T6811/6812 Series LCD Digital Thermostat
110/120/220 VAC
2-pipe fan coil control

Data sheet

Features

● Super modern appearance design, suitable for office, hotel and residential building

● Independant installation on 86 size box directly

● Big LCD with English and icon display, green backlight

● Easy to install and set-up

● Selectable room temperature or setpoint display

● Manual fan speed selection

● Adjustment of display room temperature

● Temperature unit either ^{o}C or ^{o}F

● User setting can be kept when power off

● Lock or unlock keys in Installer Set-up

● Heat and cool setpoint limitation for energy saving

Application

T6811/6812 digital thermostats are designed for application of 3-speed fan and valves in 2-pipe fan coil system.

Including:

- 2-pipe cool only/heat only/manual changeover between heat and cool

- Ventilation mode

- Manual 3-speed fan control

- Water valve control

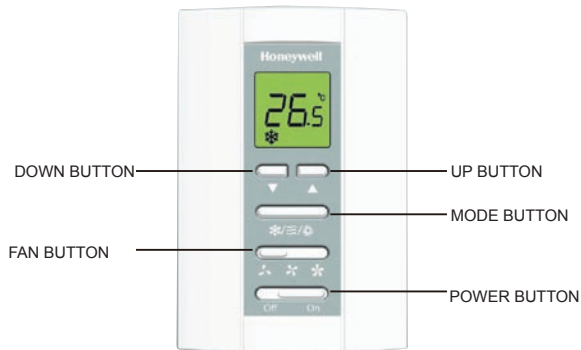In ventilation mode, fan only support manual speed control.

Model summary

Model	2-pipe/ 4-pipe	Operating voltage (V)	Energy saving	Ventilation	Manual /Automatic fan
T6812DP08	2	220	N	Y	Y
T6811DP08	2	110	N	Y	Y

APH07CH04 - **R2000EN**

Mechanical design

Thermostat appearnce

DOWN BUTTON — UP BUTTON

MODE BUTTON

FAN BUTTON

POWER BUTTON

Function

Temperature display

The displayed temperature can be set to acquired room temperature or setpoint. The setting can be made during Installer Set-Up process.

Keypad lock

Keypad lock can be set in ISU with default status is all keys available. You may change into all buttons locked out.

Ventilation mode

Press mode button to enter ventilation mode. In ventilation mode, no output for valve while the fan will operate according to selected fan speed.

Technical specification

Power supply	T6811DP08: 110(+20%,-10%)VAC
	T6812DP08: 220(+/-10%)VAC
Frequency	50/60Hz
Input Current	4(2)A
Control algorithm	PI, On/off output
Accuracy	+/-1°C at 21°C
Rating capacity	220V: 4(2)A for fan load, 2(1)A for zone valve;
	110V: 4(2)A for fan load, 2(1)A for zone valve
Cycle times	100,000
Setpoint range	10~32°C
Installation	Installed on 86×86mm junction box or US2×4 inch.
Protection Class	IP20
Environmental Conditions	Operation temperature -18~49°C
	Shipping temperature -35~65°C
	Relative humidity 5~90%
Action Type	Action Type 1
Maximum Temperature for Relay Wiring	155°C
Wire Diameter (Recommendation)	Min 0.75mm^{2}

APH07CH04 - **R2000EN**

Terminal Designations

Terminal	Description
L	Line Voltage Power
Ch/Cc	Heating close/Cooling close
W/Y	Heating open/Cooling open
N	Line Voltage Ground
Gl	Low speed fan
Gm	Medium speed fan
Gh	High speed fan

Wiring diagrams
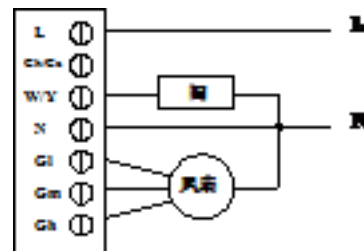
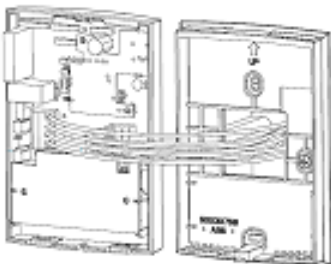Typical wiring for ON/OFF control in 2 pipes Heat/Cool/ 1H1C (VC4013)
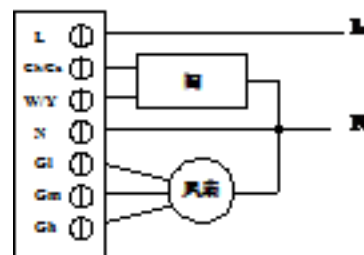
Typical wiring for ON/OFF control in 2 pipes Heat/Cool/ 1H1C (VC6013)

Wiring & Thermostat installation

I. Place Back cover over junction box, insert and make the mounting screws tightly.

II. Connect the wiring by order and make the mounting screws tightly.

III. Align the top of thermostat with back cover and push down on the back cover.

IV. Screw down the mounting screws on bottom of thermostat.

Caution: **Power module or thermostat can only be replaced by manufacturer or authorized staff. Switch off power before installation, repair!**

APH07CH04 - **R2000EN**

Troubleshooting Tips

If…	Then…
Heating system does not turn on.	♦ Set the mode to Heat by pressing the Mode button. ♦ Check that the heat temperature setting is set above the room temperature and "Heat On" shows solidly in the display. ♦ Wait five minutes for the heating system to respond.
Cooling system does not turn on.	♦ Set the mode to Cool by pressing the Mode button. ♦ Check that the cool temperature setting is set below the room temperature and "Cool On" shows solidly in the display. ♦ Wait five minutes for the cooling system to respond.
The fan doesn't work.	♦ Check whether the Fan mode is set to Auto ♦ Check whether the heating or cooling system works.
The Up or Down button doesn't work.	♦ Check whether the keypad is locked or not. ♦ Check whether the system is working in Energy saving mode. ♦ Check whether the thermostat is off.

Dimension
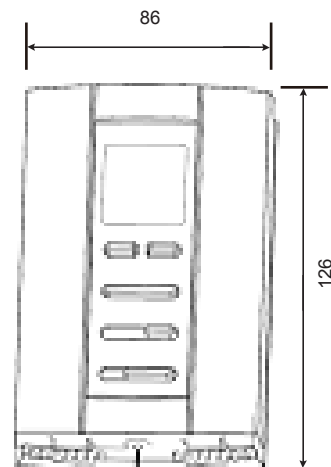
Installer setup
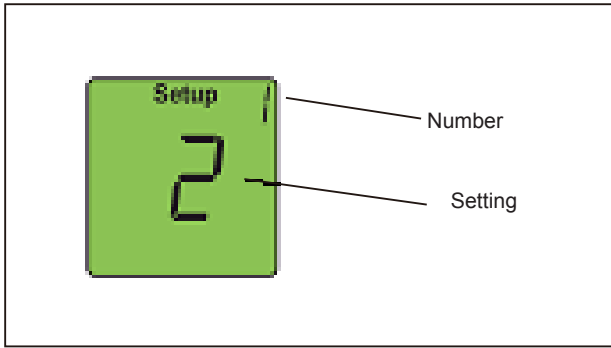
Press and hold UP and MODE buttons 3 seconds to enter setup mode

- Press UP or DOWN button to change settings Press MODE button to
- advance to next function
- Press and hold UP and MODE buttons 3 seconds to exit and save settings

Setup Function Settings & Options

No.	Description	Possible Options
1	System type	0 Heat only
		1 Cool only
		2 Two pipes 1H1C manual (Default)
9	Temperature scale	0°F
		1°C (Default)
13	CPH value For Heat	1
		2
		3
		4 (Default)
		5
		6
		7
		8
		9
		10
		11
		12
14	CPH value For Cool	1
		2
		3 (Default)
		4
		5
		6
18	Display Temperature adjustment	-2°C (-4°F)
		-1.5°C (-3°F)
		-1°C (-2°F)
		-0.5°C (-1°F)
		0°C (0°F)(Default)
		0.5 °C (1°F)
		1°C (2°F)
		1.5°C (3°F)
		2°C (4 °F)
19	Temperature Display mode	**0 Display Room Temperature (Default)**
		1 Display Setpoint
20	Heating Range Stops	10-32°C **Default 32°C**
21	Cooling Range Stops	10-32°C **Default 10°C**
22	Keypad Lockout	**0 All keys available (Default)**
		1 All keys Locked out

APH07CH04 - **R2000EN**