Transmitter SOLUTIONS PAL Cloud Managed Access Controller User Manual

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Product Description

The Spider Systems IoT units are 4G network-based systems, enhanced with Bluetooth 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 interface. This device seamlessly integrates with electric gates, doors, lighting systems, or any other appliance that would benefit from remote control and management.

Key Benefits

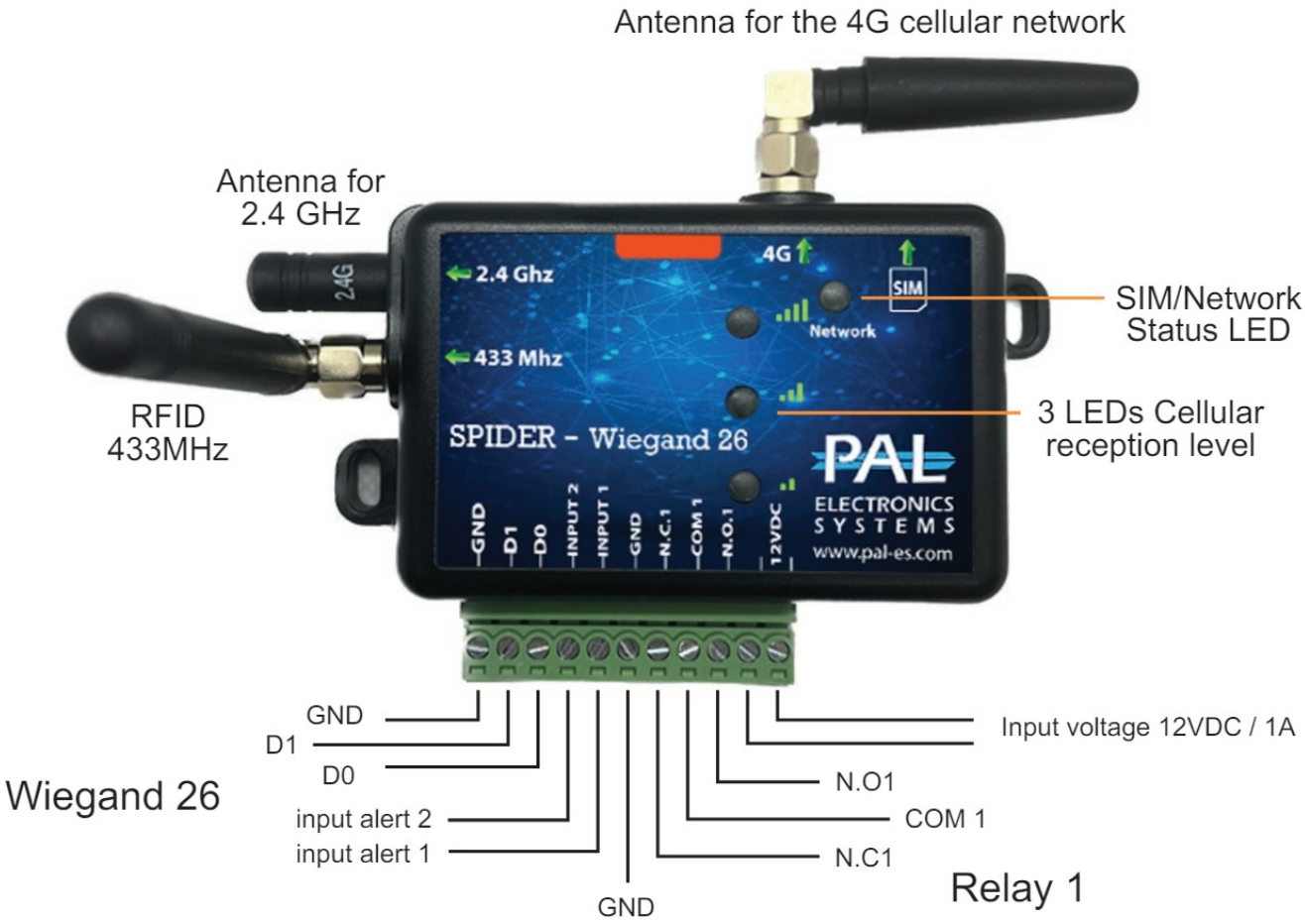
- **Remote Access** – Complete and secure control of the unit anytime, and from anywhere.
- **Peace of mind** – Ensures access even during rare cellular network downtimes.
- **“Nearby only” Feature** – Allows specific users to operate the unit only when in proximity, “Nearby only” feature.
- **Automatic opening** – PalGate App can operate the gate automatically when arriving at the gate by car, this feature will work only when the PalGate app is connected to a vehicle’s multimedia system via Bluetooth.
- **Compact Size** – The unit has a small footprint, measuring just 80X53 mm.
- **Management and control** – using the free “PalGate” App and an easy to use management WEB portal.
- **Visual Indicators** – Features 4 LED lights (1 to indicate that the SIM is active and 3 to indicate reception strength).
- **Customizable Access** – Ability to set up multiple administrators and authorized users for tailored access and control.
- **Real time notifications** – Receive instant email or push notifications to the PalGate App.
- **Voice Control** – Voice-controlled operation via Siri or Google Assistant.
- **Customization** – Ability to set timers, events, astronomic clocks and more.
- **User Management** – Easily import and export data using Excel. Programmable relay pulse width.

Various PAL Spider Models

Model	PALSPREC-101I	PALSPREC-20	PALSPRECWIE
			
Control with application IOS & Android	✔	✔	✔
Control by WEB interface	✔	✔	✔
User definition Nearby only or unlimited distance	✔	✔	✔
Excel import/export	✔	✔	✔
Schedule management control	✔	✔	✔
Supports smart remote control & wireless vehicle detector	10,000	10,000	10,000
Output (N.O/N.C)	1	2	1
Input (N.O/N.C)	1	2	1
Max users	20,000	20,000	20,000
Wiegand 26-bit reader	-	-	✔
Size and Weight of package	3.3 x 2.3 x .87 in. 3.06 oz	3.3 x 2.3 x .87 in. 3.06 oz	3.3 x 2.3 x .87 in. 3.06 oz

PALSPRECWIE

- 1 output relays (N.O./N.C.)
- 2 input channels with real- time notifications to Email and push to PalGate App.

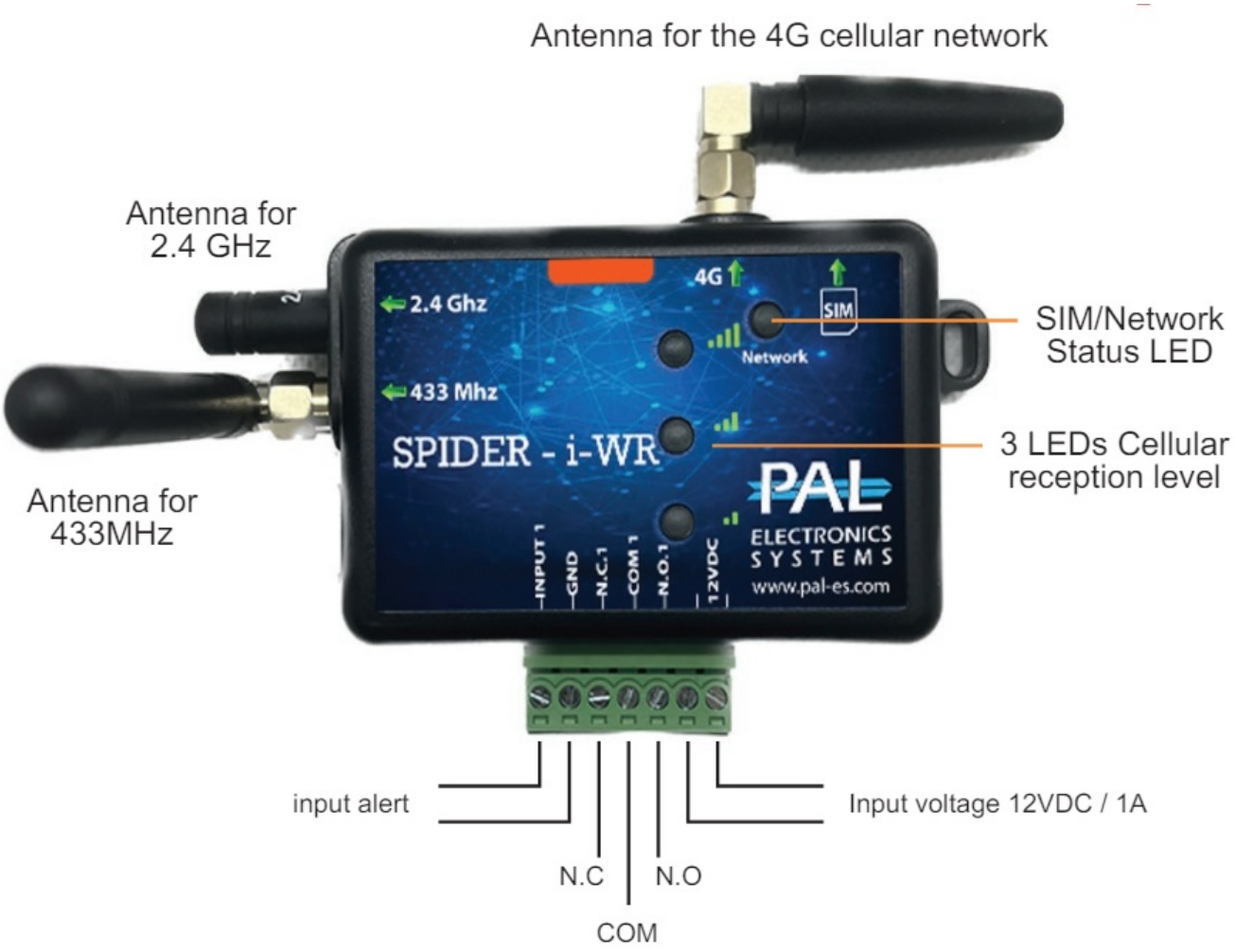


All PAL units have the following features:

- Unlimited PAL Gate App Users
- Multiple opening methods: Proximity, App, Dialing, Siri, and Google Assistant
- Wireless receiver 433Mhz
- Allows customization of opening distance
- Manage with a free application or user-friendly web interface*
- API integration available*
- Provides unlimited logs*
- 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 4G networks
- Operates on an input voltage of 12VDC
- Compact dimensions: 53×80 mm

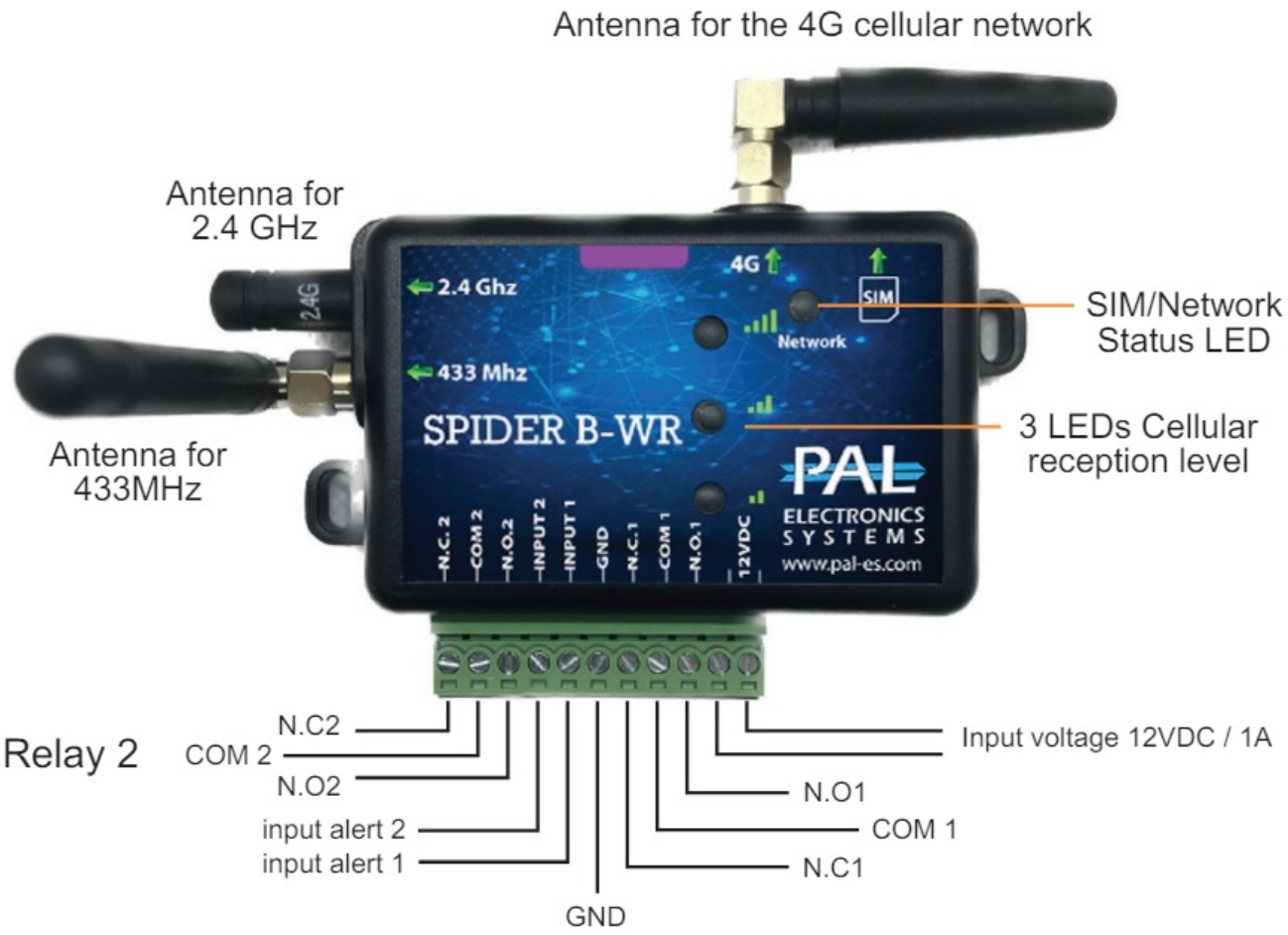
PALSPREC-101I

- 1 output relays (N.O./N.C.)
- 1 input channels with real-time notifications to Email and push to PalGate Ap



PALSPREC-20

- 2 output relays (N.O./N.C.)
- 2 input channels with real-time notifications to Email and push to PalGate Ap



LEDs key

SIM/Network LED

Fast Flashing: System is booting
Slow Flashing: Module is searching for a cellular network
All LEDs Flashing: SIM card not recognized

LED 1

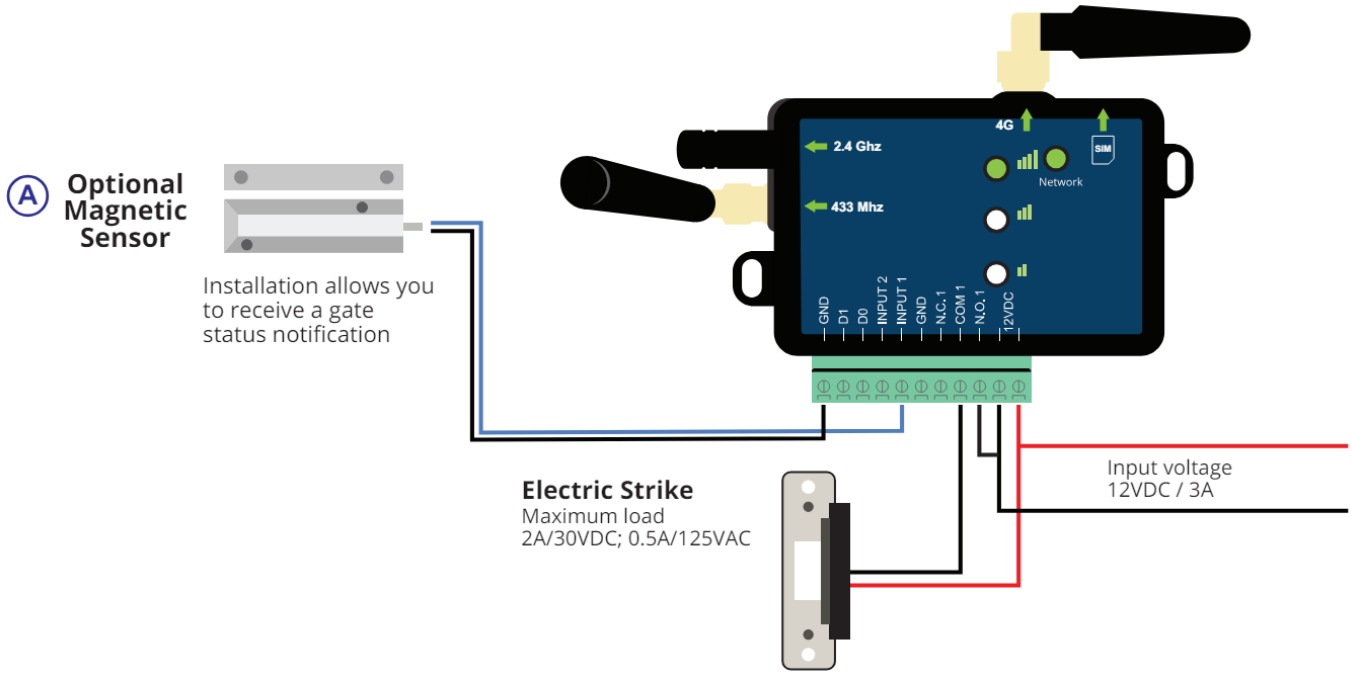
Blinking Twice: Connecting to the internet
Blinking Four Times: Connecting to the servers Signal Strength

4G Signal Strength Indicator

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

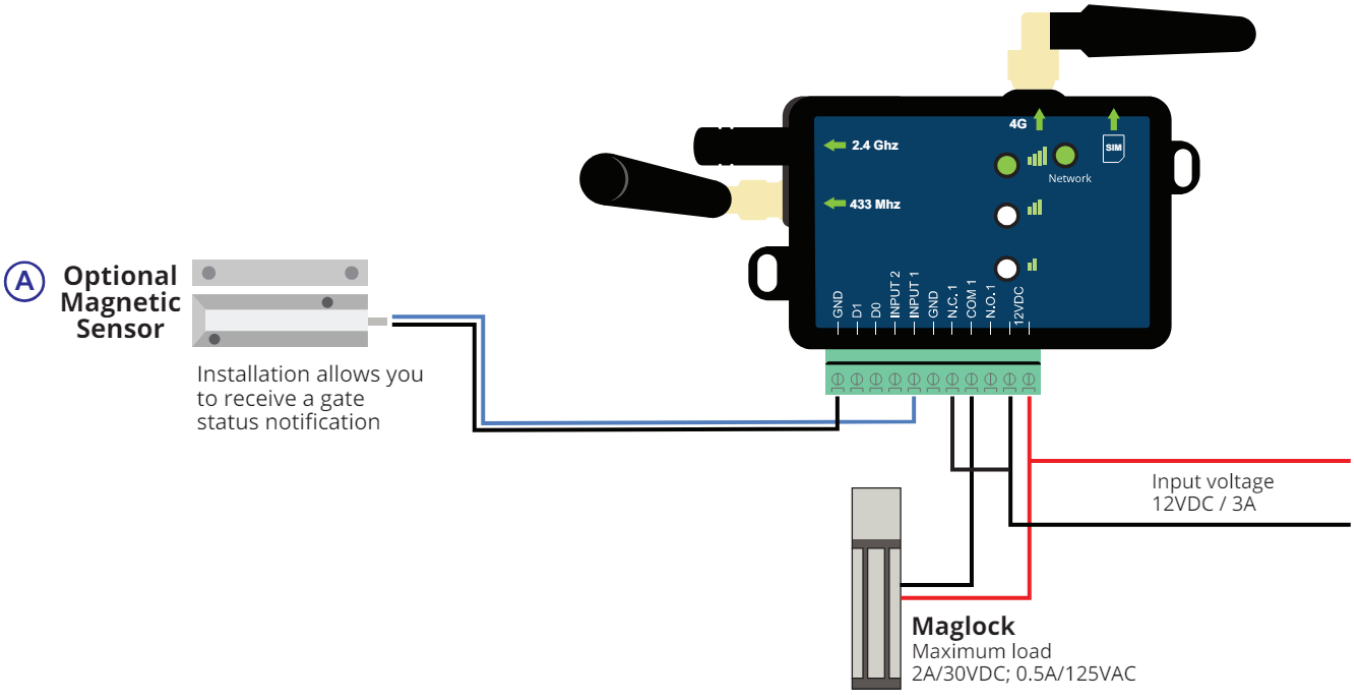
Typical wiring connection to an Electronic Strike:

Ⓐ Optional Magnetic Sensor

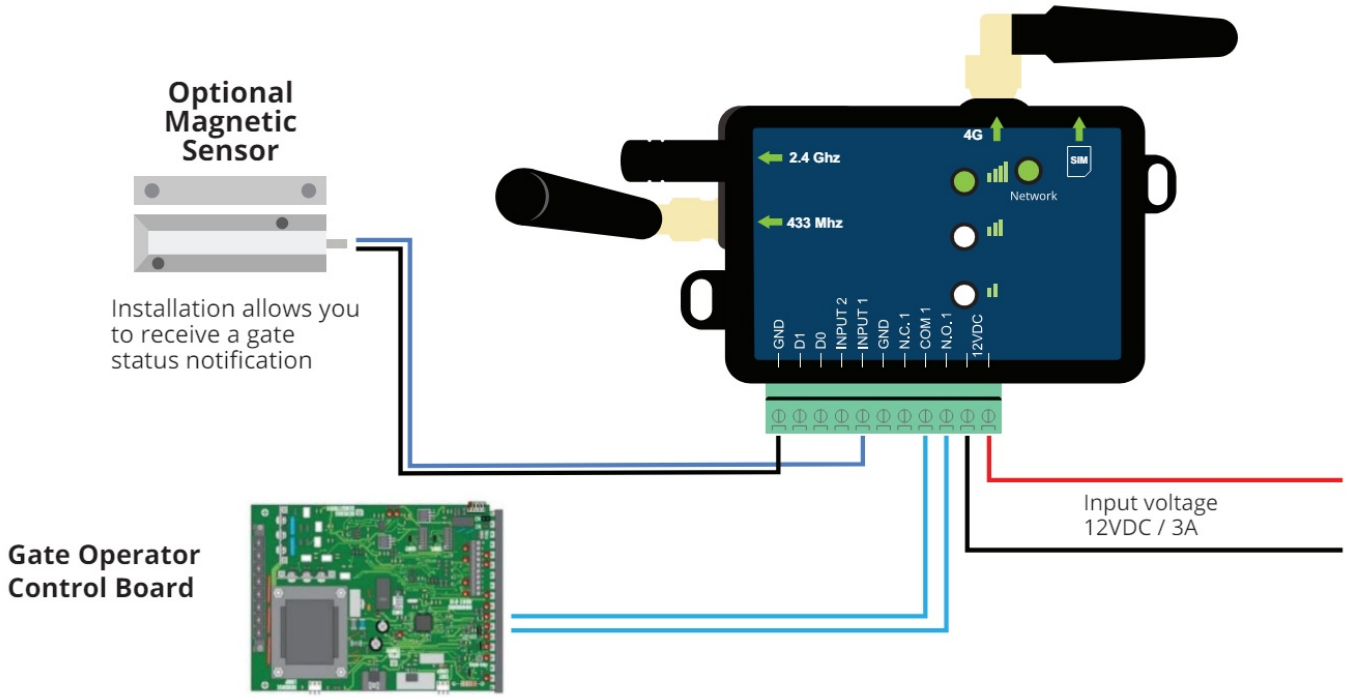


Ⓑ **Door or Gate Position switch** – Mount this on the door frame or on the gate in the desired location with the wire running to the input on the PAL controller, like shown above. When using two door or gate position sensors for double doors wire them in series with one leg of each switch running back to the controller for connection.

Typical wiring connection to a Maglock:



Typical wiring connection to a Gate:

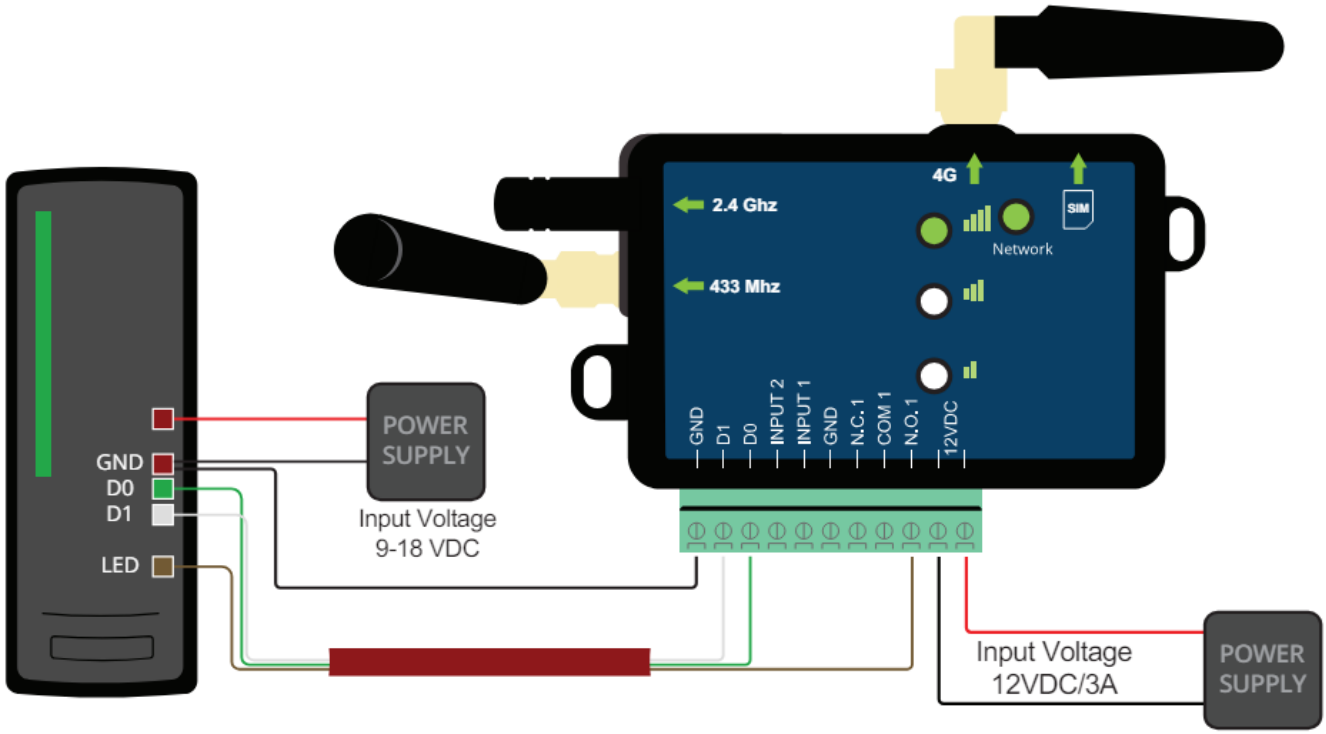


Typical Wiegand wiring connection

Ⓐ When wiring in a wiegand device to the PAL controller, use DO, D1, and wiegand GND from the wiegand device to the PAL controller.

Ⓑ When wiring card reader LED to correspond with relay, wire to N.O.-1.

This wiring diagram will be used where the PAL unit and the Wiegand device are powered by separate power sources. If the PAL unit and the card reader are wired using the same power source, rather than running a jumper between ground connections, the red and black wires will run from both the PAL unit and the Card reader to the common 12 volt power source.



Product Specifications

Supply Voltage Range: 12-24V DC
Average Standby current consumption: ~70mA
Relay Contact Current Rating: 1A, 30V AC/DC (Resistive)
Antenna: 50Ω SMA Antenna interface
Temperature Range: -4°F to +158°F
Exterior Dimensions: 2.08 in. x 3.15 in.
Net Weight: 3.06 ounces
Related Voltage of the Output Relay:
Voice Support: VoLTE
Frequency Bands:
U.S.A Market (SP1XX): 4G bands: B2, B4, B12, B66

Contact Ratings:

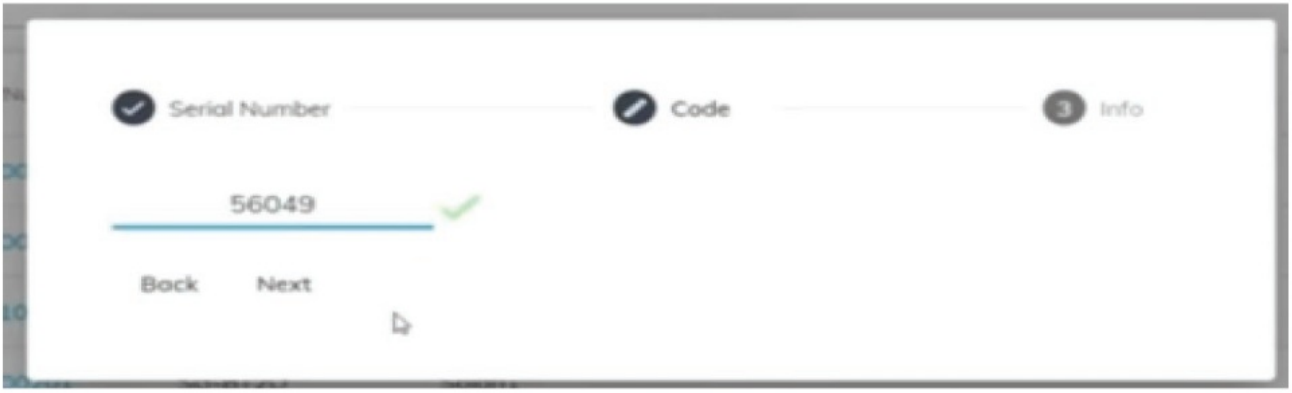
Maximum Switching Power	30 W, 62.5 VA
Maximum Switching Voltage	220 VDC, 250 VAC
Maximum Switching Current	1A
Maximum Carrying Current	2A

New device Setup via the PAL Portal

1. Sign into the PAL Portal and you will see the homepage. Click on “Devices” and on the + button to add a new device.

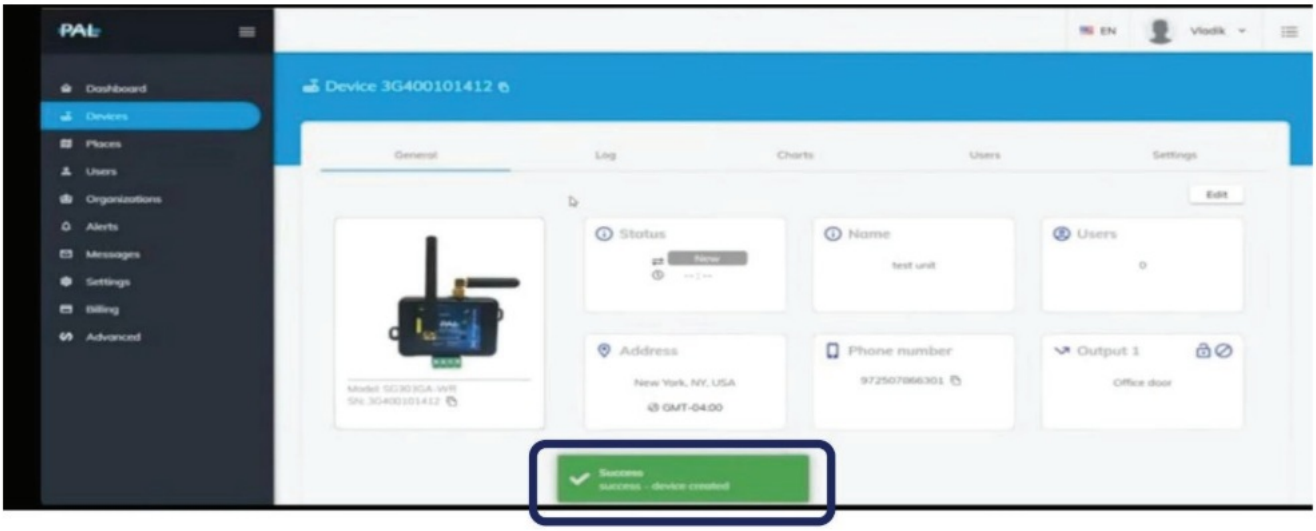
2. This will open a window (below) where you are asked to enter the Serial number of the device. This number will begin with 4G followed by 9 digits and can be found on the sticker on the PAL packaging or on the back of the device.

3. After you enter the Serial # you will be asked to enter a code. The code is a 5-digit number shown on the back of the PAL Device.



4. Next you will enter the address of the new device. This can be as simple s a city and state or can be an exact street address. The name is what the account administrator will name the device and Output 1 is the name of the device the PAL unit will be controlling.
   CLICK THE SAVE BUTTON ONCE THIS INFORMATION HAS BEEN ENTERED

5. Once the information has been saved, you will see this screen, indicating the device has been successfully added.



More PAL 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.

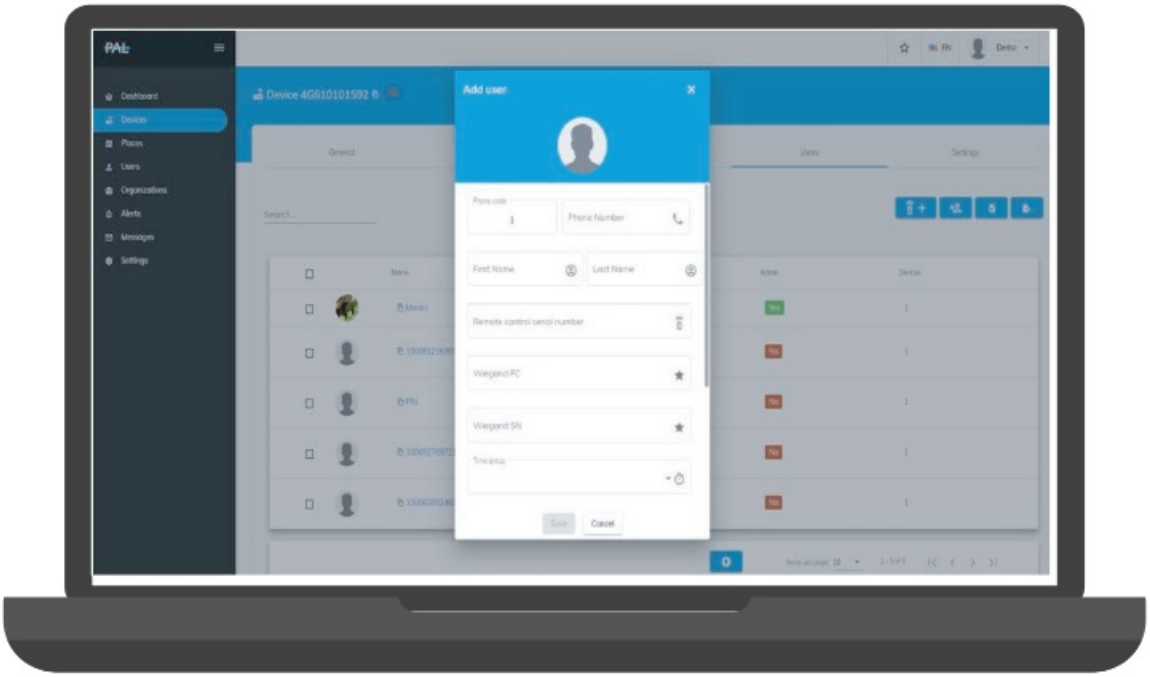
Download on the App Store	ANDROID APP ON Google Play

Adding New Users

Ⓐ From the Home screen go to devices. Select the device you wish to add users to. Once in the device main menu select users. (for sites with multiple PAL units installed please call technical support **866-975-0101** or refer to complete manual)

Ⓑ Once in users click “add” in the top right hand corner. (You can also import complete databases, please call technical support or see full instruction manual for detailed instructions on this)

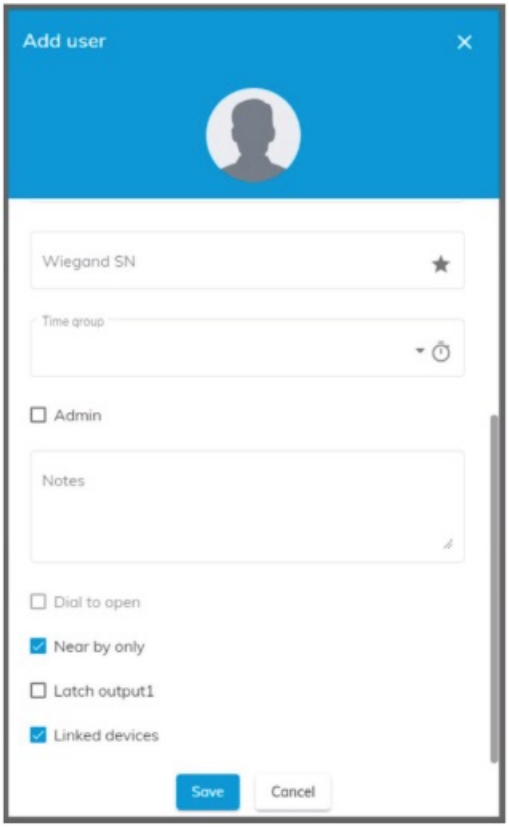
Ⓒ Once you have clicked “add” you will enter the main user screen. Fill out the necessary information and click save. Note: If you enter a phone number the user can download the “Palgate” phone application and will be able to trigger the gate or door from their phone. Leaving the phone number section blank will not allow the user to have app control of the PAL unit.



Types of User Credentials

In this image you will see that the “Nearby Only” box is checked. This enables a Bluetooth Credential, so that the user has to be in close proximity to the gate in order to open it.

Leaving this box unchecked allows a user to open the gate from anywhere via a cellular signal.



Important Information for optimal PAL Unit operation:

- **Installation:** If the device will be installed in a metal cabinet, the installer must connect an external antenna to the device that will reach the outside of the cabinet.
- **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:** The Spider Systems unit operates using 4G and Bluetooth technology. For optimal performance, prior to installation ensure the availability of acceptable 4G signal strength in the installation area. Pal Electronics Systems Ltd. is not responsible for the quality of cellular network coverage. It is the installer’s/user’s responsibility to ensure adequate 4G reception in the area.
- **Maintenance:** Any maintenance or repairs should only be conducted by authorized installers.
  *Optional feature. Payment may apply

Customer Support

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Documents / Resources

	Transmitter SOLUTIONS PAL Cloud Managed Access Controller [pdf] User Manual PALSPREC-101I, PALSPREC-20, PALSPRECWIE, PAL Cloud Managed Access Controller, PAL , Cloud Managed Access Controller, Managed Access Controller, Access Controller, Controller

References

- User Manual