

Ceiling Mount PIR Vacancy Sensor Switch

Model #: BRT-309



Features:

BRT-309 is a ceiling mount vacancy sensor switch which utilizes passive infrared (PIR) sensor to detect the heat (in the form of infrared energy) from people moving within a space. It can determine when a space is occupied and turns off the loads automatically. It has an advanced micro controller unit and uses a proprietary signal processing technique to avoid false triggers.

- Manual on, auto off;
- Adjustable delay off time from 1 minute to 20 minutes;
- Easy installation onto the ceiling with or without a holder;
- Load power up to 2000W;
- Good for all kinds of loads (resistive, capacitive, and inductive);
- ABS-V0 flame resistance material; and
- High quality build.

Front View and Back View:

Fig. 1 and Fig. 2 show the front view and the back view of the BRT-309 PIR vacancy sensor switch respectively.



Fig. 1 Front View



Fig. 2 Back View

▶ Specification Parameters:

Input Voltage	220~240V(50Hz/60Hz)	Operation Environment	No-condensation 20-90% RH, -20℃~40℃
Wattage	2000W	Load type	All Types
Mounting Hole Diameter	68mm	Working Range	5m in diameter when mounted at a height of 2.4m
Dimension (max)	Oval faceplate: 105mm Circular faceplate: 77mm	Weight	95g

▶ Wiring Diagram:

BRT-309 PIR sensor switch requires both hot wire and neutral wire for installation:

Hot wire (ACL): Coming from the power line with 220V;
 Neutral wire (ACN): Usually coming with the hot wire; and
 Load wire: Going to the load.

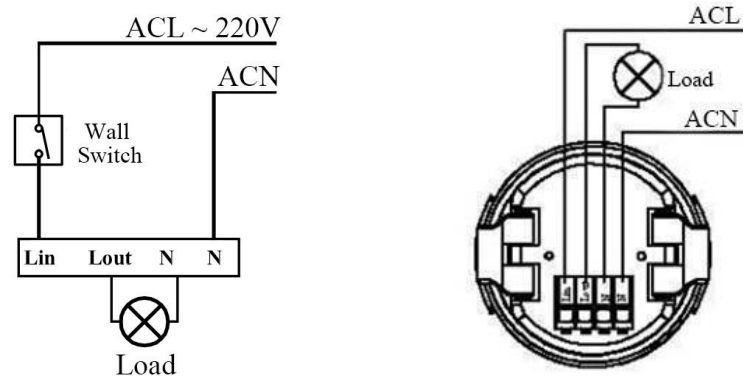


Fig. 3 BRT-309 Wiring Diagram

Fig. 3 shows the wiring diagram. Wiring must be done according to the diagram and the labelled ports of the switch.

▶ Installation Guide:

There are two ways to install BRT-309 PIR sensor switches to the ceiling. Fig. 4 and Fig. 5 show the step-by-step installation instructions, respectively.

Warnings:

1. Please make sure power is turned off before starting installation!
2. Load shorting or using a load with a power rating higher than the specified wattage of the

Product Description of BRT-309

Shenzhen Asia Bright Co., Ltd.

Floor 2nd~3rd, Building E, North Area No.2 of Shangxue Science Park, Bantian, Shenzhen, China

www.a-brt.com sales@a-brt.com

© 2023 All rights reserved. Subject to change without notices.

sensor switch is prohibited.

Cautions:

1. Avoid mounting the sensor switch close to air vents, as the vibration and air flow can reduce the effectiveness of the sensor switch;
2. Avoid installing the sensor switch in an electrical circuit which has other frequent on/off switch or appliance, as those on/off actions could cause false triggers.

1. Installation using a holder

As shown in Fig. 4, a holder is attached to the ceiling using screws first. Then, the PIR sensor switch can be easily snapped into the holder.

The holder is specially designed for BRT-309 sensor switch. Please talk to our sales representative when placing orders.



Fig. 4 Installation with a Holder

Product Description of BRT-309

Shenzhen Asia Bright Co., Ltd.

Floor 2nd~3rd, Building E, North Area No.2 of Shangxue Science Park, Bantian, Shenzhen, China

www.a-brt.com. sales@a-brt.com.

© 2023 All rights reserved. Subject to change without notices.

2. Installation without a holder

As shown in Fig. 5, without a holder, an opening in the ceiling needs to be made first. There are four steps:

- Step one: Open a hole of 68mm in diameter in the ceiling;
(Attach the electrical wires as shown in the Wiring Diagram Fig. 3).
- Step two: Open the two flexible clamps on the side surface of the sensor switch;
- Step three: Insert the sensor switch into the hole; and
- Step four: The clamps will hold the sensor switch onto the ceiling tight and steady.



Fig. 5 Installation without a Holder

Operation Guide:

BRT-309 PIR sensor switch needs a warm-up time about two minutes before it can operate properly. It has dip switches to adjust the delay off time as shown in Fig. 6.

Product Description of BRT-309

Shenzhen Asia Bright Co., Ltd.

Floor 2nd~3rd, Building E, North Area No.2 of Shangxue Science Park, Bantian, Shenzhen, China

www.a-brt.com. sales@a-brt.com.

© 2023 All rights reserved. Subject to change without notices.

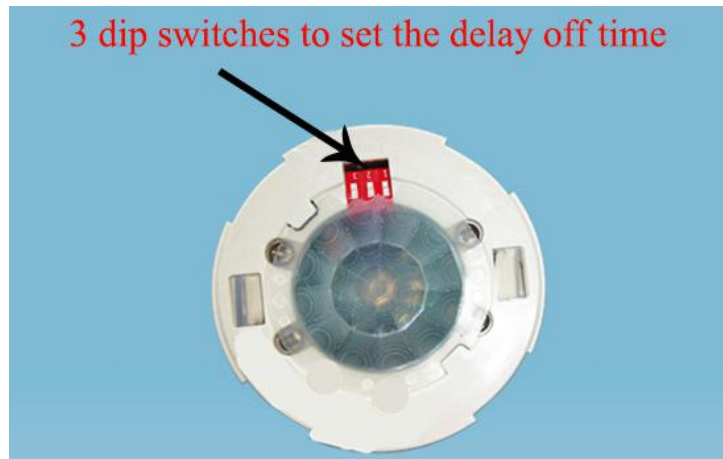


Fig. 6 Dip Switches for Setting the Delay-off Time

As shown in Fig. 7, please rotate the front cover counter-clockwise to remove it so that the dip switches are exposed.

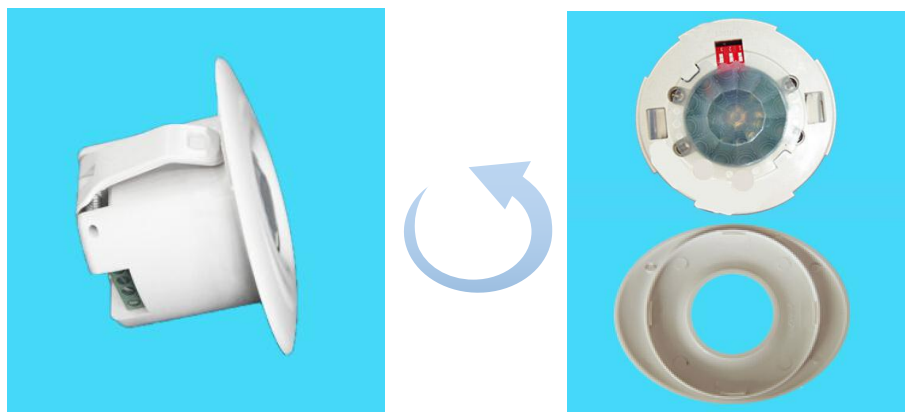


Fig. 7 Removing the Front Cover

1. Adjust the delay off time

The 3 dip switches are used to set the delay-off time to 4 settings based on different combinations. Fig. 8 shows all the dip switches are in “off” positions. Each combination corresponds to a delay off setting.

000	delay off time = 1 minute
101	delay off time = 5 minutes
011	delay off time = 10 minutes
111	delay off time = 20 minutes

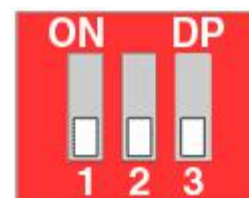


Fig. 8 Dip Switches in 000 Positions

0 = off and 1 = on

(Other factory settings are available. Please talk to our sales representatives).

Please note that BRT-309 vacancy sensor switch is to be used together with a wall switch. The wall switch is used to manually turn on the BRT-309 sensor switch and the load first before it can automatically turn off the load later on.

Applications:

BRT-309 ceiling mount PIR vacancy sensor can be used for automatically turning off various loads, especially for high power loads such as lights, fans, appliances, or other kinds of electrical equipment. They are perfect for saving energy and bringing convenience and safety to our daily life and work.

They have wide applications at various locations such as stairwells, corridors, washrooms, offices, conference rooms in homes, schools, laboratories, hospitals, offices, etc.

How to Order:

Please contact us: Shenzhen Asia Bright Co., Ltd.
Floor 2nd~3rd, Building E, North Area No.2 of Shangxue
Science Park, Bantian, Shenzhen, China
Tel: +86-755-89748200 +86-755-89748211
Email: sales@a-brt.com Website: www.a-brt.com