



NUMBER: 21-032-22

GROUP: 21 - Transmission and Transfer Case

DATE: October 22, 2022

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SUBJECT:

Harsh Transition From Electric to Hybrid Mode

OVERVIEW:

This bulletin involves performing a transmission quick learn with wiTECH.

MODELS:

2022 - 2023 (WL) Jeep Grand Cherokee

NOTE: This bulletin applies to vehicles within the following markets/countries: North America, South America, India/Asia Pacific, Middle East/Africa, and Enlarged Europe.

NOTE: This bulletin applies to vehicles built on or before November 01, 2022 (MDH 1101XX) equipped with the 2.0L I4 DOHC DI Turbo PHEV Engine (Sales Code ECX) and 8-Speed Auto 8P75PH PHEV Transmission (Sales Code DFY).

SYMPTOM/CONDITION:

Customers may experience one or more of the following:

- Harsh Shift
- Abrupt or harsh transition from Electric Vehicle to Hybrid Engine mode.

DIAGNOSIS:

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in DealerCONNECT/Service Library, verify all related systems are functioning as designed. If Diagnostic Trouble Codes (DTCs) or symptom conditions, other than the ones listed above are present, record the issues on the repair order and repair as necessary before proceeding further with this bulletin.

If the customer describes the symptom/condition listed above, perform the Repair Procedure.

REPAIR PROCEDURE:

NOTE: The transmission oil temperature must be above 60° C (140° F) and transmission oil level must be full before performing the adaptation procedure.

NOTE: The High Voltage (HV) battery State Of Charge (SOC) must be always above 20% and below 80% while performing this procedure. If the HV battery is below 20%, charge the battery before continuing.

1. Does the vehicle have more than 500 miles on the odometer?
 - YES>>> This bulletin does not pertain. Further diagnosis needs to be performed.
 - NO>>> Proceed to [Step 2](#).
2. Using wiTECH ensure the transmission temp is above 60° C (140° F)

NOTE: If the HV battery voltage is over 80% drive the vehicle in “ELECTRIC” mode until the voltage drops under 80%. This will also aid in warming up the transmission to proper operating temp.

3. Check the HV battery State of Charge (SOC) is above 20% and below 80%. This can be found in the Instrument Panel Cluster (IPC).
4. Using wiTECH create a vehicle scan report.
5. Ensure the vehicle is in HYBRID mode on the left side switch bank.
6. Using wiTECH, record the K0 Filling Counter and K0 Fast filling Counter. This can be found in Transmission Control Module (TCM) Misc Functions in PHEV Quicklearn, Read Adaptives ([Fig. 1](#)).

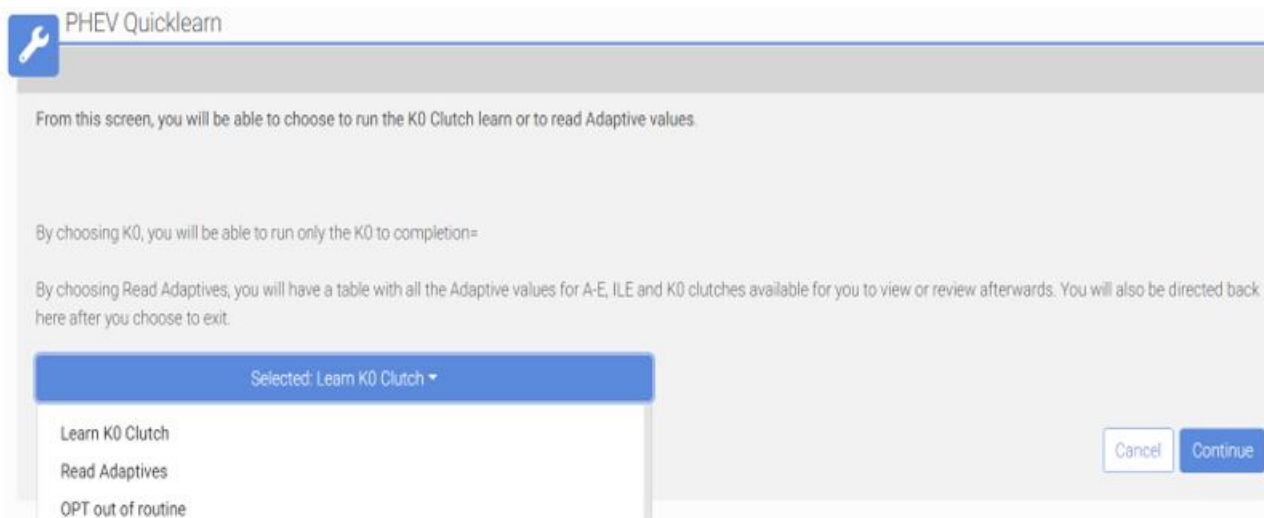


Fig. 1
PHEV Quicklearn

7. Now select “Learn K0 Clutch”. Follow prompts in wiTECH to complete the Learn K0 Clutch procedure.
8. Upon successful completion of the Learn K0 Clutch procedure, verify the new K0 Filling Counter and K0 Fast filling Counter are both 1. Record all four K0 values found in TCM Misc Functions > PHEV Quicklearn > Read Adaptives.
9. Clear all DTCs that may have been set.

NOTE: Before the test drive go into the radio E-Hybrid pages, go to the e-Save page and verify “Battery Save” is selected.

10. Test drive the vehicle to ensure the customer concerns have been corrected. Put the vehicle into “e-save” mode, engine should not be running when starting the test drive. Drive until the engine begins to run.

11. Have the customer concerns be corrected?

- YES>>> This bulletin has been completed return the vehicle to the customer.
- NO>>> Further Diagnostic will be needed.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
18-19-05-RS	Module, Transmission Control (TCM) PHEV Quicklearn (0 - Introduction)	2 - Automatic Trans-mission	0.9 Hrs.

FAILURE CODE:

The dealer must use failure code CC with this Technical Service Bulletin.

- If the customer’s concern matches the SYMPTOM/CONDITION identified in the Technical Service Bulletin, failure code CC is to be used.
- When utilizing this failure code, the 3C’s (customer’s concern, cause and correction) must be provided for processing Technical Service Bulletin flash/reprogramming conditions.

CC	Customer Concern
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