

# USER'S MANUAL V3.0



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# **1 PREFACE**

Thank you for using the CWT5015 GSM RTU. You will know well about the functions and operation methods of this product quickly through this User's Manual.

This product is mainly used for remote alarming and control application based on GSM network. Please use it according to the parameters and technical specifications in the User's Manual. Meanwhile, the Notes shall be considered for the usage of radio-control products, especially GSM products. Our Company bears no liability for property loss or bodily injury arising from abnormal or incorrect usage of this product.

Package list

product	quantity
CWT5015GSM RTU	1pcs
RS232 cable	1pcs
12V Adaptor	1pcs
GSM antenna	1pcs

# **2** INTRODUCTION

CWT5015 GSM RTU is designed as a cost effective remote control system alert device. It monitors up to 2 dry contacts and 3 relay outputs and 1 AD input. User-defined SMS is sent to pre-configure mobile phone numbers when a pre-defined alarm condition happens. These pre-configured mobile phone numbers can belong to technicians or engineers who are responsible in handling corresponding alarms. With the aid of this GSM RTU, the alarm condition brings attention to in-charge personnel immediately. Besides it allows those mobile phone users to trigger any relay output by using SMS. The output can be connected with alarm indication device, such as alarm, and others.

There is a built-in microprocessor chip running on a real-time operating system. It gives immediate response to any change in both inputs and outputs condition. A GSM modem is embedded in the GSM RTU, user has to subscribe a SIM card for the GSM RTU. The GSM RTU can be installed in any location under GSM coverage.

#### 2.1 Parameter

Parameter item	Reference scope
DC Power supply	9-28V DC (Standard adapter: DC 12V/1.5A)
Power consumption	12V input Max. 150mA/Average 50mA
Frequency range	Dual-frequency 900/1800 or 900/1800/850/19
SIM Card	Supporting 3V SIM Card
Antenna	50 $\Omega$ SMA Antenna interface
Serial	RS232
Temperature range	-30°C ~ +70 °C
Humidity range	Relative humidity 95%
Digital Input	2 digital inputs(Dry contact)
output	3 relay outputs(240V 2A)
Analog Input	1 analog inputs(4~20mA or 0~5V)
Exterior dimension	95×63×25mm
Weight	256 g

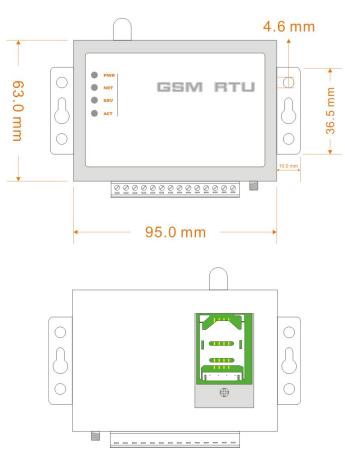
4

900

# C.ŴT盈科互动

# 3 INSTALL

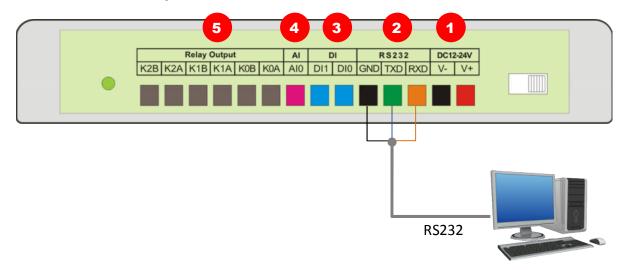
### 3.1 size



#### 3.2 LED indicator description

Indicator	Status	Indication description
PWR (Red)	Normally light on	Indicator for power supply, which will be light on when the system is power on
NET (Green)	Flicker	SMS module signal indicator, which will flicker slowly after the system is registered in GSM network
SRV (Yellow)	Light on during handling	It will be light on when the system sends sms and light off when the handling is over
ACT (Orange)	Flicker	It will flicker periodically when the system is under operation, and the interval time is 6 sec
Side led (green)	Light on or off	Light on during the internal battery is charge up

### **3.3 Terminal Description**



# ①. DC9-28V (power in)

DC V+	positive terminal of the DC p
DC V-	Negative terminal of the DC
②. RS232	
RXD	Receive Data

RXD	Receive Data	
TXD	Transmit Data	
GND	Ground	

#### ③. 8 digital inputs (NO or NC)

DI0 ~ DI1	
GND	Connect COM

#### ④. 1 analog inputs

AIN0	Connect analo
Note: analo	g sensor output GND need RTU GND

#### **⑤. 3 drivable relay outputs**

KA	Interior relay N
КВ	Interior relay N

6

power supply (+) power supply (- )

Connect RS232 cable red wire Connect RS232 cable green wire Connect RS232 cable black wire

· NC

og device output (4-20mA or 0-5V)

NO contactor

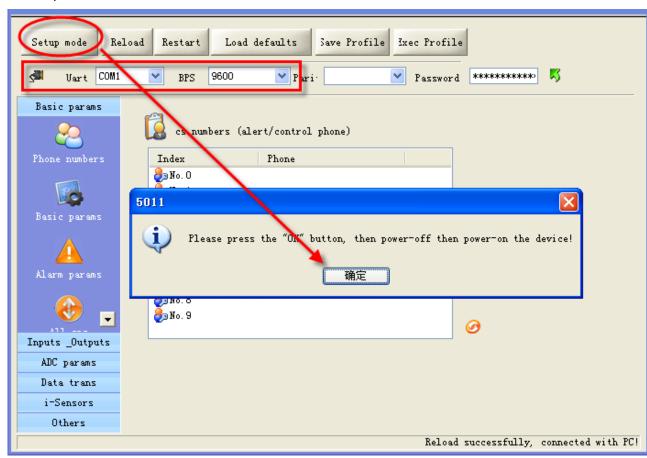
NO contactor

#### SETUP PARAMETERS FOR RTU 4

#### Access setup mode 4.1

Connect RTU to computer by RS232 cable, and run the configuration software, make RTU access setup mode according to the following figure.

A Note: Please choose the serial port No. and rate correctly, the default communication rate is 9600; default password is "000000"



#### Definition: Working mode and setup mode

In setup mode, all functions are disabled, only to setup parameters. And RTU must be restart to enter working mode, all functions is enabled, the RTU can alarm and be control.

#### 

Access setup mode, the simcard and antenna is no need, but access wording mode, the simcard and antenna is necessary.

#### A How to know current mode:

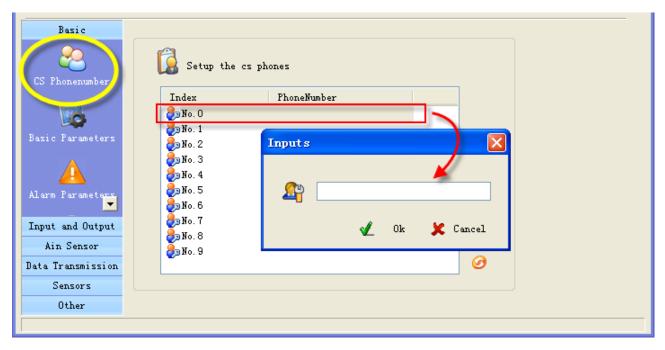
Method 1: Check the ACT light, if the ACT light flickers twice per second, that means it is under the setup mode; the flicker period of the ACT light can be up to 6 sec under the working mode.

Method 2: Check the information from the serial port, if the character string of "dtu come in setup mode" occurs, it means that RTU is under the setup mode.

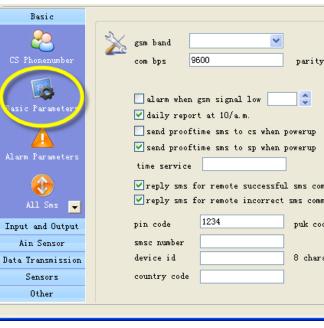
# 4.2 Setup basic parameters

#### 4.2.1 Setup "CS number"

RTU under working mode, the "CS number" can send sms commands to control RTU and receive sms (include alarm sms, report sms etc). User can set 10 CS numbers, CS0-CS9



#### 4.2.2 Setup basic parameters



Attention: gsm band, com bps, parity, pin/puk code, country code, smsc number please using default

□ Alarm for GSM signal low

GSM signal normal range is 18-32, RTU sends alarm sms to CS number when RTU's GSM signal value

,	NONE	
Ъ	pasic descriptions (auto add with alert)	
Γ		
nmands		
nands		
de		
acters		
	🖌 Save	

below the preset threshold, the default is 11.

#### Daily report

If check the box,, RTU sends report sms to CS number at 10:00 every morning for reporting current states, through which the user can make sure the normal operation of RTU.

#### Proof time

Proof time is making the RTU get correct time.

#### Send proof time sms to cs when power up

When RTU power up, it send a sms to CS0 to request proof time, CS0 reply sms"999" to RTU to complete proof time.

#### Send proof time sms to sp when power up

Set RTU own simcard number as "time service", when RTU starts, it send a sms to itself to update interior Clocker.

#### Device description

The description shows in alarm and report sms. It can be install position, user information etc.

#### Device ID

The device ID is an 8-byte ASCII characters which shows in state sms.

#### 4.2.3 Alarm parameters

Basic		
2		
CS Phonenumber	ring(phone call) when alert	
	✓ auto answer call of service phonenumbers	
Basic Parameters	✓ auto add descriptions and timestamp with alert sms	
	print RTU alarm events by com port	
	delay send sms time when alarm (sec) 0	
Marm Parameter	holding time after arm (sec) 0	
(2)	when alert, sms resend 🛛 🏮 times	
All Sms	extend information with day report	
	✓ Interior temperature ✓ Device's memo ADO	
<b>N</b>	✓ Device Id ✓ Power supply AD1	
Svstem Prio	Arm state Ex-temperature AD2	
Input and Output	Signal of gsm network 🗹 Alarm inputs	
Ain Sensor		
Data Transmission	🖌 Save	
Sensors		
Other		

#### □ ring when alert

If check the box, RTU makes phone call to CS number when alarm

#### □ auto answer call of service phone numbers

Attention: This option is valid for the RTU models that have audio interface.

RTU auto answer CS numbers call for voice monitor and speaking, If MIC and speaker are installed.

□ Auto add end descriptions and timestamp with alert sms The description can be edited in "basic parameters", the timestamp is automatically generated.

print RTU alarm events by com port Enable this option, when RTU alarm, it sends the alarm data to com port with RTU\_IO data format.

delay send sms time when alarm(disarm delay) Set the time; you have an enough time to disarm RTU when you go into the monitor area.

□ Holding time after arm(arm delay time)

Set the time; you have an enough time to arm RTU when you leave the monitor area.

#### **Extend information with report**

RTU can send report sms to cs phones by timer or user's inquiry by sms command, this function is designed to let user know the RTU is stilling working and its status, enable or disable follow information to show in report.

extend information with day report						
✓ Interior temperature	🔽 Device's memo					
🗹 Device Id	🔽 Power supply					
🗹 Arm state	Ex-temperature					
☑ Signal of gsm network	🗹 Alarm inputs					

- Interior temperature: The internal temperature sensor is optional, if RTU has added it, the temperature value will show in the daily report.
- Attention: A standard RTU have not internal temperature sensor
- Device Id: check the box, ID shows in the daily report.
- Arm status: check the box, arm or disarm status shows in the daily report.
- Signal of gsm network: check the box, GSM signal value shows in the daily report.
- Device's memo: check the box, Device description shows in the daily report.
- Power supply status: check the box, the daily report shows power supply status.
- Ex-temperature:

Attention: This option is valid for the RTU models that have temperature inputs (DS18B20 inputs).

Enable this option, all the value of extend temperature sensor will show in the daily report.

- Alarm inputs: check the box, the inputs that are in alarm status shows in the daily report.
- AD0~AD3: check the box, all the value of AD input show in the daily report.



#### 4.2.4 ALL SMS

Basic params				
<b>~</b>	×>			7
Phone numbers	Index	Sms	<u>^</u>	
	📝 No. O	Line 1 trigger		
	📝 No. 1	Line 2 trigger		
Basic params	<b>N</b> o. 2	Line 3 trigger		
basic params	<b>N</b> o. 3	Line 4 trigger		
<u>A</u>	<b>N</b> o. 4	Line 5 trigger		
	<b>N</b> o. 5	Line 6 trigger		
Alarm parms	<b>N</b> o. 6	Line 7 trigger		
	<b>N</b> o. 7	Line 8 trigger		
	<b>N</b> o. 8	Line 1 untrigger		
	<b>N</b> o. 9	Line 2 untrigger		
All sms	<b>N</b> o. 10	Line 3 untrigger		
	📝 No. 11	Line 4 untrigger		
<b>T</b>	<b>No.</b> 12	Line 5 untrigger		
	<b>N</b> o. 13	Line 6 untrigger		
Inputs _Outputs	📝 No. 14	Line 7 untrigger		
ADC params	No. 15	Line 8 untrigger		
Data trans	📝 No. 16	ADC LineO alarm, current is		
i-Sensors	📝 No. 17	ADC Linel alarm, current is		
	📝 No. 18	ADC Line2 alarm, current is	~	Ø
Others				2
				Reload successfully, connectively !!

In this page, you can see all sms contents that you have defined, include digital inputs alarm/recover sms, AIN alarm/recover sms etc. you can Double-click it to modify.

#### 4.2.5 System Prio

Basic params	$\times$								
Alarm params	No.	Admin	modi	modi	powe	dail	time	alar	i-tm
and a parama	CS0	0	0	0	0	0	0	0	0
	CS1	0	0	0	0	0	0	0	0
	CS2	0	0	0	Х	Х	0	0	0
$\sim$	CS3	0	0	0	Х	Х	0	0	0
and the second sec	CS4	0	0	0	Х	X	0	0	0
	CS5	0	0	0	Х	Х	0	0	0
	CS6	0	0	0	Х	Х	0	0	0
	CS7	0	0	0	X	X	0	0	0
col	CS8	0	0	0	X	X	0	0	0
CS's authoritr	CS9	0	0	0	X	X	0	0	0
Inputs _Outputs									
ADC params									
Data trans									
i-Sensors									
Others									

In this page, you can set authorization for CS numbers

"O" means enable authorization; "X" means disable authorization.

Authority	Explanation
admin	Can Arm/disarm or not
Modify by sms	This CS number can be modify
Change cs phones	This CS number can modify oth
Powerup sms	Can receive the status sms or n
Daily report sms	Can receive the daily report or r
Timer mms	Null
Alarm mms	Null
I-tmp alarm sms	Can receive the alarm sms or n
I-tmp alarm ring	Can receive the alarm phone ca
Power fail sms	Can receive the alarm sms of p
Power fail ring	Can receive the alarm phone ca
Signal low alarm	Null
Sample sms	Null
M2M svr	RTU send sms to the CS numb
Arm notify	Can receive sms when RTU arr

12

her CS number by sms command or not

not when RTU is restarted by sms command not

not when internal temperature sensor alarm

call or not when internal temperature sensor alarm

power failure or not

call of power failure or not

per with RTU\_IO protocol rm or disarm

#### Input and Output 4.3

#### 4.3.1 Setup input and output types

Basic	<b>V</b>			Ø	
Input and Output					
	- switching inputs	24 Hours	Sound	relay driveable outputs	Current status
nput and Output	input0 3:Close Alarm (EDGE)	►		output0 1:Output 😪	0 Input: Open 1 Input: Open
	input1 3:Close Alarm (EDGE)	▼		output1 1:Output	0 Output: Closed
Input Alarm Sms				output2 1:Output	1 Output: Closed 2 Output: Closed
¢,					
Input Parameters					
Ð					
Inputs Port Name					
Outputs Port Name				Remember outputs	
				Others	
Wired Inputs Prio				Persist timespan of Siren (min)	15
Ain Sensor				🖌 Save	
Data Transmission				V Save	
Sensors					
Other					
				Reload successf	ully, connected with P(

### Digital inputs types

Input signals have two types, EDGE\_IN (edge triggering) and LEVEL\_IN (state triggering).

ATTENTION: The key deference between Level and Edge is Level input has recovery sms message

#### □ 24 Hours

If check the box, the digital input can alarm, even it is in disarm status.

#### □ Sound

Means this channel input alarm event can cause internal buzzer and extend buzzer or siren action.

#### Use digital input 1 as arm control

Enable this option, RTU is in arm mode if digital input 1 is opened, RTU is in disarm mode if digital input 1 is closed, so user can connect a button to switch mode for arm or disarm

ATTENTION: Use digital input1 as arm control you need select the type of input1 is "TO CLOSE ALARM (LEVEL)" and delete the alarm/recover sms of input 1

#### **Counter**

Enable or disable this channel input as counter input which catch greater than 100ms plus.

#### Counter upload timer

Setup the counter GPRS upload interval

Use input 1 as Arm control	
Counter upload timer (sec)	

#### Counter upload only changed data

Automatic counter upload mode is a mode to Save GPRS, not report data if value not changed.

**Attention:** This option is valid for the RTU models that have GPRS function.

# Output types

0	disable	
1	relay drivable output	Drive relay, dr
		Output drive r
		Output power
2	Buzzer	This line's act
3	SNAPSHOOT	This line wills
4	SIREN	This line cont
		the interval ca
		Others
		Persist timespar
		6

#### Remember outputs status

If check the box, output can recover the status that before restart.

#### 4.3.2 Define alarm and recover sms of digital input

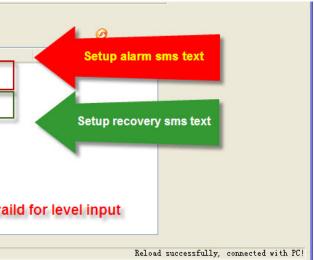
	i mananan	
Basic	) exe	
Input and Output	<b>W</b>	
() Input and Output	index 🖨 No. O	sms Digital Input O trigger!
	🖨 No. 1	Digital Input 1 trigger!
	💙 No. O	Digital Input O untrigger!
input Alarm Sm-	💙 No. 1	Digital Input 1 untrigger!
Input Paramete		
Ain Sensor		
Data Transmission		the recovery sms is va
Sensors		
Other		

All of the input lines sms can be modify. A SMS composed of not more than 60 characters

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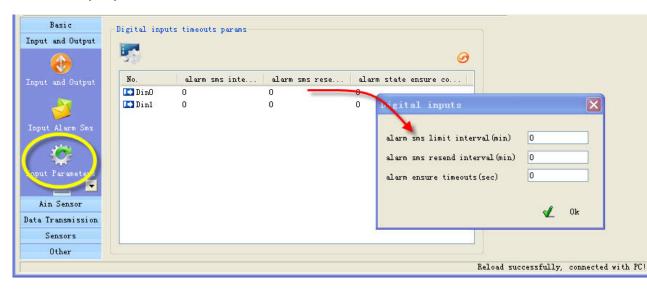
# rive electricity <0.2A relay voltage Equal to input DC voltage r: Drive voltage ≤35V, drive current ≤200mA tions will synchronize with internal buzzer. s shortly action when any alarm happens. tinuous drives for 1 minute by default. And an be user define.

15 an of Siren (min)



# CŴT盔科互动

#### 4.3.3 Setup inputs timeouts



This page designed to setup input timeouts property. There are 3 interval related with inputs.

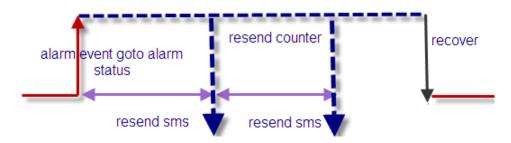
#### 1. Alarm sms limit interval

It is designed to avoid amounts of alarm/recover sms in a short time.



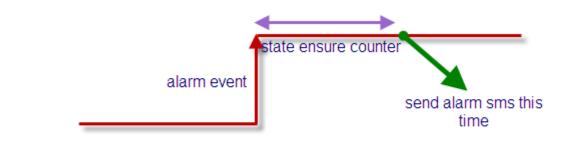
#### 2. Alarm sms resend interval

It is designed for repeat alarm status notifies to phones, 0 means disable repeat notification.



#### 3. Alarms ensure timeouts

It is a counter of alarm status ensure timer, designed to avoid shake mistakes. 0 means no counter.



#### 4.3.4 Setup digital inputs/outputs port name



If you send sms command to require inputs status, there is a contrast of returning

from: +8613480165874 High voltage: normal Low voltage: alarm High water level: normal Low water level: normal

Have setup input name

Setup outputs name is same

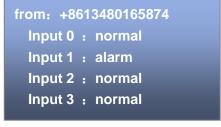
#### 4.3.5 CS's DIN authority

This page can setup the authority of CS phone receive digital input alarm sms and alarm call "O" means this cs phone will receive related line in sms, "X" means not.



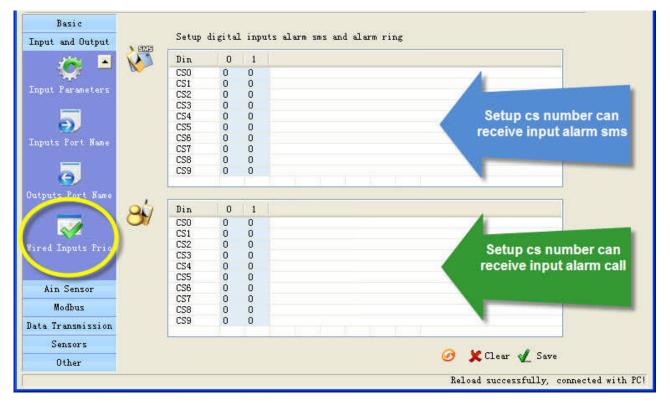
16

ts		
*		
it O	1	
Ľ	Ok 💢 Cancel	
	Reload	successfully, connected with PC!



Have not setup input name

www.mobq2000.com 



#### Example:

Din	0	1				
CS0	Х	0	1			
CS1	0	Х				
CS2 CS3 CS4 CS5 CS6	Х	0				
CS3	0	0				
CS4	0	0				
CS5	0	0				
CS6	0	0				
CS7	0	0				
CS8	0	0				
CS9	0	0				

This settings means CS0 don't receive input 0 alarm CS1 don't receive input1 alarm sms. CS3 don't receive input0 alarm sms.

# 4.4 Setup Ain parameters

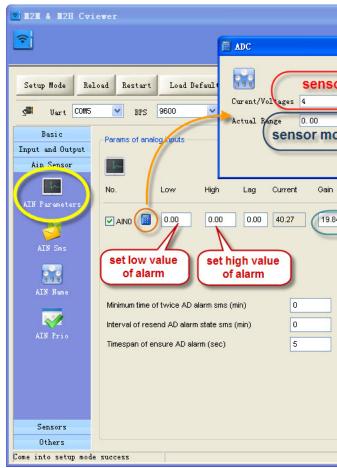
#### 4.4.1 Setup Ain parameters

The analog input is designed to receive 0~20mA or 0~5V signal from an analog sensor

You can preset a high and a low level for every AD input, if current value is above the high level or below the low level, RTU alarm. You also can send sms command to RTU to get current value.

#### Example:

RTU connect a temperature transmitter, it analog output range is 4-20 ma for monitor temperature range is  $0^{\circ}$ C-50°C, you want to get alarm and current temperature value when temperature is above 40°C or below 10°C.



#### Urgent

If checked, in any case, the RTU will execute alarm action (send alarm sms, interlock etc) when the AD input is over normal range, even RTU is in disarm status.

#### □ Sound alarm

Means this line alarm event will cause internal buzzer and extend buzzer or siren action.

- Change threshold
- Attention: This option is valid for the RTU models t

Version 2
or analog output is 4~20mA
20  mA 💌
0.00
onitor temperature range is 0°C~50°C
🛫 OK 🗶 Cancel
Base Urgent Sound Change threshold Type
4 12.5 0.00 Current V
4 12.5 0.00 Current V
🗶 Clear 🖌 Save 🧭
Reload successfully, connected with PC!
neroad successfurry, connected with fu!

hat have GPRS function.	

If the change of AD input is more than "change threshold", RTU upload current value to server by GPRS.

#### □ Minimum time of twice AD alarm sms (AINAS time)

After executed an alarm action (send alarm sms, interlock etc.) When AIN over normal range, in the AINAS time RTU will not execute any alarm action (send alarm sms, interlock etc.) even AIN are over normal range frequently. The purpose of setting AINAS time is user will not receive many alarm sms in the time when the AIN value is fluctuates at low value or high value. "0" means disable the function.

#### □ Interval of resend AD alarm state sms (AINLS time)

After executed a alarm action(send alarm sms, interlock etc.) when AIN over normal range, if the duration of the alarm signal overrun the AINLS time. RTU will execute a alarm action(send alarm sms, interlock etc.) again. The purpose of setting AINLS time is alarm to user repeatedly at regular intervals during the AD input is in state of over normal range. "0" means disable the function.

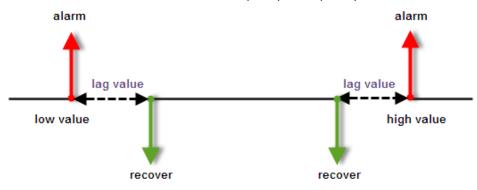
#### □ Timespan of ensure AD alarm (AINDLY time)

RTU will not execute any alarm action(send alarm sms, interlock etc.) in the AINDLY time even AIN over normal range, if the duration of the alarm signal overrun the AINDLY time, RTU will execute a alarm action(send alarm sms, interlock etc.). "0" means disable the function.

#### □ Setup lag

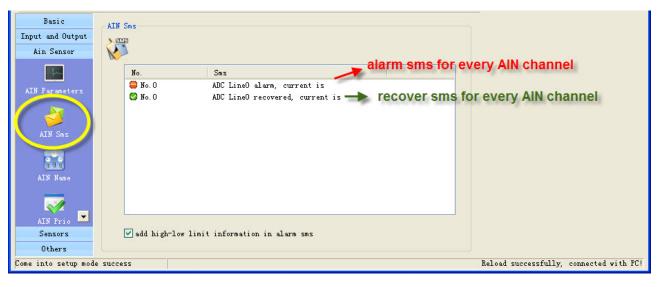
When AIN over normal range, RTU will alarm. But will not return to normal state before AIN return into range high value-lag and low value+lag.

For example: normal range is 10~40, lag is 5, RTU send alarm sms when AIN value is 10 or 40. But RTU send recover sms when AIN value is 35(40-5) or 15(10+5)



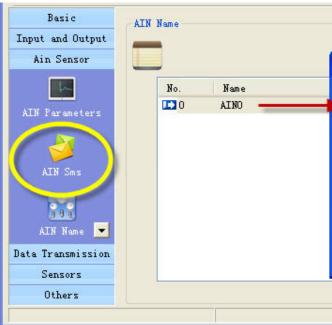
The purpose of setting lag is user will not receive many alarm when the AIN value is fluctuates at low value or high value. "0" means disable the function.

#### 4.4.2 Setup AIN alarm and recover sms



The current value is showed in end of alarm or recovers sms. A SMS composed of not more than 60 characters.

#### 4.4.3 Setup AIN name



If you send sms command to query AIN value, the AIN name show in the sms For example, set the AD input 0 channel name is "temperature", the sms is:

'rom: +8613480165874	ATTENTION
Cemperature current value : 21.33	characters
AD input 1 current value: 60	
AD input 2 current value: 0	
AD input 3 current value: 0	

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20

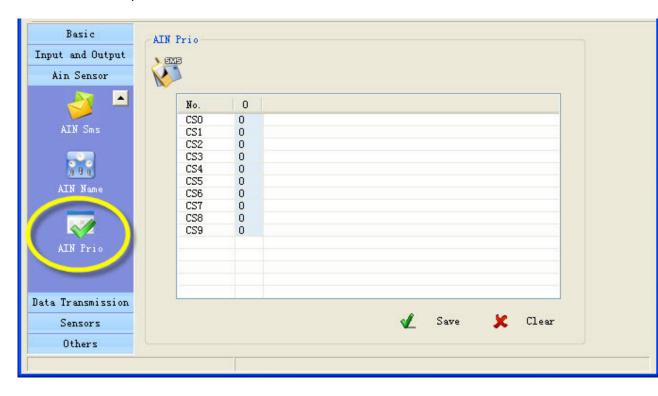
<u>^</u>
~
Cancel

N: a name composed of not more than 24



#### 4.4.4 CS's AIN Authority

This page can setup the table of CS phone receive AD input line in alarm property. "O" means this cs phone will receive related line in sms, "X" means not.



# 4.5 GPRS parameters

### 4.5.1 GPRS parameters

In this page, you can set GPRS parameters.

Basic params	- Gprs Settings
Inputs _Outputs	✓ Enable GPRS Transfer
ADC params	✓ Enable GIAS Iransier
Data trans	APN
<u>o</u>	User
SMS DTV	Password
	DNS Addr
GPRS M2M	GPRS idle time (min)
GTAS MZM	ModbusTep Unit Id
	Enable Com data to GPRS Server(D)
	Index Svr addr Svr Po
	Aa Svr0
	Aa Svr1 Aa Svr2
	Aa Svr3
i-Sensors	<
Others	

"APN, user, password, DNS addr", you can consult the GSM operation

#### □ GPRS idle time

Means if GPRS RTU has no data transferred in the time, GPRS will off line, set the time to 0, means GPRS always on line.

#### Modbus TCP unit ID:

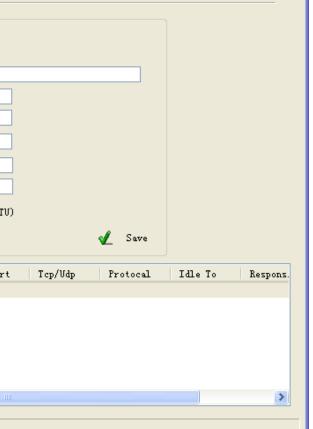
It is valid if data transfer with Modbus TCP protocol

 Enable com data to GPRS server GPRS RTU support RS232 Transparent Transmission

#### □ Set parameters of server:

4 servers can be add, they can receive data from GPRS RTU at the same time You can set parameters for every server

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GPRS Server			×
Server Address			
Service Port			
Tep/Vdp	Tcp 💌		
Service Protocal		*	
Idle Timeouts (sec)			
Response Timeout (ms)			
Heart Timeout (sec)			
		Ľ	OK

#### □ Server address

It is an IP of server or domain names, IP must be a static and public IP address

#### □ Service port

It is a TCP/IP port of applications on server

#### □ TCP/UDP

You can select TCP/UDP transport protocols for sever

#### □ Service Protocol

You can select communication protocols between GPRS RTU and server They are Modbus TCP, CWT\_IO and RS232 bidirectional transparent transmission

Important: CWT\_IO and GRPS DTU protocols can support TCP or UDP; but MODBUS TCP protocol only support TCP; so if you use the CWT5002, the transport protocol must be TCP

#### □ Idle timeout

It is valid for TCP server; it means if there is no data transferred in the time, the server is disconnected. Set to 0 to disable the function

#### Response timeout

It is valid for CWT\_IO and Modbus TCP communication protocols, it means after GPRS RTU send data messages to server if GPRS RTU have not received response data from server in the time, the GPRS RTU will send data again. Set to 0 to disable the function.

#### Heart timeout

Reserve

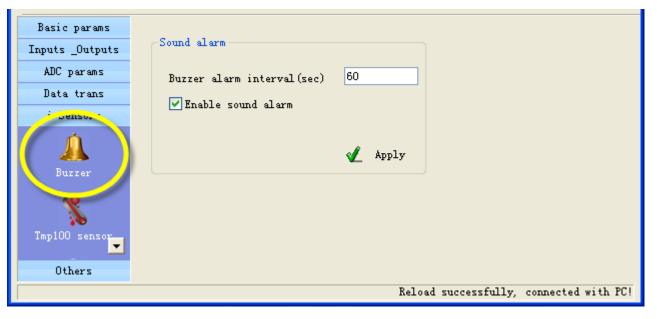
### 4.6 Setup I-sensors

#### 4.6.1 Buzzer

Attention: This setting is valid for the RTU models that have buzzer.

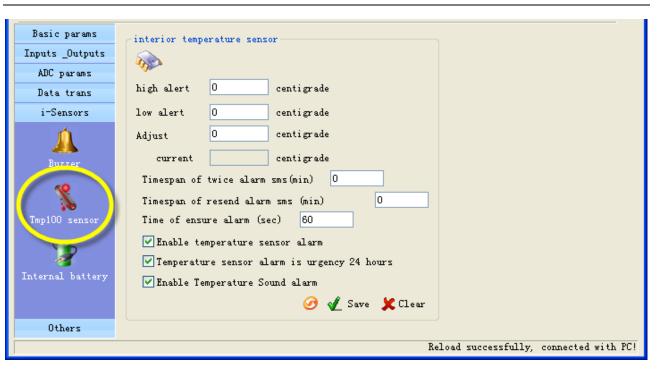
The buzzer can be activated when alarm.

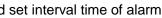
In this page, you can enable or disable the buzzer and set interval time of alarm



#### 4.6.2 Tmp100 sensor (optional)

Attention: This setting is valid for the RTU models that are added interior temperature sensor, the tmp100 temperature is optional, a standard RTU have not internal temperature sensor.







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You can preset a high and a low temperature value, if temperature is over normal range, RTU alarm. You also can send sms command to RTU to get current temperature.

User can set "Adjust" value to calibrating temperature value

#### Timespan of twice alarm sms

It is designed to avoid amounts of alarm/recover sms in a short time.

#### **TMPRS** time: timespan of resend alarm sms

It is designed for repeat alarm status notifies to phones, 0 means disable repeat notification.

#### □ time of ensure alarm

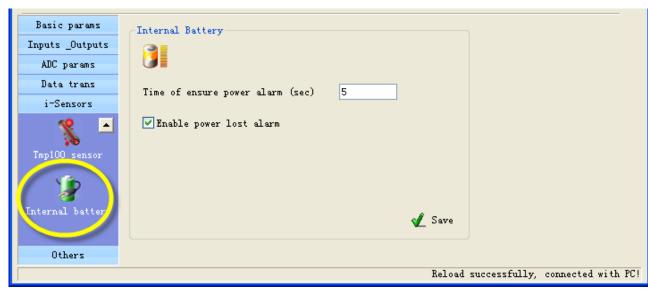
It is a counter of alarm status ensure timer, designed to avoid shake mistakes. 0 means no counter.

#### 4.6.3 Internal battery (optional)

Attention: This setting is valid for the RTU models that are internal battery.

#### It is designed to realize power lost alarm

When external power cut off, RTU Powered by internal battery and alarm to cs numbers



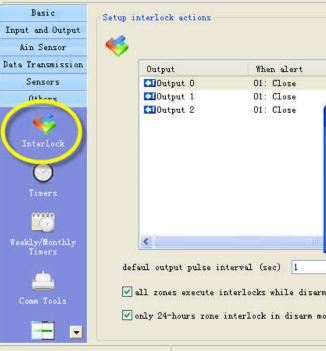
#### □ time of ensure power alarm

When the time of external power lost is over the time, RTU alarm, "0" means disable the function. Battery parameter:

- Lithium battery
- Voltage: 3.7V
- Capacity: 800mAh
- Limited voltage for charging 4.2V
- Implementation standard GB/T 18287-2000



#### 4.7.1 Realtime Interlock



Realtime interlock is a local strategy, it is designed to outputs automatically execute action under some internal triggering conditions.

#### For example

If digital input 0 alert, output 0 close pulse 5 seconds.

Basic	Setun in	nterlock actio	05	
Input and Output				
Ain Sensor	- 🎺 -			
Data Transmission		Output	Wh	en alert
Sensors		Output 0	01 :	Close
Others		🛄 Output 1	01 :	Close
Interlock		Cloutput 2	01:	Close
Timers Weekly/Monthly Timers		<		
Comm Tools		aul output pul ll zones execu	ite interlocks	while disarm
	•	nly 24-hours :	one interlock	in disarm mo

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When recover 06: None 06: None	Link with OO: None OO: None	
up interlock	actions	
hen alert	01: Close	~
hen recover	06: None	*
ink with	00: None	~
	🖌 0k 🗶	Cancel

When recover	Link with
OG: None	OO: None
interlock act	tions 🔣
alert 📃 💶	Close Pulse
recover 06:	None 💙
with 01:	0 Input Alert 🔊
	Construction of Construction of
	🞻 Ok 🂢 Cancel

#### 4.7.2 Timers

Basic params											_
-	X										
Inputs _Outputs	13										
ADC params	-Minutes Ti	mers									
MODBUS	CounterO	per	0	minute	ever	None	~				
Data trans		-	0			None					
i-Sensors	Counter1	per		minute	exec						
Others	Counter2	per	0	minute	exec	None	*				
	Counter3	per	0	minute	exec	None	×				
	-Second tim	ers									
Realtime Interlock	CounterO	per	0	second	s exec	None	*				
	Counter1		0	second		None					
		per									
Timers	Counter2	per	0	second	s exec	None					
00000	Counter3	per	0	second	s exec	None	*				
	-System tim	ers									
Weekly timer	TimerO at		hour	0	minute		None	*			
1.00				0			None	~			
	Timer1 at		hour	0	minute						
Comm tool	Timer2 at		hour		minute		None	*			
	Timer3 at		hour	0	minute		None	*			
	Timer4 at	0	hour	0	minute	exec	None	*			
Programe Interlock	Timer5 at	0	hour	0	minute	exec	None	*	🚽 Save		
									<b>V</b>		

Timers is designed to time execute task, task include arm, disarm, open/close output etc.

#### Minutes timers

4 minute counters can be set, RTU execute a task every the minute interval. For example, RTU execute output 0 pulse every 30 minutes

-Minutes Ti	mers —						
Counter0	per	30	minute	exec	Pulse DOO	*	
Counter1	per	0	minute	exec	None	*	
Counter2	per	0	minute	exec	None	*	
Counter3	per	0	minute	exec	None	*	

#### □ Second timers

4 second counters can be set, RTU execute a task every the second interval.

#### □ System timers

6 times can be set in a day, RTU execute a task in each time. For example, at 8:30 execute output 0 on, at 17:00 execute output 0 off.

ſ	-System time	ers							_		
	TimerO at	8	hour	30	minute	exec	Driver DOO	*	1		
	Timer1 at	17	hour	30	minute	exec	Switch off DOO	~			
	Timer2 at	0	hour	0	minute	exec	None	~	-		
	Timer3 at	0	hour	0	minute	exec	None	~			
	Timer4 at	0	hour	0	minute	exec	None	*			
	Timer5 at	0	hour	0	minute	exec	None	*		Save	
									₩.	Save	

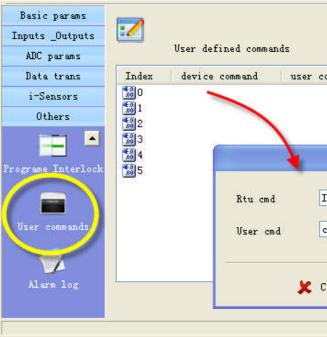
#### 4.7.3 Weekly timers

Basic params Inputs _Outputs	X				
ADC params	-				
MODBUS	Date	Monday 💟	10	hour	30
Data trans	Date	Sunday 💙	0	hour	0
i-Sensors	Date	Sunday 💟	0	hour	0
Others	Date	Sunday 💌	0	hour	0
Timers	Date	Sunday 🔽	0	hour	0
numers and a	Date	Sunday 💌	0	hour	0
	Date	Sunday 💌	0	hour	0
Weekly timer					

7 times can be set in a week, RTU execute a task in each time. For example, execute send daily report at Monday 10:30 RTU

#### 4.7.4 Define users commands

Users can define 6 commands instead of system commands. For example, user set "close" instead of system command "IOOH", so user can send "close" to close output



						_		
min	execute	SEND	DIALY	REPOI	*			
min	execute	NONE			*			
min	execute	NONE			*			
min	execute	NONE			*			
min	execute	NONE			*			
min	execute	NONE			*			
min	execute	NONE			*			
			Ľ	Save	1			

CWT5015 User's manual

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