

# PCR MACHINE WITH TOUCH SCREEN DISPLAY



The RevCycler is a compact, fully automated PCR machine, with a touch screen display. Constructed of rugged powder coated steel, this Peltier based affordable thermal cycler is compact, fast and ready to use.

## **Areas of Focus**

Biotechnology  
Forensics  
Education  
Crime labs  
General lab use

## **Applications**

PCR  
Amplify DNA  
Genetics  
General dry bath applications

## **Features**

48 tube capacity  
Built in color touch screen control (no need for a cell phone or tablet)  
Temperature graph  
Heated lid  
4° C cold hold  
Self disinfecting block (patent pending)  
Small footprint: 8" wide x 10" deep  
Made in USA  
2 Year Warranty

## **Specifications**

Fast max up ramp  
Fast max down ramp  
Uniformity: +/- 0.25° C  
Power Requirements: 100-240VAC, 50-60 Hz, 120W  
Dimensions: 10in (depth) x 8in (width) x 6in (tall)

## **Amplify DNA fragments through Polymerase Chain Reaction**

When a gene (not the entire chromosome) is in a low abundance, this quantity of the gene can be amplified in an exponential manner. Taq polymerase, a biological machine (often in the form of PCR beads) is added to the DNA sample. The tube with DNA solution is placed into a PCR machine, like the Revolutionary Science RevCycler. During the 94 Celsius denature phase, the DNA ladder denatures (separates into two half ladders) and the temperature of the PCR machine drops to the anneal temperature (usually between the temperature of 40 to 60 Celsius), so the RNA primers can attach to the gene of interest.

The next step is extend at 72 Celsius, where the RNA primers are removed and replaced with single stranded DNA, to complete two new DNA ladders. This process is repeated. Each cycle doubles the original amount of DNA. This usually continues for about 35 cycles. When the DNA is amplified it can be left in the RevCycler where it will automatically change temperature to a 4 degree Celsius refrigeration temperature hold. Amplified DNA can be stored in a freezer until analysis. Analysis can be performed with DNA electrophoresis chamber like the DNA RevBox.

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