

**\*TOYOTA FJ CRUISER 2007 & UP  
\*TACOMA 2005 to 2020 / \*4RUNNERS 2003 to 2020  
AUTO TRANSMISSION 4.0L Engine To ATLAS T/C**

**KIT CONSISTS OF:**

No.	Qty.	Part No.	Description
1.	1	51-5715	3/8" ADAPTER PLATE
2.	1	52-5710	TOY. 23 SPL. x JEEP 23 SPLINE SPUD SHAFT
3.	6	723718	3/8"-16 F.H.C.S x 1.00" LONG
4.	1	716178	SPRING FOR SPUD SHAFT (install in the Atlas input)
5.	1	716189	SEAL ADAPTER
6.	1	716756	SEAL
7.	2	303318	SHIFT LINK BLOCK
8.	2	303319	SHIFT LINK NUT
9.	2	302454	CLEVIS PIN- 1/4 x 1"
10.	2	302455	COTTER PIN- 3/32 x 3/4"
11.	1	302051-RLE	ATLAS SHIFT BASE

**Additional items required:  
SPEEDOMETER ADAPTER  
P/N 300605**

**\*ATLAS SHORT INPUT\***



**Notes:** The spud shaft in this kit should be checked for it stick out, temporally install the adapter plate to the transmission. Install the spud shaft into the transmission and measure the stick out of the shaft past the adapter plate. The shaft should only protrude .250" past the adapter which is ok for the Atlas 2 speed and 4 speed.

**Notes:** This kit is designed to adapt the Atlas transfer case to a Toyota FJ Cruiser transmission. This adapter plate works with the automatic transmission only. The exhaust that runs under the stock transfer case can remain installed when doing the new transfer case install; however, we found it was much easier to remove it while installing the transfer case.

**Installation:** Remove the stock transfer case from the stock tailhousing adapter. Make notes on the bolt location on the stock tailhousing as these bolts are various lengths and are to be reused when installing the Atlas. The stock tailhousing is retained along with the stock rubber crossmember support. Once the transfer case is removed, you'll see a seal located in the stock tailhousing. This seal must be removed and discarded. Some tail housings also had a bearing which also must be removed. Install the new oil seal into the large end of the seal adapter. The sealing lip should be facing down. The small end of the seal adapter has the same O.D. (outside diameter) as the old seal that was just removed from the stock tailhousing. The seal adapter is a press-fit into the stock tail and should now be installed. Install the new oil seal in its place. The kit comes with a new spud shaft which fits into the stock Toyota transmission. This spud shaft has a Jeep 23 male spline on the opposite side which fits into a 23 spline Atlas case.

The adapter plate should now be installed onto the Atlas transfer case. The adapter plate indexes off of the Atlas front retainer and is bolted on with the (6) 3/8"-16 flat head bolts. The stock transfer case had a 40 degree rotation, the new adapter plate can offer you eight clocking options. All of these options may not be feasible due to transmission clearances and body clearances. On the prototype vehicle we did, the 40 degree rotation was retained. The Atlas should be test fitted before the adapter plate is secured to check for Atlas shift rail clearance on the transmission tailhousing; and the Atlas cable linkage should also be test fitted on the unit to check for the same clearance issues. Once these areas of concern are checked, check for any necessary clearances. The stock tailhousing and adapter plate may require clearance on some rotations. The adapter plate should be installed. The bolts and bolt holes should be cleaned, red Loctited and torqued to 30 ft./lbs.

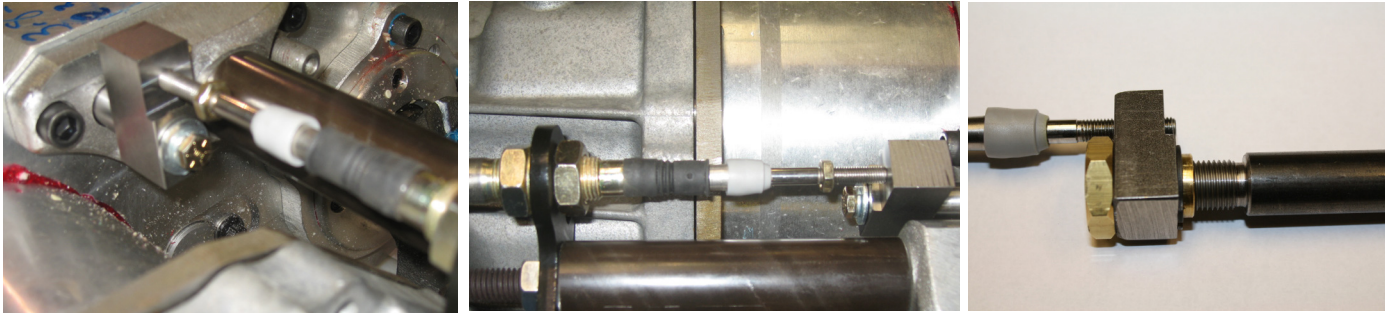
**SPECIAL NOTE:** The components packaged in this kit have been assembled and machined for specific type of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand modifications or changed that will be required to complete 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 manual are normally available at automotive dealerships and parts stores.

**\*TOYOTA FJ CRUISER 2007 & UP**  
**\*TACOMA 2005 & UP / \*4RUNNERS 2003 & UP**  
**AUTO TRANSMISSION TO ATLAS T/C**

Once the adapter plate is secured and orientated correctly, you'll now need to couple it onto the back of the stock transmission tailhousing. The stock tailhousing used two dowel pins to align the stock transfer case to the transmission. These dowel pins must be retained into the stock tailhousing for proper alignment of the Atlas onto the transmission.

**Atlas Shifters:**

Clearance on the FJ cruiser for the shifter is very tight on the floorboard as well as the transmission clearance. The photo's below show the adapter blocks that provide additional clearance for the cables on the transmission. The new shifter block that mounts to the Atlas will need to be modified like the one in the photo if the link block is used on the front output shaft shift rail.



**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.