



Tedee smart relay module

Installer's manual

Tedee smart relay module is an additional accessory for your **existing relay controller**. The module is designed to secure your electronic door lock, garage gate, parking barrier, or any other devices that are unlocked with an electric signal.

Adding a Tedee smart relay module to your setup lets you control your devices from anywhere using our designated smartphone application.

Be aware that **this module is not the relay controller**; they are two separate devices.

Tedee smart relay module is wire-connected to a relay controller. It can also be accessed by a local Wi-Fi network and the internet to integrate with an online cloud platform. This allows you to have a remote and wireless smartphone control for your device—no matter the distance or location.



Cloud connection

Be aware that the Tedee smart relay module can only work if your smartphone is connected to the internet. The cloud connection requires permanent access to the module with an internet network.

If your relay controller cannot connect to a Wi-Fi network, then installing an additional mobile data Wi-Fi router (which may involve a monthly fee) is necessary.

Please note that short-distance **Bluetooth or direct Wi-Fi connections are unavailable** for local device control.

Furthermore, **unlocking** Tedee smart relay module also **requires an internet connection from the smartphone**. Be aware that if you are installing the relay controller for devices in locations without an internet connection, such as underground garages or closed corridors, you'll have to find an internet connection to unlock it.

In addition, an electric unlocking button can be connected to the module.

Preparation for installation

Setting up a Tedee smart relay module requires some technical knowledge. Follow the steps below to ensure the module is compatible with your hardware device.

Compatibility

Both DC and AC power the Tedee smart relay module with a voltage range of 12-24V. It supports relay openers supplied with a 230V and up to 5A current.

Relay controller's location and approval for alteration

The module is installed inside the relay controller, which may be far from the device you wish to control. For example, the relay controller for a property's fence gate may be installed in the garage, etc. The relay module is not installed directly at the gate, intercom, or on a door lock.

Wi-Fi ranges

After determining the relay controller's location, you must confirm that this spot has a permanent internet –connection or Wi-Fi network access to work correctly.

The data transfer to and from the module and between the Wi-Fi is minimal, so the connection does not require a specific transfer speed. However, ensure the relay controller has a steady connection to an accessible wireless network and that you have its password or can access its configuration.

Installation tutorial

The installation process of the Tedee smart relay module involves an electronic connection, to connect it with the online cloud service, and then integrate the systems with the Tedee application. Simply follow the steps below.

Tedee smart relay module should be installed by qualified installers or electricians only.



Warning



Connect only following the diagram presented in this manual. Improper connections may be dangerous, damaging to the relay controller, and impact your warranty.

Danger! Risk of electric shock! Even with the device turned off, the outputs may still be live. All assembly work should ALWAYS be 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, and EN 60950 will impact the warranty.

Preparation

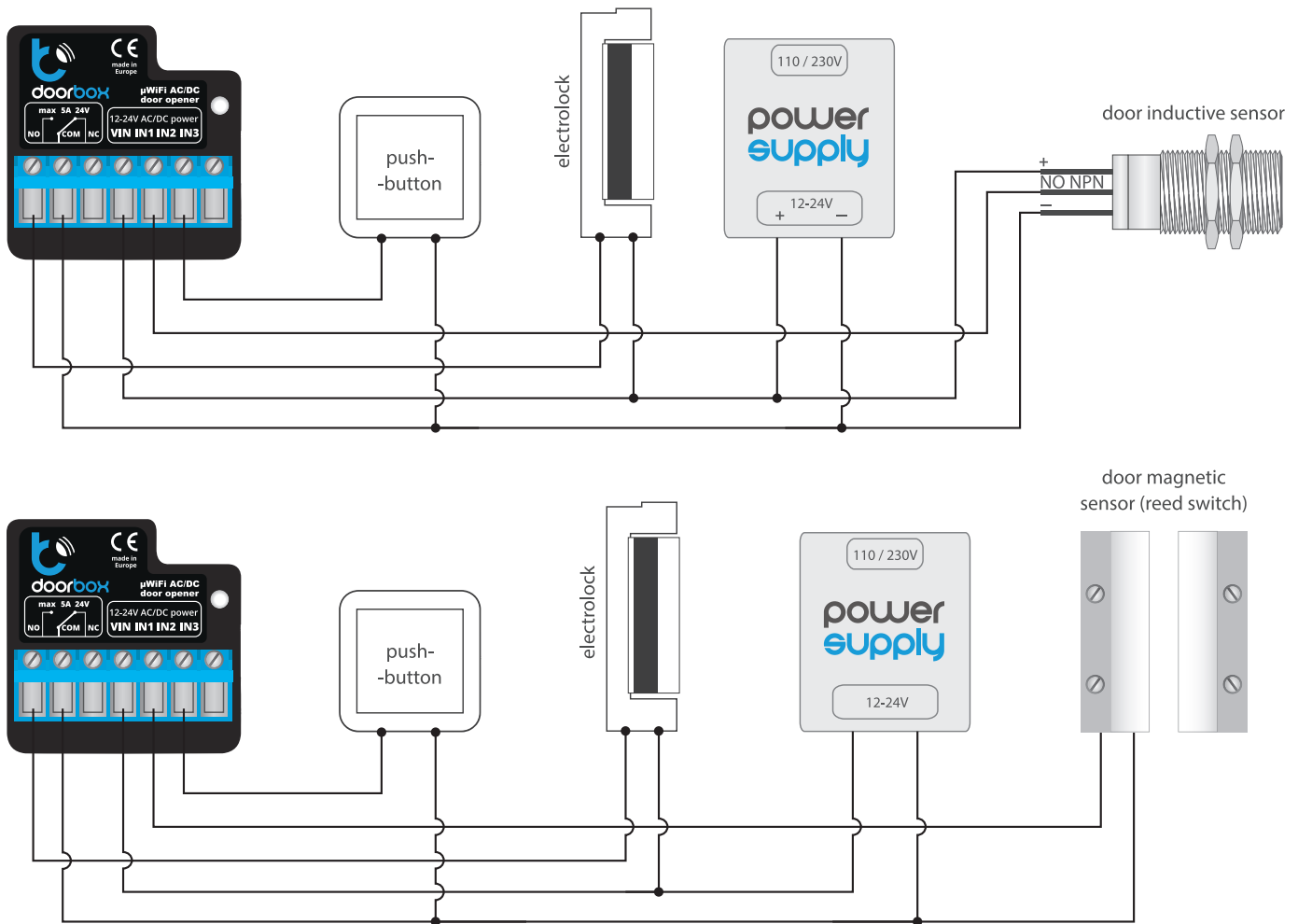
Disconnect the installation supply voltage before installing the controller. Switch off the main fuse or disconnect the power cord from the main socket.

The controller should be installed in a place protected against adverse environmental conditions and third-party access. For example, in the flush box or inside the enclosure of the controlled device.

Remember, the metallic elements (wires, housing parts) may negatively influence the wireless connection of the device and its work. It's recommended that the module is fixed in a steady position.

Read the diagrams below, then proceed to install the relay module. Pay particular attention to the designation of the controller connectors.

Connection



Start by connecting the +12V or +24V power wire (red or black with a white dotted line) to the VIN port and the ground (black) to the COM port.

Connect the electric bolt lock and electromagnetic lock circuit between the VIN and the NO or the NC output. Note the internal relay short NO and NC output to COM. Usually, electric strikes used in pedestrian doors should be connected between VIN and NO. In contrast, electromagnetic locks should be connected between VIC and NC.

The NO output is normally open, which means it does not conduct in the rest state. While the NC output is normally closed, it unlocks when the user presses the control button.

It is possible to receive feedback from the controller, which indicates the relay in the positions 'closed' or 'intermediate position'. To do this, connect the circuit of the electromechanical limit switch with the input IN1 and COM of the controller. Please note that the polarisation of the limit switch inputs does not matter.

It is also possible to connect a digital inductive proximity sensor. This sensor must be powered by the input VIN and COM, and the sensor's output should be connected to the input IN1.

To unlock the relay with the optional monostable switch (push-button), connect the switch circuit to the IN2 and COM inputs of the controller. This switch is normally used as an exit button for a

building or property.

Ensure the device is connected properly according to the diagram and there are no metal components which may accidentally short-circuit.

Now, start the device by turning on the power and turning on the main fuse or connecting the power cord to the power outlet.

Configuring device

Prepare the wBox app

Download and install a wBox by blebox.eu mobile app, available in Google Play and App Store.

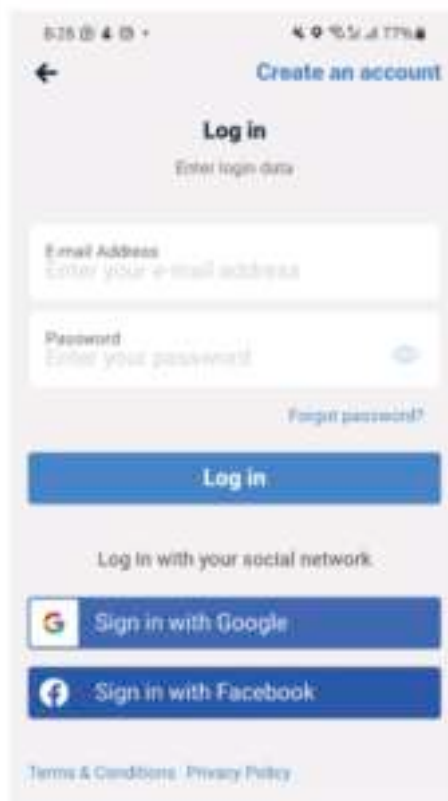
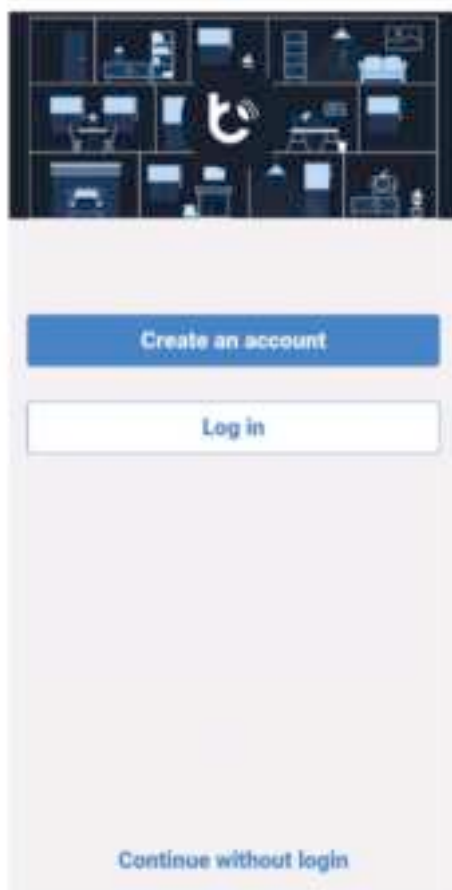


App Store



Google Play

Launch the app and create a login to access your wBox account. Create a new account or log in with Google or Facebook. If you're a professional installer, ensure your client can access this account for future use and configuration.



Begin adding a new device

Start adding a new device by tapping a “+” icon in the top-right corner of the screen.

Select “Add new device.”

Choose “Add and set up a new device.”



Connect to the relay module

Make sure that your relay module is powered.

Turn ‘data transfer’ on your smartphone off.

Enable the Wi-Fi network on your smartphone and search for ‘Wi-Fi devices’.

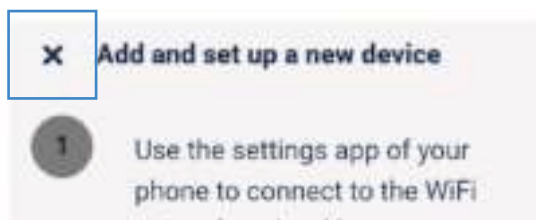
Connect to the Wi-Fi network called “Doorbox - <YourDeviceID>”. <YourDeviceID> will be a set number representing your device’s serial number.



Add the device to your account

Return to your wBox app. Close the integration tutorial window by pressing “X” in the top-left corner.

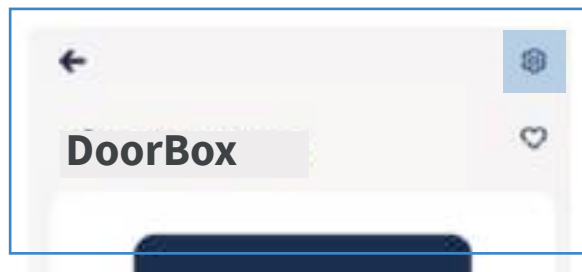
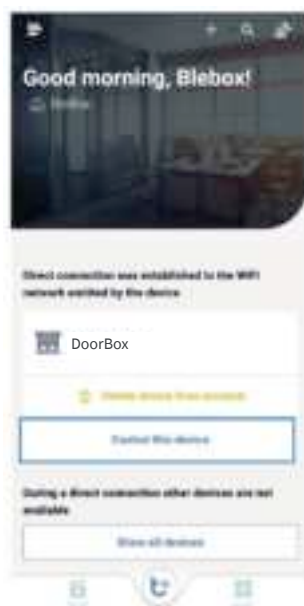
Your app’s home window will show a message stating that you have connected to a new device and can add it to your account. Press “Add device to account.”



Connect to your local Wi-Fi

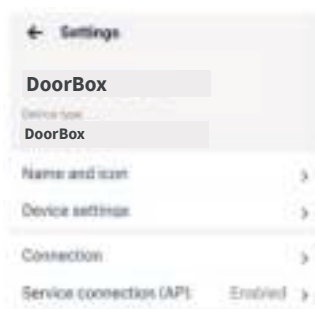
Press “Control this device” under your device’s name.

Press the “Settings” icon in the top-right corner of the screen.



In the device’s settings windows, press “Connection”.

Choose your local Wi-Fi network at the bottom of the screen and log in with your Wi-Fi password.



Disable the device's Wi-Fi network

This step is crucial for secure control over the device for authorised persons only. Without it, any third-party individual can access its configuration.

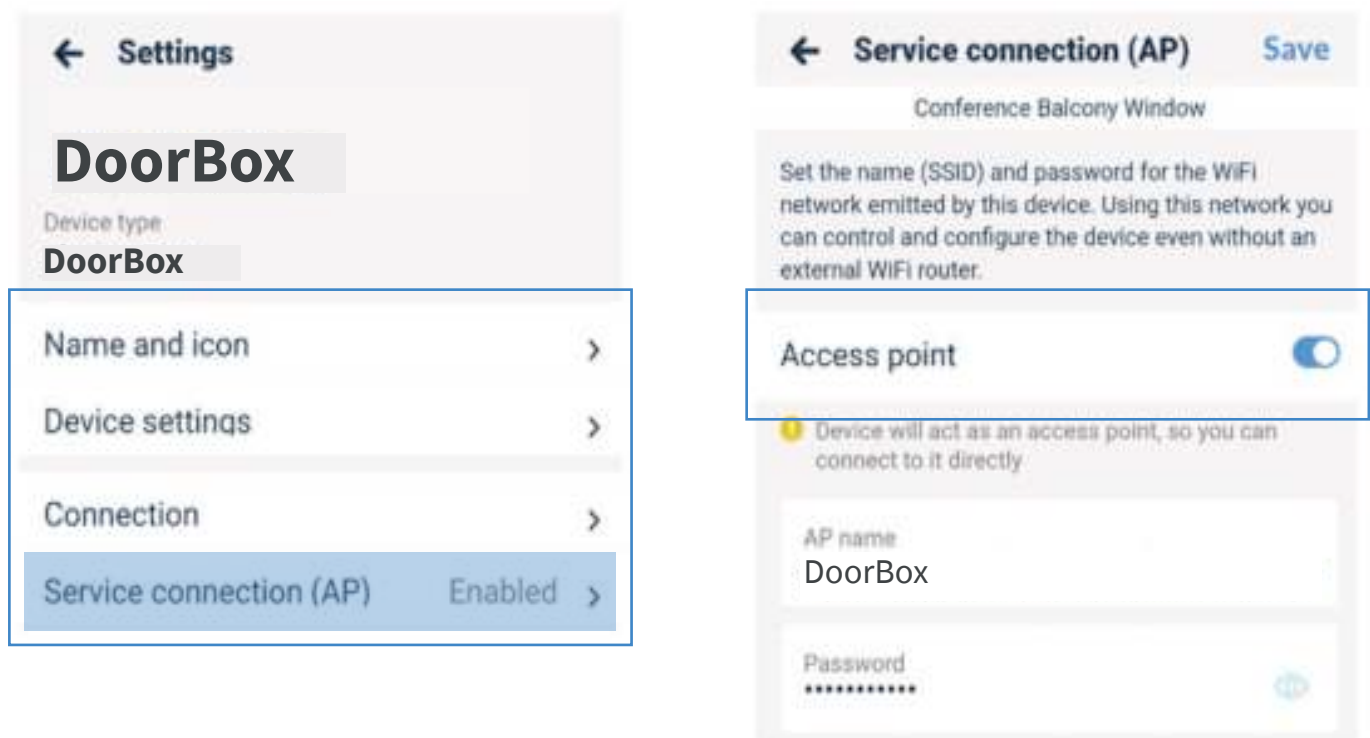
On your smartphone, disconnect from the module's Wi-Fi network and connect to your local Wi-Fi – the same local network your smart relay module connects to.

To prevent the access of unauthorised persons to your relay module, you must disable its own Wi-Fi network.

Return to the device's settings page and choose "Service connection (AP)".

Disable the "Access point" switch.

Press "Save" in the top-right corner.



Configure

In the settings screen above, you can go to "Device settings" to access additional configuration options.

Here you can tailor the module's operation to your Normally Open (NO) or Normally Closed (NC) mechanisms.

You may also adjust the impulse duration from 0.1 to 15 seconds.

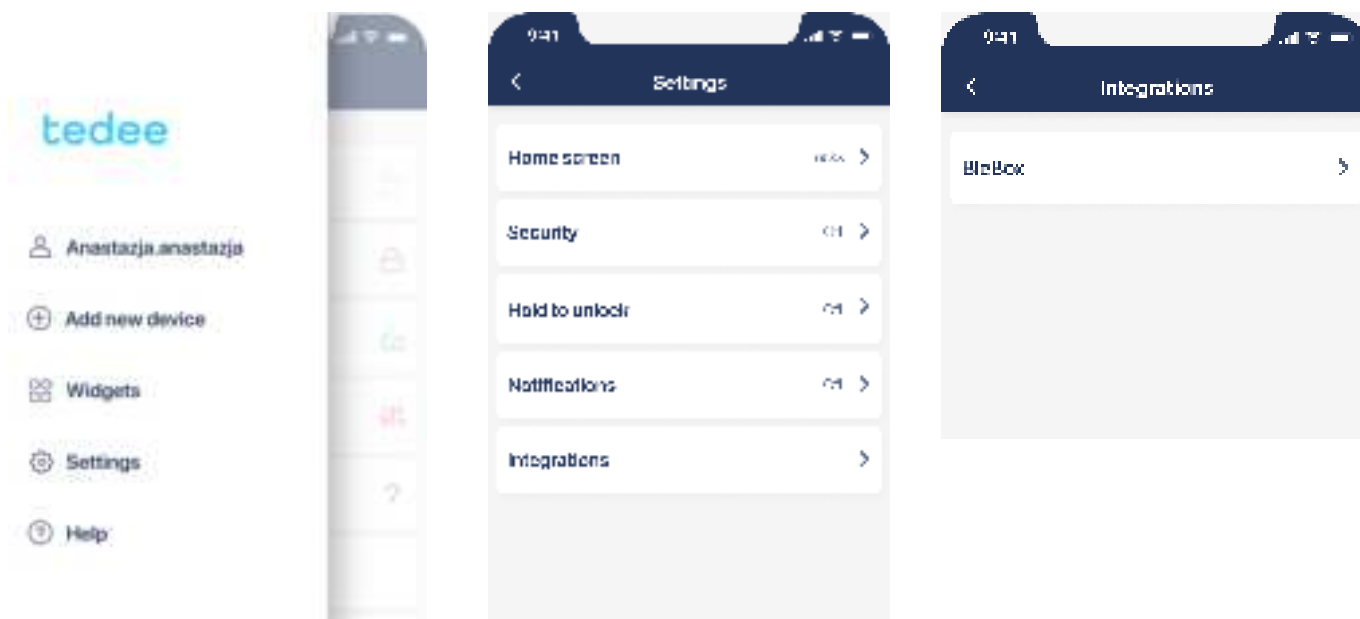
Changing these settings is available only when your smartphone and the relay module are connected to the same local Wi-Fi network.

Integration

Now, you are about to integrate your wBox and Tedee accounts. This is done only once, no matter how many relay modules you add to your wBox account. Any relay module will integrate with the Tedee app.

Launch your Tedee app and log in to your Tedee account. If you still need to become a user, create a Tedee account.

Enable the sidebar menu and choose “Settings”, then “Integrations”, and “BleBox.”

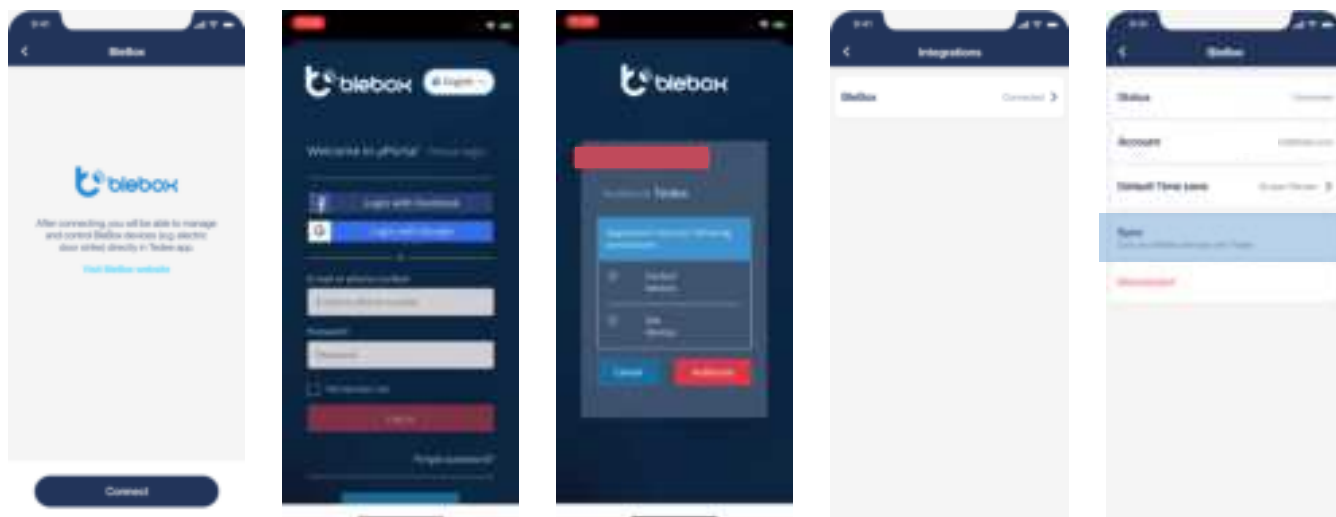


Press “Connect” and log in with your wBox app account details. When asked to authorise Tedee to your wBox account, press “Authorize”.

Now you can see the integrations “Connected” status. The relay module has been added to the list of your devices in the Tedee app.

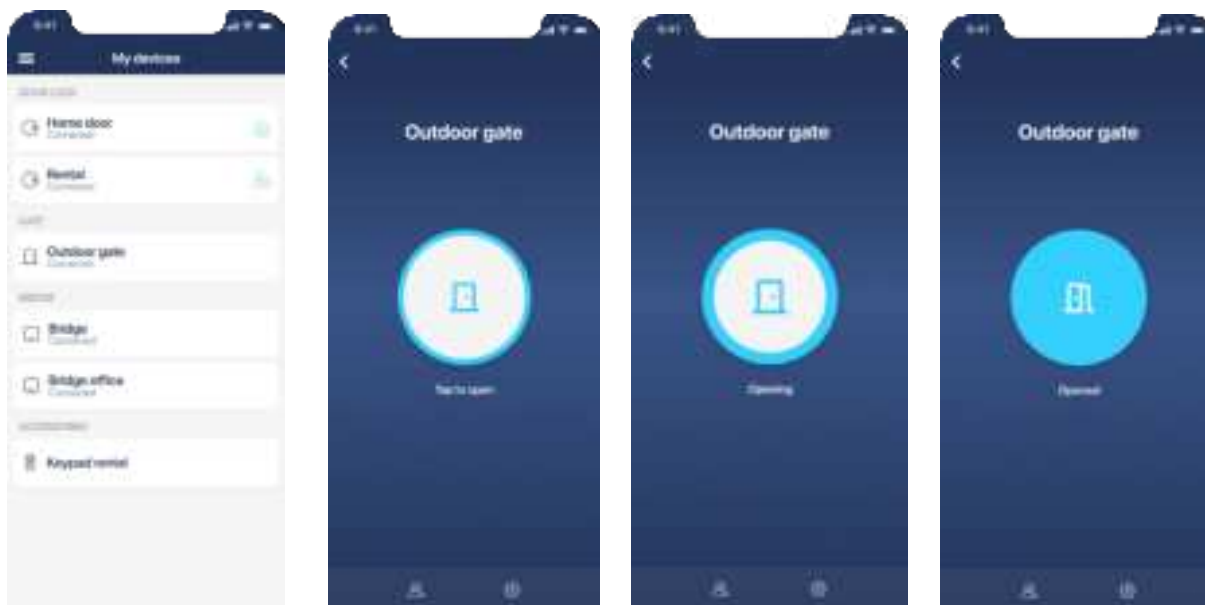
If your Relay Module is not readily added to your devices list, access this integration setting and press “Sync” to refresh.

You can now control your relay with the Tedee app.



How to control your relay with the Tedee app

Press on a relay module to access its control screen.



Tap the centre button to unlock the connected relay device.

During the opening, you can tap the button again to prolong the time of active unlocking. This way, the gate or door will be unlocked longer.

At the bottom of the screen, you can go to the “Access sharing”, “Activity logs”, or “Settings” tabs to access additional features. Go to <https://tedee.com> for more information on how to use smart access features.

Factory reset

If you want to refresh the module’s setup and install it with another hardware, you may want to reset your device using the “factory reset” option.

Be aware that this process removes all device configurations. If you use the “Factory reset” button, the module must be integrated again by following the steps in this manual.

The reset is indicated manually by connecting the module to an analogue monostable button and following a sequence of presses.

Prepare a timer or use the watch to keep track of the sequence of steps.

Connect a button

The reset is indicated manually by connecting the module to an analogue monostable button.

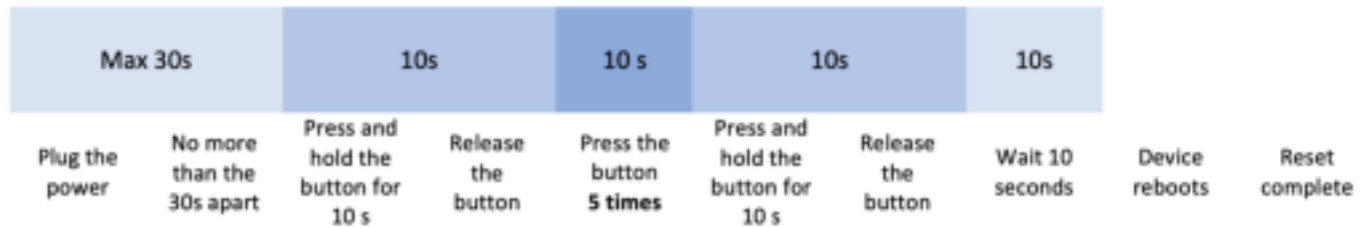
Before manipulating the installation wires, turn the system’s power off.

Plug the button to IN1 on the module and the ground port.

If you already use a monostable push-button in your setup, please, reconnect it from IN2 to the IN1 port.

Follow the reset sequence

1. Before turning the power back on, follow the reset sequence and keep track of the buttons you use. Start the sequence no more than 30 seconds after turning the power back on. If you don't start the sequence in this period, turn the power off and back on again.
2. Press and hold the button for 10s seconds. Then release.
3. Click the button five times – press and release it rapidly. All five clicks should be executed in no more than 10 seconds
4. Press and hold the button for 10 seconds again. Then release.
5. Wait 10 seconds. During this time, the module reboots and turns back on in the factory settings.



Return to previous connections

After the factory reset, you may want to replug the monostable button to its primary setup or remove it altogether.

Turn the system's power off.

Replug the button from the IN2 to the IN1 port

or

unscrew the button wires and remove them.

Plug the relay device back into the IN2 port.

Turn the power back on.

Finally, the module will maintain the new factory configuration settings, and you can pair it with your other apps and devices.