

# 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: 50-9702**

New Item: (3/93)

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Page Rev. Date: 05-29-01

## GM TRUCK 4SP MODEL SM420 TO JEEP DANA 300 TRANSFER CASE

### KIT CONSISTS OF:

<u>No.</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1.	1	51-9702	CASTING 5-1/4" LG. ( <i>Jeep-Dana 300</i> )
2.	1	52-9700	SPUD SHAFT 23 SPLINE
3.	1	716453	SNAPRING
4.	1	716454	SET COLLAR
5.	1	716508	GASKET
6.	1	716517	GASKET ( <i>Dana 300</i> )
7.	9	723701	3/8"-16 NUTS
8.	14	723704	3/8" LOCKWASHER PLT.
9.	1	723710	3/8"-16 X 2.5" STUD.
10.	8	723711	3/8"-16 X 2" STUD.
11.	5	723722	3/8"-16 X 1.25" H.H.C.S.
12.	1	JP001	JEEP INSTRUCTION MANUAL

### **INSTALLATION NOTE:**

*This adapter kit replaces Kit No. 50-9700 that utilized a two piece adapter housing that had an overall length of 5-7/8". This new adapter kit was re-designed in March 1993, to use a 5-1/4" one-piece adapter housing.*

**Note: If using our 716021 crossmember mount with this adapter, you will need to grind some clearance on the crossmember block for installation.**

**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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### GM & CHEVY SM420 TRUCK 4 SPEED 1948-67:

This transmission can be identified by a cast iron case length of 10-1/2". The casting numbers on the side of the case should be GM #3761930 or GM #3813389. The transmission has a shift cover that bolts over the top of the transmission that has a shift cover part number of GM #591568. The P.T.O. opening is on the left hand side of the main case and the transmission is a non-synchro first gear.

The transmission you select will need to be disassembled and machined for a snap ring that will retain the rear main bearing. Your adapter kit includes a new set collar that can be used in place of the snap ring and if installed properly, will do the same job as the snap ring. Make sure the collar and the clamp screw secure the shaft from any forward movement. The drawing will illustrate the dimensional data for installation of a groove that must be cut into the shaft for holding the rear bearing in position. There are a few stock applications where this snap ring will already be in place and the transmission will not need the new snap ring or set collar.

The right side of the main case will need to be ground off for clearance of the front output yoke on certain installations. We recommend a trial fit with your transfer case and front output yoke so that any modifications that may be required can be done before final installation into the vehicle. This is also a good time to set up the shifter linkage for the transfer case controls.

The early Chevy truck 4 speeds were equipped with the small front bearing retainer that is 4.648" in diameter and must be used with either early truck bellhousings or late model car-type bellhousings. The late model truck bellhousings all use a 5-1/8" retainer size that will not be compatible with this transmission.

We changed the design of these SM420 kits to incorporate a spud shaft design in 1988. Prior to this time, we manufactured a completely new main shaft for all SM420 transmission conversions.

**First Gear .....** 7.05  
**Second Gear ...** 3.57  
**Third Gear .....** 1.70  
**Fourth Gear ...** Direct

The Dana 300 transfer case has a seal around the input sleeve collar that will prevent any transfer case fluid from entering into the transmission area. In order to prevent transmission fluid from escaping between the adapter and transfer case, we have supplied you with a new gasket that must be used. The original transmission that is being replaced, normally has a rear seal that prevents the need of having to use a gasket between the adapter and transfer case.

On installations using a 2-piece main shaft, 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.

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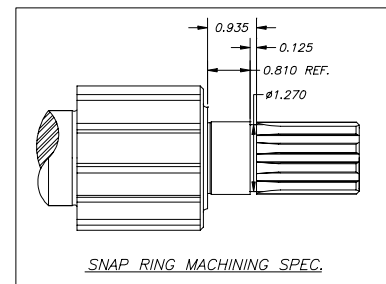
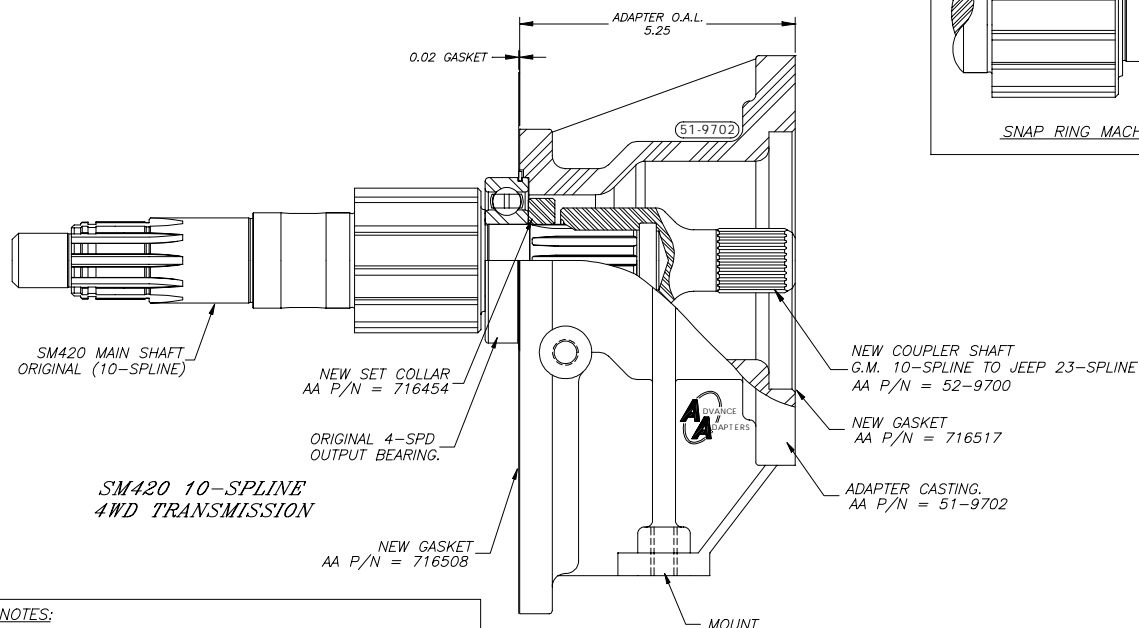
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### NOTES:

- 1) WHEN USING SET COLLAR THE TRANSMISSION WILL NOT NEED TO BE DISASSEMBLED.
- 2) REMOVE MAINSHAFT FROM TRANSMISSION, MACHINE GROOVE TO SPECIFIED DIMENSIONS FOR SNAP RING.

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