

# 15V Dual Rail Power Supply

## General Description

The unit is designed for operation from a 240V 50Hz mains supply.



The unit is double insulated and does not require an earth connection. The unit supplies +/- 15V d.c. at a maximum current of 300mA per rail or may be used as a single rail 30V, 300mA supply. The unit is short circuit and overload protected.

## Using the Power Supply

The unit should be plugged into a suitable mains socket. Power on is indicated by the red led on the front of the unit. The output terminals, which will accept 4mm and 2mm plugs, bared wire, spade terminals or crocodile clips, are colour coded as follows:

- red +15V
- blue 0V
- black -15V

The power supply is short circuit protected by an automatically resetting thermal cut-out which protects against short circuits between +15V and 0V and -15V and 0V. When a short circuit of this type occurs, a faint clicking will be heard and the brightness of the led will fluctuate. On removal of the fault, the unit will reset in 5-10 seconds. A short circuit between the +15V and -15V terminals causes the internal circuitry to fold back and extinguishes the red led.

**N.B.** The unit is fitted with a thermal fuse to protect against overheating caused by continuous overload. As this fuse requires factory replacement, prolonged overload should be avoided.

## Mains Fuse

Should the red led not illuminate when the unit is plugged into the mains supply, the mains plug fuse should be checked. A suitable replacement is 1A, 2A, 3A or 5A. **Under no circumstances should a 13A fuse be fitted.**

## Electrical Safety Testing

The unit is classified as Class 2 (double insulated). When performing safety checks in compliance with Health and Safety Executive leaflet GS23 (ISBN 0 11 883567 X), an earth bond test is not required. A 500V DC insulation test must give a result greater than 7M $\Omega$  to comply with current regulations.

## Specification

### Input

Supply voltage	230V a.c.
Supply frequency	50Hz
Maximum power	15W
Internal fuse rating	250mA quick blow
Mains plug fuse rating	3A

### Output

Voltage	+15V, 0V, -15V smoothed and regulated d.c.
Maximum output current	300mA per rail

## 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.