

# **WIRED WALL CONTROLLER**

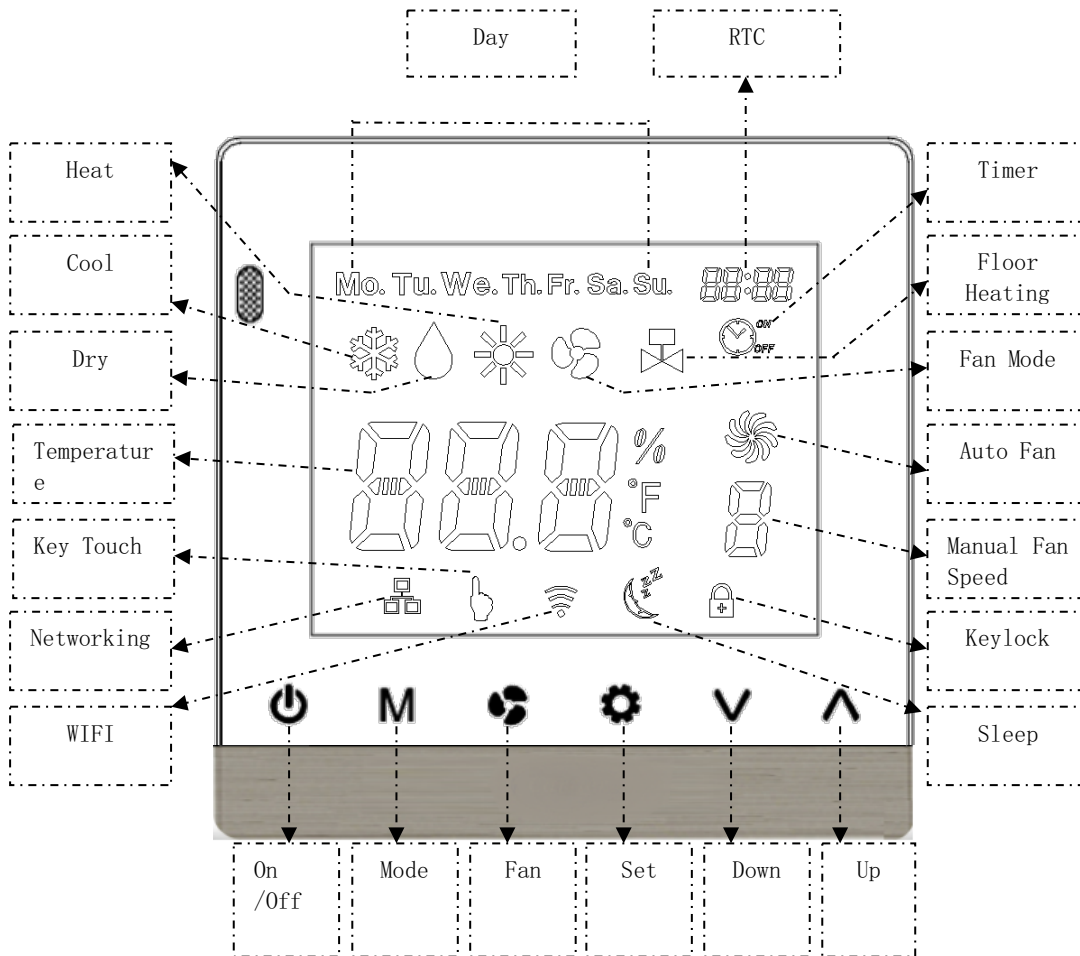
## **Operation Manual TC86-YLD**

Before installation and operation, please read this operation manual carefully and make sure you can use this controller correctly.


In order to use this wired wall controller correctly, please follow the below precautions:

1. The software writing and maintenance must be operated and maintained by the company's professionals according to the requirements of the specification.
2. For the operation of the controller, please comply with the following requirements:
  - a. Operation Requirement:  $-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$
  - b. RH Requirement:  $25\% \sim 90\% \text{RH}$
  - c. No condensing
  - d. No corrosive metal, gas or dust to damage the insulation
3. For the installation of the controller, please pay attention to the following items:
  - a. Please strictly follow the wiring diagram provided in the specification for wiring; The company is not responsible for the damage of main PCB caused by the mistake wiring.
  - b. When wiring, please follow the principle of separating strong and weak electricity and try to keep the control board and contactor above 50mm to avoid electromagnetic interference.
  - c. Do not immerse the controller sensor in water for a long time, which may affect the temperature sensing accuracy of the sensor

1. LCD Screen









2. Key Function

Icon						
Function	ONOFF	MODE	FAN	SET	DOWN	UP

Press  to switch the function as follow (CNT is number of count this button is pressed)







- (1) CNT=0: no function
- (2) CNT=1: clock setting
- (3) CNT=2: timer setting
- (4) CNT=3: sleep, swing (represented by floor heating symbol)
- (5) CNT=4: networking control (solo control)
- (6) CNT=5: group control
- (7) CNT=6: parameter browsing

3. Clock setting and display

RTC display area shows the real time clock, “:” blinks once in a second. Press  once to enter into clock setting. “:” lights on, press  or  to adjust the time. Press  to change day of week. Press  to select minute or hour to be changed. Press  to exit and confirm the new setting. Alternatively, it will exit without saving the setting 6 seconds after last key press.



4. Timer setting


If master unit is in group control mode, when the timer setting is reached, it will turn on or turn off all slave units online. Otherwise it is effective to itself. It supports 7 day on/off timer setting.


Press  twice to enter into timer setting. Timer symbol lights on, “ON” symbol flashing. Press  to change day of week (Monday~Sunday). Press  to toggle between on timer hour, on timer minute, off timer hour or off timer minute. The selected hour or minute flashing. “ON” symbol flashing if on timer is selected. “OFF” timer symbol flashing if off timer is selected. Press  or  to adjust the time setting. Press  to exit and confirm the new setting. Alternatively, it will exit without saving the setting 6 seconds after last key press.




Timer symbol will light on if there is timer setting for current day. The corresponding “ON” or “OFF” symbol will light on according to the timer being programmed for the current day.

5. Swing, Sleep



Press  three times to enter into swing, sleep setting and keylock symbol flashing. Press  to enable or disable sleep function and sleep symbol will light on accordingly.

Press  to enable or disable swing function and swing symbol will light on accordingly. [it is represented by floor heating symbol].

Press  to exit and confirm the new setting. Alternatively, it will exit without saving the setting 6 seconds after last key press.

Press  to enable or disable the local room sensor. Fan speed display area showing  denotes enable, display F denotes disable. Press  to exit and confirm the new setting.

6. Temperature setting

Press  or  to adjust set temperature. Temperature display area flashes the set temperature. It will exit 6 seconds after last key press.


When DIP switch SW1=ON: temperature setting is prohibited. Set temperature is fixed at 24C in cool mode and 21C in heat mode.

When SW1=OFF, temperature set range is 16°C to 30°C

When SW2=ON, temperature display area shows set temperature.

When SW2=OFF, temperature display area shows room temperature.



7. Mode

Press  to change operating mode as follow:-





Cool-Heat model : Cool-Heat-Fan-Dry


Cool only model : Cool-Fan-Dry

8. Keylock


In main menu, press  +  to toggle keylock function. Keylock symbol lights on when it is enable.

9. Fan speed






When SW3=ON, modulation fan speed setting. Press  to adjust the fan speed. Temperature display area shows the fan speed % setting (30%~100%). Press  or  to adjust and flashes the modulation setting. It will exit 6 seconds after last key press. Press  to exit the setting menu immediately.


When SW3=OFF, fixed speed setting. Press  to adjust the fan speed, 1-2-3-4-5-Auto (automatically adapt to 3 or 5 speeds setting). Fan speed display area shows the speed being programmed.




10. System On/Off



Press  to turn on or off the unit



11. Networking control (Only the master unit able to control the slave unit online)



Press  four times to enter into networking control, WIFI symbol lights on. Clock display area flashes the slave unit to be controlled. Press  or  to selected the desire slave unit. It will bypass slave unit that is not online. Press  to select the desire parameter: unit on/off, set temperature, mode, fan speed, swing, sleep or timer. Press  to change the setting as follow:



(1) Unit on/off: press  once, symbol “” flashes. Press  to set unit on ( “” flashing) or unit off ( “” flashing)

(2) Set temperature: press  twice, temperature display area flashing. Press  or  to change the set temperature

(3) Mode: press  three times, current mode flashing. Press  to change mode.

(4) Fan speed: press  four times, current fan speed flashing. Press  to change fan speed.

(5) Sleep: press  five times, sleep flashing. Press  to change sleep setting.


(6) Swing: press  six times, swing flashing. Press  to change swing setting.

Press  to exit and confirm the new setting. Alternatively, it will exit without saving the setting 6 seconds after last key press.


Master-slave communication is done via main board RS485 port.

12. Group control



Press  five times to enter into group control, WIFI symbol flashing. Press  to synchronize real




time clock of all slave units online. Press  to broadcast master setting to all slave units online. WIFI symbol vanish after broadcasting. However, the symbol keeps flashing if timer is programmed on master unit. It will vanish after timer is executed.

13. Parameter browsing

Press  six times to enter into parameter browsing, temperature display area shows the value of the parameter selected.

Clock display area: hour area display the unit address, minute area display the parameter item number.



Example: 2:03 denotes unit number 2 item number 3. Press  +  to select the desire parameter item.

Press  or  to select the desire unit address. Press  to exit browsing.

Parameter display:

Clock area	Set temperature area	Description
1:01	Room temperature	
1:02	Coil #1 temperature	
1:03	DIP switch setting	Modbus ID 0x0~0x1F denotes 1-32 [decimal format]unit address, 0x20 denotes master unit
1:04	Coil #2 temperature	

14. Networking address setting

Press  seven times to enter into address setting. Press  to change the address1~32.

15. Error code

When there is fault occurred, hour area flashes the unit address, minute area flashes error code. If multiple fault happened at the same time, error code cycling.

If there is no slave unit online, error code area display:

Description	Error code
Coil #2 sensor faulty	E2
Room sensor faulty	E3
Coil #1 sensor faulty	E4
Coil temperature too low	E5
Coil temperature overheated protection	E6
Water pump faulty	E7

