

Floating Lamps, Part 2

In a previous article, we discussed Lexmark's method of making electrical connections to the fuser lamp, and how these can sometimes come loose in shipping, causing a fuser error. A similar problem can affect certain models of HP fusers, even though

the heating element and connections are very different from the Lexmark fusers.

The HP fusers we will consider are those with ceramic heating elements and flexible films (as opposed to a lamp and a rigid metal roller). These include most of the newer HP

printers – everything except the color models and the big heavy-duty printers (8000, 8100/8150, 9000 series, etc.). We will use the HP LaserJet 4000 as an example.

The ceramic heating element is a thin flat strip with metal connection pads on each end. Typically, one set of these pads comes from the heating element itself, and the other from the thermistor, or temperature-sensing element, which is built into the ceramic strip. To make the connection from here to the rest of the printer, HP uses a cable harness with a standard connector on one end (this plugs into another connector in the printer) and a special connector on the other end that slides over the end of the ceramic heating element and makes contact with the metal pads. This connector has a retaining tab on top that holds it in place (see figure 2).

This system is designed so that squeezing the clip on top of the connector releases the retaining tab, allowing you to slide the connector off. The problem is that this can happen inadvertently -- if anything presses on the clip during shipping or handling or installation, the connector can slide partway off, breaking the connection to one or the other set of metal tabs. If the connection to the heating element is broken, the fuser will not heat up; if the connection to the thermistor is broken, the printer cannot tell that the fuser is heating up. Either way, the result is a "50" error.

The point of all this is that if you get a "50" error after installing a fuser of this type, always check the connectors before returning the fuser as defective (Figures 1 and 2 show what the connector should look like, and what it looks like when it has come off -- note that there is one of these connectors on each end of the fuser). If a connector has come off, it is a simple matter of sliding it back on, and you will have eliminated a warranty claim and a return trip. And that keeps everybody happy – you, your customer, and us!

—Dennis Kosterman

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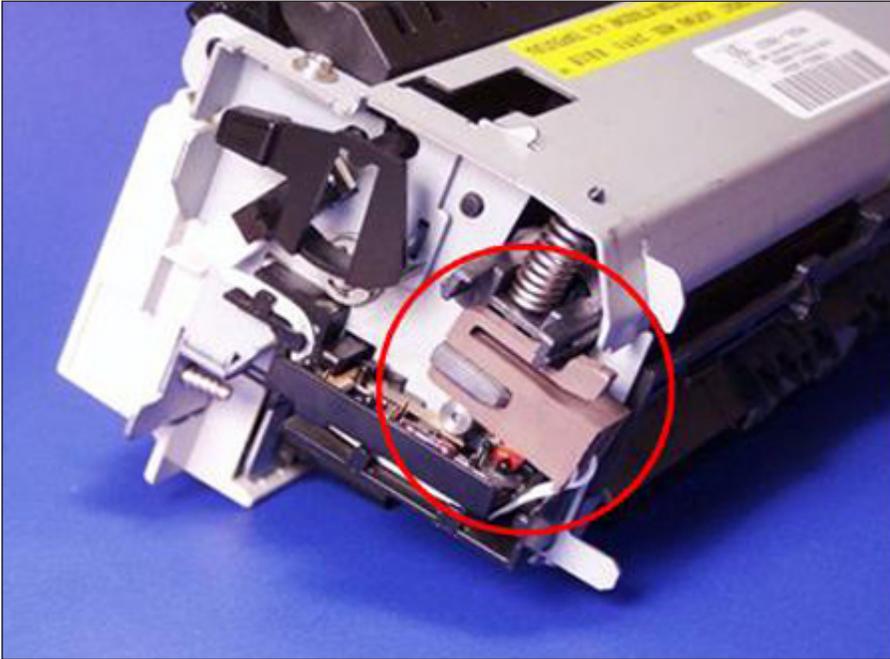


Figure 1: Connectors (one on each end) should look like this.

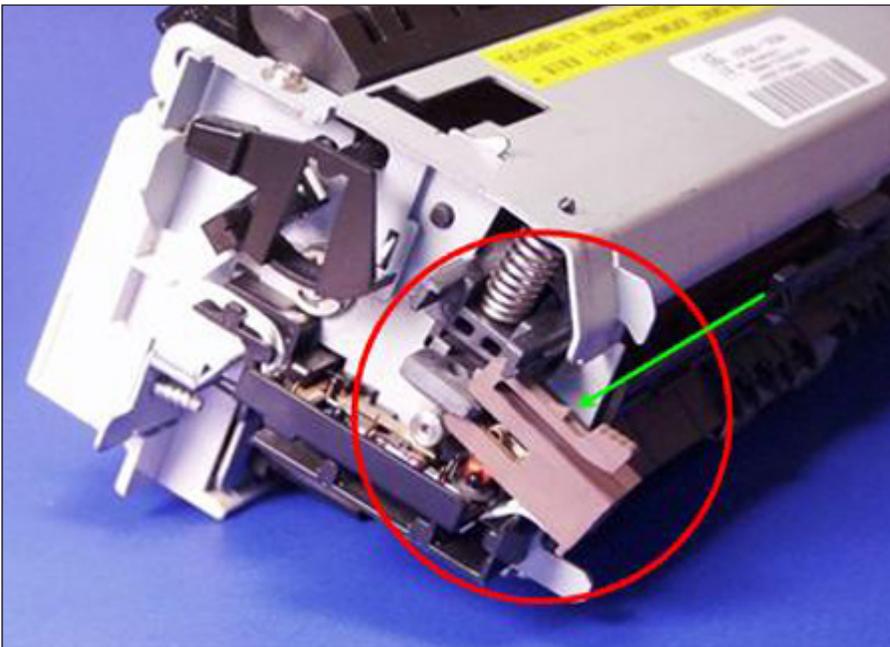


Figure 2: Connector that looks like this will cause "50" error (Green arrow points to retaining tab).