



Applies To: **1996–97 Accord L4 – ALL with A/T**
1996–97 Odyssey – ALL

May 15, 2001

MIL Comes On With A/T DTC P0715

PROBLEM

The MIL comes on, and A/T DTC P0715 (problem in the mainshaft speed sensor circuit) is set.

CORRECTIVE ACTION

Retrieve and record the A/T freeze data with the PGM Tester. Make sure you record the freeze data values on the repair order. Refer to DIAGNOSIS to determine which of these repair actions is needed:

- Replace the PCM
- Flush the A/T
- Replace the A/T
- Troubleshoot the mainshaft speed sensor circuit
- Troubleshoot an engine problem

PARTS INFORMATION

Powertrain Control Module: See page 3

Drain Plug Washer: P/N 90471-PX4-000, H/C 3300936

REQUIRED MATERIALS

Honda ATF-Z1 (12 quarts required):
P/N 08200-9002, H/C 6512628

WARRANTY CLAIM INFORMATION

In warranty: The normal warranty applies.

REPAIR PROCEDURE A

Replace the PCM

Operation Number: 121177

Flat Rate Time: 0.3 hour

Failed Part: P/N 37820-P0B-A70
H/C 4736757

Defect Code: 814

Contention Code: K49

Template ID: 01-012A

Skill Level: Repair Technician

REPAIR PROCEDURE B

Flush the A/T

Operation Number: 219235

Flat Rate Time: 0.9 hour

Failed Part: P/N 37820-P0B-A70
H/C 4736757

Defect Code: 814

Contention Code: K49

Template ID: 01-012B

Skill Level: Repair Technician

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

DIAGNOSIS

1. Connect the PGM Tester to the 16P data link connector (DLC).
2. Turn the ignition switch ON (II).
3. From the SYSTEM SELECT screen, select AUTOMATIC TRANSMISSION.
4. From the TEST MODE MENU screen, select FREEZE DATA.
5. Read and record the freeze data values. (See the examples of PGM Tester displays.) Make sure you record the actual freeze data values on the repair order.
 - If the mainshaft speed value is *lower* than the countershaft speed and VSS values, as shown, and you have these conditions:
 - TP sensor value is off idle (more than 0.5 volts, more than 1%, or more than -2°, depending on the unit of measure),
 - ECT value is about 140°F,
 - VSS value is between 20 to 40 mph, and
 - Shift signal is 3rd geargo to **REPAIR PROCEDURE A**.

ENGINE SPD	-----	2438RPM
VSS	-----	35MPH
C SHAFT SPD	-----	35MPH
M SHAFT SPD	-----	23MPH
TP SENSOR	-----	1.70V

- If the mainshaft speed value is *lower* than the countershaft speed and VSS values, but one or more of the values in the conditions listed above are outside the parameters, clear the DTC with the PGM Tester, then flush the A/T (see **REPAIR PROCEDURE B, Flushing the A/T**). If the DTC comes back, replace the A/T with a remanufactured unit (see S/B 98-061, *Automatic Transmission In-Warranty Exchange Program*, filed under Transmission/Driveline).

- If the mainshaft speed value is *higher* than the countershaft speed and VSS values, as shown, go to **REPAIR PROCEDURE B**.

ENGINE SPD	-----	2720RPM
VSS	-----	44MPH
C SHAFT SPD	-----	44MPH
M SHAFT SPD	-----	60MPH

- If the mainshaft speed value is *zero*, as shown, check the sensor connectors and terminals for a good fit and for a short or open in the wiring. Do the mainshaft speed sensor troubleshooting in the Transmission section of the appropriate service manual.

ENGINE SPD	-----	2438RPM
VSS	-----	35MPH
C SHAFT SPD	-----	23MPH
M SHAFT SPD	-----	0MPH
TP SENSOR	-----	1.70V

- If the engine speed value is *zero*, and the countershaft speed and VSS values are identical, as shown, ask your customer if the engine has ever stalled while driving. If it has, the problem may be engine-related, *not* A/T-related. Continue with normal troubleshooting procedures.

ENGINE SPD	-----	0RPM
VSS	-----	19MPH
C SHAFT SPD	-----	19MPH
M SHAFT SPD	-----	6MPH

REPAIR PROCEDURE A

Replace the PCM. Refer to the chart in PARTS INFORMATION to select the correct replacement. When you remove the PCM, find its part number in the chart, and order the part number in the far right column. For Accord L4 models only, the chart includes replacement PCMs listed in S/B 98-040, *Diagnostic Trouble Code P0740*, filed under Transmission/Driveline. One of those PCMs may have been previously installed.

REPAIR PROCEDURE B

Accord L4

1. Drain the ATF.
2. Loosen the 11 bolts for the A/T right side cover, and slide back the cover.
3. Look at the 4th clutch feed pipe inside the cover.
Is the bushing for the feed pipe visible?
YES - Replace the A/T with a remanufactured unit (see S/B 98-061, *Automatic Transmission In-Warranty Exchange Program*, filed under Transmission/Driveline. (The feed pipe bushing should stay stationary inside the mainshaft.)
NO - Reinstall the cover, and torque the bolts to 12 N·m (8.7 lb-ft). Clear the DTC with the PGM Tester, and flush the A/T (see **Flushing the A/T**). If the DTC comes back, replace the A/T with a remanufactured unit (see S/B 98-061, *Automatic Transmission In-Warranty Exchange Program*, filed under Transmission/Driveline).

Odyssey

Clear the DTC with the PGM Tester, then flush the A/T (see **Flushing the A/T**). If the DTC comes back, replace the A/T with a remanufactured unit (see S/B 98-061, *Automatic Transmission In-Warranty Exchange Program*, filed under Transmission/Driveline).

Flushing the A/T

1. Raise the vehicle on a lift.
2. Drain the ATF.
3. Refill the A/T with Honda ATF-Z1.
4. Start the engine.
5. Press the brake pedal, move the shift lever to D₄, and release the brake pedal.
6. Press the accelerator pedal so the speedometer reads 50 mph. Make sure the A/T shifts through the first three lower gears and into 4th gear and the torque converter locks up. Release the accelerator pedal.
7. Press the brake pedal to stop the front wheels.
8. Move the shift lever to R, and then to N. Release the brake pedal.
9. Repeat the shifting procedure (steps 5 through 8) *four more times*.
10. Turn off the engine.
11. Drain the ATF.
12. Repeat steps 3 through 11 *two more times*.
13. Reinstall the drain plug with a new sealing washer.
14. Refill the A/T with Honda ATF-Z1.

PARTS INFORMATION

Use this chart for **REPAIR PROCEDURE A** to select the correct replacement PCM. When you remove the PCM from the vehicle, find its part number in the chart, and order the part number in the far right column. For Accord L4 models only, the chart includes replacement PCMs listed in S/B 98-040, *Diagnostic Trouble Code P0740*, filed under Transmission/Driveline. One of those PCMs may have been previously installed.

Model	Trim Level	Original PCM	Replacement PCM (From S/B 98-040)	Replacement PCM To Order
'96 Accord 4-door	DX Added Value 25th Anniversary	P/N 37820-P0B-A70 H/C 4736757	P/N 37820-P0B-305 H/C 5646658	P/N 37820-P0B-315 H/C 6074496
		P/N 37820-P0J-L60 H/C 4736815	P/N 37820-P0J-305 H/C 5646666	P/N 37820-P0J-315 H/C 6074504
	LX (No ABS)	P/N 37820-P0B-A70 H/C 4736757	P/N 37820-P0B-305 H/C 5646658	P/N 37820-P0B-315 H/C 6074496
		P/N 37820-P0J-L51 H/C 4736807	P/N 37820-P0J-306 H/C 5646674	P/N 37820-P0J-316 H/C 6074512
	LX (With ABS)	P/N 37820-P0B-A70 H/C 4736757	P/N 37820-P0B-305 H/C 5646658	P/N 37820-P0B-315 H/C 6074496
		P/N 37820-P0J-L60 H/C 4736815	P/N 37820-P0J-305 H/C 5646666	P/N 37820-P0J-315 H/C 6074504
EX	P/N 37820-P0H-L51 H/C 4772190	P/N 37820-P0H-305 H/C 5646633	P/N 37820-P0H-315 H/C 6074470	
'96 Accord 2-door	LX	P/N 37820-P0J-L60 H/C 4736815	P/N 37820-P0J-305 H/C 5646666	P/N 37820-P0J-315 H/C 6074504
	EX	P/N 37820-P0H-L51 H/C 4772190	P/N 37820-P0H-305 H/C 5646633	P/N 37820-P0H-315 H/C 6074470
'96 Accord 5-door	LX	P/N 37820-P0J-A80 H/C 4806691	P/N 37820-P0J-307 H/C 5646682	P/N 37820-P0J-317 H/C 6074520
	EX	P/N 37820-P0H-A70 H/C 4806675	P/N 37820-P0H-306 H/C 5646641	P/N 37820-P0H-316 H/C 6074488
'97 Accord 4-door	DX Added Value	P/N 37820-P0J-L61 H/C 5173547	P/N 37820-P0J-L62 H/C 5646716	P/N 37820-P0J-L63 H/C 6093363
	LX (No ABS) SE	P/N 37820-P0J-L61 H/C 5173547	P/N 37820-P0J-L62 H/C 5646716	P/N 37820-P0J-L63 H/C 6093363
		P/N 37820-P0J-L52 H/C 5162839	P/N 37820-P0J-L53 H/C 5646724	P/N 37820-P0J-L54 H/C 6074561
	LX (With ABS)	P/N 37820-P0J-L61 H/C 5173547	P/N 37820-P0J-L62 H/C 5646716	P/N 37820-P0J-L63 H/C 6093363
	EX	P/N 37820-P0H-L52 H/C 5173521	P/N 37820-P0H-L53 H/C 5646690	P/N 37820-P0H-L54 H/C 6074538
'97 Accord 2-door	LX SE	P/N 37820-P0J-L61 H/C 5173547	P/N 37820-P0J-L62 H/C 5646716	P/N 37820-P0J-L63 H/C 6093363
	EX	P/N 37820-P0H-L52 H/C 5173521	P/N 37820-P0H-L53 H/C 5646690	P/N 37820-P0H-L54 H/C 6074538
'97 Accord 5-door	LX	P/N 37820-P0J-A81 H/C 5160064	P/N 37820-P0J-A82 H/C 5646732	P/N 37820-P0J-A83 H/C 6074579
	EX	P/N 37820-P0H-A71 H/C 5160049	P/N 37820-P0H-A72 H/C 5646708	P/N 37820-P0H-A73 H/C 6074546
'96 Odyssey	ALL	N/A	N/A	P/N 37820-P1E-305RM H/C 6126643
'97 Odyssey	ALL	N/A	N/A	P/N 37820-P1E-A62RM H/C 6134530