Jeep Wrangler JK Direction-Plus™ ProVent® Ultimate Catch Can Installation Guide

This document is to be used as a guide for the installation of the **Direction-Plus™ Provent Ultimate Catch Can Kit to a 2007+ Jeep Wrangler JK 2.8L Diesel.** It is recommended that the installation of the product be carried out by a competent qualified mechanic.

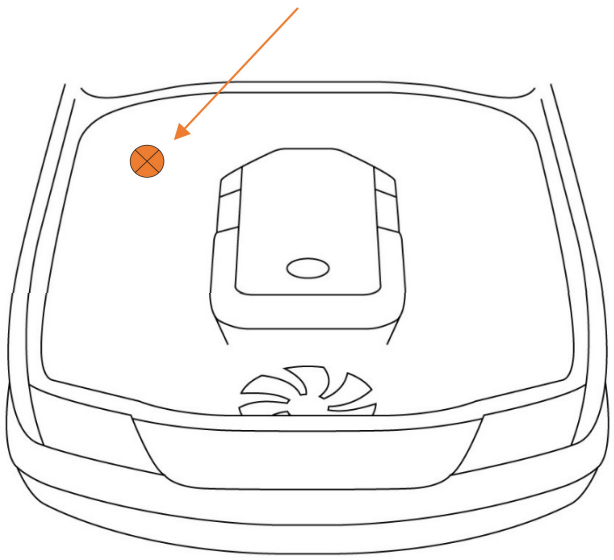
Important Before Starting

- Ensure you have the correct tools to complete the fitment
- Read the instructions in full and familiarize yourself with the installation, before commencing any work

Included in the kit

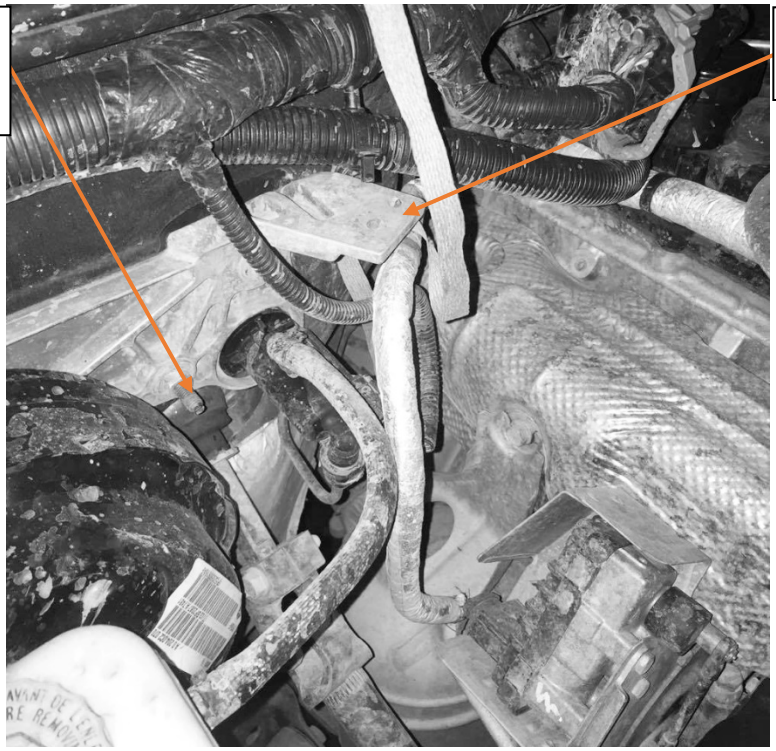
1 x Mann + Hummel Provent 200
1 x Mounting Bracket A
1 x Mounting Bracket B
1 x Support Shaft
1.2m x 16mm hose
6 x 16mm 90˚Joiners
13 x 25mm Spring Clamps
3 x 32mm Spring Clamps
3 x 25–16mm Reducing Couplers
2 x M8 Spring Washers
2 x M8 Flat Washers
1 x M8 Nut
1 x M8x16 Bolt
1 x M6x12 Bolt
1x M6 Spring Washer
1x M6 Flat Washer
1 x 16mm to 19mm 90˚Joiner
2 x M8x25 Bolts
3 x M8 Flat Washers
2 x M8 Spring Washers
1 x M8 Nut
1 x 1000mm of 12mm Hose
1 x Drain Tap Assembly
2 x 12-20mm Hose Clamps
8 x Cable Ties

Approximate mounting location



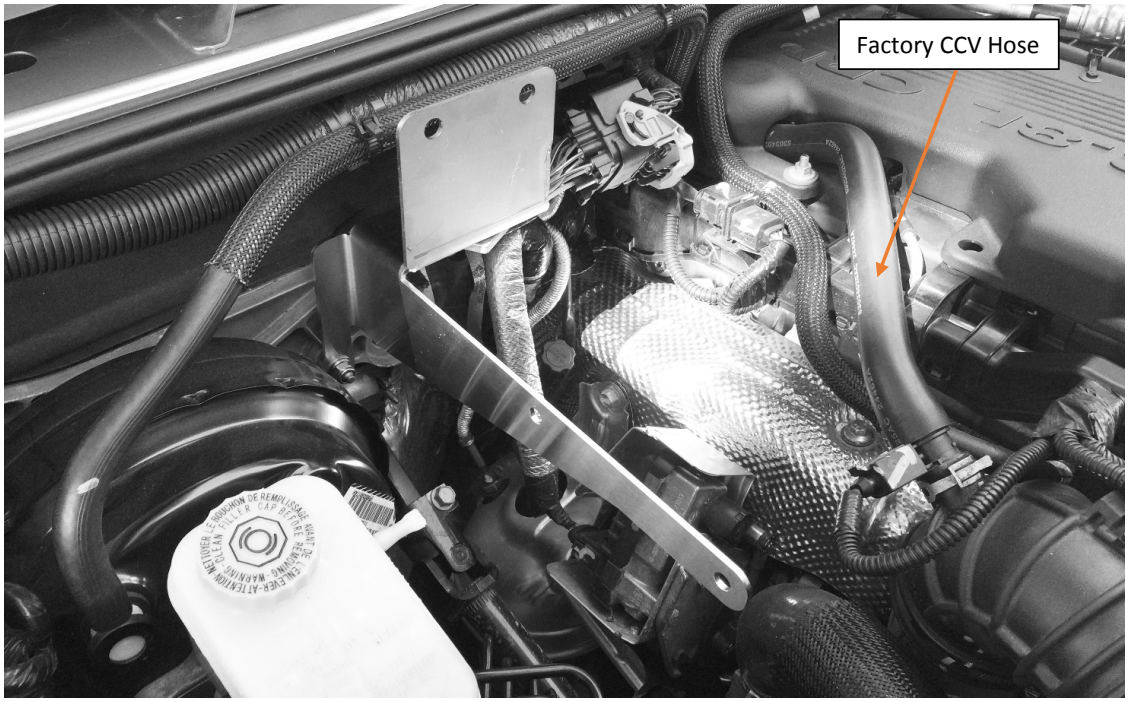
Installation Guide

1. Bolt the new ProVent mounting bracket in place using the supplied hardware. The location is shown on the image below and on the next page.

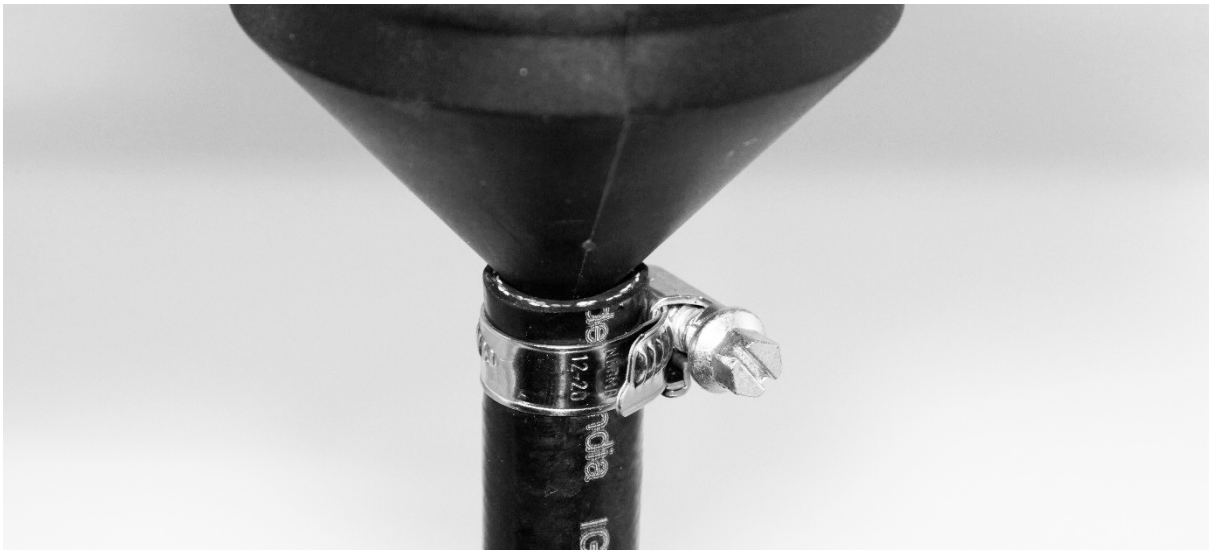


Jeep JK Diesel Engine Bay – ProVent mounting Location

2. Locate the factory bypass hose which is shown in the image below. Once located, this hose needs to be removed from the vehicle.

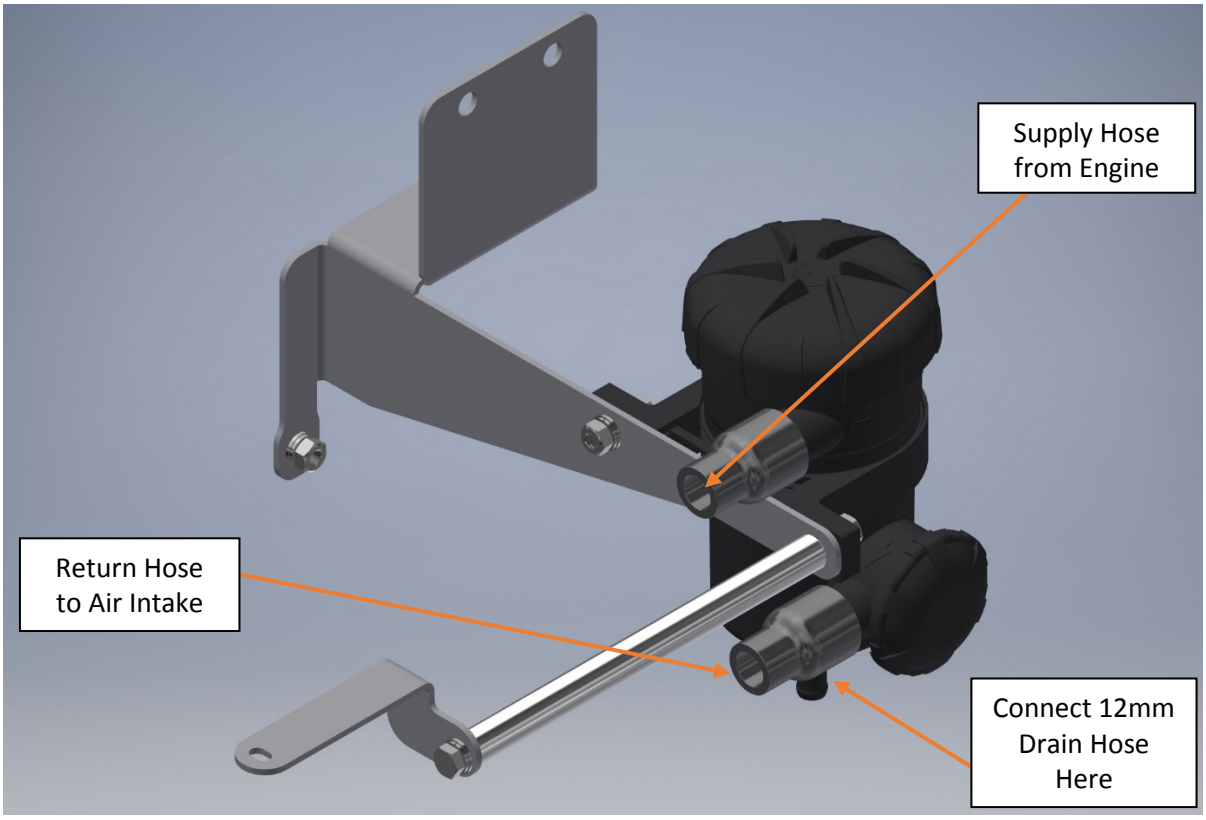


3. If installing PreLine 150, install the unit now using the M10 hardware.
4. Connect the 12mm (1/2”) Hose to the underside of the catch can body, using a 12-20mm Clamp to secure it in place.



Provent 200 with 12mm hose connected and secured with 12-20mm worm drive clamp

5. With a flat washer on the first M8x25mm bolt, mount the ProVent 200 to the mounting bracket. Use a flat washer, spring washer and nut to secure the bolts on the other side. For the second bolt, use and flat washer and spring washer under the head and thread the bolt through the ProVent, bracket and into the support shaft. You can install the smaller bracket and the M8x16 bolt with flat and spring washer to the other end of the support shaft now.



Pre-assembled Provent 200 with bracket – Please note ProVent rotation in this image is correct, refer to the image on the last page of this installation guide for rotation information.

6. Feed the 12mm Hose down the side of the engine bay, under the vehicle to an out of the way location, making sure it is clear of any suspension, driveline and exhaust components, fit the Tap hose tail into the hose. There is a channel in the right hand side wheel well behind the spring that the hose fits into perfectly.

Hose tail and tap assembly inserted into 12mm hose, hose clamp not required

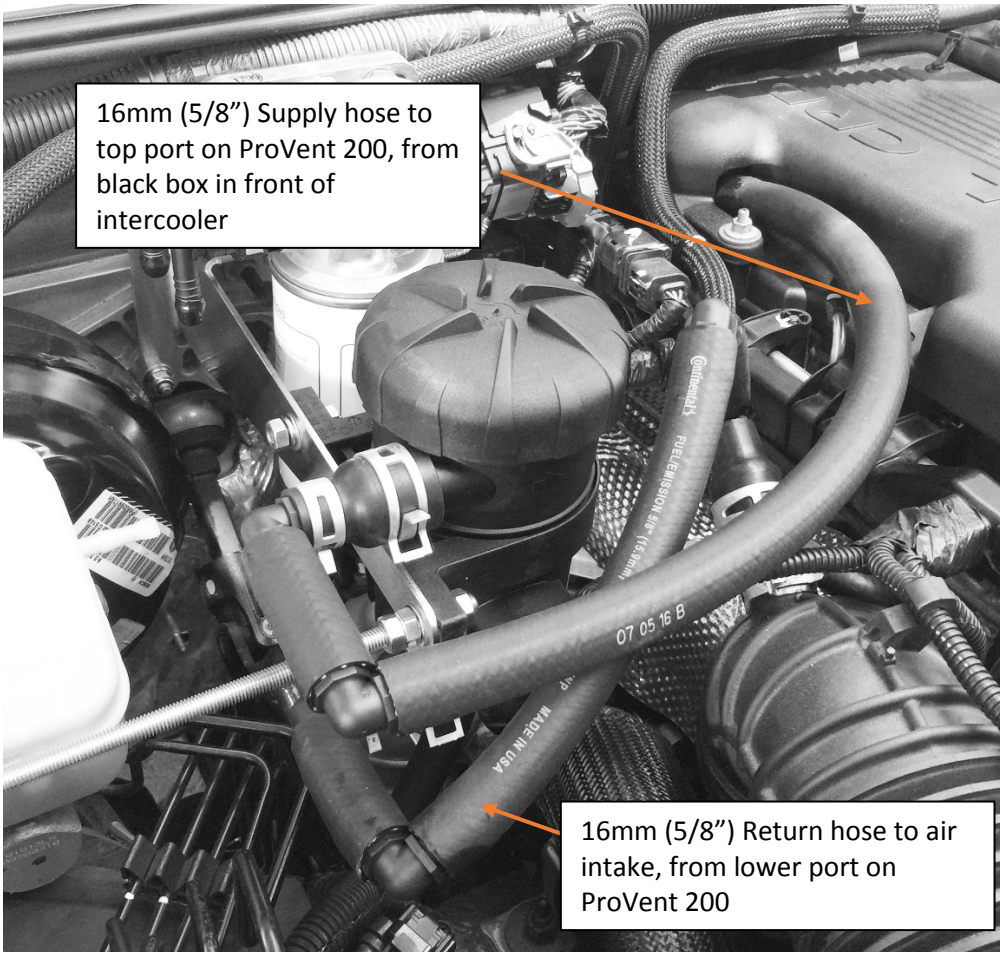
7. Use the supplied cable ties to secure the 12mm hose into the location required under the vehicle to prevent movement. Note: Leave a slight amount of slack in the line where the body and chassis join to prevent stretching the hose.

8. Make sure the tap position is closed and avoid placing the tap in a location in which it will fill with dirt and mud.

Left image – Tap Open. Right image – Tap Closed.

9. Install the 25-16mm reducers to the ProVent 200 and secure in place with the 25mm spring clamps. To each reducer fit a 16mm elbow and 16mm clamp to hold it in place.

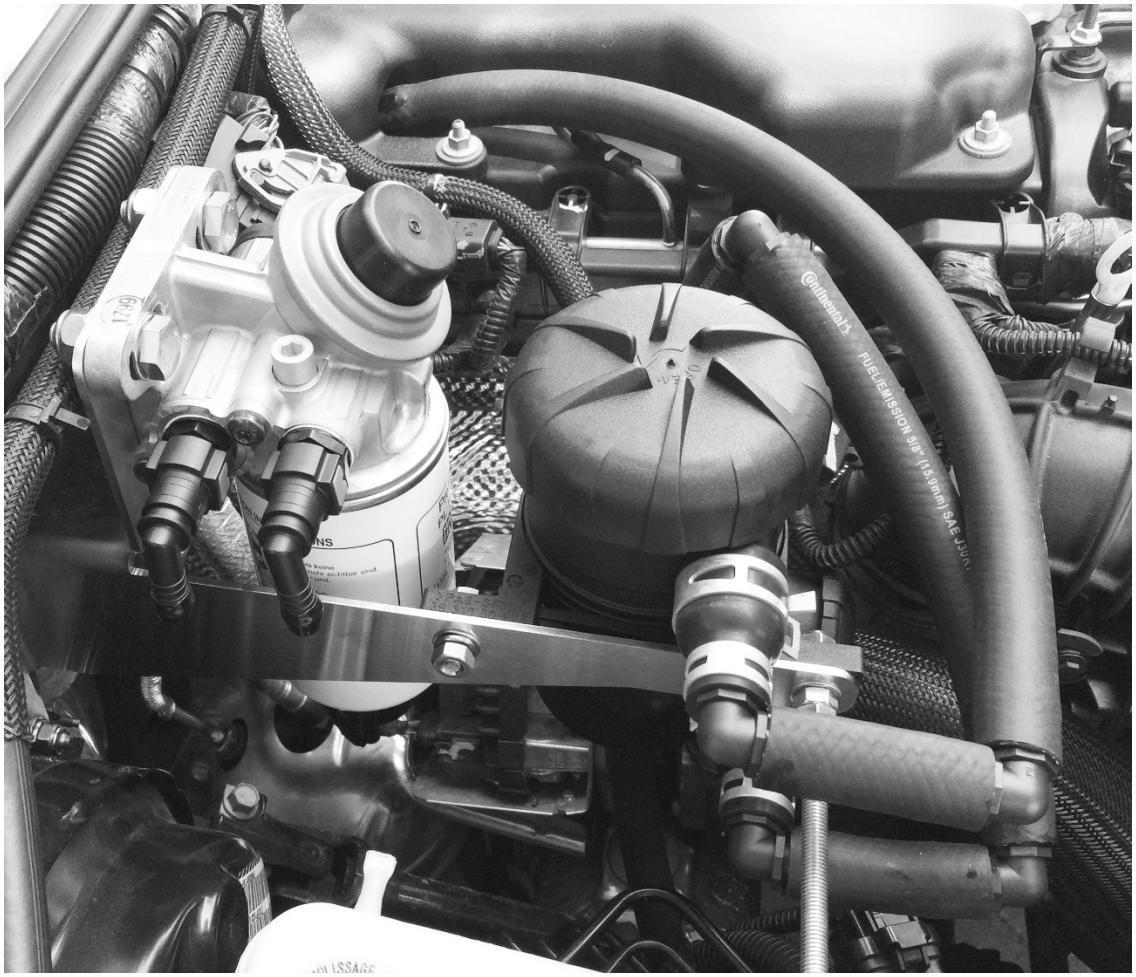
10. Run one length of 16 hose from the top of the engine where you removed the stock hose to the top port on the ProVent 200. Use a 16mm spring clamp at any connection point.



Example of hose routing for ProVent 200 on the 2.8L engine, you can run either in front or behind the ProVent, there are enough elbows and clamps to allow for both. Mockup shown, clamps need to be installed.

11. Fit the last 25-16mm reducer to the inlet pipe and secure with a 25mm spring clamp. Put a 16mm elbow in the other end and secure with a 16mm spring clamp.

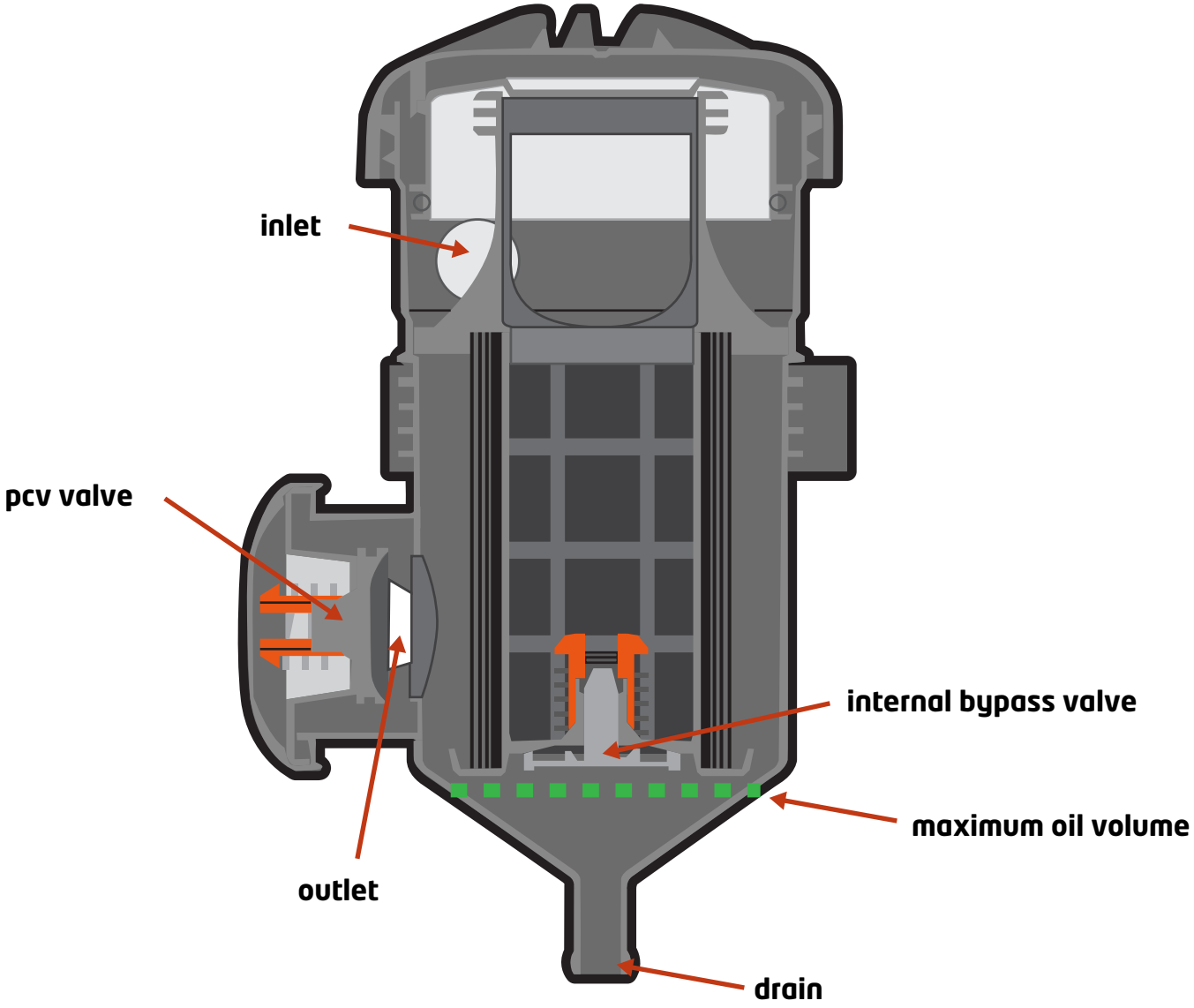
12. Run the second length of 16mm hose from the lower port on the ProVent 200 to the air intake. Use a 16mm spring clamp at any connection point.



Example of hose routing for ProVent 200 on the 2.8L engine, you can run either in front or behind the ProVent, there are enough elbows and clamps to allow for both. Mockup shown, clamps need to be installed.

End of Installation Guide

PV200 INTERNAL BYPASS VALVE SECTIONAL DIAGRAM



Due to the way the internally vented PV200 works, the PV200 must be drained regularly to ensure correct operation of the internal bypass valve. Failure to regularly draining/servicing the Catch Can may cause engine damage due to over pressurisation of the crankcase ventilation system.

The ■ ■ ■ in the diagram indicates the maximum permissible oil level. For the PV200 internal bypass valve to correctly operate the internal oil volume **MUST NOT** exceed the level indicated by the ■ ■ ■ shown in the diagram.

If the internal oil volume is to exceed the level indicated by the ■ ■ ■ shown in the diagram, the internal bypass valve cannot operate as designed due to it being submerged. This condition is likely to cause over pressurisation of the crankcase ventilation system and damaging the engine.

WARNING: Colder climates can cause increased condensation inside the Catch Can. This will fill the reservoir quicker than oil and will need to be drained regularly. Failure to do so could & can damaged the Catch Can or vehicle.

ProVent 200

The housing can (prior to installation) be turned in the holder in 30° steps around the longitudinal axis.

This enables the position "Inlet and outlet fitting to flange" to be flexibly adjusted to the installation situation.

- Remove the retaining clip (1) upward from the groove and turn the holder into the desired position.
- Press the holder together somewhat in the desired position and engage the retaining clip in the groove again
- Mount the holder in the vertical position. Recommended tightening torque for M8 screws: 10 Nm.
- Ensure sufficient strength of the screw and nut material.
- Connect the hoses to the inlet, outlet and oil return fittings (make sure a sufficient length of hose is pushed on) and secure with hose clamps (see Chap.4.2 and 4.3).
- Connect the oil return hose (and non-return valve if necessary) to the oil sump.
- To ensure proper functioning, the ProVent should be protected against dirt (mount splash guards if necessary).

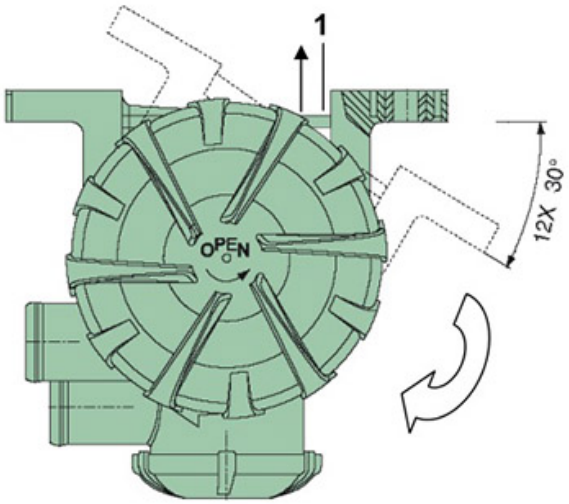


Fig. 5 Positions of outlet for ProVent 200

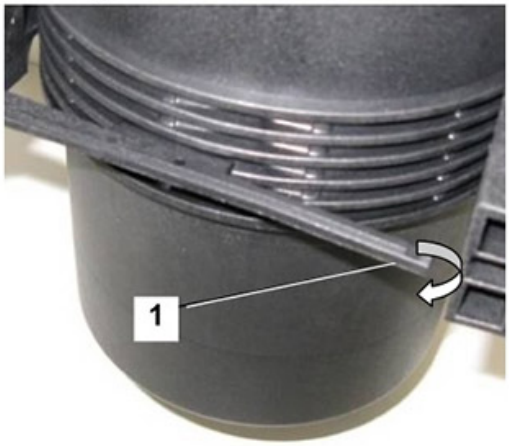


Fig. 6 Holder for ProVent 200