



BlueBound 1350

OWNERS MANUAL



VHF Transceivers

BlueBound 1350B

BlueBound 1350W

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 fixed-mount transceiver for use on the water, giving 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/>

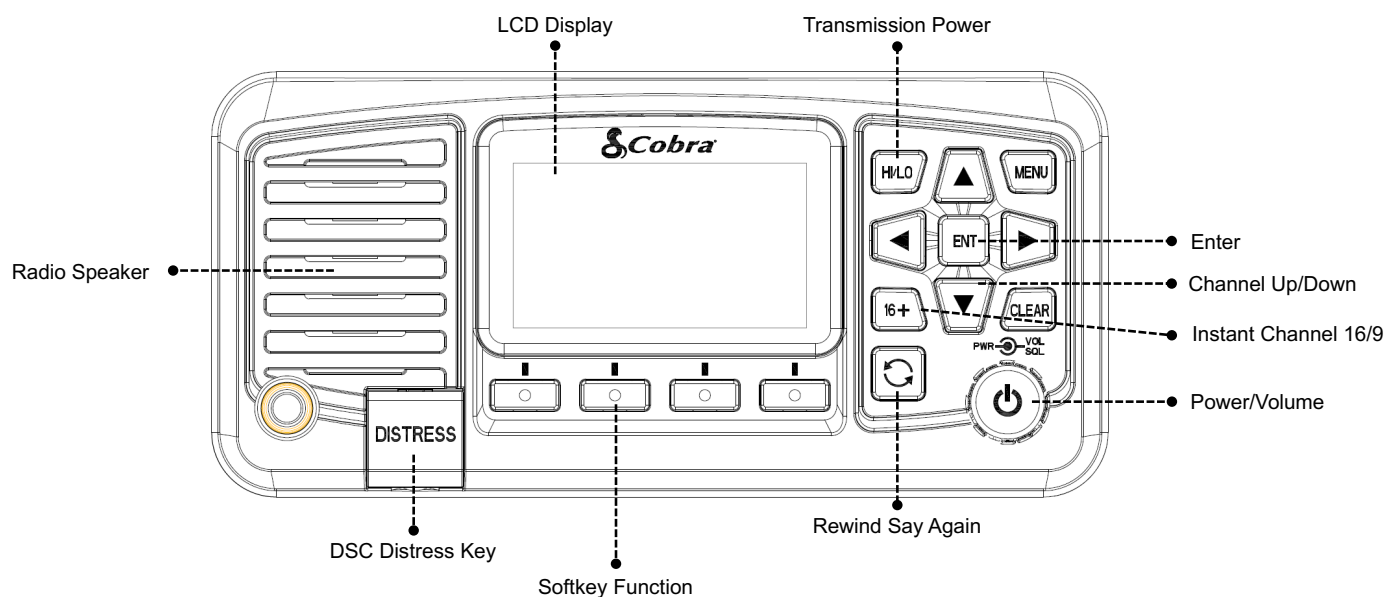
- Monday-Friday 10:00 AM-6:30 PM EST
- Look for the chat icon at the lower bottom right side of the web pages.

For Assistance Outside the U.S.A

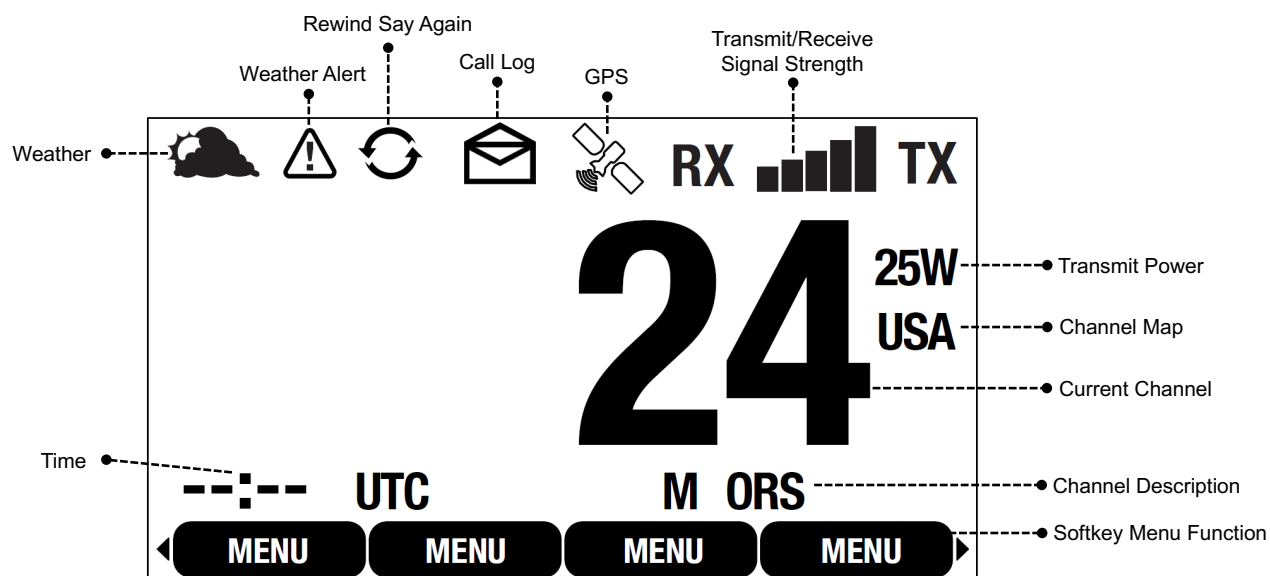
Contact Your Local Dealer



Radio Overview



LCD Screen





Introduction

Product Features

Power Settings

Select 1 or 25 Watts of output power for near or distant calling.

Built-In GPS Receiver

Shows GPS coordinates on screen and automatically sends GPS location with DSC calls.

Digital Selective Calling (DSC Class-D)

Allows the ability to maintain a listening watch on VHF Channel 16 while simultaneously monitoring Channel 70 for DSC calls. Allows sending a distress message at the touch of a button as well as specific station-to-station calls.

USA/International/Canada Channels

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

Waterproof

IPX7 waterproofing ensures radio remains safe when exposed to harsh weather.

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.

Favorite Channels & Favorite Channel Auto-scan

Save important channels as favorites and automatically scan only important channels on demand.

Backlit Keypad & Day/Night Display

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

SWR Analyzer

Ensure that the connected VHF antenna is properly transmitting.

Mounting Kits Included

Radio can be mounted on, under, or in almost any flat surface using one of the included brackets.

Rewind Say Again

Automatically record and replay missed VHF transmissions. Pre-record VHF messages to transmit out on demand.

All NOAA Weather Channels

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

Emergency Weather Alert

Can alert you with an audible alarm if threatening weather is nearby.



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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

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

POSITION your radio, external speakers, and cables at least 3ft (0.9m) away from your vessel's magnetic navigation compass. Check your compass before and after installation to be sure that it has not introduced any deviation.

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

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.

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
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

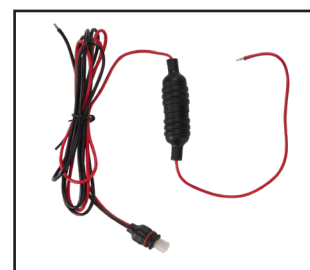
Radio



Microphone



Power Cable



Microphone Hanger



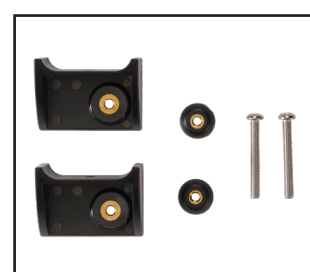
Data Accessory Cable



Surface Mounting Kit



Flush Mounting Kit



Mounting and Powering the Radio

Before using your Cobra marine VHF radio, it must be installed on your vessel.

Installing Your Radio

Choose a location for your radio where it will be conveniently accessible with the following factors in mind.

- The leads to the battery and antenna are kept as short as possible.
- The antenna must be mounted at least three (3) feet from the transceiver
- The radio and all speakers need to be far enough from any magnetic compass to avoid deviation due to the speaker magnet.
- There needs to be free air flow around the heat-sink fins on the back of the transceiver.

A surface mounting kit is included with your Cobra marine VHF radio to allow its installation on almost any flat surface.

To Mount the Transceiver (Surface Mount):

1. Use the surface mounting bracket as a template to drill holes for the mounting screws.
2. Attaching the mounting bracket to the chosen surface.
3. Attach the transceiver to the mounting bracket with the locking knobs.
4. Tilt the transceiver to a convenient angle and tighten the locking knobs.

Additionally, a flush mounting kit is included with your VHF radio to allow for additional mounting options.

To Mount the Transceiver (Flush Mount):

1. Ensure the area behind the flat surface intended for mounting is clear of any instruments or wires that might be damaged during the installation process.
2. Mark and cut out the desired opening for the radio.



Operation

3. Insert the transceiver into the opening.
4. Attach the flush mounting brackets to the sides of the transceiver with the adjusting screw flanges facing the back of the flat surface.
5. Tighten the adjusting screws against the back of the flat surface until the flange on the front of the transceiver is tight against the flat surface.

Microphone Bracket Installation:

- Install the microphone bracket on a vertical surface near the transceiver using the supplied screws. indicate that the battery is being charged.

Electrical Power Connection:

Your Cobra BlueBound VHF radio is powered from +10.0V- +16.0V- vessel direct current electrical, negative ground systems (12V nominal). A fused power connection lead is provided as part of the power cable.

To Connect to A Power Source:

1. Attach the black (-) wire to a negative (-) ground.
2. Attached the fused red power (+) wire to the positive (+) side of the power system.

Note: This radio will draw up to 8 Amps when transmitting at full power.

Note: All wiring is best kept as short as possible.

Antenna Requirements and Connection

Your Cobra BlueBound VHF radio requires an external VHF marine antenna to properly transmit and receive signals. The radio is arranged to use any of Cobra's VHF antennas or popular VHF antenna alternatives.

WARNING

Compliance with FCC requirements for Radio Frequency Exposure is the responsibility of both the antenna installer and the radio operator.

Safe Maximum Permissible Exposure (MPE) Radius

To avoid health hazards from excessive exposure to RF energy, FCC OET Bulletin 65 establishes an MPE radius of 10' (3 m) for the maximum power of your radio with an antenna having a maximum power gain of 9 dBi. This means that all persons must be at least 10' (3 m) away from the antenna when the radio is transmitting.

Installation Requirements

- A) An omnidirectional antenna with a gain not greater than 9 dBi must be mounted at least 16.4' (5 m) above the highest deck where people may be during radio transmissions, measured vertically from the lowest point of the antenna. This provides the minimum separation distance to comply with RF exposure requirements and is based on the MPE radius of 10' (3 m) plus the 6.6' (2 m) height of an adult.
- B) For vessels without structure to mount the antenna as described in A, it must be mounted as follows AND all persons must be outside the 10' (3 m) MPE radius during radio transmissions.



Operation

The antenna must be mounted so that its lowest point is at least 3.3' (1 m) vertically above the heads of all persons during radio transmissions.

Radio Operator Requirements

Do not transmit when anyone is within the MPE radius of the antenna unless that person or persons are shielded from the antenna by a grounded metallic barrier. This is especially important on vessels with antennas mounted as described in B where no one may be within 9' (2.8 m) horizontally from the base of the antenna during transmissions.

FAILURE TO OBSERVE THE ABOVE LIMITS MAY EXPOSE THOSE WITHIN THE MPE RADIUS TO RF ENERGY ABSORPTION IN EXCESS OF THE FCC MAXIMUM PERMISSIBLE EXPOSURE. IT IS THE RADIO OPERATOR'S RESPONSIBILITY TO ENSURE THAT MPE LIMITS ARE HEEDDED AND THAT NO ONE IS WITHIN THE MPE RADIUS DURING TRANSMISSIONS.

Antenna Lead Attachment:

Once the antenna is installed, the coaxial cable lead can be attached to the socket at the back of the transceiver.

External Devices and Connections

Your Cobra BlueBound 1350 VHF radio is set up to connect auxiliary devices for navigation, convenience, and added versatility.

Public Address Speaker (Not Included)

At times, it may be handy to hail other boats or give instructions to line handlers on the dock. Your Cobra BlueBound VHF radio can be switched to operate in Public Address mode through an attached PA speaker.

To Install a Public Address Speaker:

1. Connect the wires to the External Speaker as follows:
 - a. Orange Wire: (+) Positive connection
 - b. Black Wire: (-) Negative Connection
2. Make sure to solder, crimp, or twist the wires together firmly and use shrink tubing or electrical tape to waterproof the connection.

GPS Device

Your Cobra BlueBound radio includes a built-in GPS receiver. Your position will be continuously shown on the LCD if GPS Info Display is set to ON and it will always be automatically included with any DSC distress messages you may need to send. An external GPS input connector is also available to allow connection to a back-up GPS receiver.

Note: Even if the GPS Info Display setting is set to OFF, the radio is still always recording your current GPS coordinates if you have a GPS lock, they will just not be displayed on the screen should you choose not to.

To Install an External GPS Device:

1. Install the GPS device in a convenient location according to its manufacturer's directions.
2. Connect to the provided 2.5mm jack.



Operation

b. Yellow Wire: NMEA 0183 Data IN (+)

Note: GPS Data Input is as follows:

- Input Voltage (peak to peak): 10V
- Maximum data rate: 4800 baud
- Impedance: 4K Ω

Getting Started

Power On/Off

The BlueBound 1350 is turned on with the Power/Volume knob located on the front face of the radio.

Turning the Radio ON

1. Press and hold the Power/Volume knob while the radio is off to turn the radio on.
2. The radio will power on with the intro display screen showing the Cobra logo along with your radio's MMSI number (if entered).

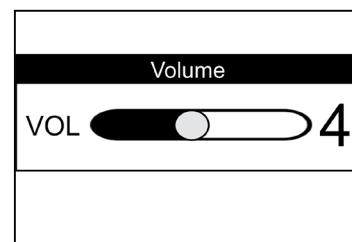
Turning the Radio OFF

1. Press and hold the Power/Volume knob while the radio is on to turn the radio off.

Volume Control

While in VHF standby mode, the Power/Volume knob will adjust volume by default just by rotating the knob.

- Clockwise rotation of the knob increases volume (to maximum).
- Counterclockwise rotation of the knob decreases volume (to minimum).
- When volume is being adjusted, the volume sub-menu will appear on the display.
- If there is no user input after 2 seconds, the volume sub-menu will disappear.
- Pressing the knob while adjusting volume will enter squelch control.



Squelch Control

While in VHF standby mode, press and release the knob to enter the squelch control sub-menu. While in the squelch control sub-menu, the squelch level can be adjusted as follows.

- Clockwise rotation of the knob increases squelch (to maximum).
- Counterclockwise rotation of the knob decreases squelch (to minimum).
- When squelch is being adjusted, the squelch sub-menu will appear on the display.
- If there is no user input after 2 seconds, the squelch sub-menu will disappear. Alternatively, pressing the knob will manually exit the squelch control sub-menu and return the radio to VHF standby mode.

Changing Channels

The current channel can be adjusted with the arrow keys on either the radio's main body or on the microphone.

- Press the UP-arrow key to move forward one channel.
- Press the DOWN arrow key to move backwards one channel.



Operation

- Press and hold the UP/DOWN arrow keys to automatically scroll through the channel list forwards or backwards respectively.

When the highest or lowest channel has been reached within the channel list, the radio will return to the beginning or end of the channel list.

Radio Speaker and Microphone

The radio's internal speaker is located on the front left side of the radio's main body. The microphone is attached via a cord to the radio and can be spoken into for outgoing transmissions by pressing the PTT key located on the side of the microphone.

Transmission Power Adjustment

Press the HI/LO key to adjust the transmission power between 1W and 25W. The LCD screen will display the current transmission power level. Note that some channels are restricted to lower power levels and may not be able to transmit at the full 25W of power. See the channel list in the appendix for a full breakdown on each channel.

16+ Key

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

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

VHF Standby Menu Softkeys

Your BlueBound 1350 has multiple functions and settings that can be quickly accessed from the VHF standby screen via the softkey buttons. Use the LEFT/RIGHT arrow keys to scroll through additional options while on the VHF standby screen.

- **SCAN:** Press the SCAN softkey to automatically scan through all channels. Press and hold the SCAN softkey to scan through only favorite channels.
- **STAR:** Press the STAR softkey to manually move to the next favorite channel. Press and hold the STAR softkey to save the current channel as a favorite channel.
- **CALL:** Press the CALL softkey to open the DSC call menu.
- **NAV:** Press the NAV softkey to open the navigation compass screen.
- **TW:** Press the TW softkey to start Tri-Watch monitoring.
- **HI/LO:** Press the HI/LO softkey to change transmission power level between 1/25W.
- **WX:** Press the WX softkey to enter weather (WX) standby mode.
- **BURP:** Press the BURP softkey to initiate BURP water removal process.
- **LIGHT:** Press the LIGHT softkey to open the backlight menu.
- **LOG:** Press the LOG softkey to open the call waiting menu.
- **PA:** Press the PA softkey to activate the public address option.



MENU Key

The menu key will enter the main menu of the BlueBound 1350. From the main menu there are multiple settings that can be adjusted as needed by the user.

Rewind Say Again Key

Your radio has the capability to record and playback incoming transmissions, as well as pre-record messages that can be sent out by the user on demand.

Turning on Transmission Playback

1. Press the Rewind Say Again key to activate transmission recording.
2. The Rewind Say Again icon and “Rewind Say Again” will show on the LCD display.
3. Any new incoming transmissions will be recorded and saved by the radio.



Playing Back Transmissions

If a transmission was received while Rewind Say Again was active, you can play it back on demand.

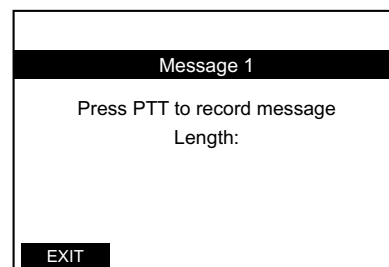
1. Press and hold the Rewind Say Again key to enter the Rewind Say Again Menu.
2. Press the ENT key on the View Recordings menu option to view the most recently saved recordings.
3. Choose the desired recording to play and press the PLAY softkey.
4. To delete a recording, press the DEL softkey.

Recording a Message

Your BlueBound 1350 has memory slots that allow you to pre-record messages that can be transmitted on demand. To select a recording slot and record a message, follow the steps below.

Recording a new message

1. While in the Rewind Say Again menu, choose the Record Messages option with the ENT key.
2. The radio will show a screen indicating that recording is ready to commence. To begin recording, press and hold the PTT key on the microphone and speak your message. When the message is finished, release the PTT key on the microphone.
3. The radio will then show a summary of the recorded message and give the option to either play back the recording or save the recording.
4. Press the PLAY softkey to play the message back.
5. Press the SAVE softkey to save the message into memory.
6. Press the EXIT softkey to return to the previous menu without saving the message.

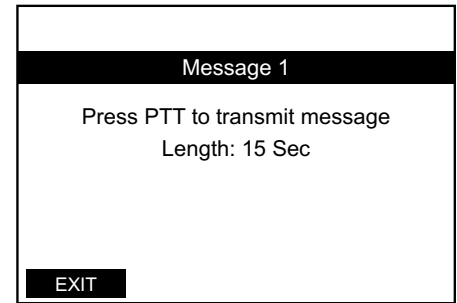


Transmitting a Saved Message



Operation

1. Make sure you are on the correct channel you wish to transmit your message on.
2. Enter the Rewind Say Again menu by pressing and holding the Rewind Say Again key.
3. Choose the View Messages option with the ENT key.
4. Navigate to the message you want to send and press the ENT key.
5. Press the TRANSMIT softkey to enter the message transmission page and then press and hold the PTT key on the microphone to begin message transmission.
6. Once the message has been transmitted the radio will indicate that transmission has finished.



Radio Settings:

Backlight

- **Color:** While in the backlight menu, press the LIGHT softkey to switch backlight color between amber and white.
- **Brightness:** While in the backlight menu, press the RIGHT/LEFT arrow keys to increase or decrease the currently selected backlight color.

Contrast

- While in the contrast menu, use the arrow keys to increase or decrease the contrast level on the radio.

Key Tone

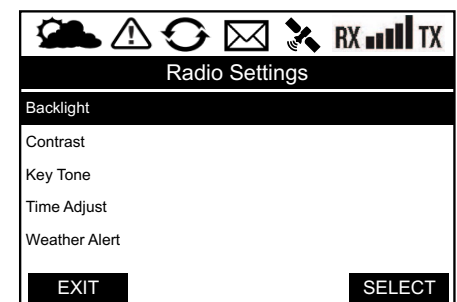
- Use the UP/DOWN arrow keys to set key tone ON/OFF. When key tone is set to ON, the radio will give audio feedback on key press, setting changes and when errors occur.

Time Adjust

- **Time Offset:** Use the UP/DOWN arrow keys to change the local time offset from the Coordinated Universal Time (UTC). Time increments are changed in 30-minute intervals.
- **Time Format:** Change between 12-hour and 24-hour time formats. The selected time format is displayed on the VHF standby screen.

GPS

- **Coordinate System:** Choose how the GPS coordinates will be displayed on the VHF standby screen with the UP/DOWN arrow keys. GPS coordinates will only display on the VHF standby screen when GPS Info Display is set to ON. However, the radio will still maintain the current GPS coordinates as long as you have a GPS lock.
 - DDD°MM,MM
 - DDD°MM,MMM
 - DDD°MM'SS"





Operation

- **SBAS:** Satellite Based Augmentation System (SBAS) can be turned on or off with the UP/DOWN arrow keys. SBAS is set to ON by default but may need to be turned off for greater accuracy in some areas of the earth.
- **GPS Antenna:** Switch between using the internal GPS antenna or an external GPS antenna for GPS location data.
- **GPS Data Source:** This menu option allows you to select between using the radio as a source for GPS information (internal) or an external GPS information source such as a chart plotter or other device via NMEA 0183 data input. Use the UP/DOWN arrow keys to select between Internal and External.
- **GPS Status:** Displays the current GPS satellite info and GPS signal strength.
- **Speed Measurement:** Adjust the unit of measurement for speed displayed on the navigation compass.
 - Knots
 - MPH
 - KM/H
- **Distance Measurement:** Adjust the unit of measurement for distance displayed on the navigation compass.
 - Statute Mile
 - Nautical Mile
 - Kilometer
- **GPS Info:** Allows the user to change if the GPS coordinates are displayed on the VHF standby screen. When set to ON, the GPS coordinates in the chosen coordinate system will be displayed below the date/time on the VHF standby screen. By default, this is set to OFF.

***Note: even if GPS Info is set to OFF and the GPS coordinates are not being displayed on the VHF standby screen, the radio is still using the GPS coordinate information in the background while the radio has a GPS lock.**

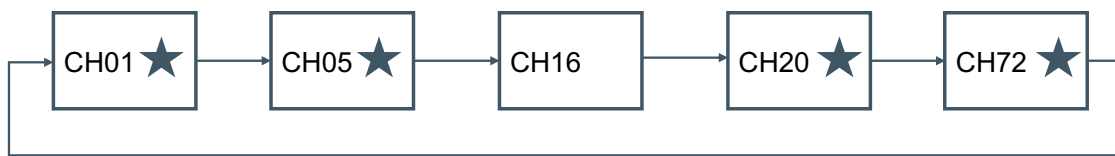
Channel Settings:

Priority Channel:

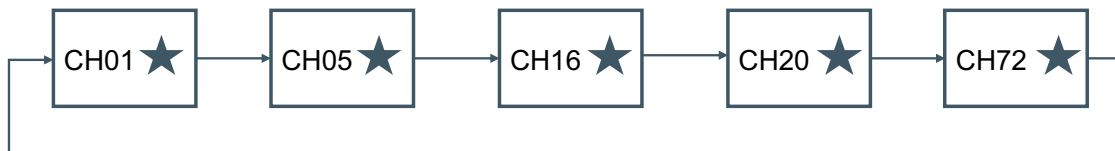
Use the UP/DOWN arrow keys to turn priority channel ON/OFF. When set to ON, the radio will always include channel 16 during a favorite channel scan, even if channel 16 has not been set as a favorite channel. By default, this is set to ON.



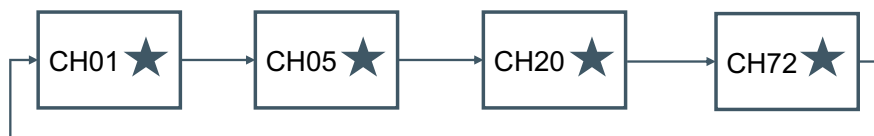
Operation



Channel 16 not set as Favorite Channel, but Priority Channel is ON



Priority Channel is OFF, but Channel 16 is set as a Favorite Channel



Priority Channel is OFF and Channel 16 is not set as a Favorite Channel

Channel Map:

There are 3 sets of VHF channel maps that have been established for marine use in the U.S.A, Canada, and the rest of the world (International). See the channel list in the appendix of the manual for a full breakdown on all channels. Use the UP/DOWN arrow keys to select between the 3 different channel maps.

- USA
- International
- Canada

Watch Type:

Choose between the two different watch types with the UP/Down arrow keys.

- Dual-Watch: Monitor channel 16 and one user selected channel.
- Tri-Watch: Monitor channel 16 and two user selected channels.

Call Channel:

Use the UP/DOWN arrow keys to select the call channel from the provided list of channels. This chosen channel will be monitored when Tri-Watch is activated.

DSC Setup:

MMSI Entry:

If an MMSI number has not been entered by a user into the radio, this will bring up a keyboard to enter in an MMSI number to the radio. Use the arrow keys to enter in the MMSI number and press the CONFIRM softkey to save entry. If an MMSI number has already been assigned to the radio, it will be displayed here.

MMSI Entry									
MMSI: -----									
1	2	3	4	5	6	7	8	9	0
←			Delete		→				
EXIT			CONFIRM			SELECT			



Operation

Individual Directory:

Your radio can store other vessel MMSI numbers as individual records to allow for quick access when making calls or position requests to specific stations whose MMSI number you know. The individual directory will list all currently saved individual MMSI records that you have saved into your radio.

- **New Entry:** Pressing the NEW softkey while in the individual directory allows the user to input a new record into the individual directory. Use the arrow keys on the keyboard to input the desired name and MMSI number for the new record and press the CONFIRM softkey to save.
- **Select Saved Entry:** Selecting a saved record brings up a window to either view additional information, edit the saved record, or delete the record from memory.

Group MMSI:

Nautical organizations such as yacht clubs and the organizers of events such as regattas can establish Group MMSI numbers. These allow a message to be sent automatically to all members of the group without having to call each one individually. Each member of the group must enter the group MMSI number in his radio in order to receive group messages.

- **New Entry:** Pressing the NEW softkey while in the group directory allows the user to input a new record into the group directory. Use the arrow keys on the keyboard to input the desired name and MMSI number for the new record and press the CONFIRM softkey to save.
- **Select Saved Entry:** Selecting a saved record brings up a window to either view additional information, edit the saved record, or delete the record from memory.

Position Reply:

The BlueBound 1350 can send your position information to another station when requested through a DSC call. This can be set to automatically respond to all position requests it receives or to alert you to a position request and allow for a manual response.

- Press the UP/DOWN arrow keys to choose between Auto and Manual.

Auto Channel Switch:

This setting allows the BlueBound 1350 to automatically switch to the requested channel when receiving an individual call.

- Press the UP/DOWN arrow keys to choose between On and Off.
- When set to On, the radio will automatically switch to the requested call channel when a DSC call is received.

Individual Call Reply:

This setting provides the ability to disable automatic replies when receiving Individual DSC calls if desired.

- Press the UP/DOWN arrow keys to choose between Auto and Manual.
- When set to Manual, the radio will prompt the user to reply to a DSC call when received, which can be manually responded to or exited without a response to return to VHF standby mode.



Operation

Manual Position Entry:

If the radio cannot acquire a GPS lock, there is an option to manually enter GPS coordinates into the radio. Once entered, those provided GPS coordinates will be used by the radio until a GPS lock has been established, or the radio has been power cycled.

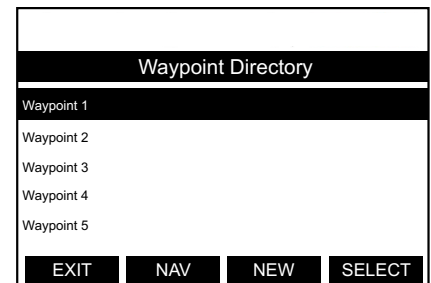
- Use the keyboard to enter the GPS time and coordinates, then press the CONFIRM softkey to save entry into the radio and return to the DSC menu.

Waypoints:

The BlueBound 1350 can save waypoints into memory for future reference and direct navigation with the NAV compass.

Waypoint Directory:

Waypoints saved from the VHF standby screen or entered in manually will be saved within the Waypoint Directory. There are multiple ways to save a waypoint to the waypoint directory



Saving a new Waypoint from Waypoint Directory:

1. When in Waypoint Directory press the NEW softkey to open a new waypoint setup menu.
2. Use the keyboard to enter in the waypoint name and GPS information.
3. Press the CONF softkey to save a new waypoint with the entered information.

Saving a new Waypoint from NAV Compass

1. While in the NAV compass screen, press the WPNT softkey to save the current coordinates as a new waypoint within the waypoint setup menu.
2. Use the keyboard to enter in the desired name for the new waypoint and press the SAVE softkey to save the entry as a new navigation waypoint.

Starting a new Waypoint navigation route in NAV Compass

1. When in Waypoint Directory, select a saved waypoint from the list of current waypoints.
2. Press the NAV softkey to put that waypoint into the navigation compass and start a new waypoint navigation route.

Arrival Alarm

When the radio is navigating to a chosen waypoint within the NAV compass, an arrival alarm will sound with an audible tone and display a message on screen once the destination has been reached if set to ON.

- Use the UP/ARROW keys to set the arrival alarm either OFF or ON.

Antenna SWR Test:

The BlueBound 1350 has a built-in function to check a connected VHF antenna's SWR to ensure that it is transmitting properly. Choosing the Antenna SWR menu option and initiating the SWR test will cause the radio to immediately begin testing 9 pre-chosen frequencies. During this time, a status message will



Operation

be displayed on the screen indicating that testing is in progress. When testing has completed, the radio will display a bar graph of the SWR results. See the table below for the frequencies targeted by the test.

Bar Graph Section	Target Frequency (MHz)	Nearest Channel	Nearest Frequency (MHz)
1	156.050	1	156.050
2	156.222	4	156.200
3	156.394	8	156.400
4	156.566	11	156.550
5	156.738	74	156.725
Channel 16's frequency falls between segment 5 and 6			
6	156.909	78	156.925
7	157.081	81	157.075
8	157.253	83	157.175
9	157.425	88	157.425

Digital Selective Calling (DSC)

Digital selective calling is a semi-automated system for establishing a radio call. It has been designed by the International Maritime Organization (IMO) as an international standard for VHF, MF, and HF calls and is part of the Global Maritime Distress and Safety System (GMDSS).

The DSC system allows mariners to instantly send a distress call with GPS position coordinates to the Coast Guard and other vessels within range of the transmission. DSC also allows mariners to initiate and receive distress, urgent, safety, routine, position request, position send, and group calls between vessels equipped with DSC Capable Radios.

A MMSI number must be entered into the BlueBound 1350 to enable DSC functionality.

Maritime Mobile Service Identity (MMSI)

An MMSI is a nine (9) digit number used on a marine radio capable of using digital selective calling (DSC). It is used to selectively call other vessels or shore stations and is like a telephone number.

For your Cobra BlueBound radio to operate in the DSC mode, you must enter your MMSI number into the radio.

To obtain an MMSI number in the U.S.A, visit the following sources.

- U.S Power Squadron
- BoatUS



Operation

To obtain an MMSI number in Canada, visit the following source

- Industry Canada Spectrum Management Office

*Consult your country's telecommunications authority or ship registry to obtain an MMSI number outside of North America.

Entering an MMSI Number

When there is no MMSI number entered in the BlueBound 1350, it will prompt the user to enter in an MMSI number every time the radio is powered on.

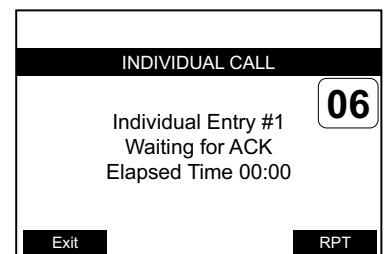
1. Press the PROG softkey from the main VHF standby screen when the radio prompts the user to enter in their MMSI number on first power-up.
2. Use the keyboard to enter your 9-digit MMSI number and press the CONFIRM softkey.

Alternatively, you can enter an MMSI number into the radio through the DSC setup menu with the MMSI entry option.

*You can only enter in an MMSI number once on the radio. If an MMSI number has been saved on the radio and it needs to be changed to a new number, you must contact Cobra customer service to reset the radio's MMSI number.

DSC Call Menu:

The BlueBound 1350 has multiple different call methods that can be initiated with other stations. To access this menu and the different DSC call options, press the CALL softkey from the VHF standby screen.

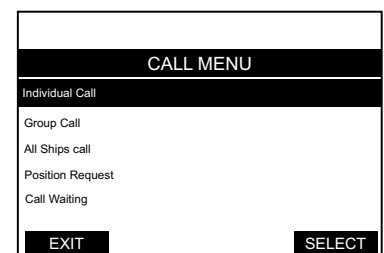


Individual Call

The BlueBound 1350 has two options for initiating an Individual Call. A call can either use manually entered information or utilize information from a saved record within the Individual Directory. If there are no saved records within the Individual Directory, only manual will be available as an option.

Call a saved station from Individual Directory

1. Select an eligible record from the list. The list will only show records from the Individual Directory.
2. Select the desired call channel from the dropdown list and press the ENTER softkey.
3. Press the ENTER softkey to initiate the DSC Individual call.
4. While the call is waiting for acknowledgement, the radio will show a standby screen with the elapsed time and the chosen call channel.
5. If needed, press the RPT softkey to repeat the transmission.
6. When the call has been acknowledged, an acknowledgement screen will be displayed on the radio, and the radio will switch to the chosen channel.



Call a manually entered station

1. To call a chosen station manually, select the Manual option within the Individual Call menu.
2. Enter in the station's MMSI number using the keyboard and press the CONFIRM softkey.



Operation

3. Select the desired call channel from the dropdown list and press the ENTER softkey.
4. Press the ENTER softkey to initiate the DSC individual call.
5. While the call is waiting for acknowledgement, the radio will show a standby screen with the elapsed time and the chosen call channel.
6. If needed, press the RPT softkey to repeat the transmission.
7. When the call has been acknowledged, an acknowledgement screen will be displayed on the radio, and the radio will switch to the chosen channel.

Group Call

The group call function behaves in a similar manner to the individual call function. Like the individual call, there are two ways to initiate a group call, either manually or from a saved record. The group call list instead pulls from the Group MMSI list of saved records instead of the individual directory.

Call a saved station from Group MMSI

1. Select an eligible record from the list. The list will only show records from the Group MMSI directory.
2. Select the desired call channel from the dropdown list and press the ENTER softkey.
3. Press the ENTER softkey to initiate the DSC group call.
4. While the call is waiting for acknowledgement, the radio will show a standby screen with the elapsed time and the chosen call channel.
5. If needed, press the RPT softkey to repeat the transmission.
6. When the call has been acknowledged, an acknowledgement screen will be displayed on the radio, and the radio will switch to the chosen channel.

Call a manually entered Group

1. To call a chosen group manually, select the Manual option within the Group Call menu.
2. Enter the Group's MMSI number using the keyboard and press the CONFIRM softkey.
3. Select the desired call channel from the dropdown list and press the ENTER softkey.
4. Press the ENTER softkey to initiate the DSC group call.
5. While the call is waiting for acknowledgement, the radio will show a standby screen with the elapsed time and the chosen call channel.
6. If needed, press the RPT softkey to repeat the transmission.
7. When the call has been acknowledged, an acknowledgement screen will be displayed on the radio, and the radio will switch to the chosen channel.

All Ships Call

All ships that have a DSC transceiver use Channel 70 as their listening channel. All Ships Call gives the ability to announce a message to all ships within range on DSC channel 70. There are two message types that are a part of an all ships call, Safety or Urgency.

Initiating an All-Ships Call

1. Select the All Ships Call option within the DSC Call Menu.
2. Choose either Safety or Urgency for the nature of the all ships call.
3. Select the desired call channel from the dropdown list of channels.
4. Press the ENTER softkey to initiate the All-Ships Call.
5. While the call is waiting for acknowledgement, the radio will show a standby screen with the elapsed time and the chosen call channel.
6. If needed, press the RPT softkey to repeat the transmission.



Operation

- When the call has been acknowledged, an acknowledgement screen will be displayed on the radio, and the radio will switch to the chosen channel.

Note: Only use the All Ships Call for highly important transmissions (Safety/Urgency). For regular DSC calls, use either the individual or group call options listed earlier.

Position Request

The position request function enables the BlueBound 1350 to obtain the position of a DSC station. This request can either be made manually or from a saved entry within the Individual Directory.

Position Request from Individual Directory

- Select an eligible record from the list. The list will only show records from the Individual Directory.
- A message will appear with the chosen record from the Individual Directory list with the question to transmit or not.
- Press the ENTER softkey to initiate the position request with the selected station.
- A waiting for acknowledgement screen will display on the radio once the request has been transmitted out. To repeat the transmitted request, press the RPT softkey.
- When the request has been acknowledged, the radio will display an acknowledged status screen. Press the INFO key to display the requested GPS coordinates.
- To save the GPS coordinates as a new waypoint to navigate towards, press the WPNT softkey.

Call Waiting

The Call Waiting section of the menu stores a record of all DSC distress and received calls. Entering each saved call record will show a brief description of the transmission received.

Viewing a saved DSC call

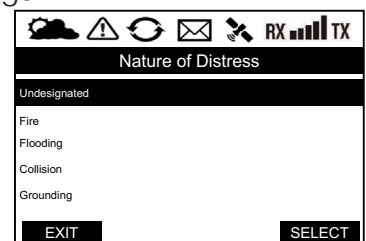
- While on the Call Waiting menu, choose between either Distress or Received Calls to view a record of all saved calls in each respective category.
- Select a record to see additional details about the nature of the received call.

Deleting DSC Call Records

- Select the Delete Call Logs options within the Call Waiting menu.
- Choose between either Distress or Received calls list of the DSC calls. A message will pop up asking if you would like to delete the associated call logs.

Test Call

The test call function allows the user to confirm that the radio is fully operational and that the DSC call functions are working properly. The steps for initiating a Test Call are the same as with an Individual Call, except transmitted message indicate that it is a Test Call.



DSC Distress Call

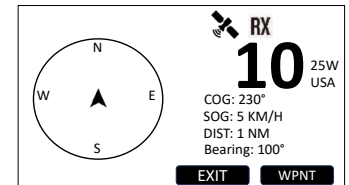
The BlueBound 1350 features a dedicated distress button for emergency transmissions to the Coast Guard and nearby stations. An MMSI number must be programmed into the radio for the DSC distress button to work.



Operation

Sending a DSC Distress Call

1. Press the DISTRESS button located on the side of the BlueBound 650 to bring up the nature of distress menu.
2. Choose the distress from the list that corresponds best to the current nature of distress, or undesignated if no other options are applicable.
3. Press the ENTER softkey to select the chosen distress and enter the distress standby menu.
4. Press and hold the distress key to initiate the distress call.
5. After transmitting, a screen will display a waiting for acknowledgement image along with a timer from when the transmission was sent. If necessary, you can repeat the transmission by pressing the RPT softkey.
6. Once the transmission has been acknowledged, the radio will show a confirmation screen along with a confirmation alarm.

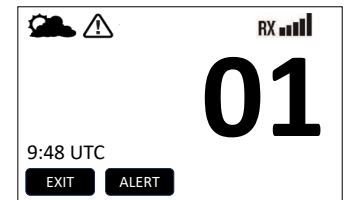


Navigation Compass (NAV)

The BlueBound 1350 features a compass for additional navigational support while underway. This can be accessed from the VHF standby screen by pressing the NAV softkey.

- Speed Over Ground (SOG)
- Course Over Ground (COG)

While in the compass screen, you can save your vessel's current position as a new waypoint by pressing the WPNT softkey. Use the keyboard to adjust the waypoint name as needed.



NOAA Weather

NOAA provides continuous, around-the-clock broadcasts of the latest weather forecast. 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 release the WX softkey. When your radio is in WX Standby mode, the following items will be displayed on the LCD display.

- The WX icon (cloud icon)
- The current weather channel
- "WX ALERT ON/OFF" status

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.



Operation

To turn WX Alert ON, press the ALERT softkey while in WX Standby Mode. The LCD will display the weather alert triangle icon on the LCD display along with the status message “WX ALERT ON”.



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.

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.

Troubleshooting

Problem	Possible Cause(s)	Solution(s)
No display on LCD screen when radio is powered on	Improper power connection	Insure power connections are proper and secure
Will transmit at one (1) watt, but not at 25 watts	Selected channel is limited to one (1) watt	Switch to another channel
Will not transmit	Selected channel is limited to receive only	Switch to another channel
No sound from speaker	Volume level is too low or squelch level is too deep	Readjust volume and squelch
No answer to calls	Out of range of other station Signal is blocked by terrain	Switch to high power (25 watts) or move closer Move until you have a “line-of-sight” to the other station



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 25 watts and call again.

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



Operation

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

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.

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.”



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

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 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	- All U.S.A, Canadian and International Channels -12 NOAA Weather Channels
Channel Spacing	25kHz
Modulation	5hHz Max
Input Voltage	13.8 VDC
Current Drain: Standby Receive Transmit	20mA 200mA 5A @ High Power 1A @ Low Power
Temperature Range	-20°C to +55°C
Radio Dimensions	76mm H x 160mm W x 98mm D
Radio Weight	861g
Receiver	
Frequency Range	156.050 to 163.275 MHz
Receiver Type	FM – Double Conversion Super-Heterodyne
Sensitivity: 12 dB Sinad	-120 dBm
Adjacent Channel Selectivity	-70 dB
Intermodulation and Rejection	-70 dB
Spurious and Image Rejection	-60 dB
AF Output	4.5W @ 8 Ohms
Transmitter	
Frequency Range (Tx)	156.025 - 157.425 Mhz
RF Output Power	1 and 25 Watts
Spurious Emissions	-55 dB
Microphone Type	Electret
Frequency Stability	+/-5 ppm
FM Hum and Noise	40 dB
GPS	
Receiver	56 Channels
Hot: Nominal: < 1 second, Limit +/- 5 seconds Cold: Nominal: 30 seconds, Limit +/- 10 seconds	
Antenna Type	Internal Patch Antenna
GPS receiver first lock sensitivity	-148 dBm



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).

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.

Intership Safety

Channel 6

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

Coast Guard Liaison

Channel 22A

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

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.

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.

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.

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.

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.

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.

Weather

Channels Wx 1 Thru 12

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

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 Mapa de canales				Frequency Frecuencia			
Channel Number Numero de canal	USA EE. UU	Int'l ntema	Canada canada	Transmit Transm.	Receive Reception	Power Limits Límite de potencia	Channel Use (English)
01		●	●	156.050	160.650		Public Correspondence (Marine Operator)
01A/1001	●			156.050	156.050		Port Operations and Commercial, VTS in selected areas
02		●	●	156.100	160.700		Public Correspondence (Marine Operator)
03		●	●	156.150	160.750		Public Correspondence (Marine Operator)
04		●		156.200	160.800		Public Correspondence (Marine Operator) Port Operations, Ship Movement
1004			●	156.200	156.200		West Coast (Coast Guard Only); East Coast (Commercial Fishing) 1
05		●		156.250	160.850		Public Correspondence (Marine Operator) Port Operations, Ship Movement
05A/1005	●		●	156.250	156.250		Port Operations, VTS in selected areas
06	●	●	●	156.300	156.300		Intership Safety
07		●		156.350	160.950		Public Correspondence (Marine Operator) Port Operations, Ship Movement
07A/1007	●		●	156.350	156.350		Commercial
08	●	●	●	156.400	156.400		Commercial (Intership Only)
09	●	●	●	156.450	156.450		Boater Calling Channel, Non-Commercial (Recreational)
10	●	●	●	156.500	156.500		Commercial
11	●	●	●	156.550	156.550		Commercial, VTS in selected areas
12	●	●	●	156.600	156.600		Port Operations VTS in selected areas
13	●	●	●	156.650	156.650	1 Watt USA	Intership Navigation Safety (Bridge-to-Bridge). In U.S. waters, large vessels maintain a listening watch on this channel.
14	●	●	●	156.700	156.700		Post Operations, VTS in selected area
15	●			Rx Only	156.750		Environmental (Receive Only).
15		●	●	156.750	156.750	1 Watt	Canada (EPIRB Buoys Only); International (On-Board Communication)
16	●	●	●	156.800	156.800		International Distress, Safety and Calling
17	●	●	●	156.850	156.850	1 Watt	State Controlled (U.S.A. Only)



Channel Map Mapa de canales				Frequency Frecuencia			
Channel Number Numero de canal	USA EE. UU	Int'l ntema	Canada canada	Transmit Transm.	Receive Reception	Channel Use (English)	
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		●		RX Only	161.550		Port Operations
20	●	●	●	157.000	161.600	1 Watt CAN 1 vatio Canada	Canada (Coast Guard Only); International (Port Operations, Ship Movement)
20A/1020	●	●		157.000	157.000		Port Operations
2020		●		RX Only	161.600		Port Operations
21		●		157.050	161.650		Port Operations; Ship Movement
21A/1021	●		●	157.050	157.050		U.S. (Government Only); Canada (Coast Guard Only)
2021			●	Rx Only	161.650		Coast Guard Only - Weather Braodcasts
22		●		157.100	161.700		Port Operations, Ship Movement
22A/1022	●		●	157.100	157.100		U.S. and Canadian Coast Guard Liaison and Maritime Safety Information Broadcasts that are announced on Channel 16
23		●	●	157.150	161.750		Public Correspondence (Marine Operator)
23A/1023	●			157.150	157.150		Coast Guard Only
2023			●	Rx Only	161.750		Coast Guard Only - Weather Broadcasts
24	●	●	●	157.200	161.800		Public Correspondence (Marine Operator)
25	●	●	●	157.250	161.850		Public Correspondence (Marine Operator)
2025			●	Rx Only	161.850		Safety: Continuous Marine Broadcast (CMB) service by MCTS Canada
26	●	●	●	157.300	161.900		Public Correspondence (Marine Operator)
27	●	●	●	157.350	161.950		Public Correspondence (Marine Operator)
1027		●		157.350	157.350		Port Operations



Channel Map Mapa de canales				Frequency Frecuencia			
Channel Number Numero de canal	USA EE. UU	Int'l ntema	Canada canada	Transmit Transm.	Receive Reception		Channel Use (English)
28	●	●	●	157.400	162.000		Public Correspondence (Marine Operator)
1028		●		157.400	157.400		Port Operations
2028			●	Rx Only	162.000		Safety: Continuous Marine Broadcast (CMB) service by MCTS Canada
60		●	●	156.025	160.625		Public Correspondence (Marine Operator)
61		●		156.075	160.675		Public Correspondence (Marine Operator) Port Operation, Ship Movement
1061			●	156.075	156.075		Canada (Coast Guard Only); West Coast (Coast Guard Only); East Coast (Commercial Fishing)
62		●		156.125	160.725		Public Correspondence (Marine Operator) Port Operation, Ship Movement
1062			●	156.125	156.125		West Coast (Coast Guard Only) East Coast (Commercial Fishing)
63		●		156.175	160.775		Public Correspondence (Marine Operator) Port Operation, Ship Movement
63A/1063	●		●	156.175	156.175		Post Operations and Commercial, VTS in selected areas, Canada Tow Boats-BCC
64		●	●	156.225	160.825		Public Correspondence (Marine Operator) Port Operation, Ship Movement
1064			●	156.225	156.225		U.S. (Government Only); Canada (Commercial Fishing)
65		●		156.275	160.875		Public Correspondence (Marine Operator) Port Operation, Ship Movement
65A/1065	●		●	156.275	156.275		Port Operations
66		●		156.325	160.925		Public Correspondence (Marine Operator), Port Operations, Ship Movement
66A/1066	●		●	156.325	156.325	1 Watt CAN	Port Operations
67	●	●	●	156.375	156.375		U.S. (Commercial). Used for bridge-to-bridge communications in lower Mississippi River (Intership Only); Canada (Commercial Fishing), S&R
68	●	●	●	156.425	156.425		Non-Commercial (Recreational)
69	●	●	●	156.475	156.475		U.S. (Non-Commercial, Recreational); Canada (Commercial Fishing Only); International (Port Operations, Ship Movement)
70	●	●	●	Rx Only	156.525		Digital Selective Calling (Voice communications not allowed)
71	●	●	●	156.575	156.575	1 Watt USA	U.S. and Canada (Non-Commercial, Recreational); International (Port Operations, Ship Movement)



Channel Map Mapa de canales				Frequency Frecuencia			
Channel Number Numero de canal	USA EE. UU	Int'l ntema	Canada canada	Transmit Transm.	Receive Reception	Channel Use (English)	
72	●	●	●	156.625	156.625		Non-Commerical (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	156.775	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		●		RX Only	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		●		RX Only	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		U.S. (Government Only; Environmental Protection Operations)
82		●		157.125	161.725		Public Correspondence (Marine Operator), Port Operation, Ship Movement
82A/1082	●		●	157.125	157.125		U.S. (Government Only); Canada (Coast Guard Only)
83		●		157.175	161.775		Port Operations, Ship Movement
83A/1083	●		●	157.175	157.175		(Coast Guard Only) (Coast Guard Only)



Channel Map Mapa de canales				Frequency Frecuencia			
Channel Number Numero de canal	USA EE. UU	Int'l ntema	Canada canada	Transmit Transm.	Receive Reception	Channel Use (English)	
2083			●	RX only	161.775		Coast Guard Only – Weather Broadcasts
84	●	●	●	157.225	161.825		Public Correspondence (Marine Operator)
85	●	●	●	157.275	161.875		Public Correspondence (Marine Operator)
86	●	●	●	157.325	161.925		Public Correspondence (Marine Operator)
87	●	●	●	157.375	157.375		Public Correspondence (Marine Operator)
88	●	●	●	157.425	157.425		U.S. (Commercial). Port Operations and VTS (International & Canada).
88A/1088	●			157.425	157.425		Commercial Intership only
1001	●			156.050	156.05		Port Operations / Vessel Traffic Service
1005	●			156.250	156.250		Port Operations / Vessel Traffic Service
1007	●			156.350	156.350		Commercial
1018	●			156.900	156.900		Commercial
1019	●			156.950	156.950		Port Operations
1020	●			157.000	157.000		Port Operations
1021	●			157.050	157.050		Coast Guard Only
1022	●			157.100	157.100		Coast Guard Only
1023	●			157.150	157.150		Coast Guard Only
1063	●			156.175	156.175		Port Operations / Vessel Traffic Service
1065	●			156.275	156.275		Port Operations / Vessel Traffic Service
1066	●			156.325	156.325		Port Operations / Vessel Traffic Service
1078	●			156.925	156.925		Commercial/Non-Commercial
1079	●			156.975	156.975		Commercial/Non-Commercial
1080	●			157.025	157.025		Commercial/Non-Commercial
1081	●			157.075	157.075		Commercial/Environmental



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 Numero de canal	RX Frequency MHz Frecuencia de recepcion	Weather Channel 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