

Audi B8 2.0T Performance Baffled Oil Catch Can Installation Instructions











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.



## INTRODUCTION

## ECS Tuning Audi B8 2.0T Performance Baffled Oil Catch Can Kit

Our ECS Tuning Audi B8 2.0T Oil Catch Can Kit offers the following features:

- Constructed of strong and lightweight 6061-T6 billet aluminum
- Black anodized for corrosion resistance
- In-house designed by ECS Tuning Engineers
- 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



Excess oil coating the inside of the intake from the crank vent system on your B8 Audi 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 looking to ECS Tuning for all your performance and repair needs. We appreciate your business!



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## Symbols:

The following symbols may be used throughout these instructions indicating special attention:



FORK IN THE ROAD: When there are different options within any given kit, we will direct you to the proper page and step to continue.



**YIELD:** Pause for a moment to double check component installation before you continue. Ignoring this can cost you time later during the installation.



**CAUTION:** Pay close attention to these warnings and instructions. Difficult installation, personal injury or component damage may occur if ignored.



**STOP:** The upcoming steps require specific preparation and/or assistance in the interest of safety. Please read ahead in the instructions and prepare before continuing.



TECH TIP: Tips and tricks to make the job go much easier.



**NOTE:** Additional information that may be useful to the installation depending on your application.



# **KIT CONTENTS**



Catch Can w/Dipstick, 8-ounce reservoir, and Allen wrench for cleaning



Catch Can Return Hose



Catch Can Feed Hose



Catch Can Bracket



Bracket Plate



-10 AN Extender



# **KIT CONTENTS**



PCV Cap Retaining Clips (2)



PCV Caps (2)



**PCV Valve Adapter** 



Turbo Adapter Plate



Line Separators (2)



M6 x 20 Stainless Allen Head Bolt (2)



M6 x 16 Stainless Allen Head Bolt (2)



Breather Tube Gasket



## **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**

Protocta Sackats (for lug puts)	EC#2221242
Protecta-Sockets (for lug nuts)	
• 3/8" Drive Ratchet	. <u>ES#2765902</u>
• 3/8" Drive Torque Wrench	. <u>ES#2221245</u>
• 3/8" Drive Deep and Shallow Sockets	. <u>ES#2763772</u>
• 3/8" Drive Extensions	. <u>ES#2804822</u>
Hydraulic Floor Jack	. <u>ES#240941</u>
Torx Drivers and Sockets	<u>ES#11417/8</u>
• 1/2" Drive Deep and Shallow Sockets	. <u>ES#2839106</u>
• 1/2" Drive Ratchet	
• 1/2" Drive Extensions	
• 1/2" Drive Torque Wrench	. <u>ES#2221244</u>
• 1/2" Drive Breaker Bar	. <u>ES#2776653</u>
• File Set	
• Air Nozzle/Blow Gun	
Bench Mounted Vise	
Crows Foot Wrenches	
Hook and Pick Tool Set	. <u>ES#2778980</u>

1/4" Drive Ratchet	<u>ES#2823235</u>
1/4" Drive Deep and Shallow Sockets	<u>ES#2823235</u>
• 1/4" Drive Extensions	<u>ES#2823235</u>
• 1/4″ Drive Torque Wrench	
Plier and Cutter Set	<u>ES#2804496</u>
Flat and Phillips Screwdrivers	<u>ES#2225921</u>
Jack Stands	<u>ES#2763355</u>
• Ball Pein Hammers	
• Pry Bar Set	<u>ES#1899378</u>
Electric/Cordless Drill	
Wire Strippers/Crimpers	
<ul> <li>Adjustable (Crescent) Type Wrenches</li> </ul>	
• Drill Bits	
<ul> <li>Punch and Chisel Set</li> </ul>	
Hex Bit (Allen) Wrenches and Sockets	<u>ES#11420</u>
Thread Repair Tools	<u>ES#1306824</u>
Open/Boxed End Wrench Set	

**Specialty Tools** 

Schwaben Ignition Coil Puller ......
 <u>ES#240943</u>

## 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 Click Here
- 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. Always make sure that the vehicle is securely supported on jack stands.

#### Step 1:

We begin by removing the engine cover. Whether you have the factory cover or our carbon fiber engine cover as shown here, they are both removed by pulling up at the four corners to release the rubber grommets.

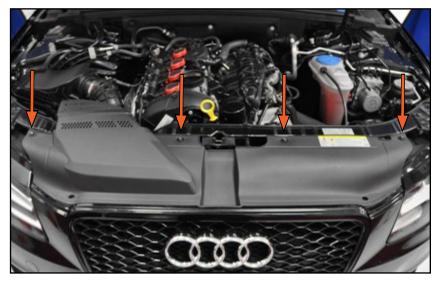


#### T30 Torx Socket, 3/8" Ratchet Step 2:

Remove the four upper radiator shroud screws.



The radiator shroud and original air box must be removed in order to access the breather tube on the turbo housing.





#### Step 3:

Lift up on the rear edge of the radiator shroud, then pull it rearwards to unhook it from the grille, and remove it.



Step 4:	T25 Torx Socket, Ratchet
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Remove the two air scoop hold down screws.





#### Step 5:

Pull up on the air duct where it meets the air box and remove it along with the air scoop.



#### Flat Blade Screwdriver Step 6:

Remove the turbo inlet hose by loosening the two clamps and pulling it off at both ends.





#### Step 7:

Locate the Mass Air Flow (MAF) sensor connector.



# Unlocked Locked

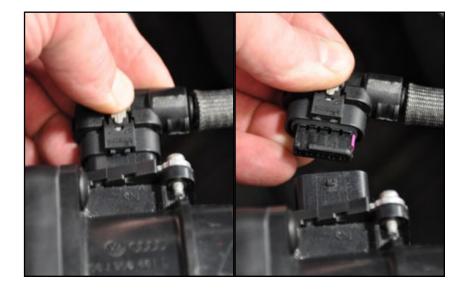
#### Step 8:

Unlock the connector on the MAF sensor by pulling the gray locking tab out until it stops.



#### Step 9:

Press down on the end of the gray locking tab, then pull the connector off the MAF sensor.



#### Step 10:

Pull up on the airbox on both sides and remove it from the engine compartment.

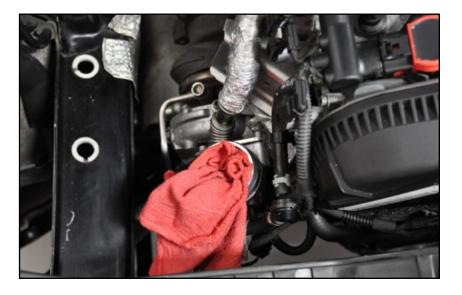


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#### Step 11:

Place a clean rag in the turbo inlet to prevent anything from falling into it during the installation.



#### Step 12:

Remove the crank vent hose from the top of the engine by pinching the knurled portions of the end locking rings together and pulling them off of the intake manifold port and the PCV assembly.





#### Step 13:

Lubricate the o-rings on the PCV caps with clean engine oil, then push one onto the end of the PCV assembly and one onto the intake manifold port.



If you have an ECS Tuning Boost Tap installed on your intake manifold port, the PCV cap will fit on the end of the boost tap exactly as it would fit on the end of the intake manifold port.



#### Step 14:

Install a retaining clip into the groove of each PCV cap.



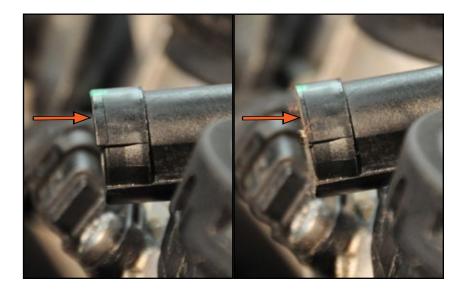
If the PCV cap does not push on far enough to install the clip on the PCV assembly, reference step 15 and inspect the end of the PCV assembly.





#### Step 15:

Occasionally, the PCV assembly outlet will have a lip on it that will interfere with the installation of the PCV cap. If you find this on your car, file the lip off until it is flush with the rest of the outlet.



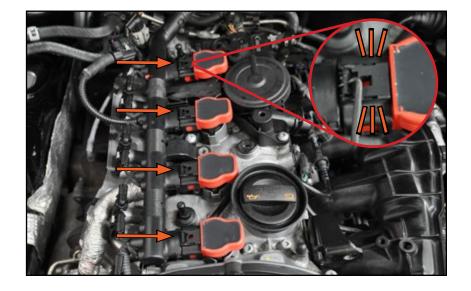
#### Step 16: T30 Torx, Ratchet

Remove the coil harness retaining bolt.



Step 17: Small Angled Pick

Release the coil connectors by gently prying up the locking tab on each one. You will normally hear an audible "click" when they release. Slide the connectors partially off of each coil.



## Step 18:

Disconnect the camshaft adjustment actuator connectors. There are eight of them, and these connector locks operate the same as the MAF sensor connector.





#### Step 19:

Slide the ignition coil harness completely off of the coils.



#### Schwaben Ignition Coil Puller Step 20:

Remove the #3 ignition coil by pulling it straight out.





T30 Torx, Ratchet Step 21:

Remove the PCV adapter retaining bolt.



#### Step 22:

Pull the PCV adapter out of the PCV assembly.





5mm Hex Bit (Allen) Wrench Step 23:

Remove the two screws securing the breather tube to the turbo housing.



#### Step 24:

Remove the breather tube.



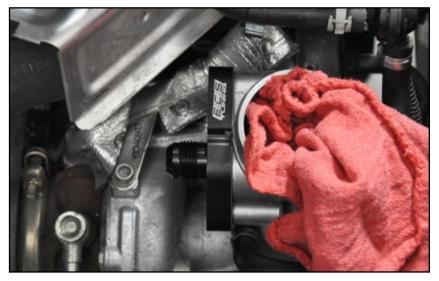
#### Step 25:

Place the new breather tube gasket onto the turbo adapter plate, then thread the two new M6 x 20 screws through the plate and into the gasket. Note that the tab on the gasket aligns with the cutout in the adapter plate.



#### Step 26: 5mm Hex Bit (Allen) Wrench

Install the turbo adapter plate onto the turbo housing and tighten the screws.



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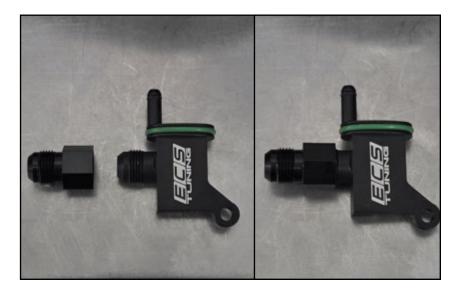
Step 27:

**Crescent Wrench** 

Install and tighten the -10 AN extender onto the PCV valve adapter. It is only necessary to tighten these by hand using a crescent type wrench.



Cover the jaws of a crescent wrench with masking tape to protect the finish of the catch can lines and adapters.



#### T30 Torx, Ratchet Step 28:

Lubricate the seal with clean engine oil and slide the PCV adapter into the PCV valve assembly, then install and tighten the retaining bolt.





#### Step 29:

Place the bracket plate onto the lip of the radiator core support in the location shown.



#### Step 30:

Slide the catch can bracket underneath the radiator core support so the screw holes in the bracket are lined up underneath the holes in the bracket plate. Make sure that the mounting hole for the catch can is positioned below the level of the core support (reference step 35).



Step 31: 5mm Hex bit (Allen) Wrench

Install the two new M6 x 15 bolts included with the kit, then push the bracket against the rib in the radiator core support (direction of arrow) and tighten the bolts.



#### Step 32:

Unthread and remove the dipstick from the catch can.





#### Step 33:

Unthread and remove the catch can reservoir from the separator.



#### Small angled pick Step 34:

Carefully remove the o-ring seal from the groove in the separator.



This seal must be removed before installing the separator into the catch can bracket or it will be damaged.

#### Step 35:

Place the separator into the catch can bracket, lubricate the o-ring seal with clean engine oil and reinstall the seal into the groove.



#### Step 36:

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



When the reservoir is fully tightened, the catch can will be locked in place in the bracket. We are leaving it loose at this point to make it easier to thread in the feed and return lines.





#### Step 37:

With the new catch can in it's installed position, note the locations of the feed and return side of the separator.



#### AN Fitting Wrench -or- Crescent Wrench Step 38:

Install the return line in place between the catch can and the turbo adapter plate and tighten both fittings.



The fittings on the end of these AN lines are swivel fittings. They will rotate even when the line ends are tightened.

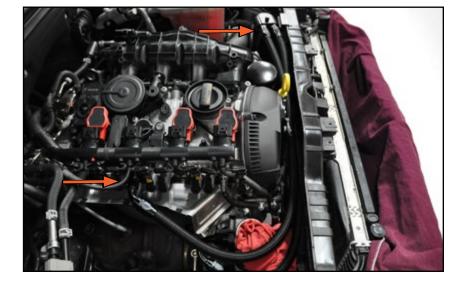


An AN Fitting wrench is designed to install these fittings without damaging the finish, but a Crescent wrench can be used carefully in its place. To prevent damage to the finish on the catch can lines, apply masking tape to the jaws of the Crescent or AN wrench.



Step 39: AN Fitting Wrench -or- Crescent Wrench

Install the feed line in place between the catch can and the PCV valve adapter and tighten the fittings.



#### Step 40: T30 Torx, Ratchet

Perform the following:

Install the #3 ignition coil

Connect the ignition coil harness

Install the ignition coil harness bolt

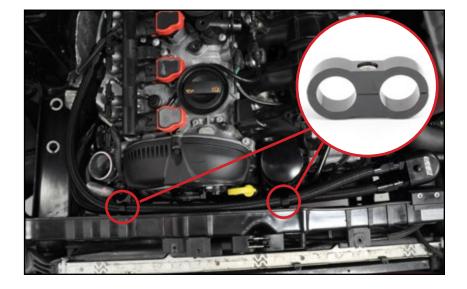
Connect the camshaft adjustment actuators

Lubricate the catch can dipstick seal with engine oil and install it into the catch can.



Step 41: 3/16" Hex Bit (Allen) Wrench

Install the two line separators in place where the lines run between the front of the engine and the radiator core support.



#### Step 42:

Rotate the catch can so it is parallel with the edges of the bracket, then fully tighten the reservoir to lock it in place.



It is only necessary to tighten the reservoir by hand. Do not use any tools.

Remove the rag from the turbo inlet, reinstall the original air box, radiator shroud, and engine cover.



#### 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. Remember to remove the o-ring seal, 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.

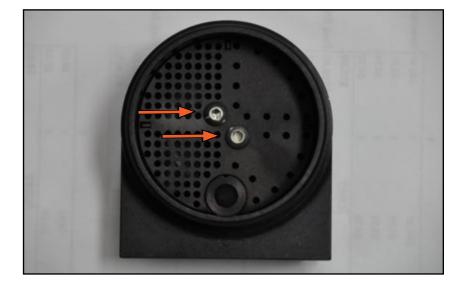


The baffle can be reversed for custom applications, it is important to note the position now so the separator is reassembled in the correct order.

Faad	6	Return

#### Step 4:

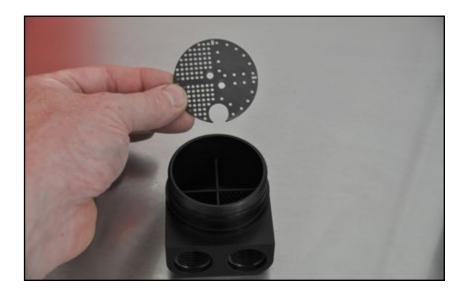
Using the 2.5mm allen wrench included with the kit, remove the two baffle plate screws.





#### Step 5:

Lift the baffle plate out of the separator housing.



#### Step 6:

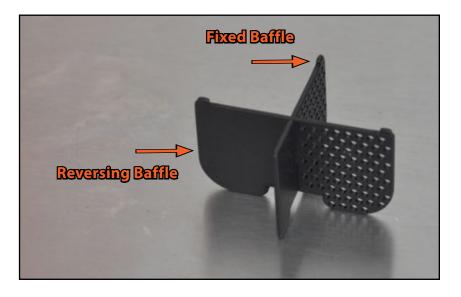
Lift the remaining baffles out of the separator housing.





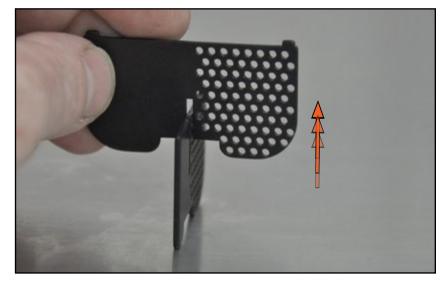
Step 7:

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



#### Step 8:

Slide the two baffles apart.



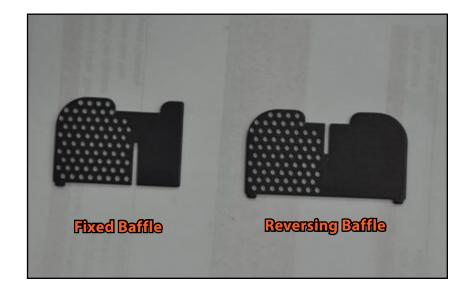


#### Step 9:

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:

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.

## 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 Audi B8 2.0T Catch Can 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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