch Plus Mobile allows you to communicate with a group of individuals (Group Call mode) or privately with a single person (Private Call mode). You can also send a Call Alert™ to an individual indicating that you want to speak with them.

The radio was designed with the flexibility to connect with the Motorola Integrated Multi-Service handset. The handset allows you to place and receive phone calls, receive alphanumeric messages, and access a number of convenience features. Contact your sales representative for further information.

Before operating your unit, take time to read the “Important General Safety Information” in the “Additional Information” section.

Getting Started

DISPATCH PLUS MOBILE



Getting Started

1. Power (On/Off)/Volume Control — Used to turn the unit on and off. Also used to adjust volume level of the speaker.
2. Talkgroup Directional Keys — Used to select a Talkgroup ID storage location.
3. Status Indicators — Solid or blinking lights indicate different conditions your unit may be in. (See the “Additional Information” section for Status Indicator information.)
4. Alphanumeric Display — A two-digit display that is backlit for ease of viewing.
5. Directional Keys — Used to select a Radio ID storage location or a Service Area ID storage location.
6. Speaker — Used for listening during Group Calls and Private Calls.
7. Call Alert Mode Key — Used to send a non-voice Call Alert to an individual.
8. Wide Area Key — Used to select all service areas when making Group Calls.
9. Targeted Area Key — Used to select a Targeted Area when making Group Calls.
10. Private Mode Key — Used for one-to-one private radio communication.
11. Targeted Area Indicator — Lights when a Targeted Area is selected.
12. Wide Area Indicator — Lights when Wide Area is selected.
13. Push-to-Talk (PTT) Button — Used to transmit voice. Also used to send Call Alerts.
14. Microphone — Used for speaking during Group Calls and Private Calls.

Getting Started**TURNING ON/OFF YOUR MOBILE UNIT**

The Power knob turns the mobile unit both on and off. You may turn your mobile on or off at any time. To turn your unit on, press the Power knob once.

Each time the mobile unit is turned on, it performs a self-check and system registration routine. Once completed, the last-selected talkgroup is displayed.

The display illuminates during the self-check routine to verify operation.

Automatic Turn On/Off

To enable Automatic Turn On/Off, leave the unit's power on before turning the vehicle's ignition off. Now your unit will automatically turn on every time your vehicle is turned on. Turning off your vehicle's ignition automatically turns off your unit.

When using your mobile unit while the vehicle engine is off, you are operating on your vehicle's battery power, and may drain the battery.

Call-in-Progress Protection

This feature allows radio calls in progress to continue after the vehicle's ignition is turned off, with no interruption to your conversation.

You must be transmitting in order for Call-in-Progress Protection to operate.

ADJUSTING VOLUME

The Power knob is also used to adjust the speaker volume. To increase the volume level, rotate the Power knob clockwise. Rotate the Power knob counterclockwise to decrease the volume level.

OPERATING YOUR MOBILE UNIT

To operate your mobile unit, lift the microphone to your mouth. Press and hold the Push-to-Talk (PTT) button and speak directly into the microphone. Release the PTT to listen. Upon pressing PTT, you will hear one of the following alert tones:



- A high, chirp-like tone indicates that you have permission to talk. Begin speaking after the tone.
- A low continuous tone indicates that you cannot talk at this time. Wait a moment and try again.
- A busy-like tone indicates that the system is busy. Wait for a call-back (high-pitched) tone, then try again.

A time-out timer limits the amount of time you can continuously talk. When the allotted time expires, you will hear a low-pitched cut-off tone.

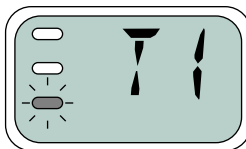
GROUP CALL

Group Call mode is your radio's default mode; each time the radio is turned on, it is in Group Call mode. A Group Call consists of a talkgroup and a service area. A talkgroup is an organization of radio users who communicate with each other. Service areas are geographic areas of coverage for your radio. Your specific service areas are defined by your service provider.

Talkgroup Selection

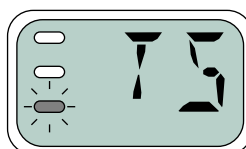
A talkgroup is an organization of radio users who communicate with each other. Your unit is equipped with Talkgroup ID storage locations, numbered 1 through 9. Each storage location is assigned a Talkgroup ID at the time of purchase. Select a Talkgroup ID by using  or  to scroll to the ID's corresponding storage location number.

(Example: Select Talkgroup ID 25 which is stored in location #5 (T5). Talkgroup ID 1, which is stored in location #1 (T1), is currently selected.)



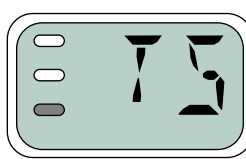
The display illuminates during the self-check routine to verify operation.

1. Press  four times.



"T5" will flash on the display, indicating that you are now registering onto this talkgroup. When you have successfully registered, "T5" will stop flashing. You can now listen to Talkgroup ID 25. To transmit, press PTT.

2. Press PTT.



Group Call

Service Area Selection

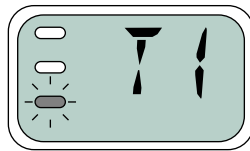
When making outgoing Group Calls, you may choose from three different service area selections: Local Area, Targeted Area, and Wide Area. In each case, you are speaking with members of the talk-group who are in that service area.

Area selection only applies to Group Calls you initiate.

Service Area Selection is independent of Talk-group Selection.

Local Area

A Local-Area Group Call allows you to communicate with talk-group members located in the service area you are currently in. Dispatchers are always included in a Local-Area call, regardless of their location. Local Area is the radio's default area; each time the radio is turned on, Local Area is automatically selected. Your radio is in the Local Area until Wide Area or Targeted Area is selected.





If neither the Targeted Area Indicator nor the Wide Area Indicator is illuminated, your radio is in Local Area.

Area

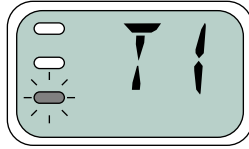
Wide


Group Call

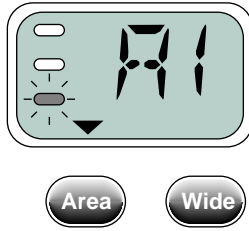
Targeted Area


A Targeted-Area Group Call allows you to communicate with talk-group members in a specific service area. Your unit is equipped with Service-Area ID storage locations, numbered 1 through 9. Each storage location is assigned a Service-Area ID at the time of purchase. Press , then select a Service Area by scrolling to the ID's corresponding storage location number using the  keys.

(Example: Select Service Area ID 12 which is stored in Area Location #3 (A3). The currently selected talkgroup is Talkgroup ID 1, which is stored in location #1 (T1).)

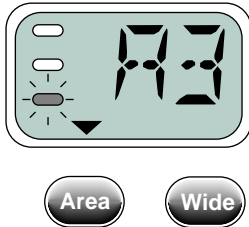


1. Press .

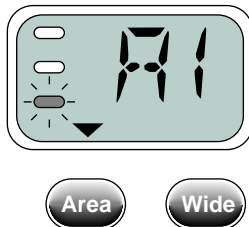



The light above the  key illuminates and the letter "A" appears before the storage location number, indicating that you are selecting a Targeted Area.

2. Press  twice.




3. Press PTT.



Pressing PTT allows you to talk with the "T1" Talkgroup members currently in Service-Area ID 12. Press  again to return to Local Area.


Group Call

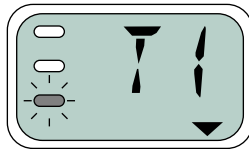
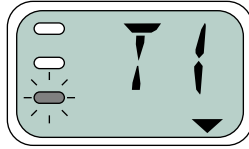
Wide Area


A Wide-Area Group Call allows you to talk with talkgroup members in all service areas, and your dispatcher. Press  to select Wide Area.

(Example: Select Wide Area. The currently selected talkgroup is Talkgroup ID 1 which is stored in location #1 (T1).)

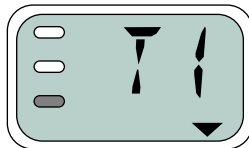
Group Call


1. Press .



The light above the  key illuminates to indicate Wide Area Group Call is selected.

2. Press PTT.





Pressing PTT allows you to talk with the "T1" Talkgroup members in all service areas and your dispatcher. Press  again to return to Local Area.

SERVICE AREA RESTRICTION


With the optional feature of Service Area Restriction, the top LED will turn red when you travel outside an authorized service area while using either Group or Private mode. The bottom LED will blink green when you return to an authorized service area.

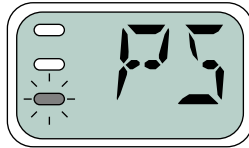
PRIVATE CALL

A Private Call is a radio call between two individuals. No other radios can hear the conversation. Your unit is equipped with Radio ID storage locations, numbered 1 through 9. Each storage location is assigned a Radio ID at the time of purchase. The storage location numbers and corresponding Radio IDs used to make Private Call calls are the same storage location numbers that are used in Call Alert. Press  to enter into the Private Call mode. Select a Radio ID by using the  keys to scroll to the ID's corresponding storage location number.

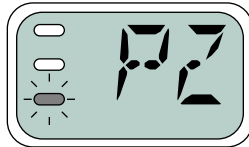
Making a Private Call

(Example: Make a Private Call to Radio ID 8, which is stored in location #2 (P2). The last Private Call or Call Alert was with Radio ID 5 which is stored in location #5 (P5).)

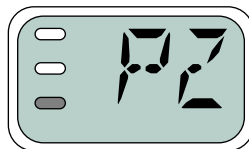
1. Press .




2. Press  three times.



3. Press PTT.



When you enter the Prvt mode, the storage location number of the last sent or received Radio ID appears. The letter "P" appears before the storage location number, indicating that you are in Prvt mode.

Upon pressing PTT, you will hear an alert tone. Refer to "Operating Your Mobile Unit" in the "Getting Started" section for a description of these tones. After completing your call, press  again to return to Group Call mode.

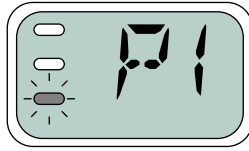
Private Call

Private Call

Receiving a Private Call

Two alert tones signal that you have received a Private Call. In addition, the storage location number corresponding to the Radio ID of the person calling you is displayed.

(Example: Radio ID 1, which is stored in location #1 (P1), private calls you.)





If the incoming Radio ID is not stored in one of your storage locations, "P -" appears on the display.

Private Call


You will immediately begin hearing the voice of the person calling. To respond to the call, press and hold the PTT, then release to listen.

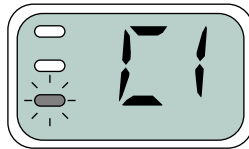
CALL ALERT

A Call Alert notifies the targeted person that you want to get in touch with them. Your unit is equipped with Radio ID storage locations, numbered 1 through 9. Each location is assigned a Radio ID at the time of purchase. The storage location numbers and corresponding Radio IDs used to send a Call Alert are the same storage location numbers that are used in Private Call. Press  to enter into the Call Alert mode. To scroll to the ID's corresponding storage location number, select a radio ID by using the  keys.

Sending a Call Alert

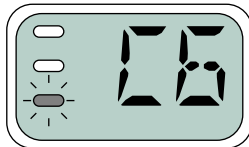
(Example: Send a Call Alert to Radio ID 3, which is stored in location #6 (C6). The last Private Call or Call Alert was with Radio ID 1, which is stored in location #1 (C1).)

1. Press .



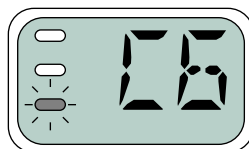
When you enter the Alert mode, the storage location number of the last sent or received Radio ID appears.

2. Press  five times.



The letter "C" appears before the storage location number, indicating that you are in Alert mode.

3. Press PTT.



Pressing PTT sends a Call Alert to radio ID 3.

Two alert tones signal when the Call Alert successfully reaches the targeted unit. If the targeted unit is out-of-range or turned off, four alert tones indicate that the Call Alert failed to reach the targeted unit. After sending a Call Alert, the display automatically returns to Group Call mode.

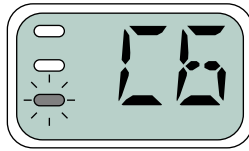
Call Alert

Call Alert

Receiving a Call Alert

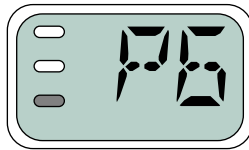
Four recurring alert tones signal that you have received a Call Alert. In addition, the storage location number corresponding to the Radio ID of the person attempting to contact you is displayed.


(Example: Radio ID 3, which is stored in location #6 (C6), is alerting you.)



If the incoming Radio ID is not stored in one of your storage locations, "C-" appears on the display.

- To talk to the person:
 1. Press PTT.



You are always in Prvt mode when responding to a Call Alert. After completing your call, press  to return to the Group Call mode.

- If you are unable to respond to the Call Alert, press any key on the unit (except PTT) to silence the recurring alert tones and clear the display.

Call Alert

SAFETY AND GENERAL INFORMATION

IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION. READ THIS INFORMATION BEFORE USING YOUR INTEGRATED MULTI-SERVICE MOBILE RADIO.

For the safe and efficient operation of your radio, observe these guidelines.

Your radio contains a transmitter and a receiver. When it is ON, it receives and transmits radio frequency (RF) energy. The radio operates in the frequency range of 806MHz to 866MHz and employs digital modulation techniques. When you use your radio, the system handling your call controls the power level at which your radio transmits. The power level may typically vary over a range from 0.03 of a watt to 3 watts.

- **Exposure to Radio Frequency Energy**

In August 1996 the Federal Communications Commission (FCC) of the United States with its action in Report and Order FCC 96-326 adopted an updated safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated transmitters. In addition, the International Commission on Non-Ionizing Radiation Protection (ICNRP) has established standards containing RF exposure guidelines. Motorola iDEN products comply with these standards.

- **Antenna and Installation Considerations**

All equipment must be properly installed according to Motorola installation instructions.

Use only the supplied or an approved antenna. Unauthorized antennas, modifications, or attachments could impair call quality, damage the radio, or result in violation of the ICNRP or the FCC.

- **Interference to Medical and Personal Electronic Devices**

Most electronic equipment is shielded from RF energy. However, RF energy from the radio transmitter may affect inadequately shielded electronic equipment.

Do not operate the radio when any person is within 6 inches (0.15 meters) of the antenna. That person may be using a pacemaker, a

Additional Information

hearing aid or other personal electronic device which may not be adequately shielded.

- **Interference to other Electronic Devices**

RF energy may affect improperly installed or inadequately shielded electronic operating and entertainment systems in motor vehicles. Check with the manufacturer or representative to determine if these systems are adequately shielded from external energy. Also check with the manufacturer of any equipment that has been added to the vehicle.

- **Use while driving**

Check the laws and regulations on the use of telephones in the areas where you drive. Always obey them.



Caution

When using the phone while driving, please:

- give full attention to driving and to the road;
- use hands free operation, if available; and
- pull off the road and park before making or answering a call if driving conditions so require.

- **Blasting Areas and Explosives**



WARNING

Do not operate the radio near electric blasting caps, or in a blasting area, to avoid the possibility of triggering an explosion. Turn your radio OFF when in a “blasting area” or in areas where such requirements are posted.

- **Potentially Explosive Atmospheres**



WARNING

Turn your radio OFF when in any area with a potentially explosive atmosphere. It is rare, but your radio or its accessories could generate sparks which might trigger an explosion.



WARNING

Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include areas such as below deck on boats, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles, such as grain, dust, or metal powders.

Do not transport or store flammable gas, liquid, or explosives in the compartment of your vehicle which contains your radio or accessories.

Vehicles powered by liquefied petroleum gas (such as propane or butane) must comply with the National Fire Protection Standard (NFPA-58). For a copy of this standard, contact the National Fire Protection Association, One Batterymarch Park, Quincy, MA 02269, Attn: Publications Sales Division.

- For Vehicles Equipped with an Air Bag



WARNING

An air bag inflates with great force. DO NOT place objects, including communication equipment, in the area over the air bag or in the air bag deployment area. If the communication equipment is improperly installed and the air bag inflates, this could cause serious injury.

Installation of vehicle communication equipment should be performed by a professional installer/technician qualified in the requirements for such installations. An air bag's size, shape, and deployment area can vary by vehicle make, model, and front compartment configuration (for example, bench seat vs. bucket seats).

Contact the vehicle manufacturer's corporate headquarters, if necessary, for specific air bag information for the vehicle make, model, and front compartment configuration involved in your communication equipment installation.

Additional Information

Cleaning Instructions

Clean the external surfaces of the handset with a damp cloth, using a mild solution of dishwashing detergent and water. Some household cleaners may contain chemicals which could seriously damage the housing. Avoid the use of any petroleum-based solvent cleaners. Also, avoid applying liquids directly on the unit.

Status Indicator Table

There are three status indicators to the left of the display which visually tell you the different states of your unit. The top indicator is red, the middle indicator is yellow, and the bottom is green. Below is a description of these indicators.

Status Indicator	Illuminates While:
Solid Green	Talking/Transmitting
Blinking Green	In Service
Solid Yellow	Reserved for Future Use
Blinking Yellow	Reserved for Future Use
Solid Red	No Service
Blinking Red	Registering on a Network

The area within which your unit operates is defined by your service provider. Since this is a radio system, no exact boundaries (as on a map) can be drawn. The red status indicator (No Service) lights solid if you are beyond range of a service area. There may be locations within your area, such as tunnels and underground parking facilities, where the unit may act as if it were beyond range.

OWNER'S INFORMATION

Mobile Equipment Identifier (IMEI)

Personal Radio ID

Date Purchased

Dealer Telephone Number

Customer Service Number

Additional Information

RADIO ID DIRECTORY

Radio ID	Name
1	
2	
3	
4	
5	
6	
7	
8	
9	

TALKGROUP ID DIRECTORY

Radio ID	Name
1	
2	
3	
4	
5	
6	
7	
8	
9	

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Wide Area 8
Wide Area Indicator 3
Wide Area Key 3

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