

Audi B8 Adjustable Short Throw Shifter Installation Instructions - ES2842154 2222

Skill Level 2 - Moderate Some Experience

Recommended



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

Today we'll be installing our ECS Tuning Short Shifter into our Audi B8 S4, but keep in mind the fitment and installation are the same if you have a B8 A4 or S5. This shifter setup allows you to fine-tune your perfect shift throw length, as well as shift knob height. Some skills and experience are recommended for this job, but these instructions will help to guide you through the job step-by-step.

We'll have to remove the stock shifter and some interior pieces for this install, then we'll install the new shifter and show you how to set it up just the way you want it. A basic set of tools is required, but don't forget to check out the tool list on Page 4, and make sure you have everything you need on hand before you begin. If you have any previous experience with a similar repair or install, you could probably knock this out in an afternoon, but if you have less experience, you should plan an entire day for the project just in case.

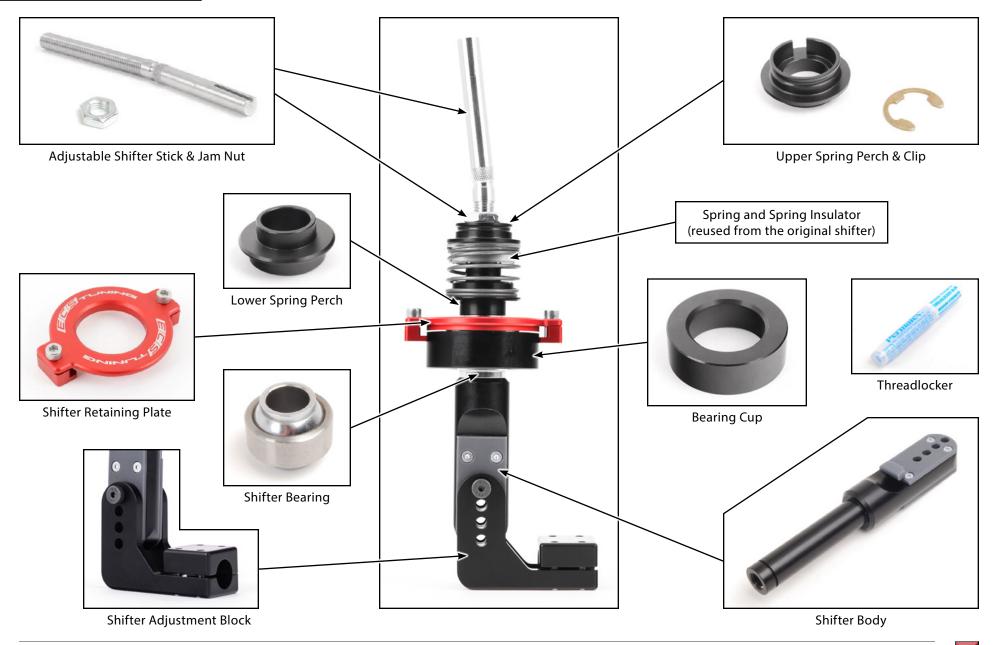
A couple of final points - you will need to lift the car off of the wheels for this install, and there are times where it would be helpful to have a second set of hands. Reading these instructions completely before you begin will help you plan out the job. Thanks for looking to ECS Tuning for all of your performance and repair needs, we appreciate your business!

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KIT CONTENTS





REQUIRED TOOLS

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

Standard Automotive Tools

Required For This Install

Available On Our Website

Protecta-Sockets (for lug nuts)	<u>ES#2221243</u>
• ³ / ₈ " Drive Ratchet	<u>ES#2765902</u>
• ³ / ₈ " Drive Torque Wrench	<u>ES#2221245</u>
• ³ / ₈ " Drive Deep and Shallow Sockets	<u>ES#2763772</u>
• ³ / ₈ " Drive Extensions	<u>ES#2804822</u>
Hydraulic Floor Jack	<u>ES#2834951</u>
Torx Drivers and Sockets	
• ¹ / ₂ " Drive Deep and Shallow Sockets	<u>ES#2839106</u>
• ¹ / ₂ " Drive Ratchet	
• ¹ / ₂ " Drive Extensions	
• ¹ / ₂ " Drive Torque Wrench	<u>ES#2221244</u>
• ¹ / ₂ " Drive Breaker Bar	
Bench Mounted Vise	
Crows Foot Wrenches	
Hook and Pick Tool Set	<u>ES#2778980</u>

• ¹ ⁄4" Drive Ratchet	<u>ES#2823235</u>
• ¹ / ₄ " Drive Deep and Shallow Sockets	<u>ES#2823235</u>
• ¹ / ₄ " Drive Extensions	<u>ES#2823235</u>
Plier and Cutter Set	<u>ES#2804496</u>
Flat and Phillips Screwdrivers	<u>ES#2225921</u>
• Jack Stands	
Ball Pein Hammers	
• Pry Bar Set	<u>ES#1899378</u>
Trim Removal Kit	
Wire Strippers/Crimpers	
• Drill Bits	
Punch and Chisel Set	
Hex Bit (Allen) Wrenches and Sockets	ES#11420
Thread Repair Tools	
Open/Boxed End Wrench Set	

Specialty Tools

- Allen Wrenches: 2.5mm, 3mm and 4mm
- Clamp Pliers or CV Boot Clamp Pliers
- Paint Marker or Permanent Marker
- Masking Tape

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.

Step 1:

Using both hands, grasp the HVAC Controller as shown in photo, and pull towards you to release the clips.



Step 2:

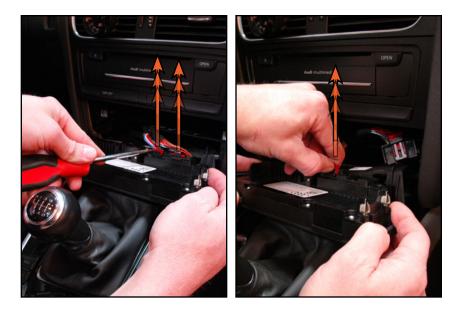
Using care to not scratch the center console, flip the HVAC Controller down to gain access to the harness connectors.



Step 3:

Gently pry up on the connector retaining tabs to unlock the connectors (**LH photo**).

Release and unplug the connectors and position them out of the way, then set the HVAC controller aside in a safe location (**RH photo**).





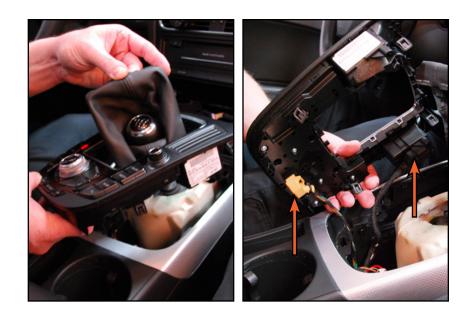
Step 4:

Gently pry up on each side of the shifter boot to release it from the console. Lift the boot up over the shift knob (**LH photo**).

Grasp the center console panel as shown in the photo and pull upward to release the retaining clips, starting towards the rear and working your way forward (**RH photo**).

Step 5:

Pivot the shift boot as shown and slide it through the center console panel. Tilt the center console panel up to the left to gain access to the connectors. Unclip both connectors and set the console panel aside in a safe location.



Step 6:	8mm Socket and Ratchet
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Remove the two ashtray retaining screws.



Step 7:

Lift slightly and pull on the ashtray to slide it out of the console. Pivot the ashtray to the right side of the console, there is no need to unplug these connectors.



Step 8:

Lift the noise insulating foam up and hold out of the way, then pull the rubber boot off the shifter base.



Step 9: 10mm Socket and Ratchet

Safely raise and support the vehicle. Remove the six nuts securing the exhaust heat shield to the bottom of the vehicle, then pull the heat shield down slightly and slide it towards the rear to gain access to the bottom of the shifter.

Step 10: Tape, Marker, 10mm Wrench, 10mm Socket & Ratchet

Wrap tape around the shift selector rod to mark the depth into the original shifter adjustment block, and draw a center line on both to be used as a reference during re-installation.

Remove the pivot bolt (arrow) from the original shifter adjustment block and allow the shift selector rod to hang down.





Step 11: T45 Socket and Ratchet

Loosen the pinch bolt from the original shifter adjustment block and slide the block off of the selector rod.



There is a small lip on the top center of the selector rod. You may have to spread the adjustment block slightly in order to slide it off.



Step 12: Flat-Blade Screwdriver

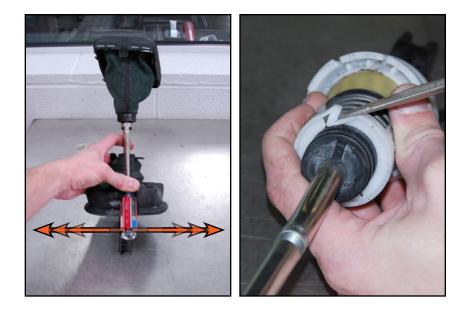
Release the shifter from inside the vehicle by unlocking the two retaining tabs, using a screwdriver as shown, then pulling the shifter upward. Lift the shifter, rubber boot and insulating foam out of the vehicle as one assembly and place them on a clean work surface.



Step 13: Flat-Blade Screwdriver

Slide a flat-blade screwdriver into the retaining clamp at the bottom of the shift knob, and gently pry from side to side as shown in order to loosen the clamp enough to remove the shift knob (**LH photo**).

Use a flat-blade screwdriver to release the spring retaining clip on the top of the shifter, be sure to firmly hold the clip in your free hand as it is under spring pressure and will fly off if it is not held (**RH photo**).



Step 14:

Slowly release the tension on the spring and lift it off of the original shifter (**LH photo**).

Set the spring and the upper spring insulator to the side as you will be reusing them on your new ECS short throw shifter (**RH photo**).



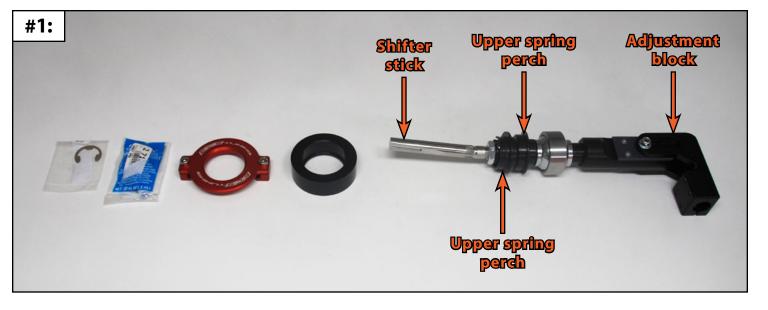
ASSEMBLING THE NEW SHORT THROW SHIFTER

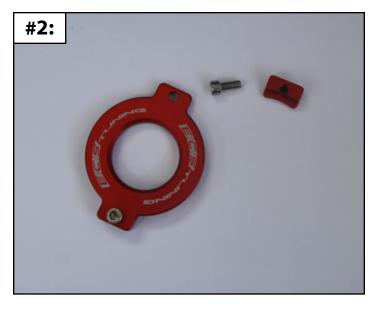
Step 1:

Carefully unpack the short shifter kit. We need to partially disassemble the unit to install the spring and upper spring insulator we removed on the last page. Remove the shifter stick, the upper and lower spring perches, and the adjustment block from the shifter body. Please note that if the shifter stick does not rotate freely, you may need to slightly loosen the set screw (**Photo #1**).

Remove one of the ears from the shifter retaining plate (**Photo #2**).

At this point the shifter body should only have the shifter bearing in place (**Photo #3**).







ASSEMBLING THE NEW SHORT THROW SHIFTER

Step 2:

Slide the shifter retaining plate onto the shifter body (**Photo #1**).

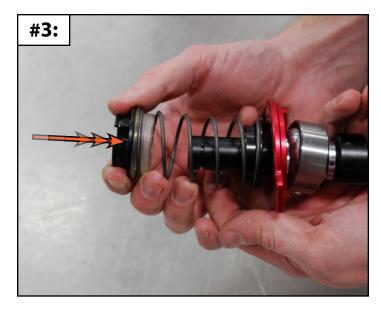
Slide the lower spring perch onto the shifter body, ensuring that the smaller diameter side is resting against the shifter bearing (**Photo #2**).

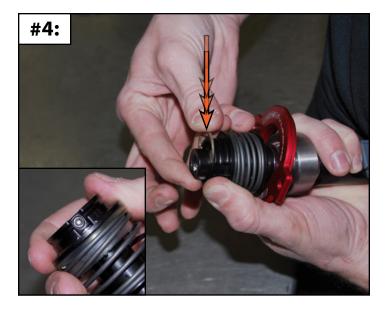
Place the original shifter spring and insulator onto the lower spring perch, then place the upper spring perch on top of the spring insulator (**Photo #3**).

Compress the spring onto the shifter assembly and hold it in place. Start the spring retaining clip into the groove at the top of the shifter body and squeeze with your thumb and forefinger until the clip is fully seated. Spin the upper spring perch until the set screw can be accessed (**Photo #4**).









ASSEMBLING THE NEW SHORT THROW SHIFTER

Step 3:

Spin the adjustable shifter stick clockwise into the shifter body to set your desired shifter height, it should be at a minimum depth of at least seven turns.



Step 4: 2.5mm Allen Socket or Wrench

Tighten the set screw, ensuring that the flat side of the shifter stick is facing the set screw.



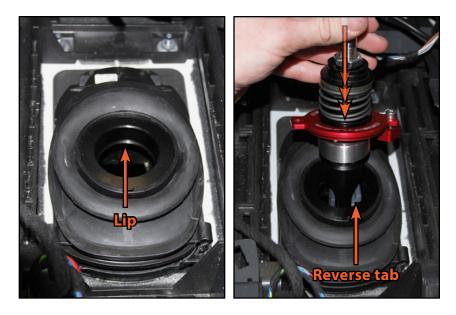
The height of your shifter can be adjusted again when the shifter is in the vehicle, this process is detailed on Page 18.



Step 1:

From inside the vehicle, slide the bearing cup into the shifter mount, ensuring that the lip is located on the bottom of the cup (**LH Photo**).

Slide the shifter into the bearing cup, making sure the reverse tab is on the right side of the console (**RH Photo**).



Step 2:

Slide the ear which is still installed on the retaining plate into the slot on the shifter base. Install the other ear into the slot in the shifter base, then install it into the retaining plate. Tighten both bolts to 7 Nm (5.1 Ft-lbs).



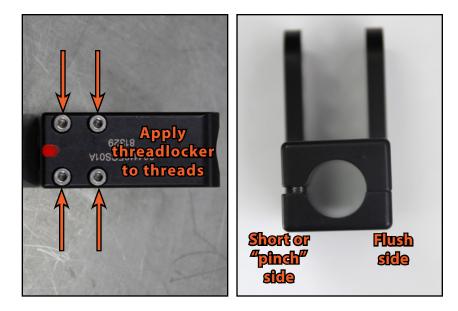
Step 3: Threadlocker, Paint Marker

Remove each of the bolts on the adjustment block and apply a drop of the supplied Loctite to the threads of each, then thread then in a few turns but do not tighten them at this time. These bolts can be left loose until the adjustment block is installed on the vehicle. Draw a center line on your new shifter adjustment block as shown, this will be used to align the shift selector rod during installation.

Before proceeding with the next step, closely inspect the cap of the adjustment block. You will see that one side of the cap fits flush, the other side is shorter and does not meet the adjustment block. This is an intended design feature that allows the adjustment block to clamp tightly to the selector rod.

Step 4: 3mm Allen Bit Socket, Torque Wrench

Slide the new adjustment block onto the shift selector rod and line up your center line with the line already on the tape. First tighten the two bolts where the cap meets flush with the adjustment block, then tighten the two remaining bolts on the short, or pinch side of the cap, all to the specification of 5 Nm (3.7 Ft-lbs).





Step 5: 3mm

3mm Allen Bit Socket, 8mm Socket, Torque Wrench

Install the shifter adjustment block onto the base of the shifter, using one of the four holes for your desired throw length and tighten the bolt to 5 Nm (3.7 Ft-lbs). The photo shows the shifter out of vehicle for better visibility.



The bolt must be inserted from the right to the left, so the bolt head is on the RH (Passenger) side and the nut is on the LH (Driver) side of the vehicle. The four bolt holes in the bracket must *always* line up with the four bolt holes in the shifter for proper operation. Shifter throw is adjusted by changing the location of the bolt only.

Step 6: 3mm Allen Wrench, 19mm Wrench

Reinstall the rubber shifter boot.

Reinstall the noise insulating foam.

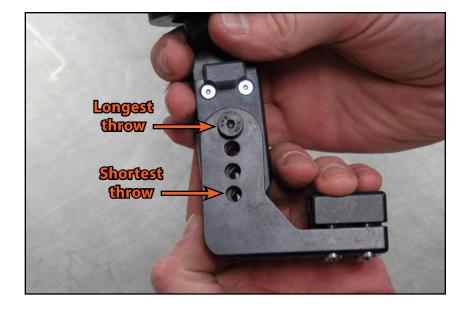
Reinstall the ashtray.

Reinstall the center console panel.

Reinstall the HVAC controller.

Spin the adjustable shifter stick to adjust your desired height.

Tighten the set screw and adjustment nut to contact + 1/8 turn.





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INSTALLING THE NEW SHORT THROW SHIFTER

Step 7: Clamp Pliers

Slide the shift knob and boot onto the shifter stick, then crimp the clamp at the base of the shift knob.



Step 8:

Slide the shift boot down over the shift knob and snap it back into place. With the engine OFF, check and make sure your transmission shifts into all of the gears. If it doesn't, proceed to the next step for the adjustment procedure. If it does, reinstall the exhaust heat shield and your installation is now complete.

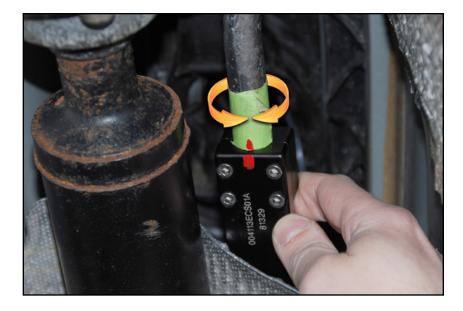


Step 9:

If the reference marks are lined up, the shifter adjustment will be very close. If it needs minor adjustments, use the following procedure:

- 1. Loosen the four screws in the adjustment block
- 2. Pivot the adjustment block to either side
- 3. Tighten the screws
- 4. Recheck to see if the transmission will shift into all gears

Small adjustments on the shifter block are translated into large adjustments on the shifter, so be sure to make very small adjustments during this process. Once the transmission shifts correctly, ensure all bolts are tight underneath the vehicle.





Your installation is now complete!

Your ECS Tuning Audi B8 Short Shifter 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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