

The Electronic Sequencer is intended for elementary as well as advance training of digital electronics. The trainer cover regular digital circuits by solder less inter connections through use of 4 mm brass terminations and patch cords. logic level input / output indicators and DC regulated power supply are in built. The unit housed in finished box .

THE TRAINER COVER THE FOLLOWING EXPERIMENT :

EXPERIMENT 1 : STUDY OF BASIC GATES AND VERIFICATION OF THEIR TRUTH TABLES.

- 1.1 NOT
- 1.2 OR
- 1.3 AND
- 1.4 NOR
- 1.5 NAND

EXPERIMENT 2 : STUDY AND VERIFICATIONS OF THE LAW OF BOOLEAN ALGEBRA AND DE-MORGAN'S THEOREMS.

- 2.1.1 AND
- 2.1.2 OR
- 2.1.3 COMPLEMENT OR NOT

THEOREMS

- 2.2.1 $(A=A+0)$
- 2.2.2 $(1=A+1)$
- 2.2.3 $(A=A+A)$
- 2.2.4 $(1=A+A')$
- 2.2.5 $(A.1=A)$
- 2.2.6 $(A.0=0)$
- 2.2.7 $(A.A=A)$
- 2.2.8 $(A.A'=0)$
- 2.2.9 $(a \& b)$ De Morgan's Theorem-I LHS & RHS $(A+B)'=A'.B'$
- 2.2.10 $(a \& b)$ De Morgan's Theorem -II LHS & RHS $(A.B)'=A'+B'$
- 2.2.11 $A+AB=A$
- 2.2.12 $A+A'B=A+B$
- 2.2.13 $(AB+AB')=A$
- 2.2.14 $(a \& b)(AB+A'C)=(A+C)(A'+B)$
- 2.2.15 $AB+A'C+BC=AB+A'C$
- 2.2.16 $A(A+B)=A$
- 2.2.17 $(a \& b)A(A'+B)=AB$
- 2.2.18 $(A+B)(A+B')+A$
- 2.2.19 $(A+B)(A'+C)=AC+A'B$
- 2.2.20 $(a \& b)(A+B)(A'+C)(B+C)=(A+B)(A'+C)$

EXPERIMENT 3: CONSTRUCTION AND VERIFICATION OF VARIOUS TYPES OF FLIP-FLOPS USING GATES AND IC'S

- 3.1.1 RS Flip - Flop using NAND Gates
- 3.1.2 RS Flip - Flop using NOR gates
- 3.1.3 Clocked R - S Flip - Flop
- 3.2.1 J - K Flip - Flop
- 3.2.2 J - K Flip - Flop with Clocks
- 3.2.3 Master - Slave J - K Flip - Flop
- 3.3 D Flip - Flop

EXPERIMENT 4 : CONSTRUCTION AND VERIFICATION OF VARIOUS TYPES OF COMBINATIONAL CIRCUITS

- 4.1 2 to 1 Line Multiplexer (Encoder)
- 4.2 2 to 4 Line Demultiplexer (Decoder)
- 4.3 2 Bit Comparator

EXPERIMENT 5 : CONSTRUCTION AND VERIFICATION OF VARIOUS TYPES OF COUNTERS.

- 5.1 3 Bit Down counter
- 5.2 UP Counter
- 5.2. 1 3 Bit Synchronous Ripple UP Counter
- 5.2.2 3 Bit Asynchronous Ripple UP Counter
- 5.3 Ring Counter
- 5.4 Decade Counter

FEATURE

- NOT Gate-Six Numbers Using 7404
- Two Input OR Gate-Four Numbers Using-7432
- Two Input AND Gate-Four Numbers Using-7408
- Two Input NAND Gate-Four Numbers Using-7400
- Three Input NAND Gate-Four Numbers Using-7410
- Two Input NOR Gate-Four Numbers Using-4001
- Three Input NOR Gate-Four Numbers Using-7427
- D FLIP-FLOPEight Numbers Using 7474



- JK FLIP-FLOPEight Numbers Using 7476
- RS FLIP-FLOPEight Numbers Using 7400
- DC Power Supply : 5 V / 500 mA (Int)
- Debounce Logic Switch : Five independent logic level inputs to select High / Low TTL levels,
- Output LED Indicators : Ten independent logic level indicators for High / Low status indication of digital outputs.
- Two Way Debounce : Five independent logic level inputs to select levels For +5V & -5V Logic Switch
- Variable Frequency/Clock : 0 To 2 KHz With digital display
- Power ON : Power ON switch with indicator for mains on indication and fuse for protection.
- Patch Cords : Set of 20 assorted coloured multistand wires with 4mm stackable plug termination at both ends.(Stackable)
- Power Requirement : 230V + 10% single phase AC.
- Instruction manual : One detailed instruction manual with well thought out experiments covering the above topics.

Note: Specifications are subject to change.

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