

Computer Logic Laboratory is a combined board for all the experiments covered under Order Code 38611, 38612, 38613, 38614 Logicom's. This laboratory has been designed specifically for the use of students in digital electronic lab. The students can build-up various logic functions and understand their working of different types logic circuits. The board is absolutely self contained and requires no other apparatus.

Practical experience on this board carries great educative value for Science and Engineering Students.



Object:

To study and verify the following:

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|------------------------------|---|
| 01. AND/NAND function. | 02. OR function. |
| 03. Function $F=A . (B + C)$ | 04. Exclusive OR function. |
| 05. Coincidence circuit. | 06. Full Adder. |
| 07. Half Adder. | 08. Majority logic. |
| 09. Minority logic. | 10. Even parity check. |
| 11. Odd parity check. | 12. Binary storage elements. |
| 13. Set-Reset Flip-Flop. | 14. Type D Flip-Flop. |
| 15. J-K Flip-Flop | 16. Master Slave J-K Flip-Flop. |
| 17. Type T Flip-Flop. | 18. OR/NOR function. |
| 19. UP-Counter. | 20. DOWN Counter. |
| 21. Decimal Counter. | 22. Error detecting codes and Parity Check. |

Features:

The logic laboratory consists of the following :

1. Logicom-I Order Code 38611 consists of:
 - 1.1 + 5V D.C. at 200mA, IC Regulated Power Supply internally connected.
 - 1.2 Nine, 3-input AND gates each followed by an inverter to give 3-input NAND gates.
 - 1.3 A clock generator with a repetition frequency of 500 Hz.
 - 1.4 Two LED driver circuits each of which individually drives a LED.
2. Logicom-II Order Code 38612 consists of:
 - 2.1 + 5V D.C. at 500mA, IC Regulated Power Supply internally connected.
 - 2.2 Twelve, 2-input OR gates each followed by an inverter to give 2-input NOR gates.
 - 2.3 A clock generator with a repetition frequency of 500 Hz.
 - 2.4 Two LED driver circuits each of which individually drives a LED.
3. Logicom-III Order Code 38613 consists of:
 - 3.1 +5V D.C. at 500mA, IC Regulated Power Supply internally connected.
 - 3.2 Six Inverters.
 - 3.3 Four, 2-input AND gates.
 - 3.4 Four, 2-input OR gates.
 - 3.5 A clock generator with a repetition frequency of 500 Hz.
 - 3.6 Two LED driver circuits each of which individually drives a LED.
4. Logicom-IV Order Code 38614 consists of:
 - 4.1 + 5V D.C. at 1Amp, IC Regulated Power Supply internally connected.
 - 4.2 Nine J-K Flip-Flop.
 - 4.3 A clock generator with a repetition frequency of 500 Hz.
 - 4.4 Two LED driver circuits each of which individually drives a LED and is connected to the binary output of the Flip-

- 4.5 Two pulser switches.
5. Switches for logic selection.
6. LEDs for visual indication of status.
7. Adequate no. of other Electronic Components.
8. Mains ON/OFF switch, Fuse and Jewel light.
- * The unit is operative on 230V ±10% at 50Hz A.C. Mains.
- * Adequate no. of patch cords stackable from rear both ends 4mm spring loaded plug length ½ metre.
- * Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections / observation of waveforms.
- * Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

Note: Specifications are subject to change.

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