

Benchmark 

# TC 9639

## Thermal Cycler

+ **Program Wizard**

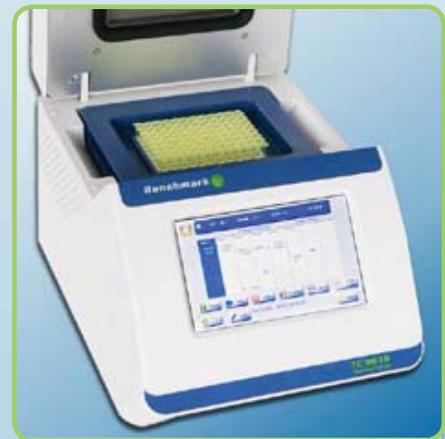
*Quick and easy protocol entry*

+ **Intuitive touch screen control**

*Works even when wearing gloves*

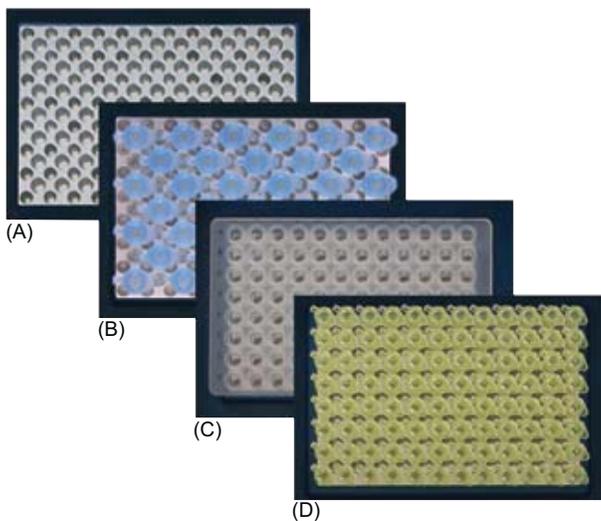
+ **Multi-Format Block accepts:**

- 0.2ml tubes or strips (96)
- 0.5ml tubes (39)
- 96 well plate





Screen shot of running program



Multi-format Block

(A) empty block, (B) with 39 x 0.5ml tubes, (C) 96 well plate, (D) 96x0.2ml tubes

Designed for laboratories with medium to high throughput needs, Benchmark's TC9639 Thermal Cycler provides consistent, reliable results. Featuring a large, touch screen interface, a next-generation program wizard and a unique multi-format block, this unit makes it easier than ever to get up and running.

A **large, full color touch screen** serves as the operations center where all functions are accessed. Starting at the "Home" screen, simply touch an icon to view the last run, enter the program library or use the program wizard to quickly enter a new protocol. In addition, icons for frequently used programs can be added for instant access.

Designed with user feedback, the **program wizard** quickly and easily guides users through protocol set-up, all in a single screen. Once entered, programs are shown graphically, and can be edited by simply touching the step that requires modification. Time and temperature increments can be built into programs as well as slower ramp rates. Storage capabilities are unlimited; programs can be stored in public folders, password protected folders or on a flash drive. The full virtual keyboard allows for alphanumeric naming of programs and folders.

The **fully adjustable heated lid** prevents condensation and evaporation of samples. Lid temperature can be programmed, and when the block temperature is below 35°C, the lid automatically shuts off. Heating and cooling of the block are precisely and accurately controlled within exceptionally tight tolerances by a proprietary algorithm that simulates sample temperature.

With the **multi-format block**, there is no need for the expense of multiple interchangeable blocks. *The TC 9639 has the flexibility to accept 96 x 0.2ml tubes, a 96 well plate or 39 x 0.5ml tubes all in the same sample block.* An in situ adapter is available for use with slides. Additionally, the unit may be purchased with a 384 well sample block.

### Technical Data:

Capacity:	
9639 block:	96x0.2 ml tubes/strip tubes or 39x0.5ml tubes or 1 nonskirted 96 well plate
384 well block:	1x384 well plate
In-situ adapter:	4 slides (fits 9639 block)
Temp. control range:	0°-100°C
Temp. control:	Simulated sample or block
Accuracy/uniformity:	±0.2°C/±0.2°C
Ramp rate:	4°C/second (maximum)
Lid temp.:	30°-112°C, user adjustable
Program memory:	Unlimited with flash drive
Increments/decrements:	Yes, time and temperature
Power failure restart:	Yes
Power supply:	Universal, 75-275V, 50-60Hz
Communication:	USB, LAN and RS232
Dimensions (W x D x H):	10.2 x 14.2 x 9.9 in. 26 x 36 x 25 cm
Weight:	16 lbs / 7.3 kg

### Ordering Information:

T5000-96*	TC 9639 Thermal Cycler, multi-format block
T5000-384*	TC 9639 Thermal Cycler, 384 well block
T5000-A-IS	In situ adapter for 4 slides (fits T5000-96)

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

**Benchmark** Scientific 

# TC-32

Mini Thermal Cycler

**Small in size, big in features...**



+ **Capacity for 32 x 0.2ml tubes**  
*4x8 format also accepts tube strips*

+ **Intuitive touch screen control**  
*Works even when wearing gloves*

| **Extremely easy to use**  
*Familiar, icon driven programming*

| **Compact Size**  
*9 x 7 inch footprint*

**Benchmark**   
TC-32 Mini Thermal Cycler

"Mini sized" doesn't have to mean a sacrifice on features and performance. Benchmark's TC-32 Mini Thermal Cycler retains the advanced programming features, easy to use software and fast, reliable cycling of the larger TC-9639 Thermal Cycler, but with a smaller block and lower price point.

Designed for lower throughput needs, the TC-32 Mini Thermal Cycler has a capacity for 32x0.2ml tubes. The wells are arranged in a 4x8 format, allowing the block to accept strips of 8 as well as individual tubes. The block heats and cools very quickly - at rates as fast as 5°C/second. A proprietary algorithm controls block temperature, bringing samples quickly to the target temperature without any over- or under-shoot. Excellent block uniformity ensures consistency sample to sample.

Operation of the thermal cycler is controlled from the large, full color, touch screen. Icon driven menus allow users to get running quickly. Programming is extremely simple and includes options for time and temperature increment/decrements, adjustable ramp rates, and an auto pause and restart functions. More than 100 typical programs can be stored in memory and easily recalled. After a run, samples can be held at 4°C. An on-screen report is also available at the completion of a run.

The heated lid is self adjusting - the spring loaded platen in the lid comes firmly into contact with the tops of the tubes to prevent sample evaporation and condensation. **There are no knobs to turn or levers to adjust.** The temperature of the heated lid can be changed or the heating function of the lid may be turned off.

With a footprint less than that of the average laboratory notebook, the TC-32 Mini Thermal Cycler will fit almost anywhere. Its reduced capacity block and economical price make the TC-32 Mini Thermal Cycler the perfect choice for lower throughput laboratories and educational facilities.



## Technical Data:

Capacity:	32
0.2ml tubes:	32
Strip tubes:	4 x 8 tube strips
Temp. control range:	0°-99.9°C
Temp. control:	Simulated sample or block
Accuracy/uniformity:	±0.25°C/±0.25°C
Ramp rate - heating:	5°C/second
-cooling:	4°C/second
Lid temp.:	30°-112°C, user adjustable
Program memory:	Over 100 typical programs
Increments/decrements:	Yes, time and temperature
Power supply:	Universal, 100-240V, 50-60Hz
Dimensions (W x D x H):	7.2 x 9.2 x 6.2 in.
	18.2 x 23.2 x 15.7 cm
Weight:	6.4 lbs / 2.9 kg
Warranty:	2 years

## Ordering Information

T5005-3205\* TC-32 Mini Thermal Cycler  
 \*Supplied with US plug. For EU plug, please add (-E) to item number.

## Also available:



## TC-9639 Thermal Cycler

- \*Intuitive touch screen control
- \*Quick and easy programming
- \*Multiformat block:
  - 96x0.2ml tubes
  - 39x0.5ml tubes
  - 1 x96 well plate

Benchmark offers a full line of Accuris PCR Reagents including Taq Polymerase, Hot Start Taq Polymerase, Taq Plus, High Fidelity Polymerase and a Mammalian Genotyping Kit. Ask your Benchmark dealer for details.