



SSR302

User and Installation Instructions



Two channel 3 Amp switch (Rx) – Z-Wave

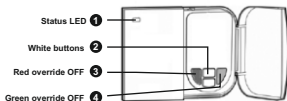
The SSR302 is a 2-channel receiver and although it forms part of Secure's central heating control system, it can also be operated by third party controllers which support 'Thermostat Mode SET' commands or 'Binary Switch SET' commands.

This SSR302 will act as a repeater once included into the Z-Wave network, providing an alternative communication route for units which otherwise would not be within communication distance of each other.

This document provides information specific to the Z-wave technology implemented, to ensure interoperability between SSR302 and other Z-Wave products.

Receiver status LED

The unit has 4 buttons and 1 LED status indicator that are used in combination as follows:



LED indication	Unit mode	Button usage
Flashing Red	Unit is currently excluded from a network	Red and Green - No function, White buttons - Network function
Flashing Green (3s only)	Unit has been successfully included on to the network	Red and Green - No function, Both White buttons - Network function
Solid Amber	Unit is included on to a network, and a channel has not timed out to failsafe mode to indicate loss of comms.	Red and Green - No function, White buttons - Network function
Solid Red	Unit is reflecting the status of the channel selected depending on the white button pressed. Solid Red indicates that the relay for that channel is OFF.	Top White button held for Channel 1 or Bottom White button held for Channel 2. Red and Green-switches channel relay off on respectively. White buttons-Network function
Solid Green	Unit is reflecting the status of the channel selected depending on the white button pressed. Solid Green indicates that the relay for that channel is ON.	Top White button held for Channel 1 or Bottom White button held for Channel 2. Red and Green - switches channel relay off or on respectively. White buttons - Network function
Flashing Amber	One of the channels has entered failsafe mode.	With Top White button held or Bottom White button held the Red and Green buttons switches relay output off and on respectively. White buttons - Network function

Pressing and holding the Network button for 1 second will cause the unit to issue its Node Information Frame and enter learn mode for 1 second to support being included/excluded from a network.

Fitting the Receiver

Installation and connection of the receiver should only be carried out by a suitably qualified person.

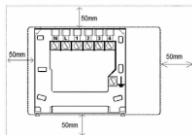
WARNING: ISOLATE MAINS SUPPLY BEFORE COMMENCING INSTALLATION

To remove the backplate from the receiver, undo the two retaining screws located on the underside; the backplate should now be easily removed. Once the backplate has been removed from the packaging, ensure the receiver is re-sealed to prevent damage from dust, debris etc.

The backplate should be fitted with the wiring terminals at the top and in a position which allows a total clearance of at least 50mm around the receiver.

Direct Wall Mounting

The receiver should ideally be located near an existing power supply within an easy wiring location to the items being switched. Offer the plate to the wall in the position where the receiver is to be mounted, remembering that the backplate fits to the left hand side of the receiver. Mark the fixing positions through the slots in the backplate, drill and plug the wall, then secure the plate in position. The slots in the backplate will compensate for any misalignment of the fixings.



Wiring Box Mounting

The receiver backplate may be fitted directly onto a single gang steel flush wiring box complying to BS4662 using two M3.5 screws. The receiver is suitable for mounting on a flat surface only. It must not be positioned 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. Surface wiring can only enter from beneath the receiver and must be securely clamped.

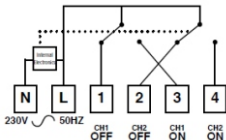
The mains supply terminals are intended to be connected to the supply by means of fixed wiring.

The receiver is mains powered and requires a 3 amp fused spur. The recommended cable sizes are 1.0mm² or 1.5mm²

The receiver is double insulated and does not require an earth connection although an earth connection block is provided on the back plate 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.

Internal Wiring Diagram

The SSR302 has an integral connection which makes it suitable for mains voltage applications only. No additional linking is required between terminals.



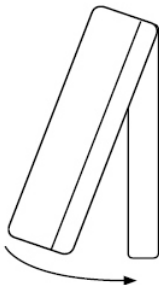
Please ensure that all installations comply with the current regulations.

Fitting the Receiver

If surface wiring has been used, remove the knockout/insert from the bottom thermostat to accommodate it.

Fit the receiver to the backplate, ensure the lugs on the backplate engage with the slots on the receiver.

Swing the bottom of the receiver into position ensuring that the connection pins on the back of the unit locate into the terminal slots in the backplate.



**END VIEW OF THE
RECEIVER**

Connecting to a 3rd Party Controller

To connect the unit to a 3rd party controller follow these steps, also known as 'inclusion' in Z-Wave terminology.

- Ensure the LED is flashing RED on the SSR302, if not follow the steps in 'Disconnecting from a network' first.
- Put the 3rd party controller into inclusion mode.
- Press and hold both white buttons on the SSR302 until the LED starts flashing green.
- The SSR302 has been included onto the network and the LED will go solid amber.

NOTE: If the LED does not flash green, the include process has been unsuccessful.

Disconnecting from a Network

To disconnect from a Z-wave network, follow the steps below, also known as 'exclusion' in Z-Wave terminology.

- Put the 3rd party controller into exclusion mode.
- Press and hold the two white buttons on the SSR302.
- The SSR302 has been excluded from the network when the LED starts flashing red.

NOTE: If the Network LED does not flash the exclude.

Node Information Frame - NIF

Pressing and holding the two white buttons for 1 second will trigger the SSR302 to issue a Node Information Frame and enter learn mode for 1 second. This is useful when to associate / disassociate the SSR302 with a control group or just to determine the device and command classes supported. This can be done at any time but will not provide any indication to the operator.

End Point Capability Reports

The unit supports two static end points for the two channels.

Pressing the Top White button for 1 second will issue an 'end point capability report' for channel 1.

Pressing the Bottom White button for 1 second will issue an 'end point capability report' for channel 2.

Broadcasting in this manner has been implemented to support association of a channel with a 3rd party controller that supports Multi-Channel Command Class.

Supported Device and command classes

Z-Wave Device Classes	Implemented Device Class
Generic Device Class Specific Device Class Basic Device Class	Generic Type Thermostat Specific Type Not Used Routing Slave

Z-Wave Command Classes Supported	Description
Manufacturer Specific Command Class	Secure Manufacture ID
Version Command Class	Provides the version number of the Software
Thermostat Mode Command Class	Only 'Off Mode' and 'Heat Mode' are supported within this command class, which can either set or read. The SSR302 has a failsafe mode where by the relay is turned off if a command has not been received within 60 minutes.
Binary Switch Command Class	Supports SET and GET to control the relay. Oppose to the Thermostat Command class there is no failsafe mode.
Multi Channel Command Class (Ver 2)	This command is used to independently access the two channels available on the SSR302.
Basic Command Class	The Basic Command Class has been mapped to the Thermostat Mode Command Class as follows: - Basic SET Not Supported.
Note: All command classes are version 1 unless otherwise stated	- Basic GET Thermostat Mode GET. - Basic REPORT Thermostat Mode REPORT

SSR302 (receiver) specification

Contact type	:	Micro disconnection (Voltage Free)
Contact rating	:	3 (1) Amps 230-240V AC
Power supply	:	230V AC 50Hz
Operating Temperature Range	:	0°C to 40°C
Double Insulated	:	Yes
Enclosure Protection	:	IP30
Case material	:	Thermoplastic, flame retardant
Dimensions	:	120mm x 90mm x 32mm
Override	:	On/Off
Backplate	:	Industry Standard Backplate



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