JRC

Sonar

JFS-280

Robust design and fully stabilized

www.jrc.am

Features

The JFS-280 is a compact and fully stabilized omni-directional sonar, incorporating a robust transducer consisting of 512 elements. With the medium frequency of 62 KHz, the sonar provides an excellent and clear image, displaying schools of fish with astonishing discrimination, in shallow waters as well as in deep waters.
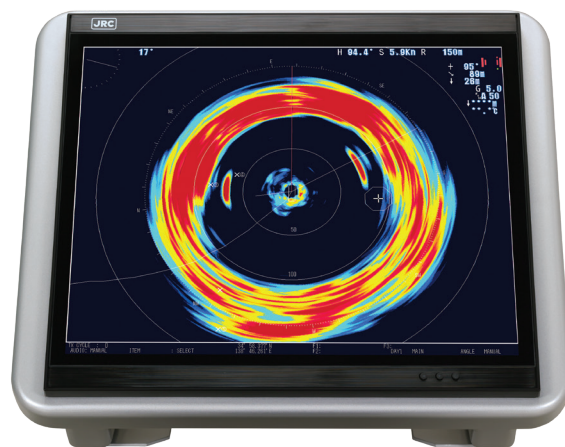
- Stabilized transducer
- Quick variable beam angle
- High power and long pulse
- Narrow angle beam
- SXGA pixel resolution (1280 x 1024 px)

- Easy to use keyboard
- Stainless steel dome transducer
- Auto retractable hull unit
- Outside breaker switch
- Complete system 24V DC powered

Accuracy

Following its successful predecessor, the new JFS-280 has a greatly improved detection range and crisp images using the newly designed transducer and transceiver utilizing the latest digital technologies. The transducer is 1.4x larger and range expanded to 2000 meter. The JFS-280 also includes a manual and an automatic tilt function (-5° to 60°) to vertically scan for a school of fish. With a single press of the button you can activate automatic tracking of a fish of school. The tilt angle is continuously adjusting to the target as the ships moves forward.

Features like these are typically seen on long range sonars. And with the stabilizing function activated during transmission and reception, it gives the fisherman better on screen results and potentially providing a greater catch, even in rough and stormy seas.

Stabilization

With the pitching and rolling on vessels, a high-performance inclinometer is built in with an accuracy of less than 1 degree and a data output of 20ms interval rate. The stabilizer function can handle 30° movements of the vessel in all directions. Even on small vessels, the sensitive omni-directional sonar will keep the supersonic beam stable.

360° stabilized

30° 30°

Narrow beam

Stabilization OFF

Stabilization ON
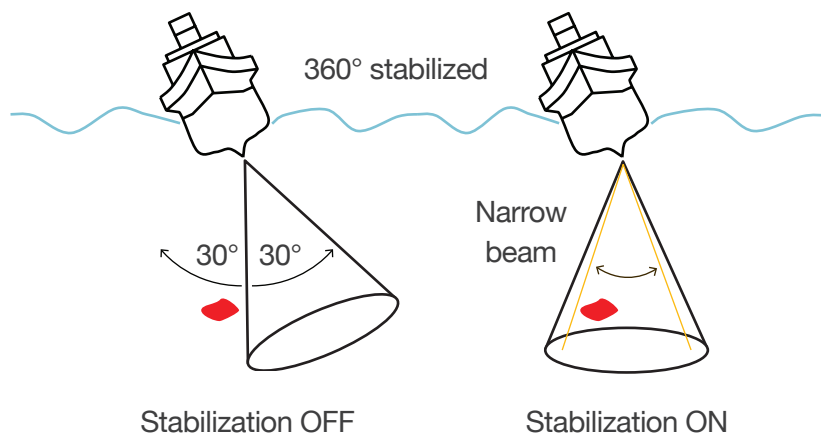
Display modes

The JFS-280 make your sonar images more brilliant than ever with a sharp 19-inch high resolution LCD display. You can set the motion to head up or north up (sensors required) and you can show the sonar image as normal, full, split screen or off center mode, which is approx. 1.5x the normal range. With the SXGA resolution and 32 color video output, it shows detail image on screen. With a single press of a button, you can save a single screenshot in the system memory. Input a CF card to take and save multiple screenshots. On the same CF card, you can save and import setting to match a type of fish and fishing method, while you are fishing.


Normal view

Full screen

Off center
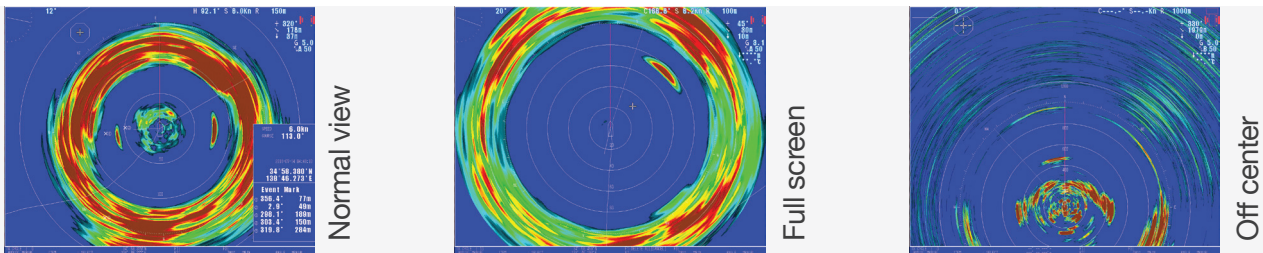
We have also included five presets in the JFS-280, designed for several fishing applications. Combined with a new level of transmission, more sonic elements and digitized lobes, it offers unprecedented clear and clean supersonic images.

Keyboard

With its new case design, the keyboard of the JFS-280 allows you to carry out all sonar operation simply by using the keyboard or on-screen using the trackball. The responsive keys allow logical and precise operation and integrates keys for one-touch access to range, tilt, gain, off center and various other dedicated buttons are integrated. This makes it easy to navigate through all commonly used tasks.

(Forced) power

Hoisting unit

User defined keys

Marks

One touch access

Tilt angle

Trackball operation
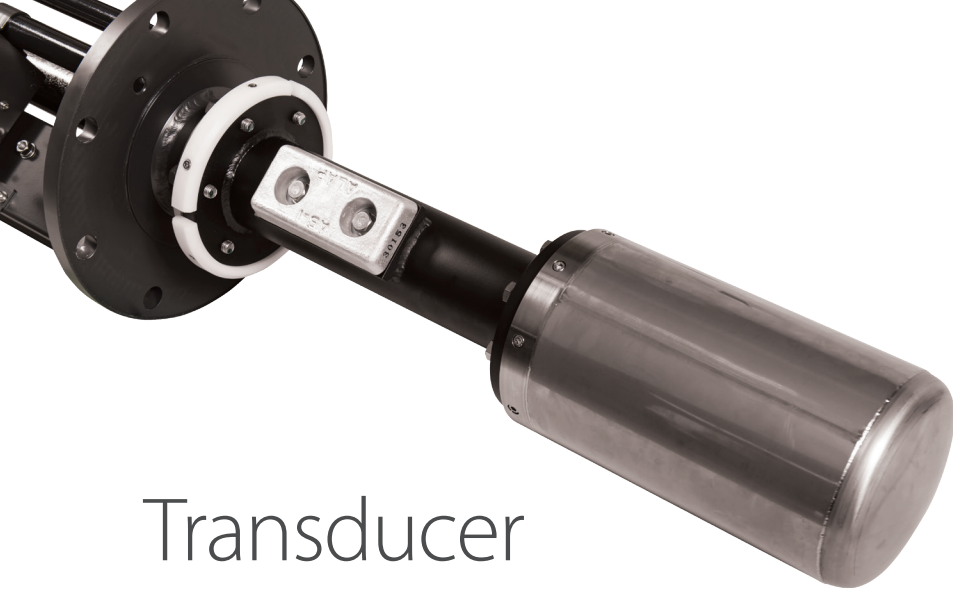
Transducer

The transducer has 512 separately controlled sonic elements for a vertical narrow beam transmission, built inside a powerful and robust stainless steel dome. You can select the setup for clear view of fish school by choosing a wide or narrow beam angle. A narrow beam angle improves identification of school of fishing shallow waters or at sea bed level.

The transducer is auto retractable and keeps the dome safe in case of ship sailing at higher speeds and the emergency breaker switch is conveniently located in the hoist unit. This thought through hull unit makes the dome easily accessible, shockproof and is protected from corrosion, saving maintenance costs and makes it extremely suitable as high end fishing sonar.

Output power

Although the JFS-280 is compact and small in design, features and performance are not seen on this type of sonar before. The high-performance transducer in combination with the pulse width which can be set from 0.4ms to 36ms allows for great discrimination, even when any (schools of) fish are swimming close to each other. It easily spots the seabed and even allows detection of low reflectance fish, such as squid. And with optional speaker the sonar tone will be heard on the bridge allowing immediate action by skipper.
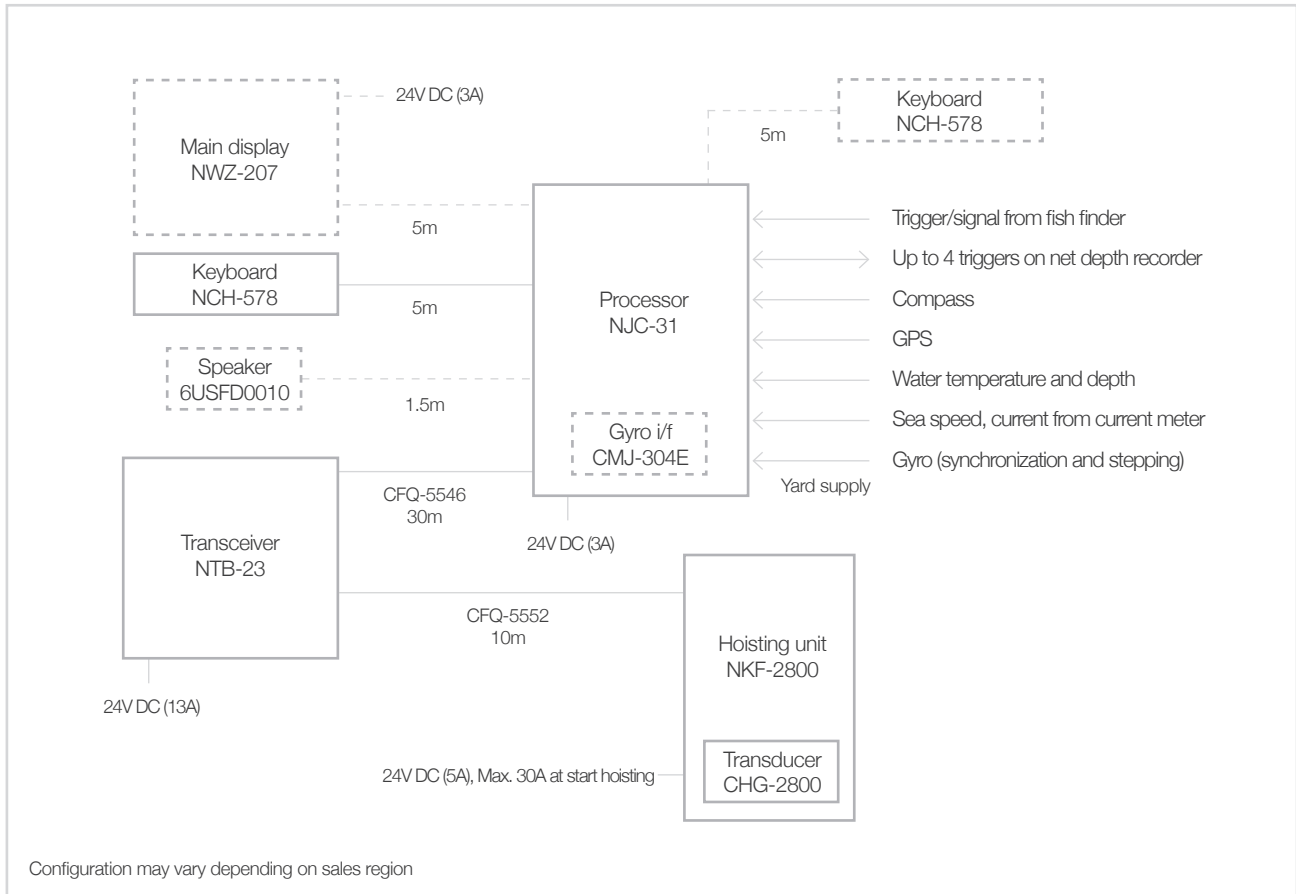
Speaker

Installation

The JFS-280 consists of the hull unit including transducer, transceiver, processor, keyboard and (optional) monitor, allowing for a flexible installation approach in confined spaces. Due to the nature of this black box setup, a second display and keyboard can be connected. The entire system operates on 24V DC, making it suitable especially for smaller fishing vessels that do not have AC power onboard.

Alarms

The JFS-280 incorporates a variety of alarms for angle, distance, area size, level, amount and lost count, contributing to safer navigation and more efficient fishing. The keyboard has a built-in speaker to support the audible alarm.

System diagram

The JFS-280 onmi-directional sonar can be connected to various equipment and sensors onboard a ship. JRC's straighforward configuration assures continuous performance.

Main display
NWZ-207

24V DC (3A)

Keyboard
NCH-578

5m

Keyboard
NCH-578

5m

Processor
NJC-31

5m

Speaker
6USFD0010

1.5m

Gyro i/f
CMJ-304E

Trigger/signal from fish finder
Up to 4 triggers on net depth recorder
Compass
GPS
Water temperature and depth
Sea speed, current from current meter
Gyro (synchronization and stepping)

Yard supply

Transceiver
NTB-23

CFQ-5546
30m

24V DC (3A)

CFQ-5552
10m

Hoisting unit
NKF-2800

24V DC (13A)

24V DC (5A), Max. 30A at start hoisting

Transducer
CHG-2800

Configuration may vary depending on sales region

In the box

- Processor   NJC-31
- Keyboard   NCH-578
- Transceiver   NTB-23
- Hoisting unit   NKF-2800
- Transducer   CHG-2800
- Cable processor to transceiver   CFQ-5546
- Cable transceiver to hoist unit   CFQ-5552
- Spare parts
- Instruction manual

Accessories
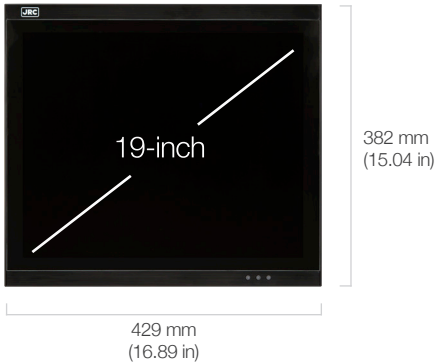
- 19-inch display   NWZ-207
- Desktop frame for NWZ-207   CWB-1594
- Keyboard   NCH-578
- Speaker   6USFD0010
- Gyro interface   CMJ-304E
- Tank   MPBX31141
- AC/DC power supply   GPSA-600-24P-TP
- Extension cable 50m   CFQ-5546-50
- Extension cable 70m   CFQ-5546-70

Tech Specs

Display (option) [RoHS]
NWZ-207 Weight 6 kg (13.22 lbs)

19-inch

382 mm
(15.04 in)

429 mm
(16.89 in)

75 mm
(2.95 in)

1280-by-1024-pixel resolution
2000:1 contrast ratio (typical)
500 cd/m2 max brightness
View angle (H/V) 178°C
5:4 aspect ratio
VGA in, DVI-D in
Power input 21.6 to 31.2V DC (3A)

Keyboard [RoHS]
NCH-578 Weight 1.3 kg (2.87 lbs)

132 mm
(5.20 in)

360 mm
(14.17 in)

59 mm
(2.32 in)

Rotate/push and trackball operation
Dedicated (user defined) buttons
Direction, hoist and title functions
JRC original design
Flush mount installation available
(Forced) power button
Powered via processor

Processor [RoHS]
NJC-31 Weight 11 kg (24.25 lbs)

460 mm
(18.11 in)
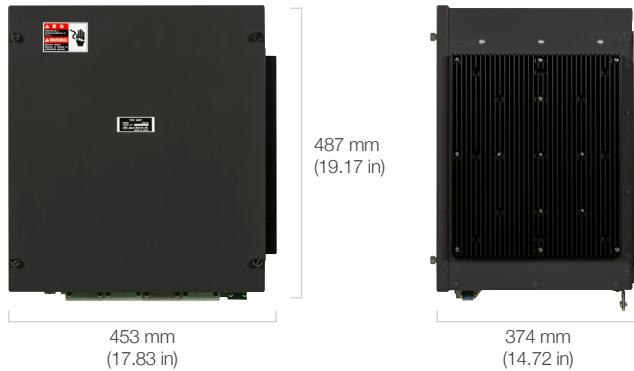
370 mm
(14.57 in)

265 mm
(10.43 in)

Digital signal processor
800 Hz/2W audio output
Display motion: head up/north up
Display mode full screen/off center
16 preset ranges
Sonar range scale 100 to 2000m
Power input 21.6 to 31.2V DC (3A)

Tech Specs

Transceiver [RoHS]

NTB-23 Weight 34 kg (74.96 lbs)

487 mm
(19.17 in)

453 mm
(17.83 in)

374 mm
(14.72 in)

Straight amplifier
Full digital beam method
Average system consumption 0.5 kW
Pulse width 0.4 to 36ms
Tilt angle -5° to 60°
RCG, AGC, TVG supported
Power input 21.6 to 31.2V DC (13A)

Hoisting unit/transducer [RoHS]

NKF-2800/CHG-2800 Weight 110 kg (242.51 lbs)

Transducer element

1625 mm
(63.98 in)
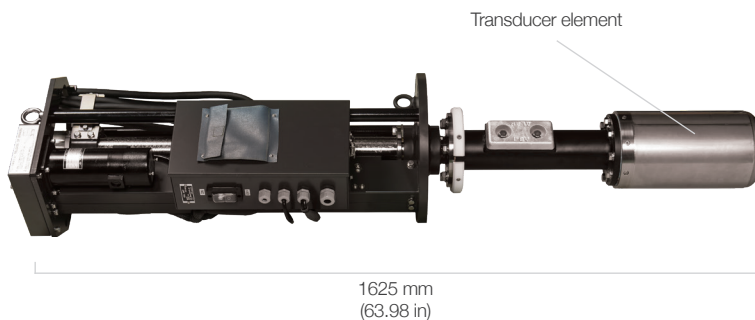
Omni-directional transmission (62kHz)
Max consumption currency 30 A
(when hoisting)
Hoisting 600mm/interval under 20 sec
Max speed 18 knots when hoisting
Power input 21.6 to 31.2V DC (5A)
Max consumption when hoisting: 30A

Speaker (option) [RoHS]

6USFD00010 Weight 400 g (0.88 lbs)

110 mm
(4.33 in)

110 mm
(4.33 in)

58 mm
(2.28 in)

Standard table mount bracket
Flush mount installation possible
JRC original design
Temperature -25 to 55°C
Rated input power 2W
Maximum input power 6W
Impedance 4Ω

www.jrc.am

Centers of Excellence
Houston, Rotterdam, Singapore, Tokyo