

Owner's Manual

## Welcome to Blix.

To ensure you get the most out of your new Blix, familiarize yourself with the operating guidelines, maintenance tips, and other useful information.

# **Table of Contents**

Important Information	4
About this Manual	4
Activate your Warranty	4
Before Riding	6
Safety Regulations	6
Assembly	6
Adjusting Your Fit	6
Getting to Know your Blix	9
The Display	10
Display Symbols	10
Power On the Display	11
Energy Bar	11
Walk Assist Mode	12
LED Lights	12
Trip & Odometer	12
Motor Control	13
The Pedal Assist System	13
Shifting Gears	13
Throttle	13
The Battery	14
Battery Safety	14
Battery Position	15
The Power Button	15
Battery Lock	15
Removing the Battery	16
Fuses	16
Charging	17
Checking the Battery Status	18
Storing the Battery	19
Recycling	19
Battery Range	20
Battery Technical Safety	20
Maintenance	21
Storing your Blix	22
Adjusting the Brakes	22
Adjusting the Gears	22
Troubleshooting	23
Removing the Rear Wheel	23
Error Codes	24
For More Information	25
Warranty	26

# **Important Information**

#### About this Manual

This manual provides tips and instructions for basic maintenance that will benefit the performance and lifespan of your Blix. In addition, we will provide you with all of the information you will need to operate your bike before your first ride.

While this manual covers much of the information you will need to develop a comfortable and confident relationship with your bike, it is not intended to guide owners in every possible scenario. Like any traditional bicycle, Blix bikes will require some upkeep and maintenance, which can be done either by yourself or by a certified bike mechanic. However, Blix bikes utilize specialized hardware such as batteries and controllers which may require advanced troubleshooting performed by a certified bike mechanic after consulting with Blix technical support.

## **Activate your Warranty**

Your warranty activates automatically once you have received your bike, but you should register your Blix online by visiting:

#### www.blixbike.com/pages/bikeregistration

Registering your bike will establish a record of ownership to ensure that your purchase information can always be referenced. Registering your bike is also helpful should your Blix ever be stolen as we will be able to identify your property if your Blix is found. You will be asked to record your name, date of

# **Important Information**

purchase, model, and frame number of your bike.

It is important to keep the frame number for your records as it is specific only to your bike and may be referenced in the event of a warranty claim. The frame number is engraved on the frame near the pedals on the bottom of the bike.

#### Questions?

There are different models of Blix bikes and this manual may contain information and illustrations that do not apply to yours. If you have any questions after reading this manual, we encourage you to contact our Blix Support:

https://support.blixbike.com/ (855) 655-BLIX [2549] blixbike.com

> Blix Bicycle Inc. 2877 Mission St. Santa Cruz, CA 95060

# **Before Riding**

## Safety Regulations

- → Carefully read this manual before your first ride.
- → Before each ride, check your bike to ensure there are no damaged components.
- → You should not make any alterations or changes to your Blix bike which may inhibit its normal functions. This may affect the safety of the bike.
- → Your Blix bike is intended both for recreation and transportation. It is solely designed for cycling on paved roads and bike paths.
- → Blix Bikes are considered Class 2 bikes and are legal on most bike paths and bike lanes. However, we recommend you check your local laws to ensure the legality of your eBike in your area.

## **Assembly**

Assembly instructions and videos can be found at <a href="mailto:support.blixbike.com">support.blixbike.com</a> under the **Owners** tab.

Blix bikes are designed for easy assembly whether you are a first time bike owner or a seasoned pro, but our customer support specialists are a great resource if you are feeling unsure. Professional assembly is recommended.

## **Adjusting Your Fit**

After your Blix is assembled, there are a few easy steps you can take to adjust the handlebars and seat to find the perfect fit. There are no hard and fast rules to this; just make sure you feel comfortable and that you are feeling no strain on your wrists, arms, or shoulders.

# **Before Riding**

## Seat Adjustment

To adjust the seat height, open the quick release seat post clamp. Once you've reached your desired height, simply clamp the quick release back down so it squarely closes against the collar. If the seat height continues to slip when pressure is applied, you can tighten the nut on the quick release clamp by hand.





Tip: You should be able to comfortably touch the ground with your toes, and should be able to fully extend your legs while pedaling. This is the optimal height for your seat, but choose the height that works best for you.

## Handlebar & Stem Adjustment

Each Blix model has a different handlebar & stem combination, each with different methods of adjustment.



On the **Aveny & Sol**, the stem angle can be adjusted by loosening the bolt on the bottom of the stem using the 5mm allen wrench. Adjust the stem to the desired angle, and secure tightly.

On the **Packa**, the stem angle can be adjusted by loosening the bolt on the side of the stem using the 5mm allen wrench. Adjust the stem to the desired angle, and secure tightly.





On the **Vika+**, the handlebar height can be adjusted using the quick release on the stem. Adjust the stem to the desired angle, and secure tightly.



Tip: After adjusting the handlebars, you should be able to sit up straight without slouching, and without the need to hold your arms or wrists in an uncomfortable position. Your comfort is key to having an enjoyable riding experience!

# **Before Riding**

#### **Before Each Ride**

- → Ensure your tires are pumped up to the recommended PSI. The PSI is written on the side of the tire for easy reference.
- → Ensure all bolts and hardware are secured tightly.
- → Check that the brakes are adjusted properly. See the <u>Brake Adjustment Guide</u> online for more thorough information on adjusting your brakes.
- → Check that the wheels are securely fastened, and the front wheel quick release or bolts are tight.
- → Ensure handlebars are tightly mounted in alignment with your tire, and that the handlebars are in a comfortable position for your arms and wrists.

## Safe Riding

## **Lights & Reflectors**



Some Blix models come equipped with LED lights which are powered by the battery and can be switched on and off with the display. All Blix Bikes come with standard reflectors. Remember to keep the lights and reflectors clean for increased visibility.

## **Use your Helmet**



Remember to wear your helmet. Even if you feel confident on the road and in your own riding ability, you will share the road with other vehicles and pedestrians; accidents can happen.

# **Getting to Know your Blix**

## The Anatomy of an eBike

Blix electric bikes include similar components found on a standard bicycle, with an added electric motor powered by a rechargeable battery. An LCD display is also included, allowing you to control the level of pedal-assist and throttle your Blix will provide during use.



# The Display

The LCD display will show your riding information, including speed, mileage, battery level, and other details. The display is water resistant, meaning you can ride your Blix in the rain with the display powered on.



To minimize the risk of water damage, wipe off the display after it has been in contact with rain or water. If you plan to store your bike for an extended period of time, store in a dry area.

#### The Button Pad

The button pad is mounted on the left handlebar and is directly connected to the display. It is equipped with three buttons: the Up, Down, and Mode (M) buttons. These buttons are used to control all operations of the display.



## **Display Symbols**



These are the functions that you can access and manage on the display using the button pad:

- Energy Bar
- → Pedal Assist Level (PAS)
- → LED lights Off/On
- → Speed (Current, Average, Max)
- → Trip Time & Distance
- Odometer
- → Error Code Indication

In the next few sections, we will go over how to access each of these functions and what they mean.

# The Display

## Power On the Display

- Power on the batteries. The batteries must be powered on in order to control the display on the bike.
  - a. Press the switch on to the "I" to power on the rear battery.
  - For the Packa, press and hold the rubber button on the downtube battery. Tip: Switch on both batteries of the dual-battery Packa for better efficiency.
- Press and hold the Mode button on the button pad for 2-3 seconds to turn the display on. Assist Level 1 (PAS 1) will automatically be activated when the display is turned on.



1a. Rear Battery



1b. Downtube Battery

## **Powering Off**

- 1. The display will power off automatically after 10 minutes when not in use.
- 2. To power off the display, press and hold the Mode button again for 2-3 seconds.



#### **Energy Bar**

When the battery is fully charged, all bars will show in the energy bar. The bars will disappear as the battery loses charge. You can charge the battery frequently; a fully charged battery improves performance.



Fully Charged



Low Power



Depleted

# The Display

#### Walk Assist Mode

When walking your bike, you can activate walk mode. This will engage the motor at a walking speed of 3-4 mph. With the display on, press and hold the Down button to enable walk mode. Walk 1 is displayed on the screen. Walk mode will be active as long as you continuously hold the Down button. Walk mode will disengage as soon as you let go of the button.





Walk assist mode is only for use when pushing the bike; do not use this function while you are riding your bike.

#### **LED Lights**



For Blix models with head and tail lights, press and hold the Up button for 2-3 seconds to turn the front and rear LED lights on and off. The rear brake lights will function even if the head and tail lights are powered off for your safety. Powering on the LED head and tail lights will also illuminate the display for easier viewing at night or on cloudy days.

## Trip & Odometer

Press the Mode button to navigate between:

- → Speed (mph)
- → Average Speed (mph)
- → Max speed (mph)
- → Pressing the Mode button quickly will also switch between Trip A, Trip B, and Odometer (ODO). To reset the trip meter, press and hold the Mode and Down buttons simultaneously.







## **Motor Control**

## The Pedal Assist System (PAS)



With the Up and Down buttons, you can control the level of assistance you will receive when pedaling. The higher the PAS level, the more assistance you will receive and the faster you can go.

If you wish to use your Blix as a regular bike, you can turn the PAS level to PAS 0. You will no longer receive pedal assistance, but you will still have full access to the throttle.

#### **Throttle**

If you don't want to pedal at all, you can use the throttle lever to receive full electric power while the display is powered on. When using the throttle, it is not necessary to pedal manually. The PAS level has no effect on the speed at which the throttle will take you. Even at PAS 1, you have access to the full speed of the bike when using the throttle.





Using the throttle function will cause the battery to run out faster than when using pedal assist.

#### **Shifting Gears**



You can use the grip shifter on the handlebar to change gears. A lower gear offers less resistance and a higher pedaling speed, while a higher gear offers more resistance and a slower pedaling speed. Changing gears will have no effect on your pedal assist or motor control. Experiment to find the perfect combination of gear and PAS for a smoother ride.

## **Battery Safety**

- → Keep the battery out of reach of children.
- → Only use the charger provided with your Blix bike.
- → Use the charger only in a dry, indoor environment on a flat surface.
- → Do not use the charger on a carpet. This could produce static electricity.
- → Do not connect the charger with wet hands.
- → Do not charge the battery under direct sunlight.
- → Do not charge the battery during lightning storms.
- Charge the battery where there is plenty of ventilation.
- → Do not charge or store the battery in extreme conditions -hot or cold- as this can cause permanent damage to the Lithium-Ion cells.
- → Discontinue charging if you hear unusually loud noises or notice leakage from the battery.
- → Do not disassemble the battery unless specifically instructed to by Blix support.
- Do not heat or hit your battery, this could cause serious injury.
- Do not immerse the battery in water or other liquid.
- → Disconnect the charger from the electrical outlet when not charging.



Warning: Do not insert foreign objects, such as keys, into the charging port. This can cause blown fuses, battery damage, and electrical fires. Damage caused by inserting a foreign object into the charging port is not covered under warranty.

## **Battery Position**

On all Blix models, the battery is located either under the saddle of your bike or in the downtube. This allows for a low center of gravity and better stability while riding.



#### The Power Button





There is a switch located on the rear battery to turn it on and off. Press the switch on to the "I" to power on the rear battery. Some models, like the Packa, may have more than one battery. In this case, both batteries can be turned on for better efficiency. To turn on the Packa downtube battery, press and hold the rubber button.

## **Battery Lock**

Your Blix batteries are equipped with a set of keys and locks for securing the batteries to the bike. The locks will keep the batteries securely mounted in position during riding, but can also be used to remove the battery when not in use. The keys can be replaced for a fee by Blix in the event that they are lost or go missing.





## Removing the Battery

Removing the battery can be useful for security, storage, and easier charging.

#### To remove the battery:

- 1. Unlock the battery and remove the key.
- 2. Pull the battery upwards until the battery releases.
- 3. Remove the battery out of the side of the frame.



The Packa downtube battery can be removed from the side of the bike in a very similar manner to the steps above. Pull the lever on the downtube battery to release.

#### To reattach the battery:

- Carefully slide the battery back down the mount on the frame.
- 2. Lock the battery to prevent theft and to ensure the battery remains properly mounted.

#### **Fuses**

The battery may be equipped with fuses that can be serviced by the customer in the event that a fuse blows.

If your battery receives a large current, the fuses will protect your battery but leave it temporarily inoperable. This is normal and replacing the fuses will restore functionality. If your battery indicator stops working and your display won't turn on, or your battery is no longer charging, this may be due to a blown fuse. See our <a href="Fuse Replacement Guide">Fuse Replacement Guide</a>, or contact Blix Technical Support for assistance.

## Charging

You can charge the battery both when it is mounted or removed from the bike. You can plug the charger into any 120v electrical wall outlet.

Complete charging time for a fully empty battery is about 6 hours. Only charge the battery using the provided charger. When charging is completed, disconnect the charger.

Charge the battery regularly between rides. Do not allow your battery to remain in a uncharged state for long periods of time, as this may negatively affect the long term life of the battery.



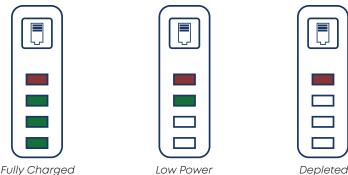
The 2 amp Blix charger is equipped with a single LED light. The light will turn green when the charger is connected to the wall. Plugging the charger into a depleted battery will cause the LED to turn red, and when the battery is fully charged, the light will turn back to green.

It is normal for the charger to heat up when connected to the battery, especially when the battery has been fully depleted. Some electrical noise is expected, but please contact support if any concerns arise.

## Checking the Battery Status

You can check the battery status directly on the battery when it's turned on.

On the rear battery, there are 4 LEDs directly on the battery, 3 green and 1 red. The green LEDs will slowly deplete until only the red LED remains, indicating that the battery is empty. The absence of any light indicates that the battery is completely empty, and will need to be charged for a while before you are able to check the levels again. The charge level is also found on the top of the display.



On the Packa downtube battery, there is a single LED light which will change color to indicate the battery charge. The blue light indicates a full charge, a green light indicates a half charge, and a red light indicates that the battery is uncharged. The absence of any light indicates that the battery is completely empty, and will need to be charged for a while before you are able to check the levels again.



## Storing the Battery

The battery status and durability can be maintained with regular use. To ensure a long battery life, be sure to charge the battery often, especially between rides.

- → Do not leave the battery fully uncharged for long periods of time. This will affect the overall battery life. Keep the battery at a charge of between 20-80% to prolong battery life.
- → The battery charger is exclusively designed for use in a dry, indoor environment with adequate ventilation.
- → Only use the charger provided with your Blix.
- → Do not store the battery in extreme temperatures as this will cause irreversible damage to the Lithium-Ion cells.
- → Do not allow the battery to fall below a 5% charge.

When storing the battery, it is recommended that you charge the battery for two hours each month.

## Recycling

The battery's capacity and performance will decrease over time. The life cycle of the battery depends on many factors including usage, storage, maintenance, and environment. Lithium-Ion batteries can be recycled. If you are unsure where to recycle the battery in your area, contact your local recycling center.

## **Battery Range**

There are many factors that affect the range of the battery. In the list below, you will find some examples of factors and conditions that may decrease the range:

- → Headwind
- → Hilly Terrain
- → Soft Ground
- → Low Tire Pressure
- → High Assistance Level
- → Throttle Usage

- → Little to No Maintenance
- → Acceleration
- → Low Manual Pedaling Force
- → Heavy Weight / Over encumbered

## To Maximize Battery Range

- → Accelerate slowly and avoid over use of the throttle.
- → Pedal more to avoid letting the motor do all the work.
- → Stick to hills with less than a 15% grade.
- → When climbing steeper hills, it is best to dismount your bike and engage walk mode by pressing the down button on the button pad.

## **Battery Technical Safety**

- → The battery consists of a series of interconnected Lithiumlon cells. The battery also contains a control unit (BMS) that monitors the cells during use and when charging the battery.
- → The control unit (BMS) restricts the use of the battery when it is at a low voltage level to prevent damage to the battery cells. This means the battery is empty and needs recharging.
- → The control unit also contains a balancing circuit that controls charging so that the individual cells are charged evenly. This improves the performance of the battery.
- → Should there arise an imbalance between the cells, the battery range may be affected. In order to improve the balance between the cells, it is recommended that you fully charge the battery periodically.

## **Maintenance**

Keeping your bike in good working condition can be quick and simple. Here are a few suggestions for a long and trouble-free relationship with your new Blix.

## Keep it Clean

A clean bike lasts longer and is safer to ride. Use a damp cloth to wipe off the bike. Do not use a power washer or other high-pressure water systems as this may damage parts of your bike.

## **Tighten the Screws**

Regularly check that all screws and nuts are securely attached. Unfastened parts may cause the bike to malfunction, causing damage or serious injury.

#### Lubricate

Keep the chain well lubricated with bicycle chain lubricant. Make sure to wipe off the chain with a cloth before and after lubrication to prevent accumulation of excess dirt and oil.

## **Pump Tires**

Keep the bicycle tires sufficiently inflated. A properly inflated tire has lower rolling resistance. The recommended tire pressure is found on the side of the tire.



Inflating your tire at a lower than recommended pressure may cause tires to become flat.

## **Maintenance**

#### **Professional Maintenance**

Many parts of an eBike are similar to a traditional bike and regular professional maintenance will keep your Blix in top shape.

## Storing your Blix

Your Blix bike is best stored indoors when not in use to protect from harsh weather conditions. Keep in a dry area to prevent rust build up and damage to electronics.

## Adjusting the Brakes

Be sure to maintain and service the brake system regularly. Well functioning brakes are essential to the safe operation of your bike.

All Blix bike models are equipped with disc brakes. For safety reasons, the brake levers on the handlebars are equipped with a cut-off sensor that automatically turns off the power assistance when braking. Hydraulic or mechanical disc brakes provide great braking performance. Adjustments of these can be done at home using our <a href="Brake Adjustment">Brake Adjustment</a> Guide, but we recommend that they be adjusted by a professional.

## Adjusting the Gears

If you are unable to shift into any of the gears, it could be that your gears need adjustment. We recommend adjustments to the gears be done by a professional, but if you feel comfortable doing these adjustments yourself and need assistance please contact Blix Technical Support for assistance.

# **Troubleshooting**

If you experience any issues with your Blix bike that requires troubleshooting, contact Blix support for assistance. You can also find troubleshooting guides at <a href="mailto:support.blixbike.com">support.blixbike.com</a>. Most issues can be resolved by checking parts of the bike and replacing or repairing parts if needed.

## Removing the Rear Wheel

If a situation arises where the rear wheel must be removed, the power cable to the hub-motor is equipped with a quick connector that can easily be disconnected.

#### To remove the rear wheel:

- 1. Cut the zip tie and disconnect the motor cable.
- 2. Remove the rubber caps and loosen the axle nuts.
- 3. Extend the derailleur and remove the wheel.



The rear motor wheel is heavy. Take care to protect your hands during the removal process. It may be beneficial to have a helper when removing the wheel from the bike.

#### To reattach the rear wheel:

- 1. Extend the derailleur and insert the wheel.
- 2. Verify the axle is fully seated.
- 3. Firmly tighten the axle nuts and reinstall the rubber caps.
- 4. Connect the motor cable and install a new zip tie.

The connector plug has two arrows which align to indicate the correct position. Failure to align these arrows may result in damage to the cable.

# **Troubleshooting**

#### **Error Codes**

The display will show an error code if the electric system has detected an issue. If you encounter an error code, try these recommended actions. If the error persists, please see the <a href="Error Code Support Article">Error Code Support Article</a> or contact Blix Technical Support.



Error Code	Error Source	Recommended Action
21	Electric current	Check battery connection.
22	Throttle connection	Unplug the throttle cable and restart the bike. If the error is no longer present, make sure the connection is clean and dry before plugging the throttle back in.
23	Phase communication between controller and motor	Check the motor cable on chain- stay for damage and ensure the motor cable is firmly plugged in.
24	Hall sensor communication between controller and motor	Check motor cable on chain-stay for damage and ensure the motor cable is firmly plugged in.
25	Brake power-off sensor	Unplug each brake by itself and restart the bike for each brake to see which brake is causing the error. Check that each connection is clean and dry.
30	Controller/instrument communication between display and controller	Check display and display cable for damage. Ensure the display connector at the handlebar is tightly connected.

# **For More Information**

If you would like additional information about your new Blix bike, or have any general questions after reading this guide, you can reach out to Blix via our support desk, by email, or by phone.

We continually strive to improve our products and services and we love hearing from you.

Thank you for choosing Blix and Happy Riding.

-The Blix Team

https://support.blixbike.com/ (855) 655-BLIX [2549] blixbike.com

> Blix Bicycle Inc. 2877 Mission St. Santa Cruz. CA 95060

## Warranty

All Blix bikes are covered under One (1) year comprehensive warranty. This includes frame and all components. The warranty does not include normal wear and tear, improper maintenance or misuse.

#### CONDITIONS OF WARRANTY AND LIABILITY

(a) Remedies: The sole remedy is limited to replacement of defective parts, components or accessories of those with equal or greater value at the sole discretion of Blix. Blix may or may not approve warranty services to be carried out by a 3rd party, however this needs to be confirmed and approved by Blix in writing prior to any warranty services being done. Any costs associated with services for warranties that are not confirmed and approved by Blix prior to work being done will be the customer's sole responsibility to cover.

Seller's liability under any limited warranty is discharged, in Seller's sole discretion and at its expense, by: repairing or replacing the affected goods; or crediting or refunding the end user's purchase price of the affected goods, less any applicable discounts, rebates or credits. Seller's limited warranty is extended to the first end-user purchaser only. Affected products may not be submitted to Seller for warranty repair or replacement except with written authorization from Seller after confirmation of coverage.

- (b) Exclusions: The above warranty or any implied warranty does not cover normal wear and tear, improper assembly, damage or failure due to accident, misuse, abuse, or neglect, improper follow-up maintenance, installation of third party components, parts, or accessories, or any products that have been modified from manufacturer's specifications.
- (c) Delivery Costs: The end user is responsible for all costs and risk of loss associated with the delivery of warranted goods to Seller or its agent for warranty repair or replacement, and Seller is responsible for all costs and

## Warranty

risk of loss associated with the return delivery of repaired or replaced products to the end user.

(d) THIS SECTION SETS FORTH PURCHASER AND END USER'S SOLE REMEDY AND SELLER'S ENTIRE LIABILITY FOR ANY WARRANTY RELATING TO THE PRODUCTS, EXCEPT FOR THE LIMITED EXPRESS WARRANTIES DESCRIBED IN THIS SECTION (A) NEITHER SELLER NOR MANUFACTURER HAS MADE OR MAKES ANY EXPRESS OR IMPLIED REPRESENTATION OR WARRANTY WHATSOEVER. INCLUDING ANY WARRANTIES OF: (i) MERCHANTABILITY: (ii) FITNESS FOR A PARTICULAR PURPOSE; (iii) TITLE; (iv) NON-INFRINGEMENT; OR (v) PERFORMANCE OF PRODUCTS TO STANDARDS SPECIFIC TO THE COUNTRY OF IMPORT, WHETHER ARISING BY LAW. COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE. ALL OF WHICH ARE EXPRESSLY DISCLAIMED AND (B) PURCHASER ACKNOWLEDGES THAT IT HAS NOT RELIED ON ANY REPRESENTATION OR WARRANTY MADE BY SELLER. EXCEPT AS SPECIFICALLY DESCRIBED IN THIS SECTION.

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