

2000 Series Railroad Test Sets



The 2000 Series Railroad Testers from Triplett Test Equipment and Tools are specialized Test Sets designed to perform standard maintenance tasks (using Volts, Ohms, and Amps measurements) as well as specialized tasks requiring measurements on railroad coding equipment.

The 2000 Series is compatible with older test technologies, yet is easier to use, and offers test features not found on earlier test sets. Fewer jacks, more ranges, and a logical front panel layout all contribute to the 2000 Series' ease of use. A precision multi-turn Ohms Adjust Control facilitates accurate resistance measurements. Also, the measurement of relay contact On Time has been simplified and expanded requiring no adjustments.

Code Parameter measurements have been made simpler and more accurate. No longer is it necessary to count pointer swings to measure

On Time can be measured on live signals as well as relay contacts. Peak Levels can be determined quickly and automatically. Adjustments to the code equipment peak level can be made without constantly readjusting the Test Set.

Some models offer Cab filters, allowing measurement of the individual Cab Signal carrier frequencies, whether coded or un-coded.

The 2000 Series Railroad Test Sets from Triplett Test Equipment & Tools..... Leaving the competition dead in its tracks!

2000 SERIES ENHANCED FEATURES

- Auto-polarity on all DC functions with red NEG indicator.
- Ohmmeter Voltage Mode detects AC or DC foreign voltages.
- Multi-turn Ohmmeter Adjust for more accurate setting of Ohmmeter zero.
- Power saving Sleep feature prevents draining of the batteries if accidentally left on.
- Dry Contact requires no adjustment to measure relay contact On Time. Measures Rate directly without counting pointer swings. Can detect and hold 2 msec momentary closures.
- Selectable DC Amps Polarity (Auto, Positive, Negative). Will measure pulse code transmit and receive currents independently.

Direct Measurement of Code Parameters

- Directly measures Code Parameters in any AC or DC range. No adjustments necessary. No counting of pointer swings. Peak Follow tracks and holds rising as well as falling levels.
 - Peak Level
 - Rate
 - On Time
- Accurately measures code parameters to 420 cpm.

Cab Filter Options (2001, 2002, & 2003)

- Allow measurements of all code parameters for selected cab frequencies without shutting down equipment. Active in all AC Volts and AC Amps Ranges.

Safety Features

- Shrouded safety jacks
- Fused on all ranges and functions except 6A and 30A.
- Battery/Lamp Test and Battery Monitor prevent false readings from weak batteries.
- All Pass mode for standard non-filtered measurements.

Mechanical Features

- Rugged, lightweight, weather-resistant case.
- Secondary protective window (field replaceable).
- One Year Warranty on construction and calibration.





MODEL 2000

PN: 2010

- Base unit with no Cab Filters
- Auto Polarity in DC functions
- Auto or Selectable DC Amps Polarity
- Direct measurement of Code Parameters
- Ohmmeter Voltage Mode detects foreign AC or DC voltages
- Relay Contact On Time (Dry Contact) requires no adjustment
- Peak measurements require no adjustment

The Model 2000 is the perfect test set when no Cab Filters are needed. This economical unit has standard features which are not even available as options on competitive models.

MODEL 2002

PN: 2012

- 100Hz and 200Hz Cab Filters
- All Pass position bypasses Cab Filters

The Model 2002 includes all of the features of the Model 2000 with the addition of Cab Filters. The Model 2002 was designed for rapid transit / commuter type railroads using 100Hz and 200Hz coding systems.

MODEL 2001

PN: 2011

- 100Hz and 250Hz Cab Filters
- All Pass position bypasses Cab Filters

The Model 2001 includes all of the features of the Model 2000 with the addition of Cab Filters. The Model 2001 was designed for passenger railroads using 100Hz and 250Hz coding systems.

MODEL 2003

PN: 2013

- 60Hz and 100Hz Cab Filters
- All Pass position bypasses Cab Filters

The Model 2003 includes all of the features of the Model 2000 with the addition of Cab Filters. The Model 2003 was designed for railroads using 60Hz and 100Hz coding systems.

2000 Series Railroad Test Sets

SPECIFICATIONS

DC Voltage

Ranges: 0.6, 3, 15, 60, and 300 VDC.

Accuracy: $\pm 1.5\%$ of full scale.

Sensitivity: 1000 Ohms per Volt.

DC Milliamps

Ranges: 15, 60, and 300 mA DC.

Accuracy: $\pm 1.5\%$ of full scale.

Burden Volts: 60 mV nominal.

DC Amps

Ranges: 1.5, 6, and 30 Amps DC.

Accuracy: $\pm 1.5\%$ of full scale.

Burden Volts: 60 mV nominal.

AC VOLTAGE

Ranges: 1.5, 3, 15, 150, 300, and 600 VAC.

Accuracy: $\pm 3.0\%$ of full scale.

Sensitivity: 288 Ohms per Volt.

Calibration: Average responding, RMS calibrated.

Frequency Response: 25 Hz to 400 Hz.

AC Amps

Ranges: 1.5, 6, and 30 Amps AC.

Accuracy: $\pm 3.0\%$ of full scale.

Burden Volts: 60 mV nominal.

Calibration: Average responding, RMS calibrated.

Frequency Response: 25 Hz to 400 Hz.

Cab Filter Response (all AC Ranges)

60Hz Filter: 57 to 63Hz (2003)

100Hz Filter: 92 to 100Hz (2001, 2002, & 2003)

200 Hz Filter: 196 to 204 Hz (2002)

250Hz Filter: 245 to 255Hz (2001)

All filters introduce an additional $\pm 1.5\%$ level error.

Code Functions (all AC and DC Ranges)

On Time: **Range:** 3% to 100%

Accuracy: $\pm 3.0\%$ of full scale.

Rate: **Range:** 30 to 500CPM

Accuracy: $\pm 3.0\%$ of scale length

Peak Hold: Captures and holds highest level peak.

Peak Follow: Follows and Holds increasing and decreasing levels

Ohmmeter

Voltage Sense Mode

Range: 15 V AC or DC.

Accuracy: $\pm 20\%$ Typical

Sensitivity: 1000 Ohms per Volt.

Resistance Measurement Mode

Range: R x 1 and R x 100.

Center Scale: 5 and 500 ohms.

Accuracy: $\pm 2\%$ of scale length ± 0.5 ohms.

Open Circuit Voltage: 1.0 to 1.8 VDC.

Dry Contact

Allowable Contact Resistance: 0 to 100 ohms.

Test Voltage: 7.5 to 15 VDC.

Test Current: Less than 1mA

On Time: **Range:** 3 to 100 %.

Accuracy: $\pm 2\%$ of full scale.

Rate: **Range:** 30 to 500 cycles per minute.

Accuracy: $\pm 3\%$ of scale length.

Peak Hold: Pointer will deflect to full scale and remain there with a 2.0 millisecond or longer contact closure.

Power Requirements

Batteries: Two, 9 volt alkaline (NEDA 1604)

One, 1.5 volt alkaline D cell (NEDA 13F)

Battery Life: 320 hours Typical, 2000 hours in Sleep Mode

Meter Movement

Electrical: 100 μ A $\pm 1\%$ at full scale.

Construction: Taut band, shock mounted, mirrored scale

Physical Specifications

Size: 5.0" wide x 6.5" high x 3.2" deep.

Weight: Approx. 2.75 lbs. Approx. 4.75 lbs. w/ case and leads.

Operating Temperature Range: -40F to 185F

Included Items

- Test Set
- Test Leads
- Padded Water Repellent Carrying Case
- Shoulder Strap
- Batteries
- Manual