



EV Emulator Tool

EVE-100J

The EVE-100J is a portable, ruggedized test and measurement tool designed to verify, track and ensure the safe installation of Level 1 and 2 Electric Vehicle Charging Stations. The EVE-100J provides over 20 comprehensive test routines confirming the electrical, data and safety features of the EVSE. The EV Emulator is compatible with all charging stations that conform to SAE-J1772™ and provides a simple pass/fail result or detailed explanation of the failure mode through its touch screen interface. Once installation is completed, the EV Emulator's report can be Geotagged with location information for tracking and verification purposes.

The EV Emulator behaves like an Electric Vehicle when connected to an EVSE as most commercial and residential EVSEs will be installed without an EV (Electric Vehicle) present. Equipment Manufacturers and Electrical contractors get the peace of mind of Gridtest Systems' Ready to Charge Certification that the EVSE is installed, safe and operating correctly. The EV Emulator also collects important business data for traceability in Support Services and preventative maintenance.



Applications:

- Installation & Maintenance Services
- R&D Lab Testing
- Quality & Reliability Testing

Ready to Charge Certification

- Runs 20+ electric, data and safety test routines to deliver Gridtest Systems' Ready to Charge Certification for Level 1 and 2 EVSEs including:
 - Voltage Levels
 - Pilot Fault
 - Ground Fault test
 - Display current rating
 - Start/Stop, Vent Charge
 - Power load test
- Test and verifies functionality to SAE-J1772™ and IEC 62196-2 with adapter cable to connect the EV Emulator to the EVSE.

Install EVSEs with
guaranteed:
Safety
Customer Satisfaction
Traceability

- Provides 'Ready for Charge' Installation Certificate which documents the EVSE was installed correctly, safely and is fully operational.
- Special QuickTest sequence can be customized for different manufacturers' requirements.

Easy to Use

- Integrated touch screen provides a simple one-touch automation and sequencing of test suites providing a quick methodology to verify installation.
- Simple instructions for technicians.
- Integrated bar code scanner allows the technician to quickly capture important information at the time of installation regarding the specific EV Charger, customer and installer identity.

'Ready to Charge
Certified'

Automated Reporting

- Records measurements from all test cases to produce a Pass or Fail summary result for warranty and traceability on each installation.
- SD Card interface allows test results to be easily transferred to a SmartPhone/PC/Email
- The EV Emulator can connect to external loads or power analyzer tools for more test scenarios.

Portable

- Designed for the field installation environment, the EV Emulator is contained in a ruggedized watertight enclosure – military grade.
- An embedded re-chargeable battery pack provides sufficient power for up to 12 hours and can be recharged from a standard 100-240V outlet. The unit is generally powered up for only a few minutes only during each installation.

Lab test Option EVE-100L :

For equipment manufacturers and testing services companies, Gridtest Systems offers the EVE-100L for testing in a lab environment. This version offers detailed test results and test reports. Labs can benefit by saving hundreds of hours of in-house tool development, test execution and maintenance by leveraging the EVE-100L.

The EVE-100L measures and analyzes up to 50 metrics of the EVSE. The pass and fail criteria for many test cases can be customized. The automated test sequence can be customized. The EVE-100L can also provide a trusted third party report throughout the EVSE product lifecycle.

Comparison Chart for Field Test and Lab Test versions:

Capability	Field test EVE-100J	Lab Test EVE-100JL
Functional & Safety test suite for EVSE's supporting SAE J1772 / IEC 61851-1	✓	✓
'Ready to Charge' Certified Test Report	✓	✓
Explanation of failure mode , if test fails	✓	✓
Granular manual test mode . Over 50 high accuracy measurements with comprehensive test reports		✓
Measure changes in Duty cycle, Voltage, Current, Power draw		✓
Measure transition time between states		✓
Connect to external loads or Power Analyzers. Supports up to 70 Amps load		✓

Physical Specifications:

Dimensions: 16" x 13" x 6.87" or 40.6 x 33 x 17.4 cm (L x W x D)
 Weight: approximately 20lbs. or 9Kg