



46524 Power Electronic Training Board has been designed specifically to study various switching techniques of TRIAC - a bidirectional silicon controlled switch. The phase control applications of TRIAC are included in another board 46521.

Practical experience on this board carries great educative value for Science and Engineering Students.

OBJECT

1. Study of TRIAC as line triggered A.C. power switch.
2. Study of TRIAC as D.C. triggered A.C. power switch.
3. Study of TRIAC as self latching line switch.
4. Study of TRIAC as UJT triggered A.C. power switch.
5. Study of TRIAC as UJT triggered A.C. power switch with external transistor control from transducer.

FEATURES

The board consists of the following built in parts:

1. An isolation transformer 230V A.C. 200mA. This protects external instruments from damage if they are not isolated.
2. 12V D.C. at 200 mA, IC Regulated Power Supply for D.C.Triggering.
3. The TRIAC under experiment.
4. Two push button switches for triggering.
5. UJT 2N 2646 connected in relaxation oscillator mode to provide triggering pulses.
6. Pulse transformer 1:1.
7. NPN Transistor for UJT control with external transducer.
8. Lamp holder with 40 Watt lamp for load in power control indicator.
9. Adequate no. of other Electronic Components.
10. Mains ON/OFF switch, Fuse and Jewel light.
11. The unit is operative on 230V $\pm 10\%$ at 50Hz A.C. Mains.
12. Adequate no. of patch cords stackable 4 mm spring loaded plug length 50cm.
13. Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections/ observation of waveforms.
14. Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
15. Weight : 5 Kg. (Approx.)
16. Dimension : W 415 x H 165 x D 315.

OTHER APPARATUS REQUIRED:

1. Digital Multimeter 3 $\frac{3}{4}$ digit - Tesca Order Code - 17701C
2. Dual trace CRO 20MHz

Note: Specifications are subject to change.