

# Quick Reference Guide

**DMR** Mobile Radio

For SBM8000 / SCM8000 / SEM8000

**sepura**

Going further in critical communications

## General

This guide covers the basic operation of the DMR Mobile Radio. Please refer to the user guide for more detailed information on using this product.

## Disclaimer notice

Sepura's policy is to continually improve its products. The features and facilities described in this document were correct at publication, but are subject to change without notice.

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SPR-DOC-03808/2

Original Instructions: ENGLISH

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## Safety

Read these safety instructions carefully.

### Attention!

Sepura products are designed for use by mobile workforces, often working alone, and are intended for use in occupational and controlled conditions.

It is the responsibility of the person operating the product to ensure that it is operated safely at all times, and that local laws and regulations governing the usage of Radio Frequency (RF) products are observed. Obey all signs and instructions relating to the usage to RF wireless devices.

It is recommended that you obtain training on how to safely operate this product. Your personal safety could be affected if you do not understand how to operate this product correctly.

This product must not be operated in environments that exceed those listed in the product technical datasheet and in the Regulatory section of the product user guide.

Unauthorised modifications to the product could cause the product to become non-operational. Always use Sepura approved antenna, battery and accessories with this product.

### Exposure to RF energy

Sepura designs and manufactures products to meet strict guidelines and international standards relating to Radio Frequency (RF) energy and the potential health risks associated with using such products. If you have any concerns about potential health risks associated with long term exposure to RF energy, you should obtain advice from your employer.

### RF energy interference with electronic equipment

Some personal medical devices, such as hearing aids and pacemakers, can be affected by RF energy. Always consult your service provider or the manufacturer of the medical device before using RF wireless devices.

Some electronic devices are sensitive to RF energy. POWER OFF your radio when operating within health care facilities or other areas that are sensitive to RF energy.

### Safely operating your radio

Your radio is not intrinsically safe and has not been designed for use in hazardous environments such as gas fumes, flammable chemicals, or blasting areas. Check the compliance ratings of this product before operating the radio in any hazardous environment.

Always ensure that your radio is operating correctly before entering any environment that has a potential risk to personal safety.

### Safety when driving a vehicle

Always obey local laws and regulations governing the operation of RF wireless devices when driving and whilst at locations. Do not operate your radio if it creates a distraction from driving safely and observing road conditions.

Always POWER OFF your radio at refuelling stations and obey warning signs relating to the use of RF wireless devices in the vicinity of refuelling stations.

### **Important safety notes about the Antenna**

NEVER touch the antenna when the radio is transmitting, this may cause a minor burn to the skin and may affect the operational range of the antenna.

NEVER use your radio without an antenna attached.

Transmitting without an antenna may damage the radio. Only use a Sepura approved antenna with your radio.

The antenna should be installed and operated with a minimum distance of 1.2m to any person.

### **Accessories**

Sapura products have been tested to meet strict guidelines for personal safety and operational conditions. Only accessories approved by Sepura are recommended for use with this product. Always read the instructions supplied with the accessory for additional safety instructions.

The use of non-approved accessories may invalidate any product warranty. If a non-approved accessory is fitted, it may compromise the product safety ratings.

### **Safe installation into vehicles**

Electronic control mechanisms within a vehicle can be affected by the use of RF energy such as ABS and transmission controls. Always refer to the vehicle manufacturer's instructions and technical information relating to electronic modules and their wiring harnesses before installing an RF wireless device into a vehicle.

Do not install the product within the air bag deployment area. In the event of the air bag deflating, the radio could be propelled at great force potentially causing serious injury.

This product meets the requirements of UN ECE Regulation 10 for ESAs with no immunity related function.

### **Servicing**

Do not attempt to dismantle this product. Servicing and repairs to this product must be performed by trained service technicians at Sepura approved service centres.

## Regulatory



Sepura declares that this product is compliant with the essential requirements and other relevant provisions of the European R&TTE directive 1999/5/EC relating to radio and telecommunications

terminal equipment and the mutual recognition of their conformity. This product is also compliant with directive 2011/65/EU having been designed and manufactured to the RoHS requirements.

## Waste Electrical and Electronic Equipment recycling



This symbol on the product or its packaging indicates that this product must not be disposed of as household or commercial waste. Some countries have set up collection and recycling systems for waste electrical and electronic products. By ensuring that this product and its packaging is disposed of correctly, you will help prevent potentially negative consequences for the environment and human health, and help conserve natural resources. Please dispose of your waste product according to your national and local regulations. Contact your service provider or Sepura for information about disposing of this product in your region of the world.

## US and Canadian Markets

### FCC radiation exposure statement

This radio is intended for use in occupational/controlled applications where users have been made aware of the potential for exposure and can exercise control over their exposure. This radio device is not authorised for general population, consumer or similar use.

The antenna should be installed and operated with a minimum distance of 1.2 m to any person.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

### IC RSS warning

The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met.

Le terme "IC:" devant le numéro de certification / enregistrement signifie seulement que les spécifications techniques d'Industrie Canada ont été respectées.

Nominal antenna port impedance / Impédance nominale antenne Port 50  $\Omega$

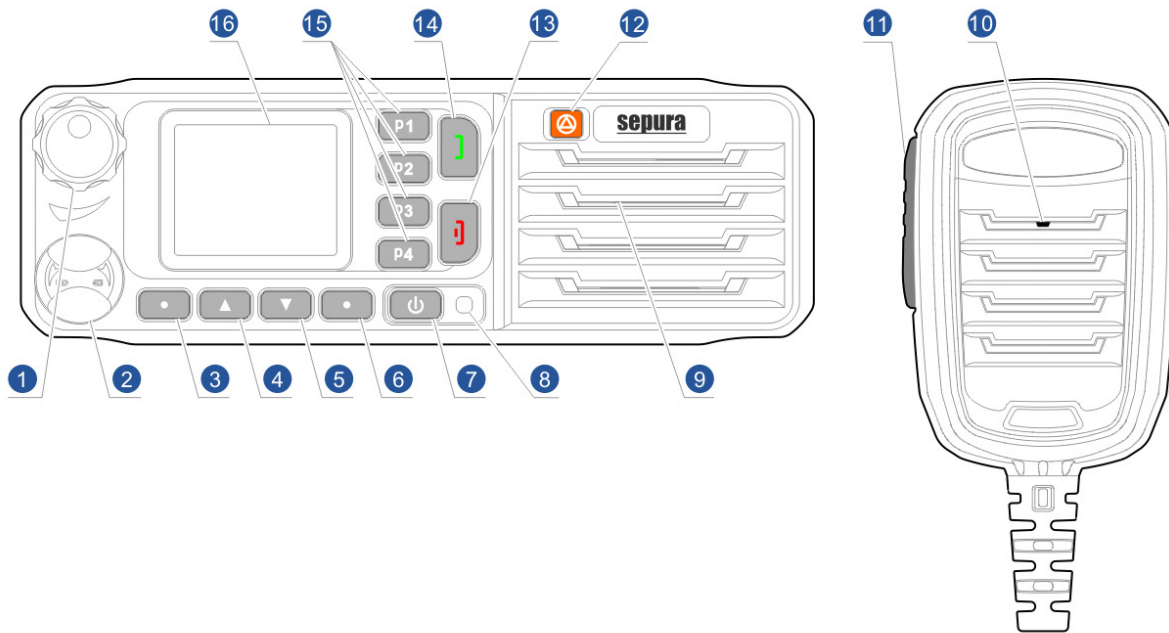
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The antenna should be installed and operated with a minimum distance of 1.2m to any person.

Cette radio a été conçue pour un usage professionnel dans un environnement contrôlé, où les utilisateurs sont pleinement conscients du danger potentiel de l'exposition à laquelle ils sont soumis et peuvent exercer un contrôle sur cette exposition. Ce dispositif radio N'EST PAS autorisé pour l'ensemble de la population, les consommateurs en général, ni pour une utilisation similaire. Cet émetteur ne doit pas être co-localisés ou fonctionner en conjonction avec une autre antenne ou émetteur.

L'antenne doit être installée et utilisée avec un minimum de 1.2m de distance de toute personne.



## Connectors, controls, buttons and keys

Refer to the illustration for the location of the following connectors, controls, buttons and keys:







- (1) Volume control knob
- (2) Microphone/programming cable interface connector
- (3) Left context key
- (4) Up navigation key
- (5) Down navigation key
- (6) Right context key
- (7) Power button
- (8) LED
- (9) Speaker
- (10) Microphone
- (11) PTT button (hand microphone)
- (12) Emergency button
- (13) Home/Cancel key
- (14) Dial key
- (15) P1 - P4 (programmable keys)
- (16) Display




## Status indicators and icons







Status indicators show the operational state of your radio. Icons appear on your radio display when you perform certain activities or activate certain features.



### Signal and security icons

Icon	Description
	<b>Receiving Signal Strength</b> Indicates the receiving signal strength. Bars indicate the strength of the signal. Maximum 4 bars indicate strongest signal.
	<b>Transmission Signal Strength</b> Low transmission strength for current channel. High transmission strength for current channel.
	<b>Security</b> Analogue scrambling or digital encryption is active.
	<b>Emergency</b> Indicates that the emergency alarm mode is activated.
	<b>GPS tracking</b> GPS feature is available and the radio is searching for GPS data.
	GPS feature is available and the radio is receiving valid GPS data.







Icon	Description
	GPS feature is available but the radio does not have valid location information.

### General icons

Icon	Description
	<b>New Message</b> You have an unread message in your mailbox.
	<b>Message inbox full</b> You need to clear your message inbox. If the message inbox is not cleared, older messages will be deleted when a new message is received.
	<b>Speaker Off</b> The speaker is muted.
	<b>Monitor Channel</b> Indicates that monitor channel is active.
	<b>Talk-around</b> Indicates that Talk-around is active for repeater mode or the current channel is in direct mode.
	<b>Alarm Clock</b> Indicates that an alarm has been set.

Icon	Description
	<p><b>Channel Scanning</b></p> <p>Scanning is in process when the icon rotates. Scanning stops on a priority channel when the centre triangle is red. Scanning stops on a non-priority channel when the centre triangle is green.</p>
	<p><b>External Device connected</b></p> <p>Indicates that an external microphone or speaker is connected.</p>

### Calls

Icon	Description
	Voice-operated-transmit is enabled
	Initialising a call
	Receiving a call
	Private call in progress
	Group call in progress
	All call in progress

### LED status indicators

The LEDs change colour to show the operational status of your radio.

LED colour	Operational State
Solid red	In use and transmitting.
Solid green	In use and receiving voice, short message or data. Can also indicate channel activity.
Solid orange	Call hang time period, press PTT button to talk back.
Flashing orange	Emergency state or there is a missed call/incoming call alert or the radio is scanning.
Flashing red	Incoming emergency alarm.
No indication	Radio is in 'idle' mode or is powered off.

## Accessory information

Sepura supply a range of accessories for this product. Contact your service provider or visit the Sepura website for a full list of accessories suitable for use with this product.

### Fist microphone

Your radio is equipped with a standard fist microphone designed for close-talk radio communications.

Attach the microphone heavy-duty connector to the Microphone/ programming cable interface connector on the radio.

Always hold the microphone firmly in your hand with the microphone facing towards you and in an upright position. Hold the microphone approximately 5 cm (2 in.) away from your mouth when speaking.

To talk, press the PTT button during the call hang time period (when the LED is solid orange) and talk clearly into the microphone. Release the PTT button when you have finished talking.

Never hold or swing the microphone by the heavy-duty coiled lead.

Note that your radio can also be used with an optional keypad fist microphone (part no. 300-01064). This microphone supports the one touch button feature that lets you make a group or private call to a predefined alias or ID by pressing one of the predefined numerical keys (1 to 9). It can also be used to manually dial a contact.

Always secure your microphone using the mounting clip when not in use.

## Basic operation

### Power On/Off

To power **on**, press and hold the Power button.

To power **off** the radio, press and hold the Power button.

### Adjusting the volume

Rotate the Volume control knob clockwise to increase the volume.

Rotate the Volume control knob counter-clockwise to decrease the volume.

### Selecting a Channel

Your service provider may program the radio with either a contact group or person. Each channel can be configured as either an analogue or digital channel. Note that some functions, such as messages, are not available on analogue channels.

Press the up/down navigation keys to select a channel.

To change the channel, rotate the Channel Selector knob.

### Making a PTT call

Your radio may already be programmed with either a contact group or a person on each channel by your service provider. The contact group or person can be programmed as a private call, group call or an All Call.

#### Call to the default contact group or person

A contact person or group may be added as a default contact. The default contact is called when you press the PTT button. You may need to select the channel before making the call. In the Home display, press the PTT button to initiate a call.

## Call a group or person from the contact list

Press the right context key to activate the **Contacts** menu.

Select the **Contacts List** option and then press the left context key to **Confirm**.

Use the navigation keys to scroll through the list. With the contact group or person highlighted, press the PTT button to initiate a call.

## Manually dial a contact group or person

A keypad fist microphone is required to use this feature.

Press the right context key to activate the **Contacts** menu.

Use the navigation keys to select the **Manual Dial** option.

Enter the ID number of the contact group or person.

Press the PTT button to initiate a call.

## Receiving a PTT call

When a call is received the green LED illuminates and the incoming call icon appears on screen. The display changes to show the call type, either the private call icon or the group call icon, alias or the ID of the caller. You will hear the person speaking.



Private call incoming



Group call incoming

Press the PTT button to respond to the caller within the hang time duration (when the LED is solid orange).

You cannot respond to an All Call.

## Emergency alarm

Your radio may not be programmed for an Emergency alarm. If an alarm is programmed it may not sound an audible alert. Ask your service provider about the programmed defaults on your radio and if your radio is programmed for Emergency alarms.

The Emergency alarm sounds an audible beep and sends an emergency message to others in your call group and you can talk to others in the group.

Press and hold the Emergency button until an audible beep sounds. The Emergency alarm icon appears on the status bar. The alarm group alias or ID displays on the screen with the Emergency Alarm icon and outgoing call icon.



Emergency Alarm status icon



Emergency Alarm icon



Outgoing icon

If the emergency call is successful the radio displays the message “emergency alarm succeed”. If the alarm call has failed the radio displays the message “emergency alarm failed”.

To cancel the emergency alarm call, press and hold the Emergency button.

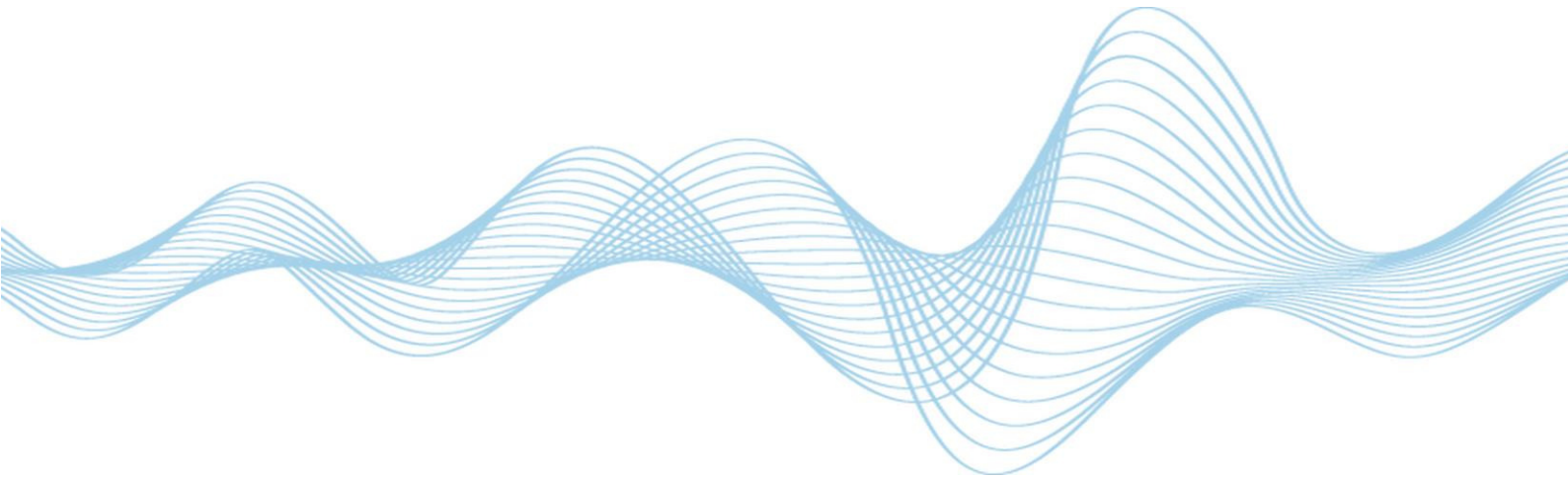
## Caring for your radio

Your radio does not require regular servicing. Caring for your radio as described in this guide will help maintain the product in good operational condition.

Always wear eye protection when using brushes or other tools to remove debris from connectors or other parts of the radio or microphone.

Do not use chemicals, aerosols or abrasive cleaners. Chemical coatings must not be applied to any part of the radio or microphone.

Clean the exterior surfaces daily using a lint free soft cloth.



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