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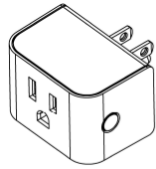


Z-Wave SmartPlug (SC428ZW)

Installation/User Guide

In The Box

SC428ZW
SmartPlug



Installation/
User Guide

Note: Additional equipment may be required due to building construction or materials, or other radio interference that may reduce the radio range.

(888) 387-2587

support@salusinc.com • www.salusinc.com

Instructions may change without notice, always check www.salusinc.com for the latest installation details.

Safety Instructions

Read these instructions carefully before installing and using the Z-Wave SmartPlug and keep this guide in a safe place for future reference.

- Verify compatibility with your home network before installation.
- Follow all instructions provided by the manufacturer of your home network regarding the addition of devices to your connected home system. An authorized, qualified installer may be required.

Salus accepts no responsibility for damage caused by not following these instructions.

Product Introduction

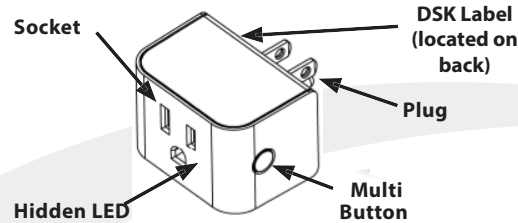
The Salus Z-Wave SmartPlug switch is a connected AC switch that is compatible with Z-Wave networks. This device provides ON/OFF control and measures the power/energy consumption of the attached AC appliance. Key features include:

- Quick and easy installation
- Support for Z-Wave connected home networks
- Support for loads up to 15Amps (resistive).
- SmartStart functionality using the QR code on the device.

SmartStart enabled products can be added into a Z-Wave network by scanning the Z-Wave QR Code present on the product 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 in the network vicinity.

Compliance Note: This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All AC powered nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. act as signal repeaters regardless of manufacturer.

Controls and Indicators



Add (Include) a device to a network

- Refer to the instructions for your Z-Wave certified controller to add a device to the Z-Wave network.
- Locate the Device Specific Key (DSK) label located on the back (plug side) of the SmartPlug. Scan QR code to obtain DSK.
- Plug the SmartPlug switch into an AC outlet at the desired location to account for any radio interference.
- Press the Multi Button once to initiate adding the device to the network.

Remove (Exclude) a device from a network

- Refer to the instructions for your Z-Wave certified controller to remove a device to the Z-Wave network.
- Press the Multi Button once to remove the switch from the network.

Using the Switch

Note: After being plugged in, there is a slight delay before the SmartPlug switch starts measuring energy and responding to the button or remote commands.

Turn Off/On

- Press the Multi Button to toggle the SmartPlug switch between Off and On.

Reset to Factory Defaults

- Press and hold the Multi Button for more than 10 seconds. The amber LED will be illuminated for 2 seconds while it searches for the network. Please use this procedure only when the network primary controller is missing or otherwise inoperable.

Power up without Network	Red LED flashes 5 times in 0.5 sec. on/0.5 sec. off
Power up with Network	Red LED flashes 5 times in 0.2 sec. on / 0.1 sec. off
Relay is ON	Green LED
Relay is OFF	Red LED
Factory Reset	Amber LED for 2 seconds
Overcurrent Protection	Flashing Green 0.2 sec on / 0.2 sec. off

Item	Description
Plug	NEMA 5-15 (Type B) plug. Compatible with US and Canadian 120VAC/15A electrical outlets
Socket	NEMA 5-15 (Type B) outlet. Compatible with US/Canadian 120VAC/15A electrical plugs
Multi Button	Multi-function user input button: Pair, Rejoin, Factory Defaults, and On/Off
Hidden LED	Red/Green LED status indicator

Troubleshooting

Will Not Pair

- Radio interference is present at the desired location.
 1. Relocate the Z-Wave receiver,
 2. Select a different location for the switch, or
 3. Add a Z-Wave repeater to the system.

Loss of Connection After Pairing

- Make sure Z-Wave receiver is operating
- Radio environment may have changed:
 1. Reset to factory defaults to search for a better path.
 2. Apply radio interference solutions above.

No Appliance Power When Switch LED is On

- Make sure the attached appliance switch is on.
- Make sure the appliance can be controlled via the AC supply.

Note: Appliances with "soft" on/off buttons cannot be turned on by turning the AC supply ON.

Specifications

Operating Conditions	32°F to 104°F (0°C to 40°C) < 90% humidity (non-condensing)
Storage Conditions	-4°F to 185°F (-20°C to 85°C) < 90% humidity (non-condensing)
Protocols Supported	Z-Wave
RF Frequency	908.42MHz, ISM band
Input	120VAC +/-10%, 60 Hz
Maximum Switch Current	15 Amp resistive
Dimensions (w x h x d)	Including Plug: 2.13" x 1.46" x 2.32" (54 x 37 x 59 mm) Not including plug: 2.13" x 1.46" x 1.49" (54 x 37 x 38mm)

Basic Set Command

Basic Set (0x00) = Binary Switch Set (0x00)

Basic Set (0xFF) = Binary Switch Set (0xFF)

Basic Get = Binary Switch Get

Basic Report = Binary Switch Report

Z-Wave User Configuration

Parameter	Description	Values	Size Byte)	Default
1	Status when powered up	0 = Off 1 = On 2 = Status when last powered	1	2
3	Enable/Disable for Group 2 & 3	0 = Group 2 & 3 disabled 1 = Group 2 enabled 2 = Group 3 enabled 3 = Group 2 & 3 enabled	1	3
5	Overvoltage Alarm (V)	1-200 = Overvoltage Alarm threshold	2	132
6	Overcurrent Alarm (mA)	1-15000 = Overcurrent Alarm threshold	2	15000
21	Power Change Report	1 - 100 = % Power Change to Send Report	1	10
22	Overload Power Report	1 - 1980 = 1 to 1980W	2	1980
23	Energy Report	1 - 327 = 1 KWh to 327 KWh	2	1
24	Metering Report	30 - 32767 = 30 - 32767 seconds to send report	2	3600
25	High Power Threshold	0 = High Power Threshold disabled 1 - 32767 = High Power Threshold (Watts)	2	1980
26	Low Power Threshold	0 = Low Power Threshold disabled 1 - 32767 = High Power Threshold (Watts)	2	5
27	Power Threshold Action	1 = Power Threshold Action disabled 2 = Power High Threshold is enabled and send OFF to group 4 4 = Power High Threshold is enabled and send ON to group 4 8 = Power Low Threshold is enabled and send OFF to group 5 16 = Power Low Threshold is enabled and send ON to group 5 12 = 4 AND 8	1	12

Z-Wave Related Configuration

Specific Configuration Role Type:

Role Type:

- Always On Slave (AOS)
- Device Type: BINARY_SWITCH
- Supported security keys: S2
- Unauthenticated

Library:

- Generic Type: SWITCH_BINARY
- Specific Type: POWER_SWITCH_BINARY

Z-Wave Command Class Support

ZWAVEPLUS_INFO V2	CONFIGURATION V1
TRANSPORT_SERVICE V2	BASIC V2 (Control and Support)
MANUFACTURER_SPECIFIC V2	VERSION V3 - ASSOCIATION V2
DEVICE_RESET_LOCALLY V1	ASSOCIATION_GRP_INFO V3
SECURITY_2 V1	SUPERVISION V1
POWERLEVEL v1	FIRMWARE_UPDATE_META_DATA V4
BINARY_SWITCH V1	PROTECTION V2
METER V4	MULTI_CHANNEL_ASSOCIATION V3
Notification V8	

Events

User Event	Notification Type	Notification Event
Overvoltage threshold is met	Power Management (0x08)	Overvoltage Detected (0x07)
Overcurrent threshold is met	Power Management (0x08)	Overcurrent Detected (0x06)
Overload threshold is met	Power Management (0x08)	Overload Detected (0x08)

Association Group

Using association group, the Smart Plug is able to command or notify another device of a Z-Wave® network.

Group	Group Name
1	Lifeline
2	Follow State
3	Follow Complementary State
4	Metering - High Threshold-Set On/Off
5	Metering - Low Threshold-Set On/Off

Group 1 - Lifeline

Maximum number of devices in group: 5

This group is generally used to report information of the Smart Plug to the Main Controller of the network, including Meter, Binary Switch Report, Notification and Device Reset Locally.

Group 2 - Follow State

Maximum number of devices in group: 5

When the Smart Plug is switched ON (respectively OFF) using the local button, it will send ON (respectively OFF) command to the associated devices. No command is sent if the Smart Plug is switched ON or OFF wirelessly. This group is configurable through the parameter 3.

Group 3 - Follow Complementary State

Maximum number of devices in group: 5

When the Smart Plug is switched ON (respectively OFF) using the local button, it will send OFF (respectively ON) command to the associated devices. No command is sent if the Smart Plug is switched ON or OFF wirelessly. This group is configurable through the parameter 3.

Group 4 - Metering - High Threshold - Set On/Off

Maximum number of devices in group: 5

When the Smart Plug reaches over the high threshold of power defined by the configuration parameter, it will send OFF or ON command to the associated devices. This group is configurable through the parameters 25 and 27.

Group 5 - Metering - Low Threshold - Set On/Off

Maximum number of devices in group: 5

When the Smart Plug reaches below the low threshold of power defined by the configuration parameter, it will send OFF or ON command to the associated devices. This group is configurable through the parameters 26 and 27.