



SEC_SSR303

Z-Wave controlled Boiler Actuator 3A

Firmware Version : 1.0



Quick Start

A This is a wireless Actor. To confirm inclusion and exclusion push and hold the network button until the 'ON' LED starts flashing.

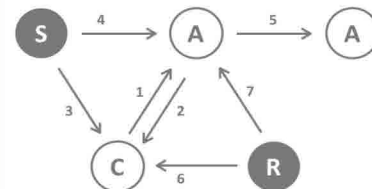
Please refer to the chapters below for detailed information about all aspects of the products usage.

What is Z-Wave?

This device is equipped with wireless communication complying to the Z-Wave standard. Z-Wave is the **international standard for wireless communication** in smart homes and buildings. It is using the **frequency of 868.42 MHz** to realize a very stable and secure communication. Each message is reconfirmed (**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.

Z-Wave differentiates between Controllers and Slaves. Slaves are either sensors (**S**) transmitting metered or measured data or actuators (**A**) capable to execute an action. Controllers are either static mains powered controllers (**C**) also referred to as gateways or mobile battery operated remote controls (**R**). This results in a number of possible communication patterns within a Z-Wave network that are partly or completely supported by a specific device.

1. Controllers control actuators
2. Actuators report change of status back to controller
3. Sensors report change of status of measured values to controller
4. Sensors directly control actuators
5. Actuators control other actuators
6. Remote controls send signals to static controllers to trigger scenes or other actions
7. Remote controls control other actuators.



There are two different role a controller can have. There is always one single primary controller that is managing the network and including/excluding devices. The controller may have other functions - like control buttons - as well. All other controllers don't manage the network itself but can control other devices. They are called secondary controllers. The image also shows that its not possible to operate a sensor just from a remote control. Sensors only communicate with static controllers.

Product description

The SSR303 is a wirelessly controlled Relay switch to operate loads up to 3 A / 230 V. It is used to control warm water boilers or magnet valves. The device can be operated locally using two buttons. A LED indicated the current switching status. The fashionable design of the device allows mounting it on visible positions in the home.

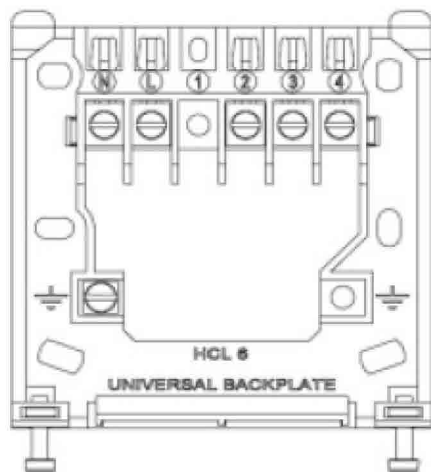
Before Device is installed

Please read carefully the enclosed user manual before installation of the radio-actuator, in order to ensure an error-free functioning.

ATTENTION: only authorized technicians under consideration of the country-specific installation guidelines/norms may do works with 230 Volt mains power. Prior to the assembly of the product, the voltage network has to be switched off and ensured against re-switching.

The product is permitted only for proper use as specified in the user manual. Any kind of guarantee claim has to be forfeited if changes, modifications or painting are undertaken. The product must be checked for damages immediately after unpacking. In the case of damages, the product must not be operated in any case. If a danger-free operation of the equipment cannot be assured, the voltage supply has to be interrupted immediately and the equipment has to be protected from unintended operation.

Installation Guidelines



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

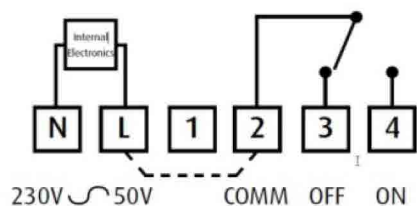
Offer the plate to the wall in the position where the SSR303 is to be mounted and mark the fixing positions through the slots in the wall plate. Drill and plug the wall, then secure the plate into position. The slots in the wall plate will compensate for any misalignment of the fixings.

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.



Behavior within the Z-Wave network

I On factory default the device does not belong to any Z-Wave network. The device needs to join an existing wireless network to communicate with the devices of this network. This process is called **Inclusion**. Devices can also leave a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller will be turned into exclusion respective inclusion mode. Please refer to your primary controllers manual on how to turn your controller into inclusion or exclusion mode. Only if the primary controller is in inclusion or exclusion mode, this device can join or leave the network. Leaving the network - i.e. being excluded - sets the device back to factory default.

If the device already belongs to a network, follow the exclusion process before including it in your network. Otherwise inclusion of this device will fail. If the controller being included was a primary controller, it has to be reset first.

To confirm inclusion and exclusion push and hold the network button until the 'ON' LED starts flashing.

Operating the device

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.

Command Classes

Supported Command Classes

- Basic (version 1)
- Thermostat Mode (version 1)
- Manufacturer Specific (version 1)
- Binary Switch (version 1)
- Version (version 1)

Technical Data

Explorer Frame Support	No
SDK	5.02 pl3
Device Type	Slave with routing capabilities
Generic Device Class	Thermostat
Specific Device Class	Specific Device Class not used
Routing	Yes
FLiRS	No
Firmware Version	1.0

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 bringing 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.

Disposal Guidelines

The product does not contain hazardous chemicals.

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

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