PB-507LAB

Advanced Analog & Digital Electronic Design Workstation

Overview:

The PB-507 Advanced Analog & Digital Electronic Design Workstation, is a powerful, versatile tool for circuit designers, engineers, technicians, students, and hobbyists. All digital controls, USB port, and a wide choice of built-in circuit accessories allow rapid and accurate construction of virtually any type of analog or digital circuit.

New on the PB-507 is an LCD that displays the settings for the active module selected. Simply touch a control element and the LCD switches to that module and displays its settings. Use the USB connection on the PB-507 to control or view the module's values from a PC. Using this feature you can project the controls to a large viewing screen for a classroom to observe and follow.

The breadboard area is the largest in our trainer family and is removable for easy replacement.

The PB-507 is designed to withstand the toughest treatment. It is constructed with the highest quality components for many years of reliable service. The all-digital circuitry allows for easy function verification and calibration.

Features:

- LCD displays the settings from each active module
- USB connection enables viewing and controlling from a PC
- Choose your power source: 6.3/12.6 V AC power, 5 V DC or variable ±20 V DC
- Draw power from banana plug connections or the tie-point power supplies above each breadboard bus strip
- Powerful 1 MHz bandwidth Function Generator with sine, triangle, and square wave outputs
- Pulse Generator operates like a second, independent Function Generator where you can modify the duty cycle between 10 to 90%
- Frequency Counter module reports on the output of your own specially designed circuits
- Flush-mounted, removable circuit breadboard with over 4,100 contact points

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Included Accessories:

PC Software

Manual

Power Cord

USB Cable

Calibration Adaptors

Specifications:	
Power	3-wire AC Input with 110 V/220 V Selector Switch
Power Supplies	Fixed 5 VDC @1 A Variable DC - Positive: 0 V to +20 V @0.5 A Variable DC - Negative: 0 V to -20 V @0.5 A Fixed AC - 12.6 V Center-tapped @ 100 mA
Computer Interface	USB 2.0
Function Generator	0.1 Hz to 1 MHz selectable in 7 ranges Output Voltage: 0 to + 10 V (20 Vp-p) Output Impedance: 600 Ω Output Waveforms: Sine, Square, Triangle, TTL
Pulse Generator	Frequency Range: 0.1 Hz to 1 MHz in 7 ranges Output Output Mode: TTL or CMOS (switch selectable) Output Voltage: 0 to 15 Vp-p Duty cycle range: 10 to 90%
Frequency Counter	Frequency Range 0.1 Hz – 1 MHz
LCD Display	LCD Display: Reads Volts, Amps & Frequency
7 Segment Display	(2) BCD to 7 Segment Display Circuits
Logic Indicators	8 Bicolor LEDs: Red (High) and Green (low)
Logic Probe	TTL/CMOS compatible Logic Probe
Logic Switches	(8) Individual Logic Switches
Speaker	0.25 W, 8 Ω
Debounced Pushbuttons	(2) Open Collector Output Pulsers
Switches	(2) Single Pull Double Throw (SPDT)
BNC Connector	(2) BNC Connectors
Potentiometers	1K & 10K Uncommitted
Breadboard	4150 tie points, removable
Voltage Distribution Bus	Tied directly to Power Supply Outputs
Dimensions	5.5" x 16.5" x 12.75" (H x W x D)
Weight	14.5 lbs
Warranty	Limited three-year warranty

Specifications subject to change without notice. Go to globalspecialties.com for the latest update.

Accessories

The **PB-507 Lab** package offers comprehensive course instruction covering the following areas:

Electronic Fundamentals
Fundamentals of Electricity
Ohm's Law
Series Circuits, Parallel Circuits
Combinational Circuits
Current Control
Closed, open, shorts
Switches
Thevenin's Theorem
Wheatstone Bridge
Capacitors, Inductors
Phase Shift Circuits
Impedance
Resonant Circuits
Transformers
Rectifiers & Filtering
Integrated Circuits
Transistor Amplifiers
Oscillators
Power Control Circuits

Digital Electronics Number
Systems & Codes
Binary, Decimal, Hexadecimal, Octal & ASCII
Logic Gates & Boolean Algebra
Combinational Logic Circuits
Flip-Flops
Digital Arithmetic
Counters & Registers
Integrated Circuit Logic Families
TTL Logic
MOSFETS
CMOS
Interfacing CMOS & TTL
Medium Scale Integration
Decoders
Encoders
Data Conversion & Acquisition
Microcomputer Concepts

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