The Laser Printer Tech Quarterly from Liberty Parts Team

Fall 2012

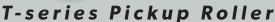
- CP6015, CM6030/40 "Internal Door 2 Open" • CLJ 4730 Fan ID
- Dissimilar Replacement Parts •New Product: P3015 fuser





CM6030/CM6040 Hard Drive

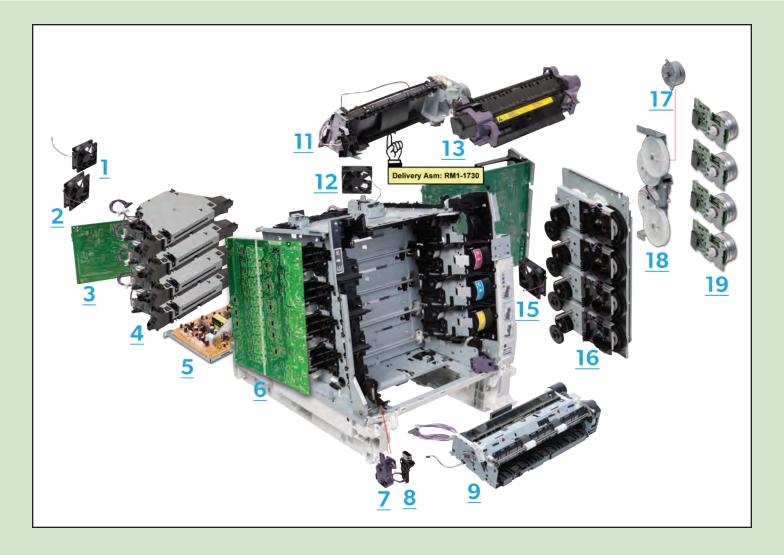






"THEY SENT THE WRONG PART!" Or did they?





Interactive Color Diagrams at Ibrty.com

• For 15 Groups of LaserJets (as of Aug. 2012)

8100/8150 9000/9040/9050 M3027/M3035 P3005 P4014/P4015/P4515

- Click on a part to see a larger image.
- New feature: Hover on a part to see its name and part number!
- It's free, along with manuals, tech articles, maintenance kit instructions, and part numbers at LBRTY.COM, the Liberty Parts Team web site.



NEW PRODUCT

LPT Offers P3015 Remanufactured Fusing Assembly

Our newest remanufactured fuser is the P3015, RM1-6274. We have tested it for over a year and are satisfied it will be a big success.

All LPT remanufactured fusers and other printer assemblies are made, tested and inspected in Madison, Wis., USA.





CORRECTION

The memory listings for the CM2320 are incorrect in the HP service manual. According to HP, the CM2320 and the CP2025 use Q1887 (64 MB) and C9121 (128 MB). These DIMMs are the wrong physical size and style.

Here are the correct part numbers and descriptions.

CB420	32 MB
CB421	64 MB
CB422	128 MB
CB423	256 MB

The 2013 edition of LPT's *Best Printer Quick Reference Guide* reflects these changes.



LPT SPECIAL

HP LJ 9000 MAINTENANCE KIT, (C9152A), NEW EXCHANGE

The price for new exchange (C9152A-NX) is \$399, while supplies last. Call your LPT account executive at 888-444-8778.



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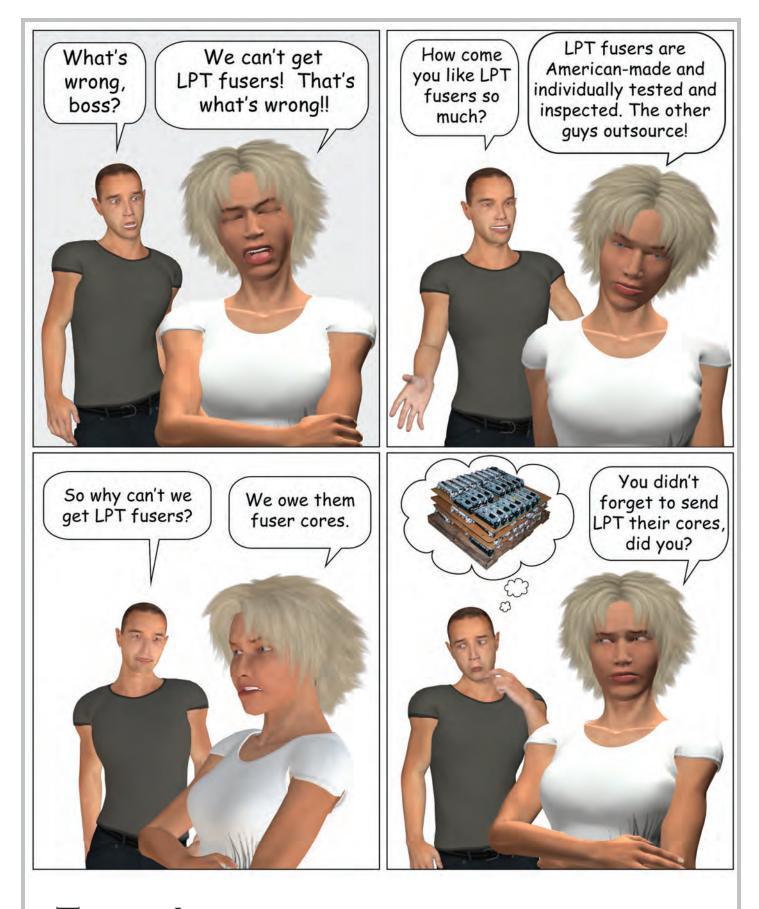
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THERE'S NO SUBSTITUTE FOR QUALITY

PRINTER REPAIR ARTICLE

HP CP6015, CM6030/40 "Internal Door 2 Open" Error

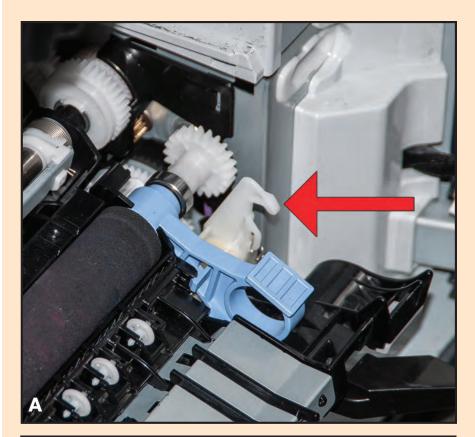
The "Internal Door 2 Open" error in these printer models occurs when the secondary transfer assembly does not latch properly, usually because one of the latching hooks is broken (Fig. A). The hook on the right side is more likely to break, because that is the drive side and gets much more stress. Either way, the solution is to replace the entire secondary transfer assembly (part number Q3931-67909), since the individual hooks are not available. Certain error codes (54.0E.03 on the CP6015, or 54.05.11 on the CM6030/6040) may also require replacement of this assembly. This article will show you how to remove and replace the secondary transfer assembly.

1. Remove the Transfer Roller.

- a. Open the right door, and then open the transfer assembly by lifting the green handle and pulling toward you.
- b. Remove the transfer roller by grasping the blue handles and pulling toward you (to re-install it, just line up the arrows on the roller housing with those on the transfer assembly, and push it in until it seats).

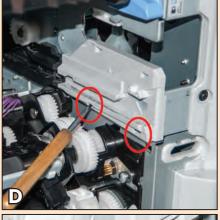
2. Remove the Intermediate Transfer Belt (ITB).

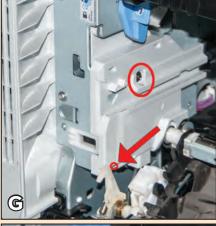
- a. Warning: the ITB...
 - 1. is heavy (about 15 lbs);
 - 2. is susceptible, like the transfer roller, to damage from skin oils; use the handles;
 - 3. is easily scratched, so store it in a safe place while it is out of the printer.

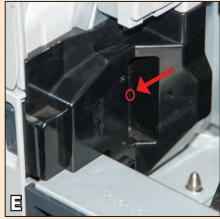


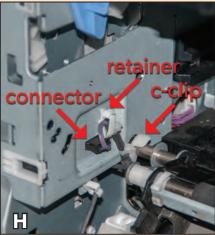


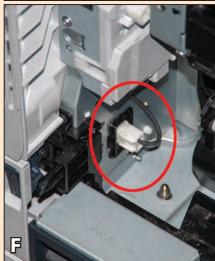


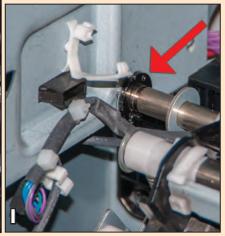














- **b.** Raise the ITB levers (Fig. B), then grasp the small blue handles and pull the ITB partway out.
- c. Use the larger blue handles on the sides (Fig. C) to pull it the rest of the way out. Make sure the levers are up when re-installing it.

3. Remove the plastic ITB guides and connector cover.

- a. With the secondary transfer assembly open, remove the right ITB guide by releasing two tabs along the bottom edge (Fig. D).
- b. Now close the secondary transfer assembly and release one tab (Fig. E) to remove the black plastic connector cover (lower left).
- c. Unplug one connector at lower left by squeezing the release tab (Fig. F).
- d. Open the secondary transfer assembly again, and remove the left ITB guide by removing one screw, releasing one tab (Fig. G), and lifting the guide out. It will come out easier if you rotate the bottom part of it out first, and then pull down. Conversely, when re-installing it, seat the top part first, making sure to get it behind the sheet metal plate.

4. Remove the secondary transfer assembly.

- a. On the left side, release one wire retainer, unplug one connector, and remove one c-clip (Fig. H). HINT: Rotate the c-clip so that the tab is on top for easier removal.
- b. Slide the bushing out onto the rod (Fig. I), and while tilting the feed guide backward (Fig. J), slide the entire secondary transfer assembly to the left. Then pull the assembly out of the printer, right side first.
- **5. Reinstallation.** Before installing the new assembly, check to make sure it has the black bushing on the left if not, transfer the one from the old assembly.

(continued on next page)

- a. To reinstall the secondary transfer assembly, insert the left end of the rod (Fig. K) into its hole and push it all the way over to the left.
- b. Then, while holding down the stopper arm (Fig. L) and pushing the feed guide up and back (Fig. M), rotate the right end of the assembly into position. You will need to pivot the rear gear to the horizontal position (Figs. N,O) and make sure it fits under the ITB rail (Fig P).
- c. Line up the right end of the rod with its hole, slide the whole assembly to the right to seat it in the hole (this may require some patience), and finally, reseat the bushing on the left end. The installed assembly is shown in Fig. Q.
- **d.** Re-install the c-clip and reverse the remaining steps from above to re-assemble the printer.

NOTE: After replacing the secondary transfer assembly, make sure to calibrate the media sensor: go into the Service menu, select CALIBRATE MEDIA SENSOR, and then run 10 jobs through the printer. Make sure that there is a pause after each job that allows the printer to completely spin down. After this process, the sensor is calibrated.



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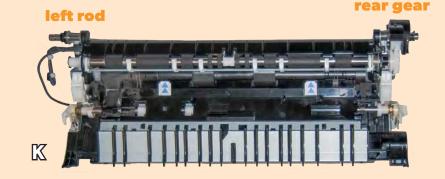
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Reinke

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Reinstall the Secondary Transfer Asm.







Holding down the stopper arm

Holding the feed guide





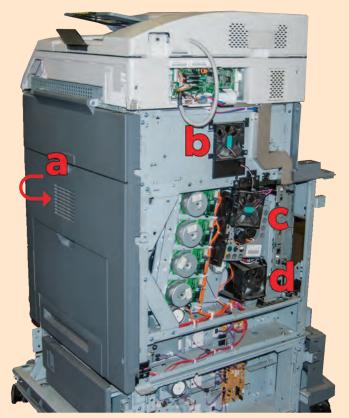


preparing the rear gear...

...to go beneath the



Installation complete.



RIGHT/REAR



LEFT

PRINTER REPAIR ARTICLE

CLJ 4730, CM4730 Fan Identification

Large printers have a lot of fans. The HP CLJ 4700 family has nine, if you include the one in the optional duplexer.

As with all LaserJets, if a fan fails, the control panel displays a 57.xx code to tell you which fan has failed. One consults the Control Panel Messages section of the service manual to see which fan is indicated by the code. In this case, there is a problem: there is no easy way to tell which fan to order. For example, the 57.06 error is associated with "Control Fan 2," wherever that might be. The part number lists are of little use because all fans are described simply as "Fan."

But not to worry. We at Liberty Parts Team have completed the picture by providing the part numbers, as well as figures, with the correspondences. Just match the letter assignments below with those in the figures.

LPT

Code	Ltr	Part #	Location
57.01	9	RM1-2178 [fan and duct asm]	Delivery
57.03	С	RK2-0621	Sub-power supply
57.04	h	RK2-0623	Cartridge
57.05 or 57.05A	*	RK2-0648	Duplexer fan (*not shown, above fuser, below scan- ner/ADF)
57.06	f	RK2-0621	"Control 2"
57.07	е	RK2-0621	"Control 1"
57.08	а	RK2-0622	ETB
57.09	b	RK2-0621	Fuser
57.0A	d	RK2-0622	Power supply

PRODUCT INFORMATION

Wrong Part?

Some parts have very dissimilar replacements

When a replacement part we've ordered does not resemble the original part, we naturally become anxious and wonder if we've been sent the wrong part. As you will see in this article, replacements parts don't necessarily have to look the same to perform properly.

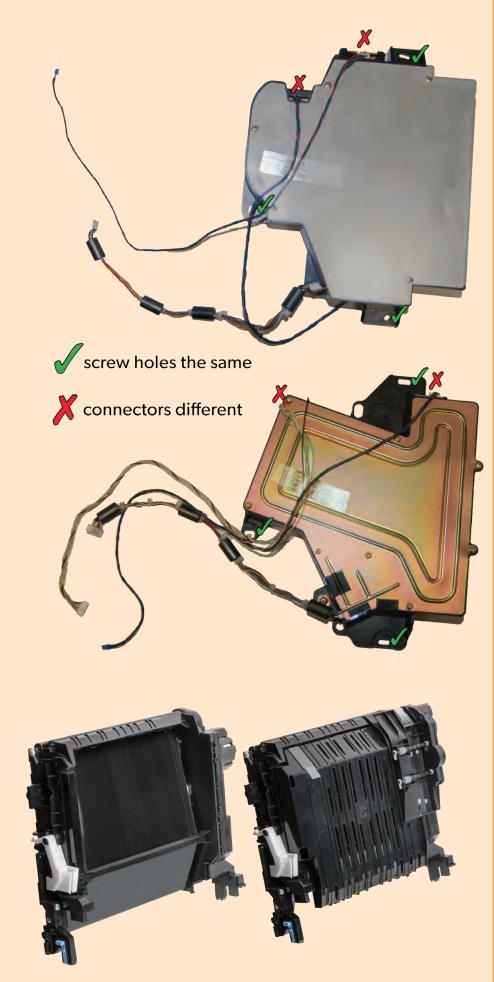
Readers of this publication will recall



the radically different replacement cassette rollers for the Lexmark T-series, the hole of which does not go all the way through, and which is of different color and texture. Yet these new rollers work on every Lexmark T-series printer.

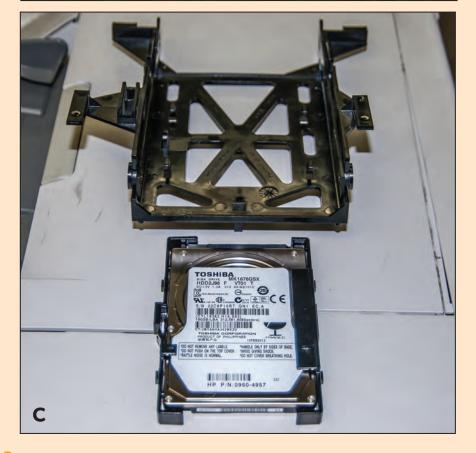
Some T-series printers have printheads in two radically different versions. In the case of the T630 (56P1396) there are difference in color and cable location that have prompted customers to try to return their replacement. A clue that all is well is the screw holes, which match perfectly.

Customers can be perplexed when receiving a duplex ETB for their CLJ













RM1-0001, 4200/4300 version

3600/3800/CP3505 printer instead of a simplex one. The duplex version, RM1-2752, is compatible with simplex machines, which is fortunate because the simplex ETB has increased in price.

Sometimes merely a slight difference is alarming. The original main drive assembly for the LJ 4200 was replaced by a version compatible with the 4300. Since the cartridge motor attached in a different location, a second mount hole was added, which overlapped with the original. One of the holes is covered with tape, depending on the model, allowing the customer to remove it if necessary.

Careful comparison will generally yield a clue to the compatibility of the two parts. Fig. A shows a 3.5 inch hard drive (Q3938-67961) installed on a CM6030/CM6040 formatter. The smaller hard drive to its left is its 2.5 inch replacement (Q3938-67985). If you'd been sent this skinny hard drive, you'd certainly suspect some sort of mistake. However, note the two connectors on the replacement. They seem to match

the cables plugged into the original. The trick is to get the smaller drive to mount in the plastic bracket.

Here's how to replace the larger hard drive with the smaller.

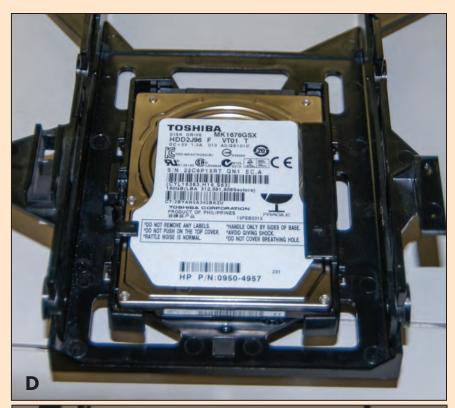
PRINTER REPAIR ARTICLE

CM6030/CM6040 HD Replacement

- 1. First, disengage the bracket by rotating the free end of the hard drive up away from the formatter, and then lifting (Fig. B). Then unplug the two cables.
- 2. To remove the hard drive itself from the bracket, you need to remove 4 screws, two on each side. It is possible that different brackets may use different types of screws. On our test bed, they were Allen-head screws, and we used a 7/64-inch Allen wrench (or hex key) to remove them. Once the screws are out, you can lift the hard drive out of the bracket.
- 3. The smaller hard drive clips into four retainers on the bottom of the bracket. Line up the hard drive and bracket as shown in Fig. C, making sure that the connectors are facing away from you, and then slide the hard drive into the bracket until it locks in. When finished, it should look like Fig. D.
- 4. Finally, plug the cables into the connectors on the new hard drive, and re-mount the bracket to the formatter. Fig. E shows the smaller hard drive completely installed.

LPT

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They are ill discoverers that think there is no land, when they can see nothing but sea. -Francis Bacon (1561-1626)

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