3B SCIENTIFIC® PHYSICS



DC Power Supply 1.5-15 V, 1.5 A (115 V, 50/60 Hz) DC Power Supply 1.5-15 V, 1.5 A (230 V, 50/60 Hz)

1003559 (115 V, 50/60 Hz) 1003560 (230 V, 50/60 Hz)

Instruction Sheet

04/012 ELWE/ALF



1. Safety instructions

The DC power supply unit conforms to the safety regulations for electrical measuring, control, monitoring and laboratory equipment, as specified under DIN EN 61010, section 1, and is designed to be classified as protection class I equipment. It is intended for operation in a dry environment as this is suitable for the operation of electrical equipment and systems.

Safe operation of the equipment is guaranteed, provided it is used correctly. However, there is no guarantee of safety if the equipment is used in an improper or careless manner. If it is deemed that the equipment can no longer be operated without risk (e.g. visible damage has occurred), the equipment should be switched off immediately and secured against any unintended use.

1 Output socket, positive

- 2 Output socket, negative
- 3 Indicator LED, ON
- 4 Adjusting knob for output voltage
- 5 Voltage display
- 6 On/off switch

Caution: the low-voltage output of the power supply is not surge-proof if exposed to external voltages of more than 100 V with respect to earth.

- When using the equipment in conjunction with other power supplies, e.g. for operating electron tubes, be careful that no voltages in excess of 100 V with respect to earth are present at the outputs.
- Before putting the DC power supply unit into operation, confirm that the specifications printed on the rear side of the housing are compatible with the local mains voltage.
- Before putting the DC power supply unit into operation, check the housing for any damage. In the event of any malfunction/operational defect or visible damage,

switch off the unit immediately and secure it from unintentional use.

- Connect the equipment only to sockets with an earthed neutral.
- Before making any connections, check the experiment leads for damaged insulation and exposed wires.
- Replace any blown fuses only with new ones that match the specifications stated on the rear of the housing.
- Never short the fuse or the fuse holder.
- Never cover the air vents and heat sink at the rear of the housing. These are necessary in order to ensure sufficient circulation of air required for cooling the components inside the equipment.
- The equipment may only be opened/repaired by qualified and trained personnel.
- Never switch on the power supply unit immediately after it has been brought from a cool environment into a warm environment. The condensed water formed on account of a sudden change of temperature can, under unfavourable conditions, be damaging for the equipment. Do not switch on the equipment without first allowing it to attain ambient temperature.
- Never operate power supply units unattended or without supervision.

2. Description

The 1.5-15 V DC power supply unit provides a continuous DC voltage which can be regulated between 1.5 V and 15 V at a current of 1.5 A. The power supply unit is equipped with an electronic current limiting system and a thermal protection mechanism. The DC power supply unit has a built-in mains fuse which is accessible only after the equipment has been opened (see "Safety instructions").

If operating for a long period at maximum current and low output voltage or when shortcircuited, the equipment's heat sink becomes very hot. When the heat sink has exceeded a critical temperature, the equipment shuts off automatically. After a cooling period of approx. 2-3 minutes, the equipment simply has to be switched off and on again, after which it is once again operational.

The power supply 1003559 is for operation with a mains voltage of 115 V (\pm 10%), and the unit 1003560 is for operation with a mains voltage of 230 V (\pm 10%).

3. Technical data

Mains voltage:	see rear
Wattage:	max. 40 W
Output voltage:	1.5-15 V DC
Output current:	0-1.5 A
Ripple voltage U:	10 mVrms
Mains fuse:	see rear
Dimensions:	110 x 80 x 150 mm ³
Weight:	approx. 1.5 kg

4. Operation

Obtaining a DC voltage

- Connect the unit to the mains supply. Turn the voltage control knob fully to the left.
- Connect the load to the output sockets.
- Press the mains switch; the indicator LED lights up.
- Set the required voltage using the adjusting knob for output voltage.

5. Care and maintenance

- Before cleaning the equipment, disconnect it from its power supply.
- Use a soft, damp cloth to clean it.

6. Disposal

- The packaging should be disposed of at local recycling points.
- Should you need to dispose of the equipment itself, never throw it away in normal domestic waste. Local regulations for the disposal of electrical equipment will apply.



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