3B SCIENTIFIC® PHYSICS



Transformer with Rectifier, 1 ... 12 V, 6 A (115 V, 50/60 Hz)
Transformer with Rectifier, 1 ... 12 V, 6 A (230 V, 50/60 Hz)

1001009 (115 V, 50/60 Hz) 1001010 (230 V, 50/60 Hz)

Instruction sheet

05/12 ALF



- 1 Ventilation slots
- 2 DC output sockets
- 3 Overload safety switch
- 4 Voltage selector switch
- 5 AC output sockets
- 6 Power switch

1. Safety instructions

The transformer with rectifier conforms to all safety regulations for electrical measuring, control, monitoring and laboratory equipment, as specified under DIN EN 61010, Section 1, and the equipment has been designed to meet protection class I. It is intended for operation in a dry environment, 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 may be assumed for any reason that non-hazardous operation will not be possible (e.g. visible damage), the equipment should be switched off immediately and secured against any unintended use.

In schools and other educational institutions, the operation of the power supply unit must be supervised by qualified personnel.

Caution: the low-voltage outputs of the power supply are not surge-proof if exposed to external voltages of more than 2000 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 2000 V with respect to earth are present at the outputs.
- Before using the power supply unit for the first time, confirm that the specifications printed on the rear side of the housing are compatible with the local mains voltage.
- Before using the power supply unit for the first time, check the housing and the mains lead for any damage. In the event of any

malfunction/operational defect or visible damage, switch off the unit immediately and secure it against unintended use.

- The instrument may only be connected to the mains via a socket that has an earth connection.
- Before making any connections, check the experiment leads for damaged insulation and exposed wires.
- Replace a faulty fuse only with one matching the specifications stated at the rear of the housing.
- Disconnect the equipment from the mains before replacing a fuse.
- Never short the fuse or the fuse holder.
- Never cover the ventilation slots in the housing. This is necessary in order to ensure sufficient circulation of air required for cooling the internal components of the equipment.
- The equipment may only be opened/repaired by qualified and trained personnel.

2. Description

The transformer with rectifier provides small voltages, switchable in twelve voltage steps, with outputs in the form of AC voltages or full-wave rectified DC voltages.

The maximum load for each output is 6 A. Both outputs are protected against short-circuiting.

The transformer with the item number 1001009 is for operation with a mains voltage of 115 V $(\pm 10\%)$, and the transformer with the item number 1001010 unit is for operation with a mains voltage of 230 V $(\pm 10\%)$.

3. Technical data

Mains voltage: see rear of housing
Output voltage: 1/2/3/4/5/6/7/8/

9 / 10 / 11 / 12 V AC/DC

Maximum load: 6 A

Primary fuse: see rear of housing
Terminals: 4 mm safety sockets
Dimensions: 190x210x160 mm³ ap-

prox.

Weight: 3 kg approx.

4. Operation

4.1 General information

- The AC and DC outputs cannot be used at the same time.
- Connect the power cord to the transformer.
- Before connecting the plug to the mains supply, set the voltage selector switch to one and switch-off the power switch.

4.2 Obtaining an AC voltage

- Connect the load to the AC output sockets.
- Set the voltage selector switch to give the required voltage; if necessary connect a voltmeter in parallel with the load.
- Connect the unit to the mains supply and switch on the power switch.

4.3 Obtaining a DC voltage

- Connect the load to the DC output sockets.
- Set the voltage control to give the required voltage; if necessary connect a voltmeter in parallel with the load.
- Connect the unit to the mains supply and switch on the power switch.

4.4 Overload safety switch

If the current is excessive or there is a shortcircuit between the output sockets, the overload safety switch trips out and breaks the circuit.

o If that occurs, correct the fault at the output sockets and, after an interval of one minute, press the overload safety switch back in.

4.5 Changing the fuse

- Unplug the mains plug.
- Remove the power cord from the transformer.
- Lift out the fuse holder at the back of the power supply unit using a flat tool such as a screwdriver (see fig. 1).
- Replace the fuse and reinsert the holder in its socket.

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.

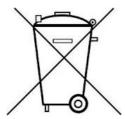






Fig.1 Changing the fuse