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## Orno OR-CR-243

# Orno CR-243 Ceiling Motion Sensor User Manual

Model: OR-CR-243



## 1. INTRODUCTION

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This manual provides comprehensive instructions for the installation, operation, and maintenance of the Orno CR-243 Ceiling Motion Sensor. The Orno CR-243 is an indoor, 360-degree infrared motion detector designed for ceiling mounting, offering adjustable time and light sensitivity settings to automate lighting and other electrical devices up to 800W. It is ideal for energy saving and enhancing security in various indoor environments.



Figure 1: Front view of the Orno CR-243 Ceiling Motion Sensor, showing its compact, white circular design with the translucent detection dome at the center.

## 2. SAFETY INFORMATION

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Please read this section carefully before installation and operation. Failure to follow these instructions may result in electric shock, fire, or damage to the device.

- **Electrical Safety:** Installation must be performed by a qualified electrician in accordance with all local and national electrical codes. Always disconnect power at the circuit breaker before installing or servicing the device.
- **Voltage:** This device operates on 230 Volts AC. Ensure the power supply matches the device's requirements.
- **Indoor Use Only:** The Orno CR-243 is designed for indoor use only. Do not expose it to moisture, rain, or extreme temperatures. Its IP20 ingress protection rating means it is protected against solid objects larger than 12.5mm, but has no protection against water.
- **Load Capacity:** Do not exceed the maximum load capacity of 800 Watts. Overloading can cause damage to the sensor and connected devices, and poses a fire risk.
- **Mounting:** Ensure the mounting surface is stable and can support the device securely.

## 3. PRODUCT FEATURES

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The Orno CR-243 motion sensor offers a range of features designed for efficient and reliable operation:

- **360-Degree Detection:** Provides comprehensive coverage of an entire room from a single mounting point.
- **Adjustable Time Setting:** Allows users to set the duration for which the connected device remains active after motion detection, ranging from approximately 10 seconds to 15 minutes.
- **Adjustable Light Sensitivity (LUX):** Enables the sensor to operate only in low light conditions (e.g., evening/night) or continuously, regardless of ambient light, with a range from 3 LUX to 2000 LUX.
- **Energy Saving:** Automates lighting or other devices, ensuring they are only active when needed, leading to reduced energy consumption.
- **Wide Compatibility:** Compatible with various light sources including LED, energy-saving lamps, and incandescent bulbs, with a maximum load of 800W.
- **Infrared Technology:** Utilizes passive infrared (PIR) technology to detect heat signatures of moving objects.



Detection angle



Ingress protection



Type of sensor



Max. load

Figure 2: Diagram illustrating key features of the Orno CR-243, including 360° detection angle, IP20 ingress protection, infrared sensor type, and 800W maximum load.

#### 4. PACKAGE CONTENTS

Upon unpacking, please ensure all items are present and undamaged:

- 1 x Orno CR-243 Ceiling Motion Sensor
- 1 x User Manual (this document)

## 5. SETUP AND INSTALLATION

The Orno CR-243 is designed for ceiling mounting. Follow these steps for proper installation:

- 1. Power Disconnection:** Before starting any electrical work, ensure the main power supply to the installation area is turned off at the circuit breaker. Verify with a voltage tester.
- 2. Choose Mounting Location:** Select a suitable indoor ceiling location that provides the desired detection coverage. Avoid placing near heat sources, air conditioning vents, or direct sunlight, as these can interfere with sensor performance.
- 3. Prepare Opening:** Create a circular opening in the ceiling with a diameter of approximately 60-70mm (refer to dimensions in Figure 3).
- 4. Wiring:** Connect the power supply wires to the sensor's terminals as indicated on the device (typically L for Live, N for Neutral, and L' for Switched Live/Load). Ensure all connections are secure.
- 5. Mounting:** Gently push the sensor into the prepared ceiling opening. The spring-loaded clips on the sides of the sensor will secure it in place.
- 6. Power Restoration:** Once installation is complete and all connections are secure, restore power at the circuit breaker.



Figure 3: Dimensional drawing of the Orno CR-243, showing a diameter of 8 cm (3.15 in) and a height of 6.14 cm (2.42 in), crucial for ceiling cutout preparation.



Figure 4: Rear view of the Orno CR-243, displaying the wiring terminals (L, N, L') and the spring-loaded mounting clips used for ceiling installation.

## 6. OPERATING INSTRUCTIONS

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The Orno CR-243 features two adjustable dials for customizing its operation: TIME and LUX.



Figure 5: Top view of the Orno CR-243, clearly showing the "TIME" and "LUX" adjustment dials on the sensor's face.

- **TIME Adjustment:**

This dial controls how long the connected light or device remains on after motion is detected and no further motion is sensed. Turn the dial to set the desired delay:

- **10s:** Approximately 10 seconds
- **30s:** Approximately 30 seconds
- **90s:** Approximately 90 seconds
- **3min:** Approximately 3 minutes
- **7min:** Approximately 7 minutes
- **15min:** Approximately 15 minutes

*Note:* The timer resets with each new motion detection. If motion is continuously detected, the light will remain on.

- **LUX Adjustment:**

This dial determines the ambient light level at which the sensor will activate. This allows you to choose whether the sensor operates during the day, night, or only in low-light conditions.

- **Sun icon (Max LUX / 2000 LUX):** The sensor will operate regardless of ambient light, activating both during the day and

night.

- **Moon icon (Min LUX / 3 LUX):** The sensor will only activate when the ambient light level falls below a certain threshold, typically at dusk or in dark conditions.

Adjust this setting to suit your specific needs and energy-saving goals.

## 7. MAINTENANCE

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The Orno CR-243 motion sensor requires minimal maintenance.

- **Cleaning:** Periodically wipe the sensor's detection dome and housing with a soft, dry cloth to remove dust and dirt. Do not use abrasive cleaners, solvents, or excessive moisture, as these can damage the device.
- **No User-Serviceable Parts:** The device contains no user-serviceable parts. Do not attempt to open or repair the sensor yourself. Any unauthorized tampering will void the warranty.
- **Inspection:** Occasionally inspect the wiring and mounting for any signs of damage or loosening. If any issues are found, disconnect power and consult a qualified electrician.

## 8. TROUBLESHOOTING

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If you experience issues with your Orno CR-243 motion sensor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Sensor does not activate connected device.	<ul style="list-style-type: none"><li>• No power to the sensor.</li><li>• LUX setting too high for current ambient light.</li><li>• No motion detected within range.</li><li>• Incorrect wiring.</li><li>• Faulty connected device/bulb.</li></ul>	<ul style="list-style-type: none"><li>• Check circuit breaker and wiring connections.</li><li>• Adjust LUX dial towards the "Sun" icon.</li><li>• Ensure motion occurs within the 360-degree detection range (up to 6m).</li><li>• Verify wiring according to installation instructions.</li><li>• Test connected device/bulb with a direct power source.</li></ul>
Connected device stays on continuously.	<ul style="list-style-type: none"><li>• Continuous motion within detection area.</li><li>• TIME setting too long.</li><li>• Sensor malfunction.</li></ul>	<ul style="list-style-type: none"><li>• Ensure no constant movement or heat sources are within the detection zone.</li><li>• Adjust TIME dial to a shorter duration.</li><li>• If problem persists after checking settings, contact support.</li></ul>
Sensor activates intermittently or falsely.	<ul style="list-style-type: none"><li>• Interference from heat sources (HVAC vents, direct sunlight).</li><li>• Small animals or objects moving in detection area.</li><li>• Drafts or rapid temperature changes.</li></ul>	<ul style="list-style-type: none"><li>• Relocate sensor away from interference sources if possible.</li><li>• Adjust sensor angle slightly if possible, or consider masking part of the lens (if applicable and safe).</li><li>• Ensure stable environment.</li></ul>

## 9. SPECIFICATIONS

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Model Number	OR-CR-243
Brand	Orno
Manufacturer	AW-Tools

<b>Power Source</b>	Corded Electric
<b>Voltage</b>	230 Volts AC
<b>Frequency</b>	50 Hz
<b>Max. Load</b>	800 Watts
<b>Detection Angle</b>	360 Degrees
<b>Detection Range</b>	Up to 6 meters
<b>Time Setting</b>	Adjustable from approx. 10 seconds to 15 minutes
<b>LUX Adjustment</b>	Adjustable from approx. 3 LUX to 2000 LUX
<b>Sensor Type</b>	Infrared (PIR)
<b>Ingress Protection (IP) Rating</b>	IP20
<b>Mounting Type</b>	Ceiling mounting, Indoor mounting
<b>Product Dimensions (L x W x H)</b>	8 x 6 x 8 cm
<b>Item Weight</b>	140 Grams
<b>Color</b>	White

## 10. WARRANTY AND SUPPORT

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For warranty information or technical support regarding your Orno CR-243 Ceiling Motion Sensor, please contact the manufacturer or your point of purchase.

**Manufacturer:** AW-Tools / Orno

**Website:** [www.orno.pl](http://www.orno.pl)

**ORNO-LOGISTIC Sp. z o.o.**  
ul. Rolników 437  
44-141 Gliwice POLAND  
[www.orno.pl](http://www.orno.pl)  
Manufactured in PRC



**OR-CR-243**



Figure 6: Product label showing manufacturer details (Orno-Logistic Sp. z o.o., ul. Rolników 437, 44-141 Gliwice POLAND, [www.orno.pl](http://www.orno.pl)), CE mark, recycling symbols, and the product barcode (UPC: 5901752485105).