Mode Type

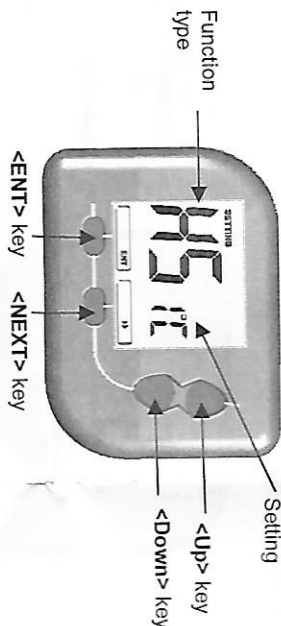**<ENT> key**
<Up> key
<Down> key

3. The letters represent Mode type.
4. Press <Up>/ <Down> to adjust Mode type.
5. Press <ENT> to select Mode type and return to Normal Display Mode.

Function Setting Selection

1. Press and hold <Fan> and <Down> keys for 2 sec.
2. LCD changes to the display of Function setting selection.

Function type

<ENT> key
<NEXT> key
Setting
<Down> key
<Up> key

3. The left letters represent Function type; the right letters represent Setting.
4. Press <Up>/ <Down> to adjust Function type/ Setting.
5. Press <NEXT> to select Function type/ Setting.
6. Press <ENT> to return to Normal Display Mode.

Description of the Mode types:

1. **Heat only**
Heat Only Mode can be used for normal-open or normal-close valves. Fan cannot be selected.

2. **Heat with fan**
Heat Only Mode with Fan Selection.

3. **Cool**
Cool Only Mode with Fan Selection.

4. **Heat Pump**
Heat/ Cool/ Auto Mode can be selected with changeover valve (reversing Valve).
(**While in Auto Mode, there is a Heat/Cool switching delay of 4 minutes for switching a heating system to cooling system or vice versa. During the period, neither Heater / Cooler nor Fan will turn on.)

5. **Electric / gas heat with cool**
Heat/ Cool/ Auto Mode can be selected. (Default Setting)

Table of the Internal Setting:

Mode type	Function type	Setting
HO Heat only	HS Span of Heater	1°C / 2°F
		2°C
	dU Temperature Display Unit	°C
		°F
HF Heat with fan	HS Span of Heater	1°C/ 2°F
		2°C/ 4°F
	dU Temperature Display Unit	°C
		°F
	FC Fan Control Method	E Electric furnace – thermostat controls fan
		O Gas Heater– equipment controls fan
CL Cool	CS Span of Cool	1°C/ 2°F
		2°C/ 4°F
	dU Temperature Display Unit	°C
		°F
	Cd Compressor Minimum-Off Delay	1 1 minute compressor off delay
		2 2 minute compressor off delay
		3 3 minute compressor off delay
		4 4 minute compressor off delay
		5 5 minute compressor off delay
HP Heat pump	CS Span of Cool	1°C/ 2°F
		2°C/ 4°F
	HS Span of Heater	1°C/ 2°F
		2°C/ 4°F
	CO Changeover Valve	C O/B terminal energized in cooling (default)
		H O/B terminal energized in heating
	dU Temperature Display Unit	°C
		°F
	Cd Compressor/ Heater Minimum-Off Delay	1 1 minute compressor off delay
		2 2 minute compressor off delay
		3 3 minute compressor off delay
		4 4 minute compressor off delay
		5 5 minute compressor off delay
	SL Mode Adjustment	1 Heat, Cool, Off Selectable
		2 Auto, Off Selectable
		3 Heat, Cool, Off, Auto Selectable
HC Electrical /gas heat with cool	CS Span of Cool	1°C/ 2°F (Default setting)
		2°C/ 4°F
	HS Span of Heater	1°C/ 2°F
		2°C/ 4°F (Default setting)
	dU Temperature Display Unit	°C (Default setting)
		°F
	Cd Compressor Minimum-Off Delay	1 1 minute compressor off delay
		2 2 minute compressor off delay
		3 3 minute compressor off delay (Default setting)
		4 4 minute compressor off delay
		5 5 minute compressor off delay
	SL Mode Adjustment	1 Heat, Cool, Off Selectable
		2 Auto, Off Selectable
		3 Heat, Cool, Off, Auto Selectable (Default setting)
	FC Fan Control Method	O Gas furnace – equipment controls fan
		E Electric furnace – thermostat controls fan (Default setting)

F. Replaceable Batteries Instruction

Batteries shall be installed with proper polarity and correct battery type.

Do not use old and new batteries simultaneously;

Batteries shall be removed if consumed or if product is to be left unused for a long time. Use 1.5V/ cell ALKALINE batteries 2 pieces.

G. Specification:

1. Temperature Measurement: 0°C~40°C/ 32°F~99°F
2. Accuracy: ±0.5°C/ 1°F
3. Temperature Controllable Range: 5°C~35°C/ 40°F~95°F
   Heat/ cool Mode.
   Heat/Cool Mode:
   Auto Mode:
   Heat Setting: 5°C~30°C/ 40°F~85°F
   Cool Setting: 10°C~35°C/ 50°F~95°F
4. Resolution: 0.5°C/1°F
5. Power Supply: 24V~ +/-10% or 2 x AAA alka… batteries
6. Rating: 24V~ 50/ 60Hz 1A max
7. Terminals: 2mm² cable
8. Operating Temperature: 0~50°C/ 32~122 °F
9. Storage Temperature: -5~50°C/ 23~122 °F
10. Sensing Element: NTC thermistor

Due to continual product improvement these specifications are subject to change without notice.

Warranty – One Year Return to Base.
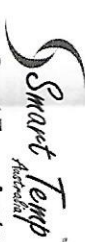
Smart Temp Model SMT-110 Digital Thermostat

A. Installation, Mounting:

CAUTION:
1. Turn off SMT-110, all electronic source and electrical devices (e.g. heater) which will be connected before installation and maintenance.
2. The installer must be a trained HVAC service technician.
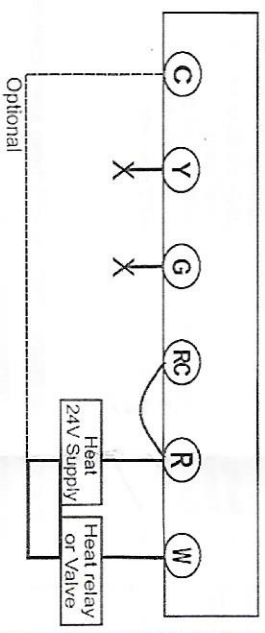
1. Installation Location

The thermostat should be mounted on an inner wall 1.5m above the floor in a position where it is readily affected by changes of general room temperature with freely circulating air. Prevent direct exposure to sunlight. Do not place this unit at a location where air circulation is low or where there is great temperature changes (e.g. near door). Do not place the thermostat near any heat generating sources (e.g. hot air vents, TV or lights).
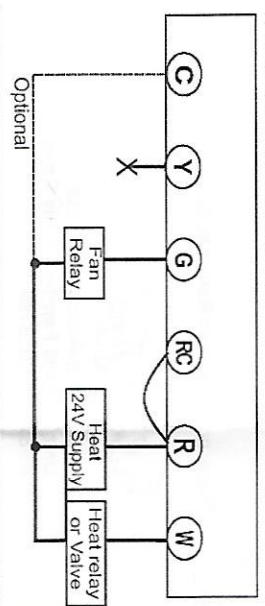
2. Wiring

The SMT-110 has 6 terminals at the back of the thermostat which are labeled as "C", "Y" and "G", "RC", "R" and "O/W B". Different wirings are for different Mode types.
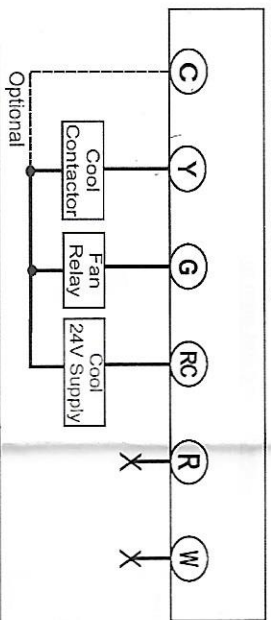
"C" Terminal is optional for 24Vac Powered
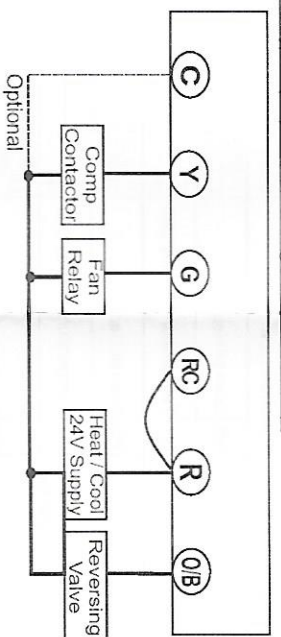
Mode type 1 (HO): Two wire Heat only

Optional
C Y G RC R W
Heat 24V Supply | Heat relay or Valve

Mode type 2 (HF): Three wire Heat only

Optional
C Y G RC R W
Fan Relay | Heat 24V Supply | Heat relay or Valve

Mode type 3 (CL): Three wire Cool only

Optional
C Y G RC R W
Cool Contactor | Fan Relay | Cool 24V Supply

Mode type 4 (HP): Four wire Single Stage Heat Pump:

Optional
C Y G RC R O/B
Comp Contactor | Fan Relay | Heat / Cool 24V Supply | Reversing Valve

Mode type 5: Single Transformer Heat/Cool System

Optional
C Y G RC R W
Cool Contactor | Fan Relay | Heat / Cool 24V Supply | Heat relay or Valve

Mode type 6: Two Transformer Heat/Cool System

Optional
C Y G RC R W
Cool Contactor | Fan Relay | Cool 24V Supply | Heat 24V Supply | Heat relay or Valve
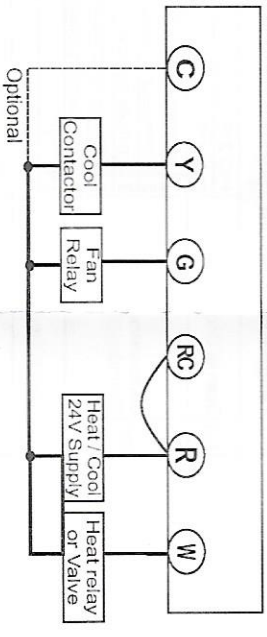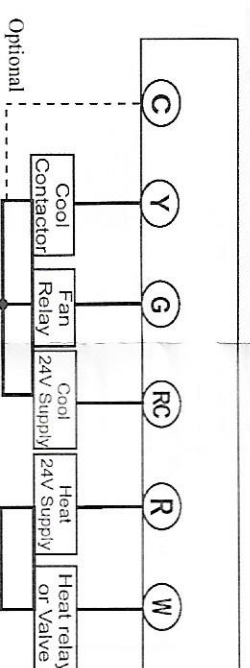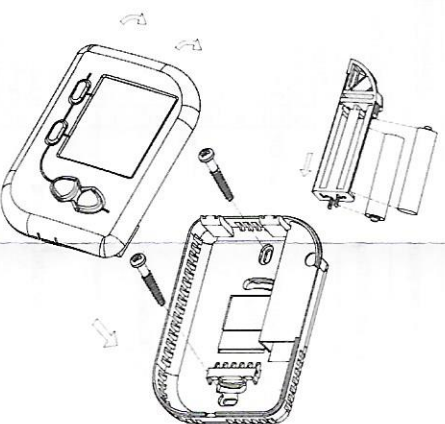
3. Mounting:

1. Ensure that the surface is level.
2. Place the cables at the hole near the terminal block.
3. Insert 2 pcs of wall anchors into the holes of the wall.
4. Fasten the thermostat with 2 pcs of long screws through the 2 mounting holes.

B. Start/Reset:

1. When the system is reset, all the LCD segments is ON and measured temperature will be displayed after a while.
2. Low Battery Check will be done at startup. [Low Batt] will be shown battery is low
3. Output will be turned off at startup.

C. Normal Display Mode:

1. Temperature detection starts and LCD displays the room temperature.
2. In Heat or Auto Mode, defrost function is activated with [Defrost] displayed when temperature is below 5°C/ 40°F. Heater is on regardless of the setting temperatures
3. Below 0°C/ 32°F, SMT-110 will display *LO*.
4. Above 40°C/ 99°F, SMT-110 will display *HI*.

<Mode> key   <Fan> key

<Down> key   <Up> key
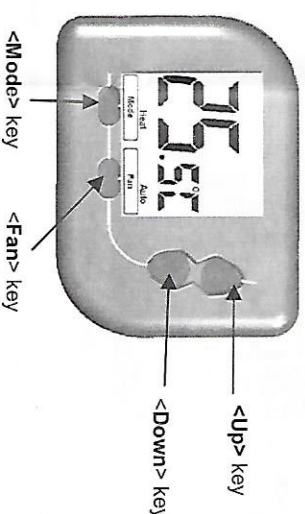
D. Temperature Setting Display Mode:

To adjust Heat/ Cool setting
1. Press <Up> or <Down> keys to adjust Heat/ Cool setting temperature in Normal Display Mode.
2. Heat/ Cool setting temperature flashes.
3. In Heat Mode, only Heat setting temperature can be adjusted.
4. In Cool Mode, only Cool setting temperature can be adjusted.
5. In Auto Mode, Heat and Cool setting temperature can be adjusted.
6. In Off Mode, no setting temperature can be adjusted.
7. Press <Mode> key to exchange the Heat and Cool setting temperature in Auto Mode.
8. The operation will resume to Normal Display Mode if no key is pressed for 10 sec.

5. Press <Up>/ <Down> to adjust Heat/ Cool setting temperature
6. Press <Mode> to select Heat/ Cool/ Auto/ Off Mode
7. Press <Fan> to select Fan On/ Auto

E. Internal Mode Setting Display:

To adjust the internal setting of SMT-110:

Mode Type Selection

1. Press and hold <Mode> and <Up> keys for 2 sec.
2. LCD changes to the display of Mode type selection.