



Powering Business Worldwide

Electronics Preventive Maintenance (DC Fast Chargers, AC L2 Chargers)

Scope of Work

Attachment R-2-EV

This scope of work is shared by the following electric vehicle charger equipment types: **Eaton Green Motion DC Fast Chargers, Eaton AC Level 2 Chargers**). Note the applicable features vary by type of equipment being contracted and additional scopes of work may be required.

The following is an outline of general checks performed during an Eaton® Preventive Maintenance of the Eaton Charger normally performed by Eaton field service personnel. All checks are designed to be performed during offline operation, in the bypass mode. All checks or processes may not be applicable to all equipment types or models.

1. Visual Inspection

- a. Inspect all printed circuit board connections for cleanliness, swab contacts if necessary.
- b. Inspect all power connections for signs of overheating
- c. Inspect all subassemblies for signs of component defects or stress
- d. Inspect and inventory all customer-owned spare parts
- e. Inspect for, and perform as required, any open engineering changes

2. Internal Operating Parameters

- a. DC Ground Detection Offset (if applicable)
- b. Output filter current average phase balance (if applicable)
- c. AC Protection settings are checked
- d. DC Protection settings are checked
- e. Input Phase Rotation, Frequency and Voltage Bandwidth settings are checked
- f. Update charger firmware as necessary with customer approval
- g. Evaluate Field Service Bulletins (FSBs) for potential updates (parts if required are included at no charge under service agreements with full parts coverage, otherwise billable)

3. External Operating Parameters

- a. System Input and Output Voltages (all phases)
- b. System Input and Output Currents (all phases)
- c. DC Charging Voltages record settings, adjust to nominal
- d. Adjust all panel meters to measured values
- e. Manual and UV Transfer Testing, verify uninterrupted transfer waveform (if applicable)
- f. DC charger capability testing, and verify charger current limit
- g. Generator operation and interface verification (if applicable)

4. Environmental Parameters

- a. UPS area ambient temperature and condition of ventilating equipment
- b. General Cleanliness of Power Module
- c. General Cleanliness of area
- d. Replace air filters as applicable and necessary (parts if required are included at no charge)
- e. Clean outside of charger including control/display panel



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- 5. Charge Network Monitoring System Check**
 - a. Verify CNM system with CNM functional test
 - b. Update connectivity card firmware as necessary

- 6. General**
 - a. Customer Consultation
 - b. Verbal Recommendations
 - c. General Observations

Following the Preventive Maintenance inspection, a written report will be provided detailing the results of the inspection, and making specific recommendations toward future remedial action, upgrades, or sparing.

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