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› RTU5024 GSM Gate Opener User Manual

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RTU5024 GSM Gate Opener User Manual

Model: GSM Gate Opener | Brand: 10Gtek

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the 10Gtek RTU5024 GSM Gate Opener. The RTU5024 is a remote switch designed to control gates, doors, and other devices via GSM network, allowing authorized users to open or close them with a free phone call or SMS commands. Its robust design and versatile features make it suitable for various access control applications.

2. PRODUCT OVERVIEW

The RTU5024 is a compact device housed in a metal casing, featuring a GSM module for communication and a relay output for controlling connected devices. It supports quad-band GSM frequencies (850/900/1800/1900MHz) and can manage up to 200 authorized phone numbers.



Figure 2.1: Front view of the RTU5024 GSM Gate Opener, showing the main unit with its antenna, status indicators, and branding. The device is designed for remote access control via GSM network.

Key components include the SIM card slot, power input terminals (DC 9-24V), and relay output terminals (Normally Open, Common, Normally Closed). Status indicator LEDs provide visual feedback on network signal and relay activity.



Figure 2.2: Angled view of the RTU5024, highlighting the power input terminals (DC 9-24V) and the relay output terminals (NO, COM, NC) for connecting to external devices like gate motors or door locks.

3. SETUP AND INSTALLATION

3.1 Package Contents

Before proceeding with installation, verify that all components are present in the package:



Figure 3.1: Contents of the RTU5024 package, typically including the GSM Gate Opener unit, a GSM antenna, a user manual, and a warranty instruction card.

3.2 SIM Card Installation

1. **Prepare SIM Card:** Ensure the SIM card is active and has no PIN code enabled. If a PIN is active, insert the SIM into a mobile phone and disable the PIN request. The device operates on 2G GSM networks.
2. **Insert SIM:** Locate the SIM card slot on the RTU5024. Carefully insert the prepared SIM card into the slot until it clicks into place.

3.3 Antenna Connection

Screw the provided GSM antenna firmly into the "ANT" connector on the RTU5024 unit. Ensure it is securely tightened for

optimal signal reception.

3.4 Power Connection

Connect a DC power supply (9-24V) to the "Power DC 9-24V" terminals. Observe polarity: connect the positive (+) wire to the '+' terminal and the negative (-) wire to the '-' terminal. The device will power on once connected.

3.5 Relay Wiring

Connect the device you wish to control (e.g., gate motor, door lock) to the relay output terminals. The RTU5024 provides one relay output with Normally Open (NO), Common (COM), and Normally Closed (NC) contacts. Choose the appropriate contacts based on your application's requirements.

- **NO (Normally Open):** The circuit is open when the relay is inactive and closes when activated.
- **COM (Common):** The common terminal for the relay switch.
- **NC (Normally Closed):** The circuit is closed when the relay is inactive and opens when activated.

4. OPERATING INSTRUCTIONS

The RTU5024 allows control via authorized phone calls and SMS commands.

4.1 Adding Authorized Numbers

To add authorized phone numbers, send an SMS command to the SIM card number inserted in the RTU5024. The specific SMS command format will be detailed in the full user manual provided with the product. The device supports up to 200 authorized numbers.

4.2 Controlling the Relay via Call

Once a phone number is authorized, simply make a free call to the SIM card number in the RTU5024. The device will recognize the authorized number, reject the call, and activate the relay. The relay will remain closed for a set duration (configurable via SMS commands) and then automatically disconnect.

GSM DOOR WIRELESS OPENER

-- An output with relay rating 3A / 240VAC for connecting door or machine switches



Figure 4.1: Illustration of the RTU5024 in operation, showing a user initiating a call from a smartphone to remotely open a gate, demonstrating the device's primary function.

4.3 Controlling the Relay via SMS

The RTU5024 can also be controlled and configured using specific SMS commands. These commands allow for actions such as:

- Adding or deleting authorized numbers.
- Setting the relay activation time.
- Querying the current status of the device (relay status, GSM signal strength).
- Receiving action short messages after the relay is controlled by an authorized number.

Refer to the detailed SMS command list in the complete user manual for specific syntax and functionalities.

4.4 Automatic Status Upload

The device can be configured to regularly upload its current status via SMS to the first authorized user, providing periodic updates on its operational state.

5. MAINTENANCE

The RTU5024 is designed for reliable operation with minimal maintenance. Follow these guidelines to ensure longevity:

- **Cleaning:** Use a soft, dry cloth to clean the device. Do not use liquid cleaners or solvents.
- **Environment:** Install the device in a dry, well-ventilated area, away from direct sunlight, extreme temperatures, and high humidity. The protection class is IP30.
- **Antenna:** Ensure the antenna remains securely connected and is not obstructed, as this can affect GSM signal reception.
- **Power Supply:** Use only the specified DC 9-24V power supply.

6. TROUBLESHOOTING

If you encounter issues with your RTU5024, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not respond to calls/SMS.	• No GSM signal. • SIM card not properly inserted or active. • SIM card has PIN enabled. • Number not authorized. • Incorrect SMS command format.	• Check GSM signal strength (LED indicator). Relocate device if signal is weak. • Reinsert SIM card. Verify SIM card is active and has credit. • Disable SIM PIN using a mobile phone. • Ensure the calling/sending number is added as an authorized number. • Verify SMS command syntax with the user manual.
Relay does not activate.	• Power supply issue. • Incorrect wiring of the relay. • Device not receiving valid commands.	• Check power supply connection and voltage (DC 9-24V). • Verify relay wiring (NO/COM/NC) according to your application. • Ensure authorized number is calling/sending SMS correctly.
Device not working in the USA/certain regions.	• Reliance on 2G network, which is being phased out.	• Confirm 2G GSM network availability with your local carrier. This model operates on 2G (850/900/1800/1900MHz) and may not be compatible with areas where 2G networks have been decommissioned.

7. SPECIFICATIONS

Feature	Detail
Model	RTU5024
GSM Frequency	850/900/1800/1900MHz Quad-band
Authorized Numbers	Supports 200 numbers
Relay Output	1 Relay, NC/NO contacts, rated 3A/240VAC

Feature	Detail
Power Supply	DC 9-24V
Protection Class	IP30
Housing Material	Metal
Item Weight	8.1 ounces (approx. 230g)
Package Dimensions	5 x 3.82 x 1.14 inches (approx. 12.7 x 9.7 x 2.9 cm)

8. WARRANTY AND SUPPORT

The 10Gtek RTU5024 GSM Gate Opener comes with a **one-year free warranty** from the date of purchase. Please retain your proof of purchase and the warranty instruction card included in the package for any warranty claims. For technical support or further inquiries, please refer to the contact information provided in your product's user manual or visit the official 10Gtek website.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question