

APS Current Limited Power Supply

The APS Current Limited Power Supply is self contained in metal trunking and is designed to be permanently installed in a laboratory or technology room. The unit is designed to be wall mounted, fixed to a bench backing board or it may be trolley mounted.

At either end of the trunking is a 20mm hole. One end is fitted with a blanking plug and the other with a cable gland, which are interchangeable. A mains supply should be taken through the cable gland and terminated at the three way connector following the colour scheme.

Two main methods of electrical connection are possible:

1. Hard wire into the mains supply using twin and earth (2.5mm). Please note the cable should be fused at the supply end with a 30A fuse.
2. Wire to a convenient mains socket using 13A cable and a mains plug fitted with a 13A fuse. As an alternative, use a ready prepared unterminated mains cable and plug into a convenient socket. Please note that if this route is taken, the mains current will be limited, by the cable, to a total of 5 amps.

Once the wiring has been completed and checked, the unit may be screwed to the wall in a convenient position. Prior to fixing, the blanking plug should be glued in position. It is suggested that a spirit level is used when fixing.

Instructions for use

The unit provides three separate power supplies which may be used simultaneously at full load.

Output 1 is a soldering supply which provides 24V ac at up to 50VA.

Output 2 is a 5V regulated, smoothed dc supply which is current limited at 1A.

Output 3 is a variable smoothed and regulated dc supply which can be varied between 3 and 15V. The variable supply is current limited at approximately 1.5 amps and its output is displayed on the voltmeter.

A small hole is positioned to the left of the negative output terminal. If a jeweller's screwdriver is rotated in this hole, it allows one to limit the maximum voltage available. To do this, turn the control knob fully clockwise and then turn the screwdriver anti-clockwise until the desired maximum voltage is displayed on the digital voltmeter.

All three power supplies are fitted with a monitoring system. Under normal conditions the appropriate led will glow green but under short circuit/overload conditions, it will turn red. This indicates a fault in the circuit attached to the unit and that circuit should be checked.

The unit is switched on using the illuminated rocker switch on the right hand side. Should this not illuminate, the fuse immediately beneath it should be checked and replaced if necessary. (Replacement fuse is a 20mm, 2A quick blow).

N.B. The mains sockets are powered irrespective of the position of the mains switch.

Specification

Mains supply	230/240V a.c. 50Hz
Mains Fuse	2A

Electrical Safety Testing

The unit is classified as Class 1 for the purposes of safety testing. A suitable earth test point is the earth terminal on the front panel. For further details on safety testing, please refer to Health and Safety Executive leaflet GS23 (ISBN 0 11 883567 X).