

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

› [ECOELER](#) /

› [ECOELER YM2106 Wall Switch Vacancy & Occupancy Sensor Instruction Manual](#)

ECOELER YM2106

ECOELER YM2106 Wall Switch Vacancy & Occupancy Sensor Instruction Manual

Model: YM2106

INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the ECOELER YM2106 Wall Switch Vacancy & Occupancy Sensor. This device is designed to automatically control lighting and motor loads based on motion detection, offering energy savings and convenience. It supports both manual-on (vacancy sensor) and automatic-on (occupancy sensor) switching modes.

IMPORTANT SAFETY INFORMATION

WARNING: RISK OF ELECTRIC SHOCK. Improper installation can lead to serious injury or death. Always turn off power at the circuit breaker before installation or servicing. Installation should be performed by a qualified electrician or in accordance with local electrical codes.

- Read all instructions before installation.
- Do not install with power on.
- For indoor use only.
- Ensure wiring connections are secure.
- Operating voltage: 120/277Vac, 60Hz.
- Neutral wire is not required for operation.

PACKAGE CONTENTS

Verify that all components are present before beginning installation:

- ECOELER YM2106 Sensor Switch
- Wall Plate (1)
- Screws
- Wiring Caps

- Installation Instruction Manual (this document)

SPECIFICATIONS

Model Number	YM2106
Voltage	120/277Vac, 60Hz
Detection Type	PIR (Passive Infrared)
Coverage	180-degrees; 720-square feet
Time Delay Settings	5 seconds to 30 minutes (adjustable)
Ambient Light Level	Adjustable (holds lighting off when natural light is sufficient)
Wiring	Neutral wire not required
Load Types	Incandescent, Fluorescent, LED, CFL
Certifications	UL Listed, Title-24 Compliant
Dimensions	4.12 x 1.69 x 1.75 inches
Material	Plastic & Metal

INSTALLATION INSTRUCTIONS

Before You Begin: Turn OFF power at the circuit breaker or fuse box. Ensure the power is completely disconnected before proceeding.

1. **Prepare Wiring:** Carefully remove the existing wall switch from the electrical box. Identify the LINE (hot), LOAD, and GROUND wires. The ECOELER YM2106 does not require a neutral wire.
2. **Connect Wires:**
 - Connect the **black wire** from the sensor to the **LINE (hot) wire** from the electrical box. Secure with a wiring cap.
 - Connect the **red wire** from the sensor to the **LOAD wire** (to the light fixture/motor) from the electrical box. Secure with a wiring cap.
 - Connect the **green wire** from the sensor to the **GROUND wire** from the electrical box. Secure with a wiring cap.
 - Cap off any unused wires in the electrical box, such as a neutral wire, if present.
3. **Mount the Sensor:** Gently fold the wires into the electrical box. Insert the sensor into the electrical box and secure it with the provided screws.
4. **Install Wall Plate:** Attach the decorative wall plate over the sensor and secure it.
5. **Restore Power:** Turn ON power at the circuit breaker.
6. **Test Functionality:** The green LED indicator light on the sensor will flash when motion is detected, confirming active detection.

Note: If you are unsure about any wiring steps, consult a qualified electrician.

OPERATION

The ECOELER YM2106 sensor supports two primary modes of operation: Vacancy (Manual-On) and Occupancy (Automatic-On).

Vacancy Sensor (Manual-On) Mode

In this mode, the lights/motor will only turn ON when you manually press the switch button. Once ON, the sensor will keep the lights/motor ON as long as motion is detected within its coverage area. The lights/motor will turn OFF automatically after no motion is detected for the set time delay.

Occupancy Sensor (Automatic-On) Mode

In this mode, the lights/motor will turn ON automatically when motion is detected within the sensor's coverage area. The lights/motor will remain ON as long as motion is detected and will turn OFF automatically after no motion is detected for the set time delay.

To switch between modes or adjust settings, refer to the "Configuration and Settings" section.

CONFIGURATION AND SETTINGS

The ECOELER YM2106 sensor features adjustable settings for time delay, sensitivity, and ambient light level. These adjustments are typically made via small dials or switches located on the sensor itself, often behind the wall plate.

- **Time Delay:** This setting determines how long the lights/motor remain ON after the last detected motion. It is adjustable from 5 seconds to 30 minutes. Adjust clockwise for longer delays, counter-clockwise for shorter delays.
- **Sensitivity:** This controls the sensor's responsiveness to motion. Higher sensitivity detects smaller movements or movements at greater distances. Lower sensitivity requires more significant motion or closer proximity. Adjust as needed to prevent false triggers or missed detections.
- **Ambient Light Level (Photocell):** This setting allows the sensor to hold the lights/motor OFF if sufficient natural light is present in the room, even if motion is detected. This feature helps save energy by preventing artificial lighting from turning on unnecessarily. Adjust to your desired light threshold.

Consult the diagrams on the sensor unit itself for the exact location and labeling of these adjustment controls.

MAINTENANCE

- **Cleaning:** Periodically wipe the sensor lens with a soft, dry cloth to remove dust or debris that may obstruct detection. Do not use abrasive cleaners or solvents.
- **Inspection:** Regularly check the sensor and wall plate for any signs of damage or loose connections.
- **No User-Serviceable Parts:** The sensor contains no user-serviceable parts. Do not attempt to open or repair the unit.

TROUBLESHOOTING

Problem	Possible Cause	Solution
---------	----------------	----------

Lights/Motor do not turn ON.	<p>No power to the sensor.</p> <p>Incorrect wiring.</p> <p>Sensor in Vacancy (Manual-On) mode and not manually activated.</p> <p>Ambient light level setting too high.</p> <p>Sensor lens obstructed.</p>	<p>Check circuit breaker.</p> <p>Verify wiring connections (LINE, LOAD, GROUND).</p> <p>Press the switch button to activate.</p> <p>Adjust ambient light level setting.</p> <p>Clean sensor lens.</p>
Lights/Motor turn ON unexpectedly.	<p>Sensor in Occupancy (Automatic-On) mode.</p> <p>High sensitivity setting.</p> <p>Motion from outside coverage area (e.g., HVAC drafts, pets).</p>	<p>Switch to Vacancy mode if desired.</p> <p>Reduce sensitivity setting.</p> <p>Adjust sensor placement or reduce sensitivity.</p>
Lights/Motor turn OFF too quickly or too slowly.	<p>Incorrect time delay setting.</p> <p>Sensor not detecting continuous motion.</p>	<p>Adjust time delay setting.</p> <p>Ensure sensor has a clear line of sight to the activity area. Increase sensitivity if necessary.</p>

WARRANTY AND SUPPORT

For warranty information or technical support, please contact ECOELER customer service. Retain your proof of purchase for warranty claims.

Contact information is typically found on the product packaging or the manufacturer's official website.

MEDIA INFORMATION

No product images or official product videos were provided in the source data to embed in this manual.