



Experimental Training Board has been designed specifically to study the characteristics of TRIAC-a Bidirectional Triode Thyristor. Practical experience on this board carries great educative value for Science and Engineering Students.

Object:

1. To study the gate characteristics of a TRIAC in the following modes :
 - (a) **Mode I+** : i.e. T_2 positive with respect to T_1 and gate positive with respect to T_1
 - (b) **Mode I-** : i.e. T_2 positive with respect to T_1 and gate negative with respect to T_1
 - (c) **Mode III+** : i.e. T_2 negative with respect to T_1 and gate positive with respect to T_1
 - (d) **Mode III-** : i.e. T_2 negative with respect to T_1 and gate negative with respect to T_1
2. To study the terminal characteristics of a TRIAC in the following modes :
 - (a) **Mode I+** : i.e. T_2 positive with respect to T_1 and gate positive with respect to T_1
 - (b) **Mode III+** : i.e. T_2 negative with respect to T_1 and gate positive with respect to T_1
3. To study the following applications of TRIAC :
 - (a) Triac as a static switch (D.C. control).
 - (b) Control of A.C. with A.C. signal.
 - (c) To measure the holding current of I_H Triac.

Features

The board consists of following built-in parts:

01. 0-70V D.C. at 100mA, regulated Power Supply.
02. 0-3V D.C. at 30 mA, regulated Power Supply.
03. 55 Volt at 100mA, fixed A.C. Supply.
04. 7 Volt at 30mA, fixed A.C. Supply.
05. Digital Current meter DC 3½ Digit having Dual range of 20mA/200mA.
06. Digital Voltmeter DC 3½ Digit having Dual range of 2V/200V.
07. Digital Current meter DC 3½ Digit range of 200mA.
08. TRIAC.
09. Three Potentiometers of 100K, 10K and 220 Ohm.
10. Reset switch.
11. Adequate no. of other electronic components.
12. 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 ½ 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.

Other Apparatus Required

- Cathode Ray Oscilloscope 20MHz

Note: Specifications are subject to change.

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