

C. Repeat the above procedures to set the second time bucket to the sixth time bucket of Monday ~ Friday.

D Repeat the above procedures to set the time bucket of Saturday and Sunday.

E. Save;

F. When the set temperature is less than 1℃, it displays OF, at this time bucket, the equipment is out of service;

3.6: Key lock: Press and hold the keys "□" and "⊙" for 6S to lock the key ("Loc" will present at the clock.) and deactivate the keys, then press and hold the keys "□" and "⊙" for 6S again to unlock the key.

IV. Alarm prompt:

Faults occur to the sensor and the thermostat shuts down the output. Meanwhile, display the related error codes.

E1: Short/open circuit alarm of indoor temperature sensor; E2: Short/open circuit alarm of indoor temperature sensor;

V. Engineer's Mode: Operation Instructions for Composite Key (Note: It's forbidden to operate this key unless it is required by the engineer.)

5.1: Restore factory default

In startup/shutdown condition, simultaneously press and hold the keys "□" and "▼" for 6S to restore the factory default. The nixie tube flickers and displays "RE" for 6S or press the key "⊙" for confirmation;

5.2: Full-featured Query and Setting Methods of Various Parameters:

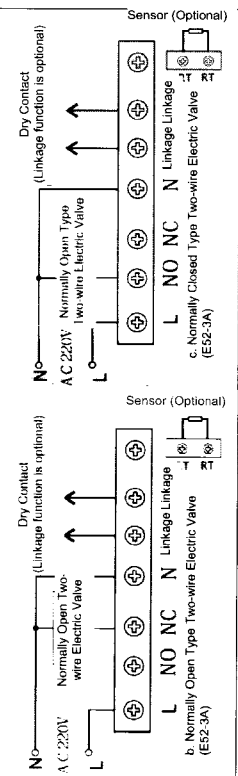
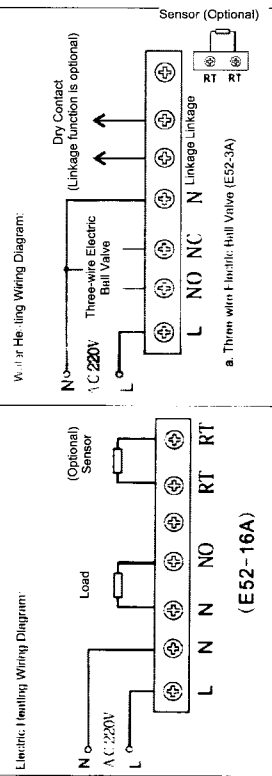
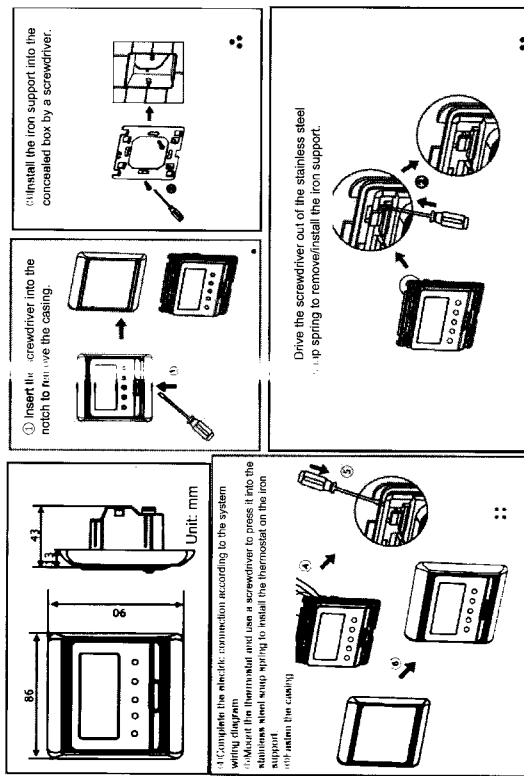
In shutdown condition, press and hold the mode key "□" for 6S to enter the engineering mode adjustment for selection.

Code	Function	Range	Factory Default/Remarks
01	Temperature Control Mode	1: Indoor Temperature Single Built-in Control; 2: Temperature/Independent Dual Control; 3: Single External Sensor Control;	The default temperature control mode is 1
02	Temperature Correction	-8℃ ~ 8℃	Factory Default: 0℃
03	Setting of Upper Temperature Limit	15℃ ~90℃	Factory Default: 50℃
04	Setting of Upper Limit of Indoor Temperature Control Return Difference	0℃ ~9℃	Factory Default: 0℃
05	Setting of Lower Limit of Indoor Temperature Control Return Difference	-9℃ ~0℃	Factory Default: -2℃
06	Selection of low-temperature protection function	ON/OFF	Factory Default: OFF
07	Startup & shutdown power failure memory selection	ON/OFF	Factory Default: OFF (if it is set as OFF, the thermostat will be in shutdown condition and the rest data remains unchanged in case of power on.)
08	Settings of External Sensor Control Return Difference	-9 ~0℃	Factory Default: -5℃; this item will be entered only in the temperature control condition 2.

VI. The installation schematic diagram and wiring diagram are as follows:

Boundary Dimension

Installation Procedures



Warning: The wiring must be performed correctly in accordance with the electrical wiring diagram and no water, mud and other impurities shall enter the thermostat, otherwise, the devices will be damaged!

Operation Instructions for E 52 Full-featured Heating Thermostat

The E52 5+2 full-featured heating thermostat adapts the latest appearance design and is applicable to the temperature control of the industrial, commercial and domestic rooms and is capable of controlling the carbon crystal heater, wall heater, electrothermal film, heating cable, carbon fiber, electric ball valve and other heaters to achieve the heating function.

Controlled Heating Principles: In startup condition, when the measured temperature is less than the set value, the output relay will be switched on and the heater will start heating. When the measured temperature is greater than the set value, the output relay will be switched off and the heater will stop heating.

The casing is made of flame-resistant ABS + 30% PC materials, with a boundary dimension of 86×86 mm and a thickness of only 13 mm.

I. Basic functional features

- Dual temperature/dual display
- Blue backlight (it will turn out in case of no operations within 20S)
- 5 + 2 programmable and non-programmable
- Low-temperature protection functions: (optional) Antifreezing (optional)
- The controlled Temperatures are full-open and can be adjusted upwards and downwards.
- Startup & shutdown power failure memory (optional)
- The time bucket can be set as operational or non-operational for 5+2 programming
- With key lock function
- The full-open setting and selection of the parameters and models (Engineer's Mode) are performed and the filed installation and setting are flexible.
- Setting and display of external sensors (measurement/overheating protection)
- Three temperature control methods: 1. Single built-in sensor for temperature measurement 2. Internal control and external limit mode 3. Single external sensor for temperature measurement
- Model Selection: 1. Water heating E52-3A (it is capable of controlling two/three-wire valve and with the dry contact output (optional) 2. Electric heating E52-16A
- When heating output state: The heating sign will present in startup condition and disappear in case of shutdown.

II. Technical indicators

- Range of set indoor temperature: 1-50 °C (factory default), (Adjustable upper temperature limit: 15-90°C)
- For example: When the upper temperature limit is adjusted as 22 °C, the indoor temperature can be set as 1~22°C.
- Setting range of temperature limit and overheat protection: 20~90 °C adjustable (controlled temperature difference: -5°C)
- Temperature sensor: NTC
- Power supply voltage: 220 VAC ± 10% • Water heating load: <3A 50/60 HZ • Self-consuming power: <1.2W
- Electric heating load: <3000W
- Distance between mounting holes: 60 mm • Boundary dimension: 86×86×13 mm
- Temperature control precision: ±1°C (standard)

III. Operation instruction (save method: when the data is changed, press "□" key or make no operations with 6S to end and save the related settings)

3.1: Clock adjustment.

Press the clock key "⌚" and press "▲" or "▼" key to adjust the clock.

3.2: Temperature setting: In startup condition, under the normal display condition of LCD, press "▲" or "▼" key to set the temperature. Press the key once to change the temperature by 1°C.

3.3: Overtemperature protection setting (in dual temperature/independent control mode and startup condition)

A. Simultaneously Press the "▲" key and "▼" key for 6S to switch to the ground temperature display state. The measured value and the set value of the ground temperature will be displayed on the LCD.

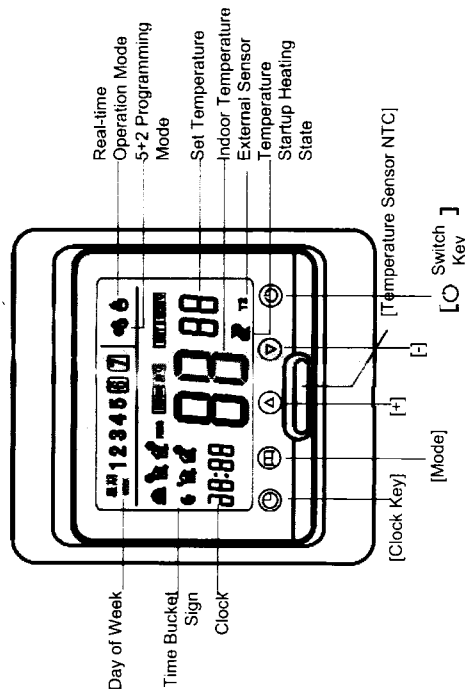
B. Press "▲" key and "▼" key to set the ground temperature protection points. The temperature can be set as 20-90 °C and the default value is 65°C.

C. Overheat protection (temperature limit protection) When the temperature measured by the ground temperature sensor is greater than the overtemperature protection point (the default value is 65°C), it will automatically shut down the heating output and resume work after the measured temperature decreases by 5°C (adjustable);

The default programming is as follows: Table 1

Day of Week	1	2	3	4	5	6
	Starting Time/Temperature	Starting Time/Temperature	Starting Time/Temperature	Starting Time/Temperature	Starting Time/Temperature	Starting Time/Temperature
Monday ~ Friday	6: 00 20	7: 30 15	11: 30 20	14: 00 15	17: 00 20	22: 00 15
Saturday	6: 00 20	7: 30 15	11: 30 20	14: 00 15	17: 00 20	22: 00 15
Sunday	6: 00 20	7: 30 15	11: 30 20	14: 00 15	17: 00 20	22: 00 15

Function and display description



3.4: The real-time heating or 5+2 programmed heating can be selected (optional function)

Press the mode key "⏏" to select real-time heating mode "⏏", and programmed heating mode "⏏"; it will automatically operate in the programmed heating mode: it will operate as per the time and set temperature in Table 1 (the time and temperature can be set separately and memorized): Factory default;

3.5: 7-day programming procedures (in programming mode)

A. Press and hold the key "⏏" for 3S to select the time bucket and temperature;

B. Press the "▲" or "▼" key to set the time bucket and temperature;