

P.O. Box 247, 4320 Aerotech Center Way

Telephone: (800) 350-2223 Fax: (805) 238-4201 PAGE 1 OF 3 Page Rev. Date: 06-02-21

P/N: 50-9552A

GM CIRCULAR 32 NP205-29SPL INPUT TO GM 4WD 6L90 29 SPL TRANS

KIT CONSISTS OF:

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No.	Qty	Part No.	<u>Description</u>
1	*1	340407	SNAP-RING EXT INPUT GEAR NP
2	1	51-9552	ADAPTER- NP205 GM
3	1	51-9601	ADAPTER- 6L80/6L90 TO GM NP205
4	*1	52-9600	GEAR- NP205 INPUT 46T
5	*1	52-9601	SHAFT- NP205 INPUT 29T
6	*1	716315	BEARING 6210-T/C INPUT GEAR BEARING
7	*1	716467	SNAP RING-EXTERNAL 1 15/16
8	2	716517	GASKET-N.P.208 TRANSFER CASE
9	2	720044	H.H.C.S. 10mm X 1.5TH X 20mm GRD10.9 (rev B on casting ID crossmember threads)
10	6	723704	LOCK WASHER 3/8 ZINC
11	6	723723	H.H.C.S. 3/8 -16 X 1-1/2 gr. 5 zinc
12	6	723730	BOLT 3/8 -16 X 1.25" SHCS ZNC
13	6	723735	WASHER 3/8 SAE FLAT PLT
14	2	724302	FLAT WASHER 7/16 SAE ZINC
15	2	724303	LOCK WASHER 7/16 STD PLTD
16	2	724307	H.H.C.S. 7/16 -14 X 1
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^{*} items need to be assembled

SPECIAL INSTRUCTIONS: When assembling the transmission to the transfer case, DO NOT FORCE the two gear boxes together. If the shaft is too long, there is the possibility of pre-loading the transmission bearings which can lead to premature failure. Take the extra time to make sure that the shafts do not bottom out internally. If there is an interference problem, it may be necessary to grind the end of the new output shaft to obtain the proper length.

This kit fits GM NP205 circular pattern 32 spline input transfer cases. This kit will replace the 32 spline input with a new 29 spline input to match the 6L90 29 spline output shaft. The transfer case will require some disassembly of the front input to install the new gear assembly.

Note: 6L90 4WD transmission output shafts. We have seen two different lengths of outputs. One is simular to the 6L80 4WD and the other is longer. The longer shaft is approxamately 5" +/- stickout. Trimming this shaft will not allow enough splines to fit the transfer case. A 3/4" spacer will be needed and you will still need to modify the shaft length.

long shaft is GM 24264191shorter shaft is GM 24285487





The cut shaft below shows the short splines left on the long version 6L90 output shaft.



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 grove.













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 grove 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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