



VHF Marine Channel Assignments

Channel Number	Channel Map			Frequency		Power Limits
	USA	Int'l	Canada	Transmit	Receive	
18		•		156.900	161.500	
18A	•		•	156.900	156.900	
19		•		156.950	161.550	
19A	•		•	156.950	156.950	
20	•	•	•	157.000	161.600	1 watt CAN
20A	•			157.000	157.000	
21		•	•	157.050	161.650	
21A	•		•	157.050	157.050	
22		•		157.100	161.700	
22A	•		•	157.100	157.100	
23		•	•	157.150	161.750	
23A	•			157.150	157.150	
24	•	•	•	157.200	161.800	
25	•	•	•	157.250	161.850	
26	•	•	•	157.300	161.900	
27	•	•	•	157.350	161.950	
28	•	•	•	157.400	162.000	
60		•	•	156.025	160.625	
61		•		156.075	160.675	
61A	•		•	156.075	156.075	
62		•		156.125	160.725	
62A			•	156.125	156.125	



VHF Marine Channel Assignments

Channel	Use
18	Port Operations, Ship Movement
18A	Commercial
19	Port Operations, Ship Movement
19A	Commercial
20	Canada (Coast Guard Only); International (Port Operations, Ship Movement)
20A	Port Operations
21	Port Operations, Ship Movement
21A	U.S. (Government Only); Canada (Coast Guard Only)
22	Port Operations, Ship Movement
22A	U.S. and Canadian Coast Guard Liaison and Maritime Safety Information Broadcasts that are announced on Channel 16
23	Public Correspondence (Marine Operator)
23A	Government Only
24	Public Correspondence (Marine Operator)
25	Public Correspondence (Marine Operator)
26	Public Correspondence (Marine Operator)
27	Public Correspondence (Marine Operator)
28	Public Correspondence (Marine Operator)
60	Public Correspondence (Marine Operator)
61	Public Correspondence (Marine Operator), Port Operation, Ship Movement
61A	U.S. (Government Only); Canada (Coast Guard Only); West Coast (Coast Guard Only); East Coast (Commercial Fishing)
62	Public Correspondence (Marine Operator), Port Operations, Ship Movement
62A	West Coast (Coast Guard Only); East Coast (Commercial Fishing)



VHF Marine Channel Assignments

Channel Number	Channel Map			Frequency		Power Limits
	USA	Int'l	Canada	Transmit	Receive	
63		•		156.175	160.775	
63A	•			156.175	156.175	
64		•	•	156.225	160.825	
64A	•		•	156.225	156.225	
65		•		156.275	160.875	
65A	•		•	156.275	156.275	
66		•		156.325	160.925	
66A	•		•	156.325	156.325	1 watt CAN
67	•	•	•	156.375	156.375	1 watt USA
68	•	•	•	156.425	156.425	
69	•	•	•	156.475	156.475	
70	•	•	•	RX only	156.525	
71	•	•	•	156.575	156.575	
72	•	•	•	156.625	156.625	
73	•	•	•	156.675	156.675	
74	•	•	•	156.725	156.725	
75		•		156.775	156.775	1 watt Only Int.
76		•		156.825	156.825	1 watt Only Int.
77	•	•	•	156.875	156.875	1 watt USA and CAN



VHF Marine Channel Assignments

VHF Marine Radio Protocols

Channel	Use
63	Public Correspondence (Marine Operator), Port Operations, Ship Movement
63A	Port Operations and Commercial, VTS in selected areas
64	Public Correspondence (Marine Operator), Port Operations, Ship Movement
64A	U.S. (Government Only); Canada (Commercial Fishing)
65	Public Correspondence (Marine Operator), Port Operations, Ship Movement
65A	Port Operations
66	Public Correspondence (Marine Operator), Port Operations, Ship Movement
66A	Port Operations
67	U.S. (Commercial). Used for bridge-to-bridge communications in lower Mississippi River (Intership Only); Canada (Commercial Fishing), S&R
68	Non-Commercial (Recreational)
69	U.S. (Non-Commercial, Recreational); Canada (Commercial Fishing Only); International (Intership, Port Operations, Ship Movement)
70	Digital Selective Calling (Voice communications not allowed)
71	U.S. and Canada (Non-Commercial, Recreational); International (Port Operations, Ship Movement)
72	Non-Commercial (Intership Only)
73	U.S. (Port Operations); Canada (Commercial Fishing Only); International (Intership, Port Operations, Ship Movement)
74	U.S. (Port Operations); Canada (Commercial Fishing Only); International (Intership, Port Operations, Ship Movement)
75	Port Operations (Intership Only)
76	Port Operations (Intership Only)
77	Port Operations (Intership only). Restricted to communications with pilots for movement and docking of ships.



VHF Marine Channel Assignments

Channel Number	Channel Map			Frequency		Power Limits
	USA	Int'l	Canada	Transmit	Receive	
78		•		156.925	161.525	
78A	•		•	156.925	156.925	
79		•		156.975	161.575	
79A	•		•	156.975	156.975	
80		•		157.025	161.625	
80A	•		•	157.025	157.025	
81		•		157.075	161.675	
81A	•		•	157.075	157.075	
82		•		157.125	161.725	
82A	•		•	157.125	157.125	
83		•	•	157.175	161.775	
83A	•		•	157.175	157.175	
84	•	•	•	157.225	161.825	
84A	•			157.225	157.225	
85	•	•	•	157.275	161.875	
85A	•			157.275	157.275	
86	•	•	•	157.325	161.925	
86A	•			157.325	157.325	
87	•		•	157.375	161.975	
87		•		157.375	157.375	
87A	•			157.375	157.375	
88	•		•	157.425	162.025	
88		•		157.425	157.425	
88A	•			157.425	157.425	

**NOTE**

Many of the plain-numbered channels, such as 01, 02 and 03, transmit and receive on different frequencies. This is termed “duplex operation.” The rest of the plain-numbered channels and all of the A channels, such as 01A, 03A and 04A, transmit and receive on a single frequency, which is termed “simplex operation.” Your radio automatically adjusts to these conditions. When in simplex operation, the A icon will appear on the LCD (see illustration on page A3).



VHF Marine Channel Assignments

Channel	Use
78	Public Correspondence (Marine Operator)
78A	Non-Commercial (Recreational)
79	Port Operations, Ship Movement
79A	Commercial (Also Non-Commercial only in Great Lakes)
80	Port Operations, Ship Movement
80A	Commercial (Also Non-Commercial only in Great Lakes)
81	Port Operations, Ship Movement
81A	U.S. (Government Only; Environmental Protection Operations)
82	Public Correspondence (Marine Operator), Port Operation, Ship Movement
82A	U.S. (Government Only); Canada (Coast Guard Only)
83	Canada (Coast Guard Only)
83A	U.S. (Government Only); Canada (Coast Guard Only)
84	Public Correspondence (Marine Operator)
84A	Public Correspondence (Marine Operator)
85	Public Correspondence (Marine Operator)
85A	Public Correspondence (Marine Operator)
86	Public Correspondence (Marine Operator)
86A	Public Correspondence (Marine Operator)
87	Public Correspondence (Marine Operator)
87	Public Correspondence (Marine Operator)
87A	Public Correspondence (Marine Operator)
88	Public Correspondence (Ship to Coast). In U.S. only within 75 miles of Canadian Border.
88	Commercial Intership only
88A	Commercial Intership only



NOTE

All channels are preprogrammed at the factory according to international regulations and those of the FCC (U.S.A.) and Industry Canada (Canada). They cannot be altered by the user nor can modes of operation be changed between simplex and duplex.

GMRS Communication

This GMRS (General Mobile Radio Service) 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.

The GMRS/FRS frequencies that this radio uses are set aside for communicating with others while hiking, biking, and working; keeping track of family and friends at a crowded public event; checking with travel companions in another car; talking with neighbors; arranging meeting spots with others while shopping at the mall.

Licensed users will be issued a call sign by the FCC, which should be used for station identification when operating this radio. GMRS users should also cooperate by engaging in permissible transmissions only, avoiding channel interference with other GMRS users, and being prudent with the length of their transmission time.

GMRS FCC Licensing

This two-way radio operates on GMRS (General Mobile Radio Service) frequencies which require an FCC (Federal Communications Commission) license. A user must be licensed prior to transmitting on the GMRS band with this radio. Serious penalties could result for unlicensed use of GMRS channels, in violation of FCC rules. Operation of this radio is subject to additional rules specified in 47 C.F.R. Part 95.

For licensing information and application forms, please call the FCC Hotline at 800-418-FORM. Request form #159 and form #605. Questions regarding the license application should be directed to the FCC at 888-CALL-FCC. Additional information is available on the FCC's website at www.fcc.gov.



NOTE

Even if you operate this radio on FRS (Family Radio Service) channels at low power (1 watt), you are required to have an FCC license. Because this radio operates in the 1 to 5 watt GMRS power range all GMRS rules apply and will require you have a GMRS license even for FRS (Family Radio Service) communication. Normal FRS only radios operate at a maximum power of 1/2 watt (500 milliwatt) power and have an integral (non-detachable) antenna.

GMRS/FRS Frequency Allocation and Compatibility

GMRS/FRS Frequency Allocation and Compatibility

The channel numbers in the GMRS Mode on the MR HH425LI model are designed to “match” the channels on Cobra and other GMRS radios manufactured over the last few years.

Standard GMRS/FRS Channels	MR HH425LI Channels	Service Type	Frequency (MHz)
1	1	GMRS/FRS	462.5625
2	2	GMRS/FRS	462.5875
3	3	GMRS/FRS	462.6125
4	4	GMRS/FRS	462.6375
5	5	GMRS/FRS	462.6625
6	6	GMRS/FRS	462.6875
7	7	GMRS/FRS	462.7125
8	Not Available	FRS	467.5625
9	Not Available	FRS	467.5875
10	Not Available	FRS	467.6125
11	Not Available	FRS	467.6375
12	Not Available	FRS	467.6625
13	Not Available	FRS	467.6875
14	Not Available	FRS	467.7125
15	15	GMRS	462.5500
16	16	GMRS	462.5750
17	17	GMRS	462.6000
18	18	GMRS	462.6250
19	19	GMRS	462.6500
20	20	GMRS	462.6750
21	21	GMRS	462.7000
22	22	GMRS	462.7250



NOTE

Older Cobra GMRS (non dual band) models with only 15 Channels may designate different channel numbers for the same frequency. For example, an older Cobra 15 Channel GMRS model would need to be tuned to Channel 11 in order to communicate with a 22 Channel GMRS tuned to Channel 15. Please use the manual for that product to match a frequency chart/map in this section.



NOAA Weather Channels and Alert

NOAA Weather Channels and Alert

Monitoring the weather will probably be a frequent use of your radio. NOAA provides continuous, around-the-clock broadcasts of the latest weather information. Taped weather messages run every four (4) to six (6) minutes and are revised every two (2) or three (3) hours, or as needed. The Coast Guard also announces weather and other safety warnings on Channel 16. Smart boaters keep an eye on safety and an ear to the radio — and never let the weather catch them unaware.

NOAA Emergency Weather Alert

In the event of a major storm or other weather condition requiring vessels at sea or on other bodies of water to be notified, NOAA broadcasts a 1050 Hz tone that receivers such as your CobraMarine VHF radio can detect and warn you of a weather alert condition. When the Weather Alert mode on your radio is On, this signal will produce a loud tone from the speaker in the radio and will automatically switch to the alerting weather channel so the alert broadcast can be heard.



NOAA Test Alert System

To test this system, NOAA broadcasts the 1050 Hz signal every Wednesday sometime between 11 a.m. and 1 p.m. in each local time zone. Any receiver that can detect the weather alert tone may use this service to verify that this system is functioning properly.

Weather Frequency/Channel

Channel	RX Frequency MHz	Weather Channel
1	162.550	NOAA
2	162.400	NOAA
3	162.475	NOAA
4	162.425	NOAA
5	162.450	NOAA
6	162.500	NOAA
7	162.525	NOAA
8	161.650	Canadian
9	161.775	Canadian
10	163.275	NOAA

Specific Area Message Encoding (SAME) Alerts

Specific Area Message Encoding (SAME) Alerts

The MR HH425LI radio is capable of receiving **Specific Area Message Encoding (SAME) Alerts**. During an NWR weather **SAME** alert, a code for your specific location will alert you to deteriorating weather conditions in a preprogrammed specific area or a specific event such as a Severe Thunderstorm Watch or Tropical Storm Warning. There are over 900 National Weather Radio (NWR) service stations using broadcast frequencies that transmit **SAME** alerts. You must program your county, parish or independent city or marine area into the radio.



NOTE

DO NOT program your radio for a louder or clearer station not designated as a **SAME** channel. You will not receive the local desired alerts.

The NWR service will then alert you **only** of weather and other emergencies for all areas programmed on this radio.

- When an NWR office broadcasts a warning, watch or non-weather emergency, it also broadcasts a digital **SAME** code that may be heard as a very brief static burst, depending on the characteristics of the radio. This **SAME** code contains the type of message; county(s) affected, and message expiration time.
- If programmed correctly, this radio will turn to the **WX** channel so you can listen to the NWR **SAME** message. You will hear the 1050 Hz warning alarm tone as an attention signal, followed by the broadcast message.
- At the end of the broadcast message, you will hear a brief digital end-of-message static burst followed by a resumption of the NWR broadcast cycle.



NOTE

SAME coverage areas are defined within the “NWR Broadcast Service Area” and are comprised of named counties, boroughs, metropolitan areas or portions thereof. NWR “Broadcast Service Area” coverage by State can be found at <http://www.nws.noaa.gov/nwr> or by telephone at 1-888-NWRSAME (1-888-697-7263).

The information at the following website, <http://www.nws.noaa.gov/nwr/indexnw.htm#sametable>, will help to program the **SAME** alert county codes and respective frequencies into this radio. This site also lists **SAME** code Marine zones for bounded and named water areas.

Included in this Package

Included in this Package

You should find all of the following items in the package with your CobraMarine VHF/GMRS radio:

Radio



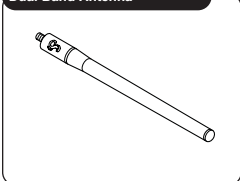
Wrist Strap



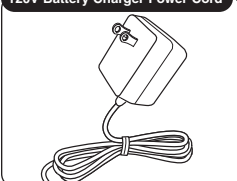
Drop-In Battery Charger



Dual Band Antenna



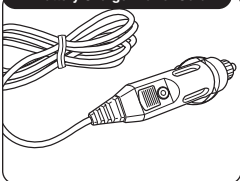
120V Battery Charger Power Cord



Lithium-Ion Battery Pack



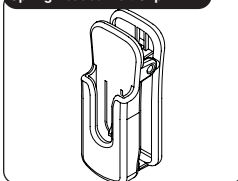
12V Battery Charger Power Cord



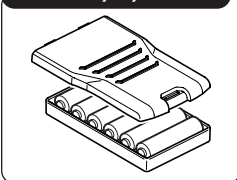
Operating Instruction Manual



Spring-Loaded Belt Clip



Alkaline Battery Tray



Antenna, Wrist Strap and Belt Clip

Antenna, Wrist Strap and Belt Clip

Install Antenna



Antenna Installation

The flexible antenna for the radio is shipped separately in the package and must be attached before you use the radio.

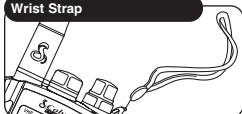
1. Align the base of the antenna with the socket in the top of the radio.
2. Screw it all the way into the socket. Be sure that the seal seats properly.



NOTICE

Operating the radio without the antenna in place may damage the unit. The radio is not waterproof until the antenna and battery pack are in place with their seals properly seated.

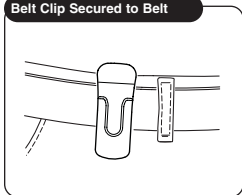
Wrist Strap



Wrist Strap

The radio comes with the wrist strap already attached. It can be easily removed if you choose not to use it.

Belt Clip Secured to Belt

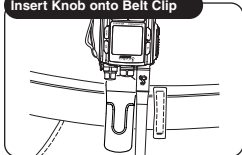


Belt Clip

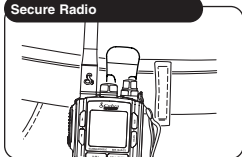
Use the spring-loaded belt clip to carry the radio on your belt.

1. Press open the belt clip, slide it over the belt and release the clip.
2. Insert the round guide on the back of the radio into the guide channel on the back of the belt clip. You must have the radio upside-down, as shown, to remove it from the belt clip.
3. Once the knob has been inserted all the way into the belt clip channel, the radio will swing freely while being securely retained.

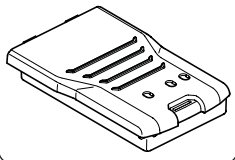
Insert Knob onto Belt Clip



Secure Radio



Batteries and Charger

Lithium-Ion Battery Pack

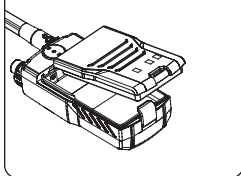
The radio is shipped with a sealed lithium-ion (LiON) battery pack (P/N CM 110-006) that is rechargeable.



WARNING

The charger provided with this radio is only to be used to charge the battery pack provided. Do Not charge any other type of batteries in the charger as fire, explosion or battery damage will occur. Avoiding extreme room temperatures will also help prolong the life of the battery pack for the radio.

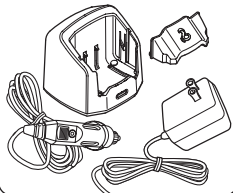
When your rechargeable batteries begin to discharge too quickly, it is time to install a new battery pack. Your radio will also operate with six (6) high-quality AA alkaline batteries, using the AA alkaline battery tray (provided with this radio).

Install Battery Pack

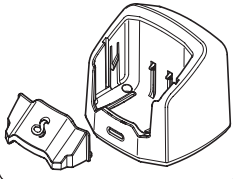
Installing the Battery Pack

1. Position the battery pack to line up the three (3) external alignment tabs to the alignment slots in the radio.
2. Engage the battery pack into the radio until battery pack is fully seated against the radio housing.
3. Pivot the locking tab up until it snaps into place on the back of the battery pack.

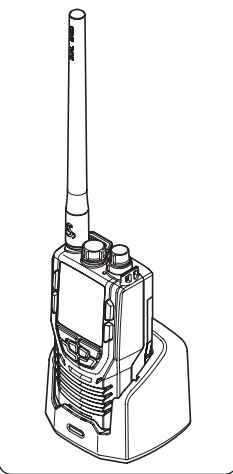
Power Sources



Remove Charger Spacer



Initial Battery Charge



Initial Charge

The Cobra-provided lithium-ion (LiION) battery pack may be charged at home, in a car or in a boat using the appropriate 12V or 120V power cord with the charger.

1. Insert one (1) of the power cords into the back of the drop-in charger.
2. Insert the other end of the power cord into the appropriate 12V or 120V power source.
3. Remove the spacer from the charger and insert the entire radio into the charger. The metal charge contacts on the radio will contact the mating prongs in the charger to transfer the charging current.
4. Observe that the red light on the front of the charger glows to indicate that the battery pack is properly seated and the charger is operating.
5. Allow the batteries to charge for three (3) to four (4) hours before use. The light will change back to green when the battery is fully charged.



WARNING

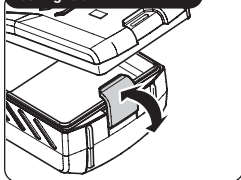
Only the rechargeable lithium-ion (LiION) battery pack can be recharged. You **MUST** use one of the charging devices provided with this radio. Do not substitute any other type of charging adapter or charger base for this radio. Battery damage, fire or explosion may result. It is equally important to prevent the lithium-ion (LiION) battery pack from freezing to obtain best performance from the battery pack.



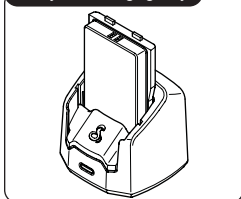
NOTE

If the drop-in charger is used on a boat, Cobra recommends you attach it to a horizontal shelf or vertical bulkhead (using the screw holes provided) to prevent possible damage due to the boat rolling or pitching. The charging base has been designed to hold the battery pack in place during rough sea conditions.

Locking Tab



Battery Pack Charging Only



Alkaline Battery Tray



To Remove Battery Pack from Radio

1. Pivot the locking tab off of the back of the battery pack to unlock.
2. Lift the bottom of the battery pack slightly to remove it from the radio housing.
3. Pull battery pack out of the radio housing.



NOTE

The lithium-ion (LiION) battery pack can also be charged in the battery charger without being installed in the radio. Insert the spacer into the battery charger to support the battery pack during this charging process. Follow the same procedures in “**Initial Charge**” to charge the battery pack.



NOTICE

Lithium-ion (LiION) batteries are toxic. Please dispose of properly. Some marine suppliers accept old battery packs for recycling and some municipal waste disposal agencies have special provisions for battery disposal.

Alkaline Batteries

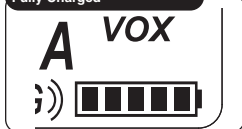
There is an alkaline battery tray (P/N CM 110-011) provided with this radio. The alkaline battery tray is provided as a backup or “Emergency” power source should the battery pack run low on power and needs to be recharged. The radio will transmit at full power when using six (6) new AA Alkaline batteries.



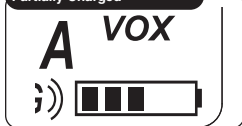
WARNING

Never attempt to recharge alkaline batteries. They are not made to be recharged, and should be disposed of in a proper manner.

Fully Charged



Partially Charged



Fully Discharged



Maintaining the Battery Charge

As you use your radio, the battery power icon will show the battery power remaining. When the icon begins to flash, it is time to recharge or change the batteries.

**NOTICE**

Use only the drop-in charger provided by Cobra. Do not use the charger with alkaline batteries; only the lithium-ion (LiION) battery pack is rechargeable. Spent alkaline batteries must be discarded and replaced.

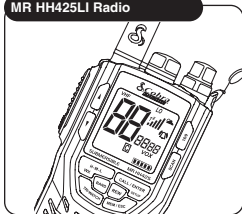
It is a good idea to keep a set of fresh, high-quality AA alkaline batteries with your radio. Should the rechargeable battery pack become discharged and no electrical power source is available, you can insert the alkaline battery tray with fresh alkaline batteries and continue to use your radio.

**NOTE**

Some radios with LiON batteries have AA or AAA battery packs which only allow low power transmit. The optional AA battery tray for the MR HH425LI and a fresh set of alkaline batteries will allow for full power emergency transmissions.

Getting Started

MR HH425LI Radio



Refer to the foldout at the front of this manual to identify the various controls and indicators on your radio. Throughout this manual you will be instructed to “Press” or to “Press and Hold” various buttons (except “Push to Talk”) on the radio. “Press” means a momentary press of approximately one (1) second. “Press and Hold” means to hold the button down for approximately three (3) seconds.

Whenever you press any button except the **Talk** button on your radio, a brief tone (beep) will sound to confirm the button press. With all button presses, the appropriate icon will appear on the LCD and the backlight will turn On. The backlight will stay on for 10 seconds after the button is released.

At times, you will hear two (2) other sounds. Two (2) beeps will sound to confirm your setting changes and three (3) beeps will sound to notify you of an error.

Common Radio Functions (All Bands)

The following procedures define common operating functions of the radio when in either **Marine Standby**, **GMRS Standby** or **Weather (WX) Standby** modes.

Power/Volume/Squelch Controls

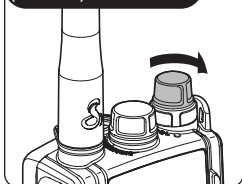
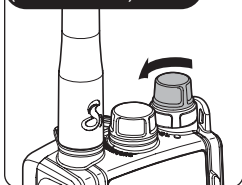
Power On/Off Control

The **On/Off/Volume** control is located at the upper right side of the radio. Turning the **On/Off/Volume** control past the detent position will turn the radio On or Off.

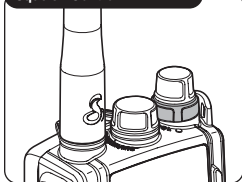
Volume Control

Volume is controlled by turning the **On/Off/Volume** control.

- To increase the volume, turn the **On/Off/Volume** control clockwise.
- To decrease the volume, turn the **On/Off/Volume** control counterclockwise.

On/Off Volume Control
(Clockwise)On/Off Volume Control
(Counterclockwise)

Squelch Control

**Squelch Control**

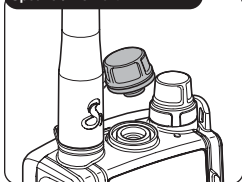
Squelch is controlled by turning the lower rotary concentric knob located directly below the **On/Off/Volume** control.

With the power On, turn the knob counterclockwise until you hear a hissing sound, then turn the knob clockwise until the hissing stops. This will establish a “Baseline” squelch. By turning the knob further in a clockwise direction, you will filter weak and medium-strength signals. By turning the knob in a counterclockwise direction (further from your baseline setting), you will receive weaker signals. **Squelch** control filters weak signals and radio frequency (RF) noise so that you will clearly hear the signals you want.

**NOTE**

If the **Squelch** control is set so that you can hear a continuous hissing sound, the **Memory Scan**, **Tri-Watch Scan**, **CTCSS Scan** and **DCS Scan** functions will be blocked.

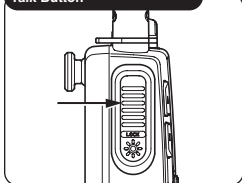
Speaker/Mic Port

**Radio Speaker and Microphone**

The internal **Radio Speaker** and **Microphone** are located on the bottom front face of the radio below the lower control buttons.

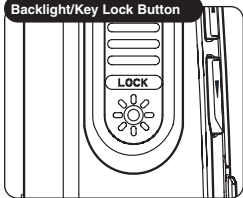
An optional **Speaker/Microphone** port is located at the top of the radio between the antenna and the **Power/Volume/Squelch** control. Unthread the **Speaker/Microphone** port cover to access and install an optional speaker or microphone into this port.

Talk Button

**Talk Button**

Press and hold the **Talk** button to transmit messages. Release the **Talk** button to stop transmitting.

Backlight/Key Lock Button



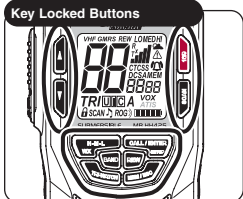
Backlight/Key Lock Button

The LCD will be illuminated by the backlight as long as any button is pressed and will remain On for 10 seconds after the button is released.

To Display the Backlight Momentarily:

Press the **Backlight/Key Lock** button. The backlight will remain On for 10 seconds. If the backlight is already On, another press of the **Backlight/Key Lock** button will turn it Off.

Key Locked Buttons

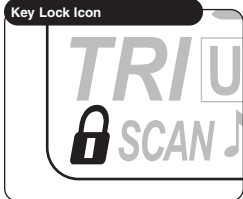


Key Lock

To prevent accidental changes to your settings, you can lock all of the following buttons:

- Channel Up Button
- Channel Down Button
- SCAN Button
- MEM/ESC Button
- WX/H-M-L Button
- 16/9 Button
- TRI-WATCH Button
- BAND Button
- REW Button
- Call/Enter/Setup Button

Key Lock Icon

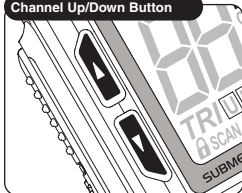


To Lock or Unlock the Buttons:

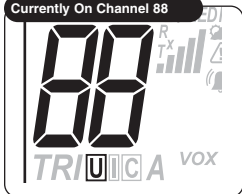
Press and hold the **Backlight/Key Lock** button for two (2) seconds. The **Key Lock** icon will appear or disappear in the LCD. When **Key Lock** is On, pressing any of the listed buttons on the front of the radio will result in a three (3) beep error message.

Both the **Backlight/Key Lock** button and the **Talk** button are active — you can **Receive (Rx)** or **Transmit (Tx)** a message with **Key Lock** On, but you cannot change the channel.

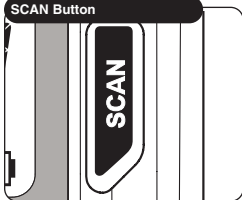
Channel Up/Down Button



Currently On Channel 88



SCAN Button



Channel Up/Down Button

Your radio will **Receive (Rx)** and **Transmit (Tx)** VHF and GMRS signals on the channel indicated on the LCD display. You can change the channel at any time using the **Channel Up/Down** button.

To Change Channels:

Press the **Channel Up/Down** button.

If you are on Channel 88, pressing the **Channel Up** button will advance to Channel 01. If you are on Channel 01, pressing the **Channel Down** button will advance to Channel 88.

You can press and hold the **Channel Up/Down** button for fast advance. The beep sound will occur only at the first press of the button and not during fast advance.

If the new channel selected is restricted to low power, the radio will automatically switch to **Low Power** mode and the **Low Power** icon will appear on the LCD.

If the radio is in the **Key Lock** mode, the channel will not change and the three (3) beep error signal will sound.

SCAN Button

Press and release the **SCAN** button to scan all channels. The **SCAN** icon will display on the LCD display. Scanning begins at lower channels, and scans to higher channels. Press **Channel Up/Down** button to change the scan direction.

When a signal is received in **SCAN** mode, the radio will pause 10 seconds before resuming **SCAN** operation. The scan will stop when the **Talk** button is pressed.

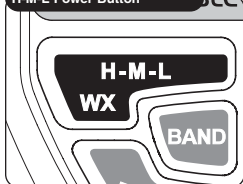
In **Memory** mode, press and release the **SCAN** button to scan all memory channels. Because the unit is already in the **Memory Channel** mode, only the channels in the memory bank will be displayed.



NOTE

Memory channels need to be saved to effectively enter the **Memory Channel** mode and scan all memory channels.

H-M-L Power Button



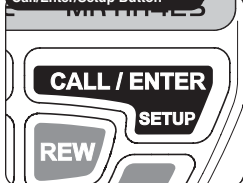
High/Medium/Low (H-M-L) Power Button

Your radio can transmit selectively at 1, 3 or 5 watts of power. Cobra suggests you maintain the low power setting for short-range communications. You will conserve battery life and avoid overpowering nearby stations with a low power setting signal. Use the high power setting for long-range communications or when you do not receive a response to a signal sent at 1 watt.

To Toggle Between H-M-L Power Modes:

Press the **H-M-L Power** button. The LCD will show which mode is in effect. Some channels are restricted for a maximum use of 1 watt. Your radio will automatically set the power to **Low Power** mode when you select those channels.

Call/Enter/Setup Button



NOTE

Some channels, frequency bands and countries of use might not be able to operate in **High Power** mode. For example, units sold in Canada will not transmit using the 5 watt **High Power** mode.

Call /Enter/Setup Button

The **Call/Enter/Setup** button has multiple functions. It is generally used in the following ways:

- Press and release to transmit your unique **Call Tone** signal to another radio.
- Press and hold to enter any **Setup** menu.
- Functions as an **ENTER** button when making a selection in any **Setup** menu.

Setup Mode Programming

The following series of procedures is designed to allow you to set the programmable features of your radio. Correctly following these steps results in a minimal amount of radio setup programming time.



NOTE

When in any of the **Setup** modes (**Marine (VHF)**, **GMRS** or **WX Alert**), if you stop programming for longer than 15 seconds, your entry will be saved and the radio will go back to the specific **Standby** mode that you were in when you started programming. When you return to **Setup** mode and continue programming you will see the last “value” displayed. While in any **Setup** mode, you will not receive any signal reception.

Marine (VHF) Mode Programming

Programming these features will allow you to customize certain features of this radio to enhance your “On-Water” audio needs.

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

Setup Mode Programming

USA/International/Canada Channel Maps

Three (3) sets of VHF Channel Maps have been established for marine use in the USA, Canada and the rest of the world (International). Most of the channels are the same for all three (3) maps, but there are definite differences (see table on pages 20 through 27). Your radio has all three (3) maps built into it and will operate correctly in whichever area you choose.

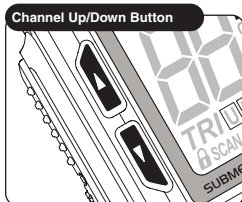
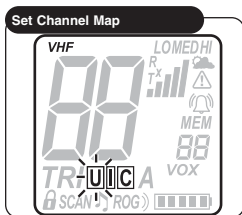
To Set Channel Map Operating Area:

1. The **Channel Map** mode is the first mode that begins the **Marine (VHF) Setup** programming.
2. **U**, **I** and **C** icons will display, with the current setting (the **U** icon is the default) flashing.
3. Press **Channel Up/Down** button to select the **U**, **I** or **C** icon.
4. Press **Call/Enter/Setup** button to save this entry and move to the next setup programming mode.

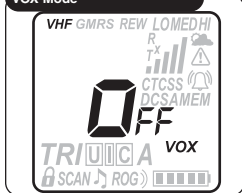


NOTE

One or two of the channel maps might have been disabled for sales of this radio in some countries.



VOX Mode



Voice Activated Transmit (VOX) Mode

In **VOX** mode, your radio can be used “hands-free,” automatically transmitting when you speak. You can also set the **VOX** sensitivity level to fit the volume of your voice and avoid transmissions triggered by background noise.

To turn **VOX Mode On or Off**:

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

To set **VOX Sensitivity Level**:

1. The display will show **LE** (level), **VOX** icon and **05** will be flashing.

**NOTE**

VOX sensitivity level is only visible when **VOX** is On.

2. Press **Channel Up/Down** button to change volume level of your choice. Remember, this selection is your voice sensitivity level during hands-free operation.

05 - indicates a Low (quiet) voice setting.

03 - indicates a Medium voice setting.

01 - indicates a High (loud) voice setting.

3. Press **Call/Enter/Setup** button to save this entry and move to the next setup programming mode.

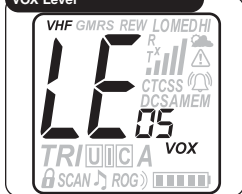
**NOTE**

VOX will be turned Off automatically when the radio is turned Off. This will avoid accidental transmissions.

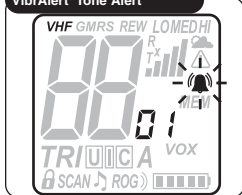
**NOTE**

Once set, this is a global setting when in all radio modes.

VOX Level



VibrAlert® Tone Alert

**VibrAlert® Mode**

In **VibrAlert®** mode, your radio can alert you to incoming signals by sounding an audible call tone, a silent vibration or both.

**NOTE**

VOX will be turned Off automatically when the radio is turned Off. This will avoid accidental transmissions.

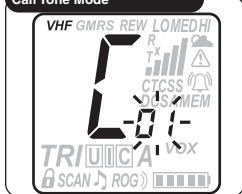
To set VibrAlert®:

1. The display will show either the **Vibrate** icon (shake bars), **Call Tone** icon (bell shape) or a combination **VibrAlert®** icon.
2. The present setting of either, **01**, **02** or **03** will be flashing.
3. Press **Channel Up/Down** button to select one of the following:
 - 01** = VibrAlert® On (both shake bars and bell shape).
 - 02** = Vibrate On (shake bars only).
 - 03** = Call Tone Only On (bell shape only).
4. Press **Call/Enter/Setup** button to save this entry and move to the next setup programming mode.

**NOTE**

Once set, this is a global setting when in all radio modes.

Call Tone Mode



Call Tone Mode

In **Call Tone** mode, your radio can alert you to incoming signals by sounding an audible call tone, a silent vibration or both. This setting will also allow you to transmit a unique **Call Tone** alert to identify your radio when you transmit messages. You can select from one of 10 different **Call Tone** signals.

To Set Call Tone:

1. From the previous press of the **Call/Enter/Setup** button, the LCD will display the letter “**C**” and the current **Call Tone** number (01 through 10).
2. Press the **Channel Up/Down** button to select a different **Call Tone**. An example of each call tone will sound for 1.5 seconds.
3. Press **Call/Enter/Setup** button to save this entry and move to the next setup programming mode.

**NOTE**

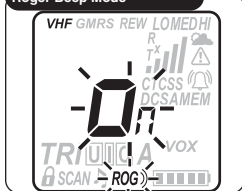
Call Tones are not usually used for **Marine VHF** communications. We allow you to turn it On for your unique communication needs.

**NOTE**

Once set, this is a global setting when in all radio modes.

Setup Mode Programming

Roger Beep Mode



Roger Beep Mode

In **Roger Beep** mode, your listener will hear an audible tone when you release the **Talk** button. This alerts your listener that you are finished talking and it is OK for them to speak.

To Set Roger Beep On or Off:

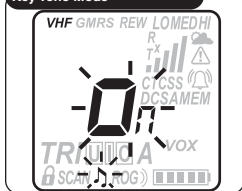
1. Display will show **ROG** icon and **ON** or **OFF** flashing.
2. Press **Channel Up/Down** button to select **ON** or **OFF**. **ROG** will be displayed when On.
3. Press **Call/Enter/Setup** button to save this entry and move to the next setup programming mode.



NOTE

Once set, this is a global setting when in all radio modes.

Key Tone Mode



Key Tone Mode

In **Key Tone** mode, an audible tone will sound each time a button is pressed or you change a setting.

To Set Key Tone On or Off:

1. Display will show **Key Tone** icon and **ON** or **OFF** flashing.
2. Press **Channel Up/Down** button to select **ON** or **OFF**.
3. Press **Call/Enter/Setup** button to save entry.



NOTE

Once set, this is a global setting when in all radio modes.

You have now ended **Marine (VHF) Setup** programming mode and will enter **Marine Standby** mode.

Setup Mode Programming

GMRS Mode



GMRS Mode Programming

The **GMRS** (General Mobile Radio Service) 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).

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

CTCSS and DCS Coding Mode

Continuous Tone Controlled Squelch System (CTCSS) and **Digital Coded Squelch (DCS)** coding are used in two-way radio systems. These are sub-audible frequencies or digital tones that are sent continuously with speech to engage other radios with this feature. This feature is generally used between talk groups on shared channels. Only radios with the same subcode set will hear your transmission.

To Set CTCSS Code Entry:

1. The **CTCSS** code entry mode is the first mode that begins the **GMRS Setup** programming.
2. Display will show **CTCSS** icon and **OFF** icon flashing.



NOTE

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

3. Codes begin at **01** and go to **38**, followed by **OFF**, and return back to **01** again. The last used **GMRS** channel will be shown in the large digit display.

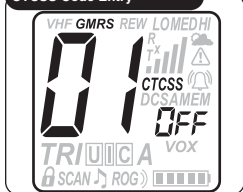


NOTE

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

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

CTCSS Code Entry



CTCSS Code Number

