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› KC HiLiTES 6-inch Round 100W Long Range Clear Black Light (Model 238) Instruction Manual

KC HiLiTES 238

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1. INTRODUCTION

1.1 Product Overview

The KC HiLiTES 6-inch Round 100W Long Range Clear Black Light, Model 238, is a high-performance auxiliary lighting solution designed for various vehicle applications. This light features a powerful 100W H3 Halogen bulb in a spot beam pattern, housed within a durable black powder-coated casing. Engineered for longevity and performance, it has been tested for over 40 years in demanding conditions. This product is intended to enhance visibility and safety during night driving or off-road adventures.

1.2 Package Contents

- KC HiLiTES 6-inch Round 100W Long Range Light (Model 238)
- Complete Relay Wiring Harness
- Switch Kit
- Light Covers



Image 1.1: KC HiLiTES 6-inch Round 100W Long Range Clear Black Light, Model 238. This image displays the black housing and clear lens of the light, with its mounting bracket and wiring visible at the base.

2. SAFETY INFORMATION

Please read and understand all safety instructions before installation and operation. Failure to follow these instructions may result in property damage, personal injury, or product malfunction.

- **Electrical Safety:** Always disconnect the vehicle's battery before performing any electrical work. Ensure all wiring connections are secure and properly insulated to prevent short circuits.
- **Mounting Safety:** Mount the lights securely to a stable surface on your vehicle. Ensure the mounting location does not obstruct the driver's view or interfere with vehicle safety systems.
- **Heat Warning:** The light housing and lens can become very hot during operation. Avoid touching the light directly after use to prevent burns.
- **Bulb Handling:** When replacing bulbs, avoid touching the glass portion of the new bulb with bare hands, as oils can reduce bulb life. Use gloves or a clean cloth.
- **Road Regulations:** Be aware of local and state regulations regarding auxiliary lighting. Use these lights responsibly and only when permitted.

3. SETUP AND INSTALLATION

Installation of the KC HiLiTES light requires basic automotive electrical and mechanical knowledge. If you are unsure about any step, consult a professional installer.

3.1 Tools Required

- Wrench set or socket set
- Wire strippers/crimpers
- Electrical tape or heat shrink tubing
- Drill (if new mounting holes are required)
- Multimeter (for testing electrical connections)

3.2 Mounting the Light

1. Select a suitable mounting location on your vehicle that provides clear light projection and does not obstruct other vehicle components or driver visibility.
2. Secure the light using the provided mounting bracket and hardware. Ensure all bolts are tightened to prevent vibration and movement.

3.3 Wiring Instructions

The included wiring harness is designed for straightforward installation. Follow these general steps:

1. **Disconnect Battery:** Always disconnect the negative terminal of your vehicle's battery before starting any wiring.
2. **Route Wiring:** Route the wiring harness from the light(s) to the battery, through the firewall to the switch location, and to a suitable ground point. Ensure wiring is protected from sharp edges, heat, and moving parts.
3. **Connect Relay:** The harness includes a relay. Mount the relay in a dry, accessible location.
4. **Connect Power:** Connect the main power wire from the relay to the positive terminal of the battery (or a fused accessory power source). Ensure an appropriate fuse is installed as close to the power source as possible.
5. **Connect Ground:** Connect the ground wire from the light and the relay to a clean, unpainted metal surface on the vehicle chassis.
6. **Install Switch:** Install the switch in a convenient location within the vehicle's cabin. Connect the switch wires to the relay as per the harness instructions.
7. **Connect Light:** Connect the light's power and ground wires to the corresponding wires on the harness.
8. **Reconnect Battery:** Once all connections are secure and insulated, reconnect the negative battery terminal.

9. **Test Functionality:** Turn on the vehicle and test the light's operation using the installed switch.

4. OPERATING INSTRUCTIONS

To operate your KC HiLiTES 6-inch Round 100W Long Range Clear Black Light:

1. Ensure your vehicle's ignition is on, or the engine is running, depending on how the light was wired.
2. Locate the installed switch for the auxiliary light.
3. Flip the switch to the 'ON' position to activate the light.
4. Flip the switch to the 'OFF' position to deactivate the light.

Note: Always use auxiliary lights responsibly and in accordance with local traffic laws. Avoid using long-range lights in situations where they might blind oncoming traffic or other road users.

5. MAINTENANCE

5.1 Cleaning

To maintain optimal light output and appearance:

- Regularly clean the lens with a soft cloth and mild soap and water.
- Avoid abrasive cleaners or harsh chemicals that could damage the lens or housing finish.
- Ensure the light is cool before cleaning.

5.2 Bulb Replacement (H3 Halogen)

If the light output diminishes or the bulb burns out, it can be replaced:

1. Ensure the light is off and cool. Disconnect the vehicle's battery for safety.
2. Carefully remove the light cover and any retaining rings or screws that secure the lens assembly.
3. Disconnect the electrical connector from the back of the H3 halogen bulb.
4. Remove the old bulb from its socket.
5. Insert the new H3 100W halogen bulb, ensuring not to touch the glass with bare hands.
6. Reconnect the electrical connector.
7. Reassemble the lens and housing components, ensuring a tight seal to prevent moisture ingress.
8. Reconnect the battery and test the light.

6. TROUBLESHOOTING

If you encounter issues with your KC HiLiTES light, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Light does not turn on	• Blown fuse • Loose wiring connection • Faulty bulb • Faulty switch or relay	• Check and replace fuse in the wiring harness. • Inspect all wiring connections for looseness or corrosion. • Test the bulb; replace if necessary. • Test the switch and relay with a multimeter; replace if faulty.

Problem	Possible Cause	Solution
Light is dim or flickers	• Poor ground connection • Low voltage • Corroded terminals	• Ensure the ground connection is clean and secure. • Check battery voltage and alternator output. • Clean all electrical terminals.
Moisture inside the lens	• Improperly sealed housing • Damaged gasket	• Check for cracks or damage to the housing. • Ensure the lens assembly is properly seated and sealed. Replace gasket if damaged.

7. SPECIFICATIONS

Feature	Specification
Brand	KC HiLiTES
Model Number	238
Light Type	Halogen
Bulb Type	H3
Wattage	100 watts
Lens Color	Clear
Lens Material	Polycarbonate
Housing Color	Black
Special Feature	Waterproof
Specific Uses	Head Lights
Vehicle Service Type	Car
Item Weight	10 pounds
UPC	766544543853
Date First Available	August 12, 2006

8. WARRANTY AND SUPPORT

For specific warranty information regarding your KC HiLiTES product, please refer to the documentation included with your purchase or visit the official KC HiLiTES website. For technical support, installation assistance, or to inquire about replacement parts, please contact KC HiLiTES customer service directly.

Manufacturer: Kc Hilites

Website: www.kchilites.com (This is a general link and may not be the exact support page)

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

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

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