

# Compass 45°

- Transducer -



**Installation and Operation Manual**  
**English**



COMPASS 45°



This manual is written for NX2 Compass transducer 1.00  
Edition: March 2007

# Nexus Compass transducer 45

## *Installation Manual*

Thank you for choosing a Nexus product. Through this manual we would like to help you to install your new Nexus product. Please read through this manual carefully before starting your installation. The fluid dampened Nexus electronic fluxgate compass measures the magnetic field in the fore and aft line and in the athwartships line and calculate the magnetic course. An electronic compass is just as sensitive to magnetic disturbances as an magnetic compass but has the benefits that the transducer can be mounted away from the disturbances. From an instrument, the transducer can be automatic compensated.

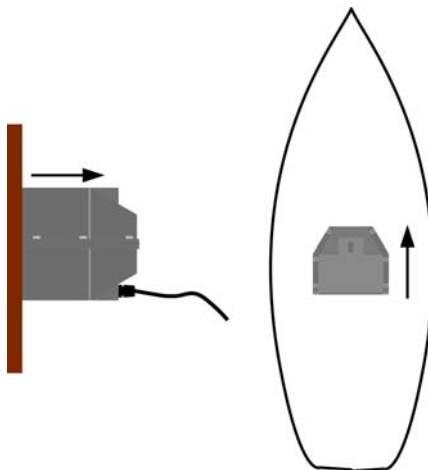
### 1 Installation

#### 1.1 Location

The transducer should be mounted horizontal, and in the fore and aft line, reasonably well away from magnetic disturbances such as objects containing iron, loudspeakers, window wipers etc. For safe distances, see page 3. The transducer does not have to be mounted in the centre of the boat. The optimum position for the transducer is in the gravity centre of the boat. At that position there may be magnetic disturbances, therefore the transducer normally is installed more forward. The transducer is normally mounted below deck but its water resistant enclosure allows for outside mount, which is preferable for some steel boats. For steel boats we recommend you to consult an experienced compass adjuster for the location and compensation.

#### 1.2 Check the location:

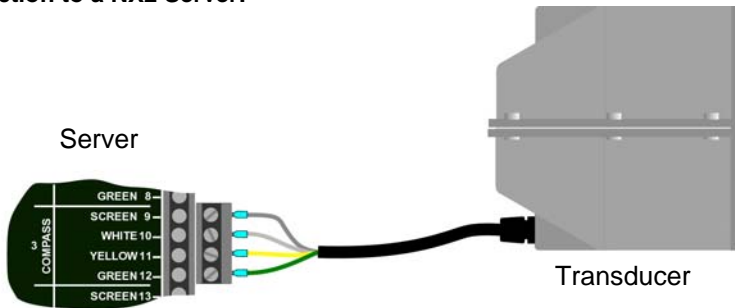
If you have large disturbance sources or a steel boat we recommend to connect the transducer, mount it temporary and check the readout before the final mount.



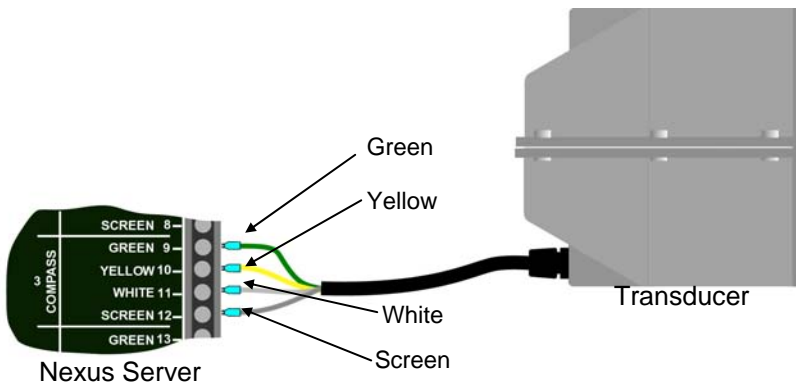
## 2 Electrical installation

The transducer is connected to the Nexus Server if one is installed. If you do not have a Nexus Server the transducer is connected direct to the Nexus Compass Data instrument or Nexus Autopilot Servo Unit. After the electric installation you should check the readings on the instrument before you proceed with the automatic compensation. If the readings are inaccurate with more than 20° at any course, the transducer should be moved.

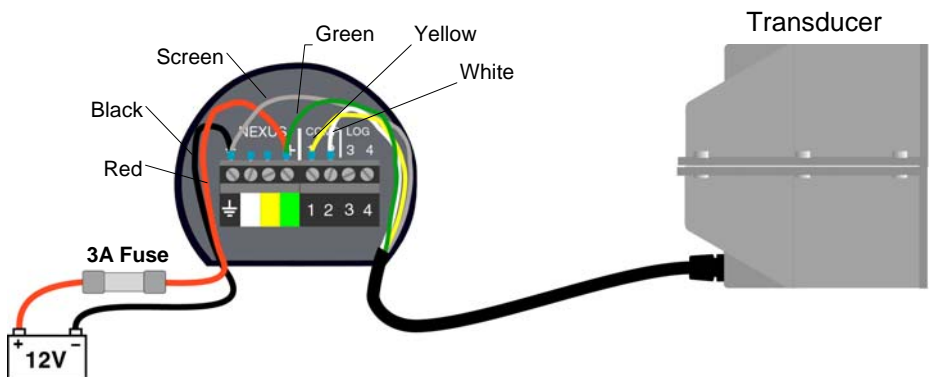
### Connection to a NX2 Server:



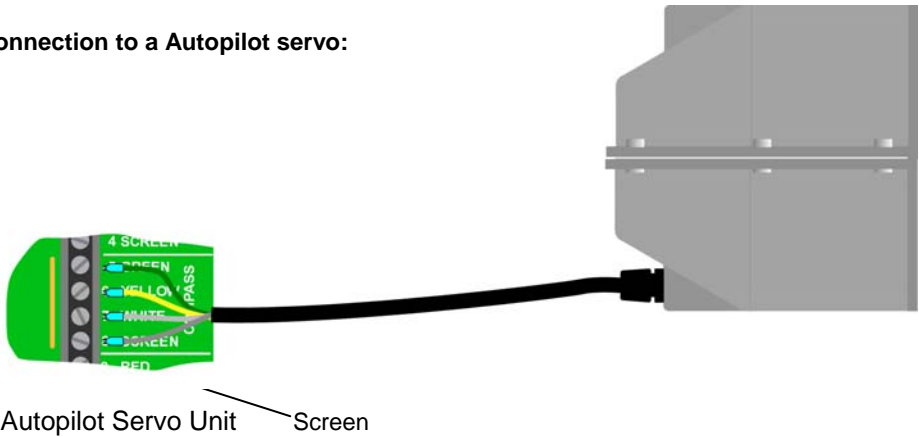
### Connection to a Nexus Server:



### Connection to a Compass Data instrument:



**Connection to a Autopilot servo:**



**3 Specifications**

Type of compass transducer:	Fluxgate magnetic sensor (two axis)
Dimensions:	126.5 x 125 x 120mm
Weight (incl. cable):	370g (0.8 lb)
Enclosure:	Water proof
Temperature range:	-5° to +50° C (+40° to 122° F).
Voltage:	9-17V
Current consumption:	85mA
Power consumption @12V:	1,0W
Output signals:	Sinus and Cosinus (pulse width modulated 13 Hz)
Warranty period:	2 years, see separate conditions page 4
Maxim roll and pitch:	35
Inaccuracy (after calibration)	Heeling 0 –45 : ±1.5
Vibration:	11G @ 60Hz 10min.
Magnetic field strength:	8-80uT

**Safe distances to magnetic disturbing objects:**

<u>Object</u>	<u>Safe distance</u>
Main engine	2m (7ft.)
Radar magnetron	1.5m (5 ft.)
Horizontal and vertical steel plates and tanks	1m (3 ft.)
High power electric motors (bilge pump, refrigerators)	1m (3 ft.)
HF or VHF antennas	3m (10 ft.)
High current D.C. wires	1m (3ft.)
Magnetic meter movements and loudspeakers	1m (3 ft.)
Large bolts and fasteners	0,6m (2 ft.)
Ordinary steering compass	0,8m (2.5 ft.)

## **4 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.

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