

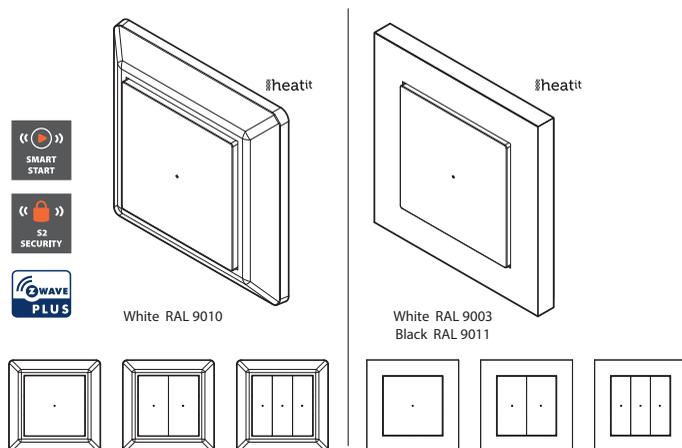
# HEATIT Z-PUSH WALL CONTROLLER

Firmware 1.0

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## Installers manual



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## 1. INTRODUCTION

The Heatit Z-Push Wall Controller is a wireless wall mounted Z-Wave Controller. It has mounting options for 1, 2 or 3 rockers, allowing for easy and practical management of your Z-Wave products. The switch can be set up to control scenarios or work in association with other Z-Wave products. Each rocker switch has a dual color LED to indicate button actions.

The Heatit Z-Push Wall Controller is supplied with all three sets of rockers in the box. The Wall Controller is coin cell battery powered. The product is intended primarily for residential applications.

The Heatit Z-Wall Wall Controller has a fine, matt finish. The switch fits into System 55 frames.

## 2. STATEMENT REGARDING PRODUCTS FROM MULTIPLE MANUFACTURERS

### Please read this before installation

This device may be used with all devices certified with the Z-Wave Plus™ certificate and should be compatible with such devices produced by any manufacturer. Every primary controller is different depending on the manufacturer, their target audience and intended use/application. Please review the functionalities implemented by the primary controller you intend to use with our Z-Wave Plus certified device to ensure that it provides the necessary controls to take full advantage of our product's capabilities.

## 3. BEHAVIOR WITHIN THE Z-WAVE™ NETWORK

This device may be operated within any Z-Wave network with Z-Wave-certified devices from other manufacturers. All non-battery-operated nodes within the network will act as repeaters regardless of manufacturer to increase the reliability of the network. On delivery, the device does not belong to any Z-Wave network.

The device needs to be added to an existing network to communicate with the other devices within it. Devices may also be removed from a network. The add/remove processes are initiated by the primary controller of the Z-Wave network.

## 4. INSTALLATION

1. Choose and mount the front, which covers your needs (for more information, see chapter "Choosing the correct front/assembly").
2. Gently pull the battery plastic tag to power the product.
3. Start the adding procedure from your primary controller.
4. Press any UP button 6 times in a rapid sequence on the device (the device has a label on the battery cover, pointing towards the UP buttons).
5. Install the device in your preferred location.

Your device is now included in your primary controller.

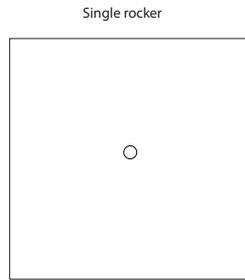
  - a. Fix the metal mounting bracket on the wall box or directly on the wall using the supplied screw kit.
  - b. Place the device in the wall frame with arrows shown on label pointing upwards.
  - c. Press the device and wall frame onto the metal mounting bracket.



## 5. CHOOSING THE CORRECT FRONT/ASSEMBLY

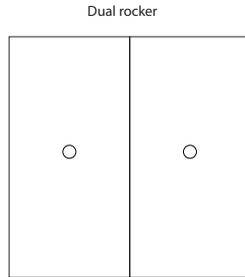
### 5.1 Single rocker configuration

1. When the device is in single rocker configuration, it uses associations group 3.
2. Change Parameter 3 to 1 when using a single rocker.



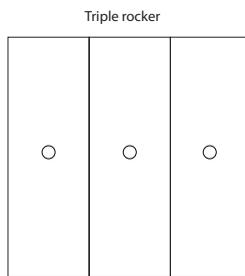
### 5.2 Dual rocker configuration

1. When the device is in dual rocker configuration, it uses associations group 2 for the first button and 4 for the second button.
2. Change Parameter 3 to 2 when using dual rockers.



### 5.3 Triple rocker configuration

1. When the device is in triple rocker configuration, it uses associations group 2 for the first button, 3 for the second and 4 for the third button.
2. Change Parameter 3 to 3 when using dual rockers.



## 6. ADD/REMOVE

The primary controller/gateway has a mode for adding or removing devices. Please refer to your primary controller manual on how to set the primary controller in add/remove mode. The device may only be added or removed from the network if the primary controller is in add/remove mode.

When the device is removed from the network, it will NOT revert to factory settings.

There are two ways to add the device to a Z-Wave network.

### 6.1 Method 1: Standard (Manual)

1. Initiate the learning mode in the controller.
2. Press any UP button 6 times within 3 seconds.

When the add/remove mode has started, the LED corresponding to the button you pressed will blink green. The device will indicate "Success" by emitting a green light for 3 seconds.

Error while adding:

The add/remove mode times out after 30 seconds if it does not receive any information from the gateway.

The device will indicate fail by emitting a red light for 3 seconds, if this happens, please perform a removing from the controller and start adding mode on Heatit Z-Push Wall Controller.

### 6.2 Method 2: SmartStart (Automatic)

SmartStart-enabled products may be added to a Z-Wave network by scanning the Z-Wave QR-Code on the product if your primary controller supports SmartStart inclusion. No further action is required and the SmartStart product will be added automatically after being powered on within range of the primary controller.

## 7. FACTORY RESET

To factory reset the device, remove the battery from the device. Press and hold any button on the device and repower the device. The LEDs will start blinking 3 times before lighting up in green. When the green LED is on, you can release the button. The device will issue a Device Reset Locally Notification Command to notify that the device will be reset to default. When performing a factory reset the device will lose its Node ID from the gateway and reset its Home ID.

## 8. STARTUP

After powering up the device for the first time, all the parameters will have default settings.

## 9. LED INDICATIONS

The device support numerous LED blinking patterns to make it as easy as possible to identify the issue.

<p><b>9.1 Device Not in network</b> When powering the device the LED will flash red for 5 seconds if the device is not added to Z-Wave network.</p>	
<p><b>9.2 Add/Remove</b> When an add/remove procedure is performed, the device will indicate successful/unsuccessful procedures with the following indications →  (For more information regarding adding/removing, please see chapter "Add/Remove").</p>	
<p><b>9.3 Local reset</b> When the factory reset procedure is correctly performed, the following LED indications appears →  (For more information regarding factory reset, please see Chapter "Factory Reset").</p>	
<p><b>9.4 Low battery</b> When the battery of the device is running low, the device will indicate when a button is pressed →  (For more information, please see Chapter "Battery").</p>	

## 10. REPLACING BATTERY

When the device runs low on battery, the device will indicate this by emitting a blinking red light, described in more detail in Chapter "Low Battery". The device will also report battery notifications using the Battery Command Class. Press the device out of the frame using a small screwdriver in between the frame and device. The device is now free. Remove the battery cover to uncover the battery compartment. (For more information, please see Chapter "Battery").

### 10.1 Battery type

To replace the battery purchase a coin cell CR2450/LIR2450 battery. The battery is a standard battery. The battery should be of the lithium type in order to indicate the correct battery level to the Z-Wave controller.

### 10.2 Battery orientation

When installing a fresh battery, make sure the battery is in correct orientation, the positive(+) terminal is located away from the device, and the negative(-) is towards the device.

## 11. QR-CODE PLACEMENT (DSK)

The QR-Code is needed when including a device using S2 security or SmartStart. The DSK can be found in the QR-Code and is located;

1. On the product.
2. On the Quick Guide manual.
3. On the product box.

## 12. SECURITY

S2 security enhances Z-Wave Plus with an additional layer of AES 128-bit encryption of the wireless Z-Wave communication to prevent hacking and man-in-middle attacks on the home network. This device supports S2 and has a Z-Wave DSK QR-Code label that may be used when the module is added to the Z-Wave home network. The primary controller will ask for a 5-digit code, which can be found underneath the QR-Code. The primary controller will then ask you to confirm the rest of the code that is contained in the QR-Code.

## 13. NODE INFORMATION FRAME

The node information frame is the "business card" of a Z-Wave device. It contains information about the device type and its technical features. The add and remove procedure of the device is confirmed by sending out a node information frame. Besides this, it may be necessary for certain network operations to send out a node information frame.

## 14. ASSOCIATIONS

Z-Wave devices interact with other Z-Wave devices. The relationship between one device controlling another device is called an association. In order to control a subordinate device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called "Association Groups". They are always related to the specific event triggered (e.g., sensor reports). In case the event is triggered, all devices stored in the respective association group will receive a joint wireless command.

### 14.1 Setting and removing associations

Associations may be assigned and removed via Z-Wave commands. Please refer to your primary controller/Z-Wave gateway for more information.

**NB! After assigning or removing associations from the device, the device needs to be awakened. Please follow the wake up procedure described in Chapter "Wake Up".**

### 14.2 Associations Groups

For information regarding what association group to use for the correct buttons, please see chapter "Choosing the correct front/assembly".

ROOT DEVICE	COMMANDS
<b>Group 1</b> Lifeline (Normally used by the Z-Wave Controller)	- Battery notification (sent when the battery runs low). - Device reset locally (sent if the device is reset). - Central scene notification. Max. nodes in group: 5
<b>Group 2</b> Used for the first button with double rocker and triple rocker configuration.	- Basic Set  Push on UP will send: ON (0xFF) Holding UP send: Level Increase Start Releasing UP send: Level Increase Stop  Push on DOWN send: OFF (0x00) Holding DOWN send: Level Increase Start Releasing DOWN send: Level Increase Stop  Max. nodes in group: 5
<b>Group 3</b> Used for the first button with single rocker and the second button for triple rocker configuration.	- Basic Set  Push on UP will send: ON (0xFF) Holding UP send: Level Increase Start Releasing UP send: Level Increase Stop  Push on DOWN send: OFF (0x00) Holding DOWN send: Level Increase Start Releasing DOWN send: Level Increase Stop  Max. nodes in group: 5
<b>Group 4</b> Used for the last button with double rocker and triple rocker configuration.	- Basic Set  Push on UP will send: ON (0xFF) Holding UP send: Level Increase Start Releasing UP send: Level Increase Stop  Push on DOWN send: OFF (0x00) Holding DOWN send: Level Increase Start Releasing DOWN send: Level Increase Stop  Max. nodes in group: 5

## 15. CONFIGURATION PARAMETERS

Z-Wave products are supposed to work out of the box after inclusion. Some device configuration may, however, alter the functionality to better serve user needs or unlock further enhanced features. All of the parameters below does not feature altering capabilities, advanced or read only flag.

NO.	NAME	SIZE	RANGE	DEFAULT	DESCRIPTION
1	Select Button reports	1	0-2	2	Configure reports sent when pressing buttons: • 0 - Send Central Scene Command only • 1 - Send Group Association Command only • 2 - Send Central Scene and Group Association Commands
2	LED signalling	1	0-1	1	Configure if LED signalling should be enabled (should only disable simple press actions, should not turn off factory reset / inclusion etc). • 0 = Disable (does not turn off factory reset/learn mode blinking etc) • 1 = Enable
3	Active Button rockers	1	1-3	3	Configure different rocker setups 1 = Single rocker 2 = Dual rocker 3 = Triple rocker

## 16. COMMAND CLASSES

Besides the mandatory command classes the device has support for the following command classes:

### 16.1 Battery

The device is “Reporting Sleeping Slave” which allows the device to maintain the battery for a longer period than “Always On Slave”. This means the device will not contribute to the Z-Wave Mesh network.

The Reporting Sleeping Slave Role Type is intended for battery-powered devices that only wake up and communicate when an event has occurred. This allows reconfiguring the device remotely. Examples include sensors, wall controllers etc.

The device reports the battery % at a wake up as well as every 12 hours.

### 16.2 Wake up

To manually wake up the device, please press any down button 6 times. The device will light up in green until wake up is no longer active. The default wake up interval in seconds: 604 800 (1 week).

## 17. CENTRAL SCENE

The device supports the Central Scene Command Class. This command class is used to perform actions chosen in the controller. The scene controller may only be used if the relay is in momentary switch mode.

The following attributes are supported:

BUTTON	FUNCTION	BUTTON # / SCENE #	KEY ATTRIBUTE (BYTE:BIT)
Up1	1x press 2x press 3x press Hold Release	1	1:0
			1:3
			1:4
			1:2
			1:1
			1:1
Down1	1x press 2x press 3x press Hold Release	2	2:0
			2:3
			2:4
			2:2
			2:2
			2:1
Up2	1x press 2x press 3x press Hold Release	3	3:0
			3:3
			3:4
			3:2
			3:1
			3:1
Down2	1x press 2x press 3x press Hold Release	4	4:0
			4:3
			4:4
			4:2
			4:1
			4:1
Up3	1x press 2x press 3x press Hold Release	5	5:0
			5:3
			4:4
			5:2
			5:1
			5:1
Down3	1x press 2x press 3x press Hold Release	6	6:0
			6:3
			6:4
			6:2
			6:1
			6:1

## 18. SUPPORTED COMMAND CLASSES

The following table lists all Command Classes supported by the Z-Wave Device. The device supports both S0, S2 Authenticated security and S2 Unauthenticated security.

	INSECURE INCLUSION	INSECURE ON SECURE INCLUSION	SECURE ON SECURE INCLUSION
Association V2	Yes		Yes
Association Group Information V3	Yes		Yes
Application Status	Yes	Yes	Yes
Battery V1	Yes		Yes
Configuration V4	Yes		Yes
Central Scene V3	Yes		Yes
Device Reset Locally V1	Yes		Yes
Firmware Update Meta Data V5	Yes		Yes
Indicator V3	Yes		Yes
Manufacturer Specific V2	Yes		Yes
MultiChannel Association V3	Yes		Yes
Power level V1	Yes		Yes
Security V1	Yes	Yes	
Security V2 V1	Yes	Yes	
Supervision V1	Yes	Yes	
Transport Service V2	Yes		Yes
Version V3	Yes		Yes
Wake Up V2	Yes		Yes
Z-Wave Plus Info V2	Yes		Yes

# PRODUCT INFO

Heatit Z-Push Wall Controller

## FEATURES

- Wireless battery operated wall switch
- Designed for controlling lights, blinds, relays, dimmers etc.
- Fits System 55 frames
- SmartStart
- Controls up to 3 separate groups and 5 devices per group
- 10 scene triggers per rocker
- Easy to install with screws or double-sided adhesive tape
- Firmware update (OTA)
- Supports encryption modes S0, S2 Authenticated Class, S2 Unauthenticated Class

This product is a security-enabled Z-Wave Plus product with encryption. The product must be used with a security-enabled Z-Wave Controller in order to fully utilize the product.

## TECHNICAL DATA

<b>Protokoll</b>	Z-Wave
<b>Chip</b>	Z-Wave 700 chip
<b>Battery</b>	1 x CR2450 battery
<b>Est. battery life</b>	Estimated 1 year (with default settings and max. 10 pushes per day)
<b>Buttons</b>	1, 2 or 3 rockers
<b>Ambient temperature</b>	5°C to 40°C (0°C to 40°C storage)
<b>Humidity</b>	Max 95% RH
<b>Range RF</b>	Min. 40 meters
<b>IP Code</b>	IP 20
<b>Size (LxWxH)</b>	55 x 55 x 13mm

**Approvals** Z-Wave Plus V2, CE  
RoHS 2002/95/EC, 2002/96/EC (WEEE), 1999/5/EC (RTTE)

## MAINTENANCE

The device is maintenance-free, but must never be covered.  
Indoor installation.

ART. NO.	PRODUCT	COLOR	FREQUENCY
45 126 92	Heatit Z-Push Wall Controller	White RAL 9010	EU 868,4MHz
45 126 93	Heatit Z-Push Wall Controller	White RAL 9003	EU 868,4MHz
45 126 94	Heatit Z-Push Wall Controller	Black RAL 9011	EU 868,4MHz
99 305 20	Heatit Z-Push Wall Controller	White RAL 9003	RUS 869,0MHz
99 305 21	Heatit Z-Push Wall Controller	White RAL 9003	AUS 921,4MHz
99 305 30	Heatit Z-Push Wall Controller	Black RAL 9011	RUS 869,0MHz
99 305 31	Heatit Z-Push Wall Controller	Black RAL 9011	AUS 921,4MHz

The product is also available in other Z-Wave frequency versions on request.