



## INSTALLATION INSTRUCTIONS

Part No. 3915085

# BILLET/PLUS® SHIFTER

for 1997-2004 Chevrolet Corvette (C5)  
with manual transmission



- If you do not understand any part of these instructions, please call **Hurst Technical Support** at **(866) 464-6553** for assistance.

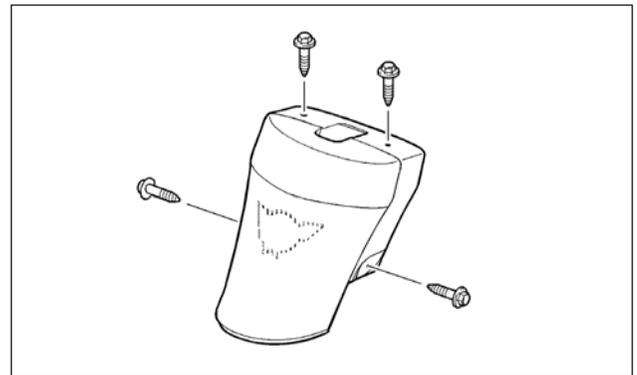
### REQUIRED ITEMS

- White lithium grease
- Medium strength thread locking compound (e.g., Permatex Blue or similar)
- Plastic trim tools (for removing interior panels)

### PARTS LIST

DESCRIPTION	QTY
SHIFTER ASSEMBLY	1
SCREW, SOCKET HEAD 1/4-20 × 3/4"	4
GASKET, SHIFTER	1
SPRING, OUTER 0.42" WOUND DIA × 0.035" WIRE DIA	2
SPRING, INNER 0.30" WOUND DIA × 0.045" WIRE DIA	2
COMPOUND, THREAD LOCKING, HIGH STRENGTH (RED)	1

### REMOVE THE STOCK SHIFTER



1. **CONVERTIBLES ONLY:** Remove the "waterfall" (the plastic panel between the seat backs). For access, put the top down, but leave the deck lid up. Remove the 2 screws on top of the waterfall, and 1 screw on each side (4 screws total). Then remove the waterfall.



2. Remove the shift-pattern insert from shift knob with a small, flat-tipped screwdriver.

### BEFORE STARTING

Take a moment to read and understand these instructions.

Use the parts list to verify your kit's contents. In the unlikely event that any parts are missing, please contact Hurst Technical Support for replacements.

We recommend that you retain all factory parts.

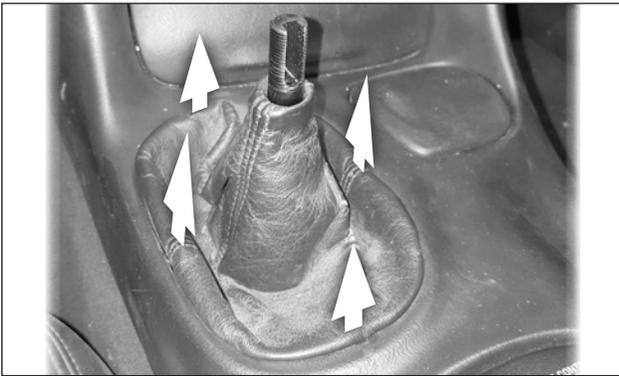
**WORK SAFELY!** Park the vehicle on a clean, level surface. Turn the ignition switch OFF. Chock the wheels, and set the parking brake before starting.

### NOTES

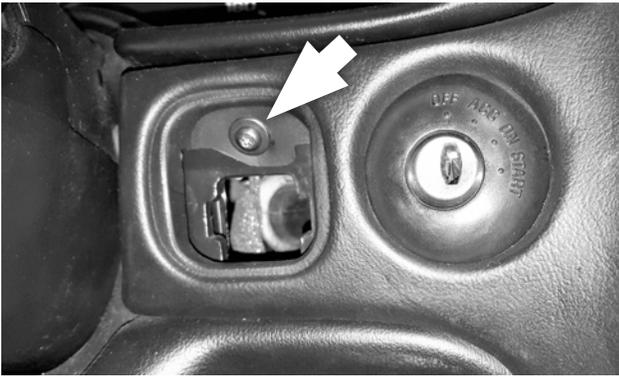
- Installation requires moderate mechanical skill. If this job is beyond your abilities, seek the services of a qualified technician.
- The shifter mechanism is precision-assembled at our factory. **Any modification or disassembly of the shifter will void its warranty, and may cause it to malfunction.** Disassemble items **only** where specified in the instructions.



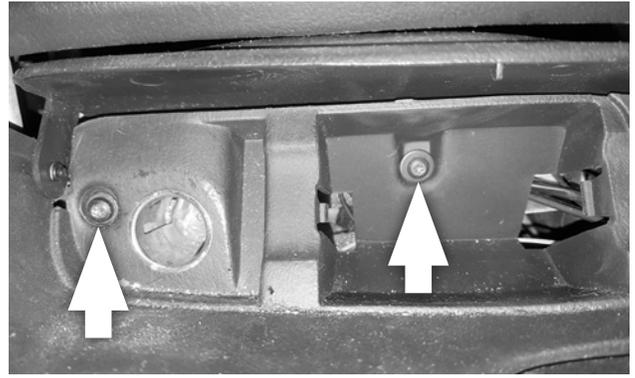
3. **Remove the T-shaped key from the knob.** (It may be pried up with 2 flat-tipped screwdrivers — one on each side of the key's T-shaped head — or pulled out with locking pliers.) Then unscrew the knob from the shift lever.



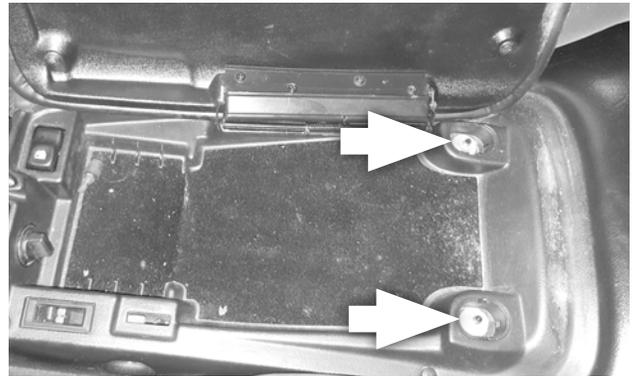
4. **Separate the shift boot frame from the front console, lift the boot over the lever, and set it aside.**



5. **Remove the small grille to the left of the ignition switch, then remove the screw behind it.**



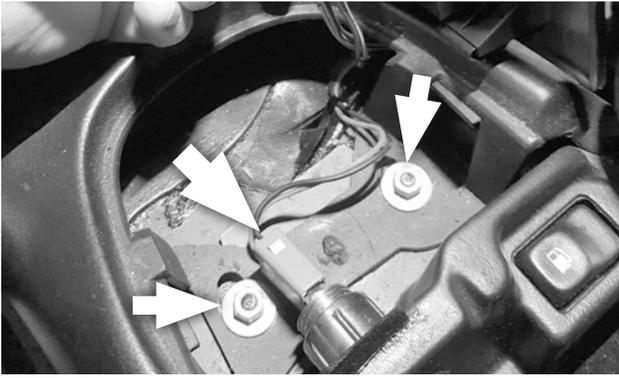
6. **Remove the ash tray.** Then remove 1 screw behind the ash tray, and 1 screw next to the cigarette lighter.



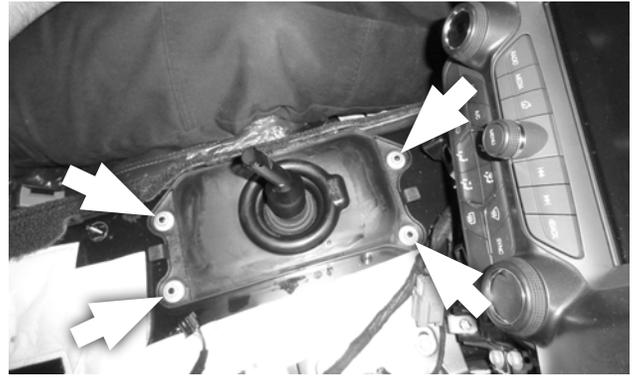
7. **Open the center console lid.** Remove the 2 plastic trim covers and the 2 nuts at the rear of the storage compartment.



8. **At the front edge of the storage compartment, lift up on the rear edge of the half-round panel to detach it from the front console.** Disconnect any electrical plugs, and set the panel aside.



9. Disconnect the electrical plug from the 12v receptacle, then remove the two nuts.

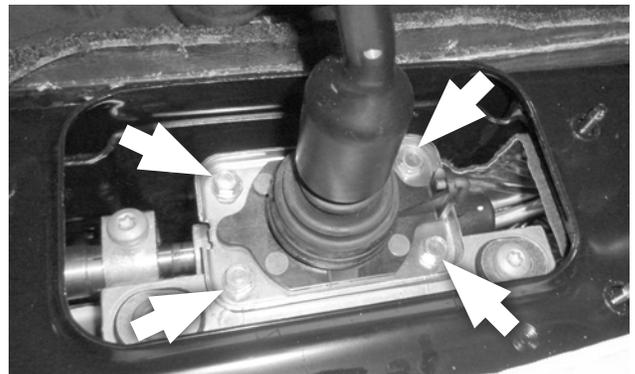


12. Remove the 4 nuts and the rubber dust boot and set them aside.

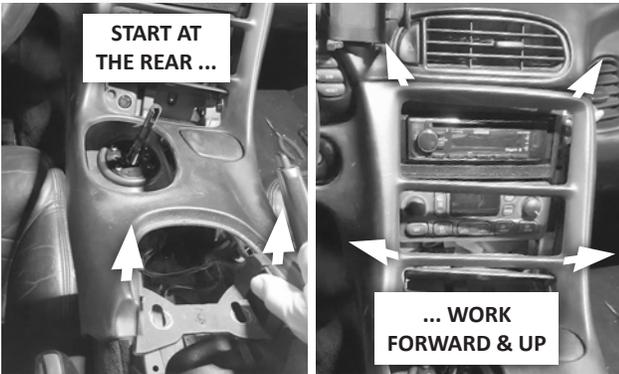


12V RECEPTACLE MUST CLEAR FRONT CONSOLE

10. Lift the rear of the center console and move it back just far enough for the 12v receptacle to clear the front console.



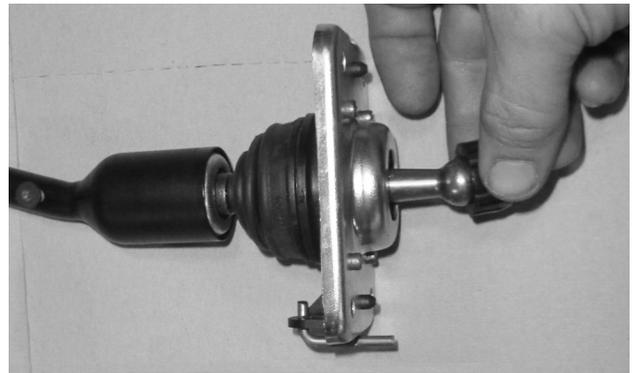
13. Put the shifter in Neutral. Then remove the 4 mount bolts and the shifter assembly, and remove any gasket material from the mount pad.



START AT THE REAR ...

... WORK FORWARD & UP

11. Starting at the rear and working forward, detach the front console from the console base and dash. Disconnect the cigarette lighter plug, and set the front console aside.

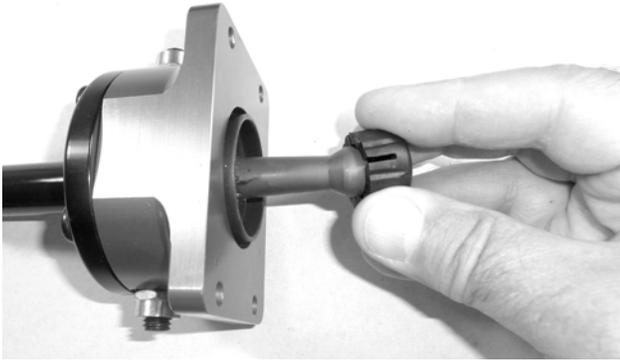


14. Remove the plastic pivot cup from the shift lever.

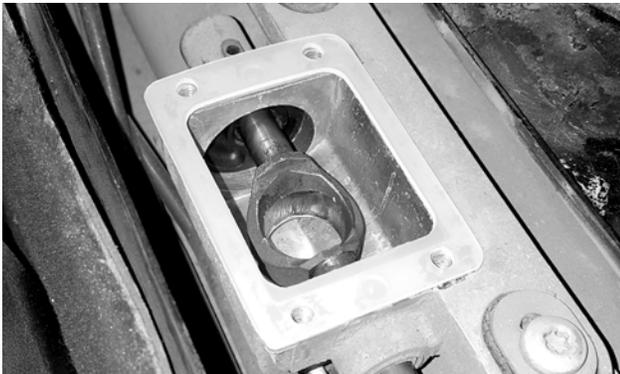
**CAUTION:** The pivot cup will be re-used. It should snap off by hand, but if you use pliers, take care not to damage it.

## INSTALL THE HURST BILLET/PLUS SHIFTER

**CAUTION:** To avoid cracking the plastics during reassembly of the vehicle interior, do not over-tighten the screws.



15. Grease the pivot ball at the bottom of the Hurst shifter's lever. Then snap the stock pivot cup onto the pivot ball.



16. Install the new gasket on the mount pad.



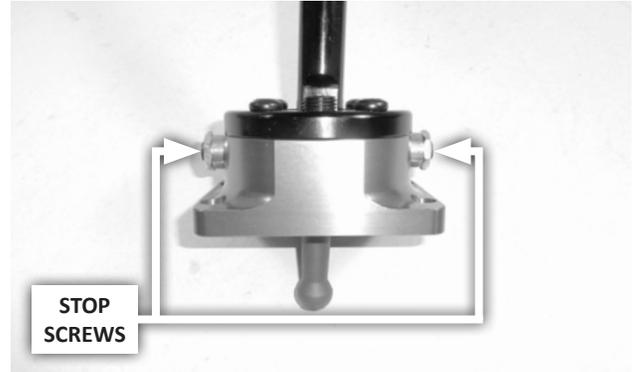
17. Orient the shifter with the shift lever keyway to the rear, and place it on the shift box, inserting the pivot cup into the shift linkage. Apply medium-strength thread locker to the 4 screws, and use them to secure the shifter to the shift box.

**NOTE:** The shifter base must sit flush on the shift box before tightening the screws.

## OPTIONAL: REMOVE OR ADJUST STOP SCREWS

The vehicle's transmission includes internal gear stops. The shifter's adjustable stop screws are optional, and should be removed if not used (to avoid possible future interference).

The shifter's stop screws are intended for use when gears are shifted aggressively (when racing, for example). If the shifter stop screws are used, it is important to adjust them correctly.



### 18. STOP SCREW ADJUSTMENT:

- Remove stop screws, and apply high strength thread locker (red) along their entire thread length.
- Insert the screws until they are flush with the inside of the shifter base.
- REAR SCREW:** Put the shifter into 2nd gear, and hold the lever there securely. Turn the rear stop screw in until it contacts the shift lever, then back it out 1/4 turn and release the shift lever. Hold the screw stationary with a 3/16" hex wrench, and tighten the jam nut with a 9/16" wrench.
- FRONT SCREW:** Put the shifter into 3rd gear, hold the lever there securely, and repeat Step C above for the front stop screw.

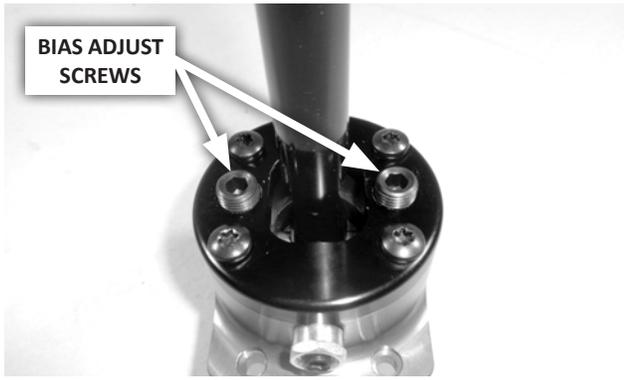
## OPTIONAL: ADJUST BIAS SPRING TENSION

The shifter's "side-to-side" tension can be tailored to driver preference (if desired) by adjusting or changing the bias springs.

With a 1/4" hex wrench, turn the adjustment screws on top of the shifter clockwise to increase tension, or counter-clockwise to decrease it.

**NOTE:** Do not turn the screws more than 1-1/2 turns in either direction from the factory setting.

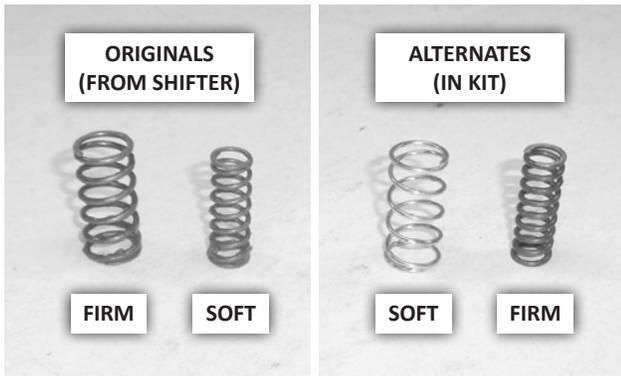
If the desired tension cannot be achieved by adjusting the screws, replace the installed bias springs with the alternate springs supplied with this kit.



**19. BIAS SPRING REPLACEMENT:**

**NOTE:** Work carefully to prevent dropping small parts into the transmission tunnel.

The shifter comes assembled with 2 springs under each screw: a softer inner spring, and a firmer outer spring. The kit also includes firm inner springs, and soft outer springs. These springs allow 4 combinations to suit your preferred "feel."



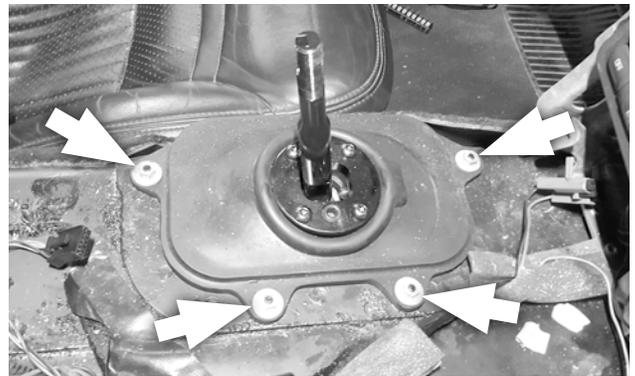
To change the springs:

- A. Remove the adjustment screws and clean their threads.
- B. Apply a few drops of high strength thread locker (red) to the screws and reinstall. Turn each screw in 3-1/2 turns as a starting point, and adjust to the desired tension. Adjust no more than 1-1/2 turns in either direction.

**CONTINUE SHIFTER INSTALLATION**



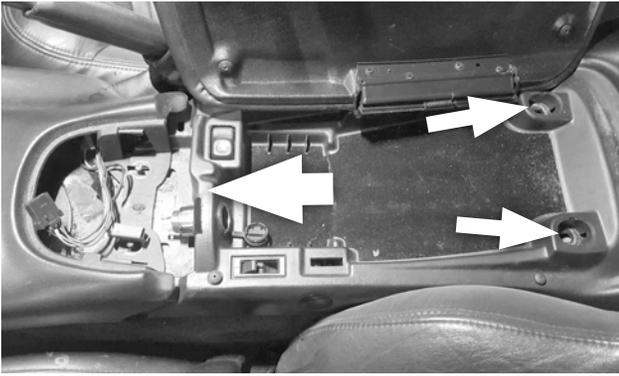
- 20. Use a sharp, new blade to cut the hard plastic edge off the bottom of the rubber dust boot, to allow the boot to fit around the shifter base.



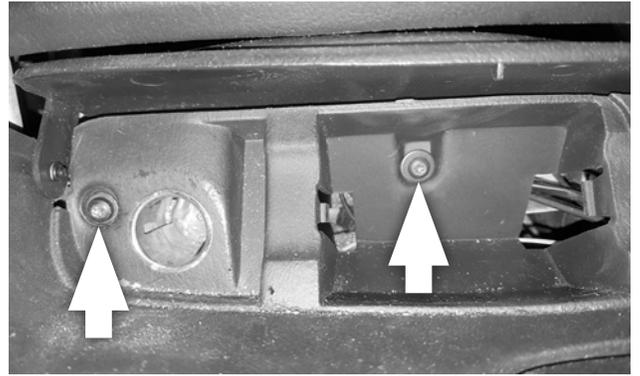
- 21. Reinstall the rubber dust boot using the 4 stock nuts.



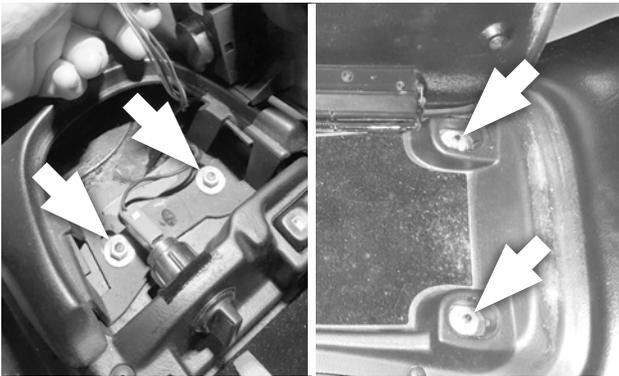
- 22. Move the front console close to the dash and console base, and reconnect the cigarette lighter plug (front of console). Reassemble the console to the dash first, then to the console base.



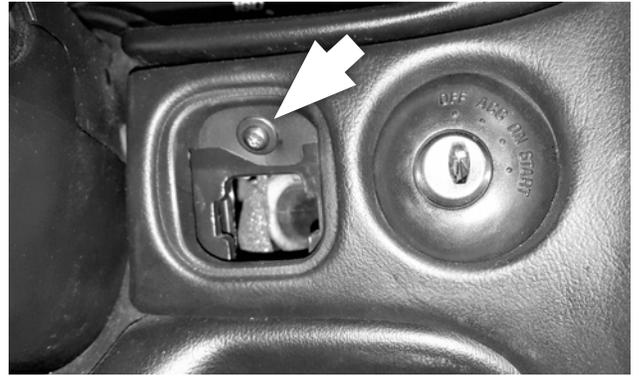
23. Slide the center console forward and lower the rear mount holes onto their studs.



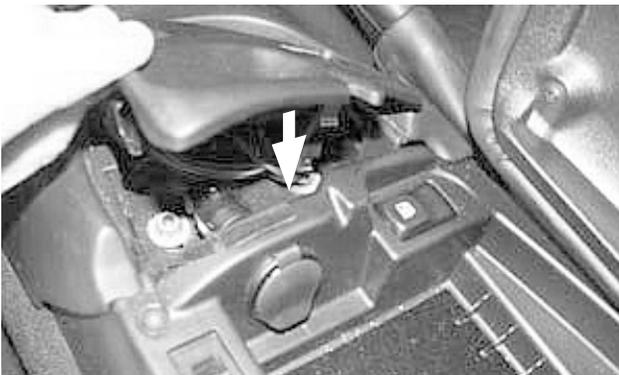
26. Reinstall the 2 lower screws (at the ash tray and cigarette lighter), then reinstall the ash tray.



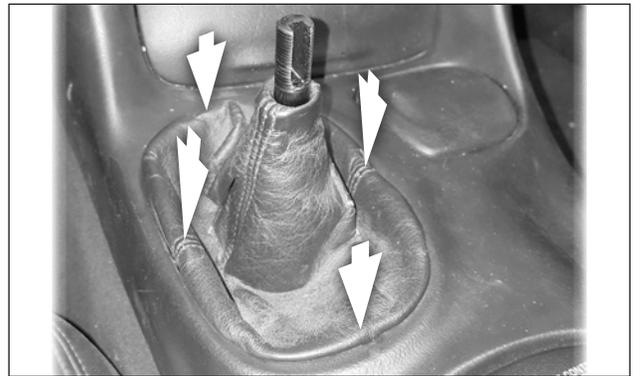
24. Hand-start the 2 front and 2 rear center console nuts, then tighten them all down. Reconnect the plug to the 12v receptacle, and reinstall the trim covers over the rear nuts.



27. Reinstall the upper screw (next to the ignition switch), then reinstall the small grille.



25. Reconnect any electrical plugs to the half-round panel, then reinstall the panel in the console.



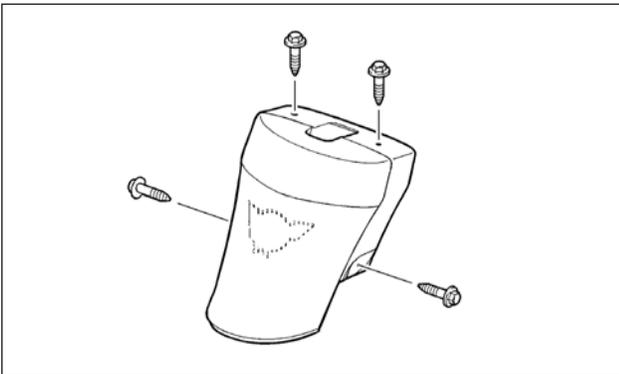
28. Place the shift boot over the shift lever, and snap it back into place in the front console.



29. Thread the shift knob onto the shift lever, aligning the keyhole with the keyway in the shift lever.



30. Use a hammer and punch to re-install the locking key, then snap the shift-pattern insert back into place.



31. CONVERTIBLES ONLY: Reinstall the "waterfall" panel.

**Congratulations, your Hurst Billet/Plus® Shifter is now installed and ready to enjoy!**

## CLASSIC HURST DIRECT-FIT SHIFTER KNOBS



The classic look and feel of the Hurst shift knob is still at the top of its game, and nicely compliments the interior of any Corvette! These quality-crafted, 2-1/4" knobs are engraved with the Hurst logo and 6-speed shift pattern, and are available in black-on-white, or white-on-black. (Includes jam nut.)

## KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

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

**HURST TECHNICAL SUPPORT: (866) 464-6553**



**Hurst Performance Products**