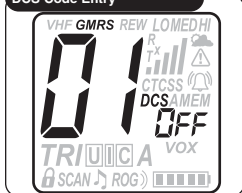


Setup Mode Programming

DCS Code Entry



To Set DCS Code Entry:

1. Display will show **DCS** icon and **OFF** icon flashing.



NOTE

If **DCS** was previously set to a **Code** number, the display will show the current **GMRS** channel and flash the **DCS** icon and **Code** number.

2. Codes begin at **01** and go to **83**, followed by **OFF** and return back to **01** again. Last used **GMRS** channel will be shown in the large digit display.

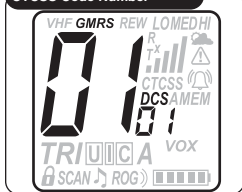


NOTE

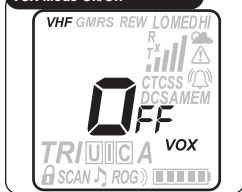
If **CTCSS** is On, then **DCS** must be Off. If **DCS** is On, then **CTCSS** must be Off.

3. Press **Channel Up/Down** button to change code number, or press and hold **Channel Up/Down** button to rapid advance (scroll).
4. Press **Call/Enter/Setup** button to save entry and move to the next setup programming mode.

CTCSS Code Number



VOX Mode On/Off

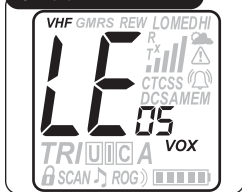


Voice Activated Transmit (VOX) Mode

The **VOX Mode On or Off** and **VOX Sensitivity Level** setup procedures are the next two settings in **GMRS Mode Programming**. Follow the same procedures on page 44, in **Marine (VHF) Setup Programming**, to set these functions.

After these two settings have been made, press **Call/Enter/Setup** button to save each entry and move to the next setup programming mode.

VOX Level

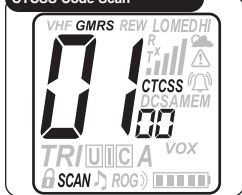


Setup Mode Programming

CTCSS and DCS Code Scan Mode

This mode will allow you to scan for all incoming audio **CTCSS** and **DCS** coded signals.

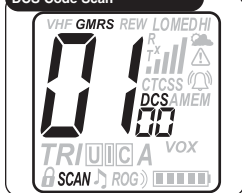
CTCSS Code Scan



To Set CTCSS Code Scan:

1. Display will show current **CTCSS** working channel. **CTCSS** and **SCAN** icons and small digit **CTCSS Code** number will be flashing. **DCS** is not active during **CTCSS** operation.
2. Press **Channel Up/Down** button to start **CTCSS Code** number scan.
3. If there is no input activity within five (5) seconds, **CTCSS Code** scan will automatically continue.
4. When a valid **CTCSS Code** is detected, the radio will stop scanning and open a path to the incoming **CTCSS** audio transmission. This connection will continue for as long as the signal is present. When the audio transmission ends, the **CTCSS Code Scan** will resume after five (5) seconds.
5. Press **Call/Enter/Setup** button to save entry and move to the next setup programming mode.

DCS Code Scan



To Set DCS Code Scan:

1. Display will show current **DCS** working channel. **DCS** and **SCAN** icons and small digit **DCS Code** number will be flashing. **CTCSS** is not active during **DCS** operation.
2. Press **Channel Up/Down** button to start **DCS Code** number scan.
3. If there is no input activity within five (5) seconds, the **CTCSS Code** scan will automatically continue.
4. When a valid **DCS Code** is detected, the radio will stop scanning and open a path to the incoming **DCS** audio transmission. This connection will continue for as long as the signal is present. When the audio transmission ends, the **DCS Code Scan** will resume after five (5) seconds.
5. Press **Call/Enter/Setup** to save entry and move to the next setup programming mode.

VibrAlert® Mode, Call Tone Mode, Roger Beep Mode and Key Tone Mode

The **VibrAlert®**, **Call Tone**, **Roger Beep** and **Key Tone** setup procedures are the next four (4) settings in **GMRS Mode Programming**. Follow the same procedures on pages 47 through 49, in **Marine (VHF) Setup Programming**, to set these functions.

After these four (4) settings have been made, press **Call/Enter/Setup** button to save each entry and move to the next setup programming mode.

You have now ended **GMRS Setup** programming mode and will enter **GMRS Standby** mode.

Weather (WX) Alert Mode Programming

Programming these features will allow your radio to listen to all NOAA Hazard Alert radio channels. In this process, you will be programming the channel settings for the “Specific Area Message Encoding (SAME)” and “Emergency Alert Messages” sent by NOAA. See channels and frequencies listed on page 31.

Start from **WX Alert Standby** mode to begin **WX Alert Setup** programming. Press and hold the **Call/Enter/Setup** button for two (2) seconds to enter the programming mode.

To Set WX Alert On or Off:

1. **WX Alert** mode is the first mode that begins **WX Alert Setup** programming.
2. Display will show **WX Alert** icon and **ON** or **OFF** flashing.
3. Press **Channel Up/Down** button to select **ON** or **OFF**.
4. Press **Call/Enter/Setup** button to save this entry and move to the next setup programming mode.

To Set WX Auto Search (SCAN) On or Off:

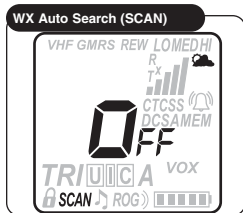
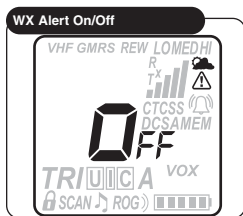
1. Display will show **WX Alert** icon and **SCAN, ON** or **OFF** is flashing.
2. Press **Channel Up/Down** button to select **SCAN, ON** or **OFF**.
3. Press the **Call/Enter/Setup** button to save entry.



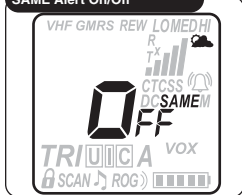
NOTE

When **WX Auto Search (SCAN)** is set to On, weather channel scanning will start automatically and scan all available weather channels until the strongest channel is found. This will happen under the following conditions:

- **WX Alert** is engaged.
- Radio is in **VHF Standby**.
- **WX** received signal level falls below a preset level.
- Radio is in **Power Saver** mode.



SAME Alert On/Off



To Set Specific Area Message Encoding (SAME) Alert On or Off:

SAME is an advanced weather alert feature. Leave this set to **OFF** if you are not sure about your understanding of its operation.

1. Display will show **SAME** icon and **ON** or **OFF** will be flashing.

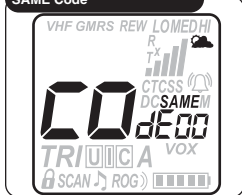


NOTE

If **SAME Alert** is turned On, the **WX Alert** will be turned Off automatically.

2. Press **Channel Up/Down** button to select **ON** or **OFF**.
3. Press **Call/Enter/Setup** button to save selection and move to the next setup programming mode.

SAME Code



To Set SAME FIPS Code Location

1. Display will show **CoDe**, not flashing. **SAME** icon is flashing along with the two (2) digits to the right of **CoDe**.
2. Press **Channel Up/Down** button to select channel number.



NOTE

Ten channel locations are available (00-09).

3. Press and release the **Call/Enter/Setup** button to enter geographic weather locations as identified by **FIPS** (Federal Information Processing System) area in the United States.



NOTE

FIPS codes identify geographic areas in the United States as shown on the Internet website:
www.census.gov/datamap/flipslist/allst.txt .

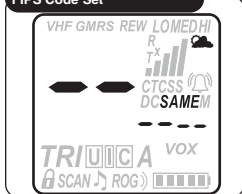
4. The display will show “-----,” or last entered **FIPS** code. One (1) digit in display will be flashing.
5. Press **Channel Up/Down** button to select first digit.
6. Press and release **Call/Enter/Setup** button to advance to next digit code. Press and release **MEM/ESC** button to back up. Repeating, press and release of the **MEM/ESC** button, will back up to the top level.
7. Continue steps 5 and 6 until all six (6) digits are entered.
8. Press and release **Call/Enter/Setup** button to save entry.

The code is now saved to one of the 10 allowed in memory and it is turned On. When the words “Code 01” are shown, then you can choose to have this code set to **ON** or **OFF**.

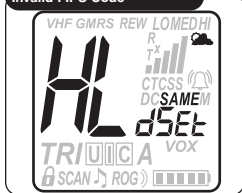
9. Press and hold **Call/Enter/Setup** button to toggle between active and non-active status of **FIPS** codes. If the display changes from the **FIPS** code entered to **HLdSEt**, the **FIPS** code entered is not an active **FIPS** code. Try entering the **FIPS** code again.
10. Press **MEM/ESC** from **SAME Location** screen (example: Code 01) to save setting.

You have now ended **WX Alert Setup** programming mode and will enter **WX Alert Standby** mode.

FIPS Code Set



Invalid FIPS Code



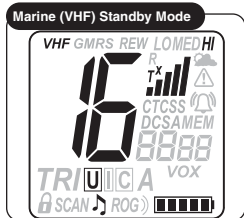
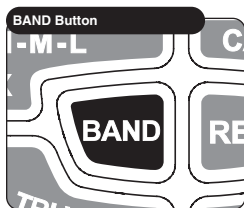
Standby/Receive and Transmit

Marine (VHF), GMRS and WX Alert Standby Band Selections

The **BAND** button allows you to quickly toggle between the **Marine (VHF)**, **GMRS** and **WX Alert Standby** bands.

To Make a Band Selection:

Press **BAND** button to toggle between the **Marine (VHF) Standby**, **GMRS Standby** or **WX Alert Standby** bands.



Marine (VHF) Standby Mode

Marine Standby mode is the default mode for the radio whenever it is turned On. From this mode, you can change current settings by becoming familiar with the different key functions. While in **Marine Standby** mode, the user will be able to **Transmit (Tx)** by pressing the **Push to Talk (Talk)** button. Signals in **Receive (Rx)** mode will be received on the selected channel(s).

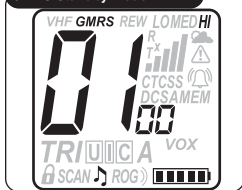


NOTE

Coast Guard alerts are broadcast on Channel 16 and you need to have the **WX Alert** or **SAME** turned On to receive NOAA weather alerts. While in **Marine Standby** mode, you will receive any messages sent on the channel to which you are tuned.

Standby/Receive and Transmit

GMRS Standby Mode



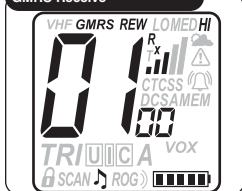
GMRS Standby Mode

The **GMRS** (General Mobile Radio Service) **Standby** feature is a land-mobile service available for short-distance, two-way communications in the USA. You must have a valid FCC license to communicate on these channels (see page 28).

While in **GMRS Standby** mode, the user will be able to **Transmit (Tx)** by pressing the **Push to Talk (Talk)** button. Signals in **Receive (Rx)** mode will be received on the selected channel(s).

When in **GMRS Standby** mode, the radio has the ability to receive calls as well as transmit calls.

GMRS Receive

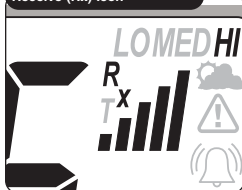


NOTE

As **GMRS** channels are scrolled, you will see **CTCSS** or **DCS** icons displayed on the LCD screen if the codes have been previously programmed. You will only hear transmissions from other radios with the equivalent subcodes programmed.

When a transmission is received, the following icons will be displayed.

Receive (Rx) Icon

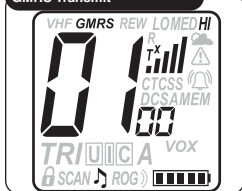


■ Receive (Rx) Icon

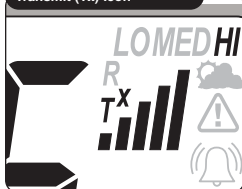
■ Bar Graph Icon

Standby/Receive and Transmit

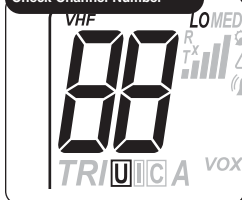
GMRS Transmit



Transmit (Tx) Icon



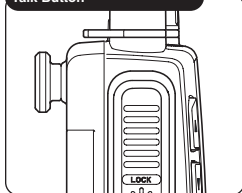
Check Channel Number



Low Power Mode



Talk Button



Transmit (Tx) and Receive (Rx) Modes

Transmit (Tx) and **Receive (Rx)** modes gives you the ability to interact with other **GMRS** radios. When you use this capability, be sure to follow the procedures and to observe the courtesies that govern its use so everyone benefits. (See pages 18 through 27) to help you select the proper channels.

When a talk transmission occurs, the following icons will be displayed.

■ Transmit (Tx) Icon

■ Bar Graph Icon

To Transmit a Message:

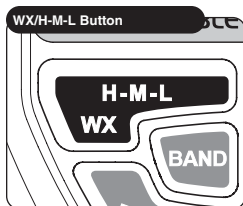
1. Check to see that your radio is set to a proper channel for the type of message you plan to send.
2. Toggle to the **Low Power** setting.
3. With the microphone about 2 in. [5 cm] from your mouth, press and hold the **Talk** button and speak into the microphone. The **Tx** icon will appear on the LCD.
4. Release the **Talk** button when you are finished speaking. Your radio can only operate in either **Transmit (Tx)** or **Receive (Rx)** mode at any given time. You will not hear the response to your message unless the **Talk** button is released. If the **Battery Power** icon begins blinking on the LCD when the **Talk** button is pressed, the radio will NOT transmit.



NOTE

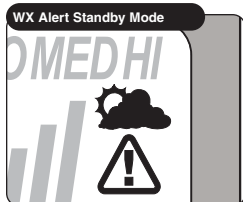
If the **Talk** button is held down for five (5) minutes, the radio will automatically sound a series of beeps and cease transmitting to prevent unwanted signal generation and battery drain. As soon as the **Talk** button is released, it can be pressed again to resume transmission.

Standby/Receive and Transmit



Weather (WX) Standby Mode

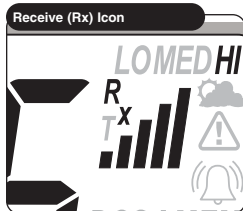
To enter the **WX Standby** mode, press and hold the **WX/H-M-L** button. All common operating functions of the radio will work the same in **WX Standby** mode as they do in the normal **Marine** and **GMRSS Standby** modes.



WX Alert Standby Mode

NOAA broadcasts weather information as described in the NOAA weather channels section on page 31 of this manual. When NOAA broadcasts a weather alert signal and your radio is in **WX Alert Standby** mode, the following items will be displayed on the LCD display:

- The **WX** icon (cloud/sun) icon will be displayed.
- The last used weather channel will be displayed.
- The bar graph will display received signal strength level.
- The **WX Alert** icon (safety triangle) will be displayed).



NOTE

Only one (1) or two (2) of the weather channels will be operating in any given location (only in **Receive (Rx)** mode). You will need to select the channel with the strongest signal in your location.

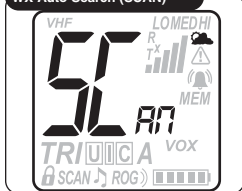


NOTE

When in the **WX Alert** mode, and NOAA sends the 1050Hz alert tone, the radio will sound a series of loud beeps regardless of the volume control setting.

Standby/Receive and Transmit

WX Auto Search (SCAN)



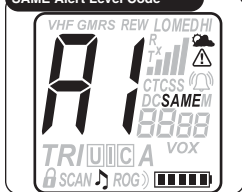
WX Auto Search (SCAN) Mode Function:

The purpose of the **WX Auto Search (SCAN)** function is to enable the receiver to automatically scan for an active **WX** channel under the following conditions:

1. **WX Auto Search (SCAN)** function is On.
2. **WX Alert** or **SAME** is On (one or the other but not both).
3. The radio is tuned to a **Marine VHF** channel and has entered **Power Save** mode (meaning there is no signal activity or user input for 10 seconds).
4. The radio software has detected that the current **WX** channel signal level has dropped below a preset minimum level or is gone completely.

Once these conditions have been met, the software will then scan the **WX** channels looking for an active **WX** channel. When an active **WX** channel is found it will stop the scan and use the new **WX** channel to look for the standard 1050Hz alert tone or **SAME** data depending on **WX** setup.

SAME Alert Level Code



SAME Alert Level Codes

There are four (4) alert level codes that provide important active weather information. These alert codes are checked against the **FIPS** codes location list. When proper “Alert” conditions are met, the radio will switch to the **WX Alert** mode on the **WX Alert** channel and sound an alarm.

**NOTE**

When the alarm sounds, the display will show the **Alert** icon, **SAME** letter icons and **SAME Alert** letter/numbers flashing.

Alert Level Codes:

- A1 = Warning** – Those events that pose a significant threat to public safety and/or property. The probability of occurrence and location is high and the onset time is relatively short.
- A2 = Watch** – Events that meet the classification of **Warning** (above), but either the onset time, probability of occurrence or location is uncertain.
- A3 = Statement** – A message containing follow up information to a **Warning** or **Watch**.
- A4 = Test** – Brief Voice text of the weekly test describing the service provided, area covered, and application of the warning alarm tone and NWR SAME code. These tests normally occur on Wednesday between 11 a.m. and 1 p.m. local time with some variations to accommodate local requirements.

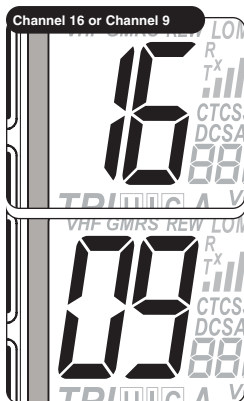
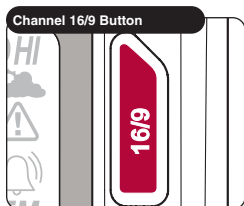
Advanced Operation

Channel 16/9 Mode

Channel 16/9 mode gives you quick access to calling Channel 16 and Channel 9 from any operational mode.

To Switch to Channel 16 or Channel 9:

1. Press the **Channel 16/9** button to change to Channel 16.
2. Press the **Channel 16/9** button again to change to Channel 9.
3. Press the **Channel 16/9** button a third time and return to the last used **Standby** channel.



Tri-Watch Mode

Tri-Watch mode gives you one (1) button access to scan a total of three (3) channels of most importance to you. Channel 16 is preprogrammed for you and will always be one (1) of the scanned locations. Two (2) other channels of your choice can be stored in the radio. These channels can be edited and/or recalled for future engagements of the **Tri-Watch** mode. **Tri-Watch** will function in **Marine** and **GMRS Standby** modes.



NOTE

The radio must be squelched for **Tri-Watch** mode to function. See page 40 for **Squelch** procedure.

To Program or Edit the Tri-Watch Locations:

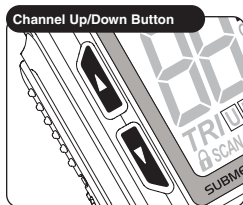
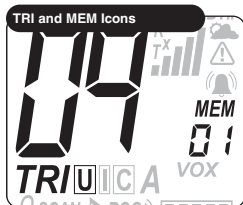
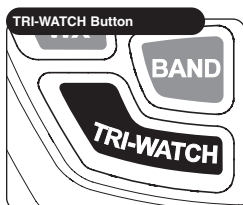
1. Press and hold the **TRI-WATCH** button for two (2) seconds to activate **Tri-Watch Setup** mode. The **TRI** and **MEM** icons on the display will turn On.

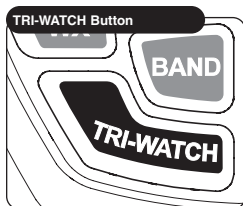


NOTE

The main channel number will flash to indicate channel position. If there is no input activity for 15 seconds, the radio will sound two (2) beeps and return to **Marine** or **GMRS Standby** mode.

2. Press **BAND** button to select **Marine** or **GMRS** for the first **Tri-Watch** programmable channel.
3. Press **Channel Up/Down** button to select the desired **Tri-Watch** channel.
4. Press and release **TRI-WATCH** button or **Call/Enter/Setup** button to confirm entry.
5. Repeat steps 2 through 4 to select second **Tri-Watch** programmable channel. The radio will scan Marine Channel 16 plus two (2) other selected channels in **Marine** or **GMRS** bands.
6. After programming both **Tri-Watch** memory channels the radio will immediately engage **Tri-Watch** mode.





Using Tri-Watch

Tri-Watch Scan Mode:

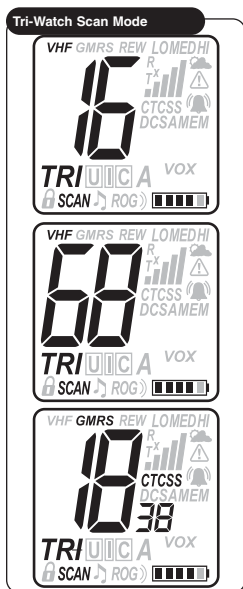
1. From **Marine** or **GMRS Standby** mode, press the **TRI-WATCH** button. The **TRI** icon will appear on the LCD display and the radio will scan through the three (3) **Tri-Watch** memory channels.
2. A signal on any one (1) of the three (3) channels will stop the scan for 10 seconds to allow you to listen to the traffic on that location.

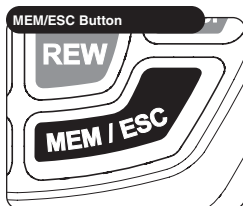


NOTE

After the **Tri-Watch** scan stops to monitor a channel, as long as you do not press any buttons within 10 seconds, your radio will automatically resume scanning the **Tri-Watch** channels.

3. Press the **Channel Up/Down** button to resume scanning the **Tri-Watch** channels or to change the scan direction.
4. To **EXIT** the **Tri-Watch** scan, press the **TRI-WATCH** button again. The **TRI** icon will disappear from the LCD and the radio will return to **Marine** or **GMRS Standby** mode.



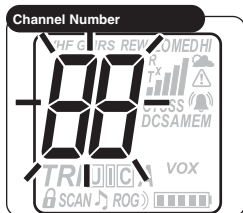
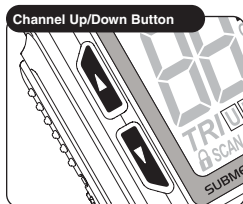
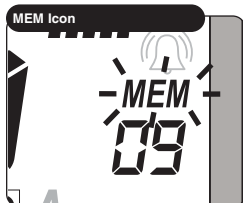
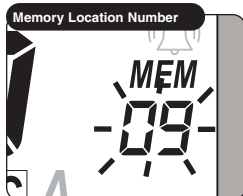


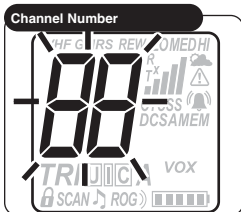
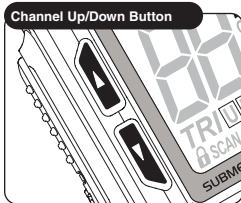
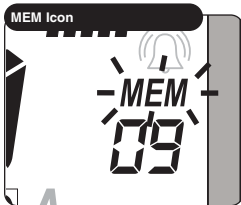
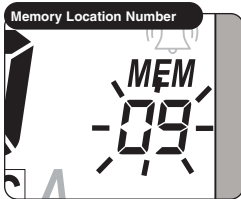
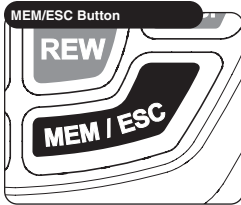
Memory Locations

Your radio has unlimited memory locations for storing your most frequently used channels. These memory locations can be selected individually or can be scanned. (See page 69 under **Memory Location Scan**.) You are also able to change bands for memory locations and scanning, allowing an unlimited amount of choice selection.

To Program Memory Locations:

1. Press and hold the **MEM/ESC** button for two (2) seconds. The **Memory** location number will start flashing and the **MEM** icon will be turned On.
2. Use the **Channel Up/Down** button to advance to the **Memory** location (00-99) you want to program.
3. Press the **MEM/ESC** button to select the **Memory** location. The **Memory** channel number will stop flashing and the channel number will start flashing.
4. Use the **Channel Up/Down** button to change to the channel you want to store into the selected **Memory** location.
5. Press the **MEM/ESC** button to program that channel. The **Memory** location number will flash again.
Repeat steps 2 through 5 to program as many additional memories as you want.
6. Press and hold the **MEM/ESC** button for two (2) seconds. This will return the radio to the **Memory** mode.
7. Press and release the **MEM/ESC** button again to return to the **Marine** or **GMRS Standby** mode.





To Recall a Stored Memory Location:

1. Press the **MEM/ESC** button. The **MEM** icon will be turned On.
2. Press the **Channel Up/Down** button to select the memory location. If a memory location has been programmed, its associated channel will display on the LCD. Your radio is now in **Marine** or **GMRS Standby** mode on the selected memory location.



NOTE

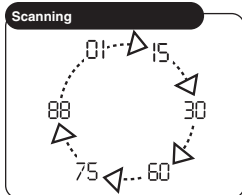
In addition to using the **Channel Up/Down** button when selecting your memory channel, you can use the **BAND** button to select channels in the **GMRS** band.

To Exit Memory Location Mode:

Press the **MEM/ESC** button to return the radio to the **Marine** or **GMRS Standby** mode. The last channel used in **Marine** or **GMRS Standby** mode will now be displayed on the LCD and the **MEM** icon will disappear.

To Erase Stored Memory Locations:

1. Press and hold the **MEM/ESC** button for two (2) seconds. The memory location number will start flashing and the **MEM** icon will be turned On.
2. Use the **Channel Up/Down** button to advance to the memory location you want to erase.
3. Press the **MEM/ESC** button to select the memory location. The memory channel number will stop flashing and the channel number will start flashing.
4. Use the **Channel Up/Down** button to change to the channel to read "00" at the selected memory location.
5. Press the **MEM/ESC** button to erase that channel. Repeat steps 2 through 5 to erase as many additional memories as you want.
6. Press and hold the **MEM/ESC** button for two (2) seconds. This will return the radio to **Memory** mode.
7. Press and release the **MEM/ESC** button again to return to **Marine** or **GMRS Standby** mode.



Channel Scan Mode

During **Channel Scan** mode, the radio will rapidly switch from channel to channel through all the channels. Whenever any activity is detected, the radio will stop the scan for 10 seconds to allow you to listen briefly on that channel. The radio will then continue to scan unless you switch out of the **Channel Scan** mode. The radio will perform normal scanning operations from either **Marine (VHF)** mode or **GMRS** mode, but it will only scan in that band.



NOTE

The radio must be squelched for the **Channel Scan** mode to function. See page 40 for **Squelch** procedure.

To Enter Channel Scan:

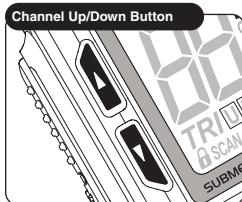
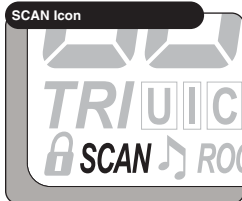
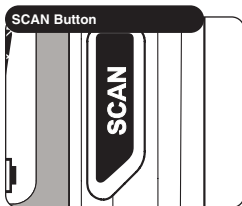
1. From **Marine** or **GMRS Standby** mode, press the **SCAN** button. The radio will immediately begin to scan the entire channel map selected in the active channel map. The **SCAN** icon will show on the LCD.
2. A signal on any channel will stop the scan for 10 seconds to allow you to listen to the traffic on that location.



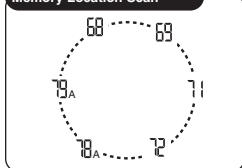
NOTE

After the channel scan stops to monitor a channel, as long as you do not press any buttons within 10 seconds, your radio will automatically resume scanning the **Channel Scan** channels.

3. Press the **Channel Up/Down** button to resume scanning the **Channel Scan** channels or to change the scan direction.
4. To **EXIT Channel Scan** mode, press the **SCAN** button again. The **SCAN** icon will disappear from the LCD and the radio will return to **Marine** or **GMRS Standby** mode.



Memory Location Scan



Memory Location Scan

During **Memory Location Scan** mode, the radio will rapidly scan through all pre-assigned memory channels. Whenever any activity is detected on a channel, the radio will stop the scan for 10 seconds to allow you to listen briefly on that channel. It will then continue to scan unless you switch out of **Memory Location Scan** mode.



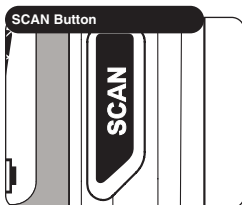
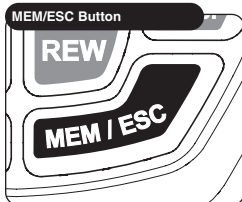
NOTE

The radio must be squelched for the **Memory Location Scan** mode to function. See page 40 for **Squelch** procedure.



NOTE

If there are fewer than two (2) **Memory** locations programmed in the radio, the **Memory** location scan option will not be available. To program at least two (2) memory locations, see page 66.



To Enter Memory Location Scan:

1. From **Marine** or **GMRS Standby** mode, press the **MEM/ESC** button.
2. Press the **SCAN** button. The radio will immediately begin to scan all pre-assigned memory channels. The **SCAN** and **MEM** icons will show on the LCD.
3. A signal on any channel will stop the scan for 10 seconds to allow you to listen to the traffic on that location.



NOTE

After the **Memory Location Scan** stops to monitor a channel, as long as you do not press any buttons within 10 seconds, your radio will automatically resume scanning the **Memory Location Scan** channels.

4. Press the **Channel Up/Down** button to resume scanning the **Memory Location Scan** channels or to change the scan direction.
5. To EXIT **Memory Location Scan** mode, press the **SCAN** button again. The **SCAN** and **MEM** icons will disappear from the LCD and the radio will return to **Marine** or **GMRS Standby** mode.

Rewind-Say-Again™



Rewind Button



Rewind-Say-Again™ Feature

Use the Cobra exclusive **Rewind-Say-Again™** feature to replay or record the last 20 seconds of an incoming audio transmission.

Example 1:

When engine noise, music or conversation creates too much noise to hear an inbound message clearly, press the **REW** button to hear the message a second time.

Example 2:

When listening to an urgent distress message of an excited caller with confusing background noise, press the **REW** button to hear the message a second time and get life saving information. Use this feature to record call details including position coordinates, call signs, registration numbers and store details that will help authorities locate the distressed vessel.

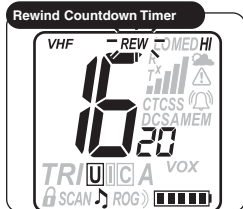
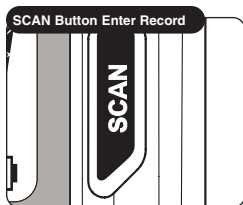


NOTE

Hold in the **Rewind** button to turn the recording mode Off and save the currently recorded transmission.

Using Rewind-Say-Again™

1. During audio transmission, press **REW** button to listen to 20 seconds of the last recorded audio transmission. The **REW** icon will flash during the playing back of the message and a 20-second countdown begins.
2. Press the **TALK**, **REW** or **MEM/ESC** button during playback to stop the playback transmission. The radio returns to **Marine** or **GMRS Standby** mode.



Using Rewind-Say-Again™ to Record Audio Transmission

1. Press and hold **SCAN** button for two (2) seconds to enter Record mode.
2. Press and hold **Talk** button to begin recording from radio microphone. If **Talk** button is released, recording stops. While recording, a 20-second countdown begins on display. When 20-second countdown time has ended, recording stops and two (2) beep tones will be heard.
3. Press and hold the **SCAN** button again for two (2) seconds or press **MEM/ESC** button to cancel recording and return to last operation.



NOTE

When using radio in **Record** mode, the **REW** feature is turned Off to prevent “recording over” previous message.

Maintenance

Very little maintenance is required to keep your CobraMarine VHF/GMRS radio in good operating condition:

- Keep the radio and charger clean by wiping with a soft cloth and mild detergent. Do not use solvents or harsh or abrasive cleaners, which could damage the case or scratch the LCD screen.
- If the radio is exposed to salt water, wipe with a soft, moist cloth at least once a day to prevent buildup of salt deposits, which could interfere with button operation.
- If the radio will be stored for a long period, such as over the winter, remove the batteries from the battery tray and store them in a separate package. This is especially important if you are using alkaline batteries.

Troubleshooting

Problem	Possible Cause(s)	Solution(s)
No display on LCD when radio is turned On	Battery pack is exhausted	Recharge or replace battery pack
Will transmit at 1 watt, but not at 5 watts	Battery pack low	Recharge or replace battery pack
	Selected channel is limited to 1 watt	Switch to another channel
Will not transmit	Selected channel is limited to receive only	Switch to another channel
No sound from speaker	Volume level is too low or squelch level is too deep	Re-adjust volume and squelch
No response to button press	Key lock is On	Press Backlight/Key Lock button
No answer to calls	Out of range of other station	Switch to 3 or 5 watts or move closer
	Signal is blocked by terrain	Move until you have a "line-of-sight" to the other station



Specifications

General	
Number of Channels	All U.S., Canadian, and International 10 NOAA Weather Channels, 23 GMRS Channels
Channel Spacing	VHF - 25 kHz Max., GMRS - 12.5 kHz
Modulation	VHF - 5 kHz Max., GMRS - 2.5 kHz
Input Voltage	7.2 VDC
Battery Life: 5% TX, 5% RX, 90% Stand-by	Lithium-ion: 14 hrs @ 5 watts, 23.5 hrs @ 1 watt; Alkaline: 20 hrs @ 5 watts, 35 hrs @ 1 watt
Current Drain: Stand-by Receive Transmit	40 mA 200 mA 1.8 A @ High power 700 mA @ Low Power
Temperature Range	-20°C to 50°C
Radio Dimensions	4.8 in. x 2.4 in. x 1.4 in. (123 mm x 62 mm x 36 mm) not including antenna
Radio Weight	0 lbs 8 oz. (228 g) without batteries
Receiver	
Frequency Range	VHF 156.050 to 163.275 MHz GMRS 462.5500 to 467.7125 MHz
Receiver Type	Double Conversion Super-Heterodyne
Sensitivity: 20 dB Quieting 12 dB Sinad	0.35 μ V 0.30 μ V
Adjacent Channel Selectivity	-60 dB
Intermodulation and Rejection	-60 dB
Spurious and Image Rejection	-60 dB
AF Output	250 mW @ 8 Ohms
Transmitter	
Frequency Range: TX	VHF 156.025 to 157.425 MHz GMRS 462.5500 to 467.7125 MHz
RF Output Power	1, 3 and 5 watts
Spurious Emissions	-60 dB @ High Power, -55 dB @ Low Power
Microphone Type	Condenser
Frequency Stability	+/-10 ppm
FM Hum and Noise	40 dB

Limited 3-Year Warranty

For Products Purchased In The U.S.A.

Cobra Electronics Corporation warrants that its CobraMarine VHF/GMRS radio, and the component parts thereof, will be free of defects in workmanship and materials for a period of three (3) years from the date of first consumer purchase. This warranty may be enforced by the first consumer purchaser, provided that the product is utilized within the U.S.A.

Cobra will, without charge, repair or replace, at its option, defective radios, products or component parts upon delivery to the Cobra Factory Service department, accompanied by proof of the date of first consumer purchase, such as a duplicated copy of a sales receipt.

You must pay any initial shipping charges required to ship the product for warranty service, but the return charges will be at Cobra's expense, if the product is repaired or replaced under warranty. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Exclusions: This limited warranty does not apply:

1. To any product damaged by accident.
2. In the event of misuse or abuse of the product, or as a result of unauthorized alterations or repairs.
3. If the serial number has been altered, defaced, or removed.
4. If the owner of the product resides outside the U.S.A.

All implied warranties, including warranties of merchantability and fitness for a particular purpose are limited in duration to the length of this warranty. Cobra shall not be liable for any incidental, consequential or other damages; including, without limitation, damages resulting from loss of use or cost of installation.

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

For Products Purchased Outside The U.S.A.

Please contact your local dealer for warranty information.

Trademark Acknowledgement

Cobra®, CobraMarine®, Nothing Comes Close to a Cobra®, VibrAlert® and the snake design are registered trademarks of Cobra Electronics Corporation, USA.

Cobra Electronics Corporation™ and Rewind-Say-Again™ are trademarks of Cobra Electronics Corporation, USA.



Product Service

If you have any questions about operation or installing your new CobraMarine VHF/GMRS product or if you are missing parts...

**Please call Cobra first! DO NOT RETURN THIS PRODUCT TO THE STORE!
See customer assistance on page A1.**

If your product should require factory service, please call Cobra first before sending your radio. This will ensure the fastest turn-around time on your repair. You may be asked to send your radio to the Cobra factory. It will be necessary to furnish the following to have the product serviced and returned:

1. For warranty repair, include some form of proof-of-purchase, such as a photocopy of a sales receipt. If you send the original receipt, it cannot be returned.
2. Send the entire product.
3. Enclose a description of what is happening with the radio. Include a typed or clearly printed name and address of where the radio is to be returned.
4. Pack radio securely to prevent damage in transit. If possible, use the original packing material.
5. Ship prepaid and insured by way of a traceable carrier such as United Parcel Service (UPS) or Priority Mail to avoid loss in transit to: Cobra Factory Service, Cobra Electronics Corporation, 6500 West Cortland Street, Chicago, Illinois 60707 U.S.A.
6. If the radio is in warranty, upon receipt of your radio, it will either be repaired or exchanged depending on the model. Please allow approximately three (3) to four (4) weeks before contacting Cobra for status. If the radio is out of warranty, a letter will automatically be sent informing you of the repair charge or replacement charge.
7. If your radio is returned for factory repair, it will be returned to you with default settings restored.

If you have any questions, please call 773-889-3087 for assistance.

Accessories

Additional accessories for your Cobra radio can be purchased separately. Each accessory will enhance the use of the radio and also offer convenience to the end user.

Lapel Speaker Microphone



Lapel Speaker Microphone

A speaker microphone, that attaches to your lapel, by ordering P/N CM 330-001.

This unique accessory allows you to wear the radio while still being able to communicate with other vessels. A small **Push to Talk** button on the lapel speaker/microphone allows you to answer any incoming call.