



# IC-M506GE

VHF MARINE TRANSCEIVER



SHIP A  
SHIP TYPE : CARGO  
STATUS : UNDERWAY  
SPEED / COURSE : 12.5KT/271°  
LENGTH × BEAM : 76M × 12M  
DRAUGHT : 3M

SHIP B  
SHIP TYPE : OTHER  
STATUS : UNDERWAY  
SPEED / COURSE : 9.4KT/41°  
LENGTH × BEAM : 149M × 30M  
DRAUGHT : 4.7M

SHIP C  
SHIP TYPE : PASSENGER  
STATUS : UNDERWAY  
SPEED / COURSE : 8.8KT/185°  
LENGTH × BEAM : 62M × 13M  
DRAUGHT : 3M



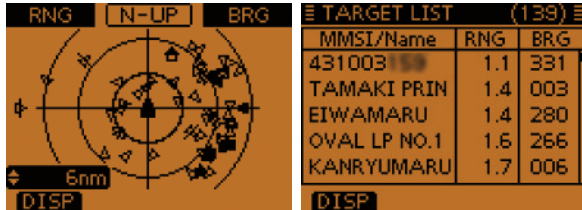


# Advanced Fixed Mount VHF with GPS and NMEA 2000 Connectivity



## Integrated AIS Receiver

With an integrated AIS receiver, the IC-M506GE can show real-time AIS vessel traffic information on the display. The AIS target call function allows you to easily set up a DSC individual call. The Plotter, Target list and Danger list can be toggled on the display.



AIS plotter display

Target list example



## NMEA 2000™ Connectivity

With the plug-and-play functionality of NMEA 2000, the IC-M506GE can easily connect to a NMEA 2000 network. The IC-M506GE can receive and transmit GPS (position, course (COG) and speed (SOG)), AIS report and DSC call information data and transmit radio frequency and PGN list data on the network. Using this function, the IC-M506GE can convert NMEA 0183 GPS data to NMEA 2000 data for other equipment.



## Last Call Voice Recording

The last call voice recording function automatically saves the last two minutes of the last incoming call. You can replay the received call, and not miss any incoming call.



## Active Noise Cancelling

Using digital signal processing technology, the built-in bidirectional active noise cancelling provides superb performance. It reduces background noise to up to 90% in the received signal and 30% fixed in the transmitting signal. The function OFF setting is also possible.



## Intuitive Menu-Driven User Interface

The intuitive software key functions provide easy and fast operation to control the multiple functions of the IC-M506GE. The bottom line of the dot-matrix display shows the software key functions which can be toggled with the left and right buttons.



Functions menu



## 25 W Two-Way Hailer

When connected to the optional horn speaker, SP-37, you can talk with crews on the deck or shore from the radio's microphone and can hear any reply via the horn speaker. The RX hailer function allows you to monitor the received audio from the horn speaker. The built-in 25 W amplifier increases your talk power, making it loud and clear.



## Built-in Horn (Automatic & Manual)

Four horn patterns are selectable for the automatic horn function when it is connected to the optional SP-37 horn speaker.

## VHF MARINE TRANSCEIVER IC-M506GE



# /AIS Receiver



## ITU Class D DSC (Meets ITU-R M493-14)

The built-in DSC watch function monitors Ch. 70 (DSC channel) activity, even while you are receiving another channel. DSC functions include: distress, individual, group, all ships, urgency, safety, position request/report, polling request and DSC test calls. Up to 100 DSC address IDs can be programmed.



## GPS Receiver Built-in

A built-in GPS receiver with external antenna provides your location, bearing and speed by using information from GPS and GLONASS. The acquired position information can be used for DSC calls.



Supplied GPS antenna (5 m)



## IPX8 Advanced Waterproof

The IC-M506GE and supplied HM-205B microphone can withstand 1 m depth of water for 60 minutes.

## Other Features

- 15 W audio output power (with external speaker)
- AquaQuake™ draining function
- Optional voice scrambler, UT-112/A for private conversation
- MA-500TR AIS transponder and MarineCommander™ compatible



## Optional COMMANDMIC™ for 2nd Station Capability



### Full Control and Intercom

The optional COMMANDMIC, HM-195 series provides 2nd station capability for using the IC-M506GE from up to 18.3 m (60 ft)\* away such as a separate cabin or tower. Most functions including DSC and AIS functions can be controlled from the COMMANDMIC and can be used as an intercom with the IC-M506GE. One COMMANDMIC can be used.

\* Two optional OPC-1541 extension cables required.



### Same Menu-Driven User Interface with IC-M506GE

The HM-195 series provides same user interface with the IC-M506GE. The directional keypad and softkey buttons allow you to perform various operations and settings. The audio and backlight levels can be set independently from the IC-M506GE.

"Distress" button on the back of the unit

### Other Features

- External speaker connection
- Remote power ON/OFF function
- Black and super white color version



### IPX7 Waterproof Construction

The HM-195 series withstands submersion in up to 1 m depth of water for 30 minutes.





**SPECIFICATIONS**

GENERAL	
Frequency range TX	156.000–162.000 MHz
RX	156.000–163.425 MHz
CH70	156.525 MHz
AIS1, 2	161.975, 162.025 MHz
Usable channels	INT, USA* channels * Available depending on version
Type of emission	16K0G3E (FM), 16K0G2B (DSC)
Power supply requirement	13.8 V DC (10.8–15.6 V DC)
Current drain (at 13.8 V DC)	
TX 25 W output	5.5 A
RX AF Max External SP	5.0 A (RX hailer ON)
Internal SP	1.5 A
Operating temperature range	–20°C to +60°C
Antenna impedance	50 Ω (SO-239)
Weight (approx.)	1400 g

TRANSMITTER	
Output power (at 13.8 V DC)	25 W, 1 W
Max. frequency deviation	±5.0 kHz
Frequency stability	Less than ±0.5 kHz
Spurious emissions	Less than 0.25 μW

RECEIVER	
Intermediate frequency	1st 30.15 MHz, 2nd 450 kHz
CH70	1st 21.7 MHz, 2nd 450 kHz
Sensitivity (20 dB SINAD)	–5 dBμ emf typ.
CH70 (1% BER)	–4 dBμ emf typ.
Adjacent channel selectivity	More than 75 dB
CH70 (1% BER)	More than 73 dBμ emf
Spurious response	More than 75 dB
CH70 (1% BER)	More than 73 dBμ emf
Intermodulation	More than 75 dB
CH70 (1% BER)	More than 68 dBμ emf
Hum and noise	More than 40 dB
Audio output power (at 10% distortion)	More than 15 W with a 4 Ω RX speaker

GPS/GLONASS RECEIVER	
Receiving frequency	1575.42 MHz (GPS), 1602 MHz (GLONASS)
Receiving channels	24 channels
Satellite differential type	WAAS, EGNOS, MSAS, GAGAN

Measurements made in accordance with EN301 025-2,-3. All stated specifications are subject to change without notice or obligation.

**Applicable U.S. Military Specifications**

The IC-M506GE and HM-205B have been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810 G	
	Method	Procedure
Low Pressure	500.5	I, II
High Temperature	501.5	I, II
Low Temperature	502.5	I, II
Temperature Shock	503.5	I–C
Solar Radiation	505.5	I
Rain	506.5	I
Humidity	507.5	II
Salt Fog	509.5	–
Dust Blowing	510.5	I
Immersion	512.5	I
Vibration	514.6	I
Shock	516.6	I, IV

Also meets equivalent MIL-STD-810-C, -D, -E and -F.

**Applicable IP Rating**

Ingress Protection Standard	
Water	IPX8 (1 m depth water for 60 minutes)

Supplied accessories:	
• Hand hanger	• DC power cable
• GPS antenna	• Mounting bracket kit

**OPTIONS**

Some options may not be available in some countries. Please ask your dealer for details.

**COMMANDMIC™**

**Supplied accessories**

• 6.1 m of cable • Microphone hanger  
• Mounting base for connector  
White backlit COMMANDMIC, HM-195GB/HM-195GW are also available.

**HM-195B** (Black)      **HM-195SW** (Super white)

**EXTENSION CABLE for COMMANDMIC, HM-195 series**

**OPC-1541**

6.1 m extension cable.  
Up to two cables available.

**SPEAKER-MICROPHONE**

**HM-205B**

Same as supplied.

**FLUSH MOUNT KITS**

**MB-132**      **MB-75**

**VOICE SCRAMBLER UNIT**

**UT-112/A**

Provides up to 32 codes for private conversation

**HORN SPEAKER**

**SP-37**

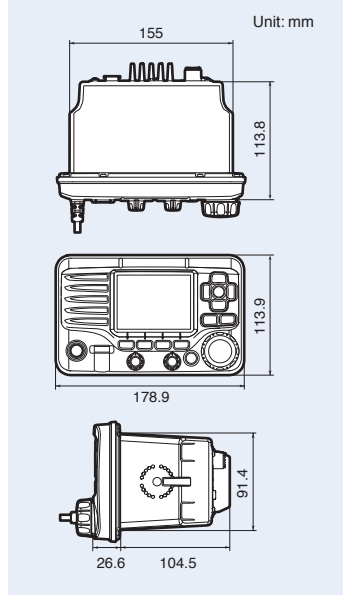
For Two-way hailer and foghorn.  
Max input: 40 W,  
Impedance: 4 Ω

**CLASS B AIS TRANSPONDER**

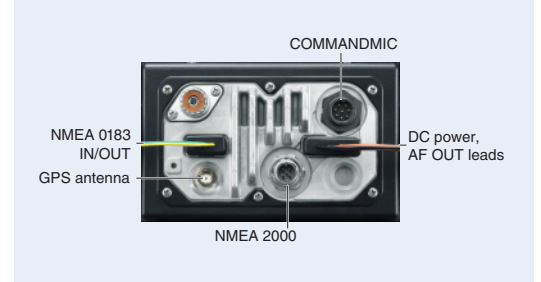
**MA-500TR**

For transmitting own vessel AIS information.

**DIMENSIONS**



**REAR PANEL VIEW**



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