

User Manual



WILDCAT

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、Assembly Instructions
- 2、Warning
- 3、Safe Riding Recommendations
- 4、Maintenance & Adjustment
- 5、VLCD Display Panel Controls
- 6、Battery Instructions
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Safety tips

Before operating and enjoying your new DYNALION 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.

In the DYNALION box you will find the following items:

1. Electric bicycle
2. 1 Battery chargers
3. 2 Pedals
4. 2 Keys for battery lock
5. User Manual

Assembly Instructions

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

To Prepare

We recommend that you familiarise 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 ford 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. DYNALION 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 charging 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 a person aged 14 years or over.

2. If you are in a country where wearing a cycle helmet is not compulsory, 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 DYNALION 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 tyres, 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 or 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 tyres for any visible damage.
- ☐ Check tyre 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.

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

- | | |
|---|---------------------|
| c. Front wheel axle nuts | 30-35N.M |
| d. Seat angle clamp bolt | 24N.M |
| e. Crank axle nuts | R:42N.M
L: 46N.M |
| f. Gear shifter nuts | 4N.M |
| g. Rear carrier nuts | 8N.M |
| h. Mudguard bracket nuts | 8N.M |
| i. Handle bar clamp nut | 17-20N.M |
| j. Quill stem bolt | 19N.M |
| k. Seat tube clamp nut | 4-7N.M |
| l. Rear wheel axle nuts | 40-45N.M |
| m. 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 |

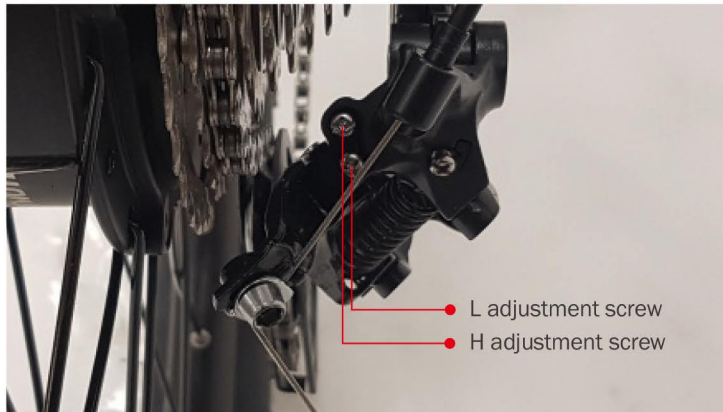
Note: make sure axle nuts are always done up tight on both wheels as connections to the motor and the dropouts can be damaged due to the axle spinning.

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 move 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 DYNALION 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.

VLCD Display Panel Controls

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

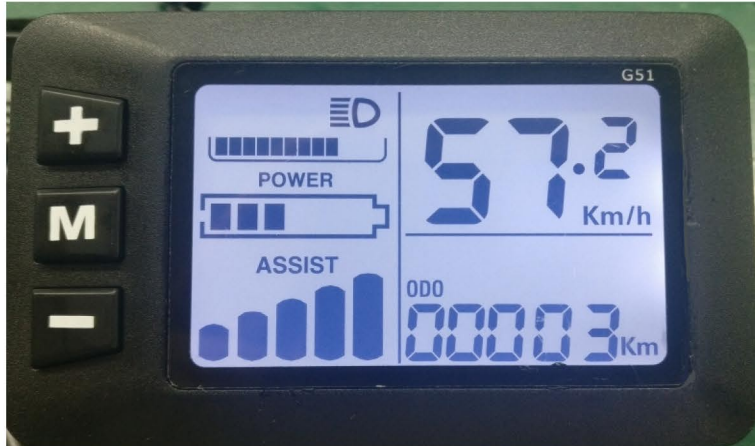
17. Diagnosis code

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

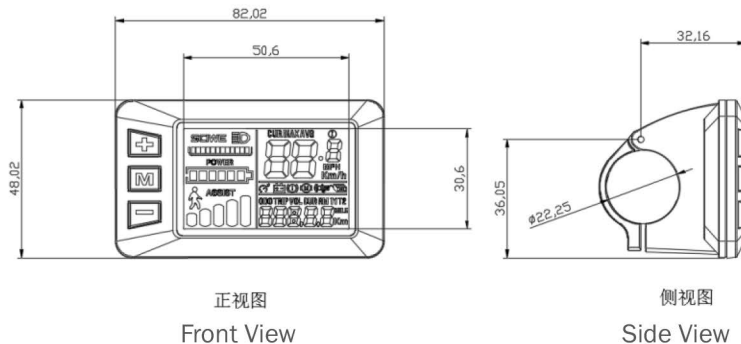
VLCD Display Panel Controls



1. Exterior Parameters

Casing Material: ABS

Display Material: High Hardness Acrylic (the same hardness value as tempered glass).



2. Operating Voltage and Connections

a. **Operating Voltage:** DC24V / 36V Compatible, 36/48V Compatible (set by the control panel). Other operating voltage can be customized.

b. Connections:

Standard connector sequence



Controller Connector

Panel Outlet Terminal

Wire Connector

Standard Connector Sequence Table

Sequence No.	Wire Colour	Functions
1	Red (VCC)	Display Power Cord
2	Blue (K)	Controller Power Switch Cable
3	Black (GND)	Display Ground Wire
4	Green (RX)	Display Data Receiving Wire
5	Yellow (TX)	Display Data Sending Wire

VLCD Display Panel Controls

Extended Functions

Light: Brown (DD): The positive electrode of the light

White (GND): The negative electrode of the light.

The wire colours of the PWM Voltage Motor Power Controller and the independent speed sensor will be defined otherwise.

Note: Some products are equipped with waterproof connectors, whose internal wire colors cannot be determined from outside.

3. Functions

a. Display

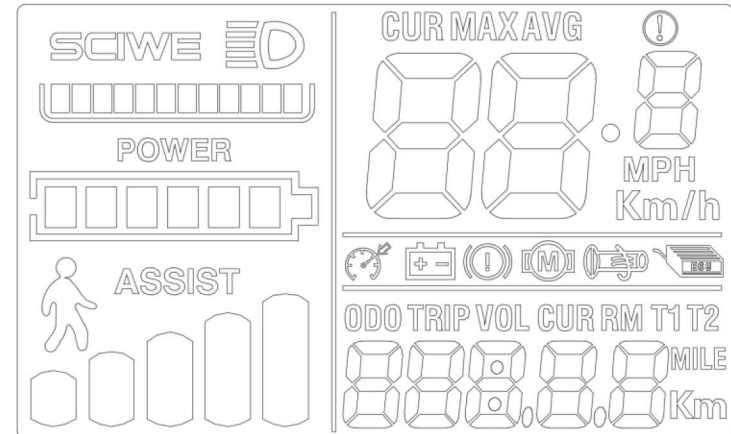
Speed Display, Motor Power Ratio Display, Battery Level Display, Error Indication, Total Mileage, Single Mileage, Cruise Control, Brake Indication, Light Signal

b. Control and Setting

Power Switch, Front Light Control, 6km/h Cruise Control, Real-time Cruise Control, Wheel Diameter Setting, 5-Gear Motor Power Setting, Top Speed Setting, Sleep Interval Setting, Backlight Brightness Setting, Voltage Level Setting

c. Communications Protocol: UART

Display Readings (display at start for 1 second)



Display Details

3.1 Light

3.2 Battery

3.3 Multi-Function Display ODO TRIP VOL CUR RM T1 T2

Total Mileage: ODO

Single Mileage: TRIP

Error Code: ERROR

Power: WATT

Maintenance: Maintain

Rest Mileage: DST TO GO (not in use)

VLCD Display Panel Controls

3.4 Vehicle Mode

3. Speed Display



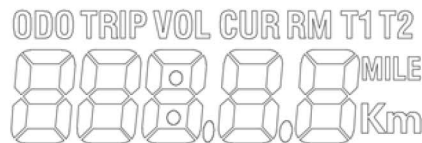
Maximum Speed: MAX

Average Speed: AVG

Measuring Unit: MPH or KM/H

The display will calculate the actual travelling speed based on the wheel diameter and signal data (number of magnet steel is needed for Hall motors).

3.6 Vehicle Status



Digital Voltage VOL

Motor Failure 

Throttle Failure 

Controller Failure 

Brake Indication 

Wheel Diameter 

3.7 Error Code

Error Code (decimal)	Indications	Note
0	Normal	
1	Reserved	
2	Brake	
3	PAS Sensor Failure (riding mark)	Not Realized
4	6km/h Cruise	
5	Real-Time Cruise	
6	Low Battery	
7	Motor Failure	
8	Throttle Failure	
9	Controller Failure	
10	Communications Receiving Failure	
11	Communications Sending Failure	
12	Communications Sending Failure	
13	Light Failure	

3.8 Settings

P00: Restore Factory Settings Set this value to 10 and switch to next setting, the display items will show all contents and restore original factory settings.

P01: Backlight Brightness (1: darkest; 3: brightest)

P02: Mileage Unit (0: KM; 1: MILE)

P03: Voltage Class 24V / 36V / 48V

P04: Sleep Interval

(0: never, other value means display sleep interval)

Unit: minute

VLCD Display Panel Controls

P05: Power Assist Gear

0/3 Gear Mode: Gear 1: 2V Gear 2: 3V Gear 3: 4V

1/5 Gear Mode: Gear 1: 2V Gear 2: 2.5V Gear 3: 4V

Gear 4: 3.5V Gear 5: 4V

P06: Wheel Diameter Unit: inch Precision: 0.1

P07: Magnet Steel Number (for Speed Test)

Range: 1-100

P08: Speed Limit

Range: 0-50km/h, parameter 50 indicates no speed limit.

1. Non-communications status (panel-controlled)

When the current speed exceeds the speed limit, the PWM output will be shut down; when the current speed falls to lower than the speed limit, the PWM output will be activated and the driving speed will be set as the current speed ± 1 km/h (only applies to assist power speed, not applicable to the handlebar speed).

2. Communications status (controller-controlled)

The driving speed will be kept constant as the limited value.

Error Value: ± 1 km/h (applicable to both the assist power/handlebar speed)

Note: The above-mentioned values are measured by metric unit (kilometers). When the measuring unit is switched to imperial unit (mile), the speed value displayed on the panel will be automatically switched to corresponding imperial unit, however the speed limit value in the imperial unit interface won't change accordingly.

P09: Direct Start / Kick-to-Start Setting

0: Direct Start

1: Kick-to-Start

P10: Drive Mode Setting

0: Power Assist – The specific gear of the assist drive decides the assist power value. In this status the handlebar does not work.

1: Electric Drive – The vehicle is driven by the handlebar. In this status the power gear does not work.

2: Power Assist + Electric Drive – Electric drive does not work in zero-start status.

P12: Power Assist Intensity Range: 0-5

P13: Power Magnet Steel Number 5 / 8 / 12pcs

P14: Current Limit Value: 12A by default; Range: 1-20A

Battery Instructions

P15: Unspecified

P16: ODO Zero-Out

Long press the up key for 5 seconds and ODO value will be erased.

special setting function:

P17: (Available Only if Customer Required) Auto Cruise Option.

0: No Auto-cruise

1: Auto-Cruise On. Trigger time of auto-cruise is decided by the controller.

P18: (K5S, APT Protocol Bound) Forward / Backward PAS Option.

0: Forward PAS. 1: Backward PAS.

P19: (K5S Protocol Bound) Throttle Level Option.

0: No throttle level. 1: Has throttle levels.

P20: (K5S Protocol Bound) 6km/h Cruise Throttle Definition.

0: Throttle without 6km/h cruise definition.

1: Throttle with 6km/h cruise definition.

Note: Due to product upgrade, the product you purchased may be slightly different from the descriptions in this user manual, and this won't affect normal usage.

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 storagerage you must charge every 2 months.



Battery Instructions

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 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.

Warranty

All DYNALION 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 DYNALION 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, DYNALION 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. DYNALION 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 DYNALION Service Dealer from which the bike was purchased. If the bicycle was purchased on the website, DYNALION 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, DYNALION 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 DYNALION. 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 DYNALION 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.

DYNALION 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.