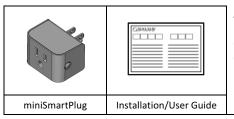


# Installation/User Guide: miniSmartPlug

#### In the Box



#### Note:

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

#### SAFETY INSTRUCTION

Read these instructions carefully **before installing and using** the miniSmartPlug and keep this guide in a safe place for future reference.

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

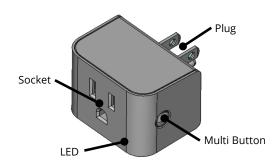
Salus accepts no responsibility for damage caused by not following these instructions.

# **PRODUCT INTRODUCTION**

The Salus miniSmartPlug switch is a ZigBee compatible, connected AC switch that gives ON/OFF control of the attached AC appliance and measures the power/energy consumption of the appliance. Key features include:

- · Quick and easy installation
- Support for OpenHome and ZigBee™ wireless connected home systems
- Support for loads up to 15Amps (resistive).

## **CONTROLS AND INDICATORS**



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

## **PAIRING INSTRUCTIONS**

- Prepare to add devices per your system's instructions.
- Plug the miniSmartPlug switch into the desired AC outlet to account for any radio interference
- When the switch is detected, follow your system's instructions to finish adding the switch to the system. You may need to press the Multi Button to identify the device.

## **USING THE DEVICE**

TURN OFF/ON

 To toggle the miniSmartPlug switch (turn ON when OFF, or turn OFF when ON), press the Multi Button.

## RESET TO FACTORY DEFAULTS

 To reset the device to factory default settings, press the Multi Button while plugging in the device and release the button when the LED comes on.

# FORCE REJOIN TO CURRENT NETWORK

 To find a better path to the connected home system if the network is intermittent and/or other devices are added/deleted, press the Multi Button 5 times quickly (less than ½ sec between presses).

#### OVERRIDE USING APPLIANCE ON/OFF SWITCH

- The on/off switch for certain appliances can be monitored by the miniSmartPlug switch to allow the user to use the appliance switch to turn ON/OFF the miniSmartPlug switch.
- To toggle the miniSmartPlug switch using the appliance on/off switch, turn the appliance switch off for ½ second, then back on. The miniSmartPlug switch will detect the brief off period and change its state.
- Certain appliances cannot be monitored, such as CCFL lamps and electronic devices using wall transformers, since their electrical characteristics do not change enough when the appliance on/off switch is changed.

# **LED INDICATIONS**

ON for 2 or 4 sec.	Device power up. Switch is OFF.
3 flashes	Searching for network to join
ON	Switch is ON
OFF	Switch is OFF
Flash OFF every 2 sec	Switch is ON, no network
Flash ON every 2 sec	Switch is OFF, no network

# **TROUBLESHOOTING**

WILL NOT PAIR INITIALLY

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

#### LOSS OF CONNECTION AFTER PAIRING

- Make sure ZigBee receiver is operating
- Radio environment may have changed:
   1) Force rejoin to possibly find a better radio path or
  - 2) Apply radio interference solutions above.

# APPLIANCE DOESN'T TURN ON WHEN LED ON DEVICE IS ON

- Make sure the attached appliance is turned ON.
- Make sure the appliance can be controlled via the AC supply. Appliances with "soft" on/off buttons or that use wall transformers cannot be turned on by turning the AC supply ON.

SWITCH DOESN'T TURN ON WHEN APPLIANCE SWITCH IS TURNED OFF THEN BACK ON

- Make sure the appliance is working properly by turning ON the miniSmartPlug switch and using the appliance on/off switch to control the appliance.
- Make sure the appliance on/off switch can be monitored, i.e., it is not a "soft" on/off, behind a wall transformer, CCLF lamp, etc.

#### **SPECIFICATIONS**

Operating	32 - 104°F / 0 - 40°C
Conditions	10 - 90% humidity
	(non-condensing)
Storage	-4 - 185 °F / -20 – 85°C
Protocols	ZigBee HA 1.2 + simple meter
Supported	OpenHome
RF Freq.	2.4 GHz
RF Range	400m open field
Input	120VAC +/-10%, 60 Hz
Max. Switch	15 Amp resistive
Current	
Size	Including Plug:
	2.35" x 1.65" x 2.5" /
	60mm x 42mm x 64mm
	Not including plug:
	2.35" x 1.65" x 1.7" /
	60mm x 42mm x 43mm

#### **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**

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ce matériel devrait être installé et exploité à une distance minimale de 20 cm entre l'antenne et toutes les personnes.

## SALUS WARRANTY

Salus Controls Inc. ("Salus") warrants that for a period of two (2) 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 Salusauthorized 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 4700 Duke Drive, Suite 200, Mason, OH 45040, 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 Controls Inc. 850 Main Street. Redwood City, CA 94063