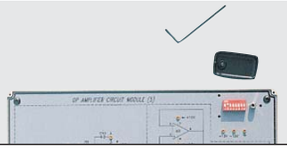
Digital lab equipped with a main unit and differents experiment modules.
Each module permits to realize several practical works.
Supplied with leads and user's manual.

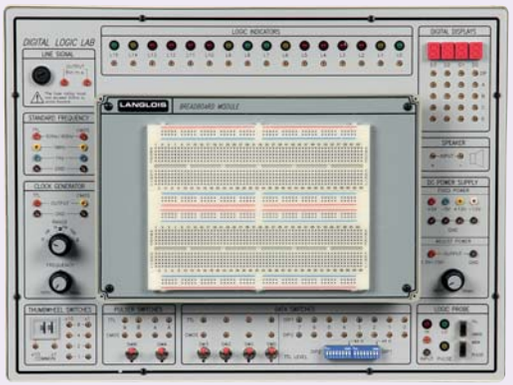


In the upper right corner, behind a locked hood by the teacher, a 8-positions switch allows to simulate some material defects.

DIGITAL LOGIC LAB

13 EXPERIMENT MODULES.
Designed with a 215 x 165 x 30mm solid body plastic housing, with electrical wiring printed on the front panel. An 8-bit DIP switch, located on the right top corner allows the user to simulate faults. Solution for faults are listed in the experiment manual for user's reference. Comprehensive experiment and instructor's manual are supplied with modules and contains theoretical drawings, wiring drawings.
The experiment part has input signals, location of test points, tables to be filled up, comments and exercises.

MAIN UNIT



ref. PSY3101

PSY3101 MAIN UNIT WITH:
4 fixed DC supplies with output overload protection: +5V -5V +12V -12V / 300mA on each output.
1 adjustable DC power supply with output overload protection: from 1.5 to 15V / 500mA
3 fixed frequencies: 1Hz, 50Hz, 1MHz 0.01%, fanout : 10 TTL load
1 variable signal generator
6 ranges from 1Hz to 1MHz - Fanout: 10 TTL or CMOS load.
2 x 8 outputs, edge 0 ⌐¬ 1 TTL level
4 outputs: edge 0 ⌐¬ 1 TTL or CMOS
1 fixed AC output - 6Vrms with overload protection
Thumbwheel switch, 2 digit, BCD code output, common point input.
16 x LED indicating high and low logic state
4 sets of independent 7-segment LED display, with BCD.
3 x LED functioning as a logic probe.
1 speaker with driver circuit.
Dimensions : 400 x 300 x 130 mm. Weight : 5.8kg

ACCESSORIES SUPPLIED
Jumpers, leads.
1680 tie-point breadboard which can be easily put into and taken off (permutable with the modules).

13 EXPERIMENT MODULES

Logic gates circuits, transistors, TTL and CMOS logic circuits. TTL/CMOS I/O voltage and current measurement experiments. Basic logic gate transmission delay measurement. AND, OR, NAND, NOR, XOR gate characteristics. Interface between TTL/CMOS and CMOS/TTL.

ref. DIGITAL1

NOR NAND XOR gate circuits, reverser, comparator circuit experiments, Schmitt trigger, open collector gate circuits.

ref. DIGITAL2

Three-state gate circuit. Adder.
Arithmetic logic unit.
Bit parity generator.

ref. DIGITAL3

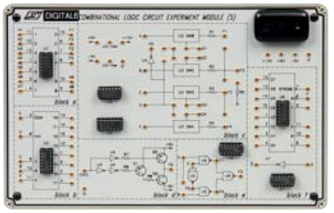
Adder. Subtractor. 2 and 3 inputs reverser.
BCD code adder circuit.
Bit parity generator with XOR gate.
10 to 4 bit decoder with TTL IC.

ref. DIGITAL4

4 to 2 bit encoder. 4 to 2 bit decoder.
Decoder circuit experiments
(decoding 7-segment display with BCD code).

ref. DIGITAL5

10 to 4 bit encoder.
Multiplexer circuit experiments.
Digitally controlled analog
Multiplexer/demultiplexer circuits.
Bi-directional transmission with CMOS IC.



ref. DIGITAL6

Oscillator circuit with basic logic gates, with Schmitt trigger. Voltage controlled oscillator circuit, with 555 trigger. Monostable multivibrator and synchronous astable multivibrator.

ref. DIGITAL7

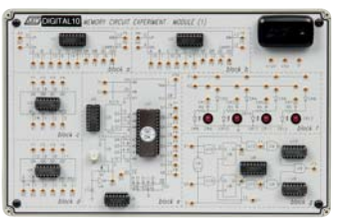
Variable duty ratio oscillator. RS, T, D, JK flip flop. Preset left/right shift register circuit.
Noise elimination circuit.

ref. DIGITAL8

JK flip flop: asynchronous/synchronous, binaries up/ down bi-directional counters. Ring counter circuit, Johnson's counter circuit.

ref. DIGITAL9

JK flip flop: asynchronous counter: decimal, divide by N, preset synchronous binary/decimal.
Constructing ROM memories with diodes, RAM memories with D flip flop.
Constructing EPROM



ref. DIGITAL10

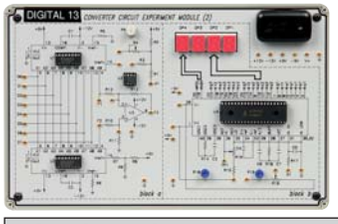
Constructing 64 bits RAM circuit.
Constructing Electronic EPROM circuit

ref. DIGITAL11

Construction dynamic scanning counter with single chip microprocessor. 8- bit analog/digital converter circuit.

ref. DIGITAL12

Digital/analog converter circuit, unipolar and bipolar.
3 digits analog/digital converter circuit.



ref. DIGITAL13