

BUG-X LABS E-BIKE USER MANUAL



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INTRODUCTION

Congratulations on your purchase of the Bug-X Labs e-bike! This versatile electric bicycle combines cutting-edge technology with practical design to enhance your riding experience. This comprehensive manual will guide you through setup, operation, maintenance, and troubleshooting to ensure you get the most out of your e-bike.

TECHNICAL SPECIFICATIONS

Feature	Specification
Battery	36V 23AH lithium-ion battery pack (LG, Samsung, or SMC)
Charging Time	3.5 hours for full charge
Range	70 km with pedal assist, 50 km without pedal assist
Motor	350W (Zemake or MXUS)
Maximum Speed	40 km per hour
Weight Capacity	150 kg maximum
Bike Weight	26.5 kg
Wheel Size	26 inches
Gears	21-speed manual gears, 5-speed electric assist
Brakes	Front and rear disc brakes with brake assist
Display	S966 colored LED display
Additional Features	GPS tracking, vibration alarm, USB charging (Type-B and Type-C), remote immobilization, headlight, horn

ASSEMBLY AND INITIAL SETUP

What's in the Box

- Partially assembled Bug-X Labs e-bike
- Battery charger
- Remote control
- Keys (2)
- Allen key

Assembly Instructions

1. Handlebar Installation:

- Use the provided Allen key to secure the handlebars to the stem
- Ensure the handlebars are straight and tightly fastened

2. *Handlebar Installation Diagram*

3. Pedal Installation:

- Identify the right (R) and left (L) markings on the pedals
- Attach the pedals to their corresponding crank arms
- Tighten securely using the Allen key

4. *Pedal Installation Diagram*

5. Seat Adjustment:

- Use the Allen key to loosen the seat clamp
- Adjust to your preferred height
- Tighten the clamp securely

6. *Seat Adjustment Diagram*

7. Final Check:

- Ensure all components are securely fastened
- Check tire pressure (recommended: 40-65 PSI)
- Test brakes for proper function

Initial Battery Setup

1. Before first use, connect the charger to a 220V AC power source
2. Connect the charger to your e-bike battery pack
3. Charge for 6 hours initially, even if the indicator shows full charge
4. Disconnect the charger once charging is complete

5. For subsequent charges, a full charge typically takes 4 hours

Initial Battery Charging Diagram

SAFETY INFORMATION

Required Safety Gear

- Helmet (available as an optional accessory)
- Protective eyewear (available as an optional accessory)
- Recommended additional safety gear:
 - Gloves for improved grip and hand protection
 - Reflective clothing for improved visibility
 - Knee and elbow pads for off-road riding
 - Sturdy, closed-toe shoes

Operating Conditions

- **Temperature Range:** Operate between 5°C and 50°C (41°F to 122°F)
- **Weather Conditions:** Avoid riding in rain or high moisture environments
- **Terrain Capability:** Suitable for all terrain types, including roads, trails, and rough surfaces

Safety Warnings

- Always wear appropriate safety gear
- Obey all local traffic laws and regulations
- Do not exceed the maximum weight capacity of 150 kg
- Check brakes and tire pressure before each ride
- Use headlights when riding in low light conditions
- Do not submerge any part of the e-bike in water
- Keep the battery away from fire and extreme heat

OPERATION GUIDE

Basic Controls

1. **Power On/Off:**
 - Press and hold the "M" button on the handlebar control for 3 seconds
 - The display will illuminate, indicating the e-bike is powered on
 - To power off, press and hold the "M" button again for 3 seconds
2. **Pedal Assist Levels:**
 - Use the "+" and "-" buttons to adjust between 5 electric gear settings
 - Level 1: Light assistance, maximum battery efficiency
 - Level 2: Moderate assistance for gentle inclines
 - Level 3: Medium assistance for everyday riding
 - Level 4: Strong assistance for steep inclines
 - Level 5: Maximum assistance for difficult terrain

3. **Thumb Throttle:**

- Located on the right handlebar
- Press the throttle to activate motor without pedaling
- Gradually increase pressure for more power

4. **Manual Gears:**

- Use the 21-speed shifter on the handlebar to change manual gears
- Lower gears (1-7) for climbing hills and starting off
- Middle gears (8-14) for normal riding conditions
- Higher gears (15-21) for high-speed riding on flat terrain

S966 Display Operation

1. **Main Screen:**

- Battery level indicator
- Current speed
- Trip distance
- Pedal assist level
- Odometer

2. *S966 Display Main Screen*

3. **Menu Navigation:**

- Short press "M" button to toggle between trip distance, odometer, and ride time
- Press "+" and "M" buttons simultaneously for 3 seconds to access settings menu
- Use "+" and "-" buttons to navigate menu options
- Short press "M" button to select
- Available settings include:
 - Backlight brightness
 - Unit selection (km/h or mph)
 - Auto power-off timer
 - Wheel size setting
 - Speed limit setting

USB Charging Ports

1. Locate the USB ports on your handlebar
2. Slide the protective cover to reveal the USB ports
3. Connect your device using either Type-A or Type-C USB cable
4. The ports provide 5V DC power for charging phones and small devices
5. Close the protective cover when not in use to prevent water and dust ingress

MOBILE APP INTEGRATION

Bug-X Labs App

1. Download and Installation:

- Download the Bug-X Labs App from Google Play Store or Apple App Store
- Create an account or login using the email address shared during purchase

2. Features:

- Real-time location tracking of your e-bike
- Battery level monitoring
- Charging stations and showrooms map
- Trip history and statistics
- Remote immobilization
- Distance covered analytics
- Maintenance reminders

3. GPS Tracking Setup:

- Ensure your e-bike is powered on
- Open the Bug-X Labs App
- Navigate to "My Bikes" section
- Select your e-bike from the list
- The app will automatically connect to your e-bike's GPS system
- Your e-bike's location will be displayed on the map

4. Remote Immobilization:

- Open the Bug-X Labs App
- Navigate to "My Bikes" section
- Select your e-bike from the list
- Tap the "Immobilize" button to remotely disable your e-bike
- To re-enable, tap the "Enable" button
- Note: Remote immobilization requires your phone to have an internet connection

MAINTENANCE

Regular Maintenance Schedule

Component	Frequency	Maintenance Action
Battery	Every 3 months	Check connections, clean terminals
Tires	Before each ride	Check pressure, inspect for wear or damage
Brakes	Monthly	Check pad wear, adjust if necessary

Chain	Every 200 km	Clean and lubricate
Gears	Monthly	Check adjustment, lubricate
Bolts & Fasteners	Monthly	Check tightness
Display & Controls	Monthly	Check for proper operation
Motor	Annually	Professional inspection recommended

Battery Care

1. Charging Guidelines:

- Charge in a dry, well-ventilated area at room temperature
- Use only the provided Bug-X Labs charger
- Avoid complete discharge when possible
- If storing for more than a month, maintain 40-60% charge
- Charge at least once every three months when not in use

2. Battery Replacement:

- Power off the e-bike
- Use the provided key to unlock the battery
- Slide the battery pack out of its mounting bracket
- Insert the new battery pack until it clicks into place
- Lock the battery using the key
- Dispose of old batteries according to local regulations

Cleaning Instructions

1. General Cleaning:

- Use a damp cloth to wipe down the frame and components
- Avoid high-pressure water that could penetrate electrical components
- Dry thoroughly after cleaning

2. Drivetrain Cleaning:

- Use a bicycle-specific degreaser for chain, cassette, and derailleurs
- Rinse with water and dry thoroughly
- Apply bicycle-specific lubricant to the chain after cleaning

3. Electrical Components:

- Wipe display and controls with a slightly damp cloth
- Keep battery contacts clean and dry
- Never submerge electrical components in water

TROUBLESHOOTING

Issue	Possible Cause	Solution
E-bike won't power on	Battery depleted or disconnected	Charge battery, check connections
Reduced range	Cold weather, hilly terrain, low tire pressure	Charge fully, inflate tires, adjust riding style
Motor not engaging	Loose connection, brake sensor engaged	Check connections, ensure brake levers fully released
Erratic display	Software issue	Power cycle the system, update firmware if available
Unusual noise from motor	Debris, loose components	Clean motor area, check mountings
Gears not shifting properly	Cable tension, derailleur adjustment	Adjust cable tension, align derailleur
Brakes not working effectively	Worn pads, misalignment	Replace pads, adjust calipers
GPS tracking not working	Poor signal, app issue	Ensure phone has good signal, update app
USB not charging devices	Connection issue, power system off	Check USB connection, ensure e-bike is powered on

For persistent issues, contact Bug-X Labs customer support.

WARRANTY AND SUPPORT

Warranty Terms and Conditions

The Bug-X Labs e-bike comes with up to 1-year warranty covering:

- Motor malfunction
- Battery defects
- Display and control system failures
- Electrical component failures

The warranty does not cover:

- Normal wear and tear
- Damage due to accidents or misuse
- Unauthorized modifications
- Water damage
- Damage from improper maintenance
- Commercial use

Product Registration

1. Visit www.bugxlabs.com/register-bike
2. Enter your e-bike serial number (located under the bottom bracket)
3. Complete the registration form with your contact information
4. Upload your proof of purchase
5. Submit the form to activate your warranty

Customer Support

- **Phone:** [CUSTOMER SUPPORT PHONE NUMBER]
- **Email:** support@bugxlabs.com
- **Website:** www.bugxlabs.com/support
- **Hours:** Monday - Friday, 9:00 AM - 5:00 PM

Warranty Claims Process

1. Contact Bug-X Labs customer support with your issue
2. Provide your e-bike serial number and proof of purchase
3. Describe the issue in detail and provide photos if possible
4. Bug-X Labs will assess the claim and provide instructions for repair or replacement
5. If approved, you will receive instructions for shipping or local repair options
6. Repairs typically take 7-14 business days plus shipping time

LEGAL AND REGULATORY INFORMATION

Local Regulations

Riders should be aware of the following common regulations that may apply:

- Helmet requirements for e-bike riders
- Age restrictions for e-bike operation
- Speed limits for electric bicycles
- Path and trail access restrictions
- Licensing or registration requirements
- Local traffic laws

Contact your local transportation department for specific regulations in your area.

Battery and Electronic Component Disposal

- Do not dispose of the battery or electronic components in regular trash
- Lithium-ion batteries require special handling for recycling
- Contact local recycling centers for proper disposal methods
- Many electronics retailers offer battery recycling programs
- Bug-X Labs offers a battery recycling program; contact customer support for details

Intended Usage Parameters

The Bug-X Labs e-bike is designed for both road and trail use, including:

- Paved roads and bike paths
- Dirt trails and gravel roads
- Light to moderate off-road terrain
- Urban commuting
- Recreational riding

The e-bike is not designed for:

- Extreme downhill mountain biking
- Jumping or stunt riding
- Racing competition
- Carrying passengers

ENJOY YOUR RIDE

Thank you for choosing Bug-X Labs! We hope you enjoy your new e-bike and all the adventures it brings. For the latest updates, accessories, and community events, visit our website at www.bugxlabs.com.