Audi B7 2.0T Catch Can System Installation Instructions

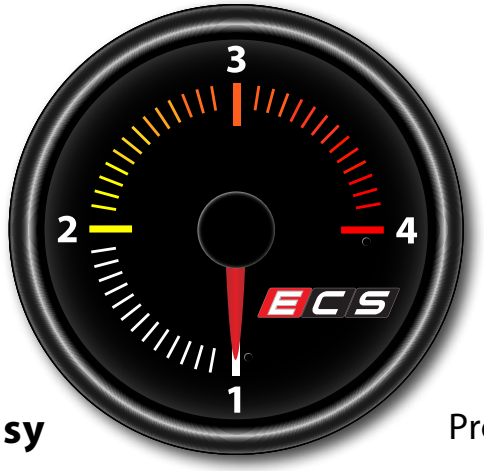
INTRODUCTION

ECS Tuning Audi B9 A4 2.0T Catch Can System

Our ECS Tuning Audi B7 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 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

ECS Difficulty Gauge



1 - Easy

2 - Moderate

Advanced - 3

Pro - 4

Excess oil coating the inside of the intake from the crank vent system on your Audi B7 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 Audi B7 2.0T Oil Catch Can Kit, we appreciate your business!

TABLE OF CONTENTS

KIT CONTENTS

8oz Reverse-Flow Catch Can **(QTY 1)**
(w/Allen Key for cleaning)

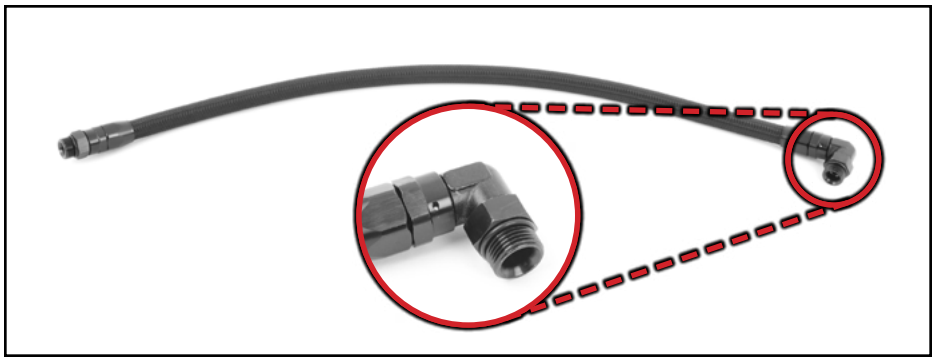
Catch Can Bracket **(QTY 1)**

PCV Adapter Plate **(QTY 1)**

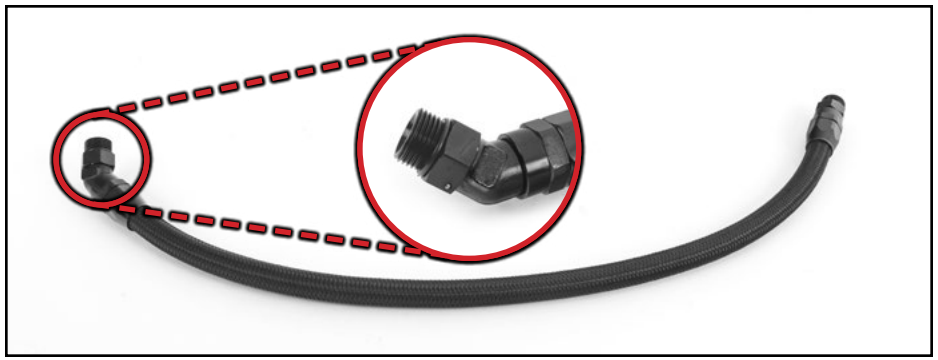
PCV Cap & Retaining Clip **(QTY 1 ea.)**

-10AN Hose Separator **(QTY 2)**

KIT CONTENTS (CONTINUED)

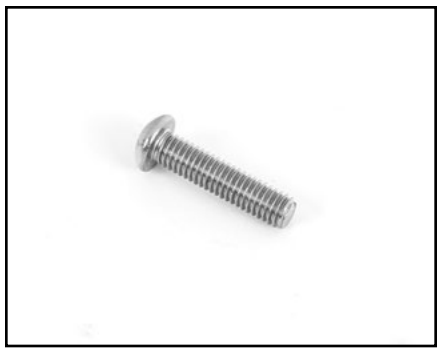


Feed Hose **(QTY 1)**

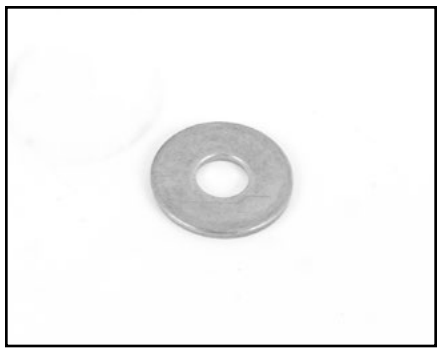


Return Hose **(QTY 1)**

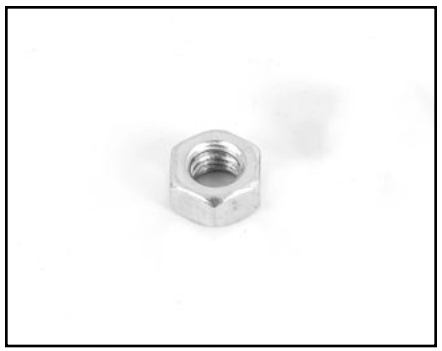
M6x16mm Screw **(QTY 1)**



M6x25mm Screw **(QTY 1)**



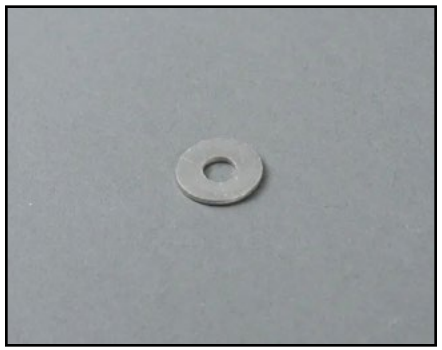
Kit - M6 Washer **(QTY 2)**



M6 Nut **(QTY 2)**

M6 8mm Spacer **(QTY 1)**

M5x25mm Screw **(QTY 1)**



M5 Washer **(QTY 1)**

M5 Nut **(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) ES#2221243
- **⅜" Drive Ratchet** ES#2765902
- ⅜" Drive Torque Wrench ES#2221245
- **⅜" Drive Deep and Shallow Sockets** ES#2763772
- ⅜" Drive Extensions ES#2804822
- Hydraulic Floor Jack ES#2834951
- **Torx Drivers and Sockets** ES#11417/8
- ½" Drive Deep and Shallow Sockets ES#2839106
- ½" Drive Ratchet
- ½" Drive Extensions
- ½" Drive Torque Wrench ES#2221244
- ½" Drive Breaker Bar ES#2776653
- Bench Mounted Vise
- Crows Foot Wrenches
- **Hook and Pick Tool Set** ES#2778980
- **¼" Drive Ratchet** ES#2823235
- **¼" Drive Deep and Shallow Sockets** ES#2823235
- **¼" Drive Extensions** ES#2823235
- Plier and Cutter Set ES#2804496
- **Flat and Phillips Screwdrivers** ES#2225921
- Jack Stands ES#2763355
- Ball Pein Hammers
- Pry Bar Set ES#1899378
- Electric/Cordless Drill
- Wire Strippers/Crimpers
- **Adjustable (Crescent) Type Wrenches**
- Punch and Chisel Set
- **Hex Bit (Allen) Wrenches and Sockets** ES#11420
- Thread Repair Tools ES#1306824
- **Open/Boxed End Wrench Set** ES#2765907

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.
- Whether lifting a vehicle using an automotive lift or a hydraulic jack, be sure and 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

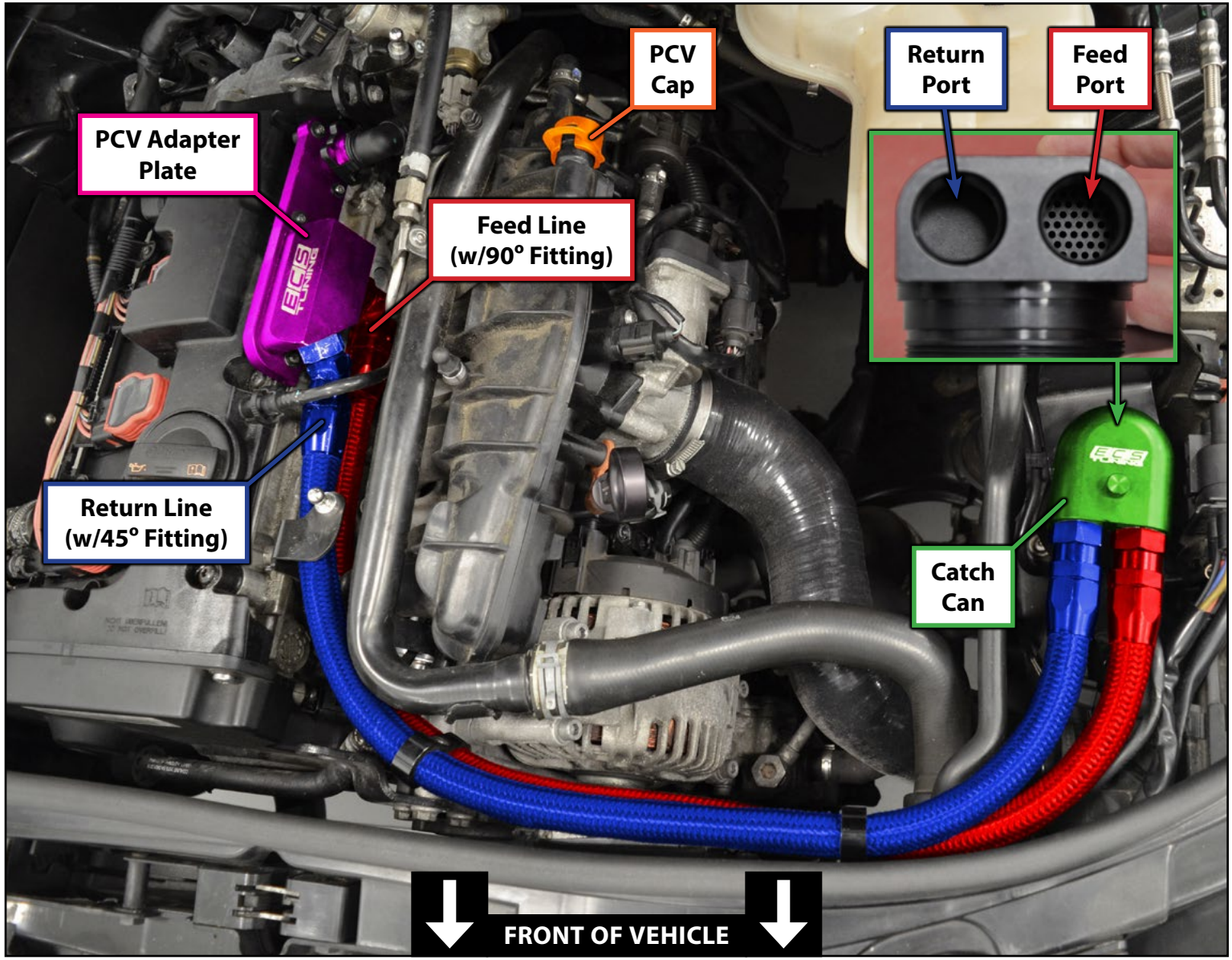
Let's take a moment and look at the Catch Can System and how it will be installed.

First, we need to confirm that the **Catch Can** is setup for **REVERSE FLOW**, then we can install it into the factory coolant reservoir mounting bracket (located in the LH front corner of the engine compartment).

After that we'll need to remove the OE PCV assembly and install the **PCV Adapter Plate** in its place. Then we'll remove the PCV hose and install the **PCV Cap** onto the intake manifold.

Finally, we'll route the **FEED** and **RETURN** lines into place, completing the entire system.

Now let's get to it!



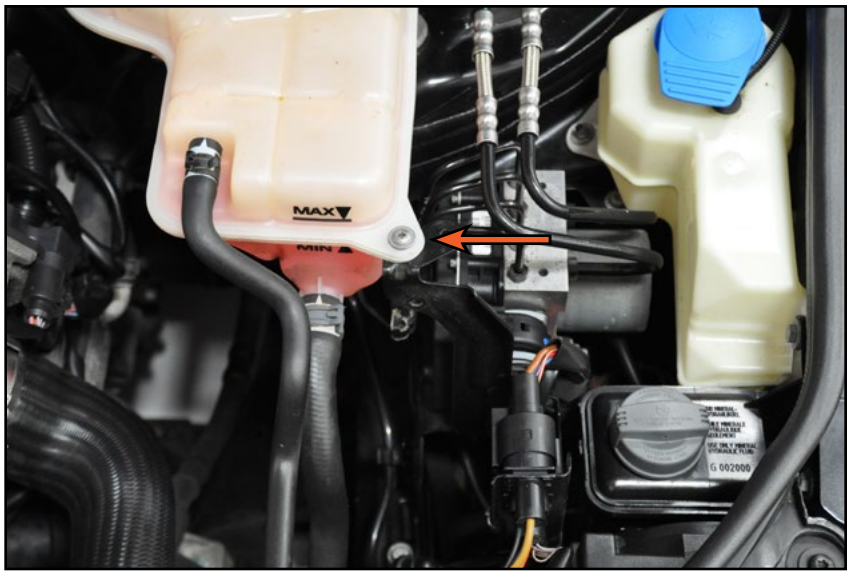
INSTALLING THE CATCH CAN SYSTEM

Step 1:

Remove the engine cover by pulling up on the four corners to release it from the grommets.

Step 2: Phillips Screwdriver

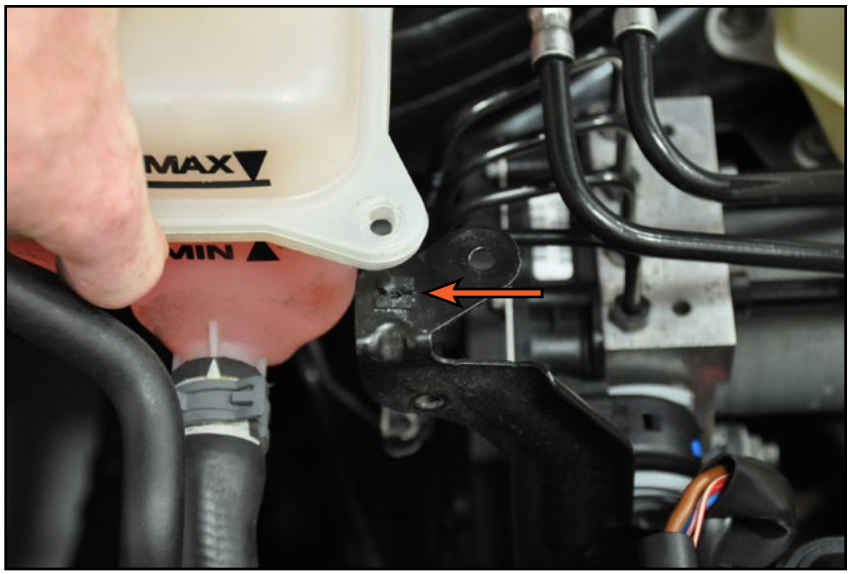
Remove the screw from the corner of the coolant reservoir.



INSTALLING THE CATCH CAN SYSTEM

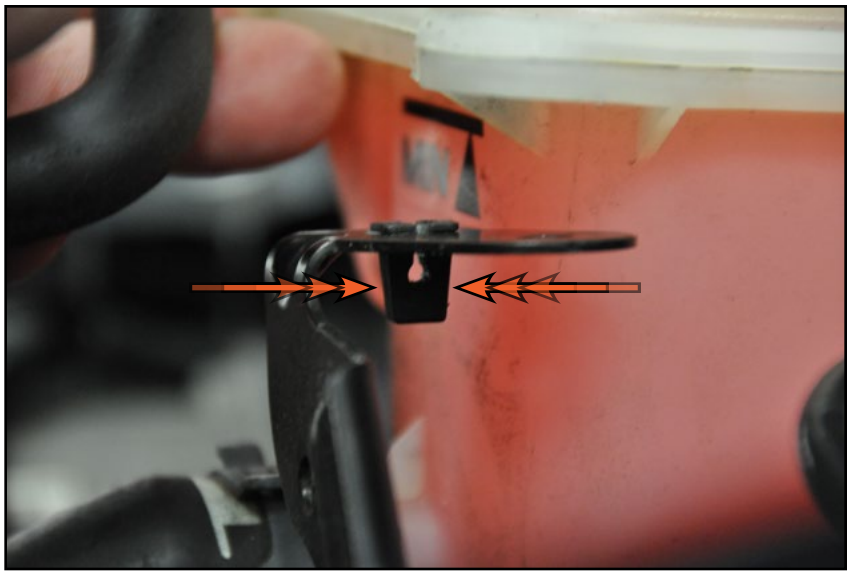
Step 3:

Lift up the corner of the coolant reservoir to expose the plastic thread insert in the reservoir bracket.



Step 4: Needle Nose Pliers

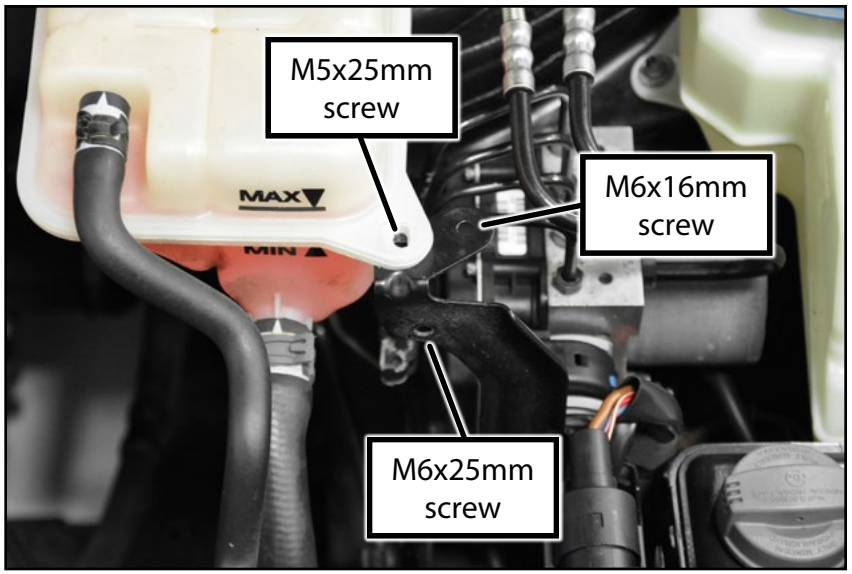
Squeeze the plastic thread insert inward, then push it up out of the reservoir bracket.



INSTALLING THE CATCH CAN SYSTEM

Step 5:

Inspect this picture to familiarize yourself with the catch can bracket mounting hardware locations, then proceed with the next step.



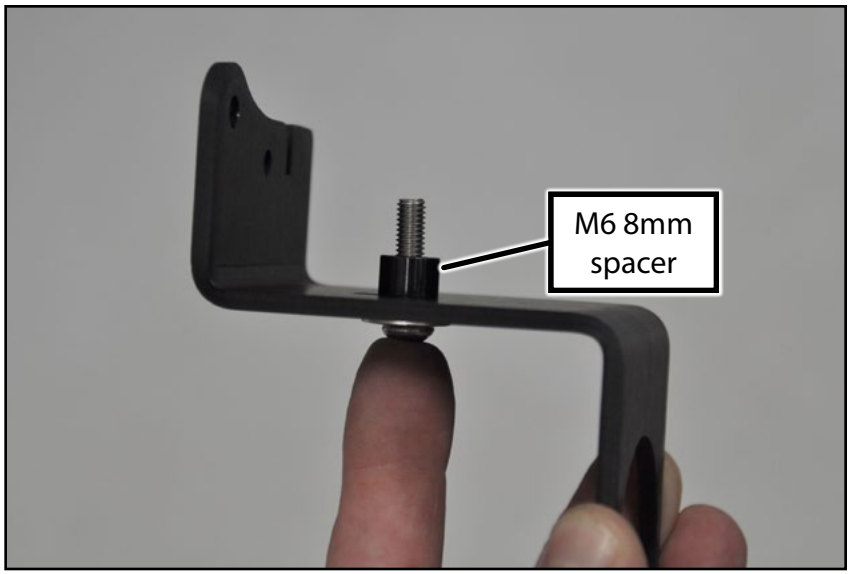
Step 6:

Place one of the M6 washers onto the end of the M6x25mm screw, then insert the screw through the catch can bracket as shown.

INSTALLING THE CATCH CAN SYSTEM

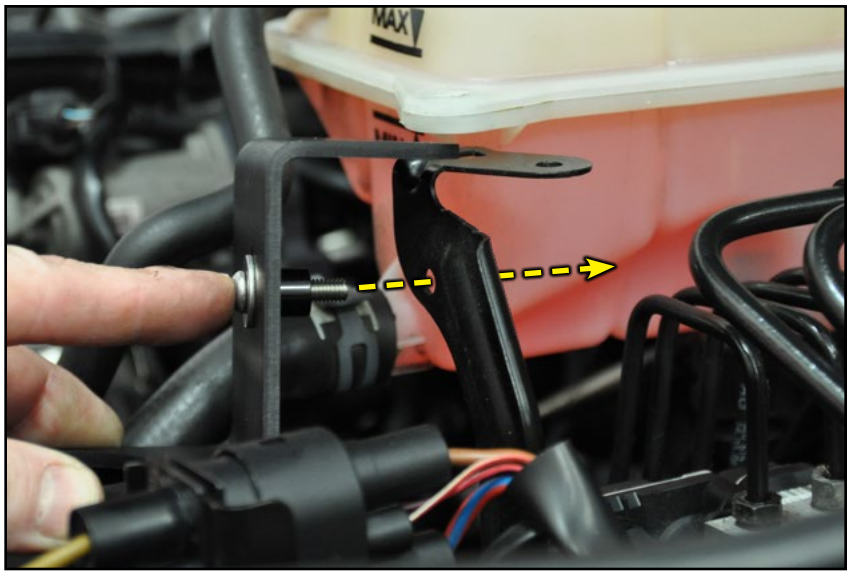
Step 7:

Hold the end of the screw with your finger, then flip the bracket over. Slide the spacer onto the M6x25mm screw as shown.



Step 8:

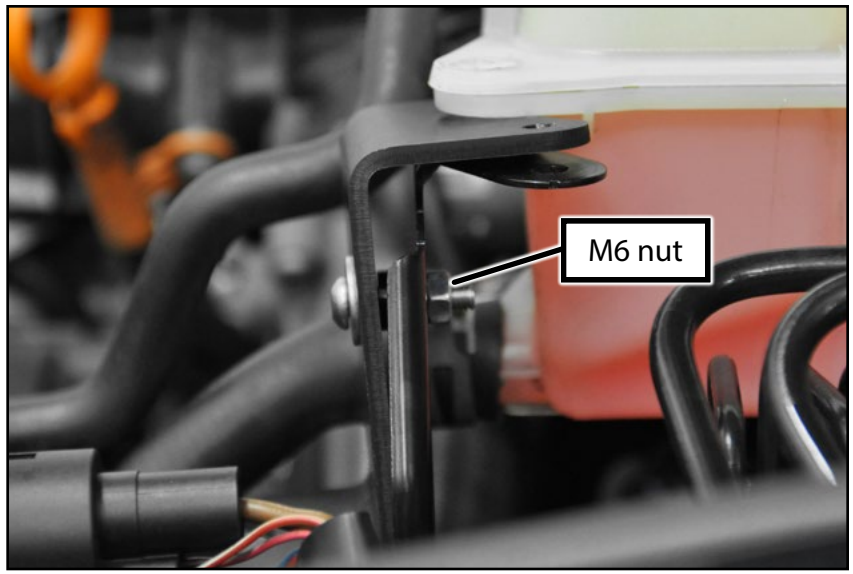
Guide the catch can bracket into place, locating the top of the bracket between the coolant reservoir and the reservoir brace. Make sure the spacer does not fall off and guide the M6x25mm screw through the hole in the reservoir brace.



INSTALLING THE CATCH CAN SYSTEM

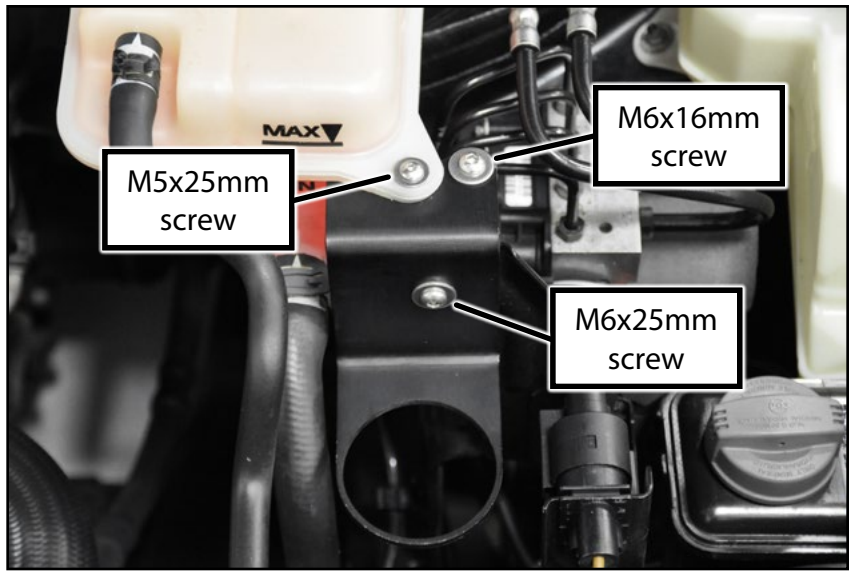
Step 9:

Loosely install an M6 nut on the back of the screw.



Step 10: ¼" Ratchet, 3mm & 4mm Allen Sockets

Refer to the picture for location, then install the remaining two screws with a washer underneath the head of each one, and finally tighten all three.



INSTALLING THE CATCH CAN SYSTEM

Step 11:

Unthread and remove the dipstick from the catch can separator.

Step 12:

Unthread and remove the reservoir from the catch can separator.

INSTALLING THE CATCH CAN SYSTEM

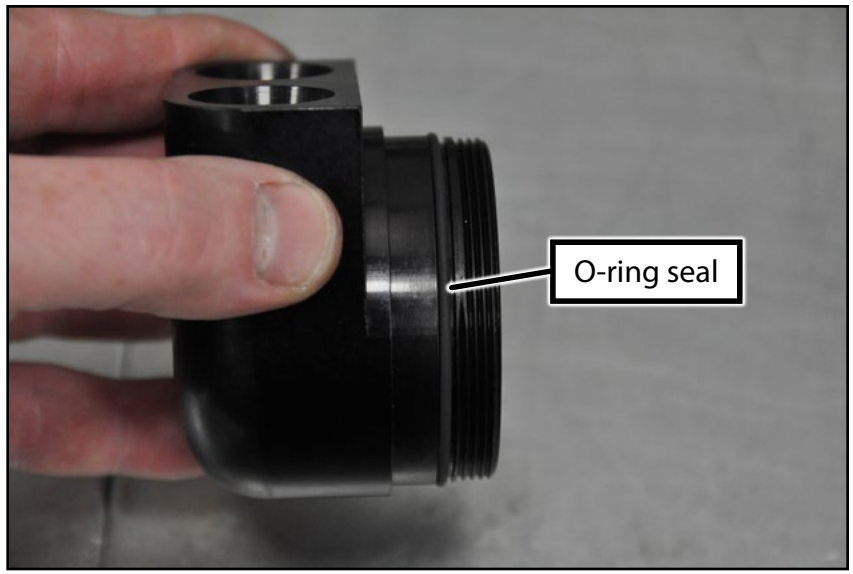
Step 13: Small Angled Pick

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

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

NOTE

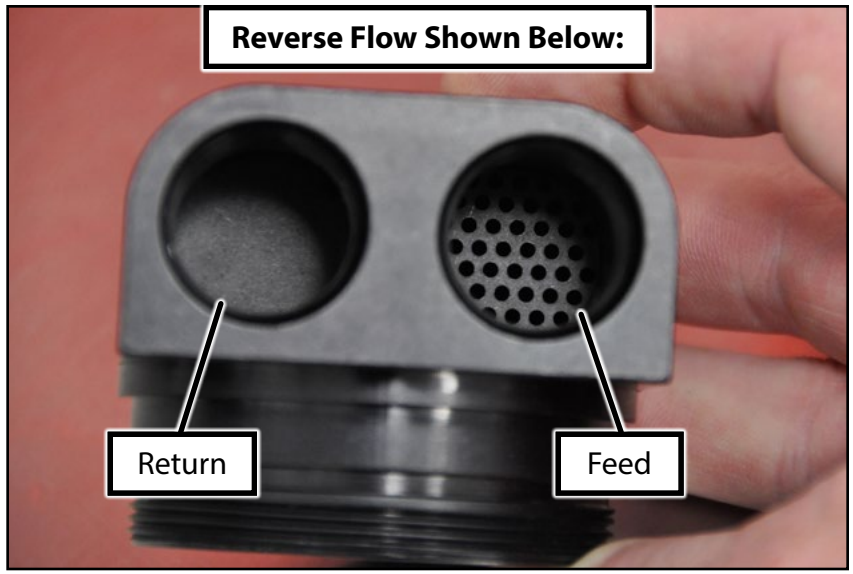
If the o-ring seal needs to be replaced, it is available as a replacement part on our website as ES#3097721.



Step 14:

STOP

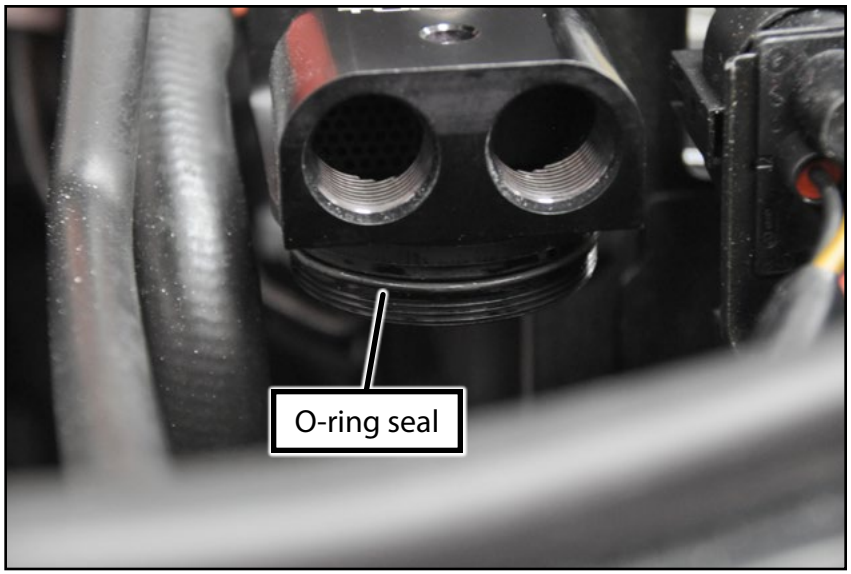
Before you install the catch can into the vehicle, stop and look down the inlet ports. Now is the time to confirm the direction of flow. This system **MUST** be set up for reverse flow. If your catch can does not match the photo on the right, skip to Page 34 and reverse the direction of flow as outlined in that section.



INSTALLING THE CATCH CAN SYSTEM

Step 15:

Place the separator into the catch can bracket. Lubricate the o-ring seal with clean engine oil, then reinstall it into the groove in the separator.



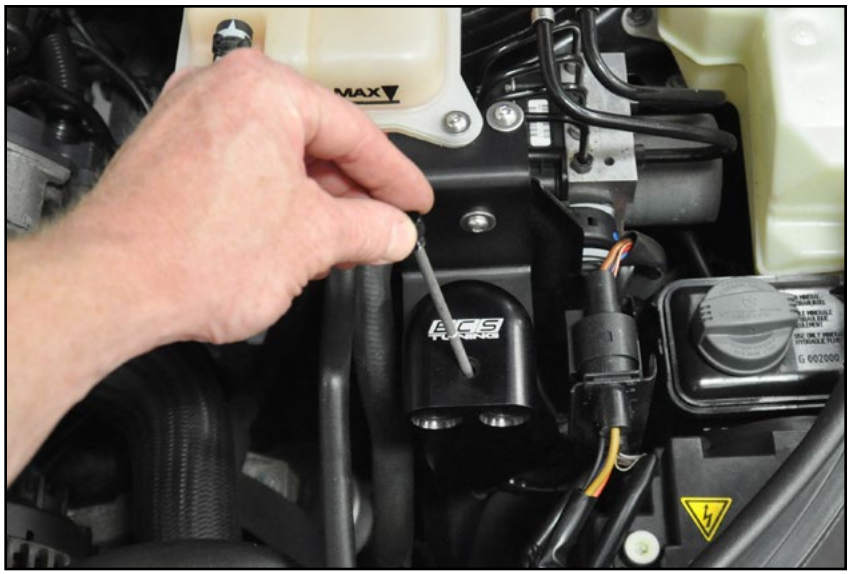
Step 16:

Install the reservoir back onto the separator and thread it on until it is fully tightened. Make sure the separator is aligned as shown in the picture. When the reservoir is tightened completely, the catch can will be locked in place in the bracket and will not rotate in either direction.

INSTALLING THE CATCH CAN SYSTEM

Step 17:

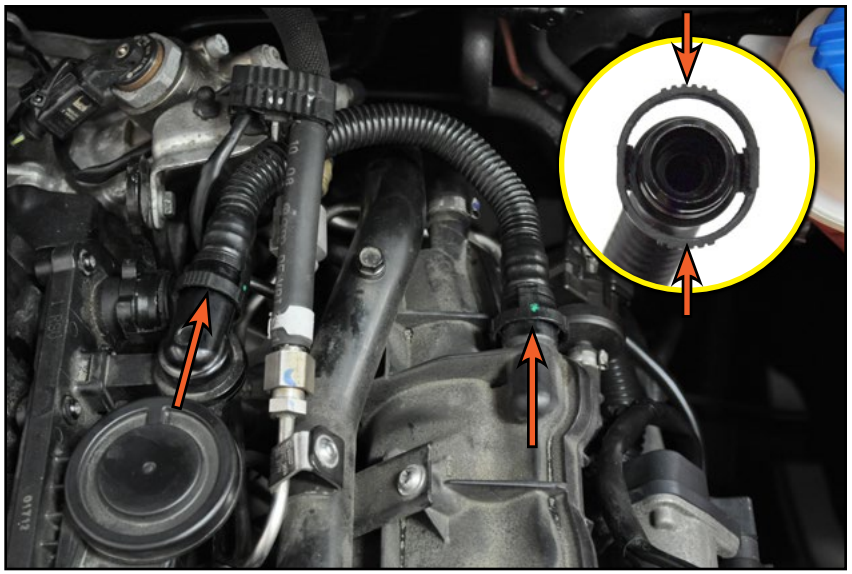
Lubricate the o-ring seal with clean engine oil, then install the dipstick into the catch can.



Step 18:

Remove the original PCV tube between the PCV assembly and the intake manifold by squeezing the tube end retainers together and pulling it off each end.

The inset photo shows a view of the end of the tube. Squeeze the retainers where indicated by the arrows to release the locking tabs for removal.



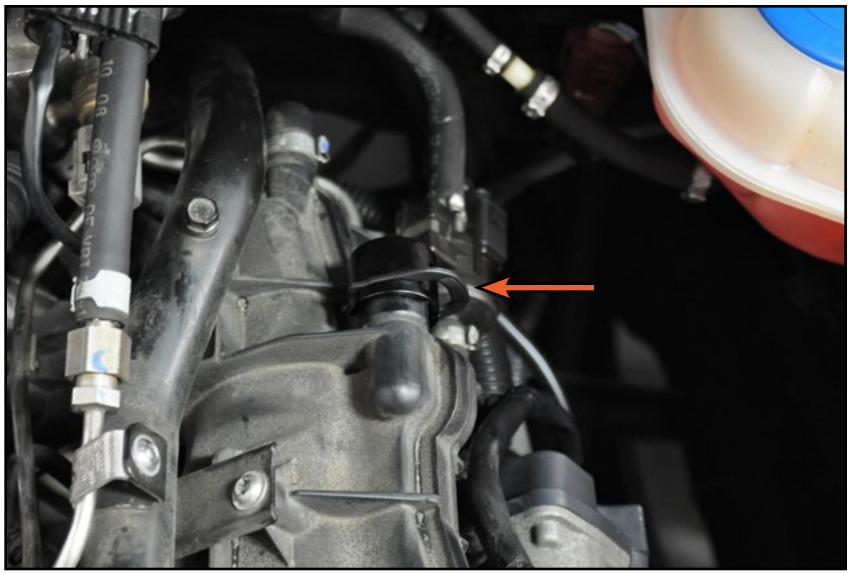
INSTALLING THE CATCH CAN SYSTEM

Step 19:

Lubricate the o-rings with clean engine oil, then push the PCV cap onto the intake manifold port.

Step 20:

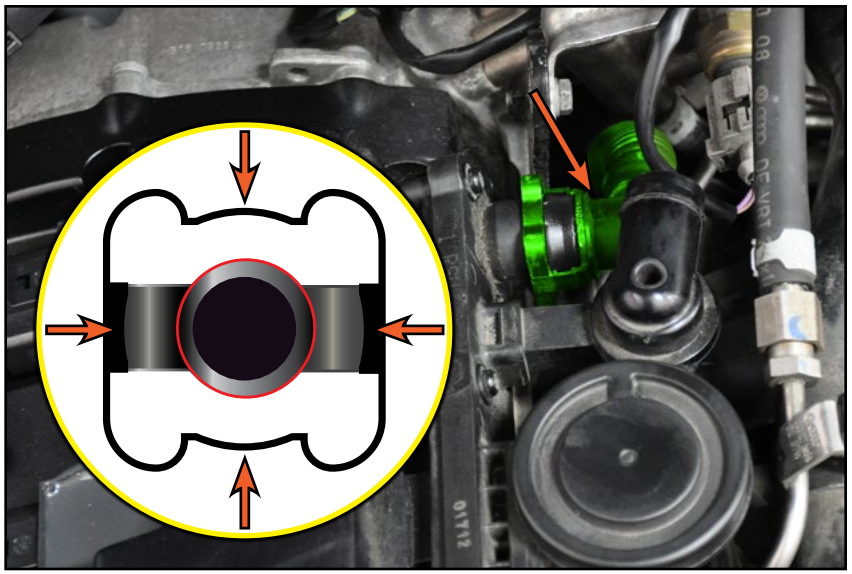
Install the PCV cap retaining clip into the groove.



INSTALLING THE CATCH CAN SYSTEM

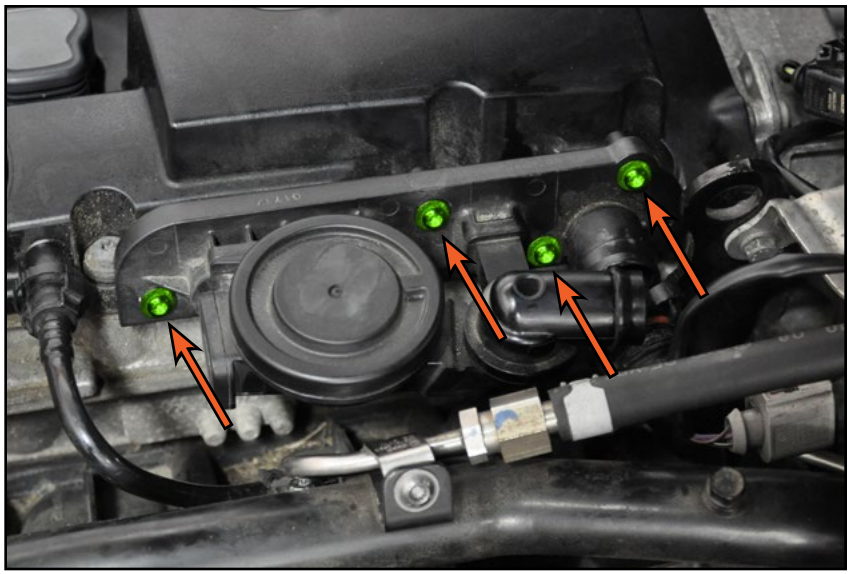
Step 21: Small Angled Pick

Disconnect the crank vent hose from the PCV assembly. These are a little tricky. The inset photo shows the end of the crank vent hose. It locks onto the PCV assembly at the four points indicated by the arrows. Begin by pulling back on the hose, then slowly working your way around the end and release it at each point. Pulling back on the hose will prevent each point from re-locking onto the PCV assembly. Once you have released all four points, the hose will slide off.



Step 22: T25 Torx

Remove the four screws on the PCV assembly. Set them aside but do not lose them, you will be reusing them in a later step.



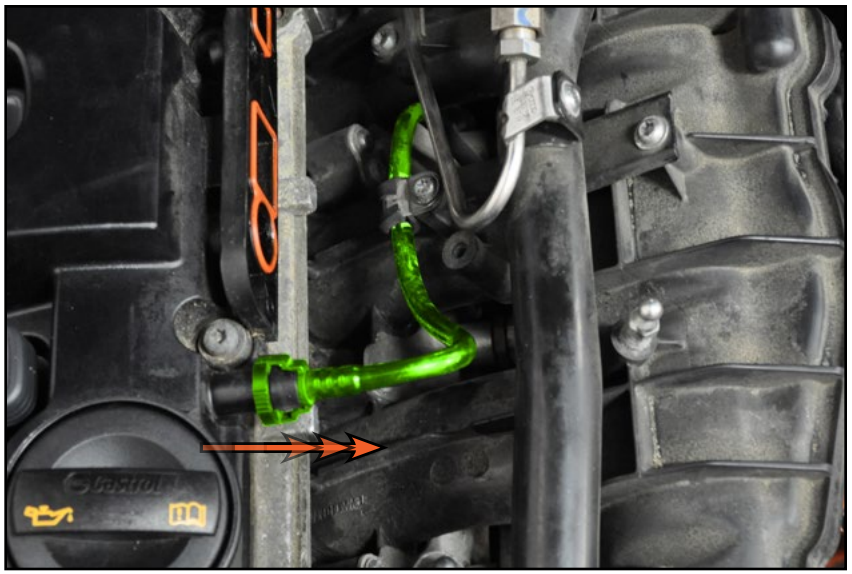
INSTALLING THE CATCH CAN SYSTEM

Step 23:

Lift the PCV assembly off of the valve cover.

Step 24:

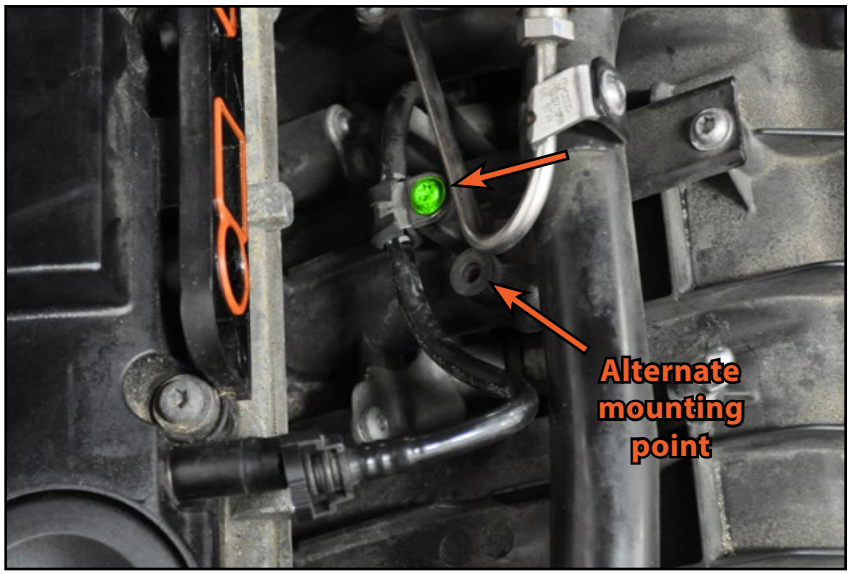
Disconnect the air tube from the valve cover by squeezing the tube ends together and pulling it off (the same method used for the PCV tube in step 18).



INSTALLING THE CATCH CAN SYSTEM

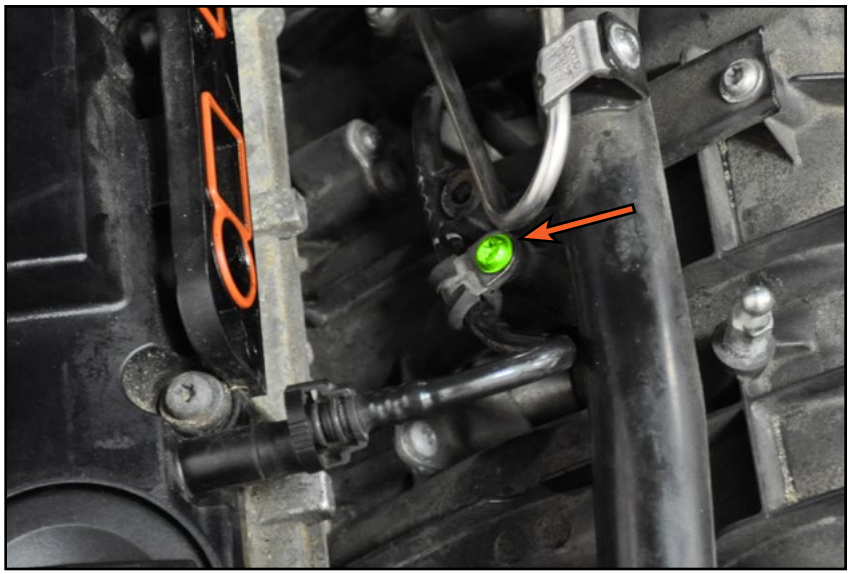
Step 25: T30 Torx

Remove the screw holding the air tube clamp to the intake manifold. Now look just ahead of the mounting point for the clamp and you will see an alternate mounting point.



Step 26: T30 Torx

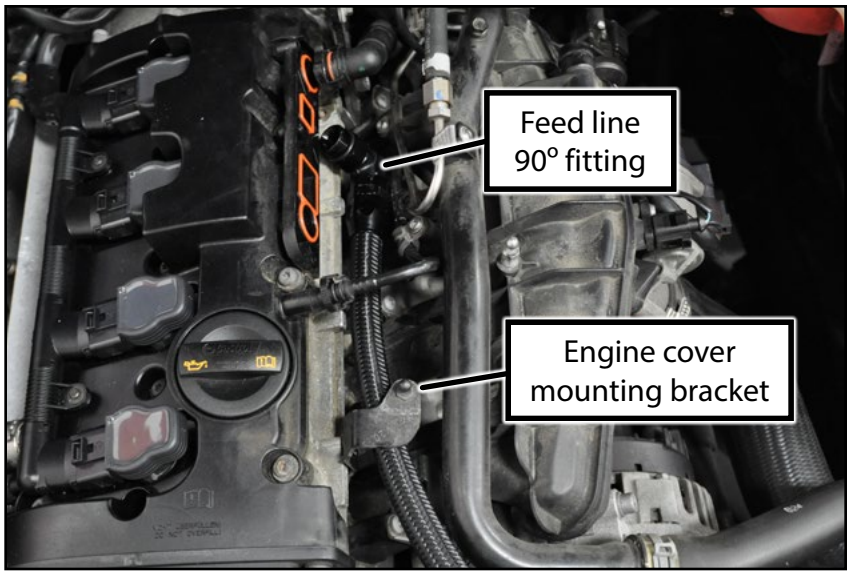
Slide the clamp along the air tube and line it up with the alternate mounting point on the intake manifold. Reinstall and tighten the screw. Do not reconnect the air tube to the valve cover at this time.



INSTALLING THE CATCH CAN SYSTEM

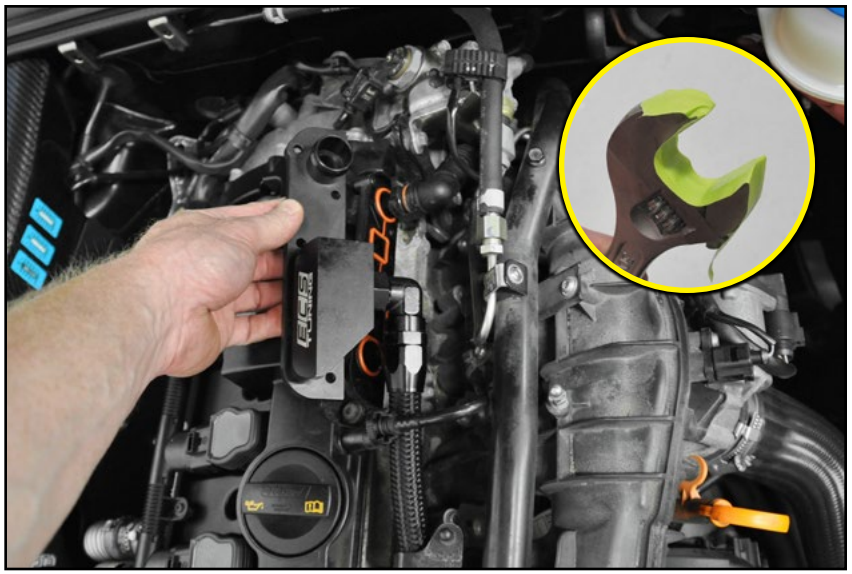
Step 27:

Guide the feed line underneath the engine cover mounting bracket and locate the 90° end near the PCV openings on the valve cover as shown.



Step 28: AN Wrench or Crescent Wrench

Thread the 90° end of the feed line into the new PCV adapter plate and tighten the fitting.



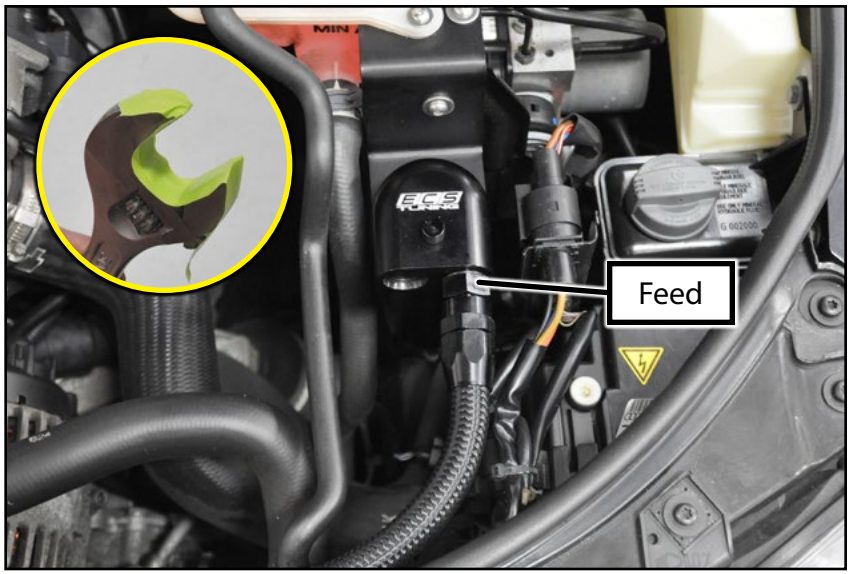
TECH TIP

To prevent damage to the finish on the catch can lines, apply masking tape to the jaws of the Crescent or AN wrench (shown in the inset photo).

INSTALLING THE CATCH CAN SYSTEM

Step 29: AN Wrench or Crescent Wrench

Thread the straight end of the feed line into RH port in the catch can separator, then tighten the fitting.

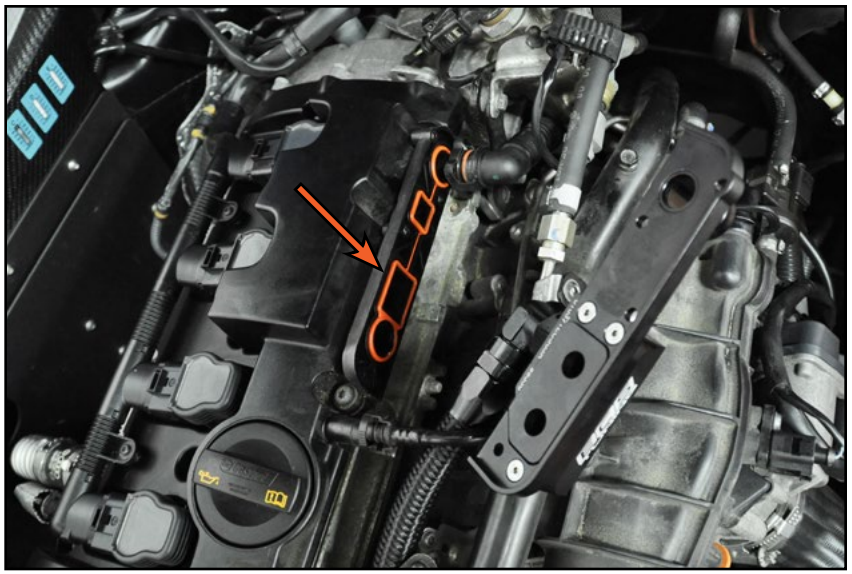


TECH TIP

To prevent damage to the finish on the catch can lines, apply masking tape to the jaws of the Crescent or AN wrench (shown in the inset photo).

Step 30:

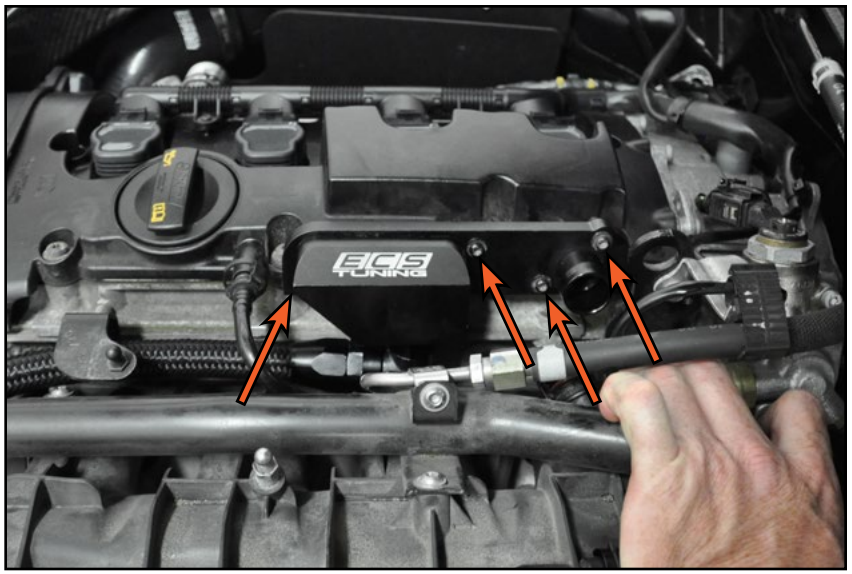
Clean the PCV seals on the valve cover with a lint free rag.



INSTALLING THE CATCH CAN SYSTEM

Step 31: T25 Torx

Position the new PCV adapter plate on the valve cover, then install and tighten the four screws.



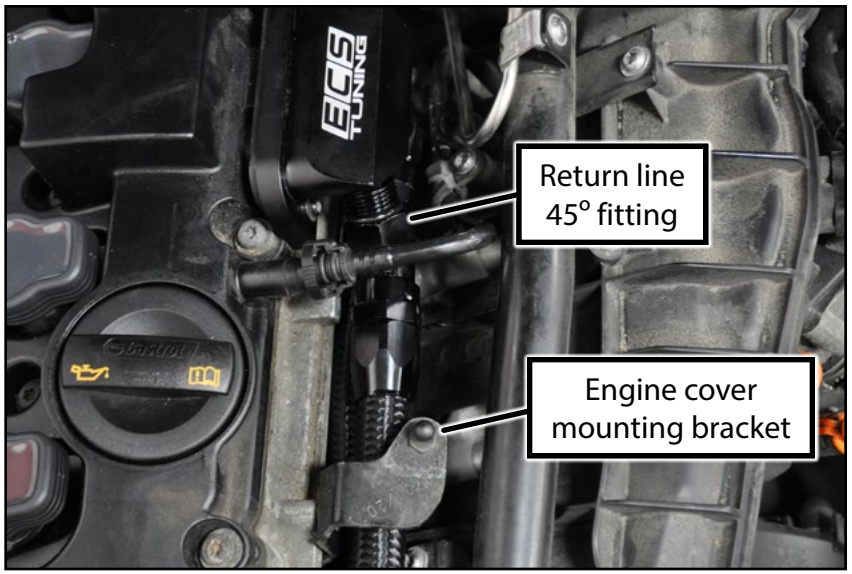
Step 32:

Attach the crank vent hose onto the new PCV adapter plate.

INSTALLING THE CATCH CAN SYSTEM

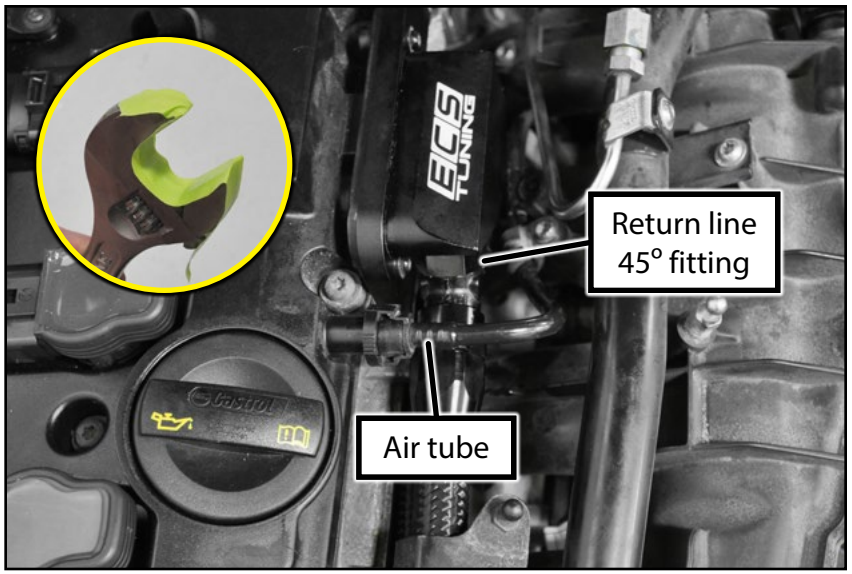
Step 33:

Route the 45° end of the return line underneath the engine cover mounting bracket.



Step 34: AN Wrench or Crescent Wrench

Thread the end of the return line into the new PCV adapter plate, then tighten the fitting. Push the air tube back onto the valve cover.



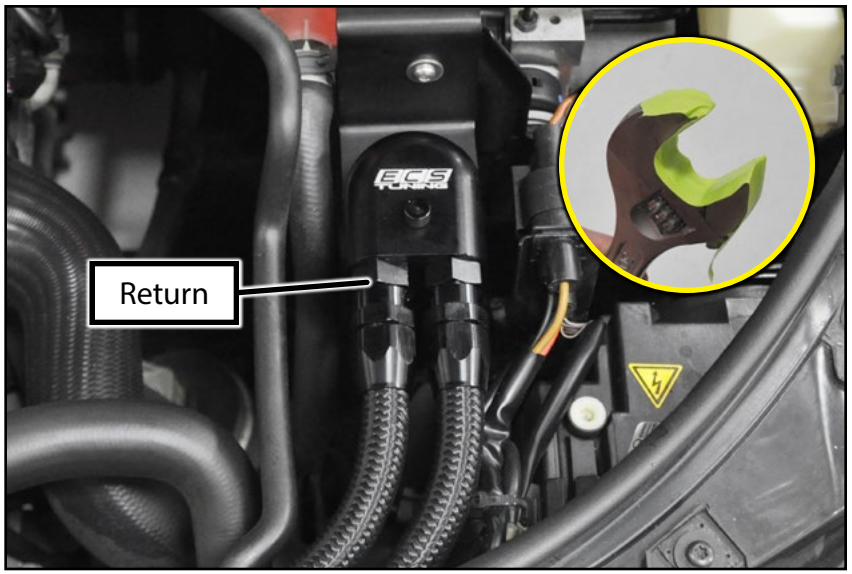
TECH TIP

To prevent damage to the finish on the catch can lines, apply masking tape to the jaws of the Crescent or AN wrench (shown in the inset photo).

INSTALLING THE CATCH CAN SYSTEM

Step 35: AN Wrench or Crescent Wrench

Thread the straight end of the return line into the LH port in the catch can separator, then tighten the fitting.



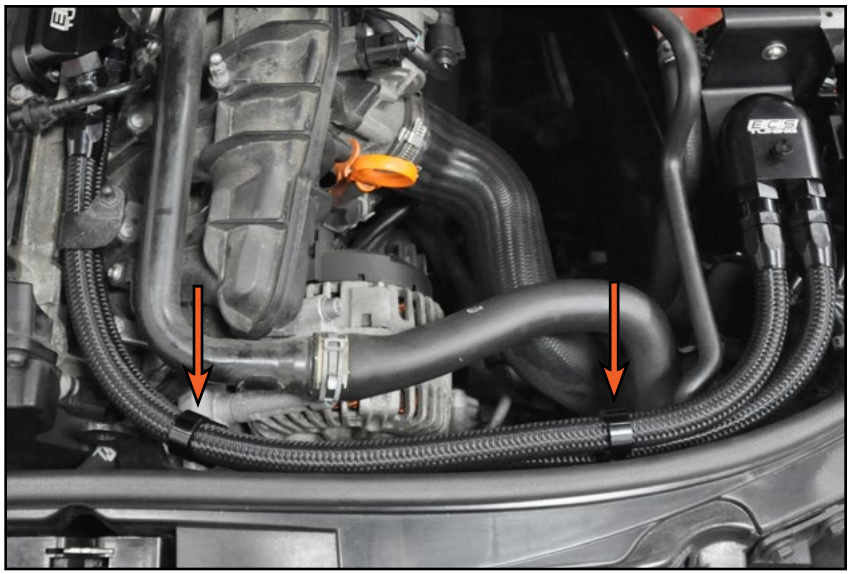
TECH TIP

To prevent damage to the finish on the catch can lines, apply masking tape to the jaws of the Crescent or AN wrench (shown in the inset photo).

Step 36: 3⁄16" Hex Bit (Allen) Wrench

Install the two line separators in place on the feed and return lines as they run along the core support.

Reinstall the engine cover.



Your Catch Can installation is complete!

CLEANING AND MAINTENANCE

Step 1:

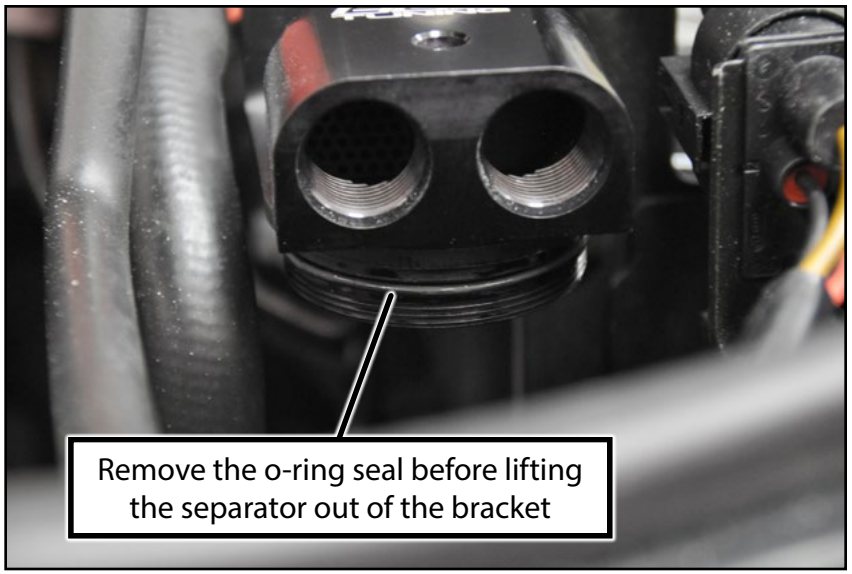
We recommend that you check the level of the waste in your catch can on a regular basis. Start with once a week until you determine the amount of time it takes your car to fill the reservoir. Note that the dipstick does not go all the way to the bottom of the reservoir. When you begin to see waste register 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.

NOTE

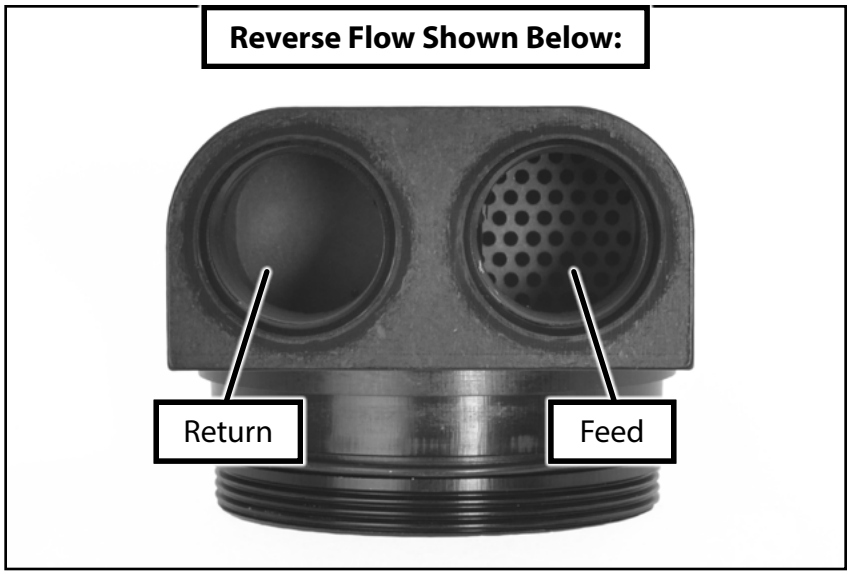
If the o-ring seal needs to be replaced, it is available as a replacement part on our website, ES#3097721.



CLEANING AND MAINTENANCE

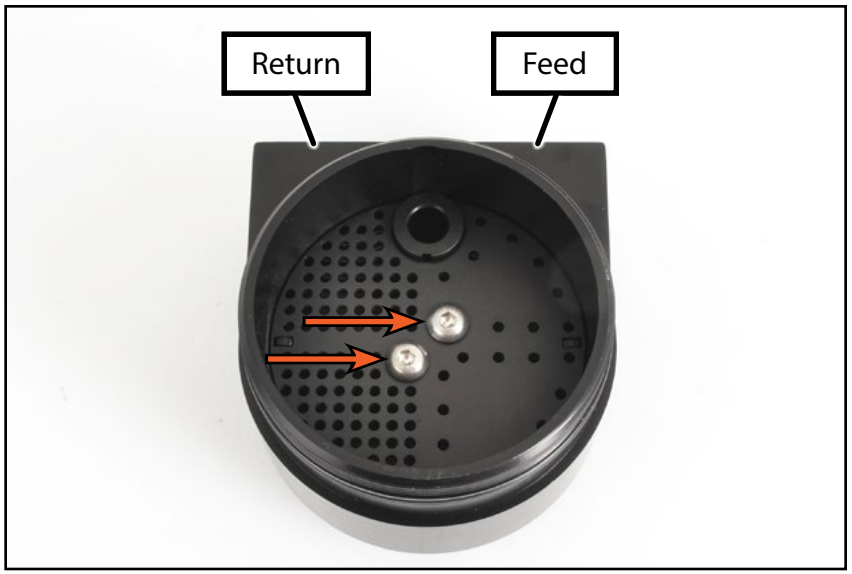
Step 3:

Once you have removed the separator, note the orientation of the baffle inside. The feed side of the separator has a number of small holes in it, the return side looks like a flat plate.



Step 4: 2.5mm Allen

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



CLEANING AND MAINTENANCE

Step 5:

Lift the baffle plate out of the separator housing.

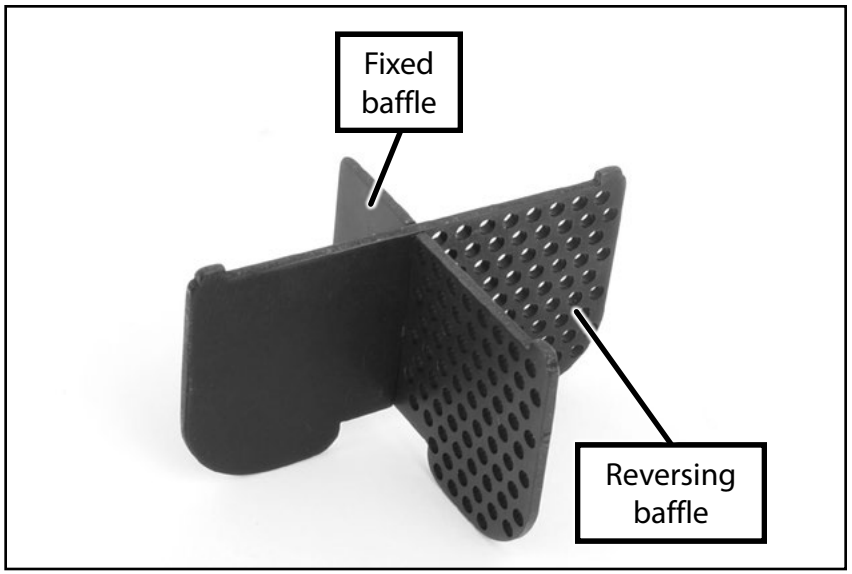
Step 6:

Lift the remaining baffles out of the separator housing.

CLEANING AND MAINTENANCE

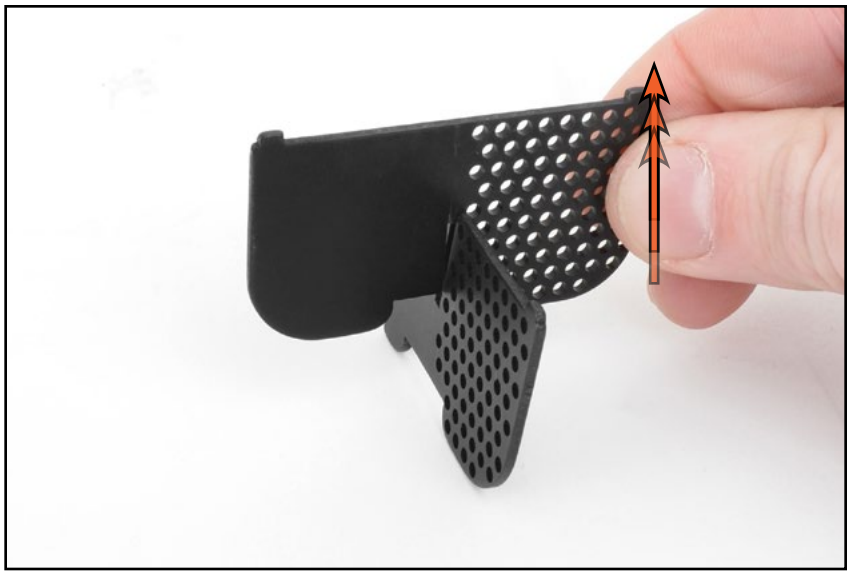
Step 7:

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



Step 8:

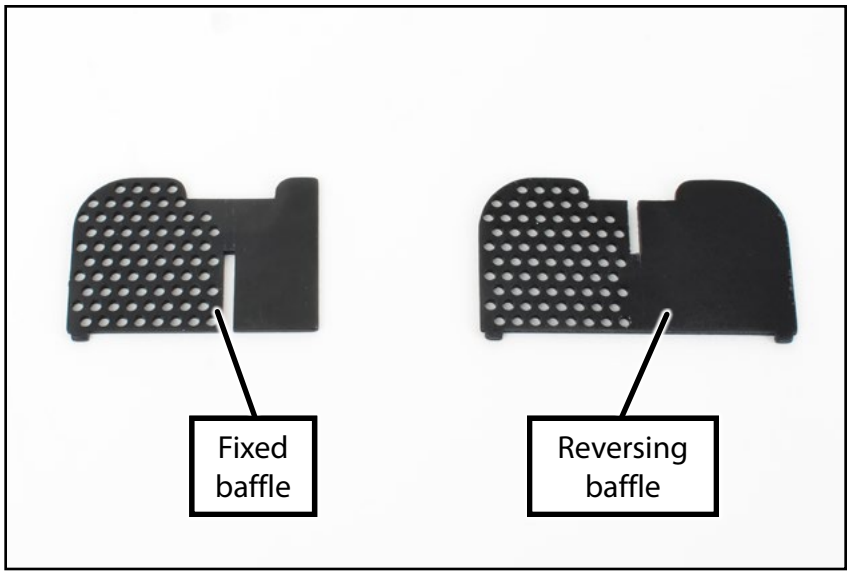
Slide the two baffles apart.



CLEANING AND MAINTENANCE

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.



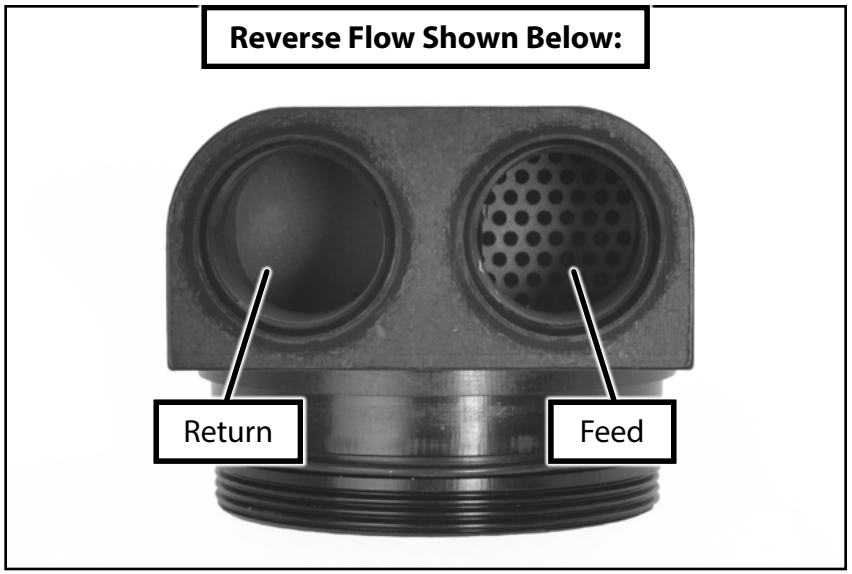
NOTE

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

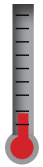
Reassemble the baffles into the separator housing and make sure that the baffles have not been reversed and the feed and return sides are positioned correctly.

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



CLEANING AND MAINTENANCE

COLD TEMPERATURE WARNING



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

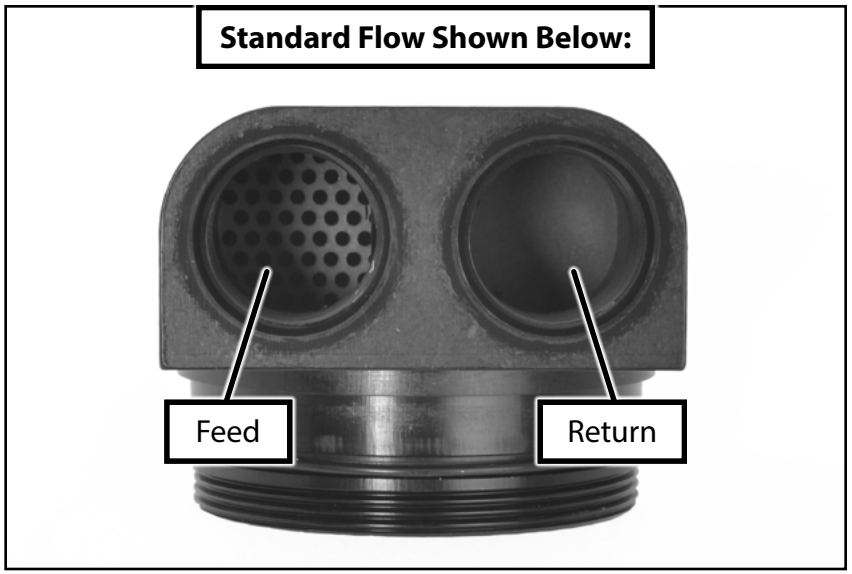
When the temperature outside approaches freezing, your catch can should be cleaned on a weekly basis to prevent freeze up of the crank vent system and damage to engine seals.

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.

REVERSING THE FLOW OF THE CATCH CAN

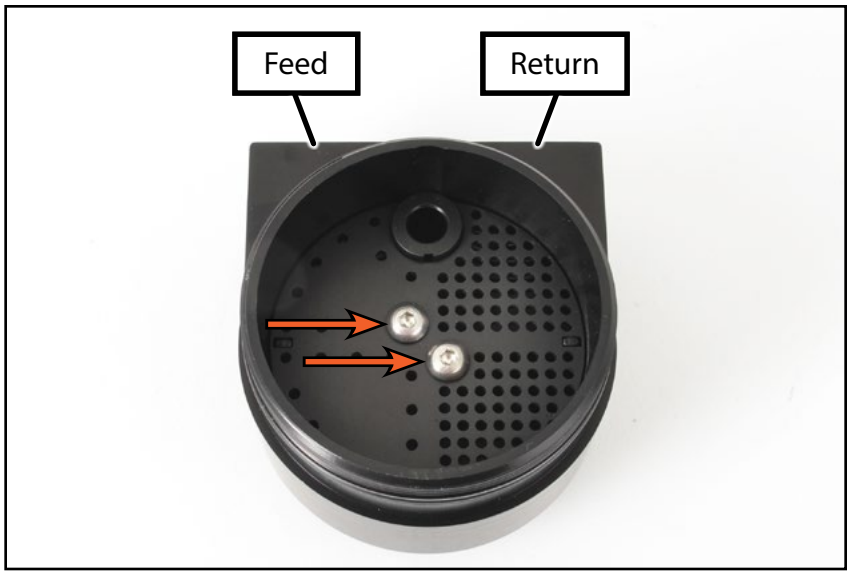
Step 1:

You can reverse the flow of your catch can in order to create the best mounting location and line routing for your application. To begin, look into the separator and identify where the feed and return sides are oriented from when the catch can was originally assembled. The feed side of the separator has a number of small holes in it, the return side looks like a flat plate.



Step 2:

Using the 2.5mm allen wrench included with the separator, remove the two baffle plate screws (arrows).



REVERSING THE FLOW OF THE CATCH CAN

Step 3:

Lift the baffle plate out of the separator housing.

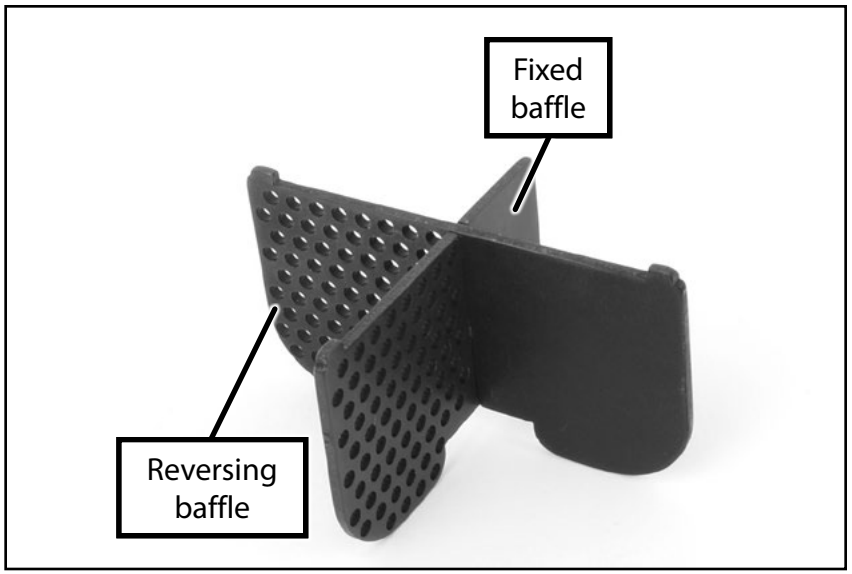
Step 4:

Lift the remaining baffles out of the separator housing. Note the position of the inlet screen on the reversing baffle (arrow).

REVERSING THE FLOW OF THE CATCH CAN

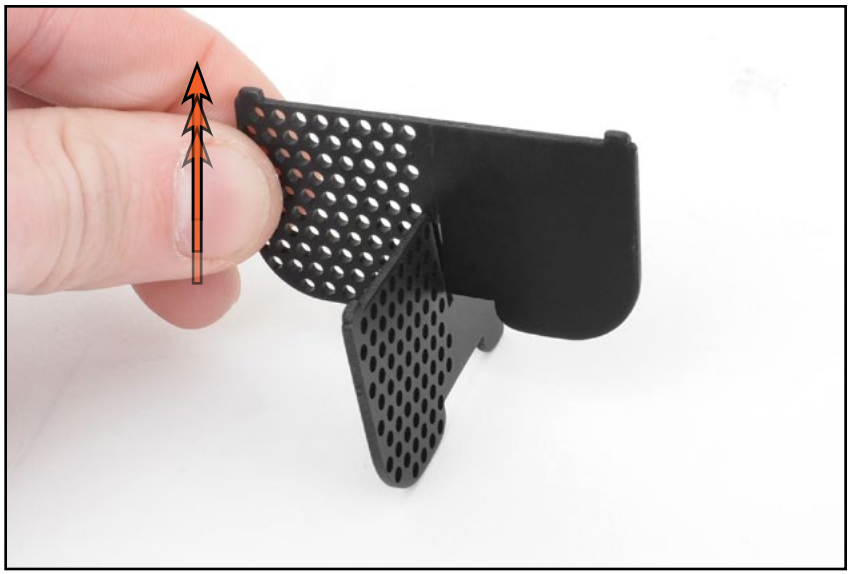
Step 5:

Again note the positions of the fixed baffle and the reversing baffle.



Step 6:

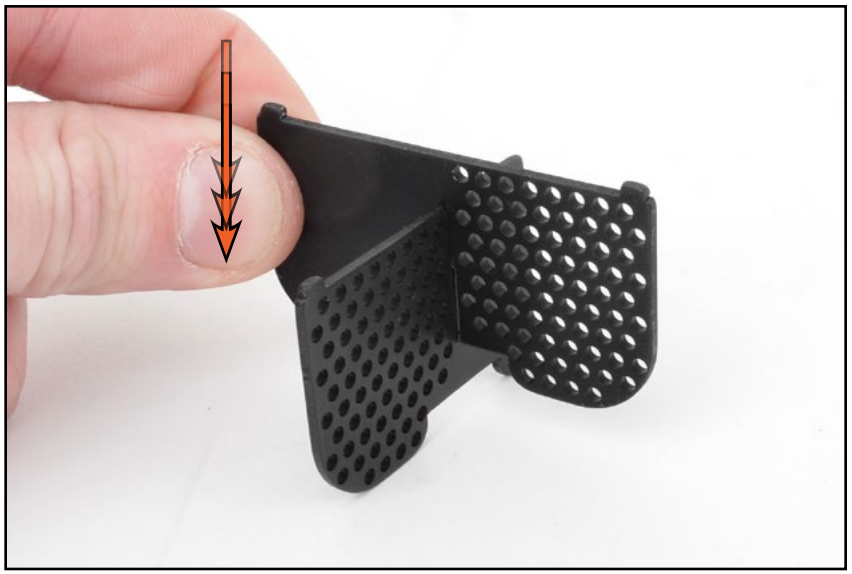
Slide the two baffles apart.



REVERSING THE FLOW OF THE CATCH CAN

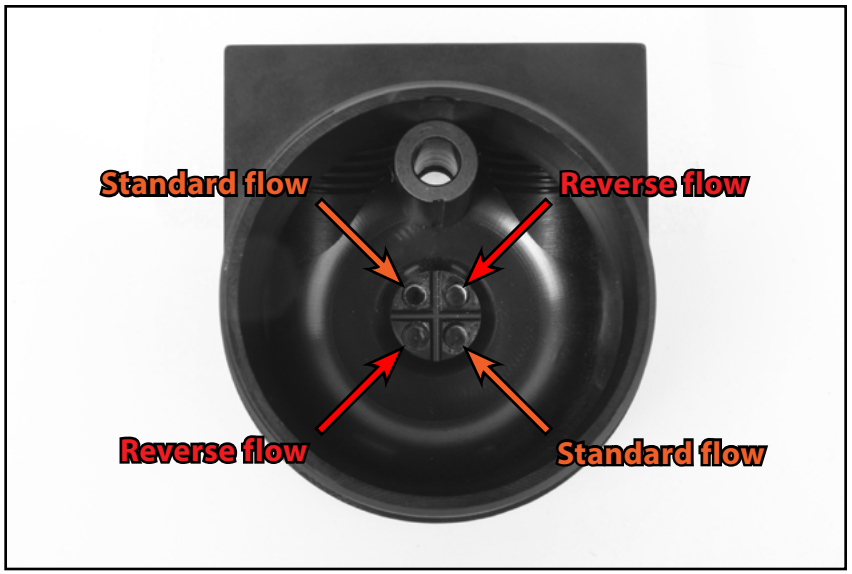
Step 7:

Flip the reversing baffle and slide it back onto the fixed baffle.



Step 8:

Inspect the inside of the separator housing. You will see that there are two sets of threaded holes for the baffle plate screws. When you reverse the flow, you will use the opposite holes when reinstalling the baffle plate screws.



REVERSING THE FLOW OF THE CATCH CAN

Step 9:

Reinstall the baffles into the separator housing. Note that the inlet screen on the reversing baffle should now be located on the opposite side.

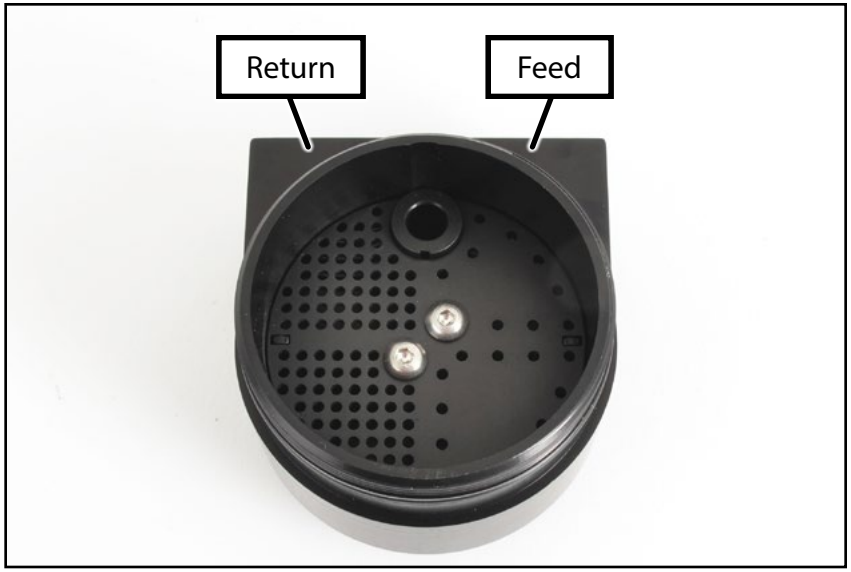
Step 10:

Flip the baffle plate so it is opposite of the removal position and place it back into the separator housing.

REVERSING THE FLOW OF THE CATCH CAN

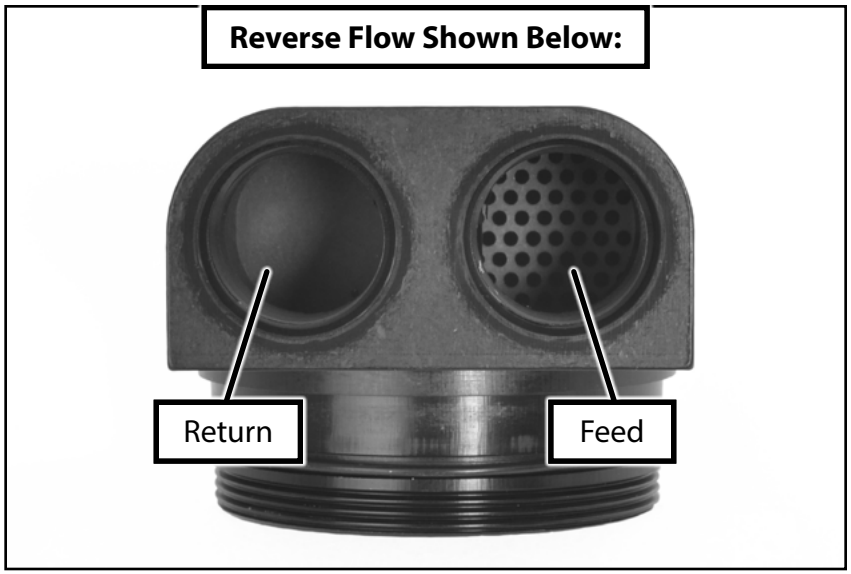
Step 11:

Reinstall the baffle plate screws utilizing the opposite holes in the separator housing. Compare the new baffle plate position with step 2 in this section to make sure it is properly installed for reverse flow.



Step 12:

Your reverse flow separator will now have the feed side and return side located as shown in the photo.



If you needed to reverse the direction of flow before installing the catch can separator into your vehicle, click HERE to skip back to the installation steps.

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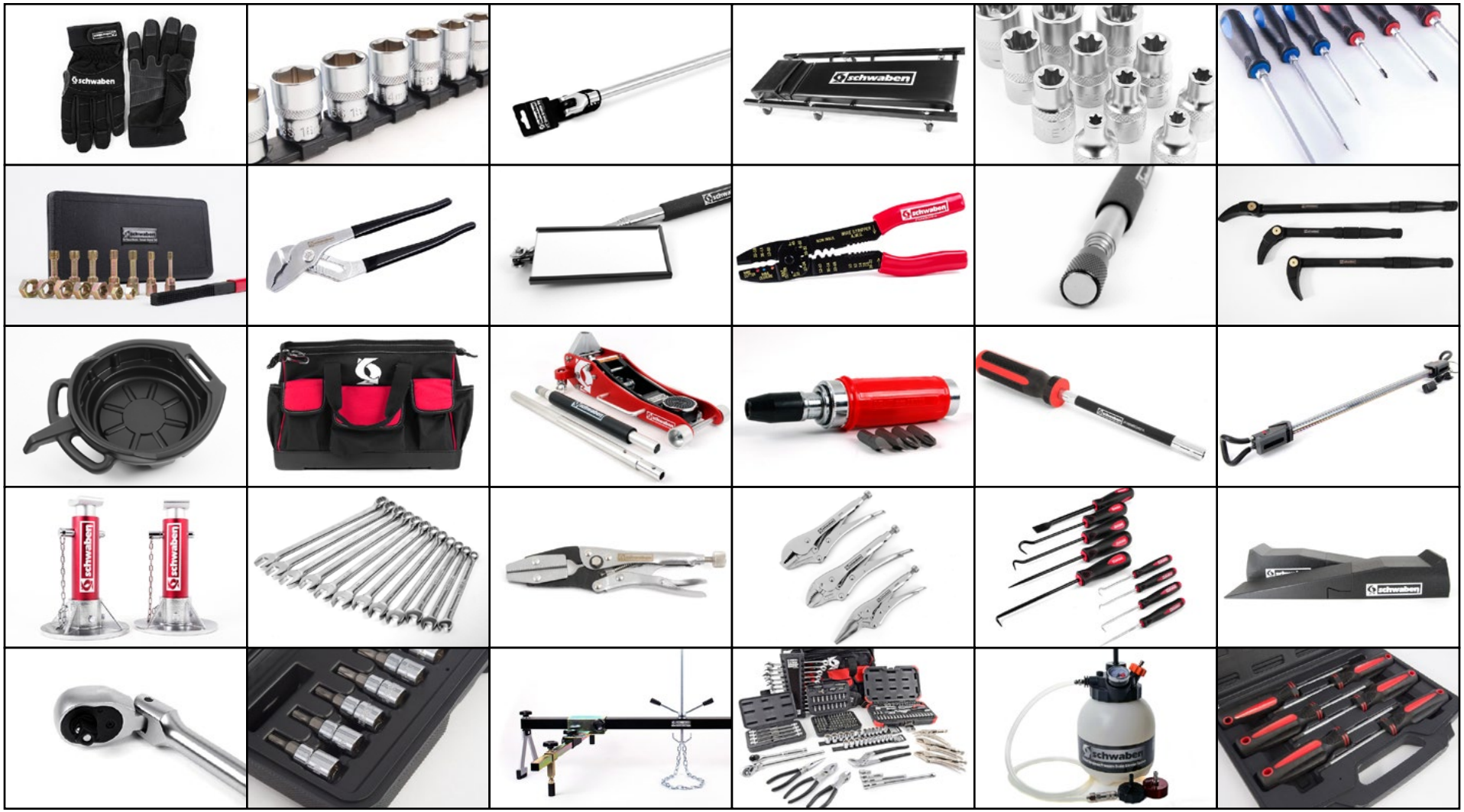

Your Catch Can System installation is complete!

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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