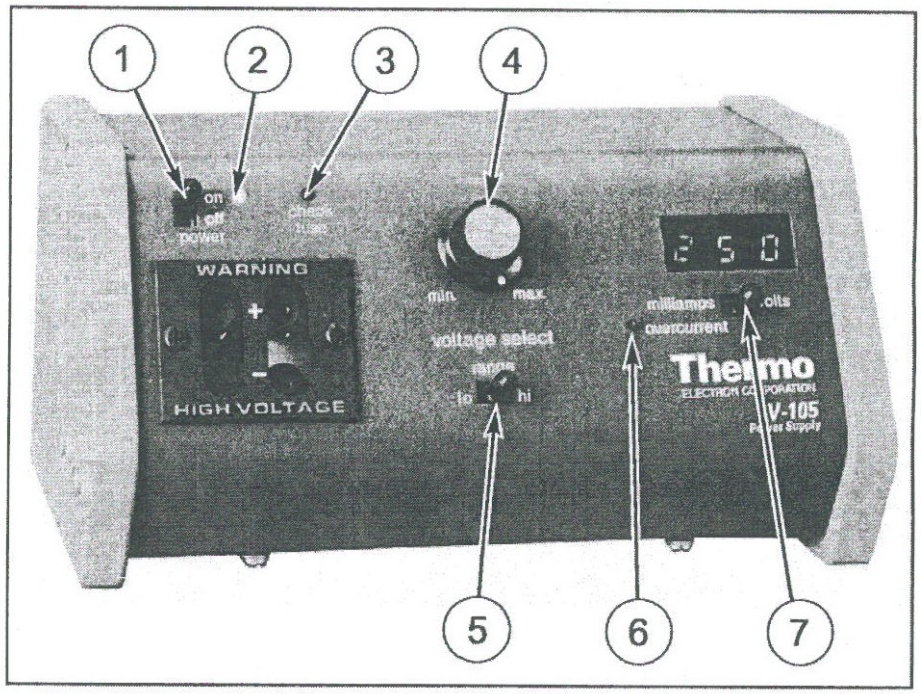
157-3000-00 Rev. E

Instructions
EC-105
Electrophoresis Power Supply

IMPORTANT
Please read these instructions carefully
before using this apparatus

Thermo
ELECTRON CORPORATION



1– Main Power Switch
2– Power On LED
3– Check Fuse LED

4– Voltage Select Control
5– Lo/Hi Range Switch
6– Overcurrent LED
7– Volts/Milliamp Display

INTENDED USES AND SPECIFICATIONS

The EC-105 Power Supply is intended for use with any electrophoretic device designed to operate below 250 Volts and 500 milliAmps DC. Two sets of outputs operate in parallel to provide between 20 and 250 volts, up to 500 milliamps, and up to 75 watts in the constant voltage mode. A single LED display provides output voltage or current readings. Overcurrent protection is provided by audible and visual alarms and a single 1 amp slo blow fuse on the main circuit.

(1) SET UP

(a) Unpack and Check:

Unpack and carefully examine the power supply. Report any damage to the distributor. Do not attempt to operate this device if physical damage is present. Save all packing material if damage is found.

(b) Electricity Supply:

Before connecting this device to the electricity supply, check the information given on the power supply rating label and confirm the following:

- Your electricity supply is single phase A.C. (alternating current) of the stated frequency with neutral nominally at earth potential.
- Your supply voltage is within the stated range.
- The current rating is within the capacity of your supply outlet.

WARNING: THIS EQUIPMENT MUST BE EARTHED.

The wires in the electrical lead are colored in accordance with the following code:

Green Earth (Ground) White Neutral (Common) Black
Live (Phase)

Connect the wires to a non-reversible plug as follows:
Green wire to the terminal marked E (Earth), G (Ground), or colored Green.
White wire to the terminal marked N (Neutral) or Common.
Black wire to the terminal marked L (Live) or Phase.

IMPORTANT ELECTRICAL SAFETY NOTES:

Consult a qualified electrician if any doubt or if your electricity supply system has any of the following:

- No Earth
- A Color Code Different from the Above
- Reversible Plugs
- Supply and Return Leads that are Both Above Earth Potential

(c) Locate:

Place the power supply in proximity to the electrophoretic cell(s) with which it is to be connected. Be sure to place the power supply in a safe, dry location with all the controls accessible.

(d) Connect to Cell and Mains:

Connect power supply to electrophoretic cell, then to the AC receptacle.

(2) OPERATION

Power On:

After the power supply is properly connected to the electrophoretic cell(s), select the lo range and set Voltage Select to the fully counter-clockwise (minimum) position. Set the display switch to Volts and turn on power using the Power switch. When "On," the red LED is illuminated.

(b) Select Voltage:

(a) Adjust the Voltage Select control to the desired output voltage. The Select Control will increase the output voltage approximately 10 volts for every incremental adjustment. The lo/hi range switch is set to the hi position whenever operating voltages above 140 volts are required.

PLEASE NOTE: The overcurrent alarm will sound whenever maximum output current (500 mA) is exceeded. Should this occur, reduce the operating voltage until the overcurrent alarm goes off.

The volts/milliamps display switch will display either volts to nearest volt or milliamps to the nearest milliamp, depending on the switch setting. This switch may be changed at any time without affecting the output.

(c) Disconnection:

When disconnecting the power supply from the electrophoretic cell, for any reason, first turn off the power switch and confirm that the red LED is no longer illuminated.

(3) PRECAUTIONS AND SERVICE

Use the same precautions as with any electrical device. Do not operate without the cover in place or with any possible short circuit. Do not operate in a damp, humid environment where condensing moisture may short out internal electrical components. When moving to or from a cold room, allow at least eight (8) hours for the unit to temperature–equilibrate.

This power supply is equipped with a slo blow 1 amp fuse in the mains circuit. Should this fuse open, the check fuse LED on the front panel will illuminate. USE ONLY 1 AMP (3/4 AMP FOR 240 VAC MAINS) SLO BLOW FUSES IN THIS EQUIPMENT.

Should this product become excessively warm, smoke, or display erratic information during operation, discontinue use immediately and contact a qualified service representative.

(4) CLEANING

Use only mild, non-abrasive detergents. DO NOT use solvents or immerse in water, as this may cause permanent damage.

(5) TECHNICAL SPECIFICATIONS

EC-105 Minicell Power Supply (115V/60Hz or 230V/50Hz)

Output mode:	Constant Voltage
Voltage Steps:	Lo Range: 20,30,40,50,60,70,80,90,100,110,120,130
	Hi Range: 140,150,160,170,180,190,200,210,220,230,240,250
Maximum Voltage:	250 Volts
Maximum Current:	300 milliAmps @ 150–250 Volts 500 milliAmps below 150 Volts
Maximum Power:	75 Watts

Number of Outputs: 2

Fuse Replacement: 1 Amp slo blow
Temperature Range: 0°C – 40°C (non-condensing atmosphere)

Dimensions:	8" (W) x 6" (D) x 4.5" (H) 20.3 cm x 13.3 cm x 11.4 cm
Weight: (net)	5 lbs 2.3 kg
Weight: (shipping)	7 lbs 3.2 kg

Thank You

for purchasing our EC-105 Power Supply.

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