



Installation Instructions

Part No. 5030030

Indy® Universal 4-Speed Shifter

For Muncie M-20, M-21 & M-22; Borg-Warner T10;
or Richmond/Borg-Warner Super T-10.

Rev 03/30/2020

WORK SAFELY: Perform this 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 disconnect or 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. SEVER DAMAGE TO THE TRANSMISSION WILL RESULT IF THIS SHOULD OCCUR. DOUBLE-CHECK THE LINKAGE BEFORE STARTING THE ENGINE OR MOVING THE CAR. INSERT THE NEUTRAL ALIGNMENT ROD THROUGH THE LEVERS AND CHECK THE POSITIONS OF THE TRANSMISSION SHIFTING ARMS. 1-2 AND 3-4 TRANSMISSION CONTROL ARMS MUST BE AT NEUTRAL POSITIONS OF THEIR TRAVEL. REVERSE GEAR CONTROL ARM MUST BE AT THE FORWARD END OF ITS TRAVEL (DIS-ENGAGED).

1. Install the mounting plate on the tailshaft and tighten the 3 bolts equally. Install the shifter and tighten the mounting bolts.

2. Assemble the arms and rods with the bushings and spring clips. Refer to the diagram for proper parts combinations. Spin the rod adjusting buttons onto the threaded ends of the rods to about the middle of the thread length.

BACKDRIVE CONNECTION

The backdrive linkage varies between the different car models that these kits fit. The backdrive linkage should be moved to its rearward position (steering column lock engaged) while the adjustment and connection is being made. Place the Hurst reverse arm on the reverse control shaft and rotate it COUNTER-CLOCKWISE as far as it will turn (this is the reverse position of this control shaft). Adjust the backdrive linkage to permit easy slip-in fit in the hole in the reverse arm.

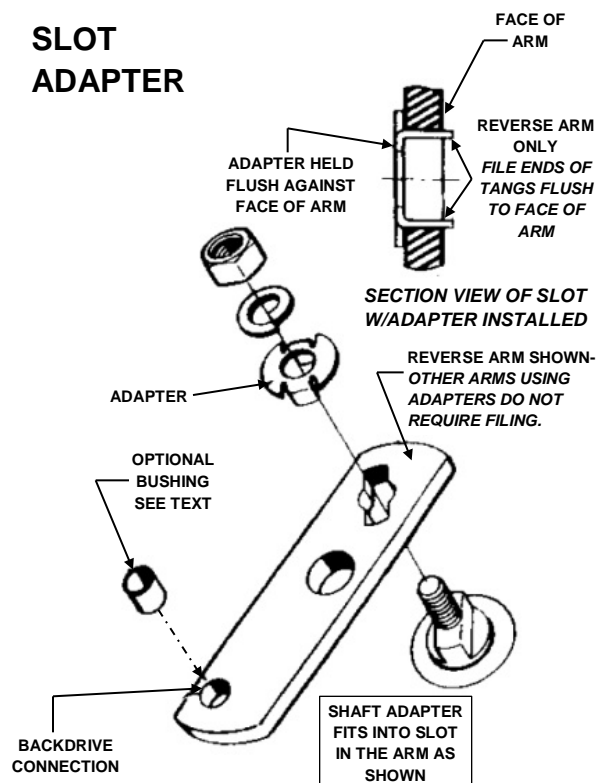
NOTE: Some of the early backdrive linkage rods have a small diameter end. Use the bushing (Pt. 1180022) to adapt these backdrive rods to the hole in the arm. Fasten the backdrive linkage to the Hurst arm with the stock backdrive clip. Install the arm-rod button assemblies onto the transmission shafts. Fasten the arms on the shafts with stock hardware.

Installation of the arms that have the late design Muncie slots on the early Muncies and '74 and later Borg-Warner control shafts require the use of a slot adapter. See the illustration of installation. The adapter is inserted in the arm before installing it on the shaft.

REVERSE ARM ONLY

Place the adapter in the arm slot. Clamp the arm down securely on a flat surface. Using a flat mill file, file the ends of the tangs of the adapter flush to the face of the arm before installing the arm on the transmission control shaft.

SLOT ADAPTER



3. Insert the bushings into the holes in the levers. Align the levers with the shifter frame and insert the neutral alignment rod through the notches in the frame and the holes in the levers.

4. 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).

5. Adjust the positions of the button on each rod to permit easy slip-in fit of the button into the steel bushings in the proper lever. TRANSMISSIONS ARMS MUST REMAIN IN NEUTRAL POSITIONS WHILE THE ALIGNMENT IS ACCOMPLISHED. Fasten the buttons in the levers with spring clips.

NOTE: The 3-4 rod may strike the top flange of the crossmember. Cut a small notch off of this flange to eliminate such interference.

6. Remove the neutral alignment rod and test the shifter. The stick should move freely from side to side at Neutral (between 1-2 and 3-4 shifting paths). Pull the stick toward the operator and push forward for reverse. If the shifter functions properly, proceed to number 7.

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 the 1-2 shift will prove the alignment of the 1-2 rod adjustment.

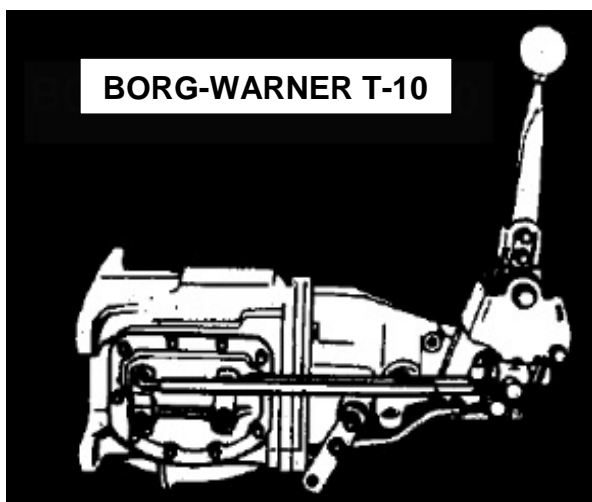
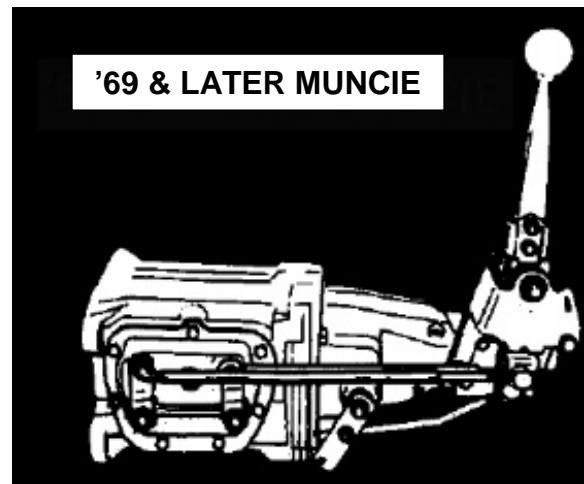
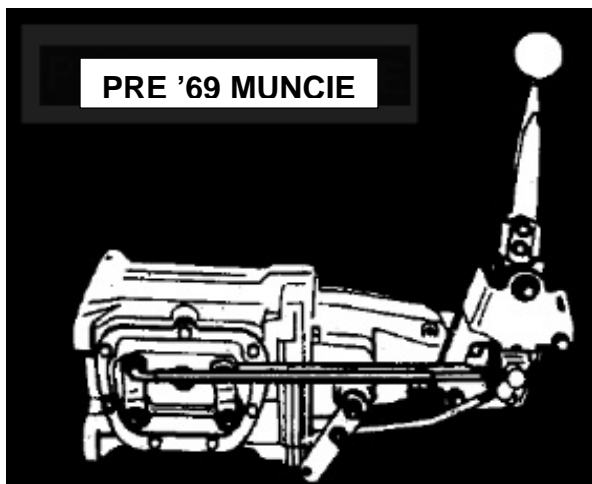
7. To check the reverse rod button adjustment, place the stick at neutral. Disconnect the reverse rod adjusting button from the reverse lever and disconnect the backdrive linkage. Grasp the rod and push toward the front of the car. (Reverse arm is dis-engaged when at the end of forward travel.) Adjust the rod button for easy slip-in fit in the bushing. Re-assemble and fasten with a spring clip. Re-connect the backdrive linkage.

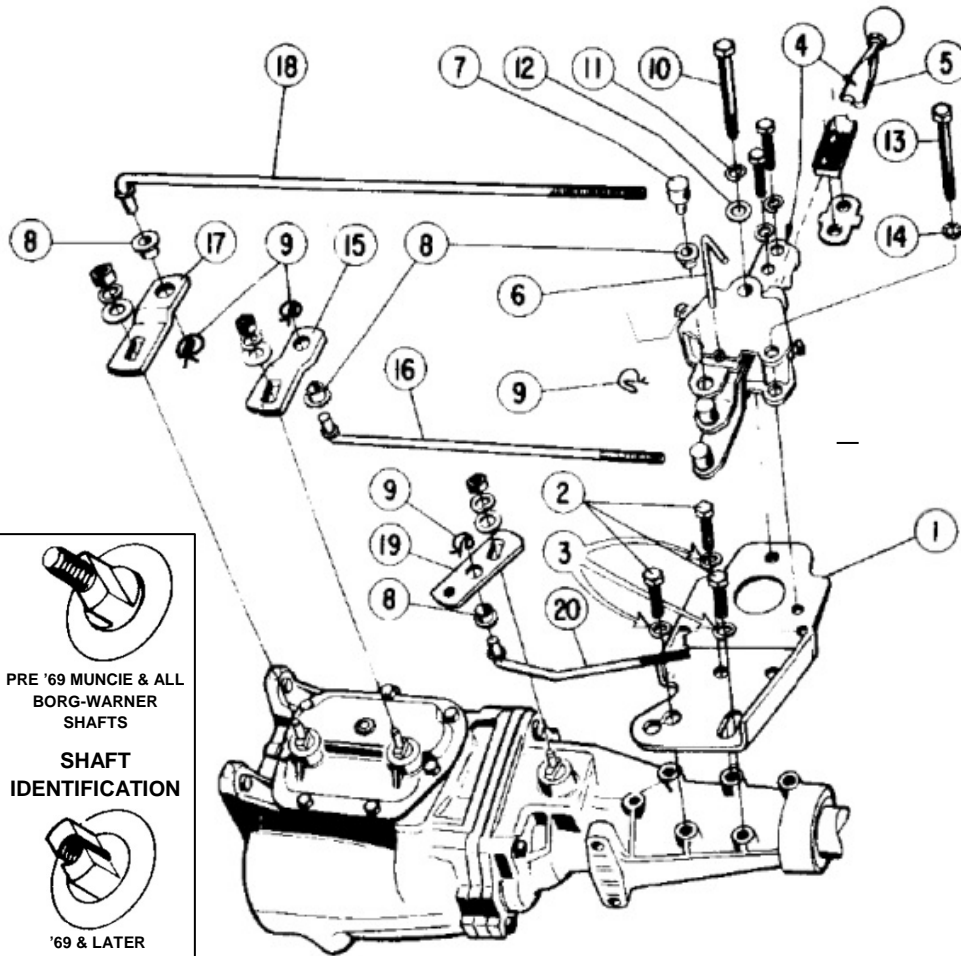
8. After installation has been completed, test the operation of the SAFETY STEERING COLUMN LOCK. Move the shifter stick to REVERSE and remove the ignition key. The steering column should lock in REVERSE ONLY. Test the operation of the lock in all gears to be sure that the steering column locks in REVERSE only. If the backdrive linkage fails to lock the column or it prevents the shifter from engaging REVERSE, adjust the backdrive linkage as necessary to correct and repeat the testing.

IMPORTANT WARNING

SAFETY STEERING COLUMN LOCK

When this shifter is installed in a car that has a steering column lock, the operation of the locking mechanism **MUST** be maintained. Install the reverse arm and connect the original factory linkage as directed by this instructions sheet.



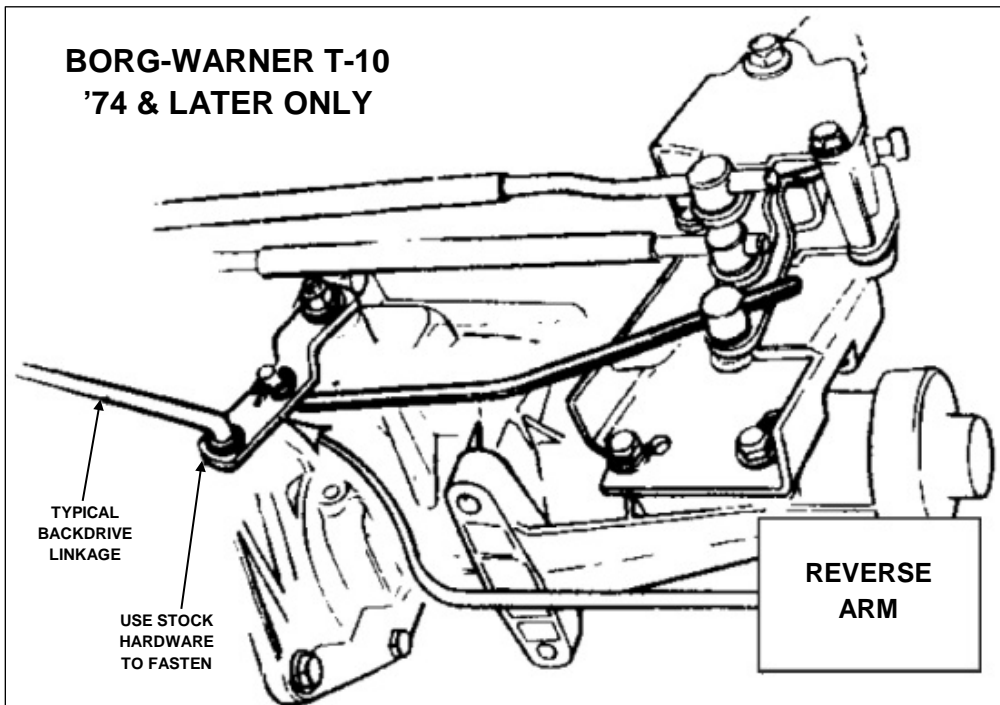


CONTENTS OF KIT

1. MOUNTING PLATE
2. 3/8-16x1 HEX HEAD CAP SCREW
3. 3/8" SPLIT LOCKWASHER
4. SHIFTER ASSEMBLY
5. STICK
6. NEUTRAL ALIGNMENT PIN
7. ROD ADJUSTING BUTTON
8. NYLON BUSHING
9. SPRING CLIP
10. 7/16-14x3 1/4 HEX HEAD CAP SCREW
11. 7/16" SPLIT LOCKWASHER
12. 7/16" FLATWASHER
13. 3/8-16x3 HEX HEAD CAP SCREW
14. 3/8" INTERNAL TOOTH LOCKWASHER
15. ARM 1 - 2
16. ROD 1 - 2
17. ARM 3 - 4
18. ROD 3 - 4
19. ARM REVERSE
20. ROD REVERSE
21. ADAPTER ARM SLOT
22. BUSHING BACKDRIVE

BAGGED HARDWARE

BORG-WARNER T-10 '74 & LATER ONLY



IMPORTANT: RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

Technical Service

Hurst Performance maintains a highly trained technical service department to answer your technical questions, provide additional product information and offer various recommendations.



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(866) 464-6553

www.hurst-shifters.com