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Case Number: S2203000004 REV. A

Release Date: December 2022

Symptom/Vehicle Issue: Service 4wd Light/Message Illuminated. Diagnostic Trouble Codes (DTCs) C149D-54 – Clutch Calibration Not Learned – Missing Calibrations, And/Or C149D-55 – Clutch Calibration Not Learned – Not Configured, Set After Drivetrain Control Module (DTCM) Reprogramming.

Discussion: A technician may encounter an issue where the Service 4wd message is illuminated immediately after performing a software update on the DTCM. Upon further investigation the technician may find DTCs C149D-54, and/or C149D-55 setting active in the DTCM and will not clear. The vehicle may not have had these DTCs set prior to performing the software update.

If a technician encounters this issue, please perform the following repair procedure to clear the DTCs.

Repair Procedure:

1. Using wiTECH, navigate to the DTCM “Data Tab” and record the Gearbox Class Field ID number located under the Transfer Case Classification data group. Does it display “Undefined”
 - a. Yes>>> Proceed to (Step 2).
 - b. No>>> Proceed to (Step 6).
2. Properly raise and support the vehicle.
3. Record the engraved numbers located on the side of the rear housing of the transfer case. For 1-speed transfer cases, there will be one, 4-digit number

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Contact STAR Center, or your Technical Assistance Center Via TechConnect, eCONTACT or Service Library entry if no solution is found.



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starting with an H. For 2-speed transfer cases, there will be two, 4-digit numbers starting with an “H” and “L”. Please see (Figure 1).



Figure 1.

- Using wiTECH, navigate to the DTCM “Misc Functions” tab and perform the “Program Transfer Case Classification Code” routine. Select 1-speed or 2-speed depending on the transfer case system the vehicle is equipped with.

NOTE: Vehicles equipped with 2-speed transfer case systems have a selectable 4-low range. 1-speed transfer case systems do not.

- Follow all onscreen prompts and enter the classification number(s) recorded in step 3.

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NOTE: If the classification routine times out, record the Gearbox Class Field ID number again as indicated in (step 1). It should read a valid 4-digit number. If it still reads undefined, repeat (step 4) before proceeding.

6. Using wiTECH, navigate to “Guided Diagnostics” tab in the left-hand menu.
7. Perform the “Reset ECU” routine and reset the DTCM.
8. Attempt to clear the DTCs. Were DTCs C149D-54 and C149D-55 able to be cleared.
 - a. Yes>>> Proceed to (Step 9).
 - b. No>>> Further diagnosis is required. Please contact the Star Center for additional diagnostic support.
9. Using wiTECH, navigate to the DTCM “Misc Functions” tab and perform the “DTCM Calibration” routine. Follow all on-screen prompts.
10. Perform a complete power down cycle on the vehicle by performing the following steps.
 - a. Turn off the ignition.
 - b. Disconnect wiTECH.
 - c. Remove all keys from the vehicle.
 - d. Open and close the driver’s door.
 - e. Wait 1-5 minutes until the vehicle times out. The PRNDL display in the cluster will turn off indicating the vehicle has timed out.

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