# KAUF

* frame not included
** big light can only be one color at a time

## RGB Wall Switch User Manual

Kaufman Home Automation, LLC
KaufHA.com



## Prerequisites

The software included on the KAUF RGB Wall Switch works best when the user has an installation of Home Assistant to connect the smart switch to.

If you need to set up Home Assistant, Kaufman Home Automation recommends that you purchase a Raspberry Pi 4 kit and follow the directions at:

https://www.home-assistant.io/installation/

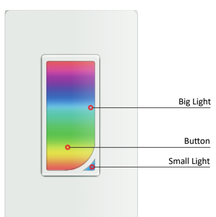
Once you have Home Assistant running, proceed to Getting Started - Step 1 on the next page.

Alternatively, the switch has an HTTP API. If you want to use the switch without Home Assistant, you'll want to turn on the HTTP Only switch.

You also have the option to reprogram the KAUF switch with another ESP8266 compatible firmware.



## Hardware Features




* frame not included
** big light can only be one color at a time

FIG. 1



## Step 1 - Physical Installation

The KAUF RGB Wall Switch installs just like any other wall switch. If you don't have experience installing a wall switch, please hire an electrician or at least find a knowledgeable friend to help out.

Make sure to turn off power to the junction box where the KAUF RGB Wall Switch is being installed. Use an AC current detector to confirm that none of the wires being touched are energized.

**INJURY OR DEATH CAN OCCUR.** There is no shame in asking for help.

At a minimum, the live and neutral lines from within the junction box need to be attached to the live and neutral terminals on the back of the KAUF RGB Wall Switch.

The load line can optionally be attached to the load terminal on the back of the KAUF RGB Wall Switch to allow the switch to switch a load.



## Step 2 - Connect to Wi-Fi

The small light will start to blink red very soon after power is applied to the KAUF RGB Wall Switch, indicating that the switch is unable to connect to Wi-Fi.

After being powered for 20-30 seconds, the KAUF RGB Wall Switch will create its own "fallback" Wi-Fi hotspot for you to connect to.

The KAUF RGB Wall Switch's fallback Wi-Fi hotspot will have the SSID "KAUF RGB Sw Hotspot".

Using a Wi-Fi enabled device, such as a mobile phone or laptop computer, connect to the fallback Wi-Fi hotspot. Please be patient and refresh the Wi-Fi network list on your device. It can take 1-2 minutes for the hotspot to show up in your system's Wi-Fi menu. FIG. 2 shows the fallback Wi-Fi hotspot found by an Android device. Any device with Wi-Fi and a web browser should work.



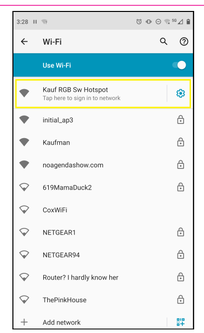



FIG. 2



Once you are connected to the KAUF RGB Wall Switch's fallback Wi-Fi hotspot, you should be prompted to "sign in" to the hotspot.

Clicking the sign-in prompt will open up the web interface shown in FIG. 3.

If there is no sign-in prompt, or the web interface in FIG. 3 is not automatically opened, you can try going to http://192.168.4.1 in a web browser while connected to the fallback Wi-Fi hotspot.

The web interface allows you to select one of the listed Wi-Fi networks automatically detected by the KAUF RGB Wall Switch, or enter any other SSID/password combination to join any 2.4 GHz Wi-Fi network.

Enter your Wi-Fi credentials into the web interface shown in FIG. 3, click save, and then continue to step 3.



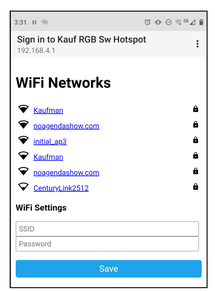



FIG. 3



## Step 3 - (Optional) ESPHome Dashboard

Importing into the ESPHome dashboard before Home Assistant has helpful benefits. First, the ESPHome dashboard will automatically pull in firmware updates we release. Second, the switch name can be changed before adding into Home Assistant, preventing the need to rename each entity individually.

After connecting the switch to Wi-Fi as described in Step 2, the ESPHome dashboard will detect the switch. FIG. 4a shows the ESPHome dashboard having detected a switch.

Press Adopt to add the switch to your dashboard.

Next, edit the yaml file generated for the switch to add a friendly_name as shown in FIG. 4b. The friendly name will be used for the name of each entity in Home Assistant. That way you shouldn't have to rename each entity individually.



Changing the "name" to something descriptive, as well as renaming the yaml file, would also be helpful. To change the name, you will need to add the switch's current IP address as a use_address option in the wifi: section.

Just adding a friendly_name as shown is enough to rename every entity in Home Assistant once you install / reflash the firmware.


FIG. 4a

```
kauf-rgbsw-1eb161.yaml
1 substitutions:
2   name: kauf-rgbsw-1eb161
3   friendly_name: Bedroom Light
4
```

FIG. 4b



## Step 4 - Adding to Home Assistant

Home Assistant will detect the KAUF RGB Wall Switch and provide a notification in Home Assistant's interface. FIG. 5a shows a notification in Home Assistant's menu.

Click the "notifications" option in the menu and another menu will appear with the notification as shown in FIG. 5b. Click "Check it out" in the notification.

Home Assistant will take you to the Integrations configuration page, and you will see a card that shows the KAUF RGB Wall Switch as a Discovered device. FIG. 5c shows the card.

Click "configure" and follow the prompts to finish adding the KAUF RGB Wall Switch to Home Assistant.

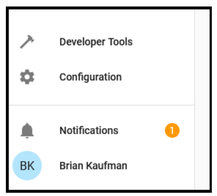



FIG. 5a

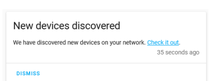



FIG. 5b



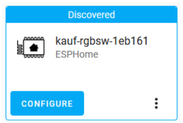



FIG. 5c

## Step 5 - Finding in Home Assistant

Search for kauf under the Integrations configuration page. If you renamed already through the ESPHome dashboard, then search for whatever you renamed the device to instead.

You should be able to easily find the KAUF RGB Wall Switch in the ESPHome card. Use the kebab menu (three dots) in the ESPHome card to rename the ESPHome device if needed.



## Step 5 - Entities in Home Assistant

Search for the KAUF RGB Wall Switch under the Devices configuration page. Click the switch to open up Home Assistant's device page for the switch, which will show detailed information about the device including all entities. The "Controls" and "Sensors" information cards are shown in FIG. 6a.

**Kauf RGB Sw** is the main switch entity that turns the wall switch relay on and off.

**Kauf RGB Sw Big Light** controls RGB color and brightness for the big light (see FIG. 1).

**Kauf RGB Sw Small Light** controls RGB color and brightness for the small light.

**Kauf RGB Sw Button** shows when the button is being pressed.



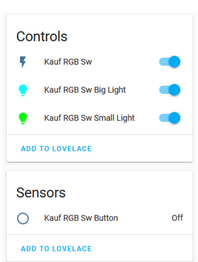



FIG. 6a

Entities can each be renamed by clicking on them.



FIG. 6b shows the configuration entities card.

**Kauf RGB Sw Big Off Value** defines the state that is adopted by the big light when Kauf RGB Sw is turned off. Changing the effect to "Disabled" will stop the big light from changing state when Kauf RGB Sw is turned off.

**Kauf RGB Sw Big On Value** defines the state that is adopted by the small light when Kauf RGB Sw is turned on. Also has the disabled effect.

**Kauf RGB Sw Disable Button**, when turned on, makes it so that pressing the button will not toggle Kauf RGB Sw. The binary sensor still changes.

**Kauf RGB Sw Relay Config** defines how the relay operates: Switched means the relay toggles with Kauf RGB Sw. Always on or always off means the relay always stays in that state.

**Kauf RGB Sw Small Off Value** defines the state that is adopted by the small light when Kauf RGB Sw is turned on. Also has the disabled effect.



**Kauf RGB Sw Small Off Value** defines the state that is adopted by the small light when Kauf RGB Sw is turned off. Also has the disabled effect.

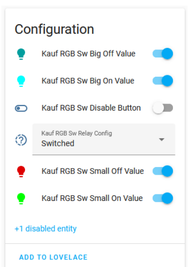



FIG. 6b



## Flashing a Different Firmware

The KAUF RGB Wall Switch's web interface allows its firmware to be reprogrammed by uploading a bin or bin.gz file.

A replacement firmware can be uploaded at the bottom of the page shown in FIG. 3, or by browsing to the switch's IP address after the switch is connected to your Wi-Fi network. The device page in Home Assistant, which FIGs. 6a and 6b are from, will provide a link to the switch's web interface.

Any ESP8266 compatible firmware can be used as long as the firmware supports both 1MB flash and OTA updates.



## Tasmota Notes

The KAUF RGB Wall Switch has enough free space to flash the full default Tasmota firmware as long as the gzipped version is used (tasmota.bin.gz)

Try tasmota-lite.bin.gz if you are having problems with the full version.

**DO NOT FLASH tasmota-minimal.bin or .bin.gz**

The minimal version of Tasmota does not include the captive portal that is required to connect the switch to your Wi-Fi network. If you go straight from the included ESPHome-based firmware to tasmota-minimal, your KAUF RGB Wall Switch will be bricked, requiring you to open up the switch and solder on wires to reflash.

See the next page for pin definitions, and our website for a recommended template.



## ESP8266 Pinout

GPIO 0 - Small Light Red LED
GPIO 2 - Small Light Blue LED
GPIO 4 - Big Light Blue LED
GPIO 5 - Big Light Green LED
GPIO 12 - Small Light Green LED
GPIO 13 - Button input (active low)
GPIO 14 - Big Light Red LED
GPIO 15 - Relay output

## Additional Help

Visit our webpage for additional details and help:

`https://kaufha.com/SRF10`

Feel free to email us to ask specific questions:

`help@kaufha.com`



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