



Scientific technological Center

Via Bovio 6 – 28100 Novara - NO - Italy

Tel +39 0321697200 - Fax +39 0321 688515 - Email: info@etneo.com

www.etneo.com

PRE-HEAT/REFLOW HOT PLATE

MODEL 870 ESD

OPERATION MANUAL



I. Specification

Heating Power:	800W
Plate Area:	180mmx200mm
Plate Material:	Aluminium
Temperature Sensor:	K Type Thermocouple
Range of Adjustable Temperature:	50°C ~ 300°C
Ambient Temperature:	0~40°C
Temperature Stability:	±2°C
Outer Dimension:	280(W) x290 (L) x100 (H) mm
Weight:	5kg

II. Features

1. Surface plate temperature distributes equally.
2. Variable closed loop K type thermocouple temperature CPU control, digital display, zero voltage heater switching.
3. Two switches control power and heating separately. Temperature also displayed when cooling.
4. ESD safe by design.
5. External temperature calibration facility.
6. Hinged hood creates an oven like environment for reflow.
7. Two heating options (Pre-heating & Reflow).



III. Operation

1. Insert the plug into a suitable mains outlet.
2. Turn on the power switch.
3. The unit will display the temperature of the hot plate after displaying the set temperature for 2 seconds.
4. Adjust the UP and DOWN buttons to change the plate temperature (See Temperature Adjustment).
5. Turn on the HEAT switch, the unit begins to heat and reach the set temperature.
6. The unit may be used as pre-heat plate or mini reflow oven when removing or covering the hot plate cover.
7. Turn the heating switch to COOL. This will start to cool down to ambient temperature.
8. Turn off power switch if the unit is unused for a long time.

Note: Be aware of the high temperature on the plate and its surrounding area.

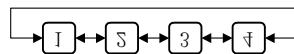
IV. Modes of 'setting' the operating temperature

Two modes are available for setting the temperature:

4.1 Regular setting – switch in Heat or Cool mode.

The heating element is powered off when setting the temperature. The display can be set using the UP and DOWN arrows in 100, 10 and 1 units.

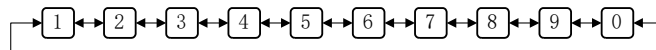
- 1) Press '*' button for 2 seconds until the 100 'unit' display flashes. The left digital value of 100 may be adjusted.
- 2) Choose the required temperature to replace the digital value of 100. Use '▲' or '▼' button to change the temperature. It is shown as either 1 2 3 or 4.



When the required value is reached, press the '*' button once again.

The middle value (digital position of 10) begins to flash, which indicates that the digital position of 10 may be set.

- 3) Choose the required temperature to replace the digital value of 10. Use '▲' or '▼' button to change the temperature. It is shown as either 1 2 3 4 5 6 7 8 9 or 0.



- 4) When the required value is reached, press the '*' button once again. The right value (digital position of 1) begins to flash, which indicates that the digital position of 1 may be set.

- 5) Choose the required temperature to replace the digital value of 1. Use '▲' or '▼' button to change the temperature.. Use the method shown above to choose the digital position of 1.

When the required value is reached, press the '*' button again to 'lock' the temperatures chosen.

This will then:

- a) Automatically lock the set temperature into inner memory.
- b) Display the actual temperature.
- c) Begin to control the heating elements.

Notes: If mains power supply is cut off when setting the temperatures, the set temperature will not be memorised.

- If the '*' button is pressed for no more than 1 second, the present set temperature will display 2 seconds. When pressing the '*' button, the power supply to the heating elements will be out off.
- When the temperature setting exceeds the maximum limit, the value of 100 will flash again. If this condition takes place, please input the correct temperature value again.

4.2 Set temperature during use

During use, if it is necessary to set temperature quickly and the mains power is not switched off, the set temperature can be adjusted quickly.

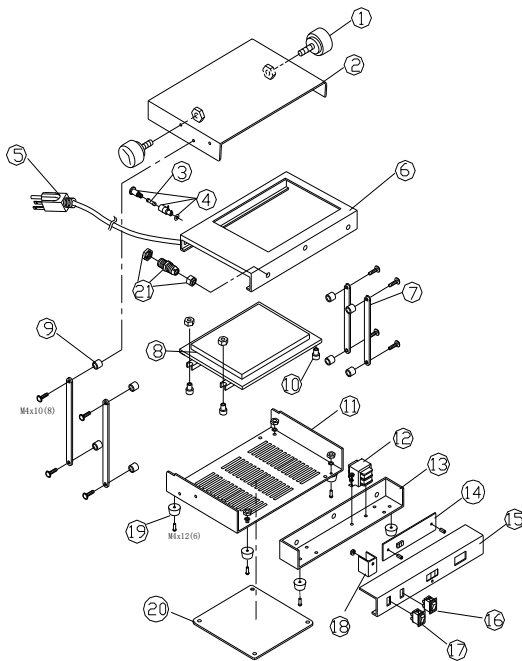
Temperature Increase:

Press the '▲' button for 1 second. The set temperature will raise 1°C. By pressing and holding the '▲' button, the set temperature will raise rapidly. Once the required temperature is reached, then release the '▲' button.

Temperature Decrease:

Press the '▼' button for 1 second. The set temperature will drop 1°C. By pressing and holding the '▼' button, the set temperature will drop rapidly. Once the required temperature is reached, then release the '▼' button.

V. Parts list



Item	Part Name
2	Reflow cover
3	Fuse/10A 125V
	Fuse/5A 250V
4	Grounding
5	Power cord
6	Top cover
7	Support column
8	Heating accessories
9	Pad loop
10	Screw nut
11	Bottom holder
12	Transformer 110V-13V
	Transformer 120V-13V
	Transformer 220V-13V
13	Power socket
14	P.W.B
15	Power cover
16	Switch (black)
17	Switch (red)
18	Temperature extrude plate
19	Rubber pad
20	Bottom plate
21	Waterproof connector