

# Kalstein Thermal Cycler

PCR platform you can depend on



# Gradient Touch Screen PCR Thermal Cycler YR01868



## Overview

YR01868 Gradient Touch Screen PCR is the flagship of Kalstein thermal cycling platform, offering unmatched performance for fast, accurate results and a state-of-the-art interface with new ways to optimize protocols and meet any researchers unique needs. Choose from multiple interchangeable reaction module3, Use the intuitive touch screen interface, Optimize PCR assays using the gradient feature. Transport your files and date with 9. USB flash drive, Connected to your laptopPC for remote monitoring and future upgrading... What else do you need from a PCR cycler?

## Intuitive touch screen makes running PCR easier than ever before!

The powerful, yet simple-to-operate user interface on the YR01868 system is driven by the 7-inch colorful touch screen. The large and intuitive graphical screen allows for real-time viewing of your temperature profile. Additionally, the large navigation buttons put programming of the TQBD Thermal Cycler at your fingertips. Set-up and navigation do not require the use of a stylus or mouse.



## Realization of intelligence!

Adopt the windows CE operating system to ensure the realization of intelligent instrument, with more than 100 self-diagnostic functions. YR01868 achieves the network connection independently, users can visit our official website to update version, which prevent the complex operations and inconvenience of the traditional program updating.

## Remote Management System from anywhere and everywhere!

Access your YR01868 Thermal Cyclers everywhere you go with optional Remote Management Software, which allows you to manage and monitor over 200 thermal waters from your computer. Create and edit methods on your computer and download from or upload to your Thermal Cyclers systems as needed. The power of the YR01868 Thermal Cycler is just a click away.



### Reliable lids

- Specially designed lids reduce the evaporation during PCR
- Hinge utilized in labtop industry makes lid open more flexible
- Knob helps to accommodate a wide variety of PCR consumables

### Environment & user friendly

- Optimized to very low energy consumption
- With its ultra-quiet ventilation, low noise levels are achieved, Enjoy It!

### Patented portable design for blocks

- Versatile configuration options
- Gold/Silver coated blocks increase heat conduction efficiency
- Portable design is easy for sample blocks interchange without maintenance

### Powerful heart and memory

- 2000 protocols on board, unlimited with use of USB memory stick
- ARM Platform, Windows CE operating system
- USB2.0, RS232, RJ45 communication port

### Large colorful touch screen display

- 7 inches full color display, with touch screen operation
- Intuitive graphical programming
- Make a reservation and alarm for daily lab work
- Support the function of TM value calculation

### Simple data transfer

- Portability: Transfer methods between Genemate systems via USB Ports
- Backup: Store your most important methods on a USB memory stick
- Storage: Store an unlimited number of methods by using a USB memory stick
- Uploads: Update firmware when enhancements become available



# Gradient Color Display PCR Thermal Cycler YR01869

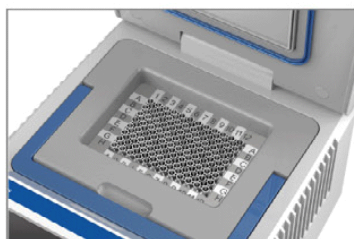


## Reliable guarantee for the accuracy of the temperature

Temperature extended control mode which is closer to required experiment temperature control and is able to effectively avoid the system error caused by the disaccord of the temperature points among the instrument's display temperature, actual block temperature and the temperature required for reagents. So as to improve the accuracy of the experiment and ensure the high efficiency, Strict temperature control debugging program makes sure that each instrument can meet the needs of different experiments. 12 channel temperature probes detect simultaneously, which ensure the homogeneity of sample temperature. The hermetic-space technique can efficiently eliminate PCR marginal effect. The technique of outside temperature probe tracing the inside curve testing can effectively ensure the accuracy of sample temperature.



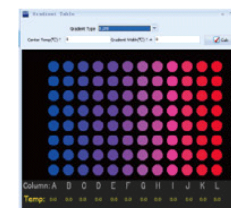
Adjustable Hot Lid



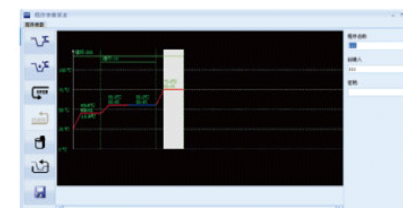
Interchangeable Blocks



Communication Ports



Gradient Calculator by PC Software



Protocol set by PC Software

## Features

- Convenient and flexible module change
- Hermetic seal protects blocks from condensation, maximizing their life.
- Two-stage hot lid pressure regulator, endures good heating performance
- Gold-plated or silver-plated module improves the efficiency at heat conduction
- Large size and color super-high-definition LCD screen.
- Intuitive end user-friendly Interface, makes programming quick and easy
- Infinitely adjustable lid knob, suitable for various types of tubes.
- Memory function in case of power-down.
- Low noise, low energy consumption, long service life.
- Heat lid could be positioned at any angle for easy sample access
- Metal material lid, more reliable and safe.
- Hard disk and mouse can be linked.
- Linked with PC for its multiple control.
- Windows operating system.
- Convenient, free-charge program upgraded.
- Remote diagnosis system for easy maintenance
- Achieve circulation nesting.
- 110—220V International general voltage.



Remote Management System 1

# Gradient PCR Thermal Cycler YR01870

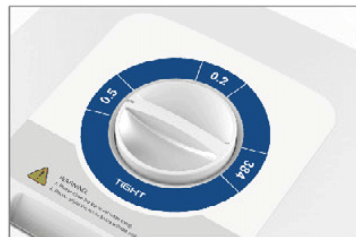


## The most advanced semiconductor technology (Peltier based)

No matter how you configure your YR01870 gradient thermal cycler system, it provides the high-end performance you need, easily adapts to meet your lab's changing PCR needs, and helps you stay within your budget. Designed for trouble-free, long-life operation even in the most rigorous environments, the YR01870 delivers outstanding reproducibility-well-to-well, sample-to-sample, and instrument-to-instrument.



Interchangeable Blocks



Adjustable Hot Lid



Hermetic Seal Protects Blocks from Condensation



## Product features

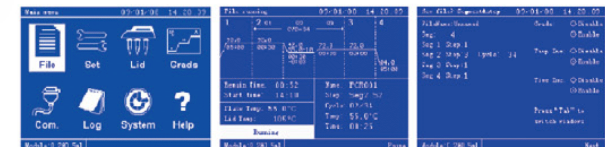
- Convenient and flexible module replacement modular.
- Large size super-high-definition LCD screen.
- Intuitive, user-friendly interface makes program easier and faster.
- Memory function in case of power-down.
- Low noise, low energy consumption, long service life.
- Solemn, elegant appearance, innovative design.
- Adjustable hot lid prevents reagents from evaporating.
- Optimal panel keypad design for convenient operation.
- Heated lid could be positioned at any angle.
- Handle-module, more secure and convenient for module replacement, improving interchanging efficiency and long life span.

## Instrument working conditions:

Ambient temperature: 0°C-30°C  
 Relative humidity: <90%  
 Power supply: AC110V±22V, 220V±22V, 250VA, 50Hz±10Hz

## Instrument storage conditions:

Ambient temperature: -20°C-55°C  
 Relative humidity: <90%



## Technical parameters

<b>Model</b>	YR01870
<b>Capacity</b>	96×0.2mL(A); 54×0.5mL(B); 96×0.2mL+77×0.5ml (C); 384well (D)
<b>Temp range</b>	0°C-99.9°C (Rt≤30°C)
<b>Max cooling rate</b>	≥3.5°C/s
<b>Max heating rate</b>	≥4.0°C/s
<b>Heating/cooling rate</b>	1°C/s-4°C/s (Adjustable)
<b>Uniformity</b>	±0.2°C (20-75°C), ±0.3°C (95°C)
<b>Accuracy</b>	±0.2°C
<b>Gradient temp range</b>	30°C-99°C
<b>Gradient spread</b>	2°C-30°C

<b>Gradient uniformity</b>	±0.2°C
<b>Heated lid temp</b>	30°C-115°C
<b>Environment model</b>	Manual select
<b>Temp control</b>	block, tube, calculated
<b>Stored program No.</b>	200
<b>Max. No. of Cycle</b>	99
<b>Display</b>	5.7inch, 320×240pels LCD
<b>Communication</b>	USB2.0 / Rs232
<b>Size</b>	380mm(W)×270mm(D)×250mm(H)
<b>Weight</b>	7.2kg
<b>Power supply</b>	110V-220V international general voltage

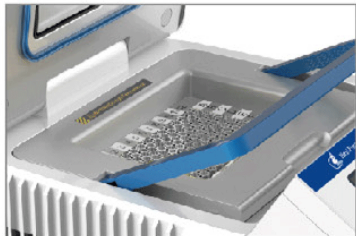


# Thermal Cycler YR01871



## Overview

Do not let poor instruments compromise your PCR results. Take control of your experiments! Kalstein YR01871 thermal cycling System gives you the power to do the experiments you want to do, the way you want to do them. All that experience-millions of reactions a days-adds up to confiden a whether you're doing a few samples, or a few thousand. YR01871 supports your constant strive for exceptional uniformity and meaningful results.



Interchangeable Blocks



Adjustable Hot Lid



Hermetic Seal Protects Blocks from Condensation



## Product features

- Convenient and flexible module replacement mode.
- Large size super-high-definition LCD screen.
- Intuitive, friendly user interface makes program easier and faster.
- Memory function in case of power-down.
- Low noise, low energy consumption, long application life.
- Solemn, elegant appearance, innovative model.
- Unique rotating stall heat-regulating function.
- Optimal panel design for more convenient operation.
- Heated lid could be stopped at any angle.
- Handle-module, more secure and convenient module replacement, improving using efficiency and expanding using years.

## Instrument working conditions:

Ambient temperature: 5°C-30°C  
Relative humidity: <90%  
Power supply: AC110V±22V, 220V±22V, 250VA, 50Hz±10Hz

## Instrument storage conditions:

Ambient temperature: -20°C-55°C  
Relative humidity: <90%



## Technical parameters

<b>Model</b>	YR01871
<b>Capacity</b>	96×0.2mL(A); 54×0.5mL(B); 96×0.2mL+77×0.5ml (C); 384well (D)
<b>Temp range</b>	0°C-99.9°C (Rt≤30°C)
<b>Max cooling rate</b>	≥3.5°C/s
<b>Max heating rate</b>	≥4.0°C/s
<b>Heating/cooling rate</b>	1°C/s-4°C/s (Adjustable)
<b>Uniformity</b>	±0.2°C (20-75°C)
<b>Accuracy</b>	±0.2°C

<b>Heated lid temp</b>	30°C-115°C
<b>Environment model</b>	Manually select
<b>Temp control</b>	block, tube, calculated
<b>Stored program No.</b>	200
<b>Max. No. of Cycle</b>	99
<b>Display</b>	5.7inch, 320×240pels LCD
<b>Communication</b>	USB2.0, RS232
<b>Size</b>	380mm(W)×270mm(D)×250mm(H)
<b>Weight</b>	7.2kg

# Thermal Cycler YR01872

## Product features

- Adjustable pressure hot lid, to prevent volatilizing and dewing.
- Hot lid with pressure alarm device, to prevent damaging test tube from too much pressure.
- Convenient and flexible module replacement mode.
- Innovative module wire socket design achieves module replacement without wire.
- The unique separate design of amplification and operating area makes users safer and more convenient.



## Technical parameters

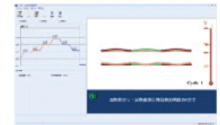
Capacity	YR01872
Temp range	4°C ~ 99.9°C
Max heating rate	2.5°C/s
Max cooling rate	2.5°C/s
Temp display accuracy	0.1°C
Accuracy	±0.2°C
Temp fluctuation	±0.1°C
Uniformity	±0.3°C (20~72°C), ±0.5°C (95°C)
Max program unit	9
Max cycle steps	9
Max cycle No.	99
Max constant temperature time	50m59s
Max constant temperature preservation time	99h59m
Stored program No.	100
Size	370mm(W)x250mm(D)x230mm(H)
Weight	5kg



# Thermal Cycler YR01873

## Product features

- It is small-sized and easy to program with an intuitive user interface.
- The lid adopts the high temperature resistant material and applicable to various types of test tube.
- Memory function in case of power-down.
- Two control modes: PCR control through the PC operating software
- It helps students understand PCR process with animated presentation through PC software
- Achieve circulation nesting.



## Technical parameters

Capacity	YR01873
Temp range	0°C ~ 99.9°C (Rt≤30°C)
Max heating rate	≥2°C/s
Max cooling rate	≥2°C/s
Uniformity	±0.3°C (constant 10s)
Accuracy	±0.2°C
Temp control	Block
Stored program No.	3
Max. No. of Cycle	99
Display	12864LCD
Communication	serial port
Size	160mm(W)x140mm(D)x120mm(H)
Weight	2.2kg

## Optical instruments

