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
RTU5025
User Manual
Ver 1.7 Date Issued: 2015-04-15
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This handbook has been designed as a guide to the installation and operation of RTU5025 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.

Its 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 SIMCard upgrading due to the technology specifications contained in this handbook.
1. Brief Introduction

The GSM Gate Opener RTU5025 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 RTU5025 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.

Moreover, the RTU5025 with 2 digital inputs for digital inputs, when any one of the inputs triggered, will start the siren or switch on the light, in the meanwhile, the RTU5025 will send SMS Alert the to owners immediately. This is very useful if you need protect your assets with low cost solution.

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.

3. Standard Packing List

Control Unit X1, GSM ANT X1, User Manual X1, AC/DC Adaptor X1.

Optional Accessories (Wired Sensors):
PIR Motion Sensor, Glass Break Sensor, Magnetic Window Sensor, Temperature Sensor, Infrared Beam Fence, Vibration sensor, Siren.

4. Physical Layout

4.1 Control Unit physical layout

Interface Instruction

<table>
<thead>
<tr>
<th>Relay</th>
<th>Status, calling in, the relay will work, this LED indicator will on. When the wired sensor triggered, the LED indicator will on, Otherwise, is off.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSM</td>
<td>When insert the SIM card into the Slot and power on, will flash IOS with red color; Then the LED will change to Red color(not flash) for 3 minutes(In this 3 minutes, you can send RESET to reset to RTU5025.) When registered GSM Network successful, will</td>
</tr>
</tbody>
</table>
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. Multiple applications. (gates, bollards, barriers, garage doors, shutters and access doors or machines);
3. Secure - Using caller ID for identification, unknown callers are ignored;
4. Can be operated from anywhere, no distance limit;
5. Add or remove users by SMS Text command;
6. No need to provide a remote control for different users;
7. Up to 999 authorized phone numbers can be configured;
8. Two Digital inputs for door sensor, motion sensors or other sensors to protect your door and windows; when any one of them triggered, will send SMS alert message and start the siren immediately;
9. One output with relay rating 6A/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)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>External 12VDC Power LED Indicator</td>
</tr>
<tr>
<td>O1 +</td>
<td>Output Relay 1+, the relay rating is 3A/240VAC; connect to the switch of the electric lock or device.</td>
</tr>
<tr>
<td>O1 -</td>
<td>Output Relay 1-, the relay rating is 3A/240VAC; connect to the switch of the electric lock or device.</td>
</tr>
<tr>
<td>Siren+</td>
<td>Siren connector, connect to the Siren Positive.</td>
</tr>
<tr>
<td>NA</td>
<td>Connect to the NA Point, when sensor triggered, will start the siren for 90Seconds. Also, it can be connected to wired sensor to supply 12VDC power for sensors if needed.</td>
</tr>
<tr>
<td>12VDC</td>
<td>Common, connect to Siren Negative, another wire for the two wired sensors.</td>
</tr>
<tr>
<td>IN1+</td>
<td>Digital input 1+, connect to one wire of the first wired sensor.</td>
</tr>
<tr>
<td>IN2+</td>
<td>Digital input 2+, connect to one wire of the second wired sensor.</td>
</tr>
<tr>
<td>+12VDC</td>
<td>The external power input 12VDC, 1A.</td>
</tr>
</tbody>
</table>

6. Settings(SMS Commands)

<table>
<thead>
<tr>
<th>Notice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The default Password is 1234.</td>
</tr>
<tr>
<td>2. All the settings are through SMS commands, please edit the below SMS commands in your cell phone, then send to the RTU5025 Unit. The unit cannot support PIN Code Protected SIM card.</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>5. The functions of the two inputs are the same. The two digital inputs will be in armed mode after 10 minutes from the last call-in.</td>
</tr>
<tr>
<td>6. 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.</td>
</tr>
<tr>
<td>7. The pwa 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.</td>
</tr>
<tr>
<td>8. If you use this model for gate open, you only need to change the password and setup the authorized numbers.</td>
</tr>
<tr>
<td>9. In some GSM operators they use different SMS parameter, the units can’t return the SMS confirmation normally. It is not product problem. Also, you can try to add the country code before the number, see the below settings:</td>
</tr>
</tbody>
</table>

**For example:**

In UK, the country code is 0044 or +44.

The user cell phone number is 3408888666 and has been assigned as a SMS Alert number, the simcard number in the panel is 3408888555.

**Problem 1:** Alarm but the user haven’t received the SMS Alert.

**Solution:** Please plus the country code while you setup the 3408888666 as SMS Alert number, means setup 0044340888666 to instead of the 3408888666.

**Problem 2:** The user number can receive the SMS Alert message from alarm panel, but the alarm panel can not receive the commands from the user number.

**Solution:** Please add country code to the simcard number in the alarm panel. 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 played 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 SMS Alert number, just use the 00 to replace the 1", also, you can try the "*".
10. Please write down the Authorized number list in a paper for review in further.
11. If you want to reset the RTU5025 to factory default, then please send \texttt{RESET} to it within 3 minutes after switch on the RTU5025. (The GSM LED in RED status, if the GSM LED change to GREEN, then the RTU5025 can not respond this command.)
12. If the command is incorrect, the RTU5025 will return \texttt{Command error, please re send 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.
13. The SMS commands that you will certainly use in the GSM Gate Opener are the following:

   \textbf{6.1 Setup New Password}
   
   \texttt{pwd\#PWDnewpassword\#PWDnewpassword}\#
   
   if successful, the unit will return: Password modified OK.
   
   For example, the original password is 1234, you want change it to 6666, then you can send the command below: \texttt{1234\#PWD6666\#PWD6666}\#
   
   **Tips:**
   1. The \texttt{pwd} in the commands is means the password, when you use it, please in stand of it by the digital number, the capital letters \texttt{PWD} is the command letter, use \texttt{PWD} directly.
   2. Remember that commands must be \underline{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.

   \textbf{6.2 Setup Authorized number}
   
   \texttt{pwd\#TELAuthorizedNumber\#Serial Number}\#
   
   Eg.: If you want to setup 13500001111 as the first user number, and the password is 1234, then you can send \texttt{1234\#TEL0041350001111\#01\#} to the RTU5025 unit. After the RTU5025 received, the 0044 is country code, will return:
   
   Tel 1: 00441350001111;
   Tel 2: Empty;
   Tel 3: Empty;
   Tel 4: Empty;
   Tel 5: Empty.
   
   **Tips:**
   1. the authorized number means the one who can dial the RTU5025 unit to open it.
   2. We strongly recommend that the serial number of 01 and 02 are cellphone number, because of the alarm message only send to the first and second position numbers;
   3. The Serial Number is the position to store the authorized number, from 01~999.

   \textbf{6.3 Inquiry the Serial Number’ s Authorized number}
   
   \texttt{pwd\#TELSerial Number?}
   
   Eg.: If you want to know the authorized number at position 2, and the password is 1234, then you can send \texttt{1234\#TEL02?} to check it.

   \textbf{6.4 Remove the Authorized Number}
   
   \texttt{pwd\#TEL\#Serial Number?}
   
   (or you can overwrite with another number you wish to change it).
   
   Eg.: If you want to remove the authorized number at position 12, and the password is 1234, then you can send \texttt{1234\#TEL\#12}\#

   \textbf{6.5 Disable the digital inputs (Default is disable)}
   
   \texttt{pwd\#DA#}
   
   **Tips:** If you want to use the digital inputs, please enable it firstly.

   \textbf{6.6 Enable the digital inputs}
   
   \texttt{pwd\#EA#}
   
   **Tips:** if you enable the digital inputs function, the sensors will enter Armed status after 10 minutes of the latest dial-in. In the first 10 minutes, when the sensor triggered, will not alarm, after 10 minutes, the unit in armed mode, when any sensor triggered, will start the siren (if you connected) or switch on the light (if you connect it) and send SMS to the Position 01 and 02 authorized numbers immediately.
   
   This function is very useful for garage or other applications. It can protect the assets for you by GSM Network.

   \textbf{6.7 Inquiry Alarm Setting}
   
   \texttt{pwd\#AL?}
   
   Reply: \underline{Alarm Inputs Disabled} or \underline{Alarm Inputs Enabled}
   
   **Tips:** Alarm Inputs Disabled means disable the digital inputs, Alarm Inputs Enabled means Enable digital inputs.
6.8 Setup allow all calling in numbers can access it

```
pwd#FAA#
```

Tips: This command allows anybody calling the SIM number to access it.
Warning! With the above command you allow free access to anybody calling!

6.9 Setup only authorized number can access it (Default)

```
pwd#FAU#
```

Tips: With the above command you allow only people that are in the authorized number list can access the RTU5025. 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.

6.10 Setup the relay close time

```
pwd#GOTtime#
```

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

This command is useful in case you need to keep the relay closed (or button pressed) longer. The default time is 0.5 seconds (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=9.5 seconds.

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 1st, 2nd, 3rd authorized number can access it. The other authorized 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.

6.11 Modify the digital input type

```
pwd# KEYNC #
```

Modify the digital input type as NC, if the sensor you used with this unit is NC, then you should set the unit as NC type.

Tips: when you set the digital inputs as NC, if you don’t use the input, please connect the digital inputs by a wire to short it. Otherwise, it will alarm. E.g.: if you only use the input 2, then you should use a wire to connect the input and GND point to make it as Normal Close.

```
pwd# KEYNO #
```

Modify the digital input type as NO; if the sensor you used with this unit is NO, then you should set the unit as NO type. The default is NO.

6.12 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 32 (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.

6.13 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 return SMS is: The relay is ON or The relay is OFF. 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 the RTU5025 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.

6.14 Modify the Alarm SMS message when inputs triggered

The user can modify the digital inputs alarm SMS message by the following command; the SMS Alert message should less than 30 letters. When the sensor triggered, these SMS message will send to the Position 1 and Position 2 cell phone numbers to alert the user. The default SMS Alert message is: Door Open Alert!

```
pwd# TEXTxxxxxxxxxxxxx #
```

The above command is use to modify the digital input 2 alarm SMS text message.
The above command is used to modify the digital input 1 alarm SMS text message.

E.g.: Modify the digital input 1 alarm SMS text message as Left. Windows Open! If the password is 1234, then you can send **R1234#TEXT2Left Windows Alarm**

Tips:
1. This command includes two ##;
2. The xxxxxxx in this command is indicates the message contents;
3. The TEXT1 is part of the command; refer to the input 2 message, not input 1 message;
4. The TEXT2 is part of the command, refer to the input 1 message, not input 2 message.

7. Installation

Before installing the control unit and sensors and sirens, please help to test the system firstly, including wired sensor, power supply, GSM signal, etc.

7.1 Insert SIM card into Control unit

In the backside of the control please install the GSM SIM card.

7.2 Connecting the Wired Sensors

Please help to see below wiring diagram, then fixed the related wired sensors, the sensors connect to the related digital inputs, and the siren should connect to the Siren and Com connecting port.

7.3 Connecting the Electronic Lock or Electricity equipments

7.4 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°C ~ +60°C
Storage temperature: -20°C ~ +60°C
Relative humidity: 10~90%, No condensation
Work frequency: 900/1800MHz
Communication protocol: GSM PHASE 2/2+ (include data service)
Wired Zones: 2
Related Voltage of the Output Relay: 6A/240V AC
Net Weight: 0.50Kg

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 and sensors 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 alarm system altered by purchasers.

Any questions please help to contact us feel free.

The End!