

Subject: Vehicle Inspection Check List

Issue Date: October 26, 2023 (Revised December 19,2023)

Units Affected:

- Hauler Pro ELiTE LSV
- Hauler Pro ELiTE
- Hauler Pro X ELiTE
- Refresher Oasis ELiTE

Date Range: November 01, 2021 – November 18, 2023

Serial No. Range: 3545402 – 3624704

Tools Needed:

Curtis Handheld Programmer	Flashlight
Battery Diagnostic Tool	Permanent Marker
Torque Wrench	

IMPORTANT Each vehicle inspected must be documented on a warranty claim, recording the following:

- vehicle serial number
- description of damage detected (if any)
- reference to this service bulletin (FSB03-23)

A. GENERAL INSPECTION

1. Battery pack should be generally clean; free of foreign substances and debris.
2. Inspect routing and general condition of wiring harnesses. Look for pinched wires or other potential signs of damage to harness.

B. COMPOSITE MODULE

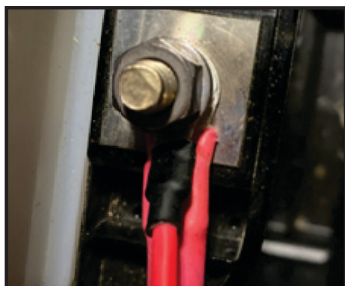
1. Top positive (+) and negative (-) terminals should be tight and free of corrosion. Correct torque is 80.5 in.lbs ±22 (9.1Nm ±2.5).
2. Inspect the wires on each battery terminal. Terminals should not be stacked; they should be clocked from each other.

- d. Check voltage across the top pos (+) and neg (-) terminals. Voltage should be less than 0.25VDC.
- e. If voltage is greater than 0.25VDC, remove battery pack from service and contact TSV for further instructions.
4. Twin and triple packs only:
 - a. Verify that bus bars are:
 - installed
 - torqued to 18 ft.lbs ±1.8 (24.5Nm ±2.5)
 - protective cover caps are installed on positive terminals
5. Verify that the communication(s) cable is installed and clean.
 - a. Check terminal connections are sealed properly.
 - b. Remove the connector and check for seal in connector.
 - c. Make sure there is no corrosion on the pins of the battery or sockets in the connector:

CORRECT



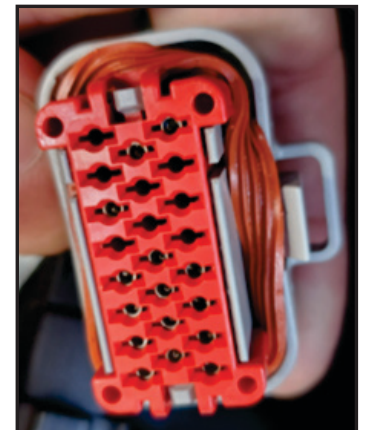
INCORRECT



CORRECT



INCORRECT



3. Verify function of the battery pack relay:
 - a. Turn the key switch to OFF.
 - b. Disconnect the charger.
 - c. Put the run/tow switch in TOW.

C. VISUAL INSPECTION OF BATTERY CASE(S)

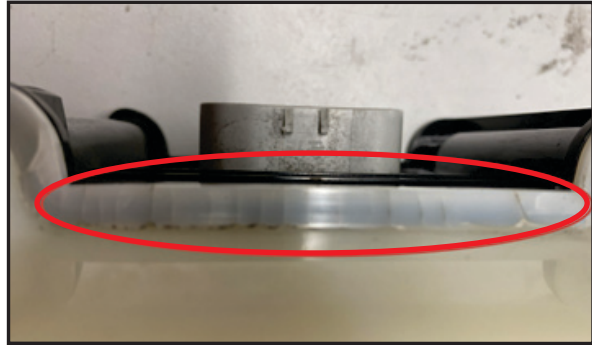
IMPORTANT

If battery case(s) have been previously inspected and no damage was detected, verify by reinspecting and then loosen the six hold down bolts 1/2 – 3/4 turn.

1. Use a damp (not dripping) rag to clean perimeter of the battery case top.
2. Inspect overall case for signs of damage.

NOTICE: *Using a small flashlight (or cell phone light) around the edges will make any cracks easier to see.*

3. Inspect for cracks around the perimeter of the battery case, where the two case halves are joined.
4. If cracks are detected:
 - a. Remove vehicle from service.
 - b. Contact TSV for replacement battery pack.
 - c. When new battery pack is installed, tighten the six hold down bolts to 35 in.lbs (4Nm).
5. If no cracks are detected:
 - a. Loosen the six hold down bolts 1/2 - 3/4 turn or loosen the six mounting bolts 2 to 3 turns and re-torque to 35 in.lbs (4Nm).



D. MOTOR CONTROLLER

IMPORTANT *This step is required only if the composite module was determined to be compromised in Step C. If the composite module shows no signs of damage, proceed to Step E.*

Check error codes on motor controller. If codes are present, capture CPF (or CDF on F-Series).

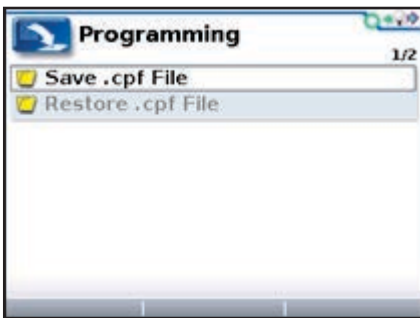
IMPORTANT *Email CPF or CDF files to the warranty inbox at ezgowarranty@textron.com.*

1. CPF - if the vehicle is equipped with a 1234SE controller (white diagnostic connector)

- Connect the Curtis 1313 handset.
- Navigate to the programming icon.



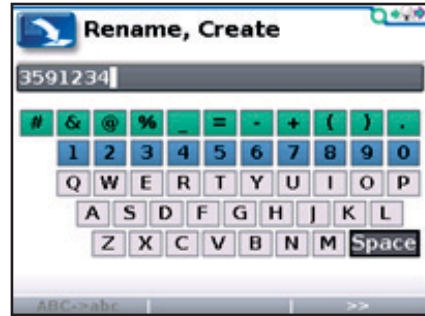
- Select save .cpf file.



- Press save CPF.



- Choose file location.
- Enter the vehicle serial number as shown as the file-name.
- Press OK and allow file save to complete.

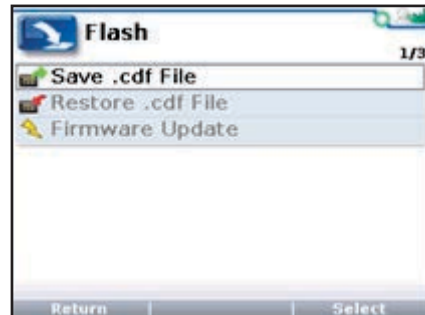


2. CDF - if vehicle is equipped with an F4 controller (orange diagnostic connector)

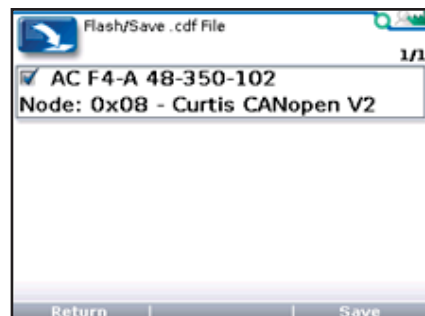
- Connect the Curtis 1313 handset.
- Press devices and connect to the F4 controller.
- Navigate to the flash icon.



- Select save .cdf file.



- Press the + button to check the F4 controller in the list and press save.



- f. Choose file location.
- g. Enter the vehicle serial number as shown as the file-name.



- h. Press OK and allow file save to complete.

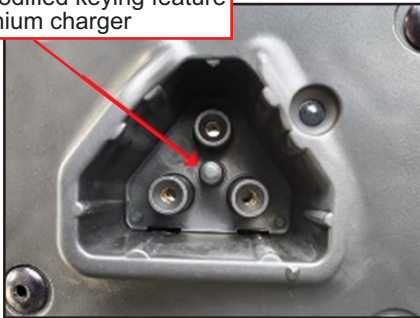
E. OFF-BOARD CHARGER

- 1. Verify lithium specific charger is in use. Charger paddle will be green.
- 2. Inspect the general condition of the charger:
 - Inspect case for signs of damage.
 - Inspect both cords for signs of damage.
 - Inspect the charger paddle for damage or terminal corrosion.

F. CHARGER RECEPTACLE

- 1. Inspect the charger receptacle for any thermal deformation.
- 2. Verify that receptacle is a lithium receptacle.
- 3. Verify that receptacle has not been modified.

Unmodified keying feature of lithium charger



G. BDT FILE

- 1. Download BDT file from each battery pack.
- 2. Provide the following:
 - 1. Vehicle Serial No:
 - 2. Vehicle Location:
 - 3. Issued date:
 - 4. Problem Description **FSB03-23**
 - 4.1 No charging (O,X):
 - 4.2 Not enough capacity (O,X):
 - 4.3 Cell module's voltage:
 - 4.4 Others (needs to describe symptom):
 - 5. Action of Service man:

IMPORTANT

Be sure to capture the vehicle serial number correctly and reference FSB03-23 as the problem description.

- 3. E-mail the BDT file to Samsung through the application. Put FSB03-23 in the e-mail subject line.

H. MARK INSPECTED BATTERY PACK AND RETURN TO OPERATION

Record the date of inspection on the battery pack with a permanent marker.



Vehicle can return to normal charging and storage after inspection is complete and the appropriate corrective action is taken.

CONTACT INFORMATION:

1-800-438-3946
ezgowarranty@textron.com

Repair as required

Inspect, report and repair as required

Repair and report by control card

Control cards attached

Standard warranty applies

Informational only

Enter warranty claim using part number: WAHLR

Refer to page 1 for information that must be included on the warranty claim.

Labor: 20 minutes/car

Mileage: Upon request

DEALER/DISTRIBUTOR WARRANTY CASE ENTRY EXAMPLE:

* Serial Number/VIN ⓘ
3578937

* Part Number ⓘ
WAHLR

Serialized Part? ⓘ

* Quantity ⓘ
20

Amp Hours/Odometer Reading ⓘ

Labor Minutes ⓘ

Additional Charges ⓘ

Failure Reason/Comments ⓘ
FSB 03-23 Inspection