Z-Wave ZW31S Smart Toggle Dimmer Switch User Manual

Minoston™

Smart Toggle Dimmer Switch

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Contents

Federal Communications Commission (FCC) Statement

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 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.
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 should be installed and operated with a minimum distance of 20cm between the radiator and your body.

IC Caution:

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

WARRANTY

Evalogik Products warrants this product to be free from manufacturing defects for a period of two years 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. if the unit should prove defective within the warranty period.

SPECIFICATIONS

Model: MS13ZS
Power: 120 VAC, 60 Hz.
Signal (Frequency): 908.42 MHZ.
Maximum load for outlet 500W Resistive
Maximum load for the Z-Wave™ controlled outlet:
Range: Up to 100 feet line of sight between the Wireless Control Room
and the closest Z-Wave™ receiver module.
Operating Temperature Range: 32-104° F (0-40° C)
Specifications subject to change without notice
due to continuing product improvement
Website:**www.nie-tech.com**

WARNING

RISK OF FIRE
RISK OF ELECTRICAL SHOCK
RISK OF BURNS

CONTROLLING APPLIANCES:

EXERCISE EXTREME CAUTION WHEN USING Z-Wave™ DEVICES TO CONTROL APPLIANCES. OPERATION OF THE Z-Wave™ IN DEVICE MAY BE IN A DIFFERENT ROOM THAN THE CONTROLLED APPLIANCE, ALSO AN UNINTENTIONAL ACTIVATION MAY OCCUR IF THE WRONG BUTTON ON THE REMOTE IS PRESSED. Z-Wave™ DEVICES MAY AUTOMATICALLY BE POWERED ON DUE TO TIMED EVENT PROGRAMMING. DEPENDING UPON THE APPLIANCE, THESE UNATTENDED OR UNINTENTIONAL OPERATIONS COULD POSSIBLY RESULT IN A HAZARDOUS CONDITION. FOR THESE REASONS, WE RECOMMEND DO NOT RETURN THIS PRODUCT TO THE STORE

THE FOLLOWING:

DO NOT USE Z-Wave™ DEVICES TO CONTROL ELECTRIC HEATERS OR ANY OTHER APPLIANCES WHICH MAY PRESENT A HAZARDOUS CONDITION DUE TO UNATTENDED OR UNINTENTIONAL OR AUTOMATIC POWER-ON CONTROL.

Introduction:

This product can be operated in any Z-Wave network with other Z-Wave Plus™ certified devices from other manufacturers. All non-battery-operated nodes within the network will act as repeaters regardless of vendor to increase the reliability of the network. Each module is designed to act as a repeater, which will re-transmit a radio frequency (RF) signal by routing the signal around obstacles and radio dead spots to ensure that the signal is received at its intended destination. MS11ZS is a security-enabled Z-Wave Plus™ device. Security Enabled Z-Wave Plus™ Controller must be used in order to fully utilize the product. The Device Type of the MS11ZS is an on/off power switch. The Role Type of the MS11ZS is Always On Slave Role Type

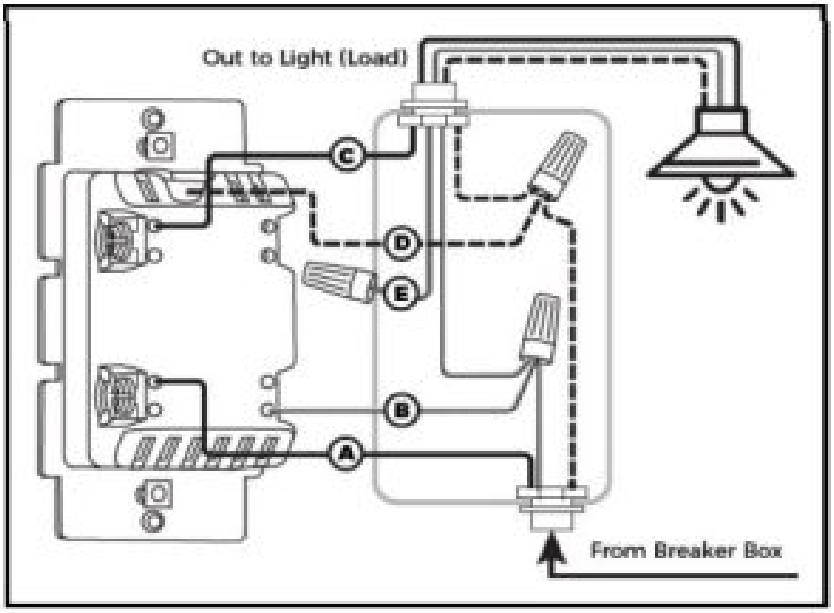
Key Features:

—Remote ON/OFF control via the Z-Wave™ controller
—Manual ON/OFF control with the front panel push button
—Support Association Group and Auto Report switch status
—Support firmware upgrades via Over-the-air (need Gateways support)
—Support Scenes

Product Overview:

A. Up Push button
B. Down Push button
C. Load1 (Black)
D. Lin (Black) – Line in
E. Nin (White) – Neutral in
F. 3-way (RED)

MS11ZS Installation Wiring Diagram



A. LINE(Hot)- Black connected to power
B. NEUTRAL-White
C. LOAD-Black connected to Lighting
D. GROUND-Green/Bare
E. TRAVELER-Red/Other only in 3-way installations

Key function description

Function 1: Press the up or down button to turn the output ON or OFF
Function 2: quickly press 3x upper paddle: ADD(inclusion) (only if the switch is not included in network)quickly press 3x lower paddle: Remove(exclusion)
Function 3: quickly press upper paddle 6x to change Status LED Configuration
Function 4: Press and hold lower paddle for 10 seconds, then LED starts blinking, release paddle and within 2 seconds, click lower paddle 5 times
(Node: Please use this procedure only when the network primary controller is missing or otherwise inoperable.)
Function 5: Tap A(1x/2x/3x/4x/5x/Hold/Release) Activate the scene.
Function 6: Tap B(1x/2x/3x/4x/5x/Hold/Release) Activate the scene.

Adding Your Device To A Hub

The device support two methods of inclusion, When using a Z-Wave Plus™ certified controller choose Network Wide Inclusion or SmartStart,
Network Wide Inclusion To A Z-Wave™ Network
1, Refer to your primary controller instructions to process the inclusion/exclusion setup procedure.
2, When prompted by your primary controller, click the Up or Down button three times in one second.
The device is compatible with SmartStart SmartStart enabled products can be added into a Z-Wave network by scanning the Z-Wave™ QR Code found on the top of the outlet or the back of the box with a controller providing SmartStart inclusion.No further action is required and the SmartStart product will be added automatically within 10 minutes of being switched on and in the network vicinity.

QR CODE

the QR code is stuck to the side of the case, DSK is included in the QR code.

DSK

The DSK code can be found on the DSK label which is attached to the packaging box.

Command Class

Command Clas	Version	Required Security Class
Z-Wave Plus Info	V2	none
Switch Multilevel	V4	highest granted
Configuration	V4	highest granted
Central Scene	V3	highest granted
Association	V3	highest granted
Multi-Channel Association	V3	highest granted
Association Group Information	V3	highest granted
Transport Service	V2	none
Version	V3	highest granted
Manufacturer Specific	V2	highest granted
Device Reset Locally	VI	highest granted
Indicator	V3	highest granted
Powerlevel	VI	highest granted
Security 2	VI	none
Supervision	V1	none
Firmware Update Meta Data	V5	highest granted

Z-Wave™ Configuration Parameters

You may use the below configuration parameters to change settings of the corresponding functionality.
1: Locally Button function

1: Locally Button function Parameter No: 1(0x01)	Size:1 Byte Value: 00(default) Value: 01 Value: 02	Up Button ON, Down Button OFF Up Button OFF, Down Button ON Up Button ON/OFF, Down Button ON/OFF
2 Status LED Configuration Parameter No: 2 (0x02)	Size:1 Byte Value: 00(default) Value01 Value: 02 Value: 03	Output and the LED are in different states. Output and the LED are in the same state. LED Always OFF LED Always ON

3: Auto Turn-Off Timer Parameter No: 3(0x03)	Size=4 Values:0 (minutes) default; Values: 1 – 65535 (minutes);	
5: Auto Turn-Off Timer Paramter No: 5(0x05)	Size=4 Values:0 (minutes) default; Values: 1 – 65535 (minutes);	
8 Restores state after power failure Paramter No: 8(0x08)	8 Restores state after power failure Parameter No: 8(0x08)	Output OFF. Output ON.The state before a power out age.
: Ramp rate Local Butt on + Z-Wave™ Paramt er No: 9(0x09)	Size=1 Value=1 Value=2	Default =1from 0x63 to 0x00 or from 0x00 to 0x63 nee d 1s from 0x63 to 0x00 or from 0x00 to 0x63 need 2s .
The multilevel minimu m value can be set Lo cal ButtonParameter N o: 10(0x0A)	Size=1 Value=0 Value=1 Value=2 Value=99	Default =1 disable
11: Multilevel maximu m value can be set Lo cal Button Paramter N o: 11(0x0B)	Size=1 Value=0 Value=1 Value=2 Value=99	Default =9 Disable
12:Double Tap Behavi or—when switch is off and quickly press UPP ER paddle 2 times, swi tch turns on to x bright ness Paramter No: 12 (0x0C)	Size=1 D Value=0 Value= 1 Value=2 Value=3	Default =0 enable double tap to full brightness (99) custom value set in parameter 18enable double ta p to maximum brightness (turn on to the value relate w ith parameter 11) disable double tap to full brightness

: Enable or Disable local / Z-Wave™ control Paramter No: 15(0x0F)	Size:1 , Value: 00 Value: 01 Value: 02	Default =1disable(when paddle pressed switch will not turn light on or off BUT it will still control the light via z-wave™ and it will change LED indicator status and on/off/multilevel status when the paddle is pressed)enable (normal operation like now) disable local and Z-Wave ™ control (LED and on/off status will still change if paddle pressed) >> make sure that status is still reported and LED indicator changes when Z-Wave™ control is disabled
6: dimmer speed (only for local press & hold) Paramter No: 16(0x10)	Size=1 DValue=1 Value=2 .Value=99	Default =5 from 0x63 to 0x00 or from 0x00 to 0x63 need 1sfrom 0x63 to 0x00 or from 0x00 to 0x63 need 2s from 0x63 to 0x00 or from 0x00 to 0x63 need 99s
18:Custom brightness level- In this parameter define a default Brightness level the switch will Turn on to from main switch or Regular switch in 3-way when Pressed upper paddle once. Paramter No: 18 (0x12)	Size=1,Default =0 Value=0 Value=(1–99)	last brightness levelustom brightness level
19: 3-way switch type Paramter No: 19(0x13)	Size:1 ,Default =0 Value: 00 toggle switch value: 01 toggle switch	press 1x change device status; quickly press 2x the result depend on Par11/Par12; quickly Press 3x it trigger dimmer in the loop Value: 02 momentary switch press 1x change device status; quickly press 2x the result depending on Par11/Par12; hold trigger dimmer in value: 03 momentary press 1x change device status; quickly press 2x the result depending on Par11/Par12; hold trigger dimmer in the loop(dimmer up/dimmer down BUT after double click to full brightness, a hold will dim DOWN always instead of trying to increase brightness)

20: Association re Parameter No: 20(0x14	Size:1, Default =2 Value: 00 Z-Wave™ control Multilevel report (without each level, just final level) Manual control (short press): Basic report(without each level, just fin level Manual control(long press & relay enable): Basic report(without each level, just final level) Manual control(long press & relay disable): Multilevel report (each level will be reported)	Value: 01 Z-Wave™ control Multilevel report (without each level, just final level) Manual control (short press): Basic report(without each level, just final level) Manual control(long press & relay enable OR disable): Basic report value: 02 Z-Wave™ control Multilevel report (without each level, just final Manual control (short press): Multilevel report (without each level, just final level Manual control (long press & relay enable): Multilevel report (without each level, just final level Manual control (long press & relay disable): Multilevel report (each level will be reported)
21: Disabled Relay Behavior Parameter No: 21(0x15)	Size:1 ,Default =0Value: 00	report on/off and multilevel status when the paddle is pressed and change LED indicator status and Parameter 15 is set to value 0 or 2 (output control disabled) according to setting in Parameter 20 Value: 01 DON't report on/off or multilevel status or and change LED indicator status when the paddle is pressed a Parameter 15 is set to value 0 or 2 (output control disabled).
2: Night Mode Brightness Level—Set the level of brightness the dimmer will turn on to when off and lower paddle held DOWN for 2 seconds Parameter No: 22(0x16)	Size:1 ,Default = Value: 00 disable function Value: 01-99	
23: LED Indicator Color Paramter No: 23(0x17)	Size=1 Default =1 Value=0 WhiteValue=1 Blue Value=2 Green Value=3 Red	
26: LED Indicator Brightness ParamterNo:26(0x18)	Size=1 Default =1Value=0 Bright (100%) Value=1 Medium (60% Value=2 Low (30%	

27: Single Tap Behavior: when the switch is off and press UPPER paddle 1 time, switch turns on to x brightness Local Button Parameter No: 27(0x19)	Size=1 Default =0Value=0 last brightness level Value=1 custom value set in parameter 18 Value=2 maximum brightness set in parameter 11 Value=2 full 100% brightness	

Support for Association Groups

MS11ZS supports 3 association groups. Group 1 supports 1 node ID, Group 2 and Group 3 Supports a maximum of 5 node ID's
Association group_1:Z-Wave™ Plus Lifeline
Association group_1 is defaulted to associate with the primary controller (Gateway/Hub/Controller) for the S11ZS Status change report,
1. MS11ZS will trigger the AUTO report function if the Switch status had been changed. (ex. Switch Multilevel Report/Indicator Report/Central Scene Notification/ Device Reset Locally Notification) Association group_2:basic set command on/off control When the output of the MS11ZS is changed, On (0xFF) or Off (0x00). The MS11ZS will automatically send out a related basic set command. On (0xFF) or Off (0x00) to its associated group.
Association group_3:basic set command on/off controls When the output of the MS11ZS is changed, On (0xFF) or Off (0x00). The MS11ZS will automatically send out a related basic set command. On (0xFF) or Off (0x00) to its associated group.

Restoring Factory Defaults

MS11ZS is removed from the network and will be restored to the factory setting All Configuration Parameters values and Association information will be restored to factory default settings and excluded from the network. Manual Reset: Press and hold lower paddle for 10 seconds, then LED starts blinking, release paddle and within 2 seconds, click lower paddle 5 times Remark: All the setting and data will be permanently deleted. Please use this procedure only when the network primary controller is missing or otherwise inoperable.

Documents / Resources

	Z-Wave ZW31S Smart Toggle Dimmer Switch [pdf] User Manual ZW31S, Smart Toggle Dimmer Switch