Twin Stick Shifters T and J

#8573 #8577 Date 10/20/16 rev. 0

Parts	4 ea. 1” sheet metal screws	**For 1/2” adapter hole**	**For 7/16” adapter hole**
Rear shifter	3 ea. 1/2” washers	1 ea. 1/2” x 4 1/2 NF” bolt	1 ea. 7/16” x 4 1/2 NF” bolt
Front shifter		1 ea. 1/2” locknut	1 ea. 7/16” locknut
			1 ea. aluminum bushing

Note: Use Anti-Seize (Permatex p/n 133k) or similar on all installation bolts.

1. Move the Bronco to a level area and block wheels and disconnect the battery for safety.
2. Remove the old shifter knob and boot.

With a little work the old shifter can be remove without cutting the tunnel. Some people opt to cut a lager hole in the tunnel to make the install easier. After the installation a sheet metal cover piece will be needed. Some people fabricate their own and most will have chosen our kit which comes with the cover #8550.

3. Determine if your adapter has the 1/2” or the 7/16” hole.

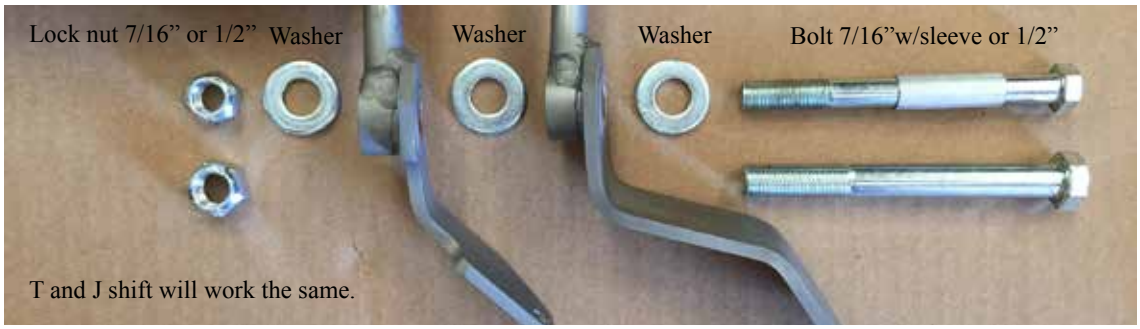
NOTE: If you have the 7/16” hole our recommendation is to drill the hole 1/2” size and use the larger hardware. If you choose to go with the 7/16” bolt make sure to use the aluminum bushing. Push the bushing through the front shifter add one washer then push it through the rear shifter.

4. Once installed move the shifters through the gears to see if the tunnel opening needs to be larger. NO contact of the shift handles with the body/ tunnel is allowed. Contact with any portion of the body sheet metal may cause the transfercase to come out of gear. Make sure that there is enough clearance for body flex during off road use. Normally after the install the



T-Shift

Install as shown in photos.



J-Shift

NOTE: The following step is critical for the J-Shifter Twin Stick install to function properly.

1. The shift rails will require modifications. Care must be taken to modify the rails exactly as shown in the photo or the new shifter will not function correctly. Use a cut-off wheel to make the modifications to the shafts. You will be making the shift rails capable of being shifted independent. Compare your J-shift to the photo and make the cut.

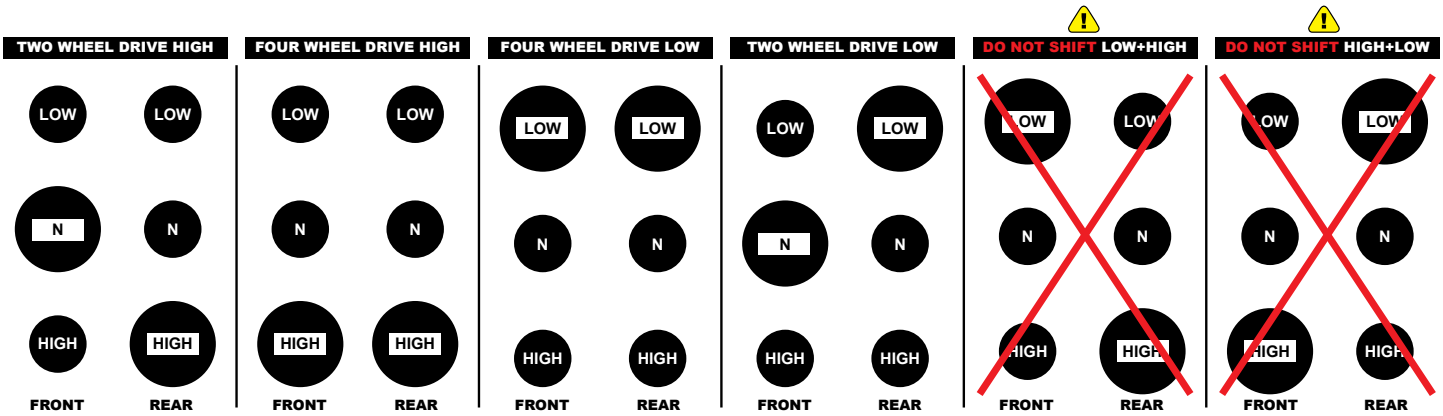


2. Bolt in the shifter in the order on the photo on the T-shift page. Also see Photo on right.
3. Once bolted up move the shifters thorough the gears to see if the tunnel opening needs to be larger. Refer to shift pattern chart on this sheet. NO contact of the shift handles with the body/tunnel is allowed. Contact with any portion of the body sheet metal may cause the transfer case to come out of gear. Make sure that there is enough clearance for body flex during off road use. Normally after the install the opening will need to be made larger front to rear. Any body lifts will require this opening to be larger. The higher the body lift, the larger the

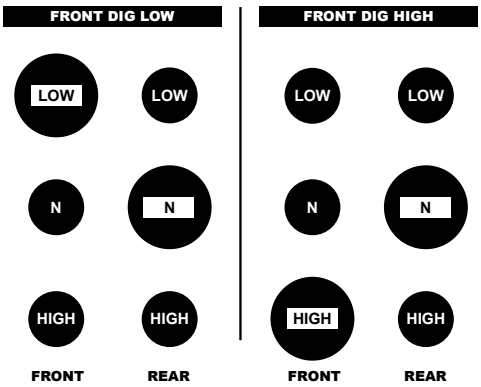


NOTE: If necessary to make clearance for transmission shifter the shifter handles can be easily adjusted by gentle heating with a propane torch to a dull red at the point where they require bending. DO NOT OVER HEAT! Just barely red. Keep in mind that this will cause discoloring of the metal. All adjustments should be made on a part of the shifter that will be covered by the boot.

TWIN STICK SHIFTING CHART



Dana 20 shifting: I general most people find the Dana 20 hard to shift. Installing a twin stick will make it easier. It should help to understand what's going on inside the T-case. The Dana 20 is a non-synchronized transfercase. When shifting sometimes the gears are hitting each other head on and when that's the case it's simply not going into gear. Just a slight movement of the vehicle forward or back is often all that is needed to get the gears to be in position to mesh. Sometimes it will take a few attempts.



THE FRONT DIG: When you only want the front end engaged that is called a front dig. This is often done in conjunction with a rear only hydraulic brake lock and the technique is typically used in hard core rock crawling and is practical in those circumstances.

J-shift Dana 20s will allow front digs without internal modifications.

If you want your **T-shift Dana 20** to front dig complete disassembly of the t-case will be required in order to remove the detents (pills). Be aware this will make the t-case easier to pop out of gear. It will also allow the t-case to be put in high and low opposing gears like the last two shift patterns on the above diagram. That could grenade your t-case in short order if you drive it like that. The choice is yours.