

### Audi B8 Short Shifter Installation Instructions

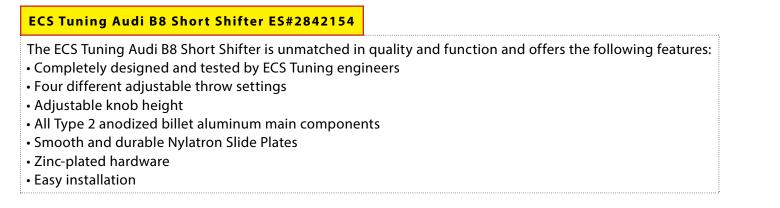


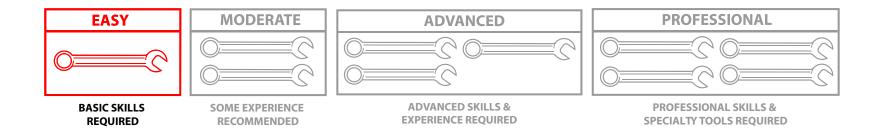




Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times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

## INTRODUCTION





Installing the ECS Tuning short shifter in your B8 Audi is an afternoon project that will give you instant results. Fine tune the shifting feel of your transmission by using one of four different settings, and give your car the feel you are looking for. These step by step instructions will provide you with a smooth, trouble free installation. Thank you for purchasing our ECS Tuning Audi B8 Short Shifter. We appreciate your business!

ES#2842154



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## AUDI B8 SHORT SHIFTER COMPONENTS



Shifter Body



Shifter Retaining Plate



Shifter Adjustment Block



Adjustable Shifter Stick



Bearing Cup



Shifter Bearing



Spring Retaining Clip

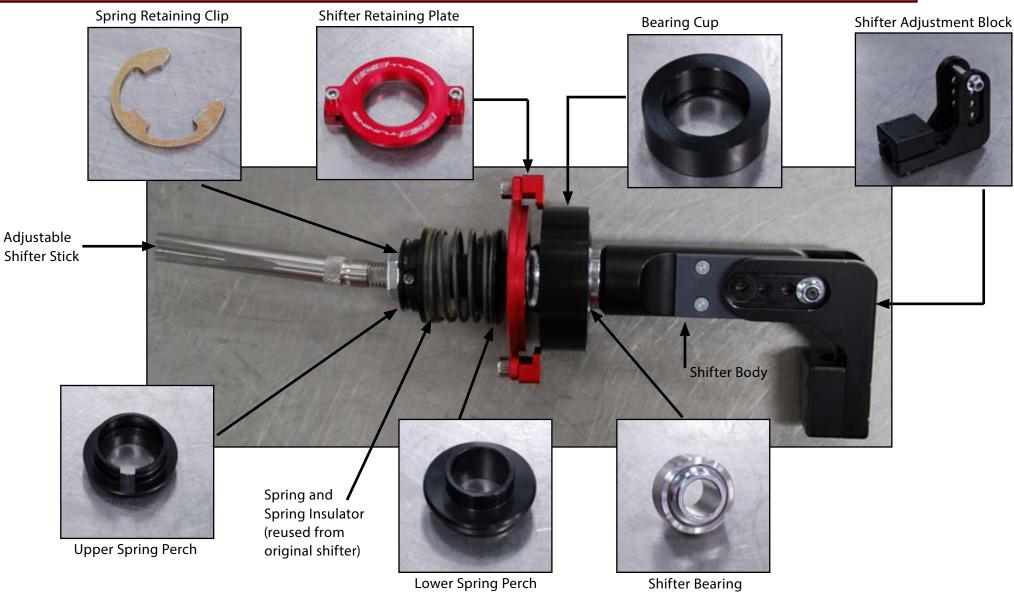


Lower Spring Perch



Upper Spring Perch

## AUDI B8 SHORT SHIFTER (ASSEMBLED) COMPONENT IDENTIFICATION





### **REQUIRED TOOLS**

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

We recommend that you have a complete selection of tools and equipment necessary for automotive repair. Below is a list of the tools we used to install the Audi B8 ECS Tuning Short Shifter. Additional tools may be required for any issues that arise during installation such as rust, corrosion, or broken and stripped fasteners.

Flat-Blade Screwdriver(s)	Available at ecstuning.com	<u>ES#2225921</u>
Torx Bit Sockets: T45	Available at ecstuning.com	<u>ES#11418</u>
Interior Trim/Moulding Tool Kit	Available at ecstuning.com	<u>ES#517779</u>

- 1/4" Sockets: 8mm, 10mm
- 1/4" Drive Ratchet, Extensions
- 3/8" Ratchet
- Allen Wrenches: 2.5mm, 3mm and 4mm
- Wrenches: 8mm, 10mm and 18mm
- Clamp Pliers or CV Boot Clamp Pliers
- Paint Marker or Permanent Marker
- Masking Tape

### SHOP SUPPLIES AND MATERIALS

### 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.

#### 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: Flat-Blade Screwdriver

Gently pry up on the connector retaining tabs to unlock the connectors.



#### Step 4:

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



Step 5: Trim Removal Tool

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



#### Step 6:

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.



#### Step 7:

Pivot the shift boot as shown and slide it through the center console panel.



#### Step 8:

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.

#### NOTE

Use your hand or a soft towel to prevent scratching your console while performing this step.



Step 9: 8mm Socket and Ratchet

Remove the two ashtray retaining screws.



#### Step 10:

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.



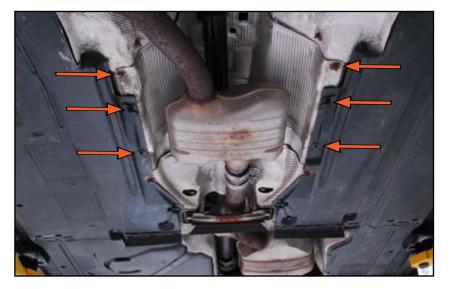
#### Step 11:

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



#### Step 12: 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 13: Masking Tape and Marker

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.



#### Step 14: 10mm Socket and Ratchet, 10mm Wrench

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



Step 15: T45 Socket and Ratchet

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

#### NOTE

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 16: Flat-Blade Screwdriver

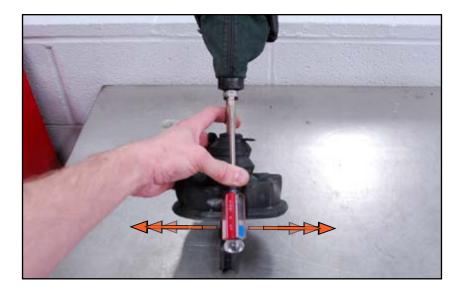
Release the shifter from inside the vehicle by unlocking the two retaining tabs, using a screwdriver as shown, then pulling the shifter upward. Lift the shifter, rubber boot and insulating foam out of the vehicle as one assembly and place them on a clean work surface.





Step 17: 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.



#### Step 18: Flat-Blade Screwdriver

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.



Step 19:

Slowly release the tension on the spring and lift it off of the original shifter.



#### Step 20:

Set the spring and the upper spring insulator to the side as you will be reusing these components on your new ECS Tuning shifter.

You are now ready to assemble and install your new B8 Short Shifter!



#### Step 1:

Carefully unpack the components for your shifter. In order to prevent the loss of some of the smaller components, we have partially assembled the shifter for packaging, so you will need to take a few things apart before we begin to assemble the new shifter.



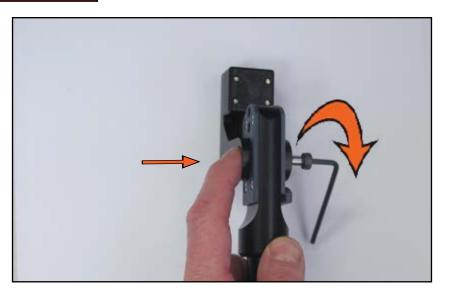
#### Step 2:

Remove the nut for the shifter adjustment block pivot bolt. This nut is only threaded on a few turns and should not require any tools for removal.



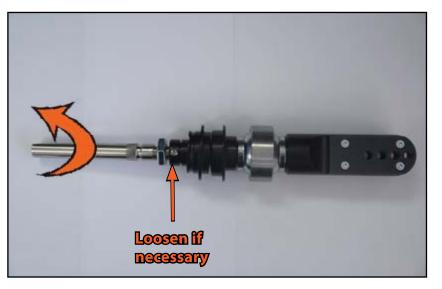
Step 3: 3mm Allen Wrench

Remove the adjustment block pivot bolt. This bolt is a precise fit through the Nylatron slide plates and you may have to rotate the bolt counter clockwise and push on the other end with your finger in order to remove it. Once it is out, remove the adjustment block from the shifter body.



#### Step 4: 2.5mm Allen Wrench

Rotate the shifter stick counter clockwise to unthread it and remove it from the shifter body. If the shifter stick does not rotate freely, you may need to slightly loosen the allen set screw (arrow).



Step 5: 2.5mm Allen Wrench

Slide the upper spring perch off the shifter body. You may need to thread the set screw in a few turns if it interferes with removal.



#### Step 6:

Slide the lower spring perch off the shifter body.



Step 7: 4mm Allen Wrench

Remove one of the retaining hooks from the shifter retaining plate.



#### Step 8:

Now, going back together, the shifter body should still have the shifter bearing in place as shown in the picture on the right.



#### Step 9:

Slide the shifter retaining plate onto the shifter body.



#### Step 10:

Slide the lower spring perch onto the shifter body, ensuring that the smaller diameter side is resting against the shifter bearing.



#### Step 11:

Place the original shifter spring and insulator onto the lower spring perch, then place the upper spring perch on top of the spring insulator.



#### Step 12:

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.



#### Step 13:

Spin the adjustable shifter stick clockwise into the shifter body to set your desired shifter height, it should be at a minumum depth of at least 7 turns.



#### Step 14: 2.5mm Allen Socket or Wrench

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

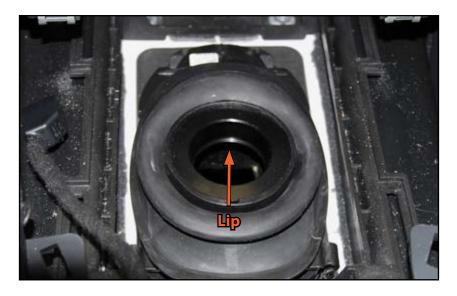
#### ΝΟΤΕ

The height of your shifter can be adjusted again when the shifter is in the vehicle, this process is detailed in Step 22.



#### Step 15:

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



#### Step 16:

Slide the shifter into the bearing cup, making sure the reverse tab is on the right side of the console. Slide the retaining hook into the slot on the shifter base.



Step 17: 4mm Allen Wrench, Torque Wrench

Install the opposite retaining hook into the slot in the shifter base, then install the hook bolt. Tighten both bolts to 7 Nm (3.7 Ft-lbs).



#### Step 18: Loctite, Paint Marker

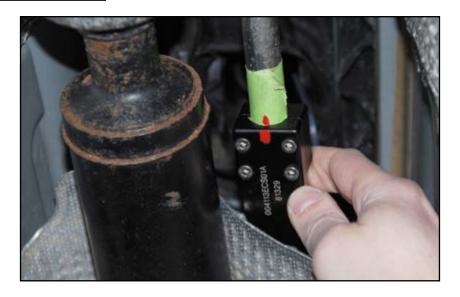
Remove each of the bolts on the adjustment block and apply a drop of the supplied Loctite to the threads of each, then thread then in a few turns but do not tighten them at this time. These bolts can be left loose until the adjustment block is installed on the vehicle. Draw a center line on your new 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 19: 3mm Allen Wrench, 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 20: 3mm Allen Wrench, 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 visibility.

NOTE

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 21:

Perform the following steps:

Reinstall the rubber shifter boot

Reinstall the noise insulating foam

Reinstall the ashtray

Reinstall the center console panel

Reinstall the HVAC controller



#### Step 22: 3mm Allen Wrench, 18mm Wrench

Spin the adjustable shifter stick to adjust your desired height, then tighten the set screw and adjustment nut to Contact + 1/8 turn.



Step 23: Crimping Pliers

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



#### Step 24:

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.



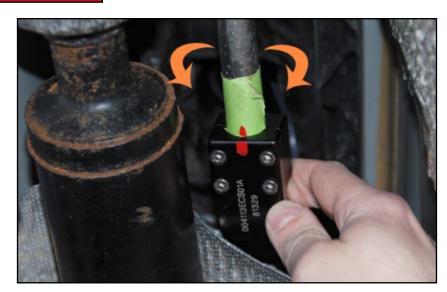
#### Step 25:

If the reference marks are lined up, the shifter adjustment will be very close. If it needs minor adjustments, use the following procedure: Loosen the four screws in the adjustment block. Pivot the adjustment block to either side, tighten the screws and check if the transmission shifts into all gears. Minimal 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.

Reinstall exhaust heat shield

Step 26:

Your installation is now complete.





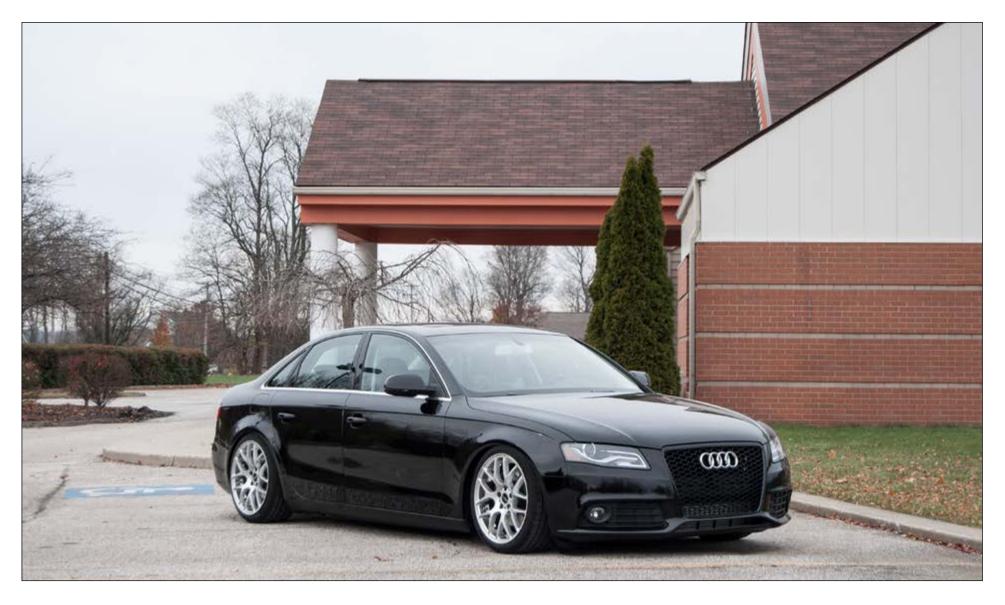


### TORQUE SPECIFICATIONS

Shifter Adjustment Block Clamp Screws	5 Nm (3.7 Ft-lbs)	(Page 27)
Shifter Body Set Screw	Contact + 1/8 turn	
Shifter Pivot Bolt	5 Nm (3.7 Ft-lbs)	
Shifter Retaining Plate Screws	7 Nm (5.1 Ft-lbs)	
Shifter Stick Adjustment Nut	Contact + 1/8 turn	

• A note about "contact + X/X turn" fasteners: Several fasteners are too small or not able to be tightened with a torque wrench. The correct procedure for tightening these fasteners is: Stage One - Thread the fastener in until it bottoms out. Stage Two - Tighten each one the additional specified amount.

### Your Audi B8 Short Shifter installation is complete!



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

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