TM50 LCD Thermostat

TM50 series controler applys to industrial, commercial and family room temperature control, control(the two control of a fan-coil equipped with hot and cold water springs reset electric valve, four control with the fan-coil and include one cold water and one hot water). Through the keys may choose to heating,cooling or ventilation function (four control automatic mode).
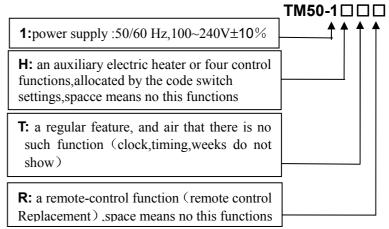
TM50 use electronic control technology, large-screen LCD. LCD status: work status (automatic, refrigeration, heating, ventilation), fan speed, indoor temperature, set temperature, clock, the timing of switching time, weeks, sleep, an so on. Keys are: ON/OF ⏻ model conversion (M), timing (⊕), windspeed options (🌀) and the temperature adjustment (▲ ▼)

Can be equipped with remote control (option), ABS shell for the fire-retardant materials. AppearanceSize of 86×86mm, thickness of 16 mm.

Appearance   **specification**

TM50-1□□□

1: power supply :50/60 Hz,100~240V±10％

H: an auxiliary electric heater or four control functions,allocated by the code switch settings,spacce means no this functions

T: a regular feature, and air that there is no such function（clock,timing,weeks do not show）

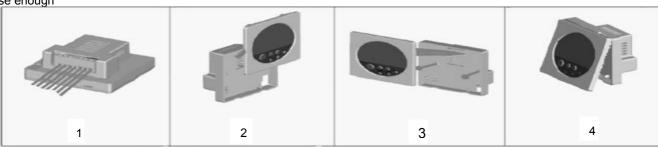**R:** a remote-control function（remote control Replacement）,space means no this functions

Features：
▼indoor temperature settings
▼indoor temperature measurement and display
▼control fan coil three-speed manual or automatic transmission
▼electric hot and cold water control valve
▼continuous clock function (optional)
▼regularly switch-function (optional)
▼sleep function
▼white backlight
▼infrared remote control function (optional)
▼temperature calibration
▼degrees Celsius degrees Fahrenheit temperature switch
▼auxiliary electric heater function (two control optional）

Technique index：
▼Setting Temperature range：5~35℃（41~95℉）
▼Temperature precision：±1℃
▼Current load：＜3A
▼Self consumption power：＜1W
▼Display：LCD
▼Temperature sensor：NTC
▼Key：touch key
▼Power voltage：50/60Hz、100~240V±10％
▼Size：86 × 86 × 16 mm
▼Distance of fixing：60 mm (standard)
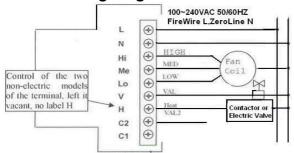▼Fittings list：one box for PCBA, one specification, two screw

Install Specification：
1.Use Screwdrivers connect all the exeternal wirings,use screwdriver open the two blocks out of the box!
2.From the inside to open the block and separate the display control panel on the up shell(internal link please do not disconnect).
3.Install the bottom shell into the wiring boxes,fixed two screw tight.
4.Let the top pillar which inside the up shell fix into the two holes on the bottom shell, press the two shells and make sure it is close enough

| 1 | 2 | 3 | 4 |

Electrical wiring diagram：

100~240VAC 50/60HZ
FireWire L,ZeroLine N

Control of the two non-electric models of the terminal, left it vacant, no label H →

L
N
Hi
Me
Lo
V
H
C2
C1

HIGH
MED
LOW
VAL
Heat
VAL2

Fan Coil

Contactor or Electric Valve

2 DIP switch selection

▼DP1
　B1：1 fan opened(after the vavle clearance)；0 Wind authorities(after the vavle clearance)。
　B2：1 4 control；0 2 control。
▼DP2
　B1：1 timing；0 no timing。
　B2：1 switch-a power-down memory；0 no Power-down memory。
0 means DIP switches for the OFF status，
1 means DIP switches for the ON status
Factory default：DP1(B1，1；B2，0) DP2(B2，1)

Operation explain：

☞When the backlight is shut down, the first button only lit backlight；

☞ON/OFF:the ⏻ press first time turn on, then shutdown；

☞Temperature settings:the "▲" key set higher temperature, a"▼"button is lower temperature. Change ever time l℃；

☞Cooling settings: press "M" button, until a ✸ symbol flashes，5 seconds after the automatic recognition；

☞Heating settings: press "M" button, until a ✿ symbol flashes，5 seconds after the automatic recognition

☞Ventilation settings: press "M" button, until a ⊗ symbol flashes，5 seconds automatically confirmed that the choice of fan speed operation；

☞Automatic mode settings: press "M" button, until a Ⓐ symbol flashes，5 seconds after the automatic recognition, when the room temperature and the temperature settings ≥3℃, Select cooling mode, when temperature set same with the room temperature turn to ventilation function. When the room temperature and the temperature settings between -3℃ and 3℃,choose ventilation mode. When room temperature and the temperature settings ≤-3℃,choose the heating mode, When temperature set same with the room temperature turn to ventilation function.

☞Press "❀" button to select fan speed " ✸ （high）、✿ （middle）、♨ （low）、⊗ （automatic）" CYC.
"Automatic" means wind speed, wind speed automatic transmission, that is, when the temperature set at room temperature and the difference more than 1 °C. low wind speed automatic choice when the temperature set at room temperature and the difference more than 2 °C. the automatic selection turn to (in) when the room temperature settings and Temperature difference more than 3 °C, the automatic selection of high winds.

Function：

☞**Sleep settings:** in the power on state, when press the "⊕" button, the ☽ symbol flashes, will turn to sleeping setting, at this moment press

▲ will turn to sleeping state, press ▼ over the operation.

☞**Standard Time settings:** In standby mode. when press the ⊕ button. the ☽ symbol flashes, press"M" button, enter the standard time settings. press "▲" or "▼" can adjust the current week, adjusted to the expectation vaule, press ⊕ to comfirm; when "AM" or "PM" flashing, press "▲" or "▼" to adjust the current AM or PM, adjusted to the expectation vaule, press ⊕ to comfirm; Same operation with the seconds and hours settings. (No timing models do not get this function)

☞**Timing ON settings and cancellation:**

When press the ⊕ button, the ☽ symbol flashes, press "M" button twice, enter the timing ON settings. " Timing open " button flashing, and the "AM" or "PM" flashing, press "▲" or "▼" can adjust the selection, adjusted to the expectation vaule, press ⊕ to comfirm. " Timing open " button flashing, and the hour symbol flashes, press "▲" or "▼" can adjust the when you want turn on, adjusted to the expectation value, press ⊕ to comfirm; Same with expectation second setting. When "timing on" sign flashes, and "hh:mm" All flashes, press ▲ to keep setting, and press ▼ to cancel the setting. (No timing models do not get this function)

☞**Timing OFF settings and cancellation:**

When press the ⊕ button, the ☽ symbol flashes,and press "M" button three times, enter the timing OFF settings. The other setting same with the timing ON settings.

☞**Temperature cablibration:**

When the temperature is not accurate, then we have to carry out this operation. In standby mode, press the ⊕ button, the ☽ symbol flashes,and press "M" button four times, it will display "XX℃"("Room" symbol do not show), Which XX for the current room temperature, flashing display, ℃ for the temperature unit, no flashing. Press "▲" or "▼" key to adjust to the correct temperature. By "⊕" button to confirm kept out.(No timing function types turn to this function directly)

☞**Farenheit and Celsius switching**：

In standby mode, press the ⊕ button, the ☽ symbol flashes,and press "M" button five times, It will be flashing display "XX℃"or"XX℉"("Room" symbol do not show), Press "▲" or "▼" key to switch . By "⊕" button to confirm kept out.

☞**12-hour and 24-hour clock switching**：

In standby mode, press the ⊕ button, the ☽ symbol flashes,and press "M" button six times, It will be flashing display "AM、PM"symbol , Press "▲" or "▼" key to switch. By "⊕" button to confirm kept out.

☞**Auxiliary electric heater functions** (with two electric controls, optional, H label, H auxiliary electric hearter): the heating mode, press "M" and "▲" button,the "♨"symbol flashes,at this moment, it allow electric heating work; press "M" and "▼" button,the "♨"Icon is not display,at this moment, it don't allow electric heating work; at room temperature lower than the setting, when the temperature exceeds 3℃ (including 3℃) started heating, Air coil high-speed operation. When the temperature setting and room temperature to less than 1℃ (including 1℃), auxiliary electric hearter closed. When auxiliary electric hearter open will show "♨" icon, when closed, "♨" icons do not show(4 H control at the terminal to electric hot water valve).

Warning：

Electrical wiring must be in accordance with the wiring diagram properly connected to prevent water, mud and other debris into the temperature control, so as to avoid damage to the device! Installation if you use hard plastic line, prior to bending the right angle!