



User Guide

SM2028FFN-TOUCH

smallart
all smart

Welcome

SM2028FFN-TOUCH is to concern more on product design and application emotion, it more focus on product life, interface between user and controller, intelligent control, operation and brand new visual experience to realize “comfortable life is so simple”.

SM2028FFN-TOUCH with microprocessor and large LCD display. It shows the following Items : working status(Cooling ❄️, Heating ☀️, Ventilation 🌀, Auto ⚙️), Valve output status (🚰), Room temperature, Setting temperature,etc. Key : On/Off(🟢), Menu(M), Clock (⌚), Fan speed (🌀) and Adjustment (< , >).

Basic Features

-  Manual/Auto control valves output
-  Manual fan speed changeover
-  Low temperature protection
-  Clock
-  Detect and display room temp

**ONE
FACE**

One Face Panel,
Entire black,
honourable and elegant



Slight Curve
Incorporate soft
and strength



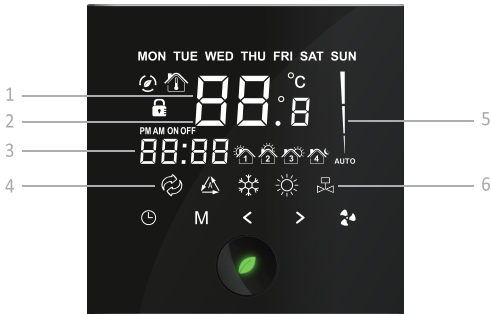
Ultra Slim



Greenery breath light
Symbolize the germination
of life, feel the rhythm of
life among every breath.

States Display

1. Display setting temperature
2. Display sensor detect temperature
3. Clock display
4. Working mode (Cooling, Heating, Ventilation, Auto)
5. Fan speed (Low, Med, Hi, Auto)
6. Display valve output



Specifications

Feature	Description
Temperature sensor	NTC
Control accuracy	$\pm 0.5^{\circ}\text{C}$
Operation environment	$0 \sim 45^{\circ}\text{C}$
Humidity	$5 \sim 95\% \text{ RH}$ (non-condensing)
Button	Capacitive touch buttons
Protection class	IP 30
Power supply	AC $85 \sim 260\text{V}$, 50/60Hz
Power consumption	$< 2 \text{ W}$
Wiring	Accepting $2 \times 1.5 \text{ mm}^2$ or $1 \times 2.5\text{mm}^2$ wires
Switch current rating	Resistive: 2 A, Inductive: 1 A
Housing	PC + ABS Flame Retardant
Hole pitch	60 mm (Standard)

Operation

- ON/OFF: press “” for 2 s to start; Press again for 2 s to close, when the controller power off, the fan and valve are closed.

Operation and standby mode: under operation mode, if nobody operates the controller for 20 s, It will go to standby mode and display only room temperature, “” will keep flashing.

- Infrared approaching sensor: the controller can detect human body's approach automatically when the distance is within 5cm. The backlit will light up and the controller goes to operation status.
- Setting temperature: Press “<” to reduce set-point, press “>” to raise setpoint by 0.5°C each step.
- Mode selection: Press “M” to change system working in cooling “”, Heating “”, Ventilation “” or Auto “” mode.
- Fan speed selection: Press “” to change fan speed from  (Hi),  (Med),  (Low) or AUTO (autospeed) .

Under Auto fan speed, the fan-speed changes automatically. Auto LOW-speed when the difference between room-temperature and set-

point exceed 1°C,Auto Med-speed when exceed 2°C,Auto Hi-speed when exceed 3°C.

- Setting clock: Press “⌚” into clock program function by hour, minutes and week, Press “<” and “>” to adjust.
- ECO energy saving setting: Touch “🍃” to entry ECO mode under operation mode. Under cooling mode, the setting temperature will be Eco setpoint cool, range (20...35), default 28°C, and low fan speed; Under heating mode,the setting temperature will be Eco setpoint heat, (10...25), default 18°C,and low fan speed. Touch “🍃” again to exit ECO mode.
- US (7Days 4 Periods)programmable function: One week is divided into 7 days with four periods in each day,each temperature can be set separately to meet the user’s different request in different time periods.

Press “⌚” for 3 seconds, to enter 7days 4 periods programmable setting mode, Press “⌚” again to select the clock and temperature of 7days 4 periods programmable ,by pressing “<” and “>” to adjust the parameters. Factory defaults as below chart :(7Days 4 Periods programmable function is closed per factory default.)

Time period	6:00-8:00	8:00-16:00	16:00-22:00	22:00-6:00
Heating mode	20°C	16°C	20°C	16°C
Cooling mode	26°C	29°C	26°C	28°C

- EU(Time switch machine) programmable function(Factory default):One-day is divided into 4 periods, set its working status separately in different time period in order to achieve energy saving.

Press “⌚” to enter timer setting interface , and press “⌚” again to set timer, factory default as below chart by pressing “<” and “>” to adjust the parameters.

Time period	8:00	12:00	13:00	18:00
status	Timer on	Timer off	Timer on	Timer off

Parameter Setting

Power on then, press “M” 5 seconds, “clock” display “01”, temperature display setting point. Press “M” again to check the parameter, press “<” and “>” to change the value. The parameter definition as follows:

Par	Parameter name	Factory Default	Selection
01	2-pipe/4-pipe select	04	02: 2-pipe; 04: 4-pipe
02	DA/DB select	db	dA: DA model ; db: DB model
03	Memory function	03	01: power on; 02: no memory when power off; 03: memory (last state before power off)
04	NO/NC valve select	03	00: Val1,Val2 NO valve; 01: Val1 NC valve, Val2 NO valve ; 02: Val1 NO valve, Val2 NC valve; 03: Val1,Val2 NC valve;
05	Manual/Auto mode select	00	00>manual change; 01:auto (mode key invalid)
06	Return difference (Deadband)	01	Just under auto mode.Adjustment range 1°C~5°C
07	Auto mode heat-cool changeover delay	02	00~99 minutes. Only in auto mode. If the thermostat is heating mode and room is satisfied,it will turn off the output and count this period. If there will be a cooling call earlier, thermostat will wait this period before turning on the cooling output. Same logic is applicable for changing from cooling to heating as well.

Par	Parameter name	Factory default	Selection
08	4pipe heating ,fan running/closed	00	00: fan running; 01: fan closed
09	Low temperature limit (heating)	15	05~20°C
10	Max temperature limit(heating)	30	15~35°C
11	Low temperature limit(Cooling)	16	10~25°C
12	Max temperature limit (Cooling)	32	20~35°C
13	Economy mode setpoint (Cooling)	28	20~35°C
14	Economy mode setpoint (Heating)	18	10~25°C
15	Sensor Reading Calibration	00	-6~6°C
16	Key lock	00	00: unlock; 01: lock
17	Fan off delay	00	00~99, heating mode, the valve will be closed when the temperature reach the setting point, fan keep running.
18	Unfreezing temperature setting	05	1~15, the controller open when temperature lower than the value, heating valve output
19	Program mode	02	01: US mode: 02: EU mode
20	Low temperature protection	00	00: closed ; 01: using

Mounting

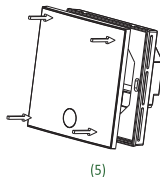
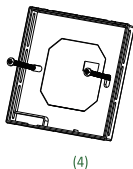
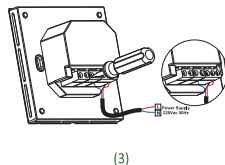
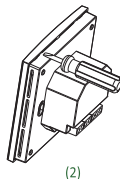
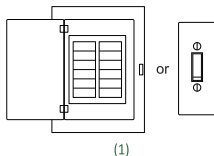
Step 1. Keep power off.

Step 2. Take off the power pack.

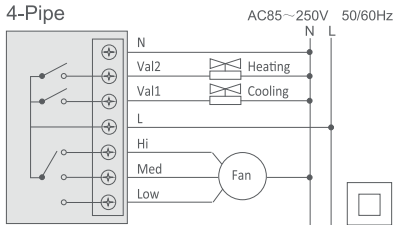
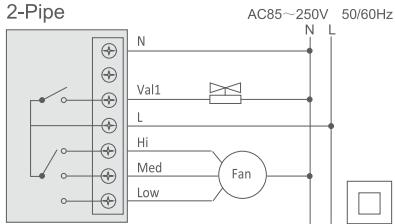
Step 3. Connect wire as per diagram.

Step 4. Fix the baseplate into the wall with screw.

Step 5. Press the panel board onto the baseplate.



Electrical Diagram



Note: Be sure to connect all the wires as per the wiring diagrams and keep it away from water, mud and other material so as to prevent the unit being spoiled!

Dimensions

