

## GM 4L80E 4WD AUTOMATIC TO NP205 TRANSFER CASE 1971-79

### KIT CONSISTS OF:

No.	Qty	Part No.	Description
1.	1	51-0410	ADAPTER ( <i>INDEX DIAMETER 4.8"</i> )
2.	1	*52-9600	GEAR NP205
3.	1	*52-9603	SHAFT NP205 LONG
4.	1	*716320	6210 INPUT BEARING
5.	1	*716467	SNAP RING
6.	1	716511	O-RING GASKET
7.	1	716572	NP205 GASKET
8.	1	716754	NATIONAL SEAL (#4435) ( <i>Installed by AA</i> )
9.	6	720028	10mm 1.5 x 35mm LONG ( <i>May need to be shortened</i> )
10.	1	*340407	SNAP RING

\*ITEMS MUST BE ASSEMBLED BEFORE SHIPPING.

### NOTE:

**THIS KIT USES A 4WD OUTPUT SHAFT. TRANSMISSION 1992 TO 96 NORMALLY HAVE A OUTPUT TONE RING. 1997 AND LATER TRANSMISSIONS WILL REQUIRE THE INSTALLATION OF A REAR OUTPUT TONE RING**

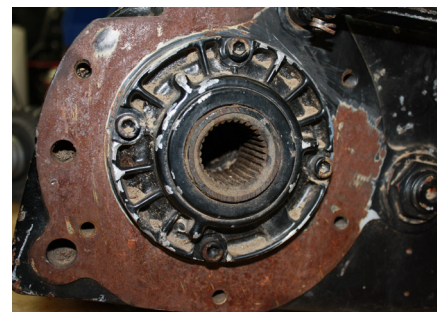


**SPECIAL NOTE:** The components packaged in this kit have been assembled and machined for specific type of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand modifications or changes that will be required to complete 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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When replacing a NP205 male input 10, 27, or 23 spline, the NP205 case will require machining for the larger input bearing bore.

Photos shown are of a Ford T/C. The installation on the new gear is the same on all models of T/C's



Remove the tailhousing bolts and front retainer bolts (if your transfer case has a front retainer). Shift the transfer case into 2WD high range and remove the tailhousing from the transfer case. Once the T/C output is removed, shift the T/C into low range which will release the slider. Remove the snap ring from the shaft to the bearing so the shaft and the bearing can be separated. This will allow the gear to drop downward and clear the shift fork.

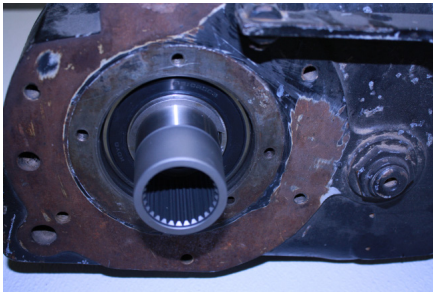
Once the old gear and bearing are removed, clean the bore of the case and get ready to reassembly the new gear assembly.

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The new gear comes assembled with the outer bearing snap ring pulled off the bearing. From the back side of the transfer case install the gear and bearing into the case. The gear gets assembled at an angle to clear the shift fork. Slide the bearing and gear up to meet the case bore. The bearing should slide into the case bore enough to align everything, you can tap the back of the gear with a rubber mallet to get the bearing fully installed. Note the bearing should come out the front of the case and expose the snap ring groove.



The slider ring of the NP205 will need to be installed back onto the shift fork in low range and then the transfer case needs to be shifted into high range. During this procedure be careful of your fingers as you need to line the slider with the gear drive teeth. Once the gear and slider are supported together you will need to install the front bearing snap ring. This will retain the gear in the proper location in the case. The snap ring can be started in the bearing groove with your thumb and then just working it into place with your other hand until it spirals into place. With the rubber mallet tap the front of the gear assembly to set the bearing and snap ring against the case.

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## GM 4L80E 4WD AUTOMATIC TO NP205 TRANSFER CASE 1971-79

### GM 4L80 4 SPEED AUTOMATIC OVERDRIVE

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 and you will need the 4WD output that have a 2.40" stickout.

This adapter kit includes a new input gear and bearing for the NP205 transfer case. This gear has a 32T internal spline that requires a larger bearing than most Chevy NP205 transfer cases. This gear is a stock GM item that was used on one ton vehicles only. The transfer case must be completely disassembled and the bearing bore size enlarged to accommodate the new bearing furnished. Be sure to inspect the seal area provided in the adapter housing to make sure that it has the proper contact on the new sleeve and gear supplied.

We have provided a new gasket to be installed between the adapter plate and the transfer case to allow proper load heights on the bearing. This gasket is a stock GM component, and it will require some trimming to fit over the new larger bearing.

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 NOT FORCE THE NEW TAILHOUSING ONTO THE TRANSMISSION.** If assistance is needed, please feel free to call the number listed above.

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. The adapter bolts directly to the back of the 4L80 transmission using 6 socket head cap screws that must be torqued to 25 ft./lbs. The original cooler lines and fittings will line up with the transmission. The original flexplate and converter can be retained. The transmission shift linkage can also be retained. The 4WD linkage mounting bracket will need to be relocated further forward to allow for the added length of the new transmission. The original transmission crossmember will need to be relocated on the frame rails approximately 3-1/2" further back.

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 reading 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. We have now learned that the rear reluctor ring is not always installed into the transmission.

**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. Make sure the transmission you plan on using has the rear reluctor ring installed for proper operation of this transmission.**

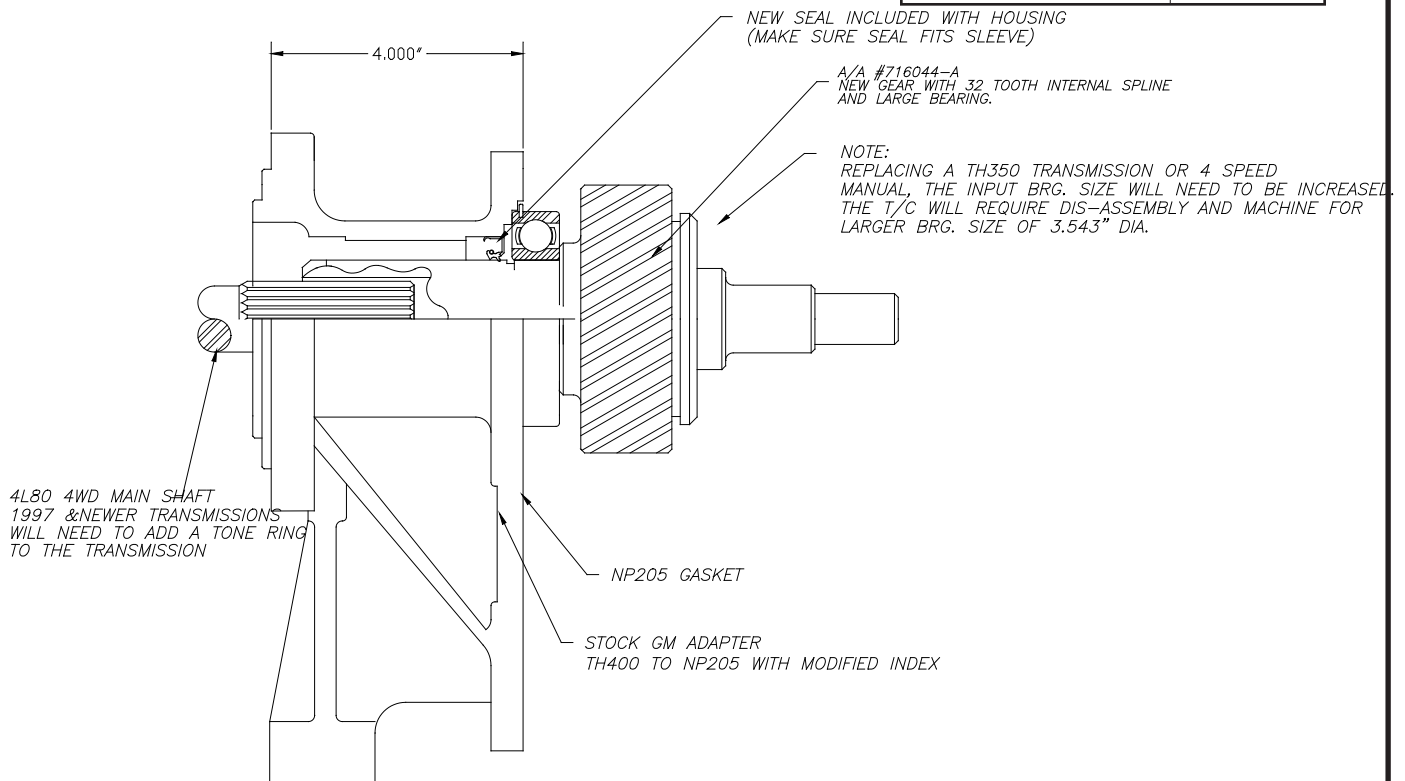
**Note:** The information on years and models of the 4L80E transmission mentioned in the above section was obtained from various sources. You should always verify what your transmission is equipped with before beginning a conversion with the 4L80E transmission.

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**NOTE!**  
THIS KIT WILL NORMALLY REQUIRE DRIVE LINE  
MODIFICATIONS.

<b>KIT NO. 50-0401</b>	
4L80 CASE LENGTH:	26.000"
ADAPTER :	4.000"
<b>OVERALL LENGTH:</b>	<b>30.000"</b>



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