



## STAR ONLINE PUBLICATION



**Case Number: S1721000016 REV. A**

**Release Date: October 2023**

**Symptom/Vehicle Issue:** Service 4wd Light On, AWD System Service Required Message Illuminated. Diagnostic Trouble Code (DTC) C14A7-97 PTU Motor Component Or System Operation Obstructed Or Blocked, Set.

**Discussion:** Some customers may experience a Service 4wd light and/or AWD System Service Required message. Upon further investigation, the technician may find DTC C14A7-97 setting in the Drivetrain Control Module (DTCM).

If the technician is working on a vehicle with the above condition, please perform the repair procedure below.

### **Repair Procedure:**

1. Remove the Power Transfer Unit (PTU) Shift Actuator. For detailed repair instructions, refer to Service Library Service Information Section 21 – Transmission and Transfer Case > Power Transfer Unit > Actuator, Shift > Removal and Installation.

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

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



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2. Inspect the PTU Mode/Range shaft splines and collar(s) (**Figure 1**) for any damage or debris that could cause a blockage or restricted movement. Were any signs of debris or damage found?
  - a. Yes>>> Replace the PTU assembly.
  - b. No>>> Replace just the shift actuator motor and reinstall the PTU assembly.



**Figure 1**

**Verification:** Test drive the vehicle to ensure proper shifting and absence of the DTC. The active C14A7-97 should go stored and be able to be cleared.

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