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# IPC Irwin Powerbase PSU

Part Number IPC-0120)

## User Instructions



### INTRODUCTION.

The Powerbase PSU is a heavy-duty power supply designed to provide both continuously variable AC and DC voltage supplies upto a current of 8 Amps. In addition, this power supply includes our unique Voltage Limiting System (VLS) which enables the teacher to set and lock a maximum voltage level for the AC or DC output.

### DESCRIPTION.

The Powerbase PSU provides both a continuously variable 0-15VAC voltage range and a 0-20VDC (capacitor smoothed) voltage range, both outputs may be used simultaneously upto a combined output current of 8A.

The control panel contains a voltage adjustment control knob, which is used to select the required output voltage, the approximate voltages are shown surrounding the control. Also fitted to the control knob is the Voltage Limiting System (VLS) disc. The control panel also contains five 4mm output sockets for AC, DC and Earth connections along with an overload reset button.

The rear panel contains an illuminated (green) mains on/off switch and a mains input IEC socket containing an in-built protection fuse. Normally the unit is supplied with a separate UK plug to IEC plug 2.0m mains lead.

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## INSTRUCTIONS.

To set the required AC output voltage simple rotate the voltage control knob to the desired voltage using the inner (AC) voltage scale, use the two yellow 4mm sockets to connect to the AC output.

For setting the DC output voltage simply use the outer (DC) voltage scale and use the red (positive) and black (negative) 4mm sockets to connect to the DC output.

The reset button operates if there is a short circuit or overload on either of the outputs in excess of the maximum 8 Amps output. Should the reset button pop out, switch off the supply, rectify the fault, switch on again and press the button in. Please note that the button takes about 5 seconds to reset and will not work if pushed within this time.

Should the mains on/off switch fail to illuminate and there is no output power from the unit, then first check the 2.5A fuse at the rear of the unit (located in the mains IEC socket), if this is found to be intact then check the 3A fuse in the mains plug (if UK plug).

**Please note:-** when there is no load connected (or a very small load) the output voltages (AC and DC) are higher than shown on the voltage control scale, for a more accurate measurement of the output voltage a suitable voltmeter or multimeter should be employed.

### How to use the Voltage Limiting System.

The Powerbase PSU also includes our unique Voltage Limiting System (VLS), this comprising of a clear disc and locking allen screw, which sets the maximum voltage obtainable, to set the limiter proceed as follows:-

- Set the maximum voltage required using the voltage control knob (as instructed above).
- Loosen the allen locking screw using the key provided to allow the clear disc to turn.
- Rotate the clear disc counter-clockwise until the limiter screw/stud on the disc touches the pointer on the voltage control knob.
- Firmly tighten the allen locking screw using the key to lock the clear disc in place.

## SPECIFICATIONS.

Electrical Supply	= 220-240VAC, 50-60Hz
Fuse Ratings	= IEC Socket Inlet: 2.5A, UK Mains Plug: 3A
Dimensions	= 255 x 230 x 120mm overall
Mass	= 5.3kg
AC Output Voltage Range	= 0 to 15VAC
AC Output Current	= 8A (Max.)
DC Output Voltage Range	= 0 to 20VDC
DC Output Current	= 8A (Max.)
Voltage Limiting Range	= From 0V to full Voltage (both AC and DC)

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**Please Note:** This Equipment is for Education, Training, or research Purposes Only.

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