

User Manual WiBee System Ver 2.3



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Product Description

The WiBee System IoT units are WiFi, Bluetooth and Sub-GHz Remote Control Receiver – 433MHz system, for access and management control. Through on board relays, users can control the unit via either a dedicated application or an easy-to-use WEB portal. This device seamlessly integrates with electric gates, doors, lighting systems, or any other appliance that would benefit from remote control and management.

IMPORTANT: An annual subscription is required to use this product.

Key Benefits

- **Secure Remote Access** – Full control of the unit from anywhere, at any time while connected to WiFi.
- **Proximity-Based-Access** – “Nearby Only” feature restricts operation to users within physical range of the unit.
- **Smart Automatic opening** – Seamless gate activation upon arrival. (Requires PalGate App connection to the vehicle’s multimedia system via Bluetooth).
- **Compact Size** - The unit has a small footprint, measuring just 80X53 mm.
- **Dual management Platform** – Full system control via the intuitive PalGate App and user-friendly web portal. *
- **LED Status Indicator** – Four integrated LEDs provide clear feedback on power, connection status, and signal strength.
- **User Control**– Define multiple administrators and authorized users for tailored access permissions.
- **Real time Alerts** – Instant updates via email or push notification directly to the PalGate App or Email while the unit has an active WiFi connection.
- **Voice Assistant**– Hand-free operation compatible with Siri or Google Assistant.
- **Advanced Scheduling**– Ability to set timers, events, astronomic clocks and more. **
- **User Management** - Easily import and export data using Excel. *
- **Adjustable Relay Pulse** – Programmable pulse width.

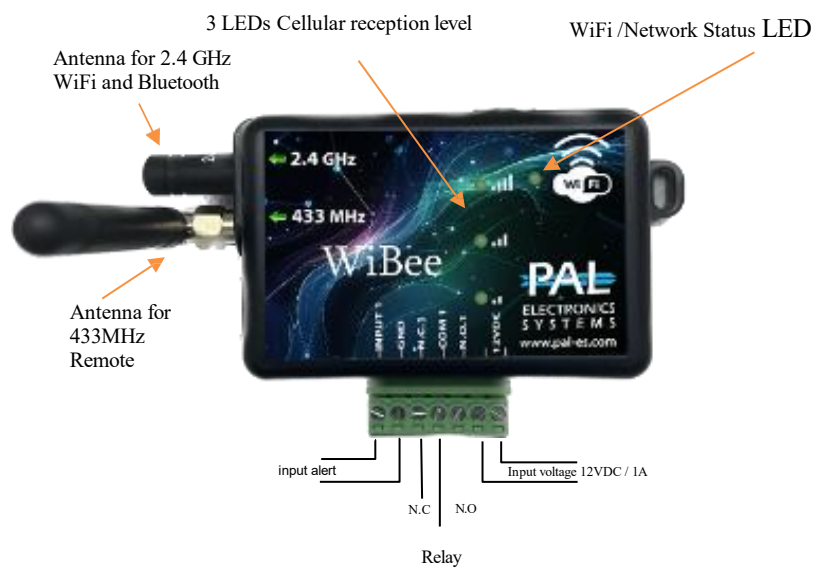
WiBee - Product Features



- Control with PalGate App IOS & Android
- Manage with a App or user-friendly WEB portal *
- The system supports an unlimited number of users. Each unit includes 5 PalGate App users by default, with an option to add more as needed *
- 1 output relays (N.O./N.C.)
- 1 input channels with real-time notifications to Email and push to PalGate App while the unit has an active WiFi connection
- Multiple opening methods: Proximity, App, Siri, Google Assistant, Remote Control & Wireless vehicle detector
- Allows customization of opening distance (Nearby only or unlimited distance)
- API integration available *
- Provides unlimited logs *
- User Access Restriction by Specific Days and Hours **
- Features timers and event scheduling **
- Equipped with a programmable astronomical clock **
- Capability to import and export data via Excel files *
- Adjustable relay pulse width *
- Compatible with 2.4G WiFi.
- Operates on an input voltage of 12VDC
- Compact dimensions: 53x80 mm
- Weight 83 gr
- P/N WB011-R

* Optional feature. Payment may apply

** For accurate time the unit must be connected to WiFi



LEDs key:

WiFi Network LED

Fast Flashing: System is booting

When the LED is steadily on, it indicates that the unit is on and ready to connect to Wi-Fi .

WiFi Signal Strength Indicator

LED #1 ON: Low signal

LED #1 and #2 ON: Good signal

LED #1, #2, and #3 ON: Very good signal

Specifications:

Supply Voltage Range: 12V DC

Average Standby current consumption: ~40mA

Relay Contact Current Rating: 1A, 30V AC/DC (Resistive)

Antenna: 50Ω SMA Antenna interface

Temperature Range: -20°C to +70°C (-4°F to +158°F). **Exterior**

Dimensions: 53mm x 80 mm (2.09 in. x 3.15 in). **Net Weight:** 87 gr (3.07 ounces)

Frequency Bands:

2.4G Wi-Fi: 2412-2472MHz/2422-2462MHz(CE certification)

BLE: 2402-2480MHz

SRD RX: 433.877MHz (This product belongs to receiver category 2)

RF-Output Power:

2.4G Wi-Fi: 13.03dBm

BLE: 2.21dBm

Typical wiring connection to an Electronic Lock:

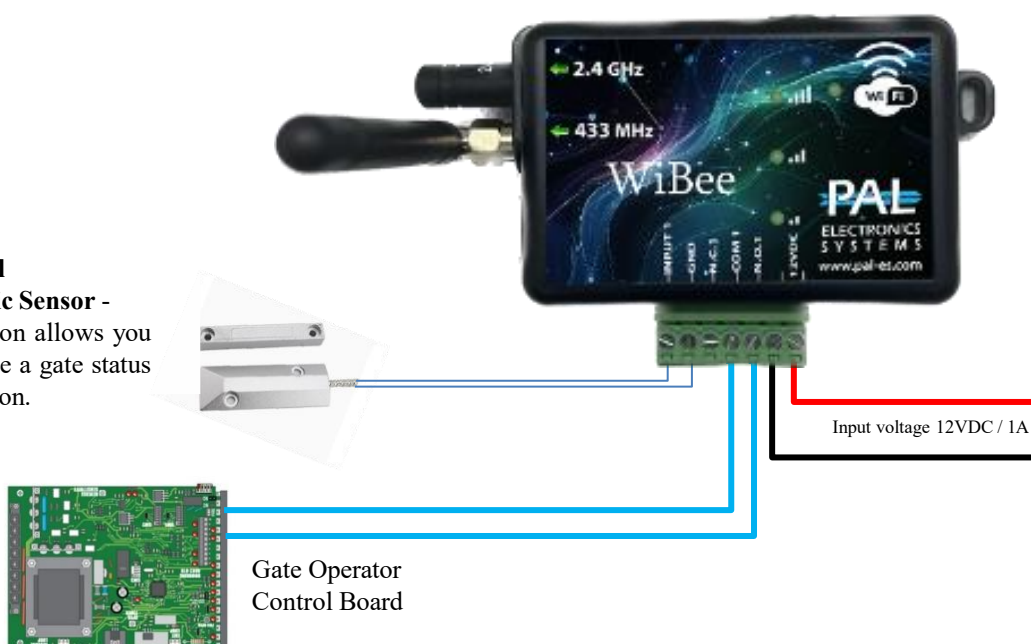
**Optional
Magnetic Sensor -**
Installation allows you to
receive a gate status
notification.



Maximum load 2A/30VDC; 0.5A/125VAC

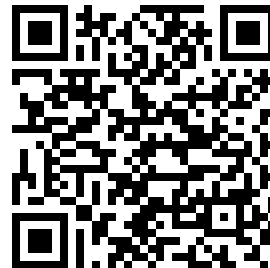
Typical wiring connection to a Gate:

**Optional
Magnetic Sensor -**
Installation allows you
to receive a gate status
notification.

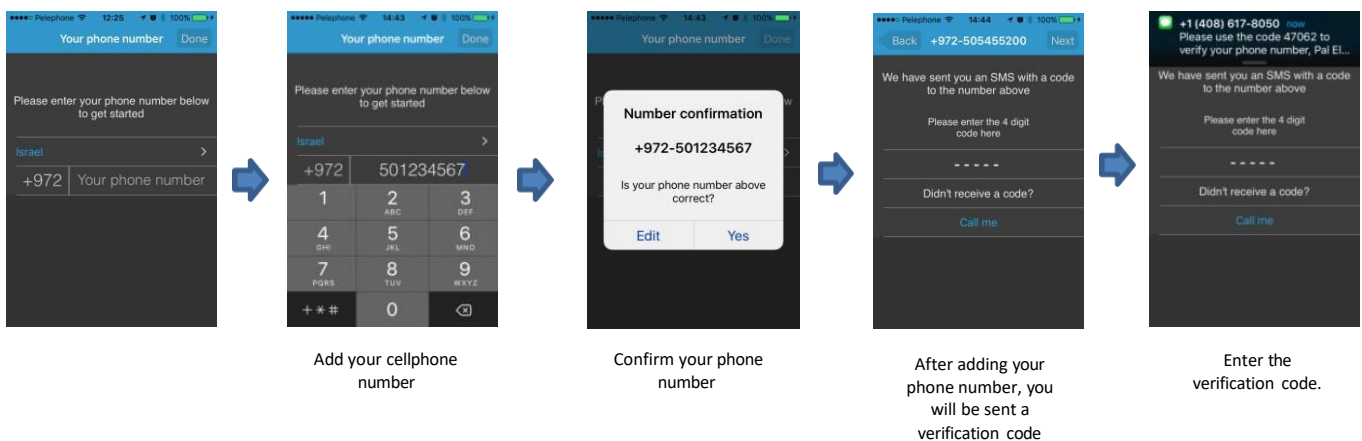


System settings using the PalGate App

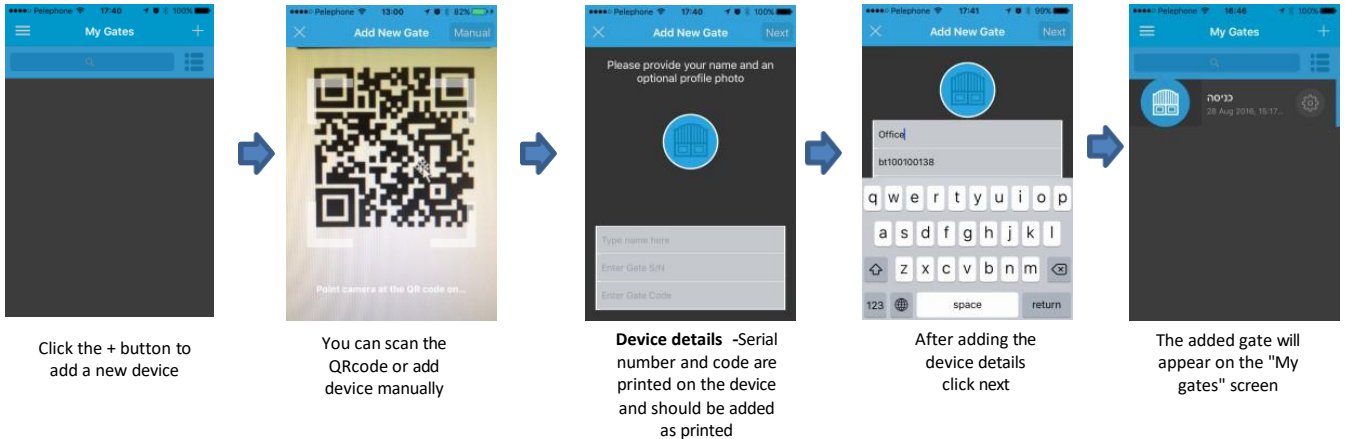
You may download our App from either the Apple App Store or from Google Play by searching for the name “PalGate”. If you prefer, you can access a direct link by scanning the QR codes below:



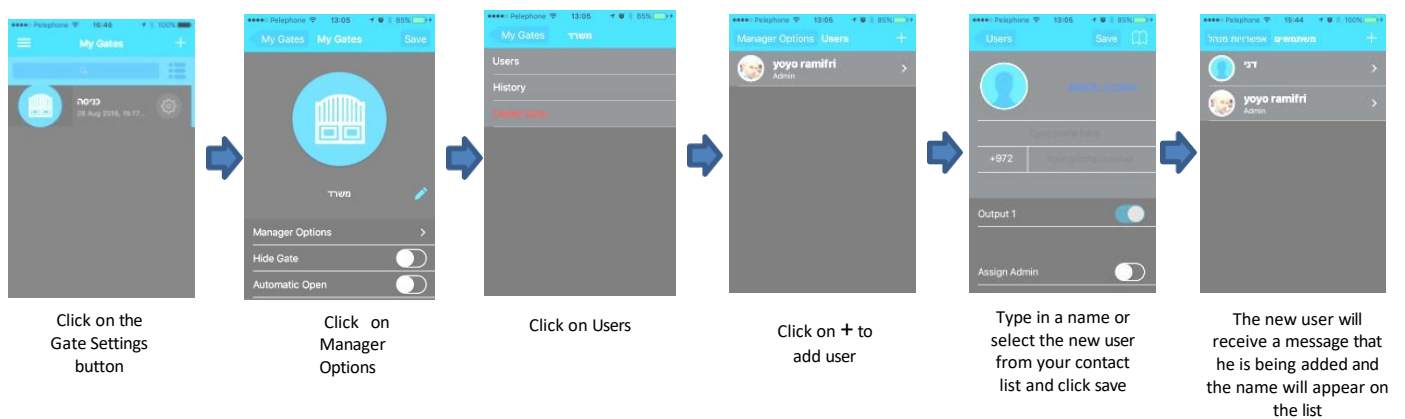
The PalGate App installation process



New device setup



Add a new user



Important Information for optimal operation:

- **Power Requirements:** The unit requires a stable power source of 12Vdc/1A.
- **Environment:** Protect the unit from excessive humidity and prevent insect infiltration.
- **Network Compatibility:** IEEE 802.11b/g/n (2.4 GHz WiFi) and Bluetooth® 5 (LE).
- **Maintenance:** Any maintenance or repairs should only be conducted by authorized installers.

INSTALLATION INFORMATION

1. Mandatory Professional Installation Notice

IMPORTANT: This device must be professionally installed. This product is not intended for sale to the general public and must be distributed exclusively through authorized dealers, value-added resellers (VARs), or certified system integrators. No end-user self-installation is permitted under FCC regulations.

2. Installer Qualification Requirements

Only personnel who have completed Pal electronics systems product-specific installation training are authorized to install this device. This training, provided through Pal electronics systems technical support team, covers commercial wiring, overs RF system integration, antenna installation and positioning, relay and power supply integration, gate/door automation systems, and the device's configuration software. Personnel who have not completed this training are not authorized installers. Ordinary consumers do not have the necessary skills or professional tools to ensure the device is installed in full compliance with FCC regulatory requirements.

3. Authorized Antenna & RF Accessory List

Only the following pre-approved antennas and RF accessories are permitted for use with this device. Unauthorized modifications or use of unlisted components will void the user's operational authorization:

Antenna Manufacturer	Antenna Type	Operating Band	Maximum Antenna Gain
SXN	MONOPOLE	2412-2462MHz 2402-2480MHz	3dBi

All RF cables and adapters used must maintain a total system insertion loss equal to or higher than the value documented in the FCC certification filing. Installers are responsible for verifying that the final antenna gain does not exceed the maximum approved value.

4. RF Radiation Exposure Compliance

This equipment must be installed with a minimum separation distance of 25cm between the radiating antenna and all nearby people. The antenna must not be co-located or operated in conjunction with any other transmitting antenna, to fully comply with FCC RF exposure limits for an uncontrolled environment.

5. Installation Compliance Restrictions

Follow the complete step-by-step installation procedure provided in this manual to ensure the final deployed configuration matches the exact test state documented in the FCC certification. This device is restricted to commercial/industrial/professional deployment scenarios only, and must not be made available for general consumer use. Any changes or modifications not expressly approved by the compliance responsible party will revoke the user's FCC authorization to operate this equipment.