

## Product Descriptions

### PIR Occupancy Sensor Switch (DC Power Supply)

**Model #:** BRT-319

(Please visit our website [www.a-brt.com](http://www.a-brt.com) for more info)



#### **Features:**

BRT-319 is an occupancy 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 on or turns off the loads automatically. It is designed for easy installation and retrofit, powered by 12V DC.

- Adjustable delay-off time from 10 seconds to 15 minutes;
- Ambient light override. Automatically measures the ambient light level, and there is no trigger on above a light level adjustable by users;
- Good for 12V DC loads;
- ABS-V0 flame resistance material; and
- Classical 86 series design 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-319 PIR occupancy sensor switch respectively.



**Fig. 1** Front View



**Fig. 2** Back View

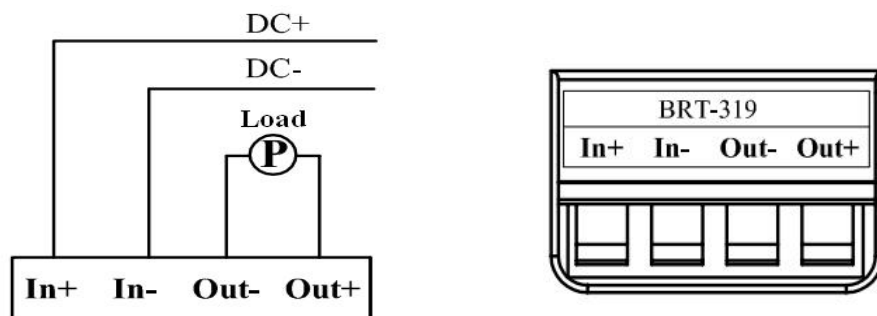
### Specification Parameters:

Input Voltage	12VDC	Operation Environment	No-condensation 20-90% RH, -20℃ ~40℃
Wattage	40W	Working Range	Up to 5m in a cone of 120 degrees
Mounting Hole Spacing	60mm	Matching Box	75mm x 75mm x 50mm
Dimension	86mm x 86mm x 43mm	Weight	72g

### Wiring Diagram and Installation Guide:

BRT-319 occupancy sensor switch is powered by 12V DC supply:

**In+:** Coming from the positive of power supply;  
**In-:** Coming from the negative of power supply; and  
Load wires: Going to the load.

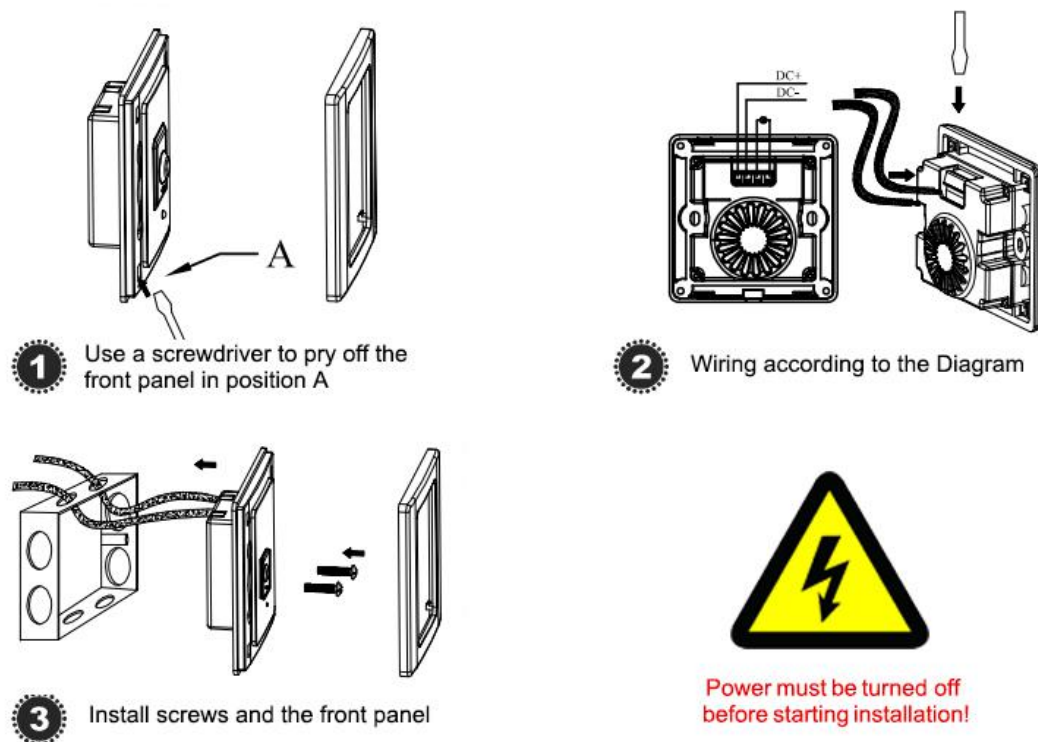


**Fig. 3** BRT-319 Wiring Diagram

**Warning:** Please make sure power is turned off before starting installation!

Fig. 3 shows the wiring diagram and Fig. 4 shows the step-by-step installation instructions. There are three easy steps:

- Step one: Use a screwdriver to pry off the front plate in position A;
- Step two: Wiring according to the diagram and the labelled ports of the switch; and
- Step three: Install screws and front plate.



**Fig. 4** BRT-319 Installation Guide

**Cautions:** Avoid mounting the sensor switch close to air vents, as the vibration and air flow can reduce the effectiveness of the sensor switch;

#### **BRT-319 Operation Guide:**

BRT-319 PIR sensor switch needs a warm-up time about two minutes before it can operate properly. It has a precision tuning screw to adjust the ambient light override threshold as shown in Fib. 5, and another precision tuning screw to adjust the delay off time as shown in Fib. 6.

##### **1. Adjust the ambient light override threshold**

Please refer to Fig. 5. The fine tuning screw is used to set the ambient light override threshold. Use a screw driver to tune the screw gently.

**Caution:** The tuning screw can not make a full turn. To avoid possible damage to the screw, please do not use strong force to tune it.

- a. Counter-clockwise to "+": increase the threshold, so that the PIR triggers will be overridden in bright lighting condition; and

- b. Clockwise to “-”: decrease the threshold, so that the PIR triggers will not be overridden in dark lighting condition.

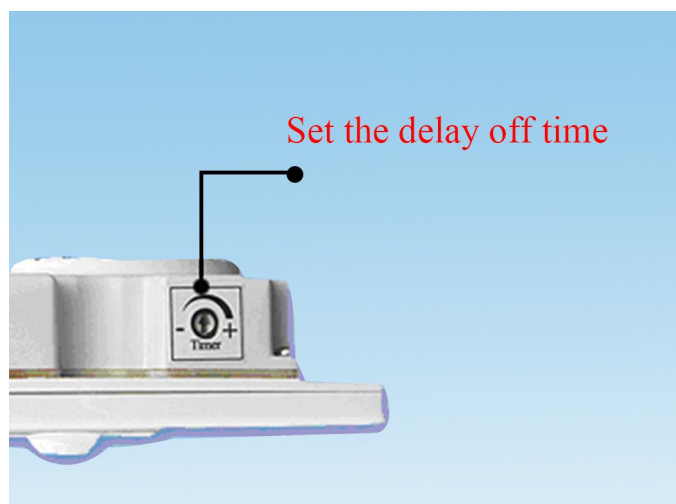


**Fig. 5** Adjustment of Ambient Light Override Threshold

## 2. Adjust the delay-off time

There is another tuning screw on another side of BRT-315 PIR sensor switch. Use a screw driver to tune this screw to adjust the delay-off time, as shown in Fig. 7. The delay-off time can be set from 10s to 15 minutes.

**Caution:** The tuning screw can not make a full turn. To avoid possible damage to the screw, please do not use strong force to tune it.



**Fig. 7** Adjustment of Delay-off Time

## Applications:

BRT-319 PIR occupancy sensor can be used for automatically turning on and/or turning off various loads such as lights, fans, appliances, or other kinds of electrical equipment, especially good for high power loads.

BRT-319 PIR occupancy sensor switch is perfect for saving energy and bringing convenience and safety to our daily life and work. It has wide applications at various locations such as stairwells, corridors, washrooms, offices, conference rooms in homes, schools, laboratories, hospitals, offices, etc., especially useful where AC power supply is not available.

### **How to Order:**

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