



HURST BILLET COMP/PLUS SHIFTER

2009 and up Dodge Challenger

Catalog #391 6020

FORM 159 6020 8/14
K6862291

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Thank you for purchasing the Hurst Billet Comp/Plus Shifter Shifter. This shifter is constructed of a solid billet steel and chrome plated upper stick, billet aluminum transmission carrier, and billet stainless steel adapter, lower stick, pin, and Energy Suspension® polyurethane bushing housing. You can expect reduced shift throw (over 30%), increased strength and better, firmer, yet smoother and more precise feel thanks to extremely tight design and manufacturing tolerance over the stock factory pieces while utilizing an industry-first teflon lined spherical bearing as the main pivot; all while adding a classic or stock look to your vehicle's interior.

IMPORTANT! Installing the Hurst Billet 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. As such, much of the isolation has been reduced to give the driver the most direct and positive link to the transmission without compromise. In doing so, this does increase both tactile and sometimes audible levels of vibration. 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.

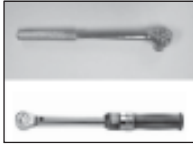
WORK SAFELY! Perform this installation on a good clean level surface for maximum safety and with the engine turned "off". Ensure that the parking brake is set and that the vehicle will not move if accidentally started.

INSPECT! Using the parts list below, 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					
Knob		Stick		Shifter	
Nut		Screws(2) Washers(2)		Boot Support & Tie Wrap	
*NOTE: Washers are designed for single use only.					

TOOLS

Ratchet & Torque Wrench



7 mm,
8 mm,
10mm,
13mm
Socket



Long Extension



Wrench
1/2" & 9/16"
Hex
Wrench
7/32"



Phillip's Screw-driver



Flat Blade Screw-driver



Floor Jack (Optional)



Jack Stands (Optional)



Disassembly

STEP 1. Carefully unsnap the boot bezel from the center console (2009-2014 MY shown).

NOTE: 2015MY vehicles - unsnap boot only. The bezel does not unsnap.



STEP 2. Unbolt the upper stick assembly from the shifter and remove knob, boot, stick assembly.

TOOL: 1/2" Wrench



STEP 3. Carefully unsnap the center console trim/ cup-holder plate from the center console.

NOTE: 2015MY and newer console design (1) is different than pre-2015MY vehicles and will require disconnection of wiring to center controls.



2014MY and Earlier



2015MY and Later

STEP 4. Disconnect the 12V accessory / cigarette lighter socket wiring harness connection and small USB connector (if so equipped) in front of center console opening.

NOTE: The 12V accessory / lighter socket is part of the center console on 2015MY and newer models and will not be necessary to disconnect.



STEP 5. Disconnect the cup-holder lighting connection and any other wire harness before finally removing the center console trim/cup-holder plate (if so equipped).



STEP 6. Remove the two front center console screws (both sides).

TOOL: Phillip's screwdriver or 7mm socket



STEP 7. Remove the rubber tray in the center console storage box (if so equipped).



STEP 8. Remove the screws in the bottom of the center console storage box.

TOOLS: Ratchet, long extension, 8mm socket

NOTE: 2015MY and newer center console screws are removed from the side of the console. First remove the cover (1); then the bolts (2) with a 10mm socket.



2014MY and Earlier



2015MY and Later

(as viewed from back seat with front seats at full forward position)

STEP 9. Raise the center console to access and disconnect the center console storage box lighting connection and any additional wiring connection clips (if so equipped).



STEP 10. Slide reward or remove the center console to gain access to the shifter.



STEP 11. Remove rear A/C duct by lifting at rear to disengage push pin then pulling rear ward.



STEP 12. Remove the wiring routing ties from the rubber shift boot cover and fold cover out of way.



STEP 13. Unscrew rear mounting nut.

TOOLS: ratchet, long extension and 13mm socket



STEP 14. Unscrew six tunnel cover mounting nuts.

TOOLS: ratchet, long extension and 10mm socket



STEP 15. Detach shifter boot from metal tunnel cover and remove cover.



STEP 16. Unclip and pull out the two front lock pins that hold the shifter bracket to the transmission.

NOTE: This step may be able to be performed from inside the vehicle however it may be easier to access these components from underneath the vehicle. Safely use proper lift points, jack stands, etc. according to the vehicle service manual to help avoid injury if working underneath the vehicle.



STEP 17. From inside the vehicle, lift up on the shifter assembly to access the lower change rod connection bolt and remove both bolt and then shifter from vehicle.

TOOLS: ratchet & 10mm socket

NOTE: This step may be able to be performed from inside the vehicle however it may be easier to access these components from underneath the vehicle. Safely use proper lift points, jack stands, etc. according to the vehicle service manual to help avoid injury if working underneath the vehicle.



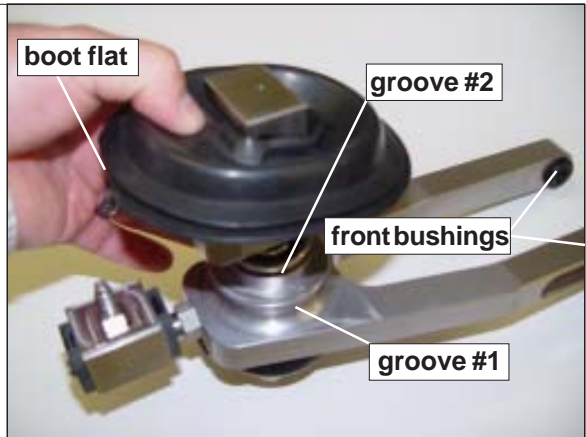
STEP 18. Carefully remove both the upper and lower rubber shifter boots from the assembly. Avoid ripping or tearing the boots. If they are damaged, contact your local Dodge dealer for replacements.



Assembly

STEP 19. Install the rubber boots onto the Hurst Shifter.

NOTE: A small amount of grease on the openings of the boots can ease installation. Position upper boot flat towards the rear of the shifter/vehicle. Make sure upper boot seals fit into Hurst Shifter bracket grooves #1 & #2. The two front bushings in the front arms of the Hurst Shifter have been purposely designed to have a very tight to snug fit with the lock pins removed in STEP 16. Ensure that these pins can be installed into front shifter bushings prior to attempting install in vehicle. Again, a small amount of grease can aid with installation.



STEP 20. Position Hurst Shifter into vehicle and install change rod, change rod bolt and torque to 20 Nm (15ft-lbs).

TOOLS: torque wrench & 10mm socket

NOTE: The lower bushings in the Hurst Shifter stick have been specifically designed to operate **without** grease. Greasing this area will only attract dirt and contaminants and will not improve performance. **DO NOT** grease lower bushings.



STEP 21. Position Hurst Shifter into vehicle and install and lock front pins.

NOTE: When working from inside the vehicle a small mirror can be helpful to aid in alignment of the front pins. Not only are the front bushings very tight on the pins, they are also very tight in shifter brackets on the transmission. The pins may need to be pryed into place or pryed out for later removal. Use care not to damage any of the components if prying is necessary.



STEP 22. Replace the metal tunnel cover and install the upper shift boot onto cover.

NOTE: Make sure the threads of the rear Hurst Shifter mount come up through the tunnel cover. Install the nut, finger tight several turns to hold it in place.



STEP 23. Install the six tunnel cover mounting nuts and torque to 20 Nm (15ft-lbs).

TOOLS: torque wrench, long extension and 10mm socket



STEP 24. Tighten the rear mounting nut and torque to 20 Nm (15 ft-lbs).

TOOLS: torque wrench, long extension and 13mm socket



STEP 25. Install the rubber shift boot cover and the wiring routing ties.

NOTE: (Optional) step 37 (only) may be easier to complete (see step 37 photo) after installing rubber shift boot in this step as better access to the sides of the shifter and inserting required tools may be easier. If chosen to complete step 37 now, complete step 37 and then continue with step 26 immediately afterwards.



STEP 26. Install the rear A/C duct.



STEP 27. Reposition the center console into the vehicle.



STEP 28. Raise the center console to access and reconnect the center console storage box lighting connection and any additional wiring connection clips (if so equipped).



STEP 29. Re-install the screws in the bottom of the center console storage box.

TOOLS: Ratchet, long extension, 8mm socket

NOTE: 2015MY and newer center console screws are re-installed from the side of the console. First replace the bolts with a 10mm socket (2); then the cover (1).



2014MY and Earlier



2015MY and Later

(as viewed from back seat with front seats at full forward position)

STEP 30. Replace the rubber tray in the center console storage box (if so equipped).



STEP 31. Re-install the two front center console screws (both sides).

TOOL: Phillip's screwdriver or 7mm socket



STEP 32. Reconnect the cup-holder lighting connection under the center console trim/cupholder plate and any other wire harness that had been previously disconnected (if so equipped).



STEP 33. Reconnect the 12V accessory/cigarette lighter socket wiring harness connection.

NOTE: The 12V accessory / lighter socket is part of the center console on 2015MY and newer models and will not be necessary to reconnect in this manner (see next step).



STEP 34. Carefully snap in the center console trim/ cup-holder plate to the center console.

NOTE: 2015MY and newer console design (1) is different than pre-2015MY vehicles and will may require reconnection of wiring to center controls if disconnected in step 3.



2014MY and Earlier



2015MY and Later

STEP 35. To use original shifter handle: Bolt in the upper stick assembly on to the Hurst Shifter and torque to 20Nm (15 ft-lbs).

TOOL: 13mm socket and torque wrench



STEP 36. Carefully snap in the boot bezel on the center console.



STEP 37 (optional). Install the Hurst upper stick and Classic Knob:

- A. Slide the boot support onto the Hurst stick (*note: some models (2015) may not use boot support and leather boot can be attached directly to the Hurst stick*).
- B. Install the stick* onto the Hurst Shifter using the supplied washers and screws (30Nm(22 ft-lbs).
- C. Install the jam nut onto the threads of the Hurst stick.

TOOL: 7/32" hex wrench

*NOTE: The stick should be installed on the right hand side (passenger side) of the shifter block except on 2015MY and newer (mount driver side).



STEP 38 (optional). Disassemble leather boot from stock stick/knob/boot assembly by prying open the boot clip or disassembly of the shifter knob/shaft removing leather boot.

TOOL: flat blade screwdriver



STEP 38 (optional). Install the leather boot onto the boot support (except some 2015MY vehicles) using the supplied tie wrap (trim away excess tie) and snap boot bezel into center console.



STEP 39. Affix Hurst knob onto vehicle (if using option above) being sure to tighten jam nut up against the knob base. Ensure that all gears can be smoothly and fully engaged without binding or rough movement. Correct any problems prior to operating the vehicle.

TOOL: 9/16" Wrench



NOTE: The Hurst Billet Comp/Plus Shifter for the Dodge Challenger has been designed to fit any of Hurst's stick, knob, and handle combinations. Check the Hurst website at www.hurst-shifters.com for stick options including the popular original E and B body Mopar handles (#538 8575) as well as the newer "Nitro Stick" handles (#538 1001 & #538 1000) that all fit the Hurst Competition/Plus Shifters for the Dodge Challenger:



*does not fit 2015MY and newer

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
100 Stony Point Rd., Ste. 125
Santa Rosa, CA 95401
Phone (707) 544-4761
Monday-Friday 6AM to 5PM PST, Saturday 7:30AM to 5PM PST