



Set 8 Wind Speed, Wind Direction and Close Hauled Instruments

Introduction

The Midas Set 8 comprises an analogue wind speed, an analogue wind direction, and an analogue close-hauled indicator; all three are precision marine instruments for sailing and racing, together providing an indication of apparent wind speed and apparent wind direction in separate units. Raw data on wind speed and direction is obtained from a remote transducer usually mounted at the head of the mast or other location where wind currents are not affected by other objects or constructions.

Midas Marine Instruments are designed and manufactured for use in yachts and pleasure launches; they are sold with a 24 month guarantee from the date of purchase.

The performance of any instrument depends upon:

- The selection of an instrument suitable for the intended use
- The quality of its design and manufacture
- The standard of workmanship and quality of components used in the installation
- The environment into which it has been installed

Midas instruments are not difficult to install or set up, and providing some simple rules are followed during installation, excellent performance will be obtained from the instrument.

Fitting the instruments

Each instrument case can be mounted by cutting a 105mm hole in a bulkhead or console and sealing it into place with a bead of silicone rubber on the back of the front flange. The instrument may then be secured using the supplied stainless self-tapping screws or bolted if desired. Note: although all our instruments are waterproof in front, care should be exercised when selecting the location so that moisture can not enter the rear of the instrument.

Specification

Wind direction indicator:

Range: 0-360 degrees

Resolution: essentially infinite

Accuracy: +/- 2%

Voltage: 11-16V DC regulated

Current: (this instrument) 95mA max

(Backlighting each instr.) 50mA max

Wind speed indicator:

Range: 0-60 knots (self-generating)

Accuracy: +/- 4%

Close Hauled Indicator:

Range: 0-50 degrees

Accuracy: +/-4%

Fitting the Masthead Unit

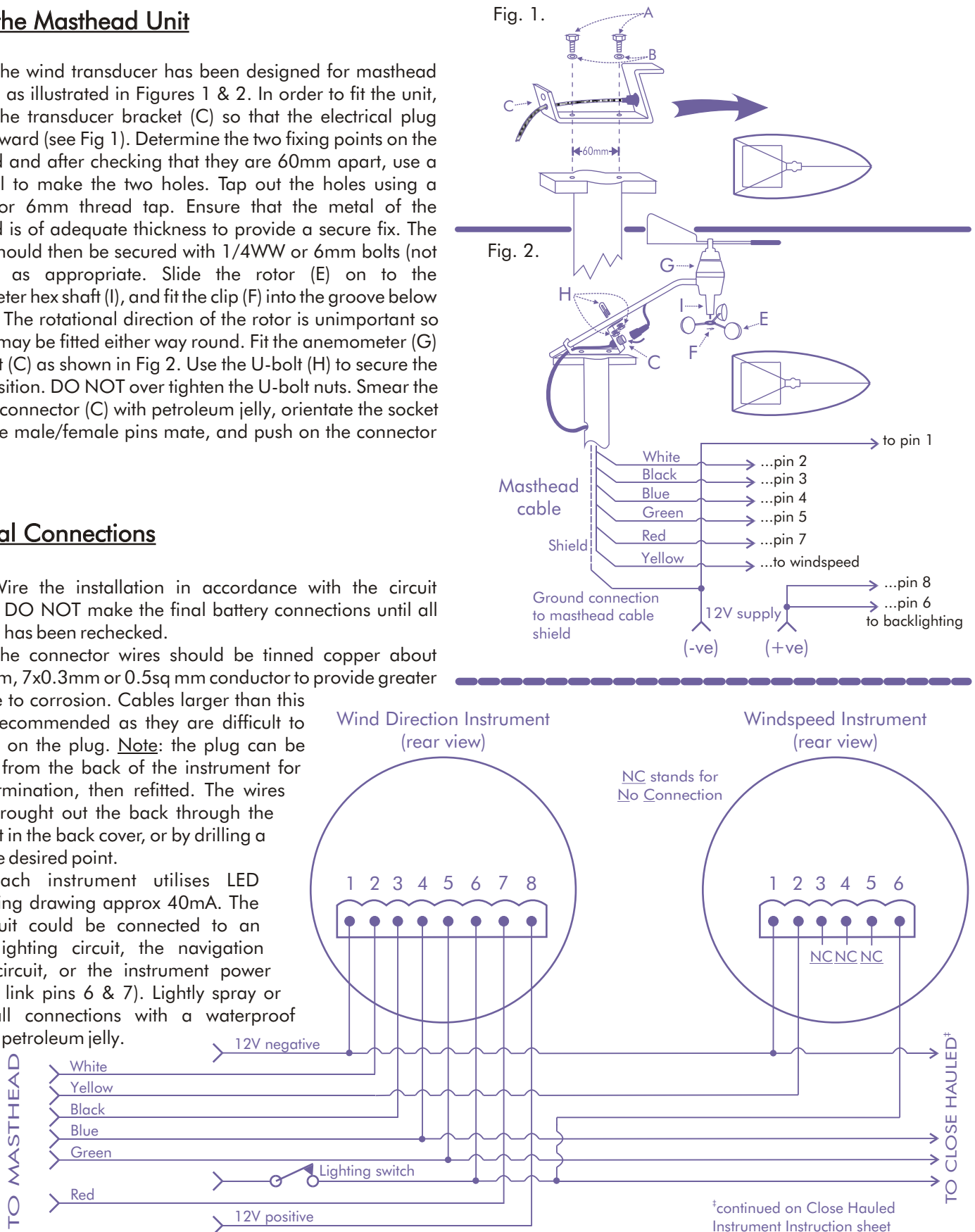
The wind transducer has been designed for masthead mounting as illustrated in Figures 1 & 2. In order to fit the unit, position the transducer bracket (C) so that the electrical plug points forward (see Fig 1). Determine the two fixing points on the masthead and after checking that they are 60mm apart, use a 5mm drill to make the two holes. Tap out the holes using a 1/4WW or 6mm thread tap. Ensure that the metal of the masthead is of adequate thickness to provide a secure fix. The bracket should then be secured with 1/4WW or 6mm bolts (not supplied) as appropriate. Slide the rotor (E) on to the anemometer hex shaft (I), and fit the clip (F) into the groove below the rotor. The rotational direction of the rotor is unimportant so the rotor may be fitted either way round. Fit the anemometer (G) to bracket (C) as shown in Fig 2. Use the U-bolt (H) to secure the unit in position. DO NOT over tighten the U-bolt nuts. Smear the electrical connector (C) with petroleum jelly, orientate the socket so that the male/female pins mate, and push on the connector socket.

Electrical Connections

Wire the installation in accordance with the circuit diagram. DO NOT make the final battery connections until all the wiring has been rechecked.

The connector wires should be tinned copper about 14x0.2mm, 7x0.3mm or 0.5sq mm conductor to provide greater resistance to corrosion. Cables larger than this are not recommended as they are difficult to terminate on the plug. Note: the plug can be removed from the back of the instrument for easier termination, then refitted. The wires can be brought out the back through the knock-out in the back cover, or by drilling a hole at the desired point.

Each instrument utilises LED backlighting drawing approx 40mA. The light circuit could be connected to an existing lighting circuit, the navigation lighting circuit, or the instrument power circuit (ie link pins 6 & 7). Lightly spray or grease all connections with a waterproof grease or petroleum jelly.



MIDAS Set 8 Direction and Windspeed Interconnection wiring diagram

copyright Marine Instruments, 2000

Manufactured by:
 Marine Instruments Ltd.,
 P.O. Box 17-520, Greenlane,
 Auckland, New Zealand.
 Ph (09) 580-2240, Fax 580-2241.

Serial #