

Two Start Threaded Rod Gear Installation Instructions

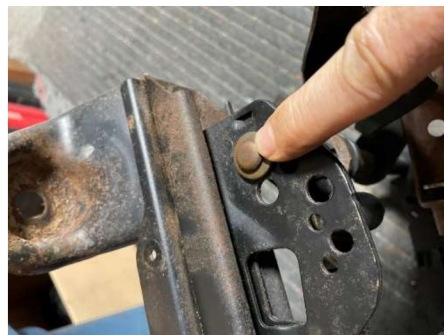
1. Depending on the vehicle, pry the motor unit off the front rotating rod. Some models (Ford) will have to pry the motors off after the rotating rod is removed.



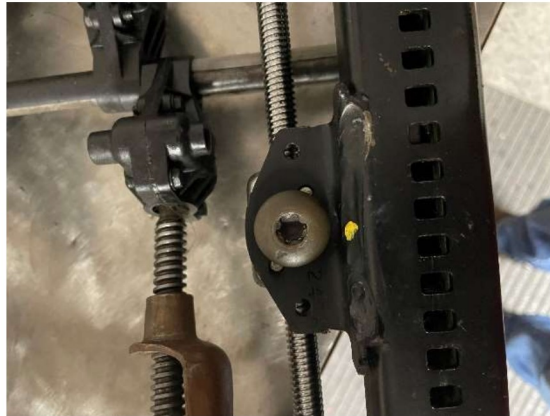
2. You can disconnect the black tubes containing the flexible drive shafts to both forward/backward gear assemblies and the two up/down gear boxes. Keep track of what tubes and shafts go to each gear box. The plastic spacer sleeves around the bar can be removed if needed.



3. Grind off the peened part of the rod down level with the washer on both sides. You will then have to pry it off the rod. You can drive a flat tip screw driver behind the washer. Be advised there is a bushing behind the washer. If you want to save it, be careful how deep you drive the screwdriver. If you damage the bushing, I included replacements with the kit.



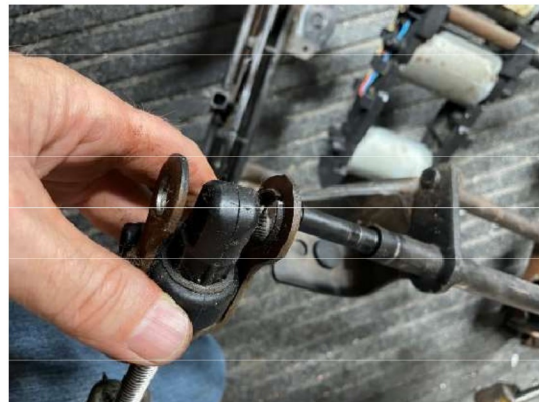
4. Remove the T50 Torx screw holding the travel block to the frame on each side.



5. Pry the frame away from one end of the rotating rod to free it from the rail.



6. Remove the rotating rod from the other side. Remove inside washer, U bracket, gear cases and plastic sleeve from the rod. The inside washer will not be reused if you use my supplied bushing in the next step. If you reuse the factory bushing for the next step, you will reuse the washer mentioned above.



7. Remove the bushing from the rail which the rotating rod went through. It is probably damaged from removing the washer. If it is not damaged, you can reuse it and skip the next step.
8. If you are using my supplied bushing mentioned above, file or gently grind the high areas off the rotating rod from it being peened over at the factory. Keep test fitting the supplied bushing so it will slide over the rod end.
9. If your threaded rods have an end stop, cut the end off the shaft off so the travel block and U bracket can be removed. If your model does not have an end stop, just unscrew the travel block, and remove the U bracket.



10. Gently pry off the circular lock rings from the gear case housings.



11. Split the gear cases and clean the gear cases, rear thrust disc and little worm gear. Make sure all old grease and broken plastic gears are removed. Any little piece of plastic left in the case will jam up the new gears.



- Slide the supplied front thrust washer over the threaded rod (probably already on shaft). Lube the gear cases with Tribolith grease or white lithium grease. Install the small worm gear then put the threaded rod gear in the gear case. Then place the rear thrust disc behind the shaft and put the supplied small (.010) shim behind the thrust disc. Place the other half of the gear case over the assembly and secure with both circular lock rings. If the lock rings seem loose like they might fall off, put dabs of glue behind them to secure in place.



- Chuck up the supplied flexible drive shaft into a cordless drive and insert the other end into the square hold in the gear box. Using the drill, spin the gear box back and forth to make sure everything rotates as it should. It will be hard to rotate by hand, so using a drill is recommended.



14. Clean each sliding rail so it moves back and forth freely. I spray a generous amount of WD40 in the rail ends and through the holes in the bottom of the rail. Blowing them out with compressed air and respraying WD40 will help clean them out.



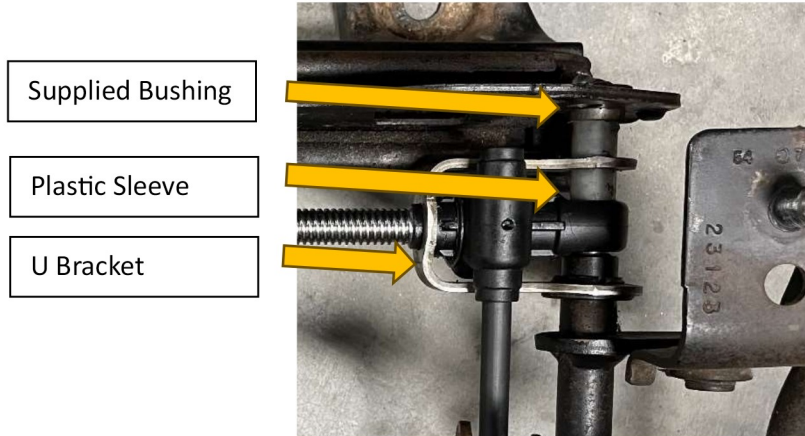
15. Put the U-shaped metal bracket over the threaded rod and slide it down to the gear case. If your gears had a real thick plastic bumper, slide it over the threaded shaft. Then screw the travel block onto the shaft about halfway. If you needed to cut off the factory end stops, install the supplied plastic washer, metal washer then squeeze clip. Make sure to pinch the ends closed as shown in second picture. If no end stop is needed, go to the next step.



16. Install the gear cases and U bracket back onto the rotating bar along with the plastic spacers. Again, if you replaced the bushing in the frame rail, make sure the supplied metal bushing is slid onto the bar. If you are reusing the factory bushing, discard the supplied replacement bushing and install the factory washer on the bar last.

17. Repeat everything for the other side.

18. Insert the rotating rod with both rebuilt gear cases back inside the frame rails. Ensure the front tilt bracket is pointing up (opposite of rear tilt). You will have to pry the rails apart some to get clearance. If using the replacement bushings, make sure the small end of the bushing snaps into the frame rail hole. Depending on vehicle type, you may need to attach the front motor brackets onto the bar before inserting the bar into the mount holes in side rails.



19. Reinstall the vertical flexible drive shafts and rubber tubing back into the motors and corresponding gear box. You will have to bend the flexible shafts some to get them into and engaged with the motor and gear boxes. Use the supplied flexible shaft to make sure both the motor and gear boxes have a flat side pointing up. If you don't synch the flat sides, it will be difficult to get both sides properly engaged.



20. Once the front tilt and rear tilt flexible shafts are installed, snap the front part of the motor assembly onto the rotating shaft if you haven't done so yet.

21. Reinstall the ground off washer over the rod end and tack weld back in place. Don't weld too much or you will melt the plastic sleeves on the other side of the frame rail.



22. Screw both travel blocks to a point where they are the same distance from the gear case. If they are not the same distance from the gear boxes, your seat will bind when going forward or backward. Use a cordless drill to move the travel block as needed.



23. Install the forward / backward flexible drive shafts into the motor and gear boxes. Synch the gear boxes and motor as done in previous steps for easier installation.

24. Reinstall the T50 Torx bolt back into the frame bracket and travel block.



25. Your repair should be complete. If you have any questions, give me a call at (912) 667 4198.