

5V 1A d.c. Current Limited, Regulated Power Supply

Instructions for Use

General Information

The power supply gives a smoothed, regulated output of 5 volts at currents of up to 1 amp. The unit has been designed to give a maximum current of 1 amp even under short circuit conditions and is, therefore, particularly suitable for powering Locktronics systems where the power transistors are designed to withstand up to 1 amp of base current.

The powering of incandescent lamps can sometimes cause problems if the normal running current of the lamps is just below 1A. When cold, the lamp filament has a low resistance which would allow more than 1A to flow. Under normal circumstances this resistance drops rapidly as the filament heats up (this is why lamps most often “blow” when first switched on). The current limiting circuit in the power supply detects this switch-on surge of current and, if it would be above 1A, limits the output current. The overall effect is that the lamp never receives enough power to actually light. This does not represent a fault but merely underlines the fact that the current limiting is doing its job. For this reason we do not recommend using the unit to power high current lamps.

The output is monitored by a red led on the front. Should this fail to light, then check that:

1. The mains supply is switched on.
2. The mains plug fuse is OK. Replacement is a 3A fuse. **Do not fit a 13A fuse.**
There are no user serviceable parts inside the unit.

N.B. Prolonged short circuit conditions should be avoided.

Safety Testing

The unit is classified as Class 2, double insulated - therefore an earth bond test is not required. For further details on safety testing, please refer to Health and Safety Executive leaflet GS23 (ISBN 0 11 883567 X).



The unit is double insulated and does not require an earth connection.

Specification

Input

| | |
|------------------------|-----------|
| Supply voltage | 230V a.c. |
| Supply frequency | 50Hz |
| Maximum power | 12W |
| Mains plug fuse rating | 3A |

Output

| | |
|---------|--------------------------------|
| Voltage | 5V smoothed and regulated d.c. |
| | Maximum output current 1A |

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.