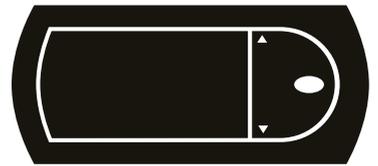


SDX[®]THERMOBOX

DIGITAL THERMOSTAT



MANUAL

Keeping the right temperature

TRANSPORTATION OF HOT AND COLD FOOD IN A HYGIENIC AND SUSTAINABLE WAY FOR BOTH HUMANS AND THE ENVIRONMENT

CONTENT

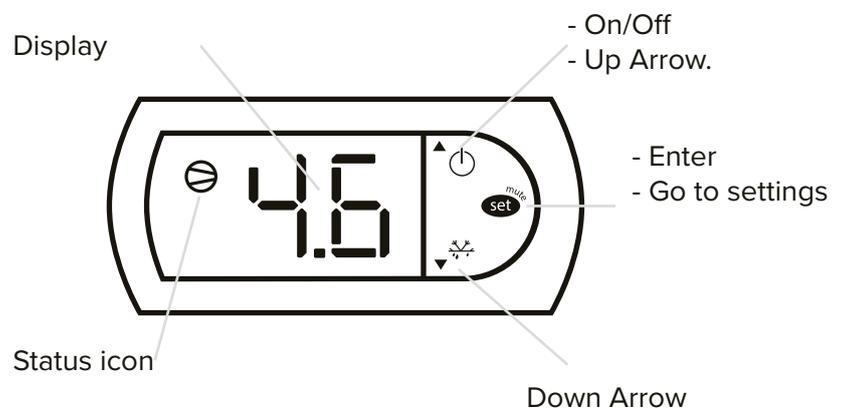
Background _____	3
Overview _____	3
Normal operation _____	4
Heating products _____	4
Cooling products _____	5
Defining settings _____	6
Changing the setpoint _____	6
Advanced settings. _____	7
Troubleshooting _____	8
Error codes _____	8

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 WINDOW

During normal operation, the current temperature in the product is displayed here.

⊖ STATUS ICON

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

⏻ ON/OFF & STEP UP

This button has 2 different functions

1. When the button is held down for more than 2 seconds, the heating/cooling of the product is switched off and displays "Off". If the product is switched off and the button is held down for more than 2 seconds, the heating/cooling of the product starts up if necessary.
2. Increase the value of settings and step in menus by short presses.

Ⓢ ENTER & GO TO SETTINGS

This button is used partly to enter setting mode, as well as to confirm a setting.

⏴ DOWN ARROW/MANUAL DEFROST

Reduce the value of settings and step in menus by short presses. To perform manual defrosting (standstill defrosting), hold the button down until the compressor symbol goes out (only applies to products with compressor cooling.)

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.

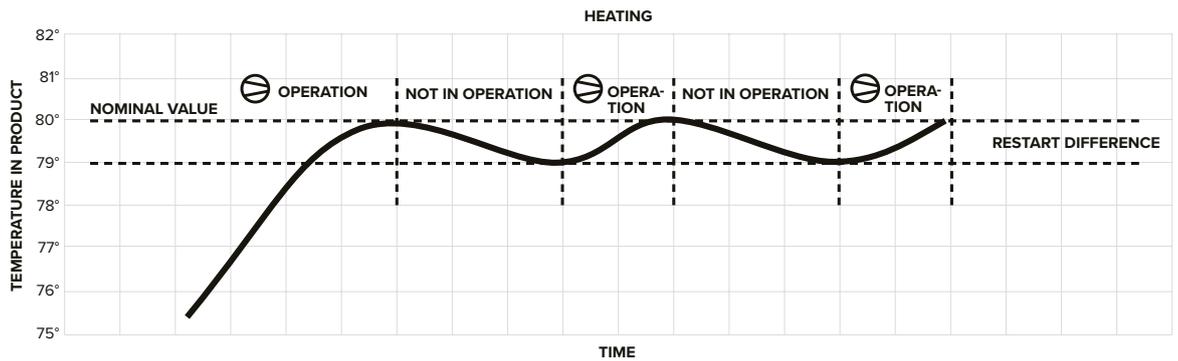
When the setpoint is reached, heating/cooling stops and the icon is no longer visible in the display.

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.)

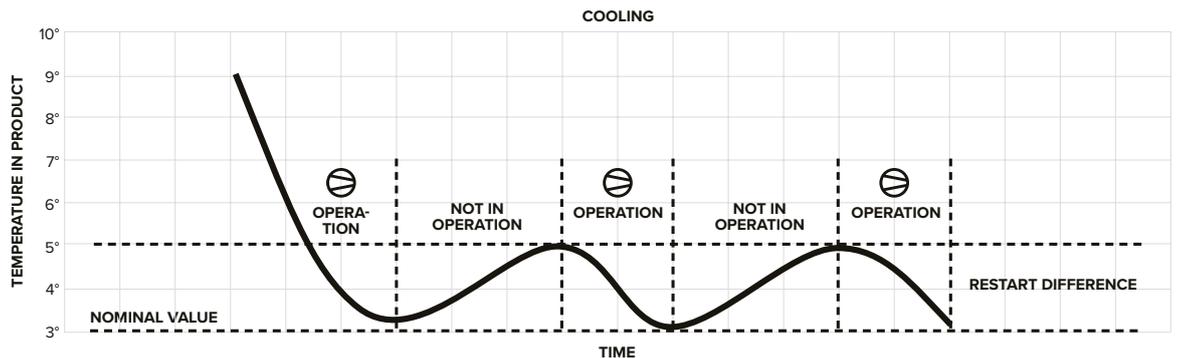
HEATING PRODUCTS

SETTING UP	FACTORY SETTING	MAX. SETTING	MIN. SETTING	TEXT IN DISPLAY
Setpoint temperature	80°C	90°C	40°C	St
Restart difference	1°C	19°C	0°C	rd



COOLING PRODUCTS

SETTING UP	FACTORY SETTING	MAX. SETTING	MIN. SETTING	TEXT IN DISPLAY
Setpoint temperature	3°C	9°C	1°C	St
Restart difference	2°C	19°C	0°C	rd



DEFINING SETTINGS

There are 2 different types of settings in the thermostat;

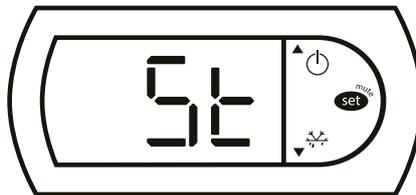
- Simple setting

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

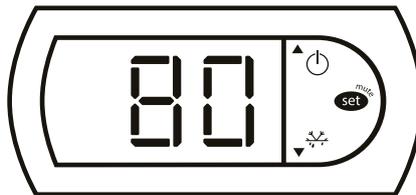
- Advanced setting

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

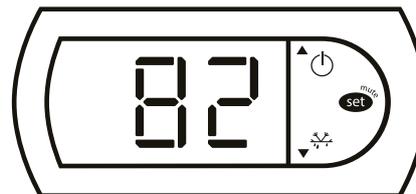
CHANGING THE SETPOINT

**1**

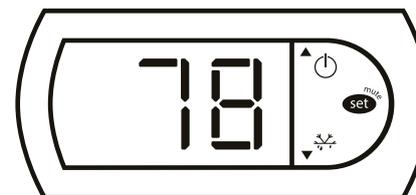
Press and hold Enter until the display shows the set point, then release the button immediately.

**2**

The digits will now flash with the set point value given for the product. (80°C for heating products and 3°C for cooling products). To adjust the value, use the up/down arrows

**3**

To confirm a setting, press the Enter button once briefly.

**4**

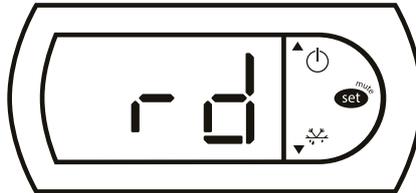
The display returns to normal display of the current temperature.

CHANGE RESTART DIFFERENCE

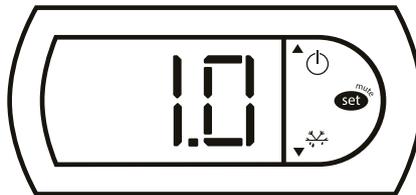
(Cannot be executed without a password)

**1**

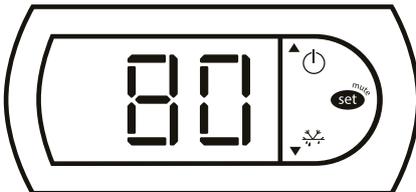
Hold down the Enter button until the display shows “PS”, then release the button immediately.

**2**

Arrow down until the display shows “rd” and press the Enter key

**3**

You have now reached the restart differende setting. Change using the up/down arrows and confirm with the Enter key.

**4**

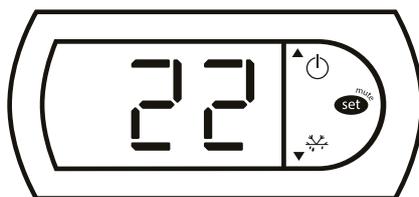
The display returns to normal display of the current temperature.

ADVANCED SETTINGS.

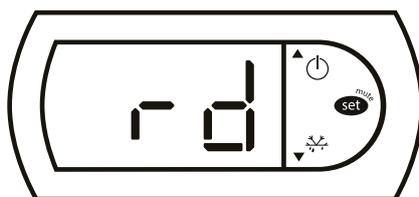
Note that the settings below should only be carried out after contacting a service technician or telephone support from the factory.



1
Hold down the Enter button for about 6 seconds until the display shows “PS” (Password) flashing. Confirm with Enter



2
Scroll up until the display shows “22” and confirm with Enter.



3
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	0min		0min		100min	
d1	Defrost interval	-	2h	-	0h	-	199h
dp	Defrost time	-	10/14min*		0min	-	199min
H0	Serial address for communication	1		0		207	
H5	ID code communication (cannot be changed -1)	-					
E4	Quick parameter setting (Do not change)	3	1	0		4	
-[1	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 dropped or risen, the so-called the restart difference and then restart automatically.
		Defrosting in progress	None. The display shows "dF" as long as the defrost is in progress and will then restart 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
EO	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
	Memory error processor	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
EF	Parameter error when loading into 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
dF	Defrosting in progress	No	The system performs defrosting and will return to normal operation automatically. (only applies to products with compressor cooling.)

Keeping the right temperature



WWW.SDX.SE provides information about our full product portfolio with accessories