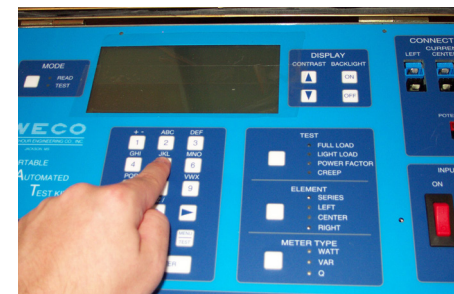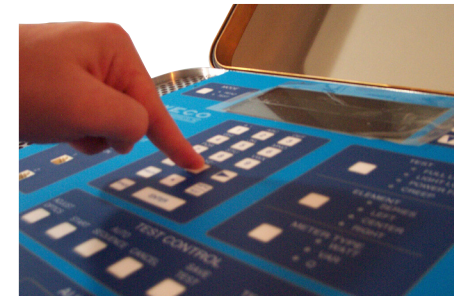# Features

- **Test voltage:**
  - >>*69–600V; programmable in 1V steps*

- **Test currents:**
  - >>*0.25-50A*
  - >>*2.5-9.9A; programmable in 0.1A steps*
  - >>*10.0-50A; programmable in 1.0A steps*
  - >>*Light load is 10% of full load*

- **Power factor test angle:**
  - >>*0–359.9°*
  - >>*Selectable in 0.1° increments*

- **Test revolutions:**
  - >>*1-999*

- **System demand test mode for making KW tests either by time run (HH:MM:SS) or standard equivalent disk revolutions (1-9999)**
  - >>*Mode 1: (1–99999 revolutions)*
  - >>*Mode 2: Time run 99 HRS, 59 MINS, 59 SECS*

- **Contact device testing:**
  - >>*Form "A" or "C" capability*

- **Solid state voltage and current loading**

- **Voltage and current electronically ramped between tests**

- **Automatic slew between tests to minimize test time**

- **Optical pickup for the infrared LED on solid state meters**

- **Light source/sensor is triggered from the meter disk rotations**

- **Visual and audible (volume controlled) pulse indication for aid in aligning optical sensor**

- **The internal standard may be compared to an external standard for easy standard checks without removing the standard**

- **Easily removable reference standard for recertification**

- **Computer:**
  - >>*Internal microprocessor with large LCD display*

- **Large 4 line by 20 character (0.384") backlit LCD display with contrast adjustment for monitoring**

- **Test parameters and data system is microprocessor controlled with operating software contained in non-volatile ROM**

- **System diagnostic test capability (self test)**

- **Battery backed up internal system clock for time and date**

- **The system will store numerous meter test records in non-volatile RAM (dependent on record size)**

- **Color-coded test leads for transformer and rated meters are provided for easy hook-up**

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

Model 3010
Portable Automated Test Platform

For over thirty years Watthour Engineering has been working with meter testers and manufacturers to develop industry-leading tools that make testing meters easier and the results more accurate. It takes a company with this much experience to take the power and versatility of its laboratory test systems and turn them into a package ideal for gathering test results out in the field with the accuracy your company demands. 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 lightweight test system 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. Rest assured knowing the internal NIST traceable Radian Research RD-2X series reference standard delivers unsurpassable accuracy. This 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.

Specifications:

- **Source:**
  - *90-300VAC single-phase 50/60Hz 450VA Maximum*
- **Optics:**
  - *Reflect and solid state pickups*
  - >>*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.*
- **Meter forms tested:**
  - >>*1S-6S, 8S-10S, 12S-16S, 25S, 26S, 29S, 30S, 35S, 36S, 45S*
- **Dimensions & Weight:**
  - *14.8˝W × 10.4˝H × 19.86˝L, 45 LBS*
- **Housing:**
  - >>*Fiberglass case with handle*
  - >>*Water resistant and shock resistant to 1.0G*
- **Warranty:**
  - *One (1) year international limited warranty (all parts and labor). Manufacturer warranty on computer.*
  - *Two (2) year domestic limited warranty (all parts and labor). Manufacturer warranty on computer.*

Available Options:

- Automatic or manual testing of full load, light load, and power factor tests for series and elements. No lead changes required
- Visual LED indication of test status
- System displays all test parameters as necessary and indicates present test in progress
- Both "As Found" and "As Left" data are displayed and stored
- Creep test capability
- Automatic return to creep (voltage on the meter) for solid state meters

- Unit has built-in voltage, current, and phase angle measurement capabilities in the "Read" mode
- Built-in context sensitive "Help" to aid operator
- Communication port for optional Winboard software
- Communication port for optional barcode reader
- Barcode reader with software
- RD-20-112 Watt-Var Standard
- WATT-Net™ data management software

- RD-21-112 High Accuracy Watt-Var Standard
- RD-21-232 High Accuracy Watt-Var-Q Standard
- Remote control software
- PC or laptop
- CT burden test
- Voltage reversing switch for received power testing

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

Standard Accessories

Optics Clamp: Attach your optics to the meter for easy aligning with WECO's Optics Clamp. The secure connection ensures that the optics remain in the proper position for the duration of the test.

Solid State Optics: WECO's Solid-State Optics attach easily to the Optics Clamp and allow you to detect the pulses generated by solid-state meters. The plastic gooseneck keeps the optics properly aligned while providing a lifetime of durability.

Reflect Optics: For testing electromechanical meters WECO provides a sophisticated Reflect Optics system that attaches easily to the Optics Clamp and delivers highly accurate test results off of the black mark on the meter's edge.

Field Input Power Cable: Power up your PAT right at the test site with the Field Input Power Cable. Pull power right from the line by connecting this Agency Approved cable to the meter.

AC Shop Power Cable: Back at the shop, the AC Shop Power Cable provides a convenient way to power your PAT right from a standard 120VAC power outlet.

Nylon Carry Bag: The Model 3010's Nylon Carry Bag gives meter testers the ability to grab-and-go. With ample storage room for all of the cables, leads, and optics adapters that come standard with the PAT, the Nylon Carry Bag is both convenient and portable.

Field Safety Ground Cable: Safety is our chief concern at Watthour Engineering. To that end, we supply each PAT with a Field Safety Ground Cable, so you can protect your equipment, and yourself, while testing in the field.

Transformer Current Leads: These 6' cables attach easily to any transformer rated meter for convenient and accurate testing at the meter site.

BNC Adapter: With the BNC Adapter you can conduct accuracy tests using KYZ pulses on meters without optical ports.

KYZ 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.

Potential Leads: Plug your PAT right to the meter's voltage switches and take control of the amount of potential applied to the meter. Our standard Potential Leads are 6' long, with heavy-duty plugs on each end for safety and durability.

Remote Control Cable: Connect to a PC and transfer your test results from the PAT to WECO's WATT-Net™ software with the Remote Control Cable, or use the connected PC to run WECO's WinBoard™ meter testing software (available optionally).

Standards Compare Cable: With the Standards Compare Cable you can connect an outside standard to your PAT to verify that your Model 3010 is giving you the most accurate meter test results possible without having to remove the internal standard.

Optional Accessories

Model 3200 Shop Stand: Power up your PAT right at the test site with the Field Input Power Cable. Pull power right from the line by connecting this Agency Approved cable to the meter.

12' KYZ Extension Cable: The Model 3010's Nylon Carry Bag gives meter testers the ability to grab-and-go. With ample storage room for all of the cables, leads, and optics adapters that come standard with the PAT, the Nylon Carry Bag is both convenient and portable.

Magnetic Mount Optics: With the BNC Adapter you can conduct accuracy tests using KYZ pulses on meters without optical ports.

Click Switch Adapter: Safety is our chief concern at Watthour Engineering. To that end, we supply each PAT with a Field Safety Ground Cable, so you can protect your equipment, and yourself, while testing in the field.
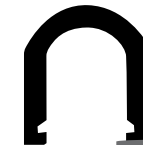
12' Voltage Extension Cable: These 6' cables attach easily to any transformer rated meter for convenient and accurate testing at the meter site.

12' Optics Extension Cable: Back at the shop, the AC Shop Power Cable provides a convenient way to power your PAT right from a standard 120VAC power outlet.

12' Current Extension Leads: 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.

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.