

# VIJAYANTA

**VIJAI ELECTRONICS**  
28/147, CIVIL LINES  
ROORKEE - 247667



ISO - 9001-2008  
Certificate No. WSC-215028-A

## STUDY OF S.C.R. PARALLEL INVERTER, MODEL – SPI – 501.



Study of SCR Parallel Inverter, Model – SPI – 501 has been designed to explain the operation of Parallel Inverter. An inverter is DC – AC Converter, i.e. it converts D.C. supply into AC supply. The SCR Parallel Inverter to study low capacity SCR Parallel Inverter input – output characteristics with a variable frequency. Inverters are used in a variety of applications i.e. in domestic installations as a source of standby electric supply, in commercial installations as a source of standby electric supply and uninterruptable power supply (UPS), in industrial installations for variable speed AC drives, induction heating etc. All cares have been taken to make this unit convenient and simple in working. SCR Parallel Inverter unit is fully self content only a Power Scope and multimeter is required to perform experiments.

### The Set – Up consists of :

- \*\* D.C. Supply (25, Volt D.C.)
- \*\* Inverter transformer.
- \*\* Two SCR's.
- \*\* One Inductor.
- \*\* One Digital D.C. Ammeter and Voltmeter
- \*\* Firing circuit and provision for connection of resistive load.
- \*\* Resistive load – Lamp load (3 x 15 Watts)
- \*\* Operating Manual.



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All components are mounted on a glass epoxy P.C.B. Basic block diagrams is printed on the front panel and all test points are brought out to the banana sockets mounted on front panel for observations.

**Experiments :**

1. To Study of Parallel Inverter using SCR and observe its waveform and effect of frequency upon output voltage.

**Other Apparatus Required :**

1. Power Scope / General purpose dual trace C.R.O.
2. Digital Multimeter.