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HELIO THERME 3V HEE THERMOSTAT

Instruction manual



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1 - EQUIPMENT SUPPLIED



①



②



③

Ref	Description	Qty
1	Control	1
2	Screw+wall plug	2
3	Installation instructions	1

2 - INSTALLATION

2.1 - Wall-mounted control

- Do not position the control on parts of the wall covering pipes or electrical cables. It is recommended to position it approximately 150 cm from the ground.
- Do not position the control near to sources of heat, draughts or direct sunlight, or in poorly ventilated areas.
- Separate the base from the control unit by removing the locking screw from the top left section (fig.2). Place the base against the wall and mark the drill points.
- Drill the holes in the marked positions.
- Do not drill while holding the plastic base against the wall.
- Remove the connectors from the control unit by pressing as shown in figure 3: prepare the electrical connections between the control unit and the heliotherm electrical panel in accordance with the unit's wiring diagram and with the control connectors disengaged.
- For specific connection between the control and the heliotherm, refer to the diagram on the unit.
- Connect to the control unit connectors (fig.4).
- Once the connectors have been connected, insert it in the housings provided in the base.
- Affix the control to the wall using the wall plugs ⑤ provided.
- Refit the cover on the control using the screw removed previously (Fig.2).

IMPORTANT:

All connections made between the unit and the control must be placed in a suitable plastic tube. Take great care when handling the control. Do not touch the electronic components, as this may damage them. Before closing the unit, remember to configure the shunts. The connection cable between the control unit and the unit must be of the PVC type with a minimum cross section of 1mm² and shielded against radio interference. Maximum cable length between air heater and thermostat = 30m. Gather the cables exiting the control using a clamp (fig.9).

Fig.2

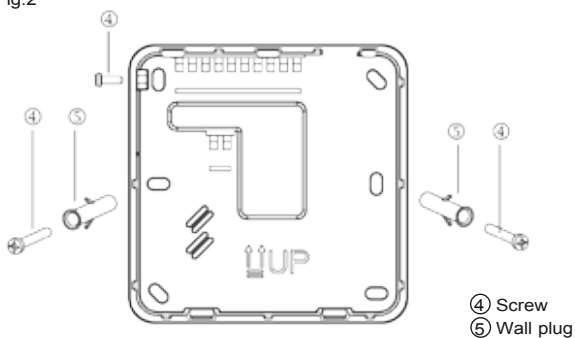


Fig.3

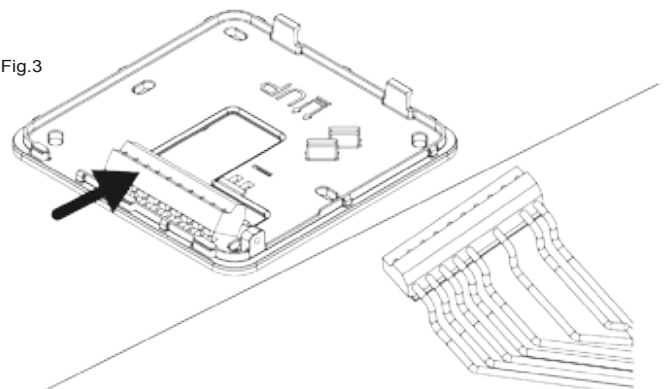
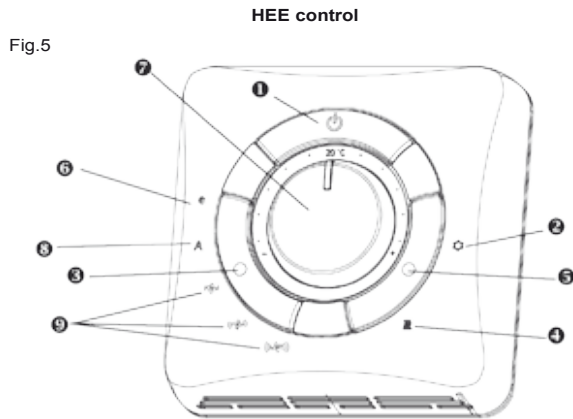


Fig.4

3 - CONTROL

The control is used in 2-tube systems with heating, 2-tube systems with cooling and 2-tube systems with heating/cooling.



- 1 ON/OFF key
- 2 Blue LED – cooling mode
- 3 FAN key
- 4 Red LED – heating mode
- 5 MODE key
- 6 Green LED – energy saving mode
- 7 Temperature adjustment button
- 8 Yellow LED – fan speed automatic selection function
- 9 Red LEDs – fan speed mode

3.1 - Functions

The HEE control includes a temperature selector (range from 10°C to 30°C) that maintains the room temperature at the selected value.

3.2 - Fan operation

The user can use the fan speed selector button to set the fan's operating mode to manual or automatic.

- In manual mode, three types of speed can be selected (low, medium, high) depending on the requirements or energy saving mode.
- In automatic mode, the fan speeds are controlled by a microprocessor housed in the control unit, according to the temperature selected. (see table of 3 speeds possible depending on the heliotherm model)

3.3 - Frost protection

This function is used to maintain a temperature of 7°C in rooms left unoccupied for long periods.

Once this temperature is reached, the control activates the fan at high speed.

The frost protection function can be activated by configuring the corresponding switch (see shunt configuration); when it is activated, it is also active when the control is OFF.

3.4 - Energy saving

Energy saving is particularly useful for air conditioning in rooms at night or rooms left unoccupied for long periods.

In this case, function (e) can be selected by repeatedly pressing the FAN key to increase the temperature by 4°C in cooling mode and reduce it by 4°C in heating mode. All other displays disappear when this function is active (green LED on).

3.5 - Summer/winter switching

- Manual
Heating/cooling mode is selected manually by pushing the control button (no. 5)
- Night mode
If the user does not touch the keys or the button for 10 seconds, the LEDs are dimmed.

3.6 - Use

Button functions:

- POWER
This button is used to switch the control unit on and off. Once the unit is off, all the functions are deactivated, however the control system is still supplied with 230 V. If the frost protection function is selected using the corresponding microswitch, this function is activated even if the control unit is off.
- MODE
This button is used to manually change the operating mode by switching from cooling to heating and vice versa.
- FAN
This button is used to manually select the fan speed (low, medium or high speed). This button can be pressed and held to activate automatic selection of the fan speed managed by the microprocessor. If this operating mode is selected, the yellow LED comes on. This button can also be used to select Energy Saving mode, in which the required temperature setpoint is 4°C higher for cooling and 4°C lower for heating. The green LED comes on when Energy Saving mode is activated.

3.7 - Temperature selector

The temperature selector maintains the temperature at the desired level. The average reference value is 20°C.

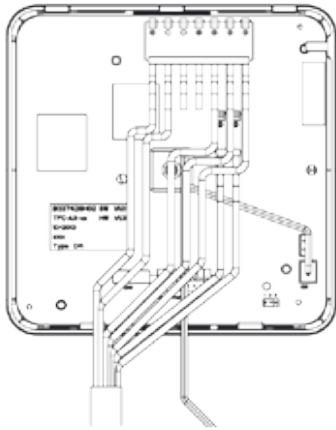
When the button is turned towards the (-) symbol, the temperature drops in relation to the originally set value (minimum value 10°C). When the button is turned towards the (+) symbol, the temperature rises in relation to the originally set value (maximum value 30°C).

3.8 - Indicator lights

- Blue LED
On Indicates that the control is in cooling mode (❄)
Flashing Indicates that the control is in frost protection mode (❄)
- Red LED (right-hand unit)
On Indicates that the control is in heating mode (🔥)
Flashing Indicates the presence of a fault (faulty sensor)
- Red LEDs (left-hand unit)
On Indicates that the fan is currently running at the selected speed
- Yellow LED (A)
On Indicates that the fan speed is selected automatically
- Green LED (e)
On Indicates that the control system is in Energy Saving mode
- Red/blue LED
Flashing Indicates that the control is in "automatic test" mode

3 - CONTROL (continued)

Fig.6



3.9 - "Shunts" function (microswitches)

- Shunt 1
In the open contact position, used to activate the frost protection function (⚙️)
- Shunt 2
Contact closed: do not remove the shunt
- Shunt 3
In the open contact position, limits the control range of the temperature button based on the following limits:
 - Cooling: minimum temperature that can be selected: 23°C
 - Heating: maximum temperature that can be selected.
- Shunt 4
Contact closed: do not remove the shunt

3.10 - Shunt configurations (microswitches)

- Shunt 1
Closed Frost protection (⚙️) deactivated
Open Frost protection (⚙️) activated
- Shunt 2
Closed Ventilation controlled by the thermostat
- Shunt 3
Closed Temperature lock deactivated
Open Temperature lock activated
- Shunt 4
Closed Air sampling deactivated
- Shunt 5
No function on this model
- Shunt 6, 7 and 8
The position of these shunts controls the motor control voltage. A higher voltage indicates a higher fan speed.

Note: in the factory configuration, all the shunts are in the closed position

Selection is based on the table below:

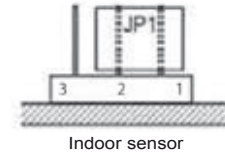
Jumper 1	Jumper 2	Jumper 3		LOW	MID	HIGH	Heliotherm model	
							Heating	Cooling
Closed	Closed	Closed	→	2V	6V	10V	H4300/H4450	H4500/H4630
Closed	Closed	Open	→	2V	4V	6V		
Closed	Open	Closed	→	6V	8V	10V		
Closed	Open	Open	→	2V	3V	4V		H4400/H4450
Open	Closed	Closed	→	8V	9V	10V		
Open	Closed	Open	→	5V	6V	7V	H4400/H4630	
Open	Open	Closed	→	4V	6V	8V	H4500	H4300
Open	Open	Open	→	3V	6V	9V	H4350	H4350

3.11 - Using the temperature sensor

- Indoor sensor:
Used in all installations with a wall-mounted control unit. Jumper JP1 is closed as shown in figure A and printed on the electronic board.

Note: in the factory configuration, the active sensor is the indoor sensor

Fig. A



3.12 - Diagnostic indicator lights

The alarm is activated in the following situations:

- Faulty sensors: the red LED flashes.
- Possible causes: malfunction or short circuit on the indoor sensor.

Fig.8

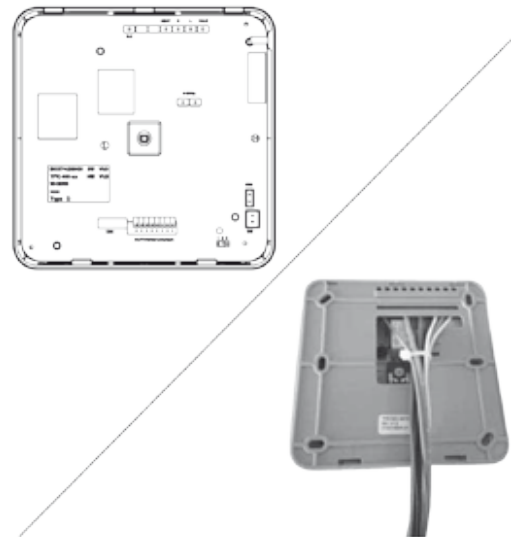


Fig.9



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