



USER MANUAL

BLADE 2.0





DEAR CUSTOMER

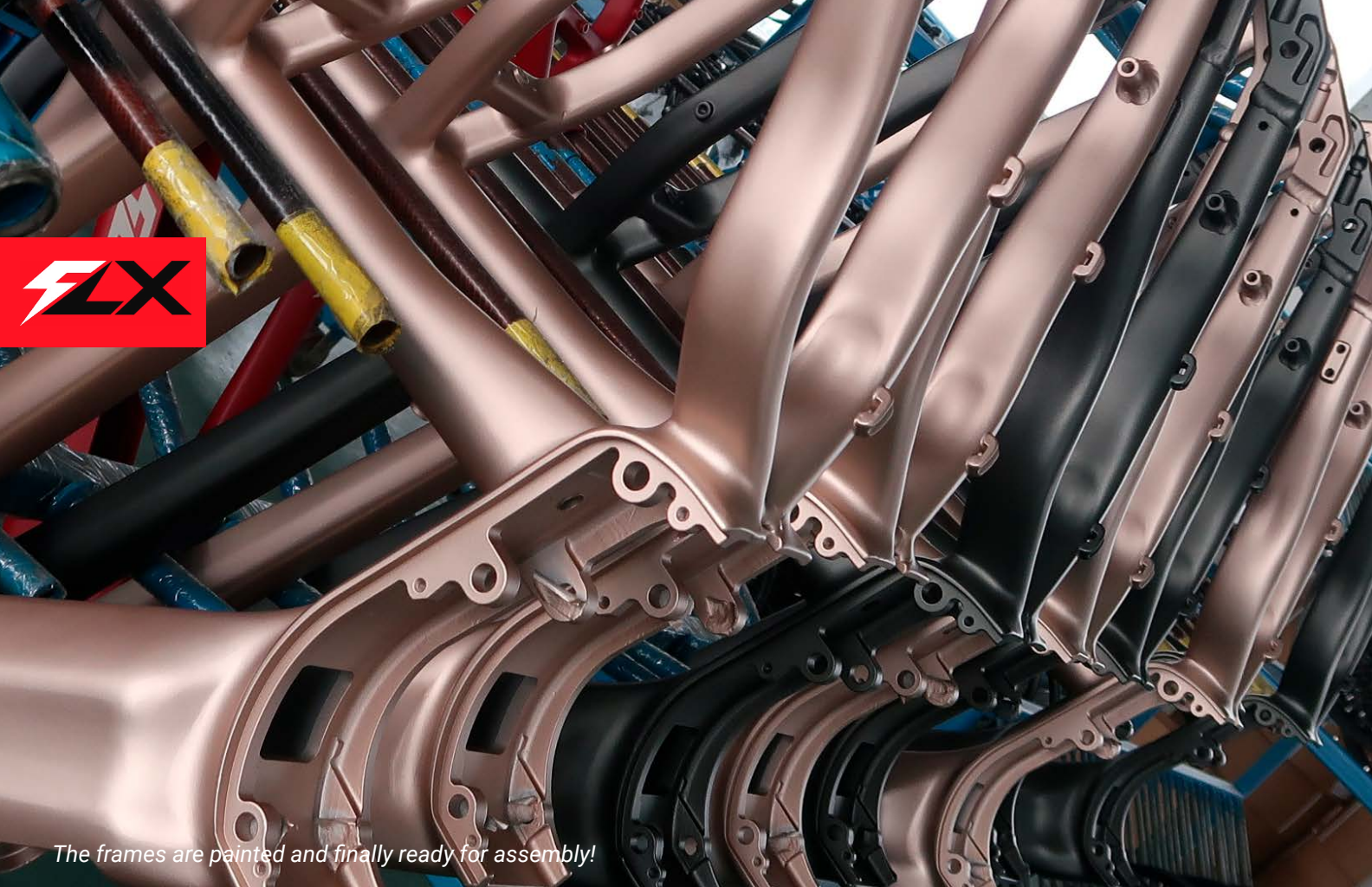
We want to congratulate you on buying the BLADE 2.0 - you've picked our top-of-the-line model, designed & developed at our San Diego office in California!

The BLADE has been our top-of-the-line model for a couple of years, and we have received a lot of amazing feedback from our customers. The concept for the Blade 2.0 is the same – an e-bike with one of the most powerful motors on the market and a large capacity integrated battery.


The final part of the development is always the most fun, seeing the bikes actually built. We always make sure to be there and inspect every bike when the frames are welded, the paint is sprayed and the bikes are assembled.

After a lot of hard work we finally present:

The Blade 2.0 - The world's best e-bike.

A photograph showing a long line of bicycle frames in a factory. The frames are painted in a metallic rose gold color and are arranged in a row, ready for assembly. The background shows industrial equipment and other frames in various colors.

The frames are painted and finally ready for assembly!

A photograph showing a worker in a dark blue uniform inspecting a silver-colored bicycle frame. The worker is using a tool to check the welding and quality of the frame. The background is a dark industrial setting.

Inspecting the welding & quality of the frame



- 2 DEAR CUSTOMER
- 3 CONTENTS
- 4 COMPONENTS
- 5 TECHNICAL SPECS
- 6 GEOMETRY
- 7 ASSEMBLY INSTRUCTIONS
- 8 TOURING PACKAGE INSTRUCTIONS
- 9 USEFUL TIPS
- 10 MAINTENANCE INSTRUCTIONS
 - 11 FLX BLADE 2.0 FRAME
 - 12 ROCKSHOX PIKE RTC3
 - 13 BAFANG LCD SCREEN
 - 14 MAGURA MT5 BRAKES
 - 15 BAFANG ULTRA MOTOR
 - 16 ROHLOFF SPEEDHUB 14
 - 17 GATES CARBON DRIVE
 - 18 SPANK OOZY RIMS
 - 19 MAXXIS MINION DHR II
- 20 LEGAL DISCLAIMER
- 21 CONTACT US!

CONTENTS

In this manual, we're going to break down the basics to make sure that your bike remains in top shape and performs to the highest standard.

We highly recommend familiarizing yourself with local ebike laws and the **COMPONENTS, TECHNICAL SPECS, and GEOMETRY** of your model prior to your first ride.

You're about to experience the ride of your life. In order to get you out and having fun as quickly and as safely as possible, please read the chapters: **ASSEMBLY INSTRUCTIONS and USEFUL TIPS.**

To make sure that your bike remains in top shape and performs to the highest standard please refer to the **MAINTENANCE INSTRUCTIONS** chapter, which also includes references to important component's manuals.

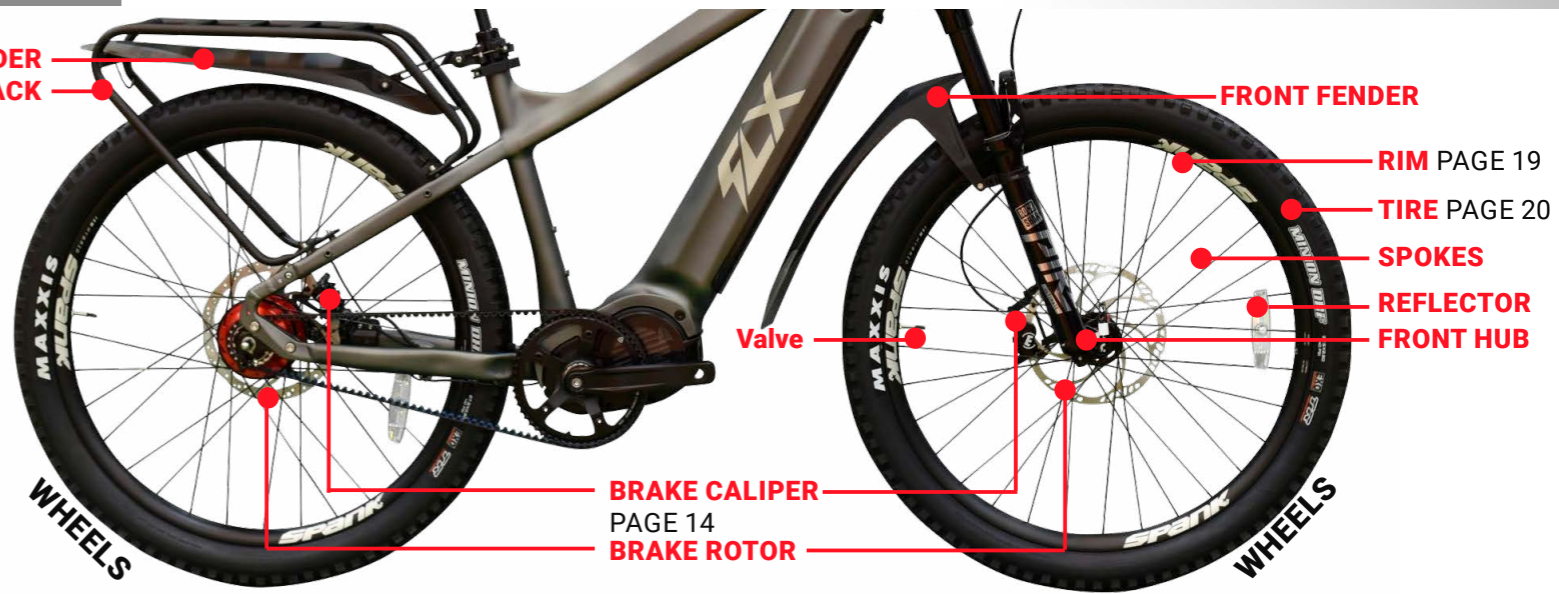
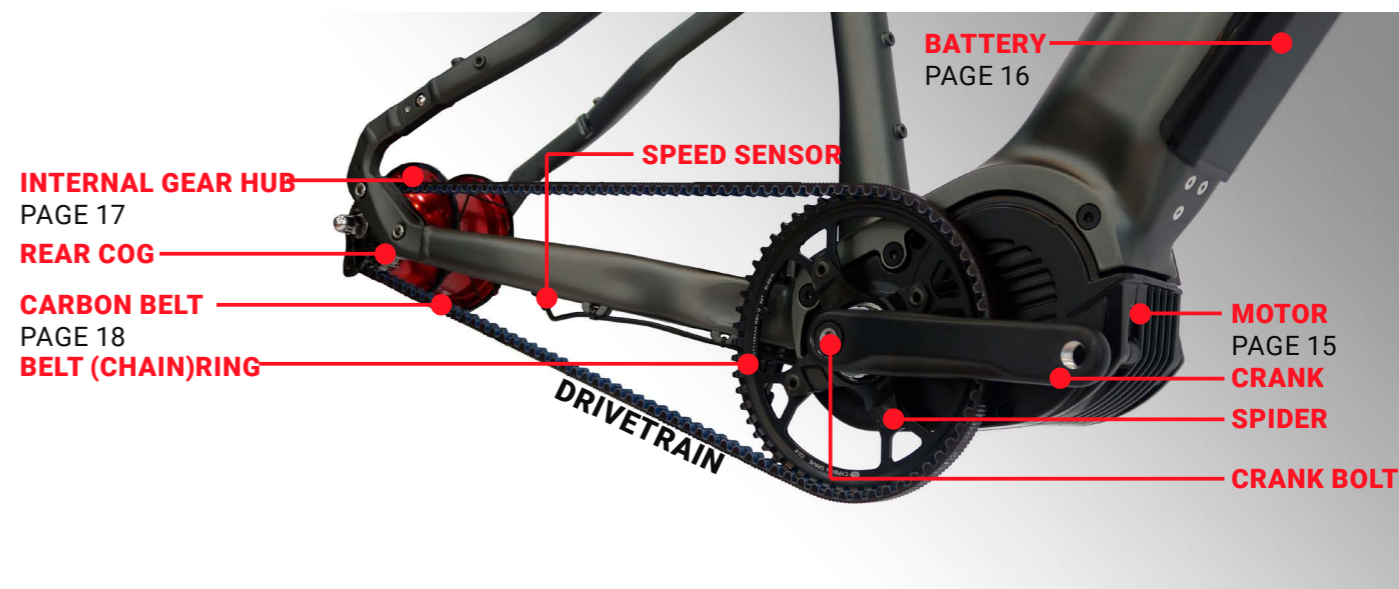
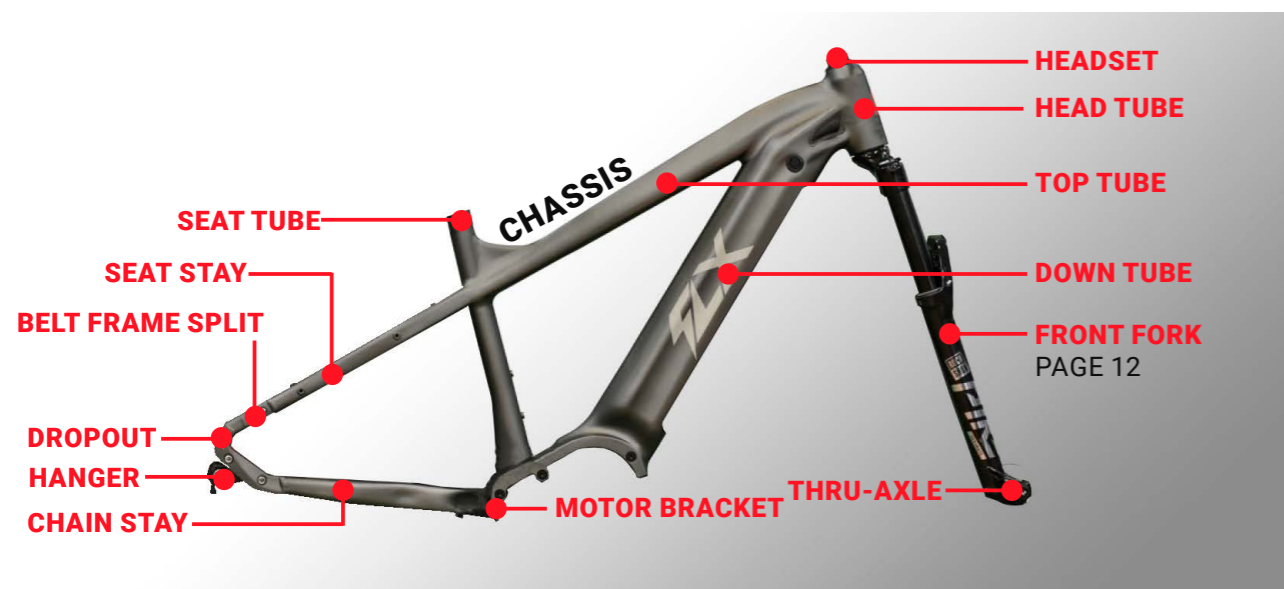
Having trouble sleeping? Check out the chapter **LEGAL DISCLAIMER.** We promise it will put you right out.

Ready to get started? Let's ride!

-Team **FLX**

COMPONENTS

Familiarize yourself with the components of your model. This are technical terminology used at the FLX engineering department.





TECHNICAL SPECS

The bike has top of the line components throughout, this list is for the bike nerds that want to know every technical detail.

CHASSIS

FRAME

6 Series Aluminium Alloy Tubes
Smooth Welds
Internal Cable Routing

REAR AXLE

135 mm Wide Spacing
Rohloff 10 mm Solid Touring Axle
Custom Sliding Dropout Design

HEADSET

Internal Cups, Tapered Design
ZS44/28.6 (1-1/8") Top Bearing
ZS56/39.8 (1-1/2") Bottom Bearing

FORK

Rockshox Pike RTC3 Suspension Fork
160 mm of Front Wheel Travel
M15 x 110mm Boost Front Axle Spacing

COCKPIT

SEAT

300 mm Aluminum Alloy Seatpost
FUNN Coinlli Saddle
Ø31.6 Quick-Release Seat Clamp

HANDLES

Spank, 106 mm Length, Ø31.6 mm Stem
Oozy Trail, 780 mm, Ø31.8mm Handlebar
Flat Rubber with Lockers

REMOTES

Bafang Color DP C18 LCD Display
Bafang External Thumb Remote
Rohloff 14 Speed Mechanical Shifter

BRAKES

Magura MT5 Hydraulic Disc Brakes
Rear Sliding Dropout Mounting
203 mm Magura HC Rotors

DRIVETRAIN

MOTOR

Bafang 52V G510 Ultra Mid-Mounted Motor
1000W Nominal power/1350W Peak power
160 Nm Torque

BATTERY

52V 17.5AH (910WH) LG Lithium Ion Cells
3.5h Charge Time, LED Capacity Indicator
Security Key Lock

CRANKSET

Prowheel Bafang Ebike Crankset
170 mm Crank, 54T Chainring
104 mm BCD, 5 Bolt Spider

CHAINLINE

Rohloff Speedhub 14 Internal Gear Hub
Gates Carbon Drive 122T Belt
Gates 20T Rear Sprocket

WHEELS

HUBS

Spank Oozy Boost F15 Front Hub
Rohloff Rear Hub w/ 10mm Touring Axle
Gates Drive HG Standard Freewheel

RIMS

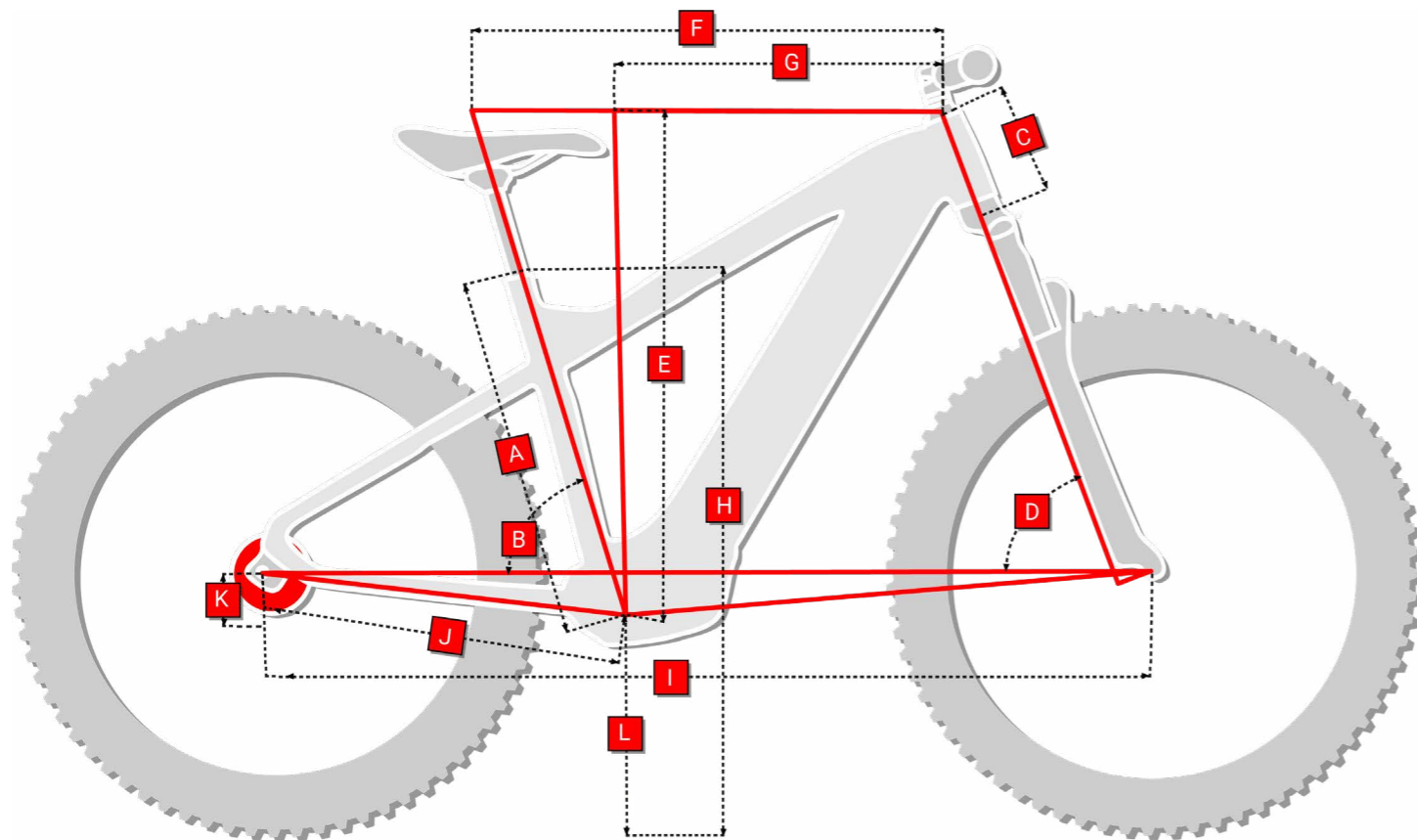
Spank Oozy Trail 345 Boost 27.5"
32 Hole Straight-Pull Spokes
622 x30.5 mm Rim Dimensions

SPOKES

Oozy 350 Straight Pull Spokes
Stainless Steel, 13G, Black with Nipples

TIRES

Maxxis Minion DHR II 27.5x2.6" Tires
1,0 mm thick FV48 Maxxis Tube
35 to 50 PSI, 2.5 to 3.4 BAR, Presta Valve



GEOMETRY

BLADE 2.0 - SIZE L

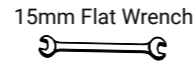
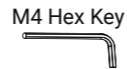
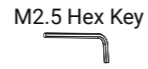
| | | |
|-----------|-----------------------|-------------------------------|
| A. | Seat Tube Length | 17.7 Inches (450 mm) |
| B. | Seat Tube Angle | 73.5° |
| C. | Head Tube Length | 5 Inches (130 mm) |
| D. | Head Tube Angle | 69° |
| E. | Stack | 26.5 Inches (670 mm) |
| F. | Effective Top Tube | 25 1/8 Inches (638mm) |
| G. | Reach | 17 1/3 Inches (440 mm) |
| H. | Standover Height | 28 1/3 Inches (720 mm) |
| I. | Wheelbase | 47 Inches (1190 mm) |
| J. | Chainstay Length | 18 Inches (460 mm) |
| K. | Bottom Bracket Drop | 2 Inches (47 mm) |
| L. | Bottom Bracket Height | 12 Inches (311 mm) |

OTHER DIMENSIONS

| | |
|--------------------|--------------------------------|
| Fork Height | 567.1 mm |
| Fork Rake | 51 mm |
| Seat Post Insert | min 100 mm - max 200 mm |
| Seat post diameter | 31.6 mm |
| Headset spacer | 10 mm |
| Stem length | 50 mm |
| Stem angle | 0° |
| Handlebar Diameter | 31.8 mm |
| Handlebar Width | 780 mm |
| Cranklength | 170 mm |
| Wheel size | 27.5*2.6" or 29*2.1" |
| Wheel radius | 365 mm |



INCLUDED TOOLS FOR ASSEMBLY:



ASSEMBLY INSTRUCTIONS

Please follow the instructions for assembly in the following pages carefully and properly. If you don't feel 100% confident assembling the bike, please take it to a bike shop for assistance.

01. CHARGE THE BATTERY BEFORE FIRST USE

Insert the charging plug into the charging port on the battery. The light on the battery will turn red while the battery is charging. This indicator light will turn green when the battery is fully charged. A full charge will take 3.5 hours depending on battery type.



Charge on Bike



Charge off Bike

02. MOUNT THE FRONT WHEEL

Insert front wheel in the fork and make sure the rotor (disc) is positioned properly between the front brake pads. Insert the Thru Axle through the fork and hub and tighten it using the quick release lever.



Position the Wheel



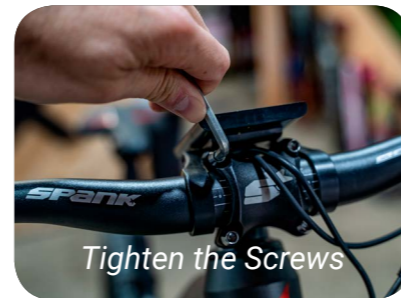
Insert the Thru Axle

03. INSTALL THE HANDLEBARS

Remove stem plate. Locate the handlebar against the stem. Insert and screw the bolts into the stem plate to assemble the handlebar. Tighten the screws clockwise with the M4 Hex key.



Position the Handlebar



Tighten the Screws

04. ATTACH THE PEDALS

Use the 15mm flat wrench to attach the pedal by hand in the directions shown. **ATTENTION: The left pedal has a reverse thread. To tighten, please turn counter-clockwise.**



Tighten the Right Pedal



Tighten the Left Pedal

05. INSERT THE SEATPOST

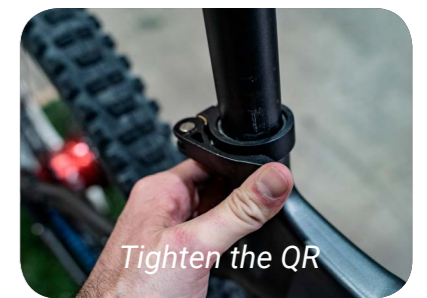
Insert the seatpost into the seat tube and make sure your seat is in at least to the minimum insertion depth which is marked by the vertical lines. Use the seatclamp's quick release to tighten the seatpost.

! WARNING: INSERT YOUR SEATPOST PROPERLY

Failure to insert the seat post to the proper depth could overstress the seat tube, which could cause the frame to break and lead to a serious accident. If the seat post is not tall enough for you, please use an extra long seat post that can accommodate your height.



Insert the Seatpost



Tighten the QR

TOURING PACKAGE INSTRUCTIONS

The touring package is optional and is not included with every bike. Please follow the instructions for assembly of step 5 to 9 carefully.

05B. INSERT SUSPENSION SEATPOST & COMFORT SEAT

Same as step 5

! Warning: Make sure you the suspension seatpost is in at least to the minimum insertion depth.

06. CHECK THE FUNCTIONALITY OF THE LIGHTS

The headlight, taillight and backlight on the LCD screen can be activated by pressing the “Lights” Button (see page 13: Bafang LCD Display) for 1 second, and can be turned off the same.

07. INSTALL THE CARGO RACK

The cargo rack is attached by four bolts, make sure to tighten them. The rack can bear a weight of max 25 Kg, enough for your bags, but not for carrying your friend!

08. ATTACH THE FRONT AND REAR FENDERS

Riding can't stop just because it is raining a little, therefore these fenders keep you dry when the weather is wet. Easily installed using the tools provided.

09. INSTALL THE SMARTPHONE MOUNT

The universal mount is easy to install. Please refer to assembly instructions in the cell phone holder box.





USEFUL TIPS

Your safety, comfort, and happiness are of great importance to us and we can't stress enough how important the use of proper safety equipment is.

BEFORE RIDING

Before taking the bike for a ride, ensure that all components are attached properly. Neglecting to do so may cause issues in the future. Make sure you know about the local laws regarding electric bicycles in the areas you're riding in and abide by the regulations.

RIDING TIPS

Although it may not be required by law, we highly recommend the use of pads and a helmet. Make sure to wear appropriately bright clothing during the day and use head and tail lights at night to increase visibility. Please use proper cycling hand signals and always be cautious when riding - whether you're in a bike lane or not.

The bike has a powerful mid-motor which places more stress on the gears than a regular bike. Reducing the force placed on the pedals whilst shifting will prolong the life of the drivetrain.

! Warning: EVERY 100 MILES!

Please make sure to tighten the crank bolts (bolts which attach the pedal cranks to the motor shaft) after riding the first 50 miles, and every 100 miles thereafter. They should be tightened to 40-50NM, failure to maintain this tightening torque may result in the crank arm falling off during a ride, which could cause a serious accident.

CLEANING & CARE

The biggest enemy of any bike is rust, so make sure to dry it off after a wet ride and store it in a dry place.

In general, wiping down your bike after a rough ride with a damp rag should be enough to keep it looking great, just make sure to be careful around the electronics.

Cleaning the battery should only be done while the battery is disconnected and turned off. DO NOT spray the battery with high-pressured water to prevent damage or possible short-circuiting.

! Warning: BATTERY CARE

It is recommended to remove the battery from the bike when storing it for a longer period of time (> 2 weeks). Store the battery in a cool and dry area away from water or direct sunlight. The charge left in the battery should be 50% for long storage times. Lithium-ion batteries are meant to be recharged with 10%-15% of the charge remaining to prolong the life of the cells. Only charge the battery with the supplied charger as others may cause damage to the battery and increase the possibility of fire or explosion. We recommend placing the battery on a non-flammable surface and charging it during the day in a dry space with a smoke/fire alarm.

! Warning: Based on IATA regulations you are not allowed to ship Lithium-ion batteries this size by air. Please consult a land or sea freight agent for transportation of the battery.

REGULAR INSPECTION

Inspect the bolts on a regular basis, to ensure that they are tight and all components are secure. This is especially important if you are riding in demanding conditions. As with all bikes pay particular attention to the crank bolts, as they pose the highest risk of loosening.

Regularly check the brake pads, the provided brake pads should be replaced if they have less than .8mm of material, been contaminated, or show Cracks/ deformation

MAINTENANCE

! Warning: Whenever you service your bike, make sure to remove the battery first.

! Warning: To replace the brake pads or perform other maintenance take it to a qualified professional at your local bike shop.

! Warning: Properly inflate your tires according to riding conditions. Under-inflated tires are prone to pinch flats, especially if riding off-road or over sharp edges. If you are unsure of the proper pressure, read the tire.

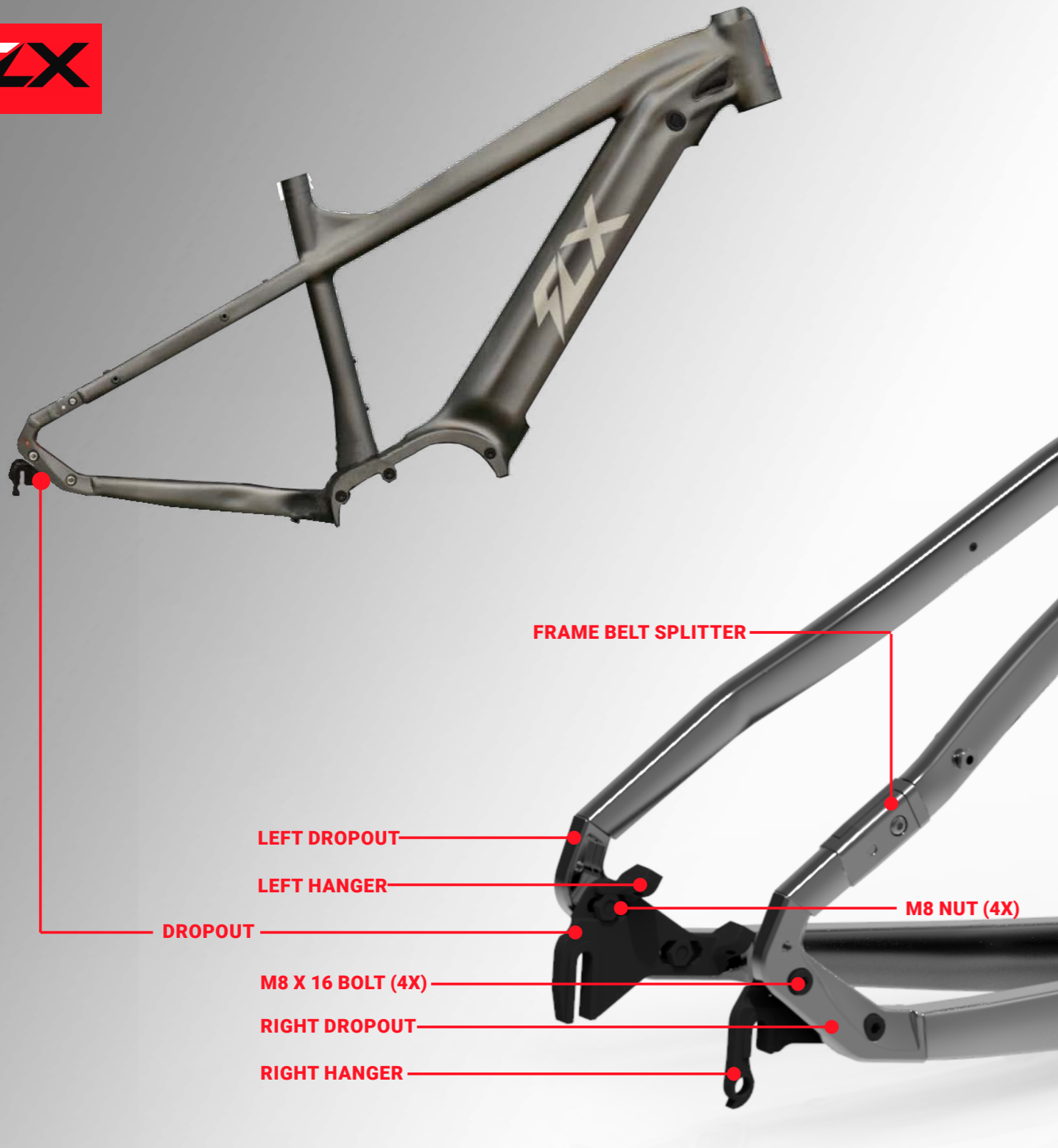


MAINTENANCE INSTRUCTIONS

While FLX bikes are built for heavy use, proper care and maintenance should be performed to maintain optimal performance. Most adjustments can be performed with basic tools. Larger issues should be handled by a qualified bike mechanic.

This bike would not have been possible without the technical support from these amazing brands. For more detailed information of these parts, please use their original user manual.





Three Dimensional Model Render - Blade 2.0 Frame

FLX BLADE 2.0

FRAME

The frame is custom designed by our design and engineering team in San Diego. The four main dropout parts are custom made, (Left Dropout, Left Hanger, Right Dropout, and Right Hanger) so you will not be able to find replacements from a 3rd party. But don't worry, in the unlikely event that one of these parts needs to be replaced, we will be happy to provide anything you need. The bolts and screws are industry standard.

The design features a customized top-tube, which creates a straight line to the seatstays. The dropouts feature a disc brake caliper mounted inbetween the chainstay and seatstay. The rear axle is 10mm thick with 135mm spacing. Lastly, the frame is equipped with plenty of rear rack bosses, fender bosses, and bottle cage bosses to mount any accessory.

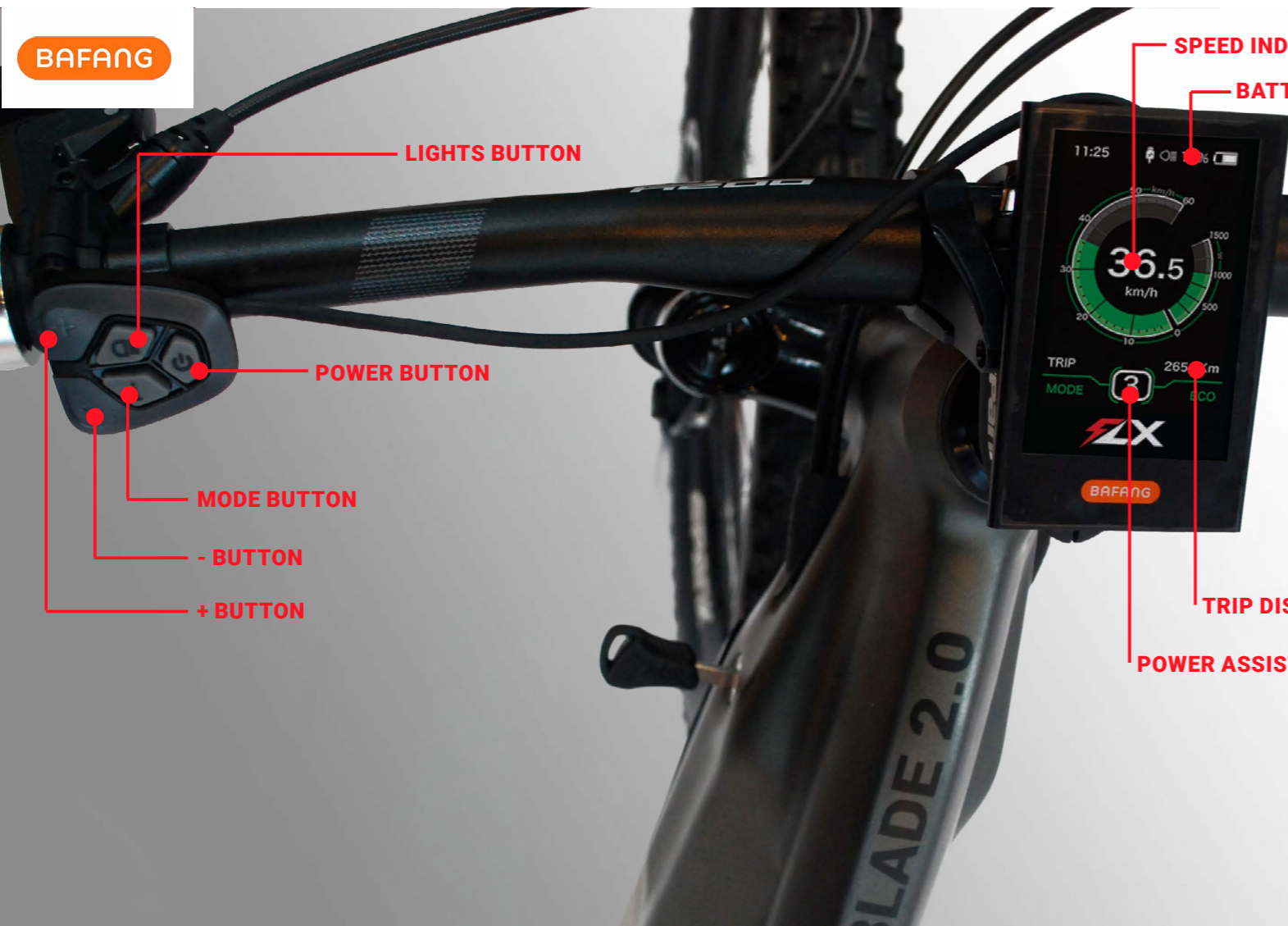
ROCKSHOX PIKE RTC3

SUSPENSION FORK

PIKE was engineered to provide a plush and high-performance ride. Its Charger Damper™ with Rapid Recovery keeps you riding high in the travel. We recommend that you have your RockShox suspension serviced by a qualified bicycle mechanic. Servicing RockShox suspension requires knowledge of suspension components, as well as the use of specialized tools and lubricants/fluids.

Visit www.sram.com/service for the latest RockShox Spare Parts catalog and technical information.





BAFANG LCD SCREEN

DISPLAY

The DP C18 color LCD has many functions. The speed is shown in the middle, the trip distance at the bottom, and the time of the day in the top left. To learn about all functions in detail please use the link below to view the Bafang LCD Screen manual.

To turn the LCD on, press and hold the 'Power Button' until it responds. The level of pedal assist can be adjusted by pressing the '+' or '-' buttons. The lights can be activated by pressing and holding the 'Light' button until it responds. Walk-assist mode can be activated by pressing and holding the '-' button until it responds.

The LCD has been pre-programmed to comply with your local speed regulations.

[DP C18 DISPLAY MANUAL](#)



BRAKE LEVER

BRAKE CABLE

MOUNTING ADAPTER

ROHLOFF BRAKE ROTOR
MAGURA COMPETABLE
MAGURA BRAKE ROTOR

BRAKE CALIPER

MAGURA MT5

DISC BRAKES

The Blade 2.0 comes with powerful 4-piston, low maintenance, hydraulic Magura MT5 disc brakes - designed, developed and manufactured in Germany. The 203mm rotor is the largest on the market for maximum stopping power. The front rotor is provided by Magura, and bolted to the front hub using the standard 6 bolt system. The rear rotor is provided by Rohloff, specifically designed for use with Magura brakes, and mounted to the Speedhub using 4 bolts.

We recommended to bleed the system after a lot of riding when the brake action starts to feel spongy. If you are not confident on how to bleed the brakes yourself, please use a qualified bike mechanic.

Please refer to the Magura owner's manual for details of required tools, maintenance and setup options

MAGURA MT5 MANUAL

BAFANG ULTRA G510

MOTOR

The 1000W, 52V motor has a maximum torque rating of more than 160 N.m. It utilizes torque measurement technology, pedal-assist speed measurement and wheel-speed measurement to calculate the amount of assist needed.

If any issues develop with the motor, stop use immediately and contact us.

MOTOR COVER

MOTOR

[ULTRA G510 MANUAL](#)

LINK WILL BE ADDED IN THE FUTURE!



ROHLOFF SPEEDHUB 14

Experience the world with the most reliable bicycle drivetrain on the market. The Rohloff SPEEDHUB makes cycling simple. No longer is it necessary to constantly calculate which gear is required next or if the gear has correctly engaged yet. Simply rotate the Rohloff twist-shifter – regardless whether stationary or pedaling. Rotate up to shift up, down to shift down. It couldn't be more intuitive.



TOURING SPINDLE BOLT

DERAILLEUR HANGER

ROHLOFF SPEEDHUB

MAGURA COMPATIBLE
DISC ROTOR

SPEEDHUB 14 MANUAL



GATES CARBON DRIVE

BELT DRIVE

To incorporate a belt drive, the Blade 2.0 frame includes an opening in the rear triangle. The front CDX chainring has 55Teeth, the rear cog has 20T, and the carbon belt has 122T.

Tensioning the belt properly is key for optimal performance. Lack of belt tension can lead to 'skipping', too much tension can damage other components and increase the wear of your Carbon Drive System. The optimal tension with an IGH is 35-50 Hz (28-40 lbs). This can be measured using either the Gates Kriket Tension Gauge, or the Gates Tension Meter Mobile APP available on iPhone and Android.

CARBON CX MANUAL

SPANK OOZY 345

RIMS

The SPANK Oozy 345 is a high performance alloy wheelset for Enduro, Trail and All Mountain use that's lightweight and comfortable on any terrain. Hand built and trued to industry leading standards with 32H straightpull hubs updated for increased engagement. Tubeless ready with anti-burp rim hooks to prevent the loss of pressure and keep tires firmly in place.

Click below to view the specifications of the SPANK wheelset or contact the SPANK office for specific questions.

SPANK WHEELSET SPECS

RIM

SPOKE NIPPLE





- RIM
- SPOKE NIPPLE
- TIRE
- THREAD BLOCKS

MAXXIS MINION DHR II

TIRES

The tires on your Blade 2.0 are 27.5" and are 2.6" wide. The Maxxis DHR II has side knobs borrowed from the legendary Minion DHF, but widened to provide more support. The center tread features ramped leading edges to improve acceleration and sipes to create a smooth transition when leaning the bike. The wheelset comes with Maxxis tube that uses a Presta valve type, but the set is also ready for a tubeless setup.

Click below to view the specifications of the Maxxis Tire or contact the Maxxis office for specific questions.

MAXXIS DHR II SPECS



LEGAL DISCLAIMER

Our extensive quality control means that our products are thoroughly tested and ultra-reliable by industry standards. However, that doesn't mean the bikes cannot be broken or will last forever.

WARRANTY

All new FLX products are warranted against manufacturing defects in materials and/or workmanship for a period of (1) year from the date of delivery.

There are a few conditions: The original receipt of purchase is required, and you are required to complete the standard procedure for warranty claims that will involve media such as photos and videos to help our after sales staff establish the fault with the product.

This warranty does not cover normal wear and tear, improper maintenance, or damage from abuse, neglect, misuse, or an accident.

DISCLAIMER

FLX Bike holds no liability whatsoever for any damage - regardless of what type - or injury to any party involved in improper use, maintenance, handling, or storage of any FLX electric bicycle, or any of their components.

Technical details in the text and illustrations of the translation of these operating instructions are subject to change. For the most up to date version of this FLX User Manual visit flx.bike/manual or email hello@flx.bike.



Share your pictures and experiences with us!

WWW.FLX.BIKE

HELLO@FLX.BIKE

© 2020-04 FLX Bike.

No part of this document should be reproduced or distributed without prior permission.