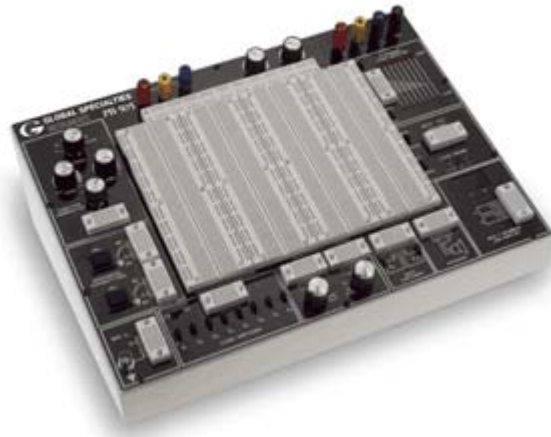


## Proto-Board® Design Workstation Series

### PB-505

#### Advanced Circuit Design Trainer

- Expanded Removeable breadboard area with Lifetime warranty
- Two open collector pulsers
- Built-in multi-waveform function generator
- Quad voltage power supply: Three DC & one low voltage AC
- Functions with optional electronics trainer boards
- Built-in logic probe with pulse capture
- BCD to 7 segment decoder/display
- 8 channel logic indicators



Global Specialties is pleased to introduce a new ADVANCED state of the art proto-board design workstation which is ideal for higher level analog, digital and microprocessor circuit designs.

An exceptional combination of advanced functions, features plus exceptional performance, workmanship and flexibility of circuit design makes the NEW MODEL PB-505, (part number 104-1505) a valuable

cost effective product for design engineers, educational institutions and hobbyists.

This advanced design workstation feature life-time guarantee on all breadboarding sockets and 3 year warranty on all parts and workmanship.

The new PB-505 features a larger removable breadboard area (3360 uncommitted tie points) and optional additional breadboard socket plates (part number 325-1448)

This new model also features eight high (red) and low (green) buffered logic LED indicators, eight individual selectable logic switches offering settings of plus, negative and uncommitted, a built in logic probe with pulse capture, a built in multi-function, multi-wave 100KHz, function generator with continuously variable sine, square and triangle wave forms and TTL pulse.

Besides the standard triple output power supply (2 variable and 1 fixed), two digital pulsers, audio experimentation speaker, SPDT switches, potentiometers and debounced pushbutton switches, This new advanced trainer also features a BCD to 7 segment decoder/display, special AC voltage output 12, 6 AC, center tapped at 6.3VAC, larger individual breadboard socket areas and is housed in a rugged metal enclosure.

## PB-505

### POWER

3-wire AC line input (115V/230V 50-60Hz or 230V 50Hz)-  
(specify when ordering ) with power indicator.

### POWER SUPPLIES

Fixed DC output: +5VDC @ 1.0A, ripple <5mV  
Variable DCO/P +1.3V to +15V @ 0.5A, ripple <5mV  
Variable DCO/P -1.3V to -15V @ 0.5A, ripple <5mV  
Fixed AC O/P 12.6 VAC Center tapped @ 100mA

### FUNCTION GENERATOR

Frequency Range 0.1Hz to 100KHz in six ranges  
Output voltage 0 to +10V (20Vp-p)  
Output impedance 600 ohms (except TTL)  
Output Current 10 mA max., short circuit protect-ed  
Output waveforms Sine, Square, Triangle, TTL  
Sine wave Distortion < 3% (10Hz to 100KHz)  
TTL Pulse Rise and fall time <25ns  
Drive 10 TTL loads  
Square wave Rise and fall time <1.5 $\mu$ s

### LOGIC INDICATORS

16 LED's 8 red to indicate logic high, 8 green to indicate a logic low.

### LOGIC PROBE

Built-in TTL/CMOS compatible logic probe.  
Captures fast single shot events and pulse trains.  
Input impedance 300K $\Omega$ , overload protection +50VDC, min..  
detectable pulse width 100nsec. TTL threshold low +0.8V  
high +2.25V, CMOS threshold low +30%Vcc high +70%  
Vcc. Memory mode, latches on first transition and LED  
remains on until probe is reset

### DEBOUNCED PUSHBUTTONS (PULSER)

Two push-button operated, open-collector output pulsers,  
each with one normally-open and one normally- closed  
output. Each output can sink up to 25mA.

### POTENTIOMETERS

One 1K $\Omega$ , one 10K $\Omega$ , all leads available and uncommitted.

### SWITCHES

Two SPDT slide switches, all leads available and  
uncommitted.

### LOGIC SWITCHES

8 individual SPDT logic switches, one side of all eight  
switches connected and switchable to +5V or ground, other  
side of all eight switches separate, and uncommitted.

### BNC CONNECTOR

Two BNC connectors, pin available and uncommi-  
ted, shell connected to ground.

### SPEAKER

0.25W, 8 $\Omega$

### BCD TO 7 SEGMENT DISPLAY

2 BCD to 7 segment display circuits are provided including  
decoder/driver circuitry. Tie points: 5 per each unit.

### BREADBOARDING AREA

A total of 3360 uncommitted tie-points, available on velcro  
breadboard plate. Two QT-59B, bus strips. Fifty tie-points  
for each +5V, variable +15V, and ground if desired.

### ENCLOSURE

Steel case

### GENERAL

Weight 10 lbs (4.5kg)  
Dimensions 4.5" (H) x 15" (W) x 10.75" (D) (11.4 x  
38.1 x 27.3 cm)  
Model Number 104-0505

# Prototyping & Design Products

**MOST POPULAR!**

**DESIGN WORKSTATION**

## Proto-Board® Design Workstation Series

An exceptional combination of advanced functions, flexibility and features, built with Global Specialties® dedication and commitment to quality and workmanship, make our Circuit Design Workstations a valuable cost-effective product for research & development and educational applications.

### ADVANCED CIRCUIT DESIGN TRAINER

- ▶ Large removable breadboard area with limited lifetime warranty
- ▶ Two digital pulsers
- ▶ Built-in multi-waveform 100KHz function generator
- ▶ Quad voltage power supply: three DC & one low voltage AC
- ▶ Built-in logic probe with pulse capture
- ▶ BCD to 7 segment decoder/display
- ▶ 8 channel logic indicators
- ▶ Audio experimentation speaker



**PB-505**



**PB-4**

### WORKSTATION SOCKET PLATES

Replacement socket plates for global circuit design workstations

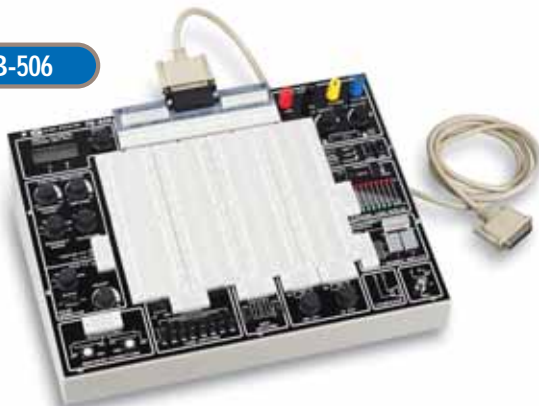
- ▶ PB3 for use with PB503 & PB503C
- ▶ PB4 for use with PB505 & PB506



**PB-3**

### PROFESSIONAL CIRCUIT DESIGNER WITH COMPUTER INTERFACE

**PB-506**



- ▶ Removable breadboard area with limited lifetime warranty
- ▶ 1 MHz multi-waveform function generator
- ▶ Quad voltage power supply
- ▶ Logic probe with pulse capture
- ▶ 8 channel logic indicators
- ▶ With 1 MHz pulse generator
- ▶ Detachable 25-way computer interface

**NEW!**  
RUGGED ENCLOSURE

### PORTABLE DESIGN WORKSTATION & BENCH-TOP WORKSTATION

**PB-503**



- ▶ Limited lifetime warranty on sockets
- ▶ Ideal for analog, digital and microprocessor circuits
- ▶ 8 channel logic monitor
- ▶ 8 selectable logic switches
- ▶ Function Generator with TTL pulses



**PB-503C**

- ▶ Triple output DC power supply
- ▶ Two digital pulsers
- ▶ Audio experimentation speaker
- ▶ Removable breadboard area and optional additional breadboard socket plates available