

THERMOLEC

CTH294 Room and Duct Type 2 stage High Temperature Range 2 position ON/OFF LCD Electronic Thermostat 24V

Mounting Location:

For room applications:

The thermostat is restricted to be used indoors only. It should be mounted where it is readily affected by changes of the general room temperature/humidity with freely circulating air.

For duct applications:

Use external sensor and install the thermostat in any location for your application. Do not expose this unit to condensation.

Mounting Instruction:

1/.Remove Cover:

- Place the screwdriver at the bottom of the locks and loosen the screws (@ '1') & (@ '2')
- Remove the top cover carefully forward(@ '3') and then upward(@ '4 ')to loosen the top locks

2/.Mounting without bottom plate (Diagram 1):

- Ensure the surface is level
- Pull the cables through the hole near the terminal block
- Use wall anchors provided if necessary.
- Fasten the thermostat with 2 long screws through the 2 mounting holes

3/.Mounting with bottom plate (Diagram 2):

- Adjust the bottom plate on the wall or junction box and ensure the plate is at surface level and covers the junction box completely
- If necessary, pull the cables out of the middle hole of the bottom plate
- Use wall anchors provided if necessary
- Fasten the plate with 2 long screws
- Pull the cables through the hole near the terminal block
- Fasten the thermostat with 2 screws provided to the mounting plate

4/.Electrical Connection:

- Connect the cable to the terminal block according to the circuit diagram attached inside the top cover
- It is recommended to use a fuse or circuit protective device

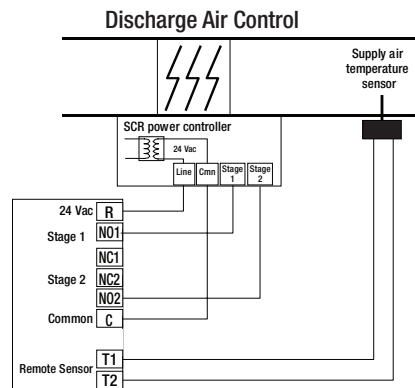
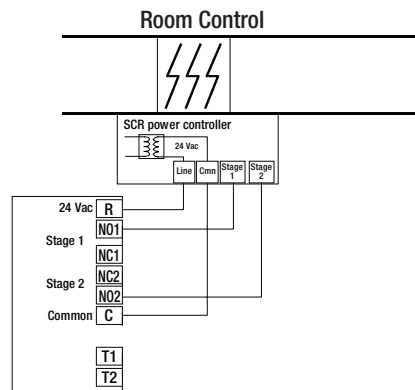
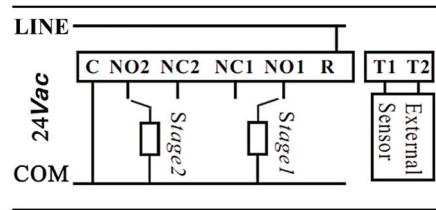
5/.Install the Cover:

- Ensure the rubber key is firmly attached on the PCB (@ '5')
- Ensure rubber key fits through the opening of the cover (@ '6')
- Replace the cover in direction (@ '7') and ensure the top locks are fastened

- Press the cover in direction (@ '8') and fasten the cover with 2 screws (@ '9') &(@ '10')
- Check that the rubber keys can be moved smoothly, otherwise reinstall the cover and realign properly

6/. Temperature setting:

- Select the comfortable temperature by pressing or ▼ to the desirable temperature set point. The ▲ set point will flash after releasing the keys.
- The display of the room or duct temperature will return after 10 seconds
- Backlight will illuminate by pressing ▲ or ▼ or 🖱 it will return after 10 seconds once the keys are released



7/.Dip switch Selections:

Pole	OFF	ON
1	°C	°F
2	Internal sensor	External Sensor
3	Limited set point range	Normal set point range
4	Span selection	
5		
6	Switch Differential selection	
7		

Re-power the thermostat after changing the dipswitch settings

Stage1 Span selection (Relative to Setpoint)

Span	Pole 4	Pole 5
1°C	OFF	OFF
2°C	ON	OFF
4°C	OFF	ON
6°C	ON	ON

Stage 2 Differential selection

Differential	Pole 6	Pole 7
1°C	OFF	OFF
2°C	ON	OFF
4°C	OFF	ON
6°C	ON	ON

8/. Adjusting the Set point (Dip switch 3)

With dipswitch # 3 we can select a normal or limited temperature range. See tables below.

Normal set point range:

- 5.0 - 55.0°C (0.5°C resolution)
- 40 - 130°F (1° F resolution)

Limited set point range:

- 18.0 - 24.0°C (0.5°C resolution)
- 64 - 76°F (1°F resolution)

Technical Data:

Temperature Control Range: 5- 55°C / 40 - 130°F

Temperature measurement: 0- 60°C /

Accuracy: ± 1°F, ±0.5°C

Resolution: 1°F, 0.5°C

Operating Voltage: 24Vac

Frequency: 50/60Hz

Relay Rating: 24Vac 2A

Sensing Element: NTC thermistor

Terminals: 18 gauge

Operating Temperature: 0 - 40°C / 32 - 104°F

Storage Temperature: -10 - 50°C / 0 - 122°F

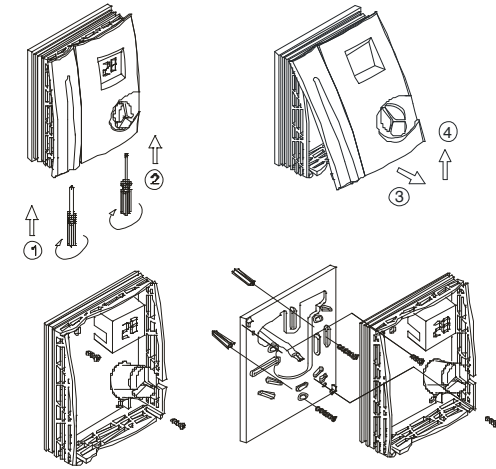
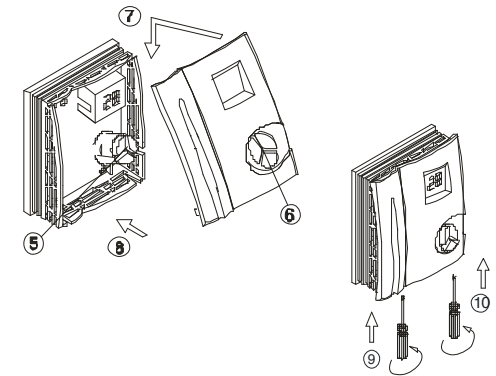


Diagram 1

Diagram 2



9/. Backlight:

- Press 🖱 the backlight will light up the LCD display for 10 seconds.

10/. Output icon

Stage 1 heating is turned on, LCD displays 🌞 icon

- Stage 2 heating is turned on, 🌞 icon will be flashing

- All output is off, no icon will be shown

Factory default

Dip Switch Selection
 #1 OFF
 #2 ON
 #3 ON
 #4 OFF
 #5 ON
 #6 ON
 #7 OFF

Caution: Switch off the electric source before maintenance the thermostat. We recommend that the maintenance should be performed by trained personnel.