



An ISO 9001:2015 Co.

SINCOM[®]

Sindhu ELECTRONICS & COMMUNICATIONS PVT. LTD.

Electronics Educational Trainer Kits

Full Wave-Center Tap and Bridge Rectifier with & without Filters

Model : SB-104

SINCOM SB-104 Full Wave-Center Tap and Bridge Rectifier with and without filters is simply designed trainer to study the various operational aspects of a center tap and Bridge type Full wave Rectifier (FWR) using PN Junction Diodes, with the facility to select different filters and variable load in a simple experimental way. This has different filters of C,CLC,CL,LC & π types with variable resistive load. The trainer is without meters and has the facility to connect the external analog or digital Voltmeter, Ammeter and Oscilloscope in the circuit.

Features

- ❖ User friendly Design
- ❖ Four Silicon PN junction Diode based center tap and Bridge type Full Wave Rectifier circuit
- ❖ FWR output for with and without filters
- ❖ Filters used are C,CLC,CL,LC & π types
- ❖ Easy selection of filters using SPDT Switch
- ❖ Variable Resistive Load
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram printed on the front panel 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
- ❖ Facility to connect Oscilloscope for signal analysis
- ❖ 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 |
| ▪ FWR Output Voltage | : +12V DC @ |
| ▪ Diodes Used | : Four Silicon PN Junction Diode 1N4007 |
| ▪ Diode Package | : DO-41 Tape and Reel type |
| ▪ Transformer ratings | : Center tap Step Down 12V-0V-12V/500mA/50Hz |
| ▪ No. of Filters | : 05 |
| ▪ Filter Types | : Selectable C,CLC,CL,LC & π types |
| ▪ Filters Selection | : SPDT Switch |
| ▪ Filter Capacitors | : Two Electrolytic Capacitors of 100 μ F and 1000 μ F |
| ▪ Filter Inductor | : One Inductor 68mH |
| ▪ Load Resistor | : Variable Resistive Load of 10K Ω |
| ▪ 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 the Center tap Full Wave Rectifier (FWR) without filter.
- To Study the Center tap Full Wave Rectifier (FWR) with C, CLC, CL, LC & π filter.
- To Study the Bridge type Full Wave Rectifier (FWR) without filter.
- To Study the Bridge type Full Wave Rectifier (FWR) with C, CLC, CL, LC & π filter.
- To observe & Note the change in Ripple factor with respect to change in different filters.
- To Observe and note Input and Output waveforms on Oscilloscope.

Other Instruments Required

SINCOM Digital VI meter (DVI) : Model DVI-01 Range V-20V,I-20mA DC, Oscilloscope.

Accessories Included

Set of Patch Cord and Details Instruction Manual