Ravemen FR500

RAVEMEN FR500 Bike Front Light User Manual

Model: FR500 | Brand: Ravemen

1. Product Overview

The RAVEMEN FR500 is a versatile bike front light designed for both night and daytime riding, offering enhanced visibility and safety. It features high-brightness LEDs, multiple lighting modes, and compatibility with popular cycling computers.



Image: The RAVEMEN FR500 Bike Front Light, a compact and sleek device with a Garmin/Wahoo compatible mount on top and bright LEDs at the front.

Equipped with 2 high-brightness LEDs, the FR500 provides up to 500 lumens in solid mode, ensuring a stable light source for road cycling, daily commuting, and city rides. It supports lighting while charging, catering to your riding needs from dawn to night.

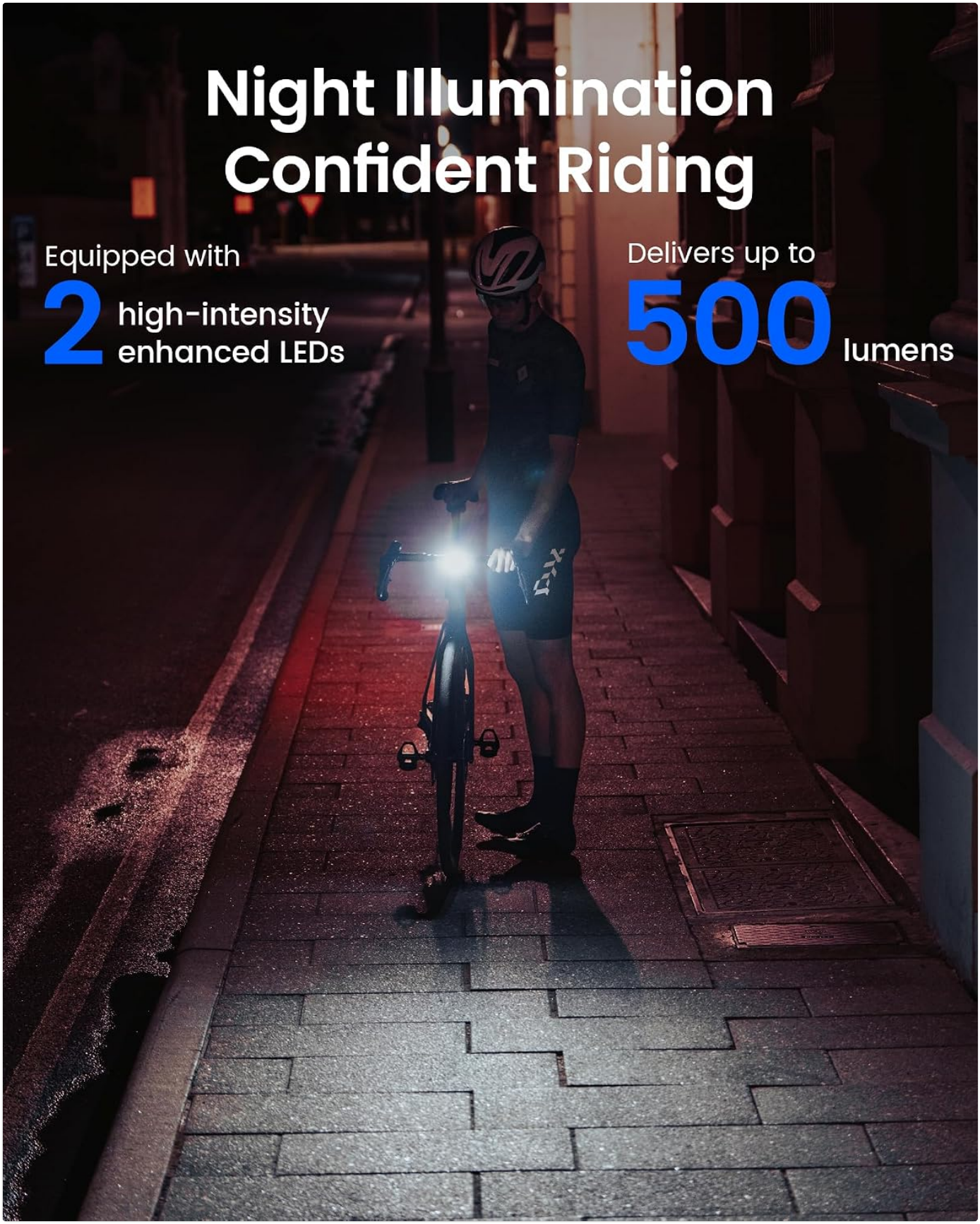


Image: A cyclist with the RAVEMEN FR500 light illuminating the path ahead during night riding, demonstrating its 500-lumen output.

For daytime safety, the light features 6 lighting modes, including 3 flashing options, reaching up to 500 lumens with a wide 270-degree viewing angle. This design ensures you remain visible to vehicles and pedestrians from the front and sides, with high lumen penetration for noticeability even under direct sunlight.



Image: The RAVEMEN FR500 light mounted on a bicycle during daytime, illustrating its effectiveness in providing side visibility and 500-lumen flashes for safety.

2. What's in the Box

The RAVEMEN FR500 package includes the following components:

- FR500 Bike Front Light (x1)

- Adapter compatible with Wahoo (x1)
- Quick start guide (x1)
- USB-C to C rechargeable cable (x1)
- Micro USB cable (x1)
- Tether (x1)

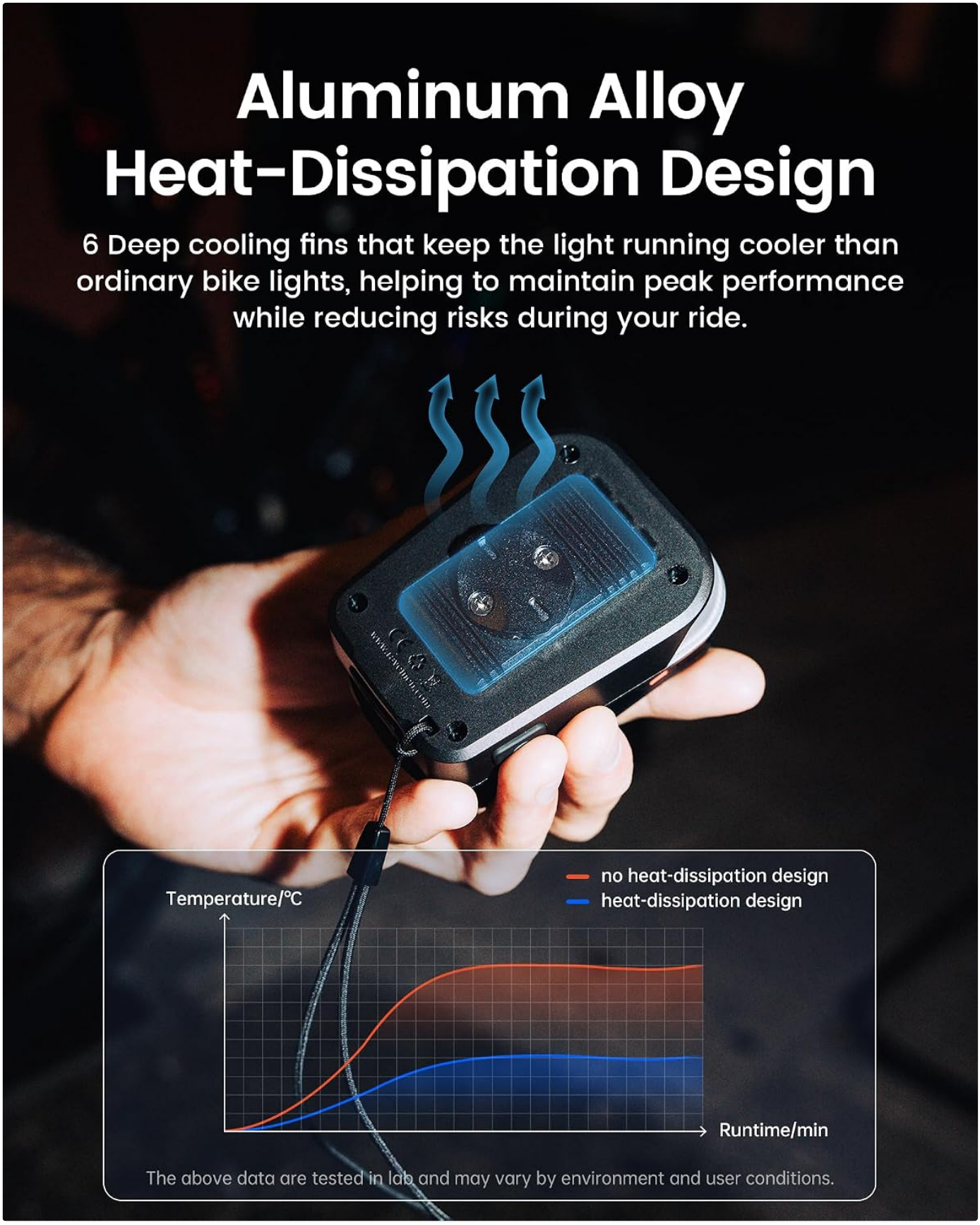


Image: Contents of the RAVEMEN FR500 package, including the light, various cables, adapters, and documentation, laid out next to the product box.

3. Setup and Installation

The FR500 is designed for easy integration with various cycling computer mounts. It is compatible with Garmin, Wahoo, and Bryton bike computers.

Mounting Compatibility:

- **Garmin:** Compatible out of the box with Garmin mounts.
- **Wahoo:** Swap the included parts (refer to the quick start guide for instructions) for Wahoo compatibility. Note that it is not compatible with the original Wahoo ELEMNT BOLT aero out front mount.
- **Bryton:** For Bryton compatibility, the QTM04 adapter (sold separately) is required.



Image: The RAVEMEN FR500 light mounted below a Garmin cycling computer, demonstrating its integrated stacking design. An additional image shows the light mounted with a Wahoo computer, highlighting the replaceable parts for compatibility.

The integrated stacking design allows the bike light to be mounted between your existing computer mount and the bike computer, saving space and maintaining a clean setup.

4. Operating Instructions

Power On/Off and Mode Selection:

The FR500 features a single button for controlling power and cycling through its various lighting modes. Press and hold the button to power on or off. Short presses will cycle through the available modes.

Auto On/Off Mode:

The light includes an intelligent auto on/off mode. Once activated, the light will automatically turn on when motion is detected and turn off after 2 minutes of stillness. This feature conserves battery life and eliminates the need to manually switch the light on or off before and after rides.



Image: A visual representation of the FR500's auto sleep and wake-up function, showing the light turning off after 2 minutes of inactivity and reactivating with movement, indicated by a 2-minute timer icon.

5. Lighting Modes and Runtimes

The FR500 offers 6 distinct lighting modes, including solid and flashing options, to suit various riding conditions and preferences. The light remembers the last mode used.

RAVEMEN FR500 Lighting Modes

Mode	Brightness	Approximate Runtime
High	500 Lumens	2.5 hours
Mid	300 Lumens	3.2 hours
Low	150 Lumens	6.5 hours
Warning Flashing	500 Lumens	36 hours
Rapid Flashing	300 Lumens	13 hours
Slow Flashing	150 Lumens	24.5 hours



Image: A graphic illustrating the RAVEMEN FR500's six lighting modes and their respective runtimes, emphasizing easy single-button control for simple operation.

The flashing modes are particularly effective for daytime visibility, ensuring you are seen by others on the road.

6. Charging and Battery

The FR500 is equipped with a USB-C rechargeable battery, offering convenience and flexibility. It has a 2000mAh battery

capacity.

Charging the Light:

Use the provided USB-C cable to charge the light. The charging port is located on the device. Ensure the rubber plug on the charging port is securely closed when not charging to maintain water resistance.



Image: The RAVEMEN FR500 light connected via a USB-C cable, illustrating its rechargeable capability and 2000mAh battery capacity, with an estimated maximum runtime of 36 hours.

Emergency Charging for Bike Computers:

The FR500 can also provide emergency power to your bike computer when needed. Follow these steps:

1. Connect your bike computer to the FR500 using the appropriate cable.
2. Ensure the FR500 is powered on to initiate charging.

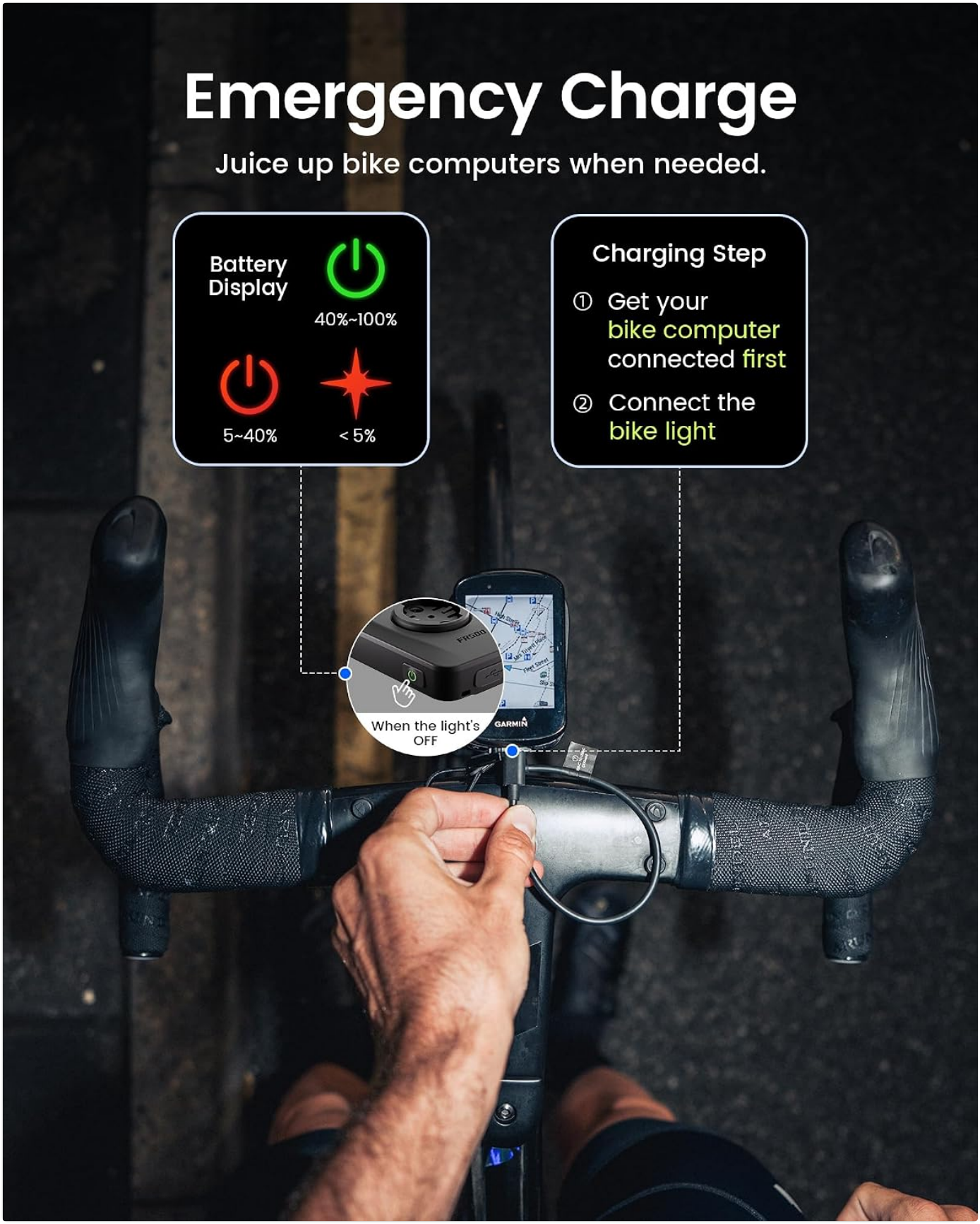


Image: A user connecting the RAVEMEN FR500 to a Garmin bike computer for emergency charging, with an illustration of the battery display indicating charge levels (40%-100%, 5%-40%, <5%).

7. Efficient Heat Dissipation

The FR500 is engineered with an aluminum alloy bottom and 6 air guide grooves. This design effectively dissipates heat generated during extended use, preventing performance degradation and overheating, thus ensuring consistent light output and product longevity.

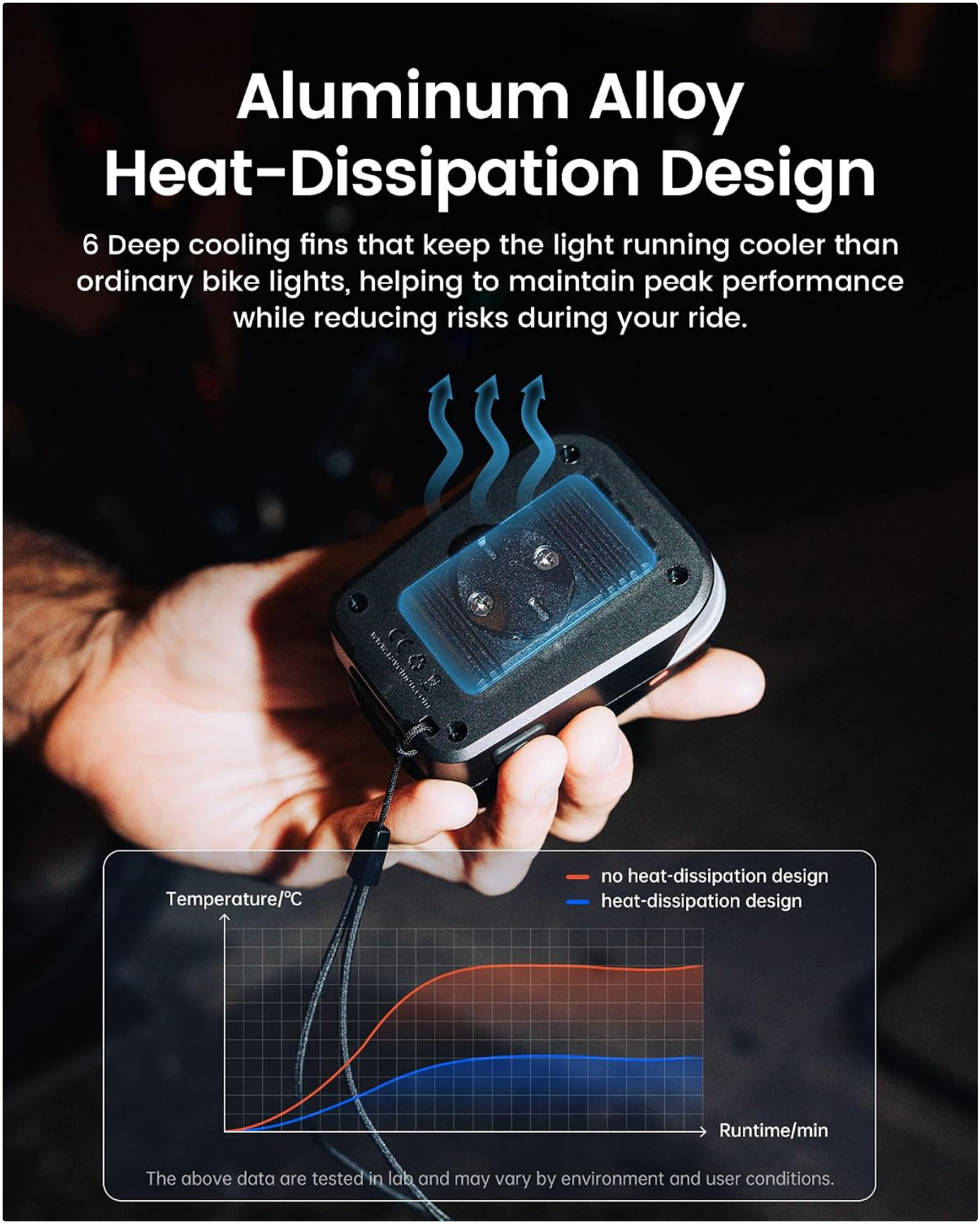


Image: A close-up view of the RAVEMEN FR500's underside, highlighting the aluminum alloy and cooling fins designed for efficient heat dissipation. A graph compares temperature performance with and without this design over runtime.

8. Water Resistance

The RAVEMEN FR500 is rated IPX6 waterproof. This means it is protected against high-pressure water jets from any direction. As long as the rubber plug on the charging port is properly sealed, the light will continue to function reliably even in unexpected heavy rain, ensuring your ride is not interrupted by adverse weather conditions.

9. Maintenance

To ensure the longevity and optimal performance of your RAVEMEN FR500 Bike Front Light, please follow these maintenance guidelines:

- **Cleaning:** Wipe the light body and lens with a soft, damp cloth. Avoid using abrasive cleaners or solvents that could damage the surface or lens.
- **Charging Port:** Always ensure the rubber plug covering the USB-C charging port is securely closed when not charging to prevent water and dust ingress.
- **Storage:** Store the light in a cool, dry place when not in use. If storing for an extended period, charge the battery to approximately 50% every few months to maintain battery health.
- **Battery Care:** Avoid fully depleting the battery frequently. Recharge the light when the battery indicator shows low power.

10. Troubleshooting

If you encounter any issues with your RAVEMEN FR500, please refer to the following common troubleshooting tips:

- **Light Not Turning On:**
  - Ensure the battery is charged. Connect the light to a power source using the USB-C cable.
  - Press and hold the power button for a few seconds to ensure it's not just a short press.
- **Light Not Charging:**
  - Check the USB-C cable for damage and ensure it's properly connected to both the light and the power source.
  - Try a different USB-C cable or power adapter.
- **Auto On/Off Not Working:**
  - Ensure the light is in the correct mode for auto on/off functionality (refer to operating instructions).
  - Check for any obstructions that might interfere with the motion sensor.
- **Reduced Brightness or Runtime:**
  - The battery might be low. Recharge the light fully.
  - Extreme temperatures can affect battery performance. Operate the light within recommended temperature ranges.

If the issue persists after trying these steps, please contact RAVEMEN customer support for further assistance.

11. Specifications

RAVEMEN FR500 Product Specifications

Feature	Detail
Model Name	FR500
Brand	Ravemen
Color	Black
Material	Plastic

Feature	Detail
Power Source	USB C Rechargeable
Brightness	500 Lumen (Max)
Water Resistance Level	IPX6 Waterproof
Item Weight	3.52 ounces (approx. 100g)
Product Dimensions	3.23"L x 2.36"W x 1.14"H
Mounting Type	Compatible with Garmin/Wahoo mounting base
Number of Settings	6 Lighting Modes
Included Components	FR500 Light, USB-C rechargeable cable, Wahoo adapter, Quick start guide, Micro USB cable, Tether

12. Warranty and Support

The RAVEMEN FR500 Bike Front Light comes with a**2-Year Manufacturer Warranty**. This warranty covers defects in materials and workmanship under normal use.

For warranty claims, technical support, or any inquiries regarding your product, please contact RAVEMEN Official customer support. You can find more information and contact details on the official Ravemen store page: Visit the Ravemen Store.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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