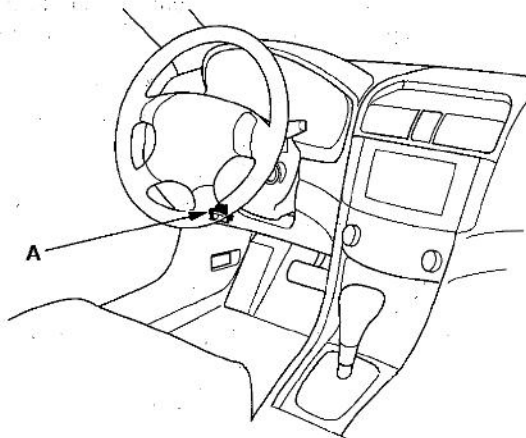


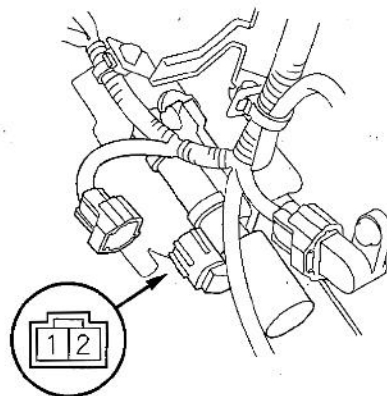
A/T Clutch Pressure Control Solenoid Valve C Test

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



2. Select LINEAR SOL TEST in MISCELLANEOUS TEST MENU on the HDS.
3. Do the LINEAR SOL C TEST in LINEAR SOL TEST MENU with the HDS.
4. Follow instructions indicated on the HDS by the tester result. A/T clutch pressure control solenoid valve C test has finished if the test result is OK. If the tester has not determined the cause of LINEAR SOL TEST, go to step 5.
5. Make sure you have the customer's radio and navigation anti-theft codes, and write down the XM radio channel presets.
6. Remove the left side engine compartment cover.
7. Make sure the ignition switch is OFF. Disconnect the battery negative terminal, then disconnect the battery positive terminal.
8. Remove the battery hold-down bracket, then remove the battery and battery tray.
9. Remove the air intake cover and air intake tube.
10. Remove the splash shield.
11. Remove the two bolts securing the battery base from under the vehicle, and remove the two bolts securing the battery base in the engine compartment, then remove the battery base.

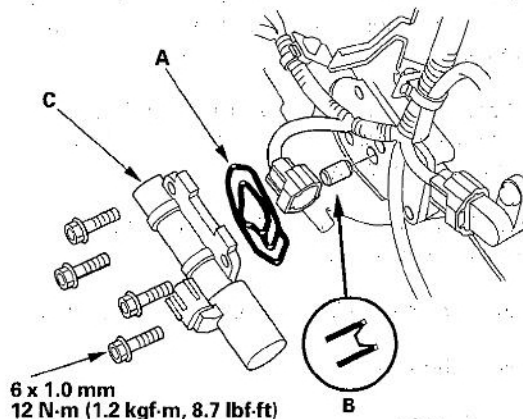
12. Disconnect A/T clutch pressure control solenoid valve C connector, and check the connector for pin fit, corrosion, dirt, and oil. If the connector is OK, go to step 13. If the connector is not OK, repair the connector and do the test again.



13. Measure A/T clutch pressure control solenoid valve C resistance at the solenoid valve connector.

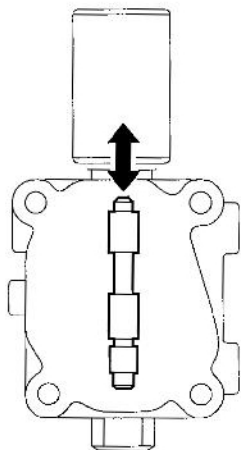
Standard: 3 – 10 Ω

14. If the resistance of the solenoid valve is out of standard, replace A/T clutch pressure control solenoid valve C (see page 14-194).
15. If the resistance is within the standard, connect the battery negative terminal to A/T clutch pressure control solenoid valve C connector terminal No. 2, and connect the battery positive terminal to the terminal No. 1. A clicking sound should be heard.
16. If no sound is heard, replace A/T clutch pressure control solenoid valve C (see page 14-194). If a clicking sound is heard, go to step 17.
17. Remove A/T clutch pressure control solenoid valve C.



18. Remove the gasket (A) and 8 x 12 mm ATF feed pipe (B).

19. Connect the battery negative terminal to A/T clutch pressure control solenoid valve C connector terminal No. 2, and connect the battery positive terminal to the terminal No. 1. Make sure A/T clutch pressure control solenoid valve C moves.

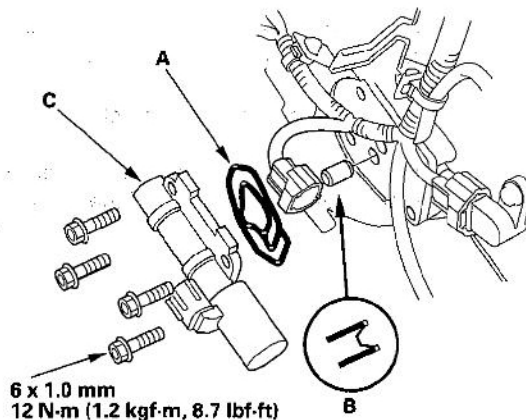


20. Disconnect one of the battery terminals and check valve movement at the fluid passage in the valve body mounting surface.
21. If the valve binds or moves sluggishly, or if the solenoid valve does not operate, replace A/T clutch pressure control solenoid valve C.
22. Check the fluid passage of the A/T clutch pressure control solenoid valve for dust and dirt, and clean the passage if necessary.
23. Install the 8 x 12 mm ATF feed pipe with its filter side into the transmission housing.
24. Install the new gasket in the mounting groove of the A/T clutch pressure control solenoid valve C body properly, then install A/T clutch pressure control solenoid valve C on the transmission housing. Do not pinch the gasket.
25. Install the battery base, then install the air cleaner housing and intake air duct.
26. Install the air intake cover and air intake tube.
27. Install the splash shield.
28. Install the battery tray, battery, and battery hold-down bracket, then connect battery terminals.
29. Install the left side engine compartment cover.
30. Enter the radio and navigation anti-theft codes, and set the XM radio channel presets and the clock.

A/T Clutch Pressure Control

Solenoid Valve C Replacement

1. Make sure you have the customer's radio and navigation anti-theft codes, and write down the XM radio channel presets.
2. Remove the left side engine compartment cover.
3. Make sure the ignition switch is OFF: Disconnect the battery negative terminal, then disconnect the battery positive terminal.
4. Remove the battery hold-down bracket, then remove the battery and battery tray.
5. Remove the air intake cover and air intake tube.
6. Remove the splash shield.
7. Remove the two bolts securing the battery base from under the vehicle, and remove the two bolts securing the battery base in the engine compartment, then remove the battery base.
8. Disconnect A/T clutch pressure control solenoid valve C connector.
9. Remove A/T clutch pressure control solenoid valve C.



10. Remove the gasket (A) and 8 x 12 mm ATF feed pipe (B).
11. Check the fluid passage of the A/T clutch pressure control solenoid valve for dust and dirt, and clean the passage if necessary.
12. Install the 8 x 12 mm ATF feed pipe with its filter side into the transmission housing.
13. Install the new gasket in the mounting groove of the A/T clutch pressure control solenoid valve C body properly, then install A/T clutch pressure control solenoid valve C on the transmission housing. Do not pinch the gasket.
14. Check the A/T clutch pressure control solenoid valve C connector for corrosion, dirt, and oil, then connect it securely.
15. Install the battery base, then install the air cleaner housing and intake air duct.
16. Install the air intake cover and air intake tube.
17. Install the splash shield.
18. Install the battery, tray, battery, and battery hold-down bracket, then connect battery terminals.
19. Install the left side engine compartment cover.
20. Enter the radio and navigation anti-theft codes, and set the XM radio channel presets and the clock.

DTC Troubleshooting (cont'd)

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

NOTE:

- Record all freeze data and review General Troubleshooting Information (see page 14-3) before you troubleshoot.
- 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.

NO—Go to step 3.

3. Select P CTRL SOL CONTROL in MISCELLANEOUS TEST MENU, then select P. CONTROL SOL C in P CTRL SOL CTRL MENU with the HDS.

4. Set the A/T clutch pressure control solenoid valve C to 1.0A in SOL C CONTROL menu.

5. Check the OBD STATUS in DTCs MENU for a pass/fail test of code P0970.

Did the result indicate a fail?

YES—Go to step 6.

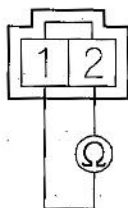
NO—Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the A/T clutch pressure control solenoid valve C and PCM. If the tester indicates NOT COMPLETE, return to step 3 and recheck. ■

6. Turn the ignition switch OFF.

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

8. Measure A/T clutch pressure control solenoid valve C resistance at the solenoid connector.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE C CONNECTOR



Terminal side of male terminals

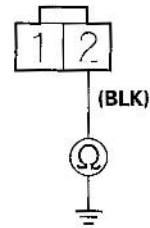
Is there 3–10 Ω?

YES—Go to step 9.

NO—Replace the A/T clutch pressure control solenoid valve C (see page 14-194), then go to step 13.

9. 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



Wire side of female terminals

Is there continuity?

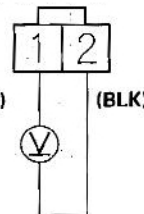
YES—Go to step 10.

NO—Repair open in the wire between the A/T clutch pressure control solenoid valve C and ground (G151), or repair poor ground (G151), then go to step 13.

10. Turn the ignition switch ON (II).

11. Measure the voltage between A/T clutch pressure control solenoid valve C connector terminals No. 1 and No. 2 as the ignition switch is turned ON.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE C CONNECTOR



Wire side of female terminals

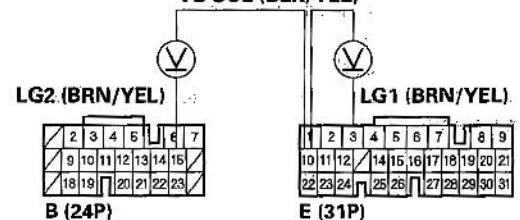
Is there momentarily about battery voltage?

YES—Go to step 12.

NO—Repair open or short in the wire between PCM connector terminal C22 and A/T clutch pressure control solenoid valve C, then go to step 13.

12. Measure the voltage between PCM connector terminals E10 and B15 or E3.

PCM CONNECTORS VB SOL (BLK/YEL)



Wire side of female terminals

Is there battery voltage?

YES—Check for loose or poor connections at PCM connector terminal E10. If the connection is OK, update the PCM if it does not have the latest software, or substitute a known-good PCM (see page 14-6), then recheck. If the symptom/indication goes away with a known-good PCM, replace the original PCM. ■

NO—Check for blown No. 18 fuse in the under-dash fuse/relay box. If the fuse is OK, repair open in the wire between PCM connector terminal E10 and the under-dash fuse/relay box, then go to step 13.

13. Clear the DTC with the HDS.

14. Test-drive the vehicle for several minutes in the D position in all five gears.
15. Check the OBD STATUS in DTCs MENU for a pass/fail test of code P0970.

Did the result indicate a pass?

YES—The problem has been corrected. ■

NO—Return to step 1 and recheck. ■

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

NOTE:

- Record all freeze data and review General Troubleshooting Information (see page 14-3) before you troubleshoot.
- 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.

3. Select P CTRL SOL CONTROL in MISCELLANEOUS TEST MENU, then select P. CONTROL SOL C in P CTRL SOL CTRL MENU with the HDS.
4. Set the A/T clutch pressure control solenoid valve C to 0.2A in SOL C CONTROL menu.
5. Check the OBD STATUS in DTCs MENU for a pass/fail test of code P0971.

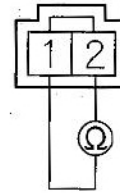
Did the result indicate a fail?

YES—Go to step 6.

NO—Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the A/T clutch pressure control solenoid valve C and PCM. If the tester indicates NOT COMPLETE, return to step 3 and recheck. ■
6. Turn the ignition switch OFF.
7. Disconnect the A/T clutch pressure control solenoid valve C connector.

8. Measure A/T clutch pressure control solenoid valve C resistance at the solenoid connector.

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE C CONNECTOR



Terminal side of male terminals

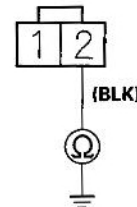
Is there 3–10 Ω?

YES—Go to step 9.

NO—Replace the A/T clutch pressure control solenoid valve C (see page 14-194), then go to step 10.

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

A/T CLUTCH PRESSURE CONTROL SOLENOID VALVE C CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Update the PCM if it does not have the latest software, or substitute a known-good PCM (see page 14-6), then recheck. If the symptom/indication goes away with a known-good PCM, replace the original PCM. ■

NO—Repair open in the wire between the A/T clutch pressure control solenoid valve C and ground (G151), or repair poor ground (G151), then go to step 10.

10. Clear the DTC with the HDS.
11. Test-drive the vehicle for several minutes in the D position in all five gears.
12. Check the OBD STATUS in DTCs MENU for a pass/fail test of code P0971.

Did the result indicate a pass?

YES—The problem has been corrected. ■

NO—Return to step 1 and recheck. ■