



Secure

SSR 303 (Single Channel On/Off Power switch)

SKU: SECESSR303-5



Quickstart

This is a **On/Off Power Switch** for **Europe**. To run this device please connect it to your mains power supply. STEP 1: Ensure the Network LED is flashing on the SSR 303, if not follow Exclusion steps first.

STEP 2: Put the 3rd party controller into inclusion mode.

STEP 3: Press and hold the network button on the SSR 303 until the ON LEDs start flashing. The SSR 303 has been added onto the network when the OFF LED goes solid red.

NOTE: If the ON LED does not flash then the add process has been unsuccessful.

What is Z-Wave?

Z-Wave is the international wireless protocol for communication in the Smart Home. This device is suited for use in the region mentioned in the Quickstart section. (For more information about frequency regulations please refer to [the frequency coverage overview at Sigma Designs Website](#)).

Z-Wave ensures a reliable communication by reconfirming every message (**two-way communication**) and every mains powered node can act as a repeater for other nodes (**meshed network**) in case the receiver is not in direct wireless range of the transmitter.

This device and every other certified Z-Wave device can be **used together with any other certified Z-Wave device regardless of brand and origin** as long as both are suited for the same frequency range.

If a device supports **secure communication** it will communicate with other devices secure as long as this device provides the same or a higher level of security. Otherwise it will automatically turn into a lower level of security to maintain backward compatibility.

For more information about Z-Wave technology, devices, white papers etc. please refer to www.z-wave.info.



Product Description

The SSR 303 is a single channel relay/switch, it forms part of central heating control system, it can be operated by any third party controllers/Thermostat using Binary Switch CC commands.

SSR 303 will act as a repeater once added into the Z- Wave network, providing an alternative communication route for units which otherwise would not be within communication distance of each other.

SSR 303 has a fail-safe mode where by the relay is turned OFF if another 'Thermostat Mode SET' command has not been received within 60 minutes.

Prepare for Installation / Reset

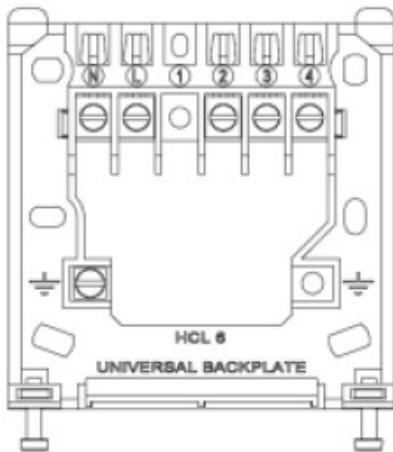
Please read the user manual before installing the product.

In order to include (add) a Z-Wave device to a network it **must be in factory default state**. Please make sure to reset the device into factory default. You can do this by performing an Exclusion operation as described below in the manual. Every Z-Wave controller is able to perform this operation however it is recommended to use the primary controller of the previous network to make sure the very device is excluded properly from this network.

Safety Warning for Mains Powered Devices

ATTENTION: only authorized technicians under consideration of the country-specific installation guidelines/norms may do works with mains power. Prior to the assembly of the product, the voltage network has to be switched off and ensured against re-switching.

Installation



The SSR303 receiver should be located as near as is practical to the device to be controlled, as well as a convenient mains electricity supply. To remove the wall plate from the SSR303, undo the two retaining screws located on the underside, the wall plate should now be easily removed. Once the wall plate has been removed from the packaging please ensure the SSR303 is re-sealed to prevent damage from dust, debris etc.

The wall plate should be fitted with the retaining screws located at the bottom and in a position which allows a total clearance of at least 50mm around the SSR303 receiver.

Direct Wall Mounting

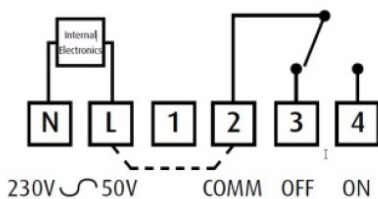
Offer the plate to the wall in the position where the SSR303 is to be mounted and mark the fixing positions through the slots in the wall plate. Drill and plug the wall, then secure the plate into position. The slots in the wall plate will compensate for any misalignment of the fixings.

Wall Box Mounting

The wall plate may be fitted directly on to a single gang flush wiring box complying with BS4662, using two M3.5 screws. The receiver is suitable for mounting on a flat surface only; it is not suitable for mounting on an unearthed metal surface.

Electrical Connections

All necessary electrical connections should now be made. Flush wiring can enter from the rear through the aperture in the backplate. The mains supply terminals are intended to be connected to the supply by means of fixed wiring. The receiver is mains powered and requires a 3 Amp fused spur. The recommended cable size is 1.0mm². The receiver is double insulated and does not require an earth connection, an earth connection block is provided on the backplate for terminating any cable earth conductors. Earth continuity must be maintained and all bare earth conductors must be sleeved. Ensure that no conductors are left protruding outside the central space enclosed by the backplate.



Inclusion/Exclusion

On factory default the device does not belong to any Z-Wave network. The device needs to be **added to an existing wireless network** to communicate with the devices of this network. This process is called **Inclusion**.

Devices can also be removed from a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

Inclusion

Press and hold the network button on the SSR 303 until the ON LEDs start flashing.

Exclusion

Press and hold the network button on the SSR 303.

Product Usage

The SSR303 receiver unit receives the Z-Wave radio signals from the 3rd party Z-wave controllers. In the unlikely event of a communication failure it is possible to override the system and switch On and Off using the On/Off buttons on the SSR303 receiver as a local override.

If the override is used to override the system when it is functioning correctly then the override will be cancelled by the next switching operation and normal operation will be resumed. In any case, with no further intervention, normal operation will be restored within one hour of the override being operated.

Receiver status LED

This unit has three buttons and three LEDs - ON, OFF and Network (from top to bottom) that are used as follows:

Solid OFF LED Flashing Network LED - Unit is currently removed from the network

Flashing ON LED (Green) 3s only Solid OFF LED - Unit has been successfully added on the network

Solid OFF LED - Unit is reflecting the status OFF the relay unit. The output is OFF.

- Or, unit has finished the addition process.

- Or, unit has been added and has just been powered up on the mains

Solid ON LED - Unit is reflecting the status of the relay output. The output is ON.

Solid OFF LED Solid Network LED - Unit is in failsafe mode and the relay output is OFF.

Solid ON LED Solid Network LED - Unit is in Failsafe mode and the relay output has been turned ON via the ON button

- Or, Unit is currently removed from the network and ON by button operation.

Node Information Frame

The Node Information Frame (NIF) is the business card of a Z-Wave device. It contains information about the device type and the technical capabilities. The inclusion and exclusion of the device is confirmed by sending out a Node Information Frame. Beside this it may be needed for certain network operations to send out a Node Information Frame. To issue a NIF execute the following action: Press and hold the network button for 1 seconds

Quick trouble shooting

Here are a few hints for network installation if things don't work as expected.

1. Make sure a device is in factory reset state before including. In doubt exclude before include.
2. If inclusion still fails, check if both devices use the same frequency.
3. Remove all dead devices from associations. Otherwise you will see severe delays.
4. Never use sleeping battery devices without a central controller.
5. Don't poll FLIRS devices.
6. Make sure to have enough mains powered device to benefit from the meshing

Association - one device controls another device

Z-Wave devices control other Z-Wave devices. The relationship between one device controlling another device is called association. In order to control a different device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called association groups and they are always related to certain events (e.g. button pressed, sensor triggers, ...). In case the event happens all devices stored in the respective association group will receive the same wireless command, typically a 'Basic Set' Command.

Association Groups:

Group Number	Maximum Nodes	Description
1	4	Z-Wave Plus Lifeline group, SSR 303 will send unsolicited SWITCH BINARY REPORT to lifeline group.

Technical Data

Dimensions	85 x 32 x 85 mm
Weight	138 gr
Hardware Platform	ZM5202
EAN	5015914250095
IP Class	IP 30
Voltage	230 V
Load	3 A
Device Type	On/Off Power Switch
Network Operation	Always On Slave
Z-Wave Version	6.51.06
Certification ID	ZC10-16075134
Z-Wave Product Id	0x0059.0x0003.0x0005
Neutral Wire Required	ok
Color	White
IP (Ingress Protection) Rated	ok
Electric Load Type	Inductive

Supported Command Classes

- Association Group Information
- Association V2
- Basic
- Manufacturer Specific V2
- Powerlevel
- Switch Binary
- Thermostat Mode
- Version V2
- Zwaveplus Info V2

Explanation of Z-Wave specific terms

- **Controller** — is a Z-Wave device with capabilities to manage the network. Controllers are typically Gateways, Remote Controls or battery operated wall controllers.
- **Slave** — is a Z-Wave device without capabilities to manage the network. Slaves can be sensors, actuators and even remote controls.
- **Primary Controller** — is the central organizer of the network. It must be a controller. There can be only one primary controller in a Z-Wave network.
- **Inclusion** — is the process of adding new Z-Wave devices into a network.
- **Exclusion** — is the process of removing Z-Wave devices from the network.
- **Association** — is a control relationship between a controlling device and a controlled device.
- **Wakeup Notification** — is a special wireless message issued by a Z-Wave device to announce that it is able to communicate.
- **Node Information Frame** — is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.