



**VW MK5, MK6 Aluminum Front Subframe  
Locking Collar Kit Installation - [Click HERE to Shop](#)**

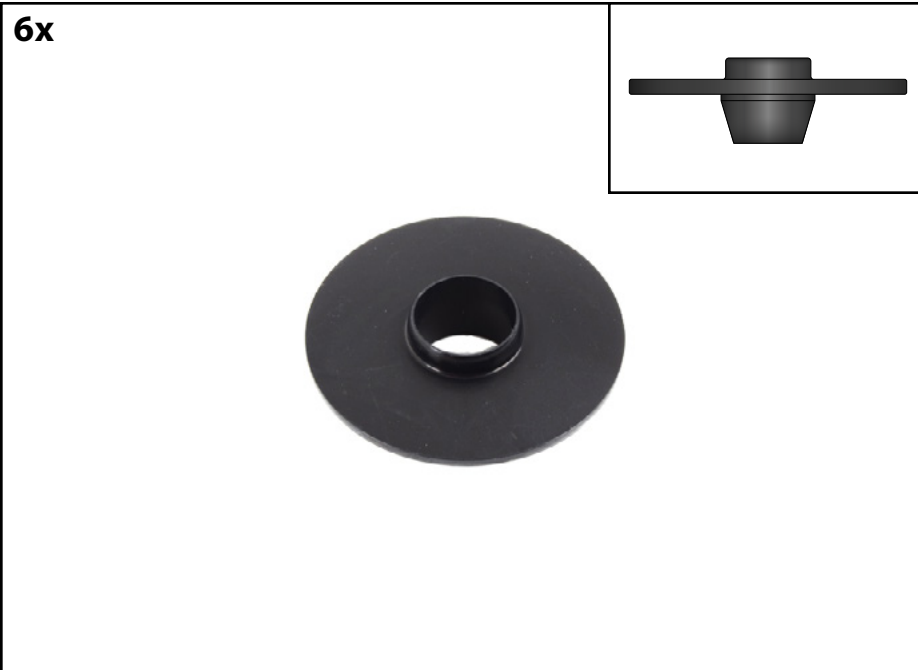


**Skill Level**  
**1 - Easy**  
**Basic Skills**  
**Required**

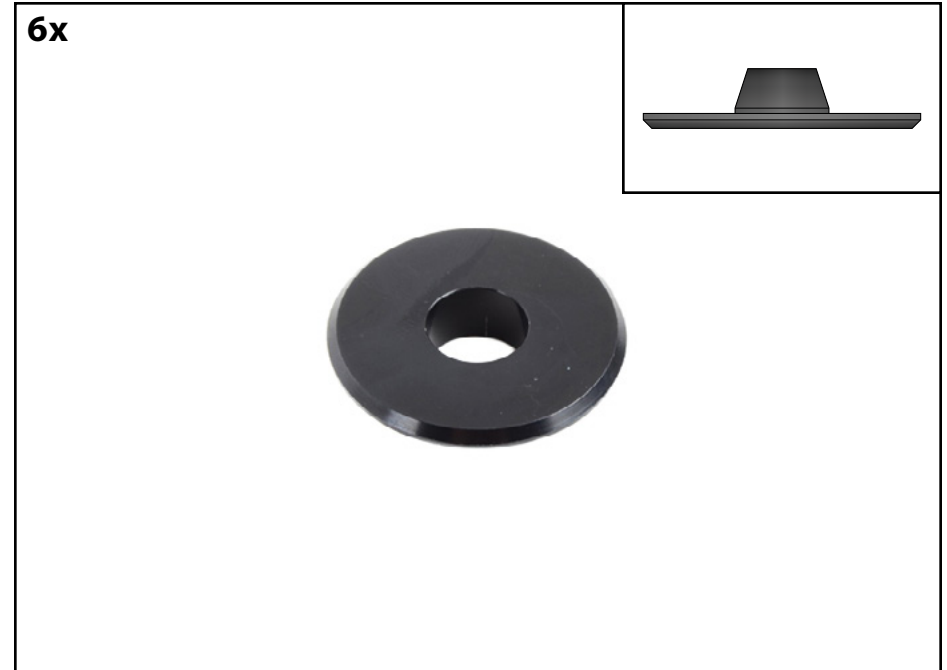


Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

## KIT CONTENTS (B6 PASSAT, CC, TIGUAN)



Upper Locking Collar



Lower Locking Collar



M12x100mm Control  
Arm Bracket Bolts



M10x70mm Steering  
Rack Bolts



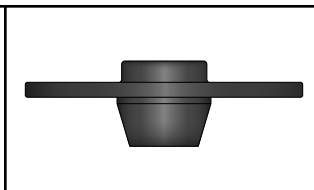
M12x110mm Lower  
Subframe Bolts



M12x90mm Upper  
Subframe Bolts

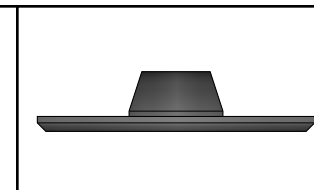
## KIT CONTENTS (MK5, MK6 GOLF/JETTA)

6x



Upper Locking Collar

6x



Lower Locking Collar

2x



M12x90mm Control  
Arm Bracket Bolts

4x



M10x76mm Steering  
Rack Bolts

2x



M12x110mm Lower  
Subframe Bolts

2x



M12x90mm Upper  
Subframe Bolts

## 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](#)
- $\frac{3}{8}$ " Drive Ratchet..... [ES#2765902](#)
- $\frac{3}{8}$ " Drive Torque Wrench ..... [ES#2221245](#)
- $\frac{3}{8}$ " Drive Deep and Shallow Sockets ..... [ES#2763772](#)
- $\frac{3}{8}$ " Drive Extensions..... [ES#2804822](#)
- Hydraulic Floor Jack ..... [ES#2834951](#)
- Torx Drivers and Sockets..... [ES#11417/8](#)
- **$\frac{1}{2}$ " Drive Deep and Shallow Sockets** ..... [ES#2839106](#)
- **$\frac{1}{2}$ " Drive Ratchet**
- **$\frac{1}{2}$ " Drive Extensions**
- **$\frac{1}{2}$ " Drive Torque Wrench**..... [ES#2221244](#)
- **$\frac{1}{2}$ " Drive Breaker Bar** ..... [ES#2776653](#)
- **Post Jack**
- **Air Nozzle/Blow Gun**
- Hook and Pick Tool Set ..... [ES#2778980](#)

### Required For This Install

### Available On Our Website

- $\frac{1}{4}$ " Drive Ratchet ..... [ES#2823235](#)
- $\frac{1}{4}$ " Drive Deep and Shallow Sockets..... [ES#2823235](#)
- $\frac{1}{4}$ " 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](#)

## 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.



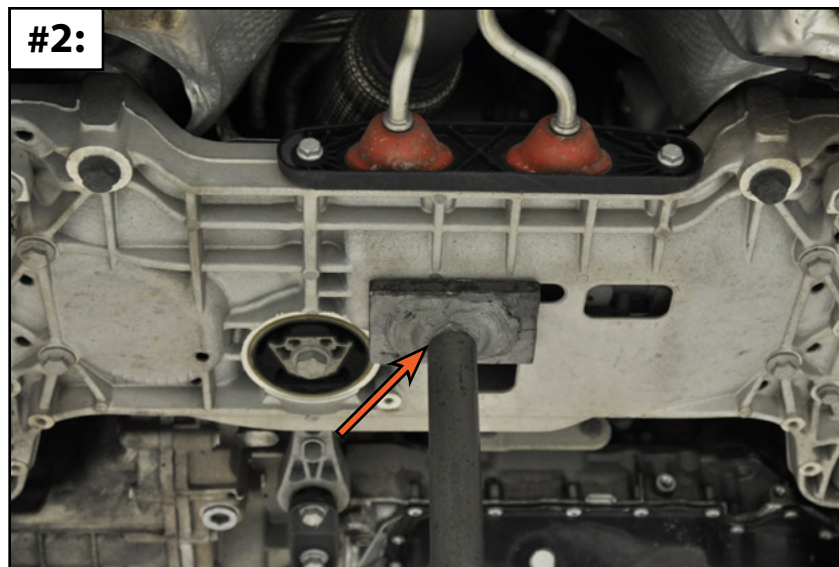
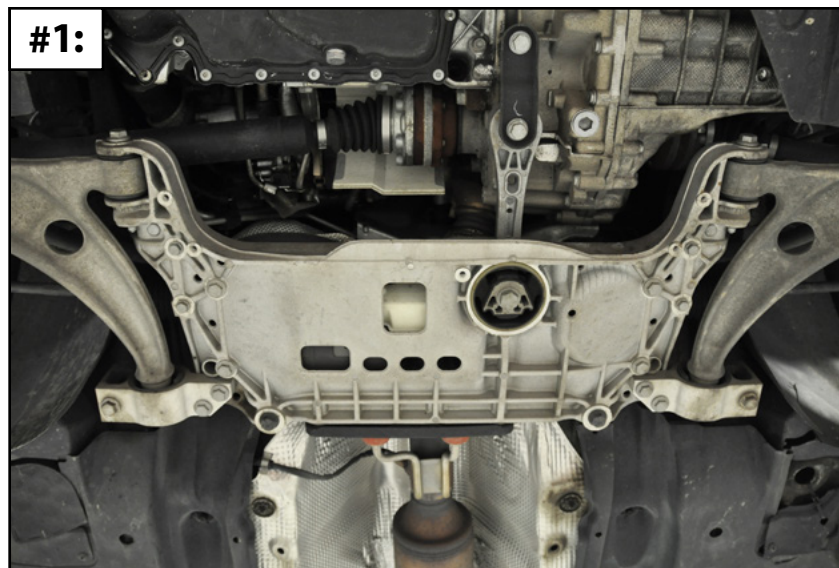
**NEVER** get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

## LOCKING COLLAR KIT INSTALLATION

### Step 1:

Safely raise and support your vehicle, then remove any skid plates or factory insulation panels which may be in the way (**Photo #1**). You will need to have full, unrestricted access to the subframe.

Use a jack post or floor jack to support underneath the subframe (**Photo #2**).

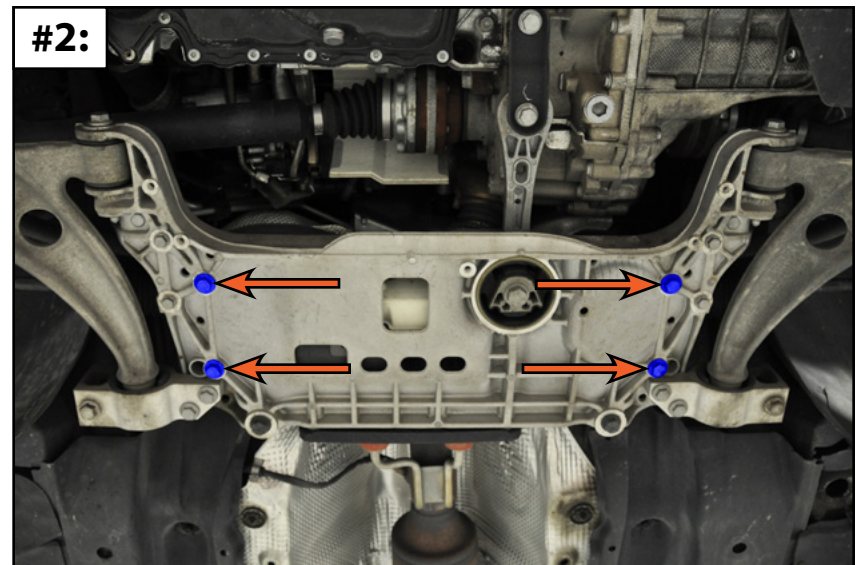
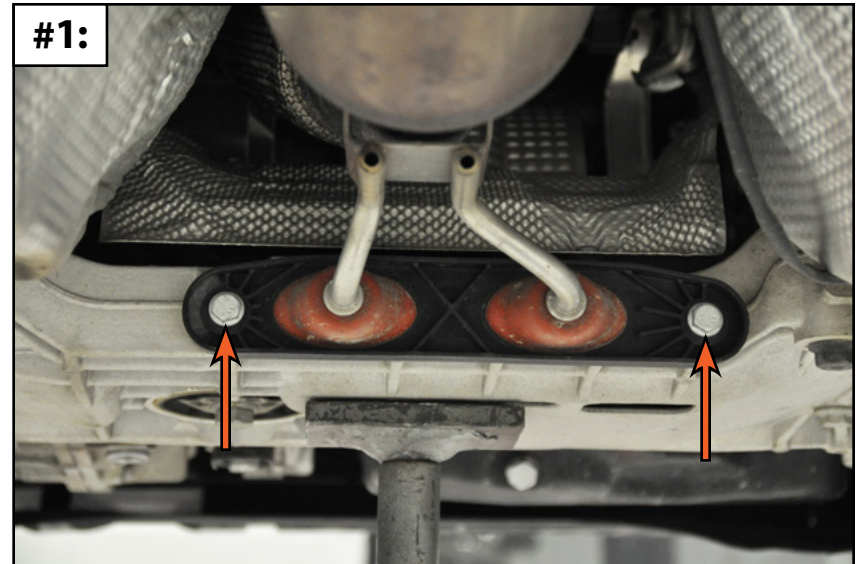


## LOCKING COLLAR KIT INSTALLATION

### Step 2: 13mm Socket, Ratchet

Remove the two exhaust hanger bolts so the subframe does not strain the exhaust when you lower it (**Photo #1**).

Remove the four steering rack bolts (arrows in **Photo #2**). It is important to remove these four bolts *before* removing any subframe bolts, so when the subframe is lowered it won't strain the steering rack and/or column.

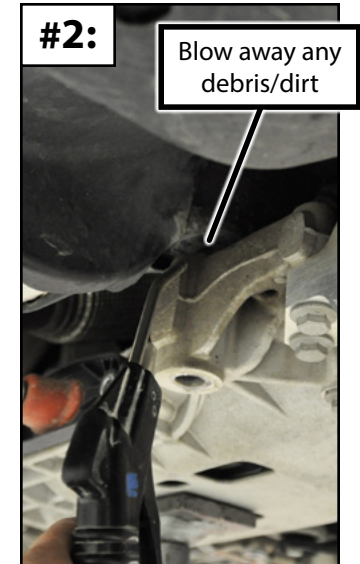
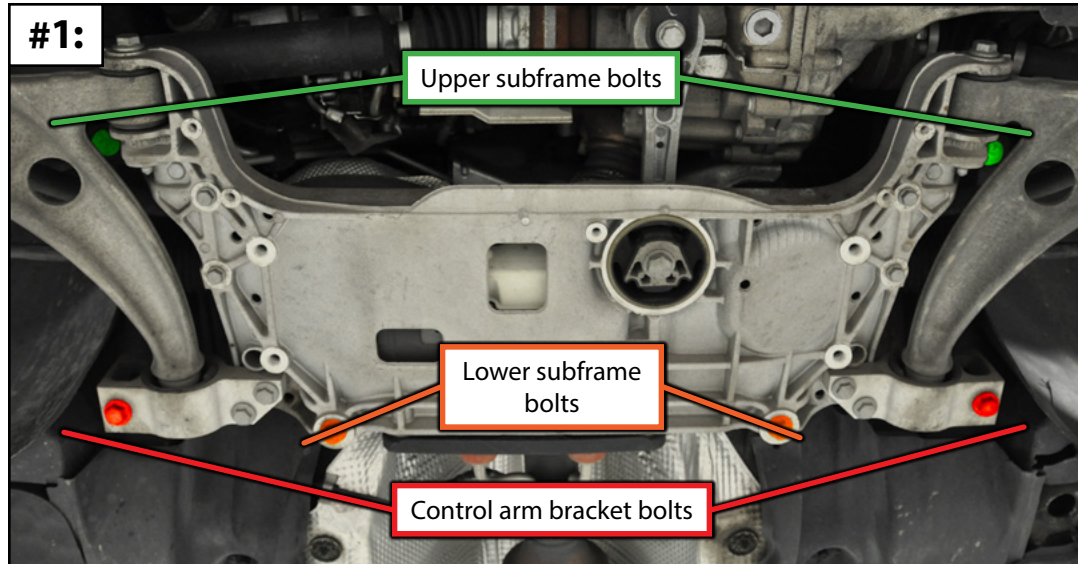


## LOCKING COLLAR KIT INSTALLATION

### Step 3:

Now, remove the upper subframe bolts, (accessible through the holes in the lower control arms), the lower subframe bolts, and the control arm bracket bolts.

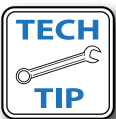
Lower the jack slightly so the subframe separates from the body by about 10mm. You only need to lower the subframe just enough so the upper locking collars can be installed.



**CAUTION:** Check for the presence of the factory TSB shims between the subframe and body and be sure to remove them if present. **DO NOT** reinstall these shims.



**CAUTION:** Thoroughly blow out between the subframe and body at all bolt locations. You will find a lot of dirt and small stones built up here, and you do not want to trap it in when installing the locking collars.



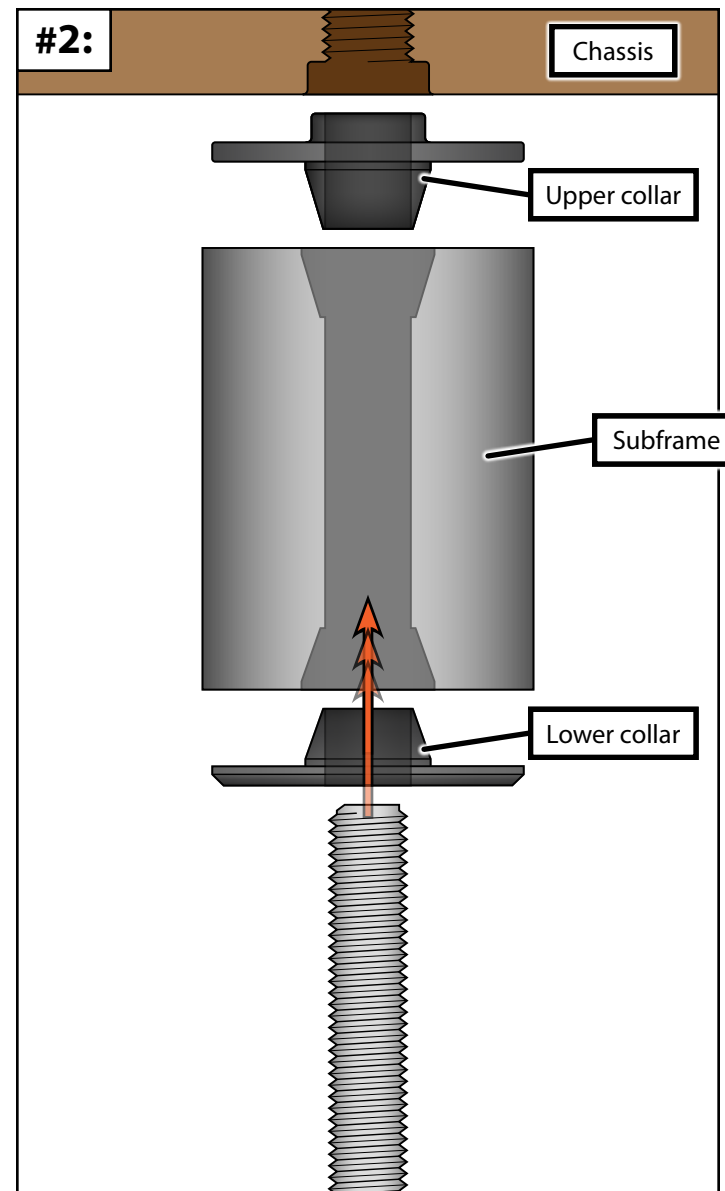
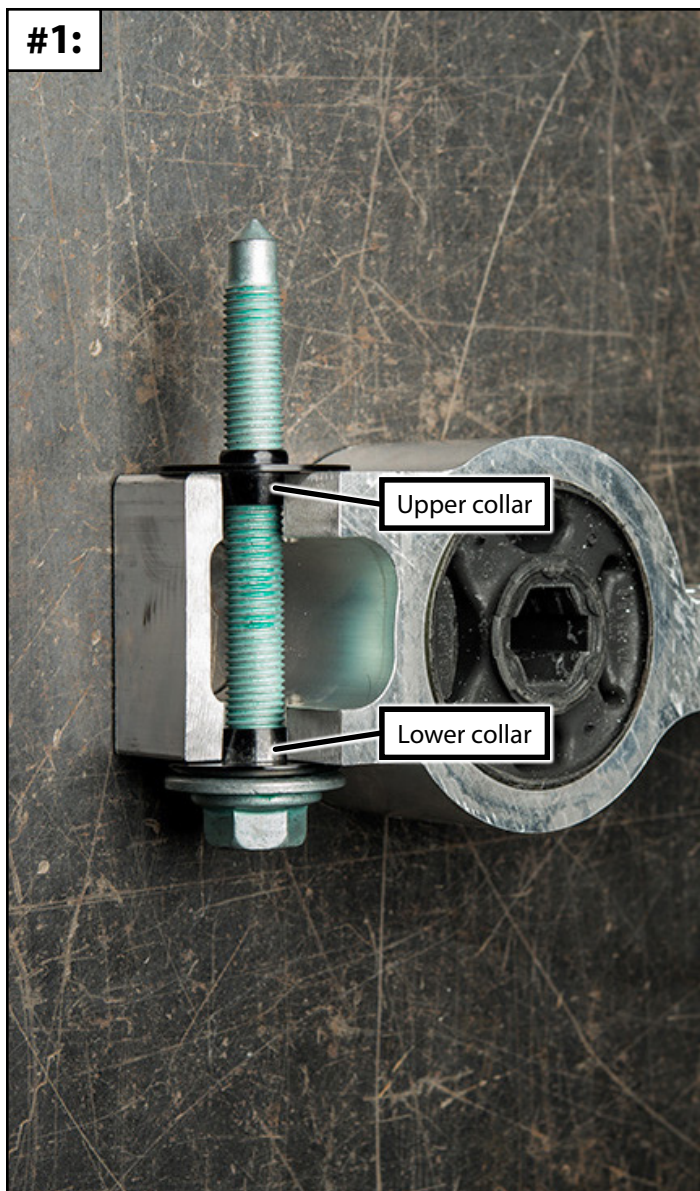
**TECH TIP:** As you remove the bolts, match them up with the new ones from your kit and keep track of the bolt locations. This will make assembly quicker.

# LOCKING COLLAR KIT INSTALLATION

## Step 4:

Install all 12x of the subframe locking collars using the new torque-to-yield bolts supplied with the kit. For each collar location, position them in place, then thread in the bolt by hand two or three turns.

The cutaway shown in **Photo #1** and the illustration in **Photo #2** are examples of how the collars fit. Be sure to position the upper and lower collars correctly.



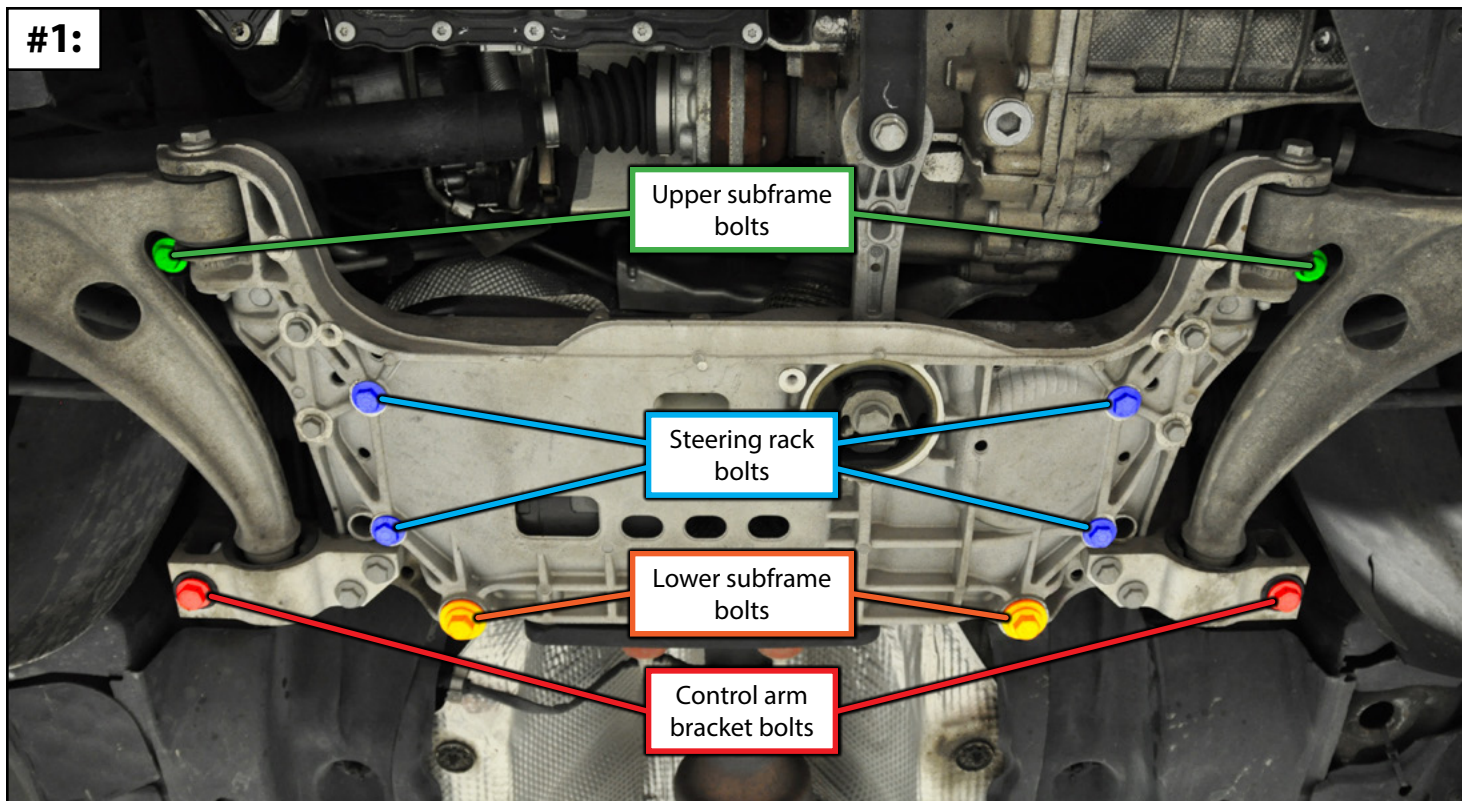
## LOCKING COLLAR KIT INSTALLATION

### Step 5:

Once all of the locking collars are in position, evenly tighten all of the subframe bolts by hand. Next, thread the new steering rack bolts into place by hand.

Finally, torque all of the new bolts as outlined in **Photo #1** and the torque tables below.

Reinstall the exhaust hanger bolts and the skid plate or lower insulation panel (if removed).



### B6 Passat/CC/Tiguan:

Location	Bolt Size	Torque Spec
Subframe Bolts (Upper)	M12x90mm	70 Nm (51 Ft-lbs) + 180°
Steering Rack Bolts	M10x70mm	50 Nm (36 Ft-lbs) + 90°
Subframe Bolts (Lower)	M12x110mm	70 Nm (51 Ft-lbs) + 90°
Control Arm Bracket Bolts	M12x100mm	70 Nm (51 Ft-lbs) + 180°

### MK5/MK6 Golf/Jetta:

Location	Bolt Size	Torque Spec
Subframe Bolts (Upper)	M12x90mm	70 Nm (51 Ft-lbs) + 90°
Steering Rack Bolts	M10x76mm	50 Nm (36 Ft-lbs) + 90°
Subframe Bolts (Lower)	M12x110mm	70 Nm (51 Ft-lbs) + 90°
Control Arm Bracket Bolts	M12x90mm	70 Nm (51 Ft-lbs) + 90°

## TORQUING TIPS

### Torque to Yield or “Stretch” Bolts

Many bolts will have a torque specification listed in the format - xx Nm (xx Ft-lbs) + xx degrees. These bolts are torque to yield bolts, commonly referred to as “stretch” bolts. The correct procedure for torquing these bolts is:

**Stage One** - Torque the bolt(s) to the initial Nm or Ft-lb specification. If there is more than one, be sure to torque them in the correct sequence.

**Stage Two** - Tighten or “stretch” the bolt(s) the additional specified number of degrees. If there is more than one, be sure to follow the correct sequence.

**Note** - Some bolts may have two or more stages of torquing before the final stage of “stretching” the bolts.

When tightening more than one bolt in a specified sequence, be sure to mark each fastener with paint **immediately** after performing the final stage or “stretching” of the bolts. This will ensure that you keep track of which bolts have already been “stretched”.

All Torque to Yield bolts should only be used once and should be replaced each time they are removed. If they are reused, they will not be able to achieve the proper clamping force with the specified torque.

### Lubrication

Torque specifications are always listed for a dry fastener (**no** lubrication) unless specified otherwise.

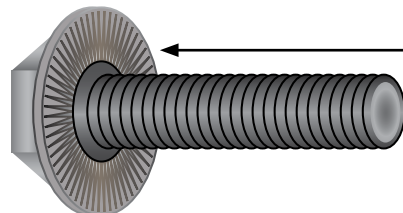
Some fasteners require lubrication on the threads -or- on the contact surface while torquing. These fasteners will be listed with the specific location and type of lubrication required. Always follow manufacturers recommendations exactly.

Lubricating a fastener that is intended to be installed dry and then torquing it to factory specifications will increase the clamping force and stress on the fastener and components, which can result in damage or failure.

Do not lubricate the threads of any fastener unless it is specifically recommended by the manufacturer.

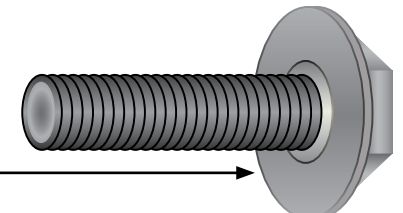
### Ribbed vs. Non-Ribbed Bolts

Ribbed and Non-Ribbed bolts in the same location generally require a different torque specification.

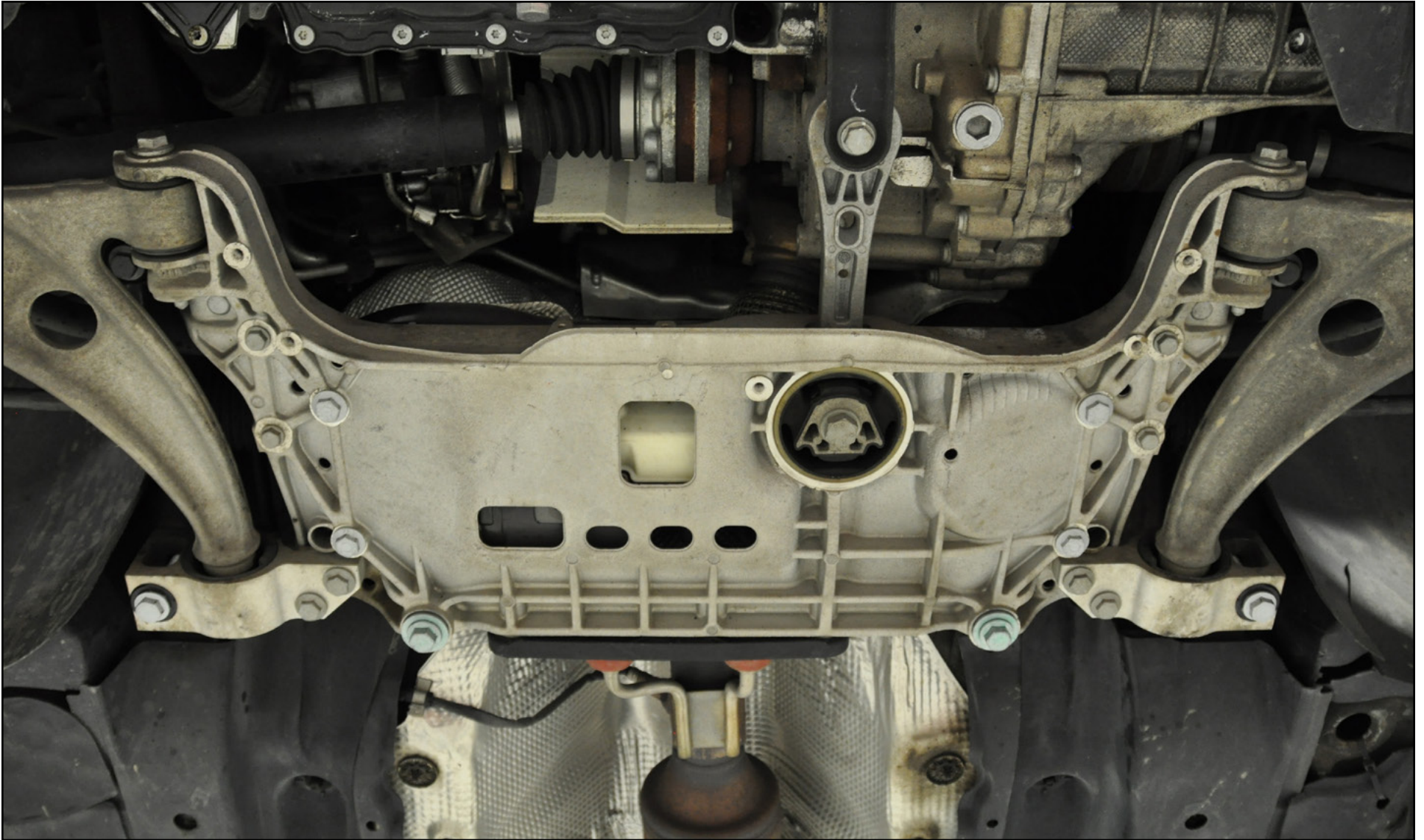


A ribbed bolt is identified by the ribs on the contact surface

A non-ribbed bolt is identified by the smooth contact surface



## Your Locking Collar Kit installation is complete!



### These instructions are provided as a courtesy by ECS Tuning

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