

## 6L80 & 6L90 to ATLAS CASTING

### KIT CONSISTS OF:

No.	Qty.	Part No.	Description
1.	1	51-9600	6L80/6L90 casting 3.7" long
2.	1	714212	50-9600 BOLT PACK

### Optional Item:

P/N 716066 Seal & soft plug kit

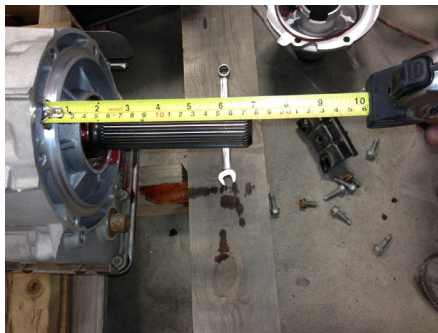
**Notes:** GM's new Hydra-Matic 6L80 & 6L90 transmissions are the first of a new family of modular six-speed rear-drive transmissions. The transmissions feature two overdrive gears and a wide, 6.04:1 gear ratio spread to improve performance and fuel economy when compared with conventional four- and five-speed 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"

The 6L90 uses a 29 spline output shaft in the 4WD. Transmission length 24.6"

**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 6L80 output shaft with 3.375" of spline. This spline should be recessed from the casting face .325" once the casting is installed.**

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



**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.**

**We offer a kit with these items P/N 716066.**

**Installation:** The new casting is designed to use the factory bolts to fasten the adapter to the transmission. We have included two sets of transfer case holes for the Atlas to offer multiple rotation options for both the right and left drop case configurations. 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 changed 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 manual are normally available at automotive dealerships and parts stores.

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This shaft will require the 3/4" spacer. shaft final stickout would be 4.5"

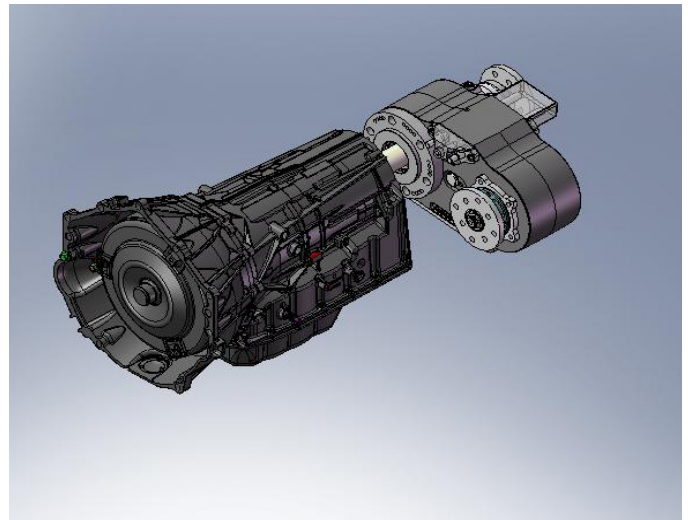
This shaft does not use the spacer. Shaft would be 3.75" stickout length after cutting



*Fixed yoke 6L80 transmission that can be used but the shaft must be cut.*

Note: 6L90 4WD transmission output shafts. We have seen two different lengths of outputs. One is similar to the 6L80 4WD and the other is longer. The longer shaft is approximately 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 24264191 or GM 24285487

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



*Atlas shown in a left hand drop assembly with the 6L80 & 6L90 transmission.*

P/N 716101 (Rubber mount 2638) is the stock rubber mount that will bolt to the new Advance Adapters casting.

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