



Quick Reference Guide

DMR Hand-portable radio

For SBP8000 / SCP8000 / SEP8000

sepura

Going further in critical communications

General

This guide covers the basic operation of the DMR hand-portable 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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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.

Your radio should be used in its normal operating position when hand-held, worn on the body or secured within a cradle. Always ensure that the antenna is pointed away from the body, particularly the eyes. When body-worn, the radio must be secured using a Sepura approved attachment. Ensure the antenna is at least 2.5 cm (1 in.) away from the body when transmitting.

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

Only remove the antenna, battery or accessories when it is safe to do so.

Protection against hearing loss

NEVER place the radio next to your ear, like a mobile phone when making a PTT call. Your radio has a powerful loudspeaker that could potentially damage your hearing if held next to your

ear. Always check the volume level before making and receiving calls.

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 if the antenna shows signs for damage.

DO NOT handle, hold or swing the radio by its antenna, because this may damage the antenna and the radio. Do not chew the antenna or place it into your mouth. 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.

Operational Conditions

Do not exceed the operational conditions for the radio and battery. Always check the technical data for this product before attempting to operate the product in extreme conditions.

Leaving the radio in extreme temperatures (over 55 °C or 131 °F), for example behind glass in direct sunlight may cause damage to the casing and the battery.

Care should be taken to avoid mechanical impact.

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.

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.

Always fit the RAC cover when an accessory is not in use.

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.

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



Seapura 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.

Disposing of batteries



Your radio is supplied with a rechargeable lithium-ion battery. This symbol on the battery and its packaging indicates that it must not be disposed of with household or commercial waste. Please dispose of your waste batteries according to your national and local regulations. Contact your service provider or Sepura about recycling batteries 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 risks for exposure and can exercise control over their exposure. This product is not authorised for general population, consumer or similar use.

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

This radio is for occupational use only with a maximum PTT duty cycle of 50%.

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 Ω

IC radiation exposure statement

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

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

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.

Caring for your product

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.

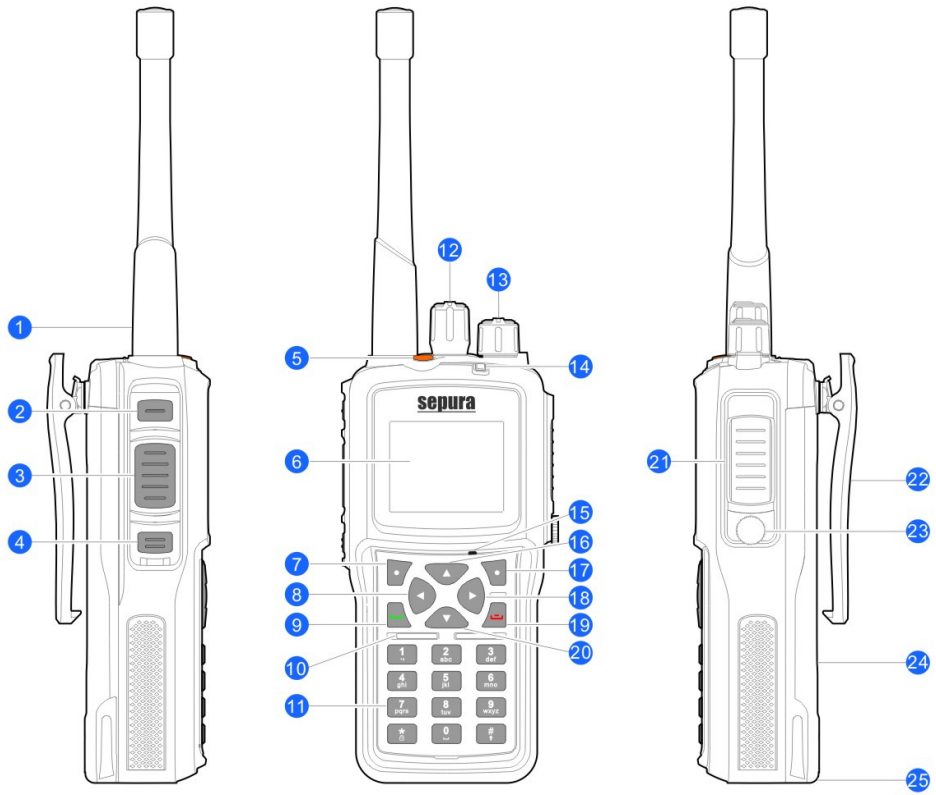
Sepura supplies a range of accessories to protect the radio during use, including a protective cover. Contact Sepura for more information.

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

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

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

Clean the battery contacts periodically using a soft brush.



Connectors, controls, buttons and keys

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

- (1) Antenna
- (2) Programmable side button 1
- (3) PTT button
- (4) Programmable side button 2
- (5) Emergency/programmable button
- (6) LCD display
- (7) Left context key
- (8) Left navigation button
- (9) Dial key
- (10) Speaker
- (11) Keypad
- (12) Channel selector knob
- (13) Power/volume knob
- (14) LED status indicator
- (15) Microphone
- (16) Up navigation key
- (17) Right context key
- (18) Right navigation button
- (19) Cancel/Home key
- (20) Down navigation key
- (21) Rugged accessory connector (RAC)
- (22) Belt clip accessory (optional)
- (23) RAC cover (screw fixing)
- (24) Battery
- (25) Battery latch

Keys, buttons and knobs overview

Power/volume knob

To power on, rotate clockwise.

To power off, rotate counter-clockwise.

To increase the volume, continue rotating clockwise. Rotate counter-clockwise to decrease the volume.

Context keys

Press to select the option on the screen, above the left or right context key.

Emergency/programmable button

Press and hold to activate an Emergency alert. Your service provider may program this button for an alternative function or disable the emergency alert.

Channel selector knob

Rotate clockwise to change channels. Your service provider may program your radio up to 16 channels with contact groups or persons.

Navigate left, right, up and down keys

Use the four navigation keys in the centre of the keypad to navigate through the menus and select options.







Cancel/home key



Use to end a call or return to the Home screen.

Status icons






Status indicators show the operational state of your radio and appear on the screen 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 radio is receiving valid GPS data. GPS feature is available but the radio does not have valid location information.






Icon	Description
	<p>Man Down</p> <p>Indicates that the radio is in Man-down mode. Indicates that Man Down is activated.</p>
	<p>USB connected</p> <p>Indicates that USB device is connected.</p>


General icons

Icon	Description
	<p>New Message</p> <p>You have an unread message in your mailbox.</p>
	<p>Message inbox full</p> <p>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.</p>
	<p>Battery level</p> <p>Indicates the amount of power in the battery. When the icon is full, the battery is fully charged. A red empty icon indicates the battery charge is low.</p>
	<p>Speaker Off</p> <p>The speaker is muted.</p>
	<p>Monitor Channel</p> <p>Indicates that monitor channel is active.</p>

Icon	Description
	<p>Talk-around</p> <p>Indicates that Talk-around is active for repeater mode or the current channel is in direct mode.</p>
	<p>Channel Scanning</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>External Device connected</p> <p>Indicates that an external microphone or speaker is connected.</p>
	<p>Roaming</p> <p>Indicates that roaming is active.</p>

Calls

Icon	Description
	<p>Voice-operated-transmit is enabled.</p>
	<p>Initialising a call.</p>
	<p>Receiving a call.</p>
	<p>Private call in progress.</p>
	<p>Group call in progress.</p>

Icon	Description
	All call in progress.

LED status indicator

The LED changes colour to show the operational state of your radio.

LED	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 the PTT to talk back,
Flashing orange	Emergency state or there is a missed call/incoming call alert or the radio is scanning,
No indication	Radio is in 'idle' mode or is powered off.

Battery information

Your radio is supplied with a Sepura approved battery to provide optimum performance. If your battery is new, it may need to be fully charged before first use. Always ensure your battery is fully charged before you start your shift.

Sepura can supply a range of battery chargers for your radio. Optional single charger or six-way charger units are available.

The following guidelines will help you get the best performance from your Sepura battery and help to ensure your safety.

Battery safety

Refer to the instructions supplied with the charger for more safety information.



Warning: Take care when handling and charging batteries. Accidental short-circuiting of the battery electrical circuit (battery radios) by metal objects may cause bodily injury such as a burn. Do not disassemble, mutilate or incinerate the battery.

Caution: This radio has been tested and certified using a Sepura approved battery. Using non-approved batteries may damage the radio and invalidate any product warranty. When recharging batteries, always ensure that the battery charger is placed in a well-ventilated area away from combustible materials. Never use a battery that shows signs of damage (not minor scratches) or has been dropped or received a 'sharp blow'. Damage to the battery may not always be obvious.

Storage and transportation

Use the original packaging to store and transport batteries. To obtain the best performance from your battery, store it in a cool dry place. Failure to store batteries correctly could lead to reduced capacity and battery life.

Do not store a fully charged battery for periods exceeding 6 months. For storage periods exceeding 6 months apply a conditioning charge of 7 minutes for standard and 12 minutes for high capacity batteries every 6 months.

Storage temperature guidelines:

< 1 months -20 to +55 °C (-4 to 131 °F)

1 to 3 months -20 to +40 °C (-4 to 104 °F)

> 3 months -20 to +30 °C (-4 to 86 °F)

Charging your battery

If the battery is new, it is important that it is fully charged before first use.

Your radio will sound an audible alert when the battery has less than 15% charge remaining.

Typical charging time is approximately 3-4 hours. This may vary depending on the battery and environmental conditions.

Charge your battery between 5 °C to 35 °C (41 °F to 95 °F) temperatures only.

Always ensure that the radio is powered **off** before charging the battery.

The charger must be placed onto a flat surface away from flammable materials when charging.

Place the battery into the charger pocket by aligning the slots on the battery with the guides on the charger pocket. It is not necessary to remove the battery from the radio when charging. Ensure the battery (or radio with battery attached) is secure in the charger pocket.

Never leave the battery or radio with battery attached in the charger when not charging.

The charger unit has LEDs that indicate the state of charging.

Charger LED	State
Solid red	Battery is charging.
Solid green	Battery is fully charged. Standby mode without battery.
Flashing yellow	Battery is damaged. Contact your service provider or Sepura.

Accessory information

Sepura supply a range of accessories for this radio. Contact your service provider or visit our website for a full list of accessories.

Fit the battery

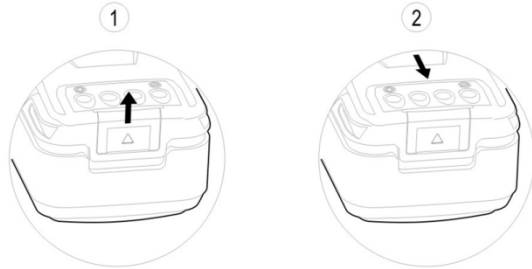
Align the battery with the two slots on the back of the radio.

Carefully slide the battery forward along the slots until it clicks into place.

Remove the battery

Ensure the radio is powered **off**.

Push the battery latch upwards (1). Slide the battery backwards (2) until it detaches from the radio.

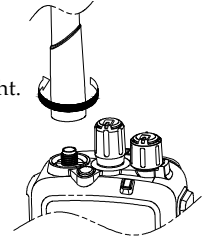


Fit the antenna

Ensure the radio is powered **off**.

Place the antenna into its receptacle.

Rotate the antenna clockwise until finger tight.



Fit the belt clip

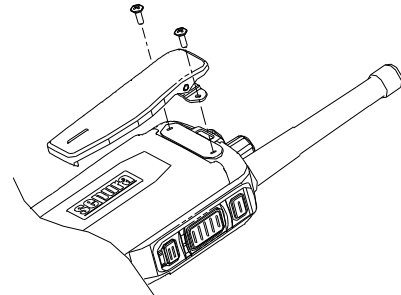
Ensure the radio is powered **off**.

Remove the two screws at the back of the radio using a cross-head PH1 screwdriver.

Align the screw holes on the belt clip with the mounting holes on the back of the radio.

Secure into position using the two screws.

Caution: Do not over tighten the screws, this may damage the product.



Basic operation

Power On/Off

To power **on**, rotate the Power/volume knob clockwise.

To power **off**, rotate the Power/volume knob counter-clockwise until the knob clicks.

Adjusting the volume

Rotate the Power/volume knob clockwise to increase the volume.

Rotate the Power/volume knob counter-clockwise to decrease the volume.

Selecting a channel

Your service provider may program the radio with up to 16 channels with either a contact group or person.

To change the channel, rotate the Channel Selector knob.

Making a PTT call

When hand-held, operate your radio in a vertical position and with the microphone 5 cm (2 in.) away from your mouth when transmitting.

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 a 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.

From the Home screen, 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. Select the contact group or person, then press the PTT button to initiate a call.

Call a group or person by manually dialling

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 radio is in standby mode the green LED will light to indicate an incoming call. The call type icon (either the private call) or group call icon appear on screen with the 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

Do not place the radio close to your ear like a mobile phone.

Press the PTT button to respond to the caller within the call hang time duration.

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. You can speak to alert others of your situation.

To activate an emergency call, press and hold the Emergency button until the audible beep is heard. The Emergency alarm icon appears on the status bar and the alarm group alias or ID appears on the screen with the Emergency Alarm icon and outgoing call icon.



Emergency Alarm status icon



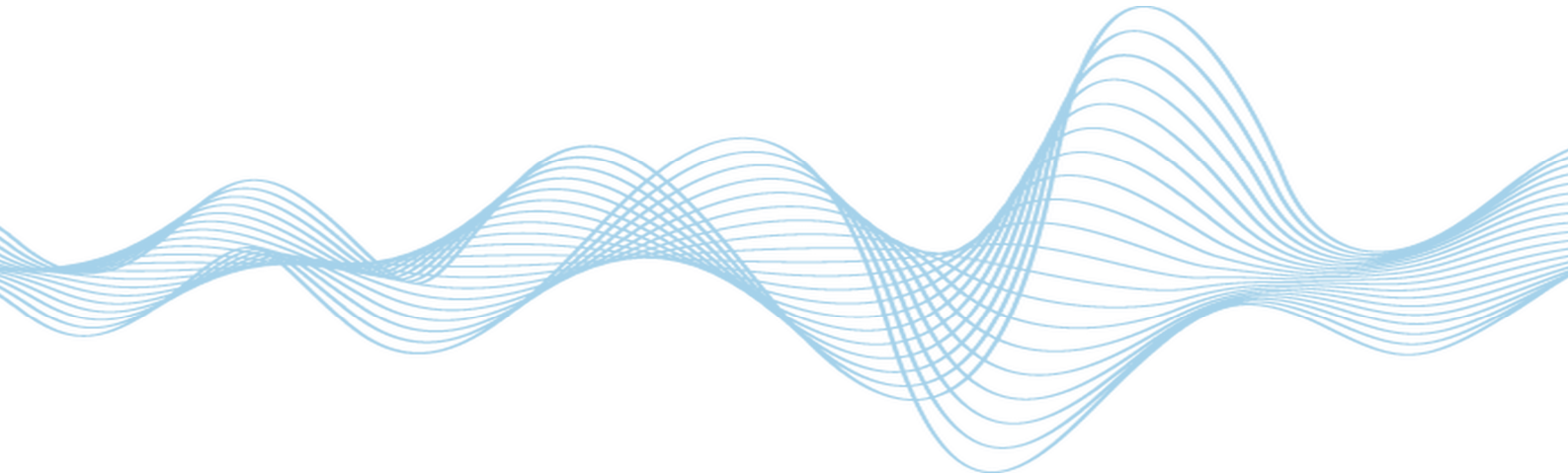
Emergency Alarm icon



Outgoing icon

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

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



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