SPECIFICATIONS

Antenna-Scanner unit

Model	MDC-921	MDC-941	MDC-940
Antenna type	Radome		Open array
Antenna length	1.2 feet	2 feet	3 feet /4 feet
Output power (Peak)	2 kW	4 kW	
Output frequency	9445 MHz ± 30 MHz	9410 MHz ± 30 MHz	
Horizontal beam width	6.0°	3.9°	3 feet: 2.5° 4 feet: 1.8°
Vertical beam width	25°		22°
Rotation	24 rpm	24 rpm or 48 rpm	24 rpm or 48 rpm (48 rpm: 24 VDC or more)
IF center frequency	60 MHz		
Range accuracy	better than 8 m		
Minimum detecting distance	within 30 m	within 25 m	
Range resolution	within 30 m	within 25 m	
Warm-up time	2 min		
Pulse width	0.1 us, 0.15 us, 0.3 us, 0.5 us, 1 us		

Environmental

Water protection	CFR-46	IPX6	IPX6
Operating temperature	-25°C to +55°C		

Display unit

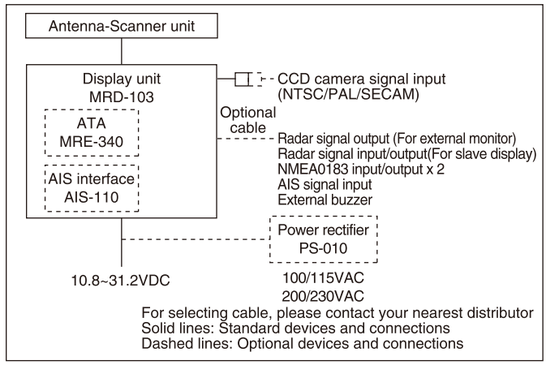
Model	MDC-921	MDC-941	MDC-940
Power output (Peak)	2 kW	4 kW	4 kW
Maximum range	24 NM	32 NM	48 NM
Display unit	MRD-103		
Display size / type	8.4" color TFT LCD		
Effective diameter	127.4 mm		
Display resolution	480 x 640 pixels		
Off-centering	Max. 66%		
Echo area	2 types (Full screen, Inside of effective diameter)		
Presentation modes	Head-up, North-up*, Course-up*, WPT-up**		
Indication system	PPI, PPI/PPI, PPI/NAV		
Rings interval	0.03125(0.0625), 0.0625(0.125), 0.125(0.25,0.5), 0.25(0.75,1), 0.5(1.5,2), 0.75(3), 1(4),1.5(6), 2(8), 3(12), 4(16), 6(24), 8(32), 12(48) ( ): Range scales		
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 nm (MDC-921 up to 24 nm, MDC-941 up to 32 nm, MDC-940 up to 48 nm)		
Video level	8 levels (colors)		
Distance unit (VRM UNIT)	NM, sm, km		
Alarms	IN and OUT alarms		
Other functions	Interference rejection, Target expansion, VRM, EBL, Parallel index, Cursor position (Lat/Lon), Bearing (true/relative), Trail*, RGB Monitor output, Slave display monitor input/output, External Buzzer, Accepts CCD camera input		
Input data format	BEC, BWC, BWR, DPT, DBT, GGA, GLL, GNS, HDG, HDM, HDT, MTW, MWD, MWV, RMA, RMB, RMC, VHW, VTG, XTE		
Output data format	TTM, TLL		
NMEA input/output ports	2		
ATA	Option (Auto/Manual 50 Targets)		
AIS interface	Option (100 Targets)		
Power supply	10.8 to 31.2 VDC		
Power consumption (at 24 VDC)	45 W or less	55 W or less	70 W or less

Environmental

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

* Requires heading, speed, and/or position signal input from external equipment including GPS Compass depending on application of user.
** Requires waypoint data input.

CONNECTIONS



For selecting cable, please contact your nearest distributor
Solid lines: Standard devices and connections
Dashed lines: Optional devices and connections

EQUIPMENT LIST

Standard Equipment

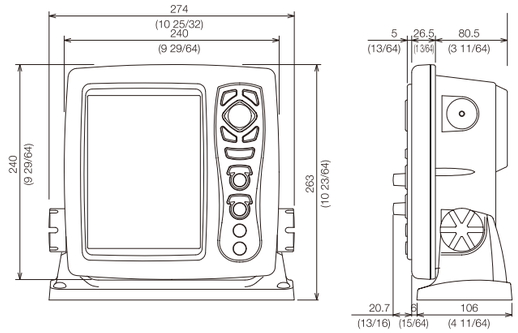
Antenna-Scanner unit	RB714A	1.2 feet	2 kW	MDC-921
	RB715A	2 feet	4 kW	MDC-941
Scanner	RB716A		4 kW	MDC-940
Antenna	RW701A-03	3 feet		MDC-940
	RW701A-04	4 feet		MDC-940
Display unit	MRD-103	with hard cover		
Connecting cable	242J160680A-10M	With two connectors, MDC-921		
	242J158055A-10M	With two connectors, MDC-941		
	242J159098A-10M	With two connectors, MDC-940		
DC power cable	CW-265-2M	2 m		
CCD camera cable	CW-405-0.3M			
Operation manual, Quick reference, Fuse (8A)				

Option

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

DIMENSIONS AND WEIGHT

Display unit: mm (inch)
MRD-103(MDC-900 series)



Weight : 3.7 kg (8.3 lb)

Antenna - scanner unit:

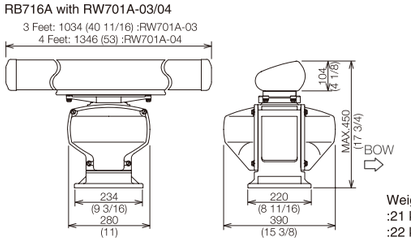
RB714A

Weight: 6 kg (13.5 lb)

RB715A

Weight: 10 kg (22.5 lb)

RB716A with RW701A-03/04



Weight for RB716A
:21 kg (46 lb) 3 feet
:22 kg (49 lb) 4 feet

• Design and specifications are subject to change without notice.

Koden 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

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:

08-10, Printed in Japan

8.4-inch Color LCD Marine Radar

MDC-900 Series

KODEN

8" REVOLUTION !

MDC-900 Series

High-performance, sophisticated signal processing, usually found only in larger professional grade radars.

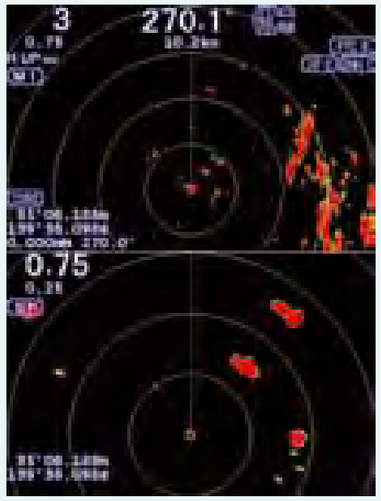
MDC-921 : 2 kW, 1.2 feet Radome
MDC-941 : 4 kW, 2 feet Radome
MDC-940 : 4 kW, 3 feet / 4 feet Open

True trail function

The display shows exactly the movement of other vessels like drawing tails, while land and buoys are shown as stationary objects even while your vessel is moving. This makes it easy for you to distinguish moving from stationary objects.

Dual range display

Exclusive dual range radar feature lets you view split-screen display of both long and short-range targets simultaneously. It's like having two radars in one.

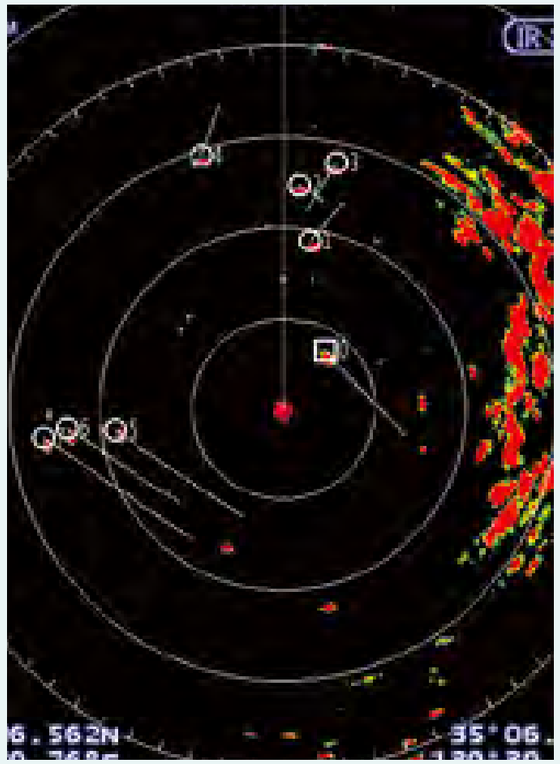


CCD Camera input

Accepts CCD camera input, with which you can watch above deck and below deck any time you are steering.

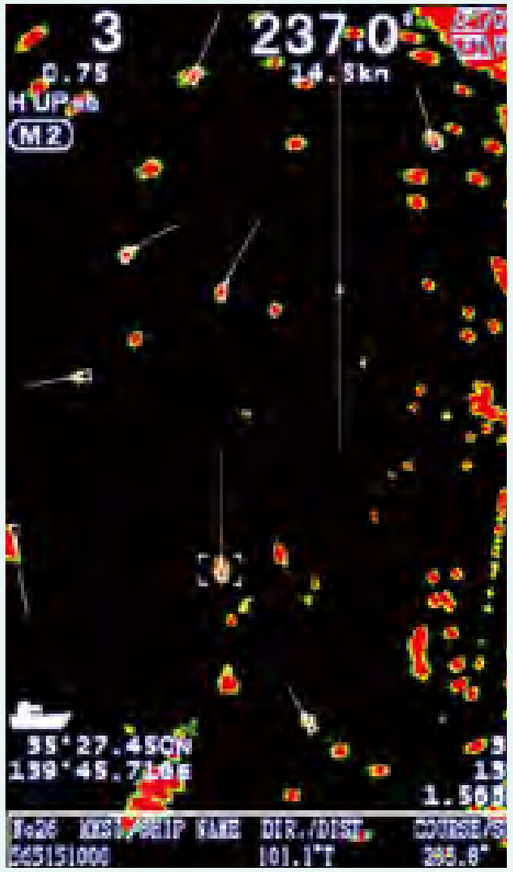
ATA with up to 50 targets as option

The convenient ATA (Automatic Tracking Aid) function comes as option.
The latest movements of other vessels can be shown instantaneously in vector form and numeric form, ensuring safe navigation.
When the automatic acquisition zone is set, up to 50 targets entering the zone will be locked automatically.



AIS interface up to 100 targets as option

When connected with an AIS receiver, the radar displays information on up to 100 targets including the name, heading, and speed of each vessel with an AIS transmitter mounted.



Other features

Direct bonding of Anti-Reflecting coating filter to LCD for increasing visibility and preventing condensation.

Real time smooth Head-up indication.

RGB output available for connecting external monitor. You can monitor the Radar even when you are away from steering.

Easy operation with dedicated control knobs for Gain and STC.

New sleek, compact case design can be mounted almost anywhere.

Built-in flush-mounting system for easy installation, as you can mount screws from front side.