

WECO 8000 Meter Test Station

*One Innovative Testboard
for Qualification, Demand,
and Accuracy Testing*



*Meter Qualification - Meter Demand
Meter Accuracy*

R A D I A N

WECO
Power and Energy Measurement Solutions

WECO 8000

Meter Test Station

The innovative WECO 8000 Meter Test Station is the first of its kind – a multi-position testboard integrating meter qualification, meter demand, and meter accuracy. This versatile and economic test station is the solution for utilities needing the ability to perform both functional testing and accuracy testing. Separate multi-position testboards are no longer a necessity.

Featuring Radian Direct Drive Current Source (DDCS) technology, the WECO 8000 Meter Test Station combines the simplicity of a qualification board with the leverage to deliver accurate load. Perform meter qualification or accuracy tests independently from any meter socket position on the following 27 S-Base Forms: 1-6, 8-10, 12-16, 19-21, 25, 26, 29, 32, 35, 36, 45, 46, 56, 66. Unsurpassed precision, stability, and accuracy (+/- 0.025 or +/- 0.05%) are ensured by the NIST traceable embedded Radian Research reference standard technology.

Low insertion force Smart Socket™ technology, fitted with high conduction silver and gold connections, and an electronic socket control, provide an actuated connection which extends hardware lifespan. Each Smart Socket operates independently, providing the ability to run multiple forms at the same time. Each meter socket in the WECO 8000 is a modular 19" rack mount design, so should a problem arise, a single socket can be removed for service leaving the other sockets fully operational. This adept unit allows you to test all brands of power line carrier modules when using the manufacturer's supplied module unit in combination with WECO's Winboard 3™ software. For safety, clearly visible LEDs indicate when voltage and current are being generated by the test station. For disconnect switch testing, the Line Side Voltage and Load Side Voltage LED indicators denote if the meter disconnect switch is operating correctly, even on the most challenging meter switch circuits.



A laser based optics system employs high intensity light that safely delivers highly accurate test results from black marks through even the dirtiest meter cover. The optics also detects IR Visible Pulses from solid state meters. Front mounted controls allow simple test selection and testboard control. Scan AEP barcodes on meters with the optional barcode scanner at any of the test stations to automate the data entry process, saving your shop time and money.

The optional OPTOCOM™ interface allows the meter to be tested and programmed without ever having to change the optical head.

The foundation of this hardware is bolstered by WECO's fully integrated Winboard 3™ software. All Winboard 3 test results are WATT-Net Plus™ and WATT-Net Express™ compatible. The minimum PC system included in this package is a Dell™ standard business class Mini Tower PC with a 24" flat screen monitor and Microsoft Windows® 7 Pro OS.

This ANSI meter test solution has a flexible modular design system permitting future augmentation to virtually an unlimited number of positions. Customize the cost-efficient WECO 8000 Meter Test Station to your needs. A system rack contains at least four positions and up to fifteen; multiple cabinets can be daisy-chained together. Other available options include drawers for storage, a dedicated bay for an embedded LCD display with your PC, and a swing arm mount for the monitor. Socket modules may be removed individually and returned for maintenance without affecting the operation of the remaining sockets.

Safety requirements are met by many security measures engineered into the test station. Sockets left exposed will remain deactivated, safeguarding you during operation while the other sockets run meter tests. The WECO 8000 has a centrally located front panel emergency off switch and a power switch for each socket module. Each individual socket module has circuit breakers to protect the socket from faulty meters - no more fuses to replace!

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Features and Specifications



Test Voltage:

Selectable test voltages: 69V, 120V, 208V, 240V, 277V and 480V.

Select option 8000C to add 600V

Test Current:

Radian Direct Drive Current Source (DDCS) - Selectable full load currents: 0.25 - 50 Amps

Phase Angle: 0° to 359.9° in 0.1° steps

System Accuracy: KWH +/- 0.025% or KWH +/- 0.05%,
Test Methodology: Single Phase Series/Parallel, closed link tester

System accuracy is based upon the high accuracy of the embedded NIST traceable Radian Reference Standard technology.

Voltage and Current Sources:

Features fuseless self-protection technology

Supported Meter Forms for KWH Accuracy and Meter Qualification Function:

S-Base Forms: 1S, 2S, 3S, 4S, 5S, 6S, 8S, 9S, 10S, 12S, 13S, 14S, 15S, 16S, 19S, 20S, 21S, 25S, 26S, 29S, 32S, 35S, 36S, 45S, 46S, 56S, or 66S

Input Power:

Input Voltage 120V Single Phase 60Hz; 150W per socket, forward and reverse energy

System Verification:

This is on a per socket basis while running the Winboard 3 Standards Compare. The socket module recertification and calibration adjustments can be updated by the operator by using a RD-21 or RD-23 and the ability to readjust the accuracy of each socket is possible.

Custom Configurations*:

Each Meter Test Station cabinet is custom built to customer specifications. Maximum of 5 sockets wide and 3 high per cabinet with a minimum of 4 socket positions. Possible 4 socket configurations available: 4 sockets horizontal or 2 sockets wide and 2 vertical.

Cabinets may be daisy-chained together with one PC control using an Ethernet connection. Custom monitor configuration options include: an internal mount to the system (which absorbs a meter position), external on a left or right monitor arm, or free standing. * Refer to Custom Configurations Chart for additional information.

PC Minimum System:

Dell™ standard business class Mini Tower PC, 24" flat screen monitor, Microsoft Windows® 7 Pro OS
Software: Winboard 3 (Test results are WATT-Net Plus/Express compatible)

Warranty:

Two (2) year limited warranty (all parts and labor).
Manufacturer warranty on computer, barcode scanner, and printers.

Test System Options:

OPTOCOM™: Optics coupler allows pulse testing and meter programming through the optical port of many solid state meters without changing the optics coupler.

Barcode reader with software. The barcode scanner may be connected to any of the sockets.

Barcode printer with software

Computer memory, storage, and operating system upgrades

WATT-Net Plus™ Asset and Smart Grid Device Management Software - Winboard 3 Compatible

WATT-Net Express™ Device Management Software - Winboard 3 Compatible

Meter Disconnect Switch Test:

Requires a user supplied method to communicate to the AMI Module, typically provided by the AMI vendor or meter manufacturer.

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Meter Test Station Custom Configuration Chart

WECO Model Number	Description	Maximum Socket Positions	Height	Width	Approximate Weight
M8104	1 High x 4 Wide	4	52.5"	89.5"	TBD
M8105	1 High x 5 Wide	5	52.5"	111.5	TBD
M8202	2 High x 2 Wide	4	64.5"	45.5"	620 lbs.
M8203	2 High x 3 Wide	6	64.5"	67.5"	880 lbs.
M8204	2 High x 4 Wide	8	64.5"	89.5"	1240 lbs.
M8205	2 High x 5 Wide	10	64.5"	111.5	1635 lbs.
M8302	3 High x 2 Wide	6	76.5"	45.5"	TBD
M8303	3 High x 3 Wide	9	76.5"	67.5"	TBD
M8304	3 High x 4 Wide	12	76.5"	89.5"	TBD
M8305	3 High x 5 Wide	15	76.5"	111.5	TBD

Dimensions Common To All WECO 8000 Configurations:

Table Top Height 34.5"

Table Top Depth 18.5"

Cabinet Depth 22.5"

Total Depth 40.5" (The table top is recessed into the cabinet by 1".)

Each Socket 42.5 lbs

All units have casters.

All units have Anti-Tip Legs.

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