



VHF MARINE TRANSCEIVER

# IC-M504

**DSC Built-in  
Class D**

**Submersible** <sup>PLUS</sup>  
1.5m depth for 30 minutes

**FORCE 5 AUDIO**



Icom Inc.

# The Submersible PLUS Marine VHF with Class D

MARINE VHF TRANSCEIVER

## IC-M504



Black version



Gray version

### IPX8 Submersible PLUS (1.5m depth for 30 minutes)

The IC-M504 withstands submersion in up to 1.5m depth of water for 30 minutes. It is equivalent to the IPX8 standard. All products are rigorously checked to pass the quality test at the factory.



### Large LCD with dot-matrix characters

The IC-M504 has a 168-character, full dot-matrix display that allows you to easily view a variety of information, such as GPS data, DSC emergency data, etc. The large buttons and knobs provide user friendly operation.



▲ 37×73mm (1<sup>15</sup>/<sub>32</sub>×2<sup>7</sup>/<sub>16</sub> in) size full dot-matrix display



# DSC

## ITU Class D DSC

The IC-M504 has built-in Class D DSC, which enables you to constantly monitor channel 70. This functionality provides users at sea with the peace of mind that they can call for help by pressing the "Distress" button if the need arises.



## 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 navigation equipment\*. In addition, the polling (request/reply) function checks whether a specific ship is within the communications range.

\* External GPS receiver and navigation equipment which accepts NMEA 0183 format is required.

## Superior receiver performance

The IC-M504 has excellent receive specifications of 80dB (typical) for intermodulation rejection and adjacent channel selectivity, and 0.22µV (typical) high sensitivity. The IC-M504's superior receiver provides excellent resistance to intermodulation and allows you to catch a weak signal between strong stations.

## Excellent audio output power

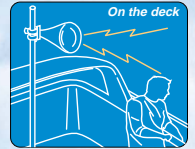


The extra large speaker is mounted into a well-spaced housing, producing greater sound than the specified 4.5W output power. You can get clear and loud reception without requiring repetition of the message, even over the engine or other background noise.



## 25W hailer/RX speaker and auto foghorn

When connected to a hailer horn or external speaker on the deck or tower, you can make an announcement on-board from the microphone. The RX speaker function, "receiver-repeater", allows you to monitor the received audio. Four foghorn patterns are also available for the automatic foghorn.



## Rear panel microphone version\*

With this version, the microphone connector is drawn from the rear panel and a 6.1m (20ft) microphone extension cable is supplied to allow you clean and neat panel installation.

\* Ask your dealer for details



## Other features

- Dual/tri-watch function for monitoring Ch.16 and/or call channel
- Instant access to Ch. 16 and call channel
- 7 levels adjustable backlit display and keypad
- Convenient "TAG" scanning function
- Optional Voice Scrambler, UT-112 for private communication
- Weather channels with weather alert function
- Black or gray color versions

## Optional fully integrated COMMANDMICIII™

### Full control 2nd station capability

The COMMANDMICIII™ is a remote control for the IC-M504 that may be positioned up to 18.3m (60ft) away from the IC-M504. All functions, including distress call, DSC, and foghorn, are available. The COMMANDMICIII™ may also be used as an intercom with the IC-M504.

### Multi-function "Jog" dial

A newly designed multi-function Jog dial gives you quick and easy access to many M504 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 (1.5m depth for 30 minutes)
- Extra large 45mm (d) speaker for superior audio



Backlit keypad and Jog dial

"Distress" button on the back of the unit

Optional COMMANDMICIII™, HM-162SW ▶



## 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  $\pm$ 15 %
- Current drain (at 13.8V DC) :
  - Transmit 5.5A (25W output)
  - Receive 1.5A (Max. AF)
- Operating temperature :  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ; range  $-4^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$
- Antenna impedance : 50 $\Omega$  (SO-239)
- Dimensions (W×H×D) : 165×110×123.2 mm; (projections not included) 6½×4½×4¾ in.
- Weight (approx.) : 1.45kg ; 3.20 lb
- NMEA formats :
  - Input RMC, GGA, GNS, GLL
  - Output DSC, DSE

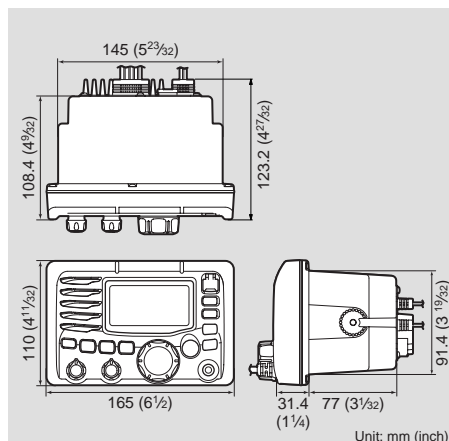
### TRANSMITTER

- Output power : 25W or 1W (at 13.8V DC)
- Modulation system : Variable reactance
- Max. Freq. deviation :  $\pm$ 5.0kHz
- Frequency error :  $\pm$ 10ppm
- Spurious emissions : Less than  $-70\text{dBc}$  (at 25W)
- Residual modulation : More than 40dB
- Adjacent Ch. power : More than 70dB

### RECEIVER

- Intermediate freq. : 1st 21.7MHz  
31.05MHz (Ch70)  
2nd 450kHz
- Sensitivity : 0.22 $\mu\text{V}$  typ. (at 12dB SINAD)
- Squelch sensitivity : Less than 0.32 $\mu\text{V}$  (threshold)
- Adjacent Ch. selectivity : 80dB typ. (DSC 75dB typ.)
- Spurious response : 80dB typ. (DSC 75dB typ.)
- Intermodulation : 80dB typ. (DSC 75dB typ.)
- Hum and noise : More than 40dB
- Audio output power : 4.5W typ. at 10% distortion with a 4 $\Omega$  load

### DIMENSIONS



#### Supplied accessories:

- Hand microphone
- DC power cable
- Spare fuses
- Mounting bracket kit

Measurements made in accordance with TIA/EIA 603. 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-162B/SW REMOTE-CONTROL MICROPHONE

Size (W×H×D): 65.5×150×38 mm; 2½×5½×1½ 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

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### MB-75 FLUSH MOUNT KIT

For flush-mounting the IC-M504 to a flat surface, such as a control panel.

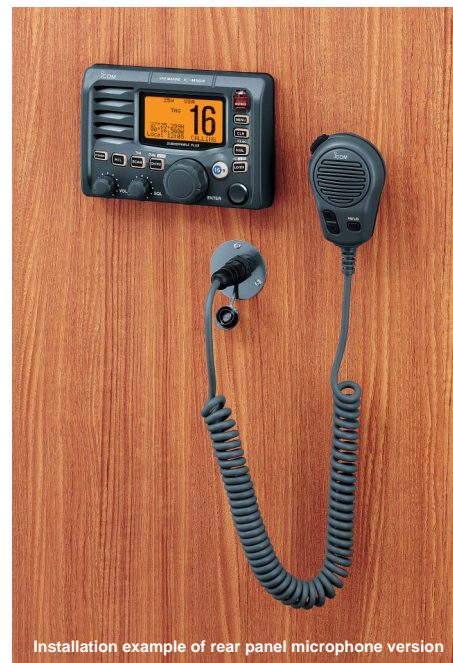
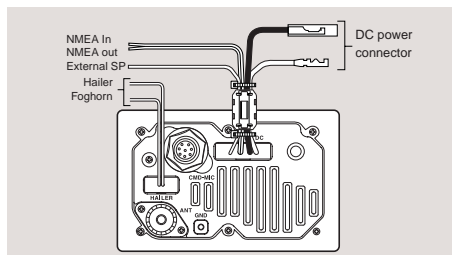
### UT-112 VOICE SCRAMBLER UNIT

Provides up to 32 codes for private communication.

### OPC-1541 EXTENSION CABLE FOR HM-162B/SW

6.1m (20ft) extension cable for use with COMMANDMICIII™.

## Rear panel view



## Icom Inc.

1-1-32, Kamiminami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013 URL: <http://www.icom.co.jp/world/index.html>

## Count on us!

### Icom America Inc.

2380 116th Avenue NE,  
Bellevue, WA 98004, U.S.A.  
Phone : +1 (425) 454-8155  
Fax : +1 (425) 454-1509  
E-mail : [sales@icomamerica.com](mailto:sales@icomamerica.com)  
URL : <http://www.icomamerica.com>

### Icom Canada

Glenwood Centre #150-6165 Highway 17,  
Delta, B.C., V4K 5B8, Canada  
Phone : +1 (604) 952-4266  
Fax : +1 (604) 952-0090  
E-mail : [info@icomcanada.com](mailto:info@icomcanada.com)  
URL : <http://www.icomcanada.com>

### Icom (Australia) Pty. Ltd.

A.B.N. 88 006 092 575  
Unit 1 / 103 Garden Road,  
Clayton VIC 3168 Australia  
Phone : +61 (03) 9549 7500  
Fax : +61 (03) 9549 7505  
E-mail : [sales@icom.net.au](mailto:sales@icom.net.au)  
URL : <http://www.icom.net.au>

### Icom New Zealand

146A Harris Road, East Tamaki,  
Auckland, New Zealand  
Phone : +64 (09) 274 4062  
Fax : +64 (09) 274 4708  
E-mail : [inquiries@icom.co.nz](mailto:inquiries@icom.co.nz)  
URL : <http://www.icom.co.nz>

### Icom (Europe) GmbH

Communication Equipment  
Himmelgeister Str. 100,  
D-40225 Düsseldorf, Germany  
Phone : +49 (0211) 346047  
Fax : +49 (0211) 333639  
E-mail : [info@icomeurope.com](mailto:info@icomeurope.com)  
URL : <http://www.icomeurope.com>

### Icom Spain S.L.

Ctra. Rubi, No. 88 "Edificio Can Castanyer"  
08190, Sant Cugat del Valles, Barcelona, Spain  
Phone : +34 (93) 590 26 70  
Fax : +34 (93) 589 04 46  
E-mail : [icom@icomspain.com](mailto:icom@icomspain.com)  
URL : <http://www.icomspain.com>

### Icom (UK) Ltd.

Unit 9, Sea St., Herne Bay,  
Kent, CT6 8LD, U.K.  
Phone : +44 (01227) 741741  
Fax : +44 (01227) 741742  
E-mail : [info@icomuk.co.uk](mailto:info@icomuk.co.uk)  
URL : <http://www.icomuk.co.uk>

### Icom France S.a

Zac de la Plaine, 1,  
Rue Brindejonc des Moulinais BP 5804,  
31505 Toulouse Cedex, France  
Phone : +33 (5) 61 36 03 03  
Fax : +33 (5) 61 36 03 00  
E-mail : [icom@icom-france.com](mailto:icom@icom-france.com)  
URL : <http://www.icom-france.com>

### Icom Polska

Sopot, 3 maja 54, Poland  
Phone : +48 (58) 550 7135  
Fax : +48 (58) 551 0484  
E-mail : [icompolska@icompolska.com.pl](mailto:icompolska@icompolska.com.pl)  
URL : <http://www.icompolska.com.pl>

### Asia Icom Inc.

6F No. 68, Sec. 1 Cheng-Teh Road,  
Taipei, Taiwan, R.O.C.  
Phone : +886 (02) 2559 1899  
Fax : +886 (02) 2559 1874  
E-mail : [sales@asia-icom.com](mailto:sales@asia-icom.com)  
URL : <http://www.asia-icom.com>

### Beijing Icom Ltd.

10C07, Long Silver Mansion, No.88, Yong Ding  
Road, Haidian District, Beijing, 100039, China  
Phone : +86 (010) 5889 5391/5392/5393  
Fax : +86 (010) 5889 5395  
E-mail : [bjicom@bjicom.com](mailto:bjicom@bjicom.com)  
URL : <http://www.bjicom.com>

Your local distributor/dealer: