



Shelly 1 WiFi Relay Switch User Guide

[Home](#) » [Shelly](#) » Shelly 1 WiFi Relay Switch User Guide

Shelly[®] 1 open source

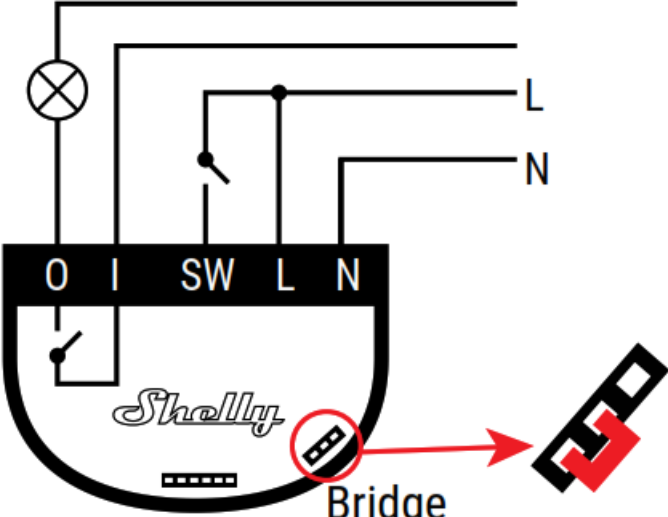

WiFi Relay Switch
USER GUIDE



Contents [[hide](#)

- [1 1 WiFi Relay Switch](#)
- [2 Specification](#)
- [3 Technical Information](#)
- [4 Installation Instructions](#)
- [5 Managing in Relay Mode](#)
- [6 Documents / Resources](#)
 - [6.1 References](#)
- [7 Related Posts](#)

1 WiFi Relay Switch

Power supply: 110-240V AC	Power supply: 12V; 3
 <p>fig. 1 Serial Port Bridge</p>	 <p>fig. 2</p>

LEGEND:

- N** – Neutral input (Zero)/(+)
- L** – Line input (110-240V)/(–)
- O** – Output
- I** – Input
- SW** – Switch (input) controlling O

The WiFi Relay Switch Shelly ® 1 may control 1 electrical circuit up to 3.5 kW. It is intended to be mounted into a standard in-wall console, behind power sockets and light switches, or in other places with limited space. Shelly may work as a standalone device or as an accessory to another home automation controller.

- Purpose of control: perating
- Construction of control: Independently mounted
- Type 1. B Action
- Pollution Degree 2
- Impulse Voltage: 4000 V

Hazardous voltage is present on a bridge on the top side of the product!

Specification

Power supply:

- 110-240V $\pm 10\%$ 50/60Hz AC
- 30-50V DC
- 12V DC

Max load:

16A/240V

Complies with EU standards:

- RE Directive 2014/53/EU
- LVD 2014/35/EU
- EMC 2004/108/WE
- RoHS2 2011/65/UE

Working temperature:

– 20°C up to 40°C

Radio signal power:

1mW

Radio protocol:

WiFi 802.11 b/g/n

Frequency:

2400 – 2500 MHz;

Operational range (depending on local construction):

- up to 50 m outdoors
- up to 30 m indoors

Dimensions (HxWxL):

41 x 36 x 17 mm

Electrical consumption:

< 1 W

Technical Information

- Control through WiFi from a mobile phone, PC, Automation system, or any other Device supporting HTTP and/or UDP protocol.
- Microprocessor management.
- Controlled elements: 1 electrical circuits/appliances.
- Controlling elements: 1 relay.
- Shelly may be controlled by an external button/switch.



CAUTION! Danger of electrocution. Mounting the Device to the power grid has to be performed with caution.



CAUTION! Do not allow children to play with the button/switch connected to the Device. Keep the Devices for remote control of Shelly (mobile phones, tablets, PCs) away from children.

Introduction to Shelly®

Shelly ® is a family of innovative Devices, which allow remote control of electric appliances through mobile phones, PC, or home automation systems. Shelly ® uses WiFi to connect to the devices controlling it. They can be on the same WiFi network or they can use remote access (through the Internet).

Shelly ® may work standalone, without being managed by a home automation controller, in the local WiFi network, as well as through a cloud service, from everywhere the User has Internet access.

Shelly® has an integrated web server, through which the User may adjust, control and monitor the Device. Shelly ® has two WiFi modes – Access Point (AP) and Client mode (CM). To operate in Client Mode, a WiFi router must be located within the range of the Device. Shelly ® devices can communicate directly with other WiFi devices through HTTP protocol.

An API can be provided by the Manufacturer. Shelly® devices may be available for monitor and control even if the User is outside the range of the local WiFi network, as long as the WiFi router is connected to the Internet. The cloud function could be used, which is activated through the web server of the Device or through the settings in the Shelly Cloud mobile application.

The User can register and access Shelly Cloud, using either Android or iOS mobile applications, or any internet browser and the website: <https://my.Shelly.cloud/>.

Installation Instructions



CAUTION! Danger of electrocution. The mounting/installation of the Device should be done by a qualified person (electrician).



CAUTION! Danger of electrocution. Even when the Device is turned off, it is possible to have voltage across its clamps. Every change in the connection of the clamps has to be done after ensuring all local power is powered off/disconnected.



CAUTION! Do not connect the Device to appliances exceeding the given max load!



CAUTION! Connect the Device only in the way shown in these instructions. Any other method could cause damage and/or injury.



CAUTION! Before beginning the installation please read the accompanying documentation carefully and completely. Failure to follow recommended procedures could lead to malfunction, danger to your life, or violation of the law. Allterco Robotics is not responsible for any loss or damage in case of incorrect installation or operation of this Device.



CAUTION! Use the Device only with power grids and appliances which comply with all applicable regulations. A short circuit in the power grid or any appliance connected to the Device may damage the Device.



RECOMMENDATION: The Device may be connected to and may control electric circuits and appliances only if they comply with the respective standards and safety norms.



RECOMMENDATION: The Device may be connected with solid single-core cables with increased heat resistance to insulation not less than PVC T105°C.

Initial Inclusion

Before installing/mounting the Device ensure that the grid is powered off (turned down breakers).

Connect the Relay to the power grid and install it in the console behind the switch/power socket following the scheme that suites the desired purpose:

1. Connecting to the power grid with a power supply of 110-240V AC or 30-50V DC— **fig. 1**

2. Connecting to the power grid with a power supply of 12 DC – **fig.2**

For more information about the Bridge, please visit: <http://shelly-api-docs.shelly.cloud/#shelly-family-overview> or contact us at: developers@shelly.cloud

You may choose if you want to use Shelly with the Shelly Cloud mobile application and Shelly Cloud service. You can also familiarize yourself with the instructions for Management and Control through the embedded Web interface.

Control your home with your voice

All Shelly devices are compatible with Amazon Echo and Google Home.

Please see our step-by-step guide on:

<https://shelly.cloud/compatibility/Alexa>

<https://shelly.cloud/compatibility/Assistant>



MOBILE APPLICATION FOR MANAGEMENT OF SHELLY ®



http://shelly.cloud/app_download/?i=android
http://shelly.cloud/app_download/?i=ios

Shelly Cloud gives you the opportunity to control and adjust all Shelly ® Devices from anywhere in the world. You only need an internet connection and our mobile application, installed on your smartphone or tablet.

To install the application please visit Google Play (Android – fig. 3) or App Store (iOS – fig. 4) and install the Shelly Cloud app.



fig. 3



fig. 4

Registration

The first time you load the Shelly Cloud mobile app, you have to create an account that can manage all your Shelly ® devices.

Forgotten Password

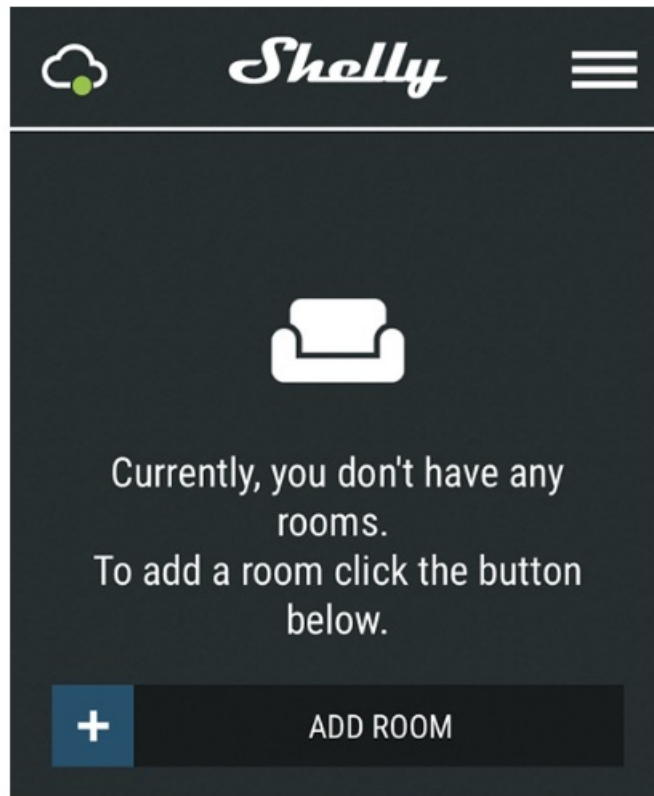
In case you forget or lose your password, just enter the e-mail address you have used in your registration. You will then receive instructions to change your password.



WARNING! Be careful when you type your e-mail address during the registration, as it will be used in case you forget your password.

First steps

After registering, create your first room (or rooms), where you are going to add and use your Shelly devices.



Shelly Cloud gives you the opportunity to create scenes for automatic turning on or off of the Devices at predefined hours or based on other parameters like temperature, humidity, light, etc. (with the available sensor in Shelly Cloud). Shelly Cloud allows easy control and monitoring using a mobile phone, tablet, or PC.

Device Inclusion

To add a new Shelly device, install it to the power grid following the Installation Instructions included with the Device.

Step 1

After the installation of Shelly following the Installation Instructions and the power is turned on, Shelly will create its own WiFi Access Point (AP).

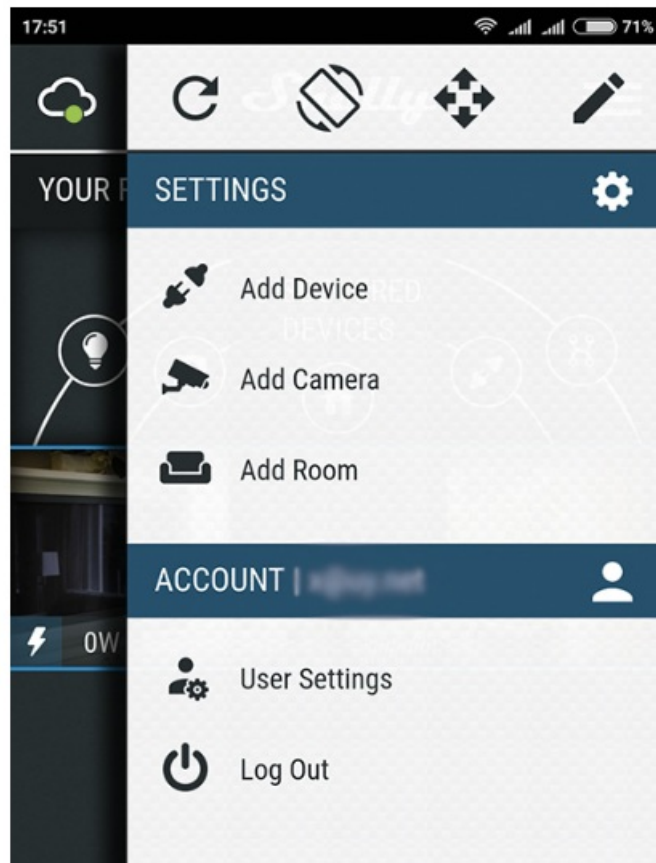


WARNING: In case the Device has not created its own AP WiFi network with SSID like **shelly1-35FA58**, please check if the Device is connected accordingly to the Installation Instructions. If you still do not see an active WiFi network with SSID like **shelly1-35FA58**, or you want to add the Device to another Wi-Fi network, reset the Device. If the Device has been powered on, you have to restart it by powering it off and on again. After turning the power on, you have one minute to press 5 consecutive times the button/ switch connected to SW. You have to hear the Relay trigger itself. After the trigger sound, Shelly should return to AP Mode. If not, please repeat or contact our customer support at: support@Shelly.cloud

Step 2

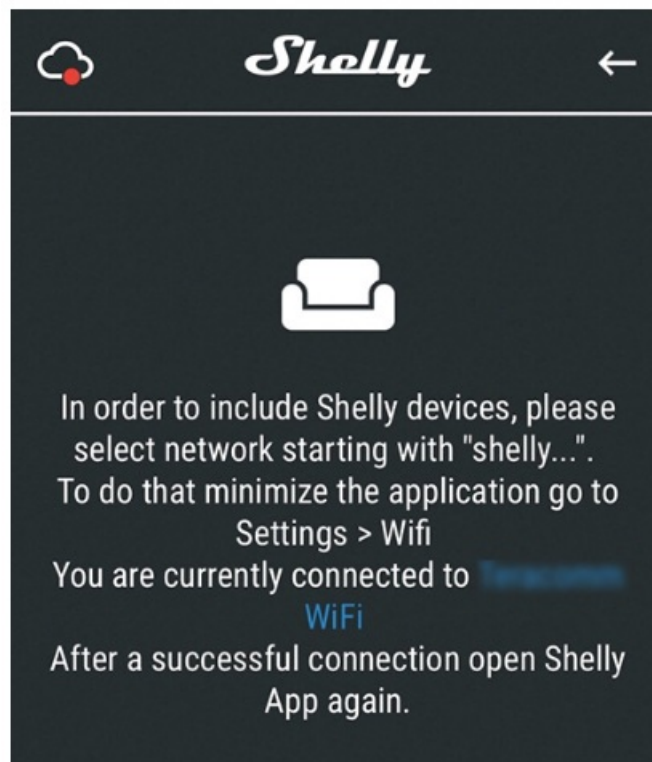
Choose "Add Device".

In order to add more devices later, use the app menu at the top right corner of the main screen and click "Add Device". Type the name (SSID) and password for the WiFi network, to which you want to add the Device.



Step 3

If using iOS: you will see the following screen:



Press the home button of your iPhone/iPad/iPod. Open Settings > WiFi and connect to the WiFi network created by Shelly, e.g. **shelly1-35FA58**.

If using Android: your phone/tablet will automatically scan and include all new Shelly Devices in the WiFi network that you are connected to.



Upon successful Device Inclusion to the WiFi network, you will see the following pop-up:

Success



Step 4:

Approximately 30 seconds after the discovery of any new Devices on the local WiFi network, a list will be displayed by default in the "Discovered Devices" room.



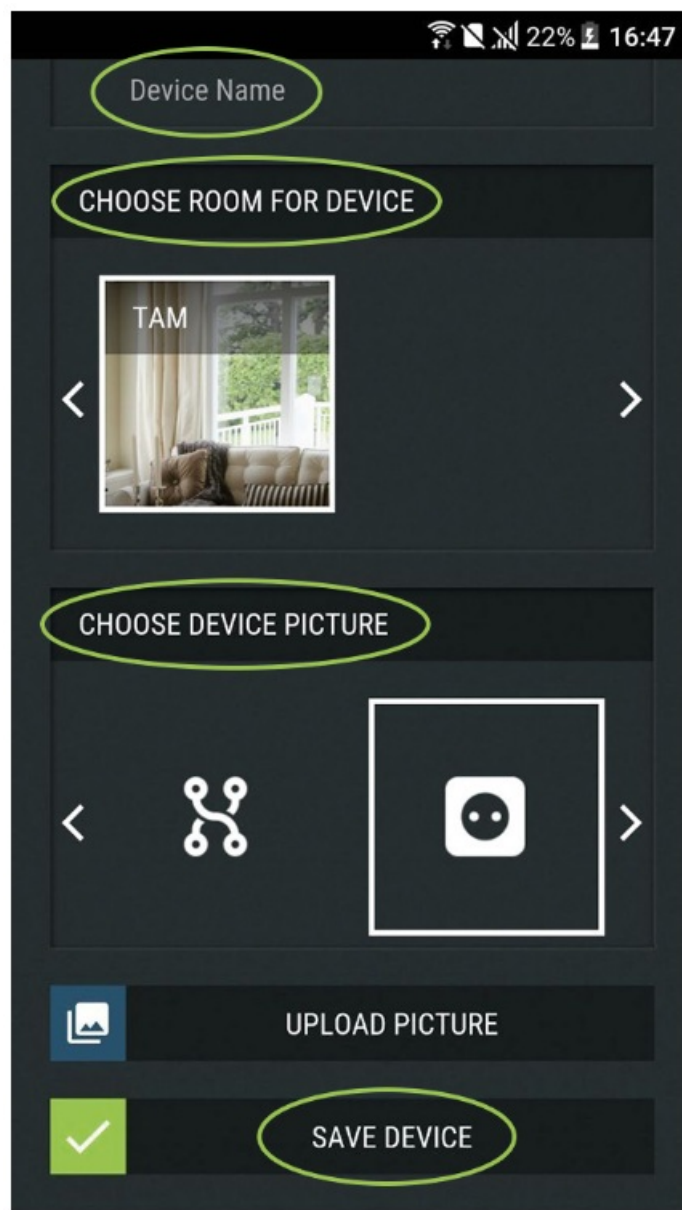
Step 5:

Enter Discovered Devices and choose the Device you want to include in your account.



Step 6:

Enter a name for the Device (in the Device Name field). Choose a Room, in which the Device has to be positioned. You can choose an icon or add a picture to make it easier to recognize. Press "Save Device".



Step 7:

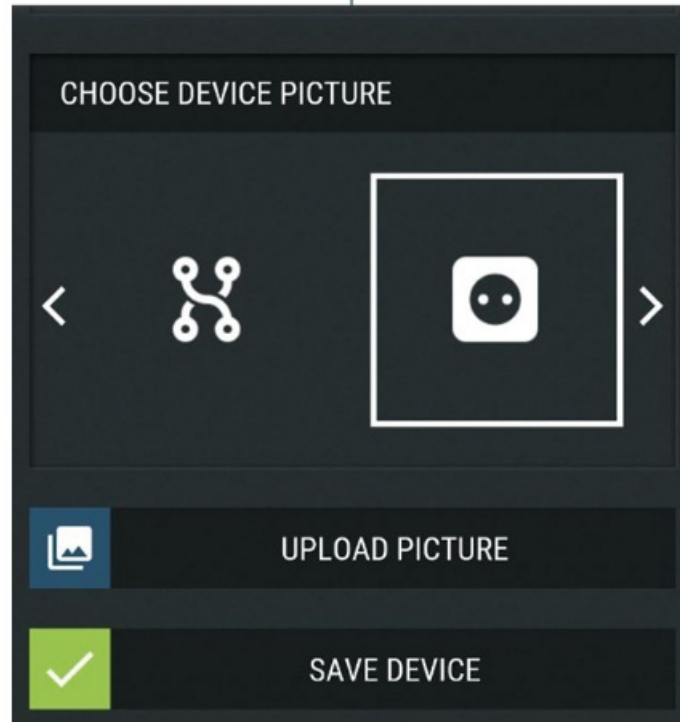
To enable connection to the Shelly Cloud service for remote control and monitoring of the Device, press “YES” on the following pop-up.

Connect to cloud

Would you like to connect Shelly relay to the cloud so you can control it remotely when you are not in your local network

NO

YES



Shelly devices Settings

After your Shelly device is included in the application, you can control it, change its settings and automate the way it works.

To switch the device on and off, use the respective ON/OFF button.

To enter the details menu of the respective Device, simply click on its name.



From the details menu, you may control the Device, as well as edit its appearance and settings.

EDIT DEVICE – allows you to change the Device's name, room, and picture.

DEVICE Settings – allows you to change settings. For example, with Restrict login you may enter a username

and password to restrict access to the embedded web interface in Shelly. You may automate the Device operations from this menu as well.

Timer

To manage the power supply automatically, you may use:

Auto OFF: After turning on, the power supply will automatically shut down after a predefined time (in seconds). A value of 0 will cancel the automatic shutdown.

Auto On: After turning off, the power supply will be automatically turned on after a predefined time (in seconds). A value of 0 will cancel the automatic power-on.

Weekly Schedule



This function requires an Internet connection. To use the Internet, a Shelly Device has to be connected to a local WiFi network with a working Internet connection. Shelly may turn on/off automatically at a predefined time and day throughout the week. You may add an unlimited number of weekly schedules.

Sunrise/Sunset



This function requires an Internet connection. To use the Internet, a Shelly Device has to be connected to a local WiFi network with a working Internet connection. Shelly receives actual information through the Internet about the time of sunrise and sunset in your area. Shelly may turn on or off automatically at sunrise/sunset, or at a specified time before or after sunrise/sunset.

Settings:

Power On Default Mode

This setting controls whether the Device will supply power or not the output as a default whenever it is receiving power from the grid:

ON: When the Device is powered, by default the socket will be powered.

OFF: Even if the Device is powered, by default the socket will not be powered.

Restore Last Mode: When power is restored, by default, the appliance will return to the last state it was in before the last power off/shutdown.

Button Type

• **Momentary** – Set Shelly's input to be buttoned. Push for ON, push again for OFF.

• **Toggle Switch** – Set Shelly input to be flip switches, with one state for ON and another state for OFF.

Firmware Update: This shows the present firmware version. If a newer version is available, you can update your Shelly Device by clicking Update.

Factory reset: Remove Shelly from your account and return it to its factory settings.

Device Information: Here you can see the unique ID of Shelly and the IP it got from the Wi-Fi network.

The Embedded Web Interface

Even without the mobile app, Shelly can be set and controlled through a browser and WiFi connection of a mobile phone, tablet, or PC.

ABBREVIATIONS USED:

Shelly-ID – the unique name of the Device. It consists of 6 or more characters. It may include numbers and letters, for example, 35FA58.

SSID – the name of the WiFi network, created by the Device, for example, **shelly1-35FA58**.

Access Point (AP) – the mode in which the Device creates its own WiFi connection point with the respective name (SSID).

Client Mode (CM) – the mode in which the Device is connected to another WiFi network.

Initial inclusion

Step 1

Install Shelly to the power grid following the schemes described above and place it into the console. After turning the power on Shelly will create its own WiFi network (AP).



WARNING: If you do not see an active WiFi network with SSID like shelly1-35FA58, reset the Device. If the Device has been powered on, you have to restart it by powering it off and on again. After turning the power on, you have one minute to press 5 consecutive times the button/switch connected to SW. You have to hear the Relay trigger itself. After the trigger sound, Shelly should return to AP Mode. If not, please repeat or contact our

customer support at: support@Shelly.cloud

Step 2

When Shelly has created their own WiFi network (own AP), with name (SSID) such as **shelly1-35FA58**. Connect to it with your phone, tablet, or PC.

Step 3

Type **192.168.33.1** into the address field of your browser to load the web interface of Shelly.

General – Home Page

This is the home page of the embedded web interface. If it has been set up is correct, you will see information about:

- Settings menu button
- Current state (on/off)
- Present time

Settings – General Settings

In this menu, you can configure the Shelly device's work and connection modes.

WiFi Settings – the WiFi connection settings.

Access Point (AP) Mode: allows the Device to operate as a WiFi access point. The User can change the name (SSID) and the password to access the AP. After you have entered the desired settings, press **Connect**.

WiFi Client Mode (CM): allows the Device to connect to an available WiFi network. In order to switch to this mode, the User must enter the name (SSID) and the password to connect to a local WiFi network. After entering the correct details, press **Connect**.



ATTENTION! If you have entered incorrect information (wrong settings, usernames, passwords, etc.), you will not be able to connect to Shelly and you have to reset the Device.



WARNING: If you do not see an active WiFi network with SSID like shelly1-35FA58, reset the Device. If the Device has been powered on, you have to restart it by powering it off and on again. After turning the power on, you have one minute to press 5 consecutive times the button/switch connected to SW. You have to hear the Relay trigger itself. After the trigger sound, Shelly should return to AP Mode. If not, please repeat or contact our customer support at: support@Shelly.cloud

Login: Access to the Device

Leave Unprotected – removing the notification for disabled authorization.

Enable Authentication – you can turn authentication on or off This is where you can change your username and password.

You must enter a new username and the new password, then press **Save** to save the changes.

Connect to Cloud: you can turn the connection between Shelly and Shelly Cloud on or off.

Factory reset: Return Shelly to its factory settings.

Firmware Upgrade: This shows the present firmware version. If a newer version is available, you can update your Shelly Device by clicking **Update**.

Device Reboot: Reboots the Device.

Managing in Relay Mode

Relay Screen

On this screen, you can control, monitor, and change the settings for turning the power on and off. You can also see the current status of the connected appliance to Shelly, Buttons Settings, On, and OFF.

To control Shelly press Relay:

To turn on the connected circuit press “Turn ON”.

To turn off the connected circuit press “Turn OFF”

Press the icon ➤ to go to the previous menu.

Shelly Management Settings

Each Shelly can be configured individually. This lets you personalize each Device in a unique manner, or consistently, as you choose.

Power On Default State

This sets the relays' default state when powered from the power grid.

ON: By default when the Device is powered and the connected circuit/appliance to it will be powered as well.

OFF: By default, the Device and any connected circuit/appliance will not be powered, even when it is connected to the grid.

Restore Last State: By default, the Device and the connected circuit/appliance will be returned to the last state they occupied (on or off) before the last power off/shutdown.

Auto ON/OFF

Automatic powering/shutdown of the socket and the connected appliance:

Auto OFF after: After turning on, the power supply will automatically shut down after a predefined time (in seconds). A value of 0 will cancel the automatic shutdown.

Auto ON after: After turning off, the power supply will be automatically turned on after a predefined time (in seconds). A value of 0 will cancel the automatic start.

Manual Switch Type

- **Momentary** – When using a button.
- **Toggle Switch** – When using a switch.
- **Edge switch** – Change status on every hit.

Sunrise/Sunset hours



This function requires an Internet connection. To use the Internet, a Shelly Device has to be connected to a local WiFi network with a working Internet connection. Shelly receives actual information through the Internet about the time of sunrise and sunset in your area. Shelly may turn on or off automatically at sunrise/sunset, or at a specified time before or after sunrise/sunset.

On/Off schedule



This function requires an Internet connection. To use the Internet, a Shelly Device has to be connected to a local WiFi network with a working internet connection. Shelly may turn on/off automatically at a predefined time. Shelly may turn on/off automatically at a predefined time.

The Declaration of Conformity is available at: <https://Shelly.cloud/declaration-of-conformity/>

Changes in the contact data are published by the Manufacturer on the official website of the

Device: <http://www.Shelly.cloud>

The User is obliged to stay informed of any amendments to these warranty terms before exercising his/her rights against the Manufacturer.

All rights to trademarks She ® and Shelly ® and other intellectual rights associated with this Device belong to Allterco Robotics GOOD.



Documents / Resources



[Shelly 1 WiFi Relay Switch](#) [pdf] User Guide

1 WiFi Relay Switch, Relay Switch, 1 WiFi Switch, Switch

References

- [Welcome to Shelly Technical Documentation | Shelly Technical Documentation](#)
- [Shelly - Shelly](#)
- [Shelly Cloud](#)