



Belt Drive Install Guide

This guide will walk you through the install process for the Luna Cycle Sur Ron belt drive conversion.

Difficulty: intermediate

Estimated Time: 1.5-2 hours

Tools needed: 17mm socket, lock nut removal tool, 10mm open end wrench, 6mm Allen key, 5mm Allen key, 4mm Allen key, Impact Driver, Propane torch, Flat head screwdriver (large and small), Prybar, Reciprocating saw/cutoff wheel, gates belt app, rubber mallet



Parts needed: Luna Cycle Belt Drive Conversion Kit



The belt install is a rather involved job that requires patience and a familiarity with mechanical work. If you do not feel comfortable attempting install seek professional assistance!

Step 1. Locate rear axle nut and loosen with 17mm socket and 6mm Allen key. The nut will be easier to break free when tire is on the ground.



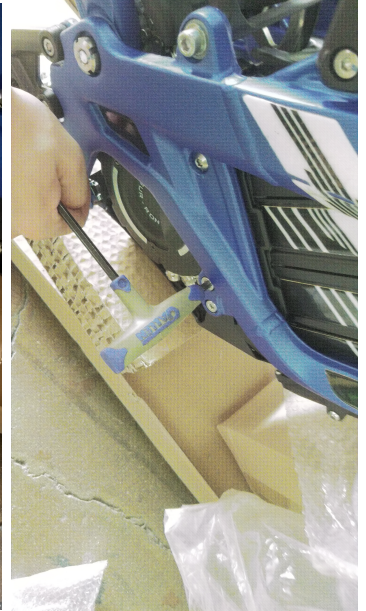
Step 2. Once the axle is loose, raise rear of bike off ground with a milk crate, motorcycle stand or lift.



Step 3. Remove the axle and rear wheel and set brake mount and chain to the side.



Step 4. Loosen motor mount bolts. There are 4 of them, 2 on each side of the frame, that hold the motor in.



Step 5. Loosen Lock nut on half shaft bolt in preparation for removal.



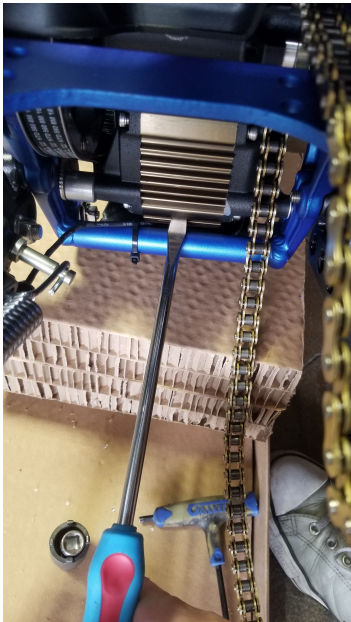
Step 6. Unbolt kickstand mount and set aside. This will get you the clearance needed to remove the shaft from the frame, otherwise the pulley will hit the kickstand and it will not come out.



Step 7. Locate belt tensioner on the left side of the motor and disengage by pressing down. The slack will allow removal of shaft.



Step 8. Using pry bar or long screwdriver, lift motor and tighten down one of the rear motor mount bolts to hold in place. This will relieve tension on the belt allowing the half shaft to slip out much more easily.



!!! BE CAREFUL NOT TO PRY ON COOLING FINS !!!

Pic below demonstrates proper pry location, between the frame and motor.



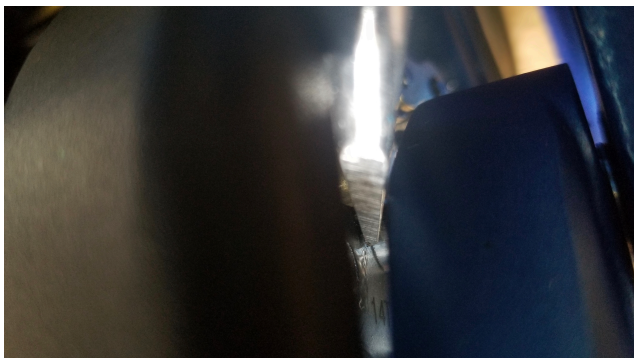
Step 9. Remove half shaft bolt and nut completely. **DO NOT LOSE THIS PART!!!**



Step 10. Using your hand, slip the belt off the pulley side and onto the middle of the shaft. Do not slide belt to the outside, as it will become stuck.



Step 11. Remove the Half Shaft. The shaft should pop out on most bikes, though blue Sur Rons seem to have a tighter fit than other colors. If you are unable to remove with a bit of wiggling and a firm tug, see set 11 a.



11 a. Either side of half shaft has spacers that need a little encouragement to be removed. 11
b. Using a flat head screwdriver and rubber mallet lightly tap on the top of the spacer or one of the surrounding 5mm Allen bolts to help it work its way out.



11c. Alternating left to right, and keeping the shaft as level as possible, gently tap the spacers until the shaft pops out.



Step 12. Remove the chain by using either a flat head screw driver, or pliers, to release the clip on the missing link. The chain is easily removed once link has been released.



Step 13. Pull the rubber grommet and spacer out of shaft, and using a propane torch, heat the half shaft where the bolts tap in to the shaft itself, working your way around the shaft applying even heat. If you leave the rubber grommet in there it will melt and that would be BAD. Be sure not to get it TOO hot or you will cook off the grease in the bearings.



Step 14. Using the 5mm Allen key and impact driver, set to the lowest setting, remove the bolts from the shaft, releasing the chain sprocket. If you do not have an impact, I would recommend getting a breaker bar or renting/borrowing one.



Step 15. The half shaft will be hot, so set it aside to cool off and work on the wheel.

Step 16. While the half shaft cools, locate the rear wheel and 6mm Allen key. Remove rear chain sprocket. An impact works as well, though is not necessary in most cases.



step 17. Install rear belt sprocket using stock 6mm bolts, tightening in a star pattern until the bolts snug up.



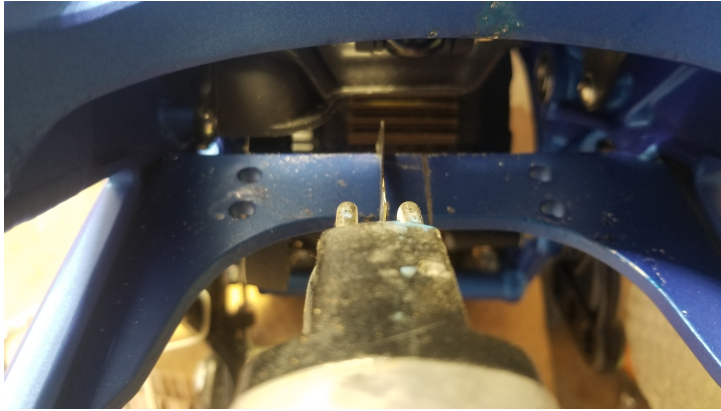
Step 18. Now that the half shaft is cool, install belt sprocket using stock 5mm bolts, tightening in a star pattern.



Step 19. Reinstall rubber grommet and shaft spacer. Be sure that the grommet is FLUSH with the new belt pulley, otherwise the spacer may slip out when installing shaft onto bike.



Step 20. Before reinstalling shaft, grab your saw of choice and mark out a 1/2'in section to be cut from pedal kit mounting plate. Reciprocating saws (such as an air saw or saw all) work the best.



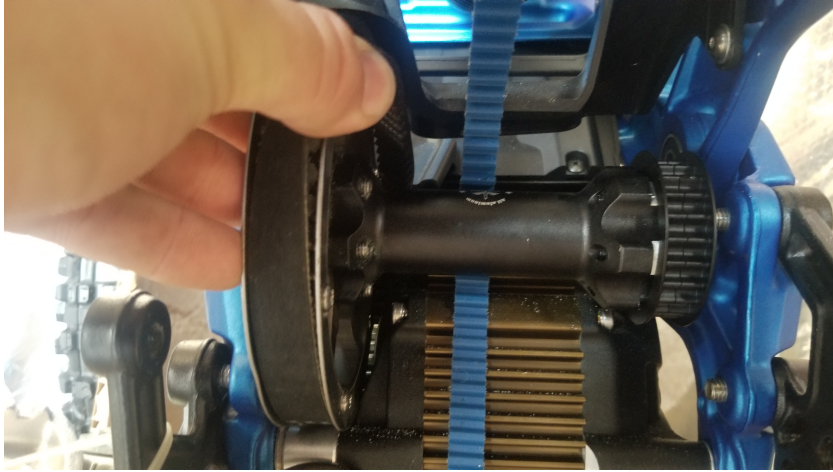
Step 21. Slip the belt through the cut in the pedal kit bracket and move to the side for now.



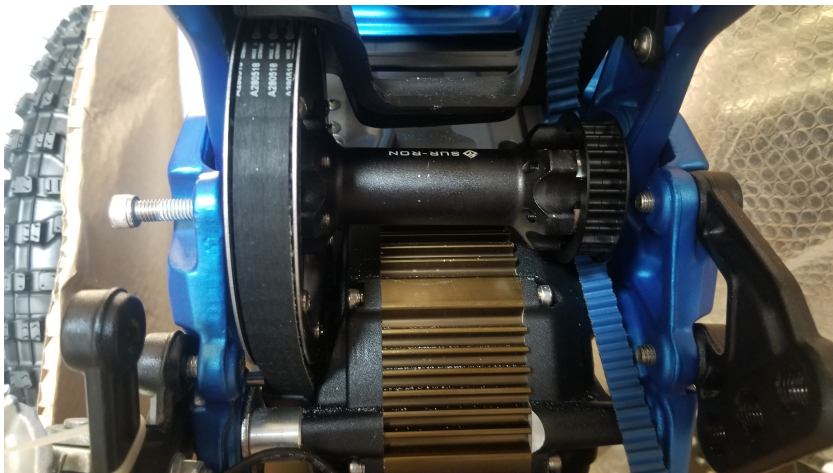
Step 22. Slip the belts onto the center of the half shaft and make sure nothing is pinching.



Step 23. Pry the left side belt onto the large pulley and rotate shaft while pushing belt onto pulley this will begin pull the shaft into place. At a certain point it will stick a little bit, but keep rotating and it will pop on.



Step 24. Applying pressure to the spacers on either side of the half shaft, carefully slide it up into the frame and begin alignment of shaft. If you experience difficulty installing see step 24 a.



24 a. Line up spacers on either side of the shaft and work them into place, until shaft is in but not aligned. There is a bit of wiggle room in the spacers, and they can be slightly angled to fit into the frame. Once it can hang on its own you can begin working it into the frame.



24 b. Using same method as removal, tap the spacers in evenly and slowly on both sides, being careful to keep shaft as straight as possible, until you are able to see the opening for the shaft bolt.



24 c. Use small flat head or Allen key to align bolt holes as much as possible, so that the shaft bolt will slide through.



Step 25. Use a screwdriver or Allen key to align the holes for shaft bolt. Alignment must be near perfect or it will be difficult to slide the bolt through.



Step 26. Once the alignment is perfect, reinstall the half shaft bolt. Using the rubber mallet gently tap the bolt until it passes through and the nut is able to be threaded on. Tighten lock nut.



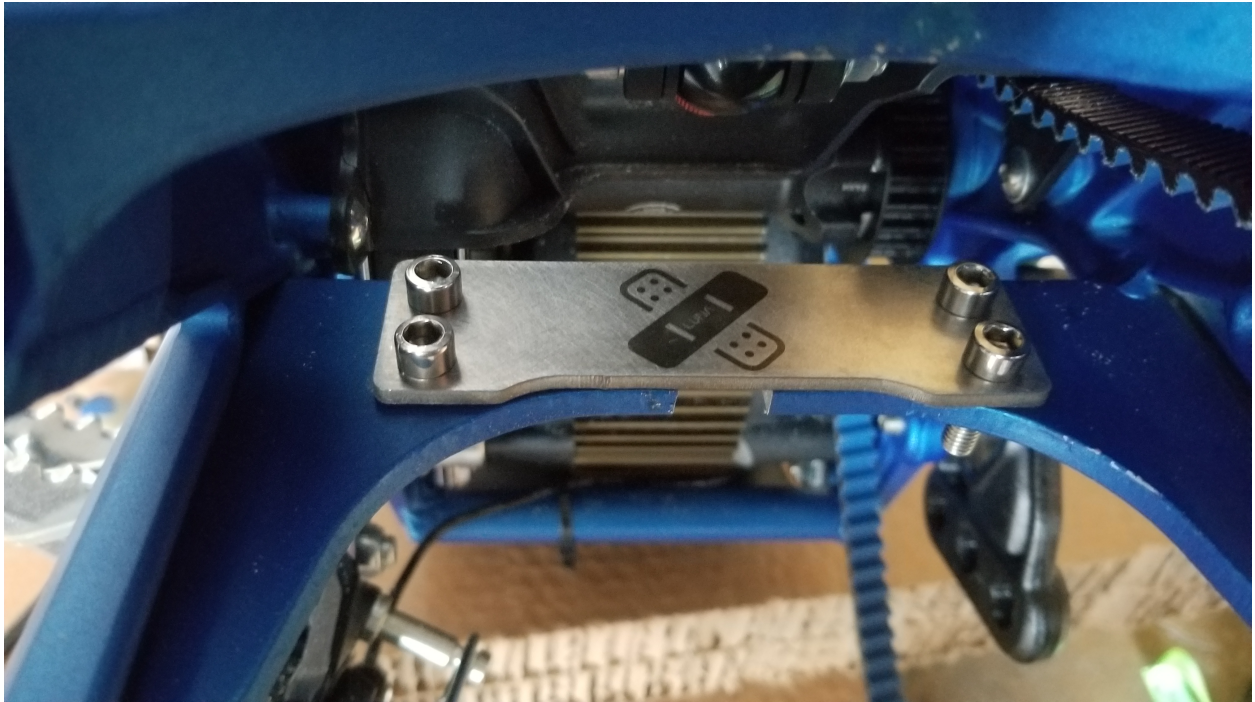
Step 27. Release motor mount bolt holding the motor up and tension the left side belt using the tensioner.



Step 28. Once tensioner is tight, tighten down all motor mounting bolts until they stop.



Step 29. Install luna band aid on the pedal mounting bracket that has been cut using supplied hardware and a 10mm wrench/4mm Allen key.



Step 30. Locate tensioning screws on the rear of the bike and adjust them in as far as they will go. This will make tensioning the belt possible, as it is shorter than the stock chain.



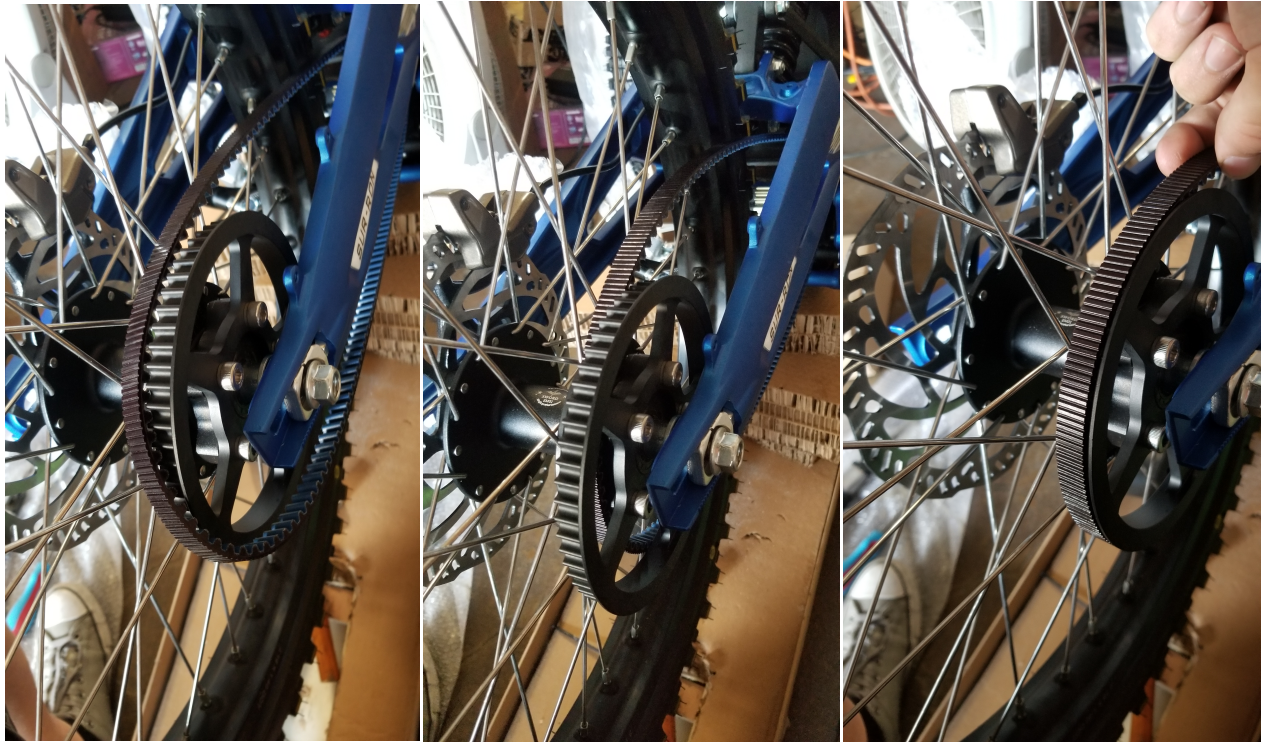
Step 31. Reinstall wheel, brake caliper and rear axel, but do not fully tighten the 17mm nut.



Step 32. Reinstall kickstand.



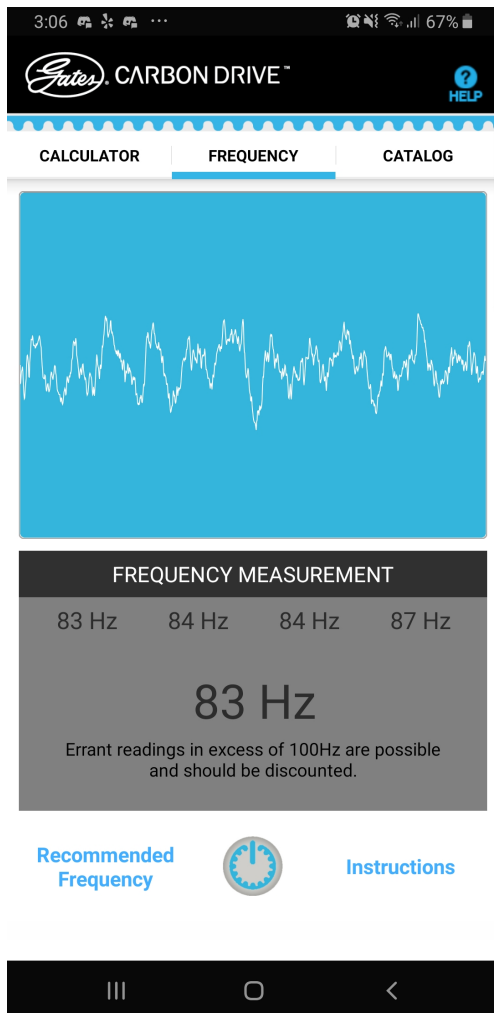
Step 33. Install the belt on to the wheel. Slide the belt over to the inside of the sprocket and push it onto the ridges, turning the wheel to feed the belt onto pulley.



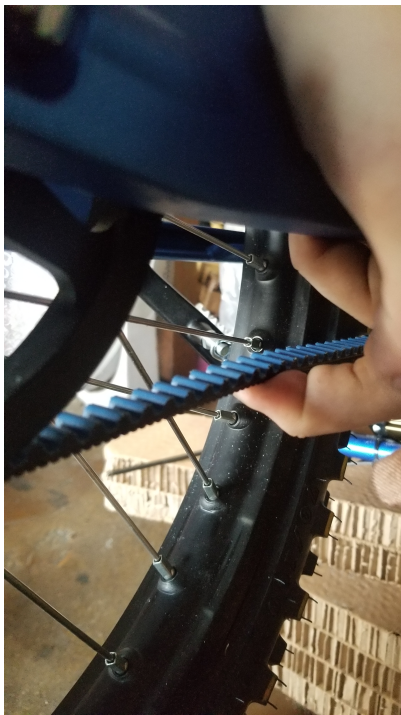
Step 34. Once the belt is seated on both pulleys, and the tension has been set on the motor, using the tensioner bolts and 10mm wrench, tension belt by turning bolts out evenly on both sides.



34a. Using the gates belt tension app (free on the google/iOS App Store) calibrate belt tension. (Tension should be between 80hz and 100 hz.



34b. Spin wheel and check belt tension in multiple spots to ensure proper tension throughout the belt.



Step 35. Tighten down 17mm nut on rear axle and re check belt tension.

Step 36. Check that all bolts have been tightened down and that everything has been correctly installed. Take the bike for a short test ride before any long trips.

Finish!

Congratulations on completing your LunaCycle belt drive conversion!

You are now ready to enjoy your Sur-Ron with less maintenance and less noise!