



Installation Instructions

HURST BILLET PLUS® SHIFTER

2010-2015 Chevrolet Camaro w/ 3.6L V6 engine

HURST # 3916029

WORK SAFELY! For maximum safety, perform this installation on a clean, level surface and with the engine turned off. Place blocks or wedges in front of and behind both rear wheels to prevent movement in either direction.

CAUTION: To avoid any possibility of bodily injury or damage to vehicle, do not attempt installation until you are confident that the vehicle is safely secured and will not move.

PARTS



Knob



Shifter



Boot Support



Hurst Stick



Stick Mounting Washers (2)



OEM Camaro Stick



Shifter Mounting Screws (2)



Grease



**Shift Knob Screw
(2014 Camaro)**



Knob Nut



Stick Mounting Screws



Tie Wrap



Thread Adhesive

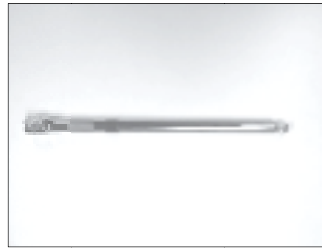
TOOLS



Trim Tool



7mm, 10mm, 15mm Socket



Long Extension(s)



4mm Hex Drive



Torque Wrench



Ratchet



9/16" Wrench



Jack Stands



Phillips Screwdriver



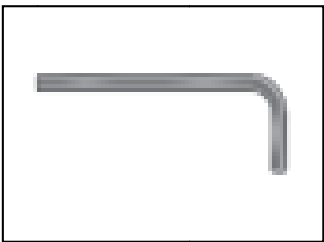
Large Flat Blade
Screwdriver(x2)



Floor Jack



T-25 Torx Socket



7/32" Hex Wrench

Disassembly

STEP 1. Carefully unsnap the center console trim/gauge cluster (if so equipped) cover from center console.

TOOL: Trim Tool



STEP 2. Place the center console trim/gauge cluster (if so equipped) cover off to the side of the center console.

NOTE: The wiring to this cover may be disconnected for better accessibility, however it is not necessary in most cases.



STEP 3. Unscrew the shift boot ring from center console.

TOOL: Phillips Screwdriver

2014 CAMARO TOOL: 7mm Socket, Extension, Ratchet



STEP 4. FOR 2010-2013: Remove shift knob and boot assembly by sharply pulling straight up. Also a slight twisting (side-to-side) motion may aid in the removal process.

NOTE: In some instances the shift knob may be too firmly attached. In these cases a set of large screwdrivers can be used to carefully pry the knob free from underneath the leather boot.

TOOL: Large Flat Blade Screwdriver



STEP 4 (CONTINUED). FOR 2014-2015:

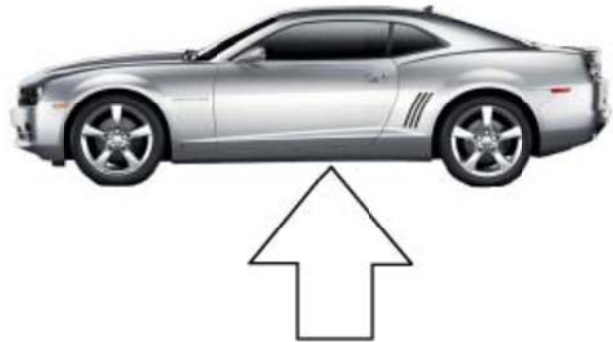
Lift collar up and rotate counter-clockwise to detach boot from shift knob. Once the shift boot is detached from the shift knob, lower the boot to gain access to the torx screw on side of shift knob. Remove torx screw. After screw has been removed, the shift knob can be removed by lifting straight up .

TOOL: T-25 Torx Drive



STEP 5. Carefully raise car for under vehicle access.

TOOLS: Floor Jack & Jack Stands



STEP 6. Evenly loosen the main rear transmission cross member bolts (4) being careful not to fully remove them. This should allow the transmission and drive shaft to move down slightly (1/2"-1") for better access and stock shifter removal.

TOOLS: Ratchet, Long Extension(s), & 15mm Socket

NOTE: In some instances disassembly and installation may be easier if the drive shaft is disconnected, however it is not absolutely necessary. Refer to your vehicles service manual.

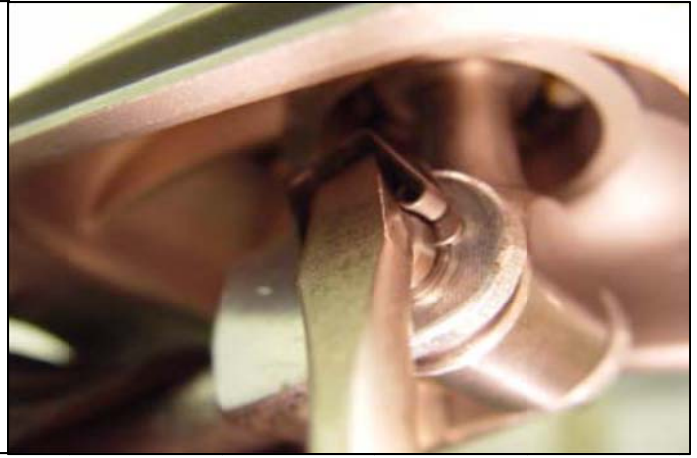


STEP 7. Pull forward the lower dust boot at the bottom of the shifter assembly casting just above the driveshaft/transmission tail housing to expose the lower shifter change rod connection.



STEP 8. Remove the connection pin clips on both sides of the lower shifter lever and pin connection being careful not to damage them as they will be re-used.

TOOL: Flat Blade Screwdriver.



STEP 9. Push out the cross pin and disconnect the change rod from the shifter allowing it to hang out of the way.



STEP 10. Unscrew the two (2) mounting screws holding the mounting plate and shift lever into the shifter assembly casting.

TOOLS: Ratchet, Long Extension and 10mm Socket



STEP 11. Remove mounting plate and pull shift lever firmly downward to disengage it from the shifter assembly casting. Work the shift lever down past the drive shaft on the driver's side of the vehicle and remove. It will be necessary to work the centering springs free from the shifter from inside the vehicle either by flexing them free from the shift lever or by removing them entirely to allow shift lever removal.



Assembly

STEP 12. Grease the O-rings on the aluminum Hurst shifter pivot housing.

NOTE: DO NOT grease the main pivot Teflon® lined spherical bearing and DO NOT grease the lower white Teflon® bushings. All bearing surfaces have been specifically designed for smooth maintenance free operation without the use of outside lubrication that will only attract dust and dirt which will limit performance.



STEP 13. Push the Hurst Shifter up into the main center hole of the cast aluminum shifter assembly, aligning the mounting holes with the thread screw holes in the bottom.

NOTE: The original centering springs can be permanently removed for use with the Hurst Shifter or they can be repositioned and reused on the Hurst Shifter depending on the driver's preference



STEP 14. Place a drop of thread adhesive onto the threads of each (2) of the counter-sunk mounting screws.



STEP 15. Tighten the mounting screws into the cast shifter assembly to 3.0-4.5 ft-lbs. (4-6 N-m) to secure the Hurst Shifter.

TOOLS: Torque Wrench, Long Extension, 4mm Hex Drive Socket



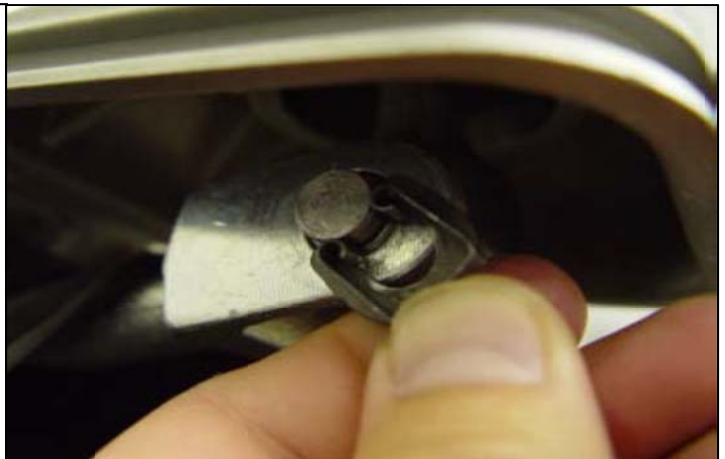
STEP 16. Ensure that the Hurst Shifter is positioned correctly with the longer stepped side of the lower bushings towards the driver and the ridges of the upper stick connection holes facing the passenger side.



STEP 17. Push the change rod up to the lower bushings in the Hurst Shifter and slide the cross pin through the change rod and the bushings in the Hurst Shifter to connect the linkage.



STEP 18. Secure the cross pin with the locking clips (2) on both sides of the pin and change rod end.



STEP 19. Reposition the lower dust boot onto the shifter assembly casting.



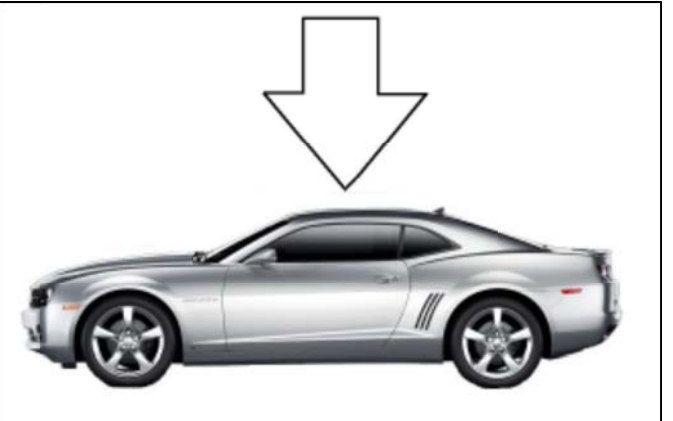
STEP 20. Evenly re-tighten the bolts to the transmission cross member to 43 ft.lbs. (58 N-m).

NOTE: If the driveshaft was removed, reattach and torque connecting bolts to 85 ft-lbs. (115 N-m).

TOOLS: Torque Wrench, Long Extension, 15mm Socket



STEP 21. Carefully lower vehicle.



STEP 22. From inside the vehicle push one of the supplied boot supports onto the Hurst Shifter stub stick. Then work the rubber boot into the groove of the boot support.

NOTE: Make sure that the boot support and rubber boot is pushed down far enough to allow for upper stick attachment.



STEP 23. OEM Upper Stick/Knob Attachment (only): Place the supplied stick mounting washers onto the threads of the stick mounting screws and attach the Camaro OEM Stick.

TOOL: 7/32" Hex Wrench



STEP 24. OEM Upper Stick/Knob Attachment (only):

Push the knob/boot assembly onto Camaro OEM Upper Stick, making sure it securely snaps into place and does not twist on the shaft.

FOR 2014 CAMARO: Secure shift knob to stick with Shift Knob Screw (included).

2014 CAMARO TOOL: 4mm Allen Drive



STEP 25. Hurst Chrome Upper Stick/White Knob Attachment (only):

Push the supplied boot support onto the chrome Hurst stick just below the "Hurst" lettering.



STEP 26. Hurst Chrome Upper Stick/White Knob Attachment (only):

Place the supplied stick mounting washers onto the threads of the stick mounting screws and attach the Hurst Stick ensuring the ridges of upper and lower sticks mesh properly.

TOOL: 7/32" Hex Wrench



STEP 27. Hurst Chrome Upper Stick/White Knob Attachment (only):

Trim the tie wrap that holds the original leather shift boot to the boot ring and remove leather boot.

TOOL: Cutting Pliers



STEP 28. Hurst Chrome Upper Stick/White Knob Attachment (only):

Turn the leather boot inside-out and attach it to the boot support on the Hurst Stick with the supplied tie wrap. Trim away the excess “tail” of the tie wrap as necessary.

TOOL: Cutting Pliers



STEP 29. Screw in the leather shift boot ring into the center console.

TOOL: Phillips Screwdriver

2014 CAMARO TOOL: 7mm Socket, Extension, Ratchet



STEP 30. Reconnect any of the center console connections that may have been disconnected from the center console trim piece.



STEP 31. Reinstall the center console trim piece by carefully snapping into place.



STEP 32. Hurst Chrome Upper Stick/White Knob Attachment (only):

Install the supplied jam nut all the way down onto the threads of the Hurst Stick. Then screw on the Hurst Knob aligning the gear pattern. While holding the knob in position tighten the jam nut against the knob to hold in position.

TOOL: 9/16" Wrench



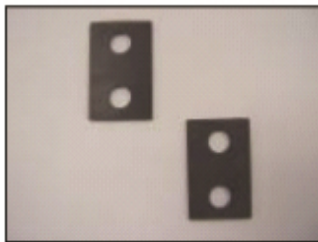
STEP 33. Before operating the vehicle, test the shifter through all gears making sure that each gear including reverse and be engaged fully and smoothly without rough movement or binding. Also, ensure that the shifter fully and smoothly self-centers in the neutral position and does not hang in the reverse, 1st-2nd gear, or 5th-6th gear plane. Correct any problems before operating the vehicle.



NOTE:

We have encountered concerns from customers regarding an increase in audible noise as a result of operating harmonics and vibration that is directly transmitted through the shift linkage following the installation of the shifter. The following components can be installed to reduce this noise/vibration, however, are not intended to mask internal problems of the transmission, clutch (and related clutch components), or engine components that may have been modified. Each individual vehicle is different any may have different harmonics that change with varying vehicle, driving, wear, and atmospheric conditions. Thus, the suggestions that follow may work better in some vehicles than others and may not completely eliminate vibration noise to certain customers' satisfaction. A fair amount of experimentation and testing may be required to reduce audible vibration noise to acceptable levels.

PARTS



Dynamat® Square (2)



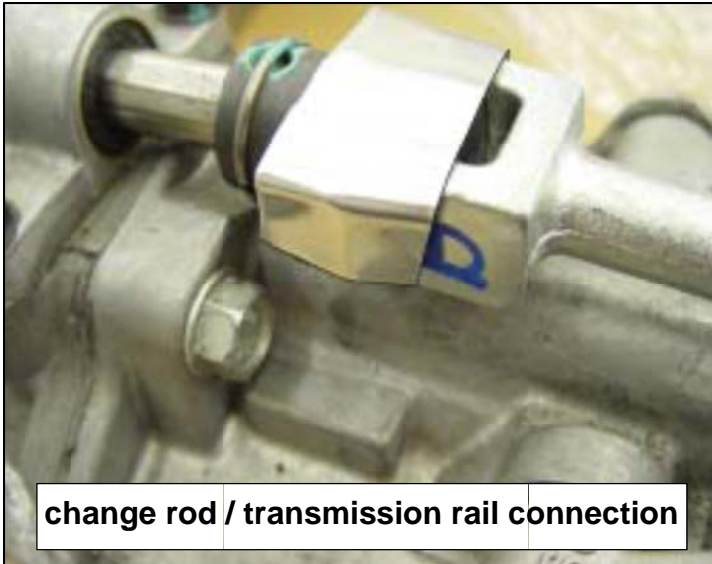
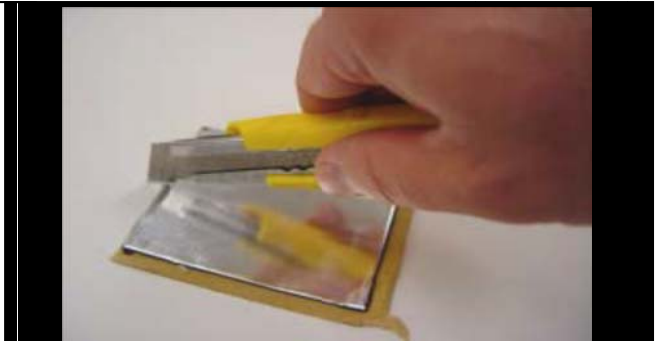
Neoprene Isolators (2)

DYNAMAT APPLICATION

NOTE: Apply even pressure over the entire back (foil) surfaces of the Dynamat® during installation to ensure complete and proper adhesion.

Trim Dyamat® to Size.

Note: Various effective application locations -



NEOPRENE ISOLATOR APPLICATION:

NOTE: This step should only be implemented if the above Dynamat® application is insufficient to eliminate noise. Do not install this if your vehicle will be used in any form of racing and/or competitive driving, as overall strength and durability as well as shift quality and feel may be diminished with the use of this kit.

Separate the upper and lower Hurst Shifter stick levers by unscrewing the connecting bolts and then position the supplied neoprene isolators (2) between the upper and lower stick halves and retighten. Ensure the bolts will not come loose during repeated hard driving. Periodic inspection and verification may be necessary.



IMPORTANT: RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

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.

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



Hurst Performance Products

(707) 544-4761

www.Hurst-Shifters.com