

HP CLJ 4500/4550 Drum Drawer Fan Installation Instructions

The HP Color LaserJet 4500 and 4550 printers have three cooling fans: one in the front of the drum drawer (also called the upper drawer), and two in the rear of the main printer body. The one that seems to fail most often is the front one. But for a long time, this fan was not available as just a fan – you had to buy the whole drum drawer cover to get the fan. To further complicate matters, there are two different versions of the fan, and three different versions of the drum drawer cover.

Early models of the 4500 (where the third character of the printer serial number is “G” or lower) used a 24-volt fan, and this fan is still unavailable. So if the front fan fails on one of these models, you still have to replace the whole drum drawer cover. Fortunately, there are relatively few of these older models out there. The more common later models of the 4500 (where the third character of the printer serial number is “H” or higher) and the 4550 all use a 12-volt fan. We at Liberty Parts Team are now pleased to be able to offer this fan, under the part number RG5-5152-FAN.

To install the fan, you first have to remove the drum drawer cover from the printer. This is relatively easy: first pull the drawer all the way open and remove the drum (cover it or put it in a dark place to avoid exposing the surface of the photosensitive drum to light). On the inner surface of the cover are two screws (see Figure 1) securing the cover to the drawer. Just to the outside of each screw is a black plastic peg or rod (part of the cover) that sits in a black plastic cradle (part of the drawer). Remove the two screws; then, facing the front of the printer, grasp the bottom edge of the cover and pull it down and toward you. Once it comes free, you can lift the pegs out of their cradles and remove the cover. If you have trouble removing the cover, check to make sure your printer is in the newer serial number range (the older “xxG” models had 4 screws securing the cover to the drawer).

Once you have removed the cover from the drawer, the next step is to separate the inner and outer parts of the cover. Again, this is easy: just remove 4 screws (see Figure 2) and lift the inner piece out.

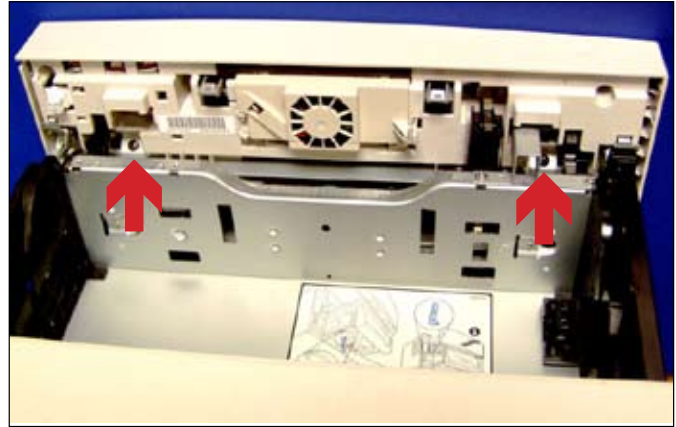


Figure 1 (arrows show screws securing cover to drawer)



Figure 2 (arrows show 4 screws to remove)

The next step is to turn this inner piece over and remove the metal shaft that runs the length of it (it is possible to replace the fan without removing this shaft, but getting the shaft out of the way makes the process easier). The shaft is simply press-fit into two grooves in the plastic. To remove it, just grasp the shaft and pull firmly upward until it pops out of the grooves. Note the orientation of the shaft, and be careful not to lose the large spring that’s attached to it. Next, remove the black plastic connector cover (one screw, one retaining clip – see Figure 3). Note that this cover also has two springs attached to it – observe their position and orientation.

Now you can get to the fan itself and its cabling. Lift the connector off its mounting posts and unwind the cable from the cable guides. Then turn the piece over and open the fan door by squeezing the retaining clip (see Figures 4 & 5). You should be able to remove the door completely by sliding it off its hinge supports and

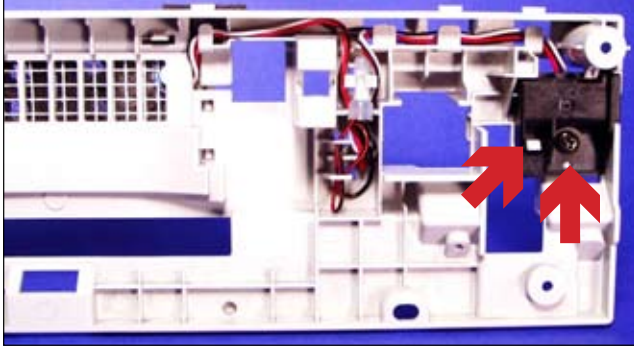


Figure 3: Connector Cover (arrows show screw and retaining tab)



Figure 4: Fan door and retaining clip (squeeze and pull to open door)

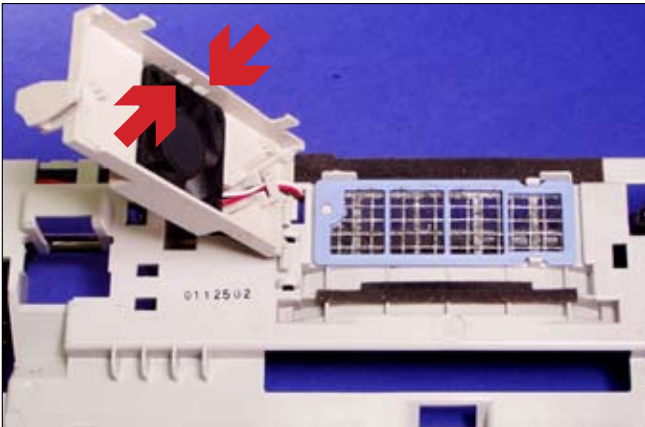


Figure 5: Opened fan door (arrows show 2 of 4 fan retaining clips)

threading the remaining cabling through the slot. Finally, remove the fan from the door by spreading the plastic and prying the fan past the retaining clips (be careful not to break the plastic).

Install the new fan into the door with the label down (you should not be able to see the label once the fan is installed), and oriented so that the fan cable exits through the cable trough in the door (as in Figure 5). After routing the cable through the trough and be-

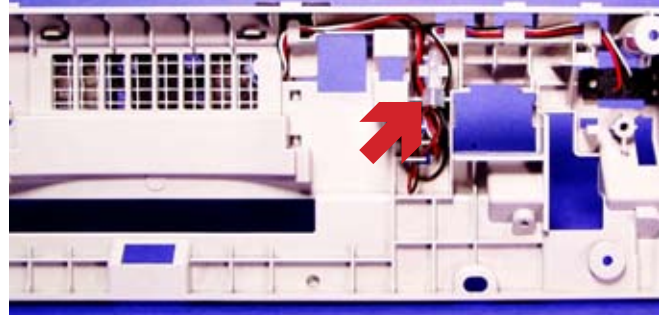


Figure 6: Placement of ground wire capsule (arrow), etc. Circles show where springs on connector cover go.

hind the cable guides, thread the remaining cable back through the slot in the main piece, and re-install and close the fan door.

Now flip the main piece over to the other side, route the remaining cable through the cable guides, and re-mount the connector. Partway through the cable harness is a plastic capsule in which the various ground wires are tied together. Make sure this capsule gets clipped into the special holder provided for it (see Figure 6, which also shows correct placement of the connector and cable routing). Our fans may have somewhat longer wires than the OEM fans – the extra wire can be tucked into the space below the capsule, as shown in the figure.

Now re-install the connector cover (the two springs should fit over the mounting posts that are circled in Figure 6) and the metal shaft with the large spring, and re-install the main plastic piece into the drawer, using the 4 screws that were removed earlier. Take care that the large spring doesn't fall off during installation. To re-mount the cover to the drawer, first seat the black plastic pegs/rods into their cradles, and then rotate the bottom of the cover into position. It should snap in. Put the two screws back in and you're done! Before closing the drawer, pull on the handle a few times and make sure the latching/unlatching mechanism is working properly. If the black plastic pegs/rods are properly seated into their cradles, pulling on the handle should release the latches on either side of the drawer.

This procedure will result in gigantic savings and profit for your company!

—Dennis Kosterman

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