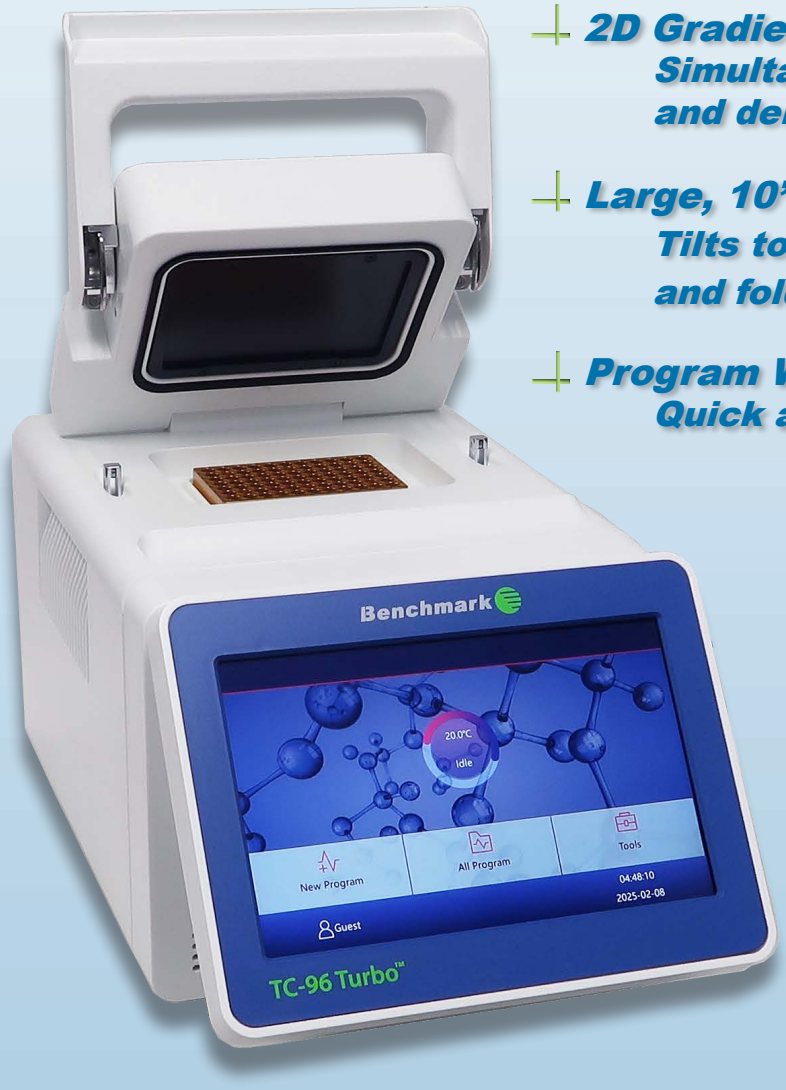
Benchmark

TC-96 Turbo™

2D Gradient Thermal Cycler



- ***Exceptionally Fast Cycling***
  Speeds up to 9°C/second
- ***2D Gradient***
  Simultaneous optimization of annealing and denaturation temperatures
- ***Large, 10” Touchscreen***
  Tilts toward user for easy access and folds away to save bench space
- ***Program Wizard***
  Quick and easy programming

TC-96 Turbo™

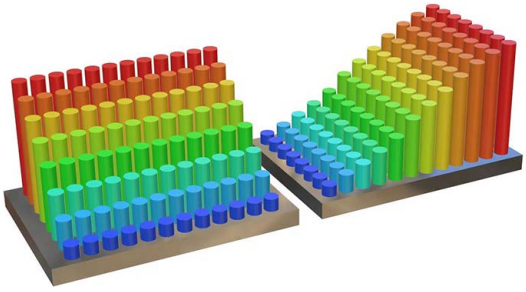
2D Gradient Thermal Cycler

The Benchmark TC-96 Turbo 2D Gradient Thermal Cycler is designed for fast cycling and quick protocol optimization. Exceptionally easy to program, the unit features tight temperature control and excellent block uniformity for consistent, reliable results.

Many thermal cyclers offer users the option to select a temperature gradient across the block to test a range of annealing temperatures simultaneously. The TC-96 Turbo offers a 2D gradient - across both the columns and rows - allowing for optimization of annealing and denaturation temperatures *in the same run*. The ability to optimize both of these steps provides for an increase in yield and specificity of complex or GC rich templates. Temperature ramp rates as fast as 9°C per second allow reactions to be performed quickly - up to 20% faster than other popular thermal cyclers. Temperature change is precisely controlled by a proprietary algorithm that simulates sample temperature and allows samples to arrive at the programmed temperature without any lag or overshoot.

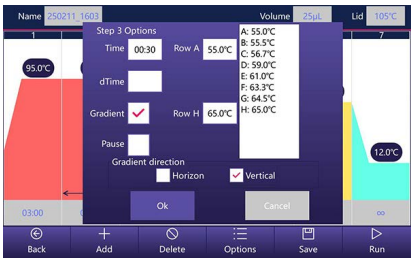
All operating parameters are controlled and monitored from the large, full color, 10” touch screen. The screen can be angled toward the user for easy access and folded back against the instrument when not in use to save space. Entering and editing programs is intuitive with the program wizard. Programming features include adjustable ramp rates, temperature and time increments/decrements, password protected multi-user login and a memory for 30,000 programs.

TC-96 Turbo will accommodate 96x0.2 or 96x0.1ml tubes as well as non-skirted 96 well plates. The height of the heated lid is auto-adjusting to prevent condensation for all of the accepted consumables. Temperature of the lid is adjustable.



2D Gradient

Adjustable Screen



Quick and Easy Programming

Technical Data:

Capacity:	96x0.2ml tubes/strips, 96x0.1ml tubes, nonskirted 96 well plate
Heating and Cooling:	Peltier elements
Display:	10” full color touch screen with adjustable angle
Block Material:	Aluminum
Block Temp Range:	0°C - 105°C
Max. Heating Rate:	9°C/sec
Max. Cooling Rate:	7°C/sec
Temp. Uniformity:	≤±0.2°C (at 90°C)
Temp. Accuracy:	≤±0.2°C (at 90°C)
Gradient Functionality:	2D, horizontal and vertical
Gradient Accuracy:	±0.1°C
Gradient Range:	30 - 105°C
Gradient Temp Diff:	Horizontal 0.1°C - 42°C Vertical 0.1°C - 24°C
Heated Lid:	Self adjusting
Lid Temp. Range:	30-112°C
Program Memory:	30,000 onboard, unlimited w/USB
Power:	100-240V, 50-60Hz, 1200W
Dimensions (L x W x H):	37.5 x 27 x 27.7cm 14.75 x 10.5 x 10.9in
Weight:	28.7lbs, 13kg
Warranty:	2 years

Ordering Information:

T5000-96-2D* **TC-96 Turbo 2D Gradient Thermal Cycler with horizontal and vertical gradient capabilities**

*Supplied with US plug. For EU plug, please add (-E) to item number.

Also available:

Benchmark offers both full size and mini thermal cyclers as well as a full complement of PCR and qPCR reagents

Benchmark Scientific

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