

6L80 TO JEEP JK NP241 TRANSFER CASE 2.72:1

KIT CONSISTS OF:

No.	Qty.	Part No.	Description
1.	1	51-9600	ADAPTER- 6L80 TO ATLAS 3.7" long
2.	1	52-9940	INPUT GEAR- NP241 JK 32SPL MODIFIED
3.	2	724302	7/16 Flat Washer
4.	2	724303	7/16 Lock Washer
5.	2	724307	7/16-14x1" H.H.C.S
6.	2	720044	H.H.C.S. 10mm X 1.5TH X 20mm (rev B on casting ID crossmember threads)

Notes: GM's new Hydra-Matic 6L80 transmissions are the first of a new family of modular six-speed rear-drive transmissions. The transmissions feature two overdrive gears and a wide, 6.04:1 gear ratio spread to improve performance and fuel economy when compared with conventional four- and five-speed automatic transmissions. With two overdrive gears, engine rpm is reduced by approximately 9 percent at 60 mph - a reduction to about 1,500 rpm. Lower engine rpm can bolster fuel economy because less fuel is used. A lower-rpm cruising speed also enhances smoothness and reduces noise heard in the vehicle's cabin.

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.



2008 2WD 6L80 output shaft has, approximately 7" of shaft stick out and 6" of splines. This shaft could be cut and the casting used at the 3.7" length.



Stock 4WD output shaft with 3.375" of spline. This spline should be recessed from the casting face .325" once the casting is installed.

AC Delco 151712918 is the stock rubber mount that will bolt to the new Advance Adapters casting. We also offer this mount under our P/N 716101

Installation: The new casting is designed to use the factory bolts to fasten the adapter to the transmission. We have The 7/16 bolts included are for the factory GM rubber support mount. Your stock crossmember will need to be modified to connect to the GM rubber support

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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INSTRUCTIONS for NP 241 input gear:

This new input gear will only fit the NP241 with the 2.72:1 low ratio. The installation of the gear will require the complete disassembly of your NP241 transfer case.

If you've never disassembled a New Process transfer case, here are a couple of points to keep in mind that will make the installation much easier:

1. Keep all bolts, nuts, washers, etc. separated into groups as you remove them. Make sure you keep them in a labeled container that indicates what part of the transfer case they came from.
2. Keep all small parts in separate containers and label as to location and origin.
3. Make sure you have plenty of time and have a clean, spacious area to perform the installation.

Remove the front and rear yoke nut with an impact wrench. Remove the rear case bolts. Start to remove the rear case from the front case by inserting pry bars at the cast-in locations **ONLY!** Pry apart evenly to break the sealer bead along the case mating surfaces.

On the front side of the transfer case, you'll need to remove the 4 bolts that retain the aluminum bearing retainer. Once this is removed, you'll find a snap ring that retains the input gear to the cases' input bearing. This snap ring must be removed so that the input gear can be removed from the inside.



On the inside of the transfer case, you'll now be able to remove the planetary assembly. Set the assembly on a work bench and locate the snap ring that retains the input gear into the planetary housing. Remove the snap ring and lift the input gear out of the planetary housing.



Once the input gear is removed, you'll find a thrust washer that must be reinstalled onto the new 32 spline input. When comparing the two input gears, they should look the same except for the internal splines. We have modified the new input gear to accept the same bearing



install the gear into the planetary, install the snap ring. Re-install the planetary assembly into the case and secure the input to the bearing with the front snap ring. **Note:** The only part you should have left out of the case is the old input gear. During reassembly, make sure the oil return hole matches the front retainer hole.

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