



Set 20 Wind Speed/Direction Instrument

Introduction

The Midas Set 20 wind speed and wind direction indicator is a precision instrument designed not only for marine sailing and racing but is also, due to the anemometer's more robust features, aptly suitable for onshore or inland installations subject to consistent and higher wind speeds. It provides an indication of apparent wind speed and apparent wind direction in one integrated unit. 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.

Specification

Wind direction indicator:

Range: 10-350 degrees

Resolution: essentially infinite

Accuracy: better than +/-2%

Wind speed indicator:

Range: 0-99 knots (2 digit)

Accuracy: +/- 2% of reading +/- 0.5 knots

Supply voltage: 12.5-16V DC regulated

Current drain: (Instrument) 135mA max
(Backlighting) 50mA max

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 instrument

The instrument case can be mounted by cutting a 105mm diameter 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 from the front, care should be exercised when selecting the location so that moisture can not enter the rear of the instrument.

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 hexagonal shaft (I), and fit the clip (F) into the groove below the rotor. Note... the rotational direction of the cups is important so the rotor must be fitted such that it rotates in a clockwise direction when viewed from below (locate the small rectangular hollow near the centre hexagonal hole and point this downward). Fit the anemometer (G) to bracket (C) as shown in Fig 2. Use the U-bolt (H) to secure the unit in position, taking care NOT TO OVER TIGHTEN the U-bolt nuts. Unscrew the socket cover from the electrical connection on the masthead bracket. (Retain this cover for later use should the transducer be removed for repair.) Align the two polarising grooves on the connector body with the associated tabs on the plug and slide the plug onto the connector socket. Carefully tighten the connector outer.

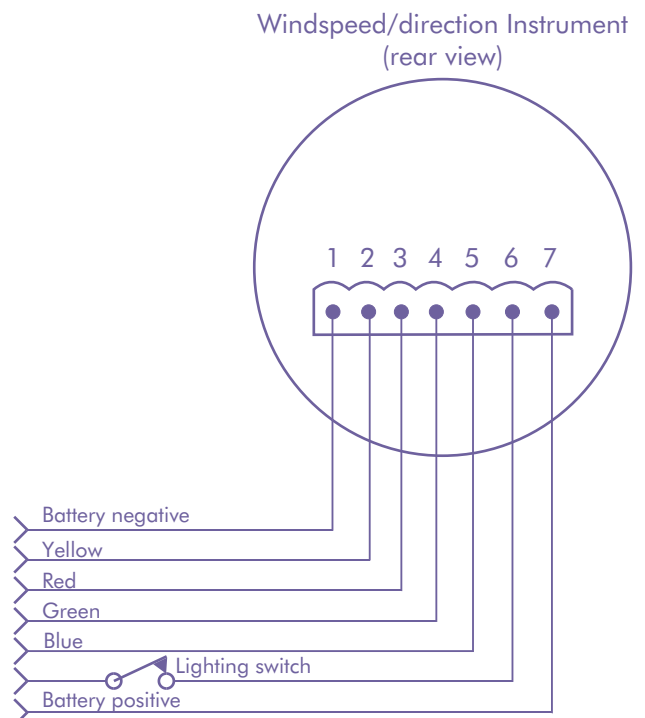
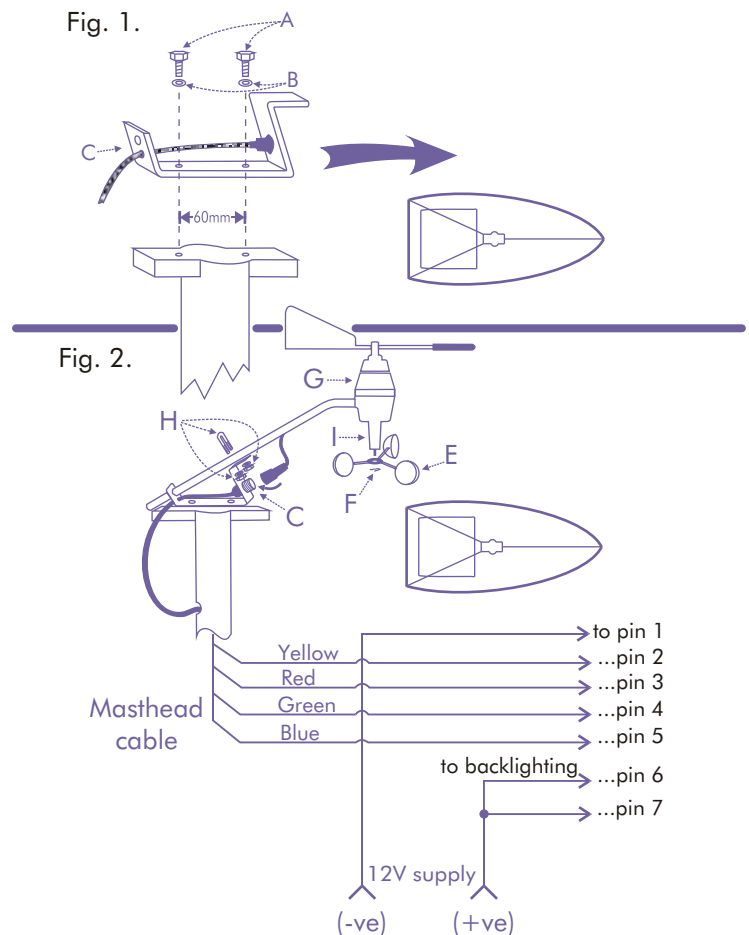
Electrical Connections

Wire the installation in accordance with the circuit diagram. DO NOT make the final battery connections until all the wiring has been re-checked. The instrument contains an internal non user-serviceable ultra-rapid fuse, designed to prevent damage to the sensitive components should an external short occur or over-voltage be applied.

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.

The 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 (i.e. link pins 6 & 7). Lightly spray or grease all connections with a waterproof grease or petroleum jelly.

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MIDAS Set S20 wiring diagram
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Serial #