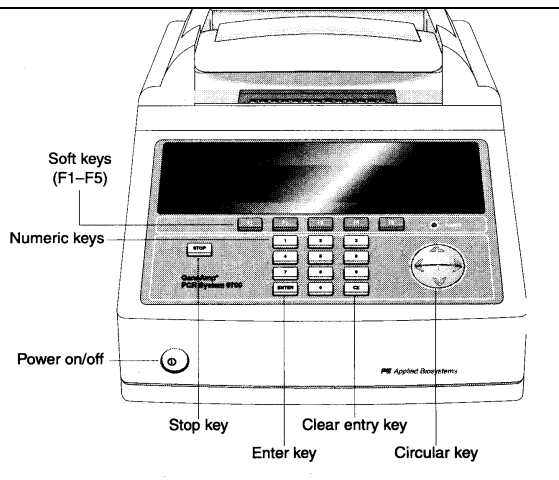


Operating the GeneAmp® PCR System 9700 Thermal Cycler

Make sure you have a tray installed in the heat block of the thermal cycler. Students' tubes should be in this tray. Without a tray, the tubes may melt and deform. Once all the reaction tubes are in place, slide the lid over the temperature block and secure it by pressing down on the lid's hand lever.



Temperature Programming

1. Turn the instrument on by pressing the Power button on the lower left front of the instrument.
2. Press the **F1** key under the “Create” option on the view screen.

A display will appear having a default cycle of 1 hold (Hld) temperature and time, 3 temperatures and times for 25 cycles, and 2 holds at the end of the cycle program. The highlight cursor should be on the “1” of the hold for the start of the program. The cursor is moved to the desired position on the display screen by touching the circular arrow key on the right side of the control panel. New values are entered by typing the numbers in on the keypad and pressing the **ENTER** key.

When all parameters are entered, press the **F1** key below the “Start” option on the display screen.

A new screen will appear requesting the reaction volume. Make sure this value is at 50. When it is, press the **F1** key below the “Start” option to begin the program.

Using a 4°C Hold Before a Run

While you are waiting for the last of your students to place their reaction tubes into the thermal cycler, you should hold those tubes already in the temperature block at 4°C. To create a 4°C Hold, follow these steps:

1. Press the **F1** key under the “Create” option on the view screen.
2. Move the cursor to the “3” on the “3 Tmp 25 Cycles” line and replace it with a “0”. Move the cursor to the right over the “2” on the “2 Holds” line and replace the “2” with a “0”.
3. For the Hold that remains on the view screen, enter 4° and infinity (by entering 99:59 for its time).

When all students have placed their tubes in the thermal cycler, stop the program and create the cycle needed for your particular amplification.