

TN112 Fan Coil Thermostat Instruction Manual

CAUTION:

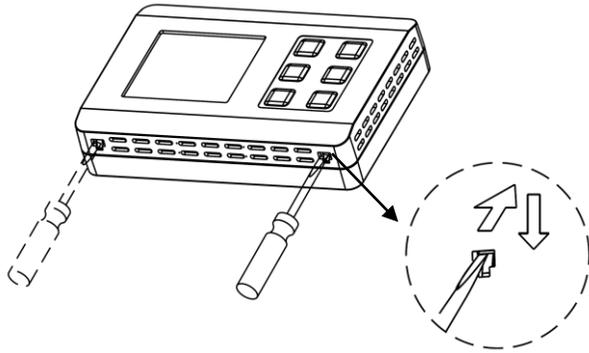
1. Turn off TN112, all electronic source and electrical devices (e.g. heater) which will be connected before installation and maintenance.
2. The installer must be a trained service personnel

Installation Location

The thermostat should be mounted on an inner wall ~1.5m above the floor in a position where it is readily affected by changes of the general room temperature with freely circulating air.

Opening the Cover

- Open the thermostat at bottom side by a flat screw driver.
- Insert a flat screw driver into upper part of two lock holes
- Push gently with an up angle following by a downward force, the back cover lock snaps to detach from the hole.
- Unplug the 8 pins connector between the top and the base housing.



Open the thermostat at bottom by a flat screw driver.

Precautions



Bottom

Open the thermostat at bottom side.



Top

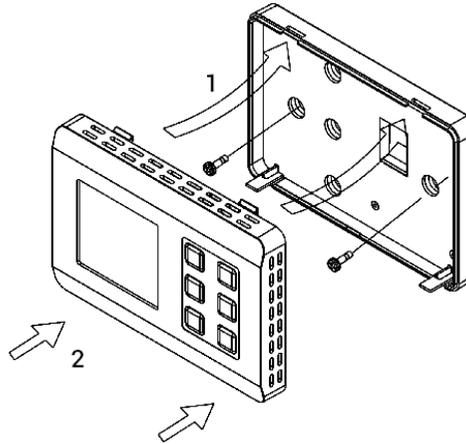
Don't Open the thermostat at top side.

Mounting

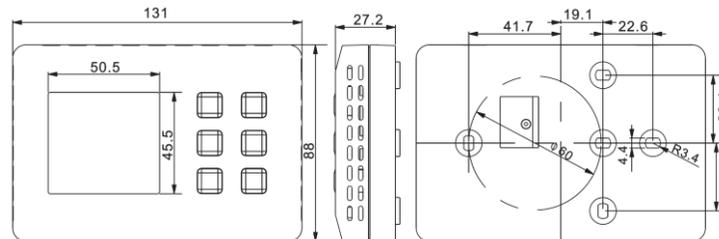
Fix the base housing by screws as shown.

Align the hooks at the top.

Push the lower part of top Housing to engage at base housing locks while align and plug the 8 pins connector between top and bottom housing.



Dimension in mm



INSTALLATION

There are 5 wiring terminals: L,N and 1,2,5,6,7.

Connect "L" and "N" to Live and Neutral of 230Vac.

Connect "1" and "2" to a heat valve and a cool valve. (Refer to 2 pipe / 4 pipe wiring diagram.)

Connect "5", "6", "7" to three speed fan High / Med/ Low respectively.

Push all cables back into the wall prior to fixing to avoid trapping wires.

Do not use any metal conduit or cable provided with a metal sheath.

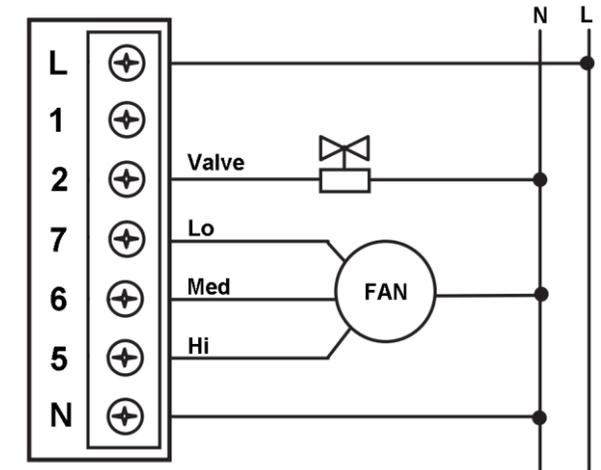
Recommend adding fuse or protective device in the Live circuit.

Caution : Turn off the power and electrical devices before wiring.

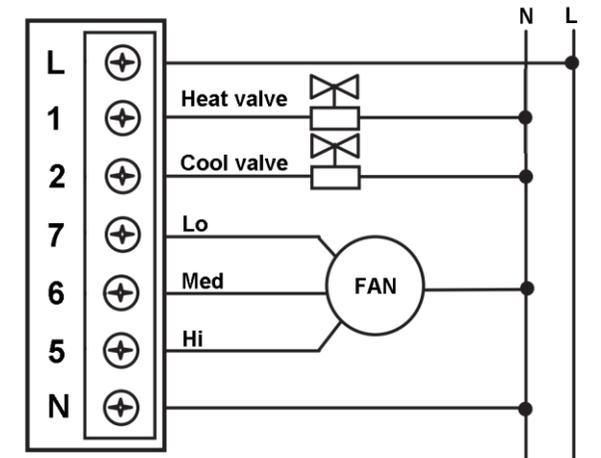
Electrical interface

Symbols	Terminals
L	230Vac Live
N	230Vac Neutral
1	Heat output 2(1)A for 4pipes
2	Cool output 2(1)A for 4pipes / Heat or Cool output for 2pipes
7	Fan low output 2(1)A.
6	Fan medium output 2(1)A.
5	Fan high output 2(1)A.

2 Pipes wiring diagram



4 Pipes wiring diagram



Keys	Functions
<▲>	Up
<▼>	Down
<⚙️⚙️>	Heat/ Cool mode
<🌀>	Fan selection
<↵>	Enter
<⏻>	On/Off

Operation

Power On / Power Off

Turn On thermostat - Press and hold <⏻> key for 3 seconds to turn on the thermostat. Temperature, Setting temperature, System mode and Fan mode will be displayed

Turn Off thermostat - Press and hold <⏻> key for 3 seconds to turn off the thermostat. The display will be blank and all outputs turns off..

System Mode

Press and hold <⚙️> key for 5 seconds to switch Heat/Cool mode.

Fan Setting

Press <🌀> key to switch the Fan mode. The fan selection sequence is as following. Auto→Low→Medium→High→Auto....

Temperature Setting

Heat /Cool setting temperature can be adjusted at temperature setting mode.

1. Press <▲> or <▼> keys to activate temperature setting mode.
2. Heat / Cool setting temperature will be displayed on the screen.
3. Press or hold <▲> or <▼> to adjust the setting temperature..
4. The screen return to normal display mode after no key is pressed for 10 seconds.
5. Heat setting temperature can only be adjusted in heat mode.
6. Cool setting temperature can only be adjusted in cool mode.

Function Setting Menu

The options can be adjusted in Function Setting Menu.

1. Press and hold <⚙️> and <▲> Key for 5 seconds to enter the menu.
2. The function type is at the top. The setting value is at the right / bottom.
3. Press <▲> or <▼> key to adjust the setting value.
4. Press <⏴> key to confirm and set the next function type. Display will return to normal display mode when setting is finished.

Function type	Setting value
dU	Display Unit
	Temperature
PIPE	Pipe Type
	Span
SPAN	Span
	Span
	Span

Temperature Calibration

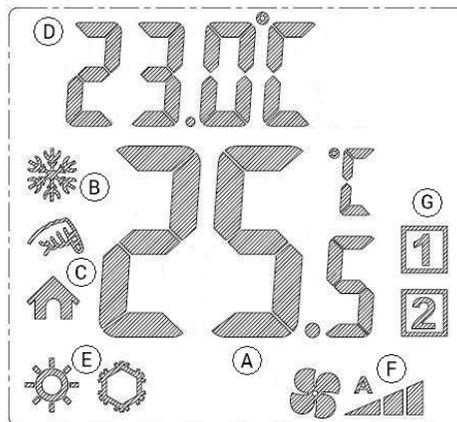
1. Press and hold <▲> and <▼> for 5seconds to enter the menu.
2. Press <▲> or <▼> to adjust offset temperature.
3. Press <⏴> key to confirm or display return to normal display mode after no key is pressed for 10 seconds.

Calibration usually is not required except there is difference between display temperature and actual temperature.

Restore Default Setting.

1. Press and hold <⏻> key for 3 seconds to turn off the thermostat.
2. Press and hold <⏻> and <⏴> for 3 seconds to restore the default value.
3. Default value is as below.
 - > Heat Set point : 18°C (65°F)
 - > Cool Set point : 26°C (79°F)
 - > System setting: Heat
 - > Fan Mode: Auto
 - > °C / °F selection: °C
 - > Span: 0.5°C (1°F)
 - > Pipe: 4 pipes system
 - > Temperature Calibration: +/- 0°C (+/-0°F)

Display Information



A	Room Temperature, Display "LO" when temperature is below 0°C/32°F. Display "HI" when temperature is above 40 C/99°F Display "- -" when temperature sensor not connected.
B	Defrost Icon, Display when temperature is below 5°C/41°F.
C	:Room temperature. :Setting temperature.
D	Setting temperature
E	Heat Mode, Flashes when heat output is on.. Cool Mode, Flashed when cool output is on.

F	Fan speed, "A" display when it is in fan auto mode.
G	current working terminals with respect to mode. E.g. display when Heat mode is selected and display when cool mode is selected if 4 pipe system is selected. display when 2 pipe system is selected. (Terminal "2" will be used no matter heat or cool is selected.)

Specification

Input Voltage:	230Vac
Output rating:	2(1)A Max for each output.
Display Unit:	°C / °F
Measurable range:	0 – 40 °C / 32 – 99 °F
Controllable range:	5 – 35 °C / 40 – 95 °F
Resolution:	0.5°C / 1°F
Span Selection	0.5 - 1.5°C / 1 – 3 °F
Calibration Range:	+/-3 °C / +/-6 °F
Sensing Element:	NTC thermistor
System Mode:	Heat / Cool
Fan speed selection:	High/ Mid/ Lo/Auto
Pipe selection:	2 pipe / 4pipe
Terminals:	2 sq. mm Cable
Operating Temperature:	0 – 50 °C / 32 – 122 °F
Storage Temperature:	-5 – 50 °C / 23 – 122 °F
Operating Humidity:	5-95%RH non-condensing

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