

Collision Risk Management with Simplified ARPA and DSC/ AIS Information

- **Simplified ARPA Function***
- **DSC Information Function***
- **AIS Overlay Function***
- **10.4-inch Color TFT Display (480×640 dots)**
- **Multiple Languages (English, Indonesian, Korean, Spanish, Thai and Vietnamese)**
- **Intuitive User Interface**
- **Optional Video Output Unit**
- **36 NM Range Observation with 4 kW Output Radome Scanner**

* External bearing, speed, position, waypoint, variation, AIS and DSC data is (are) required, when you use these functions.



Simplified ARPA, Wide Viewing Angle Color

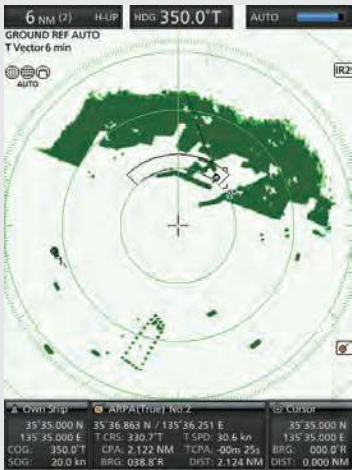
Collision Risk Management Functions



Simplified ARPA (Automatic Radar Plotting Aids) Function*

The simplified ARPA function helps to prevent a collision risk with other vessels or objects. Up to five targets can be automatically tracked on the radar echo, when a target enters within the set watch area, (or up to ten targets can be tracked when manually set). By selecting one of the targets, the target information such as position, course, speed, CPA, TCPA, bearing, and distance is shown on the lower side of the display. When the target enters within the CPA and TCPA limits, an alarm message is displayed with a beep alarm.

* External bearing, speed and position data required.



Simplified ARPA



Alarm example



DSC (Digital Selective Calling) Information Function*

When connected to a DSC radio and a DSC call is received, the received message is transferred to the MR-1010RII. Up to 20 DSC messages can be plotted on the radar echo. If a MOB position information is transmitted from a DSC handheld transceiver (including Icom IC-M94D), the MR-1010RII can show the MOB waypoint on the radar echo to assist in search and rescue operation.

* External bearing, position and DSC data required.



AIS (Automatic Identification System) Overlay Function*

When connected to an external AIS device (including Icom IC-M605, M510 AIS and, M506 AIS), up to 100 AIS target icons are overlaid on the radar echo. By selecting an AIS icon, vessel information such as AIS class, MMSI number, vessel name, course, speed, CPA, TCPA, bearing and distance are shown on the lower side of the display.

* External bearing, position and AIS data required.

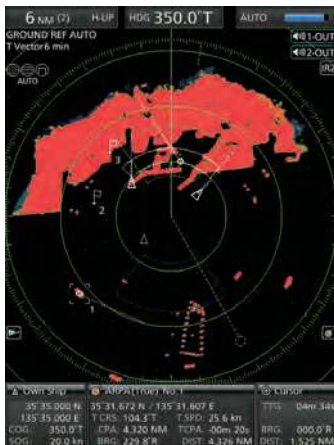


Compatible Icom marine DSC radio example, IC-M605

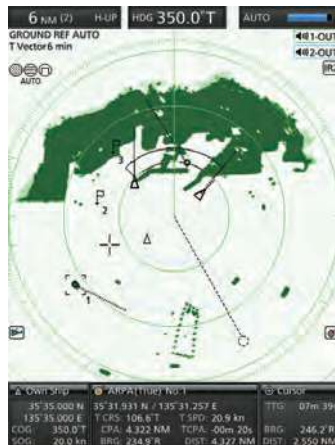
Wide Viewing Angle Color TFT LCD



The wide viewing angle color TFT LCD offers bright, vivid echoes with 16 steps gradient intensity. The screen intensity and screen color (day, night and user settings) can be instantly adjusted with the "BRILL" button. In addition, the auto hide information function enlarges radar echoes to full size.



Night setting



Day setting

Multi-Lingual Intuitive User Interface



The language setting of the MR-1010RII is selectable from English, Indonesian, Korean, Spanish, Thai and Vietnamese. The large eight-direction cursor key provides smooth operation even when wearing gloves. Various settings can be configured through visually intuitive operation.



User color setting menu



Initial menu

Large TFTLCD and Made in Japan Reliability



MARINE RADAR MR-1010R II



Received DSC example



Other vessel AIS information

Optional Video Output Unit



With an optional video output unit, UX-252, the MR-1010R II can be connected to an external display. Same radar echoes can be observed on the main unit and external display at the same time.



Video output example

TLL (Target Latitude Longitude) Function*



The MR-1010R II can mark points with icons and transfer the position data with NMEA TLL sentences to other NMEA 0183 devices such as an external plotter.

* External bearing and position data required.

True Trail Function*



The true trail function cancels own ship movement and shows true moving objects with trails, while static objects are not trailed.

* External bearing and position data required.

Other features

- 10.2–42 V wide DC input to prevent over voltage damage
- Two user programmable alarm zones
- Waypoint indication*
- Designed, engineered and Made in Japan

* External bearing, position and waypoint data required.

SPECIFICATIONS

DISPLAY UNIT	
Display type	10.4-inch Color TFT LCD
Resolution	480 x 640 dots
Minimum range	25 m; 82 ft (at 1/8 NM range)
Maximum range	36 NM
Range scales	NM 1/8, 1/4, 1/2, 3/4, 1, 1.5, 2, 3, 4, 6, 8, 12, 16, 24, 32, 36 km 1/4, 1/2, 3/4, 1, 1.5, 2, 3, 4, 6, 8, 12, 16, 24, 32, 36, 48
Preheat time	90 seconds
Power supply	10.2–42 V DC
Power consumption (at zero wind velocity)	55 W (approximately)
Usable temperature range	-15°C to +55°C; +5°F to +131°F
Input data format	NMEA 0183, N+1, AUX, IEC61162-2
Output data format	NMEA 0183

SCANNER UNIT	
Type	60 cm; 2 ft radome scanner
Rotation speed	24, 36 rpm typ.
Horizontal beamwidth	4° typ.
Vertical beamwidth	22° typ.
Sidelobe	-22 dB typ.
Usable temperature range	-25°C to +70°C; -13°F to +158°F
Usable humidity range	Less than 95% (at 40°C; +104°F)
Frequency	9410 MHz ±30 MHz
Modulation	P0N
Peak output power	4 kW
Pulse-width/repetition rate	80 ns/2160 Hz, 80 ns/1440 Hz, 250 ns/1440 Hz, 350 ns/1440 Hz, 900 ns/720 Hz
Modulator	FET switching
Intermediate frequency	60 MHz (EUR Version), 250 MHz (EXP Version)
IF bandwidth	10 MHz / 3 MHz (EUR Version), 15 MHz / 3 MHz (EUR Version)
Tuning	Auto/manual selectable
Supplied system cable	15 m; 49.2 ft; OPC-2341

All stated specifications are subject to change without notice or obligation.

Applicable IP Rating

Ingress Protection Standard			
Display unit	IPX4 (Water resistance)	Scanner unit	IPX6 (Powerful jet water protection)

OPTIONS

SYSTEM CABLES

OPC-2339
20 m (65.6 ft)

OPC-2340
30 m (98.4 ft)

VIDEO OUTPUT UNIT

UX-252
Connect an external display or a PC with a VGA connector

Made in Japan
Quality you can trust

Made in Japan Quality
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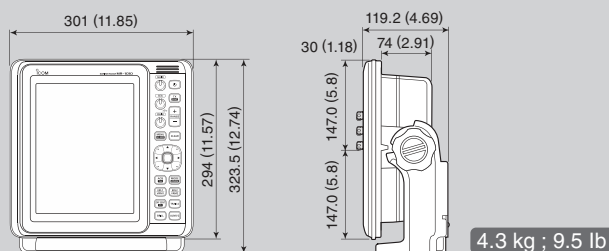
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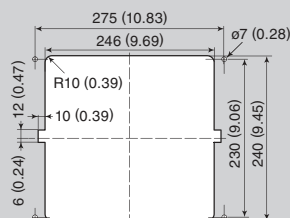
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DIMENSIONS

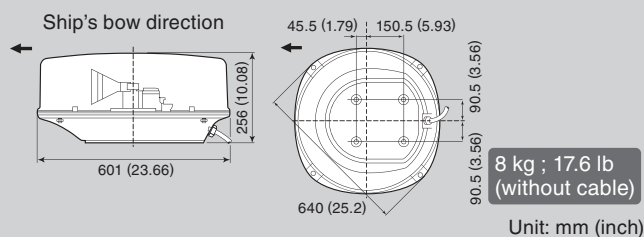
Display unit dimensions



Cutout dimensions



Scanner unit dimensions



REAR PANEL VIEW

