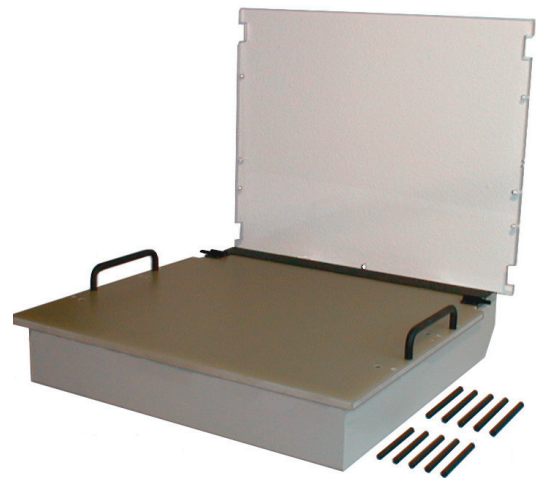


## Benchtop Pneumatic Press



### Usable for most common PCBA testing

- Through-hole and SMT PCBAs
- Hard to gasket assemblies
- Individual or Panelized PCBAs
- Top-side probing supported
- Low cost, interchangeable fixture kits
- Upwards compatible with 12KN fixture press system



**Kit-1000-QC**

The CheckSum Model TR-7 Pneumatic Bed-of-Nails Fixture System is designed for test fixturing of circuit boards up to 13.2" x 16". The Model TR-7 can be used for most general purpose fixturing applications, and can also be used when the unit-under-test (UUT) is difficult to gasket and seal on vacuum fixture systems. Pneumatic fixturing provides several advantages over vacuum fixturing:

1. There is no gasketing to degrade, which makes the fixture last longer.
2. Since there is no air-flow past the UUT, there is less static build-up in the fixture, probes last longer, and the test system is quieter.
3. Fixturing costs are lower, since initial fixture kit costs are lower and customization costs are lower.
4. Difficult-to-vacuum-seal UUTs (such as those with internal routing, open vias, or dense concentrations of probes) can be easily accommodated.
5. Since a low-power compressed air supply is used, it is not necessary to purchase and maintain a vacuum pump
6. Since a top mechanism is already in place, it is less expensive to adapt to top-probing applications such as with TestJet Technology.

The TR-7-1000-QC can accept assemblies up to 1000 std. force test probes and has a spring-probe quick change interface to connect to the test system.

The TR-7-1000-QC is well suited for low to medium point-count testing with minimal wasted time spent when fixtures are frequently changed.

With a vertical travel of only 0.50", the Model TR-7-1000-QC provides safe, fast operation, but is adequate for compressing probes on both sides of the UUT. Since lid closure occurs before pressure is applied, complicated safety interlocks and mechanisms are not necessary.

### Testing

To operate the fixture, the operator places the UUT onto guide pins in the fixture, then closes the lid. Once the lid is closed, the fixture is actuated by computer control (or manual control) to press the UUT onto the spring probes. A sensor prevents pressure from being applied before the cover is closed. At the end of the test, pressure is removed; the operator opens the lid, and the UUT is removed. Typical combined load/unload time, including application of pressure, is under ten seconds per UUT.

## Customizing the Fixture

The Model TR-7 Fixture Press is used in conjunction with low-cost fixture kits that are customized for each UUT.

CheckSum can customize the fixture for your UUT or it can be done by a local fixture contractor or in-house if the necessary drilling and wiring equipment is available.

Fixture Kit customization involves drilling, installation of spring probes & receptacles, installation of guide pins, wire-wrapping the probe receptacles to the FIX-200P-WB interface connectors, and installation of pressure rods into the top plate. For top-access to the UUT, the top plate can be drilled or milled to allow use of screwdrivers or adjustment tool

### TR-7-1000-QC Configuration

The Model TR-7-1000-QC Fixture Press includes the press, power cord, digital control cable, ground wire, and instruction manual:

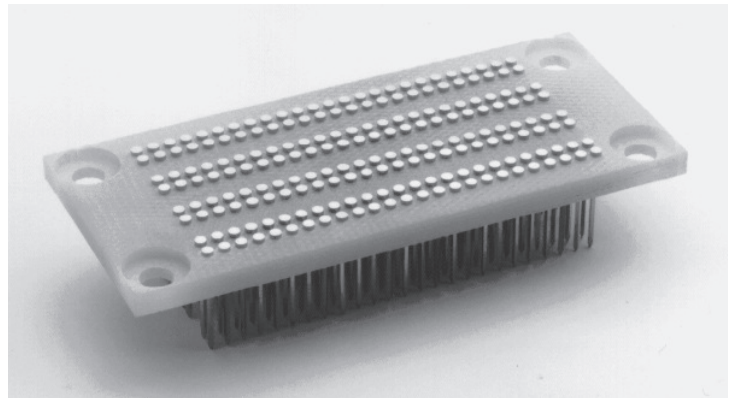
When initially ordering the Fixture Press, add one FIX-200P-RB Receiver Block/Cable for each 200-points connected to the test system. For example, if you have a 800-point system, order four FIX-200P-RB Receiver Blocks/Cables with the fixture press. Other blocks maybe necessary to support functional test or TestJet Technology configurations.

Contact CheckSum for the recommended configuration if the system has options beyond standard MDA test.

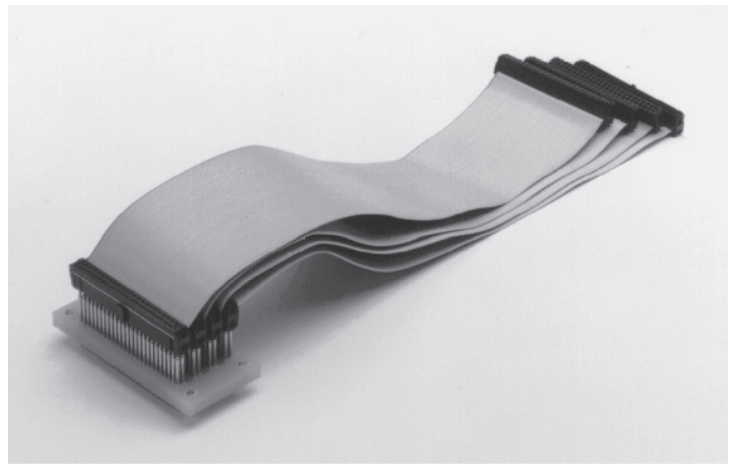
## Specifications

### Fixture Press

Overall Dimensions	24" W x 24" D x 16" H (28" high with the top open)
Air Requirements	50-120 PSI with 40 micron filtering, 80 PSI required with full probe loading
Air Connection	Standard quick-disconnect
Electrical Connections	115/230VAC 50/60Hz for Power, RCA jack for digital control, Banana jack for use with probe and/or operator wrist-strap
Manual Control	Three-position switch for up, down, or remote control
Remote Control	TTL low to engage, TTL high to disengage. Internal 10 K $\Omega$ pull-up. Can be set to reverse logic.
TR-7-1000-QC	Weight ~110 lbs (~125 lb shipping wt.)



**FIX-200P-WB**



**FIX-200P-RB**

### Fixture Kits

Max. UUT Probe Area	13.2" x 16"
Working Area Above UUT	3.325" (UUT PCB to top cover)
Working Area Below Probe Plate	2.92"
Probe Plate	3/8" G-10 (FR-4) material
Top Cover	1/2" Clear polycarbonate material
Weight	~25 lbs

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