

Quick Reference Guide

DMR Mobile Radio
SEM8040H



sepura

Going further in critical communications



General

This guide covers the basic operation of the DMR Mobile. Please refer to the DMR Mobile 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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Safety

Read these safety instructions carefully.

Attention!

Sepura mobiles are designed for use by mobile workforces, often working alone, and are intended for use in occupational and controlled conditions. This product is restricted for occupational use and is not intended or authorised for use by the general population.

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.

Users must be trained to operate this product safely. Their personal safety could be affected if they do not understand how to operate this product correctly.

Exposure to RF energy

Sepura designs and manufactures products to meet strict guidelines and international standards relating to Radio Frequency energy and the potential health risks associated with using such products.

Sepura terminals are low powered radio transmitters and receivers that receive and transmit Radio Frequency (RF) signals when switched on. The antenna radiates RF energy only when transmitting and not in standby mode.

Users should be informed of the potential health risks associated with long term exposure to RF energy by their 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. Always obey signs restricting the use of wireless devices.

Safely operating the product

Users should always ensure that the mobile is operating correctly before entering any environment that has a potential risk to personal safety.

Operate the fist microphone in a vertical position and with the microphone 5 cm (2 in.) away from your mouth when transmitting.

Safety in hazardous environments

Always switch off the mobile in environments where RF wireless devices could potentially cause an explosion. Potentially hazardous areas are not always signed. Obey all signs and instructions relating to the usage of RF wireless devices.

Do not use the mobile in the presence of gas fumes, explosives dust situations, nuclear facilities, fuel or chemical transfer or storage facilities.

This mobile is not designed for use in potentially explosive environments where RF wireless devices could potentially cause an explosion. SWITCH OFF the mobile if you are unsure if the mobile is a risk in these environments. Potentially hazardous areas are not always signed. Obey all signs and instructions relating to the usage of RF wireless devices.

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 the product if it creates a distraction from driving safely and observing road conditions.

Always switch off the mobile at refuelling stations. Always observe and obey warning signs relating to the use of RF wireless devices in the vicinity of refuelling stations.

Accessories

Sepura 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.

Unauthorised modifications to the product could cause the product to become non-operational.

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.

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.

FCC NOTICE

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.

FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for a controlled environment. The antenna of equipment should be installed and operated with minimum distance 0.75m between the radiator& your body.

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

IC Warning

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1)

this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met. Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This radio transmitter (identify the device by certification number, or model number if

Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna

DMR Mobile Radio

types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (identifier le dispositif par son numéro de certification ou son numéro de modèle s'il fait partie du matériel de catégorie I) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

IC Radiation Exposure Statement: This equipment complies with IC RF 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. The antenna of equipment should be installed and operated with minimum distance 0.75m between the radiator & your body.

IC exposition aux radiations:

Cet équipement est conforme avec IC les limites d'exposition aux rayonnements définies pour contrôlé environnement.

Cet émetteur ne doit pas être co-localisés ou fonctionner en conjonction avec une autre antenne ou émetteur.

L'antenne de l'équipement doit être installé et utilisé avec un minimum de 0.75 m de distance entre le radiateur et votre corps.

Regulatory

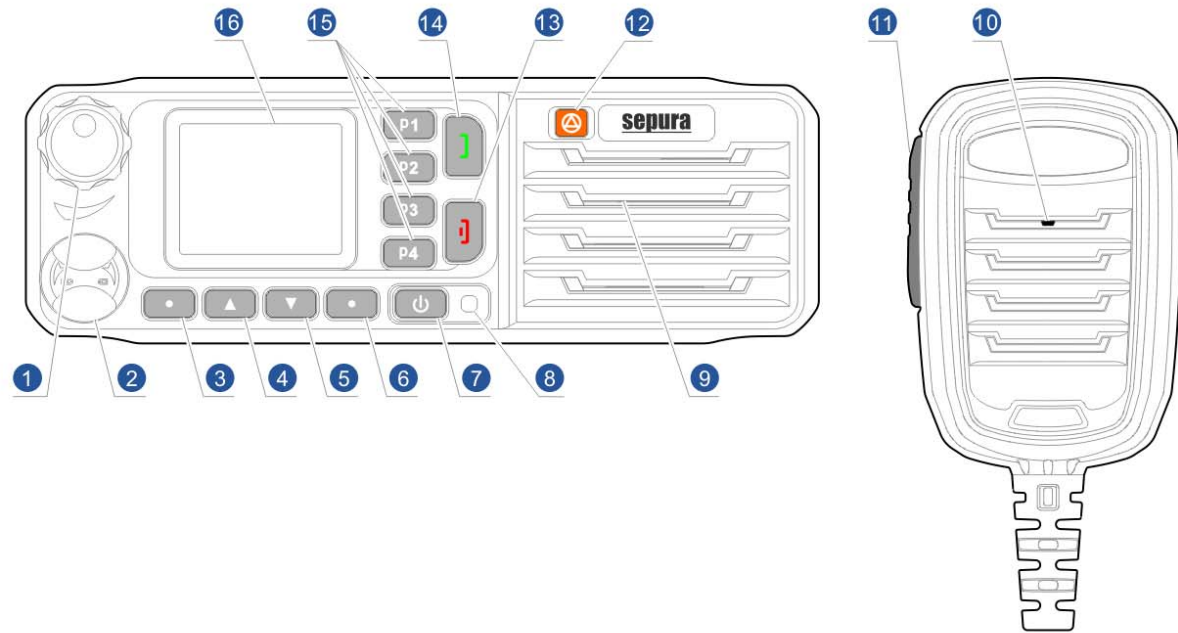


Sepura declares that this product is compliant with the essential requirements and other relevant provisions of the European R&TTE directive 1999/5/EC relating to radio and telecommunications terminal equipment and the mutual recognition of their conformity. This product is also compliant with directive 2011/65/EU having been designed and manufactured to the RoHS requirements.

Disposing of this product



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 for information about disposing of this product in your region of the world.



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 key (hand microphone)
- (12) Emergency button
- (13) Home/Cancel key
- (14) Dial key(future use)
- (15) P1 - P4 (programmable keys)
- (16) Display








Status indicators and icons

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






Signal and security icons

Icon	Description
	Receiving Signal Strength Indicates the receiving signal strength. Bars indicate the strength of the signal. Maximum 4 bars indicate strongest signal.
	Transmission Power Low transmission power for current channel. High transmission power for current channel.
	Security Analogue scrambling or digital encryption is active.
	Emergency Indicates that the emergency alarm mode is activated.
	GPS tracking GPS feature is available and the terminal is receiving valid GPS data.
	GPS feature is available but the terminal does not have valid location information.
	USB connected Indicates that USB device is connected.

General icons

Icon	Description
	New Message You have an unread message in your mailbox .
	Message inbox full 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.
	Speaker Off The speaker is muted.
	Monitor Channel Indicates that monitor channel is active.
	Talk-around Indicates that Talk-around is active for repeater mode or the current channel is in direct mode.
	Channel Scanning 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.
	External Device connected Indicates that an external microphone or speaker is connected.

Calls

Icon	Description
	Initialising a call
	Receiving a call
	Private call in progress
	Group call in progress
	All call in progress

LED status indicators

The LEDs on the radio 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 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

Accessory information

Sepura supply a range of accessories for this product. Contact your Service Provider or visit our website for a full list of accessories:

<http://www.sepura.com/products/terminals/accessories/dmr-accessories.aspx>

Fist microphone

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

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

When using the microphone, 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 grip switch during the call hang time period (when the LED is solid orange) and talk clearly into the microphone. Release the grip switch when you have finished talking.

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

Note that your mobile 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 mobile channels before use. 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 navigational keys to select a channel.

Making a PTT call

Your mobile may already be programmed with contacts (people and groups) by your Service Provider. Each group may be allocated to a different channel. The contact person or group can be programmed as a private call, group call or 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 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 group or person.

Press the PTT button to initiate a call.

Receiving a PTT call

When the mobile is in standby mode the green LED will light to indicate an incoming call. 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. The incoming call icon appears to indicate that the call is being received. 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 mobile may not be programmed for an Emergency alarm. If an alarm is programmed it may not sound an audible alert. Ask your Service Provider for information on how 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 mobile displays the message “emergency alarm succeed”. If the alarm call has failed the mobile displays the message “emergency alarm failed”.

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

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