



P.O. Box 247, 4320 Aerotech Center Way  
Paso Robles, CA 93447  
Telephone: (800) 350-2223 Fax: (805) 238-4201  
PAGE 1 OF 4 Page Rev. Date: 02-05-18  
P/N: 50-0220

## DODGE 4WD 29T NV4500 5 SPEED TO FORD NP205/208 & B/W T/C'S

### KIT CONSISTS OF:

No.	Qty	Part No.	Description
1.	1	51-0220	ADAPTER RING FOR FORD T/C
2.	1	52-0220	SPUD SHAFT WITH 31 SPLINE x 29T INTERNAL
3.	2	716517	GASKET - NP208 T/C
4.	6	723704	LOCK WASHER 3/8" PLATED
5.	6	723724	H.H.C.C. 3/8"-16 x 1-3/4"
6.	6	723735	3/8" FLAT WASHER PLATED
7.	6	723766	S.H.C.S. 3/8"-16 x 2" PLT. GD. 2

### Optional Item

715528 NP205 Transfer  
case shifter brkt.

The Borg Warner transfer case will need 10 MM x 1.5 thread SHCS bolts. The heads are turned to fit the adapter casting and are stocked under our part number 716470 (6 needed). We do not ship these in the kit unless specified. If you have already received this kit and need the modified bolts for the B/W transfer case, please call and we can ship them no charge to you in the continental U.S.

**Note:** The stock oil seal in the NV4500 tailhousing must be removed.

### SPECIAL INSTRUCTIONS:

When assembling the transmission to the transfer case, **DO NOT FORCE** the two gear boxes together. If the shaft is too long, there is the possibility of pre-loading the transmission bearings for premature failure. Take the extra time to make sure that the shafts do not bottom out internally. If there is an interference problem, it may be necessary to grind the end of the new output shaft to obtain the proper length. The seal in the stock Dodge tailhousing needs to be removed to allow the spud shaft to fit properly onto the Dodge output shaft.

All Ford transfer cases whether NP205 or NP208, always require a 31 spline male input shaft. We have seen some variations as to the stickout length of this 31 spline output shaft. Before assembling the new transmission to your transfer case, you should compare the stickout length to the original transmission and make the necessary adjustments.

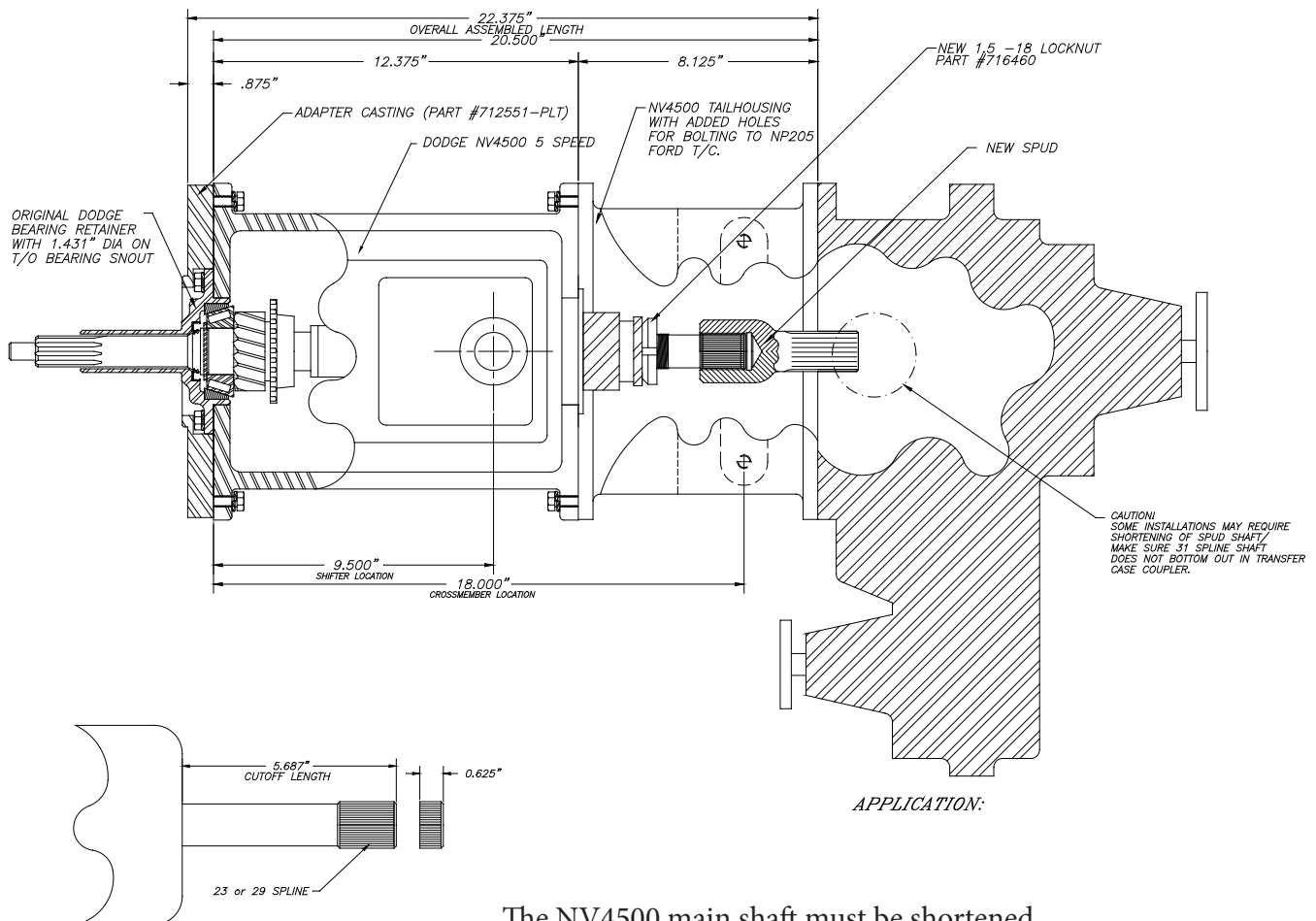
Before assembly of transfer case to transmission, the transmission tailhousing will have to be pocketed for clearance of the transfer case shift rails and cross link.

1. Align U-shaped notch of adapter with rearmost cylindrical boss of tailhousing, keeping in mind that the tailhousing's bolt pattern aligns with adapter's tapped hole bolt pattern. Once aligned, transfer outline of notch to tailhousing with felt tip marker.
2. Take a 1/4" drill bit and wrap a piece of tape around bit 7/16" from the tip. This serves as a depth gauge. With a hand drill or drill press, drill as many holes in the outlined area as possible.
3. With a cold chisel, knock out the remaining material. With the shift rods in the fully extended position, make a trial fit of components to ensure that the pocket depth is enough to clear shift rods and cross link.

**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.



# DODGE 4WD 29T NV4500 5 SPEED TO FORD NP205/208 & B/W T/C'S



The NV4500 main shaft must be shortened

**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.

## DODGE 4WD 29T NV4500 5 SPEED TO FORD NP205/208 & B/W T/C'S

### NOTES:

The cutoff length of the original Dodge NV4500 output shaft can be determined by the amount of the desired stickout length of your new 31 spline spud shaft. Over the years, we have seen some variation as to the required stickout length for Ford 4WD transfer case input splines. This length will vary between .750" to 1.50". The best way to determine your requirements is to measure your existing 4 speed transmission that is being replaced. Determine the exact protrusion from the face of the rear adapter housing on your original installation.

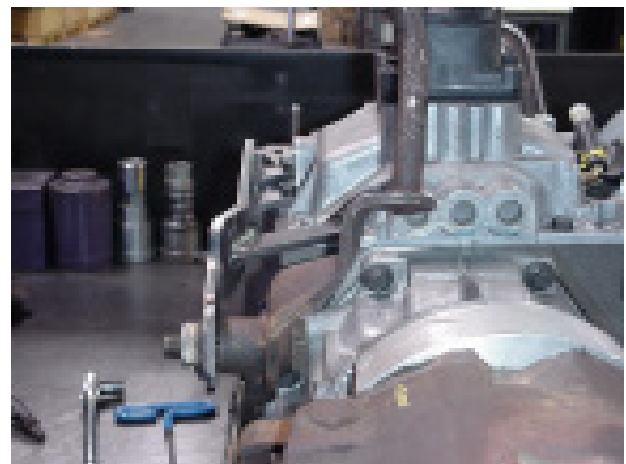
Use the following procedures to determine the cutoff location.

1. Test assemble the new adapter housing onto the back of your NV4500 transmission.
2. Slip the new coupler onto the output shaft and push it all the way forward until it bottoms out on the inside splines.
3. Measure the stickout length of the 31 spline spud shaft from the back of the new adapter housing.
4. Compare this stickout length to the original 4 speed stickout length.
5. The difference between these two measurements will be the amount that you will need to shorten the Dodge transmission main shaft. In some cases, the 31 spline spud shaft could be shortened as an alternative.
6. Remove the tailhousing for transmission main shaft modifications.
7. Using the necessary safety protection equipment, shorten the output shaft to the desired length using an abrasive cutoff saw. Debur any sharp edges.
8. Reassemble the adapter housing and double check the spud shaft stickout length.

### CAUTION:

**DO NOT FORCE** the transmission to transfer case adapter assembly together. Interference with the spud shaft spline area can cause pre-loading which will cause transmission and transfer case failure.

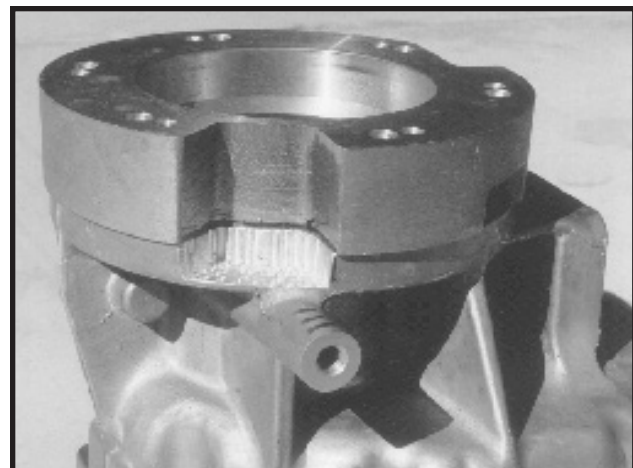
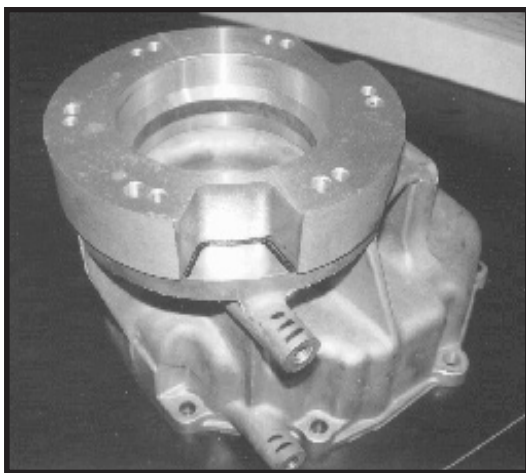
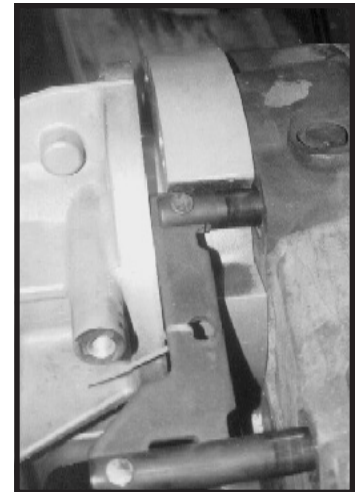
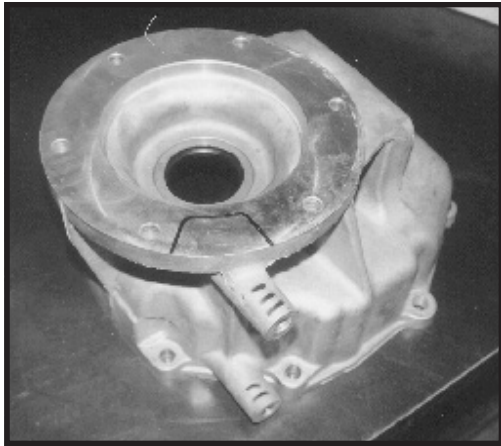
We offer P/N 715528 transfer case shifter bracket for use with the NP 205 transfer cases



**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.

## DODGE 4WD 29T NV4500 5 SPEED TO FORD NP205/208 & B/W T/C'S

In order to provide clearance for the shift mechanism on the NP 205 T/C, you must make a small relief area in the original 4WD tailhousing. If you do not have a milling machine, then you can remove this excess material by using a drill press and drilling numerous holes. The photos on this page illustrate the modifications required.



**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.