SunRay Radiant Heating Operating Instructions

With SRT8 Touch Screen Thermostat/Timer Control
(Vertical Mounted)

LCD Display

Symbol	Event	Symbol	Event
🔒	The buttons are locked	AUTO	Automatic mode, executes the programmed schedules
🔥	Heating is turned on	Override	Temporary temperature override
❄	Frost protection activated	Err	The floor sensor is not being read by the thermostat
📅	Program number	☾	Economy temperature
✋	Manual mode	☀	Comfort temperature

Use the SunRay SRT8 Thermostat/Timer control with:

In-Slab Electric Off-Peak Storage Floor Heating
Use in MANUAL mode ✋ (no programming required)

In-Screed/Undertile On-Demand Floor Heating, Hydronic Floor Heating, Radiant Ceiling Heating
Use in AUTO mode with pre-sets OR adjust days/times (see programming explanations, p2) i.e. 24 hour 'demand power' heating systems

Turning your thermostat/heating system on/off   POWER

Step 1
You will either have a dedicated floor heating 'sub-board' or the relevant switching accessories will be located in your Main Switchboard. Ensure the floor heating 'Main Switch' and relevant circuit breakers for the heated areas are in the 'on' (up) position to enable power to your heating system.

Step 2
In the standby position your thermostat will display 'OFF'. To turn on the thermostat press the 'power' button. When heating is no longer required, press the 'power' button to turn off the thermostat. If you have an electric In-Slab (off-peak) system, instead of turning the thermostat off you can simply turn off the floor heating 'Main Switch' at your heating sub-board.

If your thermostat screen is blank (no display) during the day, there is no power to your thermostat and generally indicates you have an electric In-Slab 'off-peak' floor heating system which operates during off-peak times (11pm-7am), therefore the thermostat will only operate/display during this period.

If you need to adjust temperatures outside off-peak times, please contact your installer.

Setting the clock and day of the week   ▽ △ NEXT DONE

This thermostat is fitted with a real time clock. It is essential that the clock time and day are set accurately if you are operating in *auto mode* (require programmed events). To set, follow these steps:

1. Touch the time display and the time will start flashing. Use the up and down arrows to set the time. By holding the arrow down the time will change faster.

2. Press the 'Next' button to move the Day setting and use the up and down arrows to get the correct day.

3. Press 'Done' to store and exit.

Auto/Manual mode ☜

Press the 'mode' button to select Auto/Manual Mode. In *manual mode*, the thermostat maintains a constant set temperature manually set by the user. In *auto mode*, the thermostat executes the programmed schedules – see 'Setting the auto program schedules', p2.

Note: Electric In-Slab (off-peak) floor heating systems should be operated in Manual mode as the 'off-peak' meters turn the system on/off at the required times – adjusting the temperature set point is all that is required (see below).

Setting the temperature / Temporary 'auto' override ▽ △ DONE RUN SCHEDULE

To adjust the temperature set-point, simply touch the temperature display and it will start to flash. Use the up or down buttons to adjust. Press the 'Done' button to accept and exit. In *auto mode*, the display will show "Override" above the temperature display indicating a temporary temperature adjustment – the thermostat will maintain the new set temperature until the next

programmed event. To cancel the override setting, press the 'Run Schedule' button.

To adjust/change the programmed temperature for your daily auto program, see 'setting the auto program schedules' below.

Programming explanations

Each individual day of the week can be programmed separately, or program 7 days of the week at once (every day the same program using 'All days' option in programming). You can also program weekdays (5 days) to one schedule and then weekends (2 days) to a different schedule – for this set up, the Configuration Menu (Menu 10) will need to be set to '5+2 day programmable' (see below 'Configuration Menu' table).

The program schedule consists of 4 programmable periods per day:

Program 1: 'Wake'/Comfort Temperature – Set the time you would like the heating to start (generally allow 1-2 hours warm up time for floor heating systems) and the comfort temperature required.

Program 2: 'Leave'/Economy Temperature – Set the time you leave home and the temperature you want to maintain while you are away, e.g. at work (18°C).

Program 3: 'Return'/Comfort Temperature – Set the time you return home at the end of the day (an hour or two before, depending on warm-up time and previous economy temp set) and the temperature you want during evening until bed.

Program 4: 'Sleep'/Economy Temperature – Set the time you go to bed and the temperature you want to maintain overnight (e.g. 18°C).

Note: Setting the temperature on/lower than the usual ambient temperature means your heating may not come on at all/will cool down substantially and the response time will need to be increased for the next 'comfort' program to reach the required temperature.

Setting the 'auto' program schedules

In *auto mode*, your heating system will work according to your program schedule set.

Note: Auto mode should not be used for In-Slab (off-peak) floor heating systems as your electricity meter will turn your system on and off at 'off-peak' times (see 'Auto/Manual Mode', p2).

1. Press SCHEDULE and the day display will start flashing (if your thermostat is set to 5+2 day programmable mode, the programming will skip to step 3.

2. Use ▽ to adjust the day of the week you want to start programming or the day you wish to edit an existing program. If all 7 days of the week are to have the same program press ALL DAYS (or press again to cancel).

3. Press NEXT . The LCD screen will display Program 1 🏠 and the time will be flashing.

4. Use △ and ▽ to adjust the time you wish the Program 1 event to commence for the selected day/days.

5. Press [NEXT] and the temperature will start flashing.

6. Use [△] and [▽] to set the desired temperature to be maintained during Program 1.

7. Press [NEXT] and the LCD screen will show Program 2 with the time display flashing – Repeat steps 4,5,6 to set the remaining programs/events, then press [DONE] to store and exit.

Tip: During setting programs, press [DELETE] to clear a program entry and thermostat will maintain the temperature setpoint of the last executed program until the beginning of the next program.

Locking the keypad

To lock the keypad, press and hold the top left corner of the display for 5 seconds, you will see a 🔒 symbol.
To unlock, repeat the steps above and the lock symbol will disappear.

Holiday function

The holiday function reduces the temperature in your room to the frost protection setpoint (5°C). The thermostat will maintain this temperature for the duration of the holiday and will automatically return to program mode on your return. Press [HOLIDAY] and enter the duration of your holiday by pressing [△] or [▽] , then press [DONE] .
To cancel a holiday, reduce the holiday period to 00 days.

Reset to factory setting

With the thermostat turned off, press and hold 'OFF' for 5 seconds until you see --:-- on LCD. If a reset is required the Configuration Menu should be also adjusted to SunRay's recommended settings for your application – please consult for further advice.

Repairs and maintenance

Please contact SunRay Comfort:

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Thermostat Setup Instructions

Configuration menu (only to be adjusted by/in consultation with your heating installer)

Note: The below configuration MENU settings are the thermostat default settings – your installer may have changed one or more of these settings to suit your specific heating installation (e.g. Menu 06-Maximum Floor temp should be limited to 27C for wooden floor areas).

To enter into the setting menu, please follow these steps:

1. Turn the thermostat off by pressing [POWER] .

2. Press [MENU] and you will then see Menu 01.

3. Use [△] and [▽] to adjust the sensor selection which is Menu 01 (Air Sensing, Air and Floor, or Floor Only.

4. Press [NEXT] to move to the next Menu. One you have all the menu options set, proceed to the next step.

5. Press [DONE] to accept and store.

Recommended configuration

Menu #	Feature	Explanation	Recommended setting
01	Mode/Sensor Selection	This thermostat is a combination model which allows you to choose 3 different modes. A mode = Air Sensing (built-in sensor) AF mode = Air & Floor Sensing (floor probe must be installed) F mode = Floor sensing (floor probe must be installed)	F
02	Switching Differential	The number of degrees difference before switching. The default is 1°C which means the thermostat will switch the heating on 0.5°C below the set temperature and will turn it off 0.5°C above the set temperature. With a 2°C differential, the heating will switch on 1°C below the set temperature and will switch off 1°C above the set temperature.	1°C
03	Air Temperature Calibration	This is to recalibrate the air temperature if required.	0°C
04	Floor Temperature Calibration	This is to recalibrate the floor temperature if required.	0°C
05	Temperature Readout (AF mode only)	This gives you the option to show the Air Temperature, Floor Temperature or to show both Air & Floor at intervals.	A = air temperature F = floor temperature A-F = shows both air and floor in 5 second intervals
06	Maximum Floor Temp (AF mode only)	This is to protect the floor surface.	35°C
07	Temperature Format	This allows the temperature to be set as °C or °F.	°C
08	Clock Format	You can select the clock to show either 12 or 24 hour time.	24-hour (default), 12- or 24-hour clock format
09	Frost Protection	This is to avoid your room temperature going below 5°C.	Off
10	5+2 / 7 Day Mode	This allows you to program either 5 days at once, then the 2 days of the weekend separately, or the full 7 days at the same time or 7 days separately.	02