
satoshkey Documentation

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satoshkey

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1.1 Overview

1.1.1 What is satooshkey?

Satooshkey manufactures a universal crypto currency switch, that can be activated using bitcoin payments. It replaces traditional coin-operated vending machines and brings the following advantages:

- The satooshkey switch does not hold any money on it and is therefore not prone to theft.
- Revenues are automatically received to bitcoin addresses. No cost related to manually collecting coins.
- The satooshkey switch supports displaying prices in your local currency.
- Prices as low as a few cents can be assigned to activations.
- Rich statistics are available out of the box in your satooshkey web panel.
- Services can be configured remotely. One can for example increase the price for an activation without being physically present at the switch.

1.1.2 How does the satooshkey switch work?

After registering a switch on the web panel, activation sequences can be defined. Each sequence is associated with a price tag, name and description. A QR-Code containing the switch id directs the user to a list with services offered by the switch. After a payment for a specific sequence is received, the switch activates.

1.1.3 Can I activate the satooshkey switch with credit card payments instead of bitcoin?

It is not intended to support activating the switch through credit card payments. The satooshkey switch was built with the aim to support bitcoin and other crypto currencies in becoming the number one payment system.

1.1.4 What kind of hardware specs does the satooshkey switch have?

The following list gives an overview of the satooshkey switch hardware specs. Please do not hesitate to contact us if you have questions.

- ARM Processor Cortex M3 / 32 bit

- Ethernet Connector
- Micro SD Card
- 2 Potential free inputs
- QR Reader
- 2.8" LCD Display
- 2 x Relais 10 A / 230V AC
- DIN Rail Case, IP 65
- Internal / external 12 V DC power supply

1.1.5 How do I install the satoshkey switch?

It is recommended to have the satoshkey switch installed by an electrician on order to ensure safe operation and comply to local regulations.

1.2 Technical

1.2.1 Does the satoshkey switch need to be connected to the internet?

Yes.

1.2.2 How many outputs does the satoshkey switch have?

The satoshkey switch contains 2 outputs. A service can be defined as a sequence of activations of both outputs.

1.3 Merchant

1.3.1 What is the process for payouts?

You configure the payout address for your switch using the *My Devices* section in your account. Satoshkey immediately transfers all transactions received to your switch to the configured address.

1.3.2 Do you take fees?

No fees are charged apart from the bitcoin mining fee.

1.3.3 Is there a minimum price limit for an activation?

The minimum price limit is given by the least amount bitcoin wallets support of transferring. Satoshkey recommends not to configure prices below 0.0005 BTC.

User Manual

Congratulations on purchasing your satoshkey Universal Digital Currency Switch ! It has been carefully constructed and tested in Switzerland. Please read this manual carefully. It will help you make the most of your satoshkey switch. Most problems you may encounter will be minor and the manual will provide an answer. Please feel free to contact us if you have unanswered questions relating to operation or maintenance. Also, if you have technical questions to expanding the functions of your satoshkey switch, we would be most happy to help.

2.1 Registration and setup

2.1.1 Setting up the satoshkey switch

After powering on, you can connect to the satoshkey switch using WiFi. Connect to the network with SSID: SATOSHKEY. Navigate your browser to 192.168.1.1



Satoshkey Configuration

WiFi Properties:

SSID:

PSK:

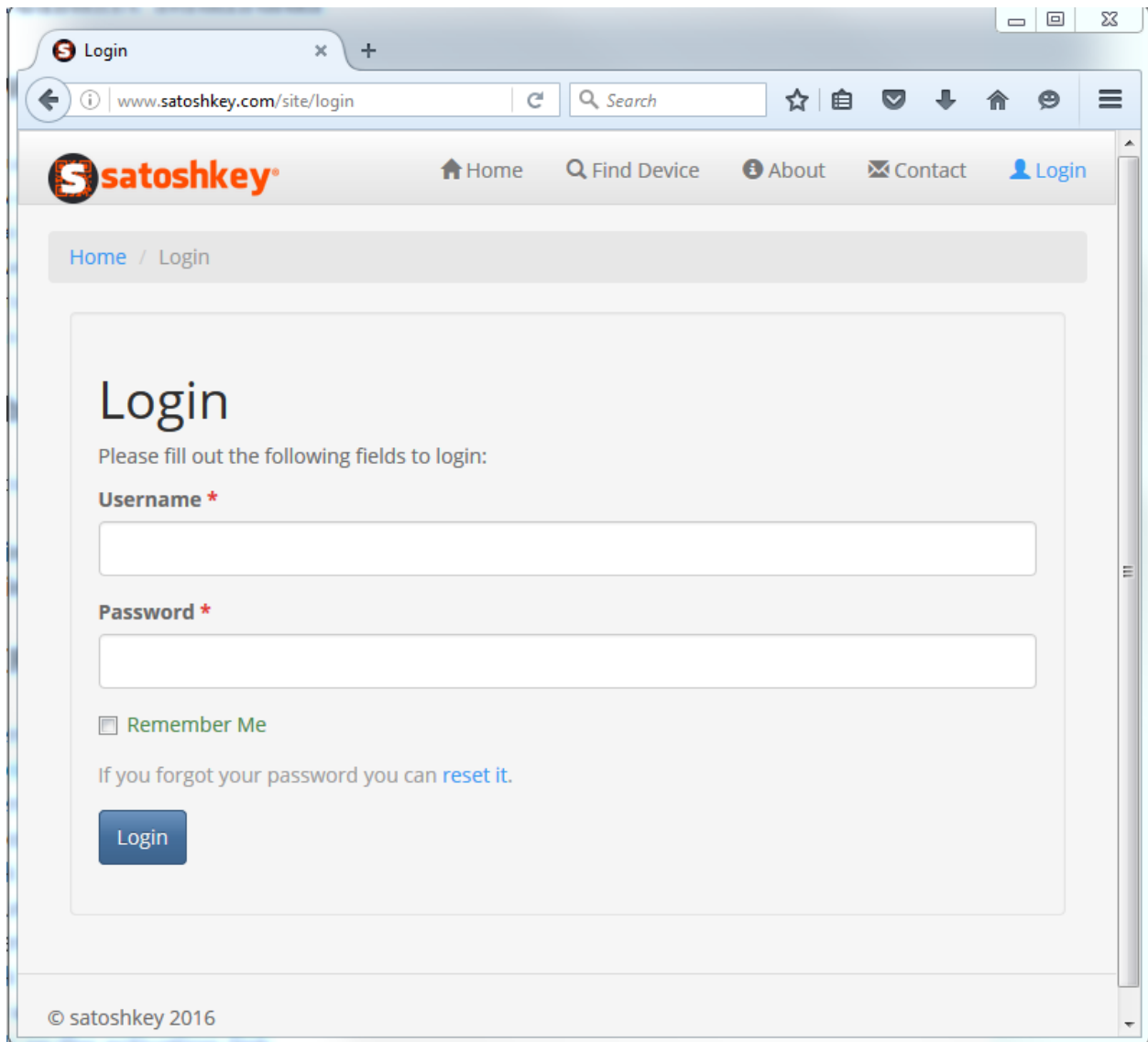
Satoshkey Login:

Password:

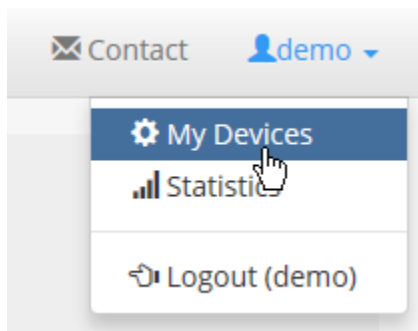
- SSID: The identifier of the WiFi network you want the satoshkey switch to connect to. If you intend to connect the satoshkey switch only via Ethernet cable you can leave this empty.
- PSK: The password used to connect to the Wifi network. If you intend to connect the satoshkey switch only via Ethernet cable you can leave this empty.
- Password: Enter a password that is used to exchange messages with this satoshkey switch.

2.1.2 Registering the satoshkey switch

- Navigte to www.satoshkey.com and register an account.
- Login with your username and password.



- Click [Username]
- Click “My Devices”



- Click “Create Device”

My Devices - configure

Create Device

Showing 1-10 of 18 items.

- Fill in the fields to configure your switch

create Device

External ID *

Name *

Description1

Secret *

Enter the secret password used to encrypt messages to this device.

Location

Indicate the geographical location of the device. This optional information allows users to search devices nearby.

Create

- External Id: The MAC-Address of your satoshkey switch. This address is displayed on the back of your device.
- Name: The name of the satoshkey switch.
- Description: The description for the satoshkey switch.

- Secret = A password to secure the communication to your satoshkey switch.
- Optionally enter the location of the satoshkey switch: Enter the exact location. The service can then be found by “find device” on the satoshkey.com website
- Click “Create”

2.1.3 Defining Instructions

An instruction is a switching sequence with an associated price and bitcoin address for receiving payments.

- Click the “instructions” button

00-1e-c0-dc-ef-61	Switch Garden Fountain		1	2016-11-04 16:47:27	instructions
-------------------	------------------------	--	---	------------------------	------------------------------

- Choose the instruction type
- Fill in the fields to define an instruction

Create Instruction Switch Garden Fountain

Choose a template from the grid below and customize the parameters P1-P5 according to your needs.

Select an instruction type.

Switch ON

Name1 *

Description1

Output number

Time (s)

Price *

Currency *

BTC

Payment Address *

No Of Runs Valid *

Create

- Name = Name of the instruction

- Description = Description of the instruction
- Price = The price in the selected currency
- Currency = The currency used to display the price
- Payment Address = The bitcoin address to receive payments for this instruction.
- No Of Runs Valid = Number of runs for the indicated price. The default value of 1 is recommended.
- Click “create”

2.2 Activating the switch

The satoshkey switch is activated once a payment to a bitcoin address configured for an instruction is received. In order to list instructions defined on a particular switch, use the “Find Device” button.

- Click “Find Device” and use the filter to find the satoshkey switch you intend to activated
- Click the “activate” button

Find Device satoshkey crypto switches near you

Showing 1-1 of 1 item.


Name	Location	
<input type="text" value="Garden"/>	<input type="text"/>	
Switch Garden Fountain	Schönenwerd, Schweiz	activate

All instructions defined on the selected satoshkey switch are listed.

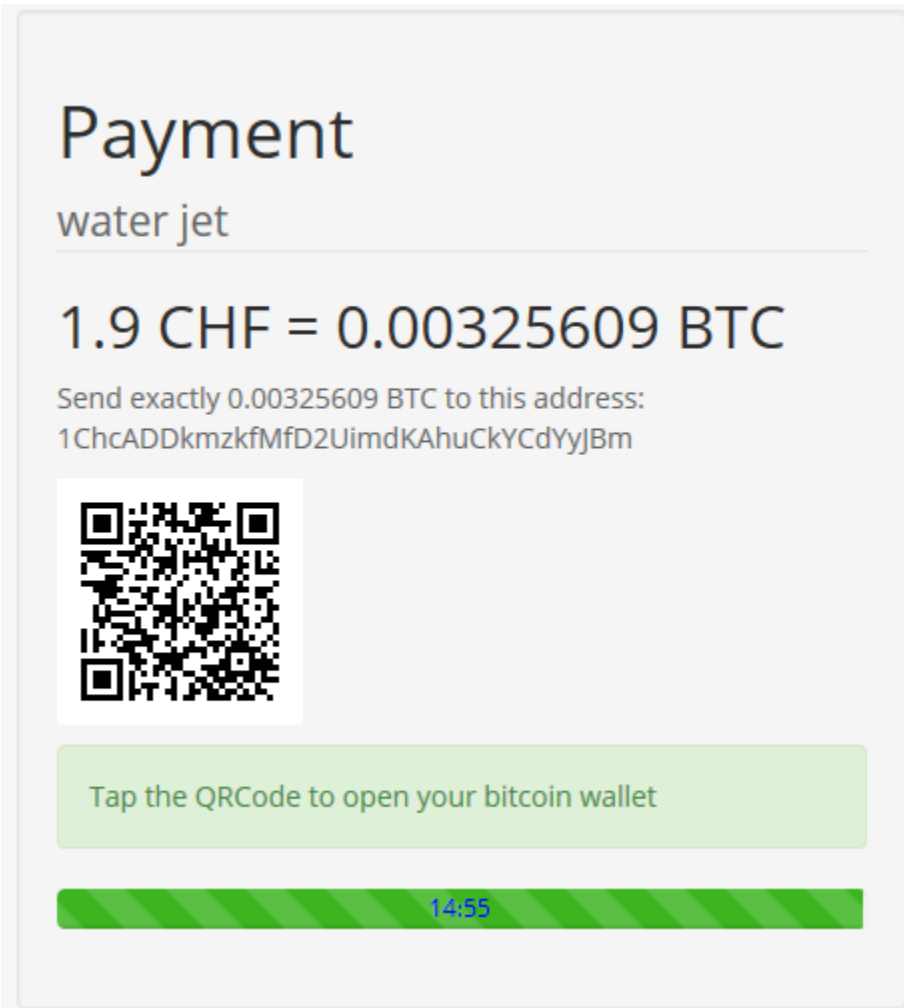
- Click on the “pay” with bitcoin button next to the instruction you want to activate

Instructions Fountains of Lac of Lucerne

Showing 1-1 of 1 item.

Name	Currency	Price	
water jet	CHF	1.9	Pay with Bitcoin 

- Scan the barcode displayed and pay to the displayed address

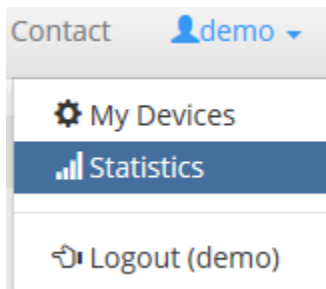


Note the progress bar displayed below the QR code. If a currency different from BTC is configured, satoshkey calculates the price in the configured currency. The progress bar illustrates the period during which the displayed price is valid. After the time elapses, the price is recalculated. This is due to exchange rate volatility.

2.3 Statistics

In the statistics section of the satoshkey web portal you can retrieve several statistics.

- Log in to www.satoshkey.com
- Click the “statistics” menu entry



2.3.1 Transactions

The transactions history provides an overview about every transaction that appeared on satoshkey switches registered with your account. Different color codes illustrate the result of the transaction. The “delta” displays the difference between the configured price (calculated to BTC) for the instruction and the effective payment. Transaction for which this delta is not 0 are marked as under or over-payments.

Txs

[Revenue](#)
[Transactions](#)
[Activation History](#)

Showing 1-20 of 32 items.

Recvd Datetime	Transaction Hash	Amount received	Price	Delta	Devicename	Instructionname	Status
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2016-11-12 11:01:32	2336971b342795ec89a88e9e031528cf40f782d09f6b29fdf1c1418a3c62b803	29286	29286	0	Train Show	Run the train for 1 round	OK (1)
2016-11-12 10:57:47	66380d398eac6728c864b29e507a55ebf0ba744f42aef65309add308fd000435	29286	29286	0	Train Show	Run the train for 1 round	OK (1)
2016-11-03 19:23:26	1b9c2ea52c8955052dc5e2ae9d02dcf26e220de9d88f5a1117b775050e237c38	29286	29286	0	Train Show	Run the train for 1 round	OK (1)

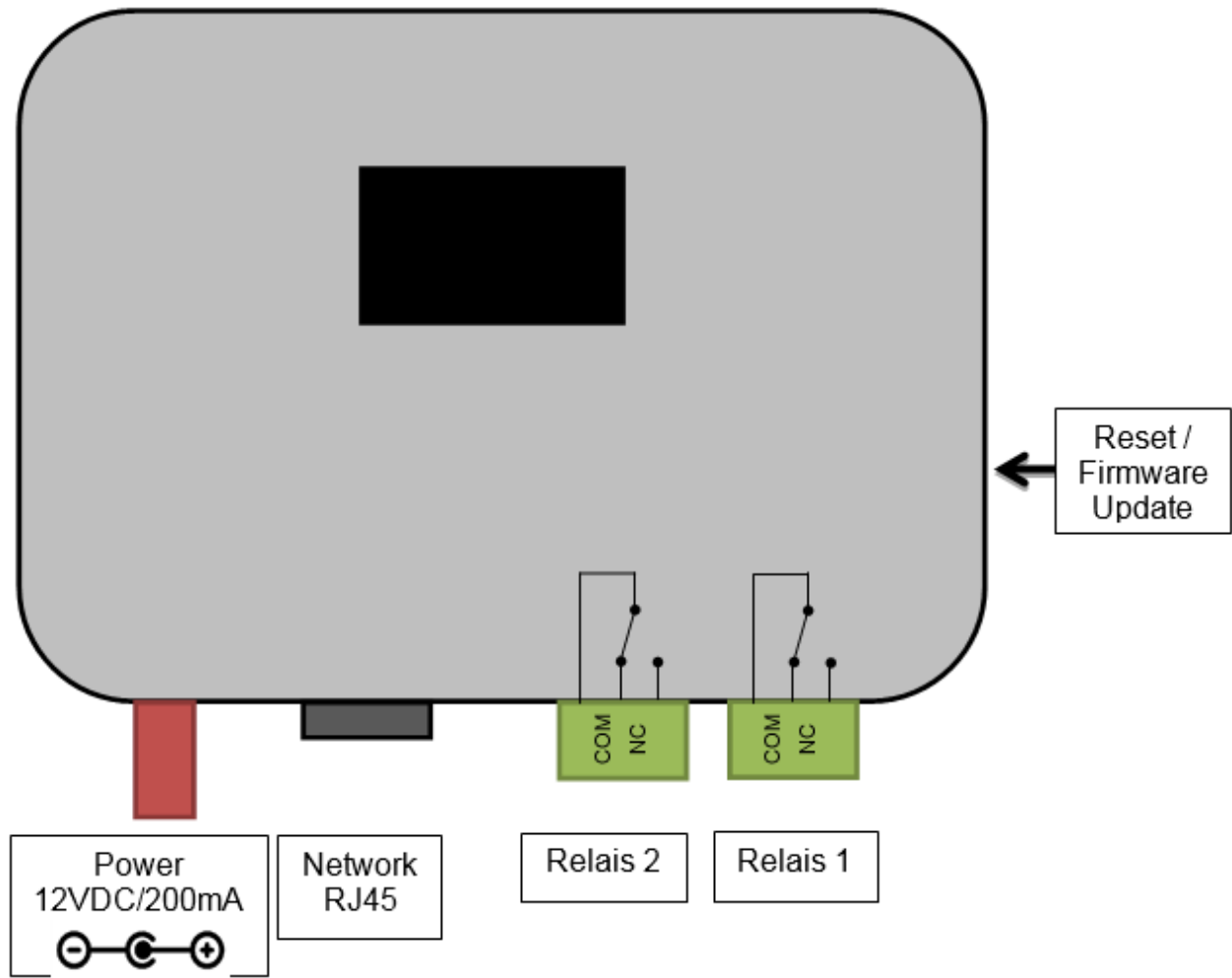
3.1 Firmware Update

Download the latest firmware for your device at www.satoshkey.com/firmware. Follow the steps described below.

- Unplug the power connector
- Press the reset button and hold it
- Plug the power connector back in
- Release the reset button after 2 seconds
- The display shows FIRMWARE UPLOAD and the MAC address
- Connect to the SATOSHKEY WiFi Network (if you are already connected, disconnect and reconnect)
- The webbrowser will open automatically. Navigate to 192.168.1.1.
- Upload the file for the new firmware
- The switch reboots with the new firmware
- Repeat the process if an error should occur in any of the steps described above

3.2 Schematic

The following picture illustrates the schematic.



Indices and tables

- `genindex`
- `modindex`
- `search`