

19-inch Color LCD / Black Box type
Marine Radar

KODEN

MDC-7900P/7000P Series

Trusted High Performance Radar
for Professionals



MDC-7000P

MDC-7900P

Designed to comply with New IMO and IEC regulations

IMO A.278(VIII) / IMO A.694(17) / IMO A.813(19)
IMO MSC.191(79) / IMO MSC.192(79) / IMO MSC.64(67)
IEC 62388 Ed.2 / IEC62288 Ed.2
IEC 61993-2 / IEC61162-2

KODEN 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:

MDC-7000P MDC-7900P Series

MDC-7012P / MDC-7912P : 12 kW 4 feet / 6 feet / 9 feet Open
MDC-7025P / MDC-7925P : 25 kW 4 feet / 6 feet / 9 feet Open

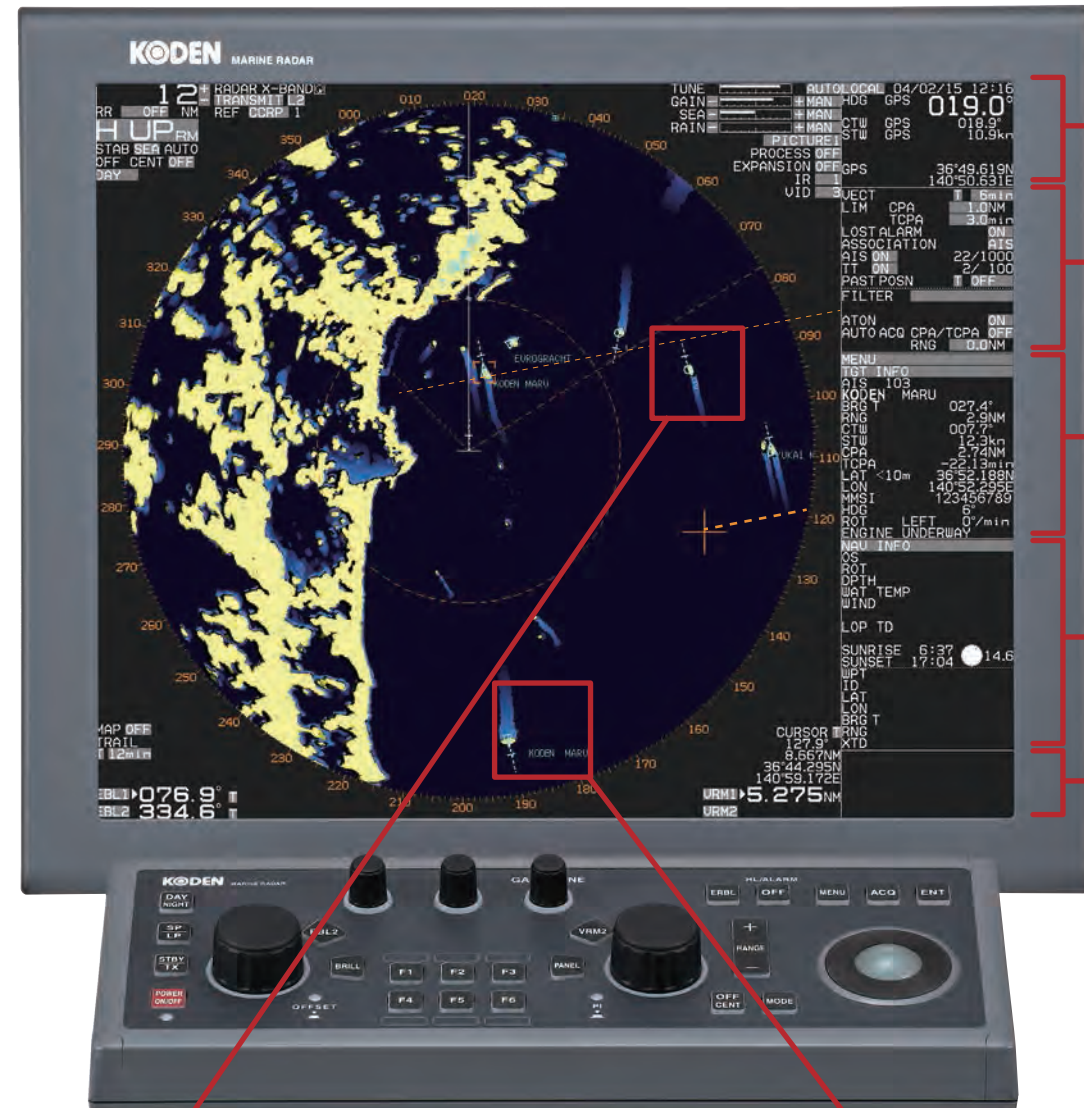
MDC-7900P series provides outstanding performance and clear image on a 19-inch high resolution SXGA display with anti-reflection coating. MDC-7000P Black Box radars connect to a SXGA type display approved by the notified body.

Model

19-inch Display type		Black Box type	
MDC-7912P	MDC-7925P	MDC-7012P	MDC-7025P

Features

- Clear image with High-speed sampling in short range.
- Auto GAIN with simple operation.
- Improved visibility by auto STC.
- Simple and easy operation by remote trackball unit via USB.
- Built-in AIS interface for up to 900 targets.
- Built-in TT (ARPA) tracks up to 100 targets.



Data Display

Own ship data

TT (ARPA) , AIS information

Target information

Assistant display
(Navigation information)

Alarm display

TT (ARPA)

- Built-in TT (ARPA) tracks up to 100 targets. Selectable auto acquisition or manual acquisition.

AIS

- Built-in AIS interface for displaying up to 900 targets.

SPECIFICATIONS

Antenna-scanner unit

Model	MDC-7012P / MDC-7912P	MDC-7025P / MDC-7925P
Scanner unit	RB808P	RB809P
Antenna type	Open antenna	
Antenna length	4 feet / 6 feet / 9 feet	
Output power (Peak)	12 kW	25 kW
Output frequency	9410 MHz ± 30 MHz	
Horizontal beam width	4 feet : 1.8° / 6 feet : 1.2° / 9 feet : 0.8°	
Vertical beam width	4, 6 feet : 22° / 9 feet : 25°	
Rotation	24 rpm	
IF center frequency	60 MHz	
Range accuracy	8 meters or 1% of the range scale selected, whichever is the greater	
Minimum detecting distance	Within 35 m	
Range resolution	Within 40 m	
Warm-up time	2 min	3 min
Pulse width	0.08 us, 0.15 us, 0.3 us, 0.4 us, 0.6 us, 0.8 us, 1.2 us	

Environmental

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

Display unit / Processor unit

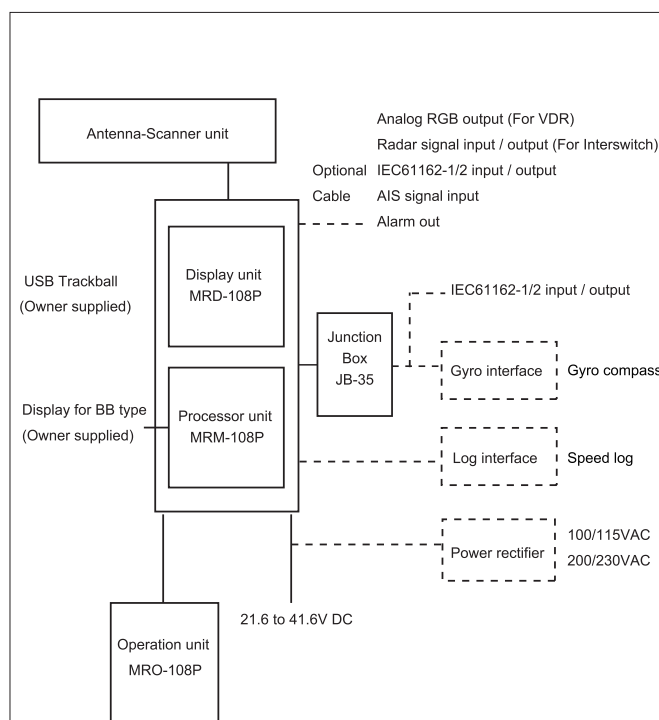
Model	MDC-7012P / MDC-7912P	MDC-7025P / MDC-7925P
Display unit	MRD-108P (MDC-7900P only)	
Display size and type	19" color TFT LCD (MDC-7900P only)	
Processor unit	MRM-108P (MDC-7000P only)	
Effective diameter	282 mm (MDC-7900P only)	
Display resolution	1280 x 1024 pixels (SXGA)	
Off-centering	Max. 75 %	
Echo area	1 types (inside of effective diameter)	
Basic Range	0.125 to 64 NM	0.125 to 96 NM
Range Scales	0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48, 64, 96	
Range interval	0.0625, 0.125, 0.25, 0.5, 1, 2, 4, 8, 16, 16	
	(64 NM : 12 kW only, 96 NM : 25 kW only)	
Presentation modes	Head-up, North-up (True motion)*, North-up (Relative motion)*, Course-up (True motion)*, Course-up (Relative motion)*	
Video levels	16	
Range unit	NM, km, sm, kf, ky	
Functions	CFAR (Clutter rejection), Interference rejection, Target expansion, Process, VRM, EBL, Parallel index, ERBL, Cursor position, Bearing (true/relative), Trail (true/relative)*, Own ship past track*, MAP (Event mark* etc.), Analog RGB output, Trial Manoeuver*	

Input data format and sentences	IEC61162-1 / -2	
Output data format and sentences	IEC61162-1 / -2	
AIS interface*	900 Targets (Standard)	
TT (ARPA)*	Auto / Manual 100 Targets (Standard)	
Power supply	21.6 to 41.6 VDC	
Power Consumption (at 24 VDC)	150 W or less	200 W or less

Operating temperature	-15°C to + 55°C	
Water Protection	Operation unit : IP23 (MDC-7000P), Front panel and operation unit : IP23 (MDC-7900P)	

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

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

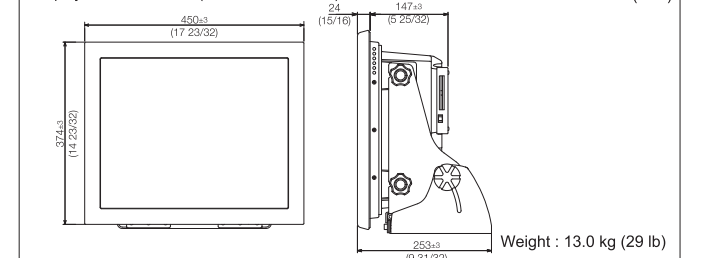
Antenna-Scanner unit	Scanner unit	RB808P	12 kW
		RB809P	25 kW
	Antenna unit	RW701A-04	4 feet
		RW701A-06	6 feet
	RW701B-09	9 feet	
Display unit (MDC-7900P only)	MRD-108P		
Processor unit (MDC-7000P only)	MRM-108P		
Operation unit	MRO-108P	With 2 m connecting cable	
Junction box	JB-35	With connecting cable	
Connecting cable	CW-845-15M	15 m with connectors on both ends	
DC power cable	CW-259-2M	2 m	
Display cable	CW-592-3M		
Operation manual, Quick reference, Installation manual, Installation material, Fuse			

Option

Gyro interface unit, Log interface unit, Power rectifier, AC power cable, Connecting cables

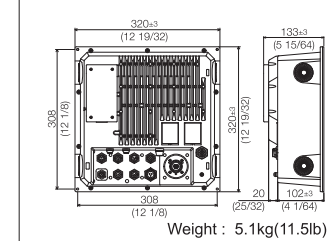
DIMENSIONS AND WEIGHT

Display unit: MRD-108P (MDC-7900P Series) Unit: mm (inch)



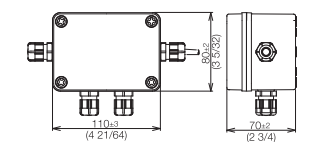
Weight : 13.0 kg (29 lb)

Processor unit: MRM-108P (MDC-7000P Series)



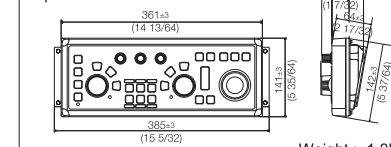
Weight : 5.1kg(11.5lb)

Junction Box : JB-35



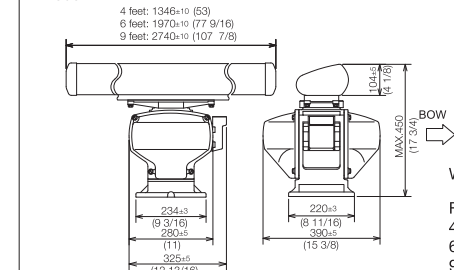
Weight : 0.25kg(0.56lb)
Without cable

Operation unit: MRO-108P



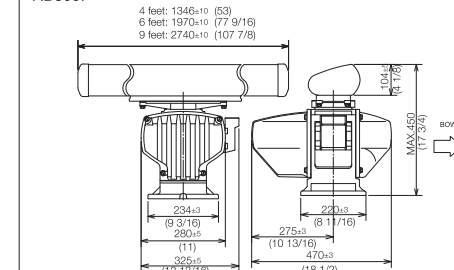
Weight : 1.8kg(4lb)

Antenna-Scanner unit
RB808P



Weight:
RB808P
4 feet: 24.5 kg (54.5 lb)
6 feet: 26.5 kg (58.5 lb)
9 feet: 30.5 kg (67.5 lb)

RB809P



Weight:
RB809P
4 feet: 26.5 kg (58.5 lb)
6 feet: 28.5 kg (63 lb)
9 feet: 32.5 kg (72 lb)