



Billet/Plus™ Shifter

Fits 1988-2003 Ford Ranger
with 5-Speed Manual Transmission

#391 5020

Installation Instructions

Thank you for choosing the Hurst Billet/Plus Shifter
for your Ford Ranger!

This shifter features a high pivot ratio and is designed to reduce the throw approximately 30 % for shorter and quicker shifts, precisely balancing distance, effort, comfort, and control to give you the most satisfaction from a shifter. It is constructed of a CNC machined BILLET ALUMINUM mounting base and heat treated BILLET STEEL gear selector for ultimate strength and precision tolerances. Self-centering alignment improves 2nd to 3rd up shift gear changes and an exclusive oil control seal prevents transmission fluid loss and leakage.

INSTALLATION INSTRUCTIONS

IMPORTANT! Read this instruction sheet completely so that you thoroughly understand it and can become familiar with the procedure before attempting installation.

WORK SAFELY! Perform this installation on a good clean level surface for maximum safety and with the engine turned "off". Apply parking brake and place blocks or wedges in front of and behind both rear wheels to prevent movement in either direction.

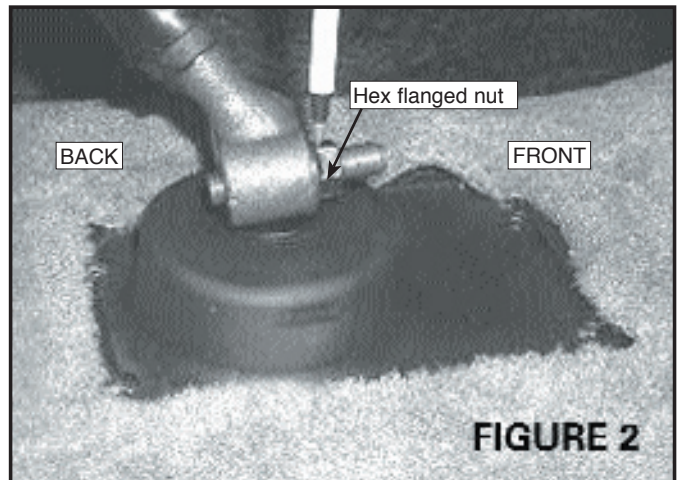
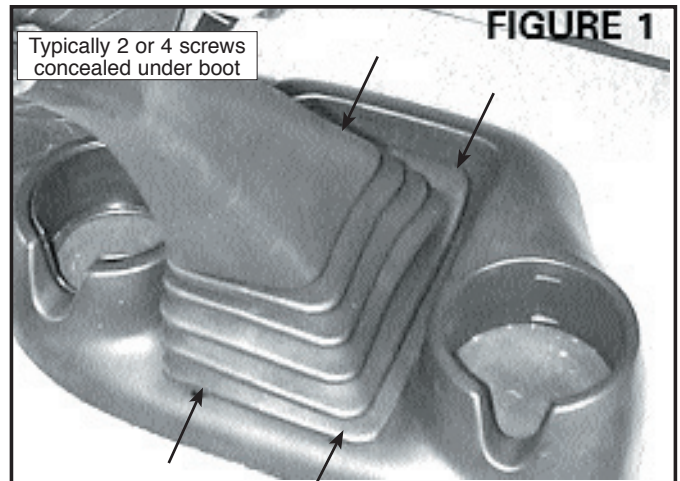
CAUTION! To avoid any possibility of bodily injury or damage to vehicle, do not attempt shifter installation until you are confident that vehicle is safely secured and will not move.

FACTORY SHIFTER REMOVAL

1. Place shifter into neutral position.
2. Remove screws securing console and shift boot to floor tunnel.

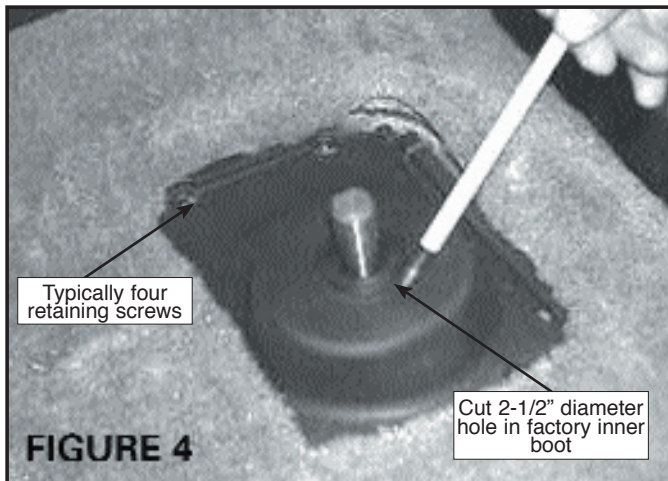
NOTE: Depending on model year, there are typically 2 or 4 Phillips head screws concealed under the boot that need to be removed (see fig.1). Pull the console and boot up onto the shifter stick exposing the shifter stick attachment (see fig.2).

3. Remove shifter stick from shifter mechanism by removing the hex flanged nut on the front of the stick using a 17mm wrench and installing the nut onto the rear of the stud. Tighten the nut to draw out the stud. With the stud removed, pull the shifter stick up and off (see fig. 3).
4. Remove the factory inner boot and plate assembly from the

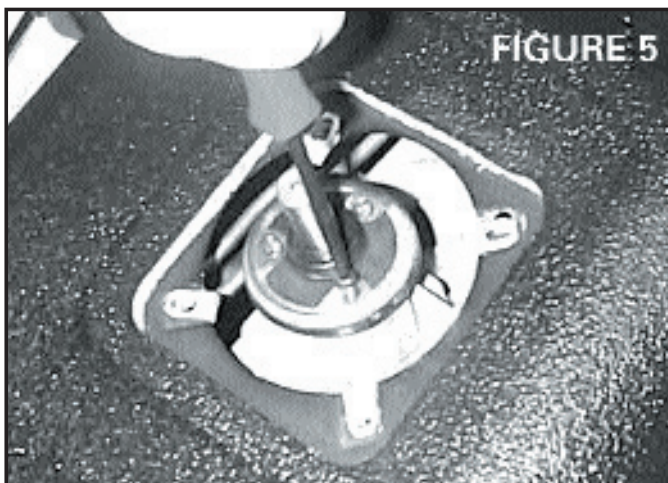


floor tunnel by removing the 4-Phillips head screws (see fig.4).

NOTE: On some model years the rear screws are located under the floor covering.



5. Using a T30 Torx screwdriver, remove the 3 Torx head screws that secure the shifter base to the transmission and remove the shifter mechanism by pulling up and out (see fig.5). **IMPORTANT!** Make sure to temporarily cover the shifter opening on the transmission with a shop rag to avoid something accidentally falling into it.



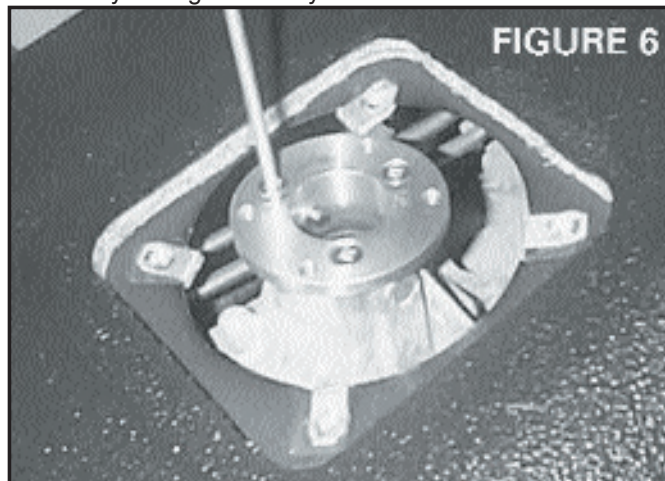
BILLET/PLUS SHIFTER INSTALLATION

IMPORTANT! Due to some minor differences in the transmissions used in the Ford Ranger, you will need to compare the length of the factory stick bottom to the Hurst Billet/Plus stick bottom before installing the shifter. Measure from the underside of the shifter-mounting flange to the bottom of the selector stub. If the factory stick bottom is 1/4" shorter than the Hurst stick bottom, you will need to use the enclosed spacer and longer bolts (See note below step 5).

1. Remove the 4-hex socket bolts from the top of the Hurst shifter using a 7/32" hex key wrench and separate the bottom mounting plate from the shifter body using care not to damage the rubber oil control seal.
2. Install the supplied 3-hole gasket onto the bottom side of the shifter mounting plate, and align the gasket holes with

the bolt holes in the mounting plate.

3. Position the Hurst shifter mounting plate and gasket onto the transmission-mounting flange making sure the 3-bolt holes and notches for the locating pins are properly aligned. Gently tap the mounting plate down into place.
4. Install the 3-flat head countersunk screws and tighten securely using a 5/32" hex key wrench (see fig.6).
5. Install the 4-bolts previously removed from the shifter assembly through the body of the

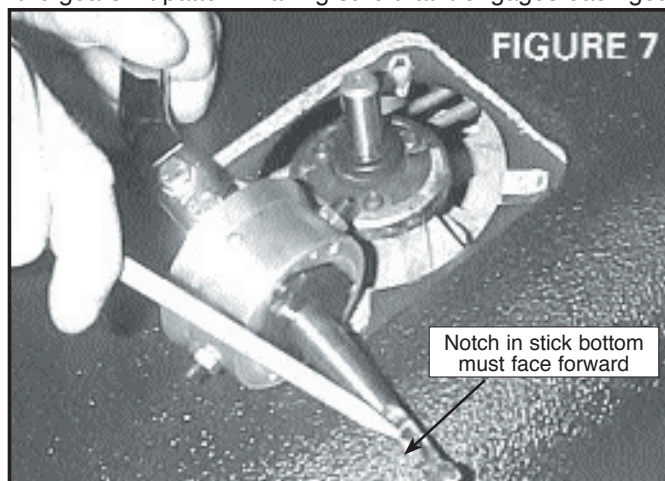


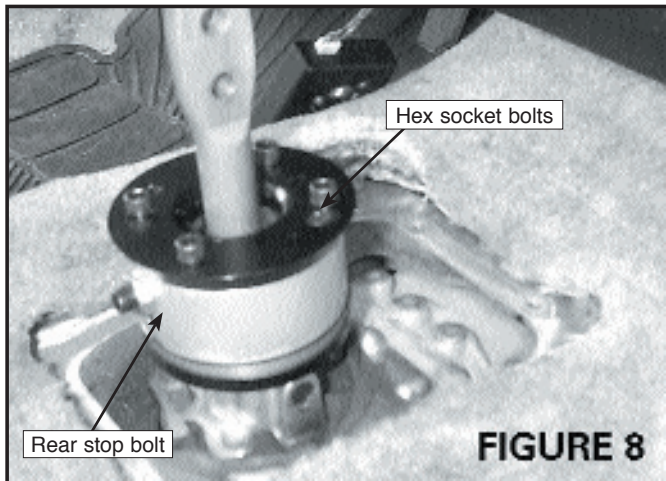
shifter and rubber seal.

NOTE: On installations requiring the 1/4" spacer, remove the 4-bolts from the shifter body assembly. Carefully remove the rubber oil control seal. Install the 4 longer bolts supplied into the shifter body and slide the 1/4" spacer onto the bottom of the shifter assembly. Re-install the rubber seal being careful not to damage or tear the seal.

6. Position the Hurst shifter assembly onto the mounting plate with the notch in the stick bottom facing forward (see fig.7). Make sure that shifter stick bottom engages properly into transmission, and shifter body sits flush onto mounting plate. Align the 4-bolts with the holes in the mounting plate and tighten the bolts securely using a 7/32" hex key wrench (see fig.8).

IMPORTANT! Test shifter operation. Move shifter through entire gearshift pattern making sure that it engages each gear





fully and that stick moves freely from side to side in "neutral" position.

7. Stop Bolt Adjustments-Loosen front and rear stop bolts located on body of shifter and back outward by turning counter-clockwise. Pull shifter stick firmly into 2nd gear position and adjust rear stop bolt by turning in until it makes contact with shifter stick. Hold bolt in position using a 7/32" hex key wrench and tighten jam nut using a 9/16" open end or box wrench. Push shifter stick firmly into 3rd gear position and repeat adjustment on front stop bolt.

NOTE: A small amount of thread locker is recommended on stop bolt and jam nut threads to prevent loosening.

8. Factory Inner Boot Modification-Using a sharp utility knife or scissors, carefully cut a 2-1/2" diameter hole in the factory inner boot which will allow a tight fit around the Hurst shifter body for proper sealing.
9. Replace factory inner boot and plate assembly over shifter and secure to floor tunnel with screws previously removed.
10. At this point you must decide if you want to use the supplied Hurst Superboot with the polished metal trim ring by drilling 8-holes into the floor tunnel and fastening it down with screws, or making a slight modification to the Hurst boot so it can be used with the factory console as listed below.

HURST SUPERBOOT INSTALLATION (without factory console)

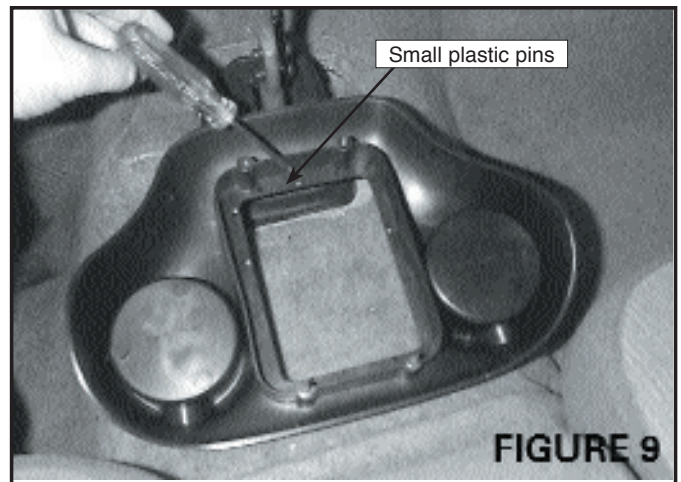
Insert the polished metal decorative center plate into the Hurst Superboot. Slide the boot down over the shifter stick to the floor. Place the polished metal trim ring over the boot and align trim plate mounting holes with boot holes. Using the boot and trim plate as a template, drill 1/8" diameter holes into the floor and use the sheet metal screws supplied to attach boot to the floor tunnel. NOTE: Remove protective paper on polished side of trim ring before installing.

FACTORY CONSOLE INSTALLATION (with Hurst Superboot modification)

To re-install the factory console you will need to remove the

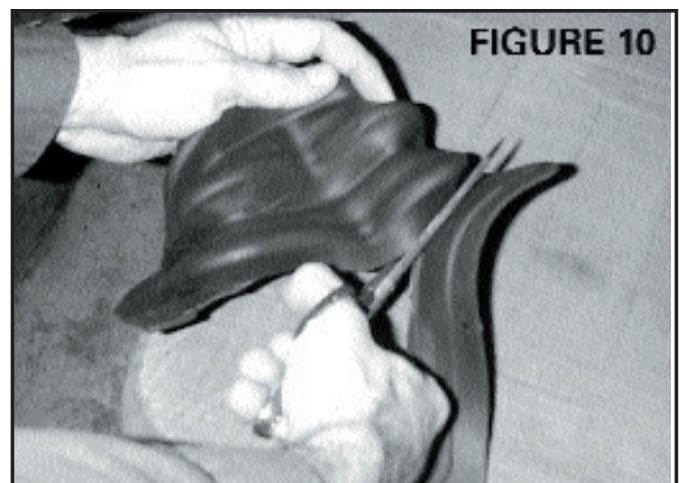
factory boot. This is done by snapping off the small plastic pins that secure the boot to the under-side of the console (see fig.9).

Using a sharp utility knife or scissors, carefully cut the flange (directly below the bottom fold) off the Hurst Superboot. NOTE: It is important that you leave 6 rubber



folds on the boot. Trim any excess material off the boot leaving a total of 6 rubber folds on the Hurst boot (see fig.10).

You will need to use the very bottom fold as the flange that gets tucked up into the factory console. NOTE: It is important to trim any excess rubber away from console



screw hole areas so they are not obstructed with material from the rubber boot.

From the underside of the factory console, pull the top 5 rubber convoluted folds up and through console. Minor adjusting will be required to get the desired look.

After boot is trimmed and positioned into factory console, insert the polished metal decorative center plate into the top of the Hurst Superboot.

Place the factory console and Hurst boot assembly over the chrome plated shifter stick and re-attach to original location on floor using the screws previously removed (see fig.11).

NOTE: Be careful not to obstruct the screw holes with the rubber material tucked into the under-side on the console. The supplied sheet metal screws can be substituted for the factory screws if necessary.

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 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
10601 Memphis Ave. #12
Cleveland, Ohio 44144
Phone (216) 688-8300 Ext.500
Monday-Friday 8:30 A.M.to5:00 P.M. E.S.T
www.mrgasket.com



11. Install Hurst shifter knob onto stick, turn to correct position and tighten jam nut against knob using a 9/16" open-end wrench.

This completes the installation.

NOTE: 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.