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> Putco /

> Putco F1-H10 LED Headlight Kit Instruction Manual

Putco F1-H10

Putco F1-H10 LED Headlight Kit Instruction Manual

Model: F1-H10 | Brand: Putco

[Introduction](#) [Safety](#) [Installation](#) [Operation](#) [Maintenance](#) [Troubleshooting](#) [Specifications](#) [Warranty](#)
& Support

1. INTRODUCTION

1.1 Product Overview

The Putco F1-H10 LED Headlight Kit provides an advanced lighting solution for vehicles. This kit features innovative COB LED technology, a miniaturized driver, and an efficient thermal management system for reliable performance and enhanced visibility. The design incorporates a patented flexible heat sink for optimal temperature control and ease of installation.



Image 1.1: The Putco F1-H10 LED headlight bulb with its flexible heat sink in an expanded position.

1.2 What's in the Box

Your Putco F1-H10 LED Headlight Kit includes:

- 1 Pair of Putco F1-H10 LED Bulbs
- 1 Pair of Miniature LED Drivers (integrated with bulbs)

2. SAFETY PRECAUTIONS

Please read and understand all safety information before installing or operating the Putco F1-H10 LED Headlight Kit. Failure to follow these instructions may result in injury or damage to the product or vehicle.

- Always disconnect the vehicle's battery (negative terminal first) before beginning installation to prevent electrical 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 any components in the engine bay.
- Do not touch the LED surface directly with bare hands to avoid contamination, which can affect light output and lifespan.
- Consult a qualified automotive technician if you are unsure about any installation steps or vehicle-specific procedures.
- This product is designed for specific vehicle applications. Verify compatibility with your vehicle's bulb type (H10) before installation.
- LED bulbs can become hot during operation. Allow them to cool completely before handling after use.
- Ensure all wiring is routed away from moving parts and hot surfaces to prevent damage.

3. INSTALLATION GUIDE

This section provides general instructions for installing the Putco F1-H10 LED Headlight Kit. Specific vehicle models may require variations in accessing the headlight assembly. Refer to your vehicle's service manual for detailed headlight assembly removal and installation procedures.

3.1 Step 1: Preparation

1. Park the vehicle on a level surface and engage the parking brake.
2. Turn off the engine and remove the key from the ignition.
3. Open the hood and locate the headlight assemblies.
4. Disconnect the negative terminal of the vehicle's battery to prevent electrical hazards.

3.2 Step 2: Accessing the Headlight Bulb

1. Depending on your vehicle, you may need to remove the headlight assembly, fender liner, or other components to gain access to the existing headlight bulb.
2. Carefully disconnect the electrical connector from the existing bulb.
3. Remove the retaining clip, spring, or twist-lock mechanism holding the old bulb in place.
4. Gently remove the old bulb from the headlight housing.

3.3 Step 3: Installing the Putco F1-H10 LED Bulb

1. Insert the Putco F1-H10 LED bulb into the headlight housing, ensuring it is seated correctly and aligned with the keyways. Do not force the bulb.
2. Secure the LED bulb with the retaining clip, spring, or twist-lock mechanism that was removed earlier.
3. Connect the electrical connector from the vehicle's wiring harness to the LED bulb's integrated driver. Ensure a secure and tight connection.
4. Arrange the flexible heat sink fins to allow for optimal heat dissipation. Ensure they are not obstructed and have adequate clearance within the headlight assembly. The fins can be spread out (Image 3.1) or compacted (Image 3.2) to fit various housing designs.



Image 3.1: LED bulb with heat sink fins fully expanded for maximum cooling.



Image 3.2: LED bulb with heat sink fins compacted for tighter spaces.

3.4 Step 4: Testing and Finalization

1. Reconnect the negative terminal of the vehicle's battery.
2. Turn on the vehicle's headlights to test the new LED bulbs. Verify that both bulbs illuminate correctly.
3. Check the beam pattern. If necessary, adjust headlight aim according to your vehicle's specifications or local regulations.

Consult your vehicle's service manual or a professional for proper aiming procedures.

4. Reinstall any components (headlight assembly, fender liner, etc.) that were removed during Step 2.
5. Close the hood.

4. OPERATING INSTRUCTIONS

The Putco F1-H10 LED Headlight Kit operates like standard vehicle headlights once properly installed.

- Turn on your vehicle's headlight switch to activate the LED bulbs.
- The 6000K color temperature provides a bright, white light output, enhancing visibility.
- The bulbs are designed for consistent and reliable performance under normal operating conditions.



Image 4.1: The Putco F1-H10 LED headlight bulb illuminated, showcasing its bright output.

5. MAINTENANCE

The Putco F1-H10 LED Headlight Kit is designed for minimal maintenance due to its solid-state design and durable construction.

- Periodically inspect the headlight assembly for any signs of moisture intrusion or physical damage.

- Ensure the flexible heat sink fins remain unobstructed and clean to maintain proper cooling and prevent overheating.
- Clean the exterior of your vehicle's headlight lens regularly with a soft cloth and appropriate automotive cleaner to ensure maximum light output and clarity.
- Do not use abrasive cleaners or harsh chemicals on the LED bulbs or heat sinks.

6. TROUBLESHOOTING

If you encounter issues with your Putco F1-H10 LED Headlight Kit, refer to the table below for common problems and solutions.

Problem	Possible Cause	Solution
LED bulb does not illuminate	Loose electrical connection	Check all electrical connections to the bulb and integrated driver. Ensure they are secure.
LED bulb does not illuminate	Incorrect polarity	Some vehicles may require reversing the polarity of the connector. Disconnect, flip, and reconnect the plug.
LED bulb does not illuminate	Blown vehicle fuse	Check the vehicle's headlight fuse in the fuse box. Replace if necessary according to your vehicle's manual.
Flickering or intermittent operation	Loose connection or voltage fluctuation	Ensure all connections are secure. If flickering persists, consult a professional as a CAN bus decoder may be required for some vehicles.
Error message on dashboard	Vehicle's CAN bus system detects lower power draw	Some vehicles with sensitive CAN bus systems may require a CAN bus decoder (load resistor, sold separately) to prevent error messages.
Reduced light output or overheating	Obstructed heat sink	Ensure the flexible heat sink fins are not bent or obstructed and have adequate airflow within the headlight housing.

If issues persist after attempting these solutions, please contact Putco customer support for further assistance.

7. PRODUCT SPECIFICATIONS

- **Model:** F1-H10
- **Bulb Type:** H10 LED
- **Color Temperature:** 6000K (Bright White)
- **Lumen Output:** 1500 Lumens per bulb
- **Water Resistance Rating:** IP65
- **Heat Sink:** Patented flexible aluminum heat sink
- **Design:** Solid state
- **Approximate Product Dimensions (Packaged):** 11 x 6 x 3 inches
- **Approximate Item Weight (Packaged):** 2 pounds
- **Intended Position:** Front (Headlight application)

8. WARRANTY AND CUSTOMER SUPPORT

8.1 Warranty Information

The Putco F1-H10 LED Headlight Kit is backed by a 1-year warranty from the date of purchase. This warranty covers manufacturing defects under normal use. Please retain your original proof of purchase for all warranty claims. The warranty does not cover damage resulting from improper installation, accident, abuse, modification, or normal wear and tear.

8.2 Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact Putco customer support. You can typically find contact information on the official Putco website or through the retailer where the product was purchased.

Visit www.putco.com for additional product information and support resources.