



**T3040II**

# Operator's Manual



# Contents

<b>Introduction</b> .....	3
Operating Modes .....	4
Warnings .....	4
Features .....	5
Components .....	5
Setup .....	6
<b>Basic Operations</b> .....	6
Controls .....	7
Keypad .....	7
Side Panel Keys .....	8
Display Window .....	9
Switching the Radio On and Off .....	9
Switching On .....	9
Switching Off .....	10
Adjusting the Volume .....	11
Normal and Handset Operation .....	11
Normal Operation .....	11
Handset Operation .....	12
VOX Operation .....	12
<b>Trunking Call Operations</b> .....	13
Selecting a Network .....	14
Making a Call .....	14
Dialling .....	16
Receiving a Call .....	16
Normal Call .....	16
Group Call .....	17
Caller Identity Display .....	17
Calling Procedure .....	18
Reestablishing a Call .....	19
Using Redial .....	19
Using Callback .....	20
Unanswered Calls .....	20
Emergency Operation .....	21
<b>Conventional Radio Operations</b> .....	22
Selecting a Channel .....	22
Receiving .....	23
Monitor Key .....	23
Transmitting .....	24
CTCSS Calls .....	24
<b>Special Features</b> .....	25
Alphanumeric Entry Mode .....	25
Short-Dial Preset Numbers .....	27

Status Calls .....	27
Transmitting a Status Call .....	27
Automatic Message/Number Selection .....	28
Independent Message/Number Selection .....	28
Manual Message/Number Entry .....	29
Receiving a Status Call .....	29
Call Queuing .....	30
DTMF Operation .....	32
Editing Group Membership .....	32
Quiet Mode .....	34
Low Power Transmission .....	35
Scrambler Operation .....	35
<b>Using the Menu .....</b>	<b>36</b>
<b>Recharging the Battery .....</b>	<b>40</b>
Mounting the Radio in the Charger .....	40
Mounting the Battery in the Charger .....	41
Recharging .....	42
<b>Maintenance and Troubleshooting .....</b>	<b>43</b>
Maintenance .....	43
Care of Your T3040 <i>II</i> .....	43
To Preserve Battery Life .....	43
Avoiding High Temperatures .....	44
Troubleshooting .....	44
<b>Appendix I Indications .....</b>	<b>45</b>
Display Window Indicators .....	45
LED Indicator .....	46
<b>Appendix II Audible Indicators .....</b>	<b>47</b>
<b>Appendix III Display Window Messages and Indicators .....</b>	<b>48</b>
<b>Appendix IV Common Dialling Functions .....</b>	<b>50</b>
Trunking Operation .....	51
Telephone Calls .....	52
Special Trunking Functions .....	53
Conventional Operation .....	54
<b>Appendix V Preset Options .....</b>	<b>55</b>
<b>Appendix VI How to Care for Your Tait Rechargeable Batteries .....</b>	<b>58</b>
Types of Batteries .....	58
New Batteries .....	58
Battery Use .....	59
Battery Charging .....	59
Battery Problems .....	60
Battery Storage .....	61
Disposal of Used Nickel Cadmium Batteries .....	61
<b>Optional Accessories for the T3000 <i>II</i> range of radios .....</b>	<b>62</b>

## Introduction

The Tait T3040II radio is a state-of-the-art handportable radio offering outstanding communications flexibility in both trunked and conventional mobile radio systems. The T3040II is a compact, rugged and reliable unit, with a wide range of accessories available to meet any mobile communications need. It is easy to use, and provides a range of innovative features that simplify your communications.

Antenna

Accessory connector

Busy/TX LED

Function keys

Speaker/  
microphone

Press to  
Talk key

Display  
window

TAIT ELECTRONICS  
T3040

Volume keys

On/Off/  
Clear key

Not Used

Enter key

Not Used

Alpha key

Status key

Alphanumeric  
keys

Menu key

Star / Left  
Cursor key

Hash / Right  
Cursor key

Microphone

## *Operating Modes*

Your T3040II can be used either in Trunked Call mode, or as a conventional radio. In Trunked Call mode, you communicate with other radios, PABX systems and outside (PSTN) telephone lines through the trunking network. In Conventional mode, radios communicate directly with each other over standard channels. To switch between Trunked Call and Conventional modes, see "Conventional Radio Operations".

In Trunked Call mode, your radio may have the additional feature of DTMF tone dialling. This enables you to send telephone tones once a call is established and is useful in accessing some functions available on telephone networks.

A scrambler is also available to give you added privacy during both trunking and conventional calls. The scrambler is of the voice inversion type and offers a moderate level of security.

If your radio is set to operate in Conventional mode, it may also have the CTCSS option fitted. CTCSS is a tone-based system that isolates your calls so that you only talk with a single group even though other users may be on the channel. It does this by screening out radio traffic that does not carry the correct CTCSS signal.

## *Warnings*

### **WARNING**

#### **(EXPLOSIVE ENVIRONMENTS):**

**DANGER:** SWITCH THE RADIO OFF AT PETROL FILLING STATIONS

**DANGER:** SWITCH THE RADIO OFF IN THE VICINITY OF EXPLOSIVE DEVICES (such as in a quarry that uses blasting techniques)

### **WARNING**

#### **(USERS IN THE UNITED KINGDOM):**

DO NOT OPERATE RADIO WHILE DRIVING

Use of a handheld microphone or radio by the driver while in the act of driving contravenes Section 3 of the Radio Traffic Act. An offender could be charged under this Act with driving without due care or reasonable consideration to other road users.

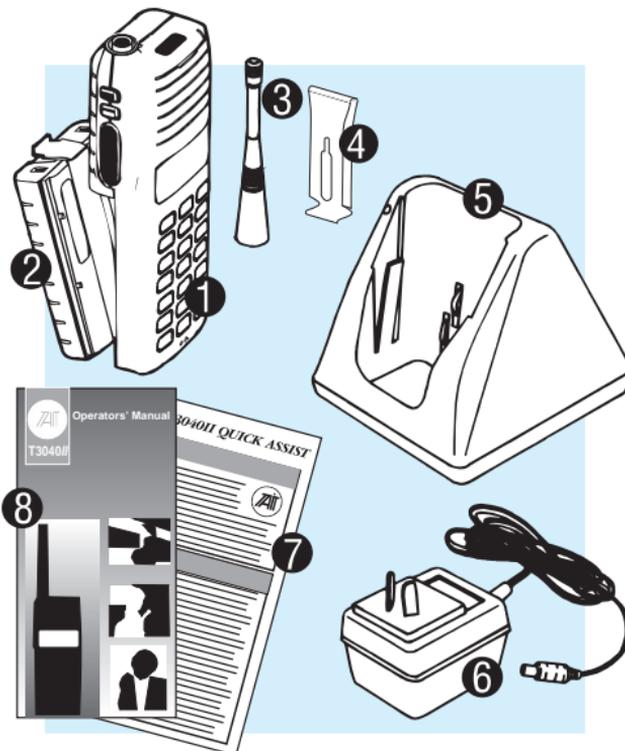


## Features

- Small, rugged, reliable
- Handset operation
- Easy to use
- MPT1327 trunking

## Components

When you receive your T3040II radio check the contents to make sure that all the items you ordered are included. Typically, you should receive the following.



1. T3040II radio unit
2. Battery pack
3. Antenna
4. Belt clip
5. Charger
6. Plug pack (pins may vary to suit each country)
7. Quick assist card
8. Operator's manual

If any parts are damaged or missing, report it to the delivery company immediately.

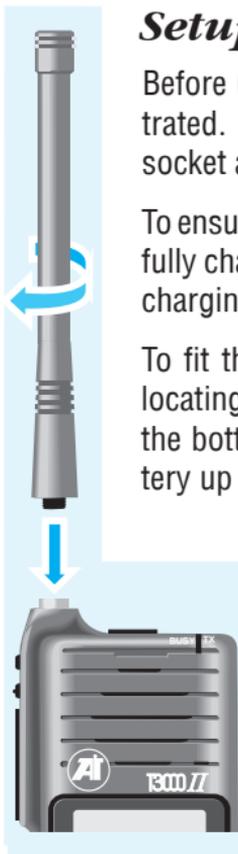
## Setup

Before using the radio, insert the antenna as illustrated. The antenna should screw easily into the socket at the top of the radio.

To ensure proper operation of your radio, you should fully charge the battery prior to initial use. See “Recharging the Battery” for instructions.

To fit the battery pack, offer it up to the chassis, locating the peg on its bottom edge in the slot at the bottom of the radio’s chassis. Hinge the battery up until the spring latch clicks into place.

The first time you switch the radio on, factory settings are in effect. You may want to change some of these settings immediately, such as the volume level and menu options. Review this manual first, and make any necessary changes after referring to the appropriate section. Enter your current settings in the form provided in Appendix V.



## Basic Operations

PTT key

Display window

Keypad



## Controls

The T3040II controls include the keypad, side panel keys, LCD window, and the LED operations indicator.

### KEYPAD

Keypad functions are as follows:

 **On/Off/Clear** Use to turn the radio on and off, to end calls and to exit from control options. The ON/OFF key also serves as a clear key.

 **Enter** Use to initiate a call and to select items.

 **Status** Use to display preprogrammed status message labels.

 **Menu** Use for customizing T3040II options.

 **Alpha** Use to turn on alphanumeric mode.

 Not Used.

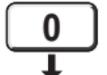
 **Volume** Use to decrease or increase volume.



 Not Used.

 **Star/Left** Use for special operations and to scroll through a displayed list.

 **Hash/Right** Use at the end of dialling sequences, to initiate a call and to scroll through a displayed list.

 **0 - 9 / A - Z** Use for dialling and (with the letters printed above each key) for entering alphanumeric data for labels.



## **SIDE PANEL KEYS**



**F1**

Function key 1.



**F2**

Function key 2.

Use to initiate special preprogrammed functions.



**PTT**

Press To Talk key. Use to make the radio transmit each time you talk. This key can also be preprogrammed to initiate a call once you have a call number displayed.

The function keys above the PTT key can be preprogrammed by your dealer to perform any of the following functions:

- Operate as a Clear key
- Enter or leave Handset mode
- Turn on backlighting momentarily
- Enter or leave Low Transmit Power mode
- Switch an auxiliary device on or off
- In Conventional mode, switch the Monitor facility on or off
- Initiate a preset call<sup>1</sup> (such as an emergency call)

Only two of these functions can be active in any radio; if you are not sure which functions have been preprogrammed for your radio, consult your fleet manager.

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<sup>1</sup> It may be necessary to hold the key for one second for the call to be initiated.

## **DISPLAY WINDOW**

The LCD window is optimised to provide rapid access to information and messages concerning the progress of your call and the status of your radio.

**Note:** Your T3040*II* features the ability to display messages in several languages.



## **Switching the Radio On and Off**

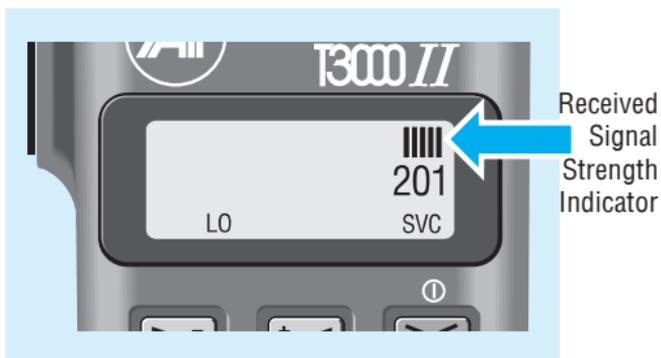
### **SWITCHING ON**

Switch the radio on by pressing the ON/OFF ( $\times$ ) key and holding it briefly until you hear two short tones. If the radio was last used in Trunking mode, this is followed by another two tones as it enters Trunking mode and its electronic identity appears, followed by a power-up message.

The current volume setting is displayed next. The number of bars indicates the setting, with a maximum of ten. (To change this setting, see “Adjusting the Volume.”)



The final display shows the Received Signal Strength Indicator (RSSI) in the upper right-hand corner, the last number dialled (or the call queue, if there are entries), and the Service indicator (SVC).



If the Service Indicator is on continuously, your radio has access to a trunking network and is ready to make or accept calls. If it is blinking, your radio does not currently have access to a network. It may be attempting to find a site it is authorised to use, or it may be out of range of a network signal.

If the Service Indicator does not appear at all, the radio is in Conventional mode.

The Received Signal Strength Indicator (RSSI) shows one bar for the weakest signal and five bars for the strongest. If the display shows no bars, the signal may have become unreliable and the SVC indicator may begin to flash. If the indication shows you have a poor signal (none, one or two bars showing) it may help if you move a few metres. You should also hold the T3040II upright to maximise the received signal.

## **SWITCHING OFF**

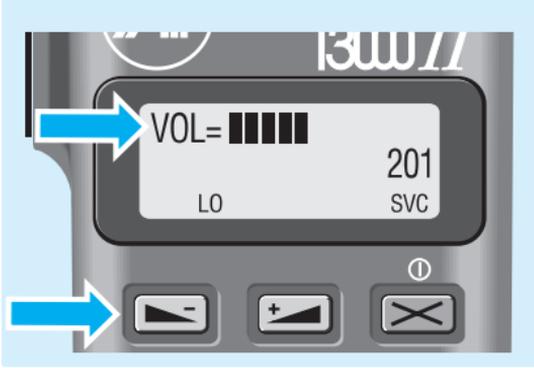
Switch your radio off by pressing the ON/OFF (⌘) key and holding it briefly, until the display goes blank. If Key Beeps is enabled, a tone will sound before the radio shuts off.

Your T3040II retains its volume and some other settings when it is turned off. When you next turn it on, it uses these settings.

**Note:** If you have a call in progress, the radio will not switch off on the first press of the ON/OFF (⌘) key; the call will simply be terminated. A second press is then required to switch the radio off.

## ADJUSTING THE VOLUME

The volume display shows the current setting as a series of bars. If this is the first time you have used the radio, adjust the volume level to about the middle of its range (5 bars showing) using the Volume Adjustment (◀-, +▶) keys.



You may need to adjust the volume level for speech when you receive your first call. Note that the volume level of the confidence tones is also affected by the volume control.

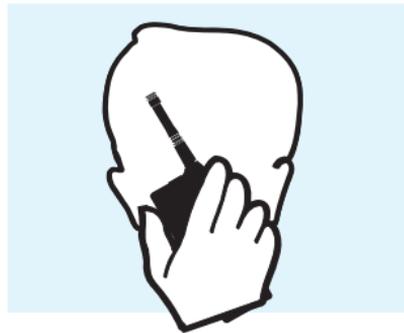
## Normal and Handset Operation

Your T3040II is designed so that you may use it as a normal two-way radio or like a telephone handset.

### **NORMAL OPERATION**

To use the T3040II as a normal radio as shown in the diagram, hold it with its microphone about 15 cm from your mouth.

Press the Press-To-Talk (PTT) key and speak clearly, in a normal voice. The Transmit (Busy/TX) indicator illuminates each time you operate the key. When you have finished talking, release the key to hear a reply and the indicator will turn off.



## **HANDSET OPERATION**

To use the T3040II like a telephone handset, select handset mode from the Menu options (see “Using the Menu”) or use the pre-programmed function key. The handset (H.SET) indicator appears in the display window and the speaker volume is reduced; otherwise,



the radio operates normally. Lift it to about 15 cm from your face with the speaker beside your ear and the bottom of the radio beside your mouth as shown. Press and hold the PTT key each time you speak, as described above.

**CAUTION: DO NOT** hold the radio with its antenna close to or touching any part of your body, especially your face and eyes, when transmitting. Always hold the radio upright and approximately 15 cm from your head which will ensure that the radio achieves maximum operating range.

## **VOX OPERATION**

An option board may be fitted to your T3040II to provide automatic transmission while you speak - Voice Operated Switching or VOX. With this option fitted you no longer need to operate the PTT key each time you speak.

If fitted, VOX operation may be selected from the Menu options (see “Using the Menu”) or with a preprogrammed function key. The AUX indicator appears in the display whenever it is active. Once activated, automatic transmission will only occur once a trunking call has been established, and is not available in Conventional mode.

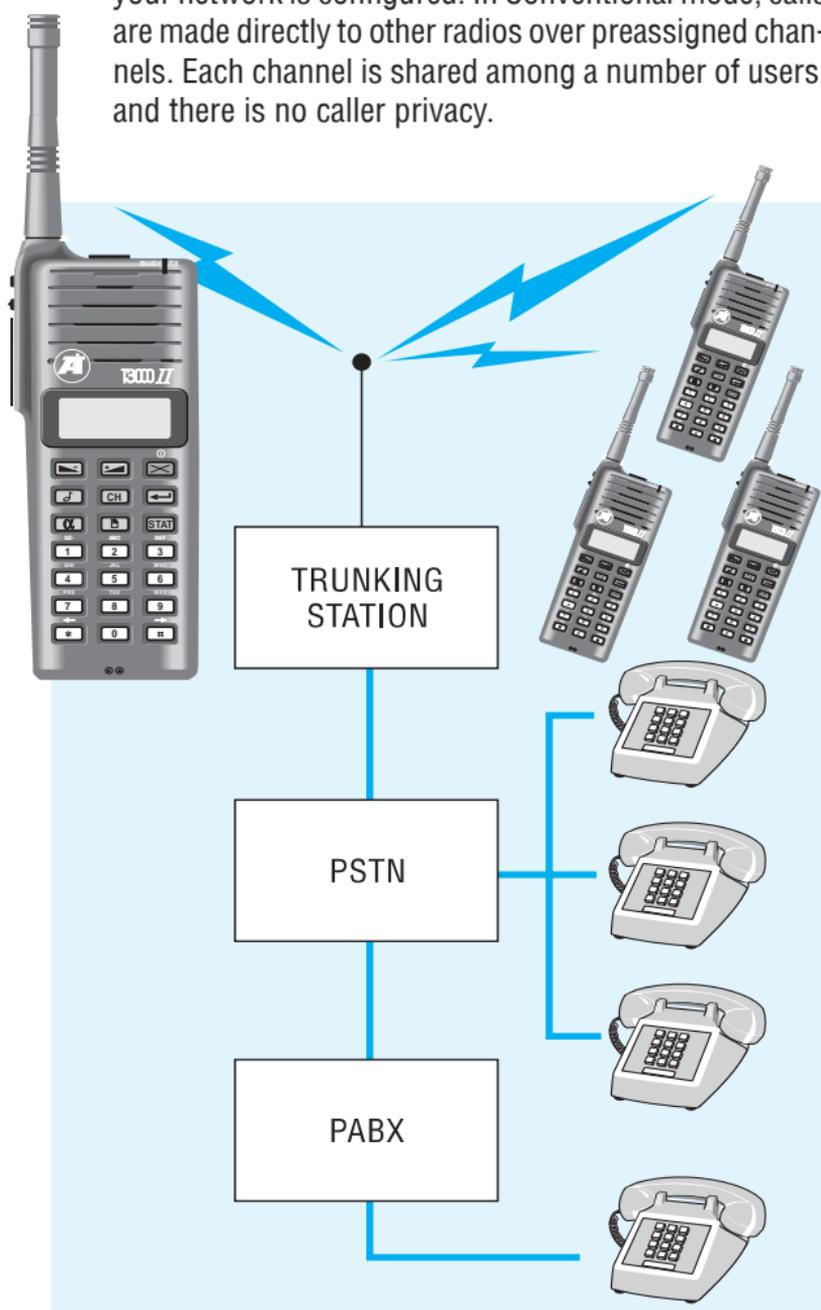
VOX operation can be affected by noise in the environment around you; the more ambient noise, the more likely the radio is to transmit even when you are not speaking. The most reliable operation will be obtained if VOX operation and handset operation are used together.

To cancel VOX operation, alter your selection in the Menu options or press the preprogrammed function key once more. The AUX indicator will disappear from the display.

## Trunking Call Operations

Your T3040II may be configured to switch between Trunking and Conventional calling mode. Trunking mode is the preferred operating mode because it provides access to your radio's most advanced features.

In Trunking mode, all calls are through the trunked network. You can make calls to other radios that have been assigned numbers in your network, and you may also be able to make calls to PABX and PSTN numbers, depending upon how your network is configured. In Conventional mode, calls are made directly to other radios over preassigned channels. Each channel is shared among a number of users, and there is no caller privacy.



*This section describes the operations you can perform in Trunking mode. Note that there are two sets of confidence tones available during preprogramming; the MPT set and the Tait set. This manual describes only the Tait set, which is the default.*

## **Selecting a Network**

Your radio may be preprogrammed with the ability to operate on up to four networks, one at a time.

To display the name of the network currently in use and the identity details of your radio, dial \*700, then Enter (↵).



Use the menu to change networks (see "Using the Menu").

## **Making a Call**

Enter the number of the required party using the numeric keypad or by selecting a labelled preset number (see "Dialling," below).

After entering the number, press the Enter (↵) or Hash (#) keys to make the call. You will hear call setup tones, and the WAIT message may be displayed.



On some networks, a buzzing tone indicates that the called unit is ringing, and the display message changes to WAIT-RINGING.

When GO AHEAD is displayed you can begin speaking.



If your call is not connected, your radio will respond with one of the following messages.

Display	Tone	Called Party	Action
<b>ENGAGED</b>	Broken, low-pitched tone	Already engaged or does not accept your call.	Call again later.
<b>CALL QUEUED</b>	Steady whistle	Not available, but their radio has stored your callback identity.	Wait for call back <sup>2</sup> .
<b>WAIT-IN QUEUE</b>	Broken Tone	Already engaged, or the network is unable to immediately connect your call.	Wait. Call will be connected as soon as the network is able to do so.
<b>NOT HOME</b>	Single low-pitched tone	Turned off, in do-not-disturb (Quiet) mode, or out of range.	Call again later.
<b>SYSTEM BUSY</b>	Single low-pitched tone.	Network is busy.	Call again later.
<b>UNOBTAINABLE</b>	Single low-pitched tone	Dialled number not supported by the network.	Check the number you dialled.

<sup>2</sup> If the receiving radio can only hold one callback identity, yours may be replaced with an intervening call if the recipient does not call you back directly.

## ***DIALLING***

Your radio can be configured to dial numbers in a variety of ways, depending upon preprogrammed options and network capabilities. You can dial other radios, groups of radios in your fleet, and PSTN/PABX (telephone) numbers. The actual number that you dial may be a direct access number, a label, or a pre-set speed dial number set up at the network level. To review your dialling options, see Appendix IV, "Common Dialling Functions". Note that the dialling sequences listed here are the most common setups. Dialling on your network may differ somewhat. Check these sequences with your fleet manager.

For information on using labelled preset numbers, see "Alphanumeric Entry Mode" under "Special Features."

## ***Receiving a Call***



Depending on your network and how your T3040II is preprogrammed, the radio will indicate that you are receiving a call by a ringing tone. The incoming call may be either a normal call or a group call.

### ***NORMAL CALL***

A ringing tone sounds from the speaker and the display indicates the caller's identity.

Accept the call by momentarily squeezing the PTT key. You may then hear the call setup indicator (three short tones), and see the WAIT message briefly. On most networks the GO AHEAD message appears immediately.

If you do not want to accept the call, press the Clear ( $\times$ ) key. The call is cancelled.

## **GROUP CALL**

Two short tones sound and the caller's identity is displayed followed by a GO AHEAD message. The caller will then broadcast a message to all members of your group. It is not normally necessary for you to reply. (You may select the groups to which you belong; see "Editing Group Membership".)



## **CALLER IDENTITY DISPLAY**

The caller's identity is shown in the middle line of the display window in one of the following forms. A "G" is also displayed if this is a group call, or an "E" if it is an emergency call.

<b>Message Type</b>	<b>Example</b>	<b>Explanation</b>
<b>Label</b>	VEHICLE7	The calling party is one of your preset numbers with a label preprogrammed into your radio.
<b>Preset Number</b>	8	The calling party is one of your network-stored preset numbers without a label preprogrammed into your radio.
<b>Call Number</b>	23	The calling party is in the same fleet as your radio, but is not preprogrammed.
<b>System Message</b>	O-FLEET	The calling party is not in the same fleet as your radio and is not preprogrammed.

Message Type	Example	Explanation
System Message	PHONE	A call from the PSTN (Public Switched Telephone Network).
System Message	PABX	A call from the PABX (Private Automatic Branch Exchange).

## Calling Procedure

When you have established a connection, hold the radio with its microphone about 15 cm from your mouth and press the PTT key. Pause briefly<sup>3</sup>, then speak clearly and release the key when you have finished talking. Remember to say “Over” when you finish speaking, so that the other party knows that you have finished. Similarly, wait for the other party to say “Over” before you press the PTT and begin speaking.

When you have finished conversing, end the call by pressing the Clear (✕) key.



The length of a call may be limited by the network, or by your radio. Normally, your radio displays the time remaining for the call, in seconds. Depending upon the network and call type, the display may show time used, or there may be no time display at all.



The network (or your radio) may also end the call if neither you nor the other party transmits for some time.

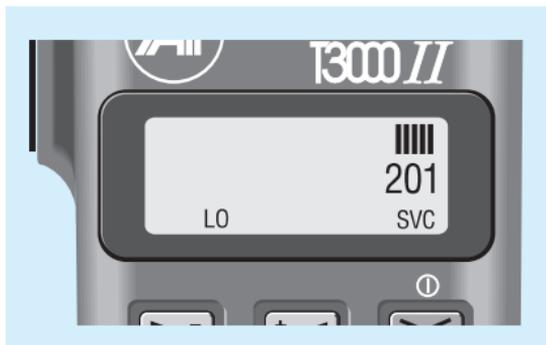
Your radio normally sounds a series of five quick tones just before it ends the call.

## ***Reestablishing a Call***

When a call has been ended, and no other function is active, your T3040II displays the identity of the last party with which you were conversing. This enables you to easily reestablish the call. If you initiated the last call, this is termed Redial. If the other party initiated the call, and your radio is able to identify its number, it is Callback.

### ***USING REDIAL***

When an outgoing call is terminated, the called party's identity is stored and displayed.



To redial this party, you can press the Enter (↵) key. After dialling, the call proceeds normally.

## **USING CALLBACK**

**Note:** This option may not be installed on your radio.

When an incoming call is terminated, the caller's identity is stored. The radio displays the message **CALLBACK**, and the identity of the calling party.



To call this party back, briefly press the Enter (↵) key. The call then proceeds normally.

**Note:** You can discard the incoming caller's identity by pressing the Clear (✕) key. The display then shows the last number you called.

## **Unanswered Calls**

If you are unable to answer an incoming call, your T3040II can automatically store the identity of the incoming caller. Unless you have the Call Queuing option preprogrammed, only the latest received call is stored.

An unanswered call is displayed with the message **CALL FROM** and the calling party's identity (a number or label). Any status message they may have included is shown on the second line of the display.



To return an unanswered call, simply press the Enter (↵) key.

If Call Queuing is enabled, this feature is expanded to include a saved queue of calls rather than just the last one. See "Call Queuing" for more information.

## Emergency Operation



The T3040II can be pre-programmed with an emergency call number (\* 9 # calls the prime emergency address). Selecting this number calls a preprogrammed party (usually your base or dispatcher), taking priority over all other calls on the network.

You can dial the emergency number like any normal network-stored preset number, or it may be directly accessible on one of the function keys. If the radio is used in a vehicle with the Tait Mobile Conversion Kit, it may also be connected to a hidden emergency switch, which can initiate the emergency call directly.

To make an emergency call, dial the emergency preset number, press the appropriate function key or, if provided, use the hidden switch.

The radio sends a message to automatically alert the called party that you are in distress. You may still need to inform them of your location and any other relevant information to receive assistance.

## *Conventional Radio Operations*

Subject to approval by your radio licensing authority, you can use your T3040II as a conventional two-way radio where it is not appropriate to use it on a trunking network. Up to 10 channels (from 101 to 110) may be preprogrammed for conventional operation.



### *Selecting a Channel*

To activate Conventional mode, enter the channel number you wish to use (between 101 and 110) on the key pad and press the Enter (↵) or Hash (#) key. The display window shows the channel number selected—for example, CHANNEL 105.



To return to Trunking mode, press Clear (⌫), or enter a dialing sequence for a trunked party using the key pad.

## Receiving

Your radio remains muted until another user makes a call. When you hear activity, listen for your own call-sign. When you hear your call-sign, reply promptly, identifying yourself by your call-sign (for example “Mobile-9 receiving”).

### MONITOR KEY

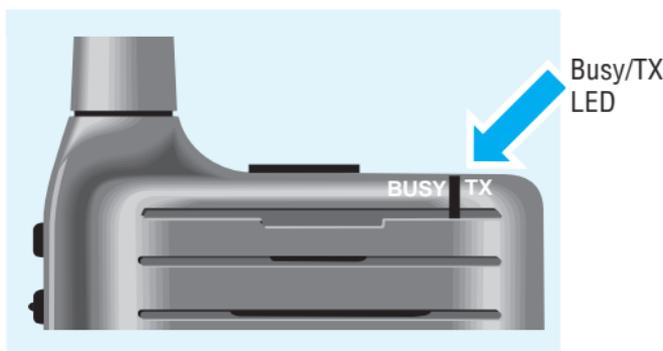
One of the function keys may be preprogrammed to operate in Conventional mode as a monitor key. The monitor key disables muting options installed on your radio.

There are two types of muting control that may screen your calls:

- |                   |  |
|-------------------|--|
| <b>RF squelch</b> | Permits reception only of calls with signal strengths above a factory-set threshold. This ensures that only signals which will be intelligible are made audible. |
| <b>CTCSS mute</b> | Permits reception only if a call carries an inaudible tone specific to your fleet or group.  |

**Note:** RF Squelch is always programmed to operate in your radio. The CTCSS mute may also operate, but only if your radio is fitted with this option.

The BUSY indicator lights a continuous green whenever there is any activity on the channel. Only a portion of this activity may be audible, depending on which muting control options your radio has fitted.



To override CTCSS muting, press the monitor function key. The BUSY indicator flashes green and a short high-pitched tone sounds.

If you are not sure if your T3040II has been preprogrammed with this facility, consult your fleet manager or Tait dealer.

## ***Transmitting***

If the BUSY indicator is lit continuously green, the channel is busy and you should wait until it is free before proceeding. Your radio may be preprogrammed to prevent you from transmitting if the channel is busy (your fleet manager or Tait dealer will advise you if this is so.) If it is, and you attempt to transmit while the channel is in use, the speaker sounds a warning tone.

Press the PTT key and speak clearly, identifying yourself and the person you wish to contact by your call signs (for example, “Mobile-8 to Mobile-9”). Release the PTT key when you have finished talking.

The radio is fitted with a timer to limit the maximum length of transmissions. When this limit is reached, the radio sounds a sequence of short warning tones before it stops transmitting.

## ***CTCSS Calls***

The CTCSS option isolates your calls so that you only talk with a single group even though other users may be on the channel. It does this by screening out radio traffic that does not carry the correct CTCSS signal. CTCSS is automatically available on any Conventional mode channel for which it has been preprogrammed. Only one CTCSS tone can be used, but it may be applied to more than one channel.

Transmitting and receiving using CTCSS is the same as transmitting and receiving using normal Conventional mode.

## Special Features

Most special features must be enabled during programming to allow you to use or change them. Of these features, only Low Power mode is available in Conventional operation.

### *Alphanumeric Entry Mode*

Your T3040II can be preprogrammed with up to 100 preset numbers, each of which may have an alphanumeric label of up to eight characters. The label can be a person's name, a radio call sign, a group name or an appropriate acronym. A preset number can contain a complete trunking call setup string, including status information.

To use preset numbers, select them by their label as follows:

1. Press the Alpha ( $\alpha$ ) key to enter the Alphanumeric Entry mode.



2. Locate the desired label by using the cursor keys to scroll through the list until the label is displayed or enter the label for the required party, using the keypad.
3. Press the Enter ( $\rightarrow$ ) key or the PTT key to initiate the call.

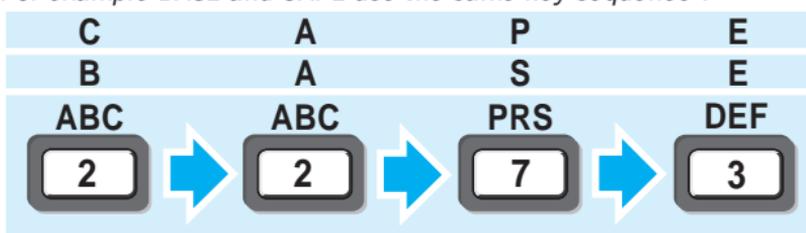
## Using the Alphanumeric Keypad

Each key corresponds to a set of numbers and letters (the 2 key may be used as a '2', an 'A', a 'B' or a 'C'). Sequentially press the keys that match the letters or numbers in the label.



A question mark appears in the display each time you add a character until you have entered enough for the radio to recognise the label. When the label is recognised, it is displayed in full.

Note that in choosing labels for preprogramming into your T3040 II, you must avoid words which are indistinguishable to the radio. For example BASE and CAPE use the same key sequence<sup>4</sup>.



**Example:** You want to call your base despatcher who has been assigned the label, BASE. The keystroke sequence and display might appear as follows:

Press Key	Display Reads	Explanation
		Most recent selection displayed
ABC 2		Label not yet identified
ABC 2		Label not yet identified
PRS 7		New label identified
		BASE is called and the BASE number is displayed

<sup>4</sup> Your radio automatically rejects choices which conflict.

## ***Short-Dial Preset Numbers***

Your network may contain preset short-dial numbers to make dialling easier. These numbers are between 1 and 49. To use one of these numbers, simply dial two stars (\* \*), the number, then the Enter (↵) or Hash (#) key. These numbers differ from the stored numbers in Alphanumeric Entry mode in that they are stored at the network level, rather than in your radio.

## ***Status Calls***

Status calls permit rapid exchange of simple messages without voice conversation. Your radio can have a number of short messages preprogrammed, for use in a variety of situations. Your status message could be “Enroute,” “At Lunch,” or “At Home”. Similarly, other parties can send you status messages to let you know what they are doing. You do not need to acknowledge a status call; once you have read it you can clear it from your display.

### ***TRANSMITTING A STATUS CALL***

There are three ways to make a status call:

- Automatic message and number selection, using alphanumeric labels and preset numbers
- List selection of the message with separate dialling
- Manual entry of both the message number and number to be dialled.

Alphanumeric labels can be preprogrammed to send a particular status message to a particular party or group.

There are 30 status numbers available, each of which may be associated with a message of up to eight alphanumeric characters. The status message may be a note, a job name, or an acronym (it must be preprogrammed).

### **Automatic Message/Number Selection**

To send a preprogrammed status message to another party, select the appropriate Alphanumeric Entry mode label. If the label was preprogrammed to send a status message, the status message is paired with the number and is sent automatically when you dial the selection.

Your display shows ACCEPTED when the called party's radio receives your message. (See the message table under "Making a Call" if the call fails to complete.)



### **Independent Message/Number Selection**

To manually select a status message and send it to a dialled number, perform the following steps:

1. Press the STAT key, then use the cursor keys to scroll through the list of messages until an appropriate message is displayed.



2. Press the Enter (↵) key. The label message in the display changes to its numeric value.
3. Press Star (\*). (To send the status message to your dispatcher, press the Hash (#) key.)

4. Dial the required party in the normal way, using direct entry or the alphanumeric list.
5. Press the Enter (↵) or Hash (#) keys (or the PTT key if preprogrammed to initiate calls) to make the call. Your display shows ACCEPTED when the called party's radio receives your message.



### **Manual Message/Number Entry**

You can manually enter the entire status message and call string directly on the keypad using the following format:

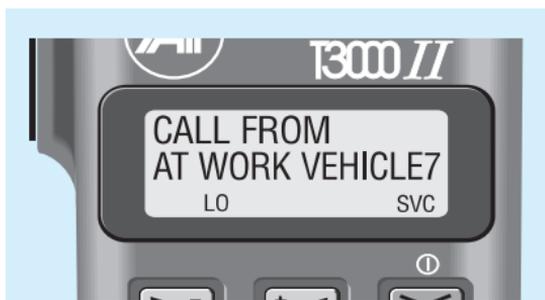
\*0ss\* *number* #

The value *ss* is the status value, and *number* is the called party's number. The status value must be between 1 and 30.

### **RECEIVING A STATUS CALL**

Incoming status calls are treated as Unanswered Calls where Call Queuing is not available (see "Unanswered Calls"). If Call Queuing is available, they are always queued. Status calls do not turn on Call Queuing for voice calls, however.

When a status call is received, the display is as follows:



The upper line shows either CALL FROM or CALL X OF Y.

The middle line shows either the status value (1-30) or the message (if the radio recognises the value) on the left.

The calling party's identity is shown on the lower right of the display.

If you want to call the party that sent you the status message, simply press the Enter (↵) key.

To clear the message from your display, press the Clear (✕) key.

## ***Call Queuing***

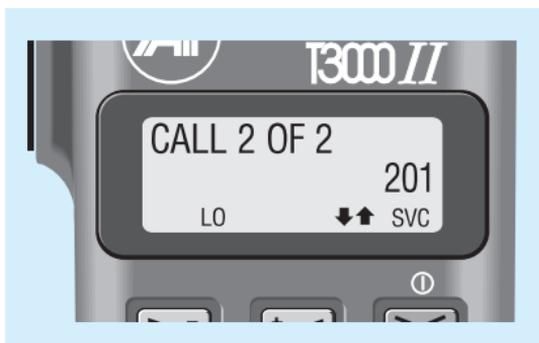
If you are unable to answer your incoming calls immediately, you can have your T3040II save up to 20 call-return messages from other radios in a queue for later callback. PABX and PSTN calls cannot be queued and will always ring normally.

**Note:** This option may not have been enabled in your radio.

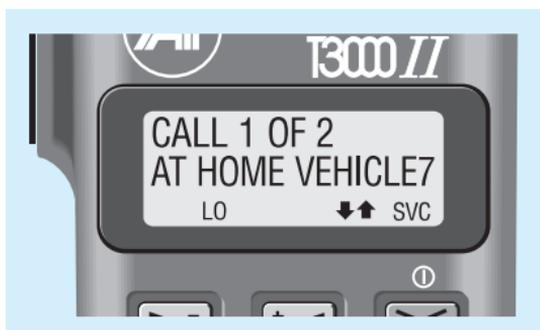
Your T3040II sends an acknowledgement message to the radio of each party as they call, letting them know that their call-return message has been accepted.

You can set Call Queuing by using the Menu (see “Using the Menu”), or your T3040II will enter this mode automatically if you leave a call unanswered. (This feature can also be set by using a dialling sequence. See Appendix IV, “Common Dialling Functions,” for more information.)

Incoming calls from other radios (except group calls) are now queued by your radio.



As calls are received and queued, the display shows CALL X OF Y where Y is the total number of calls presently queued, and X is the position of the current call in the sequence. The first call is always displayed until you scroll through the queue. The identity of the caller (a number or label) and their status message (if sent) are also displayed.



If there is only one call in the queue, press the Enter (↵) key to return the call.

If there is more than one call in the queue, press the Enter (↵) key twice to return a call to the party currently displayed.

To return a different call in the queue, use the cursor keys to scroll through the queue until the party you want appears, and then press the Enter (↵) key.

After you have returned a queued call, that entry is removed from the queue. To clear an entry from the queue without making the call, display it by scrolling, then press the Clear (✕) key.

To disable Call Queuing so that new incoming calls are brought to your attention immediately, use the Menu (see “Using the Menu”).

**Note:** When you disable Call Queuing, the display continues to show the message, CALL X OF Y and the stored call queue remains intact. An existing call queue remains intact if Call Queuing is reinstated, if the radio is turned off, or if the battery is removed.

Call Queuing has no effect upon procedures for normal outgoing calls.

## ***DTMF Operation***

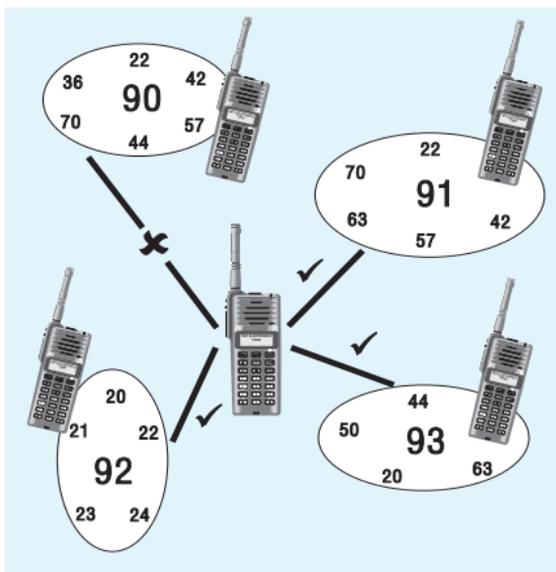
A DTMF Option board, if fitted, enables you to dial telephone tone sequences simply by pressing the keys one to nine or the hash and star keys. You may be able to use this facility to call your answer machine and retrieve messages for example.

DTMF operation must be selected from the Menu options (see “Using the Menu”) or with a function key, and then the AUX indicator appears in the display. Once activated, DTMF dialling will only be available once a trunking call has been established, and is not available in Conventional mode. The message, GO AHEAD DTMF, appears in the display at the start of each call.



## ***Editing Group Membership***

Your fleet may be set up with users allocated to several groups. This allows a user to send a message simultaneously to a number of people with a related interest or activity.



Using your T3040II's menu, you may join, or withdraw from, groups preprogrammed into your radio. (If you are not sure which groups exist in your fleet and what their functions are, you should consult your Fleet Manager.)

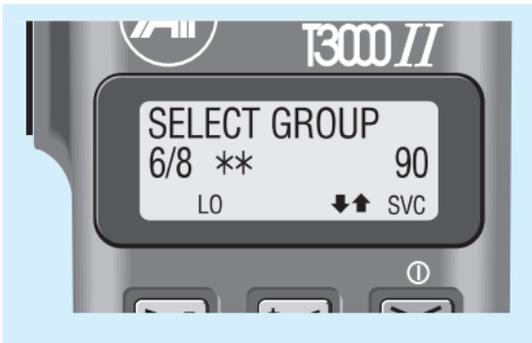
Changing group membership affects only the reception of messages. You may send messages to any group simply by dialling its number (see Appendix IV, "Common Dialling Functions").

To see which groups you currently belong to, press the Menu (⏏) key and select the "VIEW GROUP" option by scrolling it into the display. Press the Enter (↵) key and then use the scroll keys to view the group identities to which you belong.



If you wish to change your membership of a group, press the menu (⏏) key and select the "SET GROUP" option.

Pressing the Enter (↵) key allows you to view and scroll through the possible groups. When you find a group which you wish to join or to withdraw from, press the Enter (↵) key again.



The second line of the display gives you information about each group as follows:

Message	Example	Explanation
X/Y	6/8	Shows how many groups you currently belong to and the maximum number available to you. The example shows membership of 6 out of a possible 8 groups. If you attempt to join a group when there are none left available the radio will emit 4 short beeps. (Your T3040 II allows you access to up to 8 groups.)

Message	Example	Explanation
<b>No Star Symbol</b>		No star indicates that you do not currently belong to the displayed group. Press Enter to join the group. The radio will emit two long beeps if this choice is accepted.
<b>Star Symbol</b>	*	Shows that you belong to this group. To withdraw from it press Enter. The radio will emit two long beeps if this choice is accepted.
<b>Double Star Symbol</b>	* *	Shows that you belong to this group but may not withdraw from it. If you attempt to do so, the radio will emit four short beeps.
<b>Group number</b>	90 G1	Shows the calling identity of the group. For groups within your fleet this number will be between 90 and 99 or 900 and 998 depending on your fleet size. For groups which span numbers outside your own fleet, a number between G1 and G8 will appear. You cannot change your membership of these groups.

To exit the View Group or Edit Group options press the Clear (X) key and the radio reverts to normal operation.

## *Quiet Mode*

If you do not want to accept any calls for a while, you can place your radio in a Quiet or “don’t disturb” mode.



To initiate Quiet mode, use the Menu to set the QUIET MODE option ON<sup>5</sup>. (This feature can also be set by using a dialling sequence. For more information, see Appendix IV, “Common Dialling Functions”.)

When you return to normal operation from the Menu, QUIET MODE ON no longer appears in the display, and normal operation resumes.

**Note:** Call Queuing and Quiet mode cannot be active at the same time. Enabling Call Queuing automatically turns off Quiet mode and enabling Quiet mode turns off Call Queuing mode.

## ***Low Power Transmission***

If you are operating near one of your network sites in Trunking mode, or near the party you wish to converse with in Conventional mode, you can conserve battery power by reducing the output of your transmitter. If all five of the bars in the Received Signal Strength Indicator are showing, it is likely that you will be able to get reliable operation at low power.

To switch on Low Power Transmission, use the Menu to set the TX LOW POWER option ON<sup>5</sup>. When you return to normal operation from the menu, the LO indicator appears continuously in the bottom of the display. Low Power Transmission may be cancelled from the menu by selecting OFF.



The LO indicator also appears in both Trunking and Conventional mode on calls or channels which have been preprogrammed for low power operation and cannot be cancelled.

## ***Scrambler Operation***

Your radio may have a scrambler option board fitted to add an additional level of privacy to your conversation. However, it is only useful if the party you call has a similar scrambler fitted to their radio. The scrambler encodes transmissions so that, in the unlikely event that the radio traffic is overheard by someone-else, the voice sounds garbled.

<sup>5</sup> Your radio may have this operation assigned to a function key.

If the party you call has no scrambler, or has theirs inactive, they, too, will hear only a garbled message. You should consult your Fleet Manager to find out which other members of your fleet have scramblers and what your fleet policy for using them is.

Scrambler operation may be selected and cancelled from the Menu options (see the "Auxiliary" item in "Using the Menu") or with a preprogrammed function key. The AUX indicator appears in the display whenever it is active. Once selected, the scrambler functions continuously in both Trunking and Conventional modes.

## *Using the Menu*

The menu options enable you to personalise how your T3040II operates. Some or all of these options will have been made available to you by preprogramming. If you are unsure about what is available, you can enter Menu mode and review the entries.

To enter Menu mode, press the Menu (☰) key. The menu option last accessed appears in the display.



Use the cursor keys to move between menu options. Most menu options have an ON and OFF setting. To change the current setting, press the Enter (↵) key. To leave the menu options and return to normal operation press either the Menu (☰) key again or the Clear (✕) key.

The table following shows the options which appear in the menu (not all options may be available on your radio). Options marked with an asterisk (\*) may be preprogrammed to a function key.

<b>Option</b>	<b>Setting</b>	<b>Description</b>
<b>AUXILIARY*</b>	ON/OFF	The auxiliary option turns an installed device ON or OFF.
<b>CALL QUEUING</b>	ON/OFF	When Call Queuing is on, all calls are stored in a queue for callback. For more detailed information, see “Call Queuing”. This option only appears when the radio is operating in Trunked Call mode.
<b>DTMF</b>	ON/OFF	DTMF is an option and allows you to send telephone tones during your calls. If fitted, it is active automatically once the call is established.
<b>HANDSET MODE*</b>	ON/OFF	Handset operation enables you to use the T3040 <i>II</i> just as you would a telephone handset. For more detailed information see “Normal and Handset Operation.”
<b>INTERNAL MIC*</b>	ON/OFF	This option is available when an external microphone is fitted to the T3040 <i>II</i> . It allows you to switch the radio’s internal microphone off and on.
<b>INT. SPEAKER*</b>	ON/OFF	This option is available when an external speaker is fitted to the T3040 <i>II</i> . It allows you to switch the radio’s internal speaker off and on.
<b>KEY BEEPS</b>	ON/OFF	The Key Beeps option determines whether a tone will sound when keys are pressed. It does not affect the confidence tones (ringing, engaged and so on).

<b>KEYPAD LOCK*</b>	ON/OFF	<p>The Keypad Lock prevents accidental operation by locking the keypad so that only the ON/OFF, Clear, Volume Adjustment and PTT keys are active. The function keys are also disabled unless they are programmed as additional Clear keys.</p> <p>Turn Keypad Lock on in the normal manner, using the Enter (↵) key. The radio leaves the Menu and reverts to normal operation with the keypad locked. Keypad lock can be removed at any time by pressing the ON/OFF (⌘) key and holding it for at least one half second.</p>
<b>NETWORK NAME</b>	ON/OFF	<p>The Network option allows you to change from one network to another. Selecting a new network 'on' turns the previously active network 'off' and causes the radio to start up again as if its power has been turned off and back on. See "Changing Networks" for information about viewing details of the active network.</p>
<b>NIGHT USE*<sup>6</sup></b>	ON/OFF	<p>The Night Use option turns on backlighting for the display and keys. It is activated by a key-press or an incoming call. It will remain on for a short time after the call is completed.</p>

<sup>6</sup> Selecting "NIGHT USE ON" increases power consumption.

<b>PTT REDIAL</b>	ON/OFF	PTT Redial lets you initiate calls simply by pressing the PTT key. If this is not convenient you may turn it off and calls will only be initiated when you press the Enter (↵) or Hash (#) keys.
<b>QUIET MODE*</b>	ON/OFF	The Quiet mode option lets you set your T3040II to automatically reject all incoming calls. See “Quiet Mode” under “Special Features” for more information. This option only appears when the radio is operating in Trunking mode.
<b>SET GROUP</b>	* * *	The Set Group option allows you to join or withdraw from the groups of users which have been defined in your fleet. A single star in the display indicates that you belong to the group and can withdraw, two stars indicate that you belong but may not withdraw and no stars indicates that you do not belong but you may join as long as you do not already have a full complement of groups.
<b>TX LOW POWER* (Transmit Low Power)</b>	ON/OFF	The Transmit Low Power option lets you conserve battery power by reducing the output of your transmitter if you are near your targeted receiver. See “Low Power Transmission” for more information.
<b>VIEW GROUP</b>		The view group option allows you to review your group membership but not to alter it.

## *Recharging the Battery*

Under normal usage your radio battery can be expected to last approximately eight hours before it requires recharging. If you spend a lot of time transmitting, this time will be reduced; if you rarely transmit it may be considerably longer.

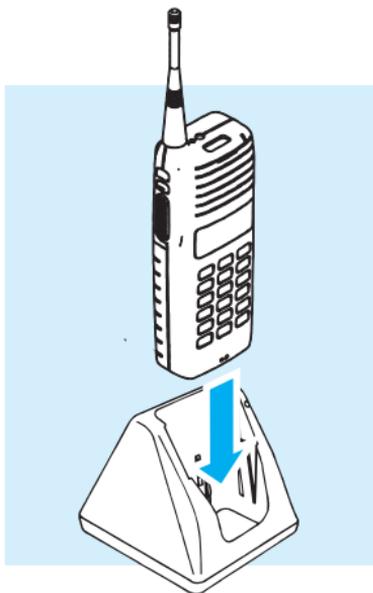
When battery voltage is low, the (TX / BUSY) indicator flashes red and the radio sounds a low-pitched beep every 20 seconds. You can continue using the radio, but you should recharge the battery as soon as possible to avoid reducing its life.

**Note:** Once the battery becomes too discharged to properly run the radio, the radio switches itself off.

The battery can be recharged while still attached to the radio, or it can be recharged separately.

### *Mounting the Radio in the Charger*

1. Turn the radio *off* using the front panel ON/OFF ( $\times$ ) key. (The radio may be left on, but, if using a trickle charger, full charge may not be achieved).
2. Place the radio, with its battery still fitted, into the charger.



**Note:** Some Radio Regulatory Authorities forbid any transmissions while the radio is mounted in its charger.

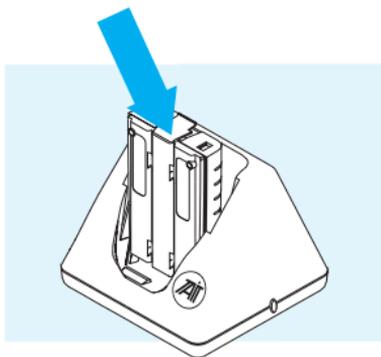
3. Recharge according to the “Recharging” instructions following.

## ***Mounting the Battery in the Charger***

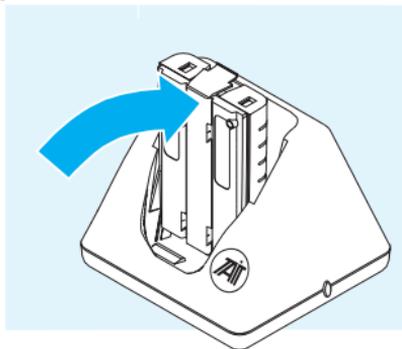
1. Turn the radio *off* using the front panel ON/OFF (><) key.
2. Remove the battery pack from the back of the radio by pressing down the spring latch in the middle of the radio back panel. Hinge the battery pack away from the chassis until it comes free.



3. Place the battery in the charger pocket with the four silver contacts to the back. Lean the top forward as far as you can to seat the battery properly.



4. Tilt the battery back against the contacts until it snaps into place.



5. Recharge according to the "Recharging" instructions following.

## Recharging

To recharge using a Tait battery charger, perform the following steps:

1. Make sure the indicator at the top corner of the charger confirms that the battery pack is charging. If it does not illuminate red within a few seconds, check whether the battery is seated properly, the plug pack is properly connected to the charger and the mains outlet is switched on and live.
2. The battery pack (or radio) may be considered fully recharged when the indicator changes from red to green but it is recommended that the battery remain in the charger until it is required. (The T3001 trickle charger has no end of charge indication - it charges continuously.)

**Note:** Trickle chargers are not considered suitable for recharging high capacity (Nickel-Metal Hydride) battery packs.

To refit the battery pack, offer it up to the chassis, locating the peg on its bottom edge in the slot at the bottom of the radio's chassis. Hinge the battery up until the spring latch clicks into place.



**Note:** When using a trickle charger, recharging the battery pack with the radio attached *and* switched on will reduce the amount of charge the pack receives. To ensure that an exhausted battery pack is completely recharged, it should be charged for the full twelve hour period either separately, or with the radio switched off.

## *Maintenance and Troubleshooting*

### ***Maintenance***

Your T3040II requires no regular maintenance, other than ensuring the battery has sufficient charge.

#### ***CARE OF YOUR T3040 II***

- From time to time wipe the battery contacts and accessory connector contacts with a dry lint-free cloth to remove any dirt, oil or grease.
- To clean the radio's case use a cloth dampened with clean water.
- To remove difficult marks the cloth may be dampened with a mild liquid soap solution.
- **DO NOT** allow the radio to come in contact with detergents, alcohol, aerosol sprays or petroleum-based products as they may permanently damage the case.

#### ***TO PRESERVE BATTERY LIFE***

- Avoid storing the battery for extended periods without first fully recharging it.
- Avoid repeatedly recharging the battery when it has only had a small amount of use.
- Use only a Tait recommended charger.
- Maintain an ambient temperature of 5<sup>o</sup> to 40<sup>o</sup> C during recharging (optimum battery performance will be obtained between 15<sup>o</sup> and 25<sup>o</sup> C).

**CAUTION: DO NOT** allow the battery pack contacts to become short-circuited or dispose of the battery pack in a fire.

## ***AVOIDING HIGH TEMPERATURES***

If the radio is left in strong sunlight, or exposed to high temperatures, the display may temporarily darken. If the temperature exceeds 80°C, the radio will cease to function until the temperature returns to a safe level.

Additionally, the high capacity battery pack is fitted with a thermal cutout which prevents operation above 70° C. Temperatures above 90° C cause permanent damage.

## ***Troubleshooting***

If the display remains blank and no indicators light up when you turn the radio on, it is likely that no power is available.

If the radio turns on briefly then off again, or fails to operate properly, it is likely that the battery is discharged.

In either case, check the following:

- Is the battery firmly plugged into the rear of the T3040II?
- Was the battery sufficiently charged after its last use?
- Is the battery charger working correctly?
- If using a high capacity battery pack, has it been subjected to very high temperatures<sup>7</sup>?

If all appears to be in order, or if the message ERROR XX appears in the display window, then contact your Tait dealer for assistance.

---

<sup>7</sup> The high capacity battery pack is fitted with a thermal fuse which operates at temperatures exceeding 90° C and renders the pack unserviceable.

## Appendix I Indications

The indications refer to the abbreviated messages which appear in the bottom of the T3040II display window, the RSSI and volume indications in the upper line of the display, and the LED indicator on the top front corner of the radio.

### Display Window Indicators

**SVC** The Service indicator appears as the three characters SVC across the bottom of the display. There are three possible indications:

**Continuous** Your radio has access to a network and is ready to make or accept calls.

**Blinking** Your radio does not currently have access to a network. It is attempting to find a site it is authorised to use, or it may be out of range of a network signal.

**Absent** Your radio is in Conventional mode.

**↕** The cursor indicator appears when the radio is in one of the following modes: Alphanumeric Entry, Status Label Selection, Menu, Set Group or Call Queue. When this indicator appears, you can scroll through the list of options or entries using the cursor keys but cannot use these keys to dial hash (#) and star (\*).

**H.SET** The Handset indicator indicates that the radio is in Handset mode.

**AUX** Auxiliary indicates that your radio has an auxiliary device fitted and that it is active.

**LO** Low Transmit Power indicates that the radio is operating with its transmitter power reduced.

**VOL = ■■■■**

The volume indicator shows the relative setting of the volume control. Full volume has 10 bars showing, lowest volume has one.

**III** The upper right corner of the display carries the RSSI (Received Signal Strength Indication) level. This appears only when the T3040II is in Trunking mode. Maximum signal is being received when five bars show, minimum with one.

## ***LED Indicator***

The LED Indicator at the top of the radio provides a variety of indications as displayed in the following table.

<b>Indication</b>	<b>Condition</b>	<b>Meaning</b>
<b>Steady Red</b>	TX	The radio is transmitting. This should occur each time you press the PTT key and automatically during call setup when another party calls you.
<b>Flashing Red</b>	Low Battery	This is accompanied by a low-pitched beep every 20 seconds. The battery is nearly completely discharged.
<b>Steady Green</b>	Receiver Busy	Your radio has detected some activity on the channel. (Conventional mode only.)
<b>Flashing Green</b>	Monitor Active	You turned muting off and are able to hear any traffic on the channel. (Conventional mode only.)

## *Appendix II Audible Indicators*

Following are some of the audible indicators provided by your radio in addition to those shown on page 15.

### ***High Temperature Warning***

A series of high-pitched tones when the radio is transmitting. The radio automatically switches to low power but you should stop transmitting and allow it to cool down.

### ***Battery Low***

A series of low tones, with the LED indicator flashing red.

### ***Radio Ready***

Two pairs of sharp tones that sound first when the radio is turned on, then when it enters Trunking mode.

### ***Queue Full***

A high pitched repeating tone indicating that the queue is full and no further calls will be accepted for queuing.

### ***Unanswered Call***

A warbling tone notifies you that there is an unanswered call or a queued call waiting for callback. This does not sound if Call Queuing was turned on manually.

### ***Incoming Call***

A low pitched ringing tone indicates a call received by your radio. (There is a slight difference if the MPT tone set is selected.)

### ***Transmit Timer***

Three short medium-pitched tones. (Your message has exceeded a preprogrammed time-limit.) The radio stops transmitting. Release the PTT key before transmitting again.

## *Appendix III Display Window Messages and Indicators*

The display window messages appear in response to various conditions. Unless otherwise indicated, they are located in the top line of the display.

<b>ACCEPTED</b>	Your status call or network service request is accepted.
<b>CALL QUEUED</b>	Your radio has reached the other party and they did not answer, but their radio has stored a message to call you back.
<b>CALL FROM</b>	Your radio has received a call from another party, and you have not responded to it. You can call that party back by pressing the PTT key.
<b>CALL X OF Y</b>	You have Y calls queued. The identity of the party for call number X is currently displayed.
<b>CALL TIME Min:Sec</b>	Duration of your call, in minutes and seconds.
<b>CALLBACK</b>	The display shows the identity of the party who last called and conversed with you. You can call them back simply by pressing the PTT key.
<b>CHANNEL 1NN</b>	Your radio is operating in Conventional mode with a channel between 101 and 110 selected. This message appears on the second line of the display.
<b>ENGAGED</b>	Your radio has reached the other party, but they are already engaged in another call. Call back later.
<b>ERROR XX/ SWITCH RADIO OFF</b>	Your radio has malfunctioned. Note the error number before switching the radio off for a few seconds and then back on. Consult your Tait dealer. This message uses both text display lines.
<b>GO AHEAD</b>	Your radio has established a call, and you are now able to converse.
<b>INTERNAL MIC ON</b>	The internal microphone is active.
<b>INTERNAL MIC OFF</b>	An external microphone is fitted and active.

<b>INT.SPEAKER ON</b>	The internal speaker is active.
<b>INT.SPEAKER OFF</b>	An external speaker is fitted and active.
<b>KEYPAD LOCKED</b>	The keypad is locked to prevent accidental entry, and must be released by using the ON/OFF (⌘) key.
<b>MENU</b>	Your radio is in MENU mode and is waiting for a Menu entry.
<b>NOT HOME</b>	The network has been unable to reach the other party's radio because it is turned off or is out of range of the network.
<b>O-FLEET</b>	Your radio has received a call from another party that is not part of your fleet. This message appears on the second line of the display.
<b>PABX</b>	Your radio has received a call from another party via a Private Automatic Branch Exchange (most likely your company's switchboard). This message appears on the second line of the display.
<b>PHONE</b>	Your radio has received a call from another party via the Public Switched Telephone Network (PSTN). This message appears on the second line of the display.
<b>QUEUING ON</b>	Queuing mode has been turned on.
<b>QUIET MODE ON</b>	Quiet mode has been turned on.
<b>SYSTEM BUSY</b>	The network was unable to handle your call at this time. Call again later.
<b>TIME LEFT Min:Sec</b>	Time in minutes and seconds before this call is automatically ended. There is a five-beep warning eight seconds before you are disconnected.
<b>UNAVAILABLE</b>	The function that you requested is not available on this radio.
<b>UNOBTAINABLE</b>	The number you called is not recognised by the network. Check that you have dialled the correct number.
<b>WAIT</b>	The network is setting up your call.

<b>WAIT - IN QUEUE</b>	The network has not yet contacted the other party's radio but your call will be connected automatically as soon as possible.
<b>WAIT - RINGING</b>	The network is setting up your call, and has contacted the other party's radio.

The display window indicators appear in the second line of the display to indicate group or emergency call status.

<b>G</b>	(Group) Your radio has received a group call from another party. Listen for the message, but you may not need to reply.
<b>E</b>	(Emergency) Your radio has received an emergency call from another party. Listen carefully for the message and be ready to render all assistance possible. Answer if appropriate.

## *Appendix IV Common Dialling Functions*

The following tables provide a key to common dialling code setups and dialling access to special functions. Where a number is specified, note that the number itself may be entered directly, or it may be entered by using an alphanumeric label (see "Alphanumeric Entry Mode").

Some of the functions listed below may be unavailable on your network, and some may need to be enabled during pre-programming of your radio. For more information about the facilities available on your network or radio, please refer to your fleet manager or Tait dealer.

**Note:** Your T3040II may be preprogrammed so that you can initiate the call by pressing the PTT key instead of the Enter (↵) or Hash (#) keys.

## Trunking Operation

Within your radio and network system, certain ranges of numbers have been set aside for specific purposes. The calling groups listed first all represent numbers that may be called by simply entering the number and following it with the Enter (↵) key or the Hash (#) key. Following are some special codes which may be used to modify some calls.

**NUMBER** ▶ 

**Example:** Calling a radio in your own fleet: 29↵

### COMMON RADIO CALLS

Number Range	Call to
20...89	Radio in own fleet
200... 899	Radio in own fleet
90...99	Group in own fleet
900... 998	Group in own fleet
999	Emergency operator (if supported by network)

### ALPHANUMERIC LABELS BY INDEX NUMBER

Number Range	Call to
0...099	Alpha-labelled call strings

**Note:** To select any labelled call number above 19, dial a zero in front of the labelled number. For example, dial 023↵ for labelled call number 23.

### GROUP CALLS

 ▶ **CODE** ▶  ▶ **NUMBER** ▶ 

**Example:** Conference call to group 92: \* 1 \* 92↵

Code	Sequence	Function
1	* 1 * <i>number</i> ↵	Conference call to group
11	* 11 * <i>number</i> ↵	Broadcast call to group
8* 1	* 8* 1 * <i>number</i> ↵	Priority conference call to group
9* 1	* 9* 1 * <i>number</i> ↵	Emergency conference call to group

## STATUS MESSAGE CALLS



**Example:** Send status message 12 to party 89: \*012\*89↵

Code	Sequence	Function
Oss	*Oss*number↵	Status call
Oss	*Oss↵	Status call to despatcher (ss = Status 1 to 30)

## NETWORK PRESET CALLS



**Example:** Dial network preset call 15: \* \*15↵

Number Range	Call to
1...49	Network preset parties

## INTERFLEET (OUT OF FLEET) CALLS

Consult your fleet manager for prefix information

## Telephone Calls<sup>8</sup>

### INTERNAL PHONE (PABX) CALLS



**Example:** Dial PABX number 8909: 38909↵

Code	Sequence	Call to
3...6	3number↵	PABX number

### OUTSIDE PHONE (PSTN) CALLS



**Example:** Dial PSTN number (03) 584-1212: 0035841212↵

Code	Sequence	Call to
0	0number↵	PSTN number

<sup>8</sup> Commonly, a code is unnecessary. However, there are many possible options. If you are unsure about your system, consult your fleet manager.

## Special Trunking Functions

### INITIATE SPECIAL FUNCTIONS



**Example:** Set Queue Incoming Calls On: \*48↵

Code	Sequence	Function
0	*0↵	Request callback from own Dispatcher
9	*9↵	Emergency call (to prime emergency address)
48	*48↵	Set Queue Incoming Calls On
49	*49↵	Set Quiet Mode On

### DIALLING AND DIVERSION PREFIXES



**Example:** Request callback from Dispatcher at 402: \*0\*402↵

Code	Sequence	Function
0	*0* number↵	Request call back from other Dispatcher (at number)
8	*8* number↵	Priority call to number
9	*9* number↵	Emergency call to number
41	*41* number↵	Divert own calls to number

### CANCEL SPECIAL FUNCTIONS AND DIVERSIONS



Code	Sequence	Function
0	#0↵	Cancel own Dispatcher callback
41	#41↵	Cancel own call diversion
48	#48↵	Cancel queuing of incoming calls
49	#49↵	Cancel Quiet mode

## THIRD PARTY CALL DIVERSIONS

\* 44 NN \* MM ←

**Example:** Divert calls from 255 to 341: \*44\*255\*341←

Dial	Function
*44*nn*mm←	Divert 3rd party calls nn to mm

## CANCEL DIALLED FUNCTIONS

# CODE \* NUMBER ←

**Example:** Cancel callback to Despatcher at 402: #0\*402←

Code	Sequence	Function
0	#0*number←	Cancel another Despatcher call-back
44	#44*number←	Cancel 3rd party call diversion

## CHANGE NETWORKS

\* CODE ←

**Example:** Select Network 1: \*701←

Code	Sequence	Function
700	*700←	View network information
701	*70N←	Select Network N (N=1 to 4)
•		
•		
704		

## Conventional Operation

### SELECT CONVENTIONAL CHANNELS

CODE ←

**Example:** Select conventional channel 105: 105←

Code	Sequence	Function
100	1NN←	Select conventional mode on channel 1NN (NN= 01 to 10)
•		
•		
110		

## *Appendix V Preset Options*

The following items may be preprogrammed in your radio:

- Alphanumeric call strings
- Status call messages
- Conventional channels
- Function keys
- Menu options
- Confidence tones
- Power-up message
- Group Membership

In addition, your network may contain settings for the following items:

- A number to access your radio by telephone
- Preset individual and group radio numbers

Most of these items are obvious or can be easily viewed through the menu system (Alphanumeric Labels, Status Messages, Menu Options). You should keep a record of Function Key (and PTT) settings and any numbers not programmed in your radio.

Use the space below to record these items.

### **COMMONLY CALLED NUMBERS**

Name	Number
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

### **ACCESS NUMBERS (THIS RADIO)**

Prefix: \_\_\_\_\_ Fleet: \_\_\_\_\_ Identity: \_\_\_\_\_

Via PABX: \_\_\_\_\_ : \_\_\_\_\_

Via PSTN: \_\_\_\_\_ : \_\_\_\_\_

### **GROUP MEMBERSHIP**

Maximum number of Groups: \_\_\_\_\_

Default Groups: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

### **FUNCTION KEY SETTINGS**

F1:  \_\_\_\_\_

F2:  \_\_\_\_\_

PTT initiates call: Yes  No

### **EMERGENCY CALL ALERTING**

Name: \_\_\_\_\_ Number: \_\_\_\_\_

## **OPTIONS**

Mark the items in the list of options below that have been installed or enabled in your radio.

- |   |   |
|---|---|
| <input type="checkbox"/> PABX calls                     | <input type="checkbox"/> Status calls             |
| <input type="checkbox"/> PSTN calls                     | <input type="checkbox"/> Divert own calls         |
| <input type="checkbox"/> Interfleet calls               | <input type="checkbox"/> Queue Incoming calls     |
| <input type="checkbox"/> Interfleet group calls         | <input type="checkbox"/> Do not disturb           |
| <input type="checkbox"/> ALLI calls                     | <input type="checkbox"/> Edit Group Membership    |
| <input type="checkbox"/> Abbreviated dialling           | <input type="checkbox"/> Direct despatcher calls  |
| <input type="checkbox"/> Conventional mode              | <input type="checkbox"/> Callback facility        |
| <input type="checkbox"/> CTCSS Option board             | <input type="checkbox"/> MPT confidence tone set  |
| <input type="checkbox"/> DTMF Option Board              | <input type="checkbox"/> Tait confidence tone set |
| <input type="checkbox"/> VOX Option Board               | <input type="checkbox"/> Scrambler Option Board   |
| <input type="checkbox"/> Network service operator calls |   |

## *Appendix VI How to Care for Your Tait Rechargeable Batteries*

The following guidance is intended to help you get maximum life and trouble-free service out of your Tait rechargeable batteries.

### *Types of Batteries*

There are two types of rechargeable battery available for your Tait handportable radio, Nickel Cadmium (NiCd) and Nickel Metal Hydride (NiMH). The NiMH is the higher capacity battery. Each type has slightly different charging requirements and should be handled accordingly (see “Battery Charging”).

Rechargeable batteries have a finite lifetime. Battery capacity reduces as the total number of charge and discharge cycles increases. A battery is considered to be approaching the end of its useful life when it can achieve no more than 80% of its rated full charge capacity. The number of charge and discharge cycles a battery can achieve depends upon its type and the way it is used. The lifetime of well cared for NiCd and NiMH batteries will be typically from twelve to eighteen months (400 to 600 cycles).

### *New Batteries*

Before first use (or after prolonged storage) you should ensure that your new battery is properly charged. Otherwise the battery may not start with its full charge and will not perform correctly until it has undergone several charge and discharge cycles. It is recommended that you charge your batteries before first use as follows:

<b>Tait Charger</b>	<b>NiCd</b>	<b>NiMH</b>
<b>Trickle</b> (T3001, T3003)	Until the green “full charge” light illuminates <sup>9</sup> .	Not recommended.
<b>Fast</b> (T3002) or <b>Rapid</b> (T3004)	Until 2 hours after the green “full charge” light illuminates.	Until 2 hours after the green “full charge” light illuminates.

<sup>9</sup> If a trickle charger is being used with the battery fitted to the radio during this first charge, ensure that the radio is turned off.

## ***Battery Use***

Both NiCd and NiMH batteries perform best when they are not repeatedly recharged after only short periods of use - ie the battery should be allowed to substantially run down before recharging. To ensure a long and trouble-free battery life it is recommended that you get into the routine of using the radio until the “low battery” indication appears, before recharging it fully.

If your application makes it inconvenient to follow such a routine, you should still ensure that the battery is fully discharged and recharged at least once every week. This can be done either by using a suitable charger with inbuilt discharge function (see “Battery Problems”), or by using the radio until it switches itself off and then recharging the battery fully.

Both types of batteries will also self-discharge - ie if the battery is charged and then left to sit without being used, it will gradually discharge by itself. NiMH batteries can self-discharge in less than one week if left in warm moist air. NiCd batteries self-discharge more slowly. To prevent self-discharge, batteries may be left in the charger, after the green “full charge” light has illuminated.

## ***Battery Charging***

Tait rechargeable batteries must only be charged using Tait specified charging equipment. There are several models of battery charger available which fall into two basic types, “trickle” and “fast”.

Tait trickle chargers charge the battery slowly but do not sense when a battery has been fully charged. To avoid repetitive overcharging, it is important to avoid making a habit of recharging batteries after they have had only a small amount of use (see “Battery Use” above). Because of their susceptibility to damage from overcharging, it is recommended that NiMH batteries not be routinely subjected to trickle charging.

Tait fast chargers are fitted with a device that senses when the battery has reached full capacity and commences trickle charging thus eliminating the possibility of overcharging. They are therefore suitable for “topping up” partially discharged batteries of both types. Some models of fast charger (eg T3002) also have an inbuilt discharge function, which enables the battery to be periodically given a full discharge and charge cycle, quickly and without the need to use the radio to discharge the battery.

## ***Battery Problems***

NiCd batteries sometimes exhibit a symptom commonly called “memory effect”. This is a term used to describe the performance of a battery that has regularly only been partially discharged before recharging and seems to “remember” where it previously stopped discharging. When the battery reaches this discharge point, the voltage drops prematurely and the radio gives a “low battery” indication. Consequently, the battery only operates with a reduced capacity. While NiMH batteries suffer less from memory effect, it is recommended that both types of battery be subjected to regular full discharge and charge cycles, as outlined in “Battery Use” above.

A battery suffering from memory effect can often be restored to full capacity by deep discharging using a suitable charger with an inbuilt discharge function (eg T3002). After discharge the battery will be immediately fast charged to capacity. In cases of severe memory effect it may take a number of discharge and charge cycles to restore the battery to full capacity. See your charger manual for full instructions. Alternatively, the battery can be returned to your dealer or service agent for reconditioning using an approved battery analyser/reconditioner.

The performance and lifetime of both types of batteries may also be reduced by prolonged overcharging. NiMH batteries are most prone to damage from overcharging, but NiCd batteries can also have their life reduced.

Under certain environmental conditions, the terminals on the battery may exhibit tarnishing. This in turn may lead to unreliable operation, either while in use or during charging. Typical symptoms might be that the radio turns itself off for no apparent reason, or that it fails to charge properly. The tarnish can be seen as a dull discolouration on the terminal, which prevents it from connecting effectively to the radio or charger. In such cases, it is recommended that the tarnish be removed by gently rubbing the affected terminals with a standard pencil eraser.

## ***Battery Storage***

Avoid storing the battery for extended periods without first fully recharging it. After prolonged storage the battery should be fully recharged in accordance with the instructions for new batteries (see “New Batteries”) before being put back into service. If initially you experience lower than normal battery capacity, this will usually correct itself in normal use after two to five full charge and discharge cycles.

If the battery capacity remains low, you may be able to restore it using the procedure outlined in “Battery Problems”. If not, it is probably nearing the end of its useful life and needs to be replaced.

## ***Disposal of Used Nickel Cadmium Batteries***

NiCd batteries contain a small amount of the metal Cadmium, which can produce potentially toxic waste if it is not disposed of correctly. When no longer in use, you should ensure that your NiCd battery is properly disposed of. Contact your local Tait sales/service outlet or dealer for details of where to send your “spent” battery for recycling. Do not burn or break the battery.

## *Optional Accessories for the T3000II range of radios*

- Remote speaker / microphone
- Trickle Charger
- Single Fast Charger
- Dual Rapid Charger
- Multi-way Rapid Charger
- Vehicle Adaptor
- High Capacity Battery Pack
- CTCSS Module
- DTMF Module
- VOX Module
- Scrambler Module

See your Tait dealer for more details

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

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