

# P0969-P0971 Clutch Pressure Control (PC) Solenoid 3 Control Circuit

## Diagnostic Instructions

- Perform the Diagnostic System Check – Vehicle on page 6-60 prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis on page 6-57 for an overview of the diagnostic approach.
- Diagnostic Procedure Instructions on page 6-58 provides an overview of each diagnostic category.

## DTC Descriptors

**DTC P0969:** Clutch Pressure Control (PC) Solenoid 3 System Performance

**DTC P0970:** Clutch Pressure Control (PC) Solenoid 3 Control Circuit Low Voltage

**DTC P0971:** Clutch Pressure Control (PC) Solenoid 3 Control Circuit High Voltage

## Circuit/System Description

The clutch pressure control (PC) solenoid 3 is part of the control solenoid (w/body and TCM) valve assembly and is not serviced separately. The TCM supplies 12 volts to the clutch PC solenoid 3 on the high side driver 2 circuit. The TCM controls the clutch PC solenoid 3 through the clutch PC solenoid 3 control circuit. The normally high clutch PC solenoid 3 flows fluid to the low and reverse clutch and 4-5-6 clutch assemblies when commanded ON and exhausts fluid when commanded OFF. The clutch PC solenoid 3 regulates the transmission fluid pressure to the low and reverse clutch and 4-5-6 clutch assemblies.

## Conditions for Running the DTC

- The engine speed is greater than 500 RPM for 5 seconds.
- The ignition voltage is between 8.6 volts and 19.0 volts.

## Conditions for Setting the DTC

### P0969

The TCM detects an invalid voltage in the clutch PC 3 solenoid control circuit for 4.4 seconds in a 5.0 second sample.

### P0970

The TCM detects low voltage on the clutch PC solenoid 3 control circuit for 300 milliseconds in a 375 millisecond sample.

### P0971

The TCM detects high voltage on the clutch PC solenoid 3 control circuit for 300 milliseconds in a 375 millisecond sample.

## Action Taken When the DTC Sets

### P0969

- DTC P0969 is a Type C DTC.
- The TCM freezes transmission adaptive functions.

### P0970

- DTC P0970 is a Type A DTC.
- The TCM defaults the transmission to 3rd gear if the current gear is 1st, 2nd, or 3rd, or 5th gear if the current gear is 4th, 5th, or 6th gear.
- The TCM inhibits torque converter clutch (TCC).
- The TCM commands maximum line pressure.
- The TCM freezes transmission adaptive functions.

### P0971

- DTC P0971 is a Type A DTC.
- The TCM defaults the transmission to 3rd gear if the current gear is 1st, 2nd, or 3rd, or 5th gear if the current gear is 4th, 5th, or 6th gear.
- The TCM inhibits torque converter clutch (TCC).
- The TCM commands maximum line pressure.
- The TCM freezes transmission adaptive functions.

## Conditions for Clearing the DTC

- DTC P0969 is a Type C DTC.
- DTCs P0970 and P0971 are Type A DTCs.

## Reference Information

### Description and Operation

Transmission General Description on page 17-278

### DTC Type Reference

Powertrain Diagnostic Trouble Code (DTC) Type Definitions on page 6-61

### Scan Tool Reference

Control Module References on page 6-1 for scan tool information

## Circuit Verification

- 1). Ensure the transmission fluid temperature is between 50–80°C (122–176°F).
- 2). Perform the Control Solenoid Valve and Transmission Control Module Assembly Cleaning on page 17-99 to dislodge debris and free up the valves.
- 3). Operate the vehicle in 2nd gear long enough to ensure at least a 3°C (5°F) rise in TCM temperature, then operate the vehicle in Park for 5 seconds.
- 4). Operate the vehicle within the Conditions for Running the DTC to verify the DTC does not reset. You may also operate the vehicle within the conditions that you observed from the Freeze Frame/Failure Records data.

If the DTC does not reset, replace the control solenoid (w/body and TCM) valve assembly.

## Repair Instructions

### Important:

- Perform the Service Fast Learn Adapts on page 17-102 following all transmission related repairs.
- Before replacing the TCM, perform the Control Solenoid Valve and Transmission Control Module Assembly Inspection on page 17-98. Perform the Diagnostic Repair Verification on page 6-86 after completing the diagnostic procedure.
- Control Solenoid Valve and Transmission Control Module Assembly Cleaning on page 17-99
- Control Module References on page 6-1 for control solenoid (w/body and TCM) valve assembly replacement, setup, and programming