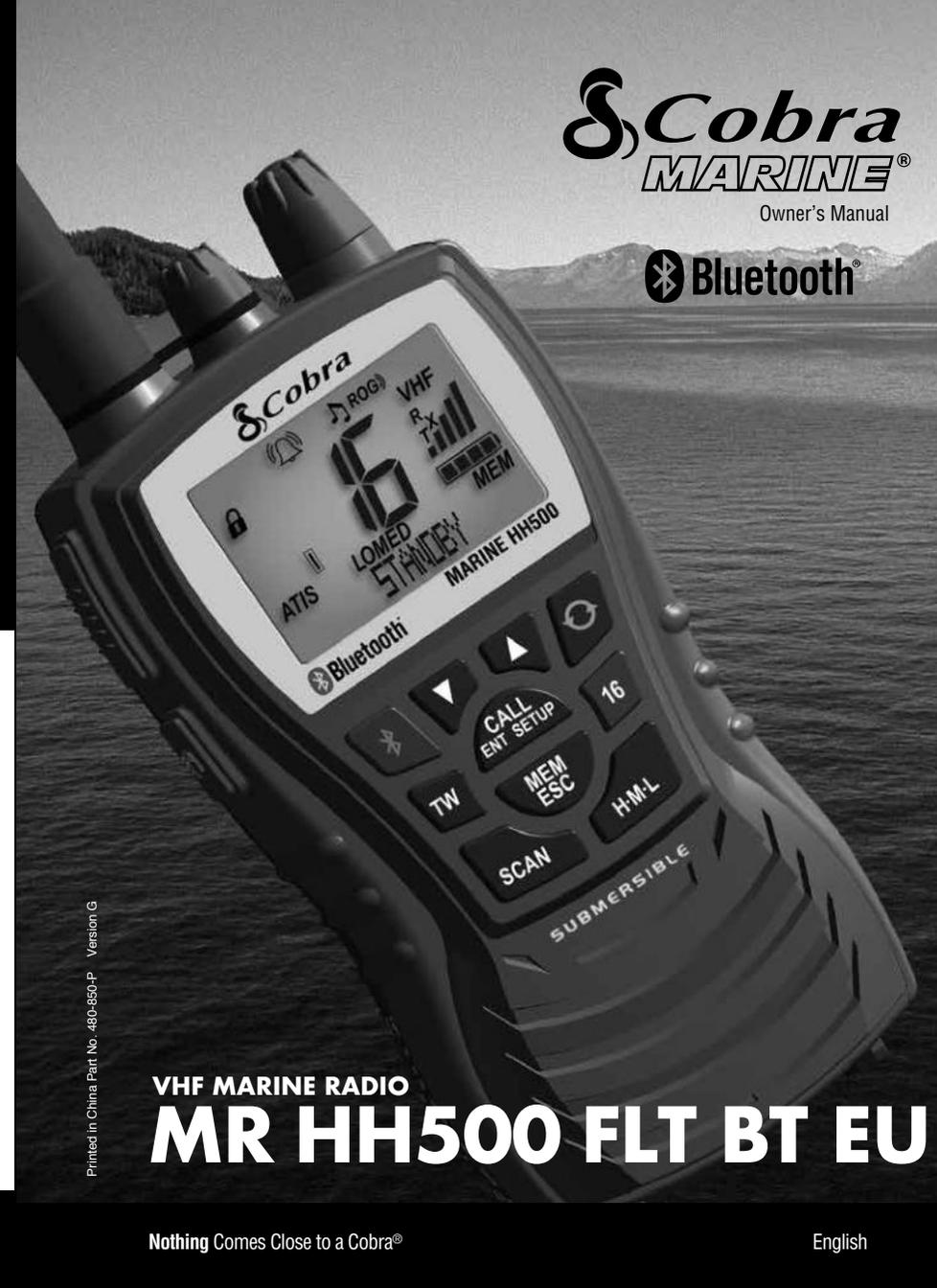The Cobra Electronics Corporation
line of quality products includes:

drive HD™ Dash Cams

Action Cams

CB Radios

Walkie Talkie/Two-Way Radios

Radar/Laser Detectors

CobraMarine® VHF Radios

Power Inverters

Accessories

Portable Power Packs

For more information or to
order any of our products,
please visit our website:
www.cobra.com

Cobra
MARINE®

Owner's Manual

Bluetooth®

Printed in China Part No. 480-850-P   Version G

VHF MARINE RADIO

MR HH500 FLT BT EU

Our Thanks to You and Customer Assistance

Introduction

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.

For Warranty, Product Service and Accessory Information

Please contact your local dealer or distributor. See the enclosed leaflet that provides contact information for the CobraMarine international distributors.
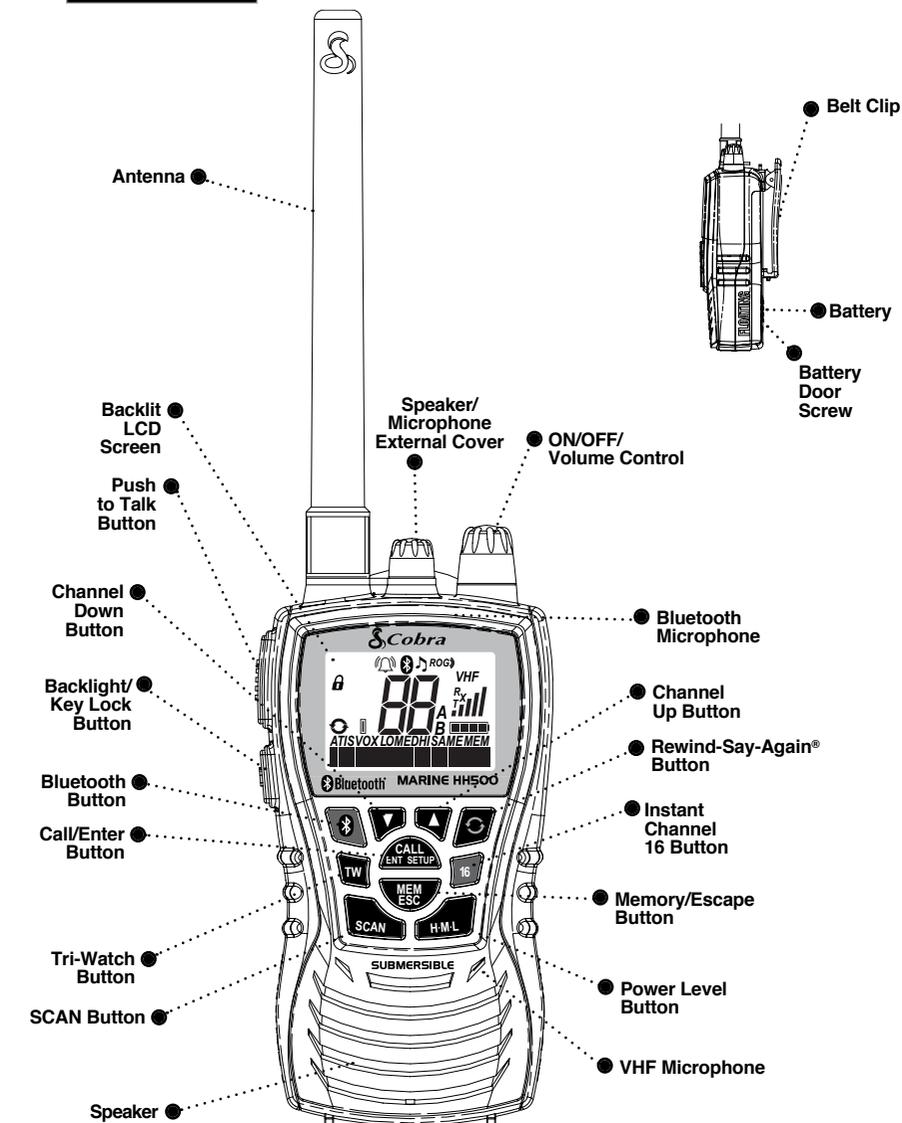
Adapter: ASSA55W-120040
Aquil Star Precision Industrial (Shenzhen) Co., Ltd.

Car Charger: 12V, 1000mA
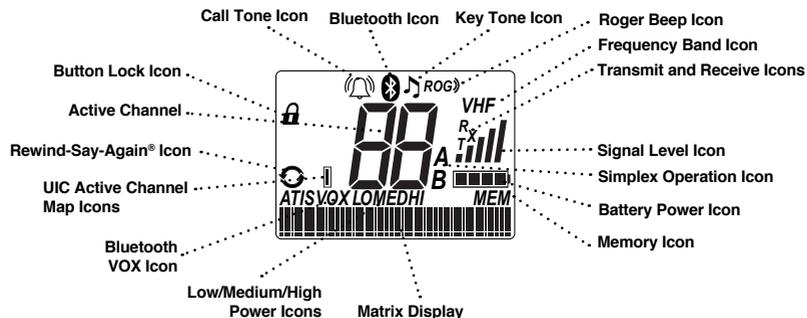Shenzhen Nuo Heng Yuan Technology Co., Ltd.

Battery: CEL 523450
Jiangsu CEL Battery Co., Ltd.

Radio Controls and Indicators

Introduction

Belt Clip

Battery

Battery Door Screw

Antenna

Backlit LCD Screen

Push to Talk Button

Channel Down Button

Backlight/ Key Lock Button

Bluetooth Button

Call/Enter Button

Tri-Watch Button

SCAN Button

Speaker

Speaker/ Microphone External Cover

ON/OFF/ Volume Control

Bluetooth Microphone

Channel Up Button

Rewind-Say-Again® Button

Instant Channel 16 Button

Memory/Escape Button

Power Level Button

VHF Microphone

MRHH500EU_MANL.indd   1-4   3/6/19   2:28 PM

Backlit LCD (Liquid Crystal Display) Screen

Call Tone Icon
Bluetooth Icon
Key Tone Icon
Roger Beep Icon
Frequency Band Icon
Button Lock Icon
Transmit and Receive Icons
Active Channel
Rewind-Say-Again® Icon
Signal Level Icon
UIC Active Channel Map Icons
Simplex Operation Icon
Battery Power Icon
Bluetooth VOX Icon
Memory Icon
Low/Medium/High Power Icons
Matrix Display

(LCD display shows: ROG, VHF, Rx, Tx, A, B, 88, ATIS VOX LO ME DHI, MEM)

Product Features

Power Settings
Selectable power settings produce 1, 3 or 6 watts of output power for near or distant calling.

USA/International/Canada Channels
Allows operation on any of the three (3) different channel maps established for these areas.

Submersible to JIS7 Standards
Waterproof to 3.3 ft (1 m) of water for 30 minutes.

Button/Key Lock
Prevents accidental setting changes when button lock is set.

Channel Scan/Memory Scan
Use to scan through unlimited channels or memory locations to find conversations in progress.

Matrix Display
The display at the bottom of the LCD screen displays text letting the user know the current radio mode, function or operation.

AA Battery Compatible
Good for emergency backup.
Includes AA battery tray (P/N CM 110-024).

Instant Channel 16
Provides instant access to priority Channel 16.

Tri-Watch
Use to monitor three (3) channels at once — Channel 16 and two (2) programmable channels.

Floating
This radio will float if dropped overboard. It has an orange stripe so it's easy to retrieve. Must use included battery to float.

220V/12V Charger Included
Use to charge battery pack, at home, in a car or in a boat.

Product Features (continued)

MicroBlue™
Bluetooth® Wireless Technology in a unique noise canceling design. Widely compatible for all mobile phones with Bluetooth® wireless technology.

Rewind-Say-Again®
Replays missed VHF calls.

Locking Desktop Charger
Holds the radio or battery in place while charging. Vertical or horizontal mounting.

Call Tones (Selectable)
10 selectable call tones

Automatic Transponder Identification System (ATIS)
Capable of operating within the Automatic Transponder Identification System. ATIS includes data at the end of a transmission for station identification.

Speaker/Mic Jack
Allows connecting optional Cobra Lapel Speaker/Mic and other Cobra accessories.

Unlimited Memory Channels
Allows programming of unlimited VHF memory channels.

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

Easy Redial Operation
Redial of last phone number dialed.

Voice Dialing
Supports standard mobile phone voice dialing when paired to a compatible mobile phone.

Noise Canceling Microphone
Reduces effect of environmental noise when speaking.

Illuminated Buttons
Allows high visibility of all function buttons.

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.

BURP
The Cobra exclusive BURP feature expels water from the speaker grill if the unit is dropped in the water or is subjected to extreme rain and weather.

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

Nothing Comes Close to a Cobra® **1**

Important Safety Information

Before installing and 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 installed and used properly.
Please read the installation and operating instructions carefully before installing and 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.

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 recommended RF exposure limits established for the radio.

Changes or modifications to your radio MAY VOID its compliance with government rules and make it illegal to use.

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 5 cm (2 inches) away from yourself and others when transmitting.

DO NOT transmit more than 40% 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.

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

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

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

Failure to observe any of these warnings may cause you to exceed recommended RF exposure limits or create other dangerous conditions.

NOTICE
Your radio is waterproof only when the batteries are properly installed.

AVOID using the radio below -20°C and above +40°C.

AVOID storing the radio below -20°C and above +60°C.

KEEP your radio at least 0,9 m (3 ft) away from your vessel's magnetic navigation compass.

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

This radio is supplied with a lithium-ion (LiON) rechargeable battery pack.

- Use only the Cobra charger to recharge lithium-ion (LiON) batteries in the radio.
- Do not short circuit the battery pack.
- When replacing the batteries, dispose of the old batteries properly. Batteries may explode if disposed of in a fire.

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 maximum output of your radio is not sufficient for the distances you travel from the coast, consider a higher powered handheld or installing a Cobra Marine fixed mount radio with up to 25 watts of output power. (Visit www.cobra.com or your local dealer for model availability.)

If traveling far offshore, you should consider adding even 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 do not know where you are, the coastguard will have difficulty finding you if you are 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.

VHF Marine Radio Procedures

If you are not familiar with or need to brush up on the protocols that must be followed when using a VHF Marine Radio, please study the section beginning at page 45 before putting your radio into service.

Licensing Information

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.

Station License

The UK requires a ship's radio license and a marine radio operator's 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 Radio Licensing Centre run by OFCOM in the UK. In other countries, contact the relevant national postal or 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. FCC (Federal Communications Commission) for licensing and operating information.

Radio Call Sign

A radio call sign is included as part of the ship's 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 transmitting frequencies in your radio are reserved for maritime use; any frequency you use for transmission must be specifically included on your ship's license. 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. The use of ATIS is prohibited outside the European inland waterways covered by the Basel Agreement.

Included in this Package

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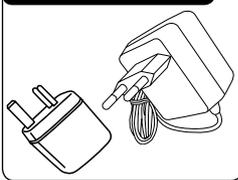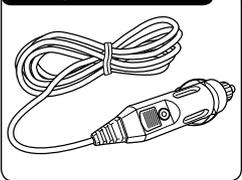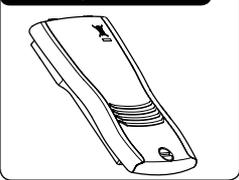
Radio

Drop-In Battery Charger

AC Charger

For connection to 220-volt power source.

DC Charger

For connection to 12-volt power sources.

LiON Battery Pack

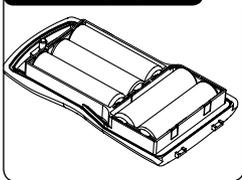
Antenna

Operating Instruction Manual

Spring-Loaded Belt Clip
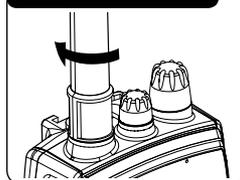

Wrist Strap

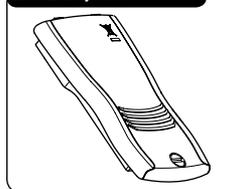Alkaline Battery Tray

Install/Remove Antenna

Antenna

1. To install the antenna turn the antenna into the radio clockwise to tighten. Do not overtighten.

2. To remove the antenna turn the antenna counterclockwise.

Batteries and Charger

LiON Battery Pack

The radio is shipped with a sealed lithium-ion (LiON) battery pack (P/N CM 110-028) that is rechargeable.

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

When your rechargeable batteries begin to discharge too quickly, it is time to install a new battery pack. Your radio will also operate with five (5) high-quality AA alkaline batteries, using the included alkaline battery tray.

Installing the Battery Pack

Install Battery Pack

1. Position the battery pack over the back of the radio.

2. Engage the battery pack into the radio by sliding to the top until battery pack is fully seated against radio housing.

Tighten Screw

3. Tighten the screw using the end of the belt clip to secure the battery pack to the radio. Do not overtighten. Only use the end of the belt clip to tighten the screw.
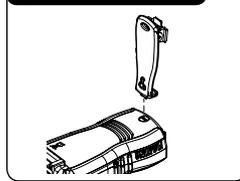
Wrist Strap and Belt Clip

Belt Clip

Insert Belt Clip onto Radio

Wrist Strap Attachment
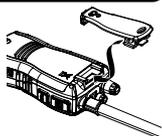

Secure Radio

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.

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.

Power Sources

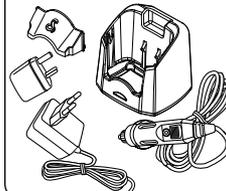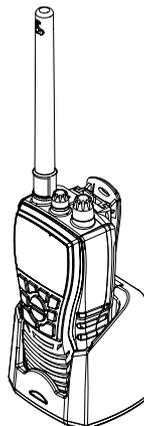**Initial Battery Charge**

Initial Charge

The Cobra-provided LiON battery pack may be charged at home, in a car or in a boat using the appropriate 12V or 220V power cord with the charger.

1. Insert one (1) of the power cords into the back of the drop-in charger.

2. Insert the other end of the power cord into the appropriate 12V or 220V power source.

3. Remove battery pack spacer from the charger and insert the entire radio/battery into the charger. The metal charge contacts on the battery will contact the mating prongs in the charger to transfer the charging current.

4. Observe that the red light on the front of the charger glows to indicate that the battery pack is properly seated and the charger is operating.

5. Allow the batteries to charge for five (5) to six (6) hours before use. The light will change back to green when the battery is fully charged.

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

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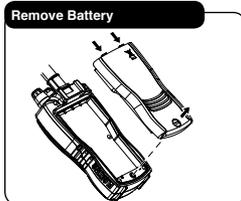
Remove Battery

To Remove Battery Pack from Radio

1. Loosen the screw on the back of the battery pack.

2. Lift the bottom of the battery pack slightly to remove it from the radio housing.

3. Pull battery pack out of the radio housing.

**Battery Pack Charging Only**

NOTE
The LiON battery pack can also be charged in the battery charger without being installed in the radio. Insert the spacer into the battery charger to support the battery pack during this charging process. Follow the same procedures in "Initial Charge" to charge the battery pack.

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

Alkaline Battery Tray
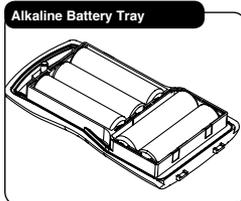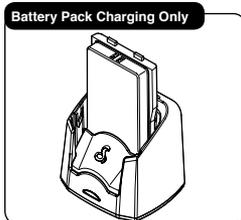
Alkaline Batteries

The alkaline battery tray acts as a backup or "Emergency" power source should the battery pack run low on power and need to be recharged. The radio will transmit at full power when using five (5) new AA alkaline batteries.

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

Fully Charged

Partially Charged

Fully Discharged
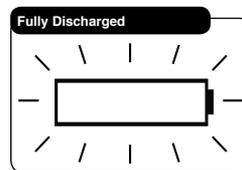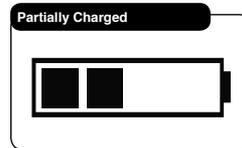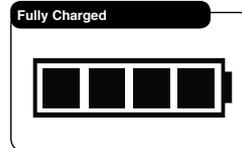
Maintaining the Battery Charge

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

NOTE
Radio will continue to receive signals when blinking but cannot transmit.

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

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

Getting Started

HH500 Radio

Refer to the foldout at the front of this manual to identify the various controls and indicators on your radio. Throughout this manual you will be instructed to "Press" or to "Press and Hold" various buttons (except "Push to Talk") on the radio. "Press" means a momentary press of approximately one (1) second. "Press and Hold" means to hold the button down for approximately two (2) seconds.

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

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

Common Radio Functions

The following procedures define common operating functions of the radio when in either **Marine Standby** mode.

On/Off/Volume Control (Clockwise)

On/Off/Volume Control (Counterclockwise)
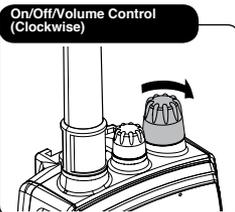
### Power/Volume Control

Power On/Off Control

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

Volume Control

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

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

- To decrease the volume, turn the **On/Off/Volume** control counterclockwise.
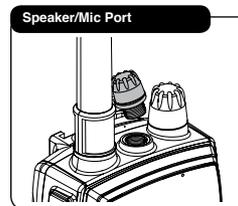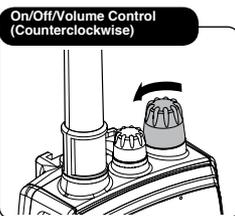
Speaker/Mic Port

Radio Speaker and Microphone

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

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

Talk Button

Talk Button

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

Backlight/Key Lock Button

Backlight/Key Lock Button

To Display the Backlight Momentarily:

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

Key Lock

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

Key Locked Buttons

- **Channel Up** Button
- **Channel Down** Button
- **SCAN** Button
- **MEM/ESC** Button
- **H-M-L** Button
- **Bluetooth®** Button
- **Rewind** Button
- **16** Button
- **TRI-WATCH** Button
- **Call/Enter/Setup** Button

To Lock or Unlock the Buttons:

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

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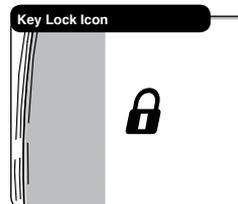
Both the **Backlight/Key Lock** button and the **Talk** button are active — you can **Receive (Rx)** or **Transmit (Tx)** a message with **Key Lock** On, but you cannot change the channel.

Channel Up/Down Buttons

Channel Up/Down Buttons

Currently On Channel 88
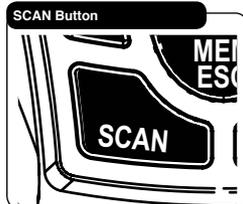
Your radio will **Receive (Rx)** and **Transmit (Tx)** VHF signals on the channel indicated on the LCD display. You can change the channel at any time using the **Channel Up/Down** buttons.

To Change Channels:

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

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

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

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

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

SCAN Button

SCAN Button

Press and release the **SCAN** button to scan all channels. The **SCAN** icon will display on the LCD display. Scanning begins at lower channels, and scans to higher channels. Press the **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 on the paused channel and remain there when the **Talk** button is pressed.

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

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

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

H-M-L Power Button

Your radio can transmit selectively at 1, 3 or 6 watts of power. Cobra suggests you maintain the low power setting for short-range communications. You will conserve battery life and avoid overpowering nearby stations with a low power setting signal. Use the high power setting for long-range communications or when you do not receive a response to a signal sent at 1 watt.

To Toggle Between H-M-L Power Modes:

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

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

NOTE
A few channels are Receive only and will not transmit in these channels.

Call/Enter/Setup Button

Call/Enter/Setup Button

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

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

Setup Mode Programming

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

During setup programming, the matrix display will show text describing the programming action you are now performing.

NOTE

When in the **Setup** mode, if you stop programming for longer than 15 seconds, your entry will be saved and the radio will go back to the **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 except when setting squelch.

Marine (VHF) Mode Programming

Marine Standby Mode

Programming these features will allow you to customize certain features of this radio to enhance your "On-Water" radio use.

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

The mode programming follows this sequence:

- Squelch Level Set
- UIC Channel Map
- Tone Alert On/Off
- Call Tone Select
- Roger Beep On/Off
- Key Tone On/Off
- Rewind Enable/Disable
- ATIS On/Off (display only ATIS enabled)

Channel Up/Down Buttons
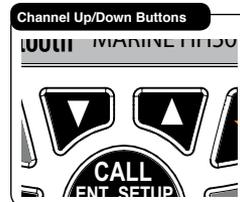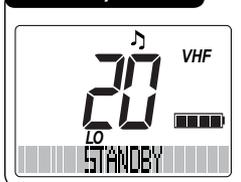
Squelch Control

Squelch Control

Squelch Control filters weak signals and radio frequency (RF) noise so that you will clearly hear the signals you want. The **Squelch Control** on this radio is set through the following keypad operation.

To Set Squelch Control:

1. With the power On, push and hold **Call/Enter/Setup** button to access the **Setup** menu.

2. Squelch control will be the first menu item to appear. Press the **Channel Up** and **Channel Down** buttons to set level. The signal level bar graph shows squelch level while you are in **Setup** mode on the squelch adjust function.

3. To adjust your squelch, press the **Channel Down** button until you hear a hissing sound, then press and release the **Channel Up** button until the hissing stops. This will establish a "Baseline" squelch.

4. By pressing the **Channel Up** button further, you will filter weak and medium strength signals. By pressing **Channel Down** button, you will receive weaker signals.

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

NOTE

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

Active Channel Map Icon

Channel Up/Down Buttons
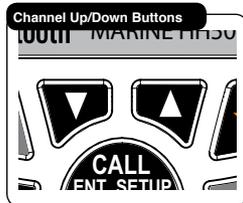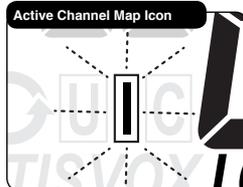
USA/International/Canada Channel Maps

Three (3) sets of VHF Channel Maps have been established for marine use in the USA, Canada, and the rest of the world (International). Most of the channels are the same for all three (3) maps, but there are definite differences (see table in the Appendix on page 54). Your radio has all three (3) maps built into it and will operate correctly in whichever area you choose.

To Set Channel Map Operating Area:

1. The **Channel Map** mode is the second mode on the **Marine (VHF) Setup** programming.

2. **U, I** and **C** will display, with the current setting (the **U** icon is the default) flashing.

3. Press **Channel Up/Down** button to select the **U, I** or **C** icon.

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

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

Call Tone Alert

Call Tone Alert

If **Call Tone Alert** is set to On, the radio will alert you to a call from a compatible Cobra radio with a Call Alert.

To Set Call Tone On or Off:

1. Display will show **Call Tone** icon flashing and the matrix will display **CALL TONE ON** or **OFF**.

2. Press Channel **Up/Down** button to select **ON** or **OFF**.

3. Press the **Call/Enter/Setup** button to save this entry and move to the next **Setup** mode programming. The **Call Tone** icon will show in the **Standby** mode when set to **ON**.
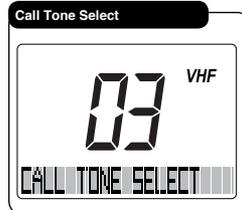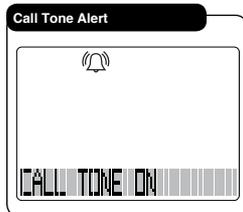
Call Tone Select

Call Tone Select

This setting will also allow you to transmit a unique **Call Tone** alert to identify your radio when you transmit messages. You can select from one of 10 different **Call Tone** signals.

To Set Call Tone:

1. From the previous press of the **Call/Enter/Setup** button, the matrix will display **CALL TONE SELECT** and the display will flash the current **Call Tone** number (01 through 10).

2. Press the **Channel Up/Down** button to select a different **Call Tone**. An example of each call tone will sound for 1.5 seconds.

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

NOTE
Call Tones are not usually used for **Marine VHF** communications. We allow you to turn it On for your unique communication needs. It is only compatible with other Cobra VHF radios.
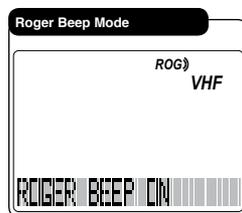
Roger Beep Mode

Roger Beep Mode

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

To Set Roger Beep On or Off:

1. Display will show **ROG** icon flashing and the matrix will display **ROGER BEEP ON** or **OFF**.

2. Press **Channel Up/Down** button to select **ON** or **OFF**. **ROG** will be displayed when On.

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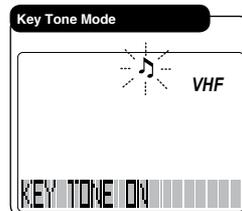
Key Tone Mode

Key Tone Mode

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

To Set Key Tone On or Off:

1. Display will show **Key Tone** icon flashing and matrix will display **KEY TONE ON** or **OFF**.

2. Press **Channel Up/Down** button to select **ON** or **OFF**.

3. Press **Call/Enter/Setup** button to save entry.

Channel Up/Down Button

tooth MARINE

Rewind Enable/Disable
If **Rewind** is enabled, the last 20 seconds of incoming audio is recorded and you can play back missed VHF calls by pressing the **Rewind** button.

1. Display will show the **Rewind** icon flashing and the matrix will display **REWIND ENABLE** or **DISABLE**.
2. Press Channel Up/Down button to select **ENABLE** or **DISABLE**.
3. Press **Call/Enter/Setup button** to save entry.

Rewind Enable

ATIS ID Programming

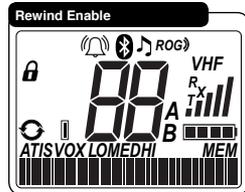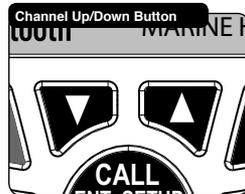The Automatic Transmission Identification System (ATIS) feature of this Cobra radio is used to identify marine vessels in some inland waterways of European countries that require **ATIS** transmission. An **ATIS ID** number is required to operate the ATIS feature. The **ATIS ID** number is derived from your vessel's call sign. You must enter your **ATIS ID** number into this radio before the **ATIS** system will become functional.

Please consult your local dealer for questions about local ATIS requirements. The use of **ATIS** is prohibited outside the European inland waterways covered by the Basel Agreement.

With this feature activated the vessels **ATIS ID** number is transmitted after every push of the **Talk** button.

Channel Down and SCAN Buttons
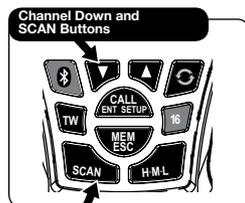
To Set the ATIS ID Number:

NOTE
The **ATIS ID** is a 10-digit number that will always begin with the number "9." You will be asked to enter only the last nine digits. The first digit, "9," has been automatically entered for you.

1. With the radio turned Off, press and hold the **Channel Down** and **SCAN** buttons and simultaneously power On the radio.

ATIS ID Start Screen
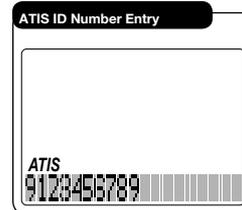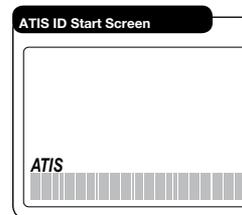
ATIS

2. The LCD will display the **ATIS** icon. A dash (-), to the right of the digit "9," will be flashing for the next entry.

NOTICE
Remember, you only have **one (1) attempt** to set the **ATIS ID** number. Once this number has been entered, only your Cobra distributor can reset the **ATIS ID** number. You can also return the radio to Cobra for reprogramming.

3. Press the **Channel Up/Down** button to scroll through the specific **ATIS** digit being entered.
4. Pressing the **Call/Enter/Setup** button advances to the right, one (1) digit, for the next entry.
5. Repeat this input sequence until all nine digits have been entered. The nine digits will be displayed on the matrix. The **ATIS** icon will stop flashing when a successful **ATIS ID** entry has been made.
6. Press the **Call/Enter/Setup** button again, after all numbers have been entered, to save the **ATIS ID** number and return to the **Marine Standby** mode.

Channel Up/Down Button

ATIS ID Number Entry

ATIS
9123456789

Bluetooth® **Mode Pairing and Programming**

Bluetooth® wireless technology is a standard which has been developed for use in mobile (cell) phones and other devices. This radio can be wirelessly linked to your mobile phone if your mobile phone also has Bluetooth. This process of linking your mobile phone and this radio requires a one-time "pairing" after which the two devices can be "connected" when they are within range. When connected, this radio can act as the speaker and microphone of your mobile phone while your phone is stowed in a safe and dry location.

This programming section shows you how to complete the pairing process. It also shows you how to change some settings related to the Bluetooth functionality of your radio.
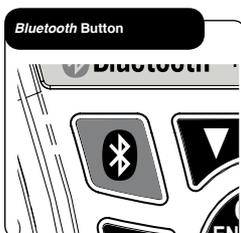
Bluetooth Button

Pairing Your Mobile Phone:

1. Press and release the **Bluetooth** button to enter **BLUETOOTH Standby**. The matrix will display **BLUETOOTH STANDBY** and the blue keypad backlight will come On.

2. Press and hold the **Bluetooth** button for four (4) seconds [until the radio beeps four (4) times] from the **Bluetooth Standby** mode. The blue backlight will light. Your radio is now in a "Pairing Mode" and can be "found" by your phone.

   While in pairing mode, the LCD will display **PAIRING** as shown in the illustration below.
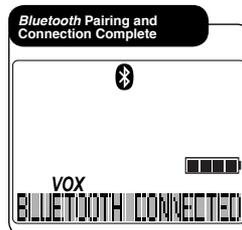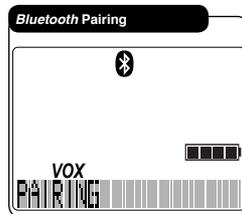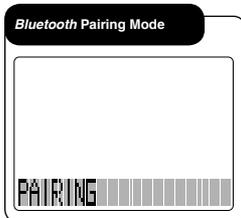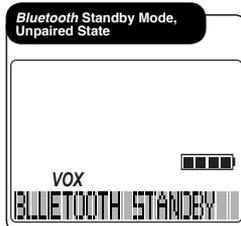
Bluetooth Standby Mode, Unpaired State

3. Follow the mobile phone's instructions to search for available pairing with another Bluetooth device. This can often be found in the Tools or Settings menu of your mobile phone.

   Enter the "P.I.N." (Personal Identification Number 0000), on your mobile phone if prompted. Wait for the pairing process to complete.

Bluetooth Pairing Mode

Bluetooth Pairing

Bluetooth Pairing and Connection Complete

4. You will then see a confirmation of successful pairing or a notice to try again if pairing did not occur. The matrix will display **BLUETOOTH CONNECTED** once the process is completed.

NOTE

This process only needs to be completed for first time operation. From then on, as long as your mobile phone is within 30 feet (10 meters) of the radio, the two units will "Connect" automatically.

Bluetooth Mode Programming

The default settings for how your radio answers and conducts Bluetooth mobile phone calls can be adjusted.

VOX
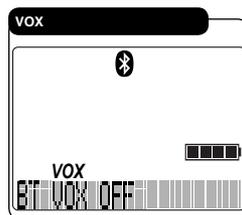
VOX On or Off

The **VOX** function converts the radio microphone's pickup of your voice from being controlled by the **PTT** button to being activated by your voice. When **VOX** is On, the **PTT** button does not need to be pressed to transmit your voice, and you can just speak into the microphone.

When **VOX** is Off, you need to press the **PTT** button while speaking.

To Change Between VOX On and Off:

1. From the **Bluetooth Standby** mode, press and hold **Call/Enter/Setup** button to access the Setup menu. **VOX** On/Off will be the first menu item to appear. The display will show **BT VOX**, the **Vox** icon and ON or OFF flashing.

2. Press the **Channel UP/Down** button to select ON or OFF.

3. Press the **Call/Enter/Setup** button to confirm your selection and move to the next **Setup** mode programming.
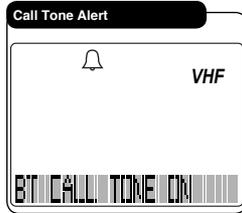
Call Tone Alert

Call Tone Alert

If **Call Tone Alert** is set to On, the radio will "ring" with one of your Cobra selected tones when you receive a call on your mobile phone. If **Call Tone Alert** is set to Off, the radio will ring with the mobile phone's default ring tone.

To Set Call Tone On or Off:

1. The display will show **BT CALL TONE**, the **Call Tone** icon and ON or OFF flashing.

2. Press **Channel UP/Down** button to select ON or OFF.

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

Call Tone Select

Call Tone Select (Ring Tones)

This setting controls what ring tones are used to alert for incoming calls on your mobile phone. Ten different ring tones are available from which to choose.

To Set Call Tone:

1. The display will show **BT CALL TONE SELECT** and the current Call Tone number (01 through 10) flashing.

2. Press the **Channel Up/Down** button to select a different Call Tone. An example of each call tone will sound for 1.5 seconds.

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

***Bluetooth* Radio On**

***Bluetooth* Radio Off**

***Bluetooth* Radio On/Off**

This setting allows you to turn On and Off the small Bluetooth radio inside this VHF radio. The default setting is ON. Turning it Off can save some power. It can easily be switched On at any time.

To Set Bluetooth On and Off:

1. The display will show **BLUETOOTH RADIO ON** or **OFF** flashing.

2. Press **Channel UP/Down** button to select ON or OFF.

3. Press the **Call/Enter/Setup** button to save this entry.
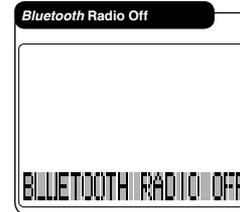
You have now ended **Bluetooth Setup** mode programming.

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 in **Marine Standby** mode. While in **Marine Standby** mode, the user will be able to transmit by pressing the **Push to Talk (Talk)** button. Signals in **Receive (Rx)** mode will be received on the selected channel(s).

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.

Check Channel Number

Low Power Mode

Talk Button
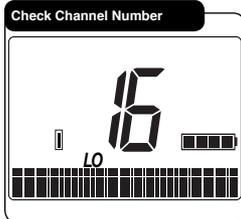
Transmit (Tx) Mode

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

To Transmit a Message:

1. Check to see that your radio is set to a proper channel for the type of message you plan to send.

2. Toggle to the **Low Power** setting.

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. **Battery Power** icon is held at the level it was at during receive.

Transmit (Tx) Icon

Receive (Rx) Icon
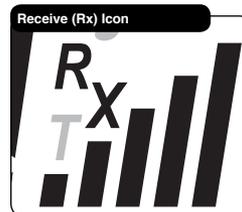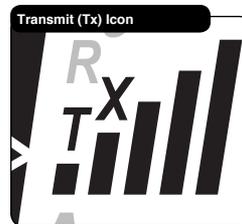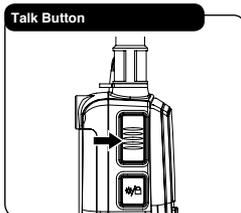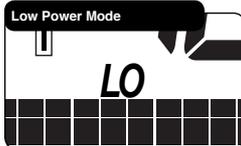
NOTE

If the Talk button is held down for four (4) minutes, the radio will automatically sound a series of beeps and cease transmitting to prevent unwanted signal generation and battery drain. As soon as the Talk button is released, it can be pressed again to resume transmission.

Advanced Operation
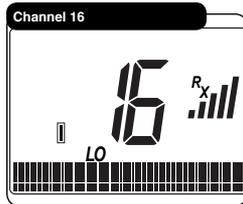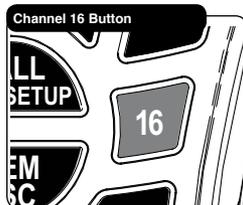
Channel 16 Button

Channel 16 Mode

Channel 16 mode gives you quick access to calling on Channel 16.

To Switch to Channel 16:

1. Press the **Channel 16** button to change to Channel 16.

2. Press the **Channel 16** button a second time and return to the last used channel.
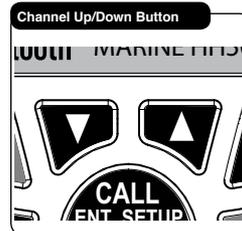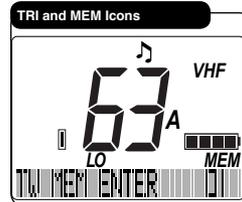
Channel 16

Tri-Watch Mode

Tri-Watch mode gives you one (1) button access to scan a total of three (3) channels of most importance to you. Channel 16 is preprogrammed and will always be one (1) of the scanned locations. Two (2) other channels of your choice can be stored in the radio. These channels can be edited and/or recalled during future engagements of **Tri-Watch** mode.

TRI-WATCH Button

NOTE

The radio must be squelched for **Tri-Watch** mode to function. See page 17 for **Squelch** procedure.

TRI and MEM Icons

Tri-Watch Setup

To Program or Edit the Tri-Watch Channels:

1. Press and hold the **TRI-WATCH** button from **Marine Standby** mode for two (2) seconds to activate **Tri-Watch Setup** mode. The **MEM** icon on the display will turn On and the matrix will display **TW MEM ENTER 01**.

NOTE

The main channel number will flash to indicate channel position. If there is no input activity for 15 seconds, the radio will sound three (3) beeps and return to **Marine Standby** mode.

Channel Up/Down Button

2. Press **Channel Up/Down** button to select the desired **Tri-Watch** channel.

3. Press and release **TRI-WATCH** button or **Call/Enter/ Setup** button to confirm entry.

4. Repeat steps 2 and 3 to program the remaining additional **Tri-Watch** memory channel.

5. After programming both **Tri-Watch** memory channels the radio will immediately engage **Tri-Watch** mode.

TRI-WATCH Button
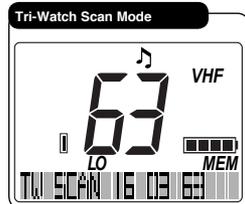
Tri-Watch Scan Mode

Using Tri-Watch
Tri-Watch Scan Mode:

1. From **Marine Standby** mode, press the **TRI-WATCH** button. The **TW SCAN** will display on the matrix along with the three marine channels stored in the **Tri-Watch** memory.

2. The radio will scan through the three (3) **Tri-Watch** memory channels.

3. A signal on any one (1) of the three (3) channels will stop the scan for 10 seconds to allow you to listen to the traffic on that location.

NOTE
After the **Tri-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 **Tri-Watch** channels. Channel 16 is given priority in Tri-Watch Mode.

4. Press the **Channel Up/Down** button to resume scanning the **Tri-Watch** channels or to change the scan direction.

5. To EXIT the **Tri-Watch** scan, press the **TRI-WATCH** button again, and the radio will return to **Marine Standby** mode.

MEM/ESC Button

Memory Location Number

Channel Up/Down Buttons

Channel Number
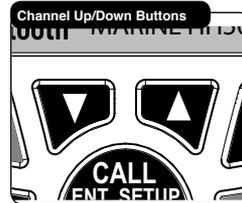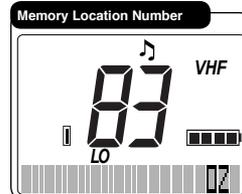
Memory Location Mode
Your radio has unlimited memory locations for storing your most frequently used channels. These memory locations can be selected individually or can be scanned. (See page 34 under **Memory Location Scan**.)

To enter **Memory** mode, press **MEM/ESC** button. The display will show the **MEM** icon and the **Memory Channel** bank will be displayed on the matrix.

To Program Memory Locations:

1. Press and hold the **MEM/ESC** button for two (2) seconds. The memory location number will be displayed on the matrix and the **MEM** icon will be turned On.

2. Use the **Channel Up/Down** button to advance to the memory location (00-99) you want to program.

3. Press the **MEM/ESC** button to select the memory location.

4. Use the **Channel Up/Down** button to change to the channel you want to store into the selected memory location.

5. Press the **MEM/ESC** button to program that channel. The memory location will be displayed on the matrix again.

Repeat steps 2 through 5 to program as many additional memories as you want.

6. Press and hold the **MEM/ESC** button for two (2) seconds. This will return the radio to **Memory** mode.

7. Press and release the **MEM/ESC** button again to return to **Marine Standby** mode.

MEM Icon

♪

VHF

83

LO
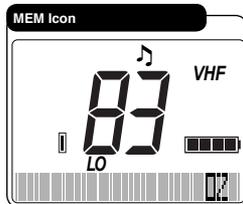
To Recall a Stored Memory Location:

1. Press the **MEM/ESC** button. The **MEM** icon will be turned On.

2. Press the **Channel Up/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 **MEM/ESC** 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 **MEM/ESC** button for two (2) seconds. The memory location number will be displayed on the matrix and the **MEM** icon will be turned On.

2. Use the **Channel Up/Down** button to advance to the memory location you want to erase.

3. Press the **MEM/ESC** button to select the memory location.

4. Use the **Channel Up/Down** button to change to the channel to read "00" at the selected memory location.

5. Press the **MEM/ESC** button to erase that channel.

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

6. Press and hold the **MEM/ESC** button for two (2) seconds. This will return the radio to **Memory** mode.

7. Press and release the **MEM/ESC** button again to return to **Marine Standby** mode.

SCAN Button

MEM
ESC

SCAN

SCAN Icon

♪

VHF

65

LO

CHANNEL SCAN

Channel Up/Down Buttons

tooth   MARINE HH50

▼   ▲

CALL
ENT SETUP
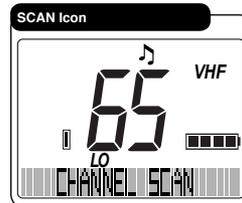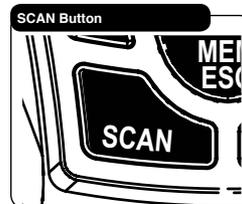
Channel Scan Mode

During **Channel Scan** mode, the radio will rapidly switch from channel to channel through all the channels. Channel 16 will be given priority in Channel Scan Mode.

NOTE

The radio must be squelched for **Channel Scan** mode to function. See page 17 for **Squelch** procedure.

To Enter Channel Scan:

1. From **Marine Standby** mode, press the **SCAN** button. The radio will immediately begin to scan the entire channel map selected in the active channel map. **CHANNEL SCAN** will display on the matrix.

2. A signal on any channel will stop the scan for 10 seconds to allow you to listen to the traffic on that location. After 10 seconds, the radio will resume scanning.

3. Press the **Channel Up/Down** button to resume scanning before the 10-second pause has completed or to change the scan direction.

4. To EXIT **Channel Scan** mode, press the **SCAN** button again. The **SCAN** icon will disappear from the LCD and the radio will return to **Marine Standby** mode.

Memory Location Scan Mode

During **Memory Location Scan** mode, the radio will rapidly scan through all pre-assigned memory channels. Channel 16 will be given priority in Memory Scan Mode.

NOTE
The radio must be squelched for **Memory Location Scan** mode to function. See page 17 for **Squelch** procedure.

NOTE
If there are fewer than two (2) memory locations programmed in the radio, the **Memory Location Scan** option will not be available. To program at least two (2) memory locations, see page 31.

MEM/ESC Button

ENT·SETUP

MEM
ESC
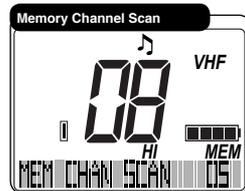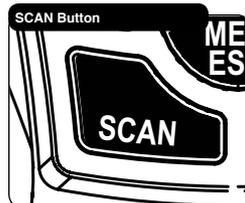
To Enter Memory Location Scan:

1. From **Marine Standby** mode, press the **MEM/ESC** button.

2. Press the **SCAN** button. The radio will immediately begin to scan all pre-assigned memory channels. The **MEM** icon will show on the LCD, and **MEM CHAN SCAN** will display on the matrix along with the memory location.

3. A signal on any channel will stop the scan for 10 seconds to allow you to listen to the traffic on that location. After 10 seconds, the radio will resume scanning.

4. Press the **Channel Up/Down** button to resume scanning the **Memory Location Scan** channels before the 10-second pause has completed or to change the scan direction.

5. To EXIT **Memory Location Scan** mode, press the **SCAN** button again. The **MEM** icon will disappear from the LCD and the radio will return to **Marine Standby** mode.

SCAN Button

ME
ES

SCAN

Memory Channel Scan

VHF

HI   MEM
MEM CHAN SCAN 05

Rewind-Say-Again® Feature

Rewind Button

LL
ETUP

16

Playback Message

VHF

MED
REWIND PLAYBACK 13
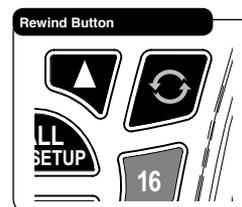
Use the Cobra exclusive **Rewind-Say-Again®** feature to replay or record the last 20 seconds of an incoming audio transmission.

Example 1:

When engine noise, music or conversation creates too much noise to hear an inbound message clearly, press the **REW** button to hear the message a second time.

Example 2:

When listening to an urgent distress message of an excited caller with confusing background noise, press the **REW** button to hear the message a second time and get life saving information. Use this feature to record call details including position coordinates, call signs, registration numbers and store details that will help authorities locate the distressed vessel.

NOTE
Hold the **Rewind** button to lock the recording memory (the **Rewind** icon flashing) and save the currently recorded transmission.

Using Rewind-Say-Again®:

1. Press **REW** button to listen to 20 seconds of the last recorded audio transmission. The matrix will display **REWIND PLAYBACK** during the playing back of the message and a 20-second countdown begins in the lower right corner.

2. Press the **TALK**, **REW** or **MEM/ESC** button during playback to stop the playback transmission. The radio returns to **Marine** mode.

SCAN Button Enter Record

Mic Recorder

Mic Recorder ON

Using Rewind-Say-Again® to Record VOICE Audio Transmission:

NOTE
If the record memory is locked (rewind icon flashing), press and hold the **REW** button to unlock.

1. Press and hold **SCAN** button for two (2) seconds to enter **Record** mode. The matrix will display **MIC RECORDER**.

2. Press and hold **PTT** button to begin recording from radio microphone. The transmitter will turn off. The matrix will display **MIC RECORDER ON** and the seconds remaining will be shown in the lower right corner. If **PTT** button is released, recording stops. While recording, a 20-second countdown begins on display. When 20-second countdown time has ended, recording stops and two (2) beep tones will be heard.

3. Press and hold **SCAN** button again for two (2) seconds or press **MEM/ESC** button to cancel recording and return to last operation.
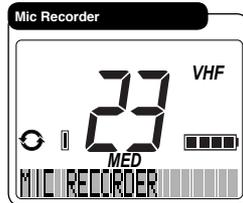
Mobile Phone Operation with *Bluetooth*®

NOTE
Please refer to the **Bluetooth Mode Pairing and Programming** section on page 22 for instructions on how to pair your mobile phone with this device, change ring tones, etc. The following section covers how to complete a phone call and other basic operations.

Answering a Call

Bluetooth Button

Connecting a Voice Dial Call

Answer Incoming Phone Calls

This handheld radio, once properly paired and connected to your Bluetooth® compatible mobile phone, can answer incoming calls received on your mobile phone. It can act as the speaker and microphone, while your mobile phone stays safe and dry. It will also improve audio quality on both ends of the conversation.

To Answer and End an Incoming Call:

1. The speaker will ring. The matrix will display **ANSWER**.

2. Press and release the **Bluetooth** button on the front panel. After the call is answered, the matrix will display **IN CALL**.

3. Begin conversation with the caller by a pressing the **PTT** (Push to Talk) key and speaking into the small microphone above the LCD. This is very similar to a standard radio operation and it completely eliminates all background noise when you are not speaking.

NOTE
To enable hands-free conversation or **"VOX"** mode (pressing in the **PTT** key not required), use the **Channel Up** and **Channel Down** keys anytime when in **Bluetooth** mode. The **"VOX"** icon will turn on when **VOX** mode is enabled.

The **Bluetooth "VOX"** setting does NOT reset to Off after a power cycle unlike the normal VOX associated with VHF mode.

4. To end a call, press and release the **Bluetooth** button. The radio will then return to previous **Standby** mode and resume normal operation.

Initiating a Call

VOX
DIALING

Connecting a Voice Dial Call

VOX
IN CALL
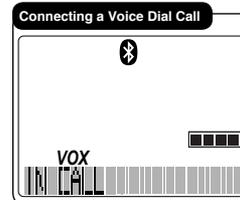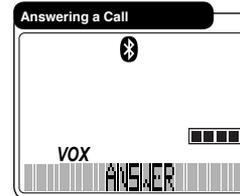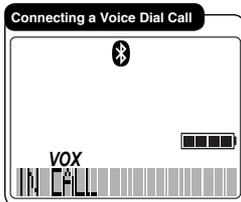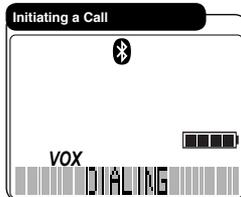
Initiate a Phone Call

There are several ways to initiate a call. These include initiating (as normal) from the mobile phone, using voice dialing and last number redial.

To Initiate from the Mobile Phone

1. Simply dial a number on your mobile phone. (See manufacturer's instructions for making a call.) When the phone's **Send** key is pressed, the radio will respond by changing over to **Bluetooth** mode and the matrix will display **DIALING**.

2. The matrix will display **IN CALL** when the receiving party, or their voice mail, answers.

3. To end a call, press and release the **Bluetooth** button. The radio will then return to previous **Standby** mode and resume normal operation.

Using Voice Dial

This feature allows you to use your voice to dial a contact from the contact list on your mobile phone.

NOTE

Voice dialing is an advanced function and may not be supported by all phones. Cobra suggests you set it up and become familiar with it on your mobile phone before you attempt using it in conjunction with the radio or another Bluetooth device.

Initiating a Voice Dial Call

VOX
DIALING

Connecting a Voice Dial Call

VOX
IN CALL

To Initiate a Voice Dial Call:

1. Press and release the **Bluetooth** button to enter the **Bluetooth Standby** mode.

2. Press and release the **Bluetooth** button twice (2x) from **Bluetooth Standby** mode. This will initiate the voice dial feature on the connected mobile phone.

3. You will hear a beep or audio command from the phone. Press and hold the **PTT** (Push to Talk) button and speak the name into the radio.

4. The mobile phone will begin to dial the contact it "recognizes." The call will be completed through the speaker and microphone of the radio. The matrix will display **DIALING** and **IN CALL** as the call is completed.

5. Hang up by pressing the **Bluetooth** button when you complete your call.
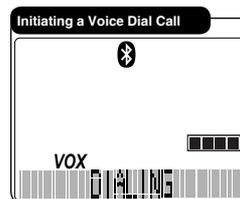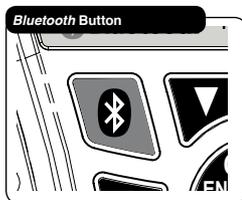
Bluetooth Button

Last Number Redial

This feature allows you to redial the last number stored in the mobile phone's internal Call Log. This feature is supported by most mobile phones.

To Initiate a Last Number Redial:

1. Press and release the **Bluetooth** button to enter the **Bluetooth Standby** mode.

2. From **Bluetooth Standby**, press and hold the **Bluetooth** button for two (2) seconds [until the radio beeps two (2) times].

3. The connected mobile phone will redial the last number. The call will be complete through the speaker and microphone of the radio.

4. Hang up by pressing the **Bluetooth** button when you complete your call.

Bluetooth Radio On

VOX
BLUETOOTH RADIO ON

To Disconnect (At the End of the Day)

You might not want to take your calls through this VHF radio once you are back at the dock or in a dry location. See the instructions in the **Bluetooth Mode Programming** section on page 23 for instructions on how to turn Off the **Bluetooth** function of the radio. The matrix will display **BLUETOOTH RADIO OFF**.

Bluetooth Radio Off

VOX
BLUETOOTH RADIO OFF

NOTE

If switched to Off setting, then the radio will not reconnect with mobile phone on power up. It must be turned back On again from the **Bluetooth Programming** mode.
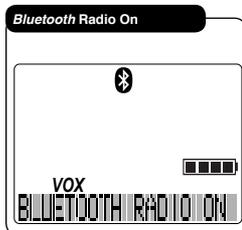
General *Bluetooth* Operation and Frequently Asked Questions

■ **What is the Industry Standard Range for Bluetooth® Wireless Technology?**

The industry standard range for Bluetooth wireless technology is 30 feet (10 meters). The radio will loose its pairing with the mobile phone if the mobile phone and the radio are separated farther than this. The radio will automatically reconnect with the mobile phone when the user comes back into range.

■ **How many phones can the radio pair with?**

The radio can only be paired to one mobile phone at a time. This is the standard operation for any Bluetooth headset or in-car Bluetooth system.

■ **Do I need to have my mobile phone with me?**

Yes, the phone call is actually completed through your mobile phone and your mobile phone operator/carrier. The mobile phone must be with the 30 feet (10 meters) range of the radio. The radio does not increase the offshore range of your mobile phone.

■ **Can I use a standard Bluetooth® headset with this radio?**

No, the radio is using the headset profile of the Bluetooth specification to pair with your mobile phone. It cannot pair to another Bluetooth headset.

■ **Can I use this unit as a speakerphone or hands-free device?**

Turning on VOX allows you to use the radio without pressing the PTT (Push to Talk) button. The radio will still need to be operated in a face held position with the microphone close to the mouth. This radio uses a noise canceling microphone, and it will not operate well from the belt clip or another hands-free position.

■ **Please make sure to note your VOX setting.**

If VOX is set to On, then the receiving caller might hear conversation and noise in your background. This setting is retained in memory. If switched On, then it will be On the next time the radio is switched On and connected.

■ **Can I use my mobile phone for emergency use?**

No, Cobra does not endorse cellular telephones as a substitute for marine radios. They generally cannot communicate with rescue vessels and, if you make a distress call on your cellular telephone, only the party you call will be able to hear you.

Additionally, cellular telephones may have limited coverage over water. If you do not know where you are, the Coast Guard will have difficulty finding you if you are using your cellular telephone. However, cellular telephones can have a place onboard where cellular coverage is available – to allow social conversations and keep the marine frequencies uncluttered and available for their intended use.

16 and Scan
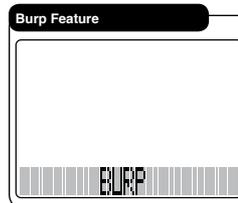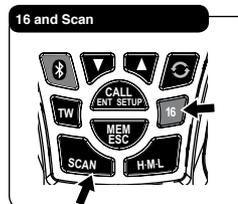
Burp Feature

Burp Feature

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

To Activate Burp:

1. Press and release the **16** and **SCAN** keys at the same time then turn on radio. Continue to hold buttons until BURP tone sounds.

2. The **Burp** tone(s) at maximum level will sound from the internal speaker for eight seconds.

3. During this time, the matrix will display **BURP**.

4. Hold the radio with the speaker grill down to help the water drain out. Shaking the radio during the BURP tone will also help to remove water from the speaker.

5. After an 8-second interval, the radio will return to standby.

Floating Radio

Floating Radio

This radio is designed to float if dropped overboard. The orange center makes it visible and easy to retrieve. This rugged radio is also designed to meet JIS7 (IPX7) specifications. This means it's designed to operate properly after being submerged in one meter deep water for 30 minutes.

NOTE

Do not leave the radio floating in water permanently. This could cause premature corrosion of the battery contacts and other damage.

The radio is only designed to float with its included Lithium-ion battery. Using other approved batteries might cause the radio to sink. This includes the optional AA battery tray, depending on the weight of the AA batteries used.

Maintenance

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

- Keep the radio and charger 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
Batteries run down quickly	Batteries are at the end of their life	Replace with new batteries
Will transmit at one (1) or three (3) watts, but not at six (6) watts	Batteries are low	Recharge or replace batteries
	Selected channel is imited to one (1) watt	Switch to another channel
Will not transmit	Selected channel is limited to receive only	Switch to another channel
No sound from speaker	Volume level is too low or squelch level is too deep	Re-adjust volume and squelch
No response to button press	Button lock is On	Press **Backlight/Key Lock** button

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 1 watt first, if the station being called is within a few miles. If there is no answer, switch to 3 watts and call again. You have the ability to go up to 6 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. You may also call on ship-to-ship channels when you know that the vessel is listening on a ship-to-ship channel.

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 (2) minutes before calling again. After three (3) 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 FCC 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

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

- Make sure the radio is On.

- Make sure you are in standby listening mode on Channel 16. Make sure Channel 16 is not in use.

- When the channel is open (quiet), press the **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 on page 54.

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 does not respond, wait two (2) minutes and repeat. You are permitted to attempt contact three (3) times, two (2) 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 (1) 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.

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 coastguard 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, coastguard or coastguard Auxiliary craft may be dispatched.

In any event, communicate with the coastguard 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 (3) 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
The urgency signal **PAN** is used when the safety of the vessel or person is in jeopardy. (This signal is properly pronounced 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 (3) times prior to the message.

NOTE
Do not use the emergency signal SECURITE if a vessel or person is in danger. Use either MAYDAY or PAN PAN, depending on the immediacy of the danger involved.

If You Hear a Distress Call

You must give any message beginning with one (1) 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,"
   or "SECURITE — SECURITE — SECURITE.")

4. **Say:**
   "THIS IS [your vessel name or call sign]," repeated three (3) times.

5. **Say:**
   "MAYDAY (or "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 U.S., Canadian and International Channels
Channel Spacing	25 kHz
Modulation	5 kHz Max.
Input Voltage	7.4 VDC
Battery Life: 5% TX, 5% RX, 90% Standby	LiON: 8 hours @ 6 watts, 14 hours @ 1 watt
Current Drain: Standby Receive (Rx) Transmit (Tx)	45 mA 200 mA 1.8 A @ High Power, 700 mA @ Low Power
Temperature Range	-20°C to 40°C
Radio Dimensions	4.8" x 2.4" x 1.4" (123 mm x 62 mm x 36 mm) not including antenna
Radio Weight	0 lbs 8 oz. (228 g) without batteries
Receiver	
Frequency Range	155.450 to 162.825 MHz
Receiver Type	Double Conversion Super-Heterodyne
Sensitivity: 12 dB Sinad	-116 dBm
Adjacent Channel Selectivity	70 dB
Intermodulation Rejection	68 dB
Spurious and Image Rejection	70 dB
AF Output	250 mW @ 8 Ohms and 5% distortion
Transmitter	
Frequency Range (Tx):	155.450 to 162.425 MHz
RF Output Power	1, 3 or 6 Watts Max (5 Watts rated)
Spurious Emissions	-36 dBm
Microphone Type	Condenser
Frequency Stability	±5 ppm
FM Hum and Noise	40 dB
***Bluetooth*®**	
Classification	Class 2,1
Version	2.0
Range	10 Meters

VHF Marine Channel Assignements

Three (3) sets of VHF **Channel Maps** have been established for marine use internationally, in Canada and in the U.S.A. Most of the channels are the same for all three (3) maps, but there are definite differences (see table on the following pages).

Your radio has all three (3) 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 18 for instructions on how to change the Channel Map.)

The following is a brief outline for some of the channel assignments in the International Channel Map.

Distress, Safety and Calling
Channel 16
Getting the attention of another station (calling) or in emergencies (distress and safety).

Intership Safety
Channel 6
Ship-to-ship safety messages and for search and rescue messages to coastguard ships and aircraft.

On-Board Communication
Channel 15, 17
Used for communication between parts of large ships.

Navigational
Channels 13, 67, 75, 76
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.

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
The U.S.A. and Canada impose restrictions on the use of many channels within their territorial waters. These are noted in the channel assignment chart. If operating your vessel in U.S.A. or Canadian waters, consult the national communication authority or a knowledgeable local radio operator for further guidance.

Channel Number	Channel Map Mapa de canales			Frequency Frecuencia		Power Limits Límites de potencia
Número de canal	USA EE.UU.	Int'l nternac	Canada Canadá	Transmit Transm.	Receive Recepción	
01		●	●	156.050	160.650	
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

**VHF Marine
Channel Assignments**
Appendix

**VHF Marine
Channel Assignments**
Appendix

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)

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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
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 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	
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.

Nothing Comes Close to a Cobra®   61

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

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 and all of the A channels and 10xx/20xx channels, such as 01A, 03A and 04A, 1019, 1078, 2078 transmit and receive on a single frequency, which is termed simplex operation. Your radio automatically adjusts to these conditions. This radio also includes new four digit channels to be complient 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.

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. Algunos otros canales de número llano y todos los canales A y canales 10xx / 20xx, tales como 01A, 03A y 04A, 1019, 1078, 2078 transmiten y reciben en una sola frecuencia, que se denomina operación 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 A3). Esta radio también incluye nuevos canales de cuatro dígitos para cumplir con las regulaciones más recientes y futuras.

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.

World City Time Zones

In order to set correct local time as compared to different World City Time Zones, enter the hour "offset" as listed below. The correct local time appears on the VHF for Cities all over the world. See page 19 for setup information.

Longitudinal Zone	Offset	City
E172.50 to W172.50	-12	IDLW (International Date Line West)
W172.50 to W157.50	-11	Nome
W157.50 to W142.50	-10	Honolulu
W142.50 to W127.50	-9	Yukon STD
W127.50 to W112.50	-8	Los Angeles STD
W112.50 to W097.50	-7	Denver STD
W097.50 to W082.50	-6	Chicago STD
W082.50 to W067.50	-5	New York STD
W067.50 to W052.50	-4	Caracas
W052.50 to W037.50	-3	Rio de Janeiro
W037.50 to W022.50	-2	Fernando de Noronha
W022.50 to W007.50	-1	Azores Islands
W007.50 to E007.50 GMT	+0	London
E007.50 to E022.50	+1	Rome
E022.50 to E037.50	+2	Cairo
E037.50 to E052.50	+3	Moscow
E052.50 to E067.50	+4	Abu Dhabi
E067.50 to E082.50	+5	Maldives
E082.50 to E097.50	+6	Dhuburi
E097.50 to E112.50	+7	Bangkok
E112.50 to E127.50	+8	Hong Kong
E127.50 to E142.50	+9	Tokyo
E142.50 to E157.50	+10	Sydney
E157.50 to E172.50	+11	Solomon Islands
E172.50 to W172.50	+12	Auckland

Accessories

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

Alkaline Battery Tray
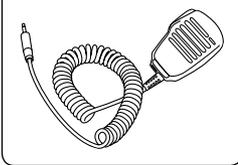
Alkaline Battery Tray

A special alkaline battery tray (P/N CM 110-024) is available as an optional accessory to have as an emergency backup. By using five (5) high-quality AA alkaline batteries, you can have a spare battery backup source for your radio.

**NOTE**
Alkaline batteries are not rechargeable.

Lapel Speaker/Microphone

Lapel Speaker/Microphone

A speaker/microphone that attaches to your lapel, by ordering 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 (PTT) button on the lapel speaker/microphone allows you to answer any incoming call.

LiON Battery Pack
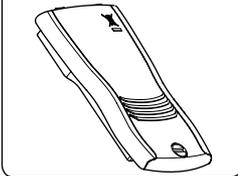
LiON Battery

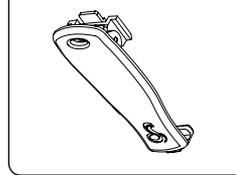LiON replacement battery (P/N CM 110-028). Can be used with the charger included with this radio.

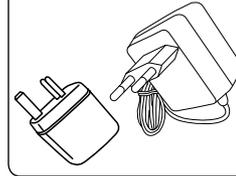**Antenna**

Antenna

Replacement Antenna P/N CM 300-002

Belt Clip

Belt Clip
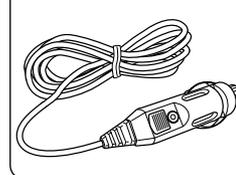
Replacement Belt Clip P/N CM 240-003

AC Charger

AC Charger

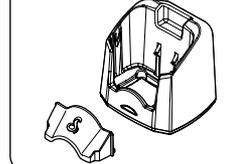Replacement AC Charger P/N CM 120-006

DC Charger

DC Charger

Replacement DC Charger P/N CM 130-005

Drop-In Battery Charger

Drop-In Battery Charger

Replacement Drop-In Charger P/N CM 110-030

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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

68 English