4-channel Keypad Controller

with web interface

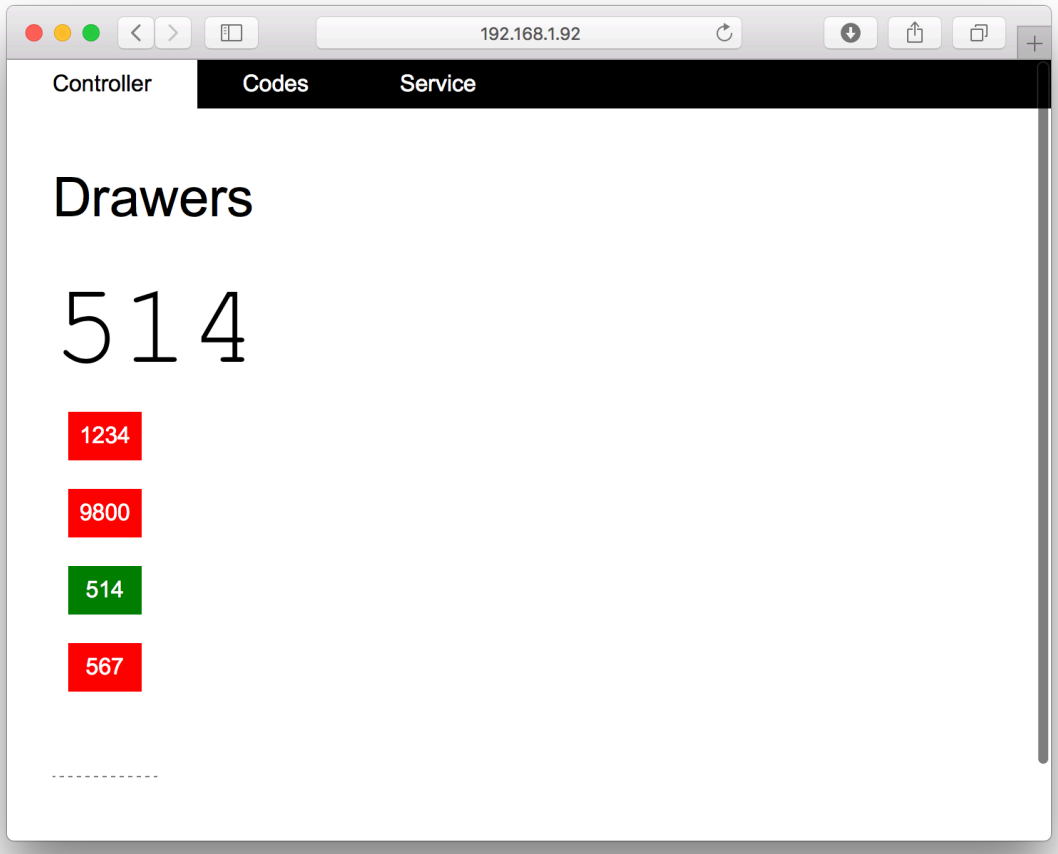
Contents

Connecting the controller

The controller may function autonomously, but it requires local network connection for initializing and monitoring.

Initial connection must be done via the Ethernet cable. Connect the network cable and power up the device. After it boots, go to your router's settings page (most likely, http://192.168.1.1 or http://192.168.0.1) and find out the IP address that was assigned to the controller (under the name of *controller1*).

Navigate your browser to that address, e.g., http://192.168.1.92.

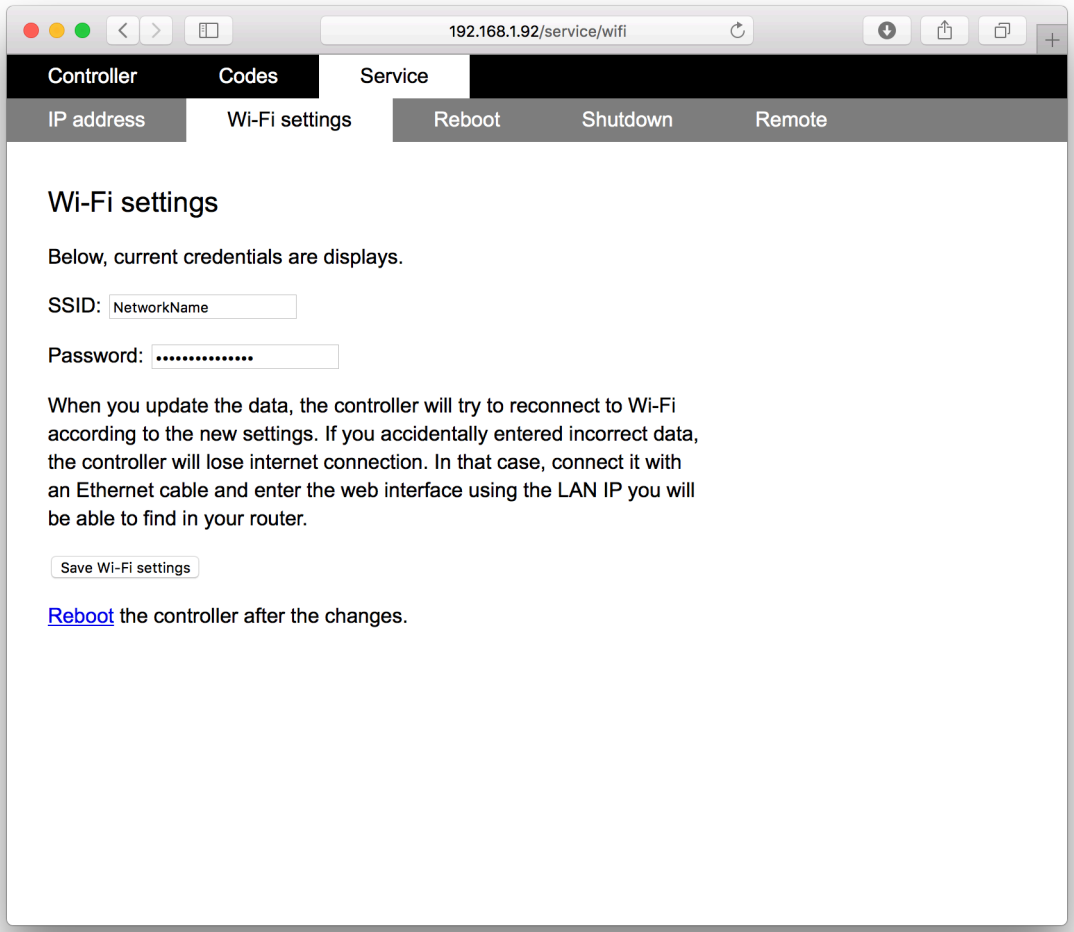


The two indicators on the front panel of the controller display the presence of power supply: the green indicator referring to 5V for the main logic board, the blue — 12V for magnet outputs.

Configuring Wi-Fi connection

You can connect the controller via Wi-Fi. **Although, cable connection is preferable**.

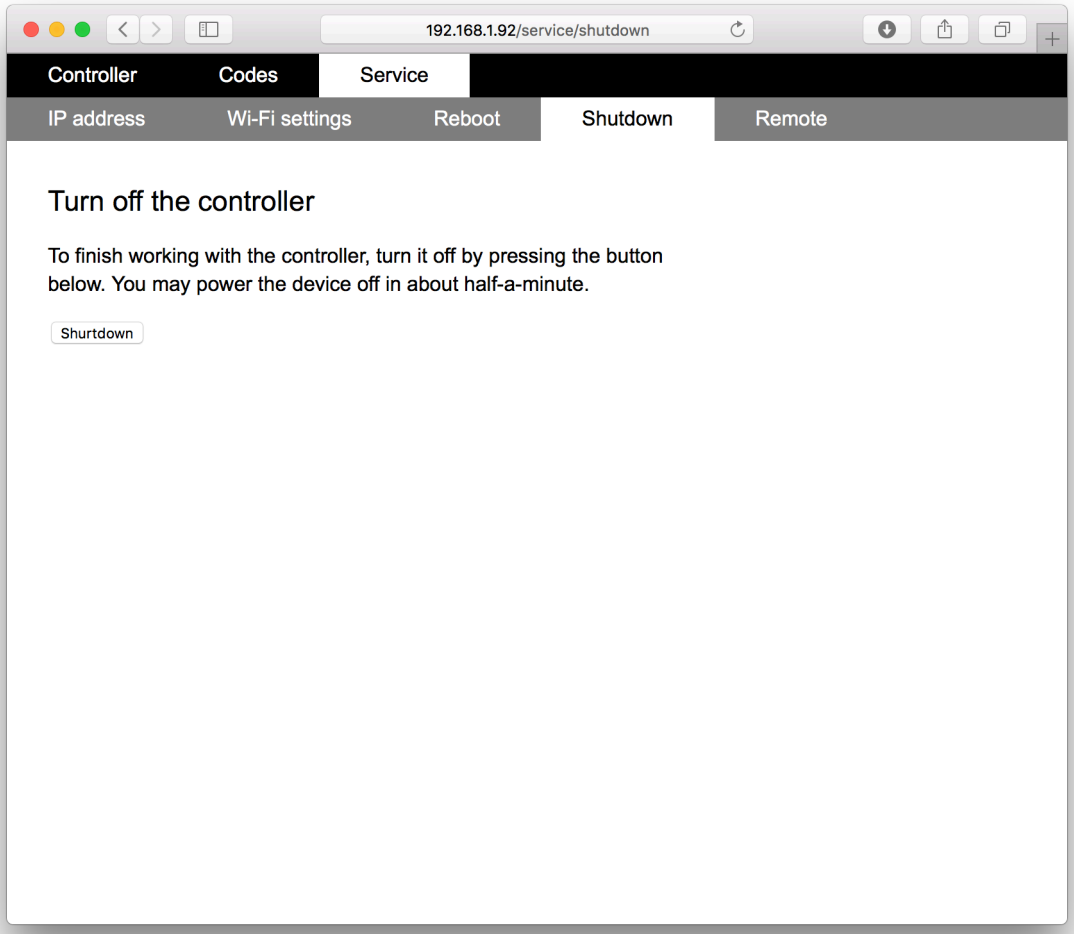
Navigate to the page *Service / Wi-Fi settings*, and enter the network name and its password. Reboot the device at the page *Service / Reboot*. After that, the controller will be able to work fully via wireless connection.



Turning the controller off

It is recommended to use web interface to turn the device off. Navigate to *Service / Shutdown* and press the button there. The controller can be powered off within half-a-minute.

It if is not possible to use the web interface, you can power off the device by unplugging it, but that method is not recommended, as it may corrupt the data.

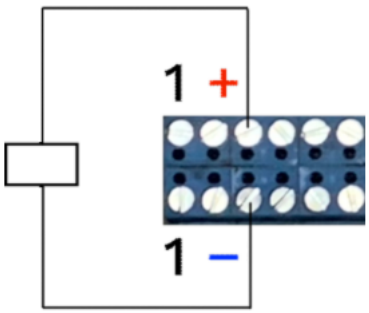


Connecting the magnets

On the back side of the controller, there is a row of 6 two-contact connectors. From left to right, the first four are the main four channels. The fifth channel is a reserve duplication cannel (see further how to configure it). The rightmost pair is not connected.

Each vertical pair is an output for connecting a magnet. The numbering sequence goes from left to right. On the picture below, a connection of the magnet 3 is shown.

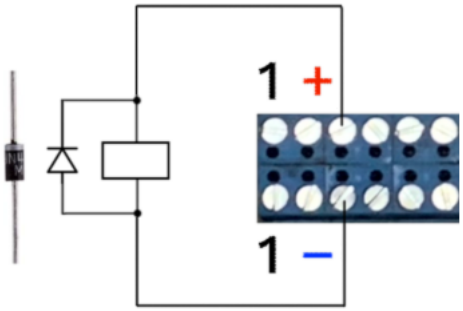
If the magnets require definite polarity, make sure you connect them with correct polarity (as shown below). The output voltage is 12 V, the maximum current is 2 A.



N.B. Each magnet must be connected with two wires. Avoid using a single common ground wire.

Shunt diodes

The controller has built-in shunt diodes, so you can connect the magnets directly. Although, if the wires connecting the magnets are longer than 3-5 meters, it is recommended to install additional shunt diodes as close to the magnets as possible. This will reduce electromagnetic noise at the moment the magnets are turned off.



The controller is shipped with 4 diodes 1N4007. The correct polarity is shown on the picture above. The cathode is marked with a stripe, and it should be connected to the top row of contacts ("+12V").

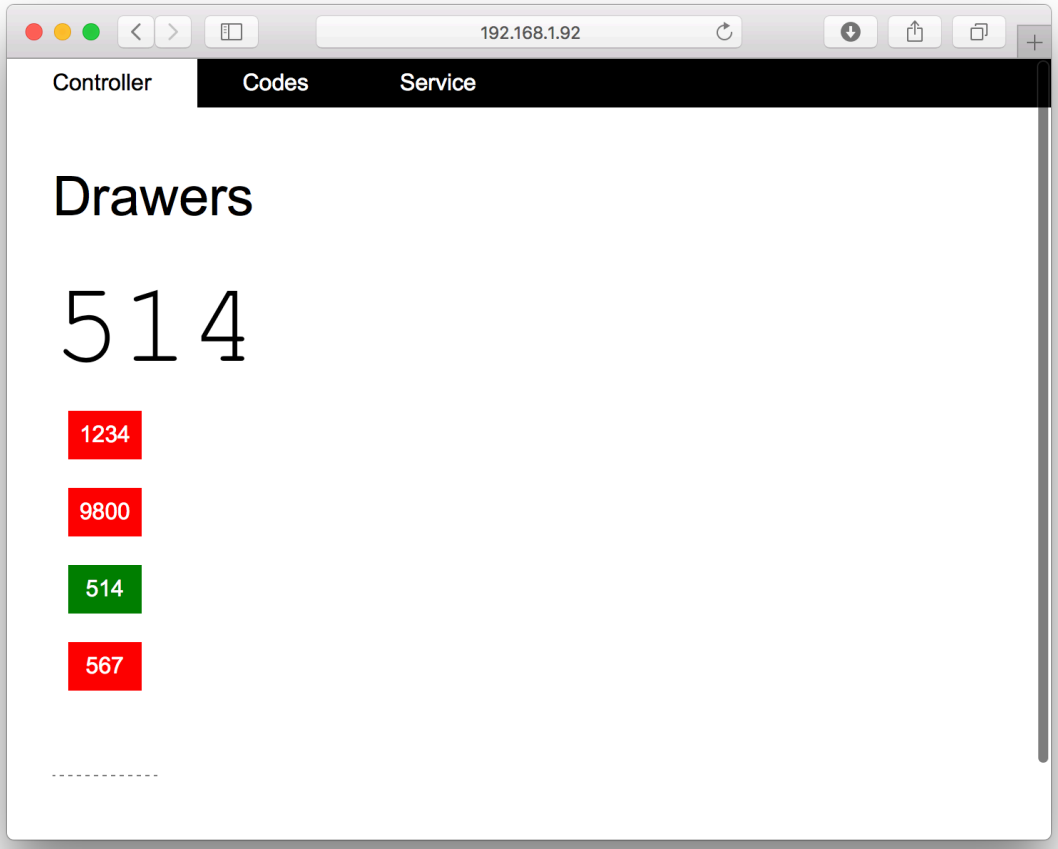
Connecting the keypad

The keypad is connected via an USB cable. You plug it in to the socket on the front panel of the controller. It is possible to use an extension cord of 5 *m* long to connect the keypad (included in the box).

Connect the keypad before turning the controller power on.

Web interface front page elements

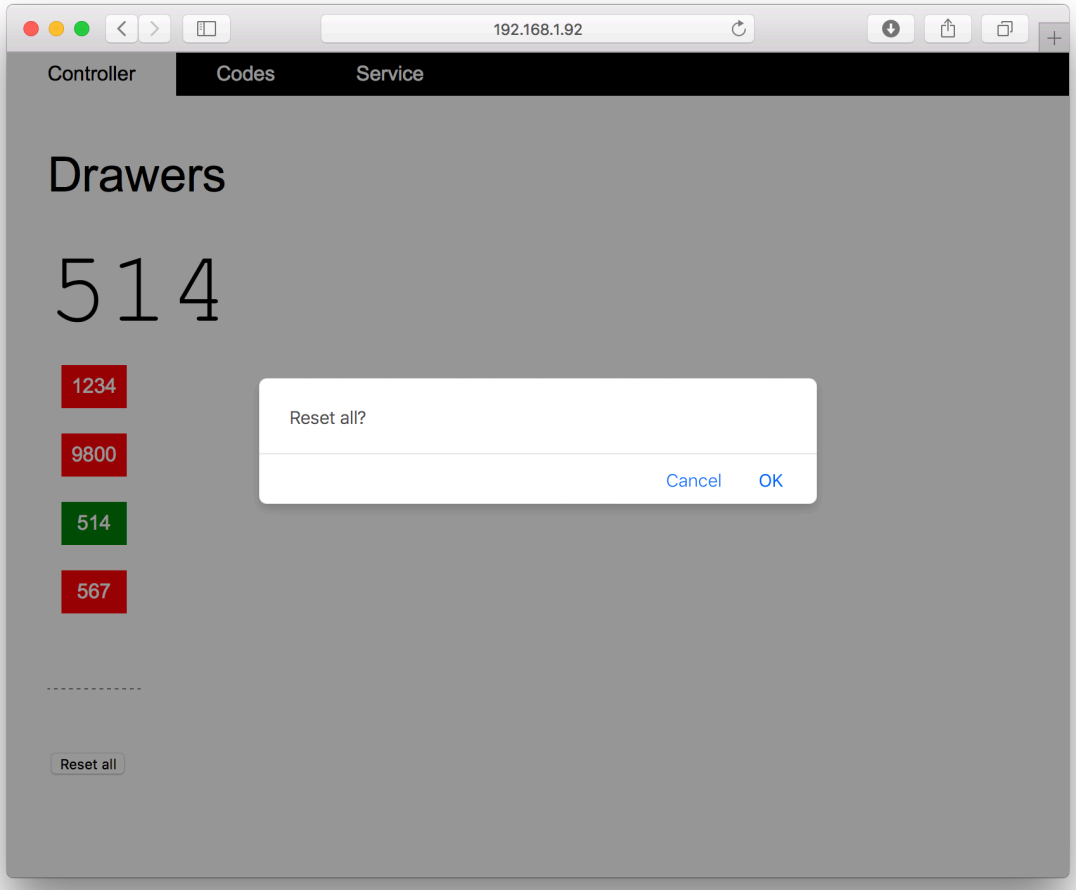
On the front page, you see the current status of the four magnets and the numbers entered by the user on the keypad.



Each block displays the correct code, the colour indicates whether the magnet was activated.

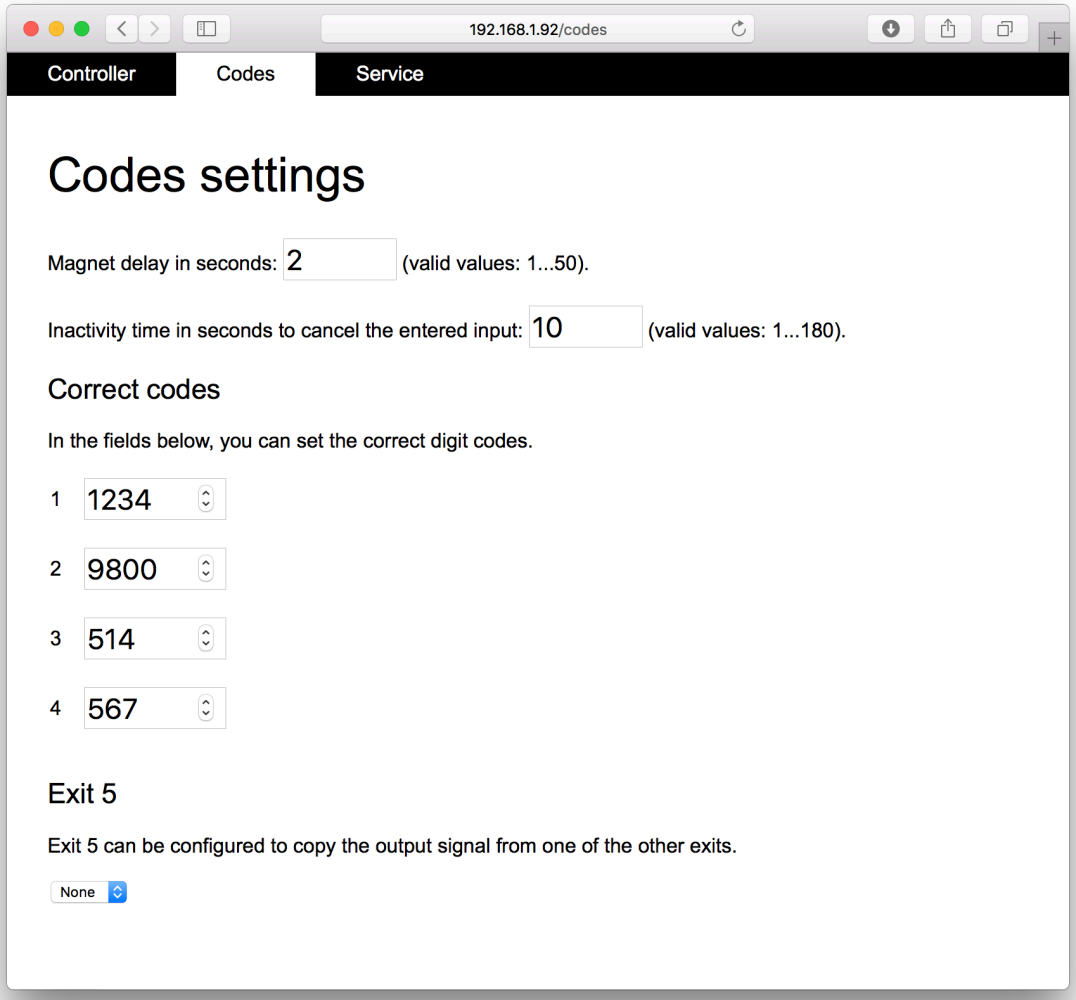
Resetting the state

To re-initiate all channels, press the *Reset all* button at the bottom of the front page. You will be prompted to confirm the action.



Code settings

The *Codes* page contain different settings regarding the correct codes, time delays and configuration of the channel 5.



After the code is entered correctly on the keyboard, the corresponding magnet is activated during the given number of seconds (1 to 50). A red indicator on the keypad and the front page of the web interface turns green.

The inactivity time is used to cancel the previously entered numbers. For example, if you set this delay to 10 seconds, the user has to enter the correct code so that each button is pressed not later than 10 seconds after the previous button is pressed. This feature prevents unpleasant cases when the lock is open after pressing a single digit because most of the code was accidentally entered a minute ago.

Channel 5

The controller has four main channels, which work independently. You can set up an additional channel 5 to duplicate one of the four main channels.

By default, channel 5 is inactive. You pair it up with one of the main channels on the *Codes* page.

Rebooting the controller

After updating Wi-Fi settings, reboot the controller at the *Service / Reboot* page. Normally, you should not reboot the device in other situations.

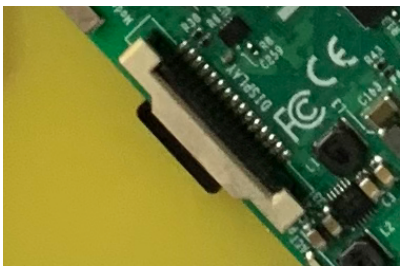
Remote session

For debugging session or reprogramming the controller, you may contact the manufacturer and open a remote session so that we can connect to the device to make changes. The session control is located at the *Service / Remote* page.

By default, the remote session is not activated, and we do not have access to your device; neither we receive any data from it.

Replacing the SD card

In the box, you will find a spare micro SD card, which contains the whole contents of the internal computer. Use it to restore the device if it hangs heavily after the data on the original SD card is corrupted. To replace the card, unscrew the four screws on the bottom of the device and take off the top. The position of the SD card is shown below.



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