I. **REMOVE EXISTING HUB** - Read these instructions thoroughly and purchase required conversion kits (as noted in Section II \*) prior to removal of existing hubs. Before installing 4x4 locking hubs remove and discard the following. **DRIVE FLANGE** MANUAL HUB **AUTO HUB** 



RETAINING RING



NOTE: When removing MANUAL HUBS, use a thin blade screwdriver to remove lock ring. Use only mild force, do not use a hammer as it may burr the lock ring groove!

NOTICE: VERIFY THAT THE LOCK NUT IS TIGHTENED TO VEHICLE MANUFACTURER'S SPECIFICATION. LOOSE WHEEL BEARING ADJUSTMENT WILL RESULT IN DAMAGE TO HUBS AND VOID WARRANTY.

## II. PREPARE WHEEL END

- WHEN REMOVING A WARN AUTO HUB (1995 & LATER FORD OEM, OR A WARN AUTO HUB • RETROFITTED ON FORD OR GM VEHICLES), CONVERSION KIT No. 32721 MUST BE INSTALLED.
- THE VACUUM LINE WILL NEED TO BE BLOCKED ON '99-04 FORD SUPER DUTY TRUCKS WITH FACTORY AUTO/MAUNUAL HUBS.

CAUTION: The clearance between the hub and wheel bearing lock nut should be checked. To accomplish this install the body assembly and large lock ring in the wheel housing (Installation Step 2). Run two of the socket head screws into the body assembly 180 degrees apart. Hold onto these screws and attempt to move body assembly in and out of wheel housing. If some "float" is evident the installation is correct. IF NO FLOAT IS EVIDENT, DO NOT PROCEED WITH THE INSTALLATION UNTIL THE CONDITION IS CORRECTED. To correct this condition, perform the following steps:.



- 1) Remove the lock ring, body assembly, and wheel bearing lock nut.
- 2) Install the washer so it is seated against the bearing adjustment nut, and tighten the lock nut to the manufacturer's recommended torque. The pin in the adjusting nut must be seated into a hole in the washer when installed. If the washer is not aligned correctly, the lock nut will be approximately .120 inch too far outboard and will interfere with the hub.
- 3) Reinstall the hub body assembly and check for clearance. If correct, proceed with installation. If not, repeat step 2.

## III. **INSTALL WARN HUBS AS FOLLOWS**

NOTE: Warn Hubs are assembled at the factory with the proper amount of grease.

3.



- 1. Separate body assembly from cap assembly.
- Install body assembly and large lock ring in wheel housing. 2
  - Install axle retaining ring. It may be necessary to engage the splined clutch ring by hand to expose the retaining ring groove. A pry bar can be inserted into knuckle (universal joints) to hold the axle shaft outboard while installing the axle retaining ring. Some late model F350 vehicles ('89 and newer) do not require an axle retaining ring. NOTE: Vehicles with independent front suspension MUST have the axle retaining ring installed.

4 Be sure cap dial is in FREE position. Place cap assembly on body using the three tabs on the cap assembly, this will align the cap to the body. Insert the six socket head cap screws and torque to 45-55 in.lb.

- To CHECK FOR PROPER ENGAGEMENT, dial both hubs to LOCK and raise the front left corner of the 5. vehicle off the ground. Spin the lifted tire. The drive line will turn if the Hub is engaging properly.
- TO CHECK FOR PROPER DISENGAGEMENT, dial the lifted wheel hub into FREE and spin the lifted 6. wheel. If the drive line does not turn AND you hear NO ratcheting sounds, the hub is disengaging properly. Repeat step 5-6 with the right wheel & hub. NOTE: The hubs are not required to seat against the wheel housing when installed, they may move in and out quite easily. This "float" is normal and will not affect performance.

**SERVICING INSTRUCTIONS:** Service at same interval as wheel bearings. Clean and **lightly** grease internal working surfaces, including the bearing.

PN 11715 REV F1