

**Ness Z-Wave  
4 SCENE CONTROLLER**  
Part No. ZA-207001

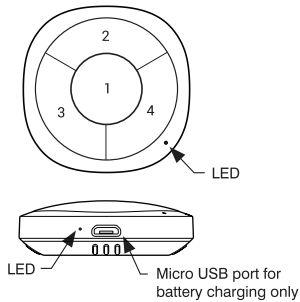
The Scene Controller is a slave product that is wireless, portable and rechargeable. It can control a Z-Wave device, such as smart plug, smart dimmer through a Z-Wave gateway. You can also activate a scene like sleep scene, movie scene and entertainment scene with it.

**The features list:**

- (1) Z-Wave Plus certified for wide compatibility (500 series product).
- (2) Support remote control anywhere and anytime.
- (3) Scene Controller is capable of sending four different scene commands with four buttons.
- (4) The battery is rechargeable.
- (5) The battery will run for half a year per single charging.
- (6) Support low battery alarm with a buzzer.
- (7) Support communication failure alarm with a buzzer.
- (8) Support firmware OTA.

**I. GENERAL INFORMATION ABOUT SCENE CONTROLLER**

**1. Product layout**



**2. Specifications**

Power supply:	Single LIR2450 3.6V Battery *
Storage environment:	-10~50°C 0%~85%
Operational temperature:	0~40°C
Radio protocol:	Z-Wave
Radio frequency:	921.42MHz (AU)
Range:	More than 100m outdoors About 30m indoors (depending on building materials)
Dimensions	50 x 50 x 16mm
Working current:	36mA
Standby current:	3uA

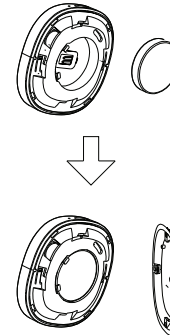
\* IMPORTANT: Use only LIR2450 3.6V rechargeable battery. **DO NOT USE a 'CR' series battery** as these are non-rechargeable and may overheat causing damage or fire.

**II. INSTALLATION**

Open the cover:  
Open the cover, as the figure below shows.



Insert your battery:  
Insert your battery and close the cover, as the figure below shows.



**III. Z-WAVE NETWORK INCLUSION**

Scene Controller 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 reliability of the network.

**Included as a non-secure device**

- (1) Insert the LIR2450 battery.
- (2) Set the Z-Wave network main controller into learning mode (see Z-Wave network controller operating manual).
- (3) Triple click the Z-button.
- (4) If the inclusion is successful, the LED will blink in blue less than for 5 seconds and then keep on for 15 seconds.

- Included as a secure device**
- (1) Insert the LIR2450 battery.
  - (2) Set the Z-Wave network main controller into learning mode (see Z-Wave network controller operating manual).
  - (3) Pressing and holding the Z-button for 3 seconds.
  - (4) If the inclusion is successful, the LED will blink in green less than for 5 seconds and then keep on for 15 seconds.



**TIP:**  
If you want your Scene Controller to be a security device that use secure/encrypted message to communicate in a Z-Wave network, then a security enabled Z-Wave controller is needed.

**IV. REMOVING FROM Z-WAVE NETWORK**

- To remove the Scene Controller from the Z-Wave network:
- (1) Insert the LIR2450 battery.
  - (2) Set the Z-Wave network main controller into excluding mode (see Z-Wave controller operating manual).
  - (3) Triple click the Z-button, if the exclusion is successful, LED will blink in orange for less than 5 seconds and then keep on for 3 seconds.

**V. RESET SCENE CONTROLLER**

Reset procedure clears the Scene Controller's memory, including Z-Wave network information.

To reset Scene Controller:  
Pressing and holding the Z-button for 20 seconds. Release the button after 20 seconds, LED will keep in yellow for 3 seconds. Scene Controller will be reset to factory defaults if you short press the button within this 3 seconds.



**NOTE:**  
Use this procedure only in the event that the network primary controller is missing or otherwise inoperable.

**VI. LOW BATTERY ALARM FUNCTION**

Scene Controller will send battery report to the lifeline group when Z-Button is triggered during the sleep mode. If the battery level of the Scene Controller is less than 20%, the Scene Controller will beep 3 times when the button is pressed.

**VII. COMMUNICATION FAILURE ALARM FUNCTION**

The Scene Controller will beep one time when the communication between the Scene Controller and any one of the controlled device is failed.

**VIII. TESTING Z-WAVE NETWORK RANGE**

Scene Controller's LED indicator can signal its communication quality with the Z-Wave main controller.  
To start testing:  
Press and hold the Z-button for 11 to 15 seconds, the LED will keep on in purple for 3 seconds, it will enter testing mode if you short press the Z-button during these 3 seconds.  
Blink in green – Scene Controller establish a direct communication with the main controller, and still under checking.  
Keep green – The green light should last about 2 seconds, which means the direct communication is stable.  
Blink in orange – Scene Controller can communicate with the main controller in intermediate radio transmit power level, and still under checking.  
Keep orange – The communication quality is moderate.  
Keep Red – The communication is failed.



**TIP:**  
1. This function works only when Scene Controller has been included into a Z-Wave network.  
2. Click the Z button to exit the test.

**IX. BATTERY CHARGING**

Scene Controller has an internal rechargeable battery that will run for half a year under normal use conditions. If the battery level is less than 20%, it will activate the low battery level function which means you need to charge the battery.  
The charger's output should be a micro USB terminal with 5V DC output.  
The LED beside the micro USB port will be red during charging, and green when the charging is finished.

**X. ASSOCIATION**

Association allows the Scene Controller to control another Z-Wave device directly, such as Smart Switch, Smart Dimmer, etc.

Scene Controller supports nine association groupings, every group relates to a specific button action. View details in the follow section of "XIII. BUTTON FUNCTION".  
Group 1 allows Scene Controller sends central scene notification command and battery report command when any button is triggered. Details shown as the below diagram 1.

Group 2 allows Scene Controller sends basic set command when the button 1 is triggered.  
Group 3 allows Scene Controller sends switch multilevel set, multilevel start level change and multilevel stop level change command when the button 1 is triggered.

Group 4 allows Scene Controller sends basic set command when the button 2 is triggered.  
Group 5 allows Scene Controller sends switch multilevel set, multilevel start level change and multilevel stop level change command when the button 2 is triggered.

Group 6 allows Scene Controller sends basic set command when the button 3 is triggered.  
Group 7 allows Scene Controller sends switch multilevel set, multilevel start level change and multilevel stop level change command when the button 3 is triggered.

Group 8 allows Scene Controller sends basic set command when the button 4 is triggered.  
Group 9 allows Scene Controller sends switch multilevel set, multilevel start level change and multilevel stop level change command when the button 4 is triggered.  
Details shown as the below diagram 2

Diagram 1:

Button ID	1	2	3	4
Scene Number	1	2	3	4

Diagram 2:

Button ID	Group ID	Action & notification
Any button	1	Press: Central scene notification (Key Attributes=0) Hold: Central scene notification (Key Attributes=2) Release: Central scene notification (Key Attributes=1)
	2	Press: Basic Set Hold: Reserve Release: Reserve
Button 1	3	Press: Switch multilevel set Hold: Multilevel start level change Release: Multilevel stop level change
	4	Press: Basic Set Hold: Reserve Release: Reserve
Button 2	5	Press: Switch multilevel set Hold: Multilevel start level change Release: Multilevel stop level change
	6	Press: Basic Set Hold: Reserve Release: Reserve
Button 3	7	Press: Switch multilevel set Hold: Multilevel start level change Release: Multilevel stop level change
	8	Press: Basic Set Hold: Reserve Release: Reserve
Button 4	9	Press: Switch multilevel set Hold: Multilevel start level change Release: Multilevel stop level change



**TIP:**  
1. The max number of associated nodes of all these 9 groups is 5.  
2. Association allows for direct transmission of control command between devices and takes place without the participation of the main controller.

**XI. WAKE UP**

**Wake up interval:**  
Available settings: 0  
Default setting: 0  
Pressing and holding Z-Button for 3 seconds. Led will turn to green, which means Scene Controller has successfully sent the wake up notification out.



**NOTE:**  
The interval time must be set to 0. The wake up notification will not wake the Scene Controller, only the action of the button can you wake the Scene Controller.

**XII. BUTTON FUNCTION**

Scene Controller offers three button action types, including short press, held down and release.  
Short press allows Scene Controller sends:  
Central scene notification command to the associated nodes,  
Basic set command to the associated nodes,  
Switch multilevel set command to the associated nodes.

Held down (more than 1 second less than 20 seconds) allows Scene Controller sends:  
Central scene notification command to the associated nodes,  
Multilevel start level change command to the associated nodes.

Release allows Scene Controller sends:  
Central scene notification command to the associated nodes,  
Multilevel stop level change command to the associated nodes.

**XIII. ADVANCED CONFIGURATION**

Scene Controller offers a wide variety of advanced configuration settings. Below parameters can be accessed from main controllers configuration interface.

**Parameter No.254 Enable/disable the configuration command Lock/unlock all configuration parameters.**  
0 – Unlock.  
1 – Lock.  
Default setting: 0  
Parameter size: 1[byte]

**Parameter No.255 Reset Scene Controller**  
Reset the sensor or remove from the Z-Wave network  
Value: 1431655765  
Default: 1  
Parameter size: 4[byte]  
Reset to factory default settings and removed from the Z-Wave network.  
Value: 85  
Default: 1  
Parameter size: 1[byte]  
Reset the values of the configuration command to default setting.

**XIV. NOTES FOR OTA**

You may need the Over the Air (OTA) feature for the product's firmware upgrade. Your Scene Controller can not be used after OTA. In such a case, you need to activate the product by pressing and holding the Z-Button until the led turns on, this procedure may take you about 10 seconds. After these your Scene Controller will be usable.

**XV . FCC NOTICE (for USA)**

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.