Watchguard™

Contact ID to SMS Communicator

PSTN Contact ID Protocol to SMS Alert & SIA IP Converter

User Manual

Ver 1.1

Model: WGSMSB

Date Issued: 2017-08-04

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This handbook has been designed as a guide to the installation and operation of the GSM Communicator.

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.

Watchguard and its distributors accept no liability for any loss or damage including consequential damage due to reliance on any material contained in this handbook.

Watchguard and its distributors accept no liability for GSM Network upgrading or SIM Card upgrading due to the technology specifications contained in this handbook.

Safe Startup

Do not use GSM unit when using GSM equipment is prohibited or might bring disturbance or danger.

Interference

All wireless equipment might interfere network signals of GSM unit and influence its performance.

1. Introduction

The *GSM Communicator WGSMSB* is specially designed for existing alarm systems. It's compatible with the majority of Watchguard Control Panels.

The *GSM Communicator WGSMSB* can transfer the alert message from your PSTN Contact ID Control panel into SMS alert and SIA IP over GPRS network. It can change alert notifications from traditional PSTN alert to wireless alert (SIA standard DC-09 requirements)

2. Specifications

GSM Frequency	850 / 900 / 1800 / 1900 MHz
GSM Communication Ways	TCP/IP via GPRS
Message Transmission Protocols	SIA DC-09-2007 or SIA DC-09-2012
Outputs	OUT1, OUT2 ,OC type, commutates voltage of up to 30 V and direct current of up to 1 A
Configuration	via USB port or SMS commands
Power Supply	DC 9V ---24 V
Used Current	20 ---30 mA (on standby), up to 200 mA (while sending data)
Workplace	Temperature from -20C to +50C, Relative humidity up to 80% when +20°C
Backup battery	900mAH

3. Features

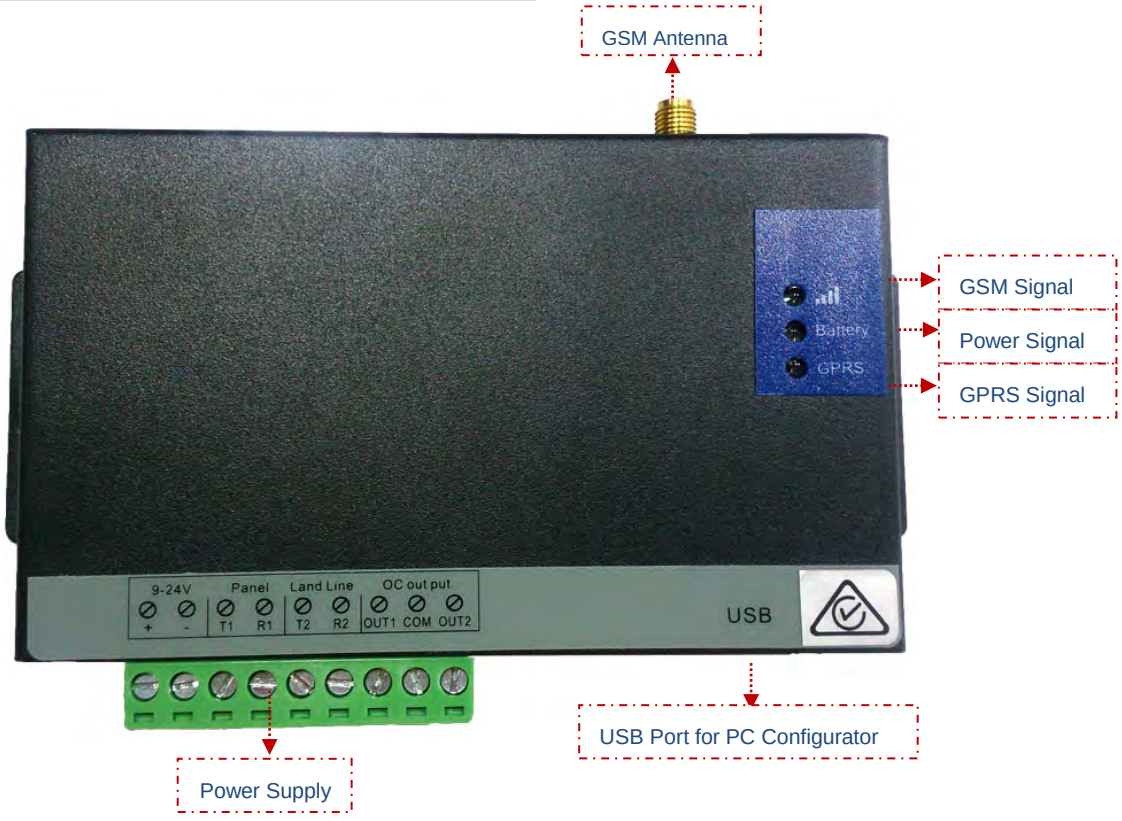
- Easy programmed by PC Configurator, compatible with most Control Panels
- Supports transferring data by PSTN or GPRS, SMS (*no phone call*)
- Supports 2 different CMS centers (IP addresses or DNS server)
- SMS notification when connection with the CMS center is lost (*3 trial times*)
- When the PSTN network is lost, it will send an alert message to the center by GPRS network
- When the PSTN network is good, then it will not use the GPRS network for transferring alert message
- 5 users to receive SMS notification on Alarm, Supervision, Trouble, Bypass, Test, GPRS fail, DC loss
- Password protection for the PC Configurator
- SMS commands to check the device version, IMEI code, GSM signal,

- 2 latched OC outputs, controllable by SMS commands
- Support firmware upgrading via USB with unique IMEI code independently
- Supports PIN code verification in PC Configurator
- Remote configuration, handled from CMS or SMS commands
- Backup rechargeable battery, with power failure SMS alert

4. Standard Package

Main Panel	x 1 piece
AC/DC Power Adapter	x 1 piece
CD (User Manual & PC Configurator)	x 1 piece
USB Connection Cable	x 1 piece

5. Overview of Main Panel

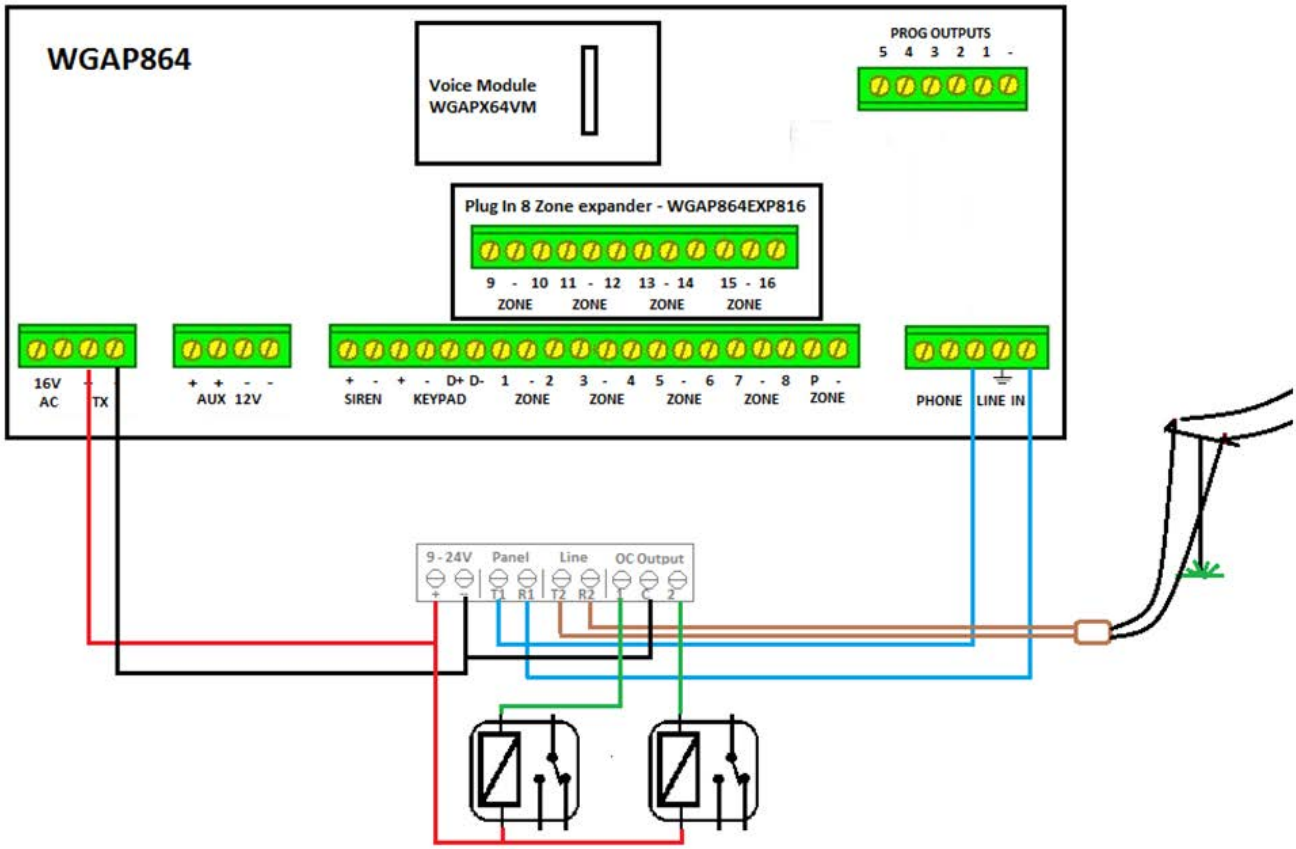


Panel T1 R1	**T1:** Connect with the ***'TLP'*** in PSTN control panel **R1:** Connect with the ***'RING'*** in PSTN control panel
Land Line T2 R2	**T2:** Connect with the Land Line **R2:** Connect with the Land Line *(Note: No connection means the control panel will transmit the message only via GPRS.)*
OC out put OUT1 COM OUT2	**OUT1:** 1st Outputs, OC type. **COM:** General terminal. *(Note: Outputs are latched only, not pulsed)* **OUT2:** 2nd Outputs, OC type.

6. Indicator Lights

	[RED]: GMS indicator, BLINKING EVERY 0.3s = registering the network, BLINKING EVERY 1s = normal GMS signal
	[RED]: External power supply indicator, ON = connected, FLASHING = charging, OFF = not connected.
	[RED]: GPRS Network Indicator, BLINKING EVERY 0.3s = GPRS connection failures, BLINKING EVERY 1s = normal GPRS signal

7. Connection

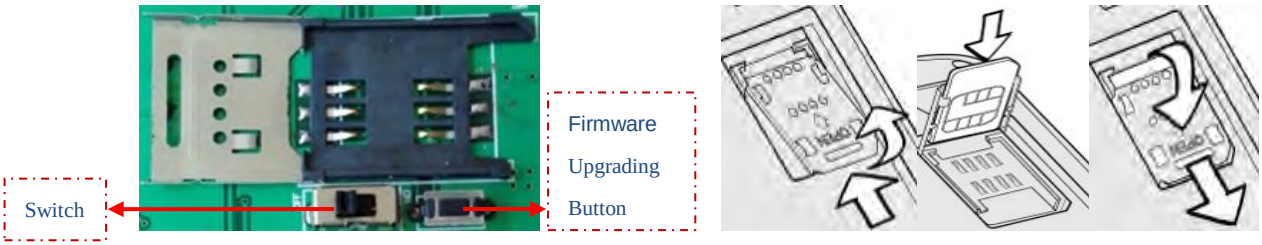


8. Installation

Note: *There are 2 ways to input settings: PC configuration & SMS commands. Please install the USB Driver before using the PC Configurator.*

8.1 Install the SIM Card

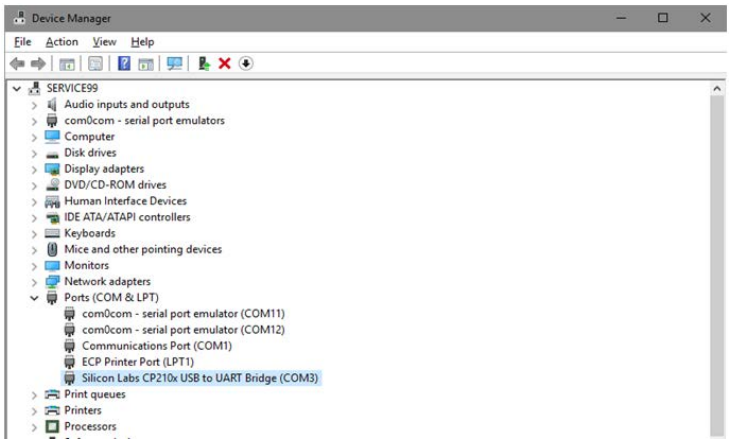
1) Screw the GSM antenna,
2) Open the cover on the back the ***WGSMSB*** to find the SIM card holder, and insert the SIM card as below:



3) Turn on the power supply and switch WGSMSB on, and check the GSM Signal Indicator light to confirm the SIM card in the WGSMSB is working. Check the indicator lights details in 【5. Indicator Lights】.

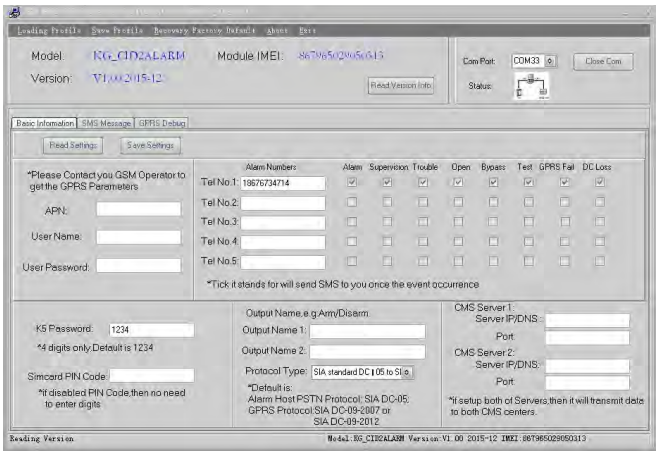
8.2. Install the USB Driver on PC.

1) Download and install the latest ***USB Driver***.
2) Connect the ***WGSMSB*** to the Computer via USB cable
3) Find the ***USB Serial Port*** as picture below. (*This COM port number will be used in PC Configurator*).



8.3. Settings in PC Configurator.

Choose the ***USB Serial Port*** according to 【*6.2. Install the USB Driver on PC.*】, and click open Com, it will come to the *Basic Information* window as below:

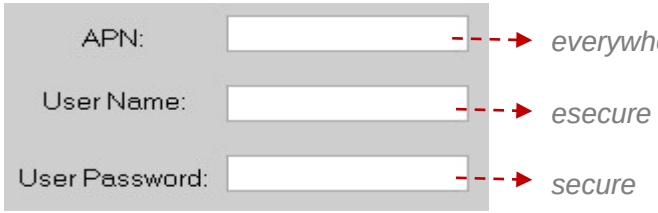


8.3.1 PC Configurator Menu Bar

Loading Profile	[Alt + L]: Load a previously saved settings profile
Save the Profile	[Alt + S]: Save settings profile
Recovery Factory Default	[Alt + R]: Reset the WGSMSB device to factory default
About	[Alt + A]: Information about the WGSMSB
Exit	[Alt + E]: Exit the PC Configurator.

8.3.2 GPRS data Parameter Setting.

Below is an EXAMPLE:



Notice: *The example provided by Watchguard above is only for reference, please contact your local GSM operator for the settings accordingly. If the local GSM Operator does not use APN anymore, please ignore the settings in this part.*

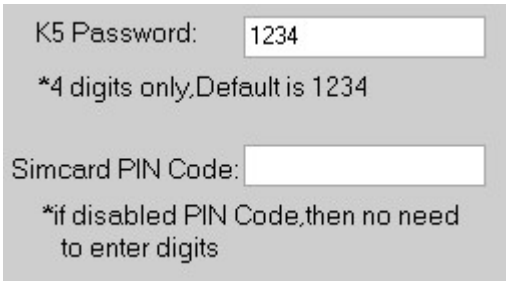
8.3.3 Phone Numbers for Events Notification

Tel No. 1 – No. 5	The phone numbers for SMS notification
Alarm	The Contact ID alarm notification from PSTN Control Panel
Supervision	
Trouble	
Open	
ByPass	
Test	
GPRS Fail	The GPRS message transmission failure notification from WGSMSB
DC Loss	The external DC Power Loss notification from WGSMSB

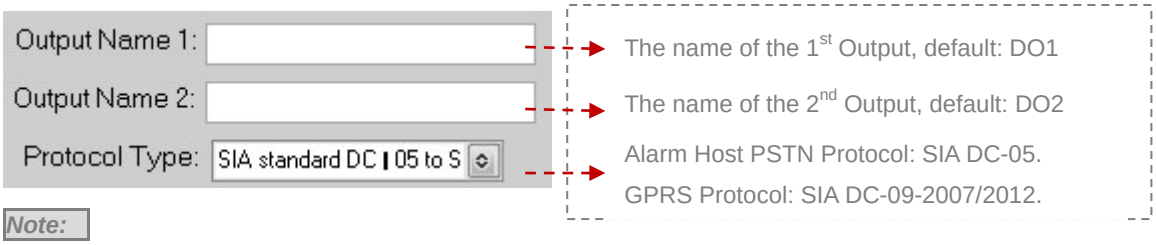
Notice:

When ticked, the phone numbers in the list will receive SMS notifications when an event occurs.

8.3.4 Set the Password and PIN Code



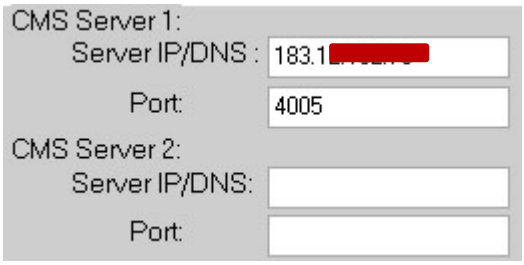
8.3.5 Set the OC Outputs Names



Note:

The max characters for the Output Name is 40, these names will be displayed in the SMS notifications.

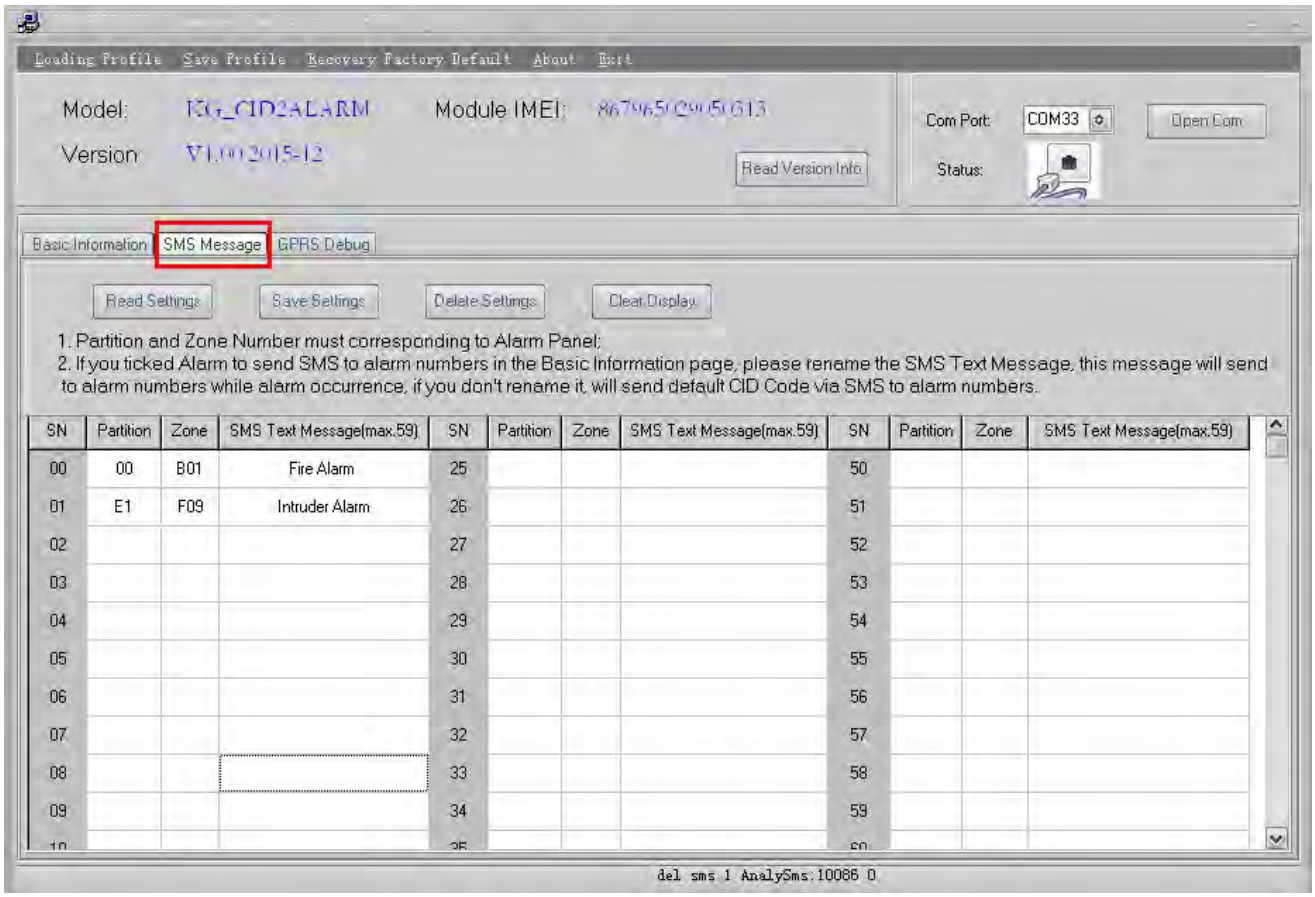
8.3.6 Set the CMS Server IP address and Server Port



Note:

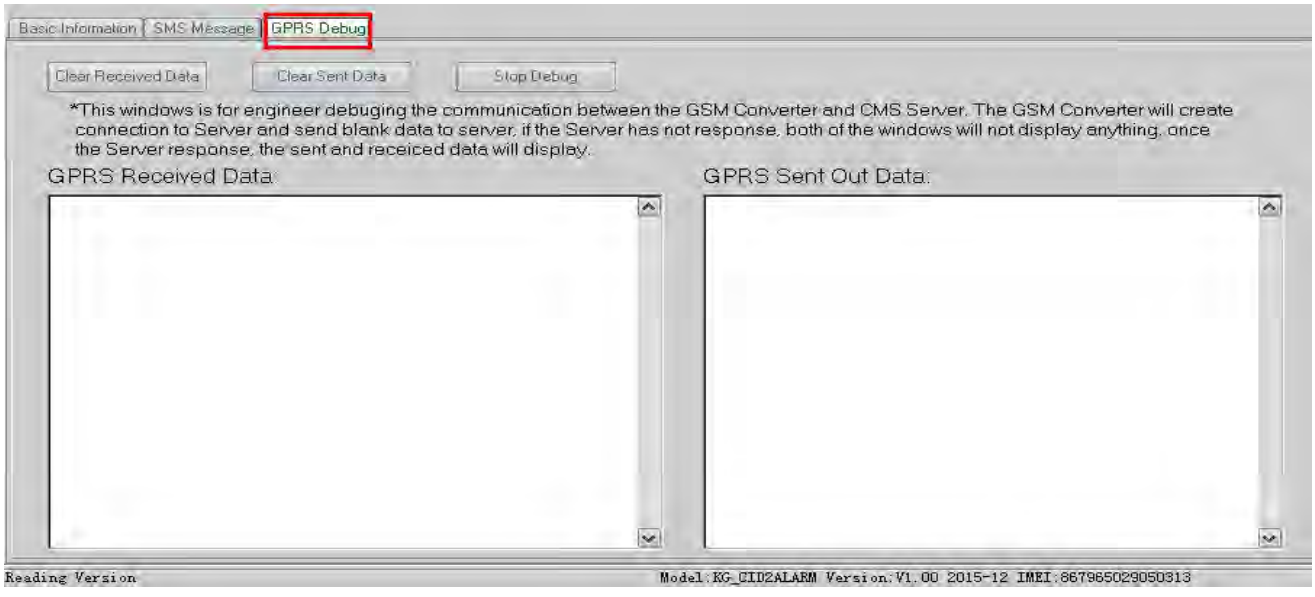
The alert messages will be transmitted to both of these 2 CMS severs if both of them are set.

8.3.7 Set the SMS Notification Contents.



Partition	Set according to your PSTN control panel. (2 digits, from 0 - 9, B – F)
Zone	Max 63 Zones. Set according to your PSTN control panel. (3 digits, from 0 - 9, B – F)
SMS Text Message	The SMS alert message content, the max is 59 digits. Notice: If not set, the SMS Alert Message will be in SIA DC-09 code, not understandable.

8.3.9 Engineer Debug for GPRS Data Transmission.



9. SMS Commands

Note:

1) All letters in SMS commands and PC Configurator must be CAPITALIZED under the English format.

2) It makes no difference for adding country code or not in front of the mobile phone numbers.

3) The Examples in the charts below are for reference only, send SMS commands according to your individual situation.

1) When an invalid SMS command is sent:

SMS Commands	Return SMS Message
	SMS Format Error, Please check Caps Lock in Command!

Notice: When any SMS command with incorrect formatting is sent, you will receive a SMS notification.

2） When external DC Power is lost/recovered

	Return SMS Message
DC Loss	External DC Power Goes OFF
DC Recovery	External DC Power Goes ON

3） Change the password (The default password is 1234, with 4 digits):

SMS Commands	Return SMS Message
Old Password＋**P**＋New Password	【*New Password*】This is the new password.
For Examples: 1234P4321	【*4321*】This is the new password.

Notice: When the password is forgotten, reset the device from the PC Configurator.

4） Inquire device information remotely

SMS Commands	Return SMS Message
Password+**EE**	Model: Version: IMEI: GSM Signal Value:
For Examples: 1234P4321	Model: K5T Version: *V 1.00 2015-12* IMEI: *867965029050313* GSM Signal Value: *30*

Notice:

1) Every WGSMSB has a unique IMEI code for firmware upgrading.

2) The GSM Signal Value range: 1~31, Signal weak value: >14.

5) Program the 5 mobile phone numbers (max. 23 digits) for SMS notification.

Actions	SMS Commands	Return SMS Message
Set Mobile Phone Numbers	Password+**A**+Serial Number +**T**+ Phone Number **For Example: 1234A3T13570810254**	Tel1: --- Tel2: --- Tel**3**: 13570810254 Tel4: --- Tel5: ---

See the entire number list	Password +A **For Example: 1234A**	*The list of exiting numbers*
Delete a phone number in the existing numbers list	Password＋A＋Serial Number **For Example: 1234A3**	*The list of exiting numbers*

Note:

1) Serial Number: 1 – 5.

2) These mobile phone numbers are only used for SMS notification, no voice notification.

6) Program the OC Outputs

Actions	SMS Comands	Return SMS Message
Set the name of the OC outputs	Password+DO+Serial Number+T+the name **For example: 1234DO1TOutput 1 for Arm.**	DO1: rename: xxxx DO1: rename: Output 1 for Arm.
Inquire the name of the OC outputs	Password+DO+Serial Number **For example: 1234DO1**	
Delete the name of the OC outputs	Password+DO+Serial Number+DEL **For example:1234DO1DEL**	
Switch the relay on	Password+DOC+Serial Number **For example:1234DOC1**	DO1: ON DO2:ON
Switch the relay off	Password+DOO+Serial Number **For example:1234DOO1**	DO1: OFF DO2:OFF
Inquire the current status	Password+DOE+Serial Number **For example:1234DOE1**	DO1: ON/OFF DO1:ON/OFF
Inquire all current statuses	Password+DOE **For example:1234DOE**	DO1: ON/OFF DO2:ON/OFF ---

Note:

The Serial Number: 1 – 2. The name of the outputs is 40 digits (Max.)

7） Program the GPRS IP Server and Port:

Actions	SMS Commands	Return SMS Message
Settings	Password+IP+ IP address +P+Port Number **For example:1234IP183.12.162.70P4005**	Server: Port:
Inquire the settings	Password +IP **For example:1234IP**	
Delete the exiting settings	Password+IP+DEL **For example:1234IPDEL**	

8） Program the GPRS settings（APN/USER NAME/PASSWORD）

Actions	SMS Commands	Return SMS Message
Settings	Password+AP+APN;User Name;Password# **For example:1234APeverywhere;esecure;secure#**	APN: User Name: Password:
Inquire the settings	Password+AP **For example:1234AP**	
Delete the exiting settings	Password+APDEL **For example:1234APDEL**	

10. Warranty.

1) This system is warranted to be free of defects in material and workmanship for one year.
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.