Vehicle Electrification System Standards

IV. High Voltage Battery Pack System

IV.d Battery Pack Testing

OEM Acronyms:

n/a

Description:

The Battery Pack (RESS) system contains modules or cells that must maintain minimum power, capacity, and thermal specifications to ensure vehicles acquire fuel economy and/or driving range. Testing battery pack modules or cells will permit the technician to acquire and analyze electrochemical performance data and how it impacts vehicle metrics. Testing also permits a technician to acquire necessary data for rebuilding or remanufacturing a battery pack system.

Outcome (Goal):

Students shall be able to perform High Voltage Battery Pack testing when installed in the vehicle or removed from the vehicle and bench tested by using specialized testing equipment.

Objective:

Objective 1: Students will be able to determine High Voltage Battery Pack SOH, with the battery pack installed in the vehicle, using a Scan Tool or Specialized Testing Tools

Objective 2: Students will be able to Power, Capacity, and Thermal test a battery pack, when it is removed from the vehicle, by using specialized test equipment.

Task:

Task 1: Students will connect a Scan Tool or Specialized Test Equipment to a test vehicle, and complete a road test, with specified road-testing criteria, to determine High Voltage Battery Pack SOH

Task 2: Students will test the power, capacity, and thermal metrics of a donor battery pack, using specialized battery module/cell testing equipment, to determine if the test results would permit the modules/cells to be balanced reused or, used to rebuild a High Voltage Battery Pack.

Required Special Tools and/or Equipment to Complete Task:

Scan tool, special battery stress testing tools, battery cycler (power & capacity), thermal imaging or temp sensor DAQ.

To comment or offer suggestions on this standard, contact Ken Mays:

Ken Mays	**NEVTEX**
541-383-7753	kmays@cocc.edu