

2007-08 ENGINE PERFORMANCE

EVAP System - TL

COMPONENT LOCATION INDEX

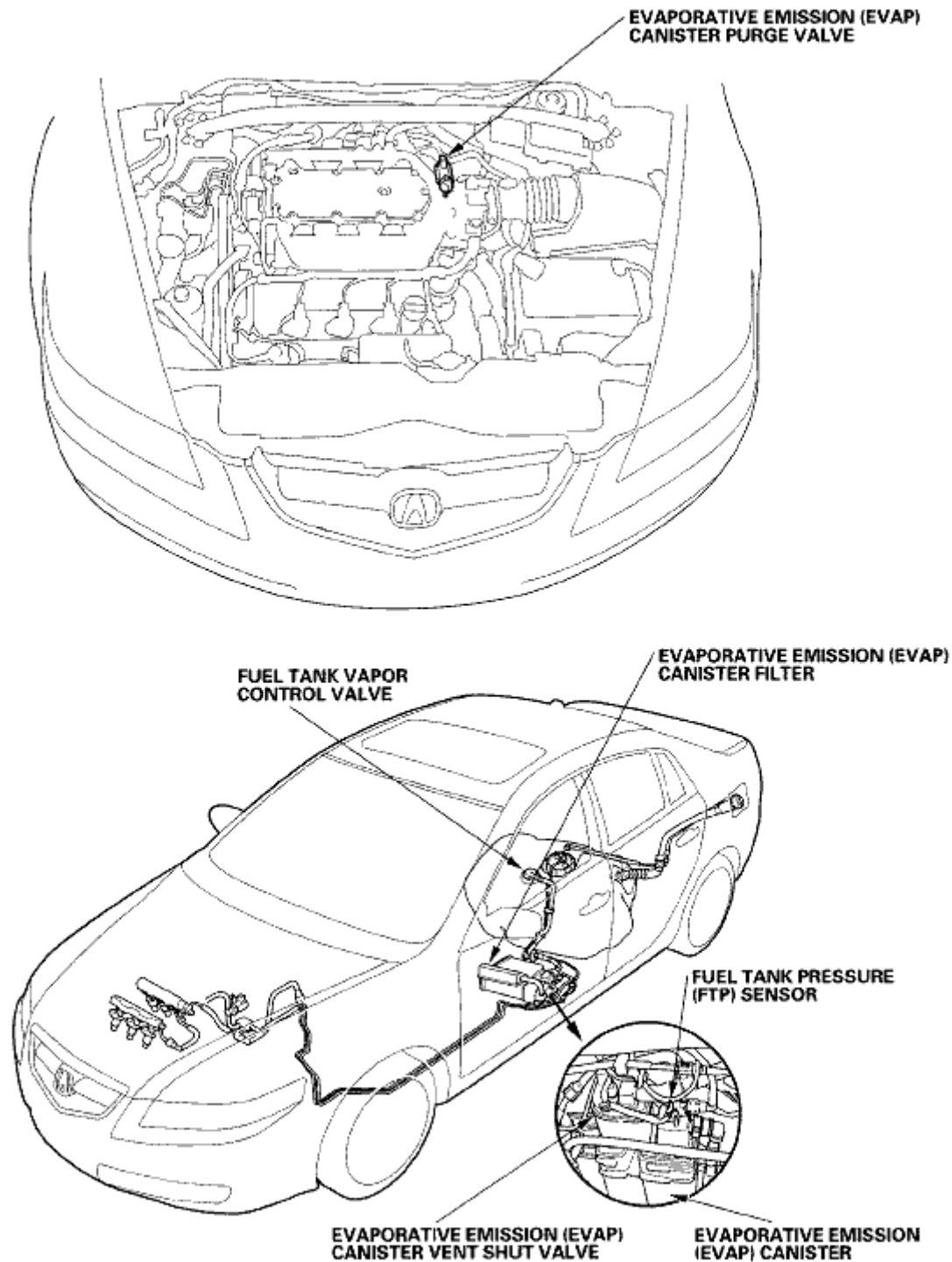


Fig. 1: Identifying EVAP System Components Location (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

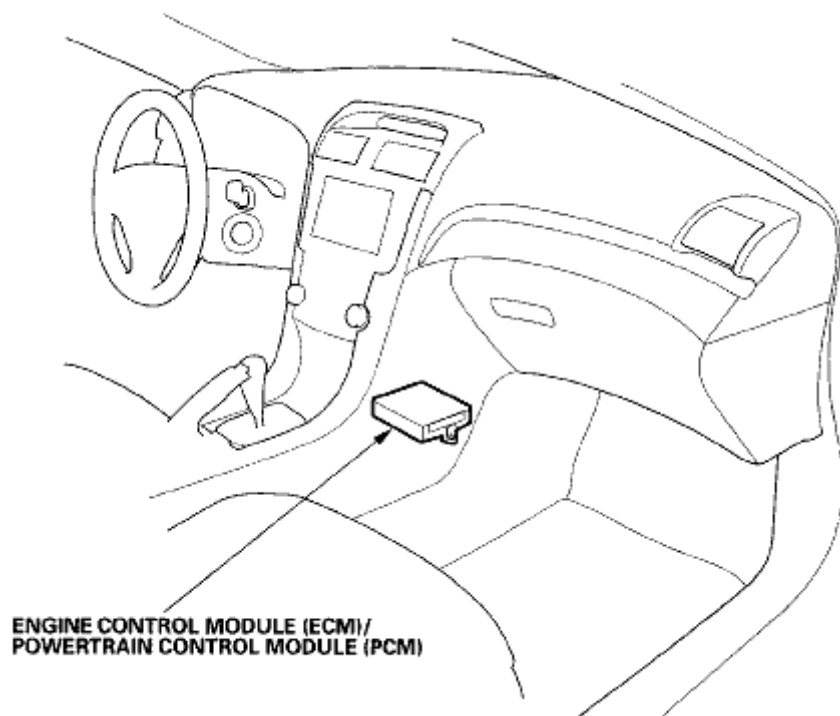


Fig. 2: Identifying EVAP System Components Location (2 Of 2)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC TROUBLESHOOTING

DTC P0443: EVAP CANISTER PURGE VALVE CIRCUIT MALFUNCTION

Special Tools Required

Vacuum pump/gauge, 0-30 in.Hg, Snap-on YA4000A or equivalent, commercially available

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Start the engine. Hold the engine speed at 3,000 rpm without load (in Park or neutral) until the radiator fan comes on, then let it idle.
4. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0443 indicated?

YES -Go to step 5.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the EVAP canister purge valve and the ECM/PCM.

5. Turn the ignition switch OFF, and allow the engine to cool below 140°F (60°C).
6. Disconnect the vacuum hose (A) from the EVAP canister purge joint (B) in the engine compartment, and connect a vacuum pump/gauge, 0-30 in.Hg, to the hose.

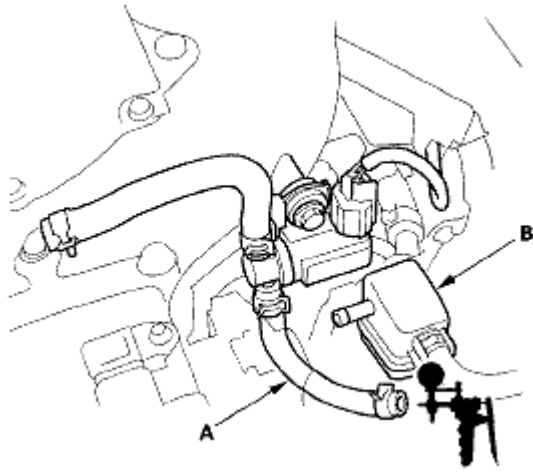


Fig. 3: Identifying Vacuum Hose And EVAP Canister Purge Joint
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Start the engine, and let it idle.

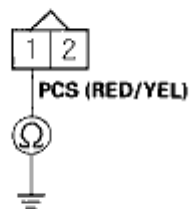
Is there vacuum?

YES -Go to step 8.

NO -Go to step 14.

8. Turn the ignition switch OFF.
9. Disconnect the EVAP canister purge valve 2P connector.
10. Check for continuity between EVAP canister purge valve 2P connector No. 1 and body ground.

EVAP CANISTER PURGE VALVE 2P CONNECTOR



Wire side of female terminals

Fig. 4: Checking Continuity Between EVAP Canister Purge Valve 2P Connector No. 1 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

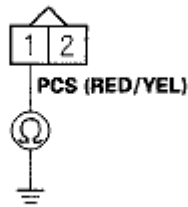
Is there continuity?

YES -Go to step 11.

NO -Go to step 24.

11. Jump the SCS line with the HDS.
12. Disconnect ECM/PCM connector B (24P).
13. Check for continuity between EVAP canister purge valve 2P connector terminal No. 1 and body ground.

EVAP CANISTER PURGE VALVE 2P CONNECTOR



Wire side of female terminals

Fig. 5: Checking Continuity Between EVAP Canister Purge Valve 2P Connector Terminal No. 1 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

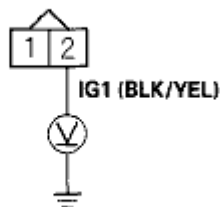
Is there continuity?

YES -Repair short in the wire between the EVAP canister purge valve and the ECM/PCM (B2), then go to step 25.

NO -Go to step 31.

14. Turn the ignition switch OFF.
15. Disconnect the EVAP canister purge valve 2P connector.
16. Turn the ignition switch ON (II).
17. Measure voltage between EVAP canister purge valve 2P connector terminal No. 2 and body ground.

EVAP CANISTER PURGE VALVE 2P CONNECTOR



Wire side of female terminals

Fig. 6: Measuring Voltage Between EVAP Canister Purge Valve 2P Connector Terminal No. 2 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

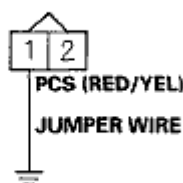
Is there battery voltage?

YES -Go to step 18.

NO -Repair open in the wire between the EVAP canister purge valve and the No. 18 IG ACG (15 A) fuse in the under-dash fuse/relay box, then go to step 25.

18. Turn the ignition switch OFF.
19. Jump the SCS line with the HDS.
20. Disconnect ECM/PCM connector B (24P).
21. Connect EVAP canister purge valve 2P connector terminal No. 1 to body ground with a jumper wire.

EVAP CANISTER PURGE VALVE 2P CONNECTOR

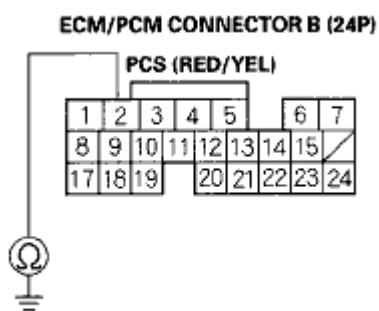


Wire side of female terminals

Fig. 7: Connecting EVAP Canister Purge Valve 2P Connector Terminal No. 1 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

22. Check for continuity between ECM/PCM connector terminal B2 and body ground.



Wire side of female terminals

Fig. 8: Checking Continuity Between ECM/PCM Connector Terminal B2 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

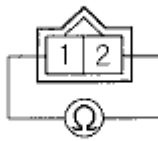
YES -Go to step 23.

NO -Repair open in the wire between the EVAP canister purge valve and the ECM/PCM (B2), then go to step 25.

23. At the valve side, measure resistance between EVAP canister purge valve 2P connector terminals No.

1 and No. 2.

EVAP CANISTER PURGE VALVE 2P CONNECTOR



Terminal side of male terminals

Fig. 9: Measuring Resistance Between EVAP Canister Purge Valve 2P Connector Terminals No. 1 And 2

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 26-30 ohms at room temperature?

YES -Go to step 31.

NO -Go to step 24.

24. Replace the EVAP canister purge valve (see **EVAP CANISTER PURGE VALVE REPLACEMENT**).
25. Reconnect all connectors.
26. Turn the ignition switch ON (II).
27. Reset the ECM/PCM with the HDS.
28. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
29. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0443 indicated?

YES -Check for poor connections or loose terminals at the EVAP canister purge valve and the ECM/PCM, then go to step 1.

NO -Go to step 30.

30. Monitor the OBD STATUS for DTC P0443 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 29, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister purge valve and the ECM/PCM, then go to step 1. If the screen indicates EXECUTING or OUT OF CONDITION, keep idling until a result comes on.

31. Reconnect all connectors.

32. Update the ECM/PCM if it does not have the latest software (see **UPDATING THE ECM/PCM**), or substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**).
33. Start the engine, and let it idle.
34. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0443 indicated?

YES -Check for poor connections or loose terminals at the EVAP canister purge valve and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 33. If the ECM/PCM was substituted, go to step 1.

NO -Go to step 35.

35. Monitor the OBD STATUS for DTC P0443 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -If the ECM/PCM was updated, troubleshooting is complete. If the ECM/PCM was substituted, replace the original ECM/PCM (see **ECM/PCM REPLACEMENT**). If any other Temporary DTCs or DTCs were indicated in step 34, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister purge valve and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 33. If the ECM/PCM was substituted, go to step 1. If the screen indicates EXECUTING or OUT OF CONDITION, keep idling until a result comes on.

DTC P0451: FTP SENSOR CIRCUIT RANGE/ PERFORMANCE PROBLEM

NOTE:

- Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).
- If DTC P2422 is stored at the same time as DTC P0451, troubleshoot DTC P2422 first, then recheck for DTC P0451.

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Start the engine, and let it idle without load (in Park or neutral) until the radiator fan comes on.
4. Monitor the OBD STATUS for DTC P0451 in the DTCs MENU with the HDS.

Does the screen indicate FAILED?

YES -Go to step 5.

NO -If the screen indicates PASSED, intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor and the ECM/PCM. If the screen indicates NOT COMPLETED, go to step 3 and recheck.

5. Turn the ignition switch OFF.
6. Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**).
7. Turn the ignition switch ON (II).
8. Reset the ECM/PCM with the HDS.
9. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
10. Start the engine, and let it idle without load (in Park or neutral) until the radiator fan comes on.
11. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0451 indicated?

YES -Check for poor connections or loose terminals at the FTP sensor and the ECM/PCM, then go to step 1.

NO -Go to step 12.

12. Monitor the OBD STATUS for DTC P0451 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 11, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the FTP sensor and the ECM/PCM, then go to step 1. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

DTC P0452: FTP SENSOR CIRCUIT LOW VOLTAGE

NOTE: **Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).**

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF.
4. Remove the fuel fill cap.
5. Turn the ignition switch ON (II).
6. Check the FTP SENSOR in the DATA LIST with the HDS.

Is about - 7.3 kPa (-2.16 in.Hg, -55 mmHg), or 0.3 V or less indicated?

YES -Go to step 10.

NO -Go to step 7.

7. Install the fuel fill cap.
8. Start the engine.

9. Monitor the OBD STATUS for DTC P0452 in the DTCs MENU with the HDS.

Does the screen indicate FAILED?

YES -Go to step 10.

NO -If the screen indicates PASSED, intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor and the ECM/PCM. If the screen indicates NOT COMPLETED, go to step 4 and recheck.

10. Turn the ignition switch OFF.
11. Disconnect the FTP sensor 3P connector.
12. Turn the ignition switch ON (II).
13. Check the FTP SENSOR in the DATA LIST with the HDS.

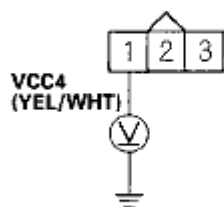
Is about 7.3 kPa (2.15 in.Hg, 54.7 mmHg), or 4.90 V indicated?

YES -Go to step 20.

NO -Go to step 14.

14. Measure voltage between FTP sensor 3P connector terminal No. 1 and body ground.

FTP SENSOR 3P CONNECTOR



Wire side of female terminals

Fig. 10: Measuring Voltage Between FTP Sensor 3P Connector Terminal No. 1 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Go to step 16.

NO -Go to step 15.

15. Measure voltage between ECM/PCM connector terminal E12 and body ground.

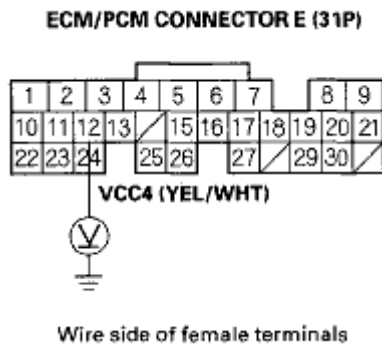


Fig. 11: Measuring Voltage Between ECM/PCM Connector Terminal E12 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Repair open in the wire between the ECM/PCM (E12) and the FTP sensor, then go to step 22.

NO -Go to step 28.

16. Turn the ignition switch OFF.
17. Jump the SCS line with the HDS.
18. Disconnect ECM/PCM connector E (31P).
19. Check for continuity between FTP sensor 3P connector terminal No. 2 and body ground.

FTP SENSOR 3P CONNECTOR

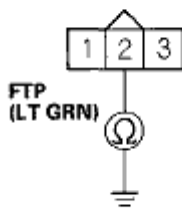


Fig. 12: Checking Continuity Between FTP Sensor 3P Connector Terminal No. 2 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Repair short in the wire between the ECM/PCM (E29) and the FTP sensor, then go to step 22.

NO -Go to step 29.

20. Turn the ignition switch OFF.
21. Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**).
22. Reconnect all connectors.
23. Turn the ignition switch ON (II).

24. Reset the ECM/PCM with the HDS.
25. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
26. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0452 indicated?

YES -Check for poor connections or loose terminals at the FTP sensor and the ECM/PCM, then go to step 1.

NO -Go to step 27.

27. Monitor the OBD STATUS for DTC P0452 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 26, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the FTP sensor and the ECM/PCM, then go to step 1. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

28. Turn the ignition switch OFF.
29. Reconnect all connectors.
30. Update the ECM/PCM if it does not have the latest software (see **UPDATING THE ECM/PCM**), or substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**).
31. Start the engine, and let it idle.
32. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0452 indicated?

YES -Check for poor connections or loose terminals at the FTP sensor and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 31. If the ECM/PCM was substituted, go to step 1.

NO -Go to step 33.

33. Monitor the OBD STATUS for DTC P0452 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -If the ECM/PCM was updated, troubleshooting is complete. If the ECM/PCM was substituted, replace the original ECM/PCM (see **ECM/PCM REPLACEMENT**). If any other Temporary DTCs or DTCs were indicated in step 32, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the FTP sensor and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 31. If the ECM/PCM was substituted, go to step 1. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

DTC P0453: FTP SENSOR CIRCUIT HIGH VOLTAGE

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF.
4. Remove the fuel fill cap.
5. Turn the ignition switch ON (II).
6. Check the FTP SENSOR in the DATA LIST with the HDS.

Is about 7.3 kPa (2.16 in.Hg, 55 mmHg), or 4.7 V or more indicated?

YES -Go to step 10.

NO -Go to step 7.

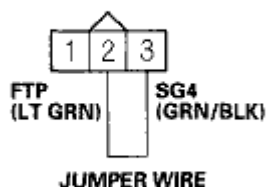
7. Install the fuel fill cap.
8. Start the engine.
9. Monitor the OBD STATUS for DTC P0453 in the DTCs MENU with the HDS.

Does the screen indicate FAILED?

YES -Go to step 10.

NO -If the screen indicates PASSED, intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor and the ECM/PCM. If the screen indicates NOT COMPLETED, go to step 6 and recheck.

10. Turn the ignition switch OFF.
11. Disconnect the FTP sensor 3P connector.
12. Connect FTP sensor 3P connector terminals No. 2 and No. 3 with a jumper wire.

FTP SENSOR 3P CONNECTOR

Wire side of female terminals

Fig. 13: Connecting FTP Sensor 3P Connector Terminals No. 2 And No. 3 With Jumper Wire
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

13. Turn the ignition switch ON (II).
14. Check the FTP SENSOR in the DATA LIST with the HDS.

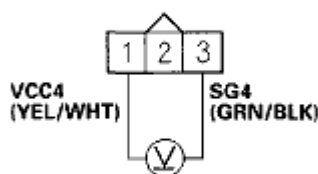
Is about 7.3 kPa (2.16 in.Hg, 55 mmHg), or 4.7 V or more indicated ?

YES -Go to step 15.

NO -Go to step 25.

15. Measure voltage between FTP sensor 3P connector terminals No. 1 and No. 3.

FTP SENSOR 3P CONNECTOR



Wire side of female terminals

Fig. 14: Measuring Voltage Between FTP Sensor 3P Connector Terminals No. 1 And No. 3
Courtesy of AMERICAN HONDA MOTOR CO., INC.

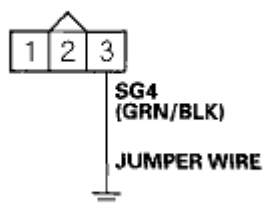
Is there about 5 V?

YES -Go to step 21.

NO -Go to step 16.

16. Turn the ignition switch OFF.
17. Jump the SCS line with the HDS.
18. Disconnect ECM/PCM connector E (31P).
19. Connect FTP sensor 3P connector terminal No. 3 to body ground with a jumper wire.

FTP SENSOR 3P CONNECTOR



Wire side of female terminals

Fig. 15: Connecting FTP Sensor 3P Connector Terminal No. 3 To Body Ground With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

20. Check for continuity between ECM/PCM connector terminals E1 and body ground.

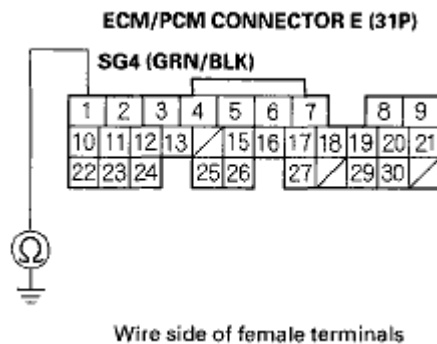


Fig. 16: Checking Continuity Between ECM/PCM Connector Terminals E1 And Body Ground
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 34.

NO -Repair open in the wire between the ECM/PCM (E1) and the FTP sensor, then go to step 27.

21. Turn the ignition switch OFF.
 22. Connect ECM/PCM connector terminals E1 and E29 with a jumper wire.

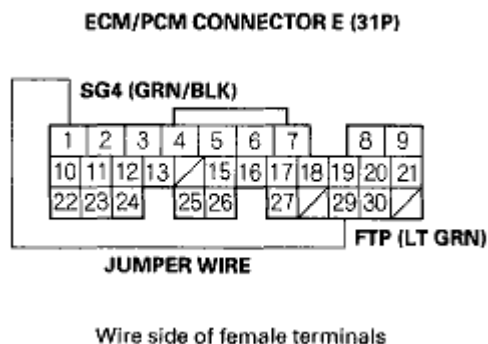


Fig. 17: Connecting ECM/PCM Connector Terminals E1 And E29 With Jumper Wire
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

23. Turn the ignition switch ON (II).
 24. Check the FTP SENSOR in the DATA LIST with the HDS.

Is about 7.3 kPa (2.16 in.Hg, 55 mmHg), or 4.7 V or more indicated?

YES -Go to step 33.

NO -Repair open in the wire between the ECM/PCM (A29) and the FTP sensor, then go to step 27.

25. Turn the ignition switch OFF.
 26. Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**).

27. Reconnect all connectors.
28. Turn the ignition switch ON (II).
29. Reset the ECM/PCM with the HDS.
30. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
31. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0453 indicated?

YES -Check for poor connections or loose terminals at the FTP sensor and the ECM/PCM, then go to step 1.

NO -Go to step 32.

32. Monitor the OBD STATUS for DTC P0453 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 31, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the FTP sensor and the ECM/PCM, then go to step 1. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

33. Turn the ignition switch OFF.
34. Reconnect all connectors.
35. Update the ECM/PCM if it does not have the latest software (see **UPDATING THE ECM/PCM**), or substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**).
36. Start the engine, and let it idle.
37. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0453 indicated?

YES -Check for poor connections or loose terminals at the FTP sensor and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 36. If the ECM/PCM was substituted, go to step 1.

NO -Go to step 38.

38. Monitor the OBD STATUS for DTC P0453 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -If the ECM/PCM was updated, troubleshooting is complete. If the ECM/PCM was substituted, replace the original ECM/PCM (see **ECM/PCM REPLACEMENT**). If any other Temporary DTCs or DTCs were indicated in step 37, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the FTP sensor

and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 36. If the ECM/PCM was substituted, go to step 1. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

DTC P0455: EVAP SYSTEM LARGE LEAK DETECTED; DTC P0456: EVAP SYSTEM VERY SMALL LEAK DETECTED

NOTE: The fuel system is designed to allow specified maximum vacuum and pressure conditions. Do not deviate from the vacuum and pressure tests as indicated in these procedures. Excessive pressure/ vacuum would damage the EVAP components or cause eventual fuel tank failure.

Special Tools Required

Vacuum pump/gauge, 0-30 in.Hg, Snap-on YA4000A or equivalent, commercially available

NOTE:

- Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).
- Fresh fuel has a higher volatility that will create greater pressure/vacuum. The optimum condition for testing is less than a full tank of fresh fuel. If possible, to assist in leak detection, add 1 gallon of fresh fuel to the tank (as long as it will not fill the tank), just before starting these procedures.

1. Check the fuel fill cap (the cap must say "TIGHTEN TO CLICK"). It should turn 1/4 turn after it's tight, then it clicks.

Is the correct fuel fill cap installed and properly tightened?

YES -Go to step 2.

NO -Replace or tighten the cap, then go to step 22.

2. Check the fuel fill cap seal (A) and the fuel fill pipe mating surface (B). Verify that the fuel fill cap tether cord (C) is not caught under the cap.

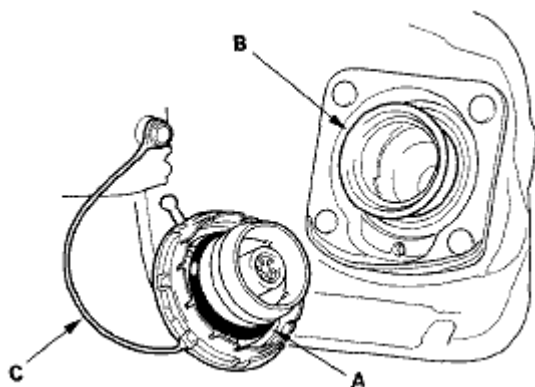


Fig. 18: Identifying Fuel Fill Cap Seal And Fuel Fill Pipe Mating Surface

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is the fuel fill cap seal missing or damaged, is the fuel fill pipe damaged, or is the tether cord caught under the cap?

YES -Replace the fuel fill cap or the fuel fill pipe, then go to step 22.

NO -Go to step 3.

3. Turn the ignition switch ON (II).
4. Clear the DTC with the HDS.
5. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, or the EVAP canister vent shut valve and the ECM/PCM.

NO -Go to step 6.

6. Turn the ignition switch OFF.
7. Check for a poor connection or damage at the fuel tank vapor recirculation tube.

Is the tube OK?

YES -Go to step 8.

NO -

- Replace the fuel tank vapor recirculation tube, then go to step 22.
 - If necessary, replace the fuel tank (see **FUEL TANK REPLACEMENT**), then go to step 22.
8. Disconnect the fuel tank vapor recirculation tube (A) from the EVAP canister (B), and plug the EVAP canister port (C).

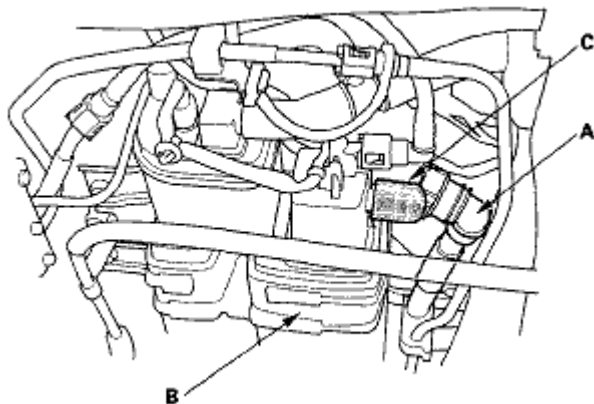


Fig. 19: Identifying Fuel Tank Vapor Recirculation Tube And EVAP Canister
Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Disconnect the vacuum hose (A) from the EVAP canister purge valve (B) in the engine compartment, and connect a vacuum pump/gauge, 0-30 in.Hg, to the vacuum hose as shown.

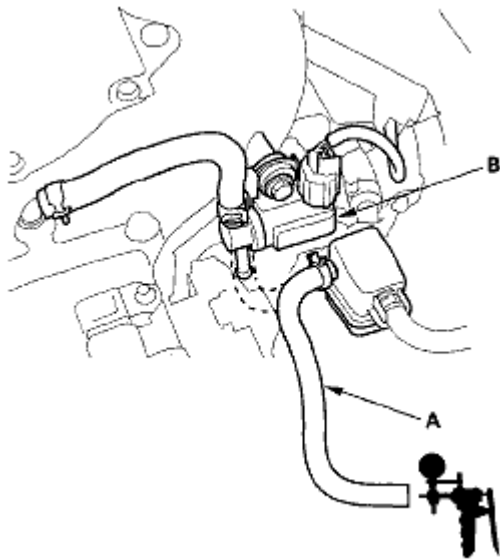


Fig. 20: Identifying Vacuum Hose And EVAP Canister Purge Valve
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

10. Turn the ignition switch ON (II).
11. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
12. Apply vacuum to the hose until the FTP reads 1.90 V or -2.0 kpa (-0.59 in.Hg, -15.1 mmHg).

NOTE: Be careful not to apply excessive the vacuum. If you do, the FTP sensor can be damaged.

13. Monitor the FTP SENSOR in the DATA LIST for 1 minute with the HDS.

Does the voltage increase more than 0.2 V or 0.3 kpa (0.1 in.Hg, 2.5 mmHg)?

YES -Go to step 14.

NO -Go to step 19.

14. Select EVAP CVS OFF in the INSPECTION MENU with the HDS.
15. Disconnect the fresh air hoses (A) from the EVAP canister vent shut valve (B), and plug the EVAP canister vent shut valve ports (C).

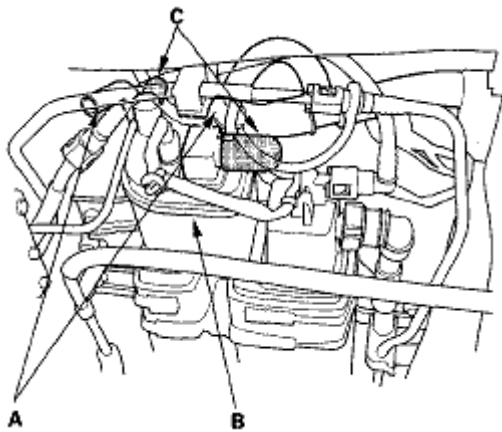


Fig. 21: Identifying Fresh Air Hoses And EVAP Canister Vent Shut Valve
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

16. Apply vacuum to the hose (disconnected in step 9) until the FTP reads 1.90 V or -2.0 kpa (-0.59 in.Hg, - 15.1 mmHg).

NOTE: Be careful not to apply excessive the vacuum. If you do, the FTP sensor can be damaged.

17. Monitor the FTP SENSOR in the DATA LIST for 1 minute with the HDS.

Does the voltage increase more than 0.2 V or 0.3 kpa (0.1 in.Hg, 2.5 mmHg)?

YES -Go to step 18.

NO -Replace the EVAP canister vent shut valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**), then go to step 21.

18. Check for a loose or damaged EVAP canister purge line between the EVAP canister and the EVAP canister purge valve.

Is the line OK?

YES -Replace the following parts, then go to step 21.

- FTP sensor O-ring
- EVAP canister vent shut valve case and O-ring
- EVAP canister

NO -Reconnect or repair the EVAP canister purge hose, then go to step 21.

19. Select EVAP CVS OFF in the INSPECTION MENU with the HDS.

20. Check these parts for looseness or damage.

- Fuel fill pipe
- Fuel vapor return pipe

Are the parts OK?

YES -Check the fuel tank unit base gasket (see **FUEL TANK UNIT REMOVAL AND INSTALLATION**), and check the fuel tank, then go to step 21.

NO -Repair or replace the damaged parts, then go to step 21.

21. Reconnect all hoses and connectors.
22. Turn the ignition switch ON (II).
23. Reset the ECM/PCM with the HDS.
24. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
25. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES -Troubleshooting is complete.

NO -Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, or the EVAP canister vent shut valve and the ECM/PCM, then go to step 1.

DTC P0457: EVAP SYSTEM LEAK DETECTED/FUEL FILL CAP LOOSE OR MISSING

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).

1. Check the fuel fill cap (the cap must say "TIGHTEN TO CLICK"). It should turn 1/4 turn after it's tight, then it clicks.

Is the correct fuel fill cap installed and properly tightened?

YES -Go to step 2.

NO -Replace or tighten the cap, then go to step 19.

2. Check the fuel fill cap seal (A) and the fuel fill pipe mating surface (B). Verify that the fuel fill cap tether cord (C) is not caught under the cap.

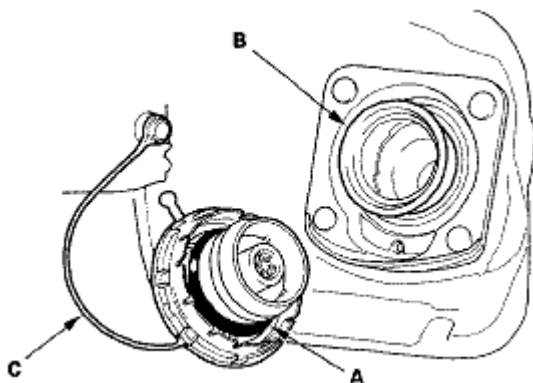


Fig. 22: Identifying Fuel Fill Cap Seal And Fuel Fill Pipe Mating Surface
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is the fuel fill cap seal missing or damaged, is the fuel fill pipe damaged, or is the tether cord caught under the cap?

YES -Replace the fuel fill cap or the fuel fill pipe, then go to step 19.

NO -Go to step 3.

3. Turn the ignition switch ON (II).
4. Clear the DTC with the HDS.
5. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor or the EVAP canister vent shut valve and the ECM/PCM.

NO -Go to step 6.

6. Turn the ignition switch OFF.
7. Remove the EVAP canister vent shut valve from the EVAP canister (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
8. Connect the 2P connector to the EVAP canister vent shut valve.
9. Turn the ignition switch ON (II).
10. Do the EVAP CVS ON in the INSPECTION MENU with the HDS.
11. Check the EVAP canister vent shut valve (A) operation.

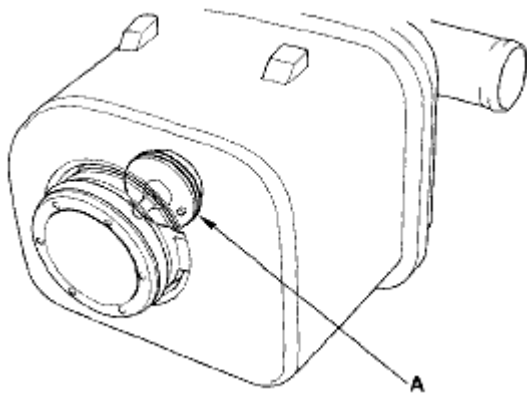


Fig. 23: Identifying EVAP Canister Vent Shut Valve
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Does the valve operate?

YES -Check the routing of the EVAP canister vent tube, then go to step 18.

NO -Go to step 12.

12. Turn the ignition switch OFF.
13. Replace the EVAP canister vent shut valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
14. Turn the ignition switch ON (II).
15. Reset the ECM/PCM with the HDS.
16. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
17. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES -Troubleshooting is complete.

NO -Check for poor connections or loose terminals at the FTP sensor or the EVAP canister vent shut valve and the ECM/PCM, then go to step 1.

18. Reinstall the EVAP canister vent shut valve.
19. Turn the ignition switch ON (II).
20. Reset the ECM/PCM with the HDS.
21. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
22. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES -Troubleshooting is complete.

NO -Check for poor connections or loose terminals at the FTP sensor or the EVAP canister vent shut valve and the ECM/PCM, then go to step 1.

DTC P0496: EVAP SYSTEM HIGH PURGE FLOW DETECTED

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, or the EVAP canister vent shut valve and the ECM/PCM.

NO -Go to step 4.

4. Turn the ignition switch OFF.

5. Replace the EVAP canister purge valve (see **EVAP CANISTER PURGE VALVE REPLACEMENT**).
6. Turn the ignition switch ON (II).
7. Reset the ECM/PCM with the HDS.
8. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
9. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES -Troubleshooting is complete.

NO -Check for poor connections or loose terminals at the FTP sensor, the EVAP canister purge valve, or the EVAP canister vent shut valve and the ECM/PCM, then go to step 1.

DTC P0497: EVAP SYSTEM LOW PURGE FLOW DETECTED

Special Tools Required

- Vacuum pump/gauge, 0-30 in.Hg, Snap-on YA4000A or equivalent, commercially available
- Vacuum/pressure gauge, 0-4 in.Hg, 07JAZ-001000B

NOTE: **Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).**

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Select EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the FTP sensor and the ECM/PCM.

NO -Go to step 4.

4. Check for poor connection, blockage, or damage at the EVAP canister purge line between the throttle body and the EVAP canister.

Is the line OK?

YES -Go to step 5.

NO -Reconnect or repair the EVAP canister purge line, then go to step 25.

5. Disconnect the vacuum hose (A) from the EVAP canister purge valve (B).

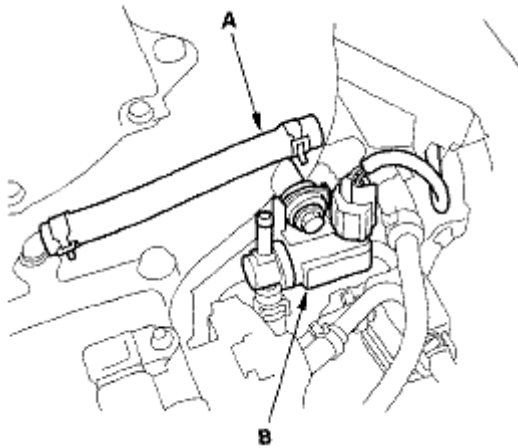


Fig. 24: Identifying Vacuum Hose And EVAP Canister Purge Valve
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Disconnect the vacuum hose (A) from the purge line (at the EVAP canister side), and connect a T-fitting (B) from the vacuum gauge and the vacuum pump/gauge, 0-30 in.Hg, to the hose as shown.

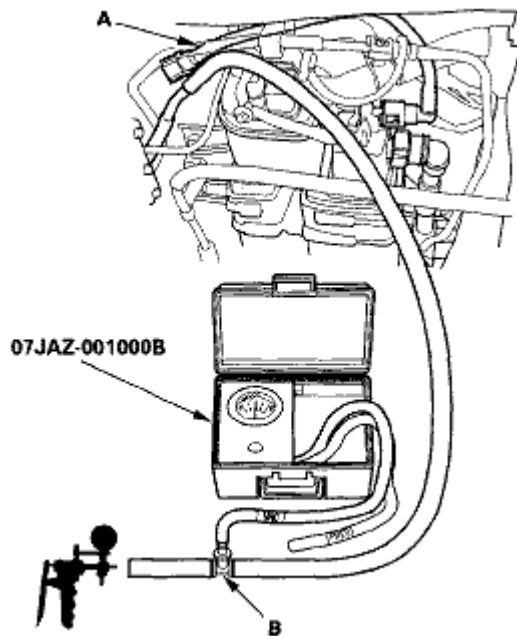


Fig. 25: Disconnecting Vacuum Hose From Purge Line
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Apply about 2 kPa (0.6 in.Hg, 15 mmHg) of vacuum to the hose.
8. Select EVAP PCS ON in the INSPECTION MENU with the HDS.

Does it hold vacuum?

YES -Go to step 9.

NO -Go to step 13.

9. Select EVAP PCS OFF in the INSPECTION MENU with the HDS.
10. Disconnect the vacuum hose (A) from the EVAP canister purge valve (B). Connect a T-fitting (C) from the vacuum gauge and the vacuum pump/ gauge, 0-30 in.Hg, to the hose (D) as shown.

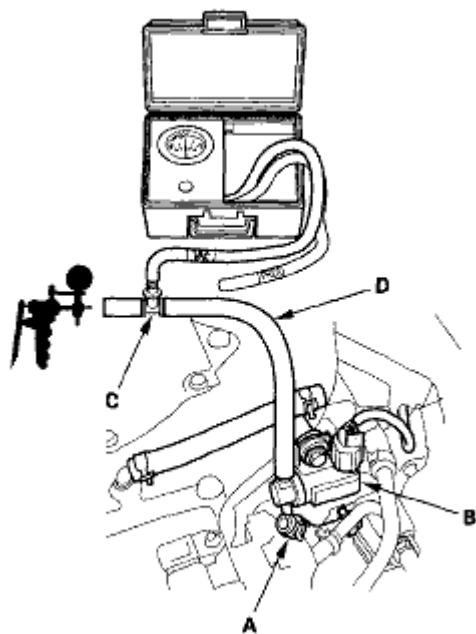


Fig. 26: Identifying Vacuum Hose And EVAP Canister Purge Valve
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

11. Apply about 2 kPa (0.6 in.Hg, 15 mmHg) of vacuum to the hose.
12. Select EVAP PCS ON in the INSPECTION MENU with the HDS.

Does it hold vacuum?

YES -Replace the EVAP canister purge valve (see **EVAP CANISTER PURGE VALVE REPLACEMENT**), then go to step 24.

NO -Check for blockage in the vacuum hose between the EVAP canister purge valve and the EVAP canister, then go to step 24.

13. Connect the vacuum pump/gauge, 0-30 in.Hg, to the vacuum hose (A) as shown.

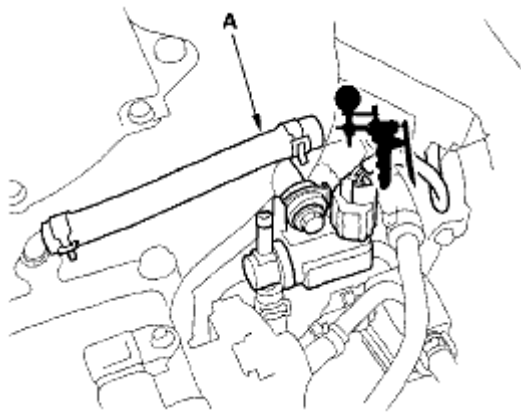


Fig. 27: Connecting Vacuum Pump/Gauge To Vacuum Hose
Courtesy of AMERICAN HONDA MOTOR CO., INC.

14. Start the engine, and let it idle.

Is there vacuum?

YES -Go to step 15.

NO -Check for blockage in vacuum hose between the EVAP canister purge valve and the throttle body then go to step 24.

15. Turn the ignition switch OFF.
16. Remove the FTP sensor with its connector connected (see **FTP SENSOR REPLACEMENT**).
17. Connect a T-fitting (A) from the vacuum pump/ gauge, 0-30 in.Hg, and the vacuum pump to the FTP sensor (B) as shown.

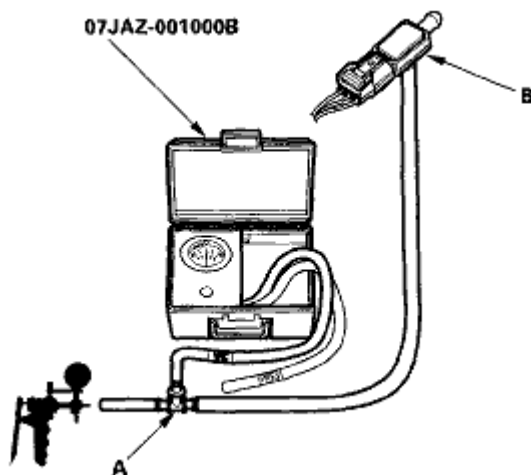


Fig. 28: Connecting T-Fitting From Vacuum Pump/ Gauge And Vacuum Pump To FTP Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

18. Turn the ignition switch ON (II).
19. Check and record the FTP SENSOR reading in the DATA LIST with the HDS.
20. Slowly apply about 1.3 kPa (0.4 in.Hg, 10 mmHg) of vacuum to the hose.

21. Check the FTP SENSOR in the DATA LIST with the HDS.

Does the value change?

YES -Check for debris or blockage at the EVAP canister port, then go to step 24.

NO -Go to step 22.

22. Turn the ignition switch OFF.
23. Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**).
24. Reconnect all hoses.
25. Turn the ignition switch ON (II).
26. Reset the ECM/PCM with the HDS.
27. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
28. Do the EVAP FUNCTION TEST in the INSPECTION MENU with the HDS.

Is the result OK?

YES -Troubleshooting is complete.

NO -Check for poor connections or loose terminals at the FTP sensor and ECM/PCM, then go to step 1.

DTC P0498: EVAP CANISTER VENT SHUT VALVE CIRCUIT LOW VOLTAGE

NOTE: **Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see GENERAL TROUBLESHOOTING INFORMATION).**

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0498 indicated?

YES -Go to step 6.

NO -Go to step 4.

4. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
5. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0498 indicated?

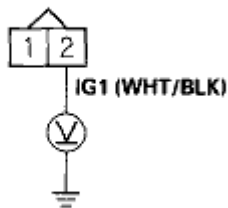
YES -Go to step 6.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals

at the EVAP canister vent shut valve and the ECM/PCM.

6. Turn the ignition switch OFF.
7. Disconnect the EVAP canister vent shut valve 2P connector.
8. Turn the ignition switch ON (II).
9. Measure voltage between EVAP canister vent shut valve 2P connector terminal No. 2 and body ground.

EVAP CANISTER VENT SHUT VALVE 2P CONNECTOR



Wire side of female terminals

Fig. 29: Measuring Voltage Between EVAP Canister Vent Shut Valve 2P Connector Terminal No. 2 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

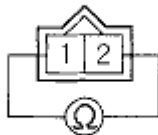
Is there battery voltage?

YES -Go to step 10.

NO -Repair open in the wire between the EVAP canister vent shut valve and the A/F sensor relay then go to step 19.

10. Turn the ignition switch OFF.
11. At the valve side, measure resistance between EVAP canister vent shut valve 2P connector terminals No. 1 and No. 2.

EVAP CANISTER VENT SHUT VALVE 2P CONNECTOR



Terminal side of male terminals

Fig. 30: Measuring Resistance Between EVAP Canister Vent Shut Valve 2P Connector Terminals No. 1 And 2

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 25 - 30 ohms at room temperature?

YES -Go to step 12.

NO -Go to step 18.

12. Turn the ignition switch OFF.
13. Jump the SCS line with the HDS.
14. Disconnect ECM/PCM connector E (31P).
15. Check for continuity between ECM/PCM connector terminal E10 and body ground.

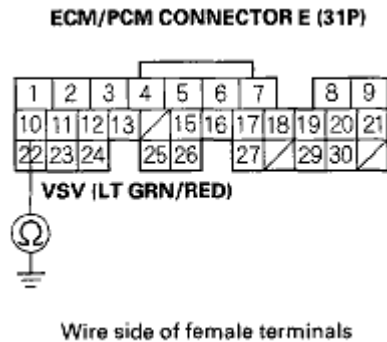


Fig. 31: Checking Continuity Between ECM/PCM Connector Terminal E10 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Repair short in the wire between the EVAP canister vent shut valve and the ECM/PCM (E10), then go to step 19.

NO -Go to step 16.

16. Connect EVAP canister vent shut valve 2P connector terminal No. 1 to body ground with a jumper wire.

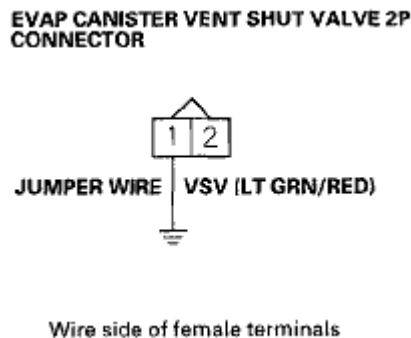


Fig. 32: Connecting EVAP Canister Vent Shut Valve 2P Connector Terminal No. 1 To Body Ground With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

17. Check for continuity between ECM/PCM connector terminal E10 and body ground.

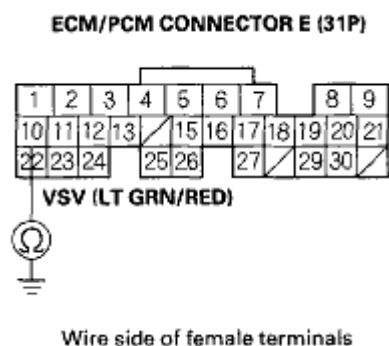


Fig. 33: Checking Continuity Between ECM/PCM Connector Terminal E10 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 26.

NO -Repair open in the wire between the EVAP canister vent shut valve and the ECM/PCM (E10), then go to step 19.

18. Replace the EVAP canister vent shut valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
19. Reconnect all connectors.
20. Turn the ignition switch ON (II).
21. Reset the ECM/PCM with the HDS.
22. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
23. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
24. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0498 indicated?

YES -Check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM/PCM, then go to step 1.

NO -Go to step 25.

25. Monitor the OBD STATUS for DTC P0498 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 24, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM/PCM, then go to step 1. If the screen indicates NOT COMPLETED, go to step 23.

26. Reconnect all connectors.

27. Update the ECM/PCM if it does not have the latest software (see **UPDATING THE ECM/PCM**), or substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**).
28. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
29. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0498 indicated?

YES -Check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 28. If the ECM/PCM was substituted, go to step 1.

NO -Go to step 30.

30. Monitor the OBD STATUS for DTC P0498 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -If the ECM/PCM was updated, troubleshooting is complete. If the ECM/PCM was substituted, replace the original ECM/PCM (see **ECM/PCM REPLACEMENT**). If any other Temporary DTCs or DTCs were indicated in step 29, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 28. If the ECM/PCM was substituted, go to step 1. If the screen indicates NOT COMPLETED, go to step 28.

DTC P0499: EVAP CANISTER VENT SHUT VALVE CIRCUIT HIGH VOLTAGE

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
4. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0499 indicated?

YES -Go to step 5.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM/PCM.

5. Update the ECM/PCM if it does not have the latest software (see **UPDATING THE ECM/PCM**), or substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**).
6. Select EVAP CVS ON in the INSPECTION MENU with the HDS.

7. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0499 indicated?

YES -Check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 6. If the ECM/PCM was substituted, go to step 1.

NO -Go to step 8.

8. Monitor the OBD STATUS for DTC P0499 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -If the ECM/PCM was updated, troubleshooting is complete. If the ECM/PCM was substituted, replace the original ECM/PCM (see **ECM/PCM REPLACEMENT**). If any other Temporary DTCs or DTCs were indicated in step 7, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the EVAP canister vent shut valve and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then go to step 6. If the ECM/PCM was substituted, go to step 1. If the screen indicates NOT COMPLETED, go to step 6.

DTC P1454: FTP SENSOR RANGE/PERFORMANCE PROBLEM; DTC P2422: EVAP CANISTER VENT SHUT VALVE STUCK CLOSED MALFUNCTION

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF.
4. Remove the fuel fill cap, and wait 1 minute.
5. Check the FTP SENSOR in the DATA LIST with the HDS.

Is it between - 0.67 kPa and 0.67 kPa (- 0.2 and 0.2 in.Hg, -5 and 5 mmHg), or 2.4-2.6 V?

YES -Go to step 6.

NO -Go to step 17.

6. Install the fuel fill cap.
7. Clear the DTC with the HDS.
8. Start the engine, and let it idle without load (in Park on neutral) until the radiator fan comes on.
9. Monitor the OBD STATUS for DTC P1454 in the DTCs MENU with the HDS.

Does the screen indicate FAILED?

YES -Go to step 10.

NO -If the screen indicates PASSED, intermittent failure, the system is OK at this time, check for a poor connections or loose terminals at the FTP sensor or the EVAP canister vent shut valve and the ECM/PCM. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

10. Clear the DTC with the HDS.
11. Turn the ignition switch OFF.
12. Remove the EVAP canister vent shut valve from the EVAP canister (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**).
13. Connect the 2P connector to the EVAP canister vent shut valve.
14. Turn the ignition switch ON (II).
15. Select EVAP CVS ON in the INSPECTION MENU with the HDS.
16. Check the EVAP canister vent shut valve (A) operation.

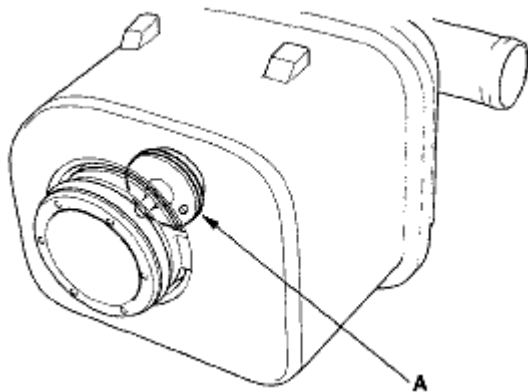


Fig. 34: Identifying EVAP Canister Vent Shut Valve
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Does the valve operate?

YES -Check for a blockage in the EVAP canister, canister filter, vent hoses, and drain joint, then install the EVAP canister vent shut valve, and go to step 23.

NO -Replace the EVAP canister vent shut valve (see **EVAP CANISTER VENT SHUT VALVE REPLACEMENT**), then go to step 23.

17. Disconnect the air tube (A) from the FTP sensor (B).

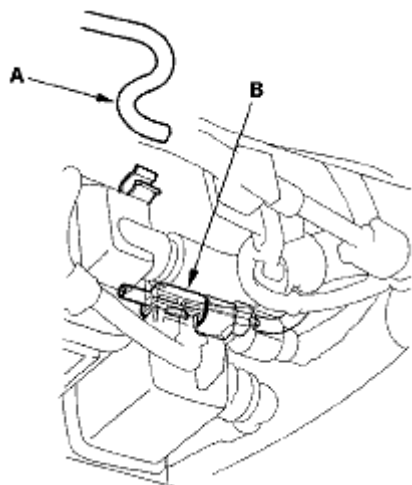


Fig. 35: Identifying Air Tube And FTP Sensor
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

18. Check the FTP SENSOR in the DATA LIST with the HDS.

Is it between - 0.67 kPa and 0.67 kPa (- 0.2 and 0.2 in.Hg, -5 and 5 mmHg), or 2.4-2.6 V?

YES -Check for a blockage in the FTP sensor air tube, then go to step 23.

NO -Go to step 19.

19. Turn the ignition switch OFF.
 20. Remove the FTP sensor (A) from the EVAP canister with its connector connected (see **EVAP CANISTER PURGE VALVE REPLACEMENT**).

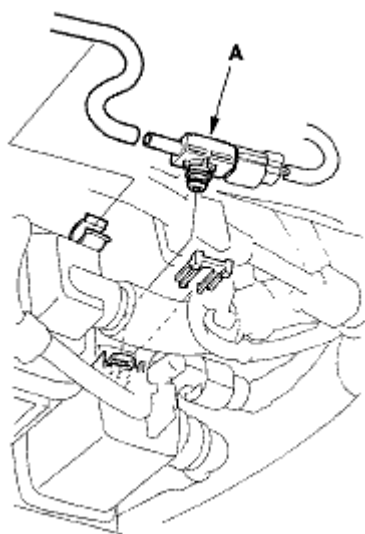


Fig. 36: Identifying FTP Sensor
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

21. Turn the ignition switch ON (II).
 22. Check the FTP SENSOR in the DATA LIST with the HDS.

Is it between - 0.67 kPa and 0.67 kPa (- 0.2 and 0.2 in.Hg, - 5 and 5 mmHg), or 2.4-2.6 V?

YES -Check for debris or clogging at the EVAP canister and the FTP sensor port, then go to step 23.

NO -Replace the FTP sensor (see **FTP SENSOR REPLACEMENT**), then go to step 23.

23. Turn the ignition switch ON (II).
24. Reset the ECM/PCM with the HDS.
25. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
26. Start the engine, and let it idle without load (in Park or neutral) until the radiator fan comes on.
27. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P1454 and/or P2422 indicated?

YES -Check for poor connections or loose terminals at the FTP sensor or the EVAP canister vent shut valve and the ECM/PCM, then go to step 1.

NO -Go to step 28.

28. Monitor the OBD STATUS for DTC P1454 in the DTCs MENU with the HDS.

Does the screen indicate PASSED?

YES -Troubleshooting is complete. If any other Temporary DTCs or DTCs were indicated in step 27, go to the indicated DTCs troubleshooting.

NO -If the screen indicates FAILED, check for poor connections or loose terminals at the FTP sensor or the EVAP canister vent shut valve and the ECM/PCM, then go to step 1. If the screen indicates NOT COMPLETED, keep idling until a result comes on.

DTC P145C: EVAP SYSTEM PURGE FLOW MALFUNCTION

NOTE:

- Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).
- If DTC P145C is indicated alone, do the troubleshooting for DTC P0496 and P0497 using freeze data from P145C.
- If DTC P0497 and P145C stored at the same time, check for poor connection, blockage, or damage at EVAP canister purge line between the EVAP canister purge valve and the EVAP canister, or if the EVAP canister purge valve is stuck in the closed position.
- If any of the DTCs listed below are indicated at the same time as DTC P145C, troubleshoot those DTCs first, then recheck for P145C.

P0496, P0497: EVAP system purge flow

FUEL CAP WARNING MESSAGE SYSTEM TROUBLESHOOTING

Special Tools Required

- Vacuum pump/gauge, 0-30 in.Hg, Snap-on YA4000A or equivalent, commercially available
- Vacuum/pressure gauge, 0-4 in.Hg 07JAZ-001000B

Do this procedure if the fuel cap warning message comes on frequently, or if the message does not go off after the fuel fill cap is tightened and the vehicle is driven several days.

1. Check the fuel fill cap (the cap must say "TIGHTEN TO CLICK"). It should turn 1/4 after it's tight, then it clicks.

Is the correct fuel fill cap installed and properly tightened?

YES -Go to step 2.

NO -Replace or tighten the cap, then go to step 13.

2. Check the fuel fill cap seal (A) and the fuel fill pipe mating surface (B). Verify that the fuel fill cap tether cord (C) is not caught under the cap.

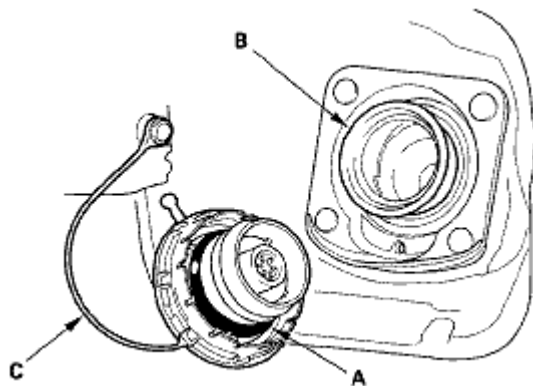


Fig. 37: Identifying Fuel Fill Cap Seal And Fuel Fill Pipe Mating Surface
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is the fuel fill cap seal missing or damaged, is the fuel fill pipe damaged, or is the tether cord caught under the cap?

YES -Replace the fuel fill cap or the fuel fill pipe, then go to step 13.

NO -Go to step 3.

3. Reinstall and tighten the fuel fill cap.
4. Clear the DTC with the HDS.
5. Start the engine. Hold the engine speed at 3,000 rpm without load (in Park or neutral) until a radiator fan comes on, then let it idle for 1 minute.
6. Test drive at 45 mph (72 km/h) for 1 minute or more.

Does the fuel cap warning message come on?

YES -Go to step 7.

NO -Intermittent failure, the system is OK at this time.

7. Turn the ignition switch OFF.
8. Disconnect the vacuum hose (A) from the EVAP canister purge valve (B) in the engine compartment, and connect a T-fitting (C) from the vacuum gauge and the vacuum pump/gauge 0-30 in.Hg, to the EVAP canister purge valve as shown.

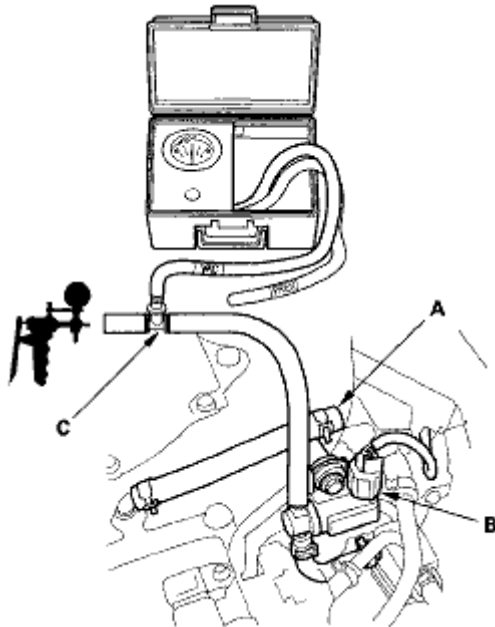


Fig. 38: Identifying Vacuum Hose And EVAP Canister Purge Valve
Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Turn the ignition switch ON (II).
10. Apply about 2 kPa (0.6 in.Hg, 15 mmHg) vacuum to the hose.
11. Select the EVAP PCS ON in the INSPECTION MENU with the HDS.

Does the vacuum release immediately?

YES -Check for blockage at the vacuum hose between the EVAP canister purge valve and the EVAP canister, then go to step 12.

NO -Replace the EVAP canister purge valve (see **EVAP CANISTER PURGE VALVE REPLACEMENT**), then go to step 12.

12. Reconnect all hoses.
13. Turn the ignition switch ON (II).
14. Reset the ECM/PCM with the HDS.
15. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
16. Start the engine. Hold the engine speed at 3,000 rpm without load (in Park or neutral) until the radiator fan comes on, then let it idle for 1 minute.

17. Test drive at 45 mph (72 km/h) for 1 minute or more.

Does the fuel cap warning message come on?

YES -Go to step 1 and recheck.

NO -Troubleshooting is complete.

EVAP CANISTER REPLACEMENT

1. Remove the EVAP canister cover (A).

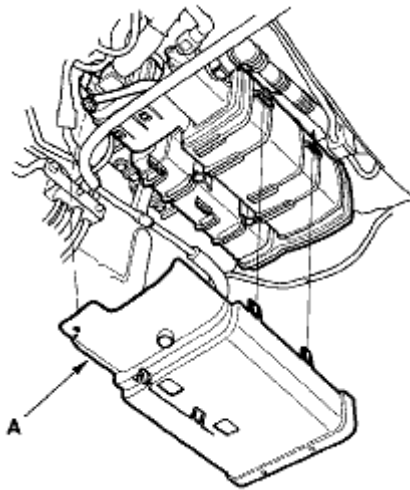


Fig. 39: Identifying EVAP Canister Cover

Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Remove the hoses (A), the FTP sensor 3P connector (B), and the EVAP canister vent shut valve 2P connector (C).

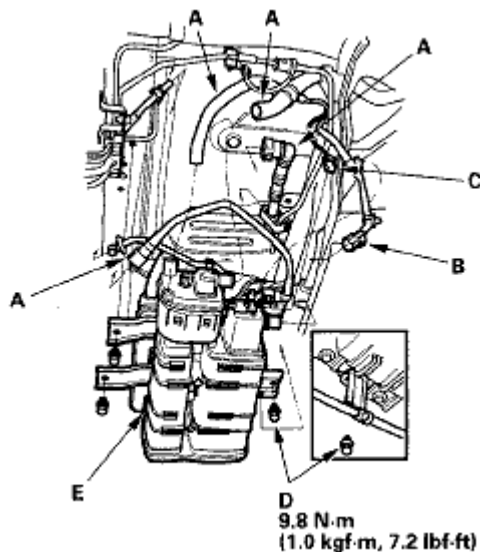


Fig. 40: Identifying EVAP Canister Vent Shut Valve 2P And FTP Sensor 3P Connector With

Torque Specifications**Courtesy of AMERICAN HONDA MOTOR CO., INC.**

3. Remove the bolts (D).
4. Remove the EVAP canister assembly (E).
5. Remove the EVAP canister bracket (A).

NOTE: The canister filter remains on the bracket.

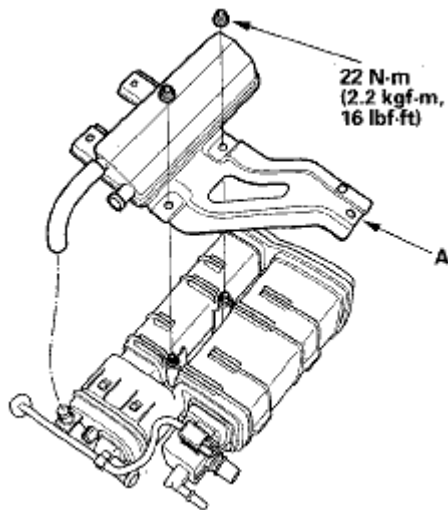


Fig. 41: Identifying EVAP Canister Bracket With Torque Specifications

Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Install the parts in the reverse order of removal.

FTP SENSOR REPLACEMENT

1. Disconnect FTP sensor 3P connector (A).

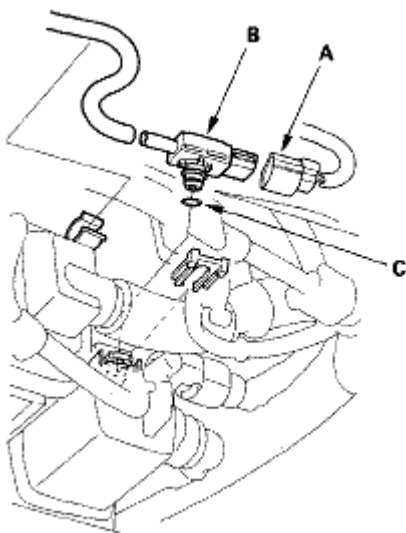


Fig. 42: Identifying FTP Sensor And 3P Connector
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Remove the FTP sensor (B).
3. Install the parts in the reverse Order of removal with a new O-ring (C).

EVAP CANISTER PURGE VALVE REPLACEMENT

1. Disconnect the hoses (A) and the EVAP canister purge valve 2P connector (B).

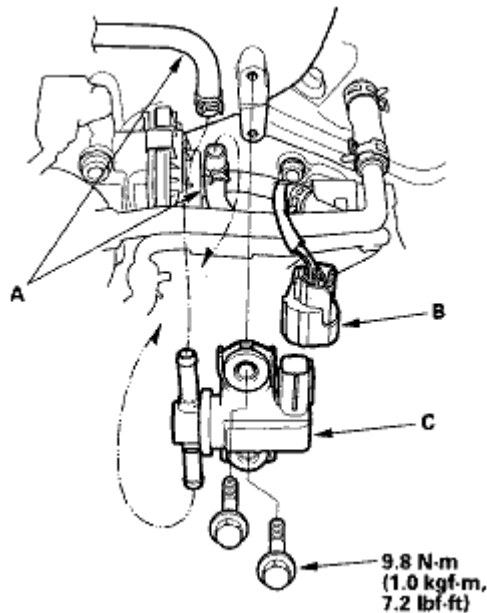


Fig. 43: Identifying EVAP Canister Purge Valve And 2P Connector With Torque Specifications
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Remove the EVAP canister purge valve (C).
3. Install the parts in the reverse order of removal.

EVAP CANISTER VENT SHUT VALVE REPLACEMENT

1. Remove the EVAP canister (see EVAP CANISTER REPLACEMENT).
2. Pry the lock tabs (A) outward and remove the EVAP canister vent shut valve (B).

NOTE: Be careful not to damage the lock tabs.

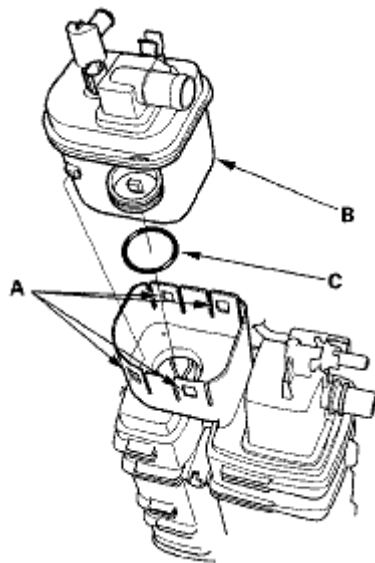


Fig. 44: Identifying EVAP Canister Vent Shut Valve And Lock Tab
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Install the parts in the reverse order of removal with a new O-ring (C).

NOTE: Do not coat the O-ring with oil.

EVAP CANISTER FILTER REPLACEMENT

1. Remove the EVAP canister (see EVAP CANISTER REPLACEMENT).
2. Disconnect the hose (A)

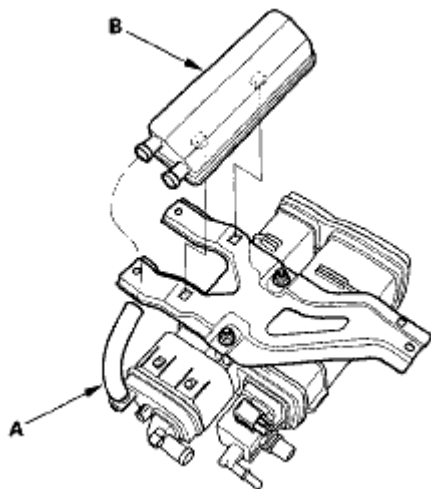


Fig. 45: Identifying EVAP Canister Filter And Hose
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Remove the EVAP canister filter (B).
4. Install the parts in the reverse order of removal.