

# RESD Series Electronic Thermostat User Manual



RESD series thermostat adopts a button-hidden fashion appearance design. It is used to control temperature for light industry, commercial and residential environments. Models are available for heating, cooling and ventilating control. The application is for the control of Fan Coil heating/cooling equipment.

RESD series thermostats are microprocessor controlled and have a big LCD display, which displays the current working state (cooling, heating, ventilating), fan speed, ambient temperature, setting temperature etc. pushbutton includes turn on/off (⏻), mode (M), clock (⌚), fan speed (🌀) and temperature adjustment (▲▼).



## MODEL DENOMINATIONS

RESD -

**HC2:** Control Motorized Valve and 3-speed fan. When the temperature reaches the set-point, it will close the Motorized Valve and Fan both.

**HC4:** Control 4 pipe fan coil units, Control two Motorized Valves and 3-speed fan. When the temperature reaches the set-point, it will close the Motorized Valve and Fan both.

## BASIC FEATURES

- ☐ Room temperature setting
- ☐ Manual or Auto 3-speed changeover
- ☐ Defrost (low temperature protection)
- ☐ Clock, Timer, 7 days programmable (-T74)
- ☐ Blue backlight
- ☐ Auto Restart ( Option )
- ☐ Keypad Lock ( Option )

## SPECIFICATIONS

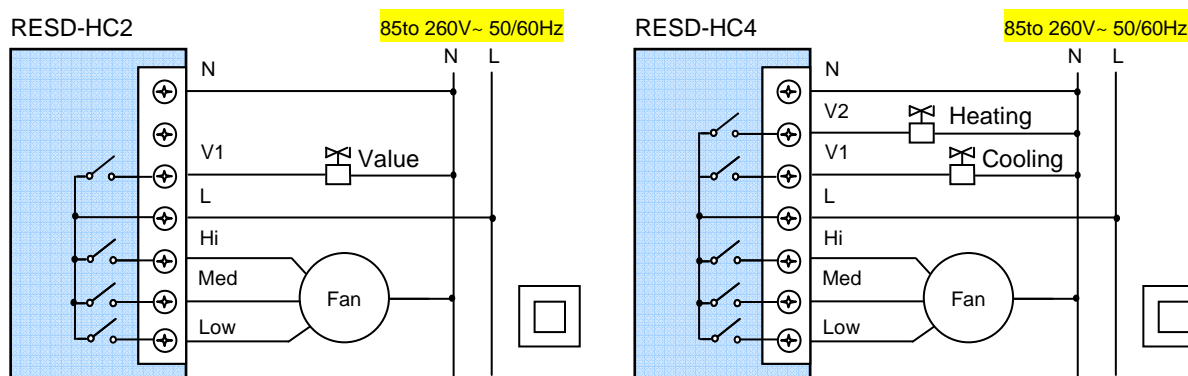
- ☐ Sensing element: NTC
- ☐ Accuracy: Temperature  $\pm 1^{\circ}\text{C}$  Time  $\pm 1$  min/month
- ☐ Set-point range: 5 to  $35^{\circ}\text{C}$
- ☐ Display range: 0 to  $55^{\circ}\text{C}$
- ☐ Operation environment: T min  $0^{\circ}\text{C}$  T max  $45^{\circ}\text{C}$
- ☐ Power supply: 85 to 260V~, 50/60Hz
- ☐ Switch current rating: Resistive: 2 A, Inductive: 1 A
- ☐ Switching action Type 1B
- ☐ Control pollution degree 2
- ☐ Rated impulse V 2.5kV
- ☐ Ball Hardness  $75^{\circ}\text{C}$
- ☐ Power reserve 24 hrs minimum
- ☐ Setting accuracy  $\pm 0.5^{\circ}\text{C}$   $\pm 1$  minute

## STATUS DISPLAY

- ☐ Working Status: Cool ❄️, Heat ☀️, Ventilation 🌀
- ☐ Fan Speeds: Low 🌀, Medium 🌀, High 🌀 and Auto 🌀
- ☐ Room temperature display
- ☐ Temperature setting display
- ☐ FCU valve 🌀
- ☐ Clock week display

- ☐ Rated Power: < 1 W
- ☐ Wirings: Screw-in terminals, each terminal capable of accepting  $2 \times 1.5 \text{ mm}^2$  or  $1 \times 2.5 \text{ mm}^2$  wires
- ☐ Housing: PC + ABS Flame Retardant
- ☐ Dimensions:  $86 \times 86 \times 13 \text{ mm}$  ( W x H x D )
- ☐ Hole pitch: 60 mm ( Standard )
- ☐ Protection Class: IP30
- ☐ Display: LCD

## WIRING DIAGRAMS



## OPERATION

☞ On/Off: Press “” to turn on, press “” again to turn off thermostat and its output.

☞ Setting temperature: press “” to reduce temperature, press “” to raise temperature (0.5°C changed each press) set point only valid in current period of time; Clock adjustment, turn on/off or 7 days programming modification, it will perform new settings.

**Note:** When 4 periods function On, press “” or “” to adjust current set-point, “Override” will show on LCD, it denote the thermostat will run as per current setting instead of 4 periods setting.

☞ Mode Selection: Press “M” to select cooling , heating or ventilation modes, the related icon will flash, and it will be confirmed automatically after 6 seconds.

☞ Fan speed select: Press “” to select “ (Hi), (Med), (Low), (Auto)”.

In mode “ (Auto)”, the fan-speed will changed automatically. When: LOW-speed When the difference between room-temperature and setting-temperature exceed 1°C , Auto MED-speed When exceed 2°C Auto HI-speed When exceed 3°C.

## CLOCK CALIBRATION

☞ Clock setting: Press “” till to display “hh:mm” and “hh” flash, press “” or “” to adjust hour, press “”, “mm” flash, press “” or “” to adjust minute; Press “”, “week” flash, press “” or “” to adjust Mon to Sun.

## TIMER ON AND TIMER OFF

☞ Timer on: Press “”, till to display “” and “ON” and all flash, and also “hh” flash, press “” or “” to adjust hour. Press “”, “mm” flash, press “” or “” to adjust minute.

☞ Timer off: Press “”, till to display “” and “OFF” and all flash, and also “hh” flash, press “” or “” to adjust hour. Press “”, “mm” flash, press “” or “” to adjust minute.

☞ Canceling timer on: Press “”, till to display “” and “ON” and all flash, and also “hh” flash, press “” or “” to adjust hour to “--:--”. Press “”, “mm” flash, press “” or “” to adjust minute to “--:--”.

☞ Canceling timer off: Press “”, till to display “” and “OFF” and all flash, and also “hh” flash, press “” or “” to adjust hour to “--:--”. Press “”, “mm” flash, press “” or “” to adjust minute to “--:--”.

## 7 DAYS PROGRAMMING ( -T74 )

☞ 7 days four events programming: four events each day (1, 2, 3, 4), there is starting time and programming temp for each event. (chart.1)

Please make good plan of starting time and temp. Before 7 days programming according below:

☞ Press “⊕” for 3 seconds, until “PROG.”, “1” and “Mon” display, set 4 events programming of Mon according Chart 1 and below steps.

“hh” flash in “hh:mm”, set hours with “▲” and “▼”; Press “⊕”, “mm” flash in “hh:mm”, press “▲” and “▼” to set minutes.


Press “⊕”, programming temp. flash, press “▲” or “▼” to set programming temp.



Press “⊕”, set 2 - 4 events of Mon. by repeating steps above.

Week	Chart							
	1		2		3		4	
	Starting T / temp. °C		Starting T / temp. °C		Starting T / temp. °C		Starting T / temp. °C	
Mon.	7:00	25°C	8:00	25°C	18:00	25°C	21:00	25°C
Tue.	7:00	25°C	8:00	25°C	18:00	25°C	21:00	25°C
Wed.	7:00	25°C	8:00	25°C	18:00	25°C	21:00	25°C
Thu.	7:00	25°C	8:00	25°C	18:00	25°C	21:00	25°C
Fri.	7:00	25°C	8:00	25°C	18:00	25°C	21:00	25°C
Sat.	7:00	25°C	8:00	25°C	18:00	25°C	21:00	25°C
Sun.	7:00	25°C	8:00	25°C	18:00	25°C	21:00	25°C

Repeat above setting steps for “Tue Wed Thu Fri Sat Sun”.

## KEYPAD LOCK ( Option )

☞ With thermostat standby for 30 seconds, the function will enable automatically. The “” will be displayed on the LCD and keypads are locked for fear anyone operated.


☞ To disable the function: Press “” button for 5 seconds till “” disappeared on the LCD, the function will be disable.

## AUTO RESTART ( Option )

☞ When the thermostat is at ON status for 6 seconds, if power cut, it will return back to running automatically with the status how it is one minute ago after power coming back.


☞ When the thermostat is at OFF status for 6 seconds, if power cut, it will keep OFF status after power coming back.

## DEFROST (Low temperature protection)

☞ Description: when the thermostat turns off and the room temperature is lower than 5□, it will be turned on automatically in heating mode with “” showing, thermostat will be in heat mode and fan runs in high speed. The thermostat will turn off when temperature is higher than 7□.

☞ Set low temperature protection: Turn off the thermostat, press “M” and hold for 3 seconds, it will display “ON” or “OF”, Press “▲” or “▼” key to adjust. “OF” indicates invalid low temperature protection, “ON” indicates valid low temperature protection function. The default is “OF”.

## ALARM

☞ **Trouble appears for sensor, fan and valve will be turned off by thermostat, as indicating “” and “E1” or “E2”.**

E1: alarming for short circuit of sensor. E2: alarming for open circuit of sensor.

“HI” indicated when temp. Is more than 55□. “LO” indicated if temp. Is lower than 0□.

## INSTALLATION



1. Open the clip



2. Wiring



3. Fix thermostat with two bolts



4. Lock surface and finished

### Attention:

**A standard electrical box is required: Wiring work should be done according to wiring diagram.  
Water, mud etc. impurity should be kept outside of thermostat or damage will occur**