

19-inch Color LCD / Black Box type  
Marine Radar

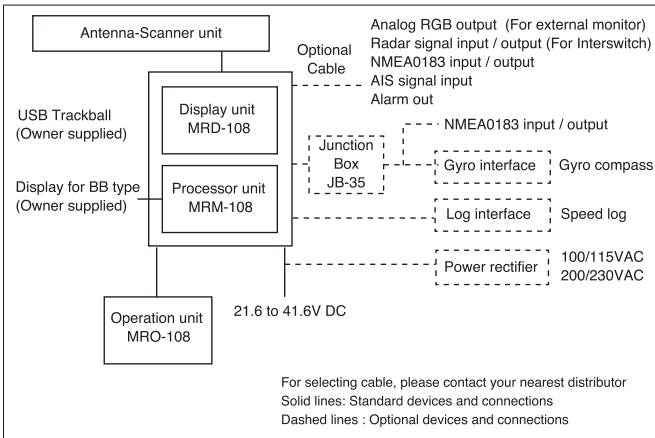
# MDC-7900/7000 Series

## SPECIFICATIONS

Antenna-scanner unit			
Model	MDC-7006 / MDC-7906	MDC-7012 / MDC-7912	MDC-7025 / MDC-7925
Scanner unit	RB807	RB808	RB809
Antenna type	Open antenna		
Antenna length	4 feet / 6 feet	4 feet / 6 feet / 9 feet	
Output power (Peak)	6 kW	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 or 48 rpm	24 rpm or 42 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 40 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		
<b>Environmental</b>			
Operating temperature	-25°C to +55°C		
Water Protection	IPX6		
Display unit / Processor unit			
Model	MDC-7006 / MDC-7906	MDC-7012 / MDC-7912	MDC-7025 / MDC-7925
Display unit	MRD-108 (MDC-7900 only)		
Display size and type	19" color TFT LCD (MDC-7900 only)		
Processor unit	MRM-108 (MDC-7000 only)		
Effective diameter	282 mm (MDC-7900 only)		
Display resolution	1280 x 1024 pixels (SXGA)		
Off-centering	Max. 75 %		
Echo area	2 types (Full screen, 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: 6 kW, 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, kt, ky		
Functions	Map overlay*, CFAR (Clutter rejection), Interference rejection, Target expansion, Process (Averaging), 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 Manoeuvre*		
Input data format and sentences	NMEA0183 BWC, DBT, DPT, DTM, GGA, GLC, GLL, GNS, HDG, HDT, HDM, MTW, RMA, RMB, RMC, ROT, RTE, THS, VBW, VDR, VHW, VTG, WPL, XTE, ZDA		
Output data format and sentences	NMEA0183 DTM, EVE, GLL, HBT, HDT, ROT, RSD, OSD, POS, THS, TLB, TLL, TTD, TTM, VBW, VDR, VHW, VTG, ZDA		
AIS interface*	1000 Targets (Standard)		
TT (ARPA)*	Auto / Manual 100 Targets (Standard)		
Power supply	21.6 to 41.6 VDC		
Power Consumption (at 24 VDC)	130 W or less	150 W or less	200 W or less
<b>Environmental</b>			
Operating temperature	-15°C to +55°C		
Water Protection	Operation unit : IP23 (MDC-7000), Front panel and operation unit : IP23 (MDC-7900)		

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

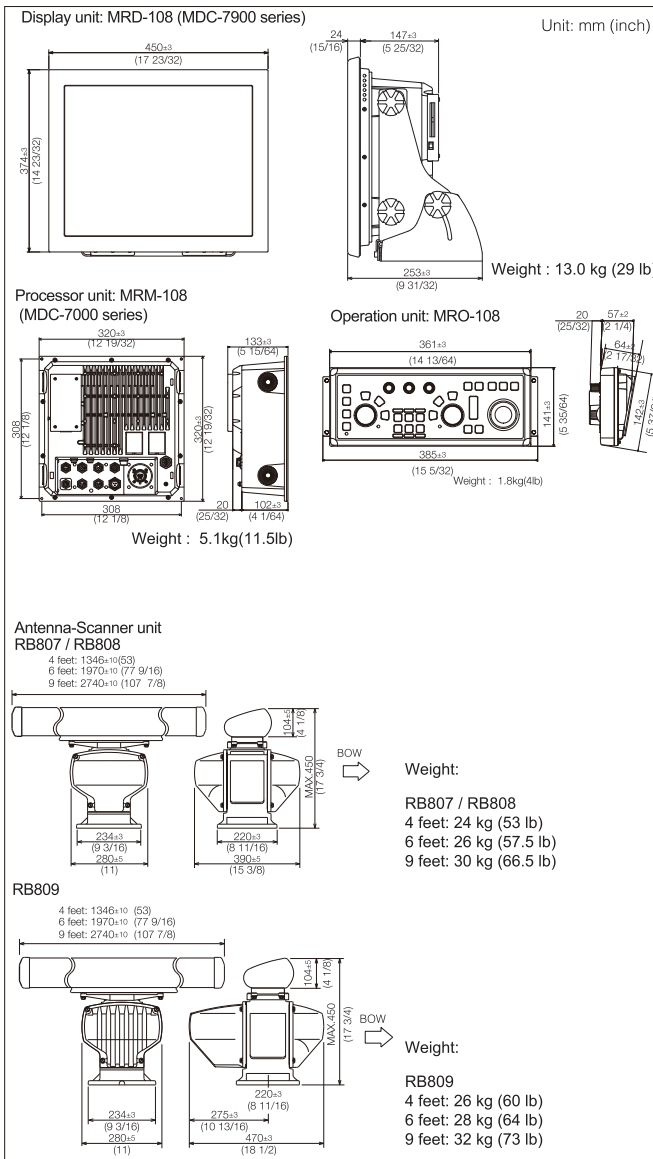
## CONNECTIONS



## EQUIPMENT LIST

Standard Equipment			
Antenna-Scanner unit	Scanner unit	RB807	6 kW
		RB808	12 kW
		RB809	25 kW
	Antenna unit	RW701A-04	4 feet
		RW701A-06	6 feet
	RW701B-09	9 feet	
Display unit (MDC-7900 only)	MRD-108		
Processor unit (MDC-7000 only)	MRM-108		
Operation unit	MRO-108	With 2 m connecting cable	
Connecting cable	CW-845-15M	15 m with connectors on both ends	
DC power cable	CW-259-2M	2 m	
Operation manual, Quick reference, Installation manual, Installation material, Fuse			
<b>Option</b>			
Gyro interface unit, Log interface unit, Power rectifier, AC power cable, Connecting cables, Junction Box			

## DIMENSIONS AND WEIGHT



\* Design and specifications are subject to change without notice.

**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



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-7000

MDC-7900



# MDC-7000 MDC-7900 Series

MDC-7900 series provide outstanding performance and clear image on a 19-inch high resolution SXGA display with anti-reflection coating.  
MDC-7000 series Black Box radars connect to any SXGA type display (owner supplied).

Model	19-inch Display type			Black Box type		
	MDC-7960	MDC-7910	MDC-7920	MDC-7060	MDC-7010	MDC-7020
Standard model	MDC-7960	MDC-7910	MDC-7920	MDC-7060	MDC-7010	MDC-7020
CE model	MDC-7906	MDC-7912	MDC-7925	MDC-7006	MDC-7012	MDC-7025

## 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 1000 targets.
- Built-in TT (ARPA) tracks up to 100 targets.
- C-Map chart (NT MAX) can be overlaid on the radar screen.  
(Chart: owner supplied)

## Map Overlay

C-Map chart (NT MAX)\*\* can be overlaid on the radar screen to provide clear radar pictures of coastlines, buoys, and other features. C-Map NT MAX "World Wide" back ground chart is built-in as standard.  
\*\*Owner supplied. Basic chart information only. Extra features of C-Map such as photo indication are not available.



Data Display

Own ship data

TT (ARPA) , AIS information

Target and Map 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 1000 targets.

## Standard model

MDC-7060 / MDC-7960	: 6 kW	4 feet / 6 feet Open
MDC-7010 / MDC-7910	: 12 kW	4 feet / 6 feet / 9 feet Open
MDC-7020 / MDC-7920	: 25 kW	4 feet / 6 feet / 9 feet Open

## CE model

MDC-7006 / MDC-7906	: 6 kW	4 feet / 6 feet Open
MDC-7012 / MDC-7912	: 12 kW	4 feet / 6 feet / 9 feet Open
MDC-7025 / MDC-7925	: 25 kW	4 feet / 6 feet / 9 feet Open

## Standard model

### SPECIFICATIONS

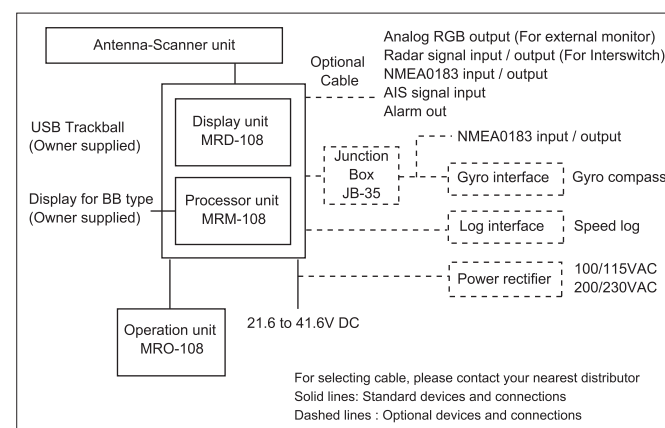
Antenna-scanner unit			
Model	MDC-7060 / MDC-7960	MDC-7010 / MDC-7910	MDC-7020 / MDC-7920
Scanner unit	RB717A	RB718A	RB719A
Antenna type	Open antenna		
Antenna length	4 feet / 6 feet	4 feet / 6 feet / 9 feet	
Output power (Peak)	6 kW	12 kW	25 kW
Output frequency	9410 MHz ± 30 MHz		
Horizontal beam width	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 or 48 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 40 m		
Range resolution	Within 40 m		
Warm-up time	2 min	3 min	
Pulse width	RB717A RB718A RB719A	0.08us, 0.25us, 0.5us, 0.7us, 1.0us 0.08us, 0.3us, 0.6us, 0.8us, 1.2us	

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

Display unit / Processor unit			
Model	MDC-7060 / MDC-7960	MDC-7010 / MDC-7910	MDC-7020 / MDC-7920
Display unit	MRD-108 (MDC-7900 only)		
Display size and type	19" color TFT LCD (MDC-7900 only)		
Processor unit	MRM-108 (MDC-7000 only)		
Effective diameter	282 mm (MDC-7900 only)		
Display resolution	1280 x 1024 pixels (SXGA)		
Off-centering	Max. 75 %		
Echo area	2 types (Full screen, 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: 6 kW, 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	Map overlay*, CFAR (Clutter rejection), Interference rejection, Target expansion, Process (Averaging), 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 Manoeuvre*		
Input data format and sentences	NMEA0183 BWC, DBT, DPT, DTM, GGA, GLC, GLL, GNS, HDG, HDT, HDM, MTW, RMA, RMB, RMC, ROT, RTE, THS, VBW, VDR, VHW, VTG, WPL, XTE, ZDA		
Output data format and sentences	NMEA0183 DTM, EVE, GLL, HBT, HDT, ROT, RSD, OSD, POS, THS, TLB, TLL, TTD, TTM, VBW, VDR, VHW, VTG, ZDA		
AIS interface*	1000 Targets (Standard)		
TT (ARPA)*	Auto / Manual 100 Targets (Standard)		
Power supply	21.6 to 41.6 VDC		
Power Consumption (at 24 VDC)	130 W or less	150 W or less	200 W or less

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

## CONNECTIONS



## EQUIPMENT LIST

Standard Equipment			
Antenna-Scanner unit	Scanner unit	RB717A	6 kW
		RB718A	12 kW
		RB719A	25 kW
	Antenna unit	RW701A-04	4 feet
		RW701A-06	6 feet
		RW701B-09	9 feet
Display unit (MDC-7900 only)		MRD-108	
Processor unit (MDC-7000 only)		MRM-108	
Operation unit		MRO-108	With 2 m connecting cable
Connecting cable		24ZJ159098B-15M	15 m with connectors on both ends
DC power cable		CW-259-2M	2 m
Operation manual, Quick reference, Installation manual, Installation material, Fuse			
<b>Option</b>			
Gyro interface unit, Log interface unit, Power rectifier, AC power cable, Connecting cables, Junction Box			

## DIMENSIONS AND WEIGHT

