

USER MANUAL

Model: TF1

Programmable Radiant Floor Thermostat

● Warnings:

- Installation or replacement of this product should only be done by qualified personnel.
- To avoid risk of electric shock, turn OFF the power source from the main service panel prior to installation of the thermostat.
- Keep thermostat air vents clean and free from obstructions.
- Electric floor heating cable/mat must be in accordance with the thermostat supply voltage.
- All wiring must conform to local as well as national electrical codes and ordinances.
- Thermostat terminals are designed to handle a cross-section of wire measuring 12-22AWG.

● Installation:

1. Loosen the bottom screw by a Phillips screwdriver, then open the thermostat from the below as shown in figure 1:

Note: The bottom screw does not need to be removed to detach the faceplate.

2. Wire the thermostat as shown in figure 2:

L/N (Line): Connect incoming power supply to the terminal block.

L1/N1 (Load): Connect the heating load wires to the terminal block.

(Above wiring screws should be torqued between 0.7-1.0 N.m)

Ensure the junction box is grounded, and attach the heating cable ground to this location.

S1/COM/ : Connect the floor sensor.

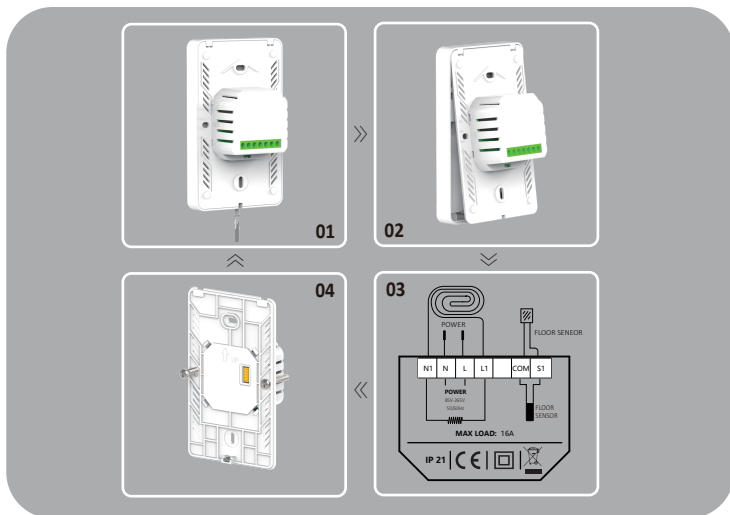
If a spare (redundant) probe has been installed in the floor, tape this to the other probe wire in the junction box, but ONLY CONNECT (1) SENSOR to the thermostat at any one time.

3. Install the power base into the junction box and secure it using the supplied set screws as shown in Figure 3.

(Screws should be torqued to approx 0.1-0.2 N.m)

4. Install the thermostat faceplate on the power base; start by aligning the top of the units, then swing the faceplate down so it comes to rest on top of the power base, with the screw holes lined up; tighten the screw to secure the faceplate to the power-base.

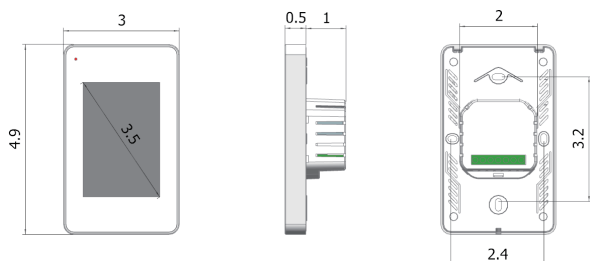
5. Turn ON the thermostat and wait for the operating screen to be displayed.



● Technical specification:

Supply voltage:	85-265 VAC 50/60 Hz
Load:	max. 16 A (resistive load)
Setpoint range:	+5 to +40°C / +41 to +104°F
Temperature range:	+5 to +45°C / +41 to +113°F
Cover:	IP21
Floor sensor type:	NTC B=3950 10k
Temp Tolerance:	default 1°C / 2°F

● Dimensions (inches):



● Operation :

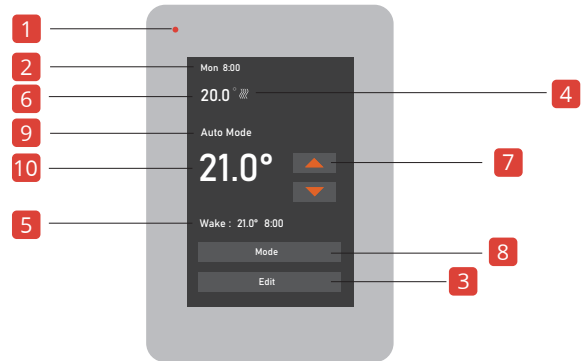
The thermostat controls your floor heating system based on built-in weekly program, running in 4 or 2 stages per day, 7 days a week.

The default weekly program parameters satisfies most usage scenarios, however you can also modify the weekly program parameters in the thermostat.

When there is no one in the house, it is recommended to reduce the temperature set-point to save energy.

The thermostat also has built-in adaptive function. When this function is active, the thermostat heats or stops heating in advance of next stage to bring the room temperature to the set temperature of the next stage. Please note that after turning the Adaptive function ON, the thermostat will require a few days of normal operation to learn the time required to achieve the heating targets selected.

● Functions:

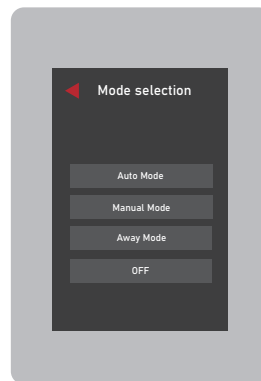


- | | | | |
|---|------------------------|----|---------------------|
| 1 | LED | 2 | Time |
| 3 | Edit | 4 | Heating |
| 5 | Next Schedule | 6 | Temperature |
| 7 | Up and down regulation | 8 | Mode |
| 9 | Mode state | 10 | Setting temperature |

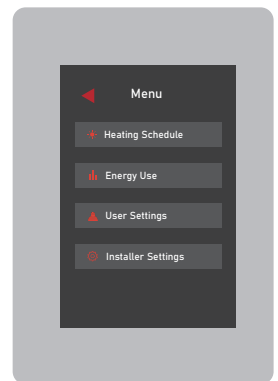
Temporary temperature setting

Please press  the button for temporary temperature setting

Mode



Edit



Mode selection

This thermostat provides three operating modes:

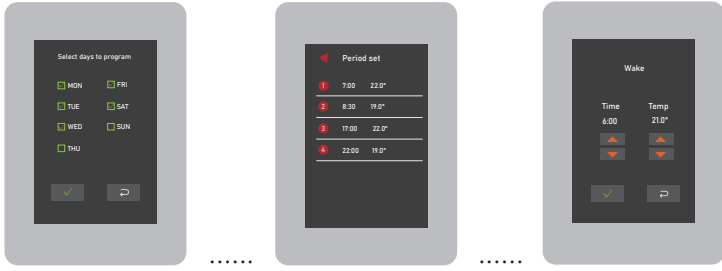
- **Automatic mode:**
According to the weekly program, the thermostat automatically adjusts the set temperature operation.
- **Manual mode:**
The thermostat runs continuously according to the set temperature.
- **Away mode:**
This mode is used when you want to keep your room at a lower temperature when you are away for an extended period of time. This operating mode prevents damage to household/office equipment caused by sudden exposure to cold temperatures. The set-point temperature Range is set to maintain from 41°F to 59°F (5°C -15°C) in this mode.
- **OFF:**
Manually turn off all functions of the thermostat. When the device needs to be started, Press and hold the on/off button in screen for 3s.

Edit selection

☀ Heating Schedule

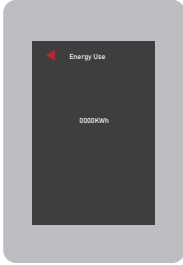
Assign seven days a week to the following two schedules:
 5+1+1: The Event parameter is the same from Monday to Friday, with separate Event parameters on Saturday and Sunday.
 7: With separate Event parameters every day.

Note: Set schedules, the week can be multiple selection, complete batch change.

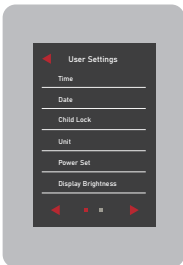


📊 Energy Use

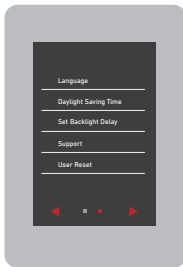
This option is used to calculate data on energy usage. The user sets the power in the Power Set. The thermostat will automatically count the heating time and calculate the energy consumption.



👤 User Settings

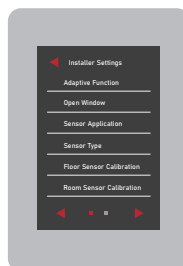


- Time:** Set Time.
- Date:** Set date.
- Child lock:** Lock all keys to prevent the setting from being changed. (Hold on the up button for 3s to unlock)
- Unit:** °F/°C.
- Power Set:** 0W-4500W.
- Display Brightness:** 1-9.

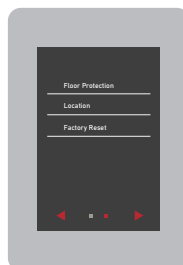


- Language:** English/Francais
- Daylight Saving Time:** When enabled, the thermostat will adjust automatically in daylight saving time.
- Set Backlight Delay:** 5-60
- Support:** Scan the QR code to view the electronic manual. For further support, please contact your installer.
- User Reset:** This will reset the users settings to factory default.

⚙ Installer Settings



- Adaptive Function:** When this feature is enabled, the room will have reached the target/set temperature when the event begins.
- Open Window:** Thermostat can detect an open window and will shut off heating temporarily to save energy.
- Sensor Application:** 1.Room 2.Floor 3.Room and Floor Protection
- Sensor Type:** B3950-10K/B3380-10K/B3700-10K/B3600-12K/15K
- Floor Sensor Calibration:** Measure the temperature by adjusting the calibration. ±5 C
- Room Sensor Calibration:** Measure the temperature by adjusting the calibration. ±5 C



- Floor Protection:** Floor protection is enabled only when the sensor type is selected for room and floor simultaneously. If the floor temperature exceeds the set protection value, the thermostat will display alarm information and stop working.
Reference value: Laminate-max.28°C(82.4°F)/Tile-max.40°C (104°F)
The value ranges from 20°C(68°F)to 50°C(122°F).
- Location:** Home/Office.
- Factory Reset:** This will reset the thermostat to factory settings, Personal settings will be lost.

● Trouble shooting :

Problem	Solution
No display	1.Check the you have 120V/208V or 240V supplied to the Junction box. 2.Ensure power supply is connected to the Line side of the thermostat (L/N). 3.Contact your installer for troubleshooting support.
Heating occurs at wrong times	1. Check the scheduled times are set correctly AM/PM. 2. Confirm thermostat is set to the correct date/Time. 3. Contact your installer for troubleshooting support.
Floor sensor error	1. Check the floor sensor is connected to IN/SNP terminals. 2. Check the floor sensor has a good ohms reading. 3. Contact your installer for troubleshooting support.
Air sensor error	1.Contact your installer for troubleshooting support
Temperature limiting protection	1.Raise the floor protection temperature. 2.Choose to work with a single sensor. 3.Do not do any treatment, wait for the floor temperature to drop.