



# GPS COMPASS JLR-20/JLR-30



*– enhanced performance and stability with JRC's new high visibility GPS COMPASS*

- 5.7” –inch high visibility LCD screen**
- Fully integrated roll, pitch and rate of turn**
- Wide range of display modes available**
- High speed tracking response (ROT 45°/sec)**
- Easy and flexible installation**

# GPS COMPASS series

## – performance features

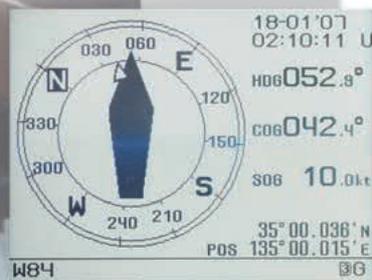
### Unique features

- The advanced north seeking JLR-20/JLR-30 GPS COMPASS series integrates new technology, providing enhanced performance and stability, outputting a 'true heading' to enable safe and effective navigation at sea.



### All-in-one solution

The JLR-20/JLR-30 is a sophisticated GPS COMPASS that uses three antennas, having ROLL, PITCH and RATE OF TURN conveniently integrated. The three dynamic parameters refer to the dimensional movements of the vessel. This innovative feature allows you to effectively navigate to your next waypoint and is of great assistance during global, deep-sea travelling.



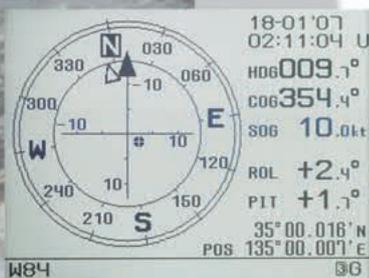
### High speed tracking response

The GPS COMPASS has its origins as a direction sensing system, but JRC goes far beyond this, with so many features integrated the GPS COMPASS enables higher accuracy and stability. The JLR-20 provides heading accuracy of 0.5 degrees and the JLR-30 of 0.3 degrees RMS with 0.1 or 0.01 degree resolution, and both have a tracking Rate Of Turn (ROT) at 45 degrees per second.



### Highly visible display modes

All information is displayed on a highly visible 5.7" LCD display. Many display modes are readily available and selectable from the menu. The compass rose, steering, navigational data, ROT and GPS information are easily accessible. The control panel is fully dimmable, allowing you to adjust your display preferences at your own convenience.



### Profoundly dependable

The GPS COMPASS series requires no maintenance, making it less expensive to maintain than a standard gyro system. The flexible configuration offers easy output and interface management, allowing simple operation and installation on new and existing vessels. All output data can also be interfaced on high-speed level to a wide range of JRC's (and other manufacturers) navigational instruments.

# GPS COMPASS series

## – developed for maximum ease of use

### Designed to IMO standards

JRC's new GPS COMPASS JLR-20 and JLR-30 are designed to comply with the latest IMO performance standards MSC.116 (73) Transmitting Heading Device (THD). All vessels between 300GT and 499GT are required to have a Transmitting Heading Device (THD) by SOLAS Chapter V.

### Easy menu structure

The compact design of JRC's GPS COMPASS incorporates a new style of Man-Machine-Interface (MMI), providing enhanced ergonomics and user-friendliness. The combination of a large LCD display and simplified push button operation, accompanied by JRC's customary menu structure ensures logical, accurate and convenient operation.



### StarNetwork™

JRC has been providing sales and support of products since 1915! Today, JRC offers comprehensive support through its organisation, in partnership with a world-wide StarNetwork™ of over 270 fully qualified agents, giving support 24 hours a day, 7 days a week, and 365 days a year!



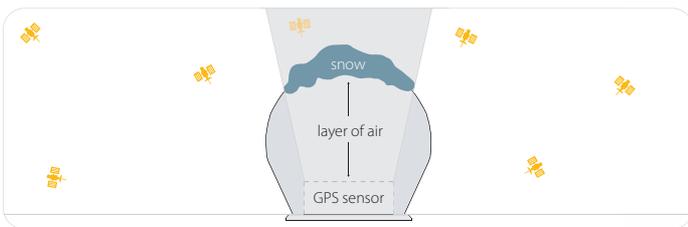
# GPS COMPASS series

## – system flexibility

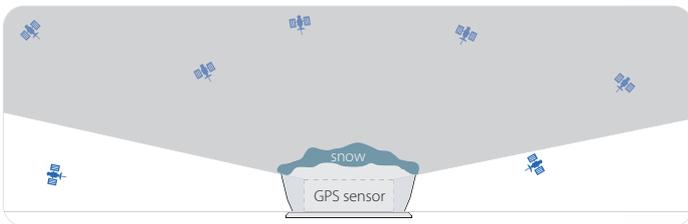
### Unique antenna design

The JLR-20/JLR-30 display is compactly designed and can be mounted virtually anywhere. The three antenna system is exclusively designed by JRC, making it far more reliable than conventional antenna systems.

By having the advantage of the processor unit built into the sensor unit, no alignment between processor and antenna is required. This contributes to an easier setup with less error and significantly reduced installation time. This concept also reduces the installation costs as only a single cable will be used between antenna and display unit.



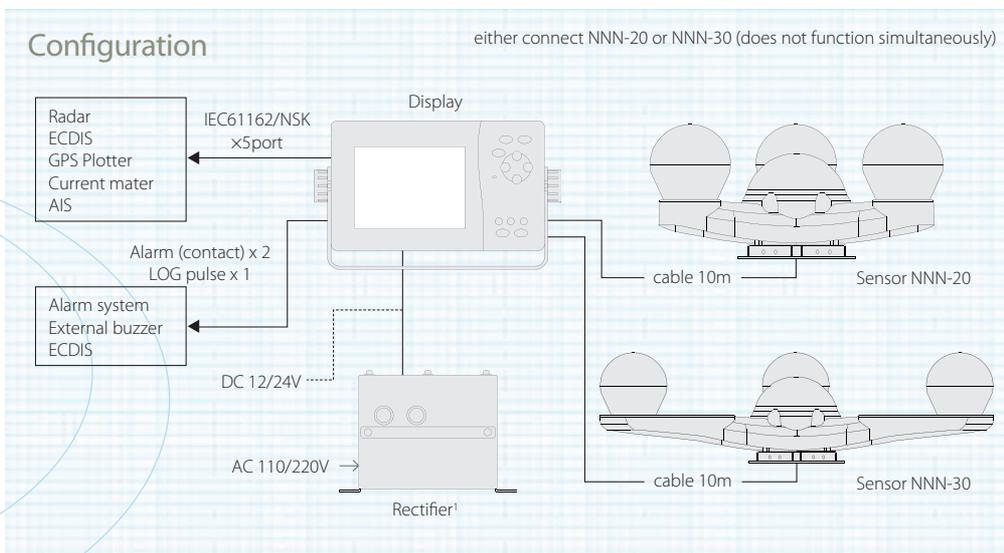
● JRC's new high performance antenna design



● Conventional antenna system

The outer shell of JRC's new antenna system has a smooth surface. This 'slippery exterior' makes it almost impossible for birds to perch on the domes or for the antennas to be completely covered in snow.

Should something interfere with the coverage, JRC's new antenna design incorporates a layer of air that reduces possible blind spots, allowing for a more precise heading than conventional systems.



<sup>1</sup>optional product

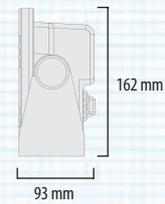
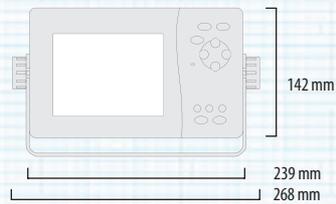
# GPS COMPASS series

## –dimensions and weights

### Dimension drawings - Display

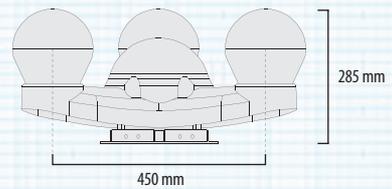
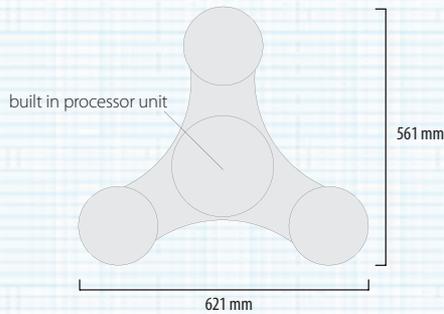
**NWZ-4700** Weight 2,3 kg

**cutout for panel mount**  
height 116,6 mm|width 220 mm|depth 64 mm



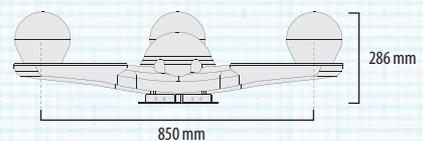
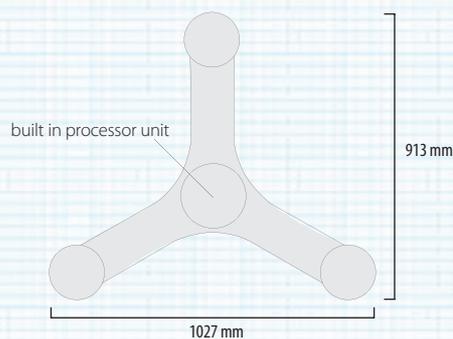
### Dimension drawings - Sensor | JLR-20

**NNN-20** Weight 6,2 kg



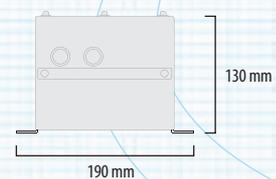
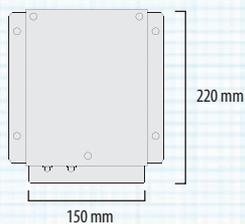
### Dimension drawings - Sensor | JLR-30

**NNN-30** Weight 9,5 kg



### Dimension drawings<sup>1</sup> - Rectifier

**NBA-3747**  
Weight 8,5 kg



<sup>1</sup>optional product

# GPS COMPASS series

## –specifications

Model	JLR-20	JLR-30
Designed to IMO standards	✓	✓
<b>Sensor unit</b>		
Model	NNN-20	NNN-30
Receiver type	multi channel (12+1ch) all-in-view	
Frequency	1575.42MHz ±1MHz (C/A code)	
Direction accuracy	0.5°rms	0.3°rms
Display resolution	0.1°	
Output resolution	0.1° or 0.01°	
Tracking rate of turn	45°/sec	
Tracking acceleration	1G	
Settling time	≤2min (warm start fix)	
DGPS input	RTCM SC-104 ver2.0 type 1, 2, 9, 16	
SBAS receiver	built in (WAAS, EGNOS, MSAS)	
RAIM function	built in	
Waterproof	IEC60945 ed.4 (IPX6/USCG CFR-46)	
Ambient condition	operating temperature: -25°C+55°C storage temperature: -25°C+70°C	
<b>Display unit</b>		
Model	NWZ-4700	
Presentation	5.7" FSTN LCD 320x240 dot	
Display modes	compass rose, ROT, NAV, GPS status	
Direction & nav. data output	IEC61162/NSK (shared) x 5 ports (AD10 output available : 2 of 5 ports) IEC61162 output : HDT, THS, ROT, ZDA, GGA, VTG, RMC, GBS, DTM, GSA, GSV, GNS, MSS, GST, GLL	
Current data input	1 port (CUR, VBW)	
Alarm (contact signal)	alarm output x 2 ports alarm ACK input x 1 port	
LOG pulse	1 port (200 or 400 p/nm)	
Waterproof	IPX4	
Ambient condition	operating temperature: -15°C+55°C storage temperature: -25°C+70°C	
Power supply (voltage)	DC 12/24V +30% -10%	
Power consumption	12W (sensor and display unit)	
Vibration/EMC	IEC60945 ed.4	
<b>Optional items</b>		
Rectifier	NBA-3747	
Data cable (for serial data)	CFQ-5374 (3m), CFQ-5374-15(15m)	
Data cable (for contact signal)	CFQ-5404 (3m), CFQ-5404-15(15m)	
Extension cable (sensor-display)	CFQ-7249 (20m)	
Junction box	NQE-7720	
Data cable (for sub display)	CFQ-7251(1.5m : Y-cable)	
Data cable (for JRC Radar*)	CFQ-5469(10m)	
Mount base (for NNN-20)	MPBX44117	

\* accepted for JMA-5100/5200/5300

• Specifications may be subject to change without notice.

**For further information, contact:**



Since 1915

**Japan Radio Co., Ltd.**

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