Cobra MARINE®

Owner's Manual

FLOATING MARINE HH150
SETUP
ENTER
ESC
H-M-L
16+
MEM
CHANNEL
PWR
VOL+
SC/DW
VOL-
SUBMERSIBLE

FLOATING VHF MARINE RADIO

MRHH150FLTE

Our Thanks to You

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

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.

This equipment is intended for use in:

AT	✓	CY	✓	FI	✓	IE	✓	MK		RO	
BA		CZ	✓	FR	✓	IS	✓	MT	✓	SE	✓
BE	✓	DE	✓	GB	✓	IT	✓	NL	✓	SI	✓
BG		DK	✓	GR	✓	LT	✓	NO	✓	SK	✓
CH	✓	EE	✓	HR		LV	✓	PL	✓	TR	✓
CS		ES	✓	HU	✓	LU	✓	PT	✓	UA	

✓Countries of use

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
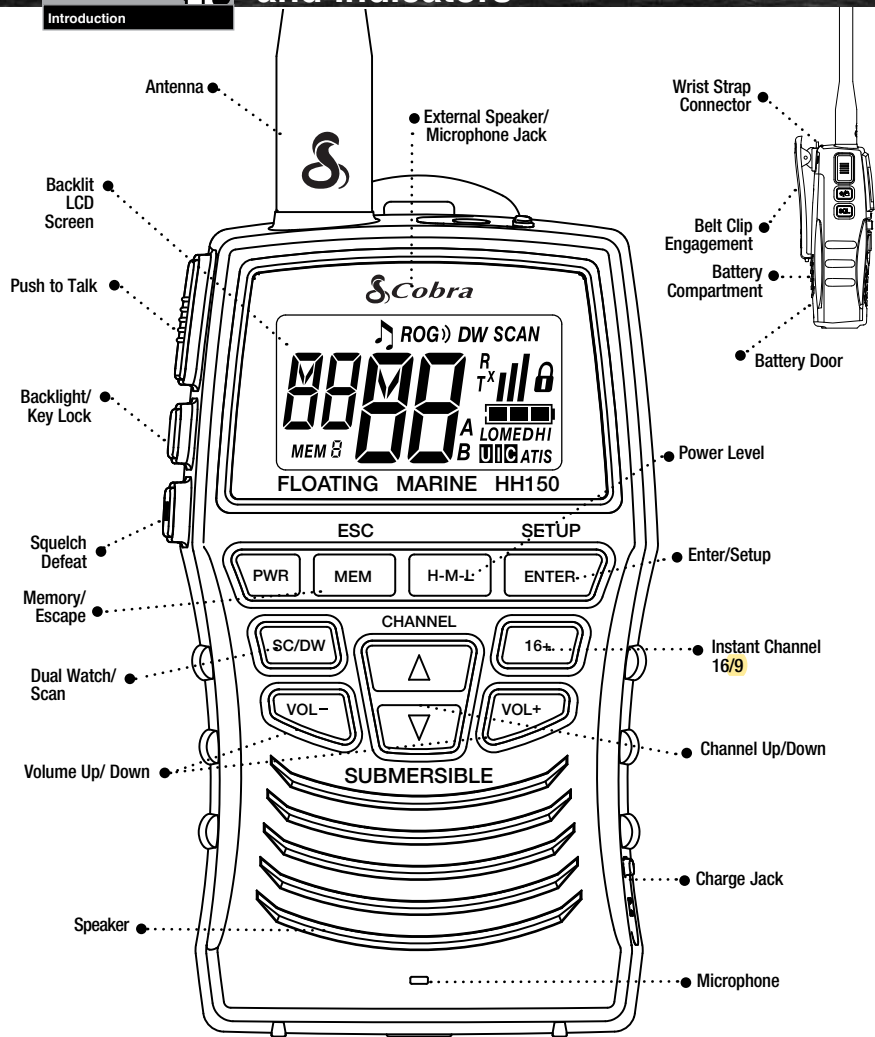Shenzhen Nuo Heng Yuan Technology Co., Ltd.

Battery: CEL 523450
Jiangsu CEL Battery Co., Ltd

A1 English

Antenna
External Speaker/ Microphone Jack
Wrist Strap Connector
Backlit LCD Screen
Belt Clip Engagement
Battery Compartment
Push to Talk
Battery Door
Backlight/ Key Lock
Power Level
Squelch Defeat
Enter/Setup
Memory/ Escape
Dual Watch/ Scan
Instant Channel 16/9
Volume Up/ Down
Channel Up/Down
Charge Jack
Speaker
Microphone

Backlit LCD (Liquid Crystal Display) Screen

Key Tone Icon
Roger Beep Icon
Dual Watch Icon
Scan Icon
Receive & Transmit Icons
Signal Strength Icon
Button Lock Icon
Battery Power Icon
Low/Med/High Power Icons
Active Channel Numbers
Memory Channel Icon
Broadcast Receive Icon
Simplex Operation Icon
UIC Active Channel Map Icons
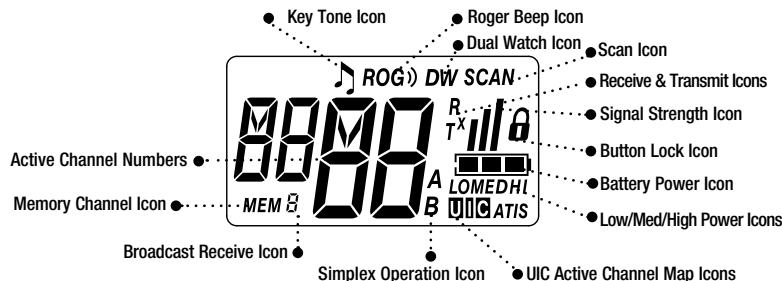
Product Features

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 Jack
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.

Introduction

Installation

Operating Your Radio

VHF Marine Radio Protocols

Warranty and Trademark

Customer Service

Appendix – English/Español

Important Safety Information

Before using your CobraMarine® VHF radio, please read these general precautions and warnings.

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.

General Precautions

The following **WARNINGS** and **NOTICE** information on the following page will make you aware of RF exposure hazards and how to assure you operate the radio within the CE RF exposure limits established for the radio.

WARNING
The device complies with RF specifications when the device is used at 25mm from your front face and 0mm from your body.

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.
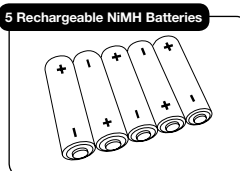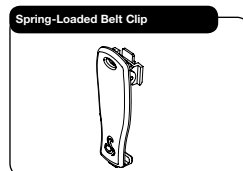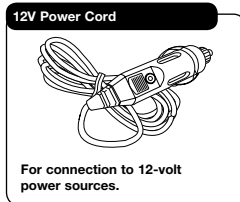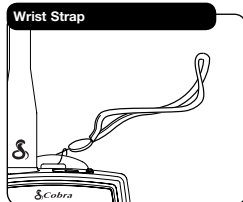
NOTE
This device complies with part 15 of the FCC Rules, and Industry Canada license-exempt RSS standards. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may 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.
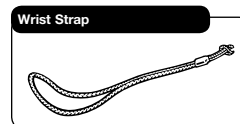
Included in this Package

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

Radio

Wrist Strap

12V Power Cord
For connection to 12-volt power sources.

Operating Instruction Manual

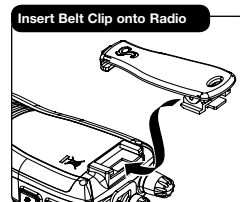Spring-Loaded Belt Clip

5 Rechargeable NiMH Batteries

Wrist Strap and Belt Clip


Wrist Strap

Wrist Strap

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


Insert Belt Clip onto Radio

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.

Removing the Radio

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.

Secure Radio

External Speaker/Microphone Jack
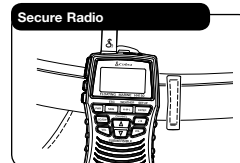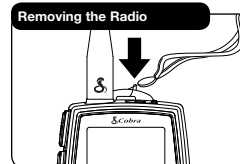

Speaker/Microphone Jack
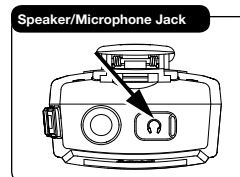
Your radio can be fitted with an optional External Speaker/Microphone (not included), freeing your hands for other tasks. Contact your local CobraMarine® dealer or Cobra® directly for optional accessories.

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.

Batteries and Charging

Install Batteries
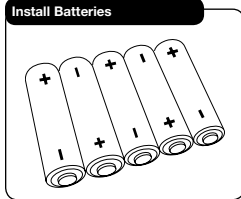
The radio is is shipped with five NiMH rechargeable batteries.

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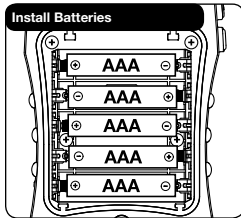
Install the AAA batteries in the slots in the battery compartment with the batteries oriented according to the polarity (+ & -) marks in the slots.

Install Batteries

AAA
AAA
AAA
AAA
AAA

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.

Power Source

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.

Locking Tab
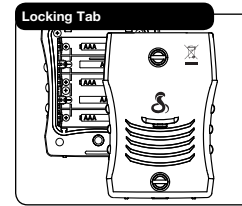
To Remove Batteries from Radio

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.

Fully Charged

Partially Charged

Fully Discharged
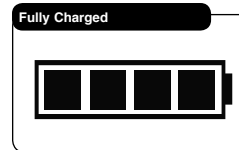
Maintaining the Battery Charge

As you use your radio, the battery power icon will show the battery power remaining. When the icon begins to flash, it is time to recharge or change the batteries.
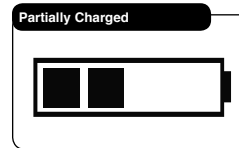
NOTICE
Use only the 12V power cord provided by Cobra. Do not use the power cord with alkaline batteries; only the NiMH batteries are rechargeable. Spent alkaline batteries must be discarded and replaced.
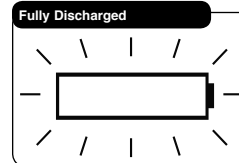
It is a good idea to keep a set of fresh, high-quality AAA alkaline batteries with your radio. Should the rechargeable batteries become discharged and no electrical power source be available, you can insert fresh alkaline batteries and continue to use your radio.

Getting Started

MR HH150FLT Radio
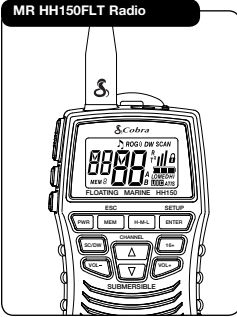
Refer to the foldout at the front of this manual to identify the various controls and indicators on your radio. Throughout this manual you will be instructed to "Press" or to "Press and Hold" various buttons (except "Push to Talk") on the radio. "Press" means a momentary press of approximately one second. "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.

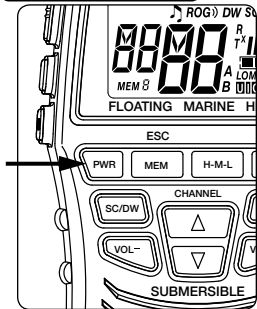Power On/Off Button

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.

Speaker/Microphone Jack
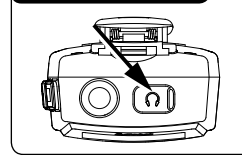
Radio Speaker and Microphone

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

An optional **Speaker/Microphone** jack is located at the top of the radio. Flip the protective cap open and insert the plug into the jack.

Talk Button
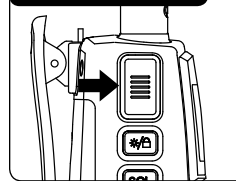
Talk Button

Press and hold the **Talk** button to transmit messages. Release the **Talk** button to stop transmitting. If the **Talk** button is pressed while on a receive only channel, a three beep error signal will sound.

Squelch Control
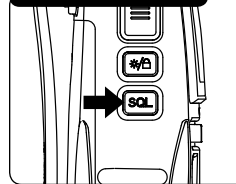
Squelch Control

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.

Backlight/Key Lock Button
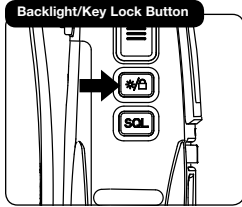
Backlight/Key Lock Button

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

To Display the Backlight Momentarily:

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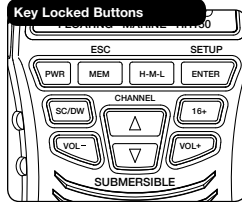
Key Locked Buttons

Key Lock

To prevent accidental changes to your settings, you can lock all of the 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, pressing any of the buttons on the front of the radio will result in a three beep error message.

Key Lock Icon

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.
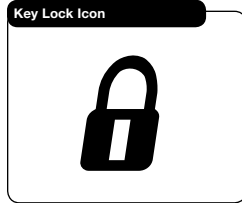
Channel Up/Down Buttons

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.

Currently On Channel 88

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.
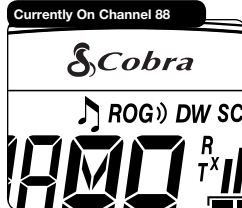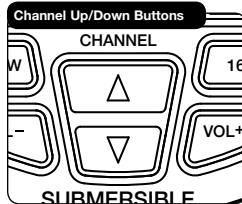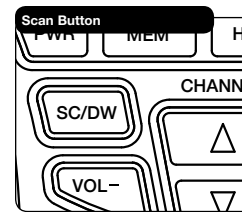
Scan Button

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.

HI/MED/LO Power Button
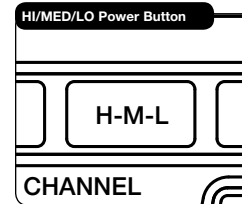
High/Medium/Low (HI/MED/LO) Power Button

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

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

Setup Mode Programming

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.

Enter/Setup Button

SETUP

M-L   ENTER

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.
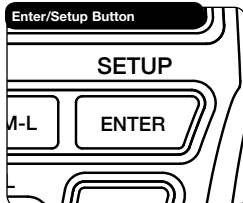

Setup Mode Programming

International/Canada/U.S.A. Channel Maps

Three sets of VHF Channel Maps 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 in the Appendix). Your radio has all three maps built into it and will operate correctly in whichever area you choose.
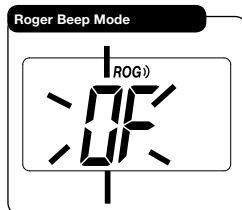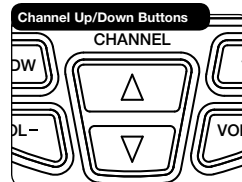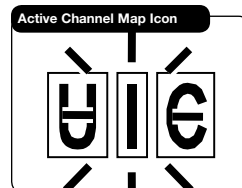
Set Channel Map

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.

Active Channel Map Icon

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.

Channel Up/Down Buttons

CHANNEL

DW   1

OL–   VOL

Roger Beep Mode

Roger Beep Mode

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

To Set Roger Beep On or Off:

1. 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**.
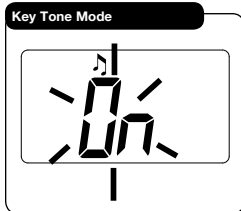
Key Tone Mode

Key Tone Mode

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

To Set Key Tone On or Off:

1. 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 wayer ways. The nine digit ATIS number, similar to a telephone number, is a unique identifier for a vesel. 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

ATIS mode allows control over ATIS packet transmissions. This mode is only visible after initial ATIS set-up by a Cobra dealer.
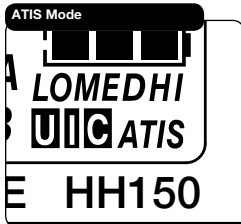
> **To select the ATIS On/ Off screen:**
> **1.** Enter the Set Up menu and scroll to ATIS.
> **2.** Press the **ENTER** soft key and observe the current **ATIS** setting - ON or OFF.
> **3.** Use the **Up/Down** buttons to switch to the setting you want.
> **4.** Press the **ENTER** soft key to save 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.

Check Channel Number

Low Power Mode

Talk Button
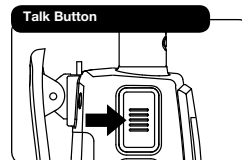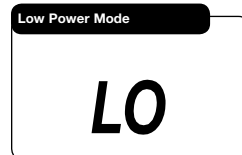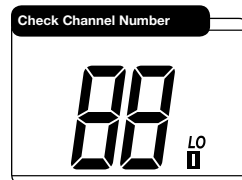
To Transmit a Message:

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.

Transmit

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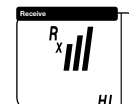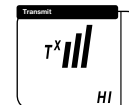
> **NOTE**
> If the **Talk** button is held down for five minutes, the radio will automatically sound a series of beeps and cease transmitting to prevent unwanted signal generation and battery drain. As soon as the **Talk** button is released, it can be pressed again to resume transmission.

Advanced Operation

Several capabilities of your radio can add to its versatility and ease of use even though they are not needed for its basic operation.

Channel 16/9 Mode

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

Channel 16+ Button

16+

Channel 16
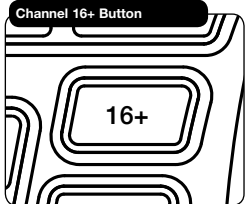
Channel 9

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.

NOTE
This key is labeled as "16+" for maximum visibility.

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.

DUAL-WATCH Button

SC/DW

Dual-Watch Scan Mode

DW

16

DW

68
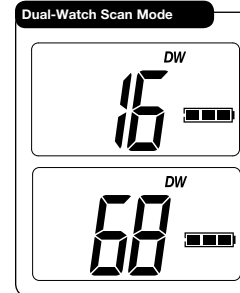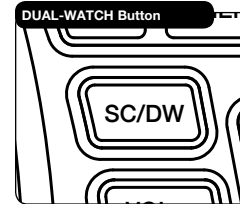
Using Dual-Watch

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.

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.

MEM/ESC Button

ESC

MEM   H-
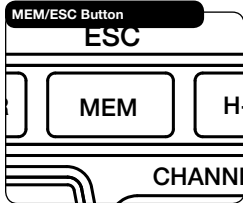
CHANNE

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.

Memory Location Number

MEM

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.

Channel Up/Down Buttons

CHANNEL

DW   1

DL−   VOL

SUBMERSIBLE

5. Press the **Memory/Escape** button to program that channel. The memory location number will flash again.
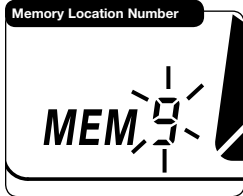
Repeat steps 2 through 5 to program as many additional memory locations as you want [up to ten VHF memory channels].

6. Press and hold the **Memory/Escape** button for two seconds. This will return the radio to **Memory** mode.

Channel Number

MEM 9

7. Press and release the **Memory/Escape** button again to return to **Marine Standby** mode.

MEM Icon

MEM 9

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

68   69
79ᴀ   71
78ᴀ   72
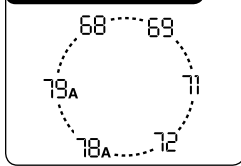
Memory Location Scan Mode

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.

MEM/ESC Button

ESC
R   MEM

Scan Button

SC/DW

Scanning

01   15
88   30
75   60
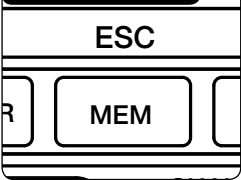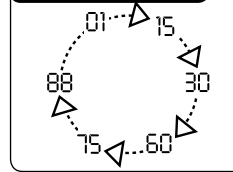
Channel Scan Mode

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.

SCAN Button

SC/DW
VOL

SCAN Icon

SCAN

Channel Up/Down Buttons
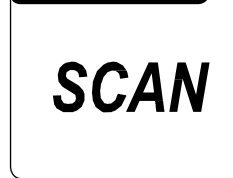
CHANNEL
DW   1
OL−   VOL
SUBMERSIBLE
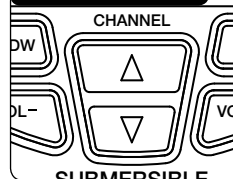
Maintenance

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

| Problem	Possible Cause(s)	Solution(s)
No display on LCD when radio is turned On	Batteries are exhausted	Recharge or replace batteries
	Batteries not installed properly	Remove batteries and reinstall according to polarity markings
NiMH batteries run down quickly	Batteries are at the end of their life	Replace with new batteries
Will transmit at .5 or 1 Watt, but not at 3 Watts	Batteries are low	Recharge or replace batteries
	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	Re-adjust volume
No response to button press	Button lock is On	Press **Backlight/ Key Lock** button
No answer to calls	Out of range of other station	Switch to three watts or move closer
	Signal is blocked by terrain	Move until you have a "line-of-sight" to the other station

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."

■ 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.

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)

General	
Number of Channels	All International, Canadian and U.S. Channels
Channel Spacing	25 kHz
Modulation	5 kHz Max.
Input Voltage	6.0 VDC
Battery Life: 5% TX, 5% RX, 90% Standby	NiMH: 9.4 hours @ 3 watts 20 hours @ 0.5 watts 12 hours @ 1 watt Alkaline: 26 hours @ 3 watts 33 hours @ 1 watt

Current Drain:
    Standby
    Receive (Rx)
    Transmit (Tx)
	
	45 mA
	140 mA
	1.1 A @ High Power, 450 mA @ Low Power

Temperature Range	-20°C to 50°C
Radio Dimensions	4.5" H x 2.7" W x 1.5" D (114 mm x 69 mm x 38 mm) not including antenna
Radio Weight	0 lbs., 8 oz. (247g.)
Receiver	
Frequency Range	156.050 to 163.275 MHz
Receiver Type	Double Conversion Super-Heterodyne
Sensitivity: 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.

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.

Asignación de canales de VHF para radiocomunicación marítima

Se han establecido tres conjuntos de canales de VHF para uso marítimo internacionalmente, Canadá y los EE. UU. La mayoría de los canales coinciden en los tres mapas, pero sin duda existen diferencias (consulte las tablas en las páginas siguientes). El radio incorpora los tres mapas y funcionará correctamente en cualquiera de las tres áreas. Cuando se envíe desde la fábrica, su radio se configurará en el Mapa de canal internacional. (Consulte la página 15 para obtener instrucciones sobre cómo cambiar el mapa de canales).

A continuación presentamos en forma resumida las asignaciones de canales del Mapa de canales para EE.UU.

Asignaciones de canales (Español)

Auxilio, seguridad y llamadas
Canal 16
Para ser oídos por otra estación (llamadas) o en casos de emergencia (auxilio y seguridad).

Llamadas
Canal 9
Llamadas de carácter general (excepto casos de emergencia) para embarcaciones no comerciales. Se le pide encarecidamente a la tripulación de las embarcaciones recreativas usar este canal para reducir la congestión del canal 16.

Seguridad entre embarcaciones
Canal 6
Para mensajes de seguridad entre embarcaciones y para mensajes de búsqueda y rescate enviados a barcos y aviones de la guardia costera.

Enlace con la guardia costera
Para hablar con las guardias costeras estadounidenses y canadienses (excepto casos de emergencia) tras haber establecido contacto por el canal 16.

No comerciales
Canales activos para pequeñas embarcaciones. Los mensajes deberán estar relacionados con necesidades de las embarcaciones, como por ejemplo, informes de pesca, atraques y agrupamientos. Use el canal 72 solamente para mensajes entre embarcaciones.

Comerciales
Canales activos para embarcaciones activas solamente. Los mensajes deberán estar relacionados con la actividad comercial o las necesidades de la embarcación. Use los canales 8, 67, 72 y 88A solamente para mensajes entre embarcaciones.

**VHF Marine
Channel Assignments**

Appendix

**Asignación de canales de VHF
para radiocomunicación marítima**

Apéndice

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.

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, dejá 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.

Channel Number Número de canal	Channel Map Mapa de canales			Frequency Frecuencia		Power Limits Límites de potencia
	USA EE.UU.	Int'l nternac	Canada Canadá	Transmit Transm.	Receive Recepción	
01		●	●	156.050	160.650	Canada
01A/1001	●			156.050	156.050	
02		●	●	156.100	160.700	
03		●	●	156.150	160.750	
03A/1003	●			156.150	156.150	
04		●		156.200	160.800	
1004			●	156.200	156.200	
05		●		156.250	160.850	
05A/1005	●		●	156.250	156.250	
06	●	●	●	156.300	156.300	
07		●		156.350	160.950	
07A/1007	●		●	156.350	156.350	
08	●	●	●	156.400	156.400	
09	●	●	●	156.450	156.450	
10	●	●	●	156.500	156.500	
11	●	●	●	156.550	156.550	
12	●	●	●	156.600	156.600	
13	●	●	●	156.650	156.650	1 Watt USA 1 vatio EE.UU.

Channel Use (English)	Uso de canales (Español)
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)
Coast Guard Only	**guardia costera solamente**
Public Correspondence (Marine Operator), Port Operations, Ship Movement	Correspondencia pública (operador marítimo) operaciones portuarias, movimiento de embarcaciones
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
Port Operations, VTS in selected areas	Operaciones portuarias; VTS en áreas selectas
Intership Safety	Seguridad entre embarcaciones
Public Correspondence (Marine Operator), Port Operations, Ship Movement	Correspondencia pública (operador marítimo) operaciones portuarias, movimiento de embarcaciones
Commercial	Comerciales
Commercial (Intership Only)	Comercial (entre embarcaciones solamente)
Boater Calling Channel, Non-Commercial (Recreational)	Canal de llamada de la tripulación, no comercial (recreativo)
Commercial	Comerciales
Commercial, VTS in selected areas	Comercial; VTS en áreas selectas
Port Operations, VTS in selected areas	Operaciones portuarias; VTS en áreas selectas
Intership Navigation Safety (Bridge-to-Bridge). In U.S. waters, large vessels maintain a listening watch on this channel.	Seguridad marítima entre embarcaciones (de puente de mando a puente de mando). En aguas estadounidenses, las grandes embarcaciones se mantienen vigilantes con sus radios sintonizados en este canal

Channel Number	Channel Map			Frequency		
Número de canal	USA EE.UU.	Int'l nternac	Canada Canadá	Transmit Transm.	Receive Recepción	
14	●	●	●	156.700	156.700	
15	●			Rx Only	156.750	
15		●	●	156.750	156.750	1 Watt CAN 1 vatio Canadá
16	●	●	●	156.800	156.800	
17	●	●	●	156.850	156.850	1 Watt CAN 1 vatio Canadá
18		●		156.900	161.500	
18A/1018	●		●	156.900	156.900	
19		●		156.950	161.550	
19A/1019	●		●	156.950	156.950	
1019		●		156.950	156.950	
2019		●		161.550	161.550	
20	●	●	●	157.000	161.600	1 Watt CAN 1 vatio Canadá
20A/1020	●	●		157.000	157.000	
2020		●		161.600	161.600	
21		●		157.050	161.650	
21A/1021	●		●	157.050	157.050	
2021			●	RX only	161.650	
22		●		157.100	161.700	
22A/1022	●		●	157.100	157.100	
23		●	●	157.150	161.750	

Channel Use (English)	Uso de canales (Español)
Port Operations, VTS in selected areas	Operaciones portuarias; VTS en áreas selectas
Environmental (Receive Only).	Medioambiental (recepción solamente). Usado por radiobalizas de localización de siniestros (EPIRB) clase C
Canada (EPIRB Buoys Only); International (On-Board Communication)	Canadá (boyas de EPIRB solamente); Internacional (comunicación de a bordo)
International Distress, Safety and Calling	**Llamadas, seguridad y solicitud de auxilio internacional**
State Controlled (U.S.A. Only)	Controlado a nivel estatal (EE.UU. solamente)
Port Operations, Ship Movement	Operaciones portuarias, movimiento de embarcaciones
Commercial	Comerciales
Port Operations, Ship Movement	Operaciones portuarias, movimiento de embarcaciones
Commercial	Comerciales
Port Operations	Operaciones portuarias
Port Operations	Operaciones portuarias
Canada (Coast Guard Only); International (Port Operations, Ship Movement)	**Canadá (guardia costera solamente);** Internacional (operaciones portuarias, movimiento de embarcaciones)
Port Operations	Operaciones portuarias
Port Operations	Operaciones portuarias
Port Operations, Ship Movement	Operaciones portuarias, movimiento de embarcaciones
U.S. (Government Only); Canada (Coast Guard Only)	**EE.UU. (entidades gubernamentales solamente); Canadá (guardia costera solamente)**
Coast Guard Only – Weather Broadcasts	**Solamente Guardacostas –** Transmisiones Meteorológicas
Port Operations, Ship Movement	Operaciones portuarias, movimiento de embarcaciones
U.S. and Canadian Coast Guard Liaison and Maritime Safety Information Broadcasts that are announced on Channel 16	Enlace entre las guardias costeras estadounidenses y canadienses, y difusión de información sobre seguridad marítima anunciada por el canal 16
Public Correspondence (Marine Operator)	Correspondencia pública (operador marítimo)

Channel Number Número de canal	Channel Map Mapa de canales			Frequency Frecuencia		Power Limits Límites de potencia
	USA EE.UU.	Int'l nternac	Canada Canadá	Transmit Transm.	Receive Recepción	
23A/1023	●			157.150	157.150	
2023			●	Rx Only	161.750	
24	●	●	●	157.200	161.800	
25	●	●	●	157.250	161.850	
2025			●	RX only	161.850	
26	●	●	●	157.300	161.900	
27	●	●	●	157.350	161.950	
28	●	●	●	157.400	162.000	
2028			●	RX only	162.000	
60		●	●	156.025	160.625	
61		●		156.075	160.675	
1061			●	156.075	156.075	
62		●		156.125	160.725	
1062			●	156.125	156.125	
63		●		156.175	160.775	
63A/1063	●		●	156.175	156.175	
64		●	●	156.225	160.825	
1064			●	156.225	156.225	
65		●		156.275	160.875	
65A/1065	●		●	156.275	156.275	

Channel Use (English)	Uso de canales (Español)
Coast Guard Only	**Solamente Guardacostas**
Coast Guard Only – Weather Broadcasts	**Solamente Guardacostas –** Transmisiones Meteorológicas
Sea Tow ARC (Automated Radio Check)	RMCAR (Chequeo Automatizado de la Radio)
Sea Tow ARC (Automated Radio Check)	RMCAR (Chequeo Automatizado de la Radio)
Safety: Continuous Marine Broadcast (CMB) service by MCTS Canada	**Seguridad: Transmisión Marítima Continua (CMB) servicio por MCTS Canadá**
Sea Tow ARC (Automated Radio Check)	RMCAR (Chequeo Automatizado de la Radio)
Sea Tow ARC (Automated Radio Check)	RMCAR (Chequeo Automatizado de la Radio)
Sea Tow ARC (Automated Radio Check)	RMCAR (Chequeo Automatizado de la Radio)
Safety: Continuous Marine Broadcast (CMB) service by MCTS Canada	**Seguridad: Transmisión Marítima Continua (CMB) servicio por MCTS Canadá**
Public Correspondence (Marine Operator)	Correspondencia pública (operador marítimo)
Public Correspondence (Marine Operator) Port Operation, Ship Movement	Correspondencia pública (operador marítimo), operaciones portuarias, movimiento de embarcaciones
Canada (Coast Guard Only); West Coast (Coast Guard Only); East Coast (Commercial Fishing)	**Canadá (guardia costera solamente); 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
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
Port Operations and Commercial, VTS in selected areas, Canada Tow Boats-BCC	Operaciones portuarias y comerciales; VTS en áreas selectas, Barcos-BCC de la remolque de Canadá
Public Correspondence (Marine Operator), Port Operations, Ship Movement	Correspondencia pública (operador marítimo), operaciones portuarias, movimiento de embarcaciones
U.S. (Government Only); Canada (Commercial Fishing)	**EE.UU. (entidades gubernamentales solamente);** Canadá (pesca comercial)
Public Correspondence (Marine Operator), Port Operations, Ship Movement	Correspondencia pública (operador marítimo), operaciones portuarias, movimiento de embarcaciones
Port Operations	Operaciones portuarias

| Channel Number | Channel Map | | | Frequency | | Power Limits |
Número de canal	USA EE.UU.	Int'l nternac	Canada Canadá	Transmit Transm.	Receive Recepción	Límites de potencia
66		●		156.325	160.925	
66A/1066	●		●	156.325	156.325	
67	●	●	●	156.375	156.375	
68	●	●	●	156.425	156.425	
69	●	●	●	156.475	156.475	
70	●	●	●	RX only	156.525	
71	●	●	●	156.575	156.575	1 Watt USA
72	●	●	●	156.625	156.625	
73	●	●	●	156.675	156.675	
74	●	●	●	156.725	156.725	
75	●	●	●	156.775	156.775	1 Watt
76	●	●	●	156.825	156.825	1 Watt
77	●	●	●	156.875	156.875	1 Watt USA

Channel Use (English)	Uso de canales (Español)
Public Correspondence (Marine Operator), Port Operations, Ship Movement	Correspondencia pública (operador marítimo), operaciones portuarias, movimiento de embarcaciones
Port Operations	Operaciones portuarias
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.

Channel Number Número de canal	Channel Map Mapa de canales			Frequency Frecuencia		Power Limits Límites de potencia
	USA EE.UU.	Int'l nternac	Canada Canadá	Transmit Transm.	Receive Recepción	
78		•		156.925	161.525	
78A/1078	•		•	156.925	156.925	
1078		•		156.925	156.925	
2078		•		161.525	161.525	
79		•		156.975	161.575	
79A/1079	•		•	156.975	156.975	
1079		•		156.975	156.975	
2079		•		161.575	161.575	
80		•		157.025	161.625	
80A/1080	•		•	157.025	157.025	
81		•		157.075	161.675	
81A/1081	•		•	157.075	157.075	
82		•		157.125	161.725	
82A/1082	•		•	157.125	157.125	
83		•		157.175	161.775	
83A/1083	•		•	157.175	157.175	
2083			•	RX only	161.775	
84	•	•	•	157.225	161.825	
85	•	•	•	157.275	161.875	
86	•	•	•	157.325	161.925	
87	•	•	•	157.375	157.375	
88	•	•	•	157.425	157.425	
88A/1088	•			157.425	157.425	

Channel Use (English)	Uso de canales (Español)
Public Correspondence (Marine Operator)	Correspondencia pública (operador marítimo)
Non-Commercial (Recreational)	No comercial (recreativo)
Port Operations	Operaciones portuarias
Port Operations	Operaciones portuarias
Port Operations, Ship Movement	Operaciones portuarias, movimiento de embarcaciones
Commercial (Also Non-Commercial only in Great Lakes)	Comercial (en los Grandes Lagos también no comercial)
Port Operations	Operaciones portuarias
Port Operations	Operaciones portuarias
Port Operations, Ship Movement	Operaciones portuarias, movimiento de embarcaciones
Commercial (Also Non-Commercial only in Great Lakes)	Comercial (en los Grandes Lagos también no comercial)
Port Operations, Ship Movement	Operaciones portuarias, movimiento de embarcaciones
U.S. (Government Only; Environmental Protection Operations)	**EE.UU. (entidades gubernamentales solamente; operaciones de protección medioambiental)**
Public Correspondence (Marine Operator), Port Operation, Ship Movement	Correspondencia pública (operador marítimo), operaciones portuarias, movimiento de embarcaciones
U.S. (Government Only); Canada (Coast Guard Only)	**EE.UU. (entidades gubernamentales solamente); Canadá (guardia costera solamente)**
Port Operations, Ship Movement	Operaciones portuarias, movimiento de embarcaciones
(Coast Guard Only) (Coast Guard Only)	**Canadá (guardia costera solamente) Canadá (guardia costera solamente)**
Coast Guard Only – Weather Broadcasts	**Solamente Guardacostas –** Transmisiones Meteorológicas
Public Correspondence (Marine Operator)	Correspondencia pública (operador marítimo)
Public Correspondence (Marine Operator)	Correspondencia pública (operador marítimo)
Public Correspondence (Marine Operator)	Correspondencia pública (operador marítimo)
Public Correspondence (Marine Operator)	Correspondencia pública (operador marítimo)
U.S. (Commercial). Port Operations and VTS (International & Canada).	EE.UU. (comercial). Operaciones Portuarias y VTS (Internacional y Canadá).
Commercial Intership only	Comercial entre embarcaciones solamente

Channel Number Número de canal	Channel Map Mapa de canales			Frequency Frecuencia		Power Limits Límites de potencia
	USA EE.UU.	Int'l nternac	Canada Canadá	Transmit Transm.	Receive Recepción	
1001	●			156.050	156.050	
1005	●			156.250	156.250	
1007	●			156.350	156.350	
1018	●			156.900	156.900	
1019	●			156.950	156.950	
1020	●			157.000	157.000	
1021	●			157.050	157.050	
1022	●			157.100	157.100	
1023	●			157.150	157.150	
1063	●			156.175	156.175	
1065	●			156.275	156.275	
1066	●			156.325	156.325	
1078	●			156.925	156.925	
1079	●			156.975	156.975	
1080	●			157.025	157.025	
1081	●			157.075	157.075	
1082	●			157.125	157.125	
1083	●			157.175	157.175	

Channel Use (English)	Uso de canales (Español)
Port Operations / Vessel Traffic Service	Operaciones portuarias / Servicio de Tránsito de Embarcaciones
Port Operations / Vessel Traffic Service	Operaciones portuarias / Servicio de Tránsito de Embarcaciones
Commercial	Comercial
Commercial	Comercial
Port Operations	Operaciones portuarias
Port Operations	Operaciones portuarias
Coast Guard Only	**Solamente Guardacostas**
Coast Guard Only	**Solamente Guardacostas**
Coast Guard Only	**Solamente Guardacostas**
Port Operations / Vessel Traffic Service	Operaciones portuarias / Servicio de Tránsito de Embarcaciones
Port Operations / Vessel Traffic Service	Operaciones portuarias / Servicio de Tránsito de Embarcaciones
Port Operations / Vessel Traffic Service	Operaciones portuarias / Servicio de Tránsito de Embarcaciones
Commercial/Non-Commercial	Comercial / No Comercial
Commercial/Non-Commercial	Comercial / No Comercial
Commercial/Non-Commercial	Comercial / No Comercial
Commercial/Environmental	Comercial/ Medioambiental
Commercial/U.S. (Government Only)	Comercial/ EE.UU. entidades gubernamentales solamente
Commercial/ Coast Guard Only	Comercial/ Solamente Guardacostas

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.

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

Asignación de canales de VHF para radiocomunicación marítima (Español)

NOTA
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.

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

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

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 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

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.

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

DE (German)
Hiermit erklärt Cobra Electronics Europe, Ltd., dass der Funkanlagentyp VHF Marine Radio der Richtlinie 2014/53/EU entspricht.
Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar:
http://www.snooperneo.co.uk/DeviceDocs.cfm

BG (Bulgarian)
С настоящото Cobra Electronics Europe, Ltd. декларира, че този тип радиосъоръжение VHF Marine Radio е в съответствие с Директива 2014/53/ЕС.
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 rádiového zařízení VHF Marine Radio je v souladu se směrnicí 2014/53/EU.
Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese:
http://www.snooperneo.co.uk/DeviceDocs.cfm

ET (Estonian)
Käesolevaga deklareerib Cobra Electronics Europe, Ltd., et käesolev raadioseadme tüüp VHF Marine Radio vastab direktiivi 2014/53/EL nõuetele.
ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil:
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 δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο:
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.
Cjeloviti tekst EU izjave 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

LV (Latvian)
Ar šo Cobra Electronics Europe, Ltd. deklarē, ka radioiekārta VHF Marine Radio atbilst Direktīvai 2014/53/ES.
Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē:
http://www.snooperneo.co.uk/DeviceDocs.cfm

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

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

MT (Maltese)
B'dan, Cobra Electronics Europe, Ltd., niddikjara li dan it-tip ta' tagħmir tar-radju VHF Marine Radio huwa konformi mad-Direttiva 2014/53/UE.
It-test kollu tad-dikjarazzjoni ta' konformità tal-UE huwa disponibbli f'dan l-indirizz tal-Internet li ġej:
http://www.snooperneo.co.uk/DeviceDocs.cfm

NL (Dutch)
Hierbij verklaar ik, Cobra Electronics Europe, Ltd., dat het type radioapparatuur VHF Marine Radio conform is met Richtlijn 2014/53/EU.
De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres:
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.
Pełny 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)
Prin prezenta, Cobra Electronics Europe, Ltd. declară că tipul de echipamente radio VHF Marine Radio este în conformitate cu Directiva 2014/53/UE.
Textul 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.
Úplné EÚ vyhlásenie o zhode je k dispozícii 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 je na voljo na naslednjem spletnem naslovu:
http://www.snooperneo.co.uk/DeviceDocs.cfm

FI (Finnish)
Cobra Electronics Europe, Ltd. vakuuttaa, että radiolaitetyyppi VHF Marine Radio on direktiivin 2014/53/EU mukainen.
EU-vaatimustenmukaisuusvakuutuksen täysimittainen 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:

www.cobra.com

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