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User Guide

SC23 Series hand-portable radio

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Software license agreement

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General information

This user guide describes the default operation and features of the SC23 Series radio. Your service provider or organisation may have customised your radio to optimise its performance to suit your individual needs. There may be differences between this guide and the way your product operates.

Contact your service provider or organisation for information about the customisation of your radio.

Safety

Before operating the SC23 Series hand-portable radio, read the safety instructions contained in the **Product Safety Guide (SPR-DOC-00170)** supplied with the product.

Regulatory

European regulations

Sepura declares that its TETRA radio products are compliant with the essential requirements and other relevant provisions of the European Radio Equipment Directive 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC. These products are also compliant with directive 2011/65/EU having been designed and manufactured to the RoHS requirements.

Simplified EU declaration of conformity

Sepura declares that the radio equipment types SC21, SC20, SC23 and STP9000 series hand-portable radios and SRG3900/SCG22 mobile radio are in compliance with Directive 2014/53/EU. The full textof the EU declaration of conformity is available at the following internet address: www.sepura.com/support/compliance-documents.

Waste Electrical and Electronic Equipment disposal information

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 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 on how to return this product for waste disposal.

Disposing of waste batteries

Sepura radios are supplied with a rechargeable 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 for advice on disposing batteries in your area of the world.

Federal Communication Commission (FCC) Regulations

Sepura TETRA radios generate, use and radiate RF energy. Radios that comply with the limits for a Class A digital device, pursuant of part 15 of the FCC rules are identified by an FCC certification ID label (located under the battery). Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment (rule part 15.21). 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.

US and Canada 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.

IC RSS warning

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

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.

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Your Radio at a Glance

1	**Emergency Button**. Press and hold (2 seconds) to initiate an Alarm call.
2	**Antenna**.
3	**Rugged Accessory Connector (sRAC)**. Provides connection for accessories.
4	**Centre context key**. Press to activate the feature or option that appears directly above the key.
5	**Right context key**. Press to activate the feature or option that appears directly above the key.
6	**Red (Cancel/Home) key**. Press and hold (2 seconds) to power **on** your radio. From the Home screen, press and hold (4 seconds) to power **off**. Press and hold (2 seconds) to return to the Homescreen from any other screen.
7	**Microphone** used for full-duplex phone calls.
8	**Audio Ports** with Loud Speaker behind used during half-duplex calls when an audio accessory is not connected and the radio is held in the hand.
9	**Navigation keys**. Press to scroll through lists and move the cursor when writing text.
10	**Green (Select/Send) key**. Press to initiate a half-duplex individual call or a full-duplex call. Press toselect a menu item or action a function, or send a status or text (SDS) message.
11	**Left context key**. Press to activate the feature or option that appears directly above the key.
12	**Greyscale display** with backlight.

(13) **Earpiece and microphone.** Earpiece is active during full-duplex phone calls when the radio is heldlike a mobile phone against the ear. Speak into the microphone during half-duplex calls when the radio is not attached to an audio accessory and held in the hand.

(14) **Tri-colour LED** (indicator). Indicates various operational states of the radio.

(15) **Blue LED** (indicator). Indicates a missed event such as a call, Callout or message. Also indicates Bluetooth status.

(16) **Navi-knob**. Rotate to adjust the speaker volume.

(17) **Side Button A** (soft key). Press to activate a programmed feature.

(18) **Side Button B** (soft key). Press to activate a programmed feature.

(19) **PTT** (Press-to-talk) button. Press and hold to talk during a group call. Release to listen to other radio users.

(20) **Side Button C** (soft key). Press to activate a programmed feature.

(21) **Digital Accessory Connector (sDAC)**. Used to charge the battery, program the radio and attachaccessories.

(22) **Battery.**

(23) **Accessory attachment point** for accessories such as a belt clip or other accessories designed for securing the radio during use.

(24) **External Antenna Connector** used with a car kit to attach an external antenna to the radio.

(25) **RFID tag** for monitoring and auditing purposes.

Battery

For your safety, inspect the battery regularly for any signs of damage, such as cracks or surface damage caused by an impact or the battery being dropped. Fit a new battery if there are any signs of damage.

> ⚠️ **Warning! Risk to personal safety.** Sepura TETRA radios have been tested and certified using Sepura approved batteries. The use of non-approved batteries may damage the product, will result in non-compliance with regulatory requirements, compromise the product safety ratings including SARS, reduce the length of operating time and will invalidate the product warranty.

Checking the Battery Charge

Always check the amount of battery charge before lengthy periods of operation. A fully charged battery should provide continuous operation for a full shift, depending on a number of operational factors such as how the radio is operated, the operating environment (temperature and network signal strength) and the condition of the battery. When the radio is powered on, the amount of charge remaining may be displayed as a percentage (%) on the screen.

Battery Charge Indicators

A battery meter appears on the status line at the top of the radio display. The meter consists of 4 bars comprising 8 segments that fill and empty corresponding to the estimated amount of charge remaining.

Icon	Description
🔋	Battery is fully charged.
🔋	Battery is 50% charge capacity.
🔋	Battery has >12% charge remaining.
🔋	Battery charge less than 12% charge remaining.

Optimising Battery Life

A fully charged battery should last a full shift (approximately 12 hours) but this depends on a number of operational factors, such as how the radio is operated, the operating environment (temperature and network signal strength) and the condition of the battery.

Try the following to help you optimise battery life on a daily basis:

- Ensure that batteries are fully charged at the start of a shift.
- Decrease the amount of time the backlight stays lit between key presses ("Adjusting the Backlight" on Page 25).
- Keep your speaker audio volume to a minimum ("Adjusting the Volume" on Page 23).
- Reduce the length of time the radio is transmitting and keep DMO or telephone type calls to a minimum because they cause higher current consumption.
- Shorten the GPS reporting intervals if enabled ("Reporting Options" on Page 56).

Charging the Battery

Your radio is powered by a rechargeable battery. The battery may be recharged many times but it will eventually need replacing to ensure continuous maximum performance from your radio.

First Time Battery Charging

New batteries (Standard battery part no. 300-01174 and High Capacity battery part no. 300-01175) are supplied in 'storage mode' which means they have a minimum amount of charge for storage purposes. Before using a new battery for the first time it must be fully charged to reactivate it. If the battery is used before it is reactivated (fully charged) the radio may not power on, or may indicate a low battery status icon or low level of charge.

Battery Chargers

Only use Sepura approved battery chargers. Use of non-approved chargers may not fully charge the battery or damage it. Always read the user documentation supplied with the charger for additional safety instructions and how to use it.

Charging Methods

The radio may be powered on or off during charging.

Attach the Charger cable to the connector at the base of the radio or place the radio with battery attached into a charging dock. During charging, the tri-coloured LED on the radio indicates the charging progress and the ⚡ charging icon appears on the status line, providing there is sufficient charge in the battery to support this function.

Status LED	Description
Flashing Orange	Battery temperature is either too hot or cold to commence charging.
Solid Orange	Charging in progress.
Solid Green	Charging complete.
Solid Red	Battery has failed to charge and may be not be chargeable. Contact your service provider or Sepura.

The battery may be charged separately from the radio using a battery-only charger.

Charging a 'flat' Battery

If the battery is completely 'flat' (without charge) during storage or after a long period of non-activity, it may fail to recharge or stop charging after 20 minutes. If this happens, disconnect and then reconnect the charger (or power off the charger, then power on) to reset the battery.

> **Note:** Do not charge a flat battery attached to the radio. During charging, the radio will attempt to power on when the battery charge reaches a certain capacity, which will continually drain the battery of its charge. Always charge a flat battery with the radio powered off or using a battery charger.

Fitting the Battery

Ensure that the Smart/microSD card compartment cover is securely latched before fitting the battery.

> ⚠️ **Caution!** If a Belt clip or Shirt/Pocket clip is fitted to the radio, lift the Belt clip or Shirt/Pocket clip before attempting to fit the battery. Do not attempt to insert the battery into the battery compartment sideways under the clip. This may result in damage to the radio and the belt clip.

To fit the battery, insert the battery into the battery compartment as shown. Press the base of the battery downwards until it clicks into position. When fitting the high retention battery, ensure both securing latches click into position.

Standard Battery
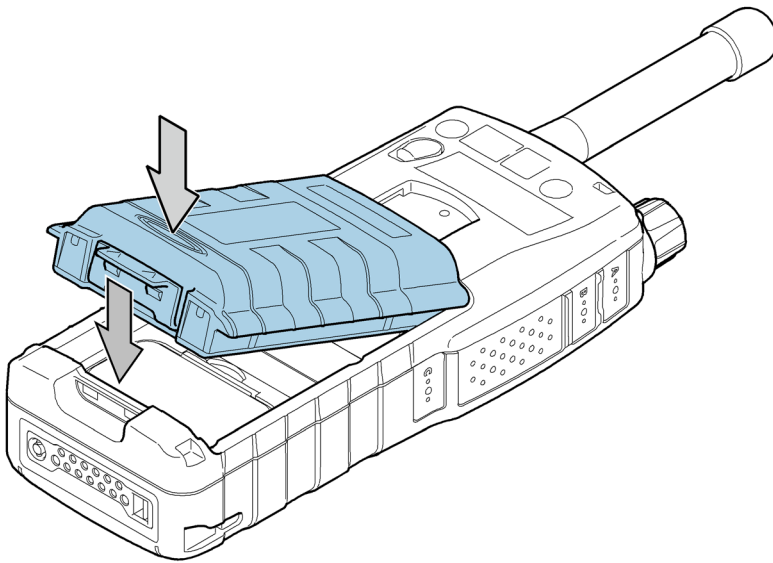
High Retention Battery
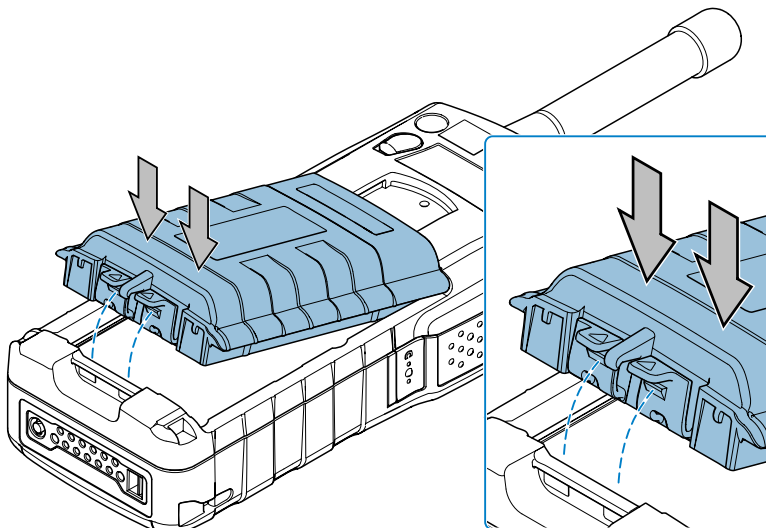
Removing the Battery

Power off the radio before removing the battery.

> ⚠️ **Caution!** If a Belt clip or Shirt/Pocket clip is fitted to the radio, lift the Belt clip or Shirt/Pocket clip before attempting to remove the battery. Do not attempt to remove the battery from the battery compartment sideways under the clip. This may result in damage to the radio and the belt clip.

Standard Battery

Push the safety latch on the bottom of the battery. Lift the battery upwards and remove.
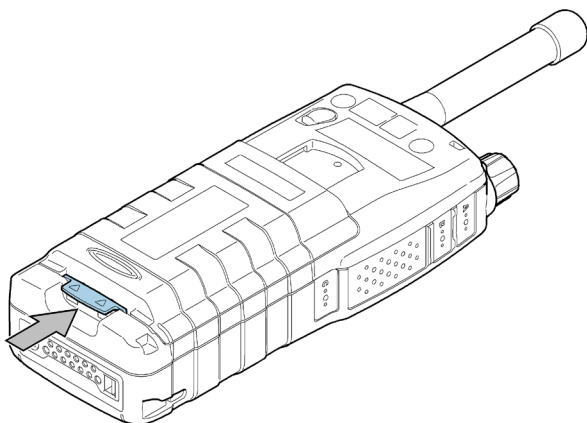
High Retention Battery

Push both safety latches on the bottom of the battery at the same time. Lift the battery upwards and remove.
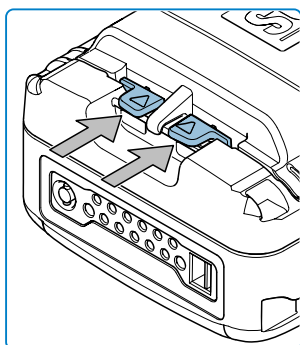
Using Sepura Approved Batteries

When the radio is powered on, it checks the authenticity of the battery. There are a number of battery management features that only work when a genuine Sepura battery is fitted to the radio, including:

- the remaining battery charge appears as a percentage when your radio is powered on [customisable];
- battery meter icons, showing the remaining battery charge;
- a low battery warning appears when charge is low; and
- allowing the user to check the battery information, such as its authenticity, remaining charge and serial number [customisable].

If a non-approved battery is used, the radio displays a warning message when powered on. Press any key to clear the message.

> ⚠ **Caution! Risk of damage to the radio.** Non-approved batteries may not have inbuilt safety protection features, and could potentially damage the radio (invalidating any product warranty) and affect the radio's safety and IP compliance ratings.

Getting information about your battery

You can view information about the battery attached to the radio, such as the remaining battery charge, whether the battery is authenticated (a genuine Sepura battery) and the battery serial number [customisable].

Select **Menu > Options > Battery Information**.

The display shows:

- **Charge**—the current remaining charge given as a percentage
- **Authenticated/Unauthenticated**—a Sepura/non-Sepura battery is fitted
- **Serial number**—the serial number of the battery

If a non-Sepura battery is fitted, the **Charge** is reported as 0%, the battery is marked as **Unauthenticated** and the serial number is not shown.

Controls & Indicators

Your radio has a number of controls and indicators.

Navi-knob

The Navi-knob is a continuous rotating knob that in its normal mode is used to adjust the volume. The Navi-knob can also be used to perform various other functions.

To do this…	Do this…
Adjust loud speaker volume (or enable/disable Whisper Mode [customisable])	Rotate Navi-knob
Move cursor and select characters (in text entry mode)	Rotate Navi-knob in Text Entry Mode or Editing Mode
Scroll through available Talkgroups*	From the Home screen, press **Groups** + rotate the Navi-knob
Scroll through available Status Messages*	From the Home screen, press **Groups** 2 times + rotate the Navi-knob
Scroll through available User Profiles*	From the Home screen, press **Groups** 3 times + rotate the Navi-knob

Note: *Depending on customisation, any combination of the Talkgroups, Status Messages or User Profiles options may be disabled and not available for selection.

Navigation Keys

Your radio has four navigation keys (left/right/up/down).

Key	Action
Up/Down	Use to move the scroll bar up and down to see more information. Scroll a list of options. To independently adjust the volume of accessories.
Down	Open the top level menu from the Home screen.
Up	Repeated presses moves upwards through the options and menu levels until the top level menu is reached.
Left/Right	Moves between options on the top level menu. Moves through the text characters for selection when writing.

Note: When the display is inverted (flipped upside down) the left and right navigation keys work in opposite directions.

Soft Keys

Some keys on your radio may be customised to provide one-touch access to regularly used features. These programmable keys are referred to as soft keys.

To activate the soft key function:

- assigned to a programmable soft key, press and release
- assigned to other keys (such as **Cancel/Home** and **Select/Send** keys), press and hold for one second

The following keys can be customised as soft keys:

- the **Select/Send** key
- the **Cancel/Home** key
- the Emergency Button (if not assigned to Emergency operation)
- the programmable side buttons
- the left and right navigation keys

There are many functions that can be assigned to a Soft key. Some functions are activated immediately, such as the keypad lock/unlock or loudspeaker on/off. There are some special functions that use a 'navigate to screen' function. This means that on activation, a screen displays and you need to take some additional action, such as activating a SmartMenu where you have to select an option.

Context Keys

Your radio has a left, centre and right context key which you use to select options displayed adjacent to them.

Context labels appear at the bottom of the screen, directly above each context key. These labels show the action of the key when it is pressed; either activating a feature or performing a function such as clearing a call (Clear) or selecting an option (Select).

The labels and actions of the context keys in the Home screen are:

Context Key	Label	Action
Left	Menu	Press to enter the main menu.
Centre*	Groups	Press to change the talkgroup. See "Selecting a Talkgroup" on Page 32.
	Status	Press 2 times to send a status message. See "Messages" on Page 40.
	Profile	Press 3 times to select a user profile. See "User Profiles" on Page 52.
Right	Shortcut	Press to open the Shortcut Bar to quickly access regularly used features or clear a notification. See "Notifications" on Page 18 and "Shortcut Bar" on Page 44.

> **Note:** *Centre key: Depending on customisation, any combination of the Groups, Status or Profiles options may be disabled and not available for selection. If all the options are disabled, pressing the Mode or Context Key of the radio has no effect. If only one option is available, any key press once on the Quick Change Menu has no effect when the only available option is selected.

Set Context Key Shortcut

The shortcuts available for selection as shortcuts are set during the customisation of your radio.

> **Note:** You can only use the left and right context keys and soft keys on the top level screen (Home Screen).

To set a context key Home Screen shortcut

1. Open the Home screen.
2. Press and hold the context key until the **Context Key Selection** box appears.
3. Navigate to the shortcut in the list and press **Select**.

The key is reconfigured and the new shortcut label appears in the Home screen.

Status Icons

Icons appear on the status line (at the top of the display) when the radio is engaged in certain activities or when certain functions are active.

Security and Emergency	
Icon	**Description**
	Emergency: Appears when emergency operation mode is active on your radio and an Alarm call is in progress.
	Air Interface Encryption disabled: Calls and Callouts will not be encrypted.
	E2E Encryption enabled: The Secure Communications icon indicates that the selected talkgroup is customised for End-to-End Encryption. In other words, calls you make by pressing the PTT button are End-to-End Encrypted.
	E2E Encryption disabled: Indicates that the call is not encrypted.
	Key agreement: Indicates that a cryptographic key agreement is in progress between the radio and the Key Management Centre (KMC) on the network. (See "End-to-End Encryption" on Page 58).

Trunked Mode Operation (TMO)	
Icon	**Description**
	Outgoing TMO call in progress: You are in a call that you initiated.
	Incoming TMO call in progress: You are in a call that was initiated by another person or your dispatcher on the TMO network.
	Missed incoming TMO call: You have missed an incoming TMO call. The blue LED flashes. A notification alerting you to the missed call appears in the Shortcut Bar.
	Scanning enabled: Your radio is scanning (listening) to all available talkgroups within your scan list for activity.
	Broadcast Call: A high-priority group call (point-to-multi-point) initiated by your Dispatcher to all network radio users. You cannot reply to the caller.

Direct Mode Operation (DMO)	
Icon	**Description**
	Incoming DMO call: You are in a DMO call that was initiated by another radio user.
	Outgoing DMO call in progress: You are in a call to another radio user.
	Missed incoming DMO Call: The blue LED flashes to notify you that you have missed an incoming DMO call. A notification alerting you to the missed call appears in the Shortcut Bar.
	DMO Gateway detected: Appears when the radio has detected a DMO gateway. The icon disappears when the radio moves out of range of the gateway.
	DMO Gateway off
	DMO Repeater detected: Appears when a DMO repeater is detected and the radio can communicate with any other radios in the selected DMO talkgroup which are also in range of the repeater.
	Repeater ignored
	Repeater mode off
H	**DMO transmission power:** The radio has been set to a higher transmission power than the normal transmission power level.
L	**DMO transmission power:** The radio has been set to a lower transmission power than the normal transmission power level.

General Icons	
Icon	**Description**
	Migrated: Your radio is registered on a Visited Network.
	Signal Strength: Shows the current signal strength. More bars indicate a stronger signal.
	Good radio coverage: Indicates good radio coverage.
	No service: Indicates poor signal or no radio coverage.
	Battery Strength: Indicates the level of charge in your battery. More bars indicates more charge.
	Low battery warning: Appears when there is less than 12% charge remaining in the battery.
	Charging: Appears when the battery is attached to the radio during charging and the radio is powered on.
	Keypad locked
	Transmit Inhibit: Indicates that you have activated transmit inhibit and the radio is unable to transmit (overridden when Emergency mode is activated).
	Privacy mode active during a call: Appears for the duration of a call when Privacy mode has been activated to prevent any other calls interrupting an important individual call.
	Pre-emptive Call: If pre-emptive priority calls have been customised on the radio. The icon is displayed if you or another user has initiated a pre-emptive call on the network.
	Covert operation mode enabled: The radio turns off any visual and sound alerts, and displays this icon when covert operation mode is enabled.
	Group Focus: Appears when Group Focus is enabled, preventing any calls from other talkgroups (other than the selected talkgroup) connecting to the radio.
	User Profile: Appears when a user profile is activated. Your radio may be programmed for a number of user profiles. The number next to the icon indicates the chosen user profile.
	Connector Protection enabled: Indicates that you have enabled connector protection. You can use your radio in salt water environments without a cover fitted to the Facilities connector at the bottom of the radio.
	Connector Protection disabled: Indicates that connector protection is disabled. Do not use your radio in salt water environments without a cover fitted to the Facilities connector at the bottom of the radio.
	Communication Type Mismatch: This icon appears when there is a mismatch in communications and is activated when: • the radio is out of range of a gateway when another radio within range of the gateway is in a group call, and you cannot participate in the call. and that you cannot take part in the call. • a radio out of range of the gateway is attempting to respond to a group call, and the speech if not being routed using the gateway to TMO users. • a radio within range of a DMO Repeater cannot make a call and attempts to set up a call in DMO instead, the icon appears on all radios within the talkgroup to indicate that there are members of the talkgroup who cannot take part in the call.

General Icons (Cont)	
Icon	**Description**
	Lone Worker protection enabled: Indicates that you have enabled the Lone Worker feature on your radio.
	Man Down motions and tilt sensors active: You have enabled the Man Down feature and the motion and tilt sensors are active.
	Man Down Tilt sensor active: You have enable the Man Down feature, but only the tilt sensor is activated.
	Man Down motion sensor active: You have enable the Man Down feature, but only the motion sensor is activated.
	GPS tracking enabled: Indicates that the GNSS (Global Navigation Satellite System) function has been enabled.
	GPS tracking not available
	Accessory Connected: Indicates that there is an accessory connected to the sRAC.

LED Indicators

Blue LED

The blue LED indicates either a missed event, such as a missed call or unread message. Notifications alerting you to the missed calls, Callouts or unread messages appear in the Shortcut Bar. See "Notifications" on Page 18.

LED Indication	Description
Flashing on for 1 second, off for one second, on for another second, then off for seven seconds	Missed event

Tri-colour LED

The tri-colour LED indicates the operational state of the radio.

LED Colour	Description
Solid green	Radio is powering on or in a call and receiving
Solid red	Radio is in a call and transmitting
Intermittent flashing red	Attempting to connect to the network or incoming telephone SDS/Status message or battery low warning
Flashing orange	Incoming telephone call or SDS/Status message
Intermittent four flashes orange	Transmit Inhibit mode or Fallback mode are active

Emergency Button

The red button on your radio is typically programmed to activate an Alarm Call. See "Emergency Operation" on Page 21.

Press and hold (2 seconds) the Emergency button to initiate an Alarm Call.

If the radio is powered off, press and hold (3 seconds) to power on and initiate an Alarm Call. It may take several seconds for the radio to complete its power on process before initiating the Alarm call.

Getting Started

Antenna

Your radio must be fitted with an antenna at all times (unless your radio is used with an external antenna such as an RSM) during operational periods. Transmitting without an antenna attached may damage the product. Your radio is designed for use with Sepura approved antennas.

Always ensure that the seal between the antenna and the radio is maintained.

Never touch the antenna when the radio is transmitting. Ensure your radio is powered off before fitting or removing the antenna.

Fitting the antenna

1. Insert the base of the antenna into your radio's antenna connector.
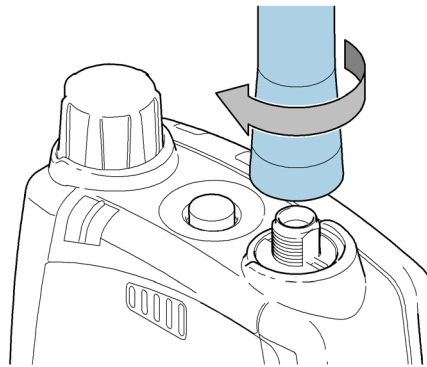
2. Rotate the antenna clockwise until it is finger tight. Then apply another 1/4 turn clockwise.

Removing the Antenna

Rotate the antenna counter-clockwise until it can be removed from the radio.

Power On

To power on, press and hold (2 seconds) the **Cancel/Home** key.

Your radio attaches to the last selected talkgroup when it is powered off (if it is 'in service'). This is customisable.

Depending on your radio's customisation any of the following may display:

- the percentage of charge remaining, if a Sepura battery is fitted
- a company logo
- a splash screen
- a welcome screen
- a PIN entry screen

> **Note:** A message may be displayed relating to the authenticity of your battery or attached accessory. A message may appear if your software licence has or is about to expire.

Transmitting in 3W RF is only available when using a Sepura 3W battery. During power on the radio checks the authenticity of the battery and whether it has the capacity for the radio to transmit 3W RF. A message displays and the power may be limited if the radio cannot transmit in 3W RF when licensed to do so.

If an accessory is detected when the radio is powered on, and it is the same accessory that was attached at power off, the radio will continue to operate using the selected accessory profile. See "Accessory Profiles" on Page 62.

Power Off

> ⚠️ **Caution! Risk of damage to the radio.** Do not power off the radio by removing the battery. The radio must be powered off correctly to ensure that it performs a controlled 'powered down'.

To power off, from the Home screen press and hold (4 seconds) the **Cancel/Home** key.

- Scroll to the **Shutdown** option, then press the **Select** key to power off your radio. Before powering down, alerts and messages may be sent.

If your radio is configured to provide an option to delete Callouts, navigate to **Shutdown** or **Delete Callouts** then press the **Select** key.

Locking and Unlocking the Keypad 🔑

To prevent accidental activity during operation, you can lock the keypad. This will also prevent access to the radio's functions if the radio is stolen. When the keypad is locked, the 🔑 Key icon appears in the status line.

The keypad can be locked manually or set to lock automatically after a period of inactivity.

> ✏️ **Note:** If customised, your radio's keypad can be locked when an accessory is attached.

Receiving Calls with Locked Keypad

If you receive a telephone call when the keypad is locked your radio can be customised so that the **Select/Send** key can still be pressed to answer it. If the call is accepted the whole keypad is unlocked. Your radio can also be customised so that you can press the **Cancel/Home** key to reject the call and in this case the keypad remains locked.

Navi-knob with Locked Keypad

Your radio may be customised so that the Navi-knob is locked when the keypad is locked. In this case you cannot alter the volume by rotating the Navi-knob.

Your radio can also be customised so that the Navi-knob remains unlocked and in this case it can be used for volume control only while the keypad is locked.

Side Button Soft Keys with Locked Keypad

Your radio may be customised so that the side button soft keys (A,B and C) are locked when the keypad is locked. In this case you cannot activate any programmed features by pressing the buttons.

Your radio can also be customised so that the side button soft keys (A,B and C) remain unlocked and in this case they can be used to activate any programmed features while the keypad is locked.

Ultra CSM Rotary Control with Locked Keypad

Your radio may be customised so that the rotary control on a connected Ultra CSM is locked when the keypad is locked. In this case you cannot change talkgroup by rotating the control.

Your radio can also be customised so that the rotary control remains unlocked and in this case it can be used to change talkgroup while the keypad is locked.

To lock/unlock the keypad:

Press the designated soft key, then press the **OK** context key to lock/unlock the keypad.

To quickly lock and unlock the keypad, press and hold (2 seconds) the designated soft key.

If you press any other key while the keypad is locked no action is taken. The Navi-knob remains unlocked when the keypad lock is enabled. A message is displayed to remind you that the keypad is locked.

Alternatively, you can:

1. Select **Menu > Options > Settings > Keypad Lock**.
2. Press **Lock** to lock the keypad.

Setting the Radio to Automatically Lock the Keypad

You can set the radio to automatically lock the keypad after a period of inactivity.

1. Select **Menu > Options > Settings > Timed Keypad Lock**.
2. Press **Toggle** to enable/disable auto keypad lock.

Home Screen

The top level screen, known as the **home screen**, appears when the radio powers on and when it is idle.

To quickly get back to the home Screen, press and hold (2 seconds) the Cancel/Home key.

The **status line**, at the top of the screen, displays various icons to indicate the state of operation or when certain functions such as keypad lock have been activated. It can also be configured to display the Network Name when the radio is idle.

The **context key labels** at the bottom of the screen indicate what the context key directly below the label is configured to do. These labels change according to where you are in the menu hierarchy.

① Status line showing the radio coverage signal strength, battery charge indicators, and operational status icons.

② Information area containing information that only appears on the Home screen. This is customised by your service provider or organisation. It may show date and time, your selected talkgroup, folder and network name (Mobile Network Code Alias).

③ Context key options (available in the Home screen).

Shortcut Bar

You can easily access commonly used radio features such as your Inbox, and turn features on and off using the **Shortcut Bar**. The Shortcut Bar can contain up to 5 radio features and some of these can be paired with notifications to alert you to a missed call or a new message in your Inbox.

To open the Shortcut Bar, in the Home screen press the Shortcut context key or the Up navigation key.

① Use the navigation keys to scroll through the notifications and features. Notifications always appear to the left of features. Press the Right navigation key to continue scrolling right to view more shortcuts (if available).

② To open a notification or feature, highlight it and press the Select context key.

③ Press the Back context key to close the Shortcut Bar without opening a feature. The Shortcut Bar cannot be closed if there are notifications.

Notifications

Like a Smartphone, your radio can display notifications to indicate a missed call or new message. They also appear when certain functions are enabled such as mute and transmit inhibit. Your radio can display up to 5 notifications, and up to 5 shortcuts for commonly used radio features.

Some features can be paired with notifications, such as your Inbox so when a message is received a notification appears in the Shortcut Bar to alert you to the unread message. When paired with a feature, the feature icon appears with a notification badge. Notifications paired with features appear to the left of all other feature icons.

The following notifications can be paired with a feature:

Icon	Notification	Paired Feature
	Unread message	Inbox
	Missed call	Call History
	Missed callout	Callout

To close a notification:

From the Home screen, press the **Shortcut** context key or the Up navigation key to open the Shortcut Bar, highlight the notification then press the **Select** context key. Use the feature in the usual way, for example, read an unread message or respond to a missed call. The notification automatically closes and disappears from the Shortcut Bar.

Menu

Your radio is customised by your service provider or organisation with a number of features that are accessed from the main menu.

- To open the main menu, in the Home screen press **Menu**.
- To open a sub-menu or menu option, scroll to the option (highlight it) and press **Select**.
- To return to a higher level menu, press **Back**.
- To return to the Home screen at any time within the menu hierarchy, press and hold (two seconds) the **Cancel/Home** key.

Menu Options

The following icons are used to identify the sub-menus that provide access to further options.

Icon	Menu Option
	Phone: Review your call history.
	Messages: Read, create, save and send text (SDS) messages. Select and send a status message. Clear your mailbox of unwanted messages.
	Groups: Search your talkgroup folders and select a talkgroup. Enable scanning of your selected talkgroups. Set up your speech call settings.
	GPS: Manage your GPS location and position settings. View your current location, direction and speed.
	Applications: Your radio may be customised with a number of applications such as Mandown and Lone Worker. Your service provider or organisation may have installed specific applications (Short Data Applications) to help you in your role. Access WAP sites.
	Networks: Manage your network connections and DMO options. Change your operating mode (TMO/DMO/Repeater). Enable/disable Transmit Inhibit mode when working in RF sensitive areas.
	Options: Manage your Bluetooth devices and settings. Personalise your radio settings such as backlight, text size and language. Reset your radio to the last customisation, with options to keep personal data settings. Enable Connector Protector when working in salt laden environments to protect your radio.
	User Profiles: Select customised profiles designed specifically for the way you work.
	Help: View help, such as a list of customised soft keys on your radio.

SmartMenus

SmartMenus are designed to provide quick access to regularly used radio features, usually with a common theme. Your service provider or organisation may customise your radio with a number of SmartMenus, for example you may have a SmartMenu containing all your Quick Status messages, another for user profiles and another for selecting operational modes such as toggling on/off covert mode, Transmit Inhibit, loudspeaker mute and so on.

SmartMenus are assigned to a Side soft key. To open a SmartMenu, press the Side key.
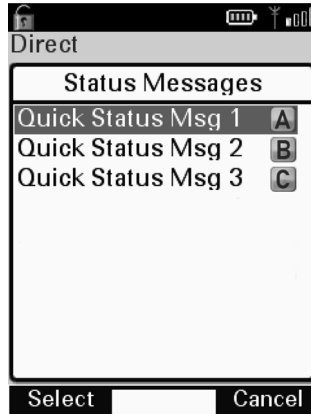
Use the navigation keys to scroll the list of options on the SmartMenu. Options are labelled with a letter, shown to the right of the option. To select the option, press the side key that corresponds to the letter of the option, for example to select option C, press the C side key. Note that using this method only options A to C can be selected using the side keys. For options beyond this range, scroll to the option (highlight it), and press **Select**.

Help

The Help menu displays a free text area which is usually customised to indicate radio soft key assignments. It may also be used to record any required help text.

To access help:

Use one of the following:

- Press the Up navigation key (or Shortcut) to open the Shortcut Bar, then select **Help**.
- Press a dedicated soft key.
- Press **Menu > Help**.

Emergency Operation

Emergency operation is available in TMO if the radio is in service. If your radio is operating in DMO when you make the emergency call, the radio switches to TMO before making the emergency call. If the radio cannot make the call in TMO, the radio automatically switches back to DMO to make the call. If your radio is customised for Gateway and Repeater mode, it will make an Alarm call in TMO.

The red button on the top of your console can be programmed to initiate an Alarm call at any time when your radio is in operation. This button is known as the **Emergency Button**.

Your radio may be customised to perform one or more of the following:

- Initiate an Alarm call set up to one or more pre-defined users (typically to your dispatcher and other members of your talkgroup) and/or;
- Send an Emergency Status message to an individual, the dispatcher or a talkgroup and/or;
- Send a position report (GPS dependent).

If you are working in RF sensitive areas and have enabled Transmit Inhibit, prohibiting radio transmission, initiating an Alarm call will override the Transmit Inhibit feature and the Alarm call will be transmitted.

Your service provider or organisation can provide information on how your radio is customised for Alarm calls and how to operate your radio in emergency situations. If you are working in a sensitive environment your radio may be customised for Silent Alarm calls where audible and display alerts are disabled, or your radio may be customised for Live Microphone that allows you to call for assistance hands-free without pressing the PTT button.

Silent Alarm Call

If you are working in sensitive environments where the audible and display alerts associated with an Alarm call are inappropriate, your radio can be customised to make a Silent Alarm call (without acoustic or screen alerts). Silent Alarm calls cannot be activated when operating in Lone Worker or Man Down modes.

When a Silent Alarm call is made, the radio displays the Home screen with the talkgroup associated with call. During the call you may navigate away from the Home screen.

Live Microphone Feature

Your radio may be customised with the Live Microphone feature. This feature allows you to broadcast a call for assistance hands-free for a specified period of time and without having to press the PTT button. The radio automatically cycles between transmit and receive communication during a programmed period of time (seconds). Live Microphone is cancelled when the time expires or by pressing the PTT button.

Making an Alarm Call

You can still make an Alarm call if the keypad is locked.

To make an Alarm call:

1. Press and hold (2 seconds) the Emergency button; a confirmation beep sounds.
2. Release the button and speak into the microphone.

During an Alarm call:

- the microphone is 'live' for a programmed period (seconds) allowing you to speak hands-free without pressing the PTT button (customisable)
- the LED illuminates solid red
- your radio sounds audible tones
- a large emergency symbol appears on the screen
- your identity and talkgroup appears on the display of those receiving the Alarm call

Receiving an Alarm Call

An Alarm call overrides any existing calls on the talkgroup. You know you are receiving an Alarm call when:

- your radio sounds an audible tone
- the LED flashes red
- the emergency symbol appears on the screen
- your radio status changes to **Emergency**

Clearing an Alarm Call

You can only clear an Alarm call that you have initiated.

To cancel the Alarm call, press the **Clear** context key.

To cancel the Alarm call, press the **Call Clear** key, the **Clear** context key or the **Cancel/Home** key. Alternatively, your radio may be customised to use the Emergency button to cancel the Alarm call.

Depending on which network is being used, if the TETRA Alarm call is a group call, then—although both of the TETRA Alarm call exit functions will clear the TETRA Alarm call on the call originator's radio—it will not remove the alarm from the system. Radios alerted to the emergency may, depending upon the infrastructure configuration, remain in the TETRA Alarm call condition until the dispatcher clears the call from the system.

When the Alarm call is cancelled, your radio returns to the talkgroup that was selected before the call was initiated.

Power on Alarm Call

Standard Operation

If your radio is powered off, press and hold (3 seconds) the Emergency button to power on and initiate an Alarm call. Any customised Welcome screen is not displayed during power on. It may take several seconds for the radio to complete its power on process before initiating the Alarm call.

Customised Operation (PIN entry bypass)

If your radio is powered off, press and hold (3 seconds) the Emergency button to power on and initiate an Alarm call. Any customised Welcome screen is not displayed during power on. It may take several seconds for the radio to complete its power on process before initiating the Alarm call.

If the radio is powered on and is at the PIN entry screen, pressing the Emergency button for 3 seconds will also initiate the Alarm call, without the need to enter your PIN.

Sound

Your radio is equipped with a loudspeaker for use during PTT calls and an earpiece for use during telephone calls. You can adjust the volume of the speaker and increase the sensitivity of the microphone (see Whisper mode on the next page) so that you can speak more quietly. Your radio also uses sound to alert you to the various operational states.

Adjusting the Volume

Rotate the Navi-knob to adjust the volume. A vertical volume meter displays to indicate the current volume level. The radio sounds an audible tone at the new volume level.

> **Note:** Depending on customisation, the volume adjustment audible tone may be disabled.

Adjusting the volume of an audio accessory is achieved using Accessory Profiles. See "Accessory Profiles" on Page 62.

When the radio is started, the volume will be set at the last adjusted level, unless the radio has been customised to switch on at a predefined level.

Loudspeaker on/off

A soft key may be customised to toggle the speaker on and off. Alternatively:

1. Select **Menu > Options > Settings > Loudspeaker ON/OFF**.
2. Press **Toggle** or press the **Select/Send** key.

Muting all Audio

A soft key may be customised to simultaneously mute the audio output of the radio loudspeaker and any connected accessories and earpieces. Pressing the same soft key again toggles the audio back on at the previously adjusted volume level.

Loudspeaker high/low audio mode

A soft key may be customised to toggle the audio output between the radio's speaker (high audio mode) and earpiece (low audio mode) as required.

An icon is displayed on the status line to indicate the current mode:

Icon	Notification
H	High audio mode
L	Low audio mode

When the radio is in the loudspeaker high/low audio mode:

- If an RSM is connected, audio is routed to the RSM speaker in high audio mode and to the radio's earpiece in low audio mode.
- If an earpiece accessory is connected, audio is routed to the accessory in both modes.
- When the radio is inserted in a car kit cradle, audio is routed to the car kit speaker in high audio mode and to the handset earpiece in low audio mode.
- During incoming or outgoing emergency calls, audio is always routed to the radio's speaker.
- A full duplex call is always routed to the radio's earpiece.

Whisper Mode

Whisper mode allows you to talk more quietly than normal but still be heard and understood by the person you are calling. It can be useful to switch to Whisper mode when providing confidential information.

If you select a User Profile which already increases the sensitivity of the microphone, depending on your radio's customisation Whisper mode may not increase the sensitivity further.

To enable Whisper mode:

Depending on customisation, to enable Whisper mode, you can:

- press a programmed soft key
- rotate the Navi-knob to decrease the volume to below its lowest level

The radio sounds a low-high level alert when Whisper mode is enabled.

To disable Whisper mode:

Depending on customisation, to disable Whisper mode, you can:

- press a programmed soft key
- increase the volume until the volume level meter displays at least the minimum level
- increase the volume to its loudest level then attempt to increase the volume further

The radio sounds a low-high level alert when Whisper mode is disabled.

Audible Tone Alerts

Certain events on your radio initiate audible tone alerts. These alerts are attenuated when you select a user profile which uses covert mode (see "User Profiles" on Page 52).

To toggle audible alerts:

1. Select **Menu > Options > Alerts > Audio Alerts**.
2. Press **Toggle** (or the **Select/Send** key) to toggle alerts on/off.

If your radio is powered off with Audio Alerts disabled, they remain disabled when the radio is next powered on.

Vibration Alerts (Haptics)

Your radio can provide vibration alerts and haptic feedback to help you recognise certain events, such as when a key is pressed, for example in a dark environment, or when you are wearing gloves.

To toggle vibration alerts:

1. Select **Menu > Options > Alerts > Vibrator Alerts**.
2. Select one or more of the following options:
   - **Vibrator (Voice) -** vibrate on incoming individual half-duplex or full-duplex calls
   - **Vibrator (Data) -** vibrate on incoming SDS or Status messages
   - **Vibrator (Alarm Key) -** vibrate when Emergency Button is pressed
   - **Vibrator (Key Press) -** vibrate when any key (except Emergency Button and PTT) is pressed
3. Press **Toggle** or the **Send/Select** key to enable/disable it as required.
4. To return to the Display Settings menu press **Back** or the **Cancel/Home** key.

To stop the radio vibrating when a voice call is received, press a Context key or the **Select/Send** or **Cancel/Home** key.

Personalising your Radio

You can personalise your display settings (such as text size, backlight, inverting the screen and change languages).

Invert the Display

When you are wearing the radio on your shoulder, attached to a belt or to a body vest, you may want to flip the display upside down to make it easier to read. The Invert Display option rotates all screen elements by 180 degrees.

This feature is commonly assigned to a soft key or SmartMenu.

To invert the display:

1. Select **Menu > Options > Settings > Display Settings > Invert Display**.
2. Press the **Toggle** context key. When a tick appears in the check box, the display is flipped, and when the check box is empty the display is set to normal.

When the display is inverted, the navigation keys work in opposite to their normal function. Press the Up key to scroll **down** and the Down key to scroll **up**. The Right key to scroll **left** and the Left key to scroll **right**.

Adjusting the Backlight

When a call or message is received, and when you press any key, the backlight lights up the display and keypad. The length of time the backlight illuminates is set during customisation.

To adjust the backlight:

You can toggle the backlight on/off by using a soft key or from "SmartMenus" on Page 20 (if customised).

Alternatively:

1. Select **Menu > Options > Settings > Display Settings > Backlight**.
2. Press the **Toggle** context key.

To adjust brightness:

1. Select **Menu > Options > Settings > Display Settings > Day/Night Mode**.
2. Select **Backlight Level**.
3. Rotate the **Navi-knob** to adjust the intensity of the backlight and the keypad illumination on a scale of 1–7 (max.).

Day/Night Mode

When a call or message is received, and when you press any key, the backlight lights up the display and keypad. A bright display can be a potential distraction, particularly when driving at night or in poor lighting conditions. Day/Night mode lets you adjust the intensity of the backlight and keypad illumination to suit your working conditions. Night mode reduces the glare from the display, making it ideally suited for night time use.

When the preferences for day and night mode have been set, switching between the modes automatically adjusts the backlight and display settings.

A soft key may be customised to switch between Day/Night mode.

To change Day/Night mode settings:

1. Select **Menu > Options > Settings > Display Settings > Day/Night Mode**.

2. Scroll to each option (highlight it) to make your adjustments:
   - **Day Mode -** to toggle between Day Mode and Night Mode press the **Toggle** context key.
   - **Backlight Enabled -** to toggle the backlight on/off press the Toggle context key. When a tick appears in the box, the backlight is on, and when the box is empty, the backlight is off.
   - **Backlight Level -** to adjust the intensity of the backlight and the key pad illumination on a scale of 1 to 7.

Adjusting Text and Icon Size

Your radio uses the default size for the text and icons set during customisation, however it also supports a number of different size modes that control how text and icons are displayed, which can make them easier to see from a distance.

> **Note:** When selecting larger modes, some prompts or icons may not appear on the radio display.

Your radio supports the following modes:

Normal Mode allows the maximum amount of information available to be displayed in a compact character size.

Large Mode displays screen information in a large character size.

Very Large Mode displays the talkgroup number or talkgroup name, as customised, in an extra large size on the Home screen with all other screens in Large mode.

Custom displays the Home screen, menu and WAP browser in predefined text sizes set during customisation. Only the Home screen supports Very Large mode, with other screens set to either Normal or Large mode.

> **Note:** Depending on the customisation of the Home screen, if the date is shown on the Home screen it may be truncated in Very Large Mode. If the date format YYYY. MM.DD is used, then the day does not display.

To change text mode:
1. Select **Menu > Options > Settings > Display Settings > Text Size**.
2. Use the **Up** and **Down** Navigation keys to highlight the mode and then press the **Select** context key.

The radio displays the Home screen, with the text and icons appearing in the chosen mode.

Default Text Mode

Your radio may be customised with a pre-configured default text mode set. When the radio is powered on or restarted, the display reverts to the default text mode size.

> **Note:** If the radio has been configured to change to large mode when fitted to a car kit, the display will not revert to the default text mode.

Setting the Display Language

Your radio operates in the language chosen during customisation and can support two display languages. The display uses the default language if the radio is only customised for a single language, or the currently selected language if two languages are programmed.

Your radio may be customised with a soft key or provide an option on a SmartMenu to change the display language. See "SmartMenus" on Page 20.

To change the language:

1. Select **Menu > Options > Settings > Language**.

2. Scroll to the language option, and then press the **Select** context key.

The Home screen appears and the display shows the selected language.

Menu Style

You can display the menu in Grid, List or Compatibility style.

1. Select **Menu > Options > Settings > Display Settings > Menu Style**.

2. Select one option:

   • **Grid**—set **Grid** menu style

   • **List**—set **List** menu style

   • **Card**—set **Card** (Compatibility) menu style

Grid Style

• Highlight items using the four navigation keys

• To open an item press **Select**

• To return to the top level screen press **Cancel** or **Cancel/Home** key
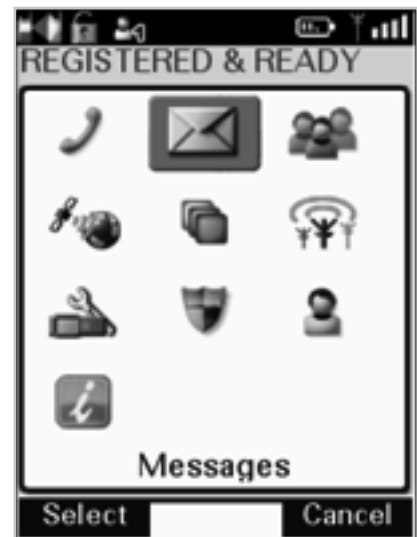
List Style

- Highlight items using the **Down** and **Up** navigation keys.
- To open an item press **Select**
- To return to the top level screen press **Cancel** or the **Cancel/Home** key.

Compatibility Style (card)

- Highlight items using the **Left** and **Right** navigation keys
- To open an item press **Select**
- To return to the top level screen press **Cancel** or **Cancel/Home** key.
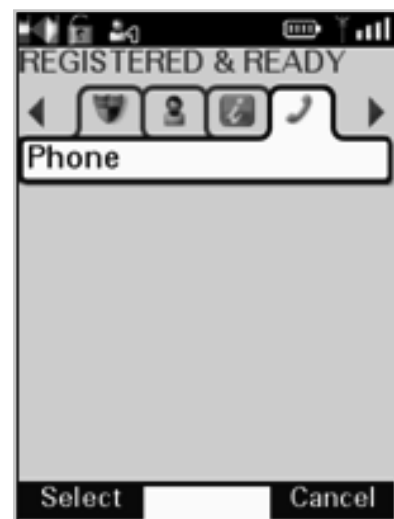
Time and Date

Your radio can be customised to display the current time and date on the Home screen. The time is shown in 24 hour format.

To view and edit the time and date:

1. Select **Menu > Options > Settings > Time and Date**.
2. Press **Edit** or press the **Select/Send** key.
3. Enter the digits required ("Text Entry" on Page 39).
4. Press **OK** or the **Select/Send** key to save your changes; press **Cancel** or the **Cancel/Home** key to abandon your changes.

Talkgroups and Folders

Talkgroups are pre-programmed onto your radio. Each talkgroup typically contains users who have a similar role or who are within a distinct location or who provide a service that you would use. They are organised into folders to help you quickly select one that is applicable to your environment or situation.

A folder can contain both DMO and TMO talkgroups, but only those talkgroups applicable to the current operating mode, either DMO or TMO, appear when a folder is opened. In TMO, only those talkgroups available on the current network are displayed. The folders available depend on the customisation of your radio; various 'special' folders are also programmed into your radio (see Special folders below).

> **Note:** If you want to change from a DMO talkgroup to a TMO one, you need to change the operating mode first (see "Operating Modes" on Page 49).

When you select a talkgroup, the radio attaches to that talkgroup. Your radio can only participate in calls with talkgroups it is attached to via the network. When ongoing calls are detected on any talkgroup your radio is scanning you can join in by pressing the PTT.

Your radio may be customised so that folders can have a subscriber class attribute. The radio will then use cells with a matching subscriber class if a talkgroup is selected from the folder.

When the radio is attached to a talkgroup, the talkgroup and folder appear on the Home screen (see "Home Screen" on Page 17). If a talkgroup and folder are not shown:

- the radio may not have attached to the last used talkgroup at power on, or
- it was attached to a DGNA talkgroup which has been deassigned, or
- a change of network may have occurred and the last used talkgroup may not be usable on the current network.

When your radio is powered on, if possible it re-selects either the default talkgroup or connects to your last selected talkgroup.

Special Folders

In addition to the 'standard' folders created to contain your talkgroups, your radio can be customised with Special folders. Special folders can only contain talkgroups (they cannot contain folders). Some Special folders are continuously scanned, and when ongoing calls are detected you can join in by pressing the PTT.

The following special folders may be programmed into your radio during customisation:

- All—contains every talkgroup programmed into your radio including those in special folders. Only available on radios customised for Talkgroup Selection mode.
- DGNA—contains up to 50 dynamically assigned groups. The contents are automatically maintained by the radio and are not customisable in Talkgroup Selection Mode. You can select a DGNA talkgroup. In Folder Selection Mode, the scan state (scanning enabled or disabled) of a talkgroup can be changed and the folder can be emptied using the **Folder Restore** option.

Talkgroup Selection Mode

When the radio is customised for Talkgroup Selection Mode, the selected talkgroup becomes the requested talkgroup to which you make calls.

Selecting a Talkgroup

You can use one of the following methods to select a talkgroup:

- From the Home screen, press **Groups**.
- From the **Menu** navigate to the **Groups** menu.
- Use a soft key to return to your Quick Group.

Standard Talkgroup Selection

1. From the Home Screen, press the **Groups** key. The current selected folder and talkgroup appear in the talkgroup selection box.

2. If you want to change to another talkgroup within the same folder, simply enter the number of the talkgroup, or select the All Folder which contains all the talkgroups and enter the number of the talkgroup.

3. Use the **Left** and **Right** navigation keys to move between folders at the same level. Use the **Up** and **Down** navigation keys to move between the folder levels (sub-folders).

4. Rotate the **Navi-knob** to scroll through the talkgroups within the currently selected folder. The directional arrows under the talkgroup name indicate the rotational direction of the **Navi-knob**.

5. Press the **Select** context key to attach to the talkgroup.

Customised Talkgroup Selection

When the radio is customised to use the **Left** and **Right** navigation keys for talkgroup selection:

1. From the Home Screen, press the **Left** or **Right** navigation keys. The current selected folder and previous/next talkgroup folders appear in the talkgroup selection box. If customised you can scroll through the talkgroups continuously.

2. Use the **Navi-knob** to move between the folder levels (sub-folders).

3. Press the **Select** context key to attach to the talkgroup.
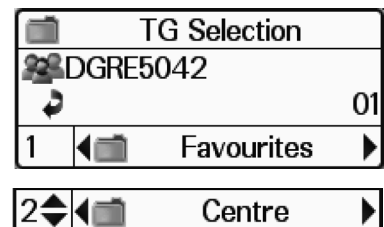
Opening a Folder

1. Select **Menu > Groups > Folders**.
2. Highlight a folder and press **Open**.

To navigate back 'up' the folders list, press **Back**.

Inserting a Talkgroup into a Folder

If a folder is editable you can use the **Insert** option to insert a talkgroup into it.

Deleting a Talkgroup from a Folder

If a folder is editable you can use the **Delete** option to remove a talkgroup from it. The talkgroup can still be selected from the All folder if customised, or by entering the talkgroup number directly in the Talkgroup Selection box.

Quick Groups

You can quickly change to a different talkgroup by pressing a customised **Quick Group** soft key specified for that talkgroup.

To select the Quick Group talkgroup:

Press the customised **Quick Group** soft key. Alternatively, view the Quick Group using the menu then press **Select**.

To view your Quick Groups:

You can view the talkgroups and folders associated with your assigned Quick Groups.

1. Select **Menu > Groups > Quick Groups**.
2. Use the **Up** and **Down** navigation keys to highlight a Quick Group then press **Select**.

To change the talkgroup associated with a Quick Group:

Your radio can be customised to allow you to change the talkgroup associated with a Quick Group.

These changes may be overwritten when your radio is reprogrammed.

Select and view a Quick Group (described in **To view your Quick Groups** above) then:

- Select **Options > Change > Current**.

Your current talkgroup is now associated with the selected Quick Group.

Opening the Current Folder

Use one of the following methods to open the current folder:

- From the Home screen, press **Groups** and depending on the customisation of your radio, either the current selected folder opens displaying all talkgroups within the folder, or the Talkgroup Selection box opens displaying the selected talkgroup and folder.
- From the **Menu** select **Groups > Folders** to open the current selected folder.

Selecting a Folder

Use one of the following methods to select the current folder:

- From the Home screen, press **Menu** then select **Groups > Folders** to display the current selected folder containing the selected talkgroup.
- From the Home screen, press **Groups**. Depending on the customisation of your radio, either the current selected folder opens displaying all talkgroups within the folder, or the Talkgroup Selection box opens displaying the selected talkgroup and folder.

Additionally, you can select a folder by pressing a soft key to select a Quick Folder.

You cannot select the **DGNA** folder as your selected folder.

A talkgroup within the folder must be selected before you can make calls. See "Selecting a Talkgroup" on Page 32.

To select a folder using the folder list:

1. From the Home screen, press **Menu**, then select **Groups > Folders** to open the current folder.
2. Press **Back** to navigate back 'up' the folders list.
3. Scroll to the folder (highlight it) and press **Options**, then scroll to the **Select** option and press **Select**.

Only talkgroups which are valid for the current network are listed in the folder.
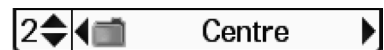
To select a folder and talkgroup using the Talkgroup Selection box:

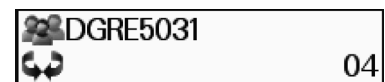1. From the Home screen, press **Groups**. The current selected folder and talkgroup are displayed in the Talkgroup Selection box. Note that the selected talkgroup appears in bold typeface and an icon indicating the scanning priority and whether or not the talkgroup is scan-enabled (no icon appears for DMO talkgroups).

2. Use the **Left** and **Right** navigation keys to move between folders at the same level. Use the **Up** and **Down** navigation keys to move between the folder levels (sub-folders).

3. Rotate the **Navi-knob** to scroll through the talkgroups within the currently selected folder. The directional arrows under the talkgroup name indicate the rotational direction of the **Navi-knob**.

4. Press **Select** to select the folder and attach to the talkgroup.

Selecting a Talkgroup

The selected talkgroup within each folder only becomes your requested talkgroup when the folder is selected. Depending on the customisation of your radio, you will use one of the following methods to change the talkgroup.

You can only select a talkgroup that is editable.
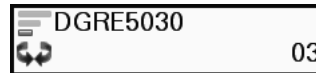
To select a talkgroup from the folder:

1. From the **Home** screen, press **Groups** to open the current folder. The selected talkgroup within the folder is indicated by the ⊙ icon.

2. Scroll to the talkgroup you want as your requested talkgroup and press **Select**. Selection is indicated by the ⊙ icon.
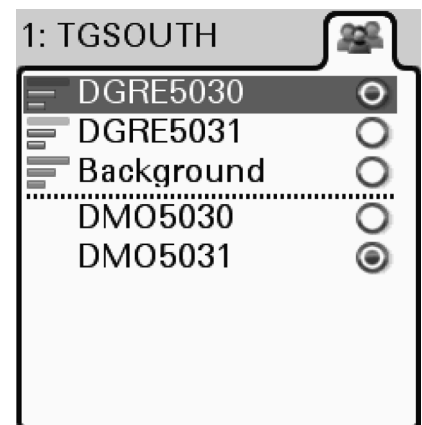
To select a talkgroup using the Talkgroup Selection box:

1. From the **Home** screen, press **Groups**. The selected talkgroup and folder appear in the Talkgroup Selection box. The current talkgroup appears in bold typeface.

2. Rotate the **Navi-knob** to scroll through the talkgroups within the currently selected folder. The directional arrows under the talkgroup name indicate the rotational direction of the **Navi-knob**.

3. Press **Select** to attach to the talkgroup. The talkgroup appears in bold typeface. If you have selected a TMO talkgroup, an icon appears to the left of the talkgroup name indicating the scanning priority and whether or not the talkgroup is scan-enabled (no icon appears for DMO talkgroups).
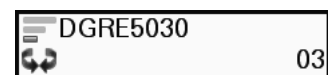
Delete a Talkgroup

You can only delete a talkgroup from a folder if the folder is editable.

1. Select the talkgroup (highlight it) and press **Options**.

2. Scroll to the **Delete** option and press **Select**.

3. Press **OK** to delete the talkgroup from the folder.

Scanning Talkgroups

Only the currently selected talkgroup can be scanned.

To scan a talkgroup:

1. From the Home screen, press **Menu** then select **Groups > Folders** to open the current folder. If you want to open another folder, press **Back** to navigate 'up' the folder list, select the folder and press **Open**.

2. Select the talkgroup you want to scan and press **Options**, then select the **Scanned** option and press **Select**. The scanning ⟳ icon appears in the right-hand corner of the scan priority icon.

To stop scanning a talkgroup, select the talkgroup and press **Options**, scroll to the **Not Scanned** option and press **Select**.

Restore Folders

The selected folder or all folders can be restored to their original settings.

When you restore a folder or all the folders, the following occurs:

- any talkgroups added to a folder will be removed,
- any deleted talkgroups will be restored,
- talkgroup properties are restored, and
- the selected talkgroup for each mode (TMO and DMO) is reset.

To restore a folder:

1. Select the folder and press **Options**.

2. Scroll to the Restore Defaults option and press **Select** and then select the **Restore Folder Defs.** and press **Select**.

To restore all folders:

When all the folders are restored, the **DGNA** folder is emptied of talkgroups, and the radio will reboot on completion of restoring the folders.

1. From the folder list press **Options**, then scroll to the **Restore Defaults** option and press **Select**.

2. Scroll to the **Restore All Defaults** option and press **Select**. Press **Select** to confirm the request to reset all folders.

Viewing Attached Groups

You can quickly view all the talkgroups that the radio is currently attached to (scanning). Only those talkgroups in the generic, Background, DGNA folders are displayed.

1. From the Home screen, press **Menu** then select **Groups > Folders** to open the current folder. Press **Back** to navigate back 'up' the folder list.

2. With the folder selected (highlighted) press **Options**, then select the **Attached Groups** option and press **Select**.

Use the **Up** and **Down** navigation keys to scroll through the list of attached talkgroups.

Scanning ON/OFF

Scanning of talkgroups (those that are always scanned or are background talkgroups) in the current selected folder can be enabled and disabled. If scanning is disabled, the radio will ignore incoming calls on these talkgroups. Your current talkgroup is always scanned.

1. Select **Menu > Groups > Scanning ON/OFF**.

2. Press **Toggle** (or the **Select/Send** key) to enable/disable scanning.

Calls

The various types of voice and data calls that are supported by your radio, and the acoustic and visual alerts that accompany a call, depend on your radio's customisation.

Call Types

Sepura radios support the following voice- and data call types:

Voice Call Types

Voice call type	Description
Group	A call between you and a group of other radio users in your attached talkgroup. A group call is always a half-duplex call. Users can join and leave the call at any time. Group calls are initiated by pressing the PTT button. See "Talkgroups and Folders" on Page 29.
Individual	A call to another user or dispatcher in the TETRA network. Only full-duplex calls are supported. A full-duplex call is one in which both parties can speak at the same time. The Select/Send and Cancel\Home keys are used to initiate and end calls. Calls can only be initiated from the current call history list.
PBX	A call to a user on a private branch exchange (PBX). This call needs to be set up by your service provider and allows you to call a person if they are in the current call history list.
PSTN	A call to a user on a the public switched telephone network (PSTN). Calls can only be initiated from the current call history list.
Transmit Only	A customised type of group call, where a call you make on a transmit-only talk group can only be received by an authorised dispatcher. Other users in the group cannot listen to the call.
Alarm Call	The Alarm Call has the highest call priority in TETRA. Usually initiated by pressing the Emergency Button. Alerts all other radio users on the talkgroup of the emergency situation.

Data Call Types

Data call type	Description
Status Message	A Status message may have 65536 possible status values. Of these, value 0 is defined to mean 'Emergency,' values 1–32767 are reserved, and values 32768–65535 are available for network or user-specific definition.
SDS Message	A user-defined message that can be sent by individuals and received by individuals and talkgroups.

Group Calls

Group (**point-to-multipoint**) calls are calls where you talk to other users within a nominated group of radio users (a talkgroup). In a group call only one person can talk at any one time (known as **half-duplex** mode).

During group calls the microphone at the top of your radio is active and all received audio is routed to the loudspeaker.

Making a Group Call

1. Press and hold the **PTT** button and speak into the top microphone.

   The LED changes to solid red to indicate that your radio is transmitting, and an audible tone is heard and your radio status text changes to 'Talk'.

2. When you have finished talking, release the **PTT** button and listen to audio received, through the loudspeaker.

   The LED changes to solid green whilst the group call is active and your radio status text changes to 'Group Call'.

3. When you have finished your call, press the **Clear** context key.

   You can also clear the group call by pressing:
   - **Clear Call** soft key (if customised)
   - **Cancel/Home** key

Receiving a Group Call

When a group call is received, your radio status changes to 'Group Call'. The name of the talkgroup, talkgroup folder and the caller's ID are displayed.

Individual Calls

Individual calls (point-to-point) are private calls between you and one other person. You can make individual 'phone' calls (full-duplex mode)—where both parties can talk simultaneously. Use the Select/Send and Cancel/Home keys to initiate and end the call.

During phone calls the bottom microphone (behind the keypad) and the earpiece are active, allowing you to hold your radio against your head like a telephone handset or a GSM telephone.

When an individual call is received, your radio sounds an audible alert and displays the identity of the caller (if the contact is stored in your phone book) or the ISSI of the caller.

Privacy Mode ⊖

You can press a customised Privacy Mode soft key before dialling or during a call to prevent interruptions from other calls during important or sensitive call. When you have Privacy Mode enabled, calls made to your radio are marked as missed calls (see "Call History" on Page 18).

Making Individual Phone Calls (Full-Duplex Mode)

Calling a contact:

1. Select **Menu > Phone > Call History** to open the list of recent contacts.
2. Select a call in the call history list. Press the **Open** context key, then choose the phone number.
3. To initiate the 'phone' call press the **Dial** context key.
4. To end the call, press the **Clear** context key or the **Cancel/Home** key.

If your radio has been customised with a single dial mode for TETRA, PBX and PSTN numbers, the dial mode icon cannot be changed.

Hands-free mode

If you are using a full-duplex audio accessory, simply press the **Select/Send** key and continue fully hands free.

Receiving a Phone Call

When an incoming phone call is received, your radio sounds an audible alert and displays the identity of the caller (if the contact or number is stored in your phone book).

1. Press the **Accept** context key or the **Select/Send** key to answer the call. Press the **Reject** context key or the Cancel/Home key to reject the call.

2. To end the call, press the **Clear** context key or the **Cancel/Home** key.

Your radio can be customised to answer calls automatically after a set time period, exactly as if the **Accept** context key or the **Select/Send** key had been pressed. If the time period is set to zero the call may be answered before any alerts are audible.

Broadcast Calls 📢

Sometimes it may be necessary for your Dispatcher to make a high-priority broadcast (also known as a Site Wide Call) to all network users. These calls take priority over any lower priority on-going calls, and you cannot respond to them: pressing the PTT key has no effect during a broadcast call.

During a broadcast call the display changes to 'Broadcast Call' and the Broadcast Call 📢 icon is displayed.

Speech Call Settings

The Speech Call Settings option is not available if your radio is in "Transmit Inhibit" on Page 47.

1. Select **Menu > Groups > Speech Call Settings**.
2. Select one of the options.

Modifying your Call Setup

Under certain circumstances, the type of a call which is being initiated by your radio may be modified by the network or by the recipient of the call. For example, you might make a group call, but the actual call being established might be converted to an individual call to a dispatcher.

This feature is typically used by network administrators to provide centralised control over certain services (e.g. customising all the radios so that Alarm Calls are all the same type and destination, allowing the network to decide what type of call is made and the destination whenever an Alarm Call is initiated).

When your call is modified you are alerted with specific visual and acoustic alert indications, to make you aware that a new type of call is being connected. The call continues as per any normal call of the new type, and the icons and information elements displayed inform you about the type of the ongoing call.

Once the call is established, the characteristics of the new call are the same as those of any call of that type. For example, if the new call is half-duplex, you need to press PTT before starting to speak, releasing the PTT allows other parties to take the speech item, and the top microphone and half-duplex loudspeakers are used.

When a radio is worn attached to your body, a half-duplex to full-duplex call modification can be difficult to handle (since the latter is a telephone-type call). To overcome this, your radio can treat the full-duplex calls (resulting from a half-duplex call modification) as if they are half-duplex calls, i.e. using PTT before speaking and releasing it to hear the other party. (See "Making Individual Phone Calls (Full-Duplex Mode)" on Page 35.

Changing the Behaviour of the PTT during TMO Group Calls

Your radio may be customised to allow you to talk back on your TMO selected group even if you are currently receiving a group call from another talkgroup being scanned by your radio.

When enabled, pressing the PTT when in a received group call will start a new call on the radio's selected talkgroup, allowing you to participate in that call whilst monitoring your current scanlist activity.

There are two options:

- **To selected group** - when the PTT is pressed in a received group call to a scanned group (not the selected talkgroup), the radio leaves the existing call and starts a new call to the scanned talkgroup.

- **To received group** - when the PTT is pressed during a received group call, the radio transmits in the current call.

If the PTT behaviour to set to the '**to selected group**' option, and the radio is in a group call from a scanned talkgroup that is not the currently selected talkgroup, an icon appears in the Call Information Box. When the radio leaves the scanned group, to start a call to the selected talkgroup, the icon is not displayed.

The behaviour of the PTT button can be set for all group calls using the **PTT Behaviour** option available from the **Options** menu. Alternatively, you can override the default setting during a group call by pressing the **PTT** context key (which toggles the two options) and select the PTT behaviour that allows you to respond to the call. Your radio provides a notification message to show the change of PTT behaviour (either '**to selected group**' or '**to received group**'). When the call is terminated, the behaviour of the PTT button reverts to that selected using the menu option.

If your radio is operating in Gateway mode, the radio can only respond to group calls in the selected talkgroup (to selected group).

To set the PTT behaviour using the menu:

1. Select **Menu > Options > Settings > PTT Behaviour**.
2. Select the PTT behaviour (**To received group** or **To selected group**), then press the **Select** context key.

To change the PTT behaviour during a group call:

1. When the group call is in progress, press the **PTT** context key. Select the PTT behaviour and press the **Select** context key.

Alternatively, you can change the PTT behaviour during a group call by pressing the **Options** context key, then selecting the **PTT Behaviour** option. Press the **Select** context key to change the behaviour of the PTT, for example if your default behaviour is set to the '**to selected group**' option, the option to change to the received group appears for selection.

Text Entry

Writing and editing text on your radio is similar to most Smartphones. **Text edit** mode is automatically activated when you select certain functions, such as creating a message or adding a contact to your phone book.

To enter characters:

Press the **Right** navigation key to display the Character Selection Box, turn the **Navi-knob** to highlight a character, then select **Insert** or press the **Select/Send** key to insert it.

When you have finished entering characters press the **Cancel/Home** key then press the **OK** context key to exit text edit mode.

To delete a character:

To delete the character to the left of the cursor press the **Left** navigation key.

To enter special characters:

To insert punctuation and special characters press the **Right** navigation key to display the Character Selection Box, then select the !.@ special characters set. Rotate the **Navi-knob** to highlight a symbol, then press the **Select/Send** key to insert it.

To change the character set:

Press the **Right** navigation key twice during text entry, turn the **Navi-knob** to highlight the required character set.

Cursor Movement

When you enter text the cursor advances automatically. You can also move the cursor character by character or to the start or end of a sentence using the navigation keys.

Cursor Movement	Description
Move one character at a time	Press the **Right** or **Left** navigation key.
Move to the start of a sentence	Press the **Up** navigation key.
Move to the end of a sentence	Press the **Down** navigation key.
Add a space	Press the **1** key.

Character Sets

You can use character sets to change the style of the text, and to enter numbers and special characters. The character set can be changed as often as required when entering text. The following character sets are supported:

Character Set	Description
Upper case (ABC)	All characters are entered in upper-case.
Lower case (abc)	All characters are entered in lower-case.
Numeric (123)	All characters are numbers.
Special characters(!.@)	You can select special characters such as full stops (.), semi-colon (;) and commas (,) by pressing the **0** key. Further special characters **#** @ ! " £ $ % & ' ( ) * + - are available on the # key.

The selected character set is indicated on the status line at the top of the display.

Messages

Your radio supports ![status icon] **status** messages, ![text icon] **text** (SDS) messages and ![picture icon] **picture** messages. All message types are available from the **Messages** menu.

Message Inbox

Incoming messages are displayed in the **Inbox** with the most recently received messages at the top. Unread messages appear in **Bold**. The Inbox can store up to 50 messages. When the Inbox is full, unsaved older messages are automatically deleted when new messages are received. If you want to keep a message, you must save it.

If your radio is configured to show messages in tabs, the most recent message appears on the last numbered tab, for example if there are five messages in your Inbox a new message will appear on tab number six. If you want to read older messages use the navigation keys to scroll through the message tabs. Unread message appear on black labelled tabs.

To keep the Inbox to a manageable size it is recommended that messages are deleted or saved after reading them. See "Saved Messages" on Page 43.

When a New Message Arrives

- the ![new message icon] **New Message** icon appears to show there is a new message in the Inbox
- the radio vibrates
- the tri-colour LED flashes amber
- the blue LED flashes periodically ('missed event')
- the display flashes periodically ('missed event')
- if specified in the message, the text of the message (SDS message) or image (Picture message) is displayed on the screen as soon as it is received

Top open the Inbox:

Choose one of the following methods:

- Press a customised soft key
- Open the Shortcut Bar (in the Home screen press the **Shortcut** context key or the **Up** navigation key) then navigate to the **Inbox** shortcut and press the **Select** context key.

Message Icons

Various icons are used to identify the type of message received:

Icon	Description
	Status message
	SDS message (unread)
	SDS message
	Broken message: there was a problem receiving the message. Its contents are lost or damaged.
	Saved Messages is nearly full to capacity [customisable]
	SDS message with Paging Alert (unread)
	SDS message with Paging Alert

Inbox Operations

You can perform a number of functions from the Inbox. With a message selected, press the Options context key to perform one of the following functions:

- Open the message
- View the message details (See **View message details** below.)
- Reply to the message (not picture messages)
- Forward the message to a contact (not picture messages)
- Save the message (See "Saved Messages" on Page 43).
- Delete the message

Opening Messages

To open a message:

1. Open your Inbox (see **To open the Inbox:** on the previous page).
2. Scroll to the message and then press the **Open** context key.

View Message Details

You can view the details of received messages.

To view message details:

1. Open your Inbox (see "Top open the Inbox:" on Page 40).
2. Select a message then use **Options > Details**.
3. To exit the Details screen press **Cancel**.
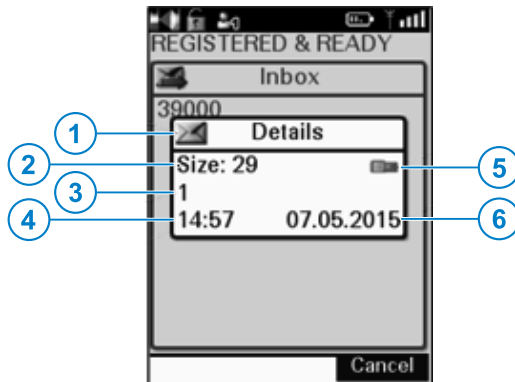
①	Message location (Inbox)
②	Size. **Note: this is a relative measure of the message size (not number of characters)**. You can use Size to decide which message(s) to delete if Saved Messages becomes full (see "Message Inbox" on Page 40)
③	Sender
④	Time received
⑤	Dial mode
⑥	Date received

Reply to a Message

To reply to a message:

1. From an open message, select **Reply**.
2. From Inbox, select a message then select **Options > Reply**.
3. Create your response (see "Text Entry" on Page 39).
4. When you have finished, press **Send**.
5. Select a recipient:

    (a)**Send to Default:** send to message sender.

    (b)**Send to Group:** send to your current talkgroup.

    (c)**Reply to Sender:** send to the message originator.

6. Press **Send**. Open a URL in a message.

Saved Messages

You can save up to 50 messages in your Saved messages folder. When the remaining space is insufficient to save a particular message, an error is displayed which indicates the amount of space required to store the current message. Delete one or more messages to clear some space for new ones to be saved.

Saved Messages can be lost if the radio is not correctly switched off when powering down (see "Power Off" on Page 16).

To save a message:

1. Open the message (or select it in the Inbox).
2. Select **Options > Save**.

A message indicating that the message has been stored is displayed.

To view saved messages:

Select **Menu > Messages > Saved Messages**. Use the navigation keys to scroll through the list of messages.

To delete saved messages:

1. View Saved Messages (see **To view saved messages:** above).
2. Select **Options > Delete**.
3. Select a delete option:
   • To delete the selected saved message select **Delete Message**
   • To delete all saved messages select **Delete All**

Create a Text Message

1. Select **Menu > Messages > Create Message**. An empty message box appears.
2. Enter your message text using the **Navi-knob** (see "Text Entry" on Page 39).
3. EITHER:
   • send the message immediately
   • save the updated message

To return to the top level menu screen, either wait for the inactivity timer to expire, or press and hold the **Cancel/Home** key, or press and hold the 'clear' soft key.

To send the message immediately

See "Sending Messages" on Page 44.

You can set an option to confirm that the message has been delivered, see "SDS Report Request" on Page 45.

To save the message

Select **Options > Save**.

To Edit a Saved Text Message

1. View Saved Messages and select the saved message.
2. Select **Options > Edit**.
3. Edit the message as required. (See "Text Entry" on Page 39).
4. EITHER:
   • send the message immediately
   • save the updated message

To send the message immediately

See **Sending messages** below.

To save the updated message

Select **Options > Save**.

Sending Messages

You can send text (SDS) and status messages to:

- the currently selected talkgroup
- the default destination customised in your radio (for example, the message sender)

For setting default destination see "Set Default Destination" on Page 45.

1. Choose one of the following methods:
   - Select a saved text message
   - Select a status message from the Send Status List
   - Create a text message
2. Select Send or **Options > Send**.
3. Select a destination (see below):

Send to default destination

Select **Send to Default** then select **Send**. The message is sent and the radio returns to the message screen.

Send to current talkgroup

1. Select **Send to Group**. The current talkgroup is shown.
2. Select **Send**.

Send a Status Message

To send a status message, choose one of the following methods:

Shortcut Bar

Press **Shortcut** to open the Shortcut Bar, then select **Quick Status** (if customised).

From the Home screen

1. In the Home screen, double-press the **Groups** key.
2. Press the **Left** and **Right** navigation keys to scroll through the status messages.
3. To send the message, press **Send**, then select **Send to default** (or choose another destination such as your talkgroup, contact in your phone book or dial the number).

Soft key (Quick Status message)

Press a soft key. Messages sent from soft keys are called **Quick Status messages**.

During a Group Call with the call dialogue screen displayed, you cannot send Quick Status messages using the **Select/Send key** or the Cancel/Home key. Instead, first press the **Down** navigation key to clear the call dialogue screen, or exit the call.

Menu

1. Select **Menu > Messages > Send Status**.
2. Use the **Up** and **Down** navigation keys to highlight the status and then select **Options > Send**.
3. **Select** a destination.

Edit Status Messages before Sending

You can edit the text label of a status message prior to sending it. When the message is edited, it is sent as a text message, rather than as a status message code.

With the status message selected, press **Options** and then select **Edit** . Enter your text before sending the message.

The **Edit** option is only available when you open a status message from the menu.

SDS Report Request

You can request a Delivery Report and/or a Read Report when you send an SDS (text) message. These cause a pop-up box to open when sent messages are successfully delivered and read respectively.

1. Select **Menu > Messages > SDS Report Status**.
2. Navigate to a report type and press **Toggle** to toggle the report on (ticked) and off.

Set Default Destination

You can enter and update the default destination address that your radio offers when you send a status or SDS message. This can be either a talkgroup or an individual.

1. Select **Menu > Messages > Status Destination**.
2. Select **Options** (or press the **Select/Send** key) then select **Edit**.
3. Select **Dial** to enter the required number directly from the radio keypad.
4. Press **Save** or the **Select/Send** key to save the number (or press **Cancel** or the **Cancel/Home** key to cancel it and return to the previous number).

Paging Alerts ✉

The Paging Alerts feature allows the radio to act as a pager when it is in normal operating mode or when you select a **user profile** which results in the radio appearing to be switched off. (See "User Profiles" on Page 52). The Paging Alerts feature is triggered by receipt of a Status message which is automatically displayed.

If there is also an associated SDS message to explain the reason for the Paging Alert this is automatically displayed on the radio. If a call is in progress the Paging Alert interrupts it. The SDS message is marked with an icon ✉ to indicate that it is associated with a Paging Alert.

When the Paging Alert is triggered you hear a discordant two tone alarm and the tri-colour LED flashes amber to indicate that a Status message has been received. To stop the two tone alert press any key.

Your radio can be customised so that a Paging Alert automatically makes it fully operational on receipt of the Status message which triggered the Paging Alert.

Networks

Authentication

Remote User Assignment (aliasing)

If your radio supports Remote User Assignment (RUA) using TETRA Interoperability Profile (TIP) defined procedures and transactions, your presence on the network requires authentication.

RUA allows you to be authenticated onto the network by entering a user identity and optionally a PIN (maximum 7 digit). Once accepted by the system, you can be addressed by your user identity, if aliasing is supported by the system.

At the start of a shift, you can take a pool radio and, after you log in, other radio users on the network can identify you by you user name. TETRA services including individual voice and data (Status and SDS) communication can be set up using your user name (provided your user name and your corresponding user ISSI are in the Phonebook).

If you power on your radio using the Emergency button you must log on to the network before an Alarm call can be initiated.

Network log on/off may be initiated by your dispatcher.

To log on/off:

Your radio may be customised to request PIN entry log on to the network when powered on. Alternatively select **Menu > Networks > Log ON/OFF**.

A screen appears:

- **Log On:** Enter you user ID and password then press **Confirm**.
- **Log Off:** Press **Confirm**.
- **Details:** Indicates the current log on state of the radio and displays the user's network identity.

Change Network 📶

If your radio is customised to use other networks, you can manually select a network from a list of configured networks, or allow your radio to automatically use a suitable network when you move into its coverage area.

If your radio is customises for End to End Encryption, the radio may change the End-to-End Encryption status when the selected network is changed. It may also provide a selection of talkgroups on other networks. If a talkgroup is selected that does not belong to the current network, your radio will change network accordingly.

After switching to a different network, make sure that your selected talkgroup is valid for that network. For details of talkgroup selection see "Talkgroups and Folders" on Page 29.

Your radio can be configured to display the Network Name continuously on the Radio Status Line (RSL), subject to space, when it is idle.

If your radio registers on a **Visited Network** network the ⏶ **Migrated** icon is displayed in the Radio Status Line (RSL).

To manually change network:

1. Select **Menu > Networks > Change Network**.
2. Navigate to the required network then press **Select** or the **Select/Send** key.

When you manually select a network it remains selected regardless of whether your radio is able to obtain service on that network.

To automatically change network:

1. Select **Menu > Networks > Change Network**.

2. Navigate to Automatic then press **Select** or the **Select/Send** key.

The Network Name of the automatically selected network is displayed below the **Automatic** option in the list when the radio is able to obtain service.

Transmit Inhibit

Sometimes you may be working in areas that are sensitive to Radio Frequency (RF) signals such as healthcare facilities. To continue operating your radio in these areas, you can set your radio to Transmit Inhibit mode to prevent any RF transmission.

When Transmit Inhibit is activated or deactivated, a status message can be sent confirming the operational state of your radio. You cannot activate Transmit Inhibit when you are in a call.

Alarm Calls initiated in Transmit Inhibit mode are still transmitted.

You cannot select Transmit Inhibit if user profile **Do Not Disturb** is selected. See "User Profiles" on Page 52.

Your radio automatically leaves Transmit Inhibit mode when you power it off; when powered on again Transmit Inhibit is not activated.

To activate or deactivate Transmit Inhibit mode:

1. Select **Menu > Networks > Transmit Inhibit**.

2. Select **Toggle** to toggle Transmit Inhibit on/off.

When Transmit Inhibit mode is activated:

- The Transmit Inhibit icon appears in the Shortcut Bar as a notification or the status line on the Home screen

- The Tri-colour LED flashes orange four times approximately every 2 seconds.

There may be a soft key programmed to toggle Transmit Inhibit on/off. For a list of programmed soft keys refer to the radio's Help (**Menu > Help**).

Adjusting the DMO Power Transmission Level

When you are operating in DMO, Repeater or Gateway modes, you can change the transmission power level that your radio operates at on the network.

The radio operates at a normal transmission level which is predefined. If you change the power level to a setting that is higher than the normal operating transmission level, the icon ⊞ appears on the status line. Likewise if you change the power level to a lower transmission level, the icon ⊡ appears on the status line.

To change the transmission power level:

1. Select **Menu > Networks > DMO Options** then select either the **DMO Tx Power** option if you are working in DMO on the network or the **Rep/GW Tx Power** option if you are working in Repeater or Gateway modes.

2. Select the power level option, and press the **Select/Send** key.

Fallback Mode

If a base station is customised to operate in fallback mode, when network communication is lost any radios using the base station will continue to operate, but with a reduced service. This is known as **Fallback Mode**. The base station broadcasts the loss of communication to all radios which are using it.

In Fallback Mode your radio can only communicate with other radios that are registered on the same site: no inter-site communication is available.

When your radio enters Fallback Mode:

- The radio status bar indicates Fallback Mode and the warning triangle is displayed momentarily
- The Fallback Mode text box pops up in the centre of the screen for a few seconds showing a customisable text message
- The ⅄ RSSI antenna icon flashes continuously
- The tri-colour LED flashes amber intermittently (indicating limited service mode)
- The radio generates a warning tone

When your radio leaves Fallback Mode:

- The radio status bar returns to normal (Ready… or similar)
- The ⅄ RSSI antenna icon stops flashing
- The tri-colour LED stops flashing
- A text box pops up indicating normal operation
- The radio generates a warning tone.

Operating Modes

Your radio supports the following operating modes:

- In **Trunked Mode Operation** (TMO Mode) your radio operates on the network infrastructure supplied by your service provider.
- In **Direct Mode Operation** (DMO Mode) your radio can transmit directly to another radio (antenna to antenna). In DMO mode radio coverage depends on the position of the caller and the receiving radio. When you switch to DMO your radio leaves the network and tunes to the selected DMO talkgroup. See also **DMO Mode** below.

To change operating mode from the Home screen:

Press the **Menu** context key, then select **Networks > Operating Mode**. Scroll to the mode (highlight it) and press **Select**.

Alternatively, a soft key may be programmed as a shortcut to this function or a shortcut may be added to the Shortcut Bar. Open the Shortcut Bar (in the Home screen press the **Shortcut** context key), scroll to the **Operating Modes** shortcut and then press the **Select** context key. You can then select the operating mode.

DMO Mode

In Direct Mode Operation (DMO), radios communicate directly with other TETRA radios without using a network. The radios must all switch to DMO and select the same talkgroup, and that talkgroup must use the same channel (frequency). Communications to other users on the network are impossible unless they also switch to DMO and select the same talkgroup.

This means that in DMO, communications to the dispatcher is impossible unless they also switch to DMO and select the same talkgroup, or if they communicate through a **DMO gateway** (see DMO gateway operation).

Group Calls

DMO supports group calls (see "Group Calls" on Page 35) which are made and received in the same way as radios operating in TMO. In DMO TETRA Alarm Calls are either sent to the currently selected DMO talkgroup or (if customised) may switch to TMO to make the call. If TMO is unavailable Alarm Calls are made using DMO. See "Emergency Operation" on Page 21.

Using a DMO Gateway

A DMO gateway (or gateway) is a device which allows users working in Direct Mode to communicate with users in Trunked Mode effectively extending the working range of a radio.

When your radio is in DMO Mode and it is in range of a DMO gateway the gateway 📺 icon appears and, if customised, an audible alert is generated. You can now make and receive group calls to TMO radios (and to the dispatcher) via the gateway.

If your radio is outside the range of a gateway, you may still be able to hear the speech of another user who is in range of a gateway and who is invo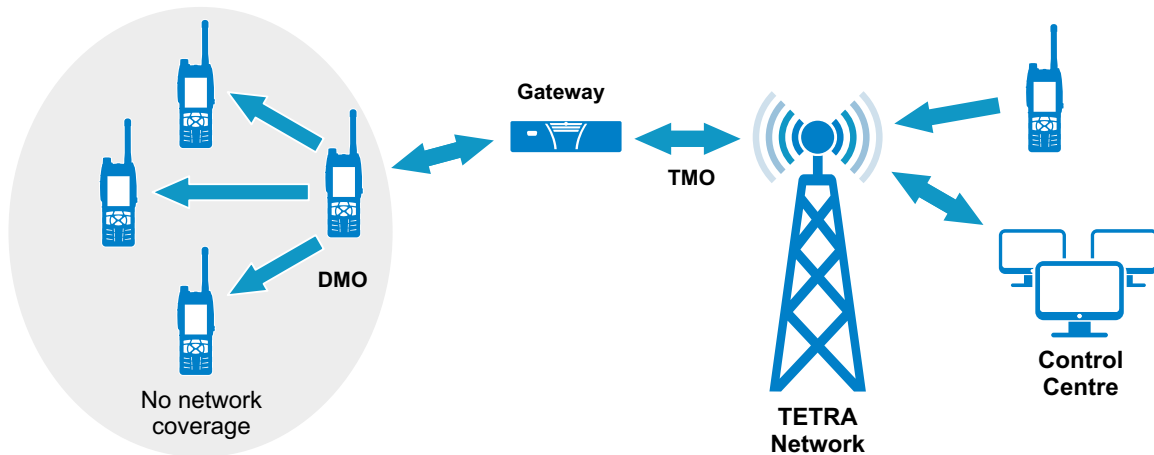lved in a group call via the gateway. In this case the **Communication Mismatch** 👥 icon is displayed to indicate that you cannot take part fully in the call. If you attempt to respond to the overheard speech, any radios within gateway range which can hear you also display a Communication Mismatch icon to tell them that the speech is not being routed via the gateway to TMO users.

DMO Options

You can select the following DMO options:

Presence Check

Specify whether Presence Checking is performed before DMO Individual calls are made. When Presence Checking is On your radio checks whether the intended receiving radio is available and in radio contact before it attempts to set up the call.

GW/Rep Filter

Specify whether your radio uses or ignores any gateway and/or repeater it detects.

In the Gateway/Repeater Filter screen select one of the following options:

- **No GW/Rep:** Do not use any gateways and repeaters detected by your radio
- **Use Repeater:** Use repeaters detected
- **Use Gateway:** Use gateways detected

If the radio selects a gateway, a gateway 📶 icon is displayed on the status line. If the gateway stops sending a presence signal it will no longer be detected by your radio.

Features

Your radio can be customised for various advanced features and can have various soft keys assigned to frequently used features.

Privacy Screen

Your radio can be customised to display a picture when the screen is inactive for a specified period of time. This helps protect the privacy of any displayed information. This **Privacy Screen** feature is particularly useful if you are wearing your radio at shoulder level. The normal display reappears as soon as any activity occurs which turns on the back light.

Connector Protector 💧

When working in salt water environments or in an area with high salt-laden humidity such as sea mist or fog, enabling the Connector Protector feature will protect the Digital Accessory connector (sDAC) from potential corrosive damage when an accessory is not attached.

A cover must be fitted to the Rugged Accessory Connector (RAC) (on the side of the radio) if an accessory is not attached.

This feature can be enabled by:

- A Soft key
- Selection of an option on a SmartMenu
- Selection of a user profile
- Automatically at power on after a configured time delay
- Selecting Connector Protection from the Options menu

To enable Connector Protector:

1. Press **Menu** then select **Options > Settings > Connector Protector**.
2. To toggle protection on/off press the **Toggle** context key. When the **CP Enable** check box is ticked, Connector Protector is enabled, and when the check box is empty it is disabled.

If Connector Protector is enabled (💧) when the radio is powered **off**, it will remain enabled when the radio is next powered on unless the radio is in a charger or car kit or if a data accessory (e.g. programming lead) is attached when the radio is powered **on**, in which case Connection.

Protector is disabled (⟍) until the radio is removed from the charger, car kit or data accessory.

In these circumstances it is not necessary to re-enable Connector Protector.

If the 'water drop' icon (💧) is displayed on a radio, the radio cannot be programmed.

User Profiles 👤₁

User profiles are pre-set combinations of alerts and settings on your radio. They allow you to switch settings easily to match your circumstances or environment. An icon 👤₁ showing the number of the profile selected, appears on the status line or the Shortcut Bar. Up to ten pre-defined user profiles may be configured for your radio. Example user profiles could be **Normal**, **Lone Worker** and **Covert**.

To change the user profile:

1. From the Home screen, press the **Groups** context key 3 times (**User Profiles**).
2. Use the navigation keys or the **Navi-knob** to scroll through the user profiles.
3. Press the **Select** context key to activate the selected user profile.

Menu selection:

1. Select **Menu > User Profiles**.
2. Navigate to a profile and press **Select**.

Example User Profiles

Typical profiles could include:

📵 Covert Mode Operation

Covert Mode turns off all visual alerts. It deactivates the backlight and adjusts the microphone sensitivity to allow Whisper mode. It also reduces the level of the loudspeaker if an earpiece is not being used. If your radio has a vibrator alert enabled then this is deactivated. See "Whisper Mode" on Page 24.

🔲 Lone Worker Operation

This user profile activates the Lone Worker function to allow users working alone to indicate that they are safe. See "Lone Worker" on Page 54.

🖼 Group Focus

This user profile allows you to prevent any individual calls or group calls from any talkgroup other than the selected talkgroup from being connected to your radio.

Any calls made to a radio which has Group Focus selected are not recorded as Missed Calls.

⊖ Do Not Disturb

This user profile allows you to focus on an important task. It assumes you do not want to be distracted by a call or alert on your radio. The profile sets your radio so that no incoming calls are allowed except calls from the current talkgroup (Group Focus above). Covert Mode operation is active. Audible alerts are disabled. If this profile is selected you cannot select Transmit Inhibit (see "Transmit Inhibit" on Page 47.

💧 Connector Protector

This user profile activates the Connector Protector feature when working in salt water environments. See Connector Protector on the previous page.

Man Down

Man Down is a licensed customisable feature which uses motion sensors to detect motion in three dimensions. When your radio is powered on it stores it's current angle of inclination (orientation). If it moves more than a customised angle from the original inclination or is stationary for more than a customised length of time, the radio sounds an alarm and displays a 'Man Down Alarm' message. In other words the radio can detect conditions indicating that you have become incapacitated. If you do not respond to the alert within a customised time period, your radio initiates a Man Down Emergency and takes action depending on its customisation.

Although Man Down is intended to increase the chances of incapacitated users being detected, you should not regard it as a substitute for compliance with appropriate risk assessment and other safety procedures and practices. Do not entrust your safety to the Man Down Alarm.

Test the Man Down Alert and Alarm regularly to ensure they are functioning correctly.

Once started the Man Down Alarm sounds either until you switch it off or until the battery runs down. Ensure that the battery is charged regularly and check that it has as much charge as possible before activating Man Down.

Man Down is disabled if the radio is placed in a car kit or charger.

The Man Down feature may be customised so that you do not have access to the following:

- The soft key On/Off toggle or a user profile to switch the feature on and off;
- The Man Down screen to select the sensor or combination of sensors used as described below.

To toggle Man Down on/off:

1. Activate Man Down using one of the following methods:
   - Press a customised soft key to toggle Man Down on. The sensors activated are those set in **Man Down options** on the next page.
   - Select a user profile which uses Man Down (see "User Profiles" on Page 52). The sensors activated are those customised in the profile.
   - From the Home screen, press the **Shortcut** context key, then select the Man Down icon.

   A message ('Man Down Starting') is displayed and an alert sounds (a succession of beeps).

2. Attach your radio in a comfortable wearing position on your body. When a two second continuous tone finishes the radio's 'normal' wearing position has been recorded. An icon indicates that Man Down is switched on and which sensors are active.

To deactivate Man Down, either select a user profile which does not use Man Down, or press the customised soft key to toggle Man Down off.

Cancelling False Alarms

If the active sensors detect a possible 'Man Down' situation the Man Down Alert is sounded and a Man Down Alert message is displayed on the screen. If you are safe (that is, this is a false alarm) you need to switch off the alert, otherwise a genuine Man Down Emergency situation is considered to have occurred and—depending on the customisation of your radio—various automatic actions are initiated. For example, an Emergency Status message may be sent to a pre-defined destination.

To switch off the Man Down Alert (false alarm situation):

- Press a designated key (which is different from the soft key used to switch Man Down on and off) or;
- Move the radio vigorously for a short period of time (if customised).

For example shake the radio up and down or sideways, or tap it, or (if the radio is clipped to your belt) move your hips rapidly from side to side.

After the Man Down Alert is switched off your radio may be customised to start recording and storing the current position and/or angle to use as the new 'steady' position.

Man Down Options

1. Press **Menu** then select **Applications > Man Down**.

2. Select the Man Down sensors to use: 🏃 **Motion & Tilt** sensors, 🏃 **Motion Sensor** only, or 🏃 **Tilt Only** sensor.

If you enable Man Down from a User Profile, the Man Down Settings screen updates to reflect the sensors defined as active in the Profile.

Lone Worker

If you are working alone you can use the **Lone Worker** feature to let your dispatcher know that you are safe.

When Lone Worker is enabled your radio periodically sounds an alert which you must acknowledge—usually by pressing a pre-programmed key—otherwise the radio can be programmed to send either, or a combination of, emergency status, emergency call, and GPS position.

To enable Lone Worker, scroll to a user profile which has **Lone Worker** enabled, then press the **Select** context key. See "User Profiles" on Page 52.

To disable Lone Worker mode, repeat the process and choose a different user profile.

Location Services 📡

Your radio may be customised and enabled for location services, such as GPS or other regional Global Navigation Satellite Systems (GNSS), that allows the radio to determine your location (longitude, latitude and altitude) and provides both timed- and distance-based reporting.

The generic location services function on the radio is called 'GPS' and it provides support for multiple regional GNSS including BeiDou2.

The behaviour of the GNSS function is highly customisable, both by customisation of the radio and over the air from a control room application. Your radio may also be customised to send position data automatically alongside TETRA Alarm Calls or Status messages. The destination to which any reports are sent may be changed over the air. If your radio accepts a change of destination command it sounds a customisable tone and sends you an SDS message to inform you.

If customised, you can enable/disable the GNSS function, see "Reporting Options" on Page 56.

For the best performance, your radio needs an uninterrupted view of the sky.

Position

To locate your position:

1. Select **Menu > GPS > Position > Locate**.

While the position is being calculated the 📡 icon flashes.

Position Information

When the position has been determined the following information is displayed:

- **Latitude** and **Longitude** values.
- **Fix** indicates how accurate the reading is:
  - > **2D** indicates that less than four satellites were used to determine the position
  - > **3D** indicates that at least four satellites were used.
  - > The number in brackets indicates how many satellites were used.
- **Age** shows how long ago the position was first displayed; to refresh the reading press **Locate** again.
- **GPS/BeiDou2** shows the number of satellites used in the selected system. Note that the name of the selected GNSS is customisable.

Direction

To read the direction in which your radio is travelling:

1. Select **Menu > GPS > Direction**.

The Direction screen gives information about the current direction and speed of travel. If the radio is stationary no information is displayed. However if the radio becomes stationary after a period of movement the direction information is displayed for five seconds to give you time to view it.

- **Direction** is reported in degrees from North.
- **Speed** is reported in either km/h or miles/h depending on the customisation.

Reporting Options

To control reporting from your radio

1. Press **Menu > GPS > GPS Report**.

2. Select one of the following options:

   - **Never Send:** Reporting is disabled regardless of any instructions sent over the air.

     The ☠ warning icon is displayed on the top line of the screen as a reminder that reporting has been explicitly disabled.

   - **Always Send:** Reporting is enabled regardless of any instructions sent over the air.

   - **No Override:** Your radio will respond to instructions sent over the air. Reports are sent if requested and is switched off if requested.

GNSS Selection

The radio may be customised to support a number of satellite systems such as GPS and BeiDou2.

To change your GNSS selection:

1. Select **Menu > GPS > GNSS Selection**.

2. Navigate to the required GNSS, then press the **Select** key.

3. A green tick and text box confirming your selection appears and then the radio will automatically reboot.

When the radio has rebooted, check your satellite connections using the GPS **Locate** function (**Menu > GPS > Position > Locate**) to view the type and number of satellites available in the selected system.

Security

Sometimes when you are working, you may need to secure your radio from unauthorised use. The easiest way to secure your radio is to lock the keypad when your radio is not in use. Your radio may be customised with other security features such as PIN entry and a remote user network log on (to authenticate network users).

PIN Entry

You will need to enter the radio's 4 digit PIN at power on. Your radio may be customised to allow you to change your PIN (see "Change PIN" below).

if you incorrectly enter the PIN 3 times, the radio will lock. You will then need the 8 digit Master Reset PIN (or PUK) to unlock the radio, see "Unlocking the Radio after Incorrect PIN Entry" below.

To unlock your radio:

1. Rotate the Navi-knob to select the four digits to enter your PIN.

2. Press **OK**.

If you make a mistake you can use the Left navigation key to delete the last digit entered.

Change PIN

You can change your radio's PIN required at power on.

1. Select **Menu > Options > Settings > Change PIN**.

2. Enter your current PIN, then press **OK**.

3. At the prompt 'Change PIN?' press **OK**.

4. Enter your new PIN twice to confirm.

    A large tick displays to confirm that the PIN is changed.

Unlocking the Radio after Incorrect PIN Entry

If you enter the PIN incorrectly 3 times, the radio will become locked. To unlock your radio you will need the radio's Master Reset PIN (or PUK) that consists of 8 digits.

The default PIN is 00000000 but this can be changed by your Communications or Security Manager.

To unlock the radio:

1. Rotate the Navi-knob to select the 8 digit Master Reset PIN.

2. Press **Confirm** or the **Select/Send** key.

If you enter the Master Rest PIN incorrectly, you need to wait at least 5 seconds before attempting to enter the PIN again.

If the Master Reset PIN is successful, the radio reverts back to the last known PIN.

If you radio is customised to allow the PIN to be changed, select **Options > Settings > PIN Change**.

End-to-End Encryption 🛡

If your radio shows the 🛡 Secure Comms icon when it is idle, the selected talkgroup is customised for End-to-End Encryption (E2EE). In other words, calls you make by pressing PTT are end-to-end encrypted.

It is not possible to accidentally make a non end-to-end encrypted call. Every talkgroup or individual subscriber that can be exempt from **End-to-End Encryption** must be explicitly customised into the radio.

End-to-End Encryption is designed to provide maximum security for voice and SDS communications, whether operating in Direct Mode or Trunked Mode, irrespective of the security level provided by the network. Depending on customisation, the radio may change the End-to-End Encryption status when the selected network is changed. It may also provide a selection of talkgroups on other networks. If a talkgroup is selected that does not belong to the current network, your radio will change network accordingly.

A radio that supports End-to-End Encryption may nevertheless be required to make calls that are not end-to-end encrypted. For example, calls to certain talkgroups and individual subscribers may be customised to be exempt from End-to-End Encryption. All telephone calls are also not end-to-end encrypted.

When dialling, a separate 🛡 Secure Comms icon is displayed in the dial box if the call or SDS will be End-to-End encrypted. During voice calls only (not SDS calls) your radio may allow you to toggle End-to-End Encryption on/off with a soft key.

When you are in a voice call, the Secure Comms icon indicates whether End-to-End Encryption is operational. When the radio participates in a call that is not end-to-end encrypted, a periodic non intrusive audible alert is generated (if customised).

When you receive an SDS (text) message or picture messages, if you see the Secure Comms icon in the message details that the message was end-to-end encrypted.

If the message 'Security Check Fail' is displayed while making or receiving calls, it indicates that the radio has not been customised properly. In such cases, please contact technical support in your organisation.

Asset Management

Handsets, consoles, radios and accessories are assets that need to be effectively managed throughout their life cycle. In some organisations it is a requirement to track assets and this can be done by labelling them.

Another method of tracking an asset is to use the RFID tag to track radios and associated resources (persons and vehicles).

Asset management refers to the periodic maintenance of your radios. Maintenance includes software upgrades and reprogramming of the radio to ensure that it continues to meet your requirements.

During programming the radio uploads information, such as the State of Health of the battery which can also assist with auditing and end-of-life strategies.

Labelling

The simplest form of asset management is to attach labels to your radios and batteries. Self adhesive labels (those with an adhesive backing) are recommended as they are easy to apply and commercially available, such as 3M™ Thermal Transfer Polyester label material 7815.

Your radio and Sepura battery provide an area for attaching an asset label. Placing the label here will prevent it interfering with the way the product is used.

Do not use solvent based adhesives. Always check the adhesive used with the self-adhesives label.

Do not engrave any part of the radio. Engraving the radio's casing may affect the compliance ratings and may invalidate the product warranty.

Do not use paint, correction fluid or other forms of liquid or aerosol to write or mark the radio or an accessory. Chemicals may affect the radio's casing and invalidate the compliance ratings and product warranty.

Place a label on the back of the radio in the Radio user label area above the carrying aid attachment point as shown.
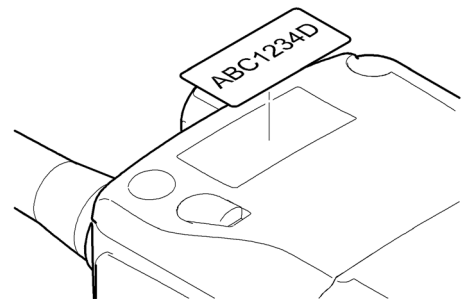
Alternatively, a label can be placed on the Card Compartment door recess.
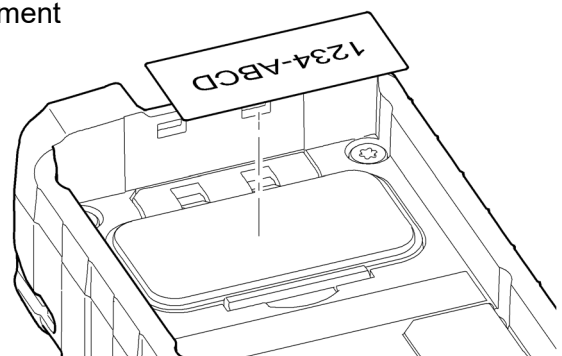
Place a label on to the Battery user label area.

RFID Tag

Radio Frequency Identification (RFID) tags can be useful for asset tracking, allowing you to automate audit tracking of pool radios, tracking radios in/out of service centres and stock tracking. It is also useful for pairing pool radios with resources (persons and vehicles) and facilitating the rights of access to secure areas.

These tags allow devices to be tracked through a communications network - when the tag with a unique ID is moved within the proximity of a RFID read/write unit, it reads the stored data or writes data to the tag.

Your radio has an integrated 'passive' RFID tag fitted, it is able to operate in the presence of a RFID read/write unit, even when the radio is powered down or has its battery removed. RFID tags operate at various frequencies—the tag in your radio is preprogrammed to operate at a frequency of 125 kHz. The range of operation is dependent on the RFID read/write unit.

Read the Sepura document **RFID in STP9000 Series Information Sheet** (Document no. MOD-12-1459) for more information and technical specifications of the tag and read/write unit requirements.

How the RFID Tag Works in your Radio

The RFID tag fitted into the back of the radio, its exact position is marked by the embossed RFID logo. Hold the radio with the embossed RFID tag within range of the RFID read/write unit. The RFID tag operates in the presence of the RFID read/write unit even when the radio is powered off or has the battery removed.

The distance between the RFID tag and read/write unit may differ depending on the type of read/write unit being used. Always read the instructions supplied with the RFID Reader on how to operate it.

Customising your Radio

Your radio has a large number of parameters that can be customised using the programming software tool, Radio Manager 2. These parameters are grouped into a series of templates that can be easily modified to suit the end user's preferences. A complete set of parameters for your radio is called a **customisation**.

Radios can be customised either in bulk, by fitting them into a Sepura programming pod which can accommodate 4 or 8 radios at a time, or individually by directly connecting them to a computer running Radio Manager 2 software using a Sepura Data/Programming Cable.

Your radio must be powered on and have sufficient battery charge for the duration of the customisation process.

Your radio cannot be programmed when "Connector Protector" on Page 51 is enabled.
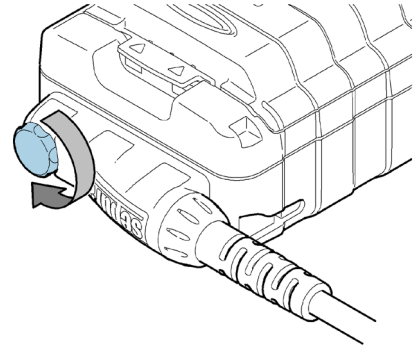
To program a Single Radio

A data/programming cable, with either an RS232 (D-type) connector or a USB connector, is available from Sepura for customising a single radio.

1. Connect the USB programming cable to the computer.
2. Connect the cable to the radio by inserting the hook on the connector into the slot as shown.

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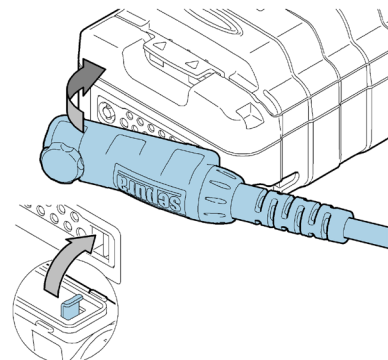
3. Secure the cable in position. Do not over tighten.

4. When programming is complete disconnect the cable from the radio.

Revert Radio Settings to Customisation Settings

Users have the ability to add personal data to the radio, such as changing the talkgroups and sending and receiving SDS/Status messages. Such changes may be undesirable on fleet radios that have been specifically customised for fleet users—where radios are not personal processions. Using the **Revert All Changes** option, the radio settings can be reset back to the last customisation settings.

There is also a **Revert Non-Personal Changes** option that allows users to reset the radio settings back to the last customisation, but keep their personal changes to the talkgroups and messages.

To revert the radio settings:

1. Select **Menu > Options > Settings**, then select the **Revert User Changes** option.

2. Select the option you require. Press the **Select** key.

3. Confirm the request to revert the radio settings to the last customisation. Press the **Select** key.

On completion of the revert process, the radio will reboot.

Accessories

There are various accessories available for your radio from fastening clips for attaching the radio to clothing, to headsets and microphones that provide hands-free operation. Only use Sepura approved accessories with your radio. Sepura products have been tested to meet strict guidelines for personal safety and operational conditions. The use of non-approved accessories may damage the product, will result in the non-compliance with regulatory requirements, compromise the product safety ratings, and will invalidate the product warranty.

Some accessories may not work in close proximity of a TETRA radio. When using USB accessories, it is recommended that they are worn on the opposite side of the body to the radio. It is the responsibility of the service provider to ensure that appropriate EMC testing has been conducted on accessories.

When your radio powers on and when you attach an accessory during operation, your radio performs an authenticity check on any attached accessories including the battery. If the accessory is not authenticated, a message appears and the accessory should be removed.

Your radio has two connectors for attaching accessories. The Rugged Accessory Connector (sRAC) on the side of the radio is used for attaching accessories such as a remote speaker microphone (RSM), headsets and earpieces. At the base of the radio is the Digital Audio Connector (sDAC) that is used for attaching car kits, data accessories and chargers. It is also used for programming the radio.

When using an RSM with antenna, it should be held a minimum distance of 25 mm from the mouth.

Always refit the cover to the sRAC when an accessory is not in use.

You do not need to power down the radio before attaching or removing an accessory.

Always read the instructions supplied with the accessory for operating instructions and safety information.

Accessory Profiles

Your radio may be customised with up to 15 accessory profiles. Selecting a profile that matches the attached accessory will provide optimum audio quality speech and volume when the accessory is in use. It is not necessary to select a profile, however, if a profile is not selected or the accessory is not supported, the audio may not be of optimal quality.

The profile is only applied when the accessory is in use.

Selecting a Profile when attaching an Accessory

When you attach an accessory, the radio will attempt to match the accessory to a profile. If there is only one matching profile, the radio will automatically select that profile and there is no user action required.

If the radio is customised to provide several profiles for an accessory, when the accessory is attached the **Accessory Profile** screen appears listing all available profiles. The highlighted profile is the current or default profile for the accessory. To select a profile, highlight the profile and then press the **Select** key.

If you change to another accessory whilst operating the radio, the **Accessory Profile** screen appears, allowing you to select a new profile or accept the default profile for that accessory (highlighted). To select the profile, press the **Select** key.

If you attach a second accessory, such as adding an accessory to an RSM, the **Accessory Profile** screen appears and you can select a new profile.

A soft key on your radio may be customised to open the **Accessory Profile** screen at any time during operation, allowing you to change the profile to suit your conditions, for example you may want to select a profile that has a louder volume when working in a noisy environment.

Detecting an Accessory at Power On

If an accessory is detected when the radio is powered on, and it is the same accessory that was attached at power off, the radio will continue to operate using the selected profile.

If an accessory is removed and then an accessory of the same type is attached before power on, that has a different accessory profile, you must remove the accessory and then re-attach it, or press a customised soft key to open the **Accessory Profile** screen. You can then select a profile for the accessory.

Belt Clip

The belt clip is used to attach your radio to clothing or to a belt. The clip is fitted to the carrying aid attachment recess on the back of your radio.

Damage to product. Always remove the battery before fitting or removing the clip.

Fit the belt clip:

1. Remove the battery.
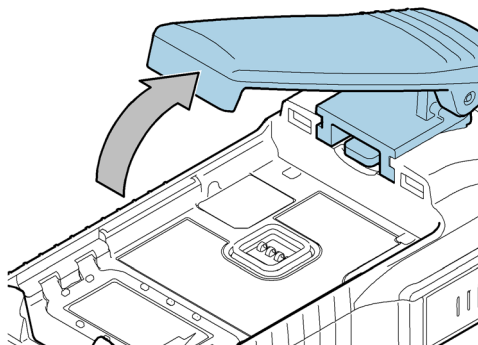2. Slide the stud into the carrying aid attachment recess.
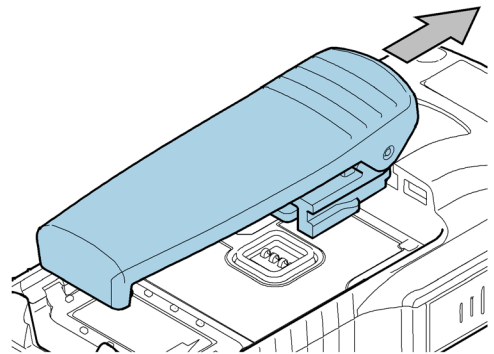
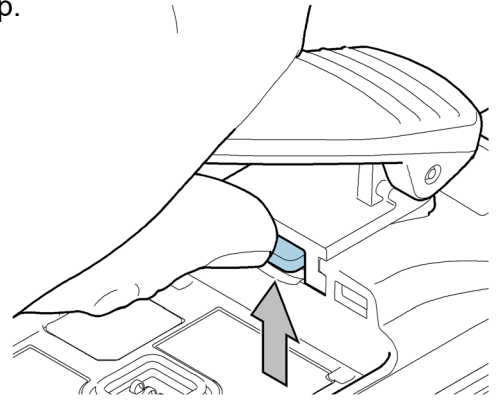3. Slide until it clicks into place.
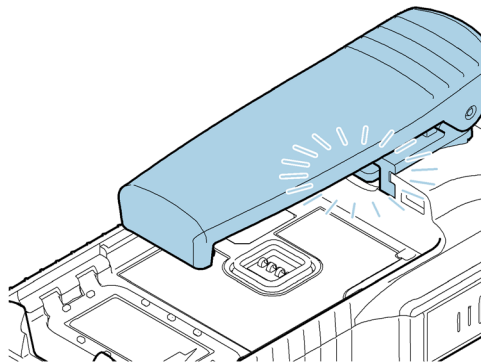
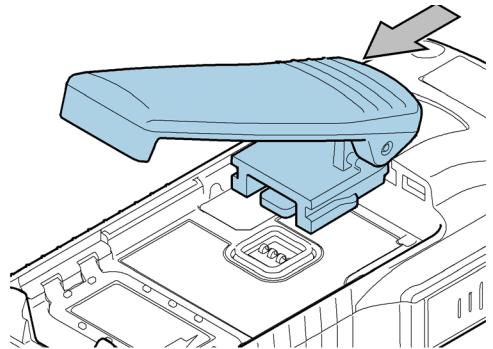**To remove the belt clip:**

1. Remove the battery.
2. Lift the clip.

3. Use your thumb to compress the spring and release the clip.

> ⚠ **Caution!** Failure to compress the spring sufficiently to remove the clip, will result in damage to your radio or the clip.

4. Slide the clip out of the carrying aid attachment recess.

Uniform Stud

Fitted direct to the radio, the uniform stud allows quick, easy docking and locking of the radio into any of seven positions used by the patented ratchet system. The available dock kit provides attachments for various types of belts (clothing) and locker or car dash board mountings.

The radio is first inserted into the dock. It can then be angled as necessary. To remove the radio from the dock, it must first be inverted and then it can be removed from the dock.
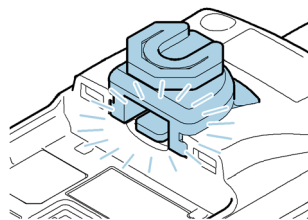
> ⚠ **Caution! Risk of product damage.** Always remove the battery before fitting or removing the uniform stud.

Fit the stud:
1. Remove the battery.
2. Slide the stud into the carrying aid attachment recess.
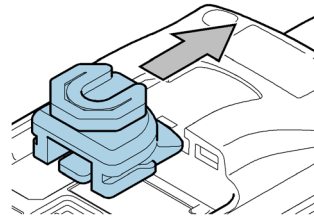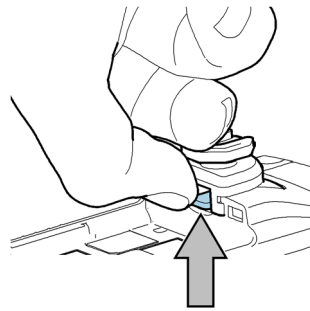

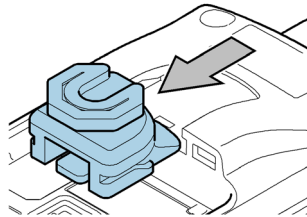**3.** Slide until it clicks into place.

Remove the stud:

1. Remove the battery.

2. Lift the spring.

> ⚠ **Caution!** Failure to compress the spring sufficiently to remove the clip, will result in damage to your radio or the clip.
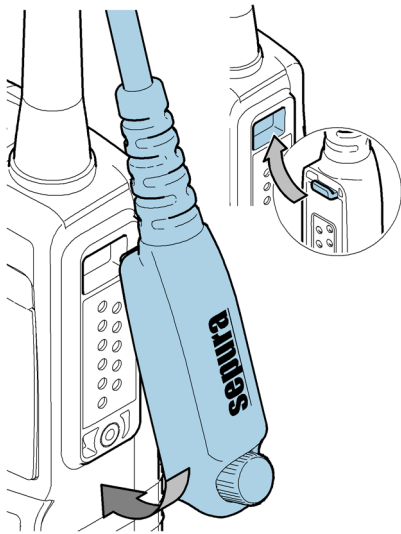
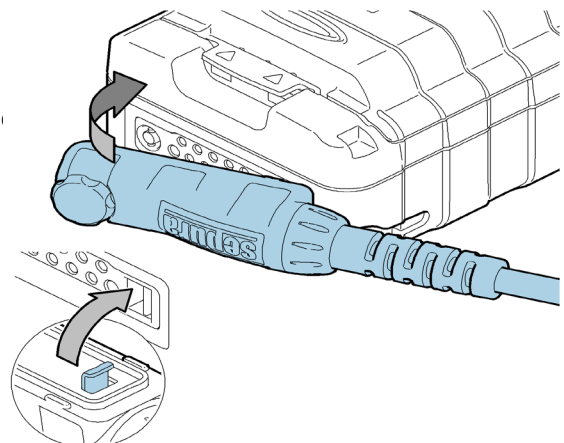**3.** Slide the stud out of the carrying aid attachment recess.

Fitting an Accessory

Fitting an accessory to the sRAC:

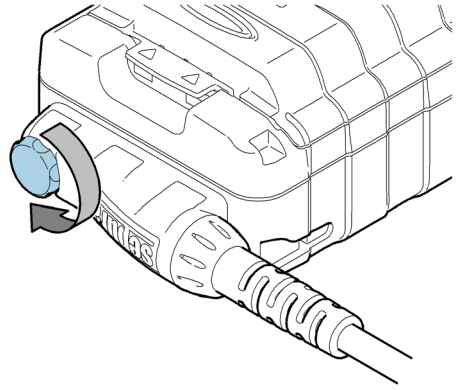**1.** Secure the accessory by rotating the screw clockwise

Fitting an accessory to the sDAC:

1. Connect the cable to the radio by inserting the hook of the connector into the slot as shown.

2. Secure the accessory in position by pushing down and rotating the screw clockwise 90°. Do not over tighten.

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