



# TP8100

PORTABLES

## TP8100 USER'S GUIDE



TAIT: THE RIGHT FIT

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# Directive 1999/5/EC Declaration of Conformity

## **da Dansk**

Undertegnede Tait Electronics Limited erklærer herved, at følgende udstyr TPCB1A, TPCH5A & TPCH6A overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Se endvidere: <http://eudocs.taitworld.com/>

## **de Deutsch**

Hiermit erkläre Tait Electronics Limited die Übereinstimmung der Geräte TPCB1A, TPCH5A & TPCH6A mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG.

Siehe auch: <http://eudocs.taitworld.com/>

## **el Ελληνικός**

Με την παρούσα Tait Electronics Limited δηλώνει ότι TPCB1A, TPCH5A & TPCH6A συμμορφώνεται προς τις ουσιαστικές απαιτήσεις και τις λοιπές σχετικές διατάξεις της οδηγίας 1999/5/EK.

βλέπε και: <http://eudocs.taitworld.com/>

## **en English**

Tait Electronics Limited declares that this TPCB1A, TPCH5A & TPCH6A complies with the essential requirements and other relevant provisions of Directive 1999/5/EC.

See also: <http://eudocs.taitworld.com/>

## **es Español**

Por medio de la presente Tait Electronics Limited declara que el TPCB1A, TPCH5A & TPCH6A cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

Vea también: <http://eudocs.taitworld.com/>

## **fi Suomi**

Tait Electronics Limited vakuuttaa täten että TPCB1A, TPCH5A & TPCH6A tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimus-

ten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Katso: <http://eudocs.taitworld.com/>

## **fr Français**

Par la présente, Tait Electronics Limited déclare que l'appareil TPCB1A, TPCH5A & TPCH6A est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Voir aussi: <http://eudocs.taitworld.com/>

## **it Italiano**

Con la presente Tait Electronics Limited dichiara che questo TPCB1A, TPCH5A & TPCH6A è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Vedi anche: <http://eudocs.taitworld.com/>

## **nl Nederlands**

Hierbij verklaart Tait Electronics Limited dat het toestel TPCB1A, TPCH5A & TPCH6A in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Zie ook: <http://eudocs.taitworld.com/>

## **pt Português**

Tait Electronics Limited declara que este TPCB1A, TPCH5A & TPCH6A está conforme com os requisitos essenciais e outras provisões da Directiva 1999/5/CE.

Veja também: <http://eudocs.taitworld.com/>

## **sv Svensk**

Härmed intygar Tait Electronics Limited att denna TPCB1A, TPCH5A & TPCH6A står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Se även: <http://eudocs.taitworld.com/>

## Chassis engraving will void warranty

**Warning:** Engraving the chassis of your portable radio can significantly reduce its mechanical strength and will void any warranty. If the chassis has been engraved, it must be replaced.

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All trade names referenced are the service mark, trademark or registered trademark of the respective manufacturers.

## Disclaimer

There are no warranties extended or granted by this manual. Tait Electronics Limited accepts no responsibility for damage arising from use of the information contained in the manual or of the equipment and software it describes. It is the responsibility of the user to ensure that use of such information, equipment and software complies with the laws, rules and regulations of the applicable jurisdictions.

## Enquiries and comments

If you have any enquiries regarding this manual, or any comments, suggestions and notifications of errors, please contact Technical Support.

## Updates of manual and equipment

In the interests of improving the performance, reliability or servicing of the equipment, Tait Electronics Limited reserves the right to update the equipment or this manual or both without prior notice.

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## To our European customers



Tait Electronics Limited is an environmentally responsible company which supports waste minimization and material recovery. The European Union's Waste Electrical and Electronic Equipment Directive requires that this product be disposed of separately from the general waste stream when its service life is over. Please be environmentally responsible and dispose through the original supplier, your local municipal waste "separate collection" service, or contact Tait Electronics Limited.

# Disposing of Lithium-ion batteries



Discharge the Li-ion battery before disposing of it. When disposing of the battery, be sure to do so in an environmentally sensitive manner. If disposed of in landfills, batteries can be very hazardous to the environment.

Please contact your radio provider for information on recycling programs in your area.

## Charger compliance information

### United States

This battery charger has been tested and found to comply with the limits for a Class B digital device, in accordance with part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This battery charger generates, and can radiate, radio frequency energy. If it is not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur. If this charger does cause harmful interference to radio or television reception (which can be determined by turning the charger off and on), try to correct the interference by:

- Reorienting or relocating the receiving antenna.
- Increasing the separation between the equipment and receiver.
- Connecting the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consulting the dealer or an experienced radio/TV technician for help.

### Canada

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

# For your safety

Before using your radio, please read the following important safety and compliance information.

## Safety warnings used in this guide

Within this guide, the following conventions are used to alert you to important safety information:



**Warning:** There is a potential risk of death or serious injury.



**Caution:** There is the risk of minor or moderate injury to people.

**Caution:** “Caution” is used without the safety alert symbol when there is a risk of equipment damage or malfunction.

## Radio frequency exposure information

For your own safety and to ensure you comply with the Federal Communication Commission’s (FCC) radio frequency (RF) exposure guidelines, please read the following information before using this radio.

### Using this radio

You should use this radio only for work-related purposes (it is not authorized for any other use) and if you are fully aware of, and can exercise control over, your exposure to RF energy. To prevent exceeding FCC RF exposure limits, you must control the amount and duration of RF that you and other people are exposed to.

It is also important that you:

- Do not remove the RF Exposure label from the radio.
- Ensure this RF exposure information accompanies the radio when it is transferred to other users.
- Do not use the radio if you do not adhere to the guidelines on controlling your exposure to RF.

## Controlling your exposure to RF energy

This radio emits radio frequency (RF) energy or radio waves primarily when calls are made. RF is a form of electromagnetic energy (as is sunlight), and there are recommended levels of maximum RF exposure.

To control your exposure to RF and comply with the maximum exposure limits for occupational/controlled environments, follow these guidelines:

- Do not talk (transmit) on the radio more than the rated transmit duty cycle. This is important because the radio radiates more energy when it is transmitting than when it is receiving.
- When listening and talking on the radio, hold it upright in front of your face so that it is at least one inch (2.5 cm) away from any part of your face. Keeping the radio at the recommended distance is important because exposure to RF decreases rapidly the further away the antenna is from your body.
- Keep the antenna at least one inch (2.5 cm) from your face at all times.
- If you wear your radio, you must always put it in a carrying accessory that has been specifically approved by Tait for this radio. Using non-approved body-worn accessories may mean you expose yourself to higher levels of RF than recommended by the FCC's occupational/controlled environment RF exposure limits.
- Ensure you only use Tait-approved antennas, batteries, and accessories.



**Website:** For more information on what RF energy is and how to control your exposure to it, go to <http://www.fcc.gov/oet/rfsafety/rf-faqs.html>.

## **Compliance with RF energy exposure standards**

This two-way radio complies with these RF energy exposure standards and guidelines:

- United States Federal Communications Commission, Code of Federal Regulations; 47 CFR §§ 1.1307, 1.1310, and 2.1093.
- American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers (IEEE) C95.1-1992.
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition.

This radio complies with the IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environments at operating duty factors of up to 50% transmitting (even though the approved batteries for this radio are rated for a 5-5-90 duty factor (5% talk-5% listen-90% standby).

## **Radio frequency emissions limits in the USA**

Part 15 of the FCC Rules imposes RF emission limits on receivers.

This radio complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

## **Unapproved modifications or changes to radio**

The radio is designed to satisfy the applicable compliance regulations. Do not make modifications or changes to the radio that are not expressly approved by Tait Electronics Limited. Failure to do so could invalidate compliance requirements and void the user's authority to operate the radio.

# Health, safety and electromagnetic compatibility in Europe

In the European Community, radio and telecommunications equipment is regulated by Directive 1999/5/EC, also known as the Radio and Telecommunications Terminal Equipment (R&TTE) directive. The requirements of this directive include protection of health and safety of users, as well as electromagnetic compatibility.

## Intended purpose of product

This product is an FM radio transceiver. It is intended for radiocommunication in the Private Mobile Radio (PMR) or Public Access Mobile Radio (PAMR) services, to be used in all member states of the European Union (EU) and states within the European Economic Area (EEA).

## Restrictions

This product can be programmed to transmit on frequencies that are not harmonized throughout the EU/EEA, and will require a licence to operate in each member state.

This product can be programmed for frequencies or emissions that may make its use illegal. Where applicable, a license must be obtained before this product is used. All license requirements must be observed. Limitations may apply to transmitter power, operating frequency, channel spacing, and emission.

## Declaration of conformity

Brief Declarations of Conformity appear on page 3.



**Website:** To download the formal declaration of conformity, go to <http://eudocs.taitworld.com/>.

A signed and dated paper copy of the declaration of conformity can be obtained from Tait Electronics Limited.

## **Electromagnetic compatibility in European vehicles**

In the European Community, radio equipment fitted to automotive vehicles is regulated by Directive 72/245/EEC, as last amended by 2005/83/EC. The requirements of this directive cover the electromagnetic compatibility of electrical or electronic equipment fitted to automotive vehicles.

## **Interference with electronic devices**

Some electronic devices may be prone to malfunction due to the lack of protection from RF energy that is present when your radio is transmitting.

Examples of electronic devices that may be affected by RF energy are:

- vehicular electronic systems such as fuel injection, anti-skid brakes, and cruise control
- medical devices such as hearing aids and pacemakers
- medical equipment in hospitals or health care facilities.

Consult the manufacturer (or its representative) of the equipment to determine whether these electronic circuits will perform normally when the radio is transmitting.

## **Frequency band reserved for distress beacons**

Frequency band 406 to 406.1 MHz is reserved for use by distress beacons. Transmissions should not be made within this frequency band.

## Safe radio operation



**Warning:** Switch off the radio:

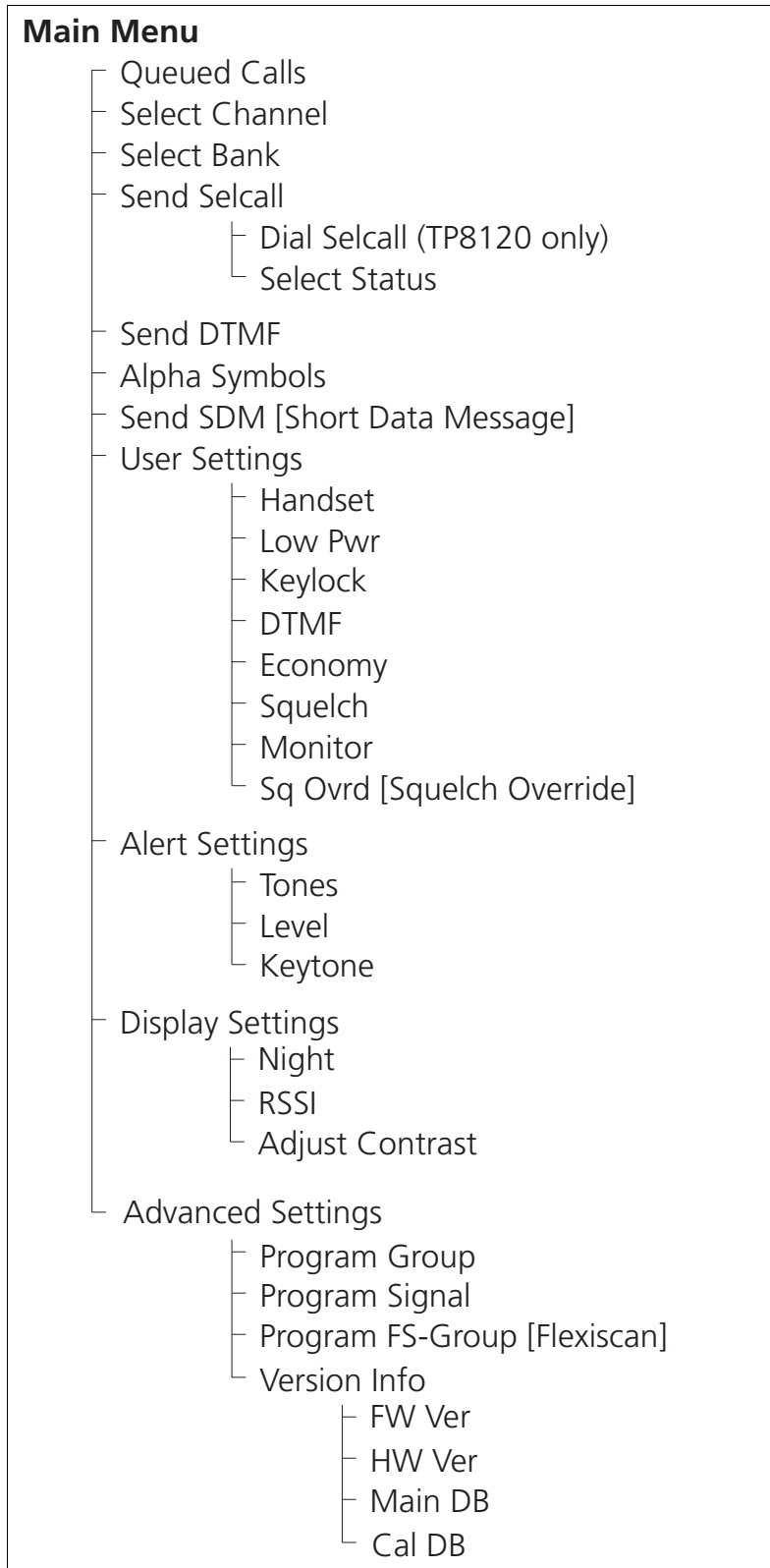
- At petrol filling stations or near flammable liquids or gases.
- In the vicinity of explosive devices and blasting zones.
- Before boarding an aircraft. Using your radio while in the air is not permitted.

Using a handheld microphone or a radio while driving a vehicle may violate the laws and legislation that apply in your country or state. Please check the vehicle regulations in your area.

# Navigating your radio's menus

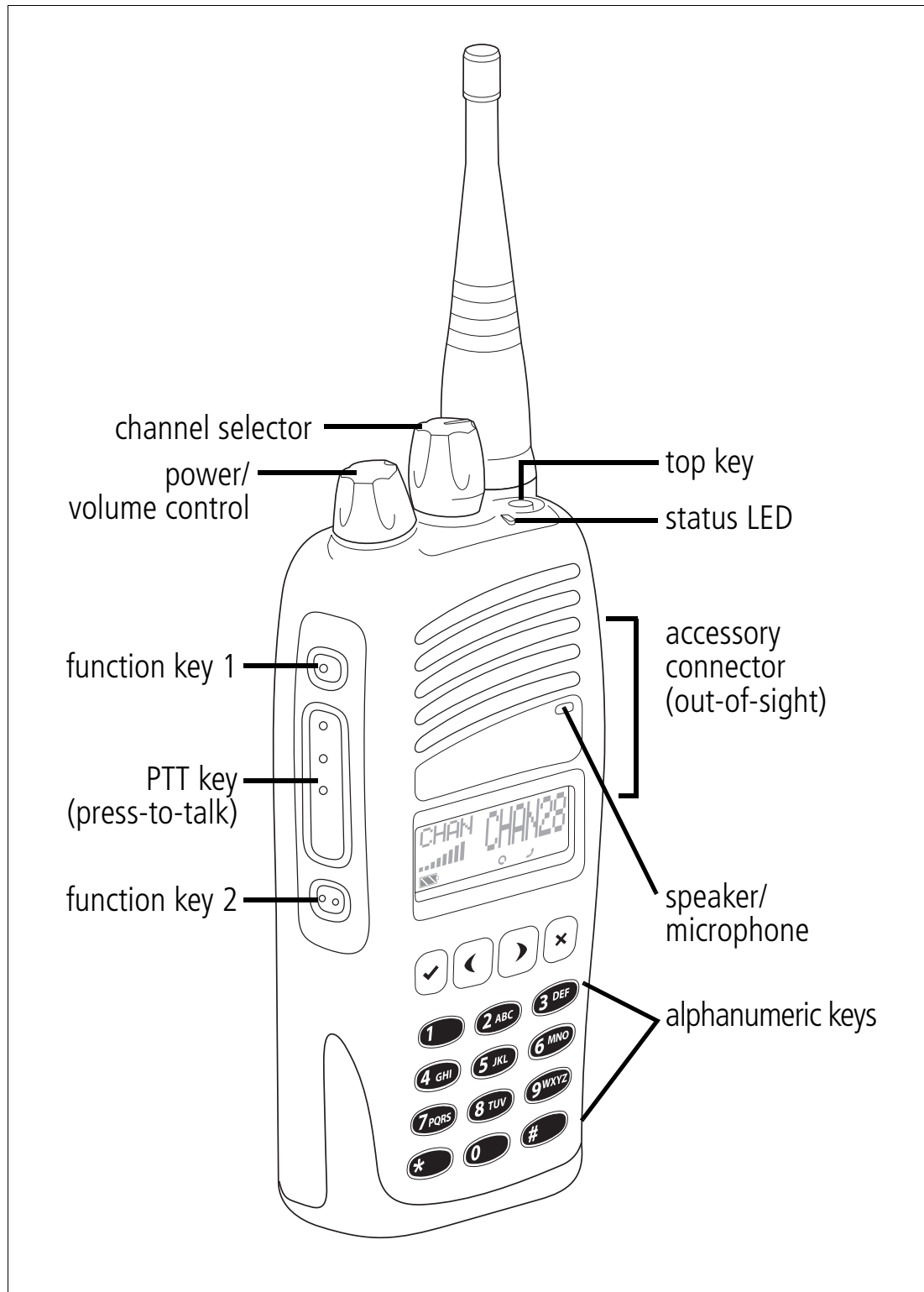
The menu text on your radio display may differ from that shown here. Menu text can be customized when the radio is programmed.

## Menu map



## Radio controls

For more information about the radio controls, see “About the radio controls” on page 19.



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# Before using your radio

Once you have unpacked your radio, there are a few tasks you must do before you can use it. The most important of these is to charge your battery for the first time—allow 12 hours for this.

This section covers:

- for your safety—battery warning
- charging the battery before first use
- attaching the battery
- attaching the antenna
- attaching a belt clip
- removing the accessory cover.

## For your safety—battery warning



**Warning:** Before using your battery or charger, please read the important safety information included with your battery. If you are using a Lithium-ion battery, special care must be taken to avoid personal injury or property damage.

## Charging the battery before first use

Before using your battery for the first time, you must charge it. Follow the instructions included with your Tait charger.

**Note:** The radio must be turned off if placed in the charger with the battery.

## Attaching the battery

To fit the battery pack to the radio:

- 1 Insert the bottom edge of the battery into the two slots at the back of the radio.
- 2 Press down on the top of the battery to snap it into place.

To remove the battery pack:

- 1 Press the battery catch down.
- 2 From the sides, pull the battery away from the radio.

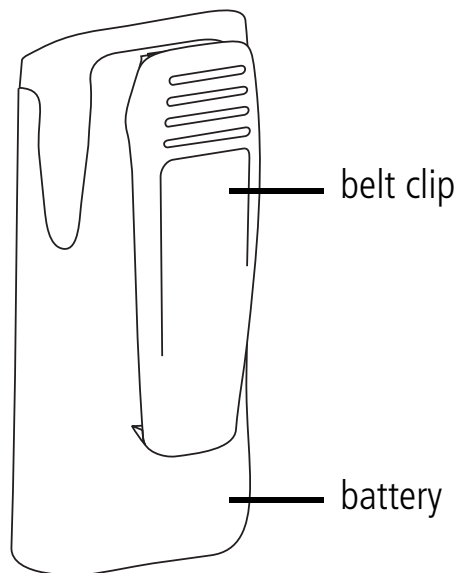
## Attaching the antenna

Before using the radio, screw the antenna clockwise into the antenna connector. The antenna should be screwed sufficiently tight so that it doesn't unscrew easily. This is important as it creates a seal.

## Attaching a belt clip

To attach a belt clip to your radio:

- 1 Slide the belt clip into the two grooves at the top of the battery.



- 2 Press down on the belt clip until it snaps into place.

See also "Removing a belt clip" on page 61.

## Removing the accessory cover

To fit some accessories to the radio, you will need to remove the accessory cover, using a coin.

# Getting started

This section provides a brief description of your radio's controls and indicators and explains how to use the radio's menus.

This section covers:

- about the radio controls
- about the keypad
- understanding the radio display
- understanding the radio indicators
- navigating the radio menus.

## About the radio controls

The radio controls are the PTT key, power/volume control, channel selector, scroll keys, selection keys and function keys. Some keys have functions assigned to both short and long key presses:

- a short key press is less than one second, and
- a long key press is more than one second.

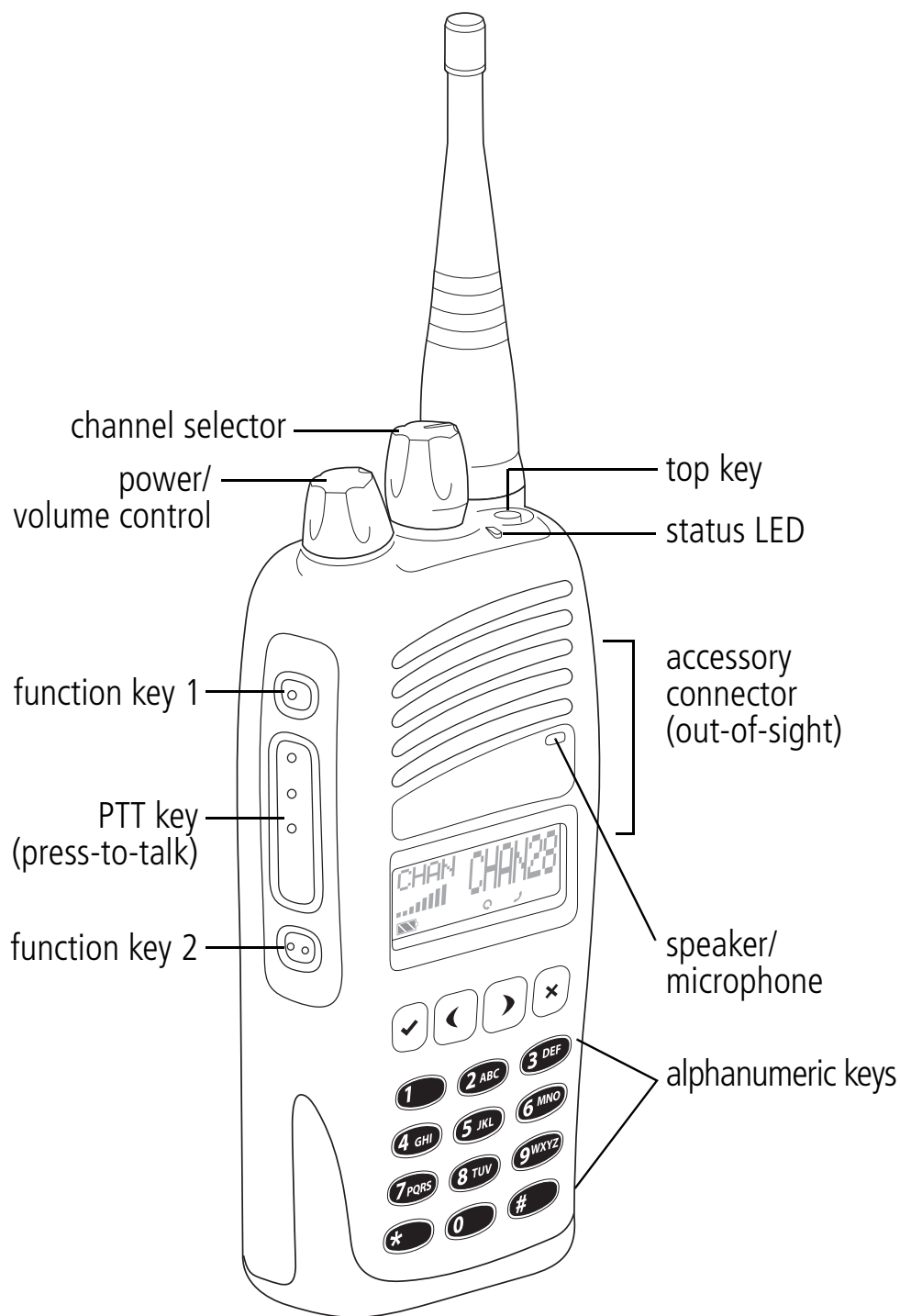
The radio controls and their functions are described in the following sections.

## About the function keys

The function keys provide quick access to features you use most often. These features are assigned to the function keys when the radio is programmed.

Some keys may have a features associated with both a short keypress and a long keypress.

See "Function key options" on page 64 for a list of features that may have been assigned to the function keys.



Symbol	Name	Function
	PTT key	Press and hold to transmit and release to listen
	Power/volume control	Rotate to turn on the radio and change the speaker volume
	Channel selector	Select and change channels
	Top key	Usually programmed as the emergency key or for a frequently used function

## 20 Getting started

Symbol	Name	Function
	Function keys 1 and 2	Programmed for frequently used features
✓	Enter	Short: Select a function, toggle a function on/off (menu mode); dial or send a message Long: Enter/exit mode or menu
◀	Left arrow	Short: Scroll left
▶	Right arrow	Short: Scroll right
✕	Clear	Short: Cancel or back (menu mode); delete single character; cancel call. Long: Delete (menu mode); exit without saving (menu mode); cancel call; keypad lock off.

## About the keypad

On radios with an alphanumeric keypad, keys 0 to 9 and letters A to Z are used for dialling numbers and codes.

### Using the keypad to enter text

When the keypad is used to enter text, the keys have special functions. Use the alphanumeric keys to enter letters, numbers and punctuation.

- Key **1** : character 1.
- Keys **2 ABC** to **9 wxyz** : press a key once to enter the first letter on that key. Repeat the process to enter the other letters and the number.
- Key **0** : press once to enter a space. Further keypresses enter the following characters:  
**0 # \* . , ! ? ' : ; " @ ( ) + \_ - + = / \$ & ÷**
- To delete a character: use the arrow keys to select the character and press the clear key **✕** to delete it.

# Understanding the radio display

The messages and symbols you see on your radio display depend on the mode in which your radio is operating and the way it is programmed. The following diagram shows a typical display and explains some of the information that may be available.



## Operating modes

Your radio has a number of operating modes, such as **CHAN** (channel), **MENU** (menu), and **CONT** (contrast). The active mode appears in the upper left-hand corner of the display. The lower left-hand corner gives additional information on the current status of the radio. In this example, **RTA** indicates the radio is in repeater talkaround mode.

## Current operation

The panel on the right-hand side shows data for the current radio operation. In this example, **CHAN9** indicates what channel the radio is currently operating on. When you enter data for a specific function, such as dialling a call, the information appears in this panel.











## Radio display symbols

The bottom line of the display shows a series of symbols that give additional information on the state of the radios. The following table shows some of symbols you may see on your display.

---

## Symbol Meaning

---

	Flashing: recharge the battery
	The battery is charged
	The radio is in DTMF dialling mode
	Monitor or squelch override is active
	Scrolling is permitted
	Steady: the radio is scanning a group of channels for activity. Flashing: activity has been found on a channel in the scan group.
	The radio is transmitting.
	Steady: low power transmit mode is active Flashing: the radio is transmitting at low power
	Steady: an auxiliary device is operating Flashing: lone worker mode is active
	Your currently selected channel is busy















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# Understanding the radio indicators

The status LED indicators and the radio's audible tones—together with the radio display—all combine to give you information about the state of your radio. The most common way the indicators work is described in the following sections.

**Note:** The way these indicators behave may be affected by the way your radio is programmed.

## Status LED indicator

Colour	Flash rate	Meaning
red	 Steady	Transmitting.
red	 slow	Battery low. Radio will also emit low-pitched beeps. Recharge or replace as soon as possible.
red	 medium	Low power transmit mode active
red	 fast	Radio is stunned. Radio also emits high-pitched beeps. Contact your dispatcher.
red	 two fast flashes	The power-up sequence is complete. Radio also emits two medium-pitched beeps.
green	 steady	Channel busy
green	 slow	Economy mode is active
green	 medium	Monitor or squelch override is active
amber	 steady	Radio is scanning or voting a group of channels for activity or greatest signal strength
amber	 slow	Repeater talkaround is active
amber	 medium	Activity detected on one of a group of channels being scanned.
amber	 fast	A Selcall call has been received
red/green	 fast 	Radio programmed incorrectly or faulty. Contact your radio provider.

## Audible tones

The radio uses a variety of beeps and tones to supplement the information provided by the status LED and the radio display.

Your radio may also have been programmed so that whenever you press a key, the radio beeps to indicate whether or not the action is permitted:

- Permitted: Short, medium-pitched beep.
- Not permitted: Long, low-pitched beep.

**Note:** Audible tones may have been disabled when your radio was programmed, and a function key assigned to turn audible tones on and off.

## Navigating the radio menus

Your radio has a number of menus available, each containing lists or submenus. The table below summarizes the options that can be accessed through the main menu. The menus available on your radio will depend on the way it was programmed.

**Note:** The menu text on your radio display may differ from that described in this section. Menu text can be customized when the radio is programmed.

Display	Operation
SELECT CHANNEL	Change channels using the keypad
SELECT BANK	Change channel banks using the keypad
SEND SELCALL	Select a status message for a Selcall call
SEND DTMF	Make a call using the telephone network
ALPHA SYMBOLS	Perform single or multiple tasks with a single keypress
SEND SDM	Enter and send a text message
USER SETTINGS	Personalise settings for a range of features
ALERT SETTINGS	Disable or adjust the level of warning beeps and tones
DISPLAY SETTINGS	Turn night operation on/off, adjust the contrast display or turn the received signal strength indicator on/off

## Using the main menu

To enter menu mode and access the main menu:

- Long press the menu key ✓; or
- Press the right arrow key ►.

The radio displays **MENU** in the top right of screen, together with the last selected menu or submenu item:



Use the arrow keys ◀ ▶ to move through the list of menus.

**Note:** Press and hold the left and right arrow keys to scroll through the menu options quickly.

When the menu you want appears, short press the menu key ✓ to open the menu you have chosen:



- To exit a menu or submenu option, press the clear key ✕.
- To exit menu mode, long press the menu key ✓.

## Changing settings

To toggle between available settings (such as high and low, or on and off), short press the menu key ✓.

## Accessing frequently used menus

The top function key may be programmed to provide a shortcut to up to three menu options. In this case, the top function key will not have a short and long press option.

To access menu options using the top function key,

- Press the top function key. Press once to access the last selected option, and press again for the next option, moving in a continuous loop.

# Basic operation

This section covers:

- turning the radio on and off
- entering your personal identification number
- adjusting the volume
- about the channels and channel banks
- understanding how the radio displays channels
- making a call
- receiving a call
- scanning for channel activity
- hearing all activity on a channel
- checking that a channel is clear.

## Turning the radio on and off

Rotate the power/volume control switch clockwise to turn the radio on. Rotate the switch counterclockwise to turn the radio off.

**Note:** The radio may not turn on if your battery is very low.

## Entering your personal identification number

**Note:** This feature is only available for radios with an alphanumeric keypad.

You may need to enter a personal identification number (PIN) before you can use your radio. If the message **ENTER CODE** appears, enter your assigned PIN and press the enter key ✓.

**ENTER CODE**

Once you have entered your PIN correctly, the radio sounds two short beeps and normal operation is now possible.

If you do not know your PIN or you receive a **WRONG PIN** message, consult your radio provider or system administrator.

## Adjusting the volume

Once the radio is on, rotate the power/volume control clockwise to increase volume. To decrease volume, rotate the control counter-clockwise. Turning the power/volume control also adjusts the level of the audible tones.

## About the channels and channel banks

In order to make and receive calls, you first need to select a channel. The procedure for selecting a channel varies depending on how your radio has been programmed.

### Selecting a channel

Each position on the channel selector denotes a channel or group of channels (scan group).

To select channels or groups 1 to 16:

- Turn the channel selector to the channel or group you want.

### Using the menu to select a channel

For channels or groups other than 1 to 16:

- 1 Long press the menu key ✓ to enter menu mode (skip to step 4 if the radio is already in channel mode).
- 2 Scroll through the main menu options using the arrow keys ◀ ▶ until **SELECT CHANNEL** is displayed.
- 3 Short press the menu key to enter **CHAN** mode.
- 4 Scroll through the channels to select the one you want.

OR

Key in the desired channel number using the keypad, then short press the menu key. A low warning beep will sound if the keyed number is not a valid channel (radios with an alphanumeric keypad only).

- 5 Long press the menu key to exit **CHAN**, if channel mode is not the default mode.

## Selecting a channel bank

Channel banking is an optional feature that allows easy access to large numbers of channels by grouping them into 'banks'. This feature will be of benefit if you regularly access a large number of channels, or frequently change repeaters.

If your radio is programmed for channel banking, each position on the channel selector denotes a channel bank.

To select channel banks 1 to 16:

- Turn the channel selector to the channel bank you want.

## Using the menu to select a channel bank

For channel banks other than 1 to 16:

- 1 Long press the menu key ✓ to enter menu mode.
- 2 Scroll through the main menu options to find **SELECT BANK** using the arrow keys ◀ ▶.
- 3 Short press the menu key to enter **BANK** mode.
- 4 Scroll through the available channel banks using the arrow keys, then short press the menu key to confirm a selection.

OR

Key in the desired channel bank number using the keypad, then short press the menu key to confirm a selection. A low warning beep will sound if the keyed number is not a valid channel bank (radios with an alphanumeric keypad only).

- 5 Long press the menu key to exit menu mode. You will not be able to exit the bank mode until a valid channel bank has been selected.

## Understanding how the radio displays channels

The number of channels in each bank differs according to the radio's configuration:

Configuration	Number of channels per bank
channel selector selects channels	Up to 16 channels in each bank
channel selector selects channel banks	Up to 32 channels in each bank


When a new channel or channel bank is selected, the radio's channel will change to the channel number specified within the newly selected bank, and the channel name or number will appear in the display.

**Note:** The channel bank number does not appear in the display – only the selected channel.

## Making a call

To make a call:

- 1 Select the desired channel as described in “Selecting a channel” on page 29, or “Selecting a channel bank” on page 30.
- 2 Check that the channel is clear. If the busy symbol ♯ appears in the display and the status LED is glowing green, the channel is busy and you may not be able to make your call.
- 3 Once the channel is clear, hold the radio so that the microphone is about 2.5 cm (one inch) from your mouth.
- 4 Press the PTT key to transmit.
- 5 Speak clearly into the microphone, identifying yourself and the party you are calling using the call signs you have been assigned.

While you are transmitting, the LED glows red and the transmit symbol  appears in the display:



- 6 Release the PTT key when you have finished talking.

### Making a call while the channel is busy

When the busy symbol ♯ appears in the display and the status LED glows green, there is activity on the channel, even though you may not be able to hear it. If you try to transmit when the radio is busy, a low-pitched warning beep sounds. Activate the monitor function to listen to channel activity. See “Checking that a channel is clear” on page 37.

## Limiting call time

Your radio may limit the amount of time you can talk (transmit) continuously. This is known as the 'transmit timer' or 'time-out timer' and allows other radio users to make calls on that channel.

When the transmit timer is about to expire, your radio gives three medium-pitched beeps. Finish your conversation as soon as possible and release the PTT.

For a short time, your radio may prevent you from making a call.

## Receiving a Call

Your radio remains quiet until there is valid activity on the channel your radio is currently on.

To receive a call:

- Select the desired channel as described in "Selecting a channel" on page 29, or "Selecting a channel bank" on page 30.

To respond to a call:

- Press the PTT key and talk.


## Scanning for channel activity

A series of channels can be grouped together so that the radio can scan through them looking for activity automatically. Scan groups are selected in the same way as channels.

Scan group channels can be set up to scan in three different ways.

They can scan for:

- Busy channels.
- Priority channels.
- The strongest signal (vote).

When the radio is scanning for activity the LED glows amber and the group name and scanning ↔ symbol  will be displayed, as shown below:



### Scanning for a busy channel

In this setup, the radio looks for any activity on the channels within the scan group. When valid activity is detected the scanning icon flashes, and the radio will stop on that channel. Scanning resumes when the channel is no longer busy or the signalling is no longer valid.

### Scanning priority channels

One or two priority channels may also have been programmed. These channels are scanned more often than other channels, and are scanned periodically when a non-priority or lower priority channel is busy.

## **Scanning for the strongest signal (voting)**

With this type of scanning the scan group's member channels carry the same traffic, and the radio searches for the channel with the strongest signal.

## **Background scanning (Flexiscan)**

The Flexiscan scanning feature allows you to communicate on a selected channel, while a group of channels is scanned for valid activity in the background.

A Flexiscan scan group can contain up to 15 member channels.

To activate Flexiscan:

- Press the assigned function key.

Your radio may be programmed so that Flexiscan is turned off when the PTT key is released after making a call when Flexiscan is active.

## **Deleting a channel from a scan group (nuisance delete)**

If a channel is busy for a long time and you do not wish to hear the conversation, you can temporarily delete it from the scan group if one of the function key settings is programmed for nuisance delete.

To temporarily delete a channel from a scan group:

- Press the assigned function key. When the scan group is next selected, the deleted channel is again part of the scan group.

## Hearing all activity on a channel

Squelch override allows you to hear all activity on a channel no matter how faint or noisy. This setting is useful when a caller is very hard to hear.

To turn squelch override on and off:

- Press the assigned function key.

OR

- 1 Long press the menu key ✓ to enter menu mode (if the radio displays a submenu option, press the clear key to enter the main menu).
- 2 Scroll through the main menu options using the arrow keys ◀ ▶ until **USER SETTINGS** is displayed.
- 3 Scroll through the user setting menu options until **SQ OVRD** is displayed (the radio will display **OFF** or **ON** as the current setting).
- 4 Short press the menu key to turn squelch override on and off.
- 5 Long press the menu key menu to exit menu mode.

**Note:** Squelch override cannot be activated when a scan group is selected, and is automatically turned off when you change to a scan group channel.

## Checking that a channel is clear



Your radio is capable of segregating individuals or groups of users by means of audible or subaudible tones (known as signalling). This means that in normal operation you may not be able to hear all calls being transmitted on a channel.


However, your radio may be programmed with the monitor function which, when activated, allows you to hear all activity on a channel. This is useful if you want to check whether a channel is clear before making a call.

**Note:** The monitor function may not have been programmed to override all signalling.

### Using the menu

To activate or deactivate the monitor function:

- 1 Long press the menu key  to enter menu mode (if the radio displays a submenu option, press the clear key  to enter the main menu).
- 2 Scroll through the main menu options to find **USER SETTINGS**, and short press the menu key.
- 3 Scroll to find **MONITOR** (the radio will display **OFF** or **ON** as the current setting).
- 4 Short press the menu key to turn monitor on and off.
- 5 Long press the menu key to exit menu mode.

When the Monitor is on, the Monitor symbol  appears in the display.

# Making and receiving different types of calls

The type of calls available to your radio depends on the way in which it is programmed.

This section covers:

- making an individual or group call
- resending calls automatically
- receiving an individual or group call
- informing other radio users of your status
- calling a telephone or a remote device
- making an emergency call
- activating the automated emergency call feature
- sending and receiving text messages.

## Making an individual or group call

You can use your radio to make calls to an individual or a specific group using Selcall (selective calling).

There are two ways to make an individual or group call:

- Using a preset call.
- Dialling a call.

### Making a preset individual or group call

Two preset individual or group calls can be assigned to each channel that has Selcall. A preset call may be assigned to a function key.

To make a preset call:

- 1 Change to the desired channel.
- 2 Press the assigned function key.





## One-touch preset calls

A single one-touch call may also be assigned to one of the function keys. To make a one-touch preset call, press the assigned function key.

## Dialling individual or group calls

**Note:** This feature is only available for radios with an alphanumeric keypad.

To call a group or individual using dialling:

- 1 Select a channel that has Selcall programmed.
- 2 Long press the menu key  to enter menu mode (if the radio displays a submenu option, short press the clear key  to enter the main menu).
- 3 Scroll through the main menu options using the arrow keys   until **SEND SELCALL** is displayed.
- 4 Short press the menu key to enter **DIAL SELCALL**, and again to enter **CALL** mode. The last number dialled is displayed.
- 5 Short press the menu key to call the last number dialled.

OR

Dial the desired number using the keypad (press the clear key to delete a character; press and hold to delete a series of characters), then short press the menu key to send.

- 6 Long press the menu key to exit menu mode.

## Receiving an acknowledgement

When you call another radio, it may automatically generate a tone sequence, beep or message to let you know that the radio you have called is on and able to receive.

## Resending calls automatically

Your radio may have been programmed to resend individual and group calls when they are not answered.

Your radio has two automatic callback features:

- Deferred calling.
- No acknowledgement retries.

### Deferred calling

When you attempt to make a call on a channel that is busy, the radio can store and send the call once the channel is free. The radio will give a low-pitched beep if the channel is busy, and will then give two long, medium-pitched beeps at regular intervals until the channel is free, and the call can be resent.

To cancel a deferred call:

- Press any key.

### No acknowledgement retries

When you send a call and there is no reply, **NO ACKNOWLEDGE** will be displayed, and the call will be resent up to 15 times.

To cancel a call that is being resent:

- Press any key.

## Receiving an individual or group call

When a call is received that contains your radio's identity, **CALL** will flash in the display and the radio gives a ringing tone.

To accept a call:

- Press the PTT key and begin speaking. If the call is a group call, there is usually no need to respond.

The caller's identity and status may also be displayed (top right-hand corner):



The caller's identity can be a name or a number, depending on how your radio was programmed.

The caller's status is displayed underneath the caller's identity. It can also be a name or number.

## Responding to missed calls

Your radio may be programmed with 'immediate callback', to help you manage missed individual and group calls.

### Using immediate callback

When you miss a call the LED will flash amber at fast flash rate, the display will flash **CALL**, and the caller's identity and status may be displayed.

The immediate callback feature can only be used when the caller's identity is displayed.

To call back the missed caller:

- Short press the menu key ✓.

## Informing other radio users of your status

You can inform other radio users of your current status by sending them a status update, for example, 'On site'. You may be able to attach a status update to an individual or group call.




### About status messages

A status message contains information about your current activity or location, which is sent to the called radio. Status messages are defined when your radio is programmed. Each message is assigned a number from 0 to 99, and an 8-character name (for example, **AT LUNCH** or **AT HOME**).

Your radio may be programmed to automatically send a status message when you send a selcall, or you may be able to assign a status message.

### Assigning a status message

To assign a status message to a call:

- 1 Long press the menu key  to enter menu mode (if the radio displays a submenu option, press the clear key to enter the main menu).
- 2 Scroll through the main menu options using the arrow keys until **SEND SELCALL** is displayed.
- 3 Short press the menu key to enter the Selcall submenu and scroll using the arrow keys until **SELECT STATUS** is displayed.
- 4 Select the desired status message from the available list using the arrow keys  .

OR Enter a number from 0 to 99 using the keypad.

- 5 Long press the menu key to confirm your choice and exit.

When you next make a Selcall call, a status message will be attached.

## Calling a telephone or a remote device

You can call a telephone or send control codes to a remote device using a feature called DTMF (the tone-based system used by the world telephone network).

There are two ways to make a DTMF call:

- Using a preset call.
- Dialling a number.

### Making a preset DTMF call

A preset DTMF call may be assigned to one of the function keys.

To make a call:

- 1 Select the channel the DTMF call is assigned to.
- 2 Press the assigned function key.

Different preset calls may be available on different channels.

### One-touch preset calls

A single one-touch call may also be assigned to one of the function keys.

To make a one-touch preset call:

- Press the assigned function key.

### Dialling a DTMF call

**Note:** This feature is only available for radios with an alphanumeric keypad.

DTMF call strings can use numbers 0 to 9, letters A to D, and the \* and # keys.

## Making an emergency call

Activate emergency mode by using the function key programmed for emergency mode.

**Note:** The emergency function key may be programmed for either a short key press or long key press.

- 1 Press the emergency function key and an emergency call is sent to your dispatcher, or some other predetermined location. The radio then enters emergency mode.

While emergency mode is active, your radio may cycle between receive and transmit, so that your dispatcher can hear any activity near the radio.

Alternatively, your radio may appear to turn off but will actually remain in emergency mode.

- 2 Reset the radio to normal operation at any time by turning the radio off and then on.

Alternatively, emergency mode may be programmed to end after a fixed period of time, or your dispatcher may reset your radio to normal operation.

### Using a double key press

To avoid accidental use of the emergency function, the emergency call may have been programmed with a 'double keypress activation' option.

The double keypress activation option will have been programmed to be used with either a short or long press.

To make an emergency call using a double **short press**:

- Short press the assigned function key twice within three seconds.

To make an emergency call using a double **long press**:

- Long press the assigned function key twice within five seconds.

## Activating the automated emergency call feature

Your radio has an automated emergency feature called 'lone worker'. Lone worker enables an emergency call to be sent if you become incapacitated while working alone.

The lone worker feature works by monitoring your activity. If no key press is detected within a specified period, a warning tone will sound (also for a specified period), after which an emergency call will be made.

To turn the lone worker feature on and off:

- Press the assigned function key.

To stop an emergency call from being sent (once the warning tone has been activated):

- Press any key.

**Note:** The time between when a key is pressed and the warning tone is activated, and the duration of the warning tone before an emergency call is made, vary depending on how your radio was programmed.

## Sending and receiving text messages

Your radio may be able to send and receive text messages.

### Reading text messages

When your radio receives a message, **SDM** (short data message) flashes in the lower left-hand corner of the display and the radio gives three short, medium-pitched beeps.

- To read a message, long press the menu key ✓. The message appears across both rows of the display.
- To scroll through the message, use the arrow keys ◀ ▶.
- To display a message from the start, hold down the PTT key and press the left arrow key ◀.
- To display a message from the end, hold down PTT and press the right arrow key ▶.

### Exiting message mode

When you have finished reading a message:

- Long press the menu key ✓ to exit.

OR

- Press the clear key ✕ to delete the message (the radio reverts to the mode it was in before you viewed the message).

### Sending a text message

**Note:** This feature is only available for radios with an alphanumeric keypad.

To send a message:

- 1 Long press the menu key ✓ to enter menu mode (if the radio displays a submenu option, press the clear key ✕ to enter the main menu).
- 2 Scroll through the main menu options using the arrow keys ◀ ▶ until **SEND SDM** is displayed, then short press the menu key to display **ENTER SDM**.

- 3 Enter a new message using the keypad (see "Entering a message" on page 47)

OR

Press an arrow key to begin editing an existing message, then proceed in the same way as for entering a new message.

- 4 Short press the menu key. The message, **ENTER ID** will be displayed, along with the receiver's identity for the last SDM transmission.
- 5 Short press the menu key again to send the message using the existing ID.

OR

Enter a new ID using the keypad if you are calling a different radio (the receiver's identity must be eight characters long), then short press the menu key to send.

**Note:** Once the message has been sent, the radio will return to the message entry mode in preparation for sending another message.

- 6 Long press the menu key to exit menu mode.

### Entering a message

A text messages can contain up to 32 characters. See "Using the keypad to enter text" on page 21.

# Changing your radio's settings

Your radio's audible indicators, radio functions and display settings can be customized to meet your requirements in the Display Settings, User Settings and Alert Settings menus.

This section covers:

- changing display settings (display settings menu)
- changing operational settings (user settings menu)
- changing audible tone settings (alert settings menu).

## Changing display settings (Display Settings menu)

**Note:** Some display features may not be available or able to be modified on your radio.

Display settings are changed in the display settings menu. Individual items in the display settings menu may be assigned to a function key.

To access the display settings menu:

- 1 Long press the menu key **✓** to enter menu mode (if the radio displays a submenu option, press the clear key **✕** to enter the main menu).
- 2 Scroll through the main menu options using the arrow keys **◀ ▶** until **DISPLAY SETTINGS** is displayed.

### Activating Backlighting (Night Operation)

When backlighting is turned on, the display and keypad will light up for a few seconds when a key is pressed, a call is received or the channel is turned.

To turn backlighting on and off:

- Press the assigned function key.

OR

- 1 Enter the display settings menu as described at the beginning of this section.

- 2 Short press the menu key ✓, then scroll through the available menu options until **NIGHT** is displayed.
- 3 Short press the menu key to turn backlighting on and off.
- 4 Long press the menu key to exit menu mode.

## Adjusting contrast

If the radio's display is too light or too dark, you can adjust the LCD contrast using the contrast adjustment function.

The contrast can be adjusted using a function key or the menu. After making the adjustment, the radio will automatically return to its previous mode of operation after a few seconds of inactivity.

To adjust the display contrast:

- Press the assigned function key. The message **CONTRAST ADJUSTMENT** is displayed. Use the arrow keys ◀ ▶ to adjust the contrast to the desired level.

OR

- 1 Enter the display settings menu as described at the beginning of this section.
- 2 Short press the menu key ✓, then scroll through the available menu options until **ADJUST CONTRAST** is displayed.
- 3 Use the arrow keys ◀ ▶ to adjust the contrast to the desired level.
- 4 Long press the menu key to exit menu mode.


## Resetting contrast to the default setting

Your radio may be programmed so that you can reset the contrast to the factory's default setting using function key 2.


To reset the contrast to the radio's default setting:

- Press and hold function key 2 while turning the radio off then on again.

## Displaying the received signal strength indicator (RSSI)

When this option is turned on, the strength of the received signal is displayed in the lower left-hand corner of the menu display .

To turn RSSI on and off:





- 1 Enter the display settings menu as described at the beginning of this section.
- 2 Short press the menu key , then scroll through the available menu options until **RSSI** is displayed.
- 3 Short press the menu key to turn **RSSI ON** and **OFF**.
- 4 Long press the menu key to exit menu mode.

## Changing operational settings (User Settings menu)

**Note:** Some operation features may not be available or able to be modified on your radio.

Operational settings are changed in the user settings menu. Individual items in the user settings menu may be assigned to a function key.

To access the user settings menu:

- 1 Long press the menu key  to enter menu mode (if the radio displays a submenu option, press the clear key  to enter the main menu).
- 2 Scroll through the main menu options using the arrow keys   until **USER SETTINGS** is displayed.


For information on modifying squelch or monitor settings, see "Improving Your Radio's Reception (Squelch)" on page 36 and "Checking That a Channel Is Clear (Monitor)" on page 37.

## Low power transmit

If you are using your radio in conditions where signal strength is high, you can extend the shift life of your battery

by transmitting at low power. While low power transmit is active, transmissions are made at low power rather than at the preset power level.

### **Turning low power transmit on and off**

While low power transmit mode is active, the low power transmit icon  is displayed in the icon bar.

To turn low power transmit on and off:

- Press the assigned function key.

OR

- 1 Enter the user settings menu as described at the beginning of this section.
- 2 Short press the menu key, then scroll through the available menu options until **LOW PWR** is displayed.
- 3 Short press the menu key to turn low power on and off.
- 4 Long press the menu key to exit menu mode.

**Note:** Some channels may have been programmed to always transmit at low power.


### **Economy mode**

Economy mode can be used when there is little or no activity on the radio. When in economy mode, the radio cycles between the receive state and a stand-by state, once there has been no activity for a preset period. Receiving or sending a call returns the radio to the fully active state.

To turn economy mode on and off:

- Press the assigned function key.

OR

- 1 Enter the user settings menu as described at the beginning of this section.
- 2 Short press the menu key , then scroll through the available menu options until **ECONOMY** is displayed.

- 3 Short press the menu key to turn economy mode on and off.
- 4 Long press the menu key to exit menu mode.

### **Locking the keypad keys and the PTT key**

The keypad lock and PTT lock prevents you from pressing a key accidentally. Which keypad keys are locked depends on how your radio was programmed, but the clear key can never be locked.

#### **Locking the keypad keys**

To activate or deactivate the keypad lock:

- Press the assigned function key.

OR

- 1 Enter the user settings menu as described at the beginning of this section.
- 2 Short press the menu key ✓, then scroll through the available menu options until **KEYLOCK** is displayed.
- 3 The current status (**LOCKED** or **UNLOCKED**) is displayed underneath.
- 4 Short press the menu key to lock and unlock the keypad. The keypad lock can also be deactivated by a long press the clear key.
- 5 Long press the menu key to exit menu mode.

If a locked key is pressed, the radio gives a long, low-pitched beep and displays the message **KEYPAD LOCKED**.

#### **Locking the PTT key**

To activate or deactivate PTT lock:

- Press the assigned function key.

OR

- 1 Enter the user settings menu as described at the beginning of this section.

- 2 Short press the menu key ✓, then scroll through the available menu options until **PTTLOCK** is displayed.
- 3 The current status (**LOCKED** or **UNLOCKED**) is displayed underneath.
- 4 Short press the menu key to lock and unlock the PTT key.
- 5 Long press the menu key to exit menu mode.

### Answering a call

If a call is received while the keypad is locked, press any key to answer.

### Choosing a DTMF Dialling Mode

**Note:** This setting applies to TP8120 radios only.

DTMF dialling has two modes: normal and buffered:

- **Normal:** Each character in DTMF string is transmitted as the key is pressed.
- **Buffered:** The DTMF string is transmitted after all the characters in the string have been entered.

To select normal or buffered dialling:

- 1 Enter the user settings menu as described at the beginning of this section.
- 2 Short press the menu key ✓, then scroll through the available menu options until **DTMF** is displayed. The current status (**NORMAL** or **UBUFFERED**) is displayed underneath.
- 3 Short press the menu key to select normal or buffered dialling.
- 4 Long press the menu key to exit menu mode.

### Bypassing Repeater Stations (Communicating Directly with Other Radios)

If you are out of range of a repeater you can communicate directly with another radio by using a feature called 'repeater talkaround'.

To activate repeater talkaround:

- Press the assigned function key.

To deactivate repeater talkaround:

- Press the function key again or change to another channel.

**Note:** Repeater talkaround is not accessible through the menu.

## Changing Audible Tone Settings (Alert Settings Menu)

**Note:** Some or all audible tone features may not be available or able to be modified on your radio.

Key tone settings can be modified using the alert settings menu. Audible tones can be modified using the alert settings menu or a function key (if assigned).

To access the alert settings menu:

- 1 Long press the menu key ✓ to enter menu mode (if the radio displays a submenu option, press the clear key ✕ to enter the main menu).
- 2 Scroll through the main menu options using the arrow keys until **ALERT SETTINGS** is displayed.

### About Audible Tones

Your radio has two features for controlling which audible tones you hear:

- **Key tones:** This feature controls the tones you hear when you press a function key, or a key on the keypad. Key tones can be turned on and off.
- **Audible tones:** This feature provides overall control for all audible tones, including key tones, receive call tones, warning tones and so on. Audible tones can be turned on and off. If audible tones is turned off, key tones will also be off.

## Turning Key Tones On and Off

To turn keypress tones on and off:

- 1 Enter the alert settings menu as described at the beginning of this section.
- 2 Short press the menu key ✓, then scroll through the available menu options until **KEYTONES** is displayed.
- 3 Short press the menu key to select on or off.
- 4 Long press the menu key to exit menu mode.

## Disabling Audible Tones

**Note:** Audible tones may not be available or able to be modified on your radio.

Audible tones can be turned on and off using a function key (if assigned).

## Turning Audible Tones On and Off

To turn audible tones on and off:

- Press the assigned function key.

OR

- 1 Enter the user settings menu as described at the beginning of this section.
- 2 Short press the menu key ✓, then scroll through the available menu options until **TONES** is displayed.
- 3 Short press the menu key to turn audible tones on and off.
- 4 Long press the menu key to exit menu mode.

## Adjusting the Level of Audible Tones

Audible tones have two settings: high and low.

To change between the high and low setting:

- 1 Enter the user settings menu as described at the beginning of this section.

- 2 Short press the menu key ✓ , then scroll through the available menu options until **LEVEL** is displayed. The current status (**HIGH** or **LOW**) is displayed underneath.
- 3 Short press the menu key to select high or low.
- 4 Long press the menu key to exit menu mode.

# Charging and caring for batteries

This section describes how to charge your Tait radio battery as well as care for it, to ensure safe operation, maximum performance and prolonged battery life.





**Warning:** Your battery is designed and manufactured to the highest standard. If you are using a Lithium-ion battery, special care must be taken to avoid personal injury or property damage. For your safety, follow the instructions included with your Tait charger and battery.

This section covers:

- radio low battery warning
- removing the battery
- before changing the battery
- charging the battery
- storing batteries
- disposing of batteries.

## Radio low battery warning

When the battery is almost empty, your radio warns you in the following ways:

- The battery indicator on the radio display flashes  .
- The LED indicator slowly flashes red .
- A low-pitched beep sounds.

You should recharge or replace the battery as soon as possible.

When the battery is completely empty, the radio emits a long, low-pitched beep and then stops operating. Turn off the radio immediately

## Removing the battery

See also "Attaching the battery" on page 17.

To remove the battery from the radio, so that the battery can be charged or replaced:

- 1 Squeeze and quickly release both battery catches to release the catch mechanism.

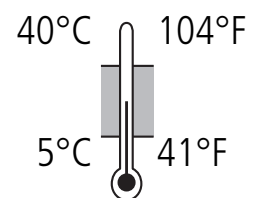
**Note:** Don't push down on the battery; allow the catch mechanism to release the battery from the radio.

- 2 Remove the battery from the radio.

## Before changing the battery

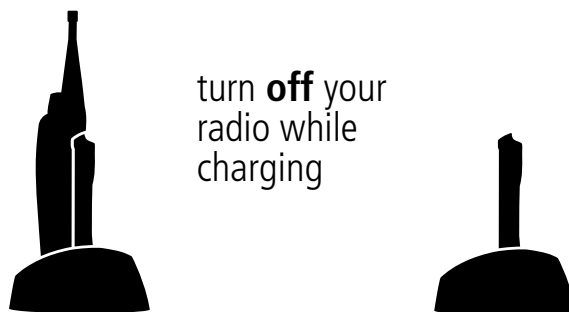
Before you begin to charge your battery, the battery temperature must be close to the room temperature in which the battery is to be charged.

**Note:** Charging starts only when the battery pack is between 5°C (41°F) and 40°C (104°F).

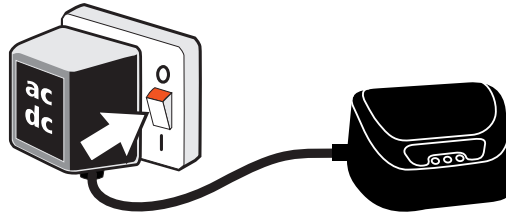


## Charging the battery


**Note:** The radio must be turned **off** if placed in the charger with the battery.




- 1 Connect the charger to the correct Tait power adaptor, and power on the power adaptor. The three charger LEDs all light up for about two seconds.



- 2 Put the battery in the charger and check that it is correctly seated.

The red LED  lights up, to indicate that the battery is charging.

When the green LED  lights up, the battery is fully charged.

**Note:** If the amber LED  lights up, there is a fault. Switch off the power adaptor and refer to “Troubleshooting your charger” on page 62.


- 3 Remove the battery when you are ready. The charger will not overcharge the battery. Nor will removing the battery early damage it.

## Storing batteries

When not in use for a month or more, batteries should be stored correctly to prolong their life.

### Storing a Li-ion battery

To prepare a Li-ion battery for storage:

- Discharge the battery by allowing the radio to turn itself off. (The radio display flashes , the radio emits a long, low-pitched beep and then stops operating.)
- Remove the battery from the radio.
- Store the battery in a cold, dry place.

## Storing a nickel metal hydride (NiMH) battery

To prepare an NiMH battery for storage:

- Remove the battery from the radio. The battery can be either charged or discharged.
- Store the battery in a cold, dry place.

## Using batteries after storage

Batteries that have been stored must be charged before being used. See “Charging the battery” on page 58.

NiMH batteries that have been stored for longer than three months may not last an entire shift. This is normal. If stored properly, the battery’s optimal capacity should be restored after two or three shifts (charge/discharge cycles).

## Disposing of batteries



Batteries should be disposed of properly.

Discharge Li-ion batteries before disposing of them.

When disposing of a battery, be sure to do so in an environmentally sensitive manner. If disposed of in landfills, batteries can be very hazardous to the environment.

Please contact your radio provider for information on recycling programs in your area.

# Troubleshooting

If you are experiencing difficulty operating your radio, you may find the following sections helpful. Consult your radio provider for assistance, if necessary.

This section covers:

- when your radio won't turn on
- removing a belt clip
- checking the version of your radio
- troubleshooting your charger
- general care
- cleaning the radio.

## When your radio won't turn on

If the red LED on the radio does not light up when the radio is turned on, it is probable that power is not reaching the radio. Check the following:

- Is the battery firmly attached to the radio?
- Is the battery sufficiently charged?
- Is the battery charger working properly?

If all appears to be in order, but your radio still fails to operate properly, contact your radio provider for further assistance.

## Removing a belt clip

The belt clip has been designed to prevent accidental removal, but you can take it off, if required.

To remove a belt clip from a battery:

- 1 Insert a flat screwdriver blade or similar flat object under the lip of the release lock (that is, between it and the metal slider).

- 2 Lift the release lock up (away from the metal slider) and hold it in position.
- 3 Slide the belt clip out.

## Checking the version of your radio

Your radio provider may ask you for the hardware and firmware version of your radio, for troubleshooting purposes.

## Troubleshooting your charger

### Charger LEDs do not light up

Possible reason(s) and solution(s) include:

- The power adaptor is not connected, or not turned on. Remove power adaptor plug and refit.
- The battery has not been detected. Check that the battery contacts are clean and battery is seated correctly.
- The charger contacts are stuck. Check that the charger contacts move freely.

### Charger amber LED lights up

Possible reason(s) and solution(s) include:

- Charging is suspended because the battery is either too hot or too cold. Charging will begin when the temperature of the battery is between 5°C (41°F) and 40°C (104°F).
- The battery is not compatible with the charger. Check that the label on the battery charger (Li-ion or NiMH) matches the label on the battery.
- There is incorrect voltage to the charger. Check you are using the correct power adaptor and it is not faulty.
- The battery may be faulty. If problem persists consult your radio provider for advice.

## General care

Your radio requires no regular maintenance other than ensuring that the battery has sufficient charge and that no damage has occurred to the antenna or the battery.

To prevent permanent damage to the radio case, do not allow the radio to come into contact with detergents, alcohol, aerosol sprays, or petroleum-based products.

For battery care, see “Charging and caring for batteries” on page 57.

## Cleaning the radio

If you need to clean the radio case, use a cloth dampened with clean water. Do not immerse the radio in fluids.

# Function key options

**Note:** Some functions are not permitted in some countries.

The features below can be assigned to the function keys when the radio is programmed. If you do not know which features have been programmed for your radio, see your system administrator.

For information on function keys, see "About the function keys" on page 19.

## Common functions

Function	Description
Audible Tones	Turns audible tones on and off.
Backlighting	Turns backlighting on. Backlighting will turn off after a programmed period.
Channel's DTMF Preset	Sends the DTMF preset call assigned to the current channel.
Contrast Adjustment	Allows you to adjust the display contrast.
Disable Monitor	Disables the monitor facility, if it is active.
Economy Mode	Turns economy mode on and off.
Emergency DTMF	Activates DTMF emergency mode.
Emergency Selcall	Activates Selcall emergency mode.
Keypad Lock	Locks the keypad so the keys cannot be activated accidentally; a long press of the clear key deactivates the keypad lock. What keys are locked depends on how the radio was programmed; however, the clear key cannot be locked.
Lone Worker	Monitors radio activity so that an emergency call can be sent if a worker becomes incapacitated.

<b>Function</b>	<b>Description</b>
Low Power Transmit	Changes the transmit power from medium or high to low. Pressing the key again returns the transmit power to the programmed level. Channels can also be programmed for low power.
Night Use	Turns night operation mode on and off.
Nuisance Delete	Temporarily deletes the current channel from the scanning regime.
One Touch Call	Sends a preset Selcall call or DTMF call, or selects a channel.
Preset Selcall	Sends the preset Selcall call assigned to the current channel.
Program Flexiscan	Allows you to enter Flexiscan programming mode. You can now change group membership and change priority channels.
Repeater Access Tone	Sends the repeater access tone to key up the transmitter.
Repeater Talkaround	Allows you to bypass normal repeater operation and communicate directly with another radio. Pressing the key again or change to another channel to turn off repeater talkaround.
Squelch Override	Turns squelch override on and off, so the user can hear all activity on a channel, including noise. The radio may be programmed so that a long press of the clear key turns squelch override on and off.
Toggle Flexiscan	Turns Flexiscan on and off. Your radio may be programmed so that Flexiscan is turned off when the PTT key is released after making a call when Flexiscan is active.
Toggle Monitor	Toggles monitor on and off, so that the user can hear all traffic on a channel. A short press the clear key may also toggle monitor.

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