SAFETY RECALL NORTH AMERICA Loss of Motive Power

Reference: 65A / NHTSA 23V-412



FCA US LLC

Remedy available for

2022 (WL) Jeep Grand Cherokee and Grand Cherokee L 4Xe PHEV vehicles

		Template Version 1
Revision	Edition	Detail
0	June 2023	Initial Version.

SYMPTOM DESCRIPTION

An engine shut down condition on about 12,450 of the above vehicles may be caused by diagnostic reactions to faults caused by loss of communication between the Transmission Control Module and the Hybrid Control Processor. An engine shut down condition may result in an unexpected loss of motive power while driving, which may cause a vehicle crash without prior warning.

SCOPE

This recall applies only to the above Plug-in Hybrid Electric Vehicles (PHEV) equipped with a 2.0L engine (Sales Code ECX).

NOTE: Some vehicles above may have been identified as not involved in this recall and therefore have been excluded from this recall.

IMPORTANT: Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

REPAIR TO BE PERFORMED

Update the calibration software in the Transmission Control Module Powertrain Control Module, Hybrid Control Processor and Auxiliary Hybrid Control Processor.

ALTERNATE TRANSPORTATION

Dealers should attempt to minimize customer inconvenience by placing the owner in a loaner vehicle if the vehicle must be held overnight

COMPLETION REPORTING / REIMBURSEMENT

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims paid will be used by FCA to record recall service completions and provide dealer payments.

Use the following labor operation numbers and time allowances:

Labor Description	Number	Hrs
Inspect PCM, TCM, and HCP Module Software Levels	18-65-A1-81	0.2
Inspect and Reprogram Module(s) - Includes Contactor Routine	18-65-A1-82	0.2

Related Operations

Labor Description	Number	Hrs
Reprogram PCM Software	18-65-A1-51	0.2
Reprogram TCM Software	18-65-A1-52	0.1
Reprogram HCP / AHCP	18-65-A1-53	0.2
Software		

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

PARTS INFORMATION

No parts are required to perform this service procedure.

PARTS RETURN

No parts return required for this campaign.



SPECIAL TOOLS

Number	Description
NPN	wiTECH MicroPod II / MDP
NPN	Laptop Computer
NPN	wiTECH Software

DEALER NOTIFICATION

To view this notification on DealerCONNECT, select "Global Recall System" on the Service tab, then click on the description of this notification.

OWNER NOTIFICATION / SERVICE SCHEDULING

All involved vehicle owners known to FCA are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

VEHICLE LISTS, GLOBAL RECALL SYSTEM, VIP AND DEALER FOLLOW UP

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name,

address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the "**Service**" tab and then click on "**Global Recall System**." Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

Dealers must perform this repair on all unsold vehicles before retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations FCA US LLC.



SERVICE PROCEDURE

NOTE: The wiTECH scan tool must be used to perform this Safety Recall. The wiTECH software is required to be at the latest release level before performing this procedure.

NOTE: For ALL model year vehicles, the Hybrid Control Processor (HCP) and Auxiliary Hybrid Control Processor (AHCP), Powertrain Control Module (PCM), and Transmission Control Module (TCM) must be updated to the latest available software calibration level at the completion of this recall.

NOTE: If this software update flash process is interrupted/aborted, the flash should be restarted.

NOTE: It is normal for the high voltage charging lamp on the dash to flash like there is a charging system failure while performing software updates.

- 1. Install a battery charger and verify that the charging rate provides 13.0 to 13.5 volts. Do not allow the charger to time out during the flash process. Set the battery charger timer (if so equipped) to continuous charge.
- 2. Connect the wiTECH MDP to the vehicle data link connector
- 3. Place the ignition in the "**RUN**" position.
- 4. Open the wiTECH 2.0 website.
- 5. Enter your "User id" your "Password" and your "Dealer Code", then select "Finish" at the bottom of the screen.
- 6. Starting at the "Vehicle Selection" screen, select the vehicle to be updated.
- 7. From the "Action Items" screen, select the "All Flashes" tab. Inspect if new software flashes are available for the "HCP" and/or "PCM" and/or "TCM".
 - If none of the listed modules have new software available, then proceed to Step 31 and claim the inspection LOP to complete this recall.
 - > If one or more modules have new software available, then continue with **Step 8**.
- 8. Create a Vehicle Scan Report (VSR) before proceeding with software updates.
- 9. Ensure there are no current DTCs that could cause concern with modules being flashed. If any questions, please share the VSR with the STAR center.
- 10. Using wiTECH, from the topology screen select the Battery Pack Control Module (BPCM) icon. Under the "Misc Functions" tab select "Disable HV Battery Contactors" and follow screen prompts.
- 11. Confirm contactors open using wiTECH. (If contactors do not open key on and key off the vehicle). Once successful a note will appear on the wiTECH screen indicating that contactors are now open.

IMPORTANT: To prevent Diagnostic Trouble Code (DTC) P0AA4 from setting, wait 5 minutes after verifying BPCM high voltage battery contactors are disabled before proceeding with software update.



NOTE: The PIM contains two processors, Hybrid Control Processor (HCP) and Auxiliary Hybrid Control Processor (AHCP). The HCP and AHCP are combined into one PIM software update. The software update must begin with updating the HCP. The AHCP will update immediately following the HCP.

- 12. From the "Action Items" screen, select the "All Flashes" tab.
 - Select "HCP" by clicking the arrow on the right side of the screen. Read the special flash instructions, then select "OK". Continue with Step 13.
 - If "HCP" is not displayed as one of the available flashes, the PIM software is already at the current software level and does not require updating. Proceed to Step 17.
- 13. From the "Flash ECU Agreement" page, agree to terms by "Checking the Box".
- 14. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.
- 15. Once the software is confirmed to be at the latest available calibration level, select "View DTCs".
- 16. Select the "Clear All DTCs" tab, then click "Clear All DTCs" and then select "Close". It may be necessary to cycle the ignition OFF to RUN to clear the codes.
- 17. From the "Action Items" screen, select the "All Flashes" tab.
 - Select "PCM" by clicking the arrow on the right side of the screen. Read the special flash instructions, then select "OK". Continue with Step 18.
 - If "PCM" is not displayed as one of the available flashes, the PCM software is already at the current software level and does not require updating. Proceed to Step 22.
- 18. From the "Flash ECU Agreement" page, agree to terms by "Checking the Box".
- 19. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.
- 20. Once the software is confirmed to be at the latest available calibration level, select "View DTCs".
- 21. Select the "Clear All DTCs" tab, then click "Clear All DTCs" and then select "Close". It may be necessary to cycle the ignition OFF to RUN to clear the codes.
- 22. From the "Action Items" screen, select the "All Flashes" tab.
 - Select "TCM" by clicking the arrow on the right side of the screen. Read the special flash instructions, then select "OK". Continue with Step 23.
 - If "TCM" is not displayed as one of the available flashes, the TCM software is already at the current software level and does not require updating. Proceed to Step 27.
- 23. From the "Flash ECU Agreement" page, agree to terms by "Checking the Box".
- 24. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.
- 25. Once the software is confirmed to be at the latest available calibration level, select "View DTCs".
- 26. Select the "Clear All DTCs" tab, then click "Clear All DTCs" and then select "Close". It may be necessary to cycle the ignition OFF to RUN to clear the codes.



- 27. Using wiTECH, from the topology screen select the Battery Pack Control Module (BPCM) icon. Under the "Misc Functions" tab select "Enable HV Battery Contactors" and follow screen prompts. Once successful a message will appear on the wiTECH screen indicating that contactors are now closed.
- 28. Select the "Clear All DTCs" tab, then click "Clear All DTCs" and then select "Close". It may be necessary to cycle the ignition OFF to RUN to clear the codes.
- 29. Verify the contactors are working listen for a clicking noise when contactors open and close when the vehicle ignition is cycled on and off.
- 30. Generate a VSR to ensure P0AA4/P0AA1 or any DTC is not active or pending.
- 31. Turn the ignition to the "OFF" position and then remove the wiTECH micro pod II device from the vehicle.
- 32. Remove the battery charger from the vehicle.
- 33. Return the vehicle to the customer or inventory.