

SPECIFICATIONS

GENERAL		
Frequency range	TX 156.025-157.425 MHz RX 156.050-163.275 MHz DSC 156.525 MHz AIS1, 2** 161.975, 162.025 MHz	
Usable channels	USA, CAN, INT, WX channels	
Type of emission	16K0G3E (FM), 16K0G2B (DSC) 16K0GXW (AIS)**	
Power supply requirement	13.8 V DC (11.7-15.9 V DC)	
Current drain	TX 25 W output 5.0 A RX Max. audio 3.3 A	
Operating temperature range	-20°C to +60°C; -4°F to +140°F	
Antenna impedance	50 Ω	
Weight (approximate)	730 g; 1.6 lb (Not including microphone)	
TRANSMITTER		
Output power (at 13.8 V DC)	25 W, 1 W	
Max. frequency deviation	±5 kHz	
Frequency tolerance	±0.5 kHz	
Spurious emissions	Less than -70 dBc (at 25 W)	
Residual modulation	More than 40 dB	
Adjacent channel power	More than 70 dB	
RECEIVER		
Sensitivity (at 12 dB SINAD)	0.32 μV typical	
DSC (1% BER)	0.89 μV emf typical	
Adjacent channel selectivity	More than 75 dB	
DSC (1% BER)	More than 73 dBμ emf	
Spurious response	More than 75 dB	
DSC (1% BER)	More than 73 dBμ emf	
Intermodulation	More than 75 dB	
DSC (1% BER)	More than 68 dBμ emf	
Hum and noise	More than 40 dB	
Audio output power (at 10% distortion)	More than 15 W with a 4 Ω external speaker	
Wireless LAN		
Wireless LAN standard	IEEE802.11 b/g/n	
Authentication and Encryption	WEP (64/128 bit), WPA-PSK (TKIP), WPA2-PSK (AES)	
Channels	1 to 13 (2.4 GHz band)**	
Output power	Less than 10 mW/MHz	

** Only for the Integrated AIS version. ** May differ depending on the country of use. Measurements made in accordance with TIA/EIA 603. All stated specifications are subject to change without notice or obligation.

Applicable U.S. Military Specifications

Standard	Method	MIL 810 G	Procedure
Low Pressure	500.5		I, II
High Temperature	501.5		I, II
Low Temperature	502.5		I, II
Temperature Shock	503.5		I-C
Solar Radiation	505.5		I
Rain	506.5		I
Humidity	507.5		II
Salt Fog	509.5		-
Dust Blowing	510.5		I
Immersion	512.5		I
Vibration	514.6		I
Shock	516.6		I, IV

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

Applicable IP Rating

Ingress Protection Standard	
Dust & Water	IP68 Dust-tight and waterproof protection

Supplied accessories:	
• Speaker microphone, HM-205RB	• Microphone hanger
• DC power cable	• Mounting bracket kit

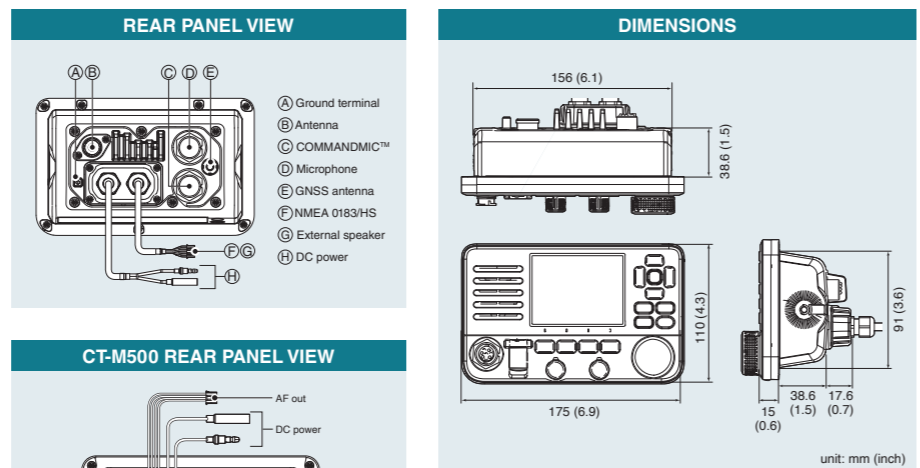
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OPTIONS

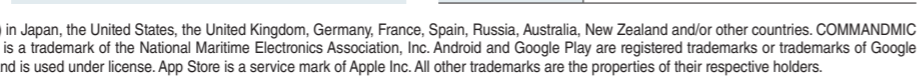
Some options may not be available in some countries. Please ask your dealer for details.

<p>COMMANDMIC™</p> <p>HM-195GB (Black) HM-195GW (White)</p> <p>Supplied accessories</p> <ul style="list-style-type: none"> • OPC-1540. 6.1 m (20 ft) cable • Microphone hanger • Mounting base for connector * Amber backlit COMMANDMIC, HM-195B/SW are also available. 	<p>SPEAKER-MICROPHONE</p> <p>HM-205RB Same as supplied.</p>	<p>EXTENSION CABLES</p> <p>OPC-1541 (6.1 m, 20 ft) For HM-195GB/GW OPC-1000 (6.1 m, 20 ft) For HM-205RB</p>	
<p>WIRELESS INTERFACE BOX</p> <p>CT-M500 For NMEA 2000™ interface and Hailer/PA function. To connect to the IC-M510 via WLAN.</p>	<p>HORN SPEAKER</p> <p>SP-37 Power rating: 30 W, Impedance: 4 Ω</p>	<p>VOICE SCRAMBLER UNIT</p> <p>UT-112A Total of 32 voice scramble codes available.</p>	<p>FLUSH MOUNT KIT</p> <p>MBF-7</p>
<p>FRONT PANEL COVER</p> <p>MBZ-1 Attach to protect from sunlight.</p>	<p>CLASS B AIS TRANSPONDER</p> <p>MA-510TR For transmitting own vessel AIS information.</p>	<p>REMOTE CONTROL SOFTWARE</p> <p>RS-M500* iOS™/Android™ application for remote operation of the IC-M510.</p>	
<p>GNSS ANTENNA</p> <p>UX-241</p>			

* Free download Android™/IOS™ app. Download on Google Play™/the App Store.



IC-M510 Configuration Variations	
	AIS Receiver
IC-M510 AIS	Integrated
IC-M510	Not included



Command & Control
Using Your Smart Device

Class-D DSC VHF Marine Radio with WLAN Function

Radio Control & Intercom via Your Smart Device

Use the RS-M500 app (for iOS™/Android™) to remotely control the IC-M510 through WLAN. Up to three smart devices can be used as a wireless microphone or remote controller in substitute for the COMMANDMIC™. Intercom function between your smart device and the radio is also available.



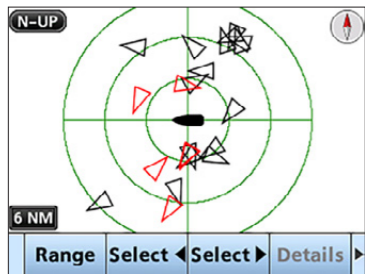
Smart device (RS-M500)



IC-M510



Integrated AIS Receiver*

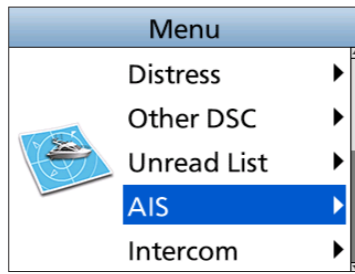


AIS plotter screen

With its integrated AIS receiver* or external NMEA sentence (third party AIS receiver, transponder), the IC-M510 can show real-time AIS vessel traffic information on the display. You can directly make an individual DSC call to selected AIS targets from the AIS screen.

* AIS receiver is not included depending on the transceiver version.

Wide Viewing Angle Color TFT LCD



Menu screen

The color TFT LCD provides nearly a 180-degree viewing angle. The wide display has high-resolution characters and function icons. The night mode screen ensures good readability in low light conditions.

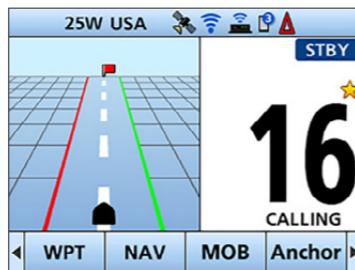
New Sleek Design



Panel mount example

The IC-M510 is slim (depth: 53.6 mm; 2.1 in) and easy to install in your boat. It's all-new sleek design is suitable for either panel or trunion mounting.

Simplified Navigation Function



Navigation screen

The Navigation function guides you to a specified waypoint or AIS target. You can assign up to 100 destinations as waypoints.



VHF MARINE TRANSCEIVER **IC-M510**

Night Mode

Optional COMMANDMIC™ **HM-195GB**

Provides Clear, Loud Audio

The IC-M510's internal speaker enhances the received audio. The waterproof speaker provides superior sound quality with a wide frequency range for powerful, clear audio.

Interface BOX for NMEA 2000™ and Hailer



CT-M500

The optional CT-M500 wireless interface box provides NMEA 2000™ connectivity and Two-way Hailer/PA function. The CT-M500 and the radio can be connected through WLAN. This separate interface box option allows for flexibility in positioning the unit closer to the NMEA network connection point.

And More

- Active Noise Canceling
- NMEA 0183/HS connectivity
- Integrated GNSS receiver (Selectable from either internal receiver or use UX-241 GNSS antenna)
- IP68 advanced waterproofing (1 m depth of water for 60 minutes)
- Automatic Foghorn function (CT-M500 required)
- Voice Scrambler with optional UT-112A
- AquaQuake™ prevents audio degradation from a water-logged speaker
- Supplied speaker-microphone, HM-205RB can be connected to the rear panel
- External speaker connection
- Controlled with COMMANDMIC™ HM-195GB/GW
- Supports 4-digit channels