

P.O. Box 247, 4320 Aerotech Center Way Paso Robles, CA 93447 Telephone: (800) 350-2223 Fax: (805) 238-4201 PAGE 1 OF 3 Page Rev. Date: 12-01-21 P/N: 50-0214

NEW VENTURE 4500 GM 5 SPEED TO TOYOTA L/C 19 SPLINE

KIT CONSISTS OF:				
<u>No.</u>	Qty.	Part No.	Description	
1.	1	51-0224	ADAPTER CASTING 6.375" LONG	
2.	1	52-0214A	19 SPLINE SPUD SHAFT (31T INTERNAL)	
3.	2	715539-1	SHIFT SPACER	
4.	1	715539-2	SHIFT BRACKET FJ60	
5.	1	716142	SPECIAL BUSHING	
6.	1	716247	BEARING RETAINER FOR 716310	
7.	1	716317	BEARING	1 · · ·
8.	1	716321	SPECIAL SNAP RING	
9.	1	716462	SET COLLAR	
10.	1	716571	T/C GASKET FJ60	
11.	1	716758	DAUL LIP SEAL	
12.	8	720046	S.H.C.S. 10mm 1.5 THR x 40mm	
13.	2	723704	LOCK WASHER 3/8" PLT	
14.	2	723739	3/8"-16 x 7/8" H.H.C.S.	
15.	7	724303	7/16" LOCKWASHERS	Control of the second s
16.	3	724311	7/16"-14 x 3-1/2" H.H.C.S.	
17.	4	724349	7/16"-14 x 1-1/2" H.H.C.S.	
18.	1	724351	SET SCREW, 7/16"-14 x 1/2"	

If your transfer case was coupled to a manual transmission, Toyota used a single lip seal in the front of the transfer case. The recommend changing the seal with a double lip seal P/N 716758 that was used on the stock automatic applications. Toyota # 90316-48003



NOTE:

This adapter kit has an overall transmission assembled length of 18.250". This transmission kit must be used with a 4WD GM transmission.

P/N 724351 must be installed (using silicone) into the casting as shown. This set screw will prevent fluid from leaking out of the casting.

CAUTION:

There are two 3/8" holes located on the side of the adapter for the mechanical shifter linkage. If these holes are not going to be used. They will need to be plugged with the hardware provided and small amount of silicone.

SPECIAL NOTE: You may be required to change out the snap ring on the 308 bearing. The split-style transfer case used two different diameter snap ring groves in the case. We have included both snap rings to fit both styles of transfer cases.

<u>SPECIAL NOTE:</u> 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 NOTES:

- 1. This adapter is designed for exclusive use of the 4WD General Motors version of the New Venture Model 4500 transmission. You must use this transmission due to the length and spline size of the output shaft. The shaft must be shortened to the 4.498" cutoff length. In order to cut the shaft off, you will need to remove the tailhousing. The shaft can be cutoff using and abrasive cutoff saw or a skill saw equipped with a special metal cutting blade. Be sure to use safety glasses during this procedure. You must remove the harmonic balancer and install the 2 piece set collar.
- The assembly of the adapter plate to the transfer case should be very much like the originally transmission that is being replaced. The stock transfer case lock nut is retained to hold the two gears in position. The stock Toyota nut is P/N 90179-26004.
- 3. The alignment between the new adapter plate and transfer case must be performed by the new bearing that has been included with the adapter. This bearing will have the external snap ring on the outside of the adapter similar to the original transmission.
- 4. When using this transmission assembly with a 6 cylinder Toyota engine, you may need to modify the gas tank area on 1979 and newer vehicles. It would be advisable that your vehicle be equipped with a suspension lift. 1980 to 1985 vehicles require a custom crossmember to be made for the new transmission assembly. On 1986 & newer vehicles, the original crossmember can be modified.
- 5. The transfer case shift controls will need to be modified for use with the new transmission. In order to have clearance for the gas tank area, special shifter modifications may be necessary. A new bracket has been included that will allow the original 4 speed transfer case pivot stud to be relocated on the passenger side of the new transmission. Be sure to assemble this prior to positioning into the vehicle. Slight modifications may be necessary.

NOTE:

This casting is used for both the early and late Land Cruiser transfer cases. When bolting your transfer case to the new adapter, you will find one hole on the casting that is not used. We recommend using a dab of RTV Blue Silicone to plug this hole.

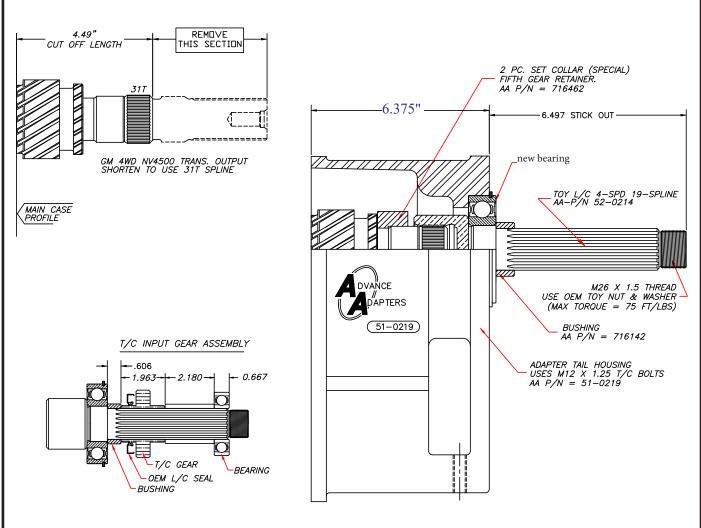
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This kit did use a 5.875" casting until July of 2014, the casting was changed for P/N 51-0214 to P/N 51-0224 and the spud shaft was lengthened .500". We still offer the old style shafts for the shorter castings.



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