



An ISO 9001:2015 Co.

IC 78XX and 79XX as Positive & Negative Voltage Regulator

Model : SB-119

SINCOM SB-119 IC 78XX and IC 79XX as Positive & Negative Voltage Regulator is very useful simply designed trainer to study the operation and line regulation characteristics of IC 7805 and IC7905 as a Positive and Negative 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 as a positive voltage regulators
- ❖ IC LM7905 as a negative voltage regulators
- ❖ +5V and -5V Two Fixed Regulated DC Output voltage
- ❖ IC includes Current limiting, thermal over load protection and safe operating area protection
- ❖ Low Output voltage Ripples and High operating Temperature range
- ❖ Variable Unregulated DC Input source using Center Tap Full Wave Rectifier and Capacitor Filter circuit
- ❖ Separate Facility to vary wide range of applied DC Input voltages for IC7805 and IC7905
- ❖ 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

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|-----------------------------|--|
| ▪ AC Mains Power Supply | : 230V \pm 10%, 50Hz |
| ▪ DC Power Supply | : IC Regulated Variable 0V to \pm 12V/500mA |
| ▪ Transformer ratings | : Center tap Step Down 12V-0V-12V/500mA/50Hz |
| ▪ Rectifier and Filter | : Full Wave Bridge Rectifier with Capacitor filter |
| ▪ Unregulated DC Input Vin1 | : Variable 0V to +12V DC Input for IC7805 |
| ▪ Unregulated DC Input Vin2 | : Variable 0V to -12V DC Input for IC7905 |
| ▪ Regulated DC Outputs Vo | : +5V and -5V |
| ▪ Input Voltage Control | : By two 10K Ω Potentiometers |
| ▪ IC Used | : IC LM7805 positive and 7905 negative 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) |



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- Dimensions (mm) : L 220 x W 270 x H 110
- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-50⁰C, 80% RH

Learning Scope

- To Study IC 7805 as a Positive voltage regulator. Compare theoretical & Practical values.
- To Study IC 7905 as a Negative 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)

Other Instruments Required

SINCOM Digital VV meter (DVV) : Model DVV-01 Range V_1 -20V, V_2 -20V DC

Accessories Included : Set of Patch Cord and Details Instruction Manual