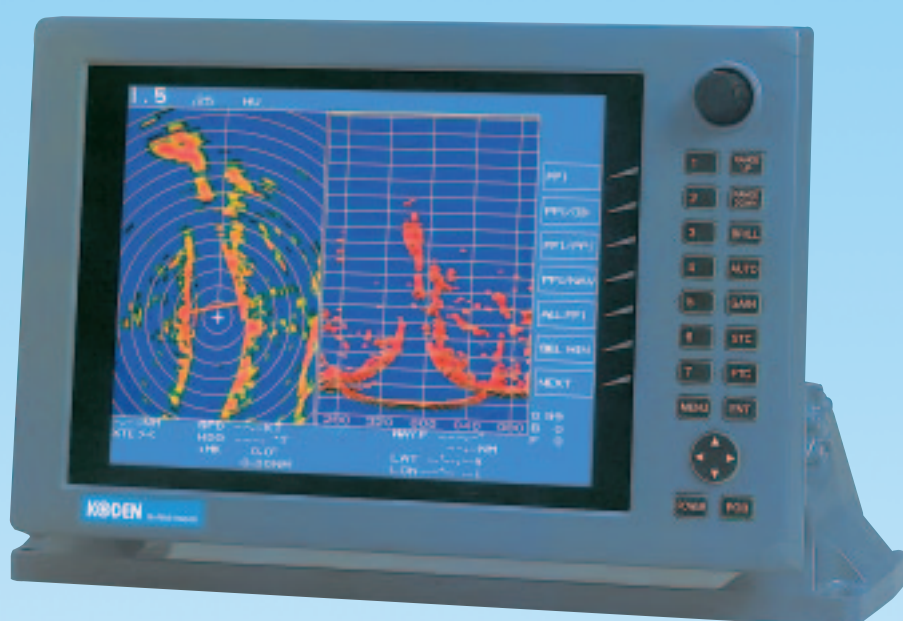


# MDC-1041/1040/1060/1010

*Ultimate choice for navigation!*

*High quality compact radar, offering crisp and clear picture.*



- MDC-1041: 2 ft, 4 kW, Radome
- MDC-1040: 3 ft / 4 ft, 4 kW, Open Antenna
- MDC-1060: 4 ft / 6 ft, 6 kW, Open Antenna
- MDC-1010: 4 ft / 6 ft, 12 kW, Open Antenna

## FEATURES

### • Dual radar screens

Using DUAL SCREEN mode, you can monitor ships coming and going close and at the same time locate a far distant coastline.

### • Semi-3D display

Radar echoes are shown as realistic visual impressions. The amplitude of echo is determined by its signal strength and is painted on the Mercator type coordinate. The semi-3D display is shown together with normal radar screen.

### • Auto gain and clutter controls are standard

Using the AUTO key, your radar settings are automatic for the gain and rain/sea clutter. The radar's computer expertly sets Gain, STC, and FTC levels, allowing the operator to concentrate on other chores. Previously, these features were found only in larger and more expensive radar systems.

### • High speed antenna

You can select your antenna rotation speed to 48 rpm via the menu. A vital feature for fast moving ship navigating congested waters, rivers, canal, etc.

### • ATA option

The Automatic Tracking Aid feature is available as an option. Using this option your radar tracks up to 10 targets, providing the latest collision avoidance information in vector form.

### • Semi-continuous range scales

Closely separated range scales are available via the menu. The

scale value increases or decreases by approximately 10% of the range in use. This feature is quite essential for the navigation in congested waters, which requires constant vigilance.

### • On screen Multi-languages

Sixteen languages are available as standard and can be selected via the menu. These include; Chinese, Danish, English, French, German, Greek, Italian, Japanese, Korean, Norwegian, Portuguese, Russian, Spanish, Swedish, Turkish, and Thai.

### • One-key-one-function plus menu operation

Six dedicated key switches are provided for fundamental radar controls, such as range scale, brilliance, Gain, STC and FTC. Plus, a variety of additional functions are also available via the menu.

### • User defined keys

Frequently used functions can be assigned to seven user-defined keys. Available functions total 24, and are assorted into 4 groups. You can customize this radar to your own operational needs.

### • Rotary control

One large rotary control is provided for quick and easy operation controlling EBL, VRM, Gain, STC and FTC. No more cumbersome key controls are needed, such as, up and down, right and left.

### • Splash proof display

The display unit can be installed even in a place where water splash protection is not good such as, the fly bridge, open deck, etc.

## SPECIFICATIONS

### Antenna unit

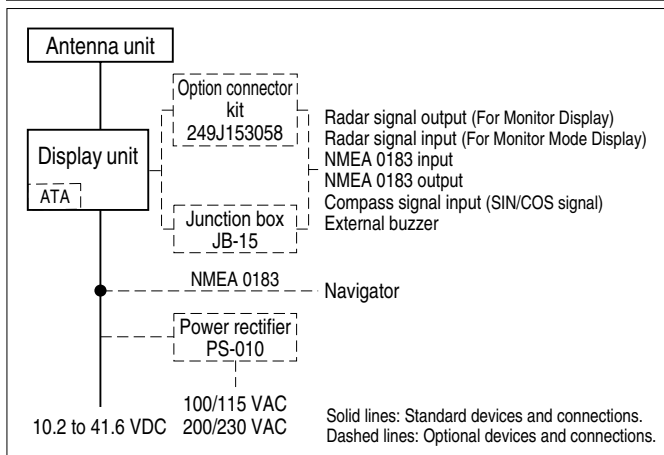
Model	MDC-1041	MDC-1040	MDC-1060	MDC-1010
Aerial	2 feet (radome)	3 feet / 4 feet	4 feet / 6 feet	4 feet / 6 feet
Peak power output	4 kW		6 kW	12 kW
Transmitting frequency	9410 ± 30 MHz			
Beam width	Horizontal	3.9°	2.5°/1.8°	1.8°/1.2°
	Vertical	25°	22°	
Rotation	24 or 48 rpm (MDC-1040: 24 VDC or more)			
Pulse length (μsec)/ PRF (Hz)	S	0.08/2000	0.08/2000	
	M1	0.25/1500	0.3/1500	
	M2		0.6/1000	
	L	0.8/600	1.0/500	
IF center frequency	60 MHz			
Noise figure	6.5 dB or less			
Operating temperature	-25°C to +55°C (-13°F to +131°F)			
Operation in wind (relative)	100 knots			

### Display unit

Display	10.4-inch color LCD		
Resolution	640 x 480 pixels		
Video level	4 levels		
Indication system	PPI, PPI + semi-3D, Split radar range		
Presentation modes	Head up, * North up, ** Course up, *** True motion		
Range scales (nm)	0.125	0.25	0.5 0.75 1.5 3 6 12 24 36 (48) (64) (72)
Rings interval (nm)	0.0625	0.0625	0.125 0.25 0.25 0.5 1 2 4 6 (8) (16) (12) (48)/(8): MDC-1040/1060/1010, (64)/(16): MDC-1060, (72)/(16): MDC-1010
Off-center	Can be 100% off-centered over the full range		
Echo trail interval	Continuous, 15, 30 sec, 1, 3, 6 min		
Alarm	IN and OUT alarms		
Minimum range	Better than 25 m on 0.125 nm range		
Range discrimination	Better than 25 m		
Range accuracy	Better than 8 m (26 feet) or 0.9% of the maximum range of the scale in use, whichever is the greater		
Bearing accuracy	Better than ± 1°		
Navigation data display	Boat position (Latitude/longitude), bearing and speed		
Other functions	Gain, STC, FTC, Auto tuning, Heading marker off, Interference rejection, Target expansion, Zoom, Two VRMs, Two EBLs (0.1° step), Floating EBL/VRM, Cursor position (latitude/longitude), Parallel cursor, Bearing (true/relative), Distance unit (nm/km), Signal processing, Location memory, Intermittent transmission		
Input data format	NMEA 0183 (BER, BEW, BPI, BWC, BWR, DBT, DPT, GGA, GLL, HDG, HDM, HDT, HSC, MTW, RMA, RMB, RMC, VHW, VTG, XTE)		
Power supply	10.2 to 41.6 VDC		
Power consumption	55 W or less	70 W or less	80 W or less 90 W or less
Operating temperature	0°C to +55°C (+32°F to +131°F)		

\* North up, \*\* Course up mode : Bearing data from an electric compass, a gyro compass or a navigator is required.  
\*\*\* True motion : Speed data from a speed log, and Bearing data from an electric compass, a gyro compass or a navigator is required.

## CONNECTIONS



## EQUIPMENT LIST

### Standard equipment

Antenna unit	Aerial	RB715A	2 feet, MDC-1041	1
		RW701A-03	3 feet, MDC-1040	
	RW701A-04	4 feet, MDC-1040/1060/1010		
	RW701A-06	6 feet, MDC-1060/1010		
Transceiver	RB716A	MDC-1040	1	
	RB717A	MDC-1060		
	RB718A	MDC-1010		
Display unit	MRD-97	With hard cover, MDC-1041/1040	1	
	MRD-97B	With hard cover, MDC-1060/1010		
Connecting cable	242J158055A-10M	10 m (32 13/16 ft), with two connectors, MDC-1041	1	
	242J158098A-10M	10 m (32 13/16 ft), with two connectors, MDC-1040/1060/1010		
DC power cable	242J158054-2M	2 m (6 9/16 ft), MDC-1041/1040	1	
	CW-249-2M	2 m (6 9/16 ft), MDC-1060/1010		
Spare parts kit			1 set	
Installation materials			1 set	
Operation manual			1	

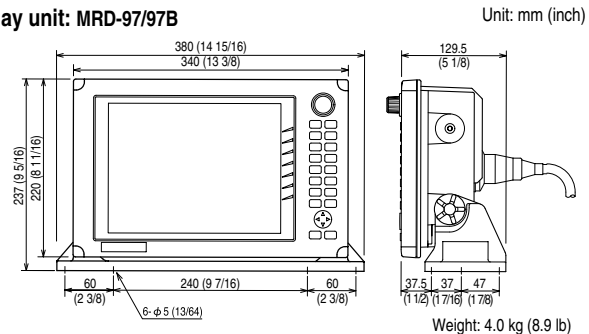
Note: Other cable length selections available; 15 m, 20 m, 30 m

### Options

ATA	MRE-230	Manual, with connecting cable
	MRE-280	Auto, with connecting cable
Flush mount kit packing	23E73298	RF718A.FM.KIT
Option connector kit	249J153058	
Junction box	JB-15	For external connection, with 1.5 m cable
Power rectifier	PS-010	With two 5 A fuses
AC power cable	VV-2D8	3 m (9 13/16 ft), both ends plain

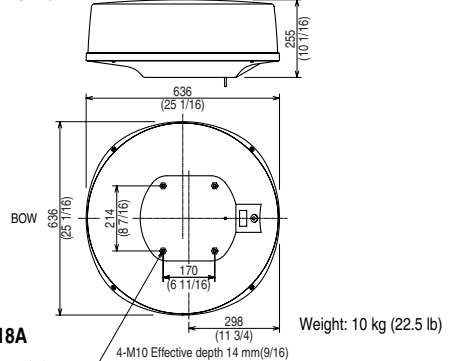
## DIMENSIONS AND WEIGHT

### Display unit: MRD-97/97B



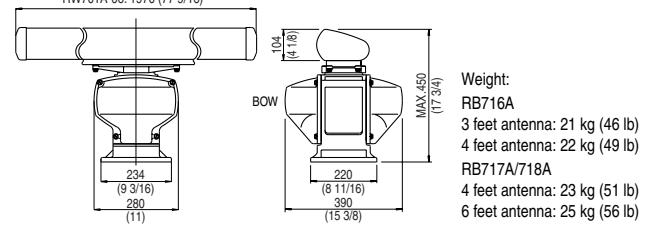
### Antenna-Scanner unit:

#### RB715A



#### RB716A/717A/718A

RW701A-03: 1034 (40 11/16)  
RW701A-04: 1346 (53)  
RW701A-06: 1970 (77 9/16)



• Design and specifications are subject to change without notice.

# KODEN

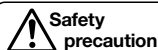
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**Safety precaution**

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

For details, please contact: