ICOM

VHF MARINE TRANSCEIVERS
IC-M506
IC-M506GE

Icom Inc.

PREFACE

Thank you for choosing this Icom product.
This product is designed and built with Icom's state of the art technology and craftsmanship. With proper care, this product should provide you with years of trouble-free operation.

We appreciate you making the IC-M506/IC-M506GE your transceiver of choice, and hope you agree with Icom's philosophy of "technology first." Many hours of research and development went into the design of your IC-M506/IC-M506GE.

◇ FEATURES
❍ *Integrated AIS Receiver* *
❍ *NMEA 2000™ Connectivity* *
❍ *2 minutes Last Call Voice Recording*
❍ *Superb Active Noise Cancelling*

Depends on transceiver version.

CLEAN THE TRANSCEIVER AND MICROPHONE THOR-OUGHLY WITH FRESH WATER after exposure to water including salt, otherwise, the keys and switch may become inoperable due to salt crystallization.

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-M506/IC-M506GE.

EXPLICIT DEFINITIONS

WORD	DEFINITION
⚠WARNING!	Personal injury, fire hazard or electric shock may occur.
CAUTION	Equipment damage may occur.
NOTE	If disregarded, inconvenience only. No risk of personal injury, fire or electric shock.

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. Say your call sign or other description of the vessel (AND 9 digit DSC ID if you have one).
4. "LOCATED AT ...." (your position).
5. State the nature of the distress and assistance required.
6. Give any other information which might facilitate the rescue.

Or, transmit your Distress call using digital selective calling on Channel 70.

USING DIGITAL SELECTIVE CALLING (Ch 70)
DISTRESS CALL PROCEDURE
1. While lifting up the key cover, hold down [DISTRESS] for 3 seconds until you hear 3 short beeps and then one long beep.
2. Wait for an acknowledgment on Channel 70 from a coast station.
   • After the acknowledgement is received, Channel 16 is automatically selected.
3. Hold down [PTT], then transmit the appropriate information as listed to the left.

INSTALLATION NOTE

Installation:
The installation of this equipment should be made in such a manner as to respect the EC recommended electromagnetic field exposure limits. (1999/519/EC)

The maximum RF power available from this device is 25 watts. The antenna should be installed as high as possible for maximum efficiency and the installation height should be at least 1.4 meters above any accessible position. In the case where an antenna cannot be installed at a reasonable height, then the transmitter should neither be continuously operated for long periods if any person is within a distance of 1.4 meters of the antenna, nor operated at all if any person is touching the antenna.

It is recommended that antenna of a maximum gain of 3 dB are used. If higher gain antenna are required then please contact your Icom distributor for revised installation recommendations.

Operation:
The exposure to RF electromagnetic field is only applicable when this device is transmitting. This exposure is naturally reduced due to the nature of alternating periods of receiving and transmitting. Keep your transmissions to the minimum necessary.

PRECAUTIONS

⚠️**WARNING! NEVER** connect the transceiver to an AC outlet. This could cause a fire, electric shock and damage the transceiver.

⚠️**WARNING! NEVER** connect the transceiver to a power source of more than 16 V DC, such as a 24 V battery. This could cause a fire and damage the transceiver.

⚠️**WARNING! NEVER** reverse the DC power cable polarity when connecting to a power source. This could cause a fire, electric shock and damage the transceiver.

⚠️**WARNING! NEVER** remove the fuse holders on the DC cable. This could cause a fire, electric shock and damage the transceiver.

⚠️**WARNING! NEVER** operate the transceiver during a lightning storm. It may result in an electric shock, cause a fire or damage the transceiver. Always disconnect the power source and antenna before a storm.

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

KEEP the transceiver and microphone at least 1 m away from the vessel's magnetic navigation compass.

DO NOT place or leave the transceiver in areas with temperatures below −20°C or above +60°C or, in areas subject to intense sunlight, such as the dashboard.

DO NOT use harsh solvents such as benzine or alcohol to clean the transceiver, as they will damage the transceiver's surfaces. If the transceiver becomes dusty or dirty, wipe it clean with a soft, dry cloth.

DO NOT disassemble or modify the transceiver for any reason.

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

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

BE CAREFUL! The transceiver meet IPX8 requirements and the optional HM-195 COMMANDMICIV™ meet IPX7 requirements for waterproof protection. However, once the transceiver has been dropped, waterproof protection cannot be guaranteed because of possible damage to the transceiver's case or the waterproof seal.
* Except for the DC power connector, NMEA In/Out leads and AF Out leads.

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ABOUT CE AND DOC

Hereby, Icom Inc. declares that the versions of IC-M506GE which have the "CE" symbol on the product, comply with the essential requirements of the Radio Equipment Directive, 2014/53/EU, and the restriction of the use of certain hazardous substances in electrical and electronic equipment Directive, 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address:

http://www.icom.co.jp/world/support/

DISPOSAL

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that in the European Union, all electrical and electronic products, batteries, and accumulators (rechargeable batteries) must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws in your area.

TABLE OF CONTENTS

◇ Priorities
• Read all rules and regulations pertaining to call 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 calls are prohibited under 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 may require a current radio station license before using the transceiver. It is unlawful to operate a ship station which is not licensed, but required to be.

If required, contact your dealer or the appropriate government agency for a Ship-Radiotelephone license application. This government-issued license states the call sign which is your craft's identification for radio purposes.
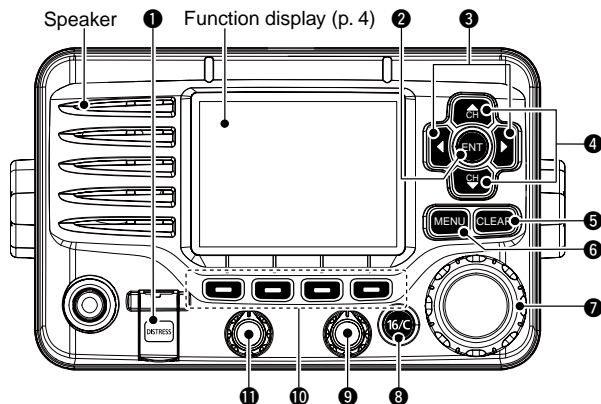
(2) OPERATOR'S LICENSE
A Restricted Radiotelephone Operator Permit is the license most often held by small vessel radio operators when a radio is not required for safety purposes.

If required, the Restricted Radiotelephone Operator Permit must be posted or kept with the operator. If required, 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.

A current copy of the applicable government rules and regulations is only required to be on hand for vessels in which a radio telephone is compulsory. However, even if you are not required to have these on hand it is your responsibility to be thoroughly acquainted with all pertinent rules and regulations.

2 PANEL DESCRIPTION

■ Front panel

Speaker ❶ Function display (p. 4) ❷ ❸

❶ **DISTRESS KEY [DISTRESS]** (pp. 22, 23)
Hold down for 3 seconds to transmit a Distress call.

❷ **ENTER KEY [ENT]**
Push to set the input data, selected item, and so on.

❸ **LEFT AND RIGHT KEYS [◀]/[▶]**
➥ Push to switch to the previous or next key function that is assigned to the softkeys. (p. 7)
➥ Push to select a desired character or number in the table while in the channel name, position, MMSI code, ATIS code programming mode, and so on. (pp. 8, 12, 21)
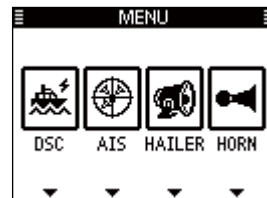
❹ **UP AND DOWN/CHANNEL SELECT KEYS [▲CH]/[▼CH]**
➥ Push to select the operating channels, Menu items, Menu settings, and so on.
➥ While scanning, push to check Favorite channels, change the scanning direction or manually resume a scan. (p. 16)

❺ **CLEAR KEY [CLEAR]**
Push to cancel the entered data, or to return to the previous screen.

❻ **MENU KEY [MENU]**
Push to enter or exit the Menu screen. (p. 84)

❼ **DIAL/POWER SWITCH [PWR]**
➥ When the power is OFF, hold down for 1 second to turn ON power.
➥ Hold down for 1 second to turn OFF power.
➥ Rotate to select the operating channels, Menu items, Menu settings, and so on.
➥ Push to set the input data, selected item, and so on.

2

❽ **CHANNEL 16/CALL CHANNEL KEY [16/C]**
- ➥ Push to select Channel 16. (p. 9)
- ➥ Hold down for 1 second to select the Call channel. (p. 9)
  - The "CALL" icon appears when the Call channel is selected.

❾ **SQUELCH DIAL**
Rotate to adjust the squelch level.

❿ **SOFTKEYS**
Desired functions as described below can be assigned in the Menu screen. (p. 87)

Scan [SCAN]* (p. 16)

Push to start or stop a Normal or Priority scan.
*This key does not appear in Dutch version transceivers.

Dualwatch/Tri-watch [DW] (p. 17)

Push once to start and stop a Dualwatch or Tri-watch scan.

AIS [AIS]* (p. 73)

Push to display the AIS plotter on the left side of the display.
*Some versions do not have an AIS receiver.

Channel [CHAN] (pp. 9, 11)

Push to select a regular channel.

High/Low [HI/LO] (p. 11)

Push to set the power to high or low.
• Some channels are set to only low power.

Voice Scrambler [SCBL]* (p. 71)

Push to turn the Voice Scrambler ON or OFF.
• The "SBL" icon appears when the voice scrambler is ON.
*This key appears only when the voice scrambler unit is installed.

Voice Recorder [PLAY] (p. 71)

Push to playback recorded voice.

RX Hailer [RX-H] (p. 61)

Push to turn the RX Hailer mode ON or OFF.

LO/DX [LO/DX]*

Push to turn the Attenuator function ON or OFF.
• The "LOC" icon appears when the Attenuator function is ON.
*This key appears only for Australian version transceivers.

Favorite channel [★] (p. 16)

- ➥ Push to set or clear the displayed channel as a Favorite (Tag) channel.
- ➥ Hold down for 3 seconds to clear or set all Favorite (Tag) channels in the selected channel group.

Name [NAME] (p. 12)

Push to enter the channel name entry mode.

Backlight [BKLT] (p. 14)

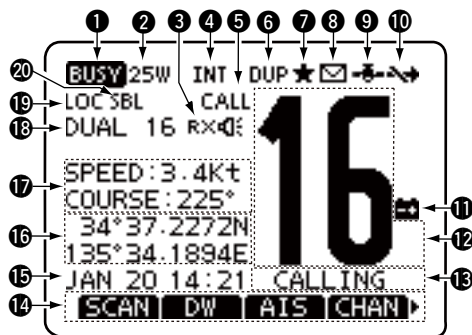Push to enter the LCD and key backlight brightness adjustment mode.

Log [LOG] (p. 58)

Push to enter "RCVD CALL LOG" in the DSC CALLS menu.

⓫ **VOLUME DIAL**
Rotate to adjust the volume level.

■ **Function display**

❶ BUSY/TRANSMIT ICON (p. 11)
➡ The "BUSY" icon appears when receiving a signal, or when the squelch is open.
➡ The "TX" icon appears while transmitting.

❷ POWER ICON (p. 11)
➡ The "25W" icon appears when high power is selected.
➡ The "1W" icon appears when low power is selected.

❸ RX HAILER ICON (p. 68)
Appears while in the RX Hailer mode.

❹ CHANNEL GROUP ICON (p. 10)
➡ Shows which channel group is selected, a USA "USA" International "INT" ATIS "ATIS" or DSC "DSC"*, depending on the version.
*German transceiver version only

❺ CALL CHANNEL ICON (p. 9)
Appears when the Call channel is selected.

❻ DUPLEX ICON (p. 10)
Appears when a duplex channel is selected.

❼ FAVORITE CHANNEL ICON (p. 16)
Appears when a Favorite (Tag) channel is selected.

❽ MESSAGE ICON
Blinks when there is an unread DSC message.

❾ GPS ICON
➡ Stays ON when the GPS receiver is activated and valid position data is received.
➡ Blinks when invalid position data is being received.

❿ SWITCH ICON (p. 62)
Appears when the "CH 16 SWITCH" in DSC Settings is set to OFF.

⓫ LOW BATTERY ICON
Blinks when the battery voltage drops to approximately 10.8 V DC or less.

⓬ CHANNEL NUMBER READOUT
Displays the selected operating channel number.
• When a simplex channel is selected, "A" or "B" appears.

⓭ CHANNEL NAME FIELD
The channel name appears, if entered. (p. 12)

4

Count on us!

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