

Pronto4 Steering Ring: Chain and Gear Assembly

This document details the process of chain and gear assembly in a standard Pronto4 Steering Ring. It does not include prior or subsequent assembly procedures, to include insertion of a motor or functionality test.

1. Remove the steering ring's inner ring, *as follows*:
 - a. From the panhead screw side of the steering ring sub-assembly, use a #2 Phillips screwdriver to remove the 2 panhead screws and lock washers along the hinge seam and closest to the motor.



- b. From the panhead screw side of the steering ring sub-assembly, remove the 2 panhead screws and lock washers along the seam opposite the hinge seam and closest to the motor.



- c. Open the steering ring's hinge.



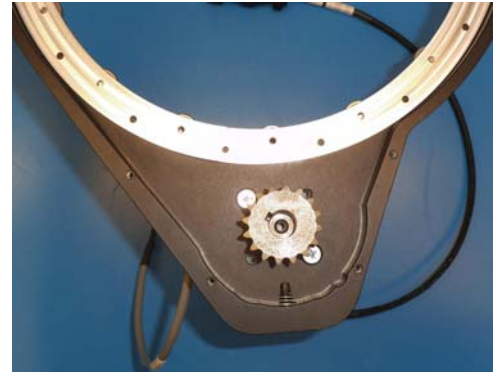
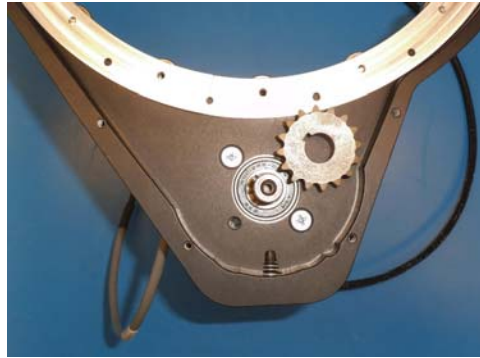
- d. Remove the inner ring, and set to the side.



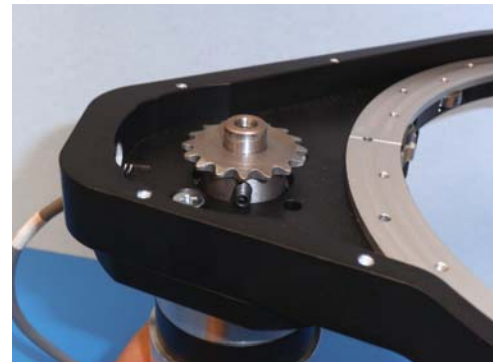
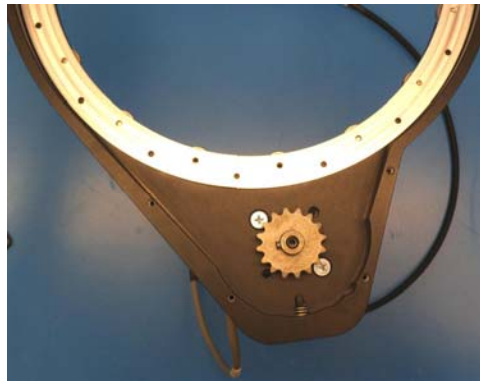
- e. Close the steering ring's hinge.
 - f. Use a #2 Phillips screwdriver to reinsert 1 panhead screw and corresponding lock washer on either hinge seam. There should still be three panhead screws and lockwashers loose.
2. Connect the 16-tooth, .25 pitch, .250" bore, carbon steel gear (p/n:3RD-00055) to the steering ring/motor sub-assembly, as follows:
- a. Use a 3/32" hexhead driver to turn the gear's setscrew until approximately 6 threads are visible. This ensures proper placement of the gear during step 2.d.



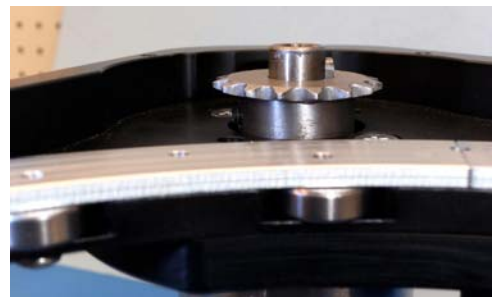
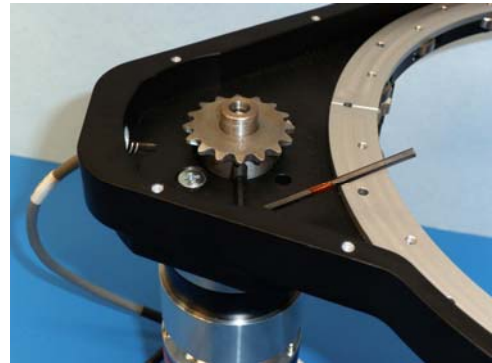
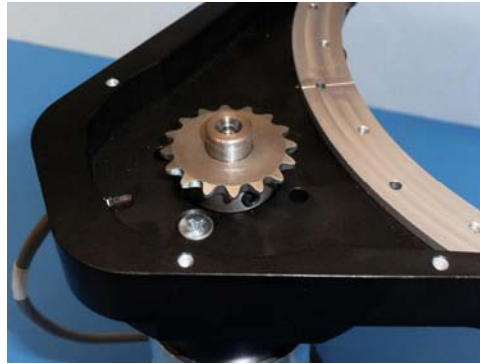
- b. With the smooth diameter side toward the motor's nipple, align the gear's internal notch with the motor nipple's key, and place the gear on the nipple.



- c. Slide the gear onto the nipple until the set screw is immediately adjacent to the flat metal portion of the steering ring.



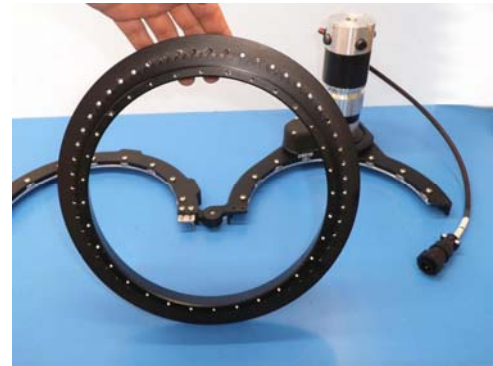
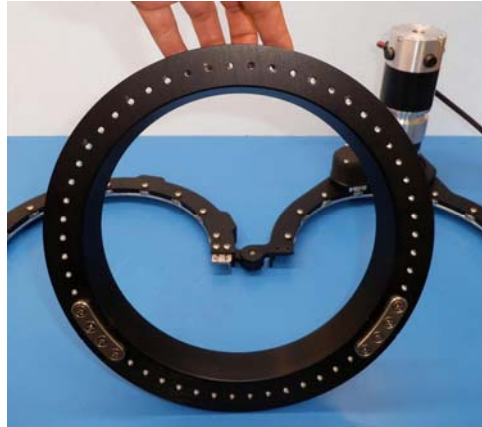
- d. Use a 3/32" hexhead driver to turn the gear's set screw until it is fully seated in the gear.



3. Run the steering ring chain (p/n:3RD-00053), as follows:
- Remove the panhead screw and lockwasher replaced in step 1.F. Open the outer steering ring.
 - Set the outer ring so that the motor is facing directly away and the open, motorless half is to the left.



- c. With the internal ring in a vertical position and the two bolt strips facing you, rotate the ring until the two bolt strips are evenly spaced at the bottom of the ring.



- d. Set the center point of the steering ring chain at the top-rear of the internal ring, so that approximately equal lengths hang from the area adjacent to each bolt strip.



- e. Applying enough tension to keep the steering ring chain in place on the gear threads of the internal ring, set the internal ring into the motored half of the outer ring with the chains hanging loosely inside the recess with the carbon steel gear.



- f. While maintaining the position of the motored half, loosely close the outer ring around the chained inner ring.



- g. On the backside of the steering ring, replace the panhead screw and lockwasher removed in step 3.a.



NOTE

Keep the steering ring positioned with the motor facing away and the ring portion above it and off of the working surface until step 3.m.

- h. Manually rotate the inner ring counter-clockwise until the left portion of the chain can reach the 3 o'clock position on the carbon steel gear.



- i. Slide one side of the ring pliers into the last notch of both ends of the chain.



- j. Manually rotate the inner ring clockwise until the junction of the chain ends is centered at the 6 o'clock position on the carbon steel gear.
- k. While holding the chain ends' junction securely with the ring pliers, position the steering ring so that you can hold the chain ends' junction securely with your thumb and forefinger.



- I. While holding the chain ends' junction securely with your thumb and forefinger, remove the ring pliers and place the master chain link's prongs into the open loop on each chain end.



- m. Place the steering ring sub-assembly on the workbench with the motor facing up.



- n. Remove the panhead screw and lock washer replaced in step 3.g.



- o. Open the outer ring with the non-motored half to the left.



- p. Rotate the inner ring 180° clockwise, so that the master chain link is on the opposing side from the motor. Locate the master chain link, which will have two prongs protruding without a corresponding chain hinge clip.



- q. Securely set the infinity chain hinge over the protruding prongs of the master chain link.
- r. Set the chain hinge clip with the center under one of the protruding prongs and the open end toward and slightly under the other protruding prong.



- s. Use the ring pliers to squeeze the closed end of the chain hinge clip toward the protruding prongs until the chain hinge clip is firmly seated on top of the infinity chain hinge and under the protruding prongs' lips.



- t. Close the outer ring.



- u. Replace all four panhead screws and lock washers removed in steps 1.a and 1.b.

