

## SPECTRUM LAMP POWER SUPPLY - & stand

Cat: HL3785-001 Spectrum lamp power supply & stand.

**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.

### HL3785-001 spectrum tube p/supply



Physical size: 172x140x140mm LxWxH Rod: 320mm long Weight: 2.3 kg

**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 the socket provided to permit the vertical supporting of a spectrum tube. A clamp slides and locks to the vertical rod such that a tube is supported with one electrode inside the plastic insulation tube and the other electrode held in the dimple in the clamp device. The clamp holds the tube whilst also automatically locking to the vertical support rod.

**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 clamping device. The clamping device is adjusted on the rod so that the tube is electrically connected and firmly supported to the support rod, but not physically stressed.

**IMPORTANT NOTE:** The metal rod and clamp is at earth potential and therefore is safe to touch. The connection inside the insulation socket is **Very High Voltage**. **DO NOT INSERT FINGER INTO THE SOCKET.**

For spectrum tubes of various gases, refer IEC Cat: PA3786-001 - PA3786-011

**Designed and manufactured in Australia**