

**OMEGA TYPE SAT-16** SCR application trainer has been designed specifically for the study of SCR & Triac application. This training board gives better understanding of SCR, triac, UJT & Diac as used in various applications. Practical experience on this board carries great educative value for Science and Engineering Students.

**OBJECT:**

To study the following D.C. Circuit Breaker

- 01 DC Circuit Breaker
  - 1.1 To Study SCR Turn Off Action Under Varying Loads
  - 1.2 To Study DC Over Voltage Current Trip Action
- 02 Lamp Flasher
  - 2.1 Symmetrical SCR Type DC Flasher
  - 2.2 High Power AC Flasher
- 03 AC Phase Control
  - 3.1 Half Wave Phase Control
  - 3.2 Full Wave Phase Control
- 04 UJT Relaxation Oscillator
- 05 Thyristor Alarms
  - 5.1 Study of Make-to-operate Alarms
  - 5.2 Study of Break- To-operate Alarms
  - 5.3 Demonstration of Temper-proof Burglar Alarm
- 06 Time Delay Relay
  - 6.1 Study of Delayed Turn-'ON' of DC Load
  - 6.2 Study of Auto Turn-'OFF' of DC Load
- 07 Light Activated Solid State Switch
- 08 Light Operated Switch/relay
- 09 To Demonstrate Light Activated Relay
- 10 Temperature Controller
  - 10.1 To Turn ON or OFF an External Load At A Particular Temperature
  - 10.2 To Control And Maintain The Temperature of The Internal oven
- 11 Illumination Control Using Scr
- 12 Application of a Triac For Illumination Control
- 13 Study of An Electronic Timer Using IC NE 555
- 14 Scr Controlled Emergency Light

**FEATURES**

The board consists of the following built in parts :

- 01 Three I.C. regulated D.C. power supplies internally connected.
- 02 A.C. supply.
- 03 Isolation Transformer.
- 04 Timer I.C.
- 05 Operational amplifier I.C.



- 06 Quad dual Input NAND gate I.C.
- 07 Pulse Transformer.
- 08 Battery.
- 09 D.C. Relay.
- 10 OVEN with Power Supply.
- 11 Thermometer 0-110 °C.
- 12 Adequate no. of electronic components to be used in various experiments i.e. Pot 5 Nos., Push to on switch 2 Nos., Push to off switch, Buzzer, Bulb 230V 40watt, Bulb 12V 5watt, LED 2Nos., Diode 4 Nos., Diac, Zener 2Nos., LDR, Thermistor, SCR 4 Nos., Triac, UJT 2 Nos, Transistors 3 Nos. Resistance & Capacitor 44No. etc. Main ON/OFF switch, fuse and jewel light.
- 13 The Unit is operative on 230V, ±10% at 50Hz A.C. mains.
- 14 Good quality, reliable terminals/sockets are provided at appropriate places on panel for connections/observations.
- 15 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
- 16 Patch cords are provided to make required connections.
- 17 Weight : 14 Kg. (Approx.)
- 18 Dimension : W 415 x H 165 x D 315 (mm)

**OTHER APPARATUS REQUIRED:**

- 01 Digital Multimeter OMEGATYPE DMM-201
- 02 Dual trace CRO OMEGATYPE 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**