



# Marine Radar

## JMR-5400 Series

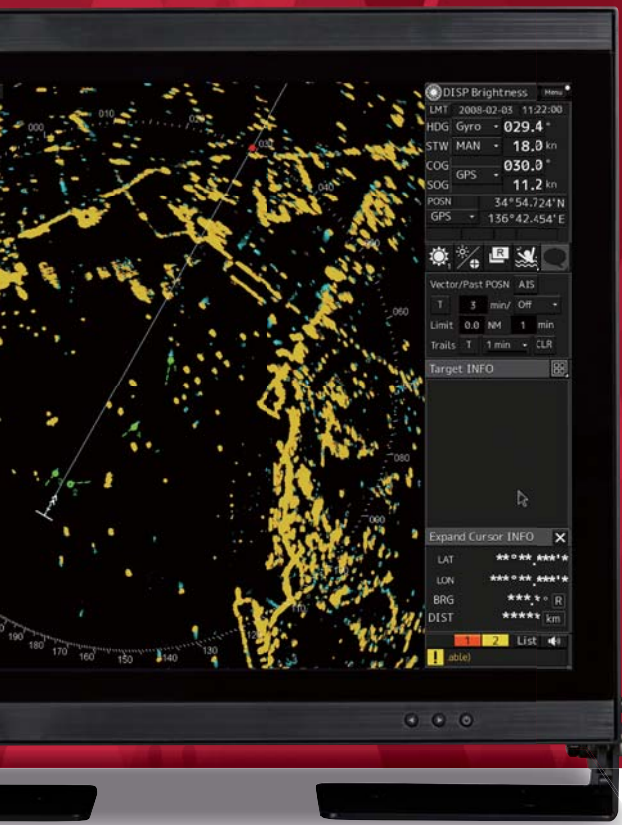


### Dramatically improved short-range detection performance.

- 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.



*Japan Radio Co., Ltd.*



# Revolutionary echo expression opens the way to the next generation of fishing radar.

The JMR-5400 series is equipped with a top-of-the-line processor, remarkably improving target detection and drawing performance alike. Additionally, a variety of radars are available, including the newest radar antennas scanner unit, bird detection antennas, and solid state radar antennas.

## High-resolution display with 1,000cd/m<sup>2</sup> brightness. \*1

Utilizes 19-inch and 26-inch color LCDs to display radar images with effective diameters of 250 mm (19-inch)/320 mm (26-inch) and above.

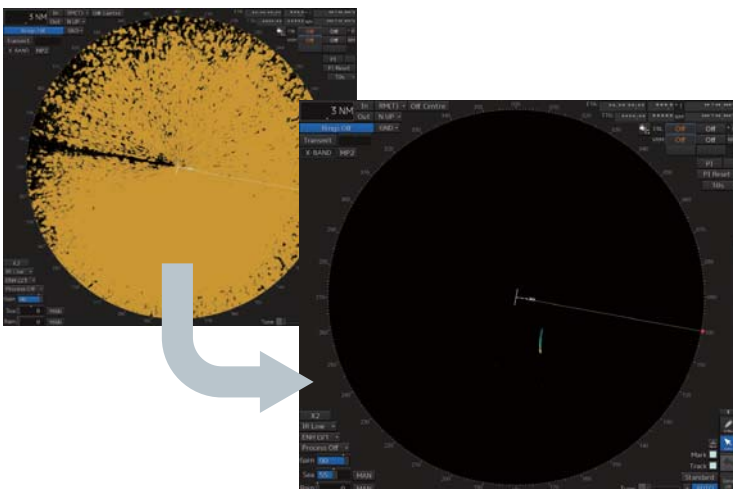
\*1: 19-inch model only.

## Clearly displays even small marine objects.

Stable long-range sensitivity and unbeatable short-range search capabilities provide indispensable support during navigation.

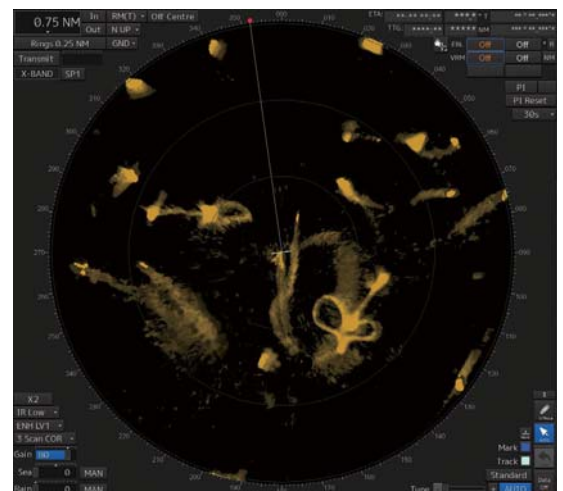
### Near/short-range image differentiation and clutter removal.

Small, difficult-to-detect objects are clearly displayed. Automatic clutter removal and optimized technology means radically improved short-range detection and visualization. The shape and relative positions of nets and other ships are displayed clearly and visibly.



### Suppresses interference from sea clutter and rain/snow clutter.

Eliminates clutter, improving detection of target objects.



### Improved visualization of nearby objects.

Clearly displays the shape of small marine objects and other ships.



### Bird Detection Radar

The 70kW high-powered radar scanner is capable of finding seabirds gathering around schools of fish from far away.



### New Radar Antenna

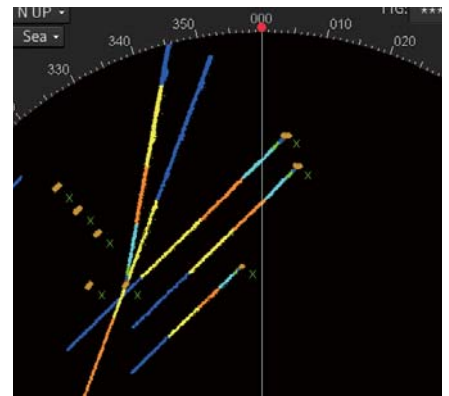
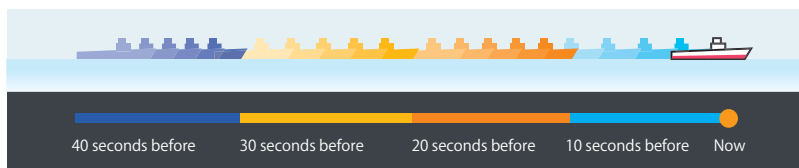
A newly tuned system cuts search times to roughly 1/4th of what they were previously. Additionally, thinning of the antenna height means improved drive device reliability.

# Radar trail display shows you the status of fishing grounds.

Independent radar course display functionality has resulted in dramatically improved visualization of ship courses and trails. Changes in fishing grounds are easier to check than ever before, greatly aiding decision-making.

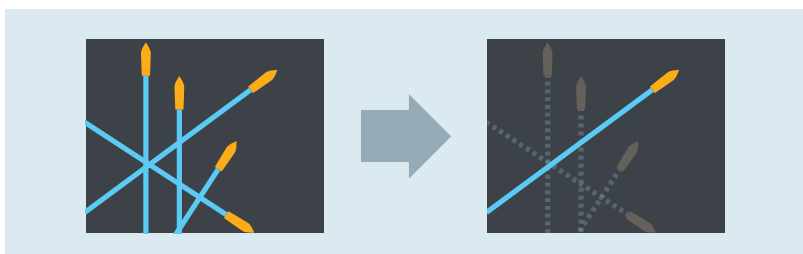
## Object courses highlighted with rainbow trails.

Display radar trails from the past 24 hours in custom colors, enabling easy visualization of ship courses over time. Checking current headings for other ships/fishing grounds and managing the situation near your own ship is now possible.



## Display only the courses you want.

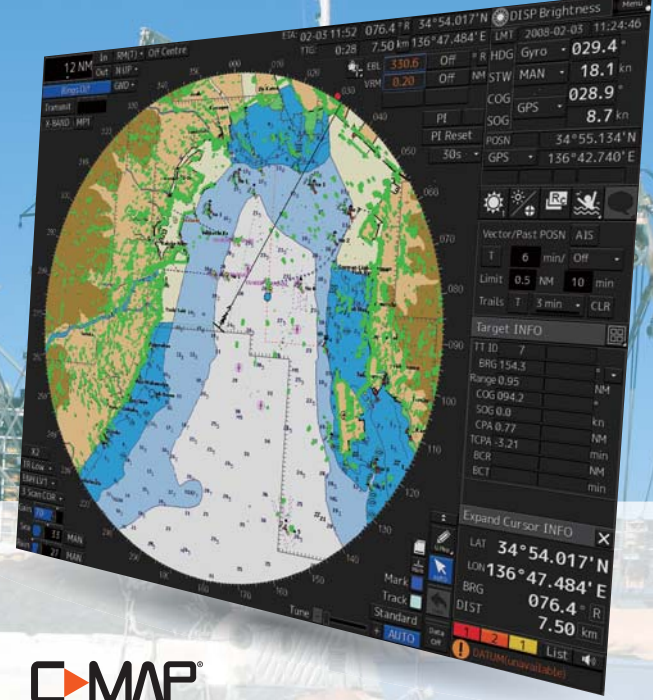
Radar trails can be hidden, allowing you to focus on important targets and object courses, and preventing accidental overwrites. Requires linking to TT and AIS functionality.



## Support for the newest charts.

Displays "C-MAP MAX" \*2 charts.

\*2:C-MAP MAX charts require a C-MAP card for each region you wish to display, available separately.

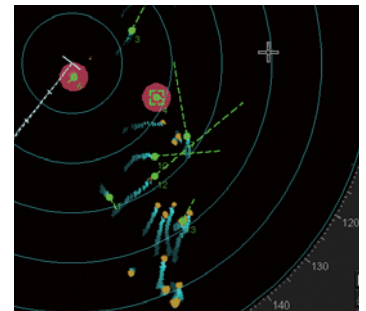


## Offers superior ease-of-use and navigation for fishing.

### TT/AIS display functionality. \*3

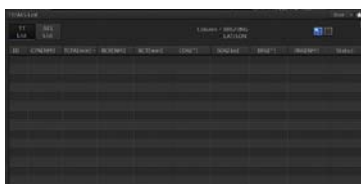
Equipped with TT functionality by default, allowing users to mark other ships and points of interest with TT symbols and check the course of nearby objects at a glance. The same highlighting functionality is also available for AIS symbols.

\*3 : TT functionality requires entering ship heading information. AIS display functionality requires entering ship position, ship heading, and AIS information.

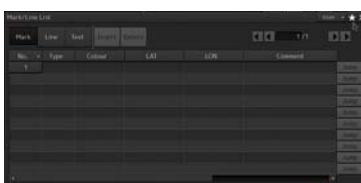


### Original Menu

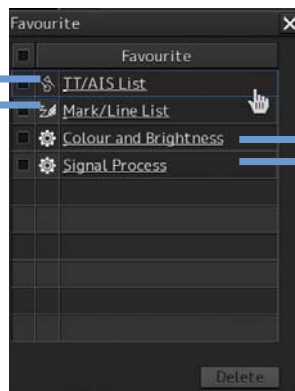
Create original menus that include only the items you need, and a favorites list to bring up frequently used items in one location.



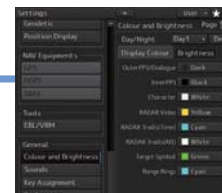
TT/AIS List



Mark/Line List



Favorite Menu



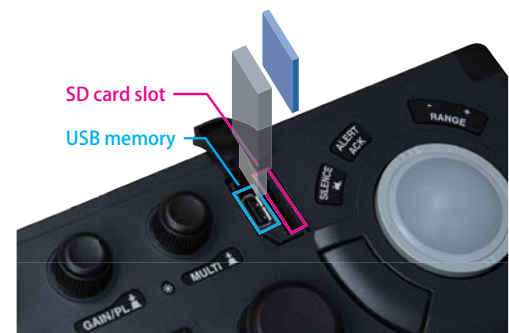
Color/Brightness Settings



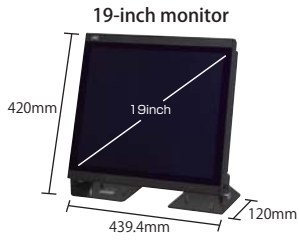
Signal Processing Settings

### New Standard Keyboard

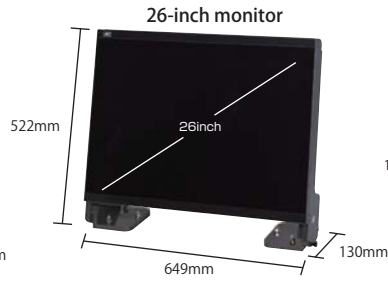
Connectors include USB memory and SD card slots, making saving and loading data and reading chart data easier than ever before.



## Display units



NWZ-214 Weight : 4.6kg  
4.9kg(AC option)



NWZ-208 Weight : 16kg

## Processor



NDC-1678 Weight : 7.1kg

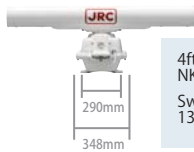
## Keyboard



NCE-5794 (Standard keyboard) Weight : 2.0kg

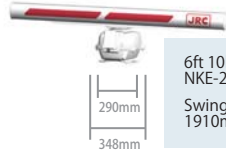
## Scanners

### 10kW X-band scanner



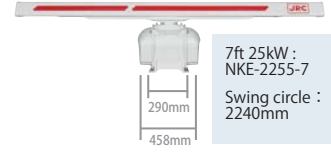
4ft 10kW :  
NKE-2103-4  
Swing circle :  
1320mm

### 10kW X-band scanner



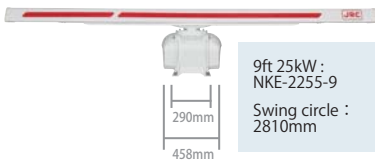
6ft 10kW :  
NKE-2103-6  
Swing circle :  
1910mm

### 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



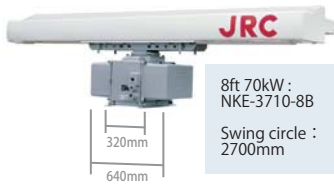
8ft 250W :  
NKE-2632  
Swing circle :  
2770mm

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



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

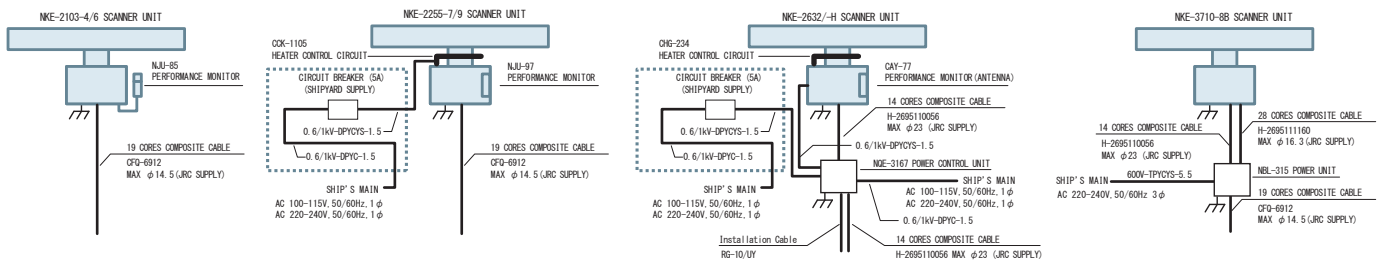
### 70kW S-band scanner



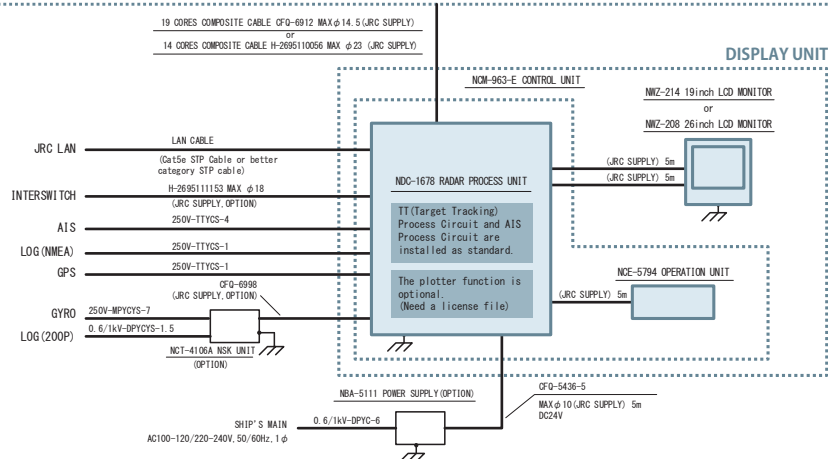
8ft 70kW :  
NKE-3710-8B  
Swing circle :  
2700mm

## Diagram

### SCANNER UNIT



### DISPLAY UNIT



# Specifications

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						
<b>Scanners</b>							
Model	NKE-2103-4	NKE-2103-6	NKE-2255-7	NKE-2255-9	NKE-3710-8B	NKE-2632/-H <sup>#1</sup>	
Transmitting power	10kW		25kW		70kW	250W	
Transmitting frequency	9410MHz±30MHz		9410MHz±30MHz		3050MHz±25MHz	PON:3035MHz, QON: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	0.08 μs/2250Hz 0.25 μs/1700Hz 0.5 μs/1200Hz 0.8 μs/750Hz 1.0 μs/650Hz		0.07 μs/2250Hz, 0.2 μs/2250Hz 0.3 μs/1900Hz, 0.4 μs/1400Hz 0.8 μs/750Hz, 1.0 μs/650Hz 1.2 μs/510Hz		0.08 μs/1700Hz 0.25 μs/1700Hz 0.75 μs/860Hz 1.0 μs/650Hz	0.07 μs/(4.6 μs, 8MHz)/1860Hz or 2280Hz 0.14 μs/(9.1 μs, 8MHz)/1860Hz or 2280Hz 0.29 μs/(9.1 μs, 8MHz)/1860Hz or 2280Hz 0.57 μs/(9.1 μs, 8MHz)/1280Hz 1.14 μs/(18.3 μs, 8MHz)/640Hz	
Duplexer	circular + diode limiter						
Tuning	automatic / manual						
Ambient condition	temperature : -25°C~+55°C relative humidity : 93% @ 40°C				temperature : -25°C~+50°C relative humidity : 95% @ 35°C	temperature : -25°C~+55°C relative humidity : 93% @ 40°C	
<b>Processor</b>							
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						
<b>Display</b>							
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						
<b>Keyboard</b>							
Model	NCE-5794						
Connection cable	5m (processor-keyboard)						
Ambient conditions	Operating temperature: -15 to 55°C; Relative humidity: 93% @40°C (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 NWZ-208	Max. 350W Max. 400W	Max. 400W Max. 450W	Max. 500W Max. 550W	Max. AC:600VA/DC:200W <sup>#2</sup> Max. AC:600VA/DC:250W <sup>#2</sup>	Max. AC:1300VA/DC:200W Max. AC:1300VA/DC:250W	Max. AC:1700VA/DC:200W Max. AC:1700VA/DC:250W
<b>Option</b>							
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		10m:7ZCRD1746, 20m:7ZCRD1747, 30m:7ZCRD1748, 40m:7ZCRD1749, 50m:7ZCRD1750 (maximum length)	
Interswitch Unit	NQE-3141-4A (4ch)/NQE-3141-8A (8ch)			Extension Cable		NCT-4106A	
Power Control Unit	NQE-3167			NSK Unit		7ZXNA4020	
TT/AIS Option	Software licence			CMH-2370 Serial LAN Interface Circuit Spare Parts		7ZXNA4011	
Plotter mode	Software licence			7HPNA4003 Printer Spare Parts		7ZXNA4011	

※1: NKE-2632 scanner antennas: Transmission pulse width (1st)/(Transmission pulse width and frequency shift width (2nd))/Repetition frequency

※2: JMR-5460-8S: with zero wind velocity

● C-MAP is a trademark of C-MAP Italy Srl.

● C-MAP MAX is product name of C-MAP Italy Srl.

● Specifications may be subject to change without notice.

For further information, contact:



Since 1915

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