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User Manual

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

doorbox v2 WIRELESS DOORS, PEDESTRIAN DOORS, LOCKERS, DRAWERS CONTROLLER

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.

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.

1 INSTALLATION - BASICS

The connection diagrams can be found at the end of the manual

- 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 flush box or inside the enclosure of the controlled device. Remember that metallic elements (wires, housing parts) 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.
- Read the diagram and then start assembling the controller. Pay special attention to the connector markings. Start by connecting the power cables: (+) (red or black with a white dashed line) and (-) (black). The polarity of the controller power connection does not matter.
- Connect the electric bolt lock / electromagnetic lock circuit, between power supply, relay contacts and ground. The built-in relay has a potential-free normally open contacts, i.e. those in which a pair of contacts is open at rest and closes when the user presses the control button.
- The controller allows for receiving feedback on the door's closed state, indicating the door's position when fully closed and in an intermediate position. To do this, connect the circuit of an electromechanical limit switch (e.g., a reed switch) between IN1 and the (-) of the controller. The polarity of the controller input connections does not matter. It is also possible to connect a digital inductive proximity sensor – this sensor should be connected to the power supply, and the sensor's output should be connected to the IN1 input of the controller.
- To open the door using an optional monostable switch (bell switch), the switch circuit should be connected between the IN2 input and the (-) of the controller. This type of switch is most commonly used as an exit button for a building or property.
- The 'IN3' input can function as a 'doorbell' for a door/gate. You can connect a standard monostable (bell) button to it or, optionally, if the intercom has an output with a doorbell signal from the intercom. It is set by default to send a notification to the phone.
- 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 "doorBox-xxxxxxxxxx" where xxxxxxxxxx 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.
- Test the work of the controller by clicking the door icon - the connected electric lock should activate and the door open.
- If a wall push-button has been connected, check its operation. By pressing the button, the electric lock should work.
- If a door position sensor (e.g., a reed switch or inductive sensor) has been connected, check the visualization of the door's open/closed status. If the controller displays the position incorrectly, change the limit switch detection method. To do this, go to settings (the 'Settings' icon in the upper right corner of the screen), and then select a different method in the 'Limit Switch Detection Method' option. Remember to save the settings by clicking the 'Save' button, and then return to the main panel by clicking the arrow in the upper left corner. Check again to see if the door position status is displayed correctly.
- Go to settings (the 'Settings' icon in the upper right corner of the screen). In the 'Gate' section, in the 'MJPEG Stream URL' field, you can enter the URL of the stream from the IP camera monitoring the door.
- In case you need to make changes in the advanced controller settings, click on "Show advanced" button. Will appear additional options.
- In the "Gate output type" field, the output behavior can be changed between the normally open output (NO - when the output is not shorten) or normally closed (NC - in other words at rest state pair of contacts is shorten, opens when the user press the control button). It is also possible to adjust the duration of the impulse in the output - between 0.1 sec. to 15 seconds - after a single press of the control button.

3 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 also configure the network settings using a web browser. After connecting to the controller's wireless network, turn on the browser and go to www.blebox.eu
- 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 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.

4 ACCESS MANAGEMENT

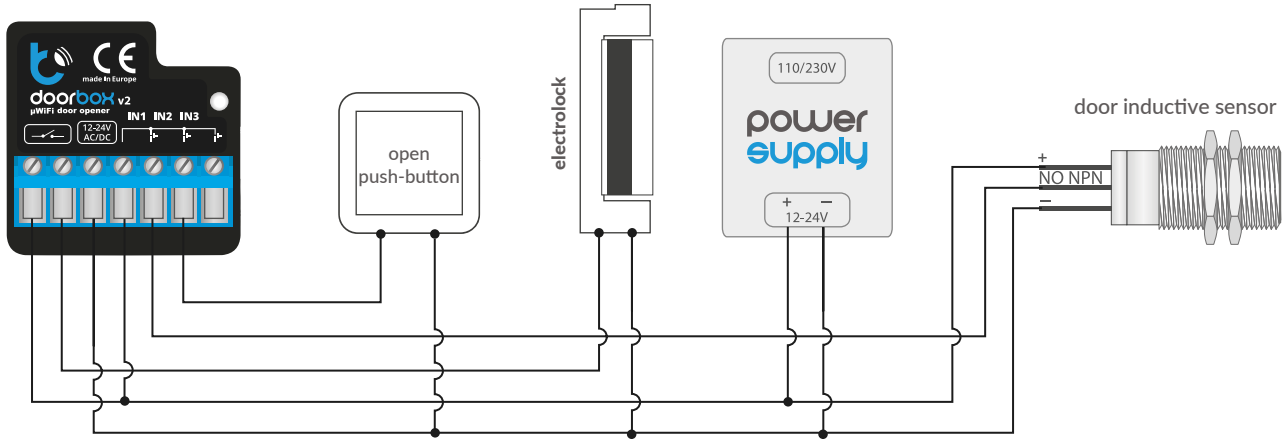
- Return to the controller settings. In the “Access management” section, you can also create accounts for the gate users. This provides additional protection for access to the controller. If you create users, the option of adding a controller to the wBox application and its control will be available only after entering the correct login and password.
- To add a new user, in the “Access management” section, press the “Add” button and then fill in the new window the “User name” and “Password” fields and press the “Save” button. If at least one user account is added, the controller will require logging each time the controller is added to the wBox application. Only after logging in the controller, it will be possible to control the motor.

TECHNICAL SPECIFICATIONS

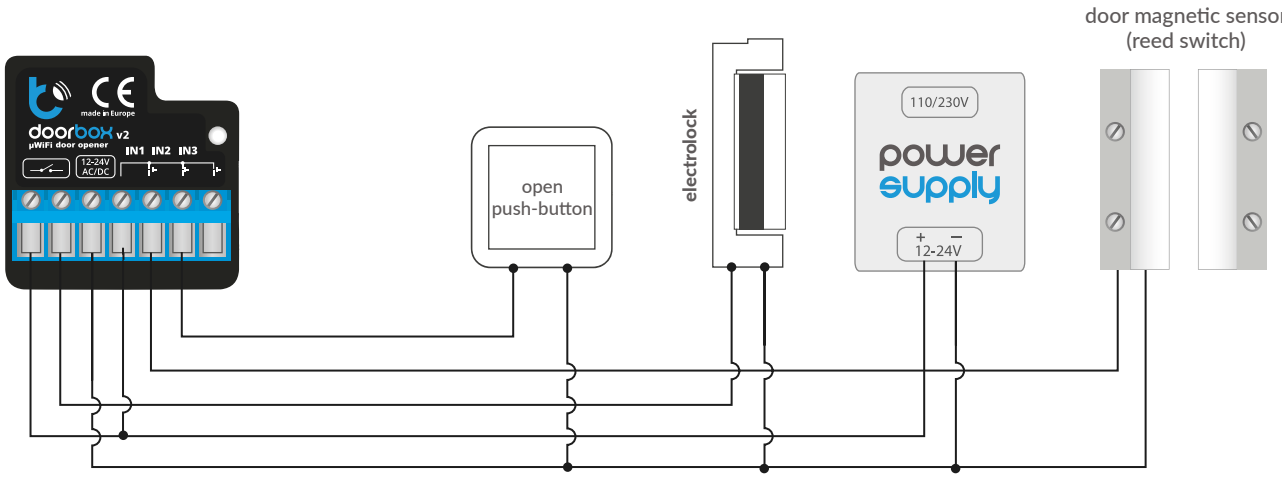
supply voltage	12-24V AC/DC
energy consumption	<1W
number of outputs	1
output type	relay, normaly open, separated
maximum load	5A 230V AC 5A 30V DC
maximum power	1150 VA @ 230V AC (1150W resistive load, eg. heater), 150W @ 30V DC
number of inputs	3
inputs type	logical, pushbutton, short circuited to COM
voltage range	12 - 24V AC / DC
polarization inputs	any
galvanic isolation	yes
dimensions	39 x 39 x 22 mm
housing	made of polyurethane composition not containing halogens, self-extinguishing for thermal class B (130 °C)
protection level	IP20
mounting method	in the flush-mounted box, inside the wall, inside non-metallic housing of the controlled device
communication standard	µWiFi, compatible with WiFi, 802.11g
radio frequency	2.4 GHz
transmission type	bi-directional, encrypted
API	open https://technical.blebox.eu/
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	iOS (e.g. iPhone, iPad), Android, Windows, macOS (ARM processors labeled M1 or newer)
controller operating temperature	from -20°C to +50°C
encryption	WPA2-PSK and authenticated encryption with associated data (AEAD)

Connection diagrams

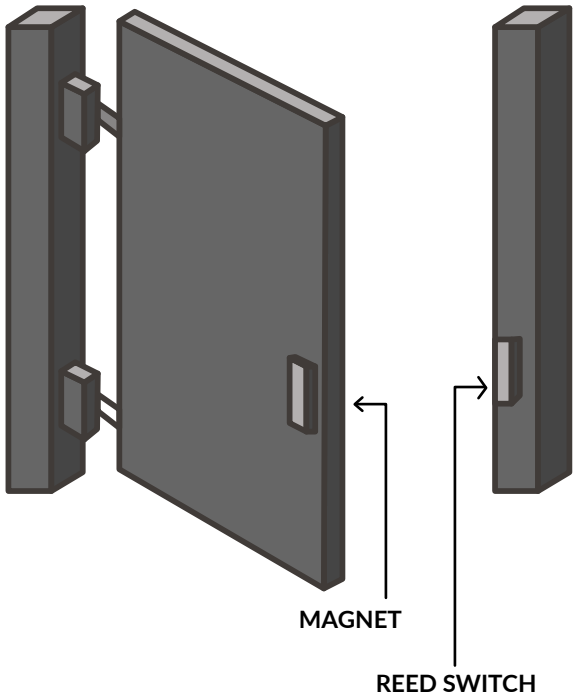
1. Wiring diagram of an inductive door opening sensor



2. Wiring diagram of an inductive door opening sensor



3. Installation diagram: reed switch sensor



4. Installation diagram: inductive sensor

