

Installation Instructions

Part No. 3734529



Competition/Plus® Installation Kit

For 1967-68 Chevy Camaro & Pontiac Firebird, and
1968 Chevy II & Nova, with 1963-1968 Muncie M-20, M-21 &
M-22 transmissions (shift arms attach to forks with nuts).

Rev 03/03/2020

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. SEVERE 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. 1st/2nd AND 3rd/4th 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. Remove the stock shifter and linkage. Remove the two bolts and lock washers that fasten the transmission pad to the crossmember. Use a suitable jack to raise the transmission clear off the rubber insulator pad. Place a block of wood between the top of the jack and the transmission housing before raising the jack. Refer to the exploded assembly drawing.
2. Slide the base of the HURST mounting bracket between the transmission pad and the rubber insulator. Replace the stock mounting bolts, but do not tighten them. Fasten the rear end of the bracket with the U-clamp bolt. Remove the jack and tighten all mounting bolts.
3. Install the shifter on the mounting bracket. Adjust to the mid-position in the slot (shifter may be rocked forward or backward to suit individual preference). Tighten the mounting bolts.
4. Assemble the rods to their respective arms using nylon bushings and spring clips. Spin rod-adjusting buttons on to the threaded end of each rod, to about the middle of the threads.
5. Install the arm-rod-button assemblies onto the transmission. Fasten the arms to the shafts using the stock nuts, lock washers and flat washers.

6. Insert the nylon bushings into the holes in the levers (refer to the assembly view, page 3). Align the levers with the shifter frame and insert the neutral alignment rod through the notches in the frame and holes in the levers.

7. 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 full-forward end of its travel (dis-engaged).

8. Adjust the position of the button on each rod to permit easy slip-in fit of the button into the nylon 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.

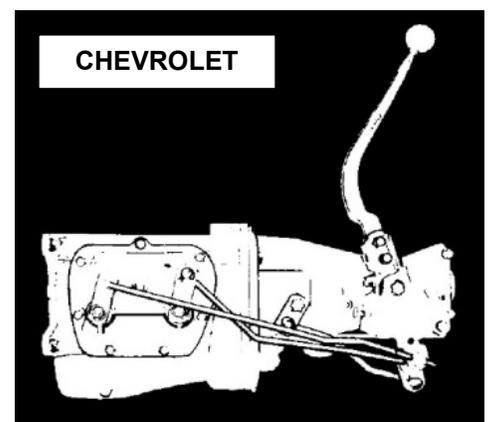
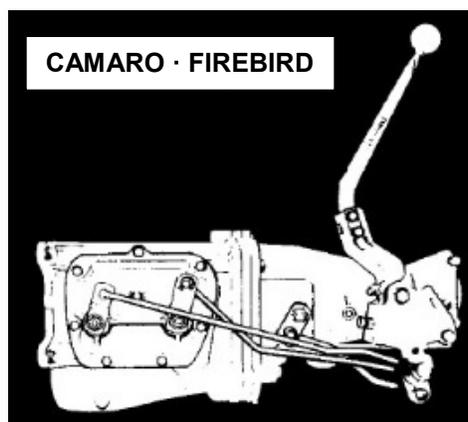
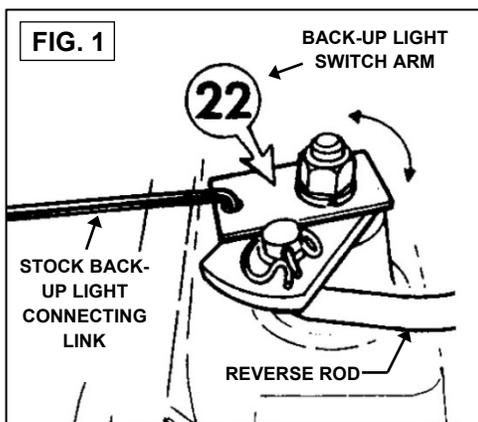
9. Remove the neutral alignment rod and test the shifter. The stick should move freely from side to side at Neutral (between 1st/2nd and 3rd/4th shifting paths). An increased pull toward the driver should engage the Reverse lever. If the shifter functions properly, proceed to Step 10.

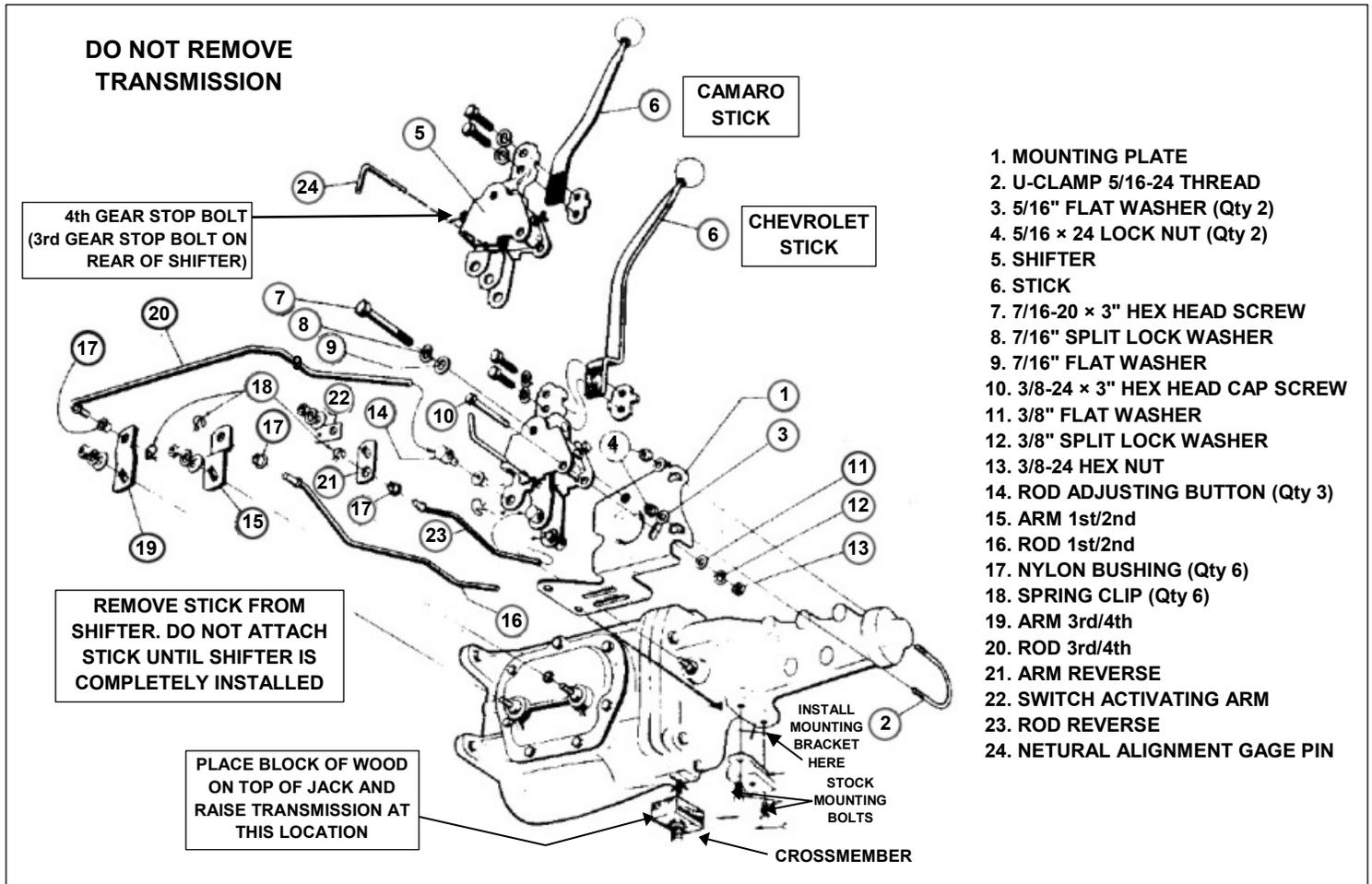
If the stick CANNOT be moved freely between 1st/2nd to 3rd/4th or Reverse path, one or more of the rod button adjustments must be corrected. Move the stick forward to 3rd, then back to 4th, then into Neutral. Insert the neutral alignment rod. If the rod CANNOT be inserted freely, the 3rd/4th rod button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

To check the Reverse rod button adjustment, place the stick at Neutral. Disconnect the Reverse rod adjusting button for easy slip-in fit in the bushing. Reassemble and fasten with a spring clip.

10. Install the shifter stop bolts. Adjust the stop bolts by backing both out of the shifter frame until only a few threads remain engaged. Push the stick firmly into 3rd gear and hold it. 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 it out one turn and tighten the jam nut.

NOTE: If the transmission has a link-operated back-up light switch, fasten the back-up light switch activating arm to the Reverse shaft as shown (Figure 1).





IMPORTANT: RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

Technical Service

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