

PRINTER TECH ARTICLE

Paper Jam Troubleshooting in the LJ 42xx, 43xx

This is a method for troubleshooting the 13 paper jam in the HP LaserJet 4200/4300 and 4250/4350/4340.

0. WHICH KIND OF JAM?

- A. Look for jammed paper under the registration flap (beneath the toner cartridge), by the cassettes, and in the fuser. If you find any, go to step I.
- B. If there isn't any jammed paper, disconnect the printer from the computer or network, and restart it. *This prevents print jobs from interfering with the troubleshooting.*
 - a. If the error occurs at power-up (AND no paper is stuck inside), go to step II.
 - b. If the error only occurs after sending a print job (AND no paper is stuck inside), go to III.

I. PAPER IS FOUND IN PATH

A. Paper is crumpled.

1. If the paper is folding or crumpling, you can usually find the problem at the leading edge of the paper. This could be a worn or non-turning roller, an obstruction in the paper path, or a result of paper skewing outside of the paper path.

B. Paper is not crumpled.

1. See where the paper stopped. If the leading edge stops just after a sensor, that sensor is probably malfunctioning. Go to step II.
2. Replace any worn or slick rollers, especially the pickup rollers.
3. Run paper through all the possible paths, input and output.
 - a. If the jam occurs in all paths, look at the registration area and the fuser.
 - b. If the jam only occurs in certain paths, look

at the pickup and feed rollers associated with the problem path.

NOTE: Remove jammed paper from the fuser carefully to avoid tearing the sleeve.

4. Inspect the printed image.

- a. If the page, or part of the page, is past the toner/transfer area and is blank, either the timing is so far off that the printer didn't even attempt to generate an image, or the input sensor did not "see" the paper. In either case, the problem is usually in the input section, even though the paper may be found considerably farther along than that.
- b. If the image is shifted up or down on the page, replace the registration assembly, which controls image position.

5. Extra Sheet. A common scenario for these models is for the printer to feed an extra blank sheet at the end of a print job. This page will then jam in the fuser. This typically happens from one input tray only, most commonly tray 2. The usual cause is a sticky pickup solenoid, which needs to be replaced.

II. STARTUP JAMS: ERROR OCCURS ON POWER-UP (NO PAPER FOUND). *This always involves one or more of the printer's paper movement sensors.*

A. An actuator arm is stuck or broken. This is the most common cause. There are three places to check.

1. Paper Feed Area.

- a. Remove the tray 1 pickup assembly to access the paper feed area. Using the instructions in the manual, this takes about 10 minutes.
- b. Locate the actuator arm, shown in Fig. A, and try to move it with your finger. If it won't move or if spring tension doesn't snap it back into place when released, order LPT's

SERVICE EDGE is the quarterly laser printer tech bulletin of Liberty Parts Team, Inc.

Editor-in-Chief: David K. Reinke

Editor: Robert Reinke

Writers: Dennis Kosterman, Robert Reinke

©2011 Liberty Parts Team, Inc.



A. Feed Sensor Flag

remanufactured paper feed assembly, which includes the actuator arm and spring, RM1-0012-R. The optical sensor is part of the transfer assembly. Note that the spring must be installed with the tail tucked back into the transfer assembly to maintain tension.

2. Registration area.

- a. Remove the toner cartridge and lift the metal flap with the green handle.
- b. Move the center sensor flag with your finger to see if it snaps back in place. If it doesn't, replace the transfer assembly. There are either two or three sensors under this flap, depending on the specific printer model. Only the center one can cause a paper jam error. The other sensor or sensors are for paper width sensing. For more information, see the article on page 8.

3. Fuser.

- a. Move the sensor actuator arm on the exit side of the fuser. If it doesn't snap back into place, replace the fuser.
- b. Check the part number on the label to make sure the correct fuser is installed. (See p. 10).

B. An optical sensor has failed (very rare unless it's physically cracked or broken).

C. The DC controller board is defective

D. There is a bad electrical connection between one or more sensors and the DC controller.

III. ERROR OCCURS AFTER PRINT JOB IS REQUESTED (NO PAPER FOUND). This always indicates a paper pickup failure. Some common causes:

A. With tray 1 open and empty, print a configuration page and see if the pickup roller turns (it's not supposed to when the tray is empty). If it turns, replace the tray 1 pickup assembly, which has a malfunctioning paper out sensor.

B. Replace any pickup rollers that have been worn slick.

C. The pickup roller is not turning.

1. Tray 1 pickup roller not turning after a print job is sent to it.

- a. Replace the tray 1 pickup asm, which has a defective mechanism.
- b. Replace the DC controller (rare).

2. Cassette pickup roller not turning after a print job was sent to it. The pickup mechanism is not available as a complete assembly, but only as a collection of individual parts. So you will need to do some troubleshooting.

- a. Remove the top and right covers, then re-install the top cover. Print a configuration page and observe the pickup drive assembly. This gearbox is in the lower left corner as you face the right side, below the main drive asm (fig. 4, p.6). Replace it if there are gears that are grinding or not turning.

b. The pickup solenoid makes a loud click when the paper is being picked up. If there is no click, or if the mechanism is not moving during the print job, replace it.

c. Replace the swing plate (RL1-0013) and 18-tooth gear (RU5-0045) This swing plate is a different part than the swing plate asm. It is a small blue-and-white assembly between the pickup and feed rollers.

D. In the front of the cassette, remove the separation roller and torque limiter and re-install the roller only. If the printer feeds normally in this configuration, the torque limiter is defective. *The separation roller and torque limiter work together to prevent multi-feeding. Sometimes, the torque limiter can overdo its function and not even allow a single sheet to get through. In this case, the paper will feed up to the separation roller, stop there, and often fall back into the cassette – leaving the impression that it never got picked up at all.*

