



An ISO 9001:2015 Co.

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

Model : SB-104DM

SINC OM SB-104DM Full Wave-Center Tap and Bridge Rectifier with and without filters with Digital meters is remarkable self contained 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 equipped with on board Digital voltmeter & Digital Ammeter.

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
- ❖ On Board 3^{1/2} Digit Digital 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

▪ 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
▪ Total Digital Meters	: 02 (1 Voltmeter and 1 Ammeter)
▪ Digital Voltmeter	: 0-20V
▪ Digital Ammeter	: 0-20mA



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| ▪ Meter Display | : Red Color, 3 ^{1/2} Digit , LED Display |
| ▪ Weight | : 2.0 kg (approx) |
| ▪ Dimensions (mm) | : L 220 x W 270 x H 110 |
| ▪ Interconnections | : 2mm Banana sockets |
| ▪ Operating Temperature | : 0-50°C, 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 : Oscilloscope.

Accessories Included : Set of Patch Cord and Details Instruction Manual