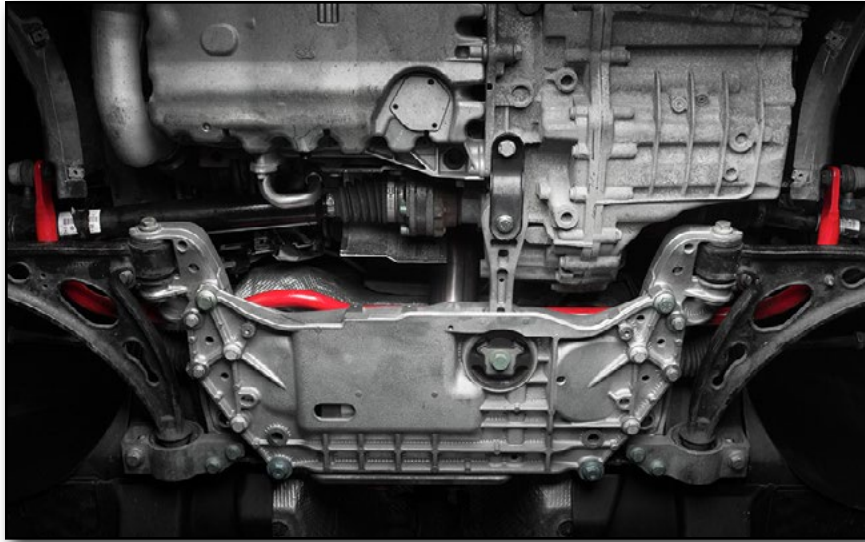




Skill Level
1 - Easy
Basic Skills
Required

Volkswagen MK5/MK6 ECS Front Sway Bar Installation Instructions - [Click HERE to Shop](#)



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

Installing an ECS Tuning Front Sway Bar is a basic weekend project that will reward you with reduced body roll and improved handling. Before you begin, read and familiarize yourself with these instructions and make sure you have all the required tools on hand.

Please note that if you are installing our poly sway bar bushings without upgrading the sway bar you will need to use a 12mm (1/2") drill bit to separate the sleeves holding the original sway bar brackets together (shown in the photo on the right).

As with any type of suspension work, we recommend a four wheel alignment with a qualified repair facility. Thank you for purchasing our ECS Tuning Front Sway Bar kit, we appreciate your business!



TABLE OF CONTENTS

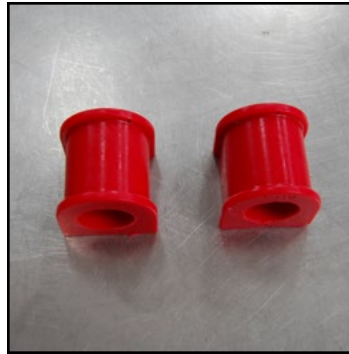
Kit Contents.....	pg.3
Required Tools and Equipment.....	pg.4
Installation and Safety Information.....	pg.5
Removing the Original Sway Bar.....	pg.6
Installing the New Sway Bar.....	pg.17
Schwaben Tools.....	pg.23

KIT CONTENTS

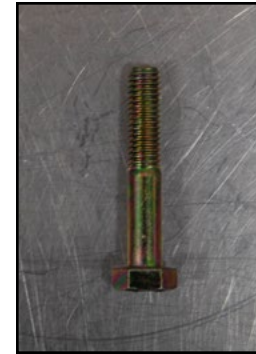
Lower Sway Bar Brackets



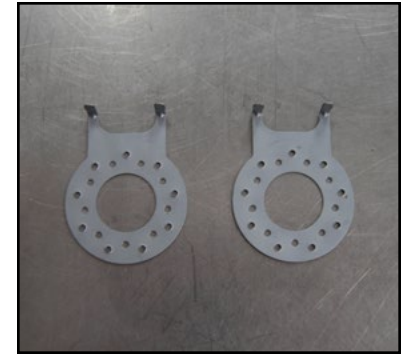
Upper Sway Bar Brackets



Sway Bar Bushings



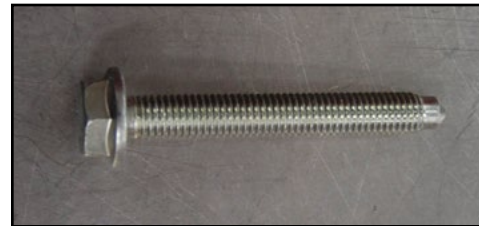
Steering Shaft Bolt



Subframe Spacer Plates



26mm Front Sway Bar

Engine Torque Support Bolt
M10x75mmEngine Torque Support Bolt
M10x35mm4x Steering Rack Bolts
M10x76mm4x Subframe/Control Arm Bolts
M12x1.5x90mmGrease
Pack2x Rear Subframe Bolts
M12x1.5x110mm4x Sway Bar Bolts
M8x75mm

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 Vice
- 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 (12mm)**
- 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

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.

REMOVING THE ORIGINAL SWAY BAR

Step 1: Flat Blade Screwdriver

Working inside the vehicle, remove the two interior steering shaft cover fasteners (arrows), then lift the cover off and set it aside.



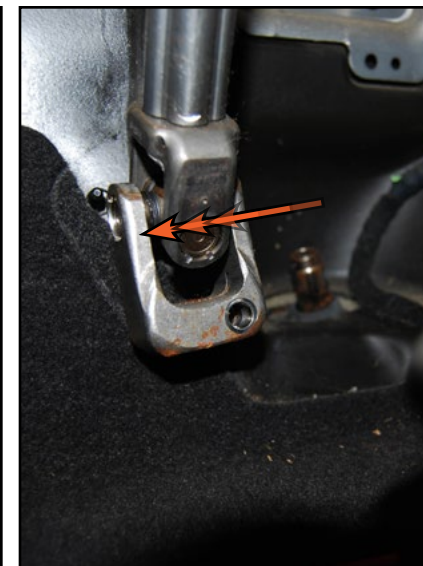
Step 2: 13mm Socket & Ratchet

Make sure the steering wheel is in the straight ahead position, then remove and discard the steering shaft u-joint bolt (LH photo).

Pull the u-joint up off the steering rack, then swing it off to the side (RH photo).



CAUTION: Once the steering shaft is disconnected from the steering rack, make sure the steering wheel remains centered. The airbag clockspring can be damaged if the wheel is rotated during this procedure.



REMOVING THE ORIGINAL SWAY BAR

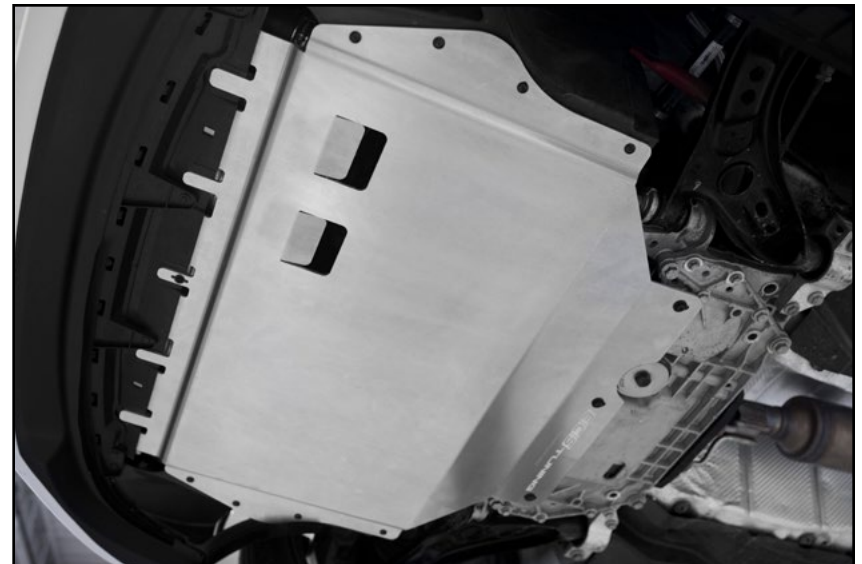
Step 3: 17mm Protecta Socket, ½" Breaker Bar, Wheel Hanger

Safely raise and support the vehicle, then remove the front wheels.



Step 4: T25 & T30 Torx

Remove the skid plate or lower insulation panel.

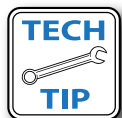


REMOVING THE ORIGINAL SWAY BAR

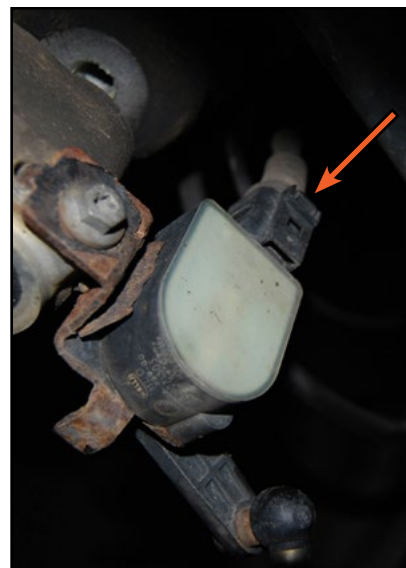
Step 5: 10mm Socket & Ratchet

On the LH side, disconnect the headlight level sensor connector (if equipped) which is located above the lower control arm (shown in the LH photo). Carefully release the locking tab (arrow), then pull the connector off the sensor.

Remove the nut for the headlight level sensor arm bracket (if equipped), then remove the bracket from the lower control arm (shown in the RH photo).

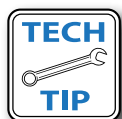


It is a good idea to use a spray lubricant/penetrating oil on this nut and any of the rusty fasteners you might encounter during this installation.

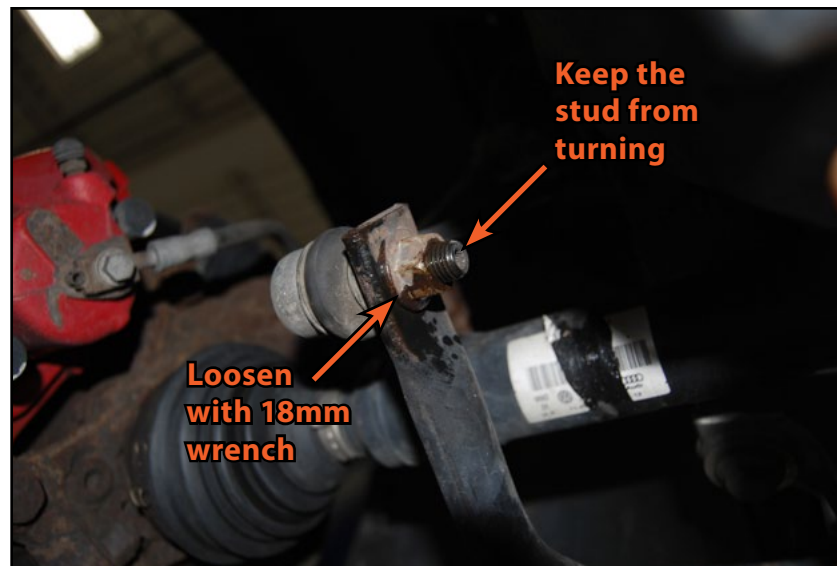


Step 6: 18mm Wrench, 5mm Allen (Hex)

Disconnect both of the sway bar end links from the front sway bar.



It is very common for these end link nuts to be extremely difficult to remove. Heating them up is not advised, this would risk ruining the link. The best method is to clean the exposed stud with a wire brush and lubricate it with penetrating oil, then work the nut back and forth slowly until you are able to remove it.



REMOVING THE ORIGINAL SWAY BAR

Step 7: 16mm Socket & Ratchet

Remove the three lower ball joint nuts from each side.



Step 8: Pry Bar

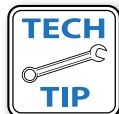
Pull down on each lower control arm to separate it from the ball joint. There may be rust and corrosion between the ball joint and control arm, so if they don't separate easily you can use a pry bar between the two to get them apart.



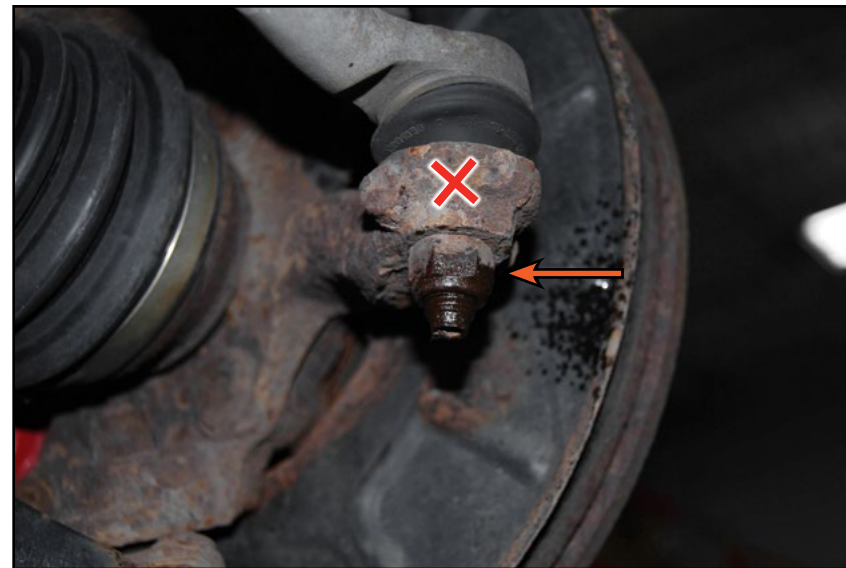
REMOVING THE ORIGINAL SWAY BAR

Step 9: 18mm Socket & Ratchet

Remove both outer tie rod end nuts (arrow), then separate the tie rod ends from the wheel bearing housing.

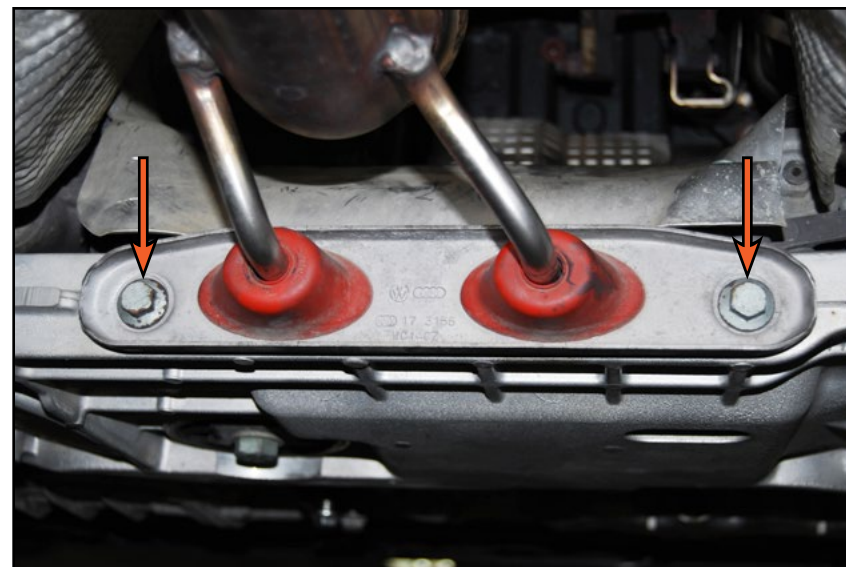


If you do not have a tie rod end separator, the tie rod end can be removed by striking the wheel bearing housing (at the "X" in the picture) with a ball pein hammer. This will cause the tie rod end to pop out of the housing.



Step 10: 13mm Socket & Ratchet

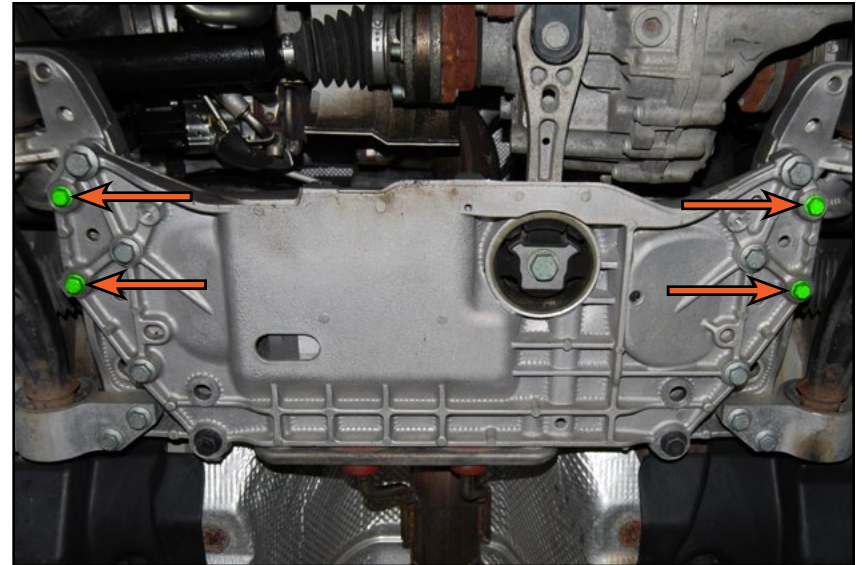
Remove the two exhaust hanger bolts on the rear of the subframe (arrows).



REMOVING THE ORIGINAL SWAY BAR

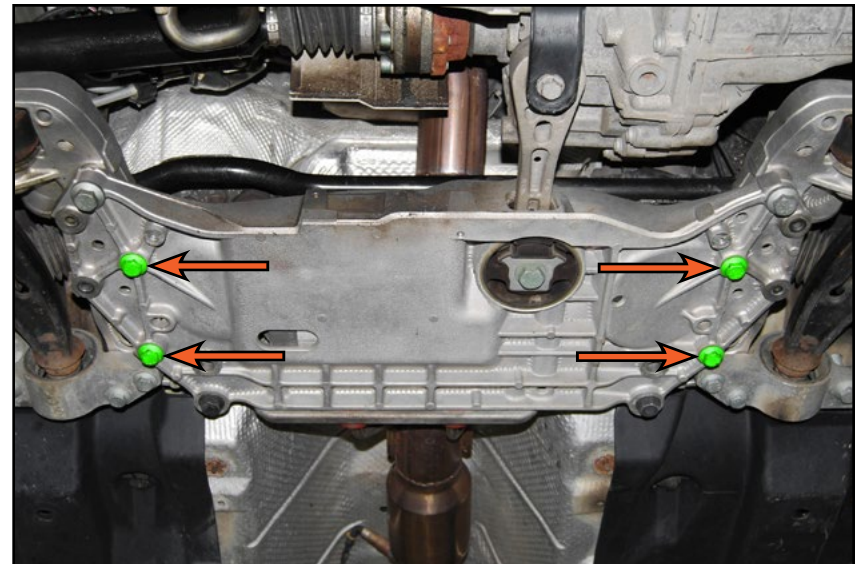
Step 11: 13mm Socket & Ratchet

Remove and discard the four sway bar bolts (arrows).



Step 12: 16mm Socket & Ratchet

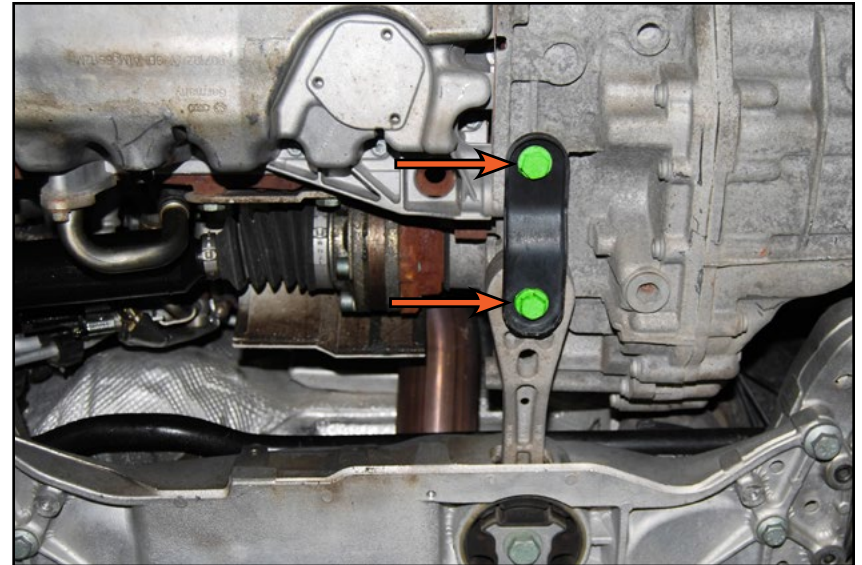
Remove and discard the four steering rack bolts (arrows).



REMOVING THE ORIGINAL SWAY BAR

Step 13: 16mm Socket & Ratchet

Remove and discard the two engine torque support bolts (arrows) from the underside of the transmission.



Step 14:

Place a transmission jack securely under the subframe.



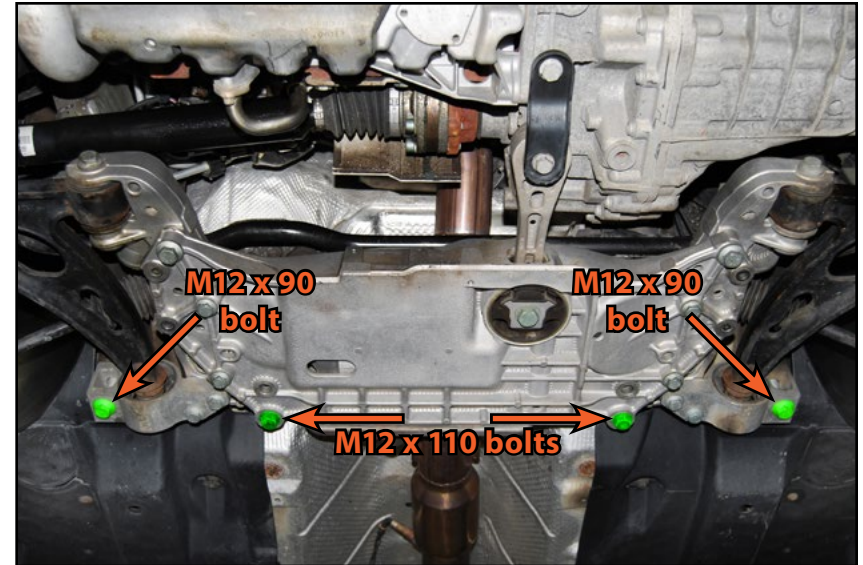
Volkswagen has specialty tools intended for fixing the position of the subframe before removal, but they are very expensive and not many people have access to them. We strongly recommend making reference marks to help with the alignment of the subframe, then take your vehicle to a qualified repair shop for an alignment.



REMOVING THE ORIGINAL SWAY BAR

Step 15: 18mm Socket & Ratchet

Remove and discard the two M12x110mm rear subframe bolts and the two M12x90mm rear control arm bolts. These bolts are shown in this picture without the jack in place for better visibility.



Step 16: 18mm Socket & Ratchet

Remove and discard the two forward M12x90mm subframe bolts. The two forward bolts are more difficult to see but can be easily accessed with a socket on the end of an extension. This picture shows the RH forward bolt location (arrow).



REMOVING THE ORIGINAL SWAY BAR

Step 17: 10mm Socket & Ratchet

Lower the subframe slowly until you have just enough room to access the steering rack wiring harness on the LH side. Remove the bolt which secures the wiring harness to the steering rack. You will not be able to see this bolt, it is hidden in the subframe (arrow).



Step 18:

Release the wiring harness clip (arrow) from the mounting tab on the steering rack. It is located on the LH side, just a few inches away from the bolt in the previous step.



REMOVING THE ORIGINAL SWAY BAR

Step 19:

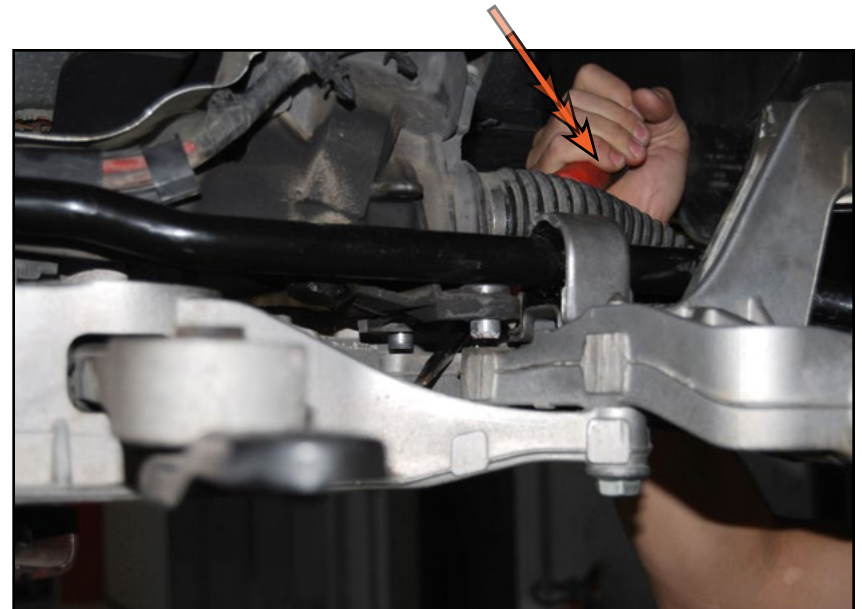
Lower the subframe slowly until you have clear access to the sway bar as shown in the picture.



CAUTION: Be careful the subframe does not slip off the jack. It is helpful to have someone steady the subframe while you remove and replace the sway bar.

Step 20:

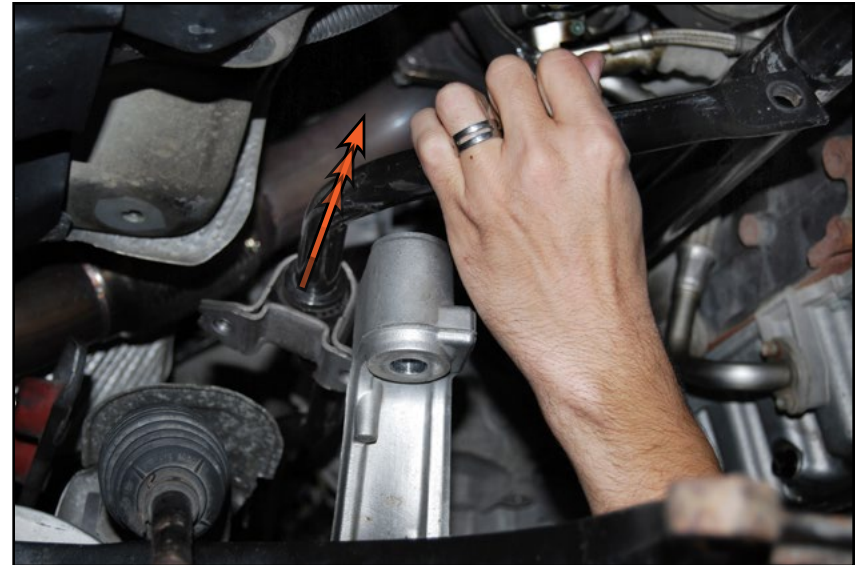
Lift the steering rack and position it slightly rearward. This will give you the necessary clearance to remove the sway bar easily. The steering rack is indexed in place by dowel pins. You may need to use a screwdriver to help release the dowel pins as shown in the picture.



REMOVING THE ORIGINAL SWAY BAR

Step 21:

Raise the sway bar up and lift it over the subframe on the RH side as shown in the picture.



Step 22:

Finish removing the sway bar by bringing it forward and down on the RH side, while guiding the LH side between the subframe and steering rack.



INSTALLING THE NEW SWAY BAR

Step 1:

Lubricate the inside of the new polyurethane bushings with the grease included in the kit.



Step 2:

Install a bushing over each side of the sway bar and slide it into place next to the stop.



The slot in the sway bar bushings can be located on either the front or rear of the sway bar.

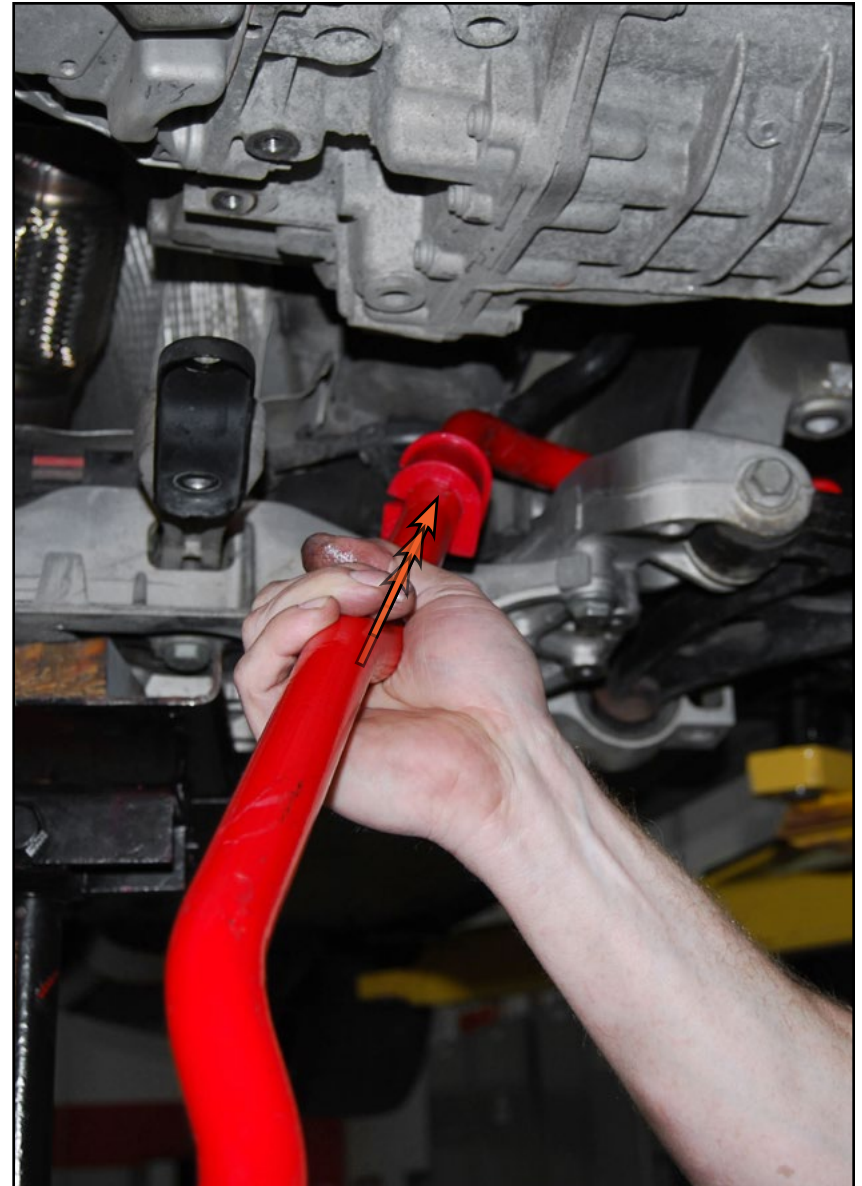
INSTALLING THE NEW SWAY BAR

Step 3:

Install the sway bar in reverse of the way you removed it: Guide the LH side between the steering rack and the subframe, then lift the RH side over the subframe and set the sway bar in place in front of the steering rack.



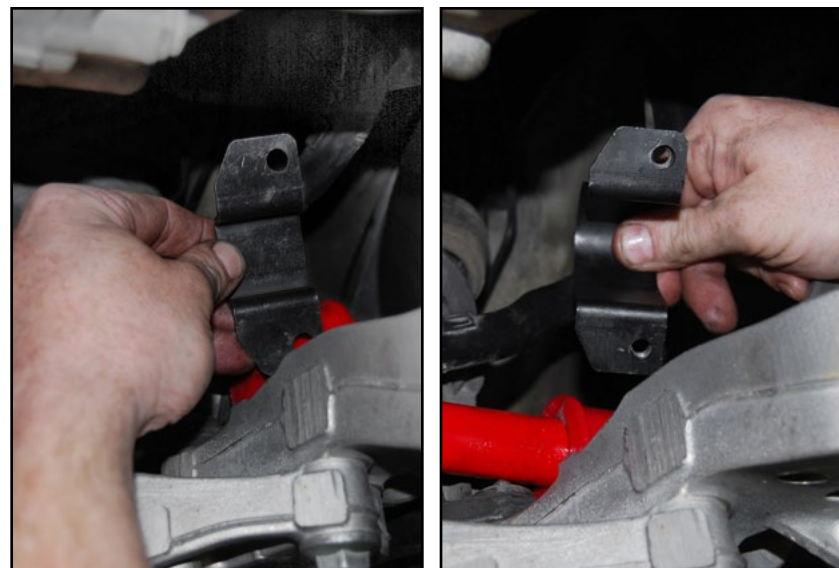
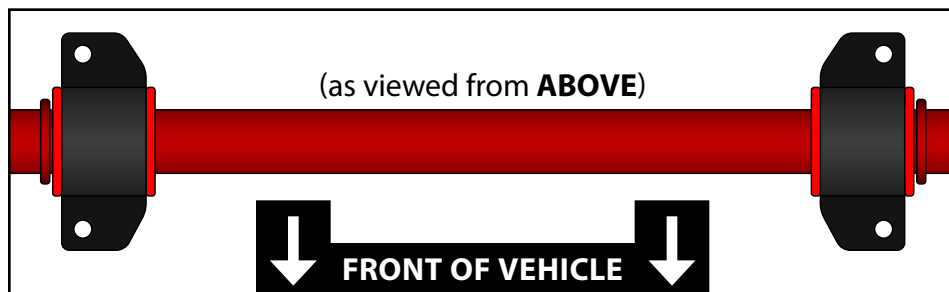
Adjust the position of the steering rack as necessary to allow the sway bar to easily drop in place.



INSTALLING THE NEW SWAY BAR

Step 4:

Place a lower sway bar bracket under each sway bar bushing, then place the upper sway bar bracket into place. Ensure that the raised portion of the lower brackets are facing upward, and the mounting holes are facing toward the outside of the vehicle (reference the illustration below and the photo on the right).



Step 5:

Make sure the sway bar brackets are fully seated as shown in the picture at right.



INSTALLING THE NEW SWAY BAR

The basic installation process from this point is the reverse of removal, however for convenience and accuracy we have provided you a step by step checklist along with torque specifications and additional information pertinent to this procedure.

Make sure the steering rack seal is clean (see the picture at right).

Loosely install the four sway bar bolts and the four steering rack bolts.

Raise the subframe partially and attach the wiring harness clip.

Install the wiring harness retaining bolt.

Raise the subframe up until it meets the body.

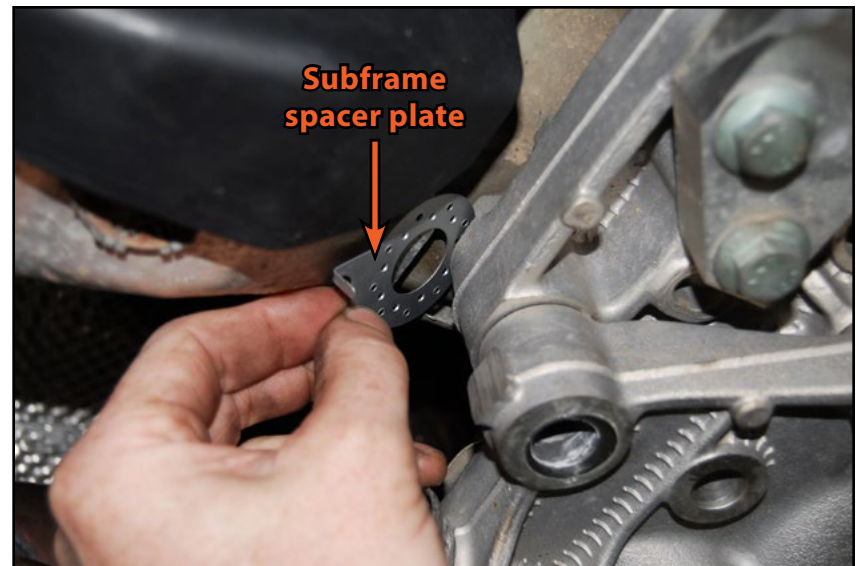
Loosely install two new M12x90mm forward subframe bolts.

Loosely install two new M12x90mm rear control arm bolts.

Install the rear subframe spacer plates between the subframe and body as shown in the picture on the right.



These subframe spacer plates are for noise prevention and should be installed whether or not they were originally. If they were already installed, discard the old and use the new plates.



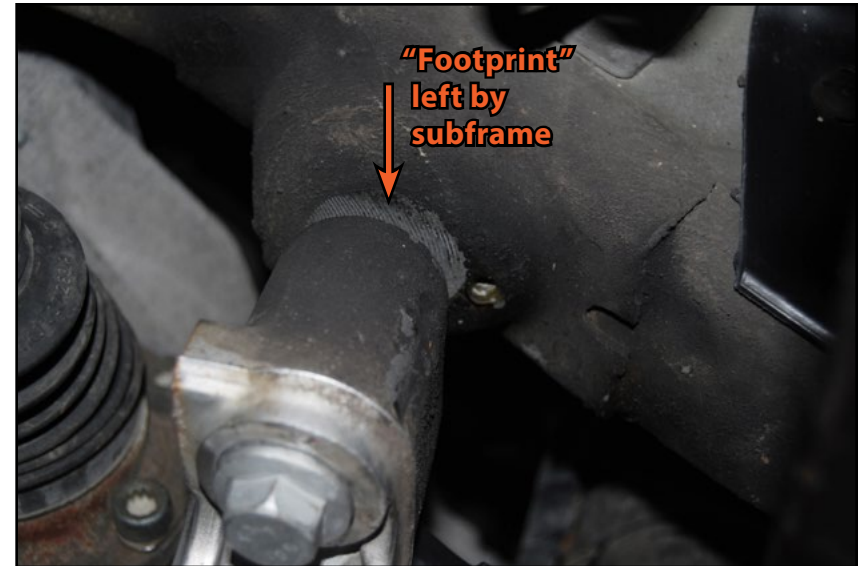
INSTALLING THE NEW SWAY BAR

Loosely install the two rear subframe M12x110mm bolts.

Align the subframe and hand tighten the subframe and control arm bolts.



Volkswagen has specialty tools intended for fixing the position of the subframe before removal, but they are very expensive and not many people have access to them. It is acceptable to make reference marks for the alignment of the subframe and in most cases, as shown in the picture on the right, the subframe will leave a "footprint" which can be helpful during re-alignment. Take your time and slowly adjust the subframe back and forth as necessary until it is lined up. We strongly recommend taking your vehicle to a qualified repair shop for an alignment after this install.



Torque the subframe and control arm bolts to 70 Nm (52 Ft-lbs) + 90°.

Torque the steering rack bolts to 50 Nm (37 Ft-lbs) + 90°.

Torque the sway bar bolts to 20 Nm (15 Ft-lbs) + 90°.

Install the exhaust hanger.

Install the engine torque support and torque the bolts as follows:

- 8.8 Strength class bolts: 40 Nm (30 Ft-lbs) + 90°
- 10.9 Strength class bolts: 50 Nm (37 Ft-lbs) + 90°

INSTALLING THE NEW SWAY BAR

Install the ball joint nuts and torque them to the following specification:

- Cast suspension control arm: 60 Nm (44 Ft-lbs)
- Aluminum or Sheet Steel control arm: 100 Nm (74 Ft-lbs)

Install the tie rod ends and torque them to 20 Nm (15 Ft-lbs) + 90°.

Connect the sway bar links and torque them to 65 Nm (48 Ft-lbs).

Install and connect the headlight level sensor.

Install the skid plate or insulation panels.

Install the steering shaft u-joint and torque the bolt to 30 Nm (22 Ft-lbs).

Install the steering shaft cover.

Install the wheels and torque them to 120 Nm (89 Ft-lbs).

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 Front Sway Bar 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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