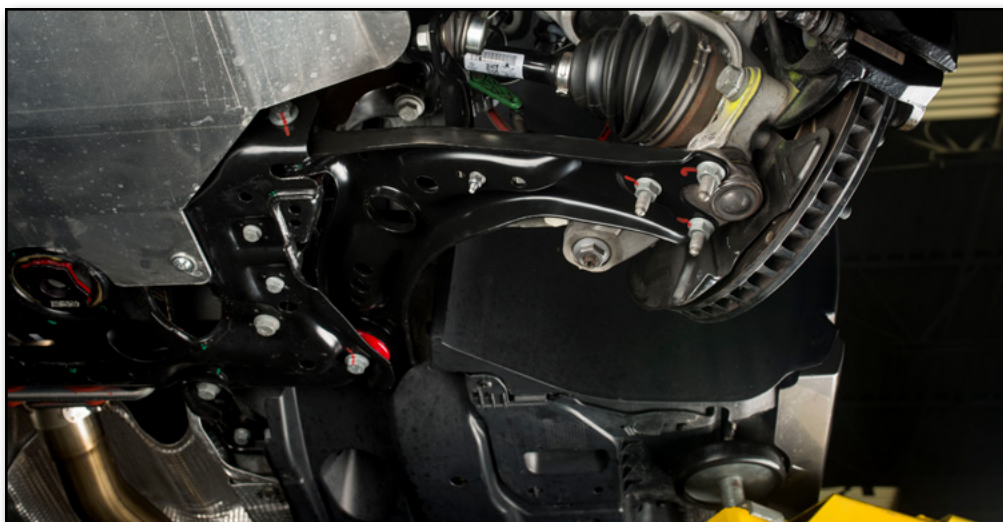




VW MK7 Golf/Audi 8V A3
Polyurethane Control Arm Kit
Installation Instructions - [Click HERE to Shop](#)



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.

INTRODUCTION

The Project:

Today we are going to install our upgraded Performance Lower Control Arm Kit w/Polyurethane Bushings into our MK7 GTI. The ECS polyurethane bushings come pre-installed in new control arms, making for a very easy install. Upgrading to polyurethane offers many improvements over the stock rubber bushings by supplying enhanced road feel, improved traction and longer lasting operation, all while operating squeak-free and with street friendly comfort.

Basic skills and tools are all that is required for a job like this, however we would like to point out that due to the rigid and unforgiving nature of polyurethane bushings you may have some difficulty aligning the control arms into the subframe. Don't worry though, we're going to lay out the entire install step-by-step for you and with a little reading and elbow grease you should be able to breeze right through this job!



The Performance Lower Control Arms are available in two different kits, one kit offers the control arms alone, and the other kit offers all of the required hardware. We **HIGHLY RECOMMEND** buying the kit **WITH** the hardware, this is due to the control arm bolts being "Torque to Yield" fasteners. This means that they will stretch when they are tightened to specification and cannot be reused. Please see [Page 17](#) for information on this type of fastener.



If your vehicle is equipped with a DSG or Tiptronic transmission, you will need to unbolt the pendulum mount from the subframe and swing the engine forward to remove the LH control arm bolt. This hardware is also "Torque to Yield" hardware, and replacements can be found [HERE](#).

TABLE OF CONTENTS

Kit Contents	pg.4
Installation and Safety Information	pg.5
Project Overview	pg.6
Removing the Stock Control Arms.....	pg.8
Installing the New ECS Control Arms	pg.13
Torquing Tips	pg.17
Torque Specifications.....	pg.18
Schwaben Tools	pg.19

REQUIRED TOOLS

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

- $\frac{3}{8}$ " Drive Ratchet, Torque Wrench, Sockets & Extensions
- $\frac{1}{2}$ " Drive Ratchet, Torque Wrench, Sockets & Extensions
- Open/Boxed End Wrench Set [ES#2765907](#)
- Protecta-Sockets (for lug nuts)..... [ES#2221243](#)
- Hydraulic Floor Jack..... [ES#240941](#)
- Jack Stands
- Torx Drivers and Sockets
- Pry Bar Set..... [ES#1899378](#)

KIT CONTENTS



Lower Control Arm w/ECS Bushings - Left **(QTY 1)**



Lower Control Arm w/ECS Bushings - Right **(QTY 1)**



M12 Control Arm Bolts **(QTY 4)**



M12 Control Arm Nuts **(QTY 2)**



M10 Ball Joint Nuts **(QTY 6)**

Replacement Hardware (included w/[ES#3136037](#))

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.



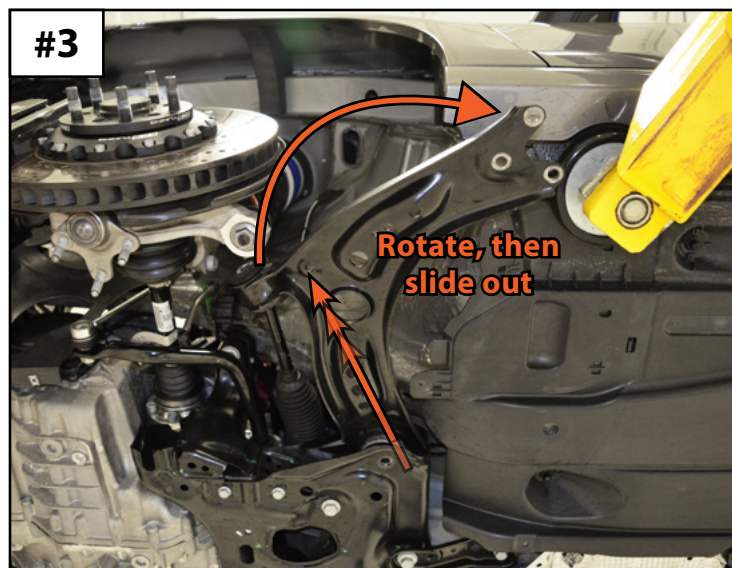
NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

PROJECT OVERVIEW

Control Arm Removal:

Let's take a moment and look at what we'll be removing in order to install the new Performance Control Arms. First we'll need to lift the vehicle and remove the insulation panel and the fender liner (#1), this is very important because we need to swing the control arm out pretty far to remove it, and the fender liner will be in the way. Next we'll disconnect the ball joint and remove the control arm bolts (#2), then we'll swing the control arm out and around to slide it out (#3). Then we'll reinstall the new control arm in reverse order, torque all of the fasteners to specification, and repeat this process on the other side of the vehicle (#4).

Now let's take a closer look at the fender liner on Page 10.

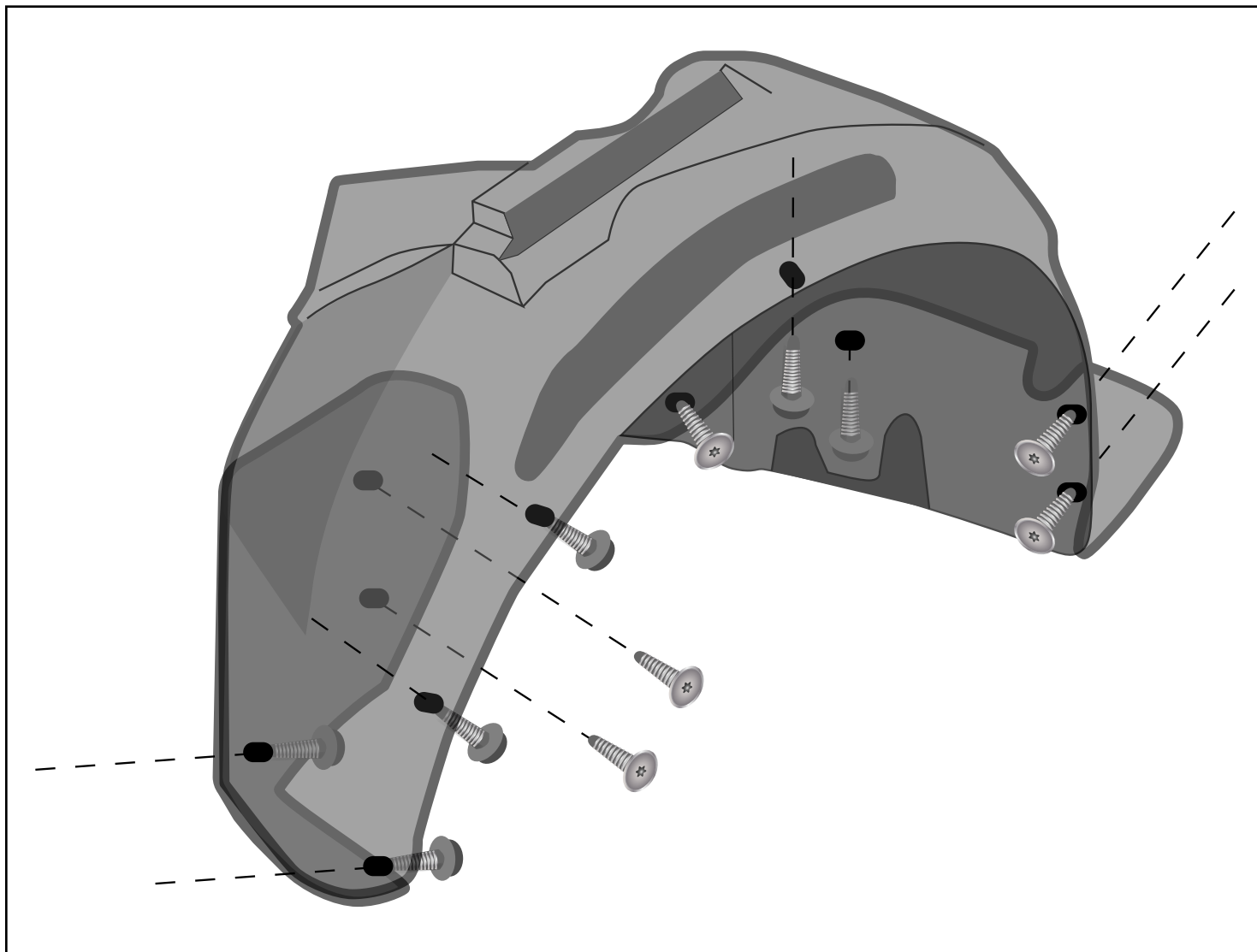


PROJECT OVERVIEW

Fender Liner Removal:

This illustration represents the LH (Driver's) side fender liner, but the RH (Passenger's) side fender liner is a mirror image of this one. As you can see there are 11 screws which secure the liner to the vehicle. Be sure to reference this diagram if you have trouble finding them all.

Now let's get to it!



REMOVING THE STOCK CONTROL ARMS

Step 1: T25 Torx

Safely raise and support the vehicle, then remove the insulation panel or skid plate, depending on what you have installed. The MK7 pictured here is equipped with the original lower insulation panel (highlighted in **GREEN**).



Step 2: T25 Torx

Remove the wheel, then remove the 11 fender liner screws as illustrated on [Page 7](#).



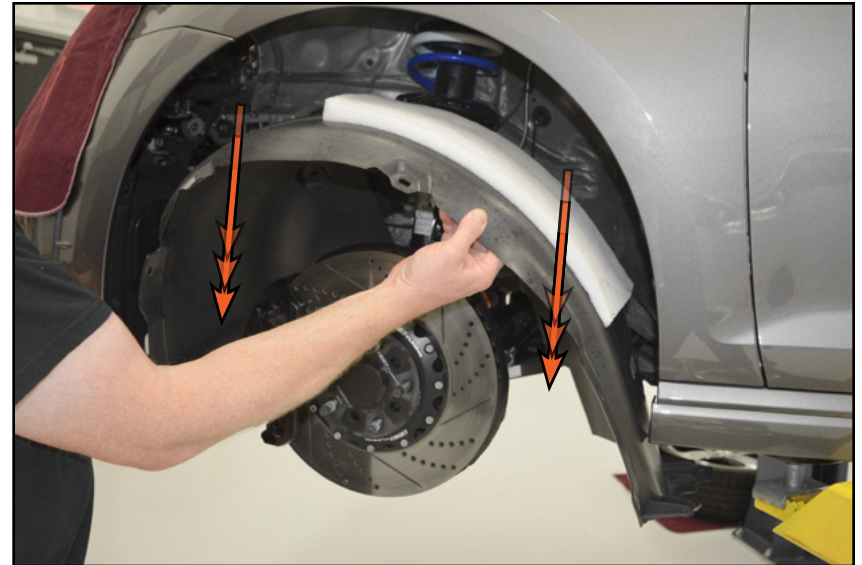
From this point forward we will only be working on one side of the vehicle, you may choose to install one side at a time or do them both simultaneously.



REMOVING THE STOCK CONTROL ARMS

Step 3:

Pull the fender liner down and out of the wheel well.



Step 4: 16mm Socket & Breaker Bar

Remove the three nuts which secure the ball joint to the lower control arm.



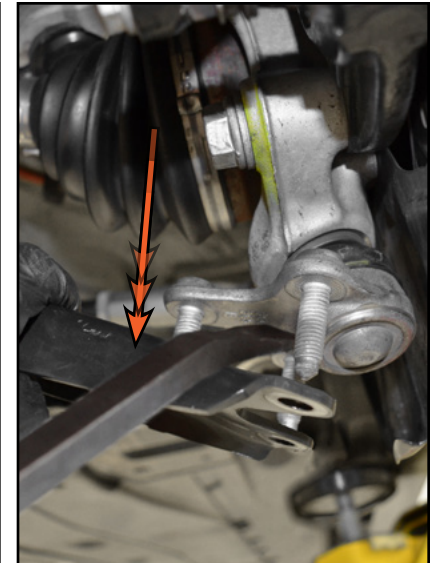
We highly recommend spraying the ball joint nuts with penetrating oil to aid in their removal.



REMOVING THE STOCK CONTROL ARMS

Step 5: 10mm Socket & Ratchet, Pry Bar

Remove the nut which secures the headlight leveling sensor bracket (LH if equipped), then pry the control arm off of the ball joint studs.



Step 6: 18mm Socket & Breaker Bar

Remove the horizontal bolt which secures the front control arm bushing to the subframe.



On vehicles equipped with an DSG or Tiptronic transmission, the LH horizontal bolt cannot be completely removed due to the location of the transmission. You will need to unbolt the pendulum or "dog bone" mount at the subframe and swing the engine forward, or in extreme cases, loosen and lower the subframe in order to remove the control arm bolt.



REMOVING THE STOCK CONTROL ARMS

Step 7: 18mm Socket, Breaker Bar, & 18mm Wrench

Loosen but **DO NOT** remove the vertical bolt and nut which secure the rear control arm bushing to the subframe, we will remove this hardware in a later step.



You will have to hold the nut on top with a wrench while you loosen the bolt from below.



Step 8:

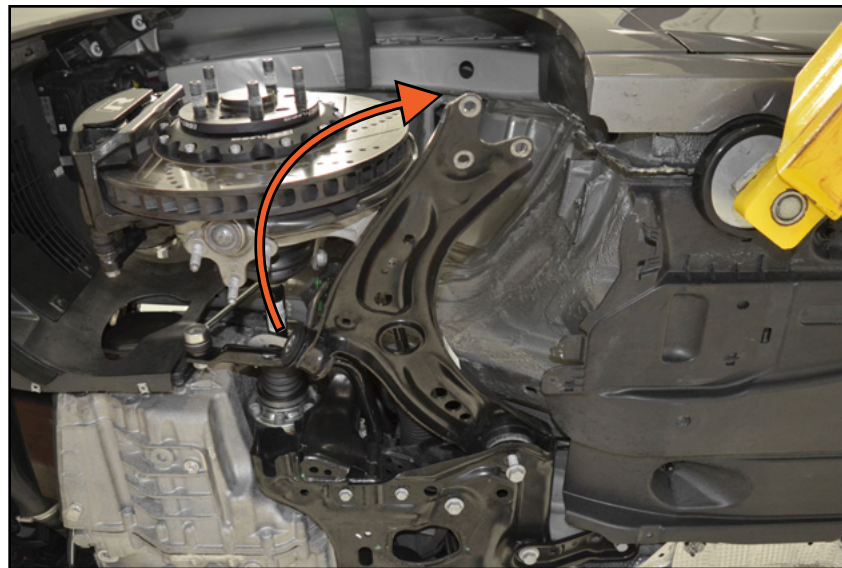
With the rear control arm bushing bolt loosened but still in place, pull the ball joint side of the control arm downward to clear the steering knuckle, then pull the front of the arm out of the subframe. Now, continue to the next page for further instructions.



REMOVING THE STOCK CONTROL ARMS

Step 9:

Pivot the control arm as shown from the bolt we left in the rear bushing, this will give you the clearance you need to pull the arm out of the subframe.



Step 10:

Remove the vertical bolt and nut from the rear control arm bushing, then pull the arm out of the subframe.



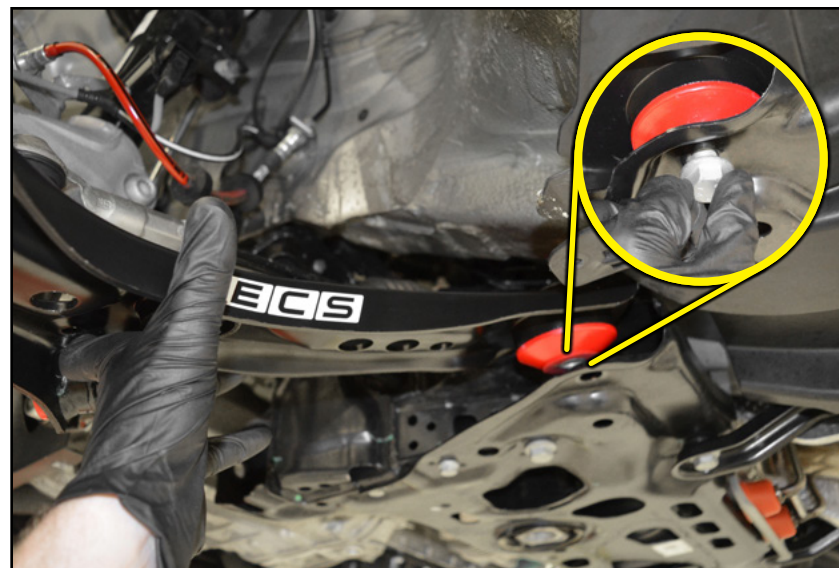
INSTALLING THE NEW ECS CONTROL ARMS

Step 1:

Slide the new control arm into the subframe, then line up and hand tighten the vertical bolt and nut through the rear control arm bushing.



We will be torquing these fasteners in a later step, leaving them loose now makes it easier to finish the install.

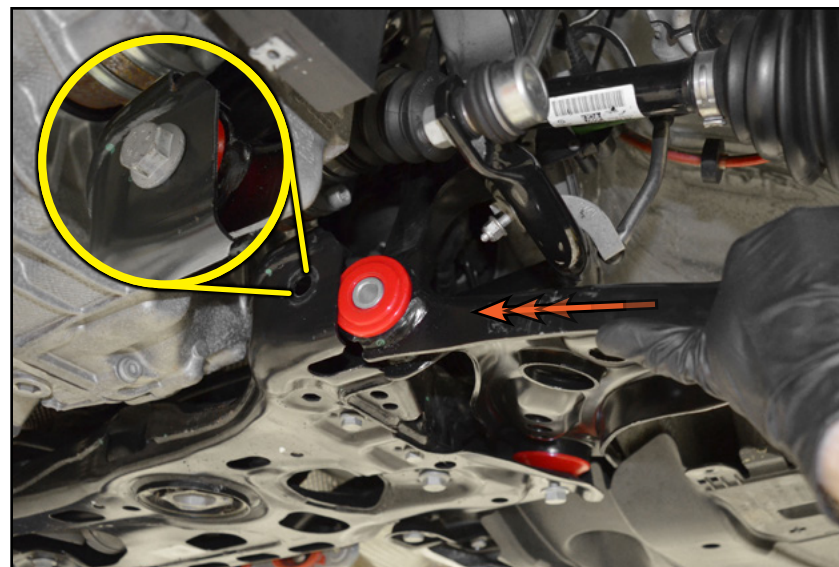


Step 2:

Pivot the control arm back into position and slide it into the subframe, remember that you will need to pull the ball joint side of the control arm downward during this step to clear the steering knuckle. Line up the front control arm bushing and hand tighten the bolt.



We will be torquing these fasteners in a later step, leaving them loose now makes it easier to finish the install.



INSTALLING THE NEW ECS CONTROL ARMS

Step 3:

Install the ball joint into the control arm, then hand tighten the ball joint nuts.



We will be torquing these fasteners in a later step, leaving them loose now makes it easier to finish the install.



Step 4:

10mm Socket & Torque Wrench

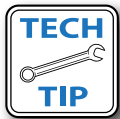
Reinstall the headlight leveling sensor bracket (if equipped) and torque the nut to 14 Nm (10 Ft-lbs).



INSTALLING THE NEW ECS CONTROL ARMS

Step 5: 16mm Socket, Torque Wrench & Breaker Bar

Torque the ball joint nuts to 40 Nm (30 Ft-lbs), then rotate the nuts an additional 45 degrees with a breaker bar.



As you can see, we marked each bolt with a paint marker after it was torqued down. This is an easy thing to do to ensure that none of the fasteners are forgotten or skipped.



Step 6: 18mm Socket, Torque Wrench & Breaker Bar

Torque both of the control arm bolts to 70 Nm (52 Ft-lbs), then rotate each of them an additional 180 degrees with a breaker bar.



Please see [Page 17](#) for more information on "Torque to Yield" fasteners.



INSTALLING THE NEW ECS CONTROL ARMS

Step 7: T25 Torx, Protect-a Socket & Torque Wrench

Reinstall the fender liner and the wheel, then torque the wheel fasteners (factory spec is 120 Nm [89 Ft-lbs]).



Step 8:

Repeat this process on the opposite side of the vehicle, then reinstall the insulation panel or skid plate, depending on your application.



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.

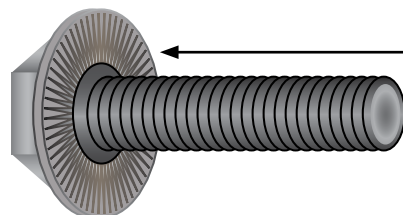
Some fasteners require lubrication on the threads -or- on the contact surface while torquing. These fasteners will be listed with the specific location and type of lubrication required. Always follow manufacturers recommendations exactly.

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.

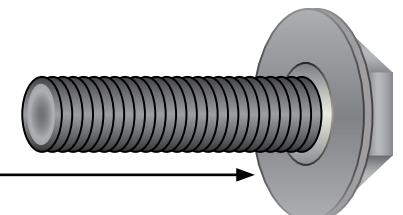
Ribbed vs. Non-Ribbed Bolts

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



TORQUE SPECIFICATIONS

Headlight Leveling Sensor Bracket Nut	14 Nm (10 Ft-lbs).....	(Page 14)
Ball Joint Nuts.....	40 Nm (30 Ft-lbs) + 45 degrees	(Page 15)
Control Arm Bolts	70 Nm (52 Ft-lbs) + 180 degrees	(Page 15)
Wheel Bolts	120 Nm (89 Ft-lbs)	(Page 16)

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 Performance Lower Control Arm Kit 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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