



# HURST BILLET/PLUS™ SHIFTER

Part #391 5040 - Fits 1990-98 4.0L Jeep Wrangler  
with AX-15 5-speed transmission

## HOW TO INSTALL YOUR HURST BILLET/PLUS SHIFTER

**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.

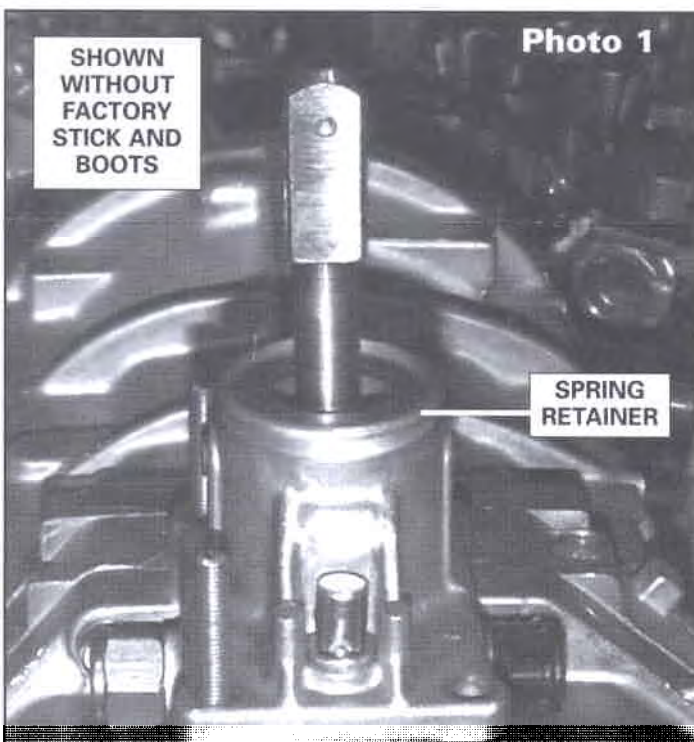
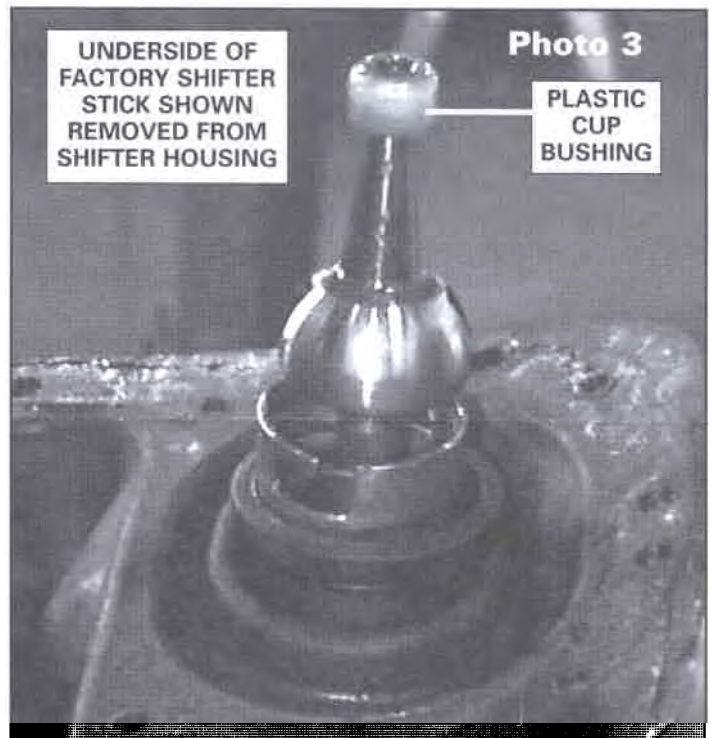
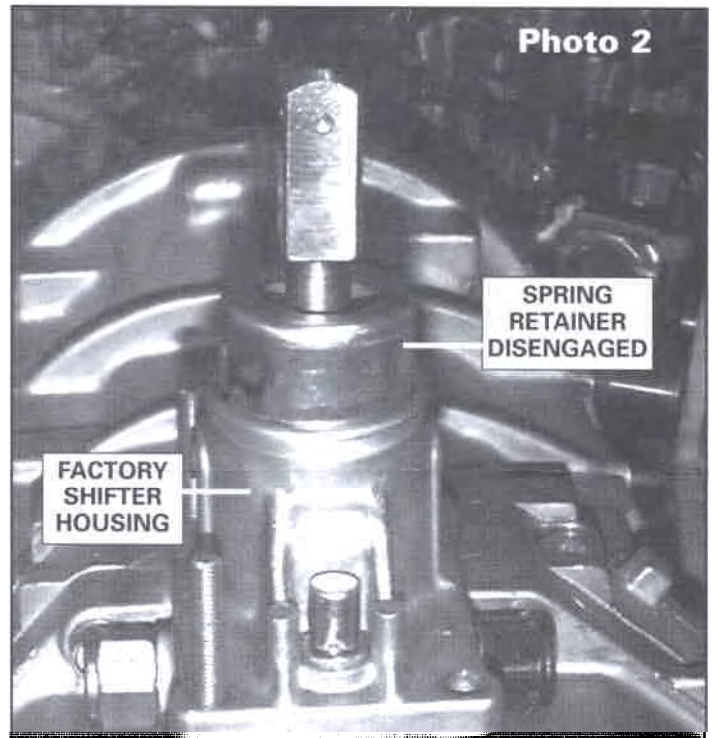
**CAUTION:** To avoid any possibility of bodily injury or damage to vehicle, do not attempt shifter installation until you are confident that vehicle is safely secured and will not move.

### Factory Shifter Removal

1. Disconnect negative (-) battery cable.

**CAUTION:** When removing or connecting the battery cable terminal, use care to avoid intermittent contact (arcing) between battery post and terminal end. This generates voltage spikes that can damage sensitive ECM (Electronic Control Module) components or memory circuits.

2. Remove shifter & transfer case (4x4) lever knobs. Most Jeeps have a jam nut under the knobs. Loosen nut and turn knobs counter-clockwise. NOTE: Some late model Jeeps have the jam nut inside the knob under the lens. If so, carefully pry the lens up with a small screwdriver and then remove the nut. The knob will now spin off.
3. Remove upper boot:  
Pull back carpet from edge of boot. Remove 7 hex head screws with an 8 mm socket. Pull boot up over sticks & remove.
4. Remove lower floor-pan boot:  
Remove 3 Phillips head screws and pry up the boot with a screwdriver. Carefully work the boot up and over the transfer case (4x4) selector lever. Leave the boot over the shifter lever.



5. Remove stick assembly:  
Underneath the floor-pan boot, pull the small shifter dust boot up toward the floor-pan boot to expose the top of the shifter (See Photo 1). Push down and turn the shifter spring retainer CCW 1/8 of a turn. The retainer will "pop" up when disengaged (See Photo 2). Pull the stick, floor-pan boot and shifter dust boot straight up and out of the floor to remove (See Photo 3).  
**NOTE:** Place a clean rag in the hole, where the stick was, to prevent debris from entering the transmission.

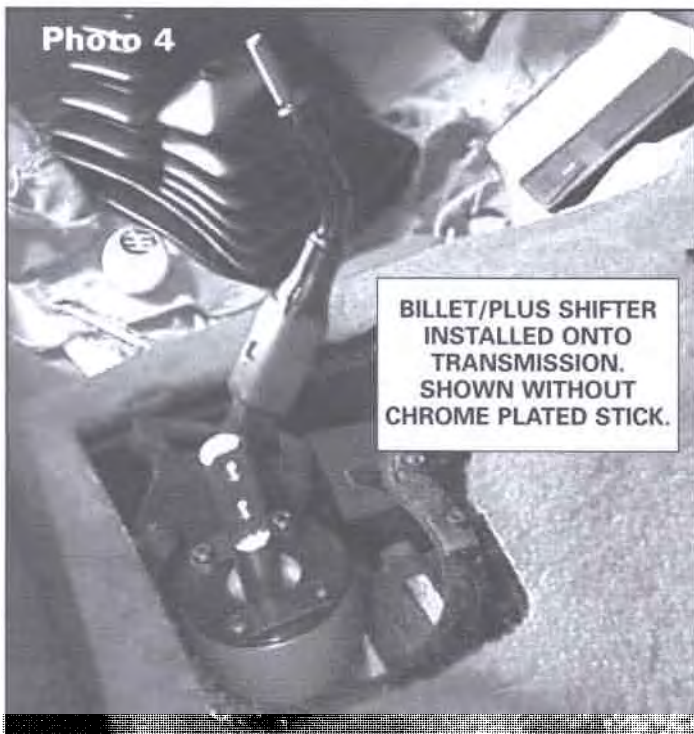
6. Shifter housing removal:
  - a) early 1996 to 1998; Remove 4 bolts holding housing to transmission with a 12 mm socket or wrench.
  - b) 1990 to late 1995; Remove 2 housing bolts on the passenger's side with a 12 mm socket or wrench. Remove 2 nuts from the mounting studs on the driver's side of the housing with a 13 mm deep well socket or wrench. Remove any other bolts holding the transfer case (4x4) pivot bracket to the transmission. It may be necessary to work from under the vehicle.

**NOTE:** There have been many different bracket designs during these years. There are typically 1 or 2 bolts holding the bottom of the bracket to the side of the transmission. They may both be located on the side of the transmission. Some models may also have the bracket bolted to the transmission/transfer case flange. Carefully lift transfer case (4x4) pivot assembly off the shifter studs and set it out of the way of the shifter housing. It is not necessary to remove any of the transfer case lever's linkages. Remove 2 shifter housing studs with a 12 mm wrench or deep well socket.

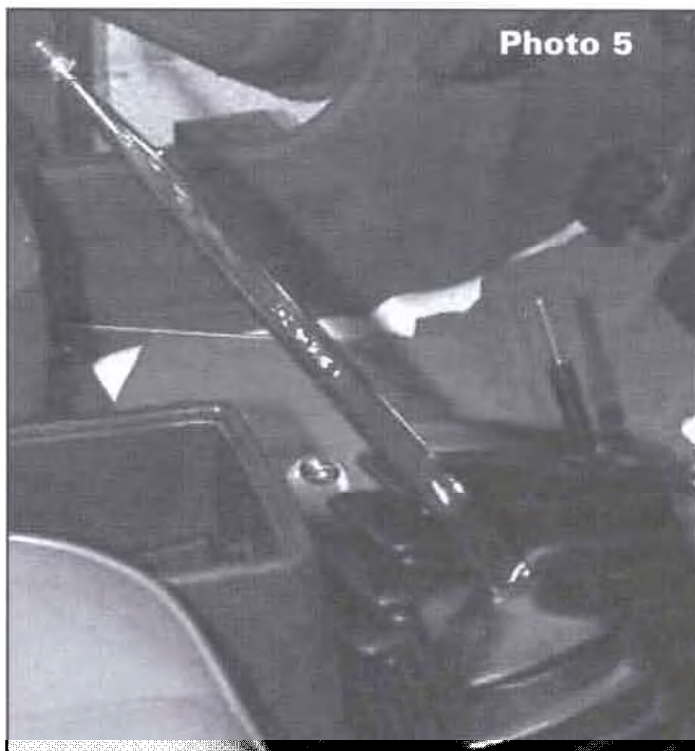
7. Carefully remove any gaskets or baffles from the transmission surface and note their position. Cover hole until Hurst shifter installation begins. If the gaskets are torn or damaged, replace by ordering from your local dealership. The gasket is Chrysler Part No. 83500-521.
8. Carefully work the floor-pan boot off of the factory shifter stick assembly. It may be necessary to lubricate the boot to ease removal.
9. Pry the plastic cup bushing from the end of the factory shifter with a 5/8" open end wrench (see photo 3). If this cup bushing is worn or damaged, replace by ordering from your local dealership. The bushing is Chrysler Part No. 83500-519.

#### Billet/Plus Shifter Installation

1. Install the factory cup bushing onto the Hurst shifter: Place the bushing open end up on a workbench. Put a small amount of gear lube on the ball end of the stick bottom and place the ball in the open end of the cup bushing. Gently push down on the stick bottom until the ball snaps into the bushing.



2. Clean all mounting surfaces, check for dirt or debris in the transmission, and replace any gasket(s) or baffles that were removed.
3. Place the shifter assembly onto the transmission and fasten with the four (4) 10 mm fasteners and flatwashers supplied (See Photo 4). (You must re-use the 2 driver's side studs & nuts, if working on a pre-1996 model) **IMPORTANT:** Be sure that the cup bushing is engaging the transmission rail.
4. Bolt the transfer case (4x4) lever pivot bracket back in place if it was removed.
5. Slide rubber boot, supplied, over shifter stick and down over the collar. Secure at bottom using plastic tie strap supplied. **IMPORTANT:** This boot must be installed to prevent dirt and moisture from entering shifter base housing which can cause premature wear of shifter.
6. Reinstall the factory floor pan boot with the 3 Phillips head screws previously removed.



7. Reinstall the factory upper boot with the 7 hex head screws previously removed (See Photo 5).
8. Install jam nut and shifter ball onto stick. Turn to correct position and tighten jam nut against knob.
9. Re-connect negative (-) battery cable.

#### 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. Our technical service department can be reached at 216.398.8300 Ext. 500 (Monday-Friday, 8:30 A.M. - 5:00 P.M. EST). Direct correspondence or warranty questions to the following address:

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