

**TECHNE**

## Techne® Prime Thermal Cycler Range

Personal thermal cyclers

Mid-sized thermal cyclers

Full-size thermal cyclers

Networkable thermal cycling

Gradient cycling

Interchangeable blocks

Touch Interface

Upgradable

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
Interchangeable blocks	-	-	-
Maximum ramp rate	3.0°C	3.0°C	3.0°C
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
Dimensions (w x d x h), mm	210 x 350 x 180	210 x 350 x 180	210 x 350 x 180
Licensed for PCR	•	•	•
Warranty	4 years or 80,000 cycles	4 years or 80,000 cycles	4 years or 80,000 cycles

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



## 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
•	•	•	•
3.4°C	3.4°C	5.0°C	5.0°C
<±0.25°C	<±0.25°C	<±0.2°C	<±0.2°C
<±0.2°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	0 - 100°C	0 - 100°C
-	29°C (19°C for 384)	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 or 80,000 cycles	4 years or 80,000 cycles	4 years or 100,000 cycles	4 years or 100,000 cycles

## 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
- Premium interface
- High performance cycling block
- Easy software and data transfer
- Unique upgrade function
- Exceptional value for money

## Format and Throughput Flexibility

- Personal, mid-sized and full size block models
- Interchangeable blocks with 0.2ml, 0.5ml and 384 plate well options
- Control a network of up to 9 satellites from a single server
- Use the consumables of your choice

## 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, from 3- 5°C/sec
- Excellent thermal accuracy
- Very accurate dwell times prevent non-specific primer binding

## 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 installed via USB
- No price penalty for upgrading later

## Improve 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
- 30-80°C temperature range
- 14°C - 30°C gradient across block (depending on model)





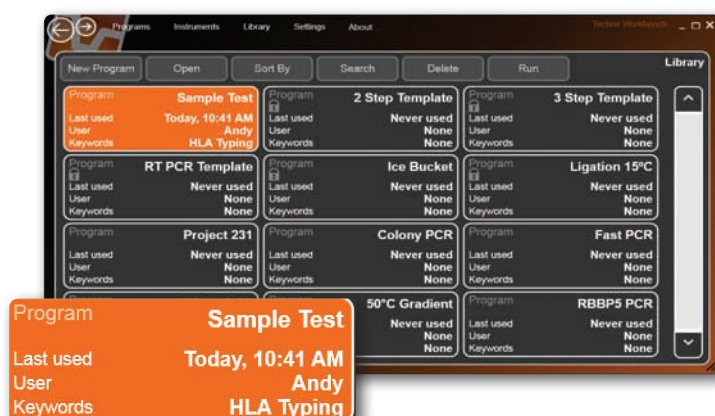
## Common User Interface

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.



## Modern thermal cycling

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

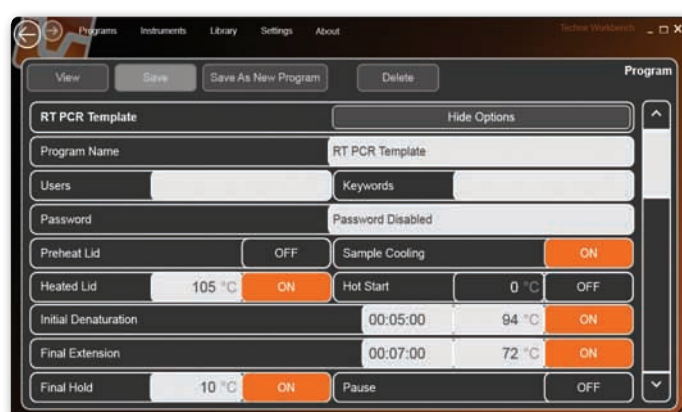


## Easily manage your program files

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

## Techne® Workbench Software

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



## <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	4°C to 100°C	4°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	4 peltier element/block	4 peltier element/block
Selectable heated lid temperature	100°C to 115°C or off	100°C to 115°C or off
Heated Lid pressure	Fixed	Adjustable, dependent on consumables
Program interface	3.5" VGA colour touchscreen 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

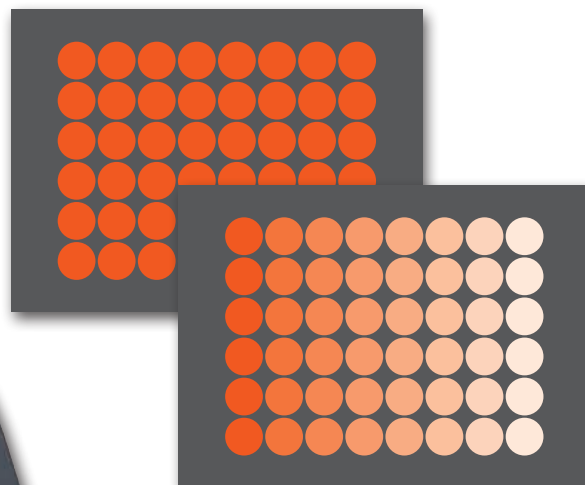
Gradient is standard on <sup>3</sup>PrimeG and can be upgraded on the <sup>3</sup>PrimeX

4 year warranty for the <sup>3</sup>Prime thermal cycler and 80,000 cycles or 4 year warranty for the thermal block, whichever comes first.



## <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 without the need to change a block. The simple process is installed via USB.

## 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 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

Purchase of this instrument conveys a limited, non-transferable immunity from suit for the purchaser's own internal research and development and applied fields other than human in vitro diagnostics under non-real-time thermal cycler patents of Applied Biosystems LLC.

## 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 versatile, fully interchangeable block system allows exchange in a matter of seconds without the need of tools.
- 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	96
Sample capacity: 0.5ml	60	60
Sample capacity: 384 well	Yes	Yes
Maximum heating rate	3.4°C/s	3.4°C/s
Block temperature range	4°C to 100°C	4°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 (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 and 80,000 cycles or 4 year warranty for the thermal block, whichever comes first.**





## 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 USB.

## 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 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

## Interchangeable blocks

This versatile, fully interchangeable block system allows exchange in a matter of seconds without the need of tools

Description	Product Code
Prime block, 96 x 0.2ml	5PRIME/02/B
Prime block, 60 x 0.5ml	5PRIME/05/B
Prime block, 384 well	5PRIME/384/B

Purchase of this instrument conveys a limited, non-transferable immunity from suit for the purchaser's own internal research and development and applied fields other than human in vitro diagnostics under non-real-time thermal cycler patents of Applied Biosystems LLC.



## Prime Elite

This premier cyler combines a high performance thermal engine with unique instrument design to deliver the smallest 4 block PCR networking solution on the market. Faster ramp rates and excellent block uniformity are achieved using the TERS™ Thermal Energy Recovery System. TERS™ harnesses the heat released during the cooling phase and delivers it back to the block during the next heating phase increasing ramp rates for faster cycling.

Available  
September  
2012

## Watch your network grow

Individually...

Add a Satellite...

Add some more...



## Specifications

Sample capacity: 0.2ml	96	Regulated heated lid pressure	Automatic
Sample capacity: 0.5ml	60	Program interface	5.7" VGA colour touch screen graphical display
Sample capacity: 384-well	Yes	Maximum number of programs	1000 stored
Block temperature range	0 to 100°C*	Password protection	Yes
Block uniformity at 50°C	<±0.3°C	Auto re-start on power failure	Yes
Temperature accuracy at 50°C	<±0.2°C	Connection to PC control software	Yes
Gradient range	0 to 100°C*	Tm primer calculator	Yes
Maximum gradient	30°C	Dimensions (w x d x h), mm	276 x 375 x 312
Minimum gradient	1°C	Weight, kg	14
Gradient calculator	Yes	Voltage	100-230V, 50-60Hz
Pre-run sample cooling	Yes at 4°C	Power	950W
Maximum heating rate	5°C/s	*Minimum temperature is 0°C or 20°C below ambient; whichever is higher.	
Selectable heated lid temperature	35 to 115°C or off		
Over-temperature cut-out	Yes		

4 year warranty for the Prime thermal cyler and 80,000 cycles or 4 year warranty for the thermal block, whichever comes first.

## Space Saving Design:

Increasing your network requires valuable laboratory space. The unique Prime Elite design features enable a 4 block footprint of only 0.21m<sup>2</sup>

- Unique front loading sample draw
  - Easy access to interchangeable blocks
  - Heated lid engages on closure
  - Spring mechanism prevents over tightening
- Stackable design
  - Foot recesses hold instrument stable
- Front to back airflow
  - Enables side by side instrument placement
- Power button on front of instrument
  - No need to reach around instrument

## Network Connectivity

Expand your PCR capacity as your throughput requirements grow.

- Use a Prime Elite server as a stand-alone instrument
- A Prime Elite server automatically detects a satellites on connection
- Each Prime Elite instrument can directly control 3 Satellites or 9 via a USB hub
- Up to 9 Satellites can also be run from a PC via the Workbench software

## Complete your network



## Ordering information

### Description

Prime Elite thermal cycler, 96 x 0.2ml  
Prime Elite thermal cycler, 60 x 0.5ml  
Prime Elite thermal cycler, 384 well  
Prime Elite satellite thermal cycler, 96 x 0.2ml  
Prime Elite satellite thermal cycler, 60 x 0.5ml  
Prime Elite satellite thermal cycler, 384 well

### Product Code

ELITE/02  
ELITE/05  
ELITE/384  
ELITESAT/02  
ELITESAT/05  
ELITESAT/384

Available  
September  
2012

## Interchangeable blocks

Blocks are easily exchanged by removing six screws.

### Description

Prime Elite block, 96 x 0.2ml  
Prime Elite block, 60 x 0.5ml  
Prime Elite block, 384 well

### Product Code

ELITE/02/B  
ELITE/05/B  
ELITE/384/B

Purchase of this instrument conveys a limited, non-transferable immunity from suit for the purchaser's own internal research and development and applied fields other than human in vitro diagnostics under non-real-time thermal cycler patents of Applied Biosystems LLC.

**Prime thermal cyclers offer an unrivalled user experience, highly intuitive software and the unique ability to upgrade to gradient via USB**

## **³Prime Key Selling Points – Improvements from TC-3000**

1. 3.5" colour touchscreen & intuitive interface across the range provides unrivalled user experience (unique).
2. Gradient upgrade 3PrimeX via USB provides new flexibility & helps customers spread the cost (unique).
3. Transfer programs between machines or create them in free Workbench software and transfer via USB.
4. User-friendly software is identical across the whole range – build complex programs easily from templates.
5. All 0.2ml blocks are compatible with strip tubes, ³PrimeX and ³PrimeG also compatible with 48-well plates.
6. Large internal memory can store 1000 programs, searchable by username, program name and last used.
7. Modern design – strong visual resemblance across the whole Techne® range.
8. Superior reliability backed up by 4 year (80,000) cycle warranty.

COMPARISON CHART	³Prime	TC-3000	³PrimeX	TC-3000X	³PrimeG	TC-3000G
<b>Block formats</b>	24x0.2ml (strip-tube) 18x0.5ml	25x0.2ml 20x0.5ml	48x0.2ml 30x0.5ml	48x0.2ml 30x0.5ml	48x0.2ml 30x0.5ml	48x0.2ml 30x0.5ml
<b>Program interface</b>	3.5" colour touchscreen	4-line alpha numeric	3.5" colour touchscreen	4-line alpha numeric	3.5" colour touchscreen	4-line alpha numeric
<b>USB program transfer</b>	Yes	No	Yes	No	Yes	No
<b>Gradient</b>	No	No	Yes (needs USB upgrade)	No	Yes	Yes
<b>Gradient range (°C)</b>	-	-	30-80 (needs USB upgrade)	-	30-80	20-80
<b>Stored programs</b>	1000	80	1000	80	1000	80
<b>Interchangeable block</b>	No	Yes (engineer)	Yes (engineer)	Yes (engineer)	Yes (engineer)	Yes (engineer)
<b>Ramp rate (°C/sec)</b>	3	3.6	3	3.3	3	3.3
<b>Temperature uniformity (°C)</b>	+/- 0.3	+/- 0.1	+/- 0.3	+/- 0.2	+/- 0.3	+/- 0.2
<b>Heated lid</b>	Yes, fixed	Yes, fixed	Yes, adjustable	Yes, adjustable	Yes, adjustable	Yes, adjustable
<b>Number of peltiers</b>	2	4	4	6	4	6
<b>Warranty</b>	4 years or 80,000 cycles	4 years or 80,000 cycles	4 years or 80,000 cycles	4 years or 80,000 cycles	4 years or 80,000 cycles	4 years or 80,000 cycles
<b>Licensed for PCR</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Size (w x d x h) &amp; weight</b>	21x35x18cm, 6kg	17x33x19cm, 6kg	21x35x18cm, 6kg	17x33x19cm, 6kg	21x35x18cm, 6kg	17x33x19cm, 6kg

# Improvements from TC to Prime

# Prime

## Prime Key Selling Points – Improvements from TC-4000 / TC-5000

1. 5.7" colour touchscreen and intuitive interface across the whole range provides unrivalled user experience.
2. Gradient upgrade of Prime via USB provides new flexibility and helps customers spread the cost (unique).
3. Transfer programs between machines or create them in free Workbench software and transfer via USB.
4. User-friendly software is identical across the whole range – build complex programs easily from templates.
5. Real time graphical display provides instant visualisation of program status.
6. Large internal memory can store 1000 programs, searchable by username, program name and last used.
7. Versatile, fully interchangeable block system allows tool-free block change in seconds.
8. Modern design – strong visual resemblance across the whole Techne® range.
9. Superior reliability backed up by 4 year (80,000) cycle warranty.

COMPARISON CHART	Prime	TC-4000	PrimeG	TC-5000
<b>Block formats</b>	96x0.2ml (Universal) 60x0.5ml 384-well plate	96x0.2ml (tubes) 96x0.2ml (plates) 60x0.5ml 384-well plate In-situ block	96x0.2ml (Universal) 60x0.5ml 384-well plate	96x0.2ml (tubes) 96x0.2ml (plates) 60x0.5ml 384-well plate In-situ block
<b>Program interface</b>	5.7" colour touchscreen	4-line alpha numeric	5.7" colour touchscreen	5.4" touchscreen
<b>USB program transfer</b>	Yes	No	Yes	No
<b>Gradient</b>	Yes (via USB upgrade)	No	Yes	Yes
<b>Gradient range (°C)</b>	30-80 (via USB upgrade)	No	30-80	20-70
<b>Stored programs</b>	1000	80	1000	80
<b>Interchangeable block</b>	Yes	Yes	Yes	Yes
<b>Ramp rate (°C/sec)</b>	3.4	3	3.4	3
<b>Temperature uniformity (°C)</b>	+/- 0.3	+/- 0.3	+/- 0.3	+/- 0.3
<b>Heated lid</b>	Yes, adjustable	Yes, adjustable	Yes, adjustable	Yes, adjustable
<b>Number of peltiers</b>	8	8	8	8
<b>Warranty</b>	4 years or 80,000 cycles	4 years or 80,000 cycles	4 years or 80,000 cycles	4 years or 80,000 cycles
<b>Licensed for PCR</b>	Yes	Yes	Yes	Yes
<b>Size (w x d x h) &amp; weight</b>	24x42x24cm, 9.4kg	22x42x26cm, 13kg	24x42x24cm, 9.4kg	22x42x26cm, 14kg

# Improvements from TC to Prime

# Prime



## Ordering Information

Product Code	Description
3PRIMEBASE/02	<sup>3</sup> Prime thermal cycler, 24 x 0.2ml
3PRIMEBASE/05	<sup>3</sup> Prime thermal cycler, 18 x 0.5ml
3PRIMEX/02	<sup>3</sup> PrimeX thermal cycler, 48 x 0.2ml
3PRIMEX/05	<sup>3</sup> PrimeX thermal cycler, 30 x 0.5ml
3PRIMEX/USB	<sup>3</sup> PrimeX USB gradient upgrade
3PRIMEG/02	<sup>3</sup> PrimeG gradient thermal cycler, 48 x 0.2ml
3PRIMEG/05	<sup>3</sup> PrimeG gradient thermal cycler, 30 x 0.5ml
Product Code	Description
5PRIME/02	Prime thermal cycler, 96 x 0.2ml
5PRIME/05	Prime thermal cycler, 60 x 0.5ml
5PRIME/384	Prime thermal cycler, 384 well plate
5PRIMEX/USB	Prime gradient upgrade
5PRIMEG/02	PrimeG gradient thermal cycler, 96 x 0.2ml
5PRIMEG/05	PrimeG gradient thermal cycler, 60 x 0.5ml
5PRIMEG/384	PrimeG gradient thermal cycler, 384 wells
Product Code	Description
3PRIMEBASE/02/B	<sup>3</sup> Prime block, 24 x 0.2ml
3PRIMEBASE/05/B	<sup>3</sup> Prime block, 18 x 0.5ml
3PRIMEX/02/B	<sup>3</sup> PrimeX block, 48 x 0.2ml
3PRIMEX/05/B	<sup>3</sup> PrimeX block, 30 x 0.5ml
Product Code	Description
5PRIME/02/B	Prime block, 96 x 0.2ml
5PRIME/05/B	Prime block, 60 x 0.5ml
5PRIME/384/B	Prime block, 384 well plates

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

Exchange of Prime thermal cycler blocks is carried out by the user - simple, quick and tool-free





# WolfLabs

**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.