

**NUMBER:** 25-002-08

**GROUP:** Emissions

**DATE:** May 9, 2008

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THIS BULLETIN SUPERSEDES SERVICE BULLETINS 25-001-06, DATED FEBRUARY 1, 2006, WHICH SHOULD BE REMOVED FROM YOUR FILES. THIS IS A COMPLETE REVISION AND NO ASTERISKS HAVE BEEN INCLUDED.

#### SUBJECT:

Positive Crankcase Ventilation (PCV) System Freezes In Extreme Cold Ambient Temperatures 4.7L

#### **OVERVIEW:**

This bulletin involves installing revised PCV system components.

#### **MODELS:**

2002 - 2005	(DR)	Ram Truck
2004 - 2005	(HB)	Durango
2004	(AN)	Dakota
2005	(ND)	Dakota
2005	(WH)	Grand Cherokee (International Markets)
2005	(WK)	Grand Cherokee

NOTE: This bulletin applies to vehicles equipped with 4.7L engines, (sale codes EVA and EVD).

#### SYMPTOM/CONDITION:

Some customers operating in extreme cold ambient temperatures (Below 0°F or -18°C) may experience moisture collecting in the PCV system and freezing. This can lead to a variety of cold engine crankcase venting or driveability symptoms.

#### **DIAGNOSIS:**

If a customer indicates that they are experiencing any cold engine crankcase venting or driveability symptoms, perform the Repair Procedure.



25-002-08 -2-

### PARTS REQUIRED:

Qty.	Part No.	Description
1	05191104AA	PCV Kit - DR Bodies Only
1	53032925AC	PCV Valve Adaptor HB/ND/WK/WH Bodies
1	53032617AF	PCV Hose HB/ND/WK/WH Bodies
1	53020891AE	Oil Fill Housing HB/ND/WK/WH Bodies
1	04275086AC	Authorized Modification Label HB/ND/WK/WH Bodies
1	52022300AB	PCV Reroute Schematic Label HB/ND/WK/WH Bodies
1 (AR)	53032939AA	CCV Hose (HB)
1 (AR)	53032090AF	CCV Hose (ND)
1 (AR)	53013884AB	CCV Hose (WK/WH)

-3- 25-002-08

#### REPAIR PROCEDURE: 2002 DR - 4.7 L

1. Remove the existing PCV tube and retain for fabrication of new PCV tube(Fig. 1).

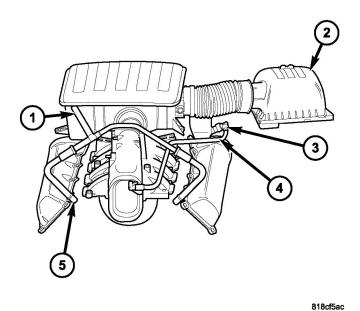


Fig. 1 2002 ORIGINAL REAR VIEW

- 1 CCV HOSE
- 2 AIR BOX COVER
- 3 PCV VALVE
- 4 PCV TUBE
- 5 BREATHER
- 2. Replace oil fill housing with 53020891AE (oil fill without PCV valve) (Fig. 1).
- 3. Remove the existing CCV tube and retain for fabrication of new PCV tube(Fig. 1).
- 4. Cap the resonator port with the cap provided.
- 5. Remove the left breather fitting in the cylinder head and discard.
- Remove the existing airbox cover and replace with p/n 53032405AC
- 7. Install the new CCV tube (53032819AA or 53032819AB) as shown in (Fig. 3).
- 8. Tighten the Adapter Assembly PCV (53032925AC) into the left breather fitting location in the cylinder head to 35 N-m (26 Ft Lbs).
- 9. Use thew original PCV tube to fabricate a PCV tube from the PCV Adapter Assembly to the intake manifold PCV port ensuring that there are no low spots in the tube for water to collect (Fig. 2).
- 10. Instal the PCV tube as shown (Fig. 3).
- 11. Install the Authorized Modification label, p/n 04275086AB.
- 12. Clean the area next to the VECI Label with an appropriate solvent and install the new vacuum schematic, p/n 52022300AB, next to the VECI label.

25-002-08 -4-

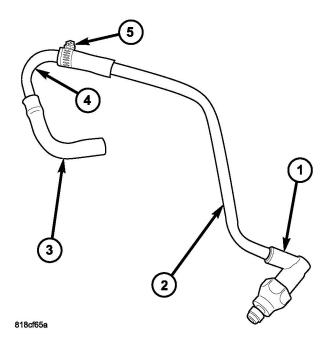


Fig. 2 PCV TUBE FABRICATION

- 1 PCV VALVE/ADAPTER
- 2 PCV TUBE MODIFIED FROM ORIGINAL
- 3 FROM CCV TUBE
- 4 FROM PCV TUBE
- 5 HOSE CLAMP

-5-25-002-08

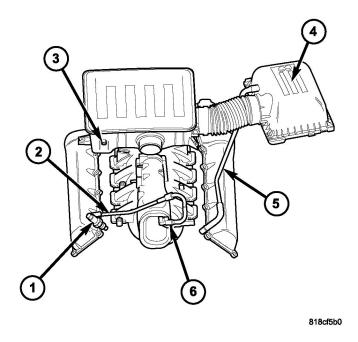
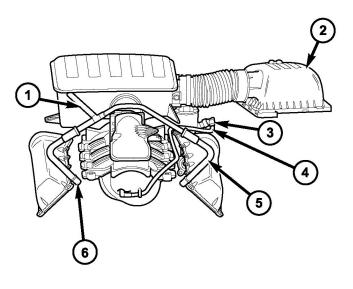


Fig. 3 2002 REVISED ROUTING

- 1 PCV VALVE/ADAPTER
- 2 PCV TUBE
- 3 RESONATOR CAP
- 4 AIR BOX COVER
- 5 CCV TUBE
- 6 INTAKE MANIFOLD PCV PORT

# REPAIR PROCEDURE: 2003 and Early 2004 DR - 4.7 L 1. Remove the existing PCV tube and discard (Fig. 4).

25-002-08 -6-



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Fig. 4 2003-EARLY 2004 ORIGINAL

- 1 CCV TUBE RESONATOR ATTACHMENT
- 2 AIR BOX COVER
- 3 PCV VALVE
- 4 PCV TUBE
- 5 CCV TUBE
- 6 BREATHER
- 2. Replace oil fill housing with 53020891AE (oil fill without PCV valve) (Fig. 4).
- 3. Remove the complete CCV tube and discard (Fig. 4).
- 4. Cap the resonator port with the cap provided (Fig. 4).
- 5. Remove the left breather fitting in the cylinder head and discard (Fig. 4).
- 6. Remove the existing airbox cover and replace with p/n 53032405AC (Fig. 4).
- 7. Install the new CCV tube (53032819AA or 53032819AB) as shown (Fig. 5).
- 8. Tighten the Adapter Assembly PCV into the left breather fitting location in the cylinder head to 35 N-m (26 Ft Lbs).
- 9. Route the new PCV tube to the intake manifold PCV port as shown (Fig. 5).
- 10. Install the Authorized Modification label, p/n 04275086AB.
- 11. Clean the area next to the VECI Label with an appropriate solvent and install the new vacuum schematic, p/n 52022300AB, next to the VECI label.

-7- 25-002-08

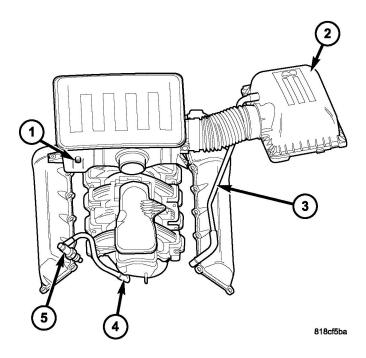


Fig. 5 2003-EARLY 2004 REVISED ROUTING

- 1 CAP
- 2 AIR BOX COVER
- 3 CCV TUBE
- 4 INTAKE MANIFOLD PCV PORT
- 5 PCV VALVE/ADAPTER

#### REPAIR PROCEDURE: Late 2004 and 2005 - 4.7 L

- 1. Is vehicle a WK, WH, HB or ND?
  - a. Yes >>> proceed to Step #2
  - b. No >>> proceed to Step #3
- 2. Does CCV Tube connect to air box cover as shown in (Fig. 6)?
  - a. Yes >>> Proceed to Step #3
  - b. No >>> This service bulletin does not apply, further diagnosis is required.
- 3. Remove existing PCV tube and discard (Fig. 6).

25-002-08 -8-

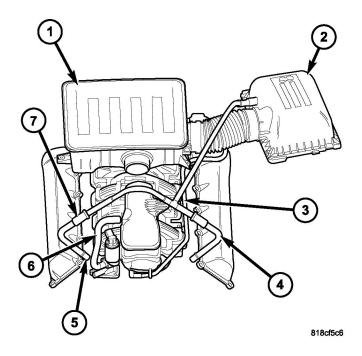


Fig. 6 LATE 2004 - 2005 ORIGINAL PCV SYSTEM

- 1 RESONATOR
- 2 AIR BOX COVER
- 3 PCV TUBE
- 4 CCV TUBE
- 5 BREATHER FITTING
- 6 EGR TUBE (2005)
- 7 OIL SEPARATOR
- 4. Replace oil fill housing with 53020891AE (oil fill without PCV valve)(Fig. 6).
- 5. Remove the crankcase ventilation (CCV) tube and dispose (Fig. 6).
- 6. Remove the left breather fitting in the cylinder head and discard.
- 7. Is the vehicle a DR?
  - a. Yes >>> Proceed to Step #8.
  - b. No >>> Proceed to Step #10.
- 8. DR models only, remove the existing airbox cover and check the part number on the underside (Fig. 6).
- 9. Is p/n 53032405AC?
  - a. Yes >>> proceed to Step #10
  - b. No >>> Replace air box cover with p/n 53032405AC and proceed to Step #10
- 10. Install the new CCV tube (refer to parts table above or DR kit) as shown (Fig. 7).
- 11. Tighten the Adapter Assembly PCV into the left breather fitting location in the cylinder head to 35 N-m (26 Ft Lbs).
- 12. Route the new PCV tube p/n 53032617AF to the intake manifold PCV port as shown. (Fig. 7). The PCV tube should not touch the EGR system.
- 13. Install the Authorized Modification label, p/n 04275086AB.
- 14. Clean the area next to the VECI Label with an appropriate solvent and install the new vacuum schematic, p/n 52022300AB, next to the VECI label.

-9- 25-002-08

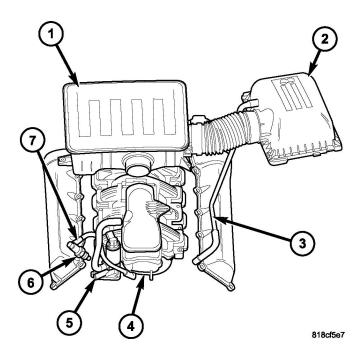


Fig. 7 LATE 2004-2005 REVISED ROUTING

- 1 RESONATOR
- 2 AIR BOX COVER
- 3 CCV TUBE
- 4 INTAKE MANIFOLD PCV PORT
- 5 EGR (2005)
- 6 PCV VALVE/ADAPTER
- 7 NEW PCV TUBE

25-002-08 -10-

# **POLICY:**

Reimbursable within the provisions of the warranty.

# TIME ALLOWANCE:

Labor Operation No:	Description	Amount
25-01-20-90	Install PCV Kit	0.7 Hrs. DR Bodies
25-01-20-92	Install PCV Fix	0.8 Hrs. HB Bodies
25-01-20-93	Install PCV Fix	0.7 Hrs. AN/ND Bodies
25-01-20-94	Install PCV Fix	0.6 Hrs. WK/WH

# **FAILURE CODE:**

ZZ	Service Action