

Dismantling a Hybrid or BEV and Removing HV Battery

Objective

Discuss why high voltage batteries should be removed from an EV as soon as possible after it has been received and only after a thorough hazard assessment has been completed.

Preparation

- Any dismantling of a BEV, PHEV or Hybrid vehicle must be performed by trained personnel.
- Prior to any processing or dismantling of a Hybrid or BEV the employee must review the work order and assess all possible hazards before continuing. All relevant information including any potential hazards must be included on the work order and/or communicated to the employee prior to commencement.
- Cones, caution tape and signage should be used to mark off the designated High Voltage area where work on the vehicle will be performed.
- Always follow manufacturer's recommended procedures for safety disconnects and battery removal.
- All safety equipment such as HV insulated gloves, CAT3 voltmeter, and shepherds hooks should be within reach of the dismantler before any work is performed.
- Ensure HV battery has been disabled and keep the battery disconnect interlocks away from the vehicle and stored away from bystanders.

Removal of HV Battery

- Disconnect the 12v battery before removing the HV battery and disconnecting the HV cables.
- Wear HV insulated gloves and verify there is no HV potential before working on the system by using a CAT3 voltmeter. HV gloves must be tested before each use.
- Drain and dispose of coolant from the battery cooling system if present.
- A vehicle lift hoist must be used when removing a battery from a vehicle that has the HV battery mounted to the undercarriage.
- For BEVs, or PHEVs that have the HV battery fastened to the undercarriage, a powertrain lift must be used to safely lower the battery down and out of the vehicle. A pallet should be placed between the lift and the battery to allow a forklift to transport the battery to the storage area. The battery should be strapped to the pallet before lifting it with a forklift.



Prepare for Storage

- Hybrid vehicles with smaller batteries can be lifted out with the help of a co-worker. Larger Hybrid batteries inside the vehicle may need the use of an engine hoist to pull the battery out of the engine compartment.
- Move the battery to the designated HV battery storage area immediately after removal from the vehicle. See Moving a Hybrid or BEV manually on the ground or with a forklift p 65 in Guidelines.
- Never leave a vehicle with a partially removed HV battery inside the building overnight. Complete the removal process before leaving the vehicle unattended for any extended length of time.

