HURST COMP/PLUS SHIFTER
2015 Ford Mustang
(Getrag MT82 six-speed manual transmission)

Catalog #391 0205

Thank you for purchasing the Hurst Comp/Plus Shifter. Once you open the box, you will notice that this is not your typical shifter design. This unit utilizes a multi-link-type mechanism to achieve the perfect combination for a short throw shifter, reducing shift throw by 38% from front to back, while maintaing a smooth silky side-to-side shift that is barely reduced resulting in close to full side-to-side resolution. A billet steel, chrome plated upper stick and a classic white knob is included in this kit to bring the interior to life. Positioned in-line with the classic Hurst chrome plated flat blade stick is a chrome plated trigger rod. This trigger rod not only functions as part of the reverse lockout feature, but truly adds style points to the interior.

IMPORTANT! Installing the Hurst Comp/Plus Shifter requires moderate mechanical ability. Read this instruction sheet completely first, so that you thoroughly understand it and can become familiar with the procedure before attempting installation. Furthermore, this shifter has been primarily designed as a “competition” and/or “race” shifter. While every effort has been made to reduce the amount of objectionable transmission/driveline noise transmitted into the interior of the vehicle, some vehicles may experience greater amounts than others. If this is possibly objectionable or unsuitable to your intended type or style of driving, return this product to your retailer for a refund prior to beginning installation.

WORK SAFELY! Perform this installation on a good clean level surface for maximum safety and with the engine turned “off”. Ensure that the parking brake is set and that the vehicle will not move if accidentally started. Allow sufficient time for the vehicle to cool prior to beginning installation.

INSPECT! Using the parts list, ensure that all parts are present and free from objectionable defects and/or blemishes prior to beginning installation. Every effort has been made to ensure that these parts arrive to you in perfect and non-damaged order. However, Hurst Performance will not accept returned parts due to cosmetic defect after they have been installed in a vehicle.

PARTS

Chrome Upper Stick

Classic Hurst White Knob

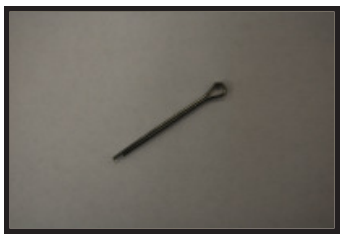
Lower Stick

PARTS (CONTINUED)

Shift Rod

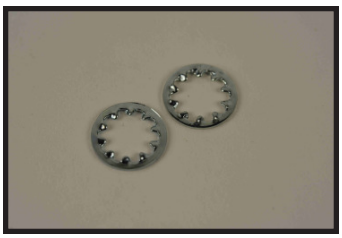
Trigger Rod

Rev. Lock-Out Collar



Cotter Pin

1/4" Flat Washer (2)



3/8" Lock Washer (2)

Guide Nut

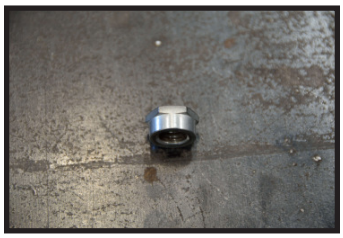
Spring Bracket

Spring

Spring Retaining Screw

8-32 Set Screw

Grease Packet

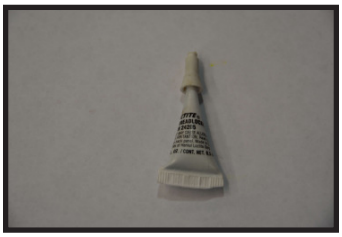


Jam Nut

3/8" Washer

P-Urethane Bushing

PARTS (CONTINUED)



Loctite

3/8”-24 Cap Screw

3/8”-24 Guide Screw

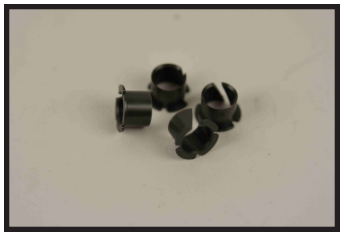
Pivot Bolt

1/4”-20 Screw

Link (2)

1/4” Shoulder Screw

1/4” Disc Spring
(2)



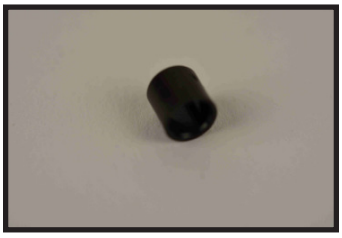
1/4” Flange Bearing (4)

10-24 Lock Nut

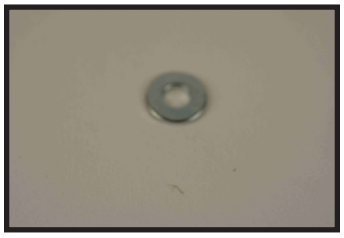
Swivel Link

3/16” Shoulder Screw

8/32 Lock Nut

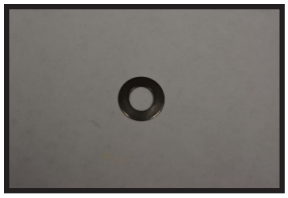


3/16” Sleeve Bearing

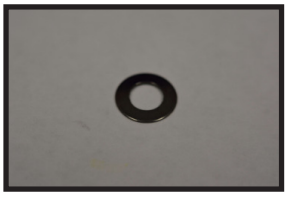


#8 Washer

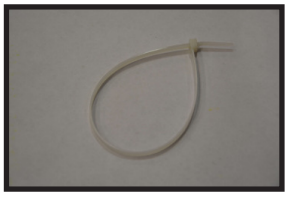
PARTS (CONTINUED)



Nylon Washer



3/16" Disc Spring



Tie Wrap

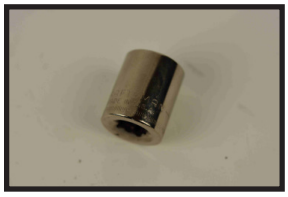
TOOLS

Plastic Trim Remover (2)
(Pry Tool)

4mm Punch

Hammer

T-20 Torx Driver



18mm Socket

Breaker Bar

1/4" Drive Ratchet

10mm Sockets

Extension

Universal Joint

13mm Socket

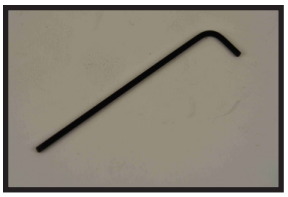
11/32" Wrench

1/8" Allen Wrench

Craft Knife

7/32" Allen Wrench

Philips Screwdriver



5/64” Allen Wrench

3/32” Allen Wrench

Torque Wrench
(20-80 ft.lbs)

15mm Socket

7mm Socket

Jack

Jack Stands

10mm Wrench

10mm Ratchet
Wrench

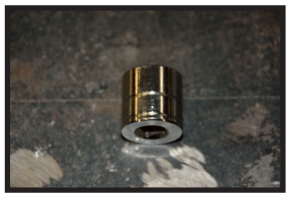
Disc Grinder

Plastic Hammer

Pliers

Vise

C-Clamp



3/4” Socket

7/16” Socket

3/8” Drive Ratchet

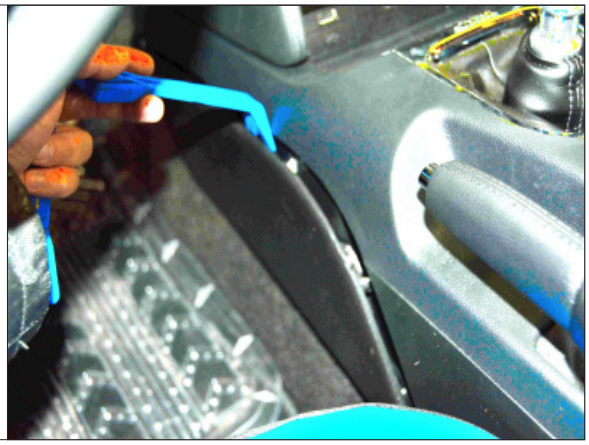
Side Cutters

Disassembly

STEP 1. Unscrew the shift knob.
(counter-clockwise to remove.)

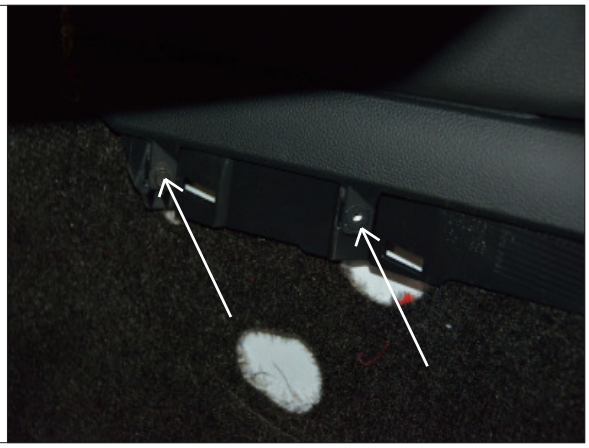
STEP 2. Remove the front driver side and passenger side panels from the center console.

Tool: Plastic Trim Remover



STEP 3. Remove the two (2) screws from both sides of the console.

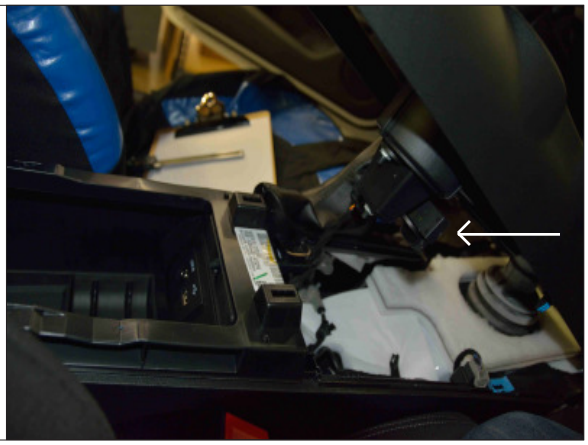
Tools: 7mm Socket, Extension, Ratchet



STEP 4. Remove the center console. Start by lifting up the rear and work your way up to the front.

Tool: Plastic Trim Remover x 2

STEP 5. Unplug the harness from the console. Set console aside.



STEP 6. Remove the spring retaining roll pin.

Tools: 4mm Punch, Hammer

STEP 7. Remove the retaining screw and then remove the factory reverse lockout sleeve.

Tool: T20 Torx Driver

STEP 8. Lift the vehicle. Support the vehicle with Jackstands if working with a floor jack.

STEP 9. Support the transmission.

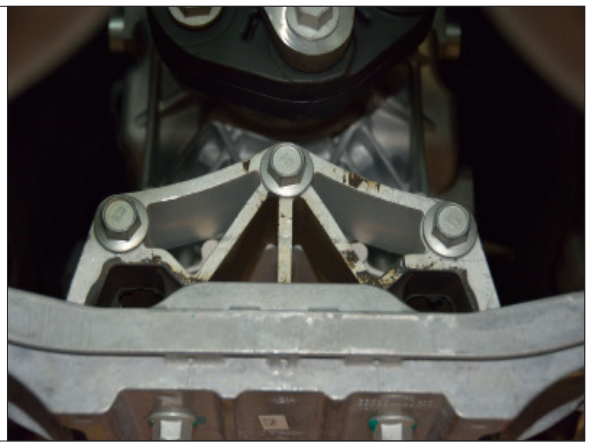
Tools: transmission stand or floor jack

STEP 10. Remove the four (4) 18mm bolts securing the transmission to the frame. Lower the rear of the transmission. Support the rear with a transmission stand if you have the vehicle supported with a lift ; support the rear with a floor jack if you have the vehicle supported with jack stands.

Tools: Breaker Bar, 18mm Socket, Ratchet, Extension

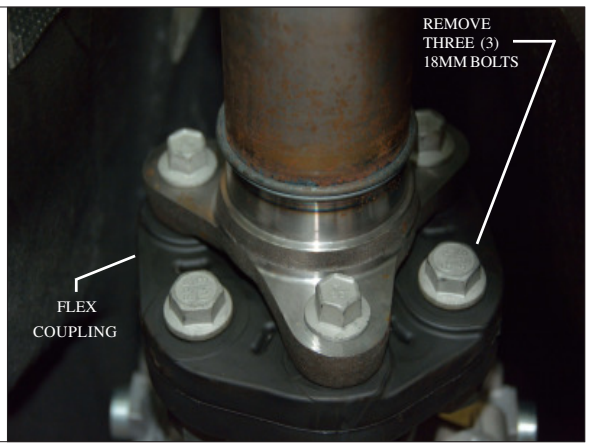
STEP 11. Remove the three (3) 15mm bolts securing the crossmember to the transmission.

Tools: Breaker Bar, 15mm Socket, Ratchet



STEP 12. Remove the three (3) 18mm bolts securing the front end of the driveshaft to the transmission. IMPORTANT: Make an alignment mark between the Flex Coupling and the transmission flange. You must re-install the driveshaft in the same position as it was removed.

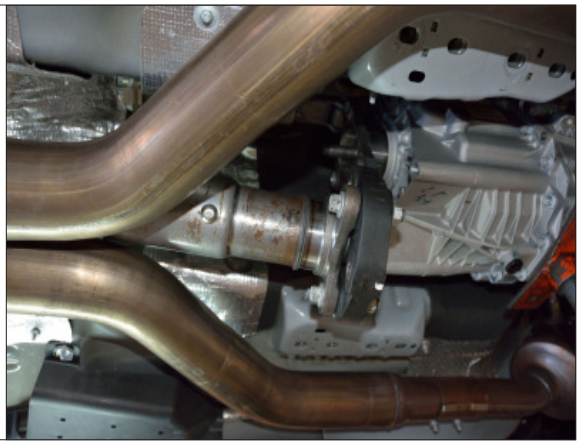
Tools: 18mm Socket, Ratchet



STEP 13. Remove the center bearing bolts.

Tools: 13mm Socket, Ratchet

STEP 14. Once the center bearing bolts have been removed, you can pull the driveshaft back and lower the front end of the driveshaft. Allow the driveshaft to rest on top of the exhaust.



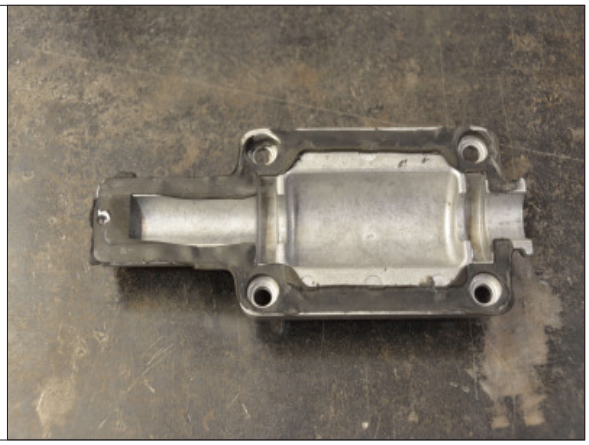
STEP 15. Remove the four (4) 10mm screws from the bottom of the shifter.

Tools: 10mm Deep Socket, Universal Adapter, Extension, 1/4" Drive Ratchet

STEP 16. Remove the two (2) 10mm hex nuts and remove the rear bushing assembly.

Tools: 10mm Deep Socket, Universal Adapter, Extension(s), 1/4" Drive Ratchet

STEP 17. Remove the bottom plate. Do not discard the rubber gasket. You will need to re-use this when re-installing the shifter.

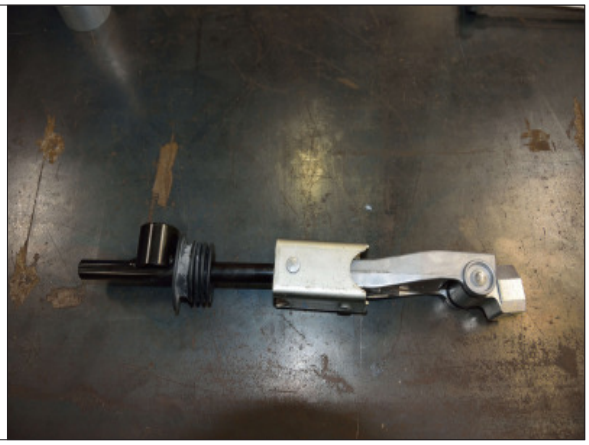


STEP 18. Remove the shifter housing.

Tools: 10mm wrench to break loose the screw, 10mm ratchet wrench for ease of removal. You will have to pull down on the transmission to allow the screw to clear the tunnel.

STEP 19. Remove the shift linkage.

Tools: 13mm Socket, 3/8 " Drive Ratchet



STEP 20. The photo to the right is a close up of the screw removed from the shift linkage in step 19. Note that the screw is only partially threaded at the top. This is being mentioned so you dont spend too much time trying to loosen a screw that is already completely loose. After it is completely loose, it will need to be pulled free.

STEP 21. The shift rod has to be removed and replaced with the new shift rod. The best way to do this is to grind off the end with the smaller diameter head. Once the head has been ground off, use a punch and a hammer to remove the pin from the assembly. Discard the pin. A new pin is included in the kit.

Tools: Disc Grinder, Punch, Hammer

STEP 22. The photo to the right shows the bolt removed and the two parts seperated.

STEP 23. Remove the two (2) bushings and the rubber boot from the old shift rod, being careful not to damage them as they will be re-used.

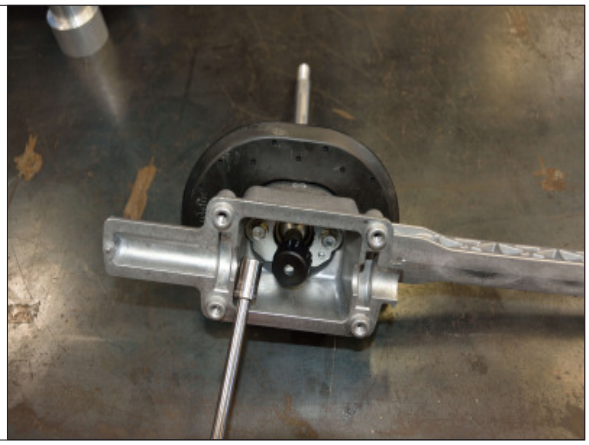
Tools: Punch, Hammer

STEP 24. Carefully, install the rubber boot and two (2) plastic bushings onto the new supplied shift rod.

Tool: Hammer

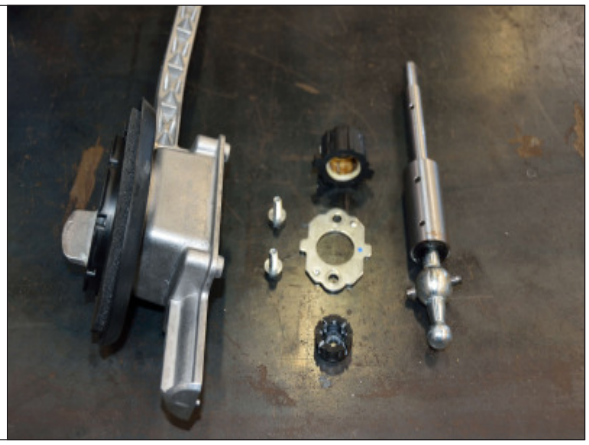
STEP 25. Remove the shifter retaining plate from the bottom of the shifter housing.

Tools: 10mm Socket, Extension, Ratchet



STEP 26. Remove the shifter from the housing and disassemble. Use a set of pliers to pry the small pivot cup off of the small pivot ball. The larger pivot cup can be removed by hand. The large pivot cup, the screws and the plate will be re-used.

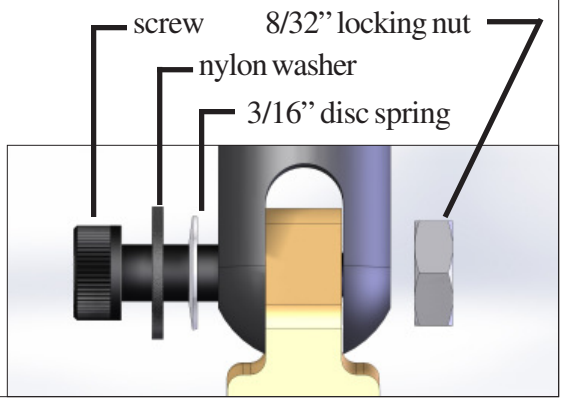
Tool: Pliers



STEP 27. Be sure to grease the main pivot ball of the new supplied lower stick. Install the large pivot cup and then install the plate.

STEP 28. Add grease to both sides of the swivel and insert the swivel into the stick. Slip a disc spring and a nylon washer onto the shoulder screw. Slide the 3/16" shoulder screw through the stick and the swivel. Secure the parts together with a 8-32 lock nut.

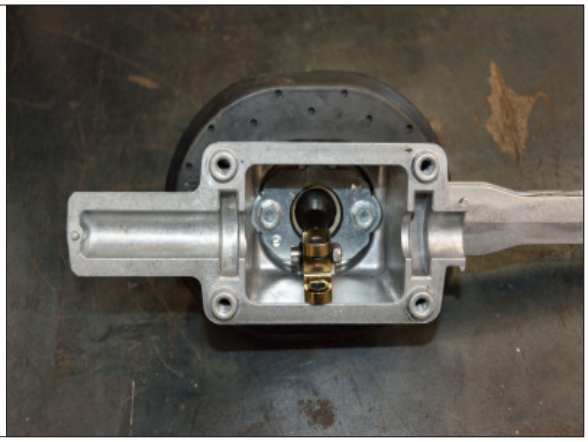
NOTE: add a drop of loctite to the thread of the shoulder screw prior to install.



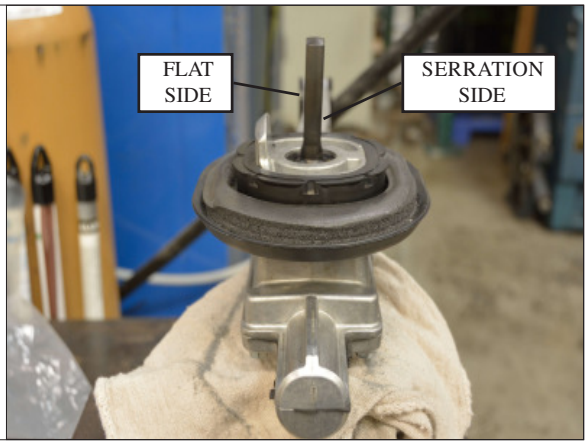
STEP 29. Insert a flange bushing into swivel, one (1) on each side, as shown in the photo on the right.

STEP 30. Install the lower stick assembly up into the shifter housing. Pay careful attention to the orientation of the stick prior to install. The lower stick has two faces. One face is flat while the other face has serrations that will mate with the upper chrome stick, which also has serrations. The face with the serrations should be facing the passenger side once installed.

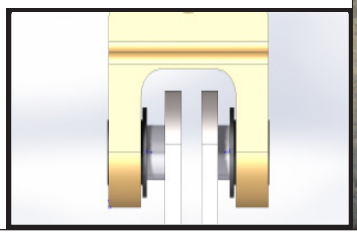
Tools: 10mm Socket, Ratchet



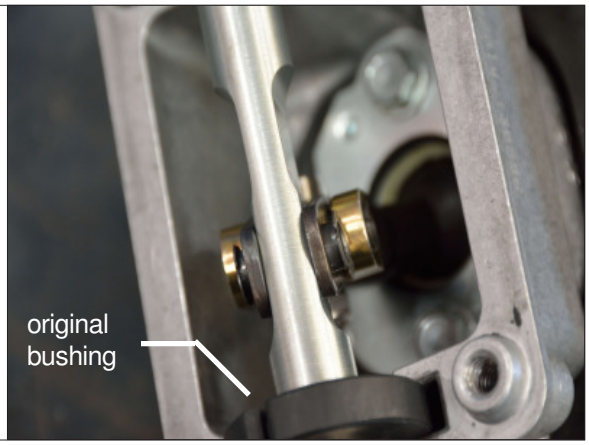
STEP 31. The photo to the right shows the correct orientation of the stick once installed. If you have installed it backwards, rotate the lower stick 180 degrees to correct the problem.



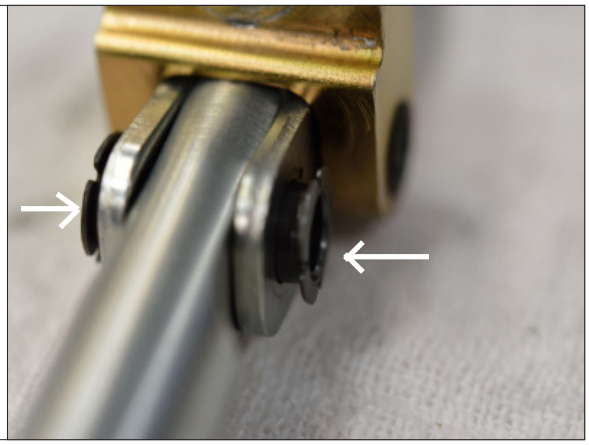
STEP 32. Add grease to the one face of the link, opposite of the side with the pin and then insert a link on each side of the swivel as shown in the photo on the right.



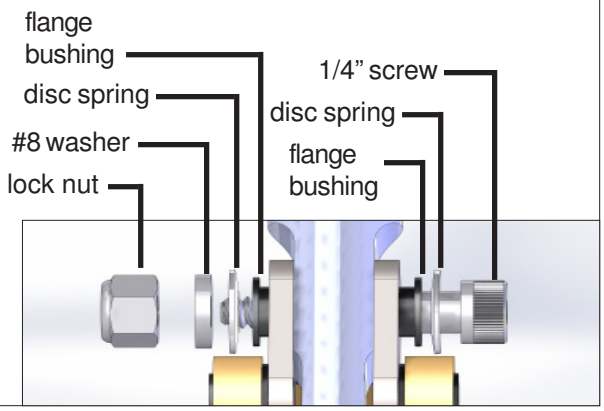
STEP 33. Insert the new shift rod between the links. You can add one of the rubber bushings onto the shift rod at this point.



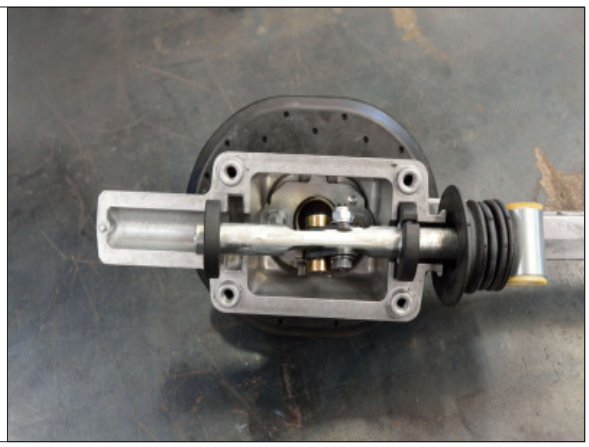
STEP 34. Insert a flanged bushing to each side of the links, to semi-secure the links to the shifter.



STEP 35. Insert a 1/4" disc spring onto the 1/4" shoulder screw and slide it through one end of the links. Once the screw is through to the other side, add another 1/4" disc spring, and then a #10 washer. Secure it together with a nyloc nut. This is important: You may need to adjust the tension between the nut and screw. You want to be able to rotate the links between the shift rod, but it should be stiff. It should take some effort to rotate. The shifter will not function properly if it is loose.
Tools: 3/32" Allen Wrench, 3/8" Wrench
NOTE: add a drop of loctite to the thread of the shoulder screw prior to install.

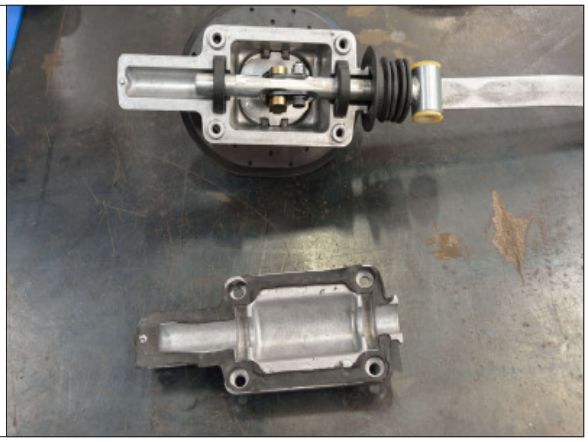


STEP 36. Generously grease the shift rod to maintain a slip fit. Add the second rubber bushing onto the shift rod.



STEP 37. Re-apply the rubber gasket onto the cover or the housing and secure the cover to the housing with the four (4) 10mm screws.

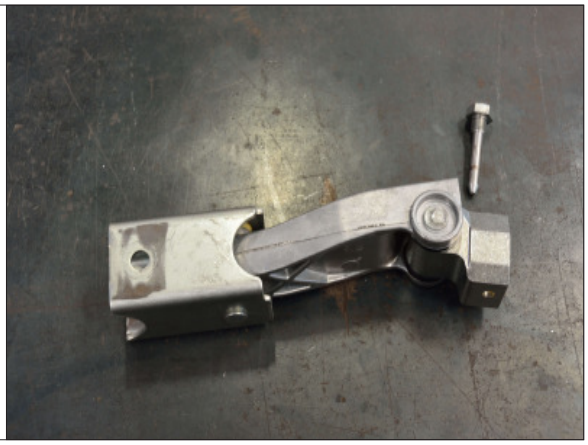
Tools: 10mm Socket, Extension, Ratchet.



STEP 38. Install-Ready Shift Assembly Shown.

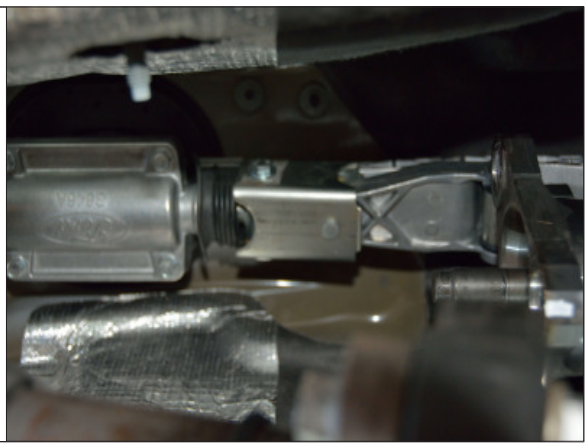
STEP 39. Install the shift linkage to the transmission.

Tools: 13mm Socket, 3/8 " Drive Ratchet



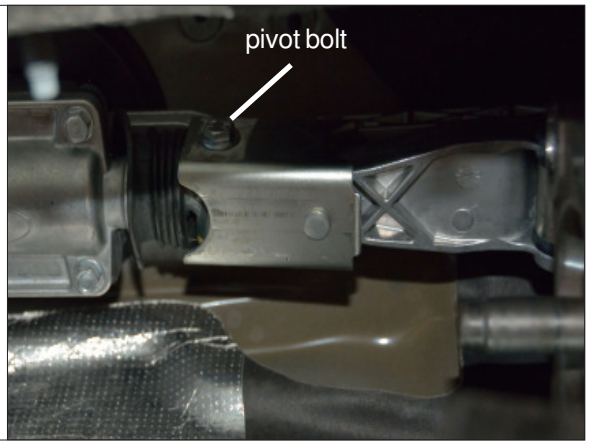
STEP 40. Install the shifter assembly onto the transmission.

Tools: 10mm Wrench, 10mm Ratcheting Wrench



STEP 41. Insert the end of the shift rod into the shift linkage. Add grease to the pivot bolt and slide it through the linkage. Secure it with a washer, and a 1/4-20 screw.

Tools: 3/4” Socket, Ratchet, 7/16” Socket

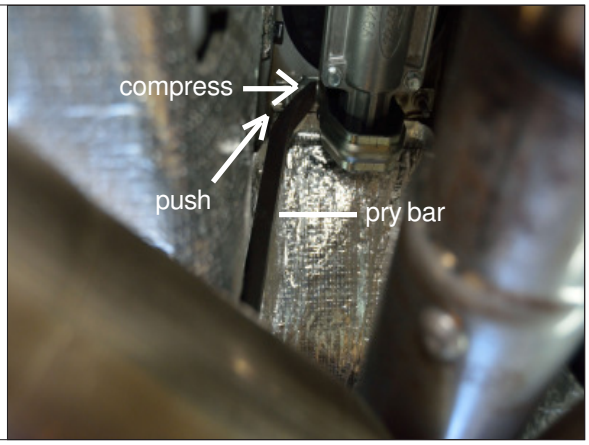


STEP 42. Replace the rear bushing with the polyurethane bushing supplied with the kit. Insert it into the bracket clip. You will need to form the clip bracket around the new bushing to make it easier for install. The holes need to be 4.21 inches apart to be re-installed. It will be improbable that you will get it to hold at 4.21 inches apart, but try to get it close to 4.21 inches as possible. You will rely on a pry bar to compress the assembly during install.

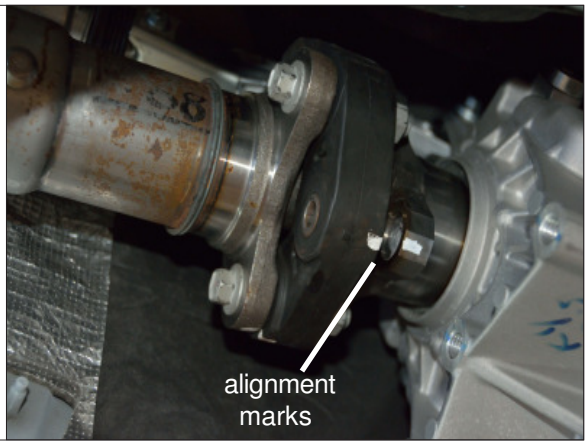
STEP 43. Re-install the rear bushing assembly. Slip the assembly on the housing first. Then insert one end of the clip onto one of the studs.

STEP 44. Use a long pry bar to simultaneously compress and push the other end of the clip onto the other stud. Secure with the 10mm nuts.

Tools: Pry Bar, 10mm Socket, Extension, Ratchet

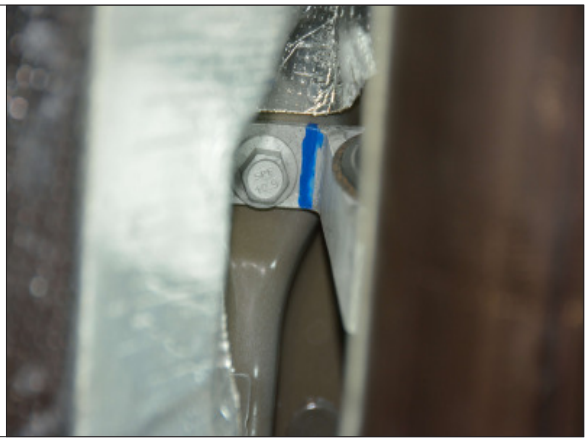


STEP 45. Slip the front end of the driveshaft back into the transmission. Align the Driveshaft Flex Coupling to the transmission flange.



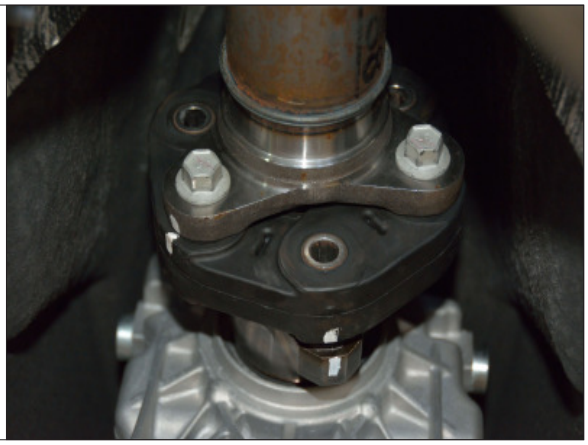
STEP 46. Re-install the bearing support.
Torque bolts to 35 ft. lbs

Tools: 13mm Socket, Extension,
Universal Adapter, Ratchet, Torque Wrench



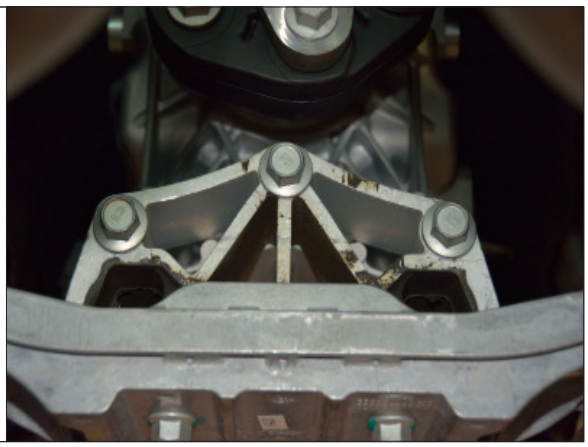
STEP 47. Re-install the front end of the driveshaft.
Do not forget to align the driveshaft flex coupling to the transmission flange prior to inserting the bolts.
Torque bolts to 81 ft.lbs

Tools: 18mm Socket, Ratchet,
Torque Wrench



STEP 48. Re-install the crossmember to the transmission. Torque bolts to 76 ft. lbs

Tools: 15mm Socket, Ratchet,
Torque Wrench



STEP 49. Re-install the crossmember to the frame. Torque bolts to 46 ft.lbs

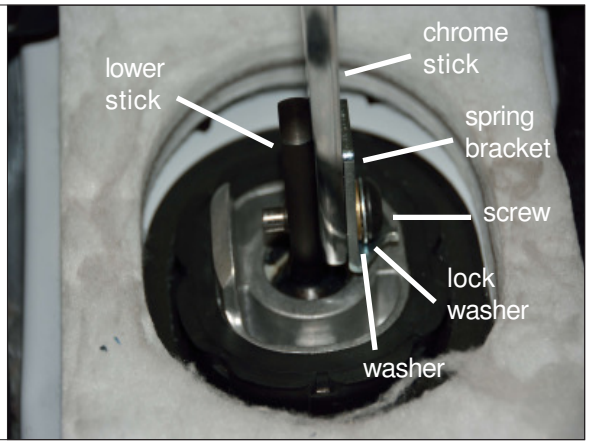
Tools: 18mm Socket, Ratchet, Torque Wrench

STEP 50. Remove the support stand.

STEP 51. Lower the vehicle.

STEP 52. Install the Upper Chrome Stick and Spring Bracket. The 3/8" guide screw will be inserted and installed into the bottom hole of the stick along with a 3/8" lockwasher and a 3/8" washer.

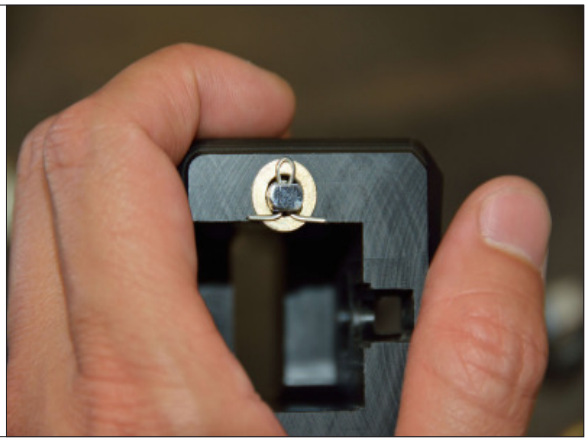
Tool: 7/32" Allen Wrench



STEP 53. Insert the Trigger Rod into the Reverse Lockout Collar.

STEP 54. From the bottom, insert the 1/4" washer over the bottom end of the Trigger Rod. Insert the cotter pin through the hole in the Trigger Rod. Bend each leg of the cotter pin 90 degrees and cut excess material. The photo to the right is a bottom view of the assembly. Please note the orientation of the cotter pin and the approx. length of the legs.

Tools: Needle Nose Pliers, Wire Cutters



STEP 55. Align the Trigger Rod so that the top is perpendicular to the opening in the Reverse Lockout Collar. While maintaining the alignment, pull up on the Trigger Rod so that it is at its highest position within the Reverse Lockout Collar and secure it in position with the set screw. NOTE: Add a drop of loctite to threads of set screw to prevent set screw from backing out.

Tool: 5/64" Allen Wrench

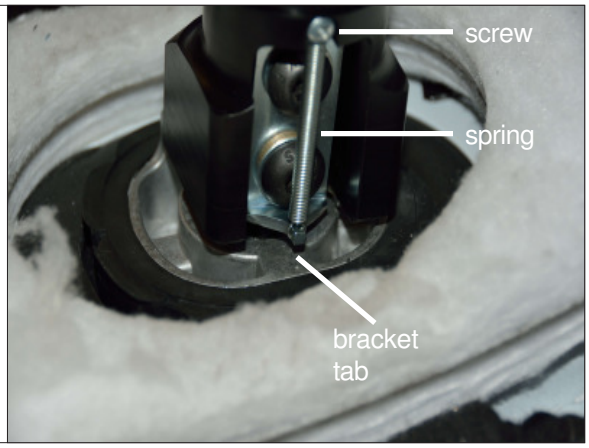
STEP 56. Slip the Reverse Lockout Collar over the sticks. Insert the 3/8" full threaded screw into the top hole of the stick along with a 3/8" lockwasher and tighten screw.

Tool: 7/32" Allen Wrench

STEP 57. Install the extension spring to the Reverse Lockout Collar with the supplied Spring Retaining Screw.

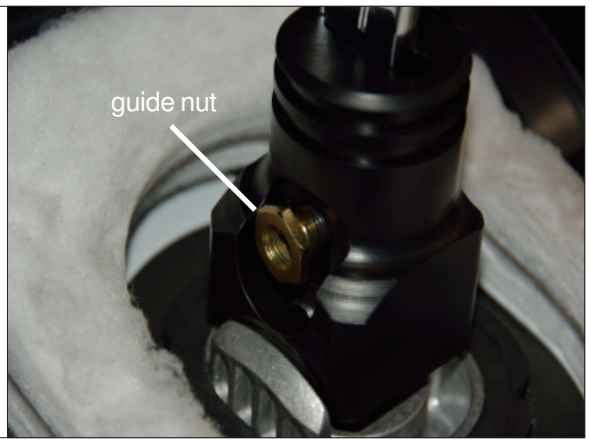
Tool: Philips Screwdriver

STEP 58. Insert the other end of the spring onto the Spring Bracket tab.



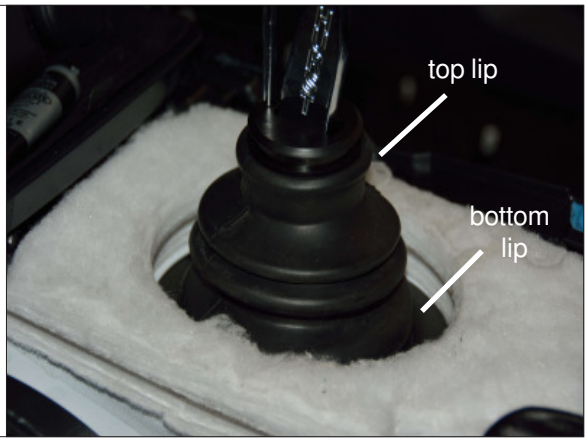
STEP 59. Add a drop of loctite to the internal threads of the guide nut and install onto the end of the upper screw. Test the Reverse Lockout Collar for proper function. Pull up on the trigger rod and release. The collar should spring back to its lowered position.

Tools: 5/8" Socket, Ratchet



STEP 60. To prevent premature wear to Reverse Lockout Collar, apply grease to the shifter reverse block and lock-out collar where the two will contact during shifts to 1st and/or 2nd gear.

STEP 61. Install the rubber boot over shifter assembly. The top lip should go over the bottom groove of the Reverse Lockout Collar. The bottom lip should seal around the base of the shifter casting.

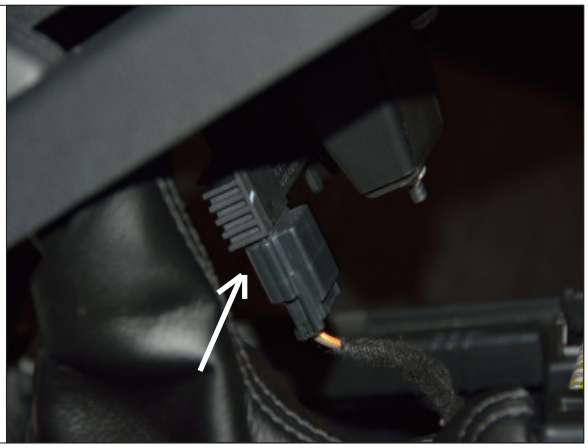


STEP 62. Unsnap the shift boot bezel from the console. Lift from the top to release the top clips and then use the pry tool to un-clip the rest.

Tool: Plastic Trim Remover Tool

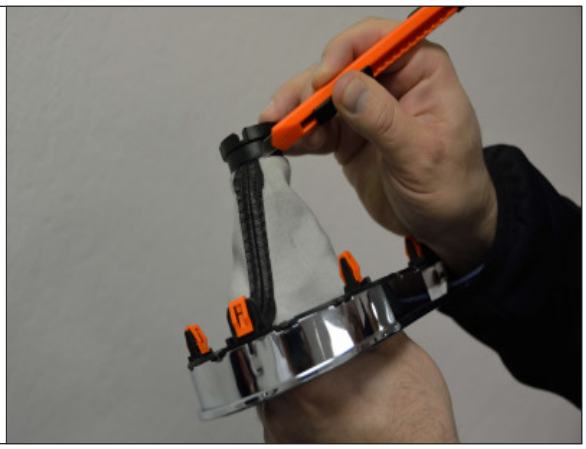
STEP 63. Re-install the console.

NOTE: Do not forget to re-connect the harness. The vehicle will not start if the harness is not re-connected.



STEP 64. The factory shift boot must be modified to fit the Hurst Shifter. The collar must be removed from the boot by carefully trimming the shift boot away from the collar.

Tool: Craft Knife

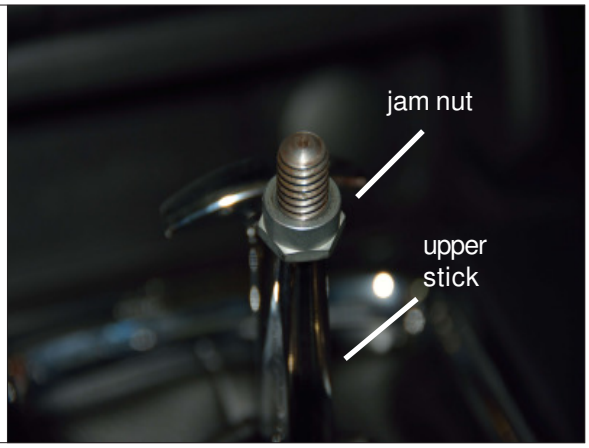


STEP 65. Install the shift boot over the shifter and secure the shift boot as shown in the picture to the right with the supplied tie wrap. Cut excess material from tie wrap.

Tool: Side cutters

STEP 66. Snap the shift boot bezel into the console.

STEP 67. Screw the jam nut down onto the upper stick threads.



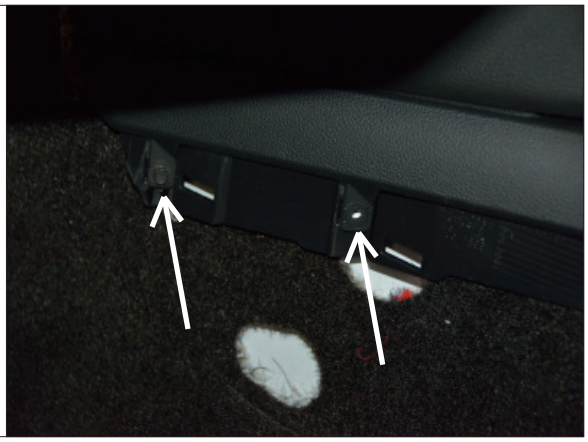
STEP 68. Install the shift knob onto the stick. Align the logo on the shift knob accordingly and tighten the jam nut up against the knob. A few drops of Loctite will help prevent the knob from loosening.

CAUTION! : Over tightening the knob down onto the stick will eventually cause the knob to crack. ALLOW LOCTITE TO DRY.

Tool: 9/16" Wrench

STEP 69. Re-install the two (2) screws on both sides of the console.

Tool: 7mm Socket, Extension, Ratchet



STEP 70. Re-install the front driver side and passenger side panels from the center console.

STEP 71. Start the engine. Go through all the gears several times to confirm the shifter has been installed correctly. Ensure that each gear can be engaged smoothly and fully. Correct any problems before operating vehicle. Enjoy!

Technical Service

A highly trained technical service department is maintained by Hurst Performance to answer your technical questions, provide additional product information and offer various recommendations.
Hurst offers a wide variety of custom T-Handles and knobs that can be used with this shifter to allow the driver to tailor the vehicle to his/hers personal liking. See your local retailer of Hurst products for specific prices.

Technical service calls, correspondence, and warranty questions should be directed to the following address:

Hurst Performance
Phone: (707) 544-4761
Monday - Friday 6:00 AM to 5:00 PM PST
Saturday 7:30 AM to 5:00 PM PST
www.hurst-shifters.com