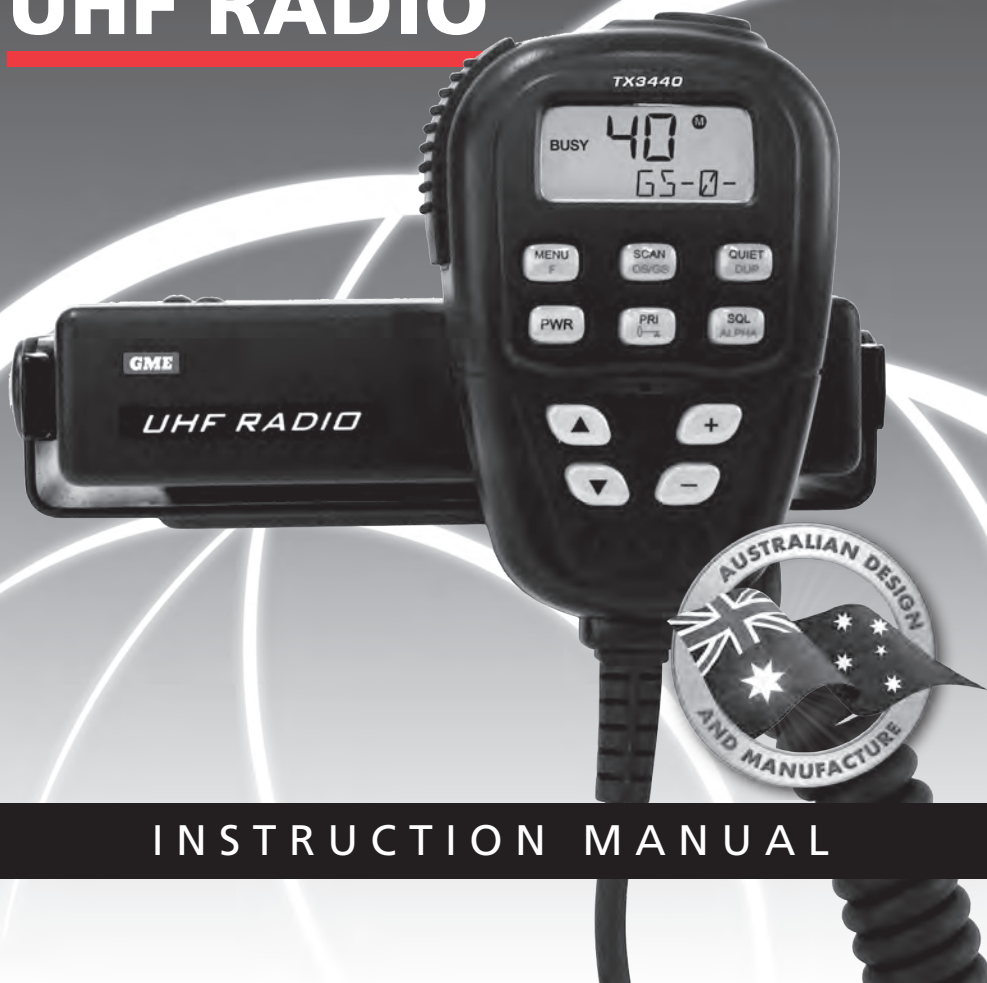


GME

TX3440

REMOTE MIC UHF RADIO



INSTRUCTION MANUAL

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THE FOLLOWING ITEMS ARE INCLUDED WITH YOUR TX3440

- Main Radio Unit
 - Mounting Cradle
 - Instruction Manual
 - MC520B LCD Microphone
 - Microphone Clip
 - DC Lead
 - Screw Pack
- If any items are missing or damaged, please contact your retailer or place of purchase.

INTRODUCTION

Your GME TX3440 radio is Australian designed and built and is the most advanced UHF Citizen Band radio available.

The TX3440 combines the very latest in electronic hardware with the most up-to-date computer aided design and manufacturing techniques to produce an extremely compact mobile radio with outstanding specifications and performance.

The TX3440 with its Controller Microphone is designed for unobtrusive mounting in modern vehicles. The radio case with its built-in loud speaker and small size can be mounted in almost any convenient location.

EMERGENCY CHANNELS

The ACMA has allocated channels 5/35 for emergency use only. Channel 5 is the primary Simplex Emergency Channel. Where a Channel 5 repeater is available, you should select Duplex on CH 5.

Note: Channel 35 is the input channel for the Channel 5 repeater therefore Channel 35 should also not be used for anything other than emergency transmissions.

TELEMETRY CHANNELS

ACMA regulations have allocated channels 22 and 23 for telemetry only applications and have prohibited the transmission of speech on these channels. Consequently the TX3440 has a transmit inhibit applied to channels 22 and 23.

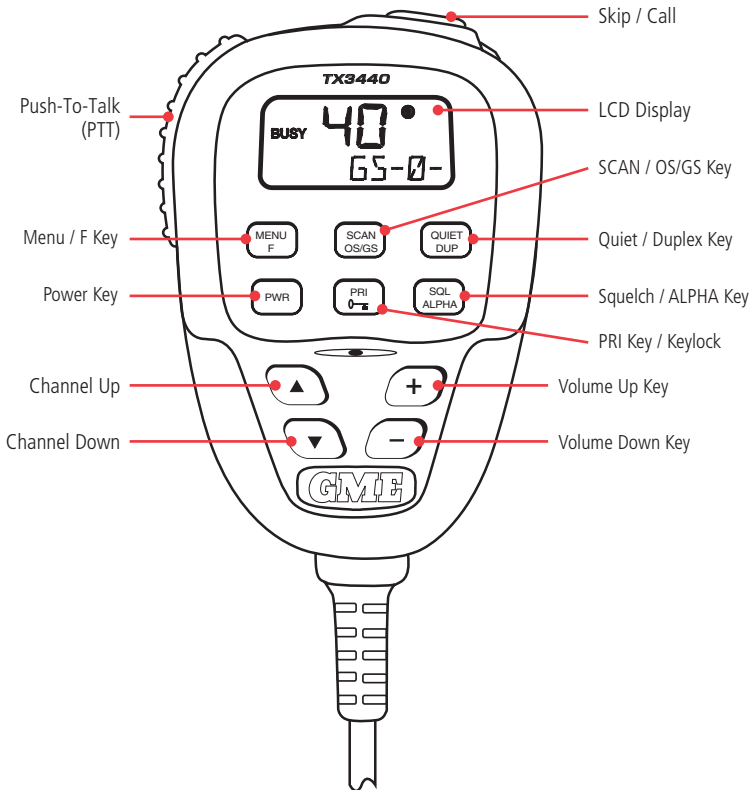
FEATURES

- **Controller Microphone:** Complete control of radio from microphone simplifies installation.
- **Microprocessor Controlled Frequency Synthesiser:** Allows user programmable control of scanning, channel memories and selected feature options.

- **Programmable Scan Function:** Scans the programmable UHF CB or Receive-only channels with both Group and Open scan functions available.
- **Individually Programmable DUPLEX function:** User selectable for only those individual channels in your area that have repeaters, leaving the others free for use as extra simplex channels.
- **Priority Channel:** A user programmable priority channel feature allows your working or local repeater channel to be instantly recalled at the press of a button.
- **High Contrast Liquid Crystal Display:** Fully detailed LCD provides a visual indication of the selected channel and all selected functions at a glance. Backlit for viewing at night.
- **In-Built Selcall:** Selective Calling with five digit ANI and fully user-adjustable 5 tone transmitted Selcall Ident. Also allows naming of Idents for easier caller identification.
- **Quiet Mode:** Selectable on individual channels, Quiet mode prevents incoming signals from being heard on selected channels unless preceded by your Selcall code.
- **CTCSS:** A built-in Continuous Tone Coded Squelch System option provides quiet channel operation.
- **Overvoltage Protection:** Special overvoltage detection circuitry protects the radio and warns of excessive voltage conditions by flashing the display.
- **Surface Mount Technology:** The very latest surface mount component types, design and assembly techniques and quality control procedures are used to ensure the highest performance and reliability.
- **Designed and Manufactured in Australia:** The TX3440 has been totally designed and manufactured in Gladesville N.S.W. to meet the demanding needs of the Australian community.

GENERAL OPERATION

MC520B MICROPHONE



FUNCTION KEYS

There are four keys beneath the TX3440's display that have both primary and secondary functions. Their primary functions are printed in Black while their secondary functions are printed in Red.

To access the primary functions

Simply press the required key. e.g. To control the Squelch, briefly press the **SQL** key.

To access the secondary functions

Press the red **F** key followed immediately by the required red coloured key.

Note: If the secondary key is not pressed within 10 seconds the **F** key selection will be cancelled.

VOLUME KEY

Press the **+** to increase the volume and press the **-** to decrease the volume.

Note: At minimum volume setting there is still sufficient volume to be heard in a quiet cabin environment.

KEYLOCK FEATURE

The **0-█** key locks the keys on the microphone to prevent unintentional key presses from altering your TX3440 settings. While the keys are locked, only the PTT (Push-To-Talk), SQL key, on/off, Volume keys, the F key and the Keylock key will continue to function.

To lock the keys,

Briefly press the **F** key, then press and hold the **0-█** key until a high beep is heard. The '**0-█**' symbol will appear on the display.

To unlock the keys

Briefly press the **F** key, then press and hold the **0-█** key until a low beep is heard. The '**0-█**' symbol will disappear from the display.

SELECTING CHANNELS

Press the **▲** or **▼** keys to step upwards or step downwards one or more channels.

TRANSMITTING

To transmit, press the **PTT** button on the microphone. Hold the microphone about 5-8 cm from your face and speak at a normal voice level. The microphone is quite sensitive so it is not necessary to raise your voice or shout. Release the **PTT** when you have finished talking.

SQUELCH CONTROL

Squelch control is used to eliminate the background noise when there are no signals present. The TX3440 features a preset Squelch system. The Squelch sensitivity has been factory set to provide optimum performance in most environments, however the sensitivity can be altered by the user if required, to suit varying environmental situations.

The Squelch can be opened or closed with the **SQL** key. When the Squelch is open, the receiver's background noise can be heard and 'BUSY' is displayed. When the Squelch is closed, the receiver remains quiet when there are no signals present but an incoming signal will override the squelch and be heard in the speaker.

To open the Squelch

Briefly press the **SQL** key. A low beep will be heard. If there are no signals present you will hear the receiver's background noise.

To close the Squelch

Briefly press the **SQL** key again. A high beep will be heard and the receiver will become quiet.

Note: If an incoming signal is very weak and is close to the minimum squelch level, it may become broken or 'chopped' by the squelch action. To prevent this, simply open the Squelch to allow the signal to be heard clearly. Alternatively you can reduce the Squelch sensitivity as described below.

SQUELCH SENSITIVITY

The sensitivity of the Squelch to incoming signals can be set to suit your operating environment. For example, excessively noisy environments may cause the squelch to open on local noise. The TX3440 has nine (9) preset Squelch sensitivity settings that can be selected using the **MENU** function.

To adjust the pre-set Squelch sensitivity

Please refer to the **MENU SETTINGS** on page 17.

PRIORITY CHANNEL

The Priority Channel feature allows you to store one of the channels as a Priority Channel that can be instantly recalled at the press of a key. This can be used to provide instant access to your working channel or your local repeater channel.

To store a Priority Channel

1. Select the required channel.
2. Press and hold the **PRI** key until a high beep is heard. The selected channel will be stored.

To Recall a Priority Channel

Briefly press the **PRI** key. The radio will switch straight to the selected Priority Channel. Any active functions (such as scanning or Quiet) will be cancelled.

DUPLEX OPERATION

Duplex operation allows the radio to transmit on a different frequency to which it receives. This allows operation through local repeater stations. These repeater stations automatically re-transmit your signal over a wider area, providing greatly increased range.

Duplex operation is only available on channels 1-8. When duplex is selected on these channels, the radio receives on that channel but actually transmits 30 channels higher. e.g.

Channel Selected	1	2	3	4	5*	6	7	8
Receive Channel	1	2	3	4	5*	6	7	8
Transmit Channel	31	32	33	34	35*	36	37	38

* Emergency Channel only

The TX3440 allows you to pre-select Duplex operation individually on each channel.

To select Duplex on individual channels

1. Select the required channel 1-8
2. Briefly press the **F** key then press the **DUP** key. 'DUP' will appear on the display accompanied by a high beep.

To remove Duplex from a channel

1. Select the required channel 1-8. 'DUP' will be visible on the display.
2. Briefly press the **F** key then press the **DUP** key. 'DUP' will disappear from the display accompanied by a low beep.

CTCSS

CTCSS (Continuous Tone Coded Squelch System) is a Squelch quieting system that allows several groups of users to share the same channel without disturbing each other. It uses a preset sub-audible (very low frequency) tone to open and close the Squelch on your radio. There are up to 50 tones available in two optional tone sets. The system applies a continuous low-level tone to your transmission and uses a matching tone decoder to control your receiver's Squelch. With CTCSS enabled, the channel remains quiet to all incoming signals unless they carry the correct tone. When a transmission with the correct tone is received, the Squelch opens and remains open for as long as the signal is present. When the transmission ends, the channel becomes

quiet again. Transmissions that do not use the correct tone will not be heard.

The TX3440 allows CTCSS to be enabled or disabled on individual channels.

Note: The CTCSS tone you select will be used for all CTCSS enabled channels in your radio.

MONITORING THE CHANNEL

It is useful to be able to temporarily open your radio's Squelch to allow you to listen for signals from other CTCSS users outside your group. Because their CTCSS tone is different to yours, your Squelch would normally remain closed, preventing you from hearing them. You can use the **SQL** key to open the Squelch and listen to the channel to check that it is clear before transmitting. This will help prevent you from accidentally transmitting over the top of another transmission.

To monitor the channel

Press the **SQL** key. If there are no signals present, you will hear the usual hiss of an empty channel. Press the **SQL** key again to restore the Squelch to its previous setting.

SELECTING THE TONE SET

There are two standard tones sets available, one comprising 50 tones and the other comprising 38 tones. Both tone sets are included in the TX3440 to provide compatibility with other GME radio systems.

SELECTING THE REQUIRED CTCSS TONE

To pre-select the CTCSS tone on your radio, please refer to the **MENU SETTINGS** on page 16.

ENABLING CTCSS ON A CHANNEL

If a CTCSS tone has been selected, it can be enabled on individual channels.

1. Press the **▲** or **▼** keys to select the required channel.
2. Press and **hold** the **SQL** key. A high beep will be heard and 'SILENT' will appear on the display.

You may activate CTCSS on as many channels as you wish except channel 5 which is designated for emergency use.

DISABLING CTCSS ON A CHANNEL

Repeat steps 1 and 2 above. A low beep will be heard and 'SILENT' will disappear from the display.

Note: You will not be able to activate CTCSS if the CTCSS tone is set to 'oF'.

Please see the **CTCSS Tone Frequency Chart** on page 21

SCANNING

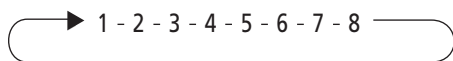
The TX3440 has a SCAN function that allows groups of user programmable channels to be scanned for signals. Channels can be scanned at 20 channels per second. When a signal is found, scanning will pause on that channel to allow the signal to be heard, then resume scanning when the channel is clear again.

SCAN GROUPS

The TX3440 features two scan groups - Open Scan and Group Scan.

Open Scan

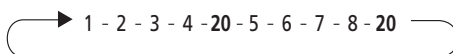
Allows any of the installed channels to be scanned for activity. If a busy channel is found, scanning will pause to allow the signal to be heard. Once the channel has been clear for 5 seconds, scanning will resume automatically.



e.g. Scanning channels 1-8 in Open Scan.

Group Scan

Also allows any of the installed channels to be scanned for activity, but in addition, it also inserts your Priority Channel into the scan sequence. This means that your Priority Channel will be monitored regularly while scanning to ensure that no calls are missed. Any signals received on your Priority Channel will take precedence over any signals received on the other channels.



e.g. Scanning channels 1-8 with Priority Channel 20 in Group Scan.

SELECTING A SCAN GROUP

To pre-select a scan group

The radio is initially set to Open Scan mode. To change to Group Scan mode, press the **F** key then the **OS/GS** key to select Group Scan.

PROGRAMMING SCAN CHANNELS

Your TX3440 is supplied with all 40 UHF CB channels programmed into the Open Scan memory. Any channels not needed, can be removed if required. The Group Scan memory is empty by default and you will need to add channels to it before use.

To add or remove channels from either scan memory

1. Ensure that the radio is not already scanning. If it is, briefly press the **SCAN** key to cancel the scan function.
2. Ensure you have the required scan group pre-selected.
3. Select the required channel by pressing either of the **▲** or **▼** keys
 - If 'M' is visible to the right of the channel number, the selected channel is already in the scan memory. To remove the selected channel, press and hold the **SCAN** key for a few seconds until a beep is heard. 'M' will then disappear indicating the channel is no longer in memory.
 - If 'M' is not visible, then the selected channel is not in the memory. To add the selected channel, press and hold the **SCAN** key for a few seconds until a high beep is heard. 'M' will now appear.
4. Repeat step 3 to add or remove other channels in the scan memory.

To start scanning

To begin scanning, briefly press the **SCAN** key. A high beep will be heard, 'SCAN' will appear in the display and the radio will begin scanning. In addition the selected scan group will be displayed below the channel number.

Note: If there is only one channel programmed into the Open Scan memory or none in the Group Scan memory, a long low beep will be heard when you press the **SCAN** key and the command will be ignored.

To stop scanning

To cancel the scan, briefly press the **SCAN** key. A low beep will be heard and 'SCAN' will disappear from the display.

OPEN SCAN MODE

USING SCAN IN THE OPEN SCAN MODE

- If a busy channel is found, scanning will pause on that channel to allow the signal to be heard and will remain there for as long as the channel remains busy. Once the channel has been clear for 5 seconds, scanning will resume automatically.
- If your radio pauses on a busy channel and you don't wish to listen to that conversation, briefly press the **SKIP** button on the microphone. The radio will skip over that channel and resume scanning from the next channel in the sequence.

- If your radio is paused on a busy channel and you wish to remain there, briefly press the **SCAN** key. The radio will exit Scan mode and remain on the busy channel.
- To transmit while paused on a busy channel, simply press the **PTT** button. The radio will exit Scan mode and remain on the busy channel. You can now converse on that channel in the usual way. When you have finished your conversation, briefly press the **SCAN** key to resume scanning.
- If your radio is scanning and you need to use your Priority Channel (for an urgent call or an emergency), briefly press the **PRI** key. The Scan mode will be cancelled and the radio will jump straight to the Priority Channel.

Note: In Open Scan mode your TX3440 will not allow you to transmit while it is scanning. If the **PTT** button is pressed while scanning, the radio will give a low beep and will ignore the command. Your radio will only transmit while it is paused on a busy channel.

GROUP SCAN MODE

Group Scan allows you to transmit and receive normally on your Priority (working) Channel, while continuing to scan several other channels. The receiver will scan the other channels **ONLY WHILE THERE ARE NO SIGNALS ON THE PRIORITY CHANNEL**.

If a signal appears on the Priority Channel it will override any signals being received on any of the other channels. In addition, if you press the **PTT** button at any time, the radio will transmit on the Priority Channel in the usual way.

SETTING UP THE GROUP SCAN

Referring to the appropriate sections of this manual:

1. Pre-select the Group Scan mode.
2. Store your preferred working channel into the Priority Channel memory (see **Priority Channel** on page 4).
3. Program the required 'other' channels into your Group Scan memory (see **Programming Scan Channels** on page 6).

SCANNING IN THE GROUP SCAN MODE

To scan in the Group Scan mode, briefly press the **SCAN** key. A high beep will be heard, 'SCAN' will appear in the display and the radio will begin scanning.

Note: If there are no channels programmed in the Group Scan memory when you press the **SCAN** key (or there is only one channel programmed and it is the same as

the Priority Channel), a low beep will be heard and the command will be ignored.

When scanning, the TX3440 scans all the channels programmed into the Group Scan memory, with the Priority Channel being scanned after every fourth channel (retailer programmable option, if you require different timing for your priority channel, please contact your retailer).

- If a signal appears on the Priority Channel - at any time - the receiver will switch straight to the Priority Channel and will stay there for as long as the channel is busy. During this time you can transmit on the Priority Channel in the usual way. Once there has been no activity for 5 seconds, the radio will resume scanning the other channels.
- If a signal appears on one of the other channels, scanning will pause on that channel and will remain there while the channel is busy, as long as there are no signals on the Priority Channel. During this time the receiver will continue to check the Priority Channel for signals every 2 seconds, resulting in a series of small 'breaks' in the reception of the paused channel. Once there has been no activity on any channel for 5 seconds, the radio will resume scanning.
- If your radio pauses on a busy channel and you don't wish to listen to that conversation, briefly press the **SKIP** key on the microphone. The radio will skip over that channel and resume scanning from the next channel in the sequence.
- If your radio is paused on a busy channel and you wish to remain there, briefly press the **SCAN** key. The radio will exit Scan mode and remain on the busy channel.

Note: The radio will no longer be monitoring the Priority Channel (unless it is the same as the busy channel). To resume scanning, press the **SCAN** key again.

- To transmit on the Priority (working) Channel AT ANY TIME, simply press the **PTT** key while the radio is scanning. The radio will switch straight to the Priority Channel. When you have finished your conversation and there has been no further activity on the Priority Channel for 5 seconds, the radio will resume scanning the other channels.
- To go directly to the Priority Channel, briefly press the **PRI** key. The radio will exit Scan mode.

USING TWO GROUP SCAN OR TWO OPEN SCAN MODES

If you prefer, the TX3440 can be re-programmed to have two Group Scan modes or two Open Scan modes instead of one of each.

For example there may be applications where you have no need to scan the Priority Channel and would prefer to have two separate Open Scan modes. Alternatively you may have applications where you prefer to have two Group Scan modes with different Scan groups in each.

Your TX3440 can be retailer programmed to convert the Group Scan mode into a second Open Scan mode and vice versa. If you would prefer to have two Group Scan or two Open Scan modes, you should contact your GME retailer to arrange for this feature to be enabled (when using two Group Scan modes the Priority Channel will be the same channel for both scan groups).

When the second Open or Group Scan mode is enabled, the resulting two Scan modes become Scan 1 and Scan 2.

To select the required scan mode

When enabled, the two scan modes will be identical in operation. To program and operate each, refer to the Open Scan/Group Scan sections above.

Note: Enabling or disabling the second Open or Group Scan mode is not a user selectable option. Once enabled by your GME retailer, the changed Scan mode becomes a permanent part of the TX3440's features and replaces the standard Scan selection. If you find later that you need the original Group or Open Scan function re-enabled, you will need to return your TX3440 to your retailer for re-programming.

SELECTIVE CALLING

Your TX3440 has a Selective Calling system known as Selcall that operates like a telephone. Your radio is preprogrammed with its unique Selcall Identification Number. If this number is called by another radio, your TX3440 will beep to alert you. If you do not want to hear any other activity while waiting on a channel, you can select QUIET mode. This will force the radio to remain quiet to all incoming signals until your Selcall number is called.

Your TX3440 will allow you to store up to ten (10) of your most frequently called Selcall numbers in memory and each number can be labelled with a 5-letter name for easy identification.

SELCALL IDENTIFICATION NUMBER

Your TX3440 is factory programmed with its own unique Selcall Identification Number (Ident). This number identifies your radio from others in your area. Your radio's own Selcall Ident will be displayed for a few seconds, directly beneath the channel display, when you first turn the radio on.

You will need to make your Ident known to anyone who may need to call you using Selcall. Whenever your TX3440 hears a Selcall signal, it compares the incoming Ident with its own. If the two Idents match, the radio knows it is being called and sounds an alarm to alert you, otherwise the call is ignored.

Note: Although your radio's Selcall Ident is preprogrammed at the factory, you can arrange to have your retailer change it if required.

SELCALL IDENT NAMES

When storing Selcall Idents in memory, the TX3440 allows you to add a 5 character name to each one, making it easier to identify whose Ident you are recalling from the memory. In addition, if an incoming Selcall matches one of the Idents stored in the memory, the name can be displayed to make it easier for you to identify the caller.

To add or display names

Your TX3440 must be in ALPHA mode.

To switch between 'ALPHA' and 'NUMERIC' mode

Briefly press the **F** (function) key followed by the **ALPHA** key. 'ALPHA' or 'NUMER' will be displayed for 2 seconds below the channel display to indicate the selected mode.

QUIET MODE (Q)

Your TX3440 can be set to monitor signals on a busy channel but remain quiet unless it receives its own Selcall Ident. In this way, you won't be disturbed unless someone calls you. When a signal containing your Selcall Ident is received, QUIET mode is deactivated and an alarm sounds to alert you to the call. You can then converse normally on the channel.

To use QUIET mode

Please refer to the **QUIET Mode** section on page 11.

Note: QUIET mode overrides the normal Squelch system to ensure that the radio remains quiet even when the channel is busy. When QUIET is set, you may see the 'BUSY' icon appear on the display indicating the channel is being used. However, unless someone transmits your Selcall Ident, nothing will be heard in the speaker.

You can activate QUIET mode on individual channels i.e. some channels can be set to remain quiet while others can remain open to all incoming signals.

TIP: Setting QUIET mode is not mandatory. You can still use Selcall on any channel whether the QUIET mode is set or not.

SELCALL MEMORIES

Your TX3440 is fitted with one Call memory and 10 Selcall Ident memories. The 10 Selcall Ident memories are used to store frequently used Selcall Idents. The additional Call memory holds the Ident you last sent or received. The memories can be viewed by briefly pressing the **CALL** key. The initial memory displayed is the Call memory. Pressing the ▲ or ▼ keys will step through the other 10 Selcall storage memories in sequence. Selcall memories are labelled 'c0' to 'c9'.

USING SELCALL

ENTERING A SELCALL IDENT

1. Press the **CALL** button. 'CALL TO' is displayed, along with the last sent or received Selcall Ident.

Note: If an ALPHA label is displayed you will need to switch to NUMERIC Mode. To toggle between ALPHA mode and NUMERIC mode, briefly press the **F** key followed by the **ALPHA** key. A high beep indicates ALPHA mode is selected while a low beep means the NUMERIC mode is selected.

2. Enter the required Selcall ident as follows:
- Press the **PRI** key until the radio beeps. The right-hand digit of the Selcall Ident will flash.
 - Press the ▲ or ▼ keys to select the required number in the flashing digit position.
 - Briefly press the **PRI** key again to select the next digit position.
 - Repeat steps (b) and (c) to enter all 5 digits as required. The Selcall number is now ready to send.

SENDING SELCALL

With the Selcall number displayed, press and hold the **CALL** button for 2 seconds. A long beep will be heard and the radio will transmit the Selcall Ident.

Note: If the call is not sent within 10 seconds of entering the last Ident digit the call mode will time out and the radio will return to normal mode. To exit CALL TO mode without sending the Selcall briefly press the **CALL** button.

CALL ACKNOWLEDGE

If your Selcall transmission is successful, the radio you called should respond with an 'acknowledge' signal - usually two quick beeps. This will confirm to you that the radio you called is now alerting its user to your signal.

STORING SELCALL IDENTS

Your TX3440 is fitted with 10 user programmable Selcall Ident memories, allowing you to store up to 10 frequently used Selcall Idents. The memories are accessed by pressing the **CALL** button, then the ▲ or ▼ keys to scroll through the memories. Ident memories are labelled 'c0' to 'c9'.

To Store a Selcall Ident in memory

- Press the **CALL** button to select the CALL TO mode. 'CALL TO' is displayed along with the last sent or received Selcall Ident.
- Press the ▲ or ▼ keys to select the required Ident memory (locations 'c0' to 'c9').

TIP: If the radio displays letters instead of numbers in the Selcall Ident position, your radio is in ALPHA mode. To switch back to NUMERIC mode, briefly press the **F** key followed immediately by the **ALPHA** key. A low beep will be heard and 'NUMER' will be displayed for a few seconds in the Ident position.

- With the required memory location displayed, enter the Selcall ident as follows:
 - Press and hold **PRI** key until the radio beeps. The right-hand digit of the Selcall Ident will flash.
 - Press the ▲ or ▼ keys to select the required number in the flashing digit position.
 - Briefly press the **PRI** key again to select the next digit position.
 - Repeat steps (b) and (c) to enter all 5 digits as required.
 - Now press and hold the **PRI** key. The entire Ident will flash for a few seconds then the radio will beep as the new Ident is stored.

RECALLING SELCALL IDENTS FROM MEMORY

- Press the **CALL** button to select the CALL TO mode. 'CALL TO' is displayed along with the last sent or received Selcall Ident.
- Press the ▲ or ▼ keys to select the required Ident memory in locations 'c0' to 'c9'.
- When the required Selcall Memory is displayed, press and hold the **CALL** button to send the Ident.

NAMING YOUR SELCALL IDENTIS

The TX3440 allows you to name each Selcall Ident using a 5 character ALPHA name. The name is stored in memory along with the Ident making it easier to identify whose Ident you are recalling from the memory. If an incoming Selcall matches one of those in your radio's memory, the name can be displayed instead of the Selcall Ident.

DISPLAYING ALPHA NAMES

To display the Selcall's ALPHA Name

You must have the radio's ALPHA display mode selected.

To toggle the ALPHA display mode

Briefly press the **F** key followed by the **ALPHA** key. 'ALPHA' or 'NUMER' will be displayed for 2 seconds below the channel display to indicate the selected mode.

TIP: The normal channel display may give no indication of which display mode is selected. The selected mode will only become obvious when displaying Idents.

ENTERING AND STORING A SELCALL NAME

Note: Before adding an ALPHA Name to a Selcall Ident, you should first store the required Ident in memory as described above under **Storing Selcall Idents** on page 9.

1. Ensure the ALPHA mode is selected (briefly press the **F** key followed by the **ALPHA** key to toggle ALPHA mode).
2. Briefly press the **CALL** button. The CALL TO mode will be selected and the last-sent Selcall memory location will be displayed.
3. Press the **▲** or **▼** keys to select the required Selcall memory (locations c0 to c9). If no ALPHA name has been programmed for that memory the radio will probably display '- - - -' otherwise it will display the last ALPHA name programmed into that memory.
4. With the required memory location displayed, enter the required ALPHA name as follows:

- (a) Press and hold the **PRI** key until the radio beeps. The left-hand character of the ALPHA name will flash. Press the **▲** or **▼** keys to select the required letter in the flashing character position.

The following characters are available:

A B C D E F G H I J K L M N O P Q
R S T U V W X Y Z _ SPACE - ,
0 1 2 3 4 5 6 7 8 9

- (b) Briefly press the **PRI** key again to select the next character position.
- (c) Repeat steps (a) and (b) to enter all 5 characters as required.
- (d) Now press and hold the **PRI** key. The entire ALPHA name will flash for a few seconds then the radio will beep as the name is stored.

Repeat the procedure to add ALPHA names to any other Selcall Idents stored in memory.

TO EXIT CALL TO MODE

Briefly press the **CALL** button. The radio will return to normal operation.

Note: The radio can be left in the ALPHA display mode so that an incoming Selcall matching one of those in the radio's memory will display the name associated with that Selcall Ident instead of the Ident itself. Any incoming Selcalls not matching those in the memory will display '-NEW-'. To display the Selcall Ident of that caller, briefly press the **F** key followed by the **ALPHA** key to return to the NUMERIC display mode.

RECEIVING SELCALLS

When your TX3440 receives its Selcall Ident, an alarm will sound to alert you to the call. Initially the alarm will beep urgently at 2 beeps per second for around 10 seconds then slow to around 1 beep every 3 seconds if the call is not answered. It will then continue to beep indefinitely until you cancel it (the way your TX3440 handles the Selcall alert can be altered by your retailer).

In addition to the alarm, the words 'CALL FROM' will appear on the display along with the callers Selcall Ident or ALPHA name to inform you of the identity of the person calling.

To switch between the Selcall Ident and the ALPHA name

Briefly press the **F** key followed by the **ALPHA** key.

CANCELLING THE SELCALL ALERT

The following are the recommended methods:

To cancel the alarm and talk on the channel

Press the **PTT** key and talk in the usual way. The alarm will be cancelled and the channel will be open for normal communication.

To return the call

Press and hold the **CALL** key for a few seconds until the radio beeps. The callers Selcall will be sent to the caller.

To cancel the alarm and listen on the channel

Briefly press the **QUIET** key (if QUIET has been activated). The alarm will stop beeping and the channel will remain open to any incoming signals.

QUIET MODE (Q)

QUIET mode mutes the TX3440's receiver to prevent any incoming signals from being heard in the speaker until your Selcall Ident is received. In this way you can monitor a busy channel for personal calls without being disturbed by unwanted signals.

If your Selcall Ident is received, QUIET mode is then cancelled and all incoming signals are heard in the speaker.

Setting up QUIET Mode

To setup QUIET mode you must first 'tag' the channels that you want to stay quiet, then activate the QUIET mode. Once QUIET mode is activated, the channels you have tagged will remain quiet to all incoming signals unless your Selcall Ident is received. Channels not tagged will remain open to all signals and will operate normally.

To tag individual channels for QUIET operation

1. Select the required channel by pressing the ▲ or ▼ keys.
2. Press and hold the **QUIET** key until the radio beeps. 'Q' will appear to the right of the channel display indicating the selected channel is now tagged for quiet operation.

To remove the QUIET Tag from individual Channels:

1. Select a channel that has been tagged for quiet operation. 'Q' will be displayed.
2. Press and hold the **QUIET** key until the radio beeps. 'Q' will disappear indicating this channel is no longer tagged for quiet operation.

Activating QUIET Mode

1. First, select a channel that has been tagged for quiet operation (you cannot activate quiet mode unless you have selected a 'tagged' channel). 'Q' will be displayed.
2. Now briefly press the **QUIET** key. 'QUIET' will appear on the display.

Now all channels that were tagged for quiet operation will be operating in the QUIET Mode.

Deactivating QUIET Mode

1. Select any channel that has been tagged for quiet operation. 'Q' and 'QUIET' will be displayed.

2. Briefly press the **F** key followed by the **QUIET** key. 'QUIET' will disappear from the display and all channels that were tagged for quiet operation will now operate normally again.

Receiving Signals in QUIET Mode

- If a normal signal is received on a QUIET channel, the channel will appear busy (the 'BUSY' indicator will be visible) but no sound will be heard from the speaker. This means you will not be disturbed by the signal.
- If a normal signal is received on an open channel (one that is not tagged with 'Q') the signal will be heard in the usual way.
- If a signal containing your Selcall Ident is received on any channel (Open or QUIET) QUIET mode will be cancelled and the alarm will beep to alert you to the call. In addition, the caller's Ident or ALPHA name will be displayed. All channels will now be open for normal transmission and reception.

If you wish to respond to the calling radio using Selcall, press and hold the **CALL** key for 1.5 seconds until the radio beeps. The callers Ident will be transmitted back to them causing the alarm in their radio to be activated.

To cancel the alarm on your radio

Briefly press the **PTT** key.

To return your radio to the QUIET mode

Briefly press the **F** key followed by the **QUIET** key. 'QUIET' will re-appear on the display.

SCANNING IN QUIET MODE

The TX3440 will allow you to scan while QUIET mode is active. Using this feature you can monitor a group of quiet channels or a combination of Quiet and Open channels.

To Scan in QUIET Mode

1. Pre-select the Scan mode.
2. Select the channels you wish to scan and store them in the Scan memory.
3. From those channels, select the ones you wish to remain quiet and tag each one for QUIET operation.
4. Select a tagged channel and activate QUIET Mode (press the **QUIET** key).
5. Press the **SCAN** key. The radio will begin scanning and 'SCAN' and 'QUIET' will be displayed, indicating the radio is scanning in QUIET mode.

Receiving Signals while scanning in QUIET Mode

- If a normal signal is received on an open channel, scanning will pause while the channel is busy and will resume scanning 5 seconds after the channel becomes clear. (If you were scanning in Group Scan mode, the radio may switch between the Open channel and the Priority Channel - this is normal).
- If a normal signal is received on a Quiet channel but your Selcall Ident is not detected, the signal will be ignored and scanning will continue.
- If a signal containing your Selcall Ident is received on any channel (Open or Quiet) both Scanning and QUIET modes will be cancelled and the receiver will stay on that channel. In addition, the alarm will beep to alert you to the call and the callers Ident or ALPHA name will be displayed. The channel will now be open for normal transmission and reception.

TIP: To ensure reliable Selcall detection when scanning in the QUIET mode, it is recommended that you restrict the number of channels in the Scan group to 4 or less.

GROUP CALLING

The TX3440's Selcall system includes a Group Call function which allows you to call up to 1000 radios simultaneously. This can be useful in an emergency situation where you may need to transmit a message to a large number of radios in your group.

By default, your radio is factory-set to allow up to 10 radios to be called at once. If your application requires more, you can arrange for your retailer to re-program this option to allow 100 or 1000 radios to be called. The following description assumes the default Group Call setting of 10 radios.

The Group Call function works by allowing you to enter a special 'group code' into the last digit position of the Selcall Ident you are sending. The 'group code' appears as 'A' when displayed in the radio. When this 'group code' is received, it substitutes for all other numbers in the last digit position. As long as the first 4 digits of the Selcall you are sending match those of the radios you are calling, their Selcall alarm will be activated as if their full 5 digit Selcall Idents had been received.

To achieve this, the 10 radios you are calling must be programmed with sequentially numbered Selcall Idents.

e.g. 12330, 12331, 12332, 12333 . . --> , 12339

- Transmitting the Selcall Ident 12331 will only activate the alarm in the radio with the Selcall Ident of 12331.

- Transmitting 1233A will activate the alarms in all radios with Idents 12330 through 12339 (a total of 10 radios).

If the radios in your fleet do not have sequentially numbered Selcall Idents and you want to make use of this function, you can arrange for your retailer to re-program the Selcall Idents in your radios.

PROGRAMMING AND SENDING GROUP CALLS

The process for entering a Group Call Ident is the same as entering a normal Selcall Ident.

1. Press the **CALL** button. 'CALL TO' is displayed, along with the last sent or received Selcall Ident.
2. Enter the required Selcall ident as follows:
 - (a) Press the **PRI** key until the radio beeps. The right-hand digit of the Selcall Ident will flash.
 - (b) Press the **▲** or **▼** keys to select 'A' in the flashing digit position. This is the special code that will create the Group Call.
 - (c) Briefly press the **PRI** key again to select the next digit position.
 - (d) Repeat steps (b) and (c) to enter the other 4 digits as required. The last digit will be set to 'A'.

Once the Ident has been entered you have 10 seconds to send it otherwise the CALL TO mode will be cancelled and the Ident you entered will be lost.

Note: Where your TX3440 allows it, programming group calls for 100 radios is identical except that you will need to select 'A' for the last two digits (e.g. 123AA). For 1000 radios you will need to select 'A' for last three digits (e.g. 12AAA).

e.g.

100 Radios Ident Sent: 123AA Idents called: 12300 -> 12399
1000 Radios Ident Sent: 12AAA Idents called: 12000 -> 12999

To send the Selcall Ident

With the required Selcall Ident displayed in the CALL TO mode, press and **hold** the **CALL** button for a few seconds until the radio beeps. The Selcall Ident will be sent automatically and the radio will return to normal operation.

Call Acknowledge in Group Mode

There is no call acknowledge when sending group calls. This is to prevent all the radios in your group from trying to respond to your Selcall transmission at the same time.

Storing Group Call Idents

Group Call Idents can be stored in memory in the same way as a standard Selcall Ident.

Receiving Group Calls

Receiving a Group Call is identical to receiving a normal Selcall except that the alarm sound is a LOW tone beep instead of the normal HIGH tone beep. The Callers Ident or ALPHA Name appears on the display in the usual way.

LISTENING CHANNELS

The TX3440 has provision for adding additional 59 user programmable 'listening channels' covering the frequency range between 403 MHz and 520 MHz. These channels can be programmed by you using the front panel keys, making the TX3440 a useful UHF scanning receiver.

SETTING THE FREQUENCY STEP

The listening channels can be programmed in 12.5 kHz or 25 kHz steps. To toggle the current frequency step:

1. Switch the radio **OFF**.
2. Press and hold the **SCAN** key while switching the radio **ON**.
3. 12.5 k or 25.0 k will be displayed briefly, indicating the current selected frequency step.

ACTIVATING THE LISTENING CHANNELS

By default, the listening channels are disabled and only the standard 40 UHF channels can be accessed. Later, once programmed, the listening channels will show up as CH41-CH99 and can be accessed and freely edited. However, to enable a channel for programming that has not been programmed yet (and therefore it can not be selected for editing using the **▲** or **▼** keys) the initial programming of the listening channel(s) has to be performed.

To perform the Initial Programming of the listening channels

1. Switch the radio **OFF**.
2. Press and hold the **PRI** key while switching the radio **ON** again.
The radio is now in the 'All Visible' mode. In this mode all channels are visible, including the currently inactive ones, allowing you to select any listening channel between 41 and 99 for subsequent editing.
3. Using the **▲** or **▼** keys, select a listening channel that you wish to activate. At this stage, the display will show '-OFF-' indicating that the current listening channel is turned OFF.
4. Program a desired frequency into the selected listening channel, as described in the next section.
5. Repeat steps 3-4 to activate all the desired listening channels.

6. Once you have enabled and programmed your additional listening channels, switch the radio **OFF** to end the initial programming operation. When you switch it **ON** again, normal operation will be restored and only the listening channels you have enabled will be available above channel 40.

PROGRAMMING THE LISTENING CHANNELS

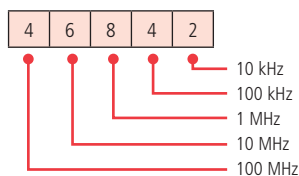
The display can show the frequency of the listening channel when the radio is in NUMERIC mode, or an associated alpha tag in ALPHA mode. Before programming the listening frequencies, make sure the radio is in NUMERIC mode by pressing **F** (Function) followed by **ALPHA** until 'NUMER' is displayed.

To program a frequency into a listening channel

1. Press the **▲** or **▼** keys to select the required listening channel to edit (41-99).
2. Press and hold the **MENU** key until a beep is heard. The current frequency assigned to the listening channel will be displayed, or 'OFF' if the channel is currently inactive.
3. Press **▲** or **▼** keys to select the desired frequency.
4. A quick press of the **PRI** key will toggle the frequency step between 12.5 kHz/25 kHz and 1 MHz. The corresponding digit will be flashing, indicating the current frequency step.
5. Once you have the correct frequency displayed, press and hold the **MENU** button to store the frequency and exit the menu, or alternatively, press and hold the **PRI** key to store the frequency, but stay in the frequency edit menu for further editing of the same listening channel. Please note however the menu will time out after 20 seconds of inactivity.

Notes:

- The display only indicates to 10 kHz resolution. The 'kHz' digit is not displayed, e.g.. 468.425 MHz will display as



- While you are selecting the frequency, the receiver is live and will receive signals on the frequency being displayed. You can use this feature to manually identify active frequencies and store them.

- To delete a currently active listening channel, edit the frequency as described above, but press the ▲ or ▼ keys left until the display shows 'OFF'. Once the channel data is saved and the menu exited (by pressing and holding the **MENU** key) the deleted listening channel will only be visible again if the 'All Visible' mode is selected, as described in the Initial Programming section on page 13.

To program additional listening frequencies

Repeat steps 1-5 above.

Once finished editing all the desired listening channels, they are immediately available for usage. Pressing the ▲ or ▼ keys the edited listening channels can immediately be selected for monitoring. If the radio is in the 'All Visible' mode, the currently inactive channels can also be selected, but on these channels there will be no reception (as the channels are 'OFF').

ASSIGNING ALPHA LABELS TO LISTENING CHANNELS

Your listening channels can be tagged with a five digit alpha label. To program the alpha label for the listening channel:

1. Ensure the radio is in ALPHA mode by pressing **F** and **ALPHA** until the display shows 'ALPHA'.
2. Press the ▲ or ▼ keys to select the required listening channel for which you wish to edit the alpha tag.
3. Press and hold the **MENU** button until a beep is heard. The current alpha tag for the selected listening channel will be displayed with the first character will be flashing.
4. Press the **PRI** key to select the required letter for the first digit.
5. Briefly press the ▲ or ▼ keys to edit the selected digit.
6. Repeat steps 4-5 until the display shows the desired alpha tag.
7. Once the correct alpha tag is displayed, press and hold the **MENU** button to store the alpha tag and exit the menu. Alternatively, press and hold the **PRI** key to store the alpha tag but stay in the Listening Channel Edit menu for further editing, for example to edit the channel frequency too.

SEEK MODE

During programming a listening channel, the actual frequency to program may not be known in advance. Seek mode is a unique feature that allows you to continuously scan a band of frequencies for activity, and assign the frequency of interest to the current listening channel.

USING SEEK MODE

Before using Seek mode you should

1. Select your preferred frequency step (12.5 kHz or 25 kHz)
2. Enable the listening channel numbers in which you wish to store active frequencies into. You cannot use Seek mode unless at least one channel is enabled
3. Select **NUMERIC** mode so that the frequency can be displayed (rather than the alpha label).

To scan for active frequencies and store them into a listening channel

1. Select the required listening channel (41-99). The frequency currently stored in that channel will be displayed.
2. Enter the Frequency edit mode by pressing and holding **MENU** key until a beep is heard.
3. Briefly press the **SCAN** key. The radio will begin scanning, using the selected channel step, starting from the current frequency. The channel number will remain constant (because the radio is scanning frequencies not channels) but the frequency will change as the scan advances through the band.
4. When a signal is found, scanning will pause on that frequency. Once the signal has disappeared and the frequency remains clear for 5 seconds, scanning will resume.
5. To manually skip over an active frequency and continue scanning press the **CALL/SKIP** button.
6. When you find a frequency you wish to store, press and hold the **PRI** key until a beep is heard. The frequency will be stored under the selected listening channel number, but the Frequency Edit Menu will still be active, ready for further Seeking. To store the frequency and exit the menu, press and hold the **MENU** button.
7. To exit the Frequency Edit menu without saving the current displayed frequency, briefly press the **MENU** key. The next menu item will be shown (typically the Squelch Set menu). At this stage, press and hold the **MENU** button until a beep is heard to exit.

SETTING SEEK MODE FREQUENCY LIMITS

When in Seek mode, the default frequency band to scan is the entire receiver tuning bandwidth of 403 MHz-520 MHz. However, in many cases you may only be interested in searching for signals within a small section of the available frequency band. To make searching easier the TX3440 allows you to set upper and lower frequency limits. The Seek function will then only search within the specified range, thereby increasing the chance of finding an active frequency of interest.

There are two seek limit points available, LIM-1 and LIM-2. While in the frequency edit mode, press and hold the **SCAN** key until a beep is heard to store the current frequency as a limit. To select and jump to the next limit, press the **PWR** key.

To select and display a limit point

While in frequency edit mode, briefly press the **PWR** key. The next frequency limit point will be selected, the display will briefly show 'LIM-1' or 'LIM2' and then the frequency of the limit point will be shown. At this stage the radio is also tuned to this frequency, and if there is activity on this frequency, it can be heard in the speaker.

To set or edit a limit point

1. Select the desired limit point to edit as described in the previous paragraph.
2. Press the ▲ or ▼ keys until the display shows the frequency of the desired limit point.
3. Press and hold the **SCAN** key until a beep is heard. The current frequency is now stored to the current limit point. The display will briefly show 'LIM-1' or 'LIM-2', and then revert to showing the frequency again.
4. Repeat steps 2-3 to update the current limit point with a new frequency if desired.

To erase a limit point

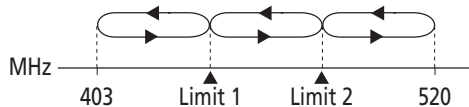
1. Select the desired limit point to erase as described above.
2. Press the ▼ key until the frequency display reads 'OFF'.
3. Press and hold the **SCAN** key until a low beep is heard. The selected seek limit point is now erased.

USING THE FREQUENCY LIMITS TO SCAN

Once the seek mode frequency limits are set, the frequency band is effectively split into three segments.

TIP: It is easiest to picture the limit points as the first limit being lower in frequency than the second, but this is not really necessary. Even if the frequencies programmed so that the limit points are reversed, the TX3440 will always scan inside a selected frequency range, in the upwards

direction. The initial frequency where the Seek was started determines which frequency band will be scanned.



To start seeking between the first and second frequency limit

1. While in Frequency Edit mode, press the ▲ or ▼ keys to select a frequency that is between the two frequency limit points.
2. Start seeking by briefly pressing the **SCAN** button.

To start seeking between the higher frequency limit point and 520 MHz

1. While in Frequency Edit mode, press the ▲ or ▼ keys to select a frequency that is above the frequency of the higher limit point.
2. Start seeking by briefly pressing the **SCAN** button.

To start seeking between 403 MHz and the lower frequency limit point

1. While in Frequency Edit mode, press the ▲ or ▼ keys to select a frequency that is below the frequency of the lower frequency limit point.
2. Start seeking by briefly pressing the **SCAN** button.

If the **SCAN** button is pressed while seeking, the radio will exit seek mode immediately and stay tuned to the current frequency.

Note: at this point that the menu will time out after 20 seconds of inactivity.

If a busy frequency is found during Seek mode, the radio will pause on this frequency for 5 seconds before resuming scan. To save this frequency to the current listening channel, press and hold the **PRI** key to exit seek, save the frequency and stay in the menu or press and hold the **MENU** key to save the frequency and exit the menu.

MENU SETTINGS

The MENU feature provides a convenient method of customizing or storing some of the radio's functions. The following Menu Options are available. Note that some items are only available on certain channels.

Menu Settings	Ch 1-8	Ch 9-40	RX Only Ch
Frequency / ALPHA Adjustment			•
Squelch Settings	•	•	•
CTCSS Tones	•	•	•
Backlighting	•	•	•
Battery / S-Meter Selection	•	•	
Battery / S-Meter ALPHA Selection			•

To access the Menu functions

1. Press and hold the **MENU** key. The first Menu function is displayed.
2. Briefly press the **MENU** key again to cycle through each available function in the order listed above. After the last function has been selected, the cycle returns to the beginning.
3. Press the **▲** or **▼** keys to alter the parameters of the selected function.
4. Press and hold the **MENU** key to exit and store any changes.

FREQUENCY

The Frequency adjustment is only available when a user programmable listening channel is selected. It allows you to manually adjust the channel frequency or, if ALPHA mode is selected, lets you edit the ALPHA label for that listening channel.

1. Select a user channel between 41 and 99.
2. Press and hold the **MENU** key until the radio beeps.

If the radio is in NUMERIC mode, the channel frequency will be displayed. If the radio is in ALPHA mode, your selected ALPHA label will be displayed (if you have not set a label for this channel, 'ALPHA' will be displayed).

3. Press the **▲** or **▼** keys to change the character or number in the flashing digit position.
4. Briefly press the **▲** or **▼** keys to move to the next flashing digit position.
5. Once you are happy with your selection, press and hold the **MENU** key to store the new setting.

SETTING THE SQUELCH SENSITIVITY

The sensitivity of the Squelch to incoming signals can be set to suit your operating environment. In quiet rural locations a low setting will allow the weakest signals to be received while still keeping the radio quiet between transmissions. In city locations, a higher setting might be needed to ensure the squelch remains closed when subjected to the higher interference levels often encountered in high density areas.

The TX3440 has ten (10) preset Squelch sensitivity settings (labelled SQL-0 to SQL-9) that can be selected using the Menu function. The minimum Squelch setting (SQL-0) will open the Squelch allowing all signals to be heard. SQL-9 is the maximum setting, requiring very strong signals to open the squelch. The factory default is SQL-3 which generally provides reliable Squelch operation for most applications.

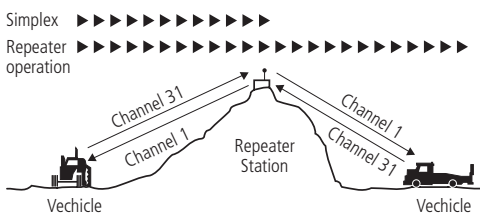
To pre-select the Squelch sensitivity

1. Select a Channel between 1 and 40.
2. Press and hold the **MENU** key until the radio beeps. SQL-x will be displayed where x is a number from 1 to 9.
3. Press the **▲** or **▼** keys increase or decrease the preset squelch to the desired setting.
4. Press and hold the **MENU** key to store the new setting.

SELECTING DUPLEX

Duplex operation allows the radio to transmit on a different frequency to that which it receives. This allows operation through repeater stations. Repeaters automatically re-transmit your signal over a wider area, providing greatly increased range.

Simplex/Duplex Range Comparison



Duplex operation operates only on channels 1-8. When duplex is selected on these channels, the radio receives on that channel but actually transmits 30 channels higher.

e.g.

Channel Selected	1	2	3	4	5*	6	7	8
Receive Channel	1	2	3	4	5*	6	7	8
Transmit Channel	31	32	33	34	35*	36	37	38

* Emergency Channel only

The TX3440 allows you to select Duplex operation individually on each channel.

To enable or disable Duplex on a channel

1. Select the required channel 1-8 (the Duplex setting feature is only available on these channels).

CTCSS TONES

CTCSS (Continuous Tone Coded Squelch System) is a Squelch quieting system that allows several groups of users to share the same channel without disturbing each other. It uses one of a set of sub-audible (very low frequency) tones to open and close the Squelch on your radio.

There are two standard tones sets, one comprising 50 tones and the other comprising 38 tones. Both tone sets are included in the TX3440 to provide compatibility with other radio system.

To toggle the required tone set

1. Switch the radio **OFF**.
2. Press and hold the **SQL** key while switching the radio **ON** again.
3. 'CTC50' or 'CTC38' will be displayed indicating which tone set is selected

Note: When switching up from CTC38 to CTC50, the radio will retain the selected CTCSS tone frequency and automatically update the tone set number to reflect its new position in the CTC50 tone set table.
e.g. If CTCSS tone frequency 233.6 Hz (CTC38 tone set #36) was selected, the radio will then display equivalent CTC50 tone set #47. When switching down from CTC50 to CTC38, if there is no equivalent CTC38 frequency, the CTCSS tone will be set to 'oF' (0 Hz). You will need to re-select a new tone.

To pre-select a CTCSS tone

1. Press and hold the **MENU** key until the radio beeps.
2. Briefly press the **MENU** key repeatedly until 'CTCXX' is displayed, where XX is a number between 1 and 50 or 'oF'.
3. Press the **▲** or **▼** keys to select the required CTCSS tone number (see **CTCSS Tone Frequency Chart** on page 21). If the CTC38 tone set is enabled there will be 38 tones available otherwise there will be 50 tones.

Note: To display the CTCSS frequency instead of the tone number, briefly press the **PRI** key. The CTCSS frequency (in Hz) will be displayed. Briefly press the **PRI** key again to return to the tone number.

4. To turn CTCSS tones **OFF** select **CTCoF**

5. Press and hold the **MENU** key until the radio beeps, to store the setting.

BACKLIGHTING

Backlighting can be set to ON or OFF to satisfy personal preference

1. Press and hold the **MENU** key until the radio beeps.
2. Briefly press the **MENU** key repeatedly until 'LIGHT' is displayed.
3. Press the **▲** or **▼** keys to select either ON or OFF.
4. Press and hold the **MENU** key until the radio beeps, to store the setting.

BATTERY / S-METER / ALPHA SELECTION

The TX3440 has the option of displaying either the battery voltage or the incoming signal strength (S-meter) in the area beneath the channel display. In addition, when 'Listening' channels (41-99) are selected, the radio provides an extra option of displaying the frequency of the selected user channel or a custom ALPHA label (when ALPHA mode is selected).

The listening channels are treated independently to the normal UHF CB channels in that you can for example, select S-Meter or Battery Voltage on Channels 1-40 yet display the channel frequency (or an ALPHA label) on channels 41-99.

To display S-Meter or Battery Voltage on channels 1-40

1. Select a channel from 1-40.
2. Press and hold the **MENU** key until the radio beeps.
3. Briefly press the **MENU** key repeatedly until 'S-MET' (S Meter) or 'bATT' (Battery) is displayed.
4. Press the **▲** or **▼** keys to select your preferred choice of **S-MET** and **bATT**.
5. Press and hold the **MENU** key until the radio beeps, to store the setting.

To display S-Meter, Battery Voltage or Frequency/Alpha label on Listening channels (41-99):

1. Select a channel from 41-99.
2. Press and hold the **MENU** key until the radio beeps.
3. Briefly press the **MENU** key repeatedly until 'S-MET' (S Meter), 'bATT' (Battery) or 'ALPHA' is displayed.
4. Press the **▲** or **▼** keys to select your preferred choice of **S-MET** (S Meter), **bATT** (Battery) or **ALPHA**.
5. Press and hold the **MENU** key until the radio beeps, to store the setting.

INSTALLATION

The TX3440 main unit is supplied with a slim, slide-on mounting cradle. The cradle can be screwed or bolted in any convenient location in your vehicle (under or above the dash, on the centre console, under the seat, in the boot, etc.) using the mounting slots provided in the base. The main unit contains a built-in speaker, and can be installed in a convenient location in the vehicle's cabin as the radio's loud speaker. Alternatively it can be installed 'out of the way' and an extension speaker used instead.

The LCD Controller Microphone comes complete with a mounting clip. Its small size and light weight design allows it to be mounted in almost any convenient position accessible to the driver.

When installing the radio, avoid mounting it close to heaters or air conditioners. Screw the LCD Controller Microphone and the clip a firm surface. Slide the TX3440 main unit into the cradle from the front until it clicks into place. Position the LCD Controller Microphone in its mounting clip. Finally, plug the LCD Controller Microphone into the front panel of the TX3440 and the power and antenna leads to the sockets provided on the rear of the radio.

An additional 1.8 m extension cable is supplied to allow more remote mounting of the TX3440 main unit.

ANTENNA INSTALLATION

It is essential to select a good quality, high efficiency, 477 MHz antenna. A poor quality antenna or one not designed for the specific frequency band you are using will give very poor performance.

GME have a wide range of suitable 477 MHz UHF CB antennas to suit most installations and applications. We recommend contacting your local GME retailer for advice.

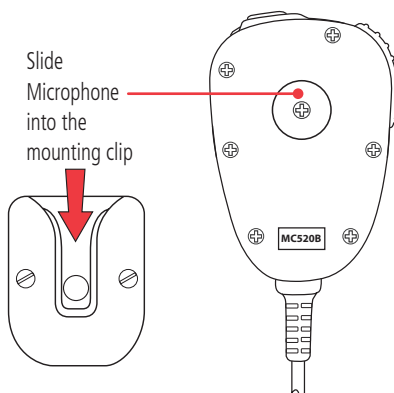
Connect to the antenna cable to the rear antenna socket using a PL259 coaxial connector.

NOISE SUPPRESSION

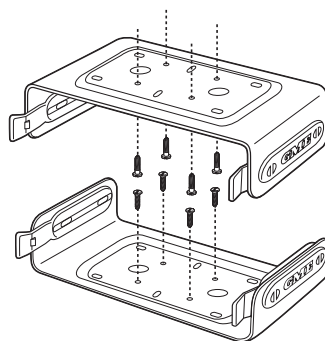
The inherent design of FM transceivers result in a high level of resistance to ignition and electrical interference. However in some installations it may be necessary to take additional steps to help reduce or eliminate noise interference. During installation, try to route the DC battery leads, the antenna lead or any accessory wires away from the engine compartment, ignition or alternator wiring. If the noise continues, it may be necessary to fit a suppression kit in which case we recommend you consult an auto electrician for advice specific to your installation.

Higher frequency electrical interference cause by electric motors can be suppressed directly at the motor terminals.

Fitting the LCD Controller Microphone

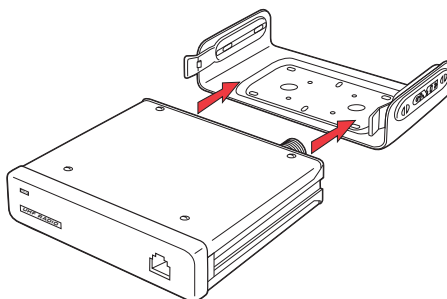


Mounting the Cradle

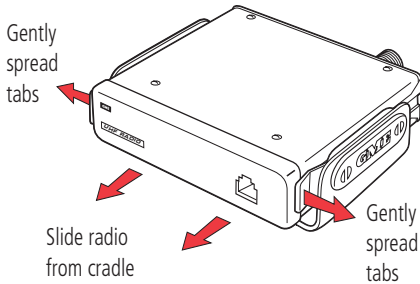


Fitting the Radio

Slide radio fully into cradle until it clicks into place.



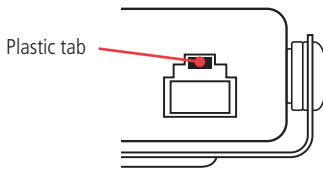
Removing the Radio



Fitting the Microphone

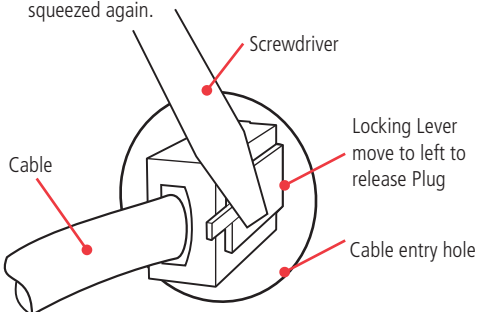
The microphone uses an 8 pin plug and socket. To fit the microphone:

1. Position the microphone plug so the plastic tab faces downwards, and press the plug into the socket until it 'clicks'.
2. Gently slide the rubber strain relief towards the hole surrounding the socket until it is flush with the front panel.



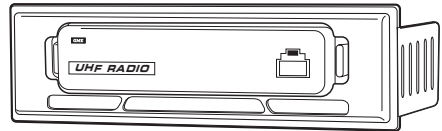
Removing the Microphone

1. Slide the strain relief back along the microphone cord.
2. Squeeze the plastic tab on the microphone plug towards the plug to unlock it while gently pulling the plug outwards. If the plug does not come out easily, the tab has not released correctly and should be squeezed again.



Console Mounting the TX3440

For console mounting, a flush mounting DIN Adaptor MBD001 is available as an optional accessory. The adaptor includes mounting brackets and a specially designed front panel escutcheon to suit most vehicle installations. The console mount is particularly suitable for dashboard mounting TX3440's main unit. Installation instructions are provided with the bracket. See your nearest GME retailer for details.



DC POWER CONNECTION

The TX3440 is designed for 13.8 Volts DC, negative earth installations only (i.e. where the negative terminal of the battery is connected to the chassis or frame of the vehicle).

There are two recommended methods of installation.

Radio remains ON when the ignition switch is OFF

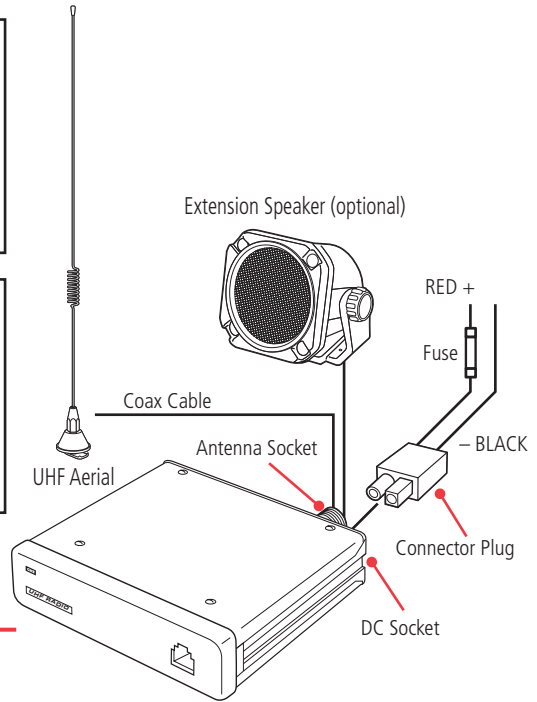
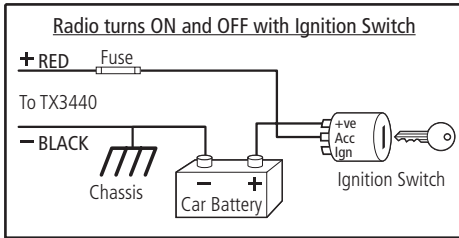
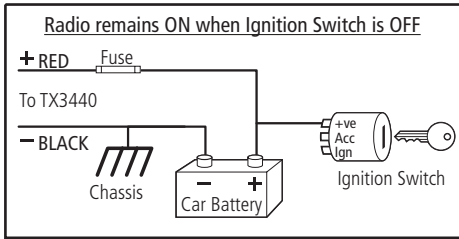
Connect the radio's negative (black) lead to the vehicle's chassis, or if preferred, directly to the battery's negative terminal.

The radio's positive (red) lead should be connected via the 2 Amp fuse to the battery's positive terminal. Alternatively, the positive lead could be connected into the fuse box at a point that has +13.8 Volts continuously available (the battery side of the ignition switch) via the 2 Amp fuse.

Radio turns OFF with the ignition switch:

Connect the radio's negative (black) lead to the vehicle's chassis, or if preferred, directly to the battery's negative terminal.

The radio's positive (red) lead should connect to an accessory point in the vehicle's fuse box via the 2 Amp fuse. This point should supply +13.8 Volts only when the ignition switch is turned ON or in the ACCESSORY position.



HIGH VOLTAGE WARNING

The TX3440 has a built-in, high voltage detection system to warn you if an overvoltage situation occurs.

If the power supply voltage exceeds 18 Volts DC, the channel display will flash 'hi dc' for 5 seconds when the unit is first turned ON, or at the time the voltage exceeds 18 Volts. In addition, when transmitting, the TX indicator will flash and the transmitter will select low output power.

If the overvoltage warning appears you should switch your TX3440 OFF and disconnect it from the power source, before locating the cause of the trouble.

Once the high voltage warning has been triggered, and you have fixed the source of the problem, you will need to switch the TX3440 OFF then ON again to reset it.

The power source must not exceed 30 Volts.

ANTENNA CONNECTION

GME supply a wide range of mobile and base station antennas designed specifically for UHF CB communications.

The antennas are fitted with a PL259 coaxial plug suitable for connection to the antenna socket on the rear panel of the radio.

CTCSS TONE FREQUENCY CHART

50 Tone Set	38 Tone Set	Frequency	50 Tone Set	38 Tone Set	Frequency	50 Tone Set	38 Tone Set	Frequency
1	1	67.0	18	17	118.8	35	-	183.5
2	-	69.4	19	18	123.0	36	30	186.2
3	2	71.9	20	19	127.3	37	-	189.9
4	3	74.4	21	20	131.8	38	31	192.8
5	4	77.0	22	21	136.5	39	-	196.6
6	5	79.7	23	22	141.3	40	-	199.5
7	6	82.5	24	23	146.2	41	32	203.5
8	7	85.4	25	24	151.4	42	-	206.5
9	8	88.5	26	25	156.7	43	33	210.7
10	9	91.5	27	-	159.8	44	34	218.1
11	10	94.8	28	26	162.2	45	35	225.7
12	11	97.4	29	-	165.5	46	-	229.1
13	12	100.0	30	27	167.9	47	36	233.6
14	13	103.5	31	-	171.3	48	37	241.8
15	14	107.2	32	28	173.8	49	38	250.3
16	15	110.9	33	-	177.3	50	-	254.1
17	16	114.8	34	29	179.9	oF	oF	0
(CTCSS Frequency shown in Hz)								

UHF CB OPERATING FREQUENCIES

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	476.425 ~	21	476.925
2	476.450 ~	22 [#]	476.950
3	476.475 ~	23 [#]	476.975
4	476.500 ~	24	477.000
5 [*]	476.525 ~	25	477.025
6	476.550 ~	26	477.050
7	476.575 ~	27	477.075
8	476.600 ~	28	477.100
9	476.625	29	477.125
10	476.650	30	477.150
11 ⁺	476.675	31	477.175 ~
12	476.700	32	477.200 ~
13	476.725	33	477.225 ~
14	476.750	34	477.250 ~
15	476.775	35 [*]	477.275 ~
16	476.990	36	477.300 ~
17	476.825	37	477.325 ~
18	476.850	38	477.350 ~
19	476.875	39	477.375
20	476.900	40 [^]	477.400

- * Emergency use only
- + Officially Designated Call Channel
- # Telemetry/Selcall use only. Voice Transmission is inhibited as required by AS/NZS 4365.2002
- ^ Road Channel
- ~ Repeater Channels

SPECIFICATIONS*

ENVIRONMENTAL

Temperature Range: -10°C to +60°C

ELECTRICAL

GENERAL

Compliant

Specification: AS/NZS 4365

Frequency Range TX: 476.425-477.4 MHz

Frequency Range RX: 403-520 MHz

Number of Channels: 40 UHF CB + 59 Receive Only

Channel Spacing: 25 kHz TX/RX, 12.5 kHz RX Only

Operation Mode: Simplex channels 1-40
Semi Duplex channels 1-8.

Scanning Speed: 20 channels per second

Antenna Impedance: 50 Ohms nominal

Operating

Voltage Range: 10-15 Volts DC

Nominal

Battery Voltage: 13.8 Volts DC

Over Voltage

Protection: 30 Volts DC max. At 18 Volts DC the RF power is reduced, and the words 'Hi DC' flash.

Over Current

Protection: In-line 2A Fuse

Reverse

Polarity Protection: Shunt Diode

Frequency Stability: +5 PPM

Selcall Tone Length: 40 ms

Transmitter

RF Output: 5.0 Watts max.

Frequency Transients
during switching: < 3 kHz

Modulation: FM

Maximum Deviation: < ± 5 kHz at + 20 dB limiting

Spurious Emissions: < - 70 dBc

Transmit Frequency

Response: + 6 dB per octave
300 Hz to 3 kHz + 1-3 dB.

Audio Signal to Noise: > 45 dB

Current Consumption: 1.5 Amps with 50 Ohm termination

Receiver

Circuit Type: Double Conversion Superheterodyne

Intermediate

Frequencies: 1st - 21.4 MHz
2nd - 450 kHz

Current Consumption: < 190 mA muted
600 mA @ max. A.F output

Sensitivity: - 123 dBm for 12 dB SINAD
unweighted

Selectivity: - 6 dB at + 7.5 kHz
- 70 dB at ± 25 kHz

Intermodulation

Immunity: 73 dB

Blocking Immunity: 100 dB

Spurious Response

Immunity: 70 dB

Audio Power: 3 Watts average into 4 Ohms

Audio Signal to Noise: > 45 dB

Receive Frequency

Response: - 6 dB/Octave de-emphasis
300 Hz to 3 kHz + 1-3 dB

Conducted Spurious

Emission: < - 57 dBm

MECHANICAL

Dimensions: 29 (H) x 128 (L) x 117 (D) mm

Weight: 575 grams

Shock and Vibration: MIL STD 810 method

*Specifications are typical unless otherwise indicated and may be subject to change without notice or obligation.

WARRANTY

GME limit this warranty to the original purchaser of the equipment.

GME warrant the TX3440 to be free from defects in material and workmanship for a period of thirty six (36) months from the date of purchase from their authorised retailer.

Should the product require servicing during this period, all labour and parts used to effect repairs will be supplied free of charge. GME reserve the right to determine whether damage has been occasioned by accident, misuse or improper installation whereby the warranty would be void, including equipment which has been damaged due to:

- (a) Incorrect or reverse polarity connection to a battery or power supply or to an incorrect supply voltage.
- (b) Operation without an antenna or by connection to an antenna which has been incorrectly installed, resulting in damage to the radio's output circuit.
- (c) Effects of water or moisture penetration.
- (d) Non-factory modifications.

Procedure to be followed by claimant: In the event of a defect occurring during the warranty period, the original purchaser may return the defective unit along with suitable proof of purchase date (i.e. receipt, docket, credit card slip etc.) and a full description of the defect to the retailer from whom the unit was purchased. All freight charges incurred for transportation by the retailer or GME are the purchaser's responsibility.

GME AFTER SALES SERVICE

Your radio is especially designed for the environment encountered in land mobile installations. The use of all solid state circuitry, careful design and rigorous testing, result in high reliability. Should failure occur however, GME maintain a fully equipped service facility and spare parts stock to meet the customer's requirements long after expiry of the warranty period.



A division of Standard Communications Pty Ltd.
Head Office: PO Box 96, Winston Hills, NSW 2153, Australia.
New Zealand: PO Box 58-446 Botany, Auckland, 2163, NZ. T:(09) 274 0955.
All other international enquires email: export@gme.net.au

