



Installation Instructions for the EVO3 Height-Adjustable Ultimate Short Shifter

***for 2013+ F22 M235i
part number USSF22-1***

Thank you for purchasing the Ultimate Shift Kit. Please read these directions thoroughly and become familiar with the procedure.

IMPORTANT – BEFORE BEGINNING ANY WORK:

- ➔ UUC recommends installation only by trained professionals, or those of sufficient mechanical skill to undertake this procedure safely.
- ➔ Please review the parts list and confirm that no parts are missing.
- ➔ We strongly urge the installer to follow this guide step-by-step.

PARTS LIST (PLEASE CHECK BEFORE DISASSEMBLING CAR):

- 1 - EVO3 Height-Adjustable Ultimate Short Shifter lever with integral bearings and self-adjusting main pivot bearing assembly.
- 1 – Pivot height adapter assembly that includes:
 - Six (6) Stainless Steel M3 x 8 locator bolts
 - 2.5mm Allen hex key
 - Small tube of Loctite 242 Threadlock
- 1 – black plastic washer
- 1 – Circlip
- 1 - Small tube of lubricant
- 1 - Installation Guide (this document)
- 1 - Replacement Carrier Clip p/n 25 11 7 529 078
- 1 - Replacement Carrier Clip p/n 25 11 7 529 079

Recommended items to have available during assembly:

- paper towels
- work light
- flat bladed screwdriver
- snap ring pliers
- work gloves
- 24mm open-ended wrench (or adjustable wrench) for height-adjustments
- needle-nose pliers



Car Preparation

Make sure that you perform this procedure when the car is cool. It is recommended that you lift the car up onto jack stands the night before this installation as the exhaust and drivetrain components do radiate a lot of heat. You may run the risk of being burned.

Jack up the car and support the entire car using jackstands only or an automotive lift! NEVER use a jack to support the car when working underneath. Serious injury or death may occur if your car is not properly supported. If you need help, ask someone with more experience, or have the kit installed by a professional mechanic.

Removing the shift boot and console parts.

Remove the Shift Boot From within the car, lift up on the shift boot, a prying it off the console with your hands, by pulling on either side of it to release the clips holding it down. At this point, if you have an illuminated shift knob, disconnect the wires at the clip-together connection.

Remove the shift knob by pulling straight up with a firm tug. Be careful as you may accidentally hit yourself in the face when the knob lets go or hit the rear view mirror since you are tugging at it so hard. Position yourself so that you cover the shifter knob like you are pulling it into your stomach.

Disassembling the Shifter Console Area:

Remove the leather shift boot by pulling up at corners, releasing clips:



Remove the foam padding underneath the shifter boot.





Remove the ring of carpet around the shifter.



Pull up the rubber shifter boot.



Remove completely.



Remove under-car plastic covers, heat shields, and exhaust system.

Disconnecting the Selector Rod from the Original Shifter



Locate and identify shifter lower pivot.



Identify and remove lower pivot clip that connects the linkage arm to the bottom of the shifter lever.

You may be able to push the circlip off with finger pressure (use gloves for protection). If the clip is really stubborn or rusty, use circlip pliers or a flat bladed screwdriver.

Do not worry about damaging the clip, a replacement has been included with the new shifter assembly.



Removing the original shifter from the car

From inside the car, follow the shift lever down until it enters the carrier (that's the cast aluminum piece below the hole in the floor of the car). Locate the nylon cup bushing the surrounds the pivot ball.



Use long needle-nose pliers to rotate the nylon cup bushing. Wedge the tips of the pliers into any two opposite slots in the bushing.

The bushing is held in place by two tabs that will slide out of their slots when the bushing is rotated.

Do not be concerned about damaging the nylon cup. This part will not be re-used.

Once you can see the tabs are free, lift the shifter straight up and out of the console.





Removal of the aluminum carrier - *Done underneath the car.*

The carrier is connected to the transmission housing by a pair of combination pin/clips at the front, located on both sides.

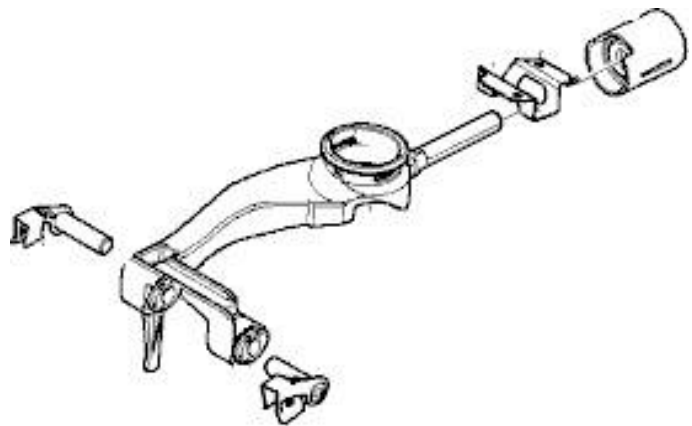


It is possible to remove these clips by pulling the bent-out tab of metal with your fingers or prying out with a screwdriver.

Pulling the tab down will allow the clip to rotate, and then it can be pulled free of the transmission and carrier.

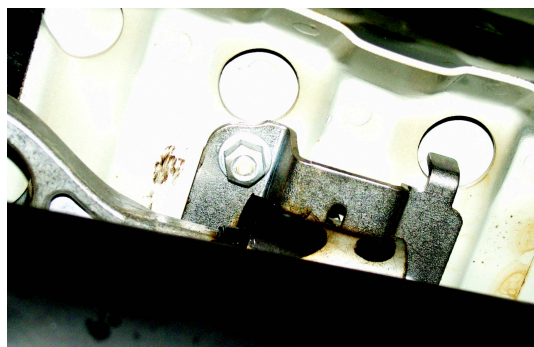


Exploded view.

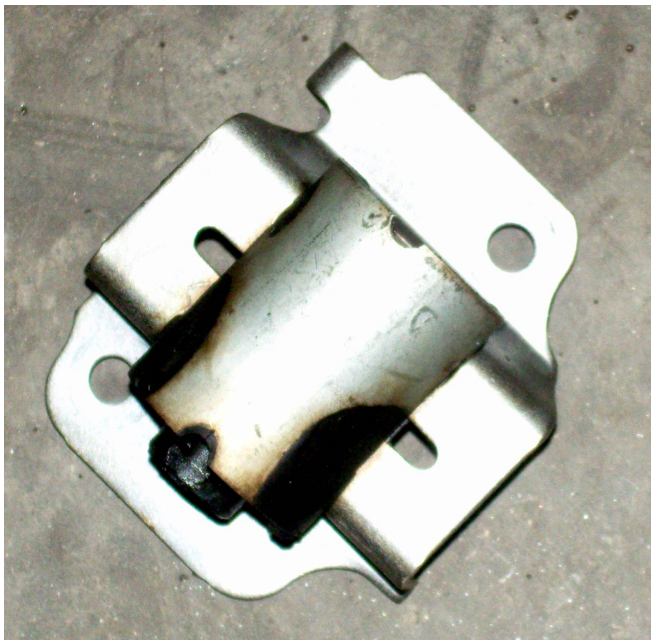




Locate and remove the two nuts holding the bracket at the rear of the carrier.



Bracket removed.

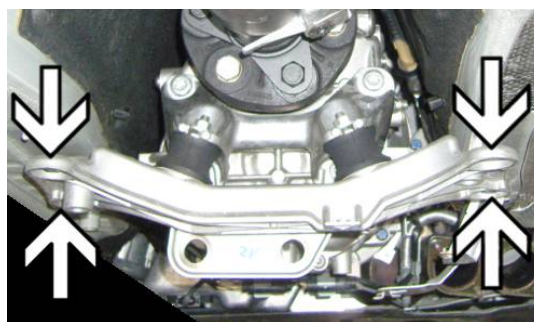


Remove carrier from car.

Clearance is tight, the gearbox/driveshaft assembly must be lowered.

Using a transmission jack to support transmission, loosen or remove four bolts holding transmission support brace in place.

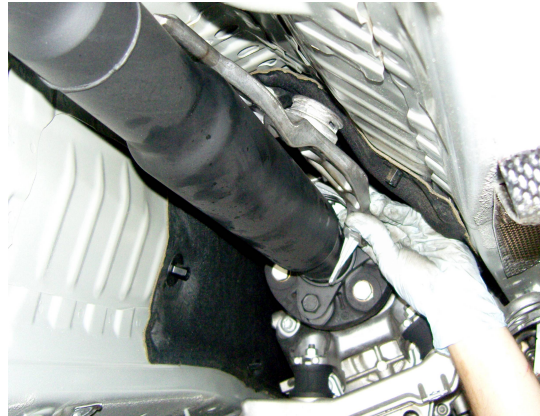
Removing bolts entirely will give maximum clearance, but only loosening them is usually sufficient.





Slide carrier rearward and then around driveshaft to remove completely.

If insufficient clearance, lower transmission further. This will move the driveshaft lower.



Carrier shown completely removed.



Installation of pivot height adapter assembly (done on the workbench).



Insert bushing into carrier (the part you receive may be **black** in color). Make sure stepped section is at top as shown.



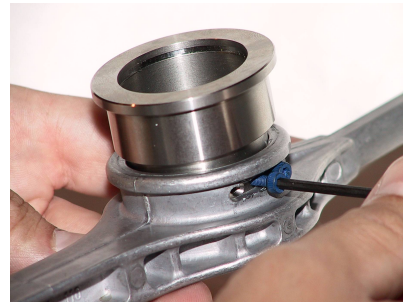


Prepare the unit by using some threadlock (included) in the threads of the holes. A small drop in each hole is all you need.



Install the unit into the carrier on top of the white bushing.

Use the supplied M3 bolts and the 2.5mm Allen key, secure the pivot height adapter into the carrier. Install all six bolts loosely at first, and then tighten them one at a time, alternating between the two sides.



Expanded view.

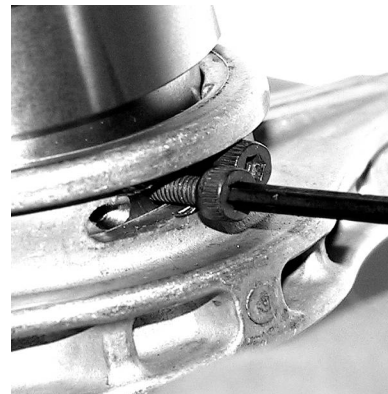
There is no need to over tighten the locating bolts, as the threadlock and snug fit of the bolts in the carrier will hold them in place.

Tighten the bolts between 4 to 6 in/lbs. (NOT ft/lbs!)

Re-installation of the carrier.

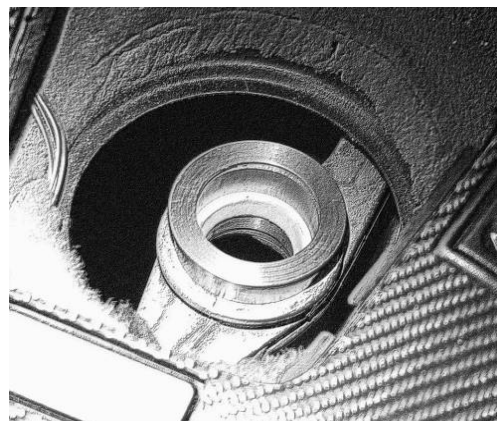
To reinstall the carrier, follow pages 6-8 in reverse order. Use new carrier clips as provided.

If the transmission was lowered for clearance, now raise the transmission to original position and re-install the transmission support.



Shifter installation (done inside of car).

From inside the car, you will see the carrier through the hole in the floor.



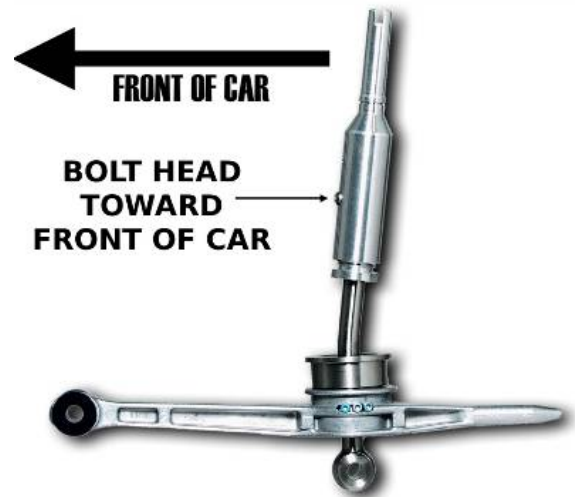


Use the included tube of grease to lubricate the shifter main pivot ball as shown:



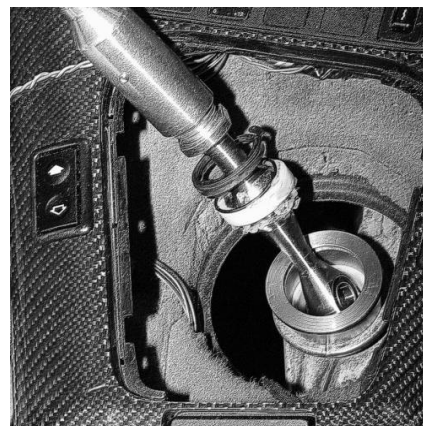
Note: the shifter has a compound bend to the overall shape. Correct orientation of the shifter is critical for correct positioning within the shift console.

Rotate the shifter until the correct orientation is achieved.



Put the shifter through the carrier.

The shifter has four components above the main pivot ball: upper bushing (**black** in most applications, shown here as white), spring, cap, and C-clip.

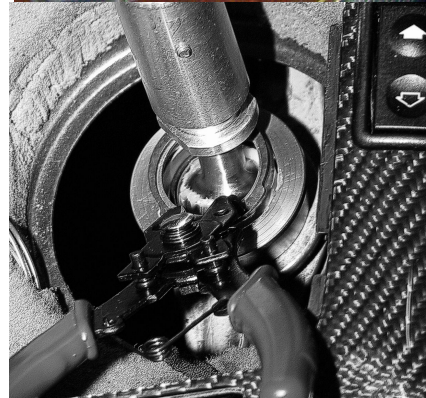




Align these four components so they fit into the pivot height adapter as shown.



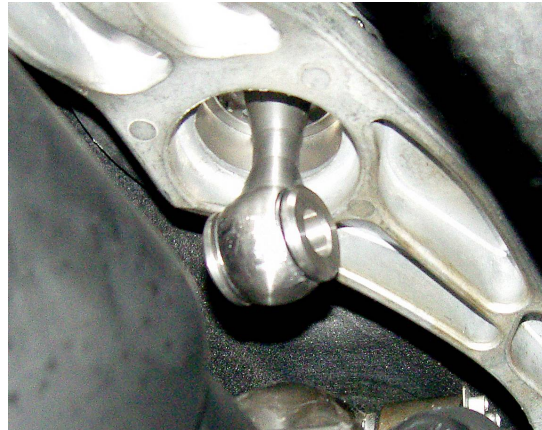
Push components in and use C-clip pliers to lock C-clip in the locating groove within the top of the pivot height adapter.



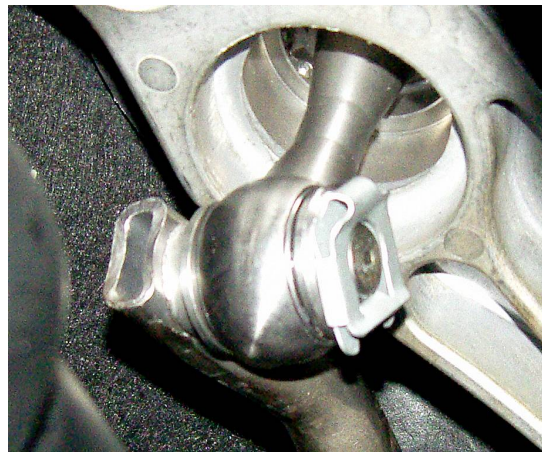
Final result. Make sure clip is securely in groove by pulling up on shifter.



From underneath the car, insert bearing liners into both sides of shifter lower pivot bearings as shown:



Affix shifter lower pivot to selector rod with enclosed C-clip.



Back inside the car, re-install rubber inner shifter boot, foam padding, leather boot, and knob (**follow pages 2-3 in reverse order**).

Shifter is fully installed. Check correct installation by going through all gears, feeling for any roughness or binding.

Drive!



Adjusting Lever Height

The height of the lever has been pre-adjusted from UUC to its maximum height. You may lower the height by loosening the locking nut approximately 2 turns (or more if necessary) using a 24mm open-end wrench by turning clockwise (when viewed from above until the lever upper section can be easily moved up and down. Adjust to your preference and re-tighten the locking nut sufficiently to prevent additional movement.

Locking nut for height adjustment.





This is an anti-tamper bolt.

**DO NOT REMOVE
OR ADJUST FOR
ANY REASON.**

warranty VOID if manipulated in any way.

TROUBLESHOOTING:

Shifter sits too far forward or to the right:

Shifter installed backwards. See page 11. To reverse, simply remove interior rubber and leather boots, disconnect lower pivot clip, rotate 180 degrees, and re-install clip and boots.

Vibration or noise:

1. Check that the height adjustment locking nut is tight. See page 14.
2. Check that the shifter console inner rubber boot is tucked in completely. See page 3.

Shifter feels loose:

1. Make sure primary pivot clip is in groove. If shifter can be pulled up more than 2mm, the clip is out of place. See page 12.
2. Check that lower pivot bearing liners have been installed. See page 12.

Excessive resistance is felt going into reverse or 5th gear:

Check that the shifter console inner rubber boot is tucked in completely. See page 3.