

Hands-on Learning Exercise Instructions

Answer the following questions for the BEB Familiarization Course Hands-On learning exercises 2F and 2G.

Learning Application 2F: Proterra model Lockout/Tagout De-energization

1. If there is a BEB (Proterra model) available, your instructor will move the class to the on-site location and proceed to review and guide you through the de-energization or Lockout/Tagout procedures for this model.
2. After watching the de-energization process for a Proterra 800-volt model, read the following questions and answer each one. When you are finished, check in with your instructor for the answers.
 - a. Where is the Master Switch located?
 - b. Where is the Master Disconnect Switch located?
 - c. What components do you need to apply multi-lockout tagout devices to?
 - d. How do you determine that your voltmeter works properly?
 - e. Do you need to verify the 12/24 VDC contactor has no voltage on either side of the contactor? What is the reference point?
 - f. What is needed to be done in order to access the high voltage junction box [HVJB]?
 - g. Describe the PPE testing being performed.
 - h. What is the voltage to be verified from the inlet busbars coming to the batteries?
 - i. What is the verified voltage needed from the traction motor inverter connection and any HV components?
 - j. What is the last part of the process?

Hands-on Learning Exercise Instructions

Application 2G: New Flyer model Lockout/Tagout De-energization

1. If there is a BEB (New Flyer model) available, your instructor will move the class to the on-site location and proceed to review and guide you through the de-energization or Lockout/Tagout procedures for this model.
2. After watching the de-energization process for a new Flyer model, read the following questions and answer each one. When you are finished, check in with your instructor for the answers.
 - a. What position should you set the Mater Run Switch to?
 - b. What should you do with the Battery and High Voltage Interlock switches?
 - c. What needs lockout tagout devices in the rear curbside panel?
 - d. Should you ensure there is no voltage on the 12/24 VDC battery bus bars?
 - e. What do you measure between with your voltmeter inside the fuse box?
 - f. How often should you inspect and/or test the HV gloves and how?
 - g. Which direction do you measure on the busbars?
 - h. What do you measure from after you check between busbars?
 - i. How do you determine if current is flowing through the manual service disconnect [MSD]?
 - j. How many MSDs do you remove?