

# ELECTRIC VEHICLE TEST SYSTEMS

**TESCO's Test System 200 tests AC Level 1 and Level 2 systems up to 50 amps maximum current**

TESCO has more than 110 years of experience in designing and building devices to test the accuracy of electrical measurement devices for the utility industry. From that knowledge and expertise, TESCO has developed a means to check the accuracy and calibration of Electric Vehicle Chargers.

TESCO's family of Electric Vehicle Service Equipment (EVSE) Testers provide complete test capabilities for EVSE systems conforming to J1772\_201602. Fully compliant with Handbook 44 provisions, they test the accuracy of energy delivered using a transactional model. Full communication signal analysis and safety checking of the EVSE connection is provided.



THE EASTERN SPECIALTY COMPANY

**TEST SYSTEM 200**

**Catalog No. TS200**

## FUNCTIONALITY

Tests energy delivery accuracy using a transactional model compatible with Handbook 44. For complete freedom and test automation use a Test System 200 (Catalog No. TS200). Any J1772 compatible EV can also be used as the test load by using an optional cable. The Proximity and Pilot Control signal exchanges are fully verified for compliance with J1772. The EVSE's GFCI can also be tested.



## SPECIFICATIONS and FEATURES

### **AC CAPABILITY:**

- Voltage: 90 to 240 VAC
- Current: 0 to 50 Amps

### **ACCURACY:**

- Voltage: 0.04% of reading
- Current: 0.04% of reading  $\pm$  0.005 Amp
- Active Energy: 0.08% of reading  $\pm$  0.002 Wh
- Apparent Energy: 0.08% of reading  $\pm$  0.002 VAh
- CP Signal: Freq  $\pm$  1Hz, Duty Cycle  $\pm$  0.5%, Wave form amplitude  $\pm$  0.3%

- **Ethernet:** 100 BaseT with support for Web Services, Remote Control, Database Access.
- **USB:** 2x USB-A with support for Device, External Memory Storage, WiFi, Keyboard, Mouse.
- **GPS:** Integrated GPS system provides location information for automatic determination of test site and database access.
- **GFCI:** Provision is provided to test the GFCI functionality of the EVSE.
- **RS 232:** Legacy port for specialized test configurations.

- **Prog Load Interface:** Provides communications and power to any of our EV Load Emulators.
- 4800 mAhr Lilon battery pack provides power at system startup and during fault testing. The device automatically recharges during testing operations. Unit can also be plugged directly into a standard AC outlet for recharging. Under normal use, system can operate for a full shift, starting at full charge.

**Contact TESCO today for more information on EVSE Testers and Load Emulators.**

**Call 215-785-2338.**

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## KEY FEATURES

- Safe and easy to use
- Provides full load emulation of electric vehicle behavior for the EVSE
- Completes The Pilot Control Signal Network
- Provides Proximity Detection Circuit
- Three models available to suit all budgets and testing needs
- Displays charging state based on SAE J1772 Standard and load mode information

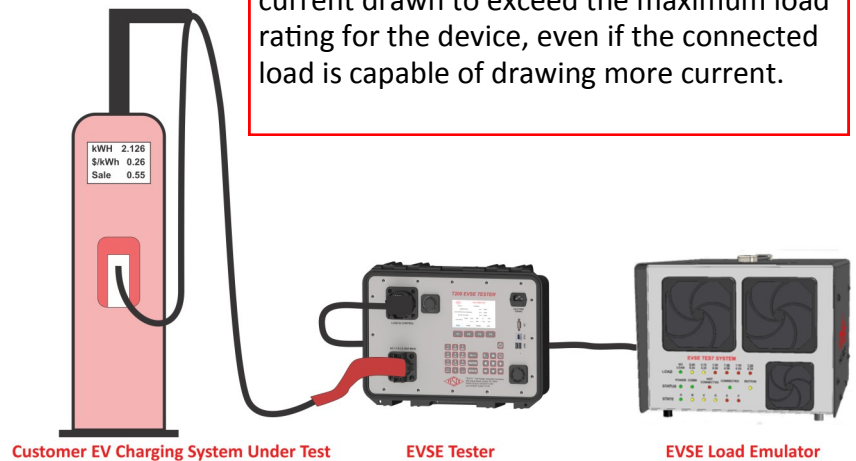
SPECIFICATIONS	LOAD EMULATOR
Maximum Current	50A
Circuit Protection	60A
Voltage Range	90 to 264 VAC
Load Range	0 or 0.25 to 50A
Load Setting Error	< 2%

## Setting up the Test System 200 for testing an EVSE is simple:

- Computer controlled software package included
- Connect the cable from the EVSE Tester to the Load Emulator
- Power on the EVSE Tester
- Select a site to be tested: choose from the onboard database, use the GPS function to speed selection, or enter the site information directly
- Run the test. The system will perform all of the tests in the test protocol sequence, prompting the user for any actions they must perform
- View results as they are generated
- Results can be saved to system database

**CHOOSING A LOAD:** The Load Emulator is an electronically controlled load with near unity power factor and no high frequency harmonics. Any load can be programmed from 0.25A to 50A with better than  $\pm 0.1A$  resolution.

The load controller will not allow the current drawn to exceed the maximum load rating for the device, even if the connected load is capable of drawing more current.



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