

Model 2350

Automated Three-Phase Test System

In today's high-tech meter shops and high-output manufacturing plants, getting an accurate meter test fast increases overall workflow, keeping your company operating in the black. Watthour Engineering's line of premier test equipment combines over thirty years of meter industry experience with a vision of innovation to bring you industry leading test solutions.

The Model 2350 sets the benchmark for precision and functionality in today's meter testing industry. This versatile testboard provides fully ANSI compliant testing using either a single or three-phase voltage and current up to 50 Amps. Unrivalled accuracy is provided by the NIST traceable Radian Research RD-20 series reference standards. Three-phase power combined with the file/graph capabilities of WECO's Winboard™ software gives you the power to test today's meters with any combination of voltage phase angles, current imbalances, phase angle imbalances and frequencies. With the revolutionary Turbo Test™ option, you can run simultaneous series and element tests and increase the productivity of your meter shop five-fold*.



Unlock the power and flexibility of your WECO testboard with Winboard™ meter testing software.



- Winboard utilizes software wizards to simplify even the most complicated tasks.
- A strikingly user-friendly interface makes it easy to select test sequences, elements, and service types.
- The powerful combination of file/graph, test time, and Hyper Sequence™ features gives you total control over all test parameters.
- Customizable security options and WECO's dedicated customer support team round out this robust software package.

WECO's advanced laser optics system is safe but powerful enough to drive through the dirtiest covers while still delivering the precision you demand. Coupled with three removable digital reference standards, the Model 2350 boasts unparalleled traceability, reliability, and accuracy. This testboard package is rounded out with WECO's Smart Socket™ technology, KYZ inputs, optional barcode scanner, optional OPTOCOM™ optic-coupler system,

plus a two-year warranty. The Model 2350 is the ideal tool for today's cutting-edge meter shops or manufacturing environments.

A global leader in meter testing, WECO has equipment at work in over twenty countries and is trusted exclusively by North America's leading meter manufacturers. Whether you need a simple on-site solution or a complex "turn-key" system, WECO has the technology and over two hundred years combined industry experience to fill your meter testing needs.

*Actual test time speed increase is dependent on the manufacturer of the meter under test. Not all meters are supported. For additional information refer to the Turbo Test data sheet.

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Specifications:

- **Input voltage:**
120 or 240VAC (3 wire), 50 or 60Hz single-phase
- **Input power:**
650VA Maximum
- **System accuracy:**
For current ranges 0.2A–50.0A
>>KWH +/- 0.04% at 1.0 P.F. (+/- 0.01% typical)
>>KWH +/- 0.04% at 0.5 P.F. (+/- 0.01% typical)
>>KW +/- 0.075%
>>System accuracy is based upon the high accuracy of the NIST traceable Radian RD-20 series reference standard.
- **Voltage and current accuracy:**
0.50% true RMS
- **Phase angle accuracy:** +/- 0.5°
- **Test frequency:**
45–65Hz in 0.001Hz steps
- **Voltage harmonic distortion:**
Less than 1.0% THD (less than 0.5% typical)
- **Current harmonic distortion:**
Less than 1.0% THD (less than 0.3% typical)
- **Meter forms tested:**
>>1S-17S, 19S, 21S, 24S, 26S, 29S, 35S, 36S, 45S, 46S, 56S, 66S
>>New meter forms can be added using the testboard utility included in the software package.
- **Dimensions & Weight:**
21"W x 20"H x 21"D, 150 LBS
- **Warranty:**
Two (2) year limited warranty (all parts and labor).
Manufacturer warranty on computer.

R A D I A N
WECO
Power and Energy Measurement Solutions



Model 2350


Automated Test System



Laser Optics

WECO's advanced laser optics has revolutionized meter testing. This innovative system employs a high intensity light beam that safely delivers highly accurate test results even through meter covers coated in dirt and grime. Whether testing off the black mark or through the creep holes, trust the WECO laser optics system to give you the precision that you demand with the ease you deserve.

Testboard Options:

- Additional meter test stations:
*Three (3) stations maximum per cabinet.
Six (6) stations maximum operated by one computer.*
- Turbo Test™: 
*Accelerated testing for some solid state meters (requires OPTOCOM™ option)**
- Barcode printer with software
- Barcode reader with software
- Multi-function testing capability
- Higher accuracy reference standard available
- Computer memory and storage upgrades
- Bottom connected single stator adapter
- Bottom connected multi stator adapter
- Custom adapter design available
- Automated standards compare adapter for RM or RD standards

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Smart Socket™

Low insertion force Smart Socket™ technology, fitted with high conduction silver and gold connections, and an electronic socket control, provide an excellent connection and extended hardware life-span. A quiet, cutting-edge solenoid motor results in reliable and quiet operation.

Bar Code Option

Attach an optional barcode scanner and printer to your testboard to cut meter processing and data entry time. Scan AEP barcodes on meters with a wave of the barcode

scanner to automate the data entry process, or print custom barcodes to automate customer information entry during testing. Either way, the optional barcode scanner and printer will save your shop time and money.

OPTOCOM™

With this optional OPTOCOM™ interface, you can test and program meters without changing heads. Just clamp the head on for testing and forget worrying about aligning optics or detecting creep holes. When the test is complete, you can program the meter without replacing heads. The OPTOCOM™ option takes the error and effort out of meter testing and programming.

Testboard Features:

- Test voltage:
>>60–600V; programmable in 0.01V steps
>>True three-phase or single-phase
- Test current:
>>0.001–50A; programmable in 0.001A steps
- Power factor test angle:
>>0–359.9°
>>Selectable in 0.1° increments
- Test revolutions:
>>1–65,534
- Test time:
>>Selectable from 1–9999 seconds (minimum of at least one energy pulse)
- Demand (KW) testing:
>>Standard revolutions (1–99999 revolutions)
>>Time run (up to 99 HRS, 59 MIN, 59 SEC)
- Contact device testing:
Form "A" or "C" capability
- Hyper Sequence™:
Four quadrant automated meter testing
- File/graph testing
- Low current (starting watts) test begins at 0.001A
- Solid state voltage and current loading
- Voltage and current electronically ramped between tests
- Automatic slew between tests to minimize test time
- Smart Socket™ with minimal insertion force
- Automatic crossed stator wiring check during three-phase testing
- Modulated laser optics for through hole and reflect disk sensing
- Three optical pickups:
Top, bottom, and middle/center
- Visual and audible (volume controlled) pulse indication for aid in aligning optical sensor
- LED bar graph for signal strength
- No sensitivity adjustment necessary for optics
- Easily removable reference standards for recertification
- PC Minimum System:
>>Dell™ standard business class Mini Tower PC
>>17" flat screen monitor
>>Microsoft Windows® 7 Professional operating system
- Windows® compatible Winboard™ software
- WATT-Net™ data management software