

## 2003 PILOT - DTC Troubleshooting: P0505 (14)

DTC P0505: Idle Control System Malfunction

NOTE: If DTC P1519 is stored at same time as DTC P0505, troubleshoot DTC P1519 first, then recheck for DTC P0505.

1. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
2. Check the engine speed at idle with no-load conditions: headlights, blower fan, rear window defogger, radiator fan, and air conditioner off.

*Is the engine running at 730+/-50 rpm?*

**YES** - Intermittent failure, system is OK at this time. ■

**NO** - If the idle speed is less than 680 rpm, go to step 3; if it's 780 rpm or higher, go to step 4.

3. Disconnect the idle air control (IAC) valve 3P connector.

*Does the engine speed increase or fluctuate?*

**YES** - Adjust the idle speed. If the idle will not adjust properly, clean the passage in the throttle body, and then adjust the idle. ■

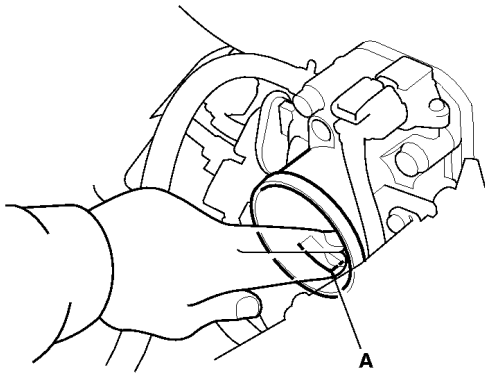
**NO** - Replace the IAC valve. ■

4. Turn the ignition switch OFF.
5. Remove the intake air duct from the throttle body.
6. Start the engine and let it idle.
7. Put your finger on the lower port (A) in the throttle body.

*Does the engine speed drop below 780 rpm?*

**YES** - Adjust the idle speed. If the idle will not adjust properly, replace the IAC valve, and then adjust the idle. ■

**NO** - With the throttle valve completely closed, check for vacuum leaks, and repair as necessary. ■




 Applies To: **2001-02 Odyssey** – ALL

**August 20, 2008**

**2003 Odyssey** – From VIN 5FNRL1...3B000001 thru 5FNRL1...3B159953  
**2003 Odyssey** – From VIN 2HKRL1...3H500001 thru 2HKRL1...3H514354  
**2003 Pilot** – From VIN 2HKYF1...3H500001 thru 2HKYF1...3H520648

## Idle Fluctuation and/or the MIL Is On With DTC P1129 and/or P0505

(Supersedes 04-007, *Idle Fluctuation With DTC P1129*, dated February 6, 2004, to update the information marked by the black bars)

### SYMPTOM

The idle fluctuates, and/or the MIL is on with DTC P1129 (high manifold absolute pressure [MAP] sensor signal) and/or P0505 (faulty IAC valve).

### PROBABLE CAUSE

The idle air control (IAC) valve sticks open, the power steering pressure switch wire is broken, or both.

### CORRECTIVE ACTION

Replace the IAC valve, repair the power steering pressure switch wire, or do both.

### TOOL INFORMATION

Pin Tool Set, T/N 07JAZ-002000A  
 Crimper Tool, T/N 07NGZ-001010A  
 Heat Gun, T/N 07NGZ-001020A

### REQUIRED MATERIALS

Harness tape (black electrical tape)

### PARTS INFORMATION

IAC Valve Set: P/N 16022-P8A-A03, H/C 7542046  
 Repair Wire, Pigtail Lead w/Terminal: (repairs 5 vehicles)  
 P/N 04320-SP0-A00, H/C 4023503  
 Joint Splice Connector w/Sealant: (repairs 12 vehicles)  
 P/N 04323-SP0-A01, H/C 4515896

### WARRANTY CLAIM INFORMATION

**In warranty:** The normal warranty applies.

OP#	Description	FRT
123503	Check for DTCs.	0.3
121187	Replace the IAC valve.	0.7
125030	Repair the power steering pressure switch wire.	0.4

Failed Part: P/N 16022-P8A-A02  
H/C 5612890

Defect Code: 03001

Symptom Code: 03203

Skill Level: Repair Technician

**Out of warranty:** Any repair performed after warranty expiration may be eligible for goodwill consideration by the District Parts and Service Manager or your Zone Office. You must request consideration, and get a decision, before starting work.

### DIAGNOSIS

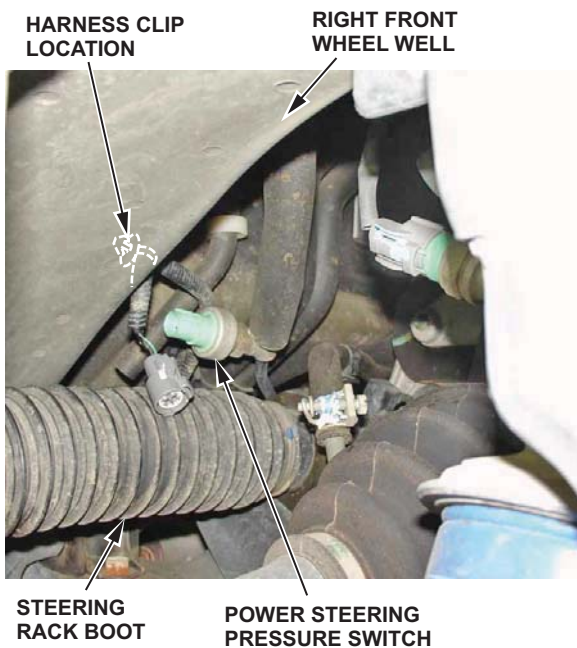
- Start the engine, and let it idle until it warms up.  
*Does the idle fluctuate, or is there a customer complaint of an intermittent idle fluctuation?*  
**Yes - Odyssey:** Go to REPAIR PROCEDURE A.  
*Pilot:* Go to REPAIR PROCEDURE B.  
**No -** Go to step 2.
- Connect the HDS to the vehicle's DLC, and check for DTCs.  
*Is DTC P1129 or P0505 stored?*  
**Yes -** Go to REPAIR PROCEDURE B.  
**No -** Continue with normal troubleshooting.

### REPAIR PROCEDURE A

- Connect the HDS to the vehicle's DLC.
- Start the engine, and turn on the HDS.
- When prompted, enter the VIN and the odometer reading.

4. From the System Selection Menu screen, select **PGM-FI**.
5. From the Mode Menu, select **DATA LIST**.
6. Scroll down the list to **PSP SWITCH**. Watch the reading in the **Value** column.
7. Check for a broken power steering pressure switch wire by wiggling the P/S pressure switch wire harness at the switch while you check the **Value** column reading.
  - If the reading changes between **on** and **off** when you wiggle the harness, go to step 8.
  - If the reading does not change between **on** and **off** when you wiggle the harness, go to **REPAIR PROCEDURE B**.
8. Raise the vehicle on a lift, and remove the right front wheel to access the power steering pressure switch.
9. Disconnect the connector from the switch, and release the harness clip from the body.

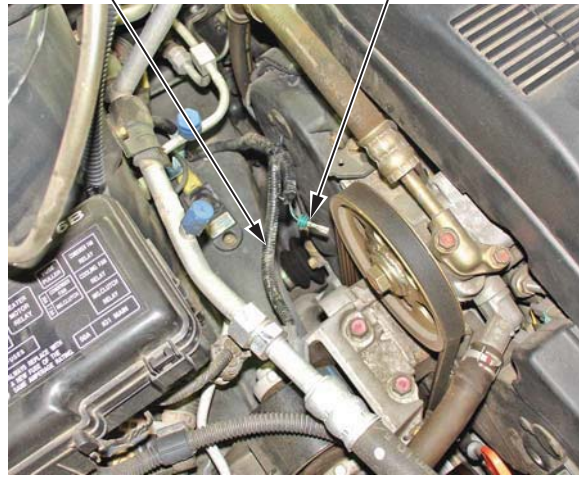
**NOTE:** You may need to disconnect the Secondary HO2S connector to free the end of the harness from the body.



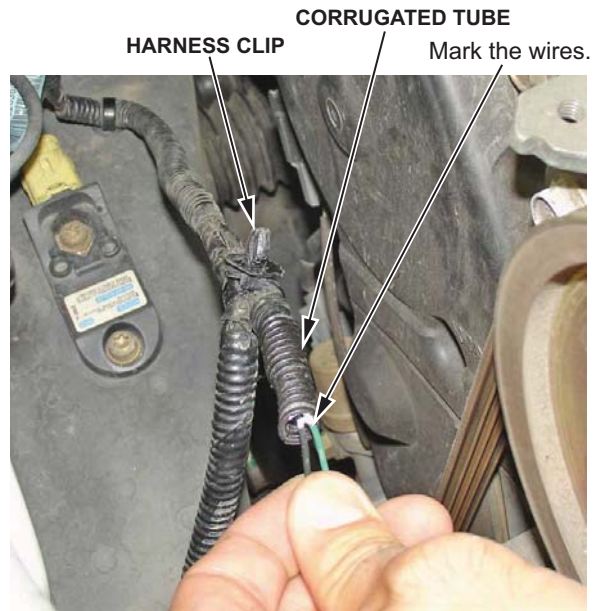
10. Lower the vehicle, and pull the harness up for easier access to make the repair.

**HARNESS**  
(Pulled up from below for better access.)

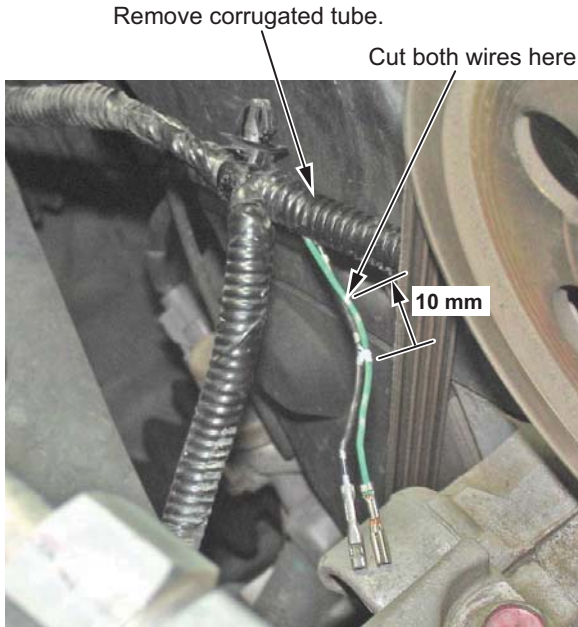
**REMOVED CONNECTOR**



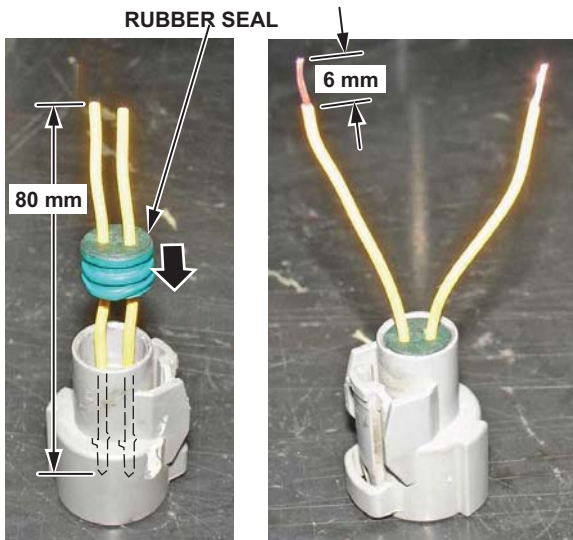
11. Remove the rubber seal from the connector, and remove the terminals from the connector noting the GRN wire and BLK wire locations.
12. Remove the tape from the corrugated tube and the wires up to the harness clip; mark the wires at the end of the corrugated tube.



13. Remove the corrugated tube from the wires, then cut the wires 10 mm from the mark you made in step 12.



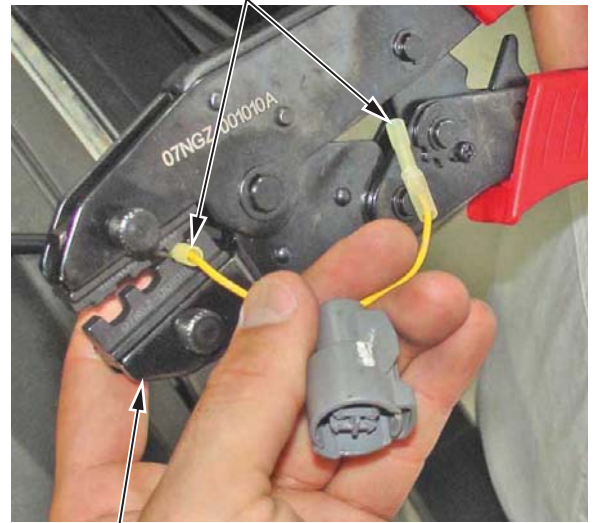
14. Cut two new wires from the kit 80 mm from the terminal ends.



15. Push the terminal ends of the new wires into the existing connector, and install the connector's rubber seal.

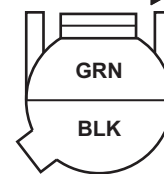
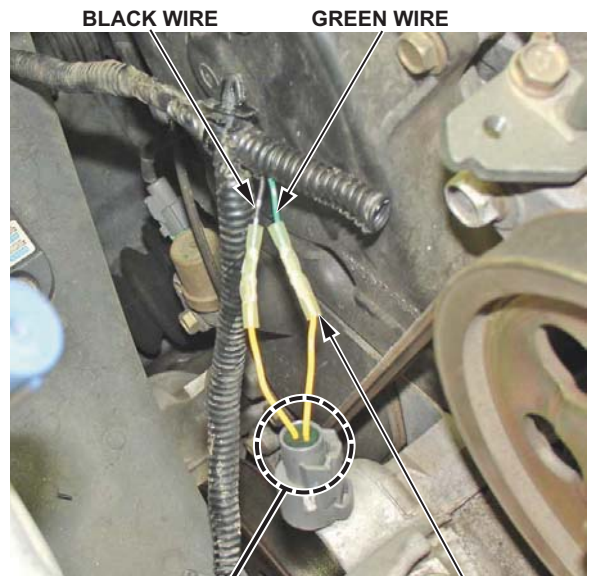
16. Strip 6 mm of insulation from both wire ends, then use a crimper tool to install a joint splice connector on each wire end.

**JOINT SPLICE CONNECTORS**



**CRIMPER TOOL**

17. Strip 6 mm of insulation from the vehicle's GRN and BLK wires, insert them into the joint splice connectors on the yellow wires, and make sure the GRN and the BLK wires go to the correct terminals in the connector. Crimp the connectors and, if needed, reverse the terminals in the connector.



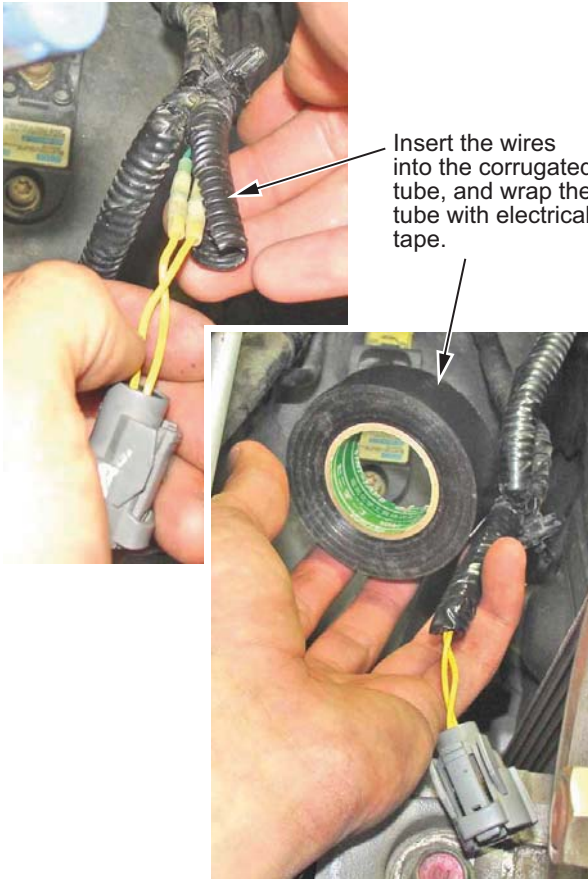
**SPLICE CONNECTORS**

18. Use a heat gun with a nozzle attachment to shrink the joint splice insulation tubing and set the insulation sealant. Be careful not to damage the corrugated tube or other parts with the heat gun.



HEAT GUN

19. Insert the wires and joint splices into the corrugated tube, and wrap the tube with electrical tape.



Insert the wires into the corrugated tube, and wrap the tube with electrical tape.

20. Raise the vehicle, route the harness into its original position, and reattach the harness clip to the body.

HARNESS CLIP



21. Install all removed connectors. Check the pressure switch wires to make sure they are not contacting the steering rack boot or any parts of the vehicle.
22. Clear the DTCs with the HDS, and test-drive the vehicle. Check that the DTCs and/or the idle fluctuation does not return.
- If the idle fluctuation and/or the DTCs return, go to REPAIR PROCEDURE B.
  - If the idle fluctuation and/or the DTCs are gone, return the vehicle to the customer.

#### REPAIR PROCEDURE B

1. Replace the IAC valve:
  - **Odyssey:** Refer to page 11-245 of the *1999–2004 Odyssey Service Manual*.
  - **Pilot:** Refer to page 11-150 of the *2003–2004 Pilot Service Manual*, or
  - Online, enter keyword **THROTTLE**, and select **Throttle Body Disassembly/Reassembly** from the list.
2. Go into the HDS **MODE MENU**, and reset the PCM.
3. Do the idle learn procedure:
  - Make sure all the electrical accessories are off, then start the engine and let it run until it reaches normal operating temperature (the cooling fan cycles twice).
  - Let the engine idle for 10 minutes with no load.
4. Confirm that the MAP sensor is working by checking the **DATA LIST** on the HDS.
 

*Is the MAP sensor reading less than 1.1 V?*

  - Yes** - Return the vehicle to the customer.
  - No** - Continue with normal troubleshooting.