

ADVANCE ADAPTERS INC.

P.O. Box 247, 4320 Aerotech Center Way
Paso Robles, CA 93447

Telephone: (800) 350-2223 Fax: (805) 238-4201

P/N: 50-9102

Old Part No: 711091-23

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Page Rev. Date: 06-21-02

GM 700R-4 AUTOMATIC TO JEEP NEW PROCESS TRANSFER CASE (23-SPLINES)

KIT CONSISTS OF:

<u>No.</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1.	1	51-6800	ADAPTER CASTING (Ref: 711168)
2.	1	52-9101	700R-4 SHAFT (23-Splines)
3.	1	716082	700R PLASTIC WASHER
4.	1	716511	O-RING
5.	1	716517	GASKET, NP208 T/C
6.	1	716729	SEAL (NAT. #456057) (ADAPTER)
7.	4	720046	10mm-1.5THX 40mm S.H.C.S.
8.	6	723701	NUT 3/8"-16 PLATED
9.	6	723704	3/8" LOCKWASHERS
10.	6	723711	STUD BOLT 3/8"-16 x 2" LG
11.	2	723730	S.H.C.S. 3/8"-16 x 1-1/4" LG.
12.	1	JP001	JEEP INSTRUCTION MANUAL

OPTIONAL ITEMS:

<u>Part No.</u>	<u>Description</u>
716008	Crossmember mount

CAUTION: This adapter kit is not compatible with Jeep vehicles 1980-86 that are equipped with the Dana 300 T/C.

GM700R-44-SPEED AUTOMATIC

The General Motors 700R-4 has a case length of 23-3/8", and is available in two different engine to transmission bolt patterns. The case is available with a Chevy bolt pattern that has the top two holes 8-1/4" apart or in a Buick bolt pattern that has the top two holes 7" apart. The rear side of the transmission case should have a square bolt pattern that uses 4 bolts. There are several various lengths of output shafts that the transmissions have been furnished with and you must make sure the proper shaft has been installed into the transmission for use with our transfer case kit. The speedometer gear is normally located in the tailhousing, but when adapting it to the transfer case, the location will change to the back side of the transfer case. The rear transmission support is located in the main case just forward of the tailhousing connection. This can be used for supporting this crossmember on some installations, but most of our kits provide support on the new adapter housing.

When installing the new transfer case adapter, make sure that the transfer case input sleeve and the output shaft do not bottom out. We have found on occasion that a transmission output shaft may be slightly longer than we have allowed for; and when coupling into the transfer case, we find a small amount of interference. The adapter housing and shaft must be assembled to the back of the transmission without interference. **DO NOT FORCE THE NEW TAILHOUSING ONTO THE TRANSMISSION.** If assistance is needed, please feel free to call us on our toll free number, **1-800 350-2223**.

When assembling the adapter housing to the transmission case, we have provided you with a new square type O- ring seal to prevent fluid leakage. This O-ring seal is a stock GM item that is used on all 700R-4 installations.

This adapter can be used on either Jeep Wranglers 1987 and newer or Jeep Cherokees 1984 and newer. The only difference is the transfer case shifter linkage. The adapter is 1-1/2" thick and will provide an overall transmission assembly length of 24-7/8". On conversions using the 700R-4, you can anticipate driveshaft modifications. The adapter crossmember

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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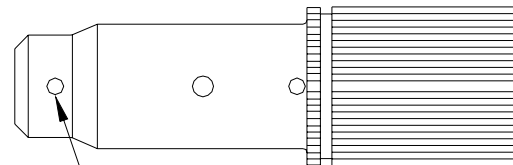
support is designed around replacement of a manual transmission. If you are replacing an automatic transmission, you will find that the crossmember support will hang too far down when it is bolted to the bottom of our new adapter housing. We suggest that you purchase a crossmember support from the manual transmission application to simplify this problem.

The transfer case shift linkage is mounted in two different designs. Jeep Wranglers 1987-96 will require shifter bracket No. 715523, while Cherokee conversions will require shifter bracket No. 715524. Some applications will require the purchase of a stock jeep bracket #53004280. This is the most universal for YJ Wranglers. TJ conversions will need to space the body bracket to use the stock linkage.

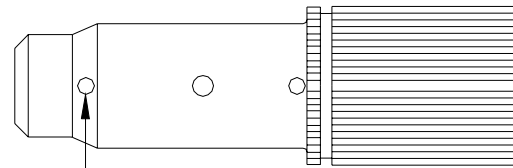
ASSEMBLY PROCEDURES:

1. The output shaft provided by Advance Adapters should be installed by an experienced transmission tech.
2. Trial fit the adapter on the transmission. Check to see that the casting seats flush to the transmission case.
3. Trial fit the transfer case to the adapter and transmission. Check for spline engagement, and shaft depth into the input coupler of the transfer case.
4. If the transfer case does not mate flush against the casting, **DO NOT DRAW IT TOGETHER WITH THE FASTENERS. SEVERE DAMAGE WILL OCCUR.** This is not normally found when replacing an AX15 manual transmission. If interference is detected, the output shaft must be shortened to a flush stickout with reference to the casting. **Automatic Torqueflite 999 applications, where the factory output shaft does not protrude beyond the stock adapter, will need shaft modifications.** Cutting the shaft will require a cut off disc to cut the outer edges and a hacksaw to cut through the center. If you are unsure about cutting, please call Advance Adapters toll free at 1-800 350-2223. If you do not have the ability to cut your shaft, a 1" spacer is available (P/N 51-0404).
5. Press the seal into the casting with the open side toward the transmission.
6. Install the rubber o-ring on the transmission side of the adapter. A thin bead of silicone should be applied as a sealant.
7. The four 10mm X 40mm Socket Head Cap Screws are then used to secure the casting to the transmission.
8. Two rotations are provided on the casting. Choose the rotation that best suits your application.
9. Studs and nuts are provided for securing the transfer case.
10. Two of the positions on the rotation will require removal of two studs from the transfer case and substitution by the two 3/8"-16 x 1-1/4" Socket Head Cap Screws. This is due to lack of wrench clearance around the casting.
11. Use silicone sealant on both sides of the transfer case gasket. Use Loctite on all bolts.

THE 700R HAD A DESIGN CHANGE ON THE OUTPUT SHAFT. THE OIL HOLE HAS BEEN RELOCATED TO THE CHAMFER ON THE SHAFT. THE INPUT HOUSING LUBE SEAL (SOFT AND RED IN COLOR) FOR THE LATER DESIGN SHAFTS MUST BE CHANGED TO THE HARD PLASTIC SEAL PROVIDED IN THE KIT. MOST OF THE OUTPUT SHAFTS WE USE ARE AN EARLIER DESIGN SHAFT WHICH WILL ONLY WORK WITH THE HARD PLASTIC WASHER SUPPLIED IN THIS KIT.



THE 700R PREVIOUS DESIGN LUBE HOLE LOCATION
EARLY DESIGN SHAFT (REQUIRES HARD PLASTIC WASHER)



THE 700R REVISED LUBE HOLE LOCATION
LATE MODEL SHAFT (CAN USE EITHER SOFT OR HARD PLASTIC WASHER)

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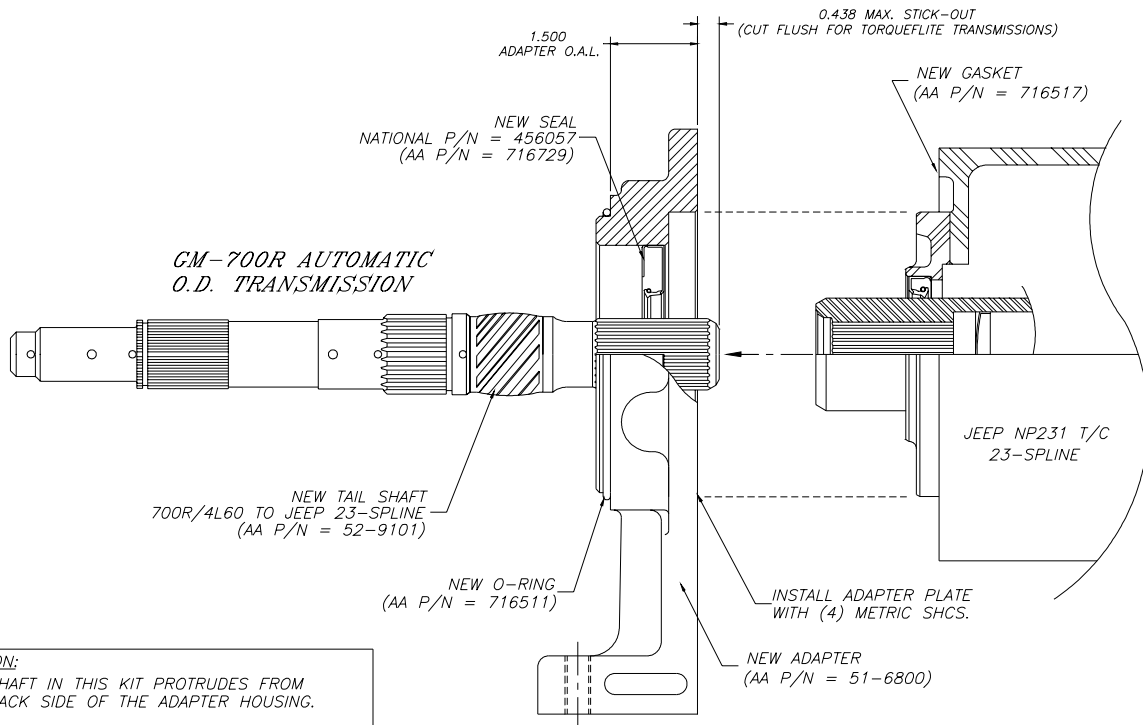
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CAUTION:

THE SHAFT IN THIS KIT PROTRUDES FROM THE BACK SIDE OF THE ADAPTER HOUSING.

IF YOUR ORIGINAL JEEP TRANSMISSION SHAFT WAS FLUSH AT THE TRANSMISSION AND TRANSFER CASE MATING SURFACES, YOU WILL NEED TO TRIM THE NEW TAILSHAFT TO THE SAME PROFILE AS THE TRANSMISSION YOU ARE REPLACING.

IF YOU FAIL TO MAKE THE NECESSARY SHAFT ADJUSTMENT A PRE-LOADED BEARING CONDITION WILL EXIST CAUSING SEVERE DAMAGE TO BOTH THE TRANSMISSION AND TRANSFER CASE.

NOTES:

1. Before assembling the new transmission shaft into your 700R-4, you must verify the spline size of the new shaft and the input gear of the new process transfer case. The shaft is available in either 21 or 23 spline tooth count.
2. Be sure that the adapter shaft and T/C input gear do not bottom out prior to the adapter meeting flush with the transmission. Some models may require the output shaft to be shortened.
3. The adapter has provisions for a new seal NAT #456057, the outside diameter is 3.75" and the inside diameter is 1.937". The seal must be installed with the open side towards the transmission.

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