



## Techne® Prime Thermal Cycler Range

Personal thermal cyclers

Mid-sized thermal cyclers

Full-size thermal cyclers

Networkable thermal cyclers

Gradient cycling

New Combi-Block

Touchscreen Interface

Upgradable software

4 year warranty



## Thermal Cycling at a Glance

Techne® have upgraded our established thermal cycler range to provide easier programming and increased instrument flexibility. The Prime range has been designed to enhance the user experience with an outstanding touch interface and identical software for all models. The new range provides high performance, exceptional value and a reliability backed by the market leading 4 year warranty.



Personal Cycler



Mid-sized Cycler



Model	<sup>3</sup> Prime	<sup>3</sup> PrimeX	<sup>3</sup> PrimeG
Block formats	24x 0.2ml 18x 0.5ml	48x 0.2ml 30x 0.5ml	48x 0.2ml 30x 0.5ml
Maximum ramp rate	3.0°C/s	3.0°C/s	3.0°C/s
Temperature accuracy*	<±0.25°C	<±0.25°C	<±0.25°C
Temperature uniformity*	<±0.3°C	<±0.3°C	<±0.3°C
Program Interface	3.5" VGA touch screen	3.5" VGA touch screen	3.5" VGA touch screen
Stored programs	1000	1000	1000
Networking capability	-	-	-
Adjustable heated lid	Fixed	•	•
Gradient Range	-	Can be upgraded to <sup>3</sup> PrimeG spec	30 - 80°C
Max Gradient	-	-	14°C
USB Connectivity	•	•	•
Dimensions (w x d x h), mm	210 x 350 x 180	210 x 350 x 180	210 x 350 x 180
Licensed for gradient	-	-	•
Warranty	4 years	4 years	4 years

\* Recorded at 55°C for <sup>3</sup>Prime and Prime and 50°C for Prime Elite

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For more information please visit

[www.techne.com](http://www.techne.com)



## Full-sized Cycler

## Network Connectivity

Prime	PrimeG	Prime Elite	Prime Elite Satellite
96x 0.2ml	96x 0.2ml	96x 0.2ml	96x 0.2ml
60x 0.5ml	60x 0.5ml	60x 0.5ml	60x 0.5ml
384 well plate	384 well plate	384 well plate	384 well plate
Combi-Block 33x 0.2ml and 33x 0.5ml	Combi-Block 33x 0.2ml and 33x 0.5ml	Combi-Block 33x 0.2ml and 33x 0.5ml	Combi-Block 33x 0.2ml and 33x 0.5ml
3.4°C/s	3.4°C/s	5.0°C/s	5.0°C/s
<±0.25°C	<±0.25°C	<±0.2°C	<±0.2°C
<±0.3°C	<±0.3°C	<±0.3°C	<±0.3°C
5.7" VGA touch screen	5.7" VGA touch screen	5.7" VGA touch screen	Programmable via Prime Elite or PC Workbench software
1000	1000	1000	1000
-	-	•	•
•	•	Automatic	Automatic
Can be upgraded to PrimeG spec	30 - 80°C	4 - 100°C	4 - 100°C
-	29°C, 25°C Combi-Block, 19°C 384-well	30°C	30°C
•	•	•	•
240 x 420 x 240	240 x 420 x 240	276 x 375 x 312	276 x 375 x 312
-	•	•	•
4 years	4 years	4 years	4 years

Techne® videos now on Youtube!

[www.youtube.com/bibbyscientific](http://www.youtube.com/bibbyscientific)



For more information please visit

[www.techne.com](http://www.techne.com)

## The Techne® Prime Range

Techne® has developed a comprehensive new range of thermal cyclers around its belief that all users deserve PCR without compromise. Our design philosophy has focused on delivering an enhanced user experience on all models.

- Total reliability with 4 year warranty
- Touchscreen interface on all models
- High performance cycling block
- USB software upgrade and program transfer
- Unique gradient upgrade function
- Exceptional value for money



### Format and Throughput Flexibility

- Personal, mid-sized and full size block models
- Wide choice of blocks with 0.2ml, 0.5ml, 384-well and Combi-Block options
- Use the consumables of your choice

### Modern thermal cycling

- Touch interface with pre-programmed templates for fast protocol creation
- Choice of program creation view - graphical or list

### Helping to Manage a Budget

Techne® believe that not only do our instruments offer the most affordable thermal cycler solutions on the market but that you should only pay for what you need when you need it. The Prime range introduces a unique feature.

- 3PrimeX and Prime units can be upgraded to achieve gradient capability
- Simple and easy process
- No price penalty for upgrading later

### Enhanced thermal engine

The Prime range is controlled by a completely redesigned thermal block algorithm to improve temperature profiles and provide a consistent high level of performance run after run.

- Choose a cycler with ramp rate that meets your needs
- Excellent thermal accuracy
- Accurate dwell times prevent non-specific primer binding

### Improved Protocol Design

Optimise your protocol design with a true gradient approach. No need to calculate individual zone temperatures and no need for additional programming.

- Gradient calculator automatically sets values across block
- Upgrade to gradient with a simple unlock code
- 14°C-30°C gradient across block (depending on model)





## Touchscreen User Interface

The Prime series comes with our outstanding touch interface which provides a familiar premium experience on all instruments in the range. Whether you process a few samples a week or require a network of instruments for high throughput, the interface offers the same look and feel no matter the task.



## Techne® Workbench Software

A welcome addition to the Techne® instrument range, the PC application Techne® Workbench is the desktop version of the Techne® touch screen interface. Carrying the same look and feel, Techne Workbench is your one-stop place for all the PCR programs on your computer.

## Easily manage your program files

- Frequently or recently used programs are available direct from the home screen
- Effortlessly manage and organise your programs using user names or keywords
- Transfer protocols and temperature logs between instruments and PC via USB



## <sup>3</sup>Prime

The most feature packed personal thermal cycler on the market and the only entry-level cycler to offer programming via a touch interface. With rapid ramp rates and a small footprint it is the ideal instrument for researching and teaching laboratories.



## Specifications

	<sup>3</sup> Prime	<sup>3</sup> PrimeX and <sup>3</sup> PrimeG
Sample capacity: 0.2ml	24	48
Sample capacity: 0.5ml	18	30
Maximum heating rate	3.0°C/s	3.0°C/s
Block temperature range	10°C to 100°C	10°C to 100°C
Block uniformity at 55°C	<±0.3°C	<±0.3°C
Temperature accuracy at 55°C	<±0.25°C	<±0.25°C
Gradient Range	-	30°C to 80°C
Maximum Gradient	-	14°C
Minimum Gradient	-	1°C
Gradient calculator	-	•
Type	2 peltier element/block	4 peltier element/block
Selectable heated lid temperature	35°C to 115°C or off	35°C to 115°C or off
Heated Lid pressure	Fixed	Adjustable, dependent on consumables
Program interface	3.5" VGA colour touchscreen with graphical display	3.5" VGA colour touchscreen with graphical display
Maximum number of programs stored	1000	1000
Data transfer	USB port	USB port
Auto re-start on power failure	Yes	Yes
Dimensions (w x d x h), mm	210 x 350 x 180	210 x 350 x 180
Weight, kg	6	6
Voltage	100-230V, 50-60Hz	100-230V, 50-60Hz
Power	155W	155W

Gradient is standard on <sup>3</sup>PrimeG and can be upgraded on the <sup>3</sup>PrimeX

4 year warranty for the <sup>3</sup>Prime thermal cycler



## <sup>3</sup>PrimeX and <sup>3</sup>PrimeG

These mid-sized cyclers match all the features of the <sup>3</sup>Prime instrument alongside expanded sample capacity and gradient cycling capability.

## Gradient upgradability

<sup>3</sup>PrimeX units can be upgraded to achieve gradient capability. The gradient function can be enabled at any time with a simple unlock code without the need for any hardware modifications.

## Ordering Information

### Description

<sup>3</sup>Prime thermal cycler, 24 x 0.2ml  
<sup>3</sup>Prime thermal cycler, 18 x 0.5ml  
<sup>3</sup>PrimeX thermal cycler, 48 x 0.2ml  
<sup>3</sup>PrimeX thermal cycler, 30 x 0.5ml  
<sup>3</sup>PrimeX gradient upgrade  
<sup>3</sup>PrimeG gradient thermal cycler, 48 x 0.2ml  
<sup>3</sup>PrimeG gradient thermal cycler, 30 x 0.5ml

### Product Code

3PRIMEBASE/02  
 3PRIMEBASE/05  
 3PRIMEX/02  
 3PRIMEX/05  
 3PRIMEX/USB  
 3PRIMEG/02  
 3PRIMEG/05

## Replacement Blocks

Exchange of <sup>3</sup>Prime thermal cycler blocks must be carried by a trained service engineer

### Description

<sup>3</sup>Prime block, 24 x 0.2ml  
<sup>3</sup>Prime block, 18 x 0.5ml  
<sup>3</sup>PrimeX block, 48 x 0.2ml  
<sup>3</sup>PrimeX block, 30 x 0.5ml

### Product Code

3PRIMEBASE/02/B  
 3PRIMEBASE/05/B  
 3PRIMEX/02/B  
 3PRIMEX/05/B

## Prime

The Prime instrument is a full sized model that will become your reliable laboratory partner for routine PCR.

- Fast ramp rate of up to 3.4°C/sec
- A wide range of blocks available including 0.2ml, 0.5ml, 384-well and Combi-Block options
- A USB port enables the transfer of programs between instruments and temperature logs to your PC
- Gradient cycling is available directly using the PrimeG instrument or by upgrading the Prime unit



## Specifications

	Prime	PrimeG
Sample capacity: 0.2ml	96 (33 in Combi-Block)	96 (33 in Combi-Block)
Sample capacity: 0.5ml	60 (33 in Combi-Block)	60 (33 in Combi-Block)
Sample capacity: 384 well	Yes	Yes
Maximum heating rate	3.4°C/s	3.4°C/s
Block temperature range	10°C to 100°C	10°C to 100°C
Block uniformity at 55°C	<±0.3°C	<±0.3°C
Temperature accuracy at 55°C	<±0.25°C	<±0.25°C
Gradient	Can be gradient enabled	Yes
Maximum Gradient	n/a	29°C, 25°C for Combi-Block, 19°C for 384
Minimum Gradient	n/a	1°C
Type	8 peltier element/block	8 peltier element/block
Selectable heated lid temperature	100°C to 115°C or off	100°C to 115°C or off
Heated lid pressure	Adjustable, dependent on consumables	Adjustable, dependent on consumables
Program interface	5.7" VGA colour touchscreen	5.7" VGA colour touchscreen
Maximum number of programs stored	1000	1000
Data transfer	USB port	USB port
Auto re-start on power failure	Yes	Yes
Dimensions (w x d x h), mm	240 x 420 x 240	240 x 420 x 240
Weight, kg	9.4	9.4
Voltage	100-230V, 50-60Hz	100-230V, 50-60Hz
Power	450W	450W

**4 year warranty for the Prime thermal cycler**



## The Techne® Prime Combi-Block

Techne have developed a new Combi-block for the Prime range of thermal cyclers. This provides unrivalled flexibility with ability to accommodate 33 x 0.2ml tubes and 33 x 0.5ml tubes, in 6 rows and 11 columns. Prime Combi-Block cyclers are available with or without a temperature gradient, which is upgradable later.

- Flexible 0.2ml and 0.5ml
- Gradient capability
- Total reliability
- Exceptional value for money



0.5ml tubes



0.2ml tubes



Combi-Block

## Gradient upgradability

Prime units can be upgraded to achieve gradient capability. The gradient function can be enabled at any time without the need to change a block. The simple process is installed via an unlock code.



## Ordering Information

Description	Product Code
Prime thermal cycler, 96 x 0.2ml	5PRIME/02
Prime thermal cycler, 60 x 0.5ml	5PRIME/05
Prime thermal cycler, 384 well plates	5PRIME/384
Prime thermal cycler, Combi-Block	5PRIME/C
Prime gradient upgrade	5PRIMEX/USB
PrimeG gradient thermal cycler, 96 x 0.2ml	5PRIMEG/02
PrimeG gradient thermal cycler, 60 x 0.5ml	5PRIMEG/05
PrimeG gradient thermal cycler, 384 well	5PRIMEG/384
PrimeG gradient thermal cycler, Combi-Block	5PRIMEG/C

## Replacement blocks

Exchange of Prime thermal cycler blocks must be carried by a trained service engineer.

Description	Product Code
Prime block, 96 x 0.2ml	5PRIME/02/FB
Prime block, 60 x 0.5ml	5PRIME/05/FB
Prime block, 384 well	5PRIME/384/FB
Prime block, Combi-Block 33x 0.2ml, 33x 0.5ml	5PRIME/C/B

## Prime Elite

Prime Elite is the new high-performance networkable thermal cycler from Techne®. Equipped as standard with all the latest features including a large 5.7" colour touchscreen, fast ramp rates, an innovative front-loading PCR plate drawer, automatic non-motorised heated lid, TERST™ thermal energy recovery system and a unique space-saving, stackable design. Prime Elite and Prime Elite Satellites can be combined to form a multi-block network with the Satellites controlled from either a PC or the Prime Elite. Temperature gradient capability and 4 year warranty is included as standard.

## Clever communications

Each Prime Elite thermal cycler can control up to 3 satellites via rear facing USB ports. Alternatively, Prime Elite Satellites can be controlled independently via a PC. Cables and software are provided as standard. Prime Elite also contains a front-facing USB port which allows easy program transfer between instruments or via a PC. At least 1000 programs can be stored on each Prime Elite with unlimited storage on USB sticks, ideal for multi-user laboratories. The Prime Elite USB ports also facilitate free software updates, which are available to download from the Techne® website.

## Watch your network grow

Individually...



Add a Satellite...



Add some more...



## Specifications

Sample capacity: 0.2ml	96
Sample capacity: 0.5ml	60
Sample capacity: 384-well	Yes
Block temperature range	4 to 100°C*
Block uniformity at 50°C	<±0.3°C
Temperature accuracy at 50°C	<±0.2°C
Gradient range	4 to 100°C*
Maximum gradient	30°C
Minimum gradient	1°C
Gradient calculator	Yes
Pre-run sample cooling	Yes at 4°C
Maximum heating rate	5°C/s
Selectable heated lid temperature	35 to 115°C or off
Over-temperature cut-out	Yes

Regulated heated lid pressure	Automatic
Program interface	5.7" VGA colour touch screen graphical display
Maximum number of programs	1000 stored
Password protection	Yes
Auto re-start on power failure	Yes
Connection to PC control software	Yes
T <sub>m</sub> primer calculator	Yes
Dimensions (w x d x h), mm	276 x 375 x 312
Weight, kg	14
Voltage	100-230V, 50-60Hz
Power	950W

\*Minimum temperature is 4°C or 20°C below ambient; whichever is higher.

4 year warranty for the Prime Elite thermal cycler

## Workbench PC software

Techne® Workbench PC software provides the ability to connect up to 4 Prime Elite Satellite thermal cyclers to one PC, eliminating the need to program each thermal cycler independently. The intuitive on-screen layout means creating and storing programs could not be simpler. The Workbench status screen shows the current position of any protocol, the time remaining to completion and real-time temperature countdown for each cycler connected.

## Control up to four satellites with a computer...



## Key features

- Latest 5.7" colour touchscreen provides optimal brightness and clarity
- Well-designed intuitive software allows fast and simple program setup
- Three block options are available 96 x 0.2ml, 60 x 0.5ml and 384-well. Each block has gradient capability as standard.
- Fast 5°C/sec ramp rate and low energy consumption is facilitated by TERS™, Thermal Energy Recovery System, which stores heat produced from each cooling phase to use in the next heating phase
- A mechanical front-loading plate mechanism operates the heated lid which is brought down onto the PCR tubes or plate with an even 75 newton force to ensure optimum function and minimal evaporation
- Prime Elite is a low noise, high speed, high-throughput, networkable PCR system
- Double, triple and quad PCR machines are created by adding satellites in a space-saving, stackable design. A 4-block system requires only 56cm of bench space.
- Front-facing USB port facilitates easy program transfer and software updates
- Rear-facing USB connectivity allows simple networking of instruments
- A powerful processor drives seamless software performance and fast startup
- On-board gradient calculator and  $T_m$  calculator
- Advanced electrical power filter improves robustness by smoothing electricity fluctuations
- 4 year warranty as standard

## Ordering information

Description	Product Code
Prime Elite thermal cycler, 96 x 0.2ml	ELITE/02
Prime Elite thermal cycler, 60 x 0.5ml	ELITE/05
Prime Elite thermal cycler, 384 well	ELITE/384
Prime Elite satellite thermal cycler, 96 x 0.2ml	ELITESAT/02
Prime Elite satellite thermal cycler, 60 x 0.5ml	ELITESAT/05
Prime Elite satellite thermal cycler, 384 well	ELITESAT/384

## Replacement blocks

Exchange of Prime Elite thermal cycler blocks must be carried by a trained service engineer.

Description	Product Code
Prime Elite block, 96 x 0.2ml	ELITE/02/B
Prime Elite block, 60 x 0.5ml	ELITE/05/B
Prime Elite block, 384 well	ELITE/384/B





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