

Custom Settings

Function Key Settings

Short Press

Long Press

F1: _____

F2: _____

Ext1: _____

Ext2: _____

Handset Mode Volume Keys

Volume Up: _____ Volume Down: _____

Selcall Settings

Selcall ID: _____

Commonly Used Channels/Groups

Position	Settings
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



TAIT
Radio Communications

www.taitworld.com/orca/

CANADA

Toll Free: 1-800-890 TAIT (8248)

E-mail: canada@taitworld.com

USA

Toll Free: 1-800-890 TAIT (8248)

E-mail: usa@taitworld.com

LATIN AMERICA

E-mail: latinamerica@taitworld.com

AUSTRALIA

E-mail: australia@taitworld.com

NEW ZEALAND

E-mail: headoffice@tcl.tait.co.nz

EUROPE

E-mail: sales@tait.co.uk

HONG KONG

E-mail: hongkong@taitworld.com

BEIJING

E-mail: beijing@taitworld.com

SINGAPORE

E-mail: singapore@taitworld.com

THAILAND

E-mail: thailand@taitworld.com

CORPORATE HEAD OFFICE

NEW ZEALAND

Tait Electronics Ltd

P O Box 1645, Christchurch

E-mail: tait@taitworld.co.nz



TAIT ORCA 5011 • TAIT ORCA
OPERATOR'S MANUAL



CONVENTIONAL



THE TAIT ORCA 5000

SERIES OF

POWERFUL,

SOPHISTICATED

PORTABLE RADIOS

ARE ESSENTIAL

FOR ORGANIZATIONS

SERIOUS ABOUT

MOBILE

COMMUNICATIONS.

OPERATOR'S MANUAL

Tait Electronics Ltd is an ISO 9001 registered supplier. Certificate No.461.



TAIT Authorized Dealer

November 2004 M5011-NA-002-805



COMPLETING YOUR SOLUTION

Important Charging Information



- Turn your radio off before charging.
- New batteries must be long conditioned before first use.
- Replace or recharge your battery as soon as the radio indicates the battery is low.

For More Information . . .

Complete information on batteries and battery chargers is provided in the following guides supplied with your battery and battery charger:

- “Battery Care Guide” (MBAT2-03-051), supplied with your battery.
- “Battery Charger User Guide” (MBAT1-03-052), supplied with your charger.

Tait Electronics Ltd has made every effort to ensure the accuracy of the information in this manual. However, Tait Electronics Ltd reserves the right to update the radio and/or this manual without notice.

© Copyright Tait Electronics Limited November 2004. All rights reserved.

All information contained in this manual is the property of Tait Electronics Ltd. All rights are reserved. This manual may not, in whole or in part, be copied, photocopied, reproduced, translated, stored, or reduced to any electronic medium or machine-readable form, without prior written permission from Tait Electronics Ltd. All trade names referenced are the service mark, trademark or registered trademark of the respective manufacturers.

Safety Warnings



- When transmitting, do not hold the radio with its antenna close to or touching any part of your body, especially your face and eyes.
- Turn the radio off at petrol filling stations.
- Turn the radio off in the vicinity of explosive devices, such as at a quarry that uses blasting techniques.
- Do not use a handheld microphone or radio while driving or operating machinery.
- Use only Tait Orca battery chargers to charge your radio battery.
- Avoid using unnecessarily high volume levels if using the radio with an earphone or headset.
- Do not transmit within the frequency band 406 to 406.1 MHz. This band is reserved for use by distress beacons.
- Do not immerse your Tait Orca radio in water.

Contents

Important Charging Information	1
Safety Warnings	2
Getting Started	5
Installing the Antenna.....	5
First Use of Battery	5
Installing and Removing the Battery Pack.....	6
Installing a Belt Clip	6
Removing a Belt Clip	6
Radio Controls and Indicators	8
On/Off/Volume Control	8
16-Way Selector	8
Short and Long Key Presses.....	8
Double Key Presses.....	8
PTT (press-to-talk) Key	9
Function Keys.....	9
Radio Indicators	9
LED Indicators.....	9
Audible Indicators	10
Programmable Function Key Settings	11
Basic Operation	13
Turning the Radio On and Off and Adjusting Volume.....	13
Selecting a Channel	13
Receiving a Call	13
Making a Call	14
Transmit Timer	14
What You Hear On a Channel	14
CTCSS and DCS.....	15
5-Tone	15
2-Tone	15
Monitor	15
Squelch Override	16
Scanning and Voting Groups	16
Voting.....	17
Flexiscan	17
Nuisance Delete	17
5-Tone Signaling	18
Receiving a 5-Tone Call	18
Making a Preset 5-Tone Call.....	18
One-Touch Preset Calls.....	18
Emergency Call.....	19
Sending a 5-Tone Emergency Call	19
Other 5-Tone Features.....	19

Deferred Calling	19
No Acknowledgment Retries	20
G-STAR ID Signaling	21
G-STAR Emergency Signaling	21
Stealth Emergency Mode	21
Emergency Cycling	22
2-Tone Decoding	23
Receiving a 2-Tone Call	23
DTMF Calls	24
Preset DTMF Calls	24
One-Touch Preset Calls	24
Other Features	25
Economy Mode	25
Handset Operation	25
Turning On and Off	26
Volume Override	26
Low Power Transmit	26
Turning On and Off	26
Repeater Talkaround	26
Turning On and Off	27
Basic Maintenance	28
General Care	28
Charging and Caring for Batteries	28
Warning: Disposing of Used NiCd Batteries	28
Troubleshooting	29
Options and Accessories	30
Removing the Accessory Cover	30
D-Clip and Accessory Connectors	31
Specifications	32

Getting Started

Your Tait Orca portable radio is programmed to suit your communication needs. If you are unsure which features described in this manual are available on your radio, consult your system manager or the person who programmed your radio.

The custom features programmed for your radio can be listed on the “Custom Settings” page on the inside back cover of this manual.

When you receive your Tait Orca radio, make sure all items you ordered are included. Typically, you should receive the following:

- Tait Orca radio.
- Battery pack.
- Antenna.
- Operator’s Manual (this document).
- Compliance Information (separate document).

Your Orca may also be supplied with accessory components (see “Options and Accessories” on page 30).

If any parts are damaged or missing, report this to your system manager or local dealer immediately.

Installing the Antenna

Before using the radio, connect the antenna to the socket at the top of the radio.

First Use of Battery



Caution: The battery must be long conditioned, which includes a full-charge before first use of the radio, to maximize the battery’s initial capacity.

Refer to the documents supplied with your battery and charger for battery care and charging information.

Installing and Removing the Battery Pack

To fit the battery to the radio:

- 1 Insert the bottom edge of the battery into the two slots at the back of the radio.
- 2 Push the battery towards the radio. It should snap into place.

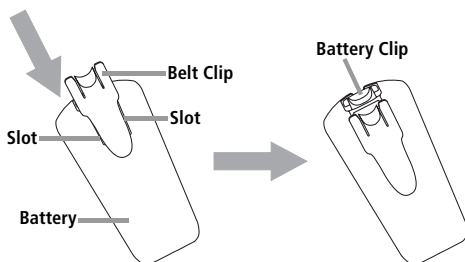
To remove the battery pack, push the battery catch down, and from the sides, pull the battery away from the radio.

Installing a Belt Clip

Most Tait Orca batteries are designed to be fitted with belt clips. Two types of belt clip are available:

- 38 mm belt clip.
- 55 mm spring-loaded belt clip.

For both types of belt clip, slide the belt clip into the two slots on the top of the battery. Push down until the clip snaps into place.



Removing a Belt Clip

Both belt clips have been designed to avoid accidental removal. However, they can be replaced if required.

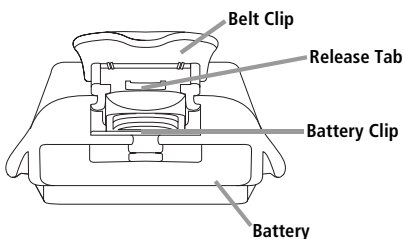
To remove the 38 mm belt clip:

- 1 Insert the end of a flat-blade screwdriver under the edge of the release tab (right) without forcing it.
- 2 Gently lift the release tab up, then slide the belt clip away from the battery.



To remove the 55 mm belt clip:

- 1 Lie the battery on a flat surface.
- 2 Insert the end of a flat-blade screwdriver under the release tab (shown below) and lift.
- 3 Slide the belt clip away from the battery.



Note: Should the small battery clip come loose while removing either belt clip, it can easily be refitted by sliding it into the slot at the top of the battery until it snaps into place.

Radio Controls and Indicators

Your Tait Orca radio controls and indicators include the on/off/volume control, the 16-way selector, function keys, and various radio indicators.

On/Off/Volume Control

Rotating the on/off/volume control clockwise turns on the radio and increases volume. Rotating the control counter-clockwise decreases volume and turns off the radio. This also controls the volume level of indicators and confidence tones.

16-Way Selector

Each position on the 16-way selector can be programmed for a channel or group of channels. See “Selecting a Channel” on page 13 for more information.

Short and Long Key Presses

Some keys have two functions assigned, which can be accessed by a short or long key press. A short key press is defined as less than 1 second. You may need to experiment to become familiar with the duration of short and long key presses.

Double Key Presses

Function keys can be preprogrammed to perform the 5-tone emergency call function (see “Function Keys” on page 9). The emergency function may be combined with a Double Key Press Activation option. This feature helps to avoid accidental use of the emergency function.

If the emergency call is assigned to a short key press, the two key presses must be made within 3 seconds. If the emergency call is assigned to a long key press, the two key presses must come within 5 seconds.

PTT (press-to-talk) Key

The PTT (press-to-talk key) is located on the side panel. Press this key to transmit each time you talk.

Function Keys

The function keys provide access to preprogrammed functions (see “Programmable Function Key Settings” on page 11 for more information on the options that can be assigned to the function keys).

There are four programmable function keys:

- Function keys 1 and 2, located on the side panel.
- External keys 1 and 2, located on the external microphone.

Each function key can have a function assigned to a short and long press. Use the panel provided in the back of this manual to record the function that has been assigned to each key press on your radio.

Radio Indicators


The radio’s LED indicator and audible signals provide you with information on the state of your radio.
















Radio indicators are summarized on the “Radio Indicators” page on the inside back cover of this manual.

LED Indicators

The radio’s LED is the main indicator for displaying the state the radio is in. Audible indicators provide additional information, intended to supplement that provided by the LED.

In this manual, one flash every 2 seconds is referred to as “slow flash rate”, one flash every second as “medium flash rate”, and four flashes every second as “fast flash rate”.

Color	Flash Rate	Meaning
Red	 Steady	Transmitting.

Color	Flash Rate	Meaning
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 will also emit very high-pitched beeps. Contact your despatcher.
Red	 Two fast flashes	The power-up sequence is complete. Radio will also emit two medium-pitched beeps.
Green	 Steady	Channel busy.
Green	 Slow	Economy mode active.
Green	 Medium	Monitor or squelch override active.
Amber	 Steady	Radio is scanning or voting a group of channels for activity or greatest signal strength.
Amber	 Slow	Repeater talkaround active.
Amber	 Medium	Activity detected on one of a group of channels being scanned.
Amber	 Fast	A Selcall call has been received.
Red/ Green	 Slow 	Handset mode active.
Red/ Green	 Fast 	Radio programmed incorrectly or faulty. Contact your Tait dealer.

Audible Indicators

Your radio may be programmed so that whenever you press a key, the radio beeps to indicate whether or not the action you wish to carry out is permitted:

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

The most common audible indicators are summarized on the “Radio Indicators” page on the inside back cover of this manual.



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

Programmable Function Key Settings

Functions marked ★ are described more fully in “Other Features” on page 25. Some functions are not permitted in some countries.

Function	Description
Audible Indicators	Turns audible indicators on and off.
Channel's DTMF Preset	Sends the DTMF preset call assigned to the current channel.
Disable Monitor	Turns off the monitor facility, if it is active.
Economy Mode★	Turns economy mode on and off.
Emergency	Activates emergency mode.
Handset Mode★	Turns handset mode on and off.
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.
Nuisance Delete	Temporarily deletes the current channel from the scanning regime.
One Touch	Sends a preset 5-tone call or DTMF call, or selects a channel.
Preset Call	Sends the preset 5-tone call assigned to the current channel.
Repeater Access Tone	Sends the repeater access tone to key up the transmitter.

Function	Description
Repeater Talkaround	Allows you to bypass normal repeater operation and communicate directly with another radio. Pressing the key again or changing to another channel turns off repeater talkaround.
Squelch Override	Turns the squelch override on and off so the user can hear all activity on a channel, including noise.
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	Turns monitor on and off so the user can hear all traffic on a channel.
Toggle 2-Tone Decoder	Turns 2-tone decoding on and off.
Volume Control	Controls volume in handset mode.

Basic Operation

This section describes the basic operation of your radio, including turning the radio on and off, adjusting volume, selecting channels, and making and receiving calls.

Turning the Radio On and Off and Adjusting Volume

Rotating the on/off/volume control clockwise turns on the radio and increases volume. Rotating the control counter-clockwise decreases volume and turns off the radio.

To preserve battery life, it is recommended that you turn off the radio when it is not in use.

Once the power-up sequence is complete, the LED flashes red twice and the radio gives two short, medium-pitched beeps.

Selecting a Channel

Each position on the 16-way selector denotes a channel or group of channels. If the radio gives two short, high-pitched beeps when you select a channel, then that channel was the last one activity was found on during scanning. See “Scanning and Voting Groups” on page 16 for more information on groups of channels.

If the channel selected is busy, the LED glows green. Wait until the channel is free before transmitting.



Note: You cannot change channels while transmitting.

Receiving a Call

Your radio remains quiet until there is valid activity on the channel your radio is currently on (see “What You Hear On a Channel” on page 14). When you hear your

own call sign, respond promptly by pressing the PTT key and replying.

Making a Call

Select the desired channel as described in “Selecting a Channel” above.

If the channel is busy, you are not normally able to transmit. If you try to transmit, the radio sounds a low-pitched warning beep. You may not be able to hear the activity, but the LED glows green. You can activate the monitor function to listen to channel activity.

To make a call:

When the channel is clear, hold down the PTT key and speak clearly into the radio. Identify yourself and the party you are calling using the call signs you have been assigned. Release the PTT key when you have finished talking.

While you are transmitting, the LED glows red. While the other party is transmitting, the LED glows green.

If selective call mute is programmed for a particular channel, you are only able to make 5-tone calls on that channel when the monitor function is activated and the channel is clear (see “Monitor” on page 15).

Transmit Timer

Your radio is programmed with a transmit timer that limits the amount of time you can transmit continuously. If the radio gives three medium-pitched beeps, the transmit timer is about to expire. Ten seconds later, the radio automatically stops transmitting. You have to release the PTT before you can transmit again. The radio may be programmed to prevent transmission for a period after the transmit timer has expired.

What You Hear On a Channel

What traffic you hear on a channel depends on how your radio was programmed. A channel can be

programmed so that you hear all conversations on a channel (no signaling), or your user group may be segregated from others using various types of signaling (CTCSS, DCS, 5-tone or 2-tone).

When special signaling is active, you are not able to hear other groups talking on the current channel unless the monitor function is active (see below). If the channel is busy, the LED glows green.

CTCSS and DCS

CTCSS (continuous tone controlled subaudible signaling) and DCS (digitally coded squelch) signaling use subaudible tones to isolate your calls so you only hear activity for your group.

5-Tone

5-tone signaling uses audible tones to isolate your calls and direct calls to specific individuals within a group. You may hear the 5-tone tones at the beginning of a transmission.

2-Tone

2-tone decoding means that you will only hear calls from individual radios or groups of radios programmed with the same two-tone sequence that is programmed into your radio.

Monitor

Monitor lets you hear all conversations on a channel, including those outside your group.

Your radio may be programmed so that monitor is activated when you:

- Turn on the radio.
- Send specific types of calls.
- Press a function key (if assigned).

While monitor is active, the LED flashes green at medium flash rate.

The monitor may be deactivated by:

- Your dispatcher.
- Receiving specific types of calls.
- Pressing a function key (if assigned).
- Automatically turning off after a preprogrammed deactivation period.

The monitor function can be programmed to override all signaling (CTCSS, DCS, 5-tone and 2-tone) or only 5-tone and 2-tone signaling (selective call mute).



Note: If a particular channel is programmed with selective call mute, you are only able to hear traffic that matches your 5-tone or 2-tone identity and you are only able to make 5-tone calls. Turn on monitor to hear all traffic and make calls other than 5-tone calls.

Squelch Override

The radio's squelch allows reception of a signal only when it is above a factory-set threshold so that only intelligible signals are made audible. Activating squelch override can sometimes improve reception of a signal in marginal signal strength areas.

If programmed, toggle squelch override on and off using the assigned function key. While squelch override is active, the LED flashes green at medium flash rate.



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

Scanning and Voting Groups

A series of channels may be grouped together so that the radio can scan through them looking for activity.

Groups are selected the same way as channels. When a scanning or voting group is selected, the LED glows amber.

When a busy channel is detected and the signaling is valid (see “What You Hear On a Channel” on page 14), the LED flashes amber and the radio stops on that channel. Scanning resumes when the channel is no longer busy or the signaling is no longer valid.

One or two priority channels may also be set. These channels are scanned more often than other channels and are scanned periodically when a non-priority channel is busy.

Voting

Voting works the same way as scanning, except the group’s member channels carry the same traffic, and the radio searches for, and stops on, the channel with the strongest signal.

Flexiscan

Your radio may be programmed with one Flexiscan scan group, containing up to 16 member channels. When Flexiscan scanning is turned on, you are able to communicate on an unrelated channel, while a group of channels in a programmed Flexiscan scan group is scanned for valid activity.

To activate Flexiscan, press the assigned function key (see “Toggle Flexiscan” on page 12).

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 scanning regime if one of the function key settings is programmed for nuisance delete. Pressing the assigned function key deletes the currently held channel from the regime. When the scan group is next selected, the deleted channel is again part of the group.

5-Tone Signaling

5-tone signaling segregates a group of users from others on a channel using a set of audible tones. Because each radio has a unique identity, you can direct calls to individuals or groups of individuals within your own group. An emergency call may also be preprogrammed.

The Orca 5011 is able to make preset 5-tone calls only.

Receiving a 5-Tone Call

When a call is received that contains your radio's identity, the radio gives a ringing tone and the LED indicator flashes amber. The ringing tone is preprogrammed, and the radio gives different ringing tones when different types of calls are received.

To accept the call, press the PTT key and begin speaking. If the call is a group call, there is usually no need to respond.

Making a Preset 5-Tone Call

Two preset 5-tone calls can be assigned to each channel that has 5-tone calling. If programmed, these calls are assigned to a function key, and each channel that has 5-tone may have different preset calls.

To make this call:

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

One-Touch Preset Calls

A single one-touch 5-tone call may also be assigned to one of the function keys. It is not necessary to change channels to send this call – simply press the assigned function key.

When the called party responds, proceed with your conversation.

Emergency Call

One of the preset 5-tone calls programmed for your radio may be an emergency call.

Sending a 5-Tone Emergency Call

Pressing the function key sends an emergency sequence to a programmed party, usually your dispatcher.



Note: It is not necessary to change channels to send the emergency call.

When in emergency mode, the radio cycles between receiving and transmitting so that your dispatcher can hear activity near the radio and so decide how to respond. All radio indicators remain unchanged.

The radio can be reset to normal operation, either:

- By your dispatcher.

OR

- By turning the radio off, and then on again.

Other 5-Tone Features

Other 5-tone features that may be programmed are:

- Deferred calling.
- No acknowledgement retries.

Deferred Calling

If the channel you are making a call on is busy, the radio may be programmed to store the call and send it again once the channel is free. The radio gives a low-pitched beep if the channel is busy, and then gives two long, medium-pitched beeps at regular intervals until the channel is free and the call can be sent.

To cancel a call that is being resent, press any key.

No Acknowledgment Retries

When you send a call and there is no reply, your radio may be programmed so that the call is resent up to 15 times.

To cancel a call that is being resent, press any key.

G-STAR ID Signaling

G-STAR ID is used with conventional systems to identify the user of a particular radio by a unique, programmable ID number assigned to that particular radio. G-STAR ID is transmitted from the user's radio and received by a G-STAR decoder unit which could be attached externally to a console or mobile radio. A total of 16,384 individual ID codes are available.

The radio can be programmed to transmit G-STAR when the PTT button is pressed, when the PTT button is released, or at both press and release of the PTT button.

The radio may be programmed to emit a short beep after a G-STAR message has been sent. The ability to encode G-STAR is enabled on a per-channel basis during radio programming.

G-STAR Emergency Signaling

G-STAR emergency signaling is activated by pressing the programmed emergency function key which sends a G-STAR data burst that contains both the unit ID number and an embedded emergency message.

Activation of this key sends an emergency signal on the selected channel or on a programmed emergency channel. Once emergency mode is activated, your radio repeatedly transmits the emergency sequence. During this time, you may be able to make calls using the PTT button and hear incoming traffic.

The radio can be reset to normal operation at any time by turning the radio off, then on.

Stealth Emergency Mode

Stealth emergency mode is a programmable option. When stealth emergency mode is activated, all radio

indicators remain unchanged, you do not hear any channel traffic and you may not be able to make PTT transmissions.

To reset the radio to normal operation, turn the radio off, then on again.

Emergency Cycling

Emergency cycling is a programmable option. This begins after emergency mode is activated and the emergency sequence has been transmitted. The radio cycles between transmitting and receiving so that any activity near the radio can be heard by the party receiving the emergency call.

To reset the radio to normal operation, turn the radio off, then on again.

2-Tone Decoding

2-tone is a term for in-band, two-tone sequential signaling. It is a conventional signaling protocol used to control the muting and unmuting of a radio. The signaling is used for selective calling of individual units or groups of units. Two sets of unique decoding formats are programmable to allow large system, individual, and group call capability. Sets are selectable on a mode (bank of channels) basis.

When the radio detects a matching two-tone sequence, it gives an audible signal indicating the decode type being received. The three, 2-tone decode types supported are: individual, group and super group.

You may be able to activate and deactivate 2-tone decoding by the press of an assigned function key.

Receiving a 2-Tone Call

When a 2-tone encoded call is received, the radio gives a medium-pitched beep and the LED indicator flashes amber.

To accept the call, press the PTT key and begin speaking.

The character of the beep from your radio indicates which type of 2-tone call has been decoded:

- Individual call: The radio gives a long beep.
- Group call: The radio gives a series of long beeps.
- Super group call: The radio gives a series of short beeps.

DTMF Calls

DTMF (dual tone multiple frequency) is the tone-based system used in the world's telephone networks. If your system has access to the public switched telephone network or other networks that make use of DTMF tones, your radio can make a call to a telephone or send control codes to a remote device.

Your Orca 5011 radio is able to make preset DTMF calls only.

Preset DTMF Calls

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

To send the 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 DTMF call may also be assigned to one of the function keys. It is not necessary to change channels to send this call – simply press the assigned function key.

When the called party responds, proceed with your conversation.

Other Features

Note that some features are not permitted in some countries.

Economy Mode

Economy mode can extend battery life when there is little or no activity on the radio. When in economy mode, the radio cycles between the receive state and a standby state once there has been no activity for a programmed period. Receiving or sending a call returns the radio to the fully active state.

Economy mode may be permanently enabled or can be toggled on and off by the press of an assigned function key.

While economy mode is active, the LED flashes green at slow flash rate.

Handset Operation

The radio microphone has two modes of operation:

- Normal operation: The radio microphone is held about 6 inches (15 cm) away from the mouth.
- Handset operation: The radio is operated like a telephone handset. This is particularly useful in noisy environments or when privacy is required.

While in handset mode, the radio's handset microphone operates.



Note: The radio can be programmed so that the handset microphone is also the default microphone.



Caution: While using the radio in handset mode, do not hold the speaker pressed against your ear, or allow the antenna to touch your body.

Turning On and Off

To toggle handset mode on and off, press the assigned function key. Your radio may be programmed so that handset mode automatically turns off after a period of inactivity.

While handset mode is active, the LED flashes red and green at slow flash rate.

Volume Override

Your radio may be programmed so that the function keys are used as volume up and down keys while in handset mode. What keys act as volume control keys can be listed on the “Custom Settings” page on the inside back cover of this manual.

Low Power Transmit

If you are using your radio in conditions where signal strength is high, you can extend battery life by transmitting at low power.

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



Note: Some channels may be programmed to always transmit at low power.

Turning On and Off

To toggle low power transmit on and off, press the assigned function key. When you transmit, the LED flashes red at medium flash rate.

Repeater Talkaround

If the repeater is busy or you are out of range of the repeater, you can communicate directly with another radio by using repeater talkaround. To do this, the transmit frequency is moved to coincide with the receive frequency. While repeater talkaround is active, all transmissions are made on the receive frequency of the channel you are on.

Turning On and Off

To activate repeater talkaround, press the assigned function key. While repeater talkaround is active, the LED flashes amber at slow flash rate.

To deactivate repeater talkaround, press the function key again or change to another channel.

Basic Maintenance

Your Tait Orca 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 pack.

General Care

- Wipe the battery contacts and accessory connector contacts with a dry lint-free cloth to remove any dirt, oil or grease.
- Use a cloth dampened with clean water to clean the radio's case, but do not immerse the radio in fluids.
- Do not allow the radio to come into contact with detergents, alcohol, aerosol sprays or petroleum-based products as they may permanently damage the case.
- Avoid high temperatures. If the radio overheats, it ceases to function. You hear two short high-pitched beeps.

Charging and Caring for Batteries

Refer to the Battery Care Guide (MBAT2-03-051) that comes with your battery, and the Battery Charger User Guide (MBAT1-03-052) that comes with your battery charger.

Warning: Disposing of Used NiCd Batteries



Warning: NiCd batteries contain a small amount of the metal cadmium, a potentially toxic substance that must be disposed of properly. When no longer in use, contact your dealer for recycling details.

Troubleshooting

If you are experiencing difficulty operating your Tait Orca radio, review “Basic Operation” on page 13 and check the following items:

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

If all appears to be in order, but your radio still fails to operate properly, consult your local dealer for assistance.

Options and Accessories

Tait offers a large range of accessories. Contact your local dealer for more information.



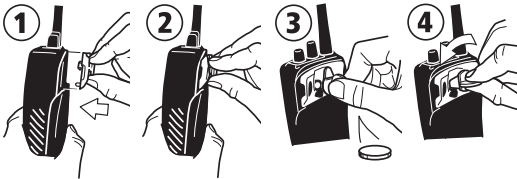
Removing the Accessory Cover

To fit some accessories to the radio, you will need to remove the radio cover by first removing the battery, then using the end of a key to prise off the accessory cover.



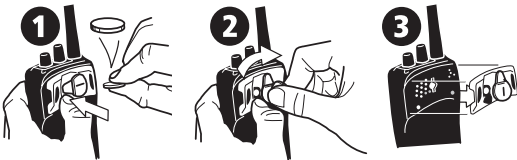
D-Clip and Accessory Connectors

The D-clip connector enables the radio to be installed on the belt loop. The accessory connector enables accessories to be installed on the radio.



Installing the Connector

- 1 Place the two connector pegs into the bottom holes on the radio.
- 2 Push the connector into position and hold.
- 3 Use a coin (D-clip only) or thumb or finger to turn the lever counter-clockwise.
- 4 Turn the lever until it clicks into position.



Removing the Connector

- 1 Press the small metal clip firmly and hold.
- 2 Use a coin (D-clip only) or thumb to turn the lever clockwise 90°.
- 3 Remove the connector.

Specifications

Size H x W x D (including 1500 mAh NiMH battery)	6.06 inch x 2.60 inch x 1.61 inch (154 mm x 66 mm x 41 mm)
--	--

Typical weight (including 1500 mAh NiMH battery)	18 oz (510 g)
--	---------------

Battery voltage	7.5 V nominal
-----------------	---------------

Transmitter power	136-174 MHz: 5 W 400-530 MHz: 4 W
-------------------	--------------------------------------

Receive sensitivity	better than -117 dBm
---------------------	----------------------

Audio power	>0.5 W into 16 Ohms
-------------	---------------------

Antenna connector	SMA
-------------------	-----



For full details of the technical specifications of the radio, refer to the Service Manual or to your local dealer.



Radio Indicators

LED: ● steady ✱ flashing
 Sound: pitch: high medium low
 duration: short long ... repeating

	LED	Sound	Meaning
Start-up/basic operation	✱✱	 x 2	You have just turned on the radio. The power-up sequence is complete.
	●		The radio is transmitting.
	●		The radio is transmitting at low power.
	✱ fast	ringing tone*	A call has been received.
	✱ fast		A call has been received but not answered.
	●		Activity has been detected on a channel.
		 	You cannot transmit because the channel is busy or selective call mute is active. Wait until it is free to transmit or use a channel that is clear.
Scanning		 x 3	The transmit timer is about to expire. In 10 seconds, the radio will stop transmitting. Release the PTT key before transmitting again.
		 for 1.5 seconds	The radio has stopped transmitting because the transmit timer has expired. Release the PTT key before transmitting again.
	●		The radio is scanning a group of channels for activity or greatest signal strength.
Functions	✱ medium		The radio has detected activity on one of a group of channels being scanned.
		 	A function has been turned on.
		 	A function has been turned off.
	✱ slow		Repeater talkaround is active.
	✱ medium		Low power transmit is active.
	✱ slow		Economy mode is active.
	✱✱ slow		Handset mode is active.
Warnings		 x 2	Squelch override has been turned on.
		 	Squelch override has been turned off.
	✱ medium		Monitor or squelch override is active.
	✱ slow	 every 5 seconds	The battery is low. Recharge or replace the battery as soon as possible.
		 	The battery is too low to operate the radio. Turn off the radio and recharge or replace the battery.
		 x 2	The temperature is too high. You should stop transmitting and allow the radio to cool down.
	✱ fast	 	The radio is stunned. Contact your dispatcher.
	✱ ✱ fast	 x 2	The radio has been programmed incorrectly or is faulty. Contact your local dealer.

*The ringing tone is preprogrammed. The radio will give different ringing tones when different types of calls are received.