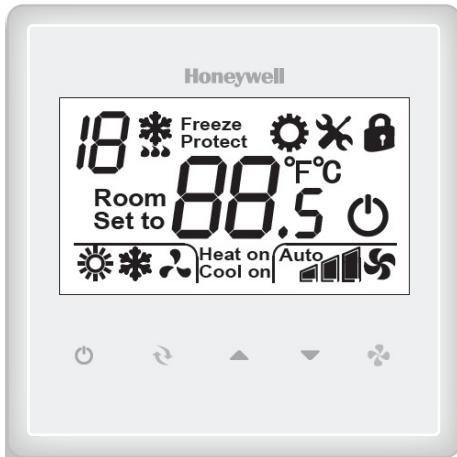# Honeywell

Large LCD Digital Thermostat
220 VAC   2-pipe/4-pipe fan coil control

Data Sheet

Application

This digital thermostat is designed for application of 3-speed fan and valves in fan coil system. Including

- **2-pipe cool only/heat only/manual changeover**
- **4-pipe manual or automatic changeover**
- **Ventilation mode**
- **Manual or automatic 3-speed fan control**
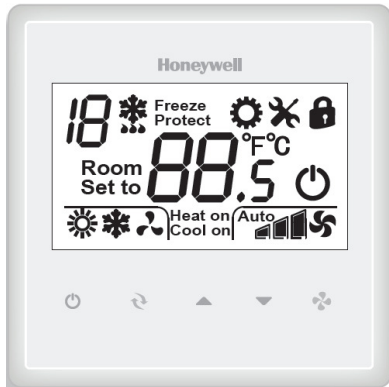- **Water valve on/off control**

Features

- **Super modern appearance design, suitable for office, hotel and residential building**
- **Slim design, direct installation on 86 size box**
- **2-pipe/4-pipe integrated into one unit with easy configuration**
- **Big LCD display with English and icons**
- **Easy to install and set-up**
- **Selectable room temperature or setpoint temperature display**
- **Manual or automatic fan speed selection**
- **Cycles per Hour (CPH) function**
- **Adjustment of display room temperature**
- **Temperature unit either ℃ or ℉**
- **User setting can be kept when power off**
- **Freezing protection function available**
- **Lock or unlock keys or part of keys in Installer Set-up**
- **Heat and cool setpoint limitation for energy saving**

Model Summary

| Model	Backlight	2-pipe/4-pipe	Power supply （V）	Ventilation	Manual/Automatic Fan
T6820A2001	Y	2/4	220	Y	Y

T6820A Digital Thermostat

Thermostat Appearance

1. Power On/Off ⏻

Press ⏻ to power on or off thermostat.

2. Fan Speed ❄

Press ❄ to select fan speed: **Low⚞❀、 Medium⚞❀、 High⚞❀、 Auto**。
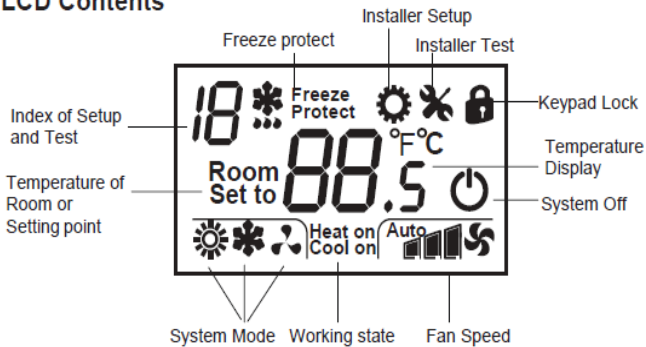
3. System mode ↻

Press ↻ to select the system mode: **Heat❄, Cool❄, Ventilation ❀**。

4. Temperature setting ▲ ▼

In heat or cool mode, press ▲ or ▼ to set the target room temperature。

LCD Contents

Terminal Designations

Number	Symbol	Description
1	Cc	Cooling Valve Close
2	Y	Cooling Valve Open
3	L	Line Voltage Power; 220VAC
4	Ch/Cc	Heating/Cooling Valve Close
5	W/Y	Heating/Cooling Valve Open
6	N	Line voltage Neutral
7	Gh	High speed fan relay
8	Gm	Medium speed fan relay
9	Gl	Low speed fan relay

Technical Specification

Power Supply: 220V (+15%,-10%)

Control Algorithm: PI, On/Off Output

Accuracy: ±1˚C at 21˚C

Load Rating: Fan 2A; Valve 1A

Setpoint Range: 10-32˚C

Installation   86*86mm box

Protection Class: IP20
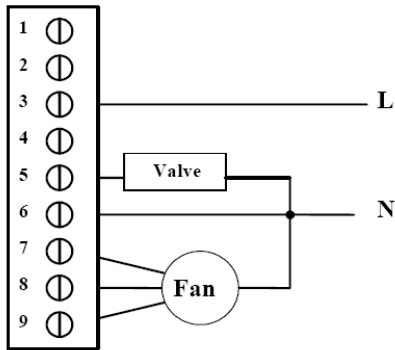
Working ambient
temperature: -18˚C to 49˚C

Shipping temperature: -35˚C to 65˚C
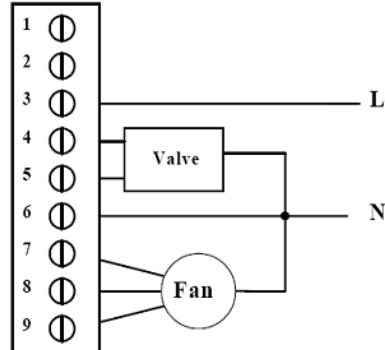
Relative Humidity: 5% RH to 90% RH, non-condensing

Honeywell

Wiring Diagrams

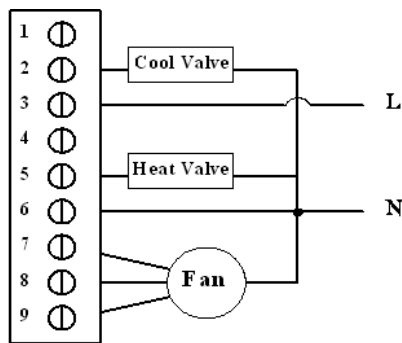2-Pipe, Heat/Cool only; 2-Pipe Heat/Cool Manual Changeover

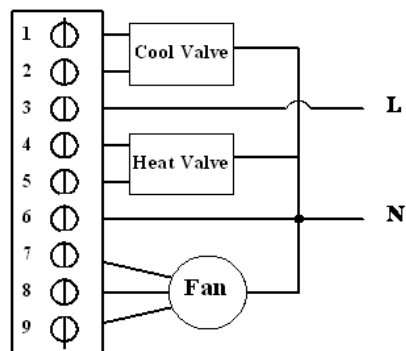Honeywell VC4013 Series Wiring Diagram

Honeywell VC6013 Series Wiring Diagram

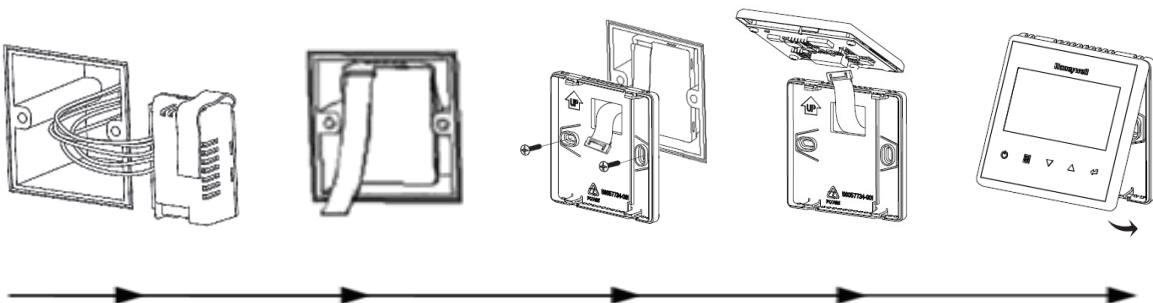4-Pipe, Heat/Cool Auto Changeover; 4-Pipe Heat/Cool Manual Changeover

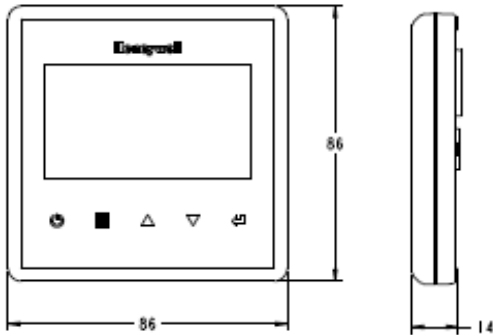Honeywell VC4013 Series Wiring Diagram

Honeywell VC6013 Series Wiring Diagram

Installation

T6820A Digital Thermostat

Dimensions (mm)

Troubleshooting Tips

If ...	Then ...
Heating system does not turn on.	♦ Set the mode to ☀ by pressing ↻ ♦ Check if the set point is above the room temperature. ♦ Check if '**Heat on**' shows solidly in LCD. ♦ 5 minutes later, checking the states of heating equipments.
Cooling system does not turn on.	♦ Set the mode to ❄ by pressing ↻ ♦ Check if the set point is below the room temperature ♦ Check if '**Cool on**' shows solidly in LCD. ♦ 5 minutes later, checking the states of cooling equipments.
↻ does not work	♦ Check if keypad is locked. ♦ Check if thermostat is in ⏻ mode.
▲ or ▼ does not work	♦ Check if keypad is locked. ♦ Check if system is in ventilation mode. ♦ Check if thermostat is in ⏻ mode.

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