DREKO MARINA SISTEM

Authorized Agent for :

JRC Japan Radio Co., Ltd.

Catalogue Product

2021

Marine
Navigation &
Communication
System

PT. DREKO MARINA SISTEM
Jl. Raya Hankam No. 206-D Jatirahayu
Pondok Melati, Bekasi - Indonesia
Phone : +62 21-8552-6000
Mobile : +62 811-928702
E-mail : sales@drekomarina.co.id

DREKO MARINA SISTEM

OUR WELCOME MESSAGE

PT. Dreko Marina Sistem is providing marine's New Building projects as well as Maintenance's Services, Sales and supply for Navigation & Communication System in Indonesia.

Through the years our of expertise has strived to achieve Total Client Satisfaction for the services, sales and maintenance we provided, the company assures a high quality of service, best solution for equipment and spare parts of Navigation & Communication System.

With office Batam and Jakarta, soon to be opened Surabaya branch, for covering the whole west to east Indonesia area and expedite the service needed to any places in indonesia.

Geared with a team of experienced, well-trained personnel possessing the required skills and an extensive knowledge of the local market as well as statutory procedures and documentation. **PT. Dreko Marina Sistem** strives not only in compreheding our customer requirements and specificneeds, but also in proposing the most cost-effective solutions with a view towards minimizing time and ensuring optimum efficiency. Simply meeting client requirements has never been our aim. We in PT. Dreko Marina Sistem aspire to far surpass expectations through consistency and high level of professionalism.

JRC Japan Radio Co., Ltd.

PT. DREKO MARINA SISTEM

CONTENTS

RADAR
JMR-5400 Series

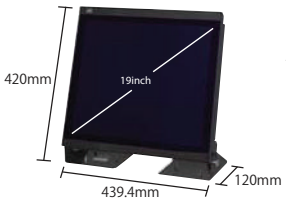
DREKO MARINA SISTEM

Dramatically improved short-range detection performance.

- Clearly displays the shape of small targets
- Even among inclement weather conditions, eliminates sea clutter and depicts small targets
- Makes the movements of other ships clear and easily detected
- Operating environment is easily customized to suit the user' s needs.

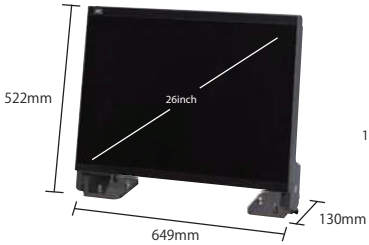
Display units

19-inch monitor



NWZ-214 Weight：4.6kg
4.9kg(AC option)

26-inch monitor



NWZ-208 Weight：16kg

Processor

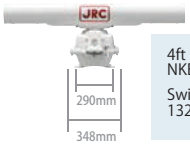
NDC-1678 Weight：7.1kg

Keyboard

NCE-5794 (Standard kyboard) Weight：2.0kg

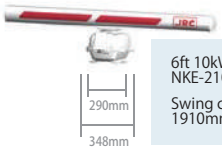
Scanners

10kW X-band scanner



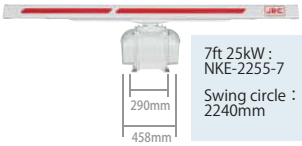
4ft 10kW :
NKE-2103-4
Swing circle :
1320mm

10kW X-band scanner



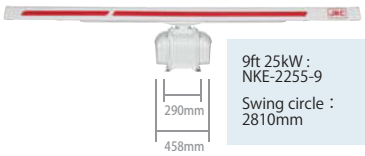
6ft 10kW :
NKE-2103-6
Swing circle :
1910mm

25kW X-band scanner



7ft 25kW :
NKE-2255-7
Swing circle :
2240mm

25kW X-band scanner



9ft 25kW :
NKE-2255-9
Swing circle :
2810mm

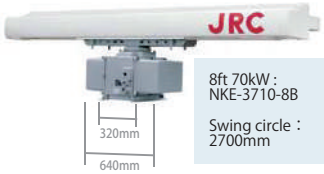
250W S-band solid-state scanner

8ft 250W :
NKE-2632
Swing circle :
2770mm

250W S-band solid-state scanner [High speed]

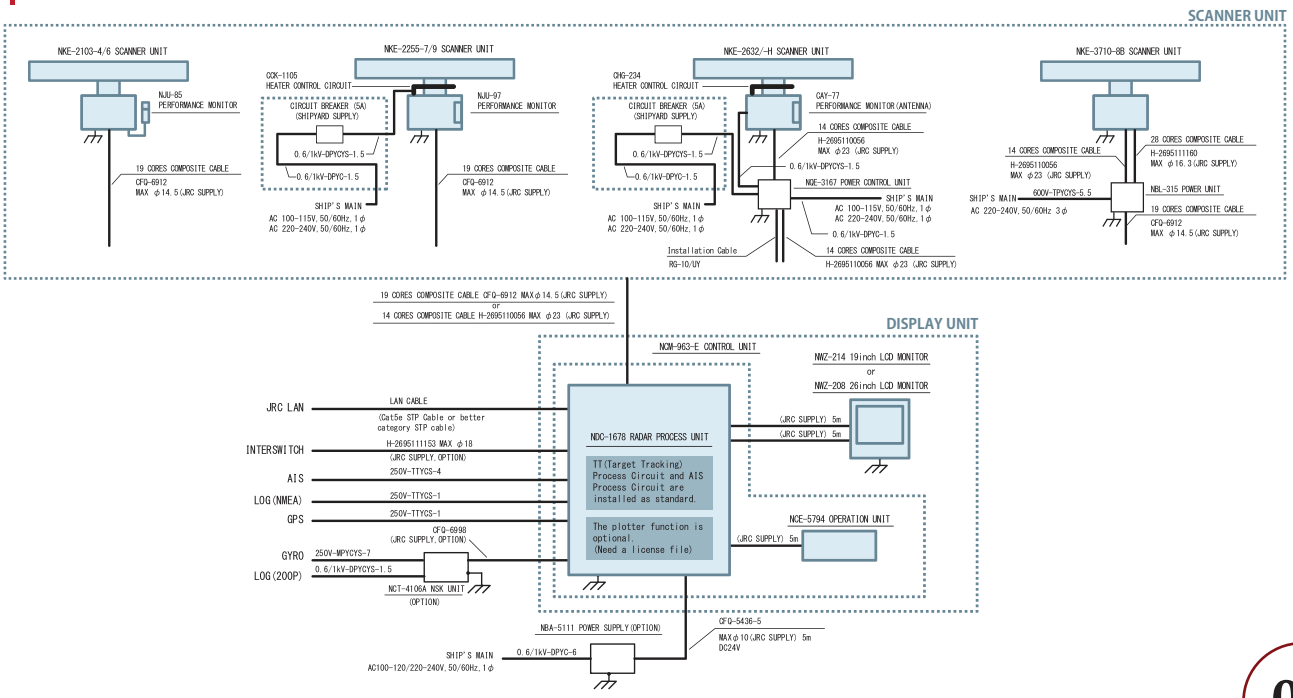
8ft 250W :
NKE-2632-H
Swing circle :
2770mm

70kW S-band scanner



8ft 70kW :
NKE-3710-8B
Swing circle :
2700mm

Diagram



Model	JMR-5410-4X	JMR-5410-6X	JMR-5425-7X	JMR-5425-9X	JMR-5460-8S	JMR-5482-S	JMR-5482-SH
Display	colour raster scan PPI						
Range scale	0.125/0.25/0.5/0.75/1.5/3/6/12/24/48/96 NM						
Scanners							
Model	NKE-2103-4	NKE-2103-6	NKE-2255-7	NKE-2255-9	NKE-3710-8B	NKE-2632/-H※1	
Transmitting power	10kW		25kW		70kW	250W	
Transmitting frequency	9410MHz±30MHz		9410MHz±30MHz		3050MHz±25MHz	P0N:3035MHz, Q0N:3065MHz±4MHz or 3060MHz±4MHz	
Antenna length	4ft	6ft	7ft	9ft	8ft	8ft	8ft
Rotation speed	27rpm	27rpm	24rpm	24rpm	14/17 rpm (50/60Hz)	24rpm	48rpm
Horizontal beam width	1.9°	1.2°	1.0°	0.8°	2.7°	2.7°	2.7°
Vertical beam width	20°	20°	20°	20°	22°	25°	25°
Weight	34kg	36kg	52kg	55kg	98kg	85kg	90kg
Pulse width	0.08μs/2250Hz 0.25μs/1700Hz 0.5μs/1200Hz 0.8μs/750Hz 1.0μs/650Hz		0.07μs/2250Hz, 0.2μs/2250Hz 0.3μs/1900Hz, 0.4μs/1400Hz 0.8μs/750Hz, 1.0μs/650Hz 1.2μs/510Hz		0.08μs/1700Hz 0.25μs/1700Hz 0.75μs/860Hz 1.0μs/650Hz	0.07μs/(4.6μs, 8MHz)/1860Hz or 2280Hz 0.14μs/(9.1μs, 8MHz)/1860Hz or 2280Hz 0.29μs/(9.1μs, 8MHz)/1860Hz or 2280Hz 0.57μs/(9.1μs, 8MHz)/1280Hz 1.14μs/(18.3μs, 8MHz)/640Hz	
Duplexer	circular + diode limiter						
Tuning	automatic / manual						
Ambient condition	temperature：−25℃～+55℃ relative humidity：93%@ 40℃				temperature：−25℃～+50℃ relative humidity：95%@ 35℃	temperature：−25℃～+55℃ relative humidity：93%@ 40℃	
Processor							
Model	NDC-1678						
Bearing indication	RM display：north-up / course-up / head-up TM display：north-up / course-up						
Presentation mode	RM display with true trail, RM display with relative trail, TM display						
EBL	2（EBL1/EBL2）（center/independent）000.0°- 359.9°, digital display						
VRM	2（VRM1/VRM2）0.000～96.0NM, digital display						
Trail indication	off/0.25/0.5/1/3/6/10/15/30/60-min and continuous						
Chart	C-MAP MAX						
Display							
Model	NWZ-214（19-inch）/NWZ-208（26-inch）						
LCD	1280×1024 dot（SXGA）（19-inch）/1920×1200 dot（WUXGA）（26-inch）						
PPI Effective diameter	≥250mm（19-inch）/≥320mm（26-inch）						
Connection cable	5m (processor-monitor)						
Number of TT tracking targets	30 targets max. (expanding to a maximum 100 targets with an optional function added)						
TT Tracking Range	Auto/Manual 32 NM max.						
Number of AIS targets	180 targets max. (expanding to a maximum 1,000 targets with an optional function added)						
TT/AIS vector	True/Relative, variable from 1 to 120 minutes						
Keyboard							
Model	NCE-5794						
Connection cable	5m (processor-keybord)						
Ambient conditions	Operating temperature: -15 to 55℃; Relative humidity: 93% @40℃ (processor,display,keyboard)						
installation cable	CFQ-6912-20 length 20m（max length 65m）				CFQ-6912 2695110056 2695111160	2695110056	
Power supply(voltage)	DC21.6～36.0V				DC21.6～30.0V, AC220V	DC21.6～36.0V, AC100V～240V	
Power consumption (max wind) NWZ-214	Max. 350W		Max. 400W	Max. 500W	Max. AC:600VA/DC:200W※2	Max. AC:1300VA/DC:200W	Max. AC:1700VA/DC:200W
Power consumption (max wind) NWZ-208	Max. 400W		Max. 450W	Max. 550W	Max. AC:600VA/DC:250W※2	Max. AC:1300VA/DC:250W	Max. AC:1700VA/DC:250W

Option			
Trackball Operation Unit	NCE-5605	Distributor for Remote Monitor Display Connection	Video Distribution Amplifier：VAC-2001HB-A Monitor Extension Kit：CQF-5957
Trackball Operation Unit Installation Cable	7ZCNA4152	Monitor Stand	CWB-1660 (26-inch)/CWB-1659 (19-inch)
Keyboard Operation Unit	NCE-5625	Monitor Cover	CWB-1621 (26-inch)/CWB-1619 (19-inch)
Junction Box	NQE-1143	Monitor Hood	CWB-1620 (26-inch)/CWB-1618 (19-inch)
Sensor LAN Switch Unit	NQA-2443	Printer	Printer：7HPNA4003 , L Type Stopper (Printer Fixture)：QL-58
Rectifier	NBA-5111	Operation Unit RS-422 Extension Cable	10m:7ZCRD1746, 20m:7ZCRD1747, 30m:7ZCRD1748, 40m:7ZCRD1749, 50m:7ZCRD1750 (maximum length)
Interswitch Unit	NQE-3141-4A (4ch)/NQE-3141-8A (8ch)	NSK Unit	NCT-4106A
Power Control Unit	NQE-3167	CMH-2370 Serial LAN Interface Circuit Spare Parts	7ZXNA4020
TT/AIS Option	Software licence	7HPNA4003 Printer Spare Parts	7ZXNA4011
Plotter mode	Software licence		

※1: NKE-2632 scanner antennas: Transmission pulse width (1st) / (Transmission pulse with and frequency shift width (2nd)) /Repetition frequency
※2: JMR-5460-8S: with zero wind velocity

Specifications may be subject to change without notice.

RADAR
JMA-5300Mk2

DREKO MARINA SISTEM

Complies with SOLAS carriage requirements for vessels under 10.000 GT. and fully meets MSC 192(79) radar performance standards effective from 1 July 2008.

– JRC's new and innovative JMA-5300Mk2 radar series: navigation suddenly has a new standard

19" high visibility LCD screen

Constaview™ digital signal processing

TEF™ multi-level target enhancement

High speed version available

Brushless antenna motors for extended lifetime

New keyboard design

With its new case design, the keyboard of the JMA-5300Mk2 series allows you to carry out all radar operations simply by using the keyboard or on-screen by use of the trackball.

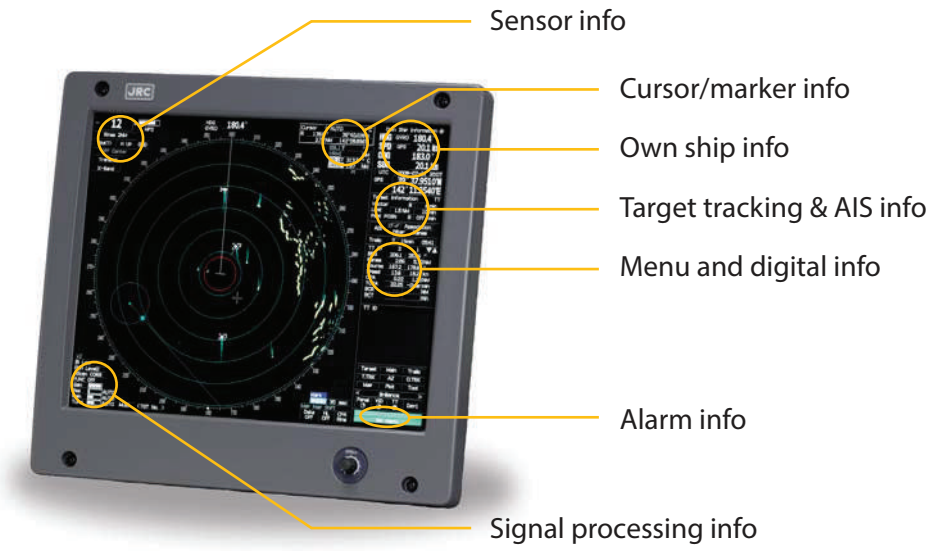
The responsive feel keys allow logical and precise operation and integrates function keys for one-touch access to EBL, VRM, GAIN, SEA and RAIN. This makes it easy to navigate through all common used tasks.

Clear on-screen info

The JMA-5300Mk2 series make your radar images more brilliant than ever with a sharp 19" high resolution LCD screen.

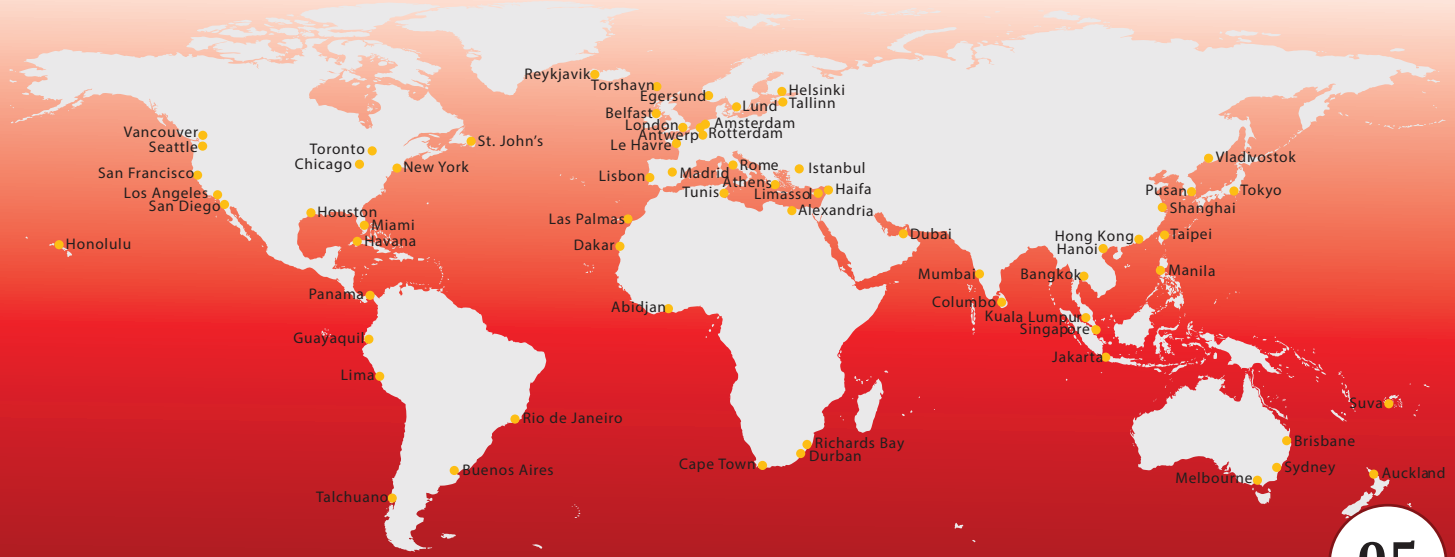
Menu selections, via the keyboard or trackball are clearly shown on the display - allowing "at a glance" interpretation of the radar image.

You can also select day and night background modes and adjust the brilliance at your own convenience.



JRC StarNetwork™

JRC has been providing sales and support of products since 1915. Today, JRC offers comprehensive assistance through its organisation, in partnership with a worldwide StarNetwork™ of over 270 fully trained and qualified partners and agents, assisting you 24 hours a day, 7 days a week and 365 days a year.

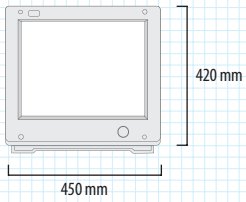


JRC Japan Radio Co., Ltd.

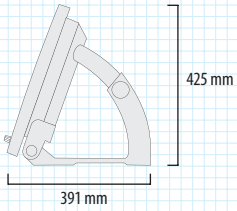
DIMENSIONS AND WEIGHTS

Dimension drawings - Display

NWZ-173 Weight 12,1 kg

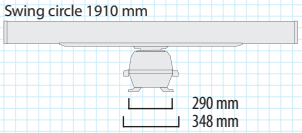


cutout for panel mount
height 319,6 mm, width 416 mm, depth 80 mm

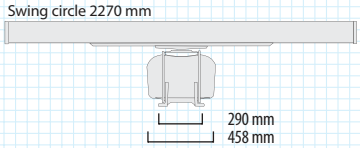


Dimension drawings - Scanners[1]

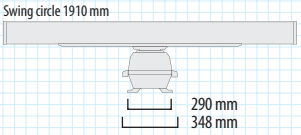
NKE-2103-6 Weight 40 kg



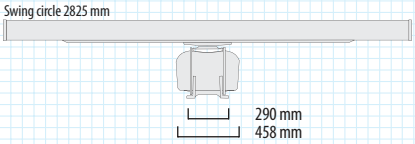
NKE-2254-7 Weight 58 kg



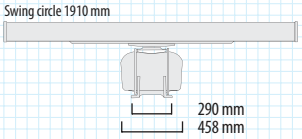
NKE-2103-6HS Weight 40 kg



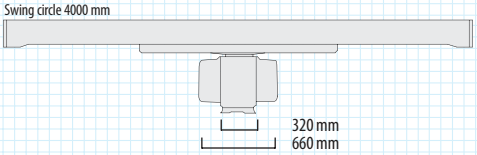
NKE-2254-9 Weight 60 kg



NKE-2254-6HS Weight 55 kg



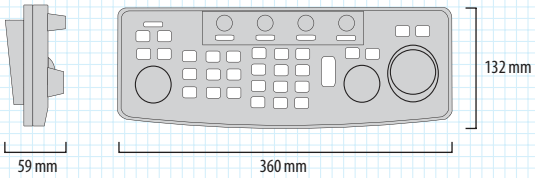
NKE-1130 Weight 180 kg



[1]all scanners have a brushless motor and comply with 40dB/dec Spurious particulars

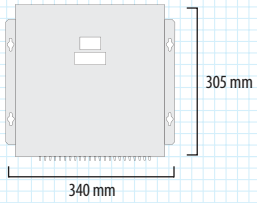
Dimension drawings - Keyboard, Processor

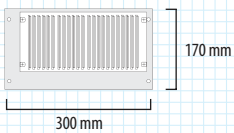
NCE-5171 Weight 1,3 kg



cutout for panel mount height 105 mm, width 340 mm, depth 20 mm

NDC-1417 Weight 6 kg





SPECIFICATIONS

Model		JMA-5312-6	JMA-5312-6HS	JMA-5322-7	JMA-5322-9	JMA-5322-6HS	JMA-5332-12
IMO compliant		√	√	√	√	√	√
Display		colour raster scan PPI					
Range scale		0.125/0.25/0.5/0.75/1.5/3/6/12/24/48/96 NM					
Scanners							
	Model	NKE-2103-6	NKE-2103-6HS	NKE-2254-7	NKE-2254-9	NKE-2254-6HS	NKE-1130
	Antenna length	6ft.	6ft.	7ft.	9ft.	6ft	12ft.
	Transmitting power	10kW		25kW			30kW
	Transmitting frequency	9410mHz ± 30mHz					3050mHz ± 20mHz
	Beam width 3db	Hor. 1.2°, Ver. 20°	Hor. 1.2°, Ver. 20°	Hor. 1.0°, Ver. 20°	Hor. 0.8°, Ver. 20°	Hor. 1.2°, Ver. 20°	Hor. 1.9°, Ver. 25°
	Rotation speed	27rpm	48rpm	24rpm		48rpm	24rpm(60/50Hz)
	Pulse width (receive freq.)	0.08µs/2250Hz,		0.07µs/2250Hz, 0.2µs/2250Hz,			
		0.25µs/1700Hz,		0.3µs/1900Hz, 0.4µs/1400Hz,			
		0.5µs/1200Hz,		0.8µs/750Hz,			
		0.8µs/750Hz,		1.0µs/650Hz,			
		1.0µs/650Hz		1.2µs/510Hz			
	Duplexer	circular + diode limiter					
	Tuning	automatic / manual					
	Ambient condition	temperature: -25°C +55°C, relative humidity: 93% @40°C					
Processor							
	Model	NDC-1417					
	Bearing indication	north-up / course-up / head-up					
	Presentation mode	RM display with true trail, RM display with relative trail, TM display					
	EBL	2 (EBL1/EBL2) (center/independent) 000.0° - 359.9°, digital display					
	VRM	2 (VRM1/VRM2), 0.000 - 100.2nm, digital display					
	Trail indication	4 stages: short, middle, long, super long (e.g. short: off/0.25/0.5/1/3/6/10/15-min and continuous)					
Display (optional on JMA-5300Mk2 series BB)							
	Model	NWZ-173					
	LCD	1280x1024dot (SXGA)					
	Effective diameter	≥ 250mm					
	Connection cable	5m (processor-monitor)					
Keyboard							
	Model	NCE-5171					
	Connection cable	5m (processor-keyboard)					
Installation cable		CFQ-6912-30 standard L= 30m (optional up to 65m)					CFQ-6912-20 (L=20m) 2695110056 (L=40m)
Power supply (voltage)		DC 21.6 - 31.2V					DC 24V(DC 21.6 - 31.2V) 1) AC 110/230V
Power consumption (at max wind load)		620W		700W			240W + 1600VA
Ambient condition		temperature: -15°C +55°C, relative humidity: 93% @40°C (processor, display, keyboard)					
Optional items							
2) Gyro interface unit		NCT-59A built-in NDC-1417					
2) ATA unit (30 targets)		NCA-877A built-in NDC-1417					
2) ARPA unit (100 targets)		NCA-877WA built-in NDC-1417					
2) Performance monitor		NJU-85					NJU-84 (standard)
Interswitch box		NQE-3141-4A (up to 4 radars), NQE-3141-8A (up to 8 radars)					
2) AIS interface unit		NQA-2103 built-in NDC-1417					
Plotting function board		NDB-34A built-in NDC-1417					
AC rectifier		NBA-5111 - AC 100/110/120/220/230/240V					

1) AC 100-115/220-240V (50/60Hz 1Ø). AC power is required for JMA-5332-12 antenna motor scanner.

2) Performance monitor, ARPA or ATA, AIS and gyro unit must be fitted on ships compliant to IMO.

All specifications are subject to change without notification.

RADAR
JMA-5200Mk2

DREKO MARINA SISTEM

Complies with SOLAS carriage requirements for vessels under 500 GT. and fully meets MSC 192(79) radar performance standards effective from 1 July 2008.

– JRC's new JMA-5200Mk2 runs radar images faster and more efficiently than ever before

15–inch high visibility display

Constaview™ digital signal processing

TEF™ multi-level target enhancement

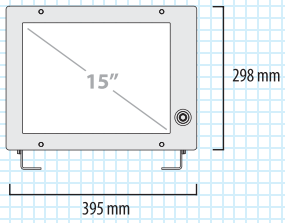
High speed version available

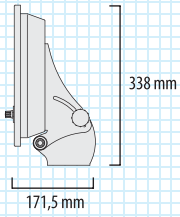
Brushless antenna motors for extended lifetime

DIMENSIONS AND MASS

Dimension drawings - Display[1]

NWZ-164 Mass 5 kg

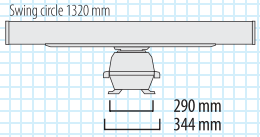




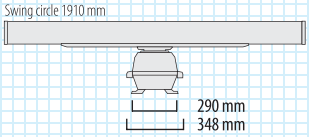
[1] shown with optional bracket, **cutout for panel mount** height 262 mm, width 368 mm, depth 150 mm

Dimension drawings - Scanners[1]

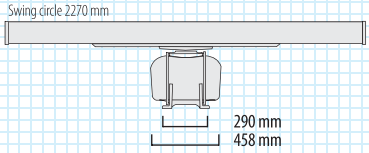
NKE-2103-4 Mass 38 kg



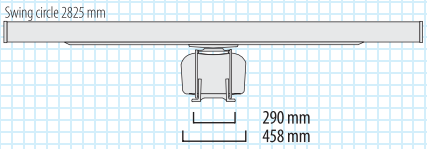
NKE-2103-6 Mass 40 kg



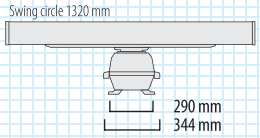
NKE-2254-7 Mass 58 kg



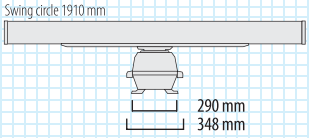
NKE-2254-9 Mass 60 kg



NKE-2103-4HS highspeed Mass 38 kg



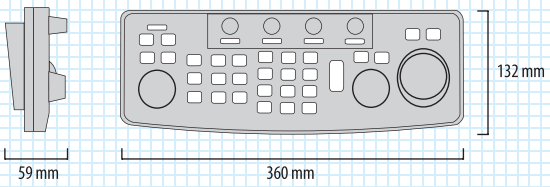
NKE-2103-6HS highspeed Mass 40 kg



[1] all scanners have a brushless motor and comply with 40dB/dec Spurious particulars

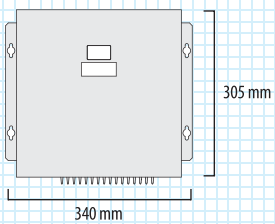
Dimension drawings - Keyboard, Processor

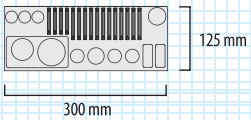
NCE-7699A Mass 1,3 kg



cutout for panel mount height 105 mm, width 340 mm, depth 20 mm

NDC-1460 Mass 6 kg





SPECIFICATIONS

Model		JMA-5212-4	JMA-5212-6	JMA-5222-7	JMA-5222-9	JMA-5212-4HS	JMA-5212-6HS
IMO compliant							
Display		colour raster scan PPI					
Range scale		0.125/0.25/0.5/0.75/1.5/3/6/12/24/48/96 NM					
Scanners							
	Model	NKE-2103-4	NKE-2103-6	NKE-2254-7	NKE-2254-9	NKE-2103-4HS	NKE-2103-6HS
	Antenna length	4ft.	6ft.	7ft.	9ft.	4ft.	6ft.
	Transmitting power	10kW		25kW		10kW	
	Transmitting frequency	9410MHz ± 30MHz					
	Beam width 3db	Hor. 1.8°, Ver. 20°	Hor. 1.2°, Ver. 20°	Hor. 1.0°, Ver. 20°	Hor. 0.8°, Ver. 20°	Hor. 1.8°, Ver. 20°	Hor. 1.2°, Ver. 20°
	Rotation speed	27rpm		24rpm		48rpm	
	Pulse width (receive freq.)	0.08µs/2250Hz,		0.07µs & 0.2µs/2250Hz,		0.08µs/2250Hz,	
		0.25µs/1700Hz,		0.4µs/1400Hz,		0.25µs/1700Hz,	
		0.5µs/1200Hz,		0.8µs/750Hz,		0.5µs/1200Hz,	
		0.8µs/750Hz,		1.0µs/650Hz,		0.8µs/750Hz,	
		1.0µs/650Hz		1.2µs/510Hz		1.0µs/650Hz	
	Duplexer	circular + diode limiter					
	Tuning	automatic / manual					
	Ambient condition	temperature -25° to 55°C, relative humidity 0% to 93% non-condensing					
Processor							
	Model	NDC-1460					
	Bearing indication	north-up / course-up / head-up					
	Presentation mode	RM display with true trail, RM display with relative trail, TM display					
	EBL	2 (EBL1/EBL2) (center/independent) 000.0° - 359.9°, digital display					
	VRM	2 (VRM1/VRM2), 0.000 - 97.7 NM, digital display					
	Trail indication	4 stages: short, middle, long, super long (e.g. short: off/0.25/0.5/1/3/6/10/15-min and continuous)					
Display (optional on JMA-5200Mk2 series BB)							
	Model	NWZ-164					
	LCD	1024 by 768 pixels (XGA)					
	Effective diameter	≥ 180mm					
	Connection cable	5m (processor-monitor)					
Keyboard							
	Model	NCE-7699A					
	Connection cable	5m (processor-keyboard)					
Installation cable		CFQ-6912-20 standard L= 20m (optional up to 65m)					
Power supply (voltage)		24V DC (21.6V to 31.2V DC) 1) AC100-120/220-240V (50/60Hz, 1Ø)					
Power consumption (at max wind load)		typ.120W / max 600W		typ.200W / max 680W		typ.120W / max 600W	
Ambient condition		temperature -15° to 55°C, relative humidity 0% to 93% non-condensing (processor, display, keyboard)					
Optional items							
2) NSK unit (gyro/log interface)		NCT-4106A					
3) ATA unit (30 targets)		NCA-877A					
3) Performance monitor		NJU-85					
3) AIS interface unit		NQA-2155					
Interswitch cable		CFQ-5251 (5m) + CFQ-5351					
Plotting function board		NDB-44					
AC rectifier		NBA-5111 - AC100-120/220-240V (50/60Hz, 1Ø)					
Cable 10/15/20/30/40/50/65 m		CFQ-6912-10/15/20/30/40/50/65					

1) AC power requires rectifier NBA-5111
2) Required if no high speed NMEA available
3) Performance monitor, Target Tracking, AIS must be fitted on ships compliant to IMO.

All specifications are subject to change without notification.

RADAR
JMA - 3300

DREKO MARINA SISTEM

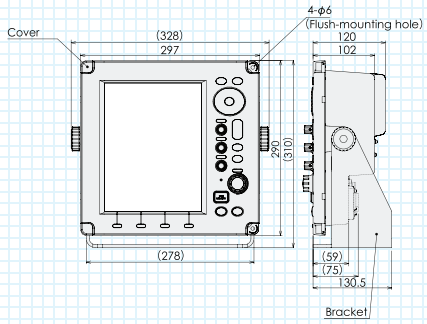
– JRC's new radar incorporates the latest leading technologies

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

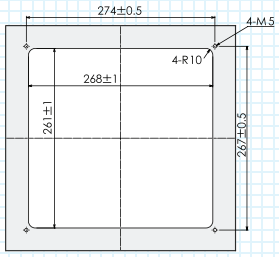
DIMENSIONS

Display unit

NCD-2182 Mass Approx. 5 kg

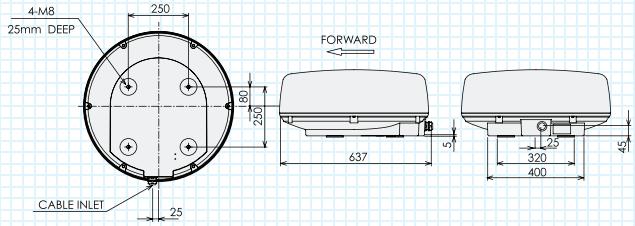


Flush mounting hole

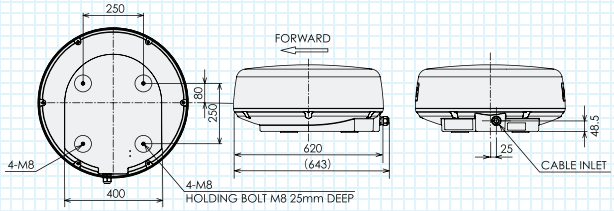


Scanner unit

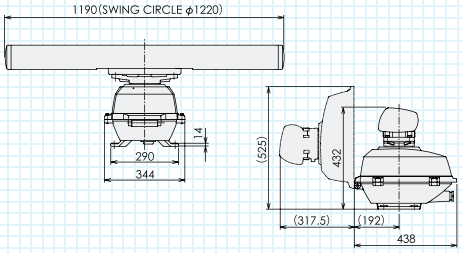
4kW NKE-2042 Mass Approx. 10.5 kg



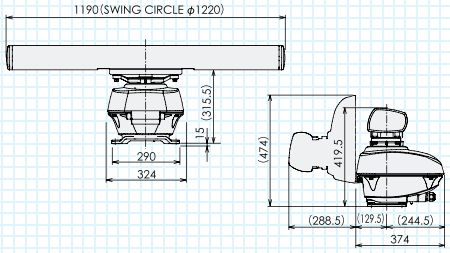
4kW NKE-2043 Mass Approx. 10 kg



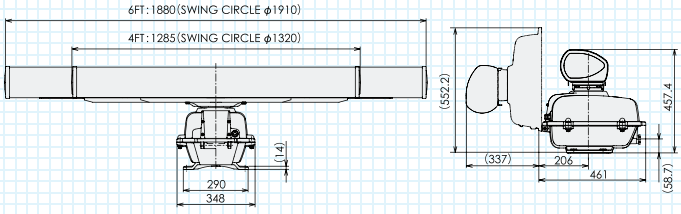
6kW NKE-2062/2062HS Mass Approx. 24 kg



6kW NKE-2063/2063HS Mass Approx. 21 kg



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



SPECIFICATIONS

Name		Marine Radar									
Model		JMA-3314	JMA-3334	JMA-3316	JMA-3316HS	JMA-3336	JMA-3336HS	JMA-3340-4	JMA-3340-4HS	JMA-3340-6	JMA-3340-6HS
Display		color raster scan PPI									
Scanners											
	Model	NKE-2042	NKE-2043	NKE-2062	NKE-2062HS	NKE-2063	NKE-2063HS	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	16-48rpm		16-27rpm	27-48rpm	16-27rpm	27-48rpm	16-27rpm	16-48rpm	16-27rpm	16-48rpm
	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.	0.08μs/2250Hz 0.25μs/1700Hz 0.5μs/1200Hz 1.0μs/650Hz	0.08μs/4000Hz 0.08μs/2250Hz 0.13μs/1700Hz 0.25μs/1700Hz 0.5μs/1200Hz 0.8μs/750Hz 1.0μs/650Hz	0.08μs/2250Hz 0.25μs/1700Hz 0.5μs/1200Hz 1.0μs/650Hz		0.08μs/4000Hz 0.08μs/2250Hz 0.13μs/1700Hz 0.25μs/1700Hz 0.5μs/1200Hz 0.8μs/750Hz 1.0μs/650Hz		0.08μs/2250Hz 0.25μs/1700Hz 0.5μs/1200Hz 0.8μs/750Hz 1.0μs/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, 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 backlight									
	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	Available									
	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 zones									
	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.: Approx85W maximum wind: Approx180W	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.

RADAR
JMA-3400 series

DREKO MARINA SISTEM

SCANNERS

A wide range of X-band scanners, varying from small and light radome type to open array type, are available depending on installation space and required performance, all with exceptionally reliable target detection capabilities. The latest leading technologies with a set of advanced features are integrated, allowing the radar to run images faster and more efficient than ever before. Also, the brushless antenna motors in the scanner guarantee for extended lifetime.

TECH SPECS

Display unit

Display unit

NCD-2364 Weight 5 kg (11.02 lbs)

320 mm (12.60 in)

320 mm (12.60 in)

97.1 mm (3.82 in)

Scanners

2 ft | 16-48 rpm

NKE-2043 Weight 10 kg (22.05 lbs)

620 mm (24.41 in)

3.9 ft | 16-27 rpm | 27-48 rpm HS

NKE-2063A/HS Weight 21 kg (46.30 lbs)

Swing circle 1220 mm (48.03 in)

324 mm (12.76 in)

4 ft | 16-27 rpm | 27-48 rpm HS

NKE-2103-4/4HS Weight 34 kg (74.96 lbs)

Swing circle 1320 mm (51.97 in)

348 mm (13.70 in)

6 ft | 16-27 rpm | 27-48 rpm HS

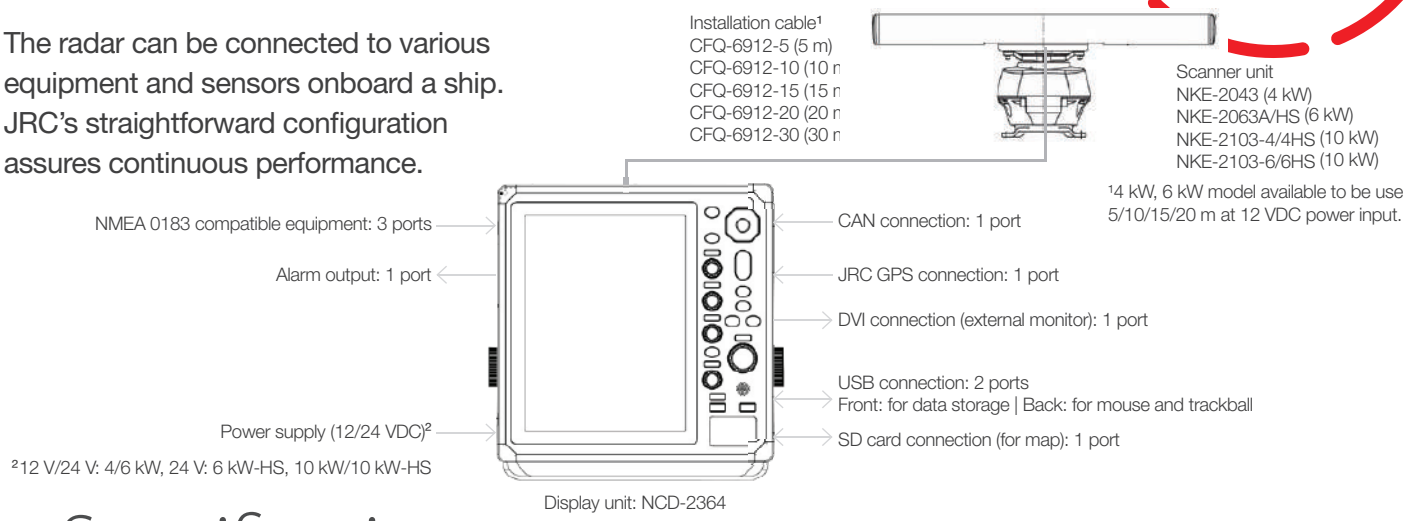
NKE-2103-6/6HS Weight 36 kg (79.37 lbs)

Swing circle 1910 mm (75.20 in)

348 mm (13.70 in)

SYSTEM DIAGRAM

The radar can be connected to various equipment and sensors onboard a ship. JRC's straightforward configuration assures continuous performance.



Specifications

Model	JMA-3404	JMA-3406	JMA-3406HS	JMA-3411-4	JMA-3411-HS	JMA-3411-6	JMA-3411-6HS
IMO compliant	Non-SOLAS						
Frequency	X-band (9410 MHz)						
Range scale	0.0625, 0.125, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 64, 72 NM³						
Type	Dome	Open					
Scanner							
Model	NKE-2043	NKE-2063A	NKE-2063AHS	NKE-2103-4	NKE-2103-4HS	NKE-2103-6	NKE-2103-6HS
Antenna length	2 ft.	3.9 ft.		4 ft.		6 ft.	
Transmitting power	4 kW	6 kW		10 kW			
Beam width 3 dB	Hor. 4° Ver. 2.5°	Hor. 2° Ver. 30°		Hor. 1.9° Ver. 20°		Hor. 1.2° Ver. 20°	
Rotation speed	16-48 rpm	16-27 rpm	27-48 rpm	16-27 rpm	27-48 rpm	16-27 rpm	27-48 rpm
Pulse width / repitation frequency	0.08 µs/4000 Hz⁴, 0.08 µs/2250 Hz, 0.13 µs/1700 Hz⁴, 0.25 µs/1700 Hz, 0.5 µs/1200 Hz, 0.8 µs/750 Hz, 1.0 µs/650 Hz						
Power consumption (at max wind load)	60 W	180 W	230 W	210 W	360 W	210 W	360 W

³ 72 NM is only 6 and 10 kW. | ⁴ Only JMA-3404 and JMA-3406/HS.

Presentation	
Screen size and resolution	12.1-inch SVGA color LCD,600x800 dot
Presentation mode	RM:North-UP / Head-UP / Course-UP | TM:North-UP / Course-UP
Gain	Auto/manual
Anti SEA/RAIN clutters	Auto/manual
Trail indication	OFF,15 s,30 s,1 min,2 min,3 min,4 min,5 min,6 min,10 min,15 min,All
Off center	2/3 radius of PPI
Target data and AIS	
Tracking target capacity	30 targets
Guard zone	2 zone (Auto TT: 1 zone)
Target data	True bearing,range,true course,true speed,CPA,TCPA
Alarms	CPA/TCPA,new target,lost,system error
AIS target capacity	100 targets

Interface	
NMEA 0183	3 ports
CAN	1 port
JRC GPS	1 port
DVI connection	1 port
USB connection	2 ports
NMEA 0183 input sentence	ALR, DBT, DPT, GGA, GLL, GNS, HDG, HDM, HDT, MTW, MWV, RMA, RMC, ROT, RSA, THS, VBW, VDO, VDM, VHW, VTG, VWT, VWR
NMEA 0183 output sentence	GGA, GLL, GNS, HDT, OSD, RSD, RMC, TLL, TTD, TTM, THS, VTG

RADAR
JMA - 1030

DREKO MARINA SISTEM

– the JMA-1030 is an easy to use radar that greatly supports your ship's handling by touch operation

7-inch wide VGA color touch display

Proprietary System-on-Chip technology

Simple and intuitive operation

AIS and MARPA+ as standard

Newly designed high performance scanners

FLEXIBILITY

Interfacing

The JMA-1030 has a 3 channel NMEA signal input allowing connections to navigation equipment such as GPS; for own position, waypoints and speed for MARPA tracking. It also allows a GPS compass connection for your heading (and MARPA tracking) and/or AIS for displaying targets.

NKE-1066

NKE-2044

Multi speed scanners

With this new radar, JRC introduces two new small and light weight 4kW multi-speed scanners available in a 1.5ft (450mm) and 2ft (620mm) radome. The supplied 10m*1 cable allows you to install the dome on a mast, radar arch, or mounting on a pole. The scanners features a new high rate PRF*2, which allows for a highly accurate short range detection.

Depending on vessel operations and user preferences, magnetron life can be extended by lowering the output power with the economy mode and/or user selectable transmitting intervals with the timed TX mode*3.

In the box*4

- Scanner 1.5ft or 2ft
- Display, Bracket, Sun cover
- Scanner cable (10m)
- Power cable (2m)
- Spare parts
- Manual

Options

• Scanner to display cable 15m	CFQ9924-15
• Scanner to display cable 20m	CFQ9924-20
• NMEA cable (1m)	7ZCRD1689
• Power supply	NBD-865
• RGB unit	NQA-2447

*1 Longer cables are optionally available
*2 Pulse Repetition Frequency (PRF) resembles the number of pulses transmitted each second
*3 Reducing output power reduces radar sensitivity
*4 The standard scope of supply may vary depending on sales region

WEIGHT AND DIMENSIONS

7-inch display RoHS

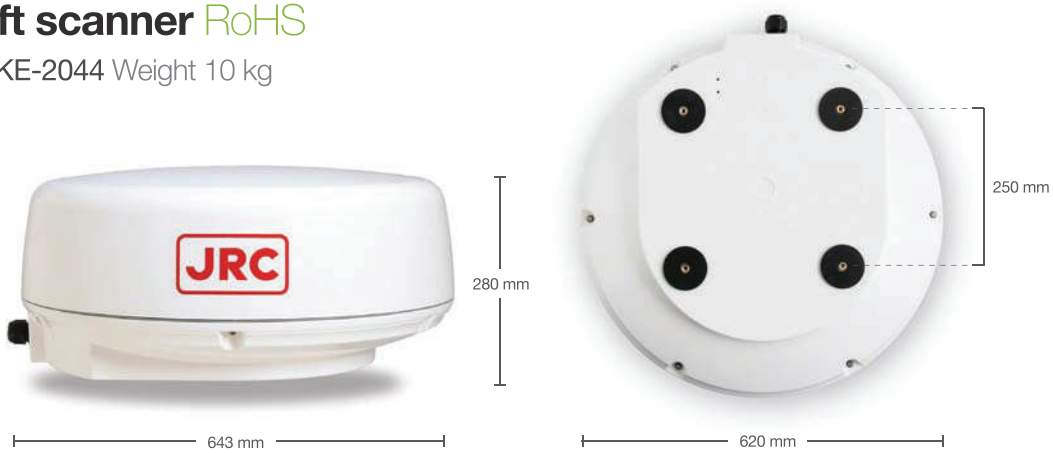
NCD-2256 Weight 1.7 kg

1.5ft scanner RoHS

NKE-1066 Weight 5 kg

2ft scanner RoHS

NKE-2044 Weight 10 kg



SPECIFICATIONS

	JMA-1032	JMA-1034
Display type	Raster scan PPI	
Scanners	NKE-1066	NKE-2044
Antenna length	1.5 ft (450 mm radome)	2 ft (620 mm radome)
Output power	4 kW	4 kW
Transmitting frequency	9410 ±30MHz	
Beam width	Horizontal 5.2°, Vertical 25°	Horizontal 4°, Vertical 25°
Rotation speed	16, 20, 24, 27, 30, 36, 42, 48 rpm	
Pulse width	0.08μs/4000Hz, 0.08μs/2250Hz 0.13μs/1700Hz, 0.25μs/1700Hz 0.5μs/1200Hz, 0.8μs/750Hz	0.08μs/4000Hz, 0.08μs/2250Hz, 0.13μs/1700Hz, 0.25μs/1700Hz, 0.5μs/1200Hz, 0.8μs/750Hz, 1.0μs/650Hz
Range scale	0.0625, 0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48*1 NM	
Adding range scale	1, 2, 4, 8, 16, and 32*1 NM	
Display	7-inch wide VGA (WVGA) color LCD touch display (800 by 480 pixels)	
Operation	Touch, buttons and push/rotary knob	
Presentation mode	RM: Head/North/Course-up, TM: North/Course-up	
Trail indication	15 sec to 15 min, 30 sec to 30 min, 1 min to 1 hr, 30 min to 24 hr, continuous	
Off center	Move to 4 pre-defined coordinates from the default center position	
Guard zone	Built in	
Alarms	8x scanner, 6x display, 16x receive data	
Tracking targets*2	10 built-in (automatic tracking), Tracking range up to 20 NM	
AIS targets*2	50 built-in (stores up to 500 ship static data)	
Input sentences	GGA, RMC, RMA, GNS, GLL, VTG, DPT, DBT, MTW, VDM, VDO, ALR, MWV, VWT, VWR, RMB, BWC, BWR (navigation) THS, HDT, HDG, HDM (bearing), VBW, VHW (speed)	
Output sentences	RSD, OSD, TTM, TLL, TTD, GGA, RMC, GNS, GLL, VTG, THS, HDT	
Output signals	External buzzer, external monitor (optional RGB unit NQA-2447 required)	
USB	Copy/restore internal settings, software update	
Languages	English, Spanish, Turkish, Russian, Japanese, Indonesian, Thai, Malaysian, Vietnamese, Chinese, Korean	
Power/Consumption	12-24V DC -10%+30%, Maximum 50W	
Ambient conditions	Operation temperature: -25 to 55°C (scanner), -15 to 55°C (display) Relative humidity: 0% to 93% non-condensing Waterproof/dustproof: IP26 (scanner), IP55 (display)*3	

*1 Only available on the JMA-1034 *2 Data from other equipment required *3 Optional RGB unit does not meet IP55

RADAR
JMR-9200/7200 series

DREKO MARINA SISTEM

RMS

* The photograph includes options.

- Provide high performance with high functions in a more user-friendly manner.

- Conforming to the latest IMO performance standards with Marine Equipment Directive (MED) certification.
- Ensuring intuitive and easy-to-use display and operation performance reflecting professional user's voices.
- The world's first MED-certified 8-ft solid-state S-band scanner antenna.
- Incorporating JRC original high-speed processor for great improvements in target detection performance.
- Delivered with a software license allowing an expansion tailored to each operational requirement for a wide variety of optional functions.

FUNCTIONAL EXPANSION AND CONFIGURATION

Functional expansion

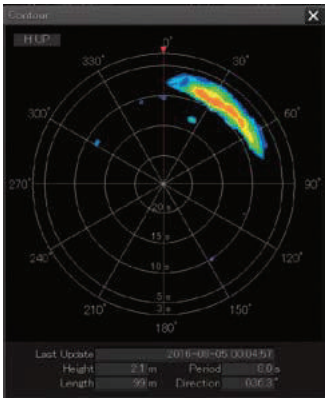
The equipment incorporates a variety of optional functions that will be available with software licenses added. Software licenses can be added before or after the radar comes into operation. Therefore, the radar can be customized to match the actual operating conditions.

Optional functions

- Chart radar function*1
- Expansion of AIS display targets (500 1000)
- Wave analysis function

*1. The chart radar function requires ENC cell permits as well as ECDIS.

*The photograph includes options.



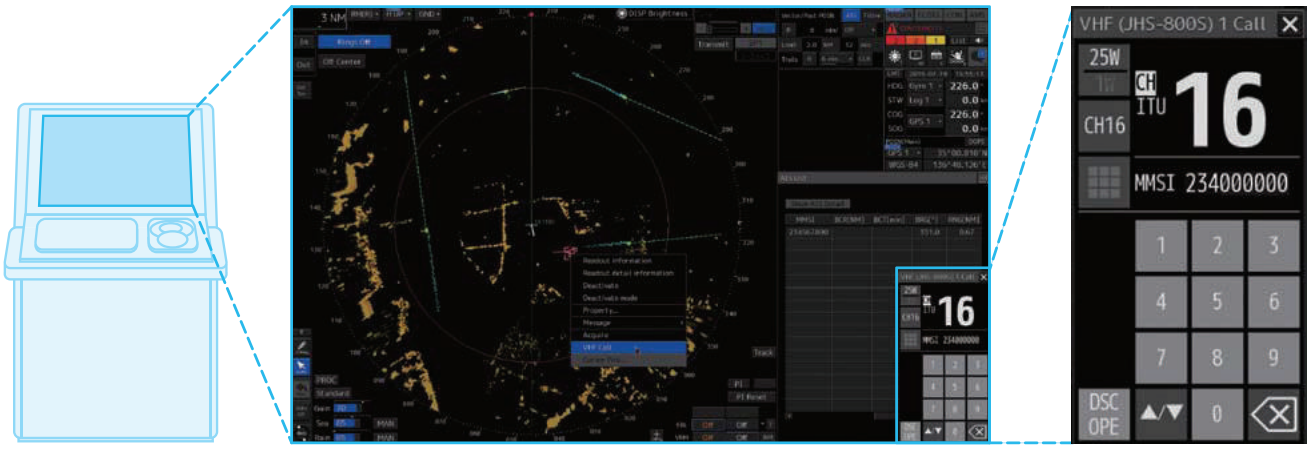
Wave analysis supports safe and fuel-efficient voyages

Sea surface reflection signals obtained around the own ship by the X-band radar are analyzed to display wave height, wave direction, wavelength, and wave cycle information along with spectrum images*2. The ship can take a course on the basis of information obtained from the wave analysis and suppress the pitching and rolling of the ship caused by waves, thus making it possible to ensure the safety of the crew members and cargo while saving the fuel consumption.

*2. The spectrum image is available to JMR-9200 series only.

VHF remote operation by radar

The radar offers a VHF remote operation function*3. This can be used to configure channels on the VHF unit or to perform DSC calls using AIS targets on the radar PPI screen. Features such as the wireless speaker mic*4 make it possible to communicate with other ships even when away from the VHF equipment.



Example of radar JMR-9200 series 26-inch display

VHF screen

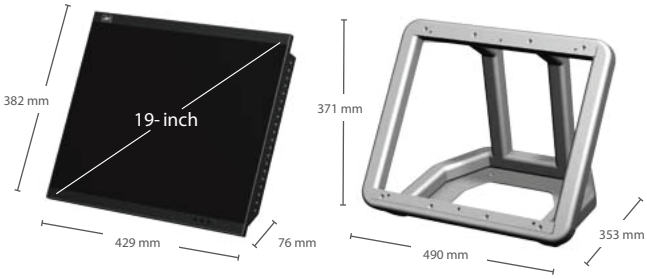
*3. The VHF supports the JHS-800S

*4. Wireless speaker mic is option for the JHS-800S

DIMENSIONS AND WEIGHT

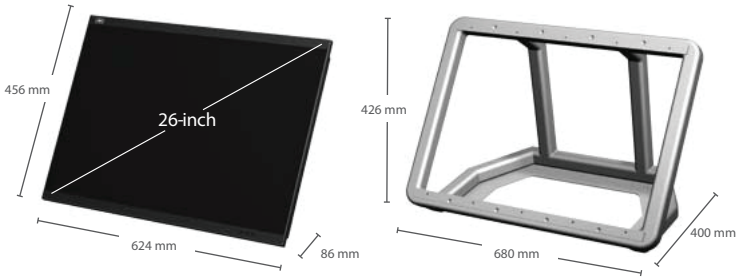
19-inch display and desktop frame

NWZ-214 Weight 4.6 kg **CWB-1594**[*1] Weight 3.6 kg



26-inch display and desktop frame

NWZ-208 Weight 16 kg **CWB-1595**[*1] Weight 5.5 kg



Central control unit

NDC-1590 Weight 5.6 kg

Power supply unit

NBD-913 Weight 4.2 kg

Trackball operation unit

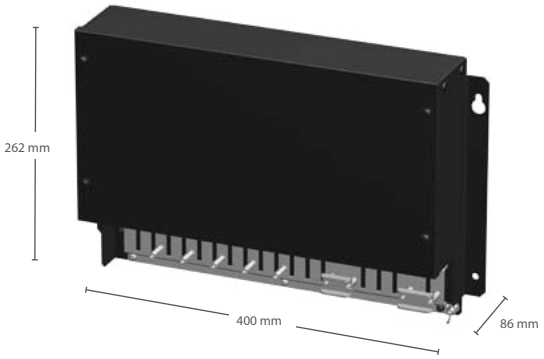
NCE-5605 Weight 1.3 kg

Keyboard operation unit

NCE-5625[*1] Weight 0.8 kg

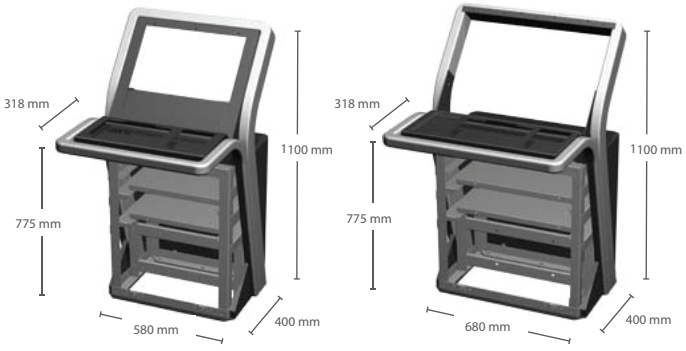
Junction box

NQE-1143[*1] Weight 3.8 kg



19" cradle frame and 26" cradle frame

CWA-245[*1] Weight: 55 kg **CWB-246**[*1] Weight 65 kg

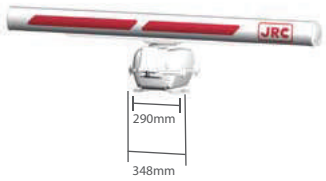


*1. Option. *2. The performance monitor is option. *3. The transceiver NTG-3225 is required.

10-kW X-band scanner antenna (2 units)

NKE-2103-6*2/NKE-2103-6HS*2 Weight: 40 kg

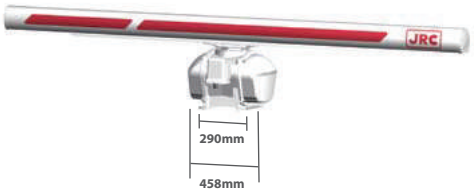
Swing circle: 1910mm



25-kW X-band scanner antenna (2 units)

NKE-1125-9*2 Weight: 60 kg

Swing circle: 2825mm



25-kW X-band scanner antenna (3 units*3)

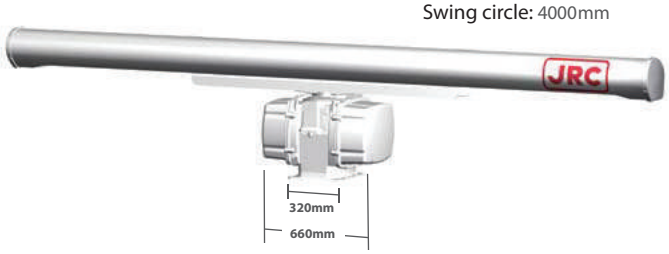
NKE-1129-9*2 Weight: 53 kg

Swing circle: 2825mm

30-kW S-band scanner antenna (3 units*3)

NKE-1139*2 Weight: 165 kg

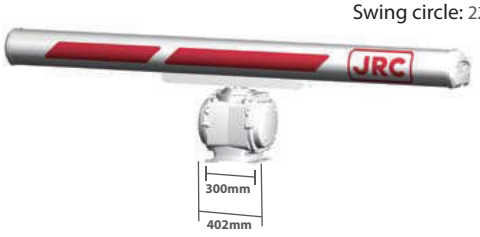
Swing circle: 4000mm



250 W S-band solid-state scanner antenna (2 units)

NKE-2632-H Weight 90 kg

Swing circle: 2270mm



25-kW X-band scanner antenna (2 units)

NKE-1125-6*2/NKE-2254-6HS*2 Weight: 55 kg

Swing circle: 1910mm

25-kW X-band scanner antenna (3 units*3)

NKE-1129-7*2 Weight: 51 kg

Swing circle: 2270mm

30-kW X-band scanner antenna (2 units)

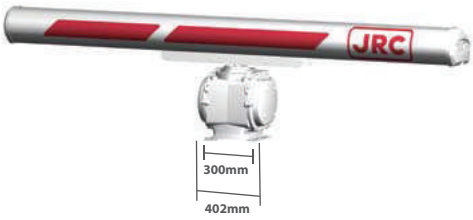
NKE-1130*2 Weight: 180 kg

Swing circle: 4000mm

250 W S-band solid-state scanner antenna (2 units)

NKE-2632 Weight: 85 kg

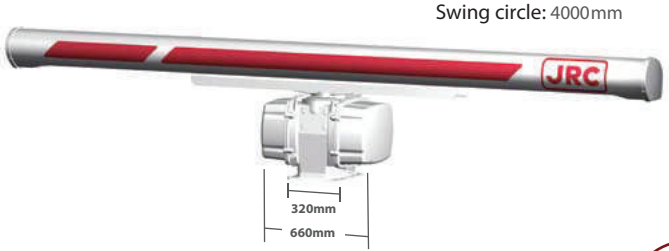
Swing circle: 2770mm



250 W S-band solid-state scanner antenna (2 units)

NKE-1632 Weight: 160 kg

Swing circle: 4000mm



SPECIFICATIONS

Model	26-inch type*1	JMR-9210-6X JMR-9210-6XH	JMR-9225-6X JMR-9225-9X	JMR-9225-6XH	JMR-9225-7X3 JMR-9225-9X3	JMR-9230-S	JMR-9230-S3	JMR-9282-S JMR-9282-SH	JMR-9272-S
	19-inch type*1	JMR-7210-6X JMR-7210-6XH	JMR-7225-6X JMR-7225-9X	JMR-7225-6XH	JMR-7225-7X3 JMR-7225-9X3	JMR-7230-S	JMR-7230-S3	JMR-7282-S JMR-7282-SH	JMR-7272-S
Conforming to IMO standards									
Unit configuration		2-unit configuration			3-unit configuration *2	2-unit configuration	3-unit configuration *3	2-unit configuration	
Performance monitor		NJU-85				NJU-84		Built in	
Frequency		X-band				S-band			
Display		Color raster scan PPI							
Scanners									
Model*1		NKE-2103-6 NKE-2103-6HS	NKE-1125-6 NKE-1125-9	NKE-2254-6HS	NKE-1129-7 NKE-1129-9	NKE-1130	NKE-1139	NKE-2632 NKE-2632-H	NKE-1632
Antenna length		6feet	6/9feet	6feet	7/9feet	12feet		8feet	12feet
Transmission output		10kW	25kW			30kW		250 W (solidification)	
Transmission frequency		9410MHz ± 30MHz				3050MHz ± 20MHz		P0N: 3035MHz Q0N: 3065±4 MHz or 3060±4 MHz	
Horizontal beam width		1.2°	6feet:1.2° 9feet:0.8°	1.2°	7feet:1.0° 9feet:0.8°	1.9°		2.7°	1.9°
Vertical beam width		20°				25°		25°	
Rotational speed		27rpm 48rpm(high-speed rotation)	24rpm	48rpm(high-speed rotation)	24rpm	24rpm		24rpm 48rpm(high-speed rotation)	24rpm
Pulse width/Frequency*4		0.08μs/2250Hz	0.07μs/2250Hz,0.2μs/2250Hz					0.07μs/(4.6μs, 8MHz)/1860 or 2280Hz	
		0.25μs/1700Hz	0.3μs/1900Hz,0.4μs/1400Hz					0.14μs/(9.1μs, 8MHz)/1860Hz or 2280Hz	
		0.5μs/1200Hz	0.8μs/750Hz					0.29μs/(9.1μs, 8MHz)/1860Hz or 2280Hz	
		0.8μs/750Hz	1.0μs/650Hz					0.57μs/(9.1μs, 8MHz)/1280Hz	
		1.0μs/650Hz	1.2μs/510Hz					1.14μs/(18.3μs, 8MHz)/640Hz	
Duplexer		Circulator + Diode limiter					Circulator + TRHPL	Circulator + Diode limiter	
Range scale		0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48, 96NM							
Motor		Brushless							
Tuning		Auto/Manual							
Ambient conditions		Temperature: -25 to 55°C (NTG-3225/NTG-3230: -15 to 55°C); Relative humidity: 93% @40°C							
Display unit									
LCD		JAN-9200: 26-inch WUXGA color LCD, 1920 × 1200 dots JAN-7200: 19-inch SXGA color LCD, 1280 × 1024 dots							
PPI effective diameter		JMR-9200: 320 mm min. JMR-7200: 250 mm min.							
Azimuth display mode		North up, course up, and head up							
Operation mode		Relative motion - True trails; Relative motion - Relative rails; True movement - True rails							
EBL		Two (EBL1/EBL2), (Center/Independent), 000.0 to 359.9°, Four-digit display							
VRM		Two (VRM1/VRM2), 0.000 to 96.0 NM, Four-digit display							
Sea surface/Rain and snow reflection suppression		Auto/Manual							
Trail display		Short (off,15 s to 60 mins.)/Long (off,30 mins to 24 hrs.), Two modes							
Own ship trail records		24 hours							
User map		100,000 points							
Off center		66% of the radius (excluding 96-NM range)							
Number of TT tracking targets		100 max.							
TT tracking range		Auto/Manual 32 NM max.							
Number of AIS targets		500 targets max. (expanding to a maximum 1,000 targets with an optional function added)							
TT/AIS vector		True/Relative, variable from 1 to 120 minutes							
Ambient conditions		Operating temperature: -15 to 55°C; Relative humidity: 93% @40°C							
Power supply voltage		100-115 VAC, 50/60Hz, 1φ/220-240 VAC, 50/60Hz, 1φ/24 VDC							
Option									
Chart radar function		Software license							
Expansion of number of AIS display targets		Software license							
Wave analysis function		Software license							
Keyboard operation unit		NCE-5625							
Junction box		NQE-1143							
Interface circuits		CMH-2370 (Serial LAN interface circuit) / CMJ-560 (Analog option circuit) / CMJ-554 (Gyro interface circuit)							
Self-stand frame		CWA-245 (19 inches) /CWA-246 (26 inches)							
Power control unit		NQE-3167							
Interswitch		NQE-3141-4A (box, up to 4 units)							
Interswitch		NQE-3141-8A (box, up to 8 units)							
Anti-icing antenna*5		None	NKE-1125-6D/9D	NKE-2254-6HSD	NKE-1129-7D/9D	NKE-1130D	NKE-1139D	NKE-2632D/E	NKE-1632D/E

*1. Each model with the model number suffix "H" is a high-speed rotation model.
*2. External transceiver: NTG-3225
*3. External transceiver: NTG-3230
*4. The NKE-2632/1632 scanner antennas: Transmission pulse width (1st)/(Transmission pulse width and frequency shift width (2nd))/Repetition frequency
*5. The supply voltage of each model is shown by the suffix. D: 100 V AC and E: 220 V AC

Specifications may be subject to change without notice.

ECDIS
JAN-9201/7201

DREKO MARINA SISTEM

RMS

* The photograph includes options.

- Provide a smooth operating environment ensured by high-speed chart drawing.

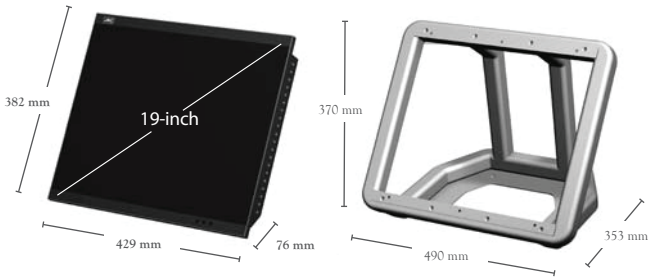
- Conforming to the latest IMO performance standards with Marine Equipment Directive (MED) certification.
- Ensuring intuitive and easy-to-use display and operation performance reflecting professional user's voices.
- Integrating route editing and route safety checking to support safer route plans.
- Delivered with a software license allowing an expansion tailored to each operational requirement for a wide variety of optional features.
- Providing the J-Marine Cloud service that collectively supports the updating of charts.
- ECDIS type-specific training (TST) is provided by a variety of organizations around the world on behalf of JRC.

JRC Japan Radio Co., Ltd.

DIMENSIONS AND WEIGHT

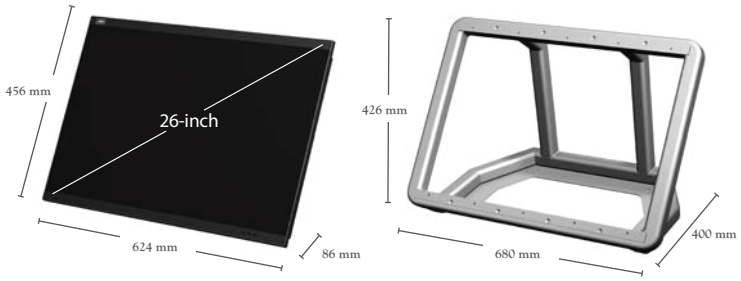
19-inch monitor and desktop frame*

NWZ-207 Weight: 6 kg CWB-1594 Weight: 3.6 kg



26-inch monitor and desktop frame*

NWZ-208 Weight: 16 kg **CWB-1595 Weight: 5.5 kg**



*** Desktop frame is option.**

Central control unit

NDC-1590 Weight: 5.6 kg

Power supply unit

NBD-913 Weight: 4.2 kg

Trackball operation unit

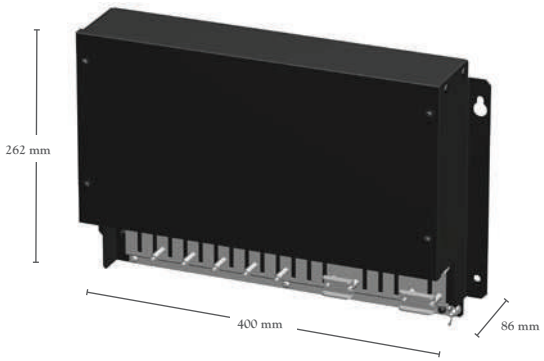
NBD-5605 Weight: 1.3 kg

Keyboard operation unit (option)

NBD-5625 Weight: 0.8 kg

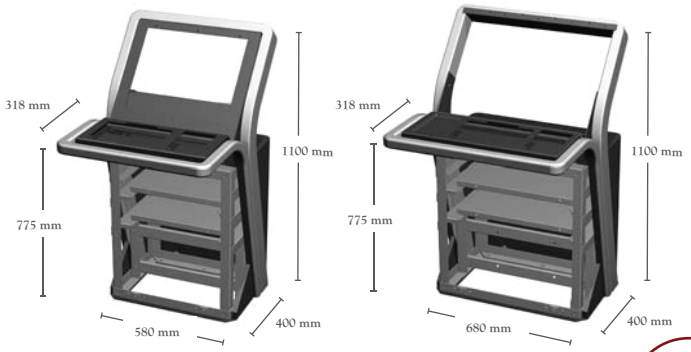
Junction box (option)

NQE-1143 Weight: 3.8 kg



19" display unit mount kit /26" display unit mount kit*

CWA-245 Weight: 55 kg CWB-246 Weight: 65 kg



SPECIFICATIONS

Model	26-inch model	JAN-9201
	19-inch model	JAN-7201
Conforming to IMO standards		
Hardware function		
Display unit		JAN-9201: 26-inch WUXGA color LCD, 1920 × 1200 pixels, touch panel (sold separately) JAN-7201: 26-inch WUXGA color LCD, 1280 × 1024 pixels, touch panel (sold separately)
Central control block		Intel Core i5 2515E 2.5 GHz 2-GB main memory SSD × 2 DVD drive × 1
Power supply		24 V DC or single-phase 100 to 115V AC or 220 to 240 V AC at 50/60 Hz
Power consumption		Rating JAN-9201: 240 VA max.; JAN-7201: 200 VA max.
Chart display function		
Chart database		ENC: S-57 Ed3.0/3.1 and S-63 AVCS (AIO supported), NAVTOR ENC Service, and Jeppesen ENC Service Raster charts: ARCS Personal chart: Jeppesen Ed.3 Professional/Professional+
Operation mode		TM (true motion)/RM (relative motion) display
Azimuth display mode		True motion mode: North UP/Course UP/Head UP/Waypoint UP Relative motion mode: North UP/Course UP/Head UP/Waypoint UP
Scale		1:1,000 to 1:20,000,000 (WUXGA)/1:40,000,000 (SXGA)/1:20,000,000 (FHD)
Range		0.125, 0.25, 0.5, 0.75, 1.5, 3, 6, 12, 24, 48, 96NM
Multi-window display		Upper-lower split/Left-right split/Picture-in-picture
Route planning function		
Route creation		Table/Graphic editing
Route editing		Waypoint addition/deletion/edition Alternative route creation Route copy Connection between routes Import/export (in CSV)
Safety check		Yes
Number of routes displayed		Four types max.
Navigation-monitoring function		
Own ship		Monitoring for position, wake, and dragging anchor
Route monitoring		Water depths, obstacles, approaching prohibited areas, course deviation, waypoints, and arrival time
Other ship monitoring		TT display 200 targets max. (100 targets per radar and responding to a maximum of two radars) AIS display: 500 targets max. (expanding to a maximum 1,000 targets with an optional function added)
User map		
Number of display points		100,000 points (marks and lines)
Import/Export		Possible with USB memory
Other functions		
Data display function		Conning data block display
Self-diagnostic function		Standard
Remote maintenance function		Standard
Playback		Navigation data (3 months max.) Logbook (3 months max.)
Radar overlay		Optional (software license)
TCS		Optional
S-Joy control supported		Optional

• Specifications may be subject to change without notice.

MF/HF RADIO
JSS-2150/2250/2500

DREKO MARINA SISTEM

150W | 250W | 500W

GMDSS RMS

– *available in 150W, 250W and 500W versions, guaranteed enhanced performance and stability*

3.8-inch high brightness display

Standard 6 channel DSC watch-keeping built-in

Flexible black box configuration

Digital audio and integrated speaker

Easy operation with JOG dial

FLEXIBILITY

150W
JSS-2150

Flexible installation

All MF/HF models are minimum configured as standard, consisting of a display+handset, transceiver and antenna tuner. The 150W model can be applied for non-solas vessels, but also configured with necessary options up to GMDSS A4 area. In contrast to the other two models, the 150W version has a smaller transceiver and antenna tuner which allows for a more flexible installation approach in confined spaces.

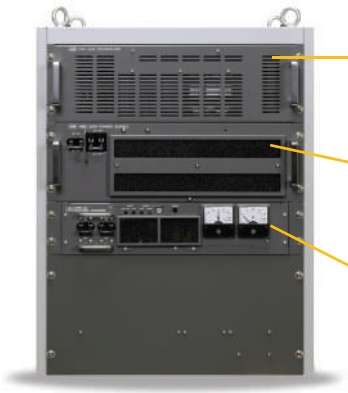
Antenna tuner


Transceiver

When more power output is required, simply select the 250W or 500W version. Additionally, the new 250W and 500W version come with a redesigned antenna tuner, transceiver and power supply designed to fit into a common 19-inch rack.

NEW
250W
JSS-2250

NEW
500W
JSS-2500



Transceiver NEW
Built-in Class A DSC and NBDP modem.

Power supply NEW
Identical circuit breaker for AC and DC input.

Battery charger*
Alarm notification function included.

Antenna tuner NEW
Outside mounting available as standard. Built-in antenna grounding circuit. Same mounting dimensions as preceding model (JSS-296/596).

* battery charger can be used for all models

Self diagnosis

With JRC's MF/HF radio equipment you can perform self-diagnosis checks on the display and transceiver, allowing for easy maintenance and more reliability. The results are directly shown on the screen and can be saved as a log (up to 10 possible) or printed (with optional printer).

In the box

- Display+Handset
- Transceiver
- Antenna tuner
- Display to transceiver cable (5 m)
- Power supply (250W/500W only)
- Manual

Options

• Power supply	NBD-2150 (150W)
• Battery charger	NBB-724/714
• Display	NCM-2150 (max 2)
• Display cable	7ZCJD0343 (5 m)
• Connection box	NQD-2250 (for 2nd display)
• Mounting bracket	MPBC42957 (flush)
• Mounting bracket	MPBX44354 (table)
• Handset	NQW-261 (IP66)
• NBDP kit	7ZZJD0089 (contents see left)
• Antenna	NAW-208S (10 m) TX
• Whip antenna*	NAW-60 (6 m) RX and/or WKR
• Joint box	JQD-69C (for RX & WKR)
• Junction box	NQD-2253 (for antenna tuner)
• Printer (flush)	NKG-91
• Printer (table)	NKG-800/DPU-414
• DMC	NCH-321A

* Flag/class may require two RX antennas to separate RX from WKR.

WEIGHT AND DIMENSIONS

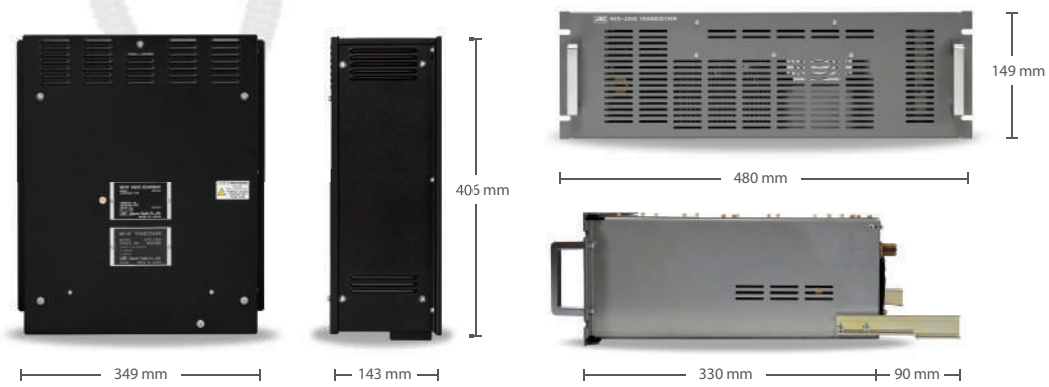
Display/Handset

NCM-2150/NQW-261 Weight 1,3/0,5 kg

Transceiver

NTD-2150 Weight 13 kg

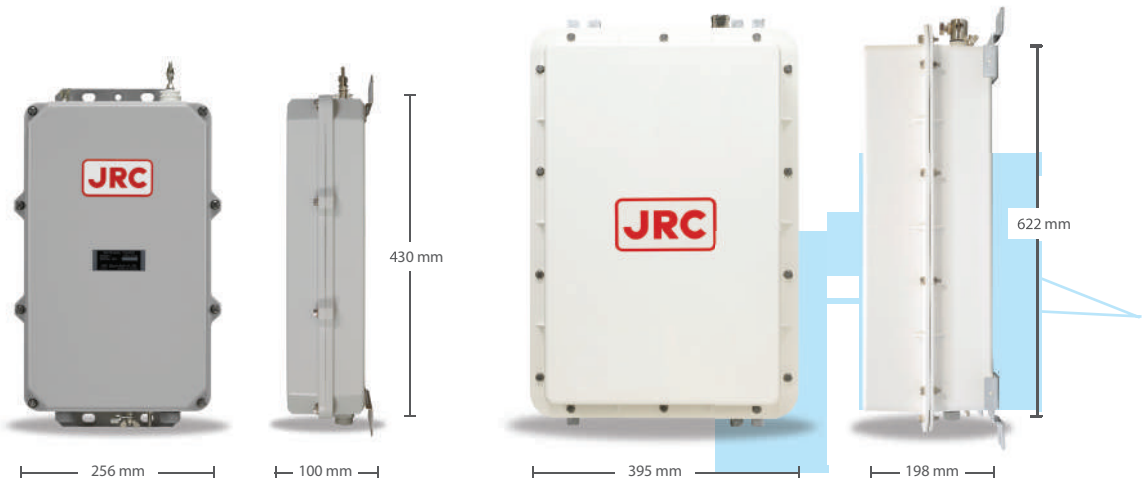
NTD-2250/2500 Weight 15/17 kg NEW



Antenna tuner

NFC-2150 Weight 3,3 kg

NFC-2250/2500 Weight 10/10 kg NEW



SPECIFICATIONS

	JSS-2150	JSS-2250	JSS-2500
IMO type approved	✓	✓	✓
Output power	150W	250W NEW	500W NEW
Regulations	IMO A.806 (19), A.694 (17), MSC68 (68), MSC/Circ.862, IEC 60945 Ed.4 2002-08		
Transmission frequency	1605.0 to 27500.0 kHz (100 Hz steps)		
Reception frequency	90 to 29999.9 kHz (100 Hz steps)		
Frequency stability	Within ± 10 Hz		
Watch-keeping frequencies	2187.5 kHz, 4207.5 kHz, 6312 kHz, 8414.5 kHz, 12577 kHz, 16804.5 kHz		
Type of emission	TEL (J3E), DSC, Telex (F1B), CW (A1A), Data (H2B, J2D), AM receiver (H3E)		
User programmable channel	Up to 400 (20 channels x 20 groups)		
ITU preset channel	1722 ch		
Channel switching time	15 sec or less		
Communication method	Push to talk (simplex, semi-duplex)		
Antenna impedance	50Ω		
Reception attenuation (ATT)	4 steps: 6dB, 12db, 18db, off		
Display	3.8-inch LED backlit (320 by 240 pixels)		
Communication speed	57.6 kbps		
Microphone input	-54 dBm		
Audio output	Loud speaker: 5W (8Ω), handset phone: 1mW or more (150Ω)		
Interface	IEC61162-1 (GPS/AME/RMS)		
Compass safety distance	1.9 m		
Receiving system	Double superheterodyne		
Sensitivity (SINAD 20dB)	J3E: ≤2.5μV, F1B: ≤0.7μV, A1A: ≤1.4μV		
RMS interface	Built-in		
Transmitter output 1.6-4 MHz Transmitter output 4-27.5 MHz	DC: 100Wpx DC: 150Wpx	DC:100Wpx, AC: 200Wpx DC:150Wpx, AC: 250Wpx	DC:100Wpx, AC: 400Wpx DC:150Wpx, AC: 500Wpx
Power	21.6-31.2V DC (optional power supply 90-132V AC, 180-264V AC)		
Consumption	DC: TX ≤30A, RX ≤5A	DC: TX ≤40A, RX ≤7A AC: TX ≤2.0kVA, RX ≤0.5kVA	DC: TX ≤40A, RX ≤7A AC: TX ≤3.0kVA, RX ≤0.5kVA
Power saving	Relays are turned off when in sleep mode		
Ambient conditions	Operating temperature: -15° to 55°C (display), -25° to 55°C (antenna tuner) Storage temperature: -15° to 55°C (display), -25° to 70°C (antenna tuner) IP protection rate: IP22 (display), IP66 (handset) Relative humidity: 0% to 93% non-condensing		

VHF RADIO TELEPHONE

JHS-800S

DREKO MARINA SISTEM

FEATURES

Our new 5-inch touch screen controlled Class A VHF radio (JRC model JHS-800S) featuring a uniform, corporate design with manual-free operation. The all-in-one unit (control unit with speaker, radiotelephone and DSC) has high sensitivity performance, Hi-Fi output and protection rate of IP56.

- Easy operation
- 5-inch color LCD touch display
- Class A DSC complying latest GMDSS requirement
- High quality sound (Hi-Fi audio)
- Easy to install by compact design

- Up to 4 remote controllers
- All-in-one design
- New designed speaker and handset
- Bluetooth® interface for wireless speaker mic[1]
- Waterproof design (IP56)

1. coming soon

Overview

This equipment has standard functions that include regular radiotelephone and DSC (digital selective calling) for distress transmissions, as well as functions to playback and record radio calls in real-time and an easy-to-operate self-diagnosis function.

Touch display

As of February 2019 the JHS-800S is the world's first Class A marine VHF radio-telephone featuring a 5-inch high-brightness color LCD touch screen, which makes it an outstanding innovative design.

The backlights of the LCD screen with a wide viewing angle and the operation buttons are fully adjustable, preventing interference while keeping night watch.

BLUETOOTH®

The JHS-800S even has a Bluetooth® interface for connecting to an external wireless speaker mic (option).

The JHS-800S channel settings and DSC calls can be operated remotely from the JRC MFD. While watching the MFD, you can talk on a location away from the JHS-800S equipment, using a wireless speaker mic[2].

2. coming soon

Voice recording

The received voice recording (up to 8 minutes) and playback function enables later confirmation or temporary saving of communications.

Audio

The digital audio amplifiers, equalizer function for deep-normal-high voice, specially designed speakers and new handset offer superior sound quality. A remote standalone microphone and pedalswitch can be connected to via a junctionbox.
It is possible to operate the VHF with optional controllers up to 100 m away from the bridge.

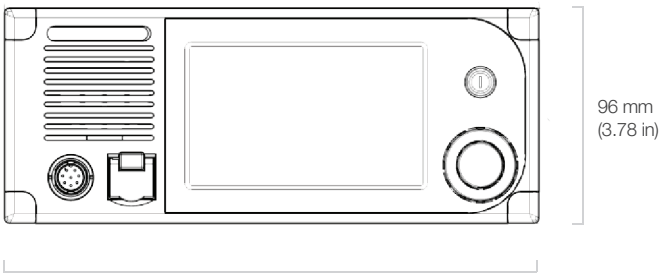
In the box

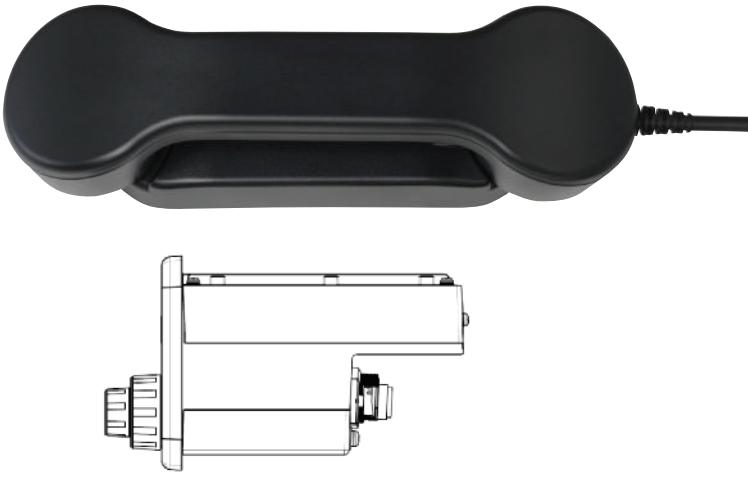
• Marine VHF radiotelephone	JHS-800S
• Handset	NQW-980
• Power cable	CFS-810
• Accessory cable	CFS-820
• Bridge card	7ZPJD0741
• Spare parts	0997015.WXN

Tech Specs

Marine VHF radiotelephone RoHS

JHS-800S Weight 2.1 kg (4.63 lbs)





- The Bluetooth® word mark and logos are registered trademark of Bluetooth SIG, INC.
- Bluetooth® interface: Bluetooth® 3.0 Class2
- Wireless speaker mic is a product made by SAVOX Corporation.

AIS
JHS - 183

DREKO MARINA SISTEM

RMS

– the JHS-183 sets the next step for best choice for long range reception

4.5-inch high brightness display
Dual color LED backlight
Displaying up to 200 AIS targets
Proven transponder design
Advanced interfacing possible

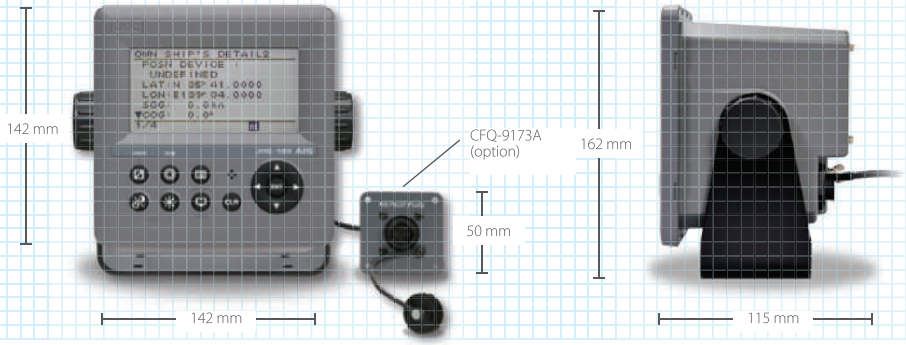
DIMENSIONS

AIS Transponder New

NTE-183 Mass 2.6kg

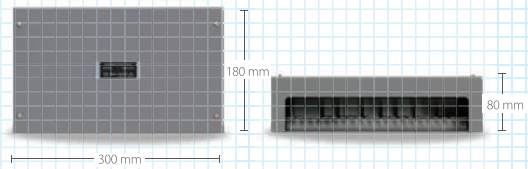
AIS Controller New

NCM-983 Mass 2.1kg



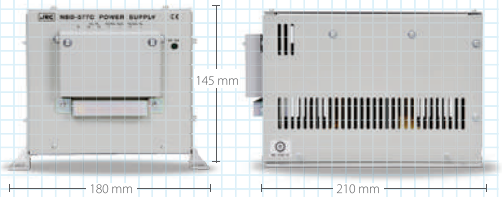
Connection box (option) New

NQE-5183 Mass 2.5kg



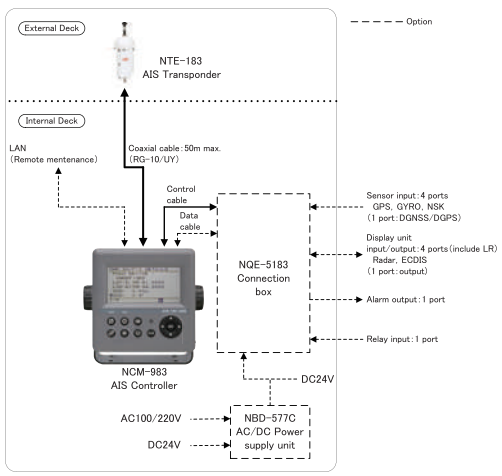
AC/DC Power supply unit (option)

NBD-577C Mass 5.2kg

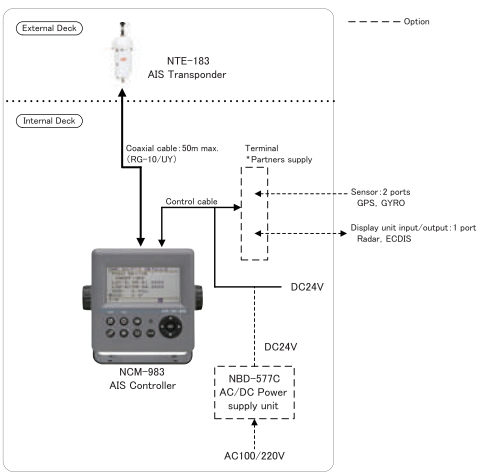


System diagram

MERCHANT SHIP AIS BLOCK DIAGRAM



FISHING BOAT AIS BLOCK DIAGRAM



SPECIFICATIONS

Model	JHS-183
Name	**Automatic Identification System**
IMO type approved	○
Frequency	156.025-162.025 MHz, default channels 161.975 MHz, 162.025 MHz, DSC (receive only): 156.525 MHz
Frequency accuracy	Within ±3 × 10-6
Channel spacing	25 kHz
Type of emission	AIS: G1D (F1D)
Type of modulation	AIS: GMSK
Power	19-35V DC (optional AC/DC power supply unit 100-220V AC)
Consumption	Up to 3.0A (transmitting), up to 1.0A (receiving)
Output power	12.5W/1W
Display New	4.5-inch FSTN LCD (128 by 64 pixels)
Keyboard	12 (backlit) keys
Dimmer	4 levels
Interfacing (standard)	IEC61162-1/2 input: 2 ports (GPS, gyro) IEC61162-2 in/output: 1 port (radar or ecdis)
Interfacing (with connection box)	IEC61162-1/2 input: 3 ports (GPS, gyro, speed log) IEC61162-1/ITU-R M, 823-2: 1 port (DGPS) IEC61162-2 in/output: 3 ports (radar, ecdis, long range) IEC61993-2 alarm output: 1 port
IEC61162-1 input	GNS, GLL, DTM, GBS, VBW, RMC, HDT, ROT, GGA, VTG
IEC61162-2 input	ABM, ACA, ACK, AIR, BBM, LRI, LRF, VSD, SSD, EPV, HBT, VDS, AIQ
IEC61162-2 output	ABK, ACA, ALR, DSC, DSR, LRF, LR1, LR2, LR3, TXT, VDO, VDM, TRL, VER, NAK
LAN New	IEC 61162-450: 1 port (for maintenance and ship's network)
Pilot plug	IEC61162-2 in/output: 1 port
Pilot plug input	ABM, ACA, ACK, AIR, BBM, EPV, SPW, HBT, SSD, VSD, AIQ
Pilot plug output	ABK, ACA, ACS, ALR, TRL, TXT, SSD, VSD, VDM, VDO, VER, NAK, DSC, DSR
Transponder connection	Single coax cable (up to 50 m) from display to transponder
Ambient conditions	Operating temperature: -25 to 55°C (AIS Transponder) -15 to 55°C (AIS Controller, Connection box) IP protection rate: IP56 (AIS Transponder), IP55 (AIS Controller) Relative humidity: 0 to 95% non-condensing

• Specifications may be subject to change without notice.

ECHO SOUNDER
JFE - 380

DREKO MARINA SISTEM

- Compact sized display unit (6.5" TFT LCD)
- No paper (Optional: External printer is available)
- High accuracy and high reliability
- Depth data for last 24 hours in memory to play back the past sounding information
- Meets IMO standards MSC.74 (69) Annex 4

SPECIFICATIONS

SPECIFICATIONS

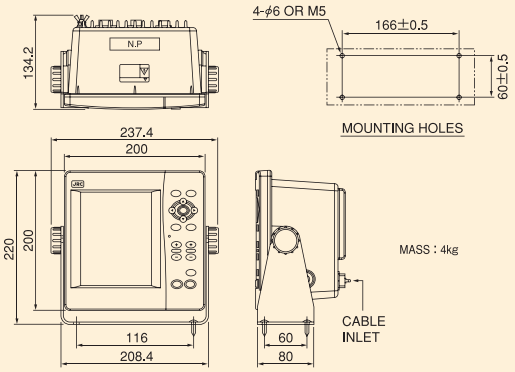
Display	6.5" Color TFT LCD (640x480 pixels)
Frequency	200kHz / 50kHz
Echo color	8 colors or 8 level monochrome
Digital depth	4 digit (0.1m)
Range	10, 20, 50, 100, 200, 500, 800m
Depth accuracy	±2.5%
Minimum sounding depth	200kHz : 1.0m, 50kHz : 2m
Draft adjust	50m in 0.1m steps
TX pulse repetition rate	171PRR (10, 20, 50m)
	86PRR (100, 200m)
	43PRR (500, 800m)
Presentation mode	Standard, History, Docking
Time range of echo display	5, 10, 20, 30min
Auto function	Gain, Range
Alarm function	Depth, Power fail, System error
Preview function	24hour
Transducer	200kHz : UT-200ND
	50kHz : UT-50MD
Power supply	100-115/200-230VAC±15%, 50Hz/60Hz±5%
	24VDC (only use for power fail monitoring)
Power consumption	Less than 20W
Waterproofing	Display unit : IPX5 jet proof
	Connection Box : IPX2 drip proof

COMPONENT

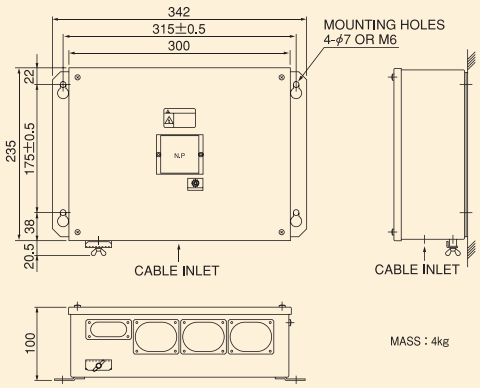
Name		Type No.	Qty	Remarks
Display unit		NJA-98	1	
Interface box		NQD-2120	1	
TX/RX cable		CFQ-9129	1	10m
Power supply cable		CFQ-9130	1	10m
Communication cable		CFQ-9133	1	10m
Matching box (primary)		AW-154F	1	200kHz
Transducer mounting (primary)		NKF-341	1	200kHz (with cable 20m)
Option	Matching box (secondary)	AW-154F	1	200kHz
		AW-154F-50	1	50kHz
	Transducer mounting (secondary)	NKF-341	1	200kHz (with cable 20m)
		NKF-345	1	50kHz (with cable 20m)
	Printer	NKG-91	1	
	Printer paper	7ZPJD0384	1	
	External Buzzer	CGC-300B	1	
	Flush mounting kit	BRBX05339	1	Color : MUNSELL N4
	Table mounting kit	BRBX05353	1	

OUTLINE DRAWING

Display unit NJA-98
(with Table mounting kit : option)

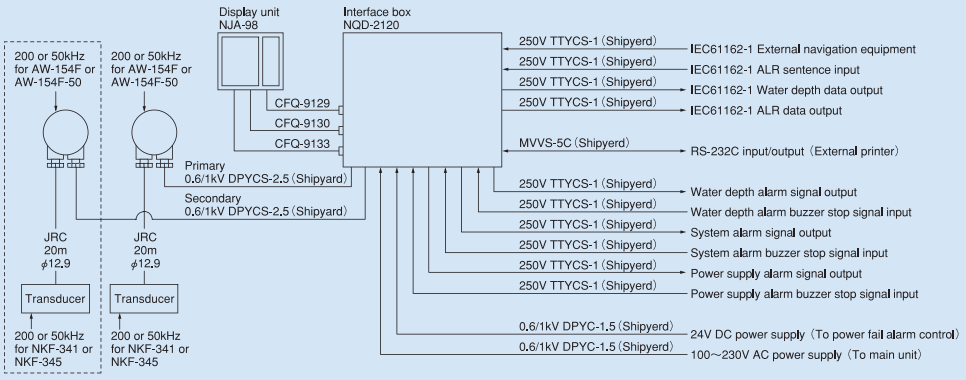


Interface box NQD-2120



(Unit:mm)

CONFIGRATION



* Secondary units (transducer, matching box, cable) are optional.

• Specifications may be subject to change without notice.

ECHO SOUNDER
JFE - 680

DREKO MARINA SISTEM

- ***High-resolution and clearly display (10.4" TFT LCD)***
- ***Built-in printer for copy of the echogram history***
- ***High accuracy and high reliability***
- ***Depth data for last 24 hours in memory to play back the past sounding information***
- ***Meets IMO standards MSC.74 (69) Annex 4***

SPECIFICATIONS

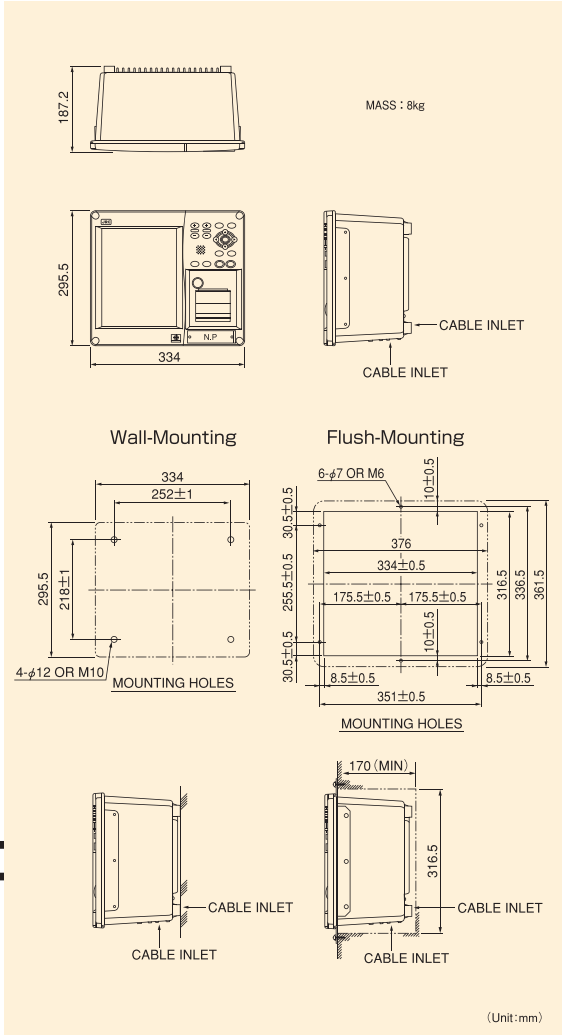
■SPECIFICATIONS

Display	10.4" Color TFT LCD (640x480 pixels)
Frequency	200kHz / 50kHz
Echo color	8 colors or 8 level monochrome
Digital depth	4 digit (0.1m)
Range	10, 20, 50, 100, 200, 500, 800m
Depth accuracy	±2.5%
Minimum sounding depth	200kHz : 1.0m, 50kHz : 2m
Draft adjust	50m in 0.1m steps
TX pulse repetition rate	171PRR (10, 20, 50m)
	86PRR (100, 200m)
	43PRR (500, 800m)
Presentation mode	Standard, History, Docking
Time range of echo display	5, 10, 20, 30min
Auto function	Gain, Range
Alarm function	Depth, Power fail, System error
Preview function	24hour
Transducer	200kHz : UT-200ND
	50kHz : UT-50MD
Power supply	100-115/200-230VAC±15%, 50Hz/60Hz±5%
	24VDC (only use for power fail monitoring)
Power consumption	less than 50W
Waterproofing	IPX2 drip proof

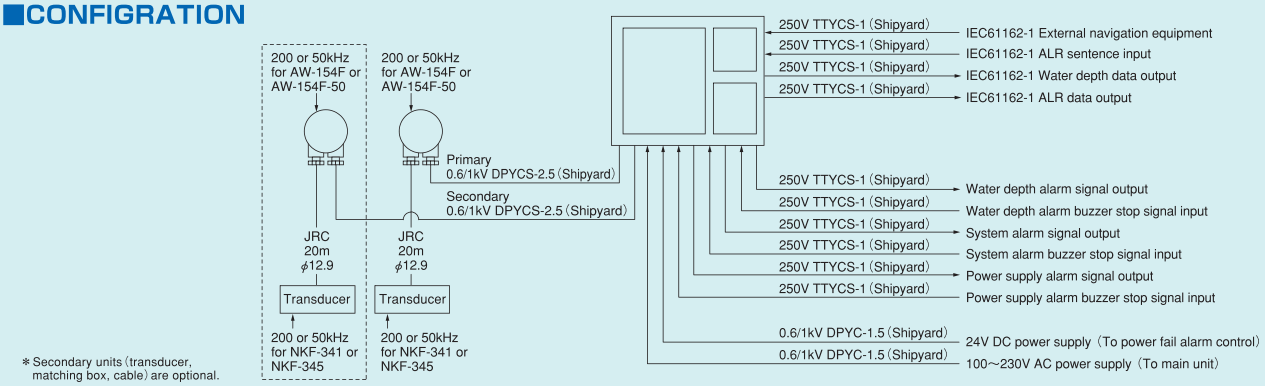
■COMPONENT

Name		Type No.	Qty	Remarks
Display unit		JFE-680	1	
Matching box (primary)		AW-154F	1	200kHz
Transducer mounting (primary)		NKF-341	1	200kHz (with cable 20m)
Option	Matching box (secondary)	AW-154F	1	200kHz
		AW-154F-50	1	50kHz
	Transducer mounting (secondary)	NKF-341	1	200kHz (with cable 20m)
		NKF-345	1	50kHz (with cable 20m)
	Printer paper	7ZPJD0384	1	
	Flush mounting kit	BRBX05351	1	Color : MUNSELL N4
		BRBX05355	1	Color : MUNSELL 7.5BG7/2
		BRBX05354	1	Color : MUNSELL 2.5G7/2
	Table mounting kit	BRBX05340	1	

■OUTLINE DRAWING



■CONFIGRATION



* Secondary units (transducer, matching box, cable) are optional.

• Specifications may be subject to change without notice.

FISH FINDER
JFC-7050 (FF70)

DREKO MARINA SISTEM

– the high performance echo sounder/fish finder JFC-7050 guarantees accuracy and reliability

7-inch high brightness display

Simple operation

Dual frequency 50/200kHz

Fast processing

Multi display modes and alarms available

FEATURES

Features

The JFC-7050 echo sounder/fish finder incorporates a high brightness 7-inch display and simple operation, allowing for flexibility and highly accurate and reliable read-out functionality.

Dual frequency

The JFC-7050 displays echoes on both 50 and 200kHz frequency.

Generally the lower frequency is more suitable for bottom discrimination, while the high frequency is more useful for shallow water detection.

This enables you to see the differences on both frequencies more clearly, giving you better potential for a more profitable catch.

Display

JRC's new echo sounder/fish finder incorporates a 7-inch high definition color LCD display. The preferred display mode can be easily selected and operation is made simple through the use of popup menus similar to those found on personal computers.

Bottom zoom/lock

The bottom zoom and lock display mode provides a split display with a magnified image of the sea bottom, while maintaining a normal sea bottom view as reference.

A-scope

By selecting the A-scope presentation mode, you will receive a detailed and real time representation of fish and bottom features passing through the beam of the transducer.

Alarms

The JFC-7050 incorporates a variety of alarms for fish finding, water and navigation data alarms, contributing to safer navigation and more efficient fish finding.

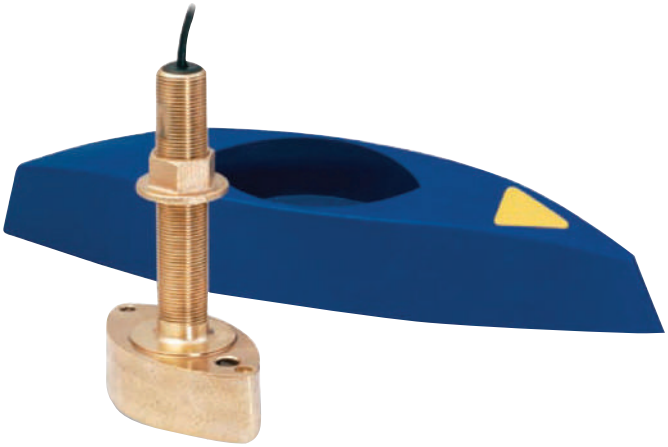
Automatic functions

Automatic gain, STC and range settings permit the bottom echo to be displayed on the screen at all times, ensuring easy operation - even for the novice user.

FLEXIBILITY

Flexible interfacing

The transducer is the heart of the operation, measuring depth and temperature information, by sending ultrasonic signals which determine seabed conditions and the presence of life underwater. With separate NMEA0183 input and output on the display, it enables you to view speed and position, simply by connecting a GPS.
GPS supports SBAS, DGPS, GLONASS.



Transducer

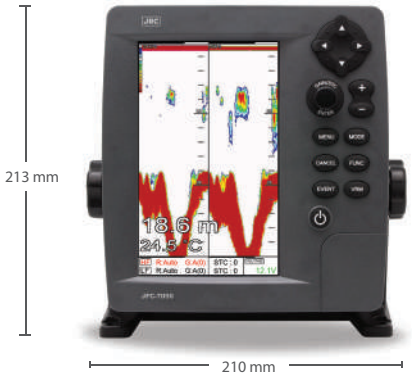
The B45 is the smallest, bronze, thru hull transducer available from Airmar, offering quality design at an economical price. The housing is streamlined to deflect aerated water, providing solid echo returns.

Saving data

Saving user data, such as waypoints, marks and tracks is easy, and can be done in two ways. Either record directly from the current screen or make individual screen captures. The data is stored on an external SD card.

Weight and dimensions

JFC-7050 Weight 1,8 kg



In the box

- Display
- Bracket
- Sun cover
- Power/data cable (1.5m)
- Manual

Options

- Transducer — Airmar B45 (31-272-14-01)
  Standard with 10m cable

SPECIFICATIONS

	JFC-7050
Display	7-inch color LCD (800 by 480 pixels), LED backlight
Brightness	500cd/m2 (ratio 16:9)
Power	12-36V DC
Consumption	18W
Frequency	50/200kHz
Display modes	Normal, Bottom lock, Bottom zoom, A-scope
Output power	600W RMS
Depth range	2.5-1200m
Shift range	0-1200m
Auto mode	Auto range, Auto gain, Auto STC
Bottom zoom range	2.5/5/10/20m
Manual gain	50 levels
Rejection	4 levels
STC	20 levels
Pulse width	3 levels (low, middle, high)
Transmitting power	4 levels
Background color	5 colors
Display color	16 colors
Color rejection	14 levels
Interface rejection	3 levels
Alarm	Depth, water temperature, fish school (depth, range)
Data in/out	NMEA0183, version 1.5-2.0
Data display	Standard: depth, temp, speed (SOG) NMEA: time/date, LAT/LON, bearing (COG), NAV information
Backup	SD card and mini-USB
Waypoint/mark	20.000 waypoints, 20.000 marks
Simulator	Built-in
Unit	Depth: m, ft, fm / Temperature: °C, °F / Speed: nm/kt, km/h, mph
Ambient conditions	Operating temperature: -15° to 50°C Storage temperature: -20° to 50°C IP protection rating: IP55 Relative humidity: 0% to 90% non-condensing

NAVTEX RECEIVER
NCR - 333

DREKO MARINA SISTEM

The Navtex Receiver NCR-333 is designed to meet or exceed the requirements specified in SOLAS IMO, resolution MSC. 148 (77).
The NAVTEX NCR-333 function receives and displays the various types of information broadcast at frequencies of 518 kHz and either 490 kHz or 4209.5 kHz, such as: navigational warning, meteorological warning, search and rescue information, and other types of information. NCR-333 also provides the function that selects information type and coast station for intended uses.

Features

- Full meet latest resolution MSC. 148 (77) IMO
- 5.7 inch black & white landscape wide LCD screen
- Comfortable visibility by 3 font sizes
- Automatic tune function by GPS
- Printerless type
- Navtex data export function for INS (ECDIS or etc.)

SPECIFICATIONS

• Features

Receiving NAVTEX broadcasts

NCR-333 receives NAVTEX broadcasts automatically on 518 kHz and 490 kHz or 4209.5 kHz.

Large screen allows comfortable visibility

NCR-333 has a 5.7-inch LCD screen display with clear visibility.

It also provides three different character sizes of display, and can be selected at your convenience.

Normal Medium Large

Message saving function

NCR-333 can store up to 200 message identification codes for 70 hours. Moreover, the stored message of each channel can be saved up to 50 messages permanently.

Automatically receiving station setting function

NCR-333 can select receiving stations automatically on GPS position data is valid.

Permanent storage of data settings

NCR-333 can set and store the message type and seashore station that receive to internal memory. The data, therefore, does not need to be re-set, even after power has been turned off.

Dual voltage supply input

NCR-333 can be used on either 24 V_{DC} or 12 V_{DC} vessels.

Self-diagnosis function

NCR-333 has automatic self-diagnosis function. This function allows easy maintenance and high system reliability.

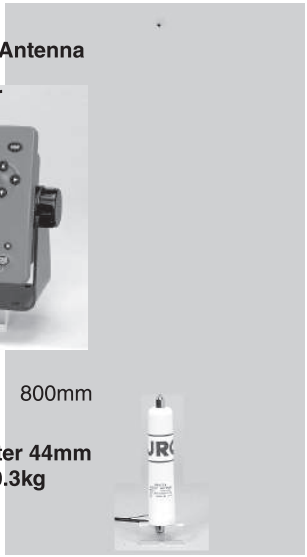
Connection to external equipment

NCR-333 can be used with the JRC Total Navigator (ECDIS) and external serial printers.

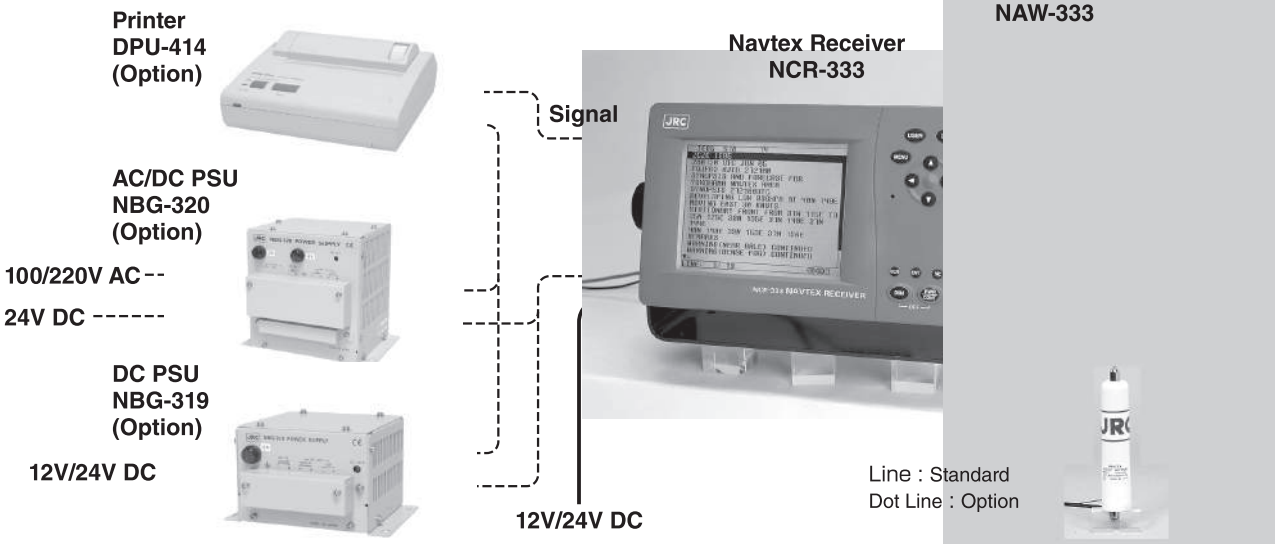
• Specifications

Receiving frequency	518kHz and 490kHz or 4209.5kHz
Receiving mode	F1B NAVTEX broadcast
Sensitivity	CER better than $1x10^{-2}$ at 1μV input to 50Ω antenna
Display	5.7-inch Black & White LCD
Received message storage function	Each Channels : 200 messages Storage length : 70hours
Interface for external units	Serial Interface : 2ports (For Printer and INS)
Power supply	12V～24V DC

• Dimensions



• Configuration



• Specifications may be subject to change without notice.

DOPPLER SPEED LOG
JLN - 740 SERIES

DREKO MARINA SISTEM

RMS

Highly accurate speed and distance log for high-mileage trips.

- IMO MSC.96 (72)-compliant Doppler Speed Log; compatible with ships above 300 GT.
- Measures ship speeds within a range of 0.03kn or 0.3%* with greatly improved ship speed tracking to assist with precise navigation during berthing.
- Equipped with proprietary bubble detection, which informs when speed detection is reduced due to bubble contact.
- Color LCD display model with touch panel for improved night visibility is also available.
- Also available in a three-unit model, which provides smaller ships with the same exceptional speed tracking capability.

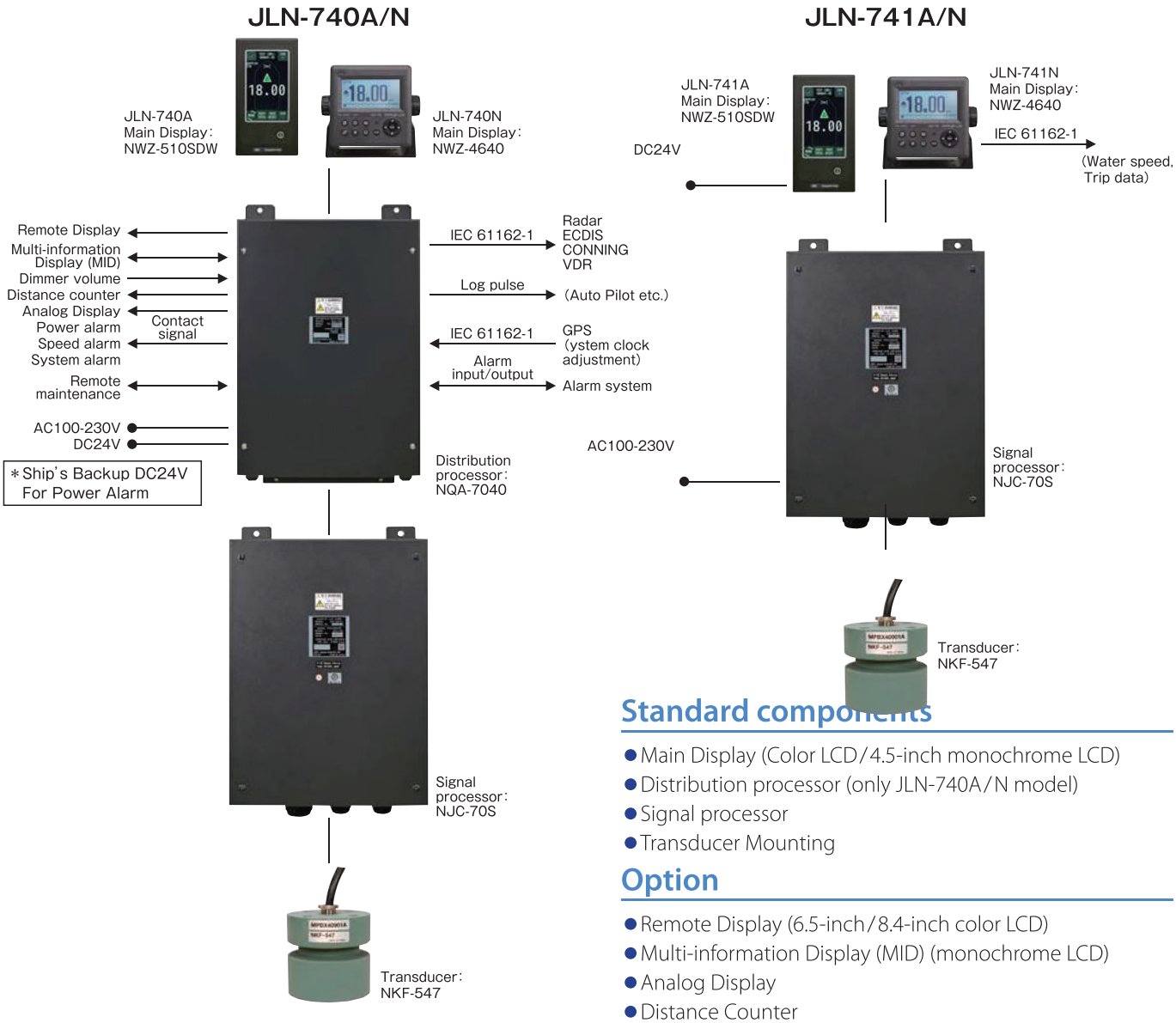
*: At fixed speeds (measured value).

4 Models to Choose From

- Displays : Two types, color LCD display with a design identical to the Satellite Log JLN-720, and the Black and white display based on the NWZ-4610.
  * The color LCD display provides the high-visibility and the operability of the JLN-720.
- Unit compositions : 2 types, four-unit and three-unit versions.
  *The four-unit composition is appropriate for large ships needing share of data such as radar and ECDIS to navigation equipment.
  *The three-unit composition is appropriate for small ships.

A total of 4 combinations can be selected from depending on the required use.

System diagram



Standard components

- Main Display (Color LCD/4.5-inch monochrome LCD)
- Distribution processor (only JLN-740A/N model)
- Signal processor
- Transducer Mounting

Option

- Remote Display (6.5-inch/8.4-inch color LCD)
- Multi-information Display (MID) (monochrome LCD)
- Analog Display
- Distance Counter
- Dimmer Unit
- Gate valve type Transducer Mounting

Remote Maintenance System (RMS)-compatible

The JLN-740 series is compatible with JRC's proprietary Remote Maintenance System (RMS), which uses JRC's VDR and satellite communications to remotely link to the equipment onboard the vessel to perform remote diagnostics and preventive maintenance. For more information on RMS, please contact JRC's business department.

SPECIFICATIONS

Specification

Name	DOPPLER LOG			
Model	JLN-740A	JLN-740N	JLN-741A	JLN-741N
IMO approved	✓			
Operating system	Dual-beam pulse Doppler system			
Operation frequency	2MHz			
Measurement scale	−10.00～40.00kn			
Sailing display range	Model A：0～999999.99NM, Model N：0～99999.99NM (NWW-7：to 9999.99NM with Distance Counter)			
Water speed	3.0 m deeper than the transducer surface			
Ship speed accuracy	1 % of the speed of the ship, or 0,1 kn whichever is greater			
Total distance accuracy	1 % of the distance run by the ship in 1 h or 0,1 nautical miles in each hour whichever is the greater.			
Speed indication	kn or m/s			
Display	Touch panel 5.1 inch-LCD (480×800 pixels)	4.5inch monochrome LCD	Touch panel 5.1 inch-LCD (480×800 pixels)	4.5inch monochrome LCD
Input interface (IEC-61162-1)	GPS：RMC, ZDA (clock adjustment)		—	
Signal output	8 ports NMEA0183 Ver1.5、2.1、2.3、4.0 or IEC61162-1： VBW, VLW		2 ports IEC61162-1： VBW, VLW	1 ports IEC61162-1： VBW, VLW
I/O interface	Analog display：2 ports		—	
	Log puls：2 ports (Photocoupler signal 200pulse／NM, Max. 30V, 10mA)		—	
	Distance Counter (NWW-7)：1port		—	
	Remote Display (NWZ-650SDR／NWZ-840SDR), Multi Information Display (NWZ-4610)：Total 2 ports		—	
	LAN I／O for RMS：1 ports		—	
	Alarm (Power・Speed・System) output：1 port each		—	
	Serial I／O for alarm：1 port		—	
	Dimmer: serial I／O:1 port・Analog Input：1 port		—	
Power supply voltage	AC100／230V (±10%)			
Power consumption	AC100V：50W (60VA) Less than、AC230V：50W (150VA) Less than			
Environmental requirements (excl. transduser)	Temperature range：−15～55℃ (operating) Relative humidity：0～93% (non condensing)			

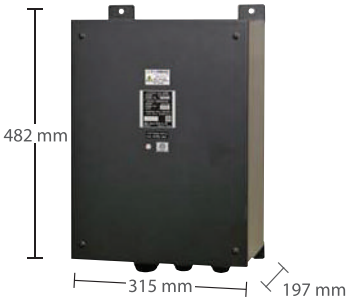
Dimensions

Main Display (Color LCD)
NWZ-510SDW
Mass : Approx. 1.2kg

Main Display (Multi Information Display)
NWZ-4640
Mass : Approx. 0.8kg

Distribution processor (only 740A/N)
NQA-7040 Mass : Approx. 6.0kg

Signal processor
NJC-70S Mass : Approx. 5.5kg



Transducer
NKF-547 Mass : Approx. 17kg

• Specifications may be subject to change without notice.

EPIRB
Tron 60S

DREKO MARINA SISTEM

FLOAT-FREE AND MANUAL EPIRB

JOTRON

- 5 year warranty
- Compact design
- Tamper-proof
- Optimal visibility

JRC Japan Radio Co., Ltd.

Tron 60S/GPS

Tron 60S/GPS is a compact and tamper-proof GMDSS EPIRB. This EPIRB complies to IMO, SOLAS regulation. With a high-intensity LED located at the top of the antenna, Tron 60S/GPS has optimal visi bility. The EPIRB is supplied either with manual or float-free bracket.

Manual bracket

Float-free bracket

SPECIFICATIONS

TECHNICAL	
Battery:	Lithium metal, 12V/2900 mAh 5 year service life
Dimensions: • Height: • Diameter:	 340 mm 128 mm
Weight:	680 g
Materials:	Glass reinforced Polycarbonate
Compass safe distance:	0.85 m
Temperature range:	-20°C to + 55°C (operating) -30°C to +70°C (storage)
Operating life:	Minimum 48 hours at -20°C
Antenna:	Omnidirectional
Cospas-Sarsat Transmitter • Frequency: • Output power:	 406.037 MHz 5W
Homing transmitter • Frequency: • Output power:	 121.500 MHz Up to 100 mW
Protocols:	Maritime, Serialized, Radio Call sign
Navigation device:	56 Channel GPS Receiver (Tron 60GPS)
ACCESSORIES	
Brackets:	Float-free: FB-60 Manual: MB-60
Battery:	Replacement kit
Hydrostatic release:	HRU kit
WARRANTY	5 year warranty

SART
Tron 20

DREKO MARINA SISTEM

Small and compact design with non hazardous battery.
5 years maintenance kit, serviceable on board.

JOTRON

RADAR TRANSPONDER

Tron SART20 is designed for use in search and rescue (SAR) operations. A radar transponder gives the location for any nearby vessel and aircraft with X-band radar. Radar transponder is designed for use in lifeboats and liferafts. Easy mounting in bulkhead bracket onboard the vessel, easy to release and activate in an emergency situation. Various installation devices available as options. MED and other approvals available. Mandatory carriage equipment for all ships of 300 gross tonnage and upwards, according to SOLAS III/6.2.2, III/26.2.5 and IV/7.1.3.

SPECIFICATIONS	
Weight	450 g
Material housing	Polycarbonate with 10% glass fibre
Frequency	X-band (3 cm) (9.2 - 9.5 GHz)
Radiated power	> 400 mW e.i.r.p (+26 dBm)
Sweep type	12 sweep sawtooth type Forward 7.5 µs ± 1µs Return 0.4 µs ± 0.1 µs starts with return sweep
Receive sensitivity	Better than -50 dBm e.r.s
Response delay	Max 0.5 µs
Antenna pattern	Horizontal polarisation Omnidirectional radiation in the horizontal plane Greater than ± 2.5 degrees elevation angle in the vertical plane
Antenna height	According to SOLAS IV/8.3.1
Indication	Visual and audible alarm
Temperature range	Operating: -20°C to +55°C Storage: -30°C to +65°C
Battery	Lithium, non hazardous battery for safe and unrestricted transportation 5 Year maintenance kit, serviceable on board
Operating life	96 hours standby + 8 hours continuous operation when activated by a radar with 1 kHz prf at -20°C.
Standards	IEC 61097-1 IEC 60945 IMO A.802 (19) IMO A.694 (17)
ACCESSORIES	
Brackets	Bulkhead bracket Lifeboat bracket
For life raft	Life raft mounting pole
WARRANTY	5 years

INMARSAT - C
JUE - 87

DREKO MARINA SISTEM

– the JUE-87 is the latest all-new two-way Inmarsat C global data communication solution

Compact all-in-one Internally Mounted Equipment with 10.4 inch display

Newly designed Externally Mounted Equipment with high performance RF filter

Single coax installation

Long Range Identification and Tracking (LRIT) as standard

JRC Remote Maintenance System (RMS) via LAN available

Optional Ship Security Alert System (SSAS)

USB mass storage device is available for messages exchange

FLEXIBILITY

New Externally Mounted Equipment New

A completely new design of Externally Mounted Equipment (EME), compliant to RoHS, offering a new level of accuracy with a high performance Radio Frequency (RF) filter built in. It has the same cable management philosophy resembling all other Inmarsat products, requiring only a single coax cable between EME and IME.

New high performance RF filter

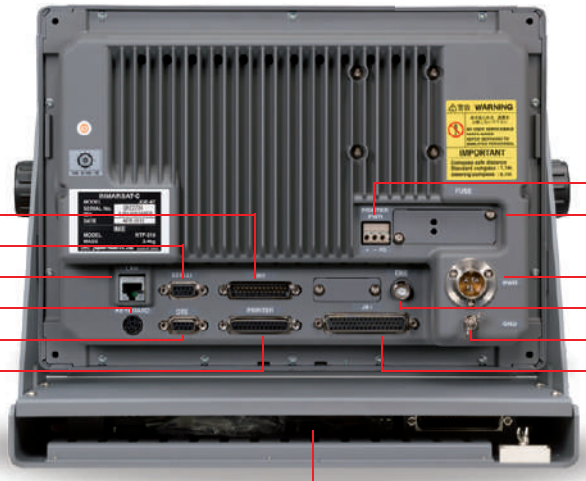
Unified mounting adapter

Single coax installation

Interfacing

The JUE-87 offers all the interfacing you need with junction box 1 (JB1) integrated in the bracket. In case of flush mounting, the bracket and junction box can be easily separated from the IME.

IME



Junction box 2 (JB2)
Serial (e.g. PC)
LAN New
Keyboard
Data terminal equipment
Printer

Power for printer
Fuse/voltage selector
External power supply
EME
Ground
Junction box 1 (JB1)

JB1(standard)

1 External buzzer
2 Security buttons
2 Remote distress buttons
1 Distress message controller
1 GPS input (NMEA)
1 Alarm output (dry contact)
1 Alarm output (NMEA)
1 Alarm/AIS input (NMEA) — Alarm ack from INS or AIS input (for Russia)

JB2 (option)

2 external buzzers
2 Security buttons

New accessories New

Along with our introduction of the new JUE-87, we introduce new accessories that compliment our unified design approach.

External buzzer

Distress button

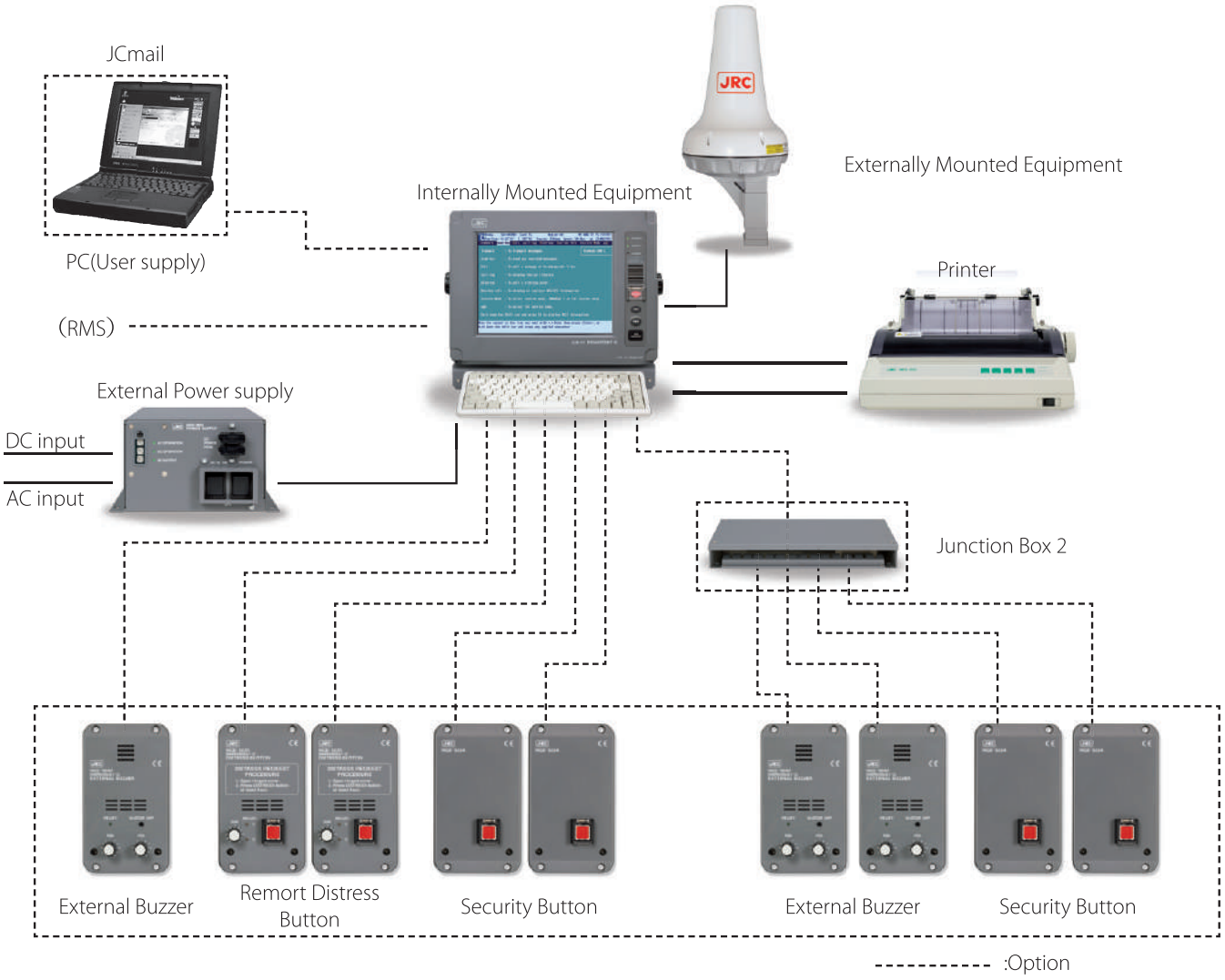
Security button

New power supply New

JRC is introducing a new external power supply, half the size of the power supply found in the previous generation JUE-85 including a 65% weight reduction.

CONFIGURATION

System diagram



What's standard?

- IME (+JB1)
- EME
- Printer (+paper)
- External Power supply
- Cables
  - Signal
    - EME to IME (30m)
    - IME to printer (2m)
  - Power
    - Power supply to IME (2.3m)
    - IME to printer (2m)
- Installation materials
- Spare parts
- Manuals

What's optional?

Remote distress button	NQE-3225
External buzzer	NCE-5547
Security button	NQE-3224
Junction box 2 (JB2)	NQE-3223
Data terminal Equipment	NDZ-227
Keyboard	NDF-369

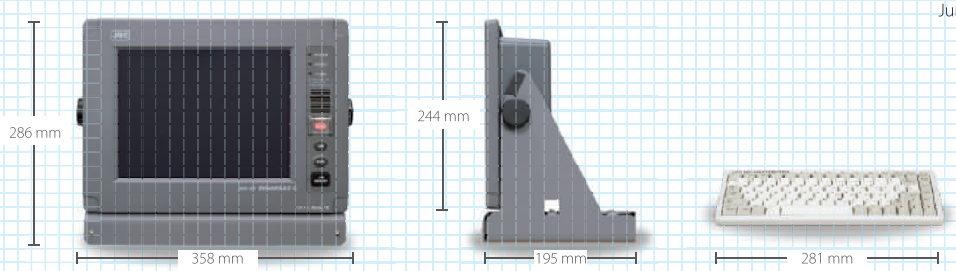
DIMENSIONS

EME New

NAF-253GM Mass 2.4kg

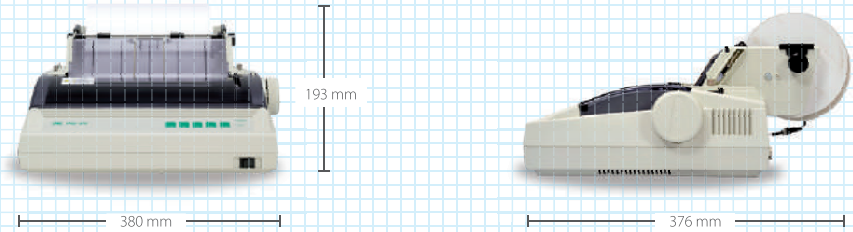
IME New

NTF-318 Mass 7.1kg, includes:
Messaging unit: 3.4kg
Junction box 1: 3.3kg
Keyboard: 0.4kg



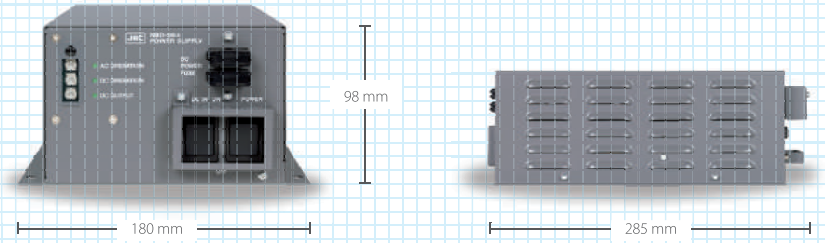
Printer

NKG-800 Mass 3.7kg



External power supply New

NBD-904 Mass 2.6kg



SPECIFICATIONS

Model	JUE-87
Inmarsat type approved	**✓ (Class 2)**
RoHS	✓
Display	10.4 inch color LCD, 640x480 pixels 450cd/m^2
Frequency	TX : 1626.5 to 1646.5MHz RX : 1537.0 to 1544.2MHz
Channel spacing	5KHz
E.I.R.P.	14±2dBW (at 5° angle)
G/T	-23.0dB/K min
Modulation	TX/RX : 1200 symbols/sec BPSK
Data rate	TX/RX : 600bps
Interface	External Buzzer : 3ports (JB1x1, JB2x2) Remote distress button : 2ports (JB1x2) Security button : 4ports (JB1x2, JB2x2) GPS input (NMEA) :1port (JB1) Alarm output (dry contact) : 1port (JB1) New Alarm output (NMEA) : 1port (JB1) New Alarm / AIS input (NMEA) : 1port (JB1) New LAN port (RJ-45) : 1port (IME) DTE port (serial) : 1port (IME) Keyboard : 1port (IME) Printer : 1port (IME) Serial : 1port (IME) Distress message controller : 1port (JB1)
Ambient condition	Operating: EME -35 to +55°C, IME -15 to +55°C Storage: EME/IME -40 to +70°C Relative humidity: 0 to 95% non-condensing Icing: up to 25mm (EME) Precipitation: up to 100mm/hour (EME) Wind: up to 100knots (EME)
Internally Mounted Equipment (IME)	
Model	NTF-318
Power	DC 24V (19.2 to 31.2V)
Consumption	Transmit: 100W, Standby: 15W
Externally Mounted Equipment (EME)	
Model	NAF-253GM (Unified pole mounting bracket)
Antenna	Type: helical, Pattern: hemisphere, Polarization: right-hand circular
Printer	
Model	NKG-800
Line interface	Parallel
Power	DC 24V (+19.2 to 31.2V)
Consumption	Approx. 35W
External power supply	
Model	NBD-904
Line Voltage	AC100 to 230V, DC24V
Line voltage selection	AC90 to 264V, DC19.2 to 31.2V
Output	DC24V 6.5A continuous
Option	
External buzzer	NCE-5547 (Max. 3units)
Remote distress button	NQE-3225 (Max. 2units)
Data terminal equipment	NDZ-227 (Max. 1unit)
Bracket for data terminal	MPBP31721
Keyboard for data terminal	NDF-369
Security button	NQE-3224 (Max. 4units)
Junction box2	NQE-3223
Wall mount adopter for buzzer/button	7ZZSC0095
Coaxial cable	CFQ-5922A4(40m), CFQ-5922A5(50m)

• Specifications may be subject to change without notice.

GPS / (D) GPS
JLR - 7600/7900

DREKO MARINA SISTEM

RMS

– the JLR-7600/7900 delivers high accuracy performance while keeping operation easy

4.5-inch high brightness display

Dual color LED backlight

Proven sensors for high accuracy positioning

Built in SBAS and RAIM function

3 in/outputs (NMEA0183)

WEIGHT AND DIMENSIONS

Display unit

NWZ-4610 Weight 600 g (+ bracket 130g)

Cutout dimensions

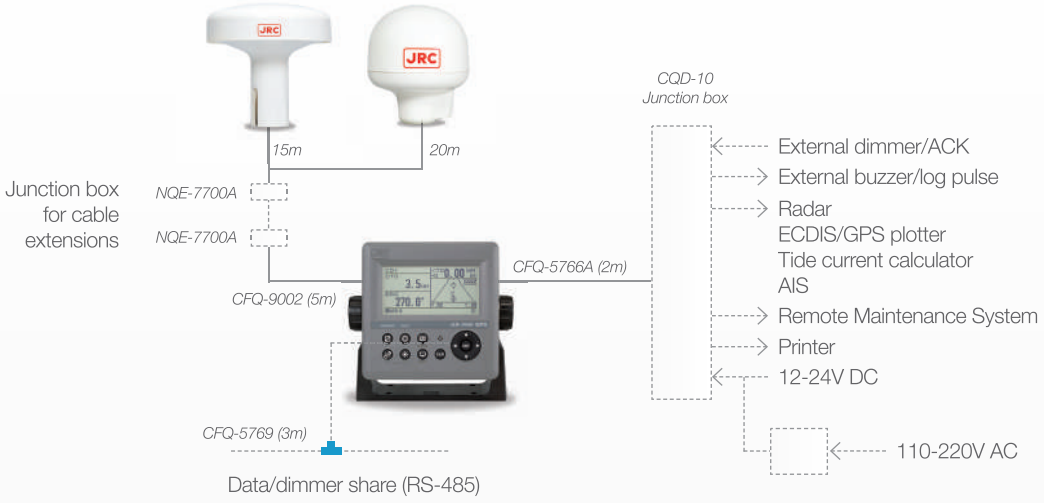
GPS sensor

JLR-4340 Weight 700 g

DGPS sensor

JLR-4341 Weight 1,7 kg

System diagram



SPECIFICATIONS

	JLR-7600 GPS	JLR-7900 DGPS
MED approved	✓	✓
Scanners	4.5-inch monochrome (128 by 64dots)	
Backlight	White and orange LED selectable	
Dimmer levels	Bright, medium, dark, off	
Memory	1,000 waypoints (including MOB/event), 2,000 track points, 20 routes	
Route plan	50 waypoints per route	
Geodetic datum	Selection among 47 geodetic datum	
Magnetic variation	Automatic or manual selection	
Navigation calculation	Great circle or rhumb line selectable	
Alarm	Arrival, anchor, XTD, no position fix, speed, trip, HDOP, DGPS	
Plot function scale	0.125, 0.25, 0.5, 1, 2, 5, 10, 20, 50, 100 NM Interval 1 sec - 60 min (1 sec) or distance 1 - 99.99 NM (0.01 NM) selectable	
Interfacing	Data/power 12-24V DC, serial 3 in/output (RS-422), contract 1 in/output Data 1: serial 1 in/output (RS-485) for data/dimmer sharing Sensor/data 2: serial 1 in/output (sensor) or daisy chain	
Selectable units	Distance/speed: NM/kn, km/km/h, mi/mi/h Height: m/ft/fm	
Language	English, Japanese	
Power supply	10.8-31.2V DC (optional power supply 100-240V AC), less than 4W	
Sensor type	Multichannel (12ch), SBAS (1ch)	Multichannel (12ch), SBAS (1ch), DGPS
Frequency	1575.42 MHz ± 1 MHz (C/A code)	
SBAS	WAAS, MSAS, EGNOS	
Accuracy	13m (HDOP 4 SA off), 7m (SBAS) 2dRMS	13m (HDOP 4 SA off), 7m (SBAS), 5m (beacon) 2dRMS
Power supply	10.8-31.2V DC, less than 1.5W	10.8-31.2V DC, less than 2.5W
NMEA version	1.5, 2.1, 2.3, 4.0	
Bit rate	4800, 9600, 19200, 38400 bps	
Output sentence	GGA, RMC, GLL, VTG, GSA, GSV, DTM, GBS, GRS, GST, ZDA, GNS, MSS*1, ALR, BOD, RMB, ACK	
Output interval	1, 2, 3, 4, 5, 6, 7, 8, 9 sec, off	
Ambient conditions	Operation temperature: -25 to 55°C (sensor), -15 to 55°C (display) Storage temperature: -40 to 70°C (sensor), -25 to 70°C (display) Relative humidity: 0% to 93% non-condensing Vibration/EMC: IEC60945 ed.4 compliant Waterproof/dustproof: IP56 (sensor), IP55 (display)	

*1 Only available on the JLR-7900

WEATHER FAX
JAX - 9B

DREKO MARINA SISTEM

– a very compact and lightweight solution that allows for flexible operation

10” effective recording width
Multiple recording modes available
View image instantly with PC output option
Automatic frequency selection
Easy operation and highly reliable read-out

SYSTEM FLEXIBILITY

Fine half-tone recording

Pictures of clouds can be recorded in 16 gradation levels. This digital method ensures high resolution recording, using a proprietary system that finely reproduces maps and latitude and longitude grids with very fine and accurate lines.

Synthesised receiver

The built-in synthesised receiver is capable of setting any receiving frequency from the ten-key pad, and is able to preset up to 90 spot frequencies in the memory. This feature is very effective when receiving any new broadcast frequency and changing the station frequency.

Printout of frequencies and programme lists

Up to 90 channels of memory frequencies and up to 15 channels of programme lists can be printed out on the recording paper. This function is especially useful for setting programming and checking the stored frequencies.

Compact, lightweight design

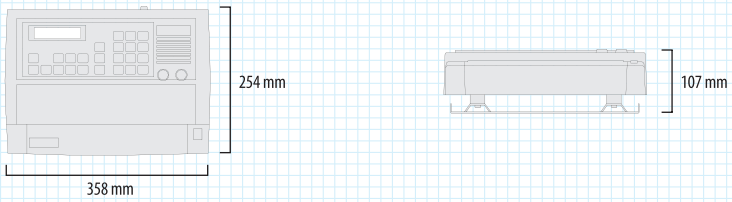
The JAX-9B weather fax is remarkably compact and lightweight, allowing for a more flexible installation approach in confined spaces.

New enhanced interfaces

All received faxes can be displayed on your own PC, allowing you to view (and save) the image before seeing the actual recorded image. This function allows you to quickly view the image digitally, which greatly facilitates the need for immediate decisions. On top, the JAX-9B can also be configured for remote maintenance. JRC has developed a unique function that is capable for remotely monitoring and analysing for any faults that may occur in the system, allowing for prompt action and service.

Dimension drawings - Weather fax

JAX-9B
MASS 7 kg



What's standard in the box?

1. Weather fax
2. Protective cover
3. Spare parts
4. RF connector (for antenna cable)
5. Recording paper (fitted in weather fax)
6. Manual (English)

SPECIFICATIONS

Model		JAX-9B
Functional ability		
	Recording system	solid state thermal head
	Recording paper	1) thermo sensitive recording paper
	Effective recording width	256mm (10″)
	Index of cooperation (IOC)	576 or 288
	Scanning speed	60, 90, 120, 240 SPM
	Scanner resolution	8 dots/mm
	Scanning line density	approx. 7 lines/mm, 3.5 lines/mm
	Phase matching	automatic and manual
	Halftone recording	16 steps by dither pattern
	Negative/positive recording	manual
	External receiver connect.	0dBm, 600Ω
	Operation modes	automatic, manual, forced, timer programme
	Timer programme channel	15 channels
	JSC adapter connection	yes (for scrambled broadcasts)
	Setup data list recording	receiving frequency list, timer programme channel list
	Setup data storing	EEPROM
	Self test function	recording and panel test
	Automatic time correction	input via GPS data
	Image data output	display received images on PC (option)
	Remote maintenance	yes (option)
Synthesised receiver		
	Receiving system	phase locked type frequency synthesised with up-conversion and double super heterodyne type
	Frequency range	2.0000 to 24.9999 MHz
	Frequency selection	automatic
	Frequency memory	up to 90 channels
	Sensitivity	2μV (+6dBμ) or less for antenna input to obtain the output of -5dBm at 20dB S/N
	IF selectivity	6dB down point: 2.4 kHz to 3 kHz
		66dB down point: 6 kHz or less
	Image rejection ratio	more than 60dB
Environmental conditions		
	Ambient temperature	operation: -15°C to +55°C
	Ambient humidity	93% (40°C) or less
		recording is 80% or less
Power supply		DC 12/24/32V 10% to +30%, 70VA or less
Optional items		
AC/DC power supply		NBA-5143
PC interface kit		2) 7ZZNA4016
Fax image display		3) 7ZZNA4017
Joint box (cable insertion Ø12mm)		JQD-69C
Whip antenna (6m)		NAW-60
Antenna feeder		RG-10/U and RG-10/UY
Recording paper		6ZPTS00108

1) Width 260mm and height 25m per roll
2) Terminal block (TB103) for PC connection - JRC RMS
3) RS422/USB converter, image viewer software and manual (requires 7ZZNA4016)
• Specifications may be subject to change without notice.

Notes

DREKO MARINA SISTEM

Notes

DREKO MARINA SISTEM

DREKO MARINA SISTEM

Authorized Agent for :

JRC Japan Radio Co., Ltd.

PT. DREKO MARINA SISTEM

Jl. Raya Hankam No. 206-D Jatirahayu
Pondok Melati, Bekasi - Indonesia
Phone : +62 21-8552-6000
Mobile : +62 811-928702
E-mail : sales@drekomarina.co.id

www.drekomarina.co.id