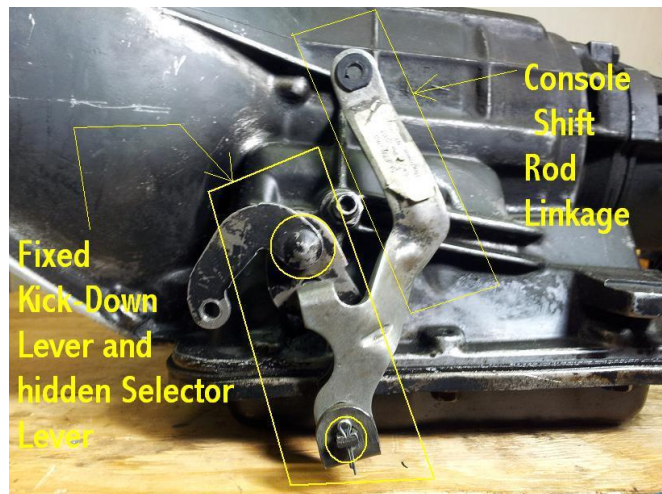
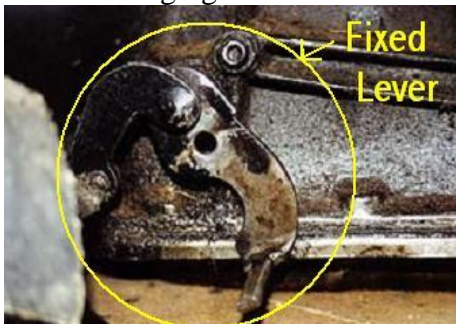


## Removal Procedures

- **\*\*\*Take a picture of the transmission and note the lever positions (Transmission Arm Lever points up and Kickdown Lever point down)\*\*\***
- This is an aluminum-case PowerGlide Transmission out of a 1966 Chevelle.
- At this point shift the **Shift Selector Shaft** to get a feel of the resistance between the ranges and how the shaft generally operates.



- Notice the fixed levers both on the shift selector shaft and the kicked down shaft. This is what you will be changing



- Start by removing all 14 **Transmission Pan** bolts and use the pan to hold all of your parts so that none are lost.
- **\*\*\*It is recommended that you replace the Transmission Pan Gasket and Filter which is not included in this kit but can be bought separately at your local parts store.\*\*\***



This is the **Parking Pawl Guide Plate**. Start by removing the two bolts that secure it down. When removing the bolts be sure that they stay in their proper positions and place the part in the transmission pan (parts bin).



- Next we are removing the **Roller Spring/Retainer Plate** and spring from the valve body. These pieces provide tension for the **Parking Pawl Roller**.
- Be sure that when you are removing the bolt and plate that you put a finger on the top of the spring where it contacts its retaining plate so it is not lost during removal. If it does you should be able to retrieve it with a magnet.



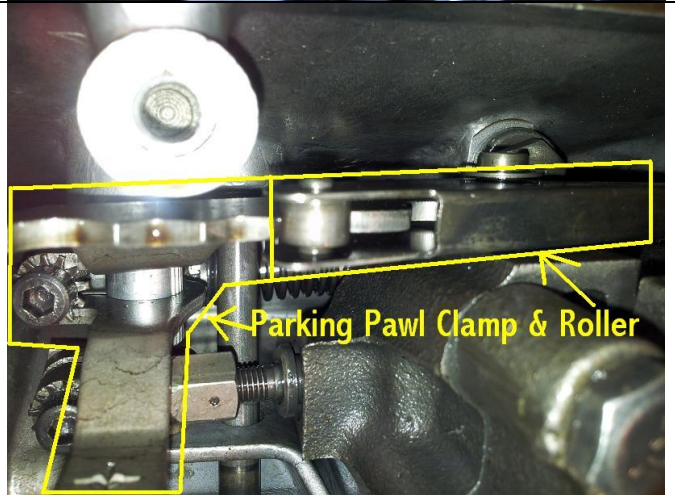
- Next loosen both **clamps** that are attached to the **Shift Selector Shaft** (main shaft) and **Kick-Down Shaft**.
- **\*\*\*Caution: do not completely undo bolts or parts may be lost into the transmission.\*\*\***
- To loosen you will either need an Allen wrench or a 12 point ¼ inch socket.



- After both clamps are loose firmly hold the smaller clamp with thumb and index finger and pull up on the **Kick-Down Shaft** by using the lever and place shaft in pan along with the small clamp.



- Next we remove the **Shift Selector Shaft** by pulling up on the lever being sure not to move the parking pawl too much.
- After, place the **Kick-Down Shaft** into the main shaft and set aside as it will not be reused.



**\*\*\*At this point since the shaft is out it is recommended that you replace the Shift Selector Shaft Seal.\*\*\***

Available from:

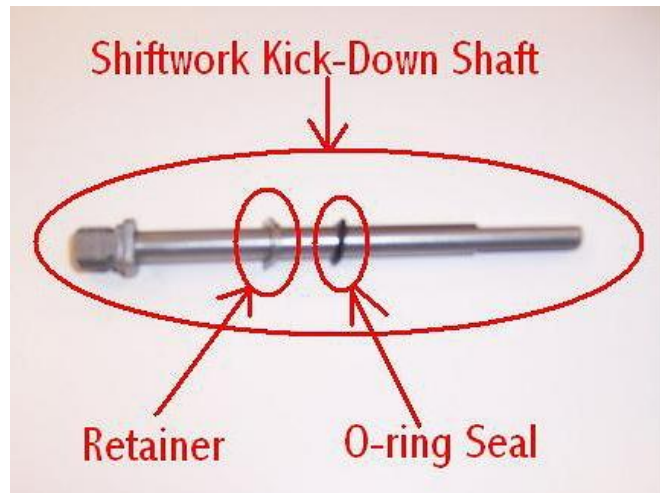
[www.TransmissionPartsUSA.com](http://www.TransmissionPartsUSA.com)

and

[www.ClassicTransmissionSolutions.com](http://www.ClassicTransmissionSolutions.com)



- Preparations for Shiftworks Kickdown Shaft: First install the Retainer with the flat side towards the threaded end, with the ridge side so that it pushed against the O-Ring. **O-Ring** is placed on **Shiftworks Kick-Down Shaft** last and pushed up against its Retainer towards the threads. After it is lubricate it with transmission oil. Attach the provided **Shiftworks PowerGlide Cable Lever** and **Shiftworks Kick-Down Lever** and hand tight only
- **\*\*\* Caution: do not place shaft in any sort of gripping mechanism to tighten (I.E. vice grips, vice, channel locks, pliers etc.)\*\*\***



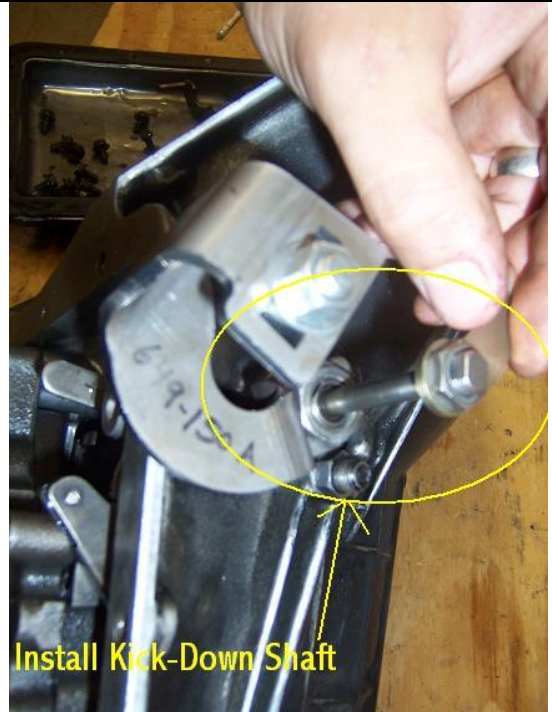
## **Installation Procedures**

### **Cable Application**

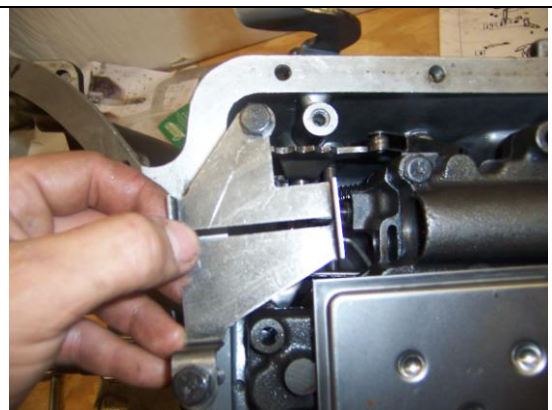
- Take the **Shiftworks Shift Selector Shaft** (***without the Kick-Down inside it as it will make installation a little easier***) and put it in the Shaft hole and simultaneously hold the Parking Pawl Clamp (the bigger of the two). Move the shaft back and forth rotationally until it goes through the clamp and rests flush against the clamp. Ensure that the cable lever is pointed down towards the pan and then tighten clamp to proper spec.

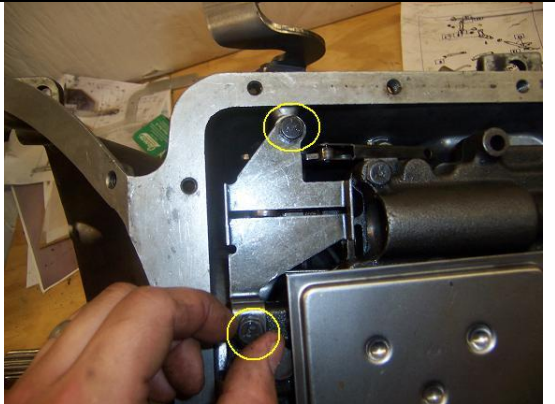


- Then you must hold the smaller clamp in position (*facing same way as original which was originally seen before removal*) then take the **Shiftworks Kick-Down Shaft** and place it back inside the **Shiftworks main shaft**.
- It will then fall through and as before with the main shaft, rotate the **Shiftworks Kick-Down Shaft** and push it through the clamp(while still holding clamp with other hand) .
- Do not tighten yet. Before tightening the smaller clamp ensure that the **Parking Pawl** is lined up correctly on the **Parking Pawl Roller**. Then ensure **Shiftworks Kick-Down Shaft** is fully seated in the **Shiftworks Main Shaft**. After while still pushing down on **Kick-Down Shaft** tighten the smaller clamp so that it lays flush against the base of the **Shiftworks Main Shaft**(*Doing this ensures the Kick-Down Shaft will not move in or out of the Main Shaft during operation.*)
- At this point turn the shaft and ensure that throughout the travel of the Parking Pawl it is always lined up on its roller and that the kick down lever is facing forward. If it is it is time to move on.



- Now you must secure the **Parking Pawl Guide Plate**. Ensure that the tab from the **Parking Pawl Roller** is in the slot on the **Guide Plate**. Then place the bolts in the exact place that they were removed from and secure to proper specification.
- **\*\*\*Once again, Shift the Selector shaft and ensure that it moves easily through slot and all ranges (P, R, N, and D & L)\*\*\*.**





- Now you will attach the **Roller Retainer Plate** and **Spring**. Hold the spring against the plate connected as it should and loop the other end of the spring onto the Parking pawl roller. Then place the bolt through the retainer plate and tighten to specifications.
- \*\*\*At this point you should recheck the Parking Pawl & Roller for operation. Ensure there is adequate tension and that it goes through all gear ranges with ease (P, R, N, and D & I)\*\*\*



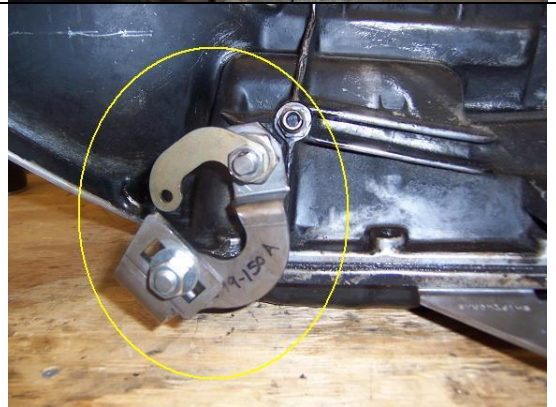
- Finished internal assembly should look like this.



- At this point all parts should be used besides the **Transmission Pan** bolts. You must secure the pan with gasket to the transmission using proper tightening specifications and techniques. Then hook up shifter and associated parts and it is ready to go.



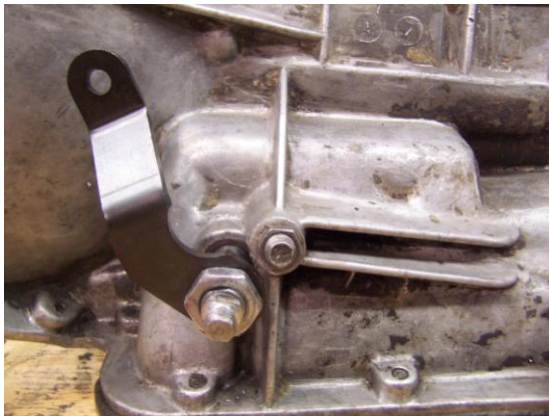
- Ensure levers are positioned like so and you are ready Enjoy your newly modified floor shifting classic!!!!!!!!!!!!!!



### Rod Application

For those applications using a rod linkage the lever points UP. Exactly the opposite of the cable. The lever has a 5/16 hole in the top and Shiftworks can provide linkage components as required. If using the original 3/8 GM Rod linkage the 5/16 hole can be drilled out to 1/2 inch and a rubber grommet installed as in the factory setup.

Here are pictures of the lever for the rod linkage installed. All other instructions are the same.



Low Gear



Park