

# KODEN

12.1-inch Color LCD  
Marine Radar

## MDC-2000 Series

# Smart selection for safe navigation



### Features

#### ► Dual range display

Exclusive dual range radar function lets you have split-screen display of both long and short-range simultaneously. It is like having two radars in one.

#### ► True Trail function

True Trail function clearly identifies moving targets from stationary targets like land or buoys.

## SPECIFICATIONS

### Antenna-Scanner unit

Model	MDC-2041	MDC-2040	MDC-2060	MDC-2010
Type	RB715A	RB716A	RB717A	RB718A
Antenna type	Radome			
Antenna length	2 feet	3 feet	4 feet	Open antenna 4 feet   6 feet   4 feet   6 feet
Output power (Peak)	4 kW		6 kW	12 kW
Output frequency	9410 MHz ± 30 MHz			
Horizontal beam width	3.9°	2.5°	1.8°	1.8°   1.2°   1.8°   1.2°
Vertical beam width	25°			
Rotation	24 rpm or 48 rpm			
IF center frequency	60 MHz			
Range accuracy	8 meters or 1% of the range scale selected, whichever is the greater			
Bearing accuracy	1° or less			
Minimum detecting distance	Within 25 m			
Range resolution	Within 25 m			
Pulse width	0.08 us, 0.15 us, 0.3 us, 0.5 us, 1 us			

### Environmental

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

### Display unit

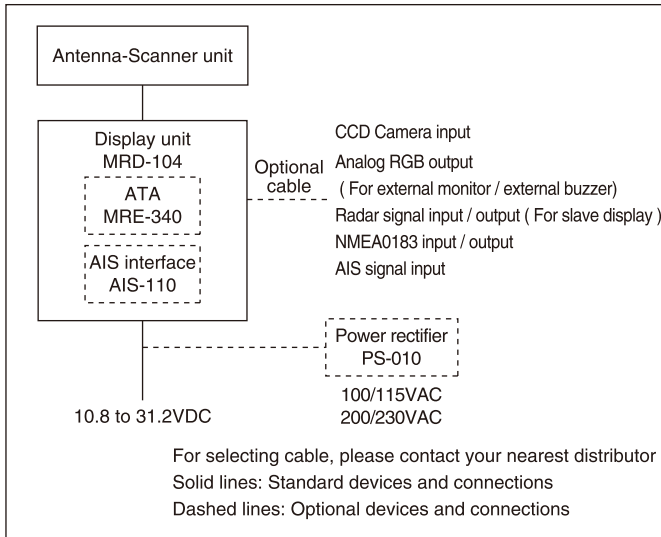
Model	MDC-2041	MDC-2040	MDC-2060	MDC-2010
Display size and type	10.4" color TFT LCD			
Effective diameter	157.4 mm			
Display resolution	480 x 640 pixels (VGA)			
Off-centering	Max. 66%			
Echo area	2 types (Full screen, Inside of effective diameter)			
Basic Range	0.0625 to 32 NM	0.0625 to 48 NM	0.0625 to 64 NM	0.0625 to 72 NM
Range scales	0.0625, 0.125, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 64, 72			
Range interval	0.03125, 0.0625, 0.125, 0.25, 0.5, 1, 2, 3, 4, 6, 8, 12, 16, 18			
Presentation modes	Head-up, North-up*, Course-up*, WPT-up**			
Indication system	PPI, PPI/PPI, PPI/NAV			
Video level	8 levels (colors)			
Range unit	NM, km, sm			
Alarms	Echo (IN / OUT), ATA / AIS (CPA / TCPA) etc.			
Functions	Interference rejection, Target expansion, VRM, EBL (true° / relative), Parallel index, Cursor position (Lat / Lon)***, Bearing (true° / relative), Trail**, RGB Monitor output, Slave display monitor input/output, External Buzzer output, Accepts CCD camera input, etc.			
Input data format and sentences	NMEA0183 Ver.1.5/2.0/3.0 BEC, BWC, BWR, DPT, DBT, GGA, GLL, GNS, HDG, HDM, HDT, MTW, MWD, MVV, RMA, RMB, RMC, VHW, VTG, XTE			
Output data format and sentences	NMEA0183 Ver.2.0 TTM, TLL			
NMEA input / output(s)	2			
AIS interface***	100 targets (Option)			
ATA***	50 targets (Option)			
Power supply	10.8 to 31.2 VDC			
Power consumption (at 24 VDC)	65 W or less	80 W or less	110 W or less	130 W or less

### Environmental

Operating temperature	-15°C to +55°C
Water protection	IPX5

- \* Requires bearing data input.  
 \*\* Requires waypoint data input.  
 \*\*\* Requires bearing data, ship's speed data and latitude / longitude data input.

## CONNECTIONS



## EQUIPMENT LIST

### Standard Equipment

Antenna-Scanner unit	RB715A	4 kW	MDC-2041
	RB716A	4 kW	MDC-2040
Scanner unit	RB717A	6 kW	MDC-2060
	RB718A	12 kW	MDC-2010
Antenna unit	RW701A-03	3 feet	MDC-2040
	RW701A-04	4 feet	MDC-2040/2060/2010
	RW701A-06	6 feet	MDC-2060/2010
Display unit	MRD-104	with hard cover	
Connecting cable	242J158055A-10M	10m	MDC-2041
	242J159098A-10M	10m	MDC-2040
	242J159098B-15M	15m	MDC-2060/2010
DC power cable	CW-259-2M	2 m	
Operation manual, Quick reference, Installation material, Spare parts			

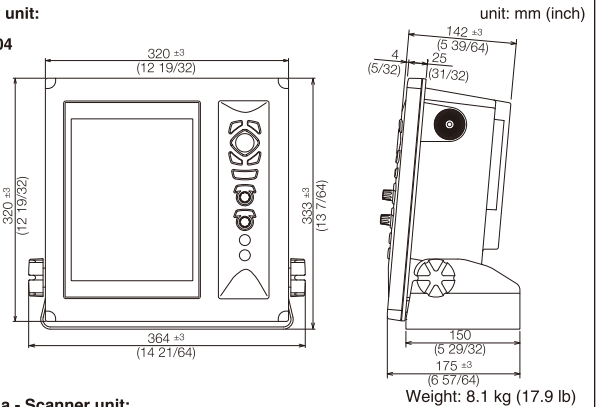
### Option

ATA, AIS interface, CCD camera cable, Gyro/Log interface, Power rectifier, AC power cable, Connecting cable for external monitor / external buzzer

## DIMENSIONS AND WEIGHT

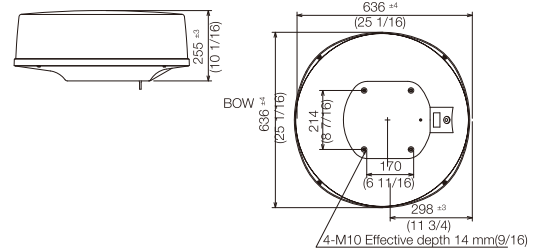
### Display unit:

#### MRD-104

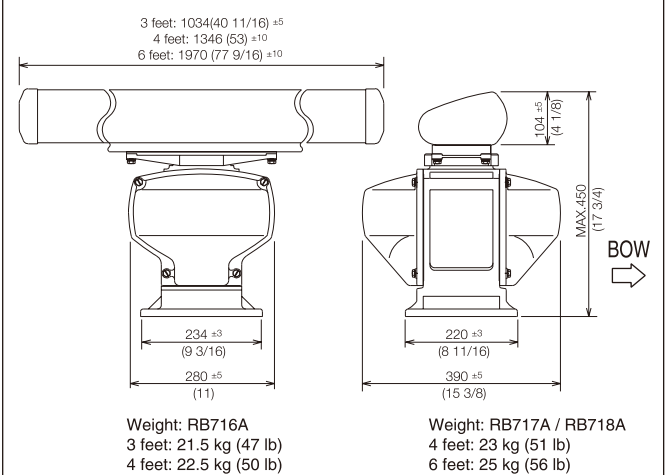


### Antenna - Scanner unit:

#### RB715A



#### RB716A / RB717A / RB718A with RW701A-03/04/06



• Design and specifications are subject to change without notice.

**KODEN** Kodon Electronics Co., Ltd.

Tamagawa Office:  
 2-13-24 Tamagawa, Ota-ku, Tokyo, 146-0095 Japan  
 Tel: +81-3-3756-6501 Fax: +81-3-3756-6509  
 Uenohara Office:  
 5278 Uenohara, Uenohara-shi, Yamanashi, 409-0112 Japan  
 Tel: +81-554-20-5860 Fax: +81-554-20-5875

overseas@koden-electronics.co.jp

www.koden-electronics.co.jp



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

For details, please contact: