

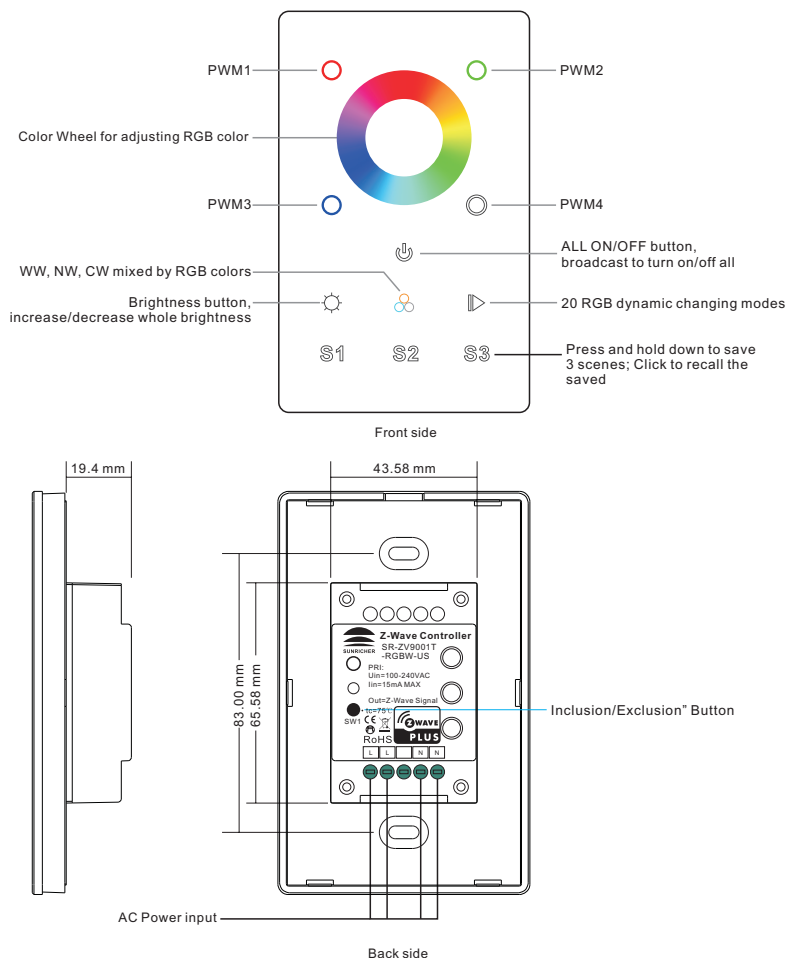
Z-Wave RGBW Wall Controller

09.ZV9003TUS.04765



Important: Read All Instructions Prior to Installation

Function introduction



Product Data

Z-Wave Frequency	908.42 MHz (US)
Power Supply	100-240VAC, 50/60Hz
Power Consumption	< 0.5W
Operating temperature	0 to 40°C
Relative humidity	8% to 80%
Dimensions	75x120x29.1mm
Material	Tempered glass panel with capacitive touch buttons

Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.

Quick Start

How to install:

- Step 1: turn on your wall controller.
- Step 2: activate inclusion mode on your Z-Wave controller.
- Step 3: activate inclusion mode of your wall controller by pressing the "inclusion/exclusion" button or long press "ALL ON/OFF" button over 3 seconds.

Product Description

The Wall controller is a Security Enabled Z-Wave Plus device that can both control other Z-Wave devices and activate scenes in Gateways. The wall 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.

Although it is controlling other devices, the device cannot act as Z-Wave network controller (primary or secondary), so a security enabled controller is needed for take full advantage of all functionality for the device. It also supports the Over The Air (OTA) feature for the product's firmware upgrade.

The wall controller has following functions:

1. Control of groups of other Z-Wave devices using 'ON', 'OFF', Dim and Color Control commands.
2. Activation of scenes in Gateways.

The encryption modes that the wall controller supports are S0, S2 Unauthenticated. When the wall controller is being included into a Z-Wave network, you can use your primary controller/gateway to enable one encryption mode or disable encryption. (The primary controller/gateway shall support encryption mode configuration).

Installation Guide

Please read carefully the enclosed user manual before installation of wall controller, in order to ensure an error-free functioning.

The wall controller unit supplied as complete set for flush mounting in the standard US size wall boxes.

ATTENTION: Only authorized technicians under consideration of the country specific installation guidelines/norms may do works with 100-240V mains power. Prior to the assembly of the product, the voltage network has to be switched OFF and ensured against re-switching.

Inclusion (Add the device to a Z-Wave network)

1. Set primary controller/gateway into inclusion mode (Please refer to your primary controllers manual on how to turn your controller into inclusion).
2. Make sure the wall controller does not belong to any Z-Wave network (please refer to the part "How to check whether the wall controller included to a network" of this manual).
3. Short press the "inclusion/exclusion" button, or press and hold down "ALL ON/OFF" button for over 3 seconds, the wall controller will be set to inclusion mode, and waiting to be included, then LED indicator turns on and blinks 6 times quickly to indicate successful inclusion.

Once the wall controller quits "inclusion mode", the LED indicator will turns off. There are 3 methods for the wall controller to quit "inclusion mode":

1. Automatically quits after successful inclusion.
2. Quits after 25 seconds timeout.
3. Press and hold down "ALL ON/OFF" button for over 3 seconds, or short press the "inclusion/exclusion" button to quit.

Exclusion (Remove the device from a Z-Wave network)

There are two exclusion methods:

Method 1: Exclusion from the primary controller/gateway as follows:

1. Set the primary controller/gateway into exclusion mode (Please refer to your primary controllers manual on how to set your controller into exclusion).

2. Short press the “inclusion/exclusion” button, or press and hold down “ALL ON/OFF” button for over 3 seconds, the wall controller will be set to exclusion mode, and waiting to be excluded, then LED indicator turns on and shows 3 short blinks and 1 long blink to indicate successful exclusion.

Once the wall controller quits “exclusion mode”, the LED indicator will turns off. There are 3 methods for the wall controller to quit “exclusion mode”:

- 1. Automatically quits after successful exclusion.
- 2. Quits after 25 seconds timeout.
- 3. Press and hold down “ALL ON/OFF” button for over 3 seconds, or short press the “inclusion/exclusion” button to quit.

Method 2: Factory reset the wall controller will force the wall controller to be excluded from a network. (please refer to the part “Factory Reset” of this manual)

Note: Factory reset is not recommended for exclusion, please use this procedure only if the primary controller/gateway is missing or otherwise inoperable.

How to check whether the wall controller already included to a network

Operate any button to check if there is indication from the LED indicator, and no LED indication means the wall controller does not belong to any network.

If the wall controller already belongs to a network, follow the exclusion process before including it in your network. Otherwise inclusion of this device will fail.

Factory Reset

Press and hold down “inclusion/exclusion” button for over 8 seconds, LED indicator blinks slowly to indicate successful factory reset, release “inclusion/exclusion” button, the wall controller will restart automatically.


Association

Z-Wave devices control other Z-Wave devices. The relationship between one device controlling another device is called association. In order to control a different device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called association groups and they are always related to certain events (e.g. button pressed). In case the event happens all devices stored in the respective association group will receive a common wireless command.

Association Groups:

Each group supports maximum 12 nodes for association, the same device can be associated with multiple groups on the wall controller simultaneously, to ensure better control experience, the wall controller shall remove the associated devices that are not under working status from association groups in time.

Association Groups	Group Name	Max Nodes	Description (Direct control of associated devices mode)	Description (Activation of scenes in Gateway mode)
Group 1	Lifeline	1	1. Send “Command Class Device Reset Locally” to associated devices of this group to report factory reset information when factory reset the wall controller.	1. Send “Command Class Device Reset Locally” to associated devices of this group to report factory reset information when factory reset the wall controller. 2. Short press/press and hold any button to send scene activation command to the associated devices of this group using Command Class “Central Scene Notification V3”

Group 2	Launch 1	12	1. Short press  button to switch the associated devices with a Basic Set or dim these devices by using the brightness button or adjust RGB colors by using color wheel. 2. Short press Scene button S1/S2/S3, direct control of associated devices using Scene Activation Set, Scene ID = 0x10 / 0x20 / 0x30. 3. Press and hold down Scene button S1/S2/S3, direct control of associated devices using Scene Conf Set, Scene ID = 0x10 / 0x20 / 0x30. 4. Press PWM1-PWM4 buttons, direct control of associated devices using Color Switch Set commands. 5. Press and hold down PWM1-PWM4 buttons, direct control of associated devices using Color Switch Start Level Change commands. 6. Short press "play/pause" button, direct control of associated devices using Configuration Set commands with Parameter Number = 5, Size = 1, toggling through values (1-0-2-0-3-0-4-0-5-0-6-0-1-...). Press and hold down "play/pause" button direct control of associated devices using Configuration Set commands with Parameter Number = 6, Size = 1 with varying values.	N/A
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Set and unset associations:

(Note: All association information will be cleared automatically once the wall controller is excluded from a network.)

Associations can be assigned and remove either via Z-Wave commands or using the device itself.

- 1. Set association by operating primary controller/gateway to send packets to the wall controller:

The primary controller/gateway sends packets to the wall controller using “Command Class ASSOCIATION” or “Command Class Multi Channel Association”

- 2. Set association by operating the wall controller and devices to be controlled:

To control a Z-Wave device from the Wall Controller the node ID of this device needs to be assigned to one association group. This is a three-step process:

- 1. Press and hold down “ALL ON/OFF” button on the wall controller for over 3 seconds, LED indicator turns on.
- 2. Operate the device to be controlled to send Node Information Frame (please refer to the device manual) within 15 seconds, or set the device to exclusion mode within 15 seconds, since it will send Node Information Frame in exclusion mode, LED indications are as follows:

LED blinks 5 times to indicate that the wall controller failed to add the associated device (the association group has already added maximum quantity associated devices that it supports).

LED blinks 10 times to indicate that the wall controller added the associated device successfully.

LED blinks 8 times to indicate that the wall controller removed the associated device successfully.

To remove all associated devices in an association group on the wall controller directly:

1. Press and hold down “ALL ON/OFF” button on the wall controller for over 3 seconds, LED indicator turns on.
2. Click “ALL ON/OFF” button on the wall controller 5 times continuously within 25 seconds to remove all associated devices, LED indicator blinks 8 times to indicate that the associated devices are removed successfully.

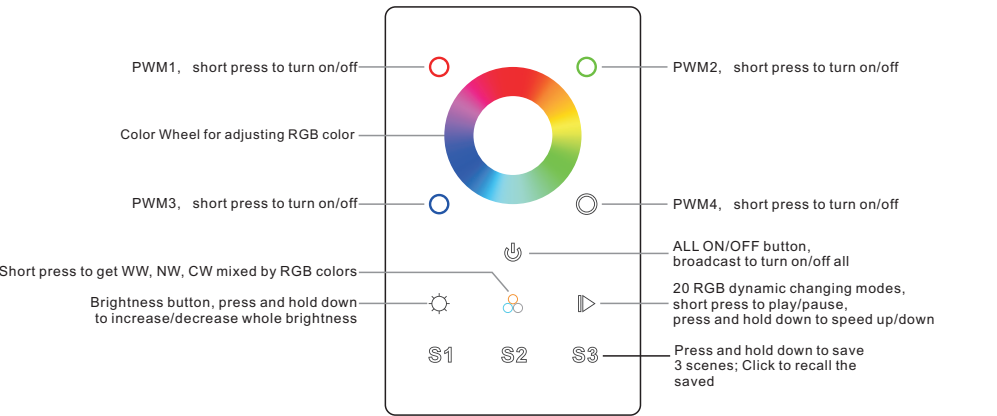
Configuration Parameters:

Operate the gateway/primary controller to configure configuration parameters of the wall controller (please refer to you gateway/primary controller manual), you can choose the wall controller working mode, the gateway/controller send command using Command Class Configuration.

When the gateway sends command, the wall controller shall be activated first, activate it manually if it is not under activation status.

Parameter Number	Parameter Value Description	Default Parameter Value	Parameter Value Size
0x03	Choose working mode of the remote control: Value=0: choose activation of scenes in gateway mode Value=1: choose direct control of associated devices mode	Value=1	1

Operating the device



Control the objects you would like to control:

When the wall controller works under direct control of associated devices mode:

- Short press “ALL ON/OFF” button, direct control of associated devices of association Group 2 using Basic Set On/Off commands.
- Short press Scene button S1/S2/S3, direct control of associated devices using Scene Activation Set, Scene ID = 0x10 / 0x20 / 0x30 to the last used Group 2.
- Press and hold down Scene button S1/S2/S3, direct control of associated devices using Scene Conf Set, Scene ID = 0x10 / 0x20 / 0x30 to the last used Group 2.
- Short touch or slide touch the “Color Wheel”, direct control of associated devices of Group 2 using Color Switch Set commands.
- Press and hold down brightness button, direct control of associated devices of Group 2 using Multilevel Switch Start Level Change commands.
- Short press PWM1-PWM4 buttons, direct control of associated devices using Color Switch Set commands, press and hold down PWM1-PWM4 buttons, direct control of associated devices of Group 2 using Color Switch Start Level Change commands.

- Short press the “NW, WW, CW button”, direct control of associated devices using Color Switch Set commands.
- Short press "play/pause" button, direct control of associated devices of Group 2 using Configuration Set commands with Parameter Number = 5, Size = 1, toggling through values (1-0-2-0-3-0-4-0-5-0-6-0-1-...). Press and hold down "play/pause" button direct control of associated devices using Configuration Set commands with Parameter Number = 6, Size = 1 with varying values.

When the wall controller works under activation of scenes in gateway mode:

- Short press/press and hold any button to send scene activation command to association group 1 using Command Class “Central Scene Notification V3”.

Node Information Frame

The Node Information Frame is the business card of a Z-Wave device. It contains information about the device type and the technical capabilities. The inclusion and exclusion of the device is confirmed by sending out a Node Information Frame. Beside this it may be needed for certain network operations to send out a Node Information Frame.

How to send out Node Information Frame:

Set the wall controller into inclusion/exclusion mode: press and hold down “ALL ON/OFF” button for over 3 seconds, or short press the “inclusion/exclusion” button, LED indicator turns on to indicate the wall controller has already sent out Node Information Frame, the user can repeat the operation to set the wall controller to quit “inclusion/exclusion mode”.

Technical Data

IP Rating	IP 20
Frequency	908.42 MHz (US)
Wireless Range	Up to 100 m outside, on average up to 40 m inside buildings
SDK	6.71.01
Explorer Frame Support	Yes
Device Type	Wall Controller
Generic Device Class	Wall Controller
Specific Device Class	Basic Wall Controller
Routing	Yes
FLiRS	No

Z-Wave Plus Info

Parameter	Value
Z-Wave Plus Version	1
Role Type	Slave Always On
Node Type	ZWAVEPLUS
Installer Icon Type	0x1600 (ICON_TYPE_GENERIC_WALL_CONTROLLER)
User Icon Type	0x1600 (ICON_TYPE_GENERIC_WALL_CONTROLLER)

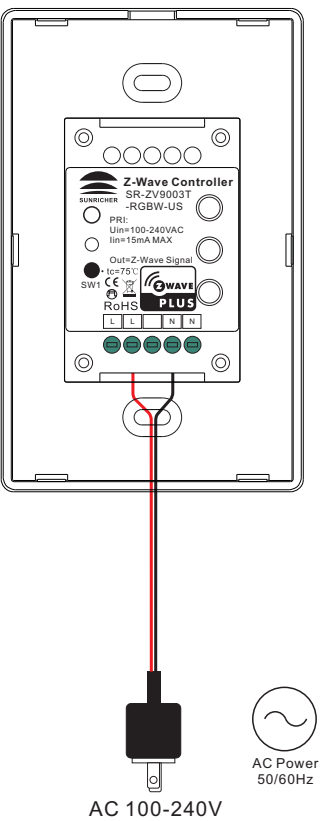
Manufacturer Specific

Parameter	Value (hex)
Manufacturer ID	0x0330
Product Type ID	0x0301
Product ID	0xa106

SUPPORTED COMMAND CLASS

Node Info		Support S2
COMMAND_CLASS_ZWAVEPLUS_INFO	V2	
COMMAND_CLASS_SECURITY	V1	
COMMAND_CLASS_SECURITY_2	V1	
COMMAND_CLASS_TRANSPORT_SERVICE	V2	
COMMAND_CLASS_SUPERVISION	V1	
COMMAND_CLASS_MANUFACTURER_SPECIFIC	V2	
COMMAND_CLASS_VERSION	V2	YES
COMMAND_CLASS_ASSOCIATION_GRP_INFO	V1	YES
COMMAND_CLASS_MULTICHANNEL_ASSOCIATION	V3	YES
COMMAND_CLASS_CONFIGURATION	V1	YES
COMMAND_CLASS_CENTRAL_SCENE	V3	YES
COMMAND_CLASS_ASSOCIATION	V2	YES
COMMAND_CLASS_POWERLEVEL	V1	YES
COMMAND_CLASS_DEVICE_RESET_LOCALLY	V1	YES
COMMAND_CLASS_FIRMWARE_UPDATE_MD	V4	YES
COMMAND_CLASS_MARK		
COMMAND_CLASS_SWITCH_MULTILEVEL	V4	
COMMAND_CLASS_SWITCH_COLOR	V3	
COMMAND_CLASS_SCENE_ACTIVATION	V1	
COMMAND_CLASS_SCENE_ACTUATOR_CONF	V1	

Wiring diagram



Installation

