ADVANCE ADAPTERS
SINCE NINETEEN SEVENTY ONE

P.O. Box 247, 4320 Aerotech Center Way
Paso Robles, CA 93447
Telephone: (800) 350-2223 Fax: (805) 238-4201
 Page Rev. Date: 01-29-19

P/N: 50-0440

GM 4WD 4L80 AUTOMATIC TO JEEP DANA 300 TRANSFER CASE

KIT CONSISTS OF:

No.	Qty.	Part No.	Description
1.	1	51-6912	ADAPTER HOUSING
2.	1	51-6408	4L80E ADAPTER HOUSING
3.	1	52-0208	NEW DANA 300 32T SPUD SHAFT
4.	1	716069A	RELUCTOR-DANA 300
5.	1	716220	DANA 300/ INDEX RETAINE
6.	1	716308	SEALED BEARING 716317
7.	1	716510	GASKET *(GM #862-4709)*
8.	1	716517	GASKET
9.	6	723701	HEX NUT 3/8"-16
10.	6	723704	3/8" LOCK WASHERS
11.	6	723716	STUD BOLT 3/8"-16 x 4" LG
12.	6	720028	10-1.5 x 35MM SHCS (ADAPTER TO 4L80E)
13.	3	300617A	SCREW- RELUCTOR RING
14.	1	300619	RELUCTOR SENSOR

The 4L80E transmission is normally equipped with an internal reluctor ring on both the transmission input shaft and output shaft. The computer takes both of these readings for the proper shifting and operation of this transmission. We have always ignored the reluctor ring requirement for this transmission since it is internally regulated; however, GM stopped installing the reluctorring in 4WD transmissions around 1997. The basic rule of thumb is 4WD transmissions up to 1996 should have a rear reluctor ring in the main transmission case. All 2WD transmissions should have the rear reluctor in the main transmission case. The 1997 & newer 4WD 4L80E transmissions had a sensor provision; however, the reluctor ring in the transmission was left out.

This adapter kit comes with a reluctor ring in our adapter housing so it is not needed in the transmission.

GM 4L80 4 SPEED AUTOMATIC

The GM 4L80 has a case length of 26", 17 bolts for holding the oil pan in position. The rear side of the transmission case will have a hex shaped bolt pattern that uses 6 bolts. There are several various lengths of output shafts that the transmission has been equipped with. You will need the 4WD output for this kit (3" stickout from the rear of the transmission). The speedometer pickup is normally located in the tailhousing, but when adapting it to the transfer case, the location will change to the backside of the transfer case. The rear transmission support will now be located on the new adapter housing or, in some cases, on the transfer case.

When installing the new transfer case adapter, make sure that the new input gear and the output shaft do not bottom out. We have found on occasion that the output shaft and transfer case input sleeve may bottom out if the shaft was not cut to the proper length. ***DO NO FORCE THE NEW TAILHOUSING ONTO THE TRANSMISSION***. If assistance is needed, please feel free to call the number listed above.

SPECIAL NOTE: The components packaged in this kit have been assembled and machined for specific types of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand the 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 vales, wiring diagrams and other related equipment. These manuals are normally available at automotive dealerships and parts stores.

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We have included a new sealed bearing that will replace the original Dana 300 bearing. This new sealed bearing will give added protection for fluid transfer between the two boxes.

All installations will require the use of a transmission cooler. The cooler can be either installed in the radiator or a remote location is acceptable. The transmission shift control can either be a Hurst floor mounted type shifter or sometimes the existing column shift can be modified on certain applications.

INSTALLATION:

1. Starting at the Dana 300 transfer case, remove the 6 socket head bolts from the aluminum index hub on the front side the transfer case.
2. Using the two slots on the side of this retainer, you will need to pry the retainer out of the transfer case. This retainer assembly does pilot into the rear output shaft of this transfer case, if the retainer assembly seams tight to remove try spinning the rear output shaft.
3. Once the retainer is removed you will need a pair of snap ring pliers to remove the snap ring that retains the drive gear to the input shaft. Remove the snap ring and the drive gear from the input shaft. The aluminum retainer should now have the bearing, input shaft, seal and a snap ring holding the bearing into the retainer. This snap ring must also be removed as you will need it for the bearing in the new retainer index housing. The old retainer, shaft, bearing, & seal can be set aside.
4. Assemble the new bearing shaft into the new retainer and retain with the old snap ring.
5. Install the input drive gear onto the input shaft and retain it with the stock snap ring. Make sure the gear is installed so that the cogged side of the gear is facing away from the bearing.
6. Apply Loctite 515 or equivalent sealant to the retainer surface and install into the Dana 300 transfer case. Make sure the pocket bearing is installed in the Dana 300 output shaft.
7. Bolt retainer to transfer case using the stock bolts. Torque to 10 ft./lbs.
8. The sensor needs to be installed into the 51-6912 casting.
9. Set the reluctor onto the Dana 300 input. Set the 51-6912 onto the Dana 300 and line the reluctor up with the sensor in the casting. Remove the casting and tighten the set screws on the reluctor ring.
10. Install the 6 4" stud bolts 3/4" into the Dana 300 transfer case and locktite them with thread lock.
11. Install the 51-6912 casting over the 6 stud, note this casting will only fit the stud one way. Once on, use a feeler gage to check the clearance between the sensor tip and top of the teeth on the reluctor ring. This clearance should be 0.012" +/- 0.002". This clearance may be adjusted slightly by adjusting torque used to snug the sensor. The transmission will not shift correctly if this tolerance is not correct.
12. Apply silicone sealant to the 4L80 adapter gasket. Assemble the adapter to the transmission with the six 10MM-1.5 x 35MM socket head cap screws.
13. Trial fit the transfer case to the 4L80 adapter casting. ***DO NOT "SUCK-UP" THE TRANSFER CASE WITH THE STUDS! SEVERE DAMAGE WILL OCCUR .***
14. Install the gasket between the adapters and use the lock washers and nuts to secure the components together.

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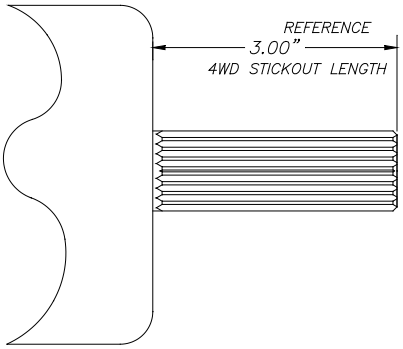

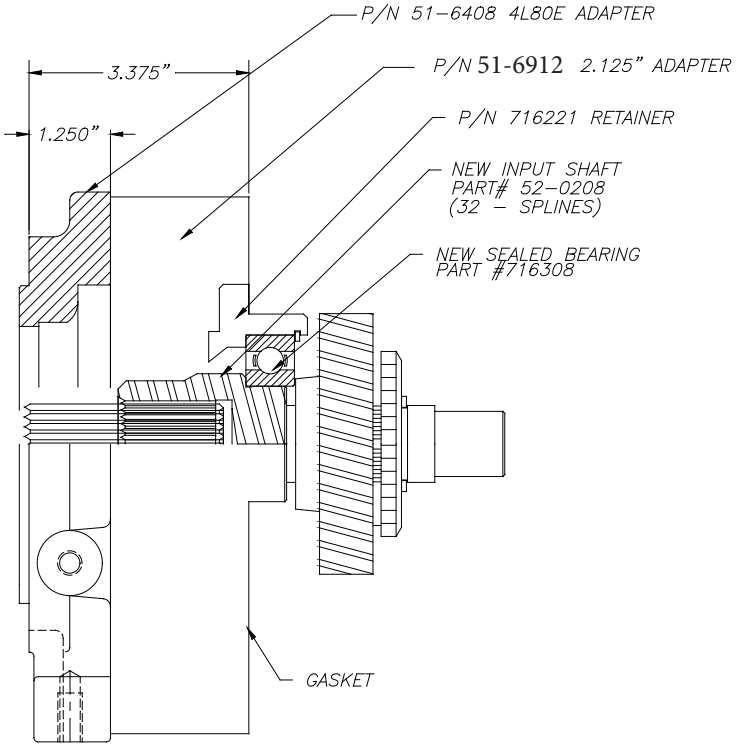

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