ICOM

IC-M604

DSC Built-in Class D

Submersible
1m depth for 30 minutes

FORCE5 AUDIO™

Rugged MIL-STD 810

High performance, full function with one or two optional COMM
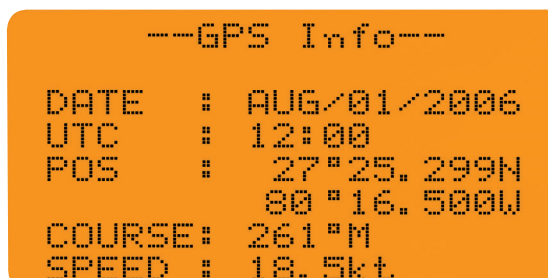
VHF MARINE TRANSCEIVER
IC-M604

Superior receiver performance

≡FORCE 5 AUDIO™

The IC-M604 has excellent receive specifications* which allow 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 80dB for intermodulation rejection and adjacent channel selectivity, and 0.22μV (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.

```
---GPS Info---

DATE  : AUG/01/2006
UTC   : 12:00
POS   :  27°25.299N
         80°16.500W
COURSE: 261°M
SPEED : 18.5kt
```

▲ A GPS information example on 37×73mm (1¹⁵⁄₃₂ × 2⁷⁄₈ in) 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 foghorn patterns are also available.

Submersible construction (1m depth for 30 minutes)

Submersible
1m depth for 30 minutes

The IC-M604, including the supplied microphone, withstands submersion in up to 1.0m depth of water for 30 minutes. It is equivalent to IPX7 waterproofing.*

(* except cables)

Built-in ITU Class-D DSC

DSC Built-in Class D

No matter what channel you're tuned to, a separate and independent receiver inside the M604 continuously monitors Ch. 70. The 10-keypad allows simple and efficient operation of the DSC emergency functions, vital for your safety at sea.

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.

VHF marine
MANDMICIIIs™

VHF MARINE IC-M604

25W USA
TAG **16**
27°25.299N
80°16.500W
Local 12:00 CALLING

SUBMERSIBLE

ICOM
MIC
VOL SQL
U/I/C 9
H/L CH/WX 16 POWER DISTRESS

ICOM
SUBMERSIBLE PLUS

25W USA
TAG
[VOL] **16**
27°25.299N
80°16.500W
Local 12:05 CALLING

16 9
DW U/I/C
CH/WX
TAG
SCAN
ENT CLR MENU
MIC PWR
COMMANDMICIII

Optional fully integrated COMMANDMICIII™

COMMANDMICIII ™

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
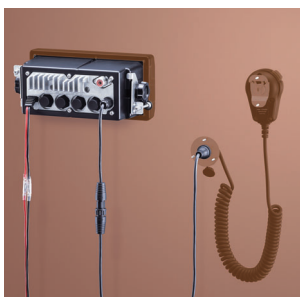
RX speaker function

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.

On the deck
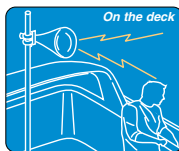
Favorite channel function

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. 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
• Weather channels with weather alert function
• AquaQuake draining function emits a vibrating sound and clears water away from the speaker grill

Up to two COMMANDMICIIIs™ can be connected

The optional COMMANDMICIII™ provides a 2nd and/or 3rd station capability to operate the IC-M604 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-M604, including distress call, DSC, and hailer, are available. The intercom function allows you to talk with the IC-M604 or another COMMANDMIC. Remote power on/off function remotely turns on/off the IC-M604.

Multi-function rotary dial

A newly designed multi-function rotary dial gives you quick and easy access to many IC-M604 settings, including operating channel, volume, squelch, menu settings and more.

Other features

• Full dot-matrix LCD with 7-step dimmer setting
• 2.8W (typical) external speaker terminal
• Submersible PLUS waterproof (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 156.025–157.425MHz
  - Rx 156.050–163.275MHz
- **Type of emission** : 16K0G3E, 16K0G2B
- **Usable channels** : USA, INT, CAN, WX channels
- **Power supply requirement:** 13.8V DC ±15 %
- **Current drain** (at 13.8V DC) :
  - Transmit 5.5A (25W output)
  - Receive 1.5A (Max. audio)
- **Operating temperature** : –20˚C to +60˚C ;
  - range –4˚F to +140˚F
- **Antenna impedance** : 50Ω (SO-239)
- **Dimensions** (W×H×D) : 220×110×109.4 mm; (projections not included) 8²¹⁄₃₂×4¹¹⁄₃₂×4⁵⁄₁₆ in.
- **Weight** (approx.) : 1.4kg ; 3.09 lb
- **NMEA formats** :
  - Input RMC, GGA, GNS, GLL, VTG
  - Output DSC, DSE

TRANSMITTER

- **Output power** : 25W or 1W (at 13.8V DC)
- **Modulation system** : Variable reactance
- **Max. Freq. deviation** : ±5.0kHz
- **Frequency error** : ±0.3kHz
- **Spurious emissions** : Less than –70dBc
- **Residual modulation** : More than 40dB
- **Adjacent Ch. power** : More than 70dB

RECEIVER

- **Intermediate freq.** : 1st 30.15MHz
  - 21.7MHz (Ch70)
  - 2nd 450kHz
- **Sensitivity** : 0.22µV typ. (at 12dB SINAD)
- **Squelch sensitivity** : Less than 0.32µV (threshold)
- **Adjacent Ch. selectivity** : More than 80dB
- **Spurious response** : More than 80dB
- **Intermodulation** : More than 80dB
- **Hum and noise** : More than 40dB
- **Audio output power** : 5.0W typ. at 10% distion with a 4Ω load

Measurements made in accordance with TIA/EIA 603. All stated specifications are subject to change without notice or obligation.

DIMENSIONS

200.0 (7 ⁷⁄₈˝)
109.4 (4 ⁵⁄₁₆˝)
124.4 (4 ²³⁄₃₂˝)
110.0 (4 ¹¹⁄₃₂˝)
220.0 (8 ²¹⁄₃₂˝)
90.0 (3 ¹⁷⁄₃₂˝)
31.4 (1 ¼˝)
78.0 (3 ¹⁄₁₆˝)

Unit: mm (inch)
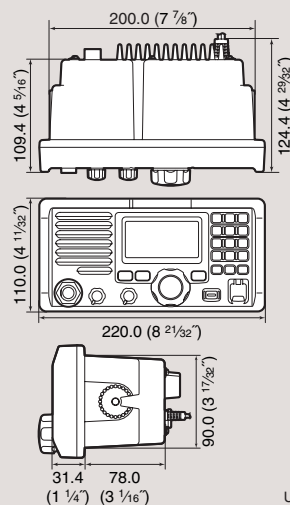
Supplied accessories:
- Hand microphone
- Mounting bracket kit
- DC power cable

OPTIONS

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

HM-162B (Black)
HM-162SW (Super white)

COMMANDMICIII™

MB-75

MB-75 FLUSH MOUNT KIT
For flush-mounting the IC-M604 to a flat surface, such as a control panel.

UT-112

UT-112 VOICE SCRAMBLER UNIT
Provides up to 32 codes for private communication.

HM-162B/SW REMOTE-CONTROL MICROPHONE
Size (W×H×D): 65.5×150×38 mm; 2¹⁹⁄₃₂×5²⁹⁄₃₂×1½ in.
Weight (approx.;except cables): 385g ; 13.6oz
Supplied accessories :
- 6.1m (20ft) of cable, OPC-1540, with external speaker terminal
- Microphone hanger
- Mounting base for cable connector

OPC-1541 EXTENSION CABLE FOR HM-162B/SW
6.1m (20ft) extension cable for use with COMMAND-MICIII™. Up to 2 OPC-1541 can be connected.
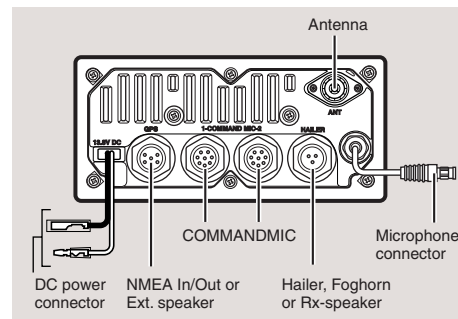
HM-126RB/RG SPEAKER MICROPHONE
Same as supplied.

OPC-1000 EXTENSION CABLE FOR HM-126RB/RG
6.1m (20ft) extension cable with mounting base for use with rear panel microphone connection.

HM-157B/SW REMOTE-CONTROL MICROPHONE
COMMANDMICII™ is also available.

OPC-999 EXTENSION CABLE FOR HM-157B/W
6.1m (20ft) of extension cable for use with COMMANDMICII™. Up to 2 OPC-999 can be connected.

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REAR PANEL VIEW

Antenna
DC power connector
NMEA In/Out or Ext. speaker
COMMANDMIC
Hailer, Foghorn or Rx-speaker
Microphone connector

Applicable U.S. Military Specifications
The IC-M604 and HM-162B/SW have been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810 F	
	Method	Procedure
Low Pressure	500.4	I, II
High Temp.	501.4	I, II
Low Temp.	502.4-3	I, II
Temp. Shock	503.4	I
Solar Radiation	505.4	I
Rain	506.4	I, III
Humidity	507.4	–
Salt Fog	509.4	–
Dust Blowing	510.4	I
Vibration	514.5	I
Shock	516.5	I, IV

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