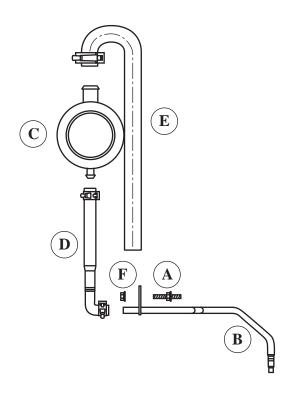
# CUMMINS ISB ENGINES DODGE 5.9 L APPLICATIONS





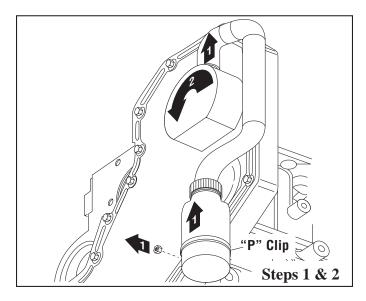
# ENVIROGUARD™ INSTALLATION INSTRUCTIONS

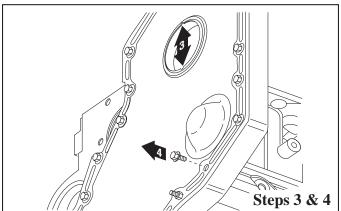
# Dodge 5.9 L Applications Model Years 1998-2002 Crankcase Ventilation Kit #CV50115 Component Parts

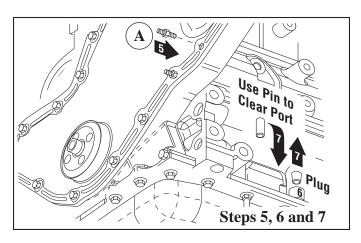


- A. Double Threaded Hex Stud (6 mm/8 mm)
- B. Drain Tube Assembly
- C. Breather Assembly
- D. Drain Hose Assembly
- E. Vent Hose Assembly
- F. Hex Nut (6 mm)

# **Installation Steps - Dodge 5.9 L Engine**







# Removing the Existing Breather Vent System

Step 1 - Disconnect the vent hose and bottle from the existing breather vent assembly. Clean the front of the engine to remove dirt and debris. Remove the hex nut from the stud holding the "P" clip and bottle in place. Remove the bottle from the "P" clip. Retain the clip and the hex nut. Both will be used later when installing the new vent hose.

**Step 2** - Remove the existing breather vent assembly from the engine gear cover plate by turning the assembly in a counter clockwise direction. (The assembly has threads on the inner body and is screwed into the cover plate.)

**Step 3** - Once the assembly has been removed, clean the mounting surface and threaded opening to ensure all oil and dirt have been removed.

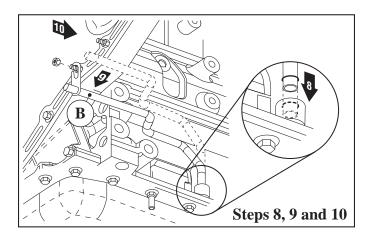
**Step 4** - Remove the existing hex bolt from the gear cover plate as shown. From the front of the engine, the location of the bolt is directly right of the existing stud.

# Installing the New Crankcase Ventilation System and Drain Tube Assembly

**Step 5** - Install the double threaded hex stud (8 mm end) into the bolt opening on the gear cover plate. Tighten the stud until it is seated tightly against the plate.

Step 6 - Locate the open dipstick port boss at the bottom of the cylinder block (above the pan rail). The open port boss is at the front of the engine. Clean the area thoroughly. To gain better access to this area of the engine, remove the mounting bolts and "P" clips holding the electrical harness in place.

Step 7 - Locate the frost plug in the port boss and remove it carefully to ensure no foreign contaminants enter the crankcase. After removing the plug, insert a .375 inch (9.5 mm) pin into the opening to ensure the hole is free of any foreign matter. The opening must be completely free of any obstructions (burrs and dirt) before proceeding.



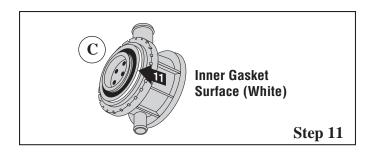
**Step 8** - Position the drain tube assembly and insert the end with the O-ring into the open port boss. Push the tubing into the port boss until the O-ring is fully seated against the bead on the drain tube. **To ensure the O-ring properly seals against the port boss, apply oil to the ring.** 

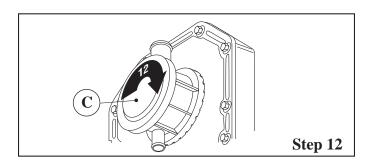
**Step 9** - Rotate the drain tube assembly, positioning the bracket attached to the tubing over the end of the original hex stud.

Step 10 - Ensure the bracket is positioned correctly over the hex stud as shown. Secure the bracket with the hex nut (6 mm) removed earlier. Replace the electrical harness by reattaching the "P" clips to the engine with the mounting bolts removed earlier.

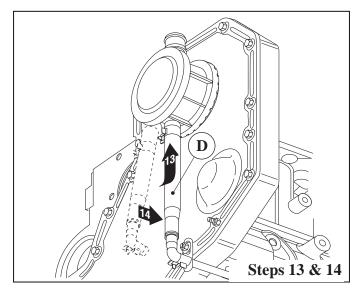
### **Installing the Breather Assembly**

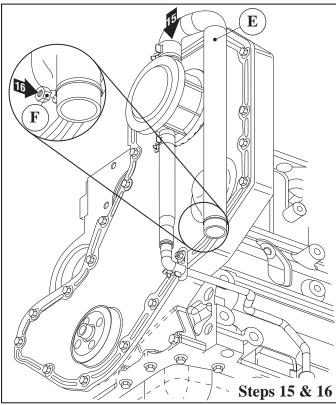
**Step 11** - Install the new breather assembly by first applying a small amount of oil to the inner gasket surface of the breather assembly.





**Step 12** - Position the breather assembly in the cover plate opening and thread the assembly into the opening by turning it in a clockwise direction. Continue turning until the assembly is seated against the cover plate and the one inch OD (25 mm) vent opening is pointing straight up.





# **Installing the Drain Hose Assembly**

**Step 13** - Attach the top of the drain hose onto the breather assembly. Position the clamp at the top of the hose and secure with the clamp.

**Step 14** - Next, position the lower end of the drain hose over the metal drain tube assembly.

To attach the drain hose to the drain tube, push the elbow portion of the drain hose over the drain tube by releasing tension on the hose clamp. The drain hose should cover at least 1 inch of the drain tube. Secure with the clamp. **Inspect to ensure the drain hose assembly is free of any kinks or bends.** 

## **Installing the Vent Hose Assembly**

**Step 15** - Attach the vent hose assembly to the top outlet of the breather assembly. Position the clamp at the bottom of the hose and secure with the clamp.

**Step 16** - Slip the original "P" clip over the end of the vent hose. Position the hose and clip to the right of the original hex stud. Position the clip over the new stud; secure with the hex nut provided.

Inspect the vent hose to ensure it is pointed downward and is free of any kinks or bends. Ensure the vent hose is clear of the fan or any other rotating parts.

### **Post Installation**

After installing the kit, start the engine and check for any oil leaks. Periodically, check all connections (hoses, oil drain tubes) to ensure the system is functioning properly.

No maintenance is required after installation.

