

Model TR-5 Mechanical Bed-of Nails Fixture Kits

Product Features

- Mechanical Bed-of-Nails Fixturing
- Low to Medium Point Count
- Easily Customized
- No Need for Vacuum Source, Gasketing or Receiver Assembly
- Low Cost

Applications

- **Low Point-Count Circuit Assemblies**
- **Small Bare Boards**

The CheckSum Model TR-5 Mechanical Bed-of-Nails Fixture Kits are designed for test fixturing of assemblies with up to about 150 test points. Being mechanically operated, it does not require a vacuum pump or fixture receiver. A transparent top plate with pressure rods presses the unit-under-test (UUT) down onto the probes, then locks into place with a sturdy latch.

Mechanical bed-of-nails fixtures require less expertise to customize than vacuum fixtures since vacuum gasketing is not required. In most cases, users with the facilities to do precise drilling can customize their own mechanical fixtures. This process entails installation of guide pins, drilling for spring probe receptacles, wire wrapping inside the fixture from the bottom of the spring probe receptacles to the back panel connectors, then installation of pressure rods in the top plate.

The CheckSum Model TR-5 Fixture is available in three sizes to fit different-sized UUTs.

- The Model TR-5-812 is 8" x 12" overall and can accommodate UUT sizes of up to 6" x 6".
- The Model TR-5-1216 is 12" x 16" overall and can accommodate UUT sizes of up to 10" x 10".
- The TR-5-1612-C is a mechanical-advantage version of the TR-5-1216 and can accommodate up to 500 probes.
- The TR-5-1620 is 16" x 20" overall and accommodates UUT sizes of up to 14" x 14".

The Fixtures include two 50-pin back panel connectors (with cutouts for additional connectors) that can directly connect to the ribbon cables provided with CheckSum Test Systems. Internal to the Fixture, the back panel connectors have wire-wrap posts. To ease wiring and debug of the Fixture, the probe plate hinges up from the fixture frame. The bottom and each side can also be

individually removed for access to the wiring. The cover plate of the Model TR-5 Fixture is provided with counter-balance springs to allow it to be positioned open, closed, or to any position in-between. Side-grips allow units to be easily handled. Ten pressure rods that press the UUT onto the spring probes are included with each Fixture Kit. In most applications, one pressure rod is used for each 10-25 spring probes (minimum 4). When a Model TR-5 Fixture Kit is ordered in conjunction with a CheckSum Test System, the system is shipped with a ground wire for connection between the system Controller and Fixture. A probe for automatically identifying test points is also included in this case.



Model TR-5-812 Ready for UUT Installation

**FIXTURE
SYSTEMS**

Model TR-5 Mechanical Bed-of Nails Fixture Kits

Model TR-5-812

The Model TR-5-812 accommodates UUT sizes of up to 6" x 6"



Model TR-5-1216

The Model TR-5-1216 accommodates UUT sizes of up to 10" x 10"



Model TR-5-1620

The Model TR-5-1620 accommodates UUT sizes of up to 14" x 14"

Model TR-5-1612-C

The Mechanical-Advantage Model TR-5-1612-C accommodates UUT sizes of up to 13.5" x 8.5"



Specifications

	TR-5-812	TR-5-1216	TR-5-1620	TR-5-1612-C
Weight:	~12 lbs	~19 lbs	~28 lbs	~40 lbs
Overall Size:	8"x12"x8.5"	12"x16"x8.5"	16"x20"x8.5"	16"x12"x10"
Usable Size:	6"x 6" UUT	10"x 10" UUT	14"x 14" UUT	13.5"x 8.5" UUT
Inside Depth:	4" (inside cabinet)			
UUT Height:	1.625" (probe plate to cover plate)			1.525"
Pressure Rod:	1.250"	1.250"	1.250"	1.150"
Probe Plate:	0.375" G-10 (FR-4)			
Top Cover:	0.5" Plexiglas			0.5" Linear Travel

Ordering Information

TR-5-812 8"x12" Mechanical Fixture Kit
 TR-5-1216 12"x16" Mechanical Fixture Kit
 TR-5-1620 16"x20" Mechanical Fixture Kit
 TR-5-1612-C 16"x12" Mechanical-Advantage
 Fixture Kit

FIX-50P-WW 50-pin Interface Connector
 M-ROD Mechanical, Pressure Rod (1.250")
 M-ROD-T Mechanical, Tapered Pressure Rod (1.250")
 MA-ROD Mechanical-Advantage, Pressure Rod (1.150")
 MA-ROD-T Mechanical-Advantage, Tapered Pressure Rod
 (1.150")