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LIVALL PikaBoost2 Lite

LIVALL Lite PikaBoost2 E-Bike Assist Kit User Manual

Model: PikaBoost2 Lite

1. PRODUCT OVERVIEW

The LIVALL Lite PikaBoost2 is an innovative e-bike assist kit designed to convert your standard bicycle into an electric-assisted bike. It features a pure assist function, providing power only when you pedal, making your rides easier and more enjoyable. This kit is designed for quick and easy installation, offering a seamless transition between an e-bike and a traditional bicycle.

Key Features:

- **Pure Assist Function:** Smart sensors detect slopes and provide instant extra power, reducing pedaling effort.
- **Easy Installation:** Quick and secure rear-wheel mounting without extra wires.
- **158Wh Battery:** Provides up to 31 miles (50km) of assist under ideal conditions and can function as a power bank.
- **Enhanced Safety:** Durable V-shaped tire for excellent grip, automatic shut-off if tilting over 30°, and power activation above 3.1 mph (5km/h).

2. SETUP AND INSTALLATION

2.1 Unboxing and Components

Carefully unpack all items from the box. Ensure all components are present and undamaged.



Figure 2.1: Included components of the PikaBoost2 Lite kit.

The kit typically includes the PikaBoost2 main unit, 158Wh battery, quick guide, USB-C charging cable, fender, and seat post clamp.

2.2 Compatibility Check

Before installation, verify your bicycle's compatibility:

- **Seat Post:** Fits round seat posts with a diameter of 25–35mm (0.98–1.38in). Not suitable for carbon seat posts.
- **Tires:** Compatible with wheel sizes 14-29 inches and V-shaped tire widths of 1.0-2.6 inches (25-65mm).
- **Suspension:** Not suitable for bikes with rear suspension.
- **Bike Type:** Not suitable for children's bikes.

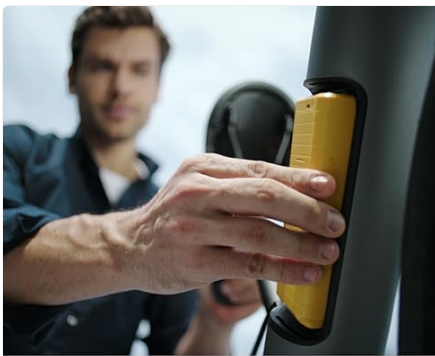
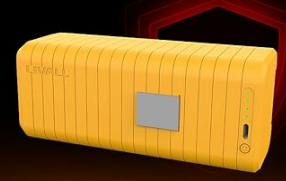

	<ul style="list-style-type: none"> ✓ Dual Protection ✓ Charging Protection ✓ Discharge Protection 	
<p>Quick Battery Swap,Ride longer</p> <p>158Wh battery gives up to 31mi (50km) for rides/commutes; extend range with an extra battery swap.</p>	<p>Durable Battery</p> <p>The lithium-ion battery's integrated BMS protects it well, retaining 80% capacity after 1,000 cycles.</p>	<p>Multiple Charging Ways</p> <p>Charge PikaBoost 2 via its tail, take out the battery separately, or check level with the external indicator.</p> <p>*Recommend PD3.0 protocol, 65W fast charger.</p>

Figure 2.2: Seat post compatibility details.

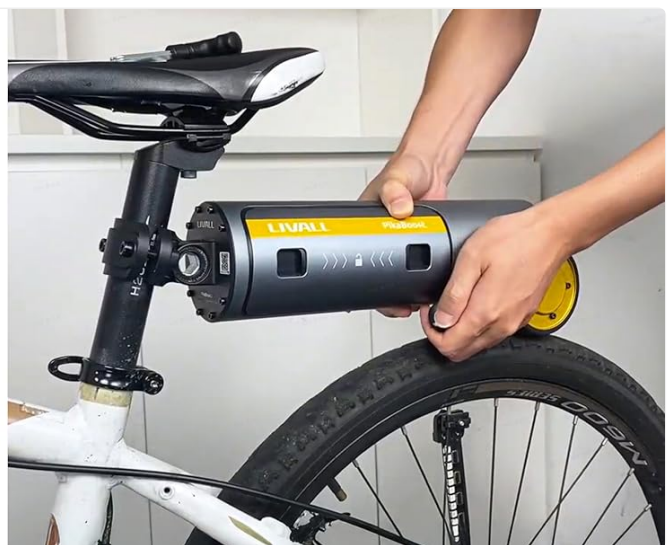
<p>30 seconds Installation</p> <p>Unlike other bicycle power assist conversion devices, PikaBoost 2 only takes 30 seconds to install. Rear-wheel mount in 30 seconds, no extra wires.</p>	
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Figure 2.3: Tire compatibility for optimal performance.

2.3 Installation Steps

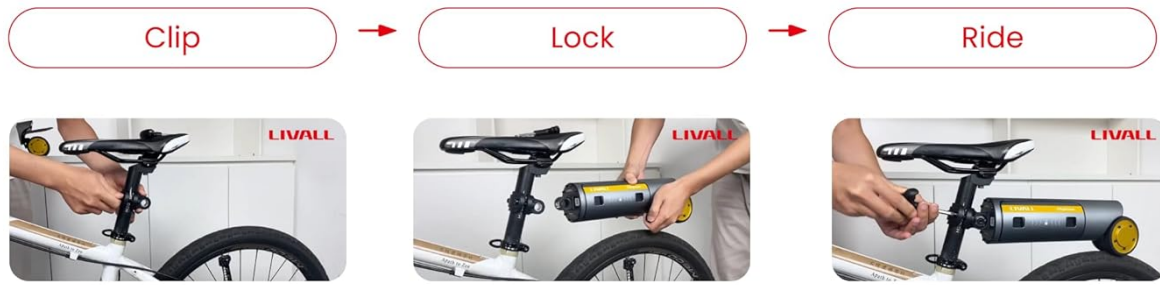
The PikaBoost2 is designed for quick installation, typically within 30 seconds:

1. **Attach the Clamp:** Secure the PikaBoost2 unit to your bike's seat post using the provided clamp. Ensure it is firmly tightened to prevent movement.
2. **Position the Unit:** Adjust the unit so the drive wheel makes proper contact with your bicycle's rear tire.
3. **Insert Battery:** Slide the 158Wh battery into the PikaBoost2 unit until it clicks into place.
4. **Power On:** Press the power button on the unit to turn it on.
5. **App Connection (Recommended):** For the best experience and to confirm your firmware is on the latest version, download the LIVALL app and connect to your PikaBoost2.

30 seconds Installation

PikaBoost2

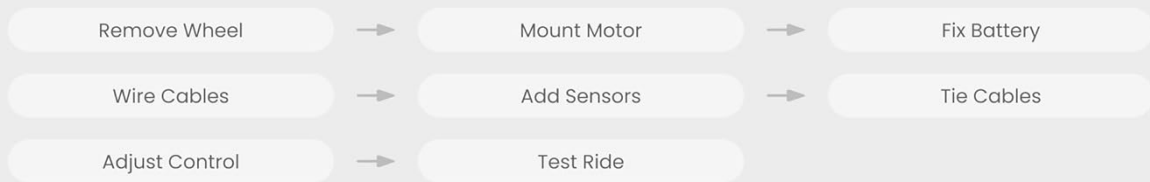
3 Steps / 30 seconds



Quick & Easy

Traditional kits

8 Steps / 1-2 Hours



Complicated DIY

Figure 2.4: Quick installation process: Clip, Lock, Ride.



LIVALL PikaBoost 2 E-bike conversion kit

- ✓ Budget-Wise (from \$329)
- ✓ Switchable Between E-Bike and Traditional
- ✓ Compatible with Various Bike Types
- ✓ Compact and Portable
- ✓ Lightweight - Only 6.6 lbs



Ebike

- ✗ High-Priced (\$1000+)
- ✗ New Purchase Required
- ✗ Multiple Purchases Required
- ✗ Large and Space-Consuming
- ✗ Bulky - Over 44.09 lbs

Figure 2.5: Mounting the PikaBoost2 unit to the seat post.

3. OPERATING INSTRUCTIONS

3.1 Power Assist Function

The PikaBoost2 operates with a pure assist function, meaning it provides power only when you are pedaling. Smart sensors detect your pedaling input and the terrain, delivering assistance as needed.

- **Uphill Assist:** When climbing hills, the system automatically detects the incline and provides instant extra power, making ascents smoother and less strenuous.
- **Effort-Saving on Flat Roads:** The built-in 250W motor reduces pedaling effort by up to 50%, ensuring easier and smoother rides on flat terrain.
- **Activation:** Power assistance only activates when your speed is above 3.1 mph (5km/h).

Power Assist Only

Smart sensors detect slopes and seamlessly engage the motor, providing purely assistive power that feels smooth on flat roads and effortless on hills.



Figure 3.1: PikaBoost2 providing power assist during a ride.

3.2 Safety Features

The PikaBoost2 incorporates several safety mechanisms:

- **Automatic Shut-off:** The system automatically shuts off if it detects a tilt of over 30°, reducing the risk of accidents on

slopes and sharp turns.

- **Durable Tire:** The V-shaped tire ensures excellent grip for safer rides.
- **Warning Tail Light:** Integrated tail light for increased visibility.

Slip Detection

Automatically shuts off the motor when the gyroscope detects a tilt of over 30°

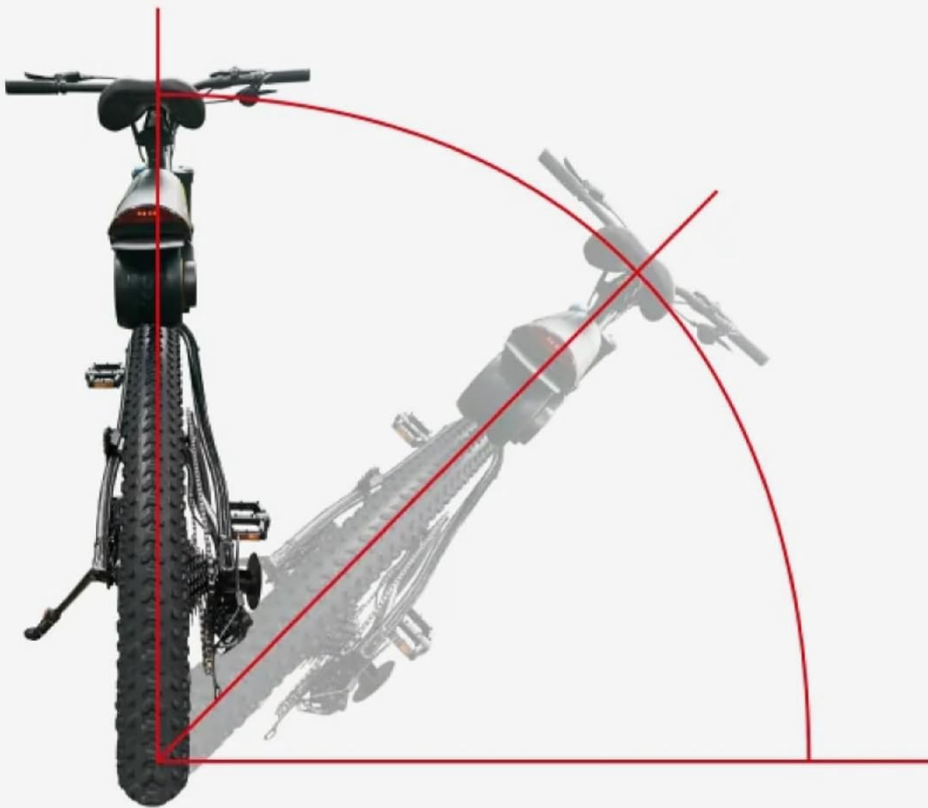


Figure 3.2: Slip Detection mechanism.

Multilayer Protection



Auto-Shutoff >30° Tilt



Anti-Slip V-Shape Tire



Warning Tail Light



Battery Management System



Figure 3.3: Multilayer protection features.

3.3 Power Bank Functionality

The 158Wh battery can also charge your devices on the go, providing a convenient power source during your rides.

4. MAINTENANCE

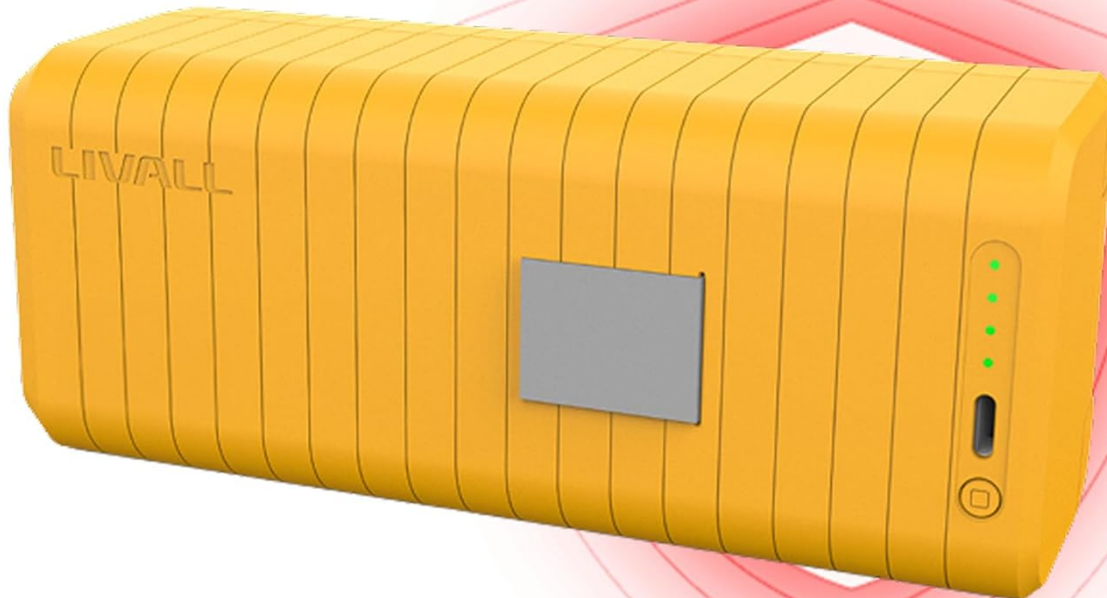
4.1 Battery Care

- **Charging:** Use a 65W USB-C charger (not included) to charge the 158Wh battery. The battery can be charged directly via the PikaBoost2 unit or removed for external charging.
- **Lifespan:** The lithium-ion battery's integrated BMS (Battery Management System) helps retain 80% capacity after 1,000 cycles.
- **Protection:** Features dual protection, charging protection, and discharge protection.

✓ **Dual Protection**

✓ **Charging Protection**

✓ **Discharge Protection**



*80% capacity retained after 1,000 cycles for 158Wh batteries.

*Battery Compliance standards: UL227/UL2580(US)

Figure 4.1: PikaBoost2 158Wh battery with protection features.

4.2 Tire Maintenance

The durable V-shaped tire has a service life of approximately 1,864–3,107 miles (3,000–5,000km). Regularly inspect the tire for wear and tear, and replace it if necessary to maintain optimal grip and safety.

4.3 General Cleaning

Keep the PikaBoost2 unit clean from dirt and debris. Use a damp cloth to wipe down the exterior. Avoid using harsh chemicals or abrasive materials that could damage the unit.

5. TROUBLESHOOTING

If you encounter issues with your PikaBoost2, consider the following:

- **Unit Sliding:** Ensure the seat post clamp is securely tightened. Re-calibrate the unit if necessary.
- **Power Issues:** Check the battery charge level. Ensure all connections are secure. If using the app, check for any error codes or firmware updates.

- **No Assist:** Verify that your speed is above 3.1 mph (5km/h) for power assistance to activate. Check for any tilt warnings if riding on uneven terrain.
- **App Connectivity:** Ensure Bluetooth is enabled on your device and the PikaBoost2 is powered on and within range.

6. SPECIFICATIONS

Feature	Specification
Max Range (Assist)	31 miles / 50 km
Battery Capacity	158 Wh
Net Weight	6.6 lbs / 3 kg
Wheel Size Compatibility	14-29 inches / 35.6-73.7 cm
Seat Post Shape	Round Shape
Waterproof Rating	IPX5
Seat Post Diameter	0.98-1.38 inches / 25-35 mm
V-shaped Tire Width	1.0-2.6 inches / 25-65 mm
Motor Power	250W (Rated), 500W (Peak)
Max Speed (Assist)	25 km/h (15 mph)

Tires compatible with bikes



Suitable for mountain bikes and road bikes, but **NOT** suitable for **rear-suspension bikes**, carbon fiber bike and children's bike
 Wheel size : 14-29inches/35.6-73.7cm

Figure 6.1: PikaBoost2 Lite Edition Specifications.

7. WARRANTY

The LIVALL Lite PikaBoost2 E-Bike Assist Kit comes with a **1-Year Limited Warranty Protection**. Please refer to the included Service Security Card or contact customer support for detailed warranty terms and conditions.

8. CUSTOMER SUPPORT

For any questions, technical assistance, or warranty claims, please contact LIVALL customer support. You can find contact information on the official LIVALL website or through your purchase platform.

For the latest firmware updates and additional features, please download the official LIVALL app from your smartphone's app store.