motoeye KZQ3

DRL Controller Daytime Running Light R87 with Auto On/Off Switch

Brand: motoeye | Model: KZQ3

Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the motoeye DRL Controller, Model KZQ3. This device is designed to automatically manage your vehicle's Daytime Running Lights (DRL) according to ECE R87 standards, ensuring they turn on with the engine and off when the low beam headlights are activated. It operates on a DC 12V power supply.

Safety Information

WARNING:

- Always disconnect the vehicle's battery before performing any electrical work to prevent electric shock or damage to the vehicle's electrical system.
- Ensure all connections are secure and properly insulated to prevent short circuits.
- Do not modify the controller or its wiring. Unauthorized modifications can lead to malfunction, fire, or injury.
- This product is designed for DC 12V systems only. Do not connect to other voltage systems.
- Installation should be performed by a qualified professional if you are unsure about any steps.

Package Contents

Please verify that all items are present before beginning installation:

- 1 x DRL Controller Unit (Model KZQ3)
- 1 x Wiring Harness with Connection Plugs

Image: The DRL controller unit and its accompanying wiring harness, showing the compact black controller box and the bundled red, black, and white wires with various connectors.

Specifications

Feature	Detail
Model Number	KZQ3
Input Voltage	DC 12V
Compatibility	Universal fitment for most daytime running lights (Not compatible with Eagle Eyes models)
Standard Compliance	Used with ECE R87
Item Weight	3.52 ounces (approx. 100g)
Package Dimensions	5.59 x 3.15 x 1.97 inches (approx. 14.2 x 8 x 5 cm)

Setup and Installation

Follow these steps carefully for proper installation:

1. **Prepare for Installation:** Ensure the vehicle's engine is off and the battery is disconnected. Identify a suitable mounting location for the DRL controller unit, away from excessive heat, moisture, and moving parts.
2. **Connect Power:**
    - Connect the **red wire** from the controller's wiring harness directly to the**positive (+) terminal** of the vehicle's 12V battery.
    - Connect the **black wire** from the controller's wiring harness directly to the**negative (-) terminal** of the

vehicle's 12V battery or a suitable chassis ground point.

3. **Connect to DRLs:**
    - Connect the **DRL (+) wire** (often red or marked for DRL positive) from the controller to the positive input of your Daytime Running Lights.
    - Connect the **DRL (-) wire** (often black or marked for DRL negative) from the controller to the negative input of your Daytime Running Lights.
4. **Connect to Headlight Signal (Optional but Recommended for Auto-Off):**
    - Locate the positive (+) wire for your vehicle's low beam headlights or parking lights.
    - Connect the **blue or white wire** (signal wire) from the DRL controller to this low beam/parking light positive wire. This connection enables the DRLs to automatically turn off when your headlights are activated.
5. **Secure Wiring:** Ensure all connections are tight and insulated with electrical tape or heat shrink tubing. Route wires safely away from hot or moving parts. Secure the controller unit using appropriate fasteners or cable ties.
6. **Test Functionality:** Reconnect the vehicle's battery. Start the engine; the DRLs should illuminate. Turn on your low beam headlights; the DRLs should automatically turn off. Turn off the headlights; the DRLs should re-illuminate. Turn off the engine; the DRLs should turn off after a short delay.

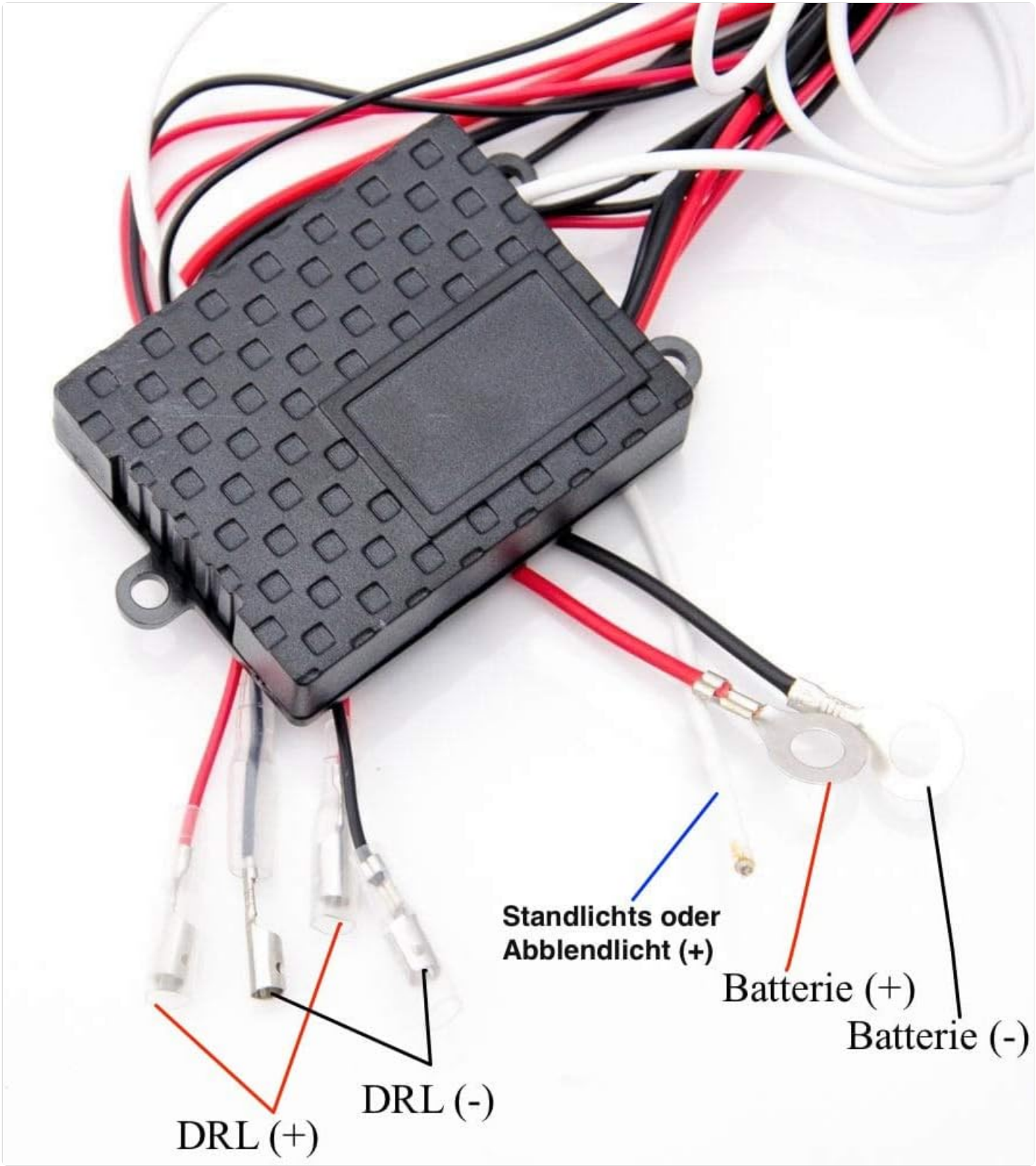

Image: A close-up view of the DRL controller and its wiring, with labels indicating connections for DRL positive (+), DRL negative (-), Battery positive (+), Battery negative (-), and the signal wire for parking lights or low beam headlights (+).

Image: The DRL controller unit with its full wiring harness extended, showing the various connectors and wire lengths, providing a complete view of the components for installation.

Operating Instructions

The motoeye DRL Controller operates automatically once correctly installed:

- **Automatic On:** When the vehicle's engine starts, the DRL controller will automatically detect the voltage increase and turn on the connected Daytime Running Lights.
- **Automatic Off with Headlights:** When the vehicle's low beam headlights (or parking lights, depending on connection) are turned on, the DRL controller will automatically turn off the Daytime Running Lights.
- **Automatic Off with Engine Shut-down:** When the vehicle's engine is turned off, the DRL controller will detect the voltage drop and turn off the Daytime Running Lights after a short delay.

Maintenance

The DRL controller is designed for minimal maintenance. To ensure optimal performance and longevity:

- Periodically inspect the wiring and connections for any signs of wear, corrosion, or looseness.
- Keep the controller unit clean and free from excessive dirt or moisture.
- Do not expose the unit to extreme temperatures or harsh chemicals.

Troubleshooting

If you encounter issues with your DRL controller, refer to the following common problems and solutions:

- **DRLs do not turn on when the engine starts:**
  - Check all power connections (red wire to battery +, black wire to battery -).
  - Ensure the DRLs themselves are functioning correctly when connected directly to a 12V source.
  - Verify the DRL (+) and DRL (-) wires are correctly connected to your DRLs.
- **DRLs do not turn off when headlights are on:**
  - Check the connection of the blue/white signal wire to the low beam or parking light positive wire. This connection is crucial for the auto-off function.
  - Ensure the signal wire is connected to a wire that receives 12V only when the headlights are on.
- **DRLs remain on after the engine is off:**
  - Verify the black wire is securely connected to a proper ground or the battery negative terminal.
  - Ensure the red wire is connected directly to the battery positive and not to an ignition-switched power source. The controller relies on voltage fluctuations to detect engine status.
- **Flickering DRLs or inconsistent operation:**
  - Check for loose or corroded connections.
  - Ensure the DRLs are compatible with a 12V DC system and do not draw excessive current beyond the controller's capacity (though this controller is generally robust for standard DRLs).

If problems persist after following these steps, contact customer support.

Warranty and Support

For warranty information or technical support regarding your motoeye DRL Controller (Model KZQ3), please refer to the purchase documentation or contact the retailer from whom the product was purchased. You may also visit the official motoeye website for further assistance and contact details.
Please have your product model number (KZQ3) and purchase date available when contacting support.