

JMA-2300Mk2 Radar



– the JMA-2300Mk2 radar offers excellent target detection in a compact design

10-inch mono display

New system-on-chip technology

Semi-Constaview™ digital signal processing

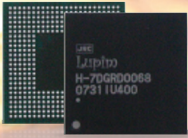
AIS and MARPA+™ as standard

Newly designed multi-speed scanners

Features

Features

The JMA-2300Mk2 continues the success of its predecessor, utilizing the latest digital signal processing for excellent target identification and detection in a compact design - including all-new designed scanners.



System-on-Chip

JRC engineers custom designed the System-on-Chip (SoC) inside the new JMA-2300Mk2 series to be an extremely powerful tool. With such a small chip, weighing less than a sugar cube, performance remains at our high standards. At the same time, the SoC technology makes the compact radar very power efficient.

MARPA+™

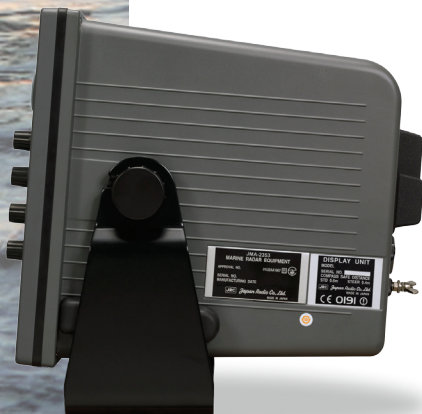
The new radar has the ability to display 10 MARPA™ tracked targets as standard. The (second generation) MARPA+™ continues JRC's successful MARPA™ technology first found in the previous JMA-2300 radar series providing outstanding target definition and discrimination. Our engineers continued developing and improving the technology, so that now, with MARPA+™, manual or automatic target tracking is even more reliable.

DirecTrak™

The new radar has an easy vessel searching function based on AIS, called DirecTrak™. This function shows the nearest 50 vessels received by the AIS. If you select a vessel on the list, then range and bearing is displayed of the selected vessel.

Semi-Constaview™

Based on JRC's patented technology found in the bigger radars, the new JMA-2300Mk2 integrates Semi-Constaview™. This allows fast processing of targets, showing true trails in Head-Up mode, without interference of fixed targets, such as land or mass.



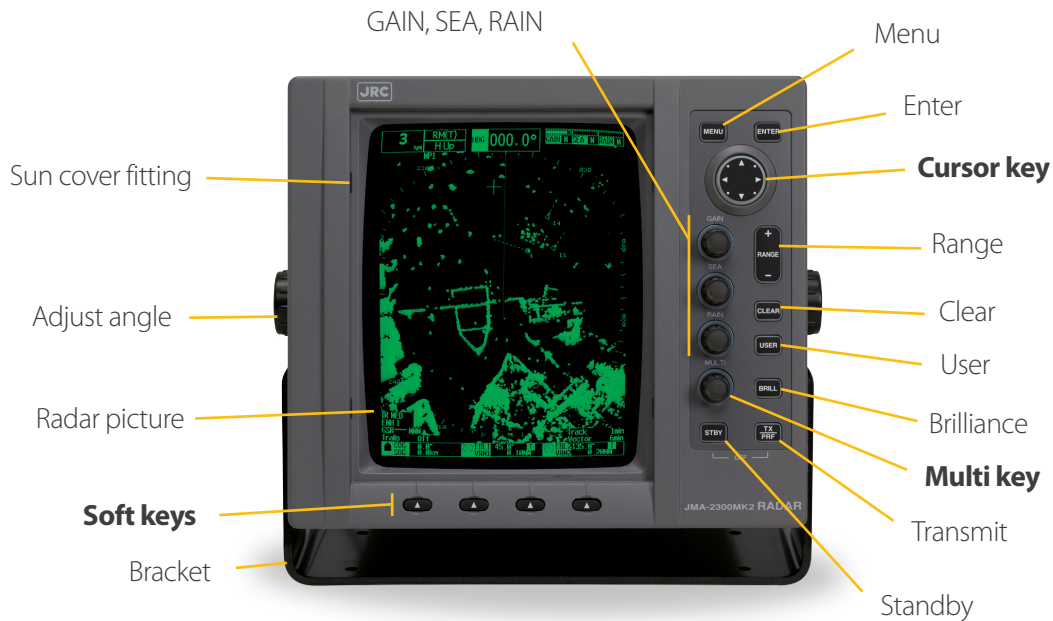
Processor built-in

Besides the display and operating keys, this compact all-in-one unit has the processor integrated, allowing for a flexible installation approach.

Operation

Simple operation

Smooth and simple operation is guaranteed with the solid and responsive touch of the keys.




Multi key

This allows you immediately run through and go into various menus by rotate and press.



Soft keys

The display unit incorporates 4 soft keys, just below the display  corresponding to the most used functions of a specific operation using the multi key. You instantly see the options you have, without losing the sight of the radar picture.

Cursor key

The cursor key is a multi functional add on to the display. Move the cursor, rotate the EBL, change range of VRM and go through menus.

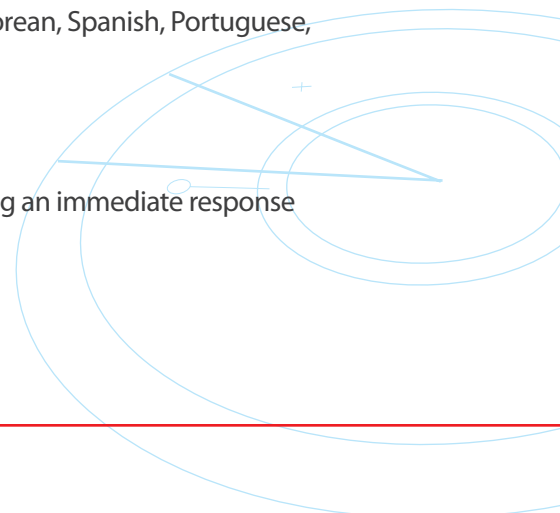
Languages

This JMA-2300Mk2 radar series supports the English, Japanese, Chinese, Korean, Spanish, Portuguese, French and Norwegian language.



SART

The radar is capable of picking up SART signals, enabling an immediate response for search and rescue efforts.



Flexibility

New scanners

With this new radar, JRC introduces 2 new scanners, available in a 4 kW radome and a 6 kW open array configuration, designed in line with our common interface technology found in the bigger radars.

The scanners feature a new high rate PRF¹ which allows for a highly accurate short range detection. Also both integrate the possibility to select the rotation speed, allowing for better discrimination and target detection in busy shipping lanes.



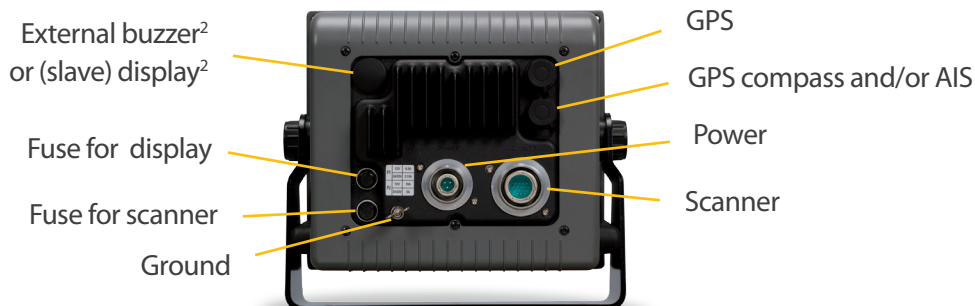
4 KW, 16-48 rpm NKE-2043



6 KW, 16-27 rpm NKE-2063

Interfacing

The JRC JMA-2300Mk2 allows connecting to navigation equipment, such as GPS, for own position, waypoints, and speed for MARPA tracking. It also allows connecting a GPS compass for your heading (and MARPA tracking) and/or AIS for displaying targets.



Comparison

Here an overview between the JMA-2300 and our new JMA-2300Mk2 series radar.

	JMA-2300	JMA-2300Mk2 New
Target tracking (MARPA+™) ³	10 targets (option)	10 targets (standard)
AIS ³	-	50 targets
Mark/lines	-	200 points
Own track	-	1000 points
Semi-constaview™	No	Yes
Display type	CRT monochrome	CRT monochrome
Video output ³	Mono video	Color RGB
PPI	Masked PPI	Mask off available
Menu	Display radar or menu	Display radar and menu

1. Pulse Repetition Frequency (PRF) resembling number of pulses transmitted each second.

2. Optional

3. Additional cables and data from other equipment required.

Weight and dimensions

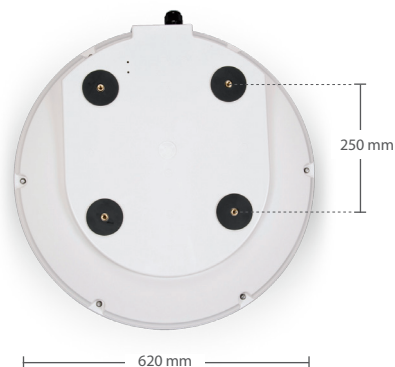
Display

NDC-2237 Weight 8 kg



4 kW scanner

NKE-2043 Weight 10 kg



6 kW scanner

NKE-2063 Weight 21 kg



What's standard?

- Display
- Scanner (4 or 6 kW)
- Power cable (2 m)
- Scanner cable
Length 4 kW: 15 m, 6 kW: 20 m
- Sun cover
- Spare parts
- Manuals

What's optional?

- | | |
|--------------------|---|
| Rectifier | NBD-865 |
| 4 kW scanner cable | CFQ-5761-05/10/20/30
<i>Cable connector at both ends</i> |
| 6 kW scanner cable | CFQ-5746-05/10/15/30
<i>Cable connector at both ends</i> |
| Ext. monitor cable | CFQ-5762 |
| GPS compass cable | CFQ-5469 JLR-20/21/30/31 |

Specifications

	JMA-2353	JMA-2354
Display type	Raster scan PPI	
Scanners New	NKE-2043 RoHS ✓	NKE-2063 RoHS ✓
Antenna length	2 ft	3.9 ft
Output power	4 kW	6 kW
Transmitting frequency	9410 ±30MHz	
Beam width	Horizontal 4°, Vertical 25°	Horizontal 2°, Vertical 30°
Rotation speed	16, 20, 24, 27, 30, 36, 42, 48 rpm New	16, 20, 24, 27 rpm New
Pulse width	0.08µs/4000Hz New 0.08µs/2500Hz 0.13µs/1700Hz 0.25µs/1700Hz 0.5µs/1200Hz 0.8µs/750Hz 1.0µs/650Hz	
Range scale ¹	0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48, 72 NM	
Adding range scales	1, 2, 4, 8, 16 or 32 NM New	
Display	10-inch mono CRT display (640 by 480 pixels)	
Presentation mode ²	RM = North/Head/Course-up, TM = North/Course-up	
Trail indication	15 sec, 30 sec, 1 min, 2 min, 3 min, 6 min, 10 min, 15 min, continuous	
MARPA+™ targets ²	10 built-in New	
MARPA+™ tracking ²	Up to 20 NM	
MARPA+™ info ²	True bearing, distance, true course, true speed, CPA, TCPA	
AIS targets ²	50 built-in New	
AIS info ²	MMSI, call sign, ship's name, COG, SOG, CPA, TCPA, heading, distance, LAT/LON, status, etc	
Input	GGA, RMC, GNS, GLL, RMC, VTG, VBW, VHW, NSK data, DPT, DBT, MTW, ROT, RSA, VDM, VDO, ALR, MWV, VWT, VWR (navigation) THS, HDT, HDG, HDM (bearing) VBW, VHW (speed)	
Output ³	RSD, OSD, TTM, TLL, TTD, GGA, RMC, GNS, GLL, RMC, VTG, THS, HDT, ext. buzzer, ext. monitor	
Start up time	1.5 minute or less	
Power	12V DC (with cable length ≤20 m), 24V DC (with cable length ≤30 m)	
Consumption	60 W	85 W (max 180 W)
Ambient conditions	Scanners: -25° to 55°C (operating) -25° to 70°C (storage) Display: -15° to 55°C Relative humidity 0% to 93% non-condensing	

1. 4 kW up to 48 NM, 6 kW up to 72 NM.

2. Data from other equipment required.

3. Optional interface may be required.

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