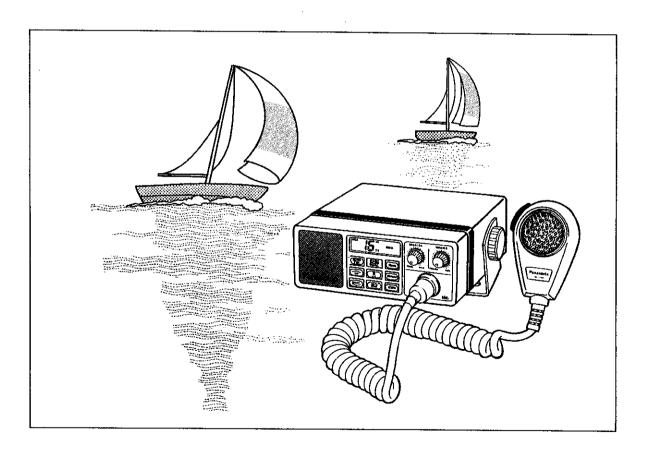
Panasonic

MARINE VHF RADIOTELEPHONE

MODEL NO. KX-G2200A

Operating Instructions



Introduction

Thank you for purchasing the Panasonic Marine VHF Radiotelephone.

The Panasonic model KX-G2200A is FM/VHF radiotelephone transceiver designed to work in the 156.025 to 163.275 MHz frequency range.

Features

- International, USA, Canadian and Weather channels.
- All Memory channels and up to 5-years memory backup.
- Dual Watch: channel 16 and another channel.
- Triple Watch: channel 16, programmed Triple Watch channel and another channel.
- Scanning channel search.
- Overriding low output power on specific channel (CH13 and CH67 in USA mode.)

--- CAUTION --

A valid STATION and OPERATOR'S LICENSE are required BEFORE you can operate a MARINE VHF TRANSCEIVER.

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SPECIFICATIONS

General

Number of Channels; All International, USA and Canadian channels

All Memory channels 10 Weather channels

Temperature range; -20°C to +50°C (-4°F to +122°F)

Channel spacing; 25 KHz

Power Supply; 13.8 Volts DC (±20%)

Antenna impedance; 50 ohms

Channel memory back up; 5 years with an internal Lithium Battery

Weight; 950 g (2.09 lbs.)

Current; receive standby; 500 mA

with full audio output; 1 A

transmit low output; 1.5 A

high output; 5 A

Receiver

Frequency range; 156.025 - 163.275 MHz

Sensitivity; less than 0.3 μ V for 12 dB SINAD

Squelch sensitivity; threshold; 0.12 μ V

Audio output; 4W at 10% distortion to 4 ohms speaker

Frequency stability; ±0.001%

Transmitter

Frequency range; 156.025 - 157.425 MHz

Maximum Deviation; ±5 KHz

RF output power; High 25 W, Low 1 W

Spurious & harmonics emission; spurious emission; 65 dB below carrier

harmonics emission; 60 dB below carrier

Audio distortion; less than 5%

Frequency stability; ±0.001%

OTHER INFORMATION

Back up battery for memory

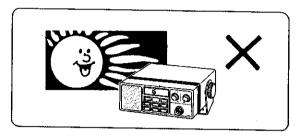
To retain the programmed channels in memory a built-in battery for back up is provided. If the programmed channels are lost in the memory channel mode after turning your radio on, the built-in battery must be replaced with new one at a Panasonic Servicentre.

NOTE: This special battery is NOT User Replaceable.

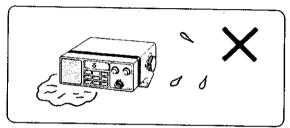
Dead Spot

Transmission and reception may be difficult from some locations, due to outside influences. If this happens, move to another location if possible.

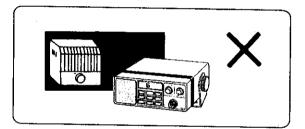
Precautions



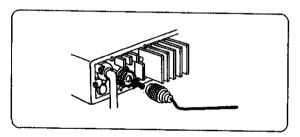
The unit should not be mounted where it will receive direct sunlight for long periods of time.



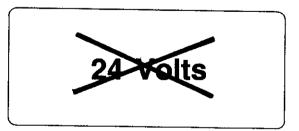
Even though the KX-G2200 was designed for the marine environment, for long, reliable operation, mount the unit where it will not be splashed with water. Also, protect the unit from exposure to salty sea water.



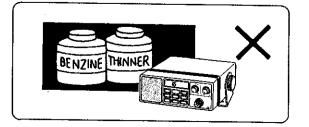
This unit will develop heat in operation. This is a normal condition. Select a mounting location where the unit will be well ventilated.



Only use an antenna designed for VHF Marine radio service. Install it according to the manufacture's instructions and make sure that the connections are secure.



Your Marine VHF radio is designed to operate from a 13.8 volts DC source, $\pm 20\%$ (12V Battery). Power supplies beyond these limits will cause improper operation and damage to the unit. Check the battery voltage often.



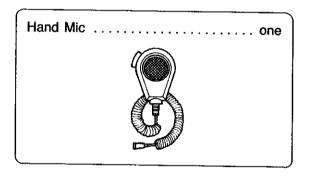
Do not use benzine, thinner, or the like, or any abrasive powder to clean the cabinet. Wipe it with a soft cloth.

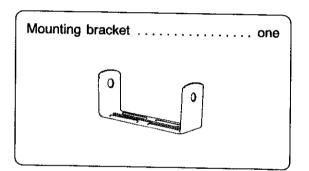
Installation

UNPACKING

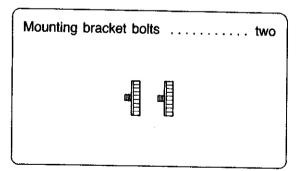
- 1. Carefully remove the KX-G2200 from the packing carton.
- 2. Examine the KX-G2200 for signs of shipping damage.
- Accessory, hardware, cords, etc. are packed with the KX-G2200.
 Make sure you have removed all equipment and parts before discarding the packing material.
- 4. Notify the your specified authorized servicenter or dealer immediately, stating full details, should any damage be apparent.

ACCESSORIES

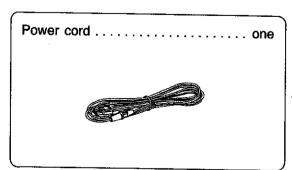




Mounting bolts Mounting scre Mounting wasl Mounting nuts	ws hers	four eiaht
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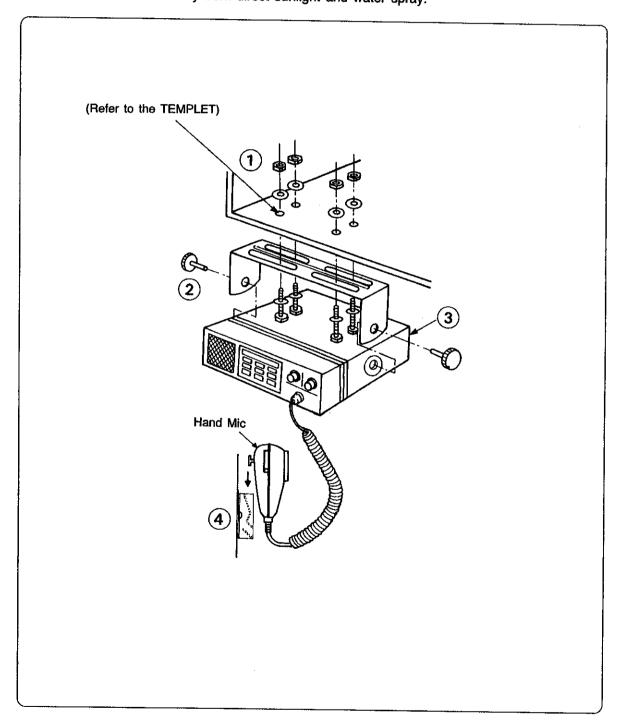
Microphone Microphone	hanger hanger	screws	 . one . two
		(Accounts)	

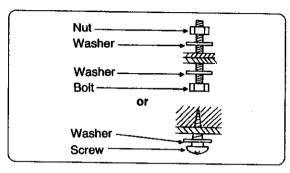


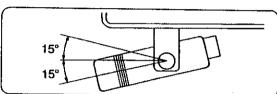
Installation (cont.)

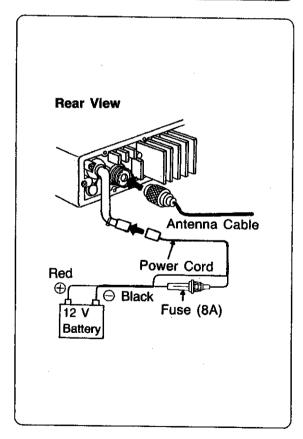
MOUNTING

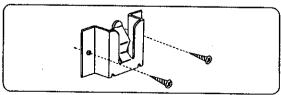
Choose an appropriate location for mounting your marine radiotelephone. This location should be away from direct sunlight and water spray.











- 1 Mount the bracket firmly to the mounting surface using the mounting bolts and nuts, or screws. (Refer to the TEMPLET.)
 - To mount to a metal or fiberglass surface, use bolts and nuts.
 - To mount to wooden surface, use screws.
- 2 Secure the KX-G2200 into the mounted bracket using the two mounting bracket bolts.

 Vary installation angle for best visibility.
- 3 Connect the power cord to the unit, and wire the cord to the vessel's battery by connecting the RED wire to the positive terminal (+), and the BLACK wire to the negative terminal (-).

If you find this cord too short, use the following guide to select the proper guage wire to extend the supplied power cord.

Up to 3 m (10 feet) - #14 AWG Up to 6 m (20 feet) - #12 AWG Up to 9 m (30 feet) - #10 AWG Up to 12 m (40 feet) - #80 AWG

Connect your antenna cable.

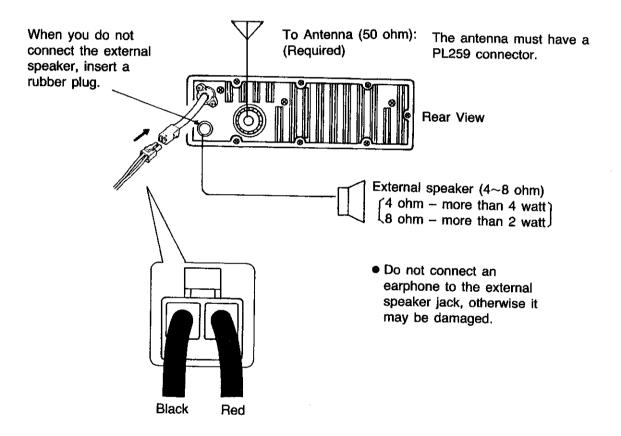
Any VHF marine antenna (must have a PL259 connector) of good quality and 50 ohms impedance will suffice, but the use of a gain antenna is recommended. Follow the antenna manufactuer's directions exactly. For an existing antenna, be sure that all connections are corrosion free and that all are firmly seated.

- 4 Connect the Hand Mic.
 - If you wish to install this unit into a cabinet or console an optional Panasonic flush mounting kit, KX-G20, will be required.

Installation

Connecting Optional Equipments

You may increase the KX-G2200's utility by installing a external horn speaker.

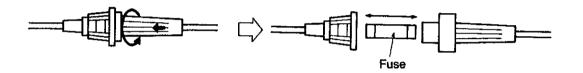


FUSE REPLACEMENT

If the in-line fuse of the power cord has blown, change it with the new one. If it blows again, have your unit checked.

• To remove the fuse:

Press the fuse holder and while keeping it pushed in, turn it as shown.



To install the fuse;

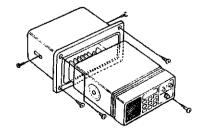
Reverse the above procedure. Use a fuse (8 A).

ACCESSORY ORDER INFORMATION

Replacement parts and accessories are available through your local authorized parts ditributor.

Part No.	Description	Colour	
KX-G20	Flush Mounting Kit	Black	

Installation with KX-G20

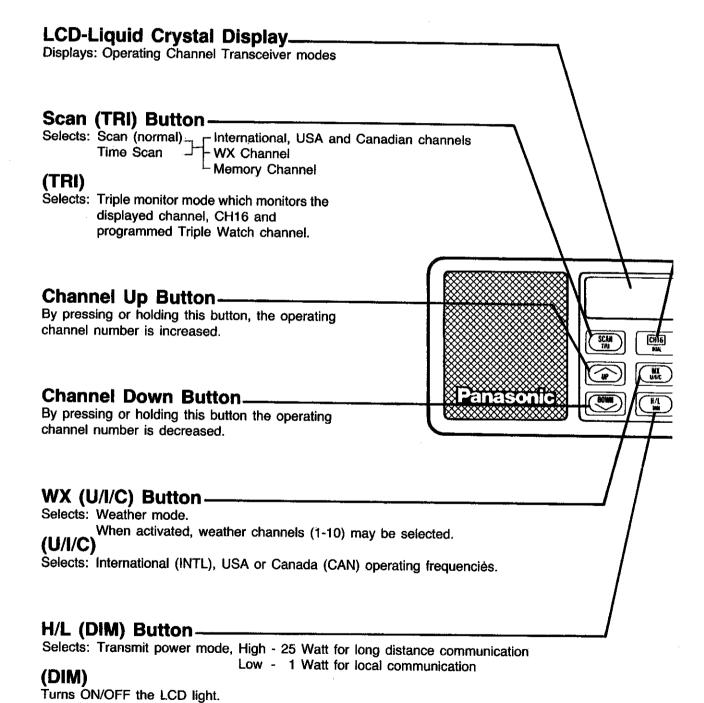


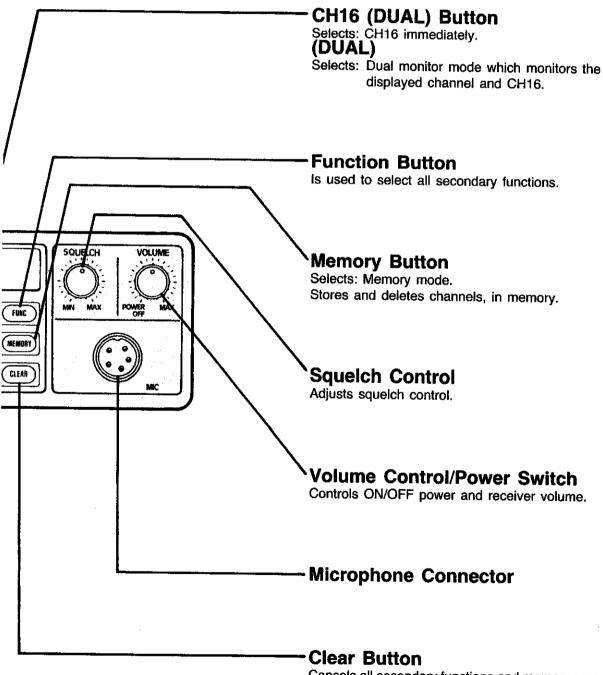
For futher details, see the instructions of KX-G20.

Control Functions

■ The meaning of "()" is the lower function.

To select this lower function, press the Function button first.





Cancels all secondary functions and memory program

It will not cancel the U/I/C operation modes.

LCD (Liquid Crystal Display)

USA INTL CAN WX

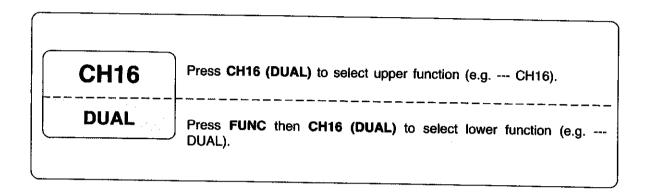


HILO T-SCAN DUP MEMO►DUAL

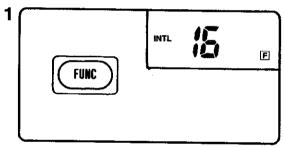
F

USA	Shows USA mode.		
INTL	Shows International mode.		
CAN	Shows Canadian mode.		
WX	Shows Weather mode.		
Channel Display	Displays the channel in use.		
н	Shows the High Power (25 Watt) mode.		
LO	Shows the Low Power (1 Watt) mode.		
SCAN	Shows unit is in Channel Scan mode.		
T-SCAN	Shows unit is in the Time-Scan mode. Scanning starts again automatically even if a signal exists.		
DUP	Shows that the unit is in the Duplex mode.		
MEMO	Shows that the unit is in the Memory mode. Only memorized channels are shown.		
M	In INTL, CAN, USA and WX modes, shows that the displayed channel has been memorized. It is possible to set or reset the desired channel in Memory.		
DUAL	This function allows periodic checking for activity on CH16 while receiving another channel.		
TX	Shows that the unit is transmitting.		
F	Shows that the Function button has been pressed. For six seconds after pressing the Function Button, the Secondary Functions of each button are available.		
	Shows that the Channel Memory is empty. (no channels have been memorized.)		
▶ DUAL	Shows that the Triple Watch is on.		
>	Shows that the displayed channel is on program of Triple Watch channel.		

How to Use Double Function Buttons



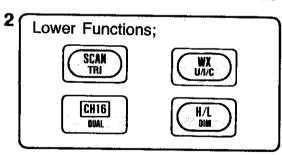
HOW TO USE LOWER FUNCTION



SELECT LOWER FUNCTION

Press **FUNC** to select lower function. "F" will flash for approximately six seconds.

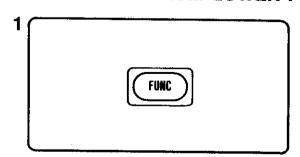
The lower function can be accessed during this period.



SELECT THE DESIRED DOUBLE FUNCTION BUTTON

Press the desired double function button within this period.

HOW TO EXIT FROM LOWER FUNCTION



EXIT THE DOUBLE FUNCTION

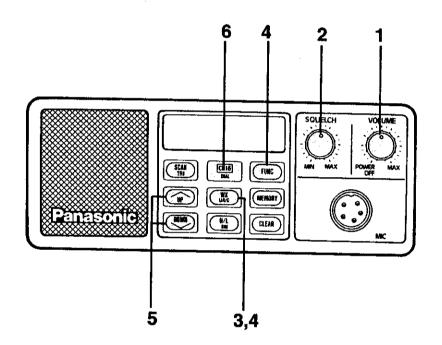
Press **FUNC** to exit the lower function access without waiting for six seconds.

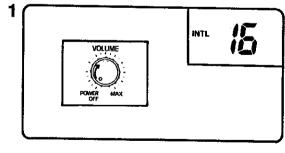
Receiving

IMPORTANT:

Whenever your marine radio is turned on, keep the receiver turned to the calling distress frequency (CH16).

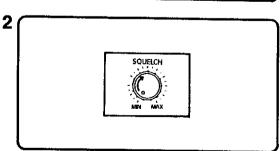
This listening watch must be maintained at all times the station is in operation (when you are not actually communicating), priority is given when selecting CH16.





POWER ON AND ADJUST VOLUME
Turn the POWER SWITCH to the right and adjust the VOLUME CONTROL for comfortable listening level.

 Make sure "INTL" appears on the display (International mode).

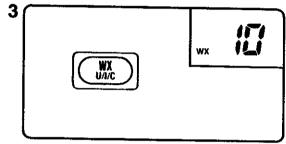


ADJUST SQUELCH

Adjust the **SQUELCH CONTROL** until the background noise disappears.

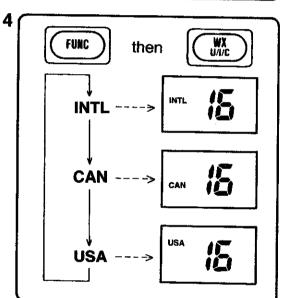
Turning the SQUELCH CONTROL too far clockwise may mute weak transmissions.

HOW TO SELECT THE DESIRED MODE



SELECT WEATHER MODE

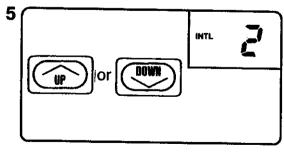
- (1) Press WX (U/I/C) to select Weather mode."WX" is displayed.
- (2) Press CLEAR to exit Weather mode then go to INTL, CAN or USA mode.



SELECT INTL, CAN OR USA MODE By pressing (FUNC then WX (U/I/C)), mode rotates as follows.

- "INTL" is displayed.
- "CAN" is displayed.
- "USA" is displayed.

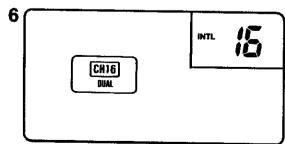
HOW TO SELECT THE DESIRED CHANNEL



SELECT THE DESIRED CHANNEL

Press **UP** or **DOWN** to select a channel number of INTL, USA, CAN or WX mode.

• A channel number is displayed.



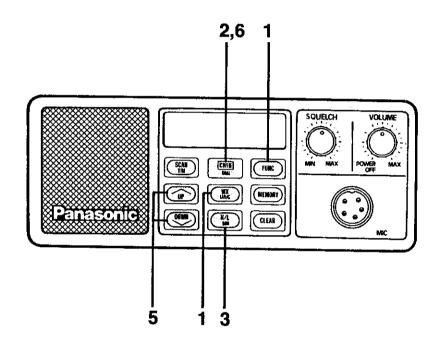
SELECT CHANNEL 16

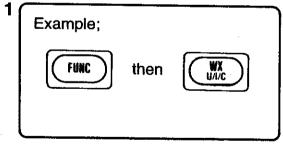
Press CH16 (DUAL) to select CH16 when you are in any mode.

• "16" is displayed.

Transmitting

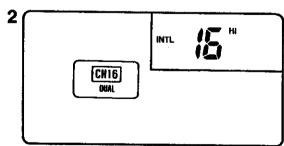
CH16 is used for emergency and calling purposes only. When contact is established on CH16, you must switch to an appropriate working channel for further communication.





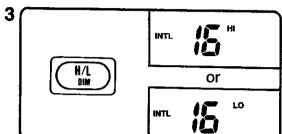
SELECT THE DESIRED MODE

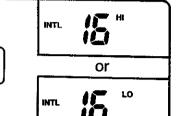
Select the desired operating mode. (See P.14 HOW TO SELECT THE DESIRED MODE. Repeat steps 3 and 4)



SELECT CALLING CHANNEL (CH16) Press CH16 (DUAL) to monitor and initiate your call.

• "16" is displayed.



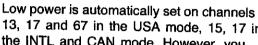


SELECT TRANSMIT POWER

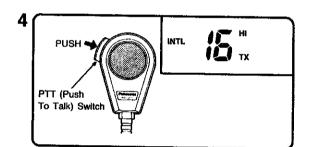
Press H/L (DIM) to select the desired output

- NOTE -

"HI" or "LO" is displayed.



13, 17 and 67 in the USA mode, 15, 17 in the INTL and CAN mode. However, you wish high power especially on channels 13 and 67 in USA mode, hold this button down during transmission.

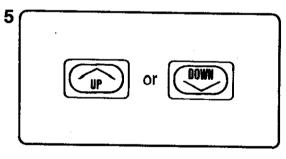


START TALKING

- (1) Press PTT SWITCH to begin transmitting. "TX" is displayed.
- (2) To start talking into the Mic using your normal voice level.
- (3) To receive an answer, release PTT SWITCH.

NOTE -

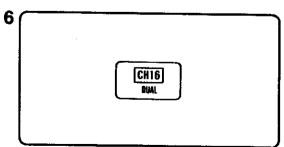
When the PTT Switch is pressed and the channel number flashes, transmission is prohibited on that particular channel (receive only channel).



SELECT OPERATING CHANNEL

Press UP or DOWN to select operating channel.

 After contact is made on the CH16, select the operating channel to communicate with the other party.

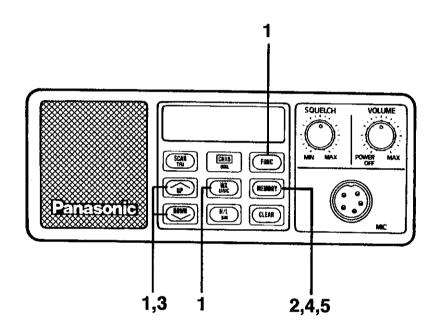


FINISH COMMUNICATION

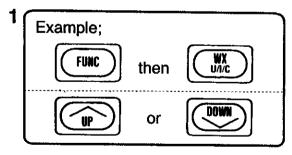
Press CH16 (DUAL) to keep watching on CH16 after finish communication.

How to Use the Memory Function

You may store all channels which you use often, into memory. These channels can then be selected quickly using **UP** or **DOWN** in the memory mode. Any combination of INTL, USA, CAN and Weather channels can be stored into memory.

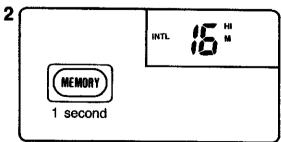


STORING A MEMORY CHANNEL



SELECT THE DESIRE MODE AND CHANNEL

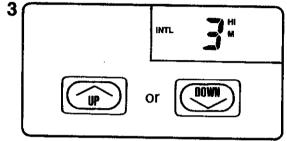
Select the desired programming channel. (See p.14 HOW TO SELECT DESIRED MODE AND CHANNEL. Repeat steps 3 to 6)



STORE THE CHANNEL

- (1) Press MEMORY and hold for 1 second.
 - "M" is displayed.
 - When you select a channel, if an "M" is displayed, it indicates that the channel has been stored into memory.

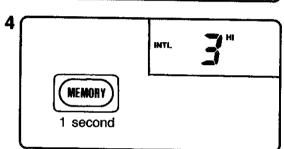
ERASING A MEMORY CHANNEL



SELECT THE CHANNEL TO ERASE

Select the channel you wish to erase using **UP** or **DOWN**.

• The channel number is displayed.

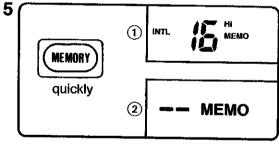


PRESS MEMORY BUTTON

Press MEMORY and hold for 1 second.

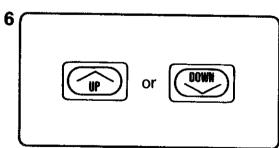
• "M" is disappeared.

SELECTING A MEMORY CHANNEL



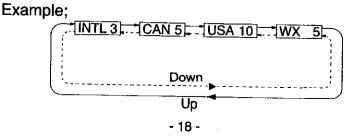
SELECT MEMORY MODE

- Press MEMORY quickly.
 - "MEMO" is displayed to show that it is ready to select a memorized channel.
- ② If no channels are stored, "-- MEMO" is displayed. (Press WX (U/I/C), CH16 (DUAL) or CLEAR to exit this mode)



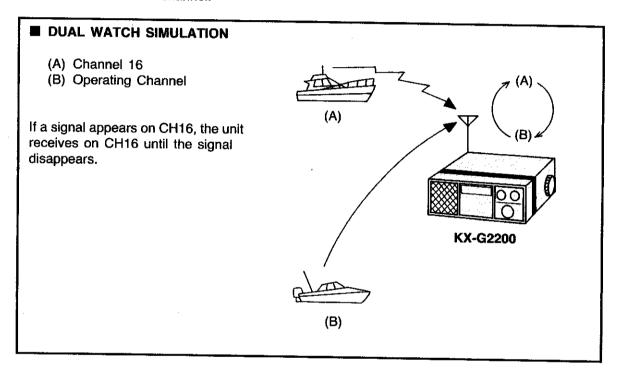
SELECT MEMORY CHANNEL

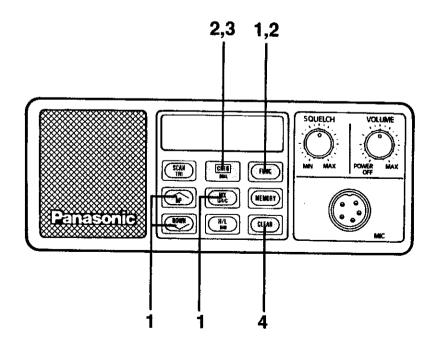
- (1) Press **UP** or **DOWN** until the desired memory channel appears.
 - The memory channel number is displayed. If you want to erase the memory Channel, press MEMORY and hold for 1 second, displayed channel is disappeared then next memory channel is displayed.
- (2) The stored channel is displayed in succession as in the following example.

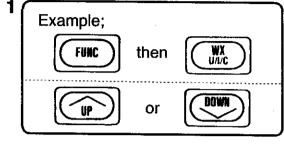


How to Monitor CH16 and Present Channel (Dual Watch)

DUAL WATCH: Dual Watch for monitoring emergency CH16 while listening to another channel.

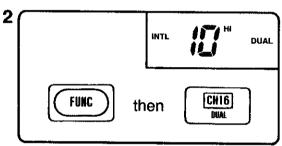






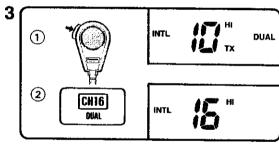
SELECT THE DESIRED MODE AND CHANNEL

Select the desired (present) channel. (See p.14 HOW TO SELECT THE DESIRED MODE AND CHANNEL. Repeat steps 3 to 6)



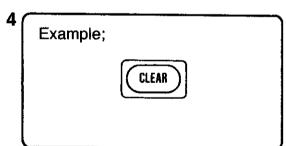
START DUAL WATCH FUNCTION

- (1) Press FUNC then CH16 (DUAL) to start Dual Watch function.
 - "DUAL" is displayed.
- (2) The unit monitors CH16 every few seconds.



START TALKING

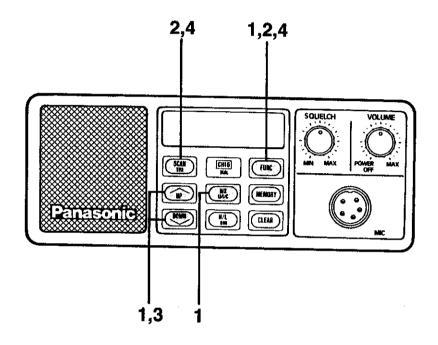
- 1) Press PTT SWITCH to transmit on the present channel.
 - "TX" is displayed.
- ② To select CH16, press CH16 (DUAL) then press PTT SWITCH to transmit.

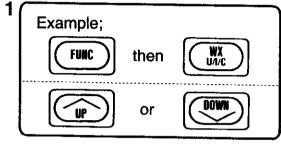


EXIT THIS MODE

Press any buttons you wish to select. See p.28, ① to ⑥.

How to Program into Memory for Triple Watch

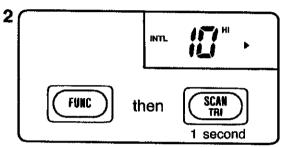




SELECT THE DESIRED MODE AND CHANNEL

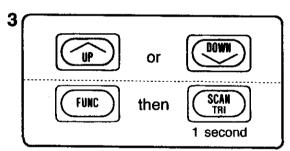
Select the desired channel which you wish to store for the Triple Watch.

(See p.14 HOW TO SELECT THE DESIRED MODE AND CHANNEL. Repeat steps 3 to 6)



PROGRAM THE TRIPLE WATCH CHANNEL Press FUNC then SCAN (TRI) and hold for 1 second.

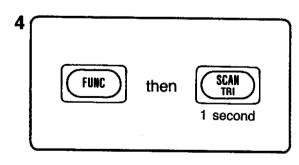
You hear a beep then "▶" is displayed.
 "▶" means the selected channel has been programmed for Triple Watch.



CHANGE THE PROGRAMMED CHANNEL

Select the desired channel to replace the programmed channel then repeat step 2. The displayed channel has been stored and the previously channel has been erased.

ERASING THE PROGRAMMED CHANNEL

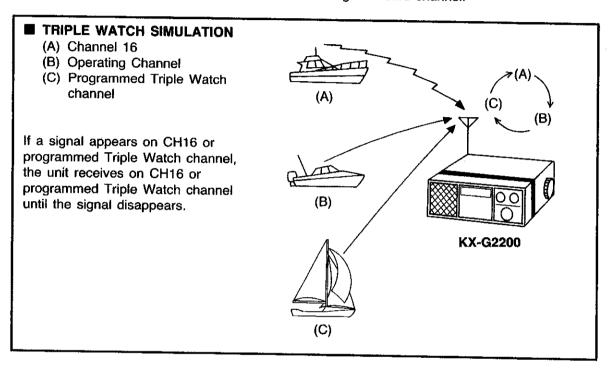


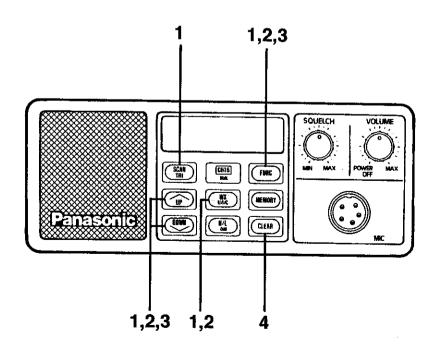
ERASE THE TRIPLE WATCH CHANNEL Press FUNC then SCAN (TRI) and hold for 1 second to erase the displayed channel which is programmed for Triple Watch.

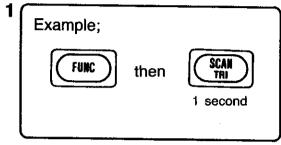
You hear a beep then "▶" is disappear.

How to Monitor CH16, Present Channel and Programmed Channel (Triple Watch)

TRIPLE WATCH: Triple Watch for monitoring emergency CH16 and programmed Triple Watch channel while listening to a third channel.

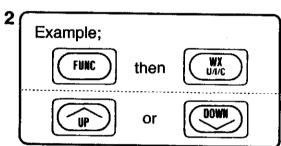






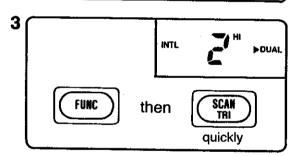
PROGRAM THE TRIPLE WATCH CHANNEL

Program the desired channel for monitoring. (See p.21 HOW TO PROGRAMMED INTO MEMORY FOR TRIPLE WATCH)



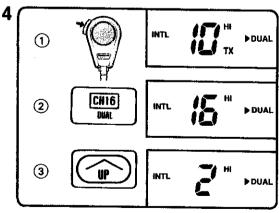
SELECT THE DESIRED MODE AND CHANNEL

Select the desired (present) channel. (See p.14 HOW TO SELECT THE DESIRED MODE AND CHANNEL. Repeat steps 3 to 6)



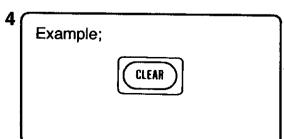
START TRIPLE WATCH FUNCTION

- (1) Press FUNC then SCAN (TRI) quickly.
 - After Programmed Triple Watch channel appears on the LCD for 1 second,
 "DUAL" is displayed.
- (2) The unit monitors CH16, programmed channel and the present channel.



START TALKING

- Press PTT SWITCH to transmit on the present channel.
 - "TX" is displayed.
- ② To select CH16, press CH16 (DUAL) to transmit.
- 3 To select programmed channel, press UP or DOWN to transmit.

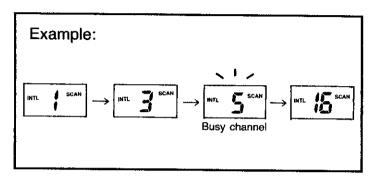


EXIT THIS MODE

Press any buttons you wish to select. See p.28, (1) to (6).

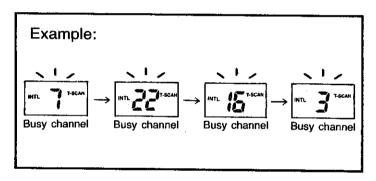
Scan Information

AUTO SCAN



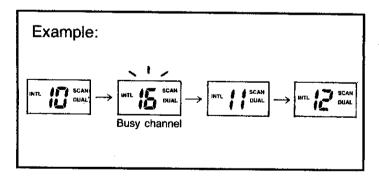
Scans all channel International, USA, Canada and Weather channels.

TIME OUT SCAN



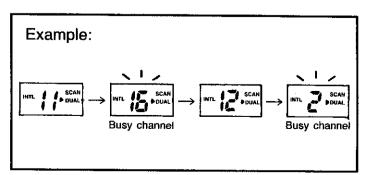
Searching will start from a channel (on which a signal is received) to the next busy channel after a few seconds interval.

DUAL WATCH SCAN



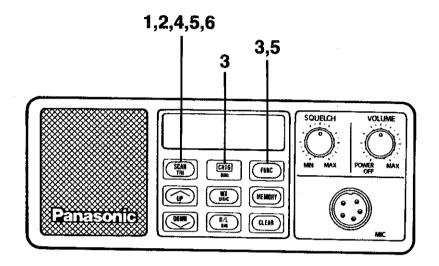
Scans all channels while watching CH16.

TRIPLE WATCH SCAN

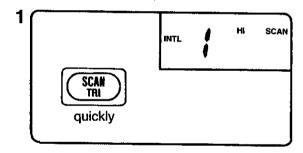


Scans all channels while watching programmed Triple Watch channel and CH16.

Scan Operation



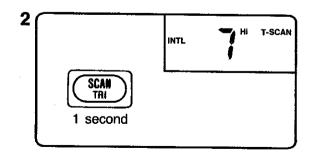
AUTO SCAN



START SCANNING

- (1) Press SCAN (TRI) quickly.
 - "SCAN" is displayed.
- (2) The unit will start scanning up from the displayed channel.
- (3) Scanning stops at a channel on which the unit receives a signal.
- (4) The channel number displayed will flash until the signal disappears.
- (5) The voice on the channel can be heard.
- (6) Press **SCAN (TRI)** to stop searching. (Refer to p.28)

TIME SCAN

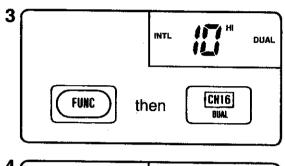


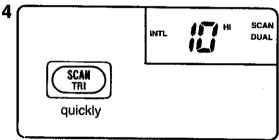
START TIME-SCANNING

- (1) Press **SCAN (TRI)** and hold for 1 second.
 - "T-SCAN" is displayed.
- (2) Scanning pauses at a channel (on which a signal exits) for a few seconds.
- (3) The channel number flashes for that period.
- (4) The unit will continue scanning up.
- (5) Press **SCAN (TRI)** to stop searching. (Refer to p.28)

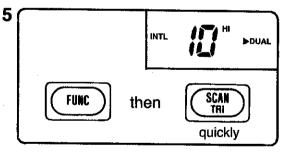
Scan Operation (cont.)

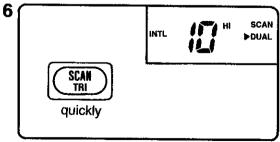
DUAL WATCH SCAN





TRIPLE WATCH SCAN





SELECT DUAL WATCH MODE

- Press FUNC then CH16 (DUAL) to monitor CH16 at intervals of a few seconds.
 - "DUAL" is displayed.
- (2) The unit monitors CH16 and the present channel every few seconds.

START SCANNING WITH DUAL WATCH MODE

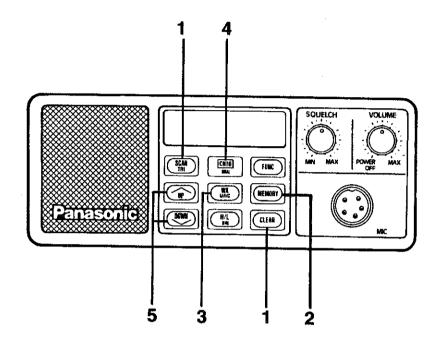
- (1) Press SCAN (TRI) quickly.
 - "SCAN" is displayed and scanning will start.
- (2) The unit will alternate between CH16 and each channel sequentially scanned.
- (3) The scan stops then a signal is received and then the scan resumes after the signal disappears.
- (4) When you press SCAN (TRI) and hold for 1 second, "T-SCAN" is displayed then scanning will pause at a channel on which a signal is received for a few seconds and then the unit will continue scanning up.

SELECT TRIPLE WATCH MODE

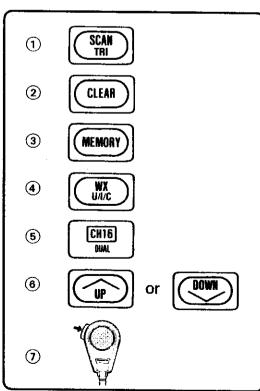
- (1) Press FUNC then SCAN (TRI) quickly.
 - "▶DUAL" is displayed.
- (2) The unit will monitor CH16 and programmed channel at intervals of a few seconds.

START SCANNING WITH TRIPLE WATCH MODE

- (1) Press SCAN (TRI) quickly.
 - "SCAN" is displayed and scanning will start.
- (2) The unit alternates CH16 and programmed channel and each channel sequentially scanned.
- (3) The scan stops when a signal is received and then the scan resumes after the signal disappears.
- (4) When you press SCAN (TRI) and hold for 1 second, "T-SCAN" is displayed then scanning will pause at a channel on which a signal is received for a few seconds and then the unit will continue scanning up.



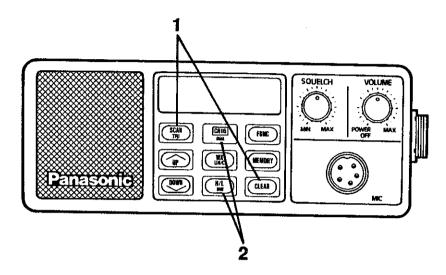
HOW TO STOP SEARCHING AND ANSWERING A CALL



Select the one button to stop searching.

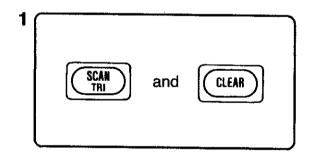
- 1 Press SCAN (TRI) to select the displayed channel.
- ② Press CLEAR to go to USA, INTL or CAN mode.
- 3 Press **MEMORY** to go to Memory channel mode
- 4 Press **WX (U/I/C)** to go to Weather channel mode.
- 5 Press CH16 (DUAL) to go to channel 16.
- 6 Press UP or DOWN to go to desired channel.
- 7) Press PTT SWITCH to answer a call on the receiving channel.

How to Display the Last Channel when turned on



LAST CHANNEL MODE

This mode will store and recall the last channel that was selected before the radio was turned off.

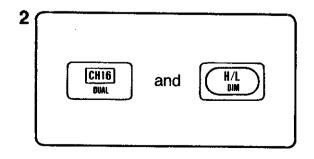


MEMORY THE LAST CHANNEL MODE

- (1) Press SCAN (TRI) and CLEAR simultaneously while pressing them in turn the radio off.
- (2) Verify that the last channel appears on the LCD when the radio is turned on.

CHANNEL 16 RECALL MODE

This mode will recall CH16 each time the radio is turned on.



RECALL CHANNEL 16 MODE

- (1) Press **DUAL** and **H/L (DIM)** simultaneously while pressing them in turn the radio off.
- (2) Verify that CH16 appears on the LCD then the radio is turned on.

Troubleshooting Guide

The following are brief descriptions of common problems caused by sources outside the unit. Should any trouble concerning the actual unit occur, please take the unit directly to an authorized Servicenter for qualified service.

Problem Cause & Remedy Check the antenna system Unusual difficulty in transmitting or broken or shorted antenna cable,\ receivina. corroded or defective connectors. Battery voltage may be low. Battery voltage may be low or dead. No display and no sound is heard when Power cord may be broken or shorted. the Power Switch is turned on. Fuse or fuse holder located in the power cable may be corroded or unlocked. "TX" is not displayed when the PTT Microphone cord may be broken or Switch is pressed in transmitting mode. damaged. Noise from ignition, refrigeration or Consult an experienced radio technician power generating equipment interferes who can locate and suppress electrical with the unit. noise at its source.

NOTES

The following conditions will cause the displayed channel to flash;

- Attempting to transmit on a receive only channel.
- When a signal on CH16 is received in Dual Watch mode.
- When a signal is received in an automatic scanning mode.
- When a signal on CH16 or Programmed Triple Watch channel is received in Triple Watch mode.

Channel Frequencies

■ International Channels (unit; in MHz)

СН	TX FREQ	RX FREQ	COMMENT
1 2 3 4	156.05 156.10 156.15 156.20	160.65 160.70 160.75 160.80	Public Correspondence, Port Operation Public Correspondence, Port Operation Public Correspondence, Port Operation Public Correspondence, Port Operation
5	156.25	160.85	Public Correspondence, Port Operation Public Correspondence, Port Operation
6 7	156.30 156.35	156.30 160.95	Inter Ship Safety Public Correspondence, Port Operation
8 9	156.40 156.45	156.40	Commercial
10	156.50	156.45 156.50	Commercial, Non Commercial Commercial
11 12	156.55 156.60	156.55 156.60	Commercial Port Operation
13	156.65	156.65	Navigational
14 15	156.70 156.75	156.70 156.75	Port Operation Environmental Low
16	156.80	156.80	Distress, Safety and Calling
17 18	156.85 156.90	156.85 161.50	Low Commercial
19	156.95	161.55	Port Operation
20 21	157.00	161.60	Port Operation
22	157.05 157.10	161.65 161.70	Port Operation Port Operation
23	157.15	161.75	Public Correspondence
24 25	157.20 157.25	161.80 161.85	Public Correspondence Public Correspondence
26	157.30	161.90	Public Correspondence
27 28	157.35 157.40	161.95 162.00	Public Correspondence
60	156.025	160.625	Public Correspondence Port Operation, Public Correspondence
61	156.075	160.675	Port Operation, Public Correspondence
62 63	156.125 156.175	160.725 160.775	Port Operation, Public Correspondence Port Operation, Commercial
64	156.225	160.825	Port Operation, Public Correspondence
65 66	156.275 156.325	160.875	Port Operation, Public Correspondence
67	156.375	160.925 156.375	Port Operation, Public Correspondence Commercial
68	156.425	156.425	Non Commercial
69	156.475	156.475	Non Commercial
70 71	156.525 156.575	156.525 156.575	Non Commercial Non Commercial
72	156.625	156.625	Non Commercial
73 74	156.675 156.725	156.675 156.725	Port Operation Port Operation
75		150.725	Guard
76	450.075		Guard
77 78	156.875 156.925	156.875 161.525	Commercial Non Commercial
79	156.975	161.575	Port Operation
80 81	157.025 157.075	161.625	Port Operation
82	157.075 157.125	161.675 161.725	Port Operation Port Operation, Public Correspondence
83	157.175	161.775	Public Correspondence
84	157.225	161.825	Public Correspondence
85 86	157.275 157.325	161.875 161.925	Public Correspondence
87	157.375	161.975	Public Correspondence Public Correspondence
88	157.425	162.025	Public Correspondence

LOW; 1W max

■ USA Channels (unit; in MHz)

СН	TX FREQ	RX FREQ	COMMENT
1	156.05	156.05	Port Operation, Commercial
3	156.15	156.15	Port Operation, Commercial
5	156.25	156.25	Port Operation
6	156.30	156.30	Inter Ship Safety
7	156.35	156.35	Commercial
8	156.40	156.40	Commercial (Inter Ship) Commercial, Non Commercial Commercial Commercial Port Operation
9	156.45	156.45	
10	156.50	156.50	
11	156.55	156.55	
12	156.60	156.60	
13 14 15 16 17	156.65 156.70 156.80 156.85	156.65 156.70 156.75 156.80 156.85	Navigational, Low Port Operation Environmental Distress, Safety and Calling State Control, Low
18	156.90	156.90	Commercial Commercial Port Operation US Government Only Coast Guard Liaison
19	156.95	156.95	
20	157.00	161.60	
21	157.05	157.05	
22	157.10	157.10	
23	157.15	157.15	US Government Only Public Correspondence Public Correspondence Public Correspondence Public Correspondence Public Correspondence
24	157.20	161.80	
25	157.25	161.85	
26	157.30	161.90	
27	157.35	161.95	
28 63 65 66 67 68 69 70 71 72	157.40 156.175 156.275 156.325 156.375 156.425 156.475 156.525 156.575	162.00 156.175 156.275 156.325 156.375 156.425 156.475 156.525 156.575	Public Correspondence Port Operation, Commercial Port Operation Port Operation Commercial, Low Non Commercial
73 74 75 76 77	156.675 156.725 156.875	156.675 156.725 156.875	Port Operation Port Operation Guard Guard Commercial
78	156.925	156.925	Non Commercial Commercial Commercial US Government Only US Government Only
79	156.975	156.975	
80	157.025	157.025	
81	157.075	157.075	
82	157.125	157.125	
83	157.175	157.175	US Government Only Public Correspondence Public Correspondence Public Correspondence Public Correspondence Public Correspondence Commercial
84	157.225	161.825	
85	157.275	161.875	
86	157.325	161.925	
87	157.375	161.975	
88	157.425	157.425	

LOW; 1W max

Channel Frequencies (cont.)

■ Canada Channels (unit; in MHz)

СН	TX FREQ	RX FREQ	COMMENT
1	156.05	160.65	Rail Way, West Coast Only
2	156.10	160.70	
3	156.15	160.75	
4	156.20	160.80	
5	156.25	160.85	
6	156.30	156.30	Inter Ship Safety Commercial Commercial Commercial, Non Commercial Commercial
7	156.35	156.35	
8	156.40	156.40	
9	156.45	156.45	
10	156.50	156.50	
11	156.55	156.55	Vessel Traffic Movement Vessel Traffic Movement Vessel Traffic Movement Vessel Traffic Movement Government Operations Low
12	156.60	156.60	
13	156.65	156.65	
14	156.70	156.70	
15	156.75	156.75	
16	156.80	156.80	Distress, Safety and Calling Pilotage [Low] Commercial Canadian Coast Guard Port Operation
17	156.85	156.85	
18	156.90	156.90	
19	156.95	156.95	
20	157.00	161.60	
21	157.05	157.05	Joint Canadian & U.S. Coast Guard Joint Canadian & U.S. Coast Guard Liaison Public Correspondence Public Correspondence Public Correspondence
22	157.10	157.10	
23	157.15	161.75	
24	157.20	161.80	
25	157.25	161.85	
26 27 28 61 62 65 66 67 68 69	157.30 157.35 157.40 156.075 156.125 156.275 156.325 156.375 156.425	161.90 161.95 162.00 156.075 156.125 156.275 156.325 156.375 156.425 156.475	Public Correspondence Public Correspondence Public Correspondence Fish Industry Fish Industry Port Operation Port Operation Commercial and Non Commercial Non Commercial (Recreational Craft Marinas Yacht Clubs) Non Commercial
70	156.525	156.525	Non Commercial (Recreational Craft) Non Commercial (Recreational Craft) Commercial and Non Commercial Commercial and Non Commercial Vessel Traffic Movement
71	156.575	156.575	
72	156.625	156.625	
73	156.675	156.675	
74	156.725	156.725	
75 76 77 78 79	156.875 156.925 156.975	156.875 156.925 156.975	Guard Guard Pilotage Commercial Canadian Coast Guard
80	157.025	157.025	Commercial Joint Canadian & U.S. Coast Guard Anti-Pollution Canadian Coast Guard/U.S. Government Agencies Canadian Coast Guard/U.S. Government Agencies Public Correspondence Public Correspondence
81	157.075	157.075	
82	157.125	157.125	
83	157.175	157.175	
84	157.225	161.825	
85	157.275	161.875	
86	157.325	161.925	Public Correspondence Public Correspondence Public Correspondence
87	157.375	161.975	
88	157.425	162.025	

LOW; 1W max

■ Weather Channels (unit; in MHz)

СН	TX FREQ	RX FREQ	COMMENT
WX1 WX2 WX3 WX4 WX5		162.55 162.40 162.475 162.425 162.45	Weather Weather Weather Weather Weather Weather
WX6 WX7 WX8 WX9 WX10		162.50 162.525 161.65 161.775 163.275	Weather Weather Weather Weather Weather Weather Weather

Distress Communication Format

SPEAK SLOWLY, CLEARLY AND CALMLY

Make sure that your Marine VHF radio is on.

make sure that your mani	10 11 12 10 10 11,
1 Press (CH16)	
2 Press PTT Switch	Say: "MAYDAY - MAYDAY."
	Say: "THIS IS (your boat name and call letters), (your boat name and call letters), (your boat name and call letters)."
	Say: "MAYDAY, (your boat name)."
	Tell: WHERE YOU ARE (What navigational aids or landmarks are near).
	STATE THE NATURE OR YOUR EMERGENCY.
	GIVE THE NUMBER OF PERSONS ABOARD AND THE CONDITION OF ANY INJURED.
	ESTIMATE THE PRESENT SEAWORTHINESS OF YOUR BOAT.
	BRIEFLY DESCRIBE YOUR BOAT: (provincial registration no.), (length) feet, (draft) feet, (type), (colour) hull, (colour) trim, (number) masts, (type; horsepower) power, (construction material). (anything else that you think will help rescuers to find you.)
	Say: "I WILL BE LISTENING ON CHANNEL 16."
	End message by saying: "THIS IS (Your boat name and call sign), OVER."
3 Release PTT Switch	Listen: someone should answer.

IF THEY DO NOT, REPEAT THE CALL BEGINNING AT ITEM 2. IF THERE IS STILL NO ANSWER, SWITCH TO ANOTHER CHANNEL AND BEGIN AGAIN.

REMEMBER ... REMAIN CALM, SPEAK SLOWLY AND CLEARLY. DO NOT SHOUT INTO THE MICROPHONE, SPEAK IN A NORMAL SPEAKING VOICE.