

Digital Trainer is intended for elementary as well as advance training of Digital electronics and for bread board digital circuits, AND, OR, NOT, NAND, NOR, XOR, Three State Buffer, RS Latch, JK Flip Flop, Monostable Multibrator. and UP/DOWN Counter.

Practical experience on this board carries great educative value for R & D labs, Science and Engineering Students.

Specifications:

01. Breadboard : Solderless Bread board with 1680 inter connected Tie Points

02. Pulse Switches2 No's. Bounce free push buttons03. Logic Switches8 logic level Switches in Dip type.

04. Power Supply : Fixed: +5V at 750 mA

O5. Power Sockets
C6. Logic Input
C7. Variable Clock
C1 Clock range selection L
C1 Logic Probe Power Supply Sockets
E2 LED buffered logic level indicators
Fine adjustment of clock frequency.
Fine adjustment of clock Hz.

08. Jacks : 2mm to BNC Socket 2 No. 2mm to 4mm Socket 2 No.

09. Components Provided : ICs - 4001/1, 7400/3, 7402/1, 7404/1, 7408/1, 7432/1, 7476/2, 7486/1, 74126/1, Resistors 1/4W ±5%

230E/1, 10K/1, 39K/1, LED 5mm/1

10. Accessories : Mains cord, 2mm Red & Black patch cords 5 each and 2mm to 1mm Red & Black 5 each

11. Instruction manual : Strongly supported by detailed operating instructions.

12. Logic Probe : 1 Pc Provided

* Wiring of all types of experiments become simple and less time consuming.

* The unit is operative on 230V $\pm 10\%$ at 50Hz AC Mains.

Experiment Coverage:

1. LED Display 2. Getting a Pulse

3. Setting a Logic Level 4. Getting a Clock and using the Logic Probe

5. AND Gate (static operation) 6. OR Gate (static operation)

7. Dynamic Operation of AND Gate and OR Gate
 9. NAND Gate
 10. NOR Gate
 11. Exclusive OR Gate (Also called XOR Gate)
 12. XNOR
 13. Three State Buffer
 14. RS Latch

15. Basic JK Flip Flop 16. Monostable Multivibrator

17. Asynchronous UP/DOWN Counter

Specifications of Logic Probe Order Code - 16905

01. OPERATING VOLTAGE : $5V \pm 3\%$ regulated DC at 150mA, Ripple < 3mV.

02. LOGIC STATE INDICATIONS

 01. High Level '1'
 : 'H' (HIGH).

 02. Lo w Level '0'
 : 'L' (LOW).

 03. Open / Floating state
 : 'O' (OPEN).

 04. Pulses
 : 'P' (PULSES).

 03. LOGIC FAMILIES
 : TTL / CMOS.

04. FREQUENCY : Upto 50MHz for TTL/CMOS.

05. RECOGNISED VOLTAGE LEVELS BY LOGIC PROBE AT AN OPERATING VOLTAGE OF 5V $\pm 3\%$ RIPPLE < 3mV

01. High Level Threshold : > 3.0V 02. Low Level Threshold : < 0.8V

03. Open/Floating Level : 0.8V to 3.0V (Approx.)
04. Over Load Protection : Upto 25V source
05. Sink Current : Less than 15mA

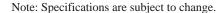
06. SUPPLY CURRENT TAKEN

BY THE PROBE : Less than 150mA

07. SHORTEST PULSE WHICH CAN

BE DETECTED BY THE PROBE : 40 nano Sec.

- 08. Pulse detection is retriggerable and hence continuous pulses or clock will be indicated by 'P'.
- 09. Positive going pulse will be indicated by letter 'L' followed by letter 'P' and then 'L' again.
- 10. Negative going pulse will be indicated by the letter 'H' followed by letter 'P' and then 'H' again.
- 11. THE INDICATOR 'O' OCCURS IN TWO SITUATIONS
 - 01. When the probe tip is not connected to a test point
 - 02. When the test point is floating with a level lying between about 0.8V to 3V



Tesca Technologies Pvt. Ltd.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension, Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,

Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com

Website: www.tesca.in

