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WiBee

Installation & User Guide

Wi-Fi, Bluetooth and 433MHz remote-receiver control unit for gates, doors and lighting systems



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Important information before installation



Warning

Installation, maintenance and repairs must be carried out by an authorized installer only.



Caution

The unit requires a stable 12VDC/1A power source. Protect the unit from excessive humidity, rain and insect infiltration. Install the unit in a waterproof, dustproof enclosure.



Note

If the unit is installed in a metal cabinet or housing, connect an external antenna that reaches outside the cabinet.

* Optional feature – may involve an additional charge (e.g. management via the web interface).

** For accurate time, the unit must be connected to Wi-Fi.

CHAPTER 1

Product description

WiBee units are IoT units based on Wi-Fi and Bluetooth, with a 433MHz remote-control receiver, for access control and management through an onboard relay. Control the unit with a dedicated app or an easy-to-use web portal. It integrates with electric gates, doors, lighting systems and any appliance that benefits from remote control and management.

**Important**

An annual subscription is required to use this product.

1.1 Key benefits

- Remote access and control from anywhere, at any time, while connected to Wi-Fi
- "Nearby only" permission – allows opening from nearby only
- Smart automatic opening on arrival (PalGate app connected to the car multimedia system via Bluetooth)
- Compact size: 53×80 mm
- Managed with the free PalGate app or the web portal*
- Four LED indicators for power, connection status and signal strength
- Define multiple administrators and authorized users
- Real-time alerts by email and push to the app while the unit is connected to Wi-Fi
- Voice control with Siri and Google Assistant
- Timers, events, calendar and holidays, and a programmable astronomical clock**
- Import and export users with Excel files*
- Programmable relay activation time (default: 2 seconds)

CHAPTER 2

Product features



Figure 1 – The WiBee unit

- Control with the PalGate app (iOS and Android)
- Unlimited number of users. Each unit includes 5 app users, with an option to add more*
- 1 output relay (N.O./N.C.)
- 1 input with real-time alerts by email and push to the app while connected to Wi-Fi
- Opening methods: proximity, app, Siri, Google Assistant, remote control and wireless vehicle detector
- Adjustable opening distance ("Nearby only" or unlimited distance)
- User access restriction by days and hours**
- Timers, events and astronomical clock**
- Compatible with 2.4GHz Wi-Fi
- Supply voltage 12VDC
- Part number: WB011-R

CHAPTER 3

Technical specifications

Parameter	Value
Supply voltage	12V DC, 1A
Average standby current	~40mA
Relay contact rating (resistive)	1A, 30V AC/DC
Antenna	SMA, 50Ω
Operating temperature	-20°C ... +70°C
Dimensions	53 × 80 mm
Net weight	87 g
Wi-Fi	IEEE 802.11b/g/n, 2.4GHz
Bluetooth	Bluetooth® 5 (LE)
Remote receiver	433MHz
Part number	WB011-R

CHAPTER 4

Terminals & LEDs

12VDC + – power input, one output relay, one alert input, 2.4GHz antenna (Wi-Fi / Bluetooth), 433MHz remote antenna, Wi-Fi / network LED and three signal-strength LEDs.



Figure 2 – The WiBee unit

Terminal	Function
12VDC + –	Power
N.O.1 • COM 1 • N.C.1	Output relay (dry contact)
INPUT 1 • GND	Alert input (e.g. magnetic sensor)
2.4GHz antenna	Wi-Fi and Bluetooth
433MHz antenna	Remote-control receiver

CHAPTER 5

Wiring

**Warning**

Disconnect power before any wiring work. Maximum relay load:
1A/30VDC; 0.5A/125VAC.

5.1 Electric lock connection

1 Connect the unit power

12VDC/1A supply: + – (polarity does not matter)

2 Connect the lock to an additional supply

The (+) of the lock power supply goes directly to the lock.

3 Route the (–) through the relay

The (–) of the lock power supply to **N.O.1**, and **COM 1** to the other lock wire.

4 Magnetic sensor (optional)

To **INPUT 1** and **GND** – for door status notifications.

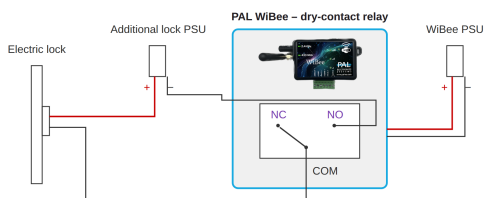


Figure 3 – Electric lock wiring to the WiBee: additional lock supply, (–) switched through the relay N.O contact

**Note**

For electromagnetic locks, or any controller that opens when power is cut, connect to **N.C.1** and **COM 1**.

5.2 Gate operator connection

1 Connect the unit power

12VDC supply: + – (polarity does not matter)

2 Connect to the gate control board

COM 1 and **N.O.1** to the open push-button input of the control board and its common.

3 Magnetic sensor (optional)

To **INPUT 1** and **GND** – for gate status notifications.

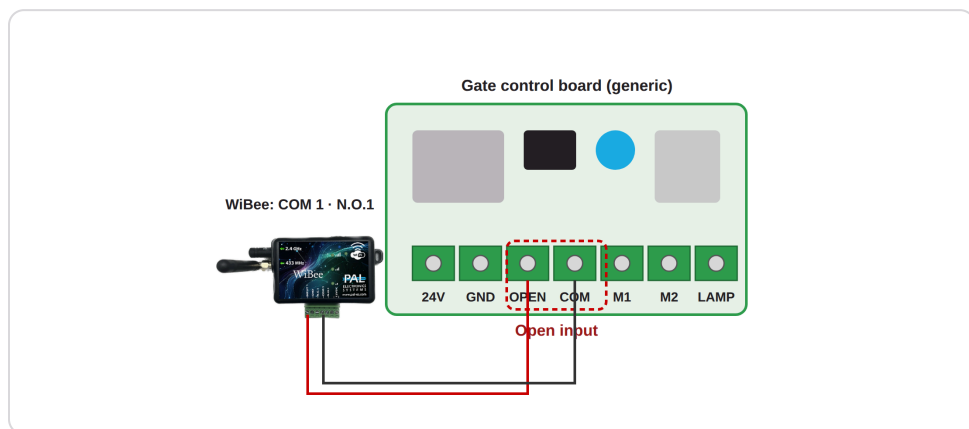


Figure 4 – Connecting the WiBee to the open input of a gate control board (generic drawing)



Caution

Terminal names vary between gate operator manufacturers. Identify the open input according to the control board manufacturer's instructions.



Note

The WiBee output relay is a dry contact – it acts like pressing the open button and does not supply power to the control board.

CHAPTER 6

LED indications

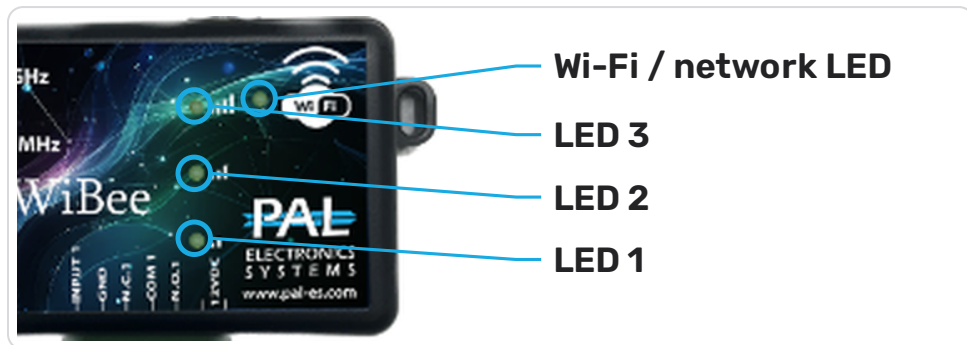


Figure 5 – LED positions

6.1 Wi-Fi / network LED

LED state	Meaning
Fast flashing	System is booting
Steady on	Unit is on and ready to connect to Wi-Fi

6.2 Wi-Fi signal strength

LEDs on	Signal
● ○ ○ LED 1	Low signal
● ● ○ LEDs 1-2	Good signal
● ● ● LEDs 1-3	Very good signal



Caution

Low signal (LED 1 only) may affect unit operation. Move the unit closer to the router or use a range extender.

CHAPTER 7

PalGate app

7.1 Installing the app

Download the app from the App Store or Google Play by searching for "PalGate", or scan the QR code:



- 1 Enter your phone number**
- 2 Confirm your phone number**
- 3 Enter the verification code**
Sent to you by SMS.

7.2 Adding a new device

- 1 Tap the + button**
To add a new device.
- 2 Scan the QR code**
Or choose to add it manually.
- 3 Enter the serial number and code**
Exactly as printed on the unit.
- 4 Tap "Next"**
The device appears on the "My gates" screen.

7.3 Adding users

- 1 **Tap Gate Settings**
- 2 **Select "Manager Options"**
- 3 **Select "Users"**
- 4 **Tap +**
To add a user.
- 5 **Type a name**
Or select from your contacts.
- 6 **Tap "Save"**
The new user receives a notification and appears on the list.

7.4 Opening methods

- App
- Proximity and automatic
- Siri
- Google Assistant
- 433MHz remote control
- Wireless vehicle detector
- Apple CarPlay
- Android Auto



Caution!

Make sure the gate/door has proper, working safety and protection devices before installing the system.

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