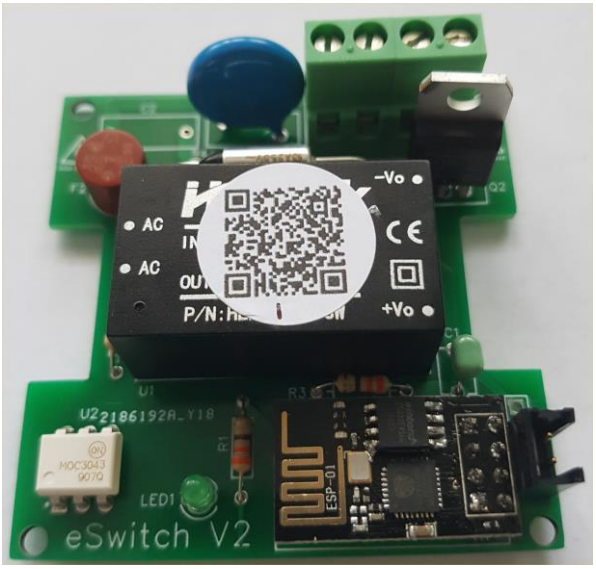
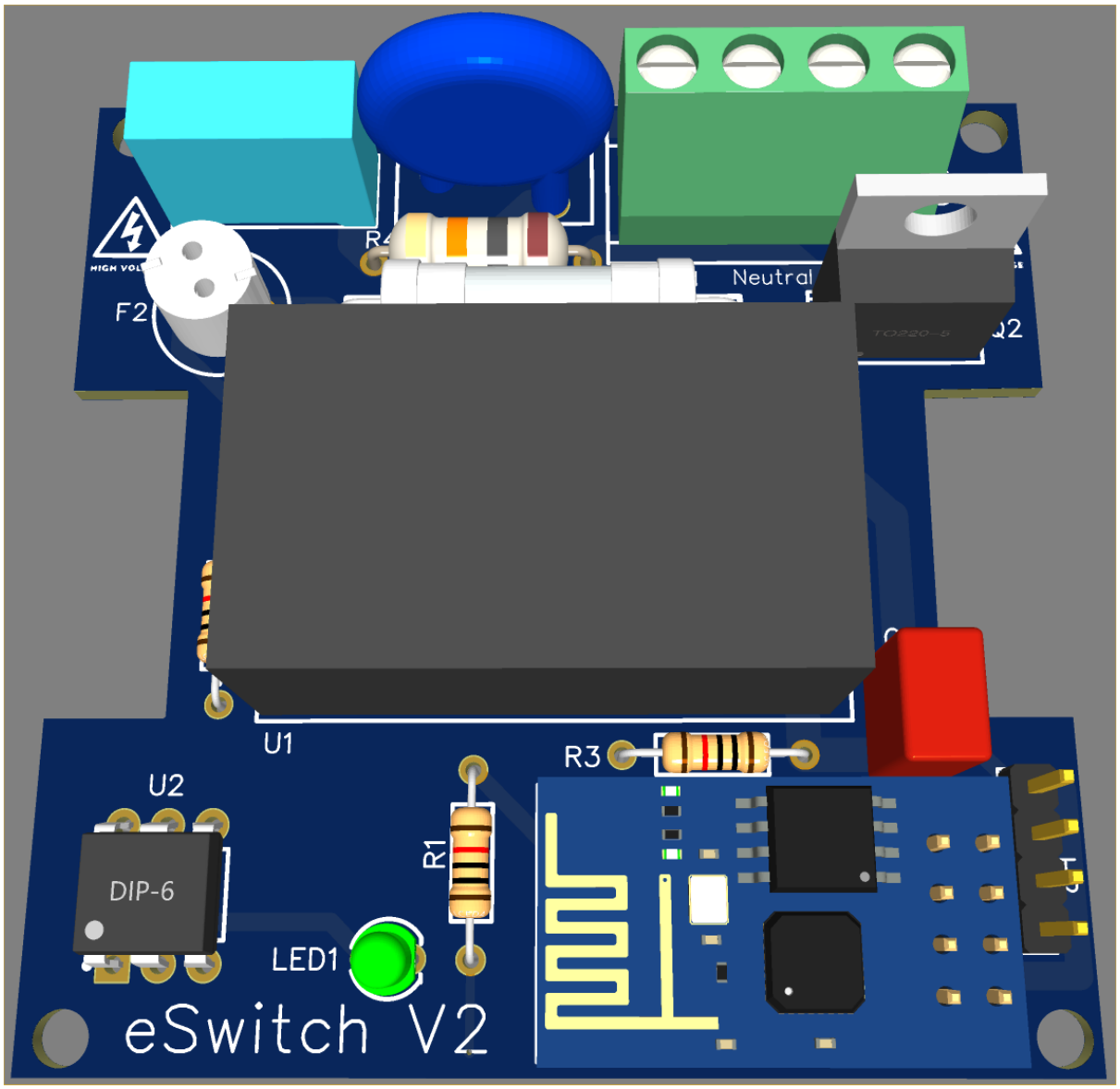
eSwitch



eSwitch User Manual



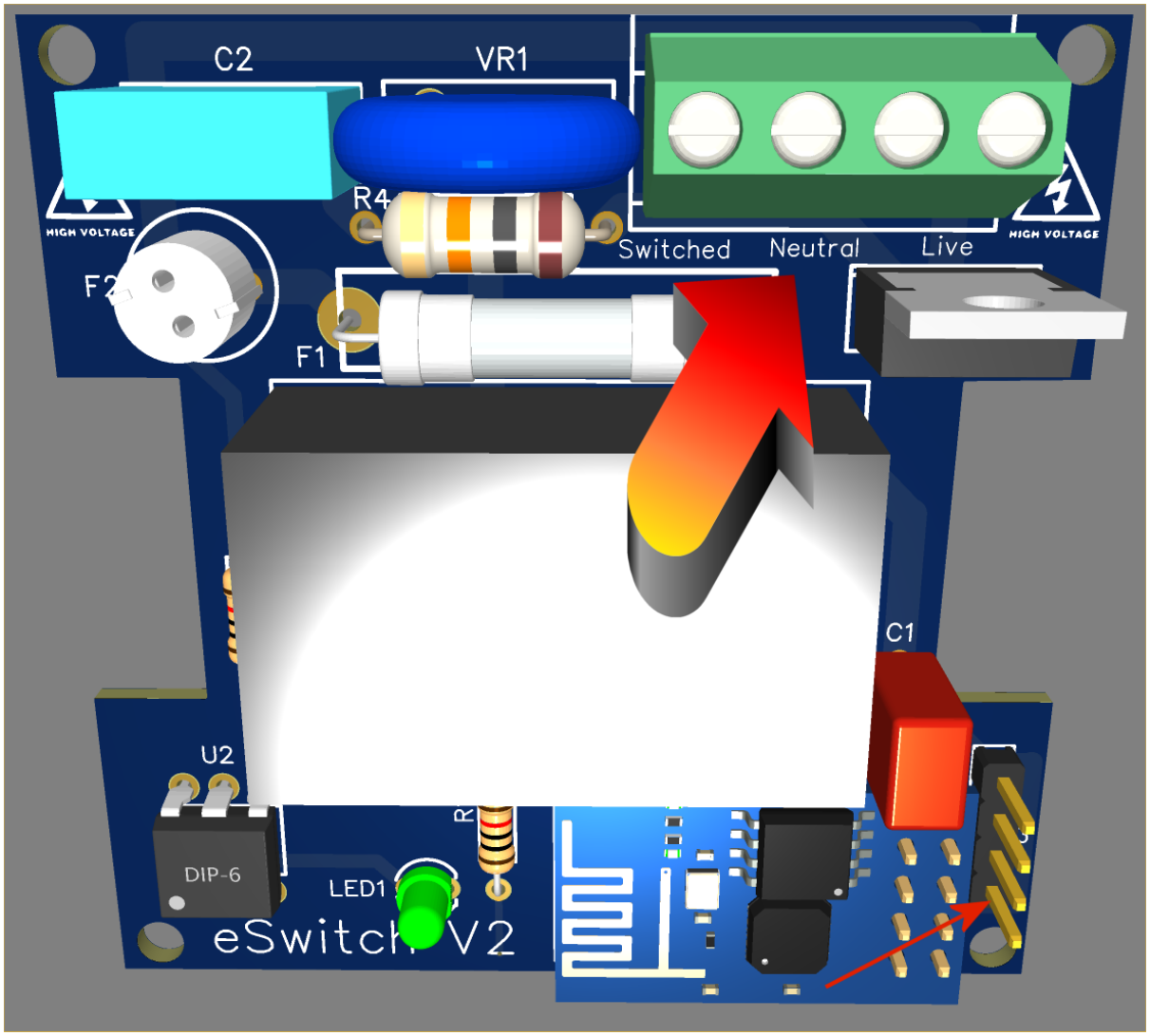
Miniature IoT (Internet of Things) Remote Switch

- Specifications at a glance
- Rated at 250W 240V
- Can be controlled in 4 different ways
    - Push Button Switch (Toggle On/Off)
    - Via built in mobile-friendly web server
    - Using Alexa voice control
    - As a slave to another eSwitch
- Available in two versions:
    - Ready to mount in a standard 32mm deep UK switch box
    - As a complete SmartSwitch with integrated 13A UK socket
- All settings are non-volatile (will restore automatically after a power loss)

Instructions for use

Warning! This item is mains powered and you need to be comfortable with handling and wiring mains to the eSwitch.
If you are not comfortable with this then it is also available as a completely self-contained SmartSwitch with fitted 13A UK plug and standard 3-pin socket.

Connections
Connect a fused supply (3A fuse maximum) between LIVE and one of the NEUTRAL terminals.
Connect your load between the SWITCHED output and the other Neutral terminal.
Make sure that there is an earth wire straight from your source to the unit being switched.
This circuit board does not have (or need) an earth connection.



Optionally: Connect a low voltage push button switch (supplied) to the top two pins of the 4-way connector. (On some models this will be a single 2-pin connector to match the switch connector).

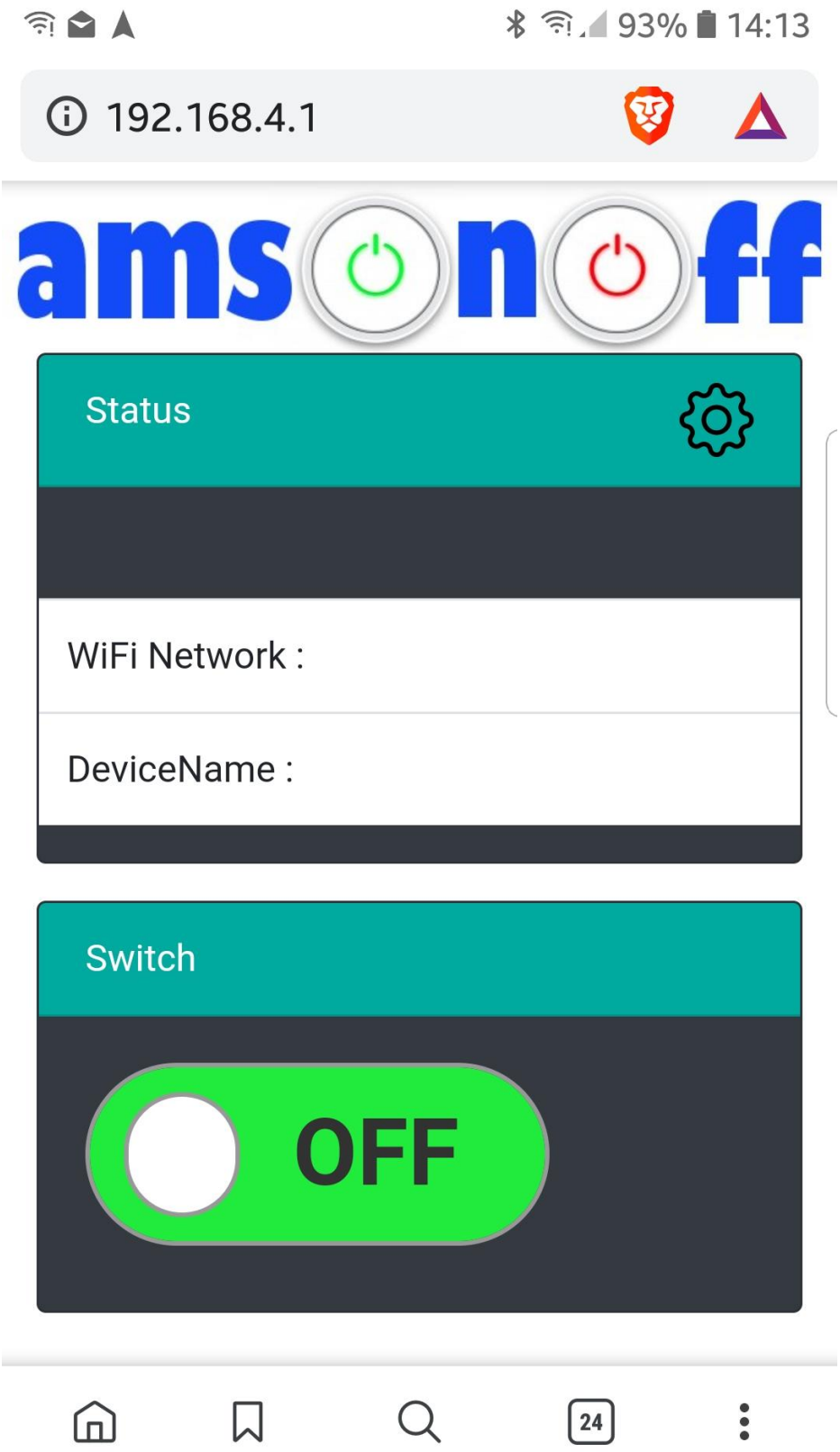
The basic switch circuit board has an integrated insulation piece with a 3M adhesive pad.
Thoroughly clean the back of the switch box with an alcohol pad and firmly attach the adhesive pad.

Setting up the wireless connection

The first time your eSwitch is powered it will not know how to connect to your WiFi network.
To set this up you will need a mobile phone, laptop or tablet with WiFi.

1. Go to your WiFi settings and search for a different WiFi access point.
    a. You should find a new access point called "**eSwitch**".
2. Connect to this network.
3. Your device may warn you that internet is NOT available on this access point and suggest you change to another access point – **do NOT do this**, remain connected to the **eSwitch** access point.

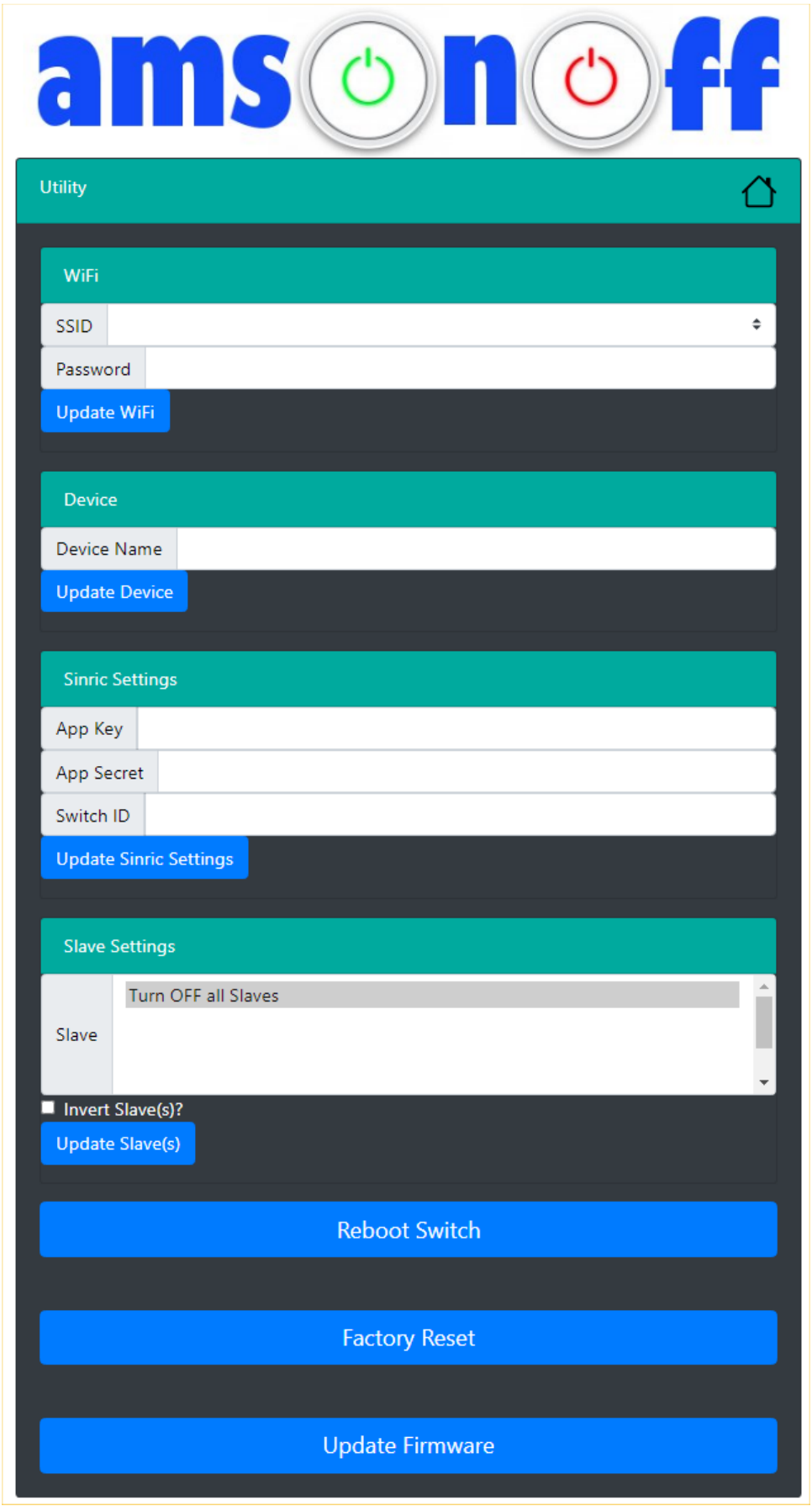
4. Open your web browser and type in the address: **192.168.4.1**
    a. You should see this page:



5. Click on the top-right “settings” icon -  .

You will be asked for a Login and Password. This is always “admin” and “admin” for this switch.

You should now be at the SETTINGS page:



6. On the drop-down menu for SSID, select your WiFi network
7. Fill in the Password box (note that you will only see asterisks as you type).
8. Press the Update Wifi button, confirm the change when asked, and wait until the main page displays.

If the main page does not appear in 30 seconds, proceed to step 9

You should notice that the eSwitch WiFi network has now disappeared, so you need to re-connect your phone or tablet to your usual WiFi network (it will probably do this automatically).

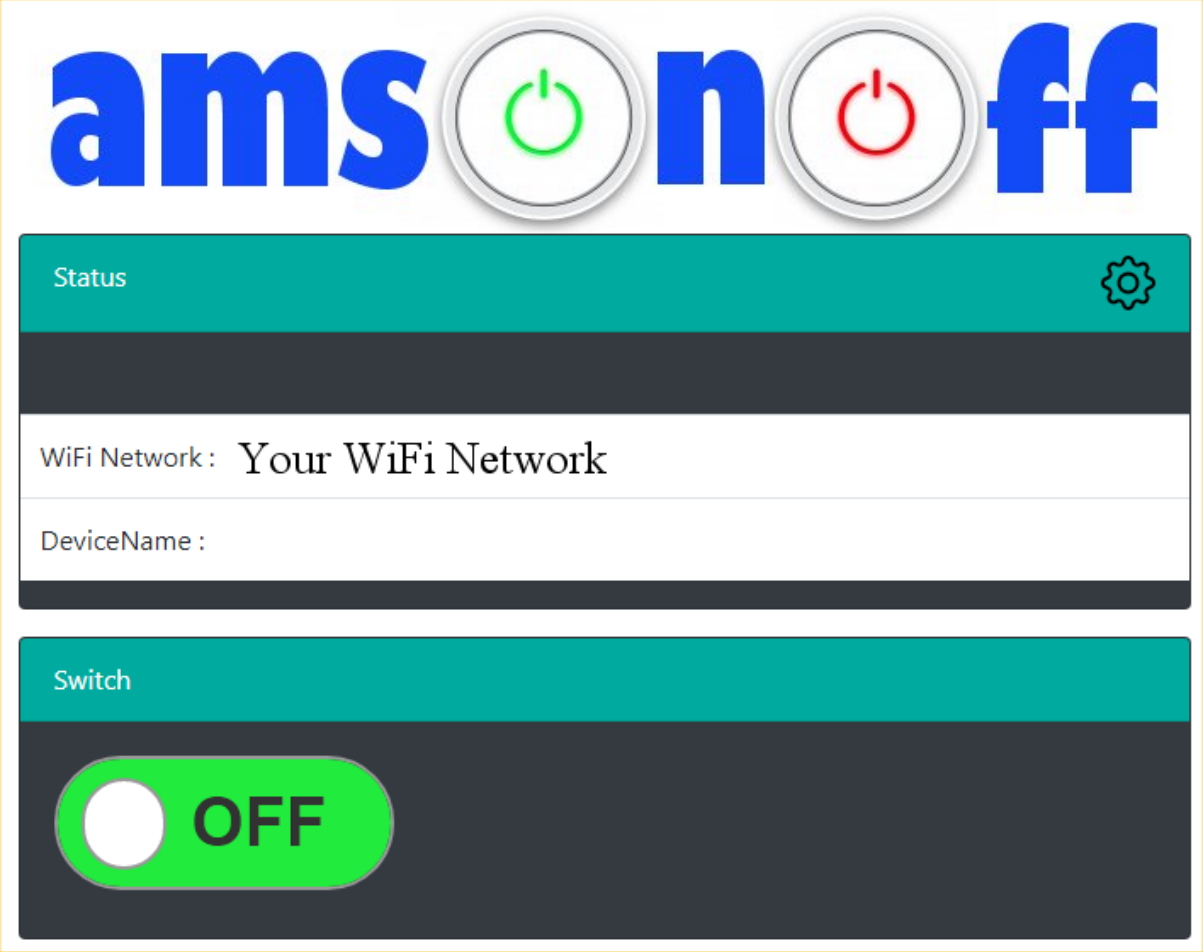
9. **Turn off power to the switch, wait 30 seconds and then re-apply power.**
   This step is important, the switch may not work correctly or you may not be able to connect to the switch if you do not do this.

As soon as the eSwitch connects to the internet it will "call home" and write it's new address to a special webserver. **From now onwards you can access your eSwitch web server by simply reading the attached QrCode mounted either on the large black module on the board or on the outside of the socket box.** (Spare QrCodes are supplied for you to place wherever is convenient).

Note: No personal information is sent to the server. The only purpose of this "call home" is to write the local address to the web site so that the Qr code will work correctly. This address has no value to any hacker unless they have access to your WiFi (i.e. they live in your house!).

Read the QrCode supplied and, If all is well you should go to the Home page and the status should now show you connected to your WiFi network.

If this does not work then refer to the Troubleshooting section.



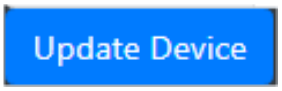
If you now click on the Switch, your light (or whatever else you have connected) should turn on!

Setting Up the Device Name

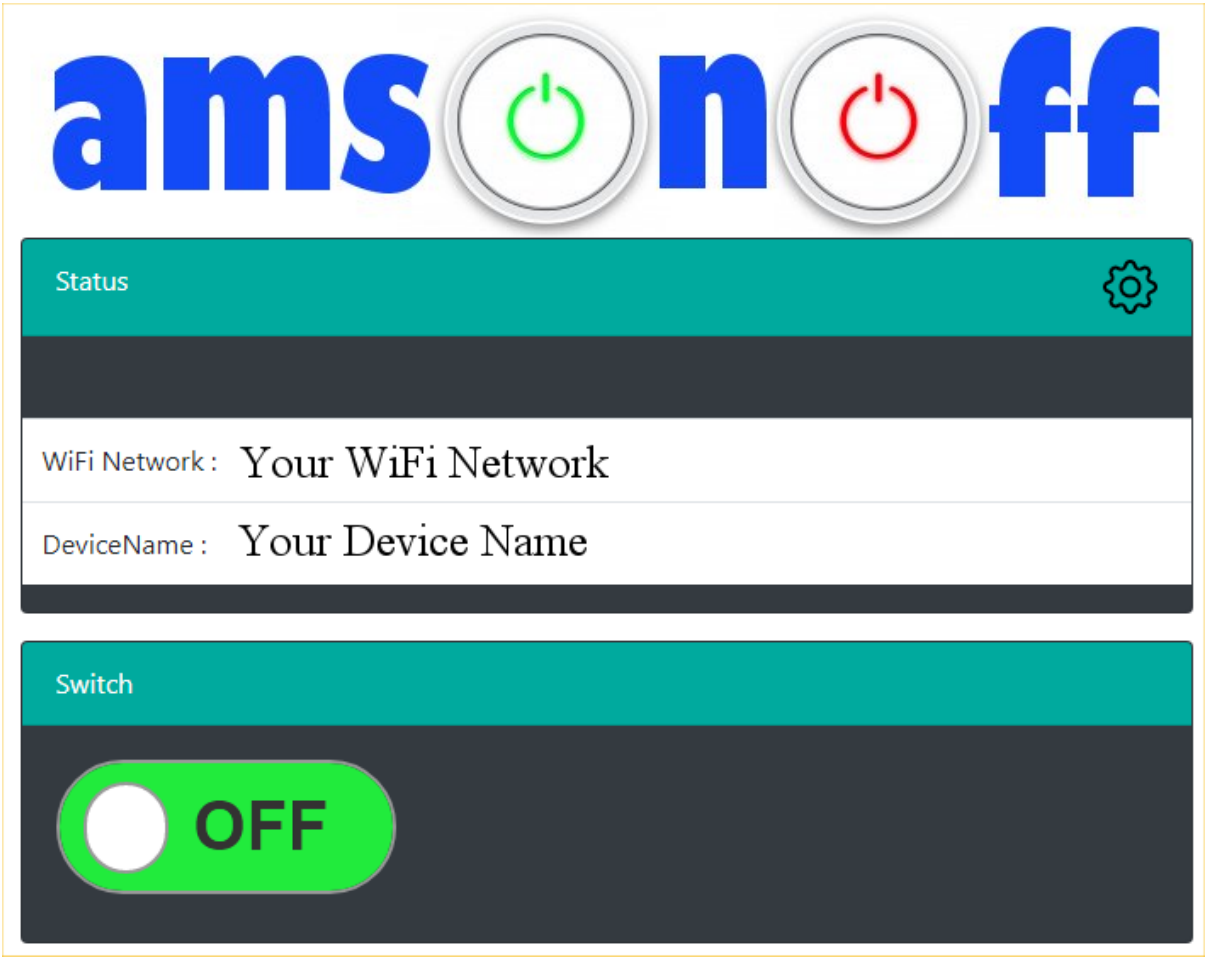
Note: If ALL you want to do is to control your switch from a web browser, you don't need to do anything else.

You can either simply remember or bookmark the address or read the QrCode as before to control the switch.

However, if you want to use Alexa control or to use multiple switches in Master/Slave mode, you will need to give each eSwitch a unique name. Use something logical like "OutsideLight" or "SecurityLight".

10. As before, click the SETTINGS icon, enter the Login and Password of "admin", "admin" and then enter the device name in the **Device Name** box and press 

The page should return to the Home page and now your Device Name should be shown.



Setting up the eSwitch for Alexa control.

Your eSwitch can be voice-controlled by any Alexa device.
Obviously, in order for this to work you need an Amazon Alexa device (such as an Echo or Dot).

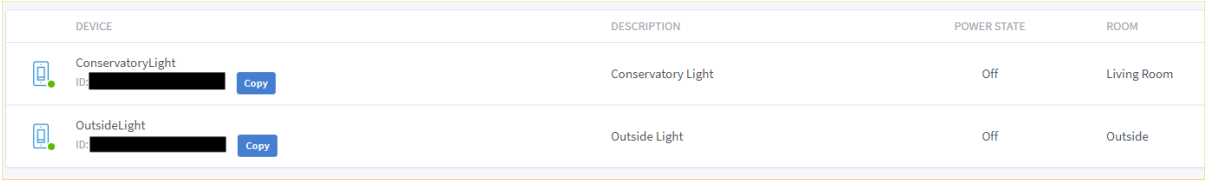
But first we need to set up a special account using a service call **SinricPro**.

11. Go to https://sinric.pro/index.html and sign up for a (free) account.

You will need to set up 1 "Device" for each MASTER eSwitch that you intend to connect.
Note that, if you intend to have some SLAVE devices that simply follow switches of MASTER devices, these do not ***need*** to be setup as a Device n SinricPro.
This is important since SinricPro only allows a maximum of 3 FREE devices. (You can pay $3 per year per extra device if you want to).

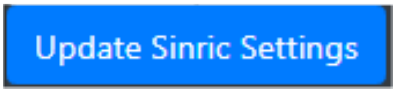
12. Set up each MASTER eSwitch with device type of **Switch**.

The following example shows 2 Devices setup:



Now we need to tell the eSwitch about the SinricPro account and device details.

13. Again click the **SETTINGS**  icon from the amsOnOff eSwitch homepage.

14. From the SinricPro web page, find the **App Key** and **App Secret** strings and copy/paste these into the fields in the Sinric settings box.
15. From the SinricPro DEVICES page, copy the Device ID into the SwitcID box.
16. Double check the 3 boxes are filled correctly and press 

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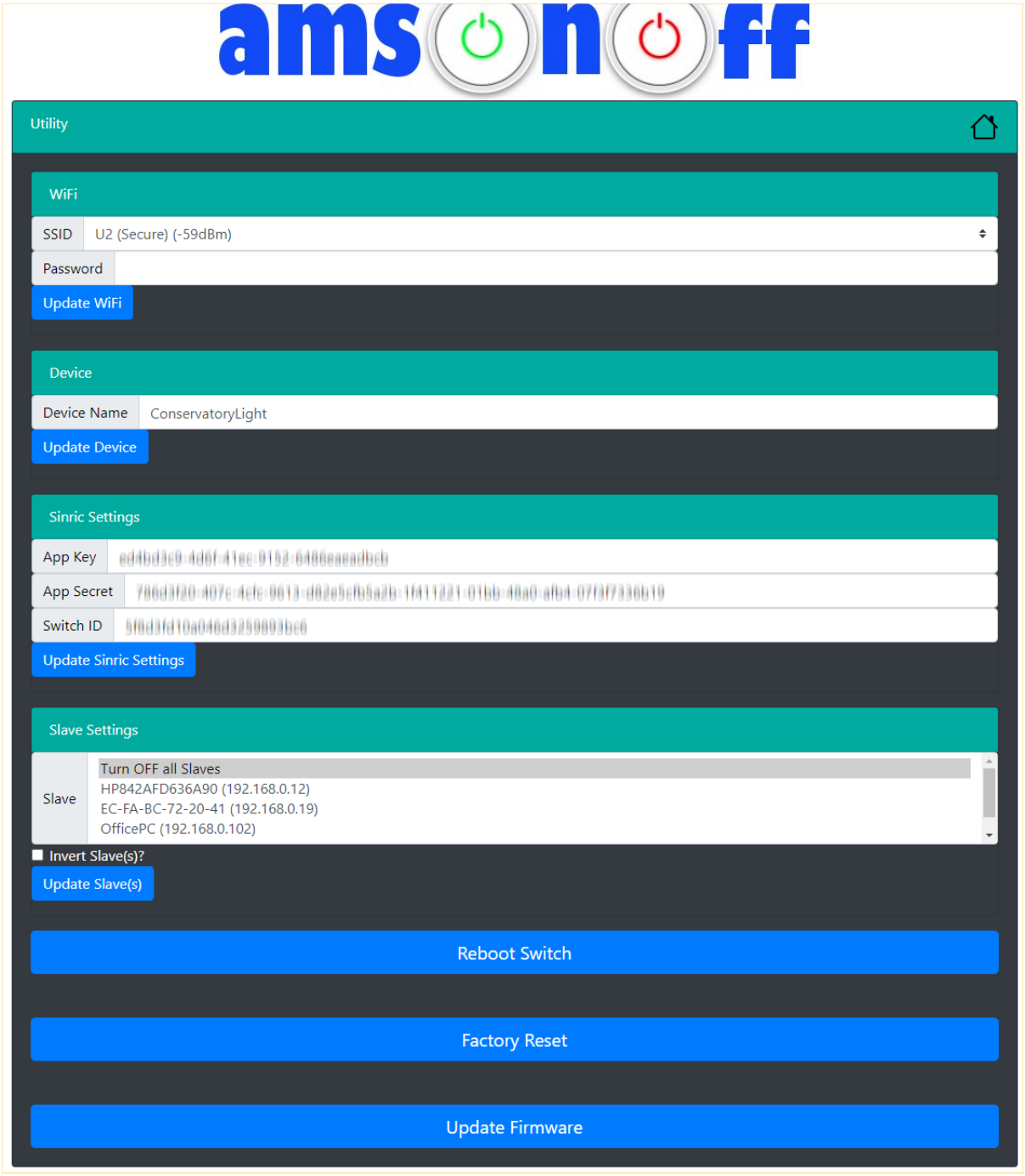
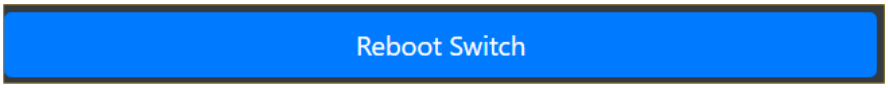
If you have done this all correctly then, on the **Settings** page you should see something like this: (Note that my keys are blurred for security).



17. Press the 

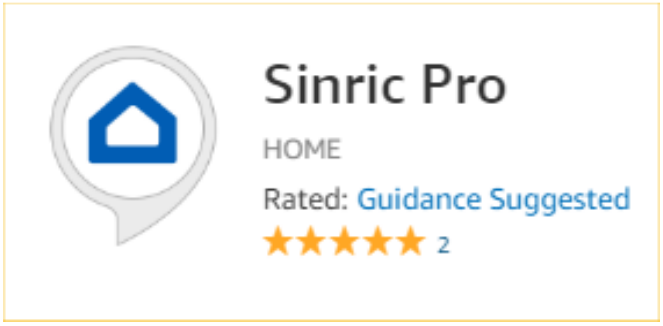
button and wait for the Switch to reboot.

Now, if you go back to the SinRicPro webpage and look at the Devices page you should see a green light on the switch icon  .

This confirms that your switch is now registered with SinricPro.

The final step for Alexa control is to tell Alexa about your new device.

18. Login to your Alexa account and search for the SinricPro skill.



Add this skill and link this to your Amazon account.

Finally in the Alexa App, we need to search for the new device.

19. Go to Devices and add a new device of type **Other**.

If all is well your Alexa device should find your new eSwitch identified by the DeviceName you entered at step 10.

Your device should now be ready for Alexa control.
Say "Alexa Turn on <DeviceName>", where <DeviceName> is whatever you called the device at step 10.

Setting up for Master/Slave Mode

One of the most powerful features of this switch is the ability to set an almost unlimited combination of masters and slaves. Slaves can be “direct”, i.e. they simply follow the master, or they can be “inverse”, i.e. they will switch ON when the slave switches OFF and vice-versa.

Note: You do not need to have set up Alexa voice control or SinricPro for Master/Slave mode to work. Indeed Master/Slave mode will work even by just pressing the button on the Master (if used).

You can set a maximum of 8 slaves to each master.
Note that the “direct” or “inverse” mode is global for all slaves of a particular master.

Decide on you master/slave configuration.
I will describe a simple 1 master, 1 direct slave scenario.

With both Master and Slave powered and connected to Wifi, login to the **MASTER** device.

Go to Settings and select your slave device from the drop down menu.
Note: If your slave device isn’t listed, check the slave is powered and refresh the web-page of the master.

Click on your chosen slave device and press 

.

Now, on the Home Page you should see your selected Slave device with a green  mark.

If you see the red  it means your slave device cannot be reached.

That’s all you have to do!
Now, when you click the Switch on your Master device, the Slave will follow obediently!

Reading the Qr code gives a "This site cannot be reached" or similar error.

a. **Your device is not connected to your network.**
   Go to "Setting up wireless connection" step 1 and check that a WiFi network of "eSwitch" is NOT available. If it is then the switch cannot connect to your network. Start again at setp 1 and carefully follow the instructions. Make sure that you enter your WiFi password correctly at step 7.
b. **You have no internet access.**
   Check that you can access a common web page – www.microsoft.com for example.
c. **Your phone, tablet or laptop is accessing a cached version of the Qr code page.**
   This can happen particularly if you didn't follow step 9 of the instructions.
   Power off your eSwitch, wait 30 seconds and then apply power again.
   Now, on your phone, tablet or laptop we need to clear the cache for this web-page.
   On a laptop it's simply a case of holding down the CTRL key while clicking the reload button.
   On phones and tablets it is a little more complicated.
   If you don't know how to do this, Google can probably help!