

Oscilloscope Demonstrator Trainer ST 2001E

Oscilloscope Training Made Easy



ScienTECH Oscilloscope Demonstrator Trainer ST 2001E is specifically designed for the study of working of an oscilloscope in an open form.

The Controls are placed actually at the place as they are in the layout schematic. Thus a trainee can easily locate any section, & components in the section and study it thoroughly. The function controls and the adjustment controls are fully accessible to the trainee to verify their effect on the working of the scope. Creation of Faults and rectification of faults are important exercise covered in the experiments.

An illustrated Block and Circuit Schematic and the adjustment plan right in front of the trainee's eyes helps him to correlate each operation during the demonstration.

Hundreds of ST2001E units are already in use in various colleges and training centres all over country.

**Fully operational
Open Oscilloscope for
Training & Education
with Fault Creation
and its Rectification**

Developed Keeping the Learner in Mind



- Oscilloscope in open form with all components and controls placed on single PCB
- Amplifier, Time base, Channel section signal available on test points
- Separate sections for PS, EHT, VA, HA, TB & Trigger for easy identification
- Fault creation and rectification provided
- Track printing with different colours on different sections on component board for easy circuit training.
- Legend Printing on PCB for easy identification of components
- Can be used as a standard 20 MHz Dual Trace Oscilloscope

Technical Specifications

Operating Modes

Channel I, Channel II, Channel I & II Alternate or chopped . Controls provided on PCB. Channel selection signals available at Test points. X-Y operation 1:1

Vertical deflection (Y)

(Identical channels)
Bandwidth : DC-20 MHz(-3dB)
Risetime : 17.5 ns (approx.)
Deflection coefficients : 12 calibrated steps 5mV/cm - 20V/cm (1-2-5 sequence)
Accuracy : $\pm 3\%$
Input Impedance : 1 M Ω || 30 pF
Input coupling : DC-AC-GND
Input voltage : 350 V (DC + Peak AC)

Pre-Amp, Final Amp Outputs at Test Points.

Timebase

Time coefficients : 18 calibrated steps, 0.5 μ s/cm-0.2 s/cm (1-2-5 sequence) with magnifier x 5 to 100 ns/cm, with variable control to 40 ns/cm.

Accuracy : $\pm 3\%$ (in cal position)
 TB generation at Test Points

Trigger System

Modes : automatic or variable
Source : Ch I, Ch II, External
Slope : Positive or Negative
Coupling : AC, TV Frame
Sensitivity : Int 5 mm., Ext 1V (approx.)

Trigger Bandwidth : 30 MHz

Horizontal Deflection (X):

Bandwidth : DC-2 MHz (-3 dB)
X-Y mode : Phase Shift $< 5^\circ$ upto 50 KHz

Deflection coefficients : 12 calibrated steps 5mV/cm-20 V/cm (1-2-5 sequence)

Input Impedance : 1 M Ω || 30 pF

Component Tester

Test Voltage : Max 8.6 V_{rms} (Open)

Test Current : Max 8 mA_{rms} (Shorted)

Test Frequency : 50Hz, Test circuit grounded to chassis

General Information

Cathode Ray Tube : Rectangular medium short persistence (P31)

Accelerating potential : 2000 V

Display : 8 x 10 cm

Trace rotation : Adjustable on front panel

Calibrator : Squarewave generator 1 KHz(approx.), 0.2 V \pm 1% for probe compensation.

Z Modulation : TTL level Stabilized

Power Supply : All operating voltages including the EHT.

Mains voltage : 230 V \pm 10%, 50 Hz.

Power Consumption : 40VA (Approx.)

Weight (approx) : 7.3 Kg.

Dimensions (mm) : W450-H140-D440

Operating Temp.: 0-40°C, 95%RH

Finish : Off white with side handle

Included Accessories:

- | | |
|--------------------------|--------|
| 1. Manual | 1 No. |
| 2. Student manual | 1 No. |
| 2. BNC-BNC Cable | 1 No. |
| 3. BNC - Probe tip Cable | 1 No. |
| 4. Test Prods | 1 pair |
| 5. Additional Jumpers | 10 |

Optional Accessories:

1. DMM
2. Switchable Probe X1 - X10

Subject to change

Sciencetech Technologies Pvt. Ltd.

94-101, Electronic Complex,
 Pardesipura Indore - 452 010
 INDIA.

Ph. : 91-731-2576472,
 5032286, 2556638
 Fax : 91-731-2555643

E-mail: info@sciencetech-india.com
 Web : www.sciencetech-india.com