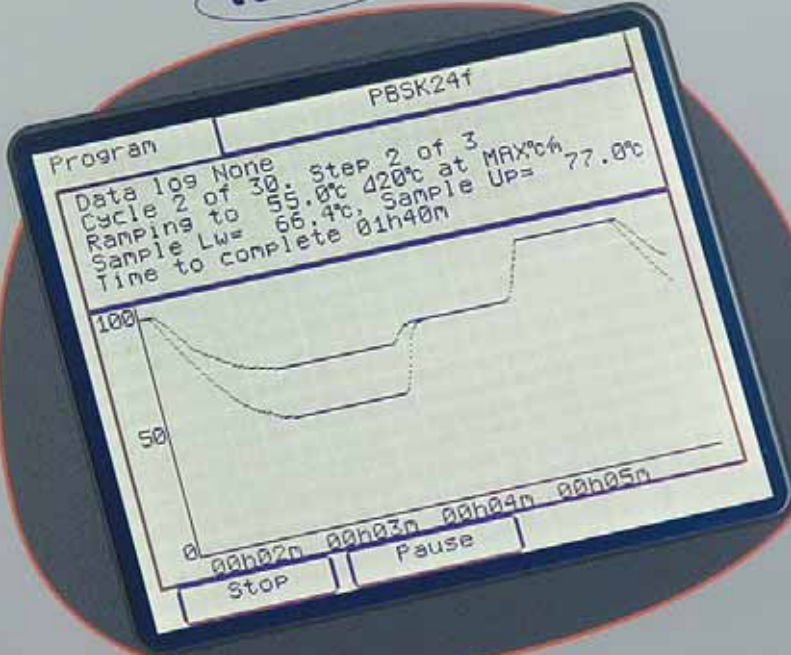




TC-512 Thermal Cycler

Industry Leading Warranty...
4 years or 80,000 cycles



TC-512



TC512 Thermal Cycler

The **TC-512** has a graphical Touch Screen display which enables you to optimize your experiments at the **“touch of a screen.”**



Wide linear gradient:

The only Gradient Thermal Cycler on the market to offer quad circuit technology which results in the most linear gradient on the market, with an amazing range of 30°C. Protocols can be optimized in a single experiment.

Touch Screen:

The TC-512 incorporates a large, 115 x 90mm, touch-sensitive screen that provides a unique user-friendly programming interface which is second to none.

Graphical display:

The unique ‘real-time’ graphical display shows the sample temperature profile while the program is running, including the upper and lower limits of the gradient. This pictorial, real-time representation means instant visualization of your experiment’s status.

Memory cards:

Smart Media memory cards provide an alternative to internal memory storage of your programs, offering security and flexibility.

Gradient calculator:

The gradient calculator function displays the temperature of each column. This ensures replication of the experimental conditions.

High performance:

Each block consists of 8 peltier units, controlled by 4 independent temperature thermistors (control sensors) distributed evenly across the block. This ensures that the TC-512 exhibits the most accurately controlled linear gradient available*.

Fold control:

A maximum heating rate of 3°C/Sec and block uniformity of $\leq \pm 0.4^\circ\text{C}$. With or without a gradient.....no compromise!

Versatile block format:

The truly user-friendly interchangeable block system allows blocks to be interchanged in a matter of seconds without the need of any tools (60 x 0.5ml 96 x 0.2 ml, 3841 well, Insitu Block2).

Intuitive programming:

Easy to use software with free upgrades downloadable from the Techne® website as new functionality is added.

Instrument Software Update:

A new innovation for the TC-512 Thermal Cycler is the ability to update the unit software free of charge.

1 Maximum 16°C gradient with 384 well block

2 in-situ block available as non-gradient only

** Available by special order only

Technical Specification

Blocks Formats	
0.5ml capacity	60
0.2ml capacity	96
384-well block	Yes
Gradient block	0.5mL, 0.2 mL, 384
In-situ block	Yes
User interchangeable	Yes
Block Temperature	
Gradient range	20°C to 70°C
Maximum gradient	30°C (16°C for 384 block)
Maximum ramp rate*	3.0°C/sec
Block uniformity at 50°C*	$\leq \pm 0.3^\circ\text{C}$
Column uniformity with a 10°C gradient	$\leq \pm 0.3^\circ\text{C}$
Temperature range	4°C to 99°C
Temperature set point precision	0.1°C
Heated Lid	
Selectable heated lid temperature	100°C - 115°C
Heated lid enable/disable	Yes
Over temperature cut out	Yes
Regulated lid pressure	Yes
Heated lid only comes on if block is set above 35°C	
Programming	
Memory cards	Yes
Number of programs #	50 or 500 (with card)
Password protection	Yes
Programming	Touchscreen
Graphical display	Real-time graph
Incremental/decremental temperature	Yes
Incremental/decremental hold time	Yes
Maximum hold time	99 hrs
Minimum hold time	1 sec
Variable programmable ramp rate	0.1°C/sec steps
Run end time calculation	Yes
Pause and stop facility	Yes
End of program alarm (enable/disable)	Yes
Auto restart on power failure	Yes
Miscellaneous	
Serial port	RS232
Dual Voltage (120/230V)	Yes
Temperature sensor	Thermistor
Peltierelements/block	8
Dimensions L x W x H (mm)	420 x 220 x 260
Footprint L x W (mm)	420 x 220 (16.5" x 8.7" x 10")
Connection to PC control program	Yes
Free software upgrades from website	Yes
Power consumption	620 Watts
Frequency	50 - 60 Hz
Net weight	11kg (total)

* Given are typical values of a standard 0.2ml block, in an ambient temperature of 20°C.

Actual numbers are dependent on complexity of the programs.

Ordering information

Code	Description
FTC51H2D	TC-512 96 x 0.2ml microtubes or 96-well plate, 120/240
FTC51S5D	TC-512 60 x 0.5ml, 120/240
FTC5384D**	TC-512 384 well microtitre plate, 120/240
FTC51FLD**	TC-512 Flat plate for in-situ, 120/240

Accessories

FTC51BHD	Block for 96 x 0.2 mL microtubes or 96-well plate (Half or non skirt)
FTC51B5D	Block, 60 x 0.5 mL microtubes
FTC51BID**	Flat plate for insitu (non-gradient)
FTC5B384**	Block for 384-well microtitre plate
FTGSM2	Memory Card