

Hi all. This is a brief review of my recent install of the UUC 335XI-specific EVO 3 Shifter in 2008 335XI.

The highlights are:

1. There is an XI specific model (!). It is available on the UUC website, www.uucmotorwerks.com.
2. The standard installation for this shifter requires accessing the bottom of the car to remove some parts and lower the transmission to allow removal of the carrier to install the pivot cup. This is the right way to do it, but it's best done on a lift.
3. I've used a different method to install my UUC 335XI shifter FROM THE TOP! No need to go under the car.
4. The shifter does improve a bit over the stock and BMW SSK I've tried.
5. I don't detail the removal of the stock shifter, there are plenty of FAQs for that.

Ordering: Because of the design of their website I can't link it directly but if you type in "USSE335XI-STANDARD" in the search field on their website it pulls right up. The shifter is bent perfectly for a 335XI so it sits completely straight up like stock when installed.

Background: I did not attempt to install my shifter from the bottom per the instructions from UUC. There's nothing wrong with this approach and it's probably the best way to do it if you are going to have a mechanic install it for you. It might be possible to jack the car high enough to try this on ramps/jackstands but it would have been pretty tight IMO so I decided against it.

The following are the parts you need to remove in order to lower the transmission: a) 2 sections of the plastic belly panels b) the lower transmission brace in the middle of the car's belly that keeps the exhaust from coming down c) the exhaust at the front downpipes (4 bolts) d) the heat shield near the transmission. Then you can support the transmission and remove its 4 bolts to lower it and gain access to the clips that hold the shifter carrier to the transmission.

In truth I did start out by jacking up my car on 4 jackstands and took a good look at it and decided I wasn't going to roll around on the cold (18F outside) floor of my garage for potentially hours. So I left the car jacked and decided to do whatever it took to get the shifter in from the top.

Needed Tools & Materials:

1. Carbide grinding burr or abrasive grinding tool to modify UUC shifter steel pivot cup. (see photo) http://www.easyburs.com/index.php?cPath=26_55 (~\$15)



2. Long thin flat screwdriver (see photo)



3. Telescoping Automotive Inspection Mirror. A mirror on a pole that can pivot. \$5 from an auto parts store. (see photo)



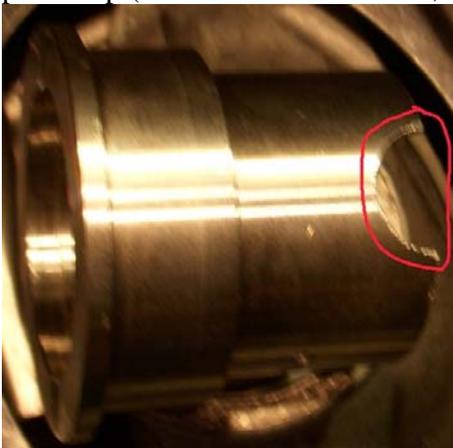
4. Magnetic pickup tool in case you drop anything (\$5)



5. Stock shift lever/selector rod retaining clip (51c from BMW)- optional

UUC EVO 3 Shifter Kit Modifications:

You need to grind a roughly 1/2" deep x 3/4" wide recess in the bottom of the shifter's pivot cup ("Effort Reduction Kit", ERK). See the photo below.



The objective is to take off only as much material as needed in the space between the two sets of (3) screw holes on the cup so when we tilt the cup you can see the selector rod and shifter mating point enough to slide on the retaining clip. This (installing retaining clip) is really easy to do with a stock shifter but with the UUC it is basically impossible.

The cup is hard steel and you'll need something substantial to grind it out. As a former cylinder head porter I have lots of nice carbide burrs to grind with so it was easy. Your typical "high speed steel" bits probably aren't going to cut it before going dull. Abrasive stones and grind wheels may work. This is one of the difficult parts because most people aren't going to have the tools to do this so you may need to seek a mechanic or machine shop to have them grind it for you or just order a carbide burr online for about \$15.

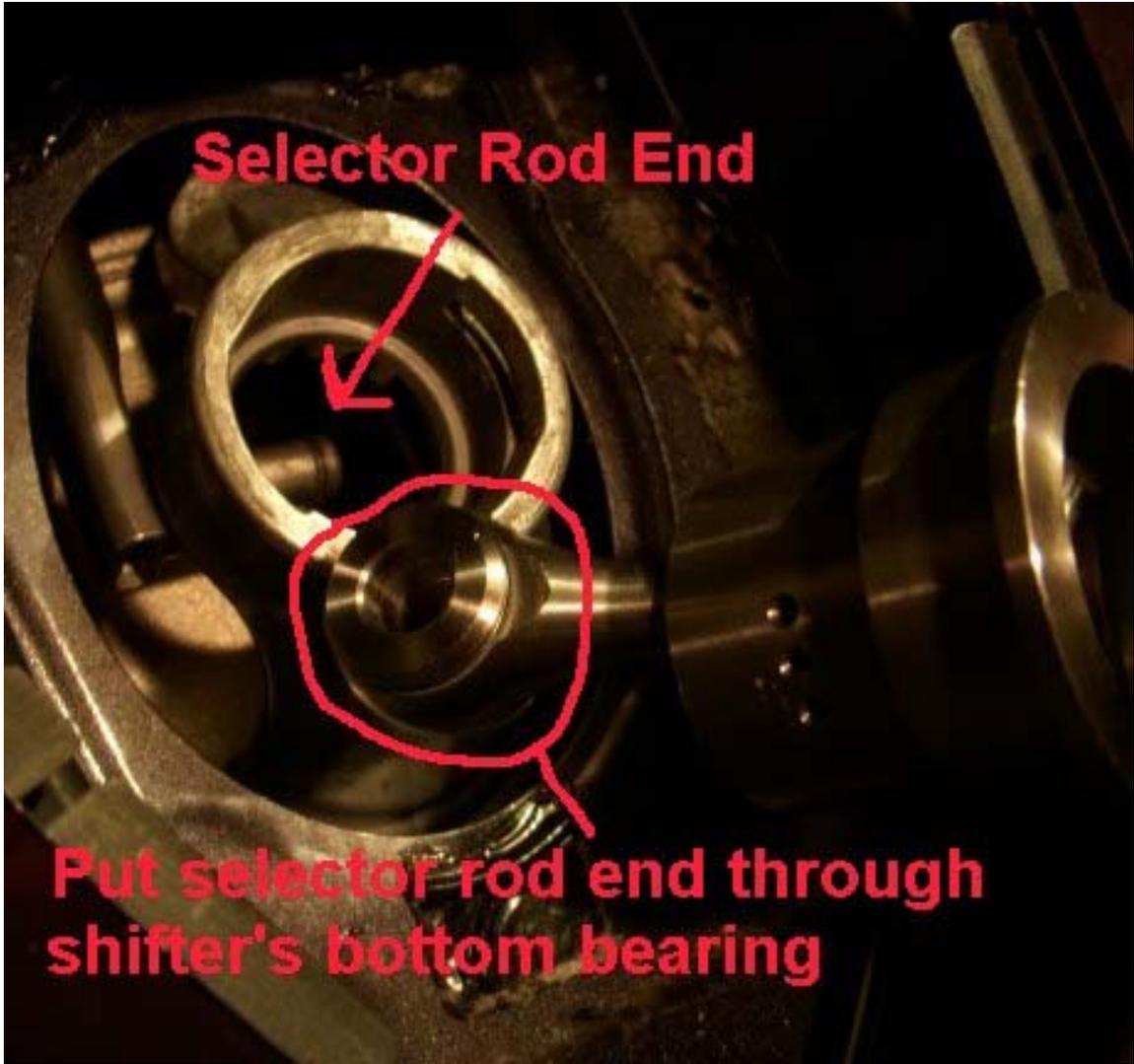
Installation:

After some trial and error I came up with the following "Top Method" to install the UUC EVO3 without going under the car- assuming the UUC pivot cup is modified:

1. Buy a small telescopic inspection mirror. They are \$5 or less from auto-parts stores:
<http://www.autozone.com/selectedZip,06905/initialAction,accessoryProductDetail/initialR,4088945/shopping/selectZip.htm> and a magnetic pickup tool:
<http://www.autozone.com/R,4535139/store,5148/shopping/accessoryProductDetail.htm> also around \$5. They will come in handy for this project and others, believe me. Great tools to keep around.
2. Buy or borrow a long thin flat screw driver like the one in the photo above. This will be used to slide on the retaining clip later.
3. Take out the 2 bearings in the bottom of the shifter pole. They are a light interference fit and can come out if you push on them with something like a screw or one of the supplied carrier clips.
4. Slide on the white plastic lower pivot bushing half making sure the flat side faces towards the bottom of the pole and the rounded side fits up nice against the pole's pivot ball. **YOU CAN'T GET THIS ON AFTER STEP 5!**
5. Clean the pole's bearing recesses (you popped out the bearings in step 3) well to be free of oil etc. Use a drop or two of the supplied blue loctite threadlocker liquid, dripping it into the recess on the bottom of the pole. Poke your finger in there and smear the blue around until it more or less coats the recess. Pop in both bearings and let it dry for at least 30min in a warm place (longer is better up to 24hrs).
6. Push in the "bearing liners" into the bearings you installed it step #3. They are a pretty tight interference fit and it may seem like aren't going to go in, but they do.
7. The shifter at this point should be completely assembled since it would have come from UUC with the black plastic upper pivot bushing installed along with a spring and spring cup on the upper half of the pole above the pivot ball. Make sure it all looks right.
8. Test fit the Effort Reduction Kit" (ERK) or pivot cup. This is drops into the OEM shifter carrier (assuming you removed the stock shifter and bushing already). Don't screw it in yet.



9. Lube up the UUC EVO shifter. Follow their instructions and liberally grease the upper and lower plastic bushings, pivot ball etc.
10. Drop the assembled shifter into the ERK/pivot cup (which is NOT secured with screws yet). Move the shifter around and get a good feel for how it should look. You don't want to screw this up: **THE SHIFTER MUST FACE FORWARD** or you're **SCREWED**. The easy way to make sure you have it correct is that one the little screw head on the fat upper part of the shifter must face toward the front of the car. Read the UUC instructions.
11. When you're 110% sure you have shifter facing forwards, you then need to grab the selector rod (shift linkage) in your left hand and fit the end of it through the bottom of your shifter pole (the bearings w/liners) while maneuvering it with your right hand. At this point you may or may not notice you have a small thin yellow washer on the selector rod where it meets the shifter pole. You can choose to install the one UUC gave you or not. Installing the end of the selector rod through the shifter isn't going to happen on your first try as it's a pretty tight fit but keep at it and you'll get it. Be careful not to go nuts and force it or you could pop out either the shifter bearings or the bushings on the bottom of the pole (then start jacking you car up if you heard it drop into the heat shield below). With a little effort you'll get the rod through the shifter pole.



12. This is the hard part: Pull up on the ERK/Shifter cup until you see the selector rod contact the bottom of the carrier support for the cup, tilt the pivot cup as much as you can and spin it until your relief in the bottom/side of the cup allows you to see the shifter bottom with the selector rod stuck through it. You may have to drop things back down and push the selector rod until it's all the way through the shifter again so you can see the notch where the retaining clip goes (see photo). When you can see the selector rod in position on the shifter your next step is the hardest: slip the stock retaining clip onto the end of the screwdriver as in the photo. You then lower the clip through the recess you made in the pivot cup and with luck, line it up and push firmly so the clip engages the groove on the selector rod and clips on. It's not as hard as it seems, I got it on my second attempt. The rest is easy!



13. Push rags or paper around the shifter carrier so if you drop a screw it can't fall into the 'pit of no return' (trans heat shield- don't ask how I know this).



14. Use your \$2 inspection mirror to look at the sides of the OEM shifter carrier. You'll see a slot on each side where the stock shifter bushing catches. You want to turn the UUC ERK/pivot cup until you can see 3 little holes for your (6) little M3 screws that came with the kit. The next part is a fun trick: Take an M3 screw that came with the kit in your hand, throw a piece of paper/tissue over it and jam the 2.5mm Allen wrench that came with the UUC kit into the screw. The result should be an interference snug enough that the screw won't drop when you leave it on the end of the Allen wrench. Now add some blue threadlocker liquid onto the screw- you only need a very small amount. The fun part: hold the Allen wrench's short side with your thumb and index finger from your "same side hand" (left hand for left side of shifter) and try to insert the screw into the side of the pivot cup/ERK. This is where the inspection mirror pays for itself. With a little effort you'll get all of the screws started and then you can continue to use the short side of the Allen wrench to screw them in until snug. Don't over-tighten (See UUC instructions).
15. The last step is to install the snap ring to retain the shifter assembly in the ERK cup. You can pretty easily do this without snap-ring pliers but the UUC

instructions recommend getting them and you will need them if you ever plan on taking the shifter out. To snap the ring in without snap ring pliers all you really need to do is push the outside edge of the middle of the snap ring into the retaining groove on the inside of the ERK cup, hold it there with one hand while the other hand pushes down on the each end of the clip in turn and it will snap into place.

At this point you're DONE! Reassemble and go for a ride. You should notice the shifts are shorter, more precise and roughly stock effort.

In my case it didn't completely clear up my 1-2 gear shift issues. I still feel the 2nd gear synchro is fighting the shift a bit but then again it's barely been over 18°F for weeks now so I suspect the problem could well be the temperature.

I'll be able to give a better review of the improved performance once it gets in the 60s around here.