

# 8A 2-12V AC/DC Power Supply

## General Description

The unit provides ac or dc outputs in 2V steps from 2V to 12V, up to a maximum current of 8 amps. The output voltage is selected by use of the front panel rotary selector switch. AC/DC selection is via a keyswitch. The maximum output voltage may be limited by a screwdriver operated switch. The output is protected against short circuit and overload by an automatic cut-out. Under fault conditions, this will operate and reset when the fault is removed.

## Using the Unit

When switched on, the rocker neon will glow. The maximum voltage limiter may be set by inserting a small screwdriver in the unit found on the front, underside of the case. Clockwise rotation will increase the maximum voltage, which may be monitored by the corresponding led on the front panel. If the front panel rotary selector is switched to a higher voltage than the selected maximum, the output voltage will fall to zero. AC or DC output may be selected by the front panel keyswitch. The AC and DC output voltages marked on the selector are nominal and will depend on the amount of current being drawn. Generally, the DC voltages will be about 1V lower than the AC voltages.

The DC output is full wave rectified but is not smoothed and is, therefore, unsuitable for electronics work unless a large value electrolytic capacitor is connected in parallel with the output.

**N.B. Should a smoothing capacitor be used, the DC voltage will rise to approximately 1.4 times the selected voltage.**

## Mains Fuses

Should the rocker switch not illuminate when the mains is switched on, then the rear panel and mains plug fuses should be checked. The mains plug fuse may be removed by levering out the holder from the mains plug. Replacement fuse is 5A. **Do not use a 13A fuse under any circumstances.**

The rear panel fuse is 5A, 20mm quick blow type.

## Electrical Safety Testing

The unit is classified as Class 1 for the purposes of safety testing. Suitable earth test points are the green earth terminal or any of the four feet securing screws. 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	120W
Panel fuse rating	5A quick blow 20mm glass
Mains plug fuse rating	5A

### Output

Voltage	2-12V unregulated dc/ac
Maximum output current	8A

## 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.