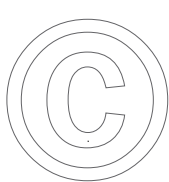
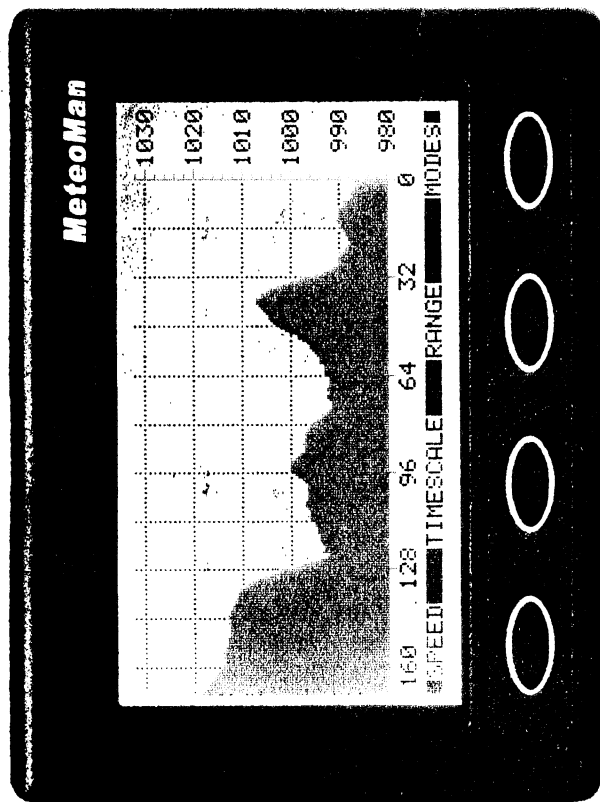


Meteoman Barometer



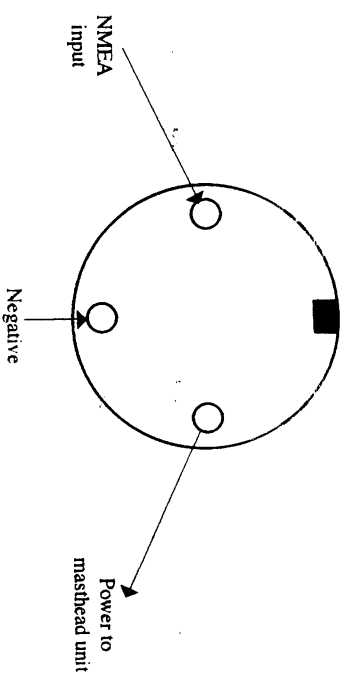
SWB



NASA MARINE LTD

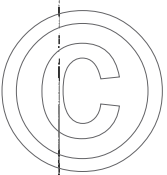
Q What are the connections to the DIN connector socket on the Meteoroman?

A Rear view of socket.



Q Why does the voltmeter read slightly different than my main voltmeter?

A The Meteoroman reads the voltage at the unterminated end of the power supply cable. A slight voltage difference is due to the volt drop in the wiring.



SECTION 3

Questions and Answers

- Q This display is completely blank.
- A Check the power supply. It should be 12 Volts with the centre pin of the power supply connector positive. Check the 1 Amp fuse in the power lead.
- Q When calibrating the pressure how do I know what the local pressure is?
- A Choose a day when there are few isobars (i.e. the local pressure is fairly uniform over wide areas), and set the unit to read the day's pressure at sea level which is published widely, such as at the UK National Physical Laboratory website <http://www.npl.co.uk/pressure/pressure.html>.
- Q Can I display the absolute pressure instead of the pressure at sea level?
- A Yes. Simply calibrate the instrument by reducing the pressure by 3.3mb for every 100 feet you are above sea level.
- Q Can I connect a Clipper wind speed instrument to the Meteoman instead of the NMEA wind sensor?
- A Yes. Modern Clipper wind speed instruments have an NMEA output which can be connected directly to the Meteoman to give wind speed and direction. The Clipper wind does not have a temperature sensor so the Meteoman will display the internal temperature.

INTRODUCTION

Meteoman is a precision instrument able to display barometric pressure, ambient temperature, a real time clock, a stopwatch, a race countdown timer and a seven day barograph. When connected to the NASA NMEA masthead unit the instrument will display the wind speed, wind direction (analogue and digital) air temperature and a seven day anemograph. Alternatively the Meteoman can be connected to the NMEA output of a NASA Clipper wind instrument. Meteoman consumes very little power and has a sleep mode which keeps the real time clock running and continues to log wind speed and atmospheric pressure.

Meteoman is designed to be panel mounted and is supplied with a 12 volt fused power cable. An optional cradle mount and a mains power supply are also available direct from NASA Marine.

INSTALLING THE DISPLAY

The Meteoman is not waterproof and should only be cabin mounted. Select a convenient position for the display on a panel or bulkhead. The site must be flat and the cavity behind the panel must remain dry at all times. Cut a hole in the panel 103mm high by 143mm wide. Unscrew the wing nut from the rear of the Meteoman and take off the mounting clamp. Fit the 'O' ring in the groove on the rear and place the unit in the hole in the panel. Refit the mounting clamp, replace and finger tighten the wing nut. Plug the fused power cable into the socket on the rear of the unit and connect to 12 volts. (The red wire to positive and the wire with the black stripe to negative. The unit is protected against reverse polarity.)

INSTALLING THE MASTHEAD UNIT

The masthead sensor is designed for mast mounting and is supplied with 20 metres of cable. Choose a position where the masthead unit can receive an unobstructed flow of air from all directions. The masthead unit must be substantially horizontal, however the orientation with respect to the vessel is unimportant. Four mounting blocks together with four stainless steel self tapping screws are supplied to screw the masthead unit to a metal mast. If the masthead unit is to be fitted to a wooden mast, suitable screws should be used. After the masthead unit is securely fitted, run the cable to the display unit and connect it, using the terminal block, to the short cable. Plug the short cable into the socket on the rear of the Meteoroman display unit. The masthead sensor is a generic device and can be used independently of the Meteoroman. Refer to section 2 for details.

USING THE METEOMAN

Connect the 12 volt power supply to the Meteoroman and full user instructions will be displayed on the screen.

The operation of each key is shown by the box above the key. The first task is to press **SETUP** where the clock can be set to the correct time and the pressure adjusted to compensate for altitude. After each setting press **OK** to return to system setup options. To complete the setup options press **MORE** where there are more settings for backlight period, the standby period, the display contrast and the wind vane calibration. Press **DONE** to exit setup and the instrument is ready for use. Pressing **MODE** enables selection of **INSIDE** which gives internal temperature and supply voltage or **OUTSIDE** which gives air pressure, external temperature, wind speed and direction or **CLOCK** which gives access to the clock, stopwatch and countdown timer. When in outside mode the historical atmospheric pressure and wind speed can be selected.

SECTION 2

Using the NMEA masthead sensor independently to the Meteoroman.
(This procedure is not necessary when using the sensor with the Meteoroman)

Mount the sensor as described in the installation instructions. Connect the screen wire to the negative supply and the red wire to 12 volt positive supply. The NMEA output is on the blue wire. The output format is NMEA 0183 and the NMEA sentences MWV and XDR. To calibrate the wind vane heading:- align the wind vane towards the bow of the vessel. (or North in a fixed installation)

- 1/ Disconnect the 12 volt power supply.
- 2/ Link the NMEA output (blue wire) to supply negative.
- 3/ Connect the 12 volt power supply.
- 4/ Remove the link between the NMEA output and negative. The display will now show bow (or north) up on the display.

