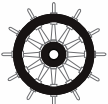


JAN-901B ECDIS

JRC



Complies with new SOLAS regulations
MSC 232(82) performance standard for
ECDIS, effective from 1 January 2009.

– introducing a new high performance ECDIS, integrating the latest technologies and innovative features

- 23” high visibility LCD screen**
- Simultaneous real-time radar & AIS overlay**
- Advanced route planning**
- Multiple and wide screen viewing**
- High-speed graphic processor**

JRC

Japan Radio Co., Ltd.

JAN-901B

– performance features

Unique features

- The JAN-901B is a newly developed multi-functional ECDIS. It is ergonomically designed to enhance the working environment and man/machine interfaces, providing continuous position and navigational safety information.



Radar overlay

The JRC JAN-901B offers practical radar usage with ECDIS, more than just overlaying a rough radar image. The radar image has a high resolution when interfaced with JRC radars. The radar image does not hide the priority objects of vector charts, but overlays them on the radar image. At the same time, brilliance and clutter controls of the radar images continues to be operable.

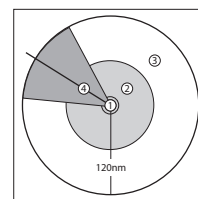
AIS targets

The AIS is an important key device used to indicate AIS target symbol and information on the ECDIS. These targets are very useful, as it provides the maneuvering conditions of other ships at a glance, allowing for safe and effective navigation. The name of

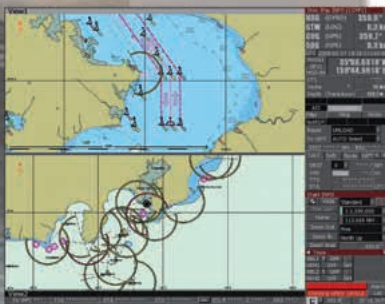


the vessels, and bearing, range, speed, length, heading and much more AIS target specifics from other ships are received and displayed. The AIS symbols are continuously displayed on-screen without the influence of the radar characteristics. The AIS targets are never shielded by ground, rain or cloud reflections, nor are they eliminated by adjustments of anti-sea or anti-rain clutter.

Also, it is easy to activate, deactivate and switch between AIS target symbols. This simply can be done with an integrated AIS filter, prioritising the targets within a dedicated area.



1. vessels' position
2. ring area
3. sector area
4. heading area



Multi-view

Multiple and wide screen viewing is possible with the new JAN-901B. You can divide the chart screen into two sections, in which the same or different charts can be displayed, in a mixture of ways. In this field of view, it provides a 'look-ahead' capability, especially useful in coastal areas. With the wide screen view function, an additional screen in the display area, showing a segment of the chart, allows viewing at a glance.

JAN-901B

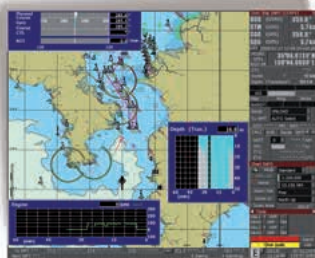
– developed for maximum ease of use

Flexible black box configuration

The ECDIS system is available in stand alone and desktop versions to suit your type of vessel. In the desktop version, the processor unit is the heart of the JAN-901B, allowing for flexible installation approach in confined spaces.

User interface

With its simplified menu structure, the new JAN-901B shares the same insightful user interface as found in JRC's new radar series. The consistent visual appeal and intuitive usage is of great importance on the vessels' bridge, especially being a working and living environment for thousands of vessels' officers on a day to day base.



Conning and external sensors

You can easily connect a wide range of navigation equipment to acquire more information. The ECDIS will display exactly the info you need in a clear, uncluttered format, reducing the risk of accidents. This results in a more relaxing and secure operation. Even equipment from different manufacturers can be incorporated.

More powerful than ever

The JAN-901B incorporates two Tornado™ processors, which are exclusively developed and designed by JRC, bringing a new level of performance and reliability to ECDIS operation. The new Tornado™ processors, which equal the power of eight conventional processors, allow radar overlay processing within a few milliseconds before displayed. This generates a smooth and fast image update. The advanced system architecture, make the JAN-901B series probably the most sophisticated ECDIS available today.

CCRP

As set by IMO regulations, a Consistent Common Reference Point (CCRP) is a location on own ship, to which all horizontal measurements, such as target range, bearing, relative course/speed, closest point of approach, or time to closest point of approach are referenced.



Where multiple antennas are installed, different position offsets for each antenna in the radar system should be applied with respect to the CCRP. If you switch between scanners (up to 8 possible - option), the information displayed is generated, which allow for consistency and uniform output.



Man OverBoard

Some items could strike you on the vessel, a slippery deck or unexpected movement of the vessel are situations in which a person may possibly fall of the vessel. The JAN-901B integrates a single-press Man OverBoard (MOB) operation. Instantly, a dedicated symbol arises on the screen, providing a range detailed info such as positioning, bearing, range and time till arriving at MOB. This emergency system enables immediate and accurate search and rescue efforts.



RADAR

ECDIS

JAN-901B

– easy user interface

New keyboard design

The new keyboard design of the JAN-901B allows you to carry out all operations simply by using the keyboard or on-screen by use of the trackball.



The responsive feel keys allow logical and precise operation and also integrate function keys for one-touch access to VIDEO, RAIN, SEA and GAIN. This makes it seamless to navigate through all commonly used tasks.

Optimised viewing

The JAN-901B 23-inch colour display is able to show bright, high-resolution imagery. With a press of a button, the screens' brightness can automatically be adjusted to the most optimal condition.

You can also select from multiple background modes e.g. day/dusk/night, a practical feature which facilitates a clear sight, this in view of the ever changing lightening conditions on the bridge.



North arrow mark

Menu title bar

Display panel

Chart display area

TCS bar

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.



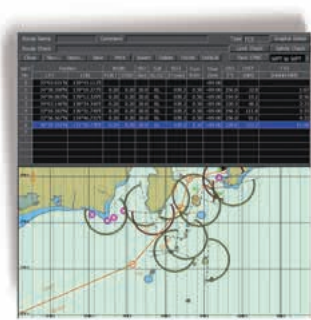
 **JRC one-call™**

One number to call

With JRC you can go anywhere and if you need our support, simply call us at +81 3 3492 9201, anytime.

JAN-901B

– routing flexibility



Route planning with table editor while displaying waypoints

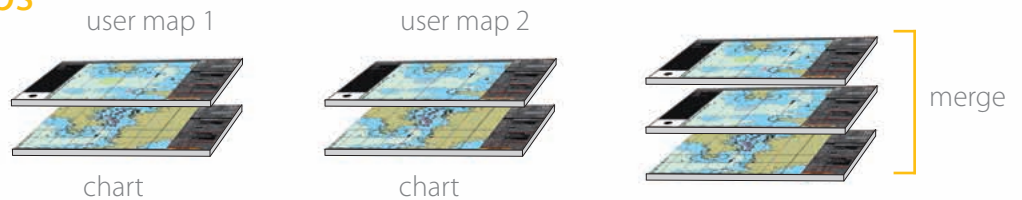
Advanced route planning

The advanced nature of JRC's new ECDIS system allows route planning in different ways. Either plan your route by using the table editor, while displaying current waypoint or graphically draw your next waypoint on the chart. Editing the route is just as simple as inserting. Dedicated menus are readily available to assist the mariner in effective route planning. Not only can you save the routes, but import favourite or commonly used files, even from previously ECDIS models, using industry-standard CSV format.

During the voyage, you can add an alternative route, which can be displayed simultaneously. You can move, insert, add and delete waypoints instantly and easily exchange the alternative route with route in progress, at your own convenience.

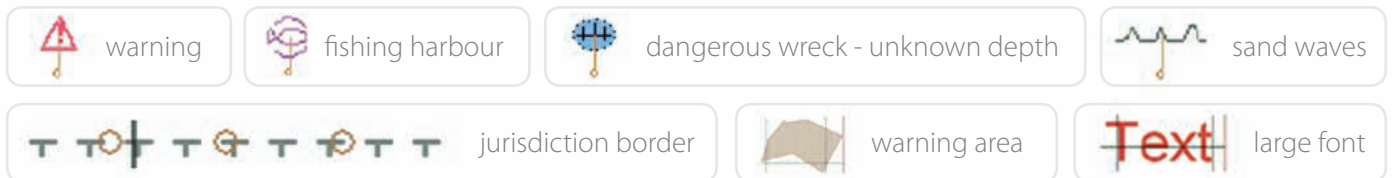
Editing the user maps

The JAN-901B provides a rich suite of objects which you single-handedly can enter, move, insert and add on user maps. The objects consist of symbols, lines, areas and texts. From buoys to buildings and harbour to seabed signals, JRC's new ECDIS has a total of over 40 categories and 30 sub-categories, which include more than 250 graphics readily available for endless possibilities.



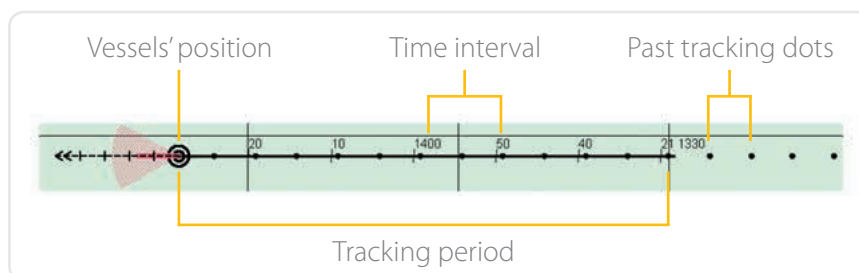
The user map is linked to the chart, and even if there are multiple user maps, you can easily select or merge.

A few examples



Track and time label

The vessels' primary position is saved with a minimum interval of three seconds, and the tracking period on the chart is displayed up to 24 hours. Conveniently mark your past track, choosing out of seven colours, eight tracking periods, ten time intervals and eight nautical mile presets.



JAN-901B

– version comparison

What's standard in the box?

With our new JAN-901B ECDIS series you have four system choices to select from. All are available in desktop or stand alone version, making it more than ideal for your preferred installation approach.

JAN-901B stand alone•desktop

Versions	SOO•FOO	SOR•FOR	SCR•FCR	SCO•FCO
Stand alone unit	o	o	o	o
Display	o	o	o	o
Keyboard	o	o	o	o
Processor	o	o	o	o
ECDIS software	o	o	o	o
Radar overlay		o	o	
Analogue interface			o	o
Conning software			o	o
Accessories	o	o	o	o
Installation kit	o	o	o	o
Operation manual	o	o	o	o

SOO ECDIS SOR ECDIS/radar SCR ECDIS/radar/connning SCO ECDIS/connning
 FOO ECDIS FOR ECDIS/radar FCR ECDIS/radar/connning FCO ECDIS/connning

Version comparison

Below a specification comparison between the different versions available.

Versions	SOO•FOO	SOR•FOR	SCR•FCR	SCO•FCO
Console design				
Tilting display	o	o	o	o
Hardware design				
Vibration absorber	o	o	o	o
CD/DVD ROM drive	o	o	o	o
Dual hard disk	o	o	o	o
Silicon disk	o	o	o	o
Battery for auto shut down	o	o	o	o
Network adapter (LAN)	o	o	o	o
Radar interface				
Radar video input		o	o	
Serial interface				
Gyro	o	o	o	o
Doppler log (VBW)	o	o	o	o
GPS (GGA, VTG, ZDA, DTM, GNS)	o	o	o	o
NAVTEX (JRC format)	o	o	o	o
Echo sounder (DPT)	o	o	o	o
ARPA (ITM)	o	o	o	o
AIS (VDM)	o	o	o	o
Auto pilot (HTC, HTD)	o	o	o	o
Anemometer (MWV)			o	o
Atmospheric pressure (MTA, XDR)			o	o
Air temperature (MMB, XDR)			o	o
Water temperature (MTW, XDR)			o	o
Humidity (MHU, XDR)			o	o
Rudder angle (RSA)			o	o
Rate of turn (ROT)			o	o
Engine RPM (RPM, PJM07)			o	o
Other serial input (option)			o	o
Analogue interface				
Gyro (synchro or step)	o ¹	o ¹	o ¹	o ¹
Log (200P/NM)	o ¹	o ¹	o ¹	o ¹
Anemometer (synchro or 4-20mA)			o	o
Rudder angle (synchro or 4-20mA)			o	o
Bow thruster pitch (4-20mA)			o	o
Bow thruster RPM (4-20mA)			o	o
Stern thruster pitch (4-20mA)			o	o
Stern thruster RPM (4-20mA)			o	o
Propeller pitch (4-20mA)			o	o
Propeller RPM (4-20mA)			o	o
Dry contact				
Original (6 points)	o	o	o	o
Option (6 points)	o ²	o ²	o	o

o¹ needs optional MPXP34120 gyro I/F unit

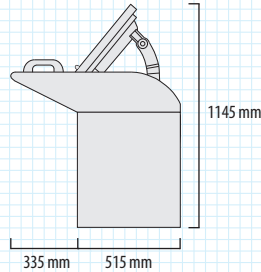
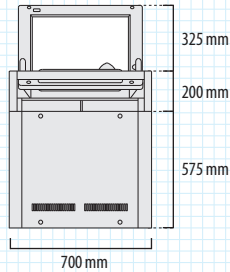
o² needs optional MPXP34118 SRB unit

JAN-901B

– dimensions and mass

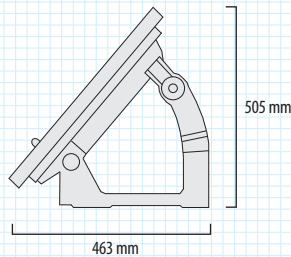
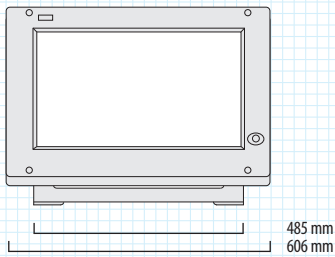
Dimension drawings - Stand alone version

NCD-2096 MASS 150 kg



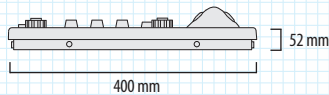
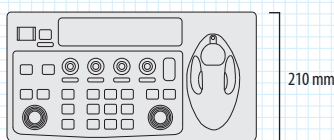
Dimension drawings - Display in desktop version

NWZ-170-E MASS 25 kg



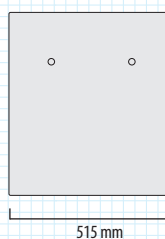
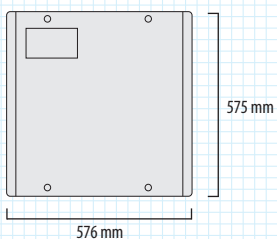
Dimension drawings - Keyboard in desktop version

NCE-5163-E MASS 3,5 kg



Dimension drawings - Processor in desktop version

NDC-1444 MASS 85 kg



JAN-901B

– specifications

Model		JAN-901B
IMO compliant		✓
General		
OS	Windows XP embedded	
Power supply	AC 100-115, 200-230 V ±10%, 60/50Hz ±5%	
Power consumption	300VA or less	
Display		
Size	23" colour LCD display	
Resolution	1600x1200 dot (UXGA)	
EBL	2 (EBL1/EBL2)	
VRM	2 (VRM1/VRM2)	
Bearing indication	north-up / course-up (simultaneously in multi view)	
Presentation mode	true / relative / free motion	
Multi display areas	2 (longitudinal, transverse, picture in picture)	
Scale	1:1.000 up to 1:75.000.000	
Range	0.125 - 96nm	
Route planning		
Input	graphical or numerical	
Safety check	grounding, obstruction, dangerous areas	
Import/export format	CSV	
Limit check	1) TCS only: turn radius, route width	
Monitoring		
Plotting	Own vessel position and track	
ARPA tracking	200 (100 from No.1 Radar + 100 from No.2 Radar)	
AIS tracking	300 (sleeping + activated)	
AIS class	class A + class B	
AIS/ARPA alarm	CPA/TCPA	
Chart management		
Updating	semi-auto / manual (available via ChartCo)	
Data correction	available	
Conning display		
Navigation screen	date/time, speed, route planning info, engine data, rudder data, weather/sea conditions	
Harbour/docking screen	speed, docking/sway speed, thruster data	
Alarm management screen	complete and detailed alarm status, acknowledge	
Interfaces		
Gyro input	2) IEC61162-2 or synchro/step	
Log input	2) IEC61162-1 or 200 pulse	
Remote maintenance	possible	
Copying route	FD / USB	
Network	LAN (10/100Mbps)	
Optional items		
HUB (for multiple radars/RPS connector)	7EZNA4008	
Junction box route HUB	CQD-10	
Gyro interface unit	MPXP34120	
Mini keyboard	5EZKT00022	
Route planning system (RPS)	JAN-1186-19	
Display cover	MPXP33089	
Display hood	MPOL30345A	

1) JAN-901B is compliant with TCS, specified in IEC62065 - Category B/C 2) Gyro I/F unit is needed

• Specifications may be subject to change without notice.

For further information, contact:



Since 1915

Japan Radio Co., Ltd.

URL <http://www.jrc.co.jp/eng/>

Main Office: Fujisawa bldg. 30-16, Ogikubo 4-chome
Suginami-ku, Tokyo 167-8540, Japan
Telephone: +81-3-6832-1816
Facsimile: +81-3-6832-1845

Overseas Branches : Seattle, Amsterdam, Athens, Manila
Liaison Offices : Taipei, Jakarta, Singapore, Hanoi,
Shanghai, Hamburg, New York