



*TR-3-Console shown with typical CheckSum Analyst ems system options*

## Vacuum Fixture System Overview

The CheckSum TR-3-Console Fixture System allows CheckSum Test Systems to be interfaced to the unit-under-test (UUT) via a Bed-of-Nails Vacuum Fixture system.

The Test System electronics are connected to the receiver with the standard system cables. This carries the signals to receiver pin blocks which have spring probes that provide a reliable interface to the easily interchanged test heads which are customized for each UUT or family of UUTs.

- Bed-of-Nails Fixture System
- Industry-Standard GR 2270-style Receiver
- 1500 Test System Connections
- Automated Vacuum Control Valve
- Vacuum Gauge
- Low Cost
- Compatible with CheckSum Testers and MultiWriter<sup>†</sup> part programming options

The receiver assembly accommodates up to 1500 test points and uses industry-standard GenRad 2270-compatible test head kits. The system provides for connection of your vacuum system pump via a 1¼ inch hose connection. The system has an automatic control valve that can be typically remotely controlled by the test program.

All 1500 test point receiver pin-blocks and cables are included in receiver section. This eliminates the need to add any receiver parts in the future. CheckSum modules that are included in the shipment are pre-wired to the receiver. Additional modules can be added in the future and connected on-site to the available receiver pin-blocks.

Test heads can be obtained locally and customized for your specific application, or kits can be purchased directly from CheckSum. The Model TR-3-1620 is 16 x 20 inches (40.6 x 50.8 cm) and the Model TR-3-2024 is 20 x 24 inches (50.8 x 60.96 cm). For each 150 test points used for testing, a Model TR-3-2 Interface Block is required in the test head. CheckSum can also provide complete custom fixturing solutions or provide referrals.



*Fully Tested*

## Abbreviated Specifications

### Features

- Industry standard bed-of-nails fixturing platform supports fixture development from multiple, worldwide vendors
- Small system floor space footprint
- Fixture receiver assembly mounted on console with casters
- Monitor post (VESA compatible)
- Operator control keypad
- Emergency off switch
- Internal solenoid operated vacuum valve
- Vacuum On/Off can be automatically controlled from the test program
- Pre-wired for networking
- Instruction Manual in electronic format (PDF)

### Typical System Options

- 1U rack-mount PC with keyboard, monitor and mouse
- CheckSum test system chassis with USB connection
- CheckSum in-circuit and functional test modules
- Programmable power supply plus extra power supply option, 0-60V, 12.5A

### Vacuum Connection

- Typical vacuum requirements: 18 to 25 inches of mercury (61 to 85 kPa). Typical test heads require approximately 20 - 25 CFM.
- Vacuum Connection: 1¼ inch (318 mm) ID Hose
- Front panel vacuum gauge

### System

- 24 inches (51 cm) wide front, 30 inches (77 cm) deep side, 31.5 inches (80 cm) high to the top base plate and 40 inches (102 cm) high to tallest portion of the fixture receiver. The monitor post is 26.5 inches (68 cm) high and the mid-point of the monitor is 30.5 inches (78 cm) above the base plate. Exclusive of any test head. Rack space available for future add-ons.
- The keyboard drawer extends out up to 26 inches (66 cm).
- Weight: Approximately 225 lb (102 kg), without packing materials.
- Standard banana plug for ESD ground and single-point probe.
- 98 - 240 VAC, single-phase line voltage.
- 1-year limited parts and labor warranty.
- The test system operating temperature range is 0°C to +35°C with 0 to 80% RH (without condensation). Rated accuracy at ±10°C from calibration temperature. Maximum altitude for operation is 3000m (9843 ft.).

### Optional TR-3-Console Test Head Kits

- Base Assembly
- Probe and Diaphragm Plates
- Top Rubber Plate
- Gas Shock or Spring
- Dress Frame
- Kit sizes - such as:
  - 12 x 16 inches (30.5 x 40.6 cm)
  - 16 x 20 inches (40.6 x 50.8 cm)
  - 20 x 24 inches (50.8 x 60.96 cm)
- Internal depth: 2.5 inches (635 mm)
- Overall depth: 4 inches (10.2 cm)
- Typical usable size: Nominal dimensions less 4 inches (10.2 cm)

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† MultiWriter Technology is protected under U.S. Patent No. 7,802,021.

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