

Meso

Transdermal Electroporation

OPERATING INSTRUCTIONS



FIGURE 1 : FRONT PANEL

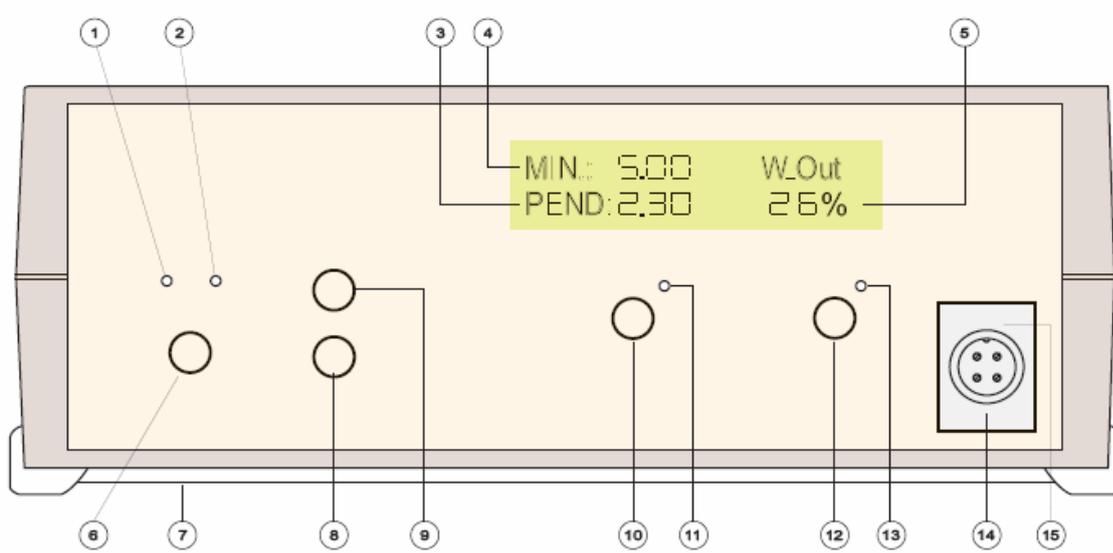
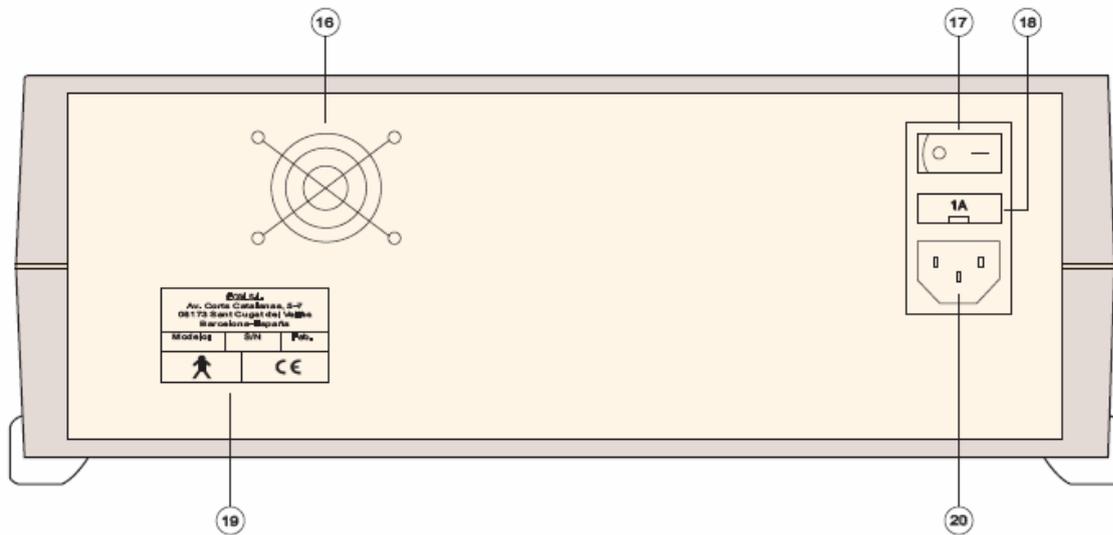


FIGURE 2 : REAR PANEL



Control Description

Fig.1:

1. Mains /AC circuit indicator.
2. Equipment on indicator.
3. Remaining timer time display (in min).
4. Total timer time display (in min).
5. Power level display.
6. Equipment on pushbutton.
7. Foldaway leg.
8. Pushbutton to decrease timer time and power level.
9. Pushbutton to increase timer time and power level.
10. Pushbutton to activate/set the timer.
11. Timer operation indicator.
12. Safety pushbutton to activate/deactivate signal output.
13. Output signal indicator.
14. Probe connector.
15. Safety catch to secure/extract probe connector.

Fig.2:

16. Fan
17. PC connection (optional).
18. 220 Vac. Mains main switch
19. Mains Fuse (1 A)
20. Production label.
21. Thermal dissipater element.
22. 220Vac. mains lead connector

Technical characteristics

Power supply voltage:	230Vac, 50/60Hz.
Maximum consumption:	360Ma
Maximum power:	60W
Protector Fuse:	1 A.

Safety recommendations

- Read the user manual before using the equipment.
- The equipment must be connected to an installation that has an earth tap and a circuit breaker.
- Do not handle any part of the equipment, connector or plug with wet (or moist) hands to avoid electrical discharges.
- Do not handle any connections or plug with the equipment in operation.
- If there is a variation of $\pm 10\%$ with respect to the rated value of the electricity supply voltage, a voltage stabiliser must be used.
- The header must always be used with the protection caps included or with a protective membrane which protects the direct contact between the header and the substances. The protectors must be cleaned after each application and changed every 20 applications. The manufacturer is not responsible for the consequences of using any substance directly on the header.

Contraindications

- This appliance must never be used on people with pacemakers or with any other active implants.
- It must not be used on epileptic people.
- It must not be used on pregnant women.
- It must not be used when there are degenerative outbreaks of the skin or infectious outbreaks of any category.
- Do not use in the scrotal area or apply directly to the eyes.
- Do not carry out on people who weigh less than thirty kilograms
- In abdominal region In case of active gastroduodenal ulcer and in gastroenteritis.

Precautions about products used

- The use of products that contain cryogenic substances is not advisable. The base of the product to be used must always be hydrosoluble or liposoluble.
- Do not use corrosive products or any type of product that might entail a risk of burns or other non/controlled alterations in their potentiation and internal activation on the tissues.
- It is important to verify the person's tolerance to the product that is going to be used, to rule out any possibility of adverse anaphylactic reaction.
- **The manufacturer of the equipment declines any responsibility for the effects derived from the use of any product used together with the MesolN equipment.** This responsibility depends on the company manufacturing this product and on the criterion of the professional responsible for using it.

Operation mode

On

Check that the main lead is correctly connected to the equipment outlet (22) and to the main socket (which must have an earth tap).

Make sure that the probe is correctly connected:

To the equipment by means of the connector (14) and in the applicator by means of the threaded connector that is has got on the top.

Connect the switch (19). The indicator (1) must light up.

Connect the probe in the connector (14).

Push button (7). The light and the fans will come on and the following message will be displayed:

MESOIN VER. 1.01

The main screen will then be shown:

MIN.:00	W_Out
PEND:00	=> 00%

In this situation (00%), if (12) is pressed, there will be no output.

Give power

The power level goes from 1% to 99%.

To increase the power level, press (9) until the desired value is show on (5) (remember that it increases in intervals of 1 and reaches a maximum of 99%).

To decrease the power lebel, press (8) until the desired value appears on (5) (remember that it decreases in intervals of 1 and reaches a minimum of 1%).

Once you have selected the desired power value, press (12) to activate it. Indicator (13) must light up as well as the indicator on the applicator handle (the luminosity of this indicator will be proporcional to the power level selected).

If you press (12) again the power will disconnect and the indicators (13) and the applicator must go off.

If this is not the case, switch the equipment off using the main switch (18) situated on the rear panel.

Time selection

The equipment can work with a timer that goes from 1 to 60 minutes in 1 minute intervals. When the programmed time ends, the power will automatically disconnect.

To program a time, follow these steps:

Make sure the equipment is not giving power (indicator (13) is switch off)

Press (10). The indicator (11) will now come on and change the selector (= >) of the main screen:

MIN.:00	W_Out
PEND:00	= > 20%

MIN.:00	W_Out
< =	
PEND:00	20%

Then, press (8) or (9) to decrease/increase the time until the desired minutes appear, for example 5 min:

MIN.: 05	W_Out
< =	
PEND:00	20%

After that, press (10) again, it will appears:

MIN.:05	W_Out
PEND: 05	=> 20%

Showing that the time is set and the (= >) symbol in the power level part means that you can modify it or keep going with the usual operating.

When you press (12), indicator (13) will now come on as well as (11), which will begin to flash at intervals of approximately one second until the time ends.

If you press (12) again (and there is still pending time) the timer will stop and you can modify the time if you wish or continue with the time remaining.

Probe presence

If the probe is not in place when the equipment is started up, the following message will appear

CLOSE EQUIPMENT
CONNECT PROBE

As the messages indicates, the equipment must be switched off and the probe connected.

If the probe disconnects during the use of the equipment, the following message will appear>

CLOSE EQUIPMENT
FAULT IN PROBE

Proceed as explained above.

