Meter Qualification Boards

Versatile, Efficient, and Affordable Meter Testing

WECO 8020
WECO 8030

Meter Qualification - Meter Functionality

RADIAN Research

Meter Qualification Boards

Improve test yield and increase the capacity to do more with less!

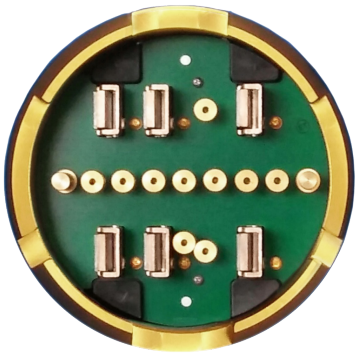
WECO Meter Qualification Boards by Radian Research enable extensive functional testing of single-phase and three-phase revenue grade electricity meters. Unlike Warm-up Boards and Load Boards that are limited to just powering the meter or applying a fixed current, WECO Meter Qualification Boards can test a variety of communications, disconnect, and safety features. The WECO 8020 and 8030 have varying capabilities based on your requirements. They feature an innovative open socket design exclusive to RADIAN that ensures optimum operator safety. Capability, versatility, and safety combine to make WECO Meter Qualification Boards THE logical choice.

Diverse Meter Testing Capabilities

- 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, 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

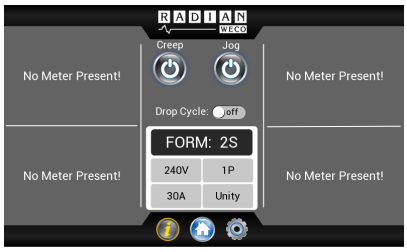
Innovative Open Socket Design

All WECO Meter Qualification Boards utilize a RADIAN 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 no exposed conductors are present when sockets are empty. 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.

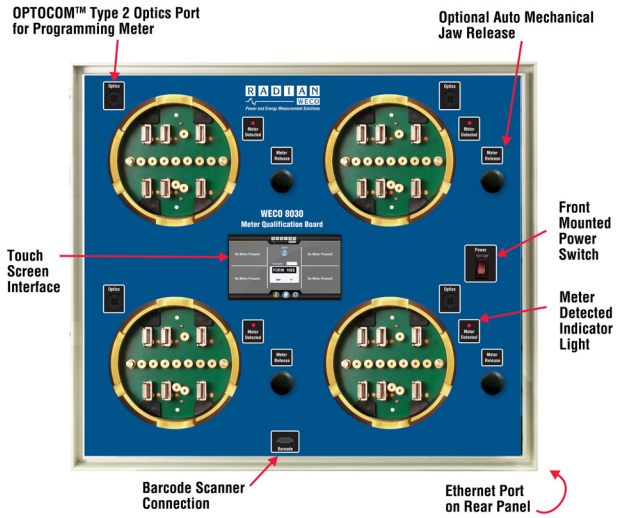


Versatile Control Interfaces

The local WECO Meter Qualification Board control interface is a 7 inch Color Touch Screen located in the center of each four socket bank.



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, RADIAN has taken additional measures to assure operator safety. A resettable breaker is installed at each socket to protect the unit against a faulty meter installation. Socket independent over-current circuitry protects internal voltage and current sources from inadvertent overloads. A power switch is located on the front panel to disable the entire bay (four sockets). Multiple bays combined in a cabinet are protected using a single Emergency stop button.

Flexible Configurations

RADIAN designed each unit of the 8020 and 8030 to host up to four meters at one time. Multiple units can be combined to create a system supporting up to 24 sockets in a two high, three wide rack. Each bank of four sockets can operate independently or be configured to create one multi-socket solution controlled from an external PC.

All WECO Meter Qualification Boards come standard with a mechanical lever to open and close individual socket jaws. An optional 8xxx-E automated jaw actuator is available. Removable shelves with customizable under-shelf cupboards and drawers are also provided. A typical two/four dimension; 77" high x 76" wide x 22" deep (add 18" for shelf) with 70" from floor to top meter center line & 36" floor to bottom meter centerline.

Meter Qualification Boards

Configuration Chart

Feature	8020	8030
Dimensions	25” W x 21”H	25” W x 21”H
Socket Count	4	4
Need for Bypass Meter Blank-out Cover	No	No
7” Color LED Touch Screen	Yes	Yes
Automated Socket Release	Optional	Optional
Meter Form Supported	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	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
Selectable Voltage to all Sockets	69V, 120V, 208V, 240V, 277V, 480V	69V, 120V, 208V, 240V, 277V, 480V
Selectable Load Current to all Sockets	N/A	0A, 2.5A, 5A, 10A, 30A, and 50A
Current Source Compliance Voltage	N/A	100mV per phase measured at the socket
Delivered and Received Current	No	Yes
Elements	A & C	A & C
Loop Count	No	No
Voltage Circuit Burden	310 VA for each COMBINED four socket bay	310 VA for each COMBINED four socket bay
Watthour Accuracy	N/A	N/A
Power Factor	N/A	0.5 & 1
Waveforms	Pure Sine Voltage, Voltage Dropped Cycle	Pure Sine Voltage and Current; Voltage Dropped Cycle
Disconnect Testing	Yes	Yes
Re-connect Indicator	Yes	Yes
Communications	IR, Radio and PLC	IR, Radio and PLC
Warranty	2 years	2 years

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