

Billet/Plus™ Competition Shifter

Fits 2001-2002 FORD MUSTANG with Tremec TR-3650 5-Speed Manual Transmission

#391 5035

Installation Instructions

PLEASE READ THESE INSTRUCTIONS COMPLETELY BEFORE ATTEMPTING INSTALLATION.

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

This shifter is designed to reduce the throw approximately 30 % for shorter shifts, precisely balancing distance, effort, comfort, and control to give you the most satisfaction from a shifter. The precision construction combination of solid billet materials, provides a firmer feel for quicker, positive gear changes. The shifter accepts the stock factory knob and boot to keep the interior of your vehicle looking original in appearance.

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 shifter installation until you are confident that the vehicle is safely secured and will not move.

NOTE: In some cases the factory console will have to be removed in order to install the Hurst Billet/Plus shifter. Due to differences in design and model year changes, we recommend that you refer to your factory service manual for your specific model year to determine the proper procedure for console removal.

FACTORY SHIFTER REMOVAL

- 1. Place shifter into neutral position.
- 2. Remove the shifter knob from the stick by turning counter-clockwise.
- 3. Using both hands, Place your fingers underneath each side of the shifter boot grasping console top plate, and pull up to remove the top plate from the console. On some models there is a layer of sound deadening material inside the console. Remove and save it for re-assembly to reduce engine and road noise.
- 4. Remove the 4 screws that secure stock shifter boot to the floor tunnel, and remove the boot. Also, remove the additional rubber boot (inner dust cover) located underneath the stock shifter boot.

- 5. Using a 13mm socket, remove the four hex head bolts that fasten the stock shifter assembly to the transmission. Discard the bolts, new ones are supplied. Lift the shifter assembly straight up and off. NOTE: you may have some difficulty in removing the stock shifter from the transmission due to the adhesive sealant applied at the factory.
- 6. Remove and inspect the plastic cup bushing inside the transmission, replace if worn or damaged. NOTE: This part is available only from Ford dealers. Re-install the bushing back into the transmission.

BILLET/PLUS SHIFTER INSTALLATION

- Clean the shifter mounting surface on the transmission and apply RTV or similar sealant on the mating surfaces of the shifter mounting base and transmission.
- 2. Install the Billet/Plus shifter assembly onto the transmission, making sure that the ball on the stick bottom fits properly into the plastic cup bushing.
- 3. Fasten the Billet/Plus shifter to the transmisson using the new hex head bolts and flatwashers supplied.

 NOTE: DO NOT USETHE ORIGINAL BOLTS. Tighten bolts evenly to 15-20 lbs. ft. torque.

Shifter Stop Bolt Adjustment

- 4A. Loosen hex nuts on shifter stop screws and using a hex key wrench, turn screws out until they are flush with inside of aluminum collar.
- 4B. Pull stick firmly into 2nd gear and hold securely. Turn rear-stop-bolt in until it contacts the stick, hold bolt securely with hex key wrench and tighten jam nut.
- 4C. Repeat adjustment on the forward stop bolt. Push stick firmly into 3rd gear, and hold securely. Turn front stop bolt in until it contracts the stick. Hold bolt securely with hex key wrench and tighten jam nut.
- Test Shifter operation. Move the stick through the entire gear shift pattern, making sure it engages each gear fully and that the stick moves freely from side to side in the "neutral" position.

6. Optional Adjustment of Shifter Stick Tension

CAUTION: WEAR SAFETY GLASSES FOR EYE PROTECTION. Shifter operation can be made "softer by removing the smaller spring (inner) from each side of shifter stick.

CAUTION: SUDDEN RELEASE OF SPRINGS THAT ARE UNDER COMPRESSION IS DANGEROUS. RELEASE SPRINGS CAREFULLY.

IMPORTANT: REMOVE SPRINGS ONE SIDE AT A TIME. SHIFTER CAN BECOM DIS-ASSEMBLED IF BOTH SIDES ARE REMOVED AT THE SAME TIME.

Loosen and carefully remove both socket head cap screws. Remove retainer plate to expose springs. Remove inner (smaller) spring only. Replace retainer and screws. Tighten both screws to 125-150 inch pounds. Repeat this procedure on opposite side.

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

 Slide the rubber boot (supplied) over the shifter stick and down over the collar. Secure it at the bottom using the supplied plastic tie strap.

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 dust cover and the stock factory rubber boot. Secure to floor tunnel with four screws previously removed.
- 9. Replace the console top plate and shifter boot into the console by carefully pushing down firmly until it snaps into place.
- 10. Install the factory knob onto the shifter stick.

NOTE: The shifter stick is threaded to accept any knob having 12 mm-1.75 thread.

OPTIONAL HURST DIRECT FIT "CLASSIC" KNOBS AND T-HANDLES.

PART NUMBERS LISTED BELOW

- #163 0014-White-12mmx1.75 thread
- #163 0114-Black 12mm x 1.75 thread
- #153 4900-T-Handle Satin Finish-12mmx1.75 thread
- #153 4910-T-Handle with button control 12mm x 1.75 thread

RETAIN THIS INSTRUCTION SHEET 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:

Hurst Performance 10601 Memphis Ave. #12 Cleveland, Ohio 44144 216.688.8300 Monday-Friday 8:30 A.M.to 5:00 P.M. E.S.T

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