

Marine Radar

MDC-5000 Series

**Powerful and Precise
Professional Grade**



Display unit (Owner supplied)



Features

- ▶ Clear image with High-speed sampling in short range
- ▶ Auto gain with simple operation
- ▶ Improved visibility of the echoes by auto STC and CFAR
- ▶ Built-in AIS interface for displays up to 500 targets
- ▶ Built-in TT (ARPA) tracks up to 50 targets
- ▶ C-Map chart (NT or MAX) is overlaid on the radar screen (Chart: Owner supplied)
- ▶ Black Box type connects to any XGA type display
- ▶ Output power: 4 models (4kW, 6kW, 12kW, 25kW)

SPECIFICATIONS

Antenna-scanner unit

Model	MDC-5005*	MDC-5004*	MDC-5060 / 5006*	MDC-5010 / 5012*	MDC-5020 / 5025*
Scanner unit	RB805	RB806	RB717A / RB807	RB718A / RB808	RB719A / RB809
Antenna type	Radome				
Antenna length	2 feet	3 feet / 4 feet / 6 feet	4 feet / 6 feet	4 feet / 6 feet / 9 feet	4 feet / 6 feet / 9 feet
Output power (Peak)	4 kW		6 kW	12 kW	25 kW
Output frequency	9410 MHz ± 30 MHz				
Horizontal beam width	2 feet : 3.9° / 3 feet : 2.5° / 4 feet : 1.8° / 6 feet : 1.2° / 9 feet : 0.8°				
Vertical beam width	3, 4, 6 feet: 22° / 2, 9 feet: 25°				
Rotation	MDC-5004 / 5005 / 5006 / 5060 / 5010 / 5020: 24 rpm or 48 rpm MDC-5012 / 5025: 24 rpm or 42 rpm				
IF center frequency	60 MHz				
Minimum detecting distance	Within 40 m				
Range resolution	Within 40 m				
Warm-up time	2 min			3 min	
Pulse width	MDC-5004 / 5005: 0.08 μs, 0.15 μs, 0.3 μs, 0.5 μs, 1.0 μs MDC-5006 / 5012 / 5025: 0.08 μs, 0.15 μs, 0.3 μs, 0.4 μs, 0.6 μs, 0.8 μs, 1.2 μs MDC-5060 / 5010: 0.08 μs, 0.25 μs, 0.5 μs, 0.7 μs, 1.0 μs MDC-5020: 0.08 μs, 0.3 μs, 0.6 μs, 0.8 μs, 1.2 μs				

Environmental

Operating temperature	-25°C to +55°C
Water Protection	IPX6

Processor unit

Processor unit	MRM-110
Display resolution	1024×768 pixels (XGA)
Off-centering	Max. 75 %
Range accuracy	8 meters or 1% of the range scale selected, whichever is the greater
Range Scales	0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 32, 48, 64, 96
Range interval	0.0625, 0.125, 0.25, 0.5, 1, 2, 4, 8, 8, 16, 16
	Up to 48 NM for transmit output 4 kW Up to 64 NM for transmit output 6 kW / 12 kW (32 NM is for 6 kW / 12 kW only) Up to 96 NM for transmit output 25 kW
Presentation modes	Head-up, North-up (True motion)**, North-up (Relative motion)**, Course-up (True motion)**, Course-up (Relative motion)**
Video levels	16
Range unit	NM, sm, km
Functions	CFAR (Clutter rejection), Interference rejection, Enhance, Process (Residual image, Averaging), VRM, EBL, Parallel index, Cursor position (Lat / Lon)**, Trail (true / relative)**, Own ship past track**, MAP (Event mark etc)**, External monitor output, Inter-switch, Chart overlay**
Input data format and sentences	NMEA0183 (4800 / 9600 / 19200 / 38400 bps) BWC, DBT, DPT, DTM, GBS, GGA, GLC, GLL, GNS, HDG, HDM, HDT, MTW, MWD, RMA, RMB, RMC, ROT, RTE, THS, VBW, VDM, VDO, VDR, VHW, VTG, WPL, XTE, ZDA
Output data format and sentences	NMEA0183 (4800 / 9600 / 19200 / 38400 bps) OSD, RSD, TLB, TLL, TTD, TTM
AIS interface**	500 Targets (Standard)
TT (ARPA)**	50 Targets (Standard)
Power supply	21.6 to 41.6 VDC
Power Consumption (at 24 VDC)	85 W or less / 100 W or less / 130 W or less / 150 W or less / 200 W or less

Environmental

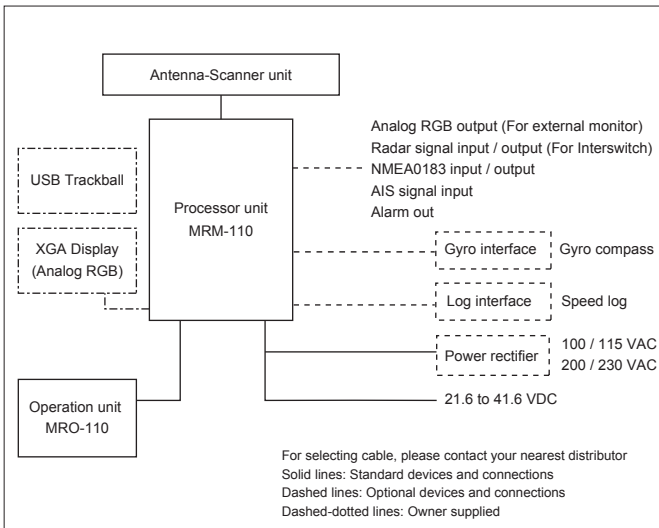
Operating temperature	-15°C to +55°C
Water Protection	IPX0 (Processor unit, MRM-110), IP23 (Operation unit, MRO-110)

* CE Model (4kW: CE Model only)

** Requires bearing data, ship's speed data and / or latitude / longitude data input.

*** For European model, please contact your nearest distributor.

CONNECTIONS



EQUIPMENT LIST

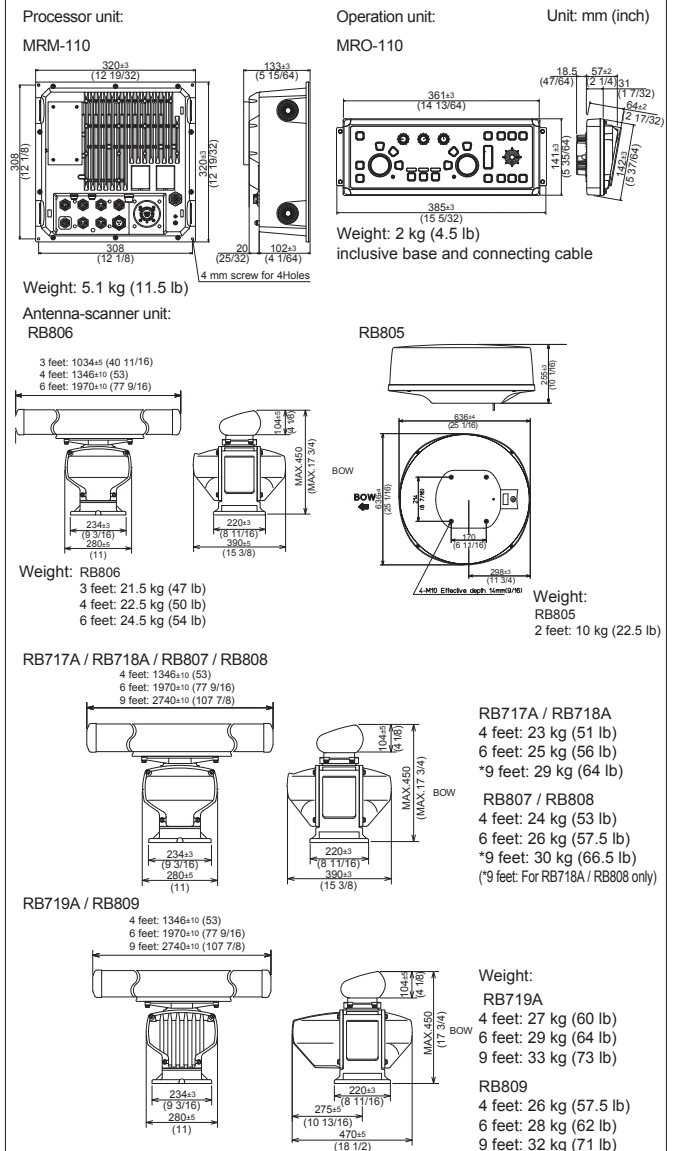
Standard Equipment

Scanner unit	RB805 / RB806	4 kW	
	RB717A / RB807	6 kW	
	RB718A / RB808	12 kW	
	RB719A / RB809	25 kW	
Antenna unit	RW701A-03	3 feet	
	RW701A-04	4 feet	
	RW701A-06	6 feet	
	RW701B-09	9 feet***	
Processor unit	MRM-110		
Operation unit	MRO-110	With 2 m connecting cable	
Connecting cable	RB807 / RB808 / RB809	CW-845-15	15 m with connectors on both sides
	RB806 / RB717A / RB718A / RB719A	242J159098B-15M	
	RB805	242J158055A-10M	10 m with connectors on both sides
DC power cable	CW-259-2M	2 m	

Option

Gyro interface unit, Log interface unit, Power rectifier, AC power cable, Connecting cables

DIMENSIONS AND WEIGHT



* Design and specifications are subject to change without notice.



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To ensure proper and safe use of the equipment, please carefully read and follow the instructions in the Operation Manual.

For details, please contact: