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> HELLA 996152131 12V Delay-On-Release Time Delay Relay Instruction Manual

Hella 996152131

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Model: 996152131

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the HELLA 996152131 12V Delay-On-Release Time Delay Relay. This automotive-grade relay is designed to provide a delayed-off function for various 12-volt electrical circuits. It offers adjustable timing from 0 seconds up to 15 minutes and features a 4-pin configuration for straightforward control and switching functions, capable of handling up to 10 amps.





Image 1: HELLA 996152131 12V Delay-On-Release Time Delay Relay. This image shows the main view of the black rectangular relay with a metal mounting tab and visible pin numbers on the side.

2. SETUP AND WIRING

Proper wiring is essential for the correct function of the relay. Refer to the wiring diagram and pin assignments below. Professional installation is recommended.

2.1 Pin Assignments and Physical Layout



Image 2: Bottom view of the HELLA 996152131 relay showing the four electrical pins for connection. The pins are typically labeled on the relay body or in the wiring diagram.

- **Pin 31:** Connect to Ground.
- **Pin 15:** Connect to +12V Switched Ignition or Key Switch power. This pin triggers the relay's timing function.
- **Pin 30:** Connect to +12V Constant Battery power. This connection should be fused at the battery for safety.
- **Pin 87:** This is the delayed-off +12V output. Power is supplied to this pin after the delay period when Pin 15 is de-energized.

2.2 Wiring Diagram

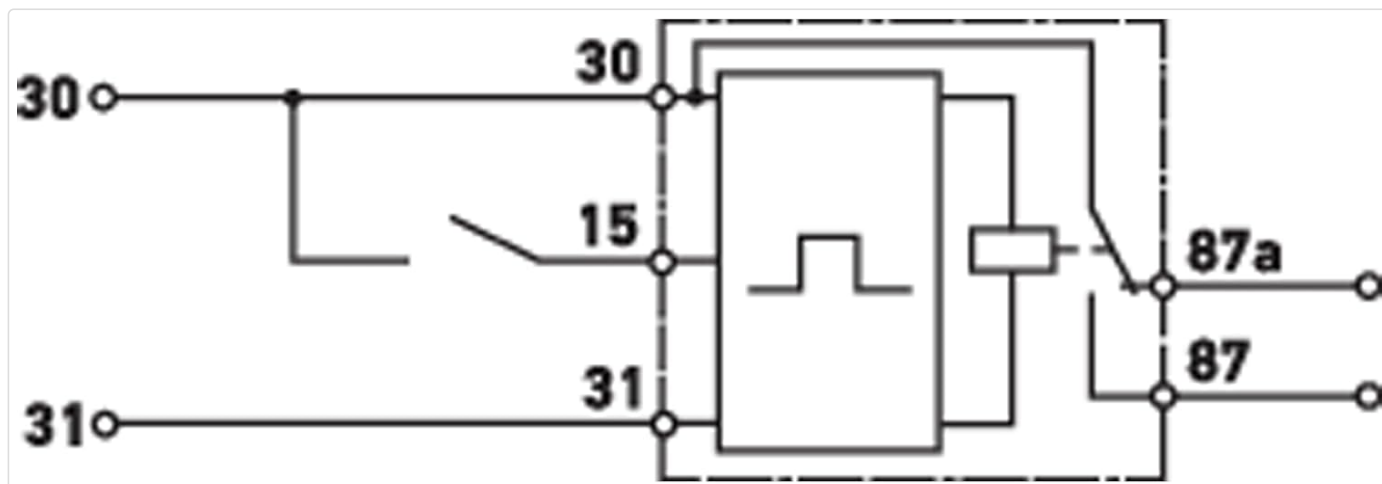


Image 3: Electrical schematic for the HELLA 996152131 relay. This diagram shows the internal components and standard connections for pins 30, 15, 31, 87, and an optional 87a.

Important Safety Note: Always disconnect the vehicle's battery before performing any electrical work. Ensure all connections are secure, properly insulated, and protected by appropriate fuses to prevent short circuits and electrical hazards.

3. OPERATING INSTRUCTIONS

The delay-on-release time is adjustable using two dip switches and a rotary control dial located on the relay body. This allows for precise control over the delayed-off period.

3.1 Setting the Delay Time

The relay allows for a delay period from 0 seconds up to 15 minutes (900 seconds). The dip switches provide a coarse adjustment range, while the rotary dial offers fine-tuning within that range.



Image 4: Side view of the HELLA 996152131 relay showing the red dip switches labeled 1 and 2, and the rotary adjustment dial with an arrow for setting the delay time.

- 1. Locate the Dip Switches:** On the side of the relay, identify the two small red switches labeled '1' and '2' under 'DIP'.
- 2. Set Coarse Delay Range:** Adjust the dip switches according to the desired time range. The specific ranges are typically printed on the relay itself. A common configuration is:
 - **Both switches OFF:** Provides a delay range of approximately 0-90 seconds.
 - **Switch 1 ON, Switch 2 OFF:** Provides a delay range of approximately 2.5-14 minutes.
 - *Other combinations may exist for specific applications or older revisions; always refer to the label on your specific relay for accurate ranges.*
- 3. Adjust Fine Delay:** Use a small flat-head screwdriver to turn the slotted screw (with an arrow) next to the dip switches.
 - Turning the screw clockwise increases the delay time within the selected range.
 - Turning the screw counter-clockwise decreases the delay time within the selected range.
- 4. Test and Verify:** After setting the desired delay, activate and de-activate the trigger (Pin 15) to confirm the relay operates with the intended delay period.

4. SPECIFICATIONS

Feature	Specification
Model Number	996152131
Coil Voltage	12 Volts
Current Rating	10 Amps (Maximum Switching Current)
Delay Range	0 seconds to 15 minutes (900 seconds)
Connector Type	Quick Connect
Contact Material	Steel
Contact Type	Normally Open
Mounting Type	Socket Mount
Dimensions	2.9 x 1.5 x 1.4 inches
Item Weight	1.6 ounces
Specification Met	Automotive

5. MAINTENANCE

The HELLA 996152131 relay is designed for durability and typically requires minimal maintenance. Adhering to the following guidelines can help ensure its longevity and optimal performance:

- **Connection Integrity:** Periodically inspect all wiring connections to the relay. Ensure they remain secure, free from corrosion, and properly insulated. Loose or corroded connections can lead to intermittent operation or failure.
- **Environmental Protection:** Install the relay in a location that protects it from excessive moisture, extreme temperatures, and direct physical impact. While automotive-grade, prolonged exposure to harsh conditions can reduce lifespan.
- **Cleanliness:** Keep the relay's exterior free from accumulations of dirt, dust, and debris, especially around the electrical pins and the adjustment mechanisms.
- **Fuse Protection:** Always ensure the power supply to Pin 30 is protected by an appropriately rated fuse. Regularly check the fuse for integrity if electrical issues arise.

6. TROUBLESHOOTING

If the HELLA 996152131 relay does not function as expected, consider the following troubleshooting steps before seeking professional assistance:

- **Relay Not Activating or No Output Power:**
 - **Check Power Supply (Pin 30):** Verify that Pin 30 receives constant +12V power from the battery and that its inline fuse is not blown.
 - **Check Trigger Signal (Pin 15):** Confirm that Pin 15 receives +12V switched ignition power when the circuit is intended to be active.
 - **Verify Ground (Pin 31):** Ensure Pin 31 has a solid connection to vehicle ground.
 - **Inspect Connections:** Check all wiring connections for looseness, corrosion, or damage. Ensure pins are fully

seated in the relay socket.

- **Incorrect or No Delay Time:**

- **Review Dip Switch Settings:** Double-check the position of the dip switches against the relay's label to ensure the correct coarse delay range is selected.
- **Adjust Rotary Dial:** Carefully turn the rotary adjustment dial with a small screwdriver to fine-tune the delay within the selected range. Ensure it's not set to an extreme (minimum or maximum) if an intermediate delay is desired.
- **Test Functionality:** Cycle the trigger (Pin 15) multiple times to observe if the delay consistently functions as set.

- **Intermittent Operation:**

- This often indicates a loose connection, a partially blown fuse, or an unstable power/ground supply. Re-inspect all wiring and power sources.

If these steps do not resolve the issue, it is advisable to consult a qualified automotive electrician or contact HELLA technical support.

7. WARRANTY AND SUPPORT

HELLA products are manufactured to high standards of quality and reliability. For specific warranty terms and conditions, or for technical assistance, please refer to the official HELLA website or contact HELLA customer service directly. It is recommended to retain your purchase receipt as proof of purchase for any warranty claims.