

**LECTRIC**  
**e B I K E S**

# **Lectric XP**

## **Lectric XP Step-Thru**

**Owner's Manual**

**2020**

**V 1.4**

**[www.lectricebikes.com](http://www.lectricebikes.com)**

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Thank you for your purchase of a Lectric eBike.

We appreciate your business and we hope you thoroughly enjoy riding your new eBike.

If you need any assistance please do not hesitate to reach out to us.

### **Contact Information**

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**Website:** [lectricebikes.com](http://lectricebikes.com)

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## **WARNING**

**Read this entire manual before assembling or using your new electric bike. Do not modify, disassemble, or replace the original electrical components on your bike. Doing so will invalidate your warranty and could put you in danger. Riding any type of bike comes with some risks which can't be predicted or avoided. Taking proper care of bike components can lower the risk of sudden failure of components but can not prevent it. These sudden failures could cause serious harm, injury, or death to the rider. If you notice abnormalities in any component on the bike, take it to a licensed mechanic to be repaired or replaced immediately. Lectric eBikes LLC assumes no liability for harm, injury, or death of the rider.**

**This manual is not intended to function as a detailed service manual. Lectric eBikes recommends having your local bike shop mechanic perform a detailed safety check of your bike before your first ride. Ensure your local mechanic is experienced and reputable.**

**The Lectric XP can withstand most rain showers without sustaining damage. However, the bike and its mechanical and electrical components are not waterproof. We do not recommend storing or using the bike in wet conditions. The warranty for the Lectric XP does not cover water damage.**

For technical assistance or warranty claims contact Lectric eBikes at (602) 715-0907 or email at [contact@lectricebikes.com](mailto:contact@lectricebikes.com).

# Maintaining Your Bike

## **Best Practices**

- Store your bike in a clean dry place to avoid rust.
- **Keep components tightened to the torque specifications listed in the *Recommended Torque Values* section of this manual.** Refer to the table of contents at the beginning of this manual for the page number of this section.
- Ensure the frame latch and handlebar latch are locked in place before riding.
- Clean and lubricate moving parts regularly.
- Clean your bike frame with a wet rag and low residue cleaner. After cleaning lubricate where necessary.
- Ensure your bike tires are always inflated to a pressure within the recommended range printed on the tire sidewalls.
- Before each ride ensure all electrical wires are connected.
- **The Lectric XP is not waterproof.** It is likely that components will not sustain damage in most rain showers, however Lectric eBikes recommends storing and riding the bike in a dry environment. **Furthermore, water damage is not covered under warranty.**
- Your bike will need to be serviced at regular intervals and after the initial wear-in period. See the *100 Mile Tune Up* and *Ongoing Service* sections below.

## **100 Mile Tune Up**

Your bike will need to be serviced after 100 miles or 5 full battery charge cycles, whichever comes first. This is what we call the “wear in period” of the bike. Lectric eBikes recommends having service done at your local bike shop by a certified and reputable bike mechanic. Below is a summary of things to have inspected:

## **Brakes**

Brake cables will stretch during the wear-in period. This may affect braking performance and the brakes may need to be adjusted and tensioned properly.

## **Shifting**

Shifting cables will stretch during the wear-in period. This may affect shifting performance and the derailleur may need to be adjusted.

## **Hardware**

All hardware should be torqued to the torque specified in the *Recommended Torque Values* section of this manual. Refer to the table of contents at the beginning of this manual for the page number of this section. If any hardware has signs of damage take the bike to your local bike shop to have a certified and reputable bike mechanic inspect and replace them if deemed necessary.

## **Ongoing Service**

You should have your bike maintained at regular service intervals at your local bike shop by a certified and reputable bike mechanic. Below is a general summary of maintenance that should be carried out on a monthly and quarterly basis:

### ***Monthly (or about every 250-500 miles)***

- Inflate tires to a pressure within recommended range printed on tire sidewalls.
- Lubricate chain such that there is little noise from the drivetrain when in use.
- Check that all hardware is tightened to the torque specifications listed in the *Recommended Torque Values* section of this manual. Refer to the table of contents at the beginning of this manual for the page number of this section.
- Check your brake pads for signs of wear. Replace if necessary.
- Check your bike's shifting performance. Adjust the derailleur if necessary.
- Clean the bike with low residue cleaner and dry completely. Lubricate after cleaning where necessary.
- Check spoke tension. Adjust if necessary. The recommended spoke tension can be found in the *Recommended Torque Values* section of this manual. Refer to the table of contents at the beginning of this manual for the page number of this section.

### ***Quarterly (or about every 750-1500 miles)***

- Check all items on the Monthly service list above.
- Check tire tread for excessive wear. Replace if necessary.
- Check that electrical connectors and cable housings are secured away from moving parts and are free from damage. Replace if necessary.
- Go into your local bike shop for a tune-up by a certified and reputable bike mechanic.

# Unboxing

## Getting Started

Congratulations on your purchase of a new Lectric XP eBike! Your bike comes in the box fully assembled. The instructions that follow are intended to serve as a guide in unboxing and getting familiar with your new bike. The bike may require adjustments upon being received and unboxed, as shipping can sometimes be bumpy. **When doing your first adjustment and inspecting the bike before riding we recommend seeking professional help from a reputable, certified bicycle mechanic.**

What's in the box:

1. Lectric XP eBike
2. Lectric XP eBike charger
3. 2 Battery keys
4. Manufacturer manuals

Before removing the packaging material from the bike, remove all items from the box and make sure everything listed above is present. If anything is missing or damaged contact Lectric eBikes immediately for assistance. For video instructions regarding how to unfold your bike visit our youtube page: Lectric eBikes.

### ***Serial Number***

Your bike has a one of a kind serial number associated with it. The serial number is located on the head tube of the bike as shown in the photo below.



Please locate the serial number on your bike and write it down for your records. You may be asked for your bike's serial number as a part of warranty requests. You may also be asked to provide this number to law enforcement in the event that your bike is stolen.

## Folding and Unfolding the Bike

The Lectric XP folds in the center of the frame as well as at the handlebars. Instructions for folding and unfolding the bike can be found below:

### ***Handlebars***

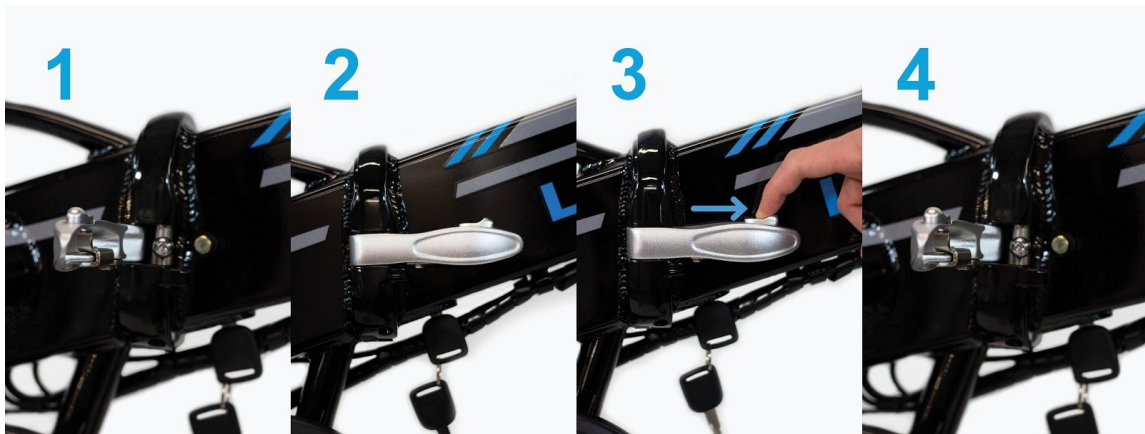
1. Pull the handlebar stem to its upright position.
2. Push the clasp down firmly so that it is locked in position. You should have to use enough force such that the clasp leaves an imprint in your palm. Pull on the clasp with your hand to confirm it is locked and the handlebars cannot fold.
3. To unlock the latch pull up on the silver button labeled "open".
4. Pull the clasp while still holding the "open" button up. You may now fold the stem.





### ***Frame***

1. To unfold the bike frame, grab the handlebar stem and rear end of the bike while standing near where the battery is exposed. Lift the bike slightly off the ground and swing the bike to its closed position.
2. Push down on the clasp firmly until it locks into position. You should have to use enough force such that the clasp leaves an imprint in your palm. Pull on the clasp with your hand to confirm that the clasp has locked and the frame cannot fold.
3. To unlock the bike frame and return it to the folded position, start by sliding the switch labeled “open” to the right.
4. Pull the latch while still holding the switch to the “open” position. You may now fold the bike.



### ***Pedals***

1. To unfold the pedals push down slightly and move the pedal outwards.
2. Continue pushing down while lowering it into its unfolded position.
3. Ensure you hear the pedal lock into place once in the unfolded position.



## Preparing to Ride

- **Ensure all components are properly secured before riding otherwise serious harm or death could occur.** All components should be torqued to the torque specified in the *Recommended Torque Values* section of this manual. Refer to the table of contents at the beginning of this manual for the page number of this section. **This includes but is not limited to: pedals, handlebars, handlebar clamp, cranks, seat, and seatpost clamp.**
- Make sure you can't twist the seat or stem out of alignment by hand.
- Check to see if your saddle is positioned at the proper height. Sit on the saddle facing forward and place the ball of your foot on the pedal at its lowest point. Your leg should be mostly straight at this point with a slight bend at the knee. You should be able to pedal the bike without overextending your leg when the pedal is at its lowest point. Your legs may be overextended if it causes your hips to move side to side, which means the seat must be lowered. To start, adjust the saddle so your feet can still be placed firmly on the ground.
- To adjust your seat up or down, unlatch the seatpost clamp. Move the seat to the desired height and close the seatpost clamp. The open and closed positions of the seatpost clamp are shown below (open position on left, closed position on right).



- Ensure both your seatpost and handlebar stem are inserted past their minimum insertion points as indicated by the markings on them. These markings are shown below. **Failure to insert past the minimum insertion point will place undue stress on these components increasing the risk of sudden failure potentially resulting in harm, injury, or death.**



Handlebar Stem

Seatpost

- If you need to adjust the angle of your seat, loosen the nuts on both sides of the seat, move the seat to the desired angle, then tighten the nuts. The nut's location is shown below.



- Ensure all cables and connectors at the front of the bike are securely connected or certain components may not work including the front light, the motor inhibitor switches, LCD display, and throttle. The motor inhibitor switches shut the motor off as soon as the rider hits the brakes. **If these switches are not operational it will take longer to slow down which in some riding situations could cause injury or death to the rider.**

## Recommended Torque Values

It is recommended that fasteners be tightened to the manufacturer's specification found below:

Part	Required Torque (N*m)
Front Wheel Axle Nuts	40
Rear Wheel Axle Nuts	40
Disc Rotor Mounting Bolts	7
Brake Lever Clamp Bolts	7
Brake Caliper Mounting Bolts	7
Shifter Clamp Bolt	5
Seatpost Clamp	9
SaddleRail Binder	22
Pedals	35
Bottom Bracket	65
Headset Parts	34
Stem Binder Bolt	21
Handlebar Stem Clamp Bolts	10
Handlebar Stem Quick Release	7
Rear Derailleur Cable Clamp Bolt	4
Rear Derailleur Mounting Bolt	8
Crank Bolts	45
Torque Arm Bolt	7
Fender Mounting Bolts	6
Rear Rack Mounting Bolts	7
Kickstand Mounting Bolts	10
Headlight Mounting Screw	7
Spokes	160-180 (KGF)

# Battery

## Operating your battery

Your bike comes with a 48V 10.4Ah lithium ion battery using LG 18650 cells. Key operating features of the battery can be found below:

1. Your bike's battery comes with a set of keys that are used to turn it ON/OFF as well keep it LOCKED/UNLOCKED to the frame. Each battery has a unique set of keys.
2. The battery has 3 positions: UNLOCKED, OFF, and ON. These positions are marked on the battery as shown below.



3. When your battery is in the UNLOCKED position, you will be able to remove it from the frame and the power will not be active. **Use caution when unlocking and removing your battery from the frame, as it may slide out when the bike is folded. If your battery impacts the ground and is damaged, discontinue use and contact Lectric eBikes immediately.**
4. When turning your battery from the UNLOCKED to the OFF position you must PUSH the key in firmly. In the OFF position the battery will be locked to the frame, but the power will not be active.
5. To turn the power from the OFF to the ON position you must turn the key clockwise. In the ON position the battery will be locked to the frame, and the power will be active. You will not be able to remove the keys from the battery in this position. **The keys must be turned to the ON position for your bike to work.**

## Keeping Your Battery Healthy

- If you know you won't be using the battery for more than a few days keep it charged at about 75% capacity. At 75%, the battery will degrade less than at higher charge levels.
- Periodically check your batteries charge level about once per month and charge back up to 75% if necessary.
- If you want to increase the number of cycles your battery will last for, charge your battery to 100% a few hours before you plan to ride it. For example if you ride the bike and the charge level falls to 50% but you plan to use the bike again in a few days, wait until the night before you plan to use it again to charge it up to 100%. When the battery is not in use this is healthier for the individual cells in the long term.

## Charging Your Battery

Locate the charge port on the side of the battery. You can charge the battery from this port while the battery is on or off the bike.

The battery on the Lectric XP comes with almost a full charge. **You should plug your battery in when you first receive it to ensure it is fully charged prior to your first ride.**

- The battery can be charged while attached or detached from the bike.
- You can remove the battery by inserting the key into the lock on the underbelly of the frame. Push the key in firmly and turn counterclockwise (if looking at the bike from below) to unlock. Remove the key from the battery and slide the battery out of the frame until it is free.
- To lock the battery, insert the key into the lock on the underbelly of the frame. Turn the key clockwise (if looking at the bike from below).
- **Do not charge the battery with chargers other than the charger provided by Lectric eBikes.**
- Only charge the battery indoors in dry spaces which are not excessively hot or cold (Within 10°F of room temperature).
- Ensure there is no dirt, debris, or flammable items nearby when using the charger.
- The charger will automatically stop charging once the battery reaches its full capacity.
- The light on the charger will be red when the battery is charging and will turn green when charging has finished.
- Avoid leaving the charger plugged in when the battery is fully charged.
- **Do not charge the battery if you notice the battery is damaged, excessively hot, leaking, smells, or is discolored.**
- Charging the battery should take approximately 4-6 hours if the battery is mostly empty.
- **Store the battery indoors in a dry space, away from heat or flame sources and out of direct sunlight.**
- **The charger may get hot (>165°F) when charging. Use caution and avoid touching the body of the charger.**

## Battery Safety

- **Do not submerge the battery in liquid of any kind.**
- **Do not touch the terminals at the back of the battery.**
- Turn off the battery when not in use and before removing from the bike.
- The battery should not be excessively difficult to attach or remove from the battery mount. Do not force the battery to avoid the risk of damage or personal injury.
- Battery charging times may increase with battery age and usage.
- Only grab the charger by the plug and not the cable when plugging and unplugging from the wall.
- **If the battery has trouble charging, discontinue charging and contact Lectric eBikes immediately.**

**Lithium Ion batteries can be dangerous. Take care when using and charging your battery. Failure to follow the above guidelines could result in damage to property and/or serious injury. Contact Lectric eBikes immediately if you have any questions regarding battery safety.**



# Operating your new eBike

**Make sure you read this entire manual before turning on and operating your eBike.**

Now that your eBike is unfolded it is almost time to start riding. The Lectric XP eBike is equipped with pedal assist, a twist throttle, and can also be used as a regular bike. To use electric assist, the battery must be charged, inserted into the frame, and the key must be in the battery and turned to the ON position.

## Cockpit Tour

Before learning about how to operate your new eBike, it is important you know where all of the important controls are located. Below are photos showing where key controls and features are on your eBike.

### *Cockpit Instruments*



Location	Component
1	Display control pad
2	LCD Display
3	Shimano gear shifter
4	Half twist throttle



### ***Display Control Pad***



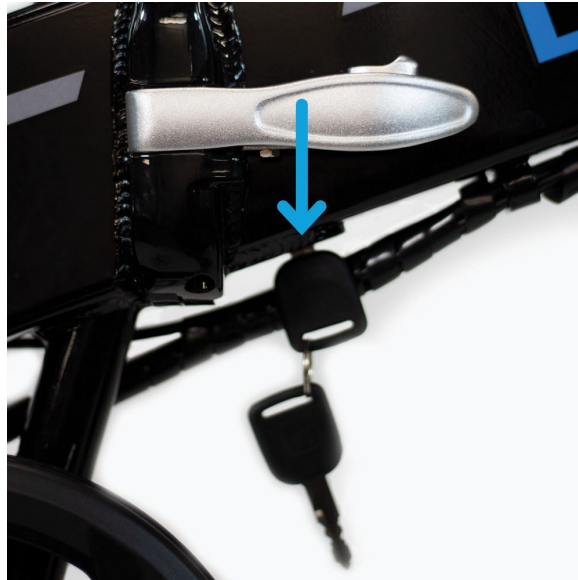
Location	Component
1	Up button
2	Down button
3	Mode button

## Your First Ride

To use your electric bike:

1. **Read the entirety of this manual before taking your first ride. Especially the *Safety, Folding and Unfolding the Bike, Preparing to Ride, and Operating Safety* sections. The page number of these sections can be found by referring to the table of contents at the beginning of this manual.**
2. Check that the tire and the tire bead are seated just inside the rim. Inflate your bike tires to a pressure that is within the recommended range printed on the side of the bike tire sidewalls.
3. Check your seatpost clamp and handlebar stem quick releases. Unlatch the quick releases, and tighten by turning the bolt clockwise. Make sure both quick releases are tightened to the torque listed in the *Recommended Torque Values* section of this manual. The page number of this section can be found by referring to the table of contents at the beginning of this manual.
4. Ensure both your seatpost and handlebar stem are inserted past their minimum insertion points as indicated by the markings on them. Reference the *Preparing to Ride* section of this manual for photos and complete instructions. **Failure to insert past the minimum insertion point will place undue stress on these components increasing the risk of sudden failure potentially resulting in harm, injury, or death.**
5. Check to make sure your frame folding latch and handlebar folding latch are locked. Reference the *Folding and Unfolding the Bike* section of this manual for photos and complete instructions. The page number of this section can be found by referring to the table of contents at the beginning of this manual. **Double check to make sure both latches are secure and locked before riding. Failure to do so may result in the bike folding while in use potentially causing serious harm to the rider.**
6. **Ensure your battery is fully charged before your first ride.**

7. If the battery is not already inside the bike, slide it inside of the frame and lock it in position. Make sure the battery is all the way inside the bike. Once the battery is secured inside, insert the key into the battery via the port on the underbelly of the frame near the seatpost. The location of the key port is shown below.



8. Push the key in firmly and turn the key clockwise to lock the battery to the bike and turn it to the ON position. You will not be able to remove the keys from the battery in this position.

**Note:**

- **Make sure to push the key in firmly to be able to turn the key to the ON position.**
  - **The key has to be inside the battery and turned to the ON position in order to operate the bike. In this position you will not be able to remove the key from the bike. See the *Battery* section of this manual for further information. The page number of this section can be found by referring to the table of contents at the beginning of this manual.**
  - **Before transporting the bike on a bike rack remove the battery from the bike.**
9. Hold down the mode button on the button pad located on the left handlebar until the display comes on.
  10. Select a level of pedal assist using the up and down arrows on the button pad. Pedal assist level 1 is the lowest level of assist and pedal assist level 5 is the highest level of assist. Level zero will provide no assistance.

11. The right handlebar features a half twist throttle. To operate the throttle, ensure the pedal assist level is set above 0, then twist the throttle back slowly according to how much speed and acceleration you want to achieve. The farther you twist the throttle from its resting position, the more power propels the bike forward. When the bike is at a complete stop, turn the display off. This will ensure that the motor will not activate until the display is turned back on and the rider is ready to go. **(Note: Exercise extreme caution using the twist throttle. When at a complete stop with the bike turned on, be careful not to twist the throttle unknowingly or the bike could throw you off balance and cause serious harm, injury, or death.)**
12. To turn on the headlight and tail light, press and hold the up arrow on the button pad. The battery must be inside the bike when it is in its unfolded position in order for the headlight to work.
13. **Use caution to not engage walk mode unknowingly. This mode is engaged by holding the down arrow on the display control pad and will engage the motor up to a walking speed.**

## Front and Rear Lights

The Lectric XP comes with fully integrated front and rear lights. Lectric Ebikes strongly recommends using these lights when riding at night or in low visibility situations. To turn the lights on, hold the up button on the display control pad until the lights turn on. To turn the lights off repeat.

## Walk Mode

In general electric bikes are heavier than their non-electric counterparts. This makes walking the bike a more strenuous activity. To make walking the bike easier, the Lectric XP is equipped with walk mode. If you hold down the down arrow on the display control pad the motor will engage at a speed similar to a slow walk. When walk mode is engaged a “Walk” indicator will appear on the display. To deactivate walk mode simply pull the brake levers to engage the motor inhibitors or press and hold the down arrow.

## Operating Safety

**Before riding the bike for the first time ensure that you have read and understood this manual.** Make sure you understand how to turn on and activate the pedal assist and throttle. When first riding the bike take care to start slowly in a low level of pedal assist. Take your first ride in a safe area away from cars, other bikers, pedestrians, or other potentially dangerous obstacles. Only move up pedal assist levels when you feel comfortable and you have ample experience riding the bike. The higher pedal assist levels will accelerate you to higher speeds more quickly. Take care when riding the bike at any speed. **Failure to adhere to warnings and guidelines in this manual can lead to serious harm, injury, or death.** Damage sustained by the bike from failing to follow instructions, guidelines, and warnings in this manual is not covered under warranty. **Do not lean on the bike when it is parked and the kickstand is in use.**

## 7 Speed Gear System

The Lectric XP comes with a 7 speed Shimano freewheel (Note: the freewheel is the cluster of sprockets on the rear wheel of the bike). This allows the rider to maintain a comfortable level of effort and pedaling speed throughout different terrains. For instance, while pedaling in lowest gear (the largest sprocket), it will be easier to pedal up hills. In the highest gear (the smallest sprocket), the rider will be able to reach higher speeds on flat or downhill terrain. 1st gear is the lowest gear of this drivetrain while 7th gear is the highest gear. Use the thumb shifter on the right handlebar to shift gears up or down. To shift up press the lower button. To shift down push the lever on the top of the shifter. A photo of the shifter can be seen in the photo below.



**Do not change gears too quickly as doing so could cause the chain to fall off and the rider to lose control, which could result in serious injury. If the chain falls off, turn the bike off before fixing the chain. If you do not and the motor turns on you could sustain serious injury.**

## Mechanical Disc Brakes

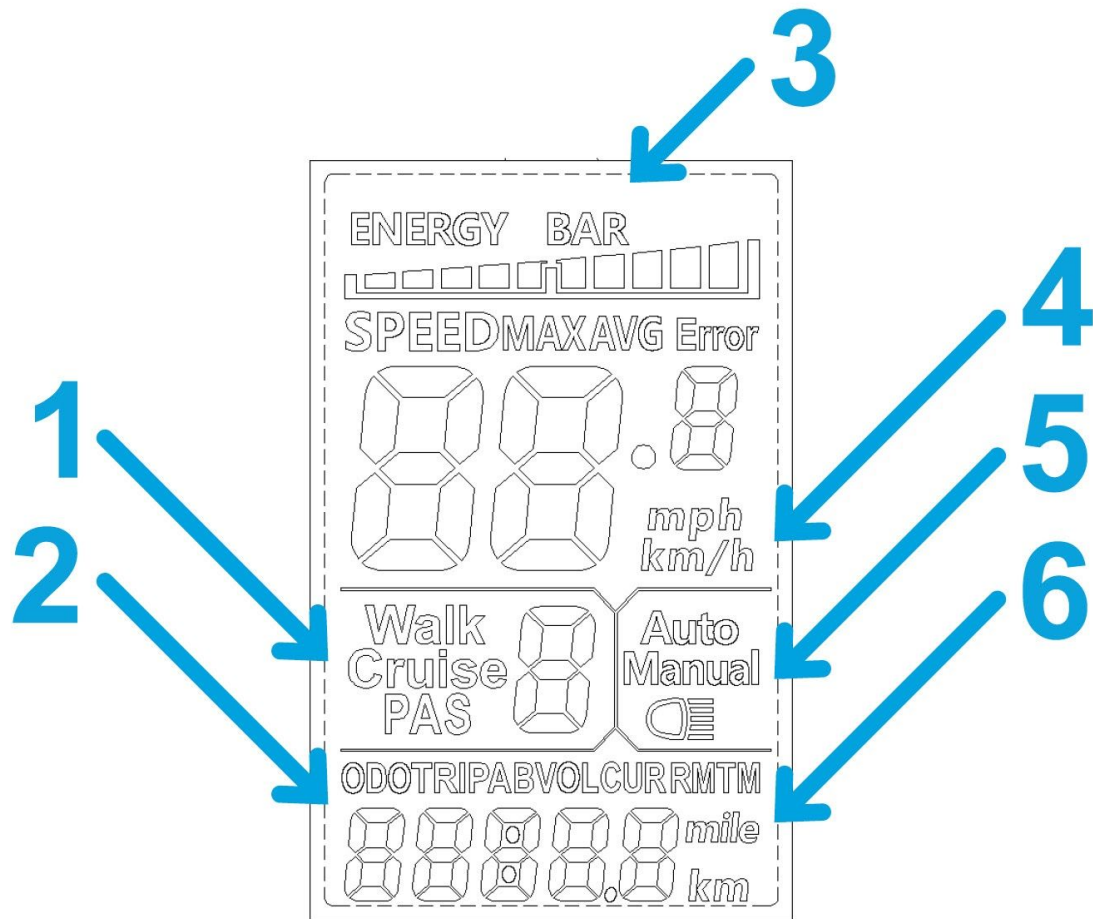
The Lectric XP is equipped with mechanical disc brakes to ensure that you can stop quickly even at high speeds. The brakes are engaged by squeezing the brake levers towards the handlebars. This pulls the brake cable which closes the brake caliper. The brake caliper then makes contact with the brake rotor which is attached to the bike wheels. The more you squeeze the brake lever the more force will be applied and thus the faster the bike will slow down. The left brake lever activates the brake on the front wheel and the right brake lever activates the brake on the rear wheel. The right brake lever should always be applied before and while the front brake is also being applied. **If only the front brake is applied while slowing or stopping quickly, the rider may be ejected over the front handlebars. This could result in serious harm, injury, or death. To avoid this always apply even pressure to both brakes when slowing down or stopping.**

Before riding, ensure the brake lever does not touch the handlebars when fully applied. If it does, screw or unscrew the barrel adjuster to increase tension in the brake cable. If this does not fix the problem, take the bike to an experienced bicycle mechanic for further adjustment.

**Note: Disc brake rotors will become hot during use and will stay hot for a short period after use. This is due to the high amount of friction between the brake pad and the rotor. Ensure you do not touch the disc rotor right after use.**

**Contact Lectric eBikes if you have ANY questions regarding the safe operation of your Lectric eBike.**

## LCD Display Functions



## Display Readouts

Location	Description
1	Walk Mode, Cruise Control, and Pedal assist (PAS) Level Indicator
2	Odometer, Trip A, Trip B, Voltage, Current, Trip Timer (TM) readouts
3	Battery level indicator bar
4	Speedometer in MPH or KM/H
5	Light On/Off Indicator
6	Mile and kilometer indicators

## Operating the LCD Display

Function	Instructions
Turning the bike ON/OFF	Hold the mode button until the display turns on
Increase Pedal Assist Level	Press up arrow button
Decrease Pedal Assist Level	Press down arrow button
Turn ON/OFF front/rear lights	Hold the up arrow button for 3 seconds until lights turn on, repeat to turn off
Toggle Odometer, Trip A, Trip B, Voltage, Current, Trip Timer (TM)	Press and let go of the mode button
Max Speed and Average Speed	Press and hold the up arrow and mode button simultaneously to toggle between the speedometer, max speed, and average speed

Notes: The trip meter will reset when the bike is powered off. The maximum and average speed will be calculated for a given trip, and will reset when the bike is powered off. When the bike has not been used for 10 consecutive minutes the display will automatically shut down. The pedal assist and throttle features will no longer work when the display is turned off.



## Display Settings

To change display settings hold the up and down arrows simultaneously to enter into the advanced settings menu. In this menu clicking the mode button will toggle between each numbered setting. To adjust the value of each setting click the up and down arrows accordingly.

Setting	Function	Default	Explanation
P01	Brightness	1	Backlight display brightness. The darkest level is 1, the brightest level is 3.
P02	Distance Units	1	Distance Units. 0: KM; 1: MILE.
P04	Sleep	10	LCD Display sleep timer. With the default setting, the display will turn off after it has not been used for 10 minutes.
P06	Tire Size	22	Tire size. Used by the electronics to compute speed and distance traveled.
P08	Speed Limit	32	Speed limit. Range is 0-100. The input data here represents the maximum operating speed of the vehicle: for example, input 25 indicates that the maximum operating speed of the vehicle will not exceed 25km/h; The drive speed is maintained at this set value. The max value allowed is 45. Anything above this will not be recognized. Error: $\pm 1$ km/h
P09	Throttle Zero Start	0	0: throttle active from standstill 1: throttle active only when already moving
P10	Mode Toggle	2	0: PAS Active, Throttle Inactive 1: PAS Inactive, Throttle Active 2: Both PAS and Throttle Active
P11	PAS Sensitivity	3	Sensitivity of PAS sensor. When set to higher numbers, it will take more crank rotations for the motor to turn on. On lower numbers, it will take little crank rotation to turn on the motor.
P12	PAS Strength	1	Strength of PAS mode. When set to higher numbers, the motor will come on stronger. On lower numbers, it will be more gentle.
P16	Odometer Reset	NA	Hold the up arrow for 5 second to reset the Odometer

Ensure you do not change settings that are not listed in the table. Changing other settings may cause your bike to stop working properly. If you need the default settings for the advanced settings menu contact Lectric eBikes.

## Other Display Functions

### Cruise Control

Cruise control on the Lectric XP works similarly to cruise control on a car. To activate: hold the down arrow while twisting the throttle. The bike will try to maintain a speed based on the position of the throttle when cruise control was activated. For example, if the throttle is twisted all the way from its resting position (to a position that would normally maintain 20mph) and the down arrow is held, cruise control will be activated and set at 20mph. Even if the bike is currently going slower than 20mph, the bike will try to accelerate and maintain that speed because it was set based on that throttle position. To cruise at low speeds, only slightly twist the throttle and hold the down arrow. Cruise control can be deactivated at any time by pulling the brakes. This will also cut power to the motor as it would during normal operation.

### Changing the Top Speed

The Lectric XP ships to all customers being capable of a maximum of 20 miles per hour (mph). This means it is a class 2 electric bike in states that recognize 3 classes of eBikes. In most states that only recognize eBikes generally, the 20 mph top speed is legal for use on public roads. A table detailing each class of electric bike can be seen below.

Class	Pedal Assist Top Speed	Throttle Top Speed
1	20mph	Throttle not allowed
2 (default)	20 mph	20 mph
3	28 mph	20 mph

**You must check your local laws and regulations to determine if it is lawful to ride class 3 eBikes on public roads before adjusting the bike's top speed. Laws vary by trail, path, and road so be sure to check in each new location you will be riding.**

States that recognize 3 classes of eBikes require a label to be placed on the bike denoting the class the eBike falls into, the motors wattage rating, and the top speed the bike will assist up to. Your bike comes as a class 2 bike by default and has a sticker with this information posted under the carry handle, near the seatpost on the bike. If you change your bike's top speed you must remove this sticker from the bike and replace it with a class 3 label detailing the eBike's class, top pedal assisted speed, and motor wattage. The class 3 label is located directly under the class two sticker. To change the top speed of the bike:

1. Access the settings menu by pressing and holding the up and down arrows on the control pad simultaneously until the screen says "P1".
2. From here you can cycle through settings by hitting the "m" button on the control pad and adjust the settings by pressing the up or down arrows on the control pad.
3. Please go to setting "P08" and change this setting from 32 to 45.
4. Press and hold the up and down arrows on the control pad until the main screen is shown once again.
5. Power the bike off by holding the "m" button to save the settings you have just changed.

Congratulations! You can now cruise at speeds of up to 28 mph on your Lectric XP! **Exercise increased caution as riding at higher speeds poses an increased safety risk and may result in serious injury or death. Always wear a helmet and obey the rules of the road.**

### ***Battery Capacity Display***

On the top of the LCD display a battery indicator bar can be found which is labeled "energy bar". This battery indicator shows the estimated charge level left in the bike's battery. As the battery depletes, tick marks will begin to disappear according to approximately how much charge in the battery has been used. The various charge level indicator states are shown below. The battery display will flash when there is no charge remaining.

**Note: The energy bar will not always be accurate. The energy bar updates every few minutes based on the current voltage of the battery.**



## Tips When Riding To Increase Range

To get the maximum range out of your bike there are some simple things you can do:

- Ride in a lower level of pedal assist
- Use lower assist levels and pedal when climbing hills
- Pedal when starting from a standstill
- Set your max speed lower than 20 mph on the LCD display

### ***Rough Range Estimates***

The range the bike can go on a single battery charge can vary significantly between riders, terrain, wind conditions, user input, and additional payload weight. The following table shows rough estimations of ranges riders should expect in different conditions.

<b>Rough Range Estimate</b>	<b>Conditions</b>
25 Miles	<ul style="list-style-type: none"><li>• Pure throttle use</li><li>• Mostly assist level 5</li><li>• Flat ground</li><li>• Little to no wind</li><li>• Rider weight ~180 lbs</li><li>• No additional payload</li></ul>
35 Miles	<ul style="list-style-type: none"><li>• Little use of throttle</li><li>• Mostly assist level 3</li><li>• Flat ground</li><li>• Little to no wind</li><li>• Rider weight ~180 lbs</li><li>• No additional payload</li></ul>
45+ Miles	<ul style="list-style-type: none"><li>• Very little use of throttle</li><li>• Mostly assist level 1-2</li><li>• Flat ground</li><li>• Little to no wind</li><li>• Rider weight ~180 lbs</li><li>• No additional payload</li></ul>

# Error Codes and Troubleshooting

If your bike is not operating normally, there are some simple steps that can be taken to remedy the situation quickly. There may or may not be an error code that pops up on the screen depending on the issue. Solutions to common problems as well as error code meanings can be found below. If you have any questions at all regarding the basic troubleshooting below reach out to Lectric eBikes customer support.

Issue	Most Common Solutions
Bike won't turn on	<ol style="list-style-type: none"><li>1. Charge the battery until the light on the charger turns from red to green. This may take up to 8 hours.</li><li>2. Insert the key in the battery and turn counterclockwise to the ON position or until the key is parallel with the frame. Once in the correct position hold the M button on the display control pad to turn on.</li><li>3. Follow the cable coming from the display down to the quick plug. You may need to unravel some of the plastic wrapping to access it. With a quick pull (do not twist), unplug the quick plug, inspect both sides of the plug, and reconnect by lining up the arrows on both ends. After checking the quick plug hold the M button on the display control pad to turn on.</li></ol>
Pedal assist or throttle do not work	<ol style="list-style-type: none"><li>1. Make sure you are in a PAS level that is between 1-5 on the display.</li><li>2. To test if PAS is working ensure you are not operating the throttle. To test if the throttle is working ensure you are not pedaling.</li><li>3. Check all quick plugs.</li></ol>

Error Code	Meaning	Most Common Solution
E003	PAS Sensor Fault	Check PAS Quick Plug
E006	Battery Undervoltage	Fully Charge Battery
E007	Motor Fault	Check Motor Quick Plug
E008	Throttle Fault	Check Throttle Quick Plug
E009	Controller Fault	Check Controller Connections
E010	Display Communication Reception Failure	Check Display Quick Plug
E011	Display Communication Send Failure	Check Display Quick Plug

# Safety

## ***Helmets and Local Laws***

Always wear a helmet when riding your eBike. Ensure that the helmet fits your head and is securely tightened down. Before riding, read local laws and comply with all rules relating to cycling and eBiking in your area. If you attach a seat for children to the bike they must also be wearing a properly fitted helmet at all times.

## ***Pre-ride Safety Check and Inspection***

Before each ride make sure to inspect your eBike to ensure there are no loose fasteners or accessories. Make sure to specifically check that both the front and rear axles are secure. Also make sure both the handlebars and the handlebar stem are not loose. Check the tire pressure of both wheels before riding to ensure the tires are inflated to the recommended pressure printed on the side of the tire walls. Pull the brake levers to make sure your brakes are working properly and adjust if necessary. Ensure both your seatpost and handlebar stem are inserted past their minimum insertions points as indicated by the markings on them. **Make sure that both the handlebar latch and frame latch are fully closed and locked.**

## ***Riding in Wet Conditions***

This electric bicycle can withstand light rain and small splashes, but is not designed to be subjected to inclement weather, heavy showers, or submersion in water. **Use caution when riding in wet conditions as it will take longer to use the brakes to slow down, and also when turning as the tires may slip. The electrical components on the bike are not waterproof, and water damage is not covered under warranty.**

## ***Riding at Night***

Riding at night comes with more risks than riding during the day due to decreased visibility so riders are encouraged to exercise increased caution. Before riding at night make sure that reflectors are installed on your eBike. For increased visibility also ensure the front headlight and rear tail light are turned on and adjusted such that other people on the road can see them clearly. Riders should wear bright colored clothing at night.

## ***Max Weight***

The bike can safely carry a total weight of 330 lbs. If the rear rack is attached to the bike the max weight it can hold is 55 lbs. Therefore if you have a payload that is 40 lbs the maximum rider weight is 290lbs.

**Failure to adhere to these weight limits may invalidate your warranty, cause damage to the bike or rack, or cause serious injury to the rider. Note range and top speed will be affected by total weight being carried by the bike.**

# Warranty & Disclaimer

Lectric eBikes should be operated in accordance with the Lectric eBikes owner's manual provided with the bike. Lectric eBikes warrants to the original registered purchaser that Lectric eBikes shall be free from all defects in material and workmanship for a period of 12 months from the date of shipment, when used in accordance with the owner's manual and for the purpose intended. All other obligations and conditions or liabilities, including obligations for consequential damages, are hereby excluded. The warranty is non-transferrable and only applies to the original owner. This warranty gives you specific rights and purchasers may also have other rights, which may vary by location. Damage caused by failing to adhere to instructions and warnings issued by Lectric eBikes is not covered under warranty. Warranty parts will only be shipped within the continental United States and Canada.

Parts covered by the warranty: frame, forks, stem, handlebars, headset, seatpost, saddle, brakes (excluding brake pads), lights, bottom bracket, crank set, pedals, rims, wheel hub, freewheel, cassette, derailleur, shifter, motor, throttle, controller, wiring harness, LCD display (excluding damage due to water), kickstand, reflectors, and hardware. The battery warranty does not include damage from power surges, use of 3rd party charger, improper maintenance or other such misuse, normal wear, or water damage (including rust).

Accessories sold on [lectricebikes.com](http://lectricebikes.com) are not covered under warranty (except in cases of shipping damages).

Stolen bikes are not covered under warranty.

Necessary precautions must be taken to ensure the bike and battery are not exposed to severe weather conditions. Exposure to very wet, hot, or cold conditions may void the warranty.

We will replace any parts deemed to have been damaged during shipping. Shipping damage must be reported to Lectric eBikes within 14 days of shipment arrival. This applies to all products including bikes and accessories.

You will NOT be refunded as compensation for your time or efforts replacing damaged parts.

Replacement parts will not be sent until photographic evidence has been provided to Lectric eBikes. Lectric eBikes may request additional documentation (such as video) to assist with accurately diagnosing the problem and processing the warranty claim.

Items including the chain, tires, wheels, tubes, battery handle, brake pads, cables and housing, grips, and spokes are considered wear items. These items wear down with normal use and are not covered under warranty. You are responsible for replacing and maintaining these wear items.

Any unauthorized alterations or repairs are not covered and may void this warranty.

For warranty services, please contact Lectric eBikes online support by email at [contact@lectricebikes.com](mailto:contact@lectricebikes.com). Bikes or parts returned without proper documentation may result in delayed service or denied warranty coverage. Warranty return shipping costs along with duties and taxes are the responsibility of the claimant. All unauthorized returns will be refused.

Note that your insurance policies may not provide coverage for accidents involving Lectric eBikes. To determine if coverage is provided, you should contact your insurance company or agent. Damage as a result of an accident is not covered under this warranty, and Lectric eBikes is not responsible for repair or replacement of damaged bikes or parts.

Lectric eBikes reserves the right to change its warranty at any time and without notice.

### ***Bike Performance Disclaimer***

The bikes listed range and top speed are estimates (not guarantees) of expected performance. Performance will vary with rider weight, cargo weight, rider /cargo shape (both contribute to drag), terrain, tire pressure, brake adjustment, throttle vs PAS usage, pedal power, battery charge level, ambient temperature and wind conditions. Under certain conditions it is possible to get ranges and top speeds that are different from the listed estimates.

### ***Liability Disclaimer***

Riding any kind of bicycle comes with inherent risks and dangers that cannot be predicted or avoided. These dangers could result in a serious accident, injury, or death of the rider. It is the sole responsibility of the rider to become properly educated and prepared to ride safely. Once in possession of the bike, Lectric eBikes strongly encourages and recommends that all customers have a certified and reputable bicycle mechanic complete a full inspection of each component on the bicycle to ensure it is safe for operation. Lectric eBikes makes no claims or guarantees that the brakes, battery, frame, motor, motor controller, LCD display, electrical cables, electrical cable housings, fasteners, grips, fork, stem, shifters, headset, seatpost, seatpost clamp, handlebar stem clamp, saddle, wheel hubs, handlebars, spokes, rims, tires, tubes, derailleur, freewheel, cassette, throttle, kickstand, lights, reflectors, hardware, bottom bracket, or any other part or accessory, will be properly secured and adjusted upon arrival. Before every ride fully inspect your bicycle to ensure everything is secured and adjusted properly.

Under no circumstances is Lectric eBikes responsible for any damage resulting from damaged, defective, or improperly secured parts. This includes, but is not limited to, damage to personal property, personal injury, or death.