

Direction Plus ProVent Ultimate Catch Can Kit Installation Guide for Toyota Land Cruiser 70 Series 2.8L 4cyl

This document is to be used as a guide for the installation of the Direction Plus ProVent Ultimate Catch Can Kit to a 2024+ Toyota Land Cruiser 70 Series 2.8L 4 Cylinder 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.

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 interval.

Included in the kit



<i>Loose in Box</i>	<i>Bagged</i>	<i>ProVent Fitting Kit Bag</i>
1 x Mann + Hummel ProVent 200 (PV200DP)	2 x 16mm 45° Joiners (DPC4516)	2 x M8x25 Bolts (SSSS304M825)
1 x Mounting Bracket A (PLPV648-BR)	2 x 16mm 90° Joiners (DPC9016)	4 x M8 Flat Washers (FMW8)
1 x Mounting Bracket B	8 x 16mm Spring Clamps (DPSC16)	2 x M8 Nyloc Nuts (FMN8)
	2 x 25mm Spring Clamps (DPSC25)	
	2 x 16mm to 25mm Hose Coupler (PV2516DP)	<i>ProVent Drain Kit Bag</i>
1 x 60mm of 16mm Hose (DPPH16)	8 x 200mm Cable Ties (802078)	1 x 1000mm of 12mm Hose (DPFH12-PEX)
1 x 230mm of 16mm Hose (DPPH16)	2 x M10x30 Bolts (FMB10)	1x Drain Tap Assembly (DPDRAIN)



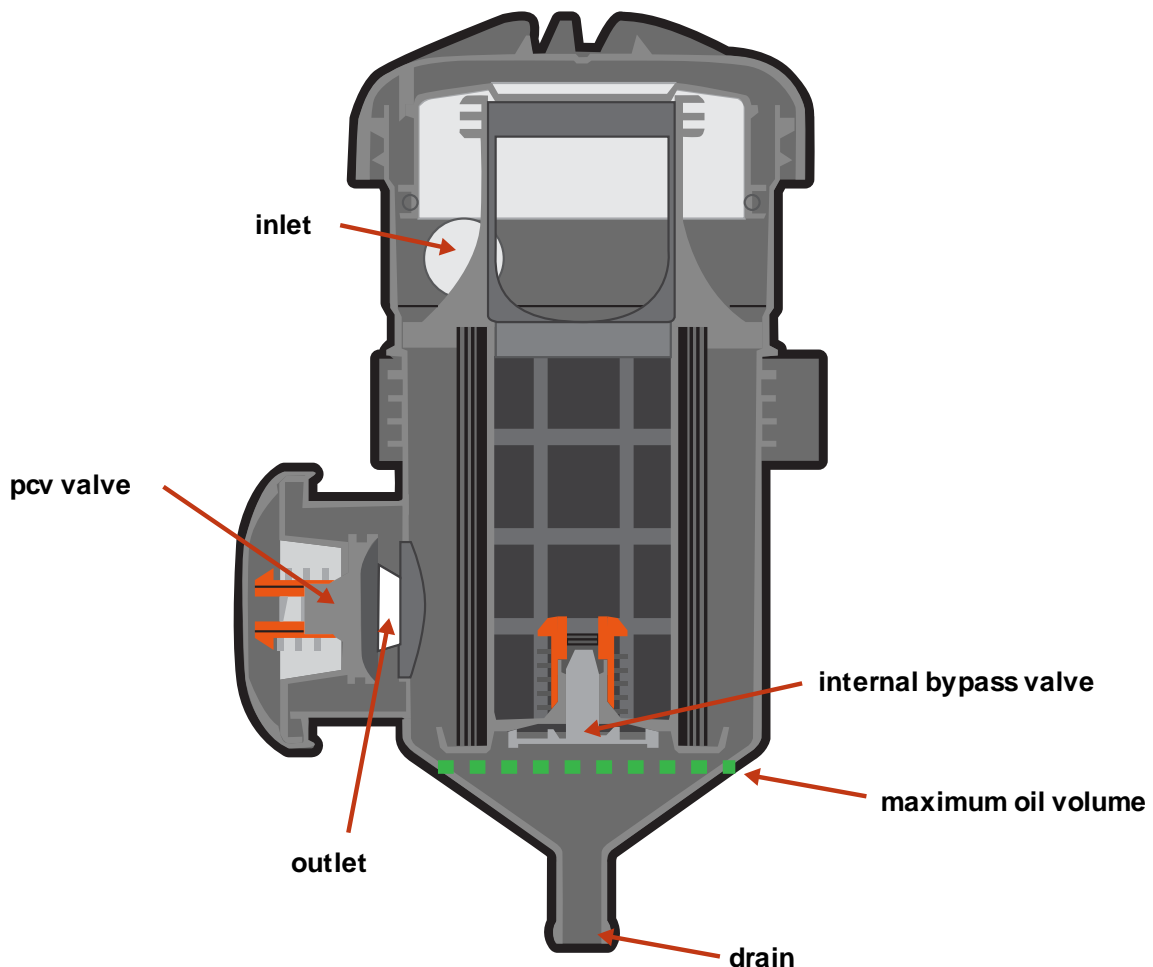
1 x 270mm of 16mm Hose (DPPH16)	2 x M10 Nyloc Nuts (FMN10)	2 x 12mm Spring Clamps (DPSC16)
1 x 55mm of 16mm Hose (DPPH16)	4 x M10 Flat Washers (FMW10)	
	1 x M6x16 Bolt (SSSS304M616)	
	1 x M6 Spring Washer (FMSW6)	
	1 x M6 Flat Washer (FMW6)	
	1 x M8x16 Bolt (SSSS304M816)	
	1 x M8 Spring Washer (FMSW8)	
	1 x M8 Flat Washer (FMW8)	



Basic Tools Required:

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

PV200 INTERNAL BYPASS VALVE SECTIONAL DIAGRAM



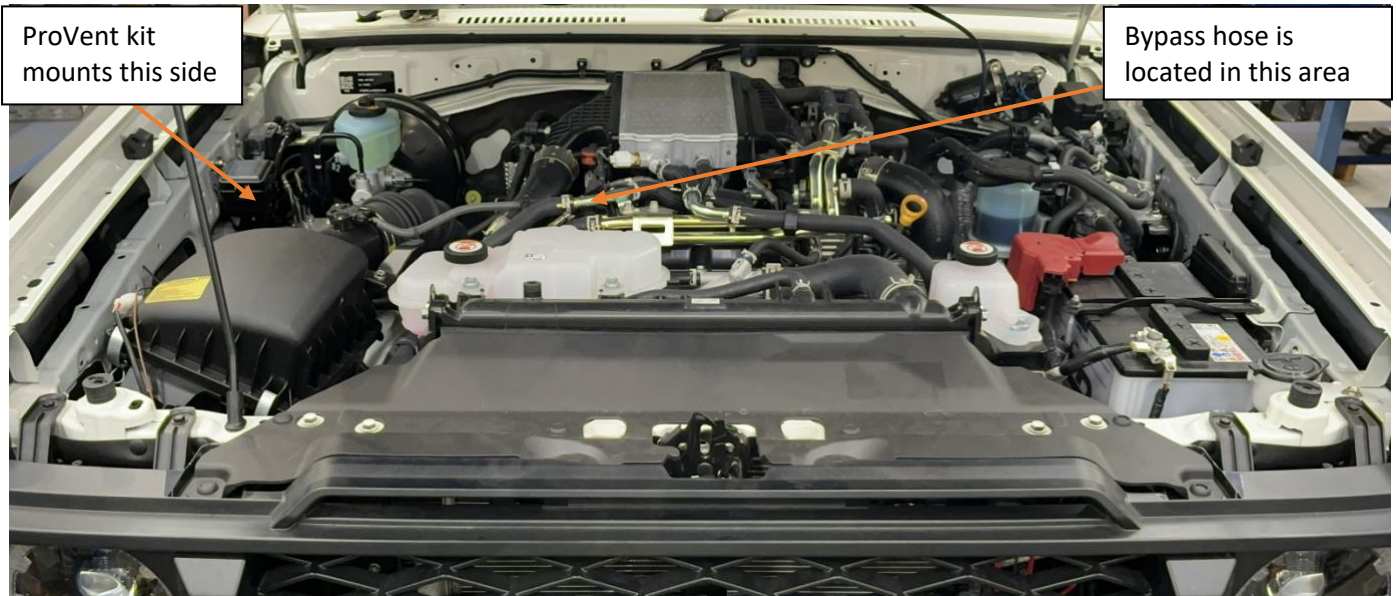
Due to the way the internally vented PV200 works, the PV200 must be drained regularly to ensure correct operation of the internal bypass valve. Failure to regularly draining/servicing the Catch Can may cause engine damage due to over pressurisation of the crankcase ventilation system.

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



Land Cruiser 70 Series 2.8L Engine Bay – Overall View

1. Begin by removing two of the nuts used to secure the ABS unit to the inner guard. The ones to remove are the closest ones to the centre of the vehicle.

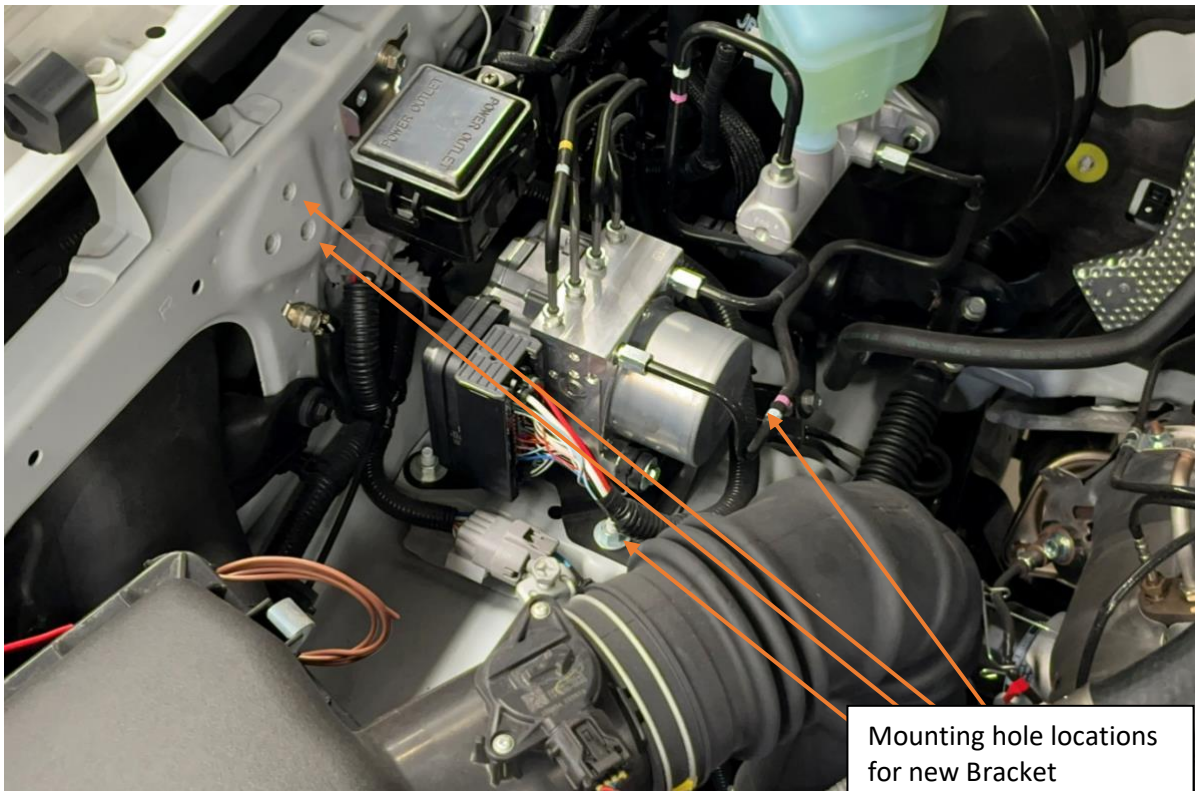
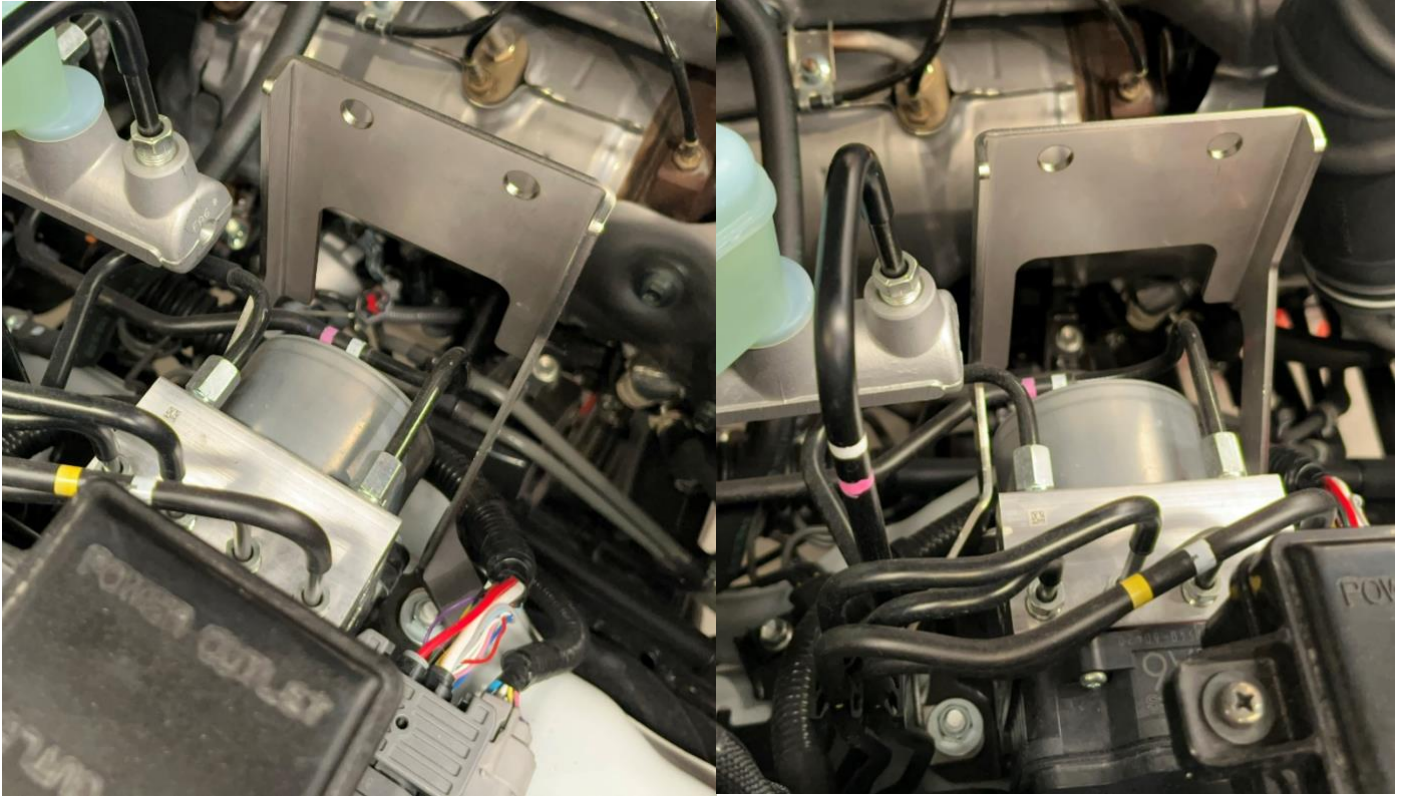


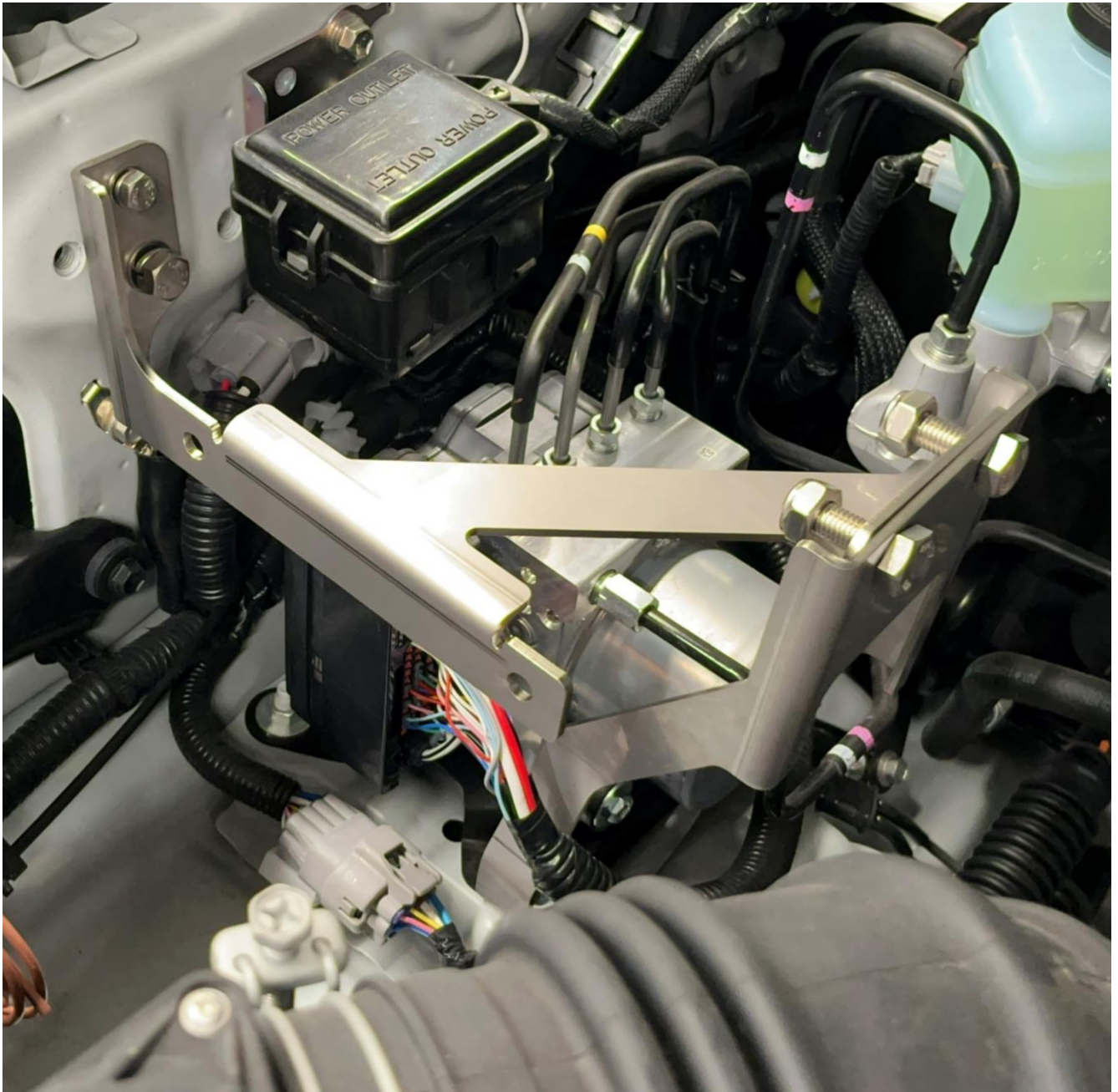
Image shows new bracket mounting location.

2. Mount the new bracket in place, it goes under the top line on the rear of the ABS unit and under the wiring harness on the front side, take care and it does manipulate in there without too much trouble. Reuse the original nuts to loosely secure in place – Do not tighten them yet!



Mounting Bracket A fitted to the vehicle.

3. Using mounting bracket B, the M10 bolts, nuts and washers, along with the single M6x16 bolt +washers and the single M8x16 bolt + washers. Fit the bracket to the vehicle as shown in the image below. If installing a fuel filter, bolt it to the bracket now. Once both brackets are in place, tighten the bolts and ABS nuts.



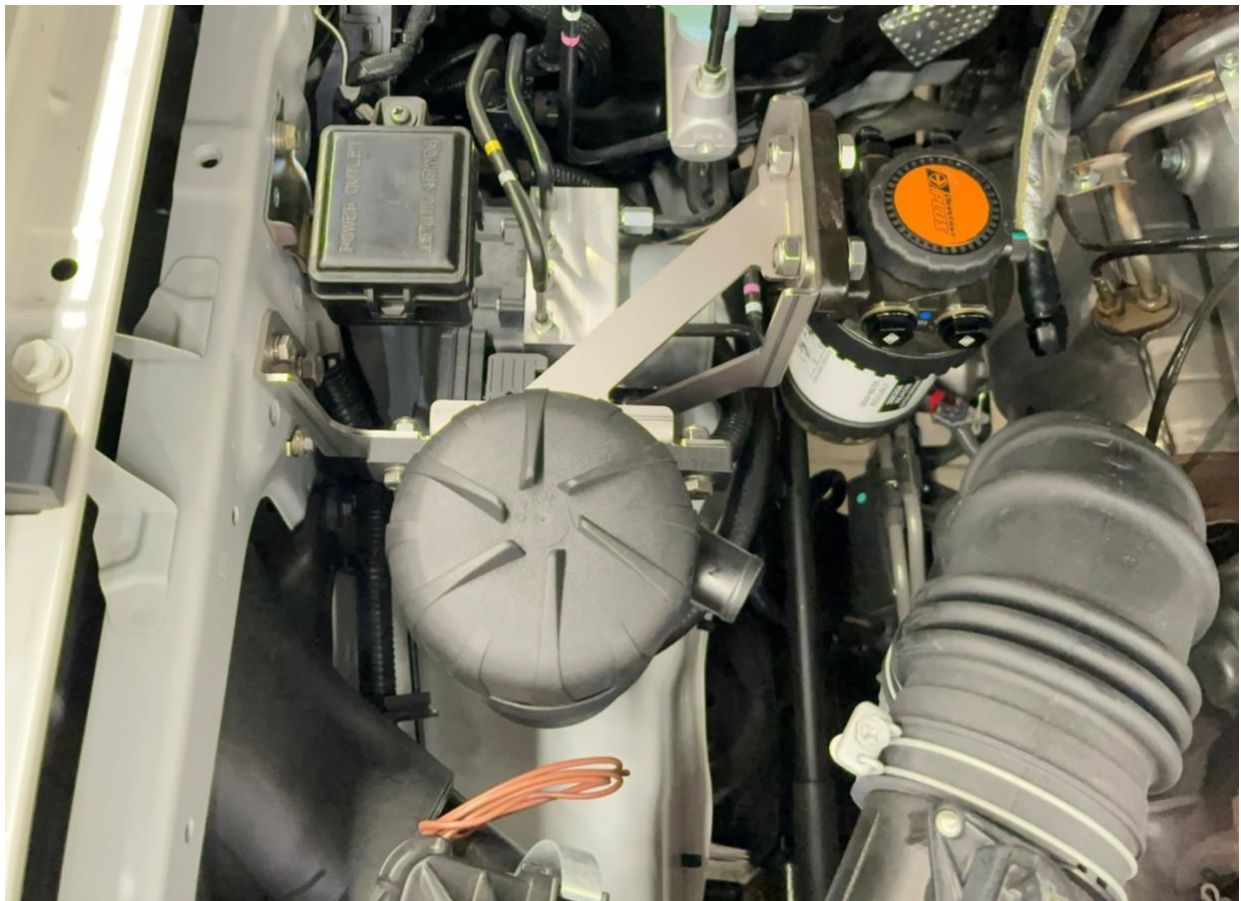
Mounting Bracket A and B fitted to the vehicle.

4. Connect the 12mm (1/2") Hose to the underside of the catch can body, using a 12mm spring clamp to secure it in place.



ProVent 200 with 12mm hose connected and secured with a clamp.

5. With a flat washer on each of the M8x25mm bolts, mount the ProVent 200 to the mounting bracket. Use a flat washer and nyloc nut to secure the bolts on the other side.



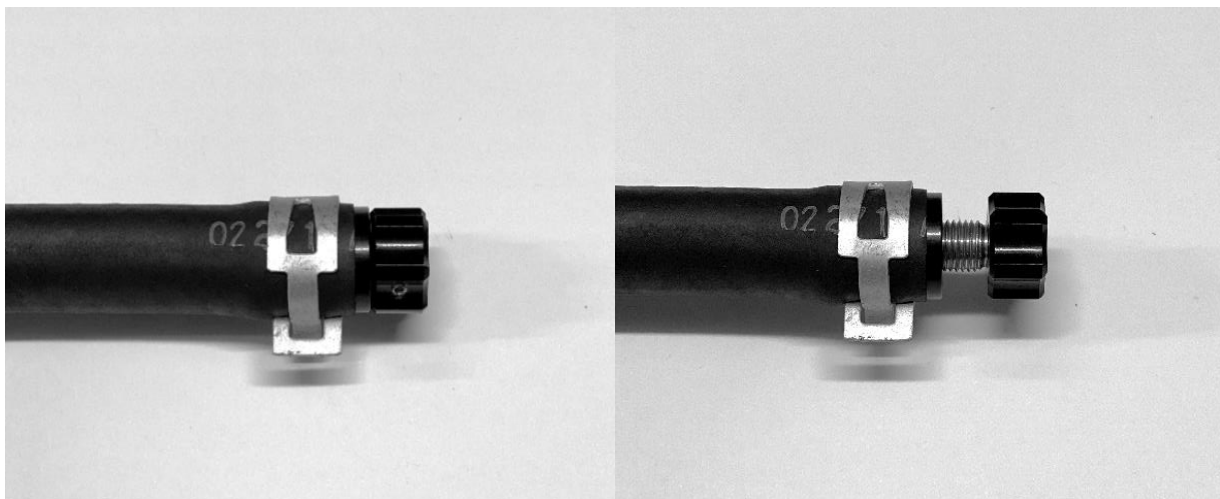
ProVent 200 bolted to bracket– Please note ProVent rotation in this image is correct, refer to the image on the last page of this installation guide for how to rotate the unit.

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 Drain Tap into the hose and secure with a 12mm spring clamp.



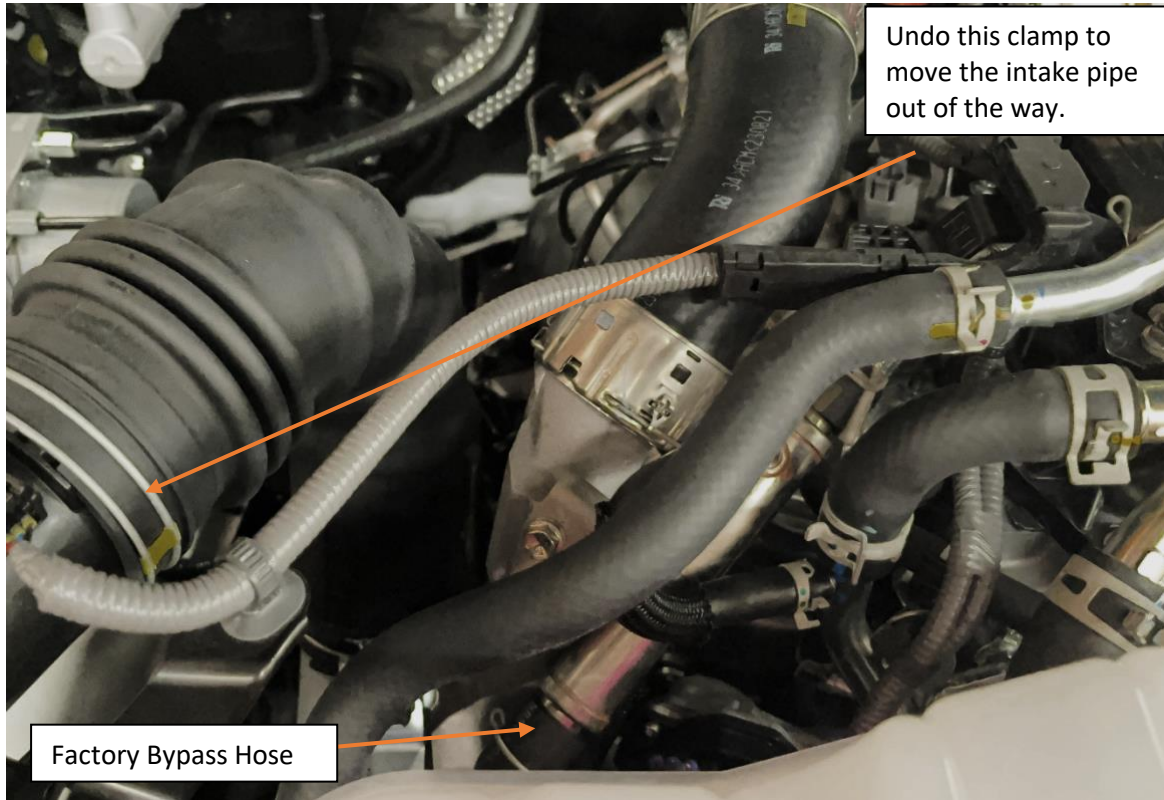
Drain Tap inserted into 12mm hose, secured with a clamp.

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.

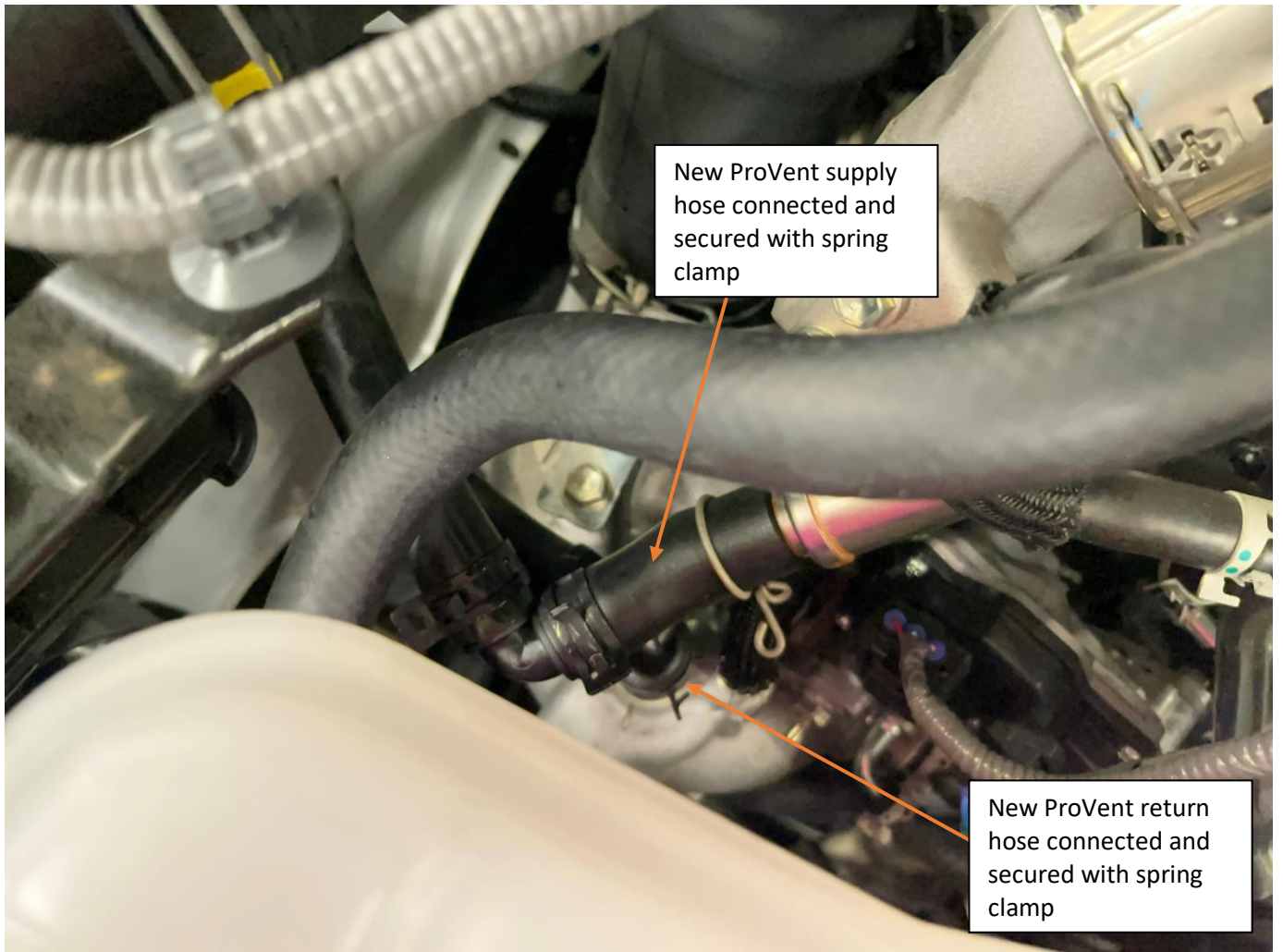
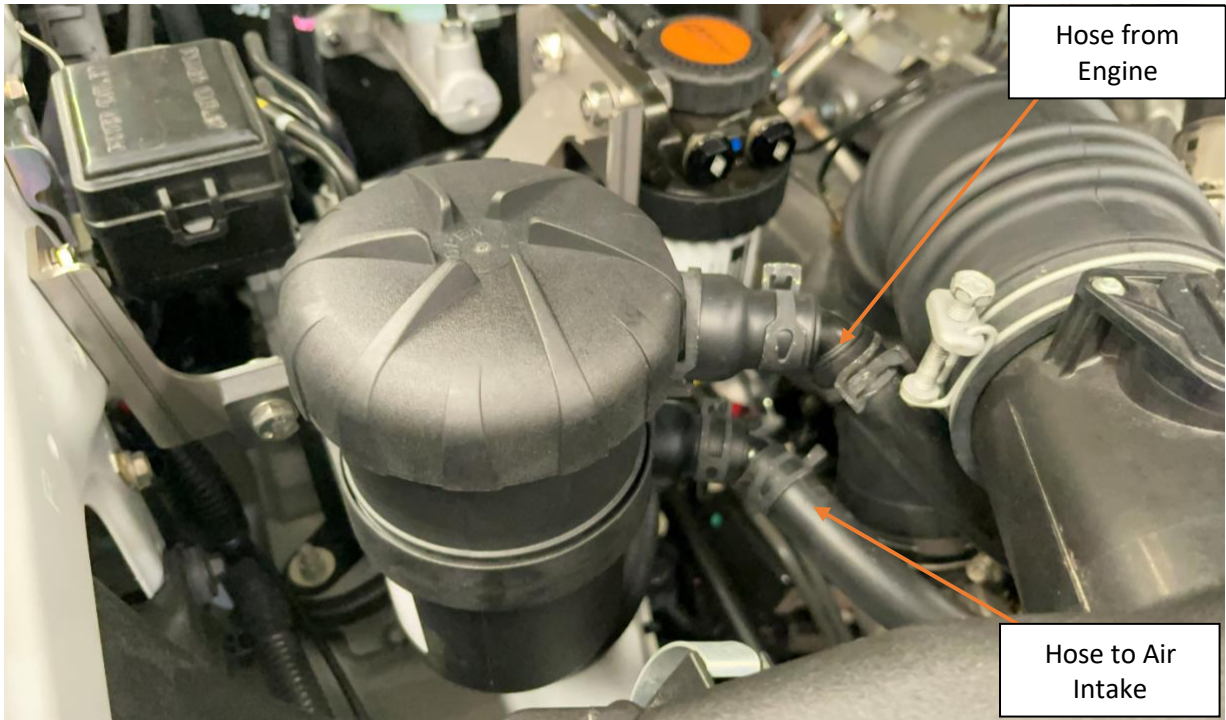


Left image – Tap Open. Right image – Tap Closed.

9. Remove the factory rubber hose at the base of the heat chamber that runs to the alloy intake pipe. The intake pipe may need to be removed to fully access the hose.



10. Secure on end of the 60mm long 16mm hose a 90° Joiner. Secure in place with a 16mm spring clamp.
11. Push the hose onto the end of the heat chamber all the way. Secure the hose with the factory clamp.
12. Install the 25-16mm reducers onto the ProVent 200. Secure in place with the 25mm spring clamps.
13. Install the 45° Joiners into the vacant ends of the 25-16mm reducers. Secure in place with a 16mm spring clamp.



14. Mount one end of the 230mm long 16mm (5/8") hose to the lower 16mm (5/8") 45° joiner fitting on the ProVent 200. Secure in place with a hose clamp.
15. Mount the other end of the same 230mm long 16mm (5/8") hose to the 16mm (5/8") 90° joiner fitting you put on the factory alloy intake pipe earlier. Trim to length if needed. Secure in place with a hose clamp at each end.
16. Mount one end of the 270mm 16mm (5/8") hose to the upper 16mm (5/8") 45° joiner fitting on the ProVent. Secure in place with a hose clamp.
17. Mount the other end of the same 270mm 16mm (5/8") hose to the upper 16mm (5/8") 90° joiner fitting you put of the factory heater tube earlier. Trim to length if needed. Secure in place with a hose clamp.

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).

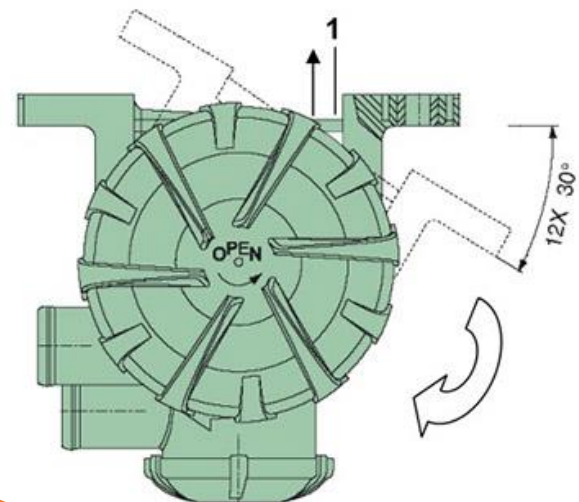


Fig. 6 Holder for ProVent 200

End of Installation Guide