

# 1 Short Manual



## WARNING

Before initial operation, check the correct operating voltage is set on the voltage selection switch on the underside of the device. Do not open the housing! Danger of electric shock!



## CAUTION

The sample block and the heated lid can reach high temperatures during operation. Both the sample block and the heated lid can burn you. The samples are heated up quickly and may come to an explosive boil. Wear goggles when handling hot samples. Make sure that the lid is closed securely before starting the program!



## NOTICE

The use of oil between samples and sample block is not necessary. If you wish to use oil, never use silicone oil. Use mineral oil. Ensure that the ventilation slits are clear.

**Important: Release the lid wheel before opening the lid! Adjust the lid wheel for every individual run!**

Login

After the TOne has completed the initial self-test, the login screen is displayed:



- Press [Login] to log in as an existing user.
- Press [Quick Start] for the non-user-specific quick start of programs.
- Press [EN/DE/CN] to change the language setting of the login screen.

Home screen

After login the TOne home screen opens:



- Press [Quick Start] for the user-specific quick start of programs.
- Press [Programs] to edit, save, copy or run programs.
- Press [Incubate] to incubate the sample block at a constant temperature.

- Press [Tools] to access the system settings, user management, documentation, backup tool or self-test functions.
- Press [Logout] to log out.
- Press [Programs] on the TOne home screen The program overview screen opens:

Editing, saving and copying programs



- To edit a template, press [New from template], select a template from the list and press [Open template].
- To edit a program, select a user directory and a program and then press [Edit].
- Alternatively, a user or a program can be selected via the quick selection .

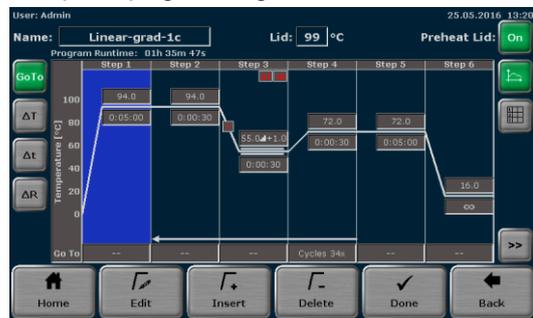
The TOne programming screen opens. Use the following buttons to toggle between the different programming modes:

Graphical mode  Spreadsheet mode  Gradient mode 

Spreadsheet programming screen



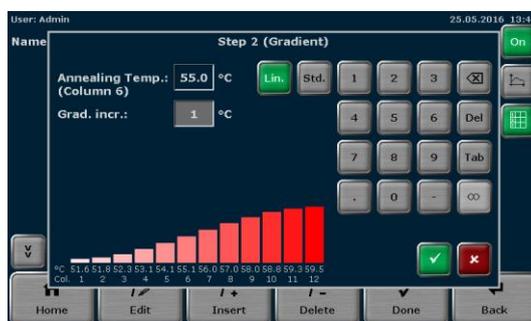
Graphical programming screen



- Enter a program name. To do this, touch the "Name" input field and enter a name using the TOne keyboard.
- Define the status and the temperature of the heated lid. Touch the "Heated lid" input field and switch the heated lid on or off. If the heated lid is switched on, enter a temperature between 30°C and 110°C.
- To switch the heated lid preheating on or off, press the corresponding button.
- Select a program step and press [Edit]. The screen for editing program steps opens:



- Use the cursor keys above the keyboard to switch between program steps. The number of the currently activated step is displayed on a blue background in the table at the top of the screen.
- Touch the "Temperature" input field and enter a temperature [°C].
- Touch the "Hold time" input field and enter a time [h:mm:ss]. To program a pause step press ∞.
- To program a loop, touch the "Go To" input field and enter the step number to which the program should return. Then touch the "Cycles" input field and enter how often the loop should be repeated.
- To reduce or increase the annealing temperature from step to step within a loop, press  $\Delta T$  and set a negative or positive temperature increment.
- To reduce or increase the hold time from step to step within a loop, press  $\Delta t$  and set a time increment.
- To adjust the heating rate, press  $\Delta R$  and enter a value between 0.1°C and max. You can accept the heating rate for all steps in the program by activating the [Apply heating/cooling rate to all steps] checkbox.
- (For gradient-capable devices only) To program a gradient, press Grad. On the next screen you can choose between standard [Std.] and linear gradient programming [Lin.]. For standard programming enter a temperature for both the first and last row in the sample block. For linear programming enter the primer annealing temperature and set a temperature increment. The gradient curve is displayed graphically. Press ✓ to confirm your entries.



- Press ✓ on the screen for editing program steps to accept the settings. The software leaves the screen and opens the spreadsheet or graphical program display.
- Alternatively, individual program parameters for a step can also be edited. To do this, in the spreadsheet view press directly on the cell for the parameter in the program table which you want to edit. In the graphical view press on the desired parameter edit field. Program options (loops, temperature and time increment, as well as heating and cooling rate) must be activated using the button to the left of the graphical display.
- To insert a program step, select a step and press [Insert]. The screen for editing program steps opens. Enter the desired parameters and confirm the settings by pressing ✓.
- To delete a program step, select it and press [Delete].

Incubation at 15°C rather than 4°C at the end of a run increased the device's life time.

- When all the parameters for all steps have been entered, confirm the settings on the programming screen with [Done]. The software opens the screen for copying and storing programs.

- To save the program, select a user directory and a storage location. Then press [Save]. The program is now saved.



- To copy programs, press [Programs] on the TOne home screen.
- To copy all programs located in a directory, select a directory and press [Copy all]. Select a directory to which the programs should be copied and press [Save].
- To copy a single program, select a directory and a program and press [Copy]. Select a directory and a storage location and press [Save].
- To delete all programs located in a directory, select it and press [Delete all]. Confirm the confirmation prompt.
- To delete a single program, select a directory and a program and press [Delete]. Confirm the confirmation prompt.
- The Biometra TOne stores the latest 5 started or edited programs for each user. To quick start a program, press the [Quick Start] button on the TOne home screen. Select a program from the list and press [Start].
- To start a program from a user directory, press [Programs] on the TOne home screen. On the next screen select a directory and a program and press [Start].
- After the start, the current program is shown in a spreadsheet, graphical or gradient view. Use the same buttons as in the programming screen to switch between the different views. The active step is highlighted in yellow:

Starting, stopping and pausing programs

Spreadsheet view

		Name	Estimated End	Remain. Time	Block Temp.	Lid	Step
		Linear-grad-1c (Grad)	15:42:09	01h 22m 33s	94.0°C	99.7°C	1/6
Loops	Step	Block Temp. (°C)	Hold Time (h:mm:ss)	Go To	Cycles	ΔT(°C)	ΔT(°C/s)
34x	1	94.0	0:04:11	--	--	--	6.0
	2	94.0	0:00:30	--	--	--	6.0
	3	55.0 ▲ +1.0	0:00:30	--	--	1.0	6.0
	4	72.0	0:00:30	2	34	--	6.0
	5	72.0	0:05:00	--	--	--	6.0
	6	16.0	∞	--	--	--	6.0

Graphical view



- To pause an active program, press [Pause]. The color of the highlighted step changes to blue and the message Pause is shown in the "Step" field.
- To continue a paused program, press [Continue].
- To skip a step, press [Skip]. The program will continue with the next step.
- To stop an active program, press [Stop program] and confirm the confirmation prompt. Programs with a pause in the last step have to be stopped manually as well.