

WECO 8050, 8100 and 8200

Meter Test Stations

*Versatile, Efficient and Accurate
Multi-Position Meter Testing*



*Meter Qualification - Meter Functionality
Meter Accuracy and Demand*

WECO 8050, 8100 and 8200 Meter Test Stations



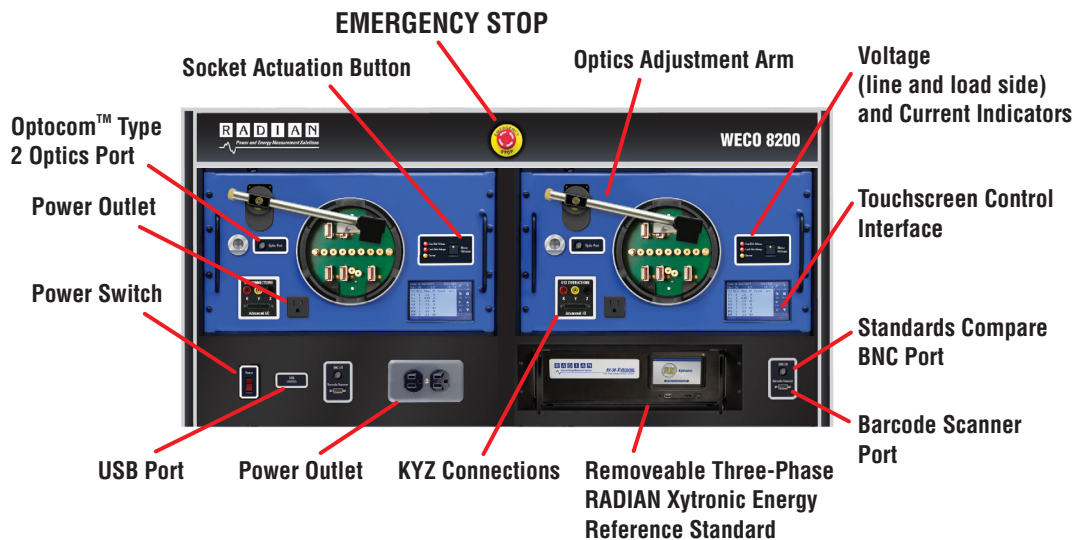
Radian Research proudly introduces the WECO 8050, 8100 and 8200 Meter Test Stations. These multi-position testboards integrate meter functional, qualification, demand and accuracy testing. This versatile test station is the solution for utilities needing the ability to perform a diverse set of meter tests effectively and efficiently. Unsurpassed measurement precision, stability, and accuracy are ensured by a removable, NIST traceable, RADIANT Xytronic Power and Energy Reference Standard.

The WECO 8050, 8100 and 8200 provide test current capacities of 50, 100 and 200 amps, respectively. Each system is available in either a series single-phase or a true three-phase configuration. The number of socket positions can vary from a four position base system up to 24 positions. The reference standard accuracy class is also selectable between 0.04, 0.02 and 0.01%.

Zero insertion force Smart Socket™ technology, fitted with high conduction gold connections, and an electronic socket control, provide an actuated connection which extends hardware lifespan. Each meter socket is a modular 19" rack mount design, so a single socket can be removed leaving the other sockets fully operational.

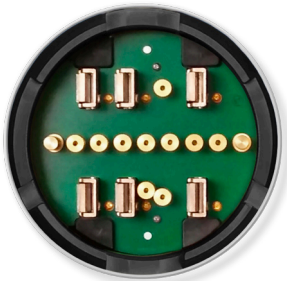
Diverse Meter Testing Capabilities

- Test meter accuracy against a removable, NIST traceable RADIANT RX Energy Reference Standard
- True Three-Phase Sources and Reference Standard
- Watthour, VARhour, VAhour, Vhour, Ahour, V2hour, and A2hour measurement functions
- Power up the meter to determine if meter functions and display no errors
- Allow the meter to register on the utility billing system; using PLC or RF communications
- Program meter firmware, via COMS or Optical Port
- Confirm meter response to different loads, harmonics, drop cycle and phase imbalance
- Confirm meter disconnect and reconnect
- Set, read, and trigger alarms
- Set meter demand/rate/tariff
- Delivered and Received Energy
- Selectable power factor
- Voltage Imbalance, Sags, and Swells
- Apply harmonic waveforms on the Voltage and/or Current axis



Innovative Socket Design

The WECO 8050, 8100 and 8200 utilize a RADIANT exclusive **open socket** design that assures safety and continued functionality when socket positions do not have a meter inserted. Safety is assured by **dead front** operation whereby an open socket is not energized. Functionality is enhanced because an open socket does not prevent any populated sockets from operating. This unique feature eliminates the need to insert a Bypass Plate into an open socket to ensure safety and functional continuity.



Versatile Control Interfaces

The local control interface is a 7 inch Color Touch Screen located at the bottom of the first column of sockets.



The control panel allows the user to set parameters, view meter status, and define preferences. An Ethernet port provides the means of all communication to an

external PC. A Virtual Serial Comm port installed on the PC enables Serial-over-Ethernet capabilities that would normally require physical serial connections. This feature allows for use of manufacturer's software to update meter firmware and programming, using an optional Optocom adapter. Ultimate automation can be attained by using WATT-Net™ Software for advanced test sequencing, ANSI statistical sampling, and test result storage.

Additional Safety Provisions

Along with the exclusive open socket, dead front design mentioned earlier, RADIANT has taken additional measures to assure operator safety. Clearly visible LEDs indicate when voltage and current are being generated by the test station. A resettable breaker is installed at each socket to protect the unit against a faulty meter installation. An EMERGENCY STOP button is located at the top of every four socket bay that will remove power from all sockets in that bay.

Standard Accessories

All WECO 8050, 8100 and 8200 Meter Test Stations come standard with a PC, keyboard, mouse, monitor, WATT-Net Basic software and comprehensive calibration reports on the reference standard. Removable shelves with customizable under-shelf cupboards and drawers are also provided.

WECO 8050, 8100 and 8200

Meter Test Station Configuration Tables

Model Number	MAX Current	Phase Configuration
8051	50 Amps	Series Single-phase
8053	50 Amps	True Three-phase
8101	100 Amps	Series Single-phase
8103	100 Amps	True Three-phase
8201	200 Amps	Series Single-phase
8203	200 Amps	True Three-phase

Model Extension	Maximum Socket Positions
OPT4	4
OPT6	6
OPT8	8
OPT12	12
OPT15	15
OPT18	18
OPT21	21
OPT 24	24

Test Voltage:

Fully variable between 30V and 600V
0.1V resolution

Test Current:

8050 Variable from 1mA to 50A
8100 Variable from 1 mA to 100A
8200 Variable from 1 mA to 200A

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

Waveforms:

Pure Sine Voltage and Current; Voltage Sag and Swell;
Voltage Dropped Cycle; Programmable Voltage and
Current Harmonics

Reference Standard Accuracy:

+/-0.02% for ALL Measurement Functions (RX-31)
+/-0.04% for ALL Measurement Functions (RX-30)
Accuracy applies to currents from 25mA to 50A

Voltage and Current Sources:

Features fuseless self-protection technology

Supported Meter Forms:

1-6S, 8S-10S, 12S-16S, 17S, 25S, 26S, 29S, 32S, 35S,
36S, 45S, 46S, 56S, 66S, 76S, 103S, 109S, 112S,
116S, 135S, 136S, 145S, 166S

Common Configurations:

Table Top Height 34.5"
Table Top Depth 18.5"
Cabinet Depth 22.5"
Total Depth 40.5" All units have casters and anti-tip legs.

System accuracy is based upon the high accuracy of the removable, NIST traceable, RADIAN Xytronic Power and Energy Reference Standard.

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