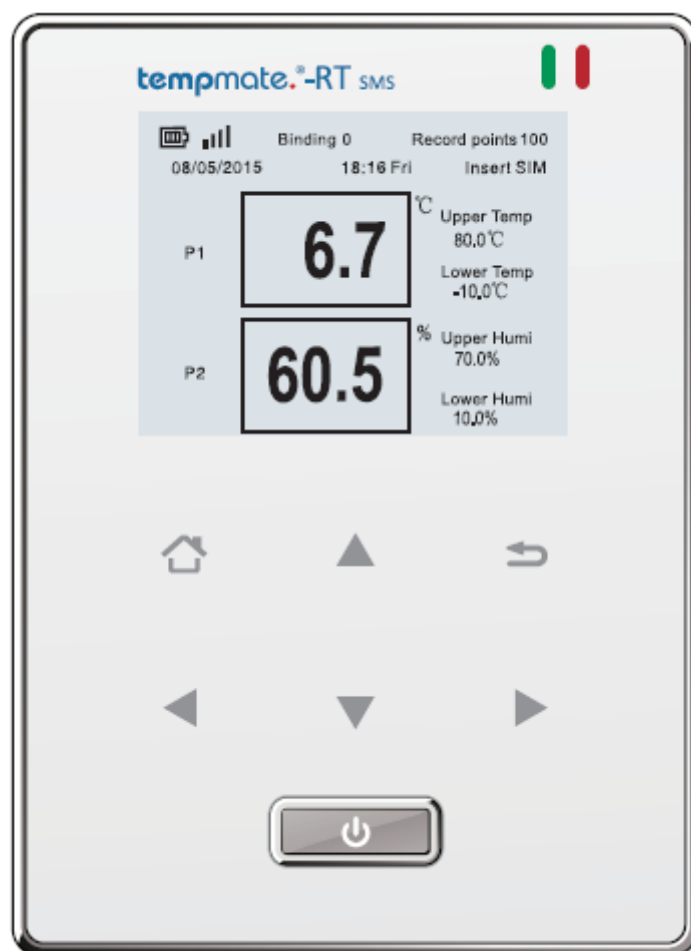


# tempmate.<sup>®</sup>-RT SMS



# Chapter I Product Introduction

## 1.1 Overview

**tempmate.®-RT SMS** is a high-tech SMS alarm thermometer. It effectively solves the problems of cold storage temperature and humidity abnormality caused by human monitoring error, thus avoiding economic loss and hidden danger.

**tempmate.®-RT SMS** completely complies with the latest GDP standard and can be widely used in industries of pharmaceuticals, foodstuffs, catering, logistics, HACCP system certification, etc.. In case of temperature/humidity abnormality, **tempmate.®-RT SMS** will immediately alarm by sending SMS and beeping buzzer.

Various probes are available. For example, users can select one temperature sensor with two probes (standard) or one temperature/humidity combi sensor based on their actual needs. **tempmate.®-RT SMS** has built-in rechargeable lithium battery, so it can provide real-time SMS alarm service even in case of cold storage power outage.

## 1.2 Features and functions

- Real-time monitoring of temperature, humidity and running status of the cold storage.
- SMS alarm in case of temperature or humidity alarm.
- Keep working for at least 20 hours after power supply is disconnected.
- Record cycle could be flexibly adjusted according to the real situation.

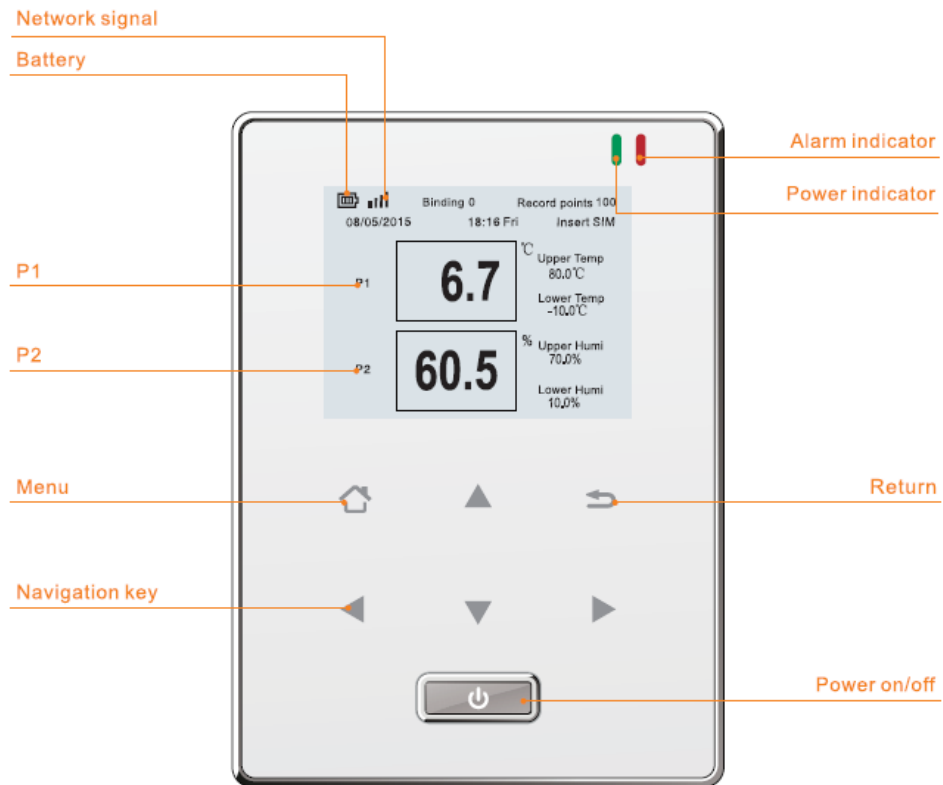
## 1.3 Technical parameters

- Power supply: 5V/1A (DC); It can connect with power supply of 220V, 50/60HZ by external power adapter.
- Temperature measuring range: -50°C~99°C;
- Temperature accuracy:  $\pm 1^{\circ}\text{C}$  (-25 °C~0°C);  $\pm 0.5^{\circ}\text{C}$  (0°C~40°C);  $\pm 2^{\circ}\text{C}$  (others); (If sensor wire is longer than 50m, the accuracy deviates 1 %.)
- Temperature resolution: 0.1;
- Humidity measuring range: 10~99%RH;
- Humidity accuracy:  $\pm 5\%\text{RH}$ ;
- Temperature sensor type: NTC;
- Humidity sensor type: Honeywell;
- Record cycle: 1 min to 24 hours continuously set;
- Applicable environment: temperature -10 °C~45 °C; relative humidity 0~95%; Indoor use only, prohibited from exposure to rain and sun.
- Alarm output: indicator, short message, phone and buzzer;
- Communication interface: SMS;
- Standby battery: 3.7V 1100mAH lithium battery.
- Dimensions: 11,0cm x 8,0cm x 3,0cm (L x W x H)

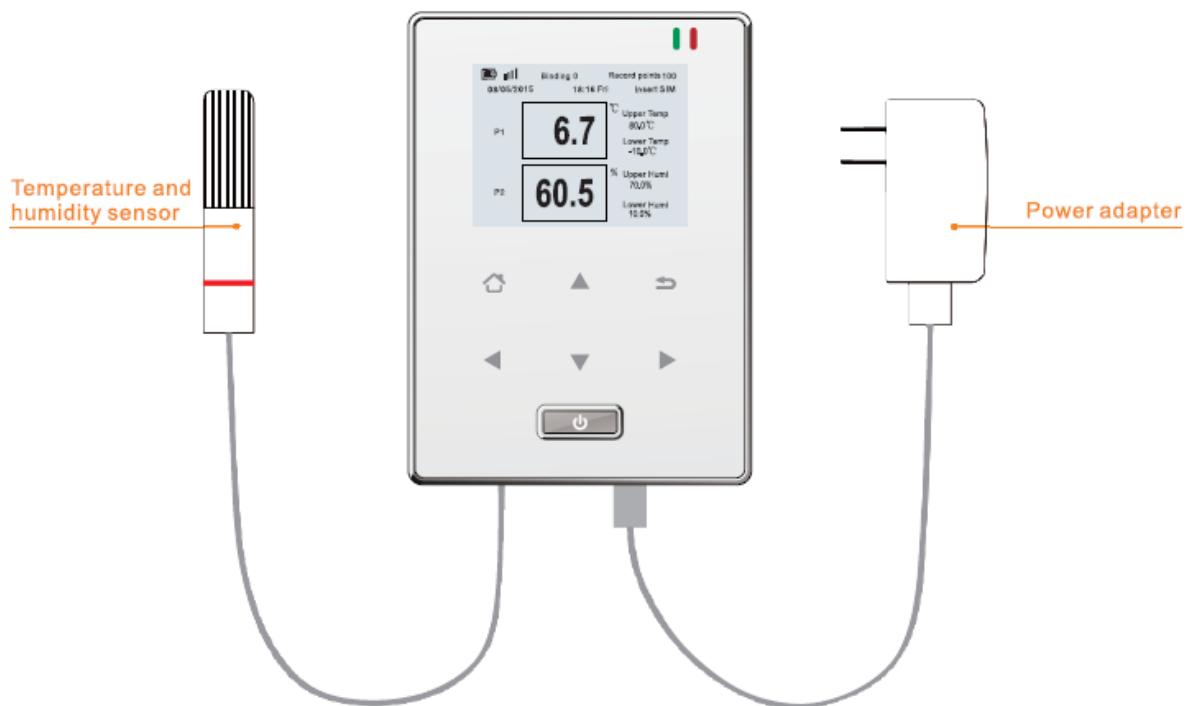
## Chapter II Instructions for Use

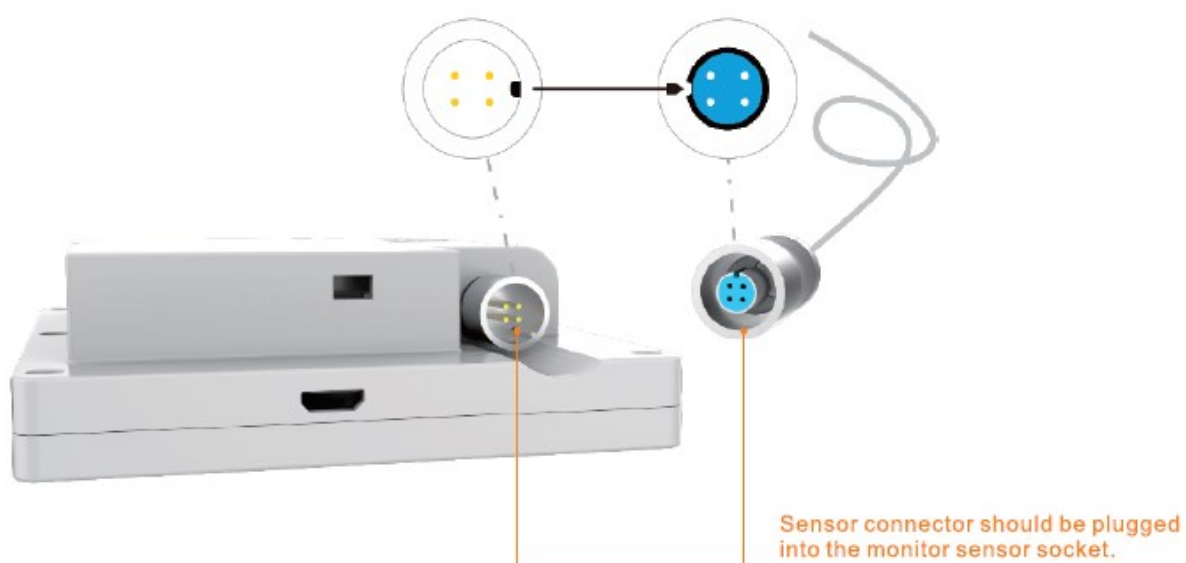
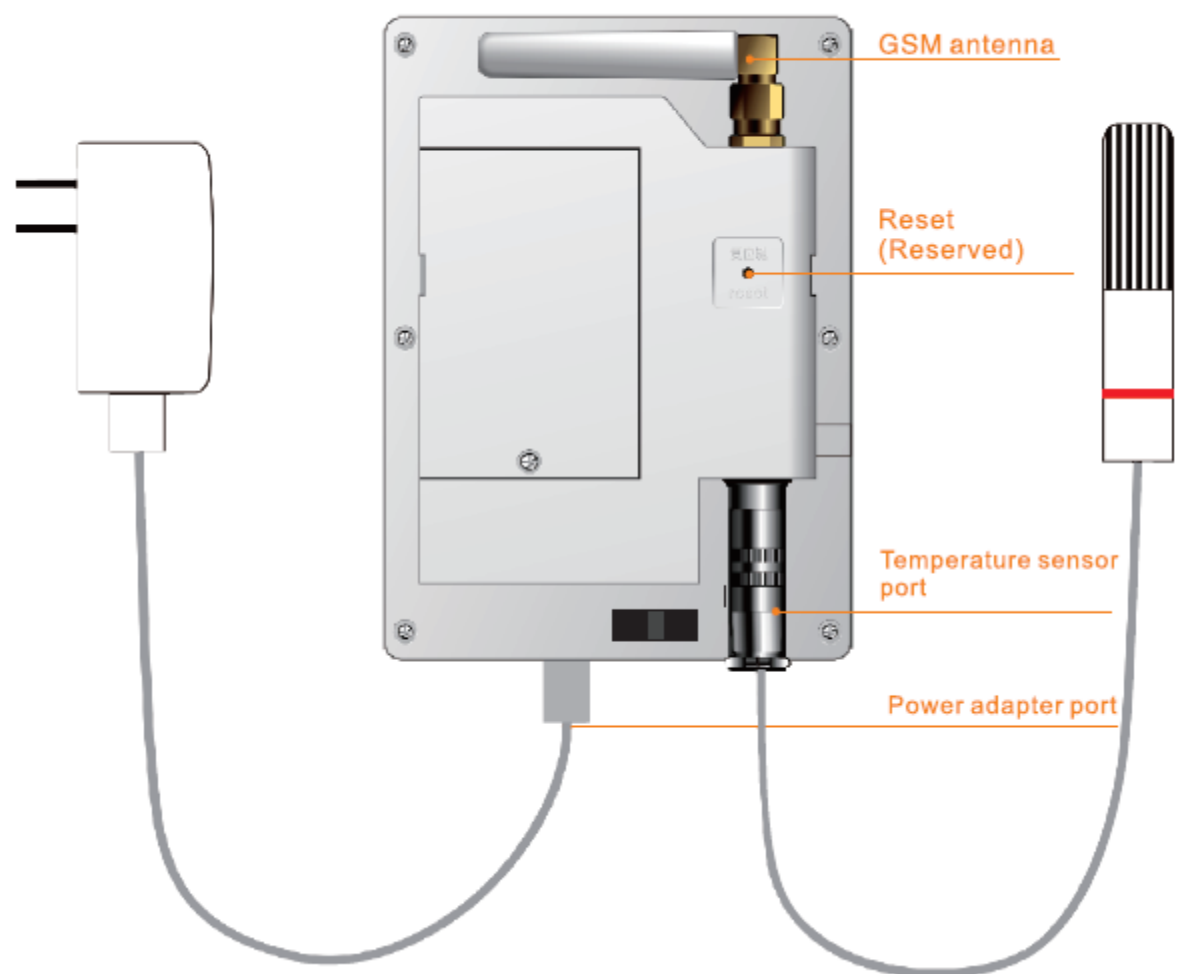
### 2.1 Device operation procedure

#### 2.1.1 Product introduction



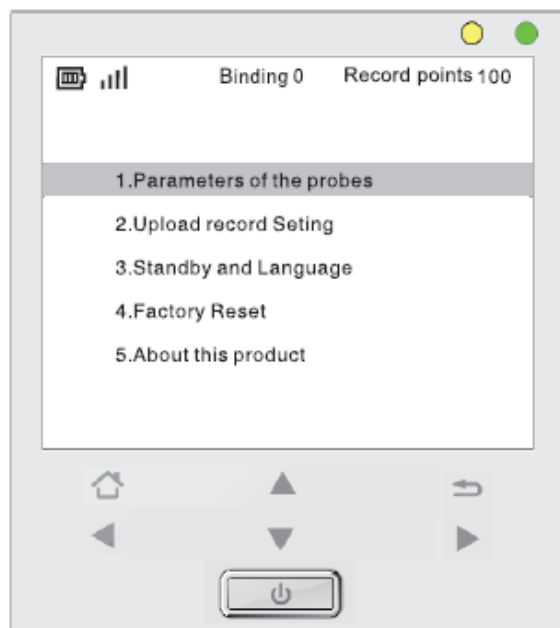
#### 2.1.2 Installation instruction






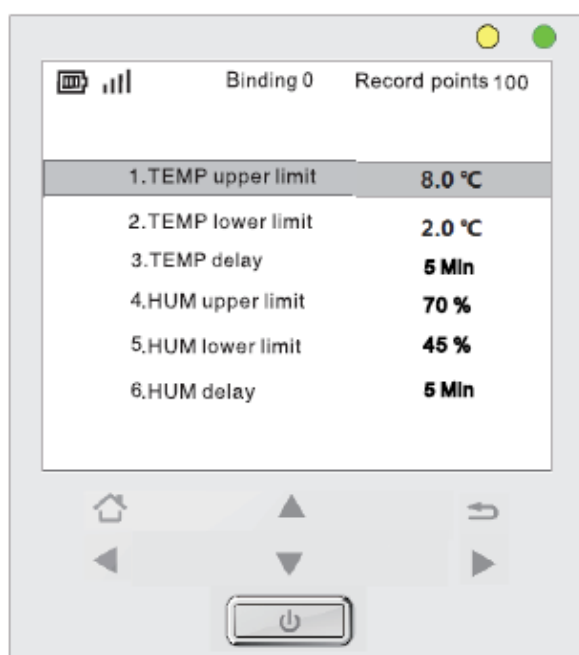
### Sensor installation instruction

## 2.1.3 Operating instructions



### On/Off

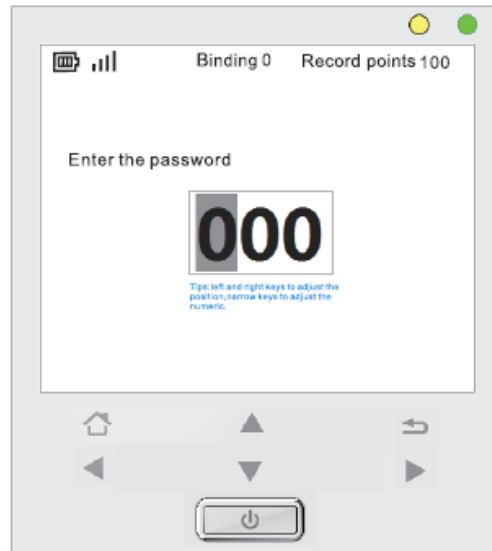
1. First you have to install the SIM card by opening the lid on the lower right side of the device. Please ensure that the PIN of the SIM card is deactivated. Then Press and hold the On/Off key for 3 seconds, to power on **tempmate.°-RT SMS**.
2. When **tempmate.°-RT SMS** is switched on for the first time (or reset to factory defaults), it will display "Operation guide". Press the Menu button  to enter the main interface (Other buttons are disabled at the moment).
3. Press and hold the On/Off key for 3 seconds to switch off **tempmate.°-RT SMS**.









## Main interface

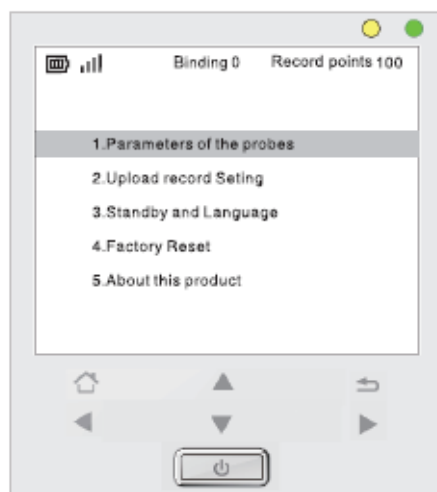
1. GSM signal strength: **tempmate.**®-RT SMS has searched the signal currently.
2. Bound cellphones: it displays bound cellphone amount.
3. Alarm indicator: it does not light in normal status; it flashes once a second during temperature alarm.

## Parameter settings



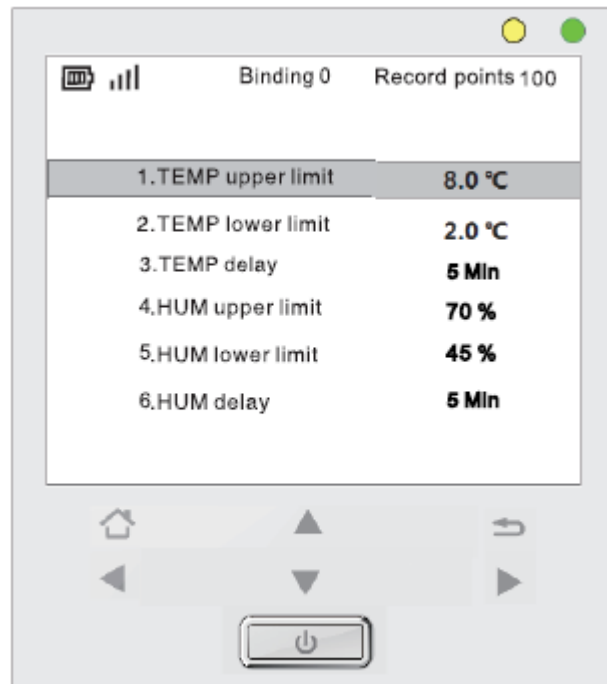
### Password validation

1. In the “Main interface”, press  to enter the interface of “Enter password”.
2. Press  and  to adjust the digit position; press  and  to adjust the value.
3. After inputting the password, press  to enter “Parameter settings” interface.




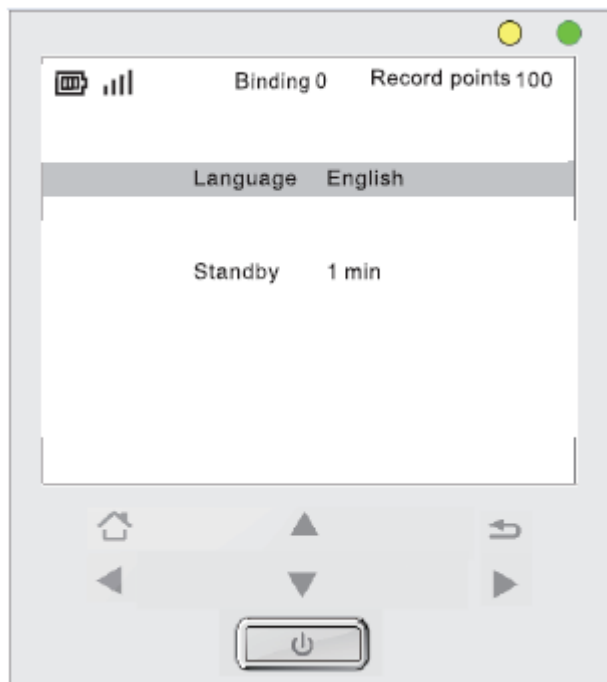
### “Parameter settings” interface

1. You can set alarm parameter, screen standby, language and factory reset on this interface.
2. Select “Alarm parameter settings” to set alarm parameters.




### Set alarm parameter

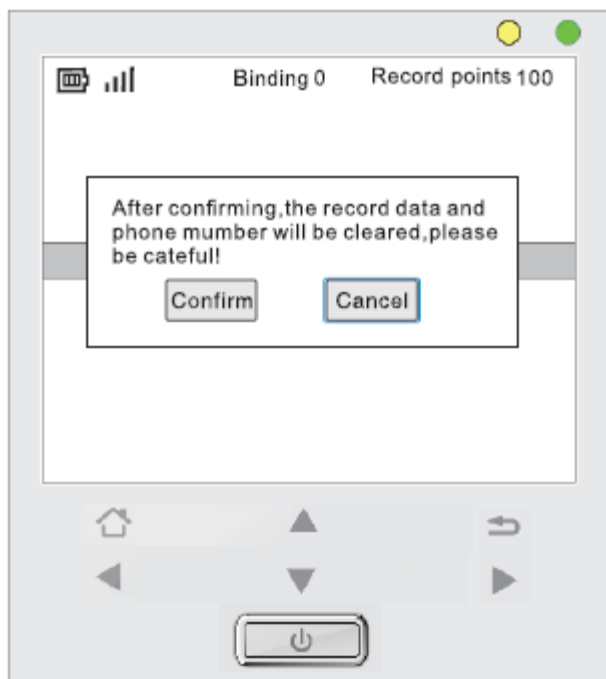
1. Temperature range: -50°C~99°C; humidity range: 10~90%RH; press ◀ and ▶ to adjust the value.
2. Press ◀ and ▶ to select alarm delay value within 0~90 minutes.
3. Press the Return button  to save the parameters.






## Screen standby and language selection

1. Select language: Press ◀ and ▶ to switch language.
2. Screen standby: three modes are available: 1 min, 5 min and off. The default setting is 1 min. Please press ◀ and ▶ to select your desired mode.
3. Press  to save the parameters and enter "Parameter settings" interface.


## Reset to factory defaults



## Factory defaults reset

1. Press ◀ and ▶ to switch Yes/No.
2. If you select Yes, press  and a dialog box will pop up to ask you to confirm or cancel factory defaults reset.  
When you press  the monitor resets to factory defaults, i.e. all the record points and bound cellphone numbers will be cleared.
3. Press  to save the parameter and enter "Parameter settings" interface.

## About the monitor

1. Interface: software version, ID and help.
2. Software version: the current software version.
3. ID: the ID code (a figure with 20 digits) for each device.
4. Help: press ▲ and ▼ to select "Help", press  and the "Operation guide" interface will pop up.



## 2.2 Cell phone operation guide

### 2.2.1 Cellphone binding

(1) When SIM card is installed, connect the power supply of the monitor. After three minutes the network signal appears in LCD display. Then you can start to bind cell phone one minute later.

(2) If you use the monitor for the first time, please send text message **"BP"** by your cellphone to the **tempmate.®-RT** SMS phone number. Once receiving a confirmation message that it has been successfully bound, you can operate according to SMS prompts.

(3) Other common users can send text message **"BP"** by cellphone to the **tempmate.®-RT** SMS phone number. It will be OK once a confirmation message is received that it has been successfully bound.

(4) The one who first binds his/her cellphone is the administrator and has the authority to modify the command parameters. For details, you can send **"CODE"** for reference. You can also refer to the part "2.2.2 SMS alarm command list."

### 2.2.2 SMS alarm command list

In the following table, 「xxxxx」 represents SMS content cellphone users send to the monitor. SMS content does not include the symbol 「 」.

SMS alarm administrator command

Items	Message user sent	Message device received	Notice
Bind cellphone	「BP」	Thanks for using the monitor, and you are administrator! Send 「qs」 to query status of cold storage; send 「code」 to query all command codes; send 「cp」 to cancel binding; send other cellphone number to bind that cellphone.	After sending bp, device time is automatically synchronized to local time.
		You have been administrator, please don't bind repeatedly.	When the cellphone number is repeatedly bound.
		The binding number reaches its upper limit, binding fails.	
Set temperature	「TH**L**」	Set success, temperature upper limit: **°C, temperature lower limit: **°C.	If the alarm value is lower than 0°C, the symbol "-" shows before the temperature value; For dual channel temperature, this setting will be valid for both channels; if the second channel is for humidity, this setting will be only valid for the first channel temperature.
		Set invalid, temperature range: -50~100°C; and temperature upper limit should be higher than	When set temperature is over 100°C or lower than -50°C, or upper limit is lower than lower

		temperature lower limit.	limit, it will prompt this message.
Set Humidity	「HH**L**」	Set success, humidity upper limit: **%; humidity lower limit: **%.	Set humidity alarm value.
		Set invalid, humidity range: 1~100%RH; and humidity upper limit should be higher than humidity lower limit.	When set humidity is over 100% or below 1%, or upper limit is less than the lower limit, it will prompt this message.
		The device has no humidity sensor, setting invalid	When this monitor has no humidity probe, you will receive such reply.
Set Alarm Delay	「DA **」	Set success, alarm delay xx min.	“xx” is alarm delay time; default: 5 min; range: 0~90. Only administrator can set this value.
		Set invalid, alarm delay range 0~90 min	When the setpoint is not within the range of 0~90 min, you will receive such prompt.
Change push time	「PTxxx」	Set success, timing push interval is xxx	
		Set invalid, hours in 168 hours, range 0-168	
Deactivate Push	「PT000」	Push cancel success	
Change sensor name	「P1xxx」	Sensor 1 is renamed to xxx	Sensor name has Max. 6 characters.
		Set invalid, only could change name of sensor 1 and sensor 2 with max 3 characters	If over 3 character, it will automatically intercept first three characters.
Change sensor name	「P2xxx」	Sensor 2 is renamed to xxx.	Sensor name has Max. 3 characters.
		Set invalid, only could change name of sensor 1 and sensor 2 with max 3 characters	If over 3 character, it will automatically intercept first three characters.
Query cold storage status	「QS」	(Reply) sensor1 12.1°C, temperature normal; sensor 2: 40%, humidity normal; power supply normal.	You can query the current temperature and power status of the cold storage.
		(Reply) sensor1: -12.1°C, temperature normal; sensor2 40%, humidity normal; power supply normal.	
		(Reply) sensor1: -12.1°C, temperature normal; sensor2: 24°C, temperature normal; power supply normal.	
Delete phone	「CP」	Administrator identification is deleted and cellphone is unbound.	At the time deleting the cellphone, the count of bound cellphones in LCD will also

			decrease 1 automatically. If it has bound several cellphones, when administrator's cellphone is unbound, the position will be kept and the next new user who binds his cellphone will become administrator.
Bind other numbers	「*****」	xxxxxxxxxx successfully bound.	“xxxxxxxxxx” is cellphone number. The administrator can bind other user's number. To avoid troubles, please ensure the cellphone number you enter is correct (e.g. +49 = 0049). The bound cellphone will receive a message.
Query all bound cellphone	「QP」	① xxxxxxxxxxxx; ② xxxxxxxxxxxx.	You can query the bound cellphone amount and corresponding numbers.
Delete other numbers	「DP*****」	xxxxxxxxxx unbound.	Administrator could unbind other bound cellphones.
Change password	「PW***」	Password change success, new password is xxx.	After saving the modified password, you have to enter the new password to bind cellphone.
Query all command code	「CODE」	Sen「qs」to query all bound numbers; send 「dpxxxxxxxxxx」 to cancel other users' cellphone numbers; send 「pwxxx」to change password; send 「pt xxx」to set push time; send 「h**l **」 to set alarm temperature; send 「daxx」to set alarm delay; send 「cp」 to unbind the cellphone; send 「P1xxx」to rename sensor 1 to be xxx.	You can query all the commands of the monitor through this command.
Wrong command		Wrong command, send 「code」 to query all command code.	Only bound cellphone users receive this message when wrong command is sent.
When common users send other commands		Permission denied, please contact with administrator.	

### SMS alarm command for common users

Items	Message user sent	Message device received	Notice
Query cold storage status	「QS」	(Reply) sensor1 12.1°C, temperature normal; sensor 2: 40%, humidity normal; power supply normal. (Reply) sensor1: -12.1°C, temperature normal; sensor2: 24°C, temperature normal; power supply normal.	Query current temperature and power supply status of cold storage.
When bound by the administrator		Thanks for using! Your cellphone has been bound. Send 「code」 to query all command codes.	
When unbound by administrator		Your cellphone has been unbound by the administrator.	
When common users send other commands		Permission denied, please contact the administrator.	

### Push message cellphone received

Items	Message received	Notice
Timing push	(Push) P1 12.1°C, temperature normal; P2 40%, humidity normal; power supply normal. (Push) P1 -12.1°C, temperature normal; P2 24°C, temperature normal; power supply normal.	
Temperature/humidity alarm	(Alarm) P1 30.4°C, over temperature upper limit; the device is alarming now! To cancel alarm, please dial the phone of the device. (Alarm) P2 50%, over humidity upper limit; the device is alarming now! To cancel alarm, please dial the phone of the device. (Alarm) P1 30.4°C, over temperature lower limit; the device is alarming now! To cancel alarm, please dial the phone of the device. (Alarm) P2 50%, over humidity lower limit; the device is alarming now! To cancel alarm, please dial the phone of the device.	
Sensor abnormality	(Alarm) Sensor is disconnected. (back to normal) Sensor is connected.	
Cold storage power outage	(Alarm) Power supply abnormal. Please repair it soon.	
Cold storage power connected	(Abnormality recovered) Power is connected.	
Device power off reminding	(Alarm)The power of cold storage is disconnected and the device will be powered off soon! Please check it ASAP.	

## Chapter III FAQs

### 3.1 Cellphone could not be bound.

- (1) Check if there is signal in LCD display.
- (2) Check if there is enough credit in the monitor's SIM card. Remove SIM card from the monitor and insert it into a cellphone to check.
- (3) Check if there has a stable signal around the monitor.

### 3.2 Cancel phone call alarm

After receiving an alarm message or alarm call, dial the monitor's phone, alert can be canceled when you hear the hanging up of the monitor.

### 3.3 Big temperature and humidity data error

- (1) Do not put probe lines and high-voltage power lines together.
- (2) If extending probe line, please solder the connection points by tin solder to ensure a good connection.

## Chapter IV Accessory

### 4.1 Standard Accessories

- One **tempmate.**®-RT SMS device (with wall mount)
- One Dual-Temperature Sensor (with 5m wire)
- One User Manual
- One Power Adapter

### 4.2 Optional Accessory

Temperature/Humidity Combi Sensor

## Manufacturer Contact

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Lilienthalstr. 23  
74078 Heilbronn  
Germany

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Tel: +49-7066-9150230