

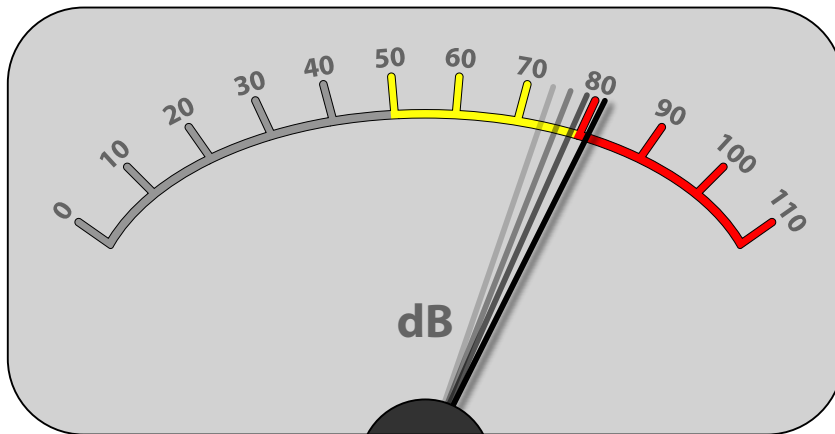
## Vacuum Actuated Exhaust Cutout Installation Instructions



## INTRODUCTION

### The Project:

What if you could completely change the volume and tone of your exhaust with the flip of a switch? Imagine being able to turn your exhaust from a quiet reserved stock system to a deep thunderous rumble at your very whim. Introducing our new ECS Tuning Vacuum Actuated Exhaust Cutout. Our exhaust cutouts have been meticulously designed in house to provide superior fitment, performance and reliability. These cutouts are designed to be completely universal; simply select the correct diameter to match your current exhaust system and choose a mounting location with adequate clearance to accommodate the cutout.\* Once installed you can simply flip a switch to open the valve and hear your engine's true roar, then flip it back to close the valve and drive away in total stealth. This cutout is not for the faint of heart, you can feel the deep booming in your chest and it's sure to turn some heads wherever you go. If I had to describe this kit in a few short words: This one is **LOUD**.



We will be installing our exhaust cutout on our VW MK6 GTI with the optional Double Apex OEM Style Switch, but keep in mind that this is a universal kit and these instructions will be applicable to all applications.

Total installation time is a few hours, making it the perfect weekend project. We have created detailed diagrams and helpful instructions to help make your installation go smoothly. Be sure to read all the way through the instructions and diagrams and refer back to them as needed throughout your install. Thank you for choosing ECS Tuning, we appreciate your business!

**\* Be sure to check your local laws and regulations before installing your exhaust cutout.**

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## KIT CONTENTS



Installation Kit with Rocker Switch



Vacuum Actuated Exhaust Cutout



**Optional:** Double Apex VW OEM Style Switch  
*(see next page)*

# DOUBLE APEX SWITCH KIT CONTENTS



Toggle Switch  
(QTY 1)



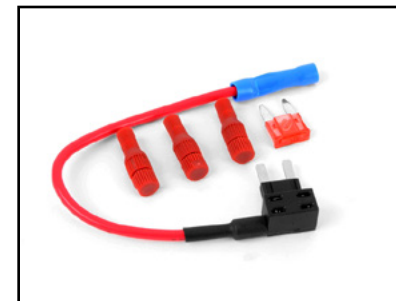
Relay Module  
(QTY 1)



Relay Wiring Harness  
(QTY 1)



Hex Key  
(QTY 1)



Install Kit  
(QTY 1)

## REQUIRED TOOLS

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

### Standard Automotive Tools

- Protecta-Sockets (for lug nuts)..... [ES#2221243](#)
- **3/8" Drive Ratchet**..... [ES#2765902](#)
- 3/8" Drive Torque Wrench..... [ES#2221245](#)
- **3/8" Drive Deep and Shallow Sockets** ..... [ES#2763772](#)
- **3/8" Drive Extensions** ..... [ES#2804822](#)
- **Hydraulic Floor Jack** ..... [ES#240941](#)
- Torx Drivers and Sockets ..... [ES#11417/8](#)
- 1/2" Drive Deep and Shallow Sockets..... [ES#2839106](#)
- 1/2" Drive Ratchet
- 1/2" Drive Extensions
- 1/2" Drive Torque Wrench..... [ES#2221244](#)
- 1/2" Drive Breaker Bar ..... [ES#2776653](#)
- Bench Mounted Vise
- Crows Foot Wrenches
- **Hook and Pick Tool Set**..... [ES#2778980](#)

### Required For This Install

- 1/4" Drive Ratchet..... [ES#2823235](#)
- 1/4" Drive Deep and Shallow Sockets ..... [ES#2823235](#)
- 1/4" 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
- Drill Bits
- Punch and Chisel Set
- Hex Bit (Allen) Wrenches and Sockets ..... [ES#11420](#)
- Thread Repair Tools ..... [ES#1306824](#)
- Open/Boxed End Wrench Set ..... [ES#2765907](#)

### Available On Our Website

### Specialty Tools

- **Exhaust Pipe Cutter** ..... [ES#3106581](#)
- **Die Grinder - OR - Metal File**

## 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

Installation can be easily separated into three sections: Installing the exhaust cutout, routing the vacuum line, and installing the switch. Installation of the exhaust cutout is simple and routing the vacuum line is fairly straight forward, however installation of the switch can be a little tricky as you have to route the wiring harness through the firewall, find a suitable power source, and mount the switch.

***Now let's get to it!***





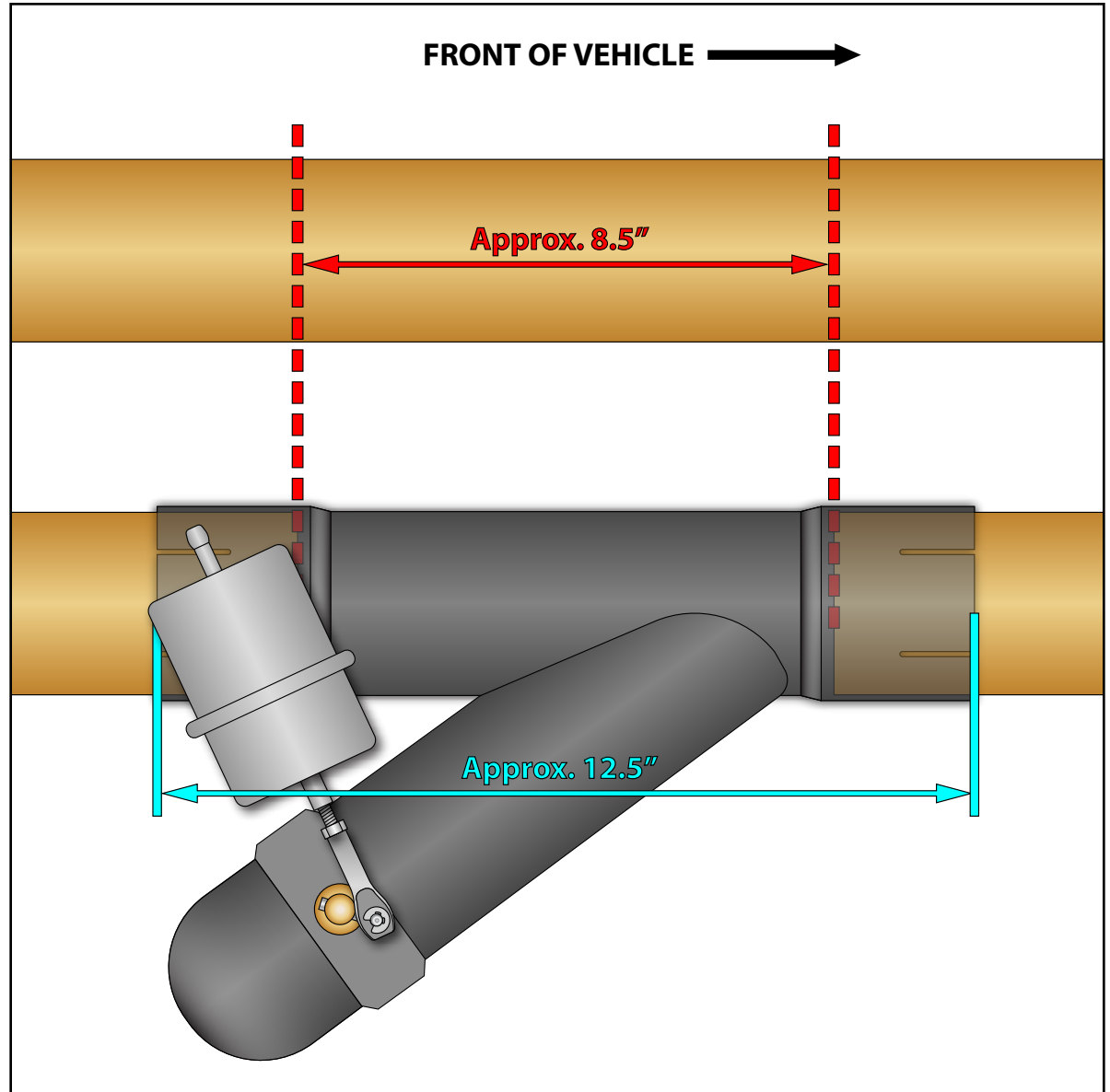
## INSTALLING THE EXHAUST CUTOUT

### Step 1:

The exhaust cutout is designed to take the place of approximately 8.5" of straight pipe anywhere in the exhaust system, but keep in mind that the overall length of the cutout is actually around 12.5". This means that you need to locate a section of straight pipe which is over 12.5" long, this is where you will want to install the cutout. You will also need to ensure that you have adequate clearance for the turn down and the vacuum actuator.



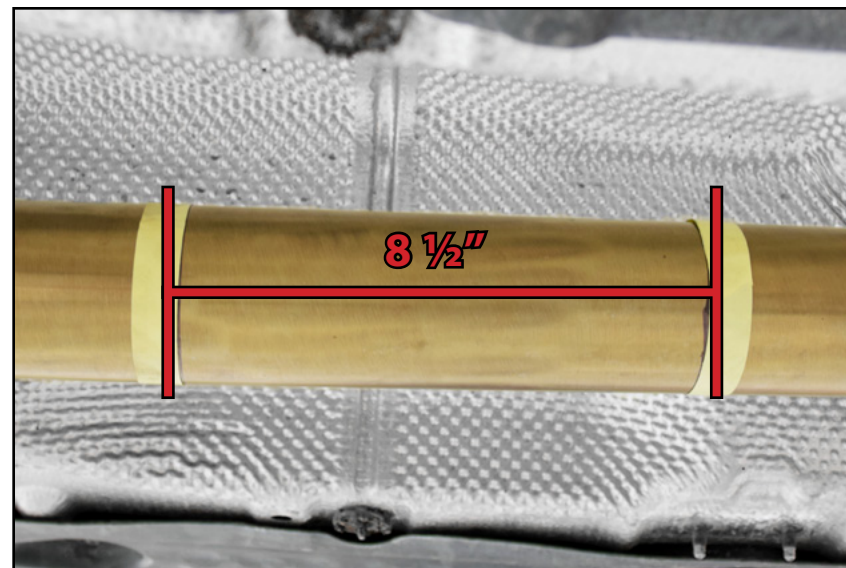
The 60mm exhaust cutouts do not utilize bulging slip joints, instead the pipe is the same diameter across the entire length of the pipe. If you have measured properly, once cut there should be proximately 1.75" of pipe inside each end of the cutout for proper clamping and seal.



# INSTALLING THE EXHAUST CUTOUT

## Step 2: Masking Tape or Marker

Once you've found a suitable location, measure out 8 1/2" and mark the pipe where you plan to make your cut.



## Step 3:

Measure the distance between the two marks again, to ensure accuracy and re-mark if needed. Remember you can only cut once, so measure twice, cut once!



## INSTALLING THE EXHAUST CUTOUT

### Step 4:

Before making any cuts it is also a good idea to lift the exhaust cutout into place to ensure there is adequate clearance between the cutout any other components.



### Step 5:

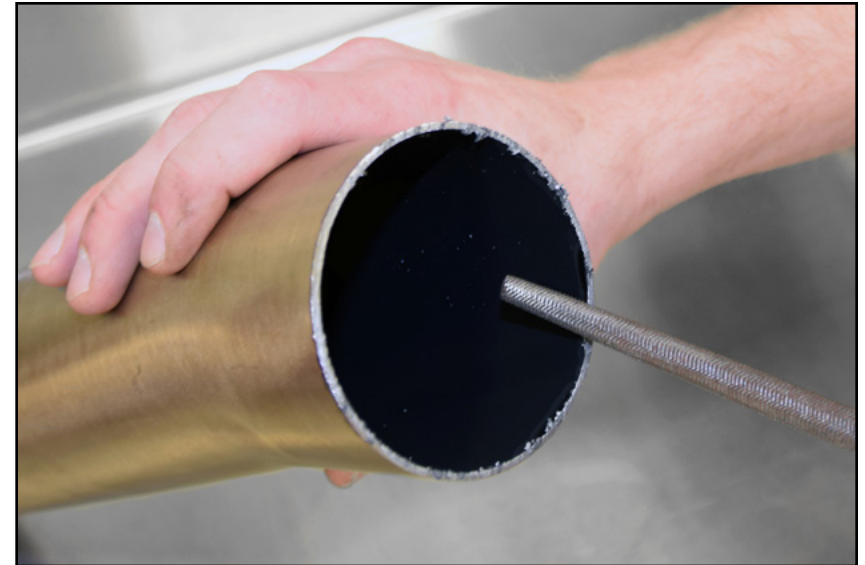
Using a reciprocating saw or other suitable tool, cut the exhaust at the marks we made in the previous steps.



## INSTALLING THE EXHAUST CUTOUT

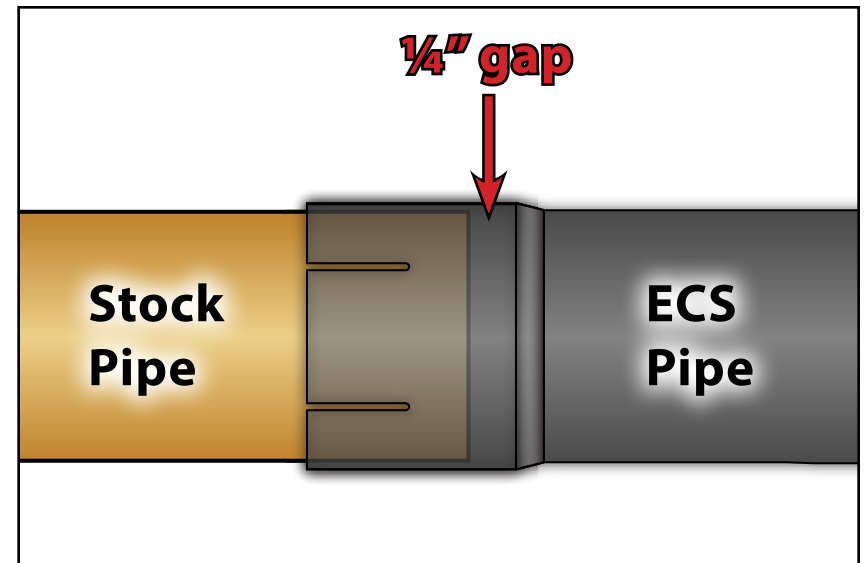
### Step 6:

File away any burrs or sharp uneven edges on the stock pipes to help create a strong leak-free connection.



### Step 7:

If your measurements are made correctly, there should be approximately a  $\frac{1}{4}$ " gap on either side between the stock pipe and the cutout to allow for heat expansion.



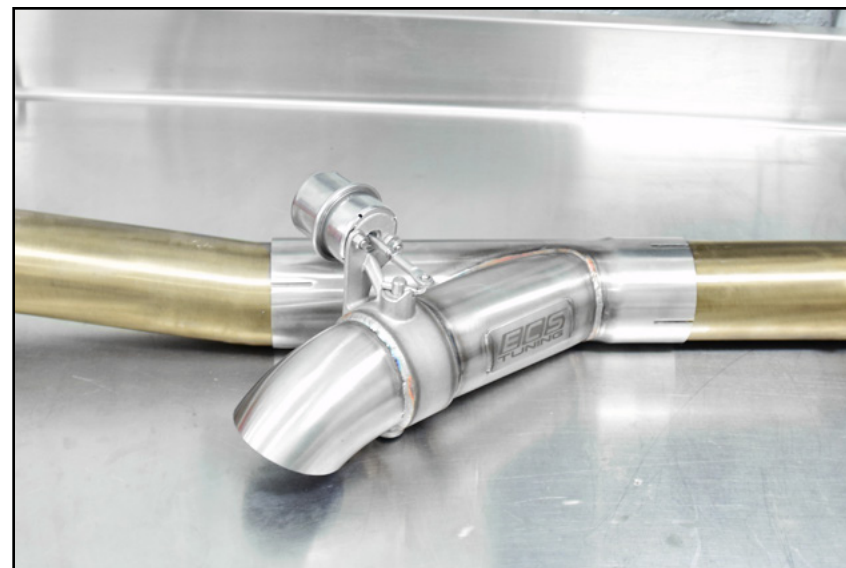
## INSTALLING THE EXHAUST CUTOUT

### Step 8:

With the turn down facing rearward, slide one end of the cutout over the cut end of the pipe, then slide the other end of the cutout over the pipe on the other side and adjust it so that there is a small gap on either end.



This photo was taken with the exhaust removed from the vehicle for clarity. You do not need to remove the exhaust to install the cutout.



### Step 9:

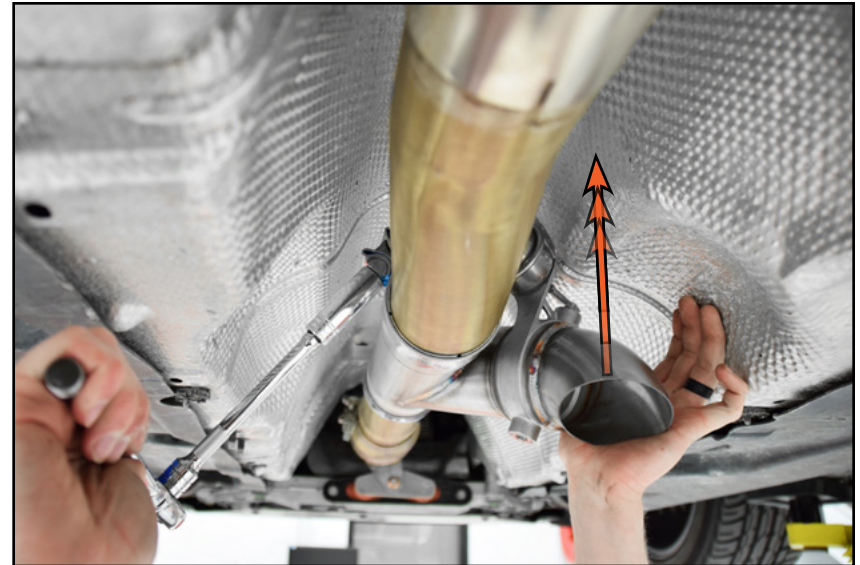
Push the system upward so that the turn down is level with the rest of the exhaust system and secure the front clamp to hold it in place.



## INSTALLING THE EXHAUST CUTOUT

### Step 10:

Push cutout upward so that the turn down remains parallel with the rest of the exhaust while you secure the rear clamp.



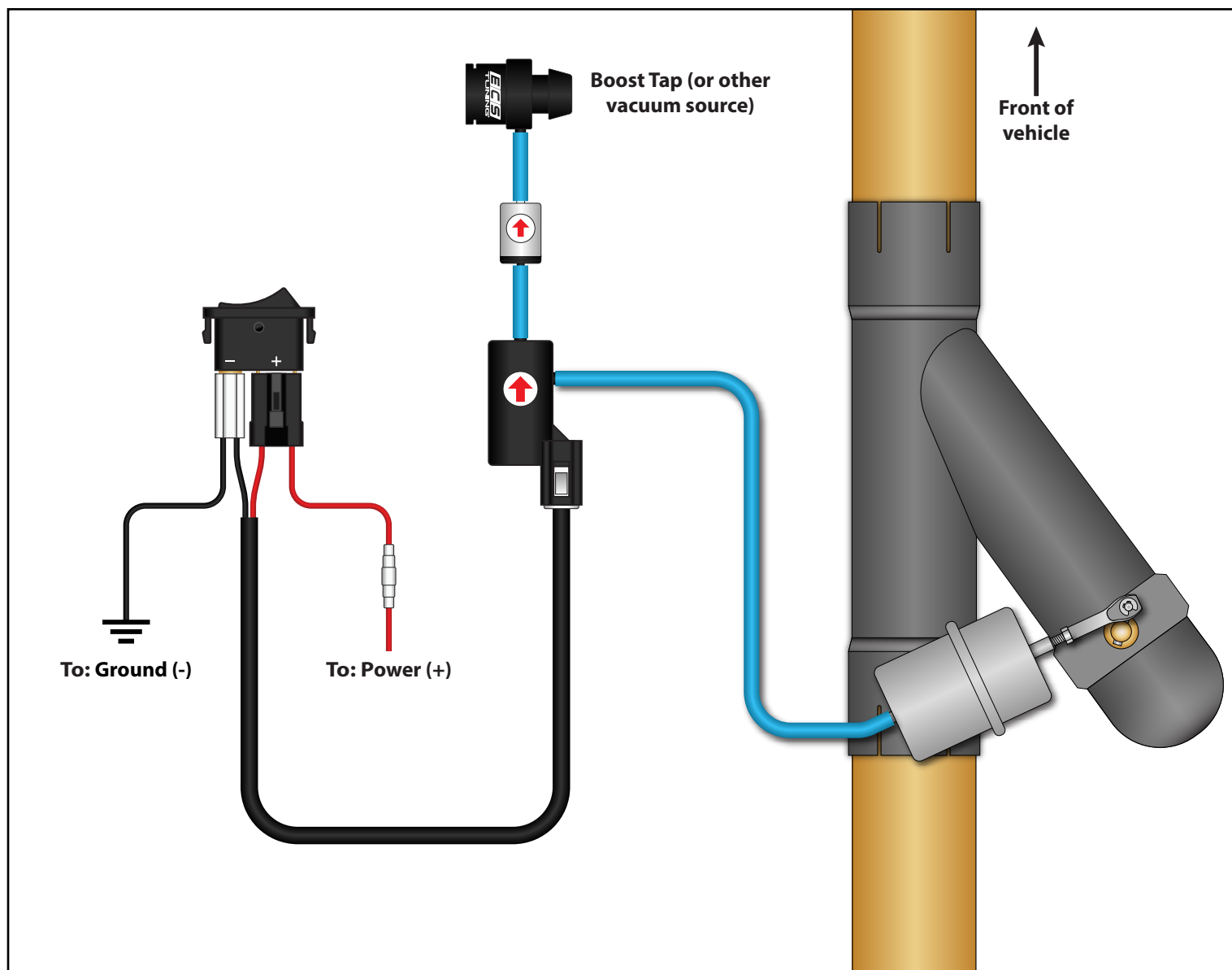
### Step 11:

Ensure that there is ample clearance for the turn down and vacuum actuator before moving forward.



## ECS ROCKER SWITCH DIAGRAM

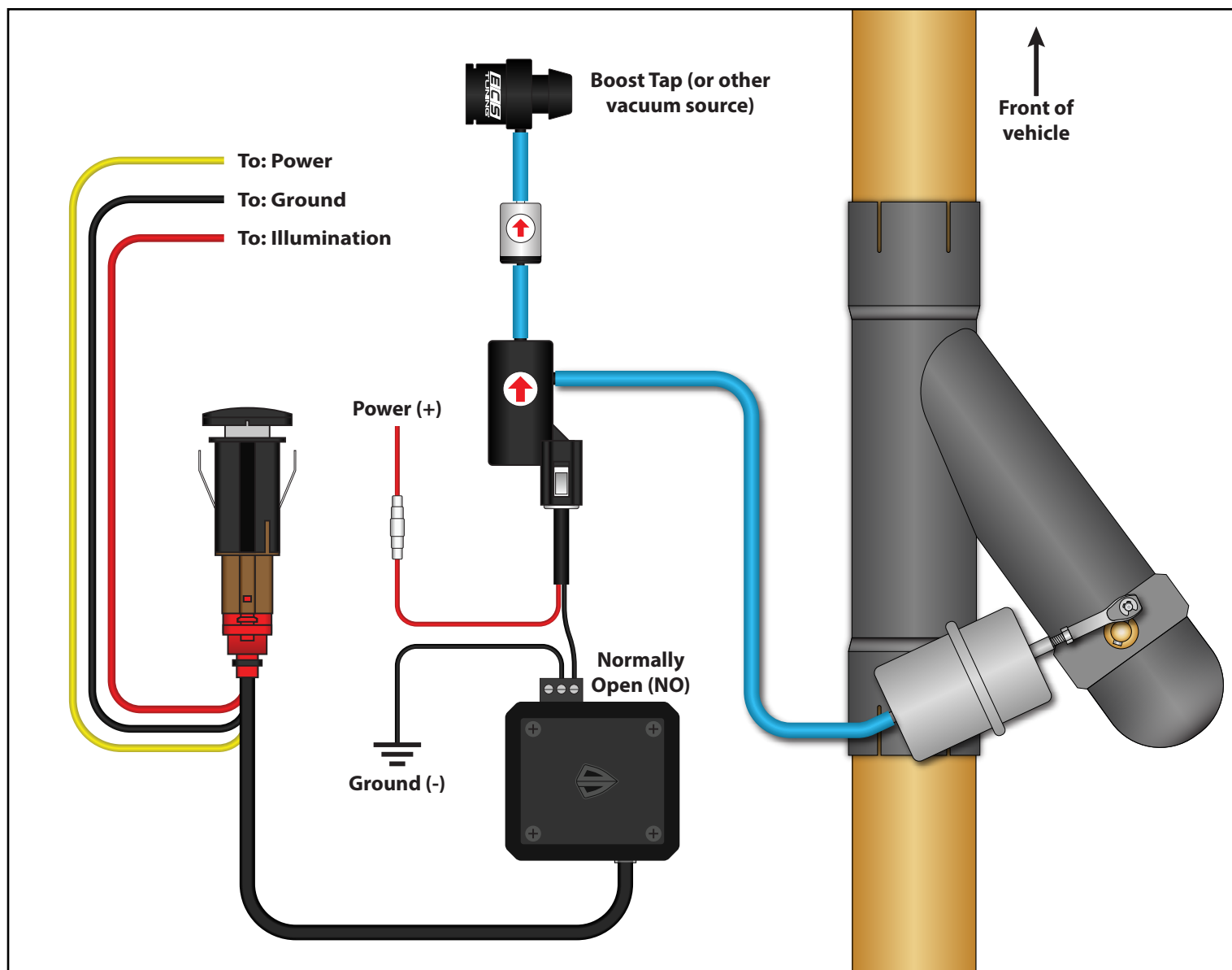
Here you will see a diagram of the vacuum actuated exhaust cutout system. In order to install the switch to operate your exhaust cutout valve, we must first find a suitable location to mount the vacuum solenoid. The cutout valve is actuated by using engine vacuum, so we will need to use a boost tap or other suitable vacuum source to tap into this vacuum. Next we must run a hose from this vacuum source to the solenoid, then we'll run another hose from the solenoid down to the vacuum actuator on the cutout. From there, it's just a matter of wiring the switch from the solenoid into a suitable power source and ground and finding a convenient location to mount the switch.



## DOUBLE APEX VW OEM STYLE SWITCH DIAGRAM

Here you will see a diagram of the **optional** Double Apex OEM Style Switch for VW MK5/6. In order to install the switch to operate your exhaust cutout, we must find a suitable location to mount the relay module. We must use a boost tap or other suitable vacuum source and run a hose from this tap to the solenoid then down to the cutout. From there, it's just a matter of wiring the relay and the switch, then connecting it to the solenoid.

It is important to note that in order to properly install the Double Apex switch you will need to cut and modify the wiring harness which comes with the ECS rocker switch.





## INSTALLING THE VACUUM SOURCE

### Step 1: T30 Torx Bit Socket & Ratchet

Find a suitable location on the firewall to install the vacuum solenoid and the wiring harness bracket, in this case we were able to utilize the bolt from the oxygen sensor wiring harness bracket to mount our solenoid. **DO NOT** install the hose and check valve during this step.



The check valve can be installed anywhere between the vacuum solenoid and the vacuum source. Take into consideration the amount of line needed between these components before cutting the hose to prevent excess waste.



**Bolt for oxygen sensor wiring harness bracket**

### Step 2:

Measure the appropriate length of line required to connect the vacuum solenoid to one of the vacuum ports on the boost tap (or other vacuum source), then cut the line to that length. Install the supplied check valve in-line **ANYWHERE** between the vacuum solenoid and the boost tap, ensuring that the arrow on the check valve is pointed **TOWARDS** the boost tap.

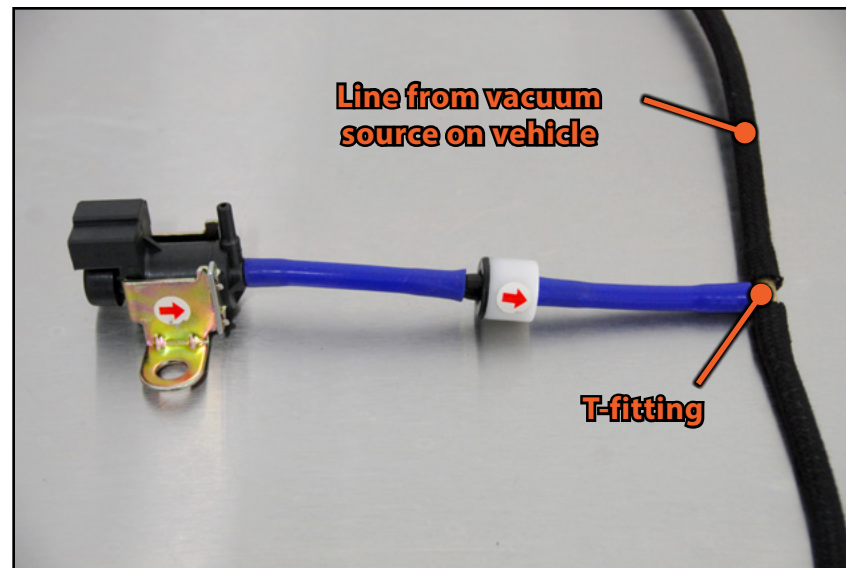


## INSTALLING THE VACUUM SOURCE

### Step 3:

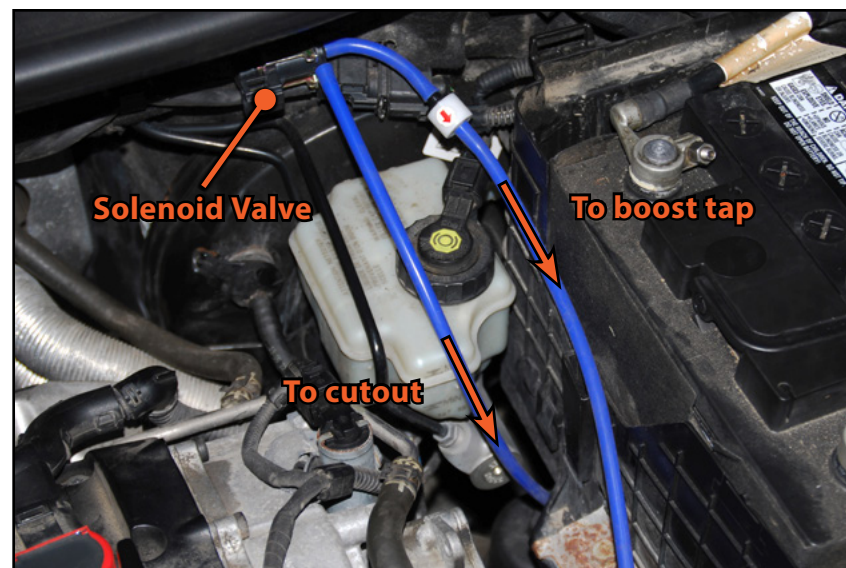
If you are tapping into an engine vacuum line or if both of the vacuum ports on your boost tap are already being used for other components, you can use the supplied "T-fitting" to splice into one of the vacuum hoses.

Using the photo for reference, cut the line and use the T-fitting to attach the vacuum hose from the vacuum solenoid. Measure the appropriate length of line required to connect the solenoid to the T-fitting, then cut the line to that length. Install the supplied check valve in-line anywhere between the valve and the boost tap, ensuring that the arrow on the check valve is pointed **TOWARDS** the T-fitting.



### Step 4:

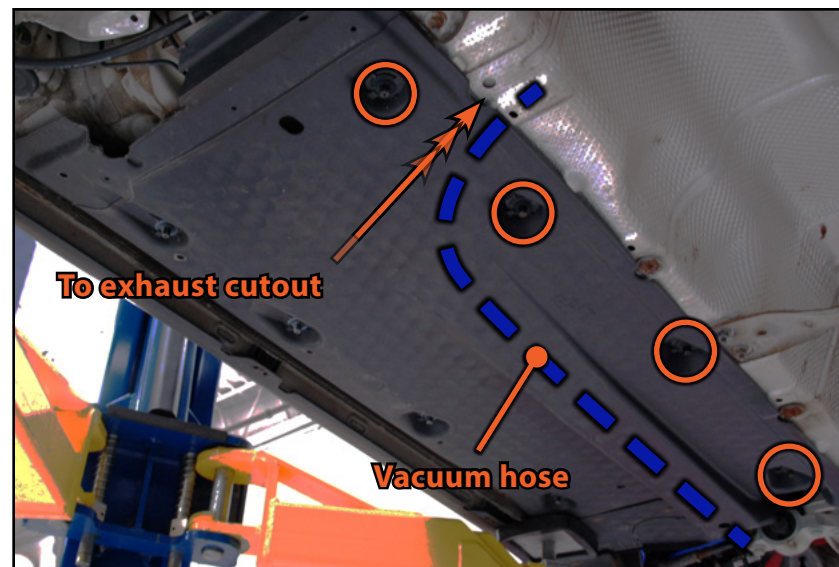
Next we will attach a vacuum hose to run to the port on the exhaust cutout valve. Route the line down away from any moving or hot components and out through the bottom of the vehicle.



## INSTALLING THE VACUUM SOURCE

### Step 5: 10mm Socket & Ratchet

Loosen the plastic nuts holding up the underbody panel, then pull down and route the vacuum hose underneath it. Reinstall the nuts after the line has been routed.



### Step 6:

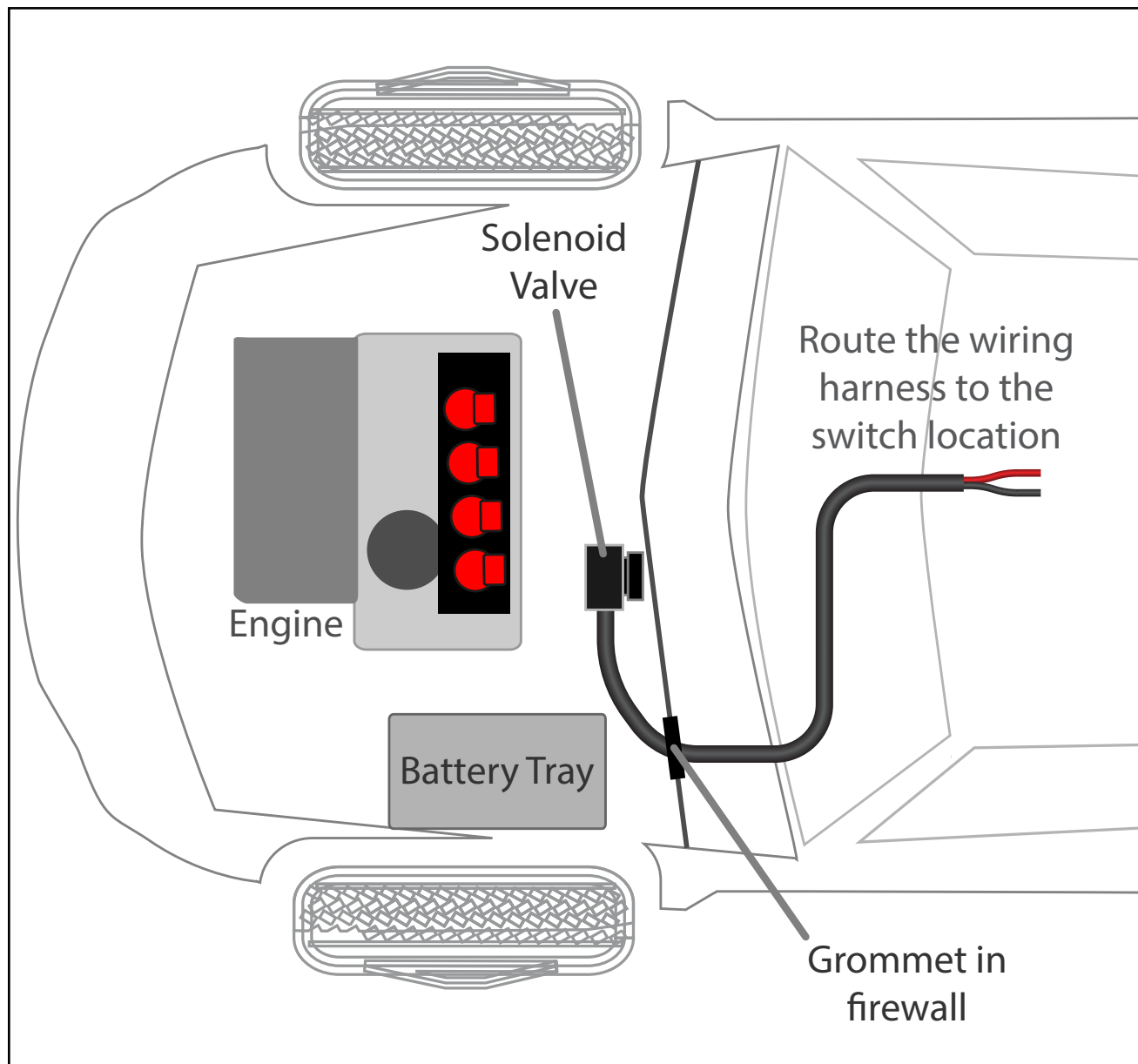
Pull the vacuum hose through the panel opening and run the line over to the port on the vacuum actuator. Secure the line away from the exhaust with a plastic tie.



# INSTALLING THE SWITCH

## Step 1:

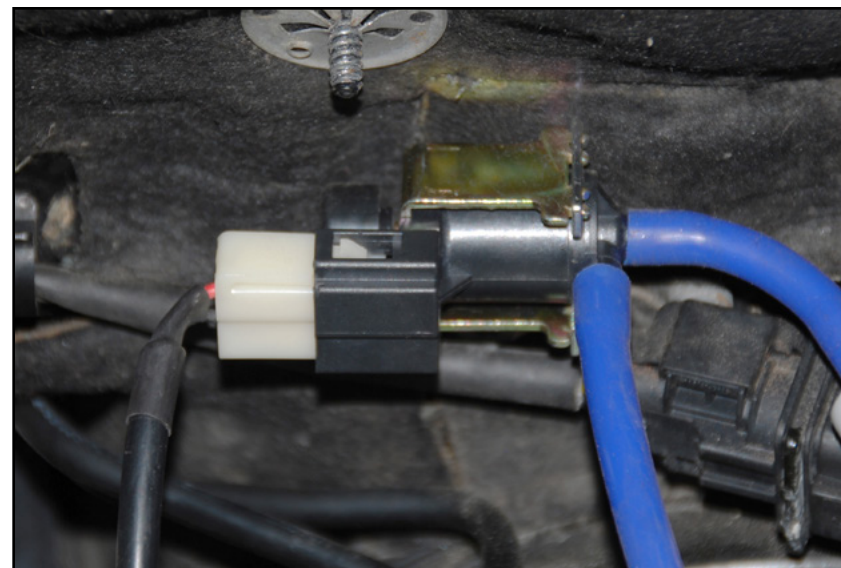
Last but not least, we need to route the wiring harness between the vacuum solenoid and the toggle switch. We have found it easier to route the vacuum solenoid end of the harness through the firewall since this connector is the smallest. Use your discretion when determining where you want to pass through the firewall, we usually try to utilize a factory grommet to retain a weather-tight seal. Then, using the diagrams on pages 11 and 12 for reference, wire the switch into a key-on power source (such as the cigarette outlet) and find a good place to mount the switch in the cabin. Double Apex provides additional instructions for mounting the relay and OEM style switch, please reference the instructions on [ES#3246145](#) for additional information.



## INSTALLING THE SWITCH

### Step 2:

Once the switch has been properly installed into the system, plug the end of the wiring harness into the vacuum solenoid.



### Step 3:

Finally, perform a system check by starting the engine and toggling the switch on and off to ensure it is functioning properly. You should be able to hear a drastic difference in both exhaust tone and volume when the valve is opened or closed.



***Congratulations, your installation is complete!***

## 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 Vacuum Actuated Exhaust Cutout 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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