

Axygen® MaxyGene™ II Thermal Cycler

AXYGEN

A Corning Brand

The new Axygen MaxyGene II Thermal Cycler replaces our successful and reliable Axygen MaxyGene. It brings increased speed and advanced features, providing the premium performance you have come to expect from Axygen brand products.

Features

- ▶ Unique flexible programming
- ▶ Rapid run times
- ▶ Improved workflow over traditional gradient cyclers
- ▶ Ramping rates up to 5°C/sec.
- ▶ Simple user interface
- ▶ Adjustable heated lid accommodates strips, tubes, and microplates
- ▶ Pre-programmed standard protocols



Simplified Workflow – Improved Throughput

The Axygen® MaxyGene™ II Thermal Cycler is extremely simple to program, compact in design and built to perform. This thermal cycler makes method optimization affordable and provides consistent, reliable results. This thermal cycler features, Precision Thermal Control, rapid heating and cooling of the precision-machined sample block by six independently temperature-controlled Peltier modules. A sophisticated algorithm program calculates sample temperature and triggers heating and cooling accordingly, minimizing over- and under-shooting.

The MaxyGene II Thermal Cycler may be programmed to operate between one and six different annealing temperatures across the block (Figure 1). This thermal cycler provides improved throughput by reducing time and simplifies workflow by reducing steps.

A variety of applications can be performed with the MaxyGene II, from single temperature soaks to sophisticated multistep programs. All of these are easily set up. The time or temperature of a cycling step can be automatically increased or decreased during successive cycles. This is useful for “touchdown” applications and for extending annealing times as enzyme is depleted. Programs may also be paused while running. During operation, actual times and temperatures are displayed. Estimated run times are automatically calculated and a log of the last run can be displayed or downloaded to a printer or PC.

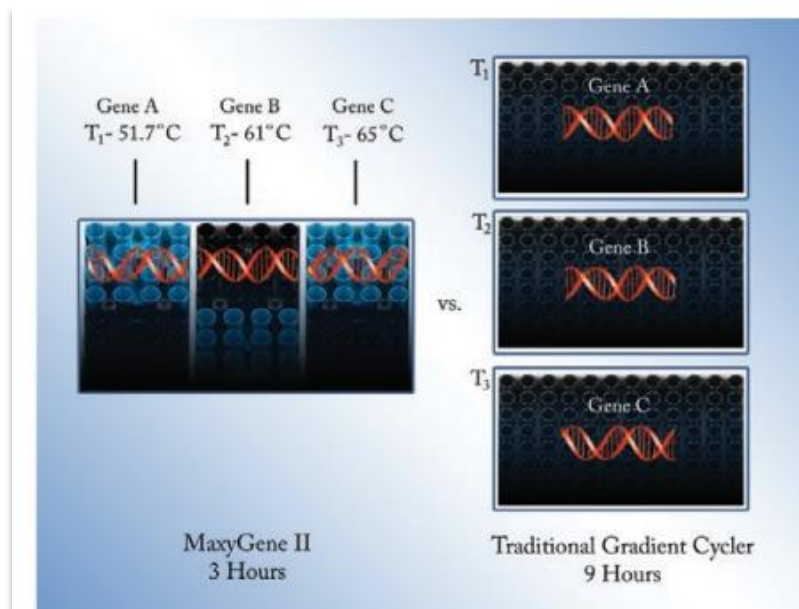
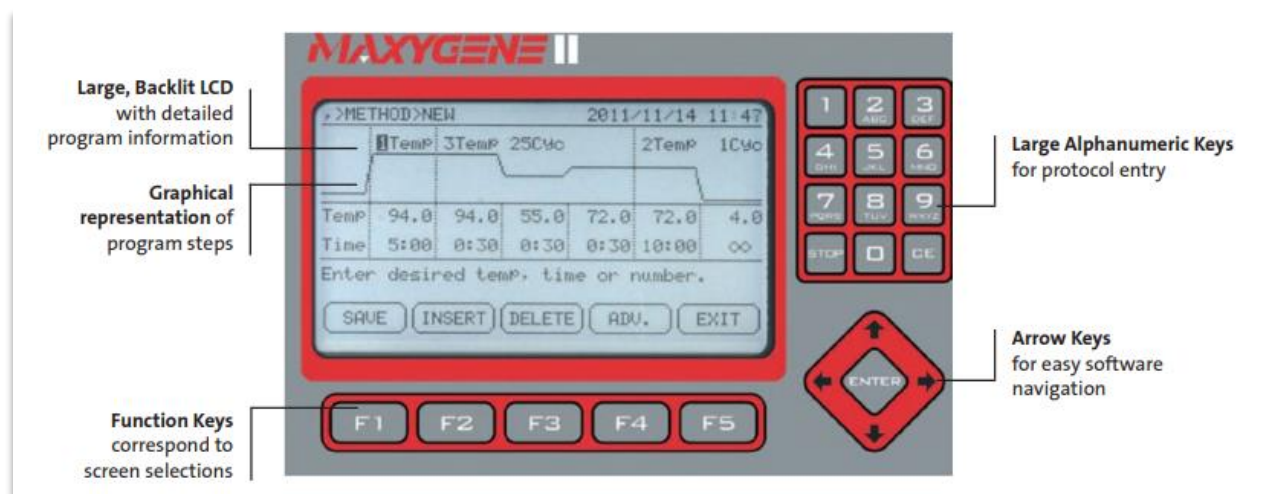


Figure 1. Primers designed to anneal to various genes (e.g., Gene A, B, and C) typically have different annealing temperatures (T_1 , T_2 , and T_3). To simplify workflow and increase throughput, the MaxyGene II can perform up to six different reactions, significantly reducing steps and time.

Sliding Adjustable Heated Lid

The heated lid, a standard feature of the Axygen® MaxyGene™ II, is fully adjustable to provide the appropriate pressure for use with different height tubes as well as multi-well microplates. A compression mat is provided to ensure an even pressure is applied when using microplates. For optimum performance, the temperature of the lid may be programmed. To ensure that users never come in contact with the hot surface, the lid slides back and away from the samples. In addition to eliminating the risk of burns, this also provides complete access to samples. The lid can also be flipped up for cleaning.



Easy Programming

Programming the MaxyGene II is highly intuitive. The large backlit LCD displays alphanumeric characters and a graphical representation of program steps. Simple, on-screen instructions guide the user through the programming process. The MaxyGene II is provided with common pre-programmed protocols which are easily edited by navigating to the appropriate parameter with the arrow keys and entering a new value. A maximum of 200 programs may be stored in the system memory and organized in public folders or user folders, which can be password protected.

Unique Block Design

MaxyGene II has 6 separate Peltier elements configured in a 4 x 4 well configuration. Each of these elements allows for selection of distinct user definable annealing temperatures (Figure 1). These regions are easily identifiable by the blue and black squares on the microplate block. The lowest temperature is set in block #1 and each of the other blocks can be set for any temperature within 24°C of block #1. You can use this system for running an entire microplate at one temperature, using the 6 blocks to optimize a reaction or to run each block as defined by the user.

Specifications

Sample Capacity	1 x 96 well plate, 128 x 0.2 mL strip tubes, 96 x 0.2 mL tubes
Programmable Temp. Range	4°C to 99.9°C
Temperature Control	Calculated or Block
Temp. Accuracy/Uniformity	±0.5°C/±0.5°C
Max. Heating Range among the 6 Peltier Blocks	30°C to 99°C
Max. Temp Difference	24°C
Ramp Rates	5°C/sec. heating, 3.5°C/sec. cooling
Optimization Technology	Six 4 x 4 Peltier Blocks with independently programmable temperatures
Programmable Lid Temperature	60°C to 65°C, 100°C to 115°C
Program Memory	200 complete programs
Temp. Increments/Decrements	Yes
Time Increments/Decrements	Yes
User Program Folders	Yes
Password Protected Programs	Yes
Communication	USB and RS232 ports
Dimensions (W x D x H)	24 x 43 x 25 cm
Weight	9 kg
Electrical	120V or 240V, 50/60 HZ