

□ *Assigning Ring Styles (Available after Version 2)*

You can program your radio to sound one of the predefined ringing tones when receiving a Call Alert or a Text Message from a particular contact.

Procedure:

1. Press **[P4]** to access the menu.
2. Press **[↑]** / **[↓]** to Contacts and press **[P4]** to select. The entries are alphabetically sorted.
3. Press **[↑]** / **[↓]** to the required alias or ID and press **[P4]** to select.
4. Press **[↑]** / **[↓]** to Ring Style and press **[P4]** to select.
5. A ✓ indicates the current selected tone.
6. Press **[↑]** / **[↓]** to the required tone and press **[P4]** to select.
7. The display shows Tone <Number> Selected and a ✓ appears left of the selected tone.

OR

Press **[↑]** / **[↓]** to Turn Off and press **[P4]** to select. The display shows Text Message Ringer Off and a ✓ appears left of Turn Off.

□ *Escalating Alarm Tone Volume (Available after Version 2)*

You can program your radio to continually alert you when a radio call remains unanswered. This is done by automatically increasing the alarm tone volume over time. This feature is known as Escalert.

Procedure:

1. Press **[P4]** to access the menu.
2. Press **[↑]** / **[↓]** to Utilities and press **[P4]** to select.
3. Press **[↑]** / **[↓]** to Radio Settings and press **[P4]** to select.
4. Press **[↑]** / **[↓]** to Tones/Alerts and press **[P4]** to select.
5. Press **[↑]** / **[↓]** to Escalert and press **[P4]** to select.

6. The display shows Turn On. Press **[P4]** to enable Escalert. The display shows Escalert On.

OR

The display shows Turn Off. Press **[P4]** to disable Escalert. The display shows Escalert Off.

▲ **Call Log Features**

Your radio keeps track of all recent outgoing, answered, and missed Private Calls. Use the Call log feature to view and manage recent calls.

You can perform the following tasks in each of your call lists:

- Store ID to Contacts
- Delete

□ *Viewing Recent Calls*

The lists are Missed, Answered, and Outgoing.

Procedure:

1. Press **[P4]** to access the menu.
 2. Press **[↑]** / **[↓]** to Call Log and press **[P4]** to select.
 3. Press **[↑]** / **[↓]** to preferred list and press **[P4]** to select.
 4. The display shows the most recent entry at the top of the list.
 5. Press **[↑]** / **[↓]** to view the list.
- Press the PTT button to start a Private Call with the current selected alias or ID.

□ *Missed Call Screen*

Whenever a call is missed, your radio displays a missed call message. Select View to view it immediately or View Later to view at a later time.

19NOTE: The radio exits the Missed Call screen and sets up a Private Call if you press the PTT button while viewing a missed call number.

1. The display shows Missed Calls, along with the number of calls missed and View?

2. Press **[P4]** to view the missed call ID. The missed call log list appears on display.

Press **[P4]** to store or delete the entry.

OR

Press **[▲] / [▼]** to view Later and press **[P4]** to select. You return to the Home screen.

□ *Storing an Alias or ID from the Missed Call List*

Procedure:

1. Press **[P4]** to access the menu.

2. Press **[▲] / [▼]** to Call Log and press **[P4]** to select.

3. Press **[▲] / [▼]** to Missed and press **[P4]** to select.

4. Press **[▲] / [▼]** to the required missed call alias or ID and press **[P4]** to select.

5. Press **[▲] / [▼]** to Store and press **[P4]** to select.

6. A blinking cursor appears. If needed, key in the alias for that ID and press

7. The display shows Contact Saved.

You can also store an ID without an alias.

□ *Deleting a Call from a Call List*

Procedure:

1. Press **[P4]** to access the menu.

2. Press **[▲] / [▼]** to Call Log and press **[P4]** to select.

3. Press **[▲] / [▼]** to the required list and press **[P4]** to select.

4. Press **[▲] / [▼]** to the required alias or ID and press **[P4]** to

select.

5. Press **[▲] / [▼]** to Delete Entry? And press **[P4]** to select. The display show Entry Deleted.

OR

6. Press **[▲] / [▼]** to No to return to the previous screen.

When you select a call list and it contains no entries, the display shows List Empty, and sounds a low tone if Keypad Tones are turned on.

▲ **Call Alert Operation**

Call Alert paging enables you to alert a specific radio user to call you back when they are able to do so.

This feature is applicable for subscriber aliases or IDs only and is accessible through the menu via Contacts or manual dial.

□ *Receiving and Acknowledging a Call Alert.*

Procedure:

1. You hear a repetitive tone.

2. Press and release the PTT button to acknowledge the alert.

OR

Press **[P4]** to select Ignore and to exit the Call Alert.

Making a Call Alert from the Contacts List

1. Press **[P4]** to access the menu.




2. Press **[▲] / [▼]** to Contacts and press **[P4]** to select.

3. Press **[▲] / [▼]** to the required subscriber alias or ID and press **[P4]** to select.

OR

Press **[▲] / [▼]** to Manual Dial and press **[P4]** to select. A blinking cursor appears.

Enter the subscriber ID you want to page and press .

4. Press  /  to Call Alert and press  to select.
5. The display shows Call Alert: <Subscriber Alias or ID> , indicating that the Call Alert has been sent.
6. The RED LED turns on when your radio is sending the Call Alert.
7. If the Call Alert acknowledgement is received, a tone sounds and the display shows Call Alert Successful.

OR

If the Call Alert acknowledgement is not received, a tone sounds and the display shows Call Alert Failed.

▲ Emergency Operation

An Emergency Alarm is used to indicate a critical situation. You are able to initiate an Emergency at any time on any screen display even when there is activity on the current channel.

Your radio supports 3 Emergency Alarms:

- Emergency Alarm
- Emergency Alarm with Call
- Emergency Alarm with Voice to Follow

In addition, each alarm has the following types:

- Regular —Radio transmits an alarm signal and shows audio and/or visual indicators.
- Silent - Radio transmits an alarm signal without any audio or visual indicators. There will be no response (call) from the target radio until you press the PTT button to initiate the call.
- Silent with Voice —Radio transmits an alarm signal and is able to receive an incoming call without any audio or

visual indicators until you press the PTT button to initiate or respond to the call.

Only ONE of the Emergency Alarms above can be assigned to the programmed Emergency button.

□ *Receiving an Emergency Alarm*

Procedure:

1. When receiving an Emergency Alarm, the display shows the Emergency icon, the number of alarms received, and Alarm Rcvd, which alternates with alias ID of the sender.
2. A tone sounds.
3. If enabled, your radio automatically acknowledges the Emergency Alarm.

When your radio receives an Emergency Alarm, it displays the Emergency Alarm received indications until acknowledgement is sent and you exit the Emergency mode.

You will not be able to receive any other indications or displays for any other calls until you exit the Emergency Alarm received screen.

NOTE: Short press, then long press the programmed Emergency button to clear the Emergency Alarm received indications and exit Emergency mode.


□ *Responding to an Emergency Alarm*

Procedure:

When receiving an Emergency Alarm:

1. Press any button to stop all Emergency Alarm received indications.
2. Hold the radio vertically 1 to 2 inches (2.5 to 5.0cm) from your mouth.

If the Channel Free Indication feature is enabled, you will

- hear a short alert tone the moment the transmitting radio releases the PTT button, indicating the channel is now available for use.
3. Press PTT button to initiate a call with the emergency initiating radio. The RED LED turns on. Your radio remains in the Emergency mode.
 4. Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.
 5. Release the PTT button to listen. When the emergency initiating radio responds, you see the Group Call icon, the group ID, and transmitting radio ID on your display.
 6. Once your call ends, short press , then long press the programmed Emergency button to clear the Emergency Call received indications and exit Emergency mode.
 7. The radio returns to the Home screen.

□ *Sending an Emergency Alarm*

This feature allows you to send an Emergency Alarm, a non-voice signal, which triggers an alert indication on another radio.

Procedure:

1. Press the programmed Emergency button.
2. The display shows "Sending Alarm", which alternates with your radio ID. The RED LED turns on and the Emergency icon appears on the Home screen display.
3. When an Emergency Alarm acknowledgment is received, the Emergency tone sounds and the GREEN LED turns on. The display shows Emergency Alarm Successful.

OR

If your radio does not receive an Emergency Alarm acknowledgment, and after all retries have been exhausted, a tone sounds and the display shows

Emergency Alarm Failed.

4. Radio exits the Emergency Alarm mode and returns to the Home screen.

If your radio is set to Silent, it will not display any audio or visual indicators during Emergency mode.

□ *Sending an Emergency Alarm with Call*

This feature allows you to send an Emergency Alarm to another radio. Upon acknowledgment, both radios can communicate over a programmed Emergency channel.

Procedure:

1. Press the programmed Emergency button.
2. The display shows "Sending Alarm", which alternates with your radio ID. The RED LED turns on and the Emergency icon appears on the Home screen display.
3. When an Emergency Alarm acknowledgment is received, the Emergency tone sounds and the GREEN LED turns on. The display shows "Emergency Alarm Successful".
4. Hold the radio vertically 1 to 2 inches (2.5 to 5.0cm) from your mouth.
5. Press PTT button to make the call. The RED LED lights turns on and the group icon appears on the display.
6. Wait for the Talk Permit Tone to finish if enabled and speak clearly into the microphone.
7. Release the PTT button to listen.
8. If the Channel Free Indication feature is enabled, you will hear a short alert tone the moment the target radio releases the PTT button, indicating the channel is free for you to respond

OR

Long press the programmed Emergency button to exit the

Emergency mode.

9. The radio returns to the Home screen.

If your radio is set to Silent, it will not display any audio or visual indicators during Emergency mode, or receive a response (Call) from the target radio until you press the PTT button to initiate the call.

If your radio is set to Silent with Voice, it will not display any audio or visual indicators during Emergency mode, or when you are receiving a call from the target radio. The indicators will only appear once you press the PTT button to initiate or respond to the call.

□ *Sending an Emergency Alarm with Voice to Follow*

This feature allows you to send an Emergency Alarm to another radio. Upon acknowledgment, your radio's microphone is automatically activated, allowing you to communicate with the other radio without pressing the PTT button.

This activated microphone state is also known as "hot mic". If you press the PTT button during the programmed

hot mic transmission period, the radio ignores the PTT press and remains in Emergency mode.

Procedure:

1. Press the programmed Emergency button.
2. The display shows Sending Alarm. The RED LED turns on and the Emergency icon is displayed.
3. Once the display shows Emergency Alarm successful, speak clearly into the microphone. When hot mic has been enabled, the radio automatically transmits without a PTT press until the hot mic duration expires.
4. While transmitting, the RED LED turns on and the

Emergency icon appears on the display.

5. Once the hot mic duration expires, the radio automatically stops transmitting. To transmit again, press the PTT button.

If your radio is set to Silent, it will not display any audio or visual indicators during Emergency mode, or receive any response from the target radio until the programmed hot mic transmission period is over, and you press the PTT button.

If your radio is set to Silent with Voice, it will not display any audio or visual indicators during Emergency mode when you are making the call with hot mic or when the target radio responds after the programmed hot mic transmission period is over. The indicators will only appear when you press the PTT button.

NOTE: If the Emergency Alarm request fails, the radio returns to the Home screen.

□ *Exiting an Emergency Mode*

Your radio exits Emergency mode when one of the following occurs:

- Emergency Alarm acknowledgement is received. (for Emergency Alarm only), OR
- All retries to send the alarm have been exhausted, OR
- The programmed Emergency button is long pressed.

NOTE: If your radio is powered off, it exits the Emergency mode. The radio will not reinitiate the Emergency mode automatically when it is turned on again.

▲ **Text Message Features**

Your radio is able to receive data, for example a text

message, from another radio or an e-mail application.
The maximum length of characters for a text message, including the subject line is 138
NOTE: press **[P1]** at any time to return to the previous screen or long press **[P1]** to return to the Home screen.

□ *Writing and Sending a Text Message*

Procedure:

1. Press **[P4]** to access the menu.
2. Press **[^]** / **[v]** to Messages and press **[P4]** to select.
3. Press **[^]** / **[v]** to Write and press **[P4]** to select.
4. A blinking cursor appears.
Use the keypad to type your message.
Press **[^]** to move one space to the left.
Press **[v]** or the # key to move one space to the right.
Press the *DEL key to delete any unwanted characters.
5. Press **[P4]** once message is composed..
6. Press **[^]** / **[v]** to the required alias or ID and press **[P4]** to select.

OR

Press **[^]** / **[v]** to Manual Dial and press **[P4]** to select.
Key in the subscriber ID and press **[P4]**.

7. The display shows Text Message: <Subscriber/Group Alias or ID>, confirming your message is being sent.
8. If the message is sent, a tone sounds and the display shows Message Sent.

OR

If the message is not sent, a low tone sounds and the display shows Message Send Failed.
If the message fails to send, the radio returns you to the Resend option screen.

□ *Sending a Quick Text Message*

Procedure:

Your radio supports a maximum of ten (10) Quick Text messages as programmed by your dealer.
While Quick Text messages are predefined, you can edit each message before sending it.

1. Press **[P4]** to access the menu.
2. Press **[^]** / **[v]** to Messages and press **[P4]** to select.
3. Press **[^]** / **[v]** to Quick Text and press **[P4]** to select.
4. Press **[^]** / **[v]** to the required Quick Text and press **[P4]** to select.
5. A blinking cursor appears.
Use the keypad to edit the message, if required.
Press **[^]** to move one space to the left.
Press **[v]** or the # key to move one space to the right.
Press the *DEL key to delete any unwanted characters.
6. Press **[P4]** once message is composed.
7. Press **[^]** / **[v]** to the required alias or ID and press **[P4]** to select.

OR

Press **[^]** / **[v]** to Manual Dial and press **[P4]** to select.
Key in the subscriber ID and press **[P4]**.

8. The display shows Text Message: <Subscriber/Group Alias or ID>, confirming your message is being sent.
9. If the message is sent, a tone sounds and the display shows Message Sent.

OR

If the message is not sent, a low tone sounds and the display shows Message Send Failed.
If the message fails to send, the radio returns you to the Resend option screen.

□ *Sending a Quick Text Message with the One Touch Call Button*

Procedure:

1. Press the programmed One Touch Call button to send a predefined Quick Text message to a predefined alias or ID.
2. The display shows Text Message: <Subscriber/Group Alias or ID>, confirming your message is being sent.
3. If the message is sent, a tone sounds and the display shows Message Sent.

OR

If the message is not sent, a low tone sounds and the display shows Message Send Failed.

If the message fails to send, the radio returns you to the Resend option screen.

□ *Managing Fail-to-Send Text Messages*

You can select one of the following options while at the Resend Option screen:○

- Resend
- Forward
- Edit

□ *Resending a Text Messages*

Procedure:

1. Press **[P4]** to resend the same message to the same subscriber/group alias or ID.
2. If the message is sent, a tone sounds and the display shows Message Sent.

OR

If the message is not sent, a low tone sounds and the display shows Message Send Failed.

□ *Forwarding a Text Message*

Select Forward to send the message to another subscriber/group alias or ID.

Procedure:

1. Press **[P4]** to access the menu.
2. Press **[↑]** / **[↓]** to Messages and press **[P4]** to select.
3. Press **[↑]** / **[↓]** to Inbox and press **[P4]** to select.
4. Press **[↑]** / **[↓]** to the required Message and press **[P4]** to select.
5. Press **[P4]** and press **[↑]** / **[↓]** to Forward and press **[P4]** to select.
6. Press **[↑]** / **[↓]** to the required alias or ID and press **[P4]** to select.

OR

Press **[↑]** / **[↓]** to Manual Dial and press **[P4]** to select. Key in the subscriber ID and press.

7. The display shows Text Message: <Subscriber/Group Alias or ID>, confirming your message is being sent.
8. If the message is sent, a tone sounds and the display shows Message Sent.

OR

If the message is not sent, a low tone sounds and the display shows Message Send Failed.

□ *Managing Sent Text Messages*

Once a message is sent to another radio, it is saved in Sent Items. The most recent sent text message is always added to the top of the Sent Items list.○

The Sent Items folder is capable of storing a maximum of thirty last sent messages. When the folder is full, the next sent text message automatically replaces the oldest text

message in the folder.

□ *Viewing a Sent Text Message*

Procedure:

1. Press **P4** to access the menu.
2. Press **▲** / **▼** to Messages and press **P4** to select.
3. Press **▲** / **▼** to Sent Items and press **P4** to select.
4. Press **▲** / **▼** to the required Message and press **P4** to select.

□ *Sending a Sent Text Message*

You can select one of the following options while viewing a sent text message:

- Resend
- Forward
- Edit
- Delete

□ *Deleting all Sent Text Messages from Sent Items*

Procedure:

1. Press **P4** to access the menu.
2. Press **▲** / **▼** to Messages and press **P4** to select.
3. Press **▲** / **▼** to Sent Items and press **P4** to select.
4. Press **▲** / **▼** to Delete All and press **P4** to select.
5. At Delete Message?, press **P4** to select Yes. The display shows Sent Items Cleared.

OR

At Delete Message? , Press **▲** / **▼** to No and press **P4** to return to the previous screen.

When you select Sent Items and it contains no text messages, the display shows List Empty.

□ *Receiving a Text Message*

When your radio receives a message, the display shows the alias or ID of the sender and the message icon at the far left of the screen.

You can select one of the following options when receiving a text message:

- Read?
- Read Later
- Delete

□ *Reading a Text Message*

Procedure:

1. Press **▲** / **▼** to Read? And press **P4** to select.
2. Press **P4** to Reply, forward, or delete the text message.

OR

Press **▲** / **▼** to access the Read Later or Delete option screen:

- Select Read Later to return to the screen you were on prior to receiving the text message.
- Select Delete to delete the text message.

□ *Managing Received Text Messages*

Use the Inbox to manage your text messages. The Inbox is capable of storing a maximum of 50 messages.

Your radio supports the following options for text messages:

- Reply
- Forward
- Delete
- Delete All

Text messages in the Inbox are sorted according to the most recently received.

NOTE:

□ *Viewing a Text Message from the Inbox*

Procedure:

1. Press **[P4]** to Messages and press **[P4]** to select.
2. Press **[^]/[v]** to Inbox and press **[P4]** to select.
3. Press **[^]/[v]** to view the messages.
4. Press **[P4]** to select the current message, and press **[P4]** again to reply, forward, or delete that message. Unread messages are indicated with an exclamation mark(!).

□ *Viewing a Text Message from the Inbox*

Procedure:

1. Press **[^]/[v]** to Messages and press **[P4]** to select.
2. Press **[^]/[v]** to Inbox and press **[P4]** to select.
3. Press **[^]/[v]** to the required message and press **[P4]** to select.
4. Press **[P4]** once more to access the sub-menu.
5. Press **[^]/[v]** to Reply and press **[P4]** to select.
6. Press **[^]/[v]** to Write and press **[P4]** to select. A blinking cursor appears. Use the keypad **[P4]** to write your message.

OR

- Press **[^]/[v]** to Quick Text and press **[P4]** to select. A blinking cursor appears. Use the keypad to edit your message, if required.
7. Press **[P4]** once message is composed.
 8. The display shows Text Message: <Subscriber/Group Alias or ID>, confirming your message is being sent.

□ *Deleting a Text Message from the Inbox*

Procedure:

1. Press **[^]/[v]** to Messages and press **[P4]** to select.
2. Press **[^]/[v]** to Inbox and press **[P4]** to select.
3. Press **[^]/[v]** to the required message and press **[P4]** to select.
4. Press **[P4]** once more to access the sub-menu.
5. Press **[^]/[v]** to Delete and press **[P4]** to select.
6. At Delete Message?, Press **[^]/[v]** to Yes and press to select.
7. The Display shows message Deleted.
8. The screen returns to the Inbox.

□ *Deleting All Text Messages from the Inbox*

Procedure:

1. Press **[^]/[v]** to Messages and press **[P4]** to select.
2. Press **[^]/[v]** to Inbox and press **[P4]** to select.
3. Press **[^]/[v]** to Delete All and press **[P4]** to select.
4. At Delete Message?, Press **[^]/[v]** to Yes and press to select.
5. The Display shows Inbox Cleared.

When you select the Inbox and it contains no text messages, the display shows List Empty.

▲ Privacy

If enabled, this feature helps to prevent eavesdropping by unauthorized users on a channel by the use of a software based scrambling solution. The signaling and user identification portions of a transmission are not scrambled. Your radio must have privacy enabled on the channel to

send a privacy-enabled transmission, although this is not a necessary requirement for receiving a transmission. While on a privacy-enabled channel, the radio is still able to receive clear (unscrambled) transmissions.

Your radio supports two types of privacy:











- Basic Privacy
- Enhanced Privacy

Only ONE of the privacy types above can be assigned to the radio.


To unscramble a privacy-enabled call or data transmission, your radio must be programmed to have the same Privacy Key (for Basic Privacy), OR the same Key Value and Key ID (for Enhanced Privacy) as the transmitting radio.

If your radio receives a scrambled call that is of a different Privacy Key, OR a different Key Value and Key ID, you will either hear a garbled transmission (Basic Privacy) or nothing at all (Enhanced Privacy).

Procedure:

1. Press  /  to Utilities and press  to select.
2. Press  /  to Radio Settings and press  to select.
3. Press  /  to Privacy and press  to select.
4. The display shows Privacy and Turn On. press to  enable privacy. The display shows the secure icon and Privacy On.

OR

The display shows Privacy and Turn Off. press  to disable privacy. The display shows the unsecure icon and Privacy Off.

□ *Dual Tone Multi Frequency (DTMF) (Analog)*

The Dual Tone Multi Frequency (DTMF) feature allows the

radio to operate in a radio system with an interface to telephone systems.

Procedure:

To initiate a DTMF call.

1. Press and hold PTT button.
2. Enter the desired number.

You can turn off the DTMF tone by disabling all radio tones and alerts. O







▲ **Security**

You can enable or disable any radio in the system. For example, you might want to disable a stolen radio, to prevent the thief from using it, and enable that radio, when it is recovered.

NOTE: Performing Radio Disable and Enable is limited to radios with these functions enabled. Check with your dealer or system administrator for more information.

□ *Radio Disable*




Procedure:

1. Press  /  to Contacts and press  to select. The entries are alphabetically sorted.
2. Press  /  to the required alias or ID and press  to select.

OR

Press  /  to Manual Dial and press  to select.

Key in the subscriber alias or ID and press.

3. Press  /  to Radio Disable and press  to select.
4. The display shows Radio Disable: <Subscriber Alias or ID> and the LED lights up RED.
5. Wait for acknowledgment.
6. If successful, a tone sounds and the display shows Radio Disable Successful.

OR

If not successful, a tone sounds and the display shows Radio Disable Failed.

□ *Radio Enable*

Procedure:

1. Press / to Contacts and press to select. The entries are alphabetically sorted.
2. Press / to the required alias or ID and press to select.

OR

Press / to Manual Dial and press to select .

Key in the subscriber alias or ID and press .

3. Press / to Radio Enable and press to select.
4. The display shows Radio Enable: <Subscriber Alias or ID> and the LED lights up RED.
5. Wait for acknowledgment.
6. If successful, a tone sounds and the display shows O Radio Enable Successful.

OR

If not successful, a tone sounds and the display shows Radio Enable Failed.

▲ Utilities

□ *Locking and Unlocking the Keypad*

You can lock your radio's keypad to avoid inadvertent key entry.

Procedure:

1. Press / to Utilities and press to select.
2. Press / to Radio Settings and press to select.
3. Press / to Keypad Lock and press to select.

4. The display shows Keypad Locked and returns to the Home screen.

5. To unlock the keypad, press followed by *.

6. The display shows Keypad Unlocked and returns to the Home screen.

□ *Turning Keypad Tones On or Off*

You can enable and disable keypad tones if needed.

Procedure:

1. Press / to Utilities and press to select.
2. Press / to Radio Settings and press to select.
3. Press / to Tones/Alerts and press to select.
4. Press / to Keypad Tones and press to select.
5. The display shows Turn On. Press to enable keypad tones. The display shows Keypad Tone On.

OR

The display shows Turn Off. Press to disable keypad tones. The display shows Keypad Tone Off.

□ *Setting the Squelch Level (Analog)*

You can adjust your radio's squelch level to filter out unwanted calls with low signal strength or channels that have a higher than normal background noise.

Settings: Normal is the default. Tight filters out (unwanted) calls and/or background noise. However, calls from remote locations may also be filtered out.

Procedure:

Press the programmed Squelch button to toggle squelch level between normal and tight.

OR

1. Press / to Utilities and press to select.
2. Press / to Radio Settings and press to select.

3. Press / to Squelch and press to select.
 4. Choose either Tight or Normal and press to select.
- Screen returns to the previous menu.

□ *Setting the Power Level*

You can customize your radio's power setting to high or low for each channel.

Settings: High enables communication with radios located at a considerable distance from you. Low enables communication with radios in closer proximity.

Procedure:

Press the programmed Power Level button to toggle transmit power level between high and low.

OR

1. Press / to Utilities and press to select.
 2. Press / to Radio Settings and press to select.
 3. Press / to Power and press to select.
 4. Change your current setting as prompted on the display.
 5. Press to select a new power level.
- Screen returns to the previous menu.

□ *Turning the Voice Operating Transmission (VOX) Feature On or Off*

This feature allows you to initiate a hands-free voice activated call on a programmed channel. The radio automatically transmits, for a programmed period, whenever the microphone on the VOX-capable accessory detects voice.

Pressing the PTT button during radio operation will disable VOX. To re-enable VOX, do one of the following:

- Turn the radio off and powering it on again, OR
- Change the channel via the Channel Selector Knob, OR
- Follow the procedure below.

NOTE: Turning this feature on or off is limited to radios with this function enabled. Check with your dealer or system administrator for more information.

Procedure:

Press the programmed VOX button to toggle the feature on or off.

OR

1. Press / to Utilities and press to select.
2. Press / to Radio Settings and press to select.
3. Press / to VOX and press to select.
4. The display shows VOX On. Press to disable VOX. The display shows VOX Off.

OR

The display shows VOX Off. Press to enable VOX. The display shows VOX On.

□ *Controlling the Display Backlight*

You can enable or disable the radio's display backlight as needed. The setting also affects keypad backlighting accordingly.

Procedure:

Press the programmed Backlight button to toggle the backlight settings.

OR

1. Press / to Utilities and press to select.
2. Press / to Radio Settings and press to select.
3. Press / to Backlight and press to select.
4. The display shows Auto On. Press to enable the

display backlight. The display shows Backlight Auto On.
OR

The display shows Turn Off. Press **[P4]** to disable the display backlight. The display shows Backlight Turn Off.

The display backlight and keypad backlighting are automatically turned off if the LED indicator is disabled.

□ *Turning the Radio Tones/Alerts On or Off*

You can enable or disable the radio tones and alerts(except for the incoming Emergency alert tone) if needed.

Procedure:

Press the programmed All Tones/Alerts button to toggle all tones on or off.

OR

1. Press **[↶]** / **[↷]** to Utilities and press **[P4]** to select.
2. Press **[↶]** / **[↷]** to Radio Settings and press **[P4]** to select.
3. Press **[↶]** / **[↷]** to Tones/Alerts and press **[P4]** to select.
4. Press **[↶]** / **[↷]** to All Tones and press **[P4]** to select.
5. The display shows Turn On. Press **[P4]** to enable all tones and alerts. The display shows All Tones On.

OR

The display shows Turn Off. Press **[P4]** to disable all tones and alerts. The display shows All Tones Off.

□ *Turning the Talk Permit Tone On or Off*

You can enable or disable the Talk Permit Tone if needed.

Procedure:

1. Press **[↶]** / **[↷]** to Utilities and press **[P4]** to select.
2. Press **[↶]** / **[↷]** to Radio Settings and press **[P4]** to select.
3. Press **[↶]** / **[↷]** to Tones/Alerts and press **[P4]** to select.
4. Press **[↶]** / **[↷]** to Talk Permit and press **[P4]** to select.

5. The display shows Turn On. Press **[P4]** to enable the Talk Permit Tone. The display shows Talk Permit Tone On.

OR

The display shows Turn Off. Press **[P4]** to disable the Talk Permit Tone. The display shows Talk Permit Tone Off.

□ *Turning the LED Indicator On or Off*

You can enable or disable the LED Indicator if needed.

Procedure:

1. Press **[↶]** / **[↷]** to Utilities and press **[P4]** to select.
2. Press **[↶]** / **[↷]** to Radio Settings and press **[P4]** to select.
3. Press **[↶]** / **[↷]** to LED Indicator and press **[P4]** to select.
4. The display shows Turn On. Press **[P4]** to enable the LED Indicator. The display shows All LEDs On.

OR

The display shows Turn Off. Press **[P4]** to disable the LED Indicator. The display shows All LEDs Off.

The display backlight, buttons, and keypad backlighting are automatically turned off if the LED indicator is disabled.

□ *Turning the Introduction Screen On or Off*

You can enable or disable the Introduction Screen if needed.

Procedure:

1. Press **[↶]** / **[↷]** to Utilities and press **[P4]** to select.
2. Press **[↶]** / **[↷]** to Radio Settings and press **[P4]** to select.
3. Press **[↶]** / **[↷]** to Intro Screen and press **[P4]** to select.
4. The display shows Turn On. Press **[P4]** to enable the Introduction Screen. The display shows Intro Screen On.

OR

The display shows Turn Off. Press **[P4]** to disable the










are automatically turned off if the LED indicator is disabled.

□ *Accessing General Radio Information*


Your radio contains information on the following:

- Radio ID
- Software Version
- Codeplug Version

Procedure:

1. Press  /  to Utilities and press  to select.
2. Press  /  to Radio Info and press  to select.
3. Press  /  to My Number or Firmware Ver. Or CP Ver. and press  to select.
4. The display shows the radio ID or the current firmware version or codeplug version.

■ Trouble shooting

No.	Problems	Solutions
1	The transceiver will not power up after connecting a 13.8 V DC power supply and pressing the  (Power) switch. Nothing Appears on the display.	<ul style="list-style-type: none"> • The power cable was connected backwards. • Connect the supplied DC power cable correctly: Red→ (+) ; Black→ (-) . • One or more of the power cable fuses are open. • Look for the cause of the blown fuse(s).After inspecting and correcting any problems, install a new fuse(s) with the same ratings.
2	The display is too dim,even though you selected a high brightness level.	<ul style="list-style-type: none"> • The supply voltage is too low. • The supply voltage requirement is 13.8 V DC 15% (11.7 V to 15.8 V DC).If the input voltage is outside this range,adjust your regulated power supply and/or check all power cable connections.
3	Cannot talk to or hear other members in your group.	<ul style="list-style-type: none"> • Digital: Make sure the CC, ID Time Slot is set right. • Analog: Make sure the signaling is set right. • Beyond the radio efficient communication range.

4	Other voices from non-group members are heard on the channel.	Analog: Change the CTCSS/DCS tone, and make sure change the tone on all radios in your group
5	Communication range is too small.	<ul style="list-style-type: none"> • Make sure the antenna is wellconnected. • Make sure the antenna is the originally supplied one. • Ask your local dealer to adjust the squelch level.
6	You cannot transmit even though you press Mic [PTT].	<ul style="list-style-type: none"> • The microphone plug was not Inserted completely into the front panel connector. • Switch OFF the power, then insert the microphone plug until the locking tab clicks in place. • You selected a transmit offset That places the transmit frequency outside the allowable transmit frequency range.
7	Noise is too loud.	<ul style="list-style-type: none"> • Beyond the efficient communication range.

■ Radio Specifications

General	
Power Supply	13.8V DC $\pm 15\%$
Frequencies - Full Bandsplit	400 - 470MHz 136-174MHz
Number of Channels	1000 Channels
Maximum number of Zones	250 Zones
Maximum number of	
Channels Per Zone	16
Channel Spacing	12.5/25kHz
Dimensions: H x W x D(mm)	44*159*184mm
With the remote header	
Weight: (g)	
Not including installation holder	1315g

Transmitter Specifications	
Frequency Stability (-30°C to 60°C , 25°C Ref)	1.0 ppm
Power Output	25W(L), 40 W(UHF)/45 W(VHF)(H)
Modulation Limiting	$\pm 2.5\text{kHz}@12.5\text{kHz}$ / $\pm 5\text{kHz}@25\text{kHz}$
FM Hum & Noise	-40dB
Adjacent Channel Power	-60dB
FM Modulation Mode	12.5KHz: 11K0F3E /25khz: 16K0F3E
4FSK Digital Mode	12.5KHz (data only) : 7K60FXD 12.5KHz (data + voice): 7K60FXE
4FSK Modulation Accuracy	5%@25°C , 10%@extreme temperature
Digital Protocol	ETSI TS 102 361-1,-2,-3
Audio Distortion	< 3%
Vocoder	AMBE + 2™
Receiver Specifications	
Analog Sensitivity	.35 μ V/-116dBm(20 dB SINAD) .22 μ V/-120dBm(12 dB SINAD)
Digital Sensitivity	.3 μ V /-117.4dBm (BER 5%) .7 μ V /-110dBm (BER 1%)
Rated Audio	2W
Audio Distortion @ Rated Audio	5%