

Digital Sonar

## KDS-5000BB

《DIGITAL》



LCD Monitor (Owner supplied)



Operation unit



Junction Box



Processor unit



Hull unit

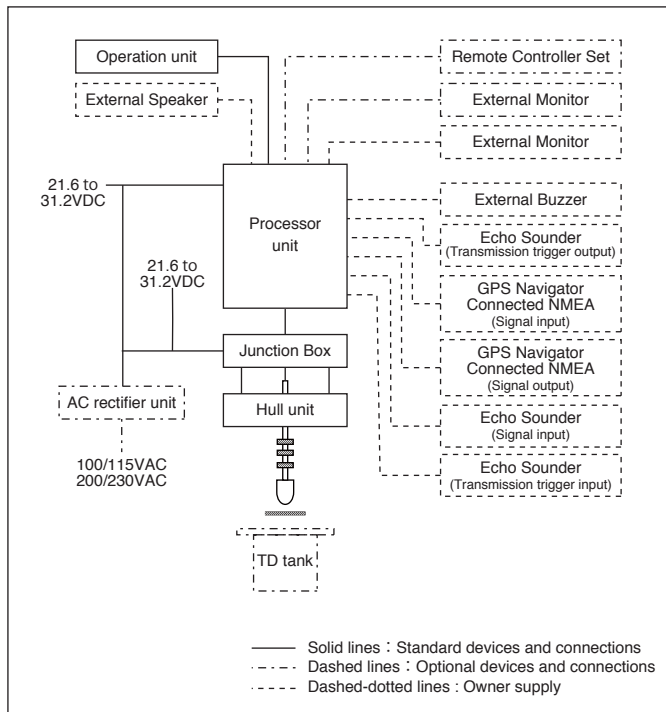
### Features

- ▶ DSP Technology (High Resolution by digital technology)
- ▶ Space Saving Installation
- ▶ Black Box Sonar connect to any XGA type display (Owner supplied)
- ▶ Easy Operation

## SPECIFICATIONS

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----|-----|------|------|------|------|------|------|------|------|--|--|--|--|
| Model                            | KDS-5000BB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Output power (RMS)               | 1.5 kW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Output frequency                 | 180 kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Tilt angle                       | +5° to -90° (1°/step)                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Beam angle                       | 10°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| TD stroke                        | 180 to 380 mm (Recommended value 180 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Display size and type            | Any monitor with XGA resolution (Owner supplied)                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Display resolution               | 1024 x 768 (XGA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Basic ranges                     | 10 to 2000(m), 20 to 6000(ft)                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  | 10 to 2000(fm), 20 to 6000(br)                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  | (8 ranges can be set to useres choice)                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Range units                      | Meters, Feet, Fathoms, Braccia                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Scanning sector angles           | Sonar mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5°step: 5°, 25°, 45°, 85°, 125°, 165°, 205°, 360°     |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10°step: 10°, 30°, 50°, 90°, 130°, 170°, 210°, 360°   |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 15°step: 15°, 45°, 75°, 105°, 135°, 165°, 225°, 360°  |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20°step: 20°, 60°, 100°, 140°, 180°, 220°, 260°, 360° |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  | Bottom scan mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3°step: 3°, 27°, 45°, 63°, 93°, 117°, 147°, 177°      |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5°step: 5°, 25°, 45°, 65°, 95°, 115°, 145°, 175°      |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| 360° Scanning time               | Scanning range (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 20                                                    | 40  | 60  | 80   | 100  | 120  | 160  | 180  | 200  | 240  | 400  |  |  |  |  |
| (extracts)                       | Scanning time (sec.) 5° step                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.7                                                   | 7.6 | 9.5 | 11.4 | 13.3 | 15.3 | 19.1 | 21.0 | 23.0 | 26.8 | 42.2 |  |  |  |  |
|                                  | Scanning time (sec.) 10° step                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4.1                                                   | 5.0 | 6.0 | 7.0  | 8.0  | 8.9  | 10.8 | 11.8 | 12.7 | 14.7 | 22.3 |  |  |  |  |
|                                  | Scanning time (sec.) 15° step                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3.5                                                   | 4.1 | 4.8 | 5.4  | 6.1  | 6.7  | 8.0  | 8.6  | 9.3  | 10.6 | 15.7 |  |  |  |  |
|                                  | Scanning time (sec.) 20° step                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3.2                                                   | 3.7 | 4.2 | 4.6  | 5.1  | 5.6  | 6.6  | 7.1  | 7.5  | 8.5  | 12.3 |  |  |  |  |
| Bearing center                   | every 5°step selectable                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Presentation modes               | Sonar mode, Off-center mode, Off-center on the whole screen, Bottom scan mode, Sounder Mode                                                                                                                                                                                                                                                                                                                                                                                                  |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Data display                     | Sector center angle, Tilt angle, Tilt angle indicator, Ring marker, Cross Cursor Compass (option), Navigation (option)                                                                                                                                                                                                                                                                                                                                                                       |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Off-Center                       | Fore, Back, Left, Right                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Target lock                      | Reverse, Horizontal, Horizontal + vertical, Marker + Horizontal                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Presentation colors              | 8/16 colors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Functions                        | Train correct, Power rejection, Gain adjust, Temperature adjust, Pulse width control, TVG change, Target lock, Color change (4 types + 2 types of color palette settings), Dynamic range, Interference rejection, Color rejection, Filter (OFF/1/2), Gain control, Far gain control, External trigger synchronization, Trigger signal output, Hoist sensor lamp, Audio (optional speaker required), Transducer unit automatic retract (Navigator connect required), Full-screen gain control |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Language                         | English, Japanese                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Input data format and sentences  | NMEA183 Ver.2.0 / 1.5<br>GGA, GLL, HDG, HDM, HDT, VTG                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Output data format and sentences | NMEA183 Ver.2.0 / 1.5<br>DBT, MTW, TLL                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| NMEA ports                       | Total 1 : input / output                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Power supply                     | Processor unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 21.6 to 31.2 VDC                                      |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  | Hull unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 21.6 to 31.2 VDC                                      |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Power consumption                | Processor unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 70 W or less ( 24 VDC)                                |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
|                                  | Hull unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 70 W or less ( 24 VDC)                                |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Operating temperature            | -15 °C to + 55 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |
| Water protection                 | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                       |     |     |      |      |      |      |      |      |      |      |  |  |  |  |

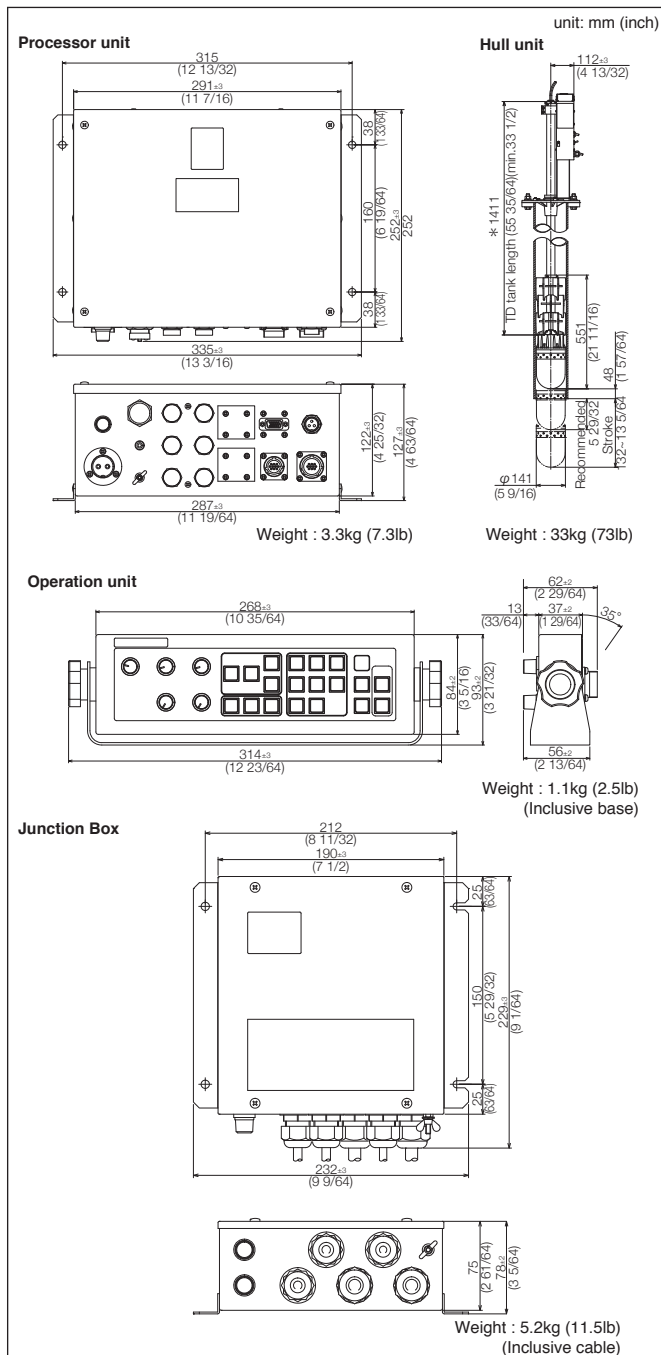
## CONNECTIONS



## EQUIPMENT LIST

|                    |                                                                                                                                                                                                        |   |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Standard equipment | Processor unit                                                                                                                                                                                         | 1 |
|                    | Operation unit                                                                                                                                                                                         | 1 |
|                    | Hull unit                                                                                                                                                                                              | 1 |
|                    | Junction box                                                                                                                                                                                           | 1 |
|                    | Accessories for Processor unit                                                                                                                                                                         | 1 |
|                    | Installation materials for Hull unit                                                                                                                                                                   | 1 |
|                    | Accessories for Junction box                                                                                                                                                                           | 1 |
|                    | DC power cable                                                                                                                                                                                         | 1 |
|                    | Communication cable                                                                                                                                                                                    | 1 |
|                    | Operation manual                                                                                                                                                                                       | 1 |
| Options            | Remote Controller Set, XGA Connect Cable Assy, Trigger Output Cable, Junction Box Mounting Kit, TD tank, TD shaft, Shaft guides, Shaft guides with adjuster, Grease, AC rectifier unit, AC power cable |   |

## DIMENSIONS AND WEIGHT



• Design and specifications are subject to change without notice.



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To ensure proper and safe use of the equipment, please carefully read and follow the instructions in the Operation Manual.

For details, please contact: