# HP® 2100 Remanufacturing Instructions



Oasis Imaging Products, Inc. Technical Support: (800) 322-8992

**Reference Information:** 

OEM P/N: C4096A OEM Yield: 5,000 pgs. @ 5% coverage. Approx. Remanufacturing

Time: 25 min.

### **Materials Needed:**

Toner
Drum (if needed)
PCR (if needed)
Replacement mylars (if needed)
Wiper blade (if needed)
Lint-free cloth P/N: 99CL14
Cotton swabs P/N: 99CL23

99% Isopropyl Alcohol
Oasis Conductive Grease P/N: 99MS11
Oasis PCR Cleaner P/N: 99MS21

# Tools Required:

Needle nose pliers #2 Phillips screwdriver # 1 Flat tip screwdriver Razor knife



**Hewlett Packard® 2100 Cartridge** 

#### Instructions:

The Hewlett-Packard® LaserJet 2100 laser printer uses a typical HP cartridge in that the toner hopper and the drum/waste hopper are located in one disposable unit. The toner hopper contains the toner reservoir, the doctor blade, the toner low sensor bar and the magnetic roller assembly. The drum/waste hopper contains the drum, the wiper blade, recovery blade and the waste hopper. Also, the retractable drum shutter is attached to the toner hopper and must be removed to avoid damaging the OPC drum. The cartridge halves are held together by a pair of retaining pins; one on each end of the cartridge. The retaining pins are not tapered at the ends like the 4000, but cannot be pushed through because they hit the end of the wiper blade.

## **Separating Cartridge Halves**

- 1. In order to separate the two halves the pins must be removed. The pins in the LJ2100 cannot be pushed in from the outside because the wiperblade bracket is in the way (fig. 1).
- 2. Without making any modifications to the cartridge you will find that the drum shutter door is not removable at this time. The waste hopper has a plastic protrusion that inhibits the removal (fig. 2).
- 3. Pull back the OPC shutter and tape it back out of the way. Next pull the axle pin out of the small gear side of the drum (fig. 3). In addition, it is a good idea to remove the axle plate on the opposite side to prevent any damage to the OPC on removal. After the two pieces have been removed, lift out the OPC and inspect for damage. Replace if damaged (fig. 4)

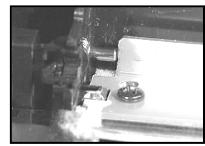


Figure 1

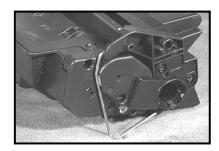


Figure 2



Figure 3



Figure 4

4. Next, remove the PCR. Be sure to grab it by the axle ends and not the rubber coating (fig. 5).

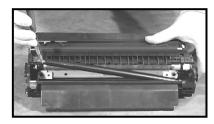


Figure 5

5. Now you can see the two pins on either side of the wiperblade (fig. 6). Using a flathead screwdriver you can pry the pins out far enough so they can be pulled the rest of the way out using a pair of wire cutters.



Figure 6

6. When both pins are removed, separate the cartridge halves. **Note:** The drum shutter is still in place, so use caution when separating the halves. Set the toner hopper aside (fig. 7).



Figure 7

## **OPC/Waste Hopper**

- 1. Clean, inspect and lubricate the drum; replace if necessary. Wrap the drum in a clean, lint free cloth or store in a drum case to minimize light exposure.
- Apply a small amount of quality PCR cleaner to a clean, lint-free cloth and gently wipe the entire surface of the PCR. Make sure any residual toner and/ or cleaner is completely removed to ensure that proper voltage is maintained.
- 3. Remove the two- (2) screws securing the wiper (fig. 8). Then remove the recovery mylar from the waste hopper. Clean out the hopper with compressed air or a vacuum. Next, remove all adhesives from the recovery blade mounting surface, and carefully apply a new recovery blade. Inspect, lubricate and re-install the wiper blade; replace if necessary.



Figure 8

4. Clean the black PCR saddle clip with a cotton swab and 99% IPA (fig. 9). This clip is conductive and supplies the current to the PCR. If it is dirty or the PCR does not make good contact, print defects will occur. Re-install the PCR and OPC. Rotate the OPC against the wiper blade and then remove residual lubricant (padding powder) from the surface of the PCR with a clean lint-free cloth. Any padding powder left on the PCR will cause print defects. Set the drum unit aside and cover it with a clean cloth to protect it from light and physical damage.



Figure 9

#### **Toner Hopper**

Gently pry the drum shutter arm from the right side of the cartridge being careful not to lose the tension spring located in the receptacle at the top of the arm (fig. 10). When the arm is free, remove it from the shutter clips and set it aside (fig. 11). Now remove the silver retaining arm by gently pulling on the left and right side out away from the toner hopper.

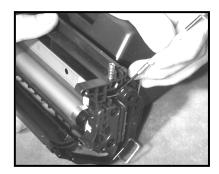


Figure 10



Figure 11

 Place the toner hopper on the work area with the magnetic roller facing you. Remove the two (2) screws from the left side of the cartridge (Fig. 12). Next, remove the left end-cap in an up-right position to prevent the gears from falling off (Fig. 13).



Figure 12

3. Carefully remove the magnetic roller by first lifting the left end of the roller and then gently pulling it to the left. Note the location of all peripheral components on the mag roller (bushings, brackets, etc. Use compressed air to remove all residual toner from the surface of the mag sleeve and inspect for damage. Set mag sleeve aside or replace if necessary.

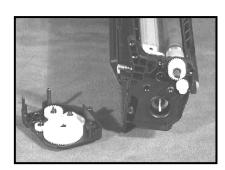


Figure 13

4. Remove the two (2) screws holding the doctor blade in place (fig. 14). Use compressed air or a vacuum to remove residual toner from the blade. Inspect the mag roller mylar for damage and replace if necessary.

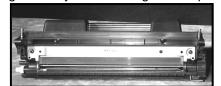
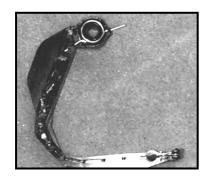


Figure 14

- 5. Clean the bias charge contact with a cotton swab and alcohol (fig. 15). At this time, fill the hopper with toner through the mag roller slot or. If you are going to split and seal the toner hopper, proceed to the hopper sealing section.
- 6. Re-install the doctor blade and secure with two (2) screws. Re-install the mag sleeve (make sure you replace the nylon brackets and bushings on each side. Note: Both ends of the mag roller are "keyed" and must be in the proper position while reinstalling it. Once the mag sleeve and all peripherals are in place, position the end cap on the left side and secure with two (2) screws.
- 7. Install the left and right ends of the silver shutter. Now align the tension spring in the receptacle of the drum shutter arm: the far side of the spring must press down into the shutter arm and the near side must rest on the notch on the right side of the receptacle (fig. 16). Affix the drum shutter arm onto the right side of the cartridge ensuring the exposed end of the spring sits on the notch indicated (fig. 17). Pull arm back slightly and slowly release the arm. The leading end of the arm should snap forward past the front of the hopper, if not; reseat the arm and try again. When the spring and shutter arm are positioned properly, insert the piton at the end of the shutter arm into the shutter clips.
- 8. Place the cartridge halves together and avoid damaging the springs on top of the toner hopper. Align the pin holes on each side and insert the cartridge pins to hold the halves together.

Figure 15



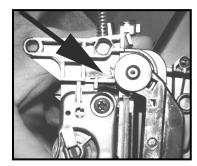


Figure 17

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