# Power Supply

Regulator Module


**LB2645-001**

## Description:

The IEC Regulator Module is a useful instrument that converts any AC or DC power source into a regulated, adjustable and metered power source at up to 1 amp. It is ideal for performing electronic experiments and can make the purchase of more expensive regulated power supplies unnecessary. The picture below shows the 1.2 – 20V.DC. model which is powered through 4mm sockets on the front panel or can be powered from a standard 240/12V.AC or DC. plug pak.

## Specifications:

**Input**:
12V.AC. 50/60Hz or up to 20V.DC.

**Output:**
1.2 – 20V.DC. regulated at 1 Amp continuous.

**Protection:**
The DC output is automatically protected by the internal electronics. If the output current is exceeded, the output voltage will reduce automatically to protect the circuitry.

**Regulation:**
Better than 1% voltage fluctuation from no load to full load.

**Ripple and noise:**
Better than 10mV ripple and noise at full load.

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|---|---|---|---|
| Length: 125mm | Width: 105mm | Height: 55mm | Weight: 370g |

## The Meaning of 'Regulation':

An **unregulated** power supply is simple and inexpensive but has the following disadvantages:

- The output voltage will rise and fall as the mains voltage rises and falls.
- If the load current changes, the output voltage changes also.
- If the DC output is filtered only by capacitance, the output voltage will contain more and more ripple as the output current (load) increases.

A **regulated** power supply is electronically more complex and is normally more expensive than a simple unregulated unit, but it has the following advantages:

- The output voltage does not alter as mains voltage fluctuates.
- The output voltage does not alter as the load current changes from zero to full load.
- The output voltage is smooth (ripple free) at no load through to full load.
- When the output voltage is set by the control knob there is no need to monitor it during experiments because it remains constant regardless of fluctuations in load current drawn.

## Metering:

The digital meter on the front panel indicates the output voltage.

## Note:

If the input voltage is low, the output may not achieve 20volts. For 20 volts output, an input of close to 14V.AC is required. **Do not exceed 20V.AC input.**

Designed and manufactured in Australia