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 PAGE 1 OF 5 Page Rev. Date: 03-07-22  
 P/N: 715571

## TOYOTA L/C TRANSFER CASE TWIN STICK

### KIT CONSISTS OF:

No:	Qty	Part No.	Description
1.	1	*715575	HIGH LOW PIVOT BLOCK
2.	1	715576	T/C HIGH LOW SHIFTER LEVER
3.	1	*715577	2WD/4WD PIVOT BLOCK
4.	1	715579	PIVOT SHAFT
5.	2	715580	3/8"-24 BALL JOINT ( <i>High/Low linkage</i> )
6.	1	715581	5/16"-24 BALL JOINT ( <i>Mode shift handle</i> )
7.	1	715582	5/16"-24 MALE HEIM JOINT
8.	1	715584AA	SHIFT KNOB SET
9.	1	715585	TRANSFER CASE MODE SHAFT
10.	1	*715586A	HIGH/LOW SHIFT HANDLE ( <i>Must be welded to 715575</i> )
11.	1	*715586A	MODE SHIFT HANDLE ( <i>Must be welded to 715577</i> )
12.	1	*715588	MODE SHIFT LINK ( <i>Must be welded to 715577</i> )
13.	1	715589	CLEVIS PIN
14.	1	715590	COTTER PIN
15.	4	**715591	(FJ4404) PIVOT BUSHING
16.	1	723101	5/16"-18 NUT ( <i>Pivot pin</i> )
17.	1	723103	5/16" LOCK WASHER
18.	1	723122	5/16" FLAT WASHER ( <i>Pivot pin</i> )
19.	2	723131	5/16"-24 JAM NUT ( <i>Mode link</i> )
20.	2	723719	3/8"-24 JAM NUT ( <i>High/Low link</i> )
21.	1	723769	3/8"-24 SET SCREW ( <i>High/Low shift lever</i> )
22.	1	723771	3/8"-24 x 9" ALL THREAD ( <i>High/Low link</i> )
23.	1	302060	TWIN STICK BOOT
24.	1	302063	BOOT RING
25.	2	303121	1/2"-13 JAM NUT ( <i>Shift Knobs</i> )

### APPLICATIONS:

- 1) GM V8 with a SM420 or SM465 transmission and our T/C adapter.
- 2) GM V8 with the stock 4 speed transmission.

\*ITEMS MUST BE WELDED BEFORE INSTALLING

\*\*ITEMS MUST BE INSTALLED AFTER WELDING

\*\*715591 IS A PRESS FIT INTO THE PIVOT BLOCK

### NOTES:

This assembly will require the installation of a new mode shaft into the transfer case. Refer to the exploded assembly view on the following pages for part identification and part assembly.

This kit is a universal type kit that requires the handles to be bent and welded to fit your vehicle.

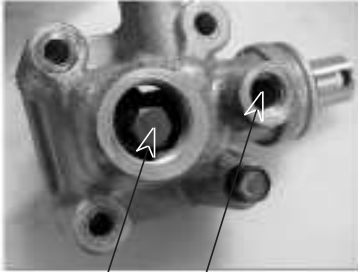
### SPECIAL NOTE:

The components packaged in this kit have been assembled and machined for specific type of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand modifications or changes that will be required to complete your conversion, we strongly recommend that you contact our sales department for more information. This instruction sheet is only to be used for the assembly of Advance Adapter components. We recommend that a service manual pertaining to your vehicle be obtained for specific torque values, wiring diagrams and other related equipment. These manuals are normally available at automotive dealerships and parts stores.

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### INSTALLATION OF PART #715585:

This kit requires the installation of a new mode selector shaft into your stock transfer case. This shaft can be installed with the transfer case still in the vehicle. The mode shaft is installed into an aluminum housing that is bolted to the front output shaft housing of the transfer case. This mode shaft housing bolts on using (4) 12mm bolts. By removing these bolts, the mode housing can be removed from the transfer case. Set the mode housing on a bench and remove the plug bolt to expose the bolt that couples the shift fork to the mode shaft. Remove the shift fork bolt through this

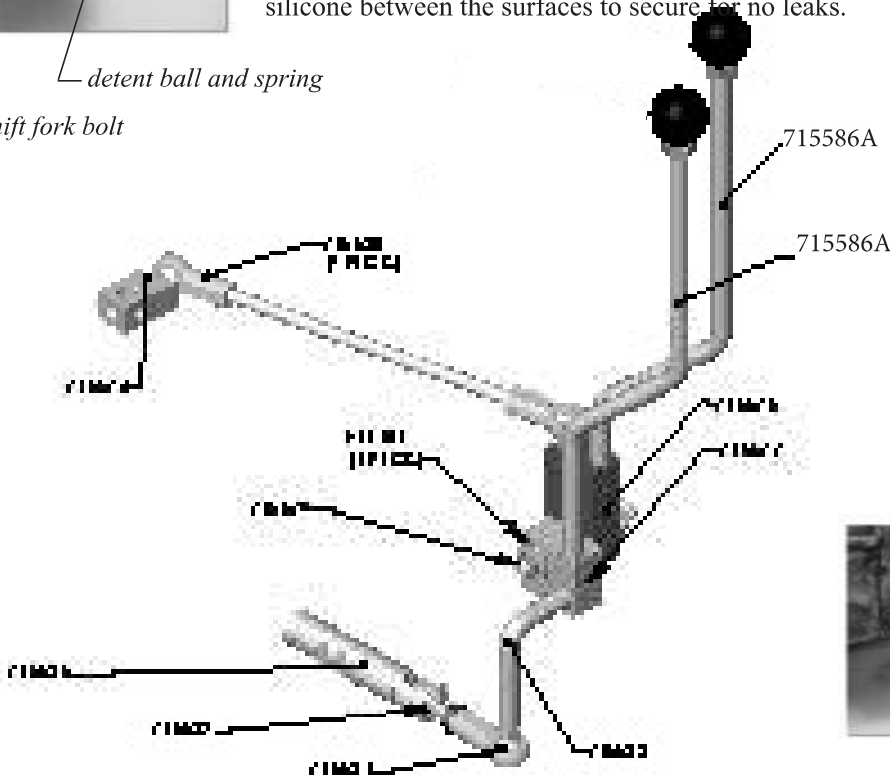


— detent ball and spring  
— shift fork bolt

access hole. Remove the shifter detent ball and spring by removing the detent bolt. Remove the rubber boot from the mode housing and pull the mode shaft from the housing. Install the new mode shaft through the seal and into the housing with the detent notches in the correct orientation. Reinstall the shift fork bolt into the shift fork and new mode shaft. Insert the detent ball, spring and cap into the housing. Slide the rubber boot back onto the mode shaft. Install the mode housing back onto the transfer case, making sure to silicone between the surfaces to secure for no leaks.



Remove the shifter detent ball and spring by removing the detent bolt. Remove the rubber boot from the mode housing and pull the mode shaft from the housing. Install the new mode shaft through the seal and into the housing with the detent notches in the correct orientation. Reinstall the shift fork bolt into the shift fork and new mode shaft. Insert the detent ball, spring and cap into the housing. Slide the rubber boot back onto the mode shaft. Install the mode housing back onto the transfer case, making sure to silicone between the surfaces to secure for no leaks.



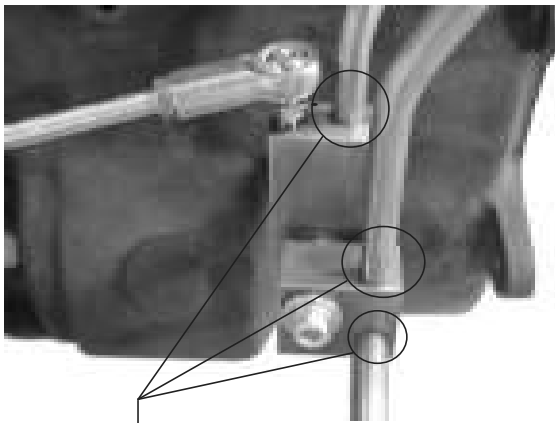
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### INSTALLATION

Install the transfer case high/low shifter arm to the top cover of the transfer case. Since Land Cruisers had two shaft configurations, we have provided two tapped holes on this lever. Match the tapped hole with the flat portion of the shaft.

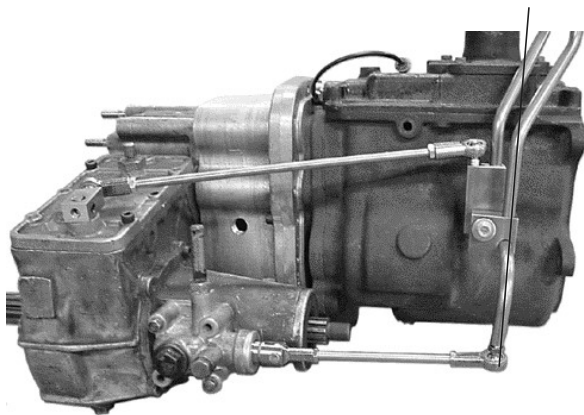
Temporarily install the pivot shaft and both shift blocks (P/N 715575 & 715577) onto the Advance Adapters bracket. These two blocks should be pointing straight up at the middle of their range. Paying attention to the orientation of the blocks and where the stock hole in the floor is located, carefully bend the shift handles (P/N 715586A) to fit your particular application. Make sure the handles clear each other as they travel along their path. It may be necessary at this point to enlarge the hole in the floor to gain clearance for both handles.



*weld all the way around*

Now weld each handle to its corresponding shift block, as shown. Mode shift link P/N 715588 comes pre-bent, but the distance it sticks out of the mode block (P/N 715577) needs to be set for your application. Weld the mode shift link to the mode block so that it is in-line with the mode shaft (P/N 715585) and so that the link is parallel to the long edge of the block (straight down). See pictures "vertical alignment" and "horizontal alignment" below for a visual description. Note that the mode shift link may need to be cut on the non-threaded end to achieve the desired alignment.

Now weld each handle to its corresponding shift block, as shown. Mode shift link P/N 715588 comes pre-bent, but the distance it sticks out of the mode block (P/N 715577) needs to be set for your application. Weld the mode shift link to the mode block so that it is in-line with the mode shaft (P/N 715585) and so that the link is parallel to the long edge of the block (straight down). See pictures "vertical alignment" and "horizontal alignment" below for a visual description. Note that the mode shift link may need to be cut on the non-threaded end to achieve the desired alignment.



*Vertical alignment of  
Part numbers 715588 & 715587*



*Horizontal alignment with Part No. 715588*

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After welding is complete, press the bushings into both shift blocks until they are completely seated in both the pivot block holes. This would be the best time to paint the two welded handle assemblies. Make sure to mask off the bushings so that no paint gets into the inside diameter. Now assemble the pivot shaft (P/N 715579), both handles (715586 & 715587), the 5-16" flat washer, the 5/16" lock washer, and the 5/16"-18 nut together as a unit. Push the handles up through the floor and thread the pivot shaft into the side of the transmission.

Now install the two 3/8" jam nuts and ball joints onto the 3/8" all thread and bolt this assembly to the high/low shift handle and arm. Adjust the length so that the handle is pointing straight up when the transfer case is in neutral. Cutting of the all thread may necessary to achieve this. Repeat this same process for the mode shifter assembly using the ball joint, jam nut, and male heim joint. The male heim joint mounts to the mode shaft with the supplied clevis pin and cotter pin.



*Twin sticks through modified hole in floor.*

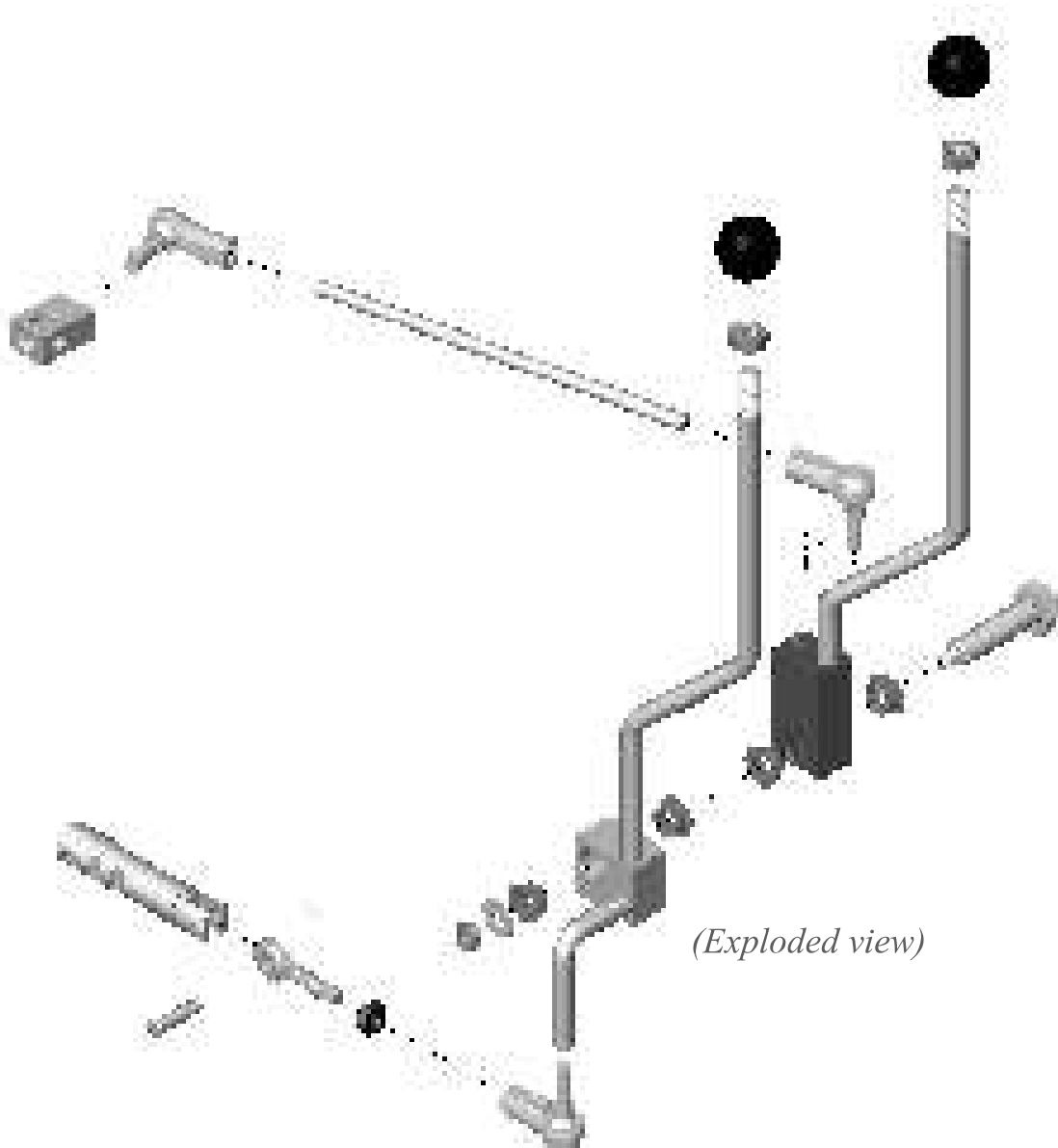
Once the transfer case shifts in a satisfactory manner, mount the shift boot over the hole in the floor using the metal ring supplied. Use approximately 4 self tapping screws to go through the boot, metal ring, and floor. Finish the installation by adding the 1/2" jam nuts and the shift knobs.



*Finished installation*

SPECIAL NOTE:

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*(Exploded view)*

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