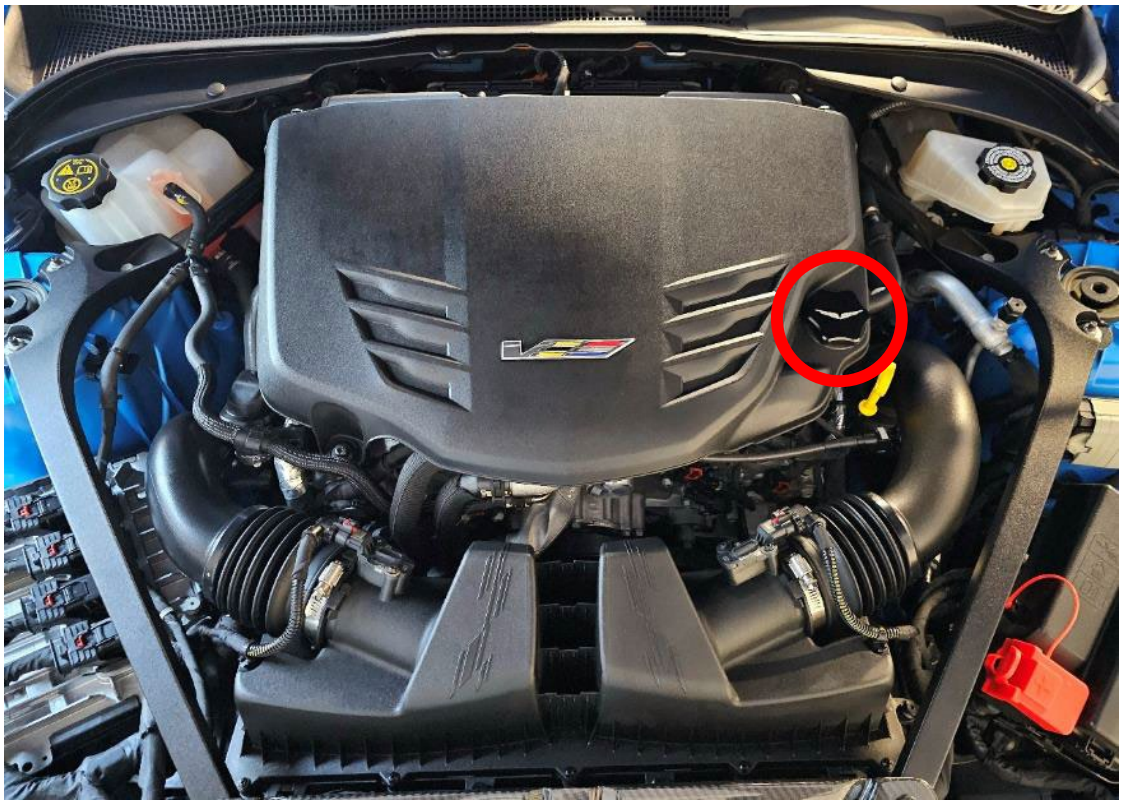
LMP Catch Can Installation Instructions

Disclaimer: modification to your vehicle can result in damage to the vehicle, yourself and denial of warranty claims related to associated drivetrain components. Seek a professional mechanic if you are not comfortable/skilled with installation. Read all instructions before attempting installation. No torque specifications are provided. No animals were harmed in the filming of this document.

Tools:

T30 Torx screwdriver	Needle nose pliers
Angled Lisle disconnect tool (modified)	Trim and body pry tool
3/4” or 19mm open end wrench (x2)	7/8” or 22mm open end wrench
Ratchet wrench with 3/8” or 10mm socket and 1/2" or 13mm socket	*Optional: Design Engineering Inc. 1” heat shroud/sheath and a flat head screwdriver*

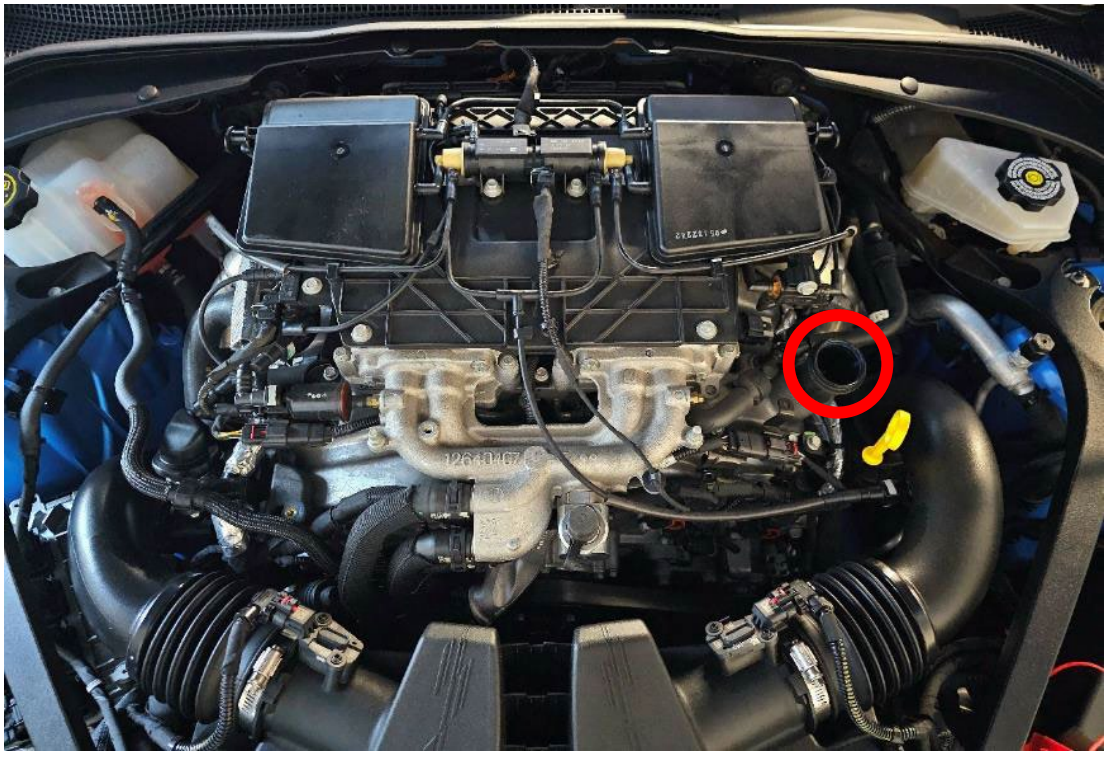
1. Open the hood and unscrew the oil fill cap (see circled area in image below). Set the oil fill cap aside.



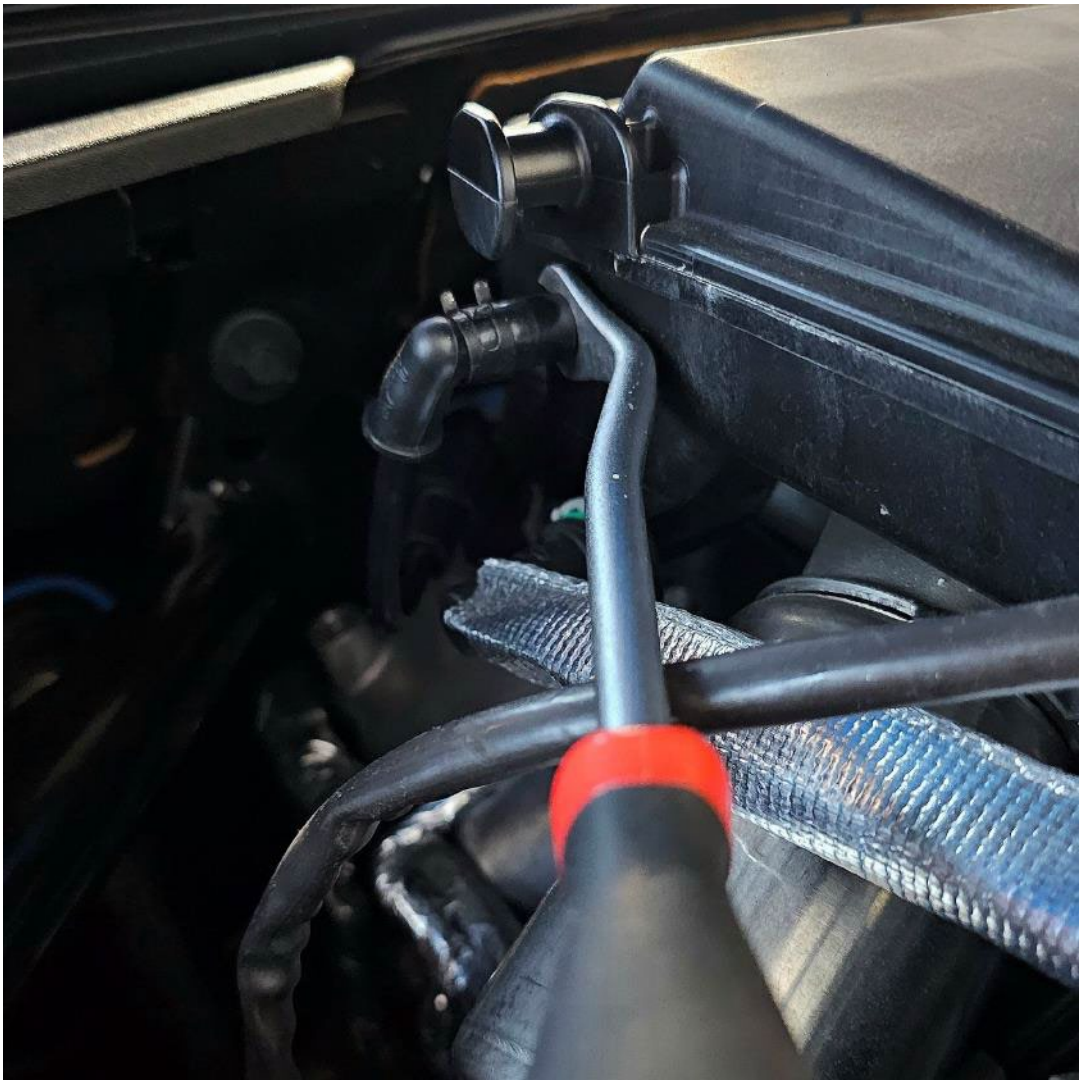
2. Remove the engine cover bolt using the T30 Torx screwdriver (see circled area in image below).

3. Lift the engine cover from the middle and tilt towards the rear of the engine bay. The cover will pivot around the hinge posts (see circled areas in images below). Pull the engine cover towards you and it will release from the posts. Set the engine cover aside.

4. Put the oil fill cap back on the oil fill neck (see circled area in image below).



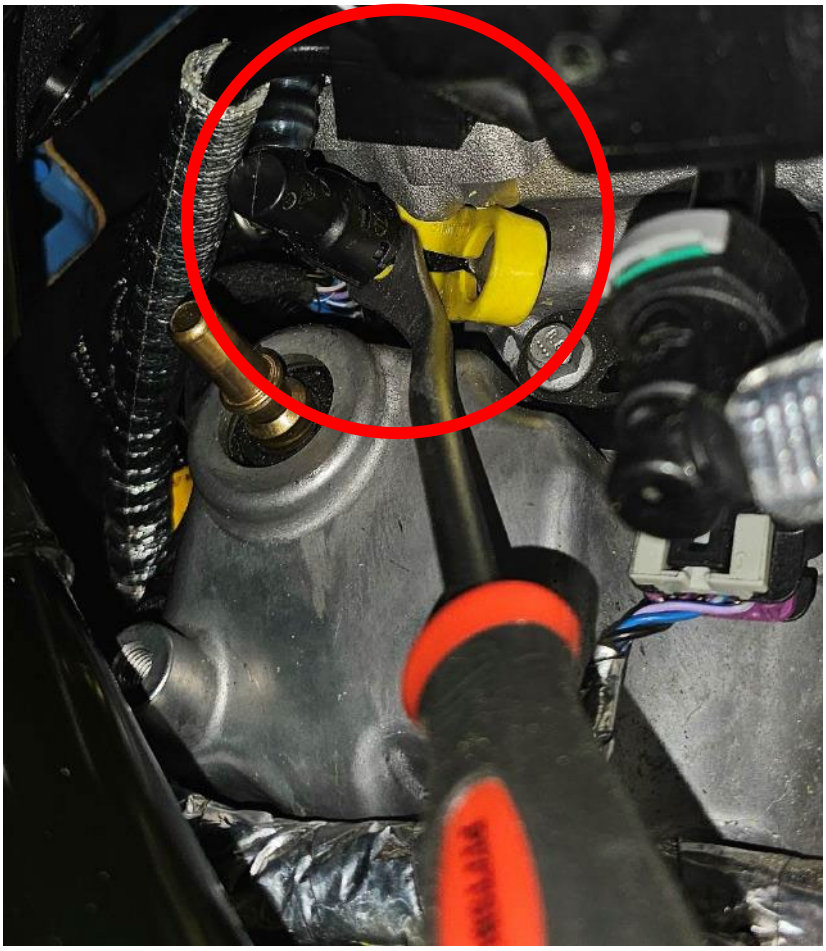
5. Locate the quick connect plug for the vacuum line near to the strut tower brace on the left side of the engine (see image in step 6). Trace the hose to where it connects to the black plastic part on top of the intake manifold, just below the hinge post used by the engine cover. Using the need nose pliers, pinch the spring hose clamp, and wedge the pry tool between the hose and the plastic to push the hose off the nipple (see image below).



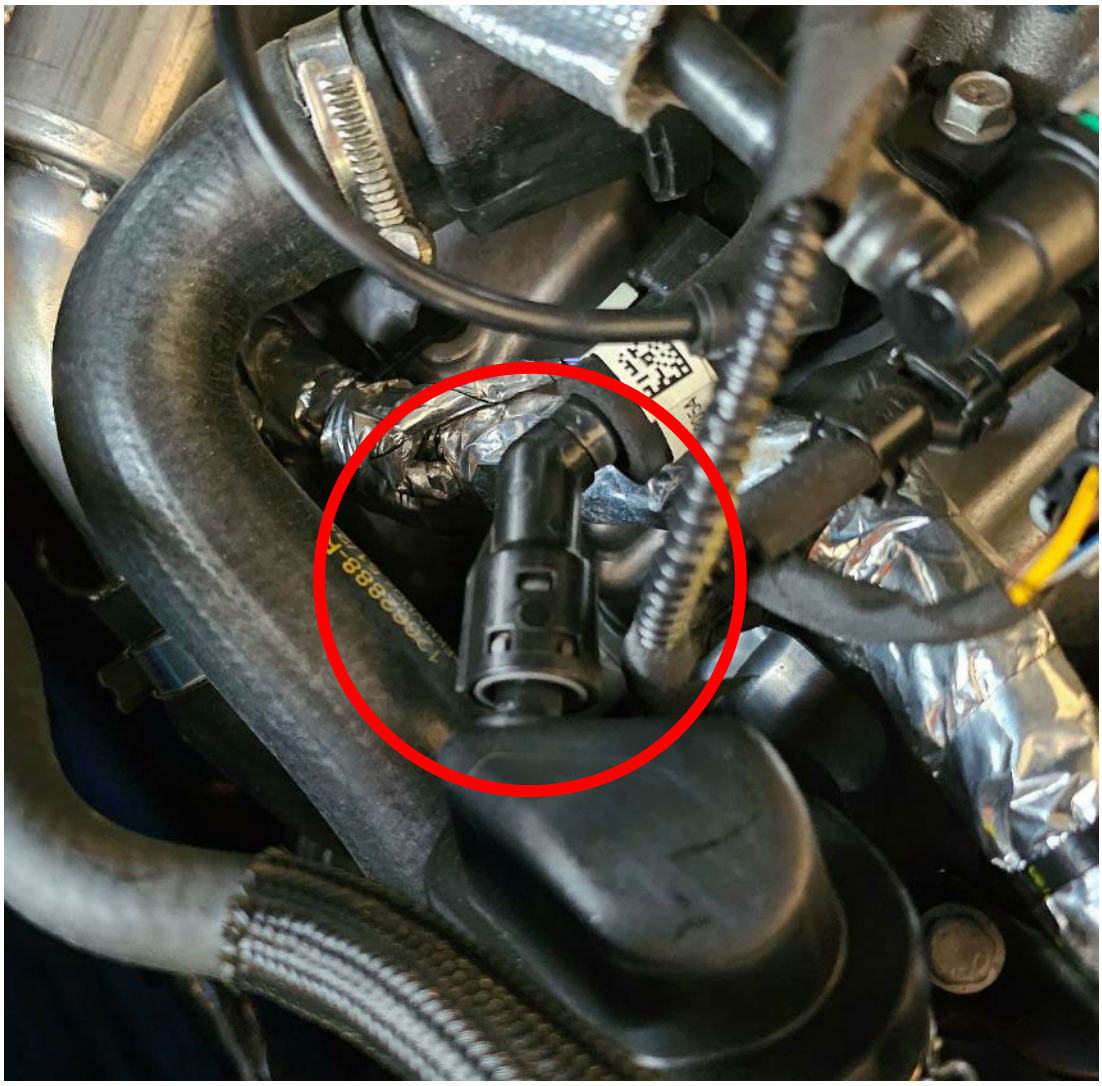
6. Remove the quick connect plug for the vacuum line next to the strut tower brace on the left side of the engine (see image below). Using the needle nose pliers, press the back side (see circled area in second image below) and pull up on the plug. You may also use the trim pry tool wedge between the connector and base of the nipple to lift up. Set the vacuum hose aside.

7. Prepare for cursing, frustration and hatred of GM's design. Using an angled Lisle disconnect tool (that is trimmed to have a height of .35 - .25 inches, see image below) and a trim pry tool, remove the PCV fitting from the rear nipple (see circled area in second image below).

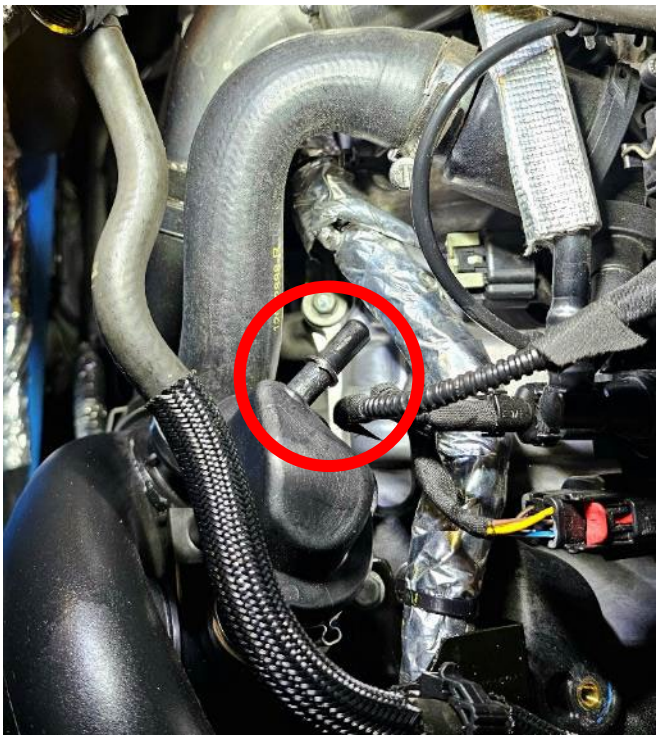
Note: If you are willing, cut the PCV hose just past the barbed section of the fitting. This allows the fitting to spin and can make removal easier. WARNING: this will destroy the OEM hose!



8. Trace the PCV hose to the front of the engine (see circled image below). Remove the fitting in the same manner as in step #7.



9. The front PCV nipple is now able to be covered with the LMP provided vacuum cap (see circled images below).



10. Locate the PCV fitting behind the oil fill neck on the driver's side of the engine (see circled image below). Remove the fitting in the same manner as step #7.

11. Trace the PCV hose towards the fender to locate the other fitting (see circled image below). Remove the fitting in the same manner as in step #7.

12. This PCV nipple is now able to be covered with the LMP provided vacuum cap (see circled image below).

13. Take the longer LMP hose and unscrew the AN fitting from the 90° end (see image below).

14. Separate the “C” shaped union fitting from the flared fitting (see image below).

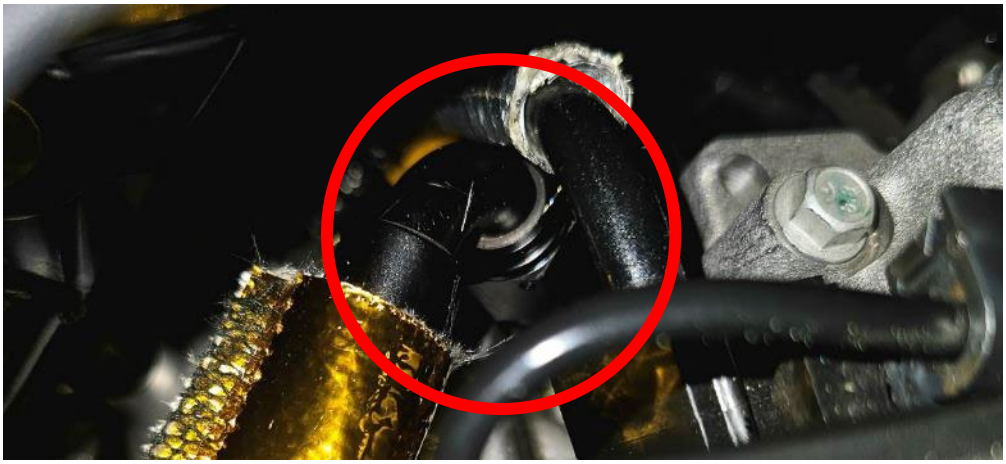
15. Place the “C” shaped union fitting onto the PCV nipple at the furthest flared point (see circled area in image below). Hold the union while pushing the flared AN fitting onto the PCV nipple until the fitting “clicks”, signaling the internal O-rings have engaged the tube. Begin hand tightening the flared AN fitting onto the “C” union by turning the flared AN fitting counter clockwise until a few threads are on.

16. Using the 3/4" or 19mm open-end wrenches, place one on the “C” shaped union while using the other to continue tightening the flared AN fitting until hand tight. To limit the amount of dirt and gunk from getting trapped in the “C” shaped union, it is recommended to turn it so the opened section is facing down (opposite of the circled area in the image below).

17. Connect the hose to the flared AN fitting by inserting the female end of the 90° AN fitting and tightening by hand for a few threads (see circled area in image below). Switch to using the 3/4” or 19mm and 7/8” or 22mm open-end wrenches to tighten the fitting the rest of the way until hand tight.

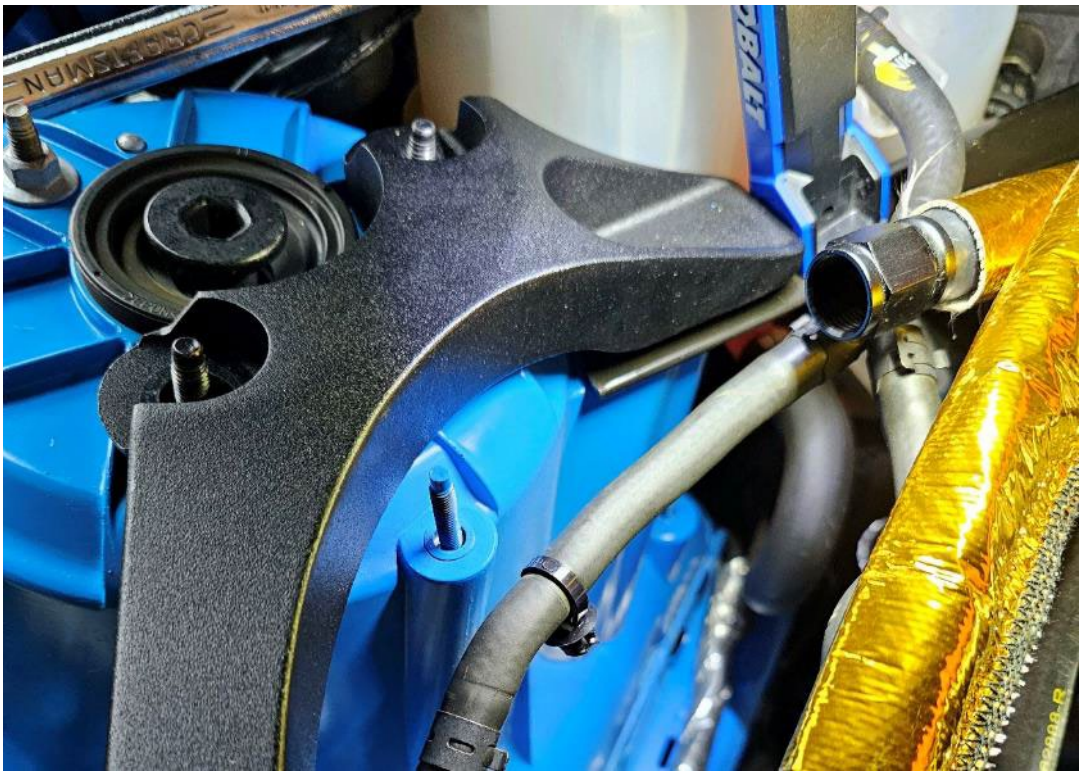
18. Repeat steps 15 through 17 on the passenger side PCV nipple (see circled area in images below).

Note: it will be difficult to use a 3/4" or 19mm open-end wrench on the “C” shaped AN union; needle nose pliers or using your fingers to hold it steady is an alternative.

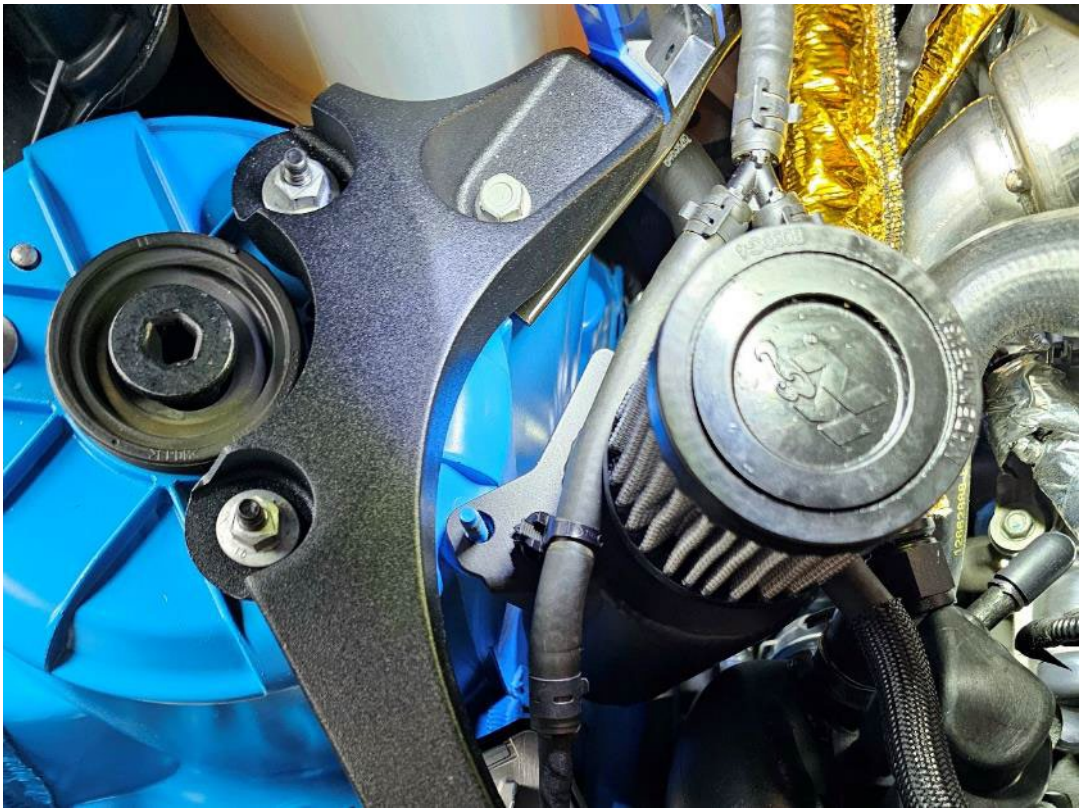


19. Use the trim pry tool to disengage the barbed retainer strap holding the radiator overflow tubing from the bracket that is hanging off the passenger strut tower. Place it under the bracket. Remove the nut holding the bracket to the stud with a ratchet wrench and a 3/8” or 10mm socket, set the nut aside. Loosen or remove the two nuts and one bolt holding the strut tower brace with a ratchet wrench and 1/2" or 13mm socket, setting the nuts and bolt aside if loosening them completely (see image below).

20. Lift the strut tower brace up enough to remove the black bracket (see image below). Reinstall the strut tower brace nuts and bolt.

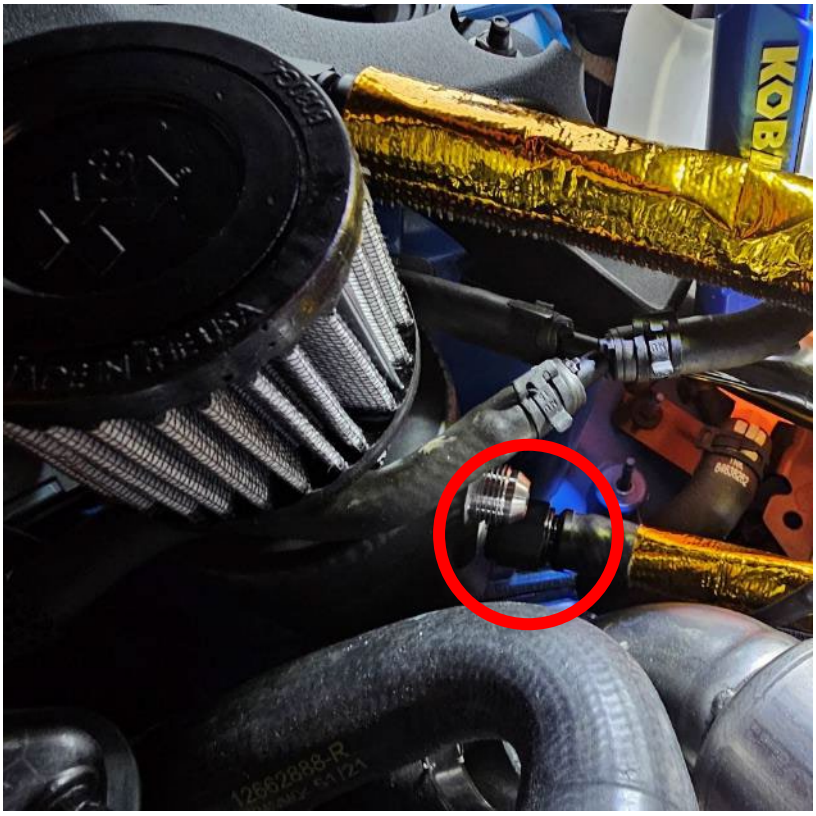


21. Place the LMP catch onto the threaded stud and straddle the radiator overflow tank hoses around the top of the catch can (see image below).



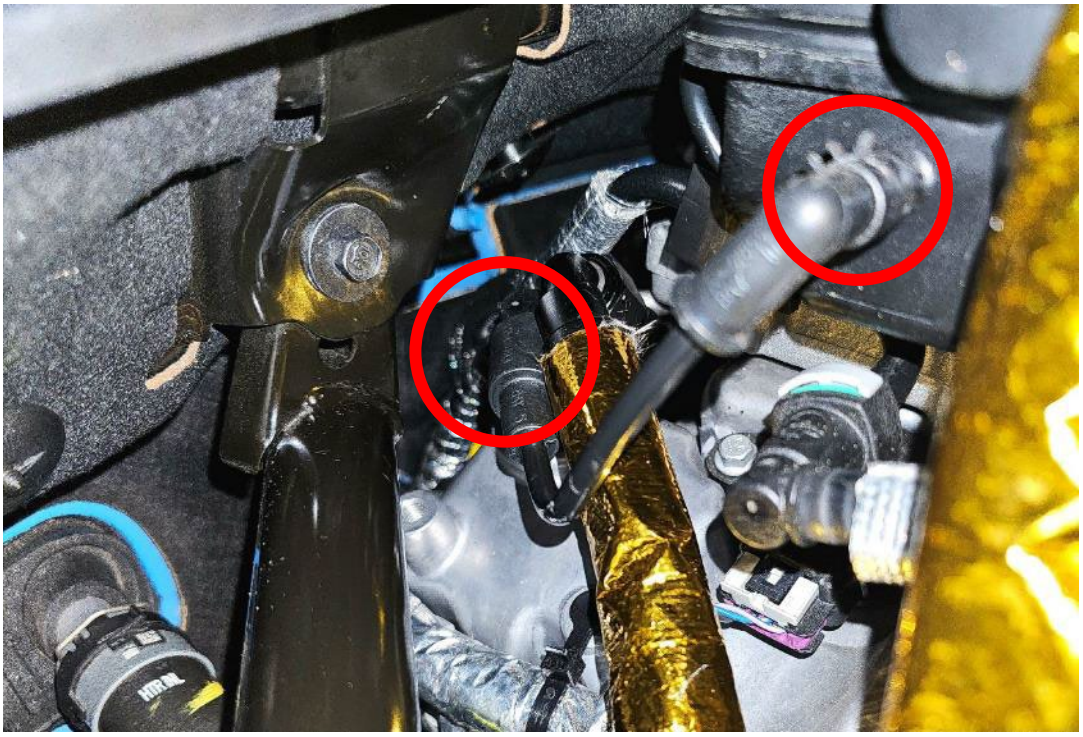
22. Route the longer PCV hose from the driver's side over to the passenger side, wedging the hose between the firewall and the intake manifold (see image in step #25). Attach the shorter, passenger side PCV hose to the bottom port of the catch can by turning the hose AN fitting clockwise for a few threads. Finish tightening using the 7/8" or 22mm open-end wrench until hand tight. Repeat this for the longer hose on the top port.

Note: if the longer hose's AN fitting will not seat properly on the top catch can port, you can get more maneuverability but disconnecting the radiator overflow tank hose closest to the engine at the "Y" connector using needle nose pliers and the trim pry tool.



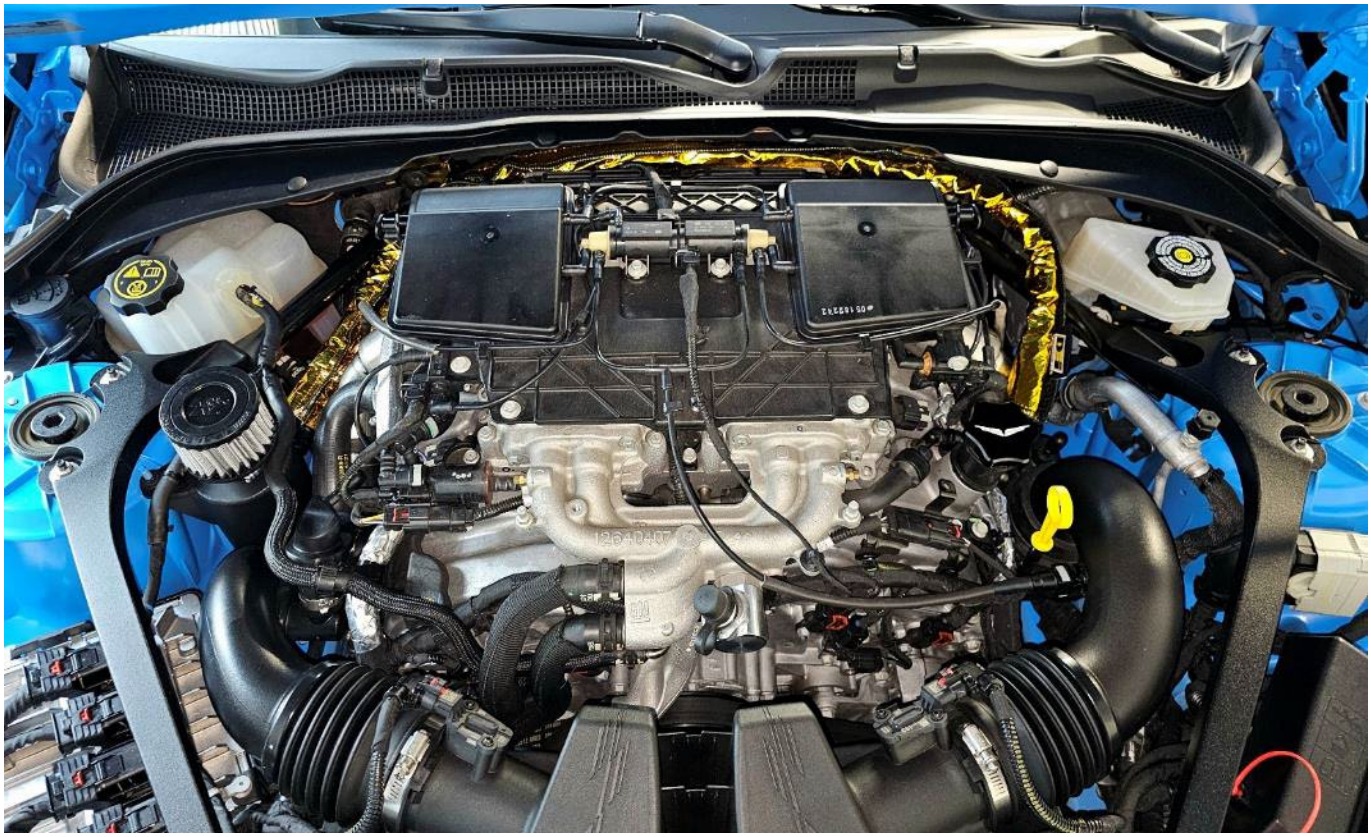
23. Secure the catch can by reinstalling the nut on the threaded strut tower stud (see circled area in image below) using a ratchet wrench with a 3/8” or 10mm socket. Press the barbed retainer strap for the radiator overflow tank hose into the hole closest to the breather filter on the catch can.

24. Reinstall the vacuum line from step #5, ensuring both ends are securely fastened in the same manner before removing the hose (see circled areas in image below).



25. Double check that all fittings, nuts, bolts, hoses, caps and clamps are secure. The LMP catch can and hoses should look like the image below.

Note: Don’t be a savage…use a flat head screwdriver to loosen the clamp on the K&N filter and turn it so it faces you properly! :-)



26. Reinstall the engine cover in the reverse of step #2 and #3. Close the hood and enjoy the reduced carbon build up on your valves!