Ford YF1Z-13A018-AA

Ford YF1Z-13A018-AA Sun Load Sensor

Instruction Manual

1. Product Overview

The Ford YF1Z-13A018-AA Sun Load Sensor is a genuine Original Equipment Manufacturer (OEM) part designed for specific Ford vehicles. This sensor plays a crucial role in the vehicle's automatic systems, primarily influencing the operation of automatic headlights and the automatic climate control system.

Its function is to detect the intensity of sunlight, providing data to the vehicle's control modules. This data allows the vehicle to automatically activate headlights in low-light conditions and adjust the air conditioning system's performance based on solar heat load, contributing to optimal cabin comfort and safety.



Image 1: The Ford YF1Z-13A018-AA Sun Load Sensor. This component is typically small and designed for integration into the vehicle's dashboard or a similar location where it can accurately measure ambient light.

2. Installation and Setup

Installation of the Ford YF1Z-13A018-AA Sun Load Sensor typically involves replacing an existing sensor. While some users with mechanical experience may perform this task, professional installation by a certified automotive technician is recommended to ensure correct fitment and functionality, and to avoid damage to vehicle components.

General Installation Steps (Consult Vehicle Service Manual for Specifics):

1. **Safety First:** Ensure the vehicle is turned off and the ignition is in the 'OFF' position. Disconnect the negative terminal of the vehicle's battery to prevent electrical shorts.
2. **Locate the Sensor:** The sun load sensor is typically located on the dashboard, often near the windshield or defroster vents. Refer to your vehicle's specific service manual for the exact location.
3. **Remove Old Sensor:** Carefully disconnect any electrical connectors attached to the old sensor. Depending on the vehicle model, the sensor may be held in place by clips, screws, or simply pressed into an opening. Gently remove

the old sensor.

4. **Install New Sensor:** Connect the electrical connector to the new Ford YF1Z-13A018-AA sensor. Position the new sensor into its designated slot, ensuring it is securely seated.
5. **Reconnect Battery:** Reconnect the negative terminal of the vehicle's battery.
6. **Test Functionality:** Start the vehicle and verify the operation of automatic headlights and the climate control system.

Note: Improper installation can lead to incorrect sensor readings or damage to the vehicle's electrical system. Always refer to the vehicle's official service manual for detailed, model-specific instructions.

3. Operating Principles

Once correctly installed, the Ford YF1Z-13A018-AA Sun Load Sensor operates continuously when the vehicle is in use. It measures the intensity of solar radiation entering the cabin. This information is then transmitted to the vehicle's Body Control Module (BCM) or other relevant control units.

- **Automatic Headlights:** In conjunction with other light sensors, the sun load sensor helps determine when ambient light levels are low enough to warrant automatic activation of the vehicle's headlights.
- **Automatic Climate Control:** The sensor provides data on the solar heat load, allowing the automatic climate control system to adjust fan speed, vent direction, and temperature settings to counteract the heating effect of direct sunlight, maintaining a consistent and comfortable cabin temperature.

The sensor is designed to provide accurate and reliable data to ensure these automatic functions operate as intended, enhancing both convenience and safety.

4. Maintenance

The Ford YF1Z-13A018-AA Sun Load Sensor is a sealed electronic component and does not require routine user maintenance. To ensure its continued accurate operation, it is important to keep the area around the sensor clean and free from obstructions.

- **Cleaning:** Periodically wipe the sensor's surface (if accessible) with a soft, dry, or slightly damp cloth to remove dust or debris that could interfere with light detection. Avoid using harsh chemicals or abrasive materials.
- **Obstructions:** Ensure no objects, such as dashboard covers, papers, or electronic devices, are placed directly over the sensor, as this will block sunlight and lead to inaccurate readings.

If the sensor is damaged or suspected to be malfunctioning, replacement is the recommended course of action, as internal repairs are not feasible.

5. Troubleshooting

If you experience issues with your vehicle's automatic headlights or climate control after installing or using the Ford YF1Z-13A018-AA Sun Load Sensor, consider the following troubleshooting steps:

- **Automatic Headlights Not Functioning:**
  - **Check Connections:** Ensure the sensor's electrical connector is securely attached.
  - **Other Components:** The sun load sensor works in conjunction with other vehicle systems. If automatic headlights still do not function correctly, the issue might lie with the Lighting Control Module (LCM) or other related electrical components, not necessarily the sun load sensor itself.
- **Climate Control Issues Persist:**
  - **Check for Obstructions:** Verify that nothing is blocking the sensor's view of the sun.

- **Other A/C Components:** If the climate control system continues to perform poorly, the problem may be related to other components such as the A/C mixer valve, refrigerant levels, or the climate control module, rather than the sun load sensor.

- **Diagnostic Trouble Codes (DTCs):** If possible, have a qualified technician scan the vehicle's onboard diagnostic (OBD-II) system for any stored trouble codes. These codes can help pinpoint the exact nature of the malfunction.

If troubleshooting does not resolve the issue, consult a professional automotive technician for diagnosis and repair.

6. Specifications

Feature	Detail
Part Number	YF1Z-13A018-AA
OEM Part Number	YF1Z13A018AA
Brand	Ford
Item Dimensions (L x W x H)	6 x 6 x 6 inches (approximate)
Item Weight	16 ounces (1 pound)
Mounting Type	Flange Mount
Output Type	Push Button (refers to internal sensor mechanism, not user interface)
Specific Uses For Product	Temperature Sensor (also functions as a light sensor for climate control and headlights)
Measurement Accuracy	±1.5%

7. Warranty Information

As a genuine Ford OEM part, the YF1Z-13A018-AA Sun Load Sensor is typically covered by Ford's standard warranty for genuine replacement parts. Warranty terms and conditions can vary based on the region and the point of purchase (e.g., dealership, authorized retailer).

It is recommended to retain your proof of purchase and consult with your Ford dealership or the authorized seller for specific warranty details, coverage period, and claims procedures. Damage resulting from improper installation, misuse, or unauthorized modifications may void the warranty.

8. Support and Contact

For technical assistance, installation guidance, or warranty inquiries regarding the Ford YF1Z-13A018-AA Sun Load Sensor, please utilize the following resources:

- **Authorized Ford Dealership:** Your local Ford dealership is equipped with trained technicians and access to official service information.
- **Ford Customer Service:** Refer to the official Ford website for customer service contact information specific to your region.
- **Certified Automotive Technician:** For professional installation or diagnosis of complex issues, consult a certified automotive technician.

When contacting support, please have your vehicle's VIN (Vehicle Identification Number) and the part number (YF1Z-13A018-AA) readily available.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

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

Details

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

Submit question

Answered questions about this manual

My headlights will not come on in my 2002 Ford Excursion XLT. Can a bad Ford YF1Z-13A018-AA sun load sensor prevent the headlights from being turned on manually, and what other components could be the problem?

Based on the documentation for the Ford YF1Z-13A018-AA Sun Load Sensor and general Ford electrical systems of that era, here is an assessment of your headlight issue:Manual vs. Auto Mode: A bad sun load...

Read full answer