






## SAFETY RULES

-  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.
-  The installation of the device to a power mains that does not meet the quality requirements defined by PN-EN 50160, will result in the loss of the warranty.

## 1 INSTALLATION - BASICS

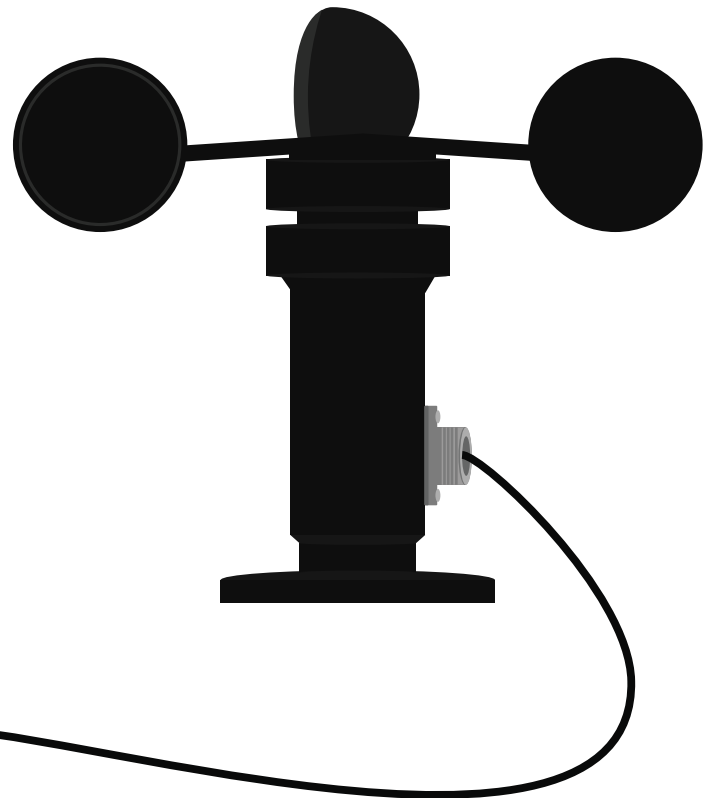
- Disconnect the installation supply voltage before installing the controller. Remember that any mounting works should be carried out when the mains voltage is disconnected (switch off the mains fuse or disconnect the power cord from the mains socket).
- The controller should be installed in a place protected against accidental destruction. Remember that metallic elements (wires, large fitting elements) have a negative influence on the range of the device, and consequently the comfort of use. It is recommended that the device be mounted in a stable and fixed position with the antenna upside. When installing the device outside of dry rooms, pay special attention to provide tightness of the rubber cable glands.
- Read the diagram and then proceed to install the controller. Pay particular attention to the designation of the controller connectors. Start with power wires - phase L (usually brown) and neutral N (blue).
- Then connect your wind and rain sensors to the appropriate connectors.
- 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 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 „windRainSensor-xxxxxxx” where xxxxxxxx is the serial number of the device. Connect to this network.
- Turn on 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)

## CONNECTION DIAGRAM



### 3

## MEASURING DATA

- The main screen of the controller shows the current reading from wind and rain sensors.
- Historical measurement data is available by clicking on the diagram icon in the upper right corner of the screen which is displayed only when the device has access to the Internet - the data are stored only on the BleBox server.
- Historical measurement data can be exported for further analysis. The export form will be displayed after clicking on the cloud icon in the upper right corner of the screen.

### 4

## 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.
- To communicate with the device from outside the local Wi-Fi network, from anywhere in the world, through the wBox application, the option "Enable remote access" must be set to "Yes". Selecting the option "Yes" also means accepting to send measurement data to blebox.eu server in order to process them and archive them together with the location. Setting this option to "No", will cause no access to the controller from outside the internal network or access to the historical data; it will only be possible to obtain a visualization of the current values.
- Setting the "Enable event log" option to "Yes" will cause the device to record events (e.g. sending the notification set in the "Actions" section) in the BleBox cloud system. This allows the history of the events to be viewed later also when the controller is offline.
- If you do not have one of the sensors you can disable its display on the main screen by setting the "Sensor on" option to "No".

### 5

## ACTIONS

- The controller allows you to send control commands to other controllers of the wBox series via the WiFi network through the API. Each action will be deployed on particular trigger, eg. it started raining.
- When editing actions for wind sensor select "Control other device" as the "Action type", select "Average wind speed bigger than", "Average wind speed smaller than" or "Wind speed bigger than" as the "Trigger". In the "Trigger parameter" field enter the border value after which the action is to be called once. Selecting the "Do not trigger more often than" option will trigger the action at every specific time, set in the "Value in minutes" field, throughout the period of the exceeded value.
- When editing actions for rain sensor, as "Action type" select "Control other device", as "Trigger" select "Start raining" or "Stop raining" after which the action is to be called once. Selecting the "Do not trigger more often than" option will trigger the action at every specific time, set in the "Value in minutes" field, throughout the period of the exceeded value.
- Click on the "Select device" button. The controller will search the network for compatible devices and display them in a list. Select the device you want to control and click the "Select" button. If the device is not listed you must use the general API control method described further.
- Then in the "Call API" field enter the API command that the driver will call.
- The most popular API commands for shutterBox and wLightBox are presented below. It was assumed that the IP address of the device which will be controlled is: 192.168.1.123

Opening the window by the shutterBox: <http://192.168.1.123/s/u>

Closing the window by the shutterBox: <http://192.168.1.123/s/d>

Change LED strip color to red by the wLightBox: <http://192.168.1.123/s/ff000000>

Change LED strip color to yellow by the wLightBox: <http://192.168.1.123/s/ffff0000>

Change LED strip color to green by the wLightBox: <http://192.168.1.123/s/00ff0000>

- If the device was not on the found list or you want to control another device in the network, select "Call URL" as "Action type".
- In the "URL" field, enter the API command preceded by the http protocol prefix and the IP address of the wBox device which will be controlled. The IP address can be found in the device settings. Caution! All the controllers must be in the same subnet, usually the subnet of a home router.
- Confirm the entry with the "Save" button.
- A detailed description of how to control other controllers of the wBox series is available in the "Extended instructions for wBox devices", while all the technical documentation API of the wBox controllers is available at: <http://technical.ble-box.eu>

### 6

## NOTIFICATIONS

- The controller allows you to display a system notification on a phone with the wBox application installed on the particular trigger, e.g. rain.
- Notifications are added similarly to "Actions" - as "Action type" select "Notification / Event log", fill in the remaining fields of the form and confirm with the "Save" button.
- In order for the notification to be displayed on the phone it is necessary to allow the controller to display notifications. Go to the main menu of the wBox application, to the "Notifications" tab. Then go to the settings (the "Settings" icon in the upper right corner of the screen). Find the device on the list and select "Action notification" from the drop-down list next to the device name. You can also select other types of available notifications or µPortal notifications. Confirm the change of preferences with the "Save" button in the upper right corner of the screen.
- If notifications are not displayed despite their configuration check in the phone system settings (Android / iOS) whether the wBox application is authorized to display system notifications.

### 7

## 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 required, enter the WiFi network password. During the connection of the controller to your home network, the phone / tablet may disconnect 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 anywhere 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	
supply voltage	230 V AC
energy consumption	<1W
number of inputs	2
inputs type	designed to connect a wind and rain sensor
status signaling	yes, LED for each input
controller signaling	blinking blue diagnostic diode (option to switch off in the controller settings)
dimensions	50 x 92 x 28 mm
housing	plastic, covered with a polyurethane composition not containing halogens, self-extinguishing for thermal class B (130°C)
protection level	IP54
controller operating temperature	from -20°C to 50°C
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
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)
radio frequency	2.4 GHz
API	open
compatible devices and systems	Apple iPhone, Apple iPad, iPad Mini, Android, computers and mobile devices supporting HTML5
encryption	WPA2-PSK and authenticated encryption with associated data (AEAD)

## ADDITIONAL INFORMATION

### LOCATION AND TIME OF THE DEVICE

To be able to use historical data, it is necessary to set the clock and location of the device. Go to the "Device time" section of the settings and then click "Change zone". Select your region and locations from the list, confirming your selection with the "Save" button. The device will synchronize its time with the time server (if the controller is in a WiFi network with Internet access) or it will download time from the phone/tablet.

Next, in the "Device location" section, click "Set locations". The application will ask whether to share locations - allow. In the "Coordinates" field, the approximate coordinates of your location should appear. 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 occurred in the location download. You should then make sure that the phone / tablet has a GPS module and that the location sharing support is enabled on the phone.

### SOFTWARE UPDATE

To update the software in the controller, connect it to your home WiFi network (see "Access Point and WiFi 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)

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