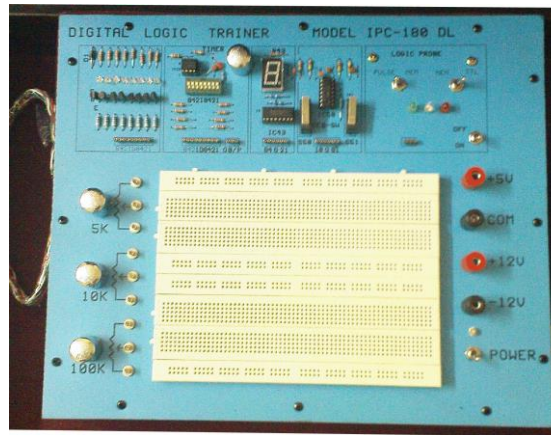


# IPC EDUCATIONAL TRAINERS



**BASIC DIGITAL LOGIC TRAINER  
MODEL: - IPC -180-DL**

## **SPECIFICATION: -**

Operating Voltage 220-230 Volts 50Hz  
5K(B).  
Board Size 10" x 12"  
10K(B).  
Fixed in rugged carrying case.  
100K(B).

## **ON BOARD FACILITES**

Fixed DC Output Power supply.  
DC +5 Volts 200mAmps.  
display.  
DC +12 Volts 200mAmps.  
DC -12 Volts 200mAmps.  
Double Size solder less Breadboard.  
Main ON / OFF Switch with light indicator.  
User Manual.

## **Potentiometer**

Variable Resistor  
  
Variable Resistor  
  
Variable Resistor

Logic Switches 8Nos.  
Lamp Monitor L.E.D 8Nos.  
Seven Segment Decoder  
  
Debounce Switches 2Nos.  
Pulse Catcher / Logic Probe.  
Clock Timer.  
Connecting Leads.

The following types of experimental circuit can be connected and studied.

## **Combinational logic circuit experiment.**

- 1) DL circuit experiment
  - 2) RTL circuit experiment
  - 3) DTL circuit experiment
  - 4) TTL circuit characteristics experiment
- ## **experiment.**
- 5) C-Mos circuit characteristics experiment
  - 6) TTL → C-Mos interface circuit experiment
  - 7) C-Mos → TTL interface circuit experiment
  - 8) Basic logic function
  - 9) Exclusive OR gate experiment
- circuit experiment.
- 10) TTL, C-MOS half adder & full adder experiments
- circuit experiment.

## **C. .Arithmetic circuit**

- 1) ALU experiment.
- 2) Serial adder experiment
- 3) Parallel adder experiment

## **D. Memory**

- 1) RAM experiment.
- 2) ROM experiment.
- 3) EPROM experiment.

## **E. A/D, D/A Conversion experiment.**

- 1) A/D conversion
- 2) D/A conversion

**Note: -** we reserve the right to change the shape & design of the trainer without prior notice.

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11) TTL, CMOS half subtract & full subtract experiments

**application experiment.**

12) Open collector gate experiment experiment.

13) Open drain gate experiment

14) Encode and decode experiment experiment.

15) Multiplexer or de multiplexer experiment.

16) Comparator experiment experiment.

**B. Sequential Logic Experiment.**

experiment.

1) RS Flip flop experiment

2) T Flip flop experiment experiment.

3) JK Flip flop experiment

4) Master/Slave JK Flip flop experiment

**circuit.**

5) Edge-triggered JK Flip flop experiment circuit experiment.

6) D Flip flop experiment multivibrator.

7) Asynchronous binary counter experiment monostable multivibrator.

8) Synchronous binary counter experiment oscillator experiment.

9) BCD counter experiment experiment.

10) Up/ down counter experiment

11) Divide by N circuit experiment

12) Serial in-serial out shift register experiment

13) Serial in-parallel out shift register experiment

14) Parallel in-serial out shift register experiment

15) Parallel in-parallel out shift register experiment

16) Left / right shift register experiment

**F. Logic circuit**

1) Digital Voltage meter

2) Advertising light experiment.

3) Digital capacitance meter

4) Electronic metronome meter

5) Music IC application

6) Electronic stop watch

7) Electronic dice experiment.

8) Frequency counter

9) Electronic clock experiment.

**G. Timing & Pulse generating**

1) Pulse generating

2) Non-re triggerable monostable

3) Retriggerable

4) Quartz crystal

5) Schmitt trigger circuit

6) 555 circuit experiment.

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