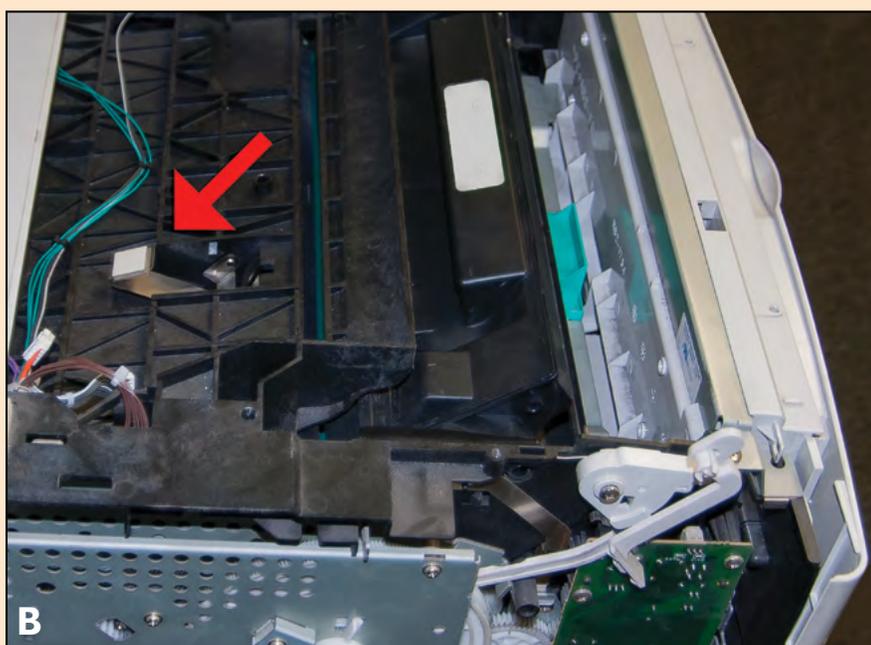


A

The central cartridge fin...



B

activates a lever...

PRINTER REPAIR

Broken cartridges cause 52 errors in 5000, 5100

Since the introduction of the first LaserJet in May 1984, the 52 Service Error has been synonymous with improper rotation of the scanner motor inside the laser/scanner asm. The recommended solution has been to check the scanner, the dc controller (or engine controller*), and connections between the two.** In the case of the 5000 and 5100, we've just learned of a second possibility.

This came to our attention after several customers reported that the standard steps failed to work. One of them successfully cleared the error by replacing the toner cartridge. Although this didn't make sense to us at the time, we have since confirmed that a broken central fin on 5000/5100 toner cartridge will cause 52 errors.

Cartridge activates shutter

The safety shutter prevents the laser beam from getting out of the scanner when the printer cover is open. On most printers, it is attached to the outside of the scanner body and is actuated by opening and closing the main printer door. In the 5000 and 5100, it is internal, and actuated by the toner cartridge. When the cartridge is inserted, a plastic fin on the cartridge (Fig. A) actuates a lever in the printer (Fig. B), which in turn pushes a button on the bottom of the laser scanner assembly (Fig. C). This button opens the internal shutter, allowing the printer to function normally.

If the fin has broken off, the lever does not get actuated; the shutter does not get opened; and the printer generates a "52 SERVICE" error. On most printers, this would cause a 51 error (by definition, a beam detect error).

52 SERVICE Trouble-shooting for the in the 5000, 5100

1. Check the central fin on the toner cartridge (try another cartridge if you have one available).
2. Remove the laser scanner assembly and check the actuator lever, which could theoretically cause this problem. You can augment these two steps by inserting the cartridge and making sure it moves the lever.
3. Check the electrical connections between the laser scanner and the dc controller.
4. Replace the laser scanner.
5. Replace the dc controller.

Summary

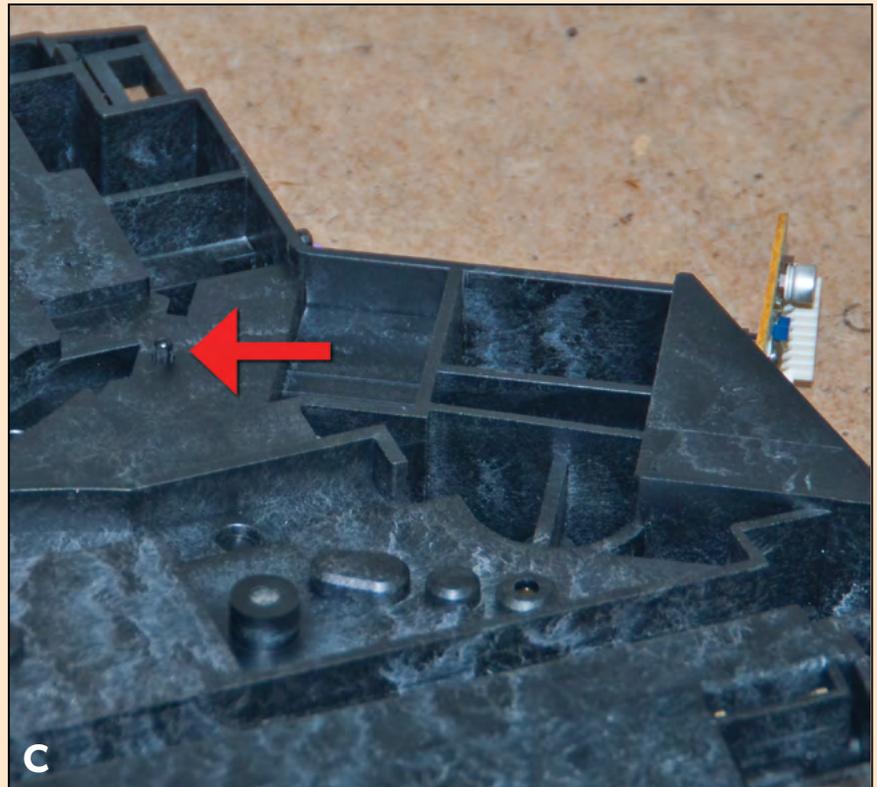
In most Laserjets, a 52 error means the scanner motor is rotating at the wrong speed or not at all. In the case of the 5000 and 5100, it can also mean the scanner shutter failed to open because a lever in the printer was not actuated due to a missing toner cartridge fin.

*Some printers combine the dc controller and power supply in a single unit called the engine controller board.

** With the 4000/4050, a 52 error can be caused by a formatter as well. This is always accompanied by a dim display. If the display is dark, replace the formatter board. If it looks normal, follow the basic procedure: check the scanner-engine controller board connections, then replace the scanner and finally replace the engine board.

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...which presses a button on the laser scanner, opening the internal shutter.



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