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PAGE 1 OF 4 Page Rev. Date: 01-22-18
P/N: 50-0432

GM 4L60E 4WD HEX BOLT PATTERN TO DANA 300

KIT CONSISTS OF:

| No. | Qty. | Part No. | Description |
|-----|------|----------|-----------------------------|
| 1. | 1 | 300619 | SENSOR |
| 2. | 1 | 51-0405 | CASTING |
| 3. | 1 | 51-9111 | CASTING |
| 4. | 1 | 52-0432 | DANA 300 INPUT SHAFT |
| 5. | 1 | 716074 | RELUCTOR RING |
| 6. | 1 | 716079 | PLUG |
| 7. | 1 | 716308 | BEARING (#6209) |
| 8. | 1 | 716511 | "O"-RING |
| 9. | 1 | 716517 | GASKET |
| 10. | 1 | 716749 | NATIONAL SEAL 471870 |
| 11. | 1 | 714207 | BOLT PACK |
| 12. | 6 | 723711 | STUD BOLT 3/8 -16 X 2 LG B7 |

Optional items:
716055 Mount

Note: We have found some Chevy Performance crate 4L70E transmissions have a larger diameter transmission output shaft where the VSS Tone Ring clamps on. If you encounter this please contact Advance Adapters.

INSTALLATION INSTRUCTIONS:

This kit is designed to use a stock 4L60E 4x4 hex bolt pattern transmission to a Dana 300 transfer case. If you do not have the 4X4 version of the 4L60E, you will have to purchase a new GM output shaft. To assemble this adapter, you will have to modify your output stickout from the back of the transmission case. The proper cut off length is 3.85". This measurement should be taken from the rear of the transmission case.

1. Starting at the Dana 300 transfer case, remove the 6 socket head bolts from the aluminum index hub on the front side the transfer case.
2. Using the two slots on the side of this retainer, you will need to pry the retainer out of the transfer case. This retainer assembly does pilot into the rear output shaft of this transfer case. If the retainer assembly seems tight to remove, try spinning the rear output shaft.
3. Once the retainer is removed you will need a pair of snap ring pliers to remove the snap ring that retains the drive gear to the input shaft. Remove the snap ring and the drive gear from the input shaft. The aluminum retainer should now have the bearing, input shaft, seal, and a snap ring holding the bearing into the retainer. This snap ring must also be removed to allow the bearing and input shaft to be pressed out of the index housing.
4. The seal will also be required to be pressed out of the index retainer. The retainer should now be empty.
5. Install the new bearing onto the new input shaft. Install both components into the stock retainer and install the stock snap ring.
6. Install the input drive gear onto the input shaft and retain it with the stock snap ring. Make sure the gear is installed so that the cogged side of the gear is facing away from the bearing.

SPECIAL NOTE: The components packaged in this kit have been assembled and machined for specific types of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand the 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 vales, wiring diagrams and other related equipment. These manuals are normally available at automotive dealerships and parts stores.

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7. Install the new seal provided in the kit - the open side towards the transmission.
8. Apply Loctite 515 or equivalent sealant to the retainer surface and install into the Dana 300 transfer case. Make sure the pocket bearing is installed in the Dana 300 output shaft (illustrated in photo right).
9. Bolt retainer to the transfer case using the stock bolts. Torque to 10 ft./lbs.
10. This kit fits the 4L60E 4WD transmission only. The stock 4WD output shaft must be shortened to a stickout of 3.85" from the rear of the transmission.
11. Install the adapter to the 4L60E using the metric bolts and lock washers. Make sure you install the square o-ring between the two adapters.
12. The transfer case should be test-fitted to the adapter to check for shaft engagement. Make sure the transfer case fits flush up to the adapter surface. If not, check for burrs on the shafts and/or output shaft cut off length. **Never pull the transfer case to the adapter using the bolts to draw these components together.**
13. Install a silicone sealant on both sides of the gasket and install the transfer case to the adapter. **Note:** The gasket will only fit onto the transfer case in one rotation.
14. Install the nuts onto the new stud bolts and Loctite to secure.



If for any reason the two bolt surfaces do not slide together, **DO NOT FORCE OR PULL TOGETHER** with the bolts. If you have any questions, please call 1-800-350-2223, for technical assistance.



AA shaft & bearing with stock parts



New input shaft & stock parts assembled.

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TRANSMISSION INSTALLATION INFORMATION:

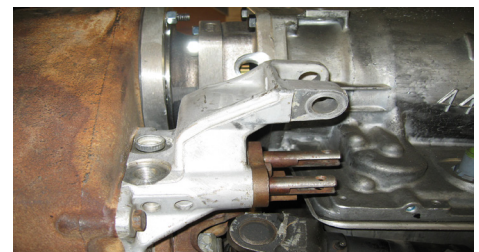
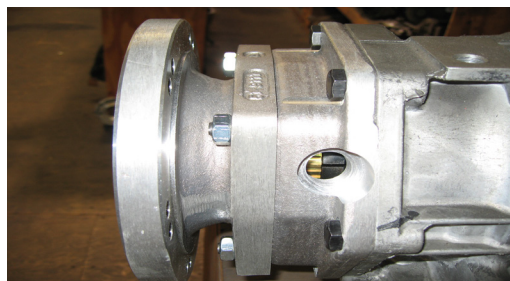
Cut the output shaft so that it has a stick out of 3.85" from the rear of the main transmission case. Install the new reluctor ring with the set collar side going on the shaft first. Before tightening this clamp, trial fit the 51-0405 adapter plate onto the back of the 4L60E transmission. With the adapter set on the back of the transmission, install the 300619 reluctor sensor into the adapter casting. The 300619 sensor should line up over the teeth of the reluctor clamp. When you obtain this location, remove the adapter housing, making sure not to disturb the position of the clamp on the shaft. With the clamp now exposed, tighten the set screws on the clamp. *Loctite on these set screws is recommended.*

Trial fit the 51-0405 adapter and 300619 sensor back on the transmission and make sure the reluctor ring teeth and sensor still line up properly. *RTV Blue Silicone* should be used to seal the 51-0405 adapter to your 4L60E transmission. Screw the 300619 sensor completely into the 51-0405 casting. With a feeler gauge, check the gap between the sensor and the reluctor ring. This gap should be around 0.010" to 0.012". Once 0.010" to 0.012" clearance is obtained, loc-tite the sensor into position.

Sensor note: This sensor will match up with the GM pigtail P/N 12162193 or Carquest P/N TX3A.

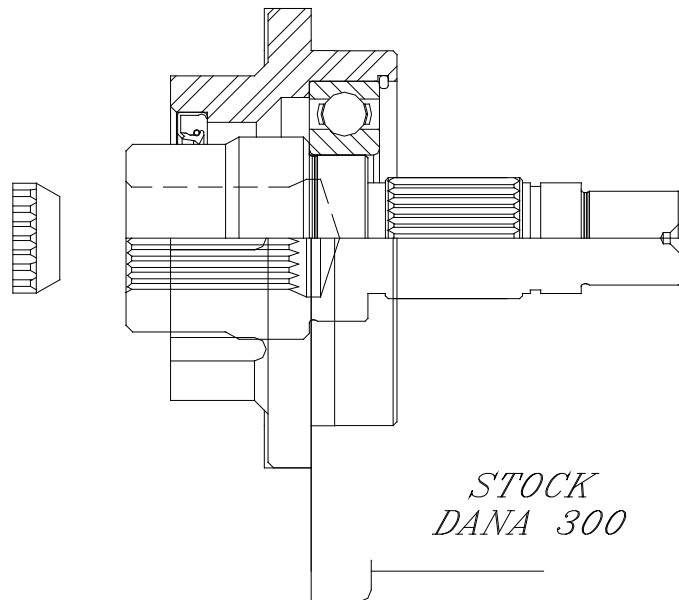
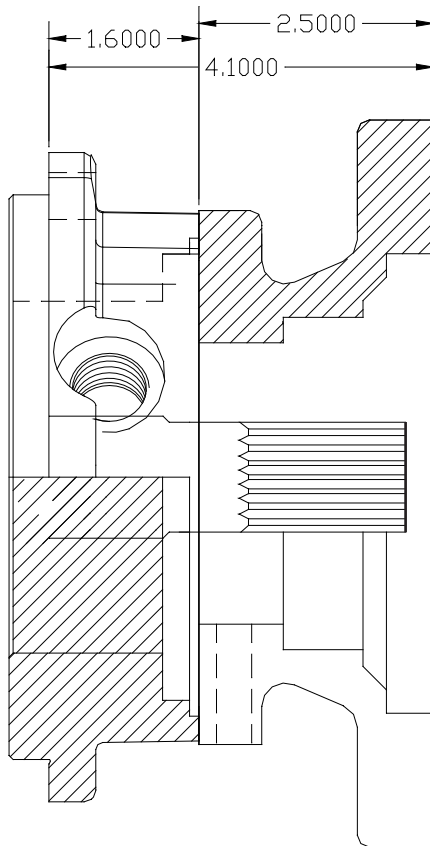
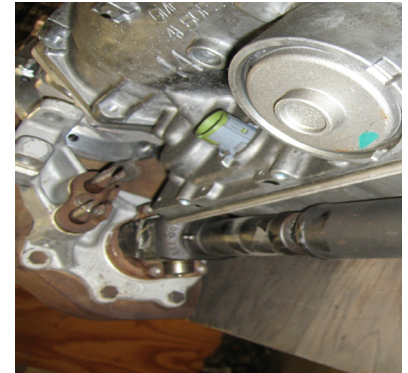
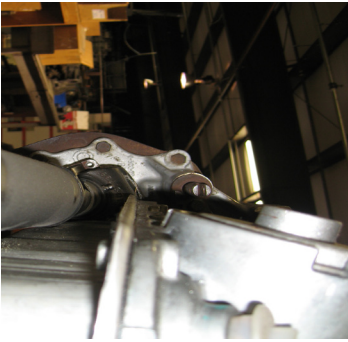
Once the 51-0405 is installed, install the 4 metric stud into the this adapter. Install the o-ring gasket on the 51-9111 adapter and bolt it to the 51-0405 casting. Note the output shaft on the transmission should be flush with this (51-9111) casting after it is installed. The stock Dana 300 studs should be retained to install the transfer case to the new adapter kit. The casting has two rotations options, however only the higher rotation should be used due to shift rail clearance.

This transmission installation will require slight transmission pan modifications and will require the drivetrain to be offset 1" to the drivers side. Some applications may require a smaller diameter drive shaft.



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