NEXUS

OPERATING MANUAL

Operating Manual • NEXUS Depth

CONTENTS:

1. INTRODUCTION

To enable you to get the most out of your instrument, we have produced this manual which we ask you to read carefully.

The NEXUS Depth is an echo sounder for both power and sailing boats.
The NEXUS Depth can at any time be upgraded by connecting it to a NEXUS Network.

2. FUNCTIONS GENERAL

Logical handling

The instrument is easy to understand and operate. Identical page operation makes the choice of functions easy to learn.

The upper part of the display will show the actual depth (size 24.4 mm). Below in slightly smaller digits, (size 13.6 mm) a number of useful alarm functions (sub-functions) are provided. The arrow at the upper part of the display indicates which alarm is selected.

2.1. HOW TO USE THE 4 BUTTONS

1. How to use in normal "VIEW" mode.

LCD ARROW: Indicates selected alarm

Main function

Sub function

Long press on **PAGE** gives access to the **LIGHT SWITCH,** light levels are **MAX - MID - LOW** or **OFF**

DOWN: - "Pull down", next function from main group

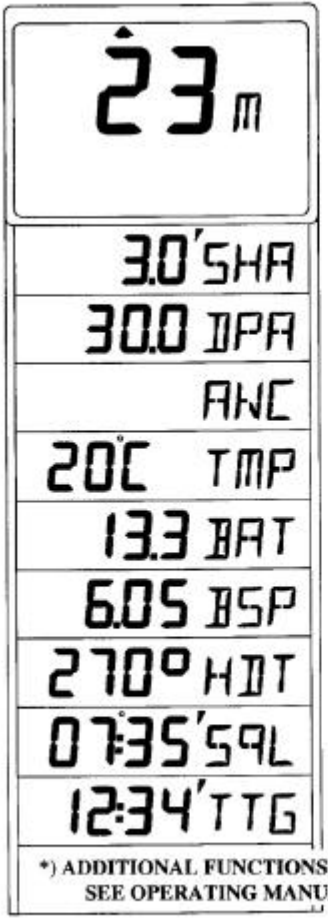
UP: +"Pull up" previous from main group

KEY: "Unlock", change or clear value, then "lock"

To clear and reset a value: Press both **UP** and **DOWN** (Middle) buttons simultaniously
Long press on **KEY** entries to the **ADJUST** and **CALIBRATION** functions

2. How to use the edit or "UNLOCK" mode

2.2. QUICK GUIDE



Depth

Shallow alarm

Depth alarm

Anchor alarm

***) Sea temperature**

***) Battery status**

***) Boat speed**

***) Compass heading**

***) Local time UTC**

***) Estimated time to go TTG**

***) ADDITIONAL FUNCTIONS ONLY AVAILABLE WITH NEXUS NETWORK, SEE OPERATING MANUAL FOR MULTI CONTROL AND SERVER.**

3. DEPTH FUNCTIONS

Will always show actual DEPTH in m, ft or fathoms from the keel or the water surface (selectable units/calibration, see 6. Calibration Depth).

"SPACE" (See chapter 5).

Activates if the actual depth becomes less than the set limit. (See 3.1. How to set SHALLOW, DEPTH and ANCHOR alarms). The LCD arrow will indicate the alarm function selected.

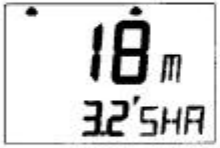
Activates if the actual depth becomes more than the set limit. (See 3.1. How to set SHALLOW, DEPTH and ANCHOR alarms). The LCD arrow will indicate the alarm function selected.

Activates the SHALLOW and DEPTH ALARMS. You may alter the proposed values immediately when used. (See 3.1. How to set SHALLOW, DEPTH and ANCHOR alarms). The LCD arrow will indicate the alarm function selected.

3.1 HOW TO SET SHALLOW, DEPTH AND ANCHOR ALARMS

1. Select SHALLOWALARM/DEPTH ALARM

Press the **KEY** button, the first figure of the previous value will flash. Select an alarm value and adjusted it with the **LEFT** button **(i.e. PAGE/ CURSOR)**. Press the KEY button and your alarm is activated.



The **LCD** arrow indicates **ALARM ON** and status for **SHALLOW** and **DEPTH.** The small segment (i.e. minute sign) close to the right corner of the value will be lit when activated.

2. Select ANCHOR ALARM

Press the **KEY** button.

A suggested **SHALLOW ALARM** is automatically displayed, i.e. present DEPTH -1.5 m.

Adjust the alarm value or confirm with the **KEY** button. A suggested **DEPTH ALARM** is automatically displayed, i.e. present depth +1.5 m. Adjust the alarm value or confirm with the **KEY** button. If the depth goes beyond the programmed limits, an alarm will sound.

3. How to CLEAR an alarm value.

Select **SHALLOW** or **DEPTH** alarm. Press the **KEY** button and then press **CLEAR** (both buttons simultaneously).

4. How to activate and disconnect the alarm.

Select **SHALLOW** or **DEPTH** alarm. Press **CLEAR** (both buttons simultaneously) to turn **ON/ OFF** (i.e. the small segment flag **ON/OFF**).

5. How to TURN OFF the alarm

Press **any button** and the alarm will stop.

4. ILLUMINATION

The instrument has a red back lighting, selectable at three levels. Long press on **LEFT** button (i.e.) will give access to the light switch.

OFF is flashing

Select preferred lighting level **LOW, MID, MAX** and press **KEY** button.

5. HOW TO MOVE A SUB-FUNCTION

Here you can set up your favourite sub-function in the **SPACE** window (see chapter 3.**DEPTH** functions).

Example:
Find the sub-function **SHALLOW** alarm. Press **PAGE** (i.e. left) and **KEY** (i.e. right) simultaneously (**LCD** flashing), press **KEY**. Each time you turn on the instrument, **SHALLOW** alarm is displayed as the default.

Press **CLEAR** (i.e. middle buttons simultaneously) to get back the **"SPACE"** window.

6. CALIBRATION

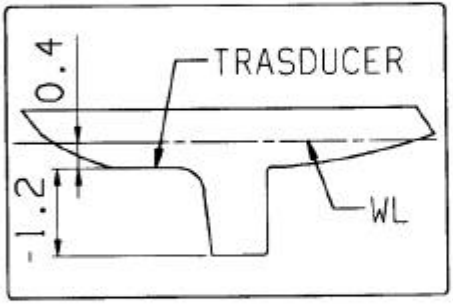
In order to have your instrument functioning correctly, it is important to run through the calibration procedures. Once done, the calibration values are stored in the memory of the instrument even if the power is cut.

To enter the calibration routine, press **KEY > 2** sec. (long press). Use **UP/DOWN** button to select the type of calibration channel. Press **KEY** for return to normal use.

List of CAL-channels:

C20 RET: (Press KEY to return to main when ready)
C21 Unit MTR (metres), Ft (feet) or FA (fathoms)
C22 +/- 00.0 ADJ Adjust transducer level.

This value will be added to the measured depth. If you want to measure from the water surface, for example 00.4 metres. If you want to measure from the keel use **UP/DOWN** to set the first figure segment high (i.e. minus) ex - 01.2 ADJ.



C23 Unit C (centigrade) or F (fahrenheit)
C24 OC TMP: Temperature offset correction

7. PART SPECIFICATION

The Silva NEXUS Speed log comes with all necessary fittings for most installations. Check each part prior to installation.

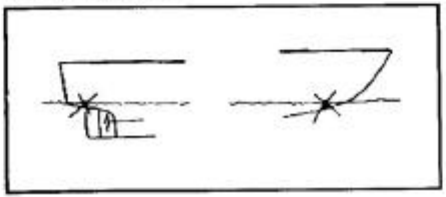
1 # Operating manual
1 # Warranty card
1 # Instrument
1 # Template
1 # Instrument cover
4 # Instrument screws
4 # Rubber screw caps
1 # Connection cover
1 # 4-pole, jack plug
1 # Depth transducer, with 3 m cable
1 # Amplifier box incl. 4 screws
1 # Silicone grease
1 # Instrument cable 8 m
1 # Power cables, Red and Black, 3 m
2 # Cable straps
4 # Extra cable protectors (0.25 mm)

8. INSTALLATION

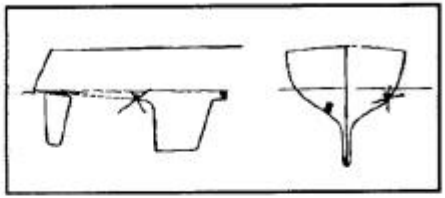
ALWAYS CONNECT BATTERY POWER VIA A SLOW 5 A FUSE OR AUTOFUSE.

8.1. LOCATION OF THE TRANSDUCER

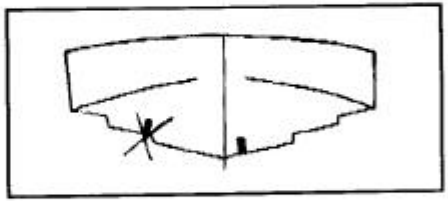
Correct positioning of the depth sounder transducer is of prime importance for the accuracy of the reading. The transducer should be located on an area of the hull that will be under water at all times and free from bubbles or turbulence caused by the keel or the propeller.



Avoid the transducer near the edge of sharp hull chines. Transverse waterflow in these areas may be turbulent which would affect the measurements.



Although the transducer sends out a signal at various angles, the transducer should be installed as vertically as possible. For this reason, a location close to the centreline is preferred.



If you have questions about the location of the transducer, contact your builder, yacht dealer, or other Silva owners with similar boats for advice. Always remember to allow for accessibility from the inside of the yacht when determining the final location!

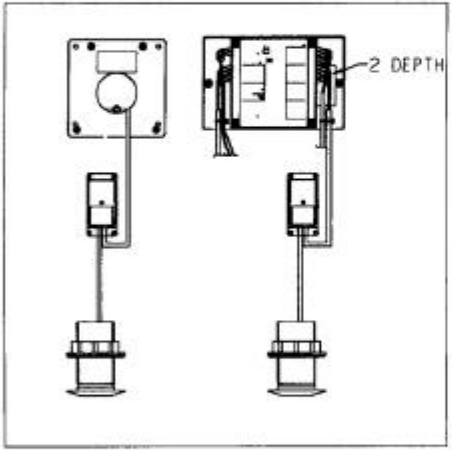
8.2. INSTALLING THE TRANSDUCER

1. Use a 43 mm (1 11/16") hole cutter to cut through the hull. (See section 8.1 for correct location).
2. Apply polyurethane sealing compound on the

outer flange of the transducer and tighten the nut on the inside by hand.
3. When this outer sealant has cured, remove the nut and apply sealant on the inside. Tighten the nut again by hand.

8.3. CONNECTION OF THE AMPLIFIER BOX TO THE INSTRUMENT

The depth transducer connects to the instrument or server if available.



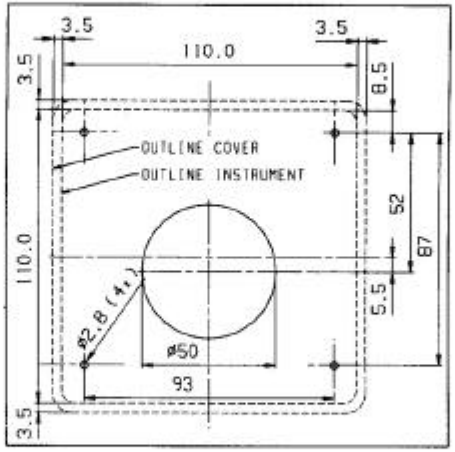
The transducer cable is clearly marked with No 2 and the colours will correspond to the input screw terminal on the Server.
If the 8 m cable between the Server and the amplifier box needs to be cut, use the extra instrument cable protectors supplied. Press the protectors on to each wire with a pair of flat pliers.

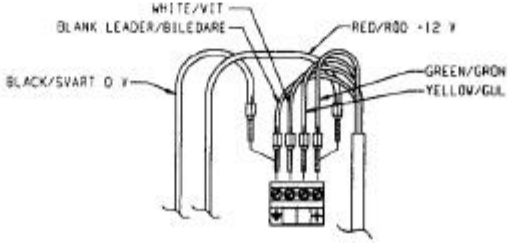
IMPORTANT! DO NOT CUT THE 3 M TRANSDUCER CABLE!.

8.4. INSTALLING THE INSTRUMENT

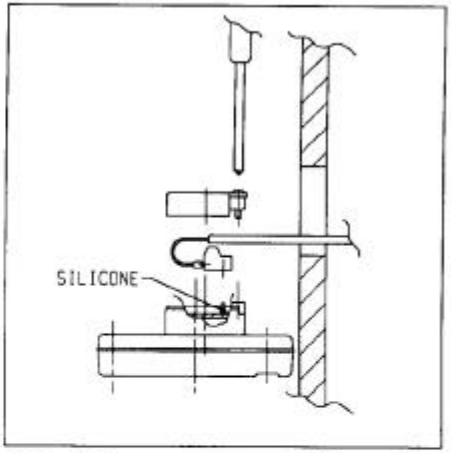
The instrument is front mounted and must be mounted on a smooth surface.

1. Use the template and attach it to the desired location. Drill the holes as indicated.



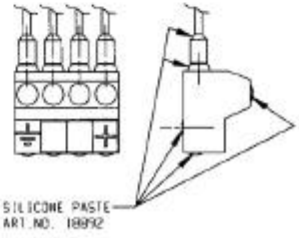


2. Put silicone grease on each contact! Connect to the instrument and screw on the connection cover.



3. Use the 4 instrument screws supplied to attach the instrument on to the bulkhead. Cover the screws with the rubber screw caps.

Use the two cable straps for strapping up the cable installation if necessary.



9. FAULT FINDING

In most cases the reason for faults in electronic instruments is faulty. 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.

If any error messages appears on the display, contact your Silva agent for service.

10. OPTIONS

The following items can be supplied for the NEXUS Network:

NEXUS SPEED Log complete with transducer. Art.no 20445-1.
NEXUS Multi Control + Server (NEXUS Network). Art.no 20445-3.

Repeaters:

Analog Wind.	Art.no 20550-1.
Analog Steer Pilot.	Art.no 20550-2.
Analog Compass.	Art.no 20550-6.
Analog Log (0-16 kts).	Art.no 20550-3.
Analog Log (0-50 kts).	Art.no 20550-4.
Analog Depth (0-200 m).	Art.no 20550-5.
Analog Depth (0-600 ft).	Art.no 20550-7.
Digital Multi Control Repeater.	Art.no 20445-4.

Button for TAC and M.O.B. function. Art.No 19763.

Transducers:

Log/Temp 0-30 kts.	Art.No 20707.
Depth.	Art.No 20711.
Wind.	Art.No 20721.
Compass.	Art.No 20860.

GPS:

GPS COMPASS with bracket. Art.No 20700.
NEXUS Chartplotter System. Art.No 20882.

11. TECHNICAL DATA

Dimensions:	Instrument 110 x 110 mm Amplifier box 140 x 68 x 42 mm (5 1/2 x 2 2/3" x 1 5/8")
Transducer:	42 x 86 mm (1 5/8" x 3 3/8")
Transducer cable:	3 m + 8 m (9.9 ft + 26.2 ft)
Power supply:	12V DC (10-16V)the instument is polarity protected.
Power consumption:	Instrument 0,08 W (with max illumation 0,8 W Transducwer0.12 W
Depth range:	0.8 - 150 m (3 - 450 ft) at speed up to 30 knots.
Accuracy:	± 0.1%
Type of transducer:	Piezocrystal 200 kHz
Temperature range:	Operating -10°C to +70°C Storage -35°Cto- +85°C.
Weight:Instrument:	260 g.

The depth measuring is based on the echos speed in water which is 1,463 m/sec.

12. MAINTENANCE

- Clean the instruments with mild soap solution only! Do not use high-pressure washing equipment!
- It is advisable to remove the instrument during long cold periods.
- Put silicone grease on each contact.
- Always use the instrument cover for protection.
- Check terminals and use wire protectors.

13. WARRANTY

NEXUS gives a two year warranty against manufacturing faults or faulty components. The supplied warranty card together with 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.

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