SPECTRAL LAMP POWER SUPPLY

Cat: HL3794-001 Spectral lamp & power supply (low cost)

DESCRIPTION:

This low cost IEC Spectral Lamp & Power Supply is a self contained instrument for operating high intensity Spectral Lamps used for optical work and as a light source for the IEC Spectrometer when doing ‘AA’ experiments.

The spectral lamp is plugged into the top face of the housing inside a ‘chimney’. The outer removable section of the ‘chimney’ is ventilated and can rotate to provide a choice of 3x apertures for the light to emerge. These apertures are: large hole, narrow slit or small hole. If required, the user can cut more apertures to suit special requirements.

HL3794-001 spectral lamp & power supply

Physical size: 171x130x250mm LxDxH  Weight: 1.45 kg
The low cost IEC Spectral Lamp & Power Supply is specially designed for use in the classroom. It is powered from 220/240V.AC 50/60Hz mains with a removable mains cable.

Spectral lamps are special discharge lamps which, during manufacture, are filled with certain specific gases. When electric current is passed through the gas, the discharge glows and a certain single wavelength or set of known wavelengths of light is emitted. This light of exactly known wavelength can be used for many optical experiments. The voltage required to force the gas to conduct electric current is very high but, once conduction begins, the power supply provides a much lower voltage to maintain the current flow.

The brightness of the discharge depends on the type of gas used and the temperature of the gas. As the gas heats, the discharge generally glows brighter.

The tube is extracted from the top of the ‘chimney’. The removable part has apertures that can be selected by rotating the outer section to the desired position. The rear of the instrument has a label with instructions and on/off switch.
NOTE: If the power is turned off the lamp when it has already heated its gas, the lamp may not re-start until the gas temperature cools again to be closer to ambient temperature.

This special power supply provides the special electrical characteristics required to operate spectral lamps.

Features of the low cost IEC Spectral lamp & power supply:

- **SAFE:** Designed to proper engineering standards of electrical safety.
- **COMPACT:** The attractive unit takes very little space in the lab.
- **PROTECTED:** The tube is always protected from damage inside the ‘chimney’.
- **EASY TO USE:** Power is applied by a single illuminated rocker switch on the rear panel. There is no separate lamp holder because the lamp plug directly into the top of the power supply. No need for retort stands or clamps.
- **EASY TO CHANGE A TUBE:** Simply lift off the outer sleeve, carefully hold the top of the tube firmly and move slightly from side to side while extracting vertically from the socket.
- **COMPATIBLE with the IEC SPECTROMETER:** The unit is designed to be compatible with the IEC Flame & ‘AA’ Spectrometer and the height of the light apertures match the height of the spectrometer viewing tube.

**LOW COST SPARE LAMPS:** For low cost Mercury, Sodium, Helium and Neon spectral lamps, refer to the IEC ‘PA’ listing in the catalogue for the various lamps available. These 8 pin (octal base) tubes also fit the separate lamp holder as used in catalogue number HL3795-001 power supply with HL3796-101 holder.

Mercury: PA3797-101  
Sodium: PA3797-102  
Neon: PA3797-103  
Helium: PA3797-104

Designed and manufactured in Australia