

# SmartPlug Dimmer Manual



SmartPlug Dimmer

## 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 minimum distance 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.

## DECLARATION DE CONFORMITE D'INDUSTRIE CANADA

Ce périphérique a été testé et reconnu conforme aux limites spécifiées dans RSS-210.

Son utilisation est soumise aux deux conditions suivantes :

- (1) il ne doit pas provoquer d'interférences gênantes et
- (2) il doit tolérer les interférences reçues, notamment celles susceptibles d'en perturber le fonctionnement.

## SPECIFICATIONS

Model: QZ2142-840

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 Controller 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: [dealers.qolsys.com](http://dealers.qolsys.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™ 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:

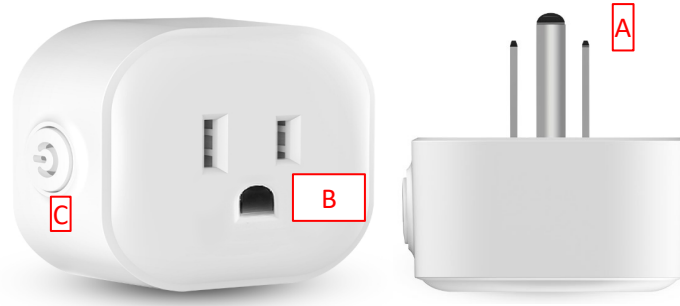
This product can be operated in any Z-Wave network with other Z-Wave Plus™ certified devices from other manufacturers. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. Each module is designed to act as a repeater, which 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. QZ2142-840 is a security enabled Z-Wave Plus™ device. A security Enabled Z-Wave Plus™ Controller must be used in order to fully utilize the product. The Device Type of the QZ2142-840 is on/off power switch. The Role Type of the QZ2142-840 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 AC plug
- B Z-Wave controlled outlet
- C ON/OFF/PROG Push button/ Status LED



## Key function description

- Function 1: Press the button to turn the output ON or OFF
- Function 2: quickly press 3x Button: ADD(inclusion) (only if switch is not included in network) quickly press 3x Button: Remove( exclusion)
- Function 3: Press click Z-Wave button 3 times quickly, and hold for at least 10 seconds at the third time to restore the device to the factory (Node: Please use this procedure only when the network primary controller is missing or otherwise inoperable.)
- Function 4: Tap A(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 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

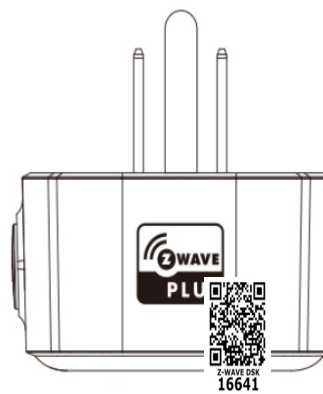
10 minutes of being switched on and in the network vicinity.

## QR CODE

The QR code is found 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 on 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	V1	highest granted
Indicator	V3	highest granted
Powerlevel	V1	highest granted
Security 2	V1	none
Supervision	V1	none
Firmware Updata Meta Data	V5	highest granted

## Z-Wave™ Configuration Parameters

You may use the below configuration parameters to change settings of the corresponding functionality.

### 2 : Status LED Configuration

Paramter No: 2(0x02) Size:1 Byte  
Value: 00(default) Output and the LED are in the different state.  
Value: 01 Output and the LED are in the same state.  
Value: 02 LED Always OFF  
Value: 03 LED Always ON

### 3: Auto Turn-Off Timer

Paramter 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) Size:1 Byte  
Value: 00 Output OFF.  
Value: 01 Output ON.  
Value: 02 (default) The state before a power outage.

### 9: Ramp rate (Local Button + Z-Wave™)

Paramter No: 9(0x09), Size=1, Default =1  
Value=1 from 0x63 to 0x00 or from 0x00 to 0x63 need 1s  
Value=2 from 0x63 to 0x00 or from 0x00 to 0x63 need 2s  
.....  
Value=99 from 0x63 to 0x00 or from 0x00 to 0x63 need 99s

### 10: Multilevel minimum value can be set (Local Button)

Paramter No: 10(0x0A), Size=1, Default =1  
Value=0 disable  
Value=1  
Value=2  
.....  
Value=99

### 11: Multilevel maximum value can be set (Local Button)

Paramter No: 11(0x0B), Size=1, Default =99  
Value=0 disable  
Value=1  
Value=2  
.....  
Value=99

### 12:Double Tap Behavior---when switch is off and quickly press button 2 times, switch turns on to x brightness

Paramter No: 12(0x0C), Size=1, Default =0  
Value=0 enable double tap to full brightness (99)  
Value=1 custom value set in parameter 18  
Value=2 enable double tap to maximum brightness (turn on to the value relate with parameter 11)  
Value=3 disable double tap to full brightness

### 15: Enable or Disable local / Z-Wave™ control

Paramter No: 15(0x0F) Size:1 ,Default =1  
Value: 00 disable  
(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 paddle is pressed)  
Value: 01 enable (normal operation like now)  
Value: 02 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

### 16: dimmer speed (only for local press & hold)

Paramter No: 16(0x10), Size=1, Default =5  
Value=1 from 0x63 to 0x00 or from 0x00 to 0x63 need 1s  
Value=2 from 0x63 to 0x00 or from 0x00 to 0x63 need 2s  
.....  
Value=99 from 0x63 to 0x00 or from 0x00 to 0x63 need 99s

### 20: Association reports

Paramter 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 final 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 level)  
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

Paramter No: 21(0x15) Size:1 ,Default =0  
Value: 00 report on/off and multilevel status when 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 paddle is pressed and Parameter 15 is set to value 0 or 2 (output control disabled).

### 22: Night Mode Brightness Level---Set the level of brightness the dimmer will turn on to when off and held Button for 2 seconds

Paramter No: 22(0x16) Size:1 ,Default =0  
Value: 00 disable function  
Value: 01-99

### 23: LED Indicator Color

Paramter No: 23(0x17), Size=1, Default =1  
Value=0 White  
Value=1 Blue  
Value=2 Green  
Value=3 Red

### 26: LED Indicator Brightness

Paramter No: 26(0x18), Size=1, Default =1  
Value=0 Bright (100%)  
Value=1 Medium (60%)  
Value=2 Low (30%)

## Support for Association Groups

QZ2142-840 supports 3 association groups. Group 1 supports 1 node ID, Group 2 and Group 3 Supports maximum of 5 node ID's

Association group\_1:Z-Wave™ Plus Lifeline

Association group\_1 is default to associate with the primary controller (Gateway/Hub/Controller) for QZ2142-840 Status change report,

1. QZ2142-840 will trigger 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 QZ2142-840 is changed, On (0xFF) or Off (0x00). The QZ2142-840 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 control

When the output of the QZ2142-840 is changed, On (0xFF) or Off (0x00). The QZ2142-840 will automatically send out a related basic set

command. On (0xFF) or Off (0x00) to its associated group.

## Basic Command Class

The basic command class is mapped to the SWITCH MULTILEVEL command class

## Restoring Factory Defaults

QZ2142-840 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 click Z-Wave button 3 times quickly, and hold for at least 10 seconds at the third time to restore the device to the factory

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.

### Association Groups

Root Device	Endpoint1	Endpoint2
Group 1:Lifeline	Group 1:Lifeline	Group 1:Lifeline
Group 2:Basic set From Endpoint1	Group 2:Basic set command	Group 2:Basic set command
Group 3:Basic set From Endpoint2		