

Service Procedure for:

# eGO<sup>®</sup> Cycle Helio<sup>™</sup> Cycle



# Secondary Belt Installation

Models applicable:

EC-100     EC-200     EC-200EU     EC-300

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**TIME NEEDED:**

**SKILLS REQUIRED:**

**TOOLS and EQUIPMENT REQUIRED:**

**Allen wrenches:**

- 2mm
- 3mm
- 4mm
- 5mm
- 6mm

**Open end wrenches:**

- 8mm
- 10mm
- 12mm
- 13mm
- 15mm

**Other tools:**

**PARTS REQUIRED:**

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# OVERVIEW:

This procedure describes how to install and properly adjust your secondary drive belt.

## Preparation & Safety:

- Always wear eye protection during any maintenance procedure.
- Make sure the key is removed from the switch.
- Prop the eGO up so that the back wheel is off the ground.

# PROCEDURE DESCRIPTION:

## I. Adjust the secondary drive belt:

The objective is to achieve proper tension and alignment, so that the belt runs down the middle of the rear wheel pulley. Both tension and alignment are set by adjusting the belt tension adjusters, one located on each side of the rear wheel axle. Set the alignment first and then adjust tension.

1. To prepare for these adjustments, evenly tighten the belt tensioner nuts until the belt deflects roughly 1" when pushed with a thumb. At this point the belt is CLOSE to final adjustment but is still LOOSE.

2. Alignment: Check belt alignment by turning the rear wheel (forward) by hand a few rotations and observing where the belt rests on the top of the wheel pulley. The ideal position is near but not touching the flange on the inner edge of the wheel pulley. Once properly aligned, proceed to step 2.

- To adjust the belt alignment to the LEFT side (toward the pulley flange) tighten the RIGHT side adjuster nut (or if the belt tension is high, loosen the LEFT side adjuster nut.)
- To adjust the belt alignment to the RIGHT side (toward the pulley edge) tighten the LEFT side adjuster nut (or if the belt tension is high, loosen the RIGHT side adjuster nut.)

3. Tension: Check the belt tension by pushing down on the belt with your thumb at the center of the belt's span between the pulleys. When properly adjusted, the belt should deflect about 3/4" when pushed with your thumb using about the pressure that you would use to seal a stamp to an envelope. Too TIGHT is BAD and will produce excessive noise and wear, too LOOSE will produce belt skipping during acceleration and/or deceleration. The ideal

tension is as loose as possible, but tight enough to eliminate all skipping. If you have access to a belt tension meter - adjust the belt tension to 60lbs (using the 'lbs for 1/64 inch per inch of span' deflection method.)

- To increase tension, turn the adjuster nuts clockwise. (To increase tension without changing alignment, turn both the left side and right side nuts the same number of rotations.) When adjusting tension, turn the tension nuts only one revolution at a time.
- To decrease tension, turn the adjuster nuts counter-clockwise. (To decrease tension without changing alignment, turn both of the left side and right side nuts the same number of rotations.)

## II. Tighten wheel and assemble rear brake quick release cable:

1. Once the belt is properly tensioned and aligned, tighten the axle nuts firmly with the 15mm wrench.
2. Replace the rear brake's quick release cable by squeezing the two brake arms (one on each side of the rear wheel) together using one hand. With the other hand - insert the metal cable guide in the brake arm bracket.
3. Rotate the wheel by hand and squeeze brake lever to test braking action.

### Testing:

#### **Belt Tension:**

1. Ride the eGO to full speed and go into full regenerative braking by quickly rolling the throttle forward.
2. If the belt skips (popping noise) increase the secondary drive belt tension using the "3. Tension" section above. Make small tension adjustments and test ride between adjustments until the belt stops skipping.
3. If skipping continues after adjusting the belt tension - it is possible that the primary belt is skipping. See the '**Primary Belt Replacement and Adjustment**' procedure

### Troubleshooting:

#### **Humming noise when riding:**

1. Generally this due to overly tight drive belts. Loosen the axle nuts and evenly loosen the tensioner nuts on both sides of the rear wheel. Confirm alignment and tighten the axle nuts.
2. If this persists then loosen the axle and tension nuts entirely and follow the procedure for re-tightening and aligning the belt.