



**Environmental control  
Documentation for  
SR2 – IR and switch controlled  
230 VAC switch**



## Revision list

When changes are made in the documentation it will be listed below with date and a short description.

### Revision list

Date	Name	Description
15.04.2013	Bent-Håvard Sollid.	First version.

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## 1 Introduction

This documentation is made for Picomed's product SR2. This is a 230 VAC switch ment to switch on-off 230 VAC with a max current of 10 A from a wall outlet. It is controlled by an external switch, an infrared (IR) remote control or by a push-button on the front of it. It can learn IR from many different IR-transmitters on the market. SR2 is a part of Picomed's environmental control system.

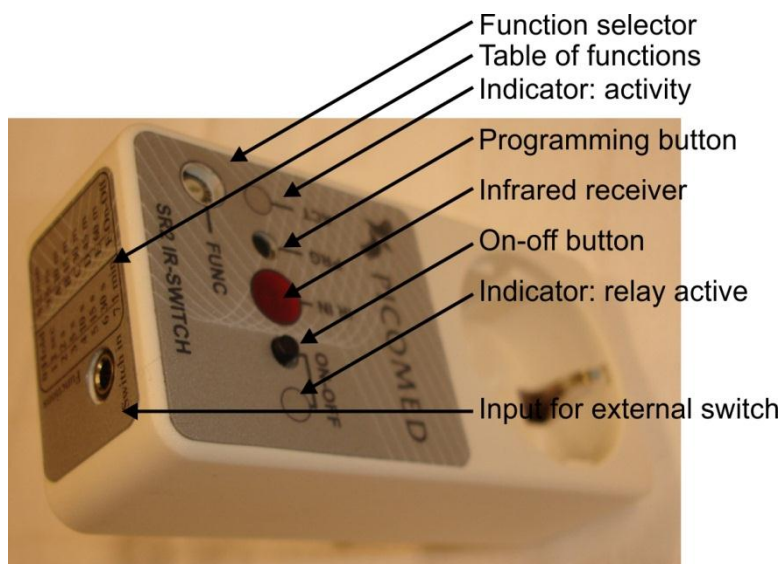
## 2 Getting started

The following parts are included when the product is delivered:

- Device.
- This documentation.

In addition, an IR-remote control or/and an external switch with a 3,5 mm mono jack may be used to control the device.

- Connect the SR2 to a 230 VAC outlet.
- Connect the electrical equipment to be controlled by SR2 to SR2's outlet.



### 2.1 How to control SR2

SR2 can be controlled with an infrared transmitter, external switch with 3,5 mm mono jack, or by the built in ON-OFF switch on the front of it. An IR-transmitter or external switch can operate in 3 different ways which is described in chapter 3.2. Activating the ON-OFF switch is described in chapter 2.1.3.

#### 2.1.1 With an infrared transmitter

If used with an IR-transmitter it has to be paired with the IR-signal from it. See chapter 3.1 for more information about programming the infrared signal into it. To use it, point the IR-transmitter towards the SR2 and press the button on the remote control.

### **2.1.2 With an external switch**

If used with an external switch, connect the 3,5 mm mono jack into the connection marked “Switch in” in the end of the unit. Press the button connected to the SR2 and the SR2 will respond.

### **2.1.3 With the ON-OFF button**

There is a button available on the front of SR2 which is ment for activating/deactivating the SR2 by an assistant. This button is only working with toggle function, i.e if SR2 is activated the use of this button will deactivate it and v.v. After operating SR2 by the ON-OFF button it will operate normally if an input from external switch or IR-receiver is given.

## **2.2 Light indicators on SR2**

- The green light indiactor marked “ON-OFF” is illuminated when the SR2 is activated, i.e when it gives 230 VAC to equipment connected to it.
- The yellow light indicator marked “ACT” is illuminated when the SR2 receives IR-signals or input on the external switch input. Note: it will lighten also when it receives IR-light which is no ment for the SR2, i.e from other IR-remotes or may be from the sun or electrical light in the room.
- Both light indicators will lit in programming mode, see chapter 3.

## **3 Programming**

All settings are stored and will not be deleted during a loss of power.

### **3.1 Programming an infrared (IR) signal**

To copy an IR-signal into the SR2:

- Enter programming mode: press & hold the “PRG” switch for 1 second until the yellow light indicator “ACT” illuminates and the green “ON-OFF” indicator is flashing.
- Shield the IR-receiver (se figure in chapter 2) for ambient IR-light from the surroundings.
- Direct the front of the IR-transmitter against the IR-receiver on SR2 within a distance of 2-10 cm.
- Press shortly on the transmit key on the IR-transmitter.
- When the SR2 receives a valid IR-signal it will store it, turn off the green light and confirm programming of IR with 3 flash on the yellow indicator.

SR2 leaves programming mode and it is now ready to use.

### **3.2 Function selector**

SR2 has 3 available functions: hold, timer and toggle. Changing the mode is done by using a small screwdriver to turn the function selector which is available through a hole in the front marked “FUNC”.

#### **Hold function**

Position 0 on the function selector is the hold function. It will activate the SR2 as long as it receives active input (IR-signal or activated external switch).

#### **Timer function**

Position 1-9 and A-E on the function selector is the timer function. When input is activated it will activate SR2 as long as the predefined time lasts. Any inputs during this time will be neglected by the SR2. Though, it can be deactivated by using the ON-OFF switch on SR2, see chapter 2.1.3.

### Toggle function

Position F on the function selector is the toggle function. When input is activated it will toggle the SR2 status, i.e if SR2 is active it will deactivate itself and v.v.

#### 3.2.1 Function table

Step on function selector	Function/time [Time]	
0	Hold	
1	1	sec
2	2	sec
3	5	sec
4	10	sec
5	15	sec
6	30	sec
7	1	min
8	2	min
9	5	min
10/A	10	min
11/B	15	min
12/C	30	min
13/D	45	min
14/E	60	min
15/F	Toggle	

## 4 Maintenance

Picomeds SR2 is developed to work without any scheduled maintenance. The equipment should be cleaned when necessary. Wipe the equipment with a slightly damp cloth or an antistatic cloth. Never use a dry cloth, while this result in risk of static charges. It shall not be exposed for fluids in any way.

There are not any fuse or serviceable components inside SR2.

### 4.1 Outdoor use

The SR2 is intended for indoor use.

## 5 Troubleshooting

If your equipment does not behave as expected, first of all try to solve the problem yourself using the following table.

Symptom	Possible cause	Recommended action
Completely dead. No light indicators illuminated.	<ul style="list-style-type: none"> <li>No power connected.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that the power supply is connected to a functioning wall outlet.</li> </ul>
Equipment connected to	<ul style="list-style-type: none"> <li>Equipment not working.</li> <li>SR2 not working.</li> </ul>	<ul style="list-style-type: none"> <li>Connect equipment directly to wall outlet and</li> </ul>

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power outlet on SR2 does not work when SR2 is activated.	test. If it works now, SR2 has to be checked or repaired by technician.
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Does not respond to IR-remote controller.	<ul style="list-style-type: none"> <li>• IR-glass on SR2 is covered.</li> <li>• Wrong IR-signals.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove covering.</li> <li>• Reprogram or do IR-training once again.</li> </ul>
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There are no fuses inside the device which shall be replaced.

### 5.1 When errors arise

If there are errors which are not possible to solve, contact your supplier of the equipment, or the national distributor. Please make a note beneath of the telephone number to your supplier.

Name	Telephone number, address etc.
Supplier:	
National distributor:	

## 6 Technical information

The device is made by:

- Injection moulded plastic box.
- Front foil made of Polycarbonate. With product name. Light indicators are seen through it. Keys are operated through it.
- Electronic printed circuit board with light indicators and buttons.
- There are not any fuse or serviceable components inside the unit.

### 6.1 External IR sensor

If the range of the IR-transmitter needs to be increased it is possible to connect an external IR-sensor type *Picomed IRS* or *Picomed ES2* to the SR2. This is done via the same connector as the external switch, i.e one has to choose to use either an external switch or an external IR-sensor.

- The IR-sensor will not have any wire connected for “LED” indication on IR-sensor.
- The external IR-sensor uses a 3,5 mm stereo jack (the external switch uses a mono jack).

Pin	Connection
Tip	IR-signal from IR-sensor.
Middle	PWR+ to IR-sensor.
“Ground”	0 V to IR-sensor.

## 6.2 External switch

An external switch connected to the device needs a 3,5 mm mono jack. It shall be a normally open switch, i.e “N.O” connection. An external switch makes the device to operate in the same way as if it receives an IR-signal. SR2 can be operated by an IR-transmitter even though an external switch is connected.

## 6.3 Recycling

The following shall be done on Picomed's SR2 when it shall be used by a new user. If necessary, make a copy of this page and tick off the points which are done with signature and date at each point, and file it as your routines requires.

- Check the equipment. Is there any physical damages, cracks etc in box or foil?
- Check that foil is not damaged, that it is fastened all around the edges and that it not has loosened from its surface.
- Clean the device.
- Make a function check.
- There has to be an IR-remote controller and an external switch available for test. Equipment and transmitter has to be programmed with the same IR-format.
- Ensure that functions hold, toggle and timer (only a few seconds need to be tested) are working properly and that the device works as expected on commands from remote controller, external switch and key on device.
- Perform “programming – IR-learning” procedure as described in chapter 3.1, and then check if SR2 responds on this signal when sent from the IR-remote.
- Store.

## 6.4 Technical data

Type	<ul style="list-style-type: none"> <li>• Picomed SR2 230 VAC IR-controlled switch.</li> </ul>
Operate	<ul style="list-style-type: none"> <li>• Picomed IR-remote controller with 1 channel.</li> <li>• An other IR-remote controller with 1 channel.</li> <li>• External switches.</li> <li>• Keypad for toggle function.</li> </ul>
Maximum current	10 A.
Power supply	230 VAC from wall outlet.
Power consumption	Internal consumption: N.A.
Temperature	Designed for indoor use, 0°C to +40° C.
Measurements	LxWxH: 100 x 50 x 30 mm.
Weight	140 g.
Material in box	Plastic.
Material in front foil	Polycarbonate.
Waste management	Dispose as electronic waste.
Developed and manufactured in	Norway.

## 6.5 CE

Picomed's environmental control systems are developed and manufactured in accordance with EU directives, national regulations and harmonised standards which are applicable, and thereafter marked with the CE-mark. The Declaration of Conformity is in English version and it is available from manufacturer on request.

