

POWER BRIDGE



Installation & Operating description (1-5)

Monterings & Bruksanvisning (6-10)

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SILVA POWER BRIDGE is part of an unique instrument system offering a variety of possibilities, basically designed for power boats. To enable you to get the most out of your instrument we have produced this manual which we ask you to read carefully.

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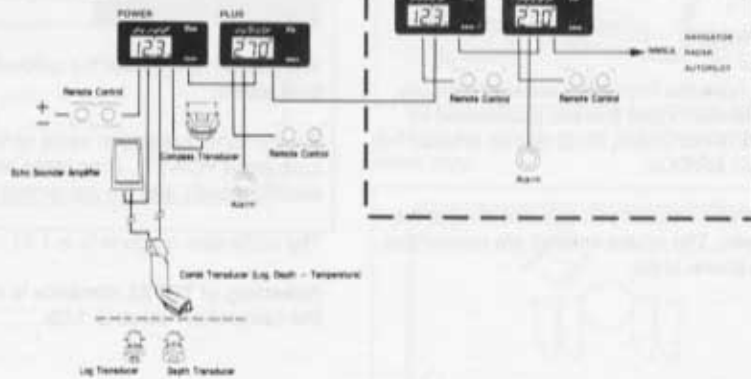
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1. General

POWER BRIDGE is functionally identical to the main instrument POWER and works as a repeater for all basic functions at an alternative steering position, e.g. the fly-bridge. In order to use the BRIDGE instrument you need the main instrument POWER with transducers.

Note! The instrument must be calibrated for your boat. Read the instructions in chapter 3 and then calibrate.

Connection diagram for SILVA POWER



2. How to use the POWER BRIDGE Instrument.

2.1. Choice of functions

POWER BRIDGE offers the following functions:

- SPEED
- TRIP
- TOTAL DISTANCE
- DEPTH/T (temperature)
- HEADING (compass)

depending on which transducers are connected to the main instrument POWER.



The selected function is indicated by the arrow at the upper edge of the display. The arrow is moved either to the right or the left by pressing the buttons (to the right use the right button, to the left use the left button). Secondary functions (chapter 2.2 functions) are obtained by pressing both buttons simultaneously when the arrow is in the selected position.

2.2. Functions

Please consult your SILVA POWER manual!

3. Calibration

In order to have the instrument working correctly, the log calibration value that you established for your POWER instrument, must also be entered into the POWER BRIDGE.

In the calibration routine you can also choose the unit for speed. The values entered are memorized, even if the power is cut.

3.1. Choice of speed unit and log calibration.

The calibration consists of 2 steps. Both steps must be run through, in order to revert to normal operation.

To advance press both buttons simultaneously.

START! Press the right or left button until "LIT" shows on the display. Press both buttons simultaneously until "CAL" is shown on the display. When releasing the buttons, the function arrow will be placed on **SPEED**.

1. Choice of speed unit



u0 = knots
u1 = km/h
u2 = miles/h

The display now shows choice of speed unit.

To change, press the right or left button until the desired speed unit is displayed.

Then press both buttons simultaneously.

2. Choice of calibration value.

Example:



The display now shows the calibration value for boat speed.

Set the same calibration value as for the main instrument POWER. Then press both buttons simultaneously and the instrument is ready for use.

The calibration range in % is 1,01 - 1,99.

Resetting of TOTAL distance is made by setting the calibration value to 1,00.

4. Part specification

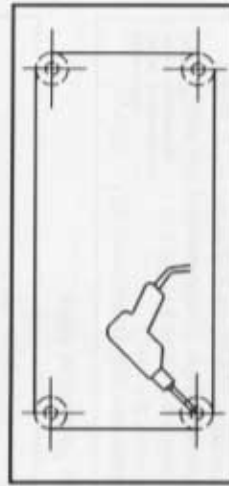
The SILVA POWER BRIDGE instrument comes with all necessary fitting and attachments for most installations. Check each part prior to installation.

- 1 Operating Manual
- 1 Instrument
- 1 Gasket
- 1 Instrument cable 8 m (26,2 ft)
- 1 Template
- 4 Nuts (m5)
- 1 Backplate
- 1 Cover plug
- 4 Nutcovers

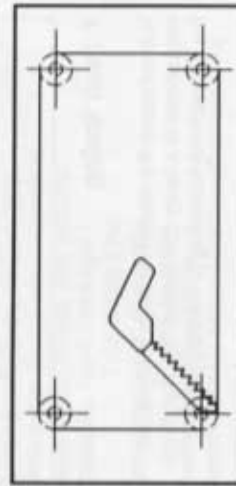
5. Installing the instrument

The instrument must be mounted on a smooth surface.

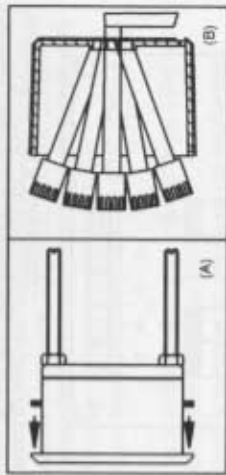
1. Use the template supplied with the operating manual. Attach it to the desired location, use a 4 mm (5/32") drill and then a 10 mm (3/8") drill.



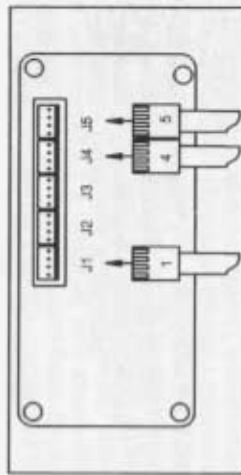
2. Saw along the dotted line (use blade for fibre-glass/porcelain/ceramics of type AEG k 50 fine). Note! Do not saw outside the dotted line!



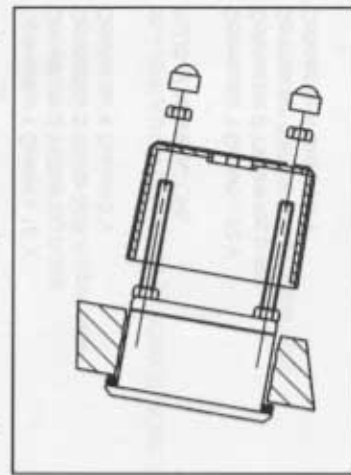
3. Mount the gasket over the instrument. (A) Pass the cables through the backplate. (B)



4. Connect the cables to the instrument according to chapter 6.



5. Mount the instrument and fix the backplate with the nuts supplied (be sure that the slots in the backplate are downwards). Press on the nut caps.

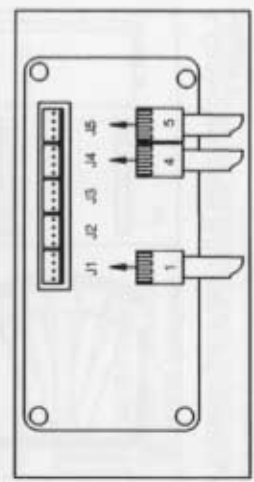


6. Move the cables aside and press on the red cover plug.



6. Connection diagram/contacts.

The instrument has 5 contacts marked J1 - J5. Each contact has 4 connectors.



J1 = Remote Control (optional, see separate diagram)

Connector 1 Green + 12 V (not used)

Connector 2 Yellow remote control down/left

Connector 3 White remote control up/right

Connector 4 Brown 0 V

J2 = not in use

J3 = not in use

J4 = NMEA 0183 data input (from POWER or POWER PLUS)

Connector 1 Green + 12 V

Connector 2 Yellow log pulse

Connector 3 White NMEA input data

Connector 4 Brown 0 V

J5 = NMEA 0183 output data (to POWER, POWER PLUS or NAVIGATOR).

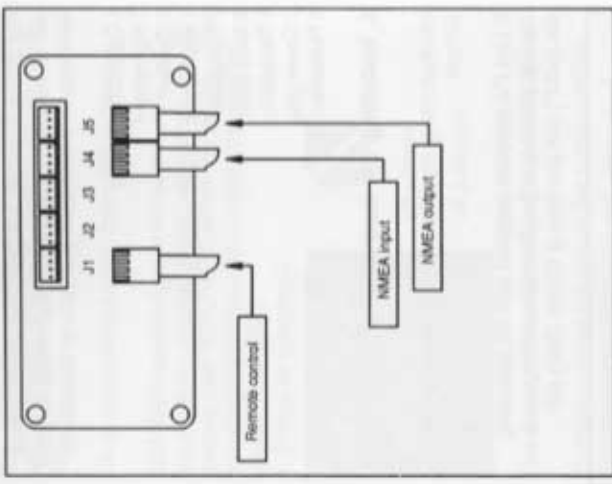
Connector 1 Green + 12 V

Connector 2 Yellow log pulse

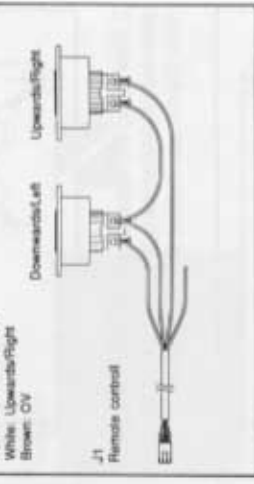
Connector 3 White NMEA output data

Connector 4 Brown 0 V

Connection diagram



Green: +12V
Yellow: Downwards/Left
White: Upwards/Right
Brown: 0V



7. Fault finding

In most cases the reason for faults in electronic instruments is a faulty connection. So, first check the connections according to the diagram.

Also check:

- Sufficient battery voltage
- Cables for damage
- Faulty contact in connectors
- The fuse is not blown and is of the right type
- The transducers are correctly installed.

Automatic fault finding is indicated each time the instrument is switched on and is shown on the display.

E04 = The instrument can not store data after loss of power.

E02 = Memory error

— = Data not transmitted by POWER.

Erd = Unreadable, erroneous data or no data.

Lo = Battery voltage 10v or lower.

8. Options

The following items can be supplied as optional extras:

Data cable from SILVA POWER to navigators etc art.no. 19962

POWER Remote Control art.no. 20266

Other instruments in the Power series:

POWER art.no. 20107

POWER PLUS art.no. 20108

POWER NAVIGATE art.no. 20111

9. Technical data

Dimensions of instrument: 62,5 x 125 mm (2 15/32" x 4 15/16")

Instrument cable 8 m (26,2 ft)

Power supply: 12v DC (10-18v) The instrument is protected against mis-connection of the battery connection.

Current consumption: 8 mA (with illumination 25 mA)

Temperature range: Operation -10° - +70°C.

Storage: -30° - +80°C.

Units speed: Knots, km/h, miles/h

Units temp: Centigrades, Fahrenheit

Units depth: metres, feet, fathoms

Distance: Trip 0 - 99,9 Nm
Total 99999,9 Nm

Damping: Speed, three steps

Course, six steps

Calibration: Speed 100%

Accuracy: ±1% after calibration with transducers correctly fitted.

Data output: NMEA 0183

Data format 8 data bits (D07=0) no parity 2 stop bits source 20 mA.

NMEA 0183 record

Depth in metres: \$XXDBT,...0000.0M,..(CR)(LF)

Depth in feet: \$XXDBT,0000.0f,...(CR)(LF)

Depth in fathoms: \$XXDBT,.....000.0F(CR)(LF)

Vector: \$XXVHW,000.T,000.M,00.00.N,..(CR)(LF)

Heading: \$XXHDM,XXX,M,(CR)(LF)

Water temperature: \$XXMTW,..00.C,(CR)(LF)

The speed is always sent in knots even if the instrument shows ex. km/h.

Depth is registered as shown by the instrument.

10. Warranty

SILVA Sweden AB gives a two year warranty against manufacturing faults or faulty components. A purchasing receipt must be shown if a warranty claim is made. The warranty does not apply to damage caused by careless handling, faulty installation nor for damage caused by not fusing the instrument according to the instructions. The warranty does not apply to secondary damage caused by faults in instruments or transducers. The right to change the specification is reserved by the manufacturer.