

ADVANCE ADAPTERS INC.

P.O. Box 247, 4320 Aerotech Center Way
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P/N: 50-1900

Old Part No: 711019
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 Page Rev. Date: 02-26-14

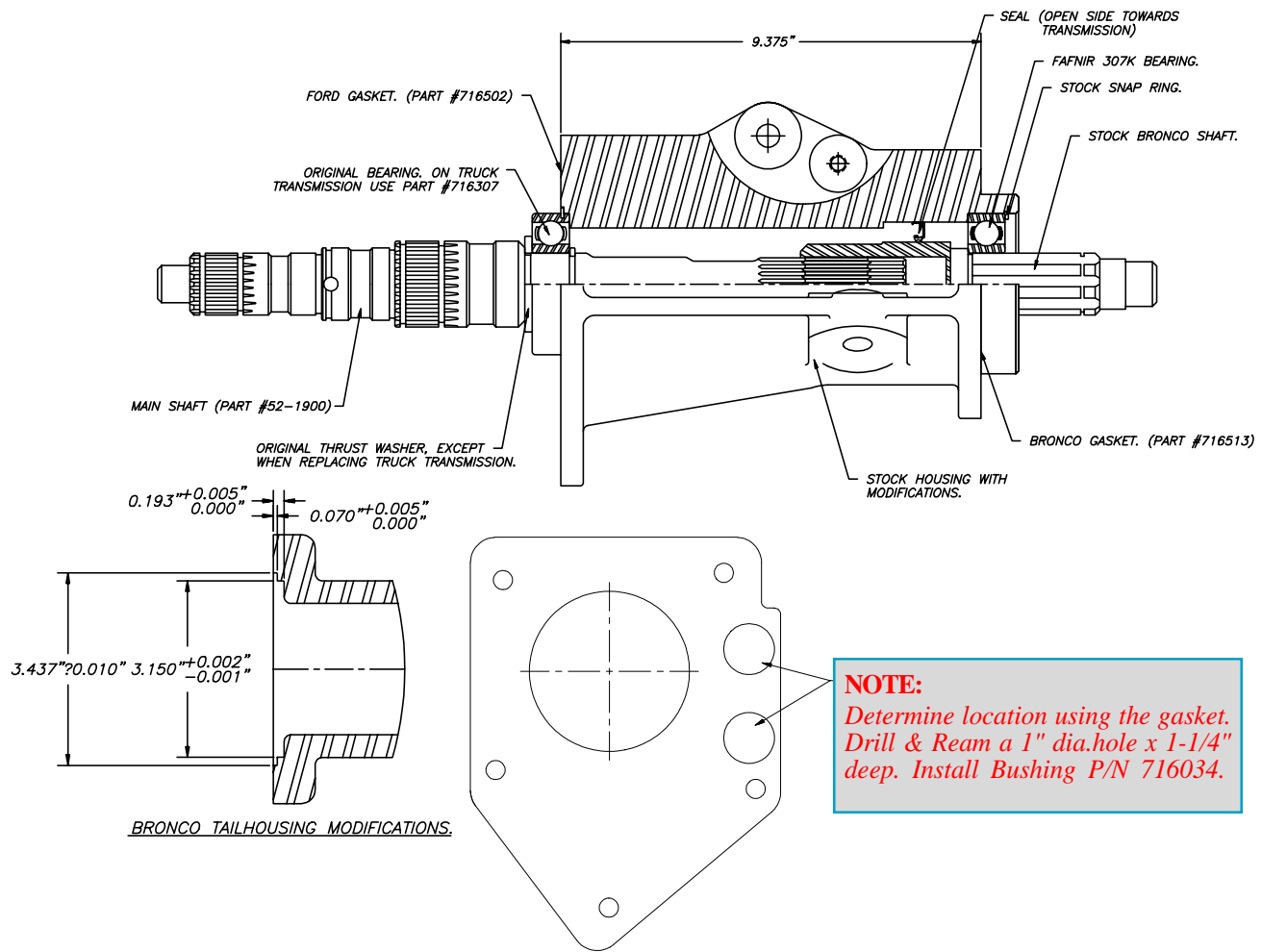
FORD T & C 4 SPEED TO BRONCO DANA 20 1966-77

KIT CONSISTS OF:

No.	Qty	Part No.	Description
1.	1	52-1900	MAIN SHAFT (Ref: 711319)
2.	1	716034	BUSHING
3.	1	716502	GASKET
4.	1	716513	GASKET (FORD #C6TZ-71816)
5.	1	716713	SEAL (C/R 18676)
6.	1	FMC001	FORD INSTRUCTION MANUAL

OPTIONAL ITEMS:

Qty	Part No.	Description
1	715503	BRACKET
1	715630	ROD KIT



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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FORD T & C TOPLOADER 4 SPEED (RUG):

This kit is designed for the Ford T&C or "Top Loader" 4 speed for installation into the Bronco Dana 20 transfer cases, 1966-77. The overall length of the new transmission should be close enough to the original 3 speed to prevent drive shaft modifications. This is only applicable when used on vehicles that were equipped with a V8 engine. Straight 6 engine installations used a short tailhousing that is not compatible with our conversion kit. These 6 cylinder conversions will need to purchase a new 9-3/8" tailhousing.

Gear Ratios:

First	Second	Third	Fourth
2:32	1:69	1:30	1:00
2:78	1:92	1:35	1:00

The Ford Top Loader transmission that is compatible with our kits must have a case length of 10-1/4", and the material must be cast iron. The casting part numbers could be C8AR-7006D or D2AR-7006CB. The gear shift linkage is on the left side of the case and the inspection cover that is mounted on the top must be held down with ten (10) bolts. This transmission is sometime referred to as "RUG" or "RAT". The RAN transmission, which is an aluminum case that is only 9-3/16" long, is not compatible with this kit. The RAN can usually be identified by the shifter that is in the top of the tailhousing.



A new main shaft is supplied with this kit for use with your new 4 speed transmission. Complete disassembly of the transmission must be performed and, if unfamiliar with this transmission, a competent mechanic should perform this operation. When assembling the Advance Adapters new main shaft with the original gears, make sure that all of the gears have sufficient end play for proper lubrication. This should be done while assembling the gears and after assembly to the transfer case. If the shaft that you have received with the kit does not compare to your original shaft, it is very possible that you have received or purchased the wrong adapter kit.

This transmission has two shift rails that extend out the rear side of the case. In your kit is a special bushing that must be installed into the original tailhousing to allow for the shift rod clearance and to prevent oil leakage. It is best to shift all four gears on the work bench prior to assembly into the vehicle to make sure the proper depth and clearance has been maintained. If you cannot fully engage each gear, then the rod may be bottoming out inside the clearance hole.

Aside from the transmission work, the extension housing will need to be machined. The bearing counter bores will need to be enlarged for the larger 307 bearing in the 4 speed transmission. The special bushing (716034) must be located in line with the shifter rail in the original tailhousing and be machined to a 1" diameter reamed hole to a depth of 1-1/4".

Once the new main shaft has been installed and the extension housing has been machined with the appropriate gasket in place, fasten the two together. A new seal has been supplied for the extension housing and should be installed with the open side towards the transmission. The transfer case can now be assembled onto the adapter housing. Make sure that you do not force the transfer case into position. We have experienced some variations in the depth of the original drive sleeve. If the depth is not deep enough, then the tip of the adapter shaft may require shortening to allow the two assemblies to come together.

The transmission will need to be controlled using a Hurst type shifting tower. AA Bracket P/N 715503 will mount the tower and Rod Kit P/N 715630 will supply the necessary rods, levers, and hardware. If your 3 speed was equipped with a Hurst Shifter, then two of the rods and levers can be retained.

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