

Operating instruction digital thermostat



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Background

SDX uses a digital control unit to control heating or cooling in the product. The unit is factory set during installation, but may need to be adjusted if necessary. This document provides an easy guide to possible settings and troubleshooting in the event of problems with the product.

Overview

The control unit has the appearance below and consists of a display window and 3 touch-sensitive buttons.



Display

In normal operation, the current temperature of the product is shown here.

On/Off & Step up

This button has 2 different functions

- 1.**
When the button is held in for more than 2 seconds, the heat to the product is switched off and displays "Off". If the product is switched off and the button is held in for more than 2 seconds, heating of the product starts up if necessary.
- 2.**
Increase the value of the settings and steps in the menus by short presses.

Enter & Go to Settings

This button is used to enter Setup mode and to confirm a setting.

Down arrow/Manual defrost

Reduce the value of the settings and steps in the menus by short presses.

To perform manual defrost (stop defrost) press and hold the button until the compressor symbol turns off (only applies to refrigeration products).

Status icon

When the product is in operation and heating or cooling, the circular icon will appear in the display. If the product is not in heating/cooling mode, this icon is not visible.

Normal operation

As mentioned earlier, the thermostat is factory programmed and normally does not need to be adjusted. When the product is powered up, heating or cooling will start and continue until the set point is reached.

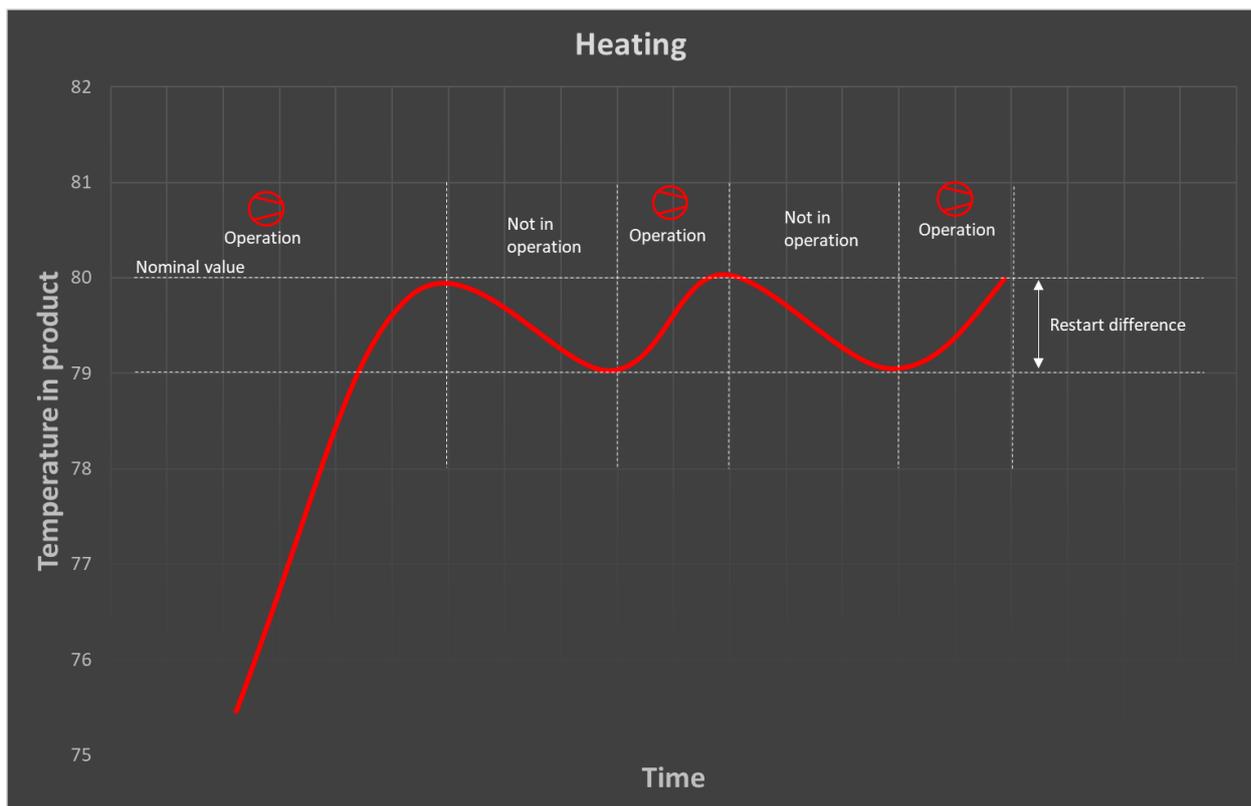
Heating/cooling is in progress as long as the status icon is visible in the display.

When the setpoint is reached, heating/cooling stops and the icon is no longer visible in the display.

Restart will take place when the temperature in the product has fallen (heating products) or increased (cooling products) a set temperature difference, called 'restart difference', see images below. (The restart difference is adjustable, but should not be changed without contacting a service technician.)

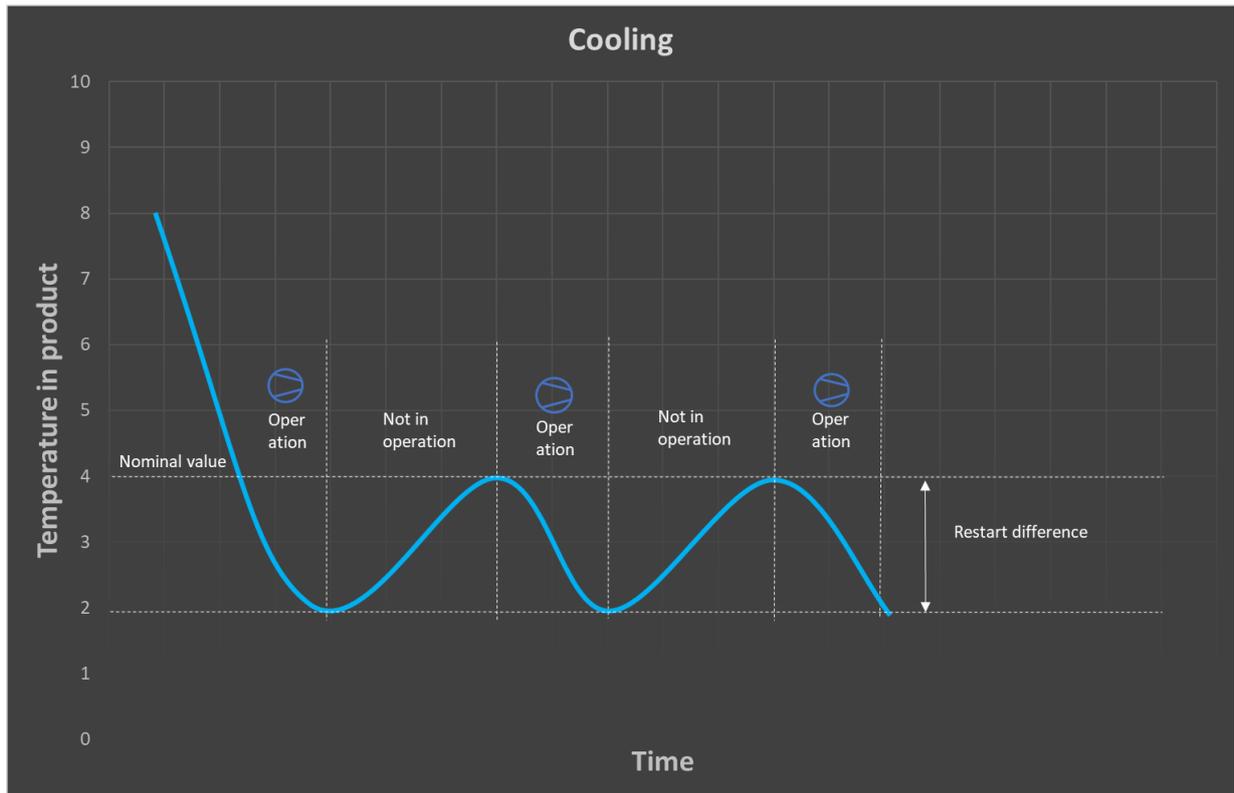
Heating products

Setting up	Factory setting	Max. setting	Min. setting	Text in display
Setpoint temperature	80°C	90°C	40°C	<i>St</i>
Restart difference	1°C	19°C	0°C	<i>rd</i>



Cooling products

Setting up	Factory setting	Max. setting	Min. setting	Text in display
Setpoint temperature	2°C	9°C	1°C	<i>St</i>
Restart difference	2°C	19°C	0°C	<i>rd</i>



Defining settings

There are 2 different types of settings in the thermostat;

- Simple setting

Simple setting means setting the set point value, i.e. the temperature required in the product.

- Advanced setting

Advanced setting means that passwords must be entered, after which more advanced settings such as restart hysteresis can be reached

Changing the setpoint



Press and hold Enter until the display shows the set point, then release the button immediately.



- The digits will now flash with the set point value given for the product. (80°C for heating products and 2°C for cooling products). To adjust the value, use the up/down arrows



To confirm a setting, press the Enter button once briefly, and the display returns to normal display of the current temperature.

Advanced settings.

Note that the settings below should only be carried out after contacting a service technician or telephone support from the factory.



- Hold down the Enter button for about 6 seconds until the display shows "PS" (Password) flashing. Confirm with Enter



- Scroll up until the display shows "22" and confirm with Enter.



You have now entered the service settings and can scroll around with the up/down arrows.
To enter a specific setting according to the table below, use the Enter button.

Display name	Description	Factory setting		Min.		Max.	
		Heating	Cooling	Heating	Cooling	Heating	Cooling
PS	Change code for advanced settings	22	22	0		999	
rd	Restart difference	1°C	2°C	0°C		19°C	
r1	Min. set point value	40°C	1°C	-50°C		r2	
r2	Max. setpoint	90°C	9	r1		200°C	
c1	Minimum time between compressor starts	0 min		0 min		100 min	
H0	Serial address for communication	1		0		207	
H5	ID code communication (cannot be changed -1)	-					
Ey	Quick parameter setting (Do not change)	3	1	0		4	
-C1	Calibrating sensors	0.0°C		-50.0°C		+50.0°C	

Troubleshooting

	Problem	Possible reason	Remedy
1	Nothing is visible in the display	No power supply to the product	Ensure that the product has a power supply
		Power switch on product off	Set the power switch to on.
		Electrical problem	If the above 2 points have been checked, contact Service.
2	Heating or cooling not in operation	Controller in OFF position	Set the controller to ON, see page 3
		Set point reached.	None. The product waits until the temperature has fallen or increased the restart difference, and then restarts automatically.
3	Product does not get cold or hot enough	Setpoint incorrectly adjusted	Adjust the temperature setpoint according to the information on page 6
		Technical error	If the product does not reach the required temperature within a reasonable time, contact Service for troubleshooting.
4	Product temperature fluctuates too much	Restart difference incorrectly adjusted	Adjust the restart difference downwards according to the information on page 7.
5	Error code in display	Error detected	See error code list below.

Error codes

There are a total of 4 different displays indicating either error/warning or information as listed below.

Display name	Description	Contact service	Service action
E0	Fault on temperature sensor	Yes	<ol style="list-style-type: none"> 1. Check cable connection on display, terminal 4&5. 2. Measure ohm level on sensor, resistance should be approx. 25 kΩ at 25°C. 3. If the sensor is defective, replace it, Item no. box series K, E, F: 314045 Item no. box series C: 314046
EE	Processor memory error	Yes	Disconnect the power to the product and restart. If the error persists, replace the display. Item no. display heating products: 312007 Item no. display cooling products: 312008
	Parameter error when loading to memory	Yes	Disconnect the power to the product and restart. If the error persists, replace the display. Item no. display heating products: 312007 Item no. display cooling products: 312008