WIRELESS THERMOSTAT

INSTALLATION INSTRUCTION

SA-GPT22Eng-1

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1. Operation guidelines

This wireless thermostat is for PTAC unit control. The LCD screen displays the operating status.

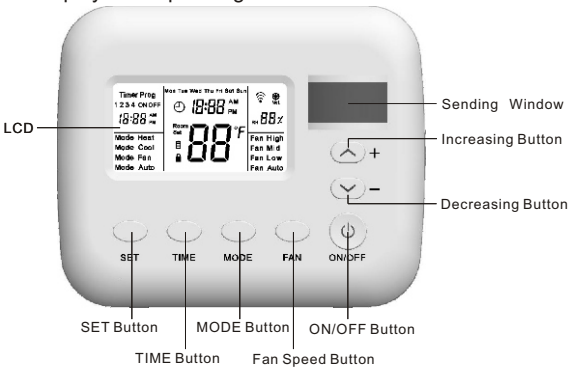

Fig. 1

There are 7 buttons on the wireless thermostat. After very first power on, the LCD screen displays all characters and then enters ready mode. Initial value of the thermostat real time is 0:00AM, Monday. Press "ON/OFF" button to turn on the wireless thermostat, it will enter the default operating mode: cool mode, auto fan speed, set point 25℃ (77℉). By pressing mode button, thermostat performs sequential switching "Cool→ Fan→ Heat→ Cool". Under OFF mode, only "ON/OFF and TIME and SET" buttons are available. When the thermostat is turned on, all buttons are available. Set point, operation mode, fan speed settings and timing functions are displayed with related characters on LCD screen. The details are as follows:

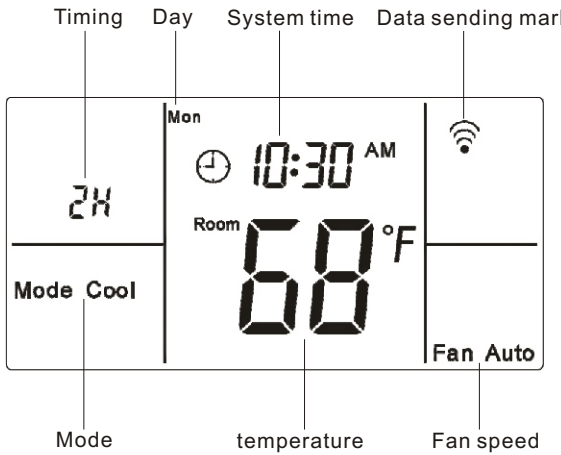

Fig.2

(1) Temperature display: 88°F displays room temperature ("Room" character appears) or set point ("Set" character appears). The set point range is 16℃–32℃ or 61℉–90℉.

(2) Fan speed display: displays Fan High, Fan Low, Fan Auto.

(3) Mode display: displays Heat Mode, Cool Mode, Fan Mode.

(4) Timing display: displays 1–12H.

(5) Day display: displays Monday - Sunday.

(6) System time display: displays real time clock.

(7) Signal sending mark display: is displayed when a control

signal is sent out.

(8) Locking display: When this mark appears, the thermostat is locked, this time only ON/OFF button is available.

(9) Battery condition display: In case this mark appears, control signal sending will become unavailable and you have to replace batteries in time.

Function overview

(1) ON/OFF Button (

)

① Wireless thermostat shall perform sequential switching in the order of "ON→OFF→ON" by each press of this button.

② If it is OFF→ON at the very first power on, the default setting is set point 25℃(77℉), cool mode, auto fan, no timing.

③ If it is OFF→ON not at the very first power on, all settings are the same with the last settings. If any power off, timing function will be cancelled.

④ The ON/OFF button also acts as "ENTER" function during time and menu settings. When these two settings are finished, press ON/OFF to save and exit.

(2) MODE Button (

)

① Wireless thermostat shall perform sequential switching in the order of "Cool→ Fan→ Heat→ Cool" by each press of MODE button.

(3) Decreasing Button ( )

① Set point setting: the set point shall decrease by one degree for each press of this button. The set point shall be lowered in the order of "32℃→⋯→17℃→16℃", or " 90℉→⋯→62℉→61℉".

When the set point reaches 16℃ or 60℉, it will no longer do anything by pressing this button.

② For system real time and day settings (the real time or day will be flashing for prompt). Press this button to decrease time or day.

③ Menu setting: press this button to select parameter.

④ Continuous change is realized by a press and hold of this button.

(4) Increasing Button ( )

① Set point setting: the set point shall increase by one degree for each press of this button. The set point shall be higher in the order of "16℃→17℃→⋯→32℃" or "61℉→62℉→⋯→90℉". When the set point reaches 32℃ or 90℉, it will no longer do anything by pressing this button.

② For system real time and day settings (the real time or day will be flashing for prompt). Press this button to increase time or day.

③ Menu setting: press this button to select parameter.

④ Continuous change is realized by a press and hold of this button.

(5) Fan Speed Button (

)

① At the very first power on, the default fan speed is auto fan speed.

② Under other modes, it shall perform sequential switching in the order of "Fan Auto→Fan High→Fan Low→Fan Auto".

(6) TIME Button (

)

① Set timer in 1–12H by pressing TIME button momentarily.

″Turn off″ unit time is set after thermostat is turned on and ″turn on″ unit time is set after thermostat is turned off.

② Press and hold the TIME button for 5s to set system real time clock and Day. When minute is flashing, you can now set minute by + or − button.

③ After finishing minute setting, press TIME button again and hour will be flashing. You can now set hour by + or − button.

④ After finishing hour setting, press TIME button again and Day will be flashing. You can now set day by + or − button.

⑤ After setting, 5 seconds later thermostat will save it automatically.

(7) Setting Button （SET）

① Press and hold the SET button for 5s to enter menu setting, C1 will display as shown in Fig.3 & Fig.4. This time, you can select the temperature scale by pressing the decreasing − or increasing + button.

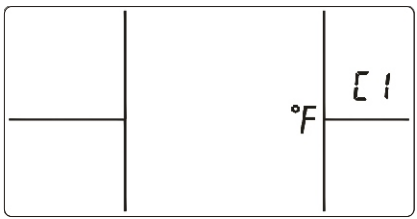

Fig.3 C1（displays in Fahrenheit）

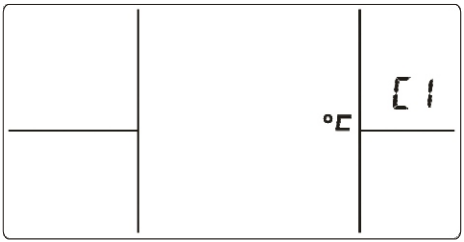

Fig.4 C1（displays in Celsius）

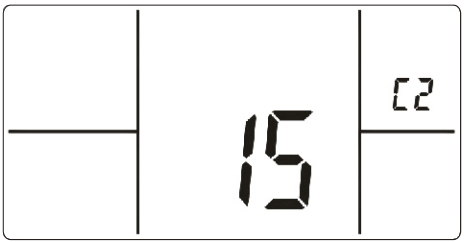

Fig.5 C2（auto sending cycle, unit in minute）

② Momentarily press the SET button to skip to next setting. The menu sequence is: C1→C2→C3→C4→C5→C6→C7→C8→C1.

Interfaces of C2–C8 are as below:

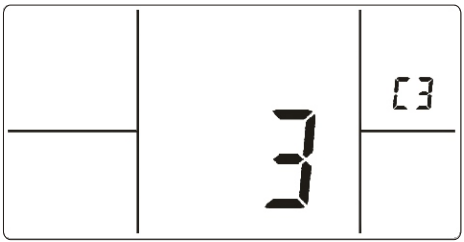

Fig.6 C3（brightness of backlight）

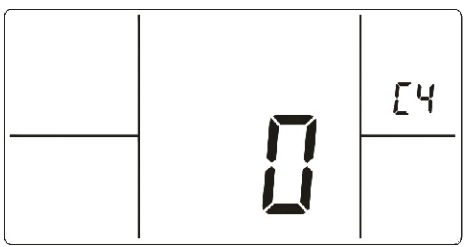

Fig.7 C4（buttons are unlocked）

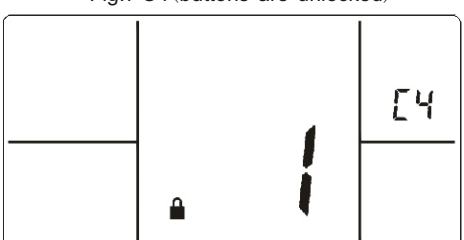

Fig.8 C4（buttons except ON/OFF are locked）

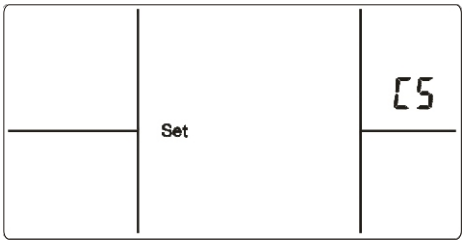

Fig.9 C5（displays set point）

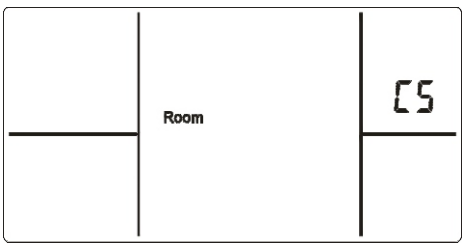

Fig.10 C5（displays room temperature）

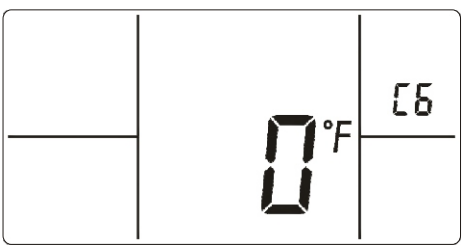

Fig.11 C6（temperature calibration）

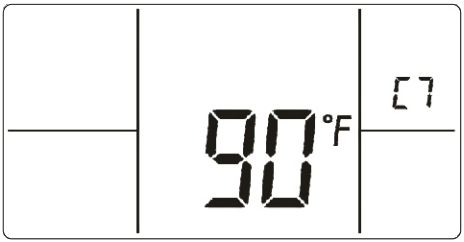

Fig.12 C7（maximum set point for heating）

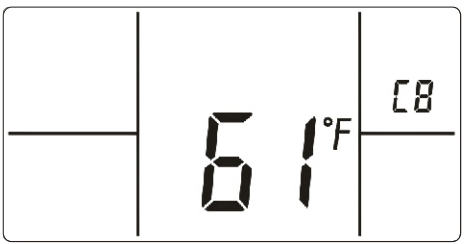

Fig.13 C8（minimum set point for cooling）

③ For about 5s after setting is completed, parameter will be saved automatically and it exits the setting interface. Press ON/OFF button will save parameters and exit the setting immediately.

Menu NO.	Definition	Description	
C1	temperature scale	Fahrenheit(℉) (default)	Temperature scale is Fahrenheit.
		Celsius(℃)	Temperature scale is Celsius.
C2	Control signal auto sending cycle	1– 20 minutes (default: 15)	Automatically send out the last control signal every 15 minutes (default).
C3	Back light brightness	0 – 10 (default 3)	LCD screen back light brightness grade.
C4	Button Lock	0 (default)	All buttons are free.
		1	Only ON/OFF button is available, Other buttons are locked.
C5	Temperature display	Set (default)	Displays set point
		Room	Displays room temperature
C6	Temperature calibration	-9—9℉/-9—9℃ (default: 0)	If you find the room temperature display has some bias, you can calibrate it here. If temperature scale is changed, you had better calibrate it again.
C7	Maximum set point for heating	61-90℉/16-32℃ (default: 90℉/32℃)	If the set point is higher than the maximum heating temperature during setting process, the set point is limited to the maximum heating temperature.
C8	Minimum set point for cooling	61-90℉/16-32℃ (default: 60℉/16℃)	If the set point is lower than the minimum cooling temperature during setting process, the set point is limited to the minimum cooling temperature.

Note: In order to extend batteries' life, when the control effect is not negative affected, it is suggested to set C2 (automatic control signal sending cycle) as 20 minutes. (The wireless thermostat will send the latest control signal to PTAC unit many times automatically in order to make sure the receiver has successfully received the command. If someone stands in front of the sending window, the IR signal may fail to be received, so the design initiates signal sending more than once. The more frequent the sending, the more the power consumption will be.)

2. Thermostat installation

Safety notice

- Installation location shall be far away from high temperature or direct sunlight. Otherwise, the wireless thermostat life would be shortened. It may also cause battery leakage contamination or explosion under high temperature!
- Please read the safety notice carefully before installation.
- Safety notice described below must be observed.
- Meaning of various parts:

⚠ Warning:	The mark indicates that any improper operation may cause casualties or severe injury.
⚠ Notice:	The mark indicates that any improper operation may cause personnel injury or property damage.

- After installation process is completed, please confirm there is no any abnormal phenomenon in trial run. The instruction manual shall be handed to customer for storage.

Icon description

Icon	name	
	It indicates prohibition. Specific content prohibited is expressed with a figure or letter in or around icon.	
	It indicates compulsory. Specific compulsory content is expressed with a figure or letter in or around icon.	
Warning	Entrusted for installation	Please entrust a dealer or professional person for installation. Installation personnel must possess related professional knowledge. Any inaccurate operation in unauthorized installation shall result in fire, electric shock or injury.
Use warning	Prohibition	It is prohibited to spray flammable agent directly to wireless thermostat. Otherwise, it may cause fire.
	Prohibition	No operation by wet hand is permitted. No water is permitted in wireless thermostat, otherwise, it may be damaged.

Warning:

- A dealer or professional personnel shall be entrusted for installation. Imperfect installation done by other personnel may result in electric shock or fire.
- Please observe the instruction manual strictly. Improper installation may cause electric shock or fire.
- Installation shall be done by a professional person. Any improper installation may cause electric shock or fire.
- No random dismounting or installation is permitted. Random dismounting or installation may cause abnormal operation of wireless thermostat . It may result in trouble as well.

The specific installation steps of the wireless thermostat are as shown in Fig.14.

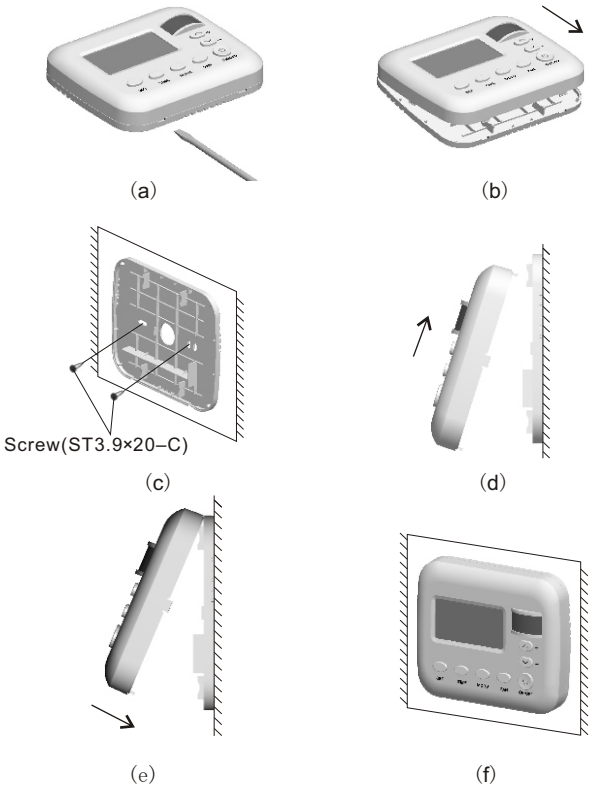

Fig.14

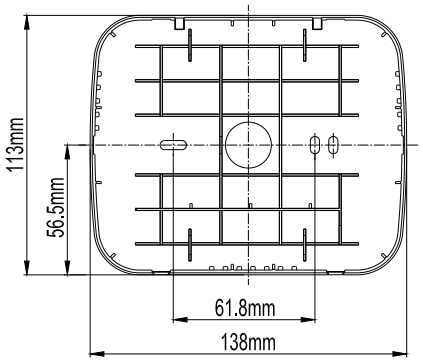

Fig.15

Note: Excessive tightness of screw may result in distortion of back cover.

Installation location

(1). Structure of the senders

In order to meet installation requirements, the 3 senders on the thermostat are fixed in different directions, in order to widen the signal sending angle. Figure 16a&b shows the details.

Fig.16a. Sending window Fig.16b. Structure of senders

(**2**). **Choose location**

In order to ensure better control, there are 3 suggested installation locations for the wireless thermostat. For details, refer to Fig.17.

①. Face right ahead of the receiving window on the PTAC unit (location A).

②. At the left side of 30° angle to the receiving window (location B).

③. At the right side of 30° angle to the receiving window (location C).

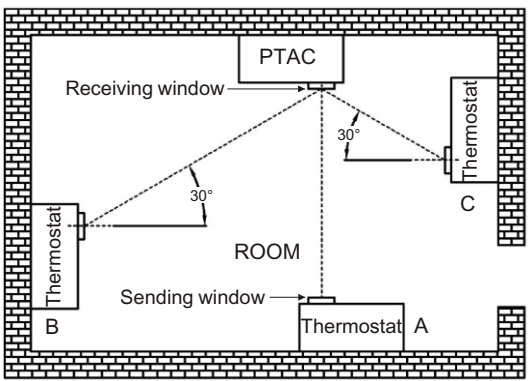

Fig.17. Suggested installation locations.

There should not be obstacles at the dash line to block the control signal.

NOTE: During battery installation, in order to prevent wireless thermostat from being burnt, please guarantee that positive and negative pole of battery are consistent with positive and negative pole icon on the front cover.

3. Thermostat dismounting instruction

If wireless thermostat should be disassembled for replacement of new battery or other conditions, please follow the operation steps below:

(1) . As shown in Fig.18, use slot type screwdriver to clip card slot below the wireless thermostat to pry front cover downwards and open the wireless thermostat. During the whole process, please pay attention to the prying direction so as to avoid part damage.

(2) . After step (1) is completed, wireless thermostat can be opened by moving front cover part along the direction of arrow, as Fig.19 shows.

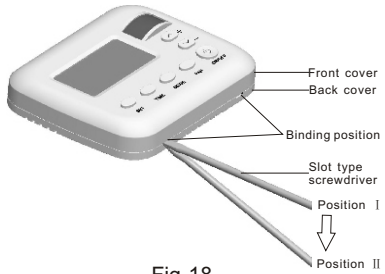

Fig.18

Fig.19

4. Battery replacement

(1). When low battery prompt sign appears on the screen, please replace the 4 batteries of the same specification.

(2). Improper use of batteries of other types than originally supplied may damage wireless thermostat! The whole set (4 in total) of batteries must be replaced for each replacement. It is prohibited to replace only a portion and mix new and old batteries together! Otherwise, new battery life will be shortened and practical use is affected!

(3). In order to prevent system time from being lost during replacement process and causing resetting trouble, you should finish the job within 10s or so. If you fail to do so and system time is rest, you should set the time again.