



Experimental Training Board has been designed specifically for the study of various techniques used for designing transistorised voltage regulated power supplies. A voltage regulated power supply forms an essential part of many electronic equipment.

Practical experience on these boards carries great educative value for Science and Engineering Students.

**Object:**

01. To study half wave rectification.
02. To study full wave rectification.
03. To study measurement of ripple and ripple reduction methods using the following:  
(a) Capacitor filter. (b) Inductor filter.  
(c) Choke input of L.C. filter. (d) CLC or p filter.
04. To study Zener - diode voltage regulator circuit.
05. To study series voltage regulator.
06. To study series regulator with current limiting.
07. To study error feed-back type series voltage regulator.
08. To study the use of Darlington transistor pair for increasing the current capability of series voltage regulator.
09. To study a shunt voltage regulator with current limiting.
10. To study a shunt voltage regulator with adjustable current limiting.
11. To study a 0-9V D.C. continuously variable voltage regulated power supply and measure the following:  
(A) Line regulation. (B) Load regulation. (C) Ripple factor.

**Features:**

The board consists of the following built-in parts :

01. 9V A.C. at 300mA, Power Supply.
02. 0-200mA Electronic load.
03. Three NPN and one PNP transistor including a power transistor.
04. 4 diodes, 3 Zener diodes, 2 potentiometers, 1 inductor.
- \* Adequate no. of other electronic components.
- \* Mains ON/OFF switch, Fuse and Jewel light.
- \* The unit is operative on 230V  $\pm$ 10% at 50Hz A.C. Mains.
- \* Adequate no. of patch cords stackable from rear both ends 4mm spring loaded plug length 1/2 metre.
- \* Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections/ observation of waveforms.
- \* Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
- \* Weight : 3 Kg. (Approx.)
- \* Dimension : W 340 x H 110 x D 210

**Other Apparatus Required:**

- \* 0-200 mAD.C. Milliammeter
- \* 0-15V D.C. Voltmeter
- \* Variac 0-270 Volts at 2 Amp
- \* Cathode Ray Oscilloscope 20MHz

Note: Specifications are subject to change.

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