Circuit Design Trainer

PB-505A

Description:

Global Specialties model PB-505A is a robust Circuit Design Trainer suitable for all levels of electronics instruction and design.

The PB-505A allows students to acquire valuable hands-on lab experience by employing necessary breadboarding techniques, which provide a solid foundation in circuit experimentation, analyzing and troubleshooting. It can be used to construct basic series and parallel circuits up to the most complicated multi-stage microcomputer circuits, incorporating the latest in industrial technology.

Experienced designers will also find the PB-505A an invaluable, capable and reliable instrument, suitable for the most advanced and demanding design applications. 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.

The PB-505A is backed by Global Specialties' industry leading 3-year warranty.

Applications:

Opto-Device Circuits
Clocks
Multivibrators
Oscillator Circuits
Timers
Function Generator Circuits
Logic Circuits
Gates
Counters
Flip-Flops
Analog-to-Digital Converters
Digital-to-Analog Converters
Medium Scale Integration Circuits
Phase Lock Loops
Operational Amplifier

Features:

- *Ideal for analog, digital and microprocessor circuits*
- *Includes built-in digital function generator with continuosuly variable waveforms*
- *Triple output power supply for a variety of DC voltage levels*
- *Two digital pulsers for logic test circuits*
- *High & low buffered logic indicators*
- *Logic probe*
- *AC Output*
- *2 BCD to LED display circuits*
- *8 Channel logic monitor*
- *Audio experimentation speaker*
- *Removable breadboard plate allows the flexibility of building circuits away from the lab*
- *Analog & digital optional courseware available (Model PB-505ALAB)*
- *Input power source, AC Line switchable between:*

  110 - 120VAC @ 60 Hz or
  210 - 230VAC @ 50 Hz
- *3-Year warranty*

Specifications and appearance subject to changes without notice.
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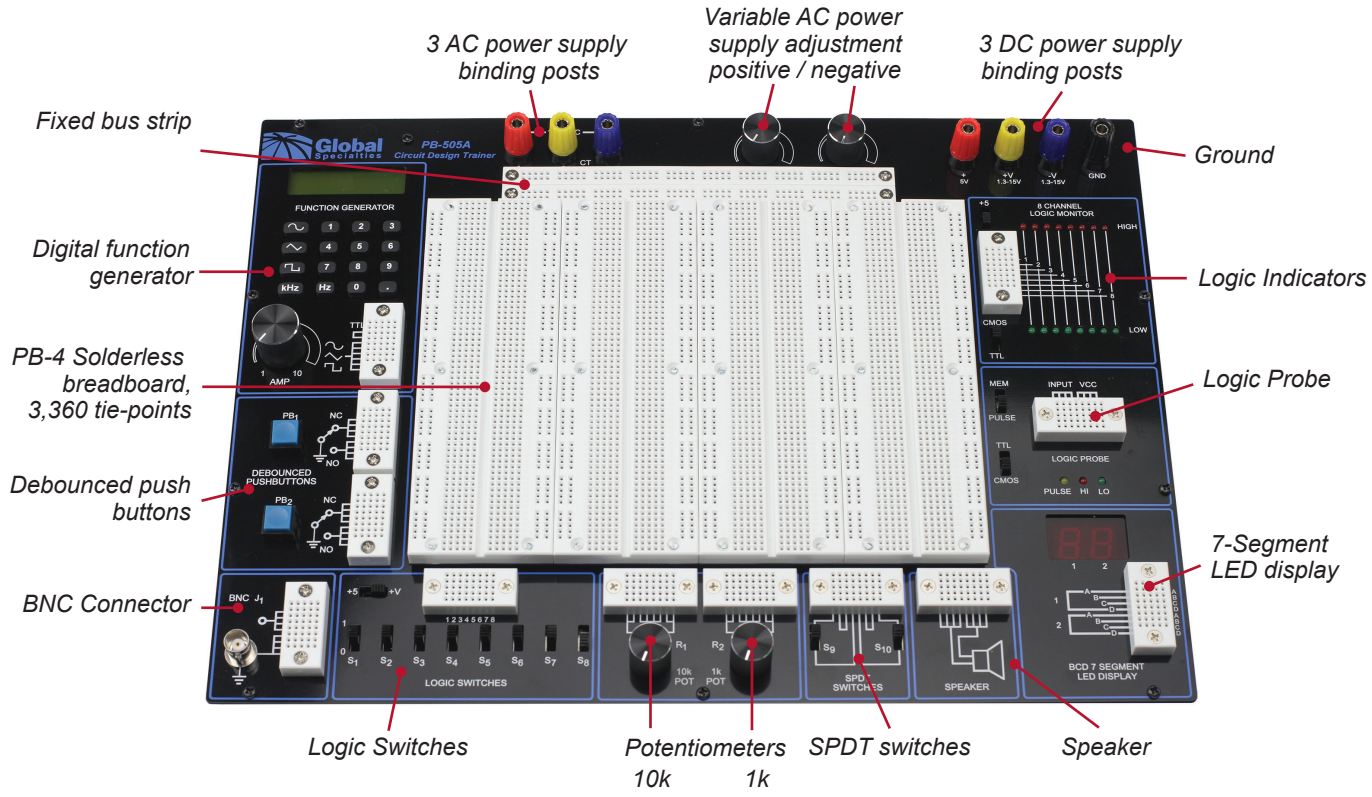
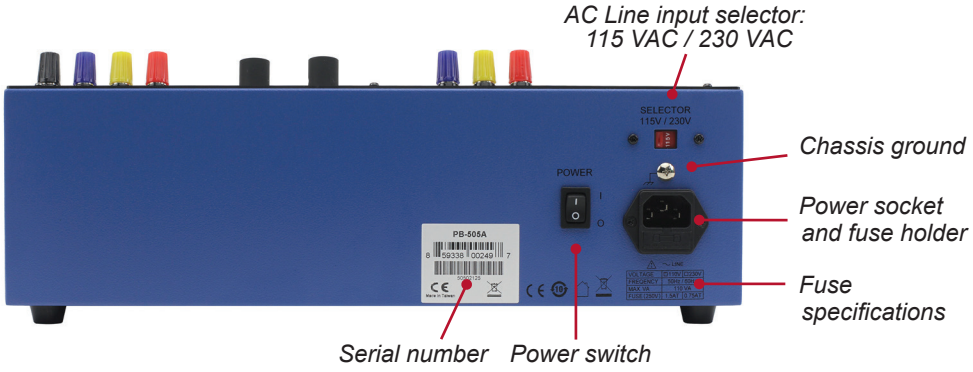
Global Specialties

Front Panel



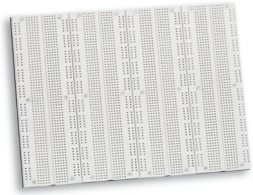
Rear Panel



Accessories

Wide variety of classroom parts available (see examples below)

PB-4



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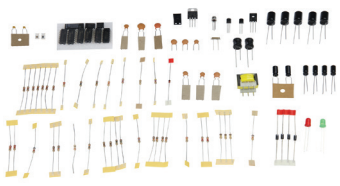

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Specifications:

All specifications apply to the units after a temperature stabilization time of 20 minutes over an ambient range of 20 ˚C ± 5 ˚C.

Model	PB-505A
Power Source	AC Line: 115 VAC @ 60 Hz or 230 VAC @ 50 Hz (switchable)
Power Supplies	Fixed DC: +5 VDC 1.0 A max. (current limited); Ripple, <5 mV Variable + DC: +1.3 VDC ±0.05 V @150 mA to +15 VDC @ 500 mA, Ripple < 5 mV Variable - DC: -1.3 VDC ±0.05 V @ 150 mA to -15 VDC @ 500 mA, Ripple < 5 mV Fixed AC: 12.6 VAC center-tapped @ 100 mA
Binding Posts	4 Power Supply Outputs: Ground, +5 VDC, Variable ±VDC, and AC Transformer central tapped (3 posts)
Pulsers	2 Pushbutton-operated / open collector output pulsers. Each with 1 normally open output and 1 normally closed. Each output sinks up to 250 mA
Logic Probe	Detects Logic High, Logic Low and Single Shot events. Logic High: 2.2 V (nominal) in TTL mode, 70% de VCC in CMOS mode. Logic Low: 0.8 V in TTL mode, 30% de VCC in CMOS mode. Memory Mode: Detects single shor events and holds indication until Pulse/Mem is toggled
Digital Function Generator	Frequency Range: 0.1 Hz to 100 kHz, 2 ranges Output Voltage: 0 to + 10 Vp-p into 600 Ω load (20 Vp-p in open circuit), short circuit protected Output Impedance: 600 Ω, except TTL Output Waveforms: Sine, Square, Triangle & TTL Sine Wave Distortion: < 3% @ 1 kHz typical TTL Pulse: Rise & fall time: < 25 ns, drive 100 TTL Square Wave: Rise & fall time: < 0.5 µs
Logic Switches	8 Logic switches select Logic High and Logic Low Logic Low Level: Ground Logic High Level: switchable between +5 V and the variable positive power supplies
Switches	2 Single Pole Double Throw (SPDT) - uncommitted
Logic Indicators	16 LED Bicolores: 8 red to indicate logic high and 8 green to indicate logic low Logic High Threshold: 2.2 V (nominal) in TTL/+5 V mode, 70% (nominal) of selected operating voltage in CMOS mode Logic Low Threshold: 0.8 V (nominal) in TTL/+5 V mode, 30% (nominal) of selected operating voltage in CMOS mode
Connectors	2 BNC Connectors - uncommitted
Potentiometers	2 Potentiometers: 1 kΩ and 10 kΩ - uncommitted
Speaker	8 Ω, 0.25 W - uncommitted
Displays	2 BCD to 7-Segment display cricuits, 2 red LED and decoder/driver circuitry
Breadboard	Removable socket plate (PB-4) with 3,360 tie-points with 200 additional bus strip tie-points
Weight	10 lbs (4.5 kg)
Dimensions	4.5 x 15 x 10.75 in (11.4 x 38.1 x 27.3 cm) (H x W x D)
Warranty	3 Years

Contact Information:

Toll Free: 800-572-1028 (US only)
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www.globalspecialties.com

PB-505ALAB

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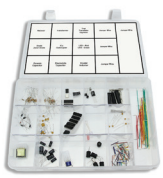
Courseware

Accessories Kit



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