



**OMEGA TYPE ETB-88** Experimental Training Board has been designed specifically for the study of D.C. Power Supplies using basic techniques of rectification, smoothing and regulation. Practical experience on this board carries great educative value for Science and Engineering Students.

#### OBJECT

- 01 Study of basic techniques of D.C. Power Supplies :
  - 1.1 Use of a diode as a rectifier (Half wave rectification).
  - 1.2 Study of full wave rectification using a centre tapped transformer.
  - 1.3 Study of full wave rectification using a bridge rectifier.
  - 1.4 Using a zener diode for regulation.
  - 1.5 To use a transistor as a series regulator.
  - 1.6 To use a transistor as a shunt regulator.
  - 1.7 To study methods of ripple reduction.
- 02 To measure basic parameters on a D.C. Power Supply :
  - 2.1 Line regulation.
  - 2.2 Load regulation.
  - 2.3 Ripple factor.

#### FEATURES

The board consists of the following built-in parts :

- 01 4V5-0-4V5 AC at 300mA Power Supply.
- 02 D.C. Milliammeter, 65mm rectangular dial with switch selectable ranges of 50mA and 200mA.
- 03 AC/DC Voltmeter, 65mm rectangular dial with switch selectable ranges of 10V and 20V.
- 04 Four Rectifier diodes.
- 05 Choke.
- 06 Zener diode.
- 07 Two transistors, one NPN and one PNP.
- 08 Wire wound potentiometer, to be used as load.
- 09 Two Electrolytic Capacitors.
- 10 Adequate no. of other electronic components.
- 11 Mains ON/OFF switch, Fuse and Jewel light.
- 12 The unit is operative on 230V  $\pm 10\%$  at 50Hz A.C. Mains.
- 13 Adequate no. of patch cords stackable from rear both ends 2mm spring loaded plug length 50cm.
- 14 Good quality, reliable terminal/sockets are provided at appropriate places on panel for connections/observation of waveforms.
- 15 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
- 16 Weight : 3 Kg. (Approx.)
- 17 Dimension : W 340 x H 125 x D 210

#### OTHER APPARATUS REQUIRED :

- 01 Dual trace CRO OMEGA TYPE CRO-20

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

## OMEGA ELECTRONICS