

Telephone: (800) 350-2223 Fax: (805) 238-4201 PAGE 1 OF 4 Page Rev. Date: 06-01-21

P/N: 50-9551B

## DODGE & GM(fig 8 pattern) NP205 to 32SPL INPUT TO GM 6L80 32SPL, TRANS

#### KIT CONSISTS OF:

No.	Qty	Part No.	<u>Description</u>
1	*1	340407	SNAP-RING EXT INPUT GEAR NP
2	1	51-0206	ADAPTER- NV4500 TO NP205 T/C
3	1	51-9601	ADAPTER- 6L80/6L90 TO GM NP205
4	*1	52-9600	GEAR- NP205 INPUT 46T
5	*1	52-9603	SHAFT- NP205 INPUT 32T LONG
6	*1	716315	BEARING 6210-T/C INPUT GEAR BEARING
7	*1	716467	SNAP RING-EXTERNAL 1 15/16
8	1	716574	GASKET-73-79 NP205 LARGE BORE
9	1	716729	SEAL CR#19466
10	2	720044	H.H.C.S. 10mm X 1.5TH X 20mm GRD10.9 zinc
11	6	723730	BOLT 3/8 -16 X 1.25" SHCS ZNC
12	8	723740	3/8 -16 X 1-1/2 S.H.C.S. zinc
13	2	724302	FLAT WASHER 7/16 SAE ZINC
14	2	724303	LOCK WASHER 7/16 STD PLTD
15	2	724307	H.H.C.S. 7/16 -14 X 1

<sup>\*</sup> Must 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 for 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 is designed for the Dodge 23 & 29 or GM 10,27 or 32 spline T/C's. This kit will replace the stock input with a new 32 spline input to match the 6L80 32 spline output shaft.

The transfer case will require some disassembly of the front input to install the new gear assembly and a machine operation for the new larger bearing on the 23, 10 & 27 spline transfer cases.

NP205 Machine Mods for 10,23, & 27. The NP205 bearing bore must be machined to accept the larger 210 bearing of 3.543". This is an important part to get this new bore in the correct location. A machine shop should first index the transfer case bore to find center on the current bore, and then bore the larger bearing diameter. The new adapter plate will retain the bearing once the plate is installed.

GM's new Hydra-Matic 6L80 transmission is the first of a new family of modular six-speed rear-drive transmissions. The transmissions feature two overdrive gears and a wide gear ratio spread to improve performance and fuel economy when compared with conventional four- and fivespeed automatic transmissions. With two overdrive gears, engine rpm is reduced by approximately 9 percent at 60 mph - a reduction to about 1,500 rpm. GM estimates the wide ratio spread can help cut 0-60 mph times by as much as 7 percent and enhance fuel economy by up to 4

The gear ratio's are 1st - 4.03:1 / 2nd - 2.36:1 / 3rd - 1.53:1 / 4th - 1.15:1 / 5th .085:1 / 6th .67:1. The 6L80 uses a 32 spline output shaft in the 4WD and 2WD model transmissions. Transmission length 23.2"

#### Please verify your spline information before starting any project.

The components packaged in this kit have been assembled and machined for specific type of conversions. Modifications to any of the SPECIAL NOTE: 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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6.75" stickout on a 2WD transmission. the shaft will need to be cut or shortend to 3.30" long. the casting is installed.

Shaft on the right is a fixed yoke 2WD trans. This shaft must be modified to work.



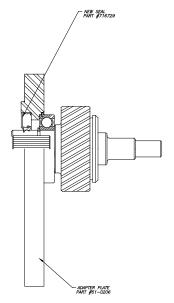
This casting is designed for the stock 4WD output shaft. The 6L80 shafts are 32 spline.

Stock 4WD output shaft stick out is needs to be 3.00". With the 3.625" adapter the splines should be recessed from the casting face .625" once. The 4WD shaft will need to be shortened

The new oil seal needs to be installed into the front of the NP205 transfer case and the adapter plate and the new gasket between the two.



On 2WD transmissions the holes located at 12 and 6 o'clock need to be plugged with factory soft plugs. The output shaft needs to have a seal installed. You also need to check the NP205 input length so that it does bottom out on the 2WD output shaft o-ring. If it does hit the o-ring, you will need to trim the input gear to fit.



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### KIT CONSISTS OF:

No.	Qty	Part No.	<u>Description</u>
1	1	340407	INPUT GEAR SNAP RING
2	1	52-9600	GEAR- NP205 INPUT 46T
3	1	52-9603	SHAFT- NP205 INPUT 32T
4	1	716467	SNAP RING-EXTERNAL 1 15/16
5.	1	716315	T/C INPUT GEAR BEARING
All nar	ts are ass	sembled at Advar	nce Adanters

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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