



An ISO 9001:2015 Co.

# IC 317 as a Adjustable Positive Voltage Regulator with Digital Meter

## Model : SB-116DM

**SINCOM SB-116DM IC317 as a Adjustable Positive Voltage Regulator** with Digital meters is a remarkable self contained simply designed trainer useful to study the operation and line regulation characteristics of IC317 as a Positive Voltage Regulator in a simple experimental way. The trainer is equipped with on board Digital voltmeter & Digital Ammeter.

## Features

- ❖ User friendly Design
- ❖ TO220 three pin IC Package
- ❖ IC317 wired with Resistive network as an adjustable Positive Voltage Regulator
- ❖ Variable Unregulated DC Input source using Center Tap Full Wave Rectifier and Capacitor Filter circuit
- ❖ IC includes Current limiting, thermal over load protection and safe operating area protection
- ❖ Adjustable Regulated DC Output voltage between 5V to 12V
- ❖ Output Voltage Control by Potentiometer
- ❖ High operating Temperature range
- ❖ Facility to vary wide range of applied DC Input voltage
- ❖ Facility to vary regulated Output DC Voltage
- ❖ 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
- ❖ On Board 3<sup>1/2</sup> Digit Digital Voltmeters
- ❖ 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 ±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 | : 0 to 12V DC Input                                    |
| ▪ Regulated DC Output Vo   | : Adjustable between 5V to 12V                         |
| ▪ Output Voltage Control   | : By 10KΩ Potentiometer                                |
| ▪ IC Used                  | : IC LM317 adjustable Voltage regulator                |
| ▪ IC Package               | : 3 Pin TO-220 Package                                 |
| ▪ IC Output Current        | : 0.5A Max   |
| ▪ Load Resistor            | : 10KΩ Variable Resistive Load                         |



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- Regulation type : Line Regulation
- Total Digital Meters : 02
- Digital Voltmeter : 0-20V (2 No.)
- Meter Display : Red Color, 3<sup>1/2</sup> Digit , LED Display
- Weight : 2.5 kg (approx)
- Weight : 2.0 kg (approx)
- Dimensions (mm) : L 220 x W 270 x H 110
- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-50<sup>0</sup>C, 80% RH

### Learning Scope

- To Study IC 317 as (adjustable) 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 : Nil**

**Accessories Included :** Set of Patch Cord and Details Instruction Manual