

wlightbox IP20 Wireless Wifi LED  
Controller 5 Channels RGB



# wlightbox IP20 Wireless Wifi LED Controller 5 Channels RGB User Manual

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wlightbox

**wlightbox IP20 Wireless Wifi LED Controller 5 Channels RGB**



## Product Information

### Specifications

- Product Name: wLightBox v3
- Control: WiFi technology from any place in the World
- Controller Type: Wireless WiFi LED Controller
- Channels: 5 (RGB/RGBW/RGBWW/CCT/2 x CCT/5 x MONO)
- Voice Control: Compatible with Amazon Alexa and Google Home

### Product Usage Instructions

#### Safety Rules

Before installing and using the controller, ensure the following safety rules:

- Do not connect loads exceeding the permissible power.
- Follow the installation diagram provided in the manual to avoid damage and warranty loss.
- Always disconnect the power circuit before any assembly work.
- Use a power supply meeting quality standards specified in EN 50081-1, EN 50082-1, UL508, EN 60950.

#### Installation

1. Disconnect the installation supply voltage before starting the installation.
2. Install the controller in a protected place away from environmental conditions and unauthorized access.
3. Refer to the provided diagram for proper installation and connection of wires.
4. Connect power wires (+) and (-) as indicated.
5. Connect the LED strip ensuring correct polarity and markings.
6. If using a wall push-button, follow the diagram for connection
7. Ensure no metal components near the controller that may cause a short-circuit.

8. Turn on the power after ensuring correct connections.

## Connection Diagrams

Refer to the following connection diagrams based on your LED strip configuration:

- wLightBox v3 + RGB 3-channel strip
- wLightBox v3 + RGBW 4-channel LED strip
- wLightBox v3 + RGBWW (RGBCCT) 5-channel strip
- wLightBox v3 + RGB strip + single white strip
- wLightBox v3 + single 2-channel CCT strip (CW/WW, CT)
- wLightBox v3 + double 2-channel CCT strips (CW/WW, CT)
- wLightBox v3 + RGB strip + CCT strip (CW/WW, CT)
- wLightBox v3 + 5-single-channel strips

## First Start

To begin using the controller:

1. Download the free wBox application from Play Store for Android devices or App Store for iOS devices.

## FAQ

**Q: Can I control the wLightBox v3 using voice commands?**

A: Yes, the wLightBox v3 is compatible with Amazon Alexa and Google Home for voice control.

**Q: What should I do in case of electric shock risk?**

A: Always ensure the power circuit is disconnected before any assembly work to avoid electric shock risks.

**Q: How do I know if my power supply meets the quality requirements?**

A: Check if your power supply specifications comply with EN 50081-1, EN 50082-1, UL508, EN 60950 standards to ensure warranty validity.

control with µWiFi technology from any place in the World

WIRELESS WIFI LED CONTROLLER – 5 CHANNELS – RGB/RGBW/RGBWW/CCT/2 x CCT/5 x MONO

ability to control by voice commands with  
Amazon Alexa i Google Home



## SAFETY RULES

- Do not connect loads with more than permissible power.
- Connect only in accordance with the diagram presented in the manual. Improper connections may be dangerous, it can damage the controller, and loss of the warranty.
- **DANGER!** Risk of electric shock! Even with the device turned off, the outputs may be live. All assembly work should be ALWAYS performed with the disconnected power circuit.
- Connecting the device to a power supply that does not meet the quality requirements specified in EN 50081-1, EN 50082-1, UL508, EN 60950 will invalidate the warranty.

## INSTALLATION

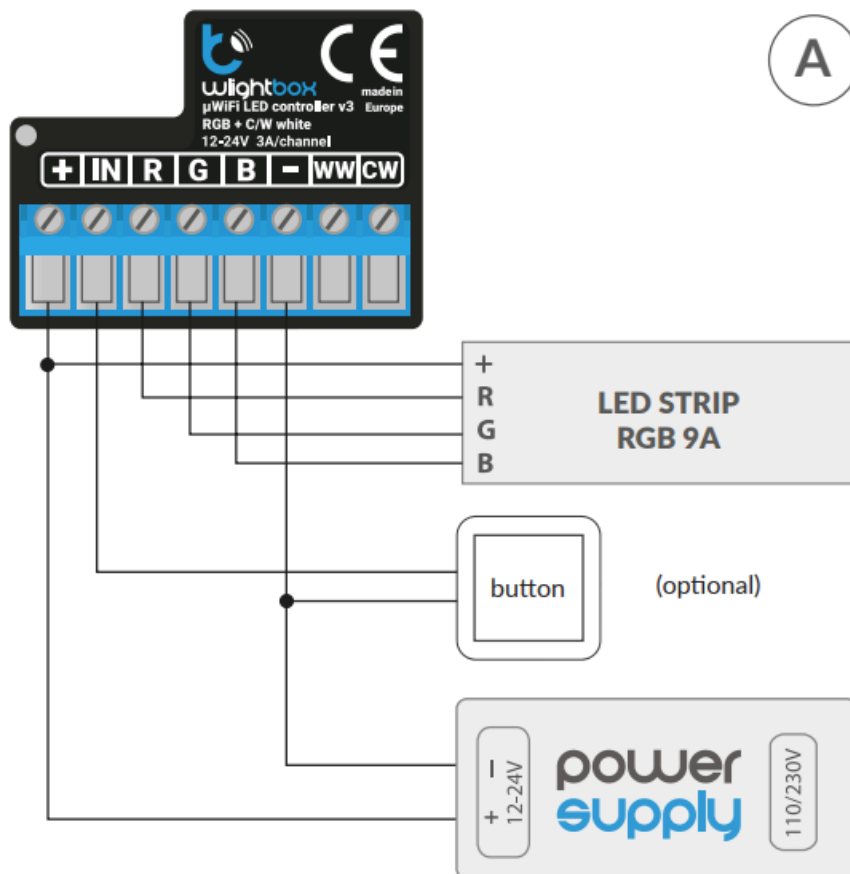
- Disconnect the installation supply voltage before installing the controller. Remember that any mounting works should be carried out when the mains voltage is disconnected (switch off the mains fuse or disconnect the power cord from the mains socket).
- The controller should be installed in a place protected against adverse environmental conditions, protected from third party access – in the flushbox or inside the enclosure of the controlled device. It is recommended that the device be mounted in a stable and fixed position.
- Familiarize yourself with the diagram and then proceed with the installation of the controller. Pay special attention to the designation of the controller connectors. Start by connecting the power wires: (+) (red or black with a white dotted line) and (-) (black).

Connect the LED strip paying attention to the polarity and markings on the diagrams. Depending on the application, it is possible to connect:

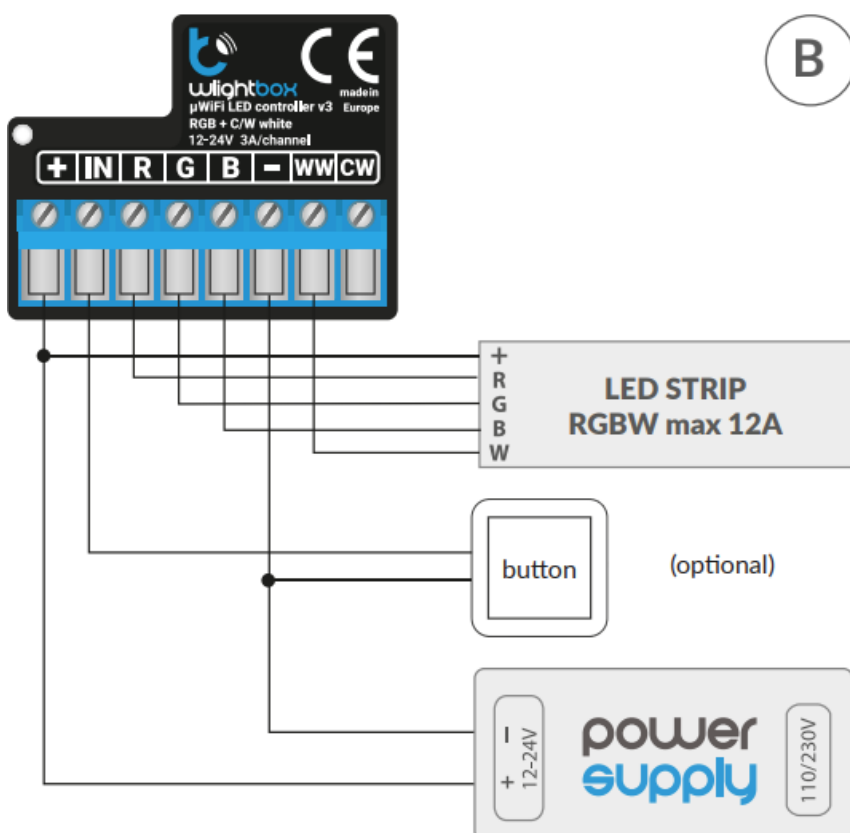
- single RGB strip (scheme A)
  - single RGBW strip (scheme B)
  - single RGBWW / RGB CCT strip (scheme C)
  - single RGB strip + single white strip (scheme D)
  - single CCT strip (CT, CW/WW) (diagram E)
  - two CCT strips (CT, CW/WW) (scheme F)
  - single RGB + single CCT strip (scheme G)
  - five monochrome (single color) strips (scheme H)
- If you wish to control locally by using a wall push-button, please connect the monostable push-button according to the diagram. To control only by using the smartphone or tablet, the connection of the push-button is not required
  - After making sure that the device is connected in accordance with the diagram and that there are no metal components near the controller which may accidentally cause short-circuit, start the device by turning on the power (turning on the mains fuse or connecting the power cord to the power outlet).

## CONNECTION DIAGRAMS

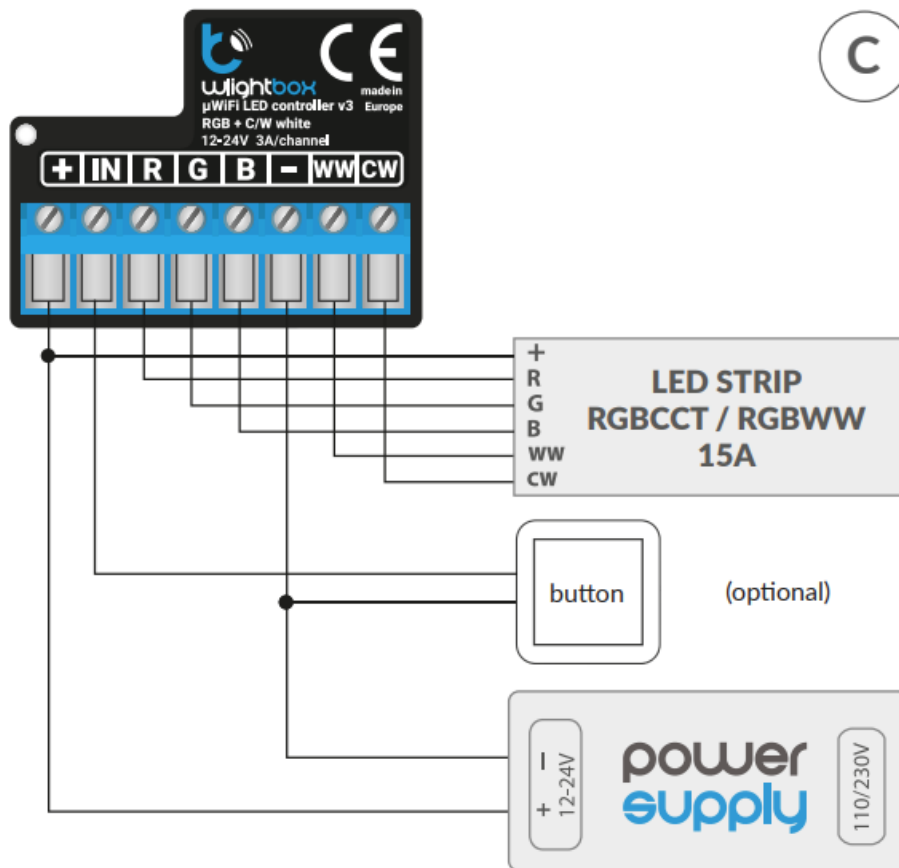
**wLightBox v3 + RGB 3-channel strip:**



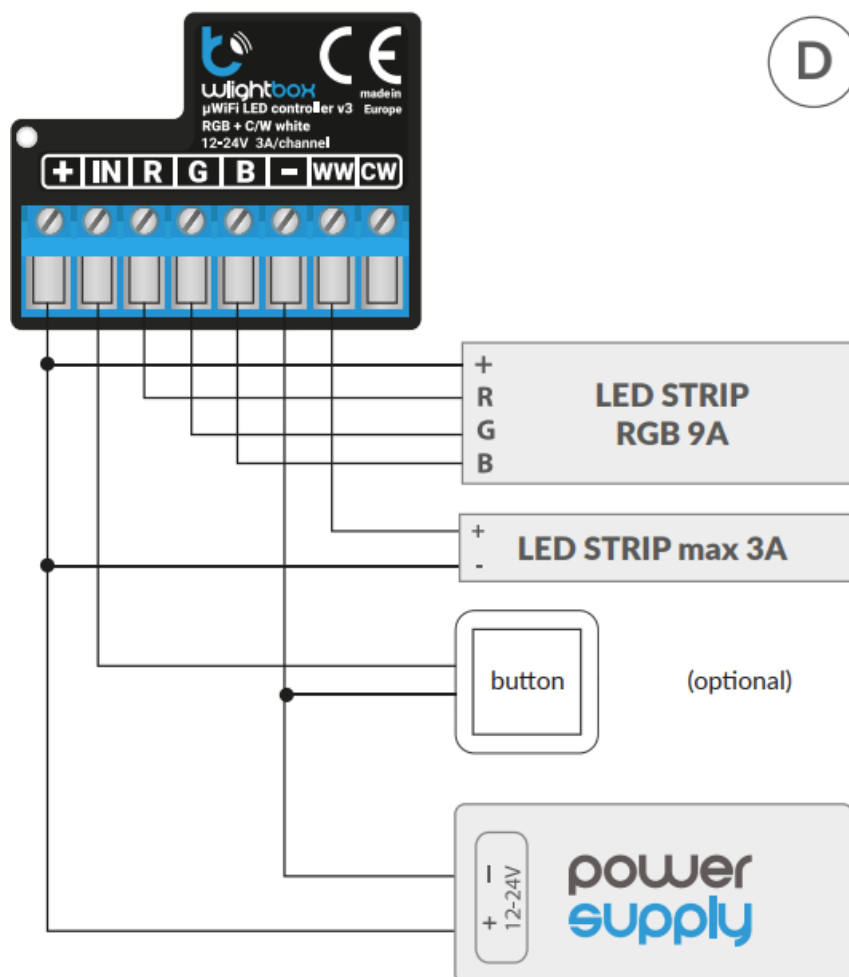
wLightBox v3 + RGBW 4-channel LED strip:



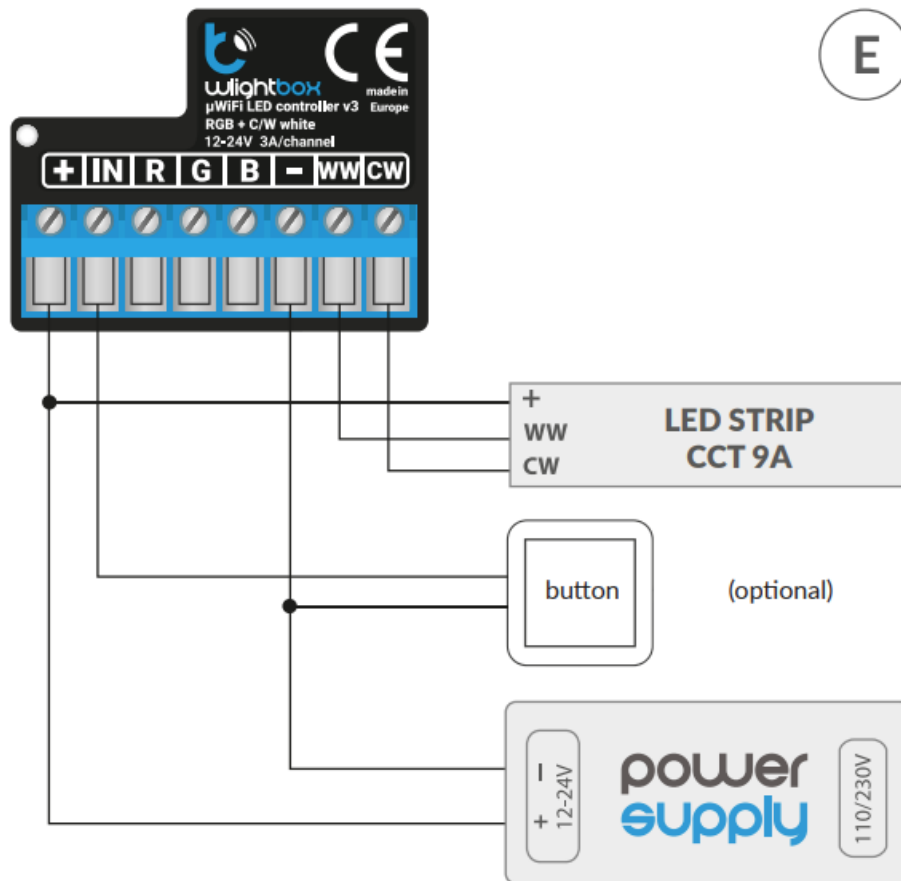
wLightBox v3 + RGBWW (RGCCT) 5-channel strip:



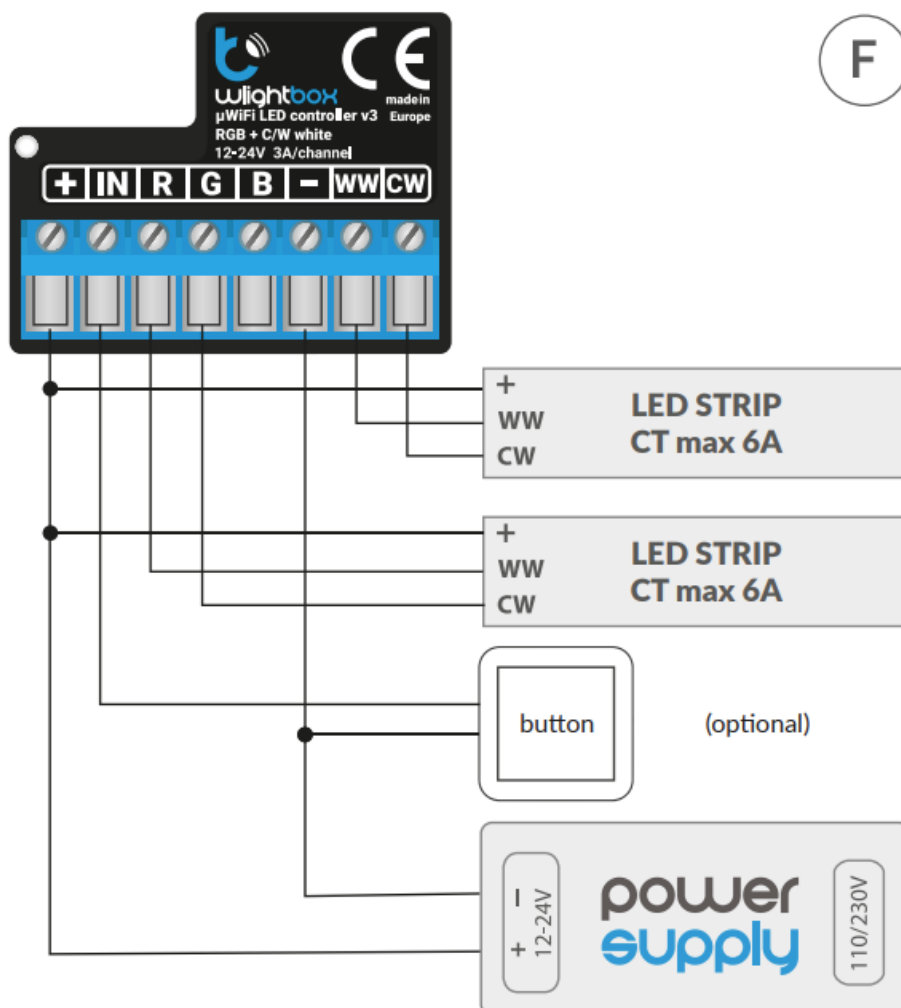
wLightBox v3 + RGB strip + single white strip:



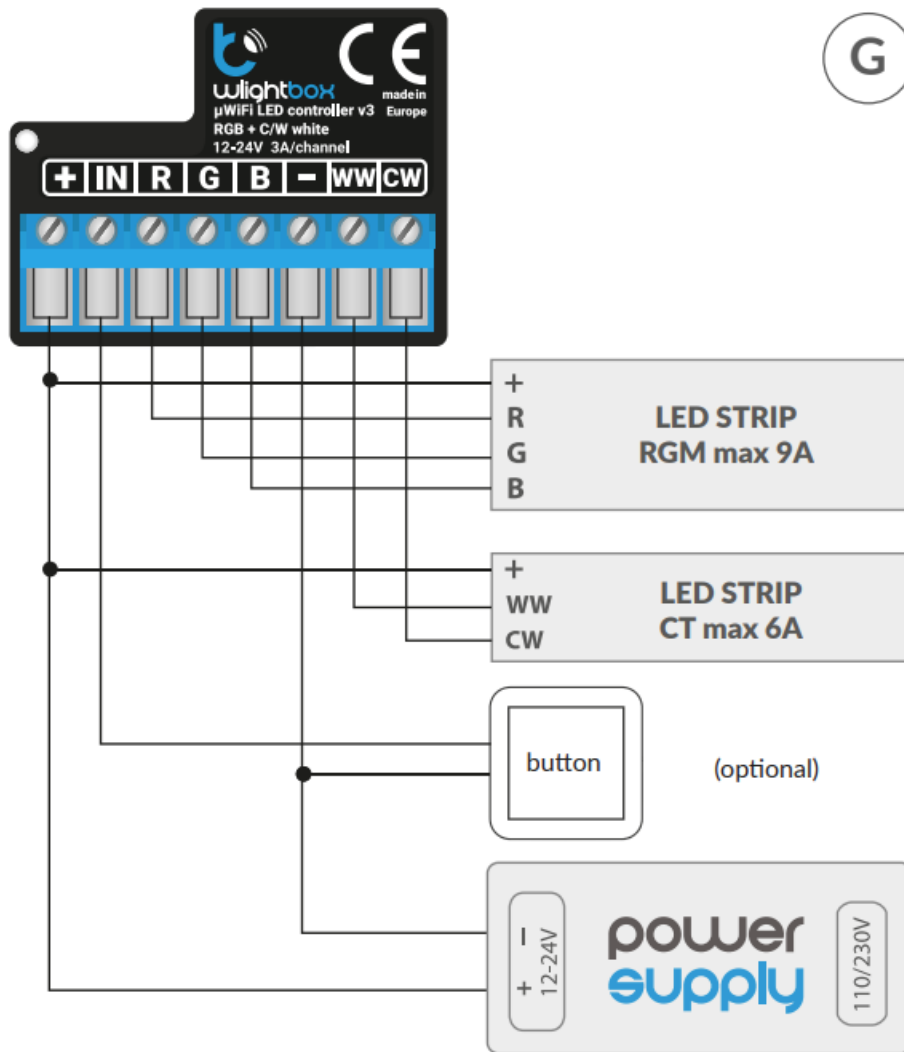
wLightBox v3 + single 2-channel CCT strip (CW/WW, CT):



wLightBox v3 + double 2-channel CCT strips (CW/WW, CT):

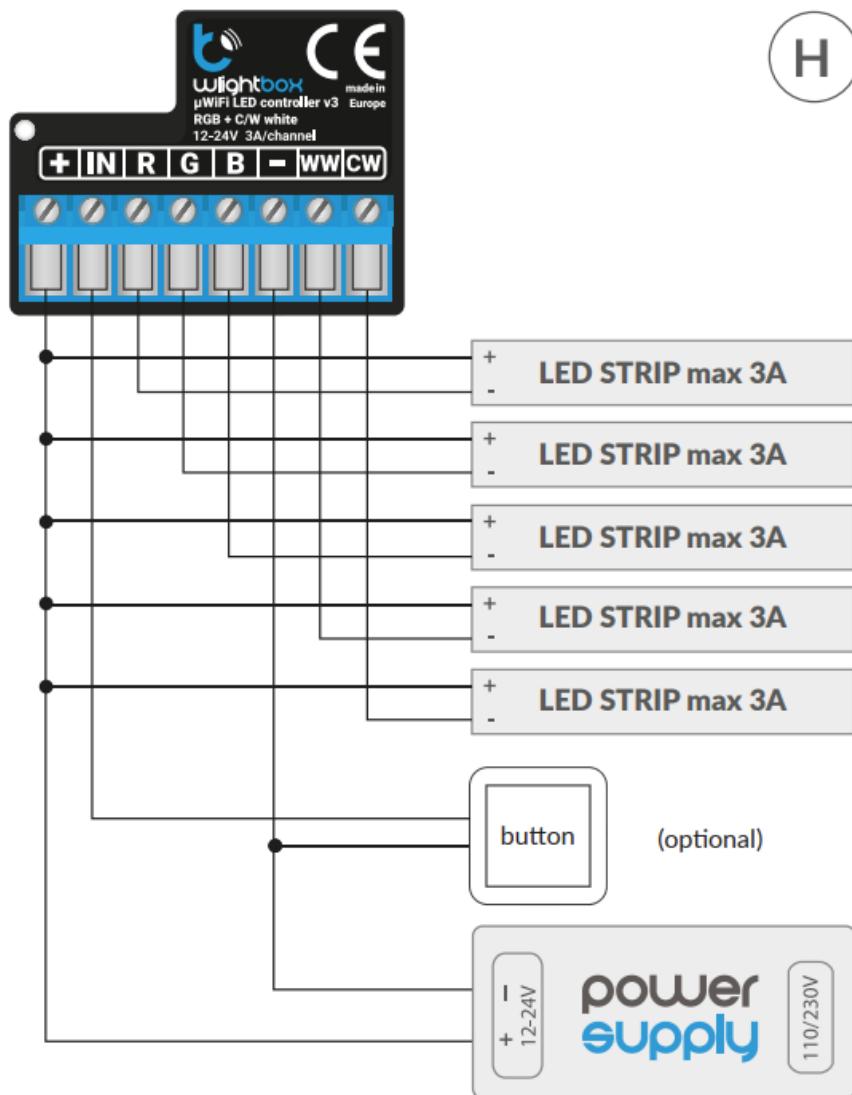


**wLightBox v3 + RGB strip + CCT strip (CW/WW, CT):**



**wLightBox v3 + 5-single-channel strips:**





## FIRST START

- Download the free wBox application. If you have an Android mobile device, you will find the application in the Play Store. For iOS devices the application is in the App Store.
- By using your mobile phone or tablet, connect it to the device wireless network. To do this, enter to your smartphone or tablet settings, then go to setting of the WiFi network and find the network name "wLightBox\_v3-xxxxxxx" where xxxxxxxx is the serial number of the device. Connect to this network.
- Open the wBox application. A device will appear at the top of the screen. To add it to the application, click on "+" on the right side of the name. To pre-configure the controller, click on the default device name.  
You can also set the configuration using the web browser of your phone/tablet. After connecting to the wireless network of the controller, turn on the browser and go website [www.blebox.eu](http://www.blebox.eu)
- You can also set the configuration using the web browser of your phone/tablet. After connecting to the wireless network of the controller, turn on the browser and go website [www.blebox.eu](http://www.blebox.eu)
- Go to settings ("Settings" icon in the upper right corner of the screen) and select the correct option in the "Device type" field in section "Color" depending on the LED strip connected. You can choose between the options: "RGBW" – for three-color strips with additional white, "RGB" – for three-colour strips, "MONO" – for monochromatic strips and halogen bulbs, "RGB or W" for three-colour strips with additional white, which should work in self-exclusion mode (turning white deactivates the color), "CT" for color temperature strips (2-channel strip with warm and cold shades/temperature of white – CCT, CW/WW), "CT x 2" for two independent CT strips, "RGBCCT" for three-colour strips with additional variable color temperature white.

- In the “Button mode” field, set the type of the connected button: “None”, “Momentary” (monostable, so-called “bell”) or “On/Off switch” (bistable, “traditional”), and select the behavior of the controller after pressing it.
- After saving the settings, go to the main panel by clicking the arrow in the upper left corner. Test the controller works- if you have a multi-coloured strip, select color from the color selection circle and set the brightness using the scrollbar. If you have monochrome strip, select the brightness of the channel with the scrollbar. If you have CT strips, using the first scrollbar set the shade (temperature) of white, then use the second scrollbar and set the brightness. Test the controller’s work by moving the brightness scrollbar several times in the extremes and intermediate positions – the light source should change its brightness.
- The control panel also has an additional effects menu – the access to it is achieved by moving-up the screen from the bottom (“More” at the bottom of the screen). In the menu you can choose predefined colors and set the duration of the color, or choose a predefined lighting effect and set the transition times.
- If a push button was connected check its operation.

## OTHER DEVICE SETTINGS

- Go to the configuration (“Settings” icon in the upper right corner of the screen). In the “Main configuration” section, you can change the name of the device that is displayed in the wBox application. The “Status LED enabled” option allows you to turn off the built-in LED on the device.
- When installing the controller in specific installations (eg film studios), it is possible to change the “PWM frequency” – smaller setpoints works better with low quality power supplies, but they can cause a flickering effect. Higher values can cause unstable operation of the controller when powering the system from low-performance power supplies.
- In the controller settings, in “Effects” section is possible to edit predefined effects as well as create your own lighting effects. In order to create a new effect press “add new effect” and next complete the form. Set a name for the effect, select the type and next add colors choosing it from the color palette, and using the scrollbar adjust its brightness. Is possible to select additional color options sliding-up the lower screen (title “more”) or also set colors by using scrollbars choosing the option “mono”. Each time is added a new color is necessary to confirm it pressing “save”. Next select “changing color duration in effect” (called passing time) and “color duration in effect” (called lighting length of said color). Remember to save the new effect pressing the “save” button.

## ACCESS POINT AND WIFI NETWORK SETTINGS

- Once you turn on the controller for the first time, you can proceed to its further configuration. Being connected to the WiFi network emitted by the device, in the control panel of the wBox application select the device, then go to “Settings” (icon at the top-right corner of the screen).
- You can change the name of the device that is displayed in the wBox application. In addition, you can change the name and password of its generated WiFi network. Remember that changing the network name or password will disconnect the device immediately after you click the “Save” button, so re-connect to the device using the newly assigned network name and password.
- You can add the controller to your home WiFi network to control it through this home network or from anywhere in the World. To do this, in the “Connect” settings section, select a network name from the list and press “Connect”. If is required, enter the WiFi network password. During the connection of the controller to your home network, the phone / tablet may be disconnected from the network. In this case, you will need to reconnect your

phone / tablet to the controller network.

- Please remember that in order to control the device outside the local WiFi network, from anyplace in the World by using the wBox application, the option “Remote access enabled” in the controller settings must be set to “Yes”.
- Once you’ve finished configuring the WiFi network, you can disconnect your phone/tablet from the controller network and connect your mobile device directly to your home WiFi network. The control from the wBox application will work the same way as
- when the phone / tablet is connected to the controller network. If the user leaves the local network, for example, leaving home or using the mobile data, the wBox application will signal this state as “Remote mode”. In this case, the devices can be controlled, but for security reasons settings are not available.

## TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
supply voltage	12 – 24V
energy consumption	< 1W
maximum current	15A (3A /channel)
maximum voltage	24V
maximum load	360W
supported switches	monostable (push-button), not-illuminated
number of inputs	1
inputs type	low voltage, logical, push-button, short circuited to GND
number of outputs	5
type of outputs	open-drain, PWM, low side control
color mode	RGB / RGBW / RGB or W / RGBCCT / CCT / 2x CCT / 5x MONO

<b>mounting method</b>	in the flush-mounted box, on the lamp housing, directly connected to the LED strip, e.g. furniture
<b>housing</b>	made of polyurethane composition not containing halogens, self-extinguishing for thermal class B (130 °C)
<b>dimensions</b>	43 x 37 x 22mm
<b>protection level</b>	IP20
<b>controller operating temperature</b>	from -20°C to +50°C
<b>protection</b>	inverted polarization, ESD
<b>API</b>	open
<b>communication standard</b>	µWiFi, compatible with WiFi, 802.11g
<b>transmission type</b>	bidirectional, encrypted

<b>radio frequency</b>	2.4 GHz
<b>mode</b>	direct connection (as Access Point), Wi-Fi connection via a standard router,  connection with access from any location in the world (requires only access to the Internet)
<b>encryption</b>	WPA2-PSK and authenticated encryption with associated data (AEAD)
<b>compatible devices and systems</b>	Apple iPhone, Apple iPad, iPad Mini, Android, computers and mobile devices supporting HTML5

## ADDITIONAL INFORMATION

### LOCATION AND TIME OF THE DEVICE, SCHEDULE

- The controller has the ability to work according to a given schedule. To make this possible, set the device's time. Go to settings in the "Device time" section, click "Change timezone". Then select your region and location from the list, confirm your selection clicking the "Save" button. The device will synchronize its time with the server time (if the controller is in a WiFi network with access to Internet) or it will download time from the phone / tablet. It is recommended that the controller is always connected to a WiFi network with Internet access so that it can automatically synchronize its clock.
- To be able to control devices using the local sunrise and sunset, you must also select the location of the controller. You can specify the location of the device using a smartphone or tablet. In the section "Device location", click "Set locations". Browser will ask whether to share locations – allow. In the "Coordinates" field, should appear the approximate coordinates of your location. If the "Set locations" button blinks red with the word "Error", or the "Coordinates" field did not change the value from "Not set" to numeric data, a failure has occurred during the location download. You should make sure that the phone / tablet has a GPS module and that the sharing location service is enabled on the phone.
- Adding schedule entries can be performed by clicking the "Add item" button in the "Schedule" section of settings. You can select the days in which the task will be performed, the type of entry (at a specific time, or relative to sunrise / sunset – only having a correctly set location) and set the parameters of the task. The set tasks will be visible as a list, individual entries can be edited or deleted.

## SOFTWARE UPDATE

To update the software in the controller, connect it to your home WiFi network (see "Access Point and WiFi Network Settings" section) which is connected to the Internet. Go to "Settings" (icon at the top-right corner of the screen) and click the "Get new firmware" button in the final section on settings. Wait about 1 minute, do not close the interface and don't perform other actions. The device will download the latest software. The software version number, hardware version and device identifier can be read at the bottom of the settings screen.

for more information visit our website

[www.blebox.eu](http://www.blebox.eu)

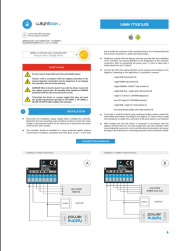
or send us an email to: [info@blebox.eu](mailto:info@blebox.eu)

support is available at [support@blebox.eu](mailto:support@blebox.eu)

made in Europe

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## Documents / Resources

	<p><a href="#">wlightbox IP20 Wireless Wifi LED Controller 5 Channels RGB</a> [pdf] User Manual IP20 Wireless Wifi LED Controller 5 Channels RGB, IP20, Wireless Wifi LED Controller 5 Channels RGB, Wifi LED Controller 5 Channels RGB, LED Controller 5 Channels RGB, Controller 5 Channels RGB, Channels RGB</p>
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## References

- [BleBox - smart home, automatyka, inteligentny dom](#)
- [User Manual](#)

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