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› PNI SmartHome RG121 Smart Relay Wi-Fi Garage Door Opener User Manual

PNI PNI-RG121

PNI SmartHome RG121 Smart Relay Wi-Fi Garage Door Opener User Manual

Model: PNI-RG121

1. INTRODUCTION

The PNI SmartHome RG121 is a smart Wi-Fi relay designed to control the opening and closing of garage doors or gates. It integrates with the Tuya Smart application, allowing convenient remote operation and status monitoring from your smartphone. This manual provides essential information for the safe and efficient installation, operation, and maintenance of your device.

2. PRODUCT OVERVIEW

The PNI SmartHome RG121 Smart Relay offers a secure and practical solution for automating your garage door or gate. It operates on a 5V power supply, ensuring efficient and low energy consumption. The device features a single control relay and is compatible with normally open (NO) relay systems.

2.1 Package Contents

- PNI SmartHome RG121 Smart Relay
- Wired Magnetic Door Sensor (5m cable)
- Connection Cable
- Power Supply (5V)
- Mounting Accessories (screws, adhesive pads, cable ties, L-bracket)

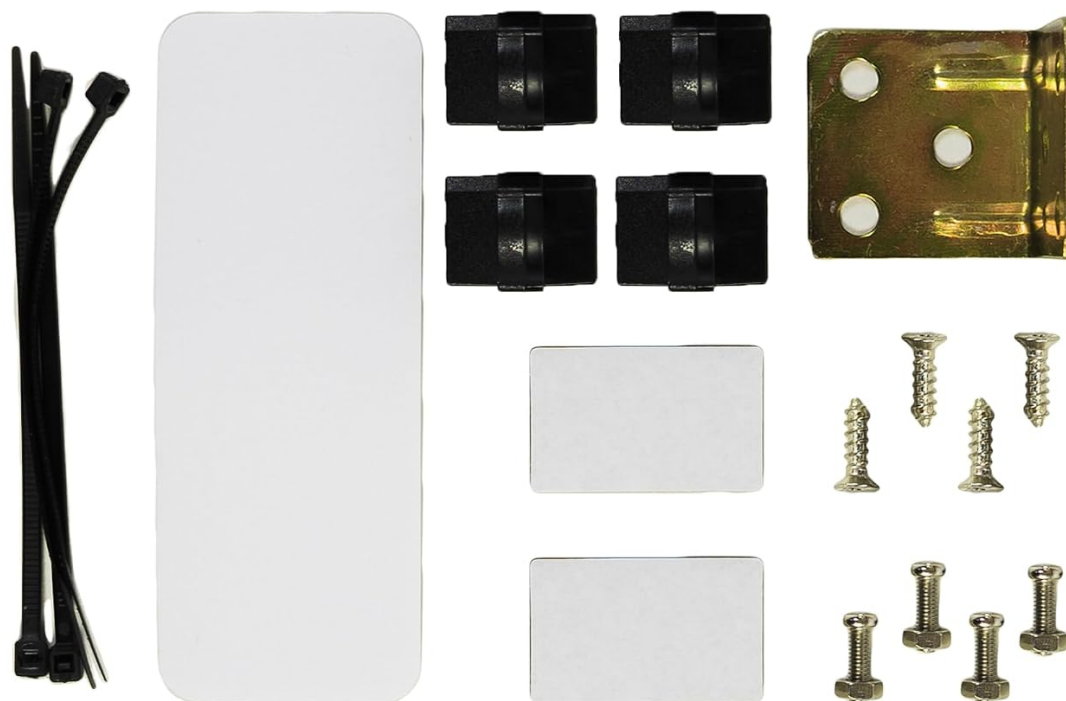


Image 2.1: All components included in the PNI SmartHome RG121 package.

2.2 Device Features

- **Remote Control:** Operate your garage door or gate via the Tuya Smart app from anywhere with internet access.
- **Status Monitoring:** Check the open/closed status of your door or gate in real-time through the app.
- **Wi-Fi Connectivity:** Connects to your home Wi-Fi network (2.4 GHz, IEEE 802.11 b/g/n).
- **Easy Integration:** Compatible with the Tuya Smart ecosystem for seamless smart home management.



Image 2.2: PNI SmartHome RG121 Smart Relay with magnetic sensor and USB cable.

3. SAFETY INFORMATION

Please read and understand all safety instructions before installation and use. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Ensure the power supply is disconnected before performing any wiring or installation.
- Only use the provided 5V power adapter or a compatible 5V/1A USB power source.
- Do not expose the device to moisture, extreme temperatures, or corrosive environments.
- Keep the device out of reach of children.
- Consult a qualified electrician if you are unsure about any wiring procedures.

4. SETUP AND INSTALLATION

Follow these steps to install and configure your PNI SmartHome RG121 Smart Relay.

4.1 Wiring the Relay

The PNI SmartHome RG121 connects to your existing garage door opener's control circuit. It uses a Normally Open (NO) contact to simulate a button press.

1. **Identify Control Terminals:** Locate the terminals on your garage door opener that are used for the wall button or external control. These are typically labeled 'COM' and 'NO' or similar. Refer to your garage door opener's manual if unsure.
2. **Connect Relay Wires:** Connect the two control wires from the PNI SmartHome RG121 relay to these terminals. The polarity usually does not matter for a simple contact closure.
3. **Power the Device:** Connect the 5V power adapter to the PNI SmartHome RG121 and plug it into a power outlet.

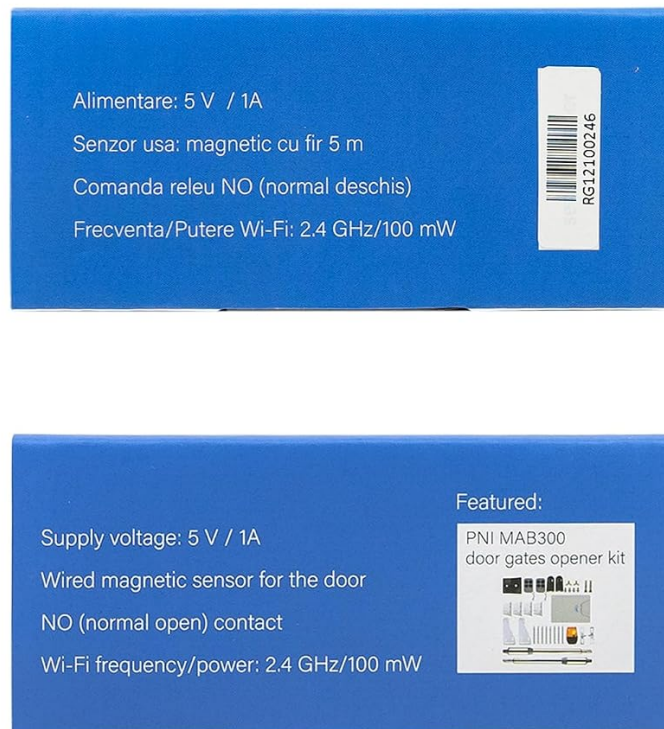


Image 4.1: Detailed wiring diagram for the PNI SmartHome RG121.

4.2 Installing the Magnetic Sensor

The magnetic sensor detects the open/closed status of your garage door or gate.

1. **Mount the Main Sensor:** Attach the main part of the magnetic sensor (with the cable) to the fixed frame of

your garage door or gate.

2. **Mount the Magnet:** Attach the smaller magnetic part to the moving section of the door/gate, ensuring it aligns with the main sensor when the door is closed. The gap between the two parts should be minimal when closed.
3. **Route the Cable:** Securely route the sensor cable back to the PNI SmartHome RG121 device, using the provided cable ties and adhesive clips if necessary.



Image 4.2: Installation diagram for the PNI SmartHome RG121 and magnetic sensor.

4.3 App Pairing (Tuya Smart)

To control the device, you need to pair it with the Tuya Smart application.

1. **Download Tuya Smart App:** Download and install the Tuya Smart app from your smartphone's app store (iOS or Android).
2. **Register/Login:** Create an account or log in to your existing Tuya Smart account.
3. **Add Device:** In the app, tap the '+' icon to add a new device. Select 'Garage Door Opener' or search for 'Relay'.
4. **Enter Wi-Fi Details:** Follow the on-screen instructions to connect the device to your 2.4 GHz Wi-Fi network. The device's indicator light will typically flash rapidly during pairing mode.

5. **Complete Pairing:** Once successfully paired, the device will appear in your app, and the indicator light will become solid.

5. OPERATING THE DEVICE

Once installed and paired, you can control your garage door or gate using the Tuya Smart app.

5.1 Basic Operation

- Open the Tuya Smart app and select your PNI SmartHome RG121 device.
- The app interface will display the current status (Open/Closed) of your door/gate.
- Tap the 'Open' or 'Close' button to operate the door/gate. The relay will momentarily activate, simulating a button press on your opener.

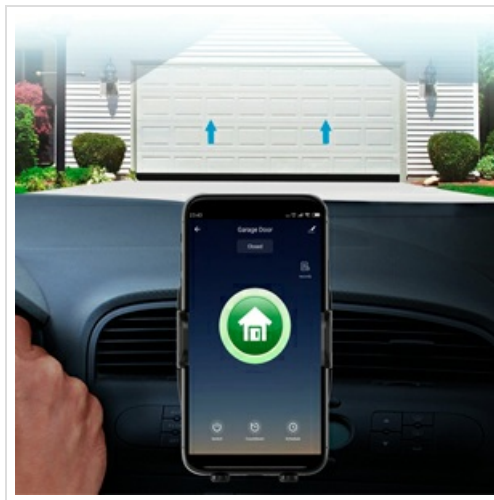


Image 5.1: Controlling the garage door via the Tuya Smart app.

5.2 Advanced Features (Tuya App)

- **Notifications:** Set up notifications to receive alerts when your door/gate opens or closes.
- **Schedules:** Create schedules to automatically open or close the door at specific times.
- **Automation:** Integrate with other Tuya-compatible devices to create smart home routines (e.g., turn on lights when the garage door opens).

6. MAINTENANCE

The PNI SmartHome RG121 is designed for low maintenance. Follow these guidelines to ensure optimal performance:

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- **Sensor Alignment:** Periodically check that the magnetic sensor parts are properly aligned and securely mounted.
- **Firmware Updates:** Keep the Tuya Smart app updated to ensure you have the latest features and security patches for your device.

7. TROUBLESHOOTING

If you encounter issues with your PNI SmartHome RG121, refer to the following common solutions:

Problem	Possible Cause	Solution
Device not connecting to Wi-Fi	Incorrect Wi-Fi password; Device too far from router; 5GHz Wi-Fi network selected.	Verify Wi-Fi password. Move device closer to router. Ensure you are connecting to a 2.4 GHz Wi-Fi network. Reset device and try pairing again.
Garage door/gate not responding	Incorrect wiring; Garage door opener power off; Relay malfunction.	Check wiring connections to the garage door opener. Ensure the garage door opener has power. Test the garage door opener with its original wall button.
Incorrect door status in app	Magnetic sensor misalignment; Sensor cable damage.	Check the alignment of the magnetic sensor parts. Ensure the sensor cable is securely connected and undamaged.
App shows device offline	No internet connection; Device power off; Wi-Fi signal loss.	Check your home internet connection. Ensure the PNI SmartHome RG121 is powered on. Restart your Wi-Fi router.

8. SPECIFICATIONS

Feature	Specification
Model Number	PNI-RG121
Power Supply	5V / 1A (USB)
Control Channels	1 (Normally Open Relay)
Wi-Fi Frequency	2.4 GHz
Wi-Fi Standard	IEEE 802.11 b/g/n
App Compatibility	Tuya Smart
Sensor Cable Length	5 meters
Operating Temperature	-26°C to +80°C
Contact Material	Copper
Current Rating	1 A
Mounting Type	Snap-in mounting
Certifications	CE
Product Dimensions (L x W x H)	3.5 x 2.5 x 9 cm
Product Weight	218 grams
Country of Origin	China
Manufacturer	ONLINESHOP SRL

9. WARRANTY AND SUPPORT

PNI products are designed and manufactured to the highest quality standards. For warranty information and technical support, please contact your retailer or the manufacturer directly.

- **Manufacturer:** ONLINESHOP SRL
- **Email:** comenzi@pni.ro

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