

" THIS ARTICLE IS INTENDED FOR YOUR REFERENCE ONLY.

ACTUAL PARTS, YEARS AND BODY STYLES CONTAINED

IN THIS ARTICLE MAY DIFFER SLIGHTLY FROM YOUR APPLICATION. "

YOU CAN DO IT EASY UPGRADES

by Randy Irwin

1955-57 AUTOMATIC COLUMN CONVERSION FOR 605 & 670 POWER STEERING INSTALLATION

If you wish to column shift the automatic transmission in your 55-57 and install a 605 or 670 power steering box, the original column must be modified or replaced with an aftermarket steering column. The 605 or 670 box comes very close to the firewall once the proper flex coupler is installed, making modification of the stock column is a must in order to properly clear the firewall. An aftermarket tilt steering column can be purchased for this application, but not everyone wants to go with the look and expense of a tilt column. In this article we will show you how to modify the stock automatic column and install the proper flex coupler while maintaining column shift.



#53-400

Parts Needed:

- 53-400 1955-57 Auto Trans Column Conversion Kit w/605 & 670 Power Steering
- 53-104 1955-57 Lower Steering Column Clamp Assembly
- 53-26 1955-57 Original Column To 605 Or 670 Flex Coupler
- 53-400SVC 1955-57 Column Shift Automatic Conversion Service for 605 Or 670 Power Steering

To order parts call 1-800-456-1957 or visit ClassicChevy.com

Tools Needed:

- Welder
- Chop Saw
- 3/8" Wrench
- 7/16" Wrench
- Philips Screwdriver
- Vise Grips
- Electric Drill & 3/16" Drill Bit

Time Frame:

3 Hours



Photo #1: The steering column on a 1955-57 protrudes past the firewall anywhere from 4" to 4 1/2" depending on how the mast jacket (outer column tube) is adjusted at the dash.

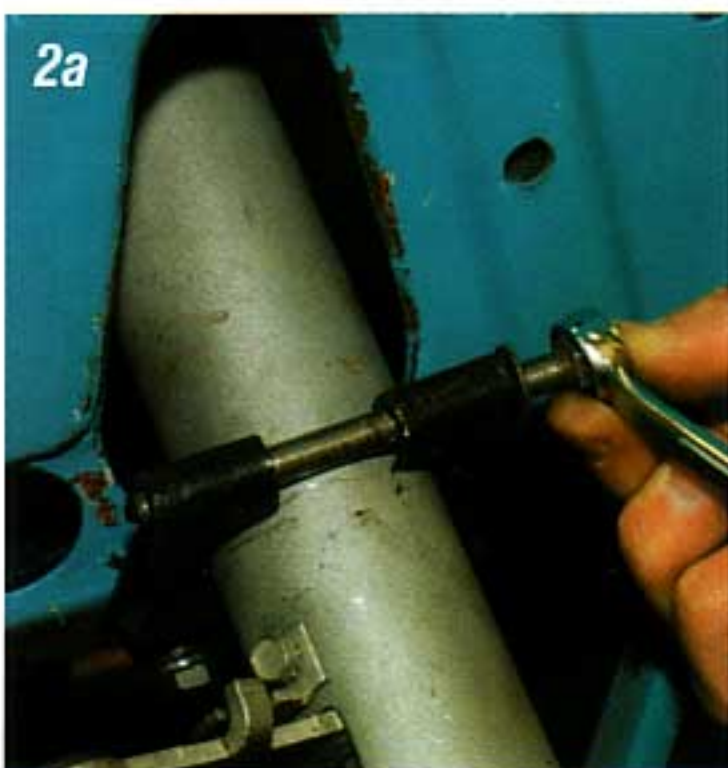


Photo #2a & 2b: The lower part of the mast jacket is held to the firewall with a squeeze clamp bolted to the front side of the firewall in the engine compartment. The upper part of the mast jacket is held to the bottom of the dash on a 1955-56 with a two piece clam shell bracket and a rubber insulator. On 1957 cars there is a bracket that bolts to the bottom of the dash board with two 5/16" bolts and to the mast jacket with two 1/4"-20 bolts. Both types allow the mast jacket to be adjusted up or down to properly adjust the gap between the turn signal housing and the steering wheel.



Photo #3: The shift detent bracket bolts to the bottom of the mast jacket with two 1/4"-20 bolts. This bracket must be removed to allow the mast jacket to slip out of the fire wall clamp.



Photo #4: Remove the steering wheel. With the upper and lower mast jacket clamps loosened and the detent bracket removed, rotate the mast jacket so that the three 7/16" bolts that secure the bottom mast jacket bushing line up with the slots in the firewall clamp. The mast jacket will slide up through this clamp and can then be removed from the car.



Photo #5: The firewall mast jacket clamp is held to the firewall with two 5/16" X 1" bolts. This clamp will not be reused so remove and discard.



Photo #6: The turn signal housing is held to the top of the mast jacket with three Phillips head screws. Remove the three screws and the turn signal housing will slide off the mast jacket.

Photo #7: Remove the lock plate and thrust washer that was under the turn signal housing. The shift collar will slide up off the shift tube. There is a tabbed washer under the shift that keys into the mast jacket, remove this washer also.





Photo #8a & 8b: At the bottom of the mast jacket there are three 5/16" bolts that hold the lower support bushing in place. Remove the three bolts and the lower support bushing. The spring and shift tube can now be removed from the bottom of the mast jacket.



Photo #9: Both the shift tube and mast jacket will need to be shortened to complete this conversion. Both parts will have an overall length of 27-1/4" when done. Mark a lengthwise line about a foot long on the shift tube, lined up with the center of the shift lever. This line will be used to properly index the new shift lever after cutting.



Photo #10: Measure from the top of the shift tube down 27-1/4" and mark the tube. This is where the tube will need to be cut.



Photo #11: Using a chop saw or band saw cut the shift tube at the mark. It is best not to use a hack saw or hand-held cut-off tool, as a straight cut is important.



Photo #12a & 12b: The new shift lever included in kit P/N 53-400 has an offset of 1" to clear the firewall. Mark the center of the new shift lever and align the mark with the line on the shift tube. Before welding the new shift lever to the shift tube verify that the overall length of the shift tube is 27-1/4". Weld the bottom side of the shift lever to the very bottom of shift tube.



Photo #13: Use a flat file to dress up the lower part of the shift tube to make sure there is no welding slag.



Photo #14: The kit includes an aluminum bushing and steel flat washer to replace the original lower bushing on the modified shift tube. The stock lower spring will be reused.



Photo #15: The aluminum bushing has a step and a slot on the inner diameter to allow the bushing to pass by the neutral safety switch tab on the shift tube.

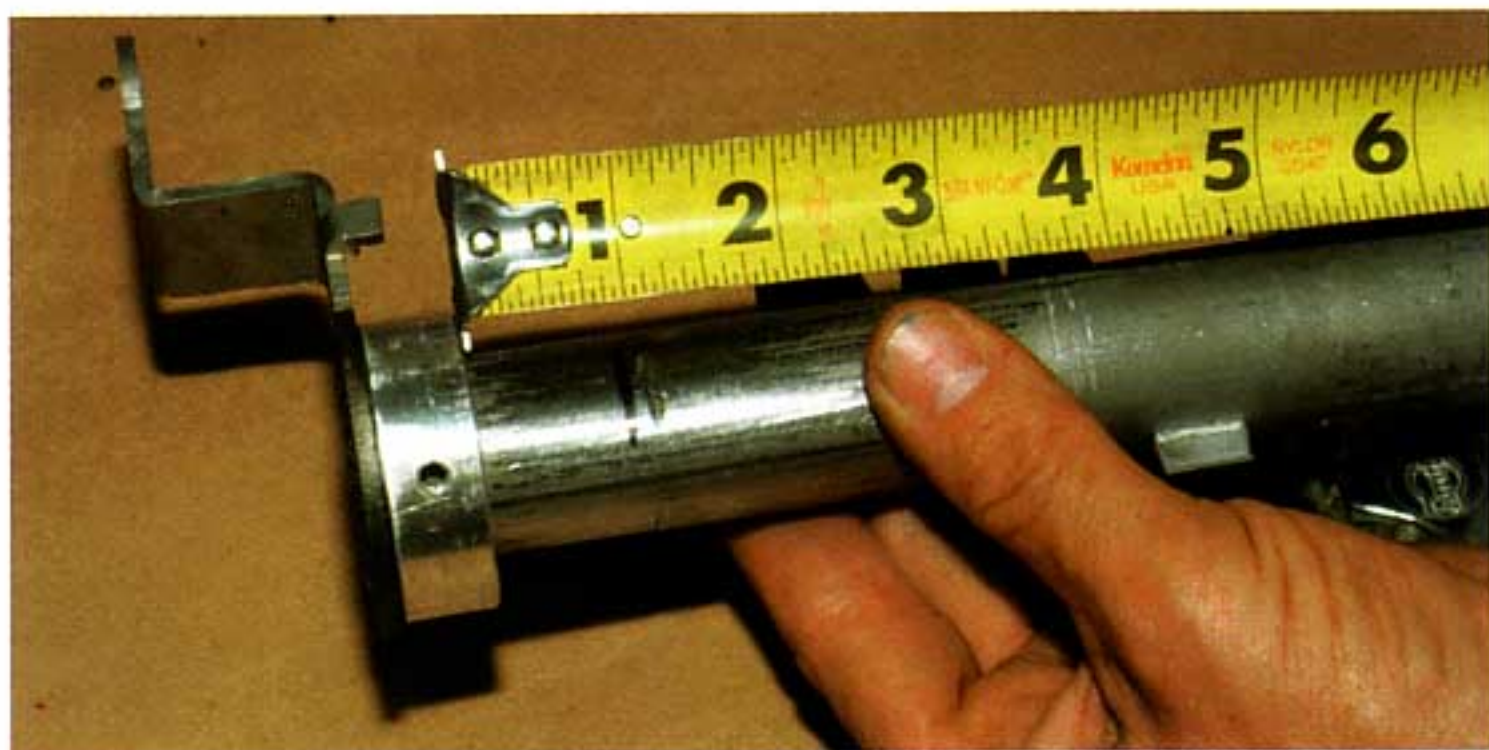


Photo #16: Slide the aluminum bushing all the way down the shift tube. Make certain it will spin freely and not bind on the tube. Measure 15/16" up from the top side of the bushing and mark the tube.



Photo #17: Slide the spring and notched washer down onto the shift tube.



Photo #18: Push the notched washer down to the mark on the shift tube. Using a pair of Vise Grips, hold the washer in place and spot weld it to the tube. Three or four spot welds should be plenty to hold the washer in place.



Photo #19: The mast jacket also needs to be shortened. Cut the bottom of the mast jacket off even with the top of the original shift lever opening. This will leave the notch in the mast jacket for the shift detent bracket.



Photo #20: Before making the next cut, make a length-wise line on the mast jacket

so that after it has been cut apart it can be properly indexed and welded back together in the correct position.

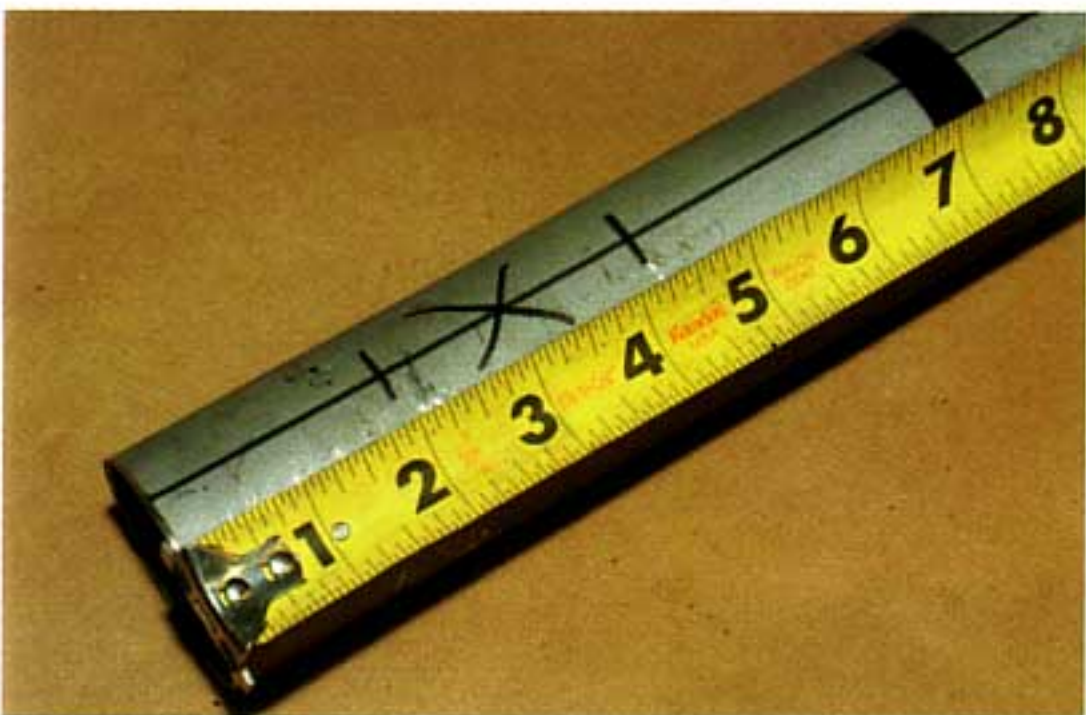


Photo #21: The mast jacket will need to be shortened by exactly 2-1/4". To remove the

2-1/4", measure up from the bottom of the mast jacket and mark it at 2" and 4-1/4". Using the chop saw or band saw, make the two cuts and discard the 2-1/4" section removed.



Photo #22a & 22b: Using a piece of angle iron to align the two halves of the mast jacket, orient the two marks and weld together.



Photo #23: The notches in the steel washer and aluminum bushing will allow the shift tube assembly to bypass the blind nuts in the lower mast jacket.

Photo #24: The new aluminum bushing is held in place in the bottom of the mast jacket with the tab on the bottom of the detent bracket and a 10-32 machine screw. Install the shift tube assembly with the two notches of the aluminum bushing keyed on the two blind nuts in the mast jacket. Mark the outside of the mast jacket to correspond with the machine screw hole in the lower bushing.



Photo #25a & 25b: Remove the shift tube assembly and measure up $7/16$ " from the mark on the bottom of the mast jacket and drill a $3/16$ " hole. Reinstall the shift tube assembly and push the aluminum bushing up inside the mast jacket and install the 10-32 machine screw.



Photo #26a & 26b: The tab on the bottom of the detent bracket fits back into the original notch in the bottom of the mast jacket and into the notch in the aluminum bushing. With the bottom of the mast jacket assembled, you may now reassemble the top of the mast jacket. Be sure the shift tube rotates smoothly in the mast jacket.

Photo #27: The original lower mast jacket clamp can no longer be used. The new bracket and clamp P/N 53-104 mounts on the inside of the firewall. Using the two original bolts that secured the stock clamp, bolt the new bracket to the firewall.



Photo #28a & 28b: The column attaches back to the dashboard in the stock location using the stock clamp. Since we shortened the mast jacket and shift tube at the bottom, the shift indicator wire and neutral safety switch tab are still in the stock location.

Photo #29: Adjust the column so that the bottom of the shift tube is flush with the firewall. This will give you the clearance needed for the flex coupler. Once the column is in place, tighten all hardware.



Photo #30: When the 605 or 670 box is installed, there will be 2-1/2" between the top of the box and the bottom of the column.





Photo #31: The P/N 53-26 flex coupler has a 3/4"-30 spline on the lower end and a 3/4" smooth bore that must be welded to the original steering shaft that was removed from the stock steering box.



Photo #32: Install the coupler on the power steering box and make sure there is no interference with the bottom of the shift tube or shift lever. Readjusting of the lower mast jacket clamp left to right may be necessary.



Photo #33: The shaft in the original steering box needs to be cut and removed. This shaft is made of soft steel, so a simple hack saw may be used. We chose to use our chop saw. Cut the shaft flush with the top of the box.



Photo #34: Once the steering shaft is removed, install the steering wheel onto the shaft and tighten the nut.



Photo #35a & 35b: Slide the steering shaft down through the column and into the new coupler. The shaft will bottom out against the center pin protruding from the top of the steering box.



Photo #36a & 36b: Measure the distance between the bottom of the steering wheel and the top of the turn signal housing. We had a measurement of 6-1/2", yours will be different. Remove the shaft from the column. Measure up from the bottom of the steering shaft and cut off the measured amount, which in our case was 6-1/2".



Photo #37: Install the shaft and steering wheel again. Using a hack saw blade, scribe a mark on the shaft at the top of the flex coupler.



Photo #38: Remove the flex coupler from the steering box and unbolt the top half of the coupler from the fiber center. This will prevent overheating the fiber as the top half of the coupler is welded to the shaft.

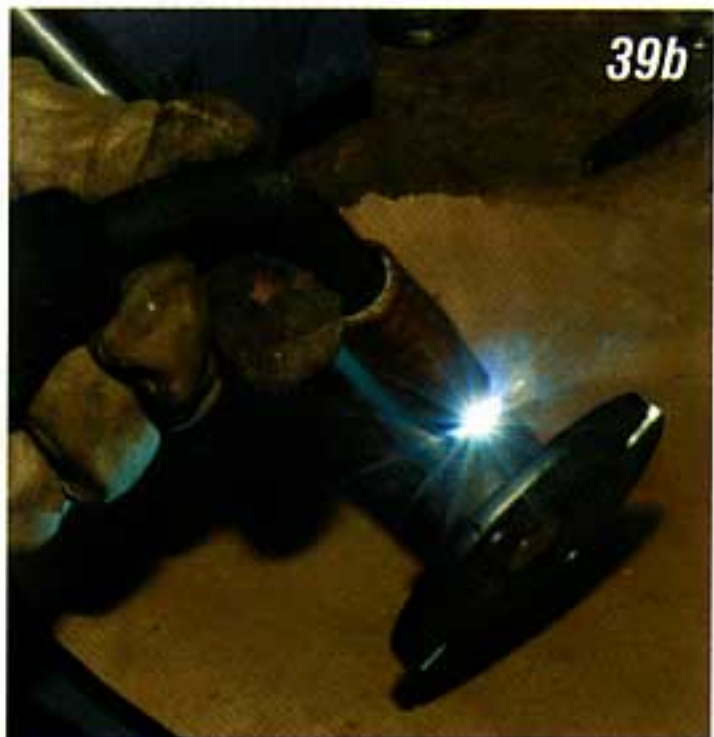


Photo #39a & 39b: Slip the top half of the coupler onto the steering shaft and align with the scribed mark. Weld the coupler to the shaft.

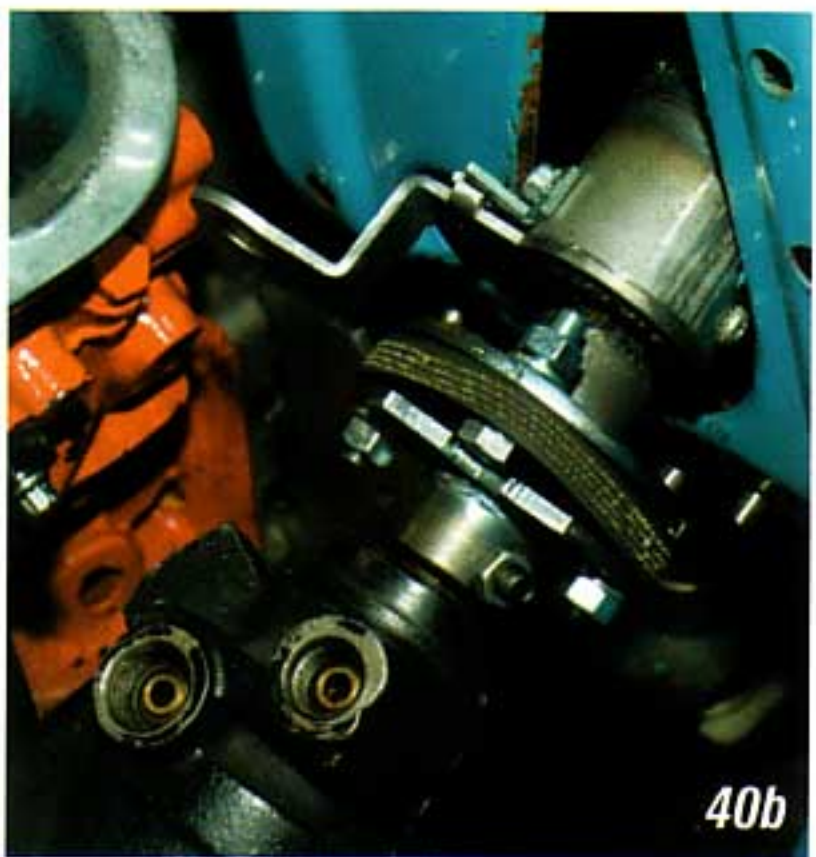


Photo #40a & 40b: Line up the two halves of the coupler and bolt it back together. Remove the upper mast jacket clamp and loosen the lower so the mast jacket can be tilted down. This will allow the shaft to be installed from the bottom. Reinstall the mast jacket clamps, steering wheel, upper mast jacket spring and spring seat. Turn the steering wheel to the left and right and make sure the steering shaft at the bottom of the mast jacket is not rubbing the inside of the shift tube. If the shaft is rubbing on the inside of the shift tube, make some slight adjustments with the lower mast jacket clamp. If the gap between the steering wheel and the mast jacket is not correct, it may be adjusted by loosening the column clamps and moving the column up or down as needed. Complete the installation by connecting the shifter linkage and hoses.

Good luck! 