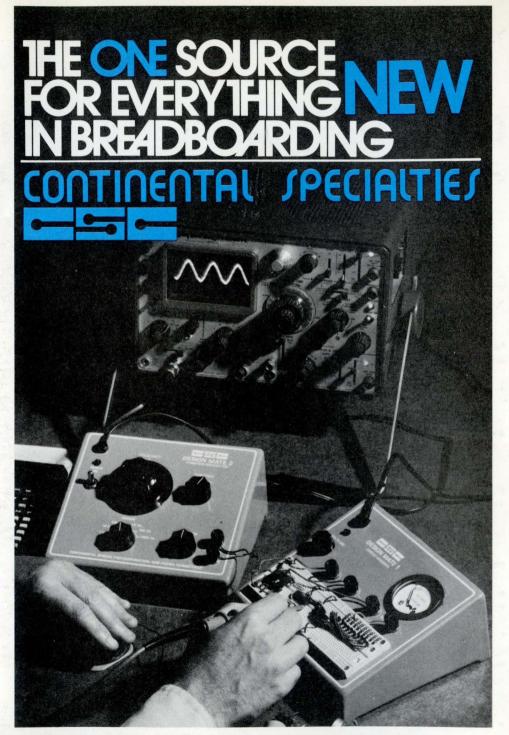


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ELECTRONIC DESIGN MAGAZINE



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ELECTRONIC DESIGN MAGAZINE

Quick Test SOCKETS

They're called "QUICK TEST" because now you can breadboard any circuit faster than drawing. These snap-

stage to final design, using the same components over again without bending, twisting or loading with solder. The fast, reliable Quick Test Sockets and Bus Strips let you try out new ideas or rejuvenate old ones with complete safety to vour discrete and IC components and your fingers.

SIMPLE MOUNTING Mounting holes in the plastic housing let you top mount to any flat surface with 4-40 flat head screws, or 6-32F self-tapping screws for behind-the-panel

ACCEPTS ALL STANDARD

COMPONENTS Quick Test Sockets and Bus Strips conform to 1/10" grid and are DIP compatible. ICs, diodes, resistors, capacitors, transistors, etc. are plugged right into the socket and/or strip, without messy, time-consuming soldering. HOOK-UP All you need is a wire stripper and #22 AWG solid hook-up wire. Connect power and ground leads to your bus strip. Plug in your ICs. transistors, resistors, etc. Now interconnect components with #22 wire. Connect a signal source to bus strip or directly to

TOP VIEW

2 Buses of Interconnected Terminals - 5 Tie Points Each

Keep going non-stop, from idea input point of your circuit. Each socket has 5 tie points per terminal: each bus strip has 2 separate rows of interconnecting terminals. Turn on the power and signal source. Hook-up a scope probe, counter, etc. Then, if you have to add a wire, need another IC or component - just plug it in. You'll never burn your fingers or get solder shorts. And you don't need any special patch cords, either. INTERCONNECTIONS Each

terminal consists of 5 connected solderless tie points formed from a pre-stressed. spring loaded, non-corrosive nickel silver alloy to insure secure mechanical and low resistance electrical connections. Simply push in your lead, wire or component and you've got a connection, quickly and easily, without dam-

sion is. age to either the socket or your components. Sockets: Groups of 5 Connected Tie Points

It's that simple!

over 100°C.

All Sockets are 1.32" wide. All

Bus Strips are .36" wide, All

Sockets and Bus Strips are

.33" thick. And all are great for

high temperature operation —

for worst case circuit design to

Exclusive SNAP/LOCK allows

you to expand or contract your

breadboard by snapping to-

gether as many sockets or

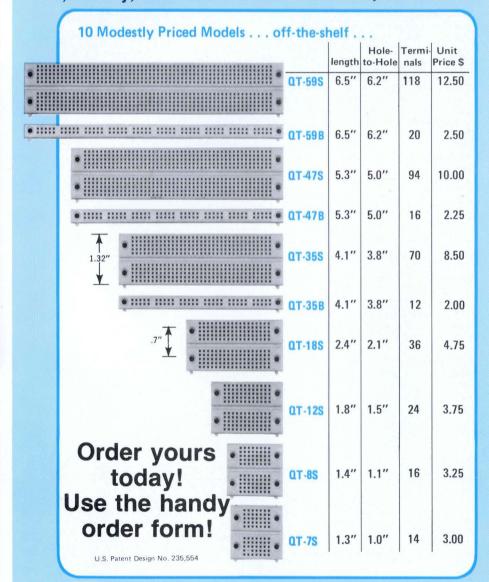
strips as you need. Look at the

picture, and see how quick and

simple SNAP/LOCK expan-

and BUS STRIPS

together, compact breadboards let you plug-in, test, wire, modify, build ... without solder or patch cords!



now offers 6 expanded breadboards . . . from easy-to-assemble kits to built-in, regulated power CONTINENTAL SPECIALTIES supplies!

PROTO BOARDS

CSC combines QT Sockets and Bus Strips into a variety of versatile ProtoBoards. Make all your circuit and power interconnections with inexpensive solid #22 wire. Aluminum base plates offer solid. ground plane work surfaces. Rubber feet prevent scratching. 5-way binding posts tie into systems or power supply grounds. And, all are compatible with digital or linear ICs, in TO5s, DIP packs and discrete components. With the exception of the inexpensive kit, all are assembled and ready for you to start build-Aluminum base is perfect ing right away.

Each has one or more

All are compatible with digital/linear ICs, in TO5s, DIP packs and discrete

ground plane and solid surface

All connections common #22

Rubber Feet prevent scratching



your own working ProtoBoard begins. DIMENSIONS: 4.50" (114.3) mm) Wide. 6" (152.4mm) Long. 1.35" (34.3mm) High. Order today. Start building, Start testing, Start

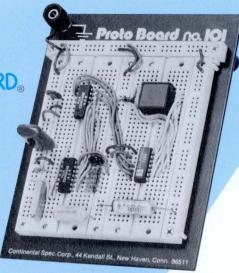
Complete kit . . . only

PROTO BOARD® 101

A compact minibreadboard at a mini-price, but with expanded 10 14-pin DIP capacity.

How sweet it is!

Order today.



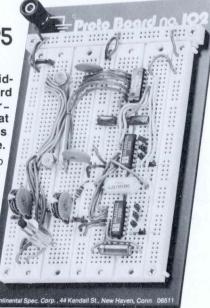
2995

If you're on a budget, here's the ProtoBoard for you. 10 14-pin DIP capacity. 940 solderless tie points (less than 3.2¢ ea.). 8 distribution buses; 2 horizontal, 6 vertical; 30 contacts each. Weighs only 9 oz. (.255 **39**95 Kg). 5.8" x 4.5" (147mm x 114mm). Complete and ready to start testing. And that price.

PROTO BOARD®

A mid-size midpriced ProtoBoard with 1,240 solder less tie points that has as many uses as you can create.

The PB-102 is a step up from PB-101, offering 12 14pin DIP capacity and the same mechanical/electrical features. The 1,240 solderless tie points cost less than 3.2¢ ea. 8 distribution buses on each; 2 horizontals with 30 contacts each. Lightweight, only 11 oz. (.312 Kg). Compact. 7" x 4.5" (178mm x 114mm). It's assembled and ready to start testing the minute you open the package. What are you waiting for? Order yours today.



PROTO BOARD® 103

PROTO BOARD®

The King Size **ProtoBoard** that offers it all . . . at a very

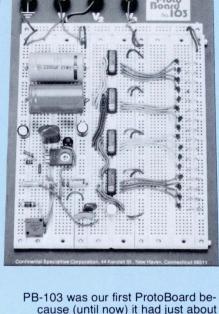
easy price.

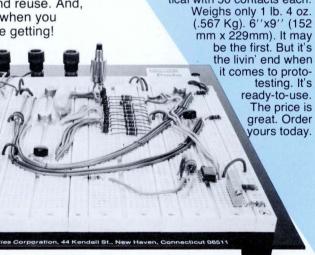
7995

The versatile. expanded, granddaddy of all the ProtoBoards.

5995

You name it. PB-104 has it. 3.060 solderless tie points at only 2.6¢ ea. 32 14-pin DIP capacity to build an entire system, including power supplies. Four 5-way binding posts: one grounded, three floating. Rubber feet, 14 distribution buses: 4 horizontal with 50 contacts each, 10 vertical with 50 contacts each. Lightweight, only 1 lb. 12 oz. (.794 Kg). Measures 8"x9.76" (203mm x 248mm). It's all here. Ready to use . . . and reuse. And, the price isn't bad either, when you consider everything you're getting!





tical with 50 contacts each.

everything you could need . . . and

at less than 2.7¢ ea. Four 5-way

binding posts; one grounded. 24

14-pin DIP capacity. 10 distri-

with 40 contacts each, 8 ver-

bution buses: 2 horizontal

still does. 2.250 solderless tie points

You asked for them. Now here are two powerhouse ProtoBoards . . . with built-in regulated short-proof power supplies!

Here is the ultimate in prototesting. New PB-203 and PB-203A protopowerhouses are ready to use. Just plug 'em in and start building. The PB-203 offers 2 extra floating 5-way binding posts for external signals. Both are self-contained with power switches, indicator lamps and power fuses. 24 14-pin DIP capacity. All metal, two-tone quality cases. Good looks. Great technology. Fantastic price.

3 QT-59S Sockets 4 QT-59B Bus Strips 1 QT-47B Bus Strip Fuse . Power Switch Power-On Light 9.75"Lx6.6"W x3.25"H Weight 5 lbs. 5V. 1 AMP regulated power supply

Output Specifications Output voltage 5V±%V

Ripple & Noise @ ½AMP 10 millivolts Load Regulation Better than 1%

PROTO BOARD PROTO BOARD 203

3 QT-59S Sockets 4 QT-59B Bus Strips 1 QT-47B Bus Strip Fuse. . Power Switch Power-On Light 9.75"Lx6.6"Wx3.25"H Weight 5.5 lbs. 5V, 1 AMP regulated power supply (same as PB203) +15V. ½AMP regulated power supply -15V, ½AMP regulated power supply

Output Specifications

Output voltage 15V, internally adjustable Ripple and noise @¼AMP 10 millivolts Load Regulation Better than 1%



LOW COST ... COMPACT ...

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PROTO CLIP

Test with power on and hands off . . . without shorting leads. All for under \$5.

Here's the micro-troubleshooter you've looked for. Its narrow, deep throat brings IC leads up from crowded pc boards for fast signal tracing. Or even injecting signals and wiring unused circuits into existing boards. See those unique gripping teeth (below); scope probes and test leads lock onto them instantly, easily to free your hands for other work. The plastic construction eliminates springs and pivots. And, the molded flexible web* insures thousands of sure operations. Non-corrosive nickel/silver contacts give simultaneous low resistance connections to all your IC leads. If you work with ICs you need these inexpensive CSC ProtoClips.

PC-14 (14-pin ProtoClip). . . . \$4.50 each PC-16 (16-pin ProtoClip). \$4.75 each



*Patent Pending

PRE-WIRED

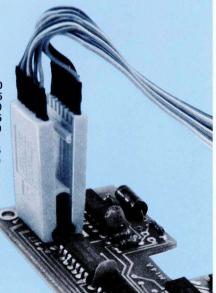
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> NOTE: S=Single Clip D=Dual Clips When ordering include Part No.-Cable Length-Single(S) or Dual (D) Clips



If you want to check logic levels without an expensive scope . . . here is Continental Specialties Logic Monitor . . . that brings ICs to life . . . as it tests DTL, TTL, HTL and CMOS on one

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CONTINENTAL SPECIALTIES

Logic Monitor

- Self powered
 Self contained
- Pocket size
 No adjustment or calibration
- One unit for testing DTL, TTL, HTL and CMOS
- Put life into your digital designs
- Watch signals work their way through counters, shift registers, timers, adders, flip flops, decoders, entire systems
- Concentrate On Signal Flow, Input/Output Truth Tables
- Forget probe grounds, pin counting and sync polarity
- Versatile Fast Accurate Indispensable

Order your Logic Monitor today. Use handy order form enclosed.

8495_{each}

SPECIFICATIONS:

Input Threshold Input Impedance Input Voltage Range

Maximum Current Drain Temperature Range Weight Maximum Dimensions 2.0 ± .2V 100,000 ohms 4V min. to 15V max. across any two or more inputs 200ma @ 10V 0°C to 50°C 3 oz. (85 grams) (LxWxD) 4x2x1.5" (102x51x38mm)

What the Logic Monitor does

Continental Specialties' Logic Monitor simultaneously displays static and dynamic logic states of DTL, TTL, HTL or CMOS DIP ICs in a compact, self-contained. pocket-sized unit, Never needs calibration or adjustments. Traces signals through counters, shift registers, gating networks, flip flops, decoders, . .entire systems, made up of mixed logic families. Now that's versatility and value from one low cost instrument!

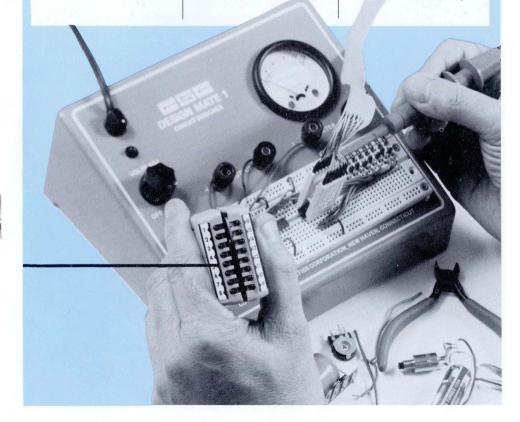
How the Logic Monitor works

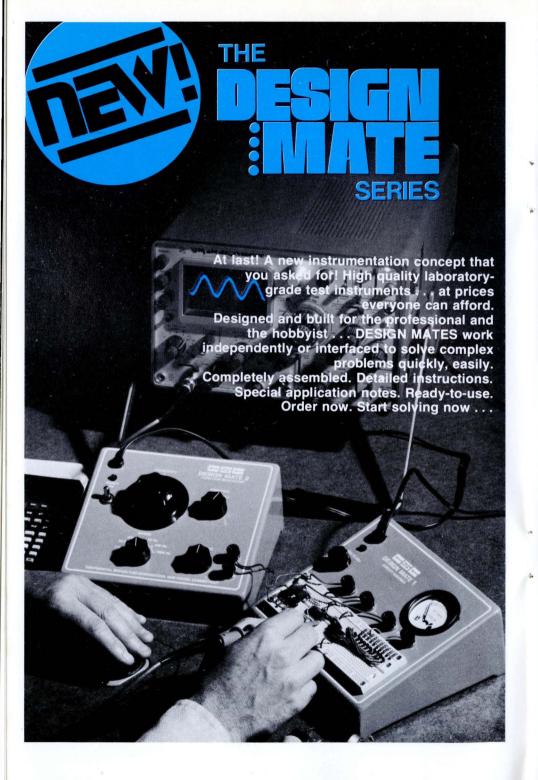
Each of the 16 input contacts are connected to independent single "bit" go/no go detectors with LED readouts. Each detector circuit turns on a high intensity LED when its input voltage exceeds a fixed 2V threshold. A powerseeking gate network automatically locates supply leads and feeds them to the Logic Monitor internal circuits. Simple, but effective . . .and a must for your lab.

It's so easy to use

Simply clip the Logic Monitor to any DIP IC up to 16 pins. Precision plastic quides and the unique flexible web* insure positive connections between non-corrosive nickel/silver contacts and IC leads. Logic levels appear instantly on 16 large (.125" dia.), clearly marked, high intensity LEDs. Logic "1" (high voltage) turns the LED on, Logic "O" (low voltage or open circuits) LED off. Best of all, it fits in the palm of your hand and operates instantly. Order today.

*Patent Pending







CIRCUIT DESIGNER

You asked for it. HERE IT IS! CSC's basic circuit designer to help you build and test ANY electronic circuit. Solid #22 AWG wire interconnects any discreet component without solder. Resistors. Transistors. Linear/Digital ICs in TO-5 DIP packages (from 8-40 pins). And more.

Components fit directly into Sockets and Bus strips instantly and easily. Plus, DESIGN MATE ONE's (DM-1) variable regulated power supply gives 5-15V DC up to 600ma (9 watts). Now that's design flexibility for you!

You can even monitor the DM-1's internal power supply or external circuits thanks to the built-in 0-15V voltmeter. If you're into electronics, DM-1 is a must for your laboratory. It comes to you completely wired, tested and ready to use for only . . .

SPECIFICATIONS

Power Supply: Output; 5-15V at 600 ma, Ripple and Noise; less than 20 mv at full load, Load and Line Regulation; better than 1%. Meter: 0-15V DC — 5%. Connectors: 1 QT-59S, 2 QT-59B, 2 power supply 5-way binding posts, 2 meter 5-way binding posts. Weight: 3 lbs (1.36 kg).**

Power Requirements: 117V* AC @ 60 Hz 12 watts.

FUNCTION GENERATOR

Troubleshooting? Design Testing? Here's the only tester made today that gives you all the signal source capacity you need . . . and, at a very modest price! The DESIGN MATE TWO (DM-2) is a 3-wave form function generator, with a short-proof output amplifier providing both variable signal amplitudes and constant output impedance.

DM-2 is completely wired, tested, calibrated and ready to test anything from audio amplifiers to op-amp and educational laboratory designs . . . to complex industrial laboratory projects. It includes an easy-to-read instruction/operations manual, application notes, operation theory and lots more. DM-2 works hand-in-hand with DM-1 for total versatility . . . but it costs only . . .



SPECIFICATIONS

Frequency Range: 1 Hz to 100 kHz in Five Ranges: 1-10 Hz, 10-100 Hz, 100-1000 Hz, 1-10 kHz, 10-100 kHz. Dial Accuracy: Calibrated at 10 Hz, 100 Hz, 1 kHz and 10 kHz, frequency accurate to 5% of dial setting. Wave Forms: Sine wave less than 2% THD over frequency range: Triangle wave linearity, better than 1% over range: Square wave rise and fall times less than 0.5 micro seconds with 600 ohms-20 pf termination. Output Amplitude: (all wave forms) variable - 0.1V to 10V peak to peak into open circuit. Output Impedance: 600 ohms — constant over amplitude and frequency range. Weight: 2 lbs (.91 kg).**

Power requirements: 117V* AC @ 60 Hz 5 watts.

*220V @ 50 Hz operation available at slightly higher cost.

**Each DESIGN MATE measures LWH: 6.75" (172 mm) x 7.5" (191 mm) x 3.25" (83 mm).



Have you been bugged by color codes and unreadable component markings? Forget it!

Now there's DESIGN MATE THREE (DM-3), the low cost R/C Bridge that measures component values . . . in seconds . . . better than 5%. And it's all done with only two operating controls and the DM-3's unique solid-state null detector, to zero-in on exact component selection . . . instantly!

Completely wired, tested and calibrated, DM-3 includes an extensive instruction/applications manual and operational theory too . . . all for only . . .

SPECIFICATIONS

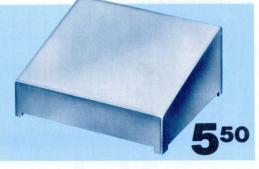
Resistance Range: 10 ohms to 10 megohms - Six Ranges: 10-100 ohms, 100-1000 ohms, 1K-10K ohms, 100K to 1 megohm, 1 megohm to 10 megohms. Capacitance Range: 10 pfd to 1 mFd - Five Ranges: 10-100 pFd, 100-1000 pFd, .001 to .01 mFd, .01 mFd to .1 mFd, .1 to 1.0 mFd. Null Detector: Two high intensity red LEDs with high/low markings. Accuracy: Better than 5% of null Dial and range switch setting. Weight: 2 lbs (.91 kg).*

Power Requirements: 117V* AC @ 60 Hz 3 watts.

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Design your "OWN MATE"!! blank box with bottom plate & mounting screws made from high impact/high temperature plastic, sloped front panel design, drill it, route it, machine it to custom design your "OWN MATE".

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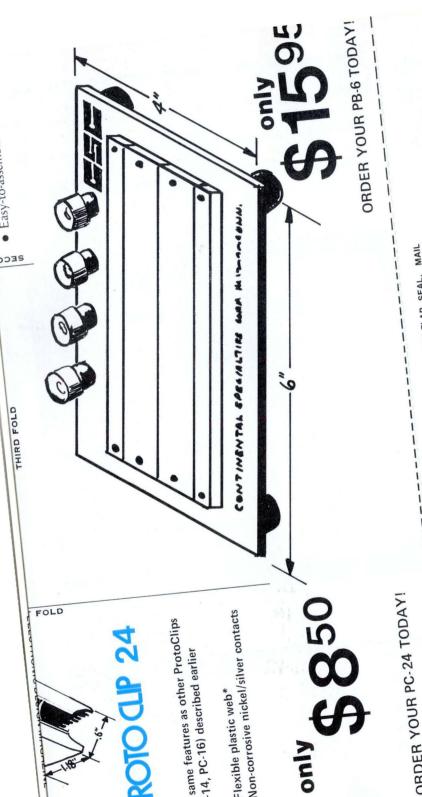
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