UTN5®

TOUCH THERMOSTAT

USER MANUAL

www.ojelectronics.com

84 06/24 (KJE)

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1. INTRODUCTION

Congratulations on the purchase of your new UTN5® LED touch thermostat. We hope that you will enjoy the sleek design, the easily readable temperature, and the user-friendly touch interface.

Startup wizard

The guided startup makes it easy to install and setup the thermostat with the correct settings in matter of minutes.
A startup wizard takes you through a four-step process in no time. Once installed, this simple thermostat requires no subsequent support.

Quick adjustments

Simply tap the capacitive touch buttons on the thermostat gently with your fingertip if you want to make quick temperature adjustments or turn off the display on the thermostat. Settings are easily changed in the intuitive menu with scrolling text that provides helpful explanations.

Protect your floor

The UTN5 thermostat is suitable for tile, stone, laminate, and wooden floors. Choose between 4 different applications modes:

- Floor temperature with floor protection
- Room temperature with floor protection
- Room temperature without floor protection
- Sensorless mode

Other features

- Adjust light brightness or turn off screen completely
- Show temperature in either Fahrenheit or Celsius
- Frost protection
- Limit setpoint range
- Standby button on the side for simple and direct operation

Sensorless mode

The UTN5 thermostat can control heat levels even if no sensor is available – ideal if, for example, your floor sensor is broken, This mode is also known as “Regulator mode”.

Enjoy!

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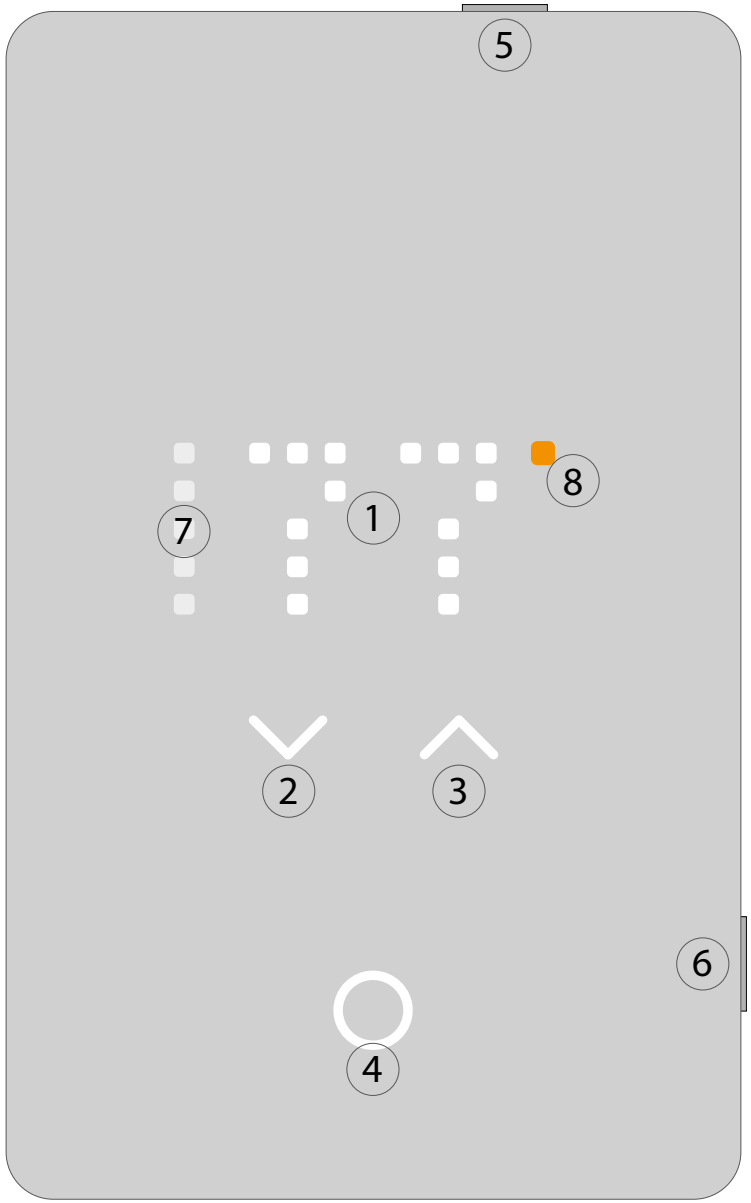
2. DESCRIPTION OF BUTTONS AND FUNCTIONS



Touch areas

1. Information area
   Show support information by long pressing both button 1 and button 4 simultaneously for 3 seconds.
2. Adjust and navigate down
3. Adjust and navigate up
4. Select and accept
   When screensaver is active, press to wake up display

Buttons

5. GFCI test button
6. Multifunctional button:
   - Press once to go into standby mode or turn on the thermostat.
   - When display is ON, hold for 15 seconds to perform a factory reset.
   - Reset/confirm GFCI test mode

Indicators

7. Menu navigation
8. Heating: The LED lights up orange during heating.

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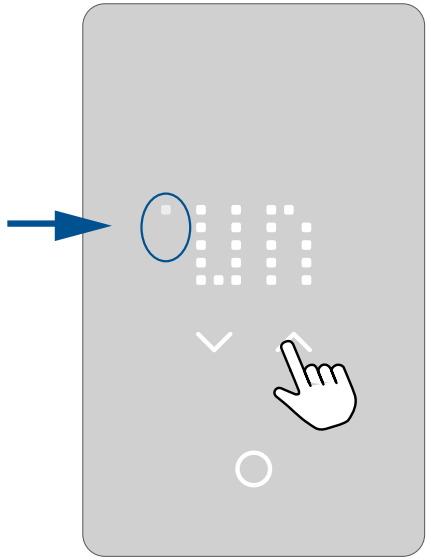
3. START-UP WIZARD

When the thermostat has been installed and turned on for the first time, or after you have performed a factory reset, the thermostat will run a start-up wizard. The wizard guides you through a basic setup process to ensure that you have the right settings and a thermostat test is performed.

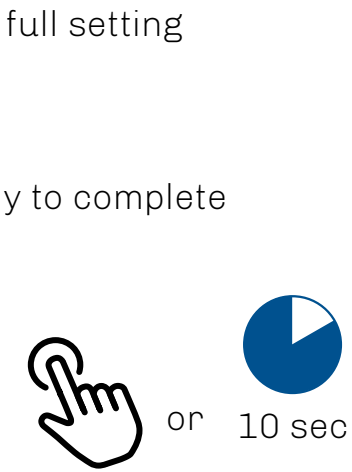
The start-up wizard gives you the option to adjust four settings, followed by the GFCI test.
The dots in the left column shows the setting number to help you navigate your way through the guide.



The start-up wizard takes you through the following steps:
1. Unit
2. Sensor application
3. Floor protection
4. GFCI Test

After the last setting, you will be instructed to perform a GFCI Test. Once the test has been passed, the thermostat is ready to use.
To see a description of the setting, you can tap the text or wait 10 seconds. The full setting name and its number will scroll across the screen from the right.
Touch text again to cancel the text scrolling.

If the default settings are fine you can proceed to the GFCI test step immediately to complete the initial setup.



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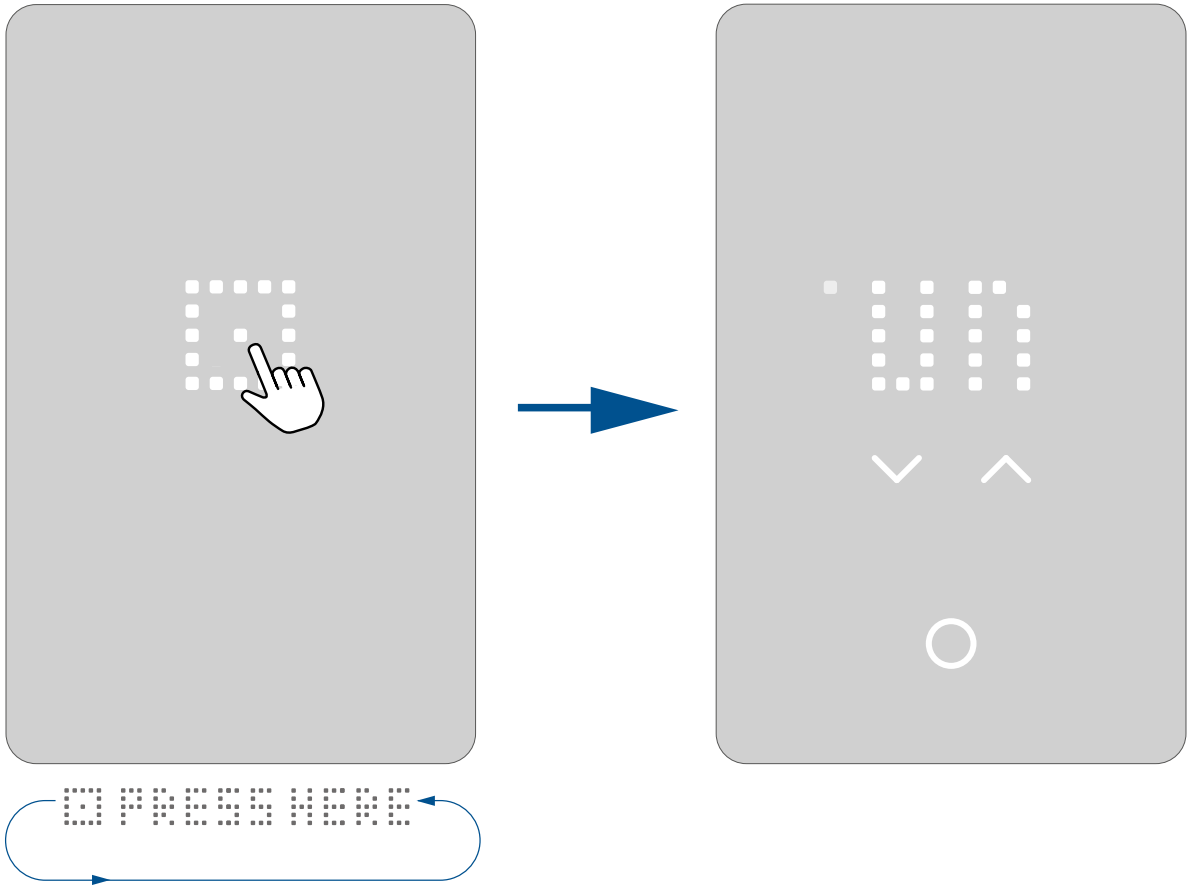
3.1 START-UP WIZARD - POWER-UP

During power-up, a pulsating select/accept button will appear, followed by the text “PRESS HERE.” Pressing this area will initiate the start-up wizard.



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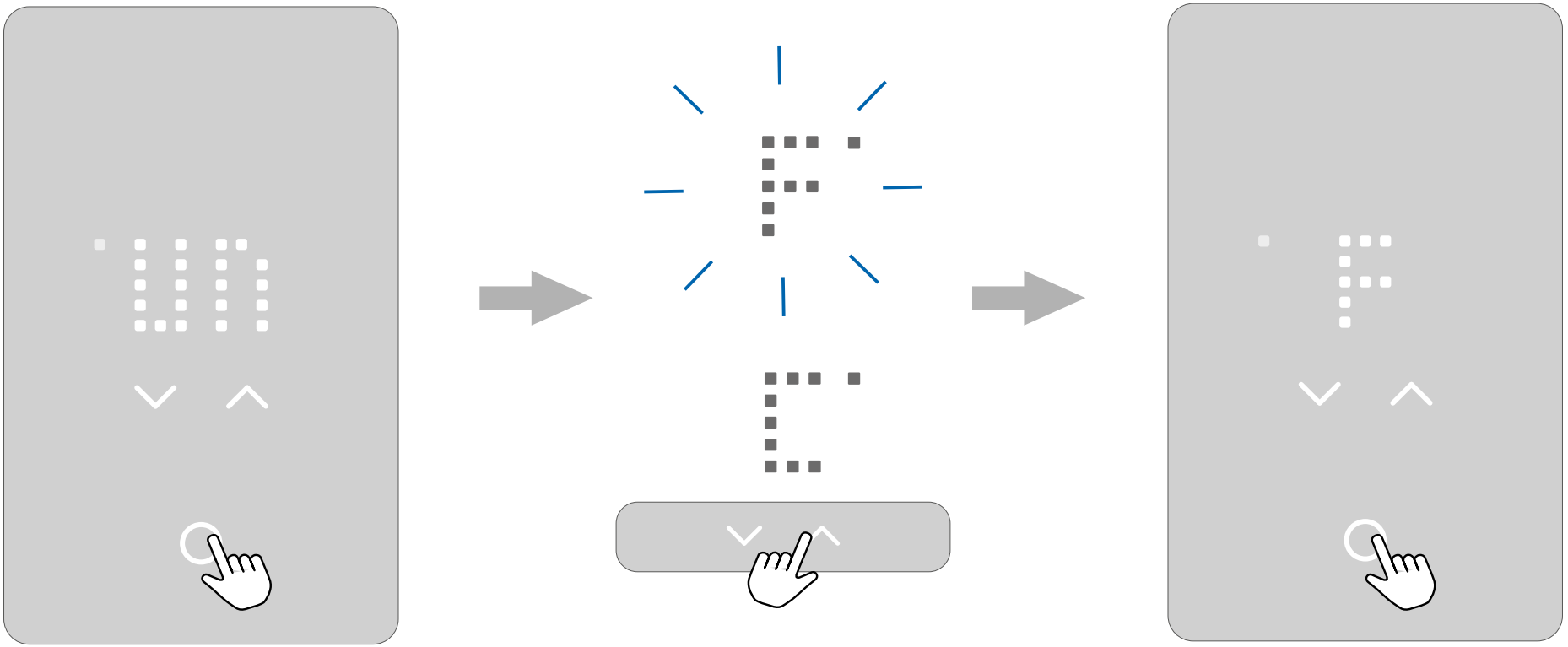
3.2 START-UP WIZARD - STEP 1 – UNIT

The first step is the Unit setting. (**Un**it – °F)
In the Unit setting, the temperature unit can be set to F (Fahrenheit) or C (Celsius).
Fahrenheit is set as default.



Press the **select/accept button** to change the setting.

Press the **up or down arrow** to set the temperature unit to Fahrenheit or Celsius.

Press the **select/accept button** to confirm the setting.

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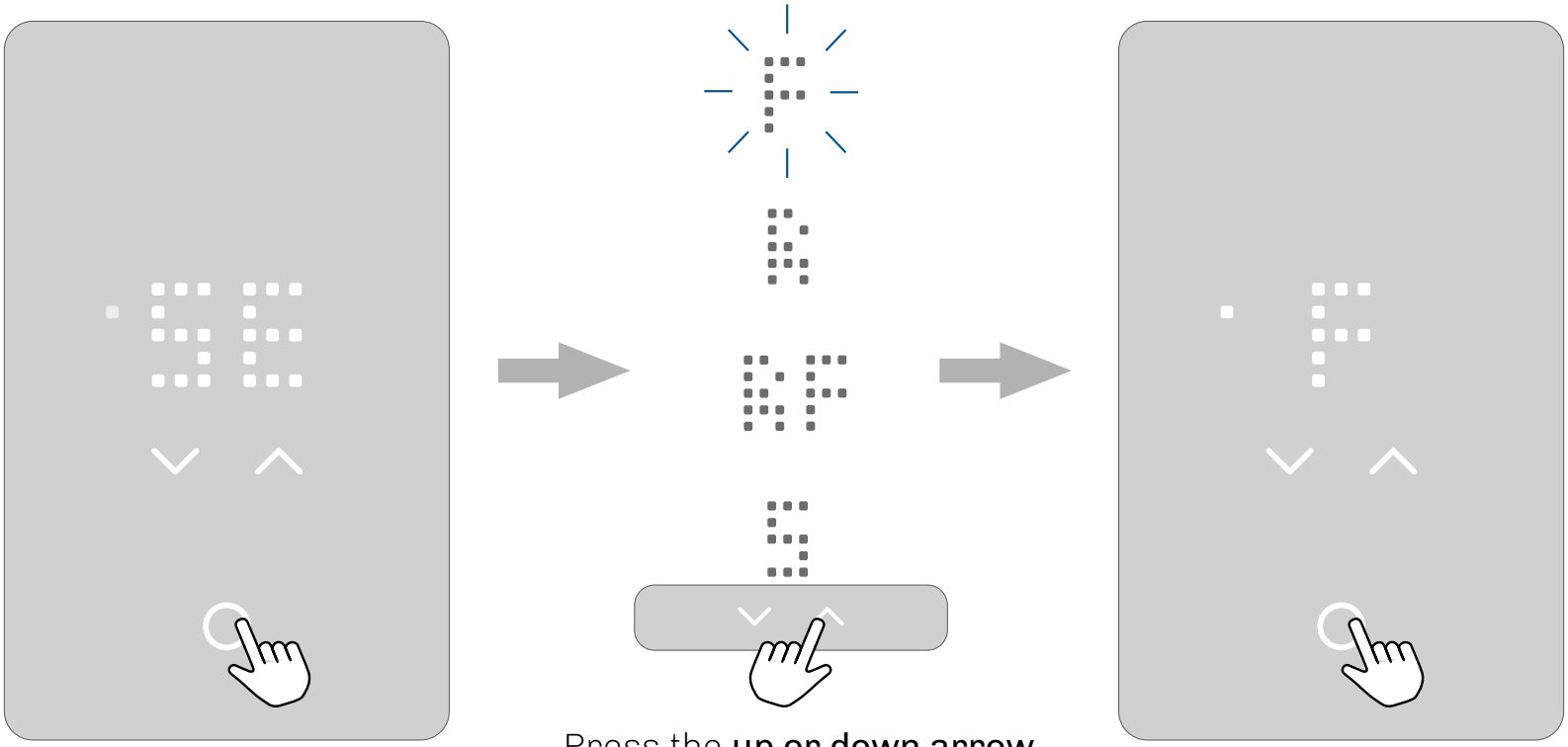
3.3 START-UP WIZARD - STEP 2 – SENSOR APPLICATION

The second setting option (**SE**NSOR – FLOOR) is the sensor application.
In this setting, you can choose between R (room sensor), F (floor sensor) or RF (room sensor with floor limit).
Once the sensor application has been chosen and the start-up wizard has been completed, you will only be able to change the sensor application via the app or by performing a factory reset.

Floor: With this setting, the floor sensor controls the heating system. This is set as default.
Room/Floor Protection: With this setting, the room sensor built into the thermostat controls the heating system, while the floor sensor limits the heating according to the set floor protection limits.
Room: With this setting, the room sensor built into the thermostat controls the heating system.
Sensorless: With this setting the thermostat can be set to a fixed heating percentage without use of any temperature sensor.
NOTE! The floor protection will be disabled.



Press the **select/accept button** to change the setting.

Press the **up or down arrow** to scroll through the sensor options.

Press the **select/accept button** to confirm the setting.

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3.3.1 SENSORLESS MODE (REGULATOR MODE)

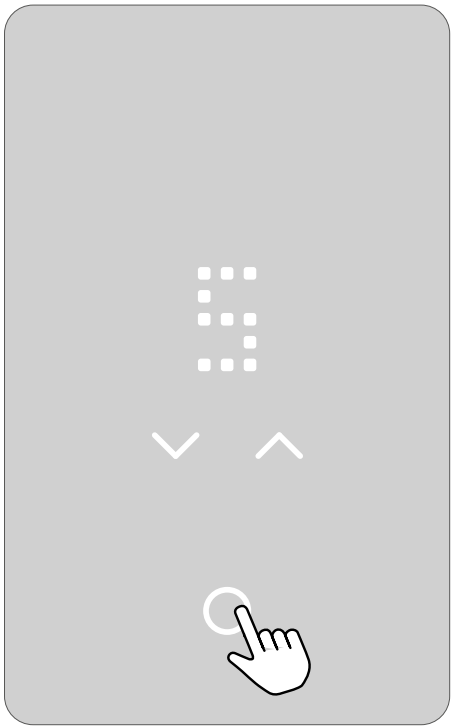
Sensorless mode is a regulation mode in the thermostat which allows you to select a heating percentage without use of any temperature sensor (aka 'regulator mode'). This mode of operation is selectable only during the initial setup wizard.

Why use sensorless mode?
Sometimes neither floor mode nor room mode is suitable for regulating the amount of heat in the floor. For example:

- If there is a problem with the temperature sensor in the floor resulting in an error (E1/E2/E3)
- When environmental factors affects the temperature of the floor or the room in unexpected or random ways (e.g. drafts or other heat sources)
- When the thermostat cannot be mounted inside a room where floor temperature control is not possible.

How does it work?

- The thermostat is set to a fixed heating percentage of the cycle time (PWM duty cycle) - i.e. if the thermostat says 75, it is set to heat 75% of the cycle time.
  It is recommended to have a setting of 20-25% as a starting point.
- When Sensorless mode is activated, the heating indicator will be off. It will only light up in case the thermostat has activated heating.
- When sensorless mode is activated, the screen will show the number in percent instead of the actual temperature.
- When sensorless mode is selected, there will be no floor overheat protection enabled.
- Internal overheat protection of the thermostat itself remains active in sensorless mode



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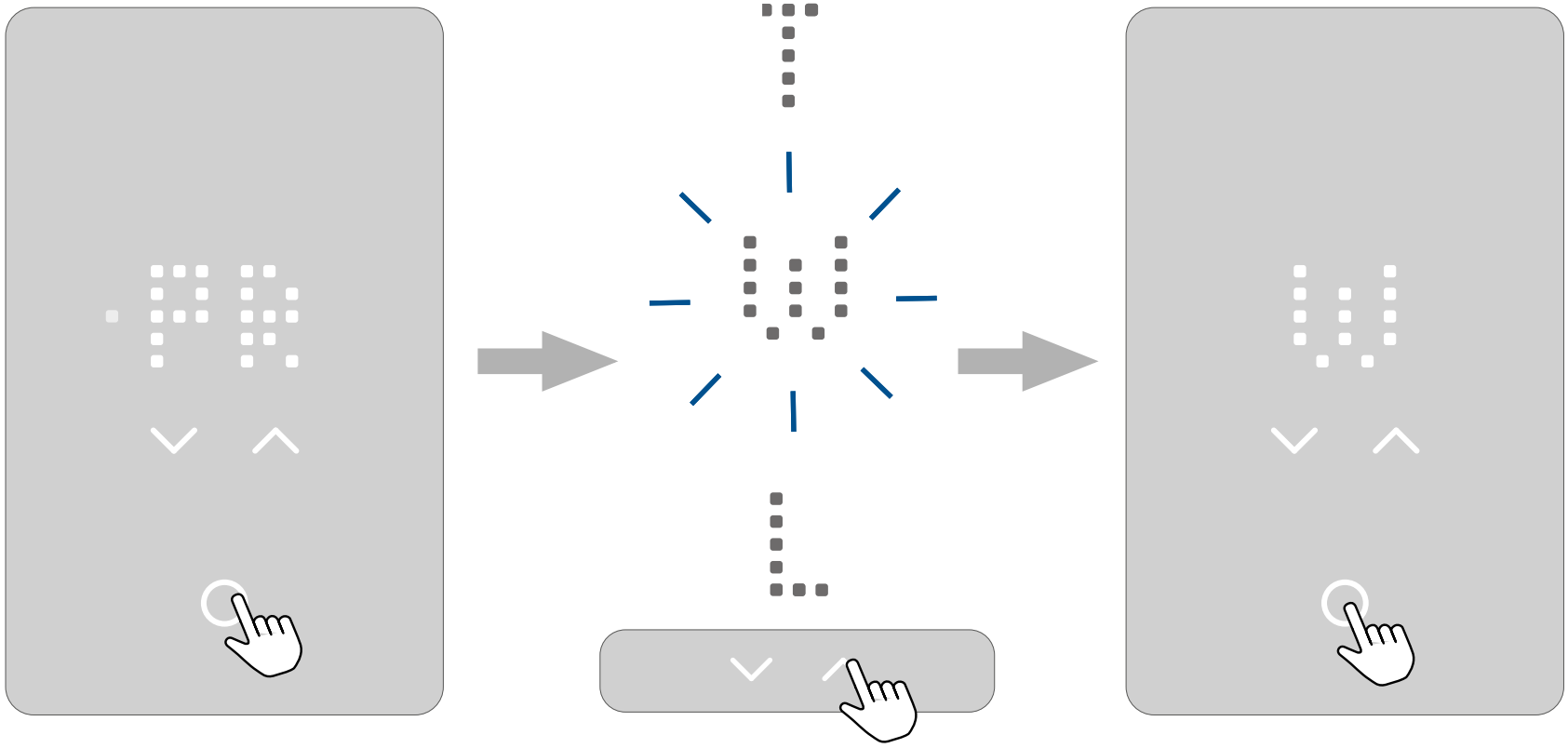
3.4 START-UP WIZARD – STEP 3 – FLOOR PROTECTION

The third setting option (**PROTECTION**) is the Floor Protection setting.
Set the floor protection according to the floor type:
W (wood), L (laminate), T (tiles) or OFF. Wood is the default setting.
Once the floor type has been selected and the start-up wizard has been completed, you will only be able to change the floor type by performing a factory reset.



Press the **select/accept button** to change the setting.

Press the **up or down arrow** to scroll through the protection options.

Press the **select/accept button** to confirm the setting.

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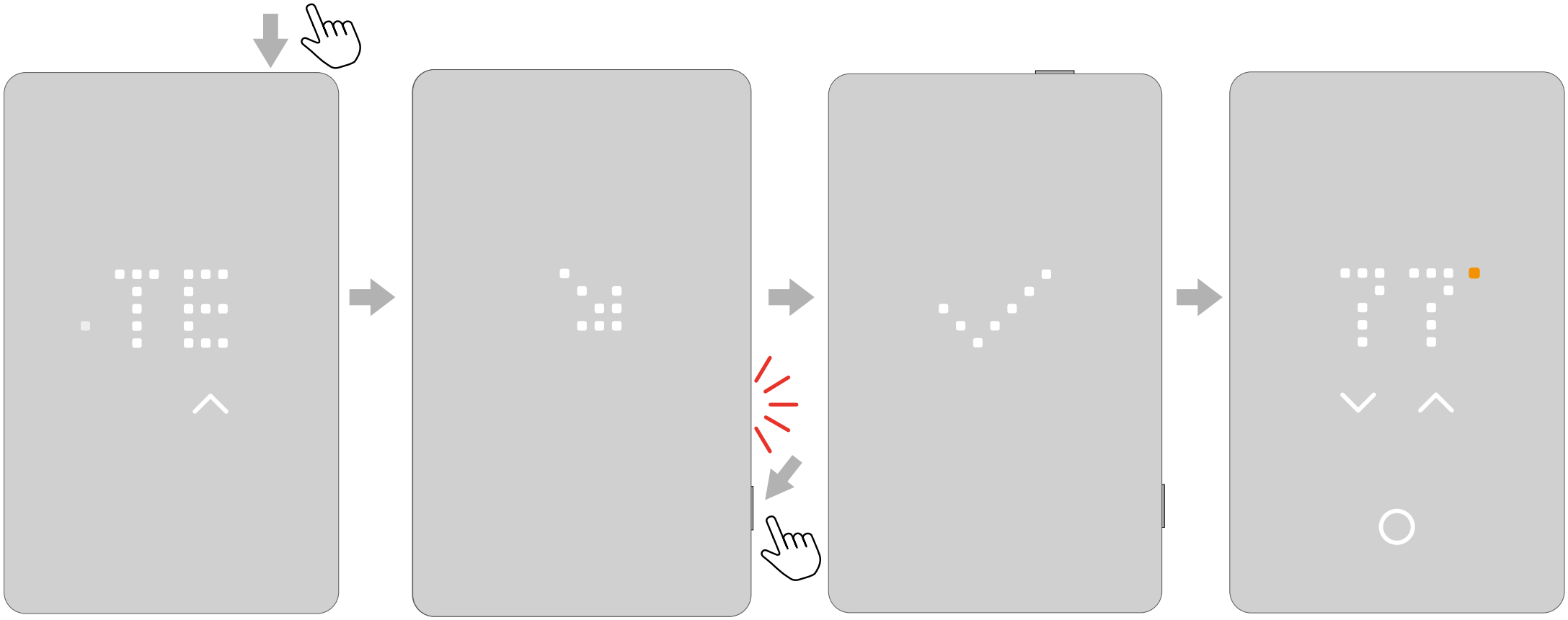
3.5 START-UP WIZARD - STEP 4 – GFCI TEST

The last step in the start-up wizard is the GFCI test.



Push the **top button** to test the GFCI relay.

A red light on the right-hand side will flash and the text ↘ GFCI TRIPPED PRESS TO RESET will scroll across the screen.
Press the **side button** for a moment to reset.

A check mark will appear to show that the GFCI has been reset and is working correctly.

The thermostat will then be ready for use.

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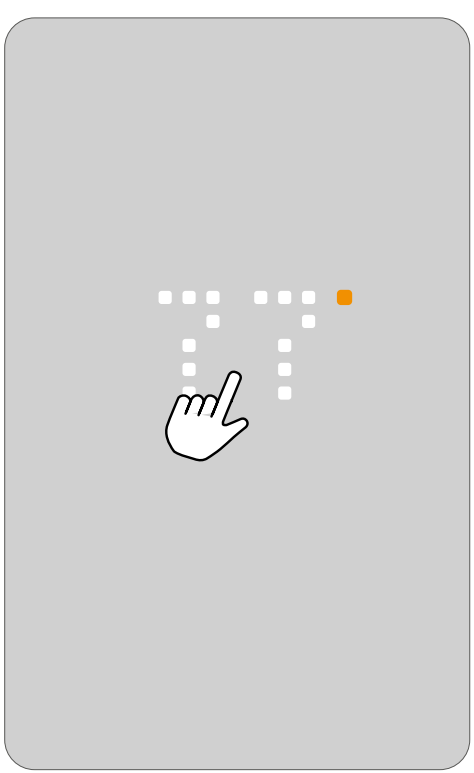
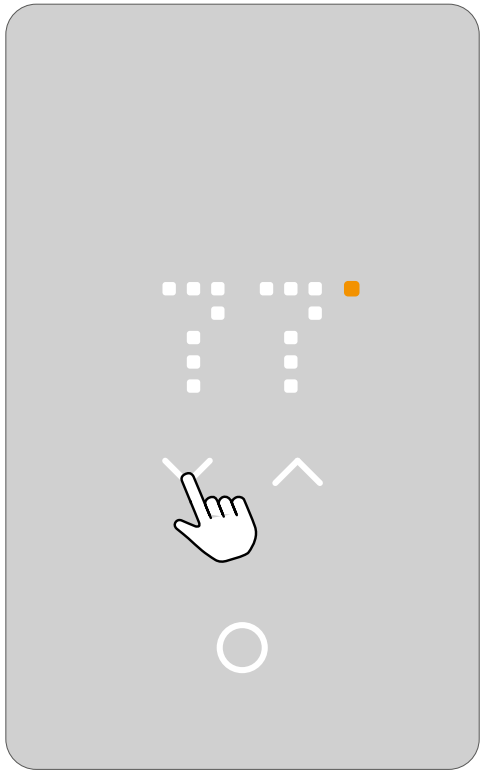
4. HOW TO CHANGE THE TEMPERATURE

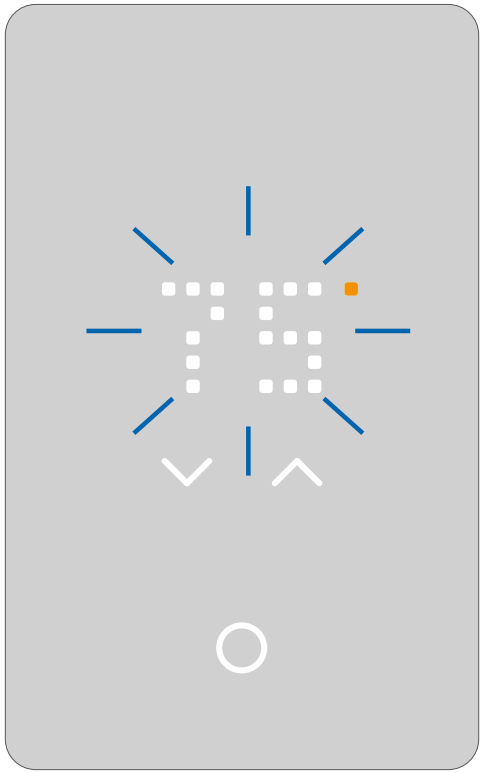
To learn about how to set an upper and a lower temperature limits go to the section on “Floor limits”.



In screen saver mode, touch the **temperature area** to wake up the thermostat. The home screen will appear.



Use the **up and down arrows** to adjust the temperature



The number will blink three times and the screen will return to the current temperature measured. The temperature setpoint is now set.

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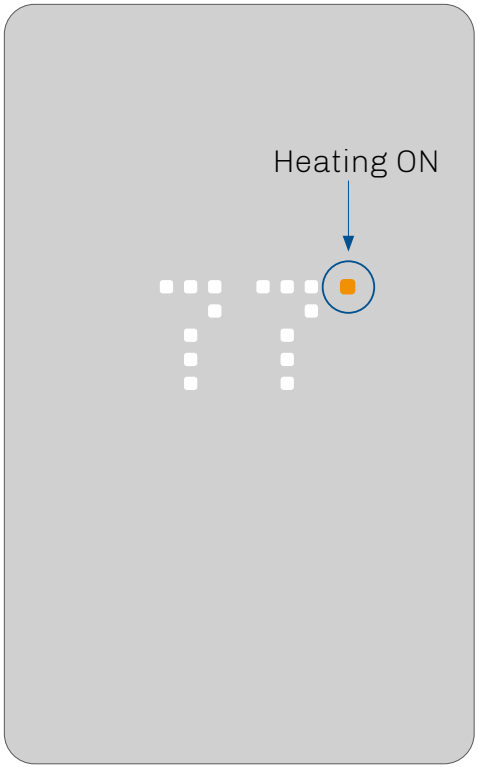
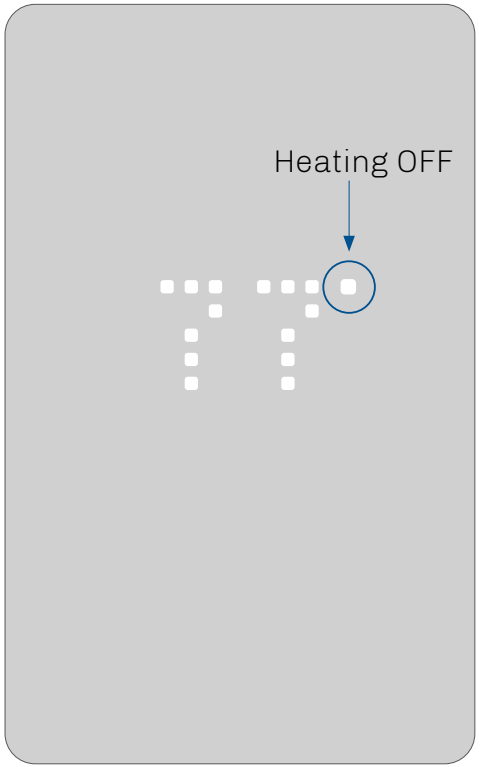
4.1 HEATING STATUS

When the heating is on, the white degree indicator will turn orange.
This is visible in the screen saver, on the home screen, and when adjusting the temperature.
The orange dot is also visible on the standby screen when frost protection is enabled and active. To find out more about frost protection, go to the section on standby and frost protection.





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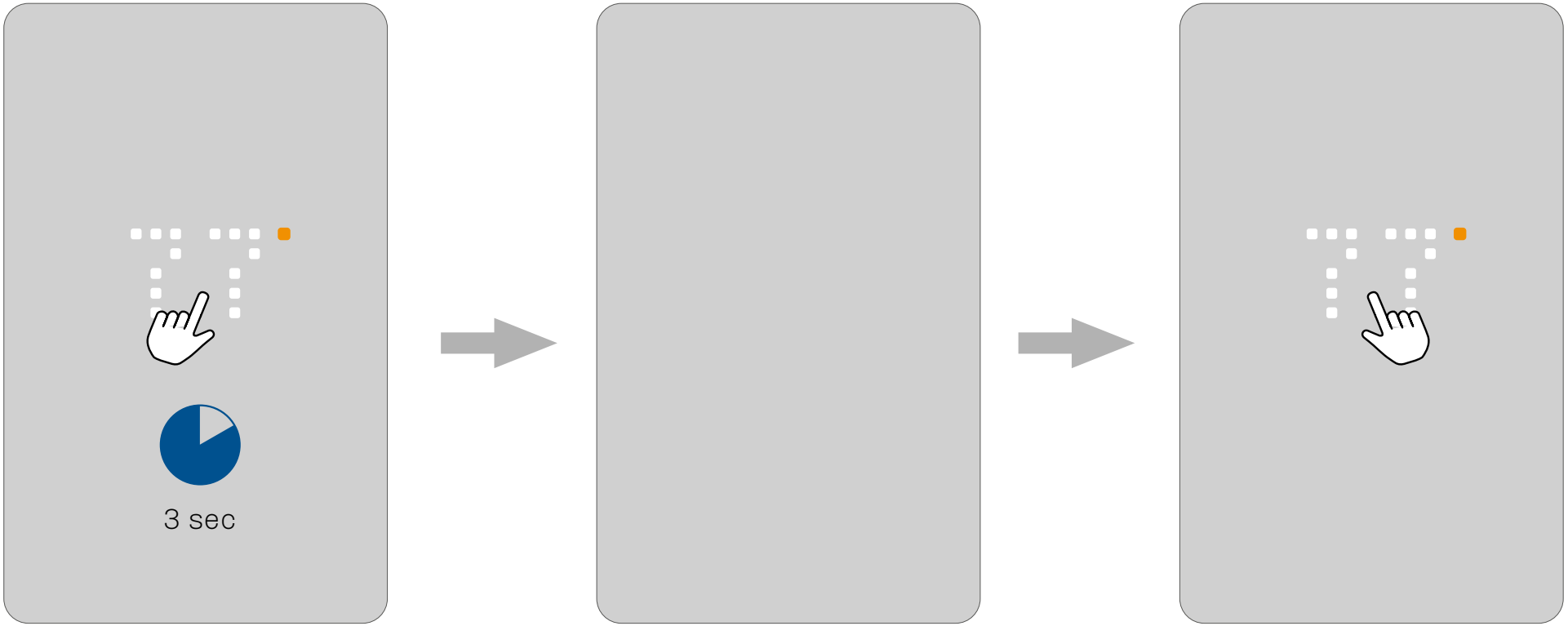
5. HOW TO TURN OFF THE DISPLAY

In the screen saver mode, the display can be turned off completely.
PLEASE NOTE: This can only be done in the screen saver mode.



In the screen saver mode, press the **temperature** area for three seconds and the screen will turn off.

Touch the **screen** to turn on the display in the screen saver.

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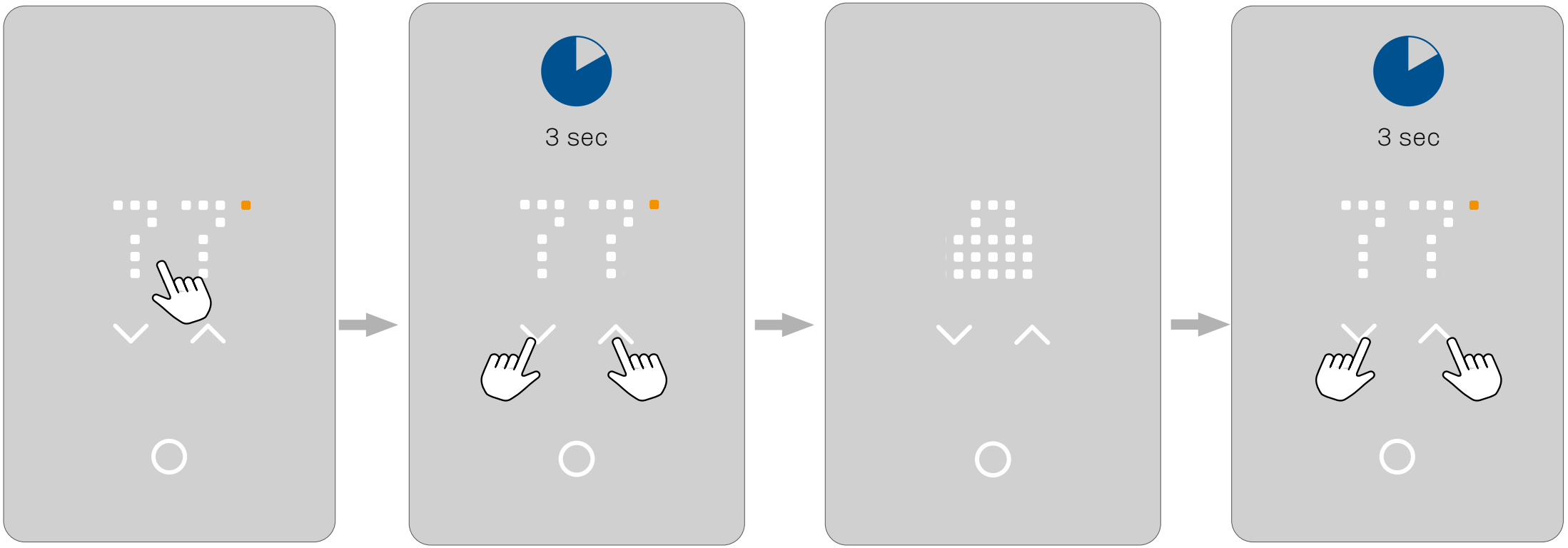
6. HOW TO LOCK THE SCREEN

The screen lock prevents children or others from tampering with the thermostat temperature or the settings.



In the screen saver mode, touch the **temperature area** to wake up the thermostat. The home screen will appear.

Press both **arrows** simultaneously for three seconds to lock the screen.

The screen will show a lock icon and return to screen saver mode.

Repeat this process to unlock the screen.

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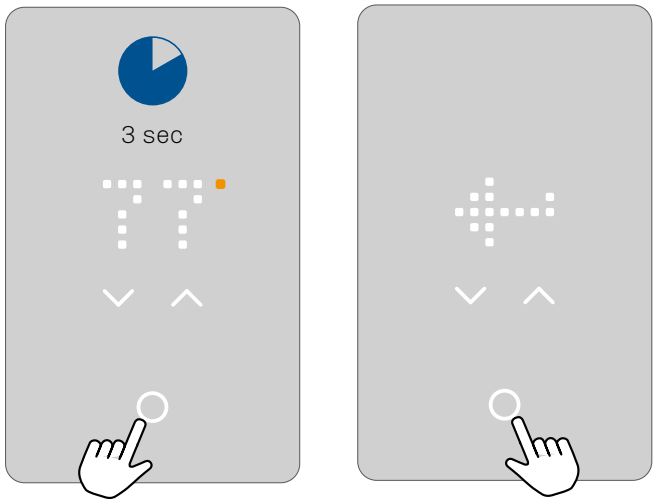
7. HOW TO ENTER THE SETTINGS MENU



To activate the settings menu:

1. Touch any touch area to wake up the thermostat.
2. Touch the select/accept button for 3 seconds to enter the setup menu.

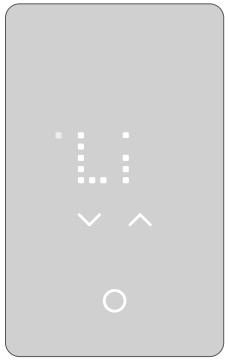
To exit the settings menu:

1. After 30 seconds, the screen saver will activate. This exits the menu.
   OR:
2. Use the **up or down arrow** buttons to navigate to the exit icon and press the **select/accept button**.

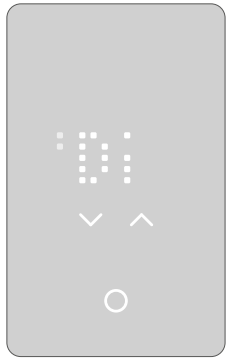
In the settings menu, you have 8 options.

The dots in the left column indicate the setting number.

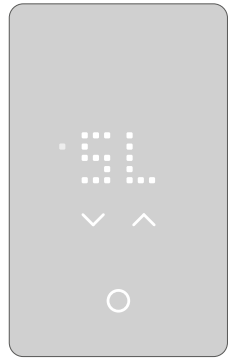
If you are not sure what the text on the screen means, you can **touch the menu abbreviations** and explanatory text will scroll across the screen. This can be interrupted by pressing the scrolling text once.



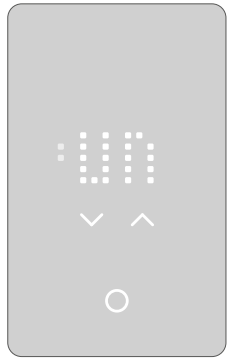
Li
Light



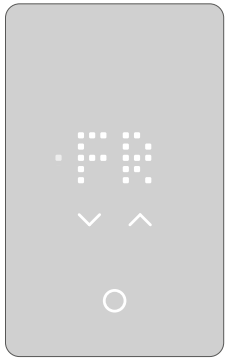
Di
Display



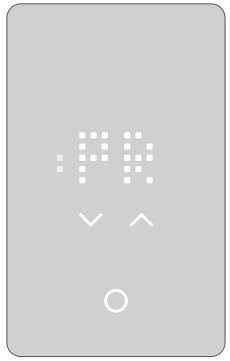
SL
Setpoint Limit



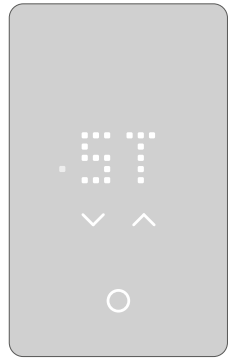
Un
Unit



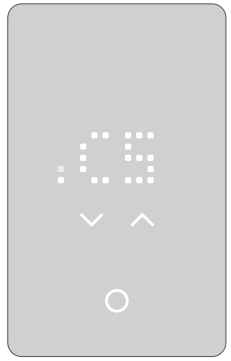
FR
Frost Protection



PR
Floor Protection



ST
Sensor Type



CS
Calibrate Sensor

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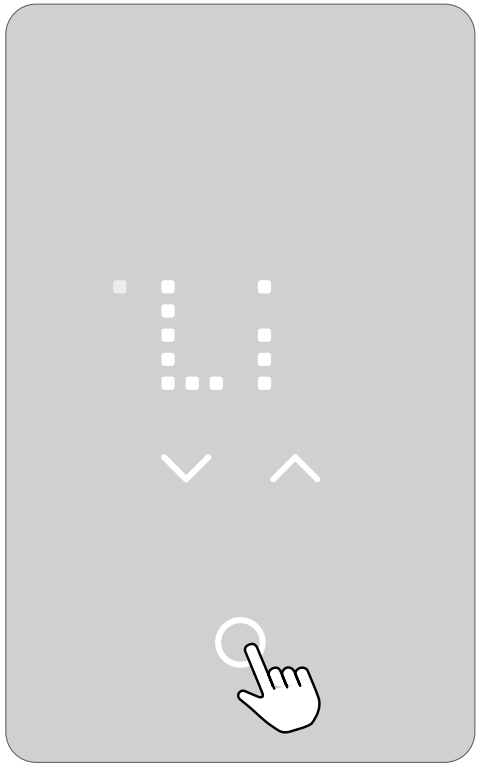
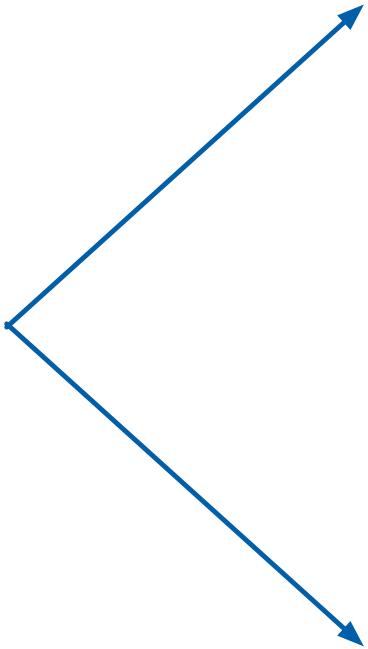
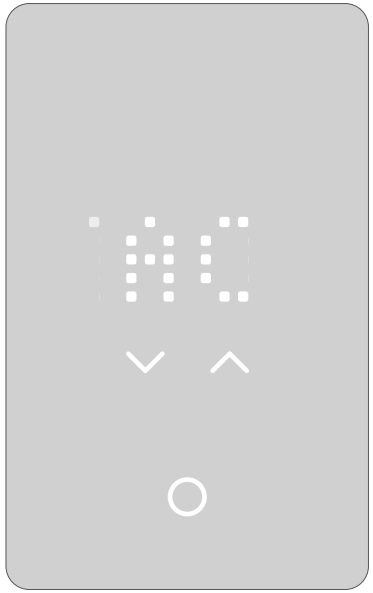
7.1 LIGHT

In the Light setting, you can set the brightness level for the screen saver and the active screen.

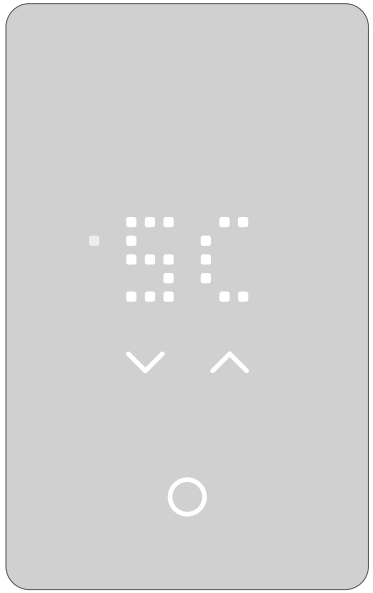


Press the **select/accept button** for 3 seconds to go to the light setting.





Active
Change the brightness level for the active screen



Screensaver
Change the brightness level for the screen saver

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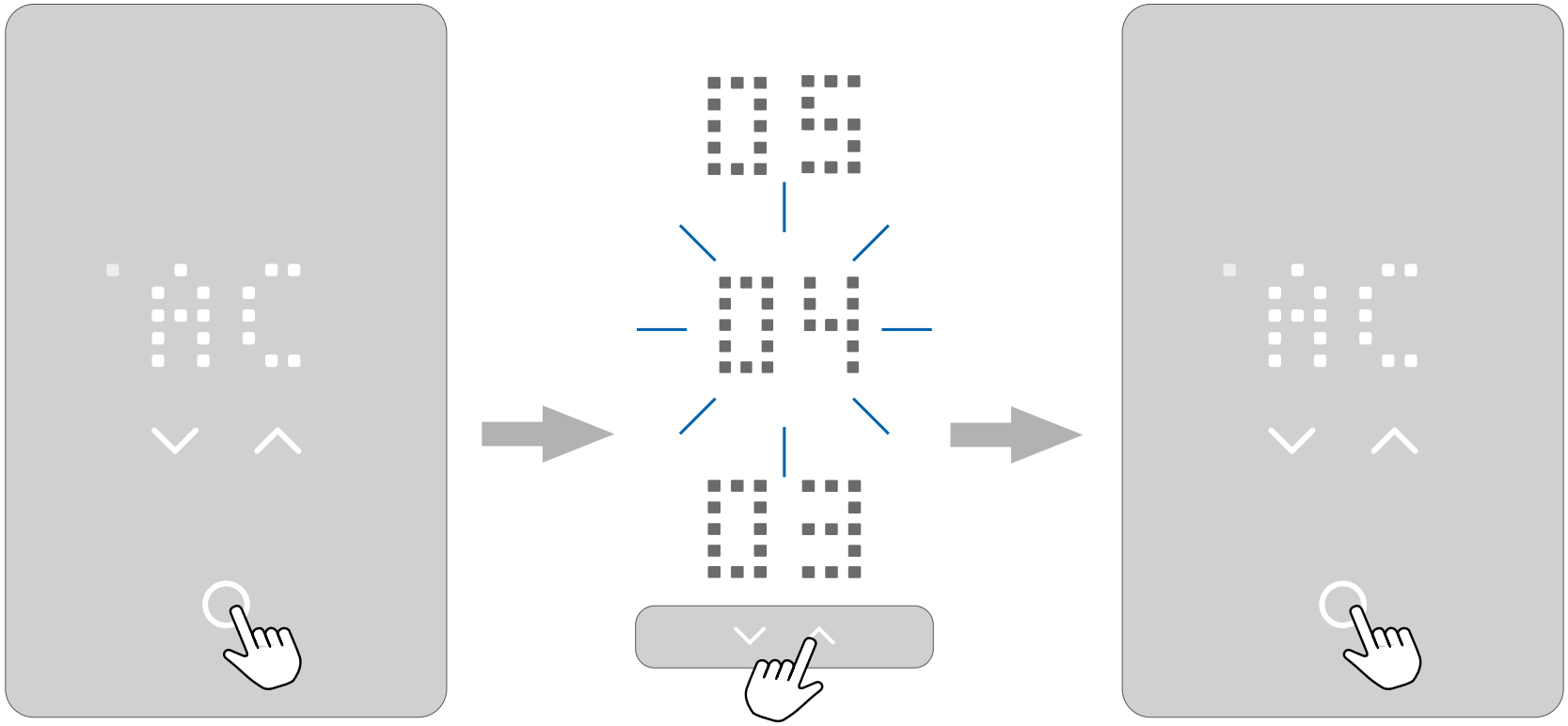
7.1.1 HOW TO CHANGE THE BRIGHTNESS - FOR THE ACTIVE SCREEN

In the Active Screen light setting, you can set the brightness level from 1 to 6 when the screen is active.



Press the **select/accept button** for 3 seconds to go to the Active Screen light setting.

Press the **up or down arrow** to adjust the setting.

Press the **select/accept button** to confirm. The screen will return to the light setting options.

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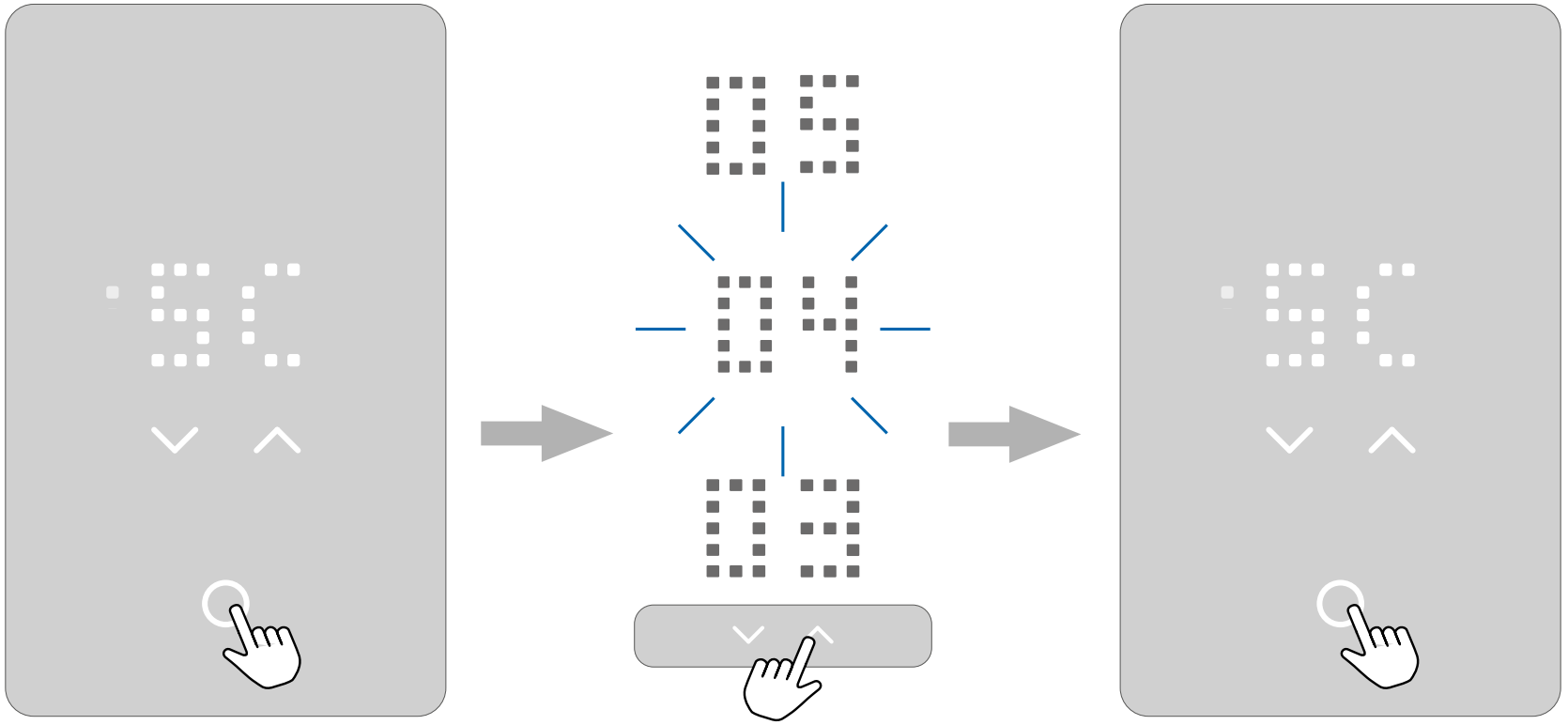
7.1.2 HOW TO CHANGE THE BRIGHTNESS - FOR THE SCREEN SAVER

In the Screen Saver light setting, you can set the brightness level from 1 to 6 when the screen saver is active.



Press the **select/accept button** for 3 seconds to go to the Screen Saver light setting.

Press the **up or down arrow** to adjust the setting.

Press the **select/accept button** to confirm. The screen will return to the light setting options.

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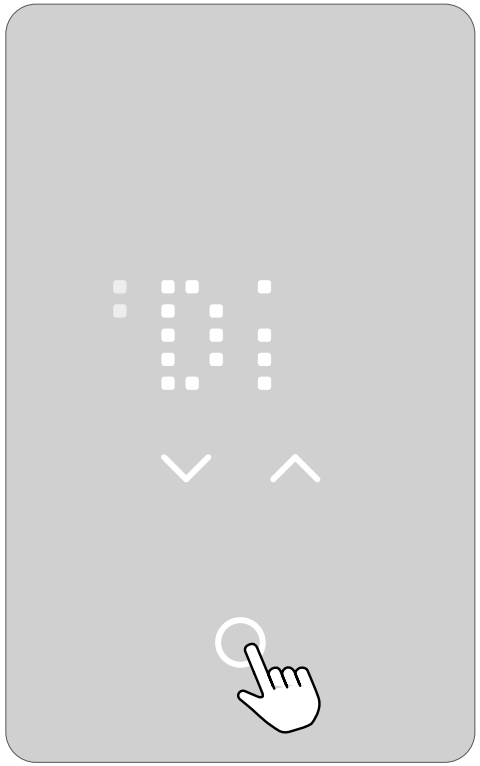
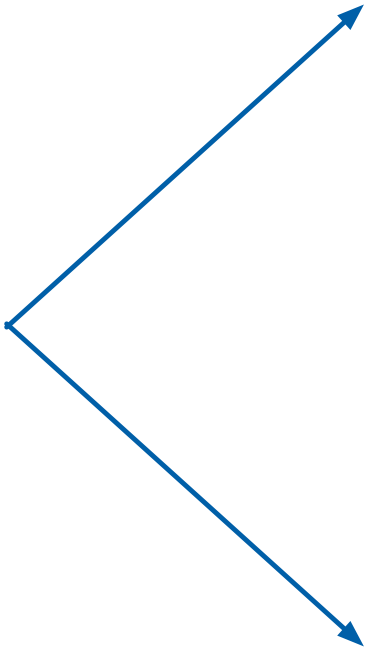
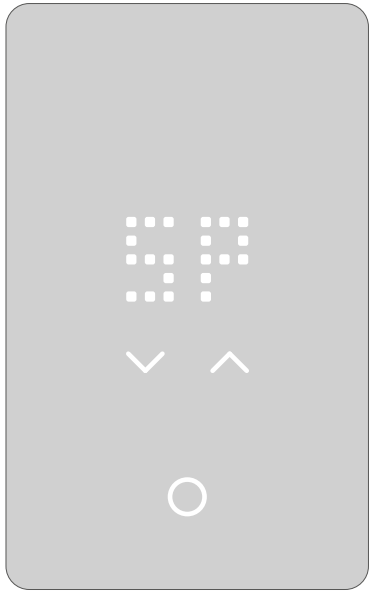
7.2 DISPLAY INFO

In the Display Settings you can choose whether to show setpoint temperature or actual temperature in the display

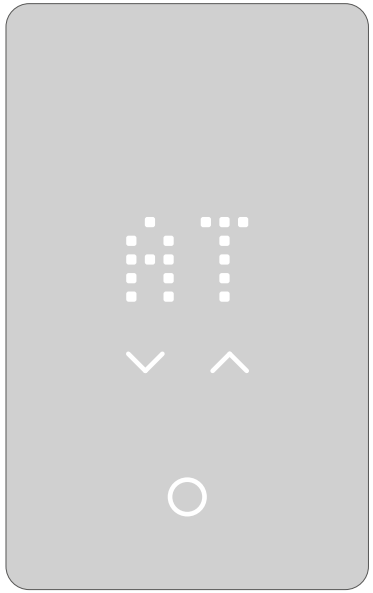


Press the **select/accept button** for 3 seconds to go to the Display Info setting.





Setpoint temperature
The selected setpoint temperature is shown in the display



Actual temperature
The actual temperature is shown in the display

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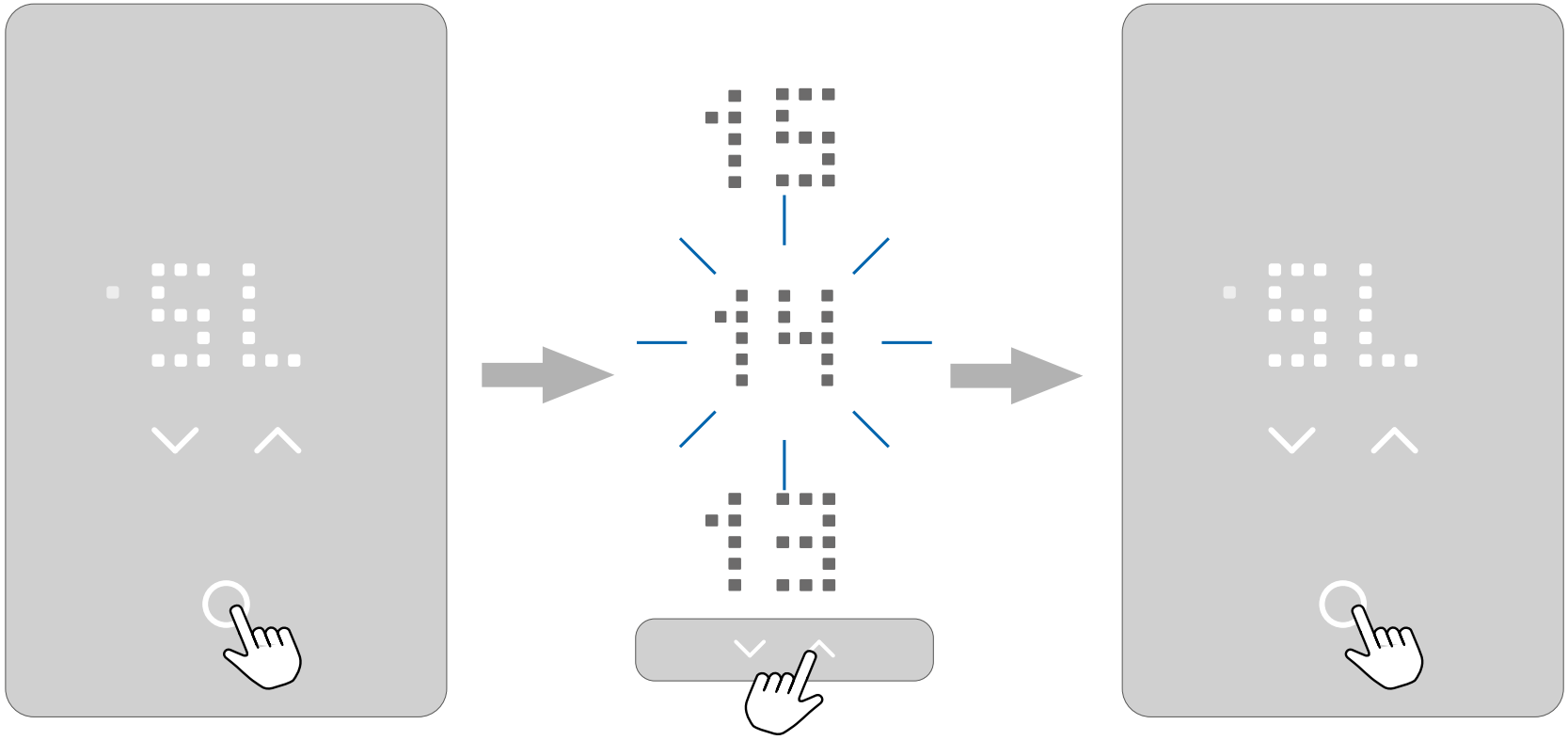
7.3 TEMPERATURE SETPOINT LIMITS

Temperature limits (setpoint range)*:
This limits the setpoint that the user can set on the thermostat. (Scale limit)
To learn about floor overheat protection please refer to the section on "Floor Protection Limits"

	Min.	Max.
°C	5–25°C	10–40°C
°F	41–77°F	50–104°F



Press the **select/accept button** for 3 seconds to go to the Temperature Limit settings.

Press the **up or down arrow** to adjust the setting for MAX and MIN temperature

Press the **select/accept button** to confirm. The screen will return to the setting options.

* Regardless of which temperature you choose as a setpoint, the thermostat will never regulate above or below the floor protection limits

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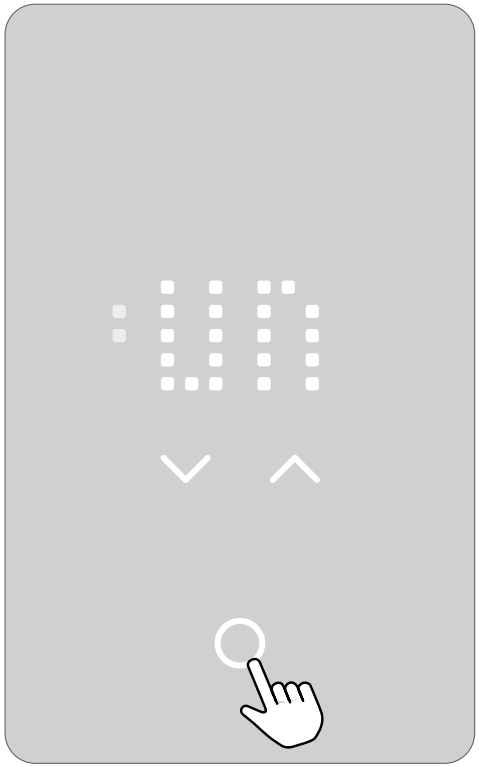
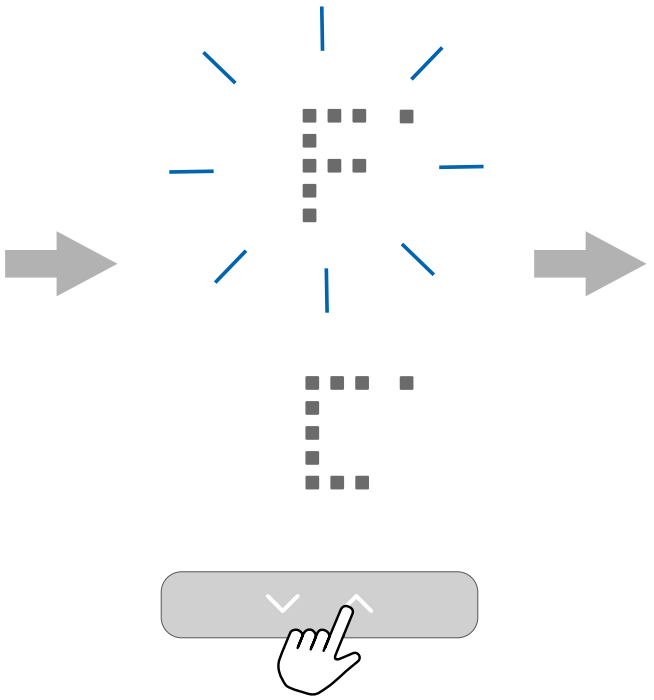
7.4 HOW TO CHANGE THE TEMPERATURE UNIT

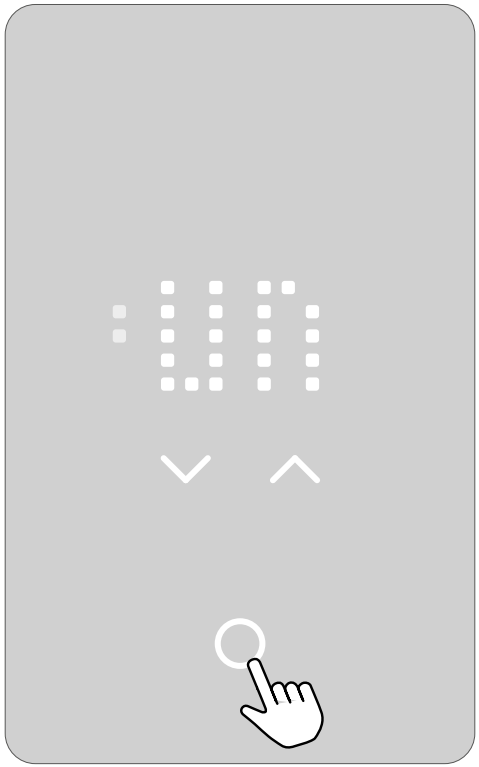
In the Unit Setting, the temperature unit can be set to F (Fahrenheit) or C (Celsius).



Press the **select/accept button** for 3 seconds to go to the Unit setting.



Press the **up or down arrow** to set the temperature unit to Fahrenheit or Celsius.



Press the **select/accept button** to confirm the setting.

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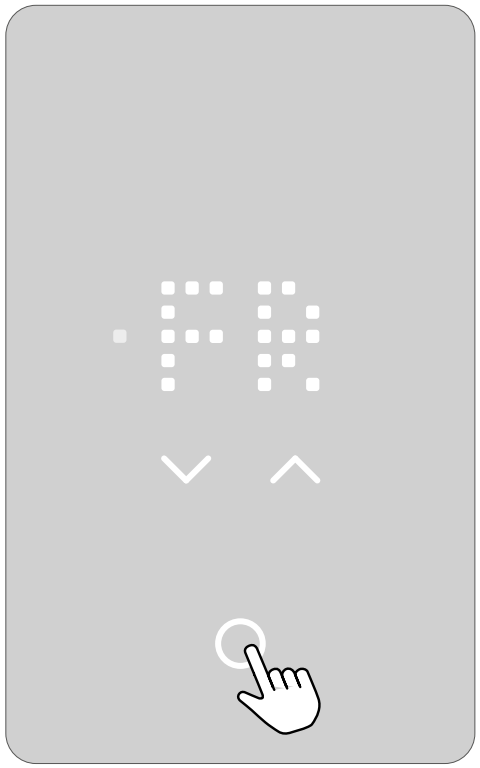
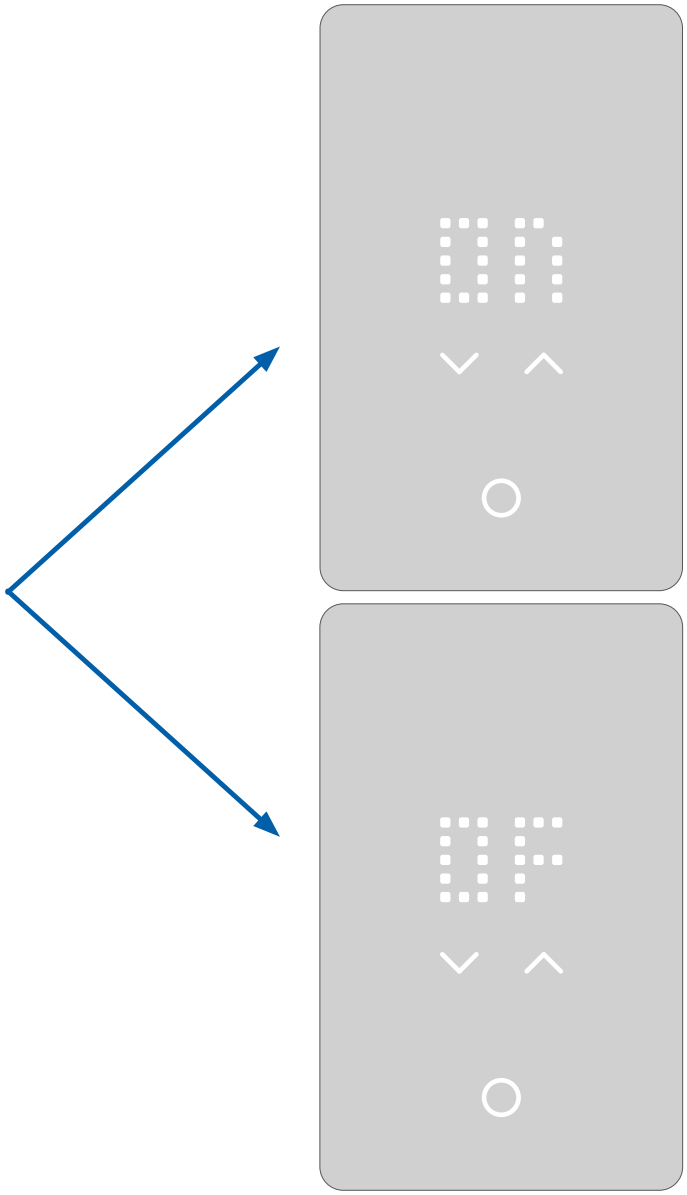
7.5 FROST PROTECTION

In the Frost Protection Setting, you can turn frost protection ON and OFF.



Press the **select/accept button** for 3 seconds to go to the Frost Protection setting.



ON
If ON, frost Protection is activated. The thermostat will start heating if the temperature goes below 5 C˚/ 41°F.

OFF
Deactivates frost protection. Your floor is NOT protected from freezing.

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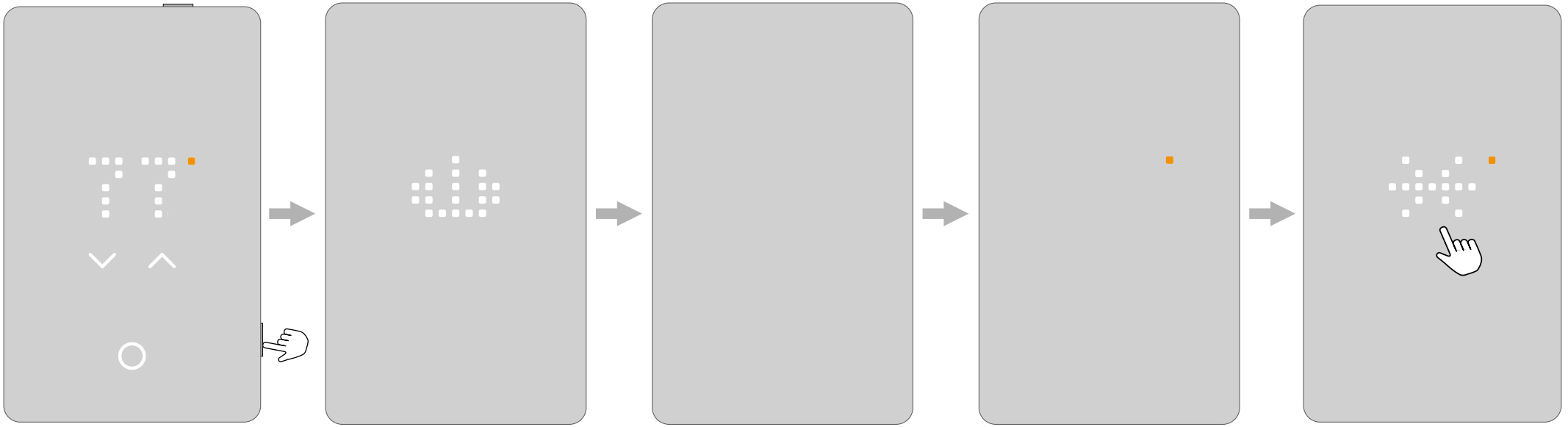
7.5.1 STANDBY AND FROST PROTECTION

You have the option of setting the thermostat in standby mode so that only frost protection is activated if enabled. All other functions in the thermostat are switched off. Frost protection means that the thermostat activates the heating when the sensor measures a temperature below the frost protection limit.



Press the **side button** for a moment to activate standby mode

The thermostat will show the standby icon for three seconds, then the icon will fade out. The thermostat is now on standby.

Standby and frost protection is active*. The orange dot is visible on the standby screen when frost protection is enabled and active.

*Frost protection is enabled in the settings.

If frost protection is enabled and active and the user touches one of the **touch areas**, the screen will show a snowflake for a few seconds, followed by the text FROST PROTECTED, followed by the standby icon. This will fade out and go back to standby mode.

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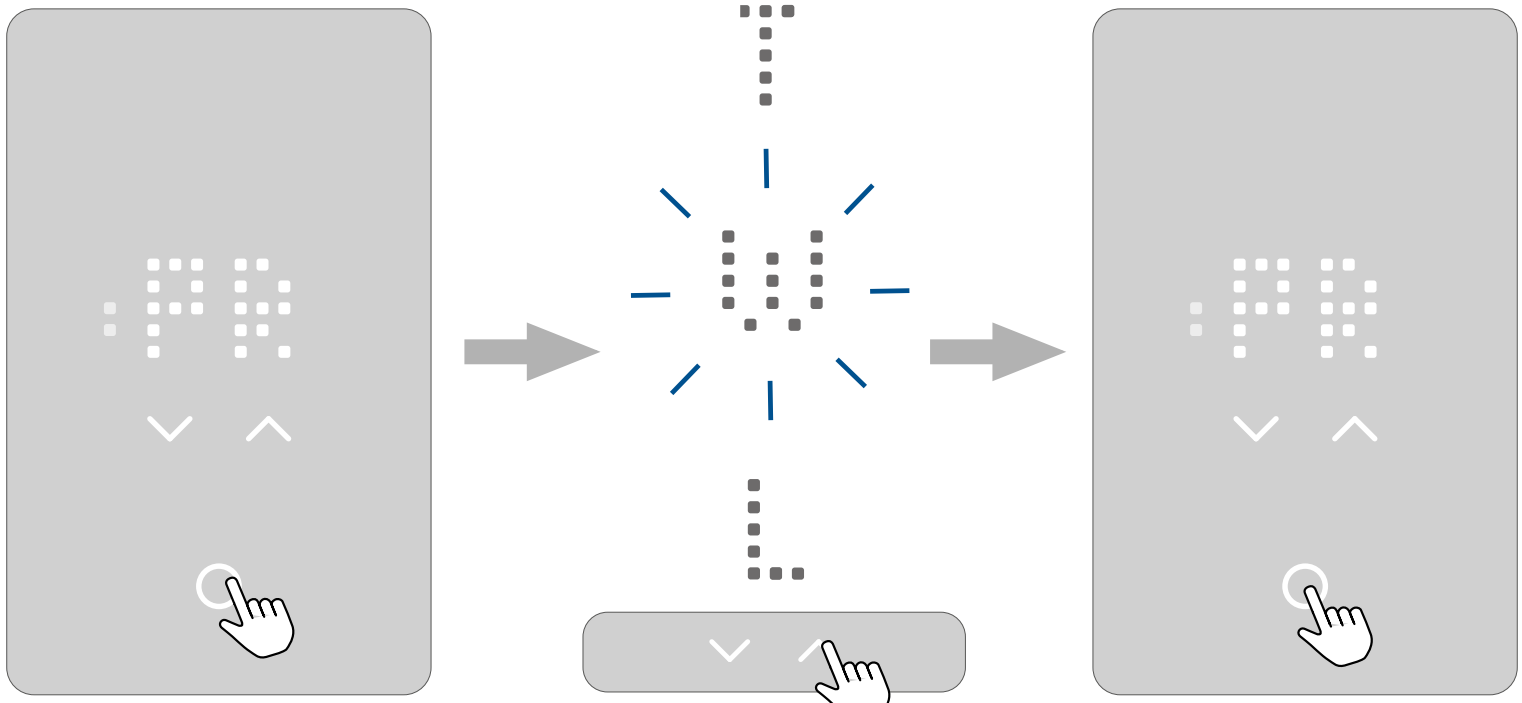
7.6 FLOOR PROTECTION LIMITS

Floor protection limits:
This type of limit will override the heating/regulation if the floor temperature measured by the sensor exceeds the thresholds set. If the temperature falls below the minimum threshold, the heating is switched on. If it rises above the maximum threshold, the heating is switched off. This limit feature is only active in the “Floor” and “Room with floor limits” modes.



Press the **select/accept button** for 3 seconds to go to the Floor Protection Setting.

Press the **up or down arrow** to scroll through the protection options.

Press the **select/accept button** to confirm the setting.

Floor protection limits	°C		°F	
	Min.	Max.	Min.	Max.
- OFF (floor protection is disabled)	-	-	-	-
- Wood (default)	5°C	27°C	41- °F	80- °F
- Laminate	5°C	28°C	41- °F	82- °F
- Tiles	5°C	40°C	41- °F	104- °F

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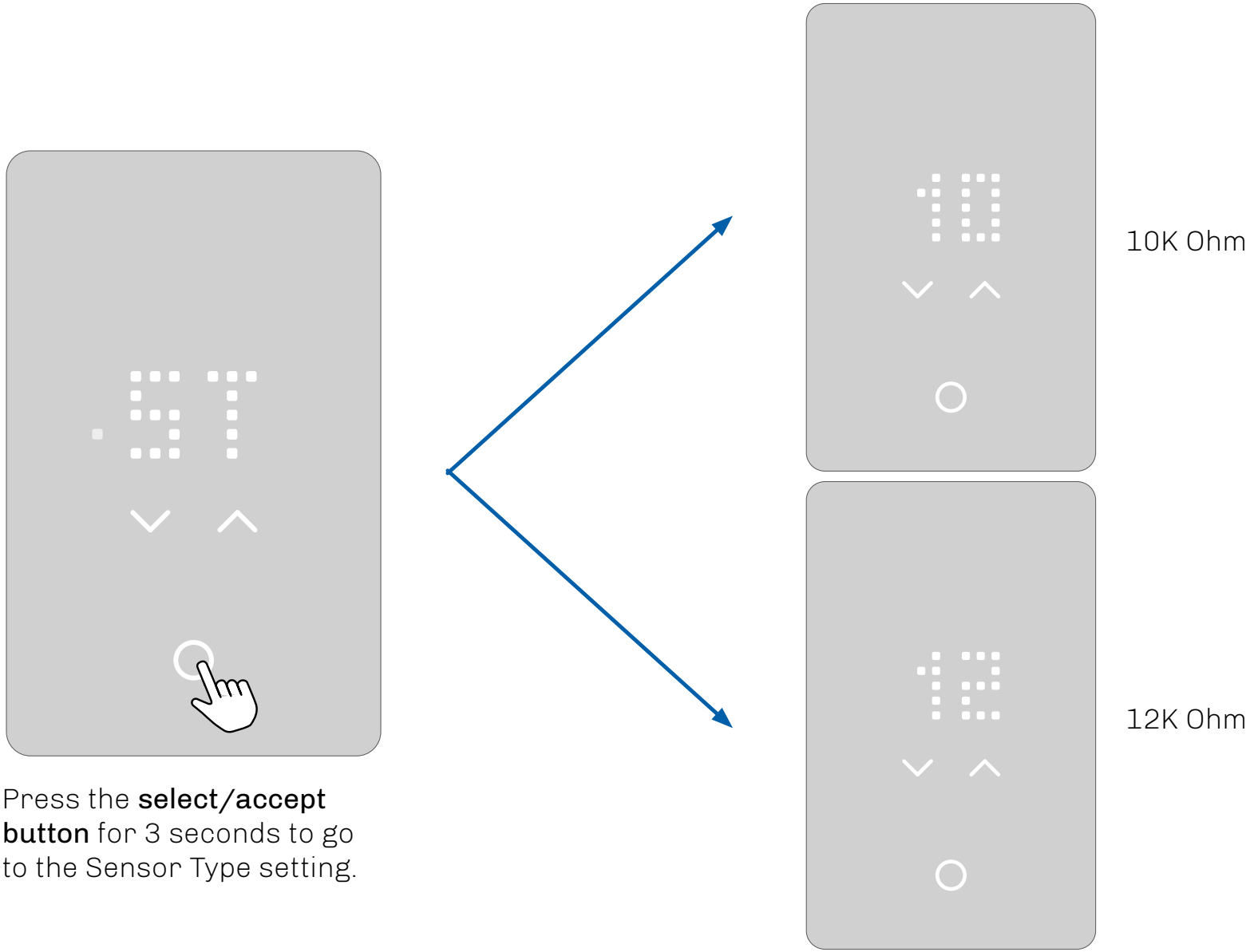
7.7 FLOOR SENSOR TYPE

Here you can select sensor type. You can choose between 10K Ohm or 12K Ohm



Press the **select/accept button** for 3 seconds to go to the Sensor Type setting.

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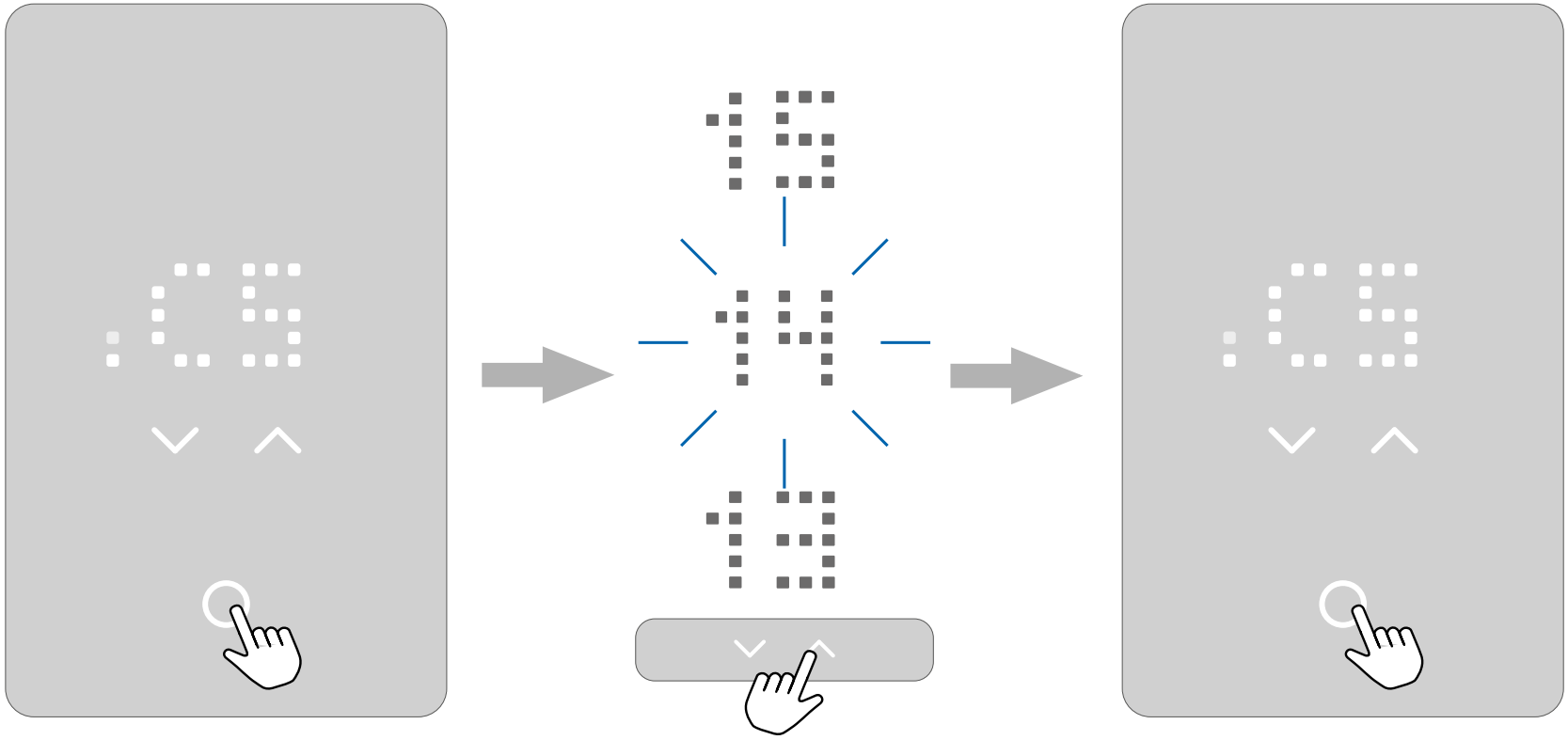
7.8 SENSOR CALIBRATION

If the actual measured temperature does not match the temperature displayed on the thermostat, you can adjust the thermostat in this setting by increasing or decreasing the number to match the measured temperature.
A factory reset will also reset changes made to the sensor calibration setting.



Press the **select/accept button** for 3 seconds to go to the Calibrate Sensor setting.

Press the **up or down arrow** to select the correct messured temperature.

Press the **select/accept button** to confirm. The screen will return to the setting options.

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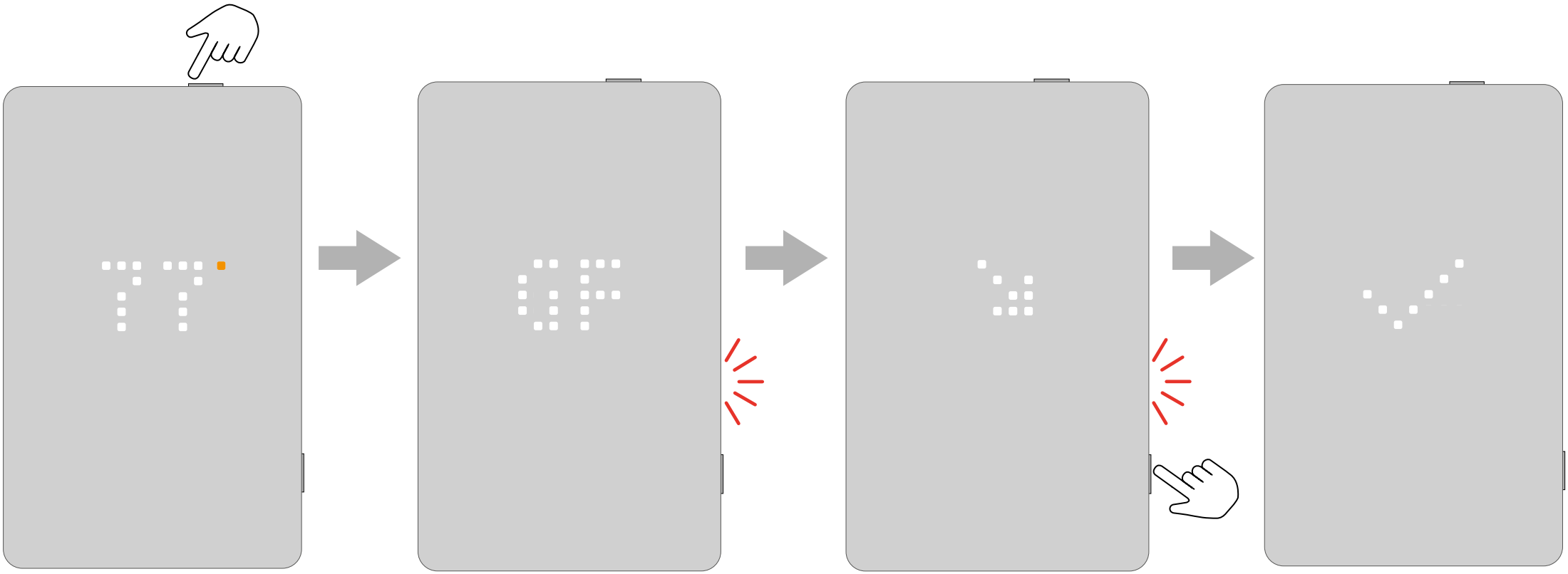
11. GFCI TEST

The GFCI thermostat has a built-in GFCI that ensures personal safety in the event of ground faults.
It is important that the GFCI is tested monthly.
Installation and use must follow national and local regulations.



Press the **top button** to test the GFCI relay.

The red light on the side will flash and the text ↘ GFCI TRIPPED PRESS TO RESET will scroll across the screen.
Press the **side button** for a moment to reset.

A check mark will appear to show that the GFCI has been reset and is working correctly.
Normal operation then continues.

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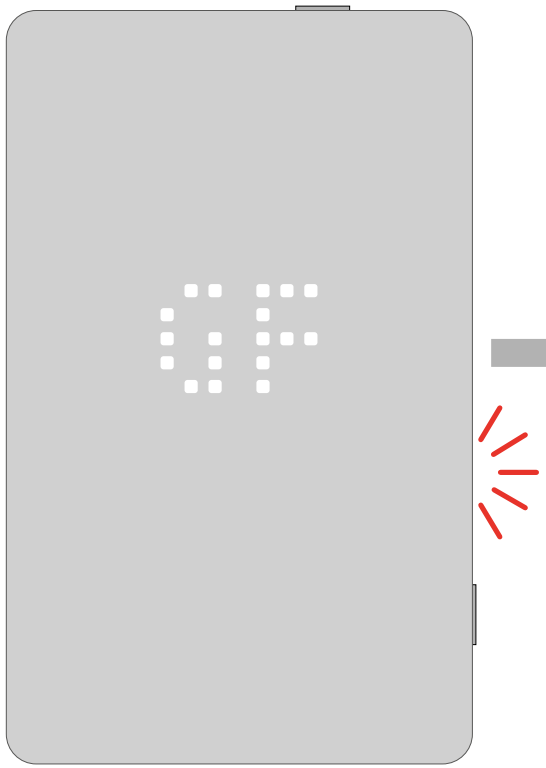
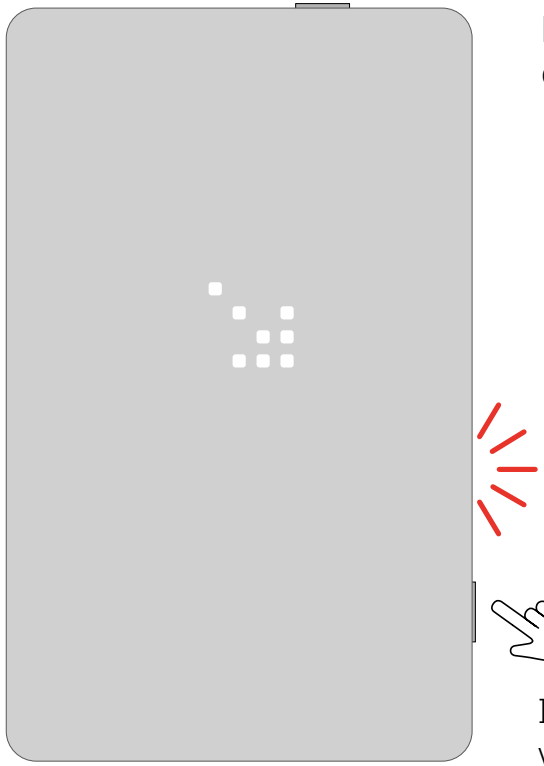
11.1 GFCI ERROR – RELAY TRIPPED

When the GFCI relay has been triggered due to an electrical fault, the red light on the side will flash and the text GFCI TRIPPED PRESS ↘ TO RESET will scroll across the screen.



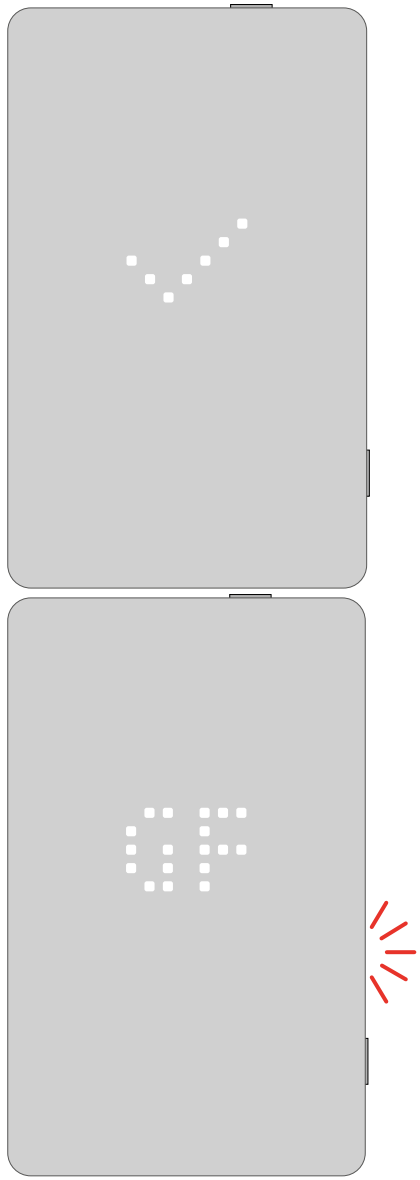
The red light on the side will flash and the text ↘ GFCI TRIPPED PRESS TO RESET will scroll across the screen.



Press the **side button** for a moment to reset.

If the test fails, the screen will return to the ↘ GFCI TRIPPED PRESS TO RESET display. This will continue if the cause of the tripped relay has not been resolved.

A check mark will appear to show that the GFCI has been reset and is working correctly.



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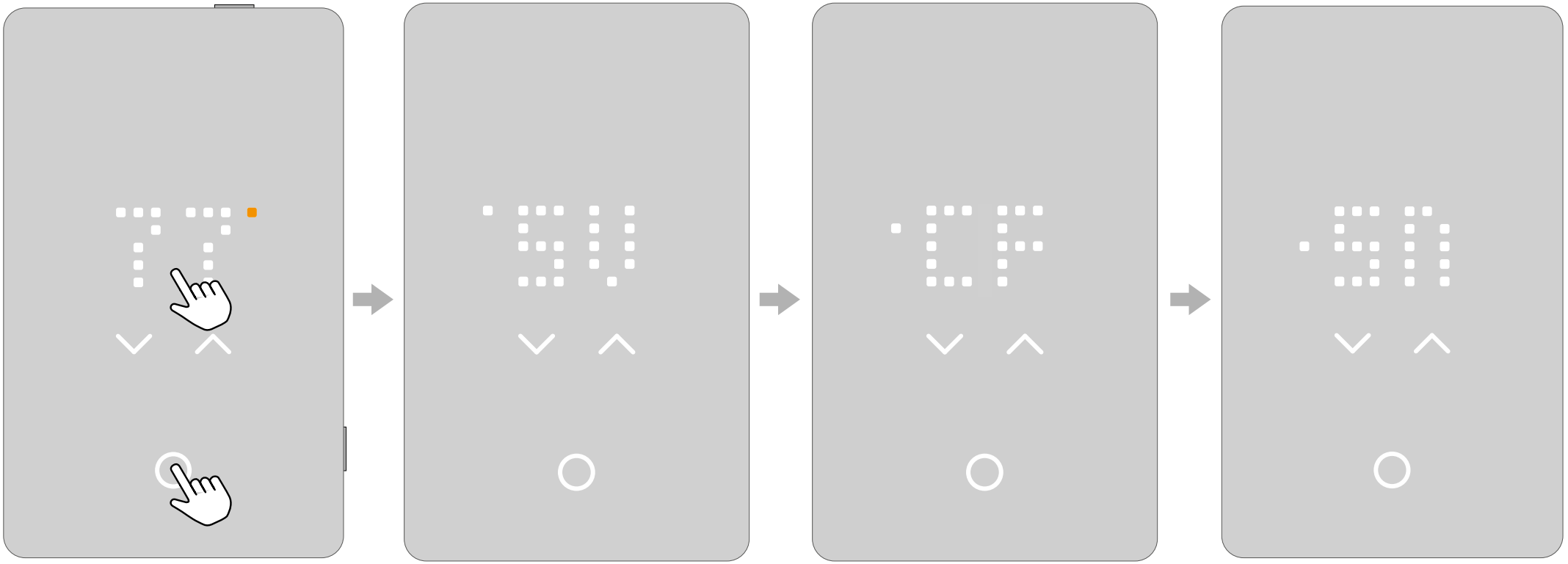
12. THERMOSTAT READ OUT - SUPPORT INFO

You may need to see thermostat information in order to identify the thermostat in a support case. You can access the information via the display.



In the active screen mode, touch the **temperature area** and the **Select/Accept** button simultaneously for **3 seconds** to access the info menu.

SV
Press the Select/Accept button to se the Software version

CF
Press the Select/Accept button to se the Config. Number

Sn
Press the Select/Accept button to se the Serial number

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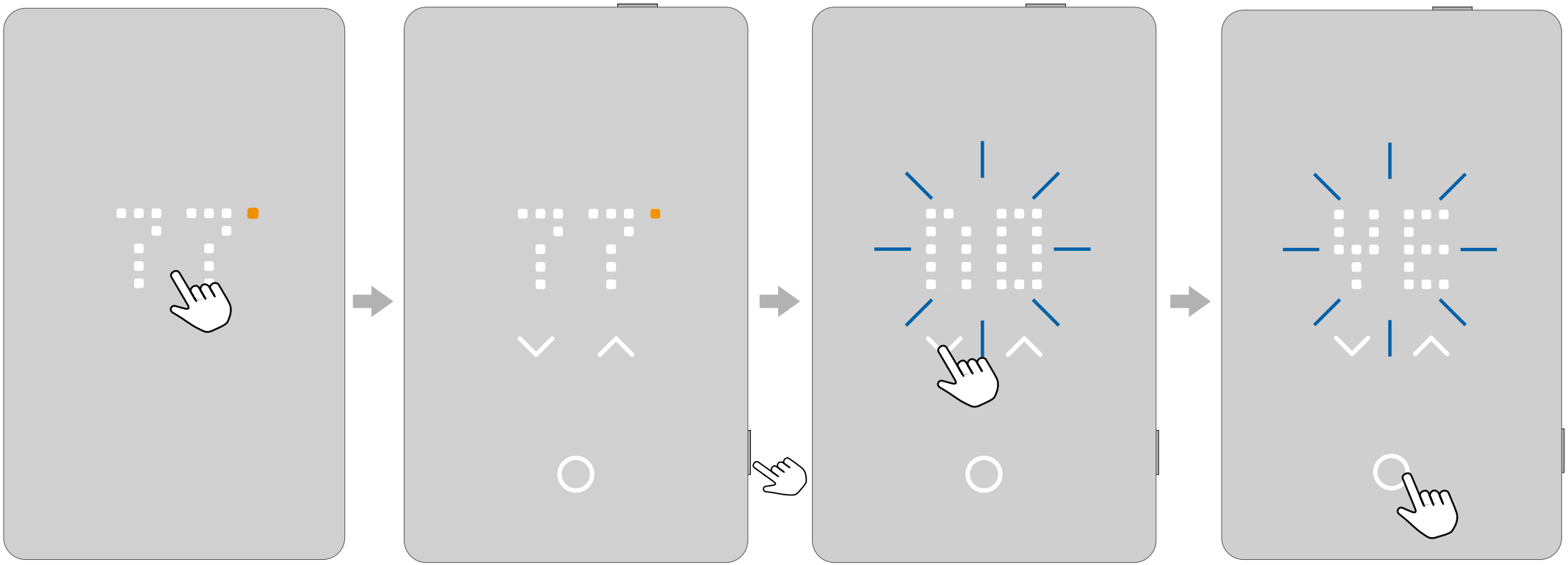
13. HOW TO PERFORM A FACTORY RESET

This option allows you to restore the thermostat to factory settings.
PLEASE NOTE: This action cannot be undone and all settings will be reset to default values.



In the screen saver mode, touch the **temperature area** to wake up the thermostat. The home screen will appear.

Press the **side button** for 15 seconds.

The text RESET -NO- will scroll from right to left. Use the **up and down arrows** to switch to RESET -YES-.

Tap the **select/accept button** to confirm.
the thermostat will perform a reset.

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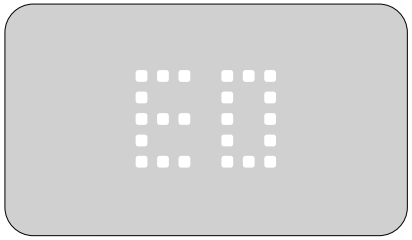
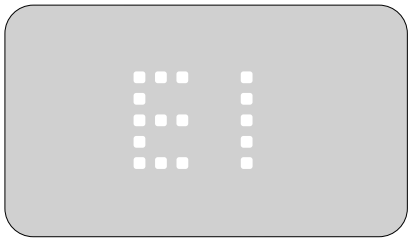
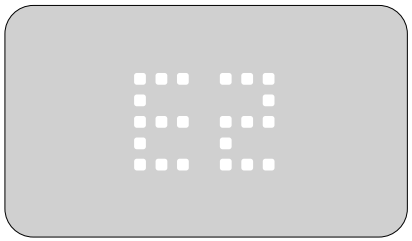
14. ERRORS AND INDICATIONS



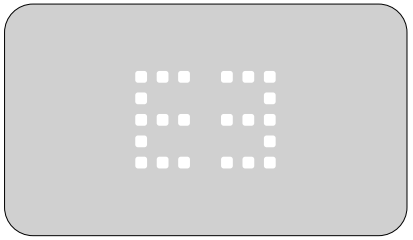
E0
Internal failure.
The thermostat is defective.
Contact your contractor or reseller.
The thermostat must be replaced.



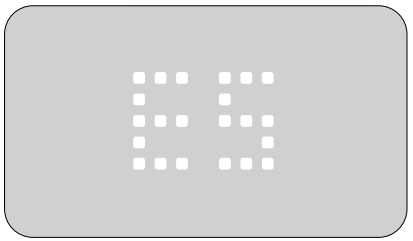
E1
Internal sensor defective or short-circuited.
Contact your contractor or reseller.
The thermostat must be replaced.



E2
External wired floor sensor disconnected, defective, or short-circuited.
Contact your contractor or reseller for reconnection or a replacement.



E3
Internal compensation sensor defective.
Contact your contractor or reseller for a replacement.



E5
Internal overheating.
Contact your contractor or reseller to arrange an inspection of the installation.

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