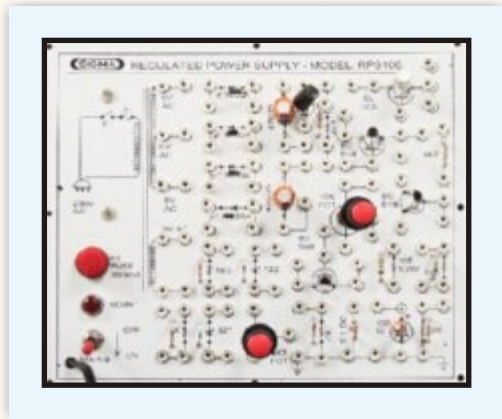




# REGULATED POWER SUPPLIES TRAINER (RPS) MODEL RPS100

This trainer has been designed with a view to provide practical and experimental knowledge of different types of power supplies.



## FEATURES

- ❖ The schematic circuit diagram printed on P.C.B. for all terminals, switches, components and power Supplies.
- ❖ All parts are visible from top and the pin extensions are available around parts with diagrams.
- ❖ All parts are soldered on tags to replace without opening the trainer board.
- ❖ All terminals (2 mm sockets) soldered properly to avoid loose connections.

## SPECIFICATIONS

1. Power supply requirement : 230V AC, 50 Hz.
2. Following parts provided on Single PCB with connecting terminals.
  - a. Mains transformer primary 230V A.C.,  
Secondary centre tap 18-0-18V AC at 500 mA.  
Secondary centre tap 0-10V AC at 500 mA.
  - b. Silicon Junction Diodes - 1N4002 - 4 Nos.
  - c. Filter Choke coil
  - d. Filter Capacitors - 1000u/25V - 2 Nos.
  - e. Zener Diode - 9.1 V - 1 No. 5.1 V - 1 No.
  - f. Load Resistors - 2 No. (1K and 2K2)
  - g. Three NPN and one PNP transistor
  - h. IC 7805
3. Standard Accessories :
  1. User Manual with practical and circuit diagrams.
  2. Connecting patch cords - 10 nos.

In keeping view of SIGMA policy of continuous development and improvement, the Specifications may be changed without prior notice or obligation.

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**Dealer:-**

## EXPERIMENTS

1. To study Half wave Rectifier Circuit
2. To study Full wave Rectifier Circuit
3. To study Bridge Rectifier Circuit
4. To study Voltage Doublers Circuit
5. To study measurement of ripple and ripple reduction methods
6. To study Zener-diode Voltage regulator circuit.
7. To study Series Voltage regulator circuit.
8. To study Shunt Voltage regulator circuit.
9. To study Series regulator with current limiting.
10. To study Shunt voltage regulator with current limiting.
11. To study error feedback type series voltage regulator.
12. To study the use of Darlington transistor pair for increasing the current capability of series voltage regulator.
13. To study a shunt voltage regulator with adjustable current limiting.
14. To study a 0-12 V D.C. continuously variable voltage regulated power supply and measure the Following:
  - (a) Line regulation.
  - (b) Load regulation.
  - (c) Ripple factor.
15. To study RPS using three terminal regulators.