

IAG AIR / OIL SEPARATOR (AOS) FOR 2022+ WRX



Step 1/52

IAG-ENG-7183 IAG Air / Oil Separator (AOS) For 2022 WRX

Part# IAG-ENG-7183

Tools Required: Ratchet, extensions, needle nose pliers, hose clamp pliers, flat head screwdriver, snips

Sockets: 10mm, 12mm, 1/8" allen, 5mm allen, 27mm, 19mm

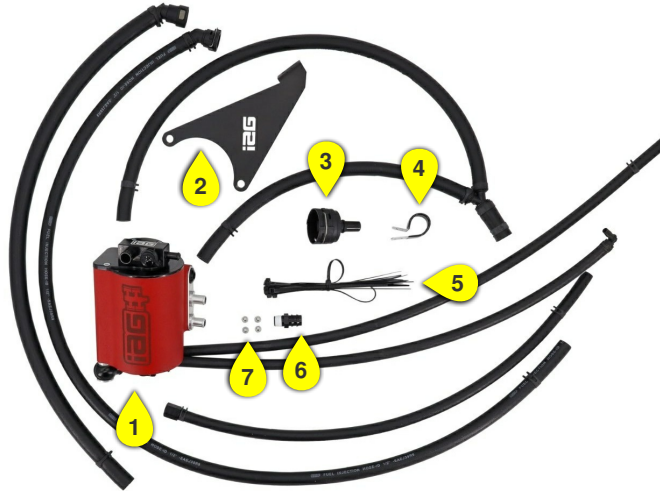
Other: Thread sealing tap

Congratulations on the purchase of your Air/Oil Separator (AOS) and thank you for choosing IAG Performance. This installation manual is intended to guide you through the modification of the factory PCV system and the installation of the IAG AOS. If you already have an aftermarket catch can or AOS installed, please consult the specific instructions for your hardware to aid in its removal. PLEASE ENSURE THE VEHICLE IS COMPLETELY COOL BEFORE STARTING THE INSTALLATION.

Step 2/52

Numbered annotations (7)

- 1 AOS Can Assembly w/ Pre-Installed Coolant Lines
- 2 AOS Mounting Bracket
- 3 Turbo Inlet PCV Fitting
- 4 P-Clamp
- 5 11x Zip Ties
- 6 3/8" NPT x 5/8" Hose Barb Fitting
- 7 4x M6x1.00x12mm Socket Head Cap Screw



Step 3/52

Numbered annotations (4)

- 1 32" x 5/8" x 45 deg quick connect fitting
- 2 17" x 30" x 2" x 1/2" Y-Hose
- 3 54" x 1/2" x 45 deg quick connect fitting
- 4 26" x 3/8" x 5/8" Female Threaded Fitting

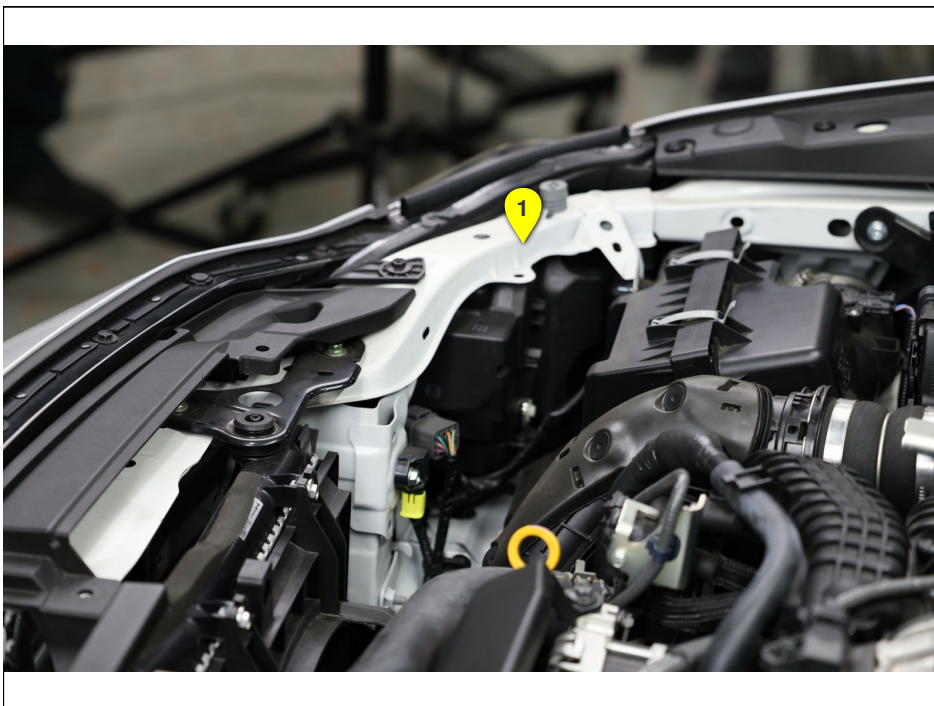




Step 4/52

Numbered annotations (1)

- 1 Remove the clips on the air snorkel.



Step 5/52

Numbered annotations (1)

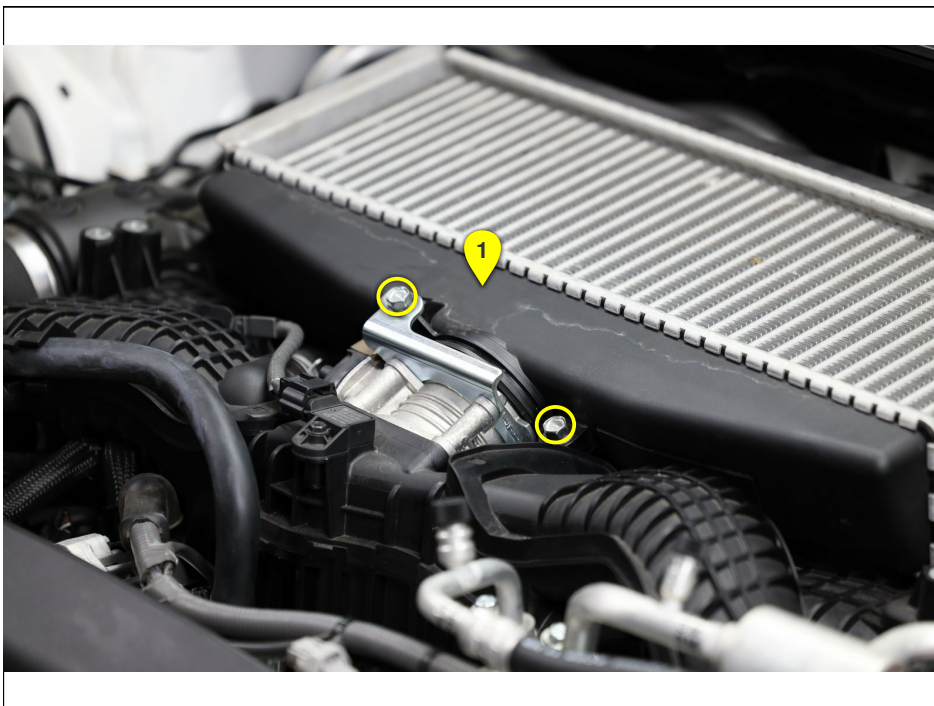
- 1 Remove air snorkel from vehicle.



Step 6/52

Numbered annotations (1)

- 1 Remove the 7 circled bolts securing the intercooler using a 12mm socket. Remove both driver and passenger side brackets and set them aside.



Step 7/52

Numbered annotations (1)

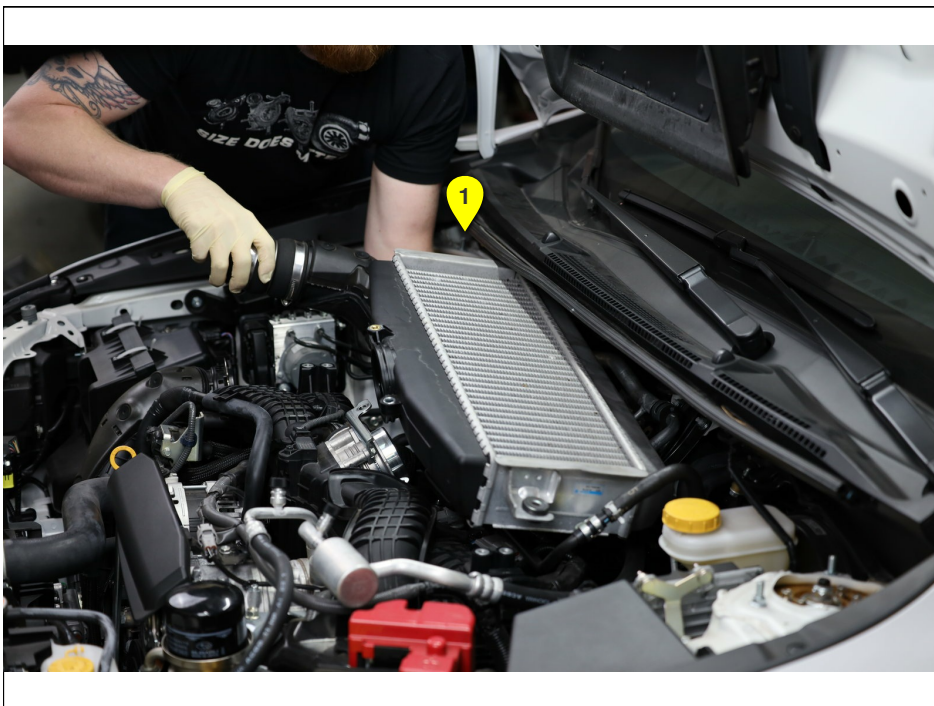
- 1 Remove the 2 throttle body bolts using a 12mm socket.



Step 8/52

Numbered annotations (1)

- 1 Release charge pipe spring lock using small flat head screw driver or pry tool.



Step 9/52

Numbered annotations (1)

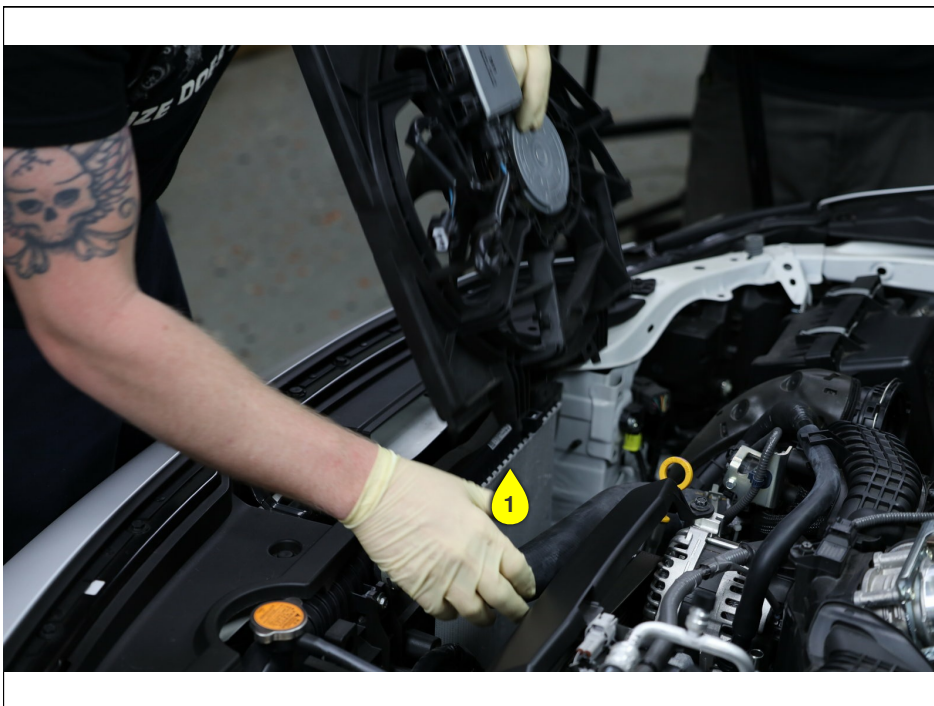
- 1 Remove the intercooler from the vehicle.



Step 10/52

Numbered annotations (1)

- 1 Unclip the three fan harnesses. Remove the 2 bolts securing the fan using a 10mm socket.



Step 11/52

Numbered annotations (1)

- 1 Carefully remove fan from vehicle.

Step 12/52

Numbered annotations (1)

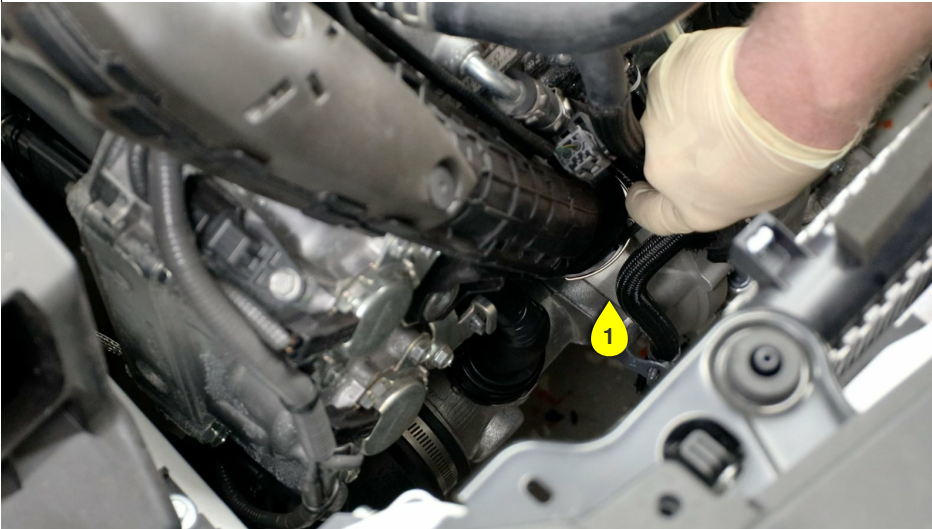
- 1 Remove charge pipe bolt using 12mm socket.



Step 13/52

Numbered annotations (1)

- 1 Remove charge pipe spring lock using small flat head screw driver or pry tool.



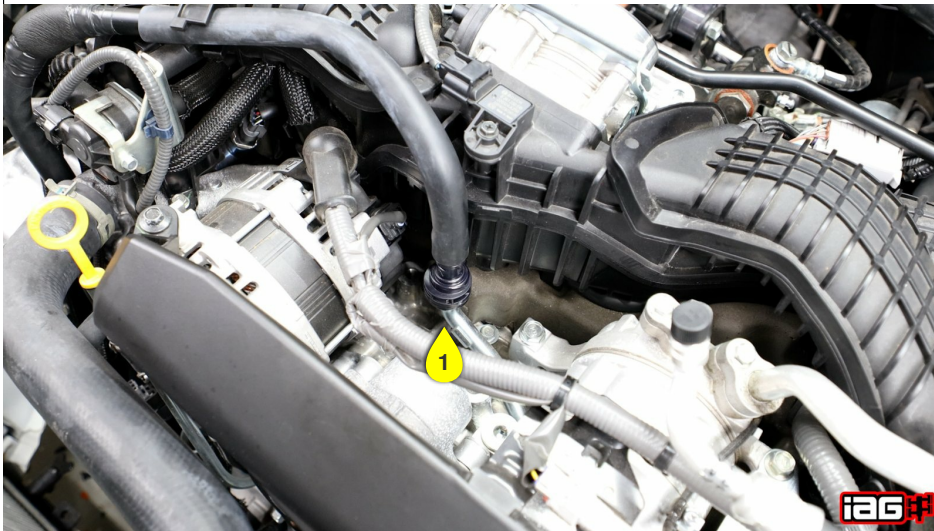
Step 14/52



Numbered annotations (1)

- 1 Remove charge pipe from inlet and vehicle.

Step 15/52

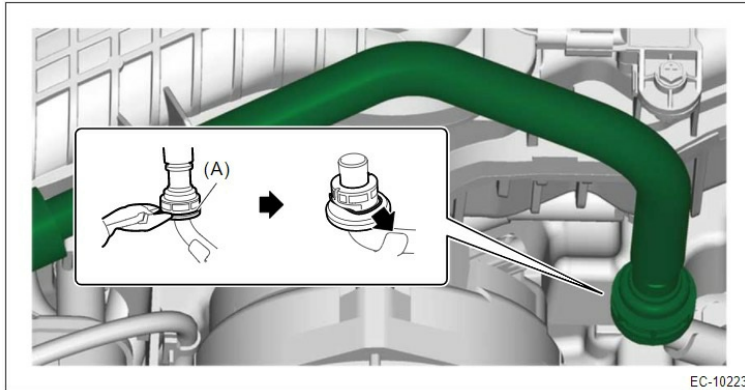


Numbered annotations (1)

- 1 Cut and remove the one-time use quick connect fitting in front of the intake manifold following the factory procedure in the following step.

Step 16/52**7.** Remove the PCV pipe assembly.

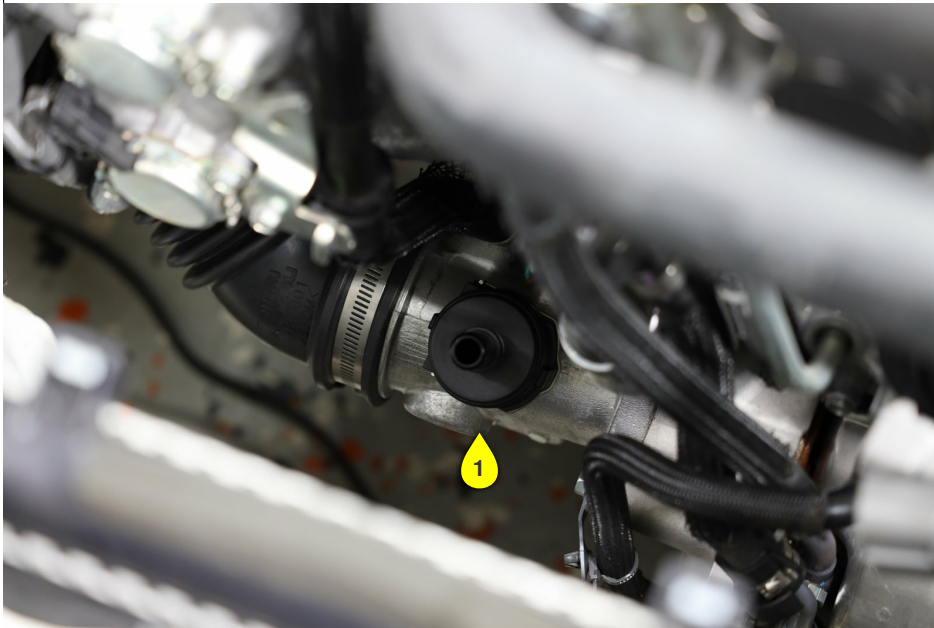
- (1) Using a pair of nippers, make a slit at the PCV pipe welded section (A) and separate into each part.
- (2) Release the spring lock in the arrow direction, and remove the rest of the PCV pipe assembly.

**Step 17/52**

Numbered annotations (1)

- 1** Release the spring lock on the PCV line at the turbo inlet and remove PCV line from vehicle.

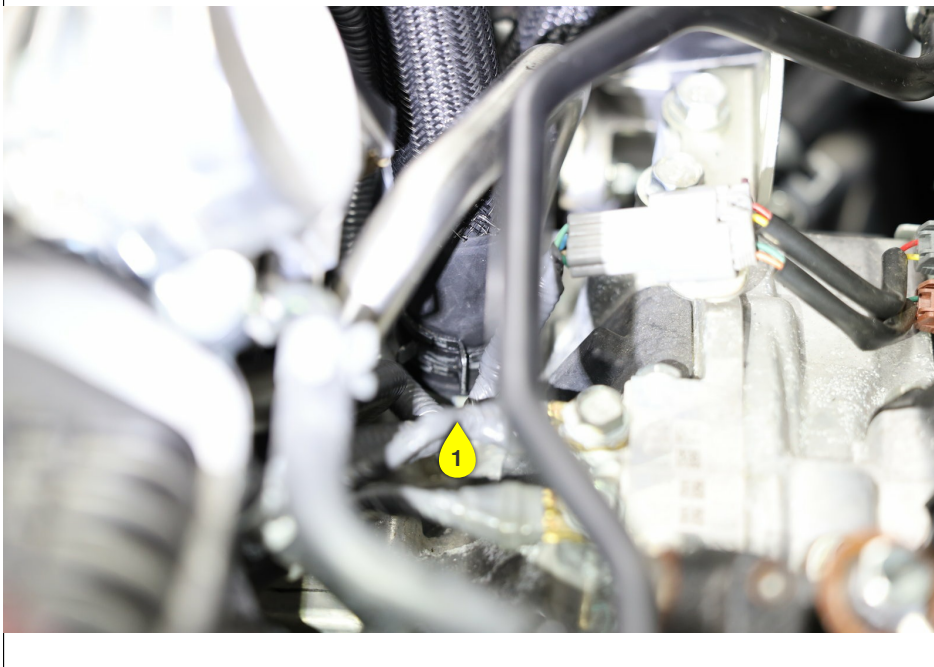




Step 18/52

Numbered annotations (1)

- 1 Install the included new PCV fitting onto the turbo inlet. Push firmly until it locks into place.



Step 19/52

Numbered annotations (1)

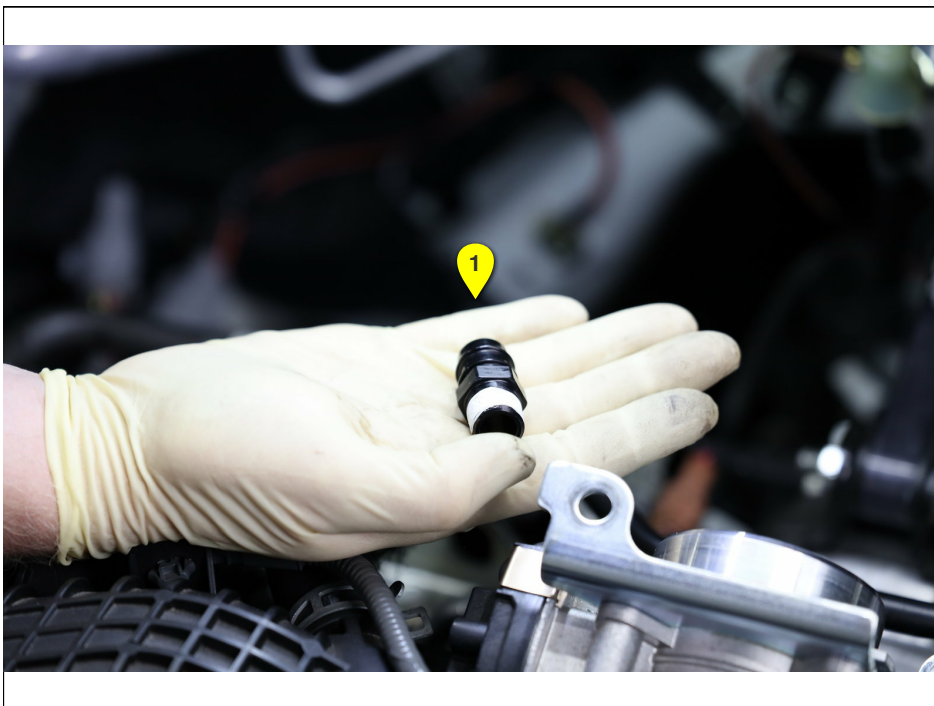
- 1 Remove the PCV line from the block on the backside of the intake manifold using a pair of long needle nose pliers.



Step 20/52

Numbered annotations (1)

- 1 Remove the factory PCV fitting from the block using a 27mm socket. Set aside as this will be reused in later steps.



Step 21/52

Numbered annotations (1)

- 1 Install the included new PCV fitting into the port from the previous step using a 19mm socket.

Step 22/52



Numbered annotations (1)

- 1 Install the AOS mounting bracket using 4x of the included M6x1.00x12mm Socket Head Cap Screws as shown. Three holes should be exposed below the bracket and one hole should be exposed above.

Step 23/52



Numbered annotations (1)

- 1 Remove the two inner strut mounting nuts on the passenger side strut tower.



Step 24/52

Numbered annotations (1)

- 1 Install the AOS onto the strut studs and reinstall the strut mounting nuts. Tighten to strut manufacturer recommendation.



Step 25/52

Numbered annotations (1)

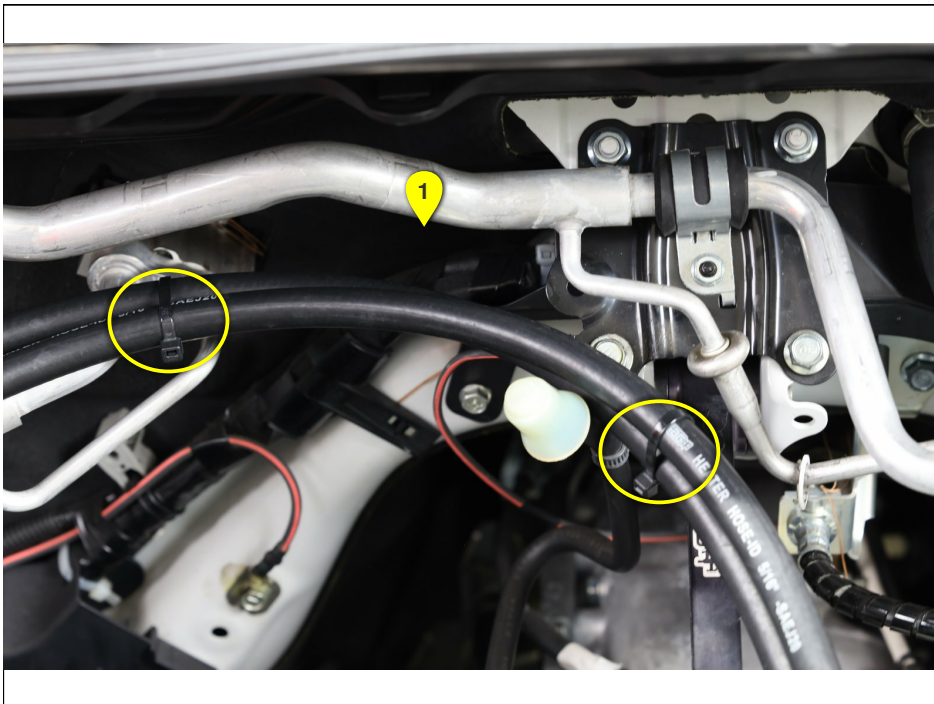
- 1 Remove the coolant line from the throttle body using hose clamp pliers.



Step 26/52

Numbered annotations (1)

- 1 Install the coolant line from the AOS with the 90 deg fitting to the previously removed line. Install the other coolant line directly to the port on the throttle body. Secure both lines using the clamps.



Step 27/52

Numbered annotations (1)

- 1 Install 2x zip ties around the coolant lines and trim excess once secured.



Step 28/52

Numbered annotations (1)

- 1 Install the included PCV/drain line to the previously installed PCV fitting on the block in the orientation shown and secure with included hose clamp.

NOTE

The short end of this "Y" hose should face toward the firewall.



Step 29/52

Numbered annotations (1)

- 1 Install the shorter end of the previously installed PCV/drain line to the drain port on the body of the AOS can and secure with included hose clamp.

Step 30/52

Numbered annotations (1)

- 1 Install the longer end of the previously installed PCV/drain hose to the bottom port on the side of the AOS can and secure with included hose clamp.

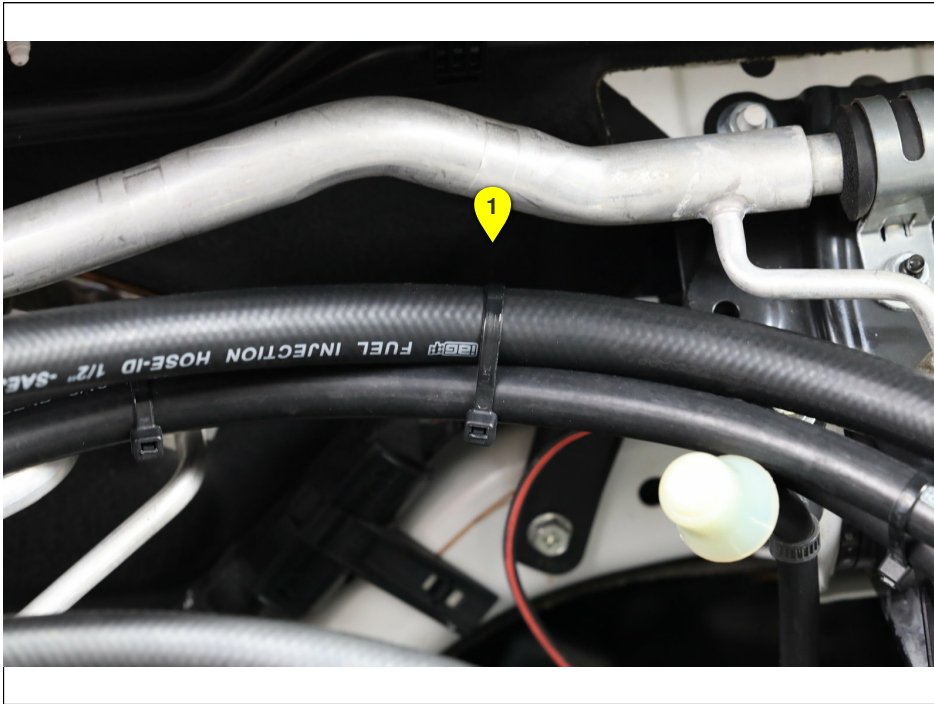


Step 31/52

Numbered annotations (1)

- 1 Install zipties on longer PCV/drain line as shown.

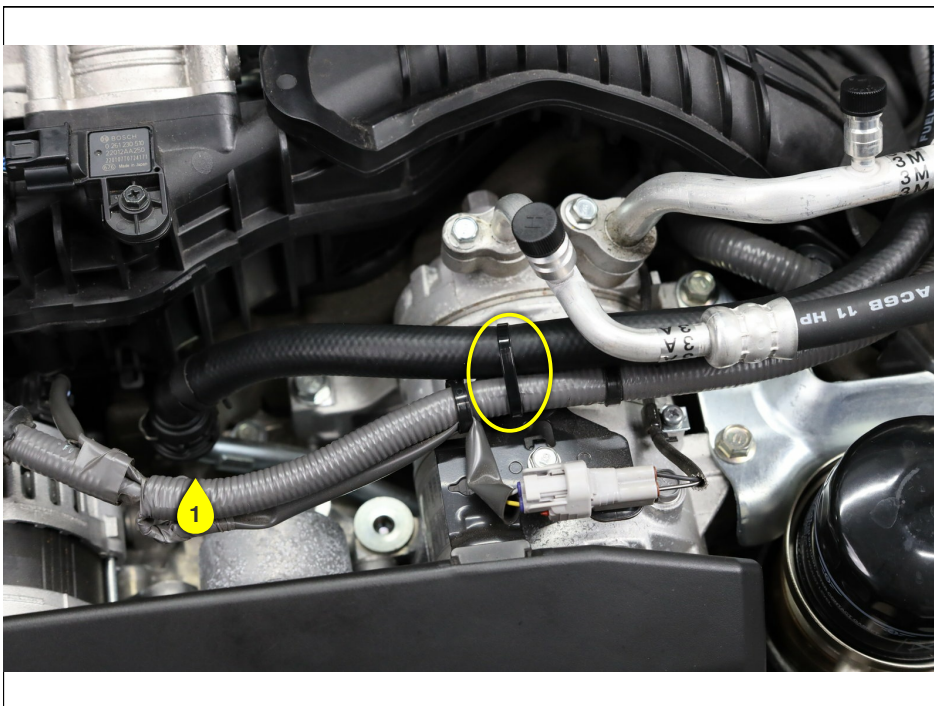




Step 32/52

Numbered annotations (1)

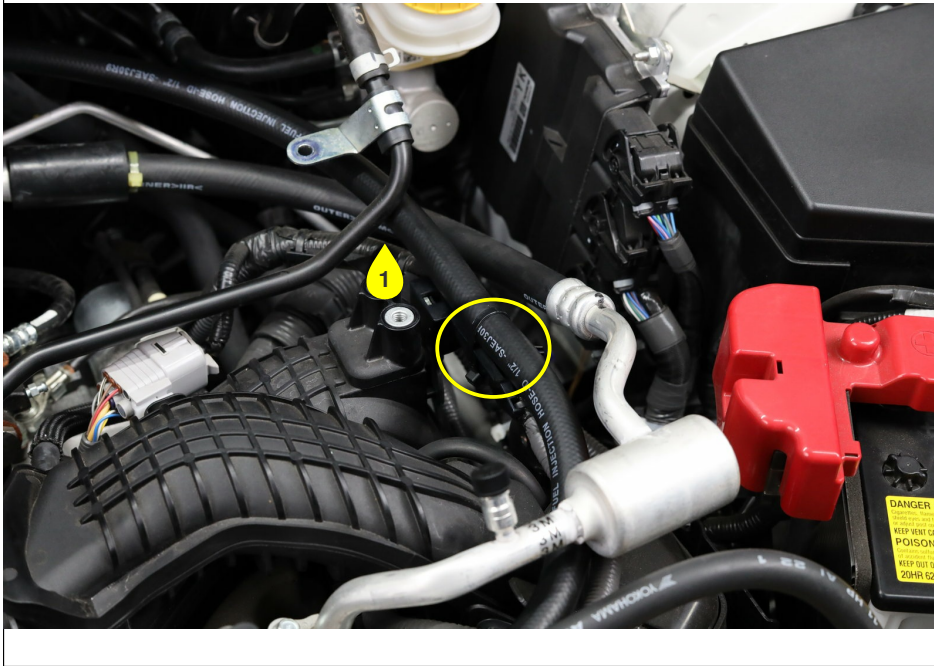
- 1 Install zipties on longer PCV/drain line as shown.



Step 33/52

Numbered annotations (1)

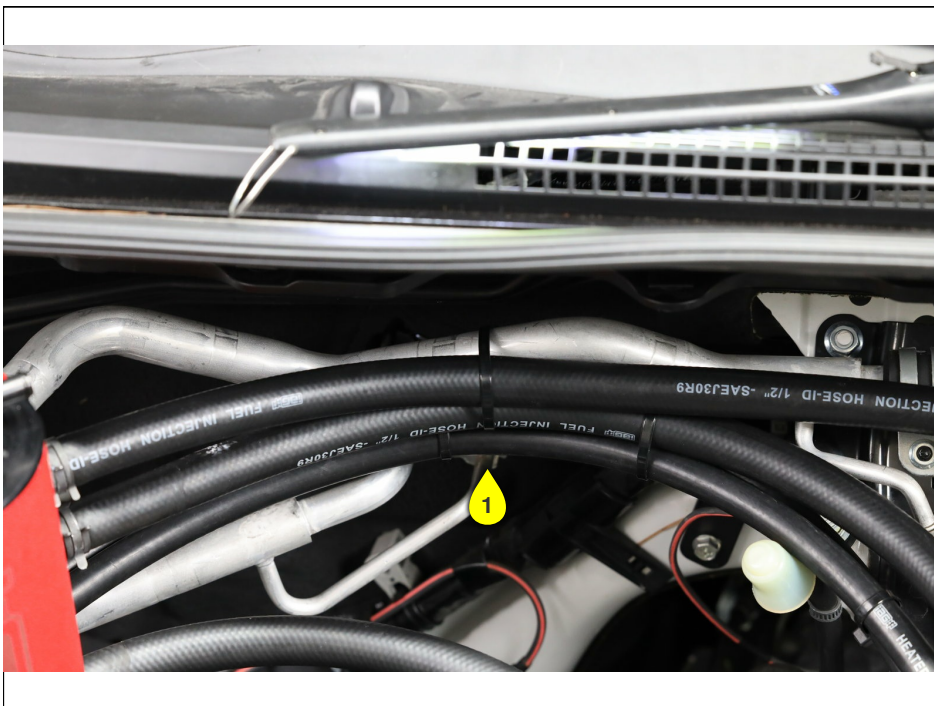
- 1 Install included 32" x 5/8" x 45 deg quick connect PCV line to fitting in front of intake manifold. Push firmly until quick connect fitting is seated. Route line under A/C hard line and secure with ziptie as shown.



Step 34/52

Numbered annotations (1)

- 1 Route line under brake booster hardline and secure with ziptie as shown.



Step 35/52

Numbered annotations (1)

- 1 Secure line with ziptie as shown.

Step 36/52



Numbered annotations (1)

- 1 Apply thread sealing tape to the OEM PCV valve that was previously removed.

Step 37/52



Numbered annotations (1)

- 1 Install OEM PCV valve onto 26" x 3/8" x 5/8" female threaded line and tighten using two wrenches.

Step 38/52



Numbered annotations (1)

- 1 Install the PCV fitting back into the OEM line it was removed from and secure with hose clamp.

Step 39/52



Numbered annotations (1)

- 1 Route line under brake booster hard line.

Step 40/52



Numbered annotations (1)

- 1 Secure hose with ziptie around hardline bracket as shown.

Step 41/52



Numbered annotations (1)

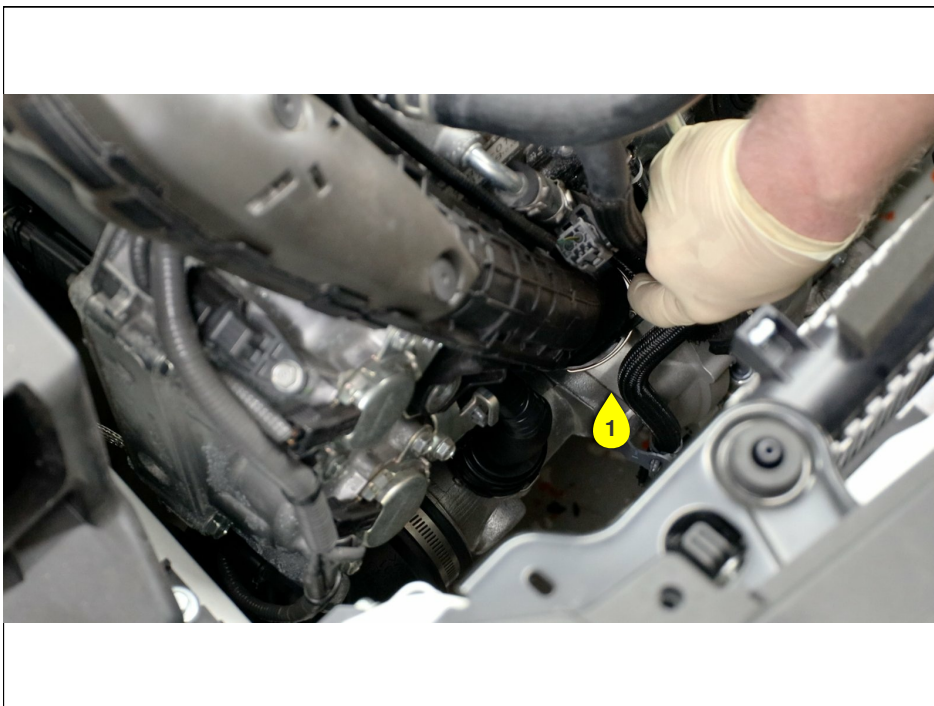
- 1 Install line to top side port on AOS assembly and secure with hose clamp.



Step 42/52

Numbered annotations (1)

- 1 Install included 5/8" x 1/2" x 45 deg quick connect line to previously installed PCV fitting on the turbo inlet. Push firmly until seated.



Step 43/52

Numbered annotations (1)

- 1 Reinstall charge pipe and ensure spring clamp is seated.

Step 44/52



Numbered annotations (1)

- 1 Reinstall charge pipe bolt using 12mm socket.

Step 45/52



Numbered annotations (1)

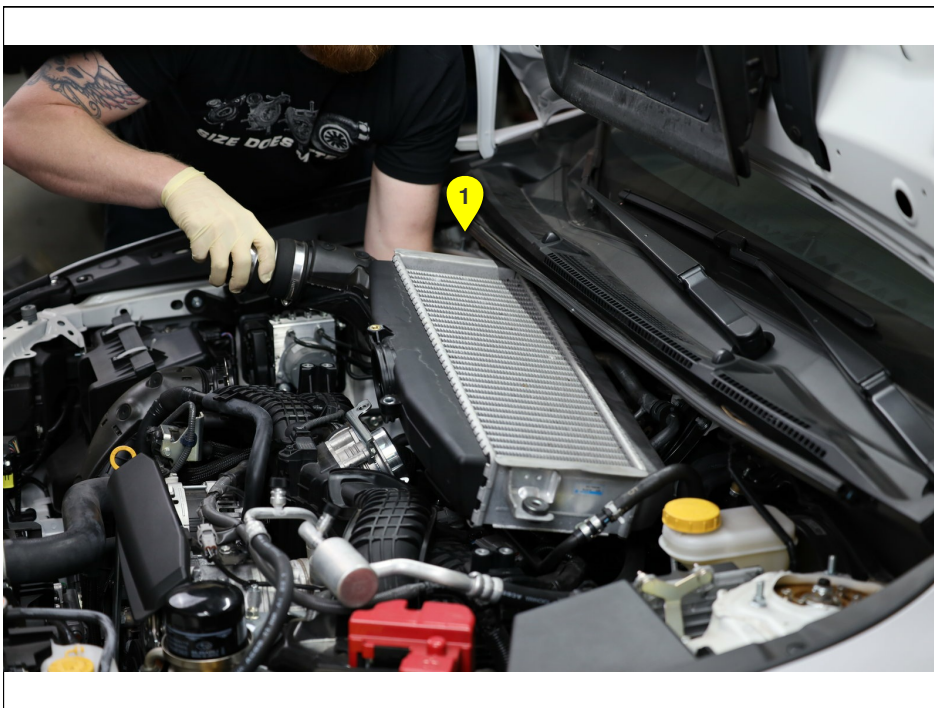
- 1 Carefully reinstall the fan.



Step 46/52

Numbered annotations (1)

- 1 Reinstall the 2 bolts securing the fan using a 10mm socket. Reinstall the 3x fan harnesses.



Step 47/52

Numbered annotations (1)

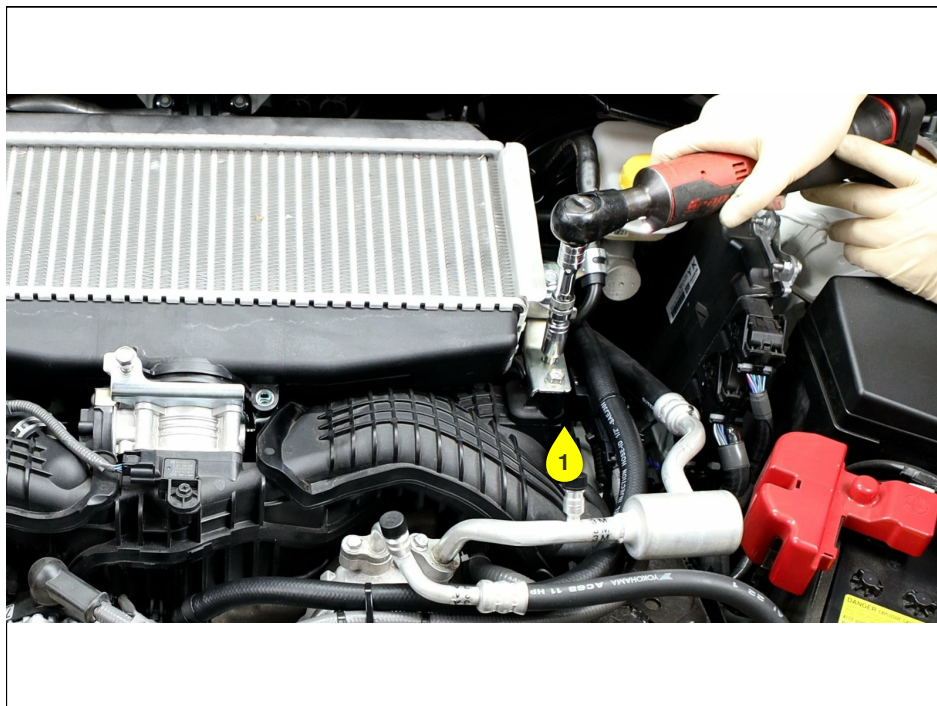
- 1 Reinstall the intercooler.



Step 48/52

Numbered annotations (1)

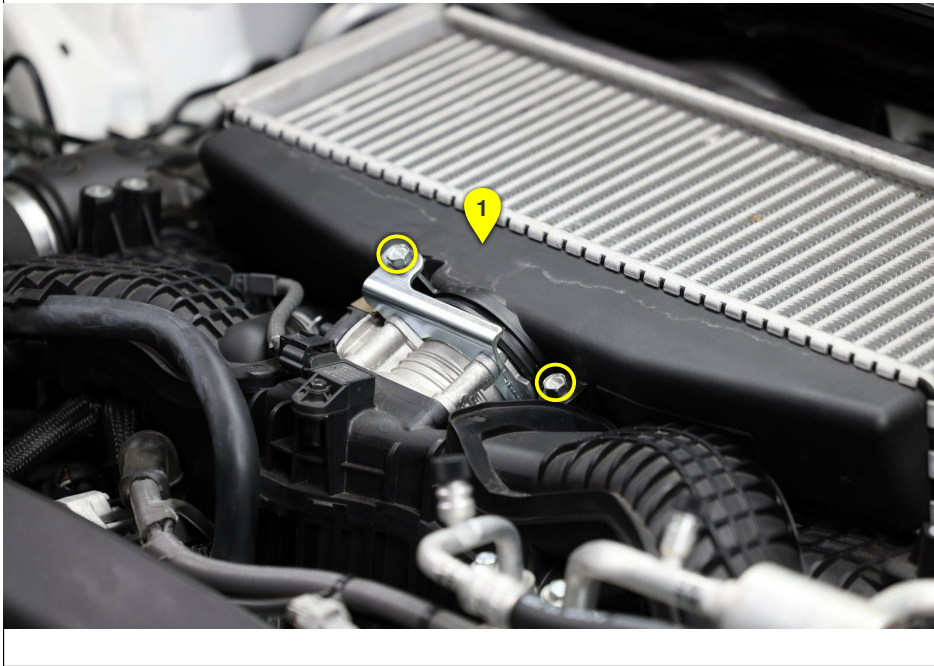
- 1 Install line from turbo inlet on to top port of AOS and secure using hose clamp. Reinstall passenger side intercooler bracket using factory hardware. Install "P" clamp onto line under front intercooler bracket bolt as shown.



Step 49/52

Numbered annotations (1)

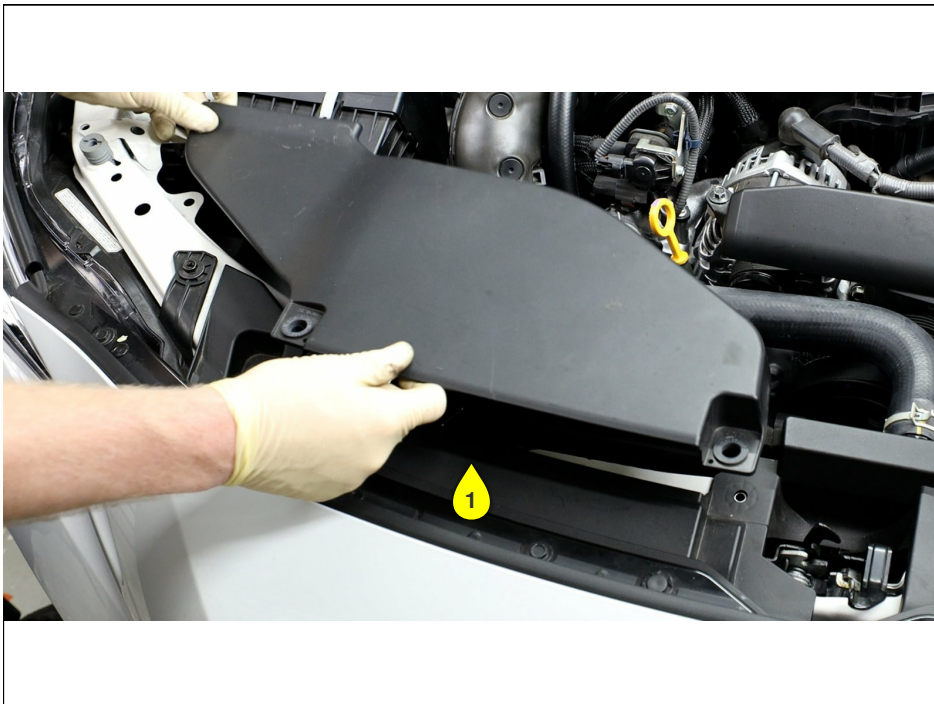
- 1 Reinstall driver side intercooler bracket using 4x factory bolts removed previously.



Step 50/52

Numbered annotations (1)

- 1 Reinstall the 2 throttle body bolts using a 12mm socket.



Step 51/52

Numbered annotations (1)

- 1 Reinstall intake snorkel using factory clips.

Step 52/52

Numbered annotations (1)

- 1 Start the car and check for leaks. While car is running unscrew bleeder slightly until coolant drips out. Tighten once coolant starts to flow.

Installation is complete.

