

SimPal-T2

GSM Temperature Monitor

User Manual

V3.1-2024



APP Management and Settings
SimPal GSM



Available on
Google Play



Available on
App Store

SIMPAL-T2 GSM Temperature Monitor

Thank you for purchasing the SimPal-T2.

SimPal-T2 GSM Temperature Monitor is a remote temperature alarm device consisting of a GSM module and a built-in temperature sensor. It needs to work with GSM SIM card. All settings are done by send SMS to this device SIM card number.

Device come with built-in temperature sensor and cable plug-in digital temperature sensor. It will monitor both temperature sensor all the time. Once temperature change crossing the setting range, it will auto send SMS to registered mobile phone number.

The device come with built-in power capacitor, It will send SMS when 230V power lost and power resumed.

The product mainly applied for house and office usage and widely uses in computer room, warehouse, baby room and elderly room etc.

All services and functions need to be supported by the GSM network and a SIM card.

This brochure suits for SimPal-T2 model.

Details of the functioning and advanced operation of this device are described in this instruction manual.

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1. Purchase a GSM SIM card (mobile phone card) from GSM network service provider and install it in the device. This SIM card number is referred as SimPal-T2 number on this brochure.
2. Request to disable PIN code of the SIM on your mobile phone before install onto SimPal-T2.
3. Request to use big size SIM card, forbid to insert micro or nano SIM card avoid broken SIM card slot.



For your safety

- Before using this device, make sure that the mobile phones device allow using in the area, otherwise, do not Use this device.
- This device was designed for indoor use. Don't use it in wet, chemically aggressive or dusty environment.
- Do not open the case unless maintenance needed.
- Do not keep shaking or fall down this device, otherwise it can be damaged.
- SimPal-T2 is a wireless signal transmission device. Keep it away from electronic equipment likely to interfere with the wireless signals, in order to avoid signals interference.
- Do not use this product when entering areas marked "Explosive", "Might explode" etc.
- Do not cast this device in a fire, as this may cause explosion.
- Keep the device and its accessories out of the children reach.
- Forbid to remove the power plug parts separately.

Exception clause

1. We operate on a policy of continuous development. We reserve the right to make changes and improvements to any of the device described in this document without prior notice.
2. For the latest device information, please visit: <http://www.simpal.cn>. We don't guarantee for the document veracity, reliability or any content except regulate in proper laws. Including no guarantee for device suitable market or suitable area promise.
3. We hold no responsibility for the illegal use of this device
4. We hold no responsibility for any loss of income or any special, incidental, consequential or indirect damages howsoever caused.
5. The contents of this document are provided "as is". Except as required by applicable law, no warranties of any kind, either expressed or implied, including, but not limited to the accuracy, reliability or contents of this document. We reserve the right to revise this document or withdraw it at any time without prior notice.

Chapter 1 Device instruction

1.1 Device instructions

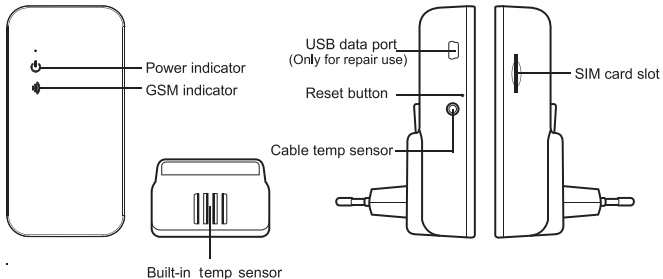
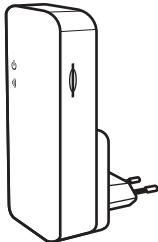


Figure 1: Device instructions

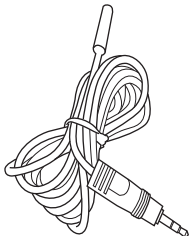
1.2 Light indicator

Indicator	Status	Device function
Power Indicator	OFF	No power supply input
	Constant light	230V AC power connected
GSM Indicator	Flash slowly	Searching GSM network.
	Flash fast	<ul style="list-style-type: none">• Sending SMS• Can not recognize SIM card• Can not register GSM network
	Breath flash	Working in standby mode

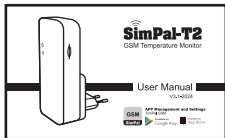
1.3 Package contents



GSM Temperature Monitor
(1 PCS)



Temperature sensor
(1 PCS)

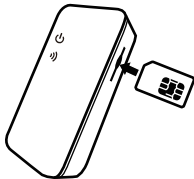


User manual
(1 PCS)

Chapter 2 Operation guide

2.1 Installation

- The device use big size SIM card. Insert the SIM card to card slot, ensuring the golden contact is upside, and beveled corner is same direction as icon show on SIM card slot.
- Firmly push the SIM card until hearing a lock sound.
- Insert the cable temperature sensor into the 3.5mm audio socket until it is seized.



2.2 Power on

Power on:

Plug the SimPal-T2 into wall socket for AC power supply, the device will start working. The power LED will constant light, the GSM LED will light one second and then off 3-4 seconds. After recognizing the SIM card, the GSM LED will flash slowly indicated that it is searching GSM network. Once registered GSM network, it will beep ring and GSM LED is breath flash.

Power off:

Plug out the device from 230V AC power socket, it will power off.



Note:

If the GSM indicator light always flash fast, which imply the SIM card working abnormally, all functions of this device are invalid.

2.3 Download APP

It can download APP to control the SimPal-T2 device, all settings can be done via APP. The APP is available on Google Play and Apple Store. Search "SimPal GSM" to download the APP.



APP Management and Settings

SimPal GSM



Available on
Google Play



Available on
App Store

2.4 Define the users

Only one Master and four Users have authorization to use the device. Device will ignore SMS from other mobile phone number.



Note for SMS commands:

- The “#” symbol must not be ignored when typing an SMS command.
- No allow any space within all commands.

2.4.1 Define the Master number

If device is being used for the first time, or it has been reset to factory settings, the Master user's number must be programmed into the device.

Edit and send following SMS to the device via mobile phone (the phone number will be the **Master** number) in order to:

Register Master number: #00# (1)

- **Successful SMS reply**

Welcome! Master's number has been registered.

After register Master number to the device, The Master allow to transfer the master number to a new number. The Master user sends following SMS message in order to:

Change master number: #10#New-Master# (2)

 NewMasterNumber should be the new Master user's mobile phone number.

The SMS reply will be sent to the new Master user. Then the old Master number will not be able to control the device anymore.

2.4.2 Add User number

Up to 4 User number can be stored on one device.

Users have the authority to check temperature value and receive the temperature alarm message (refer to command 8 and 9).

Master edit and send following SMS:

Add a User number: #08#User-Number# (3)

Check User number: #08# (4)

Delete a User number: #09#User-Number# (5)

Delete all User numbers: #09# (6)

SMS to User - ON (default): #05#1# (7)

SMS to User - OFF: #05#0# (8)

2.5 Check temperature value

- **Method**

Master or User sends following SMS message to:

Check built-in sensor's temperature: #01# (9)

Check cable sensor's temperature: #16# (10)

2.6 Temperature alarm

A range of temperature can be pre-set onto the device. If the surroundings temperature is detected crossing the temperature range, the device will send SMS alarm message to users' mobile phone.

2.6.1 Built-in temperature alarm


- **Method**

Master or User sends following SMS message to set:

Built-in sensor temperature alarm range: #03#MinTemp#MaxTemp# (11)

Built-in temperature alarm – ON: #02#1# (12)

Built-in temperature alarm – OFF (default): #02#0# (13)

 **MinTemp** and **MaxTemp**: The values are whole numbers, can be set within the range of -10 to 50 centigrade degree.

2.6.2 Plug-in temperature alarm


• Method

Master or user sends following SMS message to set:

Plug-in temperature alarm range: #17#MinTemp#MaxTemp# (14)

Plug-in temperature alarm - ON: #16#1# (15)

Plug-in temperature alarm - OFF (default): #16#0# (16)

 **MinTemp** and **MaxTemp**: The values are whole numbers, can be set within the range of -50 to 100 centigrade degree.

2.6.3 Auto report temperature

It can set device auto report temperature according weekly schedule, this can make sure device is online and know the temperature value is in normal range.




• **Method**

Master or user sends following SMS message to set:

Report temperature day time: #21#day#time1#time2#time3#time4# (17)

Auto report temperature - ON: #21#1# (18)

Auto report temperature - OFF (default): #21#0# (19)

-  Day value can be 1-7, means from Monday-Sunday, it can be combined with several day values. for example 12, means Monday and Tuesday.
-  Time value is four digits, means hour and minutes. It can set max four time points.
-  Example command #21#1234567#1800#, it means auto report temperature from Monday - Sunday at 18:00.

2.7 Rapid temperature change alarm

A time period value and temperature value can be pre-set onto the device. When surroundings temperature change higher than this value within the pre-set time period, a SMS alarm message will be sent to user's mobile phone.

- **Method**

Master user sends following SMS in order to set:

Time period and temperature delta value: #14#Temp#Time# (20)

- **Delta value:** the range is 3 to 20.
- **Time:** The time range is 1 to 10 minutes.
- Default **delta** is 5 degree and **Time** is 3 minute.

Rapid temperature change alarm - ON: #13#1# (21)

Rapid temperature alarm - OFF (default): #13#0# (22)

2.8 Power failure alarm

Device will notify the user when the external AC power is lost or resumed. It will send SMS to user mobile phone. This function default is turn on, it can send SMS to disable this function.

- **Method**

Master user sends following SMS in order to set:

SMS when power fails and resumes - ON (Default): #04#1# (23)

SMS when power fails and resumes - OFF: #04#0# (24)

2.9 Allow anyone check temperature

It can set allow anyone send SMS #01# or #16# to check temperature, it only allow check temperature, do not allow to make other settings for no-register mobile phone numbers.

- **Method**

Master user sends following SMS message to set:

Allow anyone to check temperature- ON: #06#1# (25)

Allow anyone to check temperature- OFF (default): #06#0# (26)

2.10 Weak GSM signal alarm

Device can send a SMS notification when the GSM signal strength is too weak. The Master or User can enable/disable this SMS notification.

- **Method**

Master user sends following SMS message to set:

SMS when weak GSM signal - ON: #15#1# (27)

SMS when weak GSM signal - OFF (default): #15#0# (28)

2.11 Reset factory settings

- This function resets all programmed settings to their original values, including cleaning all user number and temperature parameter.
- If the setting status is wrong or the malfunctions can't be corrected, users can restore the device to its original status to make it work normally.



Note

This function needs to be used carefully as it also erases all device settings.

- **Method**

Method 1: Press the reset button for 1 seconds.

Method 2: Master user sends following SMS message to:

Reset device factory setting: #12#1234#

(30)

Chapter 3 General Troubleshooting

No.	General Trouble	Possible Reason	Solution
1	Power indicator light turns off	No power input.	Check external AC power is available.
2	GSM Indicator light flash all the time	Can't find or identify the SIM card.	SIM card no install properly: Plug out and check the SIM card again.
3	The device didn't response of any operation.	The device works abnormally.	Plug it off from the AC power, check SIM card, or reset it to factory setting.

No.	General Trouble	Possible Reason	Solution
4	After power on the device, GSM indicator keeps flashing.	Poor GSM signal	It may installed location poor GSM signal, place the device at other place with strong signal and try again.
		SIM card PIN code actives.	Disable SIM card PIN code.
		SIM card invalid.	Contact with local operator to check of it.
5	The master number already exists.	Another master number already set in the device.	Reset factory setting to delete old Master.

Note: If the problem can't be solved with above guidelines, contact to your local distributor or after service center.

Chapter 4 Main Technical Parameters

Power input of device	110~250V AC/ 12V DC CEE 7/7 hybrid Schuko/French plug
Operating temperature	-10 °C ~+50 °C
Store temperature	-20 °C ~+60 °C
Relative humidity	10-90%, without condensation
Communication protocols	GSM PHASE 2/2+ (including data operation)
Data interface	GSM SIM 1.8V/3.0V device
Built-in temperature sensor range	-10°C~50°C (±2C)
Cable temperature sensor range	-50°C~100°C (±1C)
GSM working band	900/1800Mhz

Appendix: SMS commands list

Category	Function	Command
Define the users	Register Master number	(1) #00#
	Change Master number	(2) #10#New-Master#
	Add a user number	(3) #08#User-Number#
	Check User number list	(4) #08#
	Delete a User number	(5) #09#FamilyNumber#
	Delete all User numbers	(6) #09#
	SMS to users – ON (default)	(7) #05#1#
	SMS to users - OFF	(8) #05#0#
	Check built-in temp	(9)#01#
	Check cable temp	(10) #16#

Category	Function	Command
Temperature alarm	Set built-in temp alarm range	(11) #03#MinTemp#MaxTemp#
	Built-in temp alarm - ON	(12) #02#1#
	Built-in temp alarm – OFF (default)	(13) #02#0#
	Set cable temp alarm range	(14) #17#MinTemp#MaxTemp#
	Plug-in temp alarm - ON	(15) #16#1#
	Plug-in temp alarm – OFF (default)	(16) #16#0#
Auto report temperature	Set auto report temperature day time	(17) #21#day#time1#time2#time3#time4#
	Auto report temperature - ON	(18) #21#1#
	Auto report temperature - OFF (default)	(19) #21#0#
Rapid temperature change	Set rapid temp change alarm value	(20) #14#Delta#Time#
	Rapid temp change alarm - ON	(21) #13#1#
	Rapid temp change alarm - OFF (default)	(22) #13#0#

Category	Function	Command
SMS notification	SMS when power failure - ON (default)	(23) #04#1#
	SMS when power failure - OFF	(24) #04#0#
	Allow anyone to check temperature - ON	(25) #06#1#
	Allow anyone to check temperature - OFF (default)	(26) #06#0#
	SMS when weak GSM signal - ON	(27) #15#1#
	SMS when weak GSM signal – OFF (default)	(28) #15#0#
Reset device	Reset to factory settings	(29) #12#1234#



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