



# Installation Instructions

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## GEAR KIT

Part # 204937

1. Mount the gear set upright and level either in a vice or in a hole in a bench. **Do not clamp shaft on the ground diameters!**
2. Remove the three retainer screws and turn the retainer counter-clockwise to release pins.
3. Remove one gear in at a time.
  - A. Inspect the pin for pits and galling. Minor wear that looks polished is acceptable.
  - B. Insert the grease pin and inject grease while turning the gear to lock rollers in place.
  - C. Remove the gear from the carrier and insert the pin in the same gear it came out of, being careful not to push rollers or washers out of the gear.
4. After all gears are removed, remove and discard all thrust washers. Clean the carrier and blow dry. Drill the bushing out using a 19/32" drill.
5. Install the new supplied bushing using a bushing driver. **Do not damage the bushing!**
6. Install the input shaft into the bushing to check the fit.

### ASSEMBLY OF GEAR KIT

1. For Super Sets (all new gears), set your old gear on top of the new gear and push the roller bearings into the new gear to be sure all rollers are in place.
2. For Regular Sets, you will use your old short pinions and just the long pinions and Sun gear will be replaced.
3. Grease the 6 thrust plates and center thrust washers into position in the carrier. The groove side of the thrust plate faces the gear.
4. The three long pinions and the Sun gear are marked to insure proper timing. Set them together on the bench and align the colors on the long pinion with the matching colored tooth of the Sun gear. They must be installed into the carrier with these marks aligned with each other.

**NOTE: ONCE THE GEARS ARE ROTATED, IT WILL REQUIRE APPROXIMATELY 20 TURNS IN THE SAME DIRECTION FOR ALL THE MARKS TO LINE UP AGAIN.**

5. Install the RED long pinion first then install the pin making certain you do not move or damage the thrust washers.
6. Install the BLUE long pinion next to the right, clockwise from the red pinion. Install the Sun gear indexing the red and blue teeth with the red and blue on the long pinions. Install the BLACK gear last, aligning the black tooth on the gear with the black tooth of the Sun gear.
7. Install the bearing on top of the Sun gear.
8. Install the retainer and screws to lock the pins in position.

### CHECKING GEAR TIMING

Install the input shaft, then Sun gear into the bushing. Slip the flange gear over the shaft into the short pinions. Install the reverse ring gear over the short pinions and turn the ring gear 25 times in a clockwise direction. If you have mis-timed the marks, the gears will lock up or bind. If it turns 25 times without locking up, it is ready to install.

