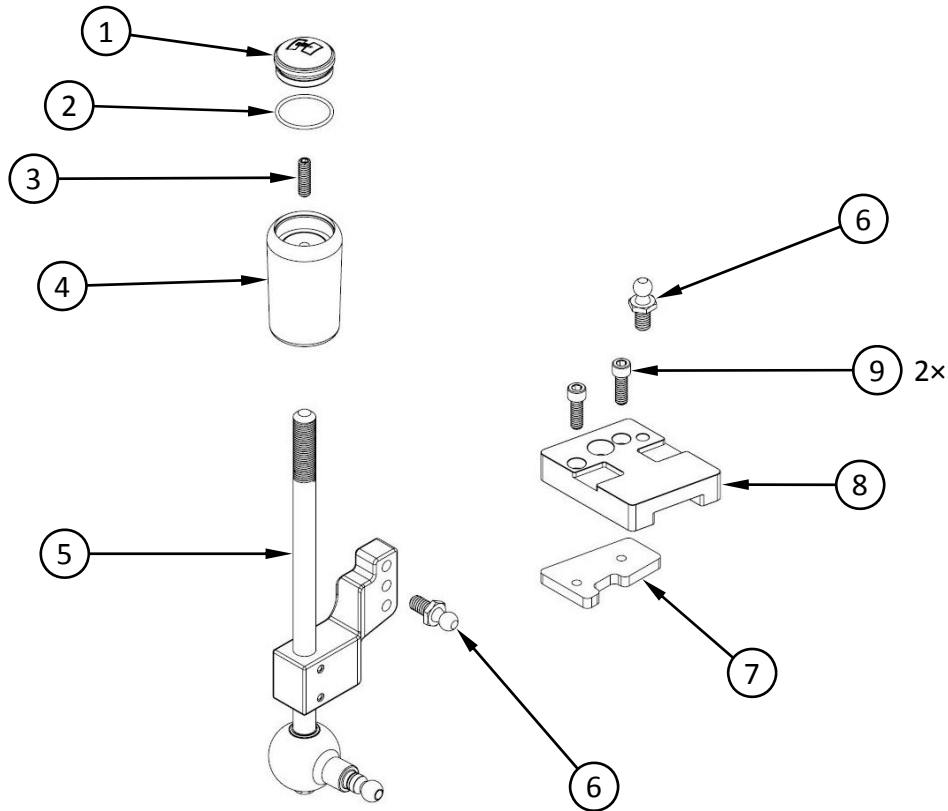




Installation Instructions for
3916046
BILLET/PLUS® SHORT-THROW SHIFTER
 for 2016–2018 FORD FOCUS RS



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	1360021	CAP, KNOB, W / HURST EMBLEM	1
2	4100517	O-RING, -.021 N70 0.938" ID x .063" T	1
3	3401596	SET SCREW, CUP POINT, 1/4-20 x 7/8"	1
4	1638907	KNOB, CYLINDRICAL, BLACK POLYCARBONATE, 12MM-1.25	1
5	N/A (SHIPS ASSEMBLED)	SHIFT LEVER ASSEMBLY	1
N/A	4101375	• SHIFT LEVER, FORD FOCUS RS	1
	4101366	• CONNECTION BLOCK, FORD FOCUS	1
	3401573	• SPRING PIN, 3/16"D x 7/8"L	2
	3401577	• RETAINING RING, 15/32" OD	1
	4101365	• PIVOT BALL, FORD FOCUS	1
	3401597	• WASHER, EXTERNAL LOCK 5/16"	1
	3401575	• SCREW, BUTTON HEAD, 5/16-18 x 3/8"	1
	3401224	• SET SCREW, POINT, M6 x 1.0 x 6MM	2
6	3401574	BALL STUD, 10MM DIA, 5/16" THREAD	2
7	4101368	RETAINER, SHIFT PLATE, FORD FOCUS	1
8	4101367	SHIFT PLATE, FORD FOCUS	1
9	3401576	SCREW, ALLEN HEAD, 1/4-20 x 3/4"	2

REQUIRED SUPPLIES

- White lithium grease (may be required after using grease from stock mechanism)
- Medium strength thread-locking fluid (Permatex Blue or equivalent)

REVIEW THE INSTRUCTIONS AND VERIFY THE KIT CONTENTS

1. Take a moment to read and understand these instructions before installing your Hurst Billet/Plus® shifter.

NOTES

- **Installation of this kit requires permanent modification of some stock parts.**
 - **If you are unsure whether or not you can install this kit yourself, seek the assistance of a qualified technician.**
2. Use the parts drawing and list (front page) to verify your kit's contents. In the unlikely event that any parts are missing, please contact Hurst Technical Support for replacements.

NOTE: We highly recommend that you retain all factory parts.

REMOVE THE AIRBOX

CAUTION

WORK SAFELY! SET THE PARKING BRAKE TO PREVENT THE VEHICLE FROM ROLLING DURING MANIPULATION OF THE GEARSHIFT.

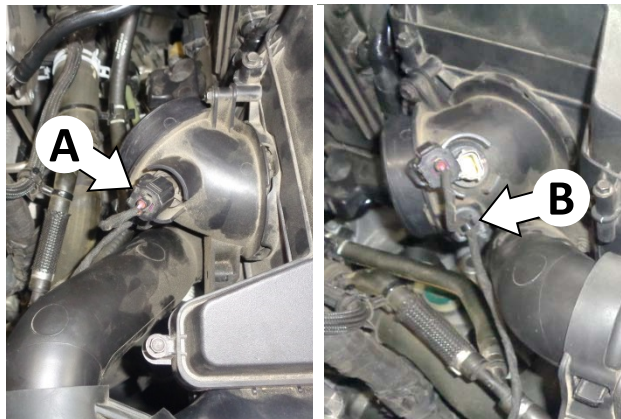
NOTES

- Please refer to vehicle manufacturer's recommendations regarding removal of factory components.
- Disconnecting the negative battery cable erases pre-programmed electronic memories. Write down all memory settings before disconnecting the negative battery cable. Some radios will require an anti-theft code to be entered after the battery is reconnected. The anti-theft code is typically supplied with your owner's manual. In the event your vehicle's anti-theft code cannot be recovered, contact an authorized dealership to obtain your vehicle's anti-theft code.

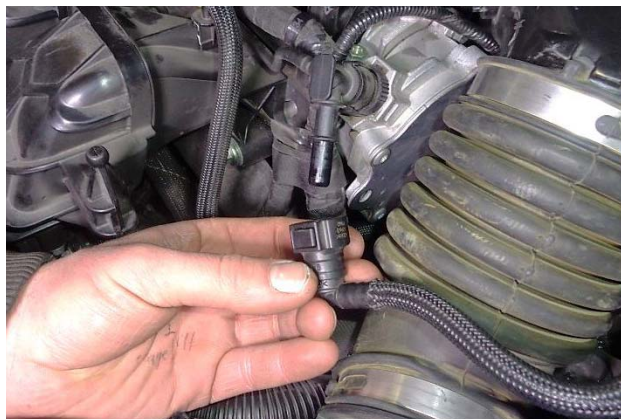
3. Turn off the vehicle's ignition and disconnect the negative battery cable. **Failure to disconnect the battery may cause the CHECK ENGINE light to illuminate after the shifter kit is installed (due to removal of air temperature sensor plug).**



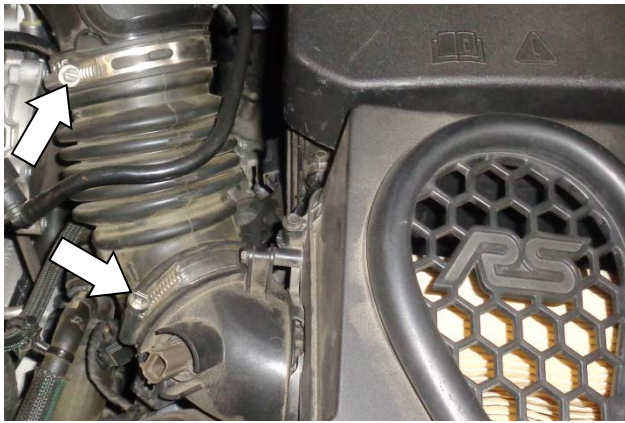
4. Remove the engine appearance cover from the vehicle.



5. Disconnect the air temperature sensor plug by depressing the locking tab (A) and pulling it straight off the sensor. Then disconnect the wire loom (B) from the airbox.



6. Disconnect the front breather hose from the fitting.



7. Loosen the screw clamp at each end of the flexible duct, then remove the flex duct from the vehicle.



8. Release the two overlapping tabs to release the inlet air duct from the airbox.



9. Pull straight up on the airbox to release its mount pins from their grommets, then remove it from the vehicle.

REMOVE THE STOCK SHIFTER



10. Remove the stock shift knob by turning it counter-clockwise.



11. Carefully grasp the boot ring through the leather and lift it straight up to release the boot from the console.



12. Lift the assembled boot and reverse lockout sleeve off of the shift lever.



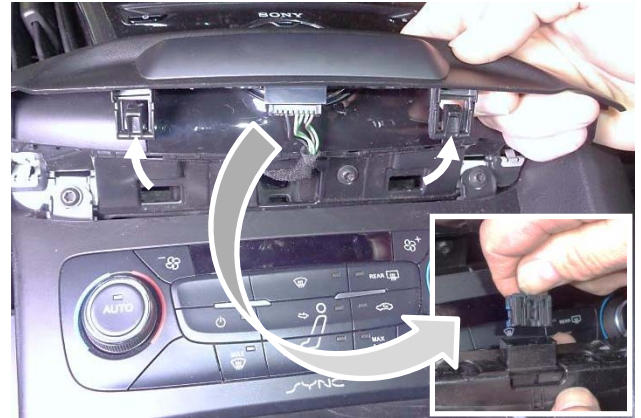
13. Open the glove box, then use a trim removal tool to remove the small console side panel just below the passenger-side dash board. (You may close the glove box after removing the panel.)



16. Tilt the bezel downward, and locate the two clips toward the rear. With a small, flat-tip screwdriver, release each clip to further separate the bezel from the panel.



14. Use a trim tool to remove the trim that wraps around 3/4 of the shift console. Note that there are 2 spring clips on the left, and 1 spring clip on the right.



17. Tilt the bezel upward, disconnect the electrical plug on the back, and remove the bezel from the vehicle.



15. Use a trim tool to start separating the bezel from the center panel.



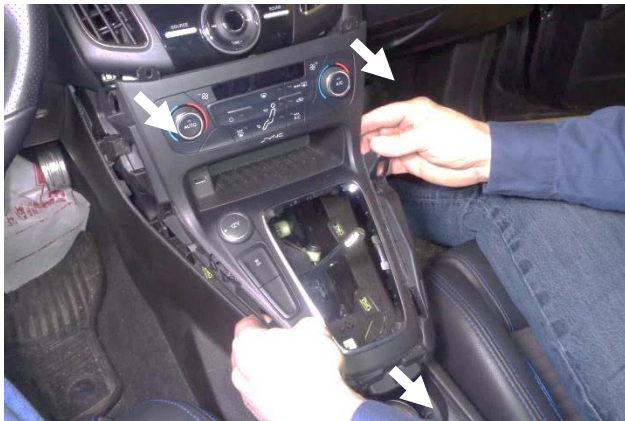
18. Remove the 3 power panel screws.



19. Lift the bottom of the panel up just far enough to release it from its 4 clips.



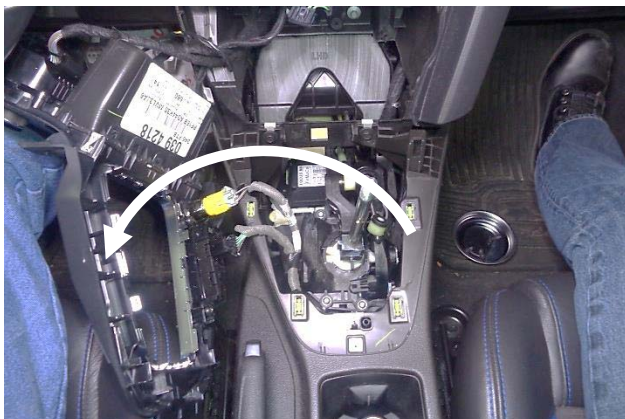
22. Disconnect the yellow (12V) and black (traction control) connectors.



20. Pull the panel rearward to clear the center dashboard.



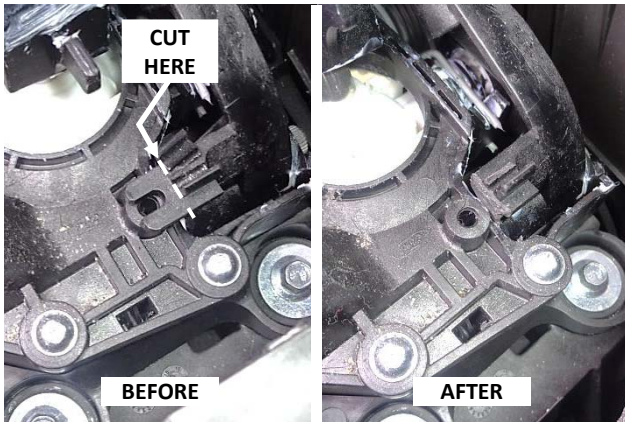
23. Disconnect the blue (AUTO) and black (AC) connectors, and remove the power panel from the vehicle.



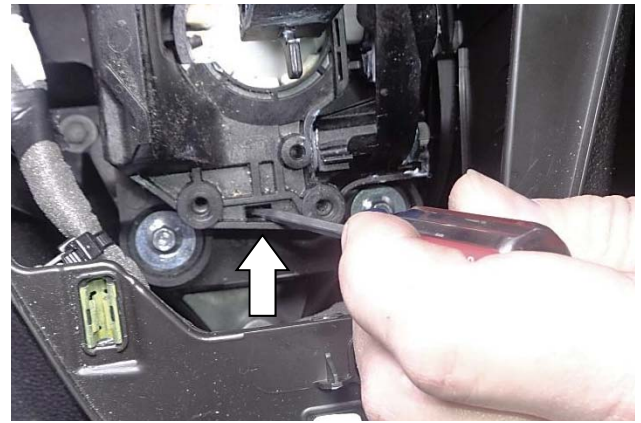
21. Carefully flip the panel toward the left, taking care not to strain the 4 electrical connectors.



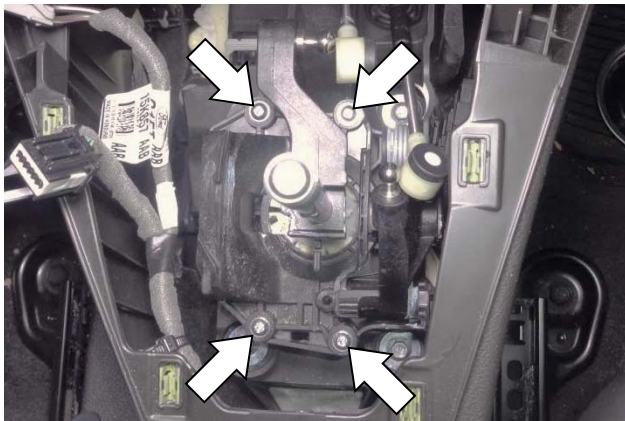
24. Carefully pry the 2 shifter cable ends off of their ball studs.



25. With a utility knife or diagonal-cutting pliers, cut the two lobes off the alignment notch as shown.



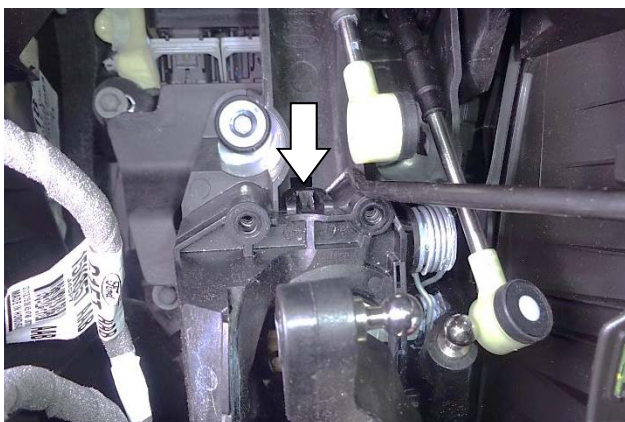
28. With small, flat-tip screwdriver, release the clip at the rear of the shifter assembly.



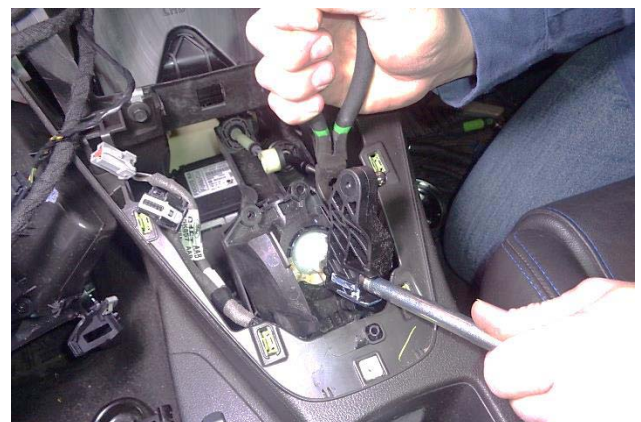
26. Remove the 4 shifter housing screws.



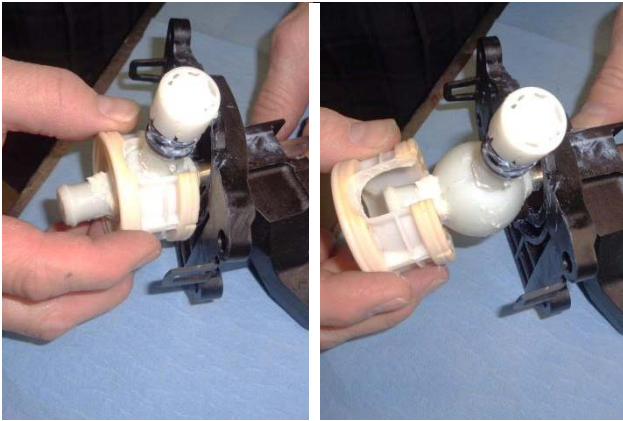
29. Use pliers to lift the top leg of the centering spring up off the rubber grommet on the side shaft.



27. With a cotter key extractor or bent pick, release the clip at the front of the shifter assembly.



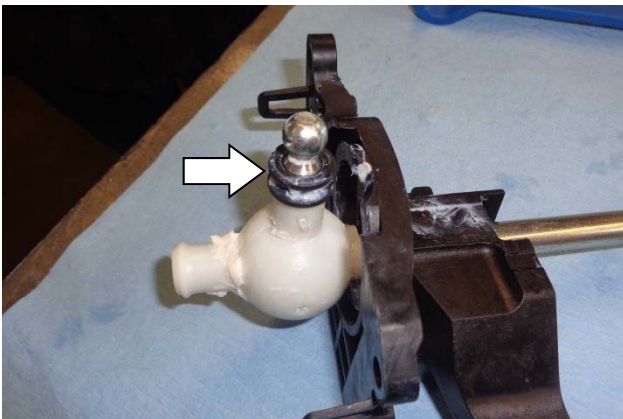
30. While holding the spring open, remove the shift lever and shifter top housing from the bottom housing.



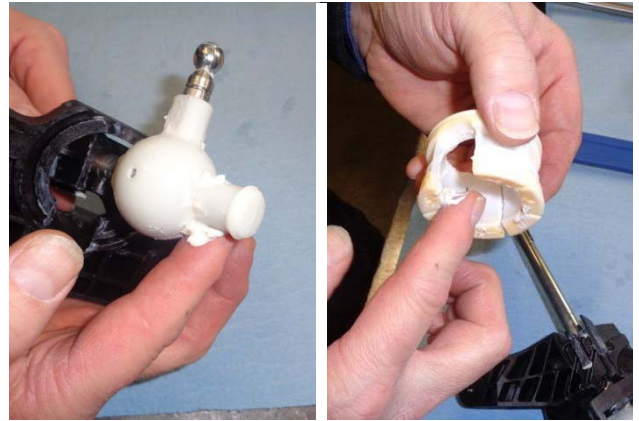
31. Pull the main pivot cup off of the main pivot ball.



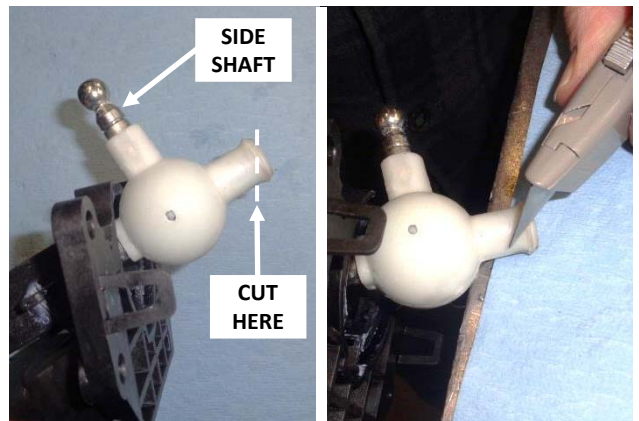
32. Pull the side pivot cup off of the side pivot ball.



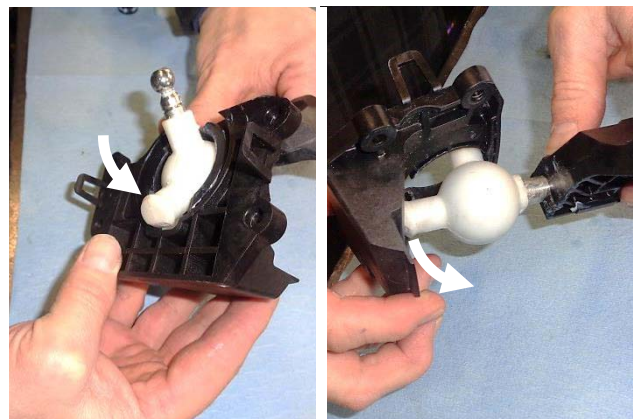
33. Pull the rubber grommet off of the side shaft.



34. Temporarily transfer any grease from the main and side pivot balls into the main pivot cup (to be used later).

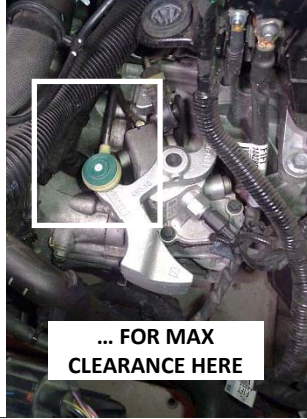
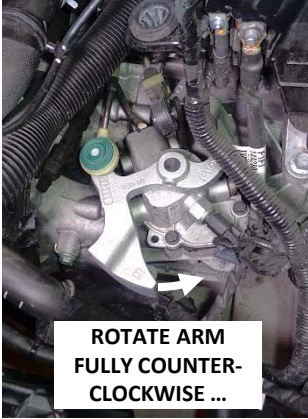


35. Use a utility knife or hacksaw to cut a wedge off the bottom of the shift lever. Cut the wedge from the edge opposite the side shaft.



36. Align the trimmed edge of the shift lever with the notch in the top housing, and remove the lever from the housing.

INSTALL YOUR HURST BILLET/PLUS® SHORT-THROW SHIFTER



37. On top of the transmission, grasp the shifter arm and rotate it fully counter-clockwise to ensure adequate clearance above the cable end.



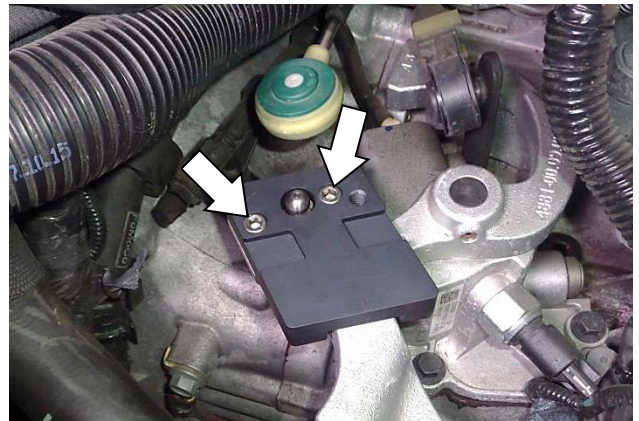
38. Carefully pry the top cable end off of its ball stud.



39. Apply medium strength thread-locking fluid to the two 1/4-20 Allen screws (item 9).



40. Situate the retainer (7) and shift plate (8) on the shifter arm as shown.



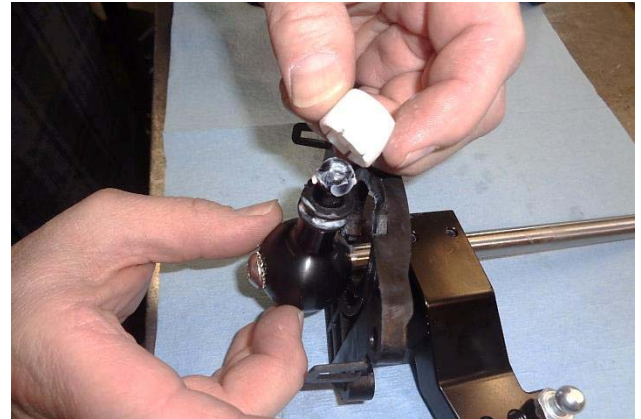
41. Secure the shift plate and retainer to the shifter arm using the 2 Allen screws. Tighten the screws evenly by alternating between them.



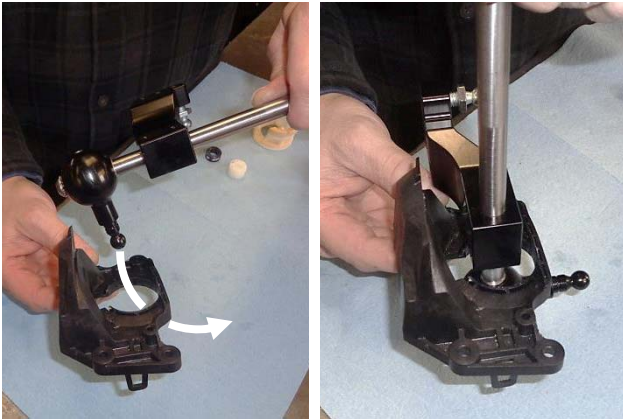
42. Apply medium strength thread-locking fluid to one of the ball studs (6) and install it in the shift plate.



43. Snap the cable end onto the ball stud.



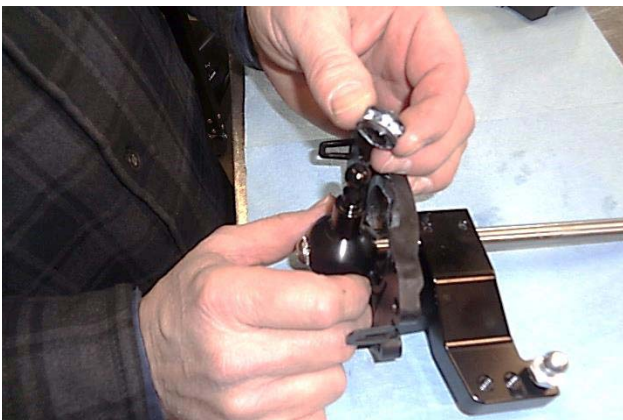
46. Apply grease to side pivot ball, then snap the side pivot cup onto the ball. **NOTE: Where grease is required during assembly, first use the grease that was transferred to the main pivot cup at Step 34. Then use new white lithium grease, if required.**



44. Insert the shift lever assembly (5) through the shifter top housing as shown.



47. Apply grease to main pivot ball, then snap the main pivot cup onto the ball.



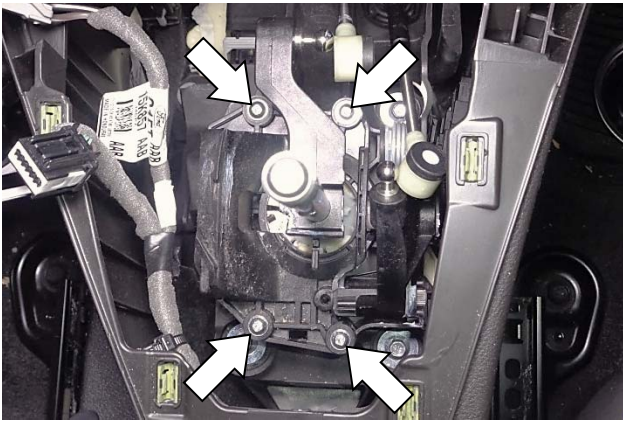
45. Push the centering spring grommet onto the side shaft.



48. Use pliers to lift the top leg of the centering spring far enough to allow insertion of the side shaft into the side pivot arm.

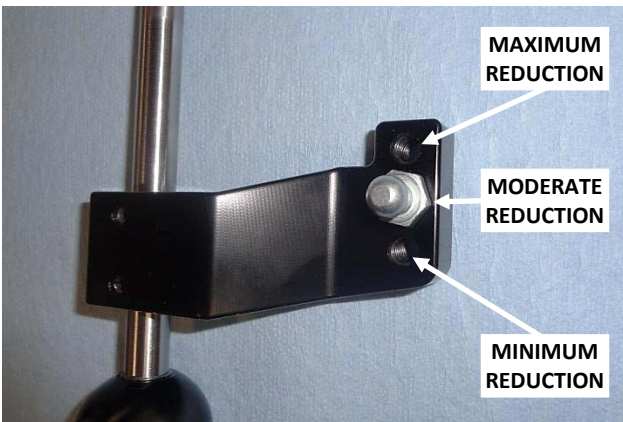


49. While holding the spring open, install the shift lever by inserting the pivot cups into their respective openings. Then gently release the spring end into the groove on the grommet, and move the shifter top housing into place on the bottom housing.

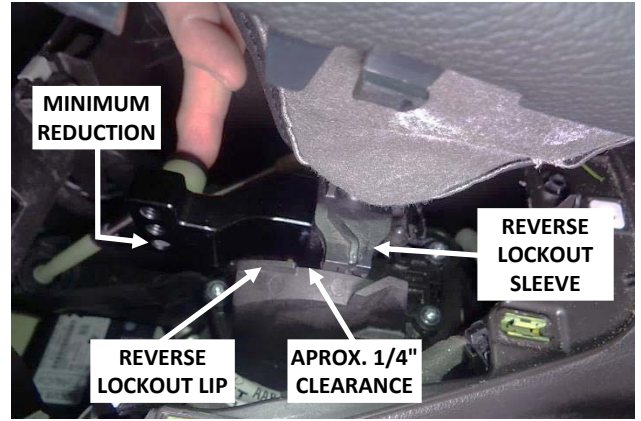


50. Install and tighten the 4 shifter housing screws.

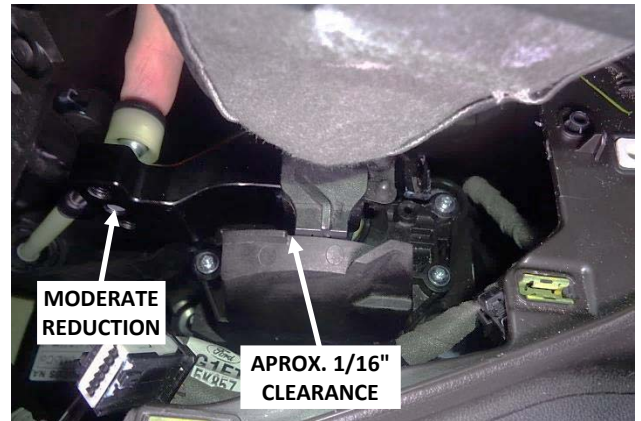
51. Use the following information to help choose your desired amount of shift-throw reduction.



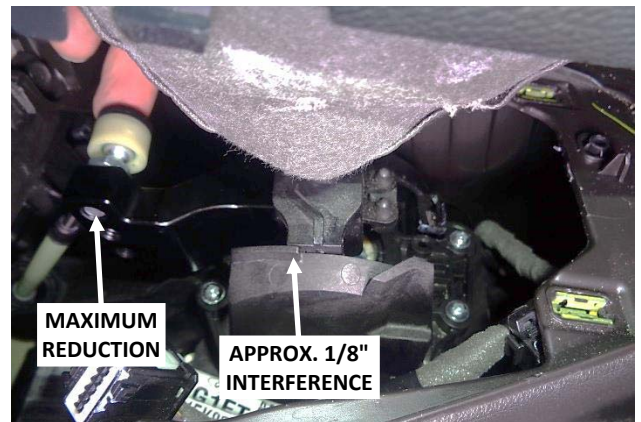
A. The amount of shift-throw reduction is determined by placement of the ball stud in the connection block.



B. With the ball stud in the bottom hole, no modification of the reverse lockout lip is required.



C. With the ball stud in the middle hole, no modification of the reverse lockout lip is required.



D. With the ball stud in the top hole, approximately 1/8"–3/16" of the reverse lockout lip must be removed.



E. The interfering section of the lockout lip can be removed with a utility knife, diagonal-cutting pliers, or similar cutting tool.



F. **CAUTION:** If maximum shift-throw reduction is chosen, do not remove too much of the lockout lip. Remove only the amount necessary to permit the lockout sleeve to engage the lip smoothly, with no interference.

NOTE: If you are unsure how much shift-throw reduction you would like, start with moderate reduction (ball stud in the middle hole). Then check the actual shift throw “feel” before completing the installation, and adjust if desired. (Also, shift-throw may be adjusted at any time after installation by referring back to these instructions.)



52. Apply medium strength thread-locking fluid to the second ball stud (6) and install it in the desired hole in the connection block.

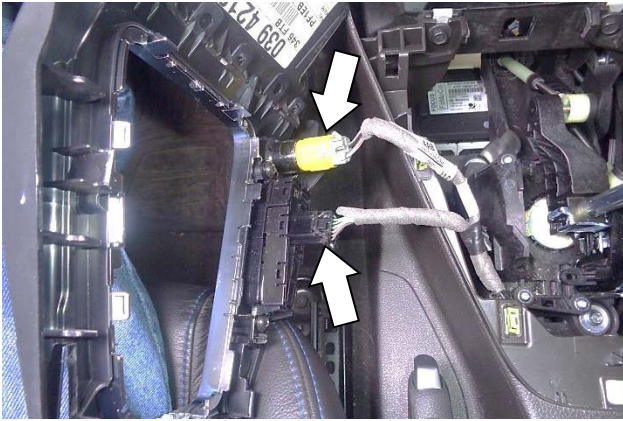


53. Snap the 2 cable ends on to their ball studs.

54. If the ball stud has been installed in the top hole for maximum shift-throw reduction (per Step 51.D), use the shift boot and reverse lockout sleeve as a guide to modify the reverse lockout lip as shown in Steps 51.E and F.



55. Reconnect the blue (AUTO) and black (AC) connectors to the power panel.



56. Reconnect the yellow (12V) and black (traction control) connectors.



59. Install the power panel with a “forward-then-down” motion (the reverse of Steps 20 and 19). First move the panel forward, inserting its alignment tabs in their slots in the center dash. Then push it downward, snapping it into the 4 clips in the center console.



57. Carefully flip the power panel back over the center console.



60. Install and tighten the 3 power panel screws.



58. Ensure that the center panel bezel plug is exposed and accessible before reinstalling the power panel.



61. Reconnect the center panel bezel plug. Then line up the 4 clips on the bezel with their slots on the panel and reinstall the bezel.



62. Reinstall the shift console trim, taking care to engage the 2 clips on the left, and the 1 clip on the right.



63. Open the glove box, reinstall the console side panel, then close the glove box.



64. Slip the assembled boot and reverse lockout sleeve onto the shift lever.

- To install the Hurst shift knob, continue with Step 65 below.
- To reinstall the stock shift knob, go to Step 73.



65. Move the shift lever into REVERSE gear.



66. Install the set screw (3) in the shift knob (4), leaving 2-3 threads exposed.



67. Apply medium strength thread-locking fluid to the first 4 or 5 threads on the shifter lever. **CAUTION: Do not get thread-locking fluid on the reverse lockout return spring.**



68. Thread the knob onto the lever. When it begins to drag against the reverse lockout collar, back it off approximately 1-1/2 turns.



71. Snap the boot into the center console.



69. Firmly grasp the knob and tighten the set screw.



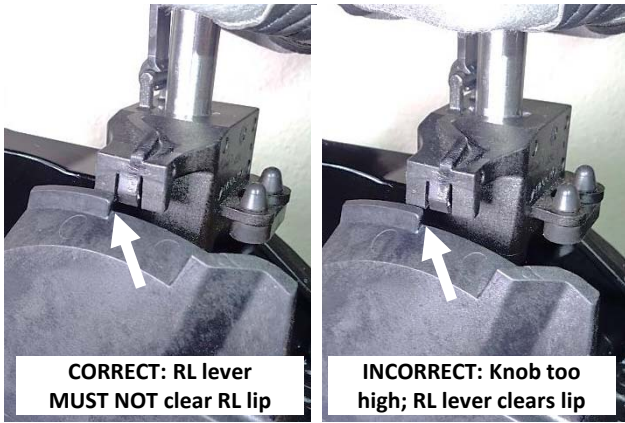
72. Lightly grease the O-ring (2) and install it on the cap (1). Then align the logo as desired and press the cap into the knob. **Go to Step 76.**



70. Move the shift lever into and out of REVERSE to verify correct operation of the reverse lockout. The reverse lockout lever should lift just high enough to clear the lockout notch on the shifter housing without touching. Adjust the height of the shift knob if required.



73. **TO USE STOCK SHIFT KNOB:** Thread the knob onto the lever. **NOTE: The knob's threads are tapered, so more turning force is required the further it is installed.**



CORRECT: RL lever MUST NOT clear RL lip

INCORRECT: Knob too high; RL lever clears lip

74. The knob is installed to the correct depth when the reverse lockout lever can clear the lockout notch, but not the reverse lockout lip. **CAUTION: If the reverse lockout lever is able to clear the reverse lockout lip, transmission damage can occur.**



75. After verifying correct operation of the reverse lockout mechanism, snap the boot into the center console. **Continue with Step 76 below.**

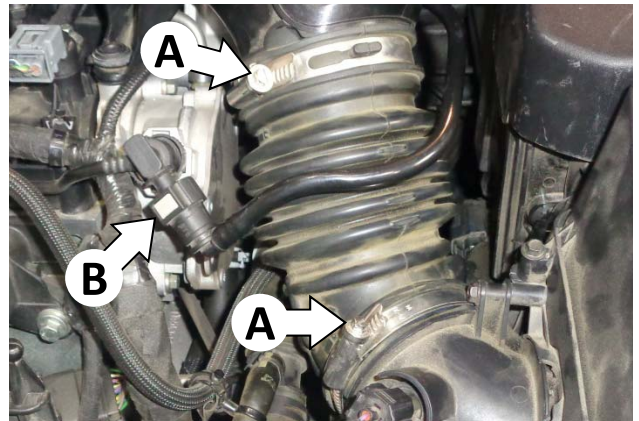
REASSEMBLE THE AIR INTAKE SYSTEM



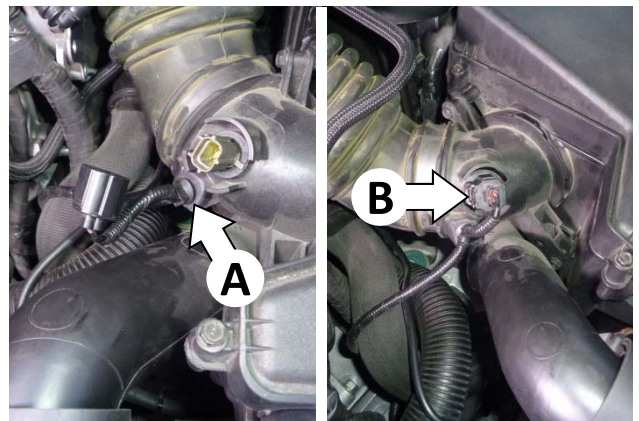
76. Install the airbox.



77. Close the two overlapping rubber tabs that secure the airbox to the inlet air duct.



78. Install the flexible duct and tighten the screw clamps (A). Then connect the breather hose to its fitting (B).



79. Secure the wire loom clamp (A) to the airbox. Then connect the air temperature sensor plug (B).



80. Install the engine appearance cover.



Congratulations, the installation of your Hurst Billet/Plus® Shifter is now complete!

IMPORTANT: RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

Hurst Technical Service: (707) 544-4761

Hurst Shifters maintains a highly-trained technical service department to answer your technical questions, provide additional product information and offer various recommendations.

Direct all correspondence and warranty questions to:

Hurst Shifters
100 Stony Point Rd.
Suite 125
Santa Rosa, CA 95401

