## INSTALLATION INSTRUCTIONS: Twin Stick Shifter for J Pattern Dana 20, 1966-77 Bronco

## **PART#2152**

## **CONTENTS:**

Shifter Assembly 3/8" x 1" NC GR5 Bolt Cover Plate

3/8" Lock Washer 12 x 3/4" Pan Head Screws Front Shifter Decal 10

Rear Shifter Decal Shift Boot 1

Shift Boot Metal Flange

7/16" x 3" NC GR5 Bolt 7/16" Nut 7/16" Lock Washer Note: Locktite recommended, but not supplied.



865.938.6696 www.dufftuff.com 6609 Bronco Ln. Knoxville, TN 37921

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## Please read completely before beginning.

NOTE: We have found it easiest to start by cutting an access hole in the transmission tunnel. We have provided a cover plate to cover the access hole and to act as a cutting template. While it is possible to install this shifter without cutting the access hole, it is extremely difficult.

CAUTION: Never put the shifters in opposite ranges (one in High, the other in Low). This will cause immediate major damage to the drivetrain.

- 1. Remove the stock shifter boot.
- Place the cover plate over the stock shifter handle and hole. Using the cover plate as a guide mark around the edge of the plate with a piece of chalk or pencil.
- 3. Remove the cover plate. Measure and mark a line 1/2" inside the mark made in step 2. This is your cut line.
- 4. Cut away any carpet or vinyl liner. The easiest way we've found is to drill a hole in each corner and then use a jigsaw or Sawzall to connect the drilled holes. Cutaway the floor board using the same technique.
- 5. Remove the stock rubber boot over the shifting mechanism (it may not be there as many have fallen off already). Remove the two bolts holding the shifter to the transmission adapter. Remove the shifter from the vehicle.
- 6. The shift rail plates will need to be cut in order to allow separate operation. These plates are hardened steel. A cut off wheel works best but a Hacksaw or Sawzall will work. Cut the plates as shown.
- 7. Align the holes in the new shifter assembly mounting plate with the stock mounting holes in the transfer case adapter while also aligning the shift rods with the slots in the shift rails. Secure the smaller hole in the mounting plate and adapter with the 3/8" NC bolt. Secure the larger hole with the 7/16" bolt, lock washer and nut. Note that the flat part of the shifter mounting plate should be on the upper side.
- 8. Temporarily install a shift knob on each handle and ensure that each handle moves freely (it may be necessary to rock the vehicle a bit to facilitate gear engagement). Make any adjustments as necessary. NOTE: It is very important to make sure that the vehicle will not roll away uncontrolled once the transfer case is placed in neutral.
- 9. Remove the shift knobs. Place the cover plate over the shift handles so that they slide through the cover plate hole. Fix the cover plate in position and mark the screw hole locations for drilling. NOTE: if installing this shifter into a vehicle that has a floor shifter and tunnel cover this plate may not be necessary or may need trimming.
- 10. Remove the cover plate and drill an 11/64" hole at each marked location.
- 11. Reinstall the cover plate and secure with the 12 x 3/4" Pan Head Screws.
- 12. Install the shift boot metal ring inside the shift boot flange.
- 13. Slide the boot over the handles, making sure to align the holes in the boot with the handles. Hold the boot in position and drill 11/64" holes at each of the four corners where the holes in the boot are located. Drill completely through the metal ring and the floor sheetmetal. Secure with the 12 x 3/4" Screws.
- 14. Pierce the end of the locktite tube and place a few drops on the threads of the shifter handle. Screw the knob into place. The will lock the knob to the shifter handle. Apply the front shift pattern decal to the left knob and the rear sticker on the right knob. Notice the shift patterns for each individual shifter handle: all the way forward is low range, all the way back is high range and the middle is neutral. For normal two wheel drive high gear, put the rear (right shifter) in high range (all the way rearward) and the front in neutral (middle position).
- 15. To familiarize yourself with the shifting pattern, we suggest going to loose dirt area, engaging the hubs and moving the shifters into their various positions. Front wheel drive only should be used with caution as the loads placed on the front axles and driveline can cause damage. Likewise for low range rear only. CAUTION: Never put the shifters in opposite ranges (one in High, the other in Low). This will cause immediate major damage to the drivetrain.

Note: If in the future, the shifters become slightly loose due to wear, the Locking Pivot Nut on the shifter base can be tightened. LIMITED WARRANTY

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