

VERUS ENGINEERING

Air Oil Separator Kit – Shelby GT350/GT350R Install Manual



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Document Revisions

Rev	Date	Author	Description
01	2022/02/07	T. Lang	Initial release of install manual
02	2023/05/03	T. Lang	Updated hardware for new adapter fitting

AOS Kit for Shelby GT350/GT350R – Install Manual

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1. Introduction

1.1. Overview: Detailed instructions on installing the Verus Engineering AOS kit for the Shelby GT350/GT350R.

1.2. Difficulty: Moderate

1.3. Time Required: 2-4 hours

1.4. Tools Needed:

- 1.4.1. Ratchet
- 1.4.2. 4mm Allen Wrench or Socket
- 1.4.3. 8mm Socket
- 1.4.4. 10mm Socket
- 1.4.5. 19mm Deep Socket
- 1.4.6. 1" Socket
- 1.4.7. Side Cuts
- 1.4.8. Hose cutter
- 1.4.9. Tape Measure

**1.5. AOS Kit Components**

- 1.5.1. (1) AOS, Assembled with (4) Desiccant filters and stainless mesh
- 1.5.2. (1) AOS Bracket
- 1.5.3. (40) Inches 1/2" Rubber Hose
- 1.5.4. (55) Inches 5/8" Rubber Hose
- 1.5.5. Hardware Bag
 - 1.5.5.1. (3) M6x1.0 BHCS (Button Head Cap Screw) x 16mm Long, Stainless
 - 1.5.5.2. (2) M6x1.0 Serrated Flange Nut, Stainless
 - 1.5.5.3. (10) Zip Tie

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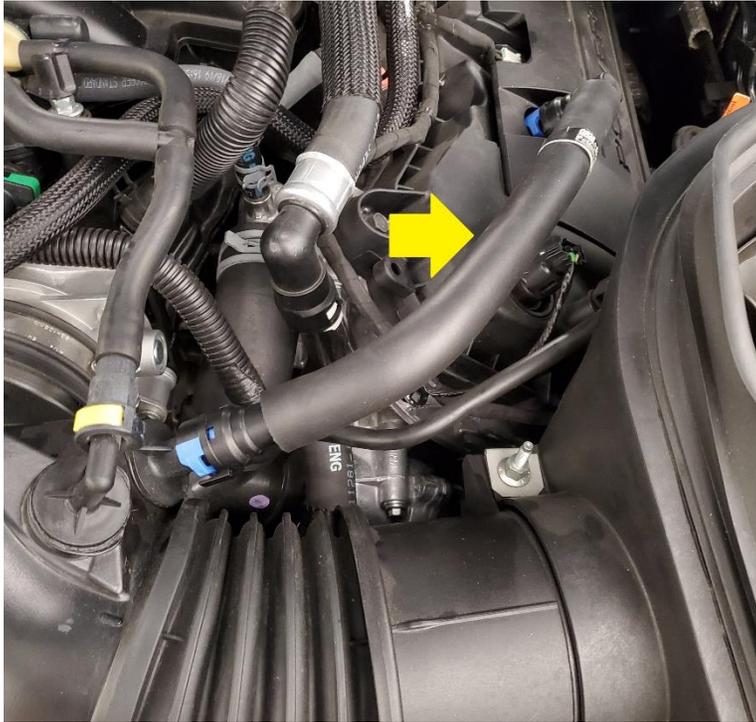
- 1.5.5.4. (2) 5/8" I.D. Loop Clamp
- 1.5.5.5. (2) 1" I.D. Loop Clamp
- 1.5.5.6. (2) 1/2" to 5/8" Nylon Reducer Fitting
- 1.5.5.7. (1) PCV Valve Male to 1/2" Barb Adapter Fitting
- 1.5.5.8. (1) PCV Valve Female to 1/2" Barb Adapter Fitting
- 1.5.5.9. (1) #114 Buna-N O-ring



2. Shelby GT350R AOS install

- 2.1. Verus Engineering is not responsible for damage to you or your vehicle by following this manual and/or installing Verus Engineering products.
- 2.2. Start by popping the hood.
- 2.3. Remove the driver side breather tube from the valve cover to the intake tube by pushing over on the "tang" on the blue fittings on each end.

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- 2.4. Remove the passenger side PCV tube from the valve cover and the Intake manifold nipple behind the throttle body by the same method as above.



- 2.5. Remove the PCV valve from the passenger side valve cover by turning it counter-clockwise.

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- 2.6. Replace the PCV valve in the valve cover with the supplied PCV valve male adapter fitting shown below. Make sure to install the supplied o-ring onto the adapter fitting.



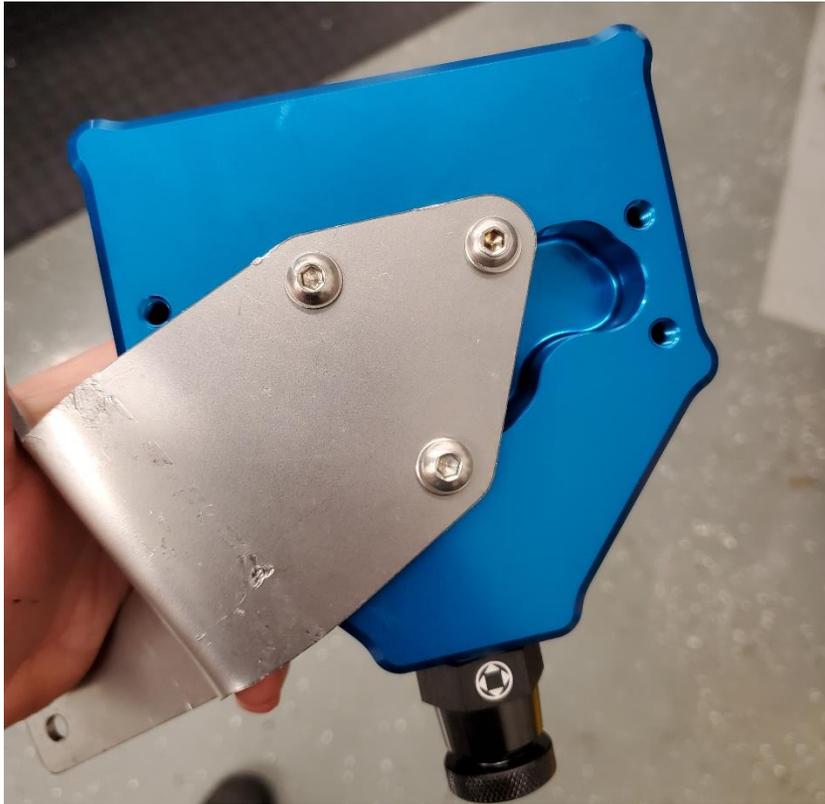
- 2.7. Install the OEM PCV Valve into the Female PCV Valve to 1/2" barb adapter fitting as shown below.



- 2.8. Bolt the AOS to the AOS bracket using three 16mm long BHCS, and torque them to 6 ft-lbs. Use the three middle holes on the back of the AOS as shown below.

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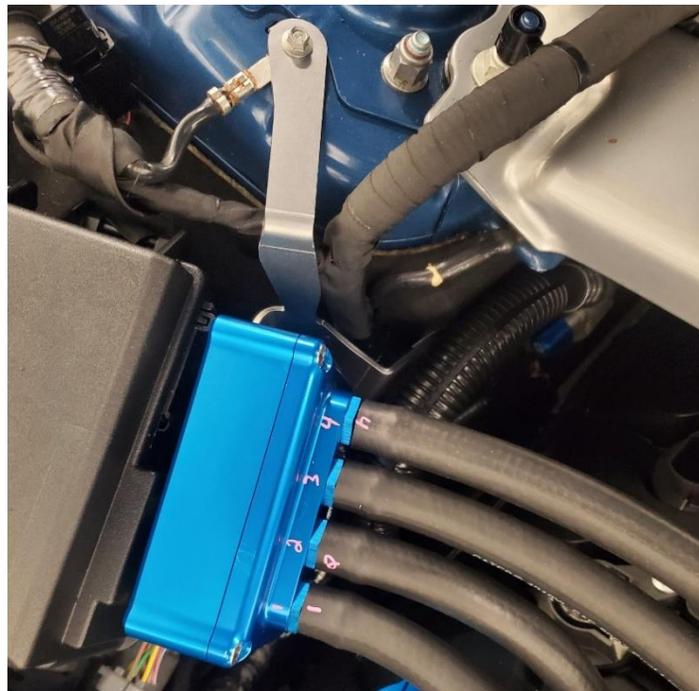


2.9. Remove the two 8mm head bolts shown below

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- 2.10.** Install the AOS and bracket assembly to the car using the OEM hardware torqued to 6 ft-lbs.



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- 2.11.** Next, we need to begin routing the hoses. Below is an overview of where the hoses go, and how they can be routed. As always, make sure you double check your measurements before cutting the hose. The measurements stated below are what worked on our vehicle, and you may find that a slightly different length works better for you.



- 2.12.** Cut 6.5 inches of 1/2" hose, and connect it to the PCV valve male adapter previously installed on the valve cover and also the AOS fitting shown below.



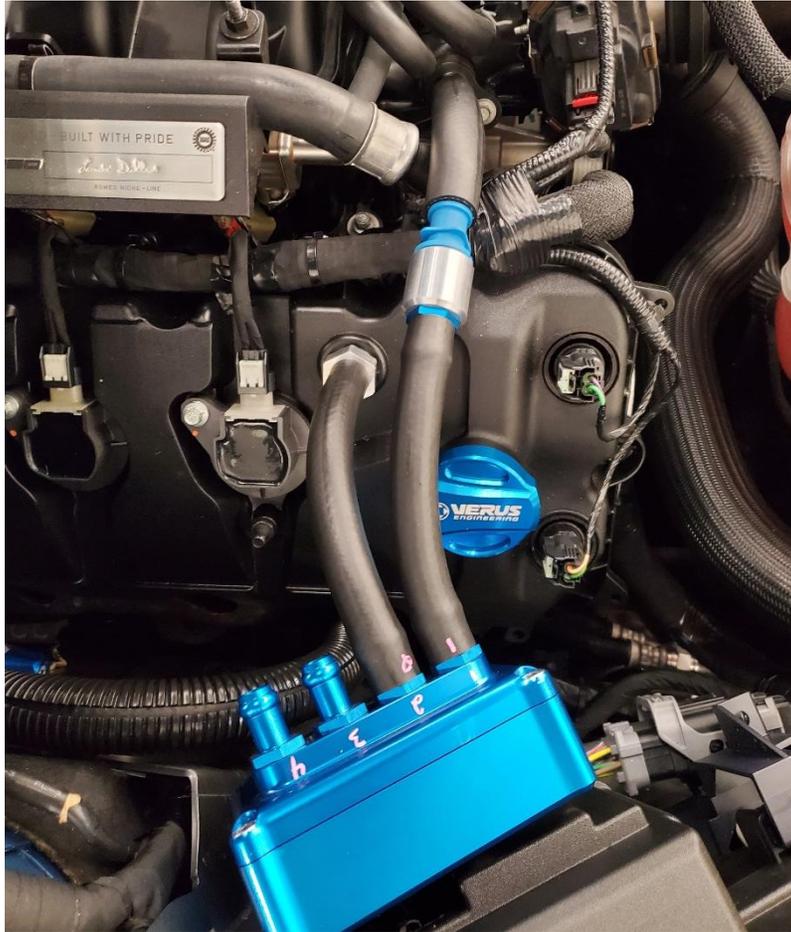
- 2.13.** Next, cut 5.25 inches of 1/2" hose, and connect it to the AOS fitting as shown below.

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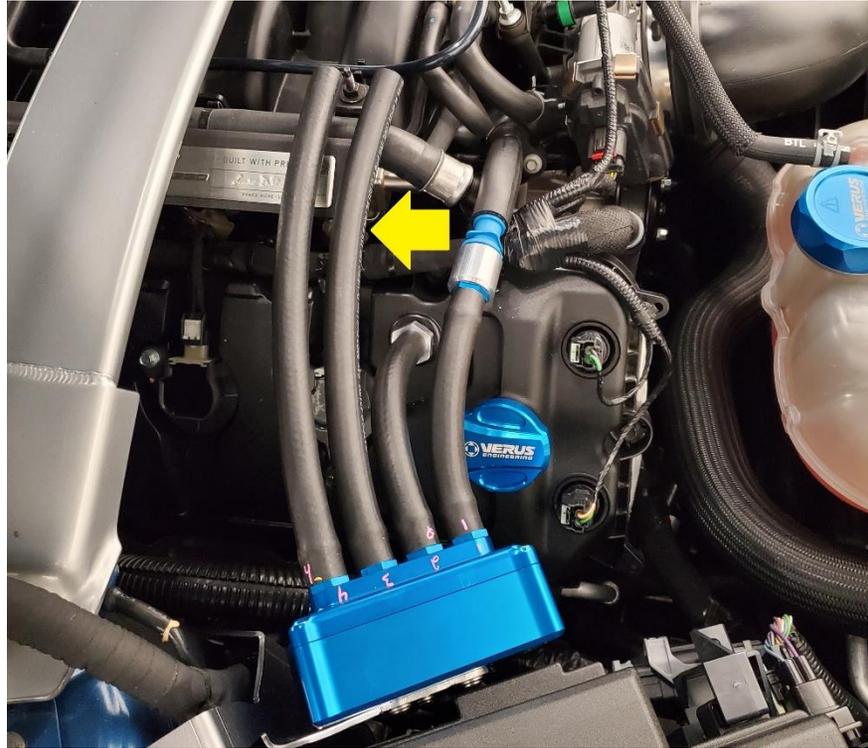
- 2.14.** Take the previously assembled PCV valve block, and connect the 1/2" barb to the hose just installed above in **2.13**.
- 2.15.** Cut 4.5 inches of 5/8" hose, and connect the PCV valve to the intake manifold.

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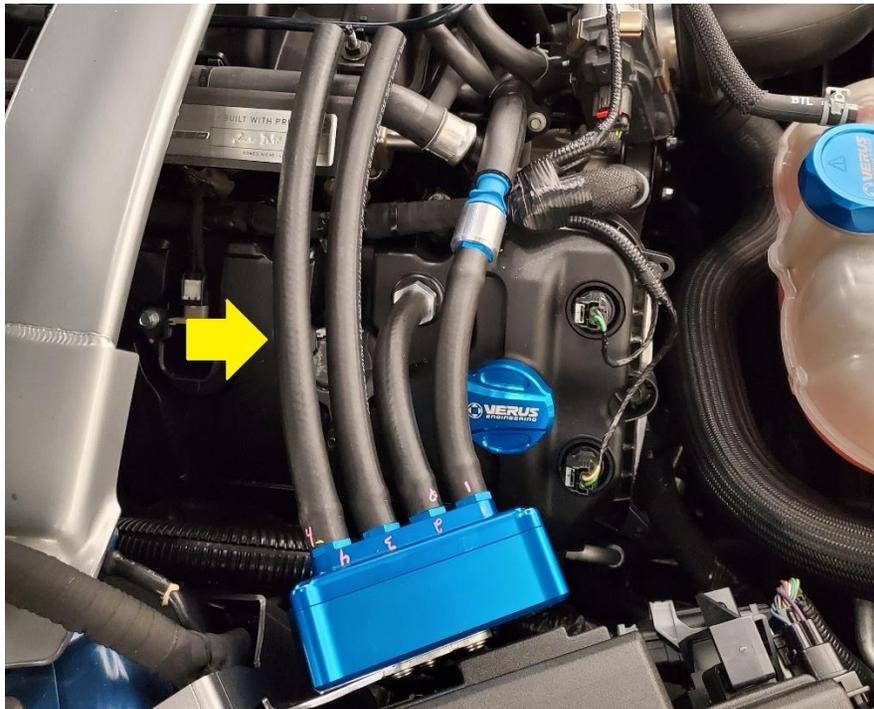


- 2.16. Cut 11.5 inches of 1/2" hose, and connect it to the AOS as shown.

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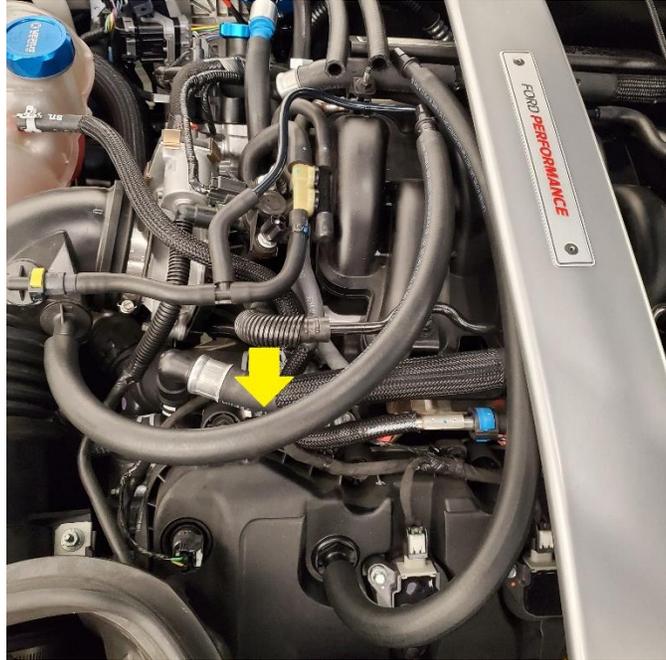
2.17. Cut 12 inches of 1/2" hose, and connect it to the AOS as shown.



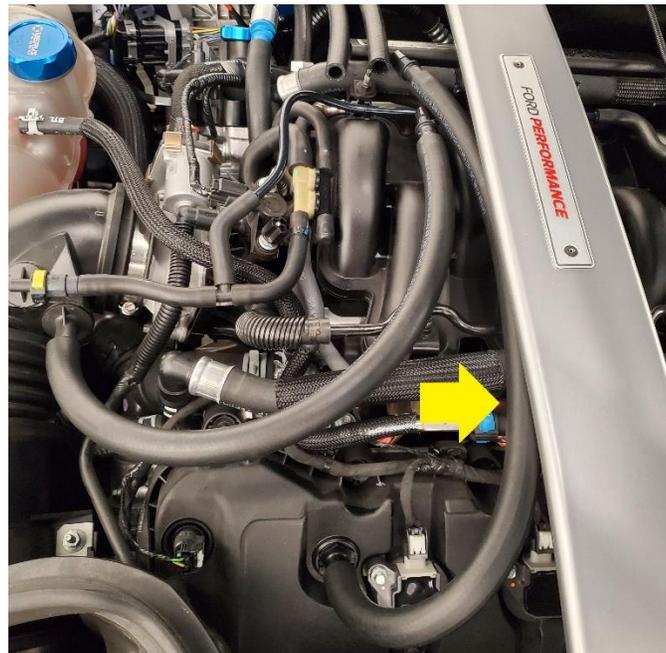
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- 2.18.** Cut 23.75 inches of 5/8" hose, and insert one of the provided 5/8" -> 1/2" nylon reducers into one end. Connect the other end to the intake tube as shown.



- 2.19.** Cut 21.25 inches of 5/8" hose, and insert one of the provided 5/8" -> 1/2" reducers into one end. Connect the other end to the driver side valve cover as shown.



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- 2.20.** Next grab two 5/8" loop clamps, and slide them over the nylon reducer fittings, and then slide the mounting tab over the passenger side manifold stud, and loosely install an M6 serrated flange nut.

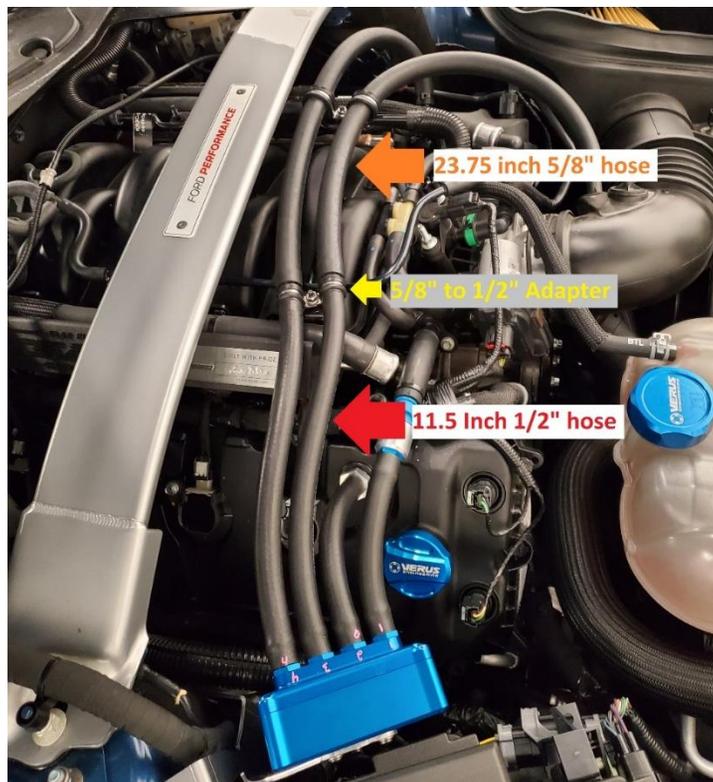


- 2.21.** Grab two 1" loop clamps, and slide them over the 5/8" hoses, and then slide the mounting tab over the driver side manifold stud, and loosely install an M6 serrated flange nut provided in the hardware kit. This step can be optional if you don't like the way it looks.

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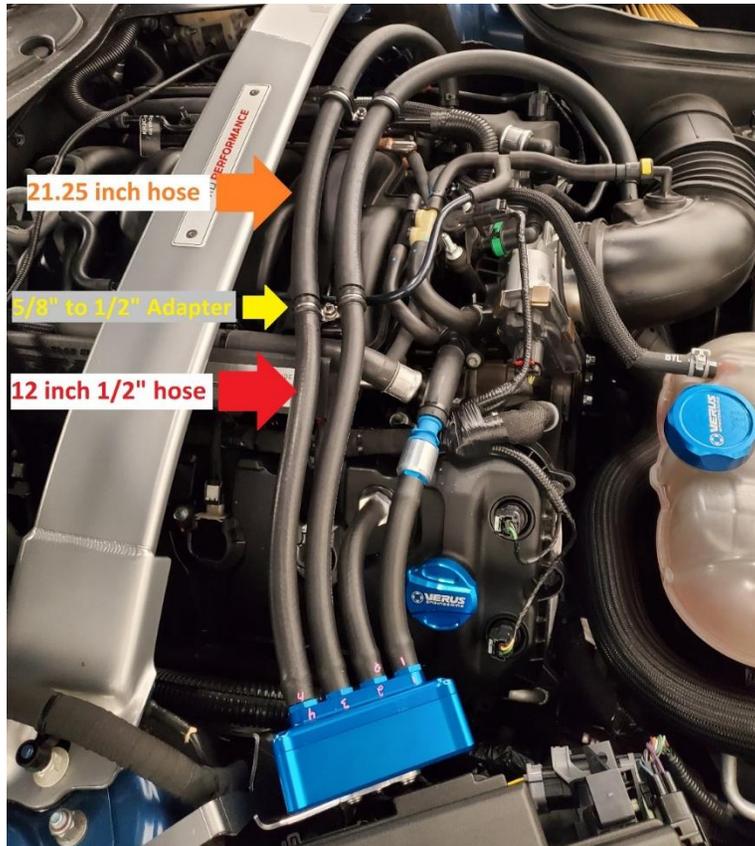
2.22. Connect the **11.5"** long 1/2" AOS hose to the **23.75"** long hose going to the intake tube from 2.18.



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- 2.23.** Connect the 12" long 1/2" AOS hose to the 21.25" long hose going to the driver side valve cover from **2.19**.



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- 2.24.** Tighten the M6 serrated flange nuts to 6 ft-lbs.
- 2.25.** Congratulations on installing the Verus Engineering Air Oil Separator Kit! We recommend emptying the AOS unit once a month. However, every car is different so be sure to adjust this to suit your needs.
- 2.26.** For any questions or comments, please send us and e-mail at sales@verus-engineering.com.



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