

# Spectrum Lamp Power Supply & Stand



**HL3785-001**

## Description:

The IEC Spectrum Lamp Power Supply & Stand is specially designed for use in the classroom. It is powered from 220/240V.AC. 50/60Hz mains and is fitted with a removable mains cable. Spectrum tubes are not included.

Spectrum tubes are special long thin discharge lamps (sometimes called Geissler tubes or Capillary tubes) which, during manufacture, are filled with certain specific gases. When electric current is passed through the gas, the discharge glows and a certain set of known wavelengths of light is emitted and is used for optical experiments. The voltage required to force the gas to conduct electric current is very high (several thousand volts) but, once conduction begins, a much lower voltage is required to maintain the current flow. The power supply provides these conditions. A gas discharge tube has a low light output.

Power Supply:	Length: 172mm	Width: 140mm	Height: 140mm
Rod:	Length: 320mm	Diameter: 10mm	Weight: 2.3kg

## Features of the IEC Spectrum Lamp Power Supply & Stand:

- **Safe:** Designed to proper engineering standards of electrical safety.
- **Compact:** The unit takes very little space in the lab.
- **Easy To Use:** Power is applied by a single illuminated rocker switch on the front panel. The special adjustable stand supports the tube in the vertical position.

This special power supply provides the special electrical characteristics required to operate spectrum lamps. A stainless steel rod is supplied which screws into an earthed socket provided to permit the vertical supporting of a spectrum tube. A spring clamp slides and locks to the vertical rod such that a tube is supported with one electrode inside the plastic insulation socket and the other electrode is held in the dimple in the spring clamp device.

## The Spectrum Tubes:

The slim glass Spectrum Tubes are fragile and easily broken. A metal cap cemented on to each end provides connection to the electrodes inside the glass tube. One end of the tube is inserted into the insulating socket on the top surface of the power supply and the other end is inserted into the 'dimple' provided in the metal clip device. The clip device is adjusted on the rod so that the tube is electrically connected and firmly supported to the support rod, but not physically stressed. For spectrum tubes of various gases, refer IEC Cat: PA3786-001 - PA3786-011

## Caution:

### **ALWAYS TURN OFF POWER BEFORE ADJUSTING OR CHANGING TUBES.**

If the clip loses electrical connection to the earthed support rod, it can become alive through via the tube's discharge.

### **DO NOT INSERT FINGER INTO THE SOCKET.**

The connection inside the insulation socket is Very High Voltage.



## Important Note:

The metal rod is at earth potential and therefore is safe to touch. If the clip is loosened, it can become alive

Designed and Manufactured in Australia