

## Installation Instructions Competition Plus Shifter Installation Kit

Fits: Ford T&C Transmission
See Application Guide for Specific Vehicles
Catalog #3737637

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

**ATTENTION**: Due to variations in the auto manufacturing tolerances, the transmission rods supplied with this kit may require slight bending to clear any obstructions, etc. Protect the threads while bending. **BEND RODS COLD! – DO NOT APPLY HEAT!** 

**WARNING:** This transmission does not have an interlock to prevent engagement of the reverse gear when any of the forward gears are engaged. Severe damage to the transmission will result if this occurs. Double check the linkage before starting the engine or moving the car. Insert the Neutral alignment rod through the levers and the positions of the transmission shifting arms. 1-2 and 3-4 transmission control arm must be at the neutral positions of their travel. The Reverse gear control arm must be at the <u>Forward</u> end of its travel (<u>Disengaged</u>).

- 1. Remove the two bolts that fasten the lower crossmember to the frame (which supports the transmission extension housing). Remove the bolts that fasten the crossmember to the transmission and remove crossmember.
- 2. Remove the stock linkage from the transmission EXCEPT for the REVERSE linkage. DISCONNECT THE LINKAGE AT THE REVERSE ARM AT THE TRANSMISSION ONLY.
- 3. Install the mounting place on the extension housing.
- 4. Remove the stock back-up light switch assembly from the stock shifter. Grasp the plastic body of switch firmly and pull the switch out of the shifter mounting. Remove the spring clamp from the hole in the stock switch mounting hole.
- 5. Install the spring clamp into the back-up light switch bracket supplied with the HURST shifter. Push the stock switch all the way into the bracket (as far as it can go).

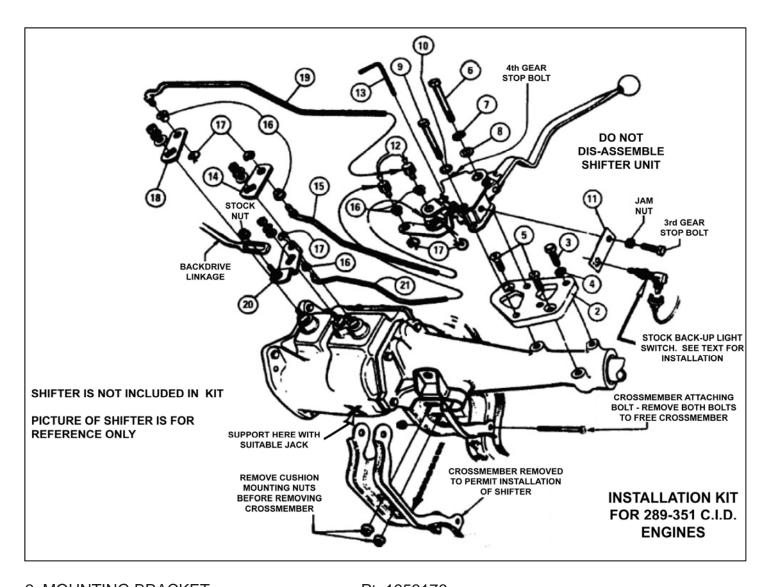
**NOTE:** This switch is self-adjusting. It automatically positions itself the first time that you shift into "Reverse".

- 6. Remove the 3/8" bolt and jam nut from the rear end of the shifter. Install the back-up light switch bracket under the jam nut and adjust the position switch plunger squarely against the rear edges of the REVERSE shifter lever. Tighten the jam nut.
- 7. Install the shifter on the mounting bracket. Tighten the mounting bolts.
- 8. Assemble the rods to their respective arms using the nylon bushings and clips. Refer to exploded Assembly Drawing for the proper parts combinations. Spin the buttons onto the threaded ends of the rods to the middle of the thread length.
- 9. Install the arm/rod/button assemblies onto the transmission. Fasten the arms to the shafts using the stock nuts, lockwashers and flatwashers.
- 10. Insert the nylon bushings into the holes in the levers refer to the Assembly View. Align the levers with the shifter frame and insert the neutral alignment rod through the notches in the frame and holes in the levers.
- 11. Rotate the transmission arms backward and forward. The neutral position for each arm can be felt at the mid-position of full travel. The Reverse arm must be moved to the end of its travel toward the front of the car (dis-engaged position).
- 12. Adjust the position of the button on each rod to permit an easy slip-in fit of the button into the nylon bushing in the proper lever. THE TRANSMISSION ARMS MUST REMAIN IN THE NEUTRAL POSITIONS WHILE THE ALIGNMENT IS ACCOMPLISHED. Fasten the buttons in the levers with the spring clips.
- 13. Remove the neutral alignment rod. Test the shifter. The stick should move freely from side-to-side at neutral (between 1-2 and 3-4 shifting paths). An increased pull toward the operator should engage the reverse lever. If the shifter functions properly, proceed to paragraph 14.

If the stick CANNOT be moved freely between 1-2 to 3-4 or reverse path, one or more of the rod button adjustments must be corrected. Move the stick forward to 3rd, then back to 4th, then into neutral. Insert the neutral alignment rod. If the rod CANNOT be inserted freely, the 3-4 rod button is incorrectly adjusted. Similar testing of 1-2 shifter will prove alignment of the 1-2 rod adjustment.

To check the reverse rod button adjustment, place the stick on neutral. Disconnect the reverse rod adjustment button from the reverse lever. Grasp the rod and push all the way toward front of car. Adjust the rod button for an easy slip-in fit in the bushing. Reassemble and fasten with the spring clip.

- 14. Adjust the shifter stop bolts. Back both of the bolts out of the shifter frame until only a few threads remain engaged. Push the stick firmly into 3<sup>rd</sup> gear and hold. Screw the 3rd gear stop bolt in until contact is made. Back the bolt out one turn and tighten the jam nut. Pull the stick firmly back into 4th gear, screw the 4th gear stop bolt in until contact is made, then back the stop bolt out one turn and tighten the jam nut. Readjust the backup light switch bracket as directed in paragraph 6.
- 15. Connect the stock linkage to the stud on the HURST REVERSE arm (Pt. 7647). Use the stock nut and lockwasher to fasten this linkage together. This linkage is the BACKDRIVE that actuates the steering column locking feature. Adjust this linkage at the stud to obtain proper operation of this mechanism in the steering column.
- 16. Replace the crossmember. Tighten all the bolts and nuts.



2. MOUNTING BRACKET		Pt. 1953176
3. 5/16 -18 x 1 HEX HEAD SCREW	1	Pt. 3400077-00
4. 5/16" SPLIT LOCKWASHER		Pt. 3400133-00
5. 5/16 - 18 x 1 FLAT HEAD SCRE	W	Pt. 2153531 (2)
6. 7/16 - 14 x 3 HEX HEAD SCREV	V	Pt. 2153447
7. 7/16" SPLIT LOCKWASHER		Pt. 97000404
8. 7/16" FLATWASHER		Pt. 96000561
9. 3/8 - 16 x 2-3/4 HEX HEAD SCR	EW	Pt. 2153448
10. 3/8" INTERNAL TOOTH LOCK	WASHER	Pt. 2673533
11. BACK-UP LIGHT SWITCH BRA	CKET	Pt. 1176889
12. ROD ADJUSTING BUTTON		Pt. 1193783 (3)
13. ALIGNMENT ROD		Pt. 1481725
14. ARM 1-2		Pt. 1052723
15. ROD 1-2		Pt. 2131720
16. NYLON BUSHING		Pt. 1181681 (7)
17. SPRING CLIP		Pt. 97000015 (7)
18. ARM 3-4		Pt. 1052108
19. ROD 3-4		Pt. 2132774
20. ARM REVERSE		Pt. 1057647
21. ROD REVERSE		Pt. 2133207
BAGGED HARDWARE	Pt. 154 318	33

## 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.

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



**Hurst Performance Products** 

(707) 544-4761

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