

SuperCycler

Thermal Cycling Technology	High performance active heating and cooling using quality peltier elements x8 and precision sensors x4
Temperature Range	4°C – 99°C
Temperature Accuracy	±0.25°C of set temperature, 30 seconds after target
Temperature Uniformity	±0.3°C, 30 seconds after target
Temperature Resolution	0.1°C increments
Heating/Cooling Rate	3°C/sec maximum (block)
Well Configuration	96-well block supporting: 0.2 mL tubes or strip tubes with flat or domed caps; 96-well high-or low skirt plates with strip caps, adhesive cover, or oil overlay
Linear Thermal Gradient*	Programmable 0–20°C across block width (12 wells)
Condensation Control	Automatic utilising applied pressure heated lid
Heated Lid Temperature Range	Controllable 60°C – 115°C
Dimensions	Width: 180mm (7") Depth: 285mm (11.2"); 350mm (13.8") including cables Height: 190mm (7.5") lid closed; 340mm (13.4") lid open
Weight	5.5kg (11 lbs)
Colour	Pewter on black
Electrical	100–240 VAC @ 4 Amp (50/60 Hz) Automatic voltage sense, standard IEC Inlet plug
External Connectivity Interface	USB interface to Windows based PC USB host port - file transfer to and from USB memory stick - mouse/keyboard connection - printer (in future software release)
Internal Interface	Embedded graphical controller with 7" widescreen touch sensitive colour backlit display
Software	Supplied with unlimited user licenses Free upgrades available via web download
Functionality	Touch Down/Up, Long Range, Linear Thermal Gradient*, Program Pauses, Temperature Graphing, On-screen Help, User Accounts, Profile Load and Saving, Manual Mode, USB File Transfer, Post run reporting, and more.
Included Accessories	Power Cable, User Manual, Touch Screen Stylus



**High Performance
Gradient Thermal Cycler**

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(*available selected regions)

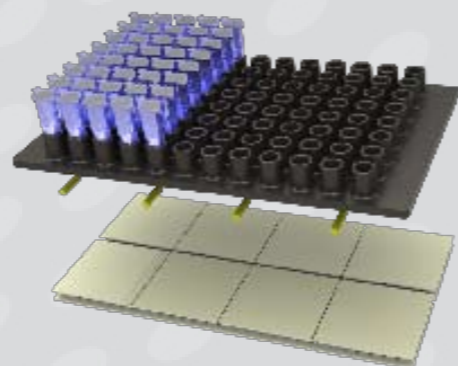
Platform

The SuperCycler is a high performance block cycling system configured and optimised for industry standard 200ul individual or strip tube (domed or flat-capped) or 96-well plates (low or high skirt) with strip caps or adhesive film seals. It incorporates state of the art electronics, precision quality peltier devices and a flexible user interface.

Powerful Thermal Engine with Gradient ability*

A precision composite alloy block with low mass and high thermal conductivity provides excellent ramp rates, long peltier life and low well to well temperature variation.

8 high quality peltier devices with 4 independent control systems and feedback sensors allow for high thermal uniformity across the block and a linearised gradient* ability.



Heated Lid Evaporation Control

The SuperCycler employs an applied pressure heated lid design to keep the air contained within the tube hotter than the reaction volume. This causes any evaporation to condense back into the cooler reaction liquid, thereby eliminating the need for an oil or wax condensation overlay.

Touch Screen Graphical User Interface

A high performance graphical processor with large 7 inch, vivid color touch screen display allows for easy run setup and monitoring. The powerful yet intuitive software makes creation of even the most complex of thermal profiles a breeze. Free software upgrades are provided on our website keeping your instrument up to date with the latest features and developments.

Compact Footprint

Boasting a footprint of only 18x28.5x19cm (WxDxH), the SuperCycler is designed to save valuable bench space within the laboratory.

Weighing in at just 5.5kg, this machine is also highly portable for the ever-changing laboratory environment.

USB Connectivity

A front USB port allows for fast, easy file transfer to USB memory stick enabling the sharing of thermal profiles between instruments and users. The use of a USB mouse is also supported.



Interface

The SuperCycler software implements a powerful thermal profile engine. A profile may contain up to 100 events. Each 'event' can be either a hold at temperature, pause, ramp or 2 to 5 step cycling with up to 100 repeats. Any event or step can contain gradient*, touchdown or long range features. An almost unlimited number of profiles may be stored on the device for re-running. Despite its high level of capabilities profile setup is straightforward.

Live Graphing

Gives vivid feedback of the thermal activity.

Manual Control

Enables the user to set the block to a specific temperature quickly without creating a thermal profile. This function is useful for incubating reactions such as DNA digestion or ligation.

Oglio Calculator

Is incorporated into the software to assist the operator in oligonucleotide design.

Quickstart Wizard

Enables the user to configure easy to moderate complexity profiles in just moments.

USB Connectivity

Front access USB host port enables file transfer between units using an ordinary USB memory stick. Also supports the use of a mouse.

User Accounts

Enables easy separation and organization of user thermal run profiles. Many thousands of profiles may be stored in the large internal 256mb+ memory.

Pause

The 'Pause' feature allows the user to pause the profile at any number of pre-programmed points while emitting an alert beep.

Long Range

Enables the time of a particular cycling step to be automatically increased or decreased by a preset amount over a specified range of cycle repeats.

Touch Down/Up

Enables the temperature of a step to be automatically increased or decreased by a preset amount over a range of successive cycle repeats.

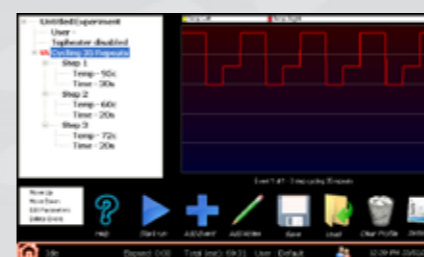
On Screen Help

User manual is inbuilt into the software ensuring that help is never more than a click away.

Run Reporting

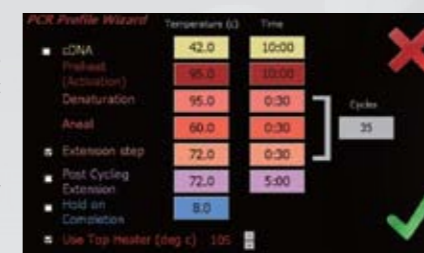
Post run report is generated on run completion and may be saved to USB memory stick for inclusion into your run documentation.

Manual Profile Editor



The Manual Profile editor screen displays the current experiment profile in a 'tree list' format with a graphical representation of each thermal step.

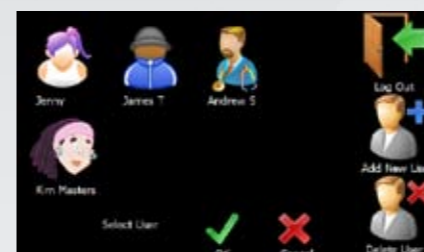
Wizard Mode



The Wizard utility enables the user to configure easy to moderate complexity profiles in just moments.

All the thermal steps which occur in a typical profile are included and the parameters may be adjusted in just a few clicks.

User Accounts



The User Accounts section allows up to 99 user profiles each with dedicated file storage directory and personalised icon.

When a user is selected thermal profiles will be loaded or saved to a directory specific to that user providing easy recovery later.



(*Gradient feature is available in selected regions only)

(*available selected regions)