

Dual-Network LCD Keyboard Intelligent Alarm

Model: 5900G

Brand: KERUI

Secrui Electronic Co., Ltd

Standards



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1. Introduction

1.1 General Description

This LCD system English large-screen GSM alarm system is equipped with dual network technologies and suitable for both home and commercial use. It uses the advanced GSM digital signal process technology, GSM Wireless mobile and traditional PSTN landline networks with intelligent alarm system. It has highly integrated digital voice, SMS, self-learning wireless communication code, remote appliance control and text messaging technologies. The alarm provides automatic voice or SMS message as notifications for incidents. It is a choice of stability, reliability, security, and user friendliness. Features are very practical, cost-effective, completed configuration and ease of use. This large LCD display alarm can integrate with a lot of alarm accessories including door sensor, smoke detectors, gas detectors, emergency buttons and other accessories to build a powerful security setup. It has been widely used in homes, factories, schools, shops, convenience stores, financial and banking workplace, community centre and residential area to provide protection to valuable assets.

1.2 System Features

- Large LCD Large english blue back-light display, voice prompt, ease of use.
- Support dual-network of both PSTN landline and GSM mobile network, provide redundancy for extra stability.
- Can check status and call records from panel.
- Allow up to 99 wireless defense zones and 4 wired zones.
- Each can be defined as one of the 8 zone types including NORMAL, STAY, INTELLIGENT, EMERGENCY, CLOSED, HELP SENIOR, WELCOME and CHIME.
- Four sets of scheduled disarmed function, each time disarmed you can select the included period of time and different defense zone, eliminating of need of the manual procedure, realizing the beauty of automatic controls.
- Support configuration via phone (handset) or SMS.
- messages to System Setup text messaging costs associated with the alarm panel.
- 6 group voice alarm phone number for alert calling, 3 group phone number for help senior, 6 group for SMS messaging, numbers saved inside EEPROM without lost upon power failure.
- Different zones can dial a pre-set telephone number.
- Support ISD automatic voice mailbox for playback message upon alert. Maximum length of voice message is 10 seconds.
- Telephone (phone) long-distance telephone control for arming, disarming, monitoring, remote announcement.
- 1 Set of normally open signal outputs, relay linkage output, home appliances remote control can be realized.
- Wireless intelligent study coding, compatible with PT2262 normal encoding and

a 1527 encoding, convenient and flexible for adding or reducing accessories.
Maximum support 100 remote control and 150 sensors.

- Unique black box features, you can display most recent 72 disarmed records and 102 recent alarm recording. Accurately shows the alarm time and control code.
- Built-in Ni-Hi rechargeable battery and automatically switchable upon power failure, and notification will be sent via SMS.
- Panel integrated with either dual-band, triple-band, quad-band GSM/GPRS industrial graded module, stable and reliable.

2. Anatomy of the LCD Dual-network Intelligence Burglar Alarm

2.1 System Components and Usage

ARM

The system is at a fully ready status where all detectors are activated in a working state, when the some events (burglar, fire, gas leak, etc) happened and detected, , alarm system alarm right away.

In a ARM status, the panel [ARM] light is on, LCD screen show "ARM" is also on. To activate using remote control: press [ARM] key once.

To activate using keyboard: on panel keyboard [ARM] keys once.

STAY ARM

This is for partial arming of the alarm system when there are people at home, only some of the selected sensors are activated and could be triggered by events.

In a STAY ARM status, the panel [STAY] light is on, LCD screen show " STAY " is also on.

To activate using remote control: press [STAY] key once.

To activate using keyboard: on panel keyboard [STAY] keys once.

DISARM

All sensors are deactivated and will not be respond to any events.

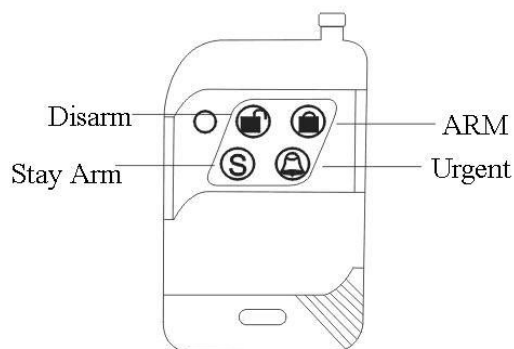
In a DISARM status, the panel [ARM] light is off, LCD screen show " DISARM " is on.

To activate using remote control: press [DISARM] key once.

To activate using keyboard: on panel keyboard [DISARM] keys once.

EMERGENCY

When an emergency occurs, press emergency button on the remote or the * button on panel to activate alarm.



Remark:

If password on keyboard is enabled, you need to enter password before other operations, the initial password is 1234.

2.2 System Setup

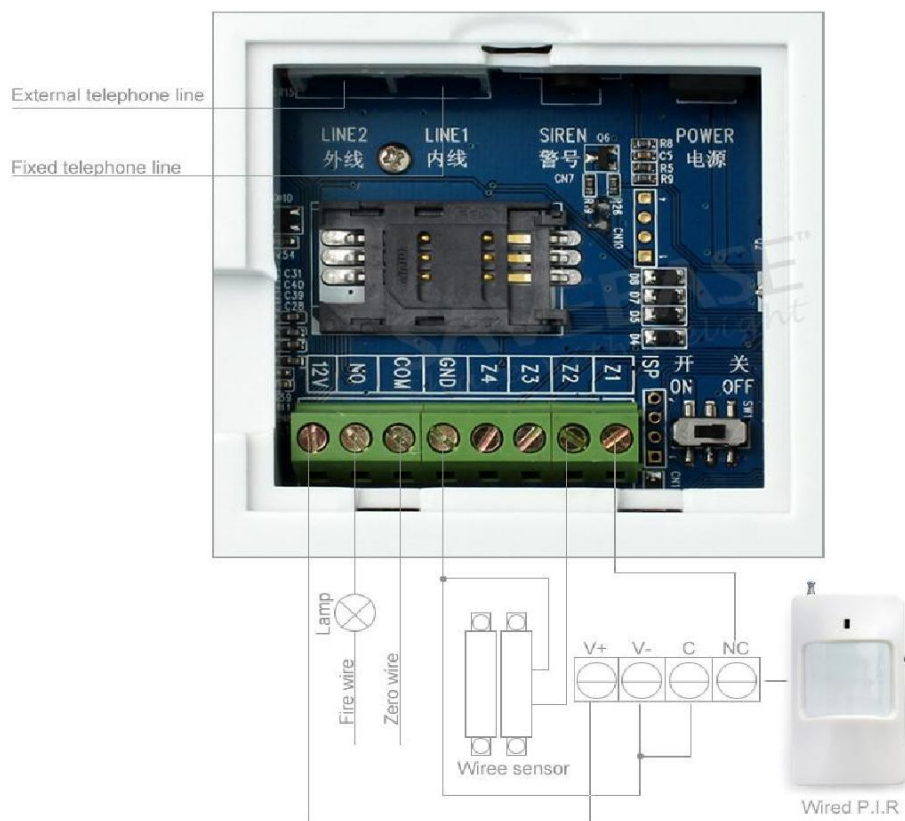
2.2.1 Panel Setup

Alarm panel should be installed at a central location with best transmission to all the wireless sensors and accessories. Keep the panel well away from large metal objects or household appliances with high-frequency interference, and avoid barriers such as concrete walls with metal frame inside and fire doors.

Alarm panel



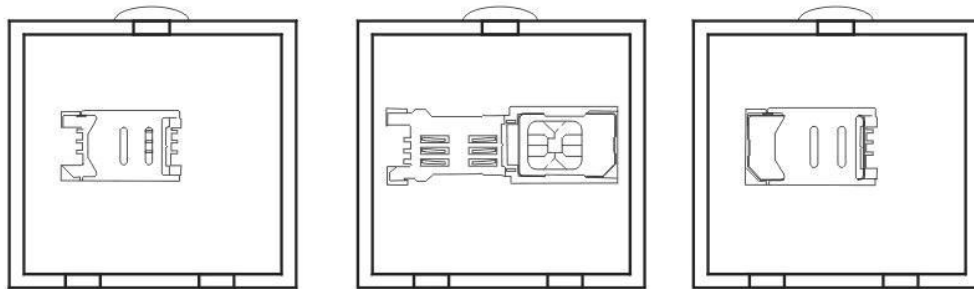
2.2.2 Connections of Cables



2.2.3 SIM Card installation

SIM card installation is simple. Firstly remove the cover of SIM card slot at the back of the alarm panel and then place the card according to direction indicated. Make sure the cover of SIM card slot is fixed suitably.

SIM Installation



2.2.4 Summary of Indicators

Function	Indications	Description
Built-in speaker	short "beep" once	Confirming key signal received
	"beep", "beep" two short tones	Exit configuration or learnt succeed
	"beep", "beep", "beep" three short tones	Error indication
	Voice prompt	The function and status of the prompt voice
Power LED	Light up and "power" icon display on LCD	Panel power is normal
	Light up and "battery" icon display on LCD	Alarm panel external power disconnect, using battery
	Is off	Alarm panel without power supply
ARM LED	Light up and "STAY ARM" icon display on LCD	Alarm panel at STAY ARM state

	Longlight up and "NORMAL ARM" icon display on LCD	Alarm panel at NORMAL ARM state
	Flashing	Is changing to the DELAY ARM
	Is off	Alarm panel at DISARM
Siren LED	Light	Alarming, LCD display specific information
	Flashing	Is changing to the DELAY ARM
Status LED	Light	Panel at the configuration mode
	Flashing	Panel at the enquiry mode
Display on LCD the GSM Signal, SIM card Status and external telephone line	" GSM Signal "flashing	Searching GSM Signal
	" GSM Signal " light	GSM Good signal
	" SIM Card " not light	Indicates that no plug SIM Card
	" SIM Card " light	SIM Card loaded correctly
	"Telephone line" not light	No connected the external telephone line
	"Telephone line" light	External phone line connected properly

3 Installation of Panel

3.1 Alarm Panel Initial Setup

Load the SIM Card, connect telephone line, fix the GSM Antenna, connect the power and other cables if any, then power up alarm panel. The alarm panel voice prompt "Welcome to the intelligent voice alarm", and start self-test the GSM network, LCD shows "GSM signal" flashing while searching GSM Signal (it takes about 10 seconds or so for searching). "GSM signal" light means GSM signals and SIM card are normal. LCD show "telephone line" indicates the external telephone line connection is good.

Upon everything working properly, the battery switch should be at the [ON] position for continuous charging.

3.2 Pre-record Voice Message

Alarm panel will play a pre-recorded voice message after the alarm call when a pre-set phone number upon alarm. To record customized message:

- Press "# "Key to enter the configuration mode:
- Then press 19#, speak your message at the panel for recording
- System will record 10 Seconds and then automatically exit; or press any key to end whenever your message end.
- Press *, then # exit setup status.

3.3 Add Remote Control:

Press "# "key to enter the configuration mode:

- Syntax: 07+(00~99)+# to configure remote control

Example: 07 then press 01# , to configure the 1st remote control. then press any key of the remote control to send a signal to the alarm panel, panel beep twice means successful, beep only once means the remote control has been configured before. Alarm panel can configure up to 150 remote control of different addressing. Upon completion press # to exit the configuration mode, press * and then # exit the configuration mode.

3.4 Delete the remote control:

Press "# "Key to enter the configuration mode:

- Syntax 1: 08+(00~99)+# to delete remote control
- Syntax 2: 08+**+# to delete all remote controls

Example: 08 then press 01# for deleting 1st remote control, then if you want to delete 8th remote control, press “08” instead of “01”. Press # to exit the delete remote control, press * and then # to exit configuration mode.

3.5 Add detector

Press "# "Key to enter the configuration mode:

Syntax: 09+(00~99)+# to set the detector

Example: 09 then press 01# , to configure 1st sensor, then trigger the detector to send a signal to the alarm panel. panel beep twice means successful, beep only once means the remote control has been configured before. Alarm panel can configure up to 150 sensors of different addressing. Upon completion press # to exit the configuration mode, press * and then # exit the configuration mode.

3.6 Delete detector

Press "# "Key to enter the configuration mode:

Syntax 1: 10+(00~99)+# to delete the detector

Syntax 1: 10+**+# to delete the detector

Example: 10 then 01#, to deleting 1st sensor. If you want to delete the 6th detectors, use “06” instead of “01”. Upon completion press # to exit the configuration mode, press * and then # exit the configuration mode.

4 Command Reference

This system supports three methods of configuration including the local keyboard, telephone set and SMS messaging. Following are examples how instructions are given via one of the three methods of setting

Example: you want to change the first phone number for voice calling to 13899998888:

Method 1: At the Keyboard

Press # to enter the configuration mode, and then press 3113899998888# , press the * then press # to exit configuration mode.

Method 2: By telephone set

Calling into the alarm panel, upon connected, alarm panel will ask for password, it is 1234 as the default, then press #, and then press 3113899998888# , press the * then press # to exit configuration mode.

Method 3: Using SMS

On your mobile phone, compose a SMS message as 12343113899998888# and send send to your alarm panel.

Remark:

The status LED is lit on the panel to indicate at the configuration mode, the status light is off upon exit.

Below is a table of all commands supported.

4.1 Commands for Configuration

Set up voice alarm phone number	<p>To set the 1st group to the 9th group of voice alarm phone number 【 1-9 】 indicates that the first group to the Ninth group alarm number correspondingly.</p> <p>Example: If the user wants to set 13812345678 for the first set of voice alarm phone number</p> <p>Method one:</p> <p>After you press the # key to enter the configuration mode, press the 3113812345678# , * Then press # To exit Setup.</p>
<p>【 3 】 + 【 1-9 】</p> <p>+ "Phone number"</p> <p>+ 【 # 】</p>	<p>Method two:</p> <p>Remote calling into the alarm panel put in password (initial password: 1234) when being asked, then press the # key, hear the voice prompt and then press 3113812345678#, then press # to exit the remote setting status.</p> <p>Method three:</p> <p>Send SMS messages 12343113812345678# to a alarm panel (which at the beginning of 1234 is the user password), the alarm panel will reply with SMS message " 1 Group phone number :13812345678" to confirm the 1st group alarm phone number is set to13812345678 successfully.</p> <p>For users using the telephone line extension, you should dial a number (such as "9") to pick up a dialing tone, then with your command you should add to this number a " * ". So the completed command becomes 9*13812345678#</p> <p>Remark:</p> <p>7,8,9 group number for HELP SENIOR zone and panel will only dial these three groups number when that specific zone alarming.</p>

Delete voice alarm phone number	Used to delete the first groups to the Ninth group alert phone numbers
<p>【 3 】 + 【 1-9 】 + 【 # 】</p>	<p>Example: If you want to delete the first set of telephone alarm number,</p> <p>Method one: After you press the # key to enter the configuration mode, press the 31# , then press * then press # to exit Setup.</p> <p>Method two: After entering the telephone remote setting status, press 31#.</p> <p>Method three: Send SMS message 123431# On the alarm panel, alarm panel reply " 1 Group phone number" to confirm the 1st group alarm phone number has been removed.</p>
Set phone number to receive SMS message	To set the first group to the sixth group of phone number for SMS message. When alarm panel is alert, it sends a SMS message to the six sets of numbers one by one.
<p>【 4 】 + 【 1-6 】 + "Phone number" + 【 # 】</p>	<p>Example: If the user wants to set 13812345678 SMS for the first group of SMS message</p> <p>Method one: After press the # key to enter the configuration mode, press the 4113812345678# , then press * then press # Exit Setup</p> <p>Method two: After calling and connected to the panel panel from remote, press 4113812345678#</p> <p>Method three: Send SMS message 12344113812345678# to the panel.</p>
Delete SMS phone number	Used to delete the first group to SMS of the Ninth group police number
<p>【 4 】 + 【 1-6 】 + 【 # 】</p>	<p>Example: If you want to delete the first set of SMS message phone number,</p> <p>Method one: After you press the # key to enter the configuration mode, press the 41# , then press * then press # Exit Setup</p> <p>Method two: After calling and connected to the panel panel from remote, press 41#</p> <p>Method three: Send SMS message 123441#</p>

Password modification	Used to modify the user password, the default user password is 1234 Example: If you want to set up a new user password 4321
Syntax: 【 50 】 + "Four new password" 【 # 】	Method one: Press # key to enter the configuration mode, press the 504321# , press the * then press # to exit setup. Method two: After calling and connected to the panel panel from remote, press 504321# Method three: Send SMS message 1234504321#
Set delay for system arm	Upon armed from the remote control or alarm panel, the alarm panel is set to delay 0 — 99 before at the ready status of ARM. The system default is 00 seconds.
Syntax: 【 51 】 + "00-99 Second " 【 # 】	Example: users need to set the delay time for 60 Seconds. Method one: Press # key to enter the configuration mode, press the 5160#, then * then press # to exit setup. Method two: After calling and connected to the panel panel from remote, press 5160# Method three: Send SMS messages 12345160#
Set the time of delay for alarming	Set the time of delay upon alarm, it can be set to 0-99 seconds, the system default is 00 seconds.
Syntax: 【 52 】 + "00-99 Second " 【 # 】	Example: the user needs to set the alarm delay time to 60 Seconds. Method one: Press # Key to enter the configuration mode, press the 5260#, and * then press # to exit setup. Method two: After calling and connected to the panel panel from remote, press 5260#. Method three: Send SMS message 12345260#

Set length of Siren sound	Set alarm length of sounding when panel when the alarm, could be set to 0-20 minutes, factory default is 1 minute.
Syntax: 【 53 】 + 【 00-20 Minute ” + 【 # 】	Example: you want to make a siren sound 5 Minutes. Method one: # Key to enter the configuration mode, press the 5305#, * Then press # To exit Setup. Method two: After calling and connected to the panel panel from remote, press 5305#. Method three: Send SMS messages12345305#
Set the scope of control of alarm panel and remote control	Set which defense zone will be controlled by remote control and from alarm panel keyboard. Factory default is all remote control and keyboard can control all 00-99 zones.
Remark: The 1 st remote control represented by number 01, ** represents the alarm panel keyboard. Syntax: 【 54 】 + 【 Remote control number 00~99 】 + 【 Starting defense area 00~99 】 + 【 End of defense zone 00~99 】 + 【 # 】	Example: you want to set 01 remote control to control only 00-20 zone. Method one: # Key to enter the configuration mode, press 54010020# Example: you want to set the alarm panel keyboard control 00-50 Defense zone. Method one: # Key to enter the configuration mode, press 54**0050#, * then press # To exit Setup. Method two: After calling and connected to the panel panel from remote, press 54**0050# Method three: Send SMS message 123454**0050#
Set audible confirmation for remote control operation	1 means on and 0 means closed, the default is on.
Example: set panel sound when remote control number 01 is sending signal. Method one: Pressing # to entering the setup, and then press55010#, * then press # to exit setup. Method two: After calling and connected to the panel panel from remote, press 55010#. Method three: Send SMS messages123455010#	
Syntax: 【 55 】 + 【 Remote control number 00~99 】 + 【 0/1 】 + 【 # 】	
Set date and time settings	Set the system date and time An example: it is now 1 st of July of 2011 9 : 00 : 00 am

Syntax:	Method one:
【 56 】 +	# to enter the configuration mode, press the
"4-digits year" +	5620110701090000# , * then press # to exit Setup.
【 01-12 The	Method two:
Month 】 +	After calling and connected to the panel panel from remote,
【 01-31 Day 】 +	press 5620110701090000#.
【 00-23 Hour 】	Method three:
+ 【 00-59 】 +	Send SMS message 12345620110701090000#
【 00-59 Second "	
+ 【 # 】	

Scheduled arm and disarm time setting	To set the time for scheduled arm and disarm, it allows set at most four group of time for arm and disarm. Example: set up the first group scheduled time to arm at 22 : 00 pm and disarm at 07 : 00 am, this is valid for
<p>Syntax:</p> <p>【 57 】 + Group number 【 01~04 】 + 【 AAAA Scheduled time of arm 】 + 【 BBBB Scheduled disarmed time 】 + 【 Number week 】 + 【 # 】</p>	<p>Monday, Tuesday, Wednesday, Thursday and Friday of each week.</p> <p>Method one: # enter the configuration mode, and then press 57012200070012345#</p> <p>Example: set up the second group scheduled time to arm at 12 : 00 and disarm at 13 : 00 pm, this is valid for all 7 days of each week.</p> <p>Method one: # enter the configuration mode, and then press 5702120013001234567#, * then press # to exit Setup.</p> <p>Method two: After calling and connected to the panel panel from remote, then press 5702120013001234567#.</p> <p>Method three: Send SMS message 12345702120013001234567#</p>
Scheduled arm and disarm zones settings	Used to set when the four group of zone to be controlled by scheduled arm and disarm Example: To set up the first group scheduled arm and disarm control 00-50 defense zone.
<p>Syntax:</p> <p>【 58 】 + 【 Group number 01~04 】 + 【 00-99 Defense zone begin the area code 】 + 【 00-99 Defense zone ends area code 】 + 【 # 】</p>	<p>Method one: Press # enter the setup status and press 58010050#, * then press # exit Setup</p> <p>Method two: After calling and connected to the panel panel from remote, press 58010050#</p> <p>Method three: Send SMS message 123458010050#</p>

Set the type of defense zone	<p>To set 99 zone type, 00-99 represents 0-99 zone number, 1-8 represents one of the 8 zone type:</p> <ol style="list-style-type: none"> 1. NORMAL 2. STAY ARM 3. INTELLIGENT 4. EMERGENCY 5. CLOSED 6. CHIME 7. WELCOME 8. HELP SENIOR <p>The last 0/1 represents 0 siren of panel produce no sound upon alarming while 1 is sounded.</p> <p>Example: Set zone number 2 as STAY zone type, and siren not sound upon alarming2.</p> <p>Method one:</p> <p># Key enters the configuration mode, press 600220#, * then press # To exit Setup.</p> <p>Method two:</p> <p>After calling and connected to the panel panel from remote, press 600220#</p> <p>Method three:</p> <p>Send SMS message 1234600220#</p>
Set mode of wired alarm zone	<p>Set wired alarm zone to NO or NC. The zone number of 51-54 are wired defense zones, system default is 51-54 are wired zones with NO mode.</p> <p>0 means NO and 1 means NC</p> <p>Example: Set 51 zone to NC,</p> <p>Method one:</p> <p># Key enters the configuration mode, press 61511#</p> <p>* Then press # To exit Setup.</p> <p>Method two:</p> <p>After calling and connected to the panel panel from remote, press 61511#</p> <p>Method three:</p> <p>Send SMS message 123461511#</p> <p>Remark: On the back pane of the alarm panel</p> <p>51 = zone 1 and labelled Z1</p> <p>52 = zone 2 and labelled Z2</p> <p>53 = zone 3 and labelled Z3</p> <p>54 = zone 4 and labelled Z4</p>
Set Remote Operation on or off	<p>This enable or disable the remote operation of alarm panel using telephone. System default is on.</p>

<p>Syntax: 【 62 】 + 【 0/1 】 + 【 # 】</p>	<p>Example: turn off the remote setting function, Method one: # , and then press 620# , * then press # To exit Setup. Method two: After calling and connected to the panel panel from remote, press 620# Method three: Send SMS message 1234620#</p>
<p>Assign specific phone number to certain zone</p>	<p>System default is all 00-99 defense zone will make call from the first to sixth group phone number upon alarming. Example: user needs 00-10 to call the first, second, third set of numbers.</p>
<p>Syntax: 【 63 】 + 【 00-99 Defense zone begin the area code 】 + 【 00-99 Defense zone ends area code 】 + 【 Police group number 123456 】 + 【 # 】</p>	<p>Method one: # , and then press 630010123# Example: users need to 11-20 zone alarm the fourth, the fifth and the sixth group number. Method one: # , And then press 631120456# Example: User want zone 21 call only the 5th group number. Method one: # , and then press 6321215#. Method two: After calling and connected to the panel panel from remote, press 6321215#. Method three: Send SMS message 12346321215#</p>
<p>Set audible confirmation from panel to on or off</p>	<p>Alarm panel will produce audible confirmation beep upon receipt of signal from remote control. 1 is on, 0 is off, default is on.</p>
<p>Syntax: 【 11 】 + 【 0/1 】 + 【 # 】</p>	<p>Example: users need to disable the audible confirmation. Method one: # then press 110# , press the * then press # Exit Setup Method two: After calling and connected to the panel panel from remote, press 110# Method three: Send SMS messages 1234110#</p>

<p>Enable or disable the SMS Messaging</p> <p>Syntax: 【 12 】 + 【 0/1 】 + 【 # 】</p>	<p>1 is on and 0 is off. Default is on</p> <p>Example: the user will need to turn off the text messaging feature</p> <p>Method one: # Then press 120# , press * then press # exit setup status</p> <p>Method two: After calling and connected to the panel panel from remote, press 120#</p> <p>Method three: Send SMS message 1234120#</p>
<p>Enable or disable of the anti-tampering of telephone cord</p> <p>Syntax: 【 13 】 + 【 0/1 】 + 【 # 】</p>	<p>Cut the phone cord will trigger the alert. 0 is off and 1 on, system defaults to closed.</p> <p>Example: user need to enable anti-tampering of telephone cord feature</p> <p>Method one: Press # Then press 131#, * then press # to exit Setup</p> <p>Method two: After calling and connected to the panel panel from remote, press 131#</p> <p>Method three: Send SMS message 1234131#</p>
<p>Siren volume adjustment</p> <p>Syntax: 【 14 】 + 【 00-99 】 + 【 # 】</p>	<p>Valid value is from 00 to 99 as largest, system default is the largest.</p> <p>Example: users need to set volume to 50 .</p> <p>Method one: # , and then press 1450# , press the * then press # Exit Setup</p> <p>Method two: After calling and connected to the panel panel from remote, press 1450#</p> <p>Method three: Send SMS message 12341450#</p>
<p>Forced disarm from panel keyboard</p> <p>Syntax: 【 15 】 + 【 0/1 】 + 【 # 】</p>	<p>Upon alarming, enforced to use only the panel keyboard to disarm (remote control is not allowed) for extra security. 1 is on and 0 is off , the system default is off</p> <p>Example: user needs to enforce to use keyboard.</p> <p>Method one: # , and then 151# , press the * then press # Exit Setup</p> <p>Method two: After calling and connected to the panel panel from remote, press 151#</p> <p>Method three: Send SMS message 1234151#</p>

Turn on or off Interference Alert	This set the alarm panel to sound for 5 seocnds upon a kind of malicious attach from un-authorized remote control or transmitter of same frequency, meanwhile, the alarm panel will display tP warning.
Syntax: 【 16 】 + 【 0/1 】 + 【 # 】	Example: users need enable interference alert Method one: # , and then press 161# , press the * then press # Exit Setup Method two: After calling and connected to the panel panel from remote, press 161# Method three: Send SMS message 1234161#
Keyboard password protection feature	To enable the password protect of keyboard. System default password is 1234, defaultis set to off. Alarm panels will display "keyboard locked" when keyboard is locked
Syntax: 【 17 】 + 【 0/1 】 + 【 # 】	Example: keyboard users need to set the password protection. Method one: # , and then press 171# , press the * then press # Exit Setup Method two: After calling and connected to the panel panel from remote, press 171# Method three: Send SMS message 1234171#
Set number of ring tones before picking up	The system default is 8. 0 means the remote operation is not allowed and disabled Example: the user needs to set up a number of rings before picking up to 6.
Syntax: 【 18 】 + 【 00 - 99 】 + 【 # 】	Method one: # , and then press 1806# Example: the user needs to set off the remote number ring. Method one: # , and then press 1800# , press the * then press # Exit Setup Method two: After calling and connected to the panel panel from remote, press 1800# Method three: Send SMS message 12341800#

Set integrated alarming	Enable or disable the integrated alarm upon alarm. 1 is enabled and 0 is disabled, the system default is 1. Example: users need to set the integrated alarming off, Method one: #, and then press 200#, press the * then press # Exit Setup
【 20 】 + 【 0/1 】 + 【 # 】	Method two: After calling and connected to the panel panel from remote, press 200# Method three: Send SMS message 1234200#
Enable or disable the GSM Module	Used to set the GSM Module on and off, 1 is on, 0 is off, the system default is on.
【 21 】 + 【 0/1 】 + 【 # 】	Example: the user needs to set GSM Module to off, so only use landline for dialing. Method one: #, and then press 210#, press the * then press # Exit Setup Method two: After calling and connected to the panel panel from remote, press 210# Method three: Send SMS message 1234210#
Restore factory setting	System restore factory setting Method one: #, and then press 9898#
Syntax: 【 9898 】 + 【 # 】	Method two: After calling and connected to the panel panel from remote, press 9898# Method three: Send SMS message 12349898# Remark: This feature will restore all settings to factory default apart from the configuration of sensors and remote control.
Total System Reset	Disconnect power to the alarm panel, turned off the battery switch alarm panel, then press and hold the alarm panel of ARM button while power-on. The system will respond with short “beep” slowly for 5 seconds, then can release ARM button. The system is now totally reset. All configuration has been cleared, all sensors and remote controlled are deleted and password is restored to original 1234.
Syntax: Press and hold the ARM button on the keyboard and power on.	

Note: Other than the SMS commands for assigning specific phone number for certain zone, alarm panel will respond to all other SMS commands by replying confirmation of setting by SMS.

4.2 Commands of System Enquiries

Press Query button on panel to enter the query mode, alarm panel status LED is blinking. Then put in commands as detailed in table below, when finished, Press *, and then press #, to exit the query mode.

Note: In case keyboard password protection is enabled, please enter the password to unlock before other commands.

Query for voice alarm phone number	To query the alarm panel currently saved to the first set to the Ninth group voice alarm phone number.
Syntax: 3+ 【 1-9 】 + 【 # 】	Press alarm panel query key of your keyboard, then blinking status LED on the Panel, and then press 31#, the alarm panel LCD show 13812345678 means alarm panel's first set of alarm numbers are 13812345678
Query SMS message alarm phone number	To query the alarm panel currently saved to the first set to the sixth group phone number on the alarm panel for SMS messages.
Syntax: 4+ 【 1-6 】 + 【 # 】	Press alarm panel query key of your keyboard, then blinking status LED on and then press 41#, the alarm panel LCD show 13812345678 means the first set of SMS message is 13812345678
Query password	Used to query the current password of the alarm panel ,
Syntax: 50 + 【 # 】	Press alarm panel query key of your keyboard, then blinking status LED on and then press 50#, the alarm panel LCD show 1234. alarm panel your current password is 1234 . Press # to clear the screen, press * then press # to exit the query mode.
Query the time for delay arm	Query delay time for arm (00-99) Seconds
Syntax: 51 + 【 # 】	Press alarm panel query key of your keyboard, then blinking status LED on and then press 51#, the alarm panel LCD show 00 mean time for delay is 0 second.
Query delay time for alarming	To query the alarm delay time (00-99) Seconds
Syntax: 52+ 【 # 】	Press alarm panel query key of your keyboard, then blinking status LED on and then press press 52#, the alarm panel LCD show 00 mean time for delay is 0 second.
Query siren sounding time for alarming	To query the siren sounding time (00-20) minutes when the alarming.
Syntax: 53+ 【 # 】	Press alarm panel query key of your keyboard, then blinking status LED on and then press press 53#, the alarm panel LCD show 01 mean time for delay is 1 minute.

Query remote control and keyboard assignments to zone	For query of specific remote control and keyboard assignments to zone 00-99 Press alarm panel query key of your keyboard, then blinking status LED on and then press press 5401#, the alarm panel LCD show 00-99 and remote control 1 means remote control 1 is controlling zone 00-99, press # clear screen, using 5402# for query remote control 2 and so on.
Syntax: 54+ 【 00-99 】 + 【 # 】	
Query remote control audible confirmation	For query the setting of remote control 00-99 for the audible confirmation to command.
Syntax: 55+ 【 00-99 】 + 【 # 】	Press alarm panel query key of your keyboard, then blinking status LED on and then press press 5501#, the alarm panel LCD show ON means remote control 1 is set to sound upon receipt of command.
Query the scheduled time for arm and disarm	Used to query first to fourth set of scheduled time for arm and disarm. Press alarm panel query key of your keyboard, then blinking status LED on and then press press 5701# to query the first of scheduled arm and disarm, the alarm panel LCD show "Monday, Tuesday, 22-00 07-00" means schedule set as Monday and Tuesday 22:00 pm arm and 07:00 am disarm.
Syntax: 57+ 【 01 — 04 】 + 【 # 】	
Query the zone number with scheduled arm and disarm	For query the first to the fourth group scheduled arm and disarm. Press alarm panel query key of your keyboard, then blinking status LED on and then press press 5801# for zones with the first group of phone zone, the alarm panel LCD show "00-99" means 0-99 zone are with 1 st phone number group.
Syntax: 58+ 【 01 — 04 】 + 【 # 】	
Query type wireless defense zone	For query the zone types of 00-99. The alarm panel LCD show the name of type of zone, detail about zone types can be referred to another section of manual, the word "ON" or "OFF" next to the zone type represents whether siren will sound upon alarming.
Syntax: 60+ 【 00 — 99 】 + 【 # 】	
Query the type of wired zones	For query the zone type of 51-54. Example: Press alarm panel query key of your keyboard, then blinking status LED on and then press press 6151# to query 51 zone alarm type, show NO means short-circuit to alarm while show NC means open circuit to alarm.
Syntax: 61+ 【 51 — 54 】 + 【 # 】	

Query remote operation on/off	To query if the remote operation is allowed, it should show either ON or OFF.
Syntax: 62+ 【 # 】	
Query phone number for specific zone	To query the phone number assigned to zone 00-99 for alert.
Syntax: 63+ 【 00 — 99 】 + 【 # 】	Example: Press alarm panel query key of your keyboard, then blinking status LED on and then press 6301# for zone 1, the alarm panel LCD show 123456 means these 6 group of phone numbers are assigned to 01 zone.
Query for the setting of alarm audible confirmation	For query whether the alarm will play audible confirmation upon receipt of commands. It shows either ON or OFF.
Syntax: 11+ 【 # 】	
Query the setting of anti-tampering of telephone line	For query whether the anti-tampering of telephone line is set, it shows either ON or OFF.
Syntax: 13+ 【 # 】	
Query sound volume of siren	Query for the volume level of siren, it shows between 00-99 representing the 00 as lowest and 99 as highest volume.
Syntax: 14+ 【 # 】	
Query for the setting of enforced keyboard disarm	To query whether enforcing the disarm from keyboard upon alarming. It shows either ON or OFF.
Syntax: 15+ 【 # 】	
Query of the setting of interference alert	To query whether interference alert is set, it shows either ON or OFF.
Syntax: 16+ 【 # 】	
Query keyboard password protection	To query if the password protection feature is enabled, it shows either ON or OFF.
Syntax: 17+ 【 # 】	

Query of number of rings before panel pick-up incoming call	To query the number of ringing before the panel will pick up incoming calls from remote. Example: Press alarm panel query key of your keyboard, then blinking status LED on and then press press 18#, it shows 08 means 8 rings, 11 means 11 rings and so forth.
Syntax: 18+ 【 # 】	
Query the setting of integrated alarming	To query whether the integrated alarming of the alarm panel is set. It shows either ON or OFF.
Syntax: 20+ 【 # 】	
Query if GSM Module is enabled	Query if GSM Module is enabled or disabled, ON is enabled and OFF is disabled.
Syntax: 21+ 【 # 】	
Query alarm panel arm/disarm records	The system can save up to the most recent 72 disarmed records. Press alarm panel query key of your keyboard, then blinking status LED on and then press press 9901#, press 8 to scroll up and 0 to scroll down for records. Other indications as: JP = arm/disarm from keyboard YC = arm/disarm from remote tP = interference alert 01 = remote control number 1
Syntax: 9901+ 【 # 】	
Query alarm panel alarming records	The system can save up to the most recent 102 alarming records. Press alarm panel query key of your keyboard, then blinking status LED on and then press press 9900#, press 8 to scroll up and 0 to scroll down for records. Example: Screen shows 01-01 22-02 02 alarm, which means alarm happened on 1 st January 22:02pm at zone 2.
Syntax: 9900+ 【 # 】	

4.3 SMS Commands

The following instructions are only for SMS command to control panel remotely:

Remote SMS disarm	Send SMS message 12340# into alarm panel
0#	Note: 1234 is the password
Remote SMS NORMAL arm	Send SMS messages 12341# to set the alarm panel to ARM
1#	
Remote SMS STAY arm stay	Send SMS message 12342# to set alarm panel to STAY ARM.
2#	
Remote SMS turn on relay	Send SMS message 12343# to turn on the relay of the alarm panel
3#	
Remote SMS off relay	Send SMS messages 12344# to turn off the relay of the alarm panel
4#	
Query the alarm panel general settings	This command will return a list of general settings in one SMS including: <ul style="list-style-type: none"> - status of arm/disarm - relay status - status of using AC/DC - status of integrated alarm - status of SMS messaging - status of remote operation - password - delay alarming setting - delay arm setting - length of time of siren sounding - volume of siren - forced keyboard disarm - interference alert - keyboard locking status - audible confirmation
11+ 【#】	Exmaple: text messaging 123411# to the alarm panel

Query anti-tampering of phone cord and number of rings before pick-up	Send SMS message 123413# to the alarm panel, the alarm panel replies with a list of related setting:
13+ 【#】	
Query voice alarm phone number	Return a list of 1 st to 9 th phone number group for voice alarm. Example: 12343001# to the alarm panel, the alarm panel replies "1 Group phone number: 13712345678" means 1 set of telephone number is 13712345678
30+ 【01-09】 + 【#】	
Query phone number for SMS message	Query first to sixth group of phone number for SMS message. Example: 12344001# to the alarm panel, the alarm panel replies "1st Group SMS number: 13888889999" means alarm the 1 st phone number for SMS message is 13888889999.
40+ 【01-06】 + 【#】	
Query assignment of remote control to defense zone	Query the assignment of remote control to specific defense zone Example: 12345401# to the alarm panel, the alarm panel replies: "01 , zone: 00-99" means 01 remote control is assigned to control zone 00-99
54+ 【00-99】 + 【#】	
Querying alarm panel system time	Query alarm panel system time Example: 123456# to the alarm panel, the alarm panel replies "Alarm clock :2011-07-01 12:00".
56+ 【#】	
Check the status of scheduled arm/disarm	Query the four group of the scheduled arm and disarm Example: 12345701# to the alarm panel to check zone 01 schedule, the alarm panel replies with a SMS message containing the arm time, disarm time, day selected and zone affected.
57+ 【01-04】 + 【#】	
Check the type and siren setting of wireless defense zone	Query the type and siren setting of certain wireless defense zone Example: Send message 12346001# to the alarm panel for asking zone 01, alarm panel reply to SMS message "01 NORMAL zone, Siren ON".
60+ 【00-99】 + 【#】	

Check the settings of wired defense areas	Query the alarm panel for settings of zone 51 — 54 wired zone.
61+ 【 51-54 】 + 【# 】	Example: send text message 12346151# to the alarm panel, alarm panel reply SMS messages “51 NORMAL zone, Siren ON and NO”.
Query phone number assignment to zone	Query the alarm panel the phone number assigned to zone 00-99.
63+ 【 00-99 】 + 【# 】	Example: send message 12346301# to the alarm panel for query zone 01, the alarm panel replies: " 01 Phone group number: 123456" means zone 1 will dial group 123456.
Customize the SMS message for certain zone	Used to customize the SMS message for zone 00-99. Example: Send message “12348001 Front Door Alarm#” to the alarm panel will set alarm panel to send SMS message “Front Door Alarm” upon zone 01 alarm being triggered.
80+ 【 00-99 】 + "Panel with SMS message"+ 【# 】	Note: Maximum length of message is 25 characters.
Query the customized SMS message content	Query zone 00-99 the content of SMS message customized.
81+ 【 00-99 】 + 【# 】	Example: 12348101# to the alarm panel to query for zone 01 message content.

Note: "1234" string shown above table all represents the password. User can change password and thus should adjust the commands listed accordingly.

Remark:

This machine can be used as a mobile for conversation. To do that, on the keyboard, put in #0013712345678# where 13712345678 is the phone number you're going to connect. At the end of your call, press DISARM key, press *, then press # to exit.

5 Remote Control of Panel

This system is a dual-tech system that can use both PSTN landline and GSM mobile network for outgoing alert. The PSTN landline is the preferred mode of calling, GSM network will then be used until all six groups of phone number cannot be connected using PSTN landline.

5.1 After receiving the Panel Alert:

After Panel alerts, it will automatically dial the preset telephone number for three times until connected. When the user picks up the phone, a piece of pre-recorded voice message will be played back immediately and let the receiver noted about the event. Upon receiving the call, it can also control the alarm panel remotely via the phone (according to the command below). User will not be asked for password upon connected and alarm will automatically hang up call within receiving any instruction within 20 seconds.

- | | |
|---|--------------------------------|
| [1] key: arming | [2] key: disarming |
| [3] key: monitoring open | [4] key: monitoring closed |
| [5] key: turn on announcement | [6] key: turn off announcement |
| [7] key: siren ringing | [8] key: stop siren sound |
| [9] key: turn on relay | [0] key: turn off relay |
| [*] key: hang up, system will not dial the next number on list. | |

Remark:

- If not hang up using [*] key or disarm using [2] key, the system will retry to call the next phone numbers on list until one connected.
- Panel will not ask for password when dialing out upon alarming.

5.2 Remote Dialing In Operation:

Remote-control operations can be done via any phone. You can just dial into the alarm panel and user will be asked for password upon connected and alarm will automatically hang up call within receiving any instruction within 20 seconds or password is incorrect.

- | | |
|-------------------------------|--------------------------------|
| [1] key: arming | [2] key: disarming |
| [3] key: monitoring open | [4] key: monitoring closed |
| [5] key: turn on announcement | [6] key: turn off announcement |
| [7] key: siren ringing | [8] key: stop siren sound |
| [9] key: turn on relay | [0] key: turn off relay |

[*] key: hang up, system will not dial the next number on list.

Remark:

- If not hang up using [*] key or disarm using [2] key, the system will retry to call the next phone numbers on list until one connected.
- Panel will not ask for password when dialing out upon alarming.

6 Types of Alarm Zone

6.1 Definitions of Zones

The alarm supports 99 distinguishable defense zones and they can be classified into one of the 8 Zone Types with their respective characteristics.

Type ID	Zone Type	Interpretation
1	NORMAL Defense Zone	the Panel only works on the arming status. When disarming, there is no response.
2	STAY Defense zone (AT-HOME Defense zone)	can be shut off solely through the remote control (keyfob) to avoid the Infrared Detectors and other in-room detectors from misinformation when master is resting at home.
3	INTELLIGENT Defense zone:	if the detector in the Defense zone is triggered only once, it will not immediately alarm. But if being triggered once again within 30 seconds after the first triggering, it will not alarm immediately.
4	EMERGENCY Defense zone:	no matter on arming or disarming status, if detector is triggered it will alert. Usually used in connecting with Smoke Detectors, Gas Detectors and emergency button, etc.
5	CLOSED Defense zone:	no matter arming or disarming status, detectors will not alert even being triggered.
6	CHIME Zone	No matter in what status, when sensor with this zone is triggered, a welcome door bell will be ring as notification.
7	WELCOME Zone	No matter in what status, when sensor with this zone is triggered, a welcome voice message will be played.
8	HELP SENIOR Defense Zone	This type of zone is for elderly safety, no matter in what status, the panel will alarm once sensor with this zone type is triggered.

6.2 System default zone types are:

Normal	Stay	Intelligent	Help Senior	Chime	Welcome	Emergency
01-59	60-79	80-89	90	91	92	93-99

6.3 Other System Default

Operation password	1234
Remote Control	Enable
Telephone Line Anti-tampering	Disable
Siren Sound	1 minute
Delay ARM	No
51-54 wired zones	Normal Open
SMS Message	Enable
Integrated Alarming	Enable
Number of rings before picking up	8 rings
Audible confirmation for remote operation	Enable
Delay alarming	Disable
1-99 Zone alarm	Siren sound enable
1-99 Zone SMS message content	Zone alarm

6.4 Fitting parameters:

- Input voltage: DC9V-12V
- Standby currents: < 25mA
- Alarm current: < 450 mA
 - Wireless frequency: 433MHZ , 2262/1.5-4.7M , EV1527/300K
- GSM Format: Support GSM850/900/1800/1900MHz
 - Backup battery: NI-HI AAA*6 DC7.24V
 - Alarm loudness: 110dB
- Detailed parameters: The alarm should be compatible with PT2262, PT2240 and EV1527. Using PT2262 encoding, the resistance is recommended 1.5M-4.7M; using with EV1527 encoding, the resistance by 300K, data recommended 1010.

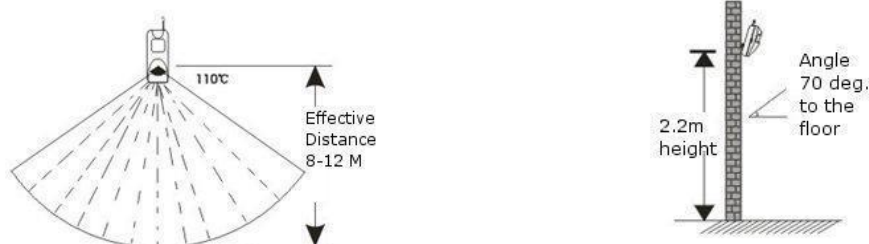
7 Guideline of Installation Sensors

7. 1 Guideline for Installing Door or Window Sensor



1. The surface for door sensor installation should be clean so door sensor can be attached to the door and frame firmly with double faced adhesive.
2. Each door sensor is a pair of sensor and magnet. The sensor (A as in diagram) should be installed on the fixed door frame and the magnet (B as in diagram) should be placed on the movable door with a distance not exceeding 1 cm.
3. Upon installed, door sensor should be tested by open the door and check if the indicator on door sensor flashes for 1 second.
4. In case the door sensor is running out of battery, the indicator should be kept lit as a low-voltage notification.

7.2 Guideline for Installing PIR Motion Sensor



1. Before use, make sure the power switch of PIR motion sensors is at the ON position.
2. Installation height is about 2.2 meters above ground and the optimized detection angle for most motion sensor is 90 degree. The sensor should face the detected area with this consideration for best coverage. It is advised to install with the face of motion sensor perpendicular to the most probable moving detection of people for the highest effective detection.

3. Within coverage of detection, there should be no any objects for obstruction.
4. There should be no two infrared detectors in the same as they will possibly intervene with each other.
5. Avoid the detector facing window, cooling or warming machines, or other appliances that cause the temperature changing sharply and thus cause false alarm.
6. Most infra-red detector needs about 5 minutes to heat up before READY for normal operation.
7. Regular PIR motion sensor is for indoor use unless the specification stated otherwise.

Unless specifies otherwise, most infra-red detector are indoor use and not reliable to use outdoor.

8 Troubleshooting

Problem	Diagnosis	Available Solutions
1. cannot dial for alarm	<ul style="list-style-type: none"> • not armed • phone for notification not configured • parts improperly installed e.g. sensors installed too far away • code not match 	<ul style="list-style-type: none"> • set system armed • re-set according to the specification • coordinating the location of parts • re-coding
2. cannot long-distance operation	<ul style="list-style-type: none"> • password input wrongly (or forgotten) 	<ul style="list-style-type: none"> • retry password or reset password
3. no record indication when alerting	<ul style="list-style-type: none"> • voice message not recorded 	<ul style="list-style-type: none"> • record voice message
4. remote control (keyfob) not working	<ul style="list-style-type: none"> • coding un-matched with the Panel • insufficient battery power or battery contact no good • battery pieces poor contact or voltage un-matched with Panel 	<ul style="list-style-type: none"> • re-learn the remote control • change battery to correct type • polish the surface of contact of battery • contact the local dealer to change the matched remote control (keyfob)
5. infrared detector out of order	<ul style="list-style-type: none"> • low power 	<ul style="list-style-type: none"> • change to the same type battery
6. siren without sound	<ul style="list-style-type: none"> • siren plug or jack in short circuit or broken-line • siren out of order • closed siren by command • positive and ground wires of siren reversed 	<ul style="list-style-type: none"> • repair or change plug or jack • change the jack line • activate siren by command • use another siren to double check • reverse the wires to try • adjust a longer length of siren sounding

Problem	Diagnosis	Available Solutions
7. the transmission distance of detector to panel shorten	<ul style="list-style-type: none"> • a nearby emitter is creating interference signal • Panel receiver out of order • standby battery of the Panel insufficient 	<ul style="list-style-type: none"> • identify and remove the source of interference • move one detector next to panel and try • retrun to factory for detail check • check Panel power whether plugged well
8. Alarm triggered continuously right after power up	<ul style="list-style-type: none"> • Phone cord is not connected but the phone alert function is enabled 	<ul style="list-style-type: none"> • Either disable the phone alert function or connect the phone cord
9. Panel without audible receipt confirmation	<ul style="list-style-type: none"> • The function is disabled 	<ul style="list-style-type: none"> • Enable on the panel
10. SIM card not found, GSM not dialing out or no SMS sent	<ul style="list-style-type: none"> • SIM card not install correctly. • SIM requires a password to dial • GSM signal not good • SIM card contact points not good • Voice calling disabled • SMS message disabled • SIM card is a pre-paid type of card and no enough deposit • The SMS function not enabled 	<ul style="list-style-type: none"> • Replace SIM card • Cancel the password of SIM • Change place of alarm panel to test signal • Change other SIM card for double check • Make sure voice calling and SMS messaging are enabled • Re-fill the SIM card deposit • Enable the SMS function
11. Keypad button no response	<ul style="list-style-type: none"> • Keyboard protection is enabled 	<ul style="list-style-type: none"> • Try disable the keyboard protection see if it works