

Brake Free - User Manual

Table Of Contents

- I. [Thank you](#)
- II. [Product Overview](#)
- III. [What's in the box?](#)
- IV. [Installation Instructions](#)
- V. [Wireless Brake Detection](#)
- VI. [How To Use Your Brake Free](#)
 - A. [Powering the device <<on>>](#)
 - B. [Powering the device <<off>>](#)
 - C. [Selecting Modes](#)
 - D. [Automatic Modes](#)
 - E. [Charging Brake Free](#)
 - F. [Resetting Brake Free](#)
- VII. [Brake Free Technical Specifications](#)
- VIII. [Battery Safety](#)
 - A. [Additional Warnings](#)
- IX. [Additional Help](#)
- X. [Brake Free User Manual Copyright](#)

I. Thank you!!!

Thank you for choosing Brake Free. You made a great choice to invest in your safety. We believe improving your visibility is one of the best ways to help prevent accidents from happening in the first place. We appreciate you choosing our product to help you with that.

Keep the rubber side down,
- The Brake Free Team

II. Product Overview

Brake Free is an ultra-bright smart LED light that instantly improves a motorcycle's visibility. It mounts on the back of the helmet you already own and its sensors work automatically to let others know whenever you slow down, no matter how. With the use of its onboard sensors and our patented algorithm, it will automatically detect braking, engine braking, or downshifting. No need for a wired installation or connected apps. Brake Free is simply a smarter way to be seen.

III. What's in the box?



1. Brake Free unit
2. Brake Free helmet mount
3. Brake Free Micro USB charging cable
4. Quick Start Guide
5. Installation template
6. Alcohol wipe

IV. Installation Instructions

The Quick Start Guide included in the Brake Free package outlines all of the steps required for proper installation of Brake Free on your helmet. Please follow ALL of the outlined steps for best results. Failure to follow the instructions may result in mount failure.

Brake Free Quick Start Guide can also be found online at www.brakefreetech.com/install
Please visit the website for additional “How To” videos to help with the installation process.

V. Wireless Brake Detection

Brake Free utilizes a combination of accelerometer and gyrometer sensors along with our patented brake detection algorithm to *autonomously* detect when you're slowing down no matter how: braking, engine braking, or downshifting. When it does detect you braking, its LEDs glow brighter letting drivers around you know instantly. And there is no wired installation or connected apps with your phone for it to work.

VI. How To Use Your Brake Free

A. Powering the device <<on>>

- Hold the power button briefly.

B. Powering the device <<off>>

- Hold the power button for 2 seconds or until lights turn off

C. Selecting modes

Brake Free offers 3 modes to choose from. To switch modes, first, make sure Brake Free is powered on. Give the Power Button a quick press (<1 second) to cycle through the modes.

3 Light Modes

Active Mode



All four LED light panels are constantly on at 20% power. This mode offers running lights that are always on for constant visibility. When Braking is detected, all light panels will activate to full brightness for the duration of braking and will automatically return to 20% brightness

Pulsing Mode



This mode constantly pulses the side LED panels for additional visibility while riding. In pulsing mode, Brake Free will simultaneously pulse the left and right light LED panels on and off at 20% brightness continuously. When a braking event is detected all 4 LED light panels will activate to full brightness for the duration of the braking event. When Brake Free no longer senses deceleration the lights will return to the pulsing pattern.

- **Pro Tip:** use this mode if you break down on the side of the road to provide you and your bike additional visibility. Brake Free will not activate Sleep Mode when in this mode. It will continue to pulse until the battery reaches 25% charge.

Stealth Mode



Steal Mode provides the benefits of running lights and creates a more dramatic effect when braking. in stealth mode, only the center light panels are activated at 20% brightness during normal operation. During braking events all 4 light panels to full brightness for the duration of the braking event. Lights return to the normal operating mode when a braking event is over.

D. Automatic Modes

There are 3 automatic modes that Brake Free performs...well, automatically!

Emergency Braking Mode

For added safety, Brake Free has 2 thresholds (regular braking and emergency braking). Brake Free will automatically activate an emergency braking light pattern when Emergency Braking is detected.

Emergency Brake light pattern will flash all of the LED panels 3 times at full power to communicate to the surrounding drivers that you're slowing down quickly. After the Emergency Braking indication Brake Free will resume regular braking light pattern for as long as braking forces are being detected.

Sleep Mode

Brake Free will automatically go to Sleep Mode if it is not being used, to conserve battery life. Sleep Mode is a low power mode that turns off all lights until Brake Free detects motion. When motion is detected, Brake Free will power on automatically.

- Brake Free will automatically go into sleep mode after 45 seconds of inactivity
- Any movement of the Brake Free will automatically wake it up

Low Battery Mode

Brake Free will automatically switch to **Low Battery Mode** when it drops to 25% of battery charge. Low Battery Mode will switch the device to **Stealth Mode** and activate left indicator light to blink, to indicate low battery. This mode aims to conserve battery power to allow you to reach your destination and recharge.

Note: please refer to Stealth Mode above for reference



Brake Free in Low Battery Mode

Overheating

Brake Free is built for daily use in all conditions. In the unlikely case of Brake Free overheating, the right status indicator will glow solid with the left indicator light and all other light panels turned off. Allow the unit to cool off before attempting to use Brake Free again.

E. Charging Brake Free

Step 1

Plug the wide end of the Micro USB cable into a power source (for example a USB power adapter, power bank or laptop).

Note: No power adapter is included with Brake Free because we know you have plenty of options and we don't want to create additional waste on our planet.



charging Brake Free using your laptop



charging Brake Free with portable battery



using a power supply

Step 2

Peel back the charging port cover on the bottom of your Brake Free device.



open charging port cover

Step 3

Plug in the Micro USB cable into the charging port at the bottom of Brake Free

Warning Be sure to pay attention to the direction of the Micro USB to avoid damaging the port.



plug in Micro USB cable

Two center status indicator lights will turn on and begin to pulse to confirm you have properly connected the Brake Free charging cable and the battery is charging.

As the battery charges, the time between indicator lights pulses will decrease to give a visual indicator of the charging progress.



both indicator lights will pulse on and off while charging

Note: You may be able to charge Brake Free while it's still connected to your helmet. We recommend removing Brake Free from the helmet while charging to avoid accidentally dropping Brake Free and/or the helmet.

Warning

Charging your Brake Free while riding is done at your own risk. Charging Brake Free while riding is dangerous and may result in injury or death.

Step 4 (when battery is fully charged)

Both indicator lights will glow solid when charging is complete. Brake Free uses a high capacity Lithium Ion battery. It may require up to 3 hours to fully charge a drained battery.



Brake Free is fully charged

Step 5

Replace the Brake Free charging port cover to seal the charging port and prevent dust and moisture from getting in.



1



2



3

Warning

Failure to cover the charging port with the attached port cover will allow water, dust and other particles to enter the device. Permanent damage may result if the charging port is left unprotected.

F. Resetting Brake Free

To reset Brake Free in case of malfunction (not responding) press and hold the Power button for 10 seconds. To confirm the reset, Brake Free will flash and begin the power-up sequence. When the power-up sequence begins you may let go of the power button.

Note: Brake Free must not have the Micro USB cable plugged in to its charging port during reset.

VII. Brake Free Technical Specifications

Battery info: 2950 mAh Samsung Li-Ion

Riding time: 8-12 hours depending on riding conditions and light mode

Operating temperature range: -20°C to 60°C (-4°F to 140°F)

Charging temperature range: 0°C to 45°C (32°F - 113°F)

Charging Port: Micro USB charging (5V)

Charging Rate: 1 Amp Max

Lights: 100 LEDs; 120° viewing angle

Weight: 200 grams

Dimensions: 184mm wide, 84mm tall, 30-40mm thick

Water resistance: IP64

Mount Adhesive: high-performance 3M VHB double-sided adhesive

VIII. Battery Safety

Warning

Explosion hazard if the battery is replaced by an incorrect type of battery. The battery included with Brake Free should only be replaced by Brake Free Technologies, Inc. or by an authorized service center.

Additional Warnings

- Do not attempt to replace your Brake Free battery. It is a sealed unit, and the battery is not user replaceable.
- Charge the battery per instructions provided in this manual
- Attempting to open your Brake Free unit, replacing the battery, or modifying the unit in any way will void the warranty. In addition, the materials contained in the battery could harm the environment or cause personal injury if mishandled or disposed of improperly.
- Please do not expose your Brake Free to extreme temperature conditions. Refer to the Technical Specifications section above for proper operating conditions.
- Do not charge your Brake Free if wet.
- Do not clean your Brake Free or its accessories with abrasive chemicals.
- Do not throw your Brake Free into the fire or keep near a heating source. It is an explosion hazard.
- Do not throw away your Brake Free with your household trash as it contains a Li-Ion Battery. Please recycle your Brake Free with the proper local electronics recycling facility.

IX. Additional Help

For help with additional questions, please visit our FAQ page:

www.brakefreetech.com/FAQ

Email us: support@brakefreetech.com



BRAKE FREE

www.brakefreetech.com

Brake Free User Manual Copyright

This Starter Guide is protected by the laws of Intellectual Property and by copyright. Any reproduction, modification, representation and/or publication without the prior consent of Brake Free Technologies, Inc. is strictly prohibited. If you have any questions, please contact the Brake Free team at support@brakefreetech.com