

GSM-POINT MANUAL

New version published from 2015



SHANGHAI WAFER MICROELECTRONICS CO.,LTD

<http://www.waferstar.com>

GSM-POINT OPERATING INSTRUCTIONS

PRODUCT DESCRIPTION

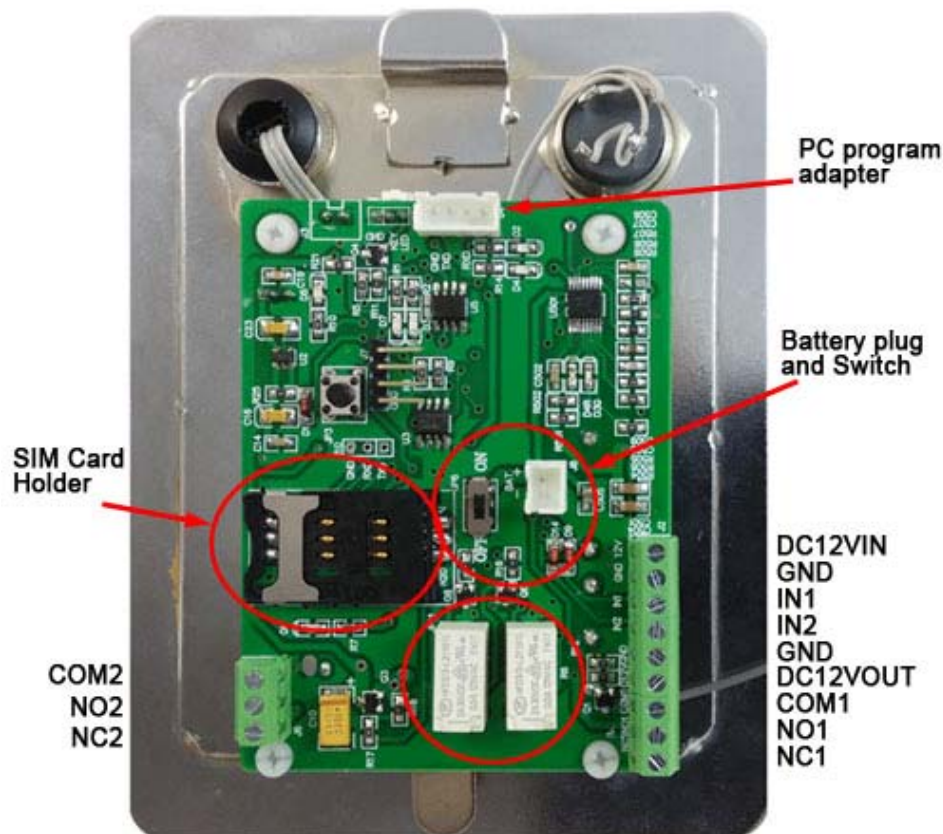
WAFER GSM-POINT is an anti-vandal GSM intercom with self contained GSM door entry audio intercom system and also built-in the WAFER "GSM-KEY" function, that is used to open an electric gate by means of a GSM phone.

For the GSM intercom function. By pressing the Call button on the GSM-POINT, it makes a voice connection in a few seconds, allowing two way audio communication between the visitor and owner. Up to two numbers can be called in sequence. Door release is from the phone keypad during an intercom call. This allows the owner to answer intercom calls at anytime, from anywhere, even when not at home. The unit does not need any special installation or complicated wiring, it fixes to a wall or post and then only needs power supply and an active SIM card.

For the "GSM-KEY" function, It has the door open relay whose contact has to be connected in parallel with the button which opens the gate. It has a White List of numbers who are enabled to open the phone, up to 200. When the GSM-POINT receives a call, it will check to see if the calling number is in the list. If it is in the list it will reject the call (so there will be no charge -at least with today's charging procedures) and click the relay momentarily.

Also GSM-POINT has two alarm input port for the security detection including the intruder detection alarm and gate problem alarm. GSM-POINT also has the rechargeable backup battery inside for power off alarm and keep working even for several days.

CONNECTOR DESCRIPTION



ADVANTAGES OF WAFER GSM-POINT

- ✓ Wireless intercom with one push button.
- ✓ 2 phone number can be assigned to the push button for intercom voice calling.
- ✓ Wide power voltage input from DC9V to DC18V
- ✓ Gate control function by authorized WHL numbers
- ✓ 200 Number memory can be authorised.
- ✓ The output can be activated by pushing the unit's call button.
- ✓ No call charges to operate when phone calling to control.
- ✓ Open gates prior to arriving.
- ✓ Let visitors and deliveries in remotely.
- ✓ Impossible to clone or intercept.
- ✓ Caller ID confirmation for security.
- ✓ Quick & easy number barring.
- ✓ Can be operated from anywhere.
- ✓ Easy programming in minutes with your phone or PC software
- ✓ Remote configuration by SMS message.
- ✓ Rechargeable backup battery for power off alarm and working.

INSTALLATION

Please read this entire manual before installation **!Note!**

- Take EXTREME care with the DC voltage polarity Power line installation
- In case of fault power connection will cause the default permanently.
- If device is connect into electricity, you couldn't take off its cover.
- To maximise reception, install the GSM antenna in a prominent elevated position if possible, and vertically mounted.
- The GSM unit requires mounting carefully with the lock for proper operation.
- Always ensure that the power is switched OFF before inserting or removing a SIM card from its holder or damage will be caused to the module.



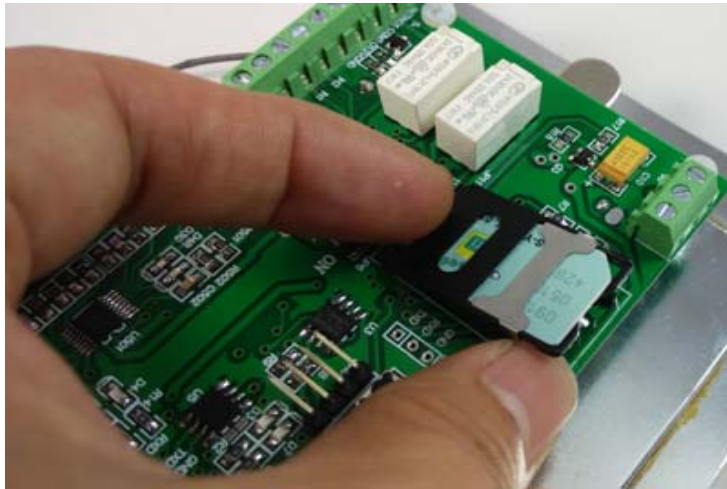
To install the GSM-POINT, you need to connect the 2 wires of the relay contact in parallel with the gate opening button. The relay contacts can stand **30V 2A maximum**, this is enough for its operation but **don't try to switch higher voltages or currents**. You should install the GSM-POINT in a place where there is GSM signal coming from the operator you want to use. Check it with a phone before proceeding with the installation. If you need to install the device in a place with little signal, you may consider using the magnetic mount better gain GSM antenna that we may supply as an option to be purchased separately with 200cm cable.

You should then insert the SIM Card of the operator you want to use with the right direction according to the following pictures.

!Note! : You must remove the PIN request from the SIM before inserting it in the unit, otherwise the device will not work. In order to do so, insert the SIM in a mobile phone and

verify the SIM card to call other phone and send and receive the SMS).

Lock the SIM card in the right direction:



1. Slide back the SIM door and lift it up
2. Slide the SIM Card into the SIM door making sure that the clipped corner of the SIM card lines up with the clipped corner of the SIM holder
3. Close the SIM door
4. Slide the SIM door to lock the SIM card in place

GSM-POINT also comes with additional 2 Input. The inputs can be used to generate alarms when triggered. For examples, you can connect the door or gate safety beam output to the GSM-POINT Alarm1 and Alarm2 input.

Before the following test and programming, connect the DC12V properly to the DC12VIN and GND.

After the device successfully connected to the GSM net, the LED on the Call button would flash around 5 seconds per time. then we can start the following test:

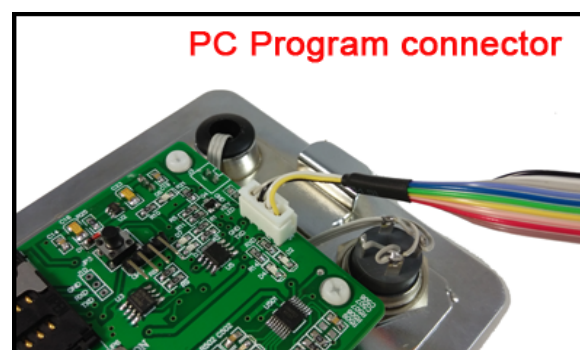
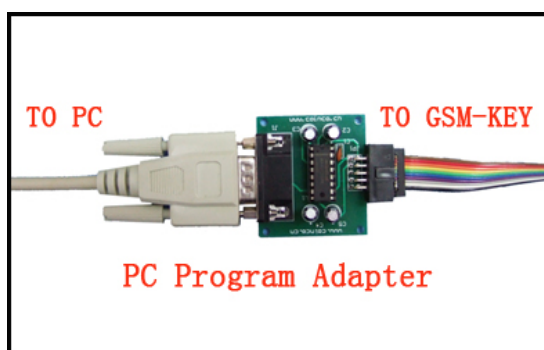
WAFER GSM-POINT PROGRAMMING

You can program the GSM-POINT 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.

Remember that commands must be CAPITAL LETTERS. It is PWD not pwd, CAP not Cap etc. Don't add spaces or any other character.

Some complicated Instructions, that can't be programmed by the phone SMS. That would need to use the PC software to program and inquire the status of the terminal.

The below wire picture is to show how to connect the cable to the PC program connector with the Program adapter. Please connect it in the right direction with the picture.



OPERATION mode:

Visitor mode:

When the visitor pushes the call button, the device initiates a voice call to the configured phone number, if the called party accepts the call, the communication establishes for the configured duration. During the call, the connection can't be stopped by pressing the button again. The call is ended automatically when the configured communication time expires or the called party ends the call. The call is ended automatically if the called party doesn't answer or is not available. The secondary numbers is called if the primary is not answered.

Controlling the relay output

The DOOR RELEASE (normally open, NO) relay output can be controlled as follows, depending on the usage:

✓ **Controlling during the intercom call:**

During a call, the user press 111 to open the relay1 and press 222 to open the relay2

✓ **Controlling by free call**

On incoming call, after identifying the caller ID, the unit reject the call and activates the output, maximum 200 numbers can be configured

✓ **Controlling by SMS command or customized command**

Please refer to the following SMS command to control the relay1 and relay2 and also can use the customized SMS command to control

Adjust the sound volume

During intercom calling, press the * and # to increase or decrease the sound volume

Teach button (Device reset button)

Press the KEY button to Teach

Press the KEY and hold the button for around 2 second, the LED D7 would be lit, and then use your phone to call the device number. When coming the call, the device would reject the calling and D1 would flash one or two times, then the number is saved into the device memory, if you need to program more, then just continue to use other phones to call the device. After program, press the button again to quit the teaching. Then the LED D1 would be extinguished.

(Fast button only program WHL position from WHL01 to WHL10)

Press the KEY button to Reset

Press the KEY button and hold the button for around 10 seconds, and then the LED would start to flash and then release the button, the device is reseted. The Password would be reseted to 123456 and from WHL01 to WHL10 would be cleared. and ACM=OFF, REPLY=ON, REPORT=ON all are reseted.

The following command is used in the GSM-POINT :

#PWD:	Password
#CAP:	Change password
#WHL:	White List (add or remove numbers)
#GOT:	Gate pulse time
#ALARM:	Alarm information setting
#MODE:	Relay mode
#CSQ:	Check Signal Quality
#SCA:	Set service center address
#STATUS:	Check status

Once you issue a command with an SMS, you will receive a confirmation SMS with OK if everything is correct or Err if there is an Error.

SMS COMMAND LIST:

#PWD Password.

This command must always come first 6 digits as a password.

The standard default one, when the device comes from the factory, is 123456.

We suggest that you change it, using the #CAP command.

In all the following examples we will use 123456 as an example of password.

#CAP Change Password.

Use this command to change the password with a new one that you will chose for your device (don't forget it or you will have to send the unit back to us to reset it, and this has a cost)

The #CAP command must be issued 2 times to be sure you don't digit a wrong one.

OF course it must be preceded by the old password.

For example, to change the password 123456 into the new password 333444 you need to send the following SMS:

#PWD123456#CAP333444#CAP333444

Acknowledge SMS: PWD SETUP OK

If you wrote correctly, or an Error message if you made a mistake.

If the old password is error,then conformation would be : Error Old Password

If you input two different new password,then reply would be : Error New Password,Please Check the input again

#WHL White List.

This is the command that you will use most. it is used to add or remove numbers that are enabled to open the gate into the White List. You can add up to 200 numbers in the list. Every position must be indicated in the command and we advise you to keep a list written somewhere to know which numbers are in and in which position.

- To add a number, the syntax of the command is the following:

#PWD123456#WHL01=61143815

Acknowledge **would be : WHL01 SET TO 61143815 OK**

Where 01 is the position in the list and 61143815 is the number enabled.

Please note that it is possible to program up to a maximum of 10 digits for a number. If it has more digits you should use the rightmost ones. For example, if your number is 33446665555 you should program 3446665555. If your number appears as +85261143815 you should not program the country code (+852). If your number has only 9 digits or less, it is not a problem. The important thing is that you don't exceed 10 digits.

- To check which is the number in a place of the list:

#PWD123456#WHL01?

Acknowledge : **WHL01 IS 61143815 OK**

- To erase a number:

#PWD123456#WHL01=0000000

(or you can write over it another number you wish to add)

Acknowledge : **WHL01 SET TO 00000000**

List All numbers in the List

#PWD123456#WHL=ALL? (PC)

Acknowledge :

WHL01 IS XXX

WHL03 IS XXX

WHL08 IS XXX

.....

#SHL, #PHL, #QHL Special List.

Set from what time to what time you want these numbers operate

#PWD123456#SHL001=13564121668:1357(8:32-23:59)

Acknowledge : **SHL001 SETUP TO 61143815:1357(8:32-23:59)**

SHL001 number would operate from 8:32 to 23:59 in Mon,Wen,Fri,Sun in every week.

Set from date to date you want these numbers operate

#PWD123456#PHL001=13564121668:100324-101012(8:32-18:26)

Acknowledge : **PHL002 SETUP TO 61143816: 100324-100812(8:32-18:26)**

PHL001 number would operate from 8:32 to 18:26 from Mar.24th to Oct.12

#PWD123456#QHL001=13564121668:12

Acknowledge : **QHL003 SETUP TO 61143817:12**

QHL001 number would operate total 12 times,then would be expired.

- To check which is the number in a place of the list:

#PWD123456#SHL0001?

Acknowledge : **SHL01 IS 61143815 OK**

Or #PWD123456#PHL0001?

#PWD123456#QHL0001?

- To erase a number:

#PWD123456#WHL01=0000

Or #PWD123456#PHL01=0000

#PWD123456#QHL01=0000

(or you can write over it another number you wish to add)

List All numbers in the List

#PWD123456#SHL=ALL? (Instruction Only for PC)

Acknowledge :

SHL01 IS XXX

SHL03 IS XXX

QHL08 IS XXX

.....

#QUERY *Query the phone number in the WHL list. (PC\$PHONE)*

Query the phone number in the position of the WHL list, Special phone list or Alarm phone list

#PWD123456#QUERY=143535353 (PC\$PHONE)

Acknowledge: **QUERY RESULT: 143535353 AT WHL004**

#ACM *Safety control or free control mode setting. (PC\$PHONE)*

#PWD123456#ACM=ON

Acknowledge: **ACM SET TO ON**

#PWD123456#ACM=OFF

Acknowledge: **ACM SET TO OFF**

ACM=OFF, Then any number can free control the device through the phone calling

ACM=ON, Then only the authorized number can control the device through the phone calling

#GOT *Relay working output delay time. (PC\$PHONE)(Only for NO.1 Relay)*

When setup the GOT Timer, first you also need to setup the timer multiplier at millisecond or second or minutes.

#PWD123456#GOT5000:MILLISECOND

Acknowledge: **DELAY TIME SET TO 5000 MS**

#PWD123456#GOT500:SECOND

Acknowledge: **DELAY TIME SET TO 0500 S**

#PWD123456#GOT500:MINUTE

Acknowledge: **DELAY TIME SET TO 0500 M**

This command is useful in case you need to keep the Relay output working longer. The standard time is 5 seconds (5000 ms). You can change it with the GOT command.

With the above command the delay time has been set to 5000 ms (5 seconds).

You can check what the current relay output delay time is with the command

#PWD123456#GOT? (PC\$PHONE) (Only for NO.1 Relay)

Acknowledge: **DELAY TIME IS 05000 MS**

#ALARM Alarm setup

In GSM-POINT V2015, that Alarm01 is very important position, not only act as a alarm number, but also working as the REPORT phone number, that means if you enable the REPORT function, then every report event happen, then would send the REPORT SMS to this number

(1) You can setup the alarm phone number when have the alarm information input

#PWD123456#ALARM01=13818120592 (PC\$PHONE)

Where 01 is the position in the list

Acknowledge: **ALARM01 SET TO 61143815 OK**

When the number is set to 000000, that means delete the number in this position

(2) check which is the number in a place of the alarm phone list:

#PWD123456#ALARM01? (PC\$PHONE)

Acknowledge: **ALARM01 IS 61143815 OK**

(3) List all numbers in the alarm phone list:

#PWD123456#ALARM=ALL? (PC\$PHONE)

Acknowledge: **ALARM IS XXXXX:XXXX:XXXXXXXX:0000:0000**

(Will show total five numbers, if no effective number, that will be replaced with 0000)

(4) Alarm mode setup **(PC\$PHONE)**

There are two alarm input ,you can set at PHONE or SMS

#PWD123456#ALARM-IN1=ON:PHONE:10,ALARM-IN2=OFF (PC\$PHONE)

Acknowledge: **ALARM_IN1=ON:PHONE:10,ALARM_IN2=OFF OKAY**

#PWD123456#ALARM-IN1=ON:SMS:300,ALARM-IN2=ON:PHONE:10 (PC\$PHONE)

Acknowledge: **ALARM_IN1=ON:SMS:300,ALARM_IN2=ON:PHONE:10**

If at phone mode: when receive the alarm input, then will phone the number in the alarm phone list until you reject the phone call or that will continue to phone the number again after the minutes setted.

If at SMS mode: When receive the alarm input, then will send the SMS to the number in the alarm phone list until you send the SMS to PAUSE the alarm .

(5) Config the SMS TEXT : **(PC)**

#PWD123456#UDI1:XXXXXX, UDI2:XXXXXX

Acknowledge: **UDI1:XXXXXX, DI2:XXXXXX OKAY**

(When the Alarm input is triggered, then will send the SMS you already setted with this UDI command)

Check the text set

#PWD123456#UDI?

Acknowledge: **UDI1:ABC1, UDI2:ABC2**



#REPORT Report the system status change **(PC\$PHONE)**

When setup to:

#PWD123456#REPORT=ON

Acknowledge: **REPORT SET TO ON**

Then any device status change would send the alarm SMS to Alarm01 number

#PWD123456#REPORT=OFF

Acknowledge: **REPORT SET TO OFF**

No report for the device status change

#PWD123456#REPORT?

You will receive the SMS reply: **REPORT IS ON** or **REPORT IS OFF**

Check the REPORT setting status

#CSQ Check GSM signal quality. **(PC\$PHONE)**

This command is useful to see what is the GSM network

signal level your GSM-POINT is receiving. It ranges from 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 antenna if this is not the case, or eventually even change operator with another that serves your area better.

#PWD123456#CSQ?

Acknowledge: CSQ IS 26

#MODE Relay Operation Mode SETUP (PC\$PHONE)

#PWD123456#MODE0

Acknowledge: **RELAY SET TO MODE0**

#PWD123456#MODE1

Acknowledge: **RELAY SET TO MODE1**

If set to MODE0, that is Momentary pulse and If Config to MODE1, that is Ratchet relay

#STATUS Check the config information of the terminal (PC\$PHONE)

#PWD123456#STATUS?

You will receive a Acknowledge with:

Acknowledge: **ALARM1=OFF:SMS:12,ALARM2=OFF:SMS:10,GOT=05S,WHL=02,ALARM1=HIGH,ALARM2=HIGH,BCPW=69,CSQ=20,RELAY1=OFF,RELAY2=OFF**
(BCPW is the remaining power)

#OUT Control the Relay Output on or off (PC\$PHONE)

#PWD123456#OUT1=ON or OFF

Acknowledge: **OUT1 ON OK or OUT1 OFF OK**

#PWD123456#OUT2=ON or OFF (If has the second relay output on board)

Acknowledge: **OUT2 ON OK or OUT2 OFF OK**

Customized output control command TEXT: (PC\$PHONE)

#REPLY SMS reply OFF or ON

#PWD123456#REPLY=ON

Acknowledge: **REPLY SET TO OFF**

When setup to ON, then Device will reply the customized command after Relay is toggled

#PWD123456#REPLY=OFF

Acknowledge: **REPLY SET TO OFF**

When setup to OFF, then Device will not reply the customized command after Relay is toggled

(This command is used to save the cost for user)

With these command you can customize the command to control your output. then would be easy for you to understand the command

#PWD123456#OPEN1-TEXT#XXXX

#PWD123456#CLOSE1-TEXT#XXXX

#PWD123456#RLY-TEXT1#XXXX

If have the second output reply, then use the following command to config the second output

#PWD123456#OPEN2-TEXT#XXXX

#PWD123456#CLOSE2-TEXT#XXXX

#PWD123456#RLY-TEXT2#XXX

Check the Customized command text:

#PWD123456#OUT1-TEXT?

Reply: OPEN1-TEXT=OPEN1,CLOSE1-TEXT=CLOSE1,TRIG1-TEXT=DIAN1

#PWD123456#OUT2-TEXT?

Reply: OPEN2-TEXT=OPEN2,CLOSE2-TEXT=CLOSE2,TRIG2-TEXT=DIAN2

For example,you send the command:

#PWD123456#OPEN1-TEXT#GATE1 OPEN

Reply: OPEN TEXT1 IS GATE1 OPEN

Then you can use the simple SMS: GATE1 OPEN to switch on the output1 relay

#PWD123456#CLOSE1-TEXT#GATE1 CLOSE

Reply: CLOSE TEXT1 IS GATE1 CLOSE

Then you can use the simple SMS: GATE1 CLOSE to switch off the output1 relay

#PWD123456#RLY-TEXT1#GATE1 DIAN

Reply: RLY1-TEXT IS GATE1 DIAN OKAY

Then you can use the simple SMS: GATE1 DIAN=5 to trigger the output1 relay for 5 second

#PWD123456#OPEN2-TEXT#GATE2 OPEN

Reply: OPEN TEXT2IS GATE2 OPEN

Then you can use the simple SMS: GATE2 OPEN to switch on the output2 relay

#PWD123456#CLOSE2-TEXT#GATE2 CLOSE

Reply: CLOSE TEXT2 IS GATE2 CLOSE

Then you can use the simple SMS: GATE2 CLOSE to switch off the output2 relay

#PWD123456#RLY-TEXT2#GATE2 DIAN

Reply: RLY2-TEXT IS GATE2 DIAN OKAY

Then you can use the simple SMS: GATE2 DIAN=5 to trigger the output2 relay for 5 second

#Battery working and alarm command

(Battery alarm SMS all send to the ALARM phone numbers)

#PWD123456#POWER-CHANGE-ALARM:ON,BCPW-LOW-ALARM:ON:60

POWER-CHANGE-ALARM: ON or OFF to enable or disable the power change alarm

BCPW-LOW-ALARM: When the Remaining battery power is lower than 60%,will send the alarm SMS

You will get the reply SMS:

POWER-CHANGE-ALARM:ON,BCPW-LOW-ALARM:ON:60 OKAY

If you want to know the setup of the battery alarm,then send the inquiry SMS:

#PWD123456#POWER-CHANGE-ALARM?

You will receive the SMS reply from the unit :

POWER-CHANGE-ALARM:OFF,BCPW-LOW-ALARM:OFF:60

If you want to know the battery remaining power,then you can send the STATUS? command to the unit.

When power off,would delay **around 1 minutes** and then send the alarm SMS.

#GSM Intercom function and config command

1. Add the phone number for the inter calling

#PWD123456#DIAL01=180122333 and #PWD123456#DIAL02=181323344

Reply: DIAL01 SET TO 122333 OK Reply: DIAL02 SET TO 323344 OK

Inquiry the intercom calling number in the memory

#PWD123456#DIAL=ALL?

You will receive a Acknowledge with: DIAL IS 180122333:181323344:

2. Customize the keypad button for release the out1 and out2

#PWD123456#RELEASE1=1

Reply: RELEASE1=1 OKAY

#PWD123456#RELEASE2=2

Reply: RELEASE2=2 OKAY

You only need to input one number, but every time, you need press more than twice to release the output. For the above setting, then everytime during inter calling, you can press the button 1 twice to release OUT1 and press the button 2 to release the OUT2

Check the config information of the release button

#PWD123456#RELEASE?

You will receive a Acknowledge with:

RELEASE1=1, RELEASE2=2

3. Inter calling audio volume adjust

During phone calling, press the button * or # to increase or decrease the audio volume.

This brochure provides an overview of the products and services of WEIFU GSM Modules, For further information and queries kindly contact:

Email: wafer@waferstar.com

Web: www.waferstar.com

Tel: 0086-21-51870528

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