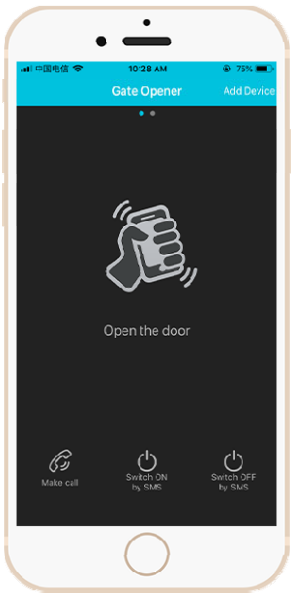
GSM Gate, Barrier, Shutter, Garage Door and Door opener

Open gate or garage door with a FREE call from your mobile phone!

Remote switching machines with a FREE call from your mobile phone!





GSM Gate Opener

GSM Remote Switch

RTU5024

User Manual

Ver 2.0 Date Issued: 2019-03-15

Table of contents

1. Brief introduction ---------- 2
2. Safety Directions ---------- 2
3. Standard Packing list ---------- 3
4. Physical Layout ---------- 3
5. Features ---------- 4
6. Settings(SMS Commands) ---------- 4
7. Installation ---------- 9
8. Technical specifications ---------- 9
9. Important information ---------- 10
9. Maintenance ---------- 10
10. Warranty ---------- 11

This handbook has been designed as a guide to the installation and operation of RTU5024 GSM Gate Opener.
Statements contained in the handbook are general guidelines only and in no way are designed to supersede the instructions contained with other products.
We recommend that the advice of a registered electrician be sought before any Installation work commences.
It's employees and distributors, accept no liability for any loss or damage including consequential damage due to reliance on any material contained in this handbook.
Its employees and distributors, accept no liability for GSM Network upgrading or SIM Card upgrading due to the technology specifications contained in this handbook.

1. Brief introduction

The GSM Gate Opener RTU5024 is a very simple device which can be used for authorized door access, controlling gates, switching of remote equipments, car parking systems. Actually the GSM Gate Opener RTU5024 can be used in places which require turning ON/OFF your system, machines, equipments remotely with a FREE call from your mobile phone and protect your assets.

Just dial from Authorized User number then the Barrier and doors are opened, or the machine are turn on or off by the GSM Gate Opener. There are no call costs, the GSM Gate Opener rejects the call from authorized number then carries out the turn ON/OFF action.

2.Safety Directions



Safe Startup

Do not use GSM SMS IR Controller when using GSM equipment is prohibited or might bring disturbance or danger.



Interference

All wireless equipment might interfere network signals of GSM SMS IR Controller and influence its performance.



Avoid Use at Gas Station

Do not use GSM SMS IR Controller at a gas station. Power off GSM SMS IR Controller when it near fuels or chemicals.



Power it off near Blasting Places

Please follow relevant restrictive regulations. Avoid using the device in blasting places.



Reasonable Use

Please install the product at suitable places as described in the product documentation. Avoid signal shielded by covering the mainframe.

Use Qualified Maintenance Service

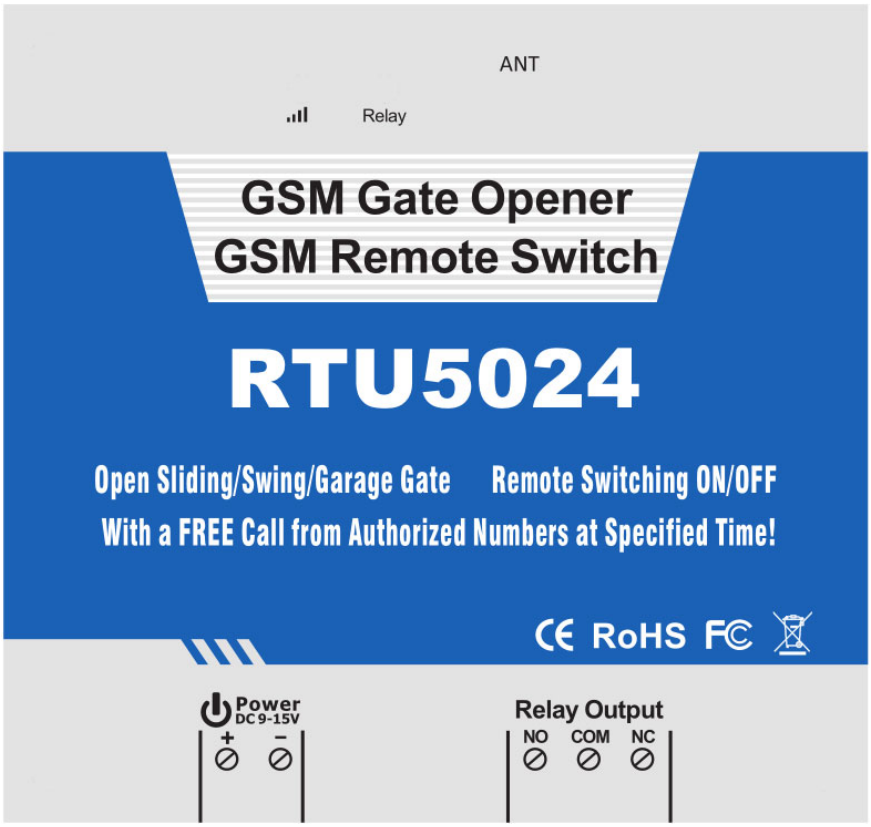
Maintenance can be carried out only by qualified maintainer.

3. Standard Packing List

Control Unit X1, GSM ANT X1, User Manual X1.

4. Physical Layout

4.1 Control Unit physical layout



Interface Instruction

INDICATORS	
	Flash per 1 second(quickly):registering to cellular network. Flash per 2 seconds: Normal status. OFF: can not connect to SIM card or unregistered to the cellular network.
Relay	Relay Status, calling in, the relay will work, this LED indicator will on.
ANT	Connect to GSM/3G/4G antenna

Connection Terminals		
Power	**+**	Power supply input, Positive wire.
	-	Power supply input, Negative wire.
Relay Output	**NO**	Normally Open port. the relay rating is 3A/240VAC; connect to the switch of the electric lock or device.
	COM	Common port. the relay rating is 3A/240VAC; connect to the switch of the electric lock or device.
	NC	Normally Close port. the relay rating is 3A/240VAC; connect to the switch of the electric lock or device.

Notice :*Beside the SIMCard ,There is a RUN led, when the RTU5024 has registered to cellular network, The RUN led will flash per second; if The RUN led is off, it indicates that the RTU 5024 can not connect to SIM card or unregistered to the cellular network*

5. Features

1. No call charges. The GSM Gate Opener rejects the call from authorized number then carries out the turn ON/OFF action on the first 'ring;
2. It is no longer traditional to open the door, but it is more interesting to open the door by shaking it.
3. Multiple applications. (gates, bollards, barriers, garage doors, shutters and access doors or machines);
4. Secure - Using caller ID for identification, unknown callers are ignored;
5. Can be operated from anywhere, no distance limit;
6. Add or remove users by SMS Text command;
7. No need to provide a remote control for different users;
8. Up to 200 authorized phone numbers can be configured;
9. One output with relay rating 3A/240VAC for connecting the switch of the door or machines;
10. The relay action will return a SMS confirmation to the owner, this function is editable by user;
11. Based on GSM Network, applied to many applications.

6. Settings(SMS Commands)

Notice:

1. *The default Password is **1234**.*

2. *All the settings are through SMS commands, please edit the below SMS commands in your cell phone, then send to the RTU5024 Unit. The unit cannot support PIN Code Protected SIMCard.*
3. *You can program the GSM Gate Opener with SMS commands using your phone. It is safe to do so because in addition to the fact that other people may not know the number of the SIM inserted in it, we also use a Password that makes it impossible for anybody, who doesn't know it, to access the system by chance.*
4. *The relay output will change the close or open status by every call in, please note it. Means the first time call it, it will close the relay to switch on the lock, if the second call in is in the setting time, then the unit will ignore the setting time, and open the relay, to switch off the lock or machine.*
5. *Remember that commands must be **CAPITAL Lock LETTERS**. It is PWD not pwd, CAP not Cap etc. Don't add spaces or any other character.*
6. *The **pwd** in the commands is means the password, when you use it, please in stand of it by the digital number; the capital letters **PWD** is the command letter, use PWD directly.*
7. *If you use this model for gate open, you only need to change the password and setup the authorized numbers*

For example:
In UK, the country code is **0044**, or **+44** .
The user cell phone number is **3408888666** and has been assigned as the first user number, the simcard number in the panel is **3408888555** .
Problem 1: Relay action but the first user haven't received the SMS .
Solution: Please plus the country code while you setup the **3408888666** as the first user number, means setup **00443408888666** to instead of the **3408888666** .
Problem 2: The user number can receive the Relay action message from the RTU 5024, but the RTU 5024 can not receive the commands from the first user number.
Solution: Please add country code to the simcard number in the RTU 5024. Means send sms commands to **003408888555** to instead of **3408888555** .
Solution 3: When you use cell phone dial another one, what number it will be di splayed then you can set the displayed number as dial numbers; when you use cell phone send SMS to another cell phone, what number it will be displayed then you can set the displayed number as the first user number, just use the 00 to replace the "+", also, you can try the "+".

8. *In some GSM operators they use different SMS parameter; the units can't return the SMS confirmation is normally. It is not product problem. Also, you can try to add the country code before the number, see the below settings:*
9. *Please write down the Authorized number list in a paper for review in further.*
10. *If you want to reset the RTU5024 to factory default, then please send pwd#RESET# (The unit will reply to Reset Success! Please Reboot your Device) or When the RTU5024 works normally, you can always press the RESET key beside the SIMCard for several seconds until the RUN Led always is ON.*

11. If the command is incorrect, the RTU5024 will return: Command error, please resend command So please check the Command, or add the country code before the telephone number or check the input is in ENGLISH INPUT METHOD and CAPS LOCK.

12. The SMS commands that you will certainly use in the GSM Gate Opener are the following:

6.1 Setup New Password

pwd#PWDnewpassword#PWDnewpassword#

if successful, the unit will return: **New Password:xxxx**.

For example, the original password is 1234, you want change it to 6666, then you can send the command below: **1234#PWD6666#PWD6666#**

Tips: 1.The **pwd** in the commands is means the password, when you use it, please in stand of it by the digital number, the capital letters **PWD** is the command letter, use **PWD** directly.

2.Remember that commands must be **CAPITAL Lock LETTERS**. It is PWD not pwd, CAP not Cap etc. Don't add spaces or any other character. When input punctuation symbol #, must be under ENGLISH or DIGITAL input method. Not support other input method.

6.2 Setup Authorized number

pwd#TELAuthorized Number#Serial Number#

E.g.: if you want to setup 13500001111 as the first user number, and the password is 1234,then you can send **1234#TEL004413500001111#001#** to the RTU5024 unit. After the RTU5024 received, the 0044 is country code, will return:

001:004413500001111
002: Empty
003: Empty
004: Empty
005: Empty

Tips: 1. the authorized number means the one who can dial the RTU5024 unit to open it.

2.We strongly recommend that the serial number of 01 is cellphone number, because of the Relay action message only send to the first position number;

3. The Serial Number is the position to store the authorized number, from 001~200.

6.3 Inquiry the Serial Number's Authorized number

pwd#TELSerial Number?

E.g.: If you want to know the authorized number at position 2, and the password is 1234,then you can send **1234#TEL002?** to check it.

6.4 Remove the Authorized Number

pwd#TEL#Serial Number#

(or you can overwrite with another number you wish to change it).

E.g.: if you want to remove the authorized number at position 12, and the password is 1234, then you can send 1234#TEL#012#

6.5 Setup allow all calling in numbers can access it

pwd#AA#

Tips: This command allows anybody calling the SIM number to access it.

Warning! With the above command you allow free access to anybody calling!

6.6 Setup only authorized number can access it (Default)

pwd#AU#

Tips: With the above command you allow only people that are in the authorized number list can access the RTU5024. This is the standard and recommended option.

Inquiry this setting:

pwd#AC?#

Reply: **Allow all numbers can access it** or **Allow User Numbers can access it only**

6.7 Setup the relay close time

pwd#GOTTime#

Tips: The time should be in 0~9.5seconds.

This command is useful in case you need to keep the relay closed (or button pressed) longer. The default time is 0.5 econds(500 ms). You can change it with the GOT command. The relay closed time is twice as the number you set, E.g.: if you set **pwd#GOT19#**, means the relay closed 19/2=9.5Seconds.

To check the value, you can use the command **pwd#GOT?** , the unit will reply the current value.

If you want to let the relay always closed until you call it next time, then you can set the time as 00, the format is **pwd#GOT00#**, the relay will be always closed until next time call in. in this case, only the authorized number can access it. The other unauthorized numbers can not access the unit. This is

very useful for remote switch on or switch off the electricity appliance or equipment or device for a long time.

6.8 Check GSM signal quality

pwd# CSQ?

Check GSM signal quality. This command is useful to see the GSM network signal level of your GSM Gate Opener is receiving. After you send the command, you can receive a SMS with signal quality in range 0 to 31 (if it is 0 we doubt it will ever answer). You should have a signal above 12 to be sure of being able to open the gate in any condition. Better if above 16. You should add an external GSM antenna if this is not the case, or eventually even change operator with another that serves your area better.

6.9 Enable return SMS confirmation when Relay action

pwd#R#

Tips: if you enable it, when the relay action, close or open, the unit will return a SMS confirmation to you(The first user number). The return SMS is: **Relay ON! Operated by xxx** or **Relay OFF! Operated by xxx**. You can disable it by the following command: **pwd#N#** . Default is no return SMS confirmation when relay action. This is very useful when you use theRTU5024 to control the equipments remotely.

To check the settings, you can use the command: **pwd#M?** It will return: **Relay action return SMS ON** or **Relay action return SMS OFF**.

6.10 Control the relay ON/OFF by SMS command

pwd# ON #

Return SMS: The relay is ON.

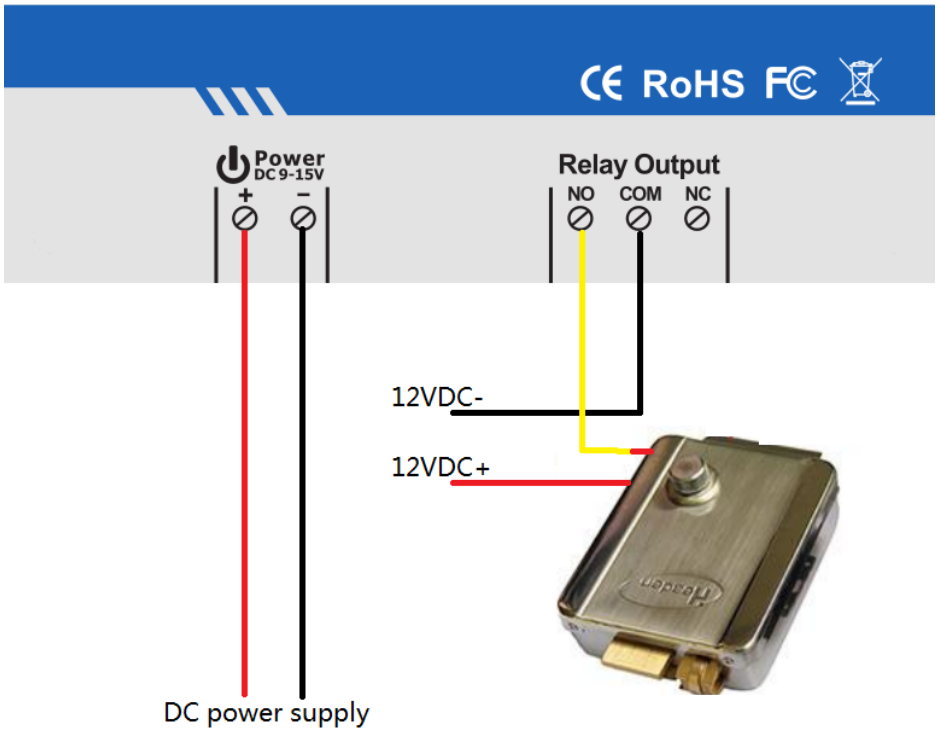
pwd# OFF #

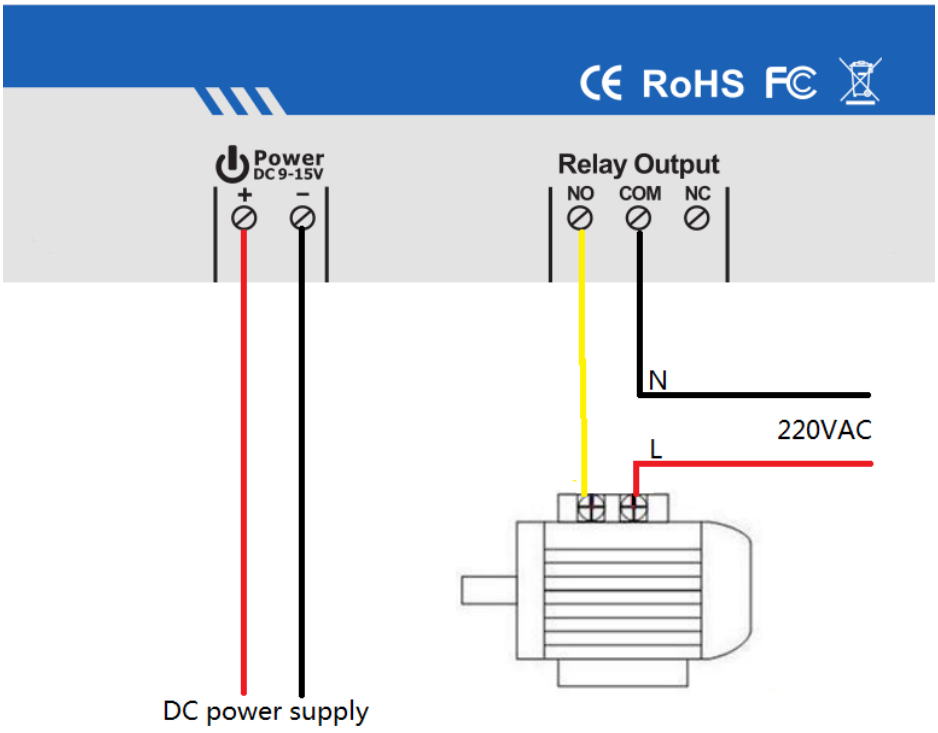
Return SMS: The relay is OFF.

7. Installation

Before installing the control unit, please help to test the system firstly, including power supply, GSM signal, etc.

7.1 Connecting the Electronic Lock or Electricity equipments





7.2 Install the Mainframe

The mainframe should be installed in the position that person can not get it, and there with a power source as well as enough GSM signal coverage.

8. Technical specifications

Rated Voltage: 12VDC 1 A

Working temperature: -10℃ ~ +60℃

Storage temperature: -20℃ ~ +60℃
Relative humidity: 10-90%, No condensation
Work frequency: 900/1800MHz
Communication protocol: GSM PHASE 2/2+ (include data service)
Related Voltage of the Output Relay: 3A/240V AC
Net Weight: 0.30Kg

9. Important information

1) Please read the User Manual carefully before you install the Control Unit and set the Control Unit.
2) Install the system in a hidden place.
3) Avoid getting water into the Control Unit.
4) Have a secure connection to the main power supply.

10. Maintenance

1) In case of failure, please contact the distributor or manufacturer.
2) If the remote control works, but the Control Unit fails to send SMS texts, switch the power of Control Unit off and switch it on after one minute. Test this system after another minute, or check the settings are correct and the GSM Signals are strong enough.
3) If the Control Unit can run work, but cannot send SMS texts, please change SIM Card to check it.
4) If the problem cannot be solved, please contact the distributor or manufacturer.

11. Warranty

1) This system is warranted to be free of defects in material and workmanship for one year from the date of purchase.
2) This warranty does not extend to any defect, malfunction or failure caused by abuse or misuse by the Operating Instructions. In no event shall the manufacturer be liable for any system altered by purchasers.

The End!