

## Kufatec 12093618

# Kufatec ALWR Wiring Harness Installation Manual for Audi A3 8P (up to 2009) Xenon Headlights

Model: 12093618

## 1. INTRODUCTION

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This manual provides detailed instructions for installing the Kufatec ALWR wiring harness, designed for upgrading Audi A3 8P models (up to 2009) with original xenon headlights. The harness facilitates automatic headlight range adjustment by connecting headlights to front and rear level sensors and the central electrical system. Proper installation and subsequent diagnostic software adaptation are crucial for correct functionality.

The Kufatec ALWR wiring harness is an essential component for ensuring the correct operation of original xenon headlights, particularly when integrating automatic headlight leveling. This system enhances driving safety by maintaining optimal light distribution regardless of vehicle load.



*Image 1.1: Kufatec ALWR Wiring Harness. This image displays the wiring harness components, including various connectors and cables, designed for integration with the Audi A3 8P's electrical system.*

## 2. SAFETY INFORMATION

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- Always disconnect the vehicle's battery before beginning any electrical work to prevent short circuits or electrical shock.
- Ensure all connections are secure and properly insulated to avoid malfunctions.
- If you are unsure about any step, consult a qualified automotive technician.
- Wear appropriate personal protective equipment, such as gloves and eye protection.
- Keep all tools and components away from moving parts and hot surfaces.

### 3. PACKAGE CONTENTS

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Verify that all components are present before starting the installation:

- 1x Kufatec ALWR Wiring Harness (Model: 12093618)
- *(Note: Additional components like sensors or headlights are not included and must be acquired separately if needed.)*

### 4. COMPATIBILITY

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This wiring harness is compatible with the following vehicle specifications:

- **Vehicle Model:** Audi A3 8P
- **Model Year:** Up to 2009
- **Headlight Type:** Original Xenon Headlights *(Not compatible with Bi-Xenon headlights)*
- **Requirement:** For use in combination with automatic headlight range adjustment.

**Important: This harness is designed exclusively for original xenon headlights. It will not function correctly with aftermarket or Bi-Xenon headlight systems.**

### 5. SETUP AND INSTALLATION

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The installation of the ALWR wiring harness requires careful attention to detail and basic automotive electrical knowledge. It involves connecting the harness to the vehicle's headlights, front and rear level sensors, and the central electrical system.

#### 5.1. Pre-Installation Steps

1. Park the vehicle on a level surface and engage the parking brake.
2. Turn off the ignition and remove the key.
3. Disconnect the negative terminal of the vehicle's battery.
4. Gather all necessary tools (e.g., screwdrivers, wire cutters, crimping tool, multimeter).

#### 5.2. Wiring Harness Connection

Follow the vehicle-specific wiring diagrams for your Audi A3 8P to identify the correct connection points. The harness typically connects to:

- **Headlights:** Connect the designated connectors to the original xenon headlights.
- **Level Sensors:** Route and connect the harness to the front and rear level sensors (these sensors detect vehicle pitch and roll).
- **Central Electrical System:** Integrate the power and signal wires into the vehicle's central electrical

system as per the provided wiring instructions (not included in this general manual, refer to product-specific documentation or a professional).

**Warning: Incorrect wiring can damage the vehicle's electrical system or the ALWR unit. Professional installation is highly recommended.**

### 5.3. Post-Installation and Adaptation

1. Once all physical connections are made, carefully re-route and secure all cables to prevent chafing or interference.
2. Reconnect the vehicle's battery.
3. The Automatic Headlight Range Adjustment (ALWR) system must be adapted to the vehicle using diagnostic software (e.g., VCDS, ODIS). This step is critical for the system to function correctly and calibrate the headlight leveling.
4. Perform a functional test of the headlights and the automatic leveling system.

## 6. OPERATING INSTRUCTIONS

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After successful installation and adaptation via diagnostic software, the Kufatec ALWR system operates automatically. The system continuously monitors the vehicle's pitch and roll using the front and rear level sensors. It then adjusts the xenon headlights' beam height to compensate for changes in vehicle load or road conditions, ensuring optimal visibility without dazzling oncoming traffic.

- No manual intervention is required for the automatic leveling function during normal operation.
- Ensure your headlights are clean for optimal performance of the leveling system.

## 7. MAINTENANCE

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The Kufatec ALWR wiring harness itself requires minimal maintenance. However, regular checks of the associated components are recommended:

- **Wiring Inspection:** Periodically inspect the wiring harness for any signs of wear, damage, or loose connections.
- **Sensor Check:** Ensure the front and rear level sensors are clean and free from obstructions or damage.
- **Headlight Function:** Verify that your xenon headlights are functioning correctly and that the automatic leveling system responds to changes in vehicle load (e.g., by adding weight to the trunk).
- **Diagnostic Scan:** If any issues arise, a diagnostic scan of the vehicle's electrical system can help identify faults related to the ALWR system.

## 8. TROUBLESHOOTING

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If you experience issues with your automatic headlight leveling system after installing the Kufatec ALWR wiring harness, consider the following:

- **Headlights Not Leveling:**
  - Check all wiring connections for security and proper contact.
  - Ensure the ALWR system has been correctly adapted using diagnostic software.
  - Inspect the front and rear level sensors for damage or obstructions.
  - Verify that the xenon headlights themselves are functional.

- **Error Codes on Dashboard:**

- Perform a diagnostic scan of the vehicle's control units. Error codes will provide specific information regarding the fault.
- Consult a professional technician with specialized diagnostic tools.

- **Intermittent Functionality:**

- This could indicate a loose connection or a faulty sensor. Re-check all connections and inspect sensors.
- Environmental factors (e.g., extreme cold/heat, moisture) can sometimes affect electrical components.

**If troubleshooting steps do not resolve the issue, seek assistance from a certified Audi service center or an experienced automotive electrician.**

## 9. SPECIFICATIONS

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Feature	Detail
Manufacturer	TFS (Kufatec)
Model Number	12093618
Compatible Vehicle	Audi A3 8P (up to model year 2009)
Compatible Headlight Type	Original Xenon (not Bi-Xenon)
Purpose	Automatic Headlight Range Adjustment (ALWR) integration
Contents	1x Wiring Harness

## 10. WARRANTY AND SUPPORT

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For specific warranty information regarding your Kufatec ALWR wiring harness, please refer to the documentation provided at the time of purchase or contact your retailer. General warranty terms typically cover manufacturing defects for a specified period.

For technical support, installation assistance, or to report a defect, please contact the manufacturer or your authorized dealer. When contacting support, please have your model number (12093618) and proof of purchase readily available.

**Manufacturer:** TFS (Kufatec)

**Website:** [www.kufatec.com](http://www.kufatec.com) (This is a placeholder link, verify the actual manufacturer's website for support.)