NEXUS
PASSION FOR PERFORMANCE™

GPS Antenna

- Transducer -

Installation and Operation Manual
English

GPS ANTENNA

Introduction

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. GPS stands for Global positioning System and is military satellite based navigation system open for civilian use. The system is owned and operated by the US DoT (Department of Transportation)

Today, there is 24 satellites in 6 orbits at an altitude of 20 000 km. The system provide information about position, altitude, speed and course over ground, every second, 24 hours a day.

To get a tri-dimensional position, at least four satellites has to be available. If the altitude is locked, the position may be calculated from three satellites.

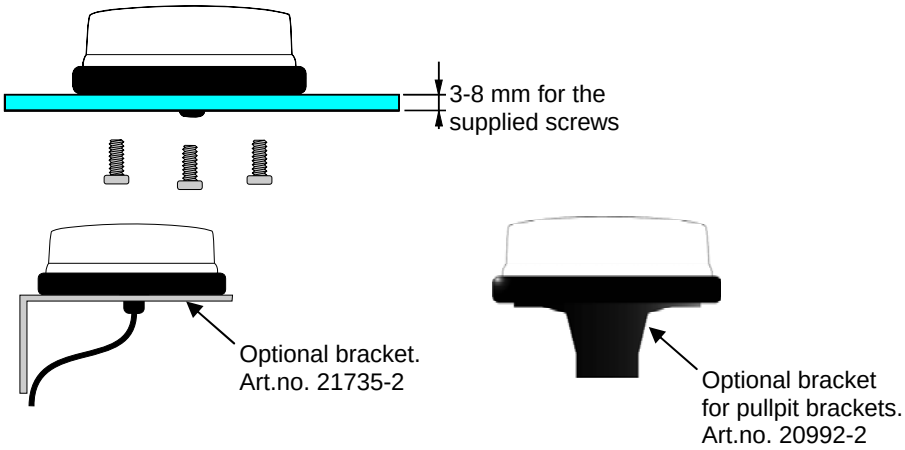
In order to get as strong signals as possible, the antenna should not be covered.

The GPS-antenna contains a patch antenna and a receiver. The output from the GPS-antenna is a NMEA data output with information about Position (in Latitude and Longitude), speed and course over ground.

1 Mounting

1.1 Location

The GPS-antenna should be mounted as horizontal as possible and reasonably well away from transmitting and receiving antennas. For safe distances, see page 4. The antenna does not have to be mounted in the centre of the boat.

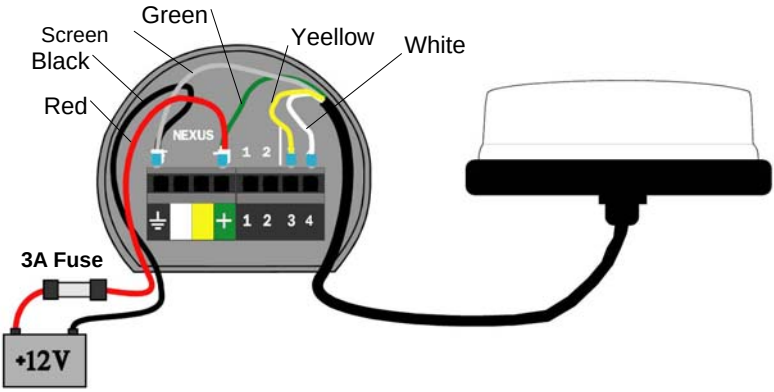


Note! The minimum thickness of the surface the antenna is mounted on is 2mm. If it is thinner, you must use shorter screws. If it is thicker than 8mm you must use longer screws. The screws supplied are stainless steel M4. Use supplied drill template.

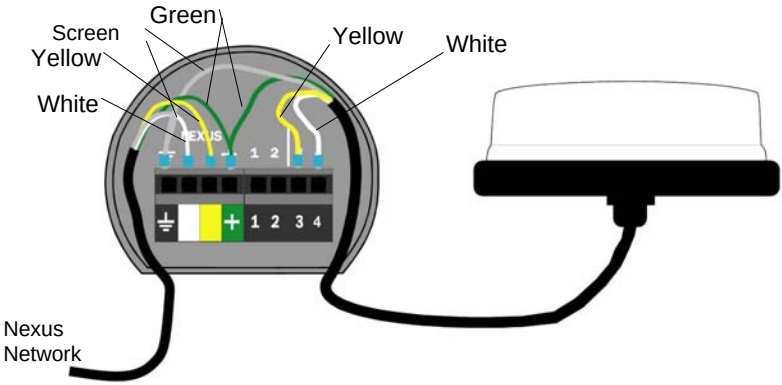
2 Installation

The GPS-antenna is connected to the Nexus GPS instrument if one is installed. If you do not have a Nexus GPS instrument or if it is easier to run the cables to the Server, you can connect it to the Server NMEA-input. The GPS-antenna can also be connected direct to the Multi Center when Multi Center is used stand alone without a Nexus Network.

Connection to a GPS instrument in a stand alone connection

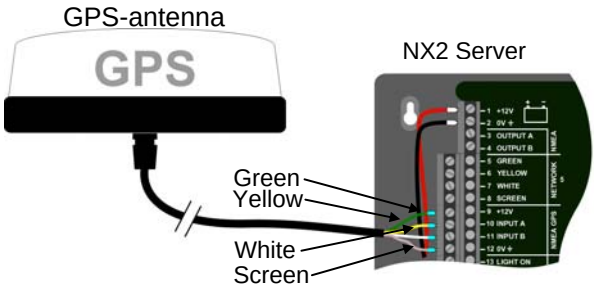


Connection to a GPS instrument in a Nexus Network

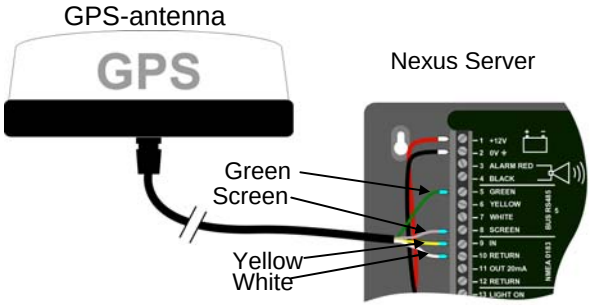


Note: When the GPS-antenna is connected to a GPS instrument, you have to set-up the GPS instrument to receive POSITION via NMEA (NMEA POS). See settings in the GPS instrument manual.

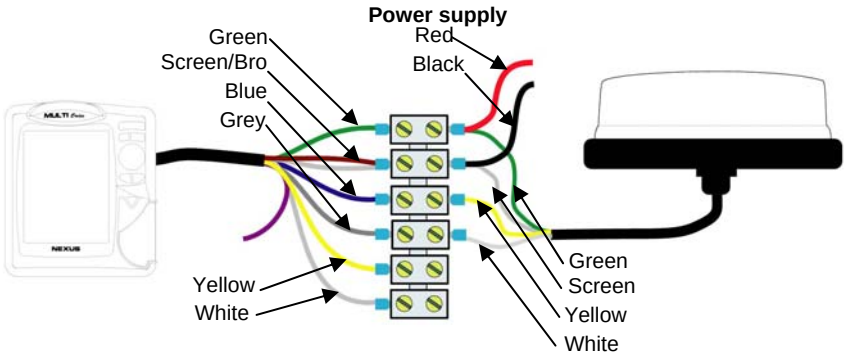
Connection to a NX2 Server:



Connection to a Nexus Server:



Connection to a Stand alone Multi Center:



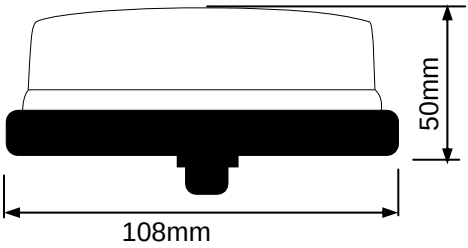
Note: When the GPS-antenna is connected to a Multi Center, you have to set-up the Multi Center to receive POSITION via NMEA. See settings in the GPS instrument manual.

When the Multi Center is connected to the Nexus Network, it will receive position information via the Network.

3 Specifications

Type of receiver:	16 channels parallel
Dimensions:	Diameter: 108mm (4 ¼ “) height: 50mm (2”)
Weight (incl. cable):	470g (1 lb)
Enclosure:	Water proof
Temperature range:	-5° to +50° C (+40° to 122° F).
Voltage:	7-28V
Current consumption @12V:	50mA
Power consumption @12V:	0,65W
Output signals:	NMEA 0183 (see table below)
Warranty period:	2 years, see separate conditions on next page
Accuracy	25 m RMS

Dimensions:



Safe distances to disturbing objects:

Object	Safe distance
Radar magnetron	1.5m (5 ft.)
High power electric motors (bilge pump, refrigerators)	1m (3 ft.)
HF or VHF antennas	3m (10 ft.)
High current A.C. wires	1m (3ft.)

NMEA output:
The hardware of the output is an industry standard RS-422 and the following sentences are transmitted: GLL, VTG, GSV, RMC, GGA. Examples:

$GPGLL,5926.0882,N,01755.9668,E,001024,A,A*4D
$GPGSV,3,1,10,04,32,057,37,05,67,119,41,06,27,217,39,09,16,157,32*70
$GPGSV,3,2,10,14,28,264,35,17,19,140,37,20,09,353,34,24,36,105,37*75
$GPGSV,3,3,10,25,21,311,35,30,65,262,44*7F
$GPVTG,285.9,T,282.0,M,000.0,N,0000.0,K,A*1D
$GPRMC,082214,A,5926.0882,N,01755.9668,E,000.0,285.9,020204,003.9,E,A*13
$GPGGA,082215,5926.0882,N,01755.9669,E,1,10,01.56,000023.1,M,0024.7,M,,*70

3.1 CE approval

The products conforms to the EMC requirements for immunity and emission according to EN 50081-1, and EN 50082-1

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.

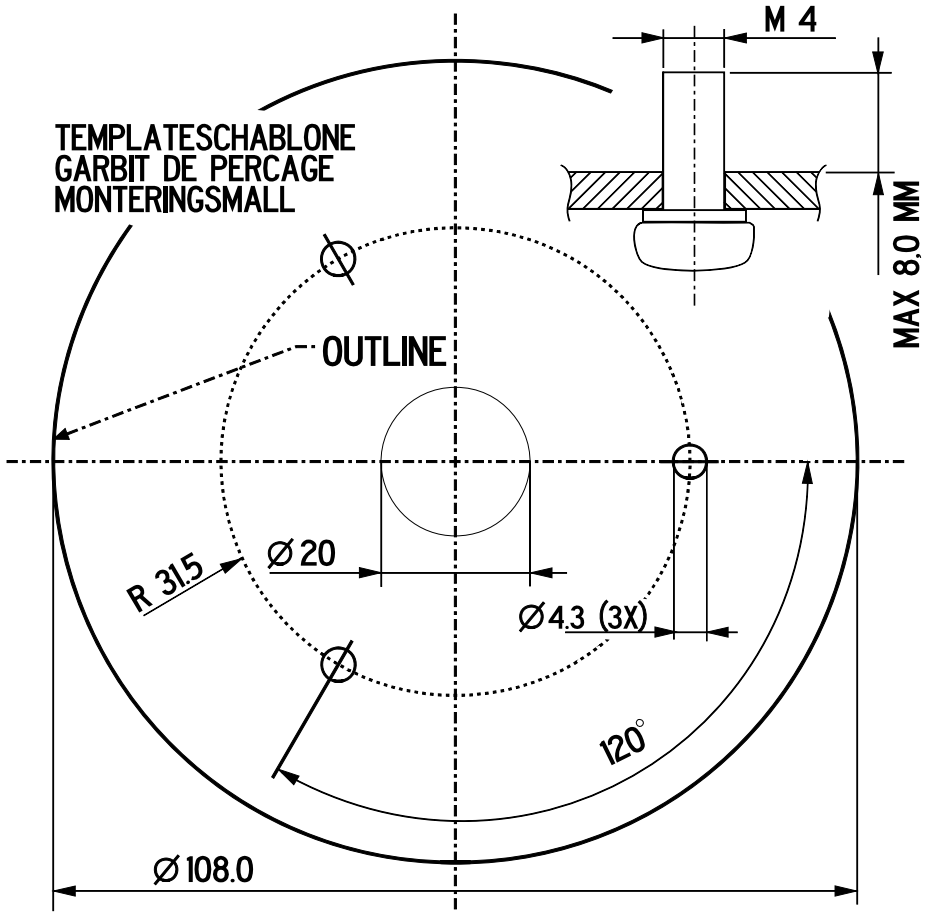
CLAIMS PROCEDURE

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.


M 4
TEMPLATESCHABLONE
GARBIT DE PERCAGE
MONTERINGSMALL
MAX 8.0 MM
OUTLINE
R 31.5
Ø 20
Ø4.3 (3X)
120°
Ø 108.0

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