

2007 Honda Element EX

2007-2008 ENGINE PERFORMANCE Electronic Throttle Control System - Element

2007-2008 ENGINE PERFORMANCE

Electronic Throttle Control System - Element

COMPONENT LOCATION INDEX

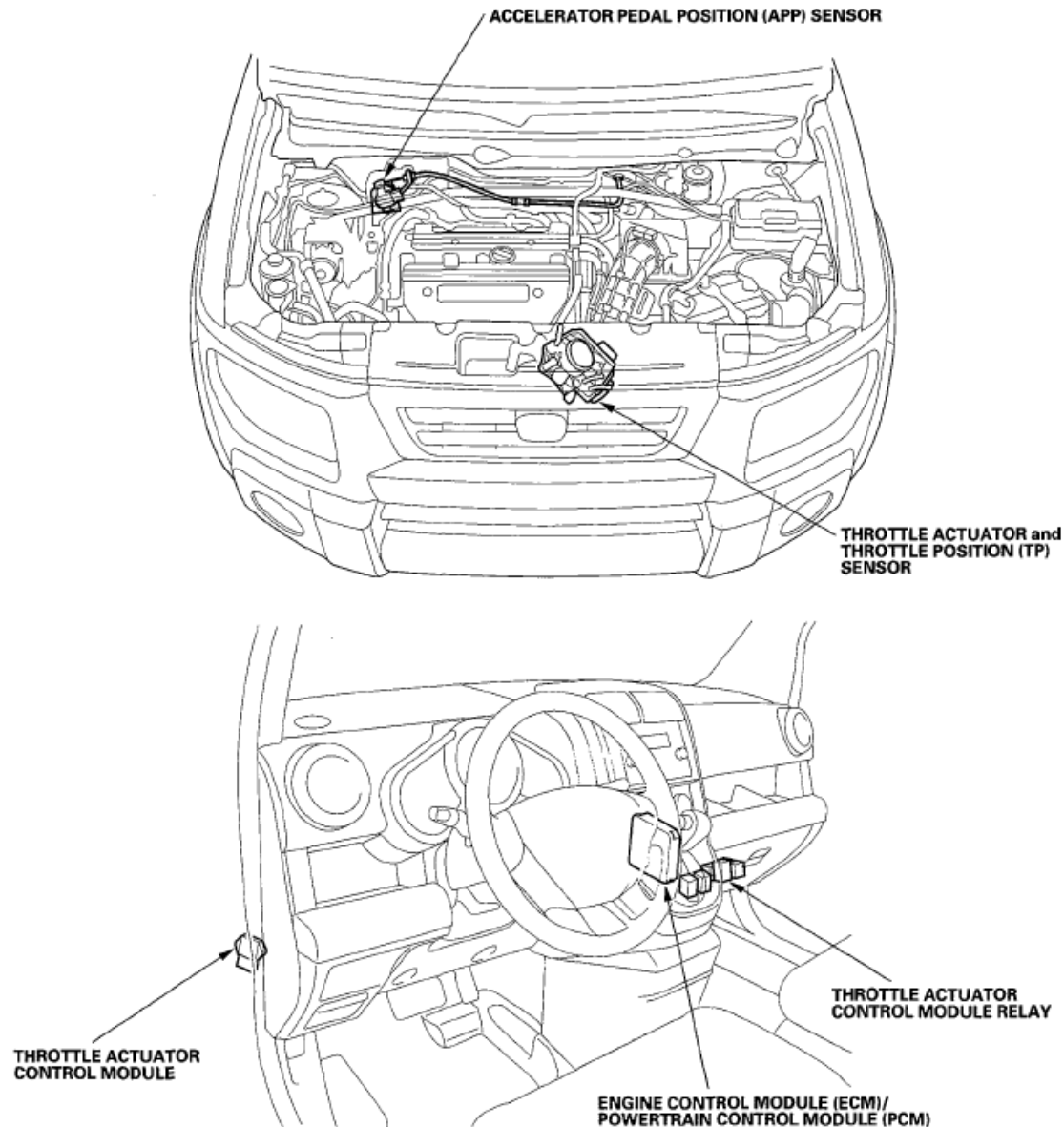


Fig. 1: Identifying Electronic Throttle Control Components Location
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC TROUBLESHOOTING

DTC P0122: TP SENSOR A 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 TP SENSOR A in the DATA LIST with the HDS.

Is there about 0.1 V or less?

YES -Go to step 4.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body and the throttle actuator control module.

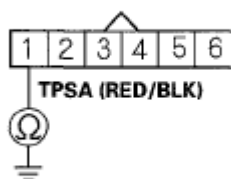
4. Check for Temporary DTCs or DTCs with the HDS.

Are DTC P0122 and P0222 indicated at the same time?

YES -Go to step 9.

NO -Go to step 5.

5. Turn the ignition switch OFF.
6. Disconnect the throttle body 6P connector.
7. Disconnect the throttle actuator control module 16P connector (see THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT).
8. Check for continuity between throttle body 6P connector terminal No. 1 and body ground.

THROTTLE BODY 6P CONNECTOR

Wire side of female terminals

Fig. 2: Checking Continuity Between Throttle Body 6P Connector Terminal No. 1 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

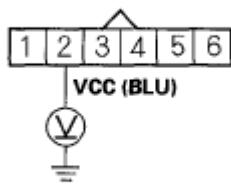
Is there continuity?

YES -Repair short in the wire between the throttle body and the throttle actuator control module (TPSA line), then go to step 17.

NO -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 17 and recheck. If DTC P0122 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 17. If DTC P0122 is indicated, go to step 15.

9. Measure voltage between throttle body 6P connector terminal No. 2 and body ground.

THROTTLE BODY 6P CONNECTOR



Wire side of female terminals

Fig. 3: Measuring Voltage Between Throttle Body 6P Connector Terminal No. 2 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

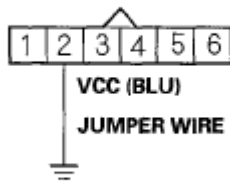
Is there about 5 V?

YES -Go to step 15.

NO -Go to step 10.

10. Turn the ignition switch OFF.
11. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
12. Disconnect the throttle body 6P connector.
13. Connect throttle body 6P connector terminal No. 2 to body ground with a jumper wire.

THROTTLE BODY 6P CONNECTOR



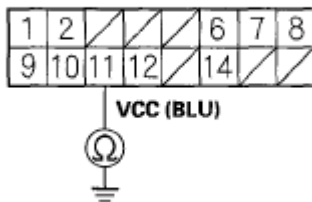
Wire side of female terminals

Fig. 4: Connecting Throttle Body 6P Connector Terminal No. 2 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

14. Check for continuity between throttle actuator control module 16P connector terminal No. 11 and body ground.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR



Wire side of female terminals

Fig. 5: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminal No. 11 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 17 and recheck. If DTC P0122 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 17. If DTC P0122 is indicated, go to step 15.

NO -Repair open in the wire between the throttle body and the throttle actuator control module (VCC line), then go to step 17.

15. Turn the ignition switch OFF.
16. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
17. Reconnect all connectors.
18. Turn the ignition switch ON (II)

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

Is DTC P0122 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

DTC P0123: TP SENSOR A 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. Check TP SENSOR A in the DATA LIST with the HDS.

Is there about 4.9 V or more?

YES -Go to step 4.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body and the throttle actuator control module.

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

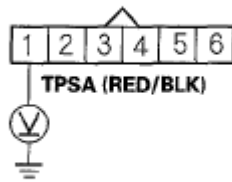
Are DTC P0123 and P0223 indicated at the same time?

YES -Go to step 13.

NO -Go to step 5.

5. Turn the ignition switch OFF.
6. Disconnect the throttle body 6P connector.
7. Turn the ignition switch ON (II).
8. Measure voltage between throttle body 6P connector terminal No. 1 and body ground.

THROTTLE BODY 6P CONNECTOR



Wire side of female terminals

Fig. 6: Measuring Voltage Between Throttle Body 6P Connector Terminal No. 1 And Body Ground
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

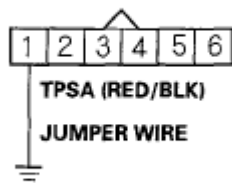
Is there about 5 V?

YES -Go to step 18.

NO -Go to step 9.

9. Turn the ignition switch OFF.
10. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
11. Connect throttle body 6P connector terminal No. 1 to body ground with a jumper wire.

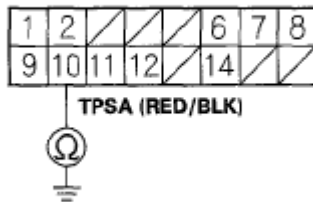
THROTTLE BODY 6P CONNECTOR



Wire side of female terminals

Fig. 7: Connecting Throttle Body 6P Connector Terminal No. 1 To Body Ground With Jumper Wire
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Check for continuity between throttle actuator control module 16P connector terminal No. 10 and body ground.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR

Wire side of female terminals

Fig. 8: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminal No. 10 And Body Ground

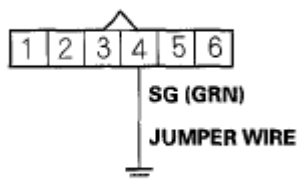
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 20 and recheck. If DTC P0123 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 20. If DTC P0123 is indicated, go to step 18.

NO -Repair open in the wire between the throttle body and the throttle actuator control module (TPSA line), then go to step 20.

13. Turn the ignition switch OFF.
14. Disconnect the throttle body 6P connector.
15. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
16. Connect throttle body 6P connector terminal No. 4 to body ground with a jumper wire.

THROTTLE BODY 6P CONNECTOR

Wire side of female terminals

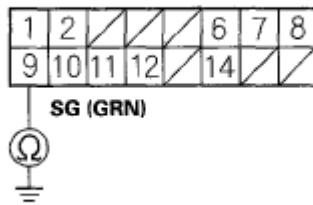
Fig. 9: Connecting Throttle Body 6P Connector Terminal No. 4 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

17. Check for continuity between throttle actuator control module 16P connector terminal No. 9 and body

ground.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR



Wire side of female terminals

Fig. 10: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminal No. 9 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 20 and recheck. If DTC P0123 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 20. If DTC P0123 is indicated, go to step 18.

NO -Repair open in the wire between the throttle body and the throttle actuator control module (SG line), then go to step 20.

18. Turn the ignition switch OFF.
19. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
20. Reconnect all connectors.
21. Turn the ignition switch ON (II).
22. Reset the ECM/PCM with the HDS.
23. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
24. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0123 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

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 TP SENSOR B in the DATA LIST with the HDS.

Is there about 0.3 V or less?

YES -Go to step 4.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body and the throttle actuator control module.

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

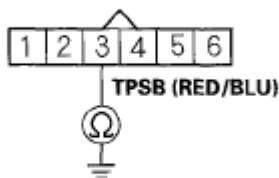
Are DTC P0122 and P0222 indicated at the same time?

YES -Go to step 9.

NO -Go to step 5.

5. Turn the ignition switch OFF.
6. Disconnect the throttle body 6P connector.
7. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
8. Check for continuity between throttle body 6P connector terminal No. 3 and body ground.

THROTTLE BODY 6P CONNECTOR



Wire side of female terminals

Fig. 11: Checking Continuity Between Throttle Body 6P Connector Terminal No. 3 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

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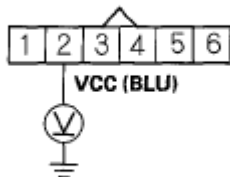
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YES -Repair short in the wire between the throttle body and the throttle actuator control module (TPSB line), then go to step 17.

NO -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 17 and recheck. If DTC P0222 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 17. If DTC P0222 is indicated, go to step 15.

9. Measure voltage between throttle body 6P connector terminal No. 2 and body ground.

THROTTLE BODY 6P CONNECTOR



Wire side of female terminals

Fig. 12: Measuring Voltage Between Throttle Body 6P Connector Terminal No. 2 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

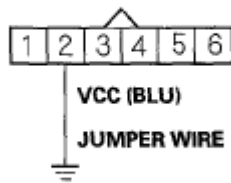
Is there about 5 V?

YES -Go to step 15.

NO -Go to step 10.

10. Turn the ignition switch OFF.
11. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
12. Disconnect the throttle body 6P connector.
13. Connect throttle body 6P connector terminal No. 2 to body ground with a jumper wire.

THROTTLE BODY 6P CONNECTOR



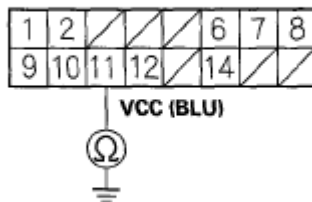
Wire side of female terminals

Fig. 13: Connecting Throttle Body 6P Connector Terminal No. 2 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

14. Check for continuity between throttle actuator control module 16P connector terminal No. 11 and body ground.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR



Wire side of female terminals

Fig. 14: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminal No. 11 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 17 and recheck. If DTC P0222 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 17. If DTC P0222 is indicated, go to step 15.

NO -Repair open in the wire between the throttle body and the throttle actuator control module (VCC line), then go to step 17.

15. Turn the ignition switch OFF.
16. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
17. Reconnect all connectors.
18. Turn the ignition switch ON (II)

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

Is DTC P0222 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

DTC P0223: TP SENSOR B 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. Check TP SENSOR B in the DATA LIST with the HDS.

Is there about 4.8 V or more?

YES -Go to step 4.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body and the throttle actuator control module.

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

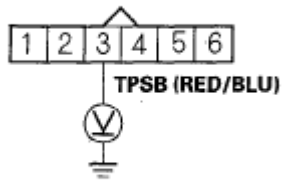
Are DTC P0123 and P0223 indicated at the same time?

YES -Go to step 13.

NO -Go to step 5.

5. Turn the ignition switch OFF.
6. Disconnect the throttle body 6P connector.
7. Turn the ignition switch ON (II).
8. Measure voltage between throttle body 6P connector terminal No. 3 and body ground.

THROTTLE BODY 6P CONNECTOR



Wire side of female terminals

Fig. 15: Measuring Voltage Between Throttle Body 6P Connector Terminal No. 3 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

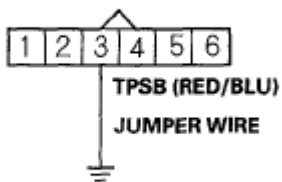
Is there about 5 V?

YES -Go to step 18.

NO -Go to step 9.

9. Turn the ignition switch OFF.
10. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
11. Connect throttle body 6P connector terminal No. 3 to body ground with a jumper wire.

THROTTLE BODY 6P CONNECTOR

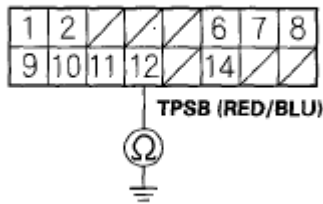


Wire side of female terminals

Fig. 16: Connecting Throttle Body 6P Connector Terminal No. 3 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Check for continuity between throttle actuator control module 16P connector terminal No. 12 and body ground.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR

Wire side of female terminals

Fig. 17: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminal No. 12 And Body Ground

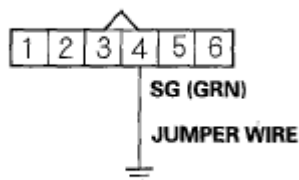
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 20 and recheck. If DTC P0223 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 20. If DTC P0223 is indicated, go to step 18.

NO -Repair open in the wire between the throttle body and the throttle actuator control module (TPSB line), then go to step 20.

13. Turn the ignition switch OFF.
14. Disconnect the throttle body 6P connector.
15. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
16. Connect throttle body 6P connector terminal No. 4 to body ground with a jumper wire.

THROTTLE BODY 6P CONNECTOR

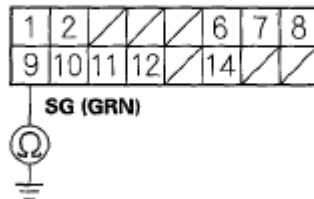
Wire side of female terminals

Fig. 18: Connecting Throttle Body 6P Connector Terminal No. 4 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

17. Check for continuity between throttle actuator control module 16P connector terminal No. 9 and body ground.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR



Wire side of female terminals

Fig. 19: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminal No. 9 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 20 and recheck. If DTC P0223 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 20. If DTC P0223 is indicated, go to step 18.

NO -Repair open in the wire between the throttle body and the throttle actuator control module (SG line), then go to step 20.

18. Turn the ignition switch OFF.
19. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
20. Reconnect all connectors.
21. Turn the ignition switch ON (II).
22. Reset the ECM/PCM with the HDS.
23. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
24. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0223 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

CAUTION: Do not insert your fingers into the installed throttle body when you turn the ignition switch ON (II) or while the ignition switch is ON (II). If you do, you will seriously injure your fingers if the throttle valve is activated.

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. Turn the ignition switch OFF, and wait 10 seconds.
5. Turn the ignition switch ON (II).
6. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P1683 indicated?

YES -Go to step 7.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body and the throttle actuator control module.

7. Turn the ignition switch OFF.
8. Disconnect the intake air duct from the throttle body.
9. Push the throttle valve closed as shown.

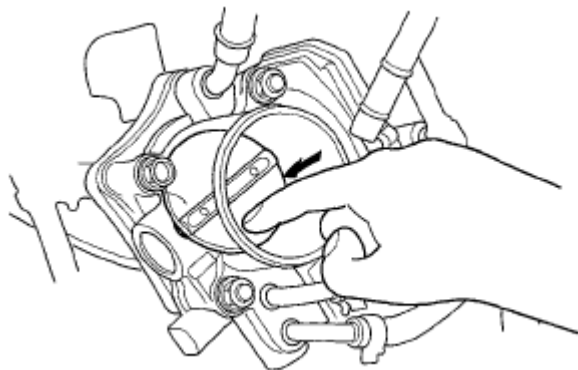


Fig. 20: Pushing Throttle Valve Closed
Courtesy of AMERICAN HONDA MOTOR CO., INC.

10. Release the throttle valve.

Does the throttle valve return?

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YES -Clean the throttle body (see **THROTTLE BODY CLEANING**), then go to step 13 and recheck. If DTC P1683 is indicated, go to step 11.

NO -Go to step 11.

11. Turn the ignition switch OFF.
12. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
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. Turn the ignition switch OFF, and wait 10 seconds.
17. Turn the ignition switch ON (II).
18. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P1683 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

DTC P1684: THROTTLE VALVE RETURN SPRING PERFORMANCE PROBLEM

CAUTION: Do not insert your fingers into the installed throttle body when you turn the ignition switch ON (II) or while the ignition switch is ON (II). If you do, you will seriously injure your fingers if the throttle valve is activated.

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. Turn the ignition switch OFF, and wait 10 seconds.
5. Turn the ignition switch ON (II).
6. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P1684 indicated?

YES -Go to step 7.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body and the throttle actuator control module.

7. Turn the ignition switch OFF.
8. Disconnect the intake air duct from the throttle body.
9. Push the throttle valve open as shown.

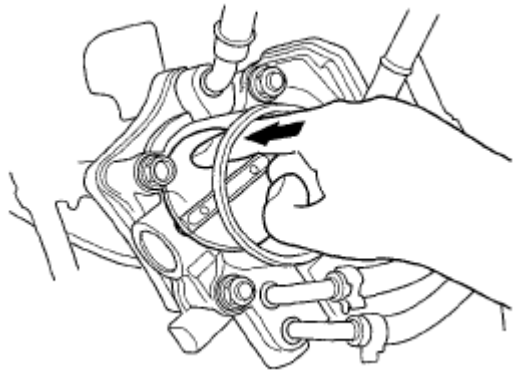


Fig. 21: Pushing Throttle Valve Open
Courtesy of AMERICAN HONDA MOTOR CO., INC.

10. Release the throttle valve.

Does the throttle valve return?

YES -Clean the throttle body (see **THROTTLE BODY CLEANING**), then go to step 13 and recheck. If DTC P1684 is indicated, go to step 11.

NO -Go to step 11.

11. Turn the ignition switch OFF.
12. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
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. Turn the ignition switch OFF, and wait 10 seconds.
17. Turn the ignition switch ON (II).
18. Check for Temporary DTCs or DTCs with the HDS.

If DTC or DTC P1684 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

DTC P2101: THROTTLE ACTUATOR SYSTEM 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. Do the ETCS TEST in the INSPECTION MENU with the HDS.
4. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2101 indicated?

YES -Go to step 7.

NO -Go to step 5.

5. Test-drive the vehicle for several minutes in the range of these recorded freeze data parameters:
 - ENGINE SPEED
 - VSS
 - APP SENSOR
6. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2101 indicated?

YES -Go to step 7.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then clean the throttle body (see **THROTTLE BODY CLEANING**).

7. Turn the ignition switch OFF.
8. Disconnect the intake air duct from the throttle body.
9. Turn the ignition switch ON (II).
10. Clear the DTC with the HDS.
11. Visually check the throttle valve operation while doing the ETCS TEST in the INSPECTION MENU with the HDS.

Does the throttle valve operate smoothly?

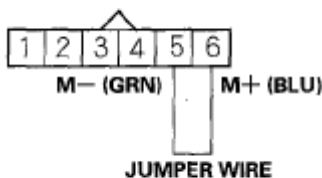
YES -Clean the throttle body (see **THROTTLE BODY CLEANING**), then go to step 19 and recheck.

If DTC P2101 is indicated, then go to step 17.

NO -Go to step 12.

12. Turn the ignition switch OFF.
13. Disconnect the throttle body 6P connector.
14. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
15. Connect throttle body 6P connector terminals No. 5 and No. 6 with a jumper wire.

THROTTLE BODY 6P CONNECTOR

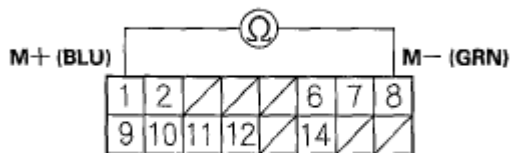


Wire side of female terminals

Fig. 22: Connecting Throttle Body 6P Connector Terminals No. 5 And No. 6 With Jumper Wire
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

16. Check for continuity between throttle actuator control module 16P connector terminals No. 1 and No. 8.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR



Wire side of female terminals

Fig. 23: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminals No. 1 And No. 8
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 19 and recheck. If DTC P2101 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 19. If DTC P2101 is indicated, go to step

17.

NO -Repair open in the wires between the throttle body and the throttle actuator control module (motor drive lines), then go to step 19.

17. Turn the ignition switch OFF.
18. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
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. Test-drive the vehicle for several minutes in the range of these recorded freeze data parameters:
 - ENGINE SPEED
 - VSS
 - APP SENSOR
24. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2101 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, clean the throttle body (see **THROTTLE BODY CLEANING**), then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

DTC P2108: THROTTLE ACTUATOR CONTROL MODULE PROBLEM

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. Turn the ignition switch ON (II).
5. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2108 indicated?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), and recheck. If Temporary DTC or DTC P2108 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).

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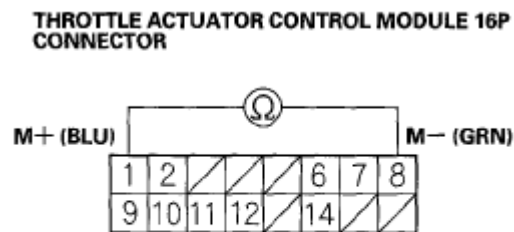
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NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body, the throttle actuator control module, and the ECM/PCM.

DTC P2118: THROTTLE ACTUATOR CURRENT 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).

1. Disconnect the throttle actuator control module 16P connector (see THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT).
2. Measure resistance between throttle actuator control module 16P connector terminals No. 1 and No. 8.



Wire side of female terminals

Fig. 24: Measuring Resistance Between Throttle Actuator Control Module 16P Connector Terminals No. 1 And No. 8
Courtesy of AMERICAN HONDA MOTOR CO., INC.

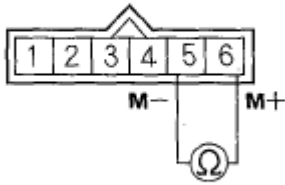
Is there about 1.0 ohms, or less?

YES -Go to step 3.

NO -Substitute a known-good throttle actuator control module (see THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT), then go to step 6 and recheck. If DTC P2118 is not indicated, replace the original throttle actuator control module (see THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT), then go to step 6.

3. Disconnect the throttle body 6P connector.
4. At throttle body side, measure resistance between throttle body 6P connector terminals No. 5 and No. 6 with the throttle fully closed.

THROTTLE BODY 6P CONNECTOR



Terminal side of male terminals

Fig. 25: Measuring Resistance Between Throttle Body 6P Connector Terminals No. 5 And No. 6 With Throttle Fully Closed
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 1.0 ohms, or less?

YES -Go to step 5.

NO -Repair short in the wires between the throttle body and the throttle actuator control module (motor drive lines), then go to step 6.

5. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
6. Reconnect all connectors.
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. Turn the ignition switch OFF.
11. Turn the ignition switch ON (II).
12. Slowly press the accelerator pedal to the floor.
13. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2118 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

DTC P2122: APP SENSOR A (TP SENSOR D) 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**).

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1. Turn the ignition switch ON (II).
2. Check APP SENSOR A in the DATA LIST with the HDS.

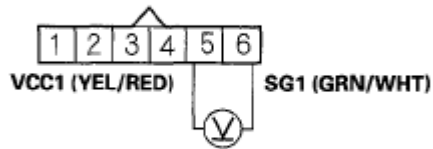
Is there about 0.1 V or less?

YES -Go to step 3.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at APP sensor A and the ECM/PCM.

3. Turn the ignition switch OFF.
4. Disconnect the APP sensor 6P connector.
5. Turn the ignition switch ON (II).
6. Measure voltage between APP sensor 6P connector terminals No. 5 and No. 6.

APP SENSOR 6P CONNECTOR



Wire side of female terminals

Fig. 26: Measuring Voltage Between APP Sensor 6P Connector Terminals No. 5 And No. 6
Courtesy of AMERICAN HONDA MOTOR CO., INC.

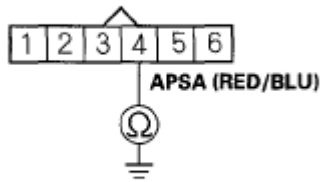
Is there about 5 V?

YES -Go to step 7.

NO -Go to step 17.

7. Turn the ignition switch OFF.
8. Jump the SCS line with the HDS.
9. Disconnect ECM/PCM connector A (31P).
10. Check for continuity between APP sensor 6P connector terminal No. 4 and body ground.

APP SENSOR 6P CONNECTOR



Wire side of female terminals

Fig. 27: Checking Continuity Between APP Sensor 6P Connector Terminal No. 4 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

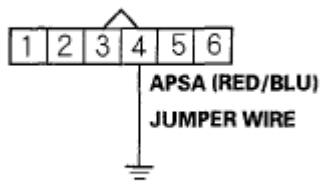
Is there continuity?

YES -Repair short in the wire between APP sensor A and the ECM/PCM (A26), then go to step 20.

NO -Go to step 11.

11. Connect APP sensor 6P connector terminal No. 4 to body ground with a jumper wire.

APP SENSOR 6P CONNECTOR



Wire side of female terminals

Fig. 28: Connecting APP Sensor 6P Connector Terminal No. 4 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Check for continuity between ECM/PCM connector terminal A26 and body ground.

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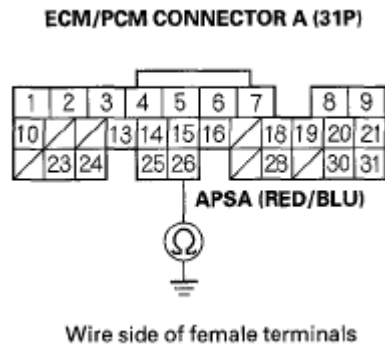


Fig. 29: Checking Continuity Between ECM/PCM Connector Terminal A26 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 13.

NO -Repair open in the wire between APP sensor A and the ECM/PCM (A26), then go to step 20.

13. Reconnect ECM/PCM connector A (31P).
14. Connect APP sensor 6P connector terminals No. 4 and No. 5 with a jumper wire.

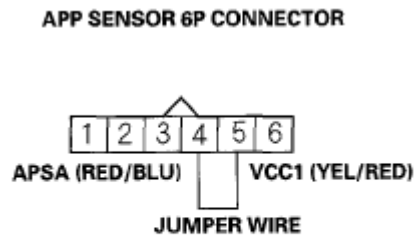


Fig. 30: Connecting APP Sensor 6P Connector Terminals No. 4 And No. 5 With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

15. Turn the ignition switch ON (II).
16. Check APP SENSOR A in the DATA LIST with the HDS.

Is there about 0.1 V or less?

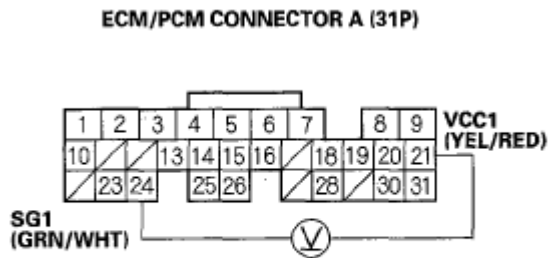
YES -Go to step 25.

NO -Go to step 18.

17. Measure voltage between ECM/PCM connector terminals A21 and A24.

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Wire side of female terminals

Fig. 31: Measuring Voltage Between ECM/PCM Connector Terminals A21 And A24
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Repair open in the wire between APP sensor A and the ECM/PCM (A21), then go to step 20.

NO -Go to step 25.

18. Turn the ignition switch OFF.
19. Replace the APP sensor (see **APP SENSOR REPLACEMENT**).
20. Reconnect all connectors.
21. Turn the ignition switch ON (II).
22. Reset the ECM/PCM with the HDS.
23. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
24. Check for Temporary DTCs or DTCs with the HDS.

If DTC P2122 is indicated?

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

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

25. Turn the ignition switch OFF.
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. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2122 indicated?

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

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1. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then recheck. If the ECM/PCM was substituted, go to step 1.

NO -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 are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

DTC P2123: APP SENSOR A (TP SENSOR D) 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. Check APP SENSOR A in the DATA LIST with the HDS.

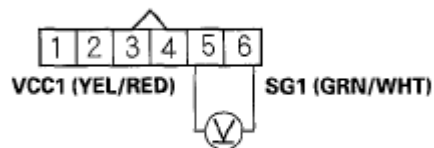
Is there about 4.85 V or more?

YES -Go to step 3.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at APP sensor A and the ECM/PCM.

3. Turn the ignition switch OFF.
4. Disconnect the APP sensor 6P connector.
5. Turn the ignition switch ON (II).
6. Measure voltage between APP sensor 6P connector terminals No. 5 and No. 6.

APP SENSOR 6P CONNECTOR



Wire side of female terminals

Fig. 32: Measuring Voltage Between APP Sensor 6P Connector Terminals No. 5 And No. 6
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Go to step 8.

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NO -Go to step 7.

7. Measure voltage between ECM/PCM connector terminals A21 and A24.

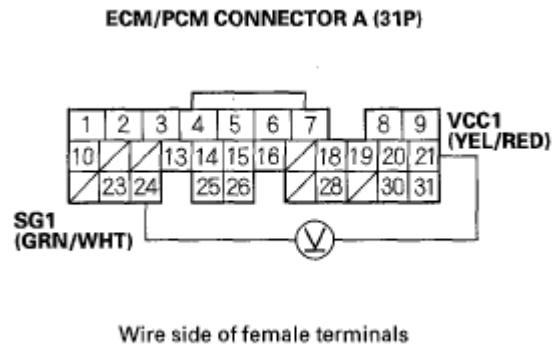


Fig. 33: Measuring Voltage Between ECM/PCM Connector Terminals A21 And A24
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Repair open in the wire between APP sensor A and the ECM/PCM (A24), then go to step 10.

NO -Go to step 15.

8. Turn the ignition switch OFF.
9. Replace the APP sensor (see **APP SENSOR REPLACEMENT**).
10. Reconnect the APP sensor 6P connector.
11. Turn the ignition switch ON (II).
12. Reset the ECM/PCM with the HDS.
13. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
14. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2123 indicated?

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

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

15. Turn the ignition switch OFF.
16. Reconnect all connectors.
17. 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**).
18. Check for Temporary DTCs or DTCs with the HDS.

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Is DTC P2123 indicated?

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

NO -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 are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

DTC P2127: APP SENSOR B (TP SENSOR E) 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**).

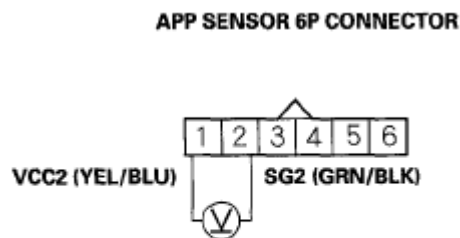
1. Turn the ignition switch ON (II).
2. Check APP SENSOR B in the DATA LIST with the HDS.

Is there about 0.1 V or less?

YES -Go to step 3.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at APP sensor B and the ECM/PCM.

3. Turn the ignition switch OFF.
4. Disconnect the APP sensor 6P connector.
5. Turn the ignition switch ON (II).
6. Measure voltage between APP sensor 6P connector terminals No. 1 and No. 2.



Wire side of female terminals

Fig. 34: Measuring Voltage Between APP Sensor 6P Connector Terminals No. 1 And No. 2
Courtesy of AMERICAN HONDA MOTOR CO., INC.

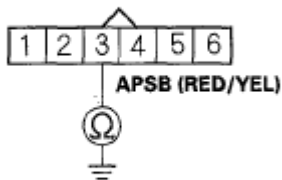
Is there about 5 V?

YES -Go to step 7.

NO -Go to step 17.

7. Turn the ignition switch OFF.
8. Jump the SCS line with the HDS.
9. Disconnect ECM/PCM connector A (31P).
10. Check for continuity between APP sensor 6P connector terminal No. 3 and body ground.

APP SENSOR 6P CONNECTOR



Wire side of female terminals

Fig. 35: Checking Continuity Between APP Sensor 6P Connector Terminal No. 3 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

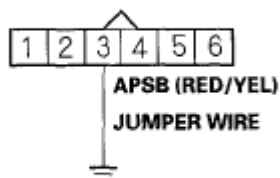
Is there continuity?

YES -Repair short in the wire between APP sensor B and the ECM/PCM (A25), then go to step 20.

NO -Go to step 11.

11. Connect APP sensor 6P connector terminal No. 3 to body ground with a jumper wire.

APP SENSOR 6P CONNECTOR



Wire side of female terminals

Fig. 36: Connecting APP Sensor 6P Connector Terminal No. 3 To Body Ground With A Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Check for continuity between ECM/PCM connector terminal A25 and body ground.

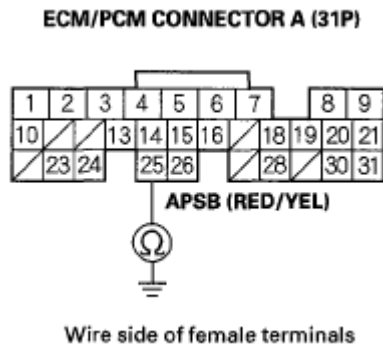


Fig. 37: Checking Continuity Between ECM/PCM Connector Terminal A25 And Body Ground
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 13.

NO -Repair open in the wire between APP sensor B and the ECM/PCM (A25), then go to step 20.

13. Reconnect ECM/PCM connector A (31P).
 14. Connect APP sensor 6P connector terminals No. 1 and No. 3 with a jumper wire.

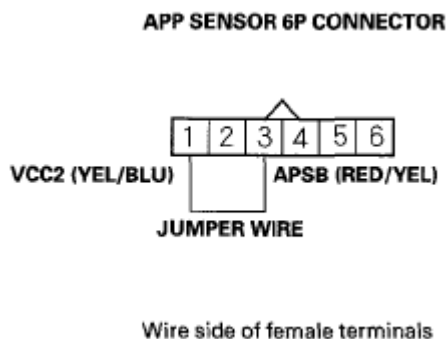


Fig. 38: Connecting APP Sensor 6P Connector Terminals No. 1 And No. 3 With Jumper Wire
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

15. Turn the ignition switch ON (II).
 16. Check APP SENSOR B in the DATA LIST with the HDS.

Is there about 0.1 V or less?

YES -Go to step 25.

NO -Go to step 18.

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17. Measure voltage between ECM/PCM connector terminals A20 and A23.

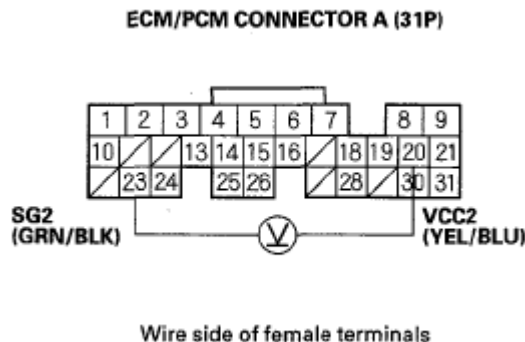


Fig. 39: Measuring Voltage Between ECM/PCM Connector Terminals A20 And A23
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Repair open in the wire between APP sensor B and the ECM/PCM (A20), then go to step 20.

NO -Go to step 25.

18. Turn the ignition switch OFF.
19. Replace the APP sensor (see **APP SENSOR REPLACEMENT**).
20. Reconnect all connectors.
21. Turn the ignition switch ON (II).
22. Reset the ECM/PCM with the HDS.
23. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
24. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2127 indicated?

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

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

25. Turn the ignition switch OFF.
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. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2127 indicated?

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

NO -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 are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

DTC P2128: APP SENSOR B (TP SENSOR E) 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**).

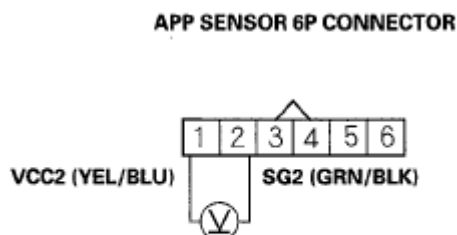
1. Turn the ignition switch ON (II).
2. Check APP SENSOR B in the DATA LIST with the HDS.

Is there about 4.0 V or more?

YES -Go to step 3.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at APP sensor B and the ECM/PCM.

3. Turn the ignition switch OFF.
4. Disconnect the APP sensor 6P connector.
5. Turn the ignition switch ON (II).
6. Measure voltage between APP sensor 6P connector terminals No. 1 and No. 2.



Wire side of female terminals

Fig. 40: Measuring Voltage Between APP Sensor 6P Connector Terminals No. 1 And No. 2
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Go to step 8.

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NO -Go to step 7.

7. Measure voltage between ECM/PCM connector terminals A20 and A23.

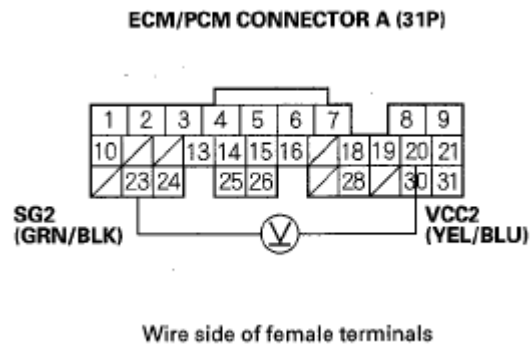


Fig. 41: Measuring Voltage Between ECM/PCM Connector Terminals A20 And A23
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Repair open in the wire between APP sensor B and the ECM/PCM (A23), then go to step 10.

NO -Go to step 15.

8. Turn the ignition switch OFF.
9. Replace the APP sensor (see **APP SENSOR REPLACEMENT**).
10. Reconnect the APP sensor 6P connector.
11. Turn the ignition switch ON (II).
12. Reset the ECM/PCM with the HDS.
13. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
14. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2128 indicated?

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

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

15. Turn the ignition switch OFF.
16. Reconnect all connectors.
17. 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**).
18. Check for Temporary DTCs or DTCs with the HDS.

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Is DTC P2128 indicated?

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

NO -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 are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

DTC P2135: TP SENSOR A/B INCORRECT VOLTAGE CORRELATION

CAUTION: Do not insert your fingers into the installed throttle body when you turn the ignition switch ON (II) or while the ignition switch is ON (II). If you do, you will seriously injure your fingers if the throttle valve is activated.

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 ETCS TEST in the INSPECTION MENU with the HDS.
4. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2135 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 throttle body and the throttle actuator control module.

5. Turn the ignition switch OFF.
6. Disconnect the intake air duct from the throttle body.
7. Turn the ignition switch ON (II).
8. Visually check the throttle valve operation while you clear the DTC with the HDS.

Does the valve temporarily move to its fully closed position?

YES -Go to step 14.

NO -Go to step 9.

9. Turn the ignition switch OFF.

10. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
11. Check for continuity between throttle actuator control module 16P connector terminals No. 10 and No. 12.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR

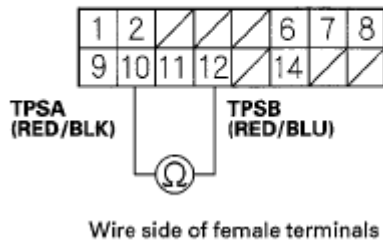


Fig. 42: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminals No. 10 And No. 12

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 12.

NO -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 16 and recheck. If DTC P2135 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 16.

12. Disconnect the throttle body 6P connector.
13. Check for continuity between throttle actuator control module 16P connector terminals No. 10 and No. 12.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR

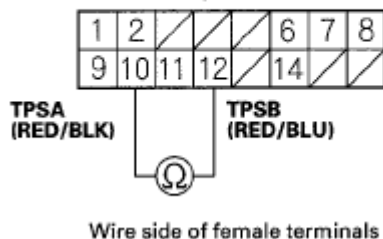


Fig. 43: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminals No. 10 And 12

Courtesy of AMERICAN HONDA MOTOR CO., INC.

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Is there continuity?

YES -Repair short in the wires between the TPSA line and the TPSB line, then go to step 16.

NO -Go to step 14.

14. Turn the ignition switch OFF.
15. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
16. Reconnect all connectors.
17. Turn the ignition switch ON (II).
18. Reset the ECM/PCM with the HDS.
19. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
20. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2135 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then go to step 1

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

DTC P2138: APP SENSOR A/B (TP SENSOR D/E) INCORRECT VOLTAGE CORRELATION

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. Press the accelerator pedal to the floor.
4. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2138 indicated?

YES -Go to step 5.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at APP sensor A/B and the ECM/PCM.

5. Check APP SENSOR A and APP SENSOR B in the DATA LIST with the HDS.

Are they the same voltage?

YES -Go to step 6.

NO -Go to step 11.

6. Turn the ignition switch OFF.
7. Jump the SCS line with the HDS.
8. Disconnect the APP sensor 6P connector.
9. Disconnect ECM/PCM connector A (31P).
10. Check for continuity between ECM/PCM connector terminals A25 and A26.

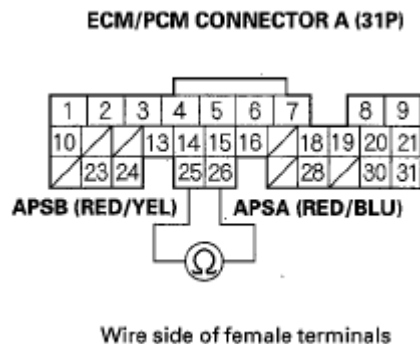


Fig. 44: Checking Continuity Between ECM/PCM Connector Terminals A25 And A26
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Repair short in the wires between the ECM/PCM terminals (A25, A26), then go to step 13.

NO -Go to step 21.

11. Turn the ignition switch OFF.
12. Replace the APP sensor (see **APP SENSOR REPLACEMENT**).
13. Reconnect all connectors.
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. Turn the ignition switch OFF.
18. Turn the ignition switch ON (II).
19. Press the accelerator pedal to the floor.
20. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2138 indicated?

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

step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

21. Reconnect all connectors.
22. 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**).
23. Turn the ignition switch OFF.
24. Turn the ignition switch ON (II).
25. Press the accelerator pedal to the floor.
26. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2138 indicated?

YES -Check for poor connections or loose terminals at the APP 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 23. If the ECM/PCM was substituted, go to step 1.

NO -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 are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

DTC P2176: THROTTLE ACTUATOR CONTROL SYSTEM IDLE POSITION NOT LEARNED

CAUTION: Do not insert your fingers into the installed throttle body when you turn the ignition switch ON (II) or while the ignition switch is ON (II). If you do, you will seriously injure your fingers if the throttle valve is activated.

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 P2135 is stored at the same time as DTC P2176, troubleshoot DTC P2135 first, then recheck for DTC P2176.

1. Turn the ignition switch ON (II).
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF.
4. Turn the ignition switch ON (II), and wait 10 seconds.
5. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2176 indicated?

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YES -Go to step 6.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, then clean the throttle body (see **THROTTLE BODY CLEANING**).

6. Turn the ignition switch OFF.
7. Disconnect the intake air duct from the throttle body.
8. Turn the ignition switch ON (II).
9. Clear the DTC with the HDS.
10. Visually check the throttle valve operation while doing the ETCS TEST in the INSPECTION MENU with the HDS.

Does the throttle valve move to its fully closed position?

YES -Go to step 11.

NO -Go to step 12.

11. Check for sludge or carbon on the throttle valve.

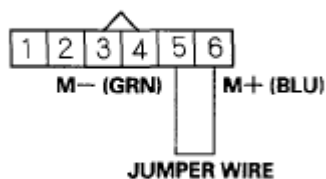
Is there sludge or carbon on the throttle valve?

YES -Clean the throttle body (see **THROTTLE BODY CLEANING**), then go to step 20.

NO -Go to step 17.

12. Turn the ignition switch OFF.
13. Disconnect the throttle body 6P connector.
14. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**).
15. Connect throttle body 6P connector terminals No. 5 and No. 6 with a jumper wire.

THROTTLE BODY 6P CONNECTOR



Wire side of female terminals

Fig. 45: Connecting Throttle Body 6P Connector Terminals No. 5 And No. 6 With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

16. Check for continuity between throttle actuator control module 16P connector terminals No. 1 and No. 8.

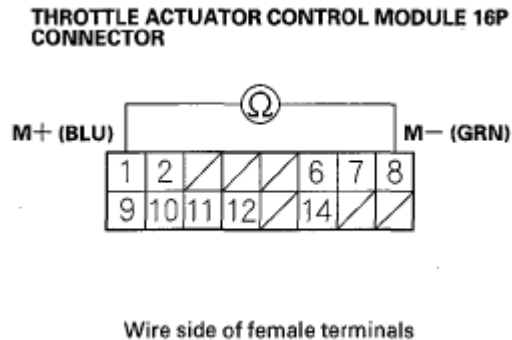


Fig. 46: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminals No. 1 And No. 8

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 19 and recheck. If DTC P2176 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 19.

NO -Repair open in the wires between the throttle body and the throttle actuator control module (motor drive lines), then go to step 19.

17. Turn the ignition switch OFF.
18. Replace the throttle body (see **THROTTLE BODY REMOVAL/INSTALLATION**).
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. Turn the ignition switch OFF.
24. Turn the ignition switch ON (II), and wait 10 seconds.
25. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2176 indicated?

YES -Check for poor connections or loose terminals at the throttle body and the throttle actuator control module, clean the throttle body (see **THROTTLE BODY CLEANING**), then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

DTC P2552: THROTTLE ACTUATOR CONTROL MODULE RELAY 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. Do the ETCS TEST in the INSPECTION MENU with the HDS.

Is the RELAY circuit OK ?

YES -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle actuator control module relay, the throttle actuator control module, and the ECM/PCM.

NO -Go to step 4.

4. Turn the ignition switch OFF.
5. Remove the throttle actuator control module relay (A).

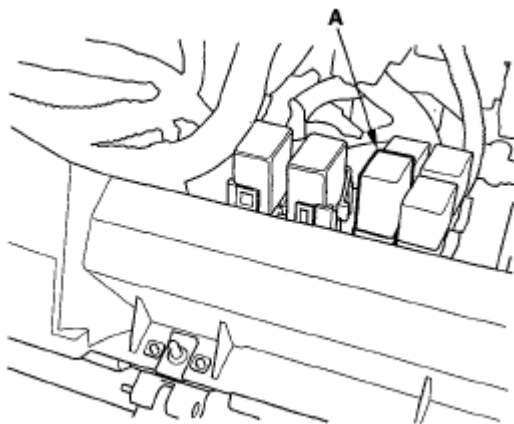


Fig. 47: Identifying Throttle Actuator Control Module Relay
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Test the throttle actuator control module relay (see POWER RELAY TEST).

Is the relay OK?

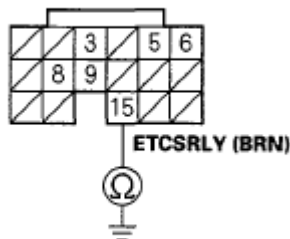
YES -Go to step 7.

NO -Replace the throttle actuator control module relay, then go to step 10.

7. Jump the SCS line with the HDS.
8. Disconnect ECM/PCM connector D (17P).

9. Check for continuity between ECM/PCM connector terminal D15 and body ground.

ECM/PCM CONNECTOR D (17P)



Wire side of female terminals

Fig. 48: Checking Continuity Between ECM/PCM Connector Terminal D15 And Body Ground
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Repair short in the wire between the throttle actuator control module relay and the ECM/PCM (D15), then go to step 10.

NO -Go to step 17.

10. Reconnect all connectors.
11. Turn the ignition switch ON (II).
12. Reset the ECM/PCM with the HDS.
13. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
14. Turn the ignition switch OFF.
15. Turn the ignition switch ON (II), and wait 10 seconds.
16. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2552 indicated?

YES -Check for poor connections or loose terminals at the throttle actuator control module relay, the throttle actuator control module, and the ECM/PCM, then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

17. Reconnect all connectors.
18. 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**).
19. Turn the ignition switch OFF.
20. Turn the ignition switch ON (II), and wait 10 seconds.
21. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P2552 indicated?

YES -Check for poor connections or loose terminals at the throttle actuator control module relay, the throttle actuator control module, 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 19. If the ECM/PCM was substituted, go to step 1.

NO -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 are indicated, go to the **INDICATED DTCS TROUBLESHOOTING**.

DTC U0107: LOST COMMUNICATION WITH THROTTLE ACTUATOR CONTROL MODULE

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 U0107 indicated?

YES -Check for poor connections or loose terminals at the throttle body, the throttle actuator control module relay, the throttle actuator control module, and the ECM/PCM, then go to step 50. If the connections are OK, go to step 6.

NO -Go to step 4.

4. Start the engine.
5. Check for Temporary DTCs or DTCs with the HDS.

Is DTC U0107 indicated?

YES -Go to step 46.

NO -Intermittent failure, the system is OK at this time. Check for poor connections or loose terminals at the throttle body, the throttle actuator control module relay, the throttle actuator control module, and the ECM/PCM.

6. Clear the DTC with the HDS.
7. Turn the ignition switch OFF.
8. Disconnect the intake air duct from the throttle body.
9. Press the accelerator pedal to the floor.
10. Turn the ignition switch ON (II).

11. Check the throttle valve operation.

Does the valve open after it closes?

YES -Go to step 12.

NO -Go to step 13.

12. Check the throttle valve again.

Does the throttle valve open fully?

YES -Go to step 40.

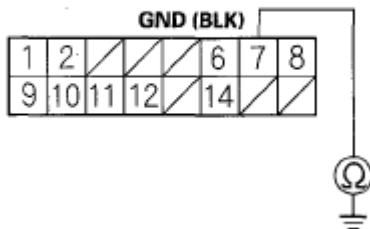
NO -Go to step 34.

13. Turn the ignition switch OFF.

14. Disconnect the throttle actuator control module 16P connector.

15. Check for continuity between throttle actuator control module 16P connector terminal No. 7 and body ground.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR



Wire side of female terminals

Fig. 49: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminal No. 7 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 16.

NO -Repair open in the wire between the throttle body, the throttle actuator control module, and G101, then go to step 50.

16. Remove the throttle actuator control module relay (A).

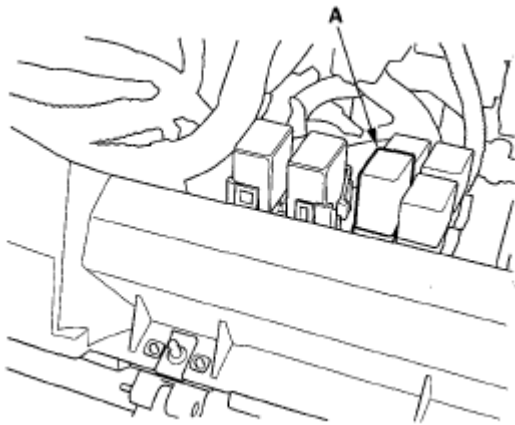


Fig. 50: Identifying Throttle Actuator Control Module Relay
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

17. Measure voltage between throttle actuator control module relay 4P connector terminal No. 2 and body ground.

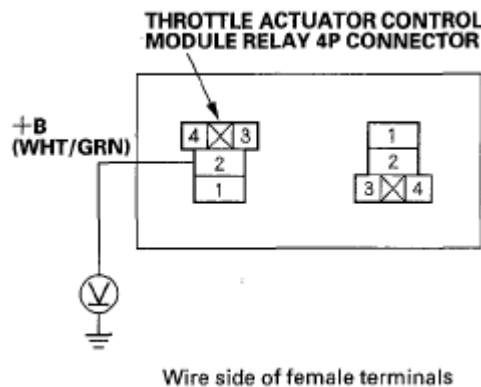


Fig. 51: Measuring Voltage Between Throttle Actuator Control Module Relay 4P Connector Terminal No. 2 And Body Ground
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES -Go to step 19.

NO -Go to step 18.

18. Check the No. 8 DBW { 15 A) fuse in the under-hood fuse/relay box.

Is the fuse OK?

YES -Repair open in the wire between the throttle actuator control module relay (+B line) and the No. 8 DBW (15 A) fuse, then go to step 50.

NO -Repair short in the wire between the throttle actuator control module relay (+B line) and the No. 8 DBW (15 A) fuse. Also replace the fuse, then go to step 50.

19. Install the throttle actuator control module relay.
20. Turn the ignition switch ON (II).
21. Measure voltage between throttle actuator control module 16P connector terminal No. 2 and body ground.

THROTTLE ACTUATOR CONTROL MODULE 16P CONNECTOR

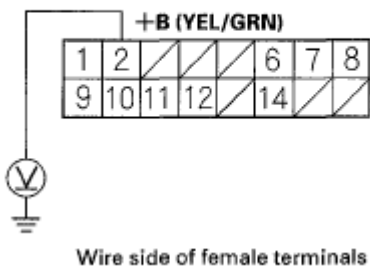


Fig. 52: Measuring Voltage Between Throttle Actuator Control Module 16P Connector Terminal No. 2 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage for about 2 seconds?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 50 and recheck. If DTC U0107 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 50.

NO -Go to step 22.

22. Turn the ignition switch OFF.
23. Remove the throttle actuator control module relay (A).

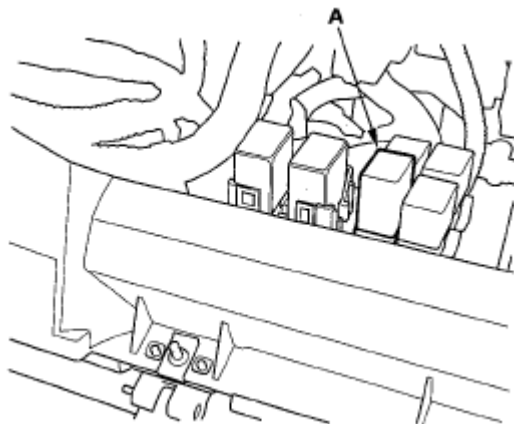


Fig. 53: Identifying Throttle Actuator Control Module Relay
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

24. Check the throttle actuator control module relay (see **POWER RELAY TEST**).

Is the throttle actuator control module relay OK?

YES -Go to step 25.

NO -Replace the throttle actuator control module relay, then go to step 50.

25. Turn the ignition switch ON (II).
 26. Measure voltage between throttle actuator control module relay 4P connector terminal No. 4 and body ground.

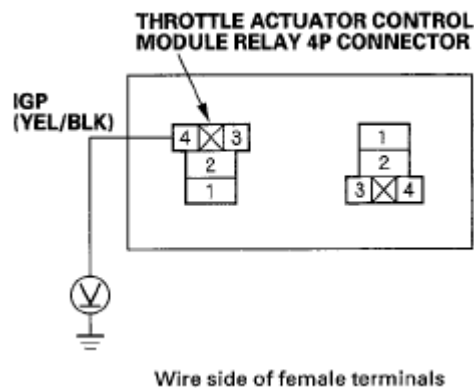


Fig. 54: Measuring Voltage Between Throttle Actuator Control Module Relay 4P Connector Terminal No. 4 And Body Ground
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES -Go to step 27.

NO -Repair open in the wire between the throttle actuator control module relay and PGM-FI main relay 1 (FI MAIN), then go to step 50.

27. Turn the ignition switch OFF.
 28. Jump the SCS line with the HDS.
 29. Disconnect ECM/PCM connector D (17P).
 30. Check for continuity between ECM/PCM connector terminal D15 and throttle actuator control module relay 4P connector terminal No. 3.

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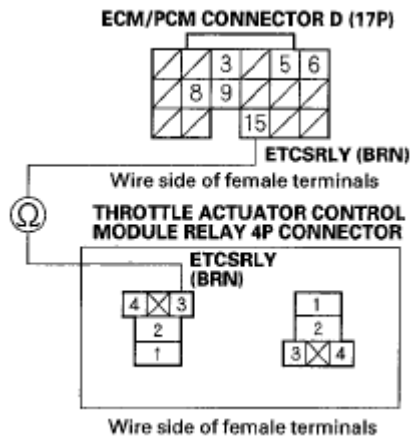


Fig. 55: Checking Continuity Between ECM/PCM Connector Terminal D15 And Throttle Actuator Control Module Relay 4P Connector Terminal No. 3
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 31.

NO -Repair open in the wire between the ECM/PCM (D15) and the throttle actuator control module relay, then go to step 50.

31. Check for continuity between throttle actuator control module 16P connector terminal No. 2 and body ground.

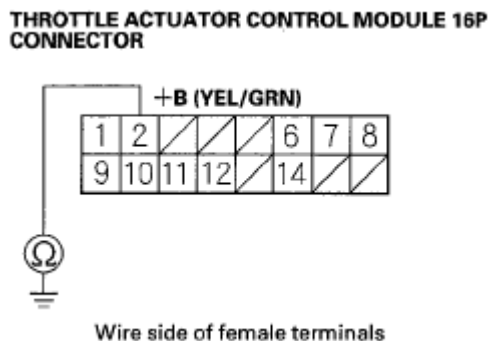


Fig. 56: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminal No. 2 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Repair short in the wire between the throttle actuator control module and the throttle actuator control module relay (+B line), then go to step 50.

NO -Go to step 32.

32. Connect throttle actuator control module relay 4P connector terminal No. 1 to body ground with a jumper wire.

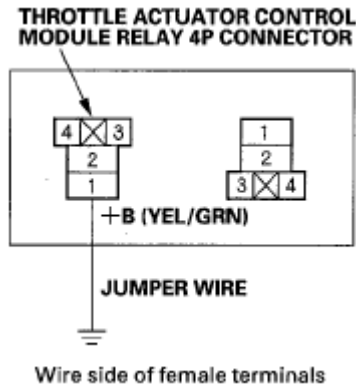


Fig. 57: Connecting Throttle Actuator Control Module Relay 4P Connector Terminal No. 1 To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

33. Check for continuity between throttle actuator control module 16P connector terminal No. 2 and body ground.

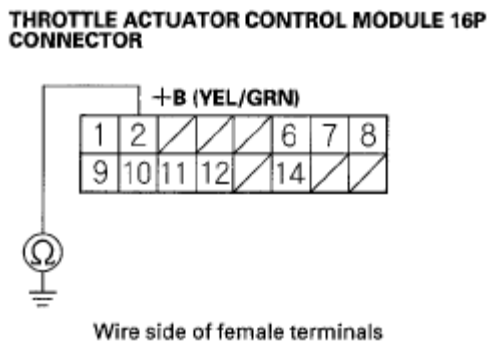


Fig. 58: Checking Continuity Between Throttle Actuator Control Module 16P Connector Terminal No. 2 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 56.

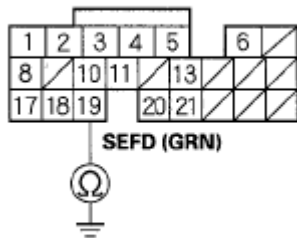
NO -Repair open in the wire between the throttle actuator control module and the throttle actuator control module relay (+B line), then go to step 50.

34. Turn the ignition switch OFF.
 35. Jump the SCS line with the HDS.
 36. Disconnect the throttle actuator control module 16P connector (see **THROTTLE ACTUATOR**

CONTROL MODULE REPLACEMENT).

37. Disconnect ECM/PCM connector B (24P).
38. Check for continuity between ECM/PCM connector terminal B19 and body ground.

ECM/PCM CONNECTOR B (24P)



Wire side of female terminals

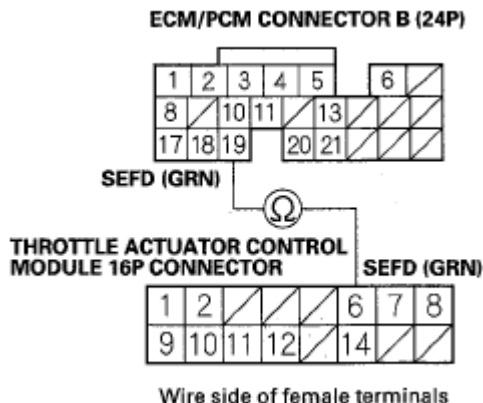
Fig. 59: Checking Continuity Between ECM/PCM Connector Terminal B19 And Body Ground
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Repair short in the wire between the ECM/PCM (B19) and the throttle actuator control module, then go to step 50.

NO -Go to step 39.

39. Check for continuity between ECM/PCM connector terminal B19 and throttle actuator control module 16P connector terminal No. 6.



Wire side of female terminals

Fig. 60: Checking Continuity Between ECM/PCM Connector Terminal B19 And Throttle Actuator Control Module 16P Connector Terminal No. 6
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR**

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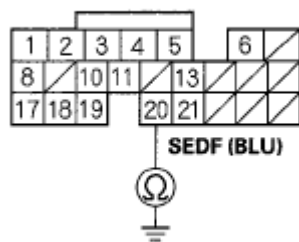
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CONTROL MODULE REPLACEMENT), then go to step 50 and recheck. If DTC U0107 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 50. If DTC U0107 is indicated, go to step 56.

NO -Repair open in the wire between the ECM/PCM (B19) and the throttle actuator control module, then go to step 50.

40. Turn the ignition switch OFF.
41. Jump the SCS line with the HDS.
42. Disconnect the throttle actuator control module 16P connector.
43. Disconnect ECM/PCM connector B (24P).
44. Check for continuity between ECM/PCM connector terminal B20 and body ground.

ECM/PCM CONNECTOR B (24P)



Wire side of female terminals

Fig. 61: Checking Continuity Between ECM/PCM Connector Terminal B20 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Repair short in the wire between the ECM/PCM (B20) and the throttle actuator control module, then go to step 50.

NO -Go to step 45.

45. Check for continuity between ECM/PCM connector terminal B20 and throttle actuator control module 16P connector terminal No. 14.

2007 Honda Element EX

2007-2008 ENGINE PERFORMANCE Electronic Throttle Control System - Element

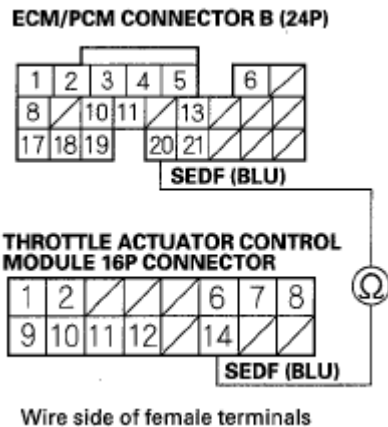


Fig. 62: Checking Continuity Between ECM/PCM Connector Terminal B20 And Throttle Actuator Control Module 16P Connector Terminal No. 14
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 50 and recheck. If DTC U0107 is not indicated, replace the original throttle actuator control module (see **THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT**), then go to step 50. If DTC U0107 is indicated, go to step 56.

NO -Repair open in the wire between the ECM/PCM (B20) and the throttle actuator control module, then go to step 50.

46. Turn the ignition switch OFF.
47. Jump the SCS line with the HDS.
48. Disconnect ECM/PCM connector A (31P).
49. Check for continuity between body ground and ECM/PCM connector terminals A8 and A9 individually.

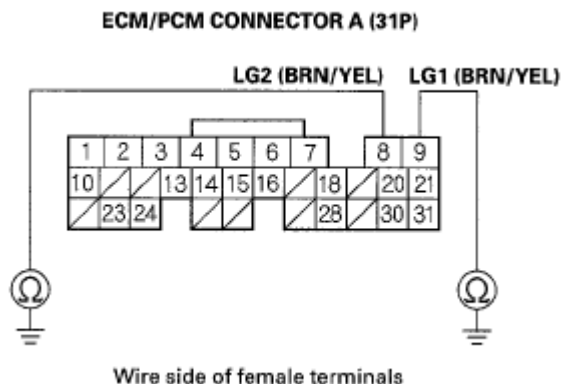


Fig. 63: Checking Continuity Between Body Ground And ECM/PCM Connector Terminals A8 And A9

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Check for poor connections or loose terminals at the throttle body, the throttle actuator control module relay, the throttle actuator control module, and the ECM/PCM, then go to step 1.

NO -Repair open in the wire between the ECM/PCM (A8, A9) and G101, then go to step 50.

50. Turn the ignition switch OFF.
51. Reconnect all connectors.
52. Turn the ignition switch ON (II).
53. Reset the ECM/PCM with the HDS.
54. Do the ECM/PCM idle learn procedure (see **ECM/PCM IDLE LEARN PROCEDURE**).
55. Check for Temporary DTCs or DTCs with the HDS.

If DTC U0107 indicated?

YES -Check for poor connections or loose terminals at the throttle body, the throttle actuator control module relay, the throttle actuator control module, and the ECM/PCM, then go to step 1.

NO -Troubleshooting is complete. If any other Temporary DTCs or DTCs are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

56. Reconnect all connectors.
57. 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**).
58. Check for Temporary DTCs or DTCs with the HDS.

Is DTC U0107 indicated?

YES -Check for poor connections or loose terminals at the throttle body, the throttle actuator control module relay, the throttle actuator control module, and the ECM/PCM. If the ECM/PCM was updated, substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then recheck. If the ECM/PCM was substituted, go to step 1.

NO -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 are indicated, go to the **INDICATED DTCs TROUBLESHOOTING**.

APP SENSOR REPLACEMENT

1. Remove the throttle cable cover (see **THROTTLE CABLE ADJUSTMENT**).
2. Remove the throttle cable (see **THROTTLE CABLE REMOVAL/INSTALLATION**).

3. Disconnect the accelerator pedal position (APP) sensor 6P connector (A).

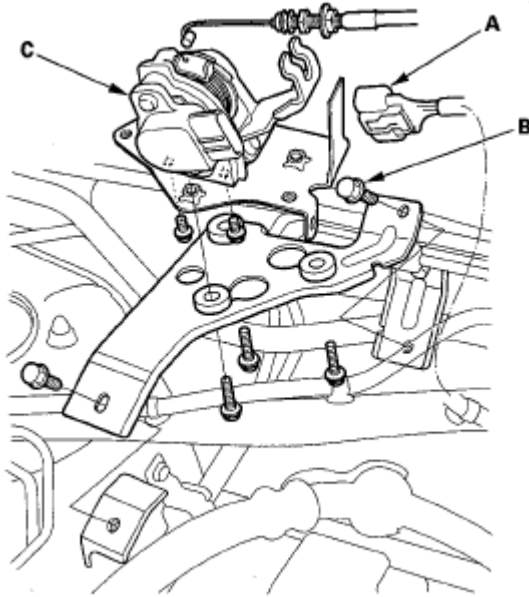


Fig. 64: Identifying Accelerator Pedal Position (APP) Sensor 6P Connector And Bolts
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the bolts (B), and the APP sensor (C).
5. Install the parts in the reverse order of removal.

APP SENSOR SIGNAL INSPECTION

NOTE:

- This procedure checks the APP sensor in its fully closed position. In any other position, the APP sensor stores DTCs which are covered in other troubleshooting procedures.
- Check for Temporary DTCs or DTCs with the HDS before doing this procedure. If any DTCs are indicated, troubleshoot them first, then do this procedure.
- Press the accelerator pedal several times to check its operation. If it does not operate properly, check the pedal, the throttle cable, and the APP sensor individually. If you find a problem in one of them, replace the part (s) that caused the problem.

1. Connect the HDS to the data link connector (DLC) (A) located behind the driver's side of the dashboard.

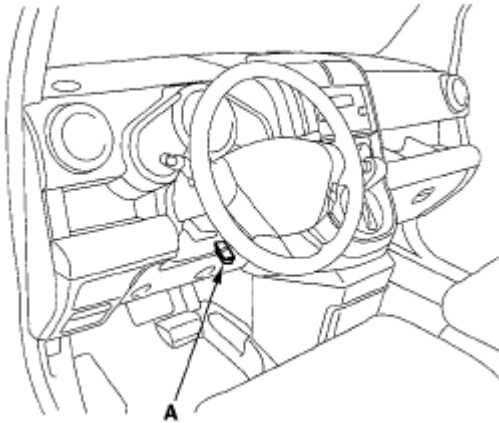


Fig. 65: Connecting HDS To Data Link Connector (DLC)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Turn the ignition switch ON (II).
3. Make sure the HDS communicates with the vehicle and the ECM/PCM. If it doesn't, go to the DLC circuit troubleshooting (see **DLC CIRCUIT TROUBLESHOOTING**).
4. Make sure the accelerator pedal is not pressed, then check the APP SENSOR in the DATA LIST with the HDS.
 - If it is below 2 %, the APP sensor is OK.
 - If it is above 2 %, adjust the throttle cable (see **THROTTLE CABLE ADJUSTMENT**), then go to step 5.
5. Make sure the accelerator pedal is not pressed, then check the APP SENSOR in the DATA LIST with the HDS.
 - If it is below 2 %, the APP sensor is OK.
 - If it is above 2 %, 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**), then go to step 6.
6. Make sure the accelerator pedal is not pressed, then check the APP SENSOR in the DATA LIST with the HDS.
 - If it is below 2 %, the APP sensor is OK.
 - If it is above 2 %, replace the APP sensor (see **APP SENSOR REPLACEMENT**), then go to step 1.

THROTTLE ACTUATOR CONTROL MODULE REPLACEMENT

1. Push the tab (A), and disconnect the throttle actuator control module 16P connector (B).

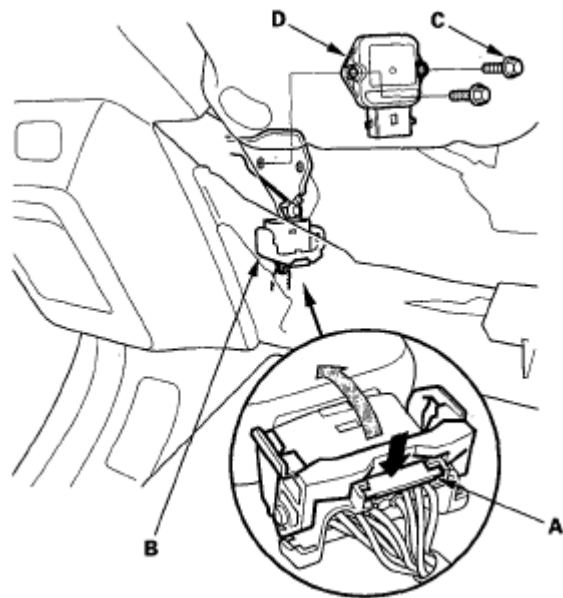


Fig. 66: Pushing Tab And Throttle Actuator Control Module 16P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Remove the bolts (C), and the throttle actuator control module (D).
3. Install the parts in the reverse order of removal.