



NEW PRODUCT INFORMATION

VHF MARINE TRANSCEIVER

IC-M400BB



IC-M400BB and COMMANDMIC, HM-195B (black version)

COMMANDMIC, HM-195SW
(super white version)

Icom will release a new concept marine transceiver, IC-M400BB, which is a black box version of the IC-M423/M424 series. All function control including DSC operation can be made from the Commandmic™, HM-195B/SW and the IC-M400BB, RF main unit can be installed in an out-of-sight place. Compared to the existing fixed-mount transceiver, the combination of the IC-M400BB and HM-195B/SW provides flexible space-saving installation for limited console panel space. With the optional extension cable, the HM-195B/SW can be installed up to 18.3m (60ft) from the IC-M400BB. The active noise canceller, PA function, RF performance and intuitive user interface are retained from the IC-M423/M424 series.

MAJOR SELLING POINTS

- **Space Saving Fully Functional VHF**
- **Controlled by COMMANDMIC™, HM-195B/SW**
- **New Icom Marine User Interface**
- **Bidirectional Active Noise Cancelling**
- **10W Loud Audio, Public Address and Foghorn Capability**
- **Built-in Class D DSC capability**
- **IPX7 Submersible Protection (1.0m depth for 30 minutes)**
- **MA-500TR AIS Transponder Compatible**

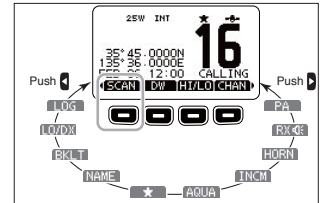
FEATURES

Space-Saving, Two-Piece Configuration

The IC-M400BB consists of a two-piece, black box configuration. The RF unit, IC-M400BB, can be installed in an out-of-sight place and the COMMANDMIC™, HM-195B/SW, provides full function control from up to 18.3m (60ft) away from the RF unit.

New Intuitive User Interface

The new menu system is shared with Icom's latest models. The bottom line of the dot-matrix display shows the software key functions which can be toggled with the left and right keys.



Active Noise Cancelling

The built-in bidirectional active noise cancelling reduces background noise to up to 90% and improves both your transmitted voice and incoming call. Hear and be heard more clearly.

10W Loud Audio, Public Address and Foghorn

The IC-M400BB has a built-in 10W amplifier that increases the audio output from an additional external speaker. The public address function allows you to make an announcement from the microphone like a loud speaker, and the foghorn can also be emitted from the external speaker.

Built-in Class D DSC

The IC-M400BB meets the latest Class D regulation (ITU-R M493-13 and EN 300 338-3). The built-in DSC watch function monitors Ch. 70 (DSC channel) activity, even while you are receiving another channel. DSC "Distress" button on the back of the COMMANDMIC™, HM-195B/SW. DSC functions include: distress, individual, group, all ships, urgency, safety, position request/report, polling request and DSC test calls.



"Distress" button on the back of the unit

NMEA 0183 Input/Output for Common GPS/NAV Interface

When connected to an external GPS receiver, current position and time are shown on the Commandmic display. When receiving DSC information from another vessel, the radio can transfer it to a navigational device via NMEA 0183 connectivity.

AIS Target Call with MA-500TR

The IC-M400BB can be integrated with the MA-500TR Class B AIS Transponder allowing you to transmit DSC individual calls to a selected vessel instantly without manual MMSI entry.



MA-500TR

MarineCommander™ Compatible

When connected to the MarineCommander, the received DSC message pops up on the multi-function display.

IPX7 Waterproof Protection (1.0m depth for 30 minutes)

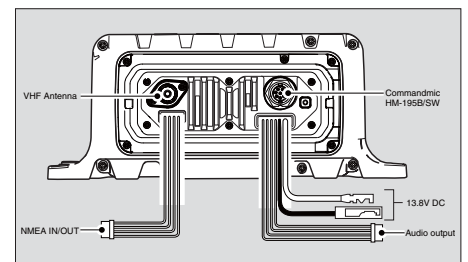
The IC-M400BB and HM-195B/SW withstand submersion in up to 1.0m depth of water for 30 minutes.

Favorite Channel Function

The favorite channel function allows you efficient scanning and quick channel selection. Set the favorite channel (★ mark) to the channels used most often. When pushing the up/down buttons on the hand microphone, only the tagged channels are selected, while unmarked channels are skipped. Normal and priority scan searches active channels from the favorite channels.

Other Features

- AquaQuake™ water draining function for HM-195B/SW
- Dual/tri-watch function for monitoring Ch.16 and/or call channel
- LCD and keypad backlighting (HM-195B/SW)



SPECIFICATIONS

Specifications described below are target values. They may be subject to change.

Specification for IC-M400BB (Europe version)

■ GENERAL

- Frequency range :
 - Transmit 156.000–161.450MHz
 - Receive 156.000–163.425MHz
 - Ch. 70 156.525MHz
- Type of emission : 16K0G3E (FM), 16K0G2B (DSC)
- Usable channels : INT and USA* channels
(* depending on version)
- Power supply requirement : 13.8V DC nominal
(10.8–15.6V DC)
- Current drain :
 - Transmit (25W output) 5.5A Max.
 - Receive (AF max.) 3.5A Max.
- Operating temp. range : –20°C to +60°C
- Intermediate frequency : 21.7MHz, 450kHz (1st, 2nd)
Ch. 70 30.875MHz, 450kHz (1st, 2nd)
- Antenna connector : SO-239 (50Ω)
- Dimensions (W×H×D) : (Projections are not included)
IC-M400BB 216×79×125 mm
HM-195B/SW 67.5×144×37 mm
- Weight (approx.) :
 - IC-M400BB 830g
 - HM-195B/SW 400g

■ TRANSMITTER

- Output power : 25W, 1W (High, low)
- Max. frequency deviation: ±5kHz
- Frequency stability : Less than ±1.5kHz
- Spurious emissions : Less than 0.25μW
- Adjacent channel power: More than 70dB
- Audio harmonic distortion: Less than 10% (at 60% dev.)
- Residual modulation : More than 40dB
- Audio freq. response : +1dB to –3dB of 6dB octave
from 300Hz to 3000Hz

■ RECEIVER

- Sensitivity : –5dBμ emf typ. (20dB SINAD)
Ch. 70 –4dBμ emf typ. (1% BER)
- Squelch sensitivity : Less than –2dBμ emf
- Adjacent Ch. selectivity: More than 70dB
Ch. 70 More than 73dBμ emf (1% BER)
- Spurious response : More than 70dB
Ch. 70 More than 73dBμ emf (1% BER)
- Intermodulation : More than 68dB
Ch. 70 More than 68dBμ emf (1% BER)
- Hum and noise ratio : More than 40dB
- Audio output power : More than 2W (HM-195B/SW)
(at 10% dist. 4Ω load) More than 10W (RX SP)
- Audio freq. response : +1dB to –3dB of 6dB octave
from 300Hz to 3000Hz

Measurements made in accordance with EN 301 025-2, -3.

Specification for IC-M400BB (U.S.A.)

■ GENERAL

- Frequency range :
 - Transmit 156.025–157.425MHz
 - Receive 156.050–163.275MHz
 - Ch. 70 156.525MHz
- Type of emission : 16K0G3E (FM), 16K0G2B (DSC)
- Usable channels : USA, INT, CAN and WX
channels
- Power supply requirement : 13.8V DC nominal
(11.7–15.9V DC)
- Current drain :
 - Transmit (25W output) 5.5A Max.
 - Receive (AF max.) 3.5A Max.
- Operating temp. range : –20°C to +60°C; –4°F to +140°F
- Intermediate frequency : 21.7MHz, 450kHz (1st, 2nd)
Ch. 70 30.875MHz, 450kHz (1st, 2nd)
- Antenna connector : SO-239 (50Ω)
- Dimensions (W×H×D) : (Projections are not included)
IC-M400BB 216×79×125 mm; 8.5×3.11×4.92 in
HM-195B/SW 67.5×144×37 mm; 2.66×5.69×1.46 in
- Weight (approx.) :
 - IC-M400BB 830g; 1.83 lb
 - HM-195B/SW 400g; 14.1 oz

■ TRANSMITTER

- Output power : 25W, 1W (High, low)
- Max. frequency deviation: ±5kHz
- Frequency tolerance : ±10ppm
- Spurious emissions : Less than –70dBc (at 25W)
- Adjacent channel power: More than 70dB
- Audio harmonic distortion: Less than 10% (at 60% dev.)
- Residual modulation : More than 40dB
- Audio freq. response : +1dB to –3dB of 6dB octave
from 300Hz to 2500Hz

■ RECEIVER

- Sensitivity : 0.22μV typical (at 12dB SINAD)
Ch. 70 –5dBμ emf typ. (1% BER)
- Squelch sensitivity : Less than 0.32μV
- Adjacent Ch. selectivity: More than 70dB
Ch. 70 More than 73dBμ emf (1% BER)
- Spurious response : More than 70dB
Ch. 70 More than 73dBμ emf (1% BER)
- Intermodulation : More than 70dB
Ch. 70 More than 68dBμ emf (1% BER)
- Hum and noise : More than 40dB
- Audio output power : More than 2W (HM-195B/SW)
(at 10% dist. 4Ω load) More than 10W (RX SP)
- Audio freq. response : +1dB to –3dB of 6dB octave
from 300Hz to 3000Hz

Measurements made in accordance with TIA/EIA 603 and IEC 62238 (Ch 70 receiver specifications).

OPTIONS

■ COMMANDMIC

HM-195B/SW : Remote-control microphone. Same as supplied, depending on version.

■ EXTENSION CABLE

OPC-1541 : 6.1m (20ft) extension cable for HM-195B/SW. Up to two cables available.

■ AIS TRANSPONDER

MA-500TR : Class B AIS Transponder

■ CLONING SOFTWARE AND CABLES

CS-M400BB : Cloning software. Allows quick and simple setting from a PC. Cable adapter is supplied with CS-M400BB. For dealers only. **(New item)**

+ OPC-478UC : Cloning cable (USB type)

COMMANDMIC, HM-195B/SW



OPC-1541



Accessories supplied with HM-195B/SW

