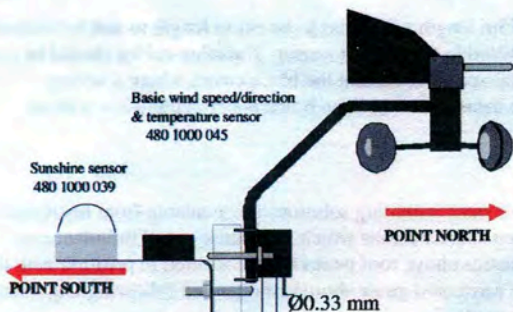


# Climatica Plus WEATHER STATION

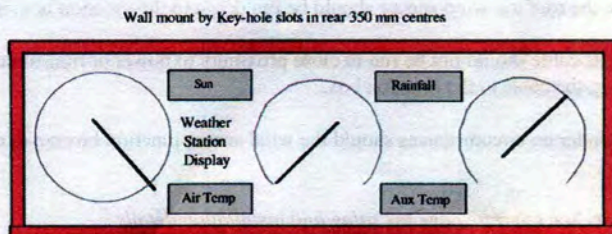
Models: 352 0500 001 (miles/hr)  
 352 0500 002 (km/hr)  
 352 0500 003 (metres/sec)



Basic wind speed/direction & temperature sensor  
 480 1000 045

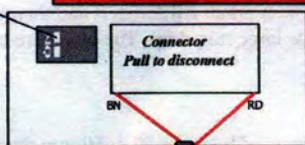
Sunshine sensor  
 480 1000 039

Mast mount 25-50mm dia.  
 or Instronet mast kit  
 Long 480 1000 096  
 Short 480 1000 094  
 Tile/slate clamp 480 1000 097

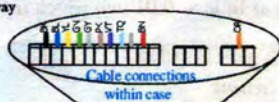


Wall mount by Key-hole slots in rear 350 mm centres

Reset temp display if locks up



Use cable knock-outs in cabinet to bring cable away



Optional Electronic Humidity sensor  
 480 100 041



Wet & Dry Bulb Temperature sensor  
 480 100 042



To Temperature Sensor (25 m max)

To Rain Sensor (100m max)

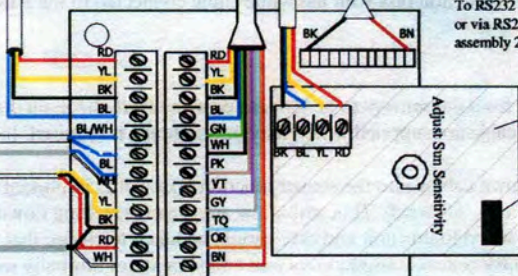
To Wind/Temp Sensor (100m max)

To Weather Station Display 12 core (5m max)  
 To Sunshine Sensor (100m max.)



To Met4Net Data Logger or Autostation (if fitted)

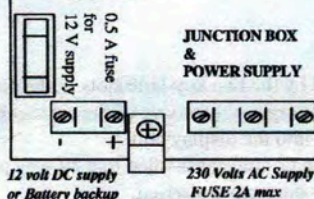
To RS232 serial port on PC 100m max or via RS232 to USB adaptor cable assembly 269 1002 001



Wall or mast mount away from heater or air conditioner outlets. Avoid mounting over flat roofs which may radiate heat in sunny weather.

Ensure easy access to top up bottle with distilled water when required.

WEATHER STATION can be powered by 12 Volts D.C. at approx. 150 mA or 220 -240 Volts A.C 50Hz



**\*\* WARNING \*\***  
 Disconnect mains supply before removing lid

# INSTALLATION INSTRUCTIONS

## Sensor Wiring

The 4-core cable used for the wind, sunshine and rainfall sensors is dispatched as a 75m length which has to be cut to length to suit individual applications (normally 3 x 25m). The end with the grommet and 4-way connector is fitted to the rainfall sensor. The other cables should be connected to the individual sensors via the terminal block on the sensor bracket. This can be accessed by removing the black cover, where a wiring identification label will be found. In order to distinguish between cables, a resistance measurement across Black and Yellow wires with an alternating reading of between 0 & 5k $\Omega$  will identify the wind sensor.

## Roof Top Wind Sensor

This unit should be mounted on a mast of 25-50mm.(1-2") diameter (suitable mast mounting solutions are available from Instronet sales), as high and as far away as possible from chimneys, roof peaks, buildings, trees and transmitter aerials which may cause wind turbulence or interference. Where possible the roof top wind sensor should be mounted at least 2 metres above roof peaks and be secured in position with the arm pointing accurately to the NORTH using the compass alignment guide provided. The cardboard guide should be removed following alignment, by slackening off the junction box securing screw. Ensure screw is subsequently re-tightened.

The cable from the roof top wind sensor should be run down to the junction box, making sure it is properly secured.

*Please note!* This cable should not be run in close proximity to power or transmitter cables. If it is necessary to shorten the cable please do this when connecting the cable to the junction box.

**WARNING:** Under no circumstances should the wind sensor junction box cover or the terminal block inside be sealed in any way as it is designed to breathe.

## Rainfall Sensor *See separate page for siting and installation details*

The Rainfall Sensor measures the amount of rain passing through it and therefore does not need to be emptied. It is very sensitive measuring as little as 0.01 mm which represent a single large rain drop. The blue wire of the 4-core cable is not used and should be cut back at both ends.

## Sunshine Sensor

The Sensor is designed to be mounted on a mast of between 25 & 50 mm diameter. The mast (usually the Wind Sensor mast) should be sited where trees, buildings etc. will not cause a shadow at any time of day throughout the year. It must be borne in mind that the sun rises and sets on the horizon which in mid-summer can be NE & NW (depending on latitude) and only rises to a low angle in mid-winter.

The Sensor is best mounted on the top of the Wind Sensor mast above any aerials etc and pointed approximately South (North in the Southern hemisphere) to avoid shadows.

The Sunshine Sensor functions by comparing sunlight to shadow, when the ratio exceeds a pre-determined threshold, the sun is deemed to be shining and the counter will count up one every 36 seconds (0.01 hour).

**Setting Threshold.** This is preset at the factory and should not normally require adjustment. However, should minor alterations be required due to the glass dome becoming dirty, the small preset on the daughter board can be adjusted.

## Wet & Dry Bulb Temperature Sensor

This unit can be wall or mast mounted. It should be fitted where there is free movement of air and away from heater /ventilation outlets, chimneys, warm walls and flat roofs etc. The length of the cable affects the calibration and therefore should not, if possible, be shortened or lengthened.

The cable is connected in the junction box with the white cable connected to the AIR TEMP terminals and the grey to the AUX TEMP terminals as per the drawing.

## Junction Box & Power Supply

This unit allows the wiring from the sensors to be terminated away from the main display cabinet and a single multi-core cable to be wired to the display. Five metres (15 ft) of cable are supplied which may be shortened if required. Increasing its length may cause inaccuracies in the temperature read-outs.

To avoid water travelling down cables into the sensor junction boxes, it is important to ensure that the cables drop below the junction box at some point, preferably in the form of a 'U' bend. This will allow any water travelling down the cables to drip off.

The mains power supply is wired to this unit and care should be taken to ensure that the correct fuse is used i.e. 2 - 5Amp.

The Sunshine Control circuitry is also housed in this unit and should not normally require adjustment. If however adjustment is required please follow the instructions on the separate sheet.

## Display Unit

The illuminated display unit should be wall mounted by the two key-hole slots in the back panel 350mm (14") centres).

The cable may be either channelled into the wall or brought out the side of the cabinet by using the cable knock-out holes at each side and at the bottom of the cabinet. Please make sure no dust gets into the display unit.

The display unit is connected to the junction box by a 12 core cable fitted to a 12 way plug.

When connecting, please ensure that the connector is correctly polarised.