

## PRINTER TECH ARTICLE

# HP LJ 5000/5100: DCC/LVPS Removal

In the HP LaserJet 5000 and 5100 printers, two important circuit boards – the DC controller (which also includes the high voltage power supply circuitry) and the low voltage power supply – are mounted to one metal pan in the bottom of the printer. Removing and replacing either of these boards requires the removal of many cables and screws, the locations of some of which are not obvious. This article will take you through the procedure step by step.

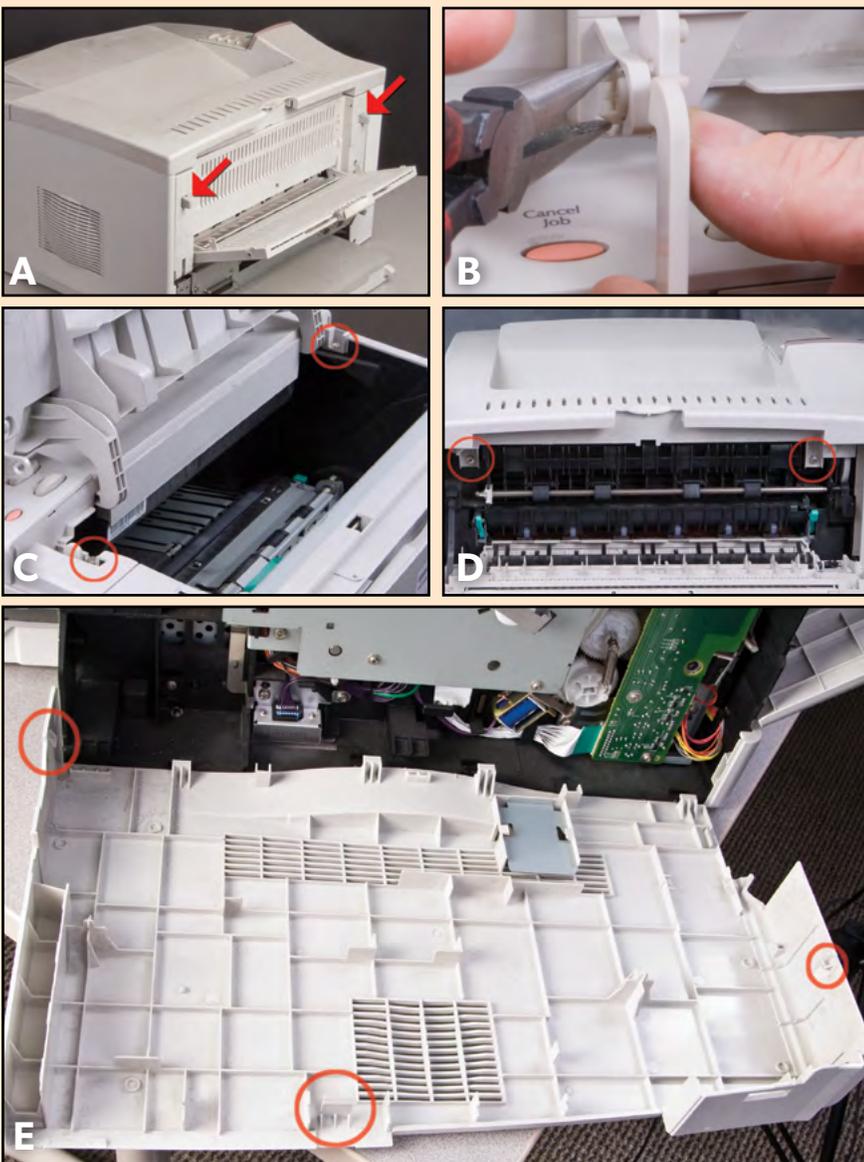
Before starting disassembly, remove the paper cassette and toner cartridge. Cover the toner cartridge or put it in a dark place, as ambient light can damage it.

**1. Remove the rear door:** Facing the rear of the printer, squeeze the two locking tabs (Fig. A) toward the center to open the door. Detach the plastic support strap at the printer body by pinching the tab and lifting. Then slide the door to the left to release the right mounting pin, then back to the right to remove the door. When re-installing the door, insert the left mounting pin first.

**2. Remove the top cover:** Open the toner access door and disconnect the toner cartridge engagement arm from the inner surface of the door by squeezing the locking tabs together (Fig. B). Then remove two screws in the front, near the door hinges (Fig. C) and two screws in the back (Fig. D). As you lift the cover off, disconnect the control panel cable in the left rear.

**3. Remove the left and right side covers:** The procedure is the same for both covers: release one retaining tab near the center of the top edge; then grasp the upper front and lower rear corners of the cover and gently rock it back and forth to free two remaining tabs (one in the front and one in the back), and lift the cover off. Fig. E shows the three tabs for the left cover. When re-installing either cover, seat the hooks at the bottom first, then snap the rest of the cover into place.

**4. Remove the formatter board:** Facing the back of the printer, loosen two thumbscrews (Fig. F), then slide the board out.



**5. Unplug cables on both sides:** There are four cables on the right side, below the fan (Fig. G). For the two cables closest to the rear of the printer (the ones with thicker wires), use a flat-blade screwdriver to release the locking tabs (on top of the connectors) by pressing down on them. On the left side, there are five cables, below the main drive assembly. Fig. H shows the cables for the 5000 (from left to right: two large cables, two small cables, and a flat flexible ribbon cable). On the 5100, the right most cable is just a regular large cable like the two on the left.

**6. Remove screws:** Remove four screws at the rear of the printer (Fig. I) and one grounding screw just above the main power connector (Figure J). Make sure to attach the ground wire when re-installing this screw later. On the 5000 only, remove two large spring-loaded screws just forward of this grounding screw (Figure K, and one large spring-loaded screw on the opposite side of the printer (Fig. L, circle). On the 5100 only, remove one grounding screw below the lower rear corner of the main drive assembly (Figure L, arrow). On both printers, there are two more screws to remove. These are accessed through the toner cartridge cavity. They are long screws (about an inch long), since they go through the raised portion of the printer floor near the registration flap (Figures M and N). You will need to lift the registration flap (using the green plastic handle) to access the screw on the right.

**7. Remove Pan.** Now you can remove the metal pan containing the two circuit boards by grasping the lower edge of it and pulling. If it doesn't seem to be free, make sure all screws listed above have been removed, but even if they have been, it may require considerable force to pull this pan out. Don't be afraid to pull hard! On the left is the low voltage power supply (brown board); on the right is the dc controller/high voltage power supply (green board). Note that there is a short flat flexible ribbon cable connecting the boards to each other. This will need to be unplugged in order to remove either board. Save this cable, because it is not included with the boards. Other than that, removing either board from the pan is a simple matter of removing a few screws.

**8. Reassemble.** Reverse the above steps to re-assemble the printer.

