



**The Techne TC-512 is the only Gradient thermal cycler which enables you to optimise your experiments at the “touch of a screen”.**

#### Wide Linear Gradient

The most linear gradient cycler on the market, with an amazing range of 30°C. Protocols can be optimised in a single experiment.

#### TouchScreen

The Touchgene Gradient 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 visualisation of your experiment’s status. 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 visualisation of your experiment’s status.

•**Memory Cards:** SmartMedia memory cards provides 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 of tubes. This ensures replication of the experimental conditions.

•**4-Fold control:** 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\*.

•**High performance:** A maximum heating rate of 3°C/Sec and block uniformity of  $\pm 0.4^\circ\text{C}$ . 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 0.2ml, 384 well, Insitu Block).

•**Proven track record:** Having more than 13 years experience in thermal cycler design ensures that the Techne TC-512 encompasses reliability with all the specifications you could wish. These include: PC control and networking, decremental/incremental time and temperature, and defined pressure programmable heated lid.

•**Intuitive programming:** Easy to use software with free upgrades downloadable from the Techne website as new functionality is added

•**New Design Flexible Heated Lid:** Defined pressure, high quality, programmable heated lid to accommodate a variety of consumables.

#### Specifications

##### BLOCK TEMPERATURE

Gradient range	20°C to 70°C
Maximum gradient	30°C
Minimum gradient	1°C
Number of temperature probes	4
Block temperature range	4°C to 99°C
Max. ramp rate*	3.0°C/sec
Block uniformity without a gradient*	$< \pm 0.4^\circ\text{C}$
Column uniformity with a 10°C gradient*	$< \pm 0.3^\circ\text{C}$
Temperature accuracy*	$< \pm 0.3^\circ\text{C}$
Gradient accuracy*	$< \pm 0.3^\circ\text{C}$
Temperature set point adjustment	0.1°C

##### Heated Lid

Selectable heated lid temperature	100°C - 115°C
Heated lid enable/disable	Yes
Warm up time ambient (to 105°C)	4 min
Over temperature cut-out	Yes
Regulated lid pressure	Yes
Heated lid only comes on if block is set above 30°C	

##### Programming

Password protection	Yes
Incremental/decremental temperature	Yes
Incremental/decremental temperature segment hold time	Yes
Variable programmable ramp rate resolution	$\pm 0.1^\circ\text{C}/\text{sec}$
Programmable ramp rate resolution	0.1°C
Gradient calculator	Yes
Maximum programs internal memory	50**
Maximum programs memory card	500**
Program name capability	Alphanumeric
Programming interface (115 x 90mm screen)	Touch Sensitive
Pause facility	Yes
End of program alarm (can be disabled)	Yes
Auto restart on power failure	Yes
Run end time calculation	Yes

##### Miscellaneous

Dimensions L x W x H (mm)	420 x 220 x 260
Net weight	11.5kg
Serial port RS232/RS 485	Yes
Connection to PC control program	Yes
Free software upgrades from website	Yes
Power consumption	620 Watts
Ambient temperature range	5°C to 40°C
Relative humidity tolerance	up to 95%
Frequency	50- 60Hz
Voltage	100v or 120v/230v

\*Specification given are typical values in ambient temperature of 20°C for non-gradient (unless stated)

\*\*Actual number depends on complexity of the programs

**Product no 13250/12**