Confidence with Great Performance

SPECIFICATIONS

Antenna-Scanner unit

Model	MDC-2910P	MDC-2920P
Antenna type	Open antenna	
Antenna length	4 feet / 6 feet	
Power output (peak)	12 kW	25 kW
Output frequency	9410 MHz ± 30MHz	
Horizontal beam width	4 feet: 1.8° / 6 feet: 1.2°	
Vertical beam width	22°	
Rotation	24 rpm	
IF center frequency	60 MHz	
Range accuracy	7 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, 0.6 us, 1.2 us	

Environmental

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

Display unit

Model	MDC-2910P	MDC-2920P
Basic range	0.125 to 72 NM	0.125 to 96 NM
Display unit	MRD-105P	
Display size / type	19 inch color TFT LCD	
Effective diameter	278 mm	
Display resolution	1280 x 1024 pixels	
Off-centering	Max. 72%	
Echo area	2 types (Inside of effective diameter)	
Presentation modes	Head-up, North-up*, Course-up*	
Range Rings interval	0.0625(0.125,0.25), 0.125(0.5,0.75), 0.25(1.5), 0.5(3), 1(6), 2(12), 4(24), 8(48), 12(72), 16(96) ( ): Range scales	
Range scales	0.125,0.25,0.5,0.75,1.5,3,6,12,24,48,(72),(96) nm 72nm: 12kW only. 96nm: 25kW only.	
Video level	8 levels	
Distance unit	NM	
Functions	CFAR (Clutter rejection), Interference rejection, Enhance (Target expansion), Process (Averaging), VRM, EBL, Parallel index, ERBL, Cursor position (Lat/Lon), Bearing (true/relative), Trail* (true/relative), Own ship past track, MAP (Event mark, etc), Analog RGB output	
Input / Output data format	IEC61162-1/-2	
Input data sentence	BWC, DBT, DPT, DTM, GGA, GLC, GLL, GNS, HDG, HDT, HDM, MTW, RMA, RMB, RMC, RTE, THS, VBW, VDR, VHW, VTG, WPL, XTE, ZDA	
Output data sentence	RSD, OSD, TLB, TTD, TTM	
AIS interface	254 Targets*	
ATA**	Auto/Manual 60 Targets*	
Power supply	21.6 to 41.6 VDC	
Power consumption(at 24VDC)	150W or less	200W or less

Environmental

Water protection	-
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.
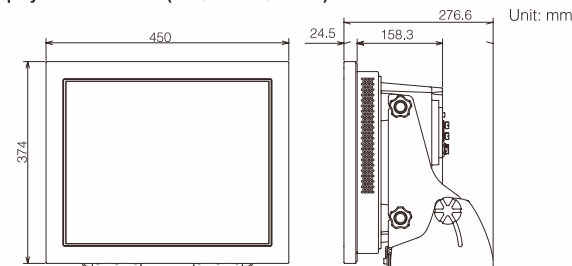** ATA is called TT (Target Tracking) in the new IMO regulation.

CONNECTIONS

Antenna-Scanner unit

Display unit MRD-105P

Operation unit MRO-105

21.6 to 41.6V DC

Optional Cable

Analog RGB output (For external monitor)
Radar signal input / output (For Interswitch)
IEC61162-1 / -2 input / output
AIS signal input
Alarm out
VDR

Gyro interface
Log interface

Gyro Compass
Speed log

Power rectifier
PS-010

100/115VAC
200/230VAC

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

EQUIPMENT LIST

Standard Equipment

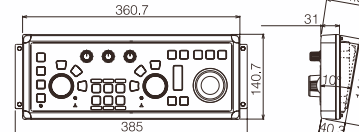| Scanner unit	RB718BP	12 kW	MDC-2910P
	RB719BP	25 kW	MDC-2920P
Antenna unit	RW701A-04	4 feet	
	RW701A-06	6 feet	
Display unit	MRD-105P		
Operation unit	MRO-105	With 2 m connecting cable	
Connecting cable	242J159098B-15M	15 m with connectors on both ends	
DC power cable	CW-259-2M	2m	
Operation manual, Installation manual, Installation material, Fuse			

Option

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

DIMENSIONS AND WEIGHT
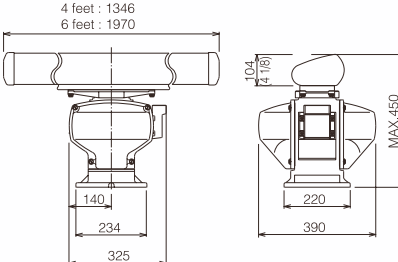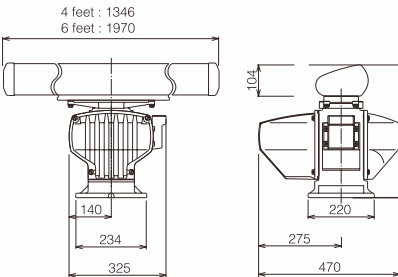
Display unit: MRD-105P (MDC-2910P / 2920P)

Unit: mm
450
374
276.6
24.5
158.3

Operation unit: MRO-105

360.7
385
31
64.3
140.7
141.5
40

Weight : 1.8 kg

Antenna-Scanner unit RB718BP

4 feet : 1346
6 feet : 1970
104 4 1/8
140
234
325
220
390
MAX.450
BOW

Weight:
4 feet antenna: 23 kg
6 feet antenna: 25 kg

RB719BP

4 feet : 1346
6 feet : 1970
104
140
234
325
220
275
470
MAX.450
BOW

Weight:
4 feet antenna: 27 kg
6 feet antenna: 29 kg

• Design and specifications are subject to change without notice.
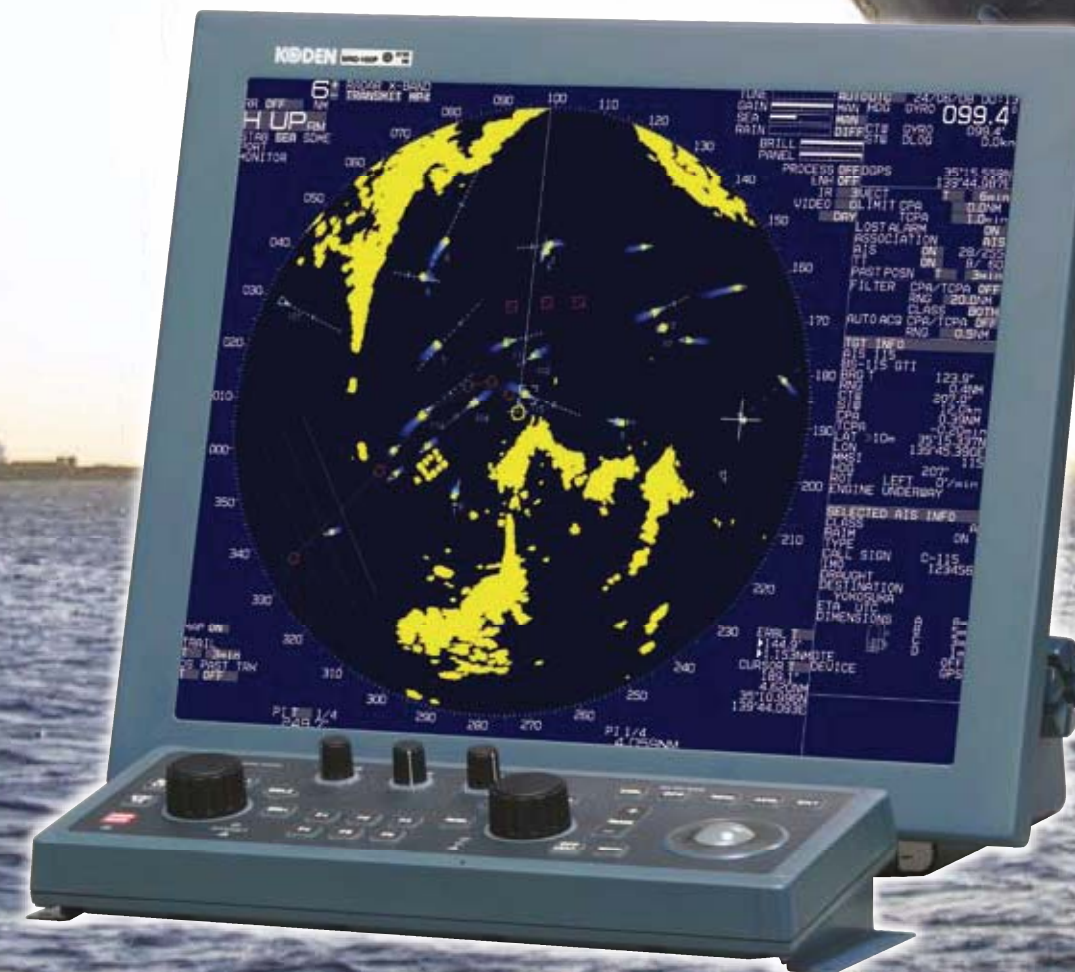
MDC-2900P Series

Designed to Comply with New IMO regulation MSC192 (79) *

MDC-2900P Series IMO Radars

MDC-2910P: 12 kW 4 feet / 6 feet Open
MDC-2920P: 25 kW 4 feet / 6 feet Open

MDC-2900P Series is designed to comply with new IMO regulation MSC192(79) and meet the SOLAS carriage requirerments for ships up to 10,000 gross tons. Providing outstanding Performance and Clear Image.

MDC-2910P/MDC-2920P have 19-inch high-resolution SXGA display with anti-reflective coating.

These radars feature sophisticated "Strong Signal Processing" for real-time presentation and superior target discrimination. This special signal processing provides a steady image even in case of unstable targets.

Other superior features are Enhance(ENH), Interference Rejection (IR), Range Rings (RR), VRM, EBL, Trail (True/Rel), Off center, Echo alarm, NAV line , Coast line, Route map, Guard zone, Monitor output, VDR output. Interswitch function for connecting two radar displays without an extra device. ARPA functions except Trial maneuver function are provided.

New Parallel Index Lines (PI)
Each parallel line can be used independently, User can move each line and adjust the length freely.

New Electronic Range and Bearing Line (ERBL)
User can control the cursor freely by trackball and measure the distance and direction from the cursor to the dotted line extended.

Data Display
- Own vessel information
- Target setting information
- Target information
- Subsidiary information
- Alarm information

AIS
Built-in AIS interface for displaying up to 254 targets.

ATA
Built-in ATA* (Automatic Tracking Aid) tracks up to 60 targets.
Selectable auto capture or manual capture.
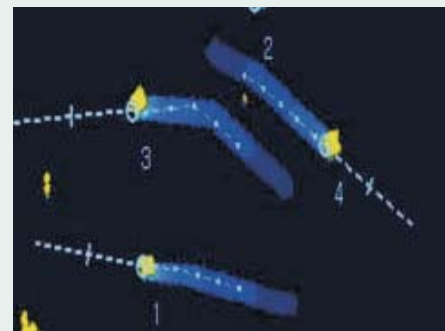*ATA is called TT (Target Tracking) in the new IMO regulation.
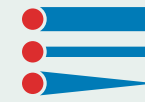
New True Trail Function
Clearly identifies moving targets from stationary targets. The display shows exact movement of other vessels like drawing tails. Even when your range is changed, a new trail appears past drawing tails. 3 types of shape are avairable.

PAST POSN (Past position)
Showing past position with 5 dots for the ATA targets and AIS targets.

PAST POSN TIME
ATA 1/5 1/5 1/5 1/5 1/5
AIS
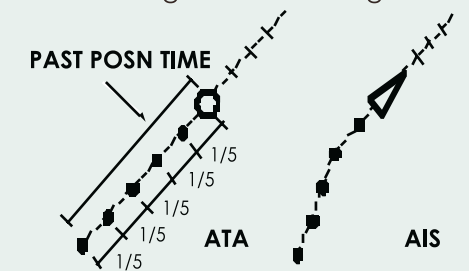
New CFAR Function
This function is Semi-automatic clutter suppression. In comparison with conventional SEA + RAIN, the targets will not shrink.

CFAR   SEA + RAIN   SEA

Real-time Smooth Head-Up Presentation
Display the exact direction and possition of the target in real time.
When own vessel changes heading, the radar image will rotate smoothly in real time, unlike conventional rotation where the image redraws with each radar sweep.

Real time smooth head-up

Conventional head-up
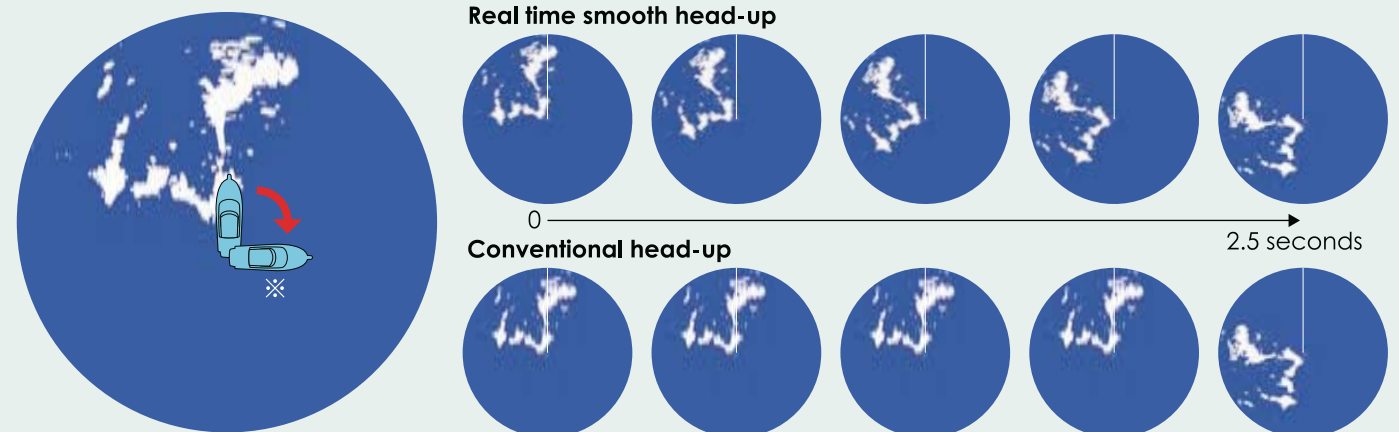
0 ———————————— 2.5 seconds

※ In case own vessel changes heading 90 degrees to the right, during one rotation of antenna in 2.5 seconds (24 rpm)

Easy Operation
Designed for easy access to all system functions with well-arranged keyboard.
Six programable function keys let user customize set-up of various functions.
GAIN, STC, FTC, EBL, and VRM are adjustable with one touch by using control knobs.
Trackball control with two-color LED lamp for quick-operation day or night.

Two-color LED lamp for Night