

Wiring Configuration

Connect the interface cable via an ACP Processor, Gyro Processor or NMEA Interface. Use the relevant table below for the correct wiring information.



ACP

GRC Cable	ACP Terminal
Pink	Red
Black	Black
Brown	Green
White	White
Grey	Blue
Blue	Yellow

GYRO

GRC Cable	Gyro Terminal
Pink	19
Black	18
Brown	20
White	20
Grey	21
Blue	21

NMEA

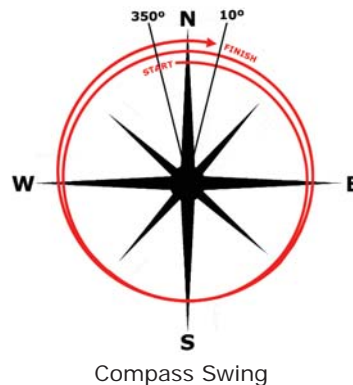
GRC Cable	GRC NMEA Function
Pink	+12V
Black	0V
Grey	Not Used
White	Tx +
Brown	Not Used
Blue	Tx -

Calibration

It is important that you follow these instructions carefully to ensure correct calibration of your Gimballed Rate Compass.

Swinging the Compass

The compass swing is an automatic process, you do not need to setup the compass swing via a display. Make two 360° turns to starboard within 5 minutes after powering up your system. Ensure smooth and slow movements. A minimum of roll and acceleration will give the best result. Take 60-90 seconds to complete each turn and make sure the boat passes 3 times through North (see figure). As soon as North is passed for the 3rd time, the compass swing is complete.



Compass Heading Offset

For full compass heading offset information refer to your system handbook.

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GIMBALLED RATE COMPASS



INSTALLATION GUIDE

Gimballed Rate Compass

The new Gimballed Rate Compass (GRC) has been designed to bring the full advantage of single-axis rate-sensors to the sailing market.

Normally a single-axis gyro is fixed in the plane of the boat, this means that when the boat is heeled the rate-gyro is susceptible to errors when the boat pitches fore and aft, ironically this often makes the performance worse than a sensor with no rate stabilisation.

The GRC solves this problem by gimbaling the rate-sensor, ensuring that it is always measuring the true yaw rate, independent of any heel and trim effects. The GRC also integrates high-accuracy heel and trim sensors.

- Lightweight single-axis gyro-stabilised compass
- High accuracy Heel and Trim output
- Interfaces directly to H3000 ACP Pilots
- High Speed NMEA 0183 output allows use as a stand alone heading sensor or with other systems.

Dimensions:	120 x 130 x 65mm
Weight:	0.3kg
Construction:	Moulded ABS
Supply Voltage:	12V nominal (10-16V)
Power Consumption:	100mA

Pack Contents

The Gimballed Rate Compass Pack comes complete with GRC Sensor, Bulkhead mounting bracket, interface cable, mounting template, fixings and this installation guide.



GRC



Bracket



Interface Cable

Installation Guide

Positioning the Compass

When installing the GRC the main consideration is selecting a suitable mounting position; the unit should be installed in a dry, accessible area close to the centre of motion of the yacht. The label on the upper surface of the sensor clearly defines how it should be orientated within the yacht, the cable points aft. Care should be taken to align the sensor correctly for optimum performance. Minor alignment errors can be adjusted by rotating the sensor on its mountings.

Locate the sensor as far away as possible from fixed machinery containing iron or steel. Examples are iron keels, anchors, engines and battery chargers. Also locate the sensor clear of any wiring where large amounts of DC current may be carried; for example pilot drives and lighting cables.

Fitting the Compass

Position the compass so that the label on the top of the unit has the PORT arrow pointing to the left (port side) and the FWD arrow pointing towards the front of the boat.

Horizontal Mounting

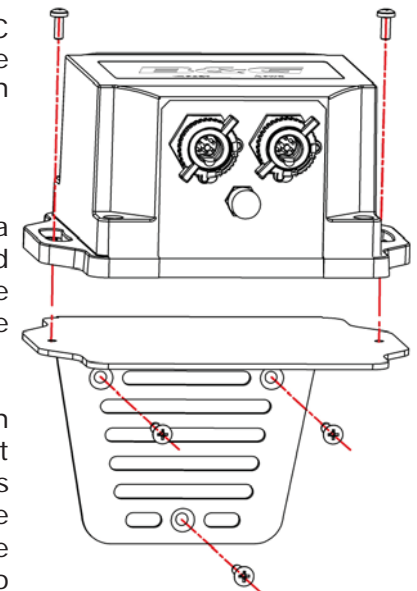
Find a position on the boat where the GRC can be fixed into place on a horizontal plane oriented as above. Fix the unit into position using the 2 x No.4 screws provided.

Vertical Mounting

If you would prefer to mount the GRC to a vertical surface you can use the Bulkhead bracket. This enables the compass to be fixed to a vertical surface whilst keeping the compass itself horizontal.

Fix the bracket ensuring that the position selected is suitable, as described above. It is important to make sure that the compass maintains its horizontal plane. Once the bracket is positioned, fix it into place with the 3 x No.6 screws provided. Attach the GRC to the bracket with the 2 x M3 pan head screws provided.

◀ PORT ▲ FWD



Installation Diagram