HD 9906.51
HEATING AND VENTILATION UNIT

The heating and ventilation unit HD 9906.51 is meant to be used with solar radiation sensors (pyranometer, pyrgeometer and radiometer) and can be used outdoor under any weather condition.
The ventilation of the instruments increases the precision of the measures by making the pyranometer's temperature uniform, in particular prevents the deposit of dew and frost on the optical parts of the sensors and reduces the off-set of type A (present in pyranometers and pyrgeometers) caused by the cooling of the dome with respect to the instrument's body. It is possible to use the heating under extreme environmental conditions so to prevent ice formation on the dome of the pyranometer (when the heating is on, you should consider that the offset of type A may increase, therefore we suggest the use of the heating only for the time necessary to remove snow or ice formed on the instrument's surface).

The HD 9906.51 unit can be used with LP PYRA 02 and LP PYRA 10, with the pyrgeometer LP PIRG 01 and the radiometers LP PHOT 02, LP UVA 02 and LP UVB 02.

Installation and assembly of the ventilation unit
In order to install the pyranometer on the ventilation unit, it is necessary to operate in under the following procedure:
1 Loosen the three nuts that hold the bell
2 Remove the HD 9906.51 bell
3 Remove the white screen from the pyranometer
4 Remove the adjusting screws from the body of the pyranometer (if necessary, leveling will be performed by adjusting the screws on the HD 9906.51.)
5 Fix the pyranometer to the ventilation unit by using the two M5 screws
6 Make sure that the cable of the pyranometer has been properly connected
7 Reassemble the HD 9906.51 bell in its place and tighten the screws

The pyranometer is fixed to the ventilation unit by 2 screws M5x50.
To allow an accurate reading of ground solar radiation it is necessary to place the HD 9906.51 parallel to the ground; this can be done by using the bubble on the support surface of the pyranometer.

The electrical connections of the HD 9906.51 are located under the base.
There are two pairs of terminals: a pair for ventilation and a pair for heating.
The polarity of the fan must be respected, otherwise the flow of air is in the opposite direction to that expected (from bottom to top).
Figure 2 shows the correspondence between two terminals and features:

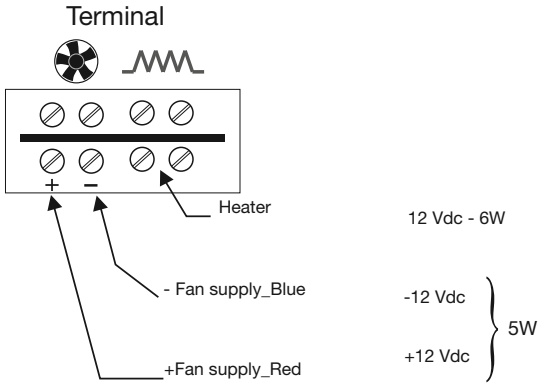


Figure 2

The power supplies required are:.

For heating is required	12V DC (6W)
For the fan is required	12V DC (5W)

The fan model is: EBMPAPST 4312V (IP 54 protection and capacity of 170m^3 / h), it is equipped with a filter (EBMPAPST: PMFA 120T) that must be periodically checked and replaced if dirty.

Specifications

Power supply :	fan	12V DC (5W)
	heating	12V DC (6W)
Working temperature:		-30 °C ÷ 70 °C

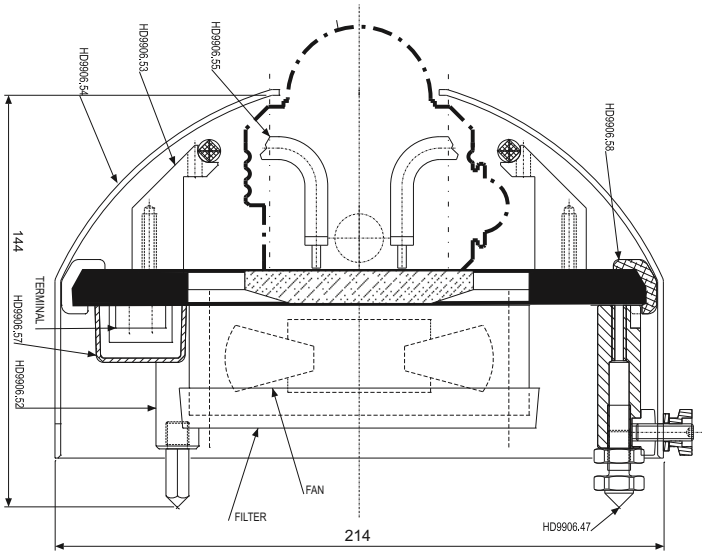
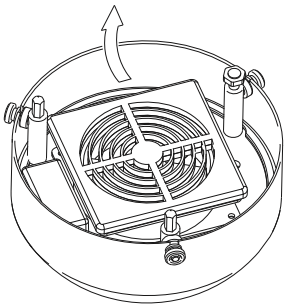


Figure 1



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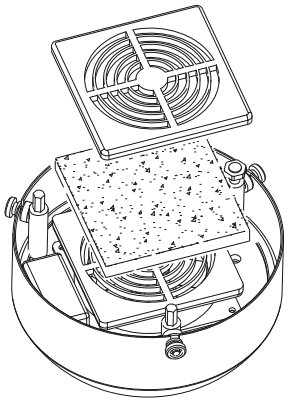

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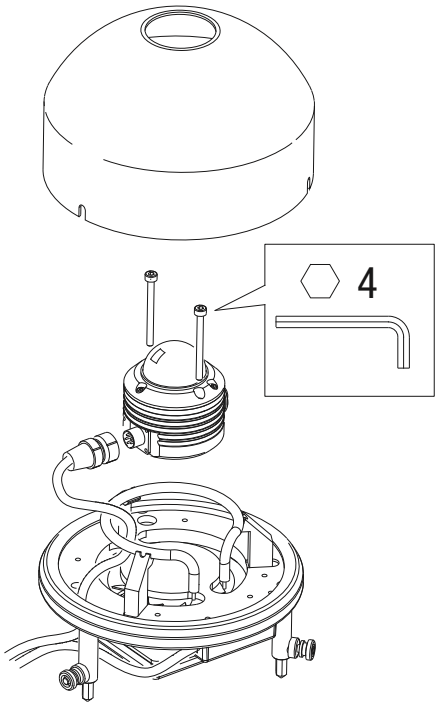

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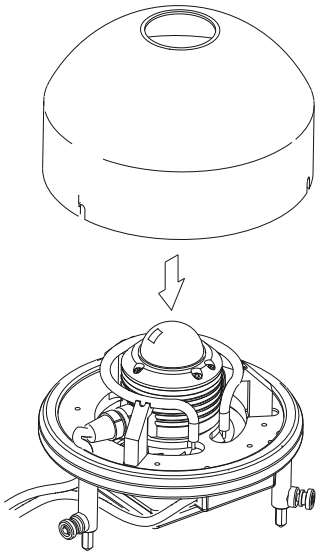

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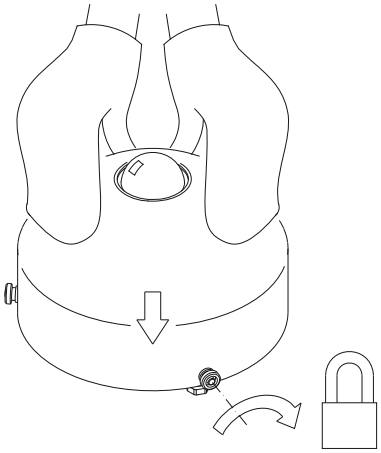

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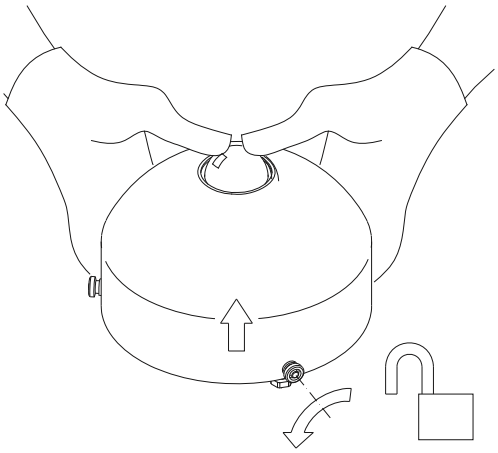

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