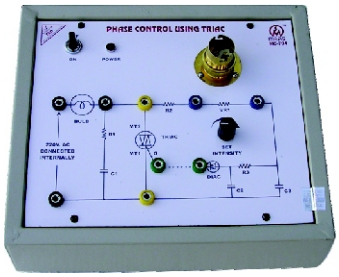
POWER ELECTRONICS LAB TRAINING MODULES

MARS

Phase Control using Triac

ME 794



- **To control phase angle by Triac & observe the wave form on CRO.**

Technical Specifications

- In built Sine wave Oscillator of 15V pp/ 1KHz
- On board control for phase angle.
- TRIAC BT 136 used.
- Circuit diagram printed on front panel & test points brought out on front panel.
- Power requirement: 230 VAC ±10%, 50Hz.

Standard Accessories

- Patch Cords, Instruction Manual

Optional Accessories

- CRO 20MHz (ME 3020).

Switching Action of a BJT

ME 795

- **To Study the Switching of Action of a BJT & Observe the output on LED.**

Technical Specifications

- In built fixed power supply ±18VDC/200mA
- Two NPN transistor BC 547 used.
- One dual range analog voltmeter (0-1/10VDC)
- 8.2V zener diode used .
  Circuit diagram printed on front panel & test points brought out on front panel.
- Power requirement: 230 VAC ±10%, 50Hz.

Standard Accessories

- Patch cords & Instruction Manual

Optional Accessories

- Digital Multimeter (VC - 97)
- 6 Volt / 1/4 W lamp, Patch Chords & Instruction Manual.
- Dual Trace CRO 20MHz (ME 3020).
- Digital Multimeter (VC-97).

UJT Controlled SCR Time Delay

ME 796

- **Thyristor Firing Circuit Kit Design to introduce time delay using UJT & Observe output on LED**

Technical Specifications

- In built fixed power supply ±12VDC/250mA
- UJT 2646, SCR 2P4M based circuit.
- For variable time delay following resistance & capacitance values provided:-
- i) Resistance-10K, 50K, 100K, 200K, 300K, 400K, 500K,
- ii) Capacitance - 1mF, 47mF, 1mF, 10mF, 100mF, 220mF, 470mF
- Circuit diagram printed on front panel & test points brought out on front panel.
- Power requirement: 230 VAC ±10%, 50Hz.

Standard Accessories

- Patch Cords, Instruction Manual

Optional Accessories

- CRO 20MHz (ME 3020)