

control with µWiFi technology from any place in the World

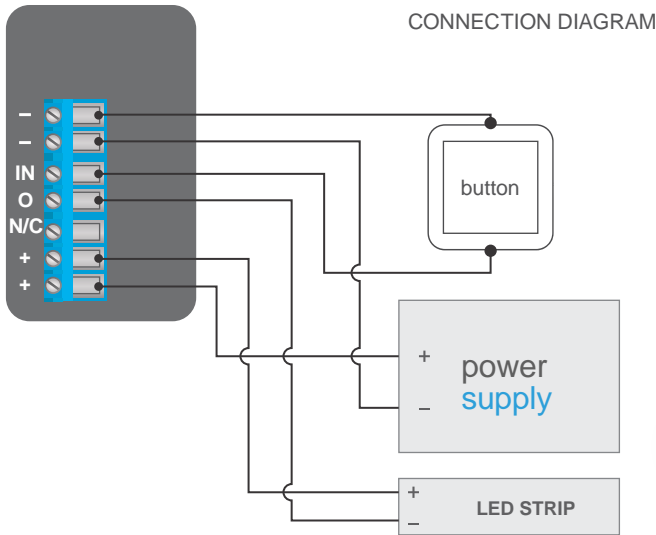


WIRELESS LED DIMMER 12-24V DC WITH EXTERNAL ANTENNA

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

**SAFETY RULES**

- Do not connect loads with a higher power than allowed.
- 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 o, 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 specied in EN 50081-1, EN 50082-1, UL508, EN 60950 will invalidate the warranty.



**1 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 o 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 ush box or inside the enclosure of the controlled device. It is recommended that the device be mounted in a stable and xed 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 monochromatic LED strip paying attention to the polarity - the cathode wire "+" (usually red color) should be connected to the "+" connector of the controller, while the anode wire "-" (usually white color) should be

connected to the O output. The controller also allows to control halogen bulbs, then the connection polarity of the wires is not important.

- 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).

**2 FIRST START**

- Download the **free wBox application**. If you have an Android mobile device, you will nd 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 nd the network name "wLightBoxSPRO -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 conguration 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)

- Test the controller's work by moving the brightness selection scrollbar several times in the extremes and intermediate positions - the light source should change its brightness. The control panel also has an additional eect menu - 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 predened brightness values and set the duration of the brightness change.

**3 OTHER DEVICE SETTINGS**

- Go to the conguration ("Settings" icon in the upper right corner of the screen). In the "Main conguration" 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 o the built-in LED on the device.

- The "Output mode" option denes the type of the output signal. In the case of controlling standard LED strips or halogen bulbs the default value should be left at "Linearized PWM". Some LED lighting xtures with integrated electronics require the value to be set to "Linearized and inversed PWM".

**4 ACCESS POINT AND WIFI NETWORK SETTINGS**

- Once you turn on the controller for the rst time, you can proceed to its further conguration. 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 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 nished conguring 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

supply voltage	12 - 24V
maximum current	5A
maximum voltage	12 - 24V DC
maximum load	120 W
color mode	MONO
energy consumption	< 1W
number of outputs	1
outputs type	open-drain, PWM, low side control
number of inputs	1
supported switches	monostable (push-button), not-illuminated
inputs type	low voltage, logical, push- -button, short circuited to GND
dimensions	50 x 92 x 28 mm (without antenna), 85 x 230 x 28 mm (with the antenna located vertically), antenna length 197 mm
housing	plastic, covered with a polyurethane composition not containing halogens, self-extinguishing for thermal class B (130°C)
protection level	IP54
antenna output	yes
antenna connector type	RP-SMA
antenna	omnidirectional, 5dB gain - included in the kit
protection	inverted polarization, ESD
mounting method	two oval mounting holes with dimensions of 18 mm x 3,5 mm (width x height) or self-adhesive element (tape)

communication standard	µWiFi, compatible with WiFi, 802.11g
transmission type	bi-directional, encrypted
radio frequency	2.4 GHz
API	open
mode	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)
compatible devices and systems	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, confrm 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 recommened 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" eld, should appear the approximate coordinates of your location. If the "Set locations" button blinks red with the word "Error", or the "Coordinates" eld 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 specic 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 rmware" button in the nal 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.

