

## Operating Instructions Summary B400/B410/C440/C450/P470/P480

### 1.1 Basic Functions

Print this page in order to have the basic operating instructions on hand at all times.

Read the safety instructions in the controller operating instructions.

#### Read the tutorials on the Internet

To access the operating instruction quickly, scan the QR code with your smartphone or enter the Internet address in your browser:

[www.nabertherm.com/tutorials/controller](http://www.nabertherm.com/tutorials/controller)

Apps to scan QR codes can be downloaded from the corresponding sources (app stores).



#### Turn on the controller











Turn on the power switch.

You are in the overview.




Set power switch to "I".  
(power switch type varies according to design/furnace model)


#### Set language with the quick selection buttons

Steps	Operation	Display	Comments
Press the Info button			
Press and hold the menu button (2 sec.)			
Briefly press the jog dial			
Turn to select the language			
Press to confirm			








#### Select overview

Steps	Operation	Display	Comments
Press the Back button			To go to the overview, press the Back button for 2 sec.


## Select overview

Steps	Operation	Display	Comments
The menu icon is shown in the top left-hand side of the display when you reach the overview.			

## Load and start the program (if applicable, enter a program beforehand)

Steps	Operation	Display	Comments
Return to overview. Briefly press the jog dial			
Turn to select the program			
Press to confirm			
Press to reject delayed start: [NO]			
Press Start to start the program			

## Stop program

Steps	Operation	Display	Comments
Press and hold the Start button to stop the current program (2 sec).			

## 1.2 Entering a New Program (Program Table)

Program entry is described in more detail in “Entering or Changing Programs”.

**First, fill the program table.**
















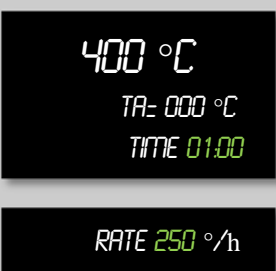
<b>Program name</b>	
<b>Furnace</b>	
<b>Other</b>	








Program options (depending on furnace features).

<b>Activate charge control</b>	
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Segment	Temperature		Duration of the segment Time [hh:mm] or rate [°/h)	Additional functions (optional):				
	Start temperature T <sub>A</sub> (0 °)	Target temperature		Controlled cooling	Extra functions			
					1	2	3	4
1				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

= Value is transferred from previous segment

Enter a new program			
Steps	Operation	Display	Comments
Press [MENU], turn to select [ENTER PROGRAM] and press to confirm			
Turn to select an empty program and press to confirm			The program number is shown in the menu bar
Program name: Change name: -> Print Do not change the name: -> Turn more			Change default name (e.g. "P01"): Turn to change flashing sign, press to confirm sign. <b>Press for 2 sec. to complete entry, the 1st segment is displayed.</b>
Press to confirm segment [S01]. Segment number is shown in the menu bar.			P01-S01 means: First segment [S01] of program 01 [P01]. A program can consist of several segments.
If necessary, turn to select the start temperature [TA] of the segment. This is necessary only in the first segment. Press to confirm.			The start temperature [TA] is a chosen temperature at which the program should begin. Normally, this setting does not have to be changed, as the furnace usually starts at the current temperature. In this case, simply press the jog dial to confirm.
Turn to enter the target temperature of the first segment. Press to confirm.			
Turn to select whether you wish to enter the time [TIME] or degrees per hour [RATE]. Press to confirm.			Enter the time [TIME] in the format hour:minute (hh:mm), and the [RATE] in degrees per hour (°/h).
Turn to enter the time [TIME] or degrees per hour [RATE] for the segment. Press to confirm.			

Enter a new program			
Steps	Operation	Display	Comments
Turn to select the extra functions. Press to confirm.			The number of extra functions depends on the features of the furnace (e.g. controlled exhaust air flap).
Turn to select the next segment and press to confirm.			The next segment is specified automatically.
Repeat the steps described above until you have entered all the segments. If you do not need another segment, do not enter a target temperature in the last segment ([END] is displayed) but save the program, as described in the next step.			
Extra functions set in the end segment remain set when the program is finished.			
Save the program: Press and hold the jog dial (2 sec.).			If you do not want to save the program, select [NO]. Alternatively, you can also press "Back"  to save the program.