



Volkswagen MK4 and New Beetle

Audi MK1 TT 1.8T

Engine Mount Installation



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 Volkswagen/Audi Performance Engine Mounts

The ECS Tuning Volkswagen/Audi Performance Engine Mounts offer the following features and benefits:

- Fits VW MK4 and New Beetle transverse 4 cylinder engines from 1998-2006
- Fits VW MK4 transverse VR6 engines from 1999.5-2005
- Fits Audi MK1 TT 1.8T
- Constructed of strong and lightweight 6061-T6 billet aluminum
- Black anodized for corrosion resistance
- Precisely formulated polyurethane for the perfect combination of durability and feel
- In-house designed by ECS Tuning Engineers
- Includes all new mounting hardware
- Easy installation

ECS Difficulty Gauge



1 - Easy

Pro - 4

2 - Moderate

Advanced - 3

The engine mount on your Volkswagen/Audi is one of only two mounts that hold the weight of the entire drivetrain. Constantly enduring all the hard acceleration and deceleration you can throw at it, these mounts can become worn quickly, and the soft compound of an original mount can rob precious horsepower. With our new Performance Engine Mount, put your power to the ground with a quick and easy installation that you can perform in an afternoon. Before you begin, read and familiarize yourself with these instructions and make sure you have all the required tools on hand. Thank you for purchasing our ECS Tuning Performance Engine Mount. 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.

KIT CONTENTS

ES#2855402

4 Cylinder engine mount



Mounting hardware

**ES#2917910**

6 Cylinder engine mount



Mounting hardware



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](#)
- File Set
- Air Nozzle/Blow Gun
- Bench Mounted Vise
- Crows Foot Wrenches
- Hook and Pick Tool Set..... [ES#2778980](#)

Required For This Install

Available On Our Website

- **1/4" Drive Ratchet**..... [ES#2823235](#)
- **1/4" Drive Deep and Shallow Sockets**..... [ES#2823235](#)
- **1/4" Drive Extensions** [ES#2823235](#)
- 1/4" Drive Torque Wrench
- 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
- 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](#)

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.

ENGINE MOUNT INSTALLATION

Step 1: Fender Cover

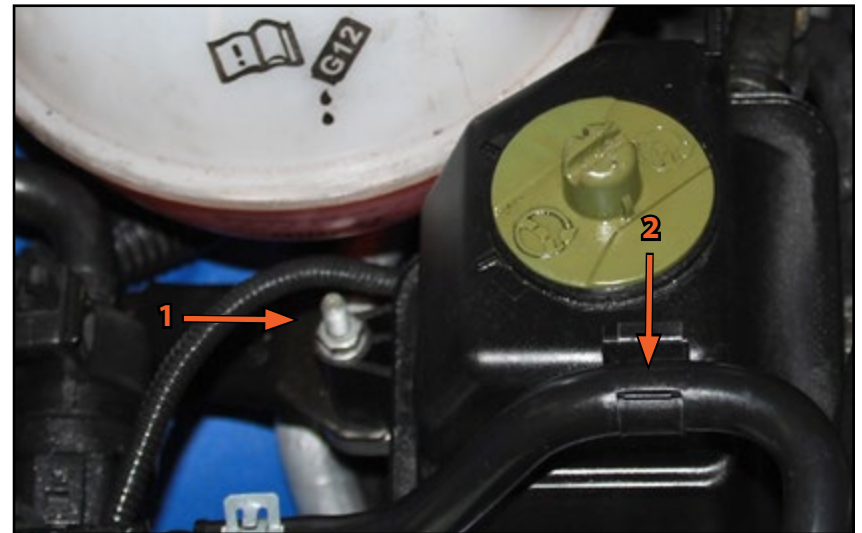
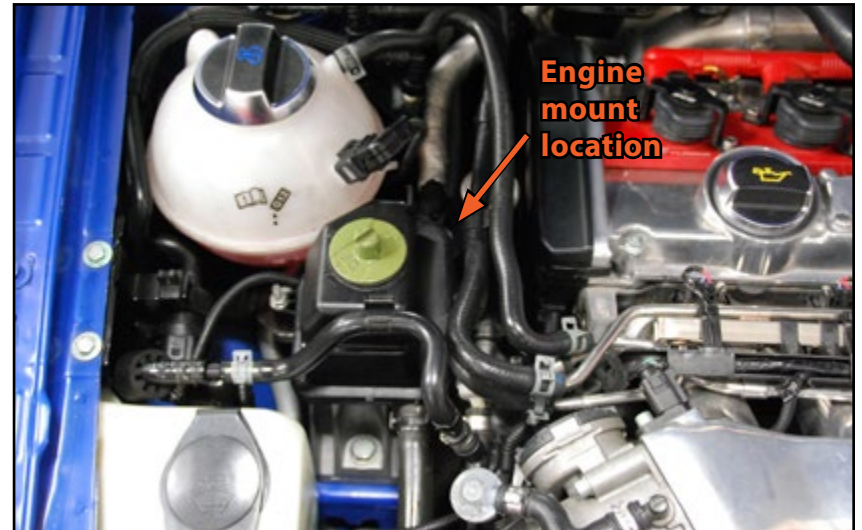
Open the hood and place a protective cover over the RH (Passenger) side fender. The engine mount is located between the engine and body on this side, and you will have to move the coolant and power steering reservoirs aside for access.

NOTE

We are installing this mount on a 4 cylinder engine. Some steps for the VR6 may differ slightly but the overall procedure is the same.

Step 2: 10mm Deep Socket, 1/4" Ratchet, Extension

Remove the power steering reservoir mounting stud (1) then remove the vacuum line from the spring clip (2).



ENGINE MOUNT INSTALLATION

Step 3:

Disconnect the coolant reservoir sensor connector.



Step 4:

Phillips Screwdriver

Remove the two coolant reservoir hold down screws.



ENGINE MOUNT INSTALLATION

Step 5: Hydraulic Floor Jack

Remove the lower insulation panel or skid plate as necessary, then place a floor jack underneath the engine oil pan for support. Be sure the floor jack has a good protective pad on it or use a block of wood to prevent damage to the oil pan.



Raise the jack just until it contacts the oil pan, do not put additional force on the jack or the oil pan can be damaged.

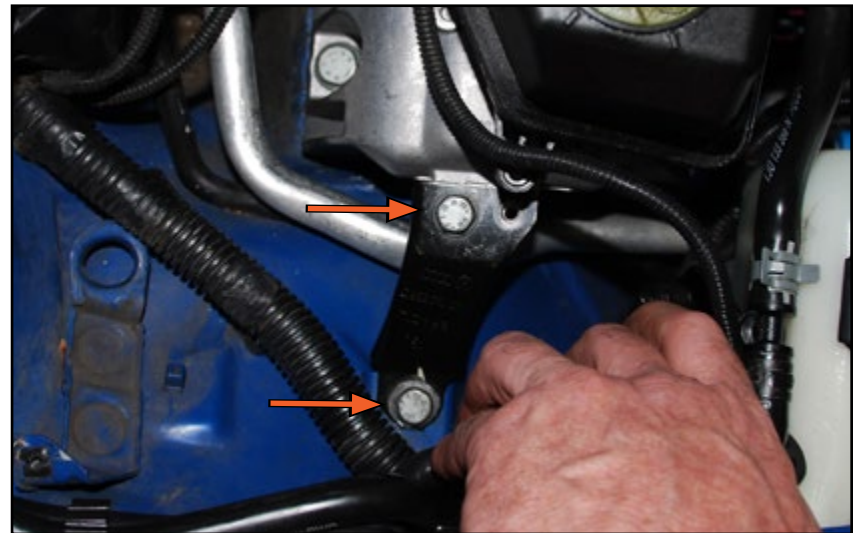


Step 6: 13mm Socket, 3/8" Ratchet, Extension

Lift up the coolant reservoir and position it to the side to access the mount side bracket underneath. Remove the two securing bolts and remove the side bracket.

NOTE

It is not necessary to remove the coolant or power steering reservoir. You will have to work around them and reposition them a number of times, work patiently and you will find easy access to all of the engine mount bolts.



ENGINE MOUNT INSTALLATION

Step 7: 18mm Socket, 1/2" Ratchet, Extension

Move the coolant and power steering reservoir towards the RH fender, then remove the two mount to engine bracket bolts.



Once you have loosened these bolts, if they are difficult to remove you may have to raise the jack slightly to take pressure off of the mount, but do not put excessive force on the jack in order to prevent damage to the engine oil pan.



Step 8: 16mm Socket, 3/8 Ratchet, Extension

Position the coolant and power steering reservoir back over towards the engine, then remove the two mount to body bolts.



ENGINE MOUNT INSTALLATION

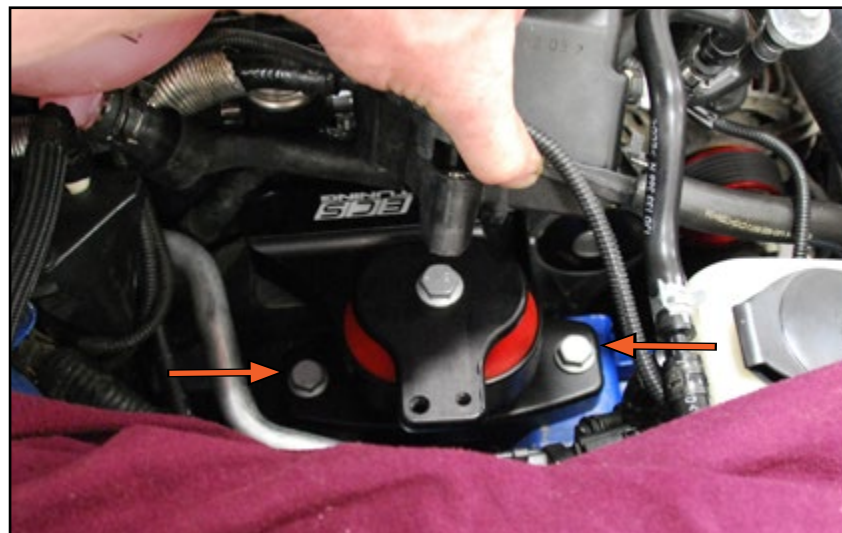
Step 9:

Remove the original engine mount from the car.



Step 10: 16mm Socket, 3/8 Torque Wrench, Breaker Bar

Position the new ECS Performance Engine Mount into place, install the two new mount to body bolts and torque them to 40 Nm (30 Ft-lbs) plus 90 degrees.



ENGINE MOUNT INSTALLATION

Step 11: 18mm Socket, 1/2" Torque Wrench, Breaker Bar

Install the two mount to engine bracket bolts and thread them all the way in but do not tighten them at this time. Raise or lower the jack and move the engine back and forth as necessary so the bolts thread in easily.

NOTE

The two mount to engine bracket bolts may be slightly shorter than your original bolts, however they are correct for this application.

Step 12:

Lower the hydraulic jack and remove it.



ENGINE MOUNT INSTALLATION

Step 13: 18mm Socket, 1/2" Torque Wrench, Breaker Bar

Torque the two mount to engine bracket bolts to the following specification for your application:

1.8L Engine	100 Nm (74 Ft-lbs)
1.9L ALH Engine	60 Nm (44 Ft-lbs) + 90 degrees
1.9L BEW Engine.....	100 Nm (74 Ft-lbs)
2.0L Engine.....	100 Nm (74 Ft-lbs)
2.8L AFP Engine	60 Nm (44 Ft-lbs) + 90 degrees
2.8L BDF Engine.....	100 Nm (74 Ft-lbs)
3.2L BJS Engine	100 Nm (74 Ft-lbs)

Final Reassembly:

Reinstall the mount side bracket.

Reinstall the coolant reservoir.

Reinstall the power steering reservoir.

Reinstall the lower insulation panel or skid plate.



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 ECS Performance Engine Mount 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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