JLN-650BB
Doppler current meter

– JRC's new 125 kHz Doppler current meter integrates a compelling combination of function and features

Unique twist mode (see display)
Up to 100 independent measuring layers
Four beam transducer for optimal performance
Advanced bottom tracking
Dedicated keyboard

JRC Japan Radio Co., Ltd.

since 1915

Performance features

Unique features

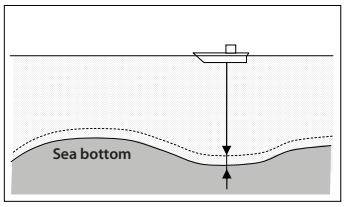
- The new JLN-650 Doppler current meter continues the tradition of enhanced acquisition of speed and tidal current data, but now with a newly designed transducer and the integration of an extensive range of function and features.

Twist display

You can view the current direction and speed in up to 100 layers with the twist mode. With this advanced feature, an operator is able to anticipate 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 and so on.

Bottom layer auto shift

The bottom layer (E) has the ability to automatically shift and display the measuring depth according to the ups and downs of the sea bottom. This is a great source of information for efficient fishing and for the safety of your nets.

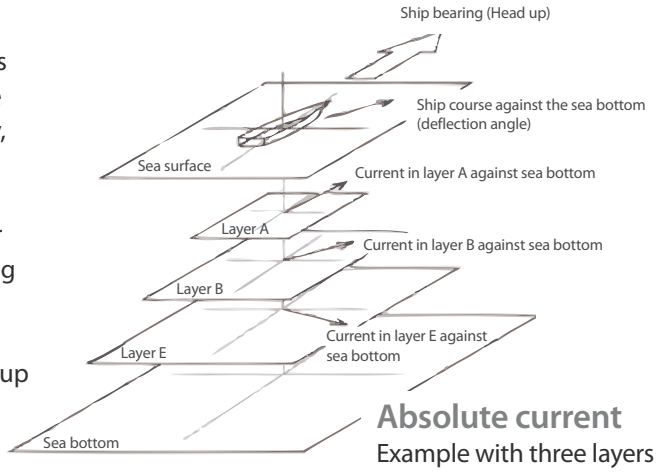


Advanced bottom tracking

Normally run automatically, the new JLN-650 allows bottom tracking with depths up to approximately 400 meters[1], measuring direction and speed relative to the sea bottom. If sea bottom becomes too deep, it automatically switches to water tracking mode.

Five depth layers

The JLN-650 Doppler current meter allows continuous display of tidal currents at five depths layers (A, B, C, D, E) simultaneously, of which each layer is measured in four directions: port ahead, starboard ahead, port astern and starboard astern. The user can select the depth of each layer, showing different information. You can also select bearing[2] displayed as North-up (with true north at the top of the display) and Head-up (with bow at the top of the display)



Absolute current
Example with three layers

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 the type of fish or sea conditions simply by adjusting the sensitivity.

1. Maximum tracking depth may vary according to sea bottom conditions
2. Heading input necessary

Developed for maximum ease of use

Dedicated keyboard

The new JLN-650 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.

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.

Alarms

There are a wide range of alarms available on the JLN-650. 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.

JRC StarNetwork™

JRC has been providing sales and support of products since 1915. Today, JRC offers comprehensive assistance through its organization, 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.

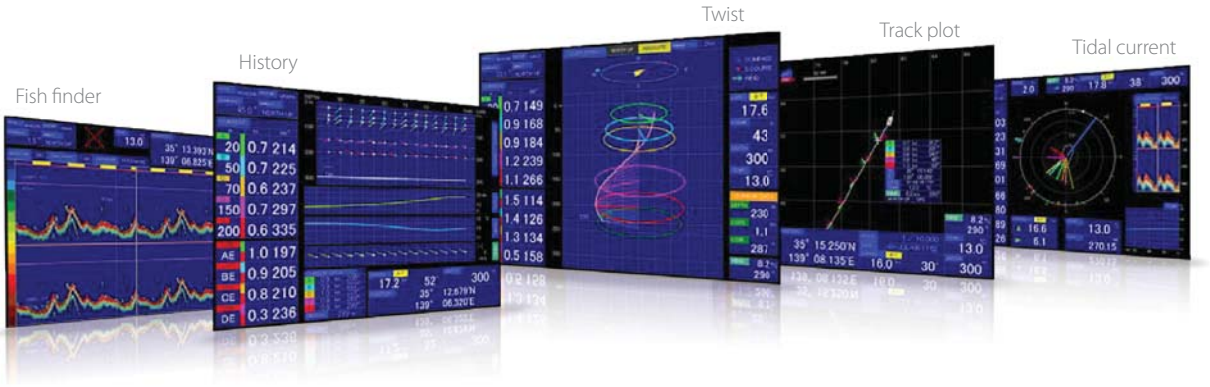
JRC one-call™

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.

System flexibility

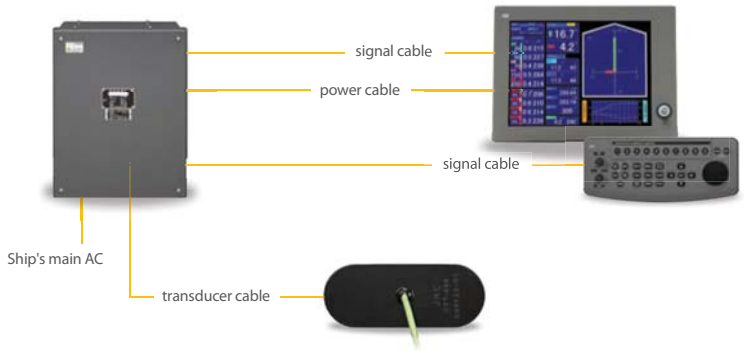
Display modes

This Doppler current meter has 15 comprehensive and easily readable display modes for efficient tidal analysis. With our dedicated keyboard you can navigate through all common used tasks effortlessly.



Black box configured

The JLN-650 consist of a display, signal processor and keyboard, allowing for a flexible installation approach in confined spaces.
For those who prefer to specify their own display, the JLN-650 allows you to choose what type and size of display to connect to the unit. You can choose between LCD and CRT, as long as it supports XGA.



Transducer

JRC's new Doppler current meter operates with a new 125 kHz transducer, designed to minimize side lobes. The transducer is available with a stuffing tube, both for iron and FRP hull installations. The standard transducer cable length of 25 meters can be extended to a maximum of 100 meters. (special cable required)

What's included?

- 15-inch display[1]
- Transducer
- Signal processor
- Keyboard
- Cables
- Spare parts
- Manual (English)

Cables included

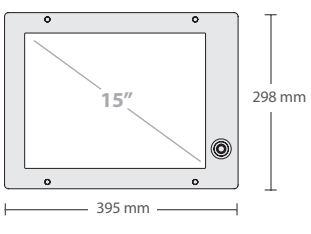
· Signal cable	5m (processor to display)
· Power cable	5m (processor to display)
· Signal cable	5m (processor to keyboard)

1. Not included in black box configuration

Dimensions and weight

Display (option)

NWZ-164 Weight 3,7 kg

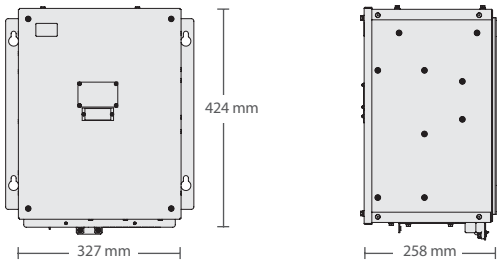


Cutout for flush mount
Height: 265 mm
Width: 371 mm
Depth: 150 mm

Note
Desktop bracket is optional

Signal processor

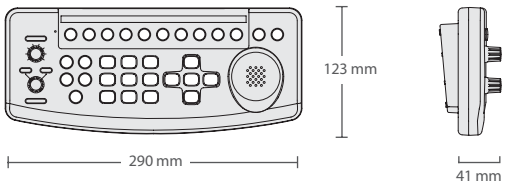
NJC-28 Weight 16 kg



Note
Wall hanging possible

Keyboard

NCH-603E Weight 1 kg

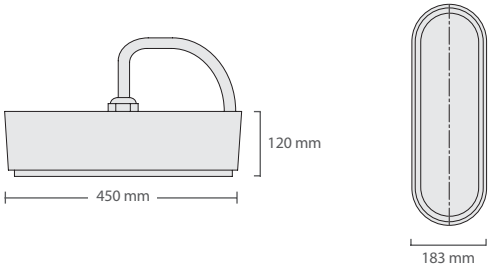


Cutout for flush mount
Height: 88 mm
Width: 272 mm
Depth: 25 mm

Note
Desktop mount is possible

Transducer

CFT-068 Weight 25 kg



Stuffing tube
Iron hull
FRP hull

Note
Attached 25 m cable
Through hull fitting

Specifications

Measuring method	2-axis four beam pulse Doppler
Frequency	125 kHz
Screen	1024 by 768 pixels (XGA)
Power supply	100V to 230V AC, 50Hz to 60Hz (single phase)
Power consumption	< 270VA

Current measurement performance

Current speed range	0kn to 10kn
Current measuring accuracy	maximum 2%rms or 0.2kn, whichever is greatest
Current direction display	360° and numeric values with 32 bearing points
Measurement layers	up to 100 layers (5 layers numerical)
Measurement depth[1/2]	5m to 150m (normal mode), 7m to 200m (long pulse mode)
Setting depth range	5m to 500m
Current reference	Doppler or GPS
Measuring mode	relative or true

Ship speed measurement performance

Fore/aft range	-10kn to 40kn
Port/starboard range	-10kn to 10kn
Ground speed depth[2]	5m to 400m
Measurement accuracy	± 1%rms or 0.1kn, whichever is greatest
Water speed depth	more than 7m (ground and water speed simultaneous display)
Distance run range	0nm to 99999.99nm
Distance run accuracy	± 1%rms or 0.1kn
Auto shift bottom tracking	Available

Main performance

Function	measuring current, ship speed, depth, fish finder, track plotting, graph display,profile display, self test, alam function (current speed, ship speed, trip, timer, water temperature)
Display modes	current, ship, plot, graph, fish, profile
Numeric display	current speed, current indication (absolute 5 layers, relative 4 layers), measurement depth, bottom tracking ship speed/course, water tracking ship speed/course, ship position, heading, trip, date, FA ship speed/PS ship speed, trip or time value, water depth, water temperature
Graphic display	absolute/relative current vector, ship speed vector, water temperature graph, current/depth graph, ship speed graph, wind speed, wind direction graph, trip display, fish display, profile display

Interface

NMEA input (v1.5 to 3.01)	bearing (HDT, VHW, HDM, HDG, THS), lat/long (RMC, GGA, GLL, VTG), water temp (MTW), wind direction (MWD, MWV)
External trigger input	transmission trigger
NMEA output (v1.5 to 3.01)	ship speed current (VDVBW, VDVLW, VDVHW, VDDBT, VDDPT, VDCUR, PJRCL)
Distance output	4x log pulse (200 pulse/nm)
JRC output	JRC format (for current data output)
Memory data output	USB port (up to 1000 memory points of current and track data can be saved)

Environment

Operating temperature	-15° to 55°C
Relative humidity	0% to 93% non-condensing

Optionals

Transducer with stuffing tube (iron tank)	NKF-775
Transducer with stuffing tube	NKF-774
Transducer element (125 kHz)	CFT-068
Stuffing tube (for iron hull)	MPJD30076
Stuffing tube (for FRP)	MPJD30078
Monitor mount kit for NWZ-164	MPBX42944
Sun shade	MPOL30369

1. Measurement depth is 80% or less of depth 2. Depths may vary according to sea (and sea bottom) conditions

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