

PRINTER TECH ARTICLE

Replacement of Tray 1 Sub Pads in LJ 5000/5100

Most HP Laserjets prevent MP tray multi-feeds by means of a separation pad below the pickup roller, and the typical cure for multi-feeding is to replace the roller and pad.

The LaserJet 5000 and 5100 also have “sub pads” on either side of the main separation pad which also help prevent multi-feeding. Removing and replacing these sub pads is more involved, which makes it tempting to roll the dice and see if replacing the separation pad and pickup roller does the trick. This is a mistake, leading to callbacks, more service calls, doubts about part quality and loss of customer confidence. **In the event of multi-feeding, you should replace the roller, the main pad, and the sub pads at the same time.** This article will show you how.

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

1. 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. A).
- Remove two screws in the front, near the door hinges (Fig. B).
- Remove two screws in the back (Fig. C).
- As you lift the cover off, disconnect the control panel cable in the left rear.

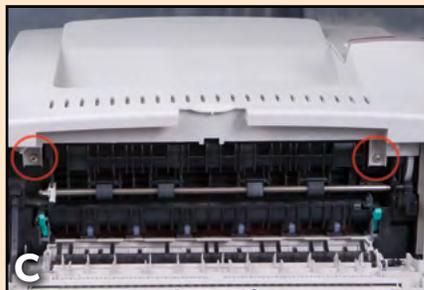
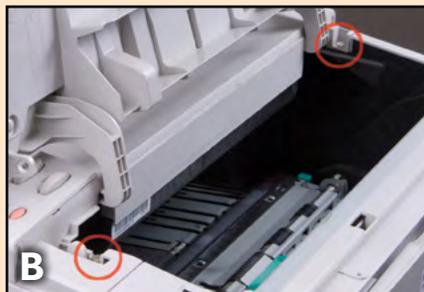
2. Remove the left & right side covers:

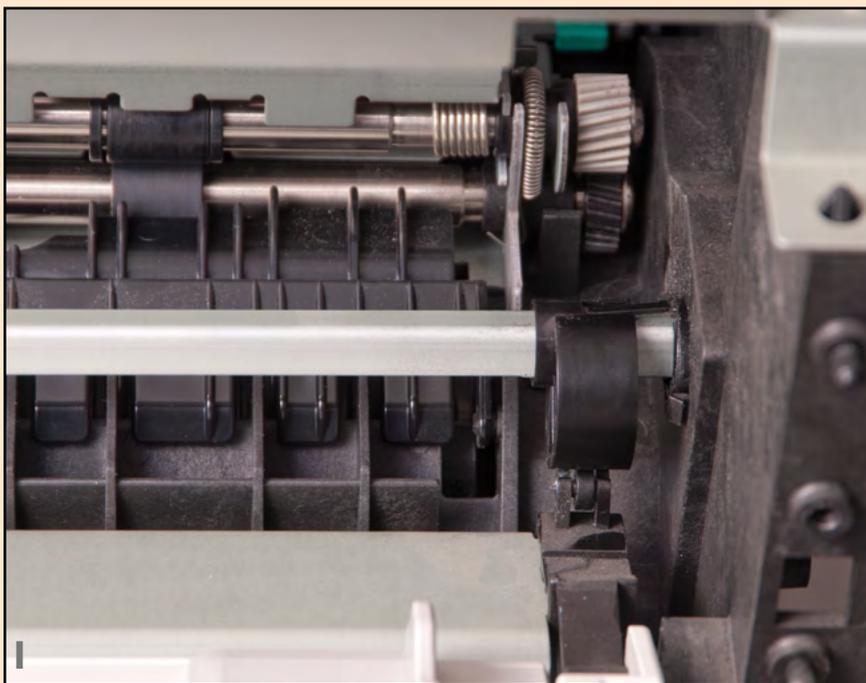
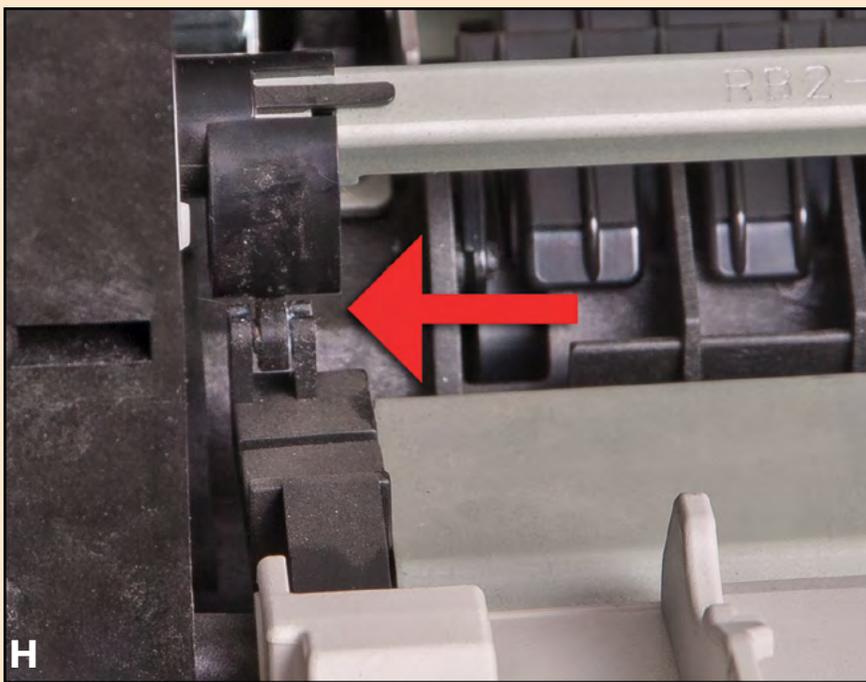
Release one retaining tab near the center of the top edge. Then grasp the upper front and lower rear corners of the cover and gently rock it back and forth to free two remaining tabs (one in the front and one in the back), and lift it off. When re-installing, seat the bottom

THIS ISSUE: HP LJ 5000, 5100

In recent issues we have been summing up known issues with older printer models. Combining recent discoveries with long-established information, these articles will help experienced techs brush up while bringing new printer techs up to speed.

The 5000 and 5100 are similar. The 5000 is a 17 ppm monochrome laser printer introduced in 1998. It can accept 5100 fusers. The 5100 is 21 ppm and was introduced in 2003. Fusers for the 5000 are not compatible with the 5100.





hooks first, then snap the cover into place.

3. Partially Remove the paper-handling PCA: This green board is on the left side of the printer, near the front. Remove two self-tapping screws and two machine screws (Fig. D) and rotate the board away from the printer.

4. Remove the front inner cover: Remove two screws (Fig.E) and pull the cover off. Be careful to feed the left end of the tray 1 paper-out sensor flag through the hole in the frame when removing this cover, and again when re-installing it.

5. Remove the tray 1 P/U roller shaft: First, observe its alignment. You will need to match these alignments when you re-install the shaft.

- a. The gear on the left end of the shaft (on the outside of the printer chassis) has a cutaway section (no teeth) that faces the adjacent gear. It is held in this position by a white plastic lever, which is in turn held in position by a cam and solenoid (Fig. F).
- b. There is a black plastic cam on each end of the shaft (inside the printer chassis). These cams should be extending downward and holding the metal lift plate down, as in Fig. H.
- c. To remove it, first remove the black plastic collar on the right end (on the outside of the printer chassis) by lifting the release tab (Fig. G) up away from the shaft and sliding the collar off. Now raise the green center handle of the registration assembly and use the same procedure to release the collar on the inside of the chassis (still on the right side) (Fig. I), and slide it to the left a few inches (Fig. J).
- d. The next step in the service manual is to remove the gear from the left end of the shaft, but that would require also removing the pickup gear assembly. We can accomplish the same thing with much less work by simply spreading the two release tabs

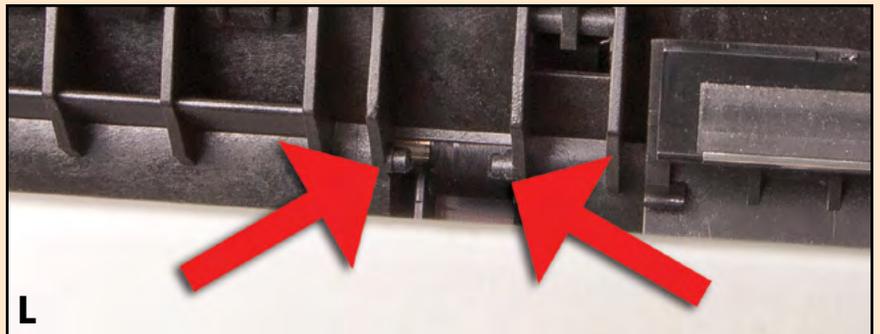
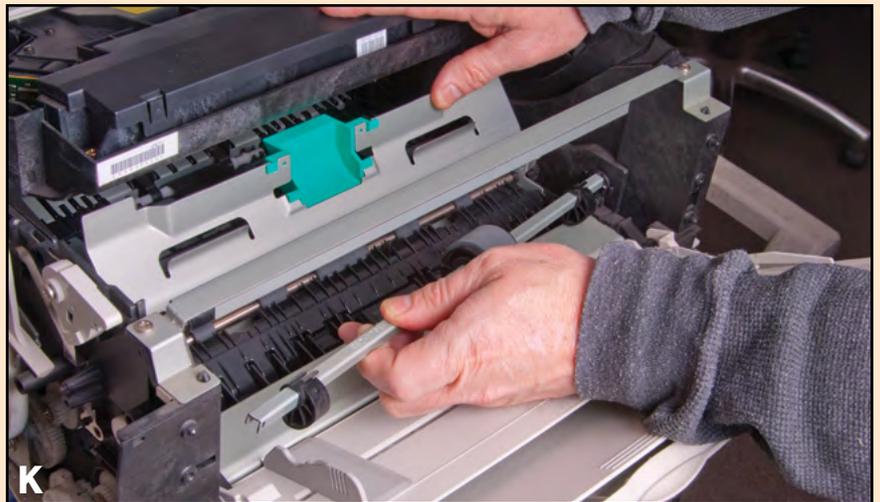
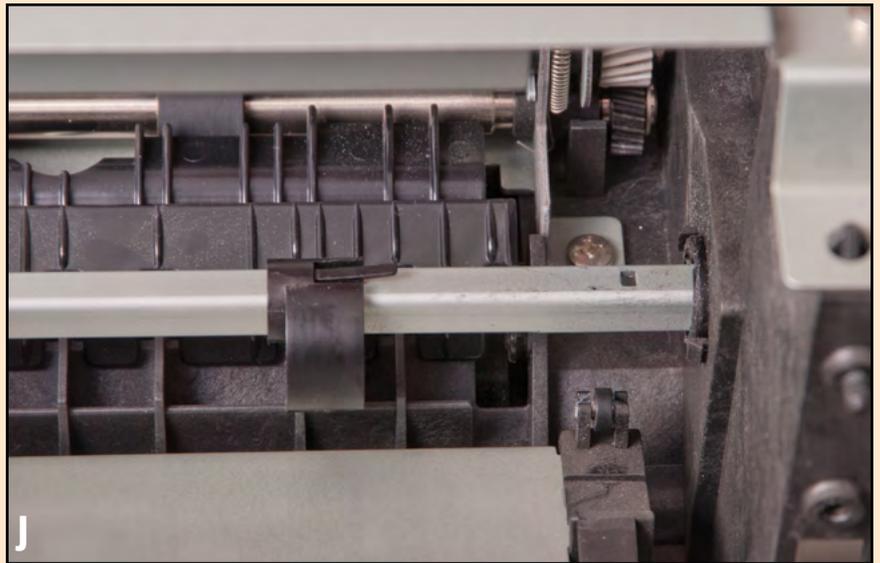
on the gear (Fig. F) and pulling the shaft to the right to release it from the gear, leaving the gear in place. Pull the shaft far enough to the right to clear the left chassis wall, then angle the left end toward you and pull to the left to remove the shaft from the printer (Fig. K).

6. Remove the sub pads:

To access the sub pads, raise the green center handle of the registration assembly, then press down on the main separation pad to release the lift plate, and finally, raise the lift plate. Observe the position of the large spring under the lift plate – it can become dislodged during this operation. Each sub pad is mounted on two plastic pins (Fig. L). To remove either pad, squeeze the sides together to release them from the mounting pins. It may be easier to release one side at a time. After replacing both pads, push the lift plate back down until it locks into place beneath the main separation pad (making sure that the big spring under the lift plate is properly centered). It should look like Fig. M. Then reverse the above steps to re-assemble the printer, taking care to observe proper alignments of the shafts, rollers, gears, etc.

Part numbers

- Tray 1 Pickup Roller: RB2-1820
- Tray 1 Separation Pad: RF5-3439
- Tray 1 Sub Pads: RF5-4117



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