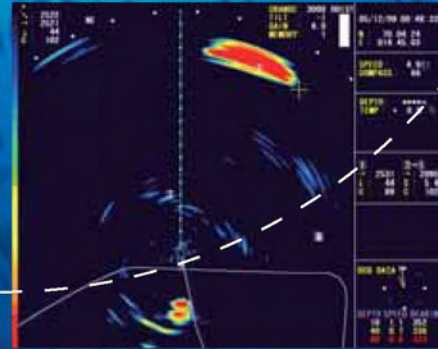
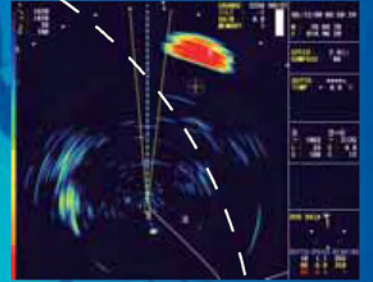
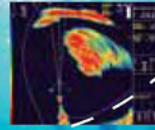
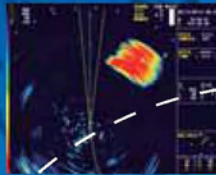
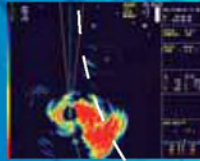
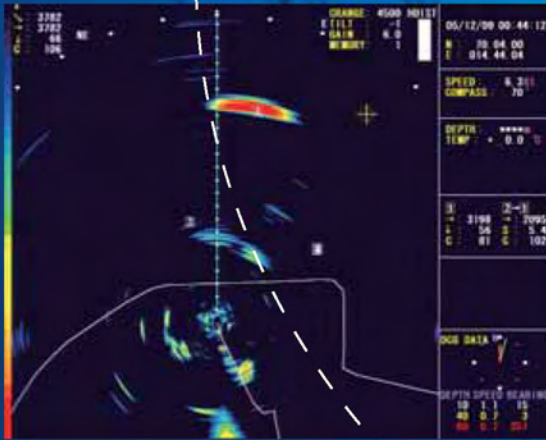


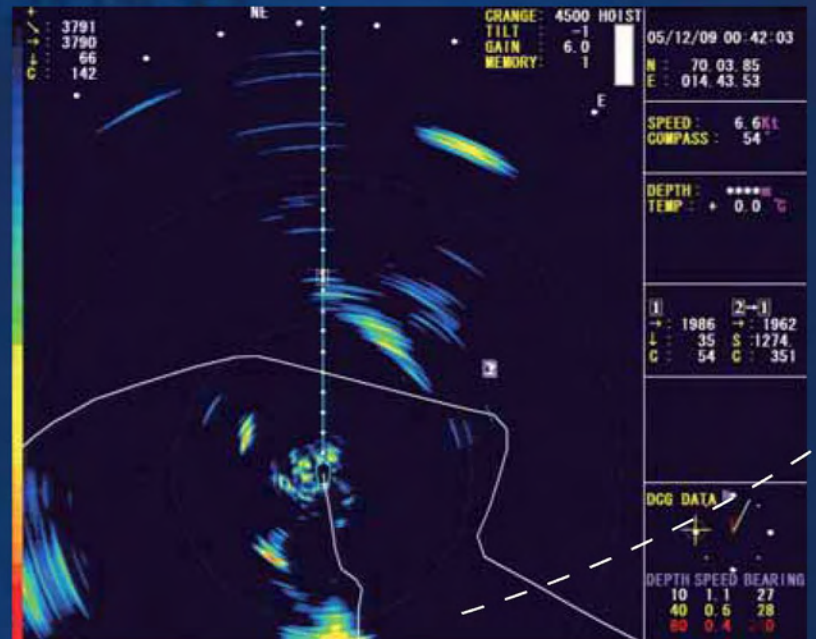
KAIJO



*Super
Scanning
Sonar*

KCS-3220Z

KAIJO SONIC CORPORATION



KCS-3220Z

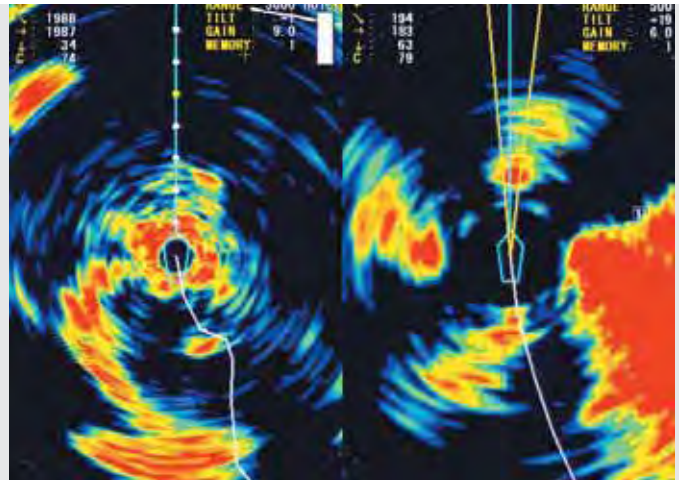
Longer-detection range and advanced functions will satisfy all users!

Power is not the only quality needed to achieve good search results. Integration of all the following features will satisfy professional fishers; real effective power, minimized sidelobe, stability (always heading towards the target), and a precise display of the target. Of course, Kaijo Sonic recognize that user-friendly operation and strength are also essential for maritime equipment.

- ▶ Different display modes can be selected depending on the distance, fish type, and fishing methods.
- ▶ Desired image processing methods can be selected.
- ▶ Unnecessary sidelobe is minimized to the lowest possible level.
- ▶ High speed transmission cycles are compatible with high speed ships and fish.
- ▶ User-friendly miniaturized controller
- ▶ Advanced sectional image
- ▶ Strong, stable hoist unit with guide rings
- ▶ Reliable stainless cover for protecting transducer
- ▶ Advanced TX/RX stabilizing function

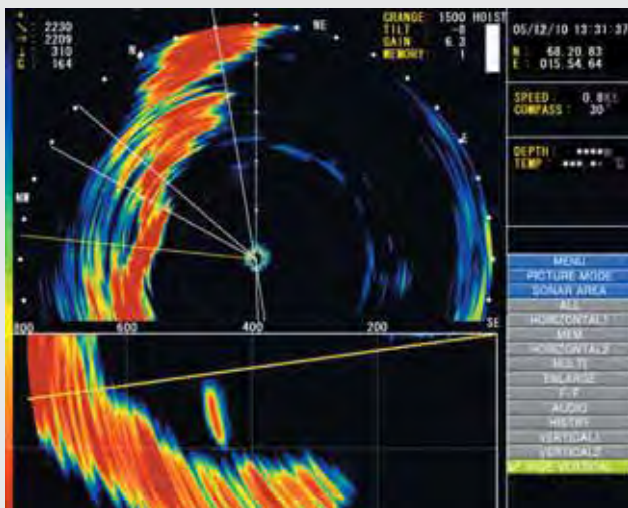
Dual-view sonar

With Kaijo Sonic's Sonar, dual images can be viewed either split horizontally or vertically on screen. Independent parameters can be set for each view, such as distance or speed, or level of image processing.

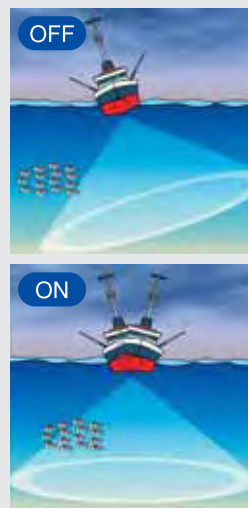


Vertically-split sonar image

Advanced vertical-section image and stabilization function



Vertically-split sonar image



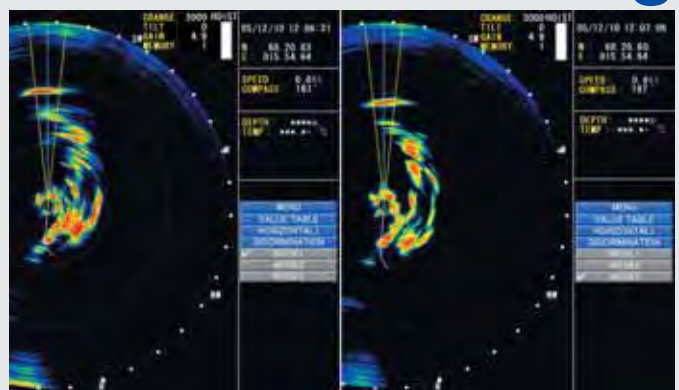
The effect of stabilization

Changing the horizontal to vertical ratio of the sectional image clearly indicates the depth of a fish school. Together with an advanced stabilization function, the device displays no movement even when the ship pitches. The stabilization function controls the depression angle in small 7.5 degree

steps through 360 degrees for both transmission and reception. The processing time between the sensing of boat pitch to the adjustment of the depression angle has been dramatically reduced. The user can view highly.

Optimized Images for easier viewing

Selectable optimized image processing for simplified view for long-distance searches, or easily distinguishable responses for short to mid-range searches.



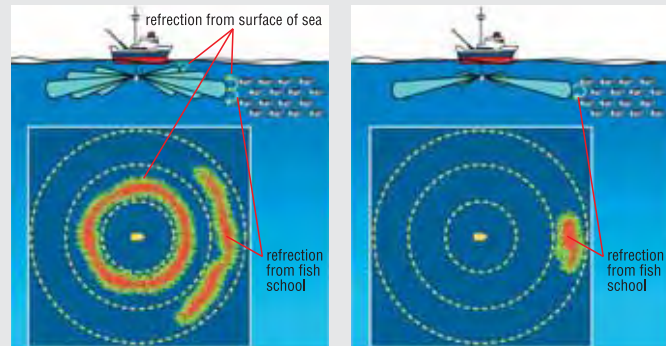
Both images are selectable by users.

High speed transmission cycle

High-speed image updating is essential in following fish movement. The device only takes 0.04 of a second from the last sound reception to the next transmission. A high-speed vessel and the number of sonar transmission cycles are key points in catching up with fish.

Avoid false response from sidelobe

Have you given up with removing false responses from sidelobe on rough sea surfaces or at shallow seabeds? Kaijo Sonic's devices are free from false responses. We guarantee sounds with minimum sidelobe.



The effect of sidelobe

Safe and reliable transducer



Photo of transducer

All Kaijo Sonic HOISTs have a structure with guide rings. Of course, there is less shock when the fulcrum and the transducer are located closely together. We selected guide rings because they were designed to withstand the threats presented by the sea.

Transducers are exposed to shocks in the sea. Kaijo Sonic use a unique transducer covered with stainless steel to protect it from damage.

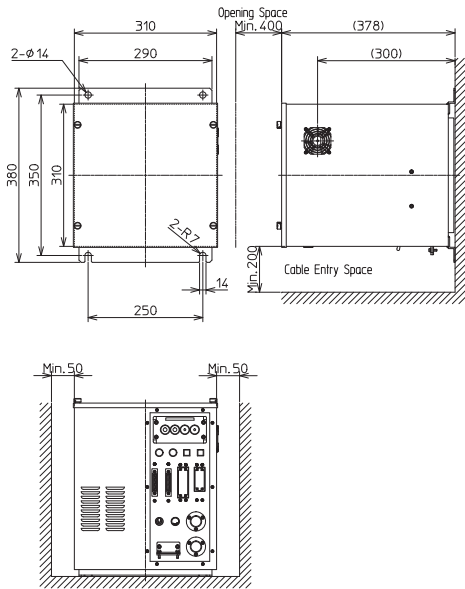
Useful support functions

Display speed and direction of the fish school: Enable more accurate ship control with information on locations, directions, and speeds of target fish school and in relation to the ship.

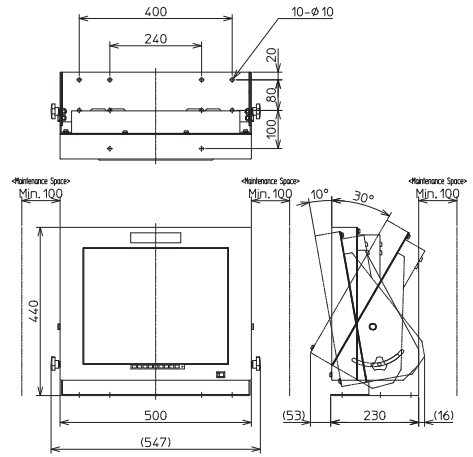
Display Acoustic intensity in graphs: The Acoustic intensity distribution of specified fish school colors is displayed in graphs. These can be used for estimating the volume of a fish school.

Easy recording replay: One touch starts recording images and a user-friendly replay function has been designed. This way fish school information can be conveyed more precisely.

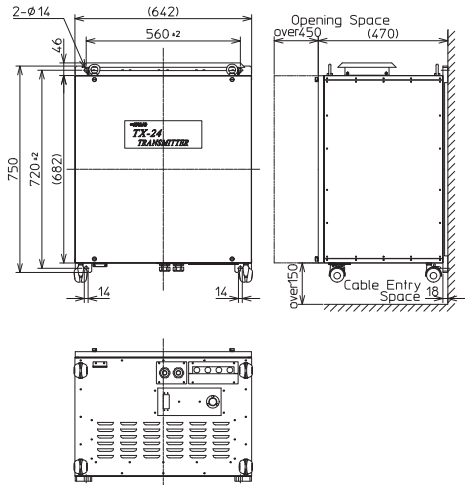
PRC-52 Processor weight/15kg



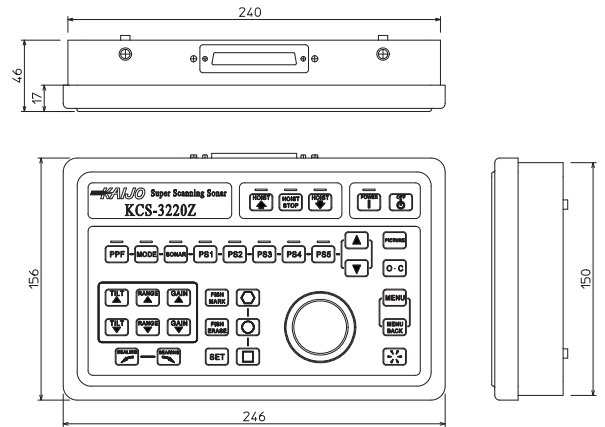
I-129 Display weight/18kg



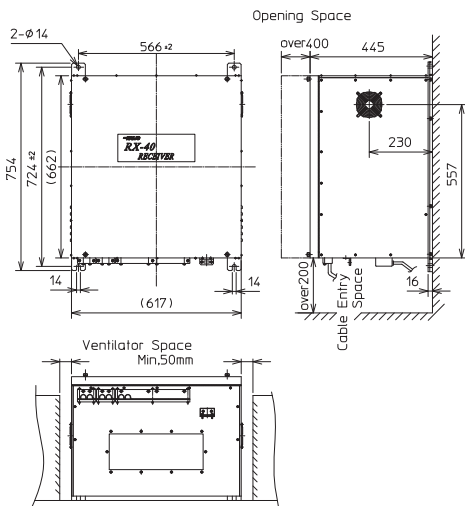
TX-24 Transmitter weight/150kg



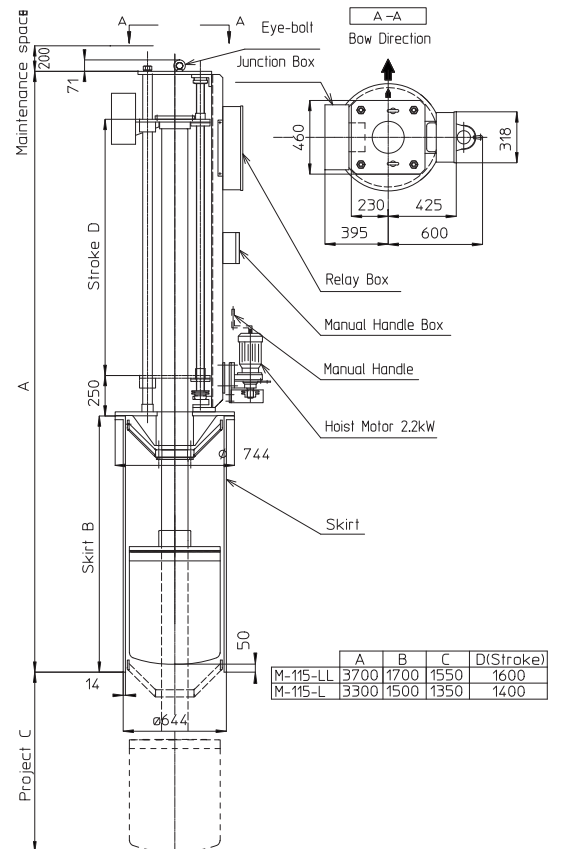
RC-17 Controller weight/1.5kg



RX-40 Receiver weight/90kg



M-115 HOIST weight/770kg (LL)



Specifications of KCS-3220Z

Display section :

PPI image by TFT liquid crystal color display

Display resolution :

SXGA(1280×1024)

Display colors :

Sonar image —32-color display

Character —4-color display

Marker —2-color display

Display modes :

Head-up, north-up, and true motion (*External signals are necessary)

Additional modes :

Stabilization (±20-degree compensation),

off-center (enlarged 1.5 times in a desired direction)

Simultaneous screen modes :

Vertical section screen (1 direction, 2directions, enlarged screen),

sonar 2 directions (lengthwise, crosswise), memory image, audio image,

sonar enlarged screen, multiple screen, fish finder image

Ranges :

Any 10 ranges can be selected out of 200, 250, 300, 400, 500, 600, 700, 800,

900, 1000, 1200, 1400, 1500, 1600, 1800, 2000, 2500, 3000, 4000, and 5000.

The range is enlarged 1.5 times for off-center.

Pulse width :

0.5-120 msec

Listening-sound output :

2W(8Ω)

Receiving method :

Super heterodyne method, real-time beam method, and forming method

Transmission method :

OMNI transmission/Special transmission method

Audio frequency :

750Hz

Tilt angle range :

20° upward-60° degrees downward

Section detection range :

0° -60° downward

Beam (at 3dB) :

Transmission-Horizontal 360° ×60° , Section 12° ×60° ,

Receiving-Horizontal 9° ×9° , Section 10° ×12°

Additional functions :

Interference elimination, signal processing ,clutter, TVG, AGC, memory card, and auto tilt angle functions

Display marks :

Own boat mark, wake mark, cross-line cursor, event mark (max.10 event marks),

north mark, direction mark, cast-net mark, tidal current mark and other marks.

(*Some marks are displayed only when external signals are input.)

External signal input :

NMEA0183 Four inputs available with NMEA 0183,

while Kaijo's devices are connected for 2 inputs.

NMEA0183 Own boat position, boat speed, boat speed bearing, seabed depth,

sea water temperature, and bow bearing

Kaijo's devices : IF-17 and GC-21

Hoist unit stroke :

LL=1500mm, L=1300mm

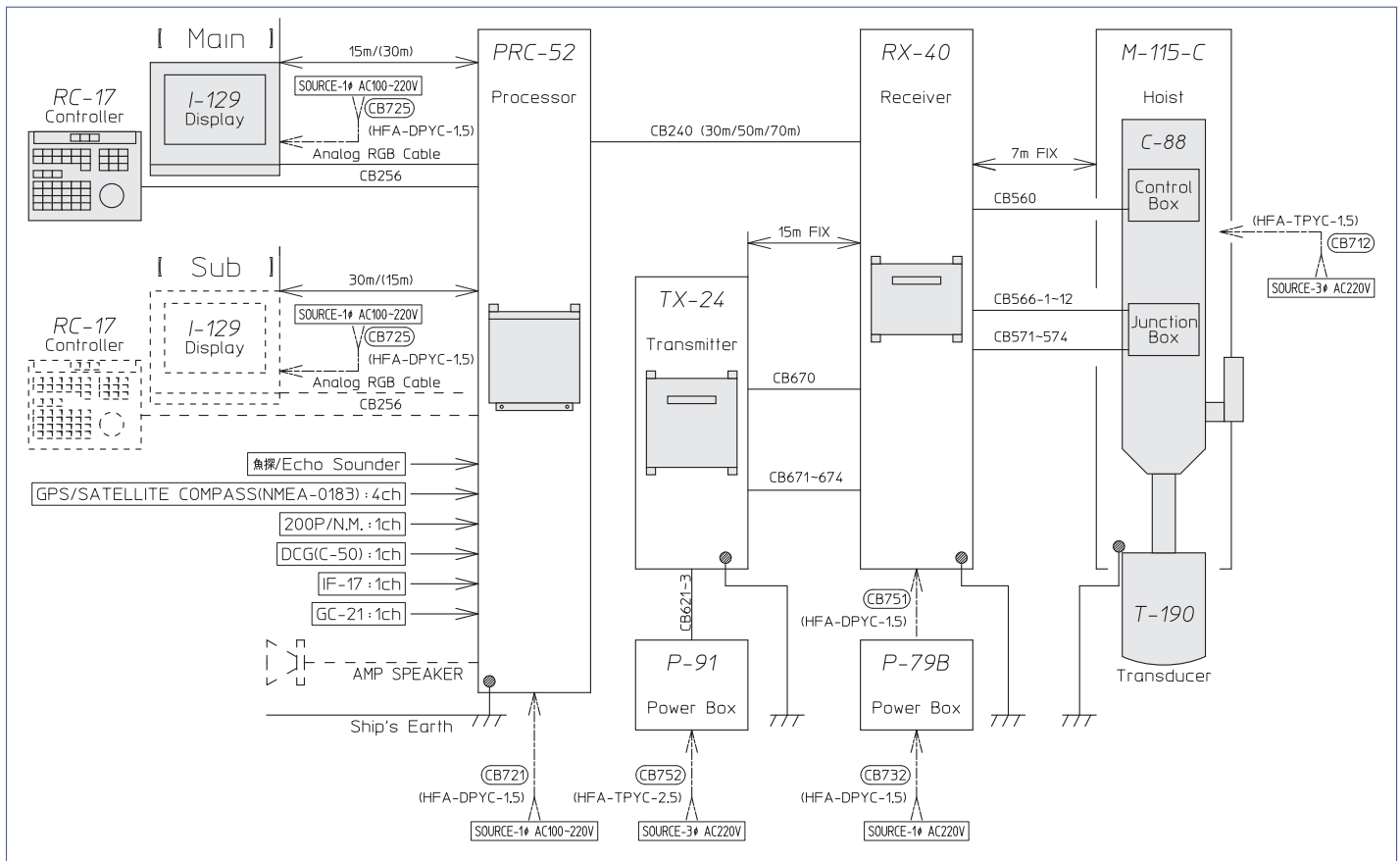
Power supply :

Processing Single-phase 100~200VAC, 50/60 Hz, and 200VA

Receiving Single-phase 220VAC, 50/60 Hz, and 600VA

Sending 3-phase 220VAC, 50/60Hz, and 4000VA

Hoist unit 3-phase 220VAC, 50/60Hz, and 1500VA



SAFETY PRECAUTION: Please be sure to read the Instruction Manual before operating

● Specifications are subject to change without prior notice for improvement.



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