

## BEAMFLY LEDX5H4

# BEAMFLY H4 LED Car Bulb Instruction Manual

Model: LEDX5H4

## 1. INTRODUCTION

Thank you for choosing BEAMFLY H4 LED Car Bulbs. This manual provides essential information for the safe and efficient installation, operation, and maintenance of your new LED headlights. Please read it thoroughly before use and retain it for future reference.

The BEAMFLY H4 LED Car Bulbs are designed to provide superior illumination for your vehicle, offering enhanced brightness and a clear, cool white light. They feature advanced heat management and a precise beam pattern for optimal road visibility.

## 2. SAFETY INFORMATION

- Always disconnect the vehicle's battery before attempting any electrical work to prevent electric shock.
- Wear appropriate personal protective equipment, such as gloves and eye protection, during installation.
- Ensure the vehicle's engine is off and cooled down before handling headlight components.
- These LED bulbs are designed for specific vehicle applications. Verify compatibility with your vehicle's make and model before installation.
- **Important Note:** These LED bulbs are not compatible with vehicles equipped with a CANbus system that requires specific LED decoding. Installation in such vehicles may result in error messages or flickering.
- After installation, it is recommended to have your headlights professionally aimed to ensure proper beam alignment and prevent dazzling other drivers.
- Do not touch the LED chips directly, as oils from your skin can reduce their lifespan.

## 3. PACKAGE CONTENTS

Verify that all items are present in the package:

- 2 x BEAMFLY H4 LED Car Bulbs
- 1 x Installation Manual (this document)



Image: The BEAMFLY H4 LED Car Bulb kit, showing two LED bulbs, an external driver, and the product packaging.

## 4. SETUP AND INSTALLATION

Follow these general steps for installing your BEAMFLY H4 LED Car Bulbs. Specific vehicle models may vary, so consult your vehicle's owner's manual for detailed headlight access instructions.

1. **Preparation:** Ensure the vehicle is turned off, the engine is cool, and the parking brake is engaged. Disconnect the negative terminal of the car battery.
2. **Access Headlight Assembly:** Locate the rear of the headlight assembly. This may require removing a dust cover or other components.
3. **Remove Old Bulb:** Disconnect the electrical connector from the existing H4 halogen bulb. Unclip or twist to release the old bulb from its housing and carefully remove it.
4. **Install LED Bulb:**
  - Separate the mounting collar from the LED bulb if it's designed to be installed separately.
  - Insert the mounting collar into the headlight housing and secure it with the retaining clip.
  - Carefully insert the LED bulb into the secured collar, ensuring the LED chips face horizontally (3 and 9 o'clock positions) for optimal beam pattern. The 360° adjustable adapter allows for fine-tuning the beam pattern.
  - Twist the LED bulb to lock it into place.

5. **Connect Wiring:** Connect the LED bulb's electrical connector to the vehicle's original H4 headlight harness. Ensure a secure connection. The external driver should be mounted in a location away from excessive heat or moisture.
6. **Secure Dust Cover:** If applicable, replace the dust cover, ensuring the wiring passes through without being pinched.
7. **Repeat for Second Headlight:** Perform the same steps for the other headlight.
8. **Reconnect Battery:** Reconnect the negative terminal of the car battery.
9. **Test and Adjust:** Turn on your headlights to test functionality. It is highly recommended to have the beam pattern professionally adjusted to prevent glare for oncoming traffic.



Image: Diagram illustrating the easy installation process of the BEAMFLY H4 LED bulb, showing the 360° adjustable adapter and connection to the external driver.



# PERFECT BEAM PATTERN

High power LED chipsets · High brightness · High color rendering index

Ensure wider and further lighting area.  
Do not blind oncoming traffic.  
No glare to other drivers.



**95%**  **300%** 

**Improved light efficiency    More concentrated light**  
Unique LED design allows for more focused light angle for high-intensity applications. The internal parabolic reflector also collimates the light into a beam, allowing high-intensity light to be produced by a standard LED with standard energy consumption.



**90<sup>+</sup> CRI** **BEAMFLY LED bulb** **OTHER LED bulb**

Image: Illustration of the BEAMFLY LED bulb's precise beam pattern, showing a clear cut-off line to prevent glare for other drivers, compared to a standard LED bulb.

## 5. OPERATING INSTRUCTIONS

Once installed, your BEAMFLY H4 LED Car Bulbs operate like standard headlights. Use your vehicle's headlight switch to turn them on and off, and to switch between low beam and high beam functions.

- **Low Beam:** Provides a focused light pattern for general driving, designed to illuminate the road ahead without blinding oncoming traffic.
- **High Beam:** Offers maximum illumination for driving in dark conditions where no oncoming traffic is present. Switch to low beam when approaching other vehicles.



# TOP AUTOMOTIVE LED CHIPSETS

High power · High brightness · High color rendering index

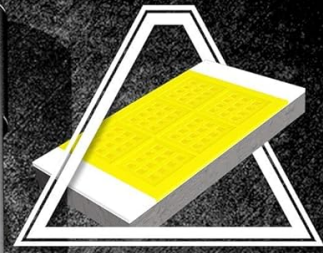
Top automotive-grade 3570 CSP LED chipsets with 120W/Pair can produce 20000LM/Pair high intensity 6000K whiter light, which is 5 times brighter than standard halogen lamps. The unique reduced-glare headlight technology ensures correct beam pattern on the road without blinding oncoming traffics.

**20000LM**  
High Lumen

**120W**  
High Power

**6000K**  
Super White

**500%**  
+500% Brightness



## UPGRADED LED CHIPSETS

Advanced vacuum welding process ensures to have 1% defect rate.



**BEAMFLY** High power LED chipsets

The power of 85mil chipsets is 2 times higher than other ordinary chipsets and brings better concentrated light.



**OTHER** Reduced-power LED chipsets

With separate single chip and lower power, the light will be uneven and scattering.



Image: Close-up view of the BEAMFLY H4 LED bulb's advanced LED chipsets, highlighting their high brightness and color rendering index.

## 6. MAINTENANCE

BEAMFLY H4 LED Car Bulbs are designed for long-term performance with minimal maintenance. Follow these guidelines to ensure optimal lifespan:

- **Cleaning:** Keep the headlight lenses clean from dirt, dust, and debris to ensure maximum light output. Use a soft cloth and appropriate automotive cleaning solutions.
- **Inspection:** Periodically check the bulbs and wiring for any signs of damage or loose connections.
- **Avoid Direct Contact:** Do not touch the LED chips with bare hands. If accidental contact occurs, clean with isopropyl alcohol.
- **Heat Management:** Ensure the cooling fan and heat sink areas are free from obstructions to allow for proper heat dissipation.



# DUAL COPPER HEAT PIPE

The dual copper heat pipes ensure efficient cooling and enhanced brightness, while the luminous decay can be greatly avoided and the longevity can be brilliantly guaranteed.

**State-of-the-art copper heat pipes**  
Vacuum + liquid metal manufactured  
by over 40 production processes

**+2000%**

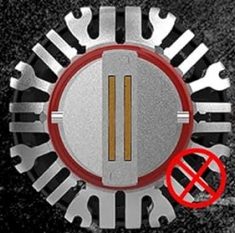
Higher thermal conductivity  
than aluminum

**+1000%**

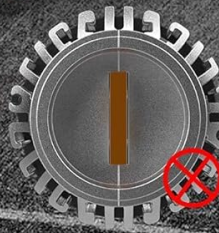
Higher thermal conductivity  
than copper

**+500%**

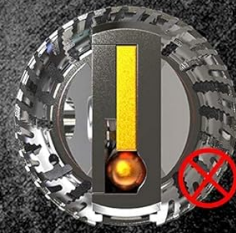
Higher thermal conductivity  
than a single heat pipe



**Ordinary sandwich aluminum**  
Worst heat dissipation



**Sandwich copper**  
Bad heat dissipation



**Single copper tube**  
Inadequate heat dissipation

Image: Detailed view of the BEAMFLY LED bulb's dual copper heat pipe system, illustrating its role in efficient cooling and extending bulb lifespan.



# DUAL-BALL BEARING COOLING FAN

The reliability of dual-ball cooling fan is better than those hydraulic fan. Super powerful turbo fan working at 12000 revolutions per minute provides brilliant cooling capability. The working life of the LED bulbs can reach over 55000 hours with the help of the multichannel cooling systems.



Image: Exploded view of the BEAMFLY LED bulb's dual-ball bearing cooling fan, showing its components and how it dissipates heat for prolonged operation.

## 7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Bulb does not light up	<ul style="list-style-type: none"><li>Loose connection</li><li>Incorrect polarity</li><li>Blown fuse</li><li>Defective bulb</li></ul>	<ul style="list-style-type: none"><li>Check all electrical connections.</li><li>Ensure the connector is plugged in correctly.</li><li>Inspect and replace vehicle's headlight fuse if necessary.</li><li>Test the bulb in another compatible socket or contact support.</li></ul>
Flickering or intermittent operation	<ul style="list-style-type: none"><li>CANbus incompatibility</li><li>Loose connection</li><li>Voltage fluctuations</li></ul>	<ul style="list-style-type: none"><li>If your vehicle has a CANbus system, an additional decoder may be required (these bulbs are not CANbus compatible by default).</li><li>Check all electrical connections.</li><li>Ensure stable power supply.</li></ul>

Problem	Possible Cause	Solution
Radio interference	<ul style="list-style-type: none"><li>◦ Electromagnetic interference (EMI) from LED driver</li></ul>	<ul style="list-style-type: none"><li>◦ Ensure the external driver is mounted as far as possible from the radio antenna or sensitive audio components.</li><li>◦ Consider adding EMI filters if the problem persists (not included).</li></ul>
Improper beam pattern / Glare	<ul style="list-style-type: none"><li>◦ Incorrect bulb orientation</li><li>◦ Headlight assembly not aimed correctly</li></ul>	<ul style="list-style-type: none"><li>◦ Adjust the 360° adapter to ensure LED chips are horizontal.</li><li>◦ Have headlights professionally aimed.</li></ul>

## 8. SPECIFICATIONS

Feature	Detail
Model Number	LEDX5H4
Bulb Type	H4 (High/Low Beam)
Light Source	LED
Power	120W/Kit (60W per bulb)
Lumen Output	20000LM/Pair (10000LM per bulb)
Color Temperature	6000K Cool White
Color Rendering Index (CRI)	Ra90+
Voltage	12 Volts
Waterproof Rating	IP68
Operating Temperature	-40°C to +120°C
Lifespan	> 55,000 hours
Special Features	360° Adjustable Beam, Dual Copper Heat Pipe, Dual-Ball Bearing Cooling Fan, Not CANbus Compatible
Safety Performance	CE Certified
Item Weight	330 g (per pair)
UPC	191170754272

## 9. WARRANTY INFORMATION

BEAMFLY products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the retailer where you purchased the product or visit the official BEAMFLY website. Keep your proof of purchase for any warranty claims.



## 10. CUSTOMER SUPPORT

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If you encounter any issues or have questions regarding your BEAMFLY H4 LED Car Bulbs that are not covered in this manual, please contact BEAMFLY customer service through the retailer's platform or the official BEAMFLY support channels. Please have your model number (LEDX5H4) and purchase details ready when contacting support.