

Automatic Transmission

DTC Troubleshooting

DTC P0705: Short in Transmission Range Switch Circuit (Multiple Shift-position Input)

NOTE:

- Before you troubleshoot, record all freeze data and any on-board snapshot, and review General Troubleshooting Information (see page 14-3).
- This code is caused by an electrical circuit problem and cannot be caused by a mechanical problem in the transmission.

1. Turn the ignition switch ON (II).
 2. Clear the DTC with the HDS.
 3. Start the engine.
 4. With the brake pedal pressed, move the shift lever through all positions. Stop for at least 1 second in each position.
 5. Monitor the OBD STATUS for P0705 in the DTCs MENU with the HDS.
- Does the screen indicate FAILED?*
- YES**—Go to step 6.
- NO**—Intermittent failure, the system is OK at this time. Check for intermittent short to body ground in the wires between the transmission range switch and the PCM. If the screen indicates NOT COMPLETED, go to step 3.
6. Turn the ignition switch OFF.
 7. Inspect the transmission range switch (see page 14-279).

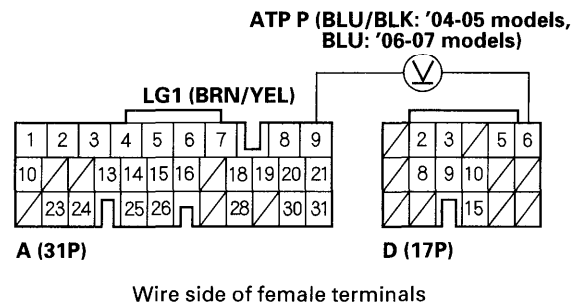
Is the switch OK?

YES—Go to step 8.

NO—Replace the transmission range switch (see page 14-281), then go to step 52.

8. Turn the ignition switch ON (II).
9. Shift to any position other than P.
10. Measure the voltage between PCM connector terminals D6 and A9.

PCM CONNECTORS



Is there about 5 V?

YES—Go to step 17.

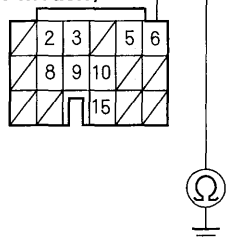
NO—Go to step 11.



11. Turn the ignition switch OFF.
12. Jump the SCS line with the HDS.
13. Disconnect PCM connector D (17P).
14. Check for continuity between PCM connector terminal D6 and body ground.

PCM CONNECTOR D (17P)

**ATP P (BLU/BLK: '04-05 models,
BLU: '06-07 models)**



Wire side of female terminals

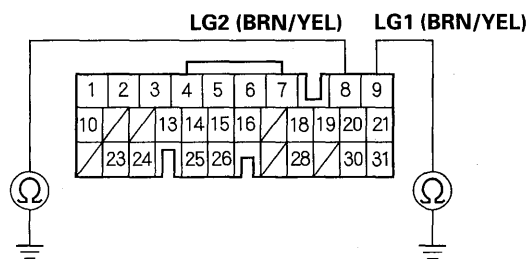
Is there continuity?

YES—Repair short to body ground in the wire between PCM connector terminal D6 and the transmission range switch, then go to step 52.

NO—Go to step 15.

15. Disconnect PCM connector A (31P).
16. Check for continuity between PCM connector terminal A8 and body ground, and between PCM connector terminal A9 and body ground.

PCM CONNECTOR A (31P)



Wire side of female terminals

Is there continuity?

YES—Go to step 59.

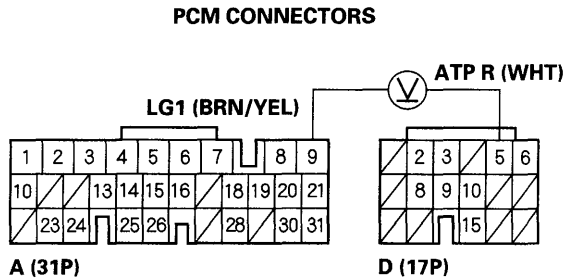
NO—Repair open in the wire between PCM connector terminals A8, A9, and ground (G101), or repair poor ground (G101), then go to step 52.

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Automatic Transmission

DTC Troubleshooting (cont'd)

17. Shift to any position other than R.
18. Measure the voltage between PCM connector terminals D5 and A9.



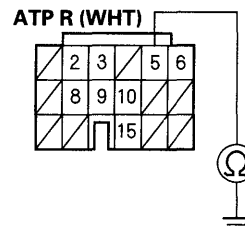
Is there about 5 V?

YES—Go to step 23.

NO—Go to step 19.

19. Turn the ignition switch OFF.
20. Jump the SCS line with the HDS.
21. Disconnect PCM connector D (17P).
22. Check for continuity between PCM connector terminal D5 and body ground.

PCM CONNECTOR D (17P)



Is there continuity?

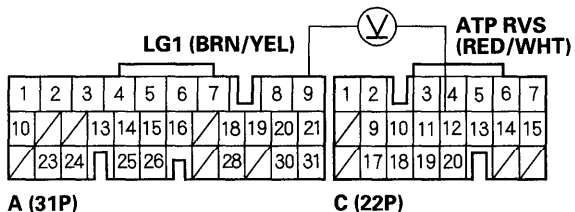
YES—Repair short to body ground in the wire between PCM connector terminal D5 and the transmission range switch, then go to step 52.

NO—Go to step 59.



23. Measure the voltage between PCM connector terminals C12 and A9.

PCM CONNECTORS



Wire side of female terminals

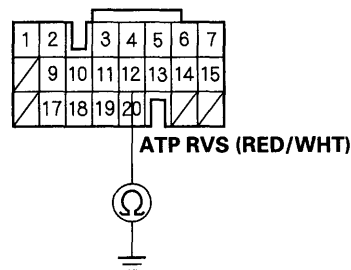
Is there about 5 V?

YES—Go to step 28.

NO—Go to step 24.

24. Turn the Ignition switch OFF.
25. Jump the SCS line with the HDS.
26. Disconnect PCM connector C (22P).
27. Check for continuity between PCM connector terminal C12 and body ground.

PCM CONNECTOR C (22P)



Wire side of female terminals

Is there continuity?

YES—Repair short to body ground in the wire between PCM connector terminal C12 and the transmission range switch, then go to step 52.

NO—Go to step 59.

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