



# BlueBound 350

## OWNERS MANUAL



# MARINE RADIO



# Introduction

Thank you for purchasing a Cobra Marine® VHF radio. When used properly, this Cobra® product will give you many years of reliable service.

## **How Your Cobra Marine VHF Radio Works**

This radio is a battery-powered portable transceiver for use on the water. It gives you 2-way vessel-to-vessel and vessel-to-shore station communications, primarily for safety and secondarily for navigation and operational purposes. With it, you can call for help, get information from other boaters, talk to lock or bridge tenders and make radiotelephone calls to anywhere in the world through a marine operator. Besides 2-way communications, in the U.S.A., the radio can provide quick access to receive ten NOAA (National Oceanographic and Atmospheric Administration) and two Canadian weather channels for alerting you to weather emergencies with a tone on a weather channel you can select for your area.

## **Customer Assistance**

Should you encounter any problems with this product or not understand its features, please refer to this manual. If you require further assistance after reading this manual, Cobra Electronics offers the following customer assistance services:

**Call:** 800-543-1608

- Monday-Friday 9:00 AM-5:00 PM EST

**Open a support ticket on Cobra.com:** <https://www.cobra.com/pages/contact-us>

**Chat with a live agent:** <https://www.cobra.com/>

- Monday-Friday 10:00 AM-6:30 PM EST
- Look for the chat icon at the lower bottom right side of the web pages.

## **For Assistance Outside the U.S.A**

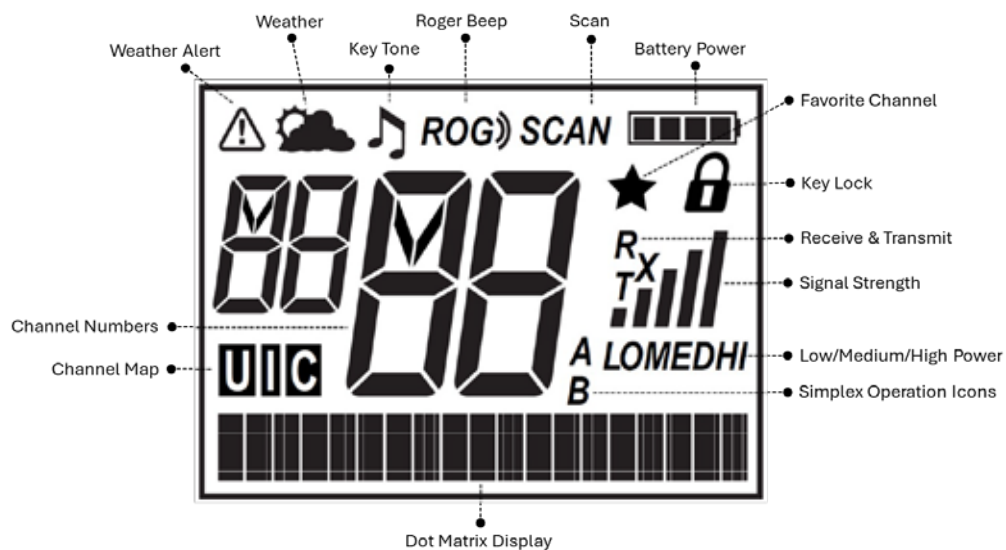
Contact Your Local Dealer



# Radio Overview



## LCD Screen





# Introduction

## Product Features

### Power Settings

Select 1, 3 or 6 Watts of output power for near or distant calling

### USA/International/Canada Channels

Allows operation on any of the three (3) different channel maps established for these areas

### All NOAA Weather Channels

Instant access to all National Weather Channels and alerts, 24 hours a day

### Floating and Waterproof

IPX7 waterproofing ensures radio floats when immersed in water

### Float N' Flash

Radio strobe light will flash while floating when dropped in water

### 120V/12V Charging Adapters

Includes both USB-C cable and conventional 12V power adapter for charging dock

### Instant Channel 16/9

Provides instant access to priority channel 16 and calling channel 9

### Tri-Watch

Use to monitor three channels at once, Channel 16 and two user selected channels

### Rechargeable Lithium-ion Battery

Recharge using the included USB-C dock charger and adaptor

### Favorite Channels

Save important channels as favorites

### Speaker Mic Jack

Allows for connection to the Cobra speaker mic accessory

### Backlit Keypad & Day/Night Display

Day/Night LCD display and backlit functional buttons for high visibility

### Dock Charger

Dock charger with additional battery charging slot for recharging radio

### Locking Battery Latch

Quick release battery latch with sliding lock tab

### BURP

Expels water from the speaker grill if the unit is dropped in the water or is subjected to extreme rain and weather



# Contents

|                                                  |            |
|--------------------------------------------------|------------|
| INTRODUCTION.....                                | 1          |
| RADIO OVERVIEW .....                             | 2          |
| -Product Features .....                          | 3          |
| SAFETY INFORMATION .....                         | 5-8        |
| OPERATION .....                                  | 9-20,23-30 |
| -Included in this package.....                   | 7          |
| -Batteries and Charging .....                    | 10         |
| -Power Button .....                              | 11         |
| -Power Saver.....                                | 11         |
| -Volume Control .....                            | 11         |
| -Radio Speaker and Microphone .....              | 11         |
| -Backlit/Key Lock Button .....                   | 12         |
| -Key Lock .....                                  | 12         |
| -Channel Up/Down Buttons .....                   | 12         |
| -Scan Button .....                               | 13         |
| -Tri-Watch Mode.....                             | 13         |
| -Favorite Channels .....                         | 13-14      |
| -High/Medium/Low (H-M-L) Power Button .....      | 14         |
| -16+ Button .....                                | 14         |
| -NOAA Weather .....                              | 14         |
| -Burp .....                                      | 15         |
| -Menu Setup.....                                 | 15         |
| -Squelch Control .....                           | 16         |
| -Backlight Display Color.....                    | 16         |
| -Channel Map.....                                | 16         |
| -Roger Beep .....                                | 17         |
| -Key Tone .....                                  | 17         |
| -Standby, Recieve and Transmit .....             | 17         |
| -Radio Care .....                                | 18         |
| VHF MARINE RADIO PROCEDURES.....                 | 19-22      |
| -Maintain Your Watch .....                       | 19         |
| -Power .....                                     | 19         |
| -Calling Coast Stations .....                    | 19         |
| -Calling Other Vessels .....                     | 19         |
| -Initial Calling on Channel 16 or 9 .....        | 19         |
| -Limits on Calling .....                         | 19         |
| -Change Channels.....                            | 19         |
| -Station Identification .....                    | 19         |
| -Prohibited Communications .....                 | 19         |
| -Voice Calling .....                             | 20         |
| -Emergency Messages and Distress Procedure ..... | 20         |
| -Marine Emergency Signals .....                  | 20         |
| -If You Hear a Distress Call .....               | 21-22      |
| WARRANTY .....                                   | 22-23      |
| SPECIFICATIONS.....                              | 24         |
| VHF MARINE CHANNEL ASSIGNMENTS.....              | 25-31      |
| -Weather Channel Assignments.....                | 31         |



## Safety Information

Before using your Cobra marine VHF radio, please read these general precautions and warnings.

### How Your Cobra Marine VHF Radio Works

Proper usage of this radio is important to achieve full functionality, so please read the operating instructions carefully before first use and refer to this guide again whenever necessary. Please pay special attention to the WARNING and NOTICE statements in this manual.

**WARNING :** Statements identify conditions that could result in personal injury or loss of life.

**NOTICE :** Statements identify conditions that could cause damage to the radio or other equipment.

### Safety Training Information

This Cobra Marine VHF radio complies with the following guidelines and standards regarding RF energy and electromagnetic energy levels as well as evaluation of those levels for human exposure.

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for human exposure to radio frequency electromagnetic fields.
- American National Standards Institute (C95.1-1992), IEEE Recommended Practice for the measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave.
- American National Standards Institute (C95.3-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300GHz.
- Industry Canada RSS-102-Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands).
  - Conformité d'exposition de la fréquence du Canada RSS-102-Radio d'industrie (rf) de l'appareillage de communication par radio (toutes les bandes de fréquence).

### General Precautions

The following Warnings and Notice information will make you aware of RF exposure hazards and how to ensure you operate the radio within the FCC RF exposure limits established for the radio.

#### WARNINGS

Your radio generates electromagnetic RF (radio frequency) energy when it is transmitting. To ensure that you and those around you are not exposed to excessive amounts of that energy, **DO NOT** touch the antenna when transmitting. **KEEP** the radio at least two inches (5cm) away from yourself and others when transmitting.

**DO NOT** operate with more than a duty cycle of 5% transmit, 5% receive and 90% standby. The radio is transmitting when the Talk button is pressed and the transmit information shows on the LCD screen.

**ALWAYS** use only Cobra authorized accessories.

**DO NOT** operate the radio in an explosive atmosphere, near blasting sites, or in any area where signs are posted prohibiting radio transmissions.

**NEVER** place the transceiver or microphone/speaker where they might interfere with operation of your vessel or cause injury.

**DO NOT** allow children or anyone unfamiliar with proper procedures to operate the radio without supervision.

Failure to observe any of these warnings may cause you to exceed FCC RF exposure limits or create



## Safety Information

other dangerous conditions.

### **For Products Purchased Outside the U.S.A. or Canada**

**Please contact your local dealer for product service information.**

### **For Products Used in Canada**

#### **Industry Canada Notice**

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### **Industry Canada Antenna Notice**

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be chosen so that the equivalent isotropically radiated power is not more than necessary for successful communication.

#### **Avis d'antenne du Canada d'industrie**

En vertu de la réglementation de l'industrie du Canada, cet émetteur de radio ne peut fonctionner à l'aide d'une antenne d'un type et un maximum (ou moins) Gain approuvé pour l'émetteur par Industrie Canada. Pour réduire le risque d'interférence aux autres utilisateurs, le type d'antenne et son gain doivent être choisis afin que la puissance isotrope rayonnée équivalente (PIRE) ne dépasse pas ce qui est nécessaire pour une communication réussie.



## Safety Information

### NOTICE

Your radio is waterproof only when the battery is properly installed.

**AVOID** using or storing the radio at temperatures below -4°F (-20°C) or above 140°F (60°C).

**KEEP** your radio at least 3 ft (0.9 m) away from your vessel's magnetic navigation compass.

**DO NOT** attempt to service any internal parts yourself. Have any necessary service performed by a qualified technician.

This radio comes with a rechargeable Lithium-ion battery

- Do not short circuit the battery.
- When replacing the battery, dispose of the old battery properly.
- Do not attempt to operate your radio while recharging the battery

Changes of modifications to your radio may void its compliance with FCC rules and regulations, making it possibly unsafe and illegal to use.

### Recommendations for Marine Communication

The frequencies your radio uses are set aside to enhance safety afloat, for vessel navigation, and for operational messages over a range suitable for near-shore voyages. If the 6-Watt maximum output of your radio is not sufficient for the distances you travel from the coast, consider installing a Cobra Marine fixed mount radio with up to 25 Watts of output power.

The U.S Coast Guard does not endorse cellular telephones as substitutes for marine radios. They generally cannot communicate with rescue vessels and, if you make a distress call on a mobile telephone, only the party you call will be able to hear you. Additionally, mobile telephones may have limited coverage over water and can be hard to locate. If you do not know where you are, the Coast Guard will have difficulty finding you if you are using a mobile telephone

However, cellular telephones can have a place on board where cellular coverage is available to allow social conversations and keep the marine frequencies uncluttered and available for their intended uses.

### FCC Licensing Information

Cobra Marine VHF radios comply with the FCC requirements that regulate the Maritime Radio Service.

The radio operates on all currently allocated marine channels and is switchable for use according to USA, International or Canadian regulations. It features instant access to emergency Channel 16 and calling Channel 9 as well as NOAA All Hazards Radio.

### Station License

An FCC ship station license is not required for any vessel traveling in U.S waters that use a VHF marine radio, RADAR, or EPIRB, and those that are not required to carry radio equipment. However, any vessel required to carry a marine radio on an international voyage, carrying an HF single side band radiotelephone, or carrying a marine satellite terminal must obtain a station license.

### International Station License

If your vessel will be entering the sovereign waters of a country other than the U.S.A. or Canada, you should contact that country's communications regulatory authority for licensing information.



## Safety Information

### Radio Call Sign

Currently, the FCC does not require recreational boaters to have a license. The United States Coast Guard recommends that the boat's registration number and state of registry be used as a call sign and be clearly visible on the vessel.

### Canadian Ship Station License

You need a Radio Operator's Certificate if your vessel is operated in Canadian waters. Radio Operator training and certification is available from the Canadian Power Squadron.

### User Responsibility and Operating Locations

All users are responsible for observing domestic and foreign government regulations and are subject to severe penalties for violations. The VHF frequencies on your radio are reserved for marine use and require a special license to operate from land, including when your boat is on its trailer.

**NOTE:** This device complies with part 15 of the FCC Rules, and Industry Canada license-exempt RSS standards. Operation is subject to the following two conditions:

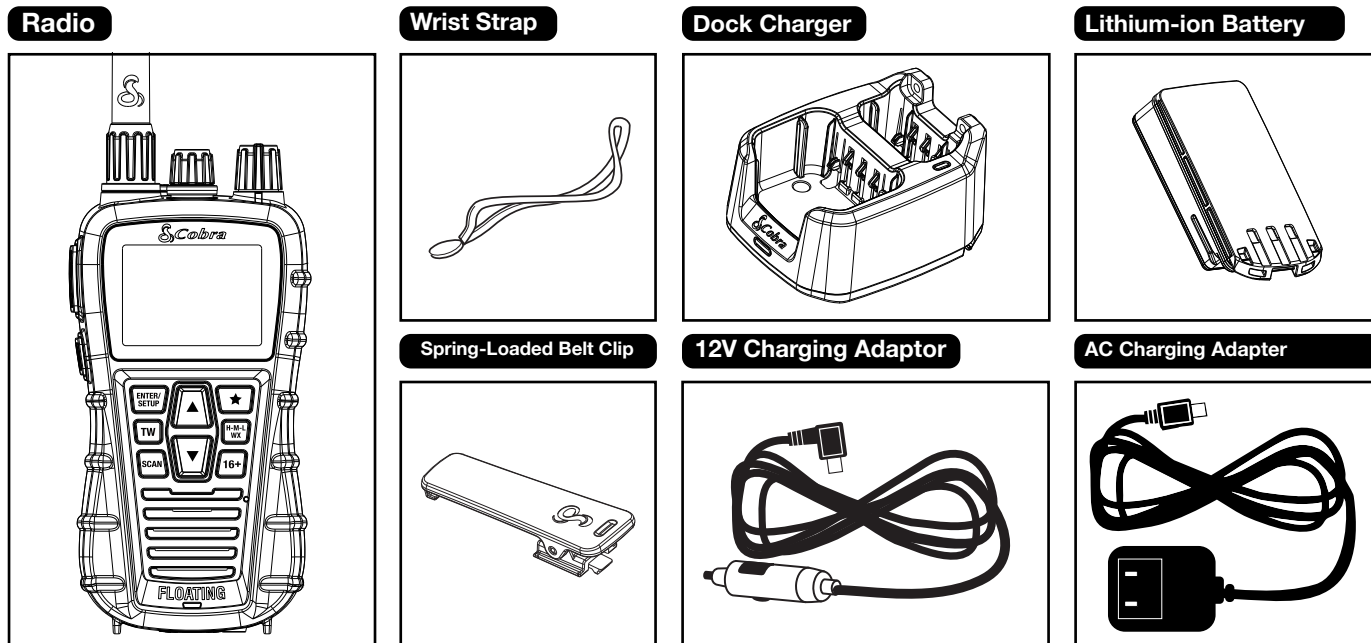
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

**FCC Warning:** Replacement or substitution of transistors, regular diodes or other parts of a unique nature, with parts other than those recommended by Cobra may cause a violation of the technical regulations of part 80 of the FCC Rules, or violation of type acceptance requirements of part 2 of the rules.



# Operation

## Included in this Package



## Wrist Strap and Belt Clip

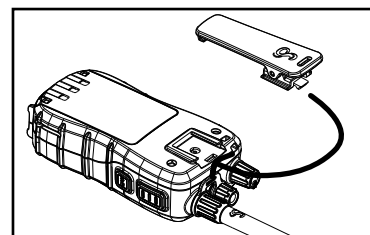
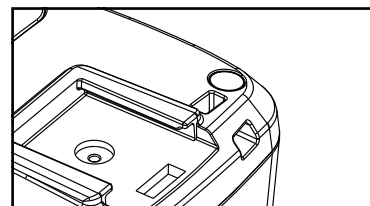
### Wrist Strap

The wrist strap is attached to the radio by routing the tether cord through the wrist strap hole on the upper back portion of the radio's housing.

### Belt Clip

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

1. Slide the belt clip into the guide channel on the back of the radio until it is locked in place
2. Press the belt clip open and place it over the belt.
3. To remove the belt clip from the radio, press the tab on the belt clip, which unlocks the clip and slide the clip out from the radio.



## External Speaker/Microphone Jack

Your radio can be fitted with an optional External Speaker/Microphone (not included), freeing your hands for other tasks. Contact your local Cobra Marine dealer or visit [Cobra.com](http://Cobra.com) to find out more about the marine speaker mic accessory.

### To attach the external speaker/microphone:

1. Open the speaker/microphone tab on top of the radio.
2. Insert the plug into the speaker/microphone jack.

**Warning:** An Improper connection of the speaker microphone can compromise the radio's waterproofness.



## Batteries and Charging

The radio is shipped with a sealed rechargeable Lithium-ion (LiON) battery (P/N 0010103-1).

**Warning:** The charger provided for 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 could occur. Avoiding extreme temperatures will also help prolong the life of the battery pack for the radio.

### Installing the Battery Pack

1. Slide the bottom locking latch to the Unlock position.
2. Position the battery pack over the back of the radio.
3. Insert the battery tabs into their corresponding slots and press down to secure the battery with the battery latch.
4. Slide the battery locking latch to the locked position.

### Removing the Battery Pack

1. Slide the battery locking latch to the Unlock position.
2. Push down on the battery latch to release the battery.
3. Gently remove the battery from the rear of the radio.

### Initial Charge

The Cobra provided Lithium-ion battery pack may be charged using the supplied dock charger with either the 12V or AC charging adapter. Additionally, the provided dock charger also contains a slot to charge an additional backup battery. Both the radio and an extra battery (sold separately) can be charged simultaneously in the dock charger.

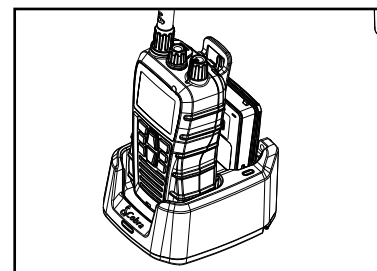
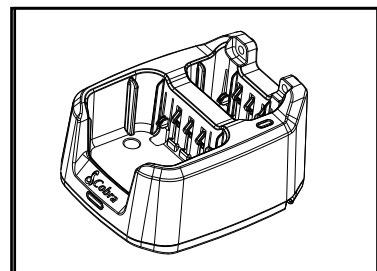
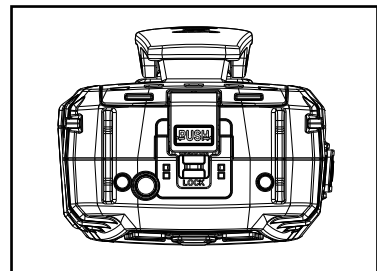
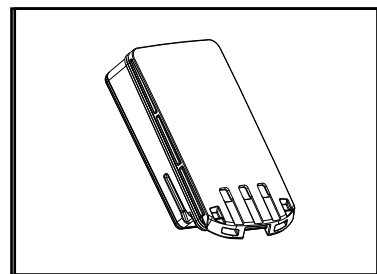
#### To charge your radio

1. Connect either the 12V or AC charging adapter to their respective power outlets.
2. Connect the USB-C end of the charging adapter to the dock charger
3. Place your radio into the front slot on the dock charger. The light on the front of the dock charge will indicate that the radio is being charged.
4. When the light turns green the radio's battery is fully charged.

#### To charge an extra battery

1. Position the battery so that the terminals on the battery match the same side as the terminals on the charger.
2. Slide the battery into the rear slot on the dock charger. The light on the side of the dock charger will indicate that the battery is being charged.
3. When the light turns green the battery is fully charged.

**Warning:** Only use Cobra BlueBound battery packs with the supplied dock charger.



**Fully Charged**



**Partially Charged**



**Fully Discharged**





# Operation

## Battery Charge Levels

As you use your radio, the battery power icon will show the remaining battery power. As the radio's battery is drained, the displayed charge bar will begin to decrease. When the battery icon begins to flash, it is time to recharge or change the battery. It is recommended to recharge your radio after every use in order to keep the battery fully charged.

## Basic Radio Functions

Refer to the radio overview section at the beginning of the 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 PTT "Push to Talk") on the radio. "Press" means a momentary press of approximately one second. "Press and Hold" means to hold the button down for approximately three seconds.

Whenever you press any button except the PTT 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 for 10 seconds.

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

## Power Button

Powering ON/OFF the radio:

1. To turn the radio ON, rotate the knob clockwise past the orange indicator line
2. To turn the radio OFF, rotate the knob counterclockwise fully until the orange line on the knob aligns with the orange indicator line on the radio.

## Power Saver

Your radio has a unique circuit designed to extend battery life. If there are no transmissions, signals, or button presses for ten seconds, the radio will automatically switch to Power Save mode. Signal reception or any button press will take the radio out of Power Save mode.

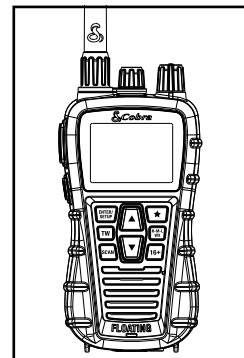
## Volume Control

- To turn the volume up on the radio, rotate the POWER/VOLUME knob clockwise, up to the maximum level.
- To turn the volume down on the radio, rotate the POWER/VOLUME knob counterclockwise.

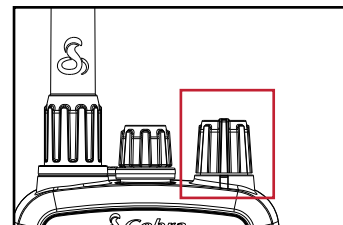
## Radio Speaker and Microphone

The internal radio speaker and microphone are located on the bottom front face of the radio below the lower control buttons.

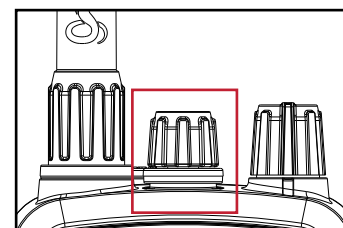
An optional Speaker/Microphone jack is located at the top of the radio. Flip the protective cap open and insert the plug into the jack to connect Cobra's



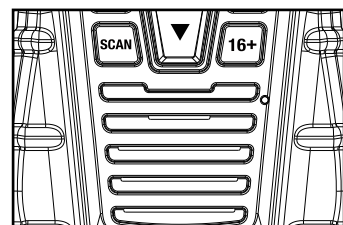
Power/Volume Knob



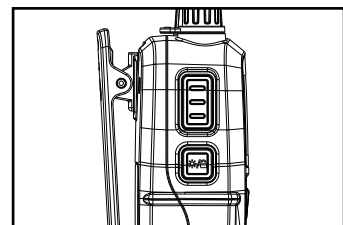
Speaker Mic



Speaker & Microphone



Backlight/Key Lock





## Operation

accessory Speaker Mic.

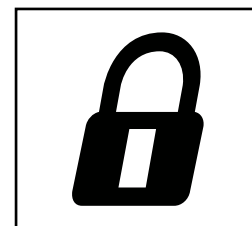
### Backlight/Key Lock Button

The LCD will be illuminated by the backlight when any button is pressed (apart from the PTT button) and will remain on for 10 seconds after the button is released.

Press the Backlight/Key Lock button to display the backlight temporarily. The backlight will remain ON for 10 seconds. If the backlight is already On, a press of the Backlight/Key Lock button will turn the backlight Off.

### Key Lock

To prevent accidental changes to your settings, you can lock all the buttons on the front of the radio with the Backlight/Key Lock button.



#### To Lock or Unlock the Buttons:

Press and hold the Backlight/Key Lock button for two seconds. The Key Lock icon will appear or disappear on the LCD screen, indicating if Key Lock has been enabled or disabled. When Key Lock is on, pressing any of the buttons on the front of the radio will result in a three-beep error tone.

Both the Backlight/Key Lock button and the PTT button are still active when key lock has been enabled. You can Receive (Rx) or Transmit (Tx) a message with Key Lock On, but you cannot change channels or modify other settings.

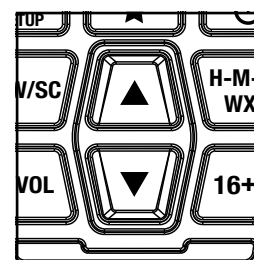
### Channel Up/Down Buttons

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

#### To Change Channels:

Press the Channel Up/Down buttons.

When you reach the highest channel in the current channel map, pressing the Channel Up button will return to the beginning of the channel map at the lowest channel. If you are on the lowest channel in the current channel map, pressing the Channel Down button will return to the end of the channel map at the highest channel.



You can press and hold the Channel Up/Down button for automatic scrolling through channels.

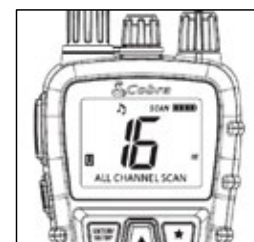
If the newly selected channel is restricted to low power, the radio will automatically switch to Low Power mode and the Low Power icon will appear on the LCD.

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

### Scan Button

#### All Channel Scan

Press and release the Scan button to scan all channels. The LCD SCAN icon will display and the bottom dot matrix row will show that an all-channel scan is in





## Operation

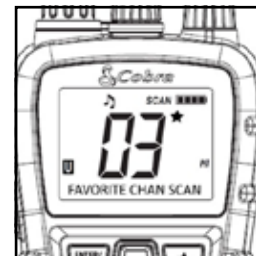
progress. Press the Channel Up/Down arrow keys to change the scan direction. When a signal is received in scan mode, the radio will pause on that channel until the signal has ended and 10 seconds have passed, at which point the radio will resume scan operation. You can also manually resume scanning when the radio is paused on an actively receiving channel by pressing the Channel Up/Down arrow keys.

To exit all channel scan mode, press and release the scan button. The SCAN icon will disappear from the LCD and the radio will return to VHF standby mode

### Favorite Channel Scan

Press and hold the Scan button to automatically scan favorite channels. The SCAN icon will appear on the LCD and the bottom row dot matrix will show that a favorite channel scan is in progress.

To exit favorite channel scan mode, press and release the scan button. The radio will return to VHF standby mode.

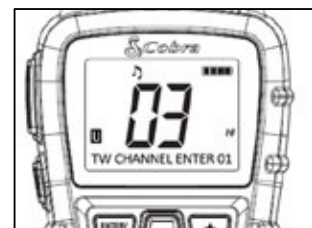


### Tri-Watch Mode

Tri-Watch mode gives you one button access to scan three important channels. Channel 16 is preprogrammed and will always be one of the scanned channels. The other two channels can be any marine VHF channel of your choice.

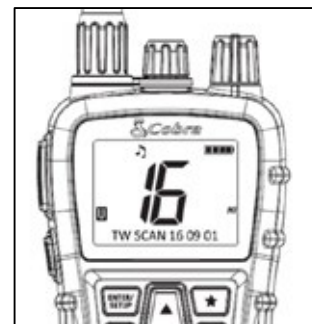
### Tri-Watch Channel Selection

- To enter Tri-Watch setup, press and hold the TW key.
- The bottom dot matrix display will read "TW CHANNEL ENTER 01" and the current channel number will be flashing. Select the desired first channel for Tri-Watch and press the Enter/Setup key to save choice and move to the second channel selection.
- Follow the same steps to select the second channel for Tri-Watch and press the Enter/Setup key to save choice and exit Tri-Watch Setup.



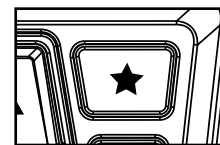
### Tri-Watch Operation

1. In Marine standby mode, press and release the TW button to activate Tri-Watch scanning.
2. The radio will begin to scan channel 16 and the two user selected channels.
3. A signal on any one of the two channels will stop the scan for 10 seconds to allow you to listen to the traffic on that channel.



Note: After the Tri-Watch scan stops to monitor a channel, if the signal ends and you do not press any buttons within 10 seconds, your radio will automatically resume scanning the Tri-Watch channels.

4. Press the Channel Up/Down arrow keys to manually resume scanning the Tri-Watch channels
5. To exit Tri-Watch mode, press the TW button again. The radio will return to VHF standby mode.



### Favorite Channels

Your radio can store channels as favorites for quick access by using the Star key.



## Operation

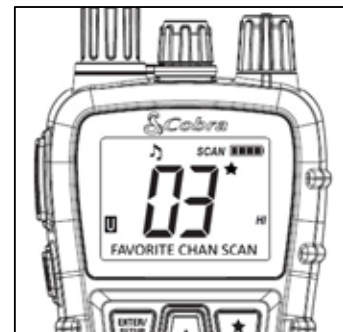
### Saving a Favorite Channel

1. Select the desired channel with the Channel Up/Down arrow keys.
2. Press and hold the Star button for 2 seconds. The display will show the star icon indicating that the channel has been saved as a favorite channel.
3. To remove a channel as a favorite channel, press and hold the Star button for 2 seconds on a current favorite channel. The display will stop showing the star icon to indicate that the channel has been removed as a favorite channel.

### Manually Scrolling Through Favorite Channels

Press the Star button to cycle through the current favorite channels. When the highest favorite channel has been reached, the radio will return to the lowest saved favorite channel.

If no channels have been saved as favorites, no action will be taken by the radio.



When scrolling through favorite channels, using the Channel Up/Down arrow keys will move to the next channel as normal.

### Automatically Scanning Favorite Channels

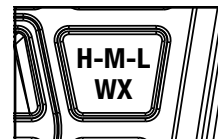
Press and hold Scan button to initiate favorite channel scan. The radio will automatically begin scanning through all the currently saved favorite channels.

If no channels have been saved as favorites, no action will be taken by the radio.

To cancel favorite channel scan, press and release the Scan button.

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

Your radio can transmit selectively at either 1, 3 or 6 Watts of power. Cobra suggests that you maintain the low power setting for short-range communication. This will conserve battery life and avoid overpowering nearby stations by using a low power signal. Use the high-power setting for long-range communications or when you do not receive a response to a signal sent at lower power levels.



### To Toggle Between High/Medium/Low Power Modes:

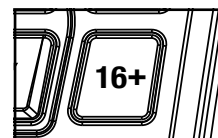
Press the H-M-L button to cycle between power levels. The LCD will show which power level is in effect. Some channels are restricted for a maximum use of 1W. Your radio will automatically set the power to low power mode when you select those channels.

**Note:** Some channels, frequency bands and countries of use might not be able to operate in High Power mode.

### 16+ Button

The 16+ button gives you quick access to Channel 16 and Channel 9 from any operational mode.

- Press the 16+ button to change to Channel 16.
- Press the 16+ button again to change to Channel 9.
- Press the 16+ button a third time to return to the last used marine standby channel.





## Operation

### NOAA Weather

NOAA provides continuous, around-the-clock broadcasts of the latest weather information. Recorded weather messages repeat every four to six minutes and are revised every two or three hours or as needed. The Coast Guard also announces weather and other safety warnings on Channel 16.

### Weather (WX) Standby Mode

To enter the WX Standby mode, press and hold the H-M-L/WX button. When your radio is in WX Standby mode, the following items will be displayed on the LCD display.

- The WX icon (cloud icon) will be displayed.
- The last used weather channel will be displayed.
- The bar graph will display received signal strength level.

**Note:** Only one or two 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.

### Weather Alert

Weather Alert (WX Alert) allows your radio to listen for NOAA Hazard Alerts while in VHF standby mode. When WX Alert is turned ON, the unit's dedicated weather receiver will periodically check for received weather alert tones.

If a WX Alert is received the radio will sound a weather alert tone and automatically switch to the alerting weather channel so the alert broadcast can be heard.

To turn WX Alert ON, press and hold the Enter/Setup key while in WX Standby Mode. The LCD will display the flashing alert triangle icon on the LCD display along with the bottom dot matrix row showing "WX ALERT" along with a flashing "ON" or "OFF", depending on what is currently selected. Press the Up/Down arrow keys to choose between selections. Press and release the Enter/Setup key to save selection, exit WX menu setup and return to the WX standby screen.

Weather Alert



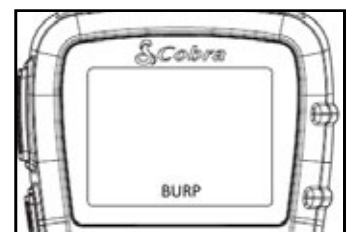
### Burp

Cobra's Burp feature allows the operator to expel water from inside the speaker grill. This is especially useful if the radio is dropped overboard or during extreme weather conditions. In these conditions, water can become trapped in the speaker grill and muffle the audio.

### To Activate Burp

- Press and release the 16+ and Scan keys at the same time to activate Burp.
- The Burp tones will sound at maximum level from the internal speaker for 8 seconds. While Burp tones are sounding, the dot matrix on the LCD will display "BURP". The radio will also be locked from transmitting during this 8-second window.
- After the window has ended, the radio will return to marine standby mode.

Burp



### Menu Setup

Press and hold the Enter/Setup key for 3 seconds to enter menu setup. The menu contains the setup options below in the following order. After each setup option has been completed, press and release the



## Operation

Enter/Setup key to save selection and move to the next menu setup option.

1. Squelch Control
2. Backlight Display Color
3. Channel Map
4. Roger Beep
5. Key Tone

### Squelch Control

Squelch Control filters weak signals and radio frequency (RF) noise so that you can clearly hear the signals you want.

1. Press and hold the Enter/Setup key for 3 seconds to enter setup mode. Squelch Control is the first setting within setup mode.
2. The LCD will display the current squelch level as a flashing 2-digit number with the bottom dot matrix displaying "SET SQUELCH LEVEL". Press the Up/Down arrow keys to raise/lower squelch (0-10). Press and release the Enter/Setup key to save selection and move to the next setup menu, Display Color.



**Note:** if squelch is too low where there is continuous received transmission noise being output, Tri-Watch & scan functionality will be temporarily disabled.

### Backlight Display Color

The BlueBound 350 has two display colors to choose from: amber or white.

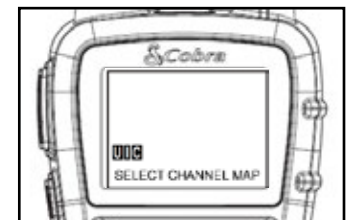
1. Upon entering the setup menu for display color, the bottom dot matrix on the LCD will show "DISPLAY COLOR:" with the current color (amber/white) being displayed on the screen.
2. Press the Up/Down arrow keys to change the backlight color between the two options.
3. Press and release the Enter/Setup key to save selection and move to the next setup menu, Channel Map.



### Channel Map

Three sets of VHF channel maps have been established for marine use in the USA, Canada, and the rest of the world (International). The Channel Map menu option allows you to change between the three channel maps as needed.

1. Upon entering the setup menu for Channel map, the LCD will display the three channel map options, with the current selected channel map flashing. The bottom dot matrix will also read "SELECT CHANNEL MAP".
2. Press the Up/Down arrow keys to select the desired channel map.
3. Press and release the Enter/Setup key to save selection and move to the next setup menu, Roger Beep.



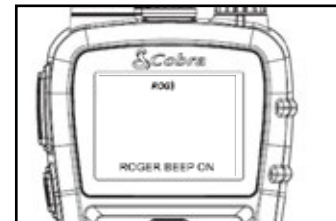


## Operation

### Roger Beep

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

1. Upon entering the setup menu for Roger Beep, the LCD will display the flashing ROG)) icon and the bottom dot matrix will read "ROGER BEEP" along with a flashing "ON" or "OFF" depending on what is selected.
2. Press the Up/Down arrow keys to change Roger Beep on or off. If yes was selected, the ROG)) icon will display on the LCD screen during VHF standby mode.
3. Press and release the Enter/Setup key to save selection and move to the next setup menu, Key Tone.



### Key Tone

When Key Tone is set to ON, an audible tone will sound each time a button is pressed, or you change a setting.

1. Upon entering the Key Tone setup menu, the LCD will display the flashing Key Tone icon and the bottom dot matrix will read "KEY TONE" along with a flashing "ON" or "OFF" depending on what is selected.
2. Press the Up/Down arrow keys to change Key Tone on or off. If yes was selected, the Key Tone icon will display on the LCD screen during VHF standby mode.
3. Press and release the Enter/Setup key to save selection and exit menu setup. The radio will return to VHF standby.



### Standby, Receive and Transmit

#### Marine Standby and Receive (Rx) Mode

Marine Standby mode is the default mode for the radio whenever it is turned on. From this mode, you can change current settings with the different key functions that are active in Marine Standby mode. While in Marine Standby mode, the user will be able to transmit by pressing the Push to Talk (PTT) button. Users will hear messages on the selected channel(s) they are tuned to while in Marine Standby mode.



#### Transmit (Tx) Mode

Transmit (Tx) mode gives you the ability to interact with safety services, other vessels, and shore stations. When using this capability, be sure to follow the procedures and to observe the courtesies that govern its use. See the Appendix to help select the proper channel(s).

#### 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. With the microphone about 2 inches from your mouth, press and hold the PTT button and speak into the microphone. The Transmit icon will appear on the LCD.
3. Release the PTT 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 PTT button is released. If the battery power icon begins blinking on the LCD when the PTT is pressed, the radio will not transmit.



## Operation

**Note:** If the PTT button is held down for five 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 PTT button is released, it can be pressed again to resume transmission.

### Radio Care

Very little maintenance is required to keep your Cobra marine VHF radio in good operating condition:

- Keep the radio clean by wiping with a soft cloth and mild detergent. Do not use solvents or harsh, abrasive cleaners that 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 is exhausted                                    | Recharge or replace battery                                                      |
| Lithium-ion battery runs down quickly            | Battery is at the end of its life                       | Replace with new battery                                                         |
| Will transmit at 1 Watt, but not at 3 or 6 Watts | Battery is low<br>Selected channel is limited to 1 Watt | Recharge or replace battery<br>Switch to another channel                         |
| Will not transmit                                | Selected channel is limited to receive only             | Switch to another channel                                                        |
| No response to button press                      | Key Lock is ON                                          | Press and Hold the Key Lock button until the key lock icon disappears on the LCD |



## VHF Marine Radio Procedures

### Maintain Your Watch

Whenever your boat is underway, your radio must be operational and tuned to Channel 16 unless being used for other communications.

### Power

Try 1 watt first, if the station being called is within a few miles. If there is no answer, switch to 3 watts and call again. If necessary, increase to 6 watts of output power to maximize your calling distance. The lower wattage outputs will conserve your battery and minimize interference to other users.

### Calling Coast Stations

Call a coast station on its assigned channel. You may use Channel 16 when you do not know the assigned channel.

### Calling Other Vessels

Call other vessels on Channel 16 or on Channel 9 (Channel 9 is preferred for recreational vessel use). You may also call on ship-to-ship channels when you know that the vessel is listening on a ship-to-ship channel.

### Initial Calling on Channel 16 or 9

The use of Channel 16 is permitted for making initial contact (hailing) another vessel. The limits on calling must be followed. As a reminder, Channel 16's most important function is for Emergency Messages. If for some reason, Channel 16 is congested, the use of Channel 9, especially in U.S. waters, may be used as the initial contact (hailing) channel for non-emergency communication.

### Limits on Calling

You must not call the same station for more than 30 seconds at a time. If you do not get a reply, wait at least two minutes before calling again. After three calling periods, wait at least 15 minutes before calling again.

### Change Channels

After contacting another station on a calling channel, change immediately to a channel designated for the type of message you want to send.

### Station Identification

At both the beginning and at the end of your message, make sure to identify yourself by specifying your vessel name, state registration number, and FCC call sign (if applicable).

### Prohibited Communications

You **MUST NOT** transmit:

- False distress or emergency messages.
- Messages containing obscene, indecent, or profane language.
- General calls or signals on Channel 16 (excluding emergencies)
- When you are on land.



## Voice Calling

You are required to listen to channel 16 while standing by. Channel 16 is the distress and safety channel used for establishing initial contact with another station and for emergency communication. The Coast Guard also monitors Channel 16 for safety purposes for everyone on the water.

**Note:** Channel 9 may be used by recreational vessels for general-purpose calling. This frequency should be used whenever possible to help relieve congestion on Channel 16. The Coast Guard generally does not make urgent marine information broadcasts or weather warnings on Channel 9. Boaters are still asked to “keep watch” on Channel 16 whenever the radio is turned on and not in use with another station.

### To call another vessel or shore installation (e.g., lock or bridge tender):

- Make sure the radio is ON.
- Make sure you are in standby listening mode on Channel 16. Make sure channel 16 is not in use.
- When the channel is open (quiet), press the PTT button and call a vessel. Hold the radio several inches from your face and speak clearly and distinctly in a normal voice tone. Say “name or station being called,” “This is [your vessel name or call sign].”
- Once contact is made, you must leave Channel 16 and go to another working channel.
- If the other party does not respond, wait two minutes and repeat. You are permitted to attempt contact 3 times, two minutes apart. If you still have not made contact, wait 15 minutes before trying again.
- After communications are completed, each vessel must sign off with its call sign or vessel name and the word “out” and return to Channel 16

#### For Example

The vessel Corsair is calling the vessel Vagabond:

Corsair: “Vagabond, this is Corsair. Over.”

Vagabond: “Please switch and answer on Channel 68 (or any proper working channel). Over.”

Corsair: “Switching to Channel 68. Over.”

### **Note:** “Over and Out”

The most commonly misused procedure words are “over and out” within the same transmission. “Over” means you expect a reply. “Out” means you are finished and do not expect a reply.

## Emergency Messages and Distress Procedure

The ability to summon assistance in an emergency is the primary reason for having a VHF marine radio. The marine environment is unforgiving and what may initially be a minor problem can rapidly develop into a situation beyond your control.

The Coast Guard monitors Channel 16, responds to all distress calls, and coordinates all search and rescue efforts. Depending on the availability of other capable vessels or commercial assistance operators in your vicinity, Coast Guard or Coast Guard Auxiliary craft may be dispatched.

In any event, communicate with the Coast Guard as soon as you experience difficulties and before your situation becomes an emergency. Use the emergency message procedures only after your situation has become grave or you are faced with sudden danger threatening life or property and requiring immediate help. Use Channel 16 to communicate your emergency message. Make sure you transmit on high power. If you are merely out of fuel, do not send an emergency message. Drop your anchor and call a friendly vessel or marina to bring the fuel you need or give you a tow.



## Marine Emergency Signals

The three spoken international emergency signals are:

1. MAYDAY: The distress signal MAYDAY is used to indicate that a station is threatened by grave and imminent danger and requests immediate assistance.
2. PAN PAN: The urgency signal PAN PAN is used when the safety of the vessel or person is in jeopardy. (This signal is properly pronounced pahn pahn.)
3. SECURITE: The safety signal SECURITE is used for messages about the safety of navigation or important weather warnings. (This signal is properly pronounced see-cure-ee-tay.)

When using an international emergency signal, the appropriate signal is to be spoken three times prior to the message.

## If You Hear a Distress Call

Give priority to any message beginning with one of these signals. ALL stations MUST remain silent on Channel 16 for the duration of the emergency unless the message relates directly to the emergency.

If you hear a distress message from a vessel, stand by your radio. If it is not answered, YOU should answer. If the distressed vessel is not nearby, wait a short time for others who may be closer to acknowledge. Even if you cannot render direct assistance, you may be able to relay the message for assistance.

## Example Marine Distress Procedure

Speak slowly — clearly — calmly.

1. Make sure your radio is On.
2. Select Channel 16.
3. Press Talk button and say: "MAYDAY — MAYDAY — MAYDAY."  
(Or "PAN PAN — PAN PAN — PAN PAN," or "SECURITE — SECURITE — SECURITE.")
4. Say: "THIS IS [your vessel name or call sign]," repeated three (3) times.
5. Say: "MAYDAY (or "PAN PAN" or "SECURITE") [your vessel name or call sign]."
6. Tell where you are: (what navigational aids or landmarks are nearby).
7. State the nature of your distress.
8. State the kind of assistance needed.
9. Give number of persons aboard and conditions of any injured.
10. Estimate present seaworthiness of your vessel.
11. Briefly describe your vessel (length, type, color, hull).
12. Say: "I WILL BE LISTENING ON CHANNEL 16."
13. End message by saying: "THIS IS [your vessel name or call sign]. OVER."
14. Release Talk button and listen. Someone should answer. If not, repeat the call, beginning at step 3 above.



# Warranty

## For Example:

"Mayday — Mayday — Mayday"  
"This is Corsair — Corsair — Corsair" [or "IL 1234 AB," repeated three times]  
"Mayday Corsair (or IL 1234 AB)"  
"Navy Pier bears 220 degrees magnetic — distance 5 miles"  
"Struck submerged object and flooding — need pump and tow"  
"Four (4) adults, three children aboard — no one injured"  
"Estimate we will remain afloat one-half hour"  
"Corsair (or IL 1234 AB) is 26 ft sloop with blue hull and tan deck house"  
"I will be listening on Channel 16"  
"This is Corsair (or IL 1234 AB)"  
"Over"

## Warranty Terms:

Cobra warrants your product against all defects in materials and workmanship for a period of three (3) years from the date of original purchase.

Cobra, at our sole discretion, will repair or replace your product (with the same or comparable product) free of charge.

Cobra will not pay shipping charges that you incur for sending your product to us. Products received COD will be refused.

To make a warranty claim, we will require proof of purchase in the form of an invoice or receipt. No proof of purchase is required for factory direct purchases.

**Warranty Exclusions:** Warranty does not apply to your product under any of the following conditions:

1. The serial number has been removed or modified. 2. Your product has been subjected to misuse or damage (including water damage, physical abuse, and/or improper installation). 3. Your product has been modified in any way. 4. Your receipt or proof-of-purchase is from a non-authorized dealer or internet auction site including E-bay, U-bid, or other non-authorized resellers.

**LIMITATION OF WARRANTY: EXCEPT AS EXPRESSLY PROVIDED HEREIN, YOU ARE ACQUIRING THE PRODUCT "AS IS" AND "WHERE IS", WITHOUT REPRESENTATION OR WARRANTY. COBRA SPECIFICALLY DISCLAIMS ANY REPRESENTATION OR WARRANTY INCLUDING, BUT NOT LIMITED TO THOSE CONCERNING THE MERCHANTABILITY AND SUITABILITY OF THE PRODUCT FOR A PARTICULAR PURPOSE. COBRA SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INCIDENTAL DAMAGES INCLUDING, WITHOUT LIMITATION, DAMAGES ARISING OUT OF THE USE, MISUSE OR MOUNTING OF THE PRODUCT.**

The above limitations or exclusions shall be limited to the extent they violate the laws of any particular state. Cobra is not responsible for products lost in shipment between the owner and our service center.

## General Warranty Information

Each product we manufacture is covered by our factory warranty. While each product may have unique components and policy, the general guideline below will apply to most Cobra products.



## Warranty

All Cobra products purchased factory-direct or from our Authorized Resellers will come with a full one to three (1-3) year warranty from the date of the original retail purchase (see policy statement above for full warranty details and exclusions).

Standard accessories packaged with each model will have a one-year factory warranty.

Accessory items have a one-year factory warranty.

Shipping to our facility is not covered in our warranty. Return shipping is included within the US.

This warranty is non-transferrable.

For the sake of clarity, 'repair or replace the Product or its defective part' does not include removal or installation work, costs or expenses which include but are not limited to labor costs or expenses.

Cobra will not be responsible for lost packages.

If you have any questions about operation or installing your new Cobra product, PLEASE CONTACT COBRA FIRST...do not return this product to any retail store.

The contact information for Cobra will vary depending on the country in which you purchased and utilize the product. For the latest contact information, please go to [www.cobra.com/support](http://www.cobra.com/support)

For products purchased in the U.S.A. you may call 800-543-1608.

Should there be any problems with this product or further information is needed on its features please visit [www.cobra.com](http://www.cobra.com) for support, frequently asked questions, Declarations of Conformity, and full manuals.

### **Disposal of Old Electrical or Electronics Equipment**

This product may contain hazardous substances that could impact health and the environment if not disposed of properly.

The crossed out wheeled bin symbol indicates that the product should not be disposed of along with household waste. It should be handed over to an applicable collection point for the recycling of electrical equipment. By ensuring that this product is disposed of correctly you will help/prevent potential negative impact on the environment.

If you need more information on the collection, reuse and recycling systems, please contact your local civic office or the shop where it was originally purchased.



## Specifications:

| General                                    |                                              |
|--------------------------------------------|----------------------------------------------|
| Number of Channels                         | 215                                          |
| Channel Spacing                            | 25kHz                                        |
| Modulation                                 | FM 16KOF3E                                   |
| Input Voltage                              | 7.4 V Nominal                                |
| Battery Life:<br>5% TX, 5% RX, 90% Standby | 8 Hours (High Power)<br>12 Hours (Low Power) |
| Temperature Range                          | -15C to +55 degC                             |
| Radio Dimensions                           | 255mm H x 66mm W x 52mm D                    |
| Radio Weight                               | 268g                                         |
| Receiver                                   |                                              |
| Frequency Range                            | 156.050 to 163.275 MHz                       |
| Receiver Type                              | FM                                           |
| Sensitivity: 12 dB Sinad                   | -120 dBm                                     |
| Adjacent Channel Selectivity               | -70 dB                                       |
| Intermodulation and Rejection              | -70 dB                                       |
| Spurious and Image Rejection               | -60 dB                                       |
| AF Output                                  | 700 mW @ 8 Ohms                              |
| Transmitter                                |                                              |
| Frequency Range (Tx)                       | 156.025 - 157.425 Mhz                        |
| RF Output Power                            | 1, 3, 6 Watts max                            |
| Spurious Emissions                         | -55 dB                                       |
| Microphone Type                            | Electret                                     |
| Frequency Stability                        | +/-5 ppm                                     |
| FM Hum and Noise                           | 40 dB                                        |



## VHF Marine Channel Assignments

Three sets of VHF channels have been established for marine use in the U.S.A., Canada and the rest of the world (International). Many of the channels are the same for all three maps, but there are important distinctions (see table on the following pages). Your radio has all three maps built into it and will operate correctly in whichever area you choose.

The following is a brief outline of the channel assignments in the U.S.A. Channel Map.

### Channel Assignments (English)

#### Distress, Safety, and Calling

##### Channel 16

Getting the attention of another station (calling) or in emergencies (distress and safety).

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#### Calling

##### Channel 9

General-purpose (non-emergency) calling by non-commercial vessels. Recreational boaters are urged to use this channel to reduce congestion on Channel 16

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#### Intership Safety

##### Channel 6

Ship-to-ship safety messages and for search and rescue messages to Coast Guard ships and aircraft.

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#### Coast Guard Liaison

##### Channel 22A

To talk to the Coast Guard, Canadian Coast Guard (non-emergency) after making contact on Channel 16.

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#### Non-Commercial

##### Channels 67\*, 68\*, 69, 71, 72, 78A, 79A\*, 80A\*

Working channels for small vessels. Messages must be about needs of the vessel, such as fishing reports, berthing and rendezvous. Use Channel 72 only for ship-to-ship messages.

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#### Commercial

##### Channels 1A, 7A, 8, 9, 10, 11, 18A, 19A, 63A, 67, 72, 79A, 80A, 88A\*

Working channels for working ships only. Messages must be about business or needs of the ship. Use Channels 8, 67, 72 and 88A only for ship-to-ship messages.



## Channel Assignments (English)

### Public Correspondence (Marine Operator)

#### Channels 84, 85, 86, 87, 87A, 88\*

For calls to marine operators at public coast stations. You can make and receive telephone calls through these stations.

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### Port Operations

#### Channels 1A\*, 5A\*, 12\*, 14\*, 20A, 63A\*, 65A, 66A, 73, 74, 75, 76, 77\*

Used for directing the movement of ships in or near ports, locks or waterways. Messages must be about operational handling, movement and safety of ships.

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### Navigational

#### Channels 13, 67

Channels are available to all vessels. Messages must be about navigation, including passing or meeting other vessels. These are also the main working channels for most locks and drawbridges. You must keep your messages short and power output at no more than 1 watt.

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### Maritime Control

#### Channel 17

For talking to vessels and coast stations operated by state or local governments. Messages must be about regulation and control, boating activities, or assistance.

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### Digital Selective Calling

#### Channel 70

This channel is set aside for distress, safety and general calling using only digital selective calling techniques. Voice communication is prohibited; your radio cannot transmit voice messages on this channel.

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### Weather

#### Channels Wx 1 Thru 12

Receive-only channels for NOAA and Canadian weather broadcasts. You cannot transmit on these channels.

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**Note:** These channels are restricted to the listed uses in certain parts of the country or for certain types of users only. Consult FCC rules or a knowledgeable radio operator before using them.



| Channel Map<br>Mapa de canales    |               |                |                  | Frequency<br>Frecuencia |                      |                              |                                                                                                                         |
|-----------------------------------|---------------|----------------|------------------|-------------------------|----------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Channel Number<br>Numero de canal | USA<br>EE. UU | Int'l<br>ntema | Canada<br>canada | Transmit<br>Transm.     | Recieve<br>Reception | Channel Use (English)        |                                                                                                                         |
| 14                                | ●             | ●              | ●                | 156.700                 | 156.700              |                              | Post Operations, VTS in selected area                                                                                   |
| 15                                | ●             |                |                  | Rx Only                 | 156.750              |                              | Environmental (Recieve Only).                                                                                           |
| 15                                |               | ●              | ●                | 156.750                 | 156.750              | 1 Watt CAN<br>1 vatio Canada | Canada (EPIRB Buoys Only); International<br>(On-Board Communication)                                                    |
| 16                                | ●             | ●              | ●                | 156.800                 | 156.800              |                              | <b>International Distress, Safety and<br/>Calling</b>                                                                   |
| 17                                | ●             | ●              | ●                | 156.850                 | 156.850              | 1 Watt CAN<br>1 vatio Canada | State Controlled (U.S.A. Only)                                                                                          |
| 18                                |               | ●              |                  | 156.900                 | 161.500              |                              | Port Operations, Ship Movement                                                                                          |
| 18A/1018                          | ●             |                | ●                | 156.900                 | 156.900              |                              | Commercial                                                                                                              |
| 19                                |               | ●              |                  | 156.950                 | 161.550              |                              | Port Operations, Ship Movement                                                                                          |
| 19A/1019                          | ●             |                | ●                | 156.950                 | 156.950              |                              | Commercial                                                                                                              |
| 1019                              |               | ●              |                  | 156.950                 | 156.950              |                              | Port Operations                                                                                                         |
| 2019                              |               | ●              |                  | 161.550                 | 161.550              |                              | Port Operations                                                                                                         |
| 20                                | ●             | ●              | ●                | 157.000                 | 161.600              | 1 Watt CAN<br>1 vatio Canada | Canada (Coast Guard Only); International<br>(Port Operations, Ship Movement)                                            |
| 20A/1020                          | ●             | ●              |                  | 157.000                 | 157.000              |                              | Port Operations                                                                                                         |
| 2020                              |               | ●              |                  | 161.600                 | 161.600              |                              | Port Operations                                                                                                         |
| 21                                |               | ●              |                  | 157.050                 | 161.650              |                              | Port Operations; Ship Movement                                                                                          |
| 21A/1021                          | ●             |                | ●                | 157.050                 | 157.050              |                              | <b>U.S. (Government Only); Canada (Coast<br/>Guard Only)</b>                                                            |
| 2021                              |               |                | ●                | Rx Only                 | 161.700              |                              | <b>Coast Guard Only</b> - Weather Braodcasts                                                                            |
| 22                                |               | ●              |                  | 157.100                 | 161.700              |                              | Port Operations, Ship Movement                                                                                          |
| 22A/1022                          | ●             |                | ●                | 157.100                 | 157.100              |                              | U.S. and Canadian Coast Guard Liaison<br>and Maritime Safety Information Broadcasts<br>that are announced on Channel 16 |
| 23                                |               | ●              | ●                | 157.150                 | 161.750              |                              | Public Correspondence (Marine Operator)                                                                                 |
| 23A/1023                          | ●             |                |                  | 157.150                 | 157.150              |                              | <b>Coast Guard Only</b>                                                                                                 |
| 2023                              |               |                | ●                | Rx Only                 | 161.750              |                              | <b>Coast Guard Only</b> - Weather Broadcasts                                                                            |



| Channel Map<br>Mapa de canales    |               |                |                  | Frequency<br>Frecuencia |                      |                       |                                                                                                                                                     |
|-----------------------------------|---------------|----------------|------------------|-------------------------|----------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Channel Number<br>Numero de canal | USA<br>EE. UU | Int'l<br>ntema | Canada<br>canada | Transmit<br>Transm.     | Recieve<br>Reception | Channel Use (English) |                                                                                                                                                     |
| 24                                | ●             | ●              | ●                | 157.200                 | 161.800              |                       | Public Correspondence (Marine Operator)                                                                                                             |
| 25                                | ●             | ●              | ●                | 157.250                 | 161.850              |                       | Public Correspondence (Marine Operator)                                                                                                             |
| 2025                              |               |                | ●                | Rx Only                 | 161.850              |                       | <b>Safety: Continuous Marine Broadcast (CMB) service by MCTS Canada</b>                                                                             |
| 26                                | ●             | ●              | ●                | 157.300                 | 161.900              |                       | Public Correspondence (Marine Operator)                                                                                                             |
| 27                                | ●             | ●              | ●                | 157.350                 | 161.950              |                       | Public Correspondence (Marine Operator)                                                                                                             |
| 28                                | ●             | ●              | ●                | 157.400                 | 162.000              |                       | Public Correspondence (Marine Operator)                                                                                                             |
| 2028                              |               |                | ●                | Rx Only                 | 162.000              |                       | <b>Safety: Continuous Marine Broadcast (CMB) service by MCTS Canada</b>                                                                             |
| 60                                |               | ●              | ●                | 156.025                 | 160.625              |                       | Public Correspondence (Marine Operator)                                                                                                             |
| 61                                |               | ●              |                  | 157.075                 | 160.675              |                       | Public Correspondence (Marine Operator)<br>Port Operation, Ship Movement                                                                            |
| 1061                              |               |                | ●                | 156.075                 | 156.075              |                       | <b>Canada (Coast Guard Only);<br/>West Coast (Coast Guard Only);<br/>East Cost (Commerical Fishing)</b>                                             |
| 62                                |               | ●              |                  | 156.125                 | 160.725              |                       | Public Correspondence (Marine Operator)<br>Port Operation, Ship Movement                                                                            |
| 1062                              |               |                | ●                | 156.125                 | 156.125              |                       | <b>West Coast (Coast Guard Only)<br/>East Cost (Commerical Fishing)</b>                                                                             |
| 63                                |               | ●              |                  | 156.175                 | 160.775              |                       | Public Correspondence (Marine Operator)<br>Port Operation, Ship Movement                                                                            |
| 63A/1063                          | ●             |                | ●                | 156.175                 | 156.175              |                       | Post Operations and Commercial, VTS in<br>slected areas, Canada Tow Boats-BCC                                                                       |
| 64                                |               | ●              | ●                | 156.225                 | 160.825              |                       | Public Correspondence (Marine Operator)<br>Port Operation, Ship Movement                                                                            |
| 1064                              |               |                | ●                | 156.225                 | 156.225              |                       | <b>U.S. (Government Only);</b> Canada<br>(Comercial Fishing)                                                                                        |
| 65                                |               | ●              |                  | 156.275                 | 160.875              |                       | Public Correspondence (Marine Operator)<br>Port Operation, Ship Movement                                                                            |
| 65A/1065                          | ●             |                | ●                | 156.275                 | 156.275              |                       | Port Operations                                                                                                                                     |
| 66                                |               | ●              |                  | 156.325                 | 160.925              |                       | Public Correspondence (Marine Operator),<br>Port Operations, Ship Movement                                                                          |
| 66A/1066                          | ●             |                | ●                | 156.325                 | 156.325              |                       | Port Operations                                                                                                                                     |
| 67                                | ●             | ●              | ●                | 156.375                 | 156.375              |                       | U.S. (Commerical). Used for bridge-to-<br>bridge communications in lower Mississippi<br>River (Intership Only); Canada (Commerical<br>Fishing), S&R |
| 68                                | ●             | ●              | ●                | 156.425                 | 156.425              |                       | Non-Commercial (Recreational)                                                                                                                       |



| Channel Map<br>Mapa de canales    |               |                |                  | Frequency<br>Frecuencia |                      |            |                                                                                                                       |
|-----------------------------------|---------------|----------------|------------------|-------------------------|----------------------|------------|-----------------------------------------------------------------------------------------------------------------------|
| Channel Number<br>Numero de canal | USA<br>EE. UU | Int'l<br>ntema | Canada<br>canada | Transmit<br>Transm.     | Recieve<br>Reception |            | Channel Use (English)                                                                                                 |
| 69                                | ●             | ●              | ●                | 156.475                 | 156.475              |            | U.S. (Non-Commercial, Recreational); Canada (Commercial Fishing Only); International (Port Operations, Ship Movement) |
| 70                                | ●             | ●              | ●                | Rx Only                 | 156.525              |            | <b>Digital Selective Calling<br/>(Voice communications not allowed)</b>                                               |
| 71                                | ●             | ●              | ●                | 156.575                 | 156.575              | 1 Watt USA | U.S. and Canada (Non-Commercial, Recreational); International (Port Operations, Ship Movement)                        |
| 72                                | ●             | ●              | ●                | 156.625                 | 156.625              |            | Non-Commercial (Intership Only)                                                                                       |
| 73                                | ●             | ●              | ●                | 156.675                 | 156.675              |            | U.S. (Non-Commercial, Recreational); Canada (Commercial Fishing Only); International (Port Operations, Ship Movement) |
| 74                                | ●             | ●              | ●                | 156.725                 | 156.725              |            | U.S. (Non-Commercial, Recreational); Canada (Commercial Fishing Only); International (Port Operations, Ship Movement) |
| 75                                | ●             | ●              | ●                | 156.775                 | 157.775              | 1 Watt     | Port Operations (Intership Only)                                                                                      |
| 76                                | ●             | ●              | ●                | 156.825                 | 156.825              | 1 Watt     | Port Operations (Intership Only)                                                                                      |
| 77                                | ●             | ●              | ●                | 156.875                 | 156.875              | 1 Watt USA | Port Operations (Intership Only) Restricted to communications with pilots for movement and docking of ships.          |
| 78                                |               | ●              |                  | 156.925                 | 161.525              |            | Public Correspondence (Marine Operator)                                                                               |
| 78A/1078                          | ●             |                | ●                | 156.925                 | 156.925              |            | Non-Commercial (Recreational)                                                                                         |
| 1078                              |               | ●              |                  | 156.925                 | 156.925              |            | Port Operations                                                                                                       |
| 2078                              |               | ●              |                  | 161.525                 | 161.525              |            | Port Operations                                                                                                       |
| 79                                |               | ●              |                  | 156.975                 | 161.575              |            | Port Operations, Ship Movement                                                                                        |
| 79A/1079                          | ●             |                | ●                | 156.975                 | 156.975              |            | Commercial (Also Non-Commercial only in Great Lakes)                                                                  |
| 1079                              |               | ●              |                  | 156.975                 | 156.975              |            | Port Operations                                                                                                       |
| 2079                              |               | ●              |                  | 161.575                 | 161.575              |            | Port Operations                                                                                                       |
| 80                                |               | ●              |                  | 157.025                 | 161.625              |            | Port Operations, Ship Movement                                                                                        |
| 80A/1080                          | ●             |                | ●                | 157.025                 | 157.025              |            | Commercial (Also Non-Commercial only in Great Lakes)                                                                  |
| 81                                |               | ●              |                  | 157.075                 | 161.675              |            | Port Operations, Ship Movement                                                                                        |
| 81A/1081                          | ●             |                | ●                | 157.075                 | 157.075              |            | <b>U.S. (Government Only; Environmental Protection Operations)</b>                                                    |
| 82                                |               | ●              |                  | 157.125                 | 161.725              |            | Public Correspondence (Marine Operator), Port Operation, Ship Movement                                                |



| Channel Map<br>Mapa de canales    |               |                |                  | Frequency<br>Frecuencia |                      |                       |                                                                      |
|-----------------------------------|---------------|----------------|------------------|-------------------------|----------------------|-----------------------|----------------------------------------------------------------------|
| Channel Number<br>Numero de canal | USA<br>EE. UU | Int'l<br>ntema | Canada<br>canada | Transmit<br>Transm.     | Recieve<br>Reception | Channel Use (English) |                                                                      |
| <b>82A/1082</b>                   | ●             |                | ●                | 157.125                 | 157.125              |                       | U.S. (Government Only); Canada (Coast Guard Only)                    |
| <b>83</b>                         |               | ●              |                  | 157.175                 | 161.775              |                       | Port Operations, Ship Movement                                       |
| <b>83A/1083</b>                   | ●             |                | ●                | 157.175                 | 157.175              |                       | (Coast Guard Only) (Coast Guard Only)                                |
| <b>2083</b>                       |               |                | ●                | RX only                 | 161.775              |                       | Coast Guard Only – Weather Broadcasts                                |
| <b>84</b>                         | ●             | ●              | ●                | 157.225                 | 161.825              |                       | Public Correspondence (Marine Operator)                              |
| <b>85</b>                         | ●             | ●              | ●                | 157.275                 | 161.875              |                       | Public Correspondence (Marine Operator)                              |
| <b>86</b>                         | ●             | ●              | ●                | 157.325                 | 161.925              |                       | Public Correspondence (Marine Operator)                              |
| <b>87</b>                         | ●             | ●              | ●                | 157.375                 | 157.375              |                       | Public Correspondence (Marine Operator)                              |
| <b>88</b>                         | ●             | ●              | ●                | 157.425                 | 157.425              |                       | U.S. (Commercial). Port Operations and VTS (International & Canada). |
| <b>88A/1088</b>                   | ●             |                |                  | 157.425                 | 157.425              |                       | Commercial Intership only                                            |
| <b>1001</b>                       | ●             |                |                  | 156.050                 | 156.05               |                       | Port Operations / Vessel Traffic Service                             |
| <b>1005</b>                       | ●             |                |                  | 156.250                 | 156.250              |                       | Port Operations / Vessel Traffic Service                             |
| <b>1007</b>                       | ●             |                |                  | 156.350                 | 156.350              |                       | Commercial                                                           |
| <b>1018</b>                       | ●             |                |                  | 156.900                 | 156.900              |                       | Commercial                                                           |
| <b>1019</b>                       | ●             |                |                  | 156.950                 | 156.950              |                       | Port Operations                                                      |
| <b>1020</b>                       | ●             |                |                  | 157.000                 | 157.000              |                       | Port Operations                                                      |
| <b>1021</b>                       | ●             |                |                  | 157.050                 | 157.050              |                       | <b>Coast Guard Only</b>                                              |
| <b>1022</b>                       | ●             |                |                  | 157.100                 | 157.100              |                       | <b>Coast Guard Only</b>                                              |
| <b>1023</b>                       | ●             |                |                  | 157.150                 | 157.150              |                       | <b>Coast Guard Only</b>                                              |
| <b>1063</b>                       | ●             |                |                  | 156.175                 | 156.175              |                       | Port Operations / Vessel Traffic Service                             |
| <b>1065</b>                       | ●             |                |                  | 156.275                 | 156.275              |                       | Port Operations / Vessel Traffic Service                             |
| <b>1066</b>                       | ●             |                |                  | 156.325                 | 156.325              |                       | Port Operations / Vessel Traffic Service                             |
| <b>1078</b>                       | ●             |                |                  | 156.925                 | 156.925              |                       | Commercial/Non-Commercial                                            |
| <b>1079</b>                       | ●             |                |                  | 156.975                 | 156.975              |                       | Commercial/Non-Commercial                                            |



| Channel Map<br>Mapa de canales    |               |                |                  | Frequency<br>Frecuencia |                      |  |                                   |
|-----------------------------------|---------------|----------------|------------------|-------------------------|----------------------|--|-----------------------------------|
| Channel Number<br>Numero de canal | USA<br>EE. UU | Int'l<br>ntema | Canada<br>canada | Transmit<br>Transm.     | Recieve<br>Reception |  | Channel Use (English)             |
| 1080                              | ●             |                |                  | 157.025                 | 157.025              |  | Commercial/Non-Commercial         |
| 1081                              | ●             |                |                  | 157.075                 | 157.075              |  | Commercial/Environmental          |
| 1082                              | ●             |                |                  | 157.125                 | 157.125              |  | Commercial/U.S. (Government Only) |
| 1083                              | ●             |                |                  | 157.175                 | 157.175              |  | Commercial/ Coast Guard Only      |

## VHF Marine Channel Assignments (English)

**NOTE:** Many of the plain-numbered channels, such as 01, 02 and 03, transmit and receive on different frequencies. This is termed duplex operation. Some other plain-numbered channels (Including 4 digit 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. This radio includes new four digit channels to be compliant with the latest and future regulations.

**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.

## Weather Channel Assignments

| Channel Number<br>Numero de canal | RX Frequency MHz<br>Frecuencia de recepcion | Weather Channel<br>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                                     | Canada                             |
| 9                                 | 161.775                                     | Canada                             |
| 10                                | 163.275                                     | NOAA                               |
| 11                                | 161.750                                     | Canada                             |
| 12                                | 162.000                                     | Canada                             |