Advance Digital IC Trainer (50 Experiments)

Model : SC-904

SINCOM SC-904 Advance Digital IC Trainer is an exceptional and all-encompassing trainer that features open-ended Digital ICs and ZIP IC Socket on the board. It allows for the execution of a variety of experiments in Digital Electronics, offering the capability to apply Digital Logic Inputs, Logic Output Indicator, Mono Clock Pulse generator, Seven Segment Display, Common connection strips and DC Power Supply. This trainer enables the verification of the operation and Truth Table for all Logic Gates, Universal Gates, RS-JK-D-T Flip-Flops, Shift Registers, Decade Counter, UP/Down Counter, Half-Full Adder Subtractors, 4 bit Adder Subtractors, 4:1 & 8:1 Multiplexers, 1:4 & 1:8 Demultiplexers, Coder Converters, BCD-Decimal Decoder, BCD-seven segment Decoder, ALU, ADC, DAC, and various combinational circuits.

Features

- ❖ 50 Experiments of Digital Electronics on a single Trainer
- ❖ 23 Digital ICs on board
- ❖ ZIP IC Socket for connecting additional ICs
- ❖ Includes 20 TTL Logic Inputs generator
- ❖ 12 LEDs for TTL logic Output Indicator
- ❖ Incorporate DC Power supply
- ❖ Mono Clock Pulse generator
- ❖ Seven Segment Display
- ❖ Six Common Strip for Interconnections
- ❖ Presents a 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
- ❖ Interconnections by 2mm high quality banana sockets and pins.
- ❖ User friendly Designed

Technical Specifications

- AC Mains Power Supply : 230V ±10%, 50Hz
- Regulated Fixed DC Power Supply : +5V, +12V, -12V /1A
- Variable Analog Input : 0-5V by Potentiometer
- Digital TTL Logic Input Generator : 20 by Switches
- Digital TTL Logic Output Indicator : 12 LEDs
- Mono Pulse Generator : 01
- ZIP IC Socket : One 20 Pin
- Common Connection Strips : 06
- Seven Segment Display : 01 CA type
- No. of Digital ICs used : 23
- Digital ICs used :IC7408,IC7432,IC7404,IC7400,IC7402,IC7486,IC7476,IC74279, IC74174,IC74194,IC7490,IC74193,IC74151,IC74138,IC74153, IC74139,IC7486,IC7447,IC7442,IC74181,DAC0800,ADC0809, IC 741.
- Experiments Covered : 50 on logic gates, Flip-Flops, Shift Register, Counters, Adder Subtractors, MUX, DEMUX, Coder Converters, Decoders, ALU, ADC, DAC etc.
- Weight : 4.0 kg (approx)
- Dimensions (mm) : L 444 x W 127 x H 539
- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-55^{0}C, 85% RH

Learning Scope

- To Study the operation of Advance Digital IC trainer for various inputs and outputs.
- To Study and verify truth table Logic Gates AND,OR,NOT,NAND,NOR,XOR,XNOR and Universal Gates.
- To Study and verify truth table of Demorgan's Theorem.
- To Study Half-full adder and subtractor using gates and 4 bit adder subtractor using IC.
- To Study and verify the truth table of RS,JK, D,T Flip-flops.
- To study and verify the truth table of Decade Counter and UP/Down Counter.
- To study and verify the truth table of Universal Shift Register.
- To study 8:1 & 4:1 Multiplexers and 1:8 & 1:4 Demultiplexers.
- To study and verify the truth table of BCD-Decimal, Binary-Gray, Gray-Binary code converters
- To study and verify the truth table of BCD-Seven Segment Decoder
- To study Analog to Digital converter (ADC) using IC 0809
- To study Digital to Analog converter (DAC) using IC 0800.
- To study Arithmetic Logic Unit (ALU) using IC 74181.
- To study various circuits based on logic gates, Flip-flops and shift register.

Other Instruments Required : Digital Multimeter (Optional)

Accessories Included : Set of Patch Cord and Details Instruction Manual

Subject to Change