Life EV

QUICK START USER GUIDE

FRONT WHEEL INSTALLATION: A quick release skewer rod through a hub's hollow axle is utilized for quick and easy wheel installation. A quick release skewer is a rod that has a threaded acorn nut on one end, a cam lever assembly on the other end and 2 small springs. The cam lever applies pressure and locks the axle in place.

When installing the wheel for the first time, you must first remove the plastic brake pad spacer as shown in the right side photo (A1) by pulling the spacer out. The spacer avoids the pads accidentally compressing when the brake rotor is not in place.

Follow these instructions to install the wheel:

- 1) Slide the axle into the fork dropouts while aligning the wheel.
- Install the axle quick release skewer, paying attention to the springs (A2).
 One spring is required for each side of the skewer with the wide portion of the spring diameter facing outwards.
- the spring diameter facing outwards.

 3) With the quick release fully open, tighten the acorn nut until a slight resistance (A3). Confirm axle is seated in the fork's dropout.





Once tightened, close the quick release cam lever with enough force to lock the axle into the dropouts. The force must be strong enough for the axle not to become loose. It should take some effort to close the lever but not so much that you are straining. Once closed, the quick release lever should be tight and difficult to open the quick release lever (A4).

HANDLEBAR INSTALLATION: To install the handlebar of your bike to a comfortable riding position, you will need to use included 4mm, 5mm and 6mm Hex

Wrenches (<u>B1</u>). The 4mm is required to tighten the binder bolts, the 5mm will tighten the steerer tube bolts and the 6mm will allow you to adjust the angle of the stem.

- 1) Place the handlebar into the stem's concaved center.
- Secure the handlebar clamp plate to the stem with the 4 stem binder bolts but do not fully tighten at this time (B2).
- Rotate the handlebar to a comfortable riding position. The brake levers, throttle and shifter
 positions can be adjusted afterwards for proper control. Tighten the stem binder bolts diagonally
 with a required torque of minimum 60 lb*in.

The angle of the stem is adjustable on some of the Life EV models. Adjusting the angle of the stem will move the handlebar higher and closer to the rider. There is an adjusting bolt located on the right side of the stem if you have this feature. To loosen the adjusting bolt, use the 6mm hex key. Pivot the stem to the desired riding position and tighten the angle adjustment bolt (B3). A minimum torque of 180lb*in is required.

The last bolt allowing for an adjustment is the stem's steerer tube bolt. To loosen or tighten this bolt, the 5mm hex key will need to be used. The steerer tube bolts grip and secures the stem around the fork's steerer tube. To align the stem to the front wheel, the steerer tube bolts need to be loosened, the stem aligned and the bolts tightened to $80lb^*$ in torque.



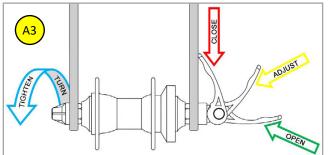




PEDAL INSTALLATION: Installing the pedals is a fairly simple process with the included 6mm Hex Key wrench. The pedal axles are made of cromoly steel and the cranks arms are made of aluminum. Therefore, there is a possibility that the hard pedal threads may strip the soft aluminum threads. The important thing to remember is to line up the treads properly and **never force the parts to move.** The right drivetrain side pedal has regular threading. It turns clockwise as you tighten it and turns counter-clockwise as it is loosened. The left side pedal is the opposite. It turns counter-clockwise as you tighten it and turns clockwise as it is loosened.

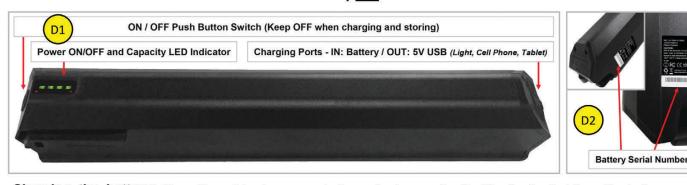
The Pedal spindles are marked with "R" for "Right" and "L" for "Left". The right pedal axle should be installed on the bike's right crank arm. Initially, gently install it with your hands turning the pedal axle toward the front of the bike. Once it is lined up and turned as far as you can turn it by hand on the crank arm, use the 6mm hex tool / wrench to fully tighten the pedal. The hole for this tool will be in the end of the pedal axle.

Repeat the same process for the left axle. The left axle pedal also requires gentle <u>turning</u> toward the front of the bike. **If the pedal doesn't turn, don't force it.** Verify that you are installing the right pedal on the right side of the bike or the left pedal on the left side of the bike.





BATTERY MANAGEMENT: The maintenance free battery is composed of 50 x Samsung's Highest Grade NCA 18650 Lithium Nickel Cobalt Aluminum Oxide (LiNiCoAlO2) Cells and can be charge on or off the bike. The ON/OFF Switch is at the top of the battery and the charging port is located under a rubber cover at the base of the battery (D1). Each battery has a specific serial number and barcode which can be found on the underside of the battery (D2).



Charging the battery: You will need to charge your battery prior to powering the bike for the first time. The battery may be in hibernate state which could take over 8 hours for the initial charge.

- Confirm the battery is OFF (No LED Lights) by pressing the ON/OFF rubber panel switch at the top of the battery. The LED indicator lights may or may not come on depending on the state of the battery (D3).
- Lift the charging port rubber cover open at the bottom of the battery, exposing the DC 2.5mm Power Jack (charging port). There is also a 5v USB power source/communication port. Do not use the USB port other than to power a light or charge a cell phone. The USB 5V is for communication and not a guaranteed power source (<u>D4</u>).

 Plug the charger into a wall outlet and confirm the charger is OFF. The LED light on the charger will display as clear when OFF.
- When ON but not charging, the light will display green and when charging, it will display red.
- Plug the DC 2.5mm Jack into the battery charging port (D5). Turn the charger ON via the ON/OFF switch located on the charger power cord (D6). The charger light will display red as it starts charging (D7). Upon being fully charged (up to 8 hours initially), the

charger light will display green and the charger will stop charging (D8).

Upon the battery being fully charged, turn the charger OFF via the ON/OFF switch located on the charger power cord and disconnect the charger from the battery. NEVER leave the charger connected to the battery once charged.

Installing the battery: The battery is secured in place at the base by a round elbow combined with a securing mount. At the top, the



battery is secured by a spring loaded cylinder latch (E1). It is IMPORTANT to ALWAYS confirm the battery is locked in place. Follow these instructions to install and lock the battery in place.

Confirm the battery is OFF (No LED lights) by pushing the rubber panel switch at the top of the battery (E2).

Hold the battery parallel to the downtube and angle the bottom of the battery towards the frame's lower docking mount. Sit the battery base's round elbow into the round concave space at the frame's lower docking mount (E3).
Slowly mount the battery into position by moving it sideways,

seating it into the frame's downtube (E4).

Firmly push the top side of the battery to lock in place. The spring loaded latch should have locked the battery in place. Confirm the battery is locked in place by pulling at the top of the battery as if you were going to remove it. If the battery moves even the slightest amount, it is not locked in place (E5).





Removing the battery: The battery locks in place via a spring loaded latch. There is a key lock which releases the latch, allowing the battery to be removed. The battery is locked in when the key slot is vertical (F1). To open and release the battery, turn the key clockwise (F2), and the battery can then be released. Pull on the battery to remove when the key is turned (F3)

Turn Key Clockwise to Unlock Locked

Powering the battery ON / OFF:

The key to the battery is only to Unlock and Release the battery. The key does not power the battery ON or OFF. To power the battery ON or OFF, simply push the rubber panel switch at the top of the battery (G1). The LED lights will come on and display battery capacity. If the battery is mounted on the bike, the Throttle LED lights will also light up (G2). If the battery or throttle LED lights do not come on, charge the battery for a minimum of 8 hours.



Battery Fuse: If after 8 hours of charging, the battery does not power the bike, the fuse or charger may need to be replaced. First change the 30A blade fuse located at the bottom of the battery (H1).



Storing the battery: The Li-ion battery utilizes the latest technology in Li-ion battery cells, however it is recommended you do not store the battery in hot conditions. If the bike is being stored indoors in a cool environment, store the battery on the bike <u>ALWAYS</u> in the "OFF" position. The battery should be kept away from fires or sparks and also away from possible water damage. The battery is water resistant but not water proof. Avoid wet conditions such as rain or cover your battery in the rain. Store the battery in a cool dry place and charge to a maximum 80% every 90 Days.

Battery power indicator: There is a 3 LED light indicator on the handlebar throttle displaying the battery capacity available as referenced below under "THROTTLE". There is also an LED battery indicator on the battery itself. The indicator on the battery has 4 LEDs lights displaying 4 levels of remaining voltage. When pressing the Battery ON / OFF rubber panel switch at the top of the battery to the ON position, the indicator will light 1, 2, 3 or 4 LED lights according to the remaining voltage in the battery. 4 LED lights for example is 75% to full charge, only 2 LED lights equal below 50% depletion and must be recharged When the battery is depleted to 30V, all LED lights will turn OFF and the battery will shut down (11).

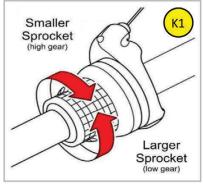
THROTTLE: The variable throttle has an ON/OFF button. Push the red button IN to engage power to the motor (J1). The twist throttle is similar to a motorcycle accelerator, twist for more power. ALWAYS keep in mind, the higher the speed, the faster you accelerate off the line, the less distance per charge. If there are multiple stop and starts, this will also affect the range of distance per charge. It is recommended you become accustomed to your riding style and adjust the style depending on distance needed per charge. To enhance distance per charge, it is suggested you add pedaling, hold the throttle back 10% and whenever possible allow the bike to coast under no throttle power.

The throttle incorporates a separate LED battery indicator (J1). You should also understand these LED indicators react according to load. There is a Green, Yellow and Red LED. If the Green LED no longer lights while the bike is not being powered, it is time to recharge the battery. The Green LED does not always represent a fully charged battery though. For example, the Green LED may be lit until a steep incline. Depending on the load being placed on the motor and/or grades of incline, the green LED dimming represents the accurate battery capacity. Upon the Green LED no longer being lit during riding, particularly under no load, the battery should be charged prior to the next ride. If the Green LED is dimming under light loads, the battery could be under 50% capacity and charged.



38V - 41V

Twist down for power Push in for throttle ON, out for OFF



SHIFTING GEARS (if applicable): To shift gears, twist the twist shifter up or down (K1). If requiring more torque or starting off, you will shift to a small number gear. For higher speeds, you will shift to a higher which decreases number amount of crankset rotations.

BRAKING: This bike is equipped with high performance Avid hydraulic brakes, which require no pad adjustments. Disc brakes however require a bed-in process which occurs naturally after 20-40 stops. It can be sped up by following the bed-in guidelines detailed in your manual's **Chapter 9 "Maintenance and Replacement"**, **section c)** "Brake pad bed in". When braking, both brake levers should be applied simultaneously. Your left brake lever manages your front brake and your right brake lever manages your rear brake. You should become accustomed to the stopping power of each brake (front & rear). Test each brake separately in a controlled any iron property for their ability to stop the bile. Excessive braking force on the front wheel can environment for their ability to stop the bike. Excessive braking force on the front wheel can cause the rear wheel to come off the ground and the rider can be thrown off the bike. In emergency situations, apply pressure to each brake lever, shift your weight to the back of the bike and only attempt to use full force on the front brakes when the bike is not stopping quickly enough.

Maintenance Schedule (daily use)	Daily	Weekly	Monthly	6 Months	Annual
Tire Pressure	Х				
Tire Condition	Х				
Visual Inspection	Х				
Brake Lever Pressure	Х				
Quick Releases	Х				
Handlebar Alignment	Х				
Saddle Alignment	Х				
Battery Pack Locked	Х				
Wheel Check	Х				
Inspect Frame for fractures		Х			
Clean and Lubricate Chain		Х			
Check Brake Pads		Х			
Lubricate Forks			Х		
Lubricate Brakes & Cables			Х		
Lubricate Folding Mechanism			Х		
Check All Bolts and Torque Settings			Х		
Clean Bicycle			Х		
Charge Battery			Х		
Check Wheel Spokes			Х		
Inspect Rim Condition			Х		
Inspect Saddle, Rails and Clamp			Х		
Grease Pedal Bearings				Х	
Check HUB Bearings				Х	
Check Headset Bearings				Х	
Check Bottom Bracket Bearings				Х	
Bleed and inspect Brake Hoses					Х
Replace Brake Pads					Х
Replace Tires					Х

MAINTENANCE: As a common practice you should follow your maintenance schedule. You should study it and allow it to become second nature to your riding.

RIDING: Before your first ride, make sure you are comfortable and confident when sitting on the bike. If an adjustment does not feel right or something feels loose, check to ensure you are properly fitted to the bike and do a mechanical safety check as explained in "section e)" of the manual. Pick a controlled environment, away from cars, other cyclists, obstacles or other hazards for your first ride. Become familiar with the brake levers against throttling, variable throttle performance while pedaling and not pedaling. The first motorized ride should be initially pedaling and then slowly throttling to feel the engagement of the HUB motor.

WARRANTY SERVICE: Your bike components are covered under a 1 year warranty. Most components are sealed and maintenance free but you should avoid riding in the rain whenever possible. Protect the electric components as outlined in the USER GUIDE if wet weather riding is anticipated. Water damage is not covered under warranty.

REGISTERING YOUR BIKE: Register your bike by online, fax or mail as follows: by filling in the form at www.lifeelectricvehicles.com/register-your-ebike or you can fill out the register card at the end of your USER GUIDE and either scan to service@life.bike, fax to 314.815.1809 or cut out and mail to: Life Electric Vehicles, Inc. 460 Hillsboro Technology Drive, Deerfield Beach, FL 33441. The motor has the serial number written alongside the outside shell. The frame serial number is located under or on top of the crankset (bottom bracket) of the frame. The serial number for the battery is at the back underside.

THIS QUICK START GUIDE DOES NOT REPLACE READING YOUR USER GUIDE. THERE IS IMPORTANT INFORMATION IN YOUR USER GUIDE THAT MUST BE READ PRIOR TO RIDING YOUR NEW BIKE FOR THE FIRST TIME.

Torque Item	lb per In	lb per Ft	NM
Axle nut (front motor)	250 lb*in	20.8 lb*ft	28.25
Bottom bracket	420 lb*in	35 lb*ft	47.46
Brake lever clamps (at handlebar)	70 lb*in	5.8 lb*ft	7.91
Cassette/Freewheel	300 lb*in	25 lb*ft	33.9
Chainring bolts	80 lb*in	6.7 lb*ft	9.04
Crank bolt	350 lb*in	29.2 lb*ft	39.54
Crank bolt cap (if applicable)	100 lb*in	8.3 lb*ft	11.3
Derailleur bolt	80 lb*in	6.7 lb*ft	9.04
Disc brake caliper bolts (at frame)	80 lb*in	6.7 lb*ft	9.04
Disc rotor bolts	55 lb*in	4.6 lb*ft	6.21
Disc Brake Cable Arms (pinch bolt)	55 lb*in	4.6 lb*ft	6.21
Headset locknut	150 lb*in	12.5 lb*ft	16.95
Kickstand bolt	100 lb*in	8.3 lb*ft	11.3
Pedals	300 lb*in	25 lb*ft	33.9
Saddle rail clamp bolts (M6)	140 lb*in	11.7 lb*ft	15.82
Shifter (at handlebar)	20 lb*in	1.7 lb*ft	2.26
Stem adjustable bolts	150 lb*in	12.5 lb*ft	16.95
Stem clamp binder bolts (4 bolts)	60 lb*in	5 lb*ft	6.78
Stem steerer tube bolts	80 lb*in	6.7 lb*ft	9.04
Throttle	25 lb*in	2.1 lb*ft	2.825

TORQUE SETTINGS: The nuts and bolts of the bike prior to being shipped are torqued to to the manufacturer's recommended setting. During the shipping process and over time, the nuts and bolts can become loose. All bolts should be re-torqued prior to riding.

LIFE EV ELECTRIC BICYCLES

1 YEAR LIMITED INTERNATIONAL WARRANTY

LIFE ELECTRIC VEHICLES warrants this product, including all individual components against defects in material or workmanship as follows:

LIFE ELECTRIC VEHICLES LIMITED 1 YEAR FRAME WARRANTY

LIFE EV bicycle frames are warrantied to be free from manufacture defects in materials and/or workmanship for 1 Year for the original owner. If the bicycle is sold and/or ownership transferred, the frame warranty will follow LIFE ELECTRIC VEHICLES' 1 year component warranty.

LIFE ELECTRIC VEHICLES LIMITED 1 YEAR COMPONENTS WARRANTY (BATTERY NOT INCLUDED)

LIFE ELECTRIC VEHICLES' bicycle components including forks, stem, handlebar, headset, seat post, saddle, brakes, cables, bottom bracket, crank set, pedals, chain, rims, spokes, wheel hub, freewheel, cassette, derailleur, shifter, motor, throttle, controller, wiring harness, kickstand, reflectors and hardware are warrantied to be free from manufacture defects in materials and/or workmanship for a 1 year period from the date of original purchase. Electronic components such as controllers, motors, and chargers may need to be returned to a LIFE ELECTRIC VEHICLES authorized dealer for testing prior to replacement.

LIFE ELECTRIC VEHICLES LIMITED 1 YEAR BATTERY WARRANTY

LIFE ELECTRIC VEHICLES' lithium ion batteries are warrantied to be free from manufacture defects in materials and/or workmanship for a 1 year period from the date of original purchase. The battery warranty does not include damage from power surges, use of improper charger, improper maintenance or other such misuse, or normal wear.

TERMS OF WARRANTY

This warranty only applies to the original registered owner of a LIFE ELECTRIC VEHICLES bicycle. This warranty is expressly limited to the replacement of defective parts with those of equal or greater value at the sole discretion of LIFE ELECTRIC VEHICLES. This warranty does not cover any damage or defects resulting from failure to follow instructions in the owner's manual, acts of God, accident, misuse, neglect, abuse, alterations, modification, improper assembly, operator error, water damage, stunt riding or improper follow-up maintenance. This warranty does not include normal wear and tear parts (tires, tubes, brake pads). LIFE ELECTRIC VEHICLES will not be liable and/or responsible for any damage, failure or loss caused by any unauthorized service or use of unauthorized parts. In no event shall LIFE ELECTRIC VEHICLES be responsible for any direct, indirect or consequential damages, including without limitation, damages for personal injury, property damage, or economic losses, whether based on contract, warranty, negligence, or product liability in connection with their products.

WARRANTY REMEDY

If your LIFE ELECTRIC VEHICLES electric bicycle is not working properly because of a defect, you may return it to the place of purchase or any authorized LIFE ELECTRIC VEHICLES dealer for inspection. You may direct your warranty questions to an authorized LIFE EV dealer. Parts which are verified by LIFE ELECTRIC VEHICLES to be defective and qualify for warranty replacement will be provided after your warranty claim is processed. Return of the warrantied defective part to LIFE ELECTRIC VEHICLES is the responsibility of the owner. Prior to any warranty replacement, your bicycle must be registered with LIFE ELECTRIC VEHICLES on our website http://lifeelectricvehicles.com/register-your-bike/ or by mailing in the warranty registration card. Proof of purchase in the form of a bill of sale or receipted invoice is required.

This warranty is the sole and exclusive remedy and is in lieu of all other remedies, including consequential and incidental damages. Some states or countries do not allow the exclusion of limitation of consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights that may vary from state to country.

Brand components can be warrantied thru their respective Authorized Reseller. For example; SRAM Derailleur, SRAM Brakes, Suntour SR Fork, KMC Chain, Truvativ Crankset, HTI Pedals, Continental Tires and other components can be warrantied by the Authorized Reseller (local Independent Bicycle Shop) of the component for the territory (customer's city).

SHIPPING TERMS

International customers and customers outside of the Continental USA will be subject to all shipping fees, duties and taxes when servicing outside their territory.