

Analog

- Instruments -



Installation and Operation Manual English



ANALOG REPEATERS

Introduction

Thank you for choosing an analog NX2 instrument. We are convinced that you will appreciate all the valuable information either you are a cruiser or a racer. It is important that you are following this instruction regarding installation and operation.

The functions of the analog instrument are repeating information from data computed in the NX2 Server. Most analog instruments are just repeating the data and no settings are required. For NX2 Steer Pilot and Trim instrument, the settings are made in the Digital instruments. For how to set these, see the manual for the digital instrument. The NX2 Analog Wind, you may select it to display true or apparent wind angel. That setting is done from a digital instrument (see calibration code C52 in Multi Control Manual).



This manual is written for all NX2 Analog instruments version 2.10 – 2.30
Edition: March 2007

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1 Part specification

Items delivered with the Instrument

Qty.	Description	Reference
1	NX2 Analog instrument	1
1	Instrument cover	2
5	Cable protectors, 0,25 mm (0.1 inch)	8
5	Cable protectors, 0,75 mm (0.3 inch)	8
2	Instrument mounting pin bolts	6
2	Instrument mounting nuts	6
1	Connection back cover	6
1	Silicon paste tube	6
2	Plastic cable strap	6
1	Adhesive drill template for instrument	3
1	Inter-connection cable, 0,4 m (1 ft) with two 4-pole jack plug	7
1	Installation and Operating manual	4
1	Warranty card	5

1.1 Registering this product

Once you have checked that you have all the listed parts, please take time to fill in the warranty document and return it to your national distributor.

By returning the warranty card, it will assist your distributor to give you prompt and expert attention. Keep your proof of purchase. Also, your details are added to our customer database so that you automatically receive new product catalogues when they are released.

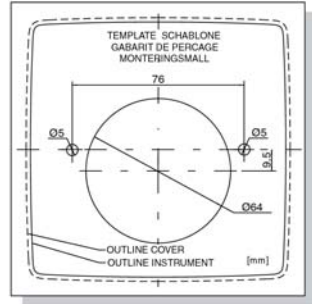
Warranty conditions see chapter 8



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File id:

WARRANTY CARD
TO BE RETURNED TO YOUR NATIONAL DISTRIBUTOR

OWNER:
Name: _____
Street: _____
City/Zip Code: _____
Country: _____

Product name: _____ **Serial number:** _____

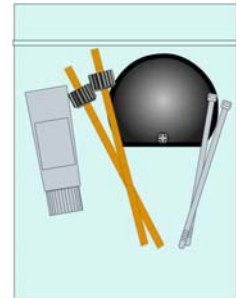
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Date of purchase: _____ Date installed: _____

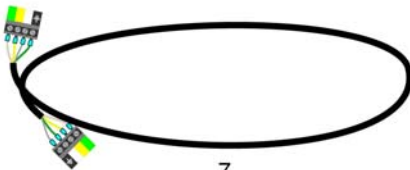
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☐ here if you do not wish to receive news about future products

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Welcome aboard the Nexus Network!

Thank you for choosing NX2 and welcome to the world of the Nexus Network.

Through this manual we would like to help you install, operate and understand your new Nexus Network.

The Server is the "heart" of your Nexus Network, to which transducers for speed, depth, heading, wind and navigation (GPS) are connected.

From the Server the single Nexus Network cable transmits power and data to the instruments, which repeat the information sent from the Server, or other Nexus transducers.

The Nexus Network is designed with the industry standard RS 485 databus, which allows you to connect up to 32 Nexus instrument units on the single Nexus Network cable, thereby allowing you the flexibility to easily develop your system. The Nexus Network is capable of carrying data 10 times faster than NMEA 0183.

The connection system, with a single 5 mm (1/5") cable and 4-pole jack plugs with cable protectors, makes the installation easy. No need to drill big holes and the cable can be cut to exact lengths. The connections at the Server are colour coded and marked with a number for easy reference.

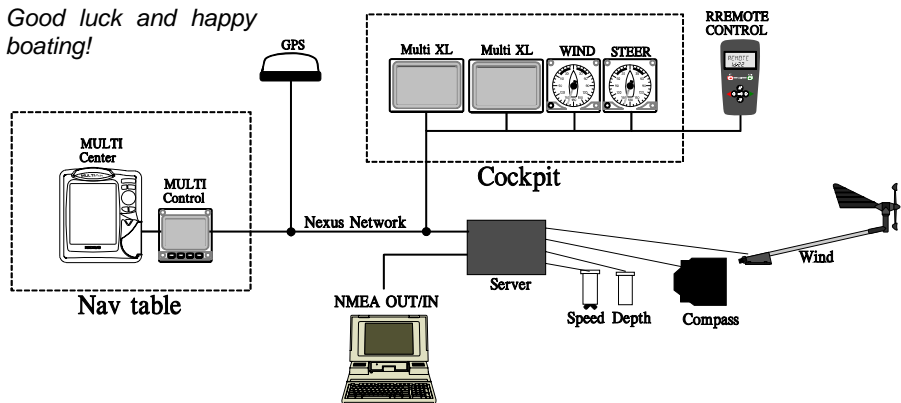
A large selection of optional analogue repeaters and accessories are available. The analogue steer pilot instrument particularly offers unique functions. When used together with the steer reference function (AWA), you can actually steer after the wind and "expand" the tacking or down wind angle.

These Nexus instruments carry a two year warranty, which gives you as our customer, confidence to trust Nexus and our commitment to quality.

To get the most out of your new Nexus product, please read through this manual carefully before you start your installation.

Again, thank you for choosing Nexus. If you see us at a show, stop by and say hello.

Good luck and happy boating!



2 Installation

- **The installation includes 6 major steps:**

1. Read the installation and operation manual.
2. Plan where to install the transducers and instruments.
3. Run the cables.
4. Install the transducers and instruments.
5. Take a break and admire your installation.
6. Learn the functions and calibrate your system.

Before you begin drilling ... think about how you can make the installation as neat and simple as your boat will allow. Plan where to position the transducers, Server and instruments. Think about leaving space for additional instruments in the future.

- **A few "do nots" you should consider:**

- Do not cut the cables too short. Allow extra cable length at the Server so it can be disconnected for inspection without having to disconnect all attached cables.
- Do not place sealant behind the display. The instrument gasket eliminates the need for sealant.
- Do not run cables in the bilge, where water can appear.
- Do not run cables close to fluorescent light sources, engine or radio transmitting equipment to avoid electrical disturbances.
- Do not rush, take your time. A neat installation is easy to do.



- **The following material is needed:**

Wire cutters and strippers.

Small flat head screw driver.

Hole saw for the instrument clearance hole 63 mm (2½").

5 mm (1/4") drill for the mounting holes.

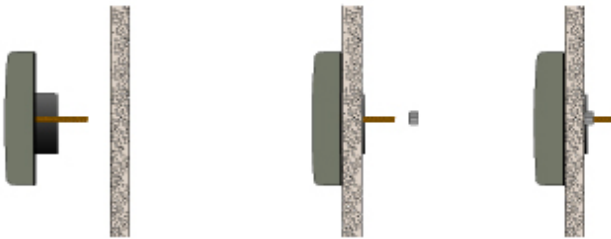
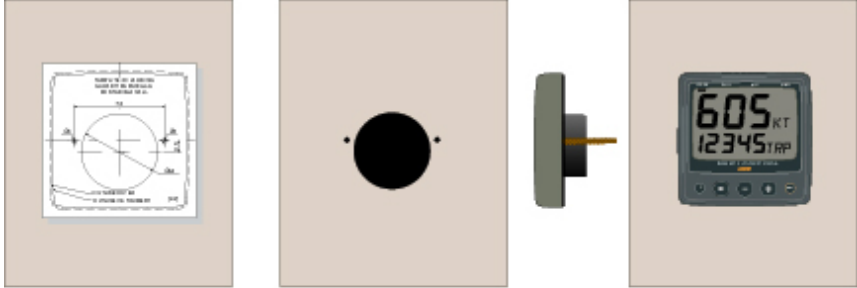
Plastic cable ties

If you are doubtful about the installation, obtain the services of an experienced technician.

If the Network cable is too short, you can use the extra Network cable 8m (Art.no. 21266-8) or you can use spare cable from your installation.

2.1 Installing the instrument

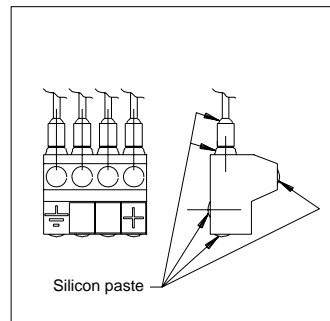
- Place the adhesive drill template on the desired location for the instrument. Drill the 2 holes using a 5 mm ($\frac{1}{4}$ ") drill for the two pin bolts. Use a 63 mm ($2\frac{1}{2}$ ") hole saw to machine the clearance hole for the instrument connection socket. Remove the template.



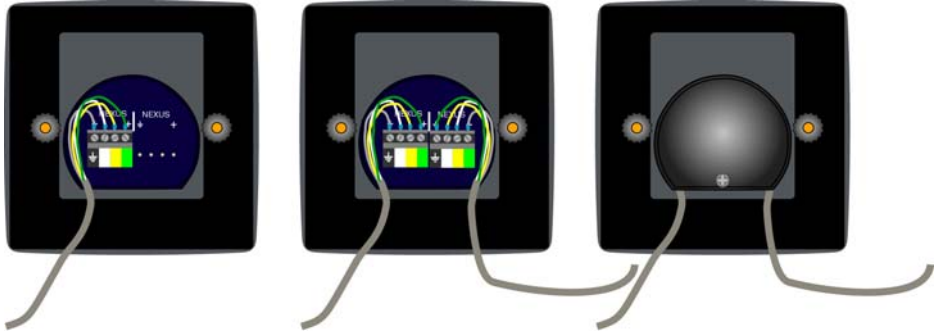
- Screw the two pinbolts to the instrument
- Put the instrument in place
- Screw the two nuts from the back

Note! The two nuts must just be tighten by hand

- Run the Nexus Network cable from the Server to the instrument.
- If you want to cut the Nexus Network cable to length, disconnect 4-pole jack plug and cut the cable. Peel off about 35 mm (1,4") of the cable insulation. Remove about 6 mm ($\frac{1}{4}$ ") from the 3 isolated wires (the 4th wire is an earth / screen). Attach the 4 cable protectors to the wires using a pair of flat pliers.
- Connect the 4 cable protectors to the 4-pole jack plug as shown. Apply silicon paste on all locations as shown.



Note: Must be done to avoid corrosion.



- Apply silicon paste to the instrument connection pins at the back of the instrument. Press the jack plug onto the instrument pins. Press the cable in to the cable leads.
- Mount the connection back cover with the screw.

Your instrument installation is done!

3 Technical Data

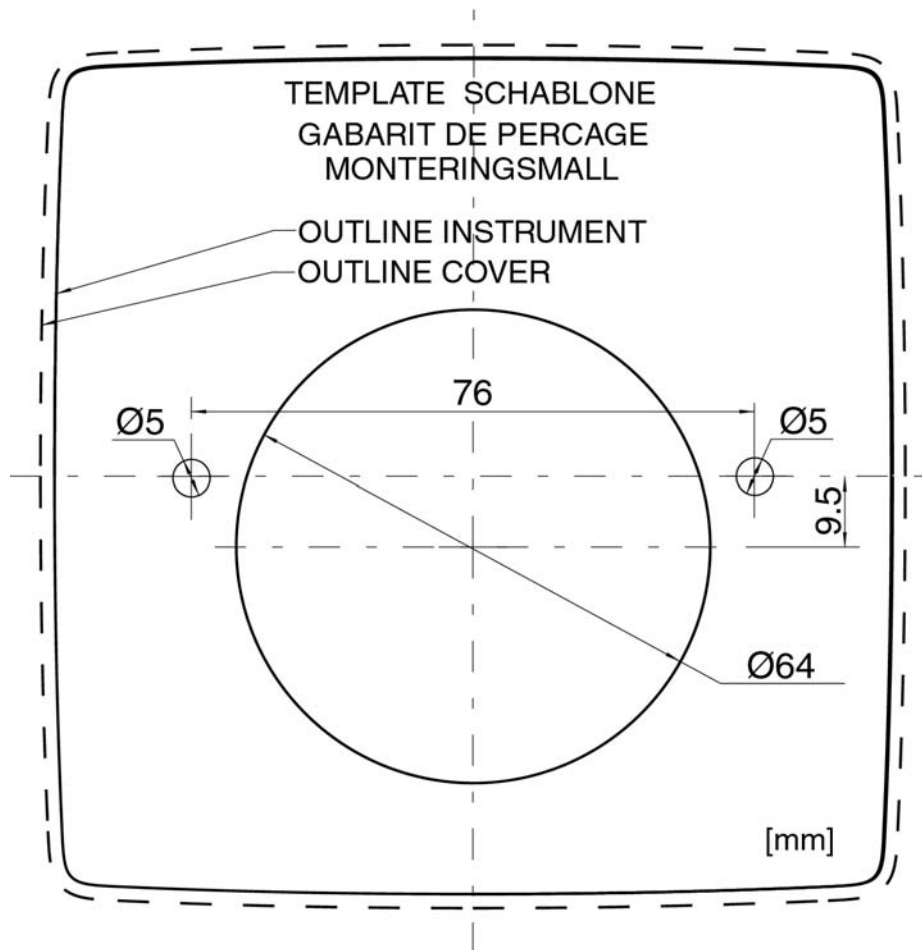
Instrument dimensions: 113 x113 mm
Instrument cable: 0.4 m
Power supply: 12V DC (10-16V).
The instrument is polarity protected.

Power consumption:
Analog Repeater: 0.6 W (with max illumination 1.32 W).
Digital Repeater: 0.08 W (with max illumination 0.84 W).
Temperature range: Operation -10°C to +70°C
Storage -30°C to +80°C.
Weight: 230 g.

4 Maintenance

- Clean the instruments with mild soap solution only! Do not use high-pressure wash 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.

5 Drill template



6 Optional Accessories

Below find a selection of optional accessories available. Please contact your local NX2 dealer for more information.

NX2 Completes

22118-3	Multi Control instrument and Server, 8m cable
22118-2	Multi Control and Server with Speed Log and depth transducer, 8m cable
22118-1	Speed log with log transducer, 8m cable
22118-4	Wind Data, with transducer, 25m cable, mast bracket
22118-5	Compass Data, with transducer 35°, 8 m cable
22118-6	GPS Navigator, with GPS Antenna, 8m cable

NX2/Nexus Transducers

22120-1	Server compl with 3m power cables
20707	Log/Temp transducer, 8 m cable (for Nexus and Star)
19915-8	Depth transducer, 8m cable (for NX2 only)
21731	Compass transducer 35°, 8m cable
20860	Compass transducer 45°, 8m cable
20721	Wind transducer, 25m cable, mast bracket
20721-1	CF-wind transducer, Carbon Fibre, 1260mm long, 380g, no mast cable incl.
20594	Nexus mast cable 25m
21721	MTC (Mast Twist Compensation) box, 8m cable, for Wind Data instr.
69980	MRC (Mast Rotation Sensor Compensation) box
21970	GPS Antenna, with NMEA 0183 output
21735	Bracket for GPS Antenna and 35° Compass transducer for bulkhead mount

NX2 Digital Instruments (all supplied with 0.2m cable)

22117-1	Speed log instrument
22117-3	Multi Control instrument
22117-4	Wind Data instrument
22117-5	Compass Data instrument
22117-6	GPS Navigator instrument
22117-7	Autopilot instrument

NX2 Analog Instruments (all supplied with 0.4m cable)

22115-01	NX2 Analog Wind Angle
22115-02	NX2 Analog Steer Pilot
22115-03	NX2 Analog Speed Trim
22115-05	NX2 Analog Speed 0-16kts
22115-06	NX2 Analog Speed 0-50kts
22115-07	NX2 Analog Depth 0-200m
22115-08	NX2 Analog Depth 0-600ft
22115-09	NX2 Analog Rudder angle
22115-10	NX2 Analog Compass
22115-11	NX2 Analog GPS Speed 0-16kts
22115-12	NX2 Analog GPS Speed 0-50kts
22115-13	NX2 Analog GPS Course

Nexus Remote Control Instrument

21210	Remote Control Instrument (RCI), with Autopilot control, 5m cable, bracket
21218-1	Bracket Remote Control instrument
20966	Connector 4-pole, NEW model (Allows cable - cable connection)

Nexus Multi XL

21680-1 Multi XL instrument, 4m cable (RCI or Multi Center needed to control Multi XL)
 21684-1 Multi XL Set, Multi XL instrument and Remote Control instrument
 69995 Mast bracket XL, in aluminium for Multi XL and Nexus / Star 110x110mm instr.

NX2 GPS

22118-6 GPS Navigator, with GPS Antenna, 8+10m cable
 22117-6 GPS Navigator instrument
 21970 GPS Antenna, with NMEA 0183 output
 20992-2 Bracket GPS Antenna, plastic with female thread 1" x 14 tpi
 21735 Bracket for GPS Antenna and 35° Compass transducer for bulkhead mount

Nexus Autopilot components

22117-7 Autopilot instrument
 21210 Remote Control instrument, with Autopilot control, 5m cable, bracket
 22115-09 NX2 Analog Rudder angle

21035-2 Servo Unit A-1510, 8m cable
 20860 Compass transducer 45°, 8m cable
 21731 Compass transducer 35°, 8m cable
 21036 Rudder Angle Transmitter RFU-25, 15m cable, ball joint linkage 230mm x 2
 69981 Linear Rudder Angle Transmitter

21134 Pumpset PF-0.3 12V
 21134-24 Pumpset PF-0.3 24V
 21341 Pumpset PF-0.3S 12V, with solenoid
 21341-24 Pumpset PF-0.3S 24V, with solenoid
 21136 Linear Drive AN-23, stroke 229mm, peak thrust 680kg
 69991-12 Integrated Linear Drive HP-40, stroke 254mm, peak thrust 500kg

7 Abbreviations

BSP	Boat Speed
BTW	Bearing To Waypoint
C	Celsius
F	Fahrenheit
KM	KiloMetre
KTS	KnoTS
MH	Miles per Hour
LCD	Liquid Crystal Display
LOW	LOW
MID	MID
MAX	MAX
RET	RETurn
SOG	Speed Over Ground
TRP	TRiP
-	Minus
—	Plus

8 Warranty

WARRANTY

GENERAL

All our products are designed and built to comply to the highest class industry standards. If the products are correctly installed, maintained and operated, as described in the installation and operation manual, they will provide long and reliable service. Our international Network of distributors can provide you with the information and assistance you may require virtually anywhere in the world.

Please read through and fill in this warranty card and send it to your national distributor for product registration.

LIMITED WARRANTY

The warranty covers repair of defective parts due to faulty Manufacturing and includes labour when repaired in the country of purchase. The warranty period is stated in the product manual, and commences from the date of purchase. The above warranty is the Manufacturer's only warranty and no other terms, expressed or implied, will apply. The Manufacturer specifically excludes the implied warranty of merchantability and fitness for a particular purpose.

CONDITIONS

- The supplied warranty card and receipt with proof of purchase date, must be shown to validate any warranty claim. Claims are to be made in accordance with the claims procedure outlined below.
- The warranty is non-transferrable and extends only to the original purchaser.
- The warranty does not apply to Products from which serial numbers have been removed, faulty installation or incorrect fusing, to conditions resulting from improper use, external causes, including service or modifications not performed by the Manufacturer or by its national distributors, or operation outside the environmental parameters specified for the Product.
- The Manufacturer will not compensate for consequential damage caused directly or indirectly by the malfunction of its equipment. The Manufacturer is not liable for any personal damage caused as a consequence of using its equipment.
- The Manufacturer, its national distributors or dealers are not liable for charges arising from sea trials, installation surveys or visits to the boat to attend to the equipment, whether under warranty or not. The right is reserved to charge for such services at an appropriate rate.
- The Manufacturer reserves the right to replace any products returned for repair, within the warranty period, with the nearest equivalent, if repair within a reasonable time period should not be possible.
- The terms and conditions of the warranty as described do not affect your statutory rights.

CLAIMS PROCEDURE

Equipment should be returned to the national distributor, or one of its appointed dealers, in the country where it was originally purchased. Valid claims will then be serviced and returned to the sender free of charge.

Alternatively, if the equipment is being used away from the country of purchase, it may be returned to the national distributor, or one of its appointed dealers, in the country where it is being used. In this case valid claims will cover parts only. Labour and return postage will be invoiced to the sender at an appropriate rate.

DISCLAIMER

Common sense must be used at all times when navigating and the Manufacturer's navigation equipment should only be considered as aids to navigation.

The Manufacturers policy of continuous improvement may result in changes to product specification without prior notice.

File id:

WARRANTY CARD
TO BE RETURNED TO YOUR NATIONAL DISTRIBUTOR

OWNER:

Name: _____

Street : _____

City/Zip Code : _____

Country: _____

Product name:

Serial number:

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Date of purchase: _____ Date installed _____

Dealers stamp:

Tick here if you do not wish to receive news about future products

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