

LED Dimmer Switch

Model #: BRT-D204



Features:

BRT-D204 is an LED dimming switch which is controlled by a micro controller unit and utilizes a proprietary adaptive dimming technology to eliminate flickering and to achieve maximum dimming range. It is designed for easy installation and retrofit, directly fit into standard wall box with no need for the neutral.

- *Trailing edge dimming;*
- No flickering and large dimming range;
- Adaptive adjustment to accommodate a wide varieties of LED lights;
- Push button and rotary knob two-in-one for easy on/off and dimming operation;
- Memory function. LED light is always turned on at last setting;
- Single-pole (one location) wiring or three way (multi-location) wiring;
- 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-D204 LED dimmer switch, respectively. It has a rotary knob on the front and wiring terminal blocks on the back.

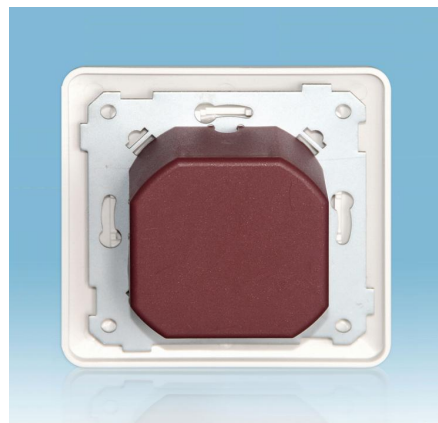


Fig. 1 Front View**Fig. 2** Back View

BRT-D204 LED dimmer switch is design to replace the legacy dimmers in most homes. It can fit into standard wall box for easy retrofit installation.

Specification Parameters:

Input Voltage	220~240V(50Hz/60Hz)	Operation Environment	No-condensation 20-90% RH, -20℃~55℃
Wattage	150W	Dimming Range	< 3% to 100%*
Mounting Hole Spacing	60mm	Matching Box	75mm x 75mm x 50mm
Dimension	86mm x 86mm x 43mm	Weight	81g

* For most dimmable LED lights. The dimming range can vary from LED light to LED light or from manufacturer to manufacturer. Dimmable LED lights usually will not achieve as low a light level as incandescent or halogen sources.

Wiring Diagram and Installation Guide:

BRT-D204 LED dimmer switch only requires hot wire for installation:

Hot wire (ACL): Coming from the power line with 220V; and

Load wire: Going to the load.

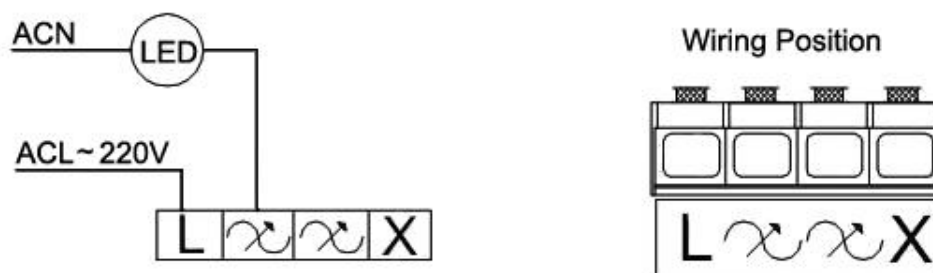
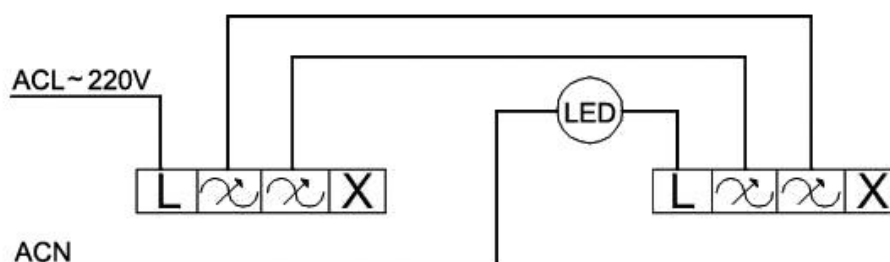
**Fig. 3** BRT-D204 Single-Pole Wiring Diagram

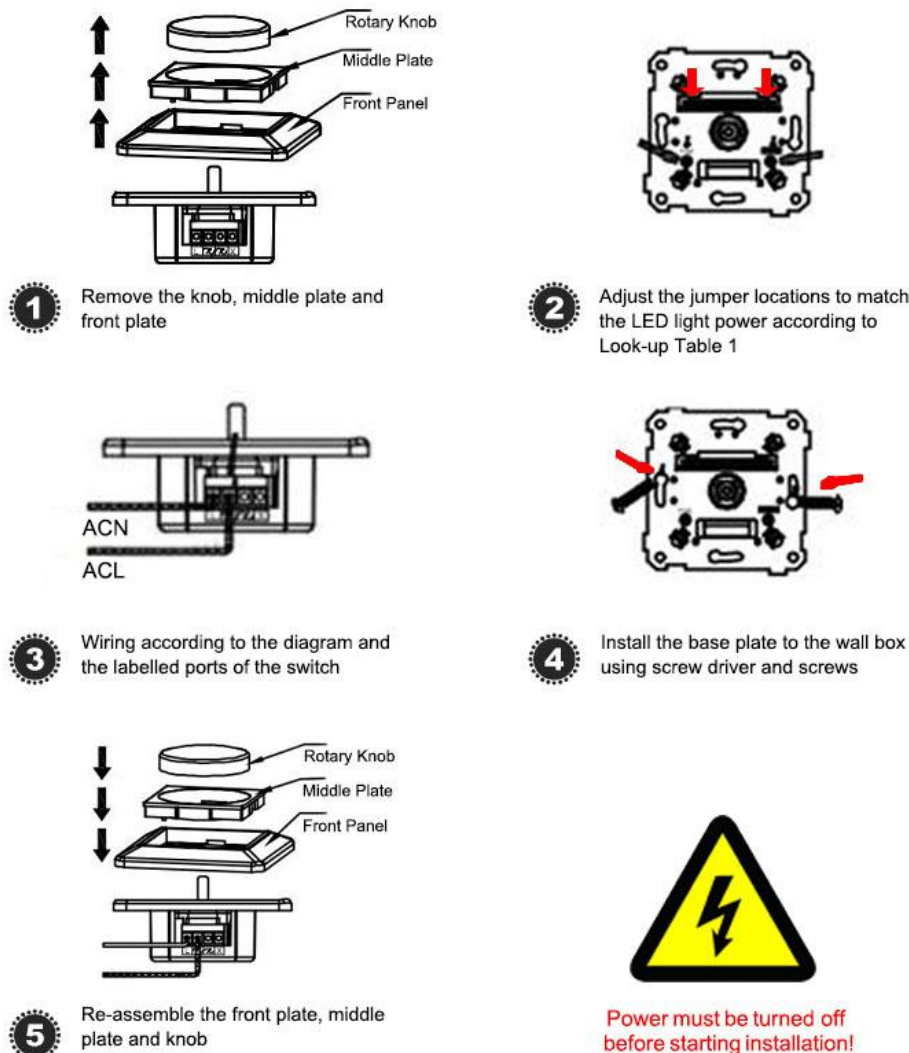
Fig. 4 BRT-D204 Three-Way Wiring Diagram

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

One BRT-D204 LED dimmer switch can be wired in a single-pole configuration as shown in Fig. 3, or two BRT-D204 LED dimmer switches can be wired in a three-way configuration to control the same LED light as shown in Fig. 4.

Fig 5 shows five steps to install BRT-D204 LED dimmer switch:

- Step one: Remove the knob, middle plate and front plate;
- Step two: Adjust the locations of two jumpers (pointed by red arrows) to match the LED light power according to Look-up Table 1;
- Step three: Wiring according to the diagram and the labelled ports of the switch;
- Step four: Install the base plate to the wall box using screw driver and screws; and
- Step four: Re-assemble the front plate, middle plate and knob.



Pro:

She:

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Fig. 5 BRT-D204 Installation Guide

Note: It is very important to adjust the jumper locations to match the LED light power rating for the best dimming performance during installation.

BRT-D204 LED dimmer switch uses two adjustable jumper caps to optimize dimming performance for different LED light power loads. Please calculate the power load and plug the jumper caps properly according to look-up table 1 as follows:

Look-up Table 1: LED Light Load Power vs. Jumper Locations

Total LED Load Power	Location of Jumper Cap #1 (3 pins)	Location of Jumper Cap #2 (4 pins)
5W to 30W		
30W to 60W		
60W to 90W		
90W to 120W		
120W to 150W		

Caution: The jumper caps can only be unplugged or plugged when the line voltage is not applied to the dimmer switch.

BRT-D204 LED Dimmer Switch Operation Guide:

BRT-D204 LED dimmer switch is very easy to operate.

On/Off: The rotary knob is a push button as well. Pushing the knob will turn on the light and pushing again will turn off the light.

Dimming: Once the light is turned on, rotating the knob clockwise will increase brightness, and rotating the knob counter-clockwise will decrease brightness.

For some LED lights, dimming range may be limited and there may be flickering. The dimmer can be tuned to achieve the best performance. Performance optimization is realized by adjusting the two tuning screws behind the middle plate, as shown in Fig. 6.

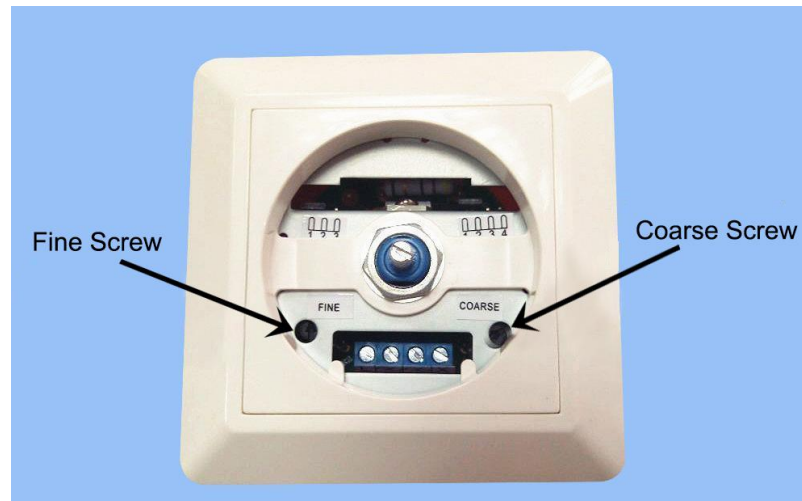


Fig. 6 Performance Optimization of BRT-D204

Please make sure that the jumper caps are set up properly during installation before proceeding to the following procedures.

Adjusting Minimum Brightness:

1. Turn on the LED light and rotate the knob to have minimum brightness;
2. Remove the knob and the middle plate to have access to the two tuning screws as shown in Fig. 6; and
3. Use a screw driver to tune the “Coarse” screw to reduce the minimum brightness further.

If there is flickering, please go to the next procedure: Eliminating Flickering.

Eliminating Flickering:

1. If there is flickering, remove the knob and the middle plate to have access to the two tuning screws as shown in Fig. 6;
2. Use a screw driver to tune the “Fine” screw to eliminate or reduce flickering,
3. If flickering persists, use a screw driver to tune the “Coarse” screw to increase the minimum brightness slightly. Go back to Step 2 to adjust the “Fine” screw;
4. Re-assemble the middle plate and the knob.

Note: Dimming performance depends on LED lights to a certain degree. If the performance is still unacceptable after going thorough the performance optimization procedures, please talk to our sales representative. Further customization can be done at our factory.

Applications:

BRT-D204 LED dimmer switch is designed for all kinds of LED lights. It is ideal for creating desired lighting mood for different application scenes.

BRT-D204 LED dimmer switch has wide applications at various locations such as homes, restaurants, theaters, etc.

How to Order:

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