

# Z-Wave 8ch switch module

## user manual

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Z-Wave is the world's leading wireless smart home automation technology, providing affordable solutions for homeowner's convenience, allowing them to save time and money. Z-Wave has been incorporated into a range of devices capable of interacting with your household utilities and appliances.

With Z-Wave devices you can automate everyday tasks, such as opening and closing windows, switching off lights, locking doors, adjusting room temperature and much more.

**Z-Wave 8ch switch module** - can control other Z-Wave devices using standard switches connected to it. The device supports commands such as: turn on, turn off, dim, as well as start scenes on the central controller.

- Allows you to control Z-Wave devices via wireless connection;
- Battery life up to 4 years (2-3 clicks a day);
- Can be powered with 12-24V DC power source;
- Can be connected up to 8 switches/relays/dimmers;
- Can operate independently from the central controller;
- Has a low battery charge indicator;
- Easy to use connectors;
- Optional temperature-humidity sensor
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Package Contents:

- 1 X Z-Wave 8ch switch module;
- 1 X Battery 1/2 AA (ER14250)

### 1. DEVICE

The **Z-Wave 8ch switch module** is a Z-Wave device that can control other Z-Wave network devices using up to 8 switches connected to it. The **Z-Wave 8ch switch module** can be connected to an optional (two-wire) temperature Probe. The device is powered by a 1/2 AA battery (ER14250) or an alternative 12-24V DC power source.

### NOTE: DO NOT MIX POWER SOURCES

**Z-Wave 8ch switch module** supports the following commands:

Turn ON;

Switch OFF on at the set value;

Sending multi-level commands to such devices as: dimmer, curtain control module, etc.;

Sending present scenes (Scene Activation Set) (check with your controller's manual to see if such commands are supported)

### 5. DEVICE FUNCTIONALITY

The **Z-Wave 8ch switch module** is designed to transmit control commands to other Z-Wave modules using switches connected to it.

**Z-Wave 8ch switch module** can be connected to both monostable and bistable switches.

**Monostable switch** - a return-type switch or button, each press sends the command of your choice to the assigned device.

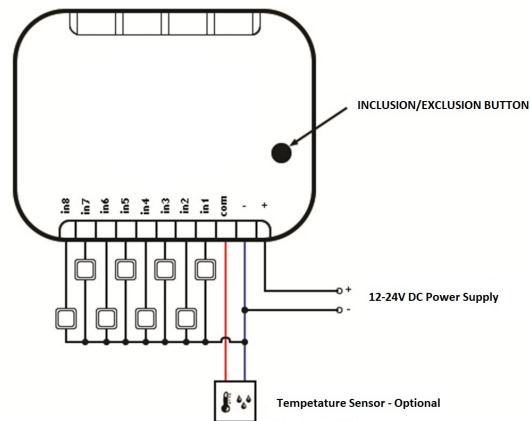
**Bistable switch** - switch with two fixed positions ON or Off. When the key is pressed (contact closed) - the device sends the command Turn ON, when released (contact open) - the command Turn OFF to all devices in the corresponding Association group.

To control devices, as well as to assign the type of control commands, you need to add the device to your Z-Wave network and configure it using parameters and adding links.

## 6. CONNECTING AND CONFIGURING THE DEVICE

### STEP 1

The device is designed to be installed in a standard installation box. The device is powered by a 1/2 AA battery (ER14250) or an alternative 12-24V DC power source (Figure 2). Choose the power supply method and connect the switches according to the diagram.



Wiring diagram of device (Fig. 2)

**PLEASE NOTE! The simultaneous use of two power sources (battery and alternative power supply) will cause permanent damage to the device.**

Contacts marking:

- **In8** - Switch # 8;
- **In7** - Switch # 7;
- **In6** - Switch # 6;
- **In5** - Switch # 5;
- **In4** - Switch # 4;
- **In3** - Switch # 3;
- **In2** - Switch # 2;
- **In1** - Switch # 1;
- **Com** - connector for connecting the red wire of the temperature sensor; - - common connector for connecting switches, also an alternative power source and the blue wire of the temperature sensor;
- **+ -** connector for an alternative power supply;



To install battery open enclosure cover with small screwdriver by lifting sides of the lead. Install ER14250 type battery (pay attention for the +, - marking). Then close cover.

## STEP 2

To add a switch to the Z-Wave network, put the controller into learning mode (see your controller's manual) and hold the Inclusion/Exclusion button for 3 seconds.

To remove (exclude) the switch from the Z-Wave network, put the controller into exclusion mode (see the controller manual) and hold the Inclusion/Exclusion button for 3 seconds. Please note that after excluding the device from the Z-Wave network, all the settings you have made will be reset to factory settings.

**If you have any problems with connecting the device to your Z-Wave network, you need to go through the procedure of excluding from the Z-Wave network, and then repeat the adding procedure.**

## STEP 3

Using the main controller of your Z-Wave network, assign the devices that the **Z-Wave 8ch switch module** will control. To do this, add the controlled devices to the corresponding Association groups, and also select the types of commands that the **Z-Wave 8ch switch module** will send to the controlled devices (To configure the Association and parameters, refer to the user manual of your main controller).

## 7. ASSOCIATIONS

Z-Wave devices can interact with each other, as well as exchange data and other information directly without the use of your controller, for communications.

Each Button can have its own list of recipients, called an Association group.

Refer to the user manual of your Z-Wave controller for link setup.

**Group 1 will be automatically assigned to your Controller. Only add those devices that will be controlled by the Z-Wave 8ch switch module to their associated Groups, and leave unused groups empty.**

### Please note!

When Z-Wave 8ch switch module is powered by a battery and to increase the service life, module is constantly in sleep mode. After adding devices to Association groups, wake up the device by pressing the Inclusion/Exclusion button to apply the settings

(See Figure 2).

### ASSOCIATION GROUPS:

- **Group 1** - device (controller is recommended), which will receive reports on the battery charge. Max 3 devices in group.
- **Group 2** - devices that will receive the Scene activation set command. Max 3 devices in group.
- **Group 3** - devices that will receive the ON/OFF command when the switch # 1 is triggered. Max 5 devices in group.
- **Group 4** - devices that will receive the ON/OFF command when the switch # 2 is triggered. Max 5 devices in group.
- **Group 5** - devices that will receive the ON/OFF command when the switch # 3 is triggered. Max 5 devices in group.
- **Group 6** - devices that will receive the ON/OFF command when the switch # 4 is triggered. Max 5 devices in group.
- **Group 7** - devices that will receive the ON/OFF command when the switch # 5 is triggered. Max 5 devices in group.
- **Group 8** - devices that will receive the ON/OFF command when the switch # 6 is triggered. Max 5 devices in group.
- **Group 9** - devices that will receive the ON/OFF command when the switch # 7 is triggered. Max 5 devices in group.
- **Group 10** - devices that will receive the ON/OFF command when the switch # 8 is activated. Max 5 devices in group.
- **Group 11** - devices that will receive a command to dim / open (up / down) when holding switch # 1. Max 5 devices in group.
- **Group 12** - devices that will receive a command to dim / open (up / down) when holding switch # 2. Max 5 devices in group.
- **Group 13** - devices that will receive a command to dim / open (up / down) when holding switch # 3. Max 5 devices in group.
- **Group 14** - devices that will receive a command to dim / open (up / down) when holding switch # 4. Max 5 devices in group.
- **Group 15** - devices that will receive a command to dim / open (up / down) when holding switch # 5. Max 5 devices in group.
- **Group 16** - devices that will receive a command to dim / open (up / down) when holding switch # 6. Max 5 devices in group.
- **Group 17** - devices that will receive a command to dim / open (up / down) when holding switch # 7. Max 5 devices in group.
- **Group 18** - devices that will receive a command to dim / open (up / down) when holding switch # 8. Max 5 devices in group.
- **Group 19** - devices controlled by sensor 1. Max 5 devices in group.
- **Group 20** - devices controlled by sensor 2. Max 5 devices in group.

## 8. PARAMETERS

### **Please note!**

When **Z-Wave 8ch switch module is powered by a battery** and to increase the service life, module is constantly in sleep mode. After adding changing Parameters, wake up the device by pressing the Inclusion/Exclusion button to apply the settings (Figure 2).

### PARAMETER # 1 - SWITCH # 1 SETTING

Select the type of command that will be sent to the 3th or 11th Association groups, depending on the state of the switch and its type.

- 0 - Turn off by pressing / while holding dim down when a monostable switch is connected (Default);
- 1 - Turn on when pressing / hold down and dim up when a monostable switch is connected.
- 2 - Bistable button. It has two fixed positions: ON (contact closed) or OFF (contact open).
- 3 - Scene activation depending on the state of the switch when a monostable switch is connected (see table of scenes). When this value is selected, it is necessary to add the controller to the 2nd group of links;
- 4 - Monostable push button switch. Each subsequent press of the button switches the device from 3th group to the opposite state. Holding down the button will send an up / down dim command to the device from the 11th group.
- 5 - Bistable push button switch. With its help, you can switch from one possible state to another when changing the position of the switch button.

**When this value is selected, the Z-Wave 8ch switch module should be at a minimum distance from the device it will control (no more than 10m). In addition, Z-Wave 8ch switch module will be able to control only one device from the corresponding Association group.**

### PARAMETER # 2 - SWITCH # 2 SETTING

Select the type of command that will be sent to the 4th or 12th Association groups, depending on the state of the switch and its type.

- 0 - Turn off by pressing / while holding dim down when that a monostable switch is connected (Default);
- 1 - Turn on when pressing / hold down and dim up when a monostable switch is connected.
- 2 - Bistable button. It has two fixed positions: ON (contact closed) or OFF (contact open).
- 3 - Scene activation depending on the state of the switch when a monostable switch is connected (see table of scenes). When this value is selected, it is necessary to add the controller to the 2nd group of links;
- 4 - Monostable push button switch. Each subsequent press of the button switches the device from 4th group to the opposite state. Holding down the button will send an up / down dim command to the device from the 12th group.
- 5 - Bistable push button switch. With its help, you can switch from one possible state to another when changing the position of the switch button.

**When this value is selected, the Z-Wave 8ch switch module should be at a minimum distance from the device it will control (no more than 10m). In addition, Z-Wave 8ch switch module will be able to control only one device from the corresponding Association group.**

### PARAMETER # 3 - SETTING OF SWITCH NO 3

Select the type of command that will be sent to the 5th or 13th Association groups, depending on the state of the switch and its type.

- 0 - Turn off by pressing / while holding dim down when a monostable switch is connected (Default);
- 1 - Turn on when pressing / hold down and dim up when a monostable switch is connected.
- 2 - Bistable button. It has two fixed positions: ON (contact closed) or OFF (contact open).
- 3 - Scene activation depending on the state of the switch when a monostable switch is connected (see table of scenes). When this value is selected, it is necessary to add the controller to the 2nd group of links;
- 4 - Monostable push button switch. Each subsequent press of the button switches the device from 5th group to the opposite state. Holding down the button will send an up / down dim command to the device from the 13th group.
- 5 - Bistable push button switch. With its help, you can switch from one possible state to another when changing the position of the switch button.

**When this value is selected, the Z-Wave 8ch switch module should be at a minimum distance from the device it will control (no more than 10m). In addition, Z-Wave 8ch switch module will be able to control only one device from the corresponding Association group.**

### PARAMETER # 4 - SETTING FOR BUTTON # 4

Select the type of command that will be sent to the 6th or 14th Association groups, depending on the state of the switch and its type.

- 0 - Turn off by pressing / while holding dim down when a monostable switch is connected (Default);

- 1 - Turn on when pressing / hold down and dim up when a monostable switch is connected.
- 2 - Bistable button. It has two fixed positions: ON (contact closed) or OFF (contact open).
- 3 - Scene activation depending on the state of the switch when a monostable switch is (see table of scenes). When this value is selected, it is necessary to add the controller to the 2nd group of links;
- 4 - Monostable push button switch. Each subsequent press of the button switches the device from 6th group to the opposite state. Holding down the button will send an up / down dim command to the device from the 14th group.
- 5 - Bistable push button switch. With its help, you can switch from one possible state to another when changing the position of the switch button.

**When this value is selected, the Z-Wave 8ch switch module should be at a minimum distance from the device it will control (no more than 10m). In addition, Z-Wave 8ch switch module will be able to control only one device from the corresponding Association group.**

#### PARAMETER # 5 - SETTING OF SWITCH NO. 5

Select the type of command that will be sent to the 7th or 15th Association groups, depending on the state of the switch and its type.

- 0 - Turn off by pressing / while holding dim down when a monostable switch is connected (Default);
- 1 - Turn on when pressing / hold down and dim up when a monostable switch is connected.
- 2 - Bistable button. It has two fixed positions: ON (contact closed) or OFF (contact open).
- 3 - Scene activation depending on the state of the switch when a monostable switch is connected (see table of scenes). When this value is selected, it is necessary to add the controller to the 2nd group of links;
- 4 - Monostable push button switch. Each subsequent press of the button switches the device from 7th group to the opposite state. Holding down the button will send an up / down dim command to the device from the 15th group.
- 5 - Bistable push button switch. With its help, you can switch from one possible state to another when changing the position of the switch button.

**When this value is selected, the Z-Wave 8ch switch module should be at a minimum distance from the device it will control (no more than 10m). In addition, Z-Wave 8ch switch module will be able to control only one device from the corresponding Association group.**

#### PARAMETER # 6 - SETTING SWITCH # 6

Select the type of command that will be sent to the 8th or 16th Association groups, depending on the state of the switch and its type.

- 0 - Turn off by pressing / while holding dim down when a monostable switch is connected (Default);
- 1 - Turn on when pressing / hold down and dim up when a monostable switch is connected.
- 2 - Bistable button. It has two fixed positions: ON (contact closed) or OFF (contact open).
- 3 - Scene activation depending on the state of the switch when a monostable switch is connected (see table of scenes). When this value is selected, it is necessary to add the controller to the 2nd group of links;
- 4 - Monostable push button switch. Each subsequent press of the button switches the device from 8th group to the opposite state. Holding down the button will send an up / down dim command to the device from the 16th group.
- 5 - Bistable push button switch. With its help, you can switch from one possible state to another when changing the position of the switch button.

**When this value is selected, the Z-Wave 8ch switch module should be at a minimum distance from the device it will control (no more than 10m). In addition, Z-Wave 8ch switch module will be able to control only one device from the corresponding Association group.**

#### PARAMETER # 7 - SETTING OF SWITCH NO. 7

Select the type of command that will be sent to the 9th or 17th Association groups, depending on the state of the switch and its type.

- 0 - Turn off by pressing / while holding dim down when a monostable switch is connected (Default);
- 1 - Turn on when pressing / hold down and dim up when a monostable switch is connected.
- 2 - Bistable button. It has two fixed positions: ON (contact closed) or OFF (contact open).
- 3 - Scene activation depending on the state of the switch when a monostable switch is connected (see table of scenes). When this value is selected, it is necessary to add the controller to the 2nd group of links;
- 4 - Monostable push button switch. Each subsequent press of the button switches the device from 9th group to the opposite state. Holding down the button will send an up / down dim command to the device from the 17th group.
- 5 - Bistable push button switch. With its help, you can switch from one possible state to another when changing the position of the switch button.

**When this value is selected, the Z-Wave 8ch switch module should be at a minimum distance from the device it will control (no more than 10m). In addition, Z-Wave 8ch switch module will be able to control only one device from the corresponding Association group.**

#### PARAMETER # 8 - SETTING OF SWITCH NO. 8

Select the type of command that will be sent to the 10th or 18th Association groups, depending on the state of the switch and its type.

- 0 - Turn off by pressing / while holding dim down when a monostable switch is connected (Default);
  - 1 - Turn on when pressing / hold down and dim up when a monostable switch is connected.
  - 2 - Bistable button. It has two fixed positions: ON (contact closed) or OFF (contact open).
  - 3 - Scene activation depending on the state of the switch when a monostable switch is connected (see table of scenes). When this value is selected, it is necessary to add the controller to the 2nd group of links;
  - 4 - Monostable push button switch. Each subsequent press of the button switches the device from 10th group to the opposite state. Holding down the button will send an up / down dim command to the device from the 18th group.
  - 5 - Bistable push button switch. With its help, you can switch from one possible state to another when changing the position of the switch button.
- When this value is selected, the Z-Wave 8ch switch module should be at a minimum distance from the device it will control (no more than 10m). In addition, Z-Wave 8ch switch module will be able to control only one device from the corresponding Association group.**

#### PARAMETER # 9 - TIME OF PRESSING THE SWITCH, LIMITING "HOLDING"

The parameter specifies the holding time of the switch, after which the device will send a command to start dimming. The unit of measure used in the parameter is 0.1 seconds (10 = 1 second).

The allowed value is 1 - 50;

5 - (Default).

#### PARAMETER # 10 - SENDING A FIXED VALUE WHEN PRESSING SWITCH # 1

This parameter specifies a fixed value for sending to multilevel devices that are in the Association group # 11, for example: open roller shutters by 30%.

The allowed value is 1 - 99.

0 - Disabled (Default).

#### PARAMETER # 11 - SENDING A FIXED VALUE WHEN PRESSING THE SWITCH NO. 2

This parameter specifies a fixed value for sending to multilevel devices that are in the Association group # 12, for example: open roller shutters by 30%.

The allowed value is 1 - 99.

0 - Disabled (Default).

#### PARAMETER # 12 - SENDING A FIXED VALUE WHEN PRESSING THE SWITCH NO. 3

This parameter specifies a fixed value for sending to multilevel devices that are in the Association group # 13, for example: open roller shutters by 30%.

The allowed value is 1 - 99.

0 - Disabled (Default).

#### PARAMETER # 13 - SENDING A FIXED VALUE WHEN PRESSING THE SWITCH NO. 4

This parameter specifies a fixed value for sending to multilevel devices that are in the Association group No. 14, for example: open roller shutters by 30%.

The allowed value is 1 - 99.

0 - Disabled (Default).

#### PARAMETER # 14 - SENDING A FIXED VALUE WHEN PRESSING THE SWITCH NO. 5

This parameter specifies a fixed value for sending to multilevel devices that are in the Association group # 15, for example: open roller shutters by 30%.

The allowed value is 1 - 99.

0 - Disabled (Default).

#### PARAMETER # 15 - SENDING A FIXED VALUE WHEN PRESSING THE SWITCH NO. 6

This parameter specifies a fixed value for sending to multilevel devices that are in the Association group # 16, for example: open roller shutters by 30%.

The allowed value is 1 - 99.

0 - Disabled (Default).

#### PARAMETER # 16 - SENDING A FIXED VALUE WHEN PRESSING THE SWITCH NO. 7

This parameter specifies a fixed value for sending to multilevel devices that are in the Association group No. 14, for example: open roller shutters by 30%.  
The allowed value is 1 - 99.  
0 - Disabled (Default).

#### PARAMETER # 17 - SENDING A FIXED VALUE WHEN PRESSING THE SWITCH NO. 8

This parameter specifies a fixed value for sending to multilevel devices that are in the Association groups # 18, for example: open roller shutters by 30%.  
The allowed value is 1 - 99.  
0 - Disabled (Default).

#### PARAMETER # 20 - VALUE OF SENSOR # 1 TO ENABLE

The value for multilevel sensors that will be used to turn on devices from the 19th Association group. Available settings from - 60 to 1000;  
0 - By default.

#### PARAMETER # 21 - VALUE OF SENSOR # 1 FOR SHUTDOWN

The value for multilevel sensors that will be used to turn off devices from the 19th Association group. Available settings from - 60 to 1000;  
0 By default.

#### PARAMETER # 22 - OPTIONS FOR PROCESSING SENSOR VALUES # 1

0 - Do not respond to on / off values (Default).  
1 - Enable if the sensor value is less than or equal to the enable value. Turn off if the value is greater than or equal to the off value.

**Please Note!**

**The switch-on point cannot be larger than the switch-off point.**

2 - Turn off if the value is less than or equal to the turn off value. Include if the value is greater than or equal to the include value.

**PLEASE NOTE!** The switch-off point cannot be larger than the switch-on point.

3 - Include if the value is less than or equal to the Inclusion value.

4 - Include if the value is greater than or equal to the enable value.

5 - Disable if the value is greater than or equal to the disable value.

6 - Disable if the value is less than or equal to the disable value.

#### PARAMETER # 23 - VALUE OF SENSOR # 2 TO ENABLE

The value for multilevel sensors that will be used to turn on devices from the 20th Association group. Available settings from - 60 to 1000;  
0 - By default.

#### PARAMETER # 24 - VALUE OF SENSOR # 2 FOR SHUTDOWN

The value for multilevel sensors that will be used to turn off devices from the 20th Association group. Available settings from - 60 to 1000;  
0 - By default.

#### PARAMETER # 25 - OPTIONS FOR PROCESSING SENSOR VALUES # 2

0 - Do not respond to on / off values (Default).

1 - Enable if the sensor value is less than or equal to the enable value. Turn off if the value is greater than or equal to the off value.

**Please Note!**

**The switch-on point cannot be larger than the switch-off point.**

2 - Turn off if the value is less than or equal to the turn off value. Include if the value is greater than or equal to the include value.

**Please Note!**

**The switch-off point cannot be larger than the switch-on point.**

3 - Include if the value is less than or equal to the Inclusion value.

4 - Include if the value is greater than or equal to the enable value.

5 - Disable if the value is greater than or equal to the disable value.

6 - Disable if the value is less than or equal to the disable value.

## 9. SCENES

Scene - a set of parameters for controlling several Z-Wave network devices and processing these parameters using a controller.

Refer to your controller's user manual.

### SCENE TABLE

SCENE ACTIVATION	SWITCH						
	# 1	# 2	# 3	# 4	# 5	# 6	# 7
PRESSING	SCENE 10	SCENE 20	SCENE 30	SCENE 40	SCENE 50	SCENE 60	SCENE 70

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