



Pressure Switch

A/T Clutch Pressure Control Solenoid Valve B Test

1. Connect the HDS to the DLC (A).



- *: This illustration shows LHD model.A
- 2. Choose Clutch Pressure Control (Linear) Solenoid B in Miscellaneous Test Menu with the HDS. NOTE: If the HDS does not communicate with the PCM, troubleshoot the DLC circuit.
- 3. Test the A/T clutch pressure control solenoid valve B with the HDS.
 - If the valve tests OK, the test is complete. Disconnect the HDS.
 - If the valve does not test OK, follow the instructions on the HDS.
 - If the valve does not test OK, and the HDS does not determine the cause, go to 4.
- 4. Remove the air cleaner housing and air intake duct.
- 5. Remove the mounting bolts securing the harness cover (A), and remove the harness clamp (B).



6 x 1.0 mm

12 N·m (1.2 kgf·m, 8.7 lbf·ft)AB

6. Disconnect the A/T clutch pressure control solenoid valve B connector.



- 7. Measure the A/T clutch pressure control solenoid valve B resistance at the connector terminals. Standard: 3-10 Ω
 - If the resistance is out of standard, replace the A/T clutch pressure control solenoid valve B.
 - If the resistance is within the standard, go to 8.
- 8. Connect the negative battery terminal to the solenoid valve B connector terminal No. 2, and connect the positive battery terminal to the connector terminal No. 1.

В

- If a clicking sound is heard, the valve is OK. Reconnect the connector, and install all removed parts.
- If no clicking sound is heard, go to 9.
- 9. Remove the A/T clutch pressure control solenoid valve B and C.





12 N·m (1.2 kgf·m, 8.7 lbf·ft)ABCDFEDE

- 10. Remove the ATF pipe (A), ATF joint pipes (D), O-rings (E), and gasket (F).
- 11. Check the fluid passage of the solenoid valve for contamination.
- 12. Connect the negative battery terminal to A/T clutch pressure control solenoid valve B connector terminal No. 2, and connect the positive battery terminal to the connector terminal No. 1. Make sure the A/T clutch pressure control solenoid valve B moves.



13. Disconnect one of the battery terminals and check valve movement at the fluid passage in the valve body mounting surface. If the valve binds or moves sluggishly, or if the solenoid valve does not operate, replace the A/T clutch pressure control solenoid valve B and C.

В

- 14. Clean the mounting surfaces and fluid passages of the solenoid valve body.
- 15. Install the new gasket with blue side down; white side up on the transmission housing.
- 16. Install the ATF pipe and ATF joint pipes, and install the new O-rings over the ATF joint pipes.
- 17. Install the A/T clutch pressure control solenoid valve B and C.
- 18. Check the A/T clutch pressure control solenoid valve B and C connector for rust, dirt, or oil, then connect the connectors securely.

- 19. Secure the harness cover with the mounting bolts, and install the harness clamp.
- 20. Install the air intake duct and air cleaner housing.

A/T Clutch Pressure Control Solenoid Valve C Test

1. Connect the HDS to the DLC (A).



- *: This illustration shows LHD model.A
- 2. Choose Clutch Pressure Control (Linear) Solenoid C in Miscellaneous Test Menu with the HDS. NOTE: If the HDS does not communicate with the PCM, troubleshoot the DLC circuit.
- 3. Test the A/T clutch pressure control solenoid valve C with the HDS.
 - If the valve tests OK, the test is complete. Disconnect the HDS.
 - If the valve does not test OK, follow the instructions on the HDS.
 - If the valve does not test OK, and the HDS does not determine the cause, go to 4.
- 4. Remove the air cleaner housing and air intake duct.
- 5. Remove the mounting bolts securing the harness cover (A), and remove the harness clamp (B).



6 x 1.0 mm

12 N·m (1.2 kgf·m, 8.7 lbf·ft)AB

6. Disconnect the A/T clutch pressure control solenoid valve C connector.



- 7. Measure the A/T clutch pressure control solenoid valve C resistance at the connector terminals. **Standard:** 3-10 Ω
 - If the resistance is out of standard, replace the A/T clutch pressure control solenoid valve C.
 - If the resistance is within the standard, go to 8.
- 8. Connect the negative battery terminal to the solenoid valve C connector terminal No. 2, and connect the positive battery terminal to the connector terminal No. 1.

С

- If a clicking sound is heard, the valve is OK. Reconnect the connector, and install all removed parts.
- If no clicking sound is heard, go to 9.
- 9. Remove the A/T clutch pressure control solenoid valve B and C.



12 N·m (1.2 kgf·m, 8.7 lbf·ft)ABCDFEDE

6 x 1.0 mm

10. Remove the ATF pipe (A), ATF joint pipes (D), O-rings (E), and gasket (F).

11. Check the fluid passage of the solenoid valve for contamination.

12. Connect the negative battery terminal to A/T clutch pressure control solenoid valve C connector terminal No. 2, and

connect the positive battery terminal to the connector terminal No. 1. Make sure the A/T clutch pressure control solenoid valve C moves.



С

- 13. Disconnect one of the battery terminals and check valve movement at the fluid passage in the valve body mounting surface. If the valve binds or moves sluggishly, or if the solenoid valve does not operate, replace the A/T clutch pressure control solenoid valve B and C.
- 14. Clean the mounting surfaces and fluid passages of the solenoid valve body.
- 15. Install the new gasket with blue side down; white side up on the transmission housing.
- 16. Install the ATF pipe and ATF joint pipes, and install the new O-rings over the ATF joint pipes.
- 17. Install the A/T clutch pressure control solenoid valve B and C.
- 18. Check the A/T clutch pressure control solenoid valve B and C connector for rust, dirt, or oil, then connect the connectors securely.
- 19. Secure the harness cover with the mounting bolts, and install the harness clamp.
- 20. Install the air intake duct and air cleaner housing.

A/T Clutch Pressure Control Solenoid Valve B and C Replacement

- 1. Remove the air cleaner housing and air intake duct.
- 2. Remove the mounting bolts securing the harness cover (A), and remove the harness clamp (D).



(1.2 kgf·m, 8.7 lbf·ft)ADBC

- 3. Disconnect the connectors from A/T clutch pressure control solenoid valve B and C.
- 4. Remove the A/T clutch pressure control solenoid valve B and C.





12 N·m

(1.2 kgf·m, 8.7 lbf·ft)ABCDFEDE

- 5. Remove the ATF pipe (A), ATF joint pipes (D), O-rings (E), and gasket (F).
- 6. Clean the mounting surface and fluid passages of the A/T clutch pressure control solenoid valves B and C and transmission housing.
- 7. Install the new gasket with blue side down; white side up on the transmission housing.
- 8. Install the ATF pipe and ATF joint pipes, and install the new O-rings over the ATF joint pipes.
- 9. Install the A/T clutch pressure control solenoid valve B and C.
- 10. Check the A/T clutch pressure control solenoid valve B and C connector for rust, dirt, or oil, then connect the connectors securely.
- 11. Secure the harness cover with the mounting bolts, and install the harness clamp.
- 12. Install the air intake duct and air cleaner housing.

DTC P0776: A/T Clutch Pressure Control Solenoid Valve B Stuck OFF

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-4).

- Warm up the engine to normal operating temperature (the radiator fan comes on).
- 2. Make sure that the transmission is filled to the proper level, and check for fluid leaks.
- 6-
 - Drain the ATF (see step 3 on page 14-239) through a strainer. Inspect the strainer for metal debris or excessive clutch material.

Does the strainer have metal debris or excessive clutch material?

YES-Replace the transmission, then go to step 11.

- NO—Replace the ATF (see step 5 on page 14-239), then go to step 4.
- 4. Clear the DTC with the HDS.
- Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- 7. Monitor the OBD STATUS for P0776 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate FAILED?

- 11. Clear the DTC with the HDS.
- Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- 14. Monitor the OBD STATUS for P0776 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES-Troubleshooting is complete.

NO—If the HDS indicates FAILED, return to step 1 and recheck. If the HDS indicates NOT COMPLETED, return to step 12 and recheck.

DTC P0777: A/T Clutch Pressure Control Solenoid Valve B Stuck ON

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-4).

- 1. Warm up the engine to normal operating temperature (the radiator fan comes on).
- Make sure that the transmission is filled to the proper level, and check for fluid leaks.
- Drain the ATF (see step 3 on page 14-239) through a strainer. Inspect the strainer for metal debris or excessive clutch material.

YES-Go to step 8.

- 11

NO-Intermittent failure, the system is OK at this time. If the HDS indicates NOT COMPLETED, return to step 5 and recheck.

- 8. Clear the DTC with the HDS.
- Choose Clutch Pressure Control (Linear) Solenoid B in the Miscellaneous Test Menu, and test A/T clutch pressure control solenoid valve B with the HDS.

Does the HDS indicate NORMAL?

YES—Intermittent failure, the system is OK at this time. ■

NO—Follow the instructions indicated on the HDS by the test result, but if the HDS has not determined the cause of the failure, go to step 10. If any part is replaced, go to step 11.

 Inspect A/T clutch pressure control solenoid valve B (see page 14-228).

Does A/T clutch pressure control solenoid valve B work properly?

YES—Repair the hydraulic system related with shift valve B, or replace the transmission, then go to step 11.

NO-Replace A/T clutch pressure control solenoid valve B (see page 14-232), then go to step 11.

Does the strainer have metal debris or excessive clutch material?

YES-Replace the transmission, then go to step 11.

NO-Replace the ATF (see step 5 on page 14-239), then go to step 4.

- 4. Clear the DTC with the HDS.
- Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- 7. Monitor the OBD STATUS for P0777 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail. Does the HDS indicate FAILED?

YES-Go to step 8.

NO—Intermittent failure, the system is OK at this time. If the HDS indicates NOT COMPLETED, return to step 5 and recheck.

8. Clear the DTC with the HDS.

 Choose Clutch Pressure Control (Linear) Solenoid B in the Miscellaneous Test Menu, and test A/T clutch pressure control solenoid valve B with the HDS.

Does the HDS indicate NORMAL?

YES—Intermittent failure, the system is OK at this time.■

NO—Follow the instructions indicated on the HDS by the test result, but if the HDS has not determined the cause of the failure, go to step 10. If any part is replaced, go to step 11.

 Inspect A/T clutch pressure control solenoid valve B (see page 14-228).

Does A/T clutch pressure control solenoid valve B work properly?

YES—Repair the hydraulic system related with shift valve B, or replace the transmission, then go to step 11.

NO-Replace A/T clutch pressure control solenoid valve B (see page 14-232), then go to step 11.

- 11. Clear the DTC with the HDS.
- Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- 14. Monitor the OBD STATUS for P0777 in the DTCs/

- 4. Clear the DTC with the HDS.
- Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Monitor the OBD STATUS for P0796 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate FAILED?

YES-Go to step 8.

NO-Intermittent failure, the system is OK at this time. If the HDS indicates NOT COMPLETED, return to step 5 and recheck.

- 8. Clear the DTC with the HDS.
- Choose Clutch Pressure Control (Linear) Solenoid C in the Miscellaneous Test Menu, and test A/T clutch pressure control solenoid valve C with the HDS.

Does the HDS indicate NORMAL?

YES—Intermittent failure, the system is OK at this time.■

NO—Follow the instructions indicated on the HDS by the test result, but if the HDS has not determined the cause of the failure, go to step 10. If any part is replaced, go to step 11.

 Inspect A/T clutch pressure control solenoid valve C (see page 14-230).

Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES-Troubleshooting is complete.

NO—If the HDS indicates FAILED, return to step 1 and recheck. If the HDS indicates NOT COMPLETED, return to step 12 and recheck.

DTC P0796: A/T Clutch Pressure Control Solenoid Valve C Stuck OFF

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-4).

- Warm up the engine to normal operating temperature (the radiator fan comes on).
- Make sure that the transmission is filled to the proper level, and check for fluid leaks.
- Drain the ATF (see step 3 on page 14-239) through a strainer. Inspect the strainer for metal debris or excessive clutch material.

Does the strainer have metal debris or excessive clutch material?

YES-Replace the transmission, then go to step 11.

NO—Replace the ATF (see step 5 on page 14-239), then go to step 4. Does A/T clutch pressure control solenoid valve C work properly?

YES—Repair the hydraulic system related with shift valve C, or replace the transmission, then go to step 11.

NO-Replace A/T clutch pressure control solenoid valve C (see page 14-232), then go to step 11.

- 11. Clear the DTC with the HDS.
- Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- 14. Monitor the OBD STATUS for P0796 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES-Troubleshooting is complete.

NO—If the HDS indicates FAILED, return to step 1 and recheck. If the HDS indicates NOT COMPLETED, return to step 12 and recheck.

DTC P0797: A/T Clutch Pressure Control Solenoid Valve C Stuck ON

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-4).

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- 1. Warm up the engine to normal operating temperature (the radiator fan comes on).
- 2. Make sure that the transmission is filled to the proper level, and check for fluid leaks.
- 3. Drain the ATF (see step 3 on page 14-239) through a strainer. Inspect the strainer for metal debris or excessive clutch material.

Does the strainer have metal debris or excessive clutch material?

YES-Replace the transmission, then go to step 11.

NO-Replace the ATF (see step 5 on page 14-239), then go to step 4.

- Clear the DTC with the HDS.
- 5. Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- 6. Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- 7. Monitor the OBD STATUS for P0797 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

- 11. Clear the DTC with the HDS.
- 12. Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- 13. Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- 14. Monitor the OBD STATUS for P0797 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES-Troubleshooting is complete.

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NO-If the HDS indicates FAILED, return to step 1 and recheck. If the HDS indicates NOT COMPLETED, return to step 12 and recheck.

DTC P0966: Problem in A/T Clutch Pressure **Control Solenoid Valve B Circuit**

NOTE:

- · Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-4).
- · This code is caused by an electrical circuit problem and cannot be caused by a mechanical problem in the transmission.
- 1. Clear the DTC with the HDS.
- 2. Check that DTC P0966 recurs.
 - Is DTC P0966 indicated?

Does the HDS indicate FAILED?

YES-Go to step 8.

NO-Intermittent failure, the system is OK at this time. If the HDS indicates NOT COMPLETED, return to step 5 and recheck.

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- 8. Clear the DTC with the HDS.
- 9. Choose Clutch Pressure Control (Linear) Solenoid C in the Miscellaneous Test Menu, and test A/T clutch pressure control solenoid valve C with the HDS.

Does the HDS indicate NORMAL?

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NO-Follow the instructions indicated on the HDS by the test result, but if the HDS has not determined the cause of the failure, go to step 10. If any part is replaced, go to step 11.

Does A/T clutch pressure control solenoid valve C work properly?

YES-Repair the hydraulic system related with shift valve C, or replace the transmission, then go to step 11.

NO-Replace A/T clutch pressure control solenoid valve C (see page 14-232), then go to step 11.

YES-Go to step 6.

NO-Go to step 3.

3. Choose Clutch Pressure Control (Linear) Solenoid B in the Miscellaneous Test Menu, and test A/T clutch pressure control solenoid valve B with the HDS.

Does the HDS indicate NORMAL?

YES-Go to step 4.

NO-Go to step 6.

- 4. Choose Clutch Pressure Control Solenoid Control in the Miscellaneous Test Menu, and command A/T clutch pressure control solenoid valve B at 1.0 A with the HDS.
- 5. Monitor the OBD STATUS for P0966 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate FAILED?

YES-Go to step 6.

NO-Intermittent failure, the system is OK at this time. Check for poor connections and loose terminals at A/T clutch pressure control solenoid valve B and the PCM. If the HDS indicates NOT COMPLETED, return to step 3 and recheck.

^{10.} Inspect A/T clutch pressure control solenoid valve C (see page 14-230).

- 6. Turn the ignition switch OFF.
- Disconnect the A/T clutch pressure control solenoid valve B connector.
- Measure the resistance between A/T clutch pressure control solenoid valve B connector terminals No. 1 and No. 2.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B CONNECTOR



Terminal side of male terminals

Is there 3– 10 Ω ?

YES-Go to step 9.

NO-Replace A/T clutch pressure control solenoid valve B (see page 14-232), then go to step 16.

 Check for continuity between A/T clutch pressure control solenoid valve B connector terminal No. 2 and body ground.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B CONNECTOR



- Update the A/T software in the PCM if it does not have the latest software (see page 14-9), or substitute a known-good PCM (see page 14-10).
- Test-drive the vehicle for several minutes in the D position through all five gears.
- Check for DTC(s) in the DTCs/Freeze Data in A/T Mode Menu with the HDS.

Is DTC P0966 indicated?

YES—If the PCM was updated, substitute a knowngood PCM (see page 14-10), then recheck. If the PCM was substituted, go to step 1.

NO-Go to step 15.

15. Monitor the OBD STATUS for P0966 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES—If the PCM was updated, troubleshooting is complete. If the PCM was substituted, replace the original PCM (see page 11-219). If any other DTCs were indicated on step 14, go to the indicated DTC's troubleshooting. ■

NO—If the HDS indicates FAILED, check for poor connections and loose terminals at A/T clutch pressure control solenoid valve B and the PCM. If the PCM was updated, substitute a known-good PCM (see page 14-10), then recheck. If the PCM was substituted, go to step 1. If the HDS indicates NOT COMPLETED, return to step 13 and recheck.

16. Clear the DTC with the HDS.

17. Test-drive the vehicle for several minutes in the D position through all five gears.



Wire side of female terminals Is there continuity? YES—Go to step 10. NO—Repair open in the wire between A/T clutch pressure control solenoid valve B and ground (G101), or repair poor ground (G101), then go to step 16.

- 10. Turn the ignition switch ON (II).
- Measure the voltage between A/T clutch pressure control solenoid valve B connector terminals No. 1 and No. 2.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B CONNECTOR



Wire side of female terminals

Is there voltage?

YES-Go to step 12.

NO—Repair open or short in the wire between PCM connector terminal B35 and A/T clutch pressure control solenoid valve B, then go to step 16.

 Check for DTC(s) in the DTCs/Freeze Data in A/T Mode Menu with the HDS.

Is DTC P0966 indicated?

YES—Check for poor connections and loose terminals at A/T clutch pressure control solenoid valve B and the PCM, then go to step 1.

NO-Go to step 19.

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19. Monitor the OBD STATUS for P0966 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES—Troubleshooting is complete. If any other DTCs were indicated on step 18, go to the indicated DTC's troubleshooting.■

NO—If the HDS indicates FAILED, check for poor connections and loose terminals at A/T clutch pressure control solenoid valve B and the PCM, then go to step 1. If the HDS indicates NOT COMPLETED, return to step 17 and recheck. DTC P0967: Problem in A/T Clutch Pressure Control Solenoid Valve B

NOTE:

- Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-4).
- This code is caused by an electrical circuit problem and cannot be caused by a mechanical problem in the transmission.
- 1. Clear the DTC with the HDS.
- 2. Check that DTC P0967 recurs.

Is DTC P0967 indicated?

YES-Go to step 6.

NO-Go to step 3.

3. Choose Clutch Pressure Control (Linear) Solenoid B in the Miscellaneous Test Menu, and test A/T clutch pressure control solenoid valve B with the HDS.

Does the HDS indicate NORMAL?

YES-Go to step 4.

NO-Go to step 6.

- 4. Choose Clutch Pressure Control Solenoid Control in the Miscellaneous Test Menu, and command A/T clutch pressure control solenoid valve B at 0.2 A with the HDS.
- Monitor the OBD STATUS for P0967 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate FAILED?

9. Check for continuity between A/T clutch pressure control solenoid valve B connector terminal No. 2 and body ground.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B CONNECTOR



Wire side of female terminals

Is there continuity?

YES-Go to step 10.

NO-Repair open in the wire between A/T clutch pressure control solenoid valve B and ground (G101), or repair poor ground (G101), then go to step 14.

- 10. Update the A/T software in the PCM if it does not have the latest software (see page 14-9), or substitute a known-good PCM (see page 14-10).
- 11. Test-drive the vehicle for several minutes in the D position through all five gears.
- 12. Check for DTC(s) in the DTCs/Freeze Data in A/T Mode Menu with the HDS.

Is DTC P0967 indicated?

YES-Go to step 6.

NO-Intermittent failure, the system is OK at this time. Check for poor connections and loose terminals at A/T clutch pressure control solenoid valve B and the PCM. If the HDS indicates NOT COMPLETED, return to step 3 and recheck.

- 6. Turn the ignition switch OFF.
- 7. Disconnect the A/T clutch pressure control solenoid valve B connector.
- 8. Measure the resistance between A/T clutch pressure control solenoid valve B connector terminals No. 1 and No. 2.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE B CONNECTOR



Terminal side of male terminals

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Is there $3-10 \Omega$?

YES-Go to step 9.

NO-Replace A/T clutch pressure control solenoid valve B (see page 14-232), then go to step 14.

YES-If the PCM was updated, substitute a knowngood PCM (see page 14-10), then recheck. If the PCM was substituted, go to step 1.

NO-Go to step 13.

13. Monitor the OBD STATUS for P0967 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES-If the PCM was updated, troubleshooting is complete. If the PCM was substituted, replace the original PCM (see page 11-219). If any other DTCs were indicated on step 12, go to the indicated DTC's troubleshooting.

NO-If the HDS indicates FAILED, check for poor connections and loose terminals at A/T clutch pressure control solenoid valve B and the PCM. If the PCM was updated, substitute a known-good PCM (see page 14-10), then recheck. If the PCM was substituted, go to step 1. If the HDS indicates NOT COMPLETED, return to step 11 and recheck.

- 14. Clear the DTC with the HDS.
- 15. Test-drive the vehicle for several minutes in the D position through all five gears.
- 16. Check for DTC(s) in the DTCs/Freeze Data in A/T Mode Menu with the HDS.
 - Is DTC P0967 indicated?

YES—Check for poor connections and loose terminals at A/T clutch pressure control solenoid valve B and the PCM, then go to step 1.

NO-Go to step 17.

17. Monitor the OBD STATUS for P0967 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES—Troubleshooting is complete. If any other DTCs were indicated on step 16, go to the indicated DTC's troubleshooting.■

NO—If the HDS indicates FAILED, check for poor connections and loose terminals at A/T clutch pressure control solenoid valve B and the PCM, then go to step 1. If the HDS indicates NOT COMPLETED, return to step 15 and recheck.

DTC P0970: Problem in A/T Clutch Pressure Control Solenoid Valve C Circuit

NOTE:

- Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-4).
- This code is caused by an electrical circuit problem and cannot be caused by a mechanical problem in the transmission.
- 1. Clear the DTC with the HDS.
- 2. Check that DTC P0970 recurs.

Is DTC P0970 indicated?

YES-Go to step 6.

 Measure the resistance between A/T clutch pressure control solenoid valve C connector terminals No. 1 and No. 2.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE C CONNECTOR



Terminal side of male terminals

Is there 3– 10 Ω ?

YES-Go to step 9.

NO-Replace A/T clutch pressure control solenoid valve C (see page 14-232), then go to step 16.

 Check for continuity between A/T clutch pressure control solenoid valve C connector terminal No. 2 and body ground.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE C CONNECTOR



NO-Go to step 3.

 Choose Clutch Pressure Control (Linear) Solenoid C in the Miscellaneous Test Menu, and test A/T clutch pressure control solenoid valve C with the HDS.

Does the HDS indicate NORMAL?

YES-Go to step 4.

NO-Go to step 6.

- Choose Clutch Pressure Control Solenoid Control in the Miscellaneous Test Menu, and command A/T clutch pressure control solenoid valve C at 1.0 A with the HDS.
- 5. Monitor the OBD STATUS for P0970 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate FAILED?

YES-Go to step 6.

NO—Intermittent failure, the system is OK at this time. Check for poor connections and loose terminals at A/T clutch pressure control solenoid valve C and the PCM. If the HDS indicates NOT COMPLETED, return to step 3 and recheck.

- 6. Turn the ignition switch OFF.
- Disconnect the A/T clutch pressure control solenoid valve C connector.

Wire side of female terminals

Is there continuity?

YES-Go to step 10.

NO—Repair open in the wire between A/T clutch pressure control solenoid valve C and ground (G101), or repair poor ground (G101), then go to step 16.

- 10. Turn the ignition switch ON (II).
- Measure the voltage between A/T clutch pressure control solenoid valve C connector terminals No. and No. 2.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE C CONNECTOR



Wire side of female terminals

Is there voltage?

YES-Go to step 12.

NO—Repair open or short in the wire between PCM connector terminal B25 and A/T clutch pressure control solenoid valve C, then go to step 16.

- Update the A/T software in the PCM if it does not have the latest software (see page 14-9), or substitute a known-good PCM (see page 14-10).
- 13. Test-drive the vehicle for several minutes in the D position through all five gears.
- Check for DTC(s) in the DTCs/Freeze Data in A/T Mode Menu with the HDS.

Is DTC P0970 indicated?

YES—If the PCM was updated, substitute a knowngood PCM (see page 14-10), then recheck. If the PCM was substituted, go to step 1.

NO-Go to step 15.

15. Monitor the OBD STATUS for P0970 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES—If the PCM was updated, troubleshooting is complete. If the PCM was substituted, replace the original PCM (see page 11-219). If any other DTCs were indicated on step 14, go to the indicated DTC's troubleshooting.

NO—If the HDS indicates FAILED, check for poor connections and loose terminals at A/T clutch pressure control solenoid valve C and the PCM. If the PCM was updated, substitute a known-good PCM (see page 14-10), then recheck. If the PCM was substituted, go to step 1. If the HDS indicates NOT COMPLETED, return to step 13 and recheck.

16. Clear the DTC with the HDS.

DTC P0971: Problem in A/T Clutch Pressure Control Solenoid Valve C

NOTE;

- Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-4).
- This code is caused by an electrical circuit problem and cannot be caused by a mechanical problem in the transmission.
- 1. Clear the DTC with the HDS.
- 2. Check that DTC P0971 recurs.

Is DTC P0971 indicated?

YES-Go to step 6.

NO-Go to step 3.

 Choose Clutch Pressure Control (Linear) Solenoid C in the Miscellaneous Test Menu, and test A/T clutch pressure control solenoid valve C with the HDS.

Does the HDS indicate NORMAL?

YES-Go to step 4.

NO-Go to step 6.

- Choose Clutch Pressure Control Solenoid Control in the Miscellaneous Test Menu, and command A/T clutch pressure control solenoid valve C at 0.2 A with the HDS.
- Monitor the OBD STATUS for P0971 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.
- Test-drive the vehicle for several minutes in the D position through all five gears.
- Check for DTC(s) in the DTCs/Freeze Data in A/T Mode Menu with the HDS.

Is DTC P0970 indicated?

YES—Check for poor connections and loose terminals at A/T clutch pressure control solenoid valve C and the PCM, then go to step 1.

NO-Go to step 19.

19. Monitor the OBD STATUS for P0970 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES — Troubleshooting is complete. If any other DTCs were indicated on step 18, go to the indicated DTC's troubleshooting. ■

NO—If the HDS indicates FAILED, check for poor connections and loose terminals at A/T clutch pressure control solenoid valve C and the PCM, then go to step 1. If the HDS indicates NOT COMPLETED, return to step 17 and recheck. Does the HDS indicate FAILED?

YES-Go to step 6.

NO—Intermittent failure, the system is OK at this time. Check for poor connections and loose terminals at A/T clutch pressure control solenoid valve C and the PCM. If the HDS indicates NOT COMPLETED, return to step 3 and recheck.

- 6. Turn the ignition switch OFF.
- Disconnect the A/T clutch pressure control solenoid valve C connector.
- Measure the resistance between A/T clutch pressure control solenoid valve C connector terminals No. 1 and No. 2.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE C CONNECTOR



Terminal side of male terminals

Is there 3–10 Ω ?

YES-Go to step 9.

NO-Replace A/T clutch pressure control solenoid valve C (see page 14-232), then go to step 14.

 Check for continuity between A/T clutch pressure control solenoid valve C connector terminal No. 2 and body ground.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE C CONNECTOR



125

Wire side of female terminals

Is there continuity?

YES-Go to step 10.

- NO—Repair open in the wire between A/T clutch pressure control solenoid valve C and ground (G101), or repair poor ground (G101), then go to step 10.
- Update the A/T software in the PCM if it does not have the latest software (see page 14-9), or substitute a known-good PCM (see page 14-10).
- 11. Test-drive the vehicle for several minutes in the D position through all five gears.
- 12. Check for DTC(s) in the DTCs/Freeze Data in A/T Mode Menu with the HDS.

Is DTC P0971 indicated?

YES—If the PCM was updated, substitute a knowngood PCM (see page 14-10), then recheck. If the PCM was substituted, go to step 1. 17. Monitor the OBD STATUS for P0971 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES—Troubleshooting is complete. If any other DTCs were indicated on step 16, go to the indicated DTC's troubleshooting. ■

NO—If the HDS indicates FAILED, check for poor connections and loose terminals at A/T clutch pressure control solenoid valve C and the PCM, then go to step 1. If the HDS indicates NOT COMPLETED, return to step 15 and recheck.

DTC P1733: Problem in Shift Control System:

- Shift Solenoid Valve D Stuck ON
- Shift Valve D Stuck
- A/T Clutch Pressure Control Solenoid Valve C Stuck OFF

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-4).

- 1. Warm up the engine to normal operating temperature (the radiator fan comes on).
- Make sure that the transmission is filled to the proper level, and check for fluid leaks.
- Drain the ATF (see step 3 on page 14-239) through a strainer. Inspect the strainer for metal debris or excessive clutch material.

Does the strainer have metal debris or excessive clutch material?

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NO-Go to step 13.

13. Monitor the OBD STATUS for P0971 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES—If the PCM was updated, troubleshooting is complete. If the PCM was substituted, replace the original PCM (see page 11-219). If any other DTCs were indicated on step 12, go to the indicated DTC's troubleshooting. ■

NO—If the HDS indicates FAILED, check for poor connections and loose terminals at A/T clutch pressure control solenoid valve C and the PCM. If the PCM was updated, substitute a known-good PCM (see page 14-10), then recheck. If the PCM was substituted, go to step 1. If the HDS indicates NOT COMPLETED, return to step 11 and recheck.

- 14. Clear the DTC with the HDS.
- 15. Test-drive the vehicle for several minutes in the D position through all five gears.
- Check for DTC(s) in the DTCs/Freeze Data in A/T Mode Menu with the HDS.

Is DTC P0971 indicated?

YES—Check for poor connections and loose terminals at A/T clutch pressure control solenoid valve C and the PCM, then go to step 1.

NO-Go to step 17.

YES-Replace the transmission, then go to step 15.

NO-Replace the ATF (see step 5 on page 14-239), then go to step 4.

- 4. Clear the DTC with the HDS.
- Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Monitor the OBD STATUS for P1733 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate FAILED?

YES-Go to step 8.

NO—Intermittent failure, the system is OK at this time. If the HDS indicates NOT COMPLETED, return to step 5 and recheck.

- 8. Clear the DTC with the HDS.
- Choose Shift Solenoid D in the Miscellaneous Test Menu, and check that shift solenoid valve D operates with the HDS.
 - Is a clicking sound heard?
 - YES-Go to step 10.

NO-Replace shift solenoid valve D (see page 14-222), then go to step 15.

 Choose Clutch Pressure Control (Linear) Solenoid C in the Miscellaneous Test Menu, and test A/T clutch pressure control solenoid valve A with the HDS.

Does the HDS indicate NORMAL?

YES-Go to step 11.

NO—Follow the instructions indicated on the HDS by the test result, but if the HDS has not determined the cause of the failure, go to step 14. If any part is replaced, go to step 15.

- 11. Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Monitor the OBD STATUS for P1733 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate FAILED?

YES—Repair hydraulic system related with shift valve D, or replace the transmission, then go to step 14.

NO-Intermittent failure, the system is OK at this time. If the HDS indicates NOT COMPLETED, return to step 11 and recheck.

14. Inspect A/T clutch pressure control solenoid valve A (see page 14-225).

Does A/T clutch pressure control solenoid valve A

work properly?

YES—Repair the hydraulic system related to shift valve E, or replace the transmission, then go to step 15.

NO-Replace A/T clutch pressure control solenoid valve A (see page 14-227), then go to step 15.

- 15. Clear the DTC with the HDS.
- Test-drive the vehicle in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Test-drive the vehicle again in the D position through all five gears at speeds over 12 mph (20 km/h) for more than 20 seconds, then slow down to a stop.
- Monitor the OBD STATUS for P1731 in the DTCs/ Freeze Data in A/T Mode Menu for a pass/fail.

Does the HDS indicate PASSED?

YES-Troubleshooting is complete.■

NO-If the HDS indicates FAILED, return to step 12 and recheck. If the HDS indicates NOT COMPLETED, return to step 13 and recheck.