

#08-07-30-008B: Diagnostic Information on Diagnostic Trouble Code (DTC) P0894 and P1870 - (Jun 3, 2008)

Subject: Diagnostic Information on Diagnostic Trouble Code (DTC) P0894 and P1870



Models: 2003-2007 GM Passenger Cars and Light Duty Trucks
2003-2007 HUMMER H2
2006-2007 HUMMER H3
2005-2007 Saab 9-7X
with 4L60-E, 4L65-E or 4L70-E Automatic Transmission (RPOs M30, M32 or M70)

This bulletin is being revised to remove the 2002 model year. Please discard Corporate Bulletin Number 08-07-30-008A (Section 07 -- Transmission/Transaxle).

Diagnostic trouble codes (DTC) P0894 and P1870, Transmission Component Slipping, may have different root causes. The following diagnostic tips are provided to assist in accurately repairing the condition.

- Corporate Bulletin Number 06-07-30-007 is intended for 2006 vehicles only. This bulletin provides diagnostic procedures to determine if the TCC enable solenoid is cracked.
- Slip speeds ranging from approximately 100 to 400 RPM at steady state light load driving are usually caused by the TCC not applying.
- Slip speeds greater than about 400 RPM at steady state driving are usually caused by a slipping clutch or band. Inspect the oil pan for the presence of excess clutch debris.
- A plugged or restricted TCC apply fluid orifice (238, located in the pump) may cause DTC P0894 or P1870, especially in low mileage vehicles with less than 8,000 km (5,000 mi).
- A converter clutch valve (224, located in the pump), which does not have full travel of 13 mm (0.5 in) or is stuck in the off position may cause DTC P0894 or P1870. Inspect the valve for chips, debris, nicks or burrs. Also, inspect the springs (225 and 226) to make sure they are not limiting valve travel. A spring that is not fully wound may catch in the bore, limit valve travel and cause DTC P0894 or P1870.
- A cut, damaged or missing turbine shaft O-ring seal (615) may cause these DTCs. When installing this O-ring to the turbine shaft, make sure it is fully seated on the groove all the way around the turbine shaft and can be easily rotated with the thumb and forefinger. Failure to fully seat this O-ring may result in cutting when the torque converter is installed.
- A cracked or leaking TCC solenoid (part of harness 66) may cause DTC P0894 or P1870. Use solenoid test kit J 44246 to test the operation of this solenoid.
- A cracked or leaking TCC PWM solenoid (396) may also cause DTC P0894 or P1870.
- If the vehicle has 24,000 miles (38,600 km) or more, and diagnostics have not determined another cause of the DTC, the torque converter should be replaced.

When attempting to diagnose a DTC P0894 or P1870, it is important to also refer to the appropriate Service Information (SI) document for further possible causes of this condition.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.