TP9310 DMR Portable Radio
User's Guide

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Contents

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In China, we comply with the Measures for Administration of the Pollution Control of Electronic Information Products. We will comply with environmental requirements in other markets as they are introduced.

For your safety

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

Radio frequency exposure information

For your own safety and to ensure you comply with the radio frequency (RF) exposure guidelines of the United States Federal Communication Commission's (FCC), Industry Canada, and those from other administrations, 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 use a carry 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.

For more information on what RF energy is and how to control your exposure to it, visit the FCC website at 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.
- European Directive 2004/40/EC on minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields).

This radio complies with the IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environments at operating duty factors of up to 50% talk to 50% listen.

Conformité aux normes d'exposition à l'énergie RF

Cette radio émetteur-récepteur se conforme aux normes et aux règlements d'exposition à l'énergie RF :

- La Commission fédérale de la communication des Etats-Unis, Code de règlements fédéraux (CFR) Titre 47 Sections 1.1307, 1.1310 et 2.1091 (radios mobiles) ou 2.1093 (radios portatives).
- 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.
- La directive européenne 2004/40/EC concernant les prescriptions minimales de sécurité et de santé relatives à l'exposition des travailleurs aux risques dus aux agents physiques (champs électromagnétiques).

Cette radio se conforme aux limites d'exposition de l'IEEE (FCC) et ICNIRP pour les environnements d'exposition au rayonnement RF professionnel et contrôlé aux cycles de marche de 50% en mode transmission et 50% en mode réception.

Radio frequency emissions limits in the USA

CFR Title 47 Part 15.19 (a) (1) - Receivers

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.

CFR Title 47 Part 15.19 (a) (3) - All other devices

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.

Radio frequency emissions limits in Canada

This device complies with Industry Canada licence exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

USA public safety bands (764-776MHz and 794-806MHz)

The Code of Federal Regulations (CFR) Title 47 Subpart R deals with the use of frequencies in the 764 to 776MHz and 794 to 806MHz bands.

Low-power channels

This radio complies with §90.531 (b) (3) and §90.531 (b) (4) of 47 CFR. These sections state that only low-power transmission is permitted on the following channels:

- Regional Planning channels, as defined in §90.531 (b) (3).
- Itinerant channels, as defined in §90.531 (b) (4).

Use of encryption

This radio complies with §90.553 (a) of 47 CFR. This states that:

- Encryption is not permitted on the nationwide Interoperability calling channels. These channels are defined in §90.531 (b) (1) (ii).
- Radios using encryption must have a readily accessible switch or control to allow the radio user to disable encryption.

EMC regulatory compliance in Australia

N46 This product meets all ACMA regulatory requirements for electromagnetic compatibility (EMC). For more information about EMC compliance, visit the ACMA website at www.acma.gov.au.

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.

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 77 of this booklet. To download the formal declaration of conformity, go to www.taitradio.com/eudoc.

Interference with electronic devices

Warning 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:

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

Switch off the radio before boarding an aircraft. Using your radio while in the air is not permitted.

Consult the manufacturer (or its representative) of any such electronic devices to determine whether electronic circuits in those devices will perform normally when the radio is transmitting.

Warning If you have a pacemaker:

- immediately turn off the radio if you suspect it is interfering with the pacemaker
- keep the radio at least 6 inches (15 cm) from the pacemaker while the radio is on
- use the radio on the side opposite to the pacemaker to minimize interference
- never carry the radio in a breast pocket.

If there is interference between your hearing aid and the radio, please discuss an alternative solution with the hearing aid manufacturer.

Potentially explosive atmospheres and blasting areas

Warning Unless the radio is specifically certified for use in a potentially explosive atmosphere, turn off the radio before entering such an atmosphere. An explosion could cause serious injury or death. Examples of potentially explosive atmospheres include filling stations, and any environment where there are flammable liquids, gases, or dusts.

Warning Turn off the radio before approaching blasting caps, a blasting area, or any area where you are instructed to turn off a two-way radio. Obey all signs and instructions. Interference with blasting operations could cause serious injury or death.

Radio installation and operation in vehicles

Warning Keep the radio away from airbags and airbag deployment areas. Do not install, charge, or place a radio near such areas. An activated airbag can propel a portable radio with sufficient force to cause serious injury to vehicle occupants. An airbag may not perform to specification if obstructed by a radio.

Warning To avoid damage to existing wiring, airbags, fuel tanks, fuel and brake lines, or battery cables, refer to the installation guide for the radio, and to the vehicle manufacturer's manual, before installing electronic equipment in the vehicle.

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.

Vehicle charger installation and operation

For detailed instructions necessary to the safe installation and operation of the vehicle charger, please refer to the documentation supplied with the vehicle charger.

Multicharger safety information

Warning This device must be connected to an earthed mains socket-outlet.

Norsk (no): Apparatet må tilkoples jordet stikkontakt.

Suomi (fi): Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.

Svenska (sv): Apparaten skall anslutas till jordat uttag.

Electromagnetic compatibility in European vehicles

In the European Community, radio equipment fitted to automotive vehicles is regulated by Directive 72/245/EEC and its amendments. The requirements of this directive cover the electromagnetic compatibility of electrical or electronic equipment fitted to automotive vehicles.

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. Failure to do so could invalidate compliance requirements and void the user's authority to operate the radio.

Attaching of labels

Warning Do not obstruct the vent hole on the battery or the vent hole on the radio chassis label. If the vent on the battery is obstructed, the battery may explode, causing personal injury and/or damage to property. If the vent on the radio is obstructed, audio quality and/or key function may deteriorate and radio seals may be damaged.

Caution Tait recommends that you do not affix additional labels to the surfaces between the radio chassis and the battery. The fit between these surfaces is intentionally firm and any added thickness will damage the points of attachment between radio and battery. If you must attach a customized label, use only a thin gummed paper label applied to the bottom 25% of the radio chassis label and/or to the top 25% of the battery label. Do not obstruct the vent holes (see Warning above). Do not allow the paper label to extend beyond the recessed label area or to conceal relevant product information.

Use of lithium-ion batteries

Warning A damaged battery can cause an explosion or fire, and can result in personal injury and/or property damage. To prevent personal injury and/or damage to property, read the important safety information supplied with the battery.

Short-circuiting battery contacts

Warning Do not short-circuit the battery contacts, neither intentionally nor accidentally, e.g. by placing the battery with conductive materials such as keys or jewelry inside a pocket or container. Short-circuiting the battery contacts can heat up the conductive material and cause personal injury and/or damage to property.

1 About this guide

This user's guide provides information about the TP9310 DMR portable radio.

The radio behavior described in this guide applies to radios with firmware version 2.15. If your radio does not operate as you expect, contact your radio provider for assistance.

Safety warnings used in this guide

Please follow exactly any instruction that appears in the text as an 'alert'. An alert provides necessary safety information as well as instruction in the proper use of the product. This user's guide uses the following types of alert:

Warning This alert is used when there is a hazardous situation which, if not avoided, could result in death or serious injury.

Caution This alert is used when there is a hazardous situation which, if not avoided, could result in minor or moderate injury.

Notice This alert is used to highlight information that is required to ensure procedures are performed correctly. Incorrectly performed procedures could result in equipment damage or malfunction.

This icon is used to draw your attention to information that may improve your understanding of the equipment or procedure.

Related documentation

The following documentation is also available for your Tait radio, which you can access from the Tait Technical Support website (http://support.taitradio.com):

- *Safety and Compliance Information*—supplied with each radio. (The same information is included in this user's guide.)
- *Li-ion Battery Safety Information*—supplied with each Li-ion battery.
- *Battery Care and Charging Guide*—supplied with each charger. (The same information is in the section "Charging and caring for batteries" on page 56.)

2 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 2.5 hours for this.

Warning Do not charge the battery or change the antenna in a hazardous location. An explosion could cause serious injury or death.

This section covers:

For your safety—battery warning

Warning This radio uses a Lithium-ion battery. If the battery is damaged or handled in an unsafe manner, it can cause personal injury and/or damage to property. Read the important safety information included with your battery.

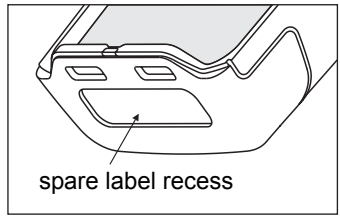
Attaching labels to the radio or battery

Warning Do not cover the battery vent hole or the vent hole on the radio chassis. If the vent on the battery is obstructed, the battery may explode, causing personal injury and/or damage to property. If the vent on the radio is obstructed, audio quality and/or key function may deteriorate and radio seals may be damaged.

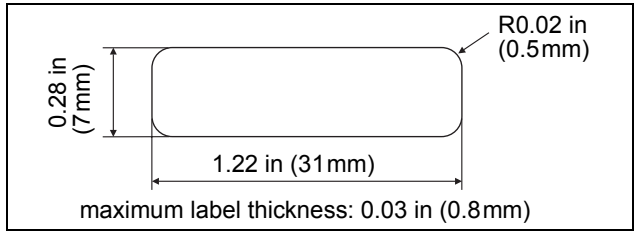
Notice Tait recommends that you do not affix additional labels to the surfaces between the radio chassis and the battery. The fit between these surfaces is intentionally firm and any added thickness will damage the points of attachment between radio and battery.

Attaching a label to the front panel

If a customer requires an additional label, attach the label in the spare label recess in the bottom edge of the radio front panel. In this position, the label is still visible while the battery is attached to the radio.



The diagram below shows the specified dimensions of the label.



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. This information is repeated in the section "Charging and caring for batteries" on page 56.

For best charging performance, switch off the radio before placing it in the charger.

Attaching the battery

Notice Fit the bottom edge of the battery to the radio, then the top edge. Attempting to fit the top edge first may damage the contacts.

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

If the battery has been attached while the radio is turned on, turn the radio off and then on again before use.

2 Holding the radio firmly, align the back of the battery with the back of the chassis.

3 Place the two lugs at the bottom edge of the battery into the two slots in the bottom of the front panel.

4 Lightly press the top of the battery towards the radio until the battery catch clicks.

5 Make sure that the battery is firmly in position.

Removing the battery

The battery is secured to the radio by a battery catch in the radio's rear panel.

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

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

If the battery has been removed while the radio is turned on, turn the radio off and then on again before use.

2 Slide the battery catch up.

3 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.

Removing the antenna

Warning Do not change the antenna in a hazardous location. An explosion could cause serious injury or death.

Use a firm grip and turn the antenna counterclockwise half a turn. Use a lighter grip to fully unscrew the antenna, and carefully remove it.

Attaching a belt clip

To attach a belt clip to the 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.

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.

Installing an audio accessory

Audio accessories plug into the radio's accessory connector. The accessory connector is protected by a cover, which needs to be removed before an accessory can be installed.

Notice The accessory cover protects the accessory connector from electrostatic discharge. Keep the cover in place unless the connector is in use.

To remove the accessory cover and install an audio accessory:

1. Use a coin or other blunt object to loosen the screw that secures the accessory cover to the radio.
2. Remove the accessory cover and store it in a safe place.
3. Plug the accessory into the accessory connector.
4. Tighten the screw.

3 Getting started

This section gives an overview of your DMR radio and describes the radio's controls and indicators.

This section covers:

- About your DMR digital radio
- About the radio controls
- Understanding the radio indicators
- Using function keys to access frequently used features

About your DMR digital radio

Your DMR digital radio can be programmed for DMR conventional or DMR trunked operation. Analog conventional and MPT operations are also available.

You may notice differences between digital and analog calls in terms of:

- static noise in low signal areas, and
- radio coverage in marginal reception areas.

Lack of static noise

On digital networks there is no static noise, even in low signal areas. This lack of static is because your digital radio removes the ‘noise’ from the call, so that you hear only clear voice.

Coverage

With digital networks, a call remains clear and then drops off quickly at the border of a coverage area. The reason for this is that a digital call is either received or it isn't. With analog networks, the background noise in a call gets progressively worse when you are in fringe areas or even slightly outside normal coverage areas.

What you hear on an analog channel

On analog channels, your radio may be programmed so that you hear all conversations on a channel, or your user group may be segregated from other user groups by using special signaling. The special signaling is used to control the muting and unmuting of your radio, so that your radio is muted when other user groups are talking and unmuted for members of your user group.

There are two muting controls that operate in your radio:

- signaling mute
- squelch

Signaling mute

The radio's signaling mute only allows the radio to unmute if the incoming call carries the tones specific to your user group. Your user group may use tones that are either audible, subaudible or both.

Squelch

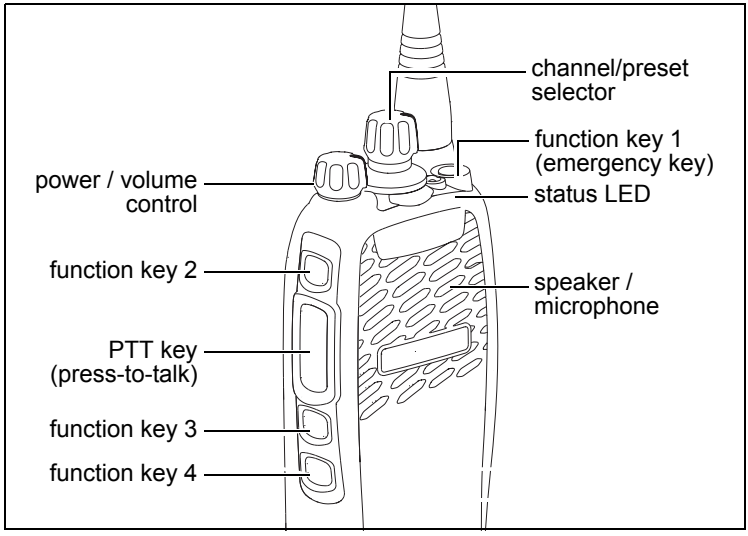
The radio's squelch allows the radio to unmute only when the strength of the incoming signal is above a predetermined threshold. This means that only signals of reasonable intelligibility are made audible.

About the radio controls

The radio controls are the PTT key, power/volume control, channel selector, 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.



Name	Function
PTT key	Press and hold to transmit and release to listen
Power/volume control	Rotate to turn the radio on and change the speaker volume
Channel/Preset selector	Select and change channels/presets
Function keys	Programmed for frequently used options

Understanding the radio indicators

The status LED indicator and the radio's audible tones combine to give you information about the state of your radio.

The most common way the indicators work is described in the following sections.

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

Status indicators

Color		Meaning
Red		On: your radio is transmitting
		Flashing: your transmit timer is about to expire
Green		On: Network channel: the network is active Radio-to-radio channel: the current channel is busy
		Flashing: you have received a call or monitor is active
Orange		Flashing: you are registered on a trunked network

Audible tones

The radio uses audible tones to alert you to its status:

- Radio controls and keypress tones—the tones and beeps you hear when you press your radio's keys or use the controls.
- Incoming call tone—when the radio is receiving a call.
- Warning tones—when there is an error, or the battery is low, for example.

Warning If quiet or silent mode is turned on, you will not hear any alert tones.

Some of the more common audible tones are described below:

Tone	Meaning
One short beep	■ Valid keypress: The action you have attempted is permitted. ■ Function activated: A function has been turned on (using a function key).
One short, low-pitched beep	Function deactivated: A function has been turned off (using a function key).
One long, low-pitched beep	■ Invalid keypress: The action you have attempted is not permitted. ■ Transmission inhibited: You have attempted to transmit, but for some reason you cannot make a call at this time.
Two short beeps	■ Radio turned on: The radio is powered on and ready to use. ■ Radio is revived: The radio has been made operable by your service provider. ■ Go-ahead beeps (DMR calls)
Three long beeps	Transmit timeout imminent: Your transmit timer will expire and your current transmission will be terminated.

Tone	Meaning
One short, high-pitched beep	Radio is stunned: The radio has been made inoperable by your service provider.
Two low-pitched beeps	Radio's temperature is high: The radio's temperature is in the high-temperature range, but the radio will continue to operate.
Two high-pitched beeps	Radio's temperature is very high: The radio's temperature is in the very high temperature range and all transmissions will now be at low power; if the radio's temperature rises outside this range, transmissions will be inhibited. Turn off the radio and allow it to cool down.
Two long high-low pitched tone pairs	Synthesizer is out-of-lock: The radio's synthesizer is out-of-lock on the current channel and you cannot operate on that channel.

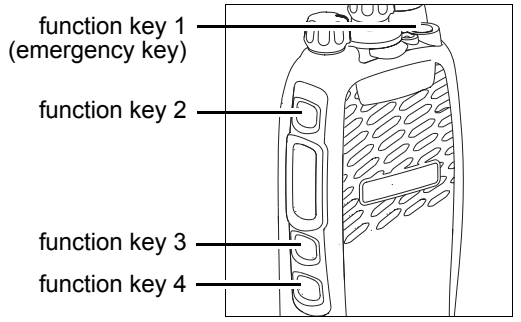
Voice annunciation

Your radio may be programmed to play a pre-recorded message for the start-up channel, network or trunked workgroup and zone, as well as when any of these are changed.

In conventional mode, your radio may be programmed to play a pre-recorded message for the start-up channel and/or when changing a channel.

Using function keys to access frequently used features

The function keys provide access to some of the features you will use most often. These features are assigned to the function keys when the radio is programmed. Some keys may have a feature associated with both a short key press and a long key press.



Use the following table to record the function keys programmed for your radio:

	Short key press	Long key press
F1		
F2		
F3		
F4		
F5[1]		
F6[1]		

1. On speaker microphone (if fitted)

For more information about the function keys that can be programmed on your radio, contact your radio provider.

4 Operation

This section describes the operation of the radio.

This section covers:

- Turning the radio on and off
- Adjusting the speaker volume

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.

When the radio is first turned on, the status LED briefly glows red, and the radio gives two short beeps.

Your radio may not turn on if your battery is very low. (See "Low battery warning" on page 61.)

Adjusting the speaker volume

Rotate the power/volume control clockwise to increase the speaker volume and counterclockwise to decrease the volume.

The volume control also changes the volume level of the radio's audible indicators.

5 Operating in conventional mode

This section explains how to operate your radio on a conventional network (digital and analog).

Notice The radio may be switched between conventional and trunked modes using a ‘change mode’ programmable function key. This function key should be programmed under both conventional, and trunked key settings, to allow the modes to be switched in both directions.

This section covers:

Selecting a channel or group

Use the channel selector to switch through the channels and groups.

If you turn the channel selector while pressing the PTT key, the channel will change after you release the PTT key.

A group is a collection of channels that are grouped together for either scanning or voting.

The sections "Using the radio in different repeater areas" on page 44 and "Scanning a group of channels" on page 45 explain how your radio operates once a scan group or voting group has been selected.

Making a call

The radio's behavior when making a call changes depending on the type of channel selected.

Channels can be programmed for:

- DMR calls over the DMR network
- DMR calls between radios
- analog calls between radios

If you are on a channel programmed for calls over the DMR network, the green LED indicates whether the network is active. By default, the network is inactive (green LED is off).
Initiating a call will activate the network which will remain active for a programmed time. While the network is active (green LED glows), you can complete the call and start a new call.

If you are on a channel programmed for DMR or analog calls between radios (without a radio network), the green LED indicates activity on the channel, i.e. whether someone is talking.

For all DMR calls (over the network or radio to radio), you will hear a go-ahead double-beep after pressing the PTT key (if programmed).

Receiving a new DMR call is indicated by a number of beeps (if programmed):

- one beep: individual call
- two beeps: group call
- three beeps: broadcast call to all radios

DMR calls have an inactivity timeout. If a pause in the conversation exceeds the timeout, the next press of the PTT key will establish a new call.

To make a call:

1. Select the required channel or group.
2. On channels programmed for DMR or analog calls between radios (without a radio network): Check that the channel is clear. If the LED is glowing green, the channel is busy and you may not be able to transmit.
3. Hold the radio so that the microphone is about one inch (2.5 cm) from your mouth and press the PTT key to transmit.
4. On a DMR channel: Wait for the go-ahead double-beep (if programmed).
5. Speak clearly into the microphone and release the PTT key when you have finished talking.

   While you are transmitting, the LED glows red.

If you turn the channel selector while pressing the PTT key, the channel will change after you release the PTT key.

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.

The radio warns you before the transmit timer expires by beeping three times. The status LED flashes red.

If the transmit timer has timed out, you must release the PTT before you can transmit again.

Your radio may be unable to transmit for a short time after the transmit timer has expired.

Making an emergency call

You may be able to activate emergency mode by using a programmed function key.

1 Press the function key programmed for Emergency Mode and an emergency call is sent to your dispatcher, or some other predetermined location. The radio will sound a high-pitched tone sequence.

   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, if operating in 'stealth mode' your radio may appear to be idle but will actually be in emergency mode.

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

Emergency mode may be programmed to end after a fixed period of time. In this case, there is no need to turn the radio off and then on in order to return the radio to normal operation.

Making an individual call

This feature is available for DMR digital channels only.

To make a call to one person:

1 Press the programmed function key.

   This will send a call alert to the called radio.

2 After the called person has answered, press PTT when it is your turn to talk.

Making a preset call

You may be able to use your radio to make preset calls to an individual or a specific group using special signaling known as 'Selcall'.

Preset individual or group calls can be assigned to each channel and/or function key.

To make a preset call:

1 Select the required channel or group.

2 Press the programmed function key or PTT (depending on your configuration).

Resending calls automatically

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

There are 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 gives a low-pitched beep if the channel is busy, and then waits until the channel is free to retry the call.

A deferred calling time limit may have be configured. Once the time limit has expired the radio will no longer attempt to retry the call.

To cancel a deferred call:

- Press the PTT key.

No acknowledgement retries

When you send a call and there is no reply, the call is resent.

To cancel a call that is being resent:

- Press the PTT key.

Sending a status message

Your radio may be programmed to use one or more function keys to send a status message to another party to indicate your current activity.

- Press the programmed function key.

Status messages can also be used to control external devices.

Transmitting at low power

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.

Some channels may always transmit at low power.

To turn low power transmit on or off for all channels:

1. Press the function key programmed for low-power transmit to transmit at low power on your current channel.
2. Press the low-power transmit function key again to turn low-power transmit off.

Using monitor and squelch override (on analog channels)

The monitor function allows you to override some or all of the radio's mutes, and hear if there is any traffic on a channel before you make a call.

The squelch override function lets the radio user override the squelch (carrier) mute and hear all noise on a channel, including weak signals that are below the programmed squelch threshold.

To turn monitor on and off:

- Press the function key programmed to turn monitor on and off.

While monitor is on, the LED slowly flashes green.

Your radio may be programmed so that monitor turns off automatically after a short time.

To turn squelch on and off:

Squelch is often programmed as a long keypress of the same function key that turns monitor on and off.

1 Long press the monitor function key to override both squelch and the signalling mutes.

   This allows you to hear even faint and noisy signals. While squelch override is on, the LED slowly flashes green.

2 Press the monitor function key again to return the radio to a quiet state.

Squelch cannot be overridden when the radio is scanning.

Bypassing the repeater (on analog channels)

For analog channels, you can bypass the radio repeater and communicate directly with another radio. This feature is known as repeater talkaround. You can do this, for example, when you are out of range of the repeater, or if the repeater is busy or stops working. While repeater talkaround is active, all transmissions are made on the receive frequency of the channel you are on.

To activate repeater talkaround:

1 Select the required channel.

2 Press the programmed function key to turn repeater talkaround on.

3 Proceed with your call.

4 To turn repeater talkaround off, either change the channel, or press the function key again.

Receiving a call

When there is valid activity on your radio's currently selected channel or group, the radio unmutes and you can hear the call.

If an incoming analog call contains special signaling that matches the signaling programmed for your radio, the LED flashes green and your radio may give a ringing tone.

Using the radio in different repeater areas

Your radio may have a group of channels programmed as a voting group. The channels in the voting group all carry the same traffic, but from different repeaters. As your radio moves in and out of different repeater coverage areas, the best communication channel is automatically selected for you to use, until a better communications channel is selected.

This channel is known as the 'home' channel, and will be the channel you make and receive calls on.

The section "Selecting a channel or group" on page 37 explains how to select a group. A group can be either a voting or a scanning group.

Suspending a channel from a voting group

You may be able to use the function key programmed for nuisance delete to temporarily delete one of the channels from the voting group.

When that voting group is next selected, or after the radio has been turned off and then on, the deleted channel is again part of the voting group.

Scanning a group of channels

The scan function is used to monitor a programmed group of channels, looking for activity. When activity is detected on a channel in the scan group, the radio stops on that channel. The radio unmutes and you can hear the call. Scanning resumes once the channel is no longer busy.

The section "Selecting a channel or group" on page 37 explains how to select a group. A group can be either a voting or a scanning group.

Making a call while scanning

If you wish to make a call while your radio is scanning:

1. If there has been no recent activity on the channel, then the channel that is called depends on the way your radio has been programmed. The possible options are:
   - your radio calls a predetermined channel e.g. your dispatcher,
   - your radio calls the channel where activity was last detected, or
   - your radio calls the last free channel.
2. When the called party responds, proceed with your conversation.

Suspending a channel from a scanning group

If a member channel of a scan group is busy for a long time and you do not wish to hear the conversation, you may be able to use the function key programmed for nuisance delete to temporarily delete it from the scan group.

When the scan group is next selected, or after the radio has been turned off and then on, the deleted channel is again part of the scan group.

Encryption

Your radio’s DMR channels may be programmed to encrypt outgoing calls. Incoming calls will still be decoded by your radio so long as the key required to decode the call is stored in your radio.

Location information

Your radio may be configured to send location information.

6 Operating in trunked mode

This section explains how your radio operates on a DMR (digital), MPT (analog) or dual-mode trunked network.

Notice The radio may be switched between conventional and trunked modes using a ‘change mode’ programmable function key. This function key should be programmed under both conventional, and trunked key settings, to allow the modes to be switched in both directions.

These features are controlled by software licenses (SFE) and may not be available with your radio.

Your radio must have trunking functionality programmed before it can operate in DMR or MPT trunked mode.

This section covers:

Making a preset call

The preset calls programmed for your radio may be to other radios, to PABX extensions or to PSTN numbers, or to perform a special function using a trunked call string (such as changing the current trunked network).

Depending on how your radio is programmed, you may be able to use a function key to set up a preset call.

About trunked zones and workgroups

Trunked zones and workgroups are used to manage the calls on the trunked system. Zones typically define geographic areas (towns, suburbs or counties), or branches of an organization. Workgroups span multiple zones, and typically define functions, work areas or job roles.

When your radio belongs to a workgroup, it is said to be ‘subscribed’, and you receive all calls directed to that group of users. A group’s members are dynamic, in that a group only contains radios that are currently registered on the system and subscribed to the same group.

Your radio may be programmed to use different names for a ‘zone’ and ‘workgroup’.
For example, ‘district’ or ‘area’ may be used in place of zone, and ‘role’ or ‘group’ may be used in place of workgroup.

Selecting a zone

Depending on how your radio is programmed, you may be able to use the channel selector to select a zone.

Enabling workgroups on the TP9310

In order to enable workgroups on the TP9310, your radio must be programmed with the **Trunked UI** > **General** > **Display** > **Idle Display** field set to “**Zone and Workgroup**”.

Complete the following steps in the programming application:

1 Unselect the **Specifications** > **Entry Level Radio** field.

2 Change the **Trunked Features** > **Trunked UI form** > **General tab** > **Idle Display field** to '**Zone and Workgroup**'.

3 Select the **Specifications** > **Entry Level Radio** field.

4 Program the radio.

Selecting a workgroup

Depending on how your radio is programmed, you may be able to use the channel selector to select a workgroup.

Making a call to a workgroup

Different types of calls may be associated with your workgroups. These calls can be individual calls, preset calls, broadcast calls (no response permitted), or conference calls.

To make a call to a workgroup:

1 Select the required zone. See "Selecting a zone" on page 48.

2 Select the required workgroup. See "Selecting a workgroup" on page 49.

3 Press the PTT key, and a call to that workgroup is made.

Selecting the homegroup

Your 'homegroup' is the workgroup in which your radio usually operates. Depending on your radio configuration, you may be able to return to your homegroup using a function key.

Using a function key

You may be able to use a function key to toggle between your homegroup, and the currently selected zone and workgroup.

- Press the function key programmed for your homegroup.

  If voice annunciation has been configured, the radio will announce the homegroup when you return to it from another workgroup.

Scanning workgroups

The ‘My Workgroups’ list comprises the current workgroup, the homegroup, and other programmed groups. When scanning is active, the radio will receive activity from any subscribed groups in the My Workgroups list.

To activate scanning:

Using a function key

Depending on how your radio is programmed, you may be able to use a function key to toggle scanning.

About emergency operation

In an emergency you may be able to summon help by sending an emergency call. After making the call, your radio may be programmed to enter emergency mode. While emergency mode is active, your radio may cycle between receive and transmit, so that your dispatcher or the called party can hear any activity near your radio.

On most networks, an emergency call takes precedence over other call types, and existing calls are cleared down so that the emergency call can proceed.

To make an emergency call from your radio, you may be able to either:

- make a preset emergency call,
- use a function key programmed for emergency mode.

Making a preset emergency call

Depending on how your radio is programmed, you may be able to use a programmed function key to make a preset emergency call from your radio.

1 Press the programmed function key (depending on your configuration).

An emergency call is now sent to the emergency location that has been programmed for your radio.

Activating emergency mode

You can activate emergency mode using a function key programmed for emergency mode. Once emergency mode is activated, your radio makes an emergency call 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.

Cancelling emergency mode

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

Emergency mode may be programmed to end after a fixed period of time. In this case, there is no need to turn the radio off and then on in order to return the radio to normal operation.

Receiving a call

When you receive a call, your radio responds in one of two ways, depending on the way it was programmed and the way your network operates.

- On-air call setup: The radio gives a ring and automatically accepts the call.
- Full off-air call setup (FOACSU): When a call is received, the radio rings like a telephone.

  To accept the call, briefly press the PTT key.

Once the green LED glows, the network is active and you can proceed with the call, as follows:

1. Hold the microphone about 2 inches (5cm) from your mouth.
2. Press and hold the PTT key to transmit.
3. Speak clearly into the microphone and release the PTT key when you have finished talking.

   While you are transmitting, the LED glows red.
4. End the call by pressing a function key programmed for Call Cleardown. The network may also end the call if neither you nor the other party transmits for a predetermined time or if your call time limit is exceeded.

Transmit timer

Your radio may have a transmit timer that limits the amount of time you can transmit continuously.

When the transmit timer is about to expire, the LED flashes red, and the radio gives three beeps.

If the transmit timer times out, the call clears down.

Call time limit

In trunked mode, the length of your call may be limited by the network or by your radio.

Placing the radio in do-not-disturb mode

If you do not want calls for a while, you can place the radio in do-not-disturb mode, so that incoming calls can be ignored. You can make outgoing calls in the usual way.

Using a function key

1. Press the function key programmed for do not disturb, to activate the do-not-disturb function.

   Your radio will now ignore all incoming calls.

2. To deactivate the do-not-disturb function, press the do-not-disturb function key again.

Activating do-not-disturb mode will result in a single short beep. Deactivating do-not-disturb mode will result in a single, short, low-pitched beep.

7 Loneworker monitoring

Loneworker monitoring is a safety feature for people who work alone. Loneworker monitoring may be programmed to be on or off at all times, or can be switched on and off by the user using a programmed function key.

A loneworker alarm is activated if for a predetermined period of time:

- the radio has been tilted by more than 60 degrees (man down)
- the radio has not moved
- there has been no user activity

Your radio may be programmed to respond to a combination of these events.

When the predetermined time has expired, an audible warning is given and you have a predetermined time to respond to the loneworker situation.

If you are unable to respond, the radio enters emergency mode.

Turning loneworker monitoring on and off

- Press the function programmed for turning loneworker monitoring on and off.

Responding to a loneworker alarm

If you hear a beep to indicate that the radio is expecting a response from you to acknowledge that you are safe:

- Press any key.
- Move the radio.
- If using the man down feature, restore the radio to an upright position.

Otherwise the radio will activate emergency mode.

8 Charging and caring for batteries

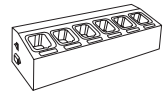
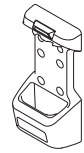
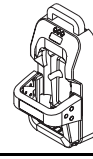
This section describes how to charge your Tait radio battery as well as care for it, to ensure safe operation, maximum performance and prolonged battery life.

This section covers:

About the chargers

Unless otherwise indicated, the charging advice and instructions in this document apply to all chargers.

The following chargers are available for your Tait radios and batteries:

Part number range	Designation	
T03-00012-xxxx	Desktop charger	
T03-00013-xxxx	6-way charger	
T03-00014-AAAA	Battery-only vehicle charger	
T03-00014-Bxxx	Vehicle charger	

6-way charger safety information

Warning This device must be connected to an earthed mains socket-outlet.

Norsk (no): Apparatet må tilkoples jordet stikkontakt.

Suomi (fi): Laite on liitettävä suojamaadoitus-koskettimilla varustettuun pistorasiaan.

Svenska (sv): Apparaten skall anslutas till jordat uttag.

Before using the charger

Check the battery label and charger label to see if the charger is compatible with the battery. See also "About the chargers" on page 57.

Warning Handle the battery safely. Failure to observe the following handling recommendations could result in personal injury and/or equipment damage.

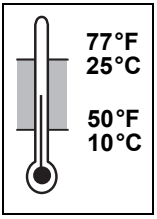
- Before using a Li-ion battery, read the Li-ion Battery Safety Information (MPC-00006-xx) included with your battery, and follow the instructions it provides. Incorrect use of a Li-ion battery can cause explosion or fire.
- Do not short-circuit the battery contacts, neither intentionally nor accidentally, e.g. by placing the battery with conductive materials such as keys or jewelry inside a pocket or container. Short-circuiting the battery contacts can heat up the conductive material.
- Do not obstruct the vent hole(s) on the battery. If the vent on the battery is obstructed the battery may explode, causing personal injury and/or equipment damage. If the vent on the radio is obstructed, audio quality and/or key function may deteriorate and radio seals may be damaged.

Notice Turn the radio off before removing the battery, and turn it on again after attaching the battery. This ensures that the radio powers down and up correctly. Failing to follow this procedure may require the radio to be turned off then on again to operate correctly.

Charging temperatures

Notice Do not expose a battery to very high or very low temperatures for extended periods of time. Doing so will shorten the usable life (‘service life’) of the battery.

To achieve the best results when charging your battery:



- Before you begin to charge your battery, make sure that the battery temperature is close to the room temperature in which the battery is to be charged.
- If possible, charge the battery in temperatures between 50°F and 77°F (between 10°C and 25°C). This temperature range is the optimal charging range.

Charging only starts when the battery is between 32°F to 104°F (0°C to 40°C).

When the battery temperature is outside the normal charging range, the orange LED on the charger is lit. Charging will start or resume once the temperature is within normal limits, and no action is required by you.

Leaving the battery on charge

You can leave a battery/radio in the charger once charging is complete. Leaving a battery in the charger will not overcharge or damage it.

You can remove a battery/radio from the charger at any time without harming the battery, the radio, or the charger. When you return the battery/radio to the charger, charging is automatically resumed.

Vehicle chargers only

It is safe to switch off the ignition while there is still a battery in the charger. But if the vehicle will not be used again for some time, check whether charging will continue while the ignition is off, and consider what effect this might have on the vehicle battery.

To check, place the battery in the charger and switch off the vehicle ignition:

- If no charger LED stays lit, the charger will resume charging only when the ignition is switched on again. Minimal charger standby power will be drawn from the vehicle battery until then.
- If a charger LED stays lit, the charger will continue to charge the radio battery even while the ignition is off, and will continue to draw power from the vehicle battery. Once the battery is charged, the charger draws minimal current and has little effect on a healthy vehicle battery.

Receiving calls while charging (not for battery-only vehicle charger)

Notice For best charging performance, switch off the radio before placing it in the charger.

You can receive a call while the radio is in the charger, but your radio performance may be degraded. If you do remove the radio from the charger to answer a call, the call will not be disrupted.

Removing the radio from the charger to make or receive a call ends the charging process. Charging safely recommences when the radio is reinserted into the charger.

Low battery warning

Notice Do not allow a radio battery to fully discharge every time you use it, or you will shorten the service life of the battery.

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

- The status LED on the radio slowly flashes red.
- A high-pitched beep sounds.

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

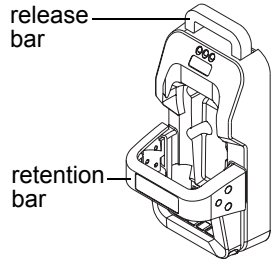
When the battery is completely empty, the radio emits a long, low-pitched beep and then stops working. Turn off the radio.

Inserting the radio into the vehicle charger

1 Place the radio in the charger with the battery attached.

Warning When the portable radio is used inside a vehicle, radio performance is degraded. Use a mobile radio for all critical communications. If the portable radio must be left switched on while it is in the charger, removing the radio from the charger will improve radio performance. Check your local regulations about using a portable radio in a vehicle.

2 Firmly press the retention bar towards the radio. If the larger battery is attached to the radio, there will be an audible click as the catches engage. If the smaller battery is attached to the radio, there will be two audible clicks as the catches engage. If the catches do not engage, remove the radio. Press once firmly on the release bar, then try again.



Charging a battery for the first time

Fully charge a battery before using it for the first time.

The red LED stays lit while the battery charges.

Charging a battery

Notice For best charging performance, switch off the radio before placing it in the charger (not for battery-only vehicle charger).

1 Desktop charger: Connect the charger to the correct Tait power adaptor.

6-way charger and vehicle charger:
Power on the charger.

Initially, all three LEDs are lit for 2 seconds.

2 Place just a battery in the charger, or a radio with a battery attached (desktop charger or 6-way charger only). There is no need to remove a belt clip, antenna, or any accessory that is attached to the accessory connector.

The red LED lights up, and stays lit while the battery charges.

When charging is complete, the green LED stays lit.

LED behavior

If there is a battery in the charger when power is supplied to the charger, the LEDs behave as follows:

	Meaning
● ● ● briefly	The charger has been connected to a power supply.
○ ● ○ steady	The battery is charging.
● ○ ○ steady	Charging complete. Remove the battery, or leave it in the charger.
○ ○ ● steady	■ The battery temperature is outside the normal charging range. Charging will start or resume once the temperature is within normal limits. No action is required by you. ■ There is a fault. Contact your dealer.
○ ○ ✸ or ○ ✸ ✸ flashing	If the LEDs for all charger slots continuously flash orange, or red then orange, the charger itself may be faulty (e.g. the 6-way charger fan may be jammed). Contact your dealer.
○ ○ ○ all off	There is a fault. Contact your dealer.

If the charger does not behave as expected:

- Make sure the radio or battery is seated properly in the charger. For the vehicle charger, see also "Inserting the radio into the vehicle charger" on page 62.
- Check that the charger is properly plugged into the originally supplied power supply.
- Check that the battery and charger contacts are clean. To clean, wipe the contacts with a dry lint-free cloth to remove any dirt, oil or grease.

Removing the battery from the charger

- Desktop charger and 6-way charger: Lift the battery/radio out of the charger.
- Battery-only vehicle charger: Pull up the top clip of the vehicle charger, and then lift out the battery.
- Vehicle charger: Press down once firmly on the release bar at the top of the vehicle charger, and then lift out the radio.

You can remove a battery/radio from the charger at any time without harming the battery, the radio, or the charger. When you return the battery/radio to the charger, charging is automatically resumed. You can also leave a battery/radio in the charger once charging is complete.

Maintaining battery life and performance

With proper care and maintenance you will maintain the performance and life of the battery. It is recommended that you:

- Use only Tait chargers and batteries.
- Do not expose a battery to very high or very low temperatures for extended periods of time. Doing so will shorten the service life of the battery.
  Very high: above 140°F (60°C)
  Very low: less than –4°F (–20°C)
- Charge the battery at a room temperature of between 50°F and 77°F (between 10°C and 25°C). This temperature range is the optimal charging range.
- Wipe excess moisture and dirt from the radio, radio contacts and battery contacts before charging the battery.

- Store batteries properly when not in use. See "Storing batteries".

Storing batteries

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

- Remove the battery from the radio before storage.
- Fully charge the battery if storing for less than one month.
- Charge batteries to about 30% if storing for longer than one month.
- Store in a cool dry place.

Batteries that have been stored for any length of time must be charged before being used. See "Charging a battery for the first time" on page 63.

Disposing of batteries

Run the battery flat before disposing of it. When disposing of the battery, be sure to do so in an environmentally sensitive manner. Please contact your radio provider for information on recycling programs in your area. See "Environmental responsibilities" on page 6 for more information.

9 Troubleshooting

This section describes troubleshooting procedures, and basic maintenance.

This section covers:

About troubleshooting

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

When your radio won't turn on

If the LED on your radio does not glow red 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.

Identifying the radio's audible tones

The radio's audible tones can help you identify a potential problem. See "Audible tones" on page 31.

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.

Notice 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 general battery care, see "Maintaining battery life and performance".

Cleaning the contacts of the battery

Notice Do not scratch or scrape the contacts of the battery. If necessary, wipe the contacts of the battery with a dry, lint-free cloth to remove any dirt, oil or grease.

Cleaning the radio

If you need to clean the radio case, use a cloth dampened with clean water.

Tait Software Licence Agreement

This Software License Agreement ("Agreement") is between you (“Licensee”) and Tait Limited (“Tait").

By using any of the Software items embedded and pre-loaded in the related Tait Designated Product, included on CD, downloaded from the Tait website, or provided in any other form, you agree to be bound by the terms of this Agreement. If you do not agree to the terms of this Agreement, do not install or use any of the Software. If you install or use any of the Software, that will be deemed to be acceptance of the terms of this Agreement.

For good and valuable consideration, the parties agree as follows:

SECTION 1 DEFINITIONS

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4.3. Unless otherwise authorized by Tait in writing, Licensee will not, and will not enable or allow any third party to: (i) install a copy of the Software on more than one unit of a Designated Product; or (ii) copy or transfer Software installed on one unit of a Designated Product to any other device. Licensee may temporarily transfer Software installed on a Designated Product to another device if the Designated Product is inoperable or malfunctioning. Temporary transfer of the Software to another device must be discontinued when the original Designated Product is returned to operation and the Software must be removed from the other device.

4.4. Licensee will maintain, during the term of this Agreement and for a period of two years thereafter, accurate records relating to this license grant to verify compliance with this Agreement. Tait, or a third party nominated by Tait, may inspect Licensee's premises, books and records, upon reasonable prior notice to Licensee, during Licensee's normal business hours and subject to Licensee's facility and security regulations. Tait is responsible for the payment of all expenses and costs of the inspection, provided that Licensee shall indemnify Tait for all costs (including audit costs and legal costs on a solicitor client basis) if Licensee has breached the terms of this Agreement. Any information obtained by Tait during the course of the inspection will be kept in strict confidence by Tait and used solely for the purpose of verifying Licensee's compliance with the terms of this Agreement.

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7.1. Licensee will not transfer the Software or Documentation to any third party without specific prior written consent from Tait. Tait may withhold such consent or at its own discretion make the consent conditional upon the transferee paying applicable license fees and agreeing to be bound by this Agreement.

7.2. In the case of a value-added reseller or distributor of Tait Designated Products, the consent

referred to in Section 7.1 may be contained in a Tait Reseller or Tait Distributor Agreement.

7.3. If the Designated Products are Tait vehicle-mounted mobile products or hand-carried portable radio products and Licensee transfers ownership of the Tait mobile or portable radio products to a third party, Licensee may assign its right to use the Software which is embedded in or furnished for use with the radio products and the related Documentation; provided that Licensee transfers all copies of the Software and Documentation to the transferee.

7.4. For the avoidance of any doubt, Section 7.3 excludes TaitNet Infrastructure, or the products listed at any time under network products at: http://www.taitradio.com.

7.5. If Licensee, as a contractor or subcontractor (integrator), is purchasing Tait Designated Products and licensing Software not for its own internal use but for end use only by a Customer, the Licensee may transfer such Software, but only if a) Licensee transfers all copies of such Software and the related Documentation to the transferee and b) Licensee has first obtained from its Customer (and, if Licensee is acting as a subcontractor, from the interim transferee(s) and from the ultimate end user sub license) an enforceable sublicense agreement that prohibits any other transfer and that contains restrictions substantially identical to the terms set forth in this Software License Agreement. Except as stated in the foregoing, Licensee and any transferee(s) authorised by this Section may not otherwise transfer or make available any Tait Software to any third party nor permit any party to do so. Licensee will, on request, make available evidence reasonably satisfactory to Tait demonstrating compliance with all the foregoing.

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8.2. Within thirty (30) days after termination of this Agreement, Licensee must certify in writing to Tait that all copies of the Software have been removed or deleted from the Designated Products and that all copies of the Software and Documentation have been returned to Tait or destroyed by Licensee and are no longer in use by Licensee.

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Licensee acknowledges that the Software and Documentation contain proprietary and Confidential Information valuable to Tait and are

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10.1. In no circumstances shall Tait be under any liability to Licensee, or any other person whatsoever, whether in Tort (including negligence), Contract (except as expressly provided in this Agreement), Equity, under any Statute, or otherwise at law for any losses or damages whether general, special, exemplary, punitive, direct, indirect, or consequential arising out of or in connection with any use or inability of using the Software.

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11.3. ASSIGNMENTS AND SUBCONTRACTING. Tait may assign its rights or subcontract its obligations under this Agreement, or encumber or sell its rights in any Software, without prior notice to, or consent of, Licensee.

11.4. GOVERNING LAW. This Agreement shall be subject to and construed in accordance with New Zealand law and disputes between the parties concerning the provisions hereof shall be determined by the New Zealand Courts of Law. Provided however Tait may at its election bring proceedings for breach of the terms hereof or for the enforcement of any judgment in relation to a breach of the terms hereof in any jurisdiction Tait considers fit for the purpose of ensuring compliance with the terms hereof or obtaining relief for breach of the terms hereof.

11.5. THIRD-PARTY BENEFICIARIES. This Agreement is entered into solely for the benefit of Tait and Licensee. No third party has the right to make any claim or assert any right under this Agreement, and no third party is deemed a beneficiary of this Agreement. Notwithstanding the foregoing, any licensor or supplier of third-party software included in the Software will be a direct and intended third-party beneficiary of this Agreement.

11.6. SURVIVAL. Sections 4, 5, 6.3, 7, 8, 9, 10, and 11 survive the termination of this Agreement.

11.7. ORDER OF PRECEDENCE. In the event of inconsistencies between this Agreement and any other Agreement between the parties, the parties agree that, with respect to the specific subject matter of this Agreement, this Agreement prevails.

11.8. SECURITY. Tait uses reasonable means in the design and writing of its own Software and the acquisition of third-party Software in order to limit Security Vulnerabilities. While no software can be guaranteed to be free from Security Vulnerabilities, if a Security Vulnerability is discovered, Tait will take the steps specified in Section 6 of this Agreement.

11.9. EXPORT. Licensee will not transfer, directly or indirectly, any Designated Product, Documentation or Software furnished hereunder or the direct product of such Documentation or Software to any country for which New Zealand or any other applicable country requires an export license or other governmental approval without first obtaining such license or approval.

11.10. SEVERABILITY. In the event that any part or parts of this Agreement shall be held illegal or null and void by any court or administrative body of competent jurisdiction, such determination shall not affect the remaining terms which shall remain in full force and effect as if such part or parts held to be illegal or void had not been included in this Agreement. Tait may replace the invalid or unenforceable provision with a valid and enforceable provision that achieves the original intent and economic effect of this Agreement.

11.11. CONSUMER GUARANTEES. Licensee acknowledges that the licenses supplied in terms of this agreement are supplied to Licensee in business, and that the guarantees and other provisions of prevailing consumer protection legislation shall not apply.

11.12. WHOLE AGREEMENT. Licensee acknowledges that it has read this Agreement, understands it and agrees to be bound by its terms and conditions. Licensee also agrees that, subject only to the express terms of any other agreement between Tait and Licensee to the contrary, this is the complete and exclusive statement of the Agreement between it and Tait in relation to the Software. This Agreement supersedes any proposal or prior agreement, oral or written, and any other communications between Licensee and Tait relating to the Software and the Designated Products.

Directive 1999/5/CE Declaration of Conformity

da Dansk
Undertegnede Tait Limited erklærer herved, at følgende udstyr TPDB1A, TPDC0A, TPDH5A & TPDH7A overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Se endvidere: www.taitradio.com/eudoc/

de Deutsch
Hiermit erklärt Tait Limited die Übereinstimmung der Geräte TPDB1A, TPDC0A, TPDH5A & TPDH7A mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG.
Siehe auch: www.taitradio.com/eudoc/

el Ελληνικά
Η Tait Limited δηλώνει ότι το TPDB1A, TPDC0A, TPDH5A & TPDH7A συμμορφώνεται προς τις ουσιώδεις απαιτήσεις και τις λοιπές σχετικές διατάξεις της Οδηγίας 1999/5/ΕΚ.
Βλέπε επίσης: www.taitradio.com/eudoc/

en English
Tait Limited declares that this TPDB1A, TPDC0A, TPDH5A & TPDH7A complies with the essential requirements and other relevant provisions of Directive 1999/5/EC.
See also: www.taitradio.com/eudoc/

es Español
Por medio de la presente Tait Limited declara que las radios TPDB1A, TPDC0A, TPDH5A & TPDH7A cumplen con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE. Véase también: www.taitradio.com/eudoc/

fi Suomi
Tait Limited vakuuttaa täten että TPDB1A, TPDC0A, TPDH5A & TPDH7A tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Katso: www.taitradio.com/eudoc/

fr Français
Par la présente, Tait Limited déclare que les appareils TPDB1A, TPDC0A, TPDH5A & TPDH7A sont conformes aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Voir aussi: www.taitradio.com/eudoc/

it Italiano
Con la presente Tait Limited dichiara che questo TPDB1A, TPDC0A, TPDH5A & TPDH7A è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Vedi anche: www.taitradio.com/eudoc/

nl Nederlands
Hierbij verklaart Tait Limited dat het toestel TPDB1A, TPDC0A, TPDH5A & TPDH7A in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/ EG.
Zie ook: www.taitradio.com/eudoc/

pt Português
Tait Limited declara que este TPDB1A, TPDC0A, TPDH5A & TPDH7A está conforme com os requisitos essenciais e outras provisões da Directiva 1999/5/CE.
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sv Svensk
Härmed intygar Tait Limited att denna TPDB1A, TPDC0A, TPDH5A & TPDH7A står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Se även: www.taitradio.com/eudoc/