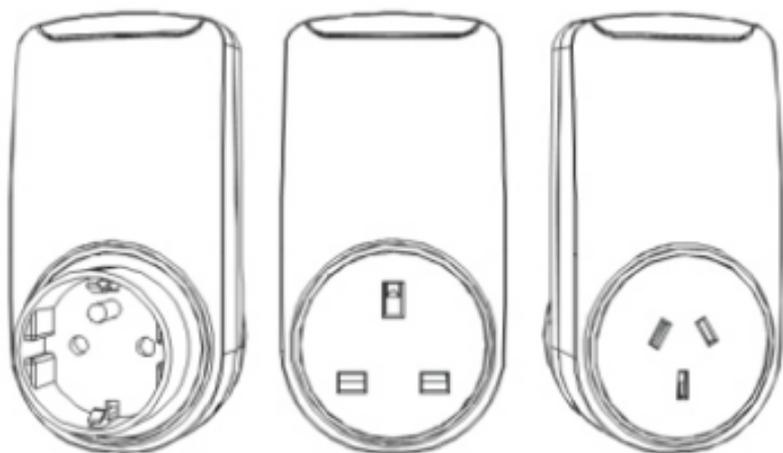




SSP 301 Z-Wave Switch and Repeater

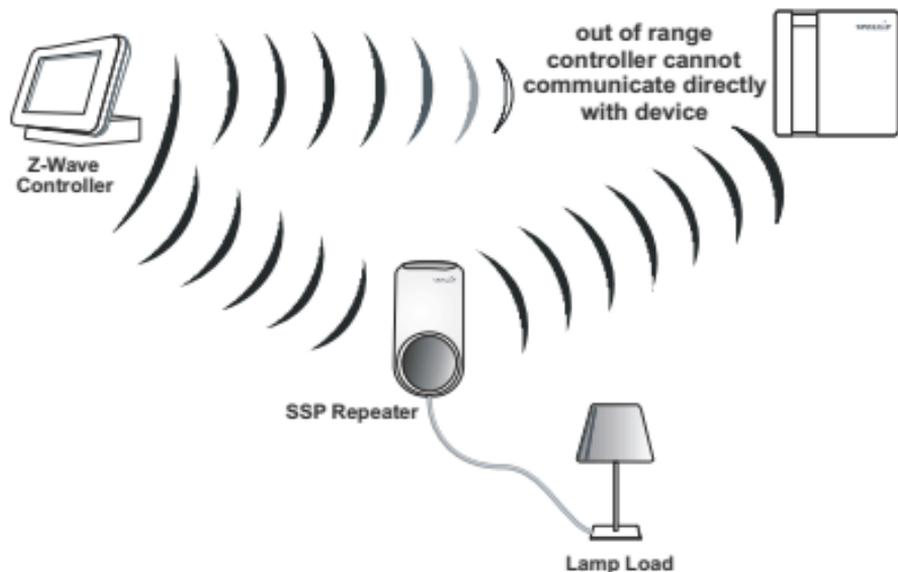


User and Installation Instructions

BGX501-920-R03

SSP 301

The Secure SSP 301 is a switch and repeater that forms part of a Z-Wave Plus™ home automation network. The SSP 301 is a mains-powered device that will switch (power On/Off) a connected appliance either by the Z-Wave network or manually by pressing its integrated button.

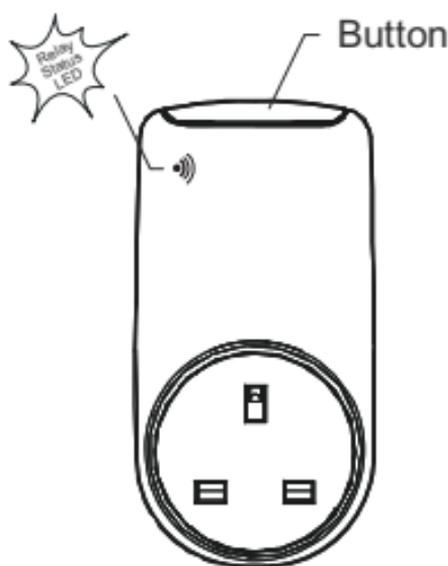


The SSP 301 acts as a repeater in a Z-Wave network by helping messages from other devices reach their destinations.

The SSP 301 is a fully compliant Z-Wave Plus™ device that will work with other manufacturer's Z-Wave devices.

Installation

Step 1: Unpack, and insert the SSP 301 into the wall socket. Ensure that the red-coloured network status LED is flashing (once per second).



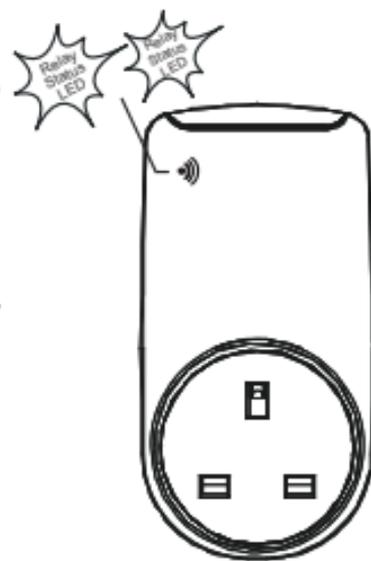
Note: If the network status LED is not flashing check the following.

- Ensure that the wall socket switch is on.
- Press the top button, the relay status LED should switch ON and glow green.
- If the relay status LED does not glow then the device is not functioning.

- It is possible that the SSP 301 was part (joined) of another network previously; if so, exclude it first before attempting to include onto a new network. Refer to step-2 for the exclusion process.
- Avoid locations alongside or behind large metal surfaces that could interfere with the low power radio signals between the unit and the controller.

Step 2: Including and Excluding a Device

To include the SSP 301 onto a network, put the controller into inclusion mode. Now, press and hold the button on SSP 301 for 4 to 7 seconds then release. The network status LED will start flashing (twice per second) on successful start of inclusion process.



Note: Inclusion means add and exclusion means delete.

Note: Refer to the controller's manual for controller relevant actions.

On successful inclusion the LED will turn off.

The total process can take up to 20 seconds (Refer to the “Technical specifications – Radio” section for details).

If the device fails to join the network it will go back to the factory default state and the Network status LED will start flashing once per second.

If there is an issue with RF communication, re-locate the device and repeat the inclusion process.

To exclude the SSP 301 from a network, put the controller into exclusion mode (refer to controller instructions) and follow the same sequence as per the inclusion process for include node. After successful exclusion the network status LED will start flashing once per second, and the device will reset to factory default.

If exclusion fails, the SSP 301 network status LED will turn off after about 5 seconds.

Note: Exclusion only works when the device is in direct range of the controller (no repeater allowed)

Associating SSP 301 in a Z-Wave Network (follow step 3 to 5)

Note: Association process only works after the device has been included onto network

Step 3: Put the controller into Association Mode.

Note: Some controllers can automatically associate. Always check with the manufacturer's manual.

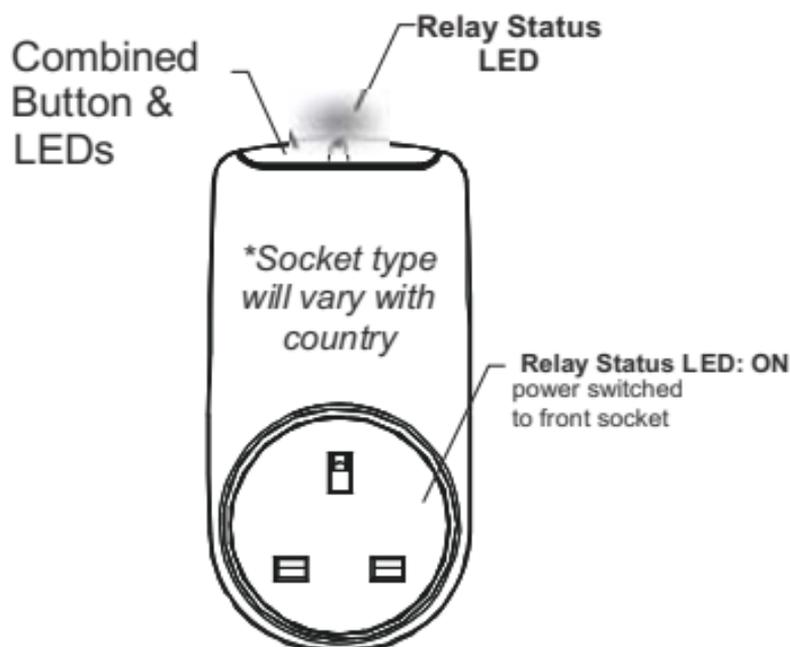
Step 4: Identify the device to the controller by sending the node information, to do this press and hold the SSP 301 button for more than 1 second, but less than 4 seconds, and then release.

Step 5: The controller should confirm association when the process is successfully completed this depends on your controller see the manufacturers documentation supplied with your controller for this information.

Appliance Socket

Press the SSP 301 button (less than one second) to supply power to its socket. By default, the green LED will be lit when the supply is On.

The socket type will vary with country. The figure shows the UK variant. Ensure that the appliance plug is firmly plugged into the appliance socket.



Button Actions

Button press time	Operation	LED status
Less than 1 second	Toggles supply to socket outlet	Toggles green LED
1-4 seconds	Send NIF (used for Association)	NA
4-7 seconds	Inclusion/exclusion	Red LED flashes twice per second
7-11 Seconds	SSP 301 resets to factory default (Refer 'Device Reset Locally' command class)	Red LED flashes once per second

Z-Wave Plus command classes

Z-Wave Plus Device Classes	Implemented Device Class
Generic	Binary Switch
Specific	On/OFF Power Switch
Basic	Routing Slave

Command Class	Commands Supported
Basic (V1)	Get
	Set
	Report
Mapped on Binary Switch Command class (V1)	
Binary switch (V1)	Get
	Set
	Report
Manufacturer Specific (V2)	Get
	Report
	Manufacturer ID = 0x0059 Product Type ID = 0x000E Product ID = 0x0001 (UK & EU) Product ID = 0x0002 (ANZ)

Version (V2)	Get
	Report
	Version Command Class Get
	Version Command Class Report
Association (V2)	Set
	Get
	Report
	Remove
	Supported Groupings Get
	Supported Groupings Report
	Specific Group Get Command
	Specific Group Report Command
Product supports one association group that have maximum of 4 nodes.	
Configuration (V1)	Set
	Get
	Report
See Configuration Parameters for details	
Device Reset Locally (V1)	Report
<i>Please use this procedure only when the primary controller is missing or otherwise inoperable,</i>	

Power cycle the device, press and hold the button for 7-11 seconds within the 60 seconds of power cycle to put the device in factory default. It reset all configuration and association to factory default. It also removes the device from Z-Wave network.

Association Group Info (V1)	Group Name Get
	Group Name Report
	Group Info get
	Group Info Report
	Group Command List Get
	Group Command List Report

Only one association group is supported and its name is "Lifeline"

Profile MSB -
ASSOCIATION_GROUP_INFO_REPORT_PROFILE_GENERAL

Profile LSB -
ASSOCIATION_GROUP_INFO_REPORT_PROFILE_GENERAL_NA

Supported Command class and command :
Command Class -
COMMAND_CLASS_SWITCH_BINARY,
Command - SWITCH_BINARY_REPORT

Z-Wave Plus Info (V2)	Get
	Report
<p>Role Type - ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_SLAVE_ALWAYS_ON</p> <p>Node Type - ZWAVEPLUS_INFO_REPORT_NODE_TYPE_ZWAVEPLUS_NODE</p> <p>Installer Icon- ICON_TYPE_GENERIC_ON_OFF_POWER_SWITCH</p> <p>User Icon- ICON_TYPE_GENERIC_ON_OFF_POWER_SWITCH</p>	
Power Level (V1)	Power Level Set
	Power Level Get
	Power Level Report
	Power Level Test Node Set
	Power Level Test Node Get
	Power Level Test Node Report

Note: For more information about Z-Wave command classes and their use refer to “SDS12652 Z-Wave command Class Specification version 3 or above and “SDS12657 Z-Wave Command Class Specification” version 2 or above.

Configuration Parameters 1 to 3

N	Type	Unit	Size Bytes	Max Value	Factory Default Value
1	Delta based switch Status reporting	NA	1	1	1
2	Time interval based Switch Status Reporting	Sec.	2	65520	0

Controllers may only allow configuring signed values. In order to set values in the range 32768 ...65520, the value sent in the application shall be equal to desired value minus 65520. For example, to set time interval to 36000 seconds it may be needed to set a value $36000-65536=-29536$.

3	Relay & LED configuration	NA	1	3	0
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Refer Table "Relay and green LED configuration" for details.

Common attributes:

- Minimum Value is zero for above parameters.
- Zero configuration mean corresponding functionality is disabled.
- Value set more than maximum allowable limit will be rejected silently, and SSP 301 will retain it last configuration value.

Important: When any configuration is set, then it shall be recommended that user should read back and verify that has been set correctly.

Relay and green LED configuration

Config Value	Relay Status After Power Cycle	LED Status
0	Open	ON for Relay Close
		OFF for Relay Open
1	Retain last status over the power cycle	ON for Relay Close
		OFF for Relay Open
2	Open	ON for Relay Open
		OFF for Relay Close
3	Retain last status over the power cycle	ON for Relay Open
		OFF for Relay Close

SSP 301 is shipped with zero default relay LED configuration

Visual Indication of a Communication Failure

The SSP 301 can indicate a communication failure state to the end user in the following situation: if the SSP 301 is configured with TIME-INTERVAL based data reporting (Configuration parameters #2) and at least one node is associated to it.

In that situation, if there is no Communication Acknowledge with any associated device in the network for more than one hour the device will indicate a communication fail status.

The communication fail status will be represented on the device by the continuous glowing of the network status LED. When the device establishes communication with any associated node in the network it will come out of the communication fail state.

Technical specifications

Electrical

Purpose of control:	Electrical control		
Supply:	230V±10% AC, 50Hz		
Current rating (load):	Resistive	Inductive	
UK:	13 A	0.4	3 A
EU:	16 A	0.4	3 A
ANZ:	10 A	0.4	3 A
Control type:	Micro-disconnection		
Control action:	Type 1B		
Software class:	Class A		
Burden:	<1W in standby		

Mechanical

Dimensions (WxDxH):	UK: 60 x 61 x 119mm
	EU: 60 x 95 x 119mm
	ANZ: 60 x 69 x 119mm
Product weight with single unit packing:	UK: 250 ± 30 g
	EU: 340 ± 30 g
	ANZ: 240 ± 30 g
Case material:	Thermoplastic, flame retardant

After Care:	Clean only with a clean damp cloth - do not use any aggressive cleaning agents. If cleaning agents are necessary, check compatibility before use.
Mounting:	UK: Type G EU: "Schuko" Type E & Type F ANZ: Type I
Ball Pressure Test Temperature:	75°C

Environmental

Impulse voltage rating:	Cat II 2500V
Storage temperature:	-20°C to 55°C
Operating temperature:	0°C to 40°C
Environmental humidity range:	0%RH to 95%RH
Atmospheric range:	980hPa to 1035hPa
Pollution degree:	Degree 2
Enclosure protection:	IP30

Radio

RF frequency –

Europe & UK: 868.42MHz

ANZ: 921.42MHz

RF range: 100m line of sight in open air

Class: 3

Inclusion: If the Z-Wave controller does not respond within 2-seconds then the SSP 301 will try with NWI (Network Wide Inclusion). The total process can take up to 20 seconds.

This is a Z-Wave certified product and can be used with Z-Wave controllers that support its functionality. Please refer to the documentation provided by the gateway or controller manufacturer. See the Z-Wave alliance website

www.z-wavealliance.org for certified controllers.

Compliance



RoHS

EN 60730-1

R&TTE directive

BS 1363-3 (for UK)

IEC 60884-1 (for EU)

ETSI EN 300 220-2, EN 301 489 part 1 & 3

AS/NZS 3122 and RCM ACMA (for ANZ)



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