OICOM

INSTRUCTION MANUAL

VHF MARINE TRANSCEIVER

IC-M503



Icom Inc.

IN CASE OF EMERGENCY

If your vessel requires assistance, contact other vessels and the Coast Guard by sending a distress call on Channel 16.

USING CHANNEL 16

DISTRESS CALL PROCEDURE

- 1. "MAYDAY MAYDAY MAYDAY."
- 2. "THIS IS" (name of vessel)
- 3. Your call sign or other indication of the vessel (AND 9-digit DSC ID if you have one).
- 4. "LOCATED AT" (your position)
- The nature of the distress and assistance required.
- 6. Any other information which might facilitate the rescue.

Versions of the IC-M503 which display the "CE" symbol on the serial number seal, comply with the essential requirements of the European Radio and Telecommunication Terminal Directive 1999/5/EC.

Or, transmit your distress call using digital selective calling on Channel 70 (the optional DS-100 (#02) must be installed).

USING DIGITAL SELECTIVE CALLING (Ch 70)
(DS-100 (#02) DSC CONTROLLER is required)

DISTRESS CALL PROCEDURE

- 1. Push and hold [DISTRESS] on the DS-100 for 5 sec. until you hear 5 short beeps change to one long beep.
- 2. Wait for an acknowledgment from a coast station.
 - Channel 16 is automatically selected.
- 3. Push and hold [PTT], then transmit the appropriate information as at left.

This warning symbol indicates that this equipment operates in non-harmonised frequency bands and/or may be subject to licensing conditions in the country of use. Be sure to check that you have the correct version of this radio or the correct programming of this radio, to comply with national licensing requirements.

TABLE OF CONTENTS

IN	CASE OF EMERGENCY
TΑ	BLE OF CONTENTSi
	PORTANTii
	AUTIONSii
-	
1	OPERATING RULES 1
2	PANEL DESCRIPTION2-5
	■ Panel description
	■ Function display4
	■ Microphone5
3	BASIC OPERATION 6-10
	■ Channel selection6
	■ Receiving and transmitting 8
	■ Call channel programming
	■ Channel names
	■ Optional voice scrambler operation 10
4	DUALWATCH/TRI-WATCH11
	■ Description11
	■ Operation11
5	SCAN OPERATIONS 12-13
	■ Scan types12
	■ Setting tag channels
	■ Starting a scan
6	SET MODE 14-16
	■ Set mode programming 14
	■ Set mode items
7	INTERCOM OPERATION 17
	■ Intercom operation 17
	•

8	CONNECTIONS AND	
	MAINTENANCE	18-24
	■ Unpacking	18
	■ Antenna	
	■ Fuse replacement	18
	■ Cleaning	
	■ Connections	
	■ Microphone hanger	
	■ Mounting the transceiver	
	■ Optional unit installation	
	■ Dimensions	
9	TROUBLESHOOTING	25
10	CHANNEL LIST	26
11	SPECIFICATIONS AND OPTIONS	S 27
	■ Specifications	27
	■ Options	27
12	HM-134 REMOTE-CONTROL	
	MICROPHONE	. 28-38
	■ Panel description	28
	■ Function display	30
	■ Channel selection	32
	■ Receiving and transmitting	33
	■ Lock functions	
	■ Display backlighting	34
	■ Monitor function	34
	■ Call channel programming	35
	■ Optional voice scrambler	
	operation	
	■ Starting a scan	36

Setting tag channels Dualwatch/Tri-watch operation Set mode programming Intercom operation Channel names 13 HM-134 CONNECTIONS AND	36 37 38
INSTALLATION	39-41
■ HM-134 supplied accessories .	39
■ Installation	39

MB-75 TEMPLATE INSTALLATION NOTES

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

SAVE THIS INSTRUCTION MANUAL — This instruction manual contains important operating instructions for the IC-M503.

CAUTIONS

⚠ WARNING! NEVER connect the transceiver to an AC outlet. This may pose a fire hazard or result in an electric shock.

NEVER connect the transceiver to a power source of more than 15.6 V DC or using reverse polarity. This will ruin the transceiver.

NEVER cut the DC power cable between the DC plug and fuse holder. If an incorrect connection is made after cutting, the transceiver may be damaged.

NEVER place the transceiver where normal operation of the vessel may be hindered or where it could cause bodily injury.

KEEP the transceiver at least 1 m away from the ship's navigation compass.

DO NOT use or place the transceiver in areas with temper-

atures below –20°C or above +60°C or, in areas subject to direct sunlight, such as the cockpit.

AVOID the use of chemical agents such as benzine or alcohol when cleaning, as they may damage the transceiver surfaces.

BE CAREFUL! The transceiver rear panel will become hot when operating continuously for long periods.

BE CAREFUL! The optional HM-134 remote-control microphone's rear panel will become hot when monitoring continuously for long periods.

Place the transceiver in a secure place to avoid inadvertent use by children.

After exposure to salt water, clean the transceiver thoroughly with fresh water to avoid corrosion.

OPERATING RULES

1

PRIORITIES

- Read all rules and regulations pertaining to priorities and keep an up-to-date copy handy. Safety and distress calls take priority over all others.
- You must monitor Channel 16 when you are not operating on another channel.
- False or fraudulent distress signals are prohibited and punishable by law.

♦PRIVACY

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

♦RADIO LICENSES

(1) SHIP STATION LICENSE

You must have a current radio station license before using the transceiver. It is unlawful to operate a ship station which is not licensed.

Inquire through your dealer or the appropriate government agency for a Ship-Radiotelephone license application. This government-issued license states the call sign which is your ship's identification for radio purposes.

(2) OPERATOR'S LICENSE

A Restricted Radiotelephone Operator Permit is the license most often held by small ship radio operators when a radio is not required for safety purposes.

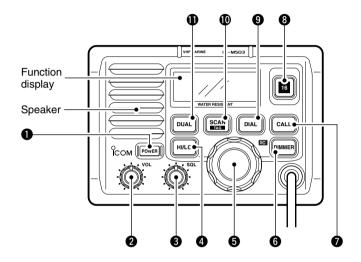
The Restricted Radiotelephone Operator Permit must be posted or kept with the operator. Only a licensed radio operator may operate a transceiver.

However, non-licensed individuals may talk over a transceiver if a licensed operator starts, supervises, ends the call and makes the necessary log entries.

Keep a copy of the current government rules and regulations handy.

PANEL DESCRIPTION

■ Panel description



- POWER SWITCH [POWER]
 Push to toggle the transceiver power ON and OFF.
- **2 VOLUME CONTROL [VOL]**Adjusts the audio level. (p. 8)
- 3 SQUELCH CONTROL [SQL]
 Sets the squelch threshold level. (p. 8)

4 TRANSMIT POWER SWITCH [HI/LO]

- ⇒ Push to Toggle high and low power . (p. 8)
 - Some channels are set to low power only.
- → While pushing and holding this switch, other switches perform secondary functions.

PANEL DESCRIPTION 2

5 CHANNEL SELECTOR [CHANNEL]

Rotate [CHANNEL] to select the operating channels, set mode contents, etc. (p. 8)

6 DIMMER SWITCH [DIMMER]

- ⇒ Push to select one of 8 backlighting (LCD and switches) levels.
- ⇒ Push and hold for 1 sec. to turn the intercom mode ON.

7 CALL CHANNEL SWITCH [CALL]

- ⇒ Push to select the call channel. (p. 6)
- → Push and hold for 3 sec. to enter call channel programming condition. (p. 9)
- → While pushing and holding [HI/LO], enters memory name programming condition. (p. 9)

3 CHANNEL 16 SWITCH [16]

- ⇒ Push to select Channel 16. (p. 6)
- → While turning power ON, push to enter initial set mode. (p. 14)

9 DIAL SWITCH [DIAL]

- → Push to exit from Channel 16 or call channel. (p. 6)
- → While pushing and holding [HI/LO], push to select channel group. (pgs. 6, 7)
 - •The "EUR" version has International channels only and this

function is not available.

(D) SCAN SWITCH [SCAN/TAG] (p. 13)

- → When tag channels are programmed, starts and stops normal or priority scan.
- → Push and hold [SCAN/TAG] for 1 sec. to set the displayed channel as a tag (scanned) channel.
- → While pushing and holding [HI/LO], push and hold for 3 sec. to clear all tag channels.

DUALWATCH/TRI-WATCH SWITCH [DUAL] (p. 11)

- ⇒ Push to start dualwatch or tri-watch.
- ⇒ When dualwatch/tri-watch is activated, push to stop them.

10 CHANNEL LIST

International channels

CII	Frequency (MHz)		011	Frequen	equency (MHz)		Frequency (MHz)			Frequency (MHz)		011	Frequency (MHz)			Frequency (MHz)	
CH	Transmit	Receive	CH	Transmit	Receive	CH	Transmit	Receive	CH	Transmit	Receive	СН	Transmit	Receive	CH	Transmit	Receive
01	156.050	160.650	11	156.550	156.550	21	157.050	161.650	62	156.125	160.725	72	156.625	156.625	82	157.125	161.725
02	156.100	160.700	12	156.600	156.600	22	157.100	161.700	63	156.175	160.775	73	156.675	156.675	83	157.175	161.775
03	156.150	160.750	13	156.650	156.650	23	157.150	161.750	64	156.225	160.825	74	156.725	156.725	84	157.225	161.825
04	156.200	160.800	14	156.700	156.700	24	157.200	161.800	65	156.275	160.875	75 [†]	156.775	156.775	85	157.275	161.875
05	156.250	160.850	15 [†]	156.750	156.750	25	157.250	161.850	66	156.325	160.925	76 [†]	156.825	156.825	86	157.325	161.925
06	156.300	156.300	16	156.800	156.800	26	157.300	161.900	67	156.375	156.375	77	156.875	156.875	87	157.375	157.375
07	156.350	160.950	17 [†]	156.850	156.850	27	157.350	161.950	68	156.425	156.425	78	156.925	161.525	88	157.425	157.425
08	156.400	156.400	18	156.900	161.500	28	157.400	162.000	69	156.475	156.475	79	156.975	161.575			
09	156.450	156.450	19	156.950	161.550	60	156.025	160.625	70‡	156.525	156.525	80	157.025	161.625			
10	156.500	156.500	20	157.000	161.600	61	156.075	160.675	71	156.575	156.575	81	157.075	161.675			

• USA channels (for U.K. version only)

СН	Frequen	uency (MHz) CH	requency (MHz)		Frequen	cy (MHz)	СН	Frequency (MHz)		СН	Frequency (MHz)		СН	Frequency (MHz)		СН	Frequency (MHz)	
СП	Transmit	Receive	СГ	Transmit	Receive	СП	Transmit	Receive	Сп	Transmit	Receive	CH	Transmit	Receive	Сп	Transmit	Receive	
01A	156.050	156.050	12	156.600	156.600	22A	157.100	157.100	64A	156.225	156.225	77	156.875	156.875	86	157.325	161.925	
			13 [†]	156.650	156.650	23A	157.150	157.150	65A	156.275	156.275	78A	156.925	156.925	86A	157.325	157.325	
03A	156.150	156.150	14	156.700	156.700	24	157.200	161.800	66A	156.325	156.325	79A	156.975	156.975	87	157.375	161.975	
			15 [†]	156.750	156.750	25	157.250	161.850	67 [†]	156.375	156.375	80A	157.025	157.025	87A	157.375	157.375	
05A	156.250	156.250	16	156.800	156.800	26	157.300	161.900	68	156.425	156.425	81A	157.075	157.075	88	157.425	162.025	
06	156.300	156.300	17 [†]	156.850	156.850	27	157.350	161.950	69	156.475	156.475	82A	157.125	157.125	88A	157.425	157.425	
07A	156.350	156.350	18A	156.900	156.900	28	157.400	162.000	70‡	156.525	156.525	83A	157.175	157.175				
08	156.400	156.400	19A	156.950	156.950	37A	157.850	157.850	71	156.575	156.575	84	157.225	161.825				
09	156.450	156.450	20	157.000	161.600	61A	156.075	156.075	72	156.625	156.625	84A	157.225	157.225				
10	156.500	156.500	20A	157.000	157.000				73	156.675	156.675	85	157.275	161.875				
11	156.550	156.550	21A	157.050	157.050	63A	156.175	156.175	74	156.725	156.725	85A	157.275	157.275				

[†]Low power only.

[‡]Receive only.