Audi B6/B7 6 Speed
Adjustable Short Throw Shifter
Installation Instructions

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

Accelerating through the gears, up shifting and down shifting as you follow a long curvy road, enjoying the feel and engineering of the machine under you. That's what driving is all about, and for your Audi B6 or B7, we've just improved the experience. Toss in our new Short Shifter, and you've got smooth, quick, and precise shifting from one of the highest quality shifters you can buy. Three different throw settings and an adjustable stick height allow you to tailor it to your preference. Installing our short shifter is a move you won't regret.

Difficulty Level

Installing our short shifter is a nice afternoon project that you can complete in just a short couple of hours. It's pretty easy to do, but even if you don't have much experience, we'll walk you through it step by step with our detailed, easy to read instructions. So take your time and enjoy the project, you'll be done in no time and you'll be looking for every excuse you can find to get behind the wheel. Thank you for looking to ECS Tuning for all your performance and repair needs. We appreciate your business!

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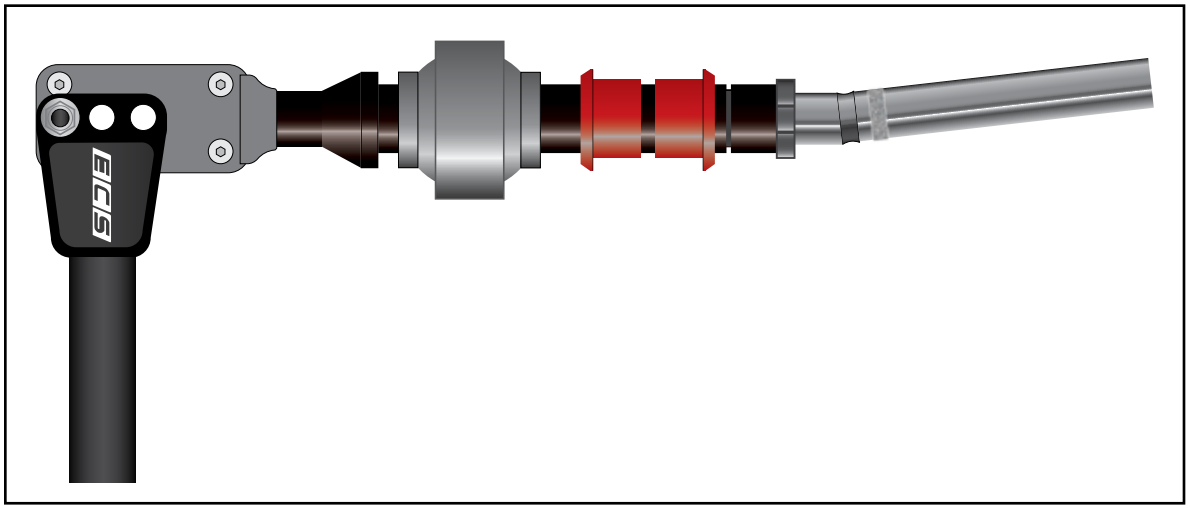
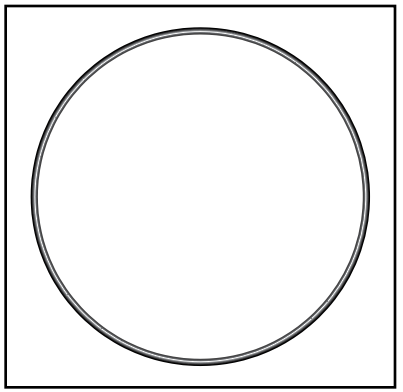
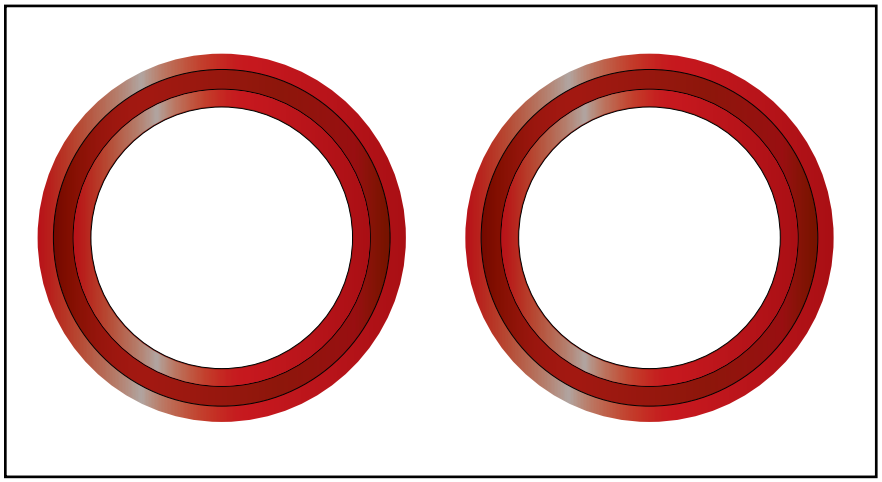
KIT CONTENTS



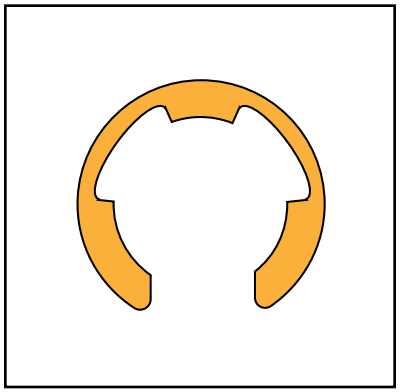
Shifter Assembly



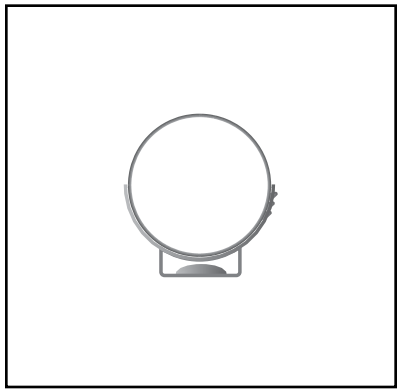
O-Ring Seal



Bearing Retainers (2)



Spring Retaining Clip



Ear-Type Clamp
(For Shifter Boot)

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
- **Snap Ring Pliers** ES#2972275
- File Set
- Air Nozzle/Blow Gun
- 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
- **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

Available On Our Website

Specialty Tools

- **Ear Type Clamp Pliers** ES#2748884

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.

REMOVING THE ORIGINAL SHIFTER

Step 1:

The first step is to remove the shift knob, shift boot, and the surrounding trim piece that is attached to the shift boot. The trim piece is held on by four spring clips, and the base of the shift knob is held onto the shifter stick by an ear-type clamp. The four spring clips are located at the corners of the trim piece as indicated by the arrows in the picture.

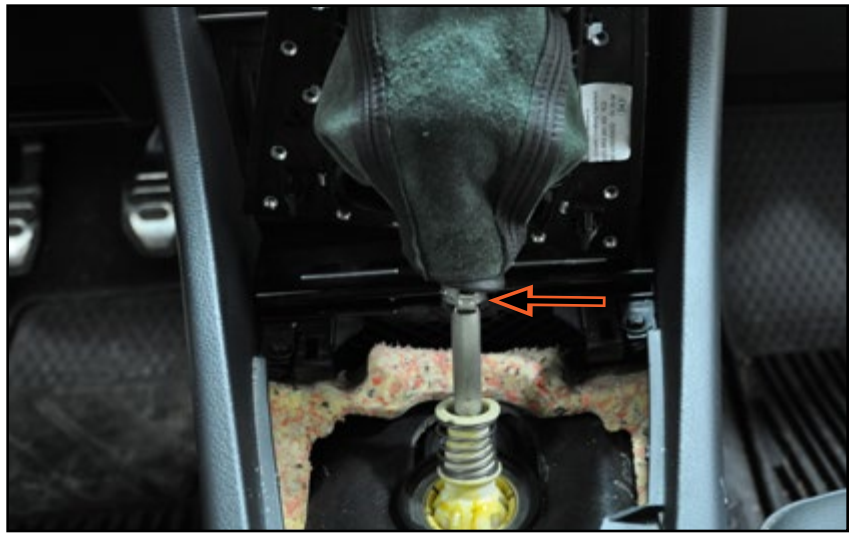
Step 2:

Gently pull up at the corners of the shift boot trim piece to release the clips.

REMOVING THE ORIGINAL SHIFTER

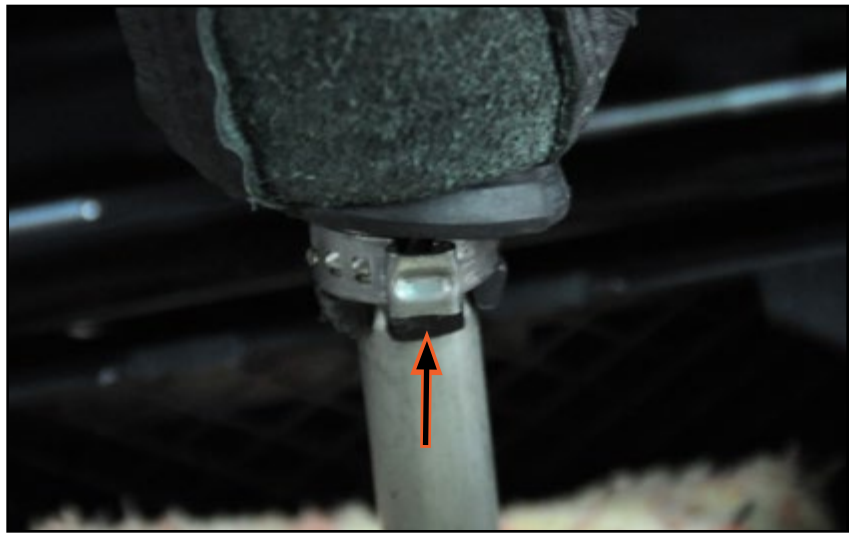
Step 3:

Lift the shift boot up over the shift knob to access the ear-type clamp at the base of the shift knob.



Step 4: Side Cut Pliers

Snip the clamp at the ear (arrow), and remove it. These clamps are ***not*** intended to be reused and we have included a new clamp in the kit. Be aware that these clamps require a special type of pliers (see Page 5 Specialty Tools) to properly crimp the new one in place.



NOTE

Don't worry if you have reached this step and realized you don't have the special crimping pliers. Using them will provide the best crimp, but we'll give you an alternate method that works too.

REMOVING THE ORIGINAL SHIFTER

Step 5:

Pull the shift knob, boot, and trim upward off the shifter stick and set them aside.

Step 6: 8mm Socket, Ratchet

Remove the two ashtray hold down screws.

REMOVING THE ORIGINAL SHIFTER

Step 7:

Gently pivot the ashtray upwards to gain access to the insulation around the shifter.

Step 8:

Carefully pull the foam out from around the shifter. There are two pieces, as indicated by the arrows.

REMOVING THE ORIGINAL SHIFTER

Step 9:

Carefully pull out the rubber sound deadening mat from around the shifter.

Step 10: 10mm Socket, Ratchet

Remove the two nuts on the shifter guard plate.

REMOVING THE ORIGINAL SHIFTER

Step 11:

Lift the shifter guard plate off the shifter and out of the console.

Step 12:

Pivot the ashtray upwards again, locate the two electrical connectors (arrows), and disconnect them.

TECH TIP

Although it looks like you can work around the ashtray, it is ***much*** easier to remove the shifter with it out of the way. With only two steps for ashtray removal, it's not worth trying a "shortcut" here.

REMOVING THE ORIGINAL SHIFTER

Step 13:

A little patience is required here, so take your time. The ashtray will actually come out very easily, but the tabs on the side make it just about 1mm wider than the opening in the console. Lift it up as if it were going to come straight up and out, then gently pull the LH side of the console ***away*** from the ashtray and it will slip right past the console and out.

There is a bit of a "sweet spot" to get the ashtray out, but it's not hard to find. Just move it around gently while pulling out on the console and you'll find it. Excessive force or prying is not required.

Step 14:

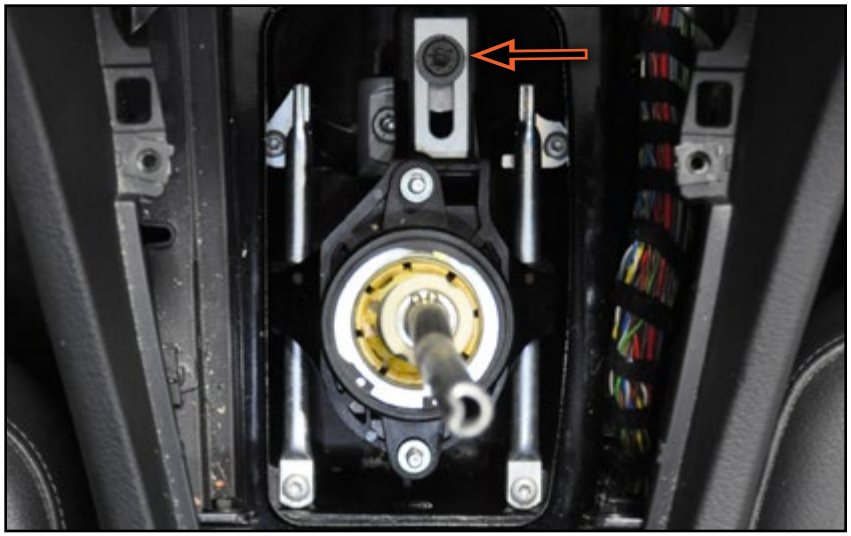
Place the shifter in neutral.

REMOVING THE ORIGINAL SHIFTER

Step 15: 6mm Allen (Hex Bit) Socket, Ratchet, Extension

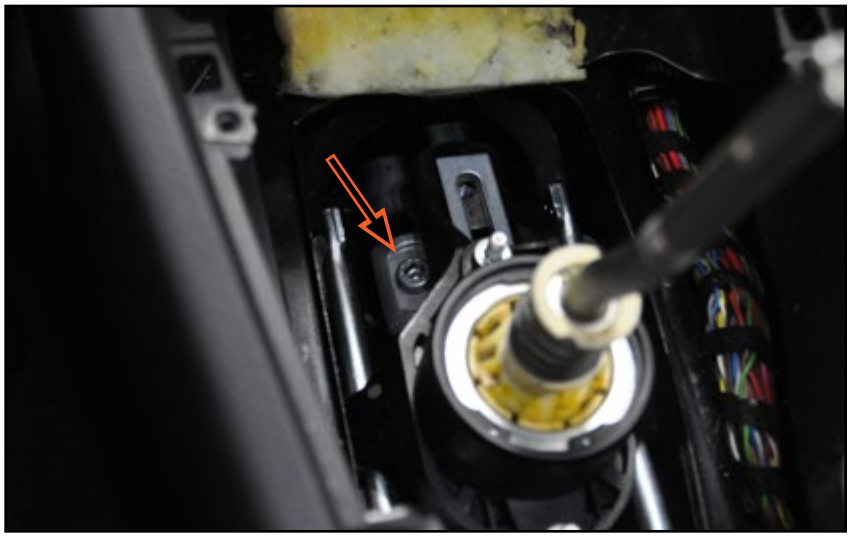
Locate the push rod bolt (arrow) and note its position in relation to the elongated slot in the shifter base. This position determines the centerline of the shifter and will vary from car to car, depending on body style and model year. It is important to note the position because you will be reinstalling it in the same location.

Now, remove the push rod bolt.



Step 16: 6mm Allen (Hex Bit) Socket, Ratchet, Extension

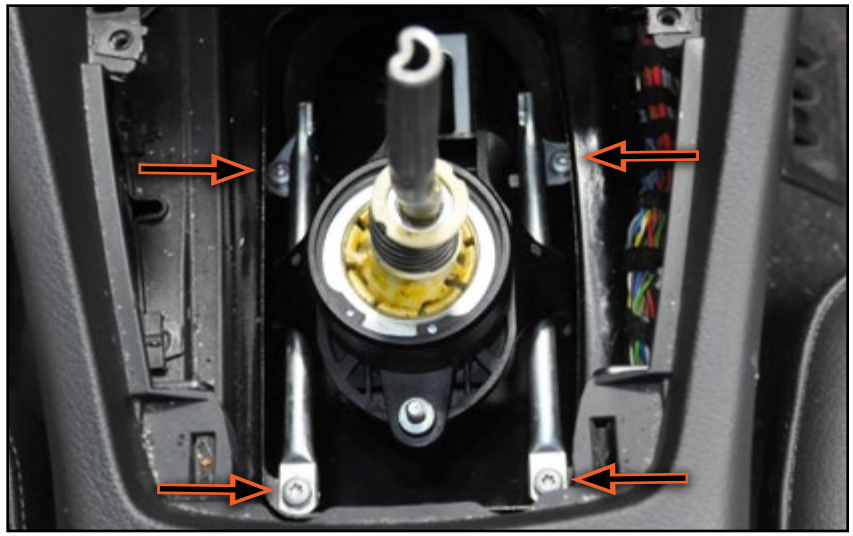
Remove the selector rod bolt.



REMOVING THE ORIGINAL SHIFTER

Step 17: T25 Torx

Remove the four torx screws on the shifter side rails.



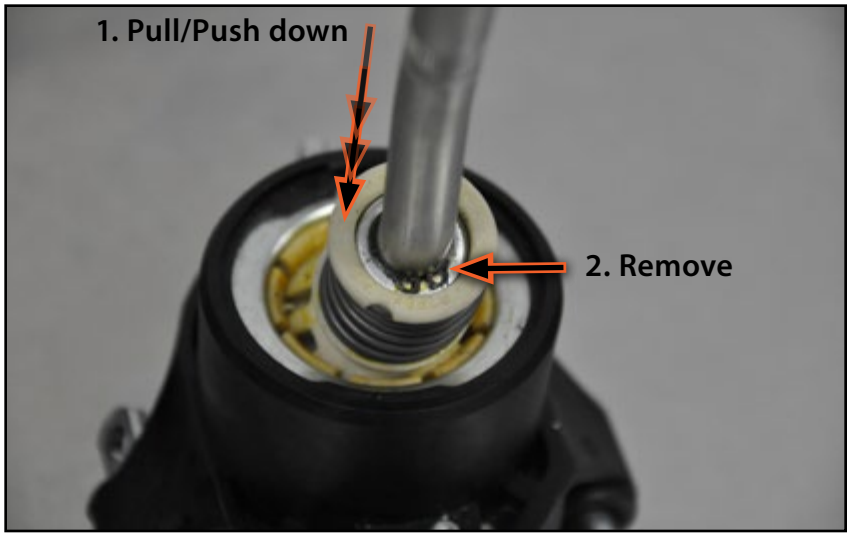
Step 18:

Slide the shifter off the push rod (reference step 15), then lift it upwards and remove it.

DISASSEMBLING THE ORIGINAL SHIFTER

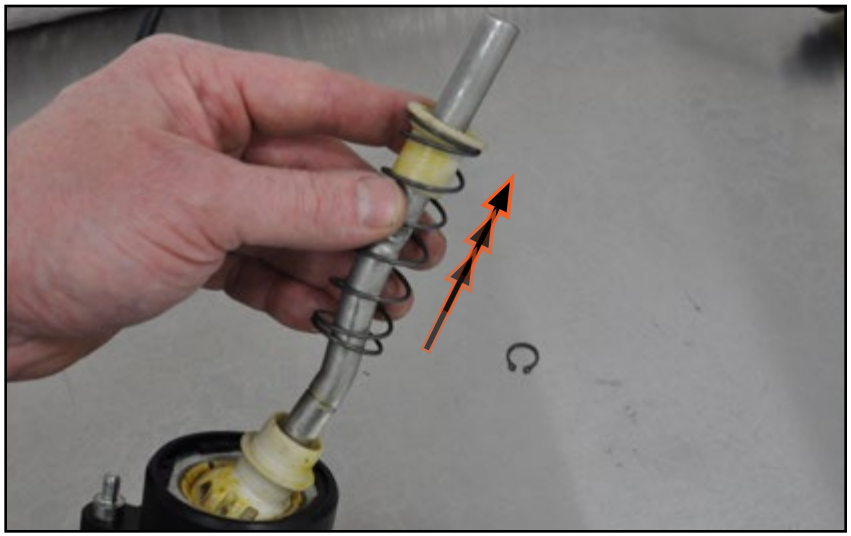
Step 1: Snap Ring Pliers

Pull down on the upper shifter spring seat, then remove the small snap ring that holds it in place on the shifter stick.



Step 2:

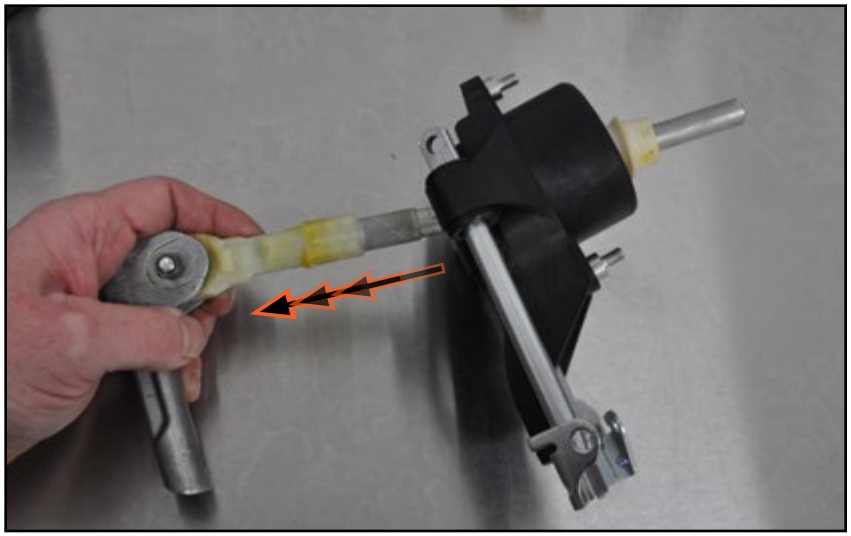
Slide the spring and the two spring seats off the shifter stick. The original spring seats will not be reused, but you will be reusing the spring on the new shifter.



DISASSEMBLING THE ORIGINAL SHIFTER

Step 3:

Slide the shifter stick out through the bottom of the shifter base and bearing.



Step 4: Snap Ring Pliers

Remove the large snap ring that holds the bearing into the shifter base. Set it aside, but keep track of it. You will be reusing it on the new shifter.

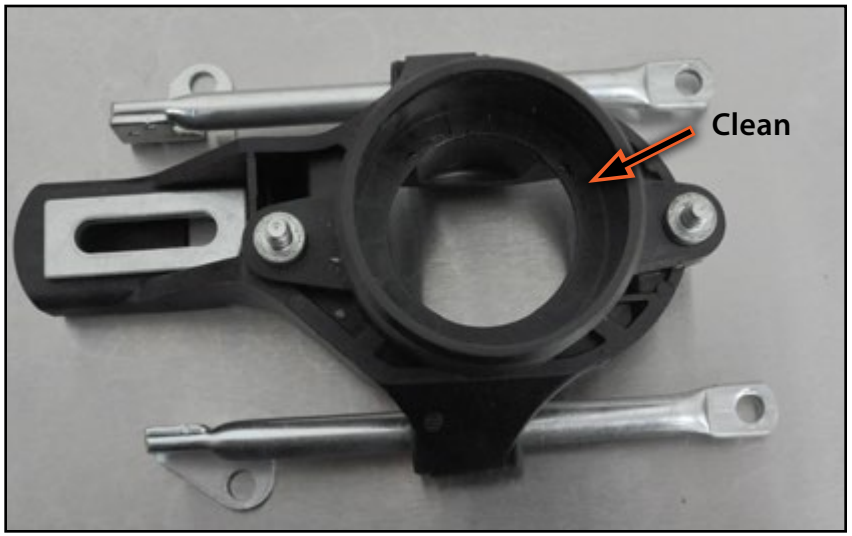
DISASSEMBLING THE ORIGINAL SHIFTER

Step 5:

Pull the original bearing out of the shifter base.

Step 6:

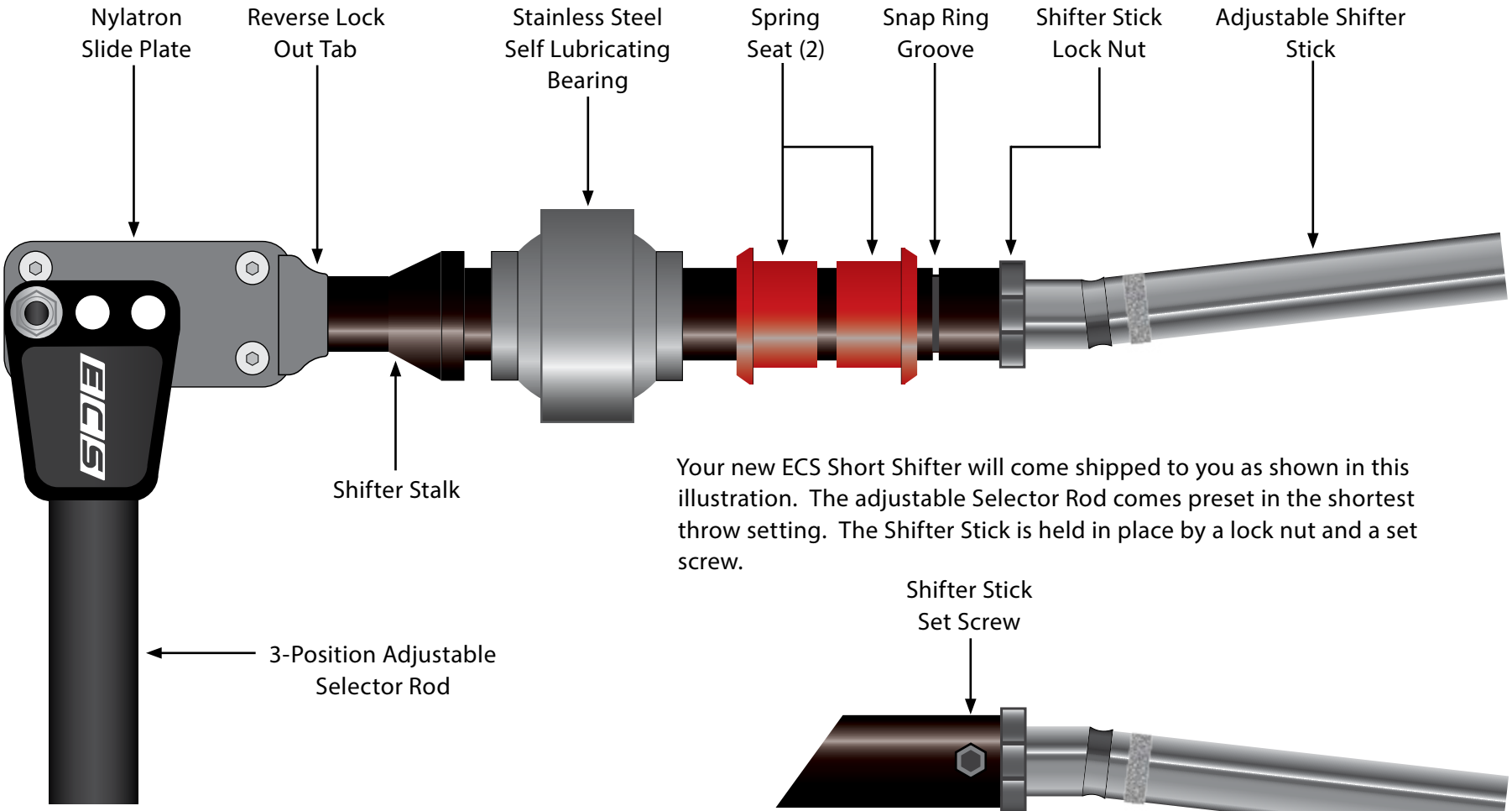
Wipe all dirt and dust out of the shifter base.



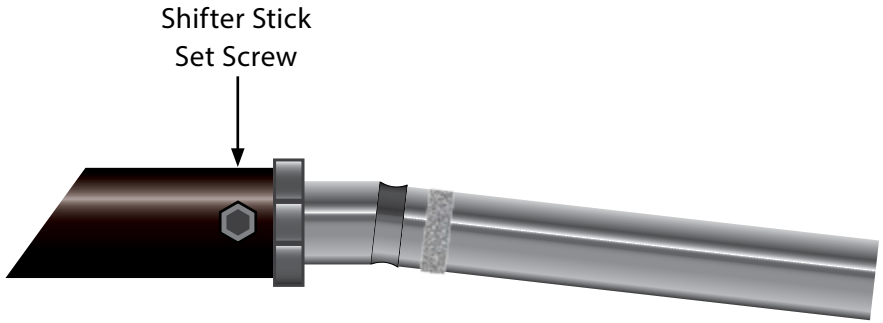
You are now ready to assemble and install your new ECS Tuning Short Shifter!

SHIFTER COMPONENTS

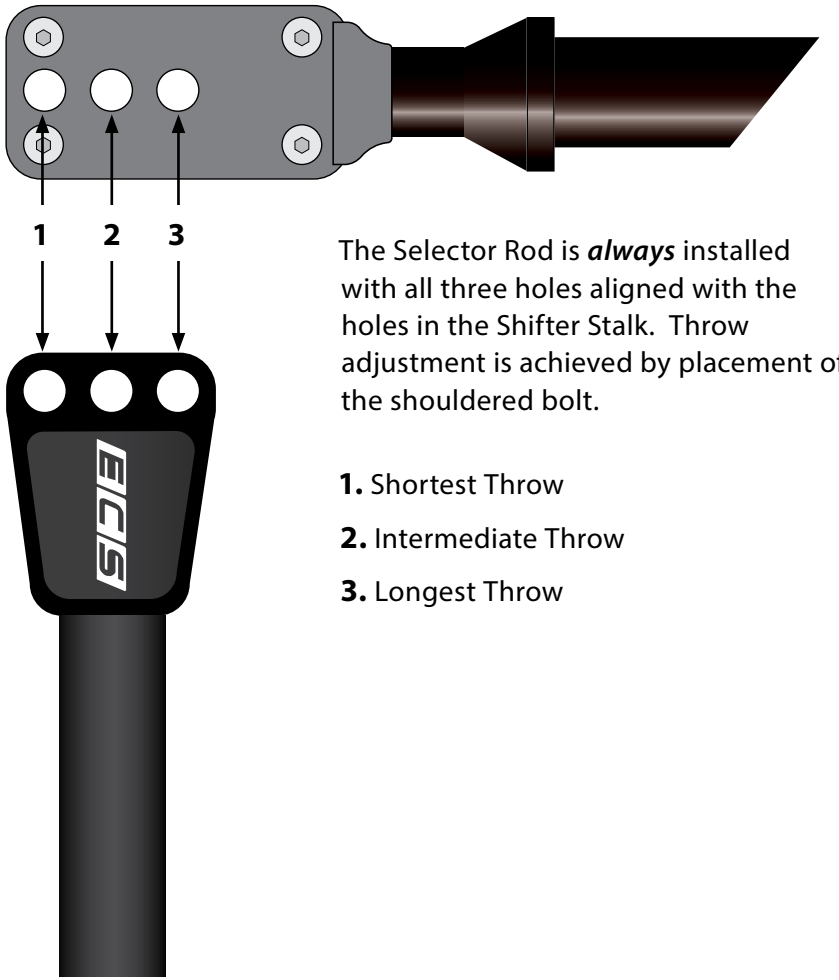
Before we begin, let's take a quick look at the components and throw adjustment of your new shifter.



Your new ECS Short Shifter will come shipped to you as shown in this illustration. The adjustable Selector Rod comes preset in the shortest throw setting. The Shifter Stick is held in place by a lock nut and a set screw.



SHIFTER COMPONENTS

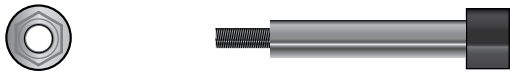


The Selector Rod is ***always*** installed with all three holes aligned with the holes in the Shifter Stalk. Throw adjustment is achieved by placement of the shouldered bolt.

1. Shortest Throw

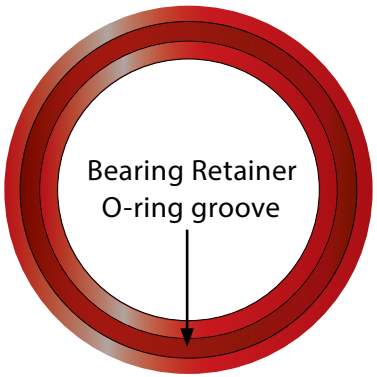
2. Intermediate Throw

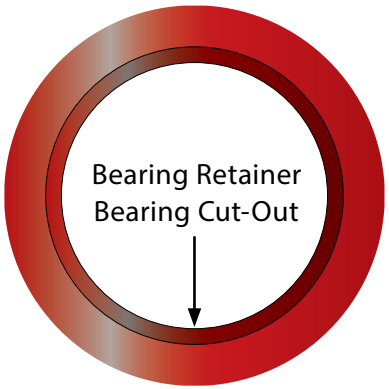
3. Longest Throw



The Selector Rod is held on by a shouldered bolt and a nylock nut. The shoulder prevents over tightening of the Selector Rod. The correct torque for the nut is 30 in-lb (2.5 Ft-lbs). Your shifter is preassembled in the shortest throw setting and the nut is properly torqued, ready for installation.

Two identical bearing retainers are included with your shifter. On one side of each you will see an o-ring groove, on the other side the retainer will be cut out with a bearing seat.





INSTALLING THE NEW SHORT SHIFTER

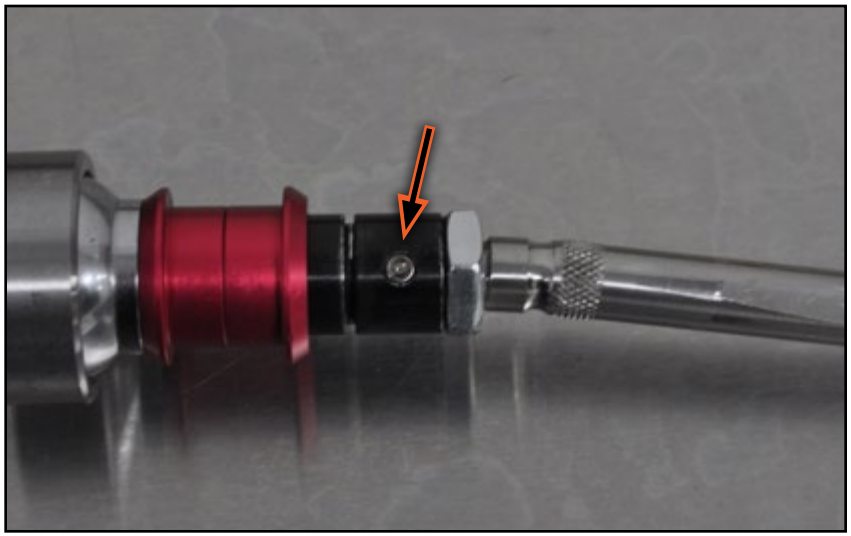
Step 1: 3mm Allen (Hex Bit) 8mm Socket, Ratchet

Unpack your new shifter and make sure you are familiar with the shifter components and throw adjustment (Pages 20 and 21). The selector rod comes installed at the shortest throw. If you are going to change the setting, do so at this time by moving the selector rod bolt to one of the other two holes (reference Page 21), then proceed to Step 2.

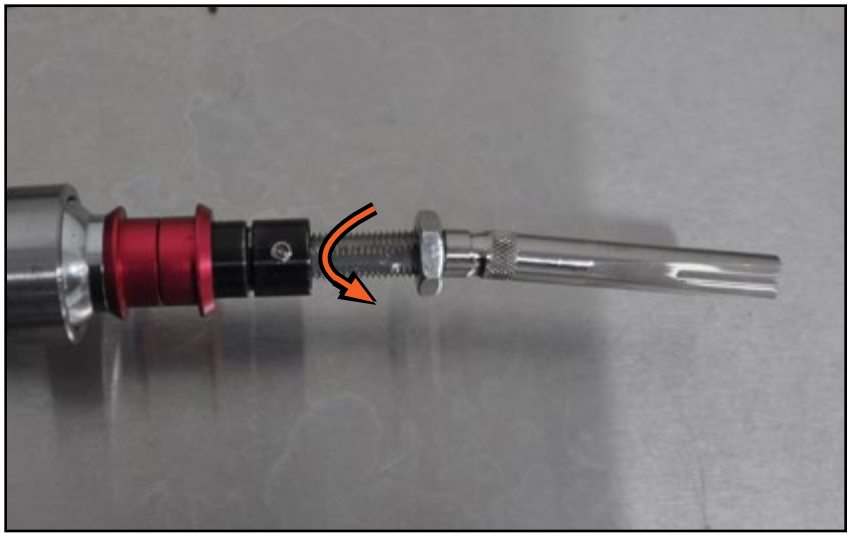
If you do change the throw setting, be sure to torque the nut to 30 in-lbs (2.5 Ft-lbs).

Step 2: 2.5mm Allen (Hex Bit)

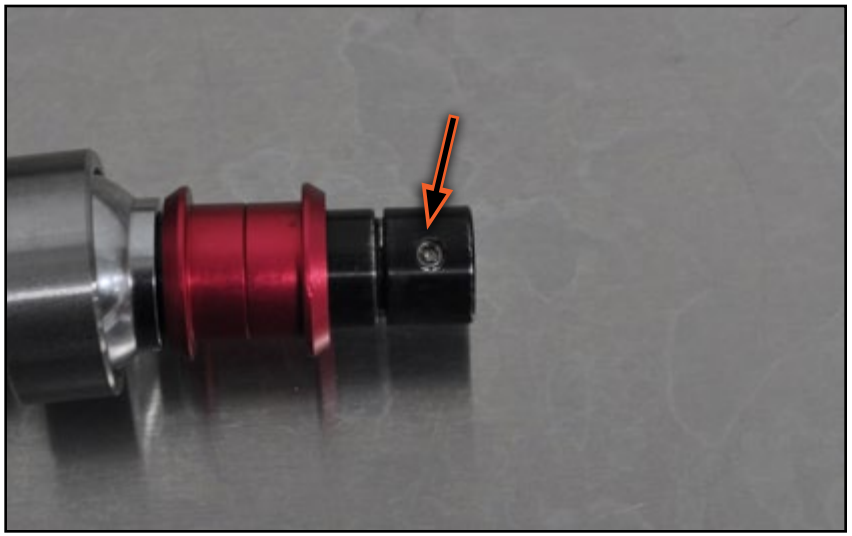
Locate the small set screw near the top of the shifter stalk. Loosen it so the shifter stick rotates freely (the lock nut will not be tight). It is not necessary to completely remove the set screw and you are better off leaving it in so it does not get lost.



Spin the shifter stick counter-clockwise to unthread it and remove it from the shifter stalk.



Thread the set screw back in so the top edge is below the surface of the shifter stalk.



INSTALLING THE NEW SHORT SHIFTER

Step 5:

Slide the two spring seats and the bearing off of the shifter stalk, so you are left with just the shifter stalk and the selector rod attached to the bottom.

Make sure the set screw is threaded in far enough so the spring seats and the bearing are not scratched and damaged as you slide them off.

Step 6:

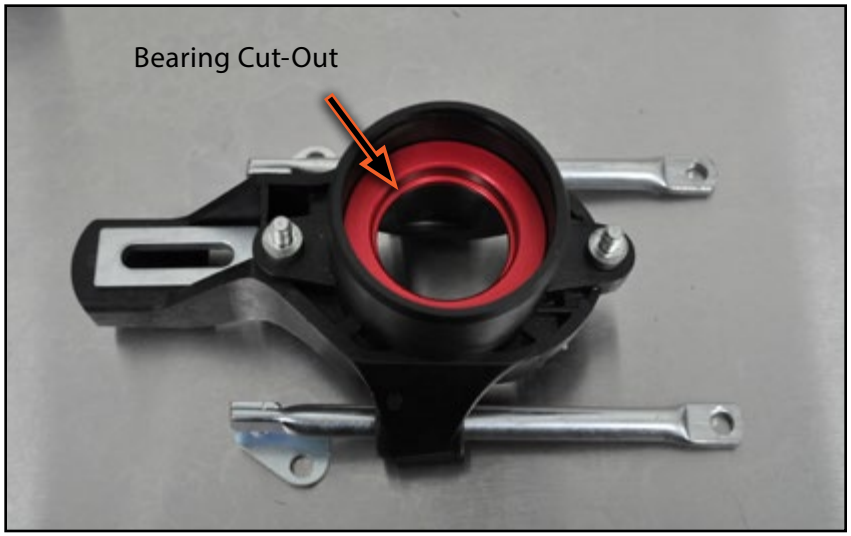
Place the o-ring included with the shifter into the groove in one of the bearing retainers. Both retainers are exactly the same, it does not matter which one you use.

INSTALLING THE NEW SHORT SHIFTER

Step 7:

Slide the bearing retainer into the shifter base with the o-ring facing down. Make sure the retainer is fully seated in the bottom of the shifter base.

The o-ring will, of course, fall out if you turn the bearing retainer over, so to install, simply turn the shifter base upside down and push the retainer up into it. Once it is fully seated, flip the shifter base right side up as shown in the picture. When installed correctly, the o-ring will seal between the retainer and shifter base, and the bearing cut-out will be visible from the top.



Step 8:

Insert the new shifter bearing into the retainer, making sure it is fully seated. The bearing is identical on top and bottom, it can be installed either way.

INSTALLING THE NEW SHORT SHIFTER

Step 9:

Push the remaining bearing retainer into the top of the shifter base. The o-ring groove will be facing up (no o-ring is installed on this one).

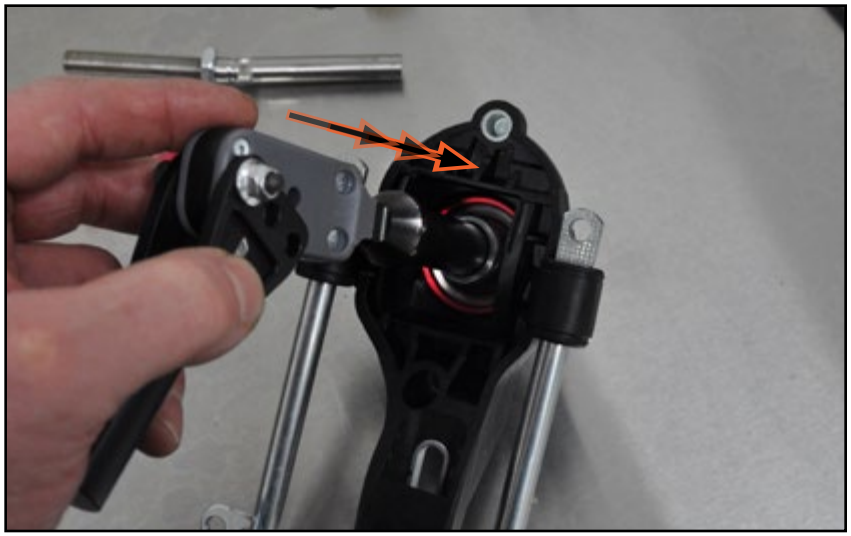
Step 10:

Install the original snap ring into the shifter base, securing the bearing retainers in place.

INSTALLING THE NEW SHORT SHIFTER

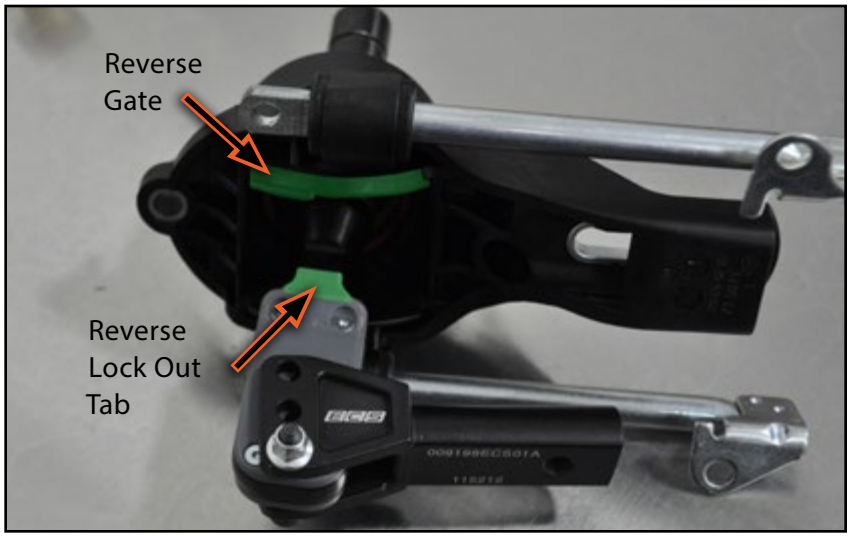
Step 11:

Turn the shifter base upside down, insert the shifter stalk into the bearing, then slide it through until it stops.



Step 12:

Locate the reverse gate on the shifter base and the reverse lock out tab on the RH slide plate (highlighted in green). Both of these should be located on the same side. If they are not, simply spin the shifter so they are lined up.



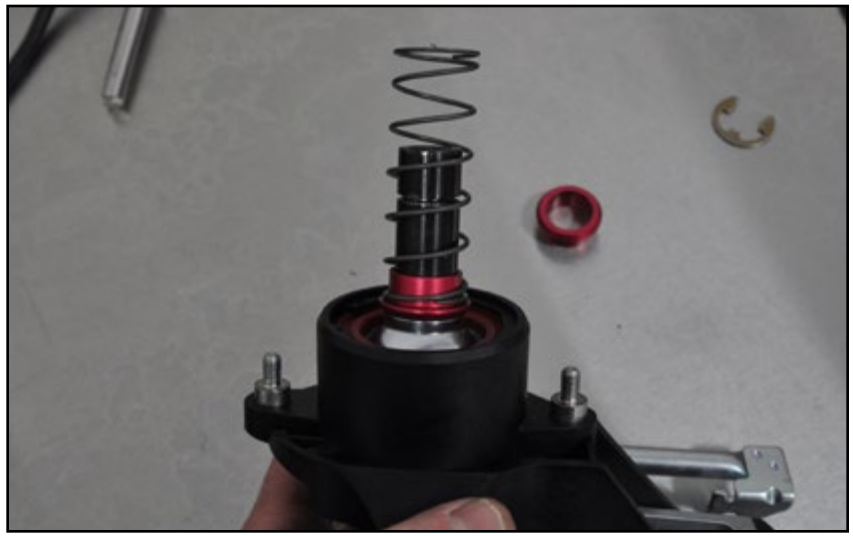
INSTALLING THE NEW SHORT SHIFTER

Step 13:

Turn the shifter base right side up and slide one of the spring retainers down onto the shifter stalk.

Step 14:

Place the spring (removed from original shifter), onto the lower spring retainer.



INSTALLING THE NEW SHORT SHIFTER

Step 15:

Insert the remaining spring retainer down into the top of the spring, and pull it down over the shifter stalk so it is below the groove for the snap ring.

Step 16:

Install the snap ring into the groove on the shifter stalk. The snap ring fits tight and you may have to use a pair of pliers to properly install it.

INSTALLING THE NEW SHORT SHIFTER

Step 17:

You're now ready to install the shifter into the car. Before you do, take a quick look at the front of the shifter base where the push rod attaches. You'll see that it is a "D" shaped slot and you'll have to align the push rod as you install the shifter.

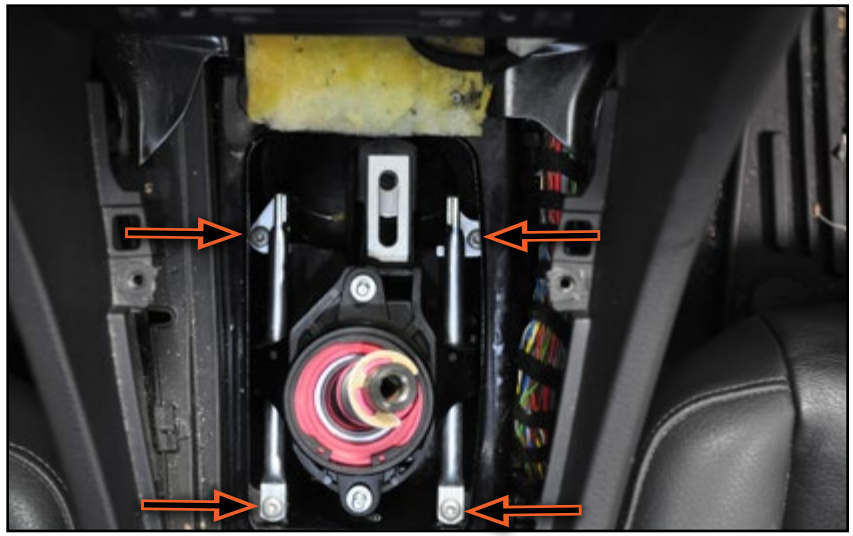
Step 18:

Make sure the selector rod on the shifter is facing forward, then align the push rod with the front of the shifter base and guide the shifter into the place. Align the side rails with their mounting holes.

INSTALLING THE NEW SHORT SHIFTER

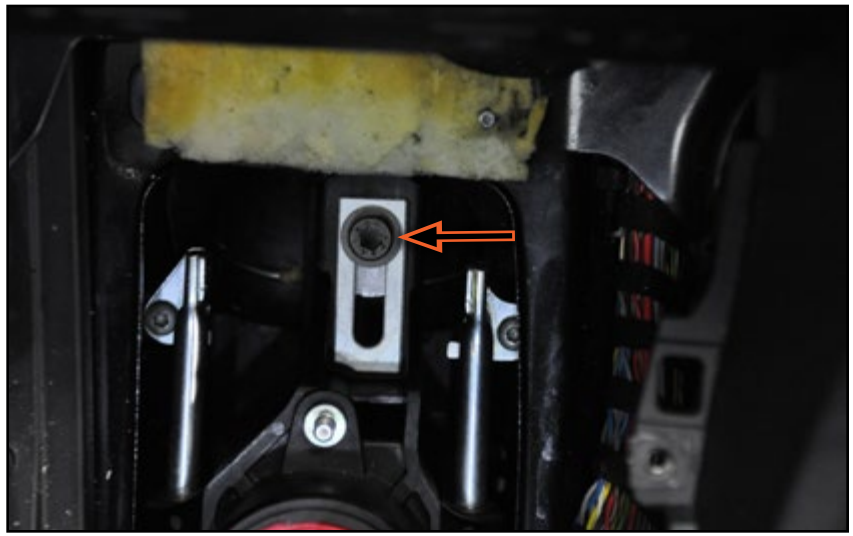
Step 19: T25 Torx

Install and tighten the four torx screws for the side rails.



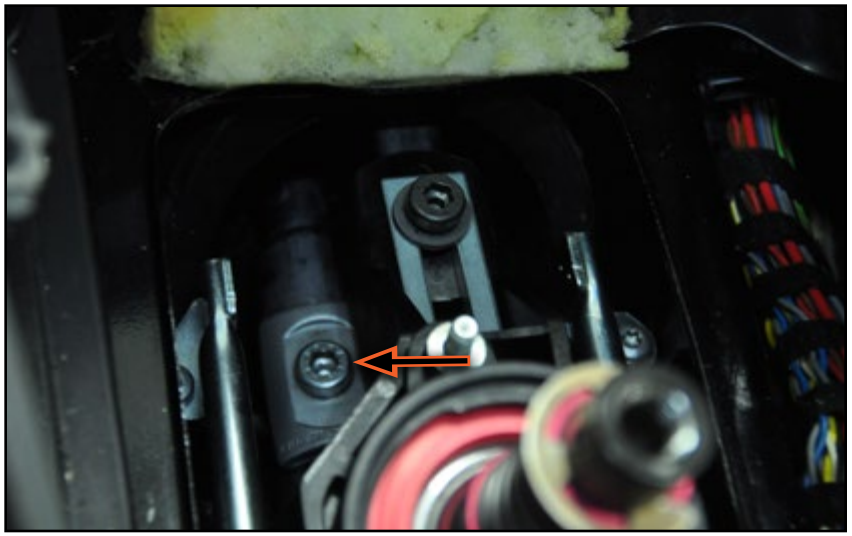
Step 20: 6mm Allen (Hex Bit) Socket, Extension, Torque Wrench

Install the push rod bolt loosely, then slide the shifter base back and forth on the side rails as necessary until the installation position matches the original, and finally torque the bolt to 23 Nm (17 Ft-lbs).



6mm Allen (Hex Bit) Socket, Extension

Install the selector rod bolt and thread it in most of the way, but leave it loose enough so the selector rods on the car and the shifter are free to move against each other for adjustment.



TECH TIP

The selector rod bolt can be a little difficult to start and it is helpful to move the shifter around and line up the selector rods before you try to install the bolt.

2.5mm Allen (Hex Bit)

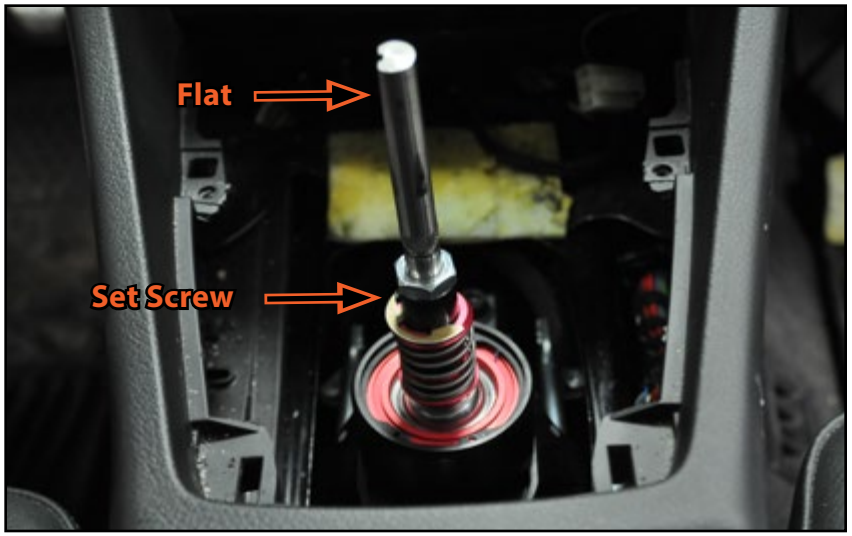
Back out the set screw just enough so it does not interfere with the threads in the shifter stalk.

INSTALLING THE NEW SHORT SHIFTER

Step 23:

Thread the shifter stick into place. You have the option of setting the height to your preference, but the stick must be threaded in at least a total of 1" to be safely secured.

In its installed position, the shifter stick will angle slightly toward the rear, and the flat on the stick will be lined up with the set screw in the shifter stalk.



Step 24: 2.5mm Allen (Hex Bit) Wrench, 19mm Open End Wrench

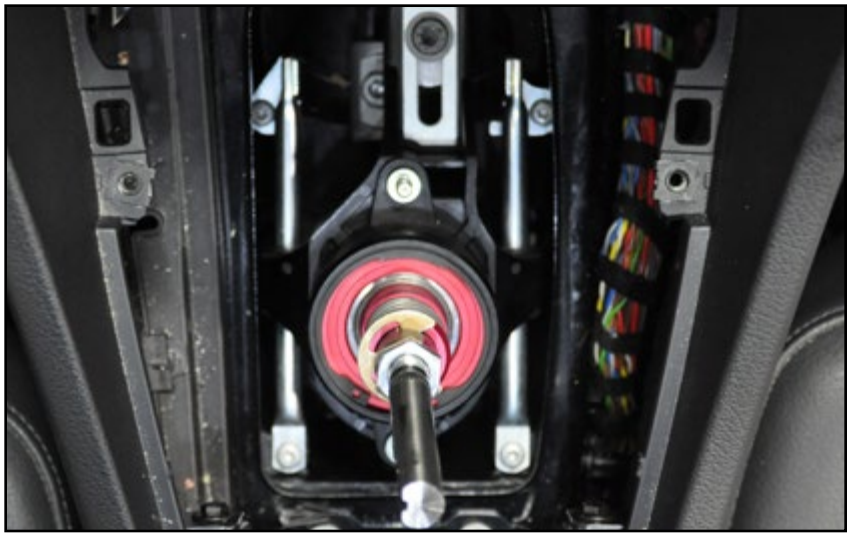
First, tighten the set screw, then tighten the lock nut on the base of the shifter stick.

INSTALLING THE NEW SHORT SHIFTER

Step 25:

Now it's time to adjust the shifter. Make sure the transmission is still in the neutral position. If it is not, move the selector rod as necessary to return it to neutral.

Now, move the shifter so it is approximately centered front to back and side to side. The selector rods on the transmission and shifter should be free to move against each other so the transmission remains in neutral while the shifter position changes.



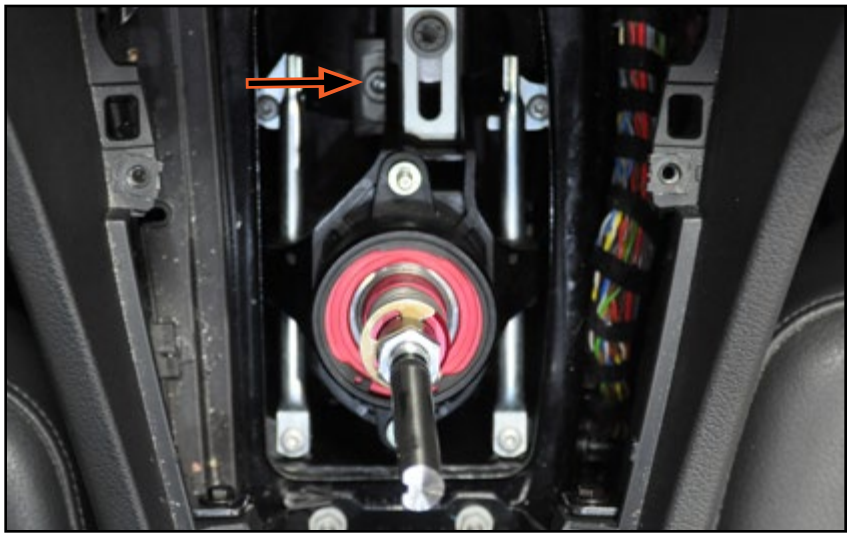
Step 26: 6mm Allen (Hex Bit), Extension, Torque Wrench

The final position of the shifter should be centered front and back and centered, or just ***slightly*** to the right, side to side.

Torque the selector rod bolt to 23 Nm (17 Ft-lbs).

Check the shifter operation. The transmission should smoothly go into every gear with no resistance or snags. The front to rear and the side to side throw should be approximately equal.

If gear engagement is not quite right, loosen the selector rod bolt and make minor adjustments as necessary until it is correct.



INSTALLING THE NEW SHORT SHIFTER

Step 27: 8mm, 10mm Socket, Extension, Ratchet

Reinstall the guard plate, insulation, and ashtray. Note the knurled portion of the shifter stick (arrow).

Step 28: Ear-Type Clamp Pliers

Slip the new clamp over the base of the shift knob, then slide the knob and boot onto the shifter stick Align the new clamp with the knurled section and tighten the clamp with ear-type clamp pliers.

TECH TIP

If you do not have the correct pliers to install these clamps, End Cutting Pliers (also called End Nippers) also work well for the job.

Clip the shifter boot back onto the console and your short shifter installation is complete!

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Your Audi B6/B7 Short Shifter Installation is complete!

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