



GENECHECKER[®] **Model UF-100** **Ultra-Fast** **Thermal Cycler**

**DNA amplification,
it's done in 20 minutes.**

**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.

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

Innovative and compact design for laboratory and POCT applications

Increased sample capacity (16 samples) provides better efficiency.

Ins and Outs of **GENECHECKER**®



Ins and Outs of
GENECHECKER™

① LCD Display

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

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.

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.

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.

⑥ Chip Presser

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

⑦ Heating Plate

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

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.

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.

⑪ Groove for Easy Handling

This part is to enhance portability of instrument.

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 Samples per Run	10 or 16 (depending on the PCR chip to be used.)
Reaction Volume	10µl
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)	AC 110-230V (50-60Hz) Input / DC 12V Output (70 W)
Dimension / Weight	200(w) x 200(d) x 125(h) mm / 3.2kg

ORDERING INFORMATION

Cat. No.	Description / Pack Size
001100	Model UF-100 GENECHECKER Ultra-Fast Thermal Cycler / 1 SET



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