



VHF MARINE TRANSCEIVER

# IC-M8

INSTRUCTION MANUAL



ICOM INCORPORATED

IC-M8  
VHF MARINE TRANSCEIVER

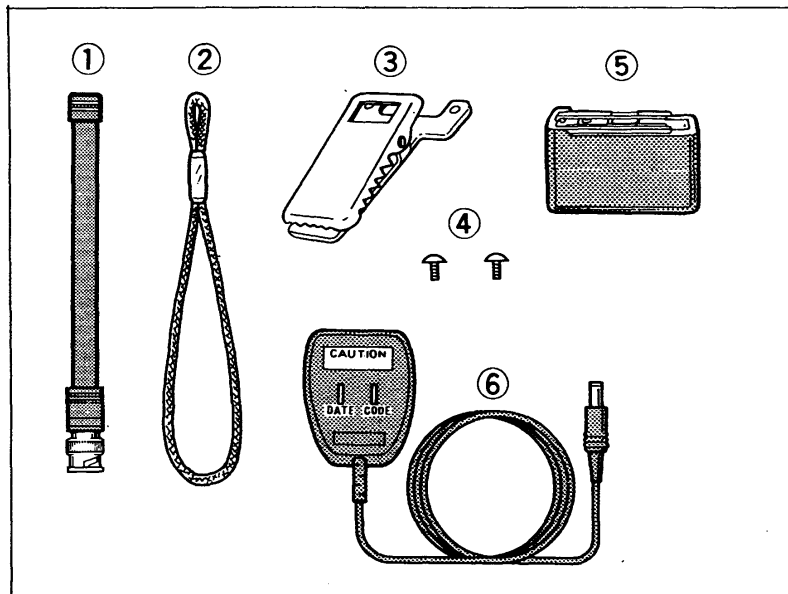
## FOREWORD

ICOM announces the debut of a versatile newcomer in the marine transceiver field, the **IC-M8** pocket-sized handheld transceiver.

Exceptionally flexible for a variety of uses yet surprisingly compact and easy to handle, the **IC-M8** is a complete, high performance integrated handheld - the beneficiary of the very latest in ICOM technical know-how and state-of-the-art integrated engineering.

To fully enjoy the use of your new **IC-M8** handheld, please study this instruction manual thoroughly prior to operation. Also, feel free to contact your nearest authorized ICOM Dealer if you have any questions relating to the operation of this transceiver.

## UNPACKING



Accessories included with the IC-M8	QTY.
1. Flexible antenna . . . . .	1
2. Handstrap . . . . .	1
3. Alligator clip. . . . .	1
4. Screws . . . . .	2
5. CM-21 BATTERY PACK. . . . .	1
6. CM-25U WALL CHARGER . . . . .	1

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## SECTION 1 PRE-OPERATION

### ■ BATTERY PACK INSTALLATION

#### (1) Using the CM-21 BATTERY PACK

The supplied CM-21 BATTERY PACK is rechargeable and can be easily slipped ON or OFF the transceiver.

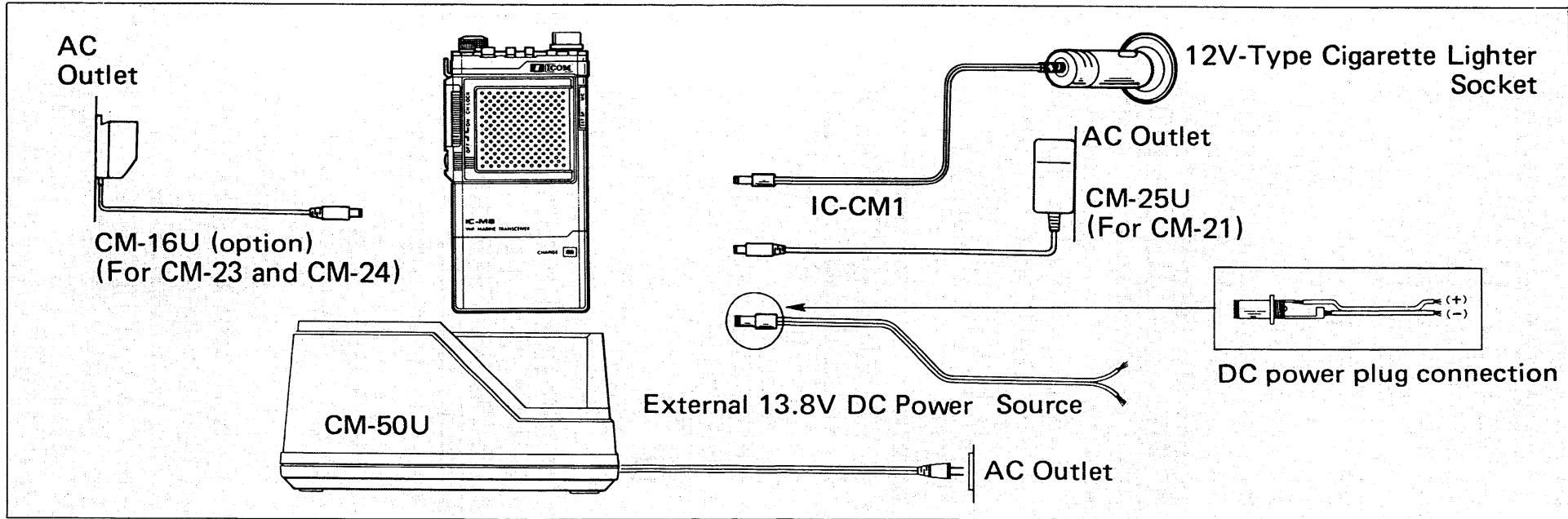
1) To recharge the battery pack use the supplied wall charger or the optional CM-50U AC BATTERY CHARGER, or a 12V-type cigarette lighter socket with the optional IC-CM1 CIGARETTE LIGHTER CABLE.

2) Battery charging takes about 15 hours using either the supplied wall charger or the optional IC-CM1. It takes about 1 hour using the optional CM-50U.

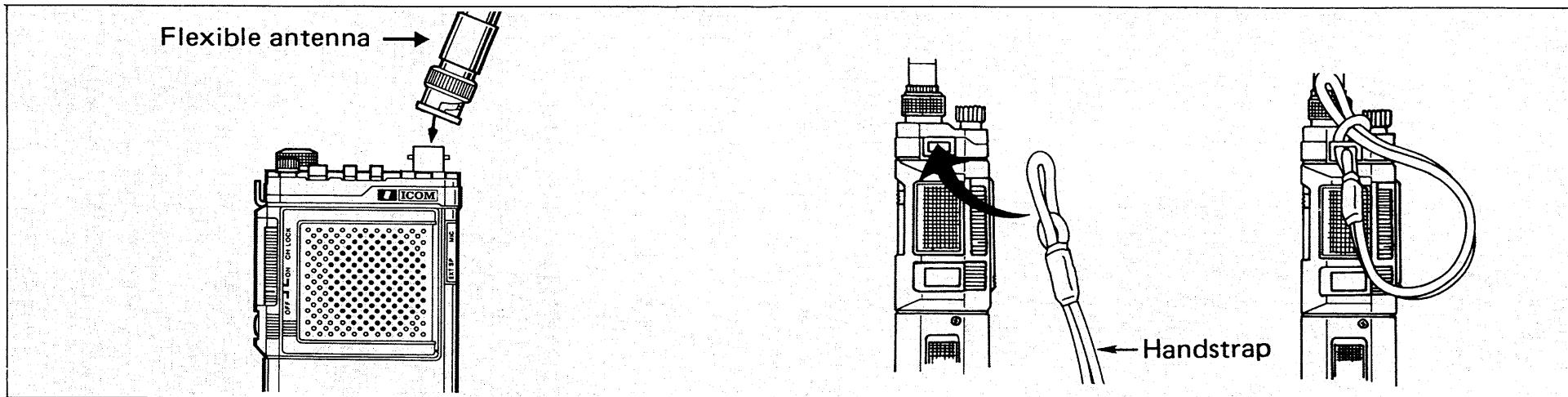
#### (2) Battery pack note

The full charge capacity of NiCd rechargeable batteries may be reduced if repeatedly charged with only partial discharge periods. This is called the battery memory effect. If the battery capacity seems lower than new, discharge the pack through normal use, then charge fully using the proper charger.

## ■ CHARGER CONNECTIONS

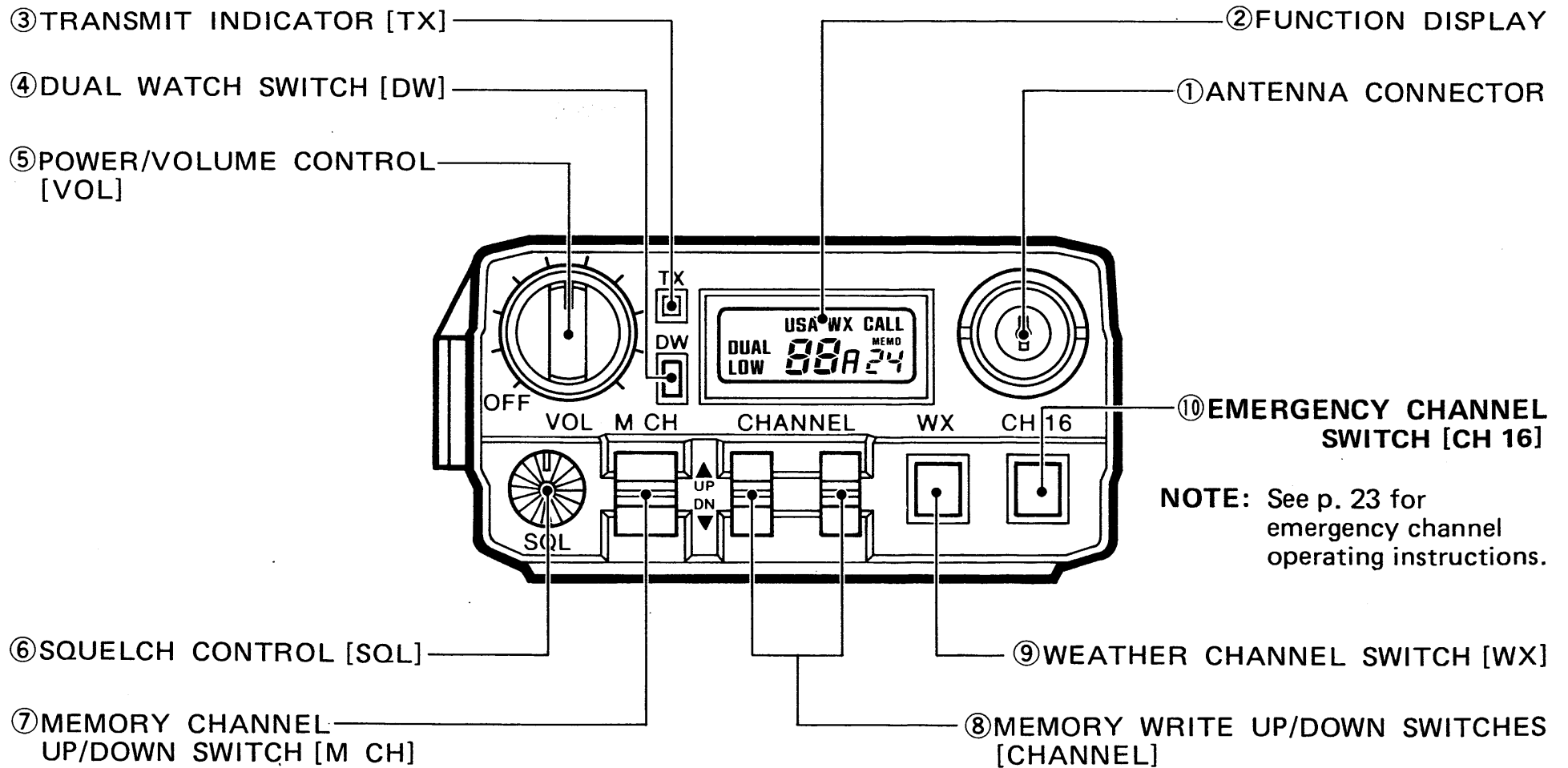


## ■ ANTENNA AND HANDSTRAP INSTALLATION

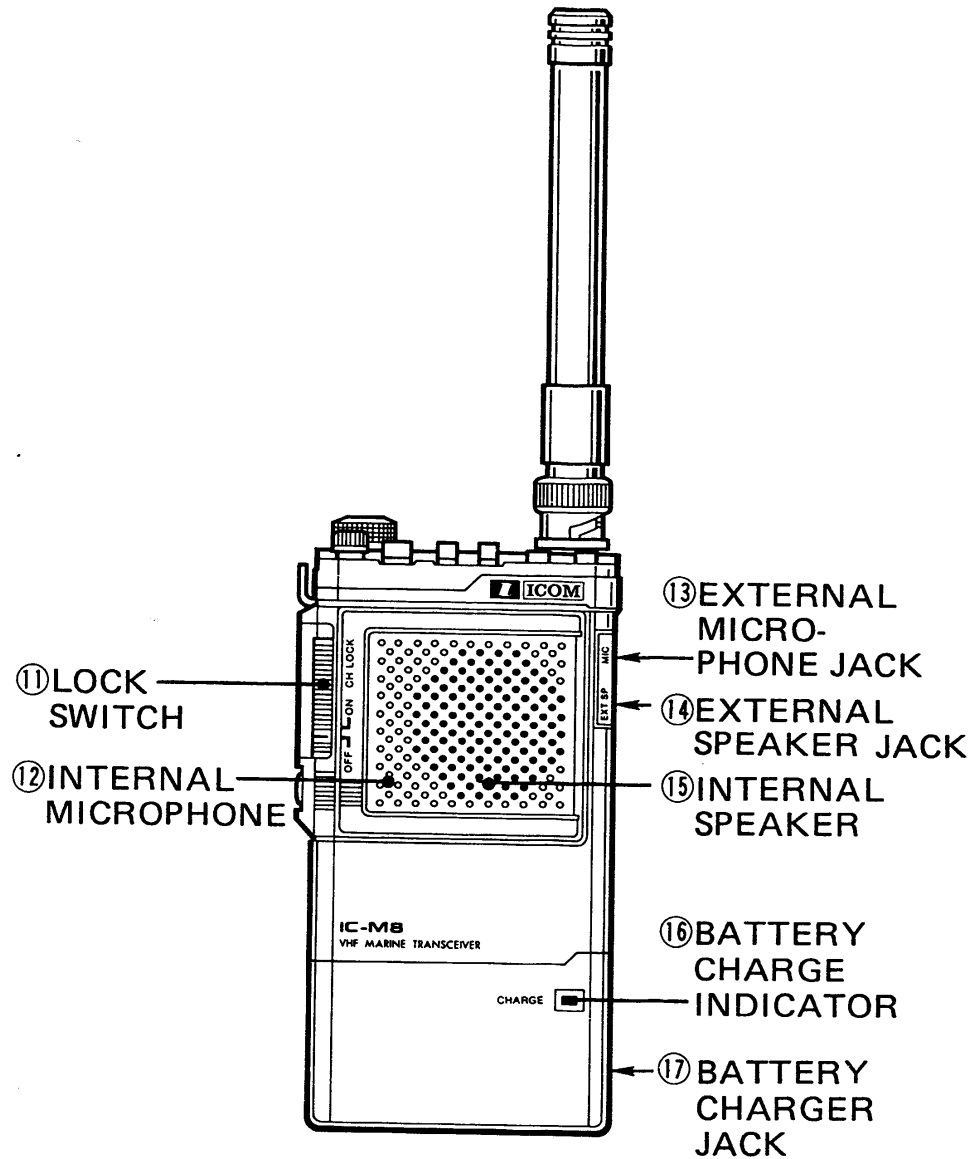


## SECTION 2 CONTROL FUNCTIONS

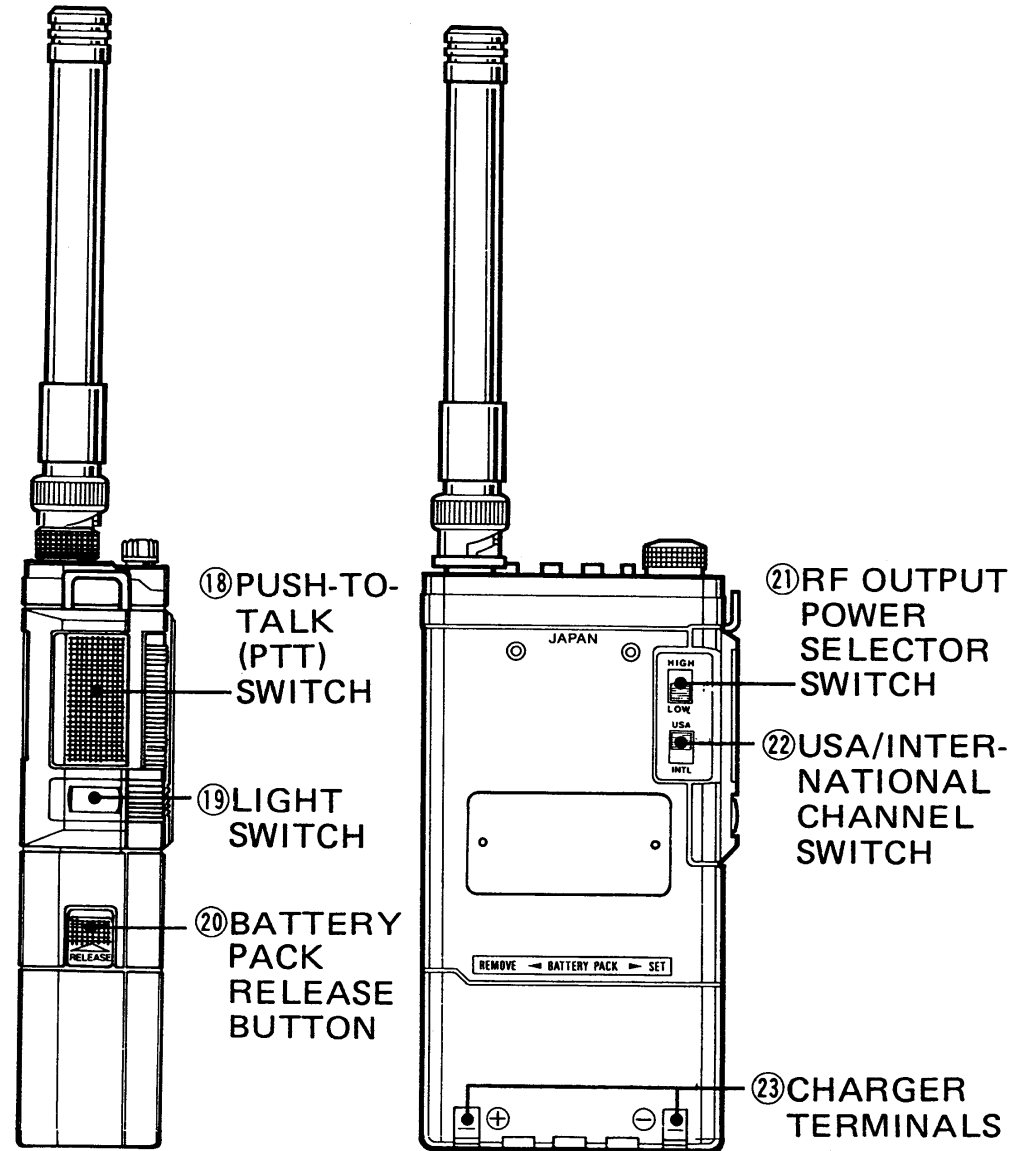
### 2 - 1 TOP PANEL



## 2-2 FRONT AND SIDE PANEL



## 2-3 REAR PANEL

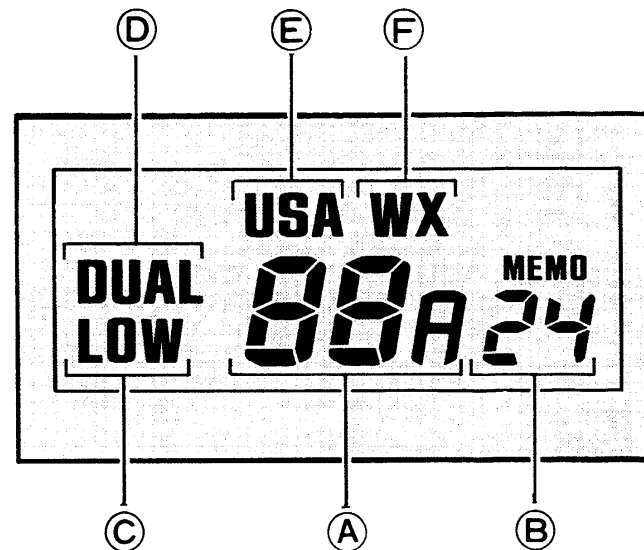


## 2 - 1 TOP PANEL

### ① ANTENNA CONNECTOR

Connect the supplied flexible antenna.

### ② FUNCTION DISPLAY



#### Ⓐ CHANNEL INDICATOR:

Shows the current operating channel number.

#### Ⓑ MEMORY CHANNEL INDICATOR:

Indicates the selected memory channel number.

#### Ⓒ "LOW" INDICATOR:

Illuminates when the IC-M8 is transmitting with LOW RF output power.



ⓓ **“DUAL” INDICATOR:**

Illuminates when the dual watch function is activated.

ⓔ **“USA” INDICATOR:**

Indicates that the IC-M8 is operating in U.S.A. mode (Using a U.S.A. channel).

ⓕ **“WX” INDICATOR:**

Indicates that a weather channel is being used by the IC-M8.

③ **TRANSMIT INDICATOR [TX]**

Lights up while transmitting.

- Indicates that the transceiver is transmitting and also the condition of the batteries. If the indicator goes out while transmitting, the battery pack is exhausted and should be charged again.

④ **DUAL WATCH SWITCH [DW]**

This switch allows a check of channel 16 while listening on another channel. Refer to p. 14 for dual watch operating instructions.

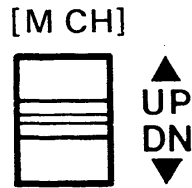
⑤ **POWER/VOLUME CONTROL [VOL]**

Rotate clockwise to turn the transceiver ON and increase the audio level.

⑥ SQUELCH CONTROL [SQL]

Rotate this control fully counterclockwise to turn OFF the squelch function, and clockwise to raise the threshold level.

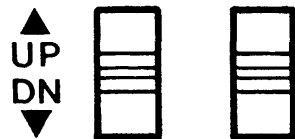
⑦ MEMORY CHANNEL UP/DOWN SWITCH [M CH]



Push up or down to change channel numbers programmed in a memory channel or any of the weather channels.

- Memory channels not previously programmed are skipped when the [M CH] SWITCH is pushed. See SECTION 4, step 4) for a description of how to monitor the 24 memory channels.

⑧ MEMORY WRITE UP/DOWN SWITCHES [CHANNEL]



These switches are only functional when writing operating channel numbers into memory channels. See SECTION 4 MEMORY WRITING.

⑨ WEATHER CHANNEL SWITCH [WX]

Push to set the transceiver in weather channel mode. Push again to return to normal operations. See p. 12 for more information.

⑩ EMERGENCY CHANNEL SWITCH [CH 16]

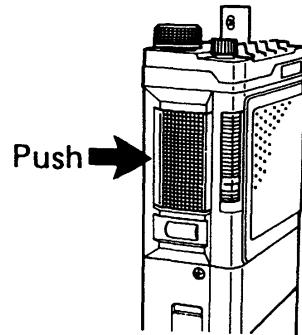
This switch selects channel 16, the marine emergency channel for distress calls. See p. 23 for detailed emergency call information.

- This switch also sets the transceiver in normal operating mode. See SECTION 3 and 4 for more information.

## 2 - 2 FRONT AND SIDE PANEL

- ⑪ **LOCK SWITCH [LOCK]** This switch prevents accidental frequency and memory channel changes. Operating channels, memory channels, modes, etc., are locked when this switch is ON.
- ⑫ **INTERNAL MICROPHONE** This microphone operates when the transceiver is transmitting. However, it will not operate if an external microphone is connected to the [MIC] JACK.
- ⑬ **EXTERNAL MICROPHONE JACK [MIC]** The optional CM-9L SPEAKER-MICROPHONE can be connected for additional versatility to the [MIC] JACK. The internal microphone does not function when an external microphone is connected.
- ⑭ **EXTERNAL SPEAKER JACK [EXT SP]** Connect an  $8\Omega$  external speaker to this jack. The INTERNAL SPEAKER will not operate if an external speaker is connected to the EXTERNAL SPEAKER JACK.
- ⑮ **INTERNAL SPEAKER** This speaker operates when the transceiver is receiving. However, it will not operate if an external speaker is connected to the EXTERNAL SPEAKER JACK.
- ⑯ **BATTERY CHARGE INDICATOR** Lights up while battery pack is charging with the supplied wall charger or the optional IC-CM1 CIGARETTE LIGHTER CABLE.

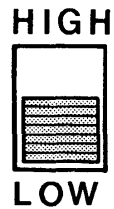
- ①7 **BATTERY CHARGER JACK** This jack accepts the output plug of the supplied CM-25U WALL CHARGER or 13.8V DC power source.
- ①8 **PTT (PUSH-TO-TALK) SWITCH** Push this switch to begin transmitting.



- ①9 **LIGHT SWITCH** Push this switch to turn ON and OFF the backlight for the FUNCTION DISPLAY. The backlight has a timer function and will turn OFF automatically unless switches are being used.
- ②0 **BATTERY PACK RELEASE BUTTON [RELEASE]** Push this button upwards and slide the battery pack out to remove it from the transceiver.

## 2 - 3 REAR PANEL

### ②① RF OUTPUT POWER SELECTOR SWITCH [HIGH] [LOW]

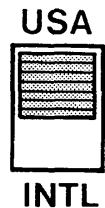


Selects RF output power.

**HIGH** : 1W. Greater coverage for long distance transmissions.  
(2.5W when used with the CM-24 BATTERY PACK)

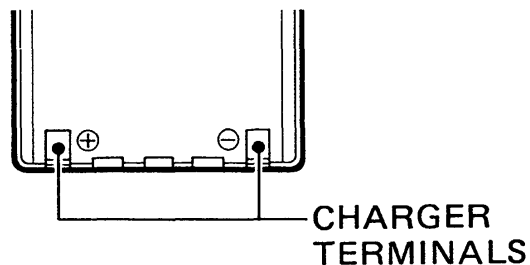
**LOW** : 300mW. Low output power for conserving battery life.  
(1W when used with the CM-24 BATTERY PACK)

### ②② U.S.A./INTERNATIONAL CHANNEL SELECTOR SWITCH [USA] [INTL]



Selects either U.S.A. or international channels for memory channel writing. See SECTION 4 MEMORY WRITING for more information.

### ②③ CHARGER TERMINALS

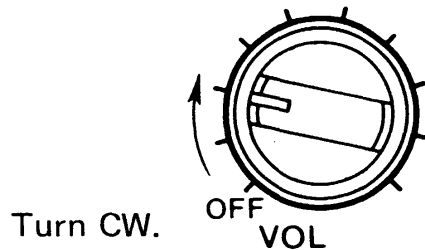


These terminals are used for battery charging with the CM-50U AC BATTERY CHARGER.

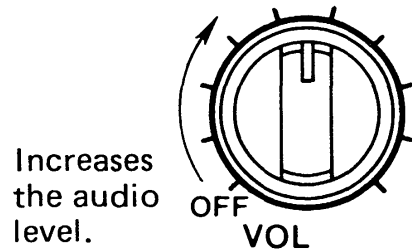
## SECTION 3 GENERAL OPERATION

### 3 - 1 RECEIVING

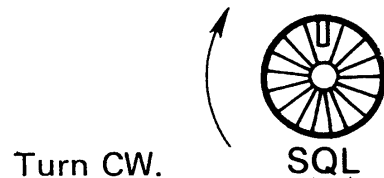
- 1) Turn power ON.



- 2) Adjust [VOL] CONTROL.



- 3) Adjust [SQL] CONTROL.



- 1) Turn power to the transceiver ON.

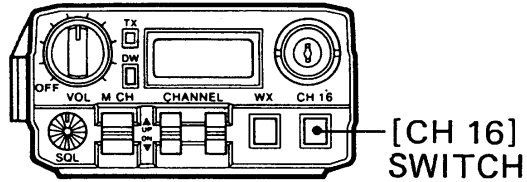
- The number "16" appears on the FUNCTION DISPLAY, indicating the transceiver is set in channel 16.

- 2) Rotate the [VOL] CONTROL clockwise for a suitable noise level from the speaker after rotating the [SQL] CONTROL completely counterclockwise.

- 3) Rotate the [SQL] CONTROL clockwise until the channel noise just disappears. This is the threshold point where signals can be received.

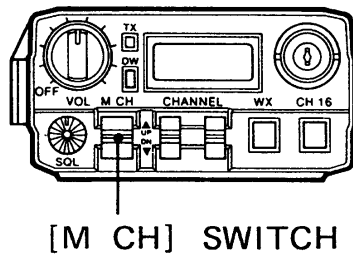
- The transceiver remains silent after this adjustment until a signal is received which opens the receiver's squelch circuit.

4) Push [CH 16] SWITCH.



4) Push the [CH 16] SWITCH and the transceiver will automatically move to a pre-programmed memory channel.

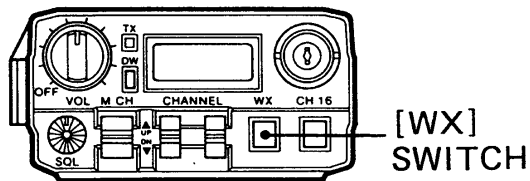
5) Push [M CH] SWITCH.



5) Push the [M CH] SWITCH up or down to select another pre-programmed memory channel.

- Holding this switch continuously in the up or down position successively moves the IC-M8 through every programmed memory channel.

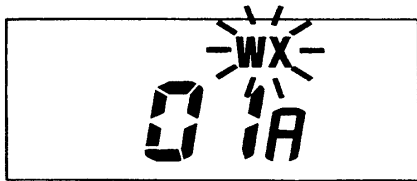
6) Weather channel watching.



6) Push the [WX] SWITCH for weather channel mode and listen to any of the weather channels (receive only).

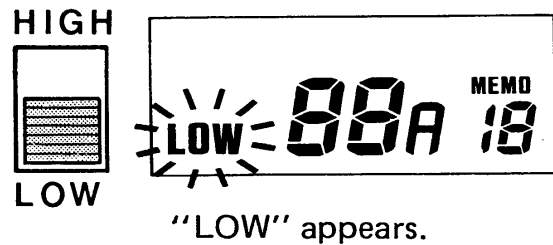
- The "WX" INDICATOR appears on the FUNCTION DISPLAY when weather channels are being used.
- Push the [M CH] SWITCH up or down to move through the weather channels.
- Push the [WX] SWITCH again to exit weather channel mode and return to normal operations.
- The PTT SWITCH does not operate in weather channel mode.

"WX" appears.

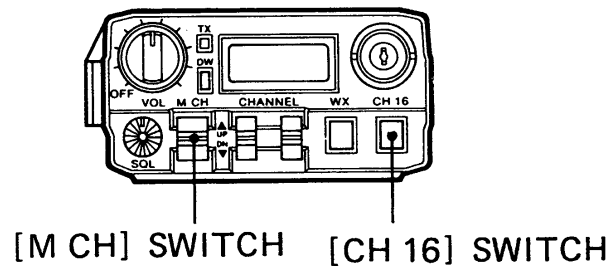


## 3 - 2 TRANSMITTING

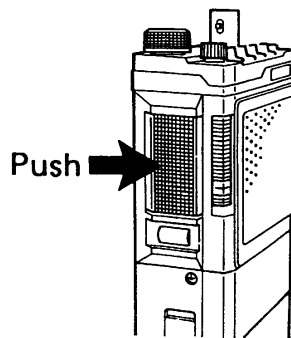
- 1) Select output power.



- 2) Select an operating channel.



- 3) Push PTT SWITCH.



The following transmitting procedures should be started after finishing the steps described above in SECTION 3 - 1 RECEIVING.

- 1) Set the rear panel RF OUTPUT POWER SELECTOR SWITCH in the [HIGH] or [LOW] position. Refer to p. 10.

- "LOW" appears on the FUNCTION DISPLAY when LOW is selected. There is no "HIGH" power indicator.

- 2) Select an operating channel. Push the [CH 16] SWITCH and then push the [M CH] SWITCH up or down.

- Listen carefully to ensure that the channel you wish to transmit on is clear.

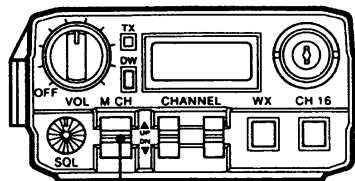
- 3) Push the PTT SWITCH to call the party you wish to contact. Speak into the microphone using your normal voice level.

- After contact, release the PTT SWITCH to return to receiving.



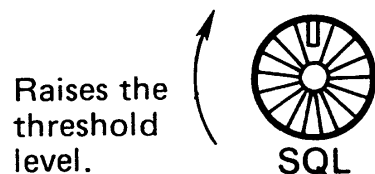
### 3 - 3 DUAL WATCH OPERATION

- 1) Select an operating channel.



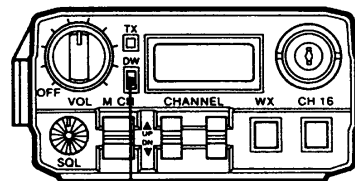
[M CH] SWITCH

- 2) Rotate [SQL] CONTROL.



SQL

- 3) Push [DW] SWITCH.



[DW] SWITCH

This function allows a check of channel 16 while listening on another channel. When a signal appears on channel 16, the transceiver automatically switches to channel 16 until this signal has cleared, then the transceiver returns to the original channel.

- 1) Select an operating channel. Push the [CH 16] SWITCH and then push the [M CH] SWITCH up or down.

- An operating channel number appears on the FUNCTION DISPLAY.

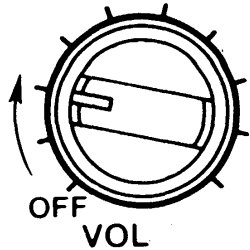
- 2) Rotate the [SQL] CONTROL clockwise until the noise from the speaker just disappears.

- 3) Push the [DW] SWITCH.

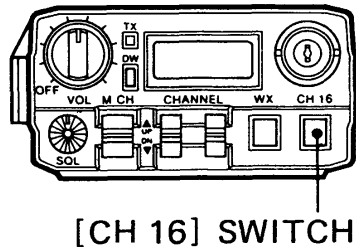
- "DUAL" appears on the FUNCTION DISPLAY.
- The transceiver now alternates between watching the operating channel and channel 16.
- When a signal appears on either channel, that channel is monitored.
- Push the [DW] SWITCH again to return to normal operations.

## SECTION 4 MEMORY WRITING

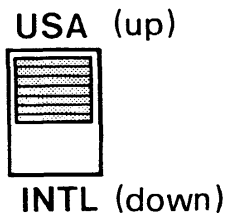
- 1) Turn power ON.



- 2) Push [CH 16] SWITCH.



- 3) Select a U.S.A. or an international channel.



- 1) Turn power to the transceiver ON.

- The number "16" appears on the FUNCTION DISPLAY.

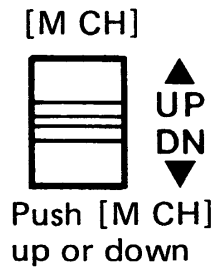
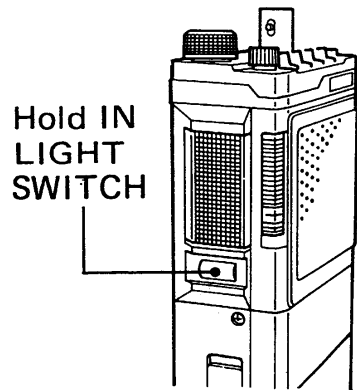
- 2) Push the [CH 16] SWITCH.

- The operating channel and memory channel numbers appear on the FUNCTION DISPLAY.

- 3) Set the U.S.A./INTERNATIONAL CHANNEL SELECTOR SWITCH in the up position to select a U.S.A. channel or down position for an international channel, if required.

- The "USA" INDICATOR appears on the FUNCTION DISPLAY while U.S.A. channels are being used. There is no international channel indicator.

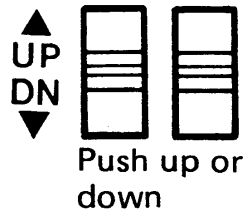
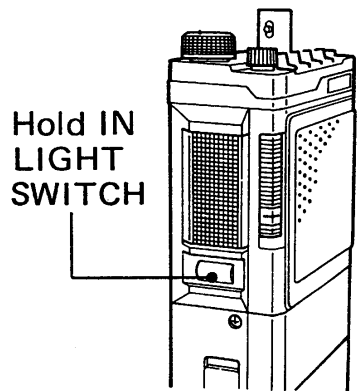
- 4) Hold LIGHT SWITCH IN and push [M CH] SWITCH up or down.



- 4) Hold the LIGHT SWITCH IN and push the [M CH] SWITCH up or down to select the required memory channel.

- Pushing the [M CH] SWITCH continuously up or down successively moves the IC-M8 through all 24 memory channels.

- 5) Hold LIGHT SWITCH IN and push [CHANNEL] SWITCHES up or down.



- 5) Hold the LIGHT SWITCH IN and push the [CHANNEL] SWITCHES up or down to select a channel to operate in.

- Pushing these switches continuously up or down successively moves the IC-M8 through each channel number.

- If a memory channel contains no stored channel number, the IC-M8 automatically reverts to channel 16 when the [CHANNEL] SWITCHES are pushed.

- 6) Release LIGHT SWITCH.

- 6) Release the LIGHT SWITCH to write the operating channel number into a selected memory channel.

## SECTION 5 OPERATING RULES AND GUIDELINES

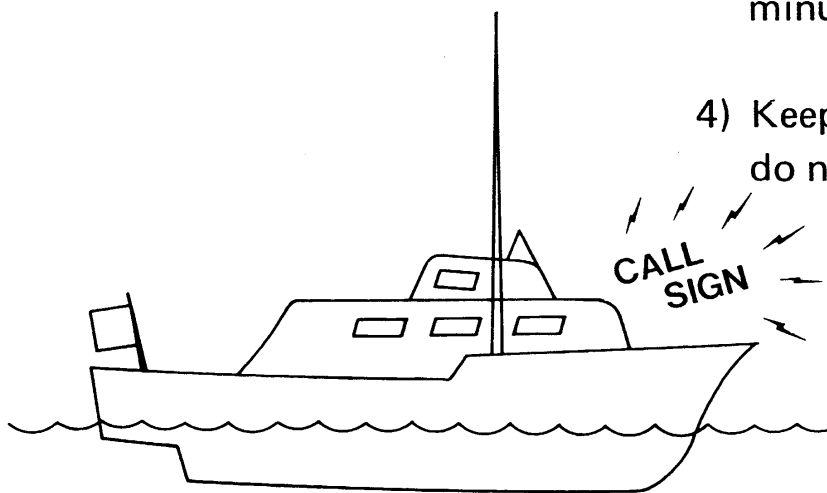
### PREVENT INTERFERENCE

Before transmitting, monitor the channel you wish to use to avoid interrupting transmissions in progress.

### CALL PROCEDURES

Calls must be properly identified and time limits must be respected.

- 1) Give your call sign each time you call another vessel or a coast station. If you have no call sign, identify the station by giving the vessel name and the name of the licensee.
- 2) Give your call sign at the end of each transmission of more than 3 minutes duration.
- 3) You must break and give your call sign at least once every fifteen minutes during long ship-to-shore calls.
- 4) Keep your unanswered calls short (less than thirty seconds) and do not repeat a call for two minutes.



## PRIORITIES

- 1) Read all the rules and regulations pertaining to priorities and keep an up-to-date copy handy. Safety and Distress messages take priority over all others.
- 2) You must monitor and be able to transmit on channel 16.
- 3) False or fraudulent distress signals are prohibited and punishable by law. Unnecessary transmissions are not allowed.

## PRIVACY

- 1) Information overheard but not intended for you cannot lawfully be used in any way.
- 2) Indecent or profane language is prohibited.

## LOGS

Use of this equipment requires entry of the watch period of channel 16 by the operator with vessel name, call sign and operator signature. All distress, emergency and safety messages must be recorded in complete detail. Log data activity is usually recorded in 24 hour time. Universal Time (formerly GMT) is frequently used.

Adjustments, repairs, channel frequency changes and authorized modifications affecting electrical operation of the equipment must be kept in the maintenance log and entries signed by the authorized licensed technician performing or supervising the work.

## RADIO LICENSES

### 1) Ship Station License

When your craft is equipped with a VHF/FM transceiver such as the IC-M8 you must possess a current radio station license before using the equipment. It is unlawful to operate a Ship Station which is not licensed.

Ask your dealer or the appropriate government agency for a Ship Radiotelephone License application. This license states your craft's call sign.

### 2) Operator's License

A Restricted Radiotelephone Operator Permit is the license most small vessel radio operators have when a radio is not required for safety purposes. You can usually obtain this permit by mail without examination. Contact your marine dealer or appropriate government agency for information or applications.

The Restricted Radiotelephone Operator Permit must be posted or be kept with the operator. Only a licensed radio operator may operate a transceiver. However, non-licensed individuals may talk over a transceiver if a licensed operator starts, supervises, and ends the call, and makes the necessary log entries. A current copy of the applicable government regulations is usually required to be kept.

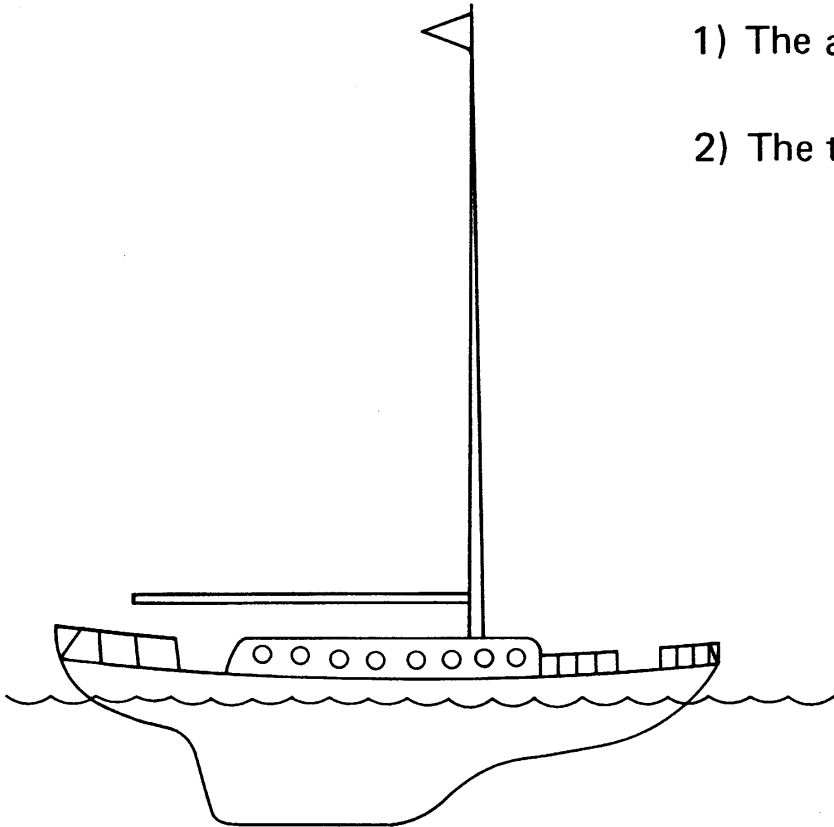
## DEAD SPOTS

Topography may prevent receiving and transmitting from some locations. Move to another location if you find a "dead spot".

## ROUTINE MAINTENANCE

Your IC-M8 is designed to perform well for many years if cared for in a proper manner. Each year you should have the following checked by a licensed technician.

- 1) The antenna system.
- 2) The transmitter frequency, deviation, and output power.



# SECTION 6 MARINE VHF TRANSCEIVER CHANNEL CHART

Channel No.	Frequency (MHz)		Transmitter output power
	Transmitter	Receiver	
01	156.050	160.650	2.5W & 1W
01A	156.050	156.050	2.5W & 1W
02	156.100	160.700	2.5W & 1W
02A	156.100	156.100	2.5W & 1W
03	156.150	160.750	2.5W & 1W
03A	156.150	156.150	2.5W & 1W
04	156.200	160.800	2.5W & 1W
04A	156.200	156.200	2.5W & 1W
05	156.250	160.850	2.5W & 1W
05A	156.250	156.250	2.5W & 1W
06	156.300	156.300	2.5W & 1W
07	156.350	160.950	2.5W & 1W
07A	156.350	156.350	2.5W & 1W
08	156.400	156.400	2.5W & 1W
09	156.450	156.450	2.5W & 1W
10	156.500	156.500	2.5W & 1W
11	156.550	156.550	2.5W & 1W
12	156.600	156.600	2.5W & 1W
13	156.650	156.650	2.5W & 1W
14	156.700	156.700	2.5W & 1W
15	156.750	156.750	1W only
16	156.800	156.800	2.5W & 1W
17	156.850	156.850	1W only
18	156.900	161.500	2.5W & 1W
18A	156.900	156.900	2.5W & 1W

Channel No.	Frequency (MHz)		Transmitter output power
	Transmitter	Receiver	
19	156.950	161.550	2.5W & 1W
19A	156.950	156.950	2.5W & 1W
20	157.000	161.600	2.5W & 1W
20A	157.000	157.000	2.5W & 1W
21	157.050	161.650	2.5W & 1W
21A	157.050	157.050	2.5W & 1W
22	157.100	161.700	2.5W & 1W
22A	157.100	157.100	2.5W & 1W
23	157.150	161.750	2.5W & 1W
23A	157.150	157.150	2.5W & 1W
24	157.200	161.800	2.5W & 1W
25	157.250	161.850	2.5W & 1W
26	157.300	161.900	2.5W & 1W
27	157.350	161.950	2.5W & 1W
28	157.400	162.000	2.5W & 1W
60	156.025	160.625	2.5W & 1W
60A	156.025	156.025	2.5W & 1W
61	156.075	160.675	2.5W & 1W
61A	156.075	156.075	2.5W & 1W
62	156.125	160.725	2.5W & 1W
62A	156.125	156.125	2.5W & 1W
63	156.175	160.775	2.5W & 1W
63A	156.175	156.175	2.5W & 1W
64	156.225	160.825	2.5W & 1W
64A	156.225	156.225	2.5W & 1W



Channel No.	Frequency (MHz)		Transmitter output power
	Transmitter	Receiver	
65	156.275	160.875	2.5W & 1W
65A	156.275	156.275	2.5W & 1W
66	156.325	160.925	2.5W & 1W
66A	156.325	156.325	2.5W & 1W
67	156.375	156.375	2.5W & 1W
68	156.425	156.425	2.5W & 1W
69	156.475	156.475	2.5W & 1W
70	156.525	156.525	1W only
71	156.575	156.575	2.5W & 1W
72	156.625	156.625	2.5W & 1W
73	156.675	156.675	2.5W & 1W
74	156.725	156.725	2.5W & 1W
75	-----	-----	Guard
76	-----	-----	Guard
77	156.875	156.875	2.5W & 1W
78	156.925	161.525	2.5W & 1W
78A	156.925	156.925	2.5W & 1W
79	156.975	161.575	2.5W & 1W
79A	156.975	156.975	2.5W & 1W
80	157.025	161.625	2.5W & 1W
80A	157.025	157.025	2.5W & 1W
81	157.075	161.675	2.5W & 1W
81A	157.075	157.075	2.5W & 1W
82	157.125	161.725	2.5W & 1W

Channel No.	Frequency (MHz)		Transmitter output power
	Transmitter	Receiver	
82A	157.125	157.125	2.5W & 1W
83	157.175	161.775	2.5W & 1W
83A	157.175	157.175	2.5W & 1W
84	157.225	161.825	2.5W & 1W
84A	157.225	157.225	2.5W & 1W
85	157.275	161.875	2.5W & 1W
85A	157.275	157.275	2.5W & 1W
86	157.325	161.925	2.5W & 1W
86A	157.325	157.325	2.5W & 1W
87	157.375	161.975	2.5W & 1W
87A	157.375	157.375	2.5W & 1W
88	157.425	162.025	2.5W & 1W
88A	157.425	157.425	2.5W & 1W
WX1	-----	162.550	RX only
WX2	-----	162.400	RX only
WX3	-----	162.475	RX only
WX4	-----	162.425	RX only
WX5	-----	162.450	RX only
WX6	-----	162.500	RX only
WX7	-----	162.525	RX only
WX8	-----	161.650	RX only
WX9	-----	161.775	RX only
WX0	-----	163.275	RX only

## SECTION 7 EMERGENCIES

### EMERGENCIES

If your vessel requires assistance, attract the attention of other vessels and the Coast Guard by sending a distress message on channel 16.

#### Procedures for sending a distress signal:

1. MAYDAY, MAYDAY, MAYDAY (repeat three times)
2. THIS IS (name of the vessel)
3. LOCATED AT (give position)
4. Give the reason for the distress call.
5. Explain what assistance you need.
6. Give additional information to help those come to your assistance (vessel length, color, type, etc.).
7. Use channel 16 only to make initial contact.
8. After making initial contact agree on an alternate frequency such as channel 22A or channel 6 and clear channel 16 for other traffic.

# • MEMO •

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Please record the serial number of your **IC-M8** transceiver below for future servicing reference:

**Serial number** : \_\_\_\_\_

**Date of purchase** : \_\_\_\_\_

**Place where purchased** : \_\_\_\_\_



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