

IC 78XX as Positive Voltage Regulator

Model : SB-117

SINCOM SB-117 IC 78XX as Positive Voltage Regulator is very useful simply designed trainer to study the operation and line regulation characteristics of IC 7805 and IC7809 as a Positive Voltage Regulator in a simple experimental way. The Trainer is without meters and has the facility to connect the external analog or digital Voltmeter and Ammeter in the circuit.

Features

- ❖ User friendly Design
- ❖ TO220 three pin IC Package
- ❖ IC LM7805 and IC LM7809 positive voltage regulators are provided
- ❖ IC includes Current limiting, thermal over load protection and safe operating area protection
- ❖ +5V and +12V Two Fixed Regulated DC Output voltage
- ❖ Low Output voltage Ripples
- ❖ Variable Unregulated DC Input source using Center Tap Full Wave Rectifier and Capacitor Filter circuit
- ❖ High operating Temperature range
- ❖ Separate Facility to vary wide range of applied DC Input voltages
- ❖ In-Built Variable regulated DC Power Supply
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram is screen printed on the front of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external Digital/Analog Voltmeter and Ammeter
- ❖ Interconnections by 2mm high quality banana sockets and pins
- ❖ Maximum Test points to explore all the corners of experiment
- ❖ 1 Year Warranty

Technical Specifications

▪ AC Mains Power Supply	: 230V $\pm 10\%$, 50Hz
▪ DC Power Supply	: IC Regulated Variable 0V to +12V/500mA
▪ Transformer ratings	: Center tap Step Down 12V-0V-12V/500mA/50Hz
▪ Rectifier and Filter	: Full Wave Center Tap Rectifier with Capacitor filter
▪ Unregulated DC Input Vin	: Two Nos. Variable 0V to 12V DC Input for IC7805 and IC7809
▪ Regulated DC Output Vo	: +5V and +9V
▪ Input Voltage Control	: By two 10K Ω Potentiometers
▪ IC Used	: IC LM7805 and 7809 positive Voltage regulator
▪ IC Package	: 3 Pin TO-220 Package
▪ IC Output Current	: 0.5A Max
▪ Load Resistor	: 10K Ω Resistive Load
▪ Regulation type	: Line Regulation
▪ Weight	: 2.0 kg (approx)
▪ Dimensions (mm)	: L 220 x W 270 x H 110



An ISO 9001:2015 Co.

- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-50°C, 80% RH

Learning Scope

- To Study IC 7805 as a Positive voltage regulator. Compare theoretical & Practical values.
- To Study IC 7809 as a Positive voltage regulator. Compare theoretical & Practical values.
- To Study Change in O/P Voltage w.r.t. change in I/P Voltage with Load RL constant (Line Regulation)
- To Study Change in O/P Voltage w.r.t change in Load RL with I/P voltage constant (Load Regulation)

Other Instruments Required

SINCOM Digital VV meter (DVV) : Model DVV-01 Range V₁-20V, V₂-20V DC

Accessories Included : Set of Patch Cord and Details Instruction Manual