

## 7-inch Color LCD Marine Radar

# MDC-721/741/740

# Ultimate choice for navigation!

High quality compact radar, offering crisp and clear picture.

MDC-721: 1.2 ft, 2 kW, Radome MDC-741: 2 ft, 4 kW, Radome MDC-740: 3 ft / 4 ft, 4 kW, Open Antenna



### FEATURES

#### • 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 as 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 (MDC-741/740)

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 in 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

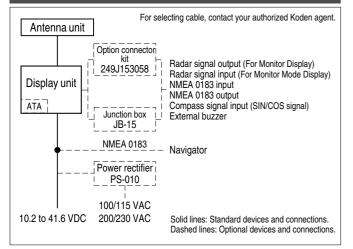
	MDC-721	MDC-741 MDC-740				
	1.2 feet (radome)	2 feet (radome)	3 feet / 4 feet (Open scan)			
	2 kW (1.5 kW: S pulse)	4 kW				
y	9445 ± 30 MHz	9410 ± 30 MHz				
al	6.0°	3.9°	2.5° (3 feet) / 1.8° (4 feet)			
	25°		22°			
	24 rpm ± 20%	24 or 48 rpm	24 or 48 rpm (24 VDC or more)			
S	0.12/2000	0.08/2000				
M	0.3/1500	0.25/1500				
L	0.8/600	0.8/600				
IF center frequency 6		60 MHz				
Noise figure 6.5 dB		.5 dB or less				
Operating temperature -25°C to +55°C (		13°F to +131°F				
Operation in wind (relative) 100 knots						
	y al S M L	2 kW (1.5 kW: S pulse) y 9445 ± 30 MHz al 6.0° 25° 24 rpm ± 20% S 0.12/2000 M 0.3/1500 L 0.8/600 60 MHz 6.5 dB or less a -25°C to +55°C (-	1.2 feet (radome) 2 feet (radome)   2 kW (1.5 kW: S pulse) 4 kW   y 9445 ± 30 MHz 9410 ± 30 MHz   al 6.0° 3.9°   25° 24 rpm ± 20% 24 or 48 rpm   S 0.12/2000 0.08/2000   M 0.3/1500 0.25/1500   L 0.8/600 0.8/600   60 MHz 6.5 dB or less   e -25°C to +55°C (-13°F to +131°F)			

#### **Display unit**

Biopiay ante				
Display	7-inch color LCD (TFT)			
Resolution	640 x 480 pixels			
Video level	4 levels			
Indication system	PPI, PPI + semi-3D, ALL PPI			
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)			
Rings interval (nm)	0.0625 0.125 0.25 0.5 0.5 1.0 2.0 4.0 8.0 (12.0) (12.0)			
	(36)/(12.0): MDC-741, (48)/(12.0): MDC-740			
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 30 m (MDC-721), 25 m (MDC-741/740) on 0.125 nm			
Range discrimination	Better than 30 m (MDC-721), 25 m (MDC-741/740)			
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 $\pm 1^{\circ}$			
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), par- allel 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	45 W (MDC-721) / 55 W (MDC-741) / 70 W (MDC-740) 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 form a speed log, and Bearing data from an electric compass, a gyro compass or a navigator is required.

#### CONNECTIONS



### **EQUIPMENT LIST**

#### Standard Equipment List

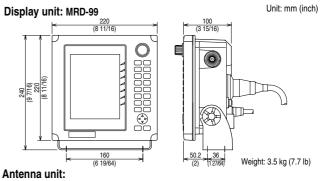
		-	
Antenna unit	RB714A 1.2 feet, MDC-721		1
	RB715A	2 feet, MDC-741	
Aerial	RW701A-03	3 feet, MDC-740	
	RW701A-04	4 feet, MDC-740	
Transceiver	RB716A	MDC-740	
Display unit	MRD-99	With hood and hard cover	
Connecting cable	242J160680A-10M	With two connectors, MDC-721	10 m (32 13/16 ft)
	242J158055A-10M	With two connectors, MDC-741	
	242J159098A-10M	With two connectors, MDC-740	
DC power cable	CW-252-2M	With a connector and one end plain	2 m (6 9/16 ft)
Spare parts kit			1 set
Installation materials			1 set
Operation manual			1

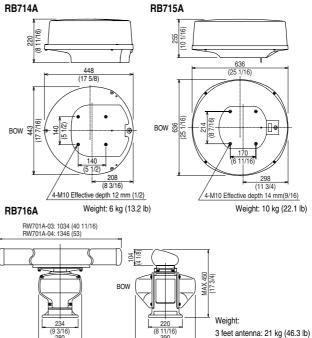
Note: Other cable length selections available : 15 m, 20 m, 30 m

#### Option

MRE-270	Manual, with connecting cable
MRE-290	Auto, with connecting cable
249J153058	
JB-15	For external connection, with 1.5 m cable
PS-010	With two 5 A fuses
VV-2D8-3M	3 m (9 13/16 ft), both ends plain
	MRE-290 249J153058 JB-15 PS-010

#### **DIMENSIONS AND WEIGHT**





• Design and specifications are subject to change without notice.

To ensure proper and safe use of the equipment, please carefully

4 feet antenna: 22 kg (48.5 lb)

(15 3/8)

read and follow the instructions in the Operation Manual.



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Safety