



EZEECycler Tri

High-Throughput Triple-Block Gradient PCR Thermal Cycler

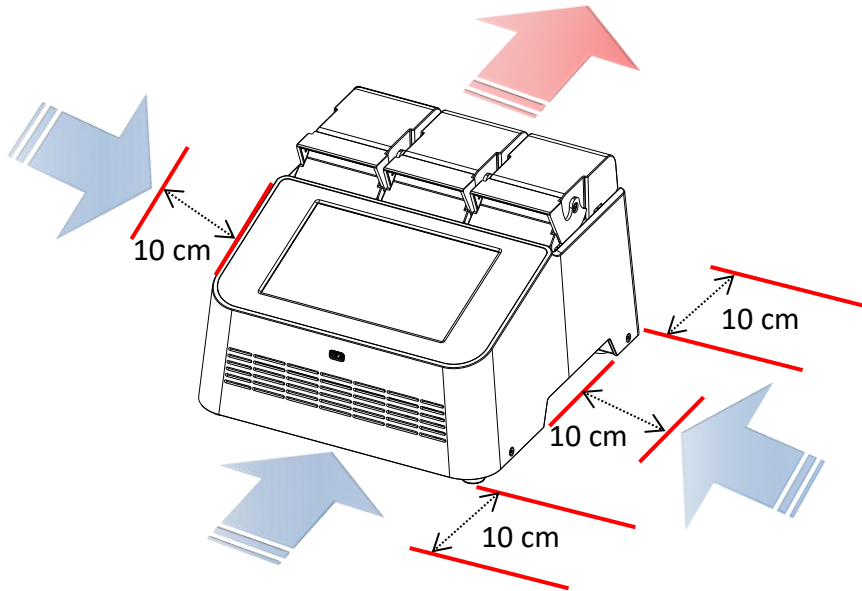
Quick Operation Guide

Ver 1.2

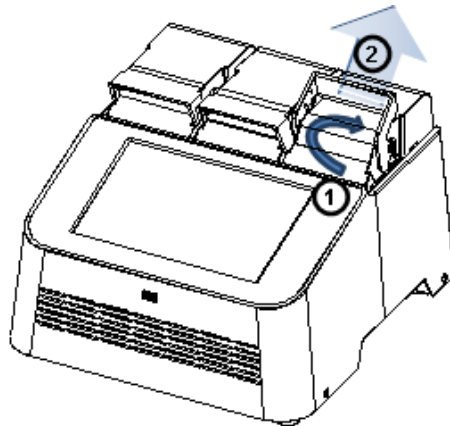
EZEECycler Tri Quick Operation Guide

Hardware operation

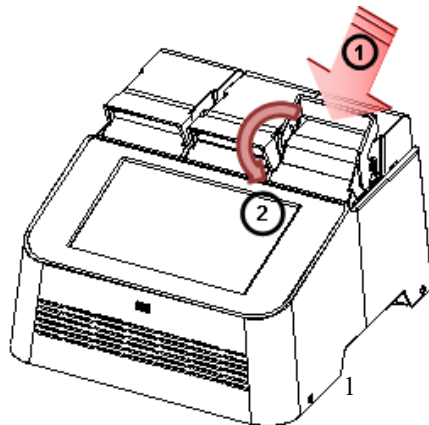
1. Please make sure there is no obstacle in the airflow path. At least 10 cm of space is required at the four sides of the instrument. Ventilation air flow path:



2. To open the lid, pull the handle upward and lift the lid backward to the upright position.



3. To close the lid, pull the lid downward and close the handle to the lock position.



4. Lid heater setting:

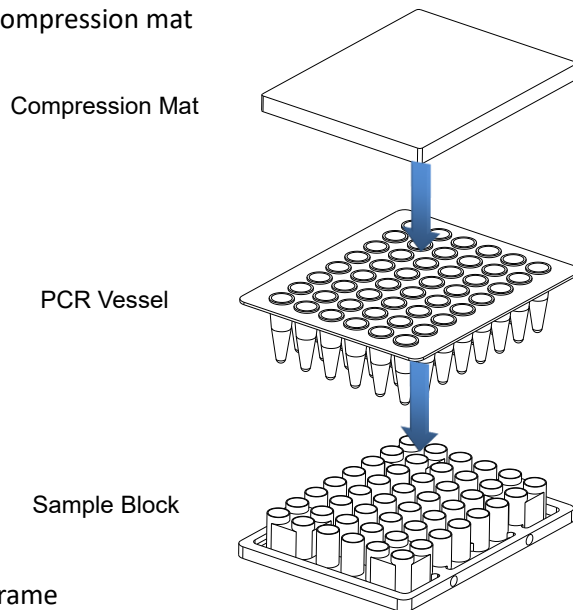
PCR vessels	Accessory	Lid heater temperature**
Regular PCR plates, strips, and tubes	The tube frame* should be used to help maintain the equilibrium pressure in case the PCR plate becomes deformed.	105°C
Low-profile PCR plates, strips, and tubes	The 5-mm compression mat* must be used to ensure sufficient contact pressure from the heated lid.	130°C

Note:

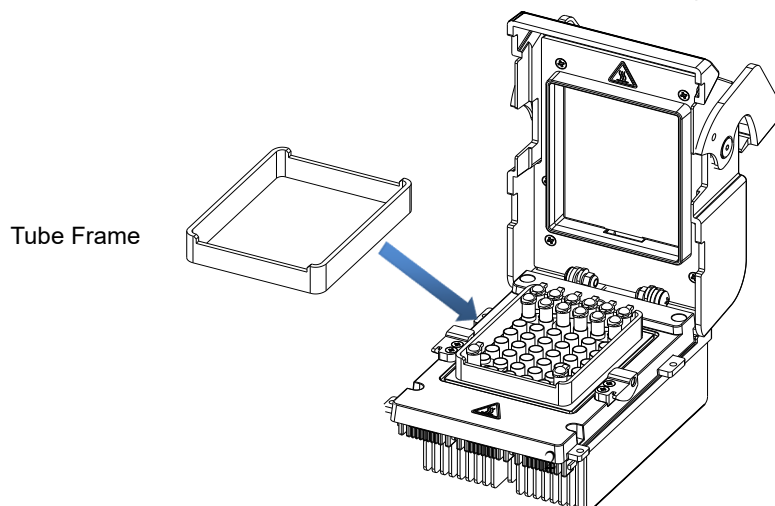
- * Standard accessory shipped with EZEECycler Tri.
- ** For detailed instructions on the lid heater setting, please refer to the EZEECycler Tri Operation Manual's System/Lid section.

5. Loading the Reaction Vessel.

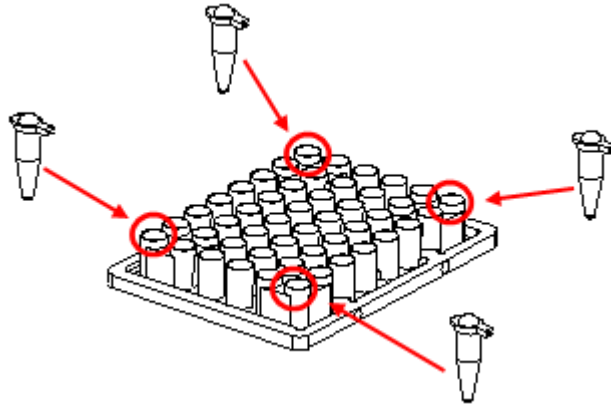
- Instruction for applying the compression mat



- Instruction for applying the frame



6. To prevent the deformation of the low profile PCR vessels, and to ensure even distribution of the pressure from the lid, when PCR tubes or tube-strips are used, please load extra empty tubes on the 4 corners of the sample block. Always ensure that all the sample tubes/strips are distributed evenly on the sample block.



Software operation

1. **Main Screen** Tap on the “EZEECycler Tri” title to log in.



Main function icons			
	New Protocol For new protocol creation and editing		System System setting
	Template Built-in protocol template		Tools Built-in assistant tools
	Public Shortcut to the Public folder		History Protocol run history logbook
	User For user folder management		Run Status Display the status of the running protocol

2. User folder management

- Select any sample block.
- On the main screen, tap on **User** to enter the user folder management section.
- Tap on **Add** to create a new user folder.



- Input the folder name and password (optional). Tap the user icon to toggle to the icon you want to use for the new folder.

- e. To modify an existing user folder, tap on the icon to select the folder. The selected folder's icon will be highlighted.

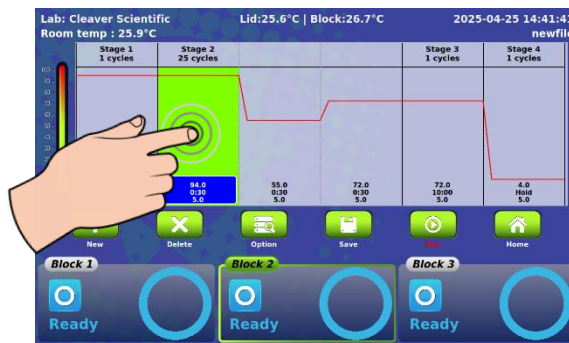





Icons for user folder editing			
	Delete Delete the selected folder		Open Open the folder
	Edit Modify the name and password		USB Open the USB flash drive

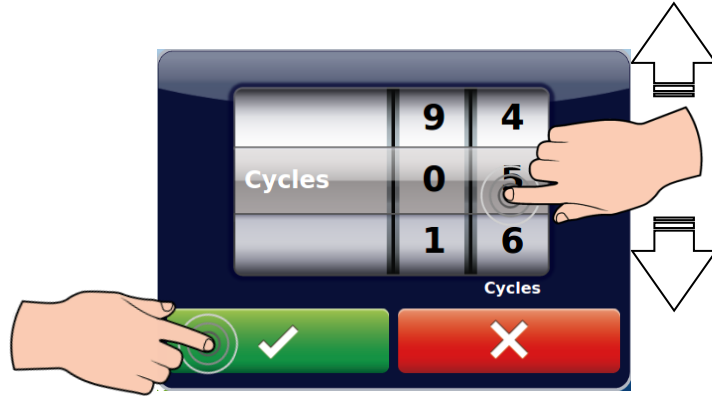
f.


3. To create a new protocol

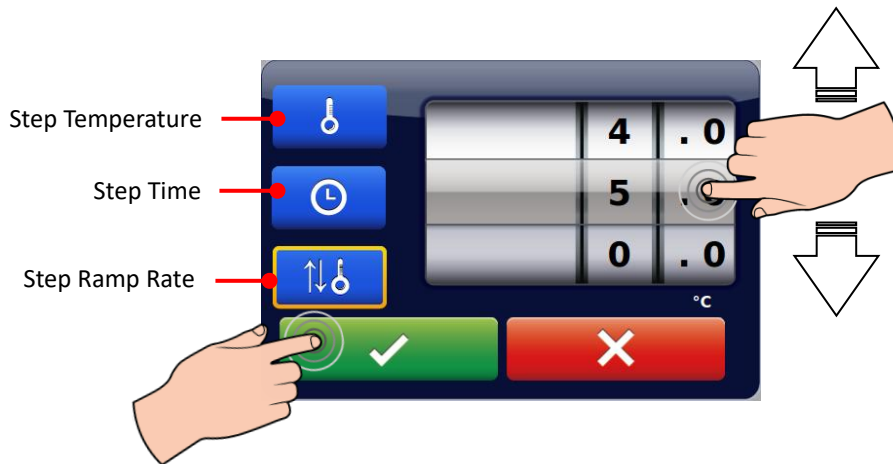
- Select any sample block.
- On the main screen, tap on **Protocol** to create a new protocol.
- To select the **Stage / Step**, tap on the stage header or the step segment. The selected area will be highlighted.




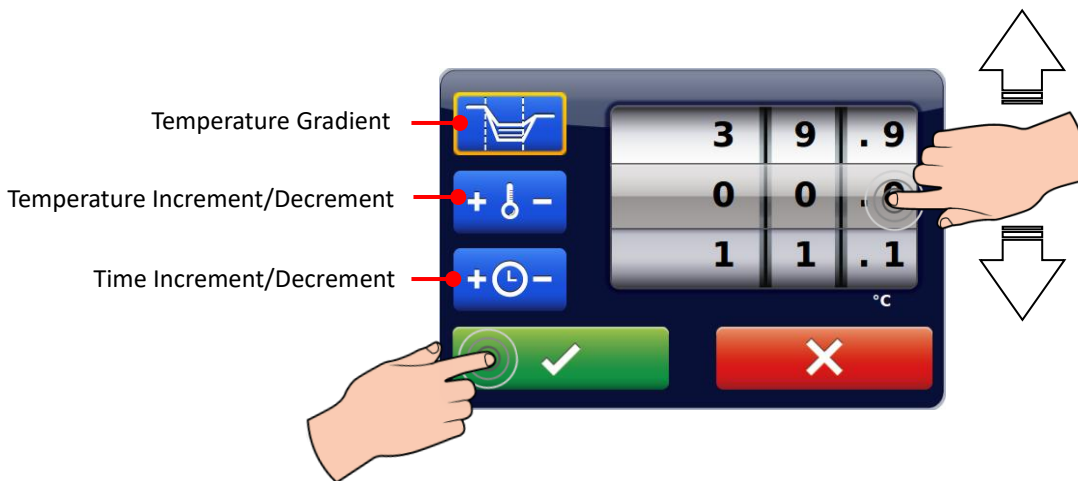
- d. Tap on **Add**  to duplicate the **Stage / Step**.
- e. Tap on **Delete**  to delete the **Stage / Step**.
- f. Tap on  in the **Stage** header to adjust the cycle number of the stage.






- g. Tap on  in the **Step** to modify the step temperature, time, or ramp rate.



- h. Tap on **Option**  to set the optional Gradient, Temperature increment/decrement per cycle or the Time increment/decrement per cycle for the selected step.



- i. Tap on **Save**  to save the protocol. Input the protocol name and tap on **“OK”**, then you’ll be brought to the user folder selection screen. Tap on the user folder icon to select the folder, and then tap on **USB**  to save to the folder. Alternatively, you can tap on **Save**  to save the protocol to the USB flash drive.

4. To edit an existing protocol


- a. Please refer to **“Section 2. User folder management”** (step e.) to open the folder.
- b. Tap to select the protocol.

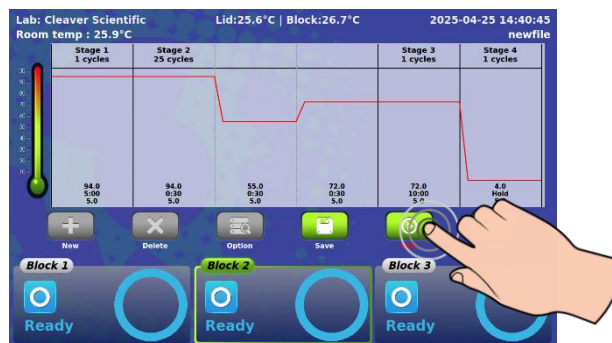


Tap on **Open**  to open the protocol.

- c. Follow the instructions set in **“Section 3. To create a new protocol”** (step a. to i.) to edit and save the protocol.


5. To run an existing protocol

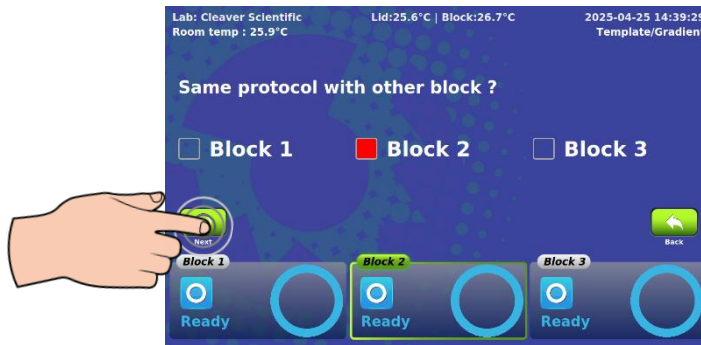
- a. Follow the instructions set in **“Section 4. To edit an existing protocol”** (step a. and b.) to open the protocol.
- b. Tap on **Next**  to initiate the run.




- c. Specify the lid heater temperature.








- d. Specify the mode you want to use to run the protocol. Key in the sample volume when you select the “Sample Mode”. Tap on **Next**  to start the run.



- e. Select the additional 1 or 2 sample block(s) to run the same protocol, if the quantity of your sample is large. Tap on **Next**  to start the run.






6. Tools




Icon	Function	Description
	Tm Calculator	Calculate the Tm for the input primer
	Incubation	Use the EZEECycler as an incubator
	Copy Number Converter	Convert the DNA concentration in to copy number
	Mastermix Preparation Wizard	Calculate the volume of the reagents needed to make the Mastermix
	Help	Display the quick operation guide

7. System

Tap on the System icon  on the Main Screen to enter the System menu.

Icon	Function	Description
	Service Mode	Adjust several parameters for the EZEECycler Tri
	Administration	System Administration
	Factory Mode	Only authorized service personnel can enter

8. Service Mode

Icon	Function	Description
	Brightness	Change the LCD screen brightness
	Beep Sound	Turn on/off the system beep
	Time & Date	Change the system time and date

Note:

1. The content of this document is subject to change without prior notice. Please visit Thistle Scientific's website at www.thistlescientific.co.uk for updated information.
2. If you have any questions about the operation of the EZEECycler Tri, please contact support@thistlescientific.co.uk for assistance.