

# 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: 50-4301

Old Part No: 50-4300  
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Page Rev. Date: 08-11-15

## FORD C6 AUTOMATIC TRANS TO BRONCO DANA 20 (1966-76)

### KIT CONSISTS OF:

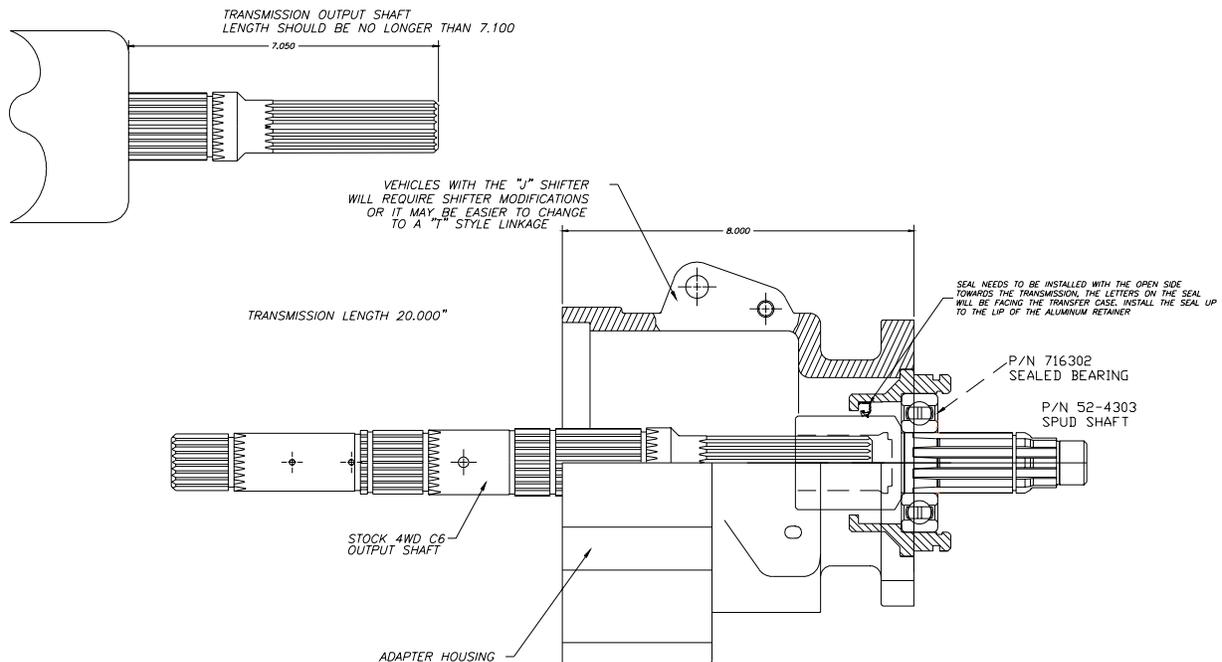
No.	Qty	Part No.	Description
1.	1	51-2600	CASTING (Ref: 711126)
2.	1	52-4303	NEW SPUD SHAFT WITH 31T INTERNAL (New spud design 8/11/15 requires longer output than previous)
3.	2	716042	CROSSMEMBERSLEEVE
4.	1	716302	SEALED BEARING
5.	1	716455	SNAPRING
6.	1	716513	GASKET
7.	2	716663	WASHER
8.	1	716764	SEAL (C/R #21064)
9.	1	716714	"O"-RING
10.	1	716223	ALUMINUM RETAINER
11.	6	723701	3/8" HEX NUT
12.	3	723710	3/8"-16x2-3/4" LG. STUD BOLT
13.	3	723712	3/8"-16x3-1/2" LG STUD BOLT
14.	2	724302	FLAT WASHER 7/16" PLT.
15.	2	724311	H.H.C.S. 7/16"-14x3-1/2" GR 5

### Transmission Requirement

The kit requires the use of a 4WD C6 output shaft. We have seen a few different lengths of this shaft. The correct shaft should have a stock stickout of 7" from the rear of the main transmission case. This kit uses the stock 7" stickout. The stock 4WD output shaft is 15.375" when out of the transmission.

The transmission oil pan may require some clearance modifications for the front drive shaft.

A 1" body lift is recommended for tunnel clearance



**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 C6 AUTOMATIC TRANS TO BRONCO DANA 20 (1966-76)

### FORD C6 AUTOMATIC TRANSMISSIONS

The Ford C6 automatic transmission has a case length of 20", 17 bolts for holding the oil pan in position. The bellhousing bolt pattern is available in 3 different styles and you must make sure that you obtain the correct transmission case for your engine requirements. The transmission should be assembled by a competent mechanic to make sure the transmission operates correctly. The transmission must be equipped with a stock 4WD C6 output shaft. This shaft must have 31 teeth in order to couple into the new Advance Adapters spud shaft. Before assembling the new adapter, the Ford main shaft must be shortened to a 5.550" cutoff length. Refer to the diagram for exact measurements.

When installing the new tailhousing on the back of your transmission, it may be necessary to trial fit the adapter in position and make sure that the linkage has all the proper clearance on the internal cavity of the adapter. The bolting of the tailhousing to the main transmission may need a slight amount of grinding for proper head clearance due to the aluminum sand casting tolerances.

When installing the new transfer case adapter make sure that the coupler 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 our new spud shaft, we find a small amount of interference. The adapter housing and spud 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 the number listed above.

All installations will require the use of a transmission cooler. The cooler can be either installed in the radiator or a remote location is acceptable. The transmission shift control can either be a Hurst floor mounted type shifter or sometimes the existing column shift can be modified on certain applications.

If your vehicle is equipped with a transfer case shifter that has the "J" shifter, you will need to modify the mounting assembly and possibly the transfer case rails. We have had a few calls in regard to transfer cases equipped with this type of linkage, and the modifications are very critical in order to retain the necessary shift pattern. A few customers have simply changed transfer cases to the "T" style shifter.

On vehicles 1966 through 1968 that have been equipped with the constant velocity "U" joints, you will need to change the front drive shaft to a 1969 or newer type. Due to the large diameter of the constant velocity yoke and the pan clearance of the automatic transmission, this is why the change is required. You may need to change to a smaller diameter driveshaft. The C6 oil pan should be the deeper type such as that found on the F150 4WD.

In November of 1994, Advance Adapters changed this conversion kit design from using a modified C6 output shaft to supplying a new spud shaft. If you are attempting to replace an older kit that used the modified output shaft having 28 splines, you will need to change to the newer 31 tooth Ford shaft and the new spud shaft manufactured by Advance Adapters.

This kit has been designed to retain the stock Bronco rubber T/C mounts. These mounts were previously equipped with a 1/2" bolt. Our casting has been drilled and tapped for a 7/16" bolt. We have supplied with this kit with the necessary sleeves, washers, and bolts to properly secure this adapter.

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