

#0414
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SUBJECT: Procedure to Clear DTC P0897 If Prognostics Features Disabled with 4th Generation Controls

MODELS AFFECTED: 1000, 2000, 3000, 4000 Series Product Family Transmissions

Description:

Allison 4th Generation Controls may activate Diagnostic Trouble Code (DTC) P0897 even after Prognostics has been disabled. This can occur if Prognostics has been disabled after the **TRANS SERVICE** indicator has illuminated for expired fluid and there has been 100 hours or less of run time. If Prognostics is disabled prior to the **TRANS SERVICE** indicator coming on for expired fluid, DTC P0897 will not set.

Action:

Perform the following procedures to clear an active DTC P0897 in vehicles that have the Prognostic Feature disabled:

1. Enable the Prognostics Feature.
2. Reset the Oil Life Monitor (OM).
3. Disable Prognostics Feature.

Prognostic Feature Procedures:



NOTE: The vehicle OEM specifies whether specific shift selector sequences enable, disable, or reset Prognostic Features. If features cannot be enabled, disabled, or reset via the shift selector, contact an Allison Dealer or Distributor to modify Prognostic Features and settings with Universal Allison DOC®.

Expired Oil Life (OM) Notification

The **TRANS SERVICE** indicator illuminates in the dash and/ or Allison 3000-4000 shift selector (wrench icon) when remaining fluid life reaches approximately 1-2%. Afterwards, every time the vehicle is started and **D** (Drive) is selected, the **TRANS SERVICE** indicator illuminates again and stays on for two minutes to remind the operator a fluid change is needed. This occurs until service is performed and the OM is reset. Failure to perform maintenance and reset the **TRANS SERVICE** indicator within a defined period will result in the illumination of the **CHECK TRANS** light and an active DTC P0897.

Enable Prognostics Feature:

The Prognostics feature may be enabled via the 1000/2000 and 3000/4000 shift selector by the following method:

1. Set the vehicle brakes to prevent movement of the vehicle.
2. With engine off, turn the ignition ON (do not start the engine). Wait for initialization to complete (wait for N-N to display in the selector for 3000-4000).

3. Move the lever selector or press the keypad (pushbutton) through the following sequence of range positions, pausing no more than three (3) seconds between consecutive shifts: N-D-N-R-N-D-N-R-N-D-N-R-N.
4. Watch for the **TRANS SERVICE** indicator (wrench icon in the 3000-4000 shift selector display) to illuminate and then turn off. This indicates that the operator has successfully enabled the Allison Prognostics Feature. If another **TRANS SERVICE** indicator is installed in the dash or incorporated in an OEM message display, it should also briefly illuminate in similar fashion as the **TRANS SERVICE** indicator.

Disable Prognostics Feature:

The Prognostics feature may be disabled via the shift selector by the following method:

1. Set the vehicle brakes to prevent movement of the vehicle.
2. With engine off, turn the ignition ON (do not start the engine). Wait for initialization to complete (wait for N-N to display in the selector).
3. Move the lever selector or press the keypad (pushbutton) through the following sequence of range positions, pausing no more than three (3) seconds between consecutive shifts: N-D-N-R-N-D-N-R-N-D-N-R-N.
4. Watch for the **TRANS SERVICE** indicator located in the shift selector display to illuminate and then turn off. This indicates that the operator has successfully enabled the Allison Prognostics Feature. If another **TRANS SERVICE** indicator is installed in the dash or incorporated in an OEM message display, it should also briefly illuminate in similar fashion as the **TRANS SERVICE** indicator.

Prognostics Indication At Engine Start:

Once Prognostics is monitoring the system, normal operation at engine start is as follows:

1. A system bulb check illuminates the **TRANS SERVICE** indicator located in the shift selector display for approximately 0.5 seconds.
2. If Prognostics Feature is enabled, the **TRANS SERVICE** indicator illuminates again for 3 seconds after the bulb check.
3. If Prognostics Feature is disabled, the **TRANS SERVICE** indicator does not illuminate again after the bulb check.

Read OM % left (3000-4000 Prognostics Shift Selector only):

- With engine off and ignition ON, push the **DISPLAY MODE/DIAGNOSTIC (DMD)** button twice on a lever selector to enter OM mode.
- With engine off and ignition ON, push the ↑ (Upshift) and ↓ (Downshift) arrows simultaneously twice on a keypad pushbutton selector to enter OM mode.
- The oil life remaining is displayed as a percentage between 0 and 99 in the shift selector display window.

Reset OM for 1000-2000 and 3000-4000:

The OM may be reset back to 99% by these methods:

- For 3000-4000, display the OM information in the shift selector, then press and hold the **MODE** button for 10 seconds.
- For 1000-2000 and 3000-4000, with ignition ON and the engine off, shift between N-D-N-D-N-R-N pausing no more than 3 seconds between consecutive shifts.

The **TRANS SERVICE** indicator will illuminate briefly following a reset to acknowledge the reset was successful.



NOTE: The issue outlined in this document is not an Allison Transmission, Inc. defect in material or workmanship. Time and material used to diagnose and/or address this issue by an Allison distributor or dealer will not be compensated by Allison Transmission, Inc. through any warranty or policy claim process.
