

Audi B9 A4 2.0T Catch Can System Installation













INTRODUCTION

ECS Tuning Audi B9 A4 2.0T Catch Can System

Our ECS Tuning 2.0T Oil Catch Can System offers the following features:

- Constructed of strong and lightweight 6061-T6 billet aluminum
- Black anodized for corrosion resistance
- · In-house designed and engineered
- · All mounting hardware included
- Easy installation
- Includes preassembled nylon braided feed and return lines with AN fittings
- Includes a dipstick to check content level
- Fully serviceable and completely reversible

ECS Difficulty Gauge



2 - Moderate

Advanced - 3

Excess oil coating the inside of the intake from the crank vent system on your B9 A4 2.0T will lead to excessive deposits and carbon build up on the back of the intake valves, resulting in power loss and poor driveability. Stop the problem from developing and prevent expensive repairs by installing our ECS Tuning Catch Can. Fully serviceable and easy to clean, our new catch can separates and stores the excess oil as it travels through the crank vent system. Thank you for purchasing our ECS Tuning Catch Can System, we appreciate your business!

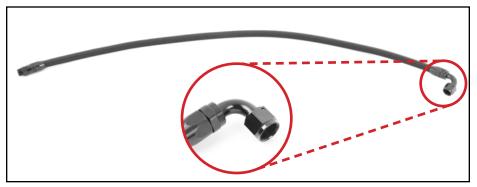


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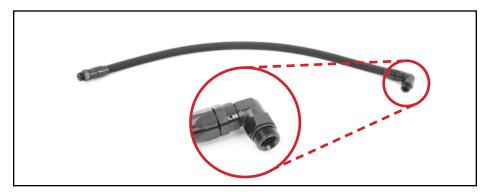
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KIT CONTENTS



Feed Hose (QTY 1)



Return Hose (QTY 1)



8oz Baffled Catch Can (QTY 1)



Catch Can Bracket (QTY 1)



Aluminized Line Sleeve (QTY 1)



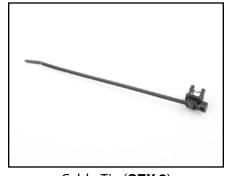
-10AN Hose Separator (QTY 1)



Turbo PCV Adapter (QTY 1)



Rear PCV Adapter (QTY 1)



Cable Tie (QTY 2)



Screw Mount Cable Clip (QTY 1)



REQUIRED TOOLS

Note: The tools required for each step will be listed by the step number throughout these instructions.

Standard Automotive Tools

Required For This Install

Available On Our Website

Protecta-Sockets (for lug nuts) <u>ES#2221243</u>	• 1/4" Drive Ratchet
• 3/8" Drive Ratchet <u>ES#2765902</u>	• ¼" Drive Deep and Shallow Sockets ES#2823235
• 3/8" Drive Torque Wrench	• ¼" Drive Extensions ES#2823235
• 3/8" Drive Deep and Shallow Sockets ES#2763772	Plier and Cutter Set ES#2804496
• 3/8" Drive Extensions <u>ES#2804822</u>	• Flat and Phillips Screwdrivers ES#2225921
Hydraulic Floor Jack <u>ES#240941</u>	• Jack Stands <u>ES#2763355</u>
• Torx Drivers and Sockets ES#11417/8	Ball Pein Hammers
• ½" Drive Deep and Shallow Sockets <u>ES#2839106</u>	• Pry Bar Set <u>ES#1899378</u>
• ½" Drive Ratchet	• Electric/Cordless Drill
• ½" Drive Extensions	Wire Strippers/Crimpers
• ½" Drive Torque Wrench <u>ES#2221244</u>	• Drill Bits
• ½" Drive Breaker Bar <u>ES#2776653</u>	 Punch and Chisel Set
Bench Mounted Vise	Hex Bit (Allen) Wrenches and Sockets ES#11420
Crows Foot Wrenches	• Thread Repair Tools <u>ES#1306824</u>
Hook and Pick Tool Set	Open/Boxed End Wrench Set <u>ES#2765907</u>

Specialty Tools

AN Wrench or Crescent Wrench



SHOP SUPPLIES AND MATERIALS

Standard Shop Supply Recommendations: We recommend that you have a standard inventory of automotive shop supplies before beginning this or any automotive repair procedure. The following list outlines the basic shop supplies that we like to keep on hand. Shop supplies with a hyperlink are available on our website.

- Hand Cleaner/Degreaser Click Here
- Pig Mats for protecting your garage floor and work area from spills and stains Click Here
- Spray detailer for rapid cleaning of anything that comes into contact with your paint such as brake fluid Click Here
- Micro Fiber Towels for cleaning the paint on your car Click Here
- Latex Gloves for the extra oily and dirty jobs <u>Click Here</u>
- Medium and High Strength Loctite Thread lock compound to prevent bolts from backing out Click Here
- Anti-Seize Compound to prevent seizing, galling, and corrosion of fasteners Click Here
- Aerosol Brake/Parts Cleaner for cleaning and degreasing parts
- Shop Rags used for wiping hands, tools, and parts
- Penetrating oil for helping to free rusted or stuck bolts and nuts
- Mechanics wire for securing components out of the way
- Silicone spray lube for rubber components such as exhaust hangers
- Paint Marker for marking installation positions or bolts during a torquing sequence
- Plastic Wire Ties/Zip Ties for routing and securing wiring harnesses or vacuum hoses
- Electrical tape for wrapping wiring harnesses or temporary securing of small components



INSTALLATION NOTES

- **RH** refers to the *passenger side* of the vehicle.
- **LH** refers to the *driver side* of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process **BEFORE** you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

ECS Tuning cares about your health and safety. Please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- ALWAYS wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- If using an automotive lift, be sure and utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- When lifting a vehicle using a jack, always utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear. **ALWAYS** support the vehicle with jack stands.
- Always read and follow all safety information and warnings for the equipment you are using.



NEVER get underneath a vehicle that is supported only by a jack, and ALWAYS make sure that the vehicle is securely supported on jack stands.



PROJECT OVERVIEW

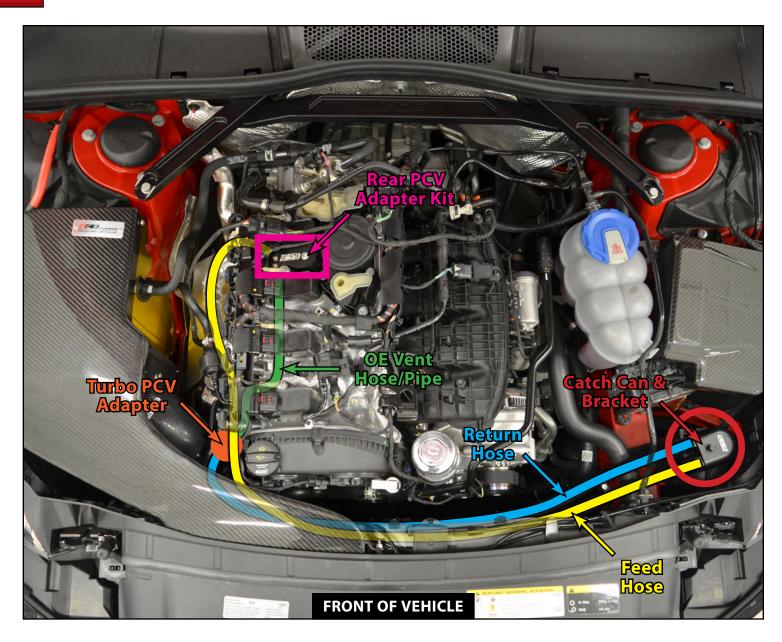
Let's take a moment and look at the Catch Can System and how it will be installed.

First, we need to install the Catch Can and the Catch Can Bracket onto the factory mounting studs which are located in the LF corner of the engine compartment.

Next, we need to remove the **OE Vent Hose/Pipe** from the system, then we can install the **Rear PCV Adapter Kit** into the rear PCV assembly.

After that we need to install the **Turbo PCV Adapter**, then we'll route the **Feed** and **Return** hoses into place, completing the entire system.

Now, let's get to it!





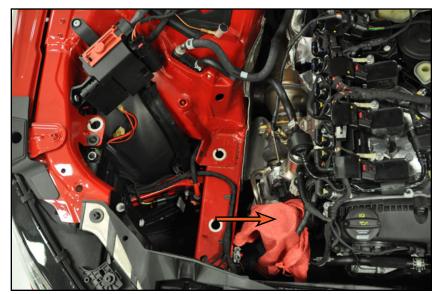
Step 1:

Remove the engine cover by pulling up at the four corners.



Step 2:

Remove the air box from the vehicle and place a rag over the turbo inlet to prevent anything from falling into it. If you need more detail on this step, please reference the installation instructions on ES#3176165.





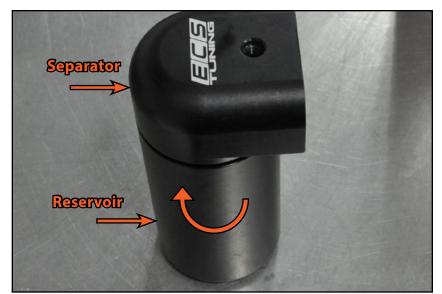
Step 3:

Unthread and remove the dipstick from the catch can.



Step 4:

Unthread and remove the catch can reservoir from the separator.





Step 5:

First, lubricate the o-ring seal on the separator with clean engine oil, then push the separator downward into the catch can bracket gently so as not to snag the seal.



Step 6:

Thread the reservoir onto the separator but do not completely tighten it at this time.





Step 7:

Lubricate the catch can dipstick seal with clean engine oil, then install it into the catch can.



Step 8: 10mm Socket & Ratchet

Mount the bracket into place on the factory mounting studs located in the LH corner of the engine compartment, then install the nuts onto the studs and torque them to 10 Nm (7 Ft-lbs).





Step 9:

10mm Socket & Ratchet

Remove the negative (-) battery terminal.



Step 10:

Release the oxygen sensor connector from the mounting bracket, then disconnect it.

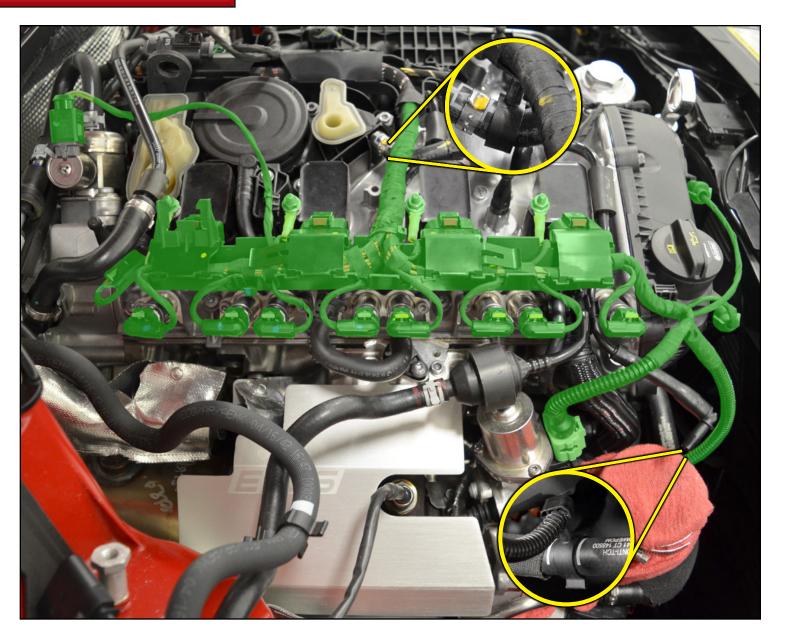




Step 11:

Remove the 10mm nuts from all four coils, then unlock and release all of the connectors on the highlighted wiring harness, including the coils, solenoids and sensors. Release the two harness mounting clips which are pointed out in the inset photos.

Slide all four ignition coil electrical connectors off of the coils, then gently pivot the harness out of the way.





Step 12: 10mm Socket & Ratchet

Remove the mounting screws from coils #2 and #3.



Step 13:

The coils can become stuck on the spark plugs over time. To release this bond, simply rotate the coil back and forth gently as shown.





Step 14:

Remove the #2 coil by pulling it straight up.

Repeat steps 14 & 15 on the #3 coil.



Step 15: T30 Torx

Remove the screw which secures the OE vent hose/pipe to the rear PCV.

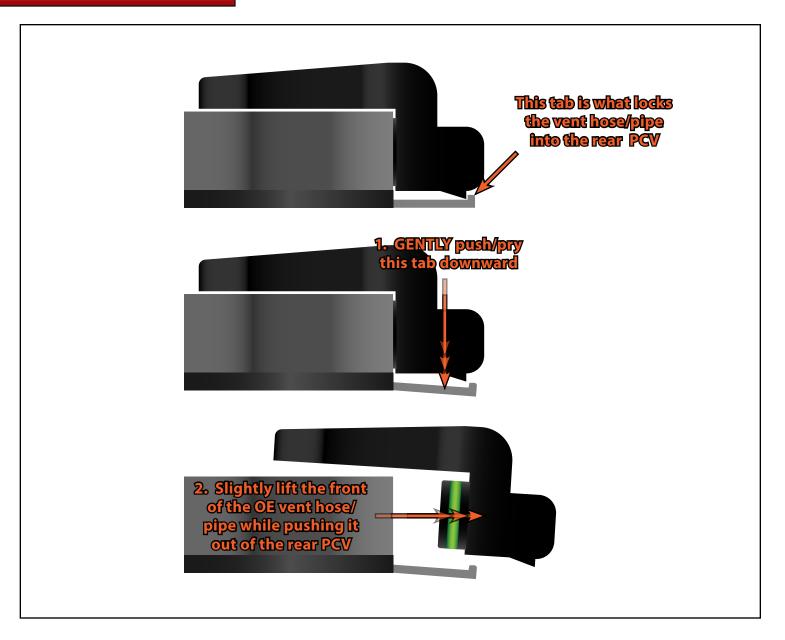




Step 16:

Removing the OE vent hose/ pipe from the valve cover is a little tricky. Use a flashlight and look down on the back side of the hose end, you will see that it is held in place by a small retaining tab underneath. This tab needs to be gently pushed downward to release the hose from the PCV assembly, then the front of the hose needs to be lifted slightly while also pulling the hose out of the PCV.

Use the illustrations on the right as a reference while proceeding to the next step on Page 19.

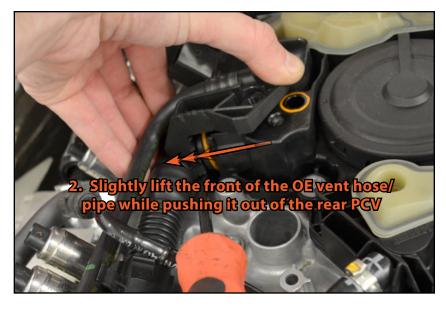




Step 17: Flat Blade Screwdriver

As we reviewed on Page 17, gently pry down on the clip which secures the OE vent hose/pipe to the PCV assembly, then lift the front of the hose slightly while you push the hose out of the PCV.







Step 18:

Locate and remove the small diameter rubber end of the OE vent hose/ pipe from the side of the turbo, near the turbo inlet. This hose can be removed by firmly pulling it off of the nipple, but it may require cutting the clamp off first.



Step 19: 4mm Allen

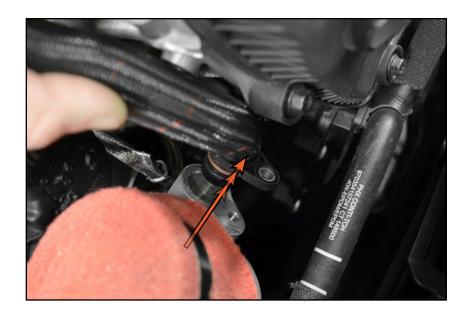
Remove the nipple from the side of the turbo with an Allen Wrench.





Step 20:

Pull the entire OE vent hose/pipe out of the turbo.



Step 21:

Carefully guide the OE vent hose/pipe out of the engine compartment.





Step 22:

Lubricate the o-rings with clean engine oil, then. You will have to firmly push the fitting in until it snaps into place and is held on by the retaining tab we released in step 18.



Step 23: 4mm Allen

Push the new ECS Turbo PCV adapter fitting into the turbo in place of the OE vent hose/pipe. Tighten the screw until it makes contact $+\frac{1}{8}$ turn.





Step 24:

Lubricate the o-ring with clean engine oil, then push the new ECS PCV adapter fitting into the back of the rear PCV assembly. You will have to firmly push the fitting in until it snaps into place and is held on by the retaining tab we released in step 17.



Ensure that the screw holes are located on the top as shown in the photo on the right.



Step 25:

Place the o-ring into the groove in the PCV adapter fitting top plate. Use a small amount of clean engine oil to hold it in place.







Step 26: 2.5mm Allen, T30 Torx

Set the PCV adapter fitting top plate into place with the two beveled holes lined up over the screw holes in the PCV adapter fitting, making sure the o-ring stays in place. Place a single drop of the included **BLUE** Loctite onto each of the screws, then install them into the PCV assembly **BY HAND**, and tighten them to until they make contact + ½ turn.

Install the original screw into the ECS rear PCV adapter, tighten it until it makes contact $+\frac{1}{8}$ turn.



Step 27: 10mm Socket & Ratchet

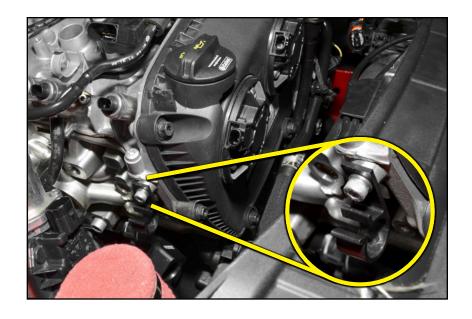
Remove coil #4 just as we removed #2 and #3 in steps 13-15.





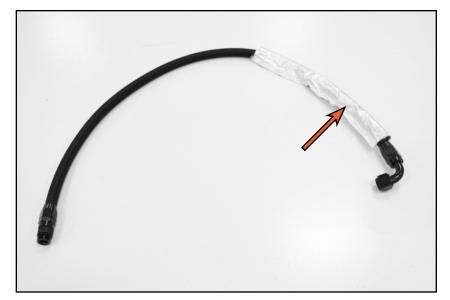
Step 28: 5mm Allen

Install the screw mount cable clip into the empty threads on the side of the cylinder head. Tighten the screw until it makes contact $+\frac{1}{6}$ turn.



Step 29:

Install the aluminized line sleeve onto the feed hose so that it is positioned as close as possible to the 45° end.



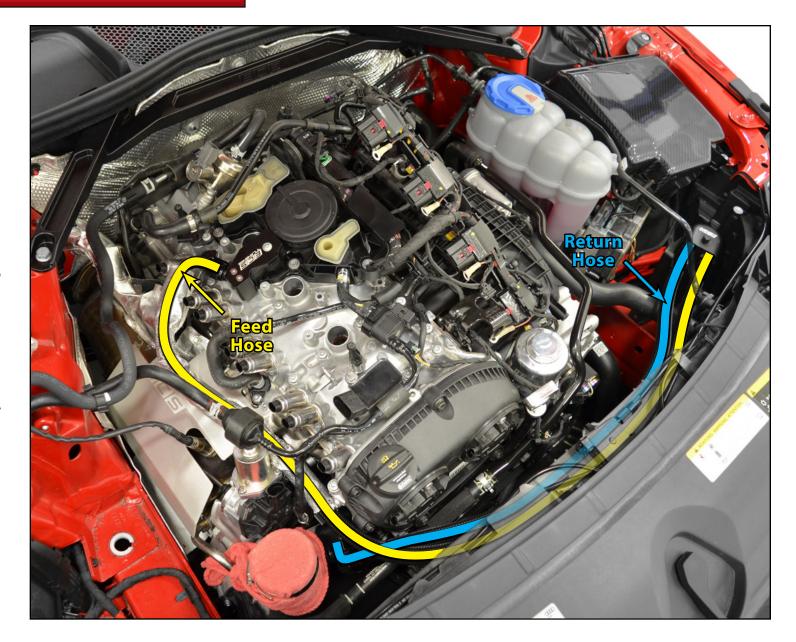


Step 30:

Route the FEED and RETURN hoses from the catch can to the turbo PCV adapter and the rear PCV adapter. Use the photo on the right to ensure that both hoses are routed to the correct components. The FEED hose runs from the feed side of the catch can to the rear PCV adapter, and the RETURN hose runs from the return side of the catch can to the turbo PCV adapter.

Be sure to route the hoses underneath the hoses and lines as illustrated in the photo. Make sure that the hoses are not tangled, kinked, pinched, or in danger of rubbing against any moving engine parts.

Thread both of the hoses into the catch can by hand, then tighten them with an AN wrench or crescent wrench. Once the fittings are snug, it is only necessary to tighten them a few additional degrees.





Step 31:

Use the two supplied zip tie clips to secure the catch can hoses to the core support, but you will need to leave some slack in the zip ties as shown in the photo.



Step 32:

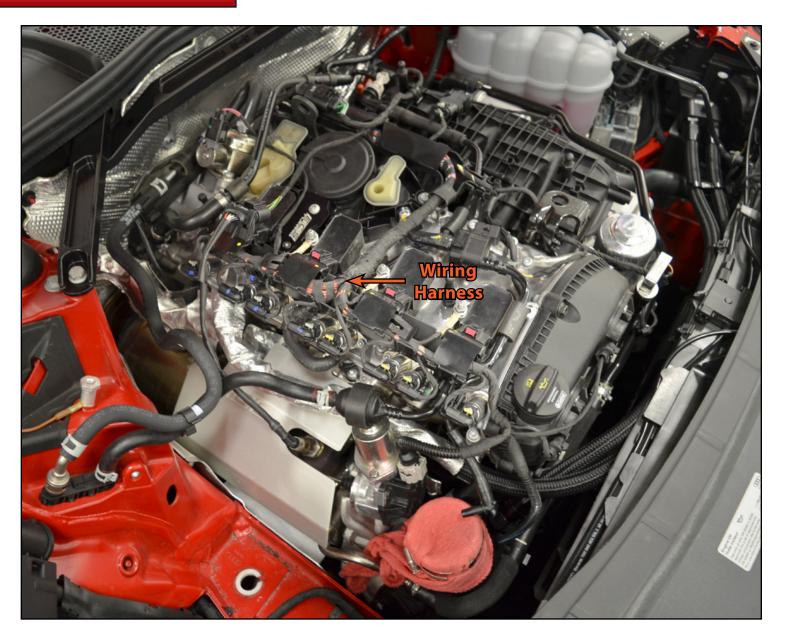
Tuck the catch can hoses into the core support.





Step 33:

Flip the wiring harness back into position and reconnect all of the electrical connectors and mounting clips.





Step 34: 3/6" Allen Wrench

Install the included hose separator approximately eight inches away from the catch can, tighten the screw until snug.



Step 35:

Reinstall all remaining components in reverse order or removal.

Your ECS Catch Can System installation is complete!





Step 1:

We recommend that you check the level of the waste in your catch can on a regular basis. Start with once a week until you determine the amount of time it takes your car to fill the reservoir. Note that the dipstick does not go all the way to the bottom of the reservoir. When you begin to see waste register on the dipstick, you already have about an inch of buildup in the bottom. Empty and clean the reservoir when the waste registers approximately 2" up on the dipstick.



Step 2:

About twice a year, we recommend that you remove the separator for cleaning. To remove it, remove the lines and the reservoir, then lift the separator out of the bracket.



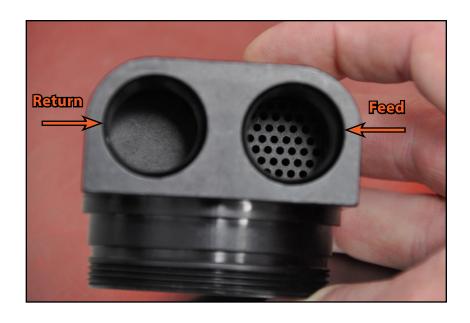
If the o-ring seal needs to be replaced, it is available as a replacement part on our website, <u>ES#3097721</u>.





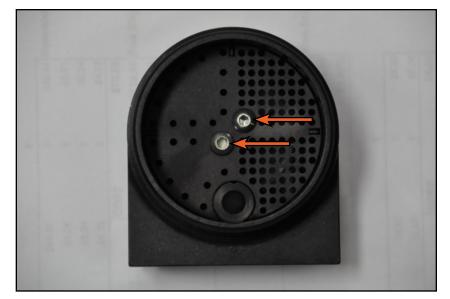
Step 3:

Once you have removed the separator, note the position of the baffle inside. The feed side of the separator has a number of small holes in it. Through the return side you will only be able to see a flat plate.



Step 4: 2.5mm Allen

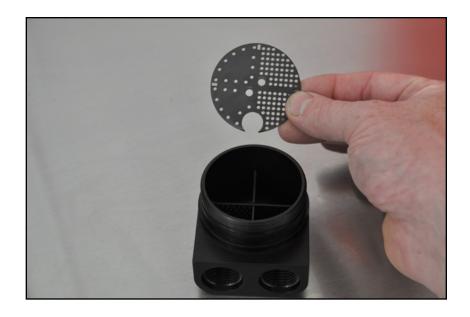
Using the 2.5mm allen wrench included with the kit, remove the two baffle plate screws.





Step 5:

Lift the baffle plate out of the separator housing.



Step 6:

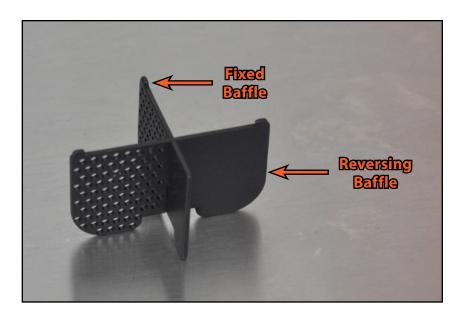
Lift the remaining baffles out of the separator housing.





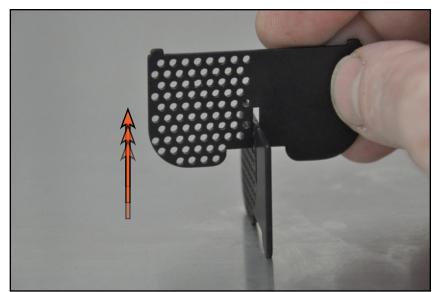
Step 7:

Note the positions of the fixed baffle and the reversing baffle.



Step 8:

Slide the two baffles apart.



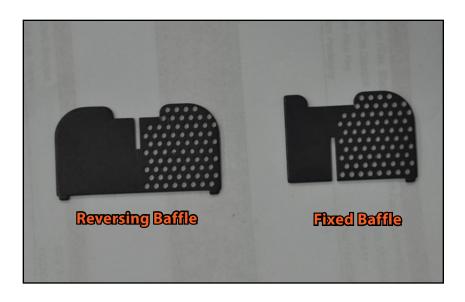


Step 9:

Clean the separator baffles, housing, and reservoir, using any mild cleanser or solvent. Note in the picture on the right that the fixed baffle is shorter than the reversing baffle.



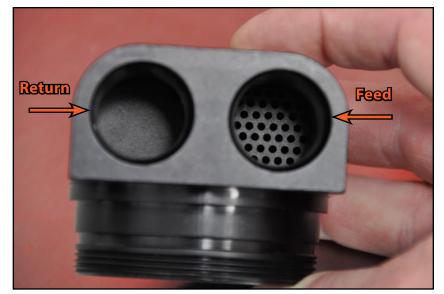
Any mild cleanser or solvent can be used to clean the catch can, however we recommend that you test all cleansers on an inconspicuous area inside the reservoir to check for discoloration before you clean the outside surfaces.



Step 10: 2.5mm Allen

Reassemble the baffles into the separator housing and make sure that the baffles have not been reversed and the feed and return sides are positioned correctly.

Reinstall the catch can into your car, be sure and lubricate all o-rings with clean engine oil.





CLEANING AND MAINTENANCE - COLD WEATHER

COLD TEMPERATURE WARNING

In cold temperatures, the crank vent system will generate a much greater amount of moisture which can present a risk of freezing.

When the temperature outside approaches freezing, your catch can should be cleaned on a weekly basis to prevent freeze up of the crank vent system and damage to engine seals.

When the temperature drops below freezing, we recommend reinstalling your original crank vent system components to prevent freeze up of the crank vent system and damage to engine seals.

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SCHWABEN - BUILD THE ULTIMATE TOOL COLLECTION

At ECS Tuning, we carry a line of high quality Schwaben Tools and Equipment to help you build your ultimate tool collection. Never before has affordability and quality been so closely related. Our entire Schwaben line is subjected to strict in house testing for strength and durability. See what we have to offer and equip your garage without breaking the bank.



Your Catch Can System installation is complete!



These instructions are provided as a courtesy by ECS Tuning

Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

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