PAL Spider Controllers

PAL
CLOUD MANAGEMENT

Spider Systems
User Manual

PAL Spider Controllers

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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**

Transmitter SOLUTIONS®   PAL Spider Controllers

Various PAL Spider Models

Model	Spider i-WR	Spider B-WR	Spider - Wiegand 26
	Spider i-WR	Spider B-WR	Spider - Wiegand 26
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	2
Max users	20,000	20,000	20,000
Wiegand 26-bit reader	--	--	✓
Size and Weight of package	8*5.3*2.5CM 87 gr	8*5.3*2.5CM 87 gr	8*5.3*2.5CM 87 gr
Part Number			
USA	SP111	SP112	SP113
Australia	SP211	SP212	SP213
Europe	SP311	SP312	SP313

Transmitter Solutions 2480 South 3850 West, Salt Lake City, Utah 84120
Email: sales@transmittersolutions.com   **Phone:** 866-975-0101

Spider i-WR

- 1 output relays (N.O./N.C.)

- 1 input channels with real-time notifications to Email and push to PalGate App

Antenna for the 4G cellular network

Antenna for 2.4 GHz

Antenna for 433MHz

2.4 Ghz
433 Mhz
SPIDER - i-WR
4G
Network
SIM
PAL ELECTRONICS SYSTEMS
www.pal-es.com

SIM/Network Status LED

3 LEDs Cellular reception level

input alert

N.C   N.O

COM

Input voltage 12VDC / 1A

Spider – B-WR

- 2 output relays (N.O./N.C.)

- 2 input channels with real-time notifications to Email and push to Pal Gate App

Antenna for the 4G cellular network

Antenna for 2.4 GHz

Antenna for 433MHz

2.4 Ghz
433 Mhz
SPIDER B-WR
4G
Network
SIM
PAL ELECTRONICS SYSTEMS
www.pal-es.com

SIM/Network Status LED

3 LEDs Cellular reception level

Input voltage 12VDC / 1A

N.C2   N.O2   N.C1   N.O1

COM2   COM1

Relay 2   Relay 1

input alert 2

input alert 1

GND

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Spider – Wiegand 26

- 1 output relays (N.O./N.C.)

- 2 input channels with real-time notifications to Email and push to PalGate App
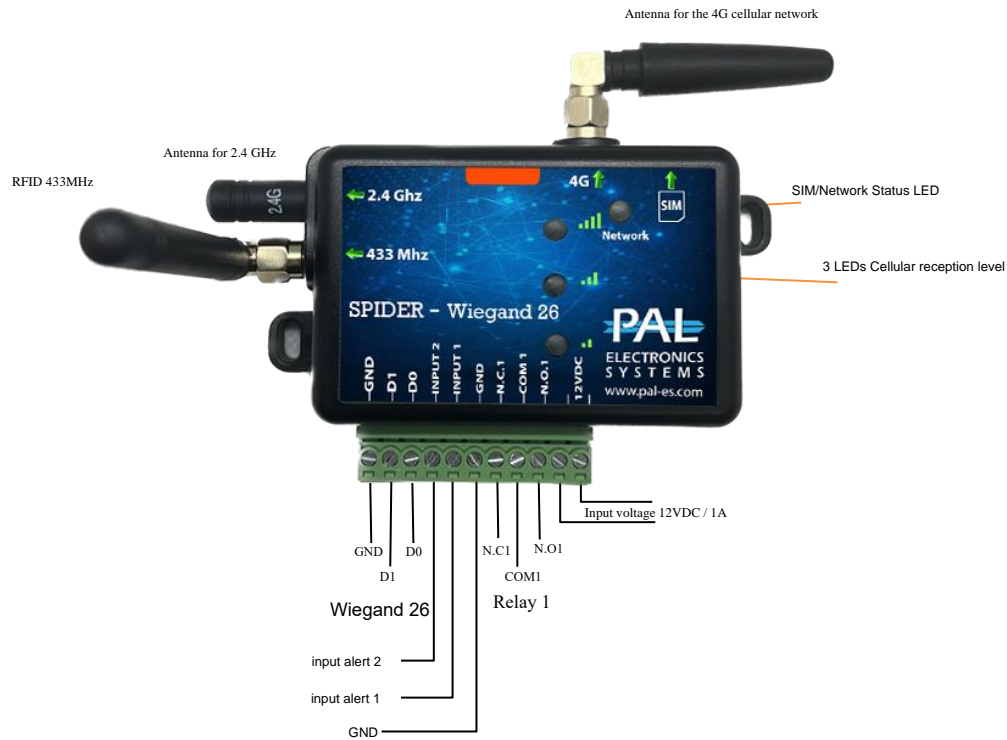
All PAL units have the following features:

- 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: 53x80 mm

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
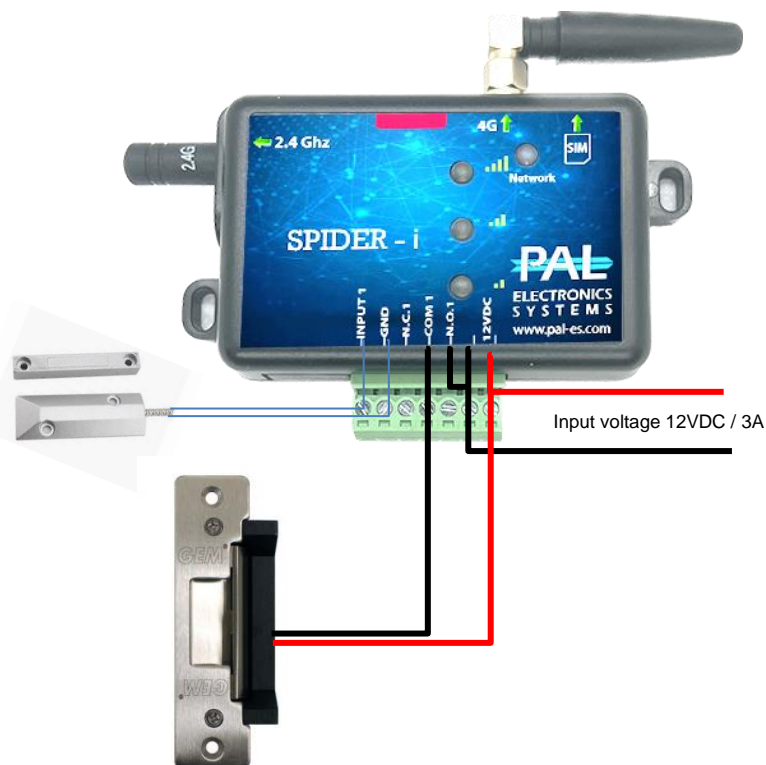Blinking Four Times: Connecting to the servers
Signal Strength

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 electric strike:

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

Input voltage 12VDC / 3A

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.

Input voltage 12VDC / 1A

Gate Operator Control Board
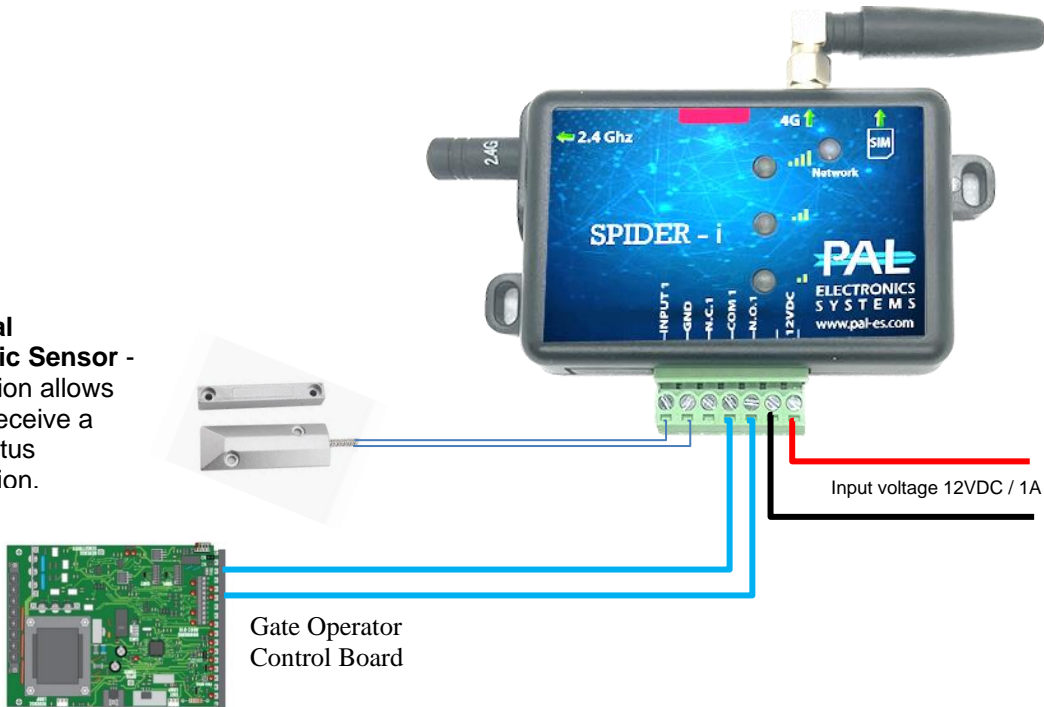
Product Specifications:

Supply Voltage Range: 12-**24**V 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

Transmitter SOLUTIONS® PAL Spider Controllers


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.
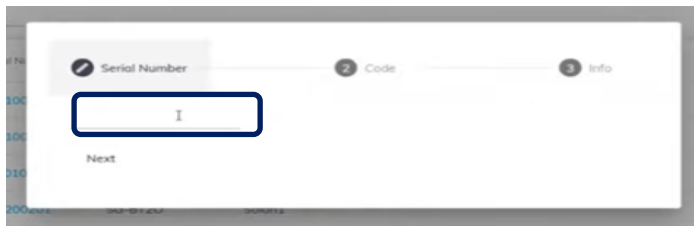

3) After you enter the Serial # you will be asked to enter a code. The code is a 5-digit number shown on the back of the PAL Device
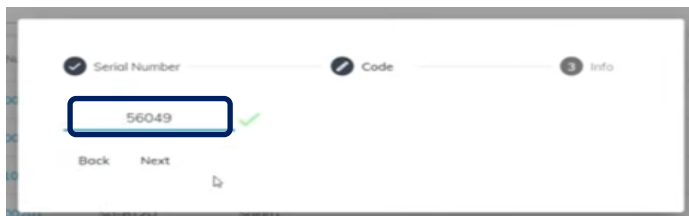
4) Next you will enter the address of the new device. This can be as simple s a city and state or can be an exact street address. The name is what the account administrator will name the device and Output 1 is the name of the device the PAL unit will be controlling. **PLEASE CLICK THE SAVE BUTTON ONCE THIS INFORMATIONHAS BEEN ENTERED**

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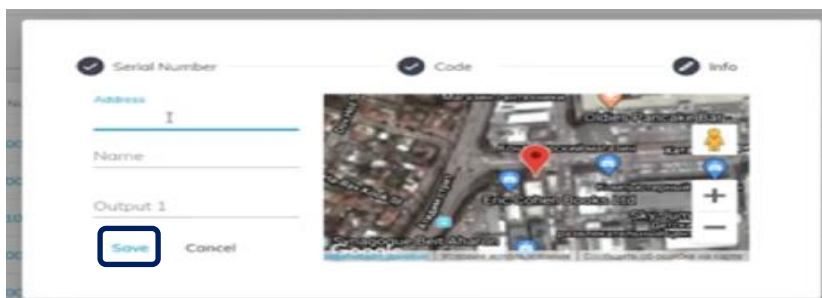
5) Once the information has been saved, you will see this screen, indicating the device has been successfully added.
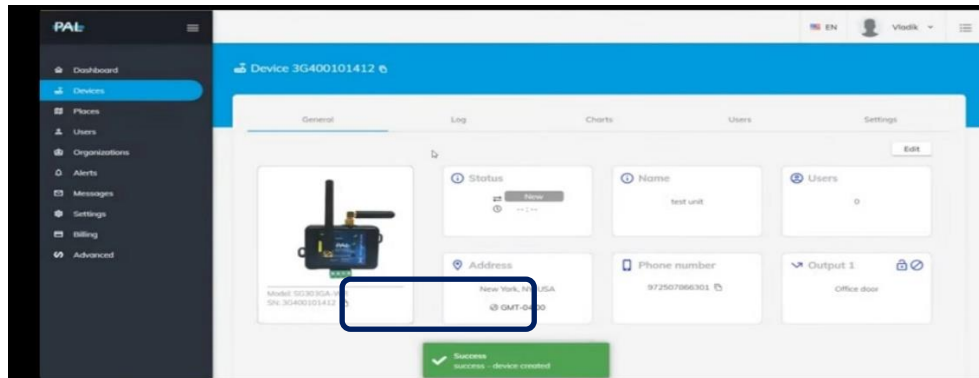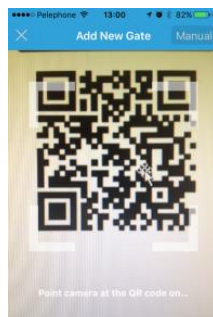

More PAL System settings using the PalGate App

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:
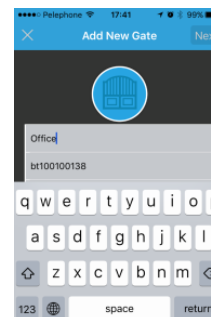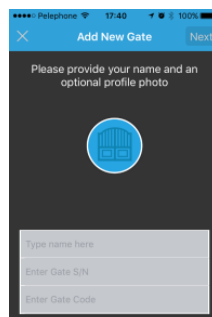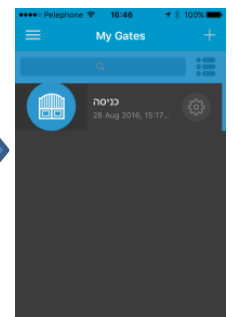

New device setup

| Click the + button to add a new device | You can scan the QR code or add device manually | | After adding the device details, click next | The added gate will appear on the "My gates" screen |

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(Transmitter SOLUTIONS® logo)

Adding a new user

click on the Gate Settings button	Click on Manager Options	Click on Users	Click on + to add user	Type in a name or select the new user from your contact list and click save	The new user will receive a message that he is being added and the name will appear on the list
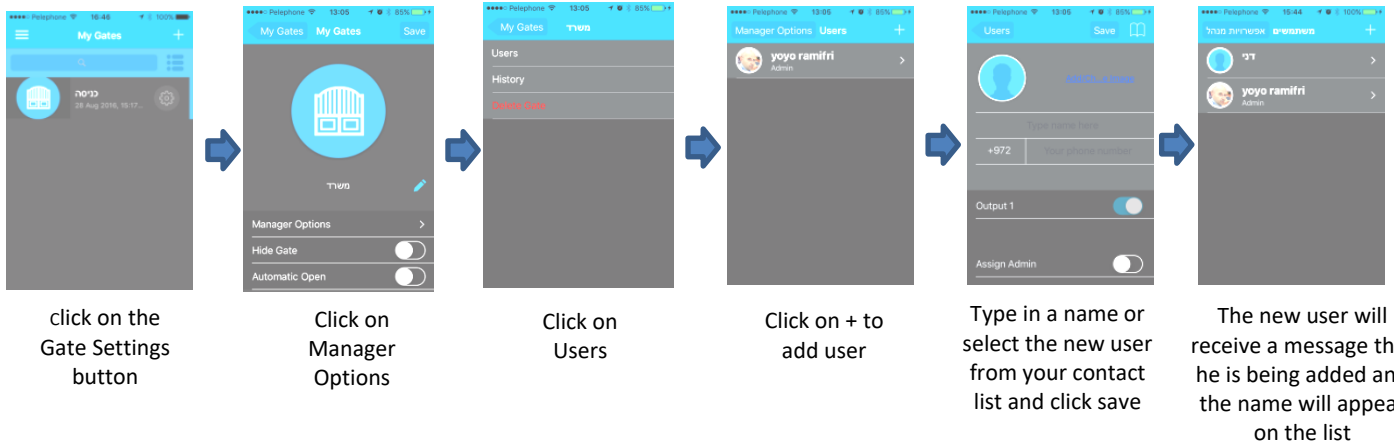
Important Information for optimal PAL Unit operation:

- **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