



VHF MARINE TRANSCEIVER

# IC-M603

**DSC Built-in  
Class D**

**Waterproof**  
1m depth for 30 minutes

**Rugged  
MIL-STD 810**



# High performance, full function with one or two optional COM



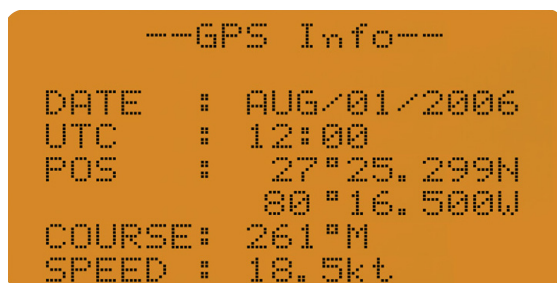
## Superior receiver performance

The IC-M603 has excellent receive specifications\* which allows a weak signal a better chance of being heard when louder signals are around it. The powerful 5.0W (typical) audio output from the front facing speaker further increases the audibility and quality of received calls.

\* More than 75dB for intermodulation rejection, spurious response and adjacent channel selectivity, and -6dBu (typical) high sensitivity.

## Large LCD with dot-matrix characters

The large full dot-matrix display is designed for optimum readability in any lighting condition. With the extra large font, the channel number is maximized on the display and upper and lower case characters can be easily read.



▲ A GPS information example on 37x73mm size display

## 30 Watt 2-way hailer capability

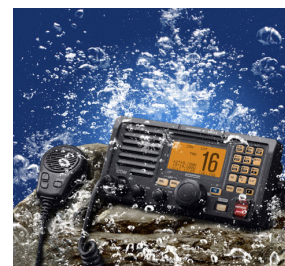
When connected to an external hailer horn, communication with other boats, deck or dock hands is easy. The built-in 30W amplifier increases your talk power making your message loud and clear. Four fog horn patterns are available for the automatic fog horn, adding further to the safety of the ship.

## Submersible construction (1m depth for 30 minutes)

The IC-M603, including the supplied microphone, withstands submersion in up to 1m depth of water for 30 minutes. It is equivalent to IPX7 waterproofing.\*

(\* except cables)

**Waterproof**  
1m depth for 30 minutes



## Built-in ITU Class-D DSC

No matter what channel you're tuned to, a separate and independent receiver inside the M603 continuously monitors Ch. 70. The 10-keypad allows simple and efficient operation of the DSC emergency functions, vital for your safety at sea.

**DSC Built-in  
Class D**

## Position request and position report

Over and above the DSC, your own and other ships' position data can be exchanged with the position request or position report functions. The received position information can be transferred to external GPS or navigation equipment\*. In addition, the polling (request/ reply) function checks whether a specific ship is within the communications range.

\* NMEA 0183 format is required.

## Improved GPS information indication

When connecting to an external GPS receiver, the GPS information indication function shows course and speed data as well as position, date and time on the display.

# ion VHF marine COMMANDMICIII<sup>TM</sup>

## VHF MARINE TRANSCEIVER IC-M603

### Front and rear panel microphone connection

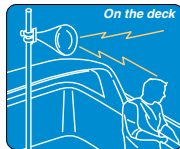
The speaker microphone can be detached from the front panel and can be connected to the rear panel without any modification. An optional 6.1m (20ft) microphone extension cable, OPC-1000, is available.



Transparent installation image

### RX speaker function

The RX speaker function, "receiver-repeater" allows you to monitor the received radio audio from a hailer horn on the deck or tower. You can also make an announcement on-board from the microphone.



### Favorite channel function

This function allows quicker channel selection. Set the "TAG" channel to the channels used most often. When pushing the up/down buttons on the speaker microphone, only tagged channels are selected and untagged channels are skipped. In addition, the "TAG" scanning function detects only tagged channels.

### Other features

- Dual/tri-watch function for monitoring Ch. 16 and/or call channel
- 7 levels adjustable backlit display and keypad
- Optional voice scrambler, UT-112 for private communication
- 70 programmable channels • Low voltage indicator
- AquaQuake draining function emits a vibrating sound and clears water away from the speaker grill

### Optional fully integrated Commandmic

COMMANDMICIII<sup>TM</sup>



### Up to two COMMANDMICIII<sup>TM</sup> can be connected

The optional COMMANDMICIII<sup>TM</sup> provides a 2nd and/or 3rd station capability to operate the IC-M603 from up to 18.3m\* (60ft) away such as the cabin and/or fly bridge.

\* Requires use of two optional OPC-1541 extension cables.

### Full control and intercom capability

All functions of the IC-M603, including distress call, DSC, and hailer, are available. The intercom function allows you to talk with the IC-M603 or another COMMANDMICIII<sup>TM</sup>. Remote power on/off function remotely turns on/off the IC-M603.

### Multi-function rotary dial

A newly designed multi-function rotary dial gives you quick and easy access to many IC-M603 settings, including operating channel, volume, squelch, menu settings and more.

### Other features

- Full dot-matrix LCD with 7-step dimmer setting
- 2.0W (typical) external speaker terminal
- IPX8 grade waterproofing (1.5m depth for 30 minutes)
- Extra large 45mm (d) speaker for superior audio



"Distress" button on the back of the unit

Backlit keypad and rotary dial

## SPECIFICATIONS

### GENERAL

- Frequency range :
  - Tx 156.000–161.450MHz
  - Rx 156.000–163.425MHz
  - Ch. 70 Rx 156.525MHz
- Mode : FM (16K0G3E), DSC (16K0G2B)
- Usable channels : INT and USA\* channels (\* UK version only.)
- Power supply requirement: 13.8V DC (10.8–15.6V DC)
- Current drain (at 13.8V DC):
  - Transmit 5.5A (25W output)
  - Receive 1.5A (Max. audio)
- Operating temperature range : -20°C to +60°C
- Antenna impedance : 50Ω (SO-239)
- Dimensions : 220×110×109.4 mm (W×H×D; projections are not included)
- Weight (approx.) : 1.40kg
- NMEA formats :
  - Input RMC, GGA, GNS, GLL, VTG
  - Output DSC, DSE

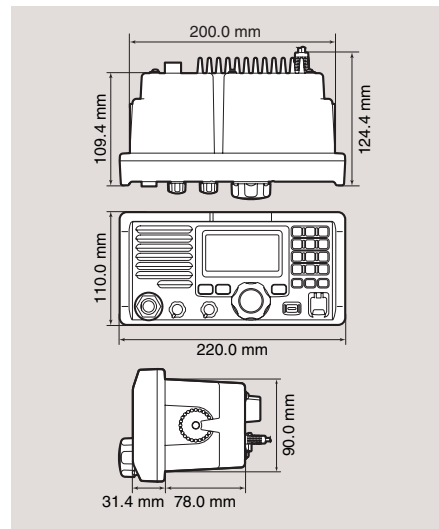
### TRANSMITTER

- Output power : 25W/1W (at 13.8V DC)
- Max. Freq. deviation : ±5.0kHz
- Frequency error : ±0.3kHz
- Spurious emissions : Less than 0.25μW
- Adjacent Ch. power : More than 70dB
- Residual modulation : More than 40dB

### RECEIVER

- Intermediate frequency (1st/2nd) :
  - Normal 30.15MHz/450kHz
  - Ch. 70 21.7MHz/450kHz
- Sensitivity : -6dBμ typ. (emf: at 20dB SINAD)
- Squelch sensitivity : Less than -5dBμ (emf)
- Adjacent channel selectivity : More than 75dB
- Spurious response : More than 75dB
- Intermodulation : More than 75dB
- Hum and noise : More than 45dB
- Audio output power : More than 2W (at 10% distortion with a 4Ω load)

### DIMENSIONS



### Supplied accessories:

- Hand microphone
- DC power cable
- Mounting bracket kit

Measurements made in accordance with EN 301 025. All stated specifications are subject to change without notice or obligation.

## OPTIONS

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



- **HM-162E** REMOTE-CONTROL MICROPHONE  
Size (W×H×D): 65.5×150×38 mm  
Weight (approx.; except cables): 385g  
Supplied accessories :
  - 6.1m of cable, OPC-1540, with external speaker terminal
  - Microphone hanger
  - Mounting base for cable connector

DO NOT connect the HM-134B to the IC-M603 as this may damage the transceiver. HM-134B COMMANDMIC™ is NOT compatible with the IC-M603.

COMMANDMIC is a registered trademark of Icom Inc. (Japan) in the USA.

- **MB-75** FLUSH MOUNT KIT  
For flush-mounting the IC-M603 to a flat surface, such as a control panel.

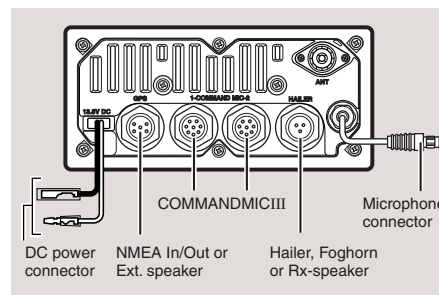


- **UT-112** VOICE SCRAMBLER UNIT  
Enables private communication by scrambling your voice signal. Up to 32 scrambling codes are available.



- **OPC-1541** EXTENSION CABLE FOR HM-162E  
6.1m of extension cable for additional separation length when using the COMMANDMIC™. Up to 2 OPC-1541 can be connected.
- **HM-126RB/RG** SPEAKER MICROPHONE  
Same as supplied.
- **OPC-1000** MICROPHONE EXTENSION CABLE  
6.1m extension cable with mounting base for use with rear panel microphone connection.

## REAR PANEL VIEW



### Applicable U.S. Military Specifications

The IC-M603 and HM-162E have been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810 C		MIL 810 D		MIL 810 E		MIL 810 F	
	Method	Proc.	Method	Proc.	Method	Proc.	Method	Proc.
Low Pressure	500.1	I	500.2	I, II	500.3	I, II	500.4	I, II
High Temp.	501.1	I	501.2	I, III	501.3	I, II	501.4	I, III
Low Temp.	502.1	I	502.2	I, II	502.3	I, II	502.4, 3	I, II
Temp. Shock	503.1	I	503.2	I	503.3	I	503.4	I
Solar Radiation	505.1	I	505.2	I	505.3	I	505.4	I
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III
Humidity	507.1	I, II	507.2	II, III	507.3	II, III	507.4	-
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	-
Dust Blowing	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII, X	514.3	I	514.4	I	514.5	I
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV

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