II. High Voltage Safety and Personal Protective Equipment

II.b High Voltage Wire and Cable

OEM Acronyms:

n/a

Description:
High voltage wire and cable utilizes an orange covering and routes high voltage energy to components connected on the high voltage bus.

Outcome (Goal):
Students shall be able to visually identify high voltage wire and cable on a hybrid, plug-in, or electric vehicle.

Objective:
When provided with a hybrid, plug-in, or electric vehicle, students shall be able to visually identify all high voltage wire and cable with 100% accuracy.

Task:
Using the chassis diagram provided, locate all high voltage cables on the classroom vehicle and the component connected to them and draw a block diagram of high voltage cables, components, and connections.
Required Special Tools and/or Equipment to Complete Task:
Basic hand tools; vehicle lift

Instructor Demonstrations (System Operation, Testing, Servicing, Repair):
Use a video recording to demonstrate how to identify high voltage wire and cable on a hybrid, plug-in, or electric vehicle.

Information Resources to support Tasks, Demonstrations, Repairs, etc.:
OEM Service Information

Suggested Vehicle for Tasks and Demonstrations:
Any production-level hybrid, plug-in, or electric vehicle that is onsite.

Governing Standards (Safety, Testing, Diagnostics or Repair):
J1673 - High Voltage Wire and Cable

Industry Resource Organization:
✓ Society of Automotive Engineers (SAE)
☐ Institute of Electrical & Electronic Engineers (IEEE)
☐ International Electrotechnical Commission (IEC)
☐ American Society for Testing and Materials (ASTM)
☐ Occupational Safety & Health Administration (OSHA)
☐ National Fire Protection Association (NFPA)
☐ Underwriters Laboratories (UL)
To comment or offer suggestions on this standard, contact Ken Mays:

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