# CYBERBIKE

### 2022 Cyberbike Operating Handbook and Warranty Information





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#### Welcome to Cyberbike

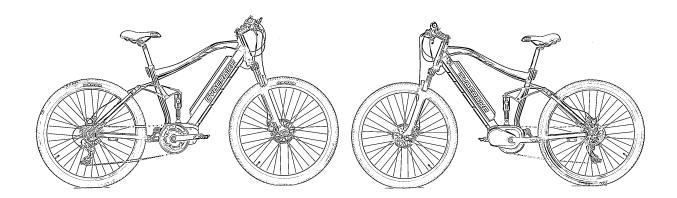
#### Introduction

Congratulations on your purchase of America's most exciting new electric mountain bike.

Cyberbike is the Electric Bike That Shreds! While your Cyberbike includes the best warranty in the industry, maintaining your bike is necessary for safety, and is entirely your responsibility. Your Cyberbike is a machine, and with any such machine, hardware may loosen and components may wear out over time. Therefore you must understand the fundamentals of how your eBike works, and you must maintain your bike for your own safety. You should read and understand this manual completely before operating your Cyberbike

**WARNING:** When your bike is turned on, it is ON, so the torque sensor in the powerful, reliable, and quiet, 500 watt motor will provide power if it senses movement in the pedals, which can happen easily. When your bike is on— or anytime— keep fingers out of any moving parts and be ready to operate and control your bike. Your hands should be on the handlebars with fingers positioned over the brake levers.

Remember to always wear a quality helmet at the bare minimum, and other protective gear appropriate for your type of riding. We recommend Kali Protectives.



#### Operation

#### Turning the bike on.

Touch the power button and your Cyberbike comes to life. It is now on and the pedal assist sensor will apply power whenever the pedals are moved forward! Touching the power button again toggles the display backlight on and off, and holding the power button down for 2 seconds turns the bike off.

Power is applied to the rear wheel via the drive chain through both your own pedal effort and torque-sensing pedal assist of the powerful motor. Your bike will start at PAS (Power Assist Level) 1. Your Cyberbike offers power settings of 0 through 5, from no pedal assist at Level 1 to full Turbo Power at Level 5. The higher pedal assist you choose the more power assist you will get, but at a more rapid battery consumption. Always turn the bike off when you are done riding, although it will power down automatically after an extended pause in use.



The LCD control panel display provides real-time information on PAS (Pedal Assist) level, power consumption, remaining battery level, battery voltage, and light indicator.

When controlled through the handlebar-mounted switch pack, you are able to access the Settings Menu, toggling between MPH and KPH for the speedometer, maximum speed at which pedal assist will be applied, turning the display light and headlights on and off. Use the settings and controls as follows:

- 1. Power. To turn on touch the power button once. To turn your bike off, hold down the Power Button for 2 seconds
- 2. To enter the Settings Menu, Hold down the Set Button for 2 seconds until the Settings menu engages
  - a. Reset Trip meters
  - b. Wheel diameter, do not change as this is set at the factory

- c. Toggle MPH/KPH by touching the +/- buttons
- d. Max PAS Speed
- 3. Exit setting menu by holding the Set button for 2 seconds
- 4. To toggle display on and off, touch the power button once
- 5. PAS levels are 0-5. 1 through 5 are the level of pedal assist. The higher the number, the more available pedal assist power, and the more battery consumption. Likewise, a lower power level will provide lower pedal assist level and longer range
- 6. Pedal Assist Level 0 is used to engage throttle (if installed) or "human effort only" riding.
- 7. Integral Headlight (if installed) is toggled on/off with the power switch only when the bike is on and not in the Settings Menu mode.

#### **Battery Charging**

Your battery is one of the most expensive components on your Cyberbike and should provide many hundreds of charges. Proper care will ensure that you get the most life from your battery. To charge with the battery installed, simply plug the charger into your battery using the round charging plug, behind the waterproof seal on the lower left of the battery, and remember to replace that seal when removing the connector. Do not store the bike for long periods with the battery fully charged as this will decrease the life of your battery. Never ride with the key in the lock as this can damage the battery mounting mechanism. To remove the battery, insert the key and turn to the LEFT. Carefully and firmly pull on the battery handle, up and towards the left. The battery is heavy, don't drop it or this may reduce it's life or even cause an internal breakage or failure. Batteries damaged from hard impact will not be covered by your Cyberbike's 2 Year Powertrain Warranty.

When the LED indicator on the smart charger unit turns from Red to Green, your bike is fully charged. Your bike does not have to be fully charged to ride, but as with all rechargeable batteries repeatedly draining the battery to zero will reduce the charging capacity somewhat.

Notes: The voltage indicator and bar graph will go down and then sometimes come back up as you ride, this is normal. Don't get range anxiety. Enjoy! When you get down to a <u>constant</u> one bar indication you still have approximately 20% range. The voltage and bar graph may fluctuate throughout the ride and this is not unusual.

#### Tires:

Periodically inspect your tires for wear and check the tire pressure.

Inflation. Proper inflation has a great effect on how your bike rides and performs.

a. Do not use a compressor unless it is regulated and you are familiar with the job. Using a compressor can be dangerous and may very easily damage

suspension components, tires, and tubes. Use only appropriate pumps designed specifically for bicycle tubes or shocks, and consult your local bike shop if you are unsure.

# WARNING: WE DO NOT RECOMMEND PRESSURIZED FILLING CARTRIDGES. EVER.

b. Your eBike's range, top speed, acceleration and tire wear, along with handling and suspension performance are all impacted by tire pressures. Too high or too low tire pressures can result in more flat tires. Full time pavement riding requires higher pressures, and full time trail riding requires lower pressures. Your body weight, and riding style are also considerations.

The chart below is for recommended pressure, only as a baseline. Actual, proper pressures for your personal ride will depend upon personal preference, weight, riding style, terrain, tires, and weather conditions. **The below chart is only a basic guide** from which you should derive a conclusion based upon these factors:

Body Weight	120-140 lbs	140-185 lbs	175-200 lbs	200-225 lbs	Over 225 lbs
Trail/Rocks	20-25 psi	25-35 psi	28-35 psi	31-38 psi	35-45 psi
Paved Street	30-35 psi	35-40 psi	45 psi	45-50 psi	50 psi

#### **Dropper Post Usage**

A dropper post can be a major game changer when riding your Cyberbike, and knowing how to properly use it is essential. A dropper post can be used to help get the seatpost out of your way when you're descending to allow you to be able to maneuver yourself on your bike easier and then raise it right back up for better leverage when climbing. Please see the Cyberbike Youtube Channel for proper installation instructions to set-up your dropper seatpost.

#### **Operation**

- To lower your seatpost press the thumb lever on the handlebars and sit on the seat
- To raise the seatpost backup raise yourself off the seat to remove the pressure from the seatpost and press the thumb lever on the handlebars, this will allow the seat to return to the raised position

#### Care, Maintenance, and adjustments

**Wheels and axles:** Periodically check the tightness of your axles. Check it every time you ride and throughout the day when riding aggressively or offer rough trails

To ensure the proper tightness of Skewer axles:

- 1. Start with the lever open and facing back
- 2. Holding the lever, loosen/turn the nut on the other side counterclockwise 2 3 turns
- 3. Close the lever. It should be very easy, and the wheel is not properly attached
- 4. Turn the nut clockwise until finger tight
- 5. Open the lever.
- 6. Tighten the nut clockwise one turn.
- 7. Close the lever. It should be quite firm. You are clamping your wheel on and in a position to operate the brakes and cover terrain without falling off, so this is very important! **IF YOU ARE UNFAMILIAR OR UNSURE, CONSULT A BIKE SERVICE PROFESSIONAL BEFORE RIDING.**
- 8. If the lever is too hard to close, back the nut off a small amount and try again
- 9. If the lever is too loose, tighten the nut up a small amount and try again

The QR lever should always point backwards. That makes it less likely to catch on anything and be pulled open or throw you off the bike

eBiking is incredibly fun. Once you've gotten familiar with the basics, make your rides even more fun and rewarding through the many adjustments and modifications available to you. Make your Cyberbike *YOUR* Cyberbike by adjusting the controls, brakes and suspension components in many different ways.

#### **Brakes**

Brake operation is arguably the most important aspect of your bike, so your brakes must operate properly and be checked regularly. Remember, brakes do a lot of work so they are not perfectly silent. You must have the wheel and brake calipers adjusted properly for the most safety and for best performance from your eBike. BRAKES ARE CRITICAL! IF YOU ARE UNSURE OF THE OPERATION AND ADJUSTMENT, YOU MUST CONSULT A PROFESSIONAL BICYCLE MAINTENANCE TECHNICIAN.

\*\*Remember, some sound from the brakes is normal. Only clean the disks with alcohol or another suitable disk cleaner. Worn or contaminated pads may need to be replaced to improve your performance or quiet a persistent squeak\*\*

#### **Adjusting Brake Calipers:**

If your wheel is mounted and tightened correctly and straight, and you get what seems to feel like intermittent rubbing on the disk, the slotted mounting points on the brake calipers allow you to loosen the caliper mount slightly, engage the brake lever, and position the caliper to clear the brake disk slightly between the brake pads and either side of the brake rotor. Tighten and recheck for alignment. A little rubbing is natural, especially when new, but if you hear a coarse or grinding sound when the wheel turns, immediately check this important system and **do not ride until you are certain it is adjusted and operating correctly.** 

#### Adjusting Position of Brake Levers, Shifter and Display:

Control adjustments are best done while seated on or standing over your eBike.

1. Adjust your handlebar sweep, forward or back:



Adjust your shifter (right) and brake lever positions up and down (left and right bar):



Adjust the brake lever position. Too close and it will hit the bar before fully engaging brakes, too far backwards or forwards and it will be difficult to reach:



After rotating the handlebar in the stem, adjust the position of the brake levers, shifter, and display control module on the bars, and adjust the reach of the brake levers for your own liking. You may loosen, adjust, then retighten the pinch bolts and clamps which hold on your grips, levers, control head (power and settings buttons) display. Adjusting your "cockpit" to fit your size and comfort zone is important to maximizing your control of your Cyberbike! Make sure you tighten everything back up before riding!

Remember if mounting Cyberbike aftermarket accessories including cell phone holders, lights, or other accessories on your handlebars to make sure they're adjusted properly to not move around. This may result in distractions or crashes.

#### Your Riding Position, Refined

There is nothing more customizable on your Cyberbike than the handlebar position. Among the myriad adjustments and changes you have:

- Steering tube height. This is the tube in the center front of your Cyberbike that comes up from the forks through the steering head. From the factory there will be a number of spacers
- 2. Steering stem length. This is the bracket that holds your handlebar to the steering tube
- Bar width. Your handlebars may be long enough to cut down, or ask a
  professional bike mechanic to, if there is too much pressure on your shoulders or
  wrists.

How your bike came from the factory is only your starting point on a quest for your perfect riding position! The steering tube height, stem length, and handlebar width are meant to be modified to your personal preference.

Your head tube/steering tube is left high from the factory, but you can cut it- or have your local bike shop cut it- and remove spacers to your personal preference. Remember, once you cut it down you can't get it back so have your bike shop help fit you for the right steering tube stem height.

Using a shorter stem gives the bike quicker handling characteristics and a more responsive feel. This will give you more leverage and make steering quicker, but for some riders this may be too "twitchy." A longer stem shifts your body weight towards the front of the bike and puts you in a better pedaling position, especially on those steep climbs.

Handlebar width and height is a personal preference and can result in much improved comfort for you, especially on longer rides. A shorter or longer reach may put weight on or off your wrists; a narrower grip may be more comfortable, or a wide grip may provide you with more control in tough terrain. You will find all of the above adjustments can make your Cyberbike the perfect bike for you.

#### Suspension

Cyberbike models come equipped with high quality suspension components. These components may be adjusted to fine-tune your eBike to perform best for you and the way you ride. These adjustments vary by model, and may include spring preload (air pressure or mechanical spring), compression damping, and rebound damping.

Research to learn what effects these adjustments may have on your eBike's performance. Basic adjustment practices are provided here. (Some suspension comes with an O Ring to use as a guide for how much suspension travel is being used or to set "sag." The O Ring you see on the stanchion tubes is *supposed to be there* and not a part of the shock that is falling out) If your shock or fork doesn't have an O Ring, you can use a zip tie. A little liquid on the stanchions when new is generally assembly lubricant, but of course your shocks should not leak. DO NOT OVER PRESSURIZE AIR SUSPENSION COMPONENTS AS THIS MAY RESULT IN BLOWN SUSPENSION SEALS.

## **Measuring Static Travel**

Start by measuring and noting the length of both the front and rear shocks in millimeters. You'll use these numbers later.

Next make sure the shocks are switched open or are in descend mode. To make the next steps easier, find a bench or tree to lean against or have a friend handy to hold your bike steady.

Check both stanchions on your front fork for an O-ring. If you don't have one you can attach a zip tie to show how far the stanchion travels. It's important to set sag according to your riding weight so make sure to wear all your normal riding gear.

Now sit on the bike and bounce the suspension up and down several times to warm up the shocks. Get into your riding stance with all your weight over the bike then slide the O-ring down the stanchion on the fork and up the shaft on the rear shock. Carefully dismount the bike without bouncing the shocks. Now you can measure and record the distance between the O-ring and the body of the shock. This measurement is the shock's static travel.

### Set the Sag

To calculate your sag percentage, divide the static travel by the total length of the shock and multiply by 100. Most manufacturers recommend that you set your sag somewhere

between 25 to 35 percent. If your sag is higher or lower than that, you need to make some adjustments by attaching your shock pump and increasing or decreasing the air pressure in the shock and running the calculation again.

Sag is mostly a matter of personal preference, but if you ride fast over aggressive terrain, you'll want to keep your sag lower and on the firm side by adding air pressure. For a smoother ride on easier terrain, go for a softer setting by keeping the air pressure lower and the sag higher. Each time you change the pressure in the shock, repeat the measuring process until your sag is just where you want it.

**Reflectors:** Check your local requirements. Generally, bicycles must have a colorless front reflector, recessed colorless or amber reflectors on the back and front sides of the pedals, and a red reflector on the rear. They must also have a reflector mounted on the spokes of each wheel, or reflective front and rear wheel rims or tire sidewalls.

#### **Pre-ride Checklist**

Rear derailleur adjustments can be found online or your bike shop can help you with this.

Make sure your pedal hardware is secure whenever riding

Check your tires' air pressures and condition of the tread and sidewalls periodically.

Keep your motor dry. Submerging or exposing your motor to heavy moisture will void the warranty.

Please check the condition of your tires before every ride and during the day when riding hard or on rougher terrain. Remember higher air pressure will make your bike go faster and extend the range but may result in popped tubes. Many Cyberbikes come with tubeless ready tires which are more resilient to impact and sharp edges because there is no risk of a pinched/punctured tube.

#### **Disclaimers**

The Key is to remove and install the battery, not turn the bike on

- Derailleurs will need to be readjusted after a few rides due to cable stretch
- Wheels may need to be trued after a few rides due to the spokes settling
- Remember your throttle will only work in power level 0, this is to ensure safety on the trail and to avoid accidental activation
- Remember to break in your brake pads before going on the trails
- If the shipping box comes in damaged, please take pictures of the box before opening and removing the bike from the box
- Before riding please be sure to setup your suspension, failure to do so may result in damage to your suspension
- When riding, please remember that shifting under a heavy load may result in damaged to the derailleur
- Before you ride, please take a few minutes and check over your bike using the M
  method, a video explaining this can be found on our YouTube channel!
- Remember to always use the appropriate safety gear when you're riding

