




# GENERAL INFORMATION \ INSTALLATION

## TH-0023 Fancoil Thermostat

The TH-0023 digital thermostat provides precise control for variety of 2 and 4 pipes fan coil system, unit ventilators, dampers and other apparatus used in commercial or residential applications.



This series features large LCD display, showing temperature reading/setpoint, and variety of configuration to meet application demands.

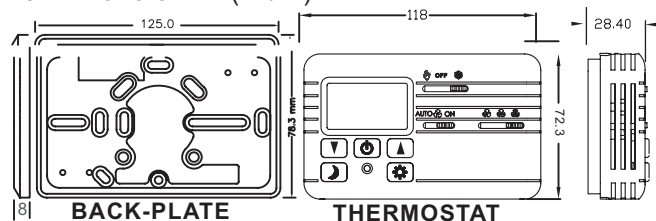
### Features

- Digital temperature display.
- Non-programmable, simple to wire, easy temperature set-up.
- Selectable continuous and cycling fan switch.
- 3-minute shortest cycle rate protection for protecting compressor from too frequent turned on-/Off, to avoid energy waste.
- Easy one touch button to set Comfort  & Economy  setpoint
- High output contact rating with circuitry surge absorber.
- Stand-by  function included for simple shut-off Cool/Heat system when temperature regulation is not required.



### Technical Data

1. Power supply : Switching power 24 Vac / 240 Vac
2. Display : LCD digital display
3. Output rating : 6A(3A)/250Vac, 60/50Hz.
4. Circuitry consumption : 7 VA
5. System switch : Heat-Off-Cool
6. Fan Auto/On selector switch  
Auto: Fan turned on or off subject to setpoint.  
On : Fan continuous on.
7. Fan speed selector : 3-speed High/Med./Low.
8. Shortest cycle rate protection : 3 minutes.
9. Temperature indication :  
Celsius /Fahrenheit selectable to users
10. Temperature control range : 5 ~ 35°C (40 ~ 113°F)
11. Temperature display range : -10 ~ 50°C (14 ~ 122°F).
12. Temperature adjustment scale : 0.5°C (1.0°F).
13. Comfort  setpoint adjustment range:  
5 ~ 35°C (40 ~ 113°F), Default 24°C-Cool / 21°C-Heat
14. Economy  setpoint adjustment range:  
5 ~ 35°C (40 ~ 113°F), Default 27°C-Cool / 16°C-Heat
15. Switching differential (Hysteresis) :  
Selectable to users (Default 0.4 °C / 0.8 °F)  
0.2/0.4/.06/.08/1.0 °C ~~~ 0.4/0.8/1.2/1.6/2.0°F
16. Antifreeze protection: 5.0 C° constant effects only when thermostat is OFF by Stand-by. Also it effects in Heating only.
17. EEPROM for preserving internal setting in outage.
18. Temperature sensor : NTC 10K Ohm at 25°C.
19. Remote temperature sensor : Available.
20. Material : Non flammable plastics.
21. Colour : Standard white or RAL 9010
22. Storage temperature : -10 ~ 60°C.
23. Dimension : ( m/m)



Wiring backplate is provided for installation.

## Choose correct location for thermostat



The thermostat should be situated in the room where the heating/cooling is to be controlled.

The place of installation should be chosen so that the sensors can capture the room temperature as accurately as possible, without being affected by direct solar radiation or other heating or cooling source.

The mounting height should be approximate 1.5 meters above the floor. The unit can be fitted directly on the wall.



**Disconnect the main before installation**

## To open thermostat for installation

Remove front cover using a screw to press the cover latch at top of front cover



Remove cover by holding base and front cover.

Use screwdriver to remove terminal protection cover

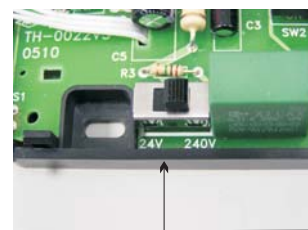


Mount base with wires through the holes of the base than mount the base with screws (supplied) on the wall.



Install the wires into terminal blocks, and mount back terminal block.

Before wiring, you must check your system wiring diagram. If your system differs from standard wiring, please check with your local dealer or consult with professional electrician.



Be certain the voltage system you plan to connect this thermostat to, is consistent with the switching power you have chosen.



# PROPOSED APPLICATION \ INTERNAL SETTING

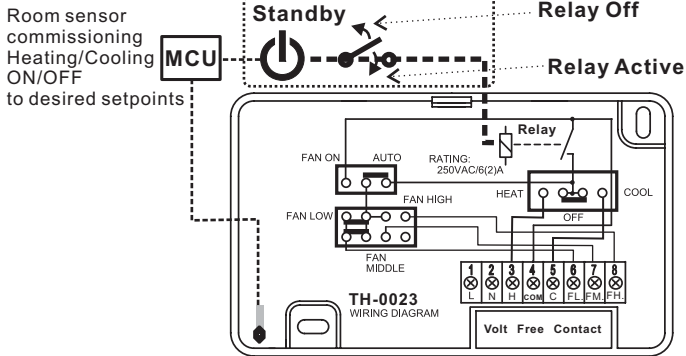
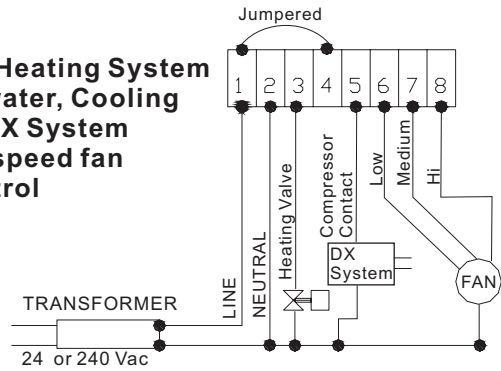
## Proposed applications

Stand-By is able to controls ON/OFF at Terminals

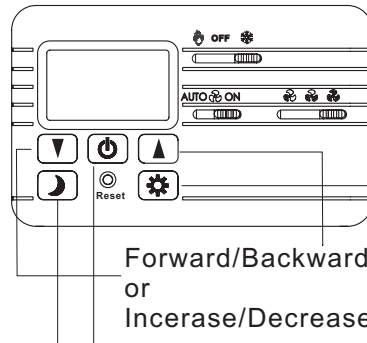
3,5,6,7,8  
When Fan-switch is in "AUTO".

3 & 5 only  
When Fan-switch is in "ON"

For Heating System by water, Cooling by DX System + 3-speed fan control

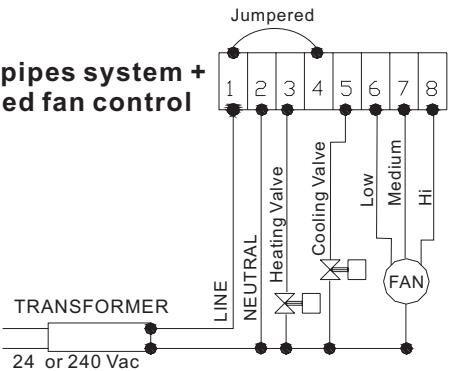


## Descriptions to buttons on front panel

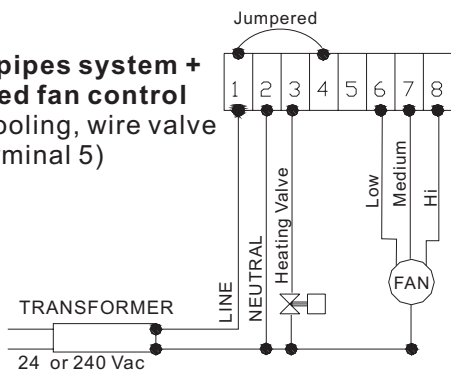


**Stand-By**  
By circuitry design, to Shut off Heat/Cool Relay and Fan-Relay if Fan-modes in AUTO. Fan maintains "spinning" if it's in "ON" mode

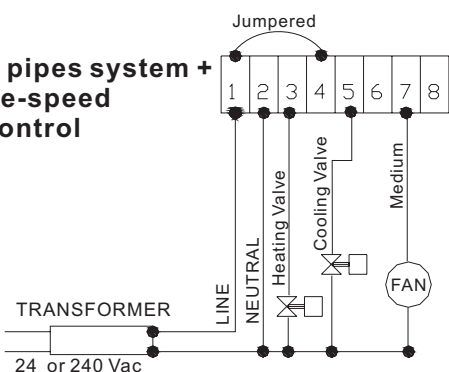
For 4 pipes system + 3-speed fan control



For 2 pipes system + 3-speed fan control (for Cooling, wire valve to terminal 5)



For 2 pipes system + single-speed fan control



## Guide to internal settings adjustment

The system selector switch Heat-OFF-Cool MUST NOT be positioned at the "OFF" while changing the internal settings.

1. Press and hold both ▲ and ▼ for 5 seconds to enter internal setting mode.
2. °C/°F selection shall appear. Press ▲ or ▼ to choose.
3. After, press ⏻ for next internal setting selection.
4. Comfort ⚙️ Setpoint shall appear. Press ▲ or ▼ to choose desired setpoint. (Sliding system switch between Heat-Cool modes ⏪ ⏩ to set both Heat & Cool Comfort setpoints before next internal setting.)
5. Press again the ⏻ to enter Economy 🌙 Setpoint selection and using ▲ or ▼ to choose. (Sliding system switch between Heat-Cool modes ⏪ ⏩ to set both Heat & Cool Comfort setpoints before next internal setting.)
6. After, press ⏻ for choosing Switching-Differential (Hysteresis). Pressing ▲ or ▼ to select desired one among 5 selections. 0.2/0.4/.06/.08/1.0 °C ~ 0.4/.08/1.2/1.6/2.0°F.
7. All internal setting adjustment is now done. Pressing ⏻, thermostat shall start to operate.