

TROUBLESHOOTING > STARTER SYSTEM CIRCUIT TROUBLESHOOTING (2013-15)

Starter System Circuit Troubleshooting Starter System Circuit Troubleshooting

NOTE:

- Air temperature must be between 59-100 °F (15-38 ***°C) during this procedure.
- The battery must be in good condition and fully charged.

1. Keyless access system check:

Press the engine start/stop button to select the ON mode.

Is the vehicle in ON mode?

YES

Go to step 2.

NO

Go to Keyless Access System Symptom Troubleshooting "Cannot select ON mode with keyless access or with the keyless remote touched the engine start/stop switch".

2. Starting system check:

With the shift lever in P and with the brake pedal pressed, press the engine start/stop button to select the START mode and hold it.

Did the starter crank the engine?

YES

The system is OK at this time.

NO

Go to step 3.

3. Electrical connection check (at battery):

Press the engine start/stop button to select the OFF mode.

- 2. Check electrical connections at the battery.

Is the connection OK?

YES

Go to step 4.

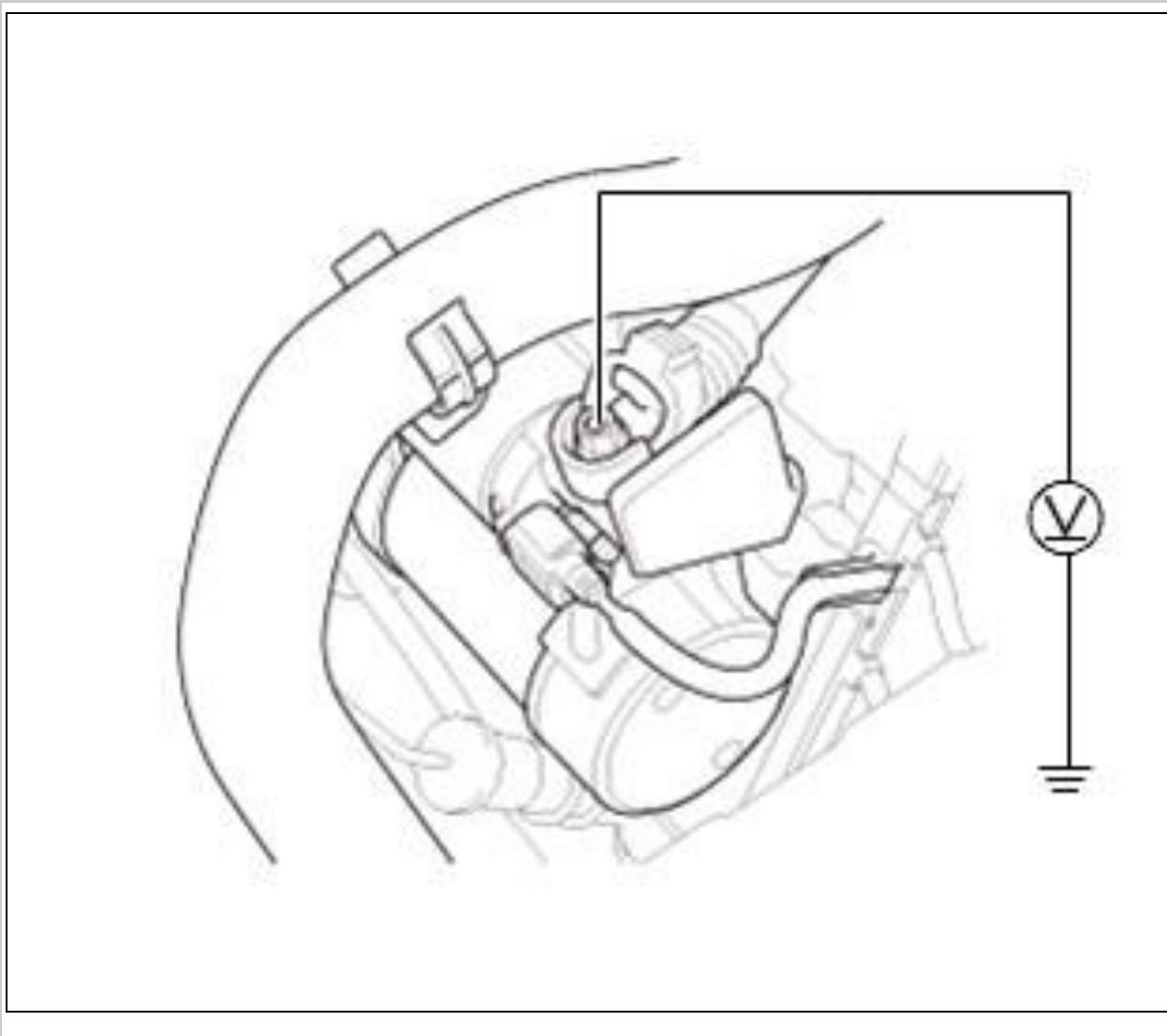
NO

Repair the electrical connection(s) at the battery.

4. Open wire check (+B BATTERY line):

Measure the voltage between test points 1 and 2.

Test condition	OFF mode
Test circuit	+B BATTERY
Test point 1	Starter B terminal (BLK)
Test point 2	Body ground



Courtesy of HONDA, U.S.A., INC.

Is there battery voltage?

YES

Go to step 5.

NO

Repair an open in the +B BATTERY wire between the starter B terminal and the body ground.

5. DLC circuit check:

Connect the HDS to the DLC - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15) .

- 2. Make sure the HDS communicates with the vehicle and the PCM.

Does the HDS communicate with the vehicle?

YES

Go to step 6.

NO

Do the DLC circuit troubleshooting .

6. PGM-FI, A/T, and PCU system DTC check:

Press the engine start/stop button to select the ON mode.

- 2. Check for PGM-FI, A/T, and PCU system DTCs with the HDS. If you fail to enter the SYSTEM SELECTION MENU with the HDS, go to the keyless access system symptom troubleshooting for cannot select ON mode with keyless access or with the remote in the remote slot.

PGM-FI system

DTC Description	Confirmed DTC	Pending DTC	Freeze Frame

A/T system

DTC Description	Confirmed DTC	Pending DTC	Freeze Frame

PCU system

DTC Description	DTC	Freeze Frame

Are any DTCs indicated?

YES

Go to the indicated DTC's troubleshooting.

NO

Go to step 7.

7. A/T gear position indicator P position signal check:

Shift the shift lever in P.

- 2. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
A/T P Switch	ON			

Do the current condition(s) match the threshold?

YES

Go to step 11.

NO

Go to step 8.

8. Open wire check (ATP-P line) 1:

Press the engine start/stop button to select the OFF mode.

- 2. Disconnect the following connector.

Transmission range switch 10P connector

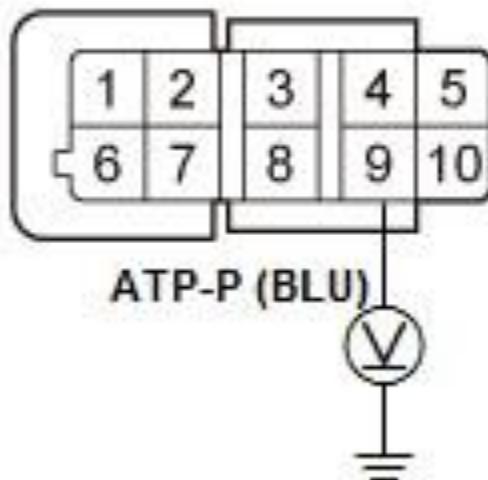
- 3. Press the engine start/stop button to select the ON mode.

- 4. Measure the voltage between test points 1 and 2.

Test condition	ON mode
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	Transmission range switch 10P connector: disconnected
Test circuit	ATP-P
Test point 1	Transmission range switch 10P connector No. 9 (BLU)
Test point 2	Body ground

TRANSMISSION RANGE SWITCH CONNECTOR (10P)



Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there battery voltage?

YES

Go to step 10.

NO

Go to step 9.

9. Open wire check (ATP-P line) 2:

Press the engine start/stop button to select the OFF mode.

- 2. Jump the SCS line with the HDS.

NOTE: This step must be done to protect the PCM from damage.

SCS Short

- 3. Disconnect the following connector.

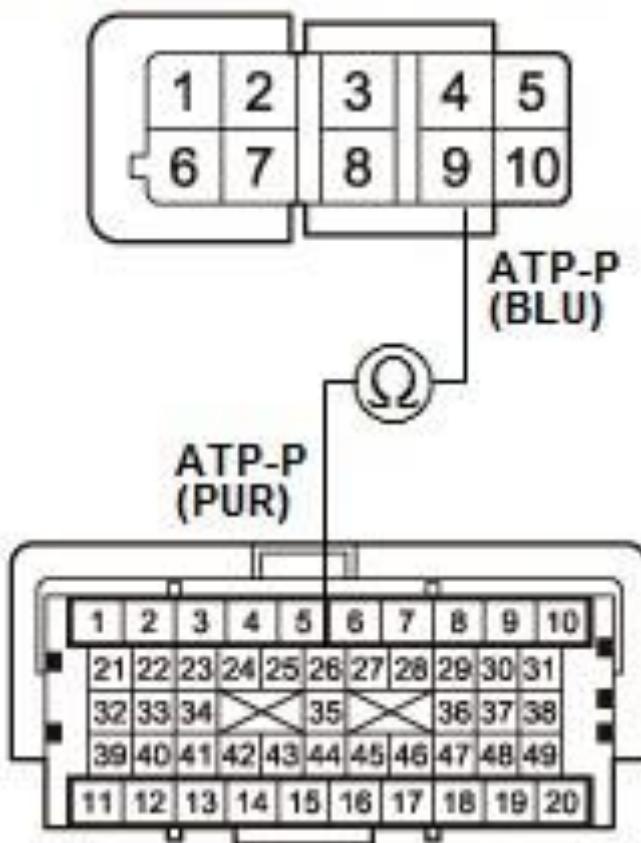
PCM connector A (49P) - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15),
or How to Troubleshoot the A/T System (2013-15)

- 4. Check for continuity between test points 1 and 2.

	OFF mode
Test condition	Transmission range switch 10P connector: disconnected
	PCM connector A (49P): disconnected
Test circuit	ATP-P
Test point 1	Transmission range switch 10P connector No. 9 (BLU)
Test point 2	PCM connector A (49P) No. 26 (PUR)

TRANSMISSION RANGE SWITCH CONNECTOR (10P)

Terminal side of female terminals



PCM CONNECTOR A (49P)

Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there continuity?

YES

Update the PCM if it does not have the latest software , or substitute a known-good PCM , then recheck. If the PCM was substituted, and the symptom/indication goes away, replace the original PCM .

NO

Repair an open in the ATP-P wire between the transmission range switch and the PCM.

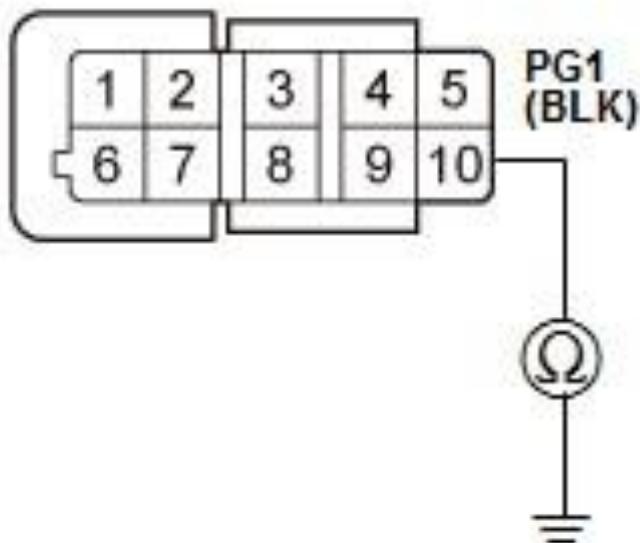
10. Transmission range switch check:

Press the engine start/stop button to select the OFF mode.

- 2. Check for continuity between test points 1 and 2.

Test condition	OFF mode Transmission range switch 10P connector: disconnected
Test circuit	PG1
Test point 1	Transmission range switch 10P connector No. 10 (BLK)
Test point 2	Body ground

TRANSMISSION RANGE SWITCH CONNECTOR (10P)



Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there continuity?

YES

Replace the transmission range switch .

NO

Repair an open in the PG1 wire between transmission range switch 10P connector terminal No. 10 and body ground.

11. FOOT BRAKE signal check:

When repeatedly pressing and releasing the brake pedal, check the parameter(s) below with the HDS.

Signal	Current conditions	
	Values	Unit
FOOT BRAKE		

Is ON or OFF indicated when you are operating the brake pedal?

YES

Go to step 14.

NO

Go to step 12.

12. Brake lights circuit check:

When pressing the brake pedal, check that the brake lights are ON.

Are the brake lights turned ON?

YES

Go to step 13.

NO

Check and repair the brake lights circuit.

13. Open wire check (STOP SW, GND lines):

Press the engine start/stop button to select the OFF mode.

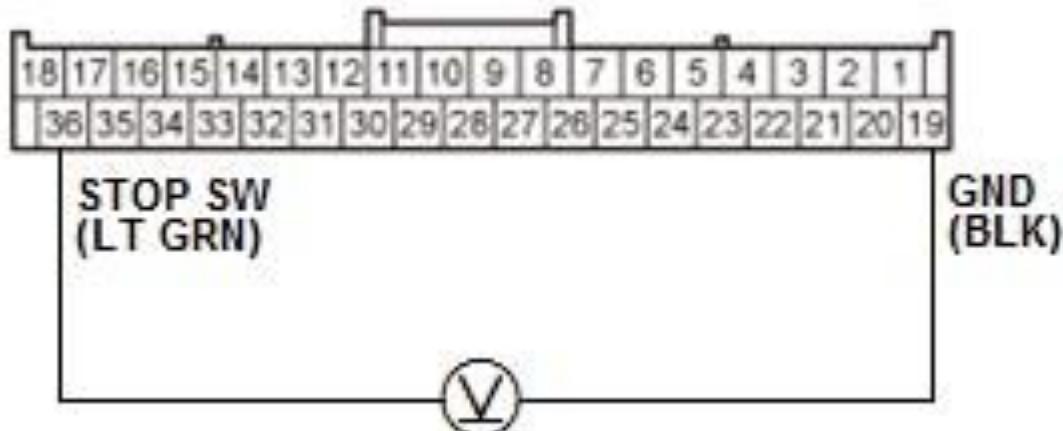
- 2. Disconnect the following connector.

Power control unit connector C (36P)

- 3. Press the brake pedal.
- 4. Measure the voltage between test points 1 and 2.

Test condition	OFF mode, press brake pedal
	Power control unit connector C (36P): disconnected
Test circuit	STOP SW, GND
Test point 1	Power control unit connector C (36P) No. 36 (LT GRN)
Test point 2	Power control unit connector C (36P) No. 19 (BLK)

POWER CONTROL UNIT CONNECTOR C (36P)



Wire side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there battery voltage?

YES

The power control unit internal STOP SW, GND circuits are open. Replace the power control unit .

NO

Repair an open in the STOP SW, GND wires between the brake pedal position switch and the power control unit.

14. Determine possible failure area (open in STS line, short in STS line):

Press the brake pedal.

- 2. Press the engine start/stop button and hold it.
- 3. Check the parameter(s) below with the HDS.

Signal	Current conditions	
	Values	Unit
STRQ		

Is there battery voltage indicated?

YES

Go to step 15.

NO

Go to step 18.

15. STARTER SWITCH signal check:

Press the brake pedal.

- 2. Press the engine start/stop button and hold it.

- 3. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
STARTER SWITCH	ON			

Do the current condition(s) match the threshold?

YES

Go to step 20.

NO

Go to step 16.

16. Open wire check (PCM internal STS circuit):

Press the engine start/stop button to select the OFF mode.

- 2. Jump the SCS line with the HDS.

NOTE: This step must be done to protect the PCM from damage.

SCS Short

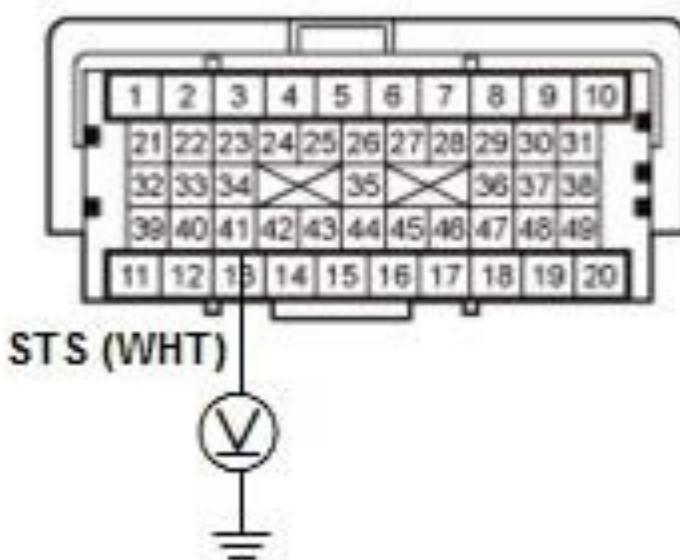
- 3. Disconnect the following connector.

PCM connector A (49P) - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15)

- 4. Press the engine start/stop button to select the ON mode.
- 5. Press the brake pedal.
- 6. Press the engine start/stop button and hold it.
- 7. Measure the voltage between test points 1 and 2.

Test condition	START mode, press brake pedal
	PCM connector A (49P): disconnected
Test circuit	STS
Test point 1	PCM connector A (49P) No. 41 (WHT)
Test point 2	Body ground

PCM CONNECTOR A (49P)



Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there battery voltage?

YES

Update the PCM if it does not have the latest software , or substitute a known-good PCM , then recheck. If the PCM was substituted, and the symptom/indication goes away, replace the original PCM .

NO

Go to step 17.

17. Open wire check (STS line):

Press the engine start/stop button to select the OFF mode.

- 2. Disconnect the following connector.

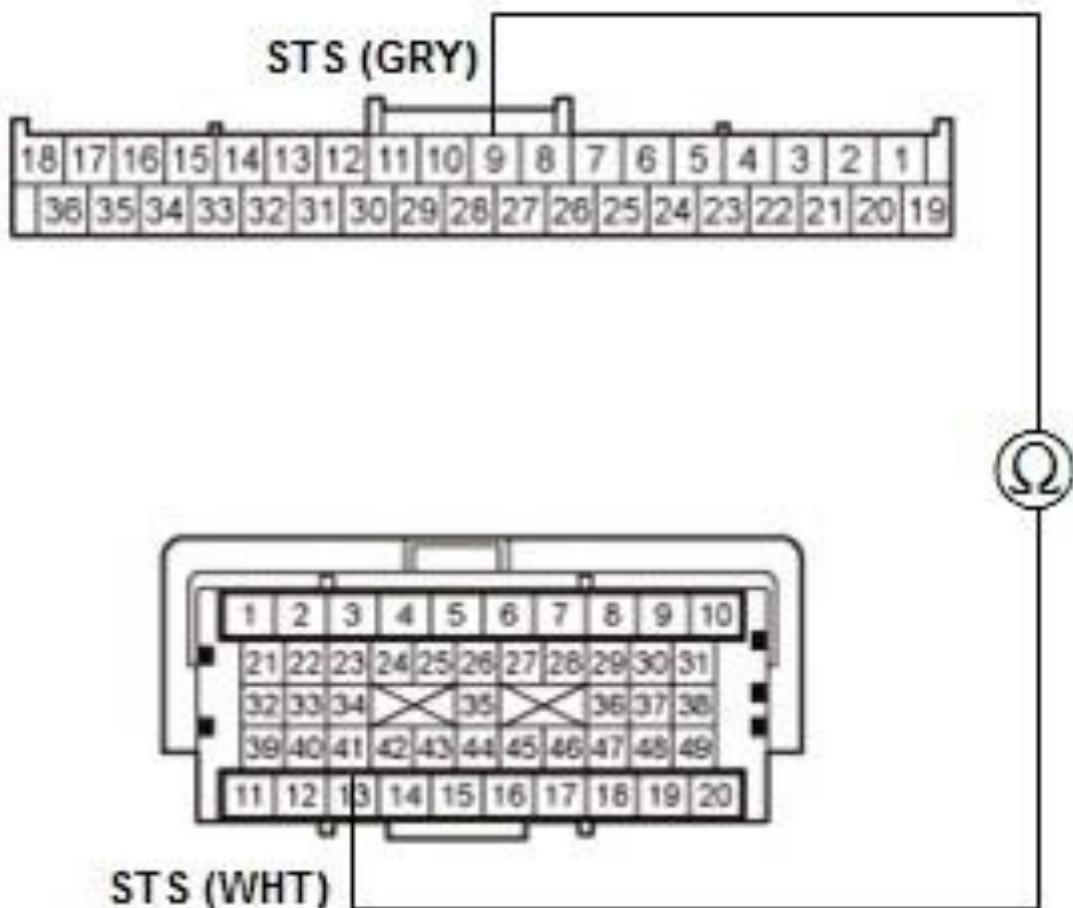
Power control unit connector C (36P)

- 3. Check for continuity between test points 1 and 2.

	OFF mode
Test condition	PCM connector A (49P): disconnected
	Power control unit connector C (36P): disconnected
Test circuit	STS
Test point 1	Power control unit connector C (36P) No. 9 (GRY)
Test point 2	PCM connector A (49P) No. 41 (WHT)

POWER CONTROL UNIT CONNECTOR C (36P)

Wire side of female terminals



PCM CONNECTOR A (49P)

Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there continuity?

YES

The power control unit internal STS circuit is open. Replace the power control unit .

NO

Repair an open in the STS wire between the power control unit and the PCM.

18. Shorted wire check (PCM internal STS circuit):

Press the engine start/stop button to select the OFF mode.

- 2. Jump the SCS line with the HDS.

NOTE: This step must be done to protect the PCM from damage.

SCS Short

- 3. Disconnect the following connector.

PCM connector A (49P) - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15)

- 4. Press the engine start/stop button to select the ON mode.
- 5. Press the brake pedal.
- 6. Press the engine start/stop button and hold it.- 7. Check the parameter(s) below with the HDS.

Signal	Current conditions	
	Values	Unit
STRQ		

Is there battery voltage?

YES

Update the PCM if it does not have the latest software , or substitute a known-good PCM , then recheck. If the PCM was substituted, and the symptom/indication goes away, replace the original PCM .

NO

Go to step 19.

19. Shorted wire check (STS line):

Press the engine start/stop button to select the OFF mode.

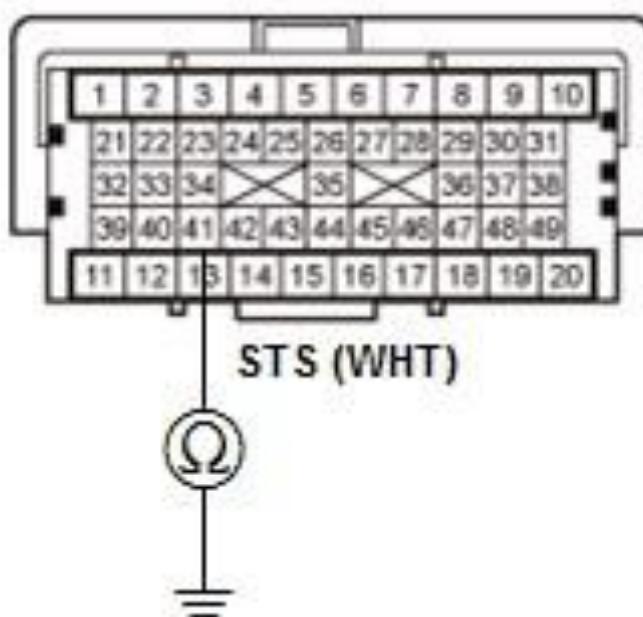
- 2. Disconnect the following connector.

Power control unit connector C (36P)

- 3. Measure the resistance between test points 1 and 2.

Test condition	OFF mode
	PCM connector A (49P): disconnected
	Power control unit connector C (36P): disconnected
Test circuit	STS
Test point 1	PCM connector A (49P) No. 41 (WHT)
Test point 2	Body ground

PCM CONNECTOR A (49P)



Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there 1.0 M Ω or more?

YES

The power control unit internal STS circuit is shorted. Replace the power control unit .

NO

Repair a short in the STS wire between the power control unit and the PCM.

20. STARTER RELAY CONTROL RETURN signal check:

Shift the transmission in P or N.

- 2. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit

STARTER RELAY CONTROL RETURN	OFF				
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Do the current condition(s) match the threshold?

YES

Go to step 29.

NO

Go to step 21.

21. Starter cut relay 1 check:

Test starter cut relay 1 in under-dash relay holder B.

Is the relay OK?

YES

Go to step 22.

NO

Replace starter cut relay 1.

22. Starter cut relay 2 check:

Test starter cut relay 2 in the under-dash fuse/relay box.

Is the relay OK?

YES

Go to step 23.

NO

Replace starter cut relay 2.

23. Open wire check (STRLY line) 1:

Press the engine start/stop button to select the OFF mode.

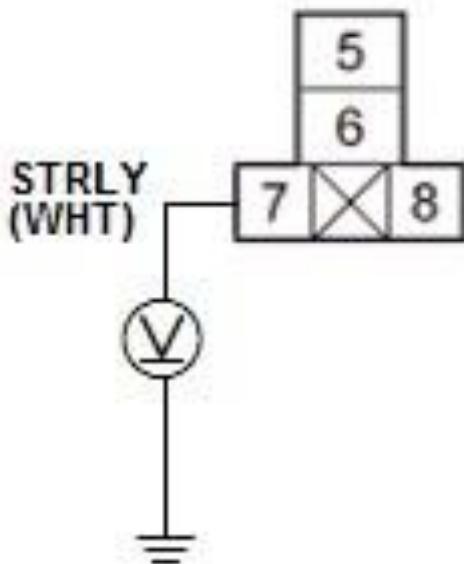
- 2. Remove starter cut relay 1.

- 3. Press the engine start/stop button to select the START mode and hold it.- 4.

Measure the voltage between test points 1 and 2.

Test condition	START mode Starter cut relay 1: disconnected
Test circuit	STRLY
Test point 1	Starter cut relay 1 4P socket No. 7 (WHT)
Test point 2	Body ground

STARTER CUT RELAY 1 4P SOCKET



Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there battery voltage?

YES

Go to step 24.

NO

Go to step 27.

24. Open wire check (STRLY line) 2:

Press the engine start/stop button to select the OFF mode.

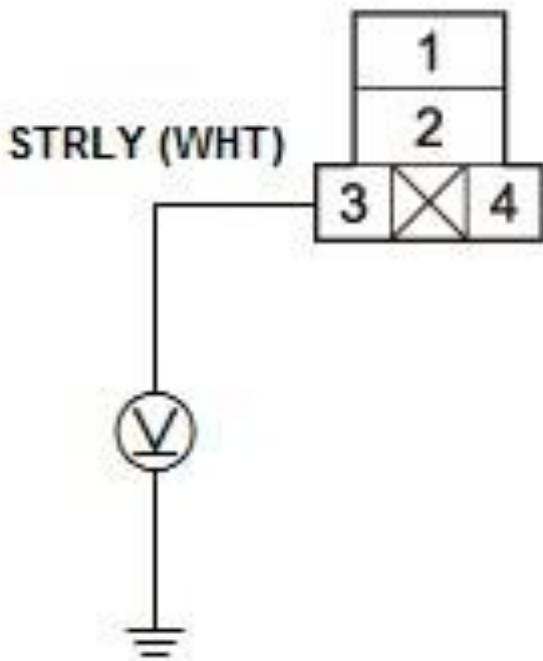
- 2. Remove starter cut relay 2.
- 3. Press the engine start/stop button to select the START mode and hold it.- 4.

Measure the voltage between test points 1 and 2.

	START mode
Test condition	Starter cut relay 2: disconnected
Test circuit	STRLY

Test point 1	Starter cut relay 2 4P socket No. 3 (WHT)
Test point 2	Body ground

STARTER CUT RELAY 2 4P SOCKET



Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there battery voltage?

YES

Go to step 25.

NO

Go to step 28.

25. Transmission range switch test:

Press the engine start/stop button to select the OFF mode.

- 2. Do the transmission range switch test .

Is the transmission range switch OK?

YES

Go to step 26.

NO

Replace the transmission range switch .

26. Open wire check (ATP-STS line):

Install starter cut relay 1 and starter cut relay 2.

- 2. Disconnect the following connector.

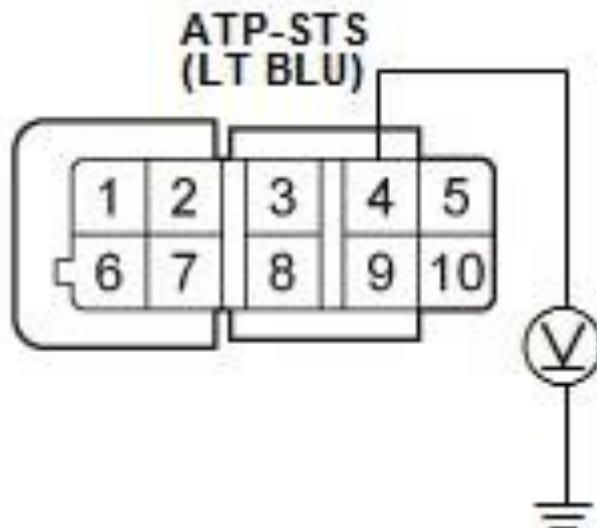
Transmission range switch 10P connector

- 3. Press the engine start/stop button to select the START mode and hold it.

- 4. Measure the voltage between test points 1 and 2.

Test condition	START mode
	Transmission range switch 10P connector: disconnected
Test circuit	ATP-STS
Test point 1	Transmission range switch 10P connector No. 4 (LT BLU)
Test point 2	Body ground

TRANSMISSION RANGE SWITCH CONNECTOR (10P)



Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there battery voltage?

YES

Repair an open in the PG1 wire between the transmission range switch 10P connector and body ground.

NO

Repair an open in the ATP-STS wire between the transmission range switch 10P connector, starter cut relay 1, and starter cut relay 2.

27. Open wire check (STRLY line) 3:

Press the engine start/stop button to select the OFF mode.

- 2. Jump the SCS line with the HDS.

NOTE: This step must be done to protect the PCM from damage.

SCS Short

- 3. Disconnect the following connector.

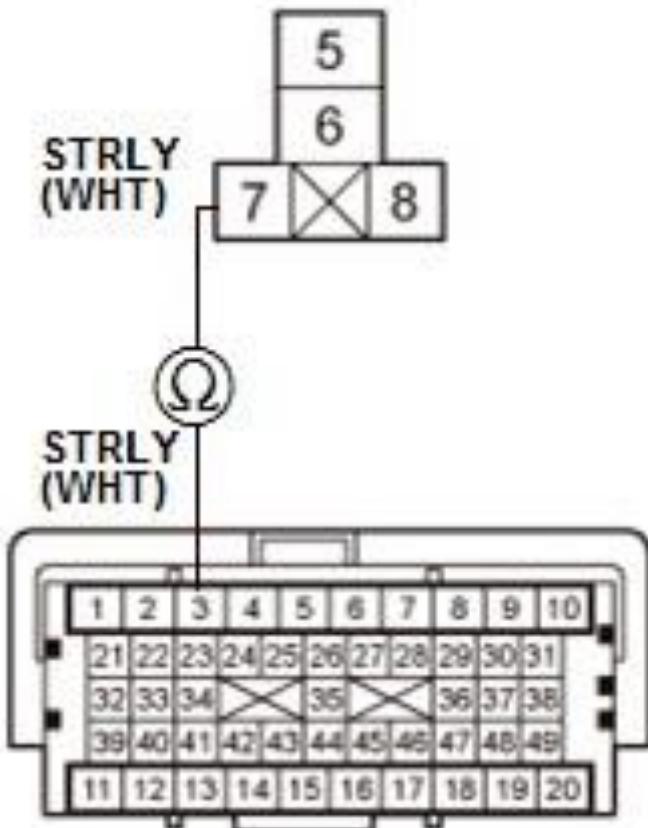
PCM connector A (49P) - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15)

- 4. Check for continuity between test points 1 and 2.

Test condition	OFF mode
	PCM connector A (49P): disconnected
	Starter cut relay 1: disconnected
Test circuit	STRLY
Test point 1	Starter cut relay 1 4P socket No. 7 (WHT)
Test point 2	PCM connector A (49P) No. 3 (WHT)

STARTER CUT RELAY 1 4P SOCKET

Terminal side of female terminals



Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there continuity?

YES

Update the PCM if it does not have the latest software , or substitute a known-good PCM , then recheck. If the PCM was substituted, and the symptom/indication goes away, replace the original PCM .

NO

Repair an open in the STRLY wire between the starter cut relay 1 4P socket and the PCM.

28. Open wire check (STRLY line) 4:

Press the engine start/stop button to select the OFF mode.

- 2. Jump the SCS line with the HDS.

NOTE: This step must be done to protect the PCM from damage.

SCS Short

- 3. Disconnect the following connector.

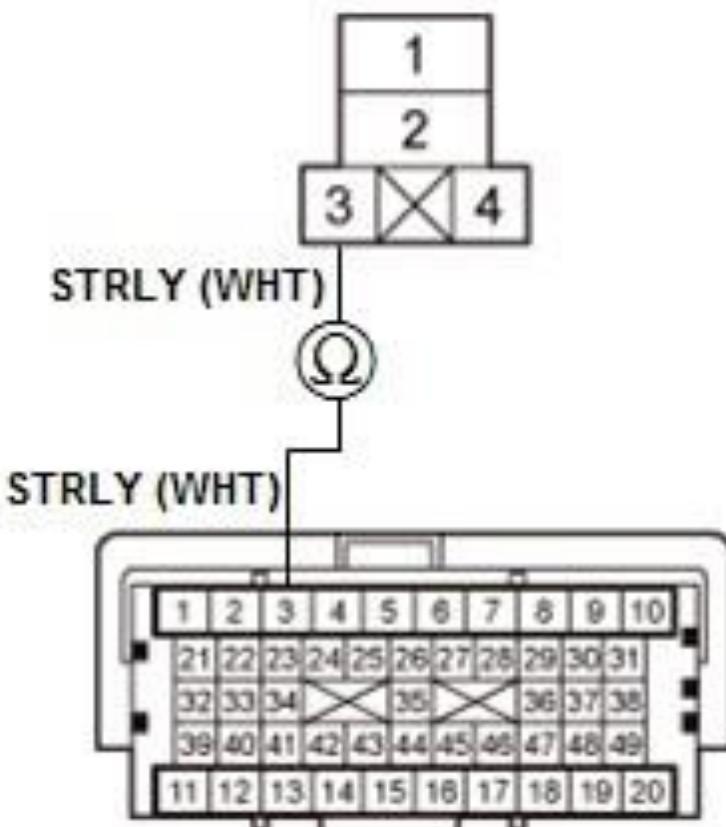
PCM connector A (49P) - Refer to: How to Troubleshoot the Fuel and Emissions Systems (2013-15), or How to Troubleshoot the A/T System (2013-15)

- 4. Check for continuity between test points 1 and 2.

	OFF mode
Test condition	PCM connector A (49P): disconnected
	Starter cut relay 2: disconnected
Test circuit	STRLY
Test point 1	Starter cut relay 2 4P socket No. 3 (WHT)
Test point 2	PCM connector A (49P) No. 3 (WHT)

STARTER CUT RELAY 2 4P SOCKET

Terminal side of female terminals



PCM CONNECTOR A (49P)

Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there continuity?

YES

Update the PCM if it does not have the latest software , or substitute a known-good PCM , then recheck. If the PCM was substituted, and the symptom/indication goes away, replace the original PCM .

NO

Repair an open in the STRLY wire between the starter cut relay 2 4P socket and the PCM.

29. STARTER CUT RELAY signal check:

Press the brake pedal.

- 2. Press the engine start/stop button to select the START mode, and hold it.
- 3. Check the parameter(s) below with the HDS.

Signal	Threshold		Current conditions	
	Values	Unit	Values	Unit
STARTER CUT RELAY	More than 2.2	V		

Do the current condition(s) match the threshold?

YES

Go to step 31.

NO

Go to step 30.

30. Starter cut relay 1 check:

Press the engine start/stop button to select the OFF mode.

- 2. Test starter cut relay 1 in under-dash relay holder B.

Is the relay OK?

YES

Repair an open in the +B ST MAGNETIC SW wire between the starter cut relay 1 4P socket and the under-hood fuse/relay box.

NO

Replace starter cut relay 1.

31. Starter cut relay 2 check:

Press the engine start/stop button to select the OFF mode.

- 2. Test starter cut relay 2 in the under-dash fuse/relay box.

Is the relay OK?

YES

Go to step 32.

NO

Replace starter cut relay 2.

32. Determine possible failure area (starter, others):

Install starter cut relay 2.

- 2. Disconnect the following connector.

Starter S terminal 1P connector

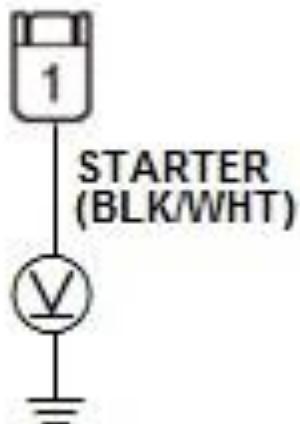
- 3. Press the brake pedal.
- 4. Press the engine start/stop button and hold it.
- 5. Measure the voltage between test points 1 and 2.

Test condition	START mode
	Starter S terminal 1P connector: disconnected
Test circuit	STARTER
Test point 1	Starter S terminal 1P connector No. 1 (BLK/WHT)

Test point 2

Body ground

STARTER S TERMINAL 1P CONNECTOR



Terminal side of female terminals

Courtesy of HONDA, U.S.A., INC.

Is there battery voltage?

YES

Test the starter .

NO

Repair an open in the STARTER wire between the starter cut relay 2 4P socket and the starter.