



Installation Instructions for the Ultimate Shift Kit.

Thank you for purchasing the Ultimate Shift Kit. Your car will not only have shorter shifts, but without the vibration and buzzing of the other kits on the market. Without further delay, let's get started:

Included in Ultimate Shift Kit:

- 1 - Modified BMW shifter lever
- 2 - Yellow plastic washers
- 1 - Circlip
- 1 - Small tube of white lithium grease
- 1 - Shifter cup removal tool
- 1 - Replacement Nylon Cup



Optional Items:

- Some paper towels
- Small 5oz. ball peen hammer
- Flashlight or work light
- Large, flat bladed screwdriver
- Snap ring pliers
- Work gloves

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!*

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.

Step 1 – done inside the car

From within the car, lift up on the shift boot, 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 a 98 or newer E36 M3 or E34 M5, disconnect the wires that connect to your lighted shift knob.



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Step 2 – done inside the car

Remove the shift knob by pulling straight up with a firm tug. Be careful as you can punch yourself in the face when the knob lets go or punch the rear view mirror since you're tugging at it so hard. I find that if you position yourself so that you cover the shifter knob like you're covering a grenade, you'll pull the knob and you just hit yourself in the stomach.



Step 3 – done inside the car

Remove the foam padding underneath the shifter boot.



Step 4 – done inside the car

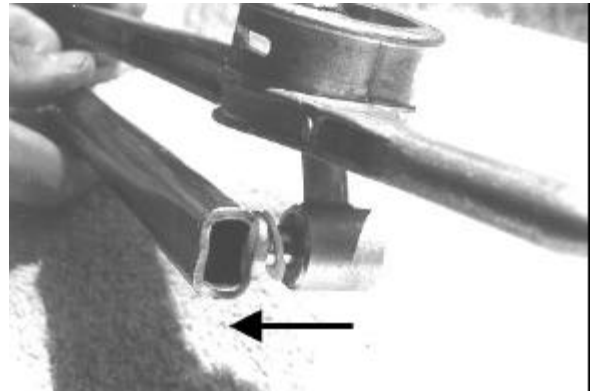
Pull up the rubber shifter boot with your fingers so that it's just connected to the shifter lever.



Step 5 – done underneath the car

Remove the circlip and yellow washer that connects the linkage arm to the bottom of the shifter lever. I've found that with gloves, I can push the circlip off with just finger pressure. If you find it really stubborn or rusty, using the end of a flat bladed screwdriver can also work. Make sure that you remember to remove the first yellow washer, otherwise, disconnecting the linkage arm from the shifter lever will be hard. Note that some early model cars do not have this washer, only one washer between the linkage arm and bottom of the shifter.

(Note: Aluminum carrier, shifter lever, and nylon cup removed from car to show detail.)



Step 6 – done underneath the car

Using the included shifter cup removal tool, line up the 4 teeth of the tool with the 4 slots of the bottom of the nylon shifter cup. To pop the cup out, turn the tool counter-clockwise (like you're unscrewing a bolt) and push up at the same time. Make sure all 4 teeth are engaged on the bottom of the cup. If you don't get full engagement, removal will be more difficult. Once released, you should be able to see that the shifter lever is free from the aluminum carrier.



If you run into problems with the cup removal (due to an old cup) don't panic. If you somehow damage the cup removal tool or break it, all is not lost. You can try another method, not nearly as sexy, but will work in a pinch, if you're careful. Take two, small bladed, flat-headed screwdrivers and cross them on the top of the cup. Turn the screwdrivers together, clockwise, and the cup should rotate. If you have a new nylon cup, now's the time to use it. If you're careful, you can still reuse the old cup if you don't have a new one.

(Note: Aluminum carrier, shifter lever, and nylon cup removed from car to show detail.)



For those installing the Effort Reducing Kit (ERK) or Delrin Bushings, directions pertaining to the ERK install begin here.

Step 7 – done on benchtop (cont.)

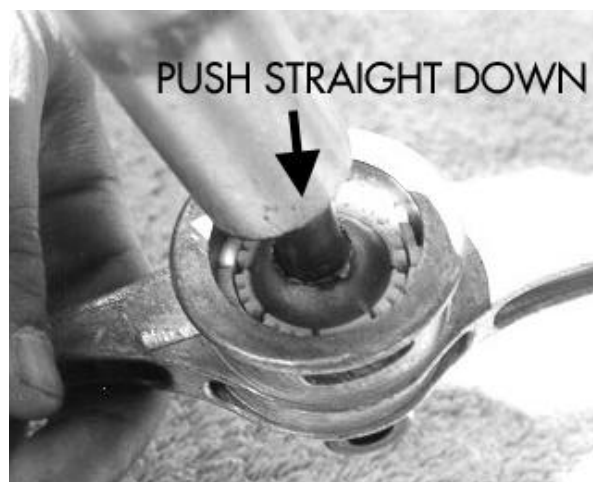
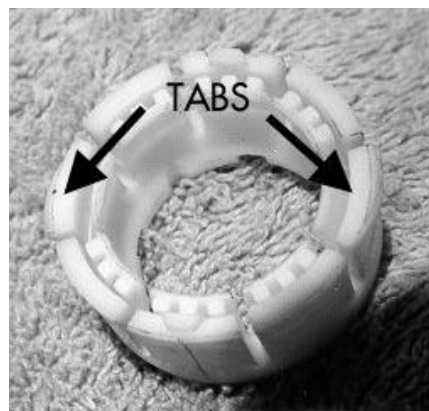
Before installing the shifter into the nylon cup, apply a generous portion of white lithium grease into the inside portion of the cup. Reinstall the boot onto the new shifter lever by pushing the top of the lever through the bottom of the boot. Using some grease inside the boot will make this easier. Be sure to apply a small amount of grease to the very bottom lip of the boot, too, so that it fits over the new carrier when you reinstall it.



HOT TIP! A little soapy water also works well since it's slippery at first, and when it dries, allows the rubber to grip! Grease, unfortunately in this application, may last too long. Once the boot is on, it won't come off, but still a good point. Thanks to Neil Maller for this tip.

Step 8 – done inside the car

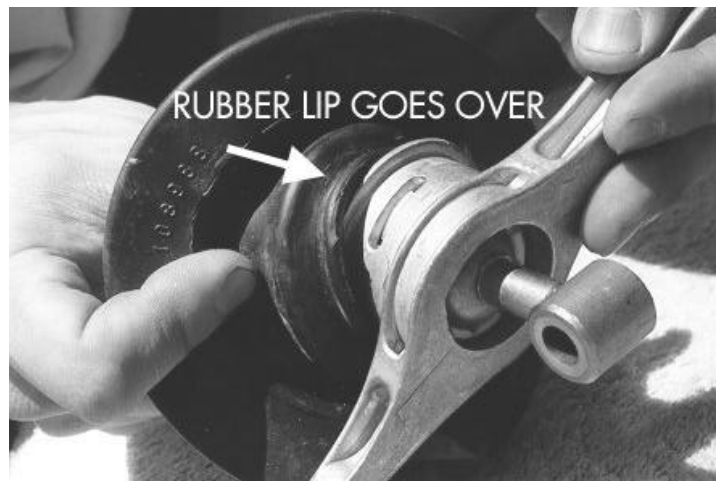
Reinstall the new shifter lever with the bend of the lever pointing **BACKWARDS** towards the rear of the car. Line up the nylon cup so that the “tabs” of the cup are at 3 and 9 o’ clock positions (pointing towards the doors). By lining them up, you can push it straight down into the aluminum carrier. It will go in with a “snap” or a “click” indicating that it's seated and locked into place. Make sure both sides are locked down in the carrier. After you know that they are locked into place, tug on the lever...you should not be able to pull the lever up.



Step 9 – done inside the car (cont.)

(Note: Aluminum carrier, shifter lever, and nylon cup removed from car to show detail.)

Using your fingers, stuff the rubber boot down into the car. Push it all the way in, past where you want it to go. By doing this, you'll be able to hook up the boot on top of the aluminum carrier first. It will take a little bit of feeling around to make sure you've got it on, but you can feel it from above the boot. After you've verified that you have successfully seated the boot on the carrier, you can use your fingers and pull the boot into the car, so that it seats properly inside the car, sealing it from the outside.



Patience...you're almost done.

Step 10 – done underneath the car

(Note: Aluminum carrier, shifter lever, and nylon cup removed from car to show detail.)

Reconnect the linkage by pushing it through the bottom of the lever. In all likelihood, the inside yellow washer (if you have one) is probably fine. If you do replace it, notice that the yellow washer has a side to it that is very flat and a side with curved edges. Make sure that the flat sides are always towards the shifter.



For older cars, installing both yellow washers may not physically be possible as it was never intended nor equipped from the factory with yellow washers on either side of the shifter lever. If you have to use one, install the one on the outside, closest to the metal circlip.

Reinstall the circlip. Using snap ring pliers helps to start it, but I find that tapping the circlip on with a small hammer to be a great little trick that does the job perfectly. If you find it difficult to access this area, you may try shifting the transmission into reverse temporarily.

Step 11 – done inside the car

Now that you've reinstalled the rubber boot, you're all set to put back the foam, leather boot and reinstall the knob. A firm pounding on the top of the knob should seat it properly. Test it to ensure that the knob stays on with a tug. If it comes off too easily, check the leather shifter boot as it may be in the way from allowing the shift knob from seating all the way down. Follow steps 1 through 3 in reverse order to do so.

Before letting your car down off the jackstands, push the clutch in and run through the gears. Make sure that you can engage every gear (reverse and 1st through 5th). When you've gone through the gears successfully, you can lower your car off the jackstands and go for a spin.

Congratulations! You've done it!

Installation Notes:

When you first start shifting your car with the newly installed kit, it is normal for the shifting to feel a little stiff. There are a few things that need to be broken in, specifically the new yellow washers and circlip. It should be tight when you first put the new washers on, and it will seem tight because of its binding characteristics.

Good luck with your Ultimate Shifter Kit!

