



Applies To: 1998-02 Accord V6 – ALL
1999-02 Odyssey – ALL

August 14, 2001

V6 Engine Oil Leaks

(Supersedes 01-009, *Accord V6 Engine Oil Leaks*, dated January 16, 2001)

SYMPTOM

An oil leak from the front, middle, or rear of the engine.

PROBABLE CAUSE

The cast aluminum engine block may be porous at the front, middle, or rear.

CORRECTIVE ACTION

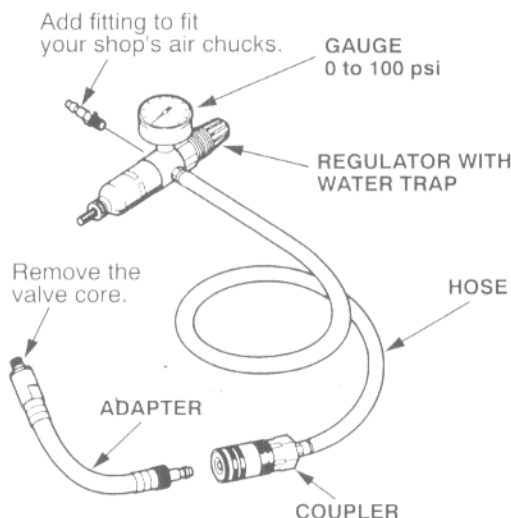
Depending on the location of the leak, seal it with JB Weld or with 3-Bond-coated sealing bolts.

TOOL INFORMATION

VTEC System Test Tool: In some cases, the VTEC System Test Tool can be used to pressure-check the engine block for oil leaks. The tool was first used in 1992 to check the rocker arms on VTEC engines (see Service Bulletin 91-038, *VTEC Inspection Tool*, filed under Special Tools in your pre-'97 S/B binder).

If your shop doesn't have a VTEC System Test Tool, you can order its components from Snap-on (call your local representative) using these Snap-on part numbers:

- Gauge (0 to 100 psi) with regulator and water trap: P/N AHR420A
- Hose: P/N IM20
- Adapter: P/N MT26-17
- Coupler: P/N AHC23PM
- Fitting: Commercially available. Use the size that fits your shop's air supply.



REQUIRED MATERIALS

JB Weld: P/N 8265-S (commercially available)
Powdered Leak Detector: P/N 20165
(Call Kent Industries at 800-654-6333.)

PARTS INFORMATION

Timing Belt Adjuster Pulley Bolt:
P/N 14551-P8A-999, H/C 6665731
Engine Side Mount Bracket Bolt:
P/N 95801-10085-99, H/C 6646574
Transmission Mounting Bolt (2 required):
P/N 95701-12070-99, H/C 6646566

REPAIR PROCEDURE

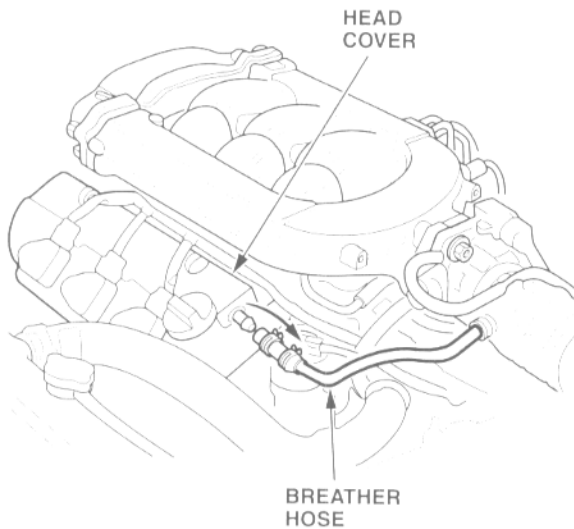
Most engine oil leaks can be seen when you disassemble the suspected area. But if you want to pinpoint the exact location of the leak, use a powdered leak detector (best for suspected bolt hole leaks) or do a pressure-test with the VTEC System Test Tool (best for suspected block porosity).

Leak Testing With a Powdered Leak Detector (Best for suspected bolt hole leaks)

1. Clean off residual oil and grease from the engine with engine degreaser.
2. Disassemble the engine enough to expose the area of the leak.
3. Spray powdered leak detector on the area.
4. Reassemble the engine, start it, and run it for about 5 minutes.
5. Shut off the engine, and inspect the leak area. Once you find the leak, go to **Confirming the Leak** on page 3, and use the chart to determine whether to follow **Repair Procedure A** or **Repair Procedure B**.

Leak Testing With the VTEC System Test Tool (Best for suspected block porosity)

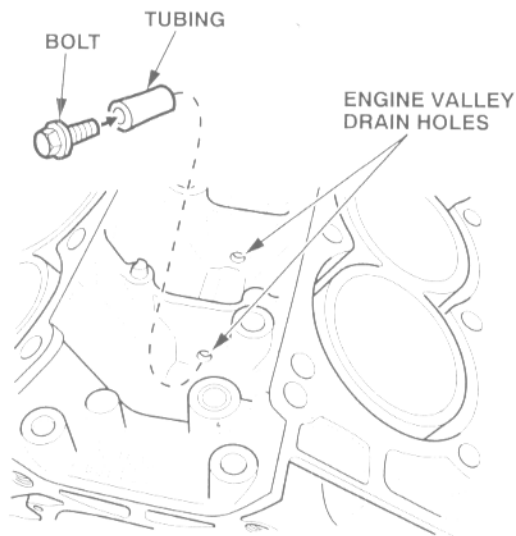
1. Disconnect the breather hose connecting the front head cover to the air inlet tube.



2. Remove the oil pressure switch from the oil pump.
3. Screw the adapter of the VTEC tool into the oil pressure switch hole.
4. Connect the VTEC tool to shop air regulated to no more than 40 psi.
5. Brush soapy water on the suspected porous area (best for vertical surfaces) or fill the area with soapy water (best for a suspected leak in the engine valley).

If the area bubbles, you've found the leak. Go to **Confirming the Leak** on page 3, and use the chart to determine whether to follow **Repair Procedure A** or **Repair Procedure B**.

NOTE: To fill an engine valley section with soapy water, plug the drain hole in the valley with a piece of tubing (P/N 36285-P8A-A00, H/C 5181730) around a 6 x 15 mm bolt.



6. After you pressure-test the block and make the needed repairs, pull fuse No.11 (15A) from the driver's under-dash fuse/relay box (to disable the ignition system), then crank the engine for 10 to 15 seconds; this ensures the engine bearings are lubricated before you start the engine. After you crank the engine, reinstall the fuse.
7. If you can't find the leak with this method, use the powdered leak detector.

Repair Procedure A

1. Remove and discard the original bolt(s).
2. Install the appropriate coated bolt(s) (see PARTS INFORMATION), and torque them as indicated:
 - Timing Belt Adjuster Pulley Bolt: 44 N·m (33 lb-ft)
 - Engine Side Mount Bracket Bolt: 44 N·m (33 lb-ft)
 - Transmission Mounting Bolts: 73 N·m (54 lb-ft)
3. Reassemble the engine, start it, and let it run for 20 minutes. Then shut it off, and confirm that the leak is gone.

Repair Procedure B

1. Thoroughly clean the area to be patched. *This is very important for good bonding of the adhesive.*
2. Follow the manufacturer's directions for preparing the JB Weld 8265-S adhesive.
3. Spread a generous amount of adhesive on the leak area and 1 to 2 inches surrounding it.
4. Reassemble the engine, making sure not to disturb the adhesive.
5. Let the adhesive set for at least 24 hours before you start the engine. *This is very important because engine oil pressure will try to push through the repair.*
6. If you pressure-tested the block, pull fuse No.11 from the driver's under-dash fuse/relay box to disable the ignition system. Then crank the engine for 10 to 15 seconds; this ensures that the engine bearings are lubricated before you start the engine. After you crank the engine, reinstall the fuse.
7. Start the engine, and let it run for 20 minutes. Then shut it off, and confirm that the leak is gone.

Confirming the Leak

The engine may leak at any of six known areas. Confirm the leak with this chart, then repair it using Repair Procedure A or B.

Possible Leak Source	Leak Confirmation	Repair Procedure
Lower bolt hole of engine side mount bracket (see Illustration 1)	Remove the engine side mount lower bolt, then look for oil on the bolt threads or at the bottom of the bolt hole.	Use Repair Procedure A.
Bolt hole of timing belt adjuster pulley (see Illustration 1)	Remove the bolt, then look for oil on the bolt threads or at the bottom of the bolt hole.	Use Repair Procedure A.
Pocket on right side of timing belt adjuster pulley bolt (see Illustration 1)	Look for oil in the pocket, not in the threads, of the timing belt adjuster pulley bolt hole. If needed, use one of the leak detection methods on page 1 or 2.	Use Repair Procedure B.
Upper two transmission mounting bolt holes (see Illustration 2)	Remove the upper two transmission mounting bolts, then look for oil on the bolt threads or at the bottom of each bolt hole.	Use Repair Procedure A.
Two oil passages on transmission end of engine block (see Illustration 2)	Look for oil on the transmission end of the block. If needed, use one of the leak detection methods on page 1 or 2.	Use Repair Procedure B.
Engine valley, below intake manifold (see Illustration 3)	Look for oil in the engine valley. If needed, use one of the leak detection methods on page 1 or 2.	Use Repair Procedure B.

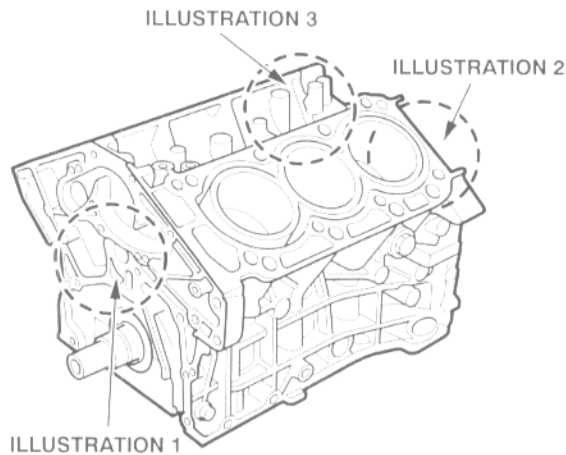


Illustration 1

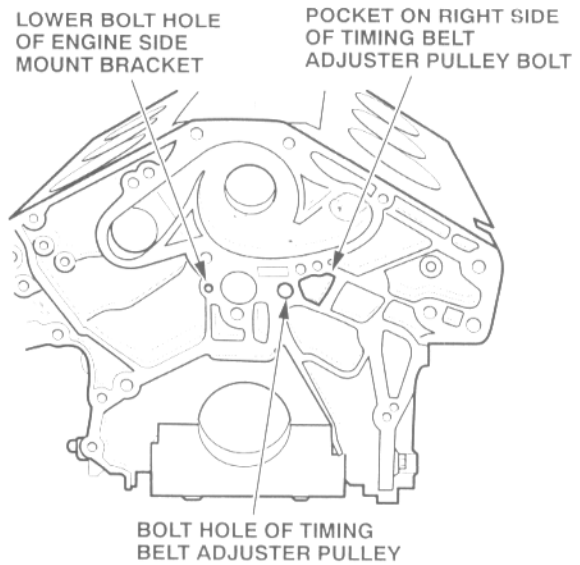


Illustration 2

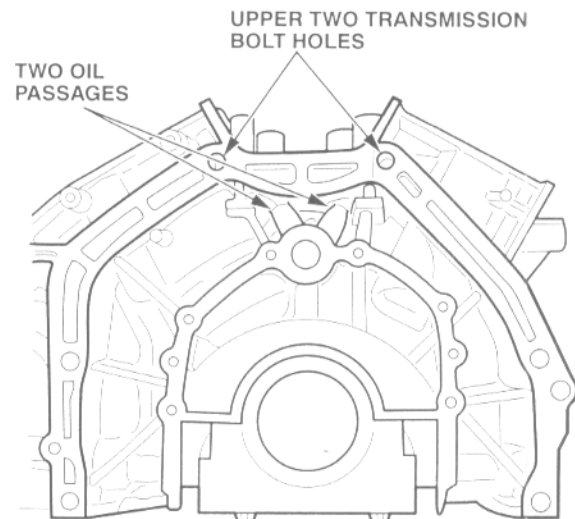
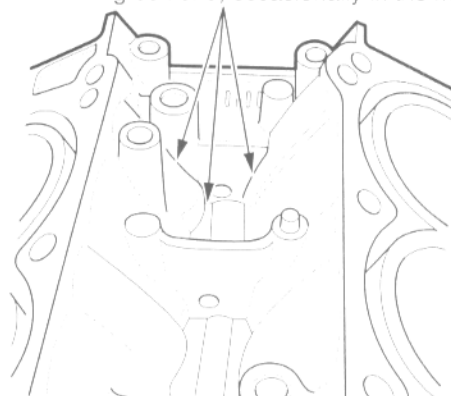


Illustration 3

CORNERS OF ENGINE VALLEY
(Transmission end more often than timing belt end; occasionally in the middle.)



WARRANTY CLAIM INFORMATION

In warranty: The normal warranty applies.

OP#	Description	FRT
109001	Accord: Repair pulley bolt hole of timing belt adjuster (includes finding the leak)	3.7
109002	Accord: Repair pocket on right side of timing belt adjuster pulley bolt hole (includes finding the leak, and JB Weld setup procedure)	4.0
109003	Accord: Repair lower bolt hole of the engine side mount bracket (includes finding the leak)	0.7
109004	Accord: Repair upper two transmission mounting bolt holes (includes finding the leak)	0.8
109005	Accord: Repair engine valley below intake manifold (includes finding the leak, and JB Weld setup procedure)	3.8
109006	Accord: Repair two oil passages on transmission end of engine block (includes finding the leak, and JB Weld setup procedure)	7.3
109001	Odyssey: Repair pulley bolt hole of timing belt adjuster (includes finding the leak)	3.7
109002	Odyssey: Repair pocket on right side of timing belt adjuster pulley bolt hole (includes finding the leak, and JB Weld setup procedure)	4.0
109003	Odyssey: Repair lower bolt hole of the engine side mount bracket (includes finding the leak)	2.0
109004	Odyssey: Repair upper two transmission mounting bolt holes (includes finding the leak)	0.8
109005	Odyssey: Repair engine valley below intake manifold (includes finding the leak, and JB Weld setup procedure)	3.8
109006	Odyssey: Repair two oil passages on transmission end of engine block (includes finding the leak, and JB Weld setup procedure)	7.3

Failed Part: P/N 10002-P8F-A00
H/C 5946587

Defect Code: 060

Contention Code: B06

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.