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

How Your CobraMarine VHF Radio Works

This radio is a battery-powered portable transceiver for use afloat. It gives you two-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.

Customer Assistance

Should you encounter any problems with this product, or not understand its many features, please refer to this owner’s manual. If you require further assistance after reading this manual, please contact your local dealer.

There is no restriction on the EU region for
Transmit Frequency: 156.025 - 157.425 MHz
Receive Frequency: 156.050 - 163.275 MHz

For Warranty, Product Service and Accessory Information
Please contact your local dealer or distributor.
See www.cobra.com for a list of CobraMarine international distributors.

Adapter: ASSA55W-120040
Aquil Star Precision Industrial (Shenzhen) Co., Ltd.
Car Charger: 12V, 1000mA
Shenzhen Nuo Heng Yuan Technology Co., Ltd.
Battery: CEL 523450
Jiangsu CEL Battery Co., Ltd
**Backlit LCD (Liquid Crystal Display) Screen**

- **Product Features**

  **Power Settings**
  Select 0.5, 1 or 3 watts of output power for near or distant calling.

  **International/Canada Channels/USA**
  Operate on any of the three different channel maps set up for these areas.

  **Submersible**
  Meets JIS7/IPX7 waterproof standards.

  **Key Lock**
  Prevents accidental setting changes when key lock is set.

  **Channel Scan/Memory Scan**
  Scan through all or memorized channels to find conversations in progress.

  **Instant Channel 16/9**
  Provides instant access to priority Channel 16 and calling Channel 9.

  **Dual-Watch**
  Use to monitor two (channels at once – Channel 16 and one user selected channel.

  **Roger Beep Tone (Selectable)**
  Confirmation tone indicates the completion of the user's transmission and signals to others it is clear to talk. On or Off selectable.

  **Rechargeable NiMH (Nickel-Metal Hydride) Batteries**
  Five rechargeable NiMH batteries supplied with the unit provide extended operating time and have no memory effect. Five AAA alkaline batteries may also be used for emergency backup power.

  **12V Power Cord Included**
  Charge the NiMH batteries in a car or boat.

  **Speaker/Mic Included**
  Allows connecting optional Cobra Lapel Speaker/Mic.

  **Memory Channels**
  Allows programming of up to ten VHF memory channels.

  **Signal Strength Meter**
  Shows the strength of incoming or outgoing signals.

  **Illuminated Buttons**
  Allows high visibility of all function buttons.
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### Warning and Notice Statements

To make the most of this radio, it must be used properly. Please read the operating instructions carefully before using the radio. Special attention must be paid 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.

**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 (5 cm) away from yourself and others when transmitting. **DO NOT** transmit more than 50% of the time the radio is in use — 40% duty cycle. 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.

**NEVER** connect the transceiver to AC power. It can be a fire hazard, may cause an electric shock, and may damage the transceiver.

**NEVER** mount the transceiver or microphone 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, Industry Canada or EU RF exposure limits or create other dangerous conditions.

**Maximum SAR Value:**

- **0.452 W/Kg** (50% duty to face 10g)
- **0.795 Ww/Kg** (50% duty to body 10g)
- **0.413 W/Kg** (50% duty to face 1g)
- **0.975 W/Kg** (50% duty to body 1g)

### 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 so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that 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.
NOTICE
Your radio is waterproof only when the batteries are 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 the 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 is supplied with NiMH (Nickel-Metal Hydride) rechargeable batteries.
• Use only the Cobra power cord to recharge NiMH batteries in the radio.
• Do not short circuit the batteries.
• When replacing the batteries, dispose of the old batteries properly. The NiMH batteries may explode if disposed of in a fire.
• Do not attempt to operate your radio while recharging the batteries.
• Do not use batteries other than Cobra NiMH or Alkaline batteries of the correct type.
There is a risk of explosion if the batteries are replaced by an incorrect type.
Compatible replacement NiMH batteries are available from Cobra.

Changes or modifications to your radio MAY VOID its compliance with FCC (Federal Communications Commission) rules and make it illegal to use.

Recommendations for Marine Communication
The frequencies your radio uses are set aside to enhance safety afloat and for vessel navigation and operational messages over a range suitable for nearshore voyages. If the 3 watt maximum output of your radio isn’t sufficient for the distances you travel from the coast, consider installing more powerful radio equipment such as HF single side band or satellite radio for your vessel.

The coastguard does not endorse mobile phones as substitutes for marine radios. They generally cannot communicate with rescue vessels and, if you make a distress call on a mobile phone, only the party you call will be able to hear you. Additionally, mobile phones may have limited coverage over water and can be hard to locate. If you don’t know where you are, the coastguard will have difficulty finding you if you’re using a mobile phone.

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

Licensing Information
This CobraMarine radio incorporates a VHF FM transceiver designed for use in the frequency range of 156.025 to 163.275 MHz. It requires 6 volts DC and has a switchable RF output power of 0.5, 1 or 3 watts.

The radio operates on all currently allocated marine channels and is switchable for use according to International, Canadian, or U.S.A. regulations. It features instant access to emergency Channel 16 by pressing one key.

CobraMarine® VHF radios comply with the U.S. FCC (Federal Communications Commission) requirements that regulate the Maritime Radio Service.

Station License
The UK requires a ships radio license and a marine radio operators certificate before transmitting equipment can be used aboard a vessel. Other European countries have specific requirements of their own.

For detailed information and applications, contact the Royal Mail Licensing Centre in the UK. In other countries contact the local equivalent of the UK Royal Mail or the national telecommunications authority.

Canadian or U.S.A. Station License
If your vessel will be entering the sovereign waters of Canada or the U.S.A., you should contact Industry of Canada, Radio Regulatory Branch or the U.S. Federal Communications Commission for licensing and operating information.

Radio Call Sign
A radio call sign is included as part of the ships radio license in the UK. Other countries may have different practices; contact your local regulatory authority for information.

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.

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.
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. Visit their website at http://www.cps-ecp.ca/.

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.

Included in this Package
You should find all of the following items in the package with your CobraMarine VHF radio.

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

Belt Clip
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. To attach the wrist strap, insert it through the hole at the top of the belt clip, feed it through the looped end and pull tight to secure to the belt clip.
3. Press open the belt clip, slide it over the belt and release the clip.
4. To remove the belt clip from the radio press the tab on the belt clip, which unlocks the clip, and slide it out.

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 CobraMarine® dealer or Cobra® directly for optional accessories.
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.
The radio is shipped with five NiMH rechargeable batteries.

**WARNING**
The 12V power cord supplied with this radio is only to be used with its rechargeable batteries. Do not attempt to charge any other type of batteries in the radio as fire, explosion or battery damage will occur. Rechargeable battery life will be prolonged if extreme ambient temperatures are avoided.

When your rechargeable batteries begin to discharge too quickly, it is time to install new batteries. Your radio will also operate with five (high-quality AAA alkaline batteries.

### Installing the Batteries
Install the AAA batteries in the slots in the battery compartment with the batteries oriented according to the polarity (+ & -) marks in the slots.

#### Initial Charge
The Cobra-provided NiMH batteries may be charged in a car or boat using the appropriate 12V power cord.

1. Insert the power cord into the side of the radio.
2. Insert the other end of the power cord into a 12V power source.
3. Observe that the red light on the power cord glows to indicate that power is present.
4. Allow the batteries to charge for 12 to 14 hours before use.

**WARNING**
Only the rechargeable NiMH batteries can be recharged. You MUST use the charging device provided with this radio. Do not substitute any other type of charging adapter. Battery damage, fire or explosion may result. It is equally important to prevent the NiMH batteries from freezing to obtain best performance from them.

### To Remove Batteries from Radio
1. Loosen the 2 screws on the back of the battery door.
2. Pull the individual batteries out of the radio housing.

**NOTICE**
NiMH batteries are toxic. Please dispose of properly. Some marine suppliers accept old batteries for recycling and some municipal waste disposal agencies have special provisions for battery disposal.

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

**NOTICE**
Use only the 12V power cord provided by Cobra. Do not use the power cord with alkaline batteries; only the NiMH batteries are rechargeable. Spent alkaline batteries must be discarded and replaced.

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

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

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

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

Common Radio Functions

The following procedure defines common operating functions of the radio when in Standby mode.

Power Button

Power On/Off Button
The On/Off Button control is located at the front left side of the radio. Pressing and holding the power On/Off button for 3 seconds will turn the radio On or Off.

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
Volume is controlled by the Up/Down volume buttons.
- To increase the volume, press the Volume + button.
- To decrease the volume, press the Volume - button.

Squelch Control
This radio is equipped with an automatic squelch control. Squelch filters weak signals and radio frequency (RF) noise so you can hear the main signal clearly.

To receive weak signals, the automatic squelch can be turned Off (opened) by pressing the Squelch Defeat button. You will likely hear a lot of static and RF noise along with the weak signal.

Press the Squelch Defeat button for up to five seconds to briefly open squelch. To hold squelch open for longer periods, press and hold the Squelch Defeat button for more than five seconds. Squelch will remain open until you press the Squelch Defeat button again or you change channels.
Operating Your Radio

Getting Started

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

To Display the Backlight Momentarily:
Press the Backlight/Key Lock button. The backlight will remain On for 10 seconds. If the backlight is already On, a press of the Backlight/Key Lock button will turn it Off.

Key Lock
To prevent accidental changes to your settings, you can lock all of the buttons on the front of the the radio along with the Squelch Defeat 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 in the LCD. When Key Lock is On, any of the buttons on the front of the radio will result in a three beep error message.

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

Channel Up/Down 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.

If you are on Channel 88, pressing the Channel Up button will advance to Channel 01. If you are on Channel 01, pressing the Channel Down button will advance to 4 digit channel.

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

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

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

CAUTION

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

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

When a signal is received in SCAN mode, the radio will pause 10 seconds before resuming SCAN operation.

The scan will stop when the Talk button is pressed.

NOTE

Memory channels need to be saved to effectively enter the Memory Channel mode and scan all memory channels. See page 25.

High/Medium/Low (HI/MED/LO) Power Button
Your radio can transmit selectively at .5, 1 or 3 watts of power. Cobra suggests you maintain the low power setting for short-range communication. You will conserve battery life and avoid overpowering nearby stations by using a low power signal. Use the High Power 3 watt setting for long-range communications or when you do not receive a response to a signal sent at .5 or 1 watt.

To Toggle Between Hi/Med/Lo Power Modes:
Press the H-M-L button. The LCD will show which mode is in effect. Some channels are restricted for a maximum use of 1 watt.

Your radio will automatically set the power to Medium Power mode when you select those channels.

NOTE

Nothing Comes Close to a Cobra®
Setup Mode Programming

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

NOTE
When in the Setup mode, if you stop programming for longer than 10 seconds, your entry will be saved and the radio will go back to the Marine Standby mode. Pressing any of the non-programming buttons (Talk, Dual-Watch/Scan, H-M-L, Instant Channel 16+) will also exit Setup mode and invoke the button function or return the radio to Marine Standby mode.

When you return to Setup mode and continue programming you will see the last “value” displayed. While in the Setup mode, you will not receive any signal reception.

Marine (VHF) Mode Programming

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

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

Roger Beep Mode

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

To Set Roger Beep On or Off:
1. Press and hold the Setup button for 3 seconds.
2. Press Channel Up/Down buttons to select ON or OFF. ROG will be displayed when On.
3. Press Enter/Setup button to save this entry and move to the next setup programming mode – Key Tone.

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

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

Key Tone Mode

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

To Set Key Tone On or Off:
1. Press and hold the Setup button for 3 seconds.
2. Press Channel Up/Down buttons to select ON or OFF.
3. Press Enter/Setup button to save all entries.

ATIS

ATIS is required in some countries when navigating inland waterways. The nine digit ATIS number, similar to a telephone number, is a unique identifier for a vessel. To obtain an ATIS number, please contact your country’s telecommunication authority or ship registry issuing agency. Consult your local dealer for questions about local ATIS requirements.

NOTE
An ATIS number can only be programmed into your VHF radio by an authorized Cobra dealer using special software.

ATIS Mode

ATIS mode allows control over ATIS packet transmissions. This mode is only visible after initial ATIS set-up by a Cobra dealer.

To select the ATIS On/Off screen:
1. Enter the Set Up menu and scroll to ATIS.
2. Press the ENTER soft key and observe the current ATIS setting - ON or OFF.
3. Use the Up/Down buttons to switch to the setting you want.
4. Press the ENTER soft key to save the setting.

NOTE
Scan and Dual Watch features are not available when ATIS is on.

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

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 by becoming familiar 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 (Talk) button. Users will hear signals on the selected channel(s) in Receive (RX) mode and can hear alerts broadcast by the Coast Guard.

NOTE
Coast Guard alerts are broadcast on Channel 16. While in Marine Standby mode, you will receive any messages sent on the channel to which you are tuned.

Transmit (Tx) Mode

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

To Transmit a Message:
1. Check to see that your radio is set to a proper channel for the type of message you plan to send.
2. Toggle to the Low Power setting for a nearby station.
3. With the microphone about 2 in. (51 mm) from your mouth, press and hold the Talk button and speak into the microphone. The Transmit icon will appear on the LCD.
4. Release the Talk button when you are finished speaking. Your radio can only operate in either Transmit (Tx) or Receive (Rx) mode at any given time. You will not hear the response to your message unless the Talk button is released. If the Battery Power icon begins blinking on the LCD when the Talk button is pressed, the radio will NOT transmit.

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

Channel 16/9 Mode

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

To Switch to Channel 16 or Channel 9:
1. Press the Channel 16+ button to change to Channel 16.
2. Press the Channel 16+ button again to change to Channel 9.
3. Press the Channel 16+ button a third time and return to the last used Marine Standby channel.

Dual-Watch Mode

Dual-Watch mode gives you one button access to scan a total of two channels of most importance to you. Channel 16 is preprogrammed and will always be one of the scanned locations. The other channel can be any marine VHF channel of your choice.

Using Dual-Watch

1. In Marine Standby mode, select the desired channel for Dual-Watch scanning.
2. Press the Dual-Watch button. The DW icon will appear on the LCD display and the radio will scan channel 16 and the selected channel.
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 location.

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

4. Press the Channel Up or Channel Down buttons to resume scanning the Dual-Watch channels or to change the scan direction.
5. To EXIT the Dual-Watch scan, press the Dual-Watch button again. The DW icon will disappear from the LCD and the radio will return to Marine Standby mode.

NOTE
Dual-Watch also functions with a Memory channel.
Operating Your Radio

Advanced Operation

Memory Location Mode

Your radio has ten memory locations (numbered 0 to 9) for your most frequently used channels. These memory locations can be selected individually or can be scanned.

To enter Memory mode, press Memory/Escape button. The display will show the MEM icon and the Memory Channel bank will be activated and displayed.

To Program Memory Locations:
1. Press and hold the Memory/Escape button for two seconds. The memory location number will start flashing.
2. Use the Channel Up and Channel Down buttons to advance to the memory location (0-9) you want to program.
3. Press the Memory/Escape button to select the memory location. The memory channel number will stop flashing and the channel number will start flashing.
4. Use the Channel Up and Channel Down buttons to change to the channel you want to store into the selected memory location.
5. Press the Memory/Escape button to program that channel. The memory location number will flash again.

Repeat steps 2 through 5 to program as many additional memory locations as you want [up to ten VHF memory channels].

6. Press and hold the Memory/Escape button for two seconds. This will return the radio to Memory mode.
7. Press and release the Memory/Escape button again to return to Marine Standby mode.

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

To Exit Memory Location Mode:
Press the Memory/Escape button to return the radio to Marine Standby mode. The last channel used in Marine Standby mode will now be displayed on the LCD and the MEM icon will disappear.

To Erase Stored Memory Locations:
1. Press and hold the Memory/Escape button for two seconds. The memory location number will start flashing and the MEM icon will be turned On.
2. Use the Channel Up and Channel Down buttons to advance to the memory location you want to erase.
3. Press the Memory/Escape button to select the memory location. The memory channel number will stop flashing and the channel number will start flashing.
4. Use the Channel Up and Channel Down buttons to change the channel to read “- - -” at the selected memory location.
5. Press the Memory/Escape button to erase that memory location.

Repeat steps 2 through 5 to erase as many additional memory locations as you want.

6. Press and hold the Memory/Escape button for two seconds. This will return the radio to Memory mode.
7. Press and release the Memory/Escape button again to return to Marine Standby mode.
**Memory Location Scan Mode**

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

**NOTE**

If there are fewer than two memory locations programmed in the radio, the Memory Location Scan option will not be available. At least two memory locations need to be programmed to use the Scan button.

**To Enter Memory Location Scan:**

1. From Marine Standby mode, press the Memory/Escape button.
2. Press and hold the DUAL WATCH/SCAN button. The radio will immediately begin to scan all pre-assigned memory channels. The SCAN and MEM icons will show on the LCD.
3. A signal on any channel will stop the scan for 10 seconds to allow you to listen to the traffic on that location.
4. Press the Channel Up or Channel Down button to resume scanning the Memory Location Scan channels or to change the scan direction.
5. To EXIT Memory Location Scan mode, press and hold the DUAL WATCH/SCAN button again. The SCAN and MEM icons will disappear from the LCD and the radio will return to Memory mode.

**Channel Scan Mode**

During Channel Scan mode, the radio will rapidly switch from channel to channel through ALL the channels. Whenever any activity is detected, the radio will stop the scan for 10 seconds to allow you to listen briefly on that channel. The radio will then continue to scan unless you switch out of the Channel Scan mode.

**To Enter Channel Scan:**

1. From Marine Standby mode, press and hold the DUAL WATCH/SCAN button. The radio will immediately begin to scan the entire channel map selected in the active channel map. The SCAN icon will show on the LCD.
2. A signal on any channel will stop the scan for 10 seconds to allow you to listen to the traffic on that location.
3. Press the Channel Up or Channel Down button to resume scanning the Channel Scan channels or to change the scan direction.
4. To EXIT Channel Scan mode, press and hold the DUAL WATCH/SCAN button again. The SCAN icon will disappear from the LCD and the radio will return to Marine Standby mode.
Operating Your Radio

Maintenance

Very little maintenance is required to keep your CobraMarine 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 or abrasive cleaners, which could damage the case or scratch the LCD screen.
- If the radio is exposed to salt water, wipe with a soft, moist cloth at least once a day to prevent buildup of salt deposits, which could interfere with button operation.
- If the radio will be stored for a long period, such as over the winter, remove the batteries from the battery tray and store them in a separate package. This is especially important if you are using alkaline batteries.

Troubleshooting

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<tbody>
<tr>
<td>No display on LCD when radio is turned On</td>
<td>Batteries are exhausted</td>
<td>Recharge or replace batteries</td>
</tr>
<tr>
<td></td>
<td>Batteries not installed properly</td>
<td>Remove batteries and reinstall according to polarity markings</td>
</tr>
<tr>
<td>NIMH batteries run down quickly</td>
<td>Batteries are at the end of their life</td>
<td>Replace with new batteries</td>
</tr>
<tr>
<td>Will transmit at .5 or 1 Watt, but not at 3 Watts</td>
<td>Batteries are low</td>
<td>Recharge or replace batteries</td>
</tr>
<tr>
<td></td>
<td>Selected channel is limited to one (1) watt</td>
<td>Switch to another channel</td>
</tr>
<tr>
<td>Will not transmit</td>
<td>Selected channel is limited to receive only</td>
<td>Switch to another channel</td>
</tr>
<tr>
<td>No sound from speaker</td>
<td>Volume level is too low</td>
<td>Re-adjust volume</td>
</tr>
<tr>
<td>No response to button press</td>
<td>Button lock is On</td>
<td>Press Backlight/Key Lock button</td>
</tr>
<tr>
<td>No answer to calls</td>
<td>Out of range of other station</td>
<td>Switch to three watts or move closer</td>
</tr>
<tr>
<td></td>
<td>Signal is blocked by terrain</td>
<td>Move until you have a “line-of-sight” to the other station</td>
</tr>
</tbody>
</table>

Maintenance and Troubleshooting

VHF Marine Radio Procedures

VHF Marine Radio Procedures

Maintain Your Watch
Whenever your boat is underway, the radio must be turned On and be tuned to Channel 16 except when being used for messages.

Power
Try 0.5 watts first, if the station being called is within a few miles. If there is no answer, switch to 1 watt and call again. You have the ability to go up to 3 watts of output power to increase your calling distance. Remember, 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. Be reminded, 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 which is available for the type of message you want to send.

Station Identification
Identify, in English, your station by your CE call sign (if available), vessel name and the state registration number, at both the beginning and at the end of the message.

Prohibited Communications
You MUST NOT transmit:
- False distress or emergency messages.
- Messages containing obscene, indecent or profane language.
- General calls, signals or messages (messages not addressed to a particular station) on Channel 16, except in an emergency or if you are testing your radio.
- 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 station (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 Talk button and call a vessel. Hold the radio or microphone 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. See channel listing in the appendix.

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.”

Voice Calling & Radiotelephone Calls

- If the other party does not respond, wait two minutes and repeat. You are permitted to attempt contact three 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
For best sound quality at the station you are calling, hold the microphone on the front of the radio at least 2 in. (51 mm) from your mouth and slightly off to one side. Speak in a normal tone of voice.

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.

Radiotelephone Calls

Boaters may make and receive radiotelephone calls to and from any number on the telephone network by using the services of public coast stations. For a fee, calls can be made between your radio and telephones on land, sea and in the air. See the appendix for the public correspondence (marine operator) channels. If you plan to use these services, consider registering with the operator of the public coast station that you plan to work through. These services can provide you with detailed information and procedures to follow.

NOTICE
You may disclose privileged information during a radiotelephone call. Keep in mind that your transmission is NOT private, as it is on a regular telephone. Both sides of the conversation are being broadcast and can be heard by anyone who has a radio and tunes to the channel you are using.
Emergency Messages and Distress Procedure

The ability to summon assistance in an emergency is the primary reason to have a VHF marine radio. The marine environment can be 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 a 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 gas, do not send an emergency message. Drop your anchor and call a friend or marina to bring the fuel you need or to give you a tow.

Marine Emergency Signals

The three spoken international emergency signals are:

- **MAYDAY**
  - The distress signal MAYDAY is used to indicate that a station is threatened by grave and imminent danger and requests immediate assistance.

- **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.)

- **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

You must give any message beginning with one of these signals priority over any other messages. 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 in a position to relay the message.

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.

Keep the radio nearby. Even after your message has been received, the Coast Guard can find you more quickly if you can transmit a signal for a rescue boat to hone in on.
Emergency Messages and Distress Procedure

For Example

“Mayday — Mayday — Mayday”
“This is Corsair — Corsair — Corsair” [or “IL 1234 AB,” repeated three (3) 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 (3) 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”

It is a good idea to write out a script of the message form and post it where you and others on your vessel can see it when an emergency message needs to be sent.

Specifications (Typical)

<table>
<thead>
<tr>
<th>General</th>
<th>All International, Canadian and U.S. Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Channels</td>
<td>All International, Canadian and U.S. Channels</td>
</tr>
<tr>
<td>Channel Spacing</td>
<td>25 kHz</td>
</tr>
<tr>
<td>Modulation</td>
<td>5 kHz Max.</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>6.0 VDC</td>
</tr>
<tr>
<td>Battery Life:</td>
<td>NiMH: 9.4 hours @ 3 watts</td>
</tr>
<tr>
<td>5% TX, 5% RX, 90% Standby</td>
<td>20 hours @ 0.5 watts</td>
</tr>
<tr>
<td></td>
<td>12 hours @ 1 watt</td>
</tr>
<tr>
<td></td>
<td>26 hours @ 3 watts</td>
</tr>
<tr>
<td></td>
<td>33 hours @ 1 watt</td>
</tr>
<tr>
<td>Current Drain:</td>
<td>45 mA</td>
</tr>
<tr>
<td>Standby</td>
<td>140 mA</td>
</tr>
<tr>
<td>Transmit (Tx)</td>
<td>1.1 A @ High Power, 450 mA @ Low Power</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-20°C to 50°C</td>
</tr>
<tr>
<td>Radio Dimensions</td>
<td>4.5” H x 2.7” W x 1.5” D</td>
</tr>
<tr>
<td>(114 mm x 69 mm x 38 mm) not including antenna</td>
<td></td>
</tr>
<tr>
<td>Radio Weight</td>
<td>0 lbs., 8 oz. (247g.)</td>
</tr>
</tbody>
</table>

Receiver

| Frequency Range | 156.050 to 163.275 MHz |
| Receiver Type | Double Conversion Super-Heterodyne |
| Sensitivity: | 0.25 uV |
| 12 dB Sinad | 0.25 uV |
| Adjacent Channel Selectivity | 70 dB |
| Intermodulation and Rejection | 70 dB |
| Spurious and Image Rejection | 70 dB |
| AF Output | 250 mW @ 8 Ohms |

Transmitter

| Frequency Range (Tx): | 156.025 to 157.425 MHz |
| RF Output Power | .5, 1 or 3 watts |
| Spurious Emissions | -60 dB @ High Power, -55 dB @ Low Power |
| Microphone Type | Condenser |
| Frequency Stability | +/-10 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). Most of the channels are the same for all three maps, but there are definite differences (see table on the following pages). Your radio has all three maps built into it and will operate correctly in whichever area you choose. When shipped from the factory, your radio will be set to the International Channel Map. (See page 15 for instructions on how to change the Channel Map.)

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

<table>
<thead>
<tr>
<th>Distress, Safety, and Calling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channel 16</strong></td>
</tr>
<tr>
<td>Getting the attention of another station (calling) or in emergencies (distress and safety).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Calling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channel 9</strong></td>
</tr>
<tr>
<td>General-purpose (non-emergency) calling by non-commercial vessels. Recreational boaters are urged to use this channel to reduce congestion on Channel 16.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intership Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channel 6</strong></td>
</tr>
<tr>
<td>Ship-to-ship safety messages and for search and rescue messages to Coast Guard ships and aircraft.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coast Guard Liaison</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channel 22A</strong></td>
</tr>
<tr>
<td>To talk to the Coast Guard, Canadian Coast Guard (non-emergency) after making contact on Channel 16.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channels 67; 68; 69, 71, 72, 78A, 79A, 80A</strong></td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channels 1A, 7A, 8, 9, 10, 11, 18A, 19A, 63A, 67, 72, 79A, 80A, 88A</strong></td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>
### VHF Marine Channel Assignments

#### Channel Assignments (English)

**Sea Tow ARC (Automated Radio Check)**
Channels 24, 25, 26, 27, 28
Tune your radio to the proper channel for your community. Conduct a radio check as you normally would. Upon releasing the mic, the system will replay your transmission, letting you hear how you sound.

**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.

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

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### Asignación de canales de VHF para radiocomunicación marítima

#### Asignaciones de canales (Español)

**Remolque Marino CAR (Chequeo Automatizado de la Radio)**
Canales 24, 25, 26, 27, 28
Sintonice su radio en el canal apropiado para su comunidad. Realice un chequeo de la radio como lo hace normalmente. Al soltar el micrófono, el sistema repetirá su transmisión, dejé oír como suena.

**Correspondencia pública (operador marítimo)**
Canales 84, 85, 86, 87, 87A, 88*
Para llamadas a operadores marítimos en estaciones costeras públicas. Usted puede realizar y recibir llamadas telefónicas a través de estas estaciones.

**Operaciones portuarias**
Canales 1A*, 5A*, 12*, 14*, 20A, 63A*, 65A, 66A, 73, 74, 75, 76, 77*
Usados para dirigir el movimiento de las embarcaciones dentro de áreas portuarias, esclusas o canales. Los mensajes deberán estar relacionados con maniobras operacionales, movimientos y seguridad de las embarcaciones.

**Navegación**
Canales 13, 67
Estos canales están disponibles para todas las embarcaciones. Los mensajes deberán estar relacionados con la navegación, incluidas las maniobras para pasar o alcanzar otras embarcaciones. Éstos también son los principales canales activos para la mayoría de las esclusas y puentes levadizos. Usted deberá transmitir mensajes cortos y mantener la potencia de salida en un vatio como máximo.

**Control marítimo**
Canal 17
Para comunicarse con embarcaciones y estaciones costeras operadas por entidades gubernamentales locales o estatales. Los mensajes deberán estar relacionados con regulación y control, asistencia o actividades de navegación.

**Llamadas selectivas digitales**
Canal 70
Este canal está reservado para solicitudes de auxilio, seguridad y llamadas de carácter general que usen solamente técnicas de llamadas selectivas digitales. Las comunicaciones verbales están prohibidas; el radio no puede transmitir mensajes de voz por este canal.

#### NOTA
* El uso de estos canales está dedicado a las aplicaciones que aparecen en la lista, en ciertas partes del país o para ciertos tipos de usuario solamente. Consulte las normas de la FCC, CE o una radio con conocimientos operador antes de usarlos.
# VHF Marine Channel Assignments

<table>
<thead>
<tr>
<th>Channel Number</th>
<th>Channel Map</th>
<th>Frequency</th>
<th>Power Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>USA Int'l Canada</td>
<td>Transmit</td>
<td>Receive</td>
</tr>
<tr>
<td>01</td>
<td>• •</td>
<td>156.050</td>
<td>160.650</td>
</tr>
<tr>
<td>01A/1001</td>
<td>•</td>
<td>156.050</td>
<td>156.050</td>
</tr>
<tr>
<td>02</td>
<td>• •</td>
<td>156.100</td>
<td>160.700</td>
</tr>
<tr>
<td>03</td>
<td>• •</td>
<td>156.150</td>
<td>160.750</td>
</tr>
<tr>
<td>03A/1003</td>
<td>•</td>
<td>156.150</td>
<td>156.150</td>
</tr>
<tr>
<td>04</td>
<td>• •</td>
<td>156.200</td>
<td>160.800</td>
</tr>
<tr>
<td>1004</td>
<td>•</td>
<td>156.200</td>
<td>156.200</td>
</tr>
<tr>
<td>05</td>
<td>•</td>
<td>156.250</td>
<td>160.850</td>
</tr>
<tr>
<td>05A/1005</td>
<td>• •</td>
<td>156.250</td>
<td>156.250</td>
</tr>
<tr>
<td>06</td>
<td>• • • •</td>
<td>156.300</td>
<td>156.300</td>
</tr>
<tr>
<td>07</td>
<td>• •</td>
<td>156.350</td>
<td>160.950</td>
</tr>
<tr>
<td>07A/1007</td>
<td>• •</td>
<td>156.350</td>
<td>156.350</td>
</tr>
<tr>
<td>08</td>
<td>• • • •</td>
<td>156.400</td>
<td>156.400</td>
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<tr>
<td>09</td>
<td>• • • •</td>
<td>156.450</td>
<td>156.450</td>
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<tr>
<td>10</td>
<td>• • • •</td>
<td>156.500</td>
<td>156.500</td>
</tr>
<tr>
<td>11</td>
<td>• • • •</td>
<td>156.550</td>
<td>156.550</td>
</tr>
<tr>
<td>12</td>
<td>• • • •</td>
<td>156.600</td>
<td>156.600</td>
</tr>
<tr>
<td>13</td>
<td>• • • •</td>
<td>156.650</td>
<td>156.650</td>
</tr>
</tbody>
</table>

### Channel Use (English)

- **Public Correspondence (Marine Operator)**
  - Correspondencia pública (operador marítimo)
- **Port Operations and Commercial, VTS in selected areas**
  - Operaciones portuarias y comerciales; VTS en áreas selectas
- **Public Correspondence (Marine Operator)**
  - Correspondencia pública (operador marítimo)
- **Public Correspondence (Marine Operator)**
  - Correspondencia pública (operador marítimo)

### Channel Use (Spanish)

- **Coast Guard Only**
  - Guardia costera solamente
- **West Coast (Coast Guard Only); East Coast (Commercial Fishing)**
  - Costa occidental (guardia costera solamente); Costa oriental (pesca comercial)
- **Public Correspondence (Marine Operator), Port Operations, Ship Movement**
  - Correspondencia pública (operador marítimo) operaciones portuarias,movimiento de embarcaciones
- **Public Correspondence (Marine Operator), Port Operations, Ship Movement**
  - Correspondencia pública (operador marítimo) operaciones portuarias,movimiento de embarcaciones
- **Port Operations, VTS in selected areas**
  - Operaciones portuarias; VTS en áreas selectas
- **Intership Safety**
  - Seguridad entre embarcaciones

### Power Limits

- **1 Watt USA**
  - Intership Navigation Safety (Bridge-to-Bridge). In U.S. waters, large vessels maintain a listening watch on this channel.

---

**Channel Use (English)**

- **Public Correspondence (Marine Operator)**
  - Correspondencia pública (operador marítimo)
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  - Seguridad entre embarcaciones

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### VHF Marine Channel Assignments

<table>
<thead>
<tr>
<th>Channel Number</th>
<th>USA</th>
<th>Int’l</th>
<th>Canada</th>
<th>Frequency</th>
<th>Transmit</th>
<th>Receive</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>156.700</td>
<td>156.700</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>•</td>
<td></td>
<td>•</td>
<td>Rx Only</td>
<td>156.750</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>•</td>
<td></td>
<td>•</td>
<td></td>
<td>156.750</td>
<td>156.750</td>
</tr>
<tr>
<td>16</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>156.800</td>
<td>156.800</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>156.850</td>
<td>156.850</td>
<td>1 Watt CAN</td>
</tr>
<tr>
<td>18</td>
<td>•</td>
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**Note:** The table provides the channel assignments for VHF Marine communications, including usage for port operations, environmental, international distress, safety, and calling, among others. The table also includes notes on operational modes and frequencies for different regions and services.
### VHF Marine Channel Assignments

<table>
<thead>
<tr>
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<th>Channel Map</th>
<th>Frequency</th>
<th>Power Limits</th>
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### VHF Marine Channel Assignments (Español)

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<td>62</td>
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## VHF Marine Channel Assignments

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<th>Frequency</th>
<th>Power Limits</th>
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</table>

### Channel Use (English)

- **Public Correspondence (Marine Operator), Port Operations, Ship Movement**: Correspondencia pública (operador marítimo), operaciones portuarias, movimiento de embarcaciones
- **U.S. (Commercial), Used for bridge-to-bridge communications in lower Mississippi River (Intership Only); Canada (Commercial Fishing); S&R**: EE.UU. (comercial). Usado para comunicaciones de puente de mando a puente de mando en la parte baja del Río Misisipí (entre embarcaciones solamente); Canadá (pesca comercial) (transmisión y recepción)
- **Non-Commercial (Recreational)**: No comercial (recreativo)
- **U.S. (Non-Commercial, Recreational); Canada (Commercial Fishing Only); International (Intership, Port Operations, Ship Movement)**: EE.UU. (no comercial, recreativo); Canadá (pesca comercial solamente); Internacional (comunicaciones entre embarcaciones, operaciones portuarias, movimiento de embarcaciones)
- **Digital Selective Calling (Voice communications not allowed)**: Llamadas selectivas digitales (las comunicaciones verbales están prohibidas)
  - **U.S. and Canada (Non-Commercial, Recreational); International (Port Operations, Ship Movement)**: EE.UU. y Canadá (no comercial, recreativo); Internacional (operaciones portuarias, movimiento de embarcaciones)
  - **Non-Commercial (Intership Only)**: No comercial (entre embarcaciones solamente)
  - **U.S. (Port Operations); Canada (Commercial Fishing Only); International (Intership, Port Operations, Ship Movement)**: EE.UU. (operaciones portuarias); Canadá (pesca comercial solamente); Internacional (comunicaciones entre embarcaciones, operaciones portuarias, movimiento de embarcaciones)
  - **U.S. (Port Operations); Canada (Commercial Fishing Only); International (Intership, Port Operations, Ship Movement)**: EE.UU. (operaciones portuarias); Canadá (pesca comercial solamente); Internacional (comunicaciones entre embarcaciones, operaciones portuarias, movimiento de embarcaciones)
- **Port Operations (Intership Only)**: Operaciones portuarias (entre embarcaciones solamente)
- **Port Operations (Intership Only)**: Operaciones portuarias (entre embarcaciones solamente)
- **Port Operations (Intership only). Restricted to communications with pilots for movement and docking of ships.**: Operaciones portuarias (entre embarcaciones solamente). Restringido a comunicaciones con pilotos para el movimiento y atraque de embarcaciones.
### VHF Marine Channel Assignments

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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.

In some countries, additional channels are available. These can be programmed on the radio by the local distributor.

NOTE
Muchos de los canales de números simples, como 01, 02 y 03, transmiten y reciben en diferentes frecuencias. A esto se le llama operación dúplex. El resto de los canales de números simples (Incluyendo canales de 4 digitos) y todos los canales A, como 01A, 03A y 04A, transmiten y reciben en una sola frecuencia, a la que se le llama operación simple (simplex). Su radio se ajusta automáticamente a estas condiciones. Cuando esté en operación simple, el icono A aparecerá en la pantalla de cristal líquido (vea la ilustración de la página A2). Esta radio incluye nuevos canales de cuatro dígitos para cumplir con las regulaciones más recientes.

NOTA
Todos los canales vienen programados previamente de fábrica conforme a los reglamentos internacionales y a los de la FCC (EE. UU) e Industry Canada (Canadá). No pueden ser alterados por el usuario, así como tampoco pueden cambiarse los modos de operación entre simple y dúplex.

En algunos países, canales adicionales están disponibles. Estos pueden ser programados en la radio por el distribuidor local.

VHF Marine Channel Assignments (English)

Accessories

Your Cobra radio has several optional accessories available to enhance the use of the radio. Some are listed below:

You can find quality Cobra products and accessories at your local Cobra dealer, www.cobra.com or by calling 773.889.3087, 800-964-3138.

Lapel Speaker/Microphone
A speaker/microphone, that attaches to your lapel.
Order P/N CM 330-001.
This unique accessory allows you to wear the radio on your belt while still being able to communicate with other vessels. A small Push to Talk button on the lapel speaker/microphone allows you to answer any incoming call.

DC Charger
12VDC charging cord for - VHF Handheld model MR HH125/150FLT.
Order P/N CM 130-005.
Fits all Cobra Marine charging cradles (drop-in chargers).

AC Charger
AC wall charger for Cobra MR HH125/150FLT.
Order P/N CM 120-006.
Input= 120VAC
Output = 12VDC, 100mA (Center-tip positive)

Belt Clip
Order P/N CM 240-003.

Warranty

Please contact your local dealer for warranty information.

Proof of Purchase Required
For warranty service you will need to provide proof of purchase from an approved dealer or retailer. Please note that if you purchased your product on the Internet from EBay, Amazon, or any third party marketplace, you will need to provide a receipt from the actual seller for verification as an approved retailer.

Trademark Acknowledgement

Cobra®, CobraMarine®, Nothing Comes Close to a Cobra®, and the snake design are registered trademarks of Cobra Electronics Corporation, U.S.A.
Cobra Electronics Corporation™ is a trademark of Cobra Electronics Corporation, U.S.A.
Declaration of Conformity

EN (English)
Hereby, Cobra Electronics Europe, Ltd. declares that the radio equipment type VHF Marine Radio is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: http://www.snooperneo.co.uk/DeviceDocs.cfm

ES (Spanish)
Por la presente, Cobra Electronics Europe, Ltd. declara que el tipo de equipo radioeléctrico VHF Marine Radio es conforme con la Directiva 2014/53/UE.
El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: http://www.snooperneo.co.uk/DeviceDocs.cfm

DA (Danish)
Herved erklærer Cobra Electronics Europe, Ltd., at radioudstyrstypen VHF Marine Radio er i overensstemmelse med direktiv 2014/53/UE.
EU-overensstemmelserklæringens fulde tekst kan findes på følgende internetadresse: http://www.snooperneo.co.uk/DeviceDocs.cfm

DE (German)
Der vollständige Text der EU-Konformitätsklärung ist unter der folgenden Internetadresse verfügbar: http://www.snooperneo.co.uk/DeviceDocs.cfm

BG (Bulgarian)
С настоящото Цо̀бра Електро̀нс Европа Ерл. декларира, че този тип радиоустройство VHF Marine Radio е в съответствие с Директива 2014/53/EC.
Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: http://www.snooperneo.co.uk/DeviceDocs.cfm

CS (Czech)
Tímto Cobra Electronics Europe, Ltd. prohlašuje, že typ radiového zařízení VHF Marine Radio je v souladu se směrnicí 2014/53/EU.
Úplný znížen EU prohlášení o schode je k dispozici na této internetové adrese: http://www.snooperneo.co.uk/DeviceDocs.cfm

ET (Estonian)
EL vasakud teavituskontakti loendi tekst on kättesaadav järgmisel internetadapteril: http://www.snooperneo.co.uk/DeviceDocs.cfm

EL (Greek)
Με την παρούσα ο/η Cobra Electronics Europe, Ltd., δηλώνει ότι ο ραδιοεξοπλισμός VHF Marine Radio πληροί την οδηγία 2014/53/ΕΕ.
Το πλήρες κείμενο της Δηλώσεως Συμπαραστάσεως ΕΕ είναι διαθέσιμο στην ακόλουθη ιστοσελίδα σε Βλαχικά: http://www.snooperneo.co.uk/DeviceDocs.cfm

FR (French)
Le soussigné, Cobra Electronics Europe, Ltd., déclare que l'équipement radioélectrique du type VHF Marine Radio est conforme à la directive 2014/53/UE.
Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: http://www.snooperneo.co.uk/DeviceDocs.cfm

HR (Croatian)
Cobra Electronics Europe, Ltd. ovime izjavljuje da je radijska oprema tipa VHF Marine Radio u skladu s Direktivom 2014/53/EU.
Golovni tekst EU izjava o sukladnosti dostupan je na sljedećoj internetskoj adresi: http://www.snooperneo.co.uk/DeviceDocs.cfm

IT (Italian)
Il fabbricante, Cobra Electronics Europe, Ltd., dichiara che il tipo di apparecchiatura radio VHF Marine Radio è conforme alla direttiva 2014/53/UE.
Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: http://www.snooperneo.co.uk/DeviceDocs.cfm

LT (Lithuanian)
Aš, Cobra Electronics Europe, Ltd., patvirtina, kad radijo įrenginių tipas VHF Marine Radio atitinka Direktuvą 2014/53/EU.
Visas ES atitikties deklaracijos tekstas plėtamas šiuo interneto adresu: http://www.snooperneo.co.uk/DeviceDocs.cfm

HU (Hungarian)
Cobra Electronics Europe, Ltd. igazolja, hogy a VHF Marine Radio típusú rádióberendezést megfelel 2014/53/EU irányelvnek.
Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internets címen: http://www.snooperneo.co.uk/DeviceDocs.cfm

MT (Maltese)
B’dan, Cobra Electronics Europe, Ltd., riddižjara li dan it-tip ta’ tagħmir tar-radju VHF Marine Radio huwa konformi mad-Direttiva 2014/53/UE.

NL (Dutch)
Hierbij verklaart k, Cobra Electronics Europe, Ltd., dat het type radioapparaat VHF Marine Radio conform is met Richtlijn 2014/53/EU.
Het tekst deklaratie zodanigheid UE is gedeelv de volgend nachtij internetwerken: http://www.snooperneo.co.uk/DeviceDocs.cfm

PL (Polish)
Cobra Electronics Europe, Ltd. niniejszym oświadcza, że typ urządzenia radiowego VHF Marine Radio jest zgodny z dyrektywą 2014/53/UE.
Poniższy tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: http://www.snooperneo.co.uk/DeviceDocs.cfm

PT (Portuguese)
O(a) abaixo assinado(a) Cobra Electronics Europe, Ltd. declara que o presente tipo de equipamento de rádio VHF Marine Radio está em conformidade com a Diretiva 2014/53/UE.
O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: http://www.snooperneo.co.uk/DeviceDocs.cfm

RO (Romanian)
Până prezenta, Cobra Electronics Europe, Ltd. declară că tipul de echipamente radio VHF Marine Radio este în conformitate cu Directiva 2014/53/UE.
Telegram integral al declarației UE de conformitate este disponibil la următoarea adresă internet: http://www.snooperneo.co.uk/DeviceDocs.cfm

SK (Slovak)
Cobra Electronics Europe, Ltd. týmto vyhlasuje, že rádiové zariadenie typu VHF Marine Radio je v súlade so smernicou 2014/53/EÚ.
Úplny text deklaracie zodanosti UE je dostupen na tejto internetovej adrese: http://www.snooperneo.co.uk/DeviceDocs.cfm

SL (Slovenian)
Cobra Electronics Europe, Ltd. potrjuje, da je tip radijske opreme VHF Marine Radio skladen z Direktivo 2014/53/EU.
Celotno besedilo izjave EU o skladnosti ja na voljo na naslednjem spletnem naslovu: http://www.snooperneo.co.uk/DeviceDocs.cfm

FI (Finnish)
Cobra Electronics Europe, Ltd. vakuuttaa, että radioilmetykypsi VHF Marine Radio on direktiivin 2014/53/EU mukainen.
EU-vastaamustekniikanuseurakunnalle täysinmiksi teksti on saatavilla seuraavassa internetosoitteessa: http://www.snooperneo.co.uk/DeviceDocs.cfm

SV (Swedish)
Härmed försäkrar Cobra Electronics Europe, Ltd. att denna typ av radioutrustning VHF Marine Radio överensstämmer med direktiv 2014/53/EU.
Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: http://www.snooperneo.co.uk/DeviceDocs.cfm
The Cobra line of quality products includes:

- CB Radios
- Portable Power Packs
- Radar/Laser Detectors
- Dash Cams
- HighGear® Accessories
- Marine VHF Radios
- Power Inverters
- Accessories

For more information or to order any of our products, please visit our website:

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