

PSR07 Smart Color Button



This device is a multiple functions button switch. It is able to switch the appliances on/off or adjust the percentage of dimmer or curtain. The well designed wall bracket and magnetic back let the switch can be fixed on the wall. This product can be included and operated in any Z-Wave™ network with other Z-Wave™ certified devices from other manufacturers and/or other applications.

Note:

Please provide a 5 DVC voltage through Micro USB Port to wake the device up before the first using.

The rotation function work only when the device is fitted upright or stick on the wall or the device will only work as a binary switch when fitted horizontal.

CAUTION

- replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types);
- disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion;
- leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas;
- a battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas

The marking information is located at the bottom of the apparatus.

Specification

Operating Voltage	3.7 V (Lithium Polymer Battery)
Low Battery Voltage	3.6 V
Battery Charge Voltage	5 Vdc @ Micro USB Port
RF Range	Minimum 40 m in door, 100m outdoor line of sight
Frequency Range	868.40 MHz, 869.85 MHz (EU) 908.40 MHz, 916.00 MHz (US) 920.9MHz, 921.7MHz, 923.1MHz (TW/KR/Thai/SG)
RF Maximum Power	+5dBm
Location	Indoor use only
Operation temperature	-10 to 45° C
Humidity	85%RH max

** Specifications are subject to change and improvement without notice.

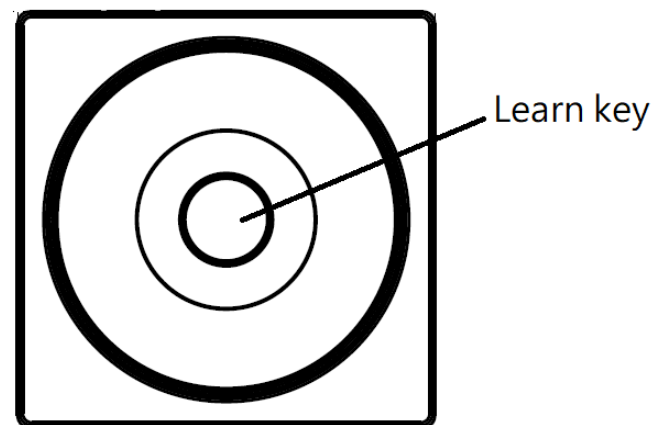
Troubleshooting

Symptom	Cause of Failure	Recommendation
The switch on/off function not working and LED off	<ol style="list-style-type: none"> 1. Battery is running out of power 2. Wrong function mode 	<ol style="list-style-type: none"> 1. Charging the battery by Micro USB. 2. Pointing the arrowhead to area B and press the touch button. 3. If the device still can work, don't open up the Switch and send it for repair.
Can not adjust the percentage of dimmer	<ol style="list-style-type: none"> 1. The device may not be placed upright. 2. The device is in off state. 	<ol style="list-style-type: none"> 1. Check if the device is placed upright. 2. Rotating to the percentage you want then press touch button. Or pointing the arrowhead to area B and press the touch button to turn the lamp on then adjust the percentage.
The device can not join to Z-Wave network	<ol style="list-style-type: none"> 1. The device may in a Z-Wave network. 2. The arrowhead points to wrong area. 	<ol style="list-style-type: none"> 1. Exclude the device then include again. 2. Pointing the arrowhead to area A then include again.
Button no response	<ol style="list-style-type: none"> 1. The button will no response when LED is flashing. 	Wait for the LED go out and try again.

For Instruction to [http:// www.philio-tech.com](http://www.philio-tech.com)



Overview



Z-Wave Network Setting Up

In the first time, add the device into the Z-Wave™ network. Make sure the primary controller is in the add mode. And then power on the device through micro USB. The device will auto start the NWI (Network Wide Inclusion). Red LED will flash every second and continue 30 seconds. And it should be included in 5 seconds. Red LED will light ON one second. If pressed the button once, The device will auto start the NWI(Network Wide Inclusion) When don't include Z-Wave™ network after NWI(Network Wide Inclusion). Rotating to area A(shown in Fig. 1) and pressed 3 times can abort NWI mode.

There is a press button on the front side. The button carries out manual inclusion, exclusion and reset to default.

1. Include: Pointing the arrowhead to area A first (shown in Fig. 1). Pressing the button three times within 1.5 seconds. The red LED will light up for 1 second if succeed.
2. Exclude: Pointing the arrowhead to area A first. Pressing the button three times within 1.5 seconds.
3. Reset to default: Pointing the arrowhead to area A first. Pressing button four times within 2 seconds and hold at fourth. The red LED will light for 5 seconds, release the button within 2 seconds while the LED goes out. The LED will flash for 1 second if reset succeed, or LED will flash once.

Notice: Including a node ID allocated by Z-Wave™ Controller means **"Add"** or **"Inclusion"**. Excluding a node ID allocated by Z-Wave™ Controller means **"Remove"** or **"Exclusion"**.

Function

This device can control dimmers and binary switch in group 2. Then the device will send key state in group 1. If the device send out succeed, the surround LED will turn green. And then if the device send out failed, the surround LED will turn red.

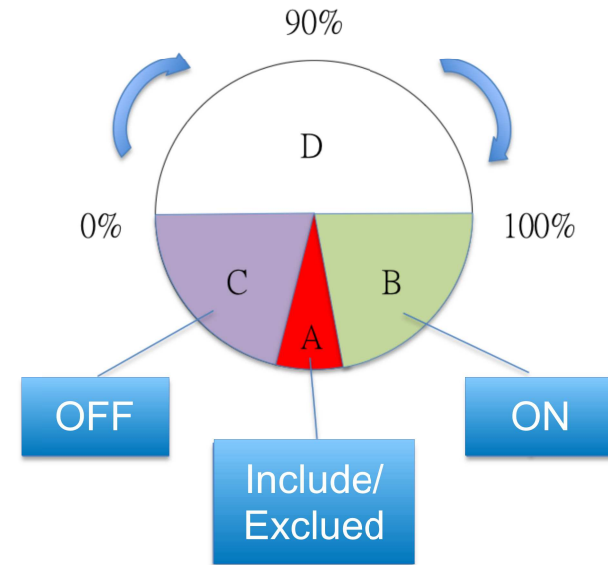


Figure 1

*Dimmer

This device is able to set dimmer level by rotating to different angle. If rotating the device, The surround LED will turn white in area A(shown in Fig. 1). Rotate the device to area B(shown in Fig. 1) then pressed the button can turn On the device to group 2. Rotate the device to area C(show in Fig. 1) then pressed the button can turn Off the device to group 2. The device will send different level to group 2 in area D(show in Fig. 1) when pressed the button. It will send to group 2 automatically 1 second after rotating stop.

*Binary Switch

This device is able to work as a binary switch by pressing the button when fixed on the wall. Rotate the device to area B (shown in Fig. 1) then pressed the button can turn On the device to group 2. Rotate the device to area C (shown in Fig. 1) then pressed the button can turn Off the device to group 2.

*Key State

This device is able to send key state in group 1. When the device fitting horizontal or fixed on the wall.

State	Command	Central Scene (V2)
Key Pressed 1		Key Attribute: 0x00 Scene Number: 0x01
Key Holding		Key Attribute: 0x01 Scene Number: 0x01
Key Released		Key Attribute: 0x02 Scene Number: 0x01
Key Pressed 2		Key Attribute: 0x03 Scene Number: 0x01
Key Pressed 3		Key Attribute: 0x04 Scene Number: 0x01

Association

This device supports 2 association groups which every group has eight node support.

To build/disable association between devices,

1. Have the Z-Wave controller entered association mode.
2. Rotate PSR07 to area A then touch the button.

Group 1 is for receiving the report message, like the battery level. Group 2 is for light control, the device will send Basic Set command to this group.

Timing Report

The device supports the timing unsolicited report of the status.

- Battery level report: Every 6 hours report once in default. It could be changed by setting the configuration NO. 10.
- Low battery report: When the battery level is too low, every 30 minutes will report once.

Z-Wave™ Notification

After the device adding to the network, it will wake-up once per day in default. When it wake-up it will broadcast the "Wake Up Notification" message to the network, and wake-up 10 seconds for receive the setting commands. The wake-up interval minimum setting is 30 minutes, and maximum setting is 120 hours. And the interval step is 30 minutes. If the user want to wake-up the device immediately, please rotate to area A and pressing the touch button once. The device will wake-up for 10 seconds every single

time.

Configuration

NO.	Name	Size (Byte)	Def.	Valid Values	Description
1	Basic Set OFF level	1	0x00	0x00~0x63	Control the value represented by the left-side in area D. E.g. Setting this configuration to 0x0F means range of Command Basic Set value start from 0x0F
2	Basic Set ON level	1	0x63	0x00~0x63	Control the value represented by the right-side in area D. E.g. Setting this configuration to 0x1E means range of Command Basic Set value start from 0x1E
10	Auto Report Battery Time	1	12	1~127	The interval time for auto reporting the Battery level. 0 means turn off auto report battery. The default value is 12.
25	Dimmer Set Method	1	0x00	0x00,0x01	Dimmer setting method. 0 : Auto send Command Basic Set after rotating. 1 : Send Command Basic Set by touching key after rotating

Installation

1. Fix the bracket on the wall.
2. There's a magnet on the backside of this device. It can stick to the bracket.

Notice: Do not install the bracket on unstable wall, this may cause miscarriage to control lights.

Supported Z-Wave Command Classes

- * COMMAND_CLASS_ZWAVEPLUS_INFO_V2
- * COMMAND_CLASS_BATTERY
- * COMMAND_CLASS_CENTRAL_SCENE_V1
- * COMMAND_CLASS_VERSION_V2
- * COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2
- * COMMAND_CLASS_DEVICE_RESET_LOCALLY
- * COMMAND_CLASS_ASSOCIATION_V2
- * COMMAND_CLASS_WAKE_UP_V2
- * COMMAND_CLASS_ASSOCIATION_GRP_INFO
- * COMMAND_CLASS_POWERLEVEL
- * COMMAND_CLASS_MULTI_CMD
- * COMMAND_CLASS_CONFIGURATION

Disposal



This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

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FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the in-

structions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject

to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.