

ICOM

MF/HF MARINE TRANSCEIVER

# IC-M801GMDSS



\* The above photo includes optional AT-141, automatic antenna tuner.

# Class A DSC safety function Icom's technology and value

## Meets GMDSS requirements

The IC-M801GMDSS is designed for Class A DSC operation. With the optional AT-141 antenna tuner, it provides a complete GMDSS MF/HF communication system as required for Commercial Solas regulated vessels voyaging in the A2 sea area. The radio also meets MED 96/98/EC, "wheel mark" requirements for European merchant ships.



## Built-in ITU Class A DSC

An independent DSC receiver constantly watches MF/HF DSC channels, while using another channel. The DSC allows you to call intended ship(s) or coast station(s) directly as well as all ships in the geographic area. A total of 100 MMSI IDs can be stored with a 10-character name. In addition, the self test function allows you to check the DSC functions.

## Built-in DC-DC converter

The IC-M801GMDSS has a built-in DC-DC power converter, which provides stable 13.6V DC converted from a 24V DC power supply. A floating ground system is employed.

## Optional automatic antenna tuner, AT-141

The optional AT-141, automatic antenna tuner, tunes all frequencies in all modes. It easily connects to the IC-M801GMDSS with the optional shielded cable. If the tuner cannot tune the antenna, the IC-M801 GMDSS bypasses the tuner and displays an alert on the display.

## Large LCD with full dot-matrix characters

The IC-M801GMDSS has a large full dot-matrix display which displays frequency or channel name. You can easily read the alphanumeric channel name, operating frequency, DSC setting, time, position, etc. In addition, dimmer and contrast level of the LCD are all adjustable to 10 different levels.

## Powerful output power

A powerful 125W\* (PEP) transmitter provides long distance communication you can rely on. A large aluminum chassis keeps the radio cool even during high duty cycle operation such as RTTY or E-mail operation.

\* 85W (PEP) between 1.6-3.999MHz

## Simplified operation

All channels are grouped in 20 channel groups. Large independent group and channel knobs provide quick and easy channel selection. You can also directly enter a channel number from the 10-keypad.

## General coverage receiver

Wide band, general coverage receive capability is available from 0.5 to 29.999MHz.

## Numerous operating modes

The IC-M801GMDSS provides SSB, AM, CW, FSK and AFSK mode operation. The advanced DSP provides flexible filter settings and optional filters are no longer required for narrow band mode operation.

## Versatile configuration

The controller and speaker are separated from the main (RF) unit. The supplied 5m separation cable or optional 10m separation cable (OPC-1575) can be used with the controller.

## Rugged construction

The main unit is covered with a rugged aluminum casing, protecting internal parts from impact or salt corrosion. With the optional stainless steel one-action bracket, the main unit can be tightly installed or easily removed from a flat surface.



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# Functionality combined with value

## Voice squelch control

The VSC (Voice squelch control) function\* only opens the squelch, when the radio detects voice components contained in the signal, while ignoring noise or an unmodulated signal.

\* J3E and H3E mode only.

## Optional hand microphone, HM-135

The optional HM-135 can be assigned a "P (programmable)" button from which one of the radio functions such as tune, mode or scan can be selected. This function can then be remotely controlled from the microphone.

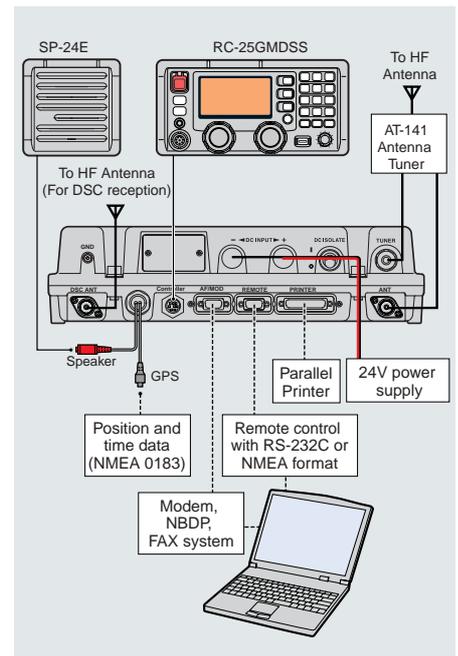
## Versatile extensibility

The IC-M801GMDSS has various connectors to connect with external equipment. (See right figure)

- GPS connector
- D-SUB connector for NBDP/FSK
- RS-232C/NMEA connector for PC remote control
- Printer connector

## Other features

- CW full break-in and semi break-in
- Scan resume, program scan and adjustable scan speed
- Max 160 programmable channels
- RF gain control



SPECIFICATIONS

GENERAL

- Frequency coverage (Unit : MHz):
  - Receive 0.5–29.9999 (continuous)
  - Transmit 1.6–2.9999, 4.0–4.9999, 6.0–6.9999, 8.0–8.9999, 12.0–13.9999, 16.0–17.9999, 18.0–19.9999, 22.0–22.9999, 25.0–27.5000
- DSC 2.1875, 4.2075, 6.3120, 8.4145, 12.5770, 16.8045
- Type of emission : J3E (USB/LSB\*), J2B (AFSK), F1B (FSK, DSC), A1A\* (CW), H3E\* (AM)
  - \* LSB, A1A, H3E modes are receive only
- Number of channels : 1205 (max.)
  - (160 programmable channels; 249 ITU SSB duplex; 124 ITU SSB simplex; 662 ITU FSK duplex; 10 Semi/auto channels)
- Antenna impedance : 50Ω (SO-239×2)
- Power supply requirement : 21.6–31.2V DC (floating ground)
- Current drain :
  - Tx Max. power 30A
  - Rx Max. audio Less than 3.0A
- Operating temp. range : -15°C to +55°C
- Frequency stability : ±10Hz (Approx. 5 min. after power on)
- Dimensions (Projections are not included):
  - Main unit 367(W)×95(H)×260(D)mm
  - Controller (RC-25GMDSS) 220(W)×110(H)×84.4(D)mm
  - Speaker (SP-24E) 110(W)×110(H)×84.4(D)mm
- Weight :
  - Main unit 8.5kg
  - Controller (RC-25GMDSS) 570g
  - Speaker (SP-24E) 370g

Measurements made in accordance with EN300 373-1 and EN300 338 for IC-M801GMDSS. All stated specifications are subject to change without notice or obligation.

TRANSMITTER

- Output power (at AT-141 output power) :
  - 1.6–3.999MHz 85W PEP
  - 4.0–27.500MHz 125W PEP
- Spurious emissions : 43dB below peak output power
- Carrier suppression : 40dB below peak output power
- Unwanted sideband : 55dB below peak output power (With 1kHz AF input; at Max. power)
- Microphone connector : 8-pin connector (2.4kΩ)

RECEIVER

- Sensitivity (at 20dB SINAD; emf) :
 

	J3E, A1A	J2B, F1B	H3E	DSC
0.5 – 1.5999MHz	30dBμV	—	44dBμV	0dBμV (at 1% error rate)
1.6 – 1.7999MHz	13dBμV	13dBμV	30dBμV	
1.8 – 3.9999MHz	8dBμV	8dBμV	24dBμV	
4.0 – 29.9999MHz	—	—	—	
- Spurious response rejection :
  - 0.5–29.9999MHz More than 70dB
  - DSC 1st image More than 60dB
  - Except 1st image More than 50dB
- Audio output power (at 24V DC) : 4.0W typical at 10% distortion with a 4Ω load
- Clarity variable range : ±150Hz
- Headphone connector : 3-conductor 3.5 (d) mm (1/8")
- Speaker connector : 2-conductor 3.5 (d) mm (1/8") / 4Ω

Supplied accessories:

- 5m Separation cable, OPC-1466
- External speaker, SP-24E
- Handset, HS-98
- GPS plugs
- Mounting brackets
- Mounting angles
- DC power cables
- Tuner plugs
- Spare fuses

OPTIONS

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

AT-141 AUTOMATIC ANTENNA TUNER



Matches the transceiver to a long wire antenna with little insertion loss. Antenna and control cable receptacles are easy to install.

OPC-1465 SHIELDED CONTROL CABLE



10m shielded control cable connects between AT-141 and transceiver. Protects the transceiver from RF feedback.

MB-108 MOUNTING BRACKET



Stainless steel one-action bracket. Transceiver main unit is easily attached or removed. The photo shows installation example.

MB-75 FLUSH MOUNT KIT



For mounting the controller, RC-25GMDSS or the SP-24E to a panel.

HM-135 HAND MICROPHONE



Remote function microphone equipped with channel and programmable buttons.

HS-98 HANDSET



Provides clear audio reception. Same as supplied.

OPC-1575 SEPARATION CABLE



10m separation cable between controller and main unit.

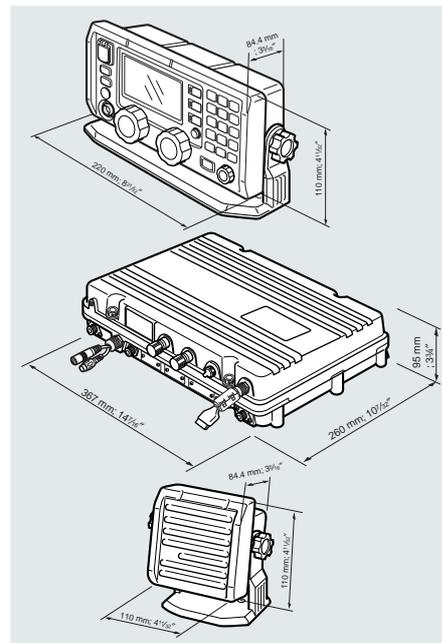
OPC-1610 SPEAKER EXTENSION CABLE



5m speaker extension cable for use with SP-24E.

- RC-25GMDSS REMOTE CONTROLLER  
Remote controller head. Same as supplied.
- SP-24E EXTERNAL SPEAKER  
4×4-inch external speaker. Same as supplied. Input impedance: 4Ω. Max. input power: 7W.

DIMENSIONS



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 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 (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>

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>

Your local distributor/dealer:

Icom Canada

Glenwood Centre #150-6165 Highway 17, Delta, B.C., V4K 5B8, Canada Phone: +1 (604) 952-4286 Fax: +1 (604) 952-0090 E-mail: [info@icomcanada.com](mailto:info@icomcanada.com) URL: <http://www.icomcanada.com>

Icom (Europe) GmbH

Communication Equipment Himmelsleiter 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 France Sa

Zac de la Plaine, 1, Rue Brindejone 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 (Australia) Pty. Ltd.

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 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 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>