



Billet/Plus Shifter

2003 Ford Mustang
with 6-Speed Manual Transmission

Catalog # 391 5036

Installation Instructions

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

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. The shifter accepts the stock factory knob and boot to keep the interior of your vehicle looking original in appearance.



FIGURE 2

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 shifter knob from stick by turning counter-clockwise.
3. Using both hands, place fingers underneath each side of shifter boot grasping boot rim and pull up to remove boot from console (Refer to Fig. 1 & 2). **NOTE:** On some models there is a layer of sound deadening material inside console. Remove and save it for reassembly to reduce engine and road noise.

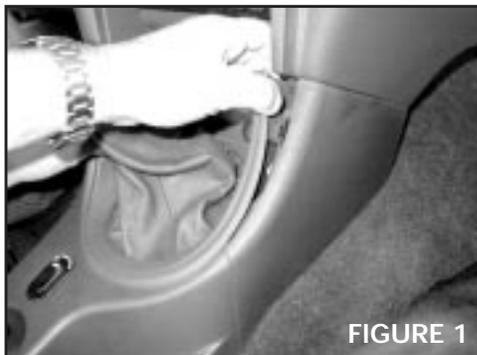


FIGURE 1

4. Remove four (4) screws that secure factory inner boot to floor tunnel and remove boot (Refer to Fig. 3 & 4).



FIGURE 3



FIGURE 4

5. Using a 13mm socket, remove four (4) hex head bolts that fasten stock shifter assembly to transmission. Discard bolts, new ones are supplied. Lift shifter assembly straight up and off. Note: you may have some difficulty in removing stock shifter from transmission due to adhesive sealant applied at the factory.

- Remove and inspect plastic cup bushing inside transmission, replace if worn or damaged. This part is available from Ford dealers. Re-install bushing in transmission (Refer to Fig. 5).

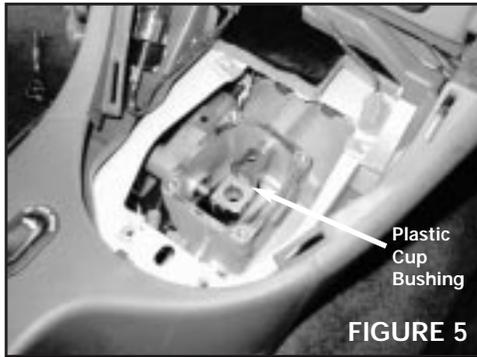


FIGURE 5

BILLET/PLUS SHIFTER INSTALLATION

- Clean shifter mounting surface on transmission and apply RTV or similar sealant on mating surfaces of shifter mounting base and transmission.
- Install Billet/Plus Shifter assembly onto transmission making sure that ball on stick bottom fits properly into plastic cup bushing.
- Fasten Billet/Plus Shifter to transmission using new hex head bolts and flat washers supplied. **NOTE: DO NOT USE ORIGINAL BOLTS.** Tighten bolts evenly to 15-20 lbs. ft. torque.
- Loosen hex nuts on shifter stop screws and using a 7/32" hex key wrench, turn screws out until they are flush with inside of aluminum collar. Test shifter operation. Move stick through entire gearshift pattern, making sure it engages each gear fully and that stick moves freely from side to side in "neutral" position.
- Stop Bolt Adjustments-** 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 11/16" 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.**

Optional Adjustment of Shifter Stick Tension

Shifter operation can be made "softer" by removing the smaller (inner) spring from each side of shifter stick.

CAUTION: WEAR SAFETY GLASSES FOR EYE PROTECTION. SUDDEN RELEASE OF SPRINGS THAT ARE UNDER COMPRESSION IS DANGEROUS. RELEASE SPRINGS CAREFULLY.

IMPORTANT: REMOVE SPRINGS ONE SIDE AT A TIME. SHIFTER CAN BECOME DISASSEMBLED IF BOTH SIDES ARE REMOVED AT THE SAME TIME.

Using a number T-25 Torx driver, loosen and carefully remove both button head screws. Remove retainer plate to expose springs. Remove inner (smaller) spring only. Replace retainer and screws. Tighten both screws to 125-150 inch pounds torque. Repeat this procedure on opposite side. (Refer to Fig. 6)

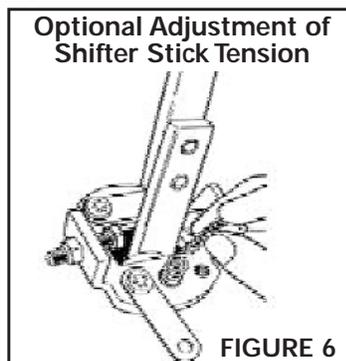


FIGURE 6

NOTE: If you are not satisfied with the "softer" shifter stick tension, re-install inner springs.

- Slide rubber boot, supplied, over shifter stick and down over the aluminum stop collar. Secure at bottom using supplied plastic tie strap. (Refer to Fig. 7)

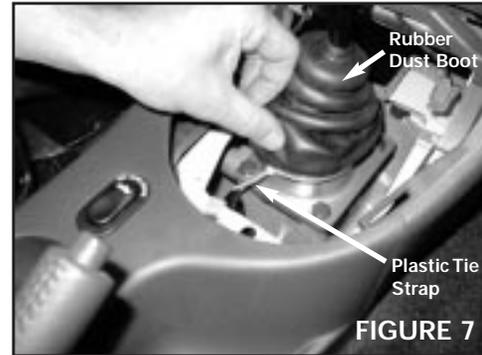


FIGURE 7

IMPORTANT! This boot must be installed to prevent dirt and moisture from entering shifter base housing which can cause premature wear of shifter.

- Replace the factory inner boot. Secure to floor tunnel with four (4) screws previously removed.
- Replace shifter boot into console by carefully pushing down firmly on boot rim until it snaps into place.
- Install factory knob onto shifter stick. Note: shifter stick is threaded to accept any knob having 12mm-1.75 threads.

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. See your local retailer of Hurst products for specific prices.

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

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