

# genechecker UF-100 Thermal Cycler

DNA amplification  
in 20 minutes

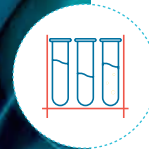


- Patented chip based design and ultra-fast ramping provides extremely rapid output. "40 cycles in 20 minutes"
- Innovative PCR device at an affordable price
- Intuitive control with LED indicated jog-dial and LCD display
- Increased sample capacity (16 samples) provides better efficiency

## How to Load Samples

### Step 1.

Prepare sample according to suggested protocol. Reaction volume should be 10  $\mu$ l.



### Step 2.

Using micropipette, aspirate prepared sample mixture (10  $\mu$ l).



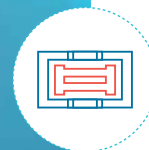
### Step 3.

Place pipette tip into the inlet hole of Rapi:chip™ and dispense whole volume of aspirated sample.



### Step 4.

Seal entire holes using the enclosed sealing tapes. Scrub the surface of sealed area to secure sealing.



## The best tool to make your PCR diagnostic application faster and easier

genechecker adopted special polymer chip (Rapi:chip™) which enables even faster thermal treatment of samples in it than the case of using PCR tubes for conventional PCR instruments. 8°C/sec ramping rate can be achieved, for both heating and cooling, through the thermal cycling mechanism of genechecker

## State-of-the-art hardware technology achieved great performance and cost effectiveness.

The patented technical know-how of Genesystem, applied to the model UF-100 thermal cycler, is optimized for design and production of PCR device, and publicly awarded Grand Prize at KINPEX, the most prestigious competition for high-end inventions.

## Ins and Outs of genechecker

### 1 LCD Display

4-lined text LCD offers clear identification while protocol setting and status monitoring.

### 4 LED Indicator

LED indicator is illuminated in two different colors-blue and red. Blue LED indicates that the instrument is idle and ready for use. Red LED indicates that the instrument is in use, i.e. PCR cycle is being performed. LED is turned off when prompted PCR cycles are finished.

### 6 Chip Presser

Automatically presses upper surface of chip when the drawer is closed.

### 8 Air Ventilation Holes

Holes which air flows into the instrument through.

### 9 Chip Drawer

This is the module transporting the chip into the instrument. Mechanically stable structure and robust design offers soft movement and maintenance-free features of this frequently used part.

### 2 MENU button

Main menu screen is displayed when this button is pressed from initial screen. displayed screen moves to previous step when this button is pressed.

### 3 Jog-dial

Rotating jog-dial in clockwise direction moves cursor on the display down(right) or increases set values. Rotating jog-dial in counter-clockwise direction moves cursor on the display up (left) and decreases set values. Pressing jog-dial selects the menu where cursor is located.

### 5 RUN/STOP button

Selected PCR protocol is executed when this button is pressed. Currently performed PCR cycle is immediately stopped when this button is pressed while the instrument is running.

### 7 Heating Plate

This is the point where the chip is loaded for PCR cycles. Flat surface is heated and cooled during thermal cycling.

### 11 Groove for Easy Handling

This part is to enhance portability of instrument.



### 10 PUSH bar

Chip drawer is gently opened and upper sealing cap on the heating plate is automatically lifted when this bar is softly pressed.

## SPECIFICATION

- Operating Mechanism	Precise Control of Peltier Element
- Temperature Accuracy	± 0.5°C
- Temperature Uniformity	± 0.5°C (Well to Well)
- Temperature Stability	± 0.5°C
- Ramping Rate	8.0°C/ second
- Range of Temperature Setting	35 ~ 65°C (1.0°C Increment) for RT Step / 20 ~ 99°C (1.0°C Increment) for PCR
- Sample Format	Polymer based 3-Dimensional Microfluidic Chip
- Number of Sample per Run	16
- Reaction Volume	10 µl
- Typical PCR Duration	Less than 20 Minutes for 40 Cycles (without RT Step)
- Display	Text LCD (4 Line)
- Integrated Memory	Saves up to 12 PCR Protocols
- Power (Wattage)	AAC 110-230V (50-60Hz) Input / DC 12V Output (120W)
- Dimension / Weight	200(w) x 200(d) x 125(h) mm / 3.0kg

## ORDERING INFORMATION

Catalog No.	Product	Pack Size
1099100100	genechecker UF-100 Thermal Cycler	1 SET
9699100200	Rapichip/16™ 16-well PCR Chip (S-Pack) Standard Pack	48 pcs / PK
9699100201	Rapichip/16™ 16-well PCR Chip (M-Pack) Medium Pack -8 PK of Standard Pack	384 pcs / PK
9699100202	Rapichip/16™ 16-well PCR Chip (L-Pack) Large Pack -16 PK of Standard Pack	768 pcs / PK

Genesystem Co., Ltd.