

3. Press and release the **Enter/Setup** key to save selection and exit menu setup. The radio will return to VHF standby

Standby, Receive and Transmit

Marine Standby and Receive (Rx) Mode

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



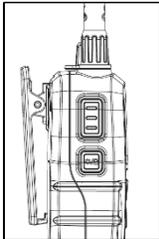
Transmit (Tx) Mode

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



To Transmit a Message:

1. Check to see that your radio is set to a proper channel for the type of message you plan to send.
2. With the microphone about 2 inches from your mouth, press and hold the PTT button and speak into the microphone. The Transmit icon will appear on the LCD.
3. Release the PTT button when you are finished speaking. Your radio can only operate in either Transmit (Tx) or Receive (Rx) mode at any given time. You will not hear the response to your message unless the PTT button is released. If the battery power icon begins blinking on the LCD when the PTT is pressed, the radio will not transmit.



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

Radio Care

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

- Keep the radio clean by wiping with a soft cloth and mild detergent. Do not use solvents or harsh, abrasive cleaners that could damage the case or scratch the LCD screen.
- If the radio is exposed to salt water, wipe with a soft, moist cloth at least once a day to prevent buildup of salt deposits, which could interfere with button operation.
- If the radio is stored for a long period, such as over the winter, remove the battery from the battery tray and store in a separate package. This is especially important if you are using alkaline batteries.

VHF Marine Radio Procedures

Maintain Your Watch

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

Power

Try 1 watt first, if the station being called is within a few miles. If necessary, increase to 5 watts of output power to maximize your calling distance. The lower wattage outputs will conserve your battery and minimize interference to other users.

Calling Coast Stations

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

Calling Other Vessels

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

Initial Calling on Channel 16 or 9

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

Limits on Calling

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

Change Channels

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

Station Identification

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

Prohibited Communications

You **MUST NOT** transmit:

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

Voice Calling

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

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

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

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

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

Emergency Messages and Distress Procedure

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

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

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

an emergency message. Drop your anchor and call a friendly vessel or marina to bring the fuel you need or give you a tow.

Marine Emergency Signals

The three spoken international emergency signals are:

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

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

If You Hear a Distress Call

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

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

Example Marine Distress Procedure

Speak slowly — clearly — calmly.

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

For Example:

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

Warranty Terms:

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

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

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

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

Warranty Exclusions: Warranty does not apply to your product under any of the following conditions: 1. The serial number has been removed or modified. 2. Your product has been subjected to misuse or damage (including water damage, physical abuse, and/or improper installation). 3. Your product has been modified in any way. 4. Your receipt or proof-of-purchase is from a non-authorized dealer or internet auction site including E-bay, U-bid, or other non-authorized resellers.

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

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

General Warranty Information

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

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

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

Accessory items have a one-year factory warranty.

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

This warranty is non-transferable.

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

Cobra will not be responsible for lost packages.

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

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

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

For products purchased in the U.S.A., if your product should require factory service, please go to www.cobra.com/support and follow the instructions for returning your product to the Cobra Factory Service Department for service.

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

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

Please contact your local dealer for product service information.

For Products Used in Canada

Industry Canada Notice

Any Changes expressly or modifications not approved by the party responsible for compliance could void the users authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

Disposal of Old Electrical or Electronics Equipment

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

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

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

General	
Channel Spacing	25kHz
Modulation	FM /16K0G3E
Input Voltage	7.4V Nominal
Battery Life: 5% TX, 5% RX, 90% Standby	8 Hours (High Power) 12 Hours (Low Power)
Temperature Range	-15 to +55 deg C
Radio Dimensions	255mm H x 66mm W x 52mm D
Radio Weight	268g
Receiver	
Frequency Range	FCC:156.05-162.00MHz IC:156.200-162.00MHz
Receiver Type	FM
Sensitivity:	-120 dBm 12 dB Sinad
Adjacent Channel Selectivity	-70 dB
Intermodulation and Rejection	-70 dB
Spurious and Image Rejection	-60 dB
Transmitter	
Frequency Range (Tx):	FCC: 156.050-157.425MHz IC:156.025 -157.425MHz
RF Output Power	1, 5 Watts max
Spurious Emissions	-55 dB
Microphone Type	Electret
Frequency Stability	+/-5 ppm
FM Hum and Noise	40 dB

Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Antenna Type: Helical antenna Antenna Gain: 2dBi

Les types d'antennes non inclus dans cette liste qui ont un gain supérieur au gain maximum indiqué pour tout type énuméré sont strictement interdits d'être utilisés avec ce dispositif.

Type d'antenne: Antenne hélico dale.

Gain d'antenne: 2dBi

Troubleshooting

Problem	Possible Cause (s)	Solution (s)
No display on LCD when radio is turned on	Battery is exhausted Battery not installed properly	Recharge battery and make sure it is installed correctly on radio
Battery runs down quickly	Battery is at the end of its life	Replace with new Cobra BlueBound 350B Lithium-ion battery pack
Will transmit at one (1) or three (3) Watts, but not at six (6) Watts	Battery level is too low. Selected channel is limited to one (1) Watt	Replace or recharge battery 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 set too high	Re-adjust volume and/or squelch
No response to button presses	Button lock is ON	Press and hold Backlight/Key Lock button

VHF Marine Channel Assignments

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

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

Channel Assignments (English)

Distress, Safety, and Calling

Channel 16

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

Calling

Channel 9

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

Intership Safety

Channel 6

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

Coast Guard Liaison

Channel 22A

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

Non-Commercial

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

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

Commercial

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

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

Channel Assignments (English)

Public Correspondence (Marine Operator)

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

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

Port Operations

Channels 1A[‡], 5A[‡], 12[‡], 14[‡], 20A, 63A[‡], 65A, 66A, 73, 74, 75, 76, 77*

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

Navigational

Channels 13, 67

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

Maritime Control

Channel 17

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

Digital Selective Calling

Channel 70

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

Weather

Channels Wx 1 Thru 12

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

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

Channel Number Número de canal	Channel Map Mapa de canales			Frequency Frecuencia		Power Limits Límites de potencia	Channel Use (English)
	USA EE.UU.	Int'l Internac	Canada Canadá	Transmit Transm.	Receive Recepción		
01		•	•	156.050	160.650	Canada	Public Correspondence (Marine Operator)
01A/1001	•			156.050	156.050		Port Operations and Commercial, VTS in selected areas
02		•	•	156.100	160.700		Public Correspondence (Marine Operator)
03		•	•	156.150	160.750		Public Correspondence (Marine Operator)
03A/1003				156.150	156.150		Coast Guard Only
04		•		156.200	160.800		Public Correspondence (Marine Operator), Port Operations, Ship Movement
04A/1004			•	156.200	156.200		West Coast (Coast Guard Only); East Coast (Commercial Fishing)
05		•		156.250	160.850		Public Correspondence (Marine Operator), Port Operations, Ship Movement
05A/1005	•		•	156.250	156.250		Port Operations, VTS in selected areas
06	•	•	•	156.300	156.300		Intership Safety
07		•		156.350	160.950		Public Correspondence (Marine Operator), Port Operations, Ship Movement
07A/1007	•		•	156.350	156.350		Commercial
08	•	•	•	156.400	156.400		Commercial (Intership Only)
09	•	•	•	156.450	156.450		Boater Calling Channel, Non-Commercial (Recreational)
10	•	•	•	156.500	156.500		Commercial
11	•	•	•	156.550	156.550		Commercial, VTS in selected areas
12	•	•	•	156.600	156.600		Port Operations, VTS in selected areas
13	•	•	•	156.650	156.650	1 Watt USA 1 vatio EE.UU.	Intership Navigation Safety (Bridge-to-Bridge). In U.S. waters, large vessels maintain a listening watch on this channel.

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

Channel Number Número de canal	Channel Map Mapa de canales			Frequency Frecuencia		Power Limits Límites de potencia	Channel Use (English)
	USA EE.UU.	Int'l Internac	Canada Canadá	Transmit Transm.	Receive Recepción		
23A/1023	•			157.150	157.150		Coast Guard Only
23B/2023			•	Rx Only	161.750		Coast Guard Only – Weather Broadcasts
24	•	•	•	157.200	161.800		Public Correspondence (Marine Operator)
25	•	•	•	157.250	161.850		Public Correspondence (Marine Operator)
25B/2025			•	RX only	161.850		Safety: Continuous Marine Broadcast (CMB) service by MCTS Canada
26	•	•	•	157.300	161.900		Public Correspondence (Marine Operator)
27	•	•	•	157.350	161.950		Public Correspondence (Marine Operator)
28	•	•	•	157.400	162.000		Public Correspondence (Marine Operator)
28B/2028			•	RX only	162.000		Safety: Continuous Marine Broadcast (CMB) service by MCTS Canada
60		•	•	156.025	160.625		Public Correspondence (Marine Operator)
61		•		156.075	160.675		Public Correspondence (Marine Operator) Port Operation, Ship Movement
61A/1061			•	156.075	156.075		Canada (Coast Guard Only); West Coast (Coast Guard Only); East Coast (Commercial Fishing)
62		•		156.125	160.725		Public Correspondence (Marine Operator), Port Operations, Ship Movement
62A/1062			•	156.125	156.125		West Coast (Coast Guard Only); East Coast (Commercial Fishing)
63		•		156.175	160.775		Public Correspondence (Marine Operator), Port Operations, Ship Movement
63A/1063	•		•	156.175	156.175		Port Operations and Commercial, VTS in selected areas, Canada Tow Boats-BCC
64		•	•	156.225	160.825		Public Correspondence (Marine Operator), Port Operations, Ship Movement
64A/1064			•	156.225	156.225		U.S. (Government Only); Canada (Commercial Fishing)
65		•		156.275	160.875		Public Correspondence (Marine Operator), Port Operations, Ship Movement
65A/1065	•		•	156.275	156.275		Port Operations

Channel Number Número de canal	Channel Map Mapa de canales			Frequency Frecuencia		Power Limits Límites de potencia	Channel Use (English)
	USA EE.UU.	Int'l Internac	Canada Canadá	Transmit Transm.	Receive Recepción		
66		•		156.325	160.925		Public Correspondence (Marine Operator), Port Operations, Ship Movement
66A/1066	•		•	156.325	156.325		Port Operations
67	•	•	•	156.375	156.375		U.S. (Commercial). Used for bridge-to-bridge communications in lower Mississippi River (Intership Only); Canada (Commercial Fishing), S&R
68	•	•	•	156.425	156.425		Non-Commercial (Recreational)
69	•	•	•	156.475	156.475		U.S. (Non-Commercial, Recreational); Canada (Commercial Fishing Only); International (Intership, Port Operations, Ship Movement)
70		•		RX only	156.525		Digital Selective Calling (Voice communications not allowed)
71	•	•	•	156.575	156.575	1 Watt USA	U.S. and Canada (Non-Commercial, Recreational); International (Port Operations, Ship Movement)
72	•	•	•	156.625	156.625		Non-Commercial (Intership Only)
73	•	•	•	156.675	156.675		U.S. (Port Operations); Canada (Commercial Fishing Only); International (Intership, Port Operations, Ship Movement)
74	•	•	•	156.725	156.725		U.S. (Port Operations); Canada (Commercial Fishing Only); International (Intership, Port Operations, Ship Movement)
75		•	•	156.775	156.775	1 Watt	Port Operations (Intership Only)
76		•	•	156.825	156.825	1 Watt	Port Operations (Intership Only)
77	•	•	•	156.875	156.875	1 Watt USA	Port Operations (Intership only). Restricted to communications with pilots for movement and docking of ships.

Channel Number Número de canal	Channel Map Mapa de canales			Frequency Frecuencia		Power Limits Límites de potencia	Channel Use (English)
	USA EE.UU.	Int'l Internac	Canada Canadá	Transmit Transm.	Receive Recepción		
78		•		156.925	161.525		Public Correspondence (Marine Operator)
78A/1078	•		•	156.925	156.925		Non-Commercial (Recreational)
1078		•		156.925	156.925		Port Operations
2078		•		161.525	161.525		Port Operations
79		•		156.975	161.575		Port Operations, Ship Movement
79A/1079	•		•	156.975	156.975		Commercial (Also Non-Commercial only in Great Lakes)
1079		•		156.975	156.975		Port Operations
2079		•		161.575	161.575		Port Operations
80		•		157.025	161.625		Port Operations, Ship Movement
80A/1080	•		•	157.025	157.025		Commercial (Also Non-Commercial only in Great Lakes)
81		•		157.075	161.675		Port Operations, Ship Movement
81A/1081	•		•	157.075	157.075		U.S. (Government Only; Environmental Protection Operations)
82		•		157.125	161.725		Public Correspondence (Marine Operator), Port Operation, Ship Movement
82A/1082	•		•	157.125	157.125		U.S. (Government Only); Canada (Coast Guard Only)
83		•		157.175	161.775		Port Operations, Ship Movement
83A/1083	•		•	157.175	157.175		(Coast Guard Only) (Coast Guard Only)
83B/2083			•	RX only	161.775		Coast Guard Only – Weather Broadcasts
84	•	•	•	157.225	161.825		Public Correspondence (Marine Operator)
85	•	•	•	157.275	161.875		Public Correspondence (Marine Operator)
86	•	•	•	157.325	161.925		Public Correspondence (Marine Operator)
87	•	•	•	157.375	157.375		Public Correspondence (Marine Operator)
88		•	•	157.425	157.425		U.S. (Commercial). Port Operations and VTS (International & Canada).
88A/1088	•			157.425	157.425		Commercial Intership only

VHF Marine Channel Assignments (English)

NOTE: Many of the plain-numbered channels, such as 01, 02 and 03, transmit and receive on different frequencies. This is termed duplex operation. Some other plain-numbered channels (Including 4-digit channels) and all of the A channels, such as 01A, 03A and 04A, transmit and receive on a single frequency, which is termed simplex operation. Your radio automatically adjusts to these conditions.

This radio includes new four-digit channels to be compliant with the latest and future regulations.

NOTE: All channels are preprogrammed at the factory according to international regulations and those of the FCC (U.S.A.) and Industry Canada (Canada). They cannot be altered by the user, nor can modes of operation be changed between simplex and duplex.

Weather Channel Assignments

Channel Number Numero de canal	RX Frequency MHz Frecuencia de recepcion	Weather Channel Weather Channel
1	162.550	NOAA
2	162.400	NOAA
3	162.475	NOAA
4	162.425	NOAA
5	162.450	NOAA
6	162.500	NOAA
7	162.525	NOAA
8	161.650	Canada
9	161.775	Canada
10	163.275	NOAA
11	161.750	Canada
12	162.000	Canada

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

---Reorient or relocate the receiving antenna.

---Increase the separation between the equipment and receiver.

---Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

---Consult the dealer or an experienced radio/TV technician for help.

Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch(2.5cm) away from the nose. Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna. Antenna should be kept away from eyes.

When worn on the body, always place the radio in approved clip, holder, holster, case, or body harness for this product. Use of non-approved accessories may result in exposure levels, which exceed the occupational/controlled environment RF exposure limits. Use only manufacturer's name approved supplied or replacement antennas, batteries, and accessories. Use of non-manufacturer-name approved antennas, batteries, and accessories may exceed the FCC and IC RF exposure guidelines.

For a list approved accessories please consult your local dealer for information.

Users must be fully aware of the hazards of the exposure and able to exercise control over their RF exposure to qualify for the higher exposure.

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Your wireless hand-held portable transceiver contains a low power transmitter.

This product sends out radio frequency (RF) signals when the Push-to-Talk (PTT) button is pressed.

The device is authorized to operate at a duty factor not to exceed 50%.

Tenez la radio en position verticale devant le visage avec le microphone (et les autres parties du la radio, y compris l'antenne) à au moins un pouce (2,5 cm) du nez. Garder la radio à la distance appropriée est importante parce que les expositions RF diminuent avec la distance de l'antenne. L'antenne doit être tenue loin des yeux.

Lorsqu'il est porté sur le corps, placez toujours la radio dans un clip approuvé, un support, une boîte, ou harnais de corps pour ce produit. L'utilisation d'accessoires non approuvés peut entraîner des niveaux d'exposition, qui dépassent les limites d'exposition aux RF pour le professionnel/l'environnement contrôlé.

Utilisez uniquement les antennes fournies ou de remplacement approuvées par le nom du fabricant, les batteries et accessoires. L'utilisation d'antennes, de batteries et d'accessoires non homologués par le fabricant peut dépasser les lignes directrices FCC et IC RF d'exposition.

Pour une liste d'accessoires approuvés, veuillez consulter votre concessionnaire local pour obtenir des informations.

Les utilisateurs doivent être pleinement conscients des dangers de l'exposition et pouvoir exercer un contrôle sur leur Exposition aux RF pour se qualifier pour les limites d'exposition plus élevées.

Votre émetteur-récepteur portable sans fil contient un émetteur à faible puissance. Ce produit envoie des signaux de radiofréquence (RF) lorsque le bouton Push-to-Talk (PTT) est appuyé. Le dispositif est autorisé à fonctionner à un facteur de travail ne dépassant pas 50 %.