

5A 1-12V AC/DC Power Supply

General Description

The unit delivers AC or full wave rectified DC from 1 to 12 volts in 1V steps at up to 5 amps. The maximum output voltage may be limited to 6V by use of the key switch. The output is short circuit protected by a solid state electronic cut-out.

The Unit in Use

The unit is switched on using the mains rocker switch which illuminates when on. Should the switch fail to illuminate, check that mains power is present at the socket and that the mains plug fuse (3A or 5A) is intact. If the fault does not lie in the mains supply or mains plug fuse, the unit's internal fuse should be checked (see below). Voltage selection is achieved by turning the rotary switch. AC and DC may be used simultaneously up to a total loading of 5A. The output voltages are nominal and will depend on the load being driven. DC voltages will be about 1 volt lower than the corresponding AC voltage. It is recommended that a voltmeter be used to determine the precise voltage. The output terminals will accept standard 4mm plugs or crocodile clips. If the terminal is unscrewed then connections may be made through the transverse hole using bared wire or 2mm plugs.

Fault Finding

Replacing the internal fuse. **Unplug the unit from the mains supply.** Unscrew the eight screws around the edge of the case (not the front panel screws) and carefully pull away the lid. The fuse holder is mounted on the printed circuit board next to the transformer. Lever off the protective cover, replace the fuse (2A quick blow, 20mm) and re-assemble.

No power output A short circuit has occurred and the cut-out has operated.
Remove the fault and switch off. Wait 10 seconds and switch back on..

Safety Testing

The unit is rated as a Class 1 (earthed) appliance. To perform an Earth Bond test using a suitable PAT, the recommended test points are the two screw heads at the rear of the underside of the case (the transformer mounting bolts. For further details on safety testing please refer to Health and Safety Executive leaflet GS23 (ISBN 0 11 883567 X).

Specification

Input

Supply voltage	230V a.c .
Supply frequency	50Hz
Maximum power	100W
Internal fuse rating	2A quick blow
Mains plug fuse rating	3A

Output

Voltage	1-12V unregulated d.c. and a.c. in 1V steps
Maximum output current	5A

Electromagnetic Compatibility

The use of this apparatus outside the classroom, laboratory, study area or similar such place invalidates the conformity with the protection requirements of the Electromagnetic Compatibility Directive (89/336/EEC) and could lead to prosecution.