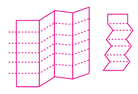
Black Pantone 168C

SIZE: 440 x 434 mm
材质：80G 书写纸
饰面：光学反 110 x 62 mm 纸品



正面

3-Way Z-Wave Smart Dimmer Switch

• ZKS31 •

switch x1 wiring x1 screws x2

Z-WAVE INTEROPERABILITY

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. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase the reliability of the network.
This Device supports Lifeline (association group 1) supporting 1 node for lifeline communication.
Group 1 must be assigned the Node ID of the primary controller where unsolicited notifications will be sent. The Z-Wave controller should set this association automatically after inclusion.
Lifeline association only supports the "Device Reset Locally" function. Refer to the instructions of your controller for any available details on how this can be set.

Contents

Convention	Description	Convention	Description
Part 1. Introduction	• Product introduction • Installation steps	Part 5. Parameter Settings	**Function description** • Locally button function • LED Indicator • Auto Turn-Off Timer • Auto Turn-On Timer • Restores state after power failure • Dimmer speed (ON/OFF Control) • Dimmer speed (only for local press & hold) • Multilevel minimum value can be set • Multilevel maximum value can be set • Association Group • Locally Button Press function • Command classes
Part 2. Wiring Diagram	• Wiring instructions • Single pole and 3-way wiring diagram		
Part 3. Network Configuration	• Adding Device To Z-Wave Network • To Remove The Device • To Return The Device To Factory Defaults • Association Group	Part 6. Troubleshooting	• Solutions to some common problems
Part 4. Manual Control	• LED indicator/ Button function • Adding / reset the device (Factory setting)		

Part 1. Introduction

Basic Operation
The connected light can be turned ON/OFF in two ways:
1. Manually from of the In-wall Switch
2. Remotely with a Z-Wave Controller

Manual Control
The Knob Switch allows the user to:
Turn ON/OFF the connected fixture

Model: ZKS31
Power: 125VAC, 60Hz
Frequency: 908.42 MHz
Maximum Load: 150W LED, 500W incandescent (300W with both sides of heat sink tabs off)
Minimum Load: 5W for LED bulbs
Range: Up to 100 feet line of sight Operating
Temperature Range: 32-104° F (0-40° C)

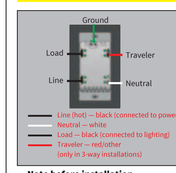
For indoor use.

Specifications subject to change without notice due to continuing product improvement
Approval: Z-Wave Plus Certified

A Few Quick Reminders

A quick note before we give out the wiring schematics. Please do not try installing this device if you are unsure of how electrical circuits operate within your home. As exciting as it is to have a smart switch installed, it can be dangerous and even life-threatening if you do not install this correctly. Please consult a qualified electrician if necessary. With that said, here are a few other warnings we'd like to point out for your safety:

HOW TO INSTALL THE WIRES



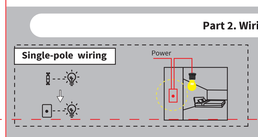
1. Unscrew: carefully turn the screw counterclockwise to leave enough space for the wire to be inserted. Do not unscrew the screws completely.
2. Press down: Once loosened, use your finger so it catches the thread.
3. Insert the wire: make sure the wire is completely straight, then insert it into the terminal while holding down the screw. Do not wrap the wire around the screw!
4. Tighten: Turn the screw clockwise to tighten the wire. Make sure the wires are locked!
Note: There are 2 holes for each terminal can be used in the connection.You can use a jump wire or the second hole at the terminal to connect.

Note before installation

1) The Z-Wave In-wall Smart Switch must not exceed **150W LED, 500W** incandescent.
2) Work with **regular 3-way on/off** for 2 locations control. It can only be connected with regular 3-way on/off switch, **don't use a smart switch or a dimmer switch! Couldn't work with an add-on switch!**
3) The colors of your wires may not match the ones in our diagrams so please make sure you've **identified all wires correctly** based on their source, not color only.
4) Please check your original 3-way wiring circuit in your home before installation, and then **follow the wiring diagram option 1 or 2** in the manual.
5) Install the smart switch in the switch box which directly connects to the power **Line and Neutral.**
6) This switch **requires a Neutral for installation**, or the installation will not succeed.
7) Not recommended for fan.

Part 2. Wiring Diagram

Single-pole wiring

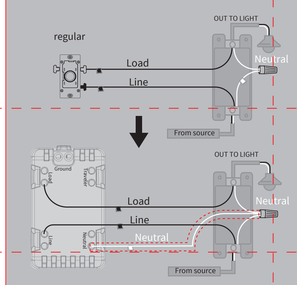


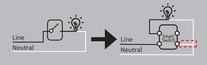
1. Tool: Please prepare a flat head screwdriver.
2. Turn power OFF at circuit breaker or fuse box.

3. Remove wallplate.
4. Remove the switch mounting screws.
5. Disconnect the wires and label them after remove the old switch. (Please use our sticker)

(Just for 3-way switch)

6. Carefully remove the switch from the switch box. (DO NOT disconnect the wires.)
7. There are up to five screw terminals on the smart switch, these are marked (Please check **<HOW TO INSTALL THE WIRES>**)
8. Fix the wallplate with screws after wiring succeed. (Please use our screws.)
9. The Ground was excluded from the diagram to simplify the illustration. Please Make sure all ground wires are connected to all switches respectively.

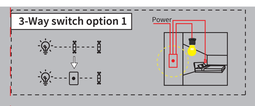


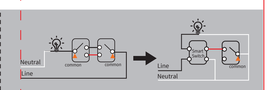


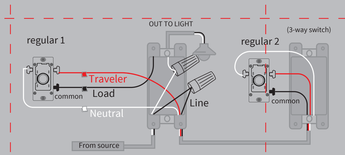
IMPORTANT
1) **Neutral required.** If the box do not have a Neutral, please stop! Connect the **white wire to neutral terminal** (use a white jump wire form the package or the second hole at the terminal to connect.)

2) Insert the Line wire to Line terminal and Load wire to Load terminal. **LOAD and LINE Can't be swapped.** please make sure to identify them correctly!

3-Way switch option 1

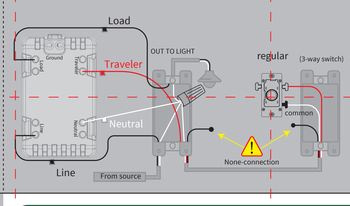






Box 1
(Line/Hot Neutral and Light/Load)

Box 2
Don't change this regular 3-way on/off switch



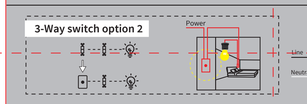
IMPORTANT
1) **Neutral required.** If the switch box do not have a Neutral, please stop! Connect the **white wire to neutral terminal** (use a white jump wire form the package or the second hole at the terminal to connect.)

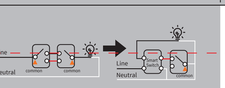
2) Insert the Line wire to Line terminal and Load wire to Load terminal. **LOAD and LINE Can't be swapped,** please make sure to identify them correctly!

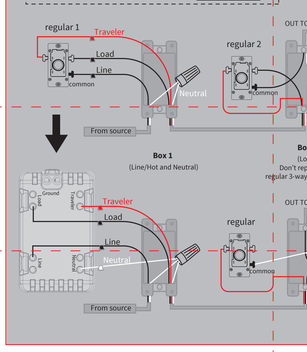
3) Install the smart switch in the switch box which directly connects to the power **Line, Load and Neutral.**

4) Only work with **regular 3-way on/off** for 2 locations control. It can only be connected with regular 3-way on/off switch, **don't use a smart switch or a dimmer switch! Couldn't work with an add-on switch!**

3-Way switch option 2







IMPORTANT
1) **Neutral required.** If the switch box do not have a Neutral, please stop! Connect the **white wire to neutral terminal** (use a white jump wire form the package or the second hole at the terminal to connect.)

2) Insert the Line wire to Line terminal and Load wire to Load terminal. **LOAD and LINE Can't be swapped**, please make sure to identify them correctly!

3) Install the smart switch in the switch box which directly connects to the power **Line and Neutral.**

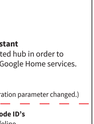
4) Only work with **regular 3-way on/off** for 2 locations control. It can only be connected with regular 3-way on/off switch, **don't use a smart switch or a dimmer switch! Couldn't work with an add-on switch!**

Part 3. Network Configuration

Adding Device To Z-Wave Network:

1. Follow the instructions for your Z-Wave certified controller to add a device to the Z-Wave network.
2. Once the controller is ready to add your device, **press the "knob" button on the swtich 3 times quickly.**
   The blue LED will blink quickly.

Now, you have complete control to turn your fixture ON/OFF or set dim levels according to groups, scenes, schedules and interactive automation programmed by your controller. If your Z-Wave certified controller features remote access, you can control your fixture from your mobile devices.
Again: If you have issues with pairing/including, please move the hub as close as possible to the deviceand try again.
Note: If the Blue LED indicator doesn't light up after pressed the "knob" button 3 times, please reset the device: **click the button 2 times quickly then hold for at least 10 seconds.** This operation could be done when manual control is functional--single press can turn on/off the light.



This Z-Wave device is equipped Smart Start feature. With SmartStart, the device is able to recognize and connect with the hub with a quick app scan of its QR code.
Please check the QR code on the device. Or you can find the complete DSK code on the box.
Keep the box well in case you need it.

To Remove The Device:

1. Follow the instructions for your Z-Wave certified controller to remove a device from the Z-Wave network.
2. Once the controller is ready to remove your device, press the "knob" button on the swtich 3 times quickly.

To Return The Device To Factory Defaults:

Manual: Click the switch button 2 times quickly then hold for at least 10 seconds.
Host reset: Remove it from the host connection and the device will factory reset.
Note: This should only be used in the event your network's primary controller is missing or otherwise inoperable.

Works with Alexa & Google Assistant
It must be connected to a supported hub in order to interact with the Amazon Alexa / Google Home services.

Association Group:

(LED flashes 2 times when the configuration parameter changed.)
Group 1 supports 5 node ID,
Group 2 Supports maximum of 5 node ID's
Association group_1: Z-Wave Plus Lifeline
Association Group 2: Send Basic Set ON / Off

Part 4. Manual Control

Central Scene:

All directions support full central scene function.

KNOB DIRECTION	NUMBER
Number	1
UP	2
DOWN	3
LEFT	4
RIGHT	5

Inclusion and Exclusion:

Press the knob button three times to add the device into HUB or remove the device from HUB.
● Inclusion: BLUE led will flash.
● Exclusion: MAGENTA led will flash.
● Success: GREEN led indicate flashes for 3 seconds
● Failure: RED led indicate flashes for 3 seconds.

Factory reset:

Press the knob twice and hold for 10 seconds (Tap -> Tap -> Press and hold for 10 seconds) to reset the device.
● Indicate: RED led will flash and then the GREEN led will be solid for 2 seconds.

Part 5.Parameter Settings

• Locally Button function
This parameter can access you to set the up button to turn the light on/off, or if you'd like any paddle to change the state of the light.
(GREEN LED flashes 3 times when the configuration parameter changed.)

1.Setting the indicator behavior for output

LED Indicator Behavior	
Number	1
Size	1
Minimum	0
Maximum	3
Default	0
Value	0- Inverse: Indicator on when output off and off when output on 1- Synchronous: Same as output 2- Always Off 3- Always On

2.Setting the indicator color for output

LED Indicator Color	
Number	2
Size	1
Minimum	0
Maximum	6
Default	0
Value	0- Blue 1- Green 2- Red 3- White 4- Yellow 5 - Cyan 6 - Magenta

3.Setting the indicator brightness

LED Indicator Brightness	
Number	3
Size	1
Minimum	10
Maximum	100
Default	50
Value	10 -10% 100- 100%

4.Setting the step value of the knob

Knob Step	
Number	4
Size	1
Minimum	1
Maximum	10
Default	2
Value	1 - 10: Rotate once to adjust 1%~10%

5.Setting the value when sliding the knob up
NOTE: This parameter will be invalid when PARAM#10 value is 0 or 1

Value of knob up	
Number	5
Size	1
Minimum	0
Maximum	255
Default	100
Value	0 -Turn off 1~99 -Custom Brightness 100 -Maximum Brightness 101 -Minimum Brightness Others -Turn on

6.Setting the value when sliding the knob down
NOTE: This parameter will be invalid when PARAM#11 value is 0 or 1

Value of knob down	
Number	6
Size	1
Minimum	0
Maximum	255
Default	20
Value	0 -Turn off 1~99 -Custom Brightness 100 -Maximum Brightness 101 -Minimum Brightness Others -Turn on

7.Setting the value when sliding the knob left
NOTE: This parameter will be invalid when PARAM#12 value is 0 or 1

Value of knob down	
Number	7
Size	1
Minimum	0
Maximum	255
Default	0
Value	0 -Turn off 1~99 -Custom Brightness 100 -Maximum Brightness 101 -Minimum Brightness Others -Turn on

8.Setting the value when sliding the knob right
NOTE: This parameter will be invalid when PARAM#13 value is 0 or 1

Value of knob right	
Number	8
Size	1
Minimum	0
Maximum	255
Default	255
Value	0 -Turn off 1~99 -Custom Brightness 100 -Maximum Brightness 101 -Minimum Brightness Others -Turn on

9.Behavior when pressing the knob
NOTE: first version only defined the central scene for this.

Behavior of knob pressed	
Number	9
Size	1
Minimum	0
Maximum	1
Default	0
Value	0 -Disable scene 1 -Enable scene

10.Behavior when sliding the knob up
NOTE: Default value is 2, user can push the knob down to brightness determined by #PARAM#5.

Behavior of knob up	
Number	10
Size	1
Minimum	0
Maximum	3
Default	2
Value	0- Disable 1- Only enable scene 2- Only enable #PARAM# 5 3- Enable both

11.Behavior when sliding knob down
NOTE: Default value is 2, user can slide the knob down to adjust brightness by #PARAM#6.

Behavior of knob down	
Number	11
Size	1
Minimum	0
Maximum	3
Default	2
Value	0- Disable 1- Only enable scene 2- Only enable #PARAM# 6 3- Enable both

12.Behavior when sliding the knob left

Behavior of knob left	
Number	12
Size	1
Minimum	0
Maximum	3
Default	1
Value	0- Disable 1- Only enable scene 2- Only enable #PARAM# 7 3- Enable both

13.Behavior when sliding the knob right

Behavior of knob right	
Number	13
Size	1
Minimum	0
Maximum	3
Default	2
Value	0- Disable 1- Only enable scene 2- Only enable #PARAM# 7 3- Enable both

14.Timer to automatically turn off the output once turned on.

Auto turn off	
Number	14
Size	4
Minimum	0
Maximum	65535
Default	0
Value	0 -Disable Others -Minutes

15.Timer to automatically turn on the output once turned off.

Auto turn on	
Number	15
Size	4
Minimum	0
Maximum	65535
Default	0
Value	0 -Disable Others -Minutes

16.State Restored when Power Failure.

Restore state	
Number	16
Size	1
Minimum	0
Maximum	2
Default	0
Value	0 -Always Off 1 -Always On 2 -Memory state

17.Minimum brightness
NOTE: If minimum brightness is more than maximum brightness, this parameter will be invalid.

Minimum brightness	
Number	17
Size	1
Minimum	0
Maximum	99
Default	0
Value	0 -Disabled Others -Minimum value

18.Maximum brightness
NOTE: If maximum brightness is less than minimum brightness, this parameter will be invalid.

Maximum brightness	
Number	18
Size	1
Minimum	0
Maximum	99
Default	0
Value	0 -Disabled Others -Minimum value

19. External switch type
NOTE: When the external switch is set to be a momentary button, user can dim the light by pressing and holding the button.

External switch type	
Number	19
Size	1
Minimum	0
Maximum	1
Default	0
Value	0 -Toggle switch 1 -Momentary button

20.Rate when turning on the light by pressing the knob or external switch

Rate for physical on	
Number	20
Size	1
Minimum	0
Maximum	99
Default	1
Value	0 -Instantly 1 -1 second Others -other seconds

21.Rate when turning off the light by pressing the knob or external switch

Rate for physical off	
Number	21
Size	1
Minimum	0
Maximum	99
Default	2
Value	0 -Instantly 1 -1 second Others -other seconds

22.Rate when turning on the light by HUB

Rate for HUB on	
Number	22
Size	1
Minimum	0
Maximum	255
Default	255
Value	0 -Instantly 1 -1 second 255 -Same as #PARAM# 20 Others -other seconds

23.Rate when turning off the light by HUB

Rate for HUB off	
Number	23
Size	1
Minimum	0
Maximum	255
Default	255
Value	0 -Instantly 1 -1 second 255 -Same as #PARAM# 21 Others -other seconds

24.Single TAP behavior (CENTER pressed) when turning on the device

Single TAP behavior	
Number	24
Size	1
Minimum	0
Maximum	3
Default	0
Value	0 - Turn on to custom brightness determined by PARAM25 1 - Always turn on to 100% 2 - Always turn on to maximum brightness determined by PARAM18 3 - Turn on to last brightness before power off.

25.Custom brightness for TAP behavior (CENTER pressed)

Custom brightness	
Number	25
Size	1
Minimum	1
Maximum	99
Default	80
Value	Brightness that when turn on the device when PARAM 24 set to be 0. NOTE: If the parameter#17 is greater than #parameter#18, the device will be turned on to minimum brightness.

• **Locally Button Press function:**
1: press 1x: turn output ON (to last set brightness level) or OFF
2: hold: dimmer up or dimmer down relate to Parameter 1
3: quickly press 2x: send scene1/scene2
4: quickly press 3x: inclusion or exclusion
5: quickly press down 5x: Set the minimum brightness
6: quickly press up 5x: Set the maximum brightness
7: quickly press down 10x: change LED indicator
8: quickly press up 8x: change locally button function
9: quickly press down 8x: change restores state after power failure
10: Factory reset：click Z-Wave button 2 times quickly, and hold for at least 10 seconds.

Generic Device Class:
0x11 -GENERIC_TYPE SWITCH_MULTILEVEL
Specific Device Class:
0x01-SPECIFIC_TYPE POWER_SWITCH_MULTILEVEL
Command Classes:
COMMAND_CLASS_ZWAVEPLUS_INFO,
COMMAND_CLASS_SWITCH_MULTILEVEL_V4,
COMMAND_CLASS_CONFIGURATION,
COMMAND_CLASS_CENTRAL_SCENE_V3,
COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION_V2,
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_TRANSPORT_SERVICE_V2,
COMMAND_CLASS_VERSION,
COMMAND_CLASS_MANUFACTURER_SPECIFIC,
COMMAND_CLASS_DEVICE_RESET_LOCALLY,
COMMAND_CLASS_INDICATOR,
COMMAND_CLASS_POWERLEVEL,
COMMAND_CLASS_SECURITY_2,
COMMAND_CLASS_SUPERVISION,
COMMAND_CLASS_FIRMWARE_UPDATE_MD_V5

FCC Caution.
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.
Any Changes or modifications not expressly approved by the
party responsible for compliance could void the user's
authority to operate the equipment.
Note: 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 instructions, 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 or more 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 equipment complies with FCC radiation exposure limits set
forth for an uncontrolled environment. This equipment should be
installed and operated with minimum distance 20cm between the
radiator and your body.

CONTROLLING APPLIANCES

Please exercise EXTREME CAUTION when using Z-Wave devices to control appliances. Reason being is because the appliance you want to control may be in a separate room and if unintentional behavior occurs (such as a device turning on or off - either intentionally via schedules, or unintentionally via network error) this event may lead to a hazardous condition. For these reasons, please note the following suggestions:
1) Do not include Z-Wave devices in Groups or Scenes if they control appliances.
2) Do not use Z-Wave devices to control electric heaters or any other appliances which may present a hazardous condition due to unattended, unintentional, or automatic power control.

CAUTION - PLEASE READ!

This device is intended for installation in accordance with the National Electric Code and local regulations in the United States, or the Canadian Electrical Code and local regulations in Canada. If you are unsure or uncomfortable about performing this installation consult a qualified electrician.

WARNING - SHOCK HAZARD

TURN OFF THE POWER to the circuit for the switch and lighting fixture at the service panel (circuit breaker) prior to installation.

ALL WIRING CONNECTIONS MUST BE MADE WITH THE POWER OFF to avoid personal injury and/or damage to the switch.

OTHER WARNINGS

Risk of Fire
Risk of Electrical Shock
Risk of Burns

MEDICAL EQUIPMENT

Please DO NOT use this switch to control Medical or Life Support equipment. Z-Wave devices should never be used to control the On/Off status of Medical and/or Life Support equipment.

WARRANTY

Our Products warrants this product to be free from manufacturing defects for a period of one year from the original date of consumer purchase. This warranty is limited to the repair or replacement of this product only and does not extend to consequential or incidental damage to other products that may be used with this product. This warranty is in lieu of all other warranties, expressed or implied. Some states do not allow limitations on how long an implied warranty lasts or permit the exclusion or limitation of incidental or consequential damage, so the above limitations may not apply to you. This warranty gives you specific rights, and you may also have other rights which vary from state to state.

V1.0 2020.12

Part 6. Troubleshooting

Possible Problem	Possible Cause	Solution
1. The connected LED is flashed/too bright when set it to the Minimum brightness level.	LED brightness minimum setting is incorrect.	Please set the minimum brightness level according to the manual.
2. Couldn't pair with hub/your hub cannot recognize the device.	The device needs to be resetted before pairing.	Please reset the device according to the manual.
3. The device couldn't trun lights on/off manually.	Wiring error	Please check the wiring diagram on the manual.
4. The smart switch is working and the 3-way switch does not.	3-way Wiring error	Please check the wiring diagram on the manual.