

Product Catalog



Accuracy - Convenience - Versatility

R A D I A N
W E C O
Power and Energy Measurement Specialists



CAUTION: LASER RADIATION • DO NOT STARE INTO BEAM
650 nm LASER DIODE <1.0 mW MAX OUTPUT
CLASS II LASER PRODUCT
AVOID EXPOSURE - LASER LIGHT IS EMITTED FROM THIS APERTURE
Laser Optics are included on Model 2150, Model 2350, Model 2300, Model 4150, Model 4330, and Model 3230.

Warranty on ALL Models is for two (2) years domestic limited - all parts and labor.
Warranty outside the Continental United States is for one (1) year limited - all parts and labor.
Manufacturer warranty on all computers.



Contents

Shop Solutions 2

These units are ideal for shop use and van mounting. They include the Model 2150, Model 2350, Model 2300, Model 4150, and Model 4330.

Field Solutions 4

Bring accuracy and versatility to your field testing with the Model 3010 and the revolutionary WE-30.

Demand & Warm-Up Stations . . . 6

WECO offers a variety of special solution test systems suitable for getting quick readings, performing demand tests, and testing power line carrier modules.

Software Solutions 8

Cutting-edge software offerings that deliver more than just Winboard™ meter testing software. Use WATT-Net™ to manage your test results, or go even further by managing your entire shop inventory with WATT-Net Plus™.

Options & Accessories 10

Bring even more functionality to your testing equipment with a wide range of testing options and accessories.

Contact Us For Orders And Support At 601.933.0900

Not every utility or manufacturer has the same testing requirements. That's why we offer a wide range of test solutions designed to meet a variety of situations and budgets. To the left we've outlined some of the features of our most popular shop and field test systems. More about each system can be found in the following pages. You'll find more information about special solutions, like warm-up stations, demand testing, and software designed for test record and inventory management.

Choosing ▶ A Test System	SHOP					FIELD		
	MODEL 2150	MODEL 2350	MODEL 2300	MODEL 4150	MODEL 4330	MODEL 3010	WE-30	BANTAM PLUS
TEST SINGLE & THREE-PHASE METERS	▶	▶	▶	▶	▶	▶	▶	▶
SMART SOCKET™ TECHNOLOGY	▶	▶	▶	▶	▶			
OPTOCOM™ <i>(Option Available)</i>	▶	▶	▶	▶	▶		▶	▶
KYZ INPUTS	▶	▶	▶	▶	▶	▶	▶	▶
PUSH BUTTON OPERATION	▶	▶	▶	▶	▶	▶	▶	▶
LASER OPTICS STANDARD	▶	▶	▶	▶	▶			
LOW CURRENT <i>(0.001 amps)</i>		▶	▶	▶	▶		▶	
TRUE THREE-PHASE TESTING <i>(Generates WYE or Delta Service)</i>		▶	▶	▶	▶		▶	
TURBO TEST™		▶	▶	▶	▶			
TRANSDUCER TESTING				▶	▶		▶	
HARMONIC GENERATION				▶	▶		▶	
VOLTAGE & CURRENT BURDEN TESTING				▶	▶			
HIGH CURRENT <i>(150 amps)</i>			▶	▶	▶			
HIGHER CURRENT <i>(225 amps)</i>			▶		▶			
HIGHEST CURRENT <i>(330 amps)</i>					▶			
READ MODE						▶	▶	▶
CT BURDEN TEST						▶	▶	▶
TEST USING CUSTOMER LOAD						▶	▶	
CT & PT RATIO TESTING							▶	▶
SITE VERIFICATION							▶	▶
TOUCH SCREEN INTERFACE							▶	▶

Shop Solutions

WECO's Model 2150 automated test system is a fully ANSI compliant testboard that uses a single voltage and three independently controlled isolated current sources to test all electromechanical and solid state meters up to 50 Amps. The internal NIST traceable Radian Research RD-20 series reference standard brings unparalleled accuracy.



**Single-Phase Test System
Model 2150**

Utilizing a precision laser optics system, the Model 2150 can test meters through the most grime-coated covers with unflinching accuracy. This same laser technology makes it possible to test using the disk's edge without wasting time with the tricky optics adjustments found with other test systems.

Convenience, functionality, and reliability are at the heart of the Model 2150's design. Smart Socket™ technology combines extra long socket life, minimal insertion force, and ultra-quiet operation. With the OPTOCOM™ optic coupler option, you can snap the OPTOCOM head in place to both test and program meters. Minimal power consumption, weight, and footprint make this testboard ideal for van-mounted testing using a power inverter. Test meters using KYZ through cables or directly off the meter stabs, and use the built-in speaker to hear each pulse.

Features:

- ▶ Affordable single-phase model, tests meters up to 50 amps
- ▶ Radian Research RD-20 series reference standard
- ▶ Laser optics
- ▶ Minimal insertion force Smart Socket™
- ▶ OPTOCOM™ option
- ▶ Barcode scanner input
- ▶ Multiple position units
- ▶ Control up to six stations from a single computer



The Model 2350 sets the benchmark for precise functionality in today's meter testing industry. This versatility provides fully ANSI compliant testing using either a single or three-phase voltage and current up to 50 Amps. 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 in .001Hz steps. With the revolutionary Turbo Test™ option, you can run simultaneous series and element tests and increase the productivity of your meter shop five-fold.*



**True Three-Phase Test System
Model 2350**

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 Radian Research™ 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, also available are the options for a barcode scanner, and an OPTOCOM™ optic coupler system. The Model 2350 is the ideal tool for today's cutting-edge meter shops or manufacturing environments.

Features:

- ▶ Single or three-phase testing up to 50 amps
- ▶ Radian Research RD-20 series reference standards
- ▶ Laser optics
- ▶ Minimal insertion force Smart Socket™
- ▶ OPTOCOM™ option
- ▶ Barcode scanner input
- ▶ Multiple position units
- ▶ Control up to six stations from a single computer
- ▶ Turbo Test™ compatible



*Actual test time speed increase is dependent on the manufacturer of the meter under test. Not all meters are supported.

The Model 2300 is the tool that unlocks tomorrow's metering technology. This powerhouse provides the robust features found on



**225 Amp True
Three-Phase Test System
Model 2300**

WECO's popular Model 2350 test-board coupled with enhanced current output from 0.001 to 225 Amps for both single and three-phase testing. Now you can test a meter under virtually any conceivable condition by programming any combination of custom voltage, current, phase angles and magnitudes. The internal NIST traceable Radian Research RD-20 series reference standard brings unsurpassable accuracy.

Backed by the reliability of WECO's Smart Socket™ technology, laser accurate optics system, Turbo Test™ function, fully integrated Winboard™ meter testing software, WATT-Net™ data management software, and knowledgeable customer support team, the Model 2300 is the tool for true meter manufacturing innovation. No wonder the Model 2300 is used in the meter labs of leading meter manufacturers and utilities.

Features:

- ▶ Single or three-phase testing up to 225 amps
- ▶ Radian Research RD-20 series reference standard
- ▶ Laser optics
- ▶ Minimal insertion force Smart Socket™
- ▶ OPTOCOM™ option
- ▶ Barcode scanner input
- ▶ Turbo Test™ compatible
- ▶ Test meters under virtually any condition



The automated test platforms Model 4150 and 4330 are the touchstone in meter testing hardware.



**Automated Test Platform
Model 4150**

**Automated Test Platform
Model 4330**

Building on our tradition of delivering testing solutions that provide a powerful mix of accuracy, convenience, and versatility,

both models add next generation features and cutting-edge technology. The NIST traceable Radian Research RD-30 series reference standard provides unparalleled accuracy to the testboards. The difference between the two models lies only in the current and the weight. Need an current range between 0.001A* to 150.0A? The Model 4150 is the testboard for you. Should you need a higher current range the Model 4330 provides a range of current from 0.001A* to 330.0A.

Both test platforms feature harmonic generation, multiple VAR and VA test types, voltage and current circuit burden testing, analog testing, meter disconnect testing, fuseless hardware protection, and much more.

Every facet of the Model 4000 series has been engineered to make it the most user-friendly testboard we've ever released. Convenient control and input locations, a redesigned back door, easy to access card cage, and front mounted fuses provide easy operation and effortless maintenance.

Features:

- ▶ Model 4150 current ranges 0.001A–150.0A
- ▶ Model 4330 current ranges 0.001A–330.0A
- ▶ Harmonic generation
- ▶ Multiple VAR test types
- ▶ Voltage and current circuit burden measurements
- ▶ Minimal insertion force Smart Socket™
- ▶ Analog testing, source and measure under load testing
- ▶ Meter disconnect
- ▶ Turbo Test™ compatible
- ▶ Laser optics



*Reduced accuracy below 0.2 amps

Field Solutions



True Three-Phase Tester/Analyzer WE-30

WECO's next generation Portable Tester/Analyzer delivers three-phase field testing using a Radian Research™ RD-30 internal standard complemented by a sophisticated, lightweight package. Use the WE-30 to execute a multitude of tests at customer sites. Test the meter with the customer's load, perform CT burden and ratio tests, and verify system wiring to give you the peace of mind that the entire metering installation is correct. Harmonic Analysis, CT Testing, Vectors, and Trends can all be tested without pulling the meter from its socket.

The intuitive touch screen interface allows you to easily access the WE-30's feature-rich Winboard Embedded software. User-friendly screens lead you through installation, wiring checks, testing, and record keeping. Results are fully compatible with WECO's industry specific WATT-Net™ data management software using an Ethernet connection. USB keyboard and mouse connections or an external computer make interfacing with the WE-30 even easier.

Features:

- ▶ Embedded Microsoft™ Windows® 7, 64 bit operating system
- ▶ High accuracy, true three-phase standard in a portable unit
- ▶ Customizable site information streamlines field testing workflow
- ▶ Metric, trend, and waveform analysis
- ▶ Optional harmonic analysis to the 60th order
- ▶ Easily save and export test results



Three-Phase Smart Shop Stand Model 3230

Now you can bring the WE-30's features back to the shop with the Model 3230 shop stand. The 3230 features built-in laser optics, Smart Socket™ technology and automatic meter form selection. Connect the WE-30 to the 3230 side panel using the included cables and the WE-30 Winboard Embedded software automatically selects the meter form, which will then populate the 3230 LCD display panel, and now you are ready to test. Not only does the 3230 make testing socket meters a snap, but it expands the current capability of the WE-30 to a full 50 amps, allowing the user to test class 320 amp meters.

With lock-down optics that stay where you put them and a simple push-button design for easy optic selection, the Model 3230 is ideal for van mounting. With the 3230 attached you have all the power of the 2350 plus the ability to quickly remove the WE-30 and do testing right at the site.

The WE-30/3230 combination is a revolutionary testing package that redefines the state-of-the-art in meter testing.

Features:

- ▶ Form selection controlled from the WE-30; no additional setup required or connection changes
- ▶ Minimal insertion force Smart Socket™
- ▶ Compensated current boost transformers for increasing the WE-30's 30 amp max current to 50 amps per phase



Portable Three-Phase Meter Site Test Solution Bantam Plus

The Bantam Plus is the newest and most advanced portable three-phase meter site test solution available for today's metering professional. This innovative solution supplies a safe, accurate, and highly versatile answer to the diverse test requirements of today's electric metering.

Bantam Plus is designed with portability, ease of use and safety as a priority. The onboard meter socket with auto-routing eliminates external cabling and multiple adapters. Less cabling and an automated socket that supports most meter forms provides efficient, safe and error-free testing. The low insertion socket takes minimal effort to insert the meter, and the use of an interlocking switch assures that power is not delivered to the blades until a meter is in place protecting the operator from potentially hazardous voltage.

Features:

- ▶ Automated test socket
- ▶ Synthesized voltage, 50 amps
- ▶ CT burden and ratio testing
- ▶ Winboard Embedded software
- ▶ 6.5" LCD touch screen
- ▶ Embedded operating system
- ▶ Designed for operator safety
- ▶ Embedded RD reference standard
- ▶ Choice of accuracy class 0.02%, 0.04%



WECO's highly accurate, powerful and fully ANSI compliant Model 3010 Portable Automated Test System gives you the portability to head out into the field for precision testing. This light-weight test system



Portable Automated Test System Model 3010

is ideal for testing right at a customer's site using a single voltage, and currents up to 50 Amps. The Model 3010's CT burden testing and built-in phase angle meter give you the comfort that the entire metering installation is correct. A removable reference standard allows you to independently verify the unit's accuracy.

The Model 3010 uses its own internal software for stand-alone operation and record storage, or you can use WECO's PC based, state-of-the-art Winboard™ meter testing software for added versatility. Design your own custom record structure to suit the way your company manages its data. Add an optional Model 3200 Shop Stand to convert your Portable Automated Test System into a stationary testboard that's ideal for meter shop or van use.

Features:

- ▶ Single-phase tests meters up to 50 amps
- ▶ CT burden testing
- ▶ Site measurement of voltage/current and phase
- ▶ Removable reference standard
- ▶ Internal software for stand-alone operation
- ▶ Custom record structure

The Model 3200 shop stand adapter is a companion unit for Watthour Engineering's Model 3010 Portable Automated Test System. It provides a solenoid operated Smart Socket™ and stand for in-shop testing of watthour meters.



Shop Stand Adapter Model 3200

Both socket and A-base meters (with the optional A-base adapter) can be tested with the Model 3200. Potential routing of various meter forms is automatically accomplished by setting the form select switch on the front panel of the unit. Side mounted current and potential terminals connect with the Model 3010's potential and current outputs. The Model 3200 provides a KYZ output connection to connect with the Model 3010's input and will automatically select KYZ terminals on socket or A-base meters as allowed. With a weight of 50 pounds, the Shop Stand Adapter provides a stable base for meter insertion and removal from the electric socket. The flexible gooseneck optics system is easy to position and stays where you put it. Furthermore, the gooseneck pickup can detect both reflect optics off the disk's edge as well as pulses from solid state meters.

The Model 3200 and Model 3010 combination is a full-featured yet economical solution to your field and shop testing requirements.

Features:

- ▶ Automated potential routing for all supported meter forms
- ▶ Automatic KYZ pickup from meter base
- ▶ Potential and current connectors provided
- ▶ Minimal insertion force Smart Socket™
- ▶ Housing of all aluminum construction

Demand and Warm-Up Stations



**Computer Controlled
Automated Meter Test System
Model 5100**

The Model 5100 Demand Test System is a multi-position testboard designed to verify the proper operation and registration of mechanical, thermal, and electronic demand registers. With the pulse initiator inputs, contact devices within the meter(s) under test may also be verified.

Designed for flexibility, the 5100 functions as either a time run or programmable standard revolutions test system. Meter socket bypassing allows the testboard to run with less than a full complement of meters. Meter form numbers must be identical for each run, but register multipliers (and Mp or C/R if optionally equipped) can be individually entered for each test station. Testboard operation at end-of-test is also programmable, including maintaining voltage for solid-state demand registers.

Features:

- ▶ 60-540V test voltage
- ▶ 1.0A-200A test current, 1-20A for transformer-rated meters, and 20-200A for self-contained meters
- ▶ Minimal insertion force Smart Socket™
- ▶ Contact device testing: Form "A" or "C" capability
- ▶ Potential clips closed for testing
- ▶ Easy standard checks without removing the standard
- ▶ Windows® compatible Upscale™ software
- ▶ WATT-Net™ data acquisition system



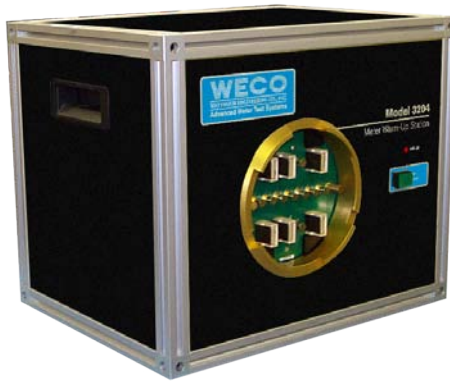
**AMR Module
Warm-Up Station
Model 3206G**

Watthour Engineering's Model 3206G Meter Warm-Up Station for AMR/AM Modules has been specifically designed for meters that utilize the Aclara® (TWACS®) power line carrier communications module. Additionally, this versatile unit includes voltage output and voltage input connections that allow you to test additional brands of power line carrier modules when using the manufacturer's supplied module. The Model 3206G can even be used as a simple meter warm-up station. The Model 3206G is a stand-alone unit that requires no additional PC or hardware for general operation.

Features:

- ▶ 0V, 120V, 240V or 480V
- ▶ Minimal insertion force Smart Socket™
- ▶ Selectable currents of 0, 10, 40 or 50A for left channel (no current source for center or right elements)
- ▶ Each station full independent
- ▶ No PC required

What do you do when an electronic meter is received, and you need to get the readings fast? Turn to your trusty Model 3204, of course! Why tie up expensive test equipment and personnel just to take readings?



Warm-Up Station Model 3204

Smart Socket™ technology will automatically sense the meter and clamp it in place. Use a barcode scanner to scan the meter label or manually enter the meter information and let the 3204 do the rest. The 3204 will route the voltage to the necessary positions supplying 120, 240 or 480 volts to the meter. The 3204's quiet operation and small footprint make it a perfect addition to your warehouse area.

Features:

- ▶ 120V, 240V or 480V
- ▶ Serial interface
- ▶ Minimal insertion force Smart Socket™
- ▶ Select meter forms and configure proper voltage routing for meter forms checked by a barcode
- ▶ Barcode scanner input
- ▶ Windows® compatible ShopStand™ software

When you need to test that AMR device, there is no need to spend thousands of dollars on expensive equipment. The 3205 adds a left element current source to all the features of the 3204. Currents of 0, 10, 40 or 50 Amps make the 3205 a perfect way to verify AMR devices or power meters for long term TOU verification.



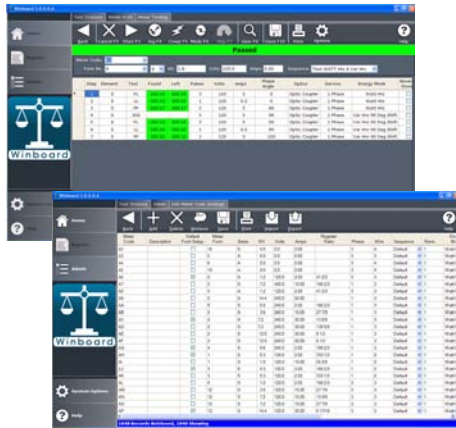
Current Enabled Warm-Up Station Model 3205

Features:

- ▶ 120V, 240V or 480V
- ▶ Serial interface
- ▶ Minimal insertion force Smart Socket™
- ▶ Select meter forms and configure proper voltage routing for meter forms checked by a barcode
- ▶ Barcode scanner input
- ▶ Selectable currents of 0, 10, 40 or 50A for left channel (no current source for center or right elements)
- ▶ Windows® compatible ShopStand™ software

Software Solutions

Winboard is loaded with features to make complex testing tasks simple. Test sequences are easy to select, and each is color-coded so you don't have to struggle visually to separate series and element results. Similarly, simple menu selection takes the guesswork out of picking the right service type. All of this is built on a common user interface that is easy to learn and use no matter which model WECO testboard you are operating.



Integrated Meter Testing Software
Winboard™

Along with its ease of use, Winboard offers loads of customizable productivity enhancing features. Test five times as many meters every hour with WECO's Turbo Test™ technology.† With Winboard's unique file/graph testing, you're in complete control of all test parameters such as voltage phase angles, current imbalances, phase angle imbalances, and frequencies.‡ With the test time feature, you can specify the length of the test in seconds and let the software compute the required number of test revolutions. Winboard is so flexible it even allows you to customize your own test types, meter forms, and data exports. Control up to six different testboards at the same time, each color-coded to show its current state. A multi-tiered security system lets you define a security structure as tight or loose as needed.

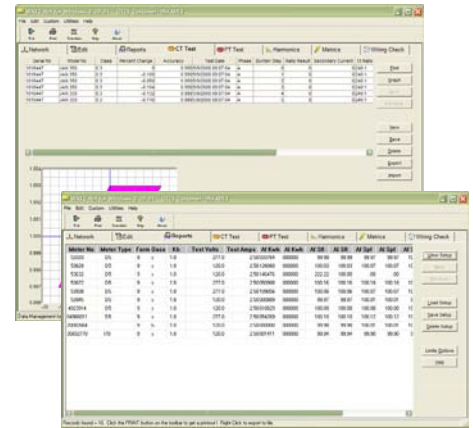
†Turbo Test™ option available only on Models 2300, 2350, 4150 and 4330 testboards. ‡Not all imbalances available on all models.

Features:



- ▶ Easy to learn and use
- ▶ Versatile testing options
- ▶ Turbo Test™ technology option
- ▶ Customizable security options
- ▶ Streamlined input and output
- ▶ Create custom forms
- ▶ Flexible Data Management—Organize your test results with WATT-Net™

WATT-Net™ is Watthour Engineering's data gathering system that allows production oriented meter shops to view, import, export, and generate reports based on meter test data.



Data Management Software
WATT-Net™

As meter tests are completed at each station, resulting data records are safely stored to the database. Stored records may be viewed, edited, added to, or printed at any time.

WATT-Net includes a powerful report generator to aid analysis of gathered meter records. Specific reports include counts of numbers of meters tested, statistical and quality analysis, and meter record listings. Date ranges, accuracy limits, and multiple filter parameters allow the user to focus in on a specific group of meters. Any report can be viewed on screen, printed, or saved as a file for future reference.

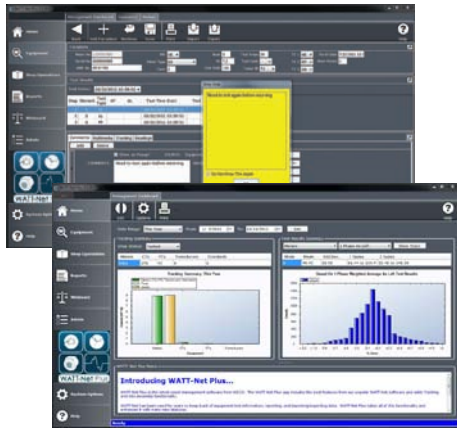
WECO's Software Engineers can customize WATT-Net to meet your company's requirements. This can involve matching an existing paper card file, augmenting a PC database, or building upload files for the utility mainframe computer.

Features:



- ▶ Fully automated importing and exporting to any number of different formats
- ▶ A scheduler for automating data exports for upload to utility mainframe
- ▶ Data base records customized for each utility customer

WATT-Net Plus™ is a comprehensive inventory tracking package that offers powerful functionality and ease of use, specifically designed for the meter industry. Thanks to WECO's exclusive focus on meter testing, coupled with extensive utility input, you can enjoy the benefits of a powerful tracking system uniquely suited to the task at hand.



Meter Shop Asset Management Software
WATT-Net Plus™

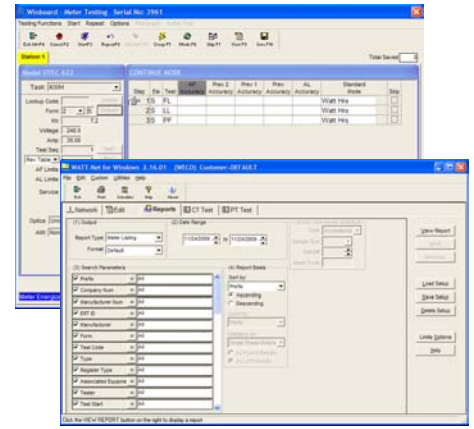
WATT-Net Plus tracks your metering equipment over its lifecycle and enhances or automates most meter shop functions including: receiving, shipping, box and pallet functions, clerical and administrative functions, transformer testing, manufacturer test data import, full separation of data and functions for multiple operating companies, custom barcode printing and scanning, AMR module tracking, tamper case documentation, metering assembly tracking with automatic multiplier calculation, and much more.

Features:



- ▶ Advanced data management
- ▶ Track equipment throughout its life-cycle
- ▶ Enhances or automates most meter shop functions
- ▶ Tracks shipping and receiving, equipment, test results, and much more
- ▶ Streamlines clerical and administrative tasks

Now you can leverage the meter testing and record management muscle of W a t t h o u r Engineering's Winboard™ and WATT-Net™ software on legacy UTEC 62X series and 441 calibrators



Cross Platform Software Solution
UTEC Upgrade

with our new cross-platform software upgrade. By utilizing this cutting-edge software on your existing equipment you're gaining access to features such as easy installation, simple operation, and compatibility with newer computer and operating systems for a limited investment. Once the upgrade is installed, you'll be able to control six test benches from one central computer. Additionally, if you upgrade to one of Wathour Engineering's shop test systems within two years, we'll take the full purchase price of the cross-platform software upgrade off the cost of the new hardware.

Features:



- ▶ Test meters on legacy UTEC test benches with WECO's easy to use and fully supported Winboard™ meter testing software.
- ▶ Manage your data with WATT-Net's test record management and report generation features
- ▶ Works on any UTEC 62X and 441 calibrators
- ▶ Control a combination of up to six UTEC and WECO units from one computer

Options and Accessories



Available for Models 2150, 2350, 2300, 4150, 4330, and WE-30:

OPTOCOM™: With this optional 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.



Available for Models 2350, 2300, 4150, and 4330:

Turbo Test™: WECO has worked hand-in-hand with the industry's leading meter manufacturers to bring you Turbo Test™ technology. Slash the amount of time it takes to test a supported meter on either WECO's 2300 or 2350 three-phase testboards to nearly one-fifth of regular testing time. Convenient software wizards make setting up and running a Turbo Test as easy as it is fast. Save your shop valuable time and money with WECO's Turbo Test option.



Available for Models 2150, 2350, 2300, 4150, 4330, and WE-30:

Barcode Scanner: 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.

3010 Testing Accessories:



Current Extension Leads: This set of three 12" Current Leads allows you to connect the PAT to the current switches on a meter. Once connected the PAT can control the current applied to any self-contained meter. Set of three color-coded (red, white, black) cables.



Optics Extension Cable: Extend the reach of both the PAT's standard optics or optional Magnetic Mount Optics to twice the standard distance with the Optics Extension Cable. Now you can safely and easily reach meters up to twelve feet away.



KYZ Extension Cable: Conducting a KYZ test with your Model 3010 in demand mode is only a KYZ Cable away. A single plug connects right to the PAT while standard yellow, black, and red plugs connect to the meter. With the KYZ Extension Cable you can test a meter from up to twelve feet away, ideal for reaching pole mounted meters.



Magnetic Mount Optics: With just the flip of a switch you can easily attach the Magnetic Mount Optics to any can-mounted meter. It is ideal for substation situations. Increase the number of meters you can test using either reflect or pulse modes by cutting down on optics attachment time. The powerful magnet holds to the meter under any circumstances. A 6' cable comes standard with the optional Magnetic Mount Optics and provides the link between the optional optics and the PAT.



Click Switch Adapter: Don't let optics-limiting situations keep you from conducting a meter test. When direct sunlight makes light-based optics unreliable, you can turn to WECO's Click Switch Adapter to manually record the disk's rotation. *(Also available for the WE-30)*



12' Voltage Extension Cable: The Voltage Extension Cable gives you twelve feet of length to connect your PAT to a meter's voltage switches. Combined with WECO's other extension cable options, the Voltage Extension Cable gives you unparalleled mobility and freedom.



Model 3200 Shop Stand: Effortlessly convert your Model 3010 Portable Automated Test System into a stationary testboard that's ideal for meter shop or van use. With the Model 3200 you get the benefit of WECO's Smart Socket™ technology, which allows you to insert a meter into the socket with minimal insertion force. Furthermore, the Smart Socket™ holds the meter securely in place for the duration of the test. The gooseneck optics arm is ideal for quickly aligning the optics to take a reflect reading against the disk's edge. The Model 3200 comes with all the leads necessary to connect it to the PAT. With the Shop Stand Adapter you get the functionality of a testboard without sacrificing the portability of a PAT.

For Information on Additional Accessories Available: Contact WECO at 601-933-0900.

WE-30 Standard Accessories

Nylon Carry Bag

The WE-30's Nylon Carry Bag gives meter testers the ability to grab-and-go. With ample storage room for all of the cables and leads that come standard with the WE-30, the Nylon Carry Bag is both convenient and portable.



Field Power Cord

Each WE-30 ships with a Field Power Cord that allows you to conveniently and safely power the unit at the site.



Shop Power Cord

Back at the shop, the AC Shop Power Cord provides a convenient way to power your WE-30 from a standard 120VAC power outlet.



Current Cable Set with Alligator Clips

The Current Cable Set with Alligator Clips allows you to connect the WE-30 to the current switches on a meter switch. Once connected the WE-30 can control the current applied to any meter. Set includes three color-coded (red, yellow, blue) 8' cables.



Field Safety Ground Cable

The Field Safety Ground Cable allows you to test with the confidence that both you and your equipment are protected.



Ethernet Cross-Over Cable

With the supplied Ethernet Cross-Over Cable it is a cinch to directly connect the WE-30 to an external laptop for control of the unit without having to connect it to a network.



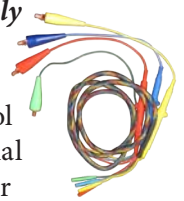
Current Cable Set with Safe-T-Plugs

The current cable set with Safe-T-Plugs uses "Duckbill" current leads to connect the WE-30 to the current switches on a meter test switch providing for improved accuracy measurements over any clamp-on probes. Set includes three color-coded (red, yellow, blue) 8' cables.



Potential Cable Assembly

Plug your WE-30 right into the meter's voltage switches and take control of the amount of potential applied to the meter. Our standard potential leads are 8' long with heavy-duty plugs on each end for safety and durability.



Current Isolators

The WE-30 ships with a set of six Current Isolators that are portable, durable, and provide great current isolation between test switches.



WE-30 Optional Accessories

Reflect and Solid State Optics with Meter Band Clamp

This optics solution combines both reflect optics for mechanical meters and pulse detecting optics for solid state meters in one convenient package. Lock down optics, easy mode selection, LED indicators, and a secure grip band clamp make this a valuable addition to any field test kit.



Magnetic Mount Reflect and Solid State Optics

Combining both reflect optics for mechanical meters and pulse detecting optics for solid state meters into one handy tool. Attach this optics solution with the flip of a switch to any can-mounted meter or use the band clamp to secure the grip. The LED indicators and mode selection make testing a snap.



Solid State Optics Probe Assembly, Suction Cup, Visible Detector

Don't let enclosures that prevent magnetic or clamp based optics attachment keep you from getting quick test results. WECO offers the Visible Detector Solid State Optics with Suction Cup attachment to make sure you can test meters equipped with visible LEDs for the Ke.



Solid State Optics Probe Assembly, Suction Cup, IR Detector

When you're faced with a meter enclosure that doesn't accommodate magnetic or clamp based optics you can turn to WECO's Solid State IR Optics Probe Assembly with suction cup attachment to detect the meter's IR emitter.



Magnetic Mount Optics

With just the flip of a switch you can easily attach the Magnetic Mount Optics to any can-mounted meter. It's ideal for substation situations. Increase the number of meters you can test using either reflect or pulse modes by cutting down on optics attachment time. The powerful magnet holds to the meter under any circumstances. A 6' foot cable comes standard with the optional Magnetic Mount Optics and provides the link between the optional optics and the WE-30.



Radian RM-DS Meter Disk Sensor Power Cable

This adapter cable allows the use of Radian's RM-DS meter disk sensor with the WE-30.



WE-30 Optional Accessories Continued

Adapter Kit For Customer Supplied Sensor Link Probe

For customers who already own compatible sensor link voltage or current probes, this low cost adapter kit makes it possible to use with your WE-30.



150A Clamp On Probe

The "clothespin" style current probe is most often used for secondary current measurements from 0.05 to 150A, 250V maximum.



800A Clamp On Probe

The circular clamp-on probe is used for primary and some secondary current measurements with a range of 0.05A to 800A for conductors up to 2.25" maximum.



AmpFlex® Current Probe Kit

The AmpFlex® Current Probe Kit includes a flexible current sensor for measurements on conductors where standard clamp-on probes cannot be used. The 36" sensor with electronic module and a calibration adapter can measure up to 3000 amps.



600V PT Probe

The 600V PT Probe allows you to check the voltage on systems that are 600 volts and less, allowing you to verify the potential transformer is working correctly.



Voltage And Current Leads Extension Kit, 12'

This extension kit increases the distance from the WE-30 to your test switch by 12'. It supports up to 600V and 15A per phase.



3000 Amp Square Jaw Probe Kit

This square clamp is great for higher currents, up to 3000A. The square jaw permits multiple conductors or bus bar positioning.



10 Amp .83" Jaw Transformer Rated Probe Kit, 5' Leads

This small, compact probe with a .78" jaw opening is used to measure currents from 100mA to 240A.



KYZ Cable Set

All you need is a KYZ cable set to conduct a KYZ test with your WE-30 in either demand mode or performing an energy test using the meter's KYZ output. A single plug connects right to the WE-30 while standard yellow, black, and red plugs connect to the meter.



WE-30 Cable Set for RM/RD/uJoule Interchange Standard

This cable set allows for an external Radian standard or uJoule to be put in a series with the WE-30 during a meter test for tie line testing.



25' Current Probe Extension Cable

Extend the distance from the WE-30 to the test location by 25' with this cable. Connect up to four to increase the overall distance to 100'. This option works with AC 150 and 800 amp clamp-on probes, high voltage current probe, high voltage probe, and AmpFlex® current probe kits.



Standards Compare Kit

With an external standard and WECO's Standards Compare Kit you can make sure your WE-30's internal standard is delivering the high accuracy results you need. All of the necessary cables are included and the WE-30's user-friendly, onboard software makes the standards compare test a snap. Available kits include RD-2x, RD-3x and RM compatible. (RD-3x Kit pictured.)



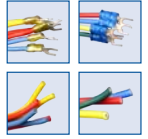
Advanced I/O Breakout Cable

The 8' Advanced I/O Breakout Cable is used to connect KYZ outputs from meters into the WE-30's Advanced I/O Connector. The Advanced I/O Connector has two Form C input channels that can be independently configured as two Form A input channels. The Advanced I/O Connector also has two Form A output channels and one Form C output channel.



Alternate Termination Voltage and Current Cable Sets

Not all meter shops have the same needs, so WECO offers two optional voltage and current cable sets. The first comes fitted with test paddle terminations for use with switchboard meters. The second set comes unterminated, allowing you to terminate the cables.



Alternate A, B, C, Phase Current Cable Clips With Alligator Clips, Right Angle Plugs, & Alternate Alligator Clips

Not all meter test switches are made exactly the same. WECO provides options to meet all your connection needs. These alternate alligator clips are another method of connecting the current leads to your meter test switch.



High Potential Current Probe Kit (2000A, 150kv)

The high potential current probe kit (2000A, 150kv) includes a fiber optic isolated current probe with 3.85" wide jaw for current measurements over 600V. Detachable line hanger, adapter and probe with hot stick mounting capability all come in a convenient carry case.



High Potential Probe Kit (40kv)

This kit is a power quality tool for 120V to 40kv applications. Determine volts, amps, frequency, sags, and swells from primary conductors. A fiber optic link provides the isolation. Kit comes complete with carrying case, hot stick mounting capability, and adapters.



Hard Case

This ultra durable Pelican hard case provides protection and convenience. Clamp tight latches, a lockable lid, no-flat wheels, and ample foam cushioning ensure the unit is protected from the rigors of field testing. A collapsible pull handle, removable shoulder strap, lead storage space, and built-in organizational pockets help you keep everything in its place while getting the unit from site to site.



Contacts

Joe Thomas,
General Manager
601.933.0900 x 226
jthomas@watthour.com

Harold Kennedy,
Customer Support
601.933.0900 x 228
harold@watthour.com

Lea Wren,
Engineering Manager
601.933.0900 x 225
lea_wren@watthour.com

Mark Ludington,
Software Manager
601.933.0900 x 231
mark@watthour.com

On August 18, 2011, Radian Research, Inc. (RADIAN) and Watthour Engineering Company, Inc. (WECO) were pleased to announce that the two companies have combined. WECO will now be part of RADIAN's Employee Owned Company. The combination of RADIAN and WECO creates the world's largest and most technologically innovative provider of energy reference standards, advanced energy meter testing systems, and automated laboratory calibration systems. This brings together the strengths of WECO's WATT-Net™ and Winboard™ software with RADIAN's accurate and precise energy measurement to deliver leading edge testing solutions for all classes of electricity meters including the very latest advancements in Smart Metering.

WECO will continue to operate at its existing facility located in Pearl, Mississippi, and RADIAN will continue to operate at the corporate headquarters located in Lafayette, Indiana. All customers and field sales representatives should understand that both facilities will remain fully staffed and fully functional, thus all personnel and all contact phone numbers and email addresses have not changed. Rest assured that service and support of our customers remains the highest priority for our business at both facilities.

Radian Research, Inc. is a 100% employee owned corporation.



Lafayette Indiana Facility

RADIAN

About RADIAN – Radian Research, Inc. is the world leader of energy reference standards, energy meter testing systems, current transformer testers, dc to ac transfer standards, and automated laboratory energy reference systems. Radian develops and manufactures both portable and primary energy reference standards that are absolutely unequalled in accuracy, stability and reliability. Radian customers consist of electric utility companies, energy meter manufacturers, energy meter test board manufacturers and national metrology institutes.

Radian Research, Inc.
www.radianresearch.com



Pearl Mississippi Facility

WECO

About WECO – Watthour Engineering Company, Inc. is the leading manufacturer and supplier of products and services for use in testing, repair, maintenance, and tracking of electric meters and associated equipment within the electric utility industry. Its products are used by utility companies and meter manufacturers throughout the United States and the world. In addition to manufacturing quality electric meter test equipment, Watthour Engineering has extensive software capabilities that complement its hardware.

Watthour Engineering Company, Inc.
www.watthour.com



Wathour Engineering Company, Inc.
www.wathour.com

333 Cross Park Drive
Pearl, Mississippi 39208

phone 601-933-0900
fax 601-933-0901

