

# Curing Epoxy Paint on Plastic with a Model 4185 Infrared Strip Heater

## Application

A keyboard manufacturer curing epoxy paint on plastic computer keys.

## Problem

**Limited Production Output** - The existing method involved applying and curing the printed symbol on the computer keys, and then applying and curing an acrylic spray to protect the printed symbol, severely limiting production output and revenue.

**Poor Quality** - The four step process did not always produce reliable results and many keycaps had to be rejected.

**Coating Change** - By changing the printed symbol to a difficult to dry epoxy coating and applying a new curing method, the manufacturer could reduce the steps from four to two.

## Solution

**Heat** - A Model 4185-05 Infrared Strip Heater was installed on the production line to supply infrared heat to cure the epoxy keycap symbols.

**Power Control** - A Model 665F Phase Angle SCR Power Controller controlled the Strip Heater.

**Instant On/Off** - The Infrared Strip Heater heated up and cooled down instantly based upon signals received from the Phase Angle SCR Power Controller.

## Benefits

**Increased Production Output** - Production output increased by over 75 percent with the new printing and curing methods - the manufacturer was able to process six keycaps at a time in less than six seconds.

**Improved Quality** - The instant on/off capabilities of the Infrared Strip Heater allowed the manufacturer to work more effectively with the heat sensitive plastic keycaps and significantly decreased product rejects.