ProVent Ultimate Catch Can Installation Guide for Ranger, Everest and BT-50

This document is to be used as a guide for the installation of the **Direction-Plus Provent Ultimate Catch Can Kit to a Ford Ranger 2.2L and 3.2L (2011 – 2022), Everest 3.2L (2015-2022) and Mazda BT-50 2.2L and 3.2L (2011 – 2021).**

It is recommended that the installation of the product be carried out by a competent qualified mechanic.

Important before starting

- Ensure the engine bay is clean and free from contaminants
- The filter head has direction arrows indicating the direction of flow
- You have the correct tools to complete the fitment
- Read the instructions in full and familiarize yourself with the installation before commencing any work

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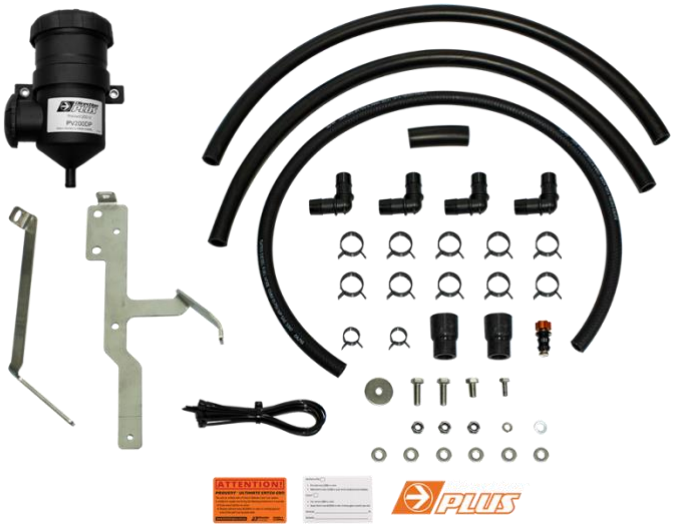
Maintenance / Servicing

Provent Catch Can MUST be drained every 3,000 – 5,000kms. Failure to do this can result in engine damage.
Provent Catch Can filter element is to be replaced every 30,000 - 40,000km or as per your vehicles service

Included in the kit



1x Provent 200 (PV200DP)	2x 25mm clamps (DPSC25)	1x M6 washer (FMW6)

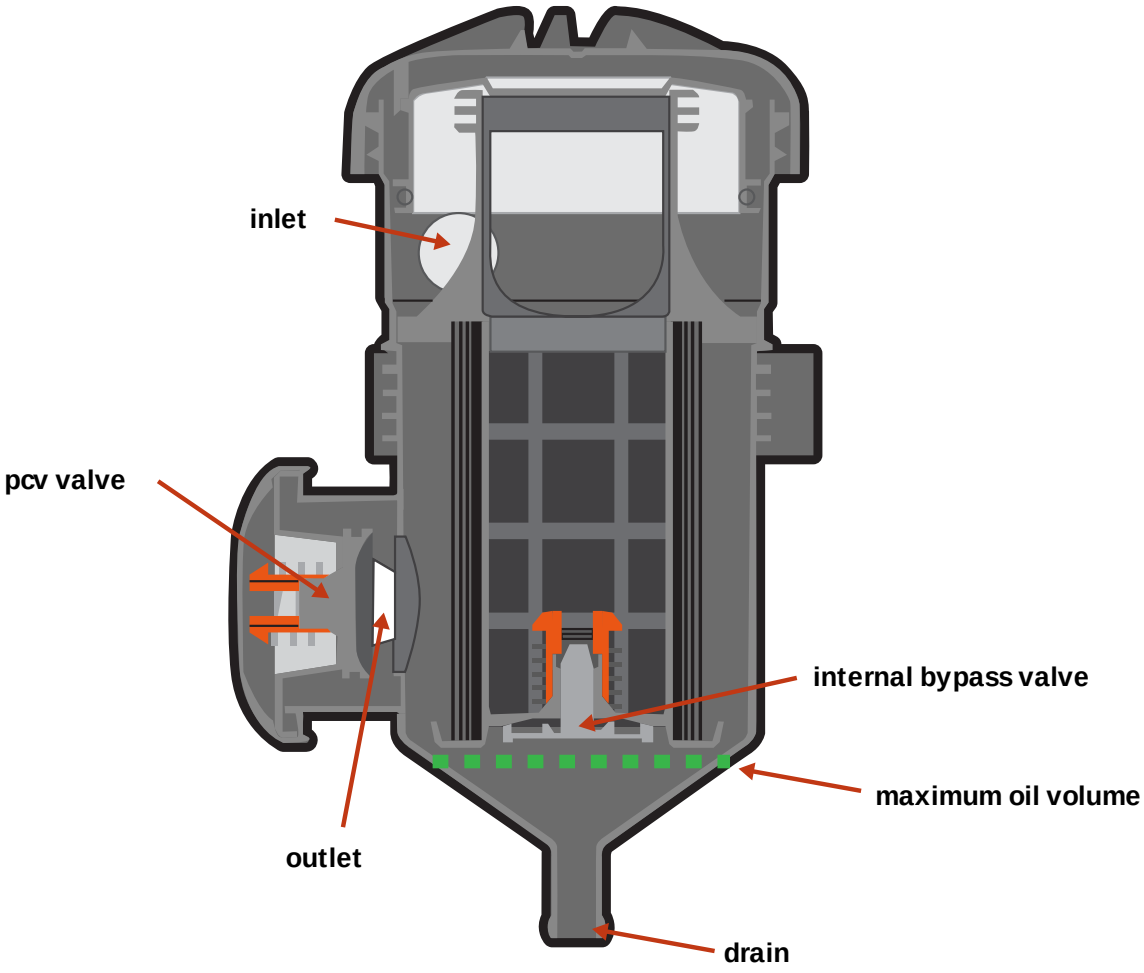
1x Mounting Bracket (PLPV661-BR)	9x cable ties (802078)	2x M8x25 bolt (SSSS304M825)
2x 25mm-19mm reducers (PV2519DP)	1x M8x16 bolt (SSSS304M816)	4x M8 flat washer (FMW8)
1 x 7mm of 19mm hose (DPPH19)	2x M8 flat washer (FMW8)	2x M8 stainless steel nuts (FMN8)
2x 750mm of 19mm hose (DPPH19)	1x M8 spring washer (FMSW8)	1x 1m of 12mm hose (DPFH12-PEX)
1x 70mm of 19mm hose (DPPH19)	1x M8 stainless steel nut (FMN8)	1x drain tap assembly (DPDRAIN)
4x 19mm 90deg joiners (DPC9019)	1x M6x16 bolt (SSSS304M616)	2x 18-20mm hose clamp (DPSC16)
8x 19mm clamps (DPSC19)	1x M6 spring washer (FMSW6)	

Kit contents are subject to change based on availability

Basic Tools Required:

- Spanners
- Sockets
- Screw drivers
- Pliers
- Snips/Cutters
- Rags

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.

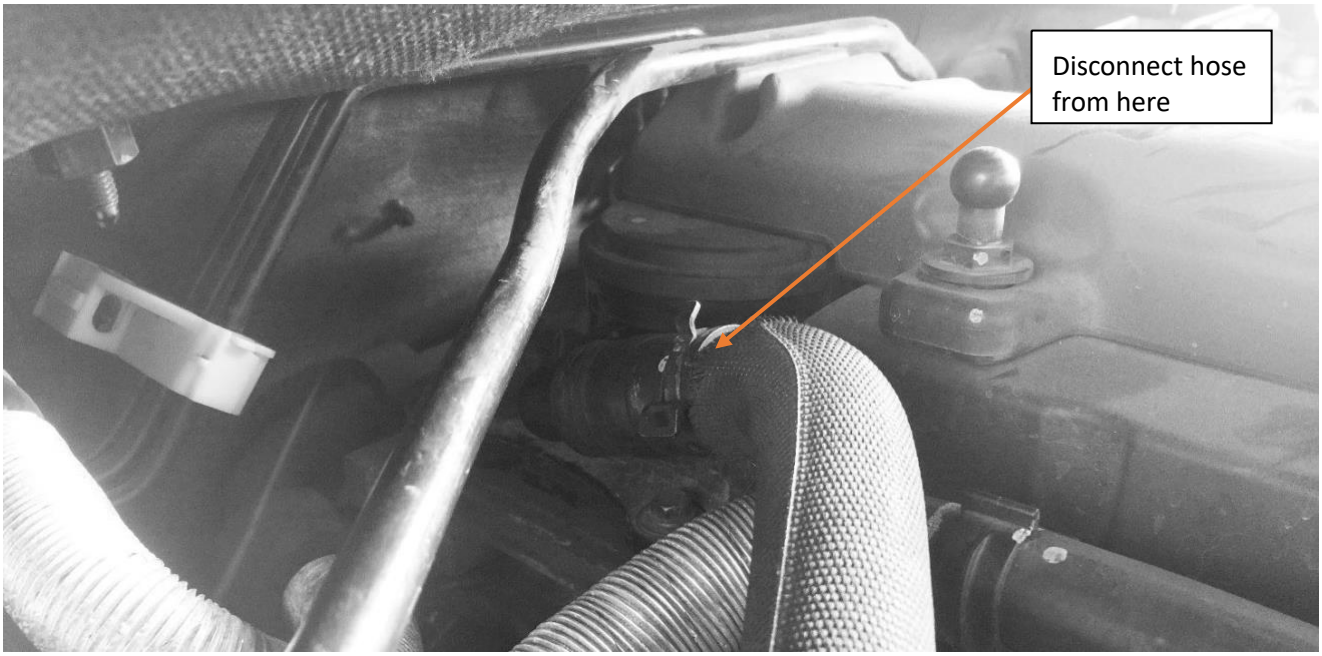
WARNING: Colder climates can cause increased condensation inside the Catch Can. This will fill the reservoir quicker than oil and will need to be drained regularly. Failure to do so could & can damaged the Catch Can or vehicle.

Installation Guide

1. Begin by removing the engine cover to give access to the crankcase bypass hose on the back-driver's side of the engine.

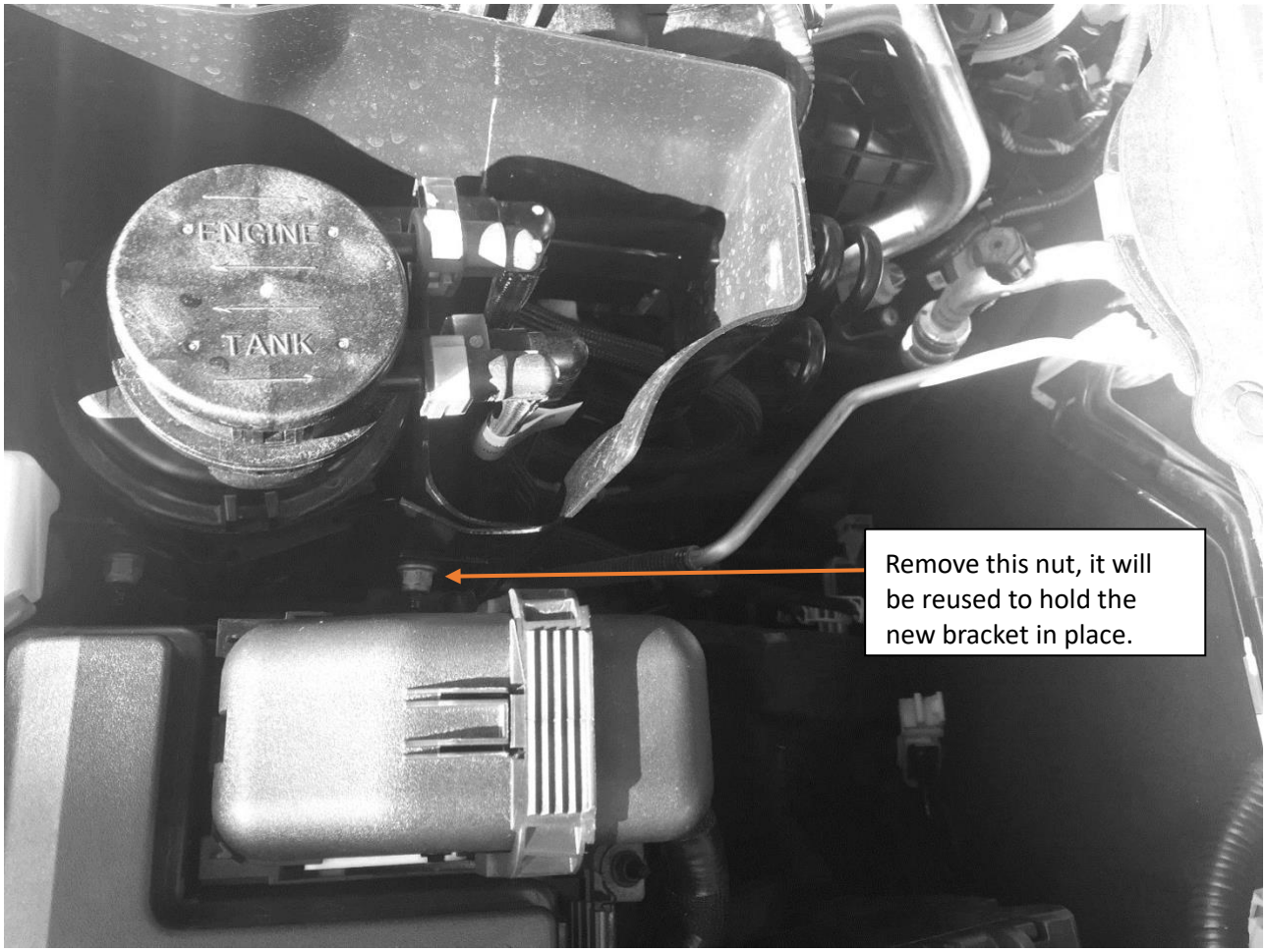
Ranger PX Engine Bay – Overall View

2. Locate the factory bypass hose which runs from the valve cover on the driver's side of the engine to the intake pipe just after the concertina section. The hose is about 500mm in length and has a few bends in it. Once located, this hose needs to be disconnected from the valve cover and the 90° fitting on the valve cover needs to be rotated to face the rear of the vehicle.



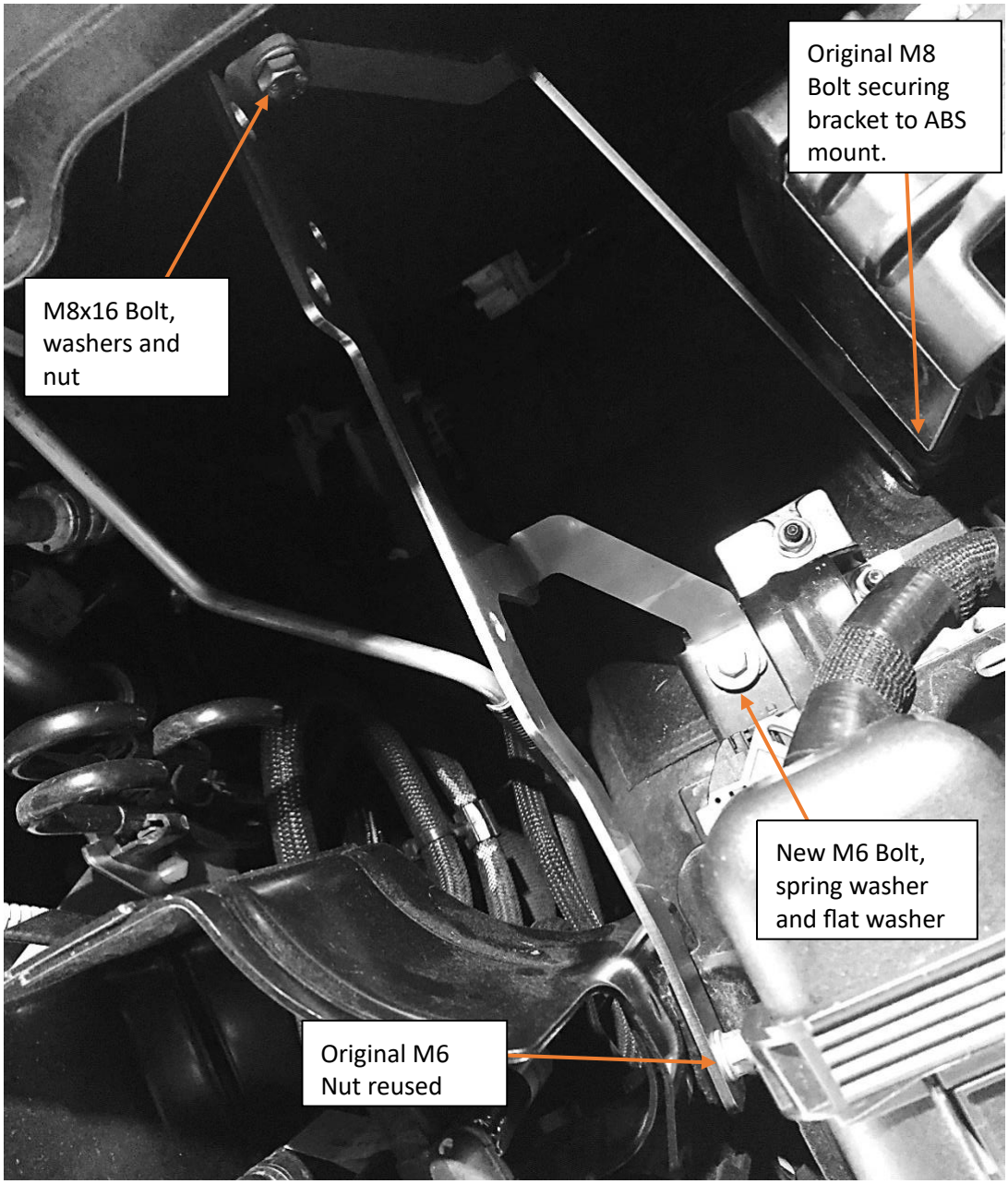
Factory bypass hose location

3. Locate the M6 nut located on the factory fuel filter bracket. It needs to be removed to allow fitment of the new bracket. You will also need to remove the bolt that retains the ABS unit nearby, the brace secures to this and the factory bolt gets reused.



Top down view: image shows new ProVent bracket mounting location

4. Bolt the Brackets into place using the M6 stud from the previous step to locate. Then use the M6 bolt, spring washer and mud washer on the leg to the existing empty threaded hole on the vehicle. Lastly, bolt the brace in place and secure the two brackets together using the M8x16 bolt, two flat washers, a spring washer and M8 nut. The bracket when in place should look like the picture below.



5. If you are installing the PreLine fuel filter system as well as the ProVent, install the bolts for the PreLine from the ABS side towards the engine side, it will make it easier later on.

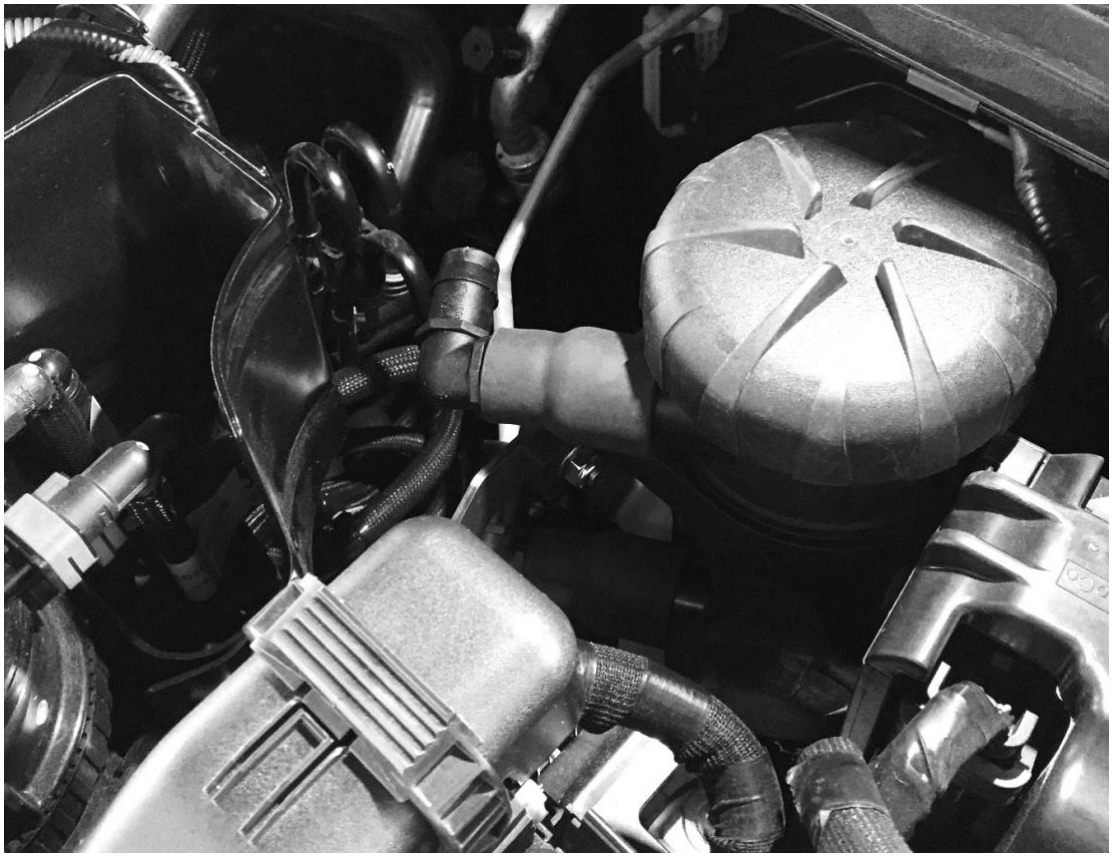
6. Connect the 12mm (1/2”) Hose to the underside of the catch can body, using an 18-20mm Clamp to secure it in place.

Provent 200 with 12mm hose connected and secured with 18-20mm clamp

7. 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 and secure with an 1820mm clamp.

Hose tail and tap assembly inserted into 12mm hose, secured with 12-20mm worm drive clamp

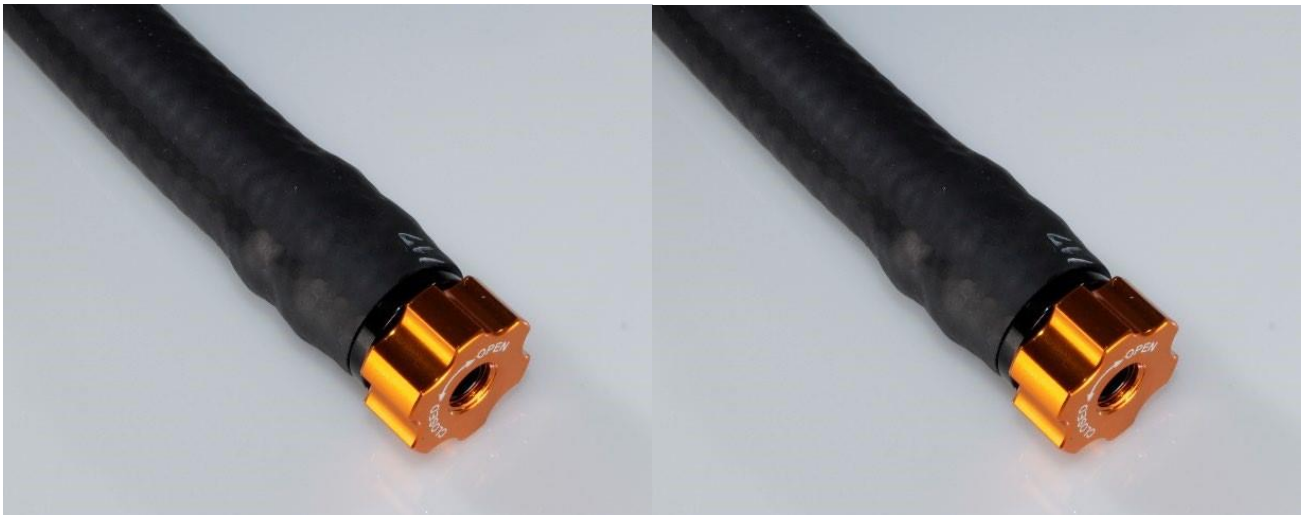
8. Bolt the ProVent 200 to the bracket using the supplied M8 bolts, spring washers, flat washers and nuts. Make sure to orient the ProVent 200 unit to be facing the same as the picture following.



ProVent 200 bolted into place at correct rotation, 25-19mm reducers and elbows are shown installed in this image to give you an idea of fitment (clamps not fitted)

9. 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.

10. 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.

11. Connect the 25-19mm reducers to the ports on the side of the ProVent 200 unit. Use the 25mm spring clamps to secure in place.

12. To the 19mm end of these reducers, fit the 19mm elbows and use 19mm clamps to secure in place.

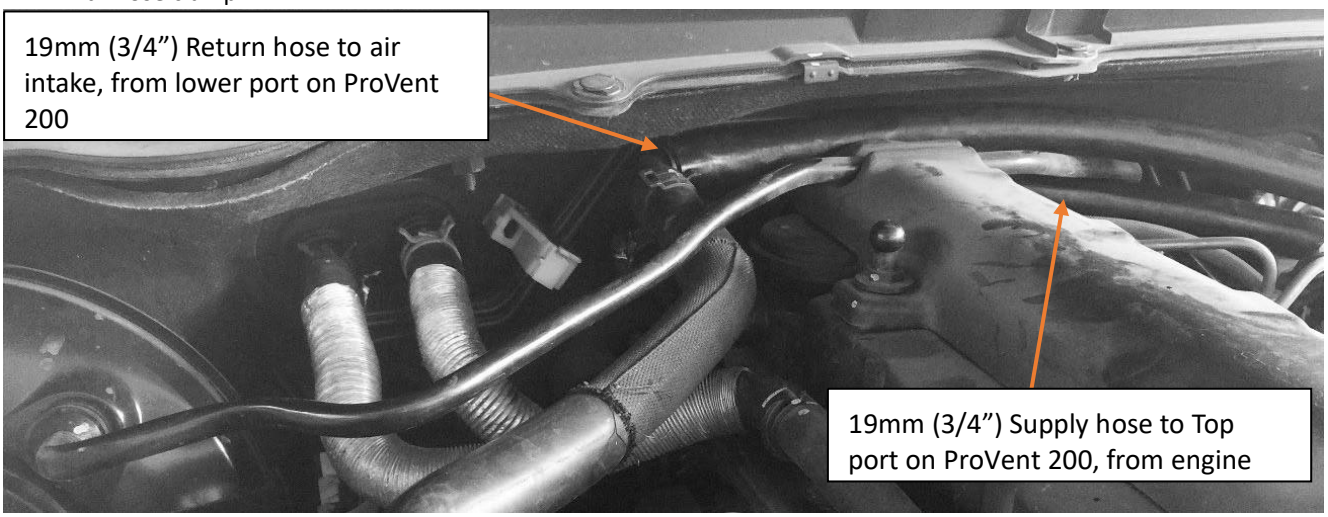
This image shows how the ProVent Lines are to be assembled (note spring clamps are provided in the kit)

13. Mount one end of the first 750mm long 19mm (3/4”) hose to the lower 19mm (3/4”) elbow connected to the ProVent 200. Secure with hose clamp.

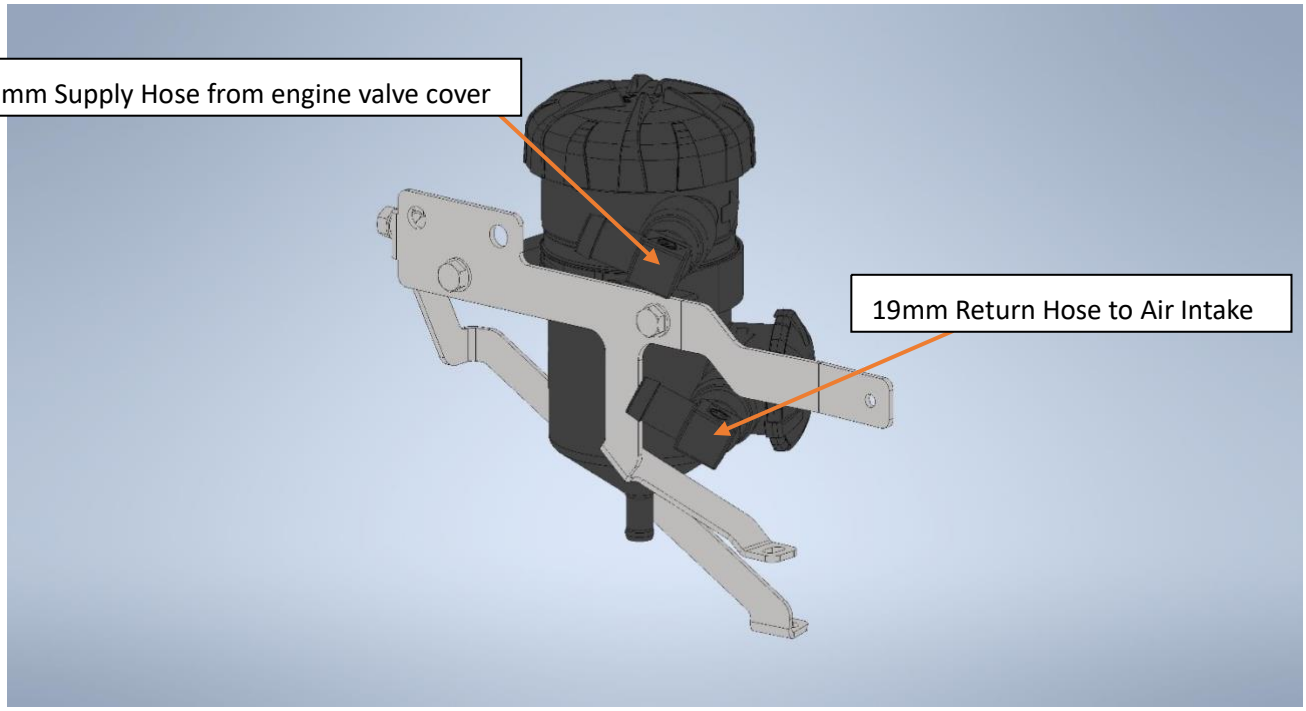
14. Mount the other end of the same 750mm long 19mm (3/4”) hose to a 19mm (3/4”) 90˚joiner fitting and use a clamp to secure. Connect the other side of the 19mm (3/4”) 90˚joiner fitting to the hose we disconnected from the engine head earlier on the driver’s side. Secure with hose clamp.

15. Mount one end of the second 750mm 19mm (3/4”) hose to the upper 19mm (3/4”) fitting on the ProVent 200. Secure with hose clamp.

16. Mount the other end of the second 750mm 19mm (3/4”) hose to a 19mm (3/4”) 90˚joiner fitting and use a clamp to secure. Connect the other side of the 19mm (3/4”) 90˚joiner fitting to the short 75mm length of hose and use a clamp to secure. Connect this hose to the factory elbow on the engine head we rotated towards the firewall in step 2. Secure with hose clamp.



Hose configuration in PX Ranger with ProVent 200 installed – Note, the hoses need to be run in such a way to fit the engine cover back on, the hoses are long enough to allow for this. (hose clamps not shown)



Finished Install – Check to make sure everything is secure and then put the engine cover back on

End of Installation Guide