AC223 Series Touch Screen Thermostat

I. Product Summary:

AC223 Series thermostats are designed to control the fans and valves in air conditioner applications via comparison of the room temperature and setting temperature as reaching the aim of comfort and saving energy.
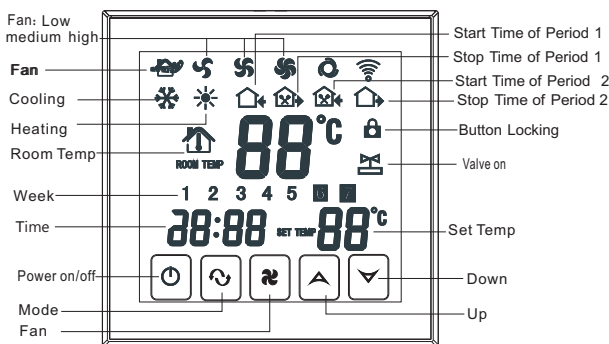
II. Technical Parameter:

Power Supply	AC200~240V, 50/60HZ
Current Load	3A~5A
Power Consumption	<0.5W
External Material	PC+ABS (flame retardant)
Sensing Element	NTC
Set Temp. Range	10℃ - 40℃
Accuracy	±1℃
Dimension	86x86x13.3mm
Ambient Temp.	0-45℃,5-95%RH(Non-condensing)
Storage Temp.	-5~55℃
Installation Box	80x80mm

III. Main Functions and Characteristics

1. Modern design similar as a cell phone.
2. Large glass screen display with White backlight.
3. 2-pipe and 4-pipe for choose.
4. 3 Fan speed+AUTO Fan
5. 5+1+1 day weekly programmable schedule.
6. Room temp calibration function.
7. Selectable 80mmx80mm hidden box.
8. Precise comfort control keeps temperature within1°C of the level you set.

IV. User Interface Explanation

Fan: Low medium high
Fan
Cooling
Heating
Room Temp
Week
Time
Power on/off
Mode
Fan

Start Time of Period 1
Stop Time of Period 1
Start Time of Period 2
Stop Time of Period 2
Button Locking
Valve on
Set Temp
Down
Up

V. Model Definition

AC223 A2 LP 110: 110VAC, Cool Only, 3 fan speeds
AC223 A2 LP 220: 220VAC, Cool Only, 3 fan speeds
AC223 E2 LP 110: 110VAC, 4-pipe, Cool/Heat, 3 fan speeds
AC223 E2 LP 220: 220VAC, 4-pipe, Cool/Heat, 3 fan speeds
AC223 E1 1S LP 24: 24VAC, 4-pipe, Cool/Heat, 1 fan speed

AC223 M2 1S LP 24: 24VAC, Cool Only, 2-10Vdc output for cooling valve, 1 fan speed

VIII. Operation Instruction

1. Setting Power on/off
Press ⏻ to turn on/off the power.

2. Setting Temperature
Press △▽ to set the temperature.

3. Setting the System Mode
Press ↻ to select ❄ heating, ❄ cooling or ▱ ventilation.
Factory Default is ventilation. AC223 A2 and AC223 M2 don't have Heating mode.

4. Setting the Fan Speed
Press ⟳ to select the fan speed. AC223 E1 and AC223 M2 have only High Speed.
⟳ is Low speed(Factory default);
⟳ is Mid speed;
⟳ is High speed;
◯ is Auto speed.

In auto mode, the fan will run according to the comparison of room temperature and set temperature.

5. Select Manual mode or Programming mode
Press and hold ↻ for 3 sec., PRG will display and ⌂-ⓧ- ⓧ-⌂ will flash. Press △▽ to select Manual mode or Programming Mode. When ⌂-ⓧ- ⓧ-⌂ stop flashing, Programming mode is selected. When they are flashing, Manual mode is selected. Programming mode runs according to the preset 5+1+1 day schedule and setting temperature.

6. Setting the Real Time.
After selecting Manual mode or Programming mode, continue to press ↻ to set real time, hh will flash in the position of hh: mm.
Press △▽ to adjust the current hour.
Press ↻ , mm will flash in the position of hh: mm.
Press △▽ to adjust the current minute.
Press ↻ , 1 will flash in the position of week: 1234567.
Press △▽ to adjust the current week.

7. Setting weekly programming schedule and corresponding setting temperature
After setting the real time, continue to press ↻ to set the Start Time of Period 1 of Mon.-Fri., **1 2 3 4 5** and ⌂ will display on the screen.
When "hh" is twinkling ,press △▽ to adjust the hour.
After the adjustment of hour, press ↻ until the "mm" twinkling,
Press △▽ to adjust the minute.
Press ↻ to set the Stop Time of Period 1 of Mon.-Fri., **1 2 3 4 5** and ⓧ will display.
When "hh" is twinkling ,press △▽ to adjust the hour.
After the adjustment of hour, press ↻ until the "mm" twinkling,
Press △▽ to adjust the minute.
Press ↻ to set the setting temperature during the Period 1, **1 2 3 4 5**,⌂-ⓧ will display.
Press △▽ to adjust the setting temperature.
After the setting of Period 1, press ↻ to set the Start Time of Period 2 of Mon-Fri.
Follow the above operation steps to finish the setting of Period 2 of Mon.-Fri..
Then press ↻ to start the setting of Start time of Period 1 of Sat., **6** and ⌂ will display.
Follow the above operation steps to finish the settings of weekends (Sat. and Sun.).
After the completion of all adjustments, press ⏻ to store the settings.
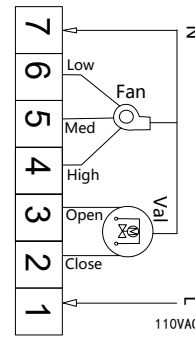The settings can also be automatically stored 8 sec. after all of the adjustments.

8.Advanced Setting Mode

During power-off status, press and hold ⚑ and ⏻ for 6 seconds to enter into Advanced Setting mode. Then press ↻ to switch to different function item. Press △▽ to adjust setting and options.
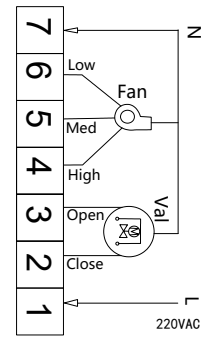
Code	Function	Setting and Options	Default
dIF	Start-up Differential Temp. (switching hysteresis)	0.5 - 1℃	1℃
SH1	Max. Set Temp. in Cooling Mode	10℃ − 40℃	40℃
SL1	Min. Set Temp. in Cooling Mode	10℃ - 40℃	10℃
SH2	Max. Set Temp. in Heating Mode	10℃ - 40℃	40℃
SL2	Min. Set Temp. in Heating Mode	10℃ - 40℃	10℃
AdJ	Adjustment of Measured Temp.	-5℃ - 5℃	0℃
FAN	Fan Control	0: When room temp. reaches the set point, fan will turn off. 1: When room temp. reaches the set point, fan continues working.	1
LOC	Button Locking	0: All buttons will be never locked. 1: All buttons will be locked except power button. 2: All buttons will be locked. * When 1 or 2 is set, buttons will be locked in 45 seconds if without any operation. Press and hold ⚑ button for 7 seconds to unlock or lock buttons.	0
PON	The state after the power is restored	00: Keep in turned off status 01: power-on and continue the working status before power failure.	01
FAC	Restore Factory Settings	Adjust to 00 by pressing ▽ and then press ↻ to restore factory settings.	08

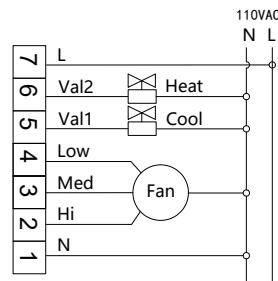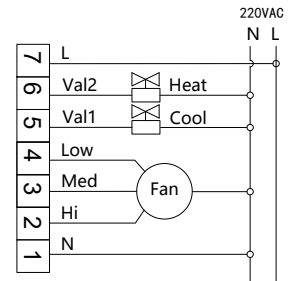All the settings will confirm automatically in 7 seconds without any operation.

IX. Installation Instruction
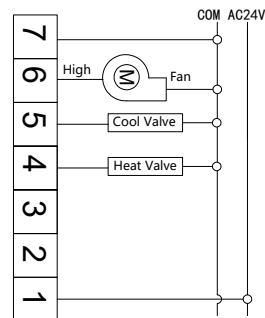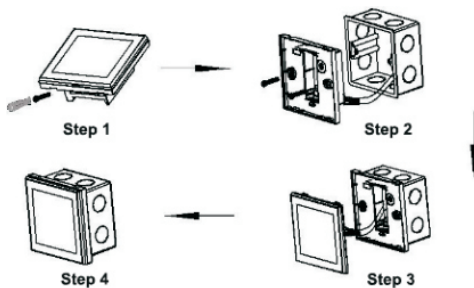
1.Connect the line of power and valve into the terminals. Fix the wall plate into the wall box by a screwdriver.

This product is suitable for standard 80*80mm wall box.

Step 1   Step 2

Step 4   Step 3

2.Connect the lines with the LCD board.

3.Connect the LCD board into the wall plate.

NOTICE: The installation wire should be 1.5-2.5mm^2.

X. ATT:

Thank you for buying this product!

Please read this manual for complete instructions on installing and operating your thermostat. If you require further assistance, please feel free to contact us.

In the box you will find:

Model	******
Thermostat	√
User Manual	√
Screws	√
Dryer	

VII. Wiring Diagram

AC223 A2 LP 110

AC223 A2 LP 220

AC223 E2 LP 110

AC223 E2 LP 220

AC223 E1 1S LP 24

Our Service:

We offer the warranty of 12 months from the sales day.

During the warranty, if it is belong to the quality issue, we will fix or replace them for you by free after test them.

If it is not quality problem or beyond the warranty time, we will charge for the after-sales service.

Warning:

⚠

The symbol means the unit is being installed, it may cause electrical shock hazard during maintaining, so please make sure it is operated by the professional technical worker.