

JLN-652

Doppler current meter



– JRC's new 240 kHz Doppler current meter: the smartest way to increase your catch

Unique 3D twist mode presentation

Measuring up and down current

50 independent measuring layers

Automatic bottom current tracking

Four beam transducer for optimal performance



Japan Radio Co., Ltd.

since 1915

Features

Features

The new JLN-652 Doppler current meter integrates a compelling combination of function and features, packed into a compact space-saving design, enabling quick and accurate acquisition of speed and tidal current data.

3D twist mode

You can view the current direction and speed in real time with the twist mode. With this advanced feature, an operator is able to assess current speed and direction, enhancing the timing on when to deploy the nets in the water. Naturally, the twist display mode is accompanied with a wide range of information, such as current speed range, depth range, temperature history from external sensor and more.



Up and down current

JRC engineers listened closely to feedback given by captains and realized yet another unique function in this class of current meters. The JLN-652 is able to accurately measure up and down current, particularly useful to predict the sinking ratio of your nets by following the natural motion of the underwater current.



50 independent measuring layers at deep current

The JLN-652 Doppler current meter has the ability to process and display continuous tidal currents of 50 independent measuring layers down to maximum 200 meter depending on sea condition. To simplify matters, the user only has to set five depths layers (A, B, C, D, E), of which each layer is measured in four directions. The 50 layers are automatically set relative to depth which has been indicated. The user can select the depth of each layer, showing different information. You can also select bearing¹ displayed as North-up (with true north at the top of the display) and Head-up (with bow at the top of the display).

Automatic speed relative to bottom

Normally run automatically, the new JLN-652 allows bottom tracking with depths up to approximately 250² meters, measuring direction and speed relative to the sea bottom. If sea bottom becomes too deep, it automatically switches to water tracking mode or through GPS mode, depending on user selection.

Bottom current tracking

The bottom current layer (E) has the ability to automatically shift and display the current close to bottom following the contours of the sea bottom. This is of great help for the operator when fishing in areas with frequently variable depth.

1. Heading input necessary 2. Actual depth value depend on sea and bottom condition

Developed for maximum ease of use

Dedicated keyboard

The new JLN-652 allows you to carry out all operations simply by using the keyboard. The layout has a full complement of keys, including direct STC and GAIN, to adjust noise under surface of the water level and receiver sensitivity respectively. The keyboard also has one-touch menu keys to access different display modes instantly as well as a special  frame-selector to navigate quickly through a variety of menu items on display.



Direct STC/GAIN

Frame selector

Switch between display modes

Fish finding

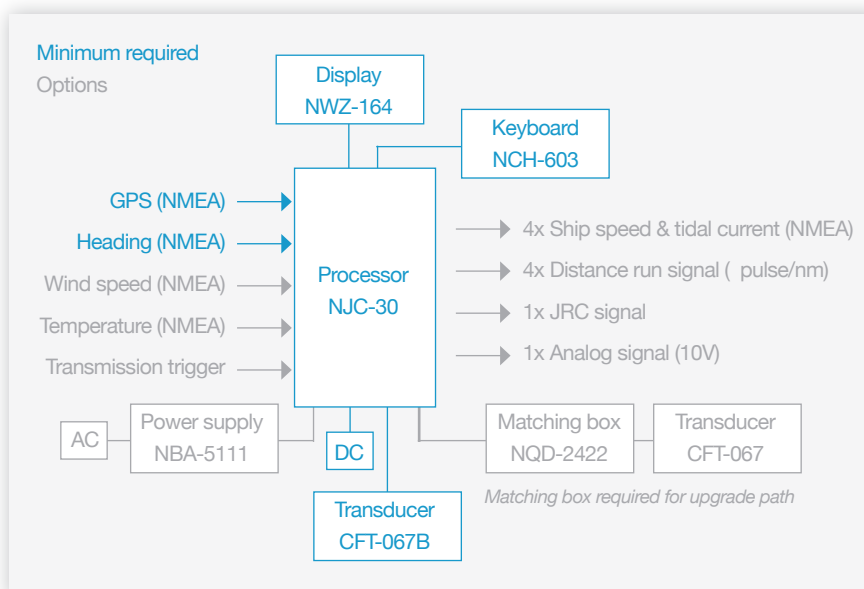
You can view fish echoes in four-directions, two-directions ahead, or in any one direction, allowing for easy fish tracking. Just as any typical fish finder, you can set the display to present fish echo and seabed condition simply by adjusting the sensitivity.

Alarms

There is a wide range of alarms available on the JLN-652. With all alarms, for example, when depth becomes shallower than the parameter set, a warning message pops up, allowing the operator to take action, contributing to safer navigation and more efficient fish finding.

High resolution display

The Doppler current meter not only measures data with unmatched accuracy but also features a high resolution output of 1024 by 768 pixels (XGA) which provides excellent and efficient tidal analysis.



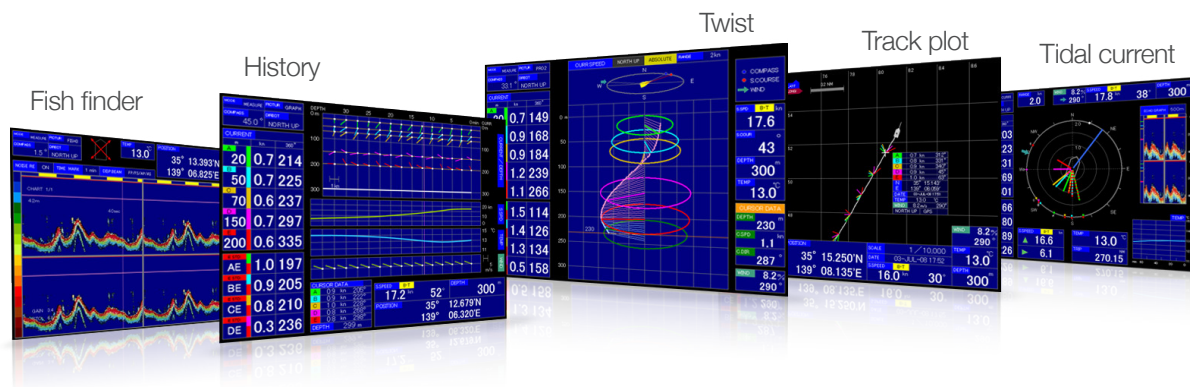
Black box configured

The JLN-652 consists of a display (option), processor and keyboard, allowing for a flexible installation approach in confined spaces. For those who prefer to specify their own display, the JLN-652 allows you to choose what type and size of display to connect to the unit, as long as it supports XGA.

System flexibility

Display modes

This Doppler current meter has 16 comprehensive and easily readable display modes for efficient tidal analysis. With our dedicated keyboard you can navigate through all common used tasks effortlessly.



Upgrade path

Our standard scope of supply has been set as a minimum configuration. This allows ease of upgrading from previous models (see right). In the case of a new installation, simply select the transducer and installation accessories from the option list.



Parts	JLN-627H	JLN-628	JLN-628C
Transducer	Keep	Keep	Keep
Display	Replace	Replace	Keep
Keyboard	Add	Add	Replace
Processor	Add	Add	Add
Matching box	Add	Add	Add

Easy interfacing

The new Doppler current meter integrates two-way interfacing, allowing you to easily connect a wide range of additional (NMEA) navigation equipment. Up to 1000 memory points of current and track data can be saved on USB memory. (USB not included).

In the box

- Processor
- Keyboard
- Manuals
- Spare parts

Options

- Transducer element (25m cable attached)
 - Stuffing tube (iron hull/FRP hull)
 - Transducer with stuffing tube
 - Transducer with stuffing tube + iron tank
 - Matching box
 - 15-inch display
 - Bracket 15-inch display
 - Sun shade 15-inch display
 - 10-inch display
 - Keyboard ext. cable (10m)
 - Power supply
- CFT-067B
MPJD30076/MPJD30078
NKF-779
NKF-780
NQD-2422
NWZ-164
MPBX42944
MPOL30369
NWZ-211
CFQ-6999
NBA-5111



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Weight and dimensions

15-inch display (option)

NWZ-164 Weight 3,7 kg



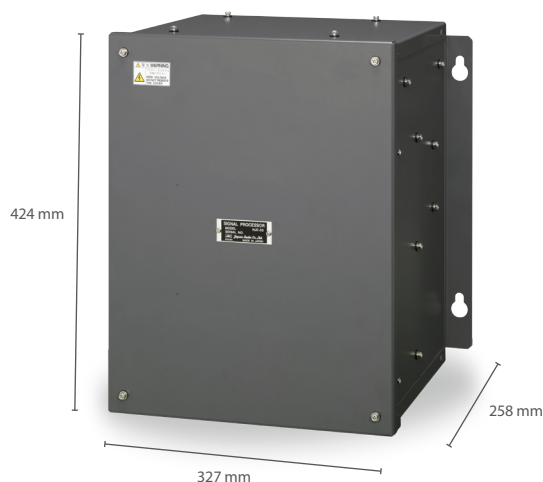
Keyboard

NCH-603E Weight 1 kg



Processor

NJC-30 Weight 16 kg



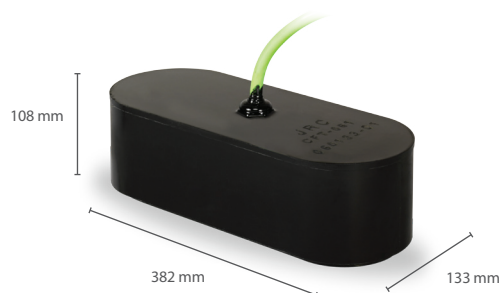
Matching box (option)

NQD-2422 Weight 450 g



Transducer (option)

CFT-067B Weight 25 kg



Power supply (option)

NBA-5111 Weight 15 kg



Specifications

	JLN-652
Measuring method	2-axis four beam pulse Doppler
Frequency	240 kHz
Resoluton	1024 by 768 pixels (XGA)
Power supply	21.6 to 31.2V DC (100 to 230V AC option), Power consumption: <270VA
Ambient conditions	Temperature: -15 to 55°C, Relative humidity: 0% to 93% non-condensing
Current measurement	
Current speed range	0 to 10 kn (accuracy $\pm 2\%$ rms or 0.2 kn, whichever is greatest)
Current direction display	All surroundings 360° and numerical values with 32 bearing points
Current layers	Maximum: 50 layers (numerical data readout from 5 pre-selected layers)
Current depth	2 to 30 m (in shallow sea mode), 12 to 100 m (in standard mode), Maximum: up to 200 ¹ m
Bottom measurement	Minimum depth: 5 m, Maximum depth: 350 ¹ m
Depth setting	2 to 500 m
Current reference	Doppler or GPS
Ship speed measurement	
Fore/aft range	-10 to 40 kn (accuracy $\pm 1\%$ rms or 0.1 kn, whichever is greatest)
Port/starboard range	-10 to 10 kn (accuracy $\pm 1\%$ rms or 0.1 kn, whichever is greatest)
Measurement speed	Ground speed: 5 to 250 m, Maximum: up to 350 ¹ m, Water speed: more than 10 m (both display simultaneously)
Distance run	0 to 99,999.99 NM (accuracy $\pm 1\%$ rms or 0.1 kn, whichever is greatest)
Auto shift bottom tracking	Yes
Main performance	
Function	Measuring current, ship speed, depth, fish finder, track plotting, graph display, profile display, self test, alarm function
Display modes	Current, ship, plot, graph, fish, profile
Alarms	Current speed, ship speed, depth, trip, timer, water temp, wind speed
Interfacing	
NMEA input (v1.5 to 3.01)	Bearing: HDT, VHW, HDM, HDG, THS; Speed; RMC, VTG; Lat/Lon: RMC, GGA, GLL; Temperature: MTW; Wind: MWD, MWV
NMEA output (v1.5 to 3.01)	VDVBW, VDLW, VDVHW, VDDBT, VDDPT, VDCUR, PJRCL (ship speed and tidal current)
External trigger input	Receiver blocking by external transmission trigger
Distance output	4x log pulse (200 pulse/NM)
JRC output	JRC format (for current data output)
Memory data output	USB/CF card (up to 1000 memory waypoints of current and track data can be saved)

1. Actual depth values depend on sea and bottom conditions

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