INSTRUCTION MANUAL

Funkyheat
SMART EFFICIENT HEATING

ECO RANGE
FAR INFRARED HEATER

Sold & Distributed in the UK & Ireland by:
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This appliance complies with European Directives:

CE

EN60335-1
EN60335-2-30
EN62233

CONTENTS

Funkyheat
SMART EFFICIENT HEATING

Introduction

In this manual there is important information for the installation of your infrared heater. You have acquired an ecologic, economic heater and are thereby making an effective contribution in saving the environment.

The infrared heating system proves itself through simple installation, flexibility in the assembling and freedom from maintenance. So you can enjoy long use of your infrared heater.

To ensure your safety, please carefully read the instructions before installation.

Keep this manual at hand and never sell on or give this infrared heater to anyone without the manual.

This infrared heater does not work on the principle of convection heat but is a radiant heater. Therefore, it is possible when first switching on that cold areas (furniture, walls, ceiling and floors) need to be warmed up first.

If you don't immediately have a comfortable feeling of warmth, then let the heater run for several hours, or even several days if necessary, until a comfortable indoor climate has been reached.

As soon as the solid areas have warmed up, comfortable warmth will spread throughout the room and then you can reduce the running time of your heater to the minimum. The thermostat set (if supplied) will control this for you. To enjoy the comfortable warmth to its fullest, we recommend that you install a high-quality control (thermostat) – if you have not purchased this already, then please contact a specialised dealer or service company.

Safety Instructions

- The heating element must not be installed directly below a wall socket.

- The installation of an infrared heater in wet rooms (rooms with shower, bathtub or swimming pool) as well as in public places may only be done by a specialised installation company taking into account the appropriate standards and norms of the country concerned.

- The infrared heater may only be connected to alternating current 230 Volt, 50Hz.

- The infrared heater must not be exposed to excessive moisture.

- Do not put objects on the infrared heater and do not cover the infrared heater. This will cause a risk of overheating!!

- The infrared heater is equipped with a safety temperature limiting device, which turns off the heater in case of overheating and then automatically turns it on again after is has cooled.

- It must be possible to switch off the heater either by switch on the socket or fused spur, or by the thermostat (if wired) at all times during operation.

- The minimum distance to other objects should be 50cm from the front, 20cm to the sides and 10cm upward and downward.

- For the installation of an infrared heater on a brick or stone wall, only the holding and fixing material provided should be used. On other types of wall or masonry (e.g. plasterboard, wood) please use suitable holding and fixing material.

- In case of possible disassembly or transport allow the infrared heater to completely cool down before attempting to move.

- The infrared heater is not meant to be handled by persons (children included) with reduced physical, sensorial or mental faculties or without

Funkyheat
SMART EFFICIENT HEATING

experience and/or knowledge, unless they are supervised by a person responsible for their safety or receive instructions on how to use the device.

- Children never see danger, which can occur when dealing with electrical devices. So never leave children alone with electrical devices. Keep out of reach of small children. If the device is installed in children's rooms or rooms accessible to children, make sure that the device is suspended at a minimum of 1.2m above the ground.

- Do not try to repair the infrared heater, the power cable cannot be replaced and must always be returned to the manufacturer for repairs.

Installation

Read these safety instructions and manual before use!

Check the infrared heater for visible damage and whether the main voltage is in accordance with the voltage information on the type plate (verso).

If you notice damage, do not install the heater – contact your specialist dealer.

We recommend that you do not throw away the original package of the device. Store the original package for possible transport.

Remove the existing EU plug by cutting this off, then proceed to install the thermostat receiver, details below.

Installi

Green Route
ENERGY

Please find below instructions for the thermostat set for your IR Heaters. The thermostat set should only be connected by a competent person and if you are in any doubt we recommend that this is done by a qualified electrician.

This thermostat is very advanced and will allow you to vary your programmes for the heater throughout the day / week.

The receiver needs to be connected to the power cable of the heater.

1. Decide whether you want the receiver to be visible or hidden behind the panel heater.

2. Cut the power cable so that you have enough to feed through to the receiver.

3. Feed the power cable through the plastic grommet supplied with the thermostat set and secure the grommet in place with the supplied nut.

4. Connect the neutral and live wires from the heater to the connections marked N (neutral) and L (Live) to the connectors indicated as LOAD inside the receiver. Leave the earth cable disconnected.

5. Taking the cable that you have cut off, feed the power cable through the plastic grommet supplied with the thermostat set and secure the grommet in place with the supplied nut. Connect the neutral and live wires to the connections marked N (neutral) and L (Live) to the connectors indicated as POWER inside the receiver. Leave the earth cable disconnected.

6. Connect the two earth wires together using an insulated connector block

7. Replace the cover to the receiver and fix to the back of the heater if desired.

8. You now need to pair the heater. This is done automatically, but you must ensure that the display shows a snowflake icon for this to happen.

9. The wireless controller can be placed wherever in the room you feel most appropriate and can be moved as you wish. It is sensible to try and place at shoulder height and away from other heat sources (such as TV or windows) since the temperature is measured by this unit and it will tell the heater to switch on or off as required.

Funkyheat
SMART EFFICIENT HEATING

The preparation of the heater can now be completed by fitting a 13amp UK plug or hardwiring the heater to a fused spur (which must be done by a qualified electrician).

The heater can now be paired with the wireless thermostat controller, full details for the controller can be found in the appendix of this manual.

Cleaning and Care

Before cleaning, always disconnect the main power plug.

To clean you should use a smooth and damp cloth and a little washing up liquid detergent.

Never clean the infrared heating element and the power supply cables under running water, nor submerse in water.

Do not use harsh, abrasive or easily inflammable detergents.

Disposal

The infrared heating element has to be disposed separately from general household waste at municipal refuse service provided for this purpose. Y

You can obtain detailed information for disposal from your local authority.

Appendix

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SMART EFFICIENT HEATING

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SMART EFFICIENT HEATING

CC908-RF3 **Wireless temperature controller**

CC908-RF3 can replace most common residential thermostat and is designed to be used with electric, gas or oil heating control system.

Unlike ordinary single unit design thermostat, this unit is a new type of thermostat separating the thermostat function into two units. Receiver CC2010DE and Control Centre CC908-DF1. The Receiver serves for wiring connections and heat on/off control. The Control Centre serves as user interface and temperature sensing/control. User can put the control Centre nearby and can read/control the temperature of really the living area while put the Receiver besides the heating system.

SPECIFICATION

- Power source …………………………Control Centre 2 AA batteries
  Receiver 220VAC±10% 50/60HZ
- Frequency band…………………….…868MHZ
- Relay contact………………………..…16A/250VAC
- Room temperature setting range………5℃-35℃（41℉-95℉）
- Accuracy…………………………………..1℉or0.5℃
- Dimensions…………………………Control Centre ：115mm*90mm*28mm
  Receiver：113mm*82mm*30mm

FEATURE

- Can be placed anywhere in the home to detect and control the temperature of an area of the user's choice. Not limited by power control wiring locations.
- Link with the Receiver via RF. Control distance 100M open site.
- Large LCD display
- The screen displays the set temperature and the room temperature also time simultaneously
- Permanent user setting and program setting retention during power loss
- Optional temperature display of Celsius or Fahrenheit scale
- Both Vacation mode and hold duration mode available for comfort and energy saving
- Optional programming Period: 7 individual day or Separate 5-day (weekday) and 1-day/1-day (Saturday/Sunday) programming with 4 or 6 separate time/temperature periods per day.
- Display temperature recalibrates
- Low battery indication
- Anti-freezing protection
- Pump protection available

IMPORTANT SAFETY INFORMATION

- Always turn off power at the main power source by unscrewing fuse or switching circuit breaker to the off position before installing, removing, cleaning, or servicing this thermostat.
- Read all of the information in this manual before installing this thermostat.
- Only a professional contractor should install this thermostat.
- All wiring must conform to local and national building and electrical codes and ordinances.
- This thermostat has a removable fuse to protect the system from damage. If system is not operating properly, check wiring and replace fuse if necessary.
- Use this thermostat only as described in this manual.

Commissioning

Hold the ◯ 🔆/📶 switch of the SAS2010DE over 3 sec，，LED of indicator lit up means for commissioning。Hold the ④buutom of the SAS908WHB-7-DF1 over 3 sec in standby mode, Begin launching debug command，，Receiving part of code indicator lit up finish commissioning, Return code value,LED of indicator lit up 4 times,：If the lights flashing said commissioning not succeed without.

Error Code

1）Low battery power alarm：When the battery power and the battery power low battery low-power alarm，Battery alarm sign " 🔋 " blink。

2）Communication impassability alarm：When the thermostat launch stop output or start output，Receiving no boot or not to receive signals can't return，Display section E1 flashing alarm。

E1Communication error alarm，Means to send data confiscated

E2 alarm means receiving module limited when temperature didn't answer the external temperature probe

E3 alarm means that receive limited the temperature when no external temperature probe detection limit temperature higher temperature than value

E4 alarm means that receive limited the temperature when no external temperature probe detection temperature below the limit temperature value

Control centre install

1. Remove 2 screws from the bottom of thermostat. (See Figure 6) Gently pull the control panel straight off the base. Forcing or prying on the thermostat will cause damage to the unit.

2. Push power base into wall.

3. Using two mounting screws mount the power base to the wall. Place a level against bottom of base, adjust until level, and then tighten screws. (Leveling is for appearance only and will not affect thermostat operation.)

4. Replace control panel on the power base and fix power base and control panel by removed two screws in item 1

mounting screw
base
enclosure
screwed connection

Receiver install

1

2 Base Panel
Remove the panel

3 Screws for mounting thermostat to conduit box

4
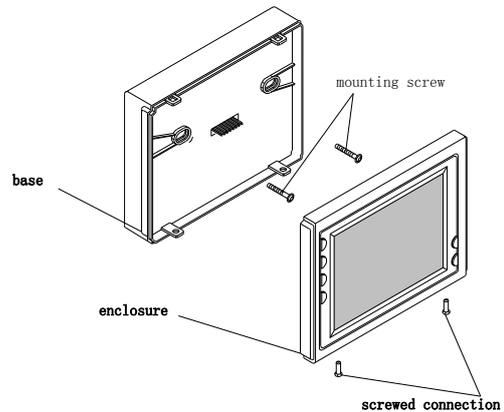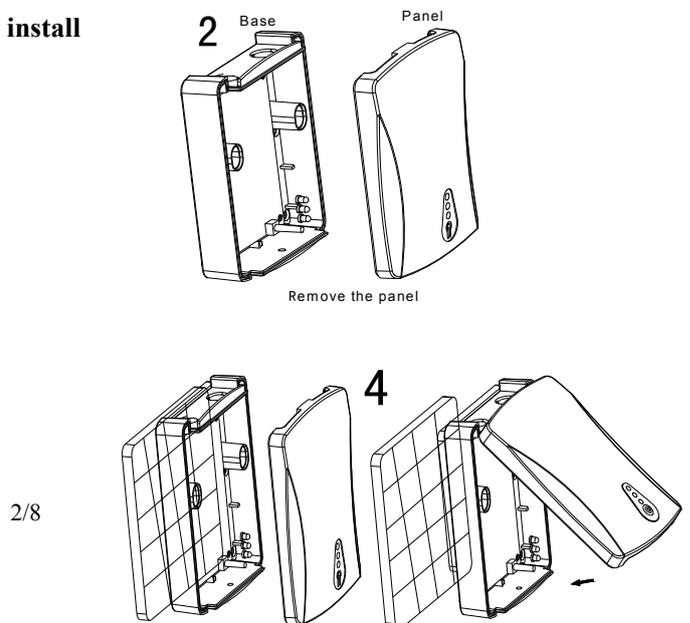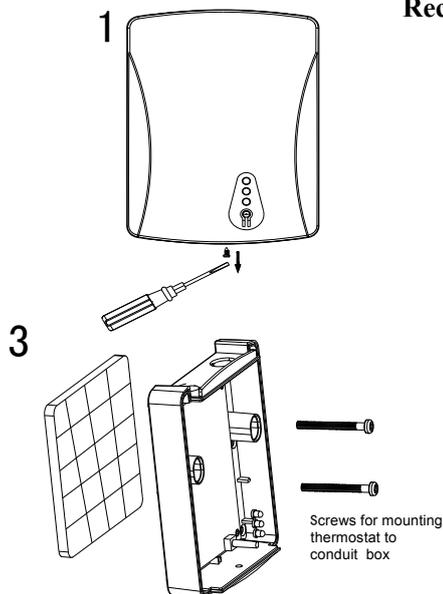
KEYBOARD, DISPLAY AND SWITCH DESCRIOPTION OF CONTROL CENTRE
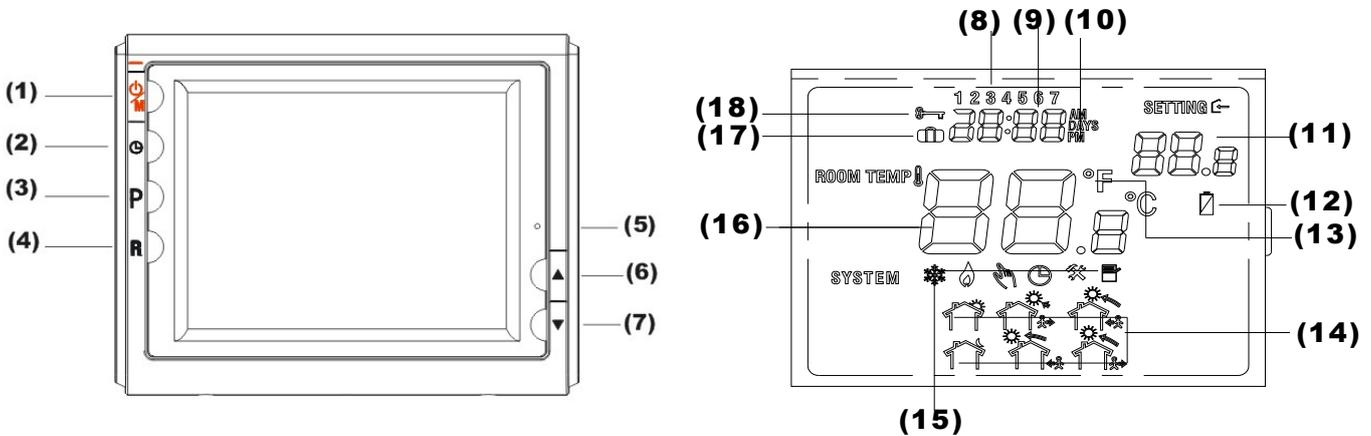
① Power on/ anti-freezing /off button
② Time setting button
③ Program setting button
④ Program run confirmation button
⑤ Reset button
⑥ Raise Temperature setting button
⑦ Lower Temperature setting button
⑧ Shows current day or days being programmed.
⑨ Shows current time or times being programmed
⑩ Am:: Morning ，Pm:: Afternoon   Days: Nr of days，Hours: Nr of hours
⑪ Shows setting temperature.
⑫ Low battery indicator
⑬ Shows temperature display in ℃ or ℉

⑭   time to get up，   time to go out in the morning   time to come back in the morning   time to go out in the afternoon   time to return in the afternoon   time to go to bed Low battery indicator

⑮   System in Anti-freezing mode;   System in heating mode;   Flashes when there is a call for heating;   Manual temperature overide operation;   Program operation;   Indicates a malfunction with the system;.   Program setting mode

⑯ Shows current readout temperature

⑰   Vacation mode indication

⑱   Hold temperature indication

接线图

Power: 100-240VAC 50/60HZ
Heat Load: Imax 250VAC/16A
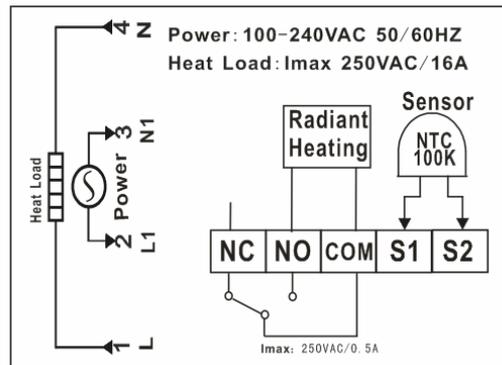
SWITCH AND LED DESCRIPTION OF RECEIVER

Select Button
Indicator A (RED / GREEN LED)
Indicator B (GREEN LED)
Indicator C (YELLOW LED)
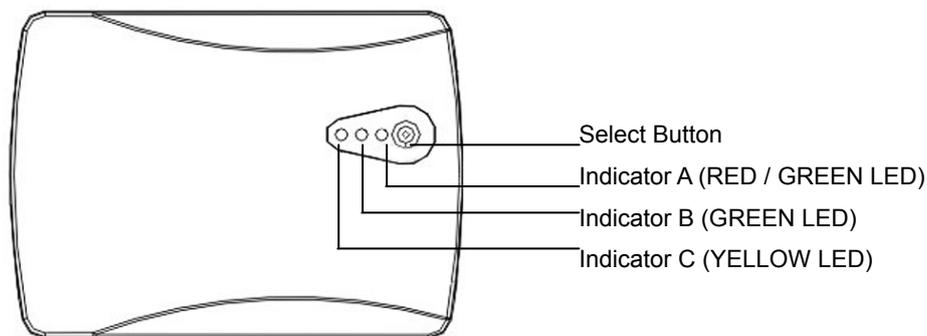
CHECK THERMOSTAT OPERATION

The unit will be controlled via air sensor in the Control Centre and the Control Centre will determine to activate/deactivate heating system by comparing set temperature with room temperature. Press ▲ to adjust Control Centre setting above room temperature 1℃ in fast heating mode or 3℃ in slow heating mode, See configuration menu item 5. The Control Centre will emit signals to the Receiver asking to turn on the heating device. Yellow LED on the Receiver flashes means Receiver has received the signals. Green LED turns on means heating device is energized. Press ▼ to adjust Control Centre setting below room temperature. The Control Centre will emit signals to the Receiver asking to turn off the heating device. Yellow LED on the Receiver flashes means Receiver has received the signals. Green LED turns off means heating device is deactivated.

OPERATION

1. **Configuration Menu**

The configuration menu allows you to set certain thermostat operating characteristics to your system or personal requirements. Shortly press button ① to make sure the thermostat is in anti-freeze mode. Hold button ③ for 3 seconds to enter the configuration menu. The display will show the first item in the configuration menu. Press button ③ to shift to the next menu item. Use ▲ or ▼ to select. To exit the menu , press button ① revert to the anti-freeze mode . Press button ④ revert to the program operation. If no buttons are pressed within 20 second the thermostat will

exit the menu. To revert to factory default setting , push ▲ or ▼ button in a same time for 3 seconds. Display will show "DEF" blinking 3 times and return to Menu item 1 indicates all the configuration setting has reverted to factory default setting.

Step	Press buttons	Displayed（factory default）	Press▲ or ▼to select	Descriptions
1	③	01 (0)	-3 --- +3	Select temperature display adjustment higher or lower
2	③	02 （35℃）	18℃(64℉)—35℃(95℉)	Select maximum setting temperature limitation.
3	③	03 （5℃）	5℃(41℉)—20℃(68℉)	Select minimum setting temperature limitation.
4	③	04 （℃）	℃/℉	Select temperature display to℃ or ℉
5	③	05 （FA）	FA/SL	Select fast heating or slow heating
6	③	06 （OO）	PP/OO	Select pump protection PP, Cancel pump protection OO
7	③	07 （24）	12 or 24	Selection of time scale
8	③	08 (7)	0/3/7	Programming day in one week option
9	③	09 （P6）	P4/P6	Programming period per day option
10	Press button ④ revert to the program operation			

1) Select temperature recalibrates Adjustment 3 LO to 3 HI –

You can adjust the room temperature display up to 3 higher or lower. Your thermostat was accurately calibrated at the factory but you have the option to change the display temperature to match your previous thermostat. The current or adjusted room temperature will be displayed on the right side of the display.

2) Select maximum temperature set point

This feature provides a maximum set point temperature f. The default setting is 35℃ （95℉）, It can be changed between 18℃ （64℉) to 35℃ （95℉).

3) Select minimum temperature set point.

This feature provides a minimum set point temperature. The default setting is 5℃ （41℉), It can be changed between 5℃ （41℉) to 20℃ （68℉).

4) Select ℉ or ℃ readout.

Changes the display readout to Centigrade or Fahrenheit as required.

5) Select fast heating or slow heating

Select FA to start heating immediately when the set point is 1℃ above the room temperature.
Select SL to start heating only when the set point is 3 ℃ above the room temperature.

6）Select pump protection mode

For hot water heating installation, it is recommended to activate the pump at least 15 second every 24 hours in order to avoid any seizing. Select PP will activate pump protection mode. Select OO will cancel the function, it shows heating out normally. When thermostat activating the pump, ⊕ in the display will blink..,Heating output will be automatic operated as your setting.

7) Time display

To select 12 hours or 24hours display.

8) There are 2 options for how to program the day in one week.

7: You can program in 7 individual days. Factory default is 7.
3: You can program in 5 weekday and 1Saturday and 1Sunday.
0：You can set up not programming model

9) Select separate time/temperature periods per day

P4 indicate 4 period programming per day; P6 means 6 period programming per day.

2. Manual Operation

1) On/Anti-freezing mode

You can press power button ① to activate the anti-freezing mode. The unit only displays Clock time, Weekday and Room temperature.The default set temperature for anti-freezing mode is 5℃. During anti-freezing mode, if room temperature is below 5℃, the unit will activate the heating system till room temperature reach to 9℃. For hot water installations, if PP had been selected (See Configuration menu item 6), the unit will activate the pump at least 15 seconds every 24 hours in order to avoid any seizing. Press power button ① again will terminate the anti-freezing mode and return to normal operation mode.

2) Program operation and Hold temperature operation

Momentarily press ④ shift between program operation and hold temperature operation. shows when thermostat is in program operation. Thermostat controls the heating system by presetting program. See **Planning your program** section. shows when thermostat is in hold temperature operation. The thermostat will hold the room temperature at the selected setting.

3) Temperature override

During program operation, Press ▲ or ▼ until the temperature you want is displayed. shows in temperature override. The thermostat will override the current programming and keep the room temperature at the selected temperature until the next program period begins. Then the thermostat will automatically revert to the program.

4）Vacation Temperature hold

Continue pressing button ③ over 3 seconds until display will show indicates you have now entered into vacation hold， Use time key ② or ③ to select the number of the days (from 1 to 99 days) during your vacation.，you can use ▲ or ▼to adjust the temperature during your holiday. Push button ④ to revert to program operation.。To the end of vacation time, it will automatically return to the program is running. In the vacation mode, Push button ④ to revert to program operation.。Vacation factory set temperature is 10 ℃.

5) Reset operation

If the display is abnormal, press the Reset button by using a fine probe such as a straightened paper clip to gently push the Rest button. This will reset the thermostat.

3. Set current day and time

1) Press ② button. The display will show the hour flashing.
2) Press and hold either ▲ or ▼ until you reach the correct hour and AM or PM designation. (AM begins at night, PM begins at noon)
3) Press ② button once again. The display will only show minutes flashing
4) Press and hold either ▲ or ▼ until you reach the correct minutes
5) Press ② button once again. The display will show the day of the week flashing.
6) Press ▲ or ▼ until you reach the correct day of the week

Press button ④ once. The display will show the correct day of the week and the time. If no keys are pressed within 20 seconds, the thermostat will revert to program operation.

4．Planning your program

Look at the factory preprogrammed times and temperatures shown in the sample schedule. If this program will suit your needs, simply press the ④ button to begin running the factory preset program. If you want to change the preprogrammed time and temperature, follow these steps. Determine the times period and temperature for your program. You must program four periods for each day. You can choose heating temperature and start time independently. (for example, you may select 5:00 AM and 70℉ as the weekday 1st period heating start time and temperature and also choose 7:00 AM and 76℉ and the weekday 1st period cooling start time and temperature)

Use the table to plan your program time periods and the temperatures you want during each period. Fill in the complete table to have a record of your program

Heating Schedule Plan (Factory default program setting)

Wake up		Out door		Back home		Out door		Back home		Sleep	
6:00	21°℃	8:00	16.5℃	12:00	21℃	14:00	16.5℃	18:00	21°℃	22:00	16.5℃

Enter Heating Program

1). Press ③ once. **1** (indicating Monday program) will appear in the display. Also be displayed are the currently programmed start times for the 1st heating period and the currently programmed temperature (flashing), icon indicates 1st program period (Get up) setting。If the display shows **1 2 3 4 5**, indicating that the 5-day program will be modified, you have a 5+1+1 day model. (See configuration menu item 8).

2). Press ▲ or ▼ to change the displayed temperature to your selected temperature for the 1st heating program period.

3). Press ② once (the programmed time will flash). Press ▲ or ▼ until your selected time appears. The time will change in 15-minute increments. When your selected time is displayed, press TIME again to return to the change temperature mode.。

4). Press ③ once, icon 2nd program period（Go out）display，the currently programmed start time and set point temperature for the 2nd heating program period will appear

5). Repeat steps 3 and 4 to select the start time and heating temperature for the 2nd heating program period.

6). Repeat steps 3 through 5 for the 3rd;4th;5th;6th heating program periods. If 4 period per day selected in the configuration menu item 9, only 4 period can be programmed each day.

7). Press ③ once. "**2**" (indicating Tuesday program) will appear in the display, along with the start time for the 1st heating period and the currently programmed temperature. If the display shows **6**, indicating that Saturday program will be modified in 5+1+1 day model.

8). Repeat steps 3 through 6 to complete Tuesday (7 day model) or Saturday (5+1+1 day model) heating programming.

9). Continue entering each day's programming until all heating periods time and temperatures have been entered.

10). When you have completed entering your heating program, press ④.

7days program refer to above .

REVERT TO FACTORY DEFAULT PROGRAM SETTING

Press ③ button enter into program setting. Press ▲ or ▼ at the same time for 3 seconds. Display will show DEF blinking for 3 times and back to program setting. Press the ④ button to begin running the factory preset program. If no keys are pressed within 20 sec, the thermostat will revert to program operation.

CHECK YOUR PROGRAMMING

Follow these steps to check your thermostat programming one final time before beginning thermostat operation.

1. Press button ③ to view the 1st weekday heating period time and temperature. Each time you press button ③, the next heating period time and temperature will be displayed in sequence for weekday, then Saturday and Sunday program periods (you may change any time or temperature during this procedure).
2. Press button ④ to begin program operation.

CUSTOMER ASSISTANCE

After reading this guide, if you have any question about the operation of your thermostat, please contact your installer or service provider.