

Trainer Series

Electronic Trainers

PB-502 Advanced Logic Design Trainer

Use the PB-502 to construct a wide variety of experiments, including but not limited to:

Logic Gates & Boolean Algebra
Combinational Logic Circuits
Flip-Flops
Counters & Register Circuits
Integrated Logic Circuits
TTL Logic
MOSFETS
CMOS
Interfacing CMOS & TTL
Medium Scale Integration
Decoders
Encoders
Data Conversion & Acquisition



The PB-502 Advanced Logic Design Trainer is a portable robust instrument capable of satisfying many requirements arising in the design and study of digital logic circuitry. The PB-502's selectable operating voltage further aids its versatility by allowing the trainer to be used in either TTL or CMOS operating mode. The trainer contains three integral power supplies and input/output devices that simplify the construction of a wide range of circuits. Typical circuits that can be built on the PB-502 include, operational amplifiers, comparators, A to D converters, gates and counters. The PB-502 can also interface directly to a microprocessor. The PB-502 is housed in a tough, molded plastic carrying case with an integral hinged cover which stacks neatly for storage. Utilizing the PB-502, students will learn valuable hands-on breadboarding techniques and build a solid foundation in digital logic circuit experimentation, construction and analysis.

Features:

- Ideal for digital logic circuit design and experimentation
- Compact design for easy storage
- Includes built-in Clock, Pulsers and Logic Switches and Logic Indicators
- Selectable TTL or CMOS operating voltages
- Triple output power supply
- Premium breadboarding area with 8 power rails
- 3-year warranty on all parts and workmanship.

Global Specialties trainers provide the most complete platform required to enable engineers and technicians to train for careers in the rapidly growing field of electronics technology.



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Advanced Logic Design Trainer

Specifications

Model	PB-502
Input power Source	Regulated wall mount adapter with outputs of +/-12VDC @ 200mA, 5VDC @ 250mA
Selectable Operating Voltage	Select either 5V TTL or 12V CMOS operation via jumper wire connection
Power Supplies	Fixed DC: 12VDC @ 200mA +/- 5% Fixed DC: (-)12VDC @ 200mA +/- 5% Fixed DC: 5VDC @ 250mA +/- 5%
Clock	Frequency: Fixed at three levels: 1hz +/- 20%, 1Khz +/- 20%, 100khz +/- 20% User variable with use of external capacitor
Pulsers	(2) Fully debounced pushbuttons with logic true and complementary outputs Logic '1' output current 2mA @ 4V min (5V TTL) Logic '1' output current 4mA @ 11V min (12V CMOS) Logic '0' output current 2mA max @ 0.1V max (5V/TTL) Logic '0' output current 5mA max @ 0.1V max (12V/CMOS)
Logic Switches	(8) SPDT switches select output of Vcc or ground (0V). Output current is 200mA max in all cases
Logic Indicators	(8) LEDs buffered by two 4-bit latches with separate enables. Input impedance 100k ohms in all cases
Connectors	(2) BNC – uncommitted
Displays	(2) BCD-input seven segment displays with separate Display Enable (DE). Latch Enable (LE), and Lamp Test (LT) inputs. Input impedance 100K ohms
Breadboards	840 tie points with (8) 25 pin power rails and accommodates up to 8 (14 pin) ICs
Weight	1 lb, 6oz (Minus Adapter) (0.5 kg)
Dimensions	10 x 7.5 x 2.6" (254 x 190 x 66 mm)

Technical data subject to change without notice.

Optional Accessories

WK-1: Jumper Wire Kit, 350 pieces

WK-2: Jumper Wire Kit, 140 pieces

WK-3: Jumper Wire Kit, 70 pieces

WK-4: Wire Jumper Kit, 100 wires with machined tips

GSPA Series: Prototyping Adapters

GSPA-K1: Surface mount to DIP Adapter Kit, 6 adapter boards

GSPA-K2: Surface mount to DIP Adapter Kit, 11 adapter boards

GSA-3185: Minipro Test Clip Set



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