JAMES BARONE RACING
AFTERMARKET PARTS AND ACCESSORIES

2013 & up MAZDA 3, 6 and CX-5 2.0 & 2.5L Oil Catch Can Installation Instructions

Tooling:

- ✓ Jack
- ✓ Jack stands
- ✓ Ratchet wrench
- ✓ 3" socket extension
- ✓ 10mm, 12mm and 14mm sockets
- ✓ 10mm wrench
- ✓ 5mm allen wrench
- ✓ Medium crescent wrench
- ✓ Flat head and philips head screw drivers
- ✓ Needle nose pliers

Parts List:

- ✓ 1 Fully Assembled oil catch can
- ✓ 135" of 3/8" reinforced hose
- ✓ 4" Flat mounting bracket
- ✓ 1, 6mm x 1.0 x 16mm bolt
- ✓ 1, 6mm lock nut
- ✓ 1 quick drain valve
- ✓ 20" of drain hose with NPT fitting
- ✓ 5 zip ties
  - ➢ Short hose with barbed fitting (2.5L ONLY)

It's important to plan for your installation. The following instructions are for an installation in the easiest and most common location. Use these instructions as a guide if you choose to install your catch can in a location other than described here. Some important things to consider if you're installing it in another location are: - How will the catch can be mounted? - Is there enough hose to reach? - Can the hose be properly routed? Taking some time before you get started will ultimately save you a lot of time and headache later.

Estimated time to complete the job is 1.5 hours. Give yourself plenty of time to complete the job. We have broken the instructions out into numerous steps. Do not be discouraged. The job is not that hard and although it appears to be a lot of work, it's not. Take your time, enjoy yourself and the time you spend working on your car. Invite your friends over to join in on the fun and lend a hand.

Read and understand the instructions thoroughly before beginning. Now let's get started!

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1. Begin by parking on a smooth level surface with the emergency brake engaged. Jack up the front of the vehicle and position jack stands underneath both sides.

   Refer to you vehicles owner's manual for proper jack placement and supporting procedures. Never get under a vehicle without the proper support in place.

2. Apply Teflon tape to the threads of the drain valve. Attach the drain valve to the bottom of the catch can and tighten with a crescent wrench. Install the drain hose fitting into the bottom of the drain valve. This can be tightened by hand and does not need to be too tight.

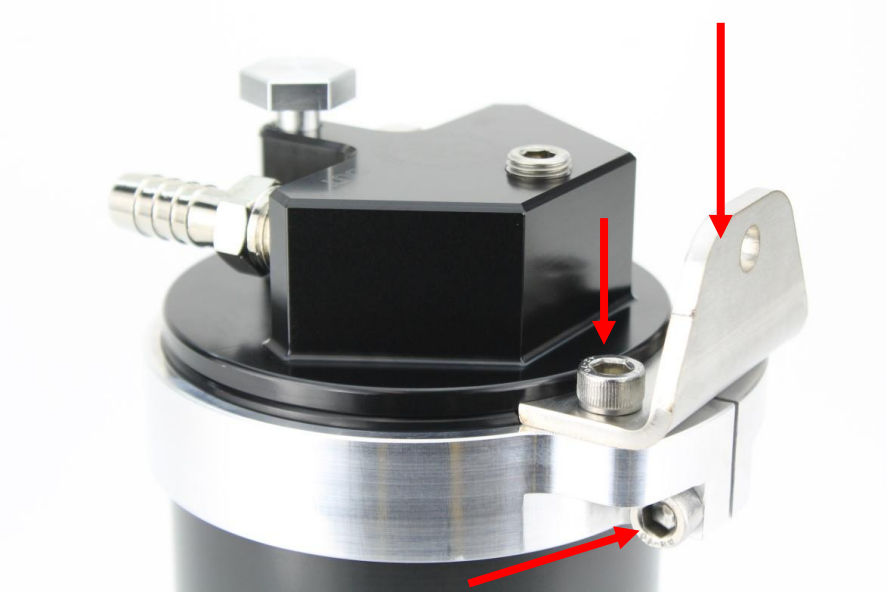


3. Apply Teflon tape to the threads of the barbed fittings. Install the barbed fittings into the IN and OUT ports of the catch can using a 14mm deep socket.



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4. If you need to adjust the height of the mounting bracket or the location of the mounting bracket, ALL 3 socket cap bolts must be loosened using a 5mm allen wrench. (No need to adjust for this installation)



5. Assemble the mounting bracket on to your new JBR oil catch can. Using a 10mm socket and 10mm wrench and the 6mm nut and bolt included with your kit.
   - The flat mounting bracket should be mounted at about a 10^{o} angle to the top of the catch can.

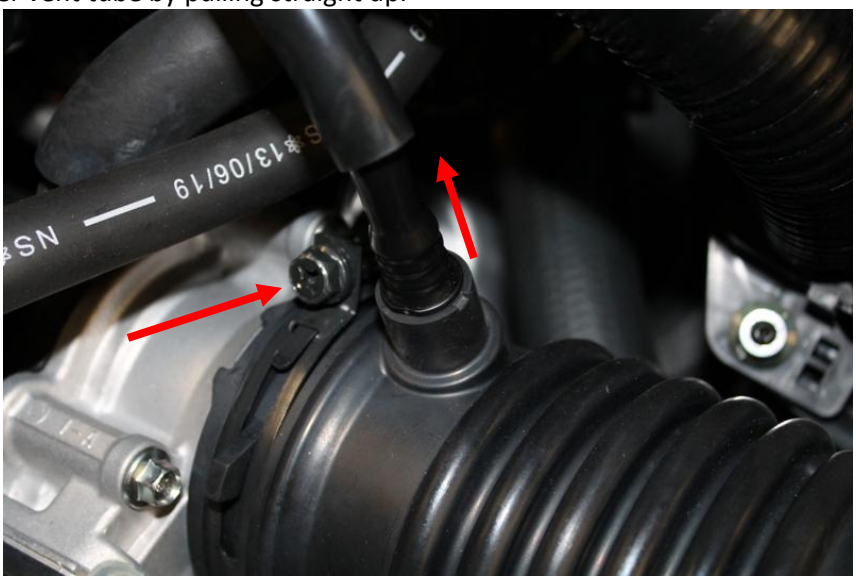


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6. Next remove the engine cover by pulling up on each corner.

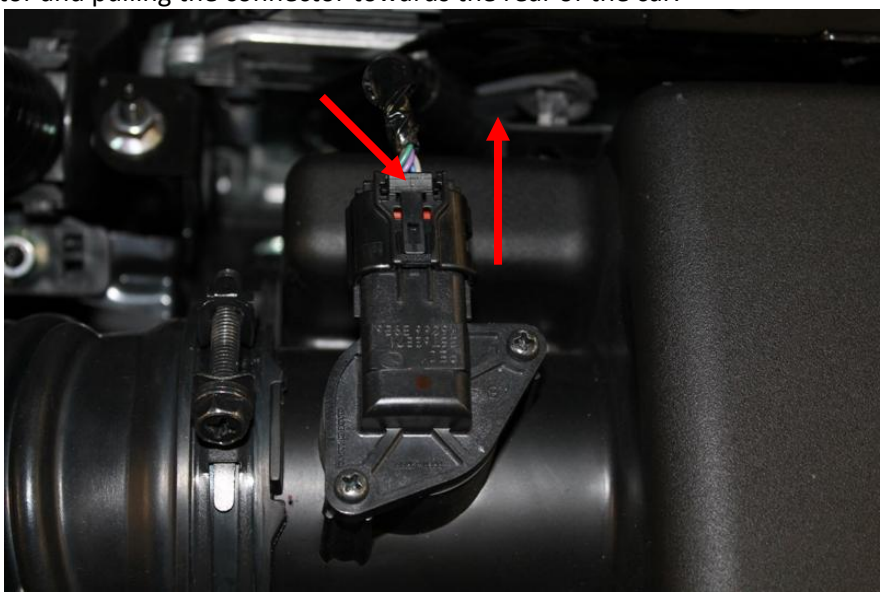


7. With a Philips head screw driver, loosen the hose clamp at the throttle body and remove the cam cover vent tube by pulling straight up.

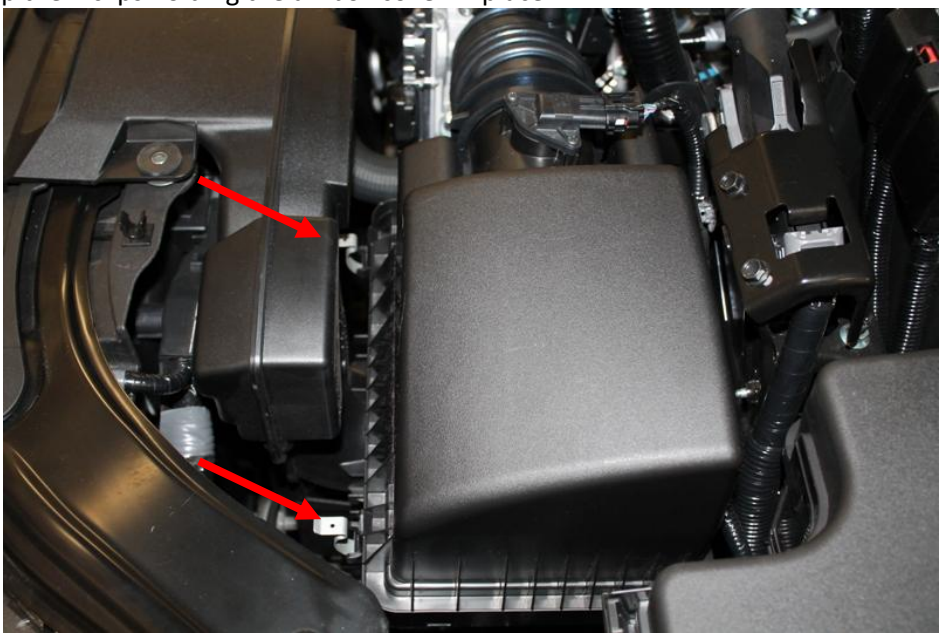


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8. Next remove the lead connected to the MAF sensor by depressing the tab at the rear of the connector and pulling the connector towards the rear of the car.



9. Unclip the 2 clips holding the air box cover in place.

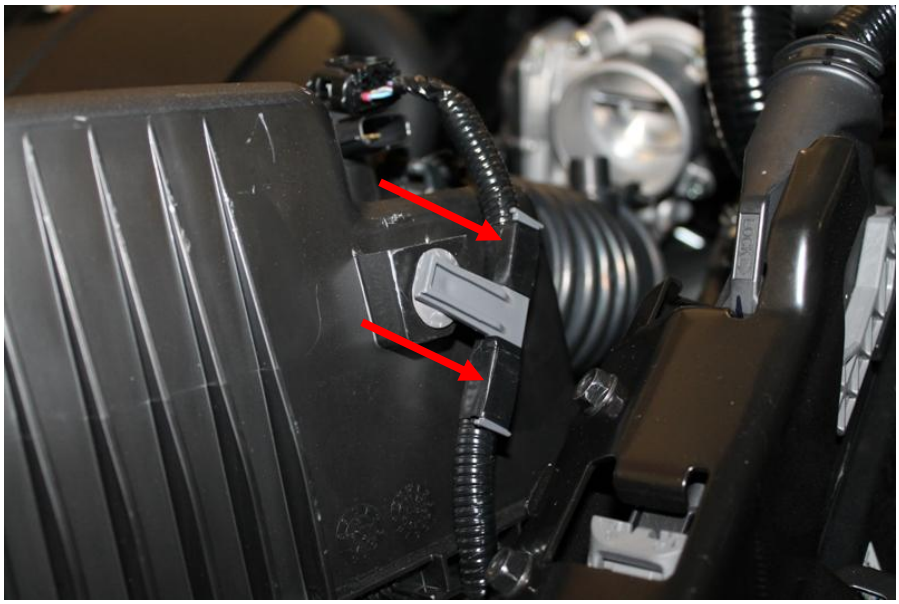


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10. Separate the top of the air box from the bottom and begin removing it along with the rubber accordion hose attached to the throttle body.

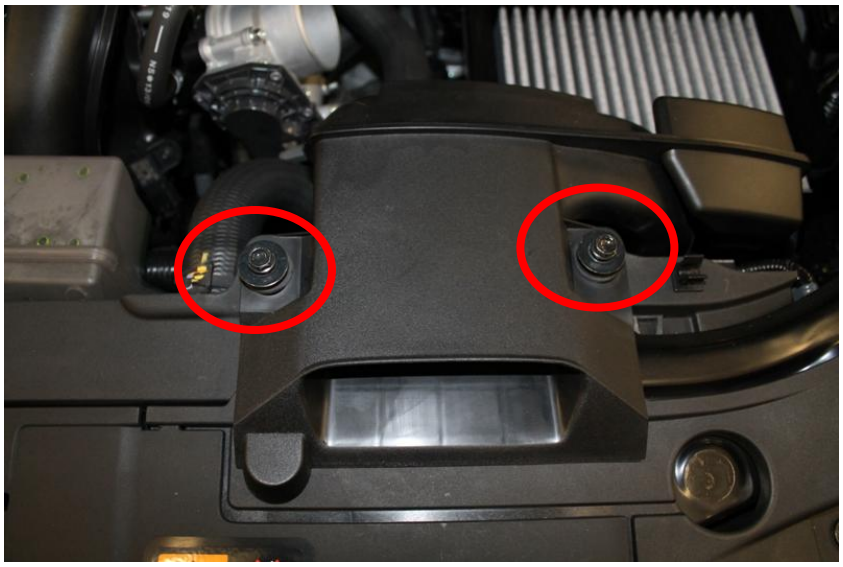


11. Using a razor knife carefully cut the tape securing the MAF sensor wire from the back of the air box cover. Remove the cover and accordion hose from the vehicle.

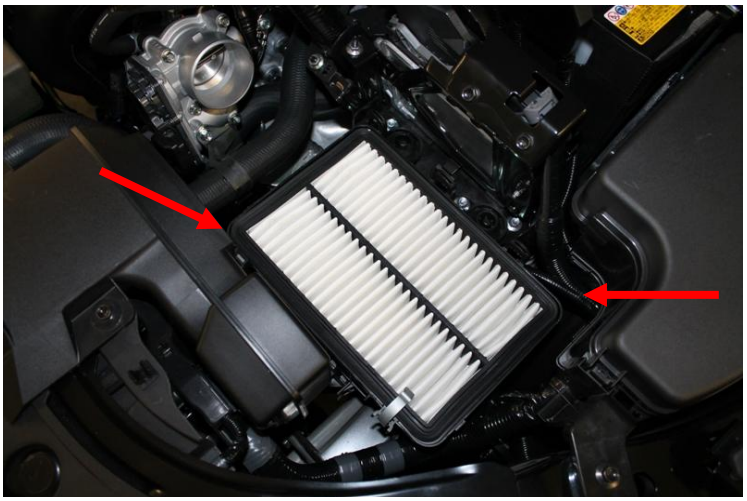


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12. Using a 10mm socket remove the two bolts shown below.



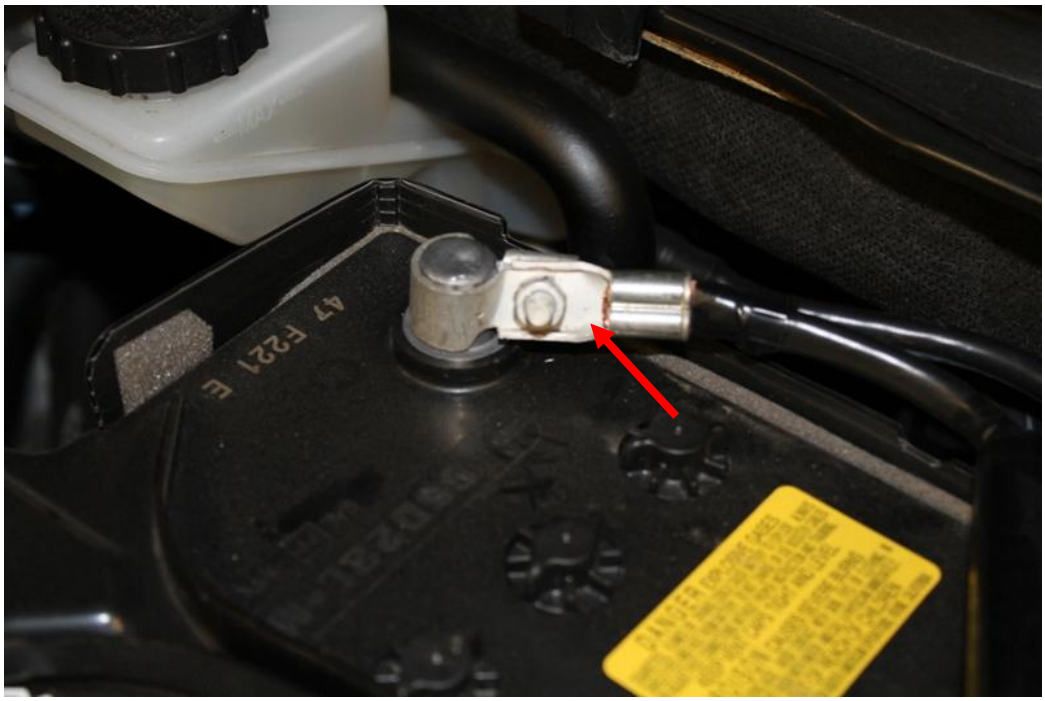
13. The next step is to grab the bottom section of the air box firmly and give it a swift tug upwards to remove the entire lower portion of the air box from the vehicle.



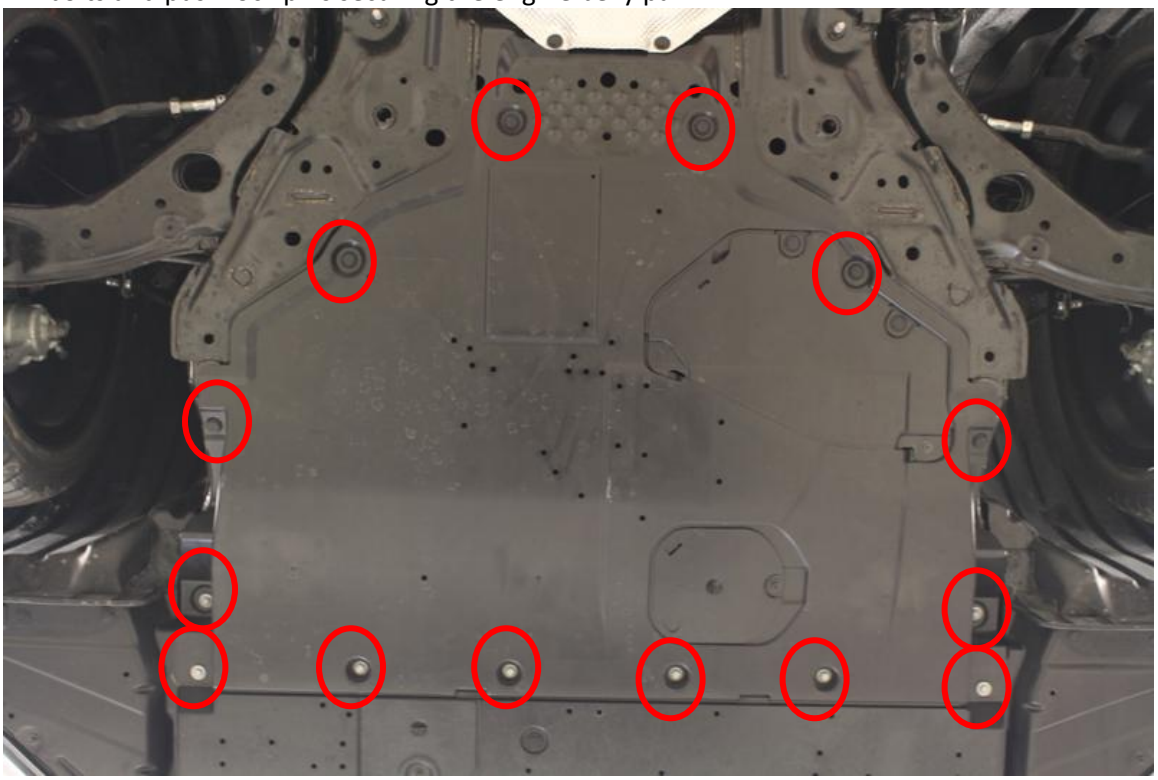


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14. Remove the negative battery terminal using a 10mm socket.

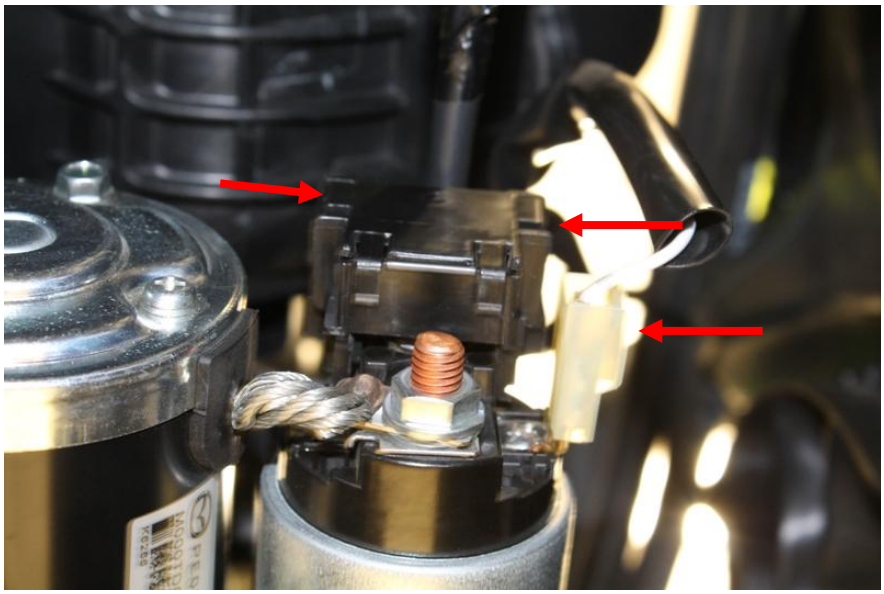


15. Next, remove the belly pan using a 10mm socket and a flat head screw driver. Remove all the bolts and push lock pins securing the engine belly pan.

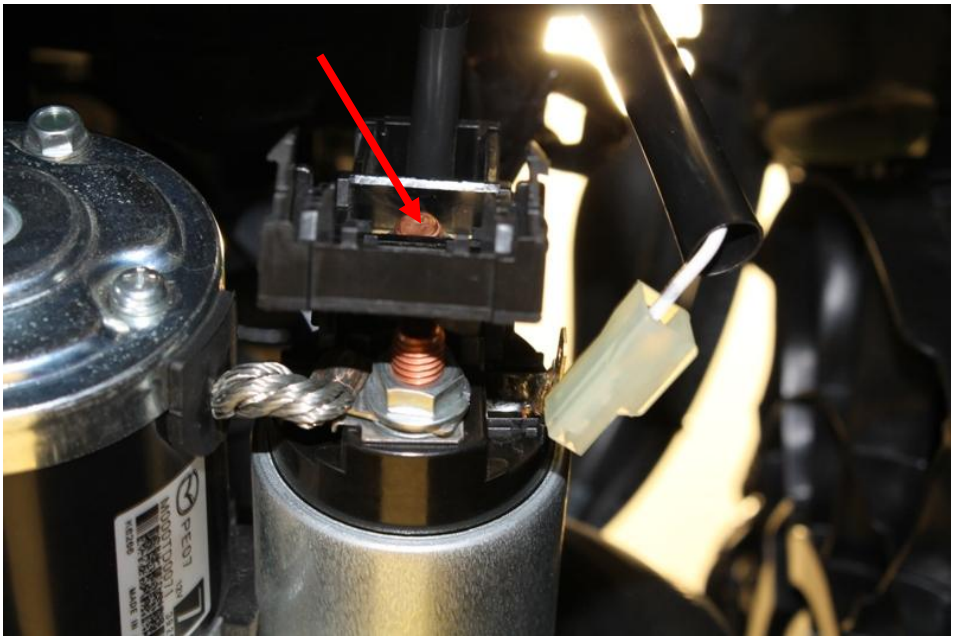


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16. Next, the starter must be removed. Squeeze the sides of the black cover and flip it down to expose the positive terminal. Depress the tab on the side of the single wire connector and pull it straight off the terminal.

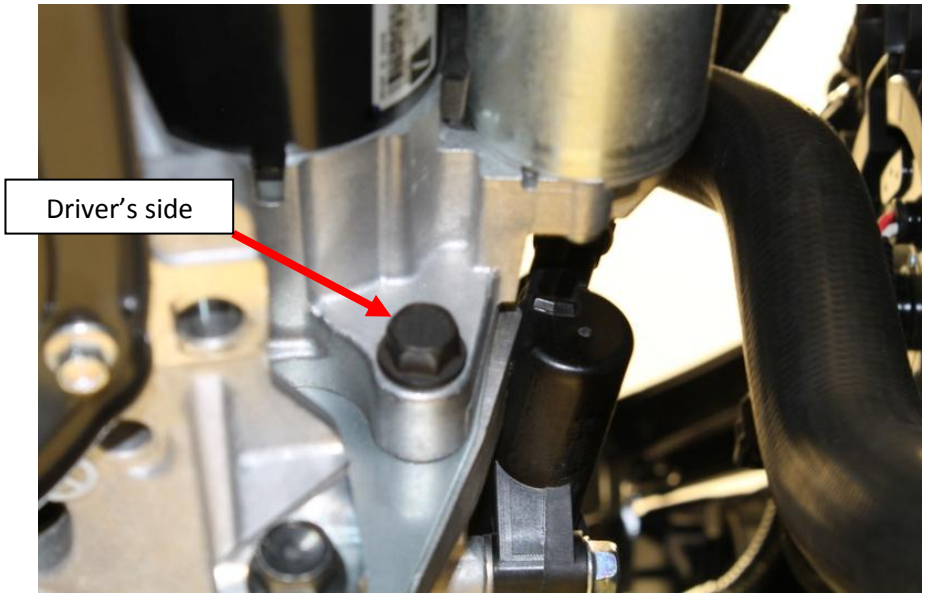


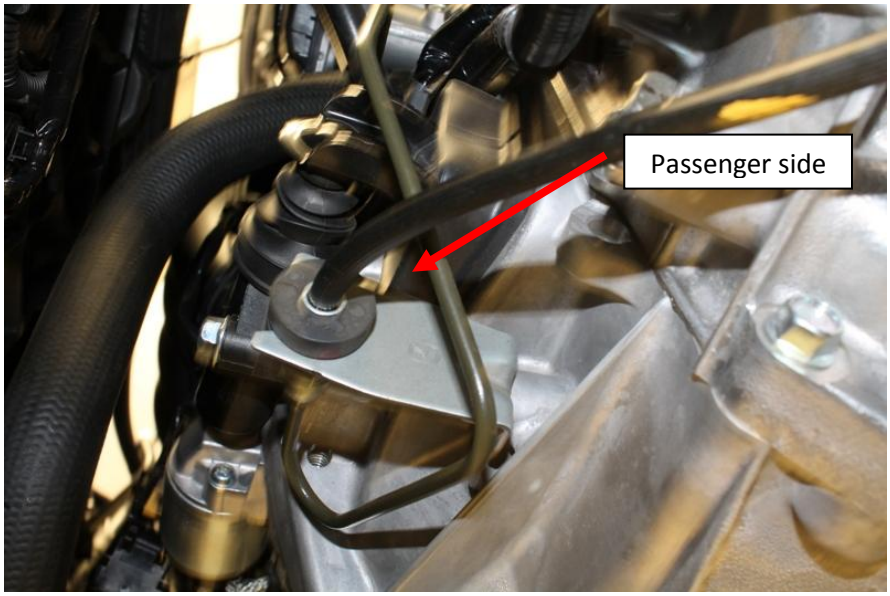
17. Use a 12mm socket to remove the positive terminal from the starter. Remove the positive wire and black cover together.



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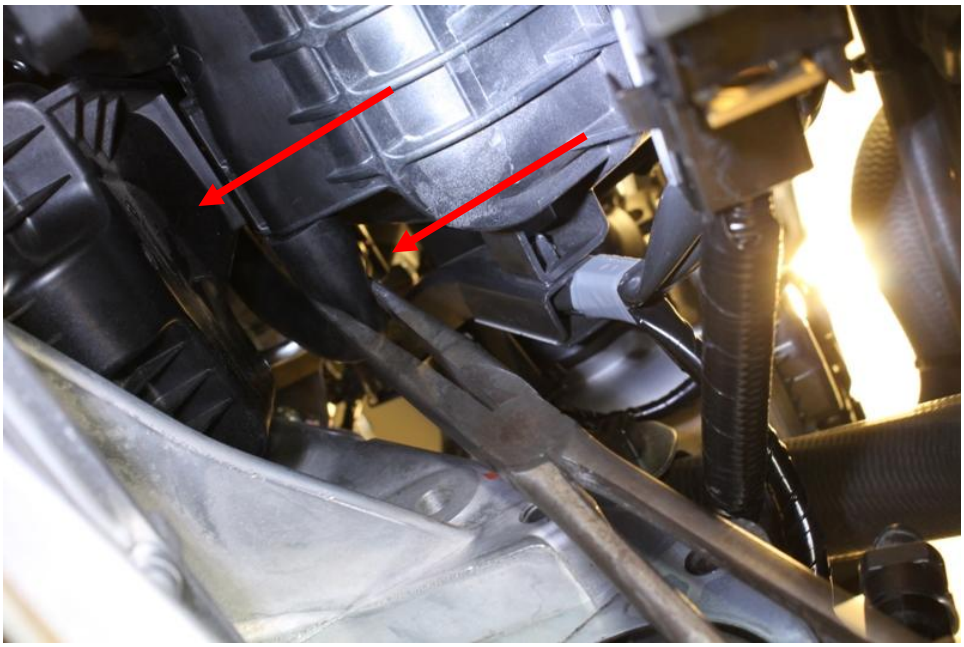
18. Using a 14mm socket and 3” socket extension, remove the two bolts securing the starter to the transmission. There’s one bolt that goes in from the passenger side and one going in from the driver’s side.



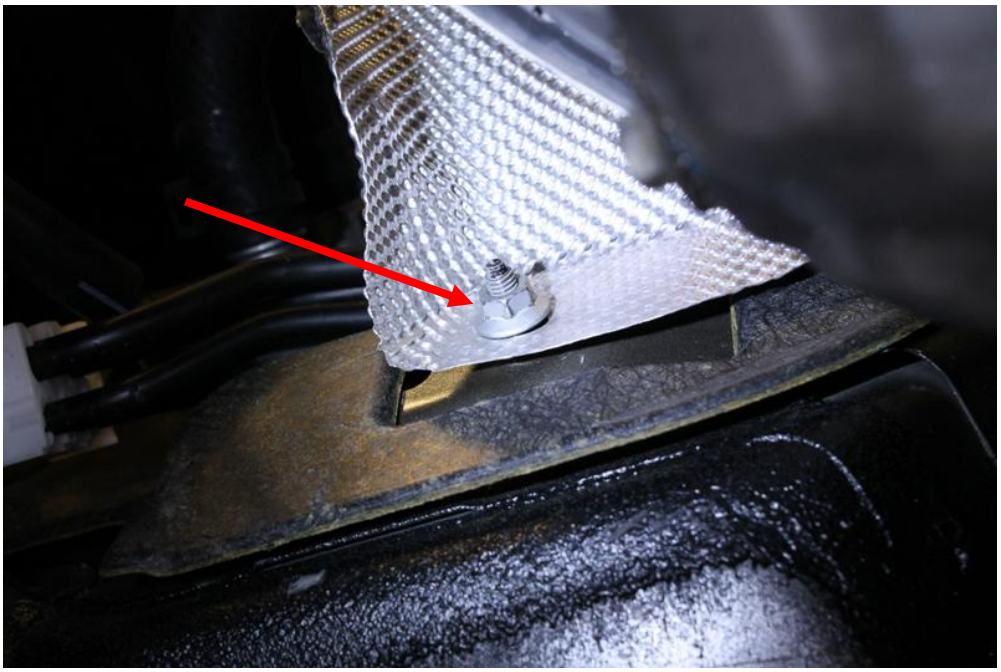


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19. (2.0L Engine) Using a pair of needle nose pliers, grab the OEM PCV hose (above where the starter was) one end at a time. Give the hose a tug and remove it from the vehicle.
    - (2.5L Engine) Only remove the OEM PCV hose from the intake manifold leaving the other end attached to the PCV valve. Insert the large end of the white plastic reducer coupler provided with your kit into the OEM PCV hose.

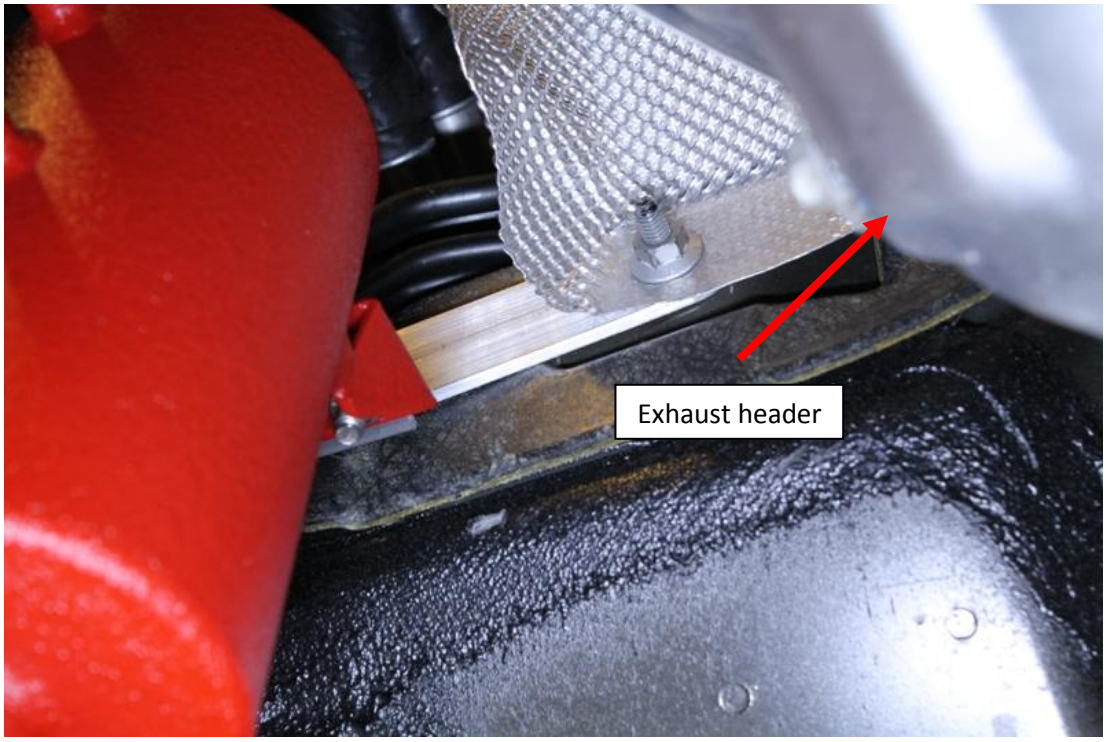


20. Using a 10mm socket, remove the nut securing the heat shield on the passenger side of the fire wall.



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21. Pull the heat shield off the stud, place the flat mounting bracket on the catch can over the stud, replace the heat shield and tight the nut so the catch can is level.



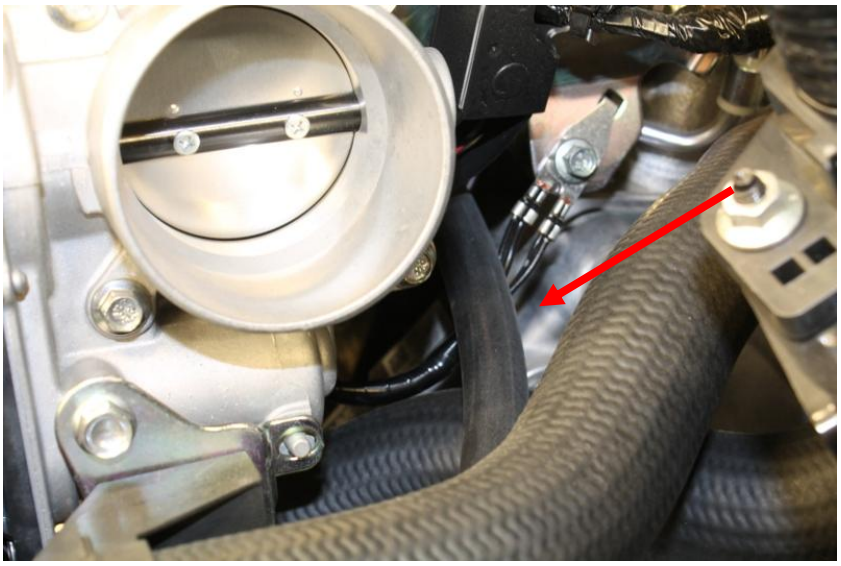


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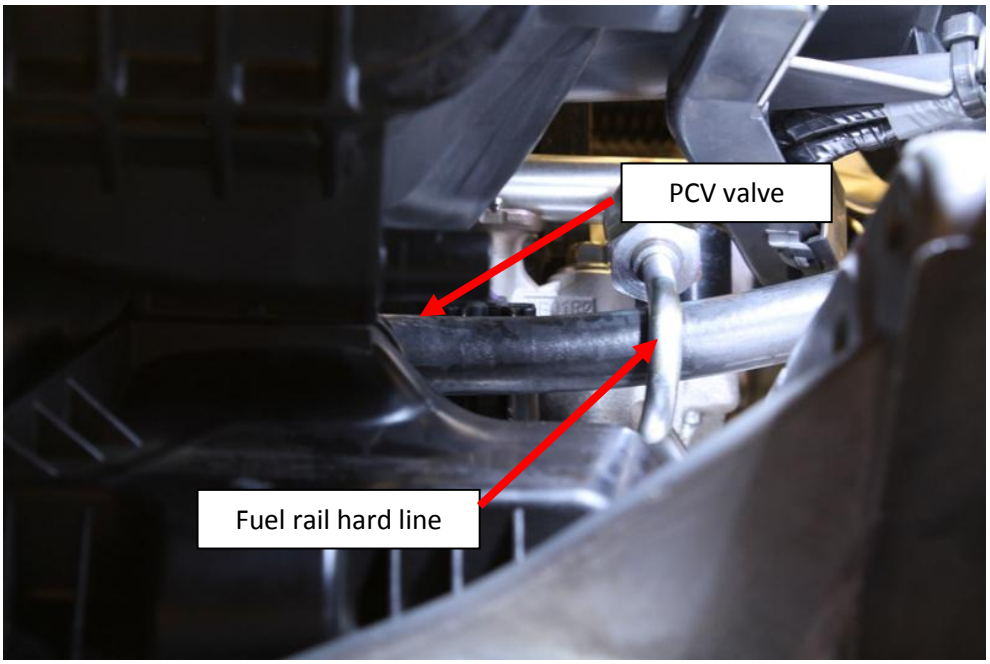
Now it's time to route the hoses from the PCV and intake manifold to the catch can.

22. Take one end of the 3/8" reinforced hose included with your kit and route it from the driver's side towards the PCV valve. Slip it through the fuel rail hard line and using a pair of need nose pliers; slip it on to the PCV valve. No hose clamp is required here.

View from above

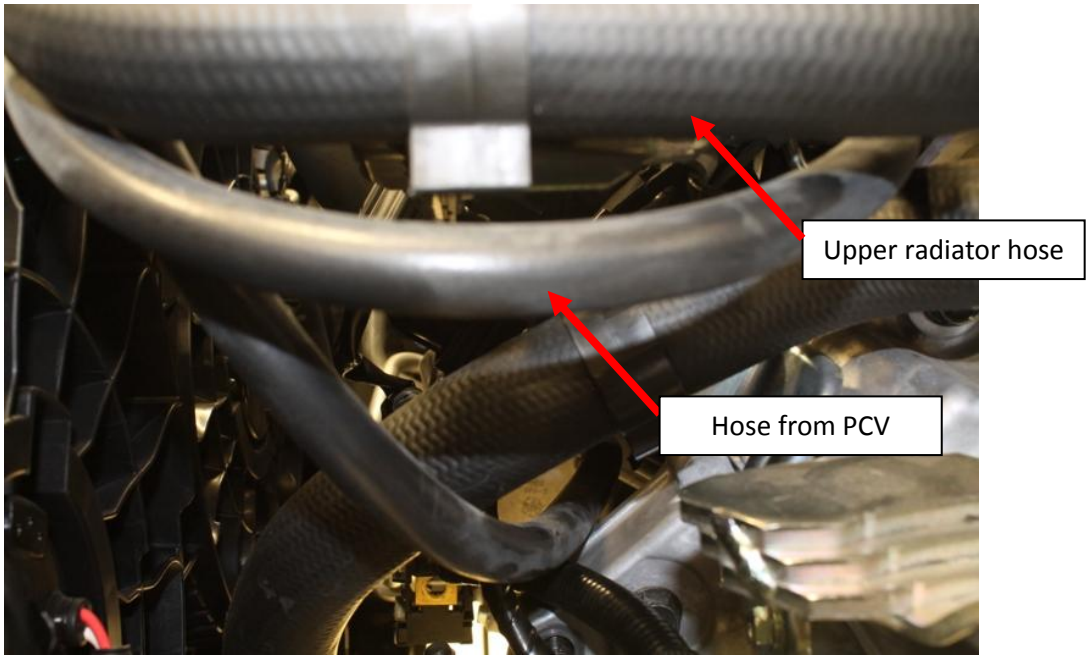


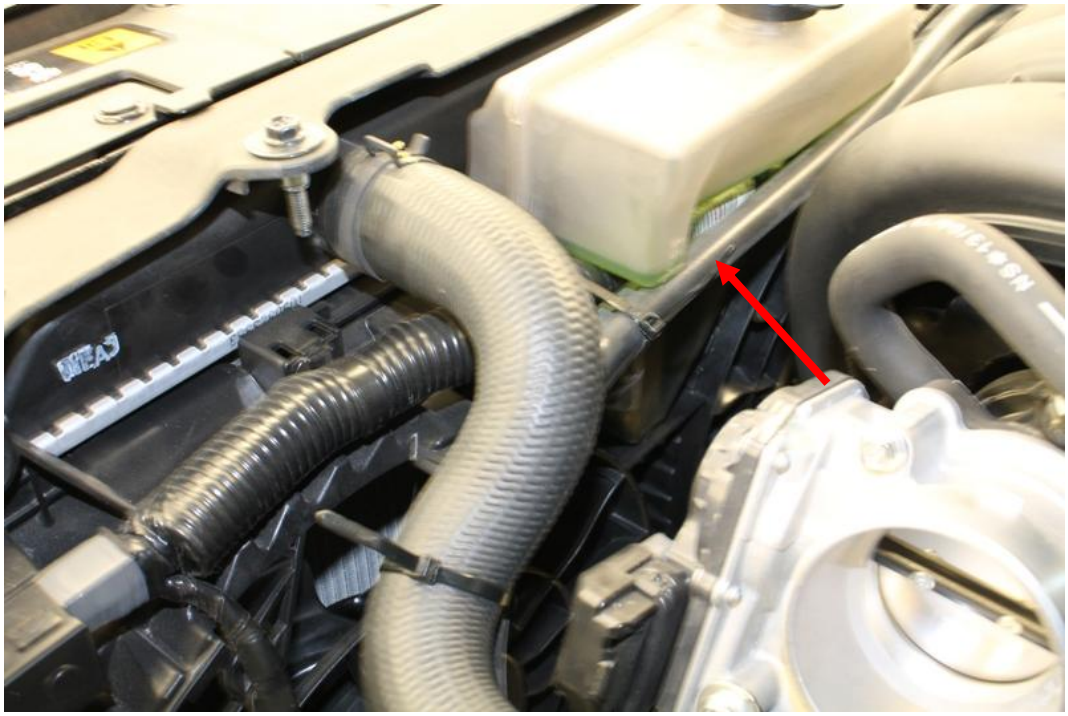
View from below



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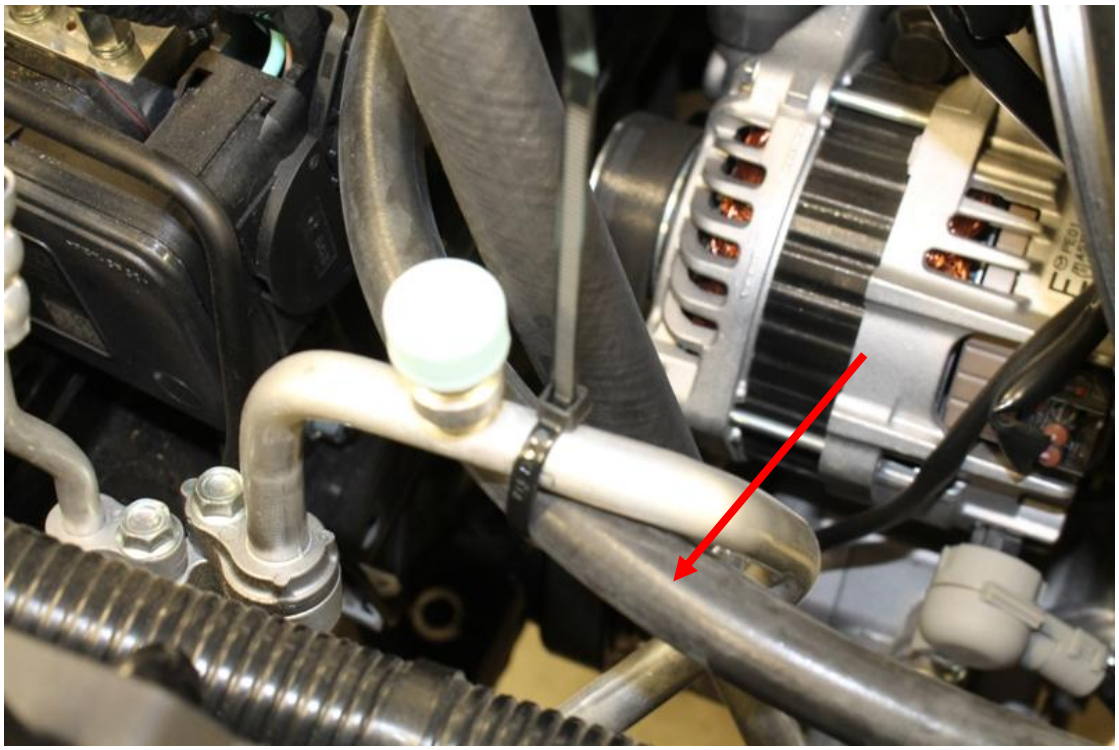
23. Route the hose below the upper radiator hose and around the front of the engine towards the passenger side.



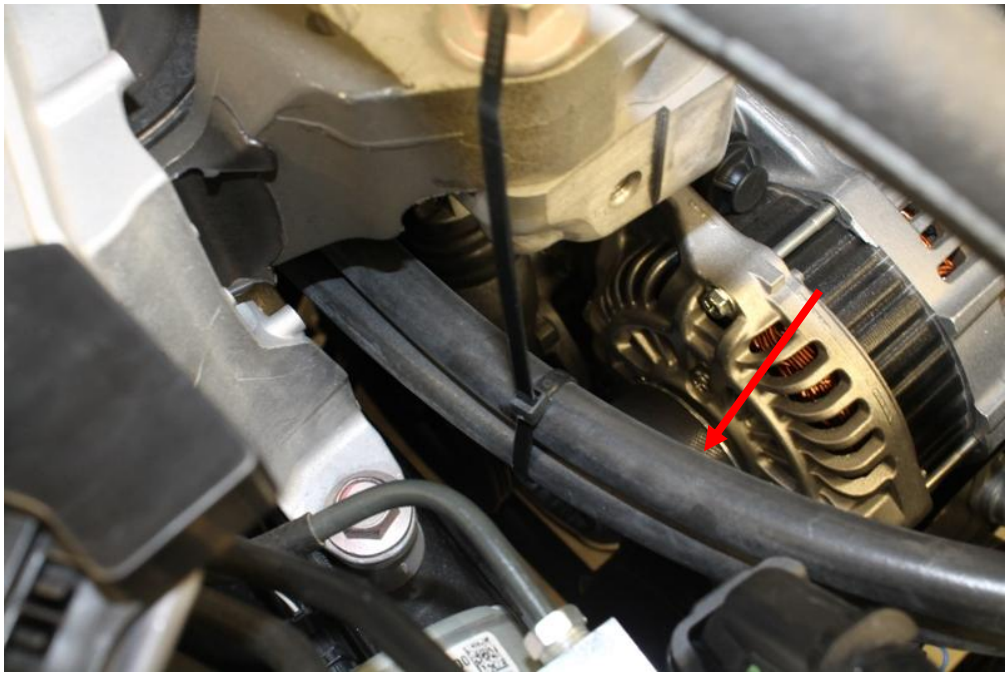


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22. Run the hose in front of the AC line.

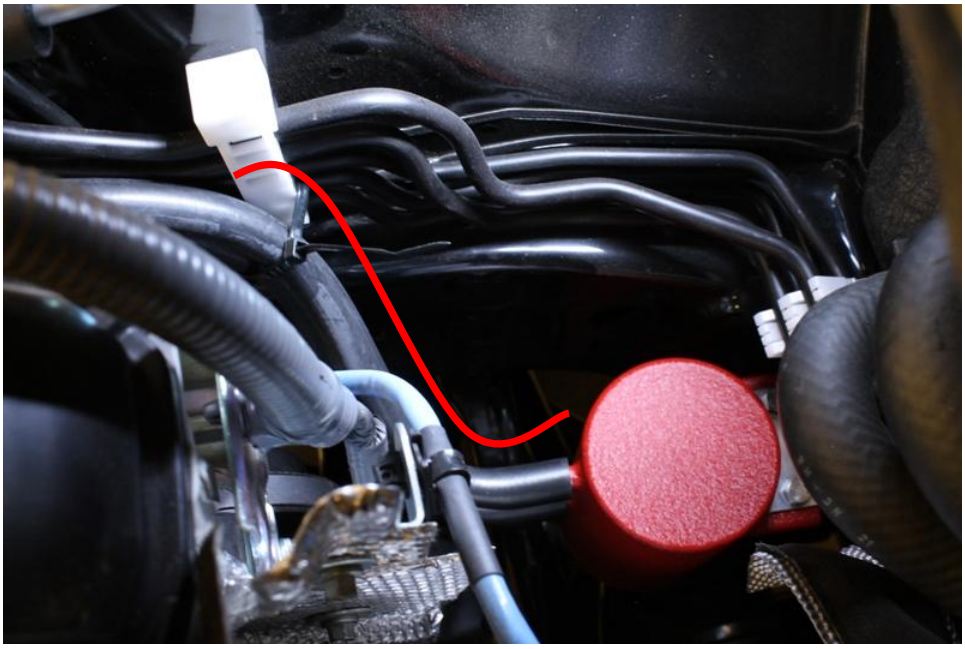


23. Under the passenger side motor mount.



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24. Cut the hose leaving enough to create a nice smooth flowing line to the catch can. Connect the hose from the PCV to the IN port on the catch can. No hose clamp is required here.



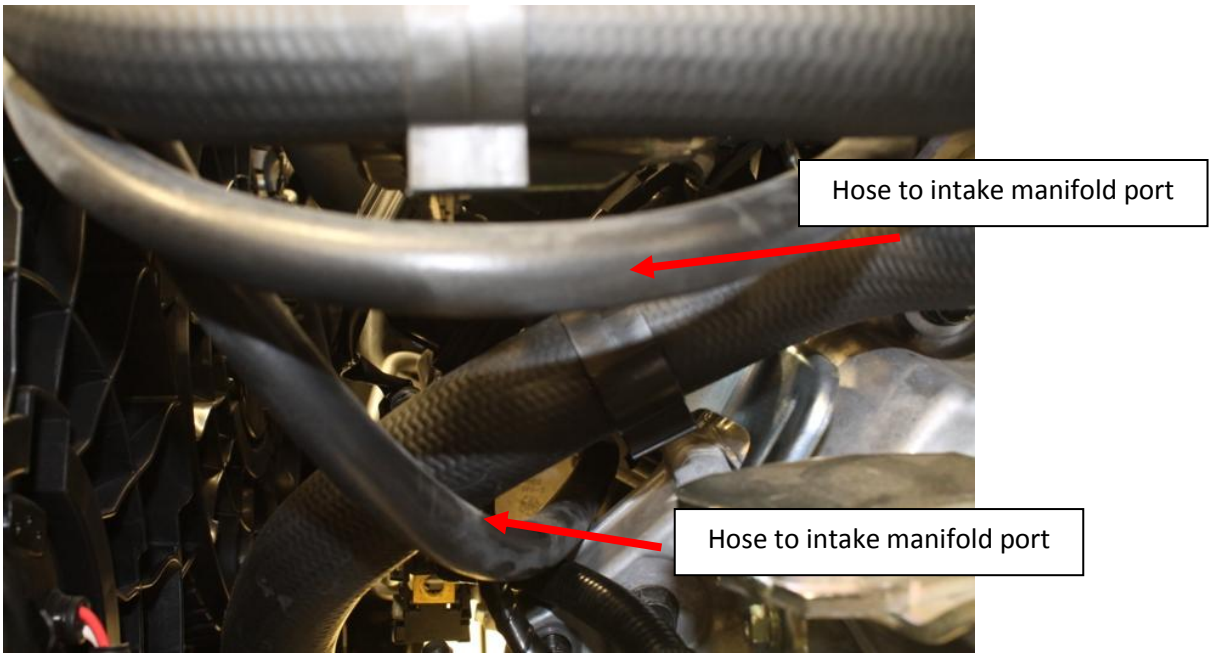
25. Next, using a pair of needle nose pliers, stretch the inside diameter of one end of the remaining piece of hose.



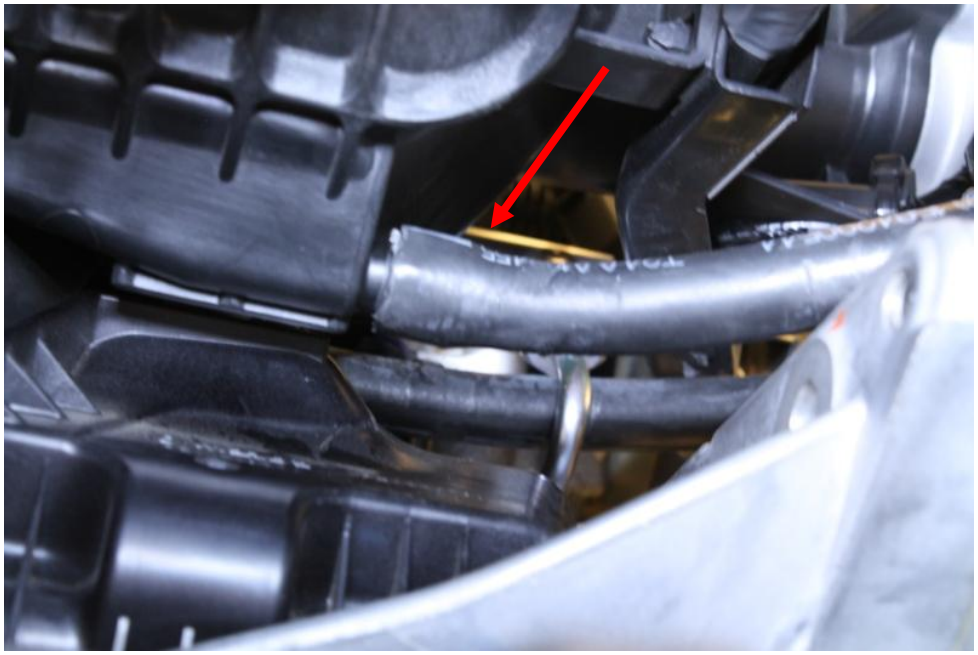
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26. Route the stretched end of the hose in from the driver's side, below the lower radiator hose, towards the port on the intake manifold. Using your hands and pair of need nose pliers; slip it on to the port. No hose clamp is required here. Additional stretching may be required and some WD-40 or a few drops of oil will help the hose to slide on easier.

View front driver's side.

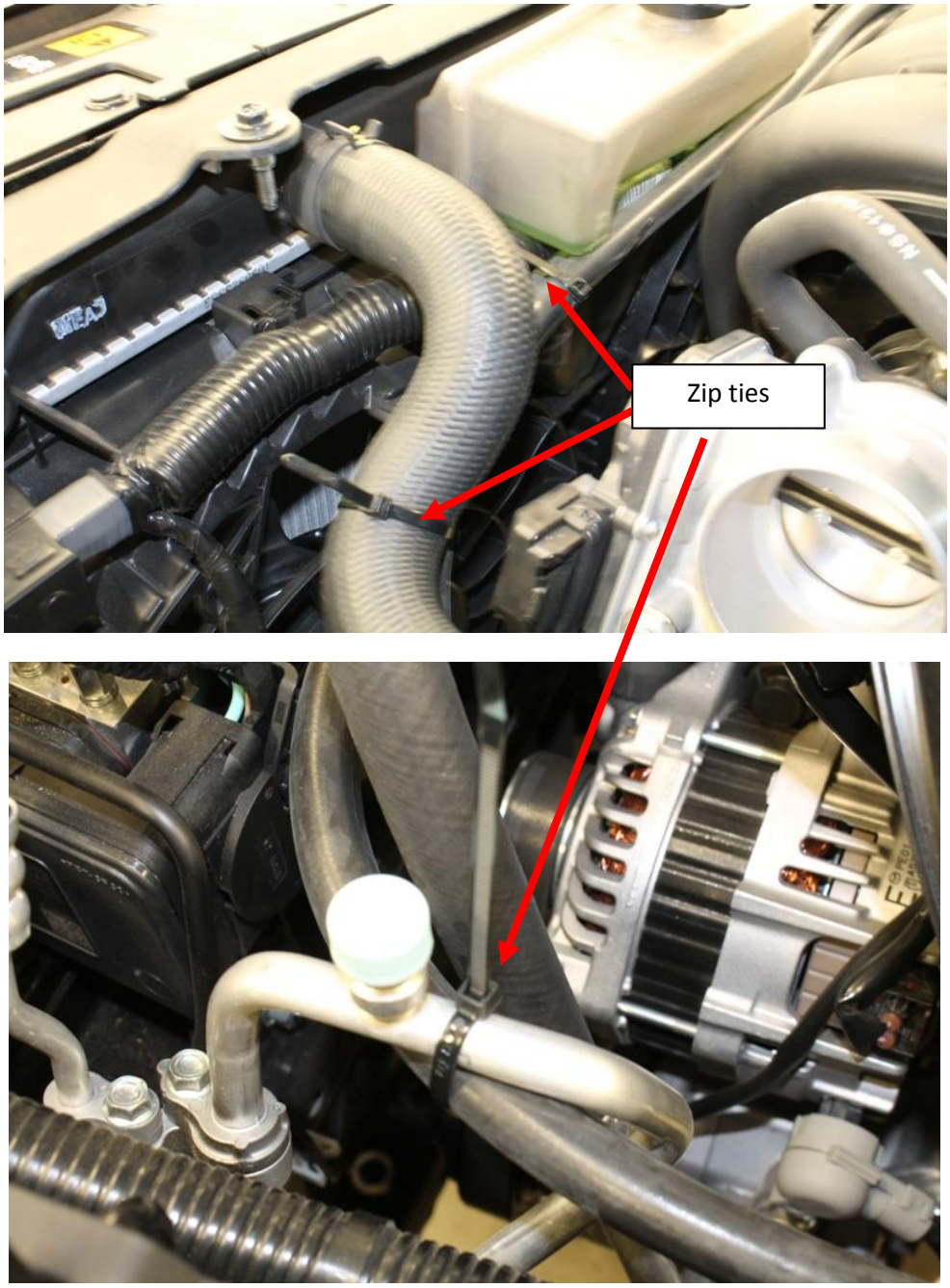


View from below



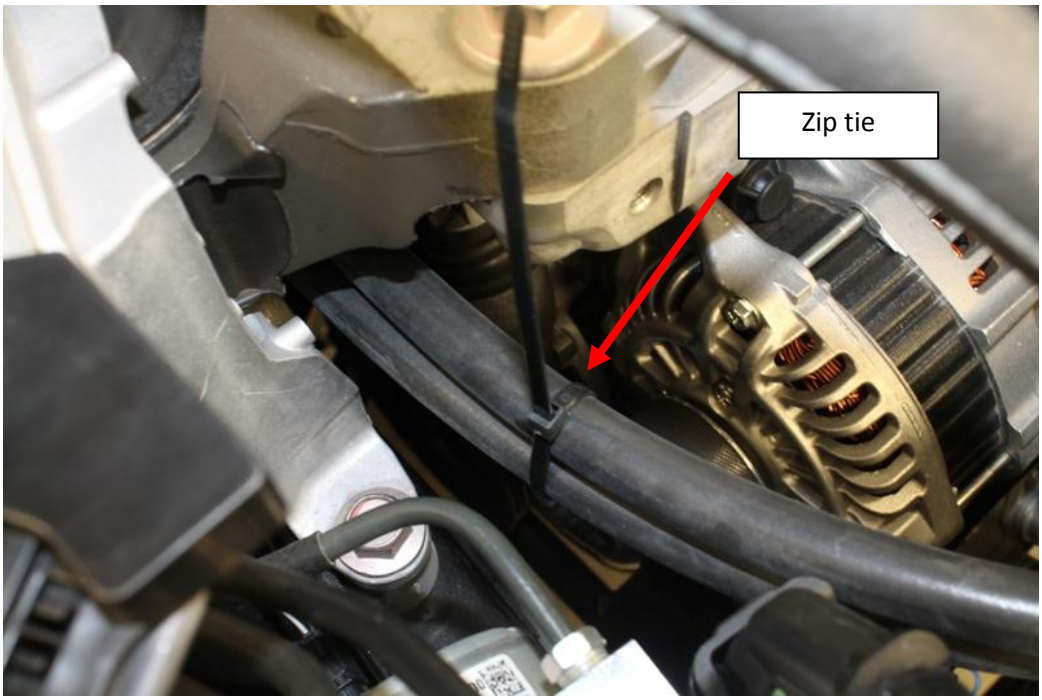
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27. Route the hose beneath the PCV hose along the same path as the other securing both hoses with zip ties along the way.

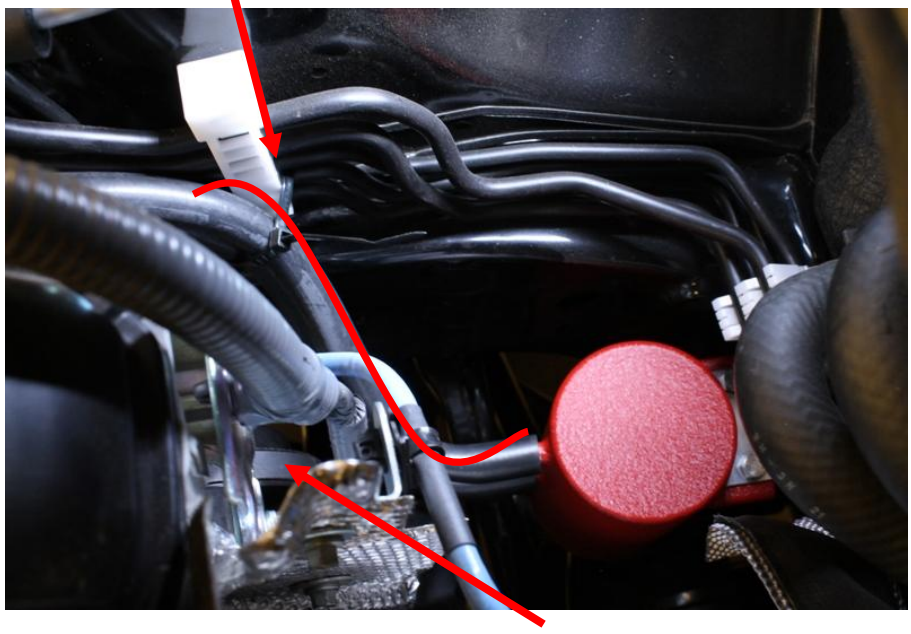


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28. Under the passenger side motor mount.



29. Cut the hose if necessary leaving enough to create a nice smooth flowing line to the catch can. Connect the hose from the intake manifold to the top port on the catch can. No hose clamp is required here. Secure both hoses to the white plastic keeper on the brake lines with a zip tie.
    - Putting the zip tie here will prevent it and the hoses from sliding forward on the brake lines.



30. Make sure <u>both hoses</u> are well clear of the air pump belt and pully.

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Congratulations!! You've now completed the installation of your new JBR Oil Catch Can Kit!!

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