

1964-1981 Corvette 4-Speed Shifter Rebuild

<http://www.corvettemagazine.com/tech-articles/1964-1981-corvette-4-speed-shifter-rebuild/>

Is your Corvette shifter so loose that you sometimes have to hunt for each gear? Do you have to make a perfect shift pattern to get it into gear? Does the shift handle move around so much that you feel like you are stirring a mystery brew with a spoon? These symptoms all point to a worn shift mechanism.

Through use, the levers and pins all wear causing hard or sloppy shifting. The only thing you used to be able to do was buy a new shifter and mechanism, but that has all changed. Zip [Corvette Parts](#), 8067 Fast Lane, Mechanicsville, VA 23111, 1-800-962-9632, has come up with the perfect solution, a 4-Speed Shifter Rebuild Kit. These Kits cover the years from 1964 to 1981 and eliminate the need to replace the shifter and mechanism. This is really a complete rebuild kit. It includes instructions, a new ball, reverse T-handle with rod, springs, shafts, pins and two different interlock levers to tighten up the mechanism. The best part about this kit is that it is inexpensive and relatively easy to do.

Our Project 77 had an extremely worn shifter in it so we ordered a new Rebuild Kit from Zip Corvette. The installation was easy, only took about 4 hours, and made our sloppy shifter into a real slick shifter. Now let's get our hands dirty and rebuild that Corvette 4-speed shifter.



Step 1: This is the complete 4-Speed Shifter Rebuild Kit. You will also need some Corvette parts: cleaning solvent (mineral spirits will work), white lithium grease, chrome polish, normal hand tools, jack, jack stands and a shop manual for your year Corvette. Shop Manuals are also available from Zip.



Step 2: Here is the complete shift mechanism, rods and mounting bracket out of our 77 Corvette. You do not have to take the mounting bracket out, but we did to show you how it all looks and goes together. Start by removing the ball, spring, T-handle and reverse rod.



Step 3: Now remove the shift rods. Make a diagram or mental note so that you know which rod goes where. The E clip can now be removed from the mechanism shaft.



Step 4: Slide the shaft out and separate the shift handle from the mechanism.



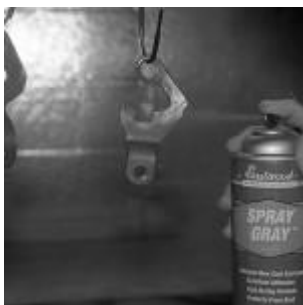
Step 5: The shift handle can now be removed from the bracket. Remove the spring clip and slide the pin out of the handle and bracket. The shift handle can now be pulled out of the bracket from the bottom. We had to remove a nut and bolt on our shifter. It had been repaired with a 1/4" bolt and nut instead of the correct pin and spring clip.



Step 6: The shift levers and interlock can be removed from the bracket. Again, make a diagram or mental note so that you remember how each lever is placed in the bracket. Here is our shifter and mechanism totally disassembled with all the pieces displayed.



Step 7: Thoroughly clean all of the levers and brackets in a parts solvent (mineral spirits will work). The cleaner the better. Check all parts not supplied in the Kit for cracks, wear or damage. These parts are usually all reusable but if any are damaged, contact Zip for replacements.



Step 8: We wanted everything to look new so we sprayed the levers, brackets and shift rods with gray paint.



Step 9: Now is a good time to also polish the shift lever. A little Metal Polish will bring the chrome luster back and make the shift lever look new.



Step 10: When all of the parts are clean and dry, start the re-assembly. First start by lubricating both sides of the levers and the thinnest interlock where they touch each other with white lithium grease. Now place them into the lever bracket in their correct order and check for looseness from side to side. If it is loose, remove the thin interlock lever and replace it with the thicker one supplied. These two interlock levers allow you to take the play out of any loose lever assembly and return it to a tight stock feel. Also remember to lubricate the inside of the bracket.



Step 11: Lubricate the inside of the shift lever bracket, shift lever and pin. Slide the shift lever into the bracket from the bottom. Line up the hole in the bracket and lever and install the pin and clip.



Step 12: Now you will slide the shift handle bracket into the shift lever bracket. Keep the shift lever falling to the left side of the interlock (when looking from the back of the shifter). When they are aligned, install the shaft and lock into place with the E clip. NOTE: This is the hardest part of the whole assembly. Patience is the key. Take your time. Remember to lubricate all the areas where the two brackets meet and keep the slot in the shift levers lined up during re-assembly.



Step 13: Install the shift rods with new spring clips. **Do not use cotter keys. These spring clips do not come with the Shifter Rebuild Kit but are available from Zip separately.** Also remember to lubricate all mounting points with white lithium grease.



Step 14: Re-install the shifter mechanism into the car as per your shop manual. Now is the perfect time to replace those worn or split shift boots. Remember you can have both an upper and lower shift boot. Place the T-handle with lockout rod and spring into the shifter handle.



Step 15: Install the new supplied shift ball to complete the assembly. Now take your Corvette out and see what a new shift mechanism feels like.