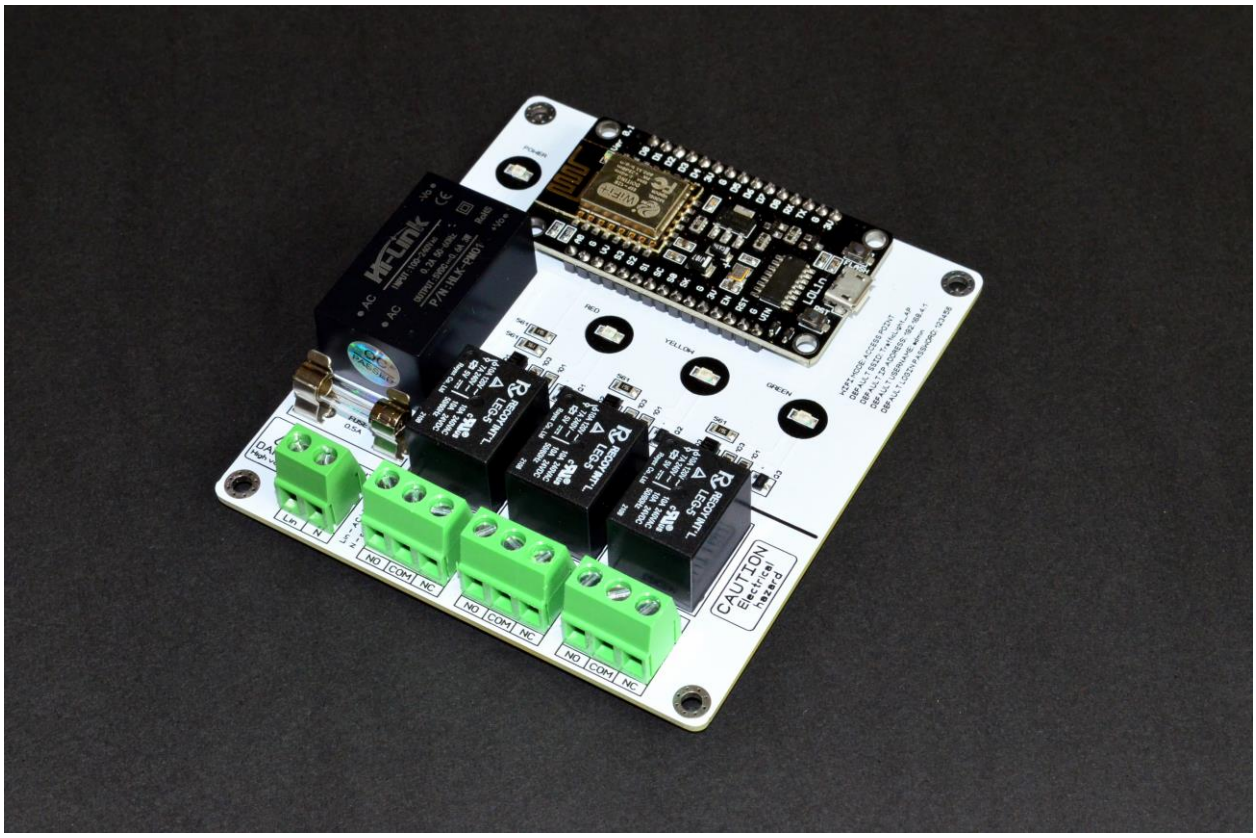
# WIFI 3 Channel Electromagnetic relays

# Traffic Light Controller

with integrated webpage for user manual programming



Wi-Fi 3 channel traffic light controller has been designed for programming the traffic light timings easily. This controller has an integrated webpage for the configuration and setup. User could enter the web interface to setup the traffic light for any mode. User-friendly interface provides easy access to set up page and ensures that no special skills needed programming.

Device specification:

- PCB board dimension – 90mm x 100mm, height 30mm, color white
- PCB Board Material - 1.6 mm FR-4, with solder mask & silkscreen
- Input and Output Connectors – type KF-128, 14-26AWG, 250VAC @ 16A screw terminals
- Safety fuses for AC input
- Universal input voltage range 100…240VAC / 50…60HZ
- Load type – resistive and inductive
- Compatible with incandescent lamp lamps, LED lamps, LED dimmable lamps, fluorescent lamps, and others
- Super-fast turn on and turn off, < 50ms
- Operating temperature (C degrees) -40 … +70 degreases
- Wi-Fi controller ESP8266 chip, 2.4GHz 802.11 b/g/n
- Wi-Fi operation mode – access point
- Launch distance: 150 meters (open space)
- LED indicators for traffic lights RED, YELLOW and GREEN colors
- Power LED indicator
- Load power – 10 Amps per relay
- Switching DC voltage range 0…100V DC per relay
- Security entering to the web page, requires USERNAME and PASSWORD
- Integrated web page for timing programming
- Available device setup web page
- Compatible with Windows, Ubuntu, Android, IOS and other operation systems.

**Connection setup with the device:**

1. Power on the device.

2. Open Wi-Fi connections on your phone, notebook, or computer.

3. Find wireless network (SSID) named as **TrafficLight_AP** and try to connect to it. Wait until the connection successfully established.

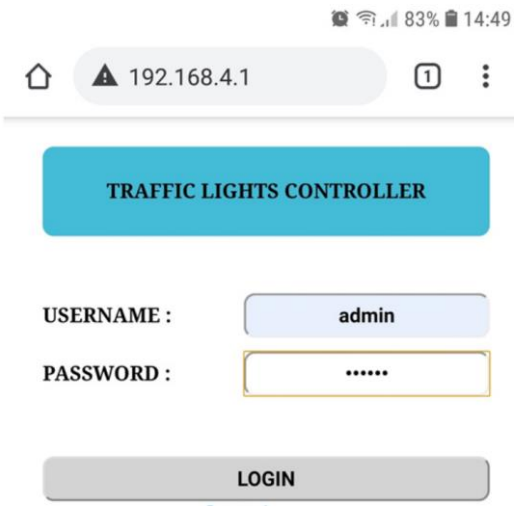
4. Open web browser (Google Chrome, Internet Explorer, Firefox, Safari etc.) and enter the default web page address 192.168.4.1 of the controller.

Note! Sometimes due the antivirus and firewall settings, connection can be rejected. In this case, antivirus and firewall should be disabled.

**Traffic lights setup via integrated webpage:**

1. Enter USERNAME (admin) and PASSWORD (123456) and click to the LOGIN button to enter to the traffic lights setup webpage.

   Default settings for login username: **admin** and password: **123456**.



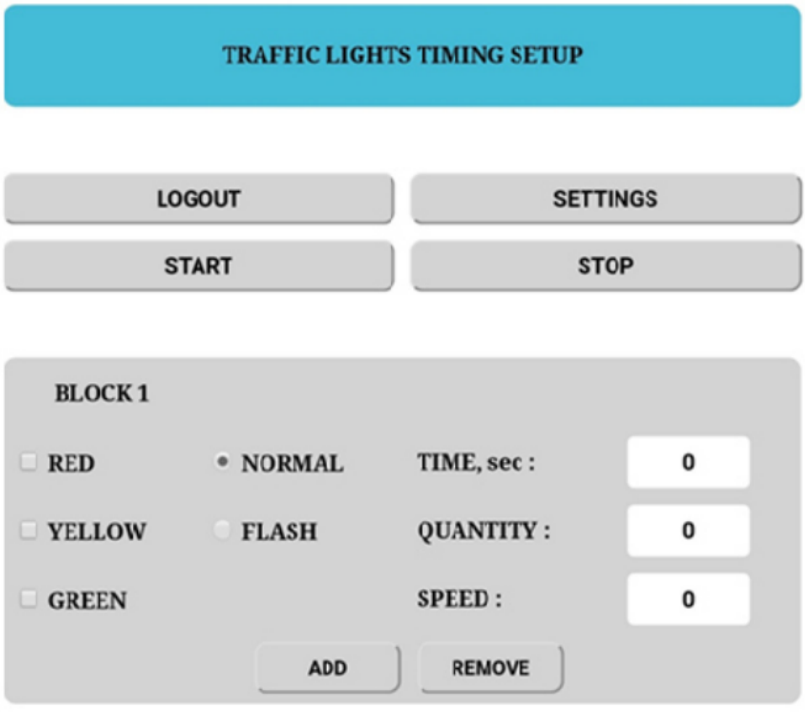

**2.** Sample setup web page button functions:

- LOGOUT – Logs out the user from the setup page

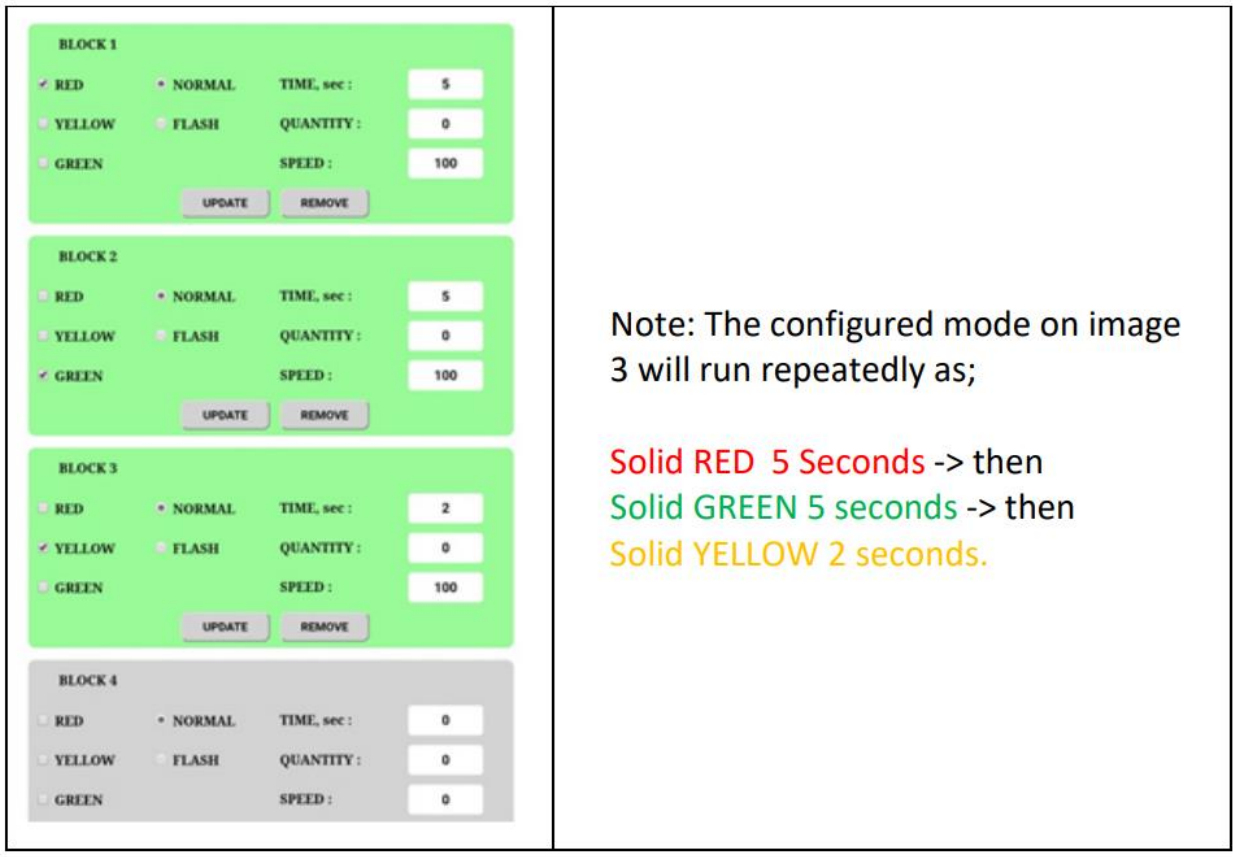
- SETTINGS – Open/Modify WIFI settings

- START – Starts the traffic light in configured mode

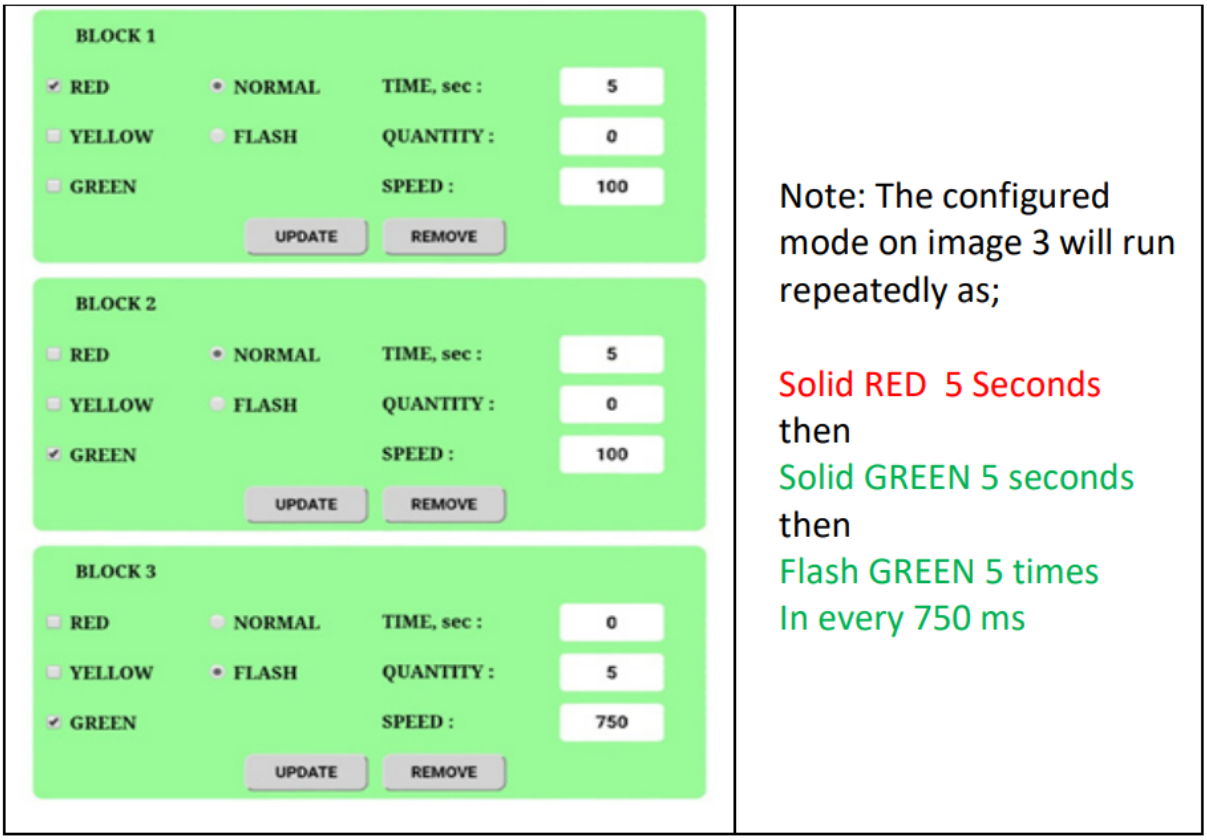
- STOP – Stops the traffic light mode. Turn off all lights



**3.** Each traffic light mode consists of a block(s). Maximum number of blocks are 12. User can add, remove, and update blocks. Active block has a green and no active block has a grey background. NORMAL mode is for a simple solid color(s) set up. Should you prefer to use solid Red, Yellow, Green colors then choose this mode (Normal) and enter the timing in (Seconds). You do not need to enter a value for the speed and the quantity field for this mode. To activate the configured mode, press ADD button. To remove the block click Remove button.

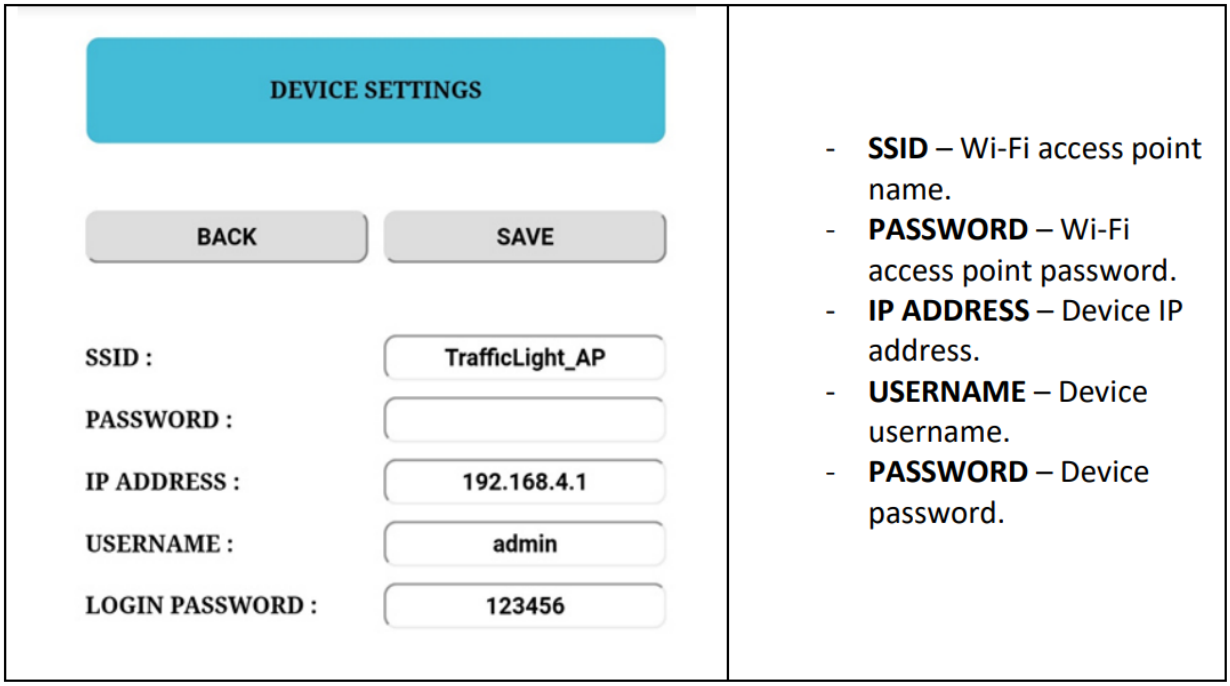


**4.** FLASH mode is used for flashing the light(s). To activate this mode, after selecting Flash radio button, enter the quantity and speed (in milliseconds). To activate the configured mode, press ADD button. To remove the block, click Remove button. Recommended range for speed is 100-2000 larger the number is easy to understand the mode.



**5.** Device settings webpage.

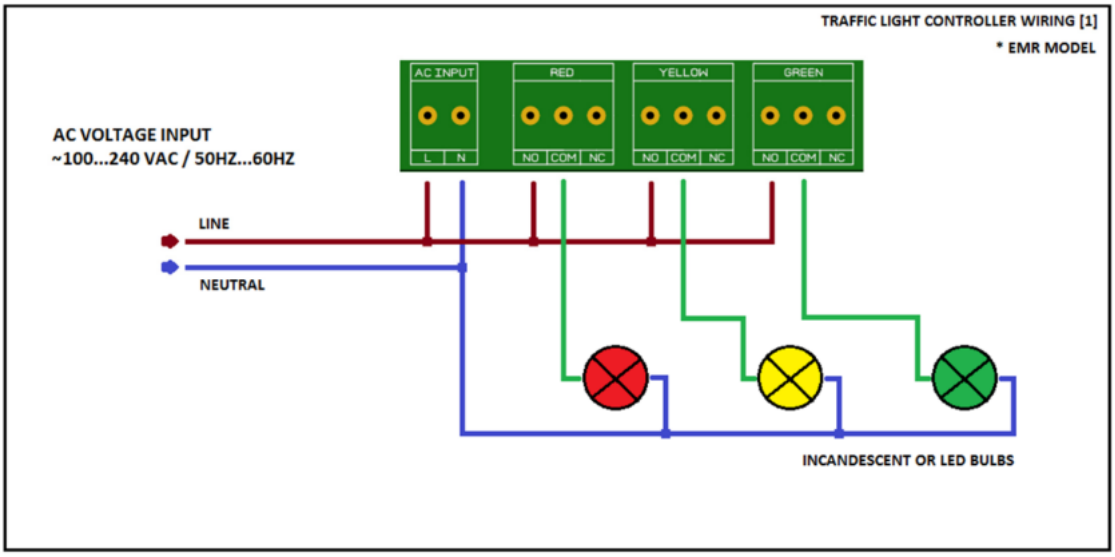
Entering to the device setting webpage, you would be able make some device related settings.

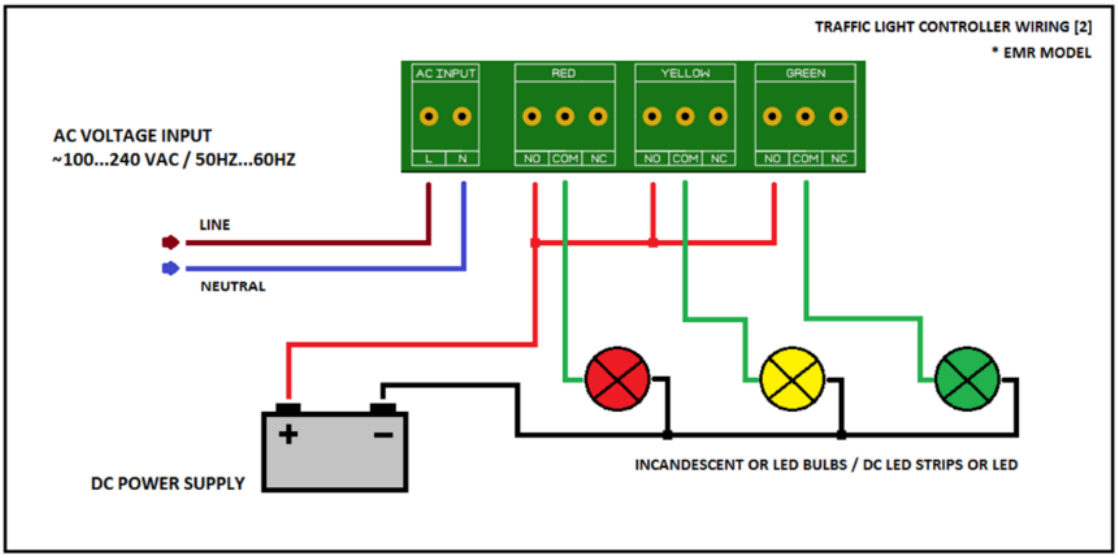



- **SSID** – Wi-Fi access point name.
- **PASSWORD** – Wi-Fi access point password.
- **IP ADDRESS** – Device IP address.
- **USERNAME** – Device username.
- **PASSWORD** – Device password.

**Load wiring:**

1. AC load wiring with common neutral:




2. DC load wiring: