

RAYZEEK RZ020-5A-S

RAYZEEK RZ020-5A-S Motion Sensor Light Switch User Manual

Model: RZ020-5A-S

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your RAYZEEK RZ020-5A-S Motion Sensor Light Switch. This device is designed to automate lighting control in various indoor environments, offering Occupancy, Vacancy, and Manual ON/OFF modes. It is specifically engineered for installations where a neutral or ground wire is not available, making it suitable for older homes.

2. SAFETY INFORMATION

- **WARNING:** To avoid fire, shock, or death, turn off power at the circuit breaker or fuse box and test that the power is off before wiring.
- Install in accordance with all national and local electrical codes.
- This device is for indoor use only.
- Do not use with dimmable light bulbs or fixtures that have built-in controller functions.
- Ensure the connected light fixture is at least 3W or higher to prevent flickering.
- This switch is designed for single-pole circuits only. It is not compatible with 3-way circuits.
- The switch is constructed with V0 fire-resistant materials for enhanced safety.

3. PACKAGE CONTENTS

- RAYZEEK RZ020-5A-S Motion Sensor Light Switch
- Wall Plate
- Mounting Screws
- Wire Connectors
- User Manual

4. SPECIFICATIONS

Power Source	120VAC, 50/60Hz
Capacity	5.0A (Resistive/Standard Ballast/Electronic Ballast/Tungsten/LED), Motor 1/6HP
Detection Range	150°
Detection Distance	6-9m max (<27°C)
Light Sensor Value	Default 25Lux (±10Lux), 15Lux, 35Lux, OFF optional
Time-Delay	Default 1 min (15s, 30s, 1min, 3min, 5min, 10min, 30min adjustable)
Working Humidity	< 95%RH
Installation Height	1.2m ~ 1.6m
Material	V0 fire-resistant materials
Certifications	FCC, UL

Product dimensions:

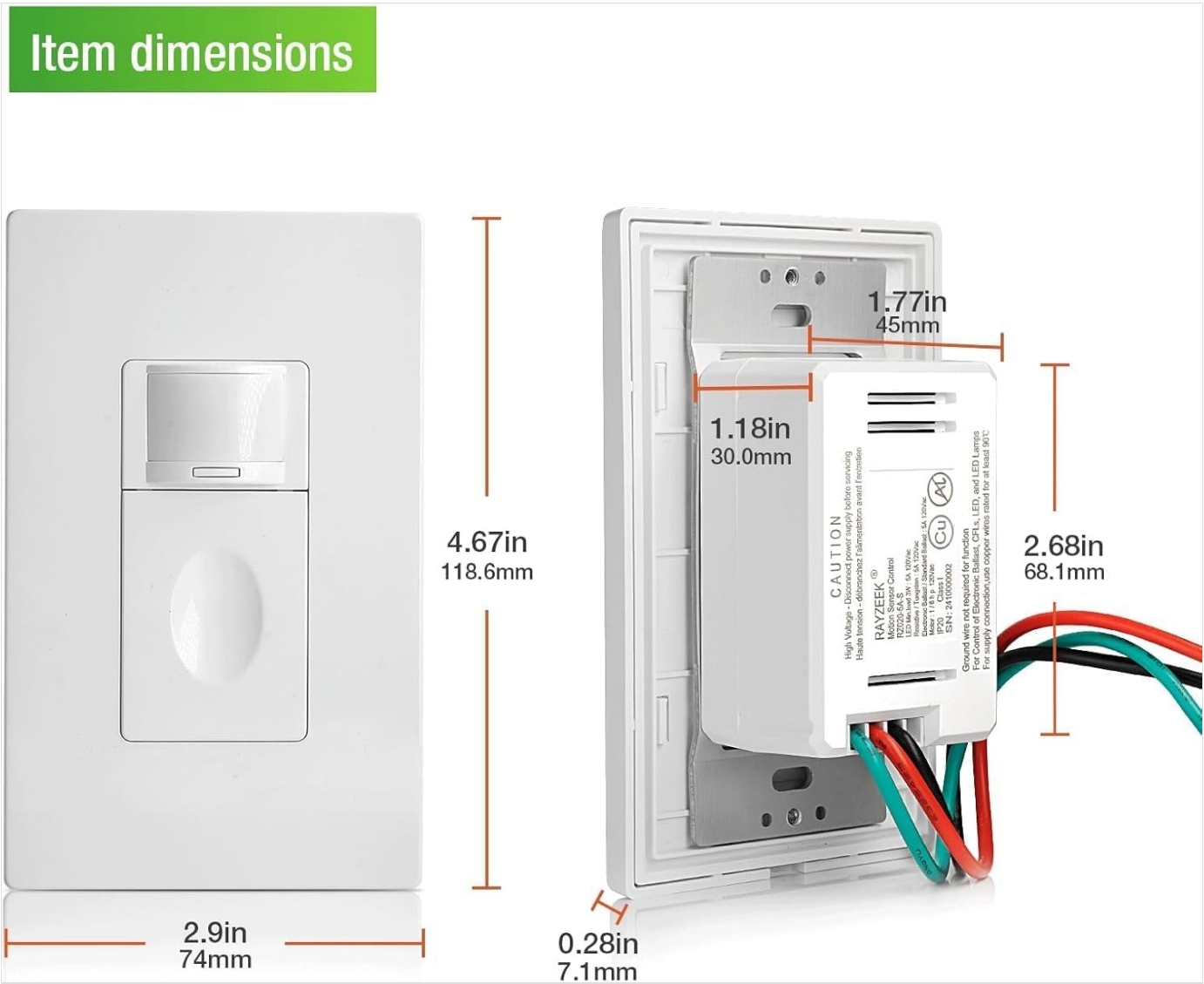


Image: Dimensions of the RAYZEER RZ020-5A-S Motion Sensor Light Switch.

5. INSTALLATION

Wiring Directions

This motion sensor light switch is designed for installations without a neutral or ground wire. It is suitable for single-pole applications only.

- **No Neutral Wire Required:** This switch operates without a neutral wire connection.
- **No Ground Wire Needed:** A ground wire is not strictly required for operation, but it is highly recommended for safety if available.
- **Single Pole Only:** Not compatible with 3-way circuits (where two switches control one light).
- **Correct Wire Connection:** Ensure the hot and load wires are connected correctly. Do not reverse them.

Your browser does not support the video tag.

Video: RAYZEEK RZ020-5A-S Motion Sensor Switch Installation Guide. This video demonstrates the step-by-step process of installing the motion sensor light switch, including wiring connections and safety precautions.



Image: Wiring diagram for the motion sensor light switch, illustrating connections for Live, Load, and optional Ground wires.

Installation Steps:

1. **Turn Off Power:** Locate the circuit breaker controlling the light switch and turn it off. Verify power is off using a voltage tester.
2. **Remove Old Switch:** Carefully remove the existing wall plate and switch.
3. **Identify Wires:** Identify the 'Live' (hot) wire and the 'Load' wire. If a ground wire is present, identify it as well.
4. **Connect Wires:** Connect the black wire from the RAYZEEK switch to the 'Live' wire, the red wire to the 'Load' wire, and the green wire to the 'Ground' wire (if available). Use the provided wire connectors.
5. **Mount Switch:** Gently push the wired switch into the wall box and secure it with screws.
6. **Install Wall Plate:** Attach the decorative wall plate. The RAYZEEK switch allows for adjustment without removing the wall plate.
7. **Restore Power:** Turn the power back on at the circuit breaker.

6. OPERATION

Operating Modes (3-in-1 Sensor)

The RAYZEEK RZ020-5A-S offers three versatile operating modes:

OPERATION MODES

3 IN 1



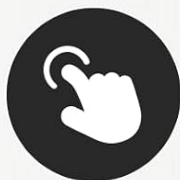
OCCUPANCY

AUTO ON
AUTO OFF



VACANCY

Manual ON
AUTO OFF



MANUAL

Manual ON
Manual OFF



Image: Visual representation of the three operating modes: Occupancy, Vacancy, and Manual.

1. **Occupancy Sensor Mode (Auto ON & Auto OFF):** The light automatically turns ON when motion is detected and turns OFF after a set time delay when no motion is detected. This mode can also incorporate a light sensor to prevent turning on if the ambient light is sufficient.
2. **Vacancy Sensor Mode (Manual ON & Auto OFF):** The light must be manually turned ON by pressing the button. It will then automatically turn OFF after a set time delay when no motion is detected.
3. **Manual ON/OFF Mode:** The light is controlled entirely manually by pressing the button to turn ON and OFF, bypassing motion detection.

Your browser does not support the video tag.

Video: RAYZEEK RZ020 Motion Sensor Switch User Guide. This video provides an overview of the switch's features and how to use its various operating modes and settings.

Adjusting Settings

The RZ020-5A-S allows for quick and accurate setting adjustments without removing the wall plate. Use the small and

large buttons on the switch to configure the mode, time delay, and light sensor sensitivity.

EASY Adjust Mode And Setting

 Accurate to adjust with button	 3in1 Mode	 Time-delay	 Sensitivity and Ambient light setting
Small button  Big button	Press and hold small button for more than 4s, LED will flash:   OCCUPANCY AUTO ON AUTO OFF   VACANCY Manual ON AUTO OFF   OCCUPANCY (without light sensor) AUTO ON AUTO OFF Short press Small button →  MANUAL Short press Big button → Manual ON / Manual OFF	Press and hold big button for more than 4s, LED will flash:  15 seconds  1 min  3 mins  5 mins  15 mins  30 mins	Press big button and small button at the sametime, LED will flash:  Low sensitivity  High sensitivity  Light sensor value 15Lux  Light sensor value 25Lux  Light sensor value 35Lux  Restore to factory settings

Image: Guide to adjusting operating modes and settings using the switch buttons.

Mode Selection:

- Press and hold the **small button** for more than 4 seconds. The LED will flash.
- Short press the **small button** repeatedly to cycle through:
 - Occupancy (Auto ON & Auto OFF) with light sensor
 - Vacancy (Manual ON & Auto OFF)
 - Occupancy (Auto ON & Auto OFF) without light sensor
- To enter **Manual ON/OFF** mode from any sensor mode, short press the **small button**. To return to sensor mode, short press the **big button**.

Time-Delay Adjustment:

- Press and hold the **big button** for more than 4 seconds. The LED will flash.
- Short press the **big button** repeatedly to cycle through time delay options: 15 seconds, 30 seconds, 1 minute (Default), 3 minutes, 5 minutes, 10 minutes, 30 minutes.

Sensitivity and Ambient Light Setting:

- Press the **big button and small button simultaneously**. The LED will flash.
- Short press either button to cycle through options:
 - Low sensitivity
 - High sensitivity (Default)
 - Light sensor value 15Lux
 - Light sensor value 25Lux (Default)
 - Light sensor value 35Lux
 - OFF (Light sensor disabled)
 - Restore to factory settings



Image: Demonstrates adjusting settings with the button without removing the wall plate.



Image: Hands-free convenience in Occupancy mode, showing lights turning on automatically upon entry.



Image: Ambient light sensor functionality, showing lights staying off in bright conditions and turning on in dark conditions.

7. TROUBLESHOOTING

- **Light Flickers:** Ensure the connected light fixture has a wattage of 3W or higher. Some low-wattage LED bulbs may flicker if not compatible.
- **Light Does Not Turn On:**
 - Check if the circuit breaker is ON.
 - Verify wiring connections are secure and correct (Live to Live, Load to Load).
 - Ensure the switch is not in Manual OFF mode.
 - In Occupancy mode, check if the ambient light sensor is set too high, preventing activation in dim conditions.
- **Light Does Not Turn Off:**
 - Ensure there is no continuous motion within the sensor's detection range.
 - Check the time-delay setting; it might be set to a longer duration.
 - Verify the switch is not stuck in Manual ON mode.
- **Motion Not Detected Reliably:**
 - Adjust the sensitivity setting to 'High'.
 - Ensure the sensor lens is clean and unobstructed.
 - Confirm the installation height is within the recommended range (1.2m ~ 1.6m).

8. MAINTENANCE

To ensure optimal performance and longevity of your RAYZEEK Motion Sensor Light Switch:

- Clean the sensor lens periodically with a soft, dry cloth to remove dust or debris that may obstruct detection.
- Do not use abrasive cleaners or solvents, as these can damage the switch's surface or internal components.
- Ensure the switch is not exposed to excessive moisture or extreme temperatures.

9. WARRANTY AND SUPPORT

The RAYZEEK RZ020-5A-S Motion Sensor Light Switch comes with a **1-Year Warranty** from the date of purchase. For technical support, warranty claims, or further inquiries, please contact RAYZEEK customer service through the retailer where the product was purchased or visit the official RAYZEEK website for contact information.

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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