



**OG**

Owner's Manual



**WARNING:** Inadequate E-bike assembly, maintenance, or use can result in component or performance failure, loss of control, significant injury, or death. Even if you have experience riding bicycles, you must read and comprehend the entire handbook as well as any documentation for attachments or subcomponents, before you ride. Consult a qualified, reliable bike technician if you are unsure of your abilities, and necessary equipment to complete all assembly instructions in the manual.



**WARNING:** DO NOT CHANGE OR MODIFY ANYTHING in your E-bike's electrical system, including the battery, digital controls, physical components, or motor train. Doing so will void your warranty. Any such alterations run the risk of causing harm to yourself, your bike, property, or other people.



**WARNING:** This E-bike is not to be operated by anyone under the age of 18. Children under the age of 18 may lack the necessary judgment and skill to safely operate the E-bike, potentially resulting in damage to the bike, damage to other property, serious injury, and/or death. Please refer to local laws, which may require a different age.



**WARNING:** To reduce the risk of injury, always closely supervise children if and when you use your Vulcan E-bike near them.

## Welcome to Vulcan Bikes

Thank you for purchasing the OG from Vulcan Bikes™

It's time to Electrify your life, but before assembling and using the bike please read and understand this manual fully.

If you have questions after reading this manual, please reference the Vulcan Bikes Help Center, contact us by email, or give us a call on the phone.

Vulcan Bikes Help Center:

[info@vulcanbikes.com](mailto:info@vulcanbikes.com)

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# 1. Using this manual

This manual includes information on the product, its components, and guidelines for use, maintenance, and other helpful hints.

To guarantee safe use and avoid accidents, read this carefully and become comfortable with the OG prior to riding.

Keep this guidebook accessible as a resource for Vulcan e-bike information.

This manual provides several warnings and cautions about how to use this vehicle safely and what will happen if correct installation, use, and maintenance are not followed. Review all of the material in this manual carefully, and contact Vulcan Bikes right away if you have any questions.



The manual's notes, warnings, and cautions, are highlighted for special attention by the triangle **WARNING** symbol to the right of this page.

Users show special attention to information labeled **NOTICE**.

Because it is impossible to anticipate every situation or condition which can occur during use, this manual makes no representations about the safe use of bikes under all conditions.

There are risks connected with riding any bike that cannot be predicted or prevented, and which are solely the rider's responsibility. The information in this handbook is subject to change or withdrawal without notice, so you should retain it alongside any other paperwork that came with your bike for future reference. While Vulcan E-bikes makes every effort to maintain the authenticity of its documentation, it disclaims all liability in the event that any mistakes or inaccuracies do occur. Installation and adjustment of your Vulcan e-bike necessitates the use of specialized tools and abilities, and it is advised that this be done by a professional bike mechanic if feasible.

In no event shall Vulcan Bikes be liable for any direct, indirect, punitive, incidental, special consequential damages to property or life, including but not limited to bodily harm, mental injury, loss of income, monetary damages, or injury toward a third party, resulting out of or associated with the use or misuse of Vulcan Bikes products. Vulcan Bikes makes no express or implied claims, representations, or warranties regarding the safety, reliability, durability, or performance of any of its products, including but not limited to warranties of merchantability, fitness for a specific purpose, title, or noninfringement of third party rights. This encompasses any services you may contract to be performed by a third party for modification of Vulcan products.

Furthermore, Vulcan Bikes accepts no liability whatsoever for the safety, reliability, durability and performance of any of Vulcan Bike's products. By buying, using, or allowing the use of Vulcan Bike's products, you warrant the high level of risk associated with electronic bicycles and **YOU EXPRESSLY AND VOLUNTARILY ASSUME THE RISK OF DEATH OR OTHER PERSONAL INJURY SUSTAINED WHILE USING Vulcan Bikes PRODUCTS, WHETHER OR NOT CAUSED BY THE NEGLIGENCE OR OTHER FAULT** of Vulcan Bikes AS DETERMINED BY A COURT OF COMPETENT JURISDICTION. You have no recourse whatsoever against Vulcan Bikes.

## 2. General Info

### Assembly and Fit

Correct assembly and fit are crucial for ensuring bicycle safety, performance, and comfort. Even if you have the experience, skill, and tools to complete these essential steps before your first ride, Vulcan Bikes recommends having a certified, reliable bike mechanic check your work.

**NOTICE: If you do not have the experience, skill, and tools to complete assembly, Vulcan Bikes highly recommends consulting a qualified, trustworthy bike mechanic to complete these procedures as well as any future adjustments or tuning.**

**NOTICE: A critical aspect of assembling your bike from Vulcan Bikes is securing the front wheel and checking the tightness of the rear wheel axle nuts. Both wheels need to be properly secured before operating your bike, and these nuts are to be checked every 45-50 miles.**

### Mandatory Equipment and Use Locations

Make sure you have all the necessary safety gear and familiarity with local regulations governing the use of electric bikes, prior to riding. These regulations can define the required gear, hand signals, class type, and riding zones.

### Changing Components or Attaching Accessories

The use of non-original parts may compromise your OG's safety, void your warranty, and, in some situations, deem your OG ineligible for bike-related laws.



**Replacement of original components or installation of third-party accessories or Vulcan E-bikes accessories not explicitly approved for your bike model is at your own risk. Utilizing aftermarket parts or accessories that have not been safety and compatibility tested by Vulcan Bikes may void your warranty, create hazardous riding conditions, damage your bike, or even cause significant harm and/or death. Any injuries or damages brought on by the use of spare or non-original parts are not the responsibility of Vulcan Bikes.**

### Safety Check Before Each Ride

Examine your bike before each ride and conduct routine maintenance (Look at the Safety Checklist for further details). If you're unclear how to do this, you should consult a certified, trustworthy bike mechanic for assistance.

## Electrical System

Your E-bike's electrical system provides various levels of power assistance and lighting for varied operational circumstances and user preferences. Both the front and rear brake levers serve as safety cut-off switches that restrict the motor's assistance. Keep in mind that the throttle should be used gradually to deliver smooth acceleration. It is essential that you become familiar with every component of your E-bike's electrical system and ensure that it is in proper condition before each ride.

## Brakes

Ensure that the brakes are functioning properly, all parts are securely fastened, and free from damage. Fully squeeze the brake levers on the handlebars, ensure neither the front nor rear brake levers touch the handlebar. If you experience this issue or any not listed, bring your bike to a qualified, reliable bike mechanic to address the issue.

## Tires and Wheels

Prior to riding, always assess for and change tires/inner tubes that exhibit punctures, cuts, or damage. The OG's wheels should always spin straight and upright. If this is not the case, repair or replace wheels immediately. It is advised that a licensed, trustworthy bike mechanic tunes and trues all of the wheels on your Vulcan E-bike. Do not attempt to true or tighten spokes, unless you have adequate knowledge and tools. Check that your outer tires and inner tubes are in functional shape and free of visible damage. The tubes should have the proper amount of air pressure as labeled on the tire. When tires exhibit the incorrect amount of air pressure, performance suffers, wear accelerates, and riding the bike becomes hazardous.

## Accessories, Straps, and Hardware

Confirm that all hardware is secured in place. Approved accessories should be fastened in accordance with the guidelines provided by the manufacturer. Inspection of all hardware, straps, and attachments should be done before each ride. If you notice anything that appears to be unusual, please have a trustworthy, skilled bike mechanic examine it.

## Suspension, Handlebar, and Grips

You must comprehend how the suspension fork on your OG operates and influences handling before riding. The suspension fork should be properly adjusted for the rider's weight and terrain. Ensure that all components of the handlebar and handlebar stem are correctly positioned and secured to accommodate the user.

## Batteries Charged, Secured, and Unplugged

Before riding, make sure the battery is fully charged and properly locked onto the battery mount. The battery gauge on the LCD Display can be used to confirm battery level. Reference the section on Battery Charging Safety and Charging Time for proper practices.

### 3. Assembly Instructions

**NOTICE:** The following assembly steps are only a general guide to assist in the assembly of your bike from Vulcan E-bikes and is not a complete or comprehensive manual of all aspects of assembly, maintenance, and repair. We recommend you consult a certified, trustworthy bike mechanic to assist in the assembly, repair, and maintenance of your bike.



#### Step 1: Unpack the contents of the box.

Remove the packaging covering the bike's frame and parts. Kindly recycle all foam (including #6 EPS foam) and cardboard used in packing. Confirm that you have the proper frame size and all necessary parts:

- Vulcan bike
- Front wheel
- Front fender
- Charger
- Headlight
- Assembly toolkit
- Pedals
- Passenger pegs
- Two battery packs
- Keys to batteries



If there are any missing parts, please contact Vulcan E-bikes.

#### Step 2: Installation of Handlebar.

1. With the wider end facing downwards, slide the rubber fork seals onto the handlebar forks.
2. Align and insert the forks into the steering stem.
3. Push handlebars down until they can move no further.
4. Fasten hardware in a criss-cross pattern, alternating torque amongst the four screws evenly.

*\*The distance between the faceplate should be equal amongst all four screws.*

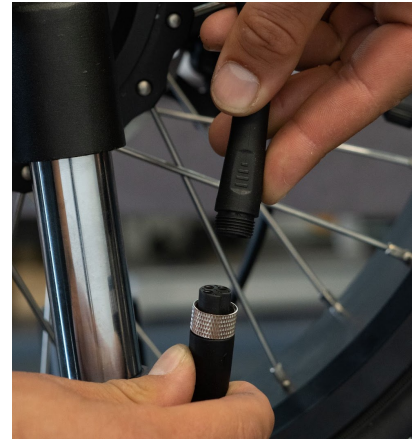
*\*The handlebar should be aligned with the front wheel and torqued to the required level (22-29 Nm).*





### Step 3: Installation of Front Wheel.

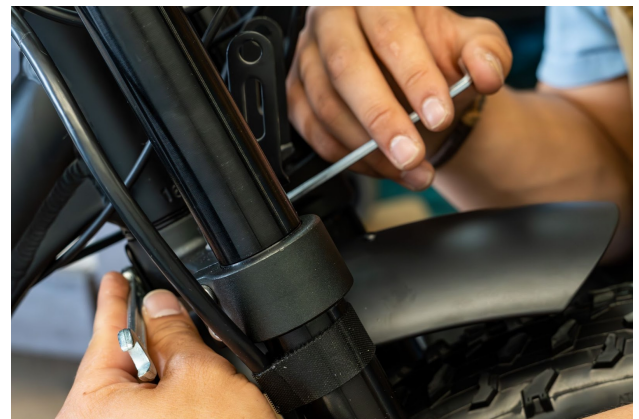
1. Remove the brake pad protector and the front wheel axis bolts.
2. Guide the wheel into the front fork, making sure the disc rotor sits on the left side of the bike.  
*\*The front wheel should be fully seated in the front fork before moving forward.*
3. Place torque arms and designated screws on both sides of the axle.
4. Insert and tighten both the axis bolt and its protective caps.
5. Connect power cable.



### Step 4: Installation of Front Fender.

1. Insert and tighten the provided screw through the front fender stick, located between the Front fork.

*\*Raise the fender up as much as possible so as not to interfere with the tire.*



### Step 5: Installation of Headlight.

1. Align the headlight with the designated frame and fasten with included hardware.  
*\*Ensure that the attached wire on the headlight is facing downward.*
2. Connect the surrounding wires by aligning the arrows.





**CAUTION:** Never touch the brake rotor, especially when the wheel and/or bike is in motion, or serious injury could occur. Hand oils can cause decreased brake performance.



**WARNING:** A front wheel or handlebar stem that is inadequately fastened can lead to loss of control, accidents, severe injuries, or death. Before assembling the bike and each use, make sure the front wheel and handlebar stem are securely fastened to the bike. Any and all injuries or damages brought on by improperly fastened hardware or improperly assembled parts shall not be the responsibility of Vulcan Bikes.

**Step 6: Installation of Pedals.** Locate the pedal with a "L" at the end of the pedal axle and notches on the exterior of the pedal axle. This pedal ("L") is mounted on the left side of the bike (the same as the rider's left side when riding). **The LEFT pedal has a reverse thread that tightens counterclockwise.**

1. By hand, slowly and carefully thread the pedals. *\*Do not cross thread or force pedal into crank.*
2. Once you can no longer tighten the pedal by hand, fasten using a 15mm pedal wrench.
3. Repeat steps 1 and 2 but with the right pedal (imprinted "R") **\*The threading on the RIGHT pedal tightens by rotating clockwise.** *\*Do not cross thread or damage the threads.*



**Step 7: Inflation of Tires.** Tires should be inflated to desired PSI(Pounds per square inch). *Recommended tire pressure is labeled on the tire sidewall. Do not over inflate or under inflate tires.*

**Step 8: Secure Batteries.** Ensure that the front and rear batteries are properly secured to the frame of the bike before use. Lock with the provided keys. *Reference the start up procedure for more information.*

## Step 9: Handlebar Twist Test

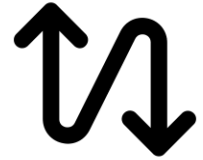
To ensure the security of the handlebar stem, adhere to the following steps:

1. Standing in front of the bike's handlebars and facing it, secure the front wheel between your feet and lower legs.
2. Using both handlebar grips and around 20 lb of pressure on each hand, simultaneously push and pull.

*\*Make sure the handlebar remains perpendicular and straight to the front wheel.*

3. Repeat the twist test with opposite hands, using the same 20lb of force pulling with each hand.

*\*If necessary, reposition the handlebar and stem clamp bolts to the specifications listed in the Recommended Torque Values table. Contact Product Support if the handlebar is still moving.*



**NOTICE:** Make sure all hardware is securely fastened using the Recommended Torque Values and that all safety checks are carried out before first use of the bike.

**WARNING!** : If you do not have the experience, skill, and tools to complete assembly and handlebar security, Vulcan Bikes highly recommends consulting a qualified, trustworthy bike mechanic to complete these procedures as well as any future adjustments or tuning.



**WARNING:**The minimum insertion markings on the seat post or the maximum angle markings on the stem, which are etched into the components, should not be exceeded by any component, including the stem or seat post.

Before proceeding on to the following stage, be sure that all hardware is securely fastened (to the recommended torque values contained in this handbook) and that all components are in place. Otherwise, damage to the bike, property, significant injury, or even death, could result. Vulcan shall not be responsible for any and all injuries or damages resulting from hardware not being tightened correctly or damages resulting from hardware not being tightened correctly or components that are not properly assembled.

## Torque Requirements Table

Hardware Location	Hardware	Torque Required (Nm)
Handlebar Area	Handlebar Stem Clamp Bolts	10
Handlebar Area	Stem Faceplate Bolts	6
Handlebar Area	Brake Lever Clamp Screw	6
Handlebar Area	Shifter Clamp Screw	6
Handlebar Area	Stem Angle Adjust	18
Brakes	Caliper Adapter to Frame	6-8
Brakes	Caliper to Adapter	6-8
Brakes	Brake Cable to Caliper Clamp	6-8
Brakes	Disc Brake Rotor to Hub	7
Seat Post Area	Seat Adjustment Bolt	20
Seat Post Area	Seat Post Clamp	7
Front Dropout Area	Front Axle Nuts	40-45
Rear Dropout Area	Rear Axle Nuts	40-45
Rear Dropout Area	Rear Torque Arm Bolt	5
Rear Dropout Area	Derailleur Hanger Mounting Bolt	6
Rear Dropout Area	Derailleur Mounting Bolt	10
Rear Dropout Area	Derailleur Cable Pinch Bolt	6-8
Rear Dropout Area	Kickstand Mounting Bolts	8
Bottom Bracket and Crank Area	Bottom Bracket and Lockring	60
Bottom Bracket and Crank Area	Crank Arm Bolt into Bottom Bracket Spindle	35
Bottom Bracket and Crank Area	Pedal into Crank Arm	35
Bottom Bracket and Crank Area	Chainring Bolts	10
Bottom Bracket and Crank Area	Controller Mounting Bolts	6
Bottom Bracket and Crank Area	All Fender Mounting Bolts and Hardware	6



Prior to and after every use, always check to ensure all levers, axle bolts, and latches are properly secured and intact. Any issues left unsupervised, even for a short time can result in loss of control, damage to the bike, property, serious injury, and/or death. Vulcan Bikes shall not be responsible for any and all damages resulting from any handlebar, levers, axle nuts, and latches improperly secured or that are damaged.

## Suspension Fork

The OG comes equipped with a front suspension fork that can move up and down to a certain degree to provide a smooth ride in various, bumpy riding surfaces.

## Rider Comfort

Riders should keep their arms at a comfortable distance when riding for best comfort and safety. For seat height, put the ball of your foot on the pedal and extend down to its lowest point. Position seat accordingly, so that you retain the desired pedaling orientation.

## Battery Charging

Follow these steps for charging your bike from Vulcan E-bikes:

1. Turn the bike off by holding down the center button on the keypad.
2. Remove the rubber cover on the charging port.

**WARNING: Carefully check that the input voltage of the charger is consistent with the voltage of the power grid.**



3. Connect the output plug of the charger with the charging jack of the battery.
4. With the charger on a flat, stable surface, connect the input plug of the charger to the AC power supply.
  - **Ensure the lights face upwards when using the charger.**
  - Charger indicator lights will stay red while charging and turn green once complete.
  - The battery should be recharged after each use, so it is ready for the next ride. There is no memory effect, so charging the battery after short rides will not cause damage.
  - Always fully charge a new battery before first use to fully activate its components.
  - The battery can be charged directly on the bike or removed to other appropriate places.

5. The charger will automatically stop once the battery is full. First pull out the AC power plug, and then the plug connected to the battery. **DO NOT LEAVE CHARGER UNATTENDED!**

## Charging Time

The distance traveled, riding behavior, topography, cargo, and battery age are just a few of the variables that affect charge times. Based on distances traveled during normal operation, the following table provides an estimate of charge time:

Distance Traveled	Estimated Time to Fully Recharge
5 mi (8 km)	1 hour
10 mi (16 km)	1.5 hours
15 mi (24 km)	2.5 hours
20 mi (32 km)	3.5 hours
25 mi (40 km)	4.5 hours
20 mi (48 km)	5.5 hours
45 mi (72 km)	7 hours

**NOTICE:** The battery may require more time to charge when completely discharged, when it is brand-new, and after three to five years of consistent use. Please stop using the bike and get in touch with Vulcan E-bikes if your battery doesn't seem to be charging correctly, is taking longer than you would anticipate to charge, or has significantly less range.

A new bike should be charged for (8 to 9 hours) before the first use, and the one-week depth charging and discharging is a cycle to fully activate the active substances inside the battery. Later, it can be re-charged even if its power is not used up.



**NOTICE:** The battery should be charged in a spacious environment, staying away from high temperature, humidity and fire. The battery and charger are prone to corrosion at high temperatures and humidity, resulting in harmful emissions, and possible explosion. After the battery is fully charged, the power supply should be pulled out as soon as possible.



**WARNING:** Only charge your battery in between temperatures of 50 °F - 77 °F (10 °C - 25 °C) and ensure the battery and charger are not damaged or in a position to be tampered with while charging. If your bike or battery exhibits any unusual behavior while charging, please discontinue charging and use of the bike and contact Vulcan Bikes for help.



**DO NOT LEAVE A CHARGING BATTERY UNATTENDED**



## Battery Charging Safety

- Check the charger cables, charger, and battery for damage before beginning each charge.
- Fully charge the battery prior to riding, to achieve full range, prolong the life of the battery, and lessen the chances of over-depleting the battery.
- Use only the designated charger supplied by our company.
- The charger operates on standard home AC power outlets(110/220 V 50/60 Hz) and automatically detects receiving voltage. For your safety and integrity of your warranty, do not open or modify the charger.
- Make sure the charger is at least 3 feet away from computers, TV, fridge, washing machine and other electronic devices while charging.
- This charger is only to be used indoors. Please use it in dry and airy conditions.
- Never disassemble or refit the charger.
- Never place anything on top of the charger.
- Never put any liquid or metal into the charger.
- Never plug or unplug the charger with wet hands.
- Never twiddle the charger or battery while charging.
- Avoid using the charger in direct sunlight.
- Keep the charging area well ventilated when the charger is operating.
- Do not disconnect the battery output while charging.
- Do not use the motor; neither maintain the e-bike while charging.
- Charge in a clear area away from potential tripping on the charging cords.



**WARNING: Do not charge the battery for more than 12 hours at a time.**



**WARNING: Do not cover up or obstruct the charger when plugged in or charging.** Correct orientation, with the light indicator facing upwards, allows for its air cooling needs. Do not use the charger inverted. Improper use can inhibit cooling and reduce the longevity of the charger.



**WARNING: Do not use a battery that is physically damaged,** performing abnormally, or suffered impact from being dropped or involved in a crash, regardless of clear or unclear signs of damage. Please discontinue use and charging of the battery immediately and contact Vulcan E-bikes. Vulcan shall not be responsible for any and all damages or injuries resulting from physically damaged, abnormally performing, or otherwise damaged batteries.

## Battery Removal

- Ensure the screen is turned off and remains off, whenever it is being removed or stored off-bike.
- To remove the battery from the frame, insert the appropriate key, turn to unlocked position, and delicately remove the cover while holding the key in the unlocked position.
- During any transport or storing of the battery, refrain from contacting the "+" and "-" terminals on the bottom of the battery, as well as keep them free of any potential obstructions or debris.  
**NOTE:** These parts, which are extremely sensitive towards the performance of the bike, become exposed only when the battery is removed from the bike.
- Be careful not to drop or damage the battery when it has been detached from the bike.



Use caution when removing the battery, as to avoid damage to battery connector terminals. In the case that your terminals or battery mounts suffer damage, please discontinue use and contact Vulcan Bikes Technical Support immediately. Vulcan shall not be responsible for any and all injuries of damages resulting from damaged batteries.



**WARNING:** Do not open or tinker with the battery housing, doing so will void the warranty and can result in damage to the battery, property, serious injury, and/or death. Vulcan shall not be responsible for any and all damages or injuries resulting from opening the battery housing.

## Installation of Battery

- Avoid forcing the battery into its holder; have care when slowly aligning and inserting the battery into the holder.
- Before each use, ensure the battery has been properly fixed to the bike by lifting upwards on the battery with both hands.



Please use extra **CAUTION** when charging your Vulcan E-bike, following the instructions and safety guidelines outlined in this manual. Failure to adhere to proper charging standards may result in serious injury or death, in addition to damage to your Vulcan E-bike, the battery, the charger, and/or personal property. Vulcan shall not be responsible for any and all damages or injuries resulting from improper charging or battery care.

- The charger operates and regulates voltage from standard household AC power outlets (110/220 V, 50/60 Hz)
- When unplugging the charger, carefully remove the AC and DC cables holding the plastic plugs. Do not stretch or pull on the charger cables.
- As a result of normal use, the Vulcan charger will emit heat. If the charger becomes too hot to touch, an unusual smell develops, or any other signals of overheating, discontinue use immediately and contact Vulcan E-Bikes.

## Long-Term Battery Storage

If the battery and bike need to be stored for a long time, the battery power should be charged **to 75 percent** before the battery is preserved, and it should be re-charged once every month or so to maintain a 75% charge.

During long-term storage, ensure that the battery is in a dry, indoor environment that does not exceed 50°F - 77°F.

If disposal of the battery is necessary, please do so accordingly through a local recycler or hazardous material collector. **Please adhere to the guidelines mentioned above when storing your Vulcan Bikes bike and battery. Improper battery storage can result in a non-functional battery, and replacement will not be covered under warranty. Any and all losses or injuries resulting from incorrect battery storage are not the responsibility of Vulcan Bikes.**

**NOTICE:** Even if you have experience riding bikes, please take the time to comprehend the safety guidelines included in this manual, and the manuals with each subcomponent.



## 4. Operation

**NOTICE:** Do not proceed into the following section: Operation, until you have fully read and understood the entire manual, as there is pertinent information regarding safety.

Users must be familiar with the power capacities of the bike before operating. Acceleration of the bike from a stop or during motion, can be achieved by gradually applying pressure to the throttle. Pedal assistance can be provided based on the level chosen by the rider. Vulcan recommends fully understanding how pedal assist operates before riding. Riding an E-bike without proper familiarity and practice with assisted power systems, pedal assist and throttle, **can lead to death or serious injury. Vulcan Bikes shall not be responsible for any and all injuries or damages resulting from your improper use of a Vulcan E-bike.**

**Users must follow the instructions and warnings contained in this manual for safety.**



**Do not attempt to operate your E-Bike until you are familiar with its control and operation. Risks include personal injury, injury to others, and damage to property and/or your Vulcan E-Bike. Harm or damage caused by improperly following Vulcan's instruction manual is not covered under warranty. Be sure to contact Vulcan Bikes if you have any questions about assembly or operation. Vulcan Bikes shall not be responsible for any and all injuries or damages resulting from your improper use of a Vulcan E-bike or for resembling behavior that contradict the guidelines in this manual.**

### Start-Up Procedure

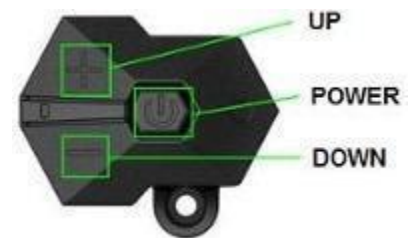
Once the bike has been assembled accordingly, with all parts properly secured, and the entire contents of the manual understood, you may proceed to the following procedures:

1. **Know the battery key port and its positions.**
2. **Check that the batteries are properly mounted on the bike.** If needed, insert the key and align with the "Locked" icon (circle containing an "X") to secure the mount. Test security by removing the key and carefully pulling up on the battery with both hands. Ensure that the power switch on the batteries read (- , on) and not (o , off).
3. **Turn the bike on.** Once the battery lock has been prepared from step 2, locate and press the power button in the center of the handlebar keypad for approximately 2 seconds, or until power is present on the LCD Display.
4. **Select level of pedal assistance (PAS)** With the plus and minus buttons on the keypad, cycle through the levels between 0 and 5. Level 0 indicates that the pedal assistance is inactive. Level 1 emits the lowest level of assistance, increasing all the way up to level 5. For all users, regardless of skill and experience, Vulcan recommends starting in PAS level 0 or 1 and once comfortable with the lower levels, adjusting upwards.
5. **Select the drivetrain** with the red switch on the left handlebar. Flipping the switch to the left will activate only the rear motor (RWD), middle position will engage both rear and front motors (AWD), and the right will select only the front motor (FWD). Adjust drivetrain as necessary per given riding conditions. **AWD functioning should be approached cautiously as it permits higher acceleration than FWD/RWD.**

6. **Illuminate the headlight.** After confirming the LCD Display is on, hold down the plus button (top) located on the handlebar remote until the headlight illuminates (approximately 2-3 seconds).
7. **Proceed to ride carefully.** You may ride your Vulcan E-bike once you have been equipped with the proper safety gear, understanding of how the bike operates, and rules for riding in your local area. Adjust pedal assistance and throttle to achieve desired speed. Do not accelerate the throttle unless you are seated on the bike and ready to ride.

Before operating the bike, users must become acquainted with its power control system. Special caution should be used in regards to inexperienced riders. The throttle mechanism allows full power to be activated from a stop and should be approached with care when first applying the throttle. Users must closely examine and comprehend how to use the pedal assist feature before using it for the first time. Please heed this caution; failing to familiarize yourself with the power system on your Vulcan Bikes bike may result in death or serious injuries.

## 5. LCD Display Features



### Power On/Off

Press and hold the **POWER** button for 1 second to turn the display on/off. Double tap **POWER** to access settings menu.

Inactivity will cause the display to automatically shut down, customizable between 1 and 9 minutes.

\*If the display has been set to require a password to power on, you will need to input the right password at the start.

### Assist Level Operating

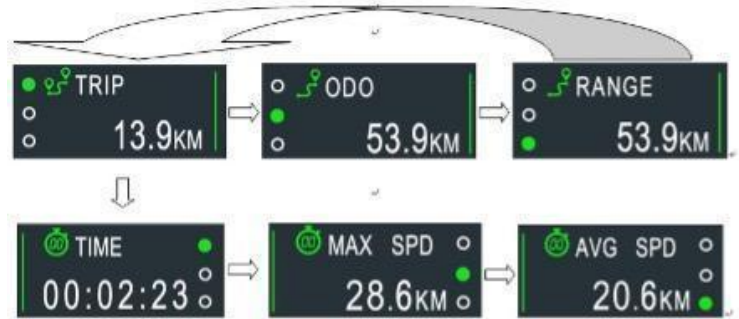
Short press **UP/DOWN** button to change the assist level. 0 for no assistance, 5 for the top assistance level. Assistance level amounts can be adjusted according to your requirements via the settings menu (advanced area) or USB programming kit.



## Speed & Mileage Mode Switch

Short press **POWER** button to change the speed and mileage mode,

\*\*If there is no operation for 5 seconds, the display will return to the Speed (Real-Time) display automatically.



TRIP→ODO→RANGE→TRIP→TIME→MAX SPEED→AVG SPEED

## Headlight/Backlight On/Off

Press and hold the **UP** button for 1 second to turn on/off the headlight. The brightness of the screen will switch to the corresponding mode (only if integrated headlight is fitted).



**NOTE:** The OG features an automatic sensing headlight that engages in dark environments. Vulcan suggests exercising manual operations for the headlight. Specific driving conditions, which differ between each use, include but are not limited to visibility, fog, smoke, light, rain, and snow, have rules depending on where you are located. Please know and be familiar with these standards because the rider is fully responsible for all aspects of the operation of the E-bike. Vulcan Bikes shall not be liable in the case that any rider exercises improper safety for headlight guidelines.



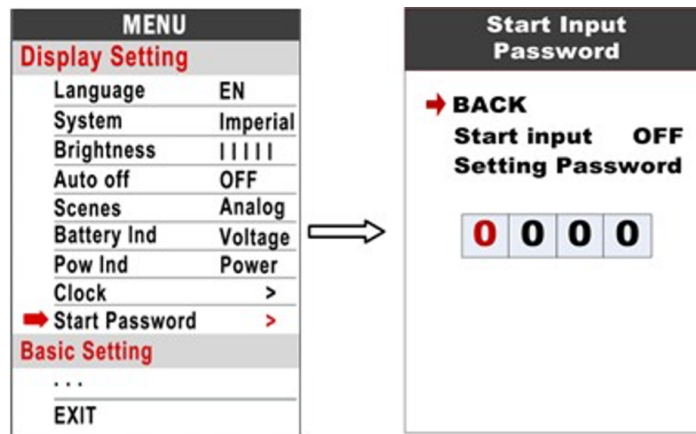
*\*If the battery experiences a critical charge capacity during use, it will prioritize the headlight operations over the motor. The motor will stop operating when your battery gets too low, to ensure your battery is not damaged. However, the light will continue operating so that you can safely pedal home without motor assistance.*

## Walking Mode (6km)

Press and hold the **DOWN** button for 2 seconds to select walking mode. Walking mode provides a small amount of power to help you push your bike along if walking.



**Start Password** : Double press the **POWER** button to get into the setting menu. If you had set Start input **ON**, you must enter the correct password before powering on.



You need to input the correct password within 30 seconds at power up, or the display will power down.

## 6. Best Practices for Extending Range and Battery Life

**NOTICE:** To prevent the hub motor from overheating or being damaged by heavy loading, it is advised that riders ride within the following restrictions.

- When riding on flat terrain, switch the drivetrain to either RWD or FWD. Use AWD only when traversing inclines.
- When possible, keep the bike moving at a rate of above 10 mph to guarantee sufficient airflow to cool the electric components.
- When accelerating from a stop and ascending slopes, use the pedals to help the motor. Do not climb slopes steeper than 15% ingrade.
- Gradually accelerate. Avoid abrupt starts and stops.

### Carrying Loads

The total maximum weight limit of the OG (320 lbs.) includes the weight of the rider as well as clothing, riding gear, cargo, accessories, a passenger, etc.

**When loading passengers or baggage, you MUST secure the bike, don't assume the bike is balanced and stable. The kickstand is not intended to support loading cargo, always have someone or yourself hold on to the bike. Any and all injuries or damages resulting from cargo being loaded or affixed to a Vulcan E-bike are not the responsibility of Vulcan Bikes.**



**The user is accountable for making sure any prospective passengers have the necessary training and physical condition to travel safely. Passengers who lack necessary experience or who are in a condition where riding is unsafe for them risk serious harm or perhaps death.**



**Never leave a child unattended with or on the bike. Make sure the child is removed from the bike before looking or walking away from the bike. It should cautiously be assumed that the bike could tip over and cause serious injury to your precious cargo.**



### Driving Range

The distance your Vulcan e-bike can travel on a complete charge is referred to as its range. Vulcan Bikes' assumed usage characteristics were used to estimate given range figures. Variation in rider height, speed, payload, acceleration, the frequency of starts and stops, and ambient air temperatures are some of the variables that affect range. Some additional factors to also take into account include terrain and tire pressure.

When you initially obtain your e-bike from Vulcan Bikes, we recommend that you start at a lower assistance level to familiarize yourself with your e-bike and travel routes. You can modify your riding style once you are comfortable with the range requirements of your travel routes and the capabilities of your Vulcan e-bike.

The range is affected by several elements, which are shown in the following table. Ranges listed in the table are not guaranteed by Vulcan Bikes; rather, are intended to assist owners in understanding the elements that can lead to shorter range.

## Driving Range

20 mi (32 km)	<ul style="list-style-type: none"><li>● Hilly Terrain</li><li>● Heavy Payload</li><li>● Windy</li><li>● High Pedal Assist Level/ High Throttle Use</li><li>● Light Pedaling</li></ul>
30 mi (48 km)	<ul style="list-style-type: none"><li>● Flat Terrain</li><li>● Normal Payload</li><li>● Not Windy</li><li>● Medium Pedal Assist Level/ Moderate Throttle Use</li><li>● Light Pedaling</li></ul>
60 mi (64 km)	<ul style="list-style-type: none"><li>● Flat Terrain</li><li>● Normal Payload</li><li>● Not Windy</li><li>● Low Pedal Assist Level/ Minimal Throttle Use</li><li>● Moderate to Heavy Pedaling</li></ul>

## Carrying Cargo

Additional hazards are present when transporting cargo, and these risks call for special precautions and control measures. The additional weight of the goods put on the OG has a considerable impact on braking, acceleration, and maneuverability. To safely operate the OG with freight, you must adjust to these demanding changes. Always practice riding on a flat, open surface with lighter loads, before attempting to carry bigger loads.

**Vulcan Bikes shall not be responsible for any and all injuries or damages resulting from carrying cargo on a Vulcan E-bike, regardless of whether or not the cargo is properly attached, placed, or loaded onto the bike. Carrying cargo is always a high-risk activity, therefore by engaging in it, you assume all responsibility for any harm or loss that could occur.**

**NOTICE:** The following list provides important tips for the safe operation of the OG when carrying cargo.

- To lower the center of gravity and increase stability, cargo should be loaded as low as feasible, but it shouldn't obstruct any moving parts or the ground.
- Make sure your loads are securely fastened, and do not come loose from use, endangering any moving parts, or possibly dragging on the ground.
- Plan your route thoroughly since carrying cargo on the OG affects the rider's ability to steer, brake, and climb elevation. When the bike is loaded with cargo, hills that are normally easy to ascend and descend might become difficult and dangerous.



**Never use the front brake on its own. For all braking maneuvers, utilize both brakes. Just using the front brake can put excessive strain on parts, harm the bike and its components, and/or result in loss of control. Vulcan Bikes shall not be liable for any and all damages or injuries resulting from the individual use of the front brake, for any overtaxing of the parts, for damages to the bike or its components, and/or for damages or injuries resulting from loss of control.**



The kickstand should never be the sole support for the bike during the loading of child seats and cargo. While carrying items, especially valuable cargo and children, you **MUST** hold on to the bike. Do not assume the bike is balanced and stable; always hold on to the bike while loading or unloading goods.

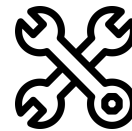


## Parking, Storage, and Transport

Please abide by these parking, storage, and transportation guidelines to make sure your bike is cared for both on and off the road. Vulcan Bikes shall not be held liable for any and all injuries or damages caused by negligent parking, storage, and/or transit.

- To prevent unintentional motor acceleration when pushing or transporting the bike, turn off the power. Turning off the power and all lights will additionally aid battery conservation.
- It is advised to park your E-bike inside. If you must park outside in rain or damp weather, only permit a few hours before returning it to a dry spot. Similar to a conventional bike, an E-bike used in damp weather may require more frequent maintenance to prevent rust and corrosion and to ensure that all systems are functioning safely.
- Storage of your Vulcan e-bike in public places must be in accordance with applicable laws.
- Locking up your bike is recommended to ensure your bike is secure and the chance of theft is reduced. Vulcan Bikes makes no claims or recommendations on the proper lock hardware or procedures to secure your bike.
- For parking, storing, or transporting your Vulcan E-bike, only use a rack that is designed for heavier e-bikes.
- Use a bike rack that accommodates the width of the tires used on your bike. Some racks may not accommodate all tire widths.
- When storing your E-bike or carrying your e-bike on a rack for transport, remove the battery pack to reduce the weight of the bike. Removing the battery can make lifting and loading easier, while protecting the battery during transportation.
- Be cautious of transporting your Vulcan E-bike on a vehicle rack in rainy conditions. The electrical components may be harmed by the rain.

## 7. Use and Maintenance



### Basic Bike Care

To ensure safe riding conditions you must conduct timely maintenance and care on your E-bike from Vulcan Bikes. Vulcan Bikes highly recommends consulting a qualified, trustworthy bike mechanic to complete these procedures for safety. The Pre- Ride Safety Checklist and Recommended Service sections are available below for more detailed help.

- Never submerge or expose the bike or any components in water or liquid. Doing so can potentially damage the bike hardware and its electrical system. **NOTE:** If the hub and bottom bracket bearings on the wheels have experienced contact with liquid, they should be removed and re-greased. Timely care is necessary to reduce the chances of accelerated bearing deterioration.
- Ensure the fender parts are properly secured, not touching the tire, and in good working condition.
- Check the wiring and connectors on a regular basis to make sure they are secure and free from damage.
- Maintain completely charged batteries in between uses. For details on storing the battery for more than two weeks between rides, refer to the long-term battery storage section of this manual.
- Store under shelter; away from the elements and corrosive materials.
- If cleaning is required, wipe the frame with a moist towel, and a non-corrosive detergent mixture. Afterwards, use a clean cloth to dry.

Use anti-rust treatment if:

- Your E-bike is exposed to rain, immediately dry affected parts and supplement with anti-rust treatment.
- Your E-bike is exposed to salt, which is extremely corrosive, clean and apply anti-rust treatment to all unpainted parts. Salt can be experienced when riding on the beach or in coastal locations where the air and water are salty. Take extra care to prevent corrosion damage in these areas since it is not covered under warranty.
- If the paint has become scratched or chipped and there is exposed metal, address immediately to prevent rust. Touch up paint or clear nail polish can be used as a preventative measure.

## Lubricating the E-bike

To maintain your e-bike in proper working order, be sure to carry out regular lubrication.

Use specific transmission lubricants every 1–2 months, or if the driveline is dry for the:

- Chain
- Free wheel
- Gears

Grease every 1–2 months, or in the case of excessive friction:

- Brake pins
- Front wheel hub
- Saddle post
- Pedal pins



**Do not lubricate or grease the speed controller, brake pads or wheel rims. Doing so may affect performance and safety, causing potential serious injuries.**

## Tire Inflation and Replacement

The OG employs all-terrain 20" x 4" Fat tires with inner tubes. Fat tires are made to be durable and safe for routine cycling activities, but they must be inspected for proper inflation and condition before each usage. The inner tubes utilize Schrader valves to regulate adding or decreasing air pressure. Correct inflation, care, and replacement will help guarantee that your bike's operational characteristics are preserved and unsafe conditions are avoided. If you are unfamiliar with the functionality of Schrader valves, research and know how to maintain them prior to use.

**Maintaining the correct air pressure in the tires (pneumatic) is crucial at all times. Never under- or over-inflate your tires. Both low pressure and overinflated tires run the risk of mitigating control. Vulcan Bikes shall not be held liable for any and all injuries or losses brought on by under- or over-inflating tires.**

**When inflating your tires, use a controlled source with an available pressure gauge so as to assess for desired pressure. Inflating your tires from an uncontrolled air source could lead to overinflation, resulting in an unusable tire.**

**In the case that a tire or tube must be replaced, be sure to release all air pressure from the inner tube before removing the tire from the rim. Serious injuries could occur if the inner tube's air pressure is not completely released. Vulcan Bikes shall not be responsible for any and all damages or injuries resulting from not removing all air pressure from the inner tube or from incorrectly changing the tire or tube.**





Using aftermarket tires or inner tubes, not provided by Vulcan Bikes may void your warranty, create an unsafe riding condition, or damage to your bike from Vulcan Bikes. If required by law, ensure replacement aftermarket tires have sufficient reflective sidewall striping.

## Pre-Ride Safety Checklist

Even if you have the experience, skill, and tools to complete these essential steps, Vulcan E-bikes recommends having a certified, reliable bike mechanic check your work.

**NOTICE:** Before each ride, and after every 25-45 miles, we strongly suggest following the pre-ride safety checklist available below.

System	Part to check condition of (Great, Good, Poor, damaged, undamaged, tight, loose, lubricated)
1. Brakes	Front and rear brakes <ul style="list-style-type: none"><li>● Brake pads (condition, position)</li><li>● Brake control cables (lubricated, correctly adjusted)</li><li>● Brake control levers (lubricated and tight)</li><li>● Brake levers (firm, motor cutoff functions with brakes, brake light)</li></ul>
2. Wheels and Tires	Wheels <ul style="list-style-type: none"><li>● Spokes ( tight, undamaged)</li><li>● Axle nuts (tight)</li><li>● Front wheel quick release (secured)</li></ul> Tires (inflation within the recommended limits displayed on the tire) <ul style="list-style-type: none"><li>● Tread ( free of excessive wear, damage)</li><li>● Rims (run true, no obvious wobbles, dents)</li></ul>
3. Steering	Handlebar and stem (aligned in the direction of travel)
4. Chain	Chain (oiled, clean, smooth)
5. Bearings	Bearings (lubricated, no excess movement, grinding, or rattling) <ul style="list-style-type: none"><li>● Headset</li><li>● Wheel bearings</li><li>● Pedal bearings</li><li>● Bottom bracket bearings</li></ul>
6. Cranks and Pedals	Pedals (tightened to the cranks) Cranks (tightened, not bent)

7. Derailleurs	Derailleur (unobstructed, undamaged) <ul style="list-style-type: none"> <li>• Shifter and Cables (lubricated)</li> </ul>
8. Frame, Fork, and Seat	Frame (undamaged) Fork (aligned, undamaged) Seat (undamaged)
9. Motor Drive Assembly and Throttle	Hub motor (spinning smoothly, motor bearings, smooth) <ul style="list-style-type: none"> <li>• All power cables (secured)</li> <li>• Hub motor axle bolts (secured)</li> <li>• Torque arms</li> <li>• Torque washers (undamaged)</li> </ul>
10. Battery Packs	Battery (charged, undamaged, locked to frame)
11. Electrical Cables	Electrical connectors (fully seated, free from debris/moisture, unobstructed) <ul style="list-style-type: none"> <li>• Headlight</li> <li>• Taillight</li> <li>• Brake light</li> </ul>
12. Accessories	<ul style="list-style-type: none"> <li>• Reflectors (secured, visible)</li> <li>• Helmet (fastened, undamaged)</li> <li>• Safety gear (properly fitted, unrestricting)</li> <li>• Mounting hardware (properly secured)</li> <li>• Tail Light and wires (properly secured) <i>*when rear rack is fitted</i></li> <li>• Fender hardware (properly secured, undamaged)</li> </ul>

## 50-100 miles

**Your cables, spokes, and chain will stretch and bolted connections can loosen after an initial break-in period of 50-100 mi (80-160 km).** Vulcan Bikes highly recommends consulting a qualified, trustworthy bike mechanic to perform a tune-up on your OG after your first 50-100 miles (80-160 km) (ranges depend on riding terrains, total weight experienced by the bike, and riding behavior).

**NOTICE: Orderly assessments and tune-ups are important for ensuring that your bike remains safe and fun to ride.**

## Recommended Service Intervals

Interval	Inspect	Service	Replace
Weekly, 100- 200 miles	Check hardware for recommended torque values on page 11. Check the drivetrain ( <b>chain, chainring, freewheel, and derailleur</b> ) for alignment and function. Check <b>wheel</b> trueness and silent <b>spoke</b> movement. Check the <b>frame</b> for any damage.	Clean <b>frame</b> with damp cloth.  If loose, adjust the <b>brake tension</b> .  Clean and grease the <b>chain</b> .	Replace any components confirmed to be broken or damaged beyond repair by Vulcan Bikes  Or  a certified, reputable bike mechanic.
Monthly, 250-750 miles	Check <b>brake pad</b> wear, alignment. Check the <b>brake lever</b> tension. Check <b>brake cables</b> for corrosion and fraying. Check <b>shifter cables</b> for corrosion and fraying. Check for clean shifting and proper <b>derailleur cable</b> tension. Check for chain stretch. Check for quiet operation of <b>spokes</b> & tension, <b>wheel</b> trueness.	Clean and lubricate the drivetrain. Check crankset and pedal torque. Clean brake cables. Clean brake and shifter cables. Tension spokes and true wheels if any loose spokes are found.	Replace <b>brake cables</b> if necessary.  Replace <b>shifter cables</b> if necessary.  Replace <b>brake pads</b> if necessary (when the brake pad is slimmer than the backing plate).
Every 6 Months, 750-1250 miles	Check the drivetrain( <b>chain, chainring, freewheel, and derailleur</b> ) for alignment and function. Check tire treads.  Check <b>all cables and housings</b> .	Standard tune-up by certified, reputable bike mechanic.  Grease <b>bottom bracket</b> .	Replace <b>brake pads</b> .  Replace <b>tires</b> if necessary.  Replace <b>cables</b> and <b>housings</b> if necessary.

## Regular Cleaning

- **Remove the battery box from the e-bike before carrying out regular cleaning.**
- **DO NOT use water to clean the E-bike**, as the electrical and electronic systems may get wet, resulting in personal injury or malfunction of the bicycle.
- Delicately wipe any dirty painted or plastic parts with a soft, damp cloth and a neutral cleaning solution.
- Dry thoroughly with a soft, dry cloth.
- Clean the battery contacts with a damp cloth.
- **DO NOT grease or use a greasy cloth to wipe down the electrical connectors, brake pads, wheels, tires or plastic parts.**



# 8. Riding Technology

## Speed Boosting System

The pedal assist system is also known as a 1:1 boosting system. When you ride the bike through means of pedaling, the sensor automatically senses your riding speed and administers the motor with the same speed. Speed boosting provides for an easier ride and extended mileage.



## Reflection and Lighting System

The reflection system includes a reflector on the rim, front and rear passive lamp. Vulcan recommends additionally dressing oneself with a reflective backpack, helmet, and clothing to maximize visibility. The lighting system consists of the battery and the front and rear lamps. These items help to identify road conditions and mark your own position when riding in low light, providing convenience for pedestrians and other vehicles on the roads.

## Braking System

The braking system is a necessary component for every bike and traffic safety. Vulcan Bikes utilize hydraulic disc brakes for superior performance. Timely inspections and adjustments to the braking system are critical for ensuring performance and safety. For more information on brake adjustment and maintenance, Access Vulcan E-bikes Help Center ([www.vulcanbikes.com/help](http://www.vulcanbikes.com/help))

**NOTICE: The braking system is designed to adjust the speed of the bike, not to abruptly stop it. Before riding, you must understand your braking system and how it performs in various terrains/grades.**



Adjustment method of the brake shoe block:

1. Loosen the positioning bolt;
2. Adjust the distance of the shoe block through the left and right knob; when the shoe block adjusts the left knob of the bolt, the distance of the brake shoe block is increased. Adjust as necessary for proper spacing.

### Common care of braking system :

- If the distance between the brake shoe block and the wheel is too large, adjust with the designated screw.
- If the lines of the brake shoe block are worn seriously, replace it timely in order to maintain traffic safety.
- The surface on the brake disc must not be oiled, so as to maintain braking performance.
- If the brake cable is ripped, replace immediately.

### Speed Control System

- The speed control system is used to cater for various terrain and wind conditions.
- Speed control system includes a shifter, derailleur, front and back fender, chain plate, and flywheel.
- The number of the speed change series is the number of fluted discs  $\times$  the number of flywheel pieces.  
*For example: three pieces of chain plate  $\times$  6 flywheel pieces = 18 speed change series, and so on.*

The gear shifter is positioned on the right side of the handlebars. The left control designates the forward speed (increase #) and the right controls the downward speed (decrease #'s).



### Derailleur

The derailleur consists of a front and rear component (as shown above). When the shift cables are too loose or tight, if the speed shifter does not work properly, or the chain falls off, the derailleur bolts must be adjusted.

Adjust the chain to the minimum flywheel, so that the chain follows a straight line, and then adjust the chain to the largest flywheel, and repeat.

## Chain



The chain should jump gears upon shifting. If the chain has not meshed with the wheel correctly, it will affect the cycling performance; in case of such a situation, adjust the chain timely. To set the length of the chain: adjust the front derailleur to the lowest shift (the smallest tooth of the chain ring) and also adjust the back component to the lowest shift (the smallest tooth of the flywheel).

*\*The chain sag should be no more than  $\frac{5}{8}$ . If it is more than  $\frac{5}{8}$  in, the chain is too long, please go to your supplier to shorten the chain in order to maintain the best cycling performance of your bike.*

### **Common use of speed control system :**

- Do not tread reversely in the course of speed change so as not to misguide the chain.
- Do not change gears substantially, instead, change speed in accordance with the synchronized order.
- If the electric bike is idle for a long time, the chain will be changed to the minimum keyboard tooth and the smallest flywheel, so as to avoid fatigue of the mechanical flexibility.
- The chain, fluted disc, flywheel, derailleur should always be washed, wiped, and lubricated.
- The derailleur should avoid the jump-class speed change, which will lead to rapid wear and tear.

## 9. Troubleshooting

S/N	Failure	Cause	Eliminating methods
1	Failed speed change or too low maximum velocity	(I) Low battery voltage (II) Bad governor handle (III) Bad controller	(I) Charge the battery fully (II) Replace the governor handle, controller
2	Turn on the power supply, but the motor does not work	(I) Bad governor handle (II) Bad electric door lock and contact point (III) Bad controller	(I) Replace the governor handle, controller (II) Re-weld the contact part
3	Inadequate range from full charge	(I) Tire lacks of air pressure (II) Inadequate charging or failed charger (III) The battery has been damaged or its life has expired (IV) Frequent braking startup, overloading	(I) Tire is full of air (II) The battery is adequate or replace the charger (III) Replace the battery
4	The charger is not charged	(I) The charger wiring is loose or damaged (II) The battery weld line falls off or is damaged	(I) Weld the connecting line or replace (II) Weld the connecting line or replace
5	The booster has no power assisting	(I) The induced cartridge has poor contact or is damaged (II) The booster wiring is bad or damaged	(I) Adjust the induced cartridge or replace (II) Re-connect or replace



## Error Code Display

Displayed at the bottom of the screen, may be a triangular icon indicating that there is an error in the system.

Reference the error code table below.



## Error Codes Table

Error Code	Error description	Error display
0x01	Normal	No error
0x03	Brake signal	No error
0x04	Throttle on high position	Display <b>04H</b> on LOGO position
0x05	Throttle error	Display <b>05H</b> on LOGO position
0x06	Low voltage protection	Display <b>06H</b> on LOGO position
0x07	High voltage protection	Display <b>07H</b> on LOGO position
0x08	Motor's hall sensor error	Display <b>08H</b> on LOGO position
0x09	Phase line of motor error	Display <b>09H</b> on LOGO position
0x10	Controller over temperature	Display <b>10H</b> on LOGO position
0x11	Motor over temperature	Display <b>11H</b> on LOGO position
0x12	Current sensor error	Display <b>12H</b> on LOGO position
0x13	Battery's temperature sensor error	Display <b>13H</b> on LOGO position
0x14	Motor's temperature sensor error	Display <b>14H</b> on LOGO position
0x15	controller's temperature sensor error	Display <b>15H</b> on LOGO position
0x21	Speed sensor error	Display <b>21H</b> on LOGO position
0x22	BMS communication error	Display <b>22H</b> on LOGO position
0x23	Head light error	Display <b>23H</b> on LOGO position
0x24	Head light sensor error	Display <b>24H</b> on LOGO position
0x25	Torque sensor error-Torque	Display <b>25H</b> on LOGO position
0x26	Torque sensor error-speed	Display <b>26H</b> on LOGO position
0x30	Communication error	Display <b>30H</b> on LOGO position



# 10. Warnings and Safety

## General Operating Rules



**NOTICE:** When riding a Vulcan E-bike, it is advised that riders pay close attention to all of the basic operating guidelines listed below. Vulcan Bikes shall not be liable for any and all accidents or damages that occur if general operating instructions for riding are not followed before, during, or after use.

- Ride according to the traffic laws that apply to all other vehicles on the roads in your area.
- Ride responsibly and in a straight path with the flow of traffic.
- Never ride against the flow of traffic.
- Always use hand signals when turning.
- Avoid using only the front brake at high speeds or when going downhill to prevent the center of gravity from shifting forward and creating a danger. Apply even pressure to front and rear brakes to safely slow down.
- Don't perform tricks with the E-bike (including but not limited to wheelies).
- Ride cautiously because you can be difficult to see for other drivers.
- Pay attention to the road ahead. Avoid obstructions, hazards, and risks that could puncture your tires, such as potholes, gravel, wet oily roads, curbs, train tracks, speed bumps, drain gates, thorns, and broken glass.
- When crossing railroad tracks slow down and approach at a 90 degree angle. If extreme, walk your bike across.
- Be prepared for the unexpected, such as car doors opening or vehicles pulling out of driveways.
- Be cautious when passing other cars or bikes, as well as at intersections.
- Learn how to use every feature and function of the E-bike. Before riding in risky situations, get comfortable with shifting gears, applying the brakes, using the power assist system, and controlling the throttle.
- Put on appropriate riding attire, including closed-toe footwear. Secure the bottom of your loose pants with leg clips or elastic bands to stop them from becoming entangled in a chain or set of gears.
- Avoid using anything that can impair your hearing.
- Before transporting cargo, check the laws and regulations in your area. The weight of the cargo cannot be more than 55 lbs.
- Keep a safe stopping distance from all other riders, objects, and vehicles. Safe stopping distances depend on a number of factors, including the road's surface and lighting.

## Riding Posture

Proper cycling posture is unique for each rider, based on height and size of the bicyclist. It determines safety, the efficiency of muscle contraction movement, and the ability to manipulate the handlebar and brakes. Advice for cycling posture can be found below:

- Position yourself on the seat to where your knee is tracking over the ball of your foot/pedal.
- The position of the foot on the pedal should be at one third the front of the shoes. Upon pedaling, your legs should nearly reach a full extension at the bottom of each cycle. Your legs should not bow outwards.

## Safety Notes

- Off-roading on Vulcan Bikes is absolutely prohibited and Vulcan Bikes shall not be responsible for any and all injuries or damages resulting from off-roading.
- Although extreme riding is frequently depicted in articles, advertisements, and catalogs, it is strictly prohibited and can result in serious injury or death. All injuries and damage resulting from extreme riding are not the responsibility of Vulcan Bikes.

- E-Bikes and bike parts have strength and integrity limitations. Extreme riding should not be done since it can damage bike parts and lead to compromised riding circumstances, in which you risk being fatally harmed.
- After any accident, you must consider your bike unfit to ride. Consult a reliable, professional bike technician for a thorough examination of all the bike's parts, operations, and functions before returning to use.
- Before each ride, make sure the brake motor cutoff switches are working properly. When the brakes are applied, an inhibitor built into the brake system disables the electric motor. Make sure these features are intact.
- Extreme caution must be used when engaging the pedal assistance and throttle. Make sure you are aware of and ready for the power assistance to activate as soon as pedaling begins.
- Before using the E-bike, users must be aware of how the twist throttle and pedal assistance sensors work across various terrains and riding environments. Use the lowest assist setting until you are confident handling the E-bike.
- Any aftermarket modifications to your Vulcan E-bike that are not specifically authorized by Vulcan Bikes may void the warranty and make riding the E-bike dangerous. Vulcan Bikes is not responsible for any and all injuries or damages resulting from aftermarket changes to your E-bike.
- Electric bikes demand more caution and attention to ride because they are heavier and faster than regular bikes.
- Do not remove any reflectors or the bell.

## Helmets

When riding a bicycle, it is essential that all riders wear a properly fitted safety helmet that has been approved by ANSI or SNELL. It is your obligation to abide by all applicable laws, which includes properly equipping yourself and your E-bike as the law requires. Vulcan Bikes disclaims any liability for any harm or loss brought on by failure to wear a helmet. You are **REQUIRED** to wear a helmet, and you accept responsibility for any injuries or property damage resulting from your decision not to shield your head and neck from harm.

## Wet Weather

On rainy days, please pay close attention when the water depth is greater than the wheel center. Soaking of water and damage to the motor can lead to E-bike failure. If possible, it is advised to avoid riding in inclement weather. Only if absolutely necessary, ride in the rain.

Using this electric bike in streams, torrential downpours, or puddles is not recommended. Never submerge or immerse this product since the electrical system could be harmed.

- You should exercise additional caution when riding this bike in damp conditions.
- Reduce your riding speed and start your breaks earlier to help you handle the bike when it's slick.
- Increase your visibility to other drivers with reputable safety lights and wear luminous apparel.
- When it's wet, it's harder to spot road hazards, so take extra care.

## Night Riding

If possible, avoid riding at night. Only if necessary, ride at night.

- Wear luminous clothing or light colored clothes.
- Choose well-lit, familiar roads wherever feasible, and move slowly.
- Make sure the reflectors on the tire wall, the pedal, and wherever else are in place and clear.
- Use headlights, taillights, and brake lights to ensure your visibility to others.

# 11. Limited Warranty

Every Vulcan E-bike comes with a limited 1 year warranty that protects the original owner from any manufacturing defects. We only ship to the lower 48 states for warranty replacement parts.

Please be aware that failure to register for warranty within 30 days after receiving your item may result in no warranty being provided for your purchase.

This product, including each individual component, is warranted by Vulcan Bikes against manufacturing or material defects in the following ways:

1. The bicycle components from Vulcan Bikes, including the frame, forks, stem, handlebar, headset, seat post, saddle, brakes, lights, bottom bracket, crankset, pedals, rims, wheel hub, freewheel, cassette, derailleur, shifter, motor, throttle, controller, wiring harness, LCD display, battery, and hardware, are warranted for a year from the date of receiving the order to be free from manufacturer defects in materials and/or workmanship.
2. This limited warranty only applies to the original owner that bought the e-bike from Vulcan Bikes. The guarantee period starts when the bike is received and ends exactly one year later, or whenever the bike is sold or transferred to another person. Under no circumstances will the warranty be valid for owners who purchase the bike after you.
3. What isn't covered by this limited warranty is:
  1. Normal deterioration of any covered component.
  2. Consumables: including but not limited to grips, chains, spokes, bells, brake pads, cables and housing.
  3. Damage or defects to all covered components resulting from alterations, modifications, improper assembly, installation of parts or accessories not initially intended or compatible with the E-bike as sold, operator error, water damage, extreme riding, stunt riding, or improper follow-up maintenance, acts of God, accident, misuse, neglect, abuse, commercial use, alterations, modifications, improper assembly, installation of parts or accessories not originally intended or compatible with the e-bike as sold.
  4. To be clear, Vulcan Bikes will not be held liable or accountable for any harm, malfunction, or loss brought on by any unauthorized repairs or unauthorized parts used.
  5. The warranty is void if the products are misused, handled carelessly, or altered in any way (including, but not limited to, by painting or peeling the paint). Also, if the product's serial number is altered or removed, the warranty is voided.
  6. The battery is not covered by a warranty against damage brought on by power surges, inappropriate charger use, poor maintenance, other misuse, ordinary wear, or water damage.
  7. Charges incurred for labor from 3rd party diagnosis and installing the needed parts.
  8. If the e-bike is found to be faulty and replaced within the warranty period, the warranty terms and length of said warranty is not overridden with the new delivery date of the bike that is replaced.

**VULCAN BIKES RESERVES THE SOLE RIGHT TO DETERMINE WHETHER DAMAGE OR DEFECT TO AN E-BIKE OR COVERED COMPONENT IS COVERED BY THIS LIMITED WARRANTY.**

We are here to help! If you have questions, please:  
Access Vulcan E-bikes Help Center ([www.vulcanbikes.com/help](http://www.vulcanbikes.com/help))  
Contact us directly by email to [info@vulcanbikes.com](mailto:info@vulcanbikes.com)