ADVANCE ADAPTERS
SINCE NINETEEN SEVENTY ONE

P.O. Box 247, 4320 Aerotech Center Way
Paso Robles, CA 93447
Telephone: (800) 350-2223 Fax: (805) 238-4201
 Page Rev. Date: 06-16-21
P/N: 712576

GM BELLHOUSING FOR USE WITH 1996 GM NV4500 TRANSMISSION

KIT CONSISTS OF:

No.	Qty	Part No.	Description
1.	1	712548-PLT	DUST COVER PLATE
2.	1	712576-BLK	BELLHOUSING
3.	1	716067A	MODIFIED BEARING RETAINER
4.	1	716154	PILOT BEARING *(.590")*
5.	1	716176	CLUTCH RELEASE ARM
6.	1	716176SC	GM THROW-OUT LEVER SPRING CLIP
7.	1	716180	BALL PIVOT
8.	1	716332	T/O ARM RUBBER BOOT
9.	1	714209	Bolt Pack

Most 1997 & up GM 4.3L V6 engines had a larger crank I.D. The pilot bushing in this kit requires a steel sleeve, P/N 716155.

NOTE: If our bellhousing does not index over the front retainer and the retainer is aluminium, you could have an aftermarket retainer. The stock NV4500 retainers should measure 5.5957" to 5.5977" in diameter. Some aftermarket ones were .003" to .007" larger in diameter. If this is the case, you would need to modify your retainer to fit our bellhousing.

NOTES

In 1996, GM changed the NV4500 transmissions to an internal hydraulic release bearing design. These new transmissions have an aluminum bearing retainer installed on the front of the transmission case. The bolt pattern on the transmission is the same as the Dodge NV4500. In February of 1996, Advance Adapter's introduced this new bellhousing as a solution to installing these transmissions back to a conventional clutch release arm design. The bellhousing adapter kit includes a new CUSTOM bearing retainer that has been modified for use with a stock GM clutch fork. If you are purchasing this item as an adapter kit and are going to be installing your new bearing retainer onto your transmission, it will be your responsibility to verify proper main shaft end play. Refer to the service manual for the correct procedure in determining the proper pre-load.

DUST COVER INSTALLATION

The dust cover that we have furnished with this kit will fit all Chevy engines up to 1985. If your engine is 1986 or newer and uses the larger rear main seal, you will need to modify the inside diameter of the steel sheet metal plate to allow for clearance around the rear main seal area.

GEN 3 blocks have some interference with the aluminum oil pan. The drawing shows the modifications required. see page 4.

**SPECIAL PILOT BEARING NOTE:

Due to variations in both the transmission input shaft length and bellhousing depth, it will be the customer's responsibility to verify pilot bearing engagement from the new transmission input shaft tip.

The recommended clutch assembly for this bellhousing is an 11" diaphragm type. The ball pivot and clutch release arm are designed for a location that is limited to only the high diaphragm type clutch. The 11" clutch assembly will require the use of the 168 tooth flywheel.

NOTE: We have found that when using the Zoom brand clutch assembly and other "High Hat" style clutch assemblies, we have encountered interference with the clutch arm. The only modification for Zoom clutches would be to reduce the thickness of the flywheel. These style clutch pressure plates are not recommended for use with this bellhousing.

BOOT NOTE: The throw out arm boot provided in this bellhousing kit was designed for a Jeep throw out arm. The arm provided in this kit is a Chevrolet arm. The boot may need to be modified for the correct arm location in the boot.

The new pivot ball needs to be installed into the bellhousing. Apply blue Loctite to the threads and torque to 40-45 ft-lbs. The clutch fork will need the spring clip installed; a pair of needle nose pliers works well. Once the spring clip is installed, apply grease to the spring and socket of the fork.
*Note: Clutch fork must be installed into the bellhousing before bolting to the engine.

Place the fork over the pivot ball, centering the spring clip. With a dead blow hammer, hit the back side of the fork using ample force, directly perpendicular to the pivot ball (2 or 3 times may be required). Fork should move free, with slight resistance. If not, repeat the force with the dead blow hammer.

See photos

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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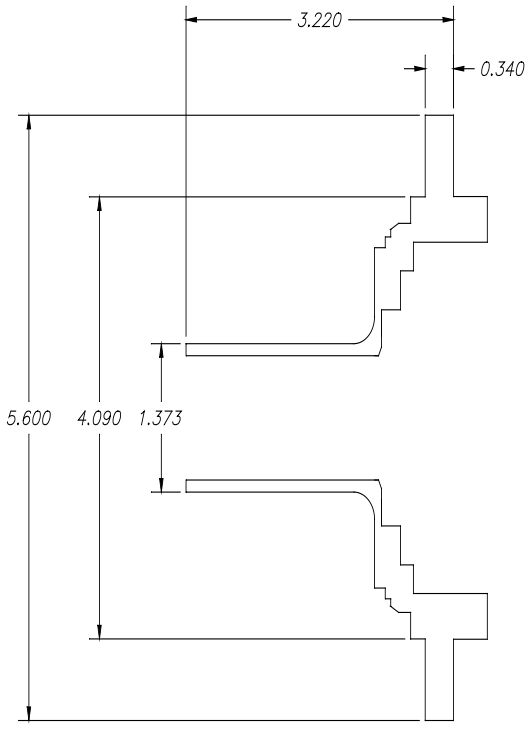
RETAINER INSTALLATION:

The stock GM NV4500 transmission used an internal release bearing that mounts to the front aluminum bearing retainer housing. Kits purchased before May 7, 1999, used a modified Dodge retainer (which was supplied in the kit). This retainer replaced the GM aluminum retainer and provided the proper configuration to utilize the new release bearing assembly. If this bellhousing was purchased with the intent to use a Dodge transmission with a new input shaft, your stock retainer must be modified. See below for machining specifications.

Kits purchased after May 7, 1999, will retain the stock GM aluminum bearing retainer and will use P/N 716067A to obtain the proper configuration. Part No. 716067A is a modified retainer that bolts to the stock GM retainer. We switched to this design due to changing the front retainer may also require main output shaft shimming.

Part No. 716067A is machined to index over the stock GM aluminum retainer. Once the retainer is indexed, rotate the 716067A to line up with the two drilled & tapped holes located on the GM retainer. Using the two (2) 6mm fasteners & **Loctite #242**, secure the 716067A to the GM retainer. NOTE: We have seen some aftermarket GM aluminum retainers that have a larger index hub. This hub measures 4.408". Our retainer is machined to fit the stock **GM** retainer which measures 4.398". If our P/N 716067A does not fit the aluminum hub on the NV4500 retainer, then one of the pieces will be required to be machined for proper indexing.

NOTE:
For customers that have a Dodge gas version transmission and wish to use this bellhousing, you will need to purchase a new Chevy input shaft, Advance Adapters Part No. 52-0221. You will also need to machine your stock retainer. We have enclosed this drawing for your reference. We also carry a modified retainer under our P/N 716067.



Note: This bellhousing will bolt to the GM 6.2 & 6.5 diesels. A new starter may be required that does not have a nose cone or the bellhousing pocket may need clearance. This kit should not be used in a Chevy 4WD truck with the front drive shaft on the drivers side. The front drive shaft interference on the slave cylinder.

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Stock GM retainer

Line up holes of the modified retainer with the GM retainer holes.

716067A retainer indexed over the stock GM retainer.

(side view)

Make sure the modified retainer lines up with the two drilled & tapped holes on the GM retainer.

Bolt the retainers together using the two (2) 6mm bolts & Loctite 242.

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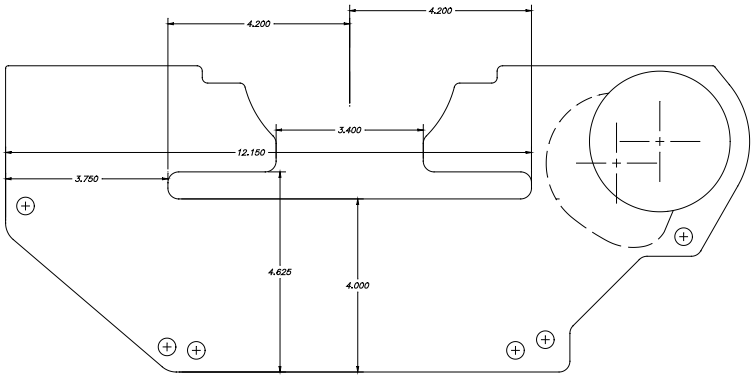
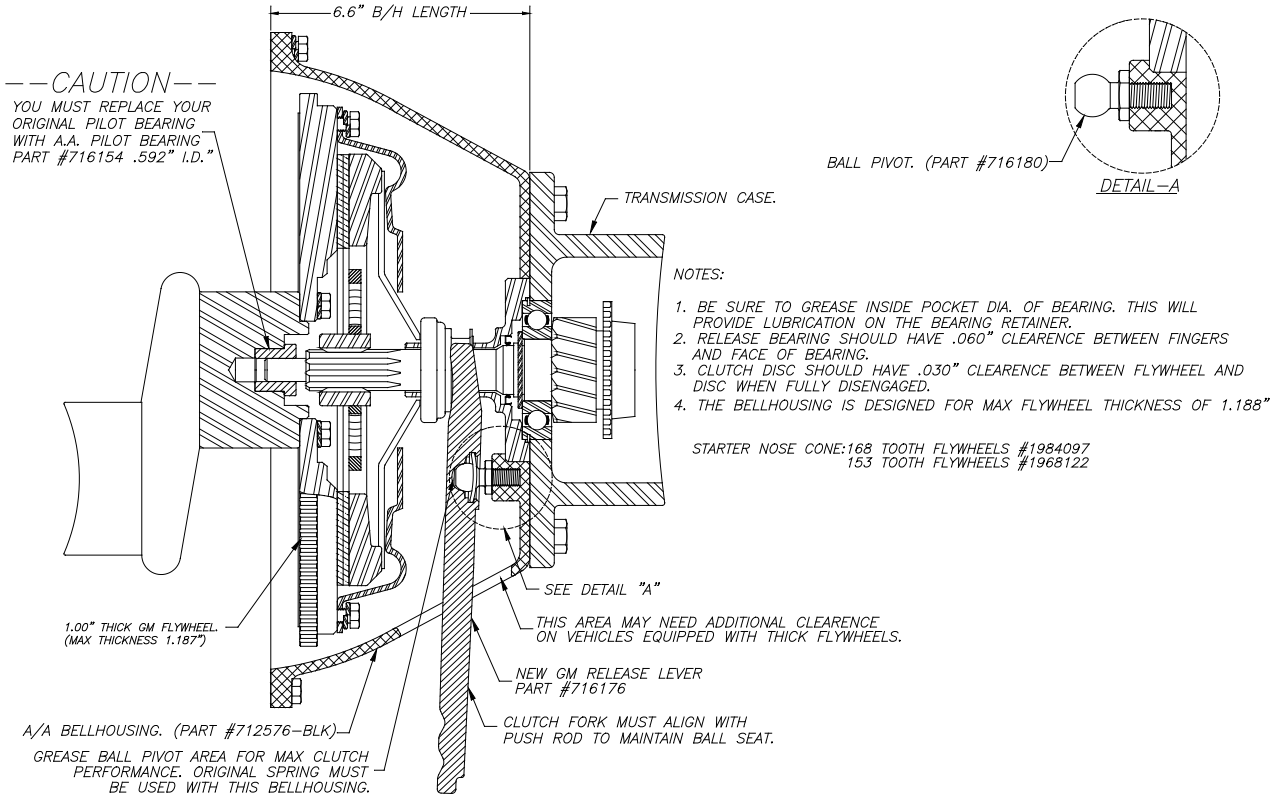
Gen 3 dust cover modifications





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