

PowerPac[™] Temperature Probe Catalog #165-5058

The PowerPac Temperature Probe is designed to be used with the PowerPac HV and the discontinued PowerPac 3000 power supplies when operated in temperature mode. Temperature mode allows you to operate an electrophoresis apparatus at a constant temperature. Constant temperature is extremely useful when performing DNA sequencing or single stranded conformational polymorphism (SSCP) analysis. The PowerPac HV can be programmed from 30°C to 90°C. The gel temperature will be controlled from ambient to 90°C with an accuracy of $\pm 2\%$ of scale.



Temperature Probe for the PowerPac HV

To access the PowerPac HV constant temperature mode, insert the temperature probe's connector into the port labeled "Temperature Probe Jack" located on the rear of the power supply.

Before attaching the temperature probe to the glass plate on the electrophoresis apparatus, be sure the glass surface and probe are free of dust, salts, or other debris that can affect probe attachment. Slowly roll the probe out against the clean glass surface. Once the probe is attached, firmly press the probe against the plate to secure the seal. If the probe will not remain attached, wet the probe with a little water, then reattach it to the glass surface.

If the probe becomes dislodged from the glass plate during a run, the temperature control will not work properly.

To remove the probe from the glass plate, simply pull on the small tab at the edge of the probe.

For complete instructions on operating the PowerPac HV with a temperature probe, refer to Chapter 5, Temperature Mode Operation, in your PowerPac HV Instruction Manual.

Note: The PowerPac HV controls temperature by regulating temperature as the limiting parameter. The PowerPac HV will begin to automatically regulate the power output in watts to the electrophoresis apparatus when the temperature is within 3°C of the set temperature. However, if the number of watts entered is not enough for the apparatus to reach the set temperature, the PowerPac HV will be unable to regulate the temperature of the apparatus. The Sequi-Gen[®] instruction manual provides the approximate power requirements required for maintaining a constant 50°C gel temperature. There is no substitute for optimizing the power conditions required for your particular application and gel apparatus to help ensure that your gel will reach and maintain the set temperature. If using the probe in a coldroom, the probe and power supply should be re-equilibrated for one hour at room temperature before the next run.