

Getting Started

First Use of Radio

- 1

IMPORTANT

Long condition the battery. Refer to the Battery Charger User Guide.
- 2

Install the Antenna
- 3

Install the Battery

Short Condition the battery every week.
- 4

Turn on radio, adjust speaker volume, select channel.
- 5

Press PTT to Talk. Release to Listen.

Radio Configuration

Your Tait Orca radio has been configured for your requirements by your authorised Tait Dealer or your company administrator. Therefore, some functions will vary in operation or will not be available. The configuration information can be written onto this User Guide.

Batteries

Use Tait Orca 5000 NiCd/NiMH batteries or Tait Orca Elan/Excel/Eclipse NiCd/NiMH batteries. For more information on batteries, refer to the Battery Care Guide.

IMPORTANT
Do not put Tait Orca 5000 batteries into older battery chargers. Tait Orca 5000 NiCd/NiMH batteries are **ONLY** for Tait Orca battery chargers with software version 2.07+.

Parts

If any parts are damaged or missing, report this to your authorised Tait dealer immediately.

Making Calls


To make a call, select a Channel then press PTT to talk. Alternatively, use a Function Key.



When you select a Scan Group of Channels, scanning for activity will begin automatically.


3 Methods to Select a Channel or a Scan Group:

u Keypad

Select Channel Mode




To Cancel:  

To Select: 

u Scroll Keys


Select Channel Mode



Short press for normal scroll. Long press for fast scroll.

u 16-way Selector

Turn to select from the first 16 in the list.



Function Key 1

Function Key 2

Press PTT to talk. Release PTT to listen.

Function Key 3 or Action List

External Function Keys 1 and 2

Using the PTT

Press PTT to talk to all persons on the same Channel. Release PTT to listen.

You can only transmit or receive on one Channel at a time.

 Channel is busy: Wait

Standard Operation

The illustration shows the recommended method for standard operation. Use the upper microphone to speak.



Handset Operation


The illustration shows the recommended method for handset operation. Use the lower microphone to speak.




Selcall Calls

Variable Selcall


Select a Selcall Channel.



Select Dial Selcall from F3 Action List or Menu



Dial the Selcall number:




Short press Long press

Short press

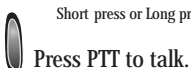
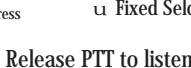

Press PTT to talk. Release PTT to listen.

Preset/Fixed Selcall

Select a Selcall Channel.



Select the appropriate Function Key to make the call.


 u Preset Call #1 (Selcall)
 u Preset Call #2 (Selcall)
 u Fixed Selcall Sequence

Short press or Long press

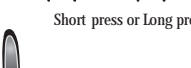
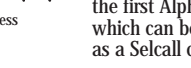
Press PTT to talk. Release PTT to listen.

Emergency Calls and One Touch Selcalls

You may need to Select a Selcall Channel.



Select the appropriate Function Key to make the call.

 u Emergency Call (Selcall)
 u One Touch Call. This uses the first Alpha Symbol, which can be configured as a Selcall call.


Short press or Long press

Press PTT to talk. Release PTT to listen.

Deferred Callback for Selcall

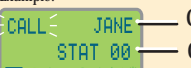
If busy, the call will be sent when Channel is free: up to 15 tries (if configured).

To cancel the call: Change Channel or turn radio off.

To exit Selcall:  Long press


Receive a Selcall Call

Press PTT to talk. There is usually no need to respond to a Group Selcall.

Example: 

Caller Identity
Call status

Receive a Status Message

Example: 

Caller identity

Status Message (8 characters) or Status Number 00 to 99

Radio Configuration

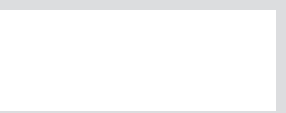
Alpha Symbols

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

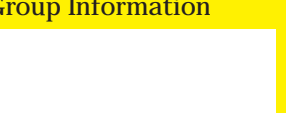
F3 Action List

1	
2	
3	

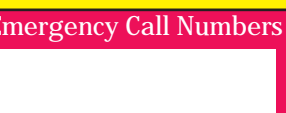
Radio Identification



Group Information



Emergency Call Numbers



16-way Selector

1	9
2	10
3	11
4	12
5	13
6	14
7	15
8	16

Phonetic Alphabet

Alpha	A
Bravo	B
Charlie	C
Delta	D
Echo	E
Foxtrot	F
Golf	G
Hotel	H
India	I
Juliet	J
Kilo	K
Lima	L
Mike	M
November	N
Oscar	O
Papa	P
Quebec	Q
Romeo	R
Sierra	S
Tango	T
Uniform	U
Victor	V
Whisky	W
X-ray	X
Yankee	Y
Zulu	Z

Battery 100% charged

Battery 60% charged

Battery Low

DTMF Mode on

Monitor Mode on

Scroll

Handset Mode on

Scanning for activity or signal

Activity found on channels

Transmit at normal power

Transmit at low power Max.1W

Channel is busy: Wait

RSSI. Signal strength indicator. Also for contrast indication.

16-way Selector

On/Off and Volume

LED

Speaker

Standard Microphone

Menu scroll keys: Backwards Forwards

Display

Clear, Cancel or Back in Menu

Menu, Select, Toggle (on/off) or Send (make call)

Alphanumeric Keypad

SDM

Handset Microphone

Antenna

Function Key 1

Function Key 2

PTT. Press to Talk, Release to Listen.

Function Key 3 or Action List

Channel Select Mode

Caller ID

Queue: Call # of # (15 maximum)

Repeater Talk Around

Menu

MENU

Long press to Select Menu or Exit Menu. When in Menu, short press to Select or to Toggle a function e.g. on/off

Menu scroll keys: Forwards and Backwards. Long press is fast scroll.

Short press Delete single character, Cancel or Back in Menu. Long press Delete line of characters. Delete queued calls. Delete SDM. Exit without saving.

QUEUED CALLS

Select call

(a) Return call (b) Read status or message (c) Delete call or message (not automatic)


Normal Call = "blank" Priority Call = P Short Data Message (SDM) = M Status Call = S

Caller identity not for SDM unknown = no ID Call 1 of 7


SELECT CHANNEL

Select Channel mode. Then select a Channel or a Scan Group.

SEND SELCALL


1 SELECT STATUS → Select status label from list. LUNCH... 2 DIAL SELCALL → Dial number. Press  to make call.

SEND DTMF

Dial number. If buffered, press  to make call. To send A, B, C or D commands, press the PTT key whilst pressing 2, 5, 8 or 0.

DTMF Dial Tone Multi-Frequency. International standard. Tones are used to dial direct to a landline. Example: communicating with telebanking systems.

ALPHA SYMBOLS

Select from list. It can be a Channel, Selcall call, DTMF call, Status call, or combination. Short press  to make the call.

SEND SDM

ENTER SDM: SDM TO... Short press ENTER ID: >>>>0000BASE Short press

1. Enter a Short Data Message 2. Confirm 3. Enter the Radio Identification 4. Send the SDM

Receive an SDM (Short Data Message)

Long press to display message Scroll to read message Delete message

SDM is always queued. Only one SDM can be queued: the latest SDM.

Menu

USER SETTINGS

HANDSET LOW PWR KEYLOCK DTMF ECONOMY SQUELCH MONITOR SQ OVRD

Handset mode: on/off Transmit at low power: on/off Keypad locked Long press to unlock DTMF dialling mode: normal/buffered Economy mode: on/off Squelch: city/country Monitor (signalling override): on/off Squelch Override: on/off

ALERT SETTINGS

TONES LEVEL KEYTONE

Radio Tones: on/off Volume of Radio Tones: high/low Keypress Tones: on/off

DISPLAY SETTINGS

NIGHT RSSI ADJUST CONTRAST

Night use mode: on/off RSSI Signal strength indicator: on/off Adjust contrast of display

ADV SETTINGS

PROGRAM GROUP

Select a Scan Group. Select a Channel. Set the Scan Group Membership: Short press

Scan Group Membership GROUP FULL 16 Channels maximum. Remove a Channel (N). CANNOT DELETE 2 Channels minimum. Add a Channel (Y). CANNOT CHANGE Set another Channel to P1/P2/T then the current P/T Channel will become Y.

PROGRAM SIGNAL

Select a Channel. Then select the CTCSS/DCS sub-audible signalling used on the Channel, from the list.

VERSION INFO

Select version from list: SW VER Software HW VER Hardware MAIN DB Database CAL DB Calibration

Radio Configuration

Write your settings

Short press is less than 1 second Long press is more than 1 second

Note: Function keys use a toggle action e.g. on/off

F1

F2

F3

External

Disabled

Tones: Beeps on / off

Economy Mode Control on / off

One Touch Call (First Alpha Symbol)

Channel's DTMF Preset

Fixed Selcall Sequence

Preset Call #1 (Selcall)

Preset Call #2 (Selcall)

Emergency (Selcall)

Nuisance Delete

Repeater Talk Around on / off

Repeater Access Tone

Handset Mode on / off

Low Power on / off

Keypad Locked Long press to unlock

Toggle Monitor on / off

Disable Monitor

Squelch Override on / off

Backlighting on / off

Night Use on / off

Adjust Contrast of Display

Handset Mode

Volume

Inactivity seconds =

Alphanumeric Search

Type in the word you want. The radio will search and display the closest match.

Short press to delete the last character then a new search is made. Long press to delete all search characters. To exit search, long press once or twice.

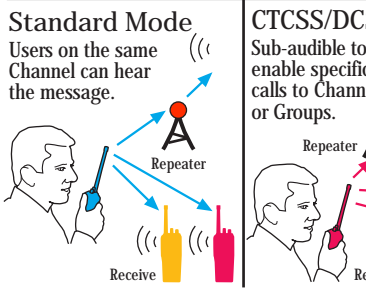
Conventional Features

Backlighting
When you press a key, backlighting is turned on. It turns off after 1-10 seconds of no activity. Set via a function key.

Night Use mode
If on, the keypad backlighting is turned on when there is activity on the channel or if the keypad or selector is used. Turns off after 1 to 10 seconds of no activity. Set via the Menu.

Handset mode
Speaker volume is reduced so that radio can be held near to the ear like a cellphone. Press PTT to talk, release PTT to listen.

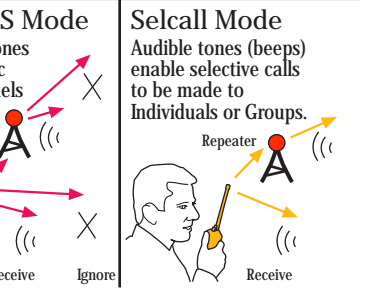
Monitor mode
Listen to all traffic and all groups on a channel. Monitor mode automatically turns off after a preset time. It can be reset by the despatcher or when some types of calls are made. It can be configured to override Selcall (Selcall mute) or both Selcall and CTCSS/DCS.



Squelch
Squelch allows reception of intelligible signals that are above the factory-set signal threshold, thus reducing noise. Set via the Menu to city or country.

Squelch Override
This overrides the squelch feature so that all signals are made audible. This may improve the signal reception in marginal areas, but will likely increase noise. It cannot be activated when a scan group is selected. Set via a function key.

Nuisance Delete
If a Channel in a Scan group is busy for a long time and you do not want to listen to the conversation, you can temporarily remove it from the scanning regime using Nuisance Delete. To apply Nuisance Delete to the currently selected Channel, press the function key (if configured). This will remove the currently selected Channel from the scanning regime. Select the Scan Group again to reset and remove Nuisance Delete.



Looking after your Radio

- ❑ Your radio does not require routine maintenance. However, it is a sophisticated electronic device and should be treated with care.
- ❑ Clean the radio, accessories and charger weekly using a clean dry lint-free cloth. When cleaning, do not use solvents, detergents, alcohol, aerosol sprays or petroleum-based products.
- ❑ Clean the electrical contacts on the battery and charger weekly, using a clean dry Q-tip™/cotton bud.
- ❑ Do not put the radio and accessories in fluids.
- ❑ Do not drop the radio onto hard surfaces, place it down carefully.
- ❑ Do not use if the radio, antenna or accessories are damaged.
- ❑ Repairs and modifications must only be carried out by a Tait approved dealer.
- ❑ Always have the D-Clip or protective cover installed to protect the radio from dust ingress and electrostatic discharges.

Performance

- To maintain the optimum performance of the radio:
- ❑ Use only the supplied antenna.
 - ❑ Use only the radio and accessories for their design purpose.
 - ❑ Use only accessories that are approved by Tait Electronics Ltd.
 - ❑ Avoid high temperatures. If the temperature exceeds 80°C (176°F) the radio will make two short high-pitched beeps and will not work. Temperatures above 90°C (194°F) cause permanent damage to the radio.
- To maintain the optimum performance of the battery:
- ❑ Short condition the battery weekly.
 - ❑ Long condition the battery only for the following conditions: on first use, if performance is poor, and after more than two weeks of storage.
 - ❑ Turn the radio off when it is unattended for long periods.
 - ❑ Clean electrical contacts of the battery and charger weekly, using a clean dry Q-tip™/cotton bud.
 - ❑ Use only Tait Orca 5000 series battery chargers with software version 2.07+.

Recycle
Recycle batteries that are of no use. Contact your authorised Tait dealer for advice.

Indicators

Slow flash = every 2 seconds
Medium flash = every 1 second
Fast flash = four per second

Flash fast Radio power-up sequence	Medium pitch beep, short duration, twice.	Steady Transmit at normal power
Flash medium Transmit at low power	Flash slow Handset mode	
Medium pitch beep, short duration. Function turned on	Low pitch beep, short duration. Function turned off	
Steady Channel is busy	Flash medium Monitor or Squelch Override	Flash slow Economy mode
Flash fast Medium pitch warble, long duration, repeating.	CALL Call received but not answered or queued Press PTT to return the call.	
Flash slow Repeater talk around (RTA)	Steady Scan Group for activity or greatest signal strength	Flash medium Activity detected on a Scan Group
Medium pitch beep, long duration, three times. Call time is almost up, 10 seconds to go	Low pitch beep, for 1.5 seconds. Transmit timer has expired	
Low pitch beep, long duration. No transmit Channel is busy or transmit is inhibited by Selcall muting. Wait or use a free channel.	Medium pitch beep, short duration, two times. Squelch Override	

Accessory Use

Installing the Battery

Removing the Battery

Using the radio, lapel microphone and carry case

Installing the D-clip

Removing the D-clip

Accessories

Contact your authorised Tait Dealer

Troubleshooting

Blank display
If the display is blank after turning on the radio and the radio turns itself off automatically after a few minutes, it is likely there is no power.

Fast flash
Fast flash. Radio is incorrectly configured. Contact your authorised Tait dealer or your company administrator.

ERROR XX
Contact your authorised Tait dealer or your company administrator.

Slow flash
Slow flash. Low pitch beep, short duration, every 5 seconds. Battery is low. Charge the battery.

Low pitch beep for 10 seconds
Low pitch beep for 10 seconds. Battery is too low to operate the radio. Turn off the radio. Charge the battery.

High pitch beep, short duration, two times
High pitch beep, short duration, two times. Temperature is too high. Turn off the radio and allow the radio to cool down in a cool place.

Fast flash. High pitch beeps
Fast flash. High pitch beeps. Radio is stunned. Contact the despatcher.

Checklist

- ❑ Is the radio turned on?
- ❑ Is the correct channel selected?
- ❑ Is the battery installed on the radio?
- ❑ Is the battery charged?
- ❑ Is the antenna damaged?
- ❑ Is the battery charger working properly?

Call Information

ACK RECEIVED STATUS32
Acknowledgement and status received from recipient of call.

NO ACKNOWLEDGE
No Acknowledge. Recipient has not acknowledged your call.

Security

KEYPAD LOCKED
Keypad lock is on. Long press to unlock.

ENTER CODE
Enter Security PIN code using keypad (personal identification number).

Belt Loop

Installing the Belt Loop

Removing the Belt Loop

Note for Accessories
To use the belt loop, the accessory needs the D-clip fitting. For example: a lapel microphone.

Carry Case

Installing the Radio and Carry Case

Removing the Radio and Carry Case

Safety Precautions

FCC RF Exposure Limits

This product generates radio frequency energy during transmissions. It is classified by the FCC as suitable for general population use in an uncontrolled exposure environment. The following conditions apply to the use of this radio:

- ❑ It must only be used with authorised accessories and antennas.
- ❑ Do not exceed a duty cycle ratio of 20% transmit mode to stand-by or receive modes. The radio is in transmit mode when the PTT key on the radio is pressed and the TX indicator LED is lit.

Additional Safety Precautions:

- ❑ When transmitting, hold the radio microphone 25–50mm (1–2 inches) from your mouth.
- ❑ When transmitting, keep the antenna at least 25mm (1 inch) from any part of your body, especially your face and eyes.
- ❑ Turn off the radio where radio waves could interfere with electronic devices.
- ❑ Turn off the radio at fuel/gas stations.
- ❑ Turn off the radio in an area where detonators/explosives are being used.
- ❑ Turn off the radio before boarding/leaving an aircraft and whilst on board an aircraft.
- ❑ Do not use the radio whilst driving vehicles or operating machinery.
- ❑ Do not use earphones or headsets at high volume levels.
- ❑ Do not transmit in frequency bands that are reserved for use by distress beacons, such as 406 to 406.1 MHz.
- ❑ Do not put the radio, battery or accessories in liquids as they will be damaged.
- ❑ Do not allow children to play with the radio; it is not a toy.

Hazardous Atmospheres

A hazardous atmosphere has the potential for fire or explosion from dusts, gases, liquids and solids. Make sure of the following in hazardous atmospheres:

- ❑ Turn off the radio, unless the radio is qualified for use in hazardous atmospheres.
- ❑ Do not replace batteries, even if the radio is qualified for use in hazardous atmospheres.
- ❑ Do not use damaged radios. If the radio was originally qualified for use in such environments, the radio is not qualified if it has a cracked casing.
- ❑ Do not modify the configuration of a radio that is qualified as intrinsically safe for use in hazardous atmospheres. If you do, it will not be qualified.

Electromagnetic Interference

Turn off your radio where radio waves could interfere with electronic devices. Some facilities use equipment that is sensitive to Electromagnetic Interference such as: hospitals, medical centres, aircraft and some industrial facilities. Only use your radio in these situations if the radio is qualified for use in such areas.