

Laminator Operation

Laminator operation

The laminator has been designed to attach to both Osprey and Phoenix card printers. Below is a brief summary of operation.

For simplicity the laminator has four different areas (see diagram 1)

Staging area
Lam application and cutter
Oven/heated rollers
Exit (heat sink) rollers

Principles of operation:

Step 1.

Card is handed off to laminator from parent printer. Laminator senses the card and either feeds or holds the card in the laminator staging area depending upon the operational status of the laminator. The activated laminator will not pass any cards through until the heated rollers have reached their operational temperature. If the laminator is deactivated, it will eject the card without application of laminate.

Step 2.

Laminate is applied to the top and bottom of the card simultaneously. Various forms of laminate can be fed onto the card from the corresponding cassettes. The card sensor sees the card enter the laminator application area and counts X steps until the rollers begin to apply the laminate. The laminate length will be measured counting steps. There is a top and bottom lam sensor to ensure the laminate is prepared to feed.

Step 3.

The card with the laminate applied enters the heated rollers to permanently adhere the laminate to the card. The application of the laminate is completed with an elevated temperature around 150 degrees C. The temperature is achieved through halogen heat elements, and controlled by a thermopile assembly that measures the temperature of the roller surface.

Step 4.

The card with the laminate permanently affixed exits the heated rollers and moves through the heat sink rollers which will cool the card down close to ambient temperature. A sensor affirms entry into the heat sink rollers and counts steps to predict a safe card exit from the laminator.

