JMA-3300
Radar

– JRC's new radar incorporates the latest leading technologies

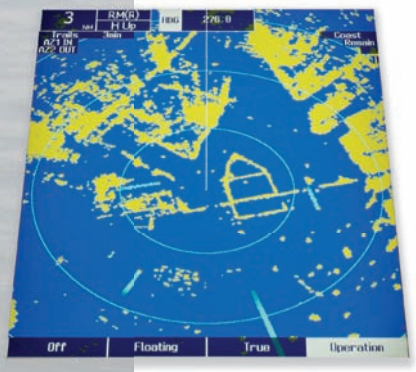
10.4-inch ultra bright LCD
New System-on-Chip technology
Semi-Constaview™ digital signal processing
AIS and MARPA+™ as standard
High speed version available

JRC Japan Radio Co., Ltd.

JMA-3300 series – features

Features

The JMA-3300 series is JRC's newest radar, featuring a 10.4-inch ultra bright LCD, and incorporates the latest digital signal processing for excellent target identification and detection in a compact design.



Display

The tough glass bonded LCD is backlit by white LED's giving 1000cd/m^2 of brightness, making the radar image amazingly sharp. A feature not previously found on this class of radar.

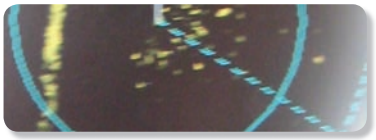
System–on–Chip

JRC engineers custom designed the System-on-Chip (SoC) inside the new JMA-3300 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.

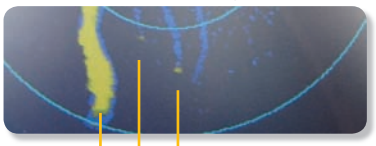
AIS and MARPA+™

The new radar has the ability to display 50 AIS symbols, and 10 MARPA+™ tracking targets as standard. The high quality of the display provides outstanding target definition and discrimination. The (second generation) MARPA+™ continues JRC's successful MARPA+™ technology first found in the previous JMA-2300 radar series. Our engineers continued developing and improving the technology, until now, with MARPA+™, manual or automatic target tracking is even more reliable.

Without SoC processing



With SoC processing



Semi-Constaview™

Based on JRC's patented technology found in the bigger radars, the new JMA-3300 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.

Sea trials

With Mount Fuji in the background, JRC engineers successfully tested the new JMA-3300 radar in Suruga Bay. See on the left side actual photos results of our SoC technology. Land echoes are clearly visible and smaller echoes are far more enlarged than bigger echoes, giving a better on-screen separation and identification.

JMA-3300 series – easy user interface

Simple operation

Smooth and comfortable operation is guaranteed with the solid and responsive feel of the keys. A dedicated jog-dial is conveniently integrated as well as the function keys for one-touch access to GAIN, SEA and RAIN. The JMA-3300 also incorporates 4 soft-key switches just below the display that can be assigned by the user. Here you can specify commonly used functions, making it even simpler to navigate.

Cursors keys

Range up and down

One-touch access to GAIN, SEA and RAIN

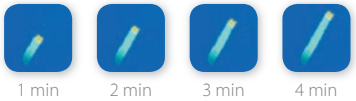
Jog dial

USB memory

4 soft-keys "shortcuts"

Trails

Other ship's movement and speed can be monitored from length and direction of their trails, primarily serving for collision avoidance. It integrates four different trail length modes, which will show a ship's course instantly, a unique operational feature that allows for more flexibility.



Transparent menus

With the transparent (pop-up) windows, you can navigate through menus or view required data, such as own ship data or cursor data, without losing the complete radar image.

Languages

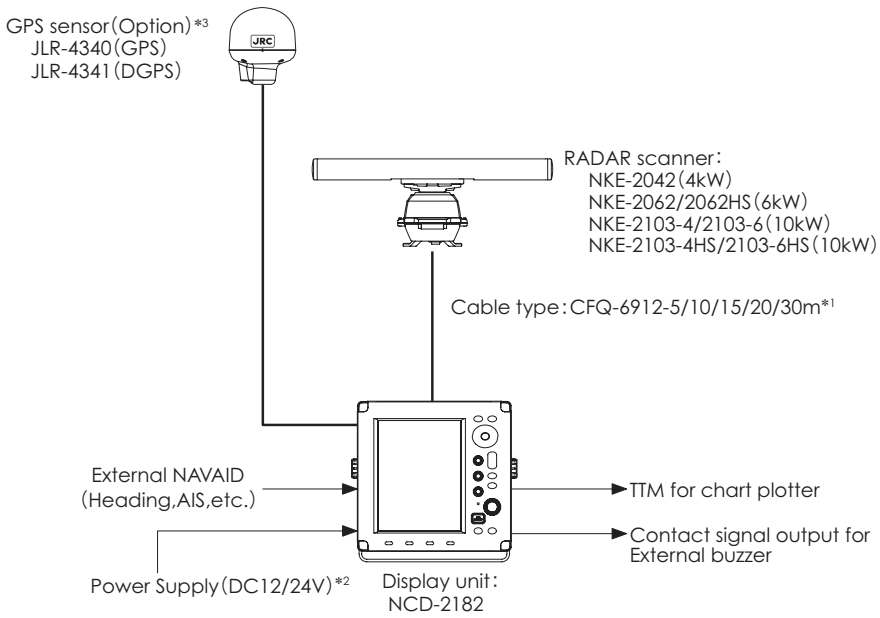
The JMA-3300 series allows you to switch between English, Japanese, French, German, Spanish, Italian, Portuguese and Norwegian.

USB

Updating your radar with the latest software is made easy with a conveniently integrated USB port on the front side of the display.

JMA-3300 series – configration

System diagram



*1 4kW, 6kW model available to be use 5/10/15/20m at DC12V power input.
*2 12V/24V:4/6kW, 24V:6kW-HS,10kW/10kW-HS
*3 Available direct connection with optional JRC GPS sensers.

What's in the box

- Display
- Scanner
- Cables
- Spare parts
- Operation guide/manual
- Installation manual

Which cables

· Display to scanner[2] 5/10/15/20/30 m

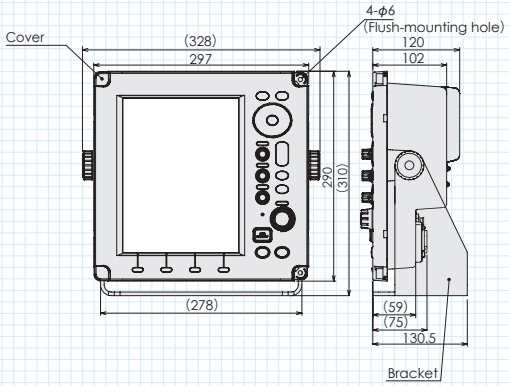
Options

· Display cover

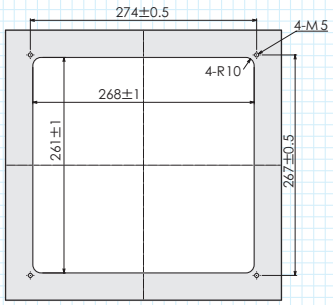
JMA-3300 series – dimensions

Display unit

NCD-2182 Mass Approx. 5 kg

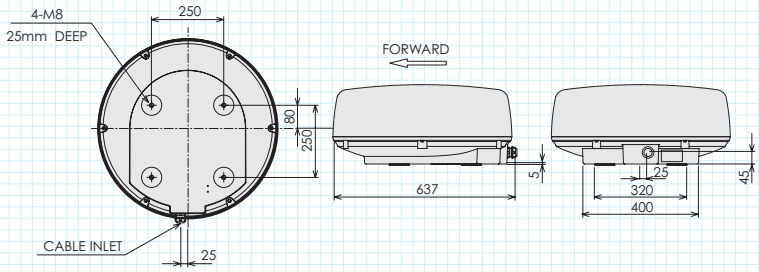


Flush mounting hole

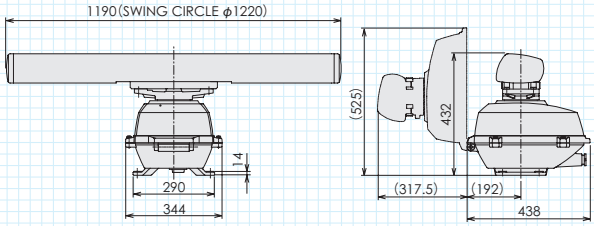


Scanner unit

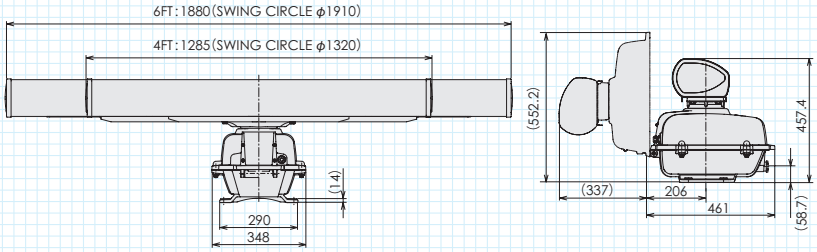
4kW NKE-2042 Mass Approx. 10.5 kg



6kW NKE-2062/2062HS Mass Approx. 24 kg



10kW NKE-2103-4/2103-4HS NKE-2103-6/2103-6HS Mass 4ft = Approx. 34 kg / 6ft = Approx. 36 kg



JMA-3300 series – specifications

Name		Marine Rader						
Model		**JMA-3314**	**JMA-3316**	**JMA-3316HS**	**JMA-3340-4**	**JMA-3340-4HS**	**JMA-3340-6**	**JMA-3340-6HS**
Display		color raster scan PPI						
Scanners								
	Model	NKE-2042	NKE-2062	NKE-2062HS	NKE-2103-4	NKE-2103-4HS	NKE-2103-6	NKE-2103-6HS
	Transmitting frequency	X-band (9410MHz ±30MHz)						
	Transmitting power	4kW	6kW		10kW			
	Scanner type	radome	open					
	Antenna length	2ft	3.9ft		4ft		6ft	
	Rotation speed	27rpm	16-27rpm	27-48rpm	16-27rpm	27-48rpm	16-27rpm	27-48rpm
	Beam width 3dB	H: 4°, V: 25°	H: 2°, V: 30°		H: 1.8°, V: 20°		H: 1.2°, V: 20°	
	Pulse width/repetition freq.		0.08us/2250Hz 0.25us/1700Hz 0.5us/1200Hz 1.0us/650Hz		0.08us/2250Hz 0.25us/1700Hz 0.5us/1200Hz 0.8us/750Hz 1.0us/650Hz			
	Maximum range	48NM	72NM					
	Range scale	0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48 NM	0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48 and 72 NM					
Display unit								
	Model	NCD-2182						
	Axial resolution	less than 30m						
	Minimum detection range	less than 40m						
	Azimuth resolution	less than ±1°						
	Display	Glass bonded 10.4-inch LCD display (640 by 480 pixels) 1000cd/m² by white LED backlit						
	Effective diamater	more than 150mm						
	Presentation mode	RM: North / Head / Course-up TM: North / Course-up						
	Gain	Auto / manual						
	Sea / rain	Auto / manual						
	Trail indication	4 stages (example 1 minute to 1 hour or continuous)						
	Off center	within 66% of PPI radius						
	Barge icon	Avairable						
	MARPA+™ acquisition mode	Auto / manual						
	MARPA+™ targets	10 targets						
	MARPA+™ tracking	20NM						
	MARPA+™ info	To be selected from true heading, distance, COG, SOG, CPA, TCPA						
	Vector mode and length	True/relative vector, adjustable from 1 to 60 minutes						
	Guard zone	2 zone						
	Alarms	CPA/TCPA, new target, lost, system error						
	AIS targets (built-in)	50 targets						
	AIS info	To be selected from MMSI, call sign, ship's name, COG, SOG, CPA, TCPA, heading, distance, longitude/latitude, status etc						
	Input (navaid)	GGA, GNS, GLL, RMC, VTG, VBW, VHW, THS, HDT, HDG, HDM, DPT, DBT, MTW, ROT, RSA, VDM, VDO, ALR, VWT, VWR						
	Input (heading)	IEC61162 (4800/38400bps - THS, HDT, HDG, HDM) JRC-NSK format (JLR-20/30) Gyro-sync/step (360x, 180x, 90x, 36x)*1						
	Input (speed)	IEC61162 (4800bps - VBW, VHW) Log-sync (360x, 180x, 90x, 30x)*1 Log-pulse (800, 400, 200, 100)*1						
	Output	RSD, OSD, TTM, TLL, TTD, GGA, RMC, GNS, GLL, VTG, THS, HDT						
	Contact out	1 for external buzzer						
Power supply		DC12/24V −10/+30%*2			DC24V −10/+30%			
Power consumption		Approx60W	typ.: Approx85W maximum wind: Approx230W		typ.: Approx100W maximum wind: Approx360W			
Ambient conditions		Temperature: −25° to 55°C (scanner) / −15° to 55°C (display unit) Relative humidity 0% to 93% non-condensing IP code: IP26 (scanner) / IP55 (display front panel)						
Option								
Installation cable(scanner to display unit)		CFQ-6912-xx (xx: 5/10/15/20/30 m)*2						
Gyro interface unit		NCT-4106A						
Display cover		MTV304869						
Connection cable for JLR-20 (10m)		CFQ-5469						

*1 Optional Gyro interface unit NCT-4106A required. *2 Maximum cable length as 20m at DC12V operated

• Specifications may be subject to change without notice.

For further information, contact:

JRC Since 1915 **Japan Radio Co., Ltd.**

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