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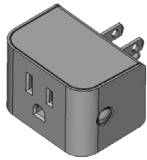
SALUS®

Z-Wave SmartPlug (SC428ZW)

Installation/User Guide

In The Box

SC428ZW
SmartPlug



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

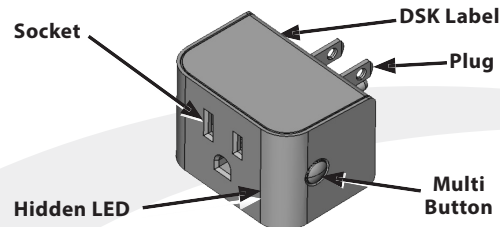
The Salus Z-Wave SmartPlug switch is a connected AC switch that is compatible with Z-Wave networks. This device provides ON/OFF control and measures the power/energy consumption of the attached AC appliance. Key features include:

- 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.

LED Indications

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.



Warranty and FCC Statements Garantie et déclarations de la FCC



FCC STATEMENTS

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the 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.

FCC AND INDUSTRY CANADA

RF Radiation Exposure statement: This equipment complies with FCC and Industry Canada RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the antenna and all persons.

INDUSTRY CANADA

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(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.

SALUS WARRANTY

SALUS North America, Inc. ("Salus") warrants that for a period of five (5) years ("Warranty Period") from the date of purchase by the consumer ("Customer"), this device, excluding batteries ("Product"), shall be free of defects in materials and workmanship under normal use and service in accordance with all supplied instructions. During the warranty period, Salus shall, at its option, repair or replace any defective Products, at no charge for the device. Any replacement and/or repaired devices are warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer.

This warranty does not cover removal or reinstallation costs. This warranty does not apply to any Product (i) which has been modified, repaired, or altered, except by Salus or an authorized Salus representative, (ii) which has not been maintained in accordance with any handling or operating instructions supplied by Salus, or (iii) which has been subjected to unusual physical or electrical stress, misuses, abuse, negligence or accidents.

This warranty is the only express warranty Salus makes for the Product. Any implied warranties, including warranties of merchantability or fitness for a particular purpose, are limited to the Warranty Period or the shortest period allowed by law.

SALUS SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, or limitation on the duration of implied warranties of merchantability or fitness, so these exclusions or limitations may not apply to you.

No oral or written information or advice given by Salus or a Salus-authorized representative shall modify or extend this warranty. If any term is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

Customer's sole and exclusive remedy under this limited warranty is product repair or replacement as provided herein. If a Product under warranty is defective, the Customer may:

- contact the party ("Seller") from which the Customer purchased the Product to obtain an equivalent replacement product after the Seller has determined that the Product is defective and the Customer is eligible for a replacement, or
- contact Salus Service at support@salusinc.com, to determine whether the device qualifies for a replacement. If a replacement is warranted and is shipped prior to the return of the device under warranty, a credit card is required and a hold may be placed on the Customer's credit card for the value of the replacement until the returned device is verified as eligible for replacement, in which case, the Customer's credit card will not be charged.

This warranty gives you specific legal rights, and you may also have other rights that vary from jurisdiction to jurisdiction. If you have any questions regarding this warranty, please write Salus at:

SALUS North America, Inc.
4700 Duke Drive, Suite 200
Mason, OH 45040
sales@salusinc.com

INDUSTRIE CANADA

Cet appareil contient des émetteurs / récepteurs exemptés de licence conformes aux RSS (RSS) d'Innovation, Sciences et Développement économique Canada. Le fonctionnement est soumis aux deux conditions suivantes :

- (1) Cet appareil ne doit pas causer d'interférences.
- (2) Cet appareil doit accepter toutes les interférences, y compris celles susceptibles de provoquer un fonctionnement indésirable de l'appareil.

GARANTIE SALUS

SALUS North America Inc. (« Salus ») garantie que pour une période de cinq (5) ans (« Période de garantie ») à partir de la date d'achat par le client (« Client »), cet appareil, à l'exclusion des piles (« Produit »), sera exempt de tout défaut de matériau ou de fabrication dans des conditions normales d'utilisation et de services, en conformité avec les instructions fournies. Pendant la Période de garantie, Salus réparera ou remplacera, selon sa décision, sans frais par rapport à l'appareil, tout Produit défectueux. Tout appareil remplacé et/ou réparé sera garanti pour le restant de la Période de garantie originale ou pour quatre-vingt-dix (90) jours, la période la plus longue étant retenue.

Cette garantie ne couvre pas les frais de démontage ou de réinstallation. Cette garantie ne s'applique pas si un Produit (i) a été modifié, réparé ou altéré par quelqu'un d'autre qu'un employé de Salus ou qu'un représentant autorisé par Salus, (ii) n'a pas été entretenu en conformité avec les instructions de manipulation et de fonctionnement fournies par Salus ou (iii) a été sujet à des conditions physiques ou électriques inhabituelles, à une mauvaise utilisation, à de l'abus, à de la négligence ou à un accident.

Cette garantie constitue la seule garantie expresse que Salus offre pour le Produit. Toutes les garanties implicites, y compris les garanties de qualité marchande et d'adéquation à un usage particulier, sont limitées à la Période de garantie ou à la plus courte période permise par la loi.

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Aucune information ou aucun avis, oral ou écrit, donnés par Salus ou par un représentant autorisé par Salus ne peut modifier ou prolonger la portée de cette garantie. Si une des modalités s'avérait illégale ou non exécutoire, la légalité et la force exécutoire des autres modalités ne seraient pas affectées ou amoindries.

Le recours unique et exclusif du client, en vertu de la présente garantie limitée, est la réparation du Produit ou son remplacement, tel que décrit dans la présente garantie. Si un Produit couvert par la présente garantie est défectueux, le client peut :

- contacter le fournisseur (« Vendeur ») à qui le Client a acheté le Produit pour obtenir un produit équivalent en remplacement après que le Vendeur a jugé que le Produit est défectueux et que le Client est éligible au remplacement ou,
- contacter le Service à la clientèle de Salus au support@salusinc.com, pour déterminer si l'appareil est éligible à un remplacement. Si un remplacement est autorisé par la garantie et a été expédié avant le retour de l'appareil sous garantie, une carte de crédit est requise, et une retenue peut être appliquée sur la carte de crédit du Client pour la valeur du remplacement jusqu'à ce que l'appareil retourné soit vérifié et jugé éligible à un remplacement, auquel cas la carte de crédit du Client ne sera pas débitée.

Cette garantie vous confère des droits légaux précis; vous pourriez également avoir d'autres droits qui varient d'un État ou d'une province à l'autre. Pour toute question concernant cette garantie, veuillez écrire à Salus à l'adresse suivante :

SALUS North America, Inc.
4700 Duke Drive, Suite 200
Mason, OH 45040
sales@salusinc.com