

KODEN

7-INCH HIGH-RESOLUTION MARINE RADAR

MD-3420Mk2/3441



MD-3420Mk2: 0.9 ft, 2 kW, Radome

MD-3441: 1.5 ft, 4 kW, Radome

FEATURES

- **Convenient function keys and menu system**

By assigning frequently used functions to the two FUNC keys, you can promptly select different radar modes. The menu system also allows for easy selection of the different function choices.

- **The latest technology in pointing device**

A newly developed pointing device that is both water-tight and dust-proof is used. This device enables you to make an easy and prompt selection of the variable range maker and other user functions.

- **Freely selectable range scales**

The optimum range scale to suit your present situation can be selected from a host of range scale choices available. No need to worry any more about the measuring distances.

- **Own track indication and picture mode selection make navigation easy.**

By connecting your navigation system and electric com-

pass or gyrocompass, you can display your own vessel's track on the display. North up, course up, head up and true motion modes are also available.

- **The location memory can be conveniently used for finding buoys and for rescue work.**

This system memorizes the location of your boat when the FUNC key is pressed. This function is especially effective for locating someone who has fallen overboard or returning to previously dropped buoys (connection to a navigation system is necessary).

- **Warning zone setting to alert you of closing events.**

By designating two points using the cursor, a flexible warning zone can be created. An IN and OUT alarm mode can also be selected.

- **Intermittent transmission watch**

The intermittent transmission function is located in the SAVE mode. This feature is particularly useful for watch keeping under reduced power consumption.

SPECIFICATIONS

Antenna unit

Model	MD-3441	MD-3420Mk2
Aerial	1.5 feet (radome)	0.9 feet (radome)
Peak power output	4 kW	2 kW
Transmitting frequency	9410 ± 30 MHz	9445 ± 30 MHz
Beam width	Horizontal 4.7 ° Vertical 25 °	7 °
Rotation	24 rpm	
Pulse length (µsec)/	S 0.1 / 2000	0.1/2200
PRF (Hz)	M1 0.25 / 2000	0.3/1100
	M2 0.5 / 1000	0.8/550
	L 1.0 / 500	
IF center frequency	60 MHz	
IF band width	S, M1 6 MHz	
	M2, L 3 MHz	
Noise figure	6 dB nominal	10 dB nominal
Operating temperature	-25 °C to +55 °C (-13 °F to +131 °F)	
Operation in wind (relative)	100 knots	

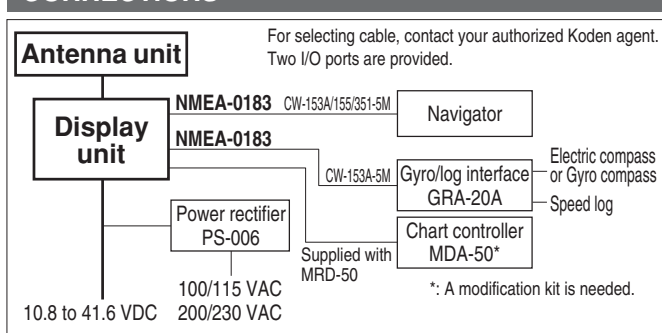
Display unit

Display	7-inch monochrome green high resolution CRT
Resolution	480 x 640 pixels
Video level	4 levels
Presentation modes	Head up, *north up, **course up, ***true motion
Range scales (nm)	1/8 1/4 1/2 3/4 1 1.5 2 3 4 6 8 12 16 24 (32)
Rings interval (nm)	1/16 1/8 1/4 1/4 1/4 1/2 1/2 1 1 2 2 3 4 6 (8) (): MD-3441
Off-center	Sweep origin can be moved to any position within 75 % of the effective diameter
Echo trail interval	Continuous, 15, 30 sec., 1, 3, 6 min., OFF
Alarm	IN and OUT alarms
Minimum range	Better than 20 m (66 feet) on 1/8 nm range
Range discrimination	Better than 20 m (66 feet)
Range accuracy	Better than 7 m (23 feet) or 0.8 % 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, Loran C LOP) or bearing/speed
Other functions	Gain, STC, FTC, heading marker off, Interference rejection, target expansion, zoom, two VRMs, two EBLs (0.1 ° step), floating EBL/VRM, cursor position (latitude/longitude), parallel cursor, steering/distance of target (true/relative), distance unit (nm/km), signal processing, location memory, intermittent transmission
Input data format	NMEA-0183 (BOD, BWC, GGA, GLL, GTD, HCC, HDM, HDT, HSC, VHW, VTG, WDC, WPL), NMEA-0182, CiF, JRC
Power supply	10.8 to 41.6 VDC
Power consumption	50 W or less (at 24 VDC) 35 W or less (at 24 VDC)
Operating temperature	-15 °C to +55 °C (+5 °F to +131 °F)

* North up, **course up mode : Bearing data from electric compass, gyro compass or a navigator is required.

*** True motion : Speed data from speed log, and Bearing data from electric compass, gyro compass or a navigator is required.

CONNECTIONS



EQUIPMENT LIST

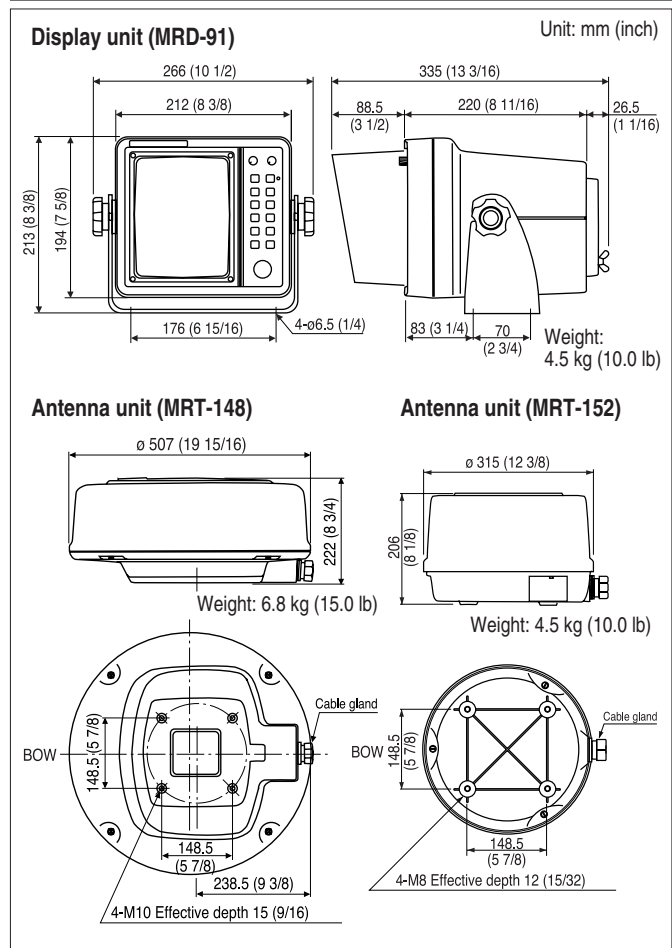
Standard equipment

Antenna unit	MRT-148	1.5 feet, MD-3441	1
	MRT-152	0.9 feet, MD-3420Mk2	
Display unit	MRD-91	With vinyl cover	1
Hood	MRH-100		1
Connecting cable	CW-525-10M	With 24-pin and 14-pin connectors, MD-3441	10 m (32 13/16 ft)
	CW-528-10M	With 24-pin and 9-pin connectors, MD-3420Mk2	
DC power cable	CW-04-3M	With 3-pin connector and one end plain	3 m (9 13/16 ft)
Spare parts kit			1 set
Installation materials			1 set
Operation manual			1

Option

Gyro/log interface	GRA-20A	With power and connecting cable
EMI filter	MRF-100	
Magnifying lens	MRL-100	
Connecting cable	CW-153A-5M	5 m (16 3/8 ft), with 6-pin connectors
	CW-154A-5M	5 m (16 3/8 ft), with 6-pin connector and one end plain
	CW-155-5M	5 m (16 3/8 ft), with BNC and 6-pin connectors
	CW-327/351-5M	5 m (16 3/8 ft), with 6-pin connectors
Chart controller	MDA-50	With bracket and cables
Power rectifier	PS-006	With two 10 A fuses
AC power cable	VV-2D8-3M	3 m (9 13/16 ft), both ends plain

DIMENSIONS AND WEIGHT



* Specifications subject to change without notice.

KODEN

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Certified to ISO 9001 (TUV PRODUCT SERVICE)



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: