

# User Manual



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**FTH**Power

In order to ensure your safety and maximize your enjoyment from your new ride, we have outlined important topics in this manual for your review.

## Content

- 1、 Service Record
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## Safety tips

Before operating and enjoying your new FTHPower electric bicycle, please read the content of this manual carefully. If you do not understand any section of this manual or if any function is not operating according to this manual, please contact your dealer immediately.

Items included in your e-bike packaging:

1. FTHPower electric bicycle
2. 2 battery chargers
3. 1 pair of pedals
4. 2 pairs of keys for locking batteries
5. User Manual



# Service Record

Model: \_\_\_\_\_

Serial Numbers: \_\_\_\_\_

## Check for damage

- Frame & Fork
- Rims
- Cables & connections

## Lubricate

- Chain
- Derailleur
- Seatpost

## Adjust and Tension

- Spokes
- Gears
- Seat
- Reflectors & Lights
- Handlebars, Stem, Grips
- Brakes
- Cranks & Bottom Bracket
- Wheel Axles
- All Fasteners

Dealer: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

## 6 Weeks/200km

Date: \_\_\_\_\_

Shop: \_\_\_\_\_

Mechanic: \_\_\_\_\_

## 6 Months

Date: \_\_\_\_\_

Shop: \_\_\_\_\_

Mechanic: \_\_\_\_\_

## 12 Months

Date: \_\_\_\_\_

Shop: \_\_\_\_\_

Mechanic: \_\_\_\_\_

## 24 Months

Date: \_\_\_\_\_

Shop: \_\_\_\_\_

Mechanic: \_\_\_\_\_

# Assembly Instructions

Your electric bike is shipped 85% assembled. Follow these steps to get it ready and safe for your first ride.

## To Prepare

We recommend that you familiarize yourself with the bike parts before assembling. Gather all required tools. Be sure to work in a clean, dry space with plenty of room. You might wish to lay down a tarpaulin or old blanket to protect the bike during assembly. You may find it helpful to stand the bike frame on a block or sturdy box under the battery housing to work with it in an upright position. Please watch the balance when installing wheels.



Do not activate the brakes until the bike is fully assembled. Squeezing brake levers while calipers have no disc rotor between them can damage the brakes.

## 1. Unpack

Carefully lift the electric bike out from the carton (two people recommended for this task). Cut the nylon zip ties with suitable scissors and remove the foam protection from the bike.

## 2. Handlebar and Stem

Loosen the handle bar angle the four handlebar clamp bolts and rotate the handlebar to make sure the brake lever, shift lever and switch positions are at the correct angle. Finally fasten the angle adjusting bolt to 5-8N.M



# Assembly Instructions

## 3. Seat

Release the seat post clamp lever and set the seat post height to the position which is suitable for you to comfortably reach the ground when you are sitting on the bike, then refasten the seat post clamp. The maximum height should be within the max height markings on the seatpost.



## 4. Pedals

Attach the pedals to the cranks, please note letter L and R on the axel, L means Left pedal. Note: the pedals have opposing threads – screw in the left pedal counterclockwise and screw in the right pedal clockwise. Install L pedal counterclockwise and the right pedal clockwise.



## Warning

**Do** treat your eBike like any bicycle you would want to last well... keep it stored somewhere secure and away from the elements.

**Don't** treat your eBike as a dirt-bike! The motor and battery are weather proof, but not water-tight. It is ok in rain, but not to submerge in streams, etc!

**Don't** power up the throttle while the eBike is held stationary. Motor operation for more than a few seconds while the wheel is locked/stationary can damage the motor and controller.

**Important:** Your bike will arrive with the battery partially charged. You need to give it a full charge before ANY use. FTHPower batteries have been precondition-cycled, so no need to do 3 full deep discharges as for some other brands. Just charge and go... then just top your battery up after each use (lithium batteries prefer shallow discharge). Then give your battery a complete discharge and full charge every 3 months or so to keep the cells well balanced.

Note: The LCD battery display bars will dip under full load (on hills, etc). This is normal as running voltage drops under high load. To get an accurate battery reading, wait about 10 sec after the motor is not in use. The 8 step capacity lights on the battery will give you a more accurate idea (button on top rear of battery – more info later in manual).

**Do** take extra care on the road as you will be travelling faster than you normally do on a bike and your bike is now power-assisted, so will behave differently.

**Don't** let others ride your eBike unless you have properly explained safe and appropriate use to them.

**Don't** attempt to open the motor or battery should your system malfunction. This will void the warranty. Return it to the store you purchased it from. Do make sure your charger has free air movement around it as it will get quite warm.

**Don't** use your charger outdoors. It is for indoor use only.

# Warning

**Do** top up your battery whenever possible. Lithium batteries actually prefer shallow discharge (the exact opposite of older types of batteries that have memory effects. Keeping your battery topped up between rides will prolong the life of your battery and give you more power too, as a full battery is better on the hills.

**Do** disconnect your battery from the charger when it is charged. Leaving it connected permanently when not in use will shorten cell life.

**Never** leave a fully discharged battery uncharged for more than a week... you will shorten the life-span of your battery the longer you leave it in a fully discharged state.

**Don't** leave your battery for more than 3 months without top-up charging it.

Note: A battery left for more than 3 months at a low voltage may suffer cell damage. This will not be covered under your warranty. It is to your advantage to properly look after your battery as it is the most expensive part of your ebike!

**Important:** Though the risk of battery fire with Samsung or Panasonic 18650 cells is considerably lower than cheaper, unbranded cells (Online data suggests about one in 40 million for the cells we use - i.e., you are more likely to get struck by lightning), it is still possible. Treat any charging lithium battery (including SmartMotion) as a potential fire risk (yes, this includes cellphones, computers too). If charging your battery while it is still docked into the bike simply make sure the bike (includes charger) is not on or leaning against a flammable surface. Same for charging battery off the bike, make sure the battery and charger is placed on a fire-rated surface (concrete floor, steel bench or shelf, etc).

# Safe Riding Recommendations

- 1.** Please observe traffic regulations, and don't lend your bicycle to anyone who is unfamiliar with it. The bicycle can legally only be used on the road by one person age 14 years or over.
- 2.** If you are in a country where wearing a cycle helmet is not mandatory, we still strongly advise you to always wear one. If you are unfamiliar with cycling, we also advise you to attend a cycle proficiency course prior to using it, or gain advice from your local FTHPower dealer. Your eUrban is not a toy and should be considered a serious mode of transport.
- 3.** As with all bicycles it is important that you stay within safe limits. If you feel you are traveling too quickly for the road conditions you probably are, so slow down! High speed will increase forces in the case of an accident and increase the possibility of injury.
- 4.** Test your brakes prior to using the bike every time you use it and remember the bike will not stop as quickly in wet or icy conditions as it would on a dry road.
- 5.** Check the tires, rims, pedals, stem, cables, chain, etc for general condition regularly.
- 6.** A rider is very difficult for motorists and pedestrians to see at dusk, at night, or at other times of poor visibility. If you must ride under these conditions, check and be sure you comply with all local laws about night riding; follow the rules of the road. Take the following additional precautions: make sure that

your bicycle is equipped with correctly positioned and securely mounted reflectors, wear light-colored, reflective clothing and accessories (any reflective device or light source that moves will help you get the attention of approaching motorists, pedestrians and other traffic). Make sure your clothing or anything else you are carrying on your bicycle doesn't obstruct a reflector or light. Ride slowly when conditions demand you to do so.

- 7.** Check the front and rear rim's safety line. Replace wheel when any part of the Rim Wear Groove is not visible. It is dangerous not to do so.
- 8.** You must not leave the bike unattended or use the kickstand to stand the bike without your support when a child is in the rear seat as the bike could tip over and cause serious injury.
- 9.** Make sure the rear suspension underside of your seat is out of reach of your child to avoid finger injury.
- 10.** Your bicycle must be returned to your servicing dealer or bicycle/motorcycle mechanic after one month or 200km of riding (which ever comes first) to re-tension the spokes. Then every six months or 1000km (which ever comes first) for a general service and thorough inspection. Failure to do this can void your warranty due to unnecessary wear.

# Safe Riding Recommendations

## Pre-ride Checklist

- Please make sure the brake lever sequence is correct for your country before riding. In UK, NZ and Australia the left brake lever is for rear brake and the right brake is for the front brake. In all other countries it is the other way: left for front, right for rear.
- Check the tires for any visible damage.
- Check tire pressures are 30psi, and adjust if necessary.
- Check for any loose nuts, bolts, or fixings.
- Check brake functions, cable tension, pad clearance, etc.
- Check all electronic functions are OK (functions detailed later in this manual).
- Check the reflectors are in place and the lights are working (detailed later in manual).

## Torque Settings

Check bolts are tightened according to the following recommendations before you set off for the first time.

- |                                      |           |
|--------------------------------------|-----------|
| <b>a.</b> Seat pillar clamp nut/bolt | 5N.M-8N.M |
| <b>b.</b> Brake cable anchor bolt    | 5N.M      |

<b>c.</b> Front wheel axle nuts	30-35N.M
<b>d.</b> Seat angle clamp bolt	24N.M
<b>e.</b> Crank axle nuts	R:42N.M L: 46N.M
<b>f.</b> Gear shifter nuts	4N.M
<b>g.</b> Rear carrier nuts	8N.M
<b>h.</b> Mudguard bracket nuts	8N.M
<b>l.</b> Handle bar clamp nut	17-20N.M
<b>j.</b> Quill stem bolt	19N.M
<b>k.</b> Seat tube clamp nut	4-7N.M
<b>l.</b> Rear wheel axle nuts	40-45N.M
<b>m.</b> Quick release front axle. Measured torque not typically used. Common industry practice is resistance at lever half way through swing from open to fully closed.	
For all other nuts, the torque depends on the nut diameter:	
M4	2.5-4.0N.M
M5	4.0-6.0N.M
M6	6.0-7.5N.M

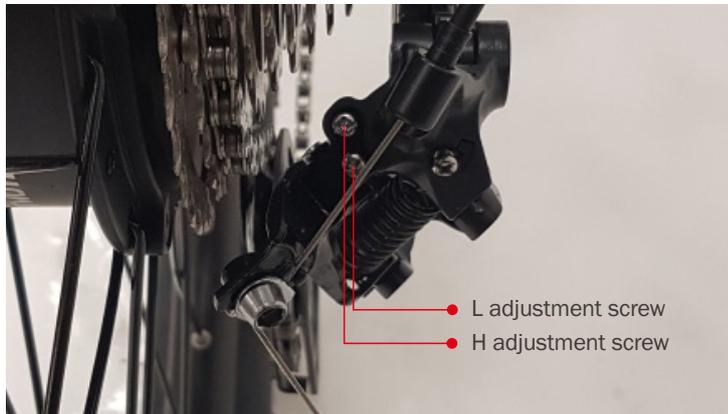
**Note:** make sure axle nuts are always done up tight on both wheels as connections to the motor and the dropouts can be damaged due to the axle spinning.

# Maintenance & Adjustment

## 1. Gear Adjustment

Adjust the rear derailleur cable tension to align guide pulley with the centre of the cogs (setting this in gear 3 or 4 is easiest). Low adjustment: In 1st gear check and if necessary, turn the L adjustment screw so that the guide pulley moves to a position directly in line with the largest (1st gear) sprocket. High adjustment: turn the crank arm while gear shifting the derailleur to the top gear position, and then check and if necessary, turn the H adjustment screw to adjust so that the guide pulley is in line with the outer line of the smallest sprocket when looking from the rear.

Turn the crank arm to set the derailleur to the low position.



## 2. Cleaning your electric bike

Warm soapy water and a cloth can be used to clean the frame of your bike, but care must be taken not to immerse any of the electrical components; they are rainproof but cannot be immersed in water. The motor can be cleaned with a soapy cloth, but also must not be immersed in water. The battery can be cleaned with a damp cloth, then dried afterwards. Note: in salty conditions it is essential to clean and lube your bike regularly.

## 3. Lubrication

1.1 Once a month lubricate all pivot points on your derailleur and the derailleur pulleys with suitable chain lube.

1.2 Every three months lubricate the brake lever pivots, gears and chain with suitable oil.

# Maintenance & Adjustment

## 4. Other Maintenance

Your bicycle must be returned to your servicing dealer or bicycle/motorcycle mechanic after one month or 200km of riding (which ever comes first) to re-tension the spokes. Then every six months or 1000km (which ever comes first) for a general service and thorough inspection. Failure to do this can void your warranty due to unnecessary wear and tear.

Excluding the electric drive side of things, your FTHPower bicycle is a normal bicycle, with normal components. Your dealer will be able to explain to you the general care and maintenance of the normal bicycle components. You should pop your bike in for a check-up after about a month's use as new gear and brake cables will stretch, then every 6 months after that.

The electric drive system is maintenance free and has self-diagnostic codes that will be displayed on the LCD console (detailed later in this user guide) should anything go wrong. Again, speak to your dealer should any issues arise.

## 5. Fork adjustment

RST front fork GUIDE 26-ML has springs that can be rebound and adjust.

1.1 The front fork is the suspension fork. When sitting on the saddle, the suspension part will go down about 30%.

1.2 There is a black locker on the top of the right side of the fork, which can be locked follow the direction of the arrow and riding in the city. Before off road riding , please open the suspension locker.

# Main Specifications

<b>FRAME</b>	26"x457 A6061-T6	<b>HUBS</b>	Quanta double sealed bearing, Alloy 13G×135×180×36H
<b>FORK</b>	135mm travel, through axle, rebound and lockout adjustment.	<b>SPOKES</b>	Black Stainless.
<b>SHOCK</b>	Front suspension, rebound lockout.	<b>RIM</b>	ALLOY 26"*4.0 13G36H with eyelets
<b>HEAD SET</b>	Integrated tapered.	<b>TIRE</b>	26*4.0 INNOVA
<b>HANDLE BAR</b>	Alloy ALLOY Bar Bore:Φ31.8 Bend:6° Width:680	<b>DERAILLEUR</b>	SL-TX50-7R, TOURNEY RIGHT 7-SPEED
<b>STEM</b>	Ext=80mm RISE=10° ID28.6/Bar bore31.8	<b>MOTOR</b>	48V 750W rear motor
<b>SEAT</b>	FTHPower Enduro.	<b>OPERATION</b>	Throttle or PAS
<b>SEAT POST</b>	Alloy, offset=18mm, Dia=30.4mm, L=300mm	<b>DISPLAY</b>	Multifunction full color LCD system including cadence rpm, speed, avg speed, max speed,trip, and battery level.
<b>BRAKE</b>	Tektro Dis brake with 180mm rotors.	<b>BATTERY</b>	Panasonic 48V 11.6Ah, double battery
<b>CHAINWHEEL</b>	44 narrow wide alloy, 170mm crank.	<b>CHAIN GUIDE</b>	CNC hard anodised alloy backplate, durable plastic cages and pully wheel.
<b>CHAIN</b>	KMC anti-rust		
<b>CASSETTE</b>	14-28T SHIMANO MF-TZ21		

# VLCD Display Panel

## 1. Speed display

Show current speed, unit: Km/h and mile/h, be switchable.

## 2. Consumption indicator

Four horizontal blocks show energy of battery (each block, 25 percents of electric energy), flickering to remind you to charge the battery.

## 3. Trip distance(reset while power off)

Show trip distance.

## 4. Odograph

Show total miles.

## 5. Record movement time

Record time while sensor gets signal.

## 6. Average speed(AVG)

Shows average speed.

## 7. Power assist

Show power assist.4 levels power assist adjustable.

## 8. Backlight

Switch between 2 levels brightness, default is backlight off.

## 9. Wheel-diameter setting

Select wheel-diameter among14-32 inch. default is 26-inch..

## 10. Select the magnetic steel number of the speed sensor, default value is 1.

## 11. Speed unit option

Switch speed unit from Km/h or Mil/h, fault is Km/h.

## 12. 6km/h function

Select function of 6km, default is OFF.

## 13. Max speed setting

Select max speed during 15-45km/h, Default is 25Km/h.

## 14. Assist ratio setting (reserved)

Select the ratio but default is 16..

## 15. Mode selection (reserved)

Default is Europe.

speed limit setting ,default is ON.

## 16. Version of the manual

Showing the current version is 3.7

## 17. Diagnosis code

The diagnosis codes will be displayed according to the failure root, The fault detection will be launched automatically upon the equipment is switched on.

## 18.Torque signal value displays.

## 19.Initial torque signal value displays

# VLCD Display Panel Controls

## 1. Button Definition



Pedal Assist Pedal Assist Mode Power on or off

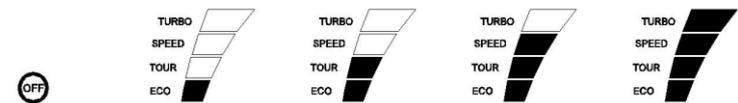
## 2. Operation and setting

### 2.1 Power on or off

Press this button to power on the LCD display, pressing the button for 2 seconds to power off. Automatically shut off without any operations in 5 minutes.

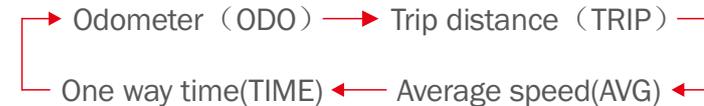
### 2.2 Pedal Assist

There are 4 levels of power assist (none, low, medium, high). Press this button to adjust the power assist from low to high. Default is medium assist.



### 2.3 Mode

There are 4 levels of mode (odometer, trip distance, average speed, one way time). Press this button to adjust the mode. Default is odometer.



## 3. Basic functions

### 3.1 Backlight

Use the  button switch background lighting under switching on state.

# VLCD Display Panel Controls

## 3.2 Odograph (ODO)

Under the condition of in odometer, press the three buttons  $- + \text{⏻}$  simultaneously for 10s to reset ODO.

ODO

8888 km

Odometer

## 3.3 Average speed(AVG)

Show average speed (average speed=trip distance / movement time), speed resolution is 0.1km/h (mil/h), full range is 99 km/h or 99.9mil/h.

AVG

888.8 km/h

Average speed

## 3.4 Movement time(TIME) Required time for a single mileage.

TIME

888.8 h

Mileage time

## 3.5 Show diagnostic code

Show diagnostic code .Easy to detect the failure. Once the controller encounters an error, the related code will occur on the speed bar of the panel.

E0 |

ODO

8888 km/h 

Diagnostic code

# VLCD Display Panel Controls

## 4. Hidden function and show

To show the hidden function, you should press these two buttons   simultaneously for 3 seconds on startup screen, then all the items (including normal functions and special functions) show up.

There are 11 levels of mode: odometer (ODO), trip distance (TRIP), average speed (AVG), one way time (TIME), wheel diameter selection (d1), magnetic steel number selection (cc), speed units selection (Km/mile), 6/Km/h function selection (6.0km/h), top speed selection (SD), power adjustment selection (A), mode selection (M). Default is odometer. (Tip: Just for a single time, the second will resume normal menu.)



### 4.1 Wheel diameter selection(d1)

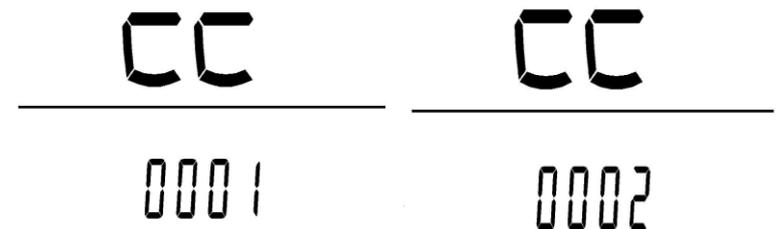
Use the  button to enter the speed units interface, press  or  button to switch amongst 14-32 inch. Default is 26.



Wheel diameter selection

### 4.2 Magnetic steel number selection (cc)

Use the  button to enter the magnetic steel number selection, press  or  button to switch amongst 1-12. Default is 1. The digital represents the qty of pulse signal output from one round of the wheel.



Magnetic steel number selection

# VLCD Display Panel Controls

## 4.3 Speed units selection(km/h mil/h)

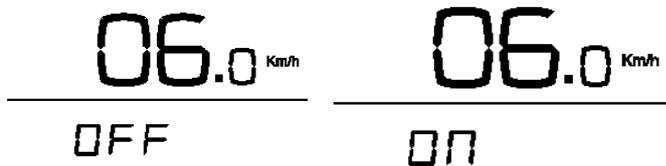
Use the **i** button to enter the speed units interface, press **+** button to switch between km/h and mil/h. Default is Km/h.



Speed units interface

## 4.4 6km/h

Use the **i** button to enter the 6/Km/h function selection, press **+** buttons to switch between ON/OFF. Default is OFF. Kept press **-** button 3s in the neutral, enter the 6Km/h rotation motor, when selecting the open.



6/Km/h function selection

## 4.5 Top speed selection (SD)

Use the **i** button to enter the speed limit selection, press **+** or **-** buttons to switch amongst 15-27. Default is 25.



Speed limit selection

## 4.6 Power adjustment selection (A)

Use the **i** button to enter the power adjustment submenu, press **+** or **-** buttons to switch amongst 6-35. Default is 25.



Power adjustment selection

# VLCD Display Panel Controls

## 4.7 Mode selection (M)

Use the **i** button to enter the mold submenu, press **+** button to switch between Japan and Europe. Default is Europe.



## 4.8 Version is 3.7

Use the **i** button to show the current version is 3.7.



## 5. Failure code

According to the failure condition, the diagnosis codes will be displayed. The fault detection will be launched automatically when rotating the handle and it will stop when the handle is reset.

ERR-02	Motor hall fault or motor short circuit
ERR-03	Controller failure
ERR-04	Throttle fault
ERR-08	Low energy alarm
ERR-06	Turn on the motor with cyclist's feet on the pedal for coaster brake version

# VLCD Display Panel Controls

## 6. Torque signal value display

Press **⏻** **ⓘ** buttons simultaneous for 10 seconds under ODO menu, then only press **ⓘ** to show “ODO”, “TRIP”, “AVG”, “TIME”, “TE” and “TE1” respectively and circularly.

Under submenu “TE”, press **ⓘ** again, it shows initial torque value, which is for service inspection use only.



Torque signal value display

## 7. Initial value for torque signal display

Under submenu “TE1”, press **ⓘ** again, it shows initial torque value, which is for service inspection use only



Initial value for torque signal display

# Battery Instructions

## Charging your Battery

You can charge the battery on or off the bike. The charging port is located on the right of battery. Lift the rubber cap and plug in your charger. The charge light on the charger will show red, and turn green when the battery is fully charged.

Note: be careful to properly reinstall the rubber cap before re using your bike. If the battery is in storage you must charge every 2 months.



## Battery Removal

To remove the battery, insert the key into the lock on the front left side of battery, turn the key, slide the battery forward, then lift out. To reload the battery make sure the battery is correctly on the slide rail then slide it back in and lock.

Note: always lock the battery into the bike as it can fall out while riding.



# Battery Instructions

## Battery Capacitance Display

On the top front of the battery is the capacitance display button. When pushed in, the LED lights below will glow for 4 seconds, indicating the battery output power is live. The number of LED glowing displays the amount of battery capacitance.



## Connections

All ebike components (brake sensors, controller, etc) on the FTH bikes have isolating marine-rated plugs, so, should you damage a component, replacement is easy. Take the bike to your local dealer and they will order a replacement part.

All FTHPower Electric Bicycles come with an 12-month warranty against manufacturing defects in materials or workmanship on its frame, battery, controller, and motor assembly.

This warranty applies only to the original registered owner of the FTHPower bicycle and is not transferable. This limited warranty does not apply to normal wear and tear, malfunctions, or failures due to abuse, neglect, improper repair, improper maintenance, modification, accidents, or other improper use. It is important that you register your new bicycle within 30 days after purchase in order to activate the warranty.

## ***Terms and Conditions***

Frame, Battery, Controller, and Motor Assembly-are warranted to be free from defects in material or workmanship for a period of twelve (12) months from purchase. After end of any warranty period, you may purchase spare and replacement parts by contacting us.

If any parts of your bicycle have been damaged during shipping, FTHPower will send a replacement part at our expense and will work you or the bike shop of your choice to x the issue at no cost to you. FTHPower will cover the cost of labor involved in handing the warranty service within a 60-day period after purchase. To receive this service, the customer needs to bring the bike to the authorized FTHPower Service Dealer from which the bike was purchased. If the bicycle was purchased on the website, FTHPower will help to arrange an appointment at a bike shop near the customer to investigate and resolve the issue. If a part or component is faulty, please contact us by email to: ken@fthgroupinc.com and provide a video or photo of the faulty part.

After the 60-day free labor period for repairs, the customer will be responsible for labor costs associated with warranty replacements.

## ***Limited Remedy:***

For any parts under warranty that need to be replaced within the 12-month time frame, FTHPower will cover the cost of freight to the customer.

Unless otherwise provided, the sole remedy under the above warranty, or any implied warranty, is limited to the replacement of defective components and parts with those of equal or greater value at the sole discretion of FTHPower. Unless this falls within the 60-day free labor repair period, the customer is responsible for labor costs associated with warranty replacements.

In no event shall FTHPower be responsible for direct, incidental or consequential damages, including, without limitation, damages for personal injury, property damage, or economic losses, whether based on contract, warranty, negligence, product liability, or any other theory. Some states do not allow the exclusion or limitation of damages, so the above limitation or exclusion may not apply to you.

Exclusions: The above warranty, or any implied warranty, does not cover normal wear and rear. All warranties are void if the electric vehicle is used for other than normal activities, including, but not limited to, failing to follow the owner's manual or using the electric vehicle for commercial activities or in competitive events, and training for such activities or events.

FTHPower makes no other warranties, express or implied. All implied warranties, including the warranties of merchantability for a particular purpose, are limited in duration to that of the express warranties stated above. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you .

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.