An Advanced
Programmable
Multifunctional
Elderly Care Alarm
In The Worldwide!

T2

他们

GSM Elderly Care Alarm

Telecare & Telehealth System

User Manual

Ver 1.0

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This handbook has been designed as a guide to the installation and operation of K3 Panel.

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.

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

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

T2 — GSM Elderly Care Alarm System

1. Product details

The T2 GSM Elderly Care Alarm is an innovation solution of telecare field that especially for the senior, elderly, aged people who living independently.

The T2 can be used as a safety protection, temperature monitoring, daily activities monitoring, bedtime monitoring, fall alarm and emergency call system, away/stay at home monitoring, or like a normal telephone.

8 fast dial buttons which can paste photos, these buttons can be setting as Police, Relatives, Taxi, Firefighting, Doctor, Neighbor or others for quickly dial out. So easy for Push-to-Talk ! And large keypad can dial to any other phone numbers when needed.

The T2 GSM Elderly Care Alarm also can be used as a telecare system, it can report the elderly daily actions. Includes elderly away/back home time, remind to take medicine, go to sleep and get up time, if not get up in time then can generate alarm to receivers or central monitoring system (CMS) remotely.

Moreover, T2 can be used as a GSM Alarm system, supports wireless SOS button, wireless fall detectors, wireless carbon monoxide detector, wireless gas leakage detector, wireless water leakage detector, wireless smoke detector, wireless motion detectors and so on. Once the wireless detectors activated, it will generate alarm to receivers or central monitoring system (CMS) remotely.

All of these wireless detectors can provide the safety protections to the senior, elderly, aged people who living alone.

One sensitive thermometer inside,T2 can measure the home temperature and send alert SMS text when temperature exceed high/low threshold.

Features:

➢ Fashion hand free design, large keyboard;
➢ 7*24 solution: take care of elderly get up, medical, SOS, fire, smoke, water, gas, sports, bedtime, etc.
➢ Large LCD display current time, temperature, and alarm events;
➢ GSM/GPRS wireless transmission, no distance limitation;
➢ Bedtime/Get up not on time alarm;
➢ Away/Back home time notice;
➢ Supports variety wireless detectors, includes fall detector, CO detector, smoke detectors and so on;
➢ Equips 8 quick dial numbers, and also can dial other numbers by keyboard;
➢ Android app and iOS App can display the bedtime and away/back home trends;
➢ 3-Timer for alerting to take medicine or other activities.
➢ Backup rechargeable battery.
➢ GPRS data transmit Contact ID protocol data to CMS available.

T2 — GSM Elderly Care Alarm System

Specification and dimensions

GSM Frequency	Quad-band 850/900/1800/1900MHz
Wireless zones	16
Wireless Frequency	433.92MHz
Wireless distance	Max.100m in open air
DC Power supply	9~24VDC/1A
Power consumption	12V input Max. 50mA/Average 25mA
SIM Card	Supporting 3V SIM Card
Antenna	50 Ω SMA Antenna interface
Temperature range	-20~+60 °C
Humidity range	Relative humidity 90%
Backup battery	3.7V/900mAH
Exterior dimension	24.5*16.5*6.6cm (9.6*6.5*2.6 inch)
Net Weight	550g (1.2 lb)
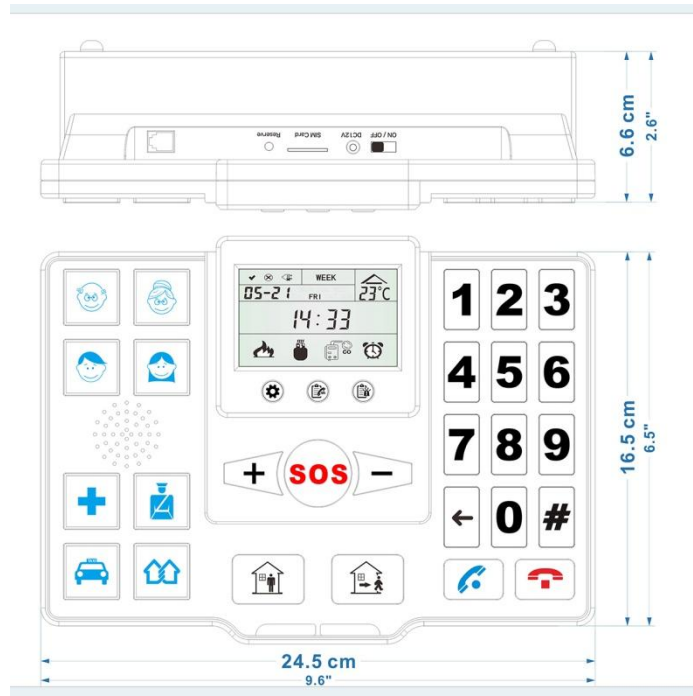
Standard Packing List
✓ Main unit * 1
✓ AC/DC Power adaptor *1,
✓ User Manual & PC Software CD x1

Applications
➤ **Residential**: Home safety alarm, elderly living monitoring.
➤ **Business:** Aging care, telecare, healthcare, etc.

Optional Accessories:
✓ PIR Motion Sensor,
✓ Door Magnetic contact Sensor,
✓ Smoke detector
✓ Gas leakage detector
✓ Water flood sensor

2.Safety Directions

Safe Startup
Do not use T2 when using GSM equipment is prohibited or might bring disturbance or danger.

Interference
All wireless equipment might interfere network signals of T2 and influence its performance.

Avoid Use at Gas Station
Do not use T2 at a gas station. Power off T2 when it near fuels or chemicals.

Power it off near Blasting Places
Please follow relevant restrictive regulations. Avoid using the device in blasting places.

Reasonable Use
Please install the product at suitable places as described in the product documentation. Avoid signal shielded by covering the mainframe.
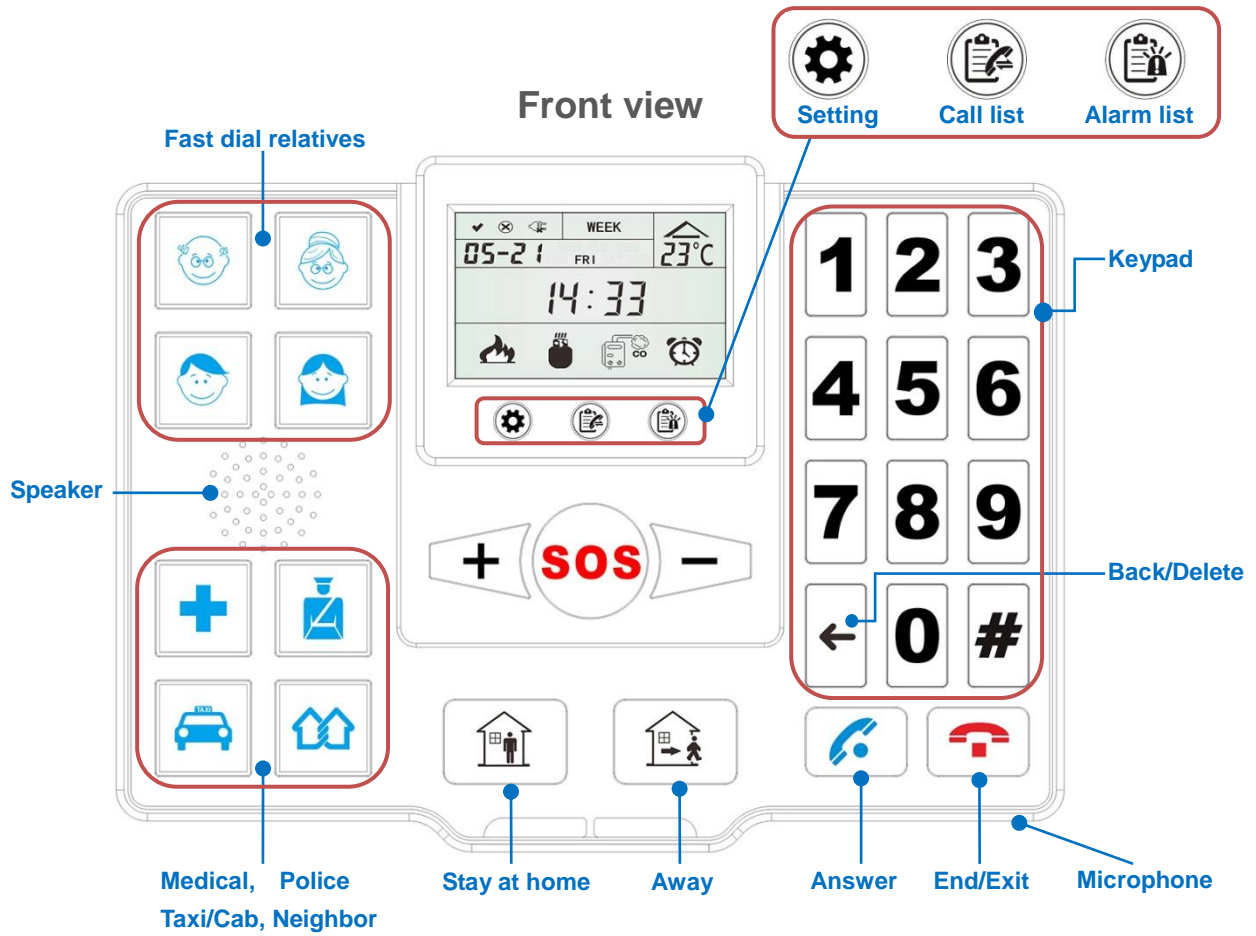
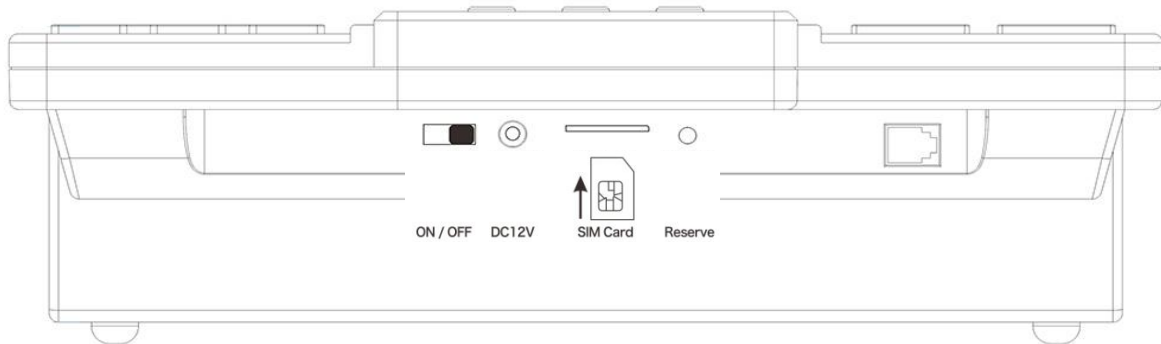**Use Qualified Maintenance Service**
Maintenance can be carried out only by qualified maintainer.

T2 — GSM Elderly Care Alarm System

3. Products schematic

Front view

- Fast dial relatives
- Speaker
- Medical, Police, Taxi/Cab, Neighbor
- Stay at home
- Away
- Answer
- End/Exit
- Microphone
- Setting
- Call list
- Alarm list
- Keypad
- Back/Delete

Display shows: WEEK 05-21 FRI 14:33 23°C

Interface

ON / OFF   DC12V   SIM Card   Reserve

Display

- Confirm, Error, Power
- Date and Week
- Time, and number area
- Smoke, Gas, CO alarm
- GSM Signal
- Temperature, Volume, List
- Alarm clock

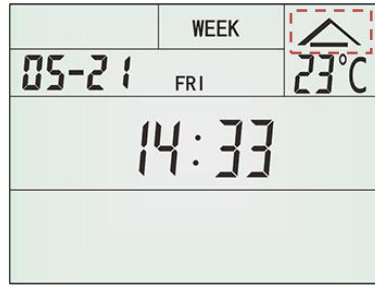Display shows: WEEK 05-21 FRI 23°C 14:33

T2 — GSM Elderly Care Alarm System
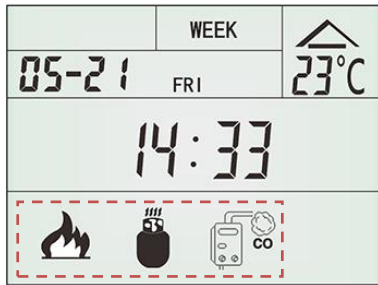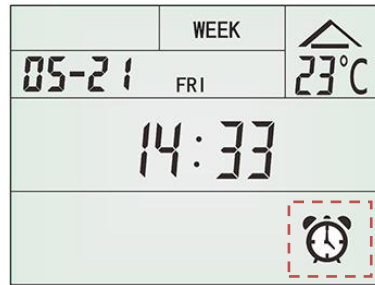
Typical Status:

Registering, No GSM signal,
AC/DC adaptor lost.

GSM Signal good,
Power by AC/DC adaptor

SOS alarm (3 icons flash together)

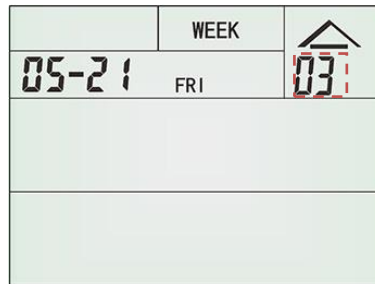Alarm Clock (flash)

On phone call (in or out)

Volume adjust (range: 1~5)

List

T2 can record last of 20 alarm events and last of 20 call events(in & out).

Press to view the alarm events.

Press to view call list, and press can call back to this number.

Alarm List (On the 17th record,
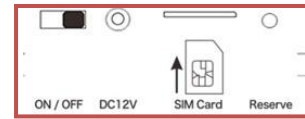zone #3 alarm at 15:19,May 12.)

Call list, (On the 19th record,
Phone 13510150873 on May 20).

4.Easy setting

Start:

➢ Insert mobile SIM card(GSM850/900/1800/1900MHz) to the slot.

➢ Connect the power supply, Switch ON.

➢ ✔ for confirm, ⊗ for mistake reminding on the LCD display when setting.

Confirming T2 SIM Card number:

Setting→8# T2's SIM Card number→Setting

T2 will get mobile operator's date and time according to the SIM Card number, LCD will correct and display the real date & time after few minutes when setting done. If T2 can't get date & time automatically, please try to remove or add the country code, like *0086*13510150873 instead of 13510150873.

For example, setting the T2's SIM card (13510150873) number:

⚙**8#13510150873**⚙

Fast dial numbers:

Setting→Fast dial button→Phone number→Setting

For example, setting the Police station number (999):

⚙ 🔔 **999** ⚙

LCD display:

Fast dial buttons position

1 👶		👵 2
3 👦		👧 4
5 ➕		🔔 6
7 🚗		🏠 8
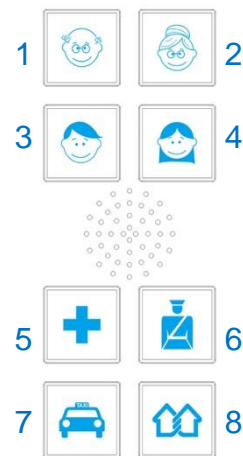
Alarm Receiver's phone number:

Setting→Receiver's position(1~5)# Phone number # Function code(0~2) →Setting

5 alarm SMS & Call receivers supported, the position number from 1~5.

Function code:

0: call this number

1: send alert SMS text to this number

2: send alert SMS text and call to this number

For example, setting the 1ˢᵗ position number(0086952), this number can receive alert SMS & Call.

⚙**1#0086952#2**⚙

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Notice: Stay/Away, wireless sensor's battery low power, T2 back up battery low power, AC/DC power lost/recovery, High/Low temperature alarm, Bedtime monitoring SMS send to the 1st & 2nd receiver only, so the 1st & 2nd receiver should be mobile phone and select the function code as 1 or 2.

Temperature alarm threshold

Setting→6 # high threshold→Setting   **(**Default: High—99, disable this function.)

Setting→7 # low threshold →Setting   **(**Default: Low—00, disable this function)

High/Low threshold value: 2 digits only.

For example, Setting high threshold as 32 degree.

⚙ 6 # 3 2 ⚙

Alarm clocks (1~3)

Setting→100#hhmm→Setting

Setting→200#hhmm→Setting

Setting→300#hhmm→Setting

For example, setting the 1st alarm clock at 08:30am.

⚙ 1 0 0 # 0 8 3 0 ⚙

Delete alarm clock:

Setting→100#→Setting

Setting→200#→Setting

Setting→300#→Setting

Alarm audible time(0~240)

Setting→9#audible time→Setting

T2 will make audible alarm and flash on LCD when alarm occurance. Alarm audio sounds 20 seconds and stop 2 seconds interval, the totally time(0~240 seconds, default:60).

For example, setting the audible alarm as 30 seconds.

⚙ 9 # 3 0 ⚙

White list setting

White list: the numbers of fast dial (1~8) and alarm receivers(1~5).

Setting all numbers can call in to the T2 (default): **Setting→0#0→Setting**

Setting white list numbers can call in to the T2 only: **Setting→0#1→Setting**

⚙ 0 # 1 ⚙

Reset to factory mode

Setting→000001#

Caution: The operation will RESET T2 to factory mode! All of your settings will lost.

5.Add wireless sensors

Add wireless sensors step

Setting➔zone number(01~16)#➔zone type(1~6) #➔Trigger the sensor➔Setting

For example, add one fall detect sensor to zone #03:

⚙ 0 3 # 2 # [Trigger the sensor] ⚙

Zone types explaination

1: SOS alarm

2: Smoke alarm

3: Gas alarm

4: CO alarm

5: Watchdog monitoring

6: Bed/Get up time monitoring

Watchdog zone time setting

Two period time monitoring can be setting for a same watchdog zone.

Setting➔400#Zone number#Start time#End time➔Setting　(Default 0000#0000, disable.)

Setting➔500#Zone number#Start time#End time➔Setting　(Default 0000#0000, disable.)

For example, add one door sensor on the zone #5 (main gate) and setting the time at 07:00~09:30 and 16:00~17:30,if the main gate not opened on the above duration,T2 will send alert SMS text to the 1st and 2nd receiver.

⚙ 4 0 0 # 0 5 # 0 7 0 0 # 0 9 3 0 ⚙

⚙ 5 0 0 # 0 5 # 1 6 0 0 # 1 7 3 0 ⚙

Bedtime/Get up monitoring zone time setting

T2 can install wireless sensors to monitor the elderly' sleeping(bed)/wake up(get up) time.

Bedtime period:　Setting➔400#Zone number#Start time#End time➔Setting

Get up time period: Setting➔500#Zone number#Start time#End time➔Setting

(Default 0000#0000, disable.)

For example, install one PIR sensor on the bed room's door frame(Zone #6),setting the bedtime at 21:00~22:30, and get up time at 06:00~08:30,T2 will record the latest movement detection between 21:00~22:30,ie.: at 22:10, then T2 will send notify SMS text "Mom went to bed at 22:10" to the 1st receiver. And if Mom get up and the first time she walk through the door at 07:30am, then T2 will send notify SMS text "Mom got up at 07:30 " to the 1st receiver.

If the PIR sensor didn't detect any movement during 21:00~22:30, and 06:00~08:30,T2 will send alert SMS text "Mom still not went to bed" at 22:31, and "Mom still not get up" at 08:31 to the 1st & 2nd receiver.

⚙ 4 0 0 # 0 6 # 2 1 0 0 # 2 2 3 0 ⚙

⚙ 5 0 0 # 0 6 # 0 6 0 0 # 0 8 3 0 ⚙

Notice: The different between "Watchdog zone" from "Bed/Get up time monitoring zone" is:
　　　"Bedtime/Get up time monitoring zone" will send notify SMS text of the latest sensor's trigger during the period to the 1st receiver after time out.

6. How T2 works for elderly?

Push-to-Talk with families

Keep the origin design icons or stick a easy recognized photo on the buttons, just push these buttons then make a phone call with families

Push-to-Ask for help

Keep the origin design icons or stick a easy recognized photo on the buttons, just push these buttons then make a phone call with Doctor, Police station, Taxi/Cab service and neighbor/community service.

SOS alarm when under emergency situation

Push the SOS button for 3 seconds,T2 will send SOS alert SMS text and make a phone call to receivers for asking emergency help.

Other Wireless SOS button or fall detectors optional.

Make phone call

Press the keypad for make a phone call, just like a regular telephone set.

Press [icon] for answer the call in, press [icon] for end calls.

Press ⬅ to erase the last number if made mistake.

24hours safety guard

When smoke, gas, CO or water flood detected,T2 will make audible alarm, send alert SMS text and call to the receivers/Call center/Firefighting or other CMS system.

Alarm clocks

T2 will make audible alarm and flash on LCD according to the timing setting. Alarm audio sounds 10 seconds and stop 2 seconds, repeat 5 times or stopped by end button [icon] .

Audio volume(1~5) can be adjust by ➕ and ➖ ,(the same volume for phone call, audible alarms).

Daily life care

T2 will send alert SMS text if no activities detected by PIR/Door sensors during the watchdog time period. For example, install one door contact sensor on the main gate, setting time period at 16:00~18:00pm,if the main gate not opened during that time,T2 can send alert SMS to receivers.

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Bedtime/Get up care

Under the [icon] status, T2 will send notify SMS text of the "bedtime" and "get up time" to the 1st receiver.

For example, install one curtain PIR sensor on Mom's bed room(door frame),setting the bedtime at 21:00~22:30, and get up time at 06:00~08:30,T2 will record the **latest** movement detection between 21:00~22:30,let's say at 22:10, then T2 will send notify SMS text "***My bedtime: 22:10,good night:)***" to the 1st receiver at 22:30.
If Mom get up and the **first** time she walk through the door at 07:30am, T2 will send notify SMS text "***Good morning, I get up at 07:30***" to the 1st receiver at 07:30.

If the PIR sensor didn't detect any movement on 21:00~23:00, and 06:00~08:30,T2 will send alert SMS text "***I didn't go to sleep yet***" at 22:31, and "***I didn't get up yet.***" at 08:31 to the 1st and 2nd receiver.

This unique function designed for take care elderly' health status on the evening and morning, in case of any unexpected situation, receivers can get notify SMS text and need to take care about "are there anything OK", or "why mom still not get up" or "why she still not go to bed?" etc.

Stay/Away care

Press [icon] when away home, T2 will send notify SMS text "***I'm leaving home now.***" to the 1st and 2nd receiver, to let them know that elderly away home at that time.

T2 will send notify SMS text "***I'm at home now***." to the 1st and 2nd receiver when elderly back to home and pressed the [icon] button, to let them know that the elderly back home safety.

If the receiver get notify SMS text of "***I'm leaving home now.***" but didn't get SMS text of "***I'm at home now***." after few hours, for example: received the SMS text "***I'm leaving home now.***" at 16:00 but didn't received SMS text "***I'm at home now***." till 22:00,then receivers should call to T2 or mobile numbers to check if elderly forgot press the Stay button or really didn't go back yet.

Temperature monitoring

T2 send alert SMS text to receivers when temperature higher/lower than threshold more than 10mins.

Other care

T2 will send alert SMS text to the 1st and 2nd receivers when AC/DC power lost (more than 30mins) and recovery, back up battery low power, wireless sensor's battery low power(if have).

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7. Setting & Operation by SMS commands:

T2 can setting by SMS commands with password protection remotely.

* The SMS commands should with Password, 1234 is the default password on below context, please change it to new password if you had changed already.
* The command body **PU, EE**, etc. must be **Caps Lock**.
* **No space on the SMS commands**, the space on command list just for reading purpose.

Change Password

> **1234PU** *new password*

T2 return: This is the New Password, please remember it carefully.
E.g.: **1234PU6666** for change the new password to 6666.

Modify the Fast dial phone numbers.

> **1234A** *position(1~8)* **T** *phone number*

For example, modify the Policy station's number to 999:
E.g.:**1234A6T999**

Inquiry fast dial phone number:

> **1234A**

Remove fast dial phone number:

> **1234A** *position(1~8)*

Modify the Alarm receiver's phone numbers.

> **1234B** *position(1~5)* **T** *phone number* **A** *function code(0~2)*

*Function code: refer to page 7 *"Alarm Receiver's phone number"*
For example, modify the 1ST receiver's phone number to **0086952**,this number can receive SMS and call.
E.g.: **1234B1T0086952A2**

Inquiry alarm receiver's phone number:

> **1234B**

Remove alarm receiver's phone number:

> **1234A** *position(1~5)*

Modify the alarm content of zones.

> **1234M** *zone number(00~16) alarm content*

E.g.: **1234M01Smoke Fire alarm!**

Modify the Alarm Clocks.

For example, modify the 1ST alarm clock to 08:30

> **1234C *position(1~3) hhmm***

Inquiry alarm clocks:

> **1234C**

Remove alarm clock:

> **1234C *position(1~3)***

Inquiry the T2 status.

> **1234EE**

T2 return:

I'm at home; / I'm away;	(Elderly at home or away home)
External AC Power OFF/ON	(AC power status)
GSM Signal:**	(GSM signal range 1~31, lower than 14 means signal weak)
Temp:**degree;	(Celsius)
IMEI: ****************	(GSM module's IMEI code)

8.※GPRS data Parameter Setting※

For engineer and remote server system only
Please ignore this part if the total quantity of T2 should me monitoring less than 200pcs

APN(call your mobile operator to ask the <u>Access Point Name</u>, private APN supported)

> **1234APN *apn name#user#password***

E.g.: 1234APNeverywhere*eesecure*secure#

(the example "APN name: everywhere, user: eescure, password: secure" supported by Orange UK)

CMS Server IP address and server port

> **1234IP *server IP address* P *server port***

E.g.: 1234IP175.164.49.20P4005

T2 send "I'm leaving home now." through GPRS data to server system when Away button is pressed.

T2 send "I'm at home now." through GPRS data to server system when Stay button is pressed from Away status.

Alarm process:

Alert SMS→GPRS data to Server system→Alarm dial

GPRS upload to Server system depends on the alarm events(trigger) automatically, GPRS Data off line when data send complete. T2 can't receive data from server system.

GPRS data following the Contact ID (SIA DC-9) protocol.

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9. SMS Content list

Events	Alert SMS text	Description
Big SOS button pressed	SOS Help!	Zone number: 00
Away button pressed	I'm leaving home now.	
Stay button pressed	I'm at home now.	
AC/DC power lost	Alert: External AC power lost!	Alert when AC/DC power lost more than 30mins
AC/DC power recovery	Notice: External AC power recovery!	
T2 back up battery low power	Alert: Main panel's battery low power!	
High temperature alarm	Alert: High temperature alarm! Current Temp: **C	
Low temperature alarm	Alert: Low temperature alarm! Current Temp: **C	
Temperature back to normal value	Notice: Temperature back to normal. Current Temp:**C	
Bedtime monitoring	My bedtime: **:**,good night:)	Sensor's latest trigger time
	I didn't go to sleep yet.	If no trigger
Get up time monitoring	Good morning, I get up at **:**	Sensor's first trigger time
	I didn't get up yet.	If no trigger
Wireless zone #1 alarm	SOS Help! Fall down detector alarm!	For EM-90 (*optional)
Wireless zone #2 alarm	Alarm: Smoke detected!	For SM-100 (*optional)
Wireless zone #3 alarm	Alarm: Gas detected!	For GL-100A (*optional)
Wireless zone #4 alarm	Alarm: CO detected!	For CO detector (*optional)
Wireless zone #5 alarm	Alert: Watchdog zone!	For PIR/Door (*optional)
Wireless zone #6 alarm		For bed/get up…
Wireless zone #7 alarm	Alarm: Water flooding!	For WL-100 (*optional)
Wireless zone #8 alarm	SOS Help! Wireless pedant alarm!	For EM-60 (*optional)
Wireless zone #9 alarm	SOS Help! Wireless wrist button alarm!	For EM-70 (*optional)
Wireless zone #10 alarm	SOS Help! Wireless panic button alarm!	For EM-100 (*optional)
Wireless zone #11 alarm	Zone 11 alarm!	For other optional sensors
Wireless zone #12 alarm	Zone 12 alarm!	For other optional sensors
Wireless zone #13 alarm	Zone 13 alarm!	For other optional sensors
Wireless zone #14 alarm	Zone 14 alarm!	For other optional sensors
Wireless zone #15 alarm	Zone 15 alarm!	For other optional sensors
Wireless zone #16 alarm	Zone 16 alarm!	For other optional sensors
Wireless sensor's battery low power	Alert: Zone xx detector low power!	Reserve function.

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	10. Quick Setting Menu	
Function	Example	Buttons
Confirming T2 SIM Card number	T2 SIM card number:1351015	⚙8#1351015⚙
Fast dial number	Setting the Police station number (999)	⚙ 📟 999⚙
Alarm Receiver's phone number	Setting the 1st position receiver number: 0086952, can receive alarm SMS and Call	⚙1#0086952#2⚙
High Temperature alarm	Setting high threshold as 32 degree.	⚙6#32⚙
Low Temperature alarm	Setting high threshold as 20 degree.	⚙7#20⚙
Alarm Clocks	Setting the 1st alarm clock at 08:30am	⚙100#0830⚙
Alarm audible time	Setting audible alarm 30 seconds	⚙9#30⚙
White list	Setting all numbers can call in to the T2 (default)	⚙0#0⚙
	Setting white list numbers can call in to the T2 only	⚙0#1⚙
Add sensors	add one smoke sensor to zone #3	⚙03#2# Trigger the sensor ⚙
Watchdog zone time 1	Setting monitoring period at 0700~0930am for zone 5	⚙400#05#0700#0930⚙
Watchdog zone time 2	Setting monitoring period at 1600~1730pm for zone 5	⚙500#05#1600#1730⚙
Bedtime	Setting bedtime period at 21:00~22:30 for zone 6	⚙400#06#2100#2230⚙
Get up time	Setting get up time period at 06:00~08:30 for zone 6	⚙500#06#0600#0830⚙

11. 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.

www.GsmAlarmSystem.com