Sensky BS033C

Sensky BS033C Motion Sensor Light Switch Instruction Manual

Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Sensky BS033C 110V Motion Sensor Light Switch. This device is designed to automatically control lighting based on occupancy and ambient light levels, contributing to energy efficiency and convenience.

The Sensky BS033C features a 180-degree passive infrared (PIR) sensor to detect motion and an integrated light sensor to assess environmental brightness. It offers adjustable time delay and multiple operating modes to suit various applications.

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.
- Installation should be performed by a qualified electrician or in accordance with local electrical codes.
- This switch requires a neutral wire for proper operation. Ensure your electrical box has a neutral wire available.
- Do not connect the green wire to the ground wire in the wall box. The green wire is the neutral wire for this device.
- Do not install near heat sources, cold sources, or beneath rotating objects to prevent false triggers.
- Avoid direct or reflected light from bright surfaces (e.g., mirrors, windows) that could interfere with the sensor.

Product Overview

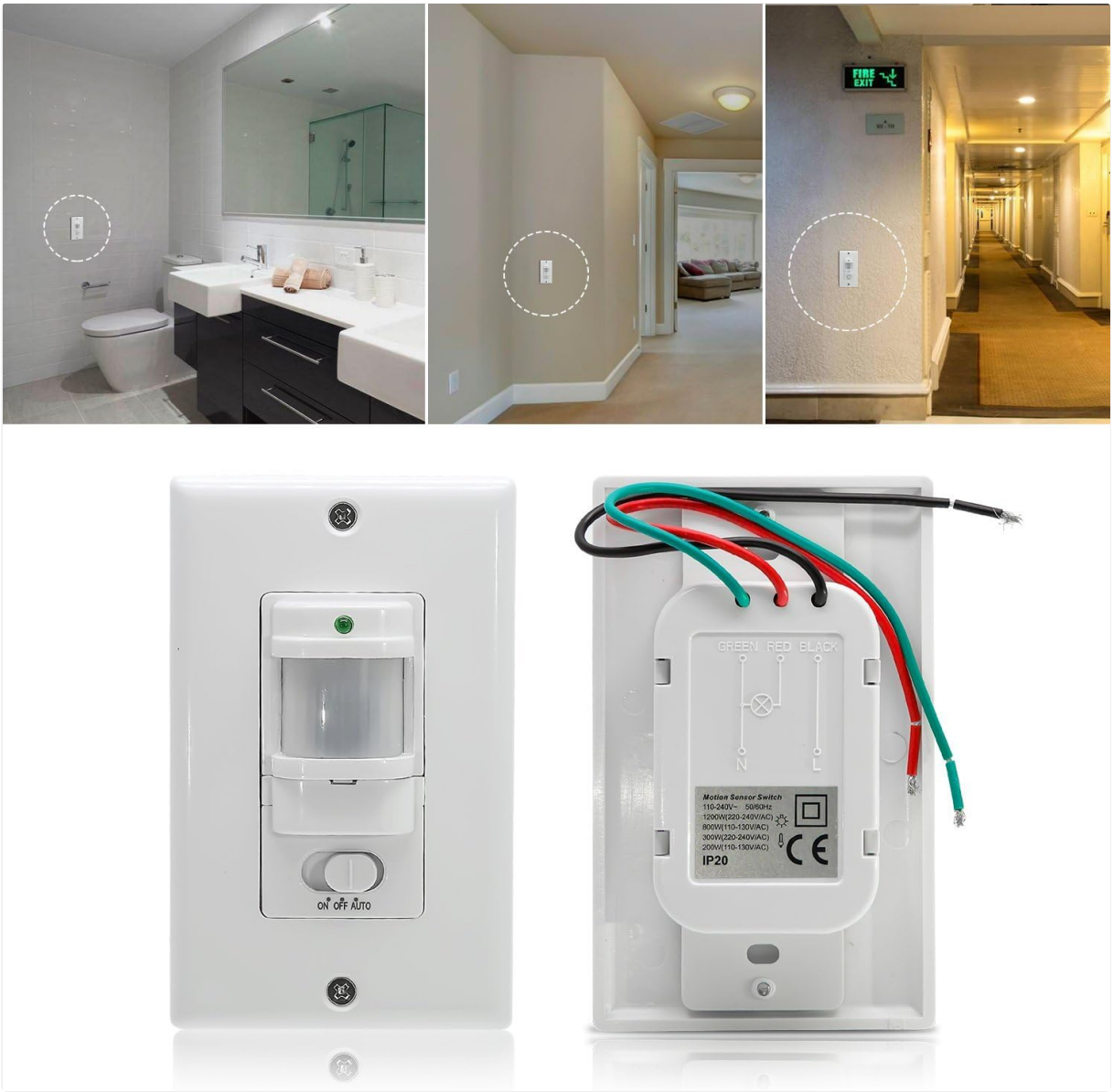


Image Description: Front and rear view of the Sensky BS033C motion sensor light switch, showing the sensor, manual switch, and wiring connections (black, green, red wires).



Image Description: Diagram highlighting key features of the Sensky BS033C, including 180-degree PIR detection, adjustable sensitivity, ambient light settings, and time delay. It also notes easy quick mounting.

Specifications

Feature	Specification
Brand	Sensky
Model Number	BS033C
Color	White
Power Source	AC 110V
Item Weight	119 g
Maximum Range	9 meters
Mounting Type	Embedded
Temperature Range	20°C to 40°C
Compatible Devices	Light fixtures
Unit Count	1 Count
UPC	700646315673

Installation Instructions

Wiring Diagram and Connections

The Sensky BS033C requires a neutral wire for installation. Follow the wiring diagram carefully to ensure correct and safe operation.

- **Black wire:** Connects to the Hot (live) wire from your electrical supply.
- **Green wire:** Connects to the Neutral wire from your electrical supply. *Do NOT connect this green wire to the ground wire in the wall box.*
- **Red wire:** Connects to the hot end of your light fixture (the load).
- The other end of the light fixture should connect to the Neutral wire (along with the green wire of the switch).

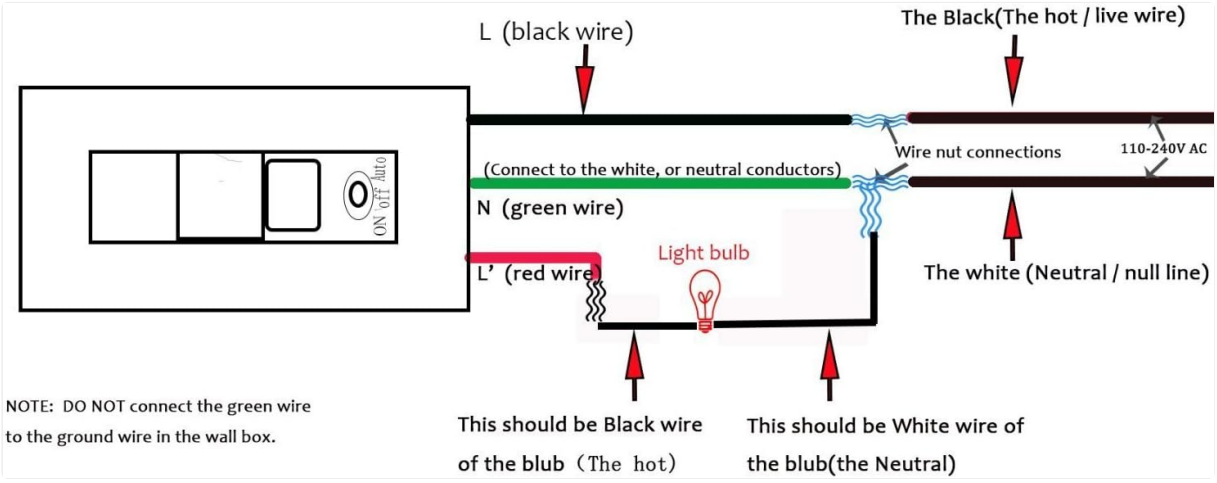


Image Description: Detailed wiring diagram for the Sensky BS033C motion sensor light switch, illustrating connections for the black (hot), green (neutral), and red (load) wires to the light bulb and main AC supply.

Place for installation
1.Since constant changes in temperature/airflow/ magnetic field would trigger sensor function and cause False Positives. Please DO NOT install the switch near heat sources like central heating, heat pump ect or the light would TURN ON and OFF even no motion sensed. Also make sure there are no other light sources shining onto the sensor. 2.Make sure the sensor window is not blocked. 3 Don't fix the switch in place where IR cannot get though like glass, dense clothes.
Connection
Black wire goes to Hot. **Green** wire goes to **Neutral.** Red wire goes to the hot end of your light (the load). Note that DO NOT connects the green wire to the ground wire in the wall box.
Delay time, sensor distance, light sensor setting-FAQ
Delay Time Adjustable- The delay time controls how long the light stays on once it gets triggered, during the delay time if motion detected, the delay time will reset and start a new delay time, Please set this to its **minimum value** first then try to figure out your values for the sensor distance and Light Sensor- this will **save your time** If the delay time is too short, lights would turn on and off when you are within sensor distance. If the delay time is too long, light would stay on for a long time even after you left.
Light Sensor Adjustable: This function allows you to use the motion sensor in different ambient condition, for example, you set the light sensor value to 20 lux, when the room ambient light value is above 20 lux, the light won't turn on, but when room ambient light value is less than 20 lux, the sensor can turn light on when motion detected within sensing range. Proper LUX setting: since the sensor work only when room lux is below switch lux setting. you may need try a few times to find the right lux setting.
Sensor distance Adjustable: The sensitivity controls how close you need to be to the sensor in order to activate it. If the sensor distance you set is too short, the light wont turn on before you enter the sensor range. If the sensor distance you set is too long, the sensor may be triggered by other heat or light source that you don't want and consumes lots of electricity

Image Description: An alternative wiring diagram showing the connection points for the Sensky motion sensor switch, including hot, neutral, and load wires, with labels for clarity.

Operating Instructions

Operating Modes

The Sensky BS033C offers three operating modes, selectable via the switch on the front panel:

- **ON Mode:** The light remains continuously on, overriding the sensor functions.
- **OFF Mode:** The light remains continuously off, overriding the sensor functions.
- **AUTO Mode:** The switch operates as an occupancy sensor. Lights turn on automatically when motion is detected and turn off after a set time delay if no further motion is detected and ambient light conditions allow. A built-in daylight sensor prevents the light from turning on if there is sufficient natural light.

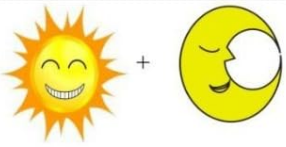
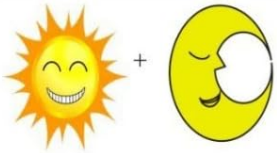
Modes	Picture	Testing Environment	Switch State	Light Bulb State
ON mode		 In a dark environment and Under the bright environment	work all the time	 turn on all the time
Off mode		 In a dark environment and Under the bright environment	stop working	 turn off all the time
Auto mode		 In a dark environment(Ambient Light: <10LUX)	will work when this switch detected a moving man(or a moving heat resouce)	 turn on for a setting time（delay time adjustable)
		 Under the bright environment (Ambient Light: >10LUX)	stop working	 turn off all the time
PlEASE NOTE: And this is a very sensitive product. So we must keep it away from the heat resource, like (hot) air vent, air condition, filament lamp.				

Image Description: A table illustrating the different operating modes (ON, OFF, AUTO) of the Sensky motion sensor switch, their conditions (dark/bright environment), and corresponding light bulb states (on/off/working with delay).



Image Description: Visual explanation of the ON, OFF, and AUTO functions of the motion sensor switch, demonstrating how it responds to movement and ambient light conditions (sufficient natural light vs. insufficient light).

Adjustable Settings

The switch features adjustable dials for Time Delay and Ambient Light (LUX) settings:

- **Time Delay:** Adjusts how long the light remains on after motion is no longer detected. The range is

approximately 10 seconds (min) to 7 minutes (max). The default setting is 10 seconds.

- **Ambient Light (LUX):** Determines the ambient light level at which the motion sensor will activate. If the room's ambient light is above the set LUX value, the light will not turn on even if motion is detected. This saves energy during daylight hours. The range is approximately 3 LUX to 2000 LUX.

Troubleshooting

Refer to the following information for common issues and solutions:

Light turning ON and OFF all the time	Light stays ON all the time
• 1 Check place for installation (if there are other heat or light source within the sensing range and trigger the sensor function)	• 1 Check time delay settings (if it's too long) • 2 Check place for installation (if there are other heat or light source within the sensing range and trigger the sensor function)
• 2 Check if connection is correct (Black wire goes to Hot.Green wire goes to Neutral.Red wire goes to the hot end of your light (the load).Note that DO NOT connect the green wire to the ground wire in the wall box)	**Light do not turn ON** • 1 Check if connection is correct (Green wire goes to Neutral.Red wire goes to the hot end of your light (the load).Note that DO NOT connects the green wire to the ground wire in the wall box)
• 3. Check delay time, if it's too short light turn would on and off when you are within the sensing range	• 2.Check the lux setting (for example, you set the light sensor value to 20 lux, when the room ambient light value is above 20 lux, the light won't turn on, but when room ambient light value is less than 20 lux, the sensor can turn light on when motion detected within sensing range)

Image Description: A troubleshooting guide in table format, addressing common issues like lights turning on/off constantly, lights staying on, and lights not turning on, with suggested solutions related to installation, connections, and settings.

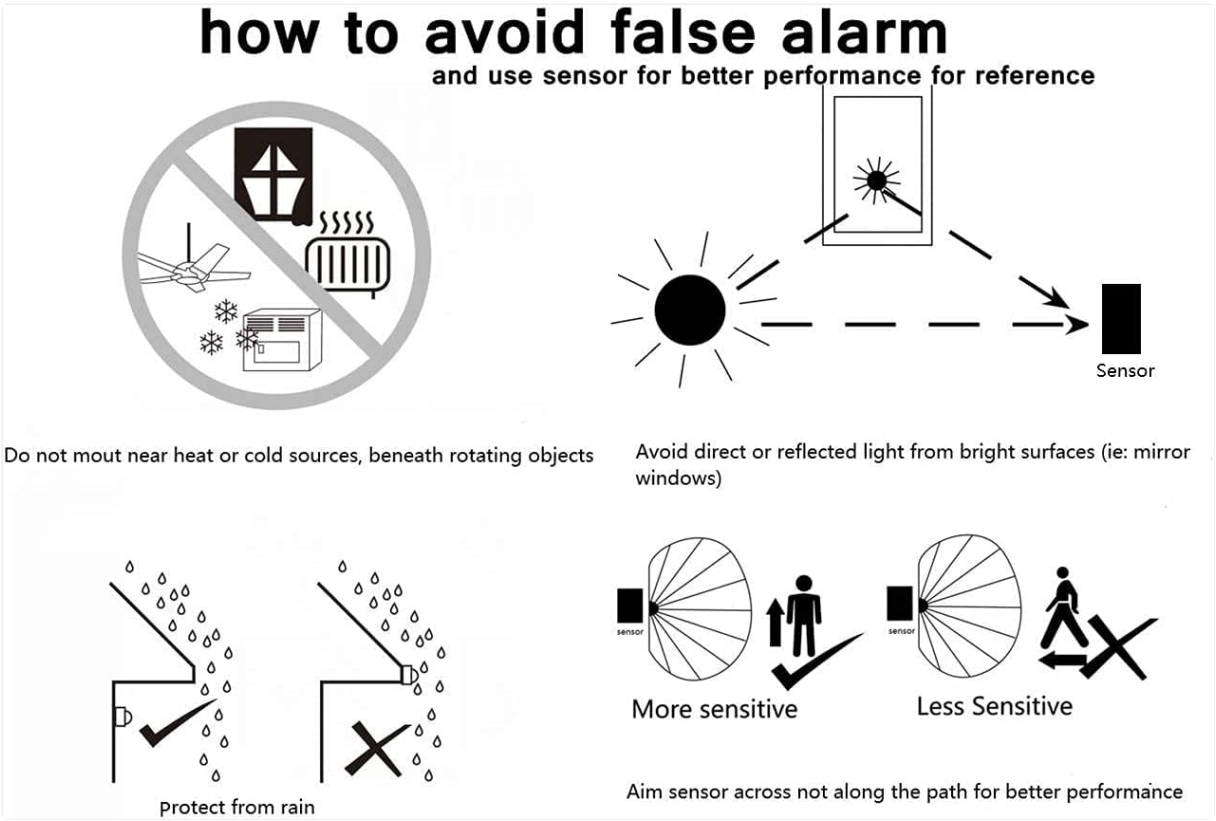


Image Description: Instructions on how to prevent false alarms by avoiding heat/cold sources and reflective surfaces, along with frequently asked questions regarding delay time, sensor distance, and light sensor settings for optimal performance.

Common Issues and Solutions:

- **Light turning ON and OFF all the time:**
  - Check for heat or light sources within the sensing range that might trigger the sensor.
  - Verify wiring connections: Black to Hot, Green to Neutral, Red to Load. Ensure the green wire is not connected to ground.
  - If the delay time is too short, the light may turn off and on when you are within the sensing range. Adjust the time delay.
- **Light stays ON all the time:**
  - Check if the time delay setting is too long.
  - Check for heat or light sources within the sensing range that might continuously trigger the sensor.
- **Light does not turn ON:**
  - Verify wiring connections: Black to Hot, Green to Neutral, Red to Load. Ensure the green wire is not connected to ground.
  - Check the LUX setting. If the ambient light value is above the set LUX value, the light will not turn on. Adjust the LUX setting to a lower value if needed.

Tips for Optimal Performance:

- Set the Time Delay to its minimum value first during testing, then adjust to your preferred duration.
- Adjust the Light Sensor (LUX) setting by testing in different ambient light conditions to find the appropriate threshold for automatic activation.
- For better sensitivity, aim the sensor across the path of movement rather than directly along it.