

# HP® 4000 Remanufacturing Instructions



Oasis Imaging Products, Inc. Technical Support: (888) 627-6555

## Reference Information:

OEM Part Numbers:

C4127A

C4127X

OEM Yields:

(27A) 6,000 pages @ 5%

(27X) 10,000 pages @ 5%

## Tools Required:

Oasis Pin Removal Tool (H4TL10)

# 2 Philips Screwdriver

# 1 Flat Tip Screwdriver

1/8" Punch or smaller

## Materials needed:

Toner

Drum (if needed)

PCR (if needed)

Replacement mylars (if needed)

Wiper Blade (if needed)

Lint free, Wax free wipes

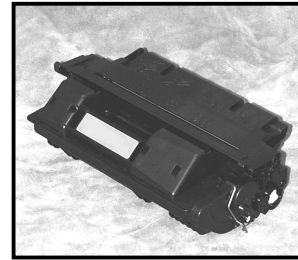
Cotton Swabs

99% Isopropyl Alcohol

Oasis Conductive Grease

Oasis PCR cleaner

Oasis HP4 Cartridge Pins (H4PN10)



## Approximate Remanufacturing

Time: 25 min.

## Instructions:

The Hewlett Packard® LaserJet 4000 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 prior to disassembly 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 flared at the ends and cause damage to internal components if pushed into the cartridge and therefore must be removed from the inside.

### Separating Cartridge Halves

1. Insert the H4TL10 into the laser port on top of the cartridge as shown in (Fig. 1). The pegs on the angled portion of the tool should be aligned with the cartridge pins. Due to the variances of the cartridges, the pegs on the H4TL10 may not line up exactly, but after remanufacturing a few cartridges, you will get the "feel" of the pins.
2. Move the H4TL10 to the right side of the cartridge until it stops. Hold the handle opposite the pin to be removed (position your thumb in the middle of the top of the tool (Fig. 2), and begin applying pressure to the pin. The OEM pins may require a substantial amount of force before they will dislodge. If the pin does not move, reseal the H4TL10 and try again. With some practice, you will begin to acquire a "feel" for the proper placement of the tool and the amount of pressure needed to remove the pins.
3. Once the right pin has been dislodged, move the H4TL10 to the left side until it stops. Hold the handle opposite the pin to be removed (position your thumb so that it is in the middle of the top of the tool Fig. 3), and begin applying pressure to the pin.

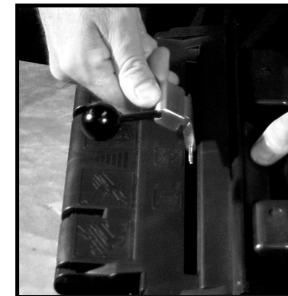


Figure 1

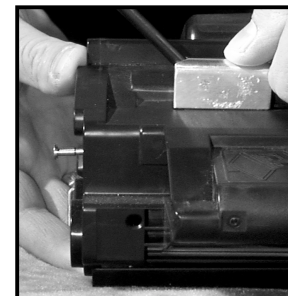


Figure 2

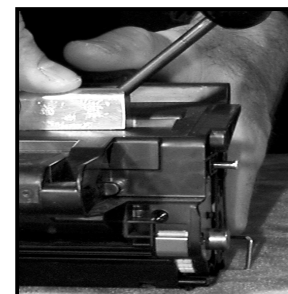


Figure 3

- 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.

### OPC/Waste Hopper

- Remove the two (2) screws securing the drum retaining plate (Fig. 4). Remove the OPC drum from the waste hopper. Clean, inspect and lubricate the drum; replace if necessary (PN# H4DR10). Wrap the drum in a clean, lint free cloth or store in a drum case to minimize light exposure.
- Remove the PCR from the waste hopper and inspect for excessive wear; replace if necessary (PN#H4CR10). 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.
- Remove the two (2) screws securing the wiper blade (Fig. 5). Then remove the recovery mylar from the waste hopper. Clean out the hopper with compressed air or a vacuum. Next, remove all adhesive from the recovery blade mounting surface, and carefully apply a new recovery blade. Inspect, lubricate and re-install the wiper blade; replace if necessary (PN# H4RB10).
- Clean the black PCR saddle clip with a cotton swab and 99% IPA (Fig. 6). 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 4

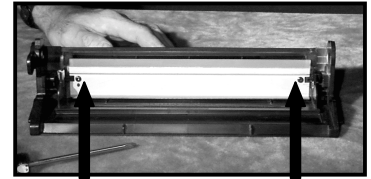


Figure 5



Figure 6

### 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. 7). When the arm is free, remove it from the shutter clips and set it aside (Fig. 8a). Now remove the silver retaining arm by gently pulling on the left side while rotating the arm back and upward. **Note:** The left side of the silver retaining arm is keyed, and must be rotated in order to release the keyed portion (Fig 8b).
- 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. 9A) and release the clip (Fig. 9B). Next, remove the left end-cap (keep it in an upright position to prevent the gears from falling off Fig. 10). 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 (Fig 11). Use compressed air to remove residual toner from the surface of the mag sleeve and inspect for damage. Set mag sleeve aside or replace if necessary (PN# H4MR10).
- Remove the two (2) screws holding the doctor blade in place (Fig. 12). Use compressed air or a vacuum to remove residual toner from the blade; replace if necessary (PN# H4DB10). Inspect the mag roller mylar for damage; replace if necessary (PN# H4MY10). Clean the bias charge contact with a cotton swab and alcohol (Fig. 13). 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.

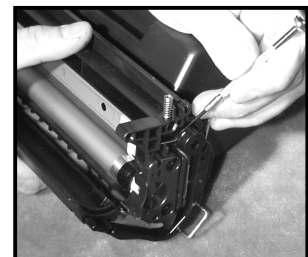


Figure 7



Figure 8a

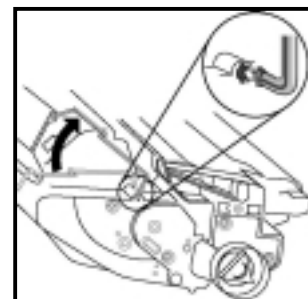


Figure 8b

4. 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 during reinstallation. Once the mag sleeve and all peripherals are in place, position the end cap on the left side and secure with two (2) screws.
5. Install the left and right ends of the silver shutter retaining arm (note the keyed tip on the left end). 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.14). 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.15). Pull the 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; reseal 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 (see fig 8a).
6. 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 (PN# H4PN10) to hold the halves together.

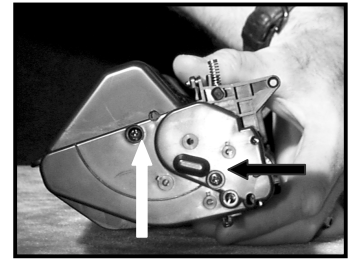


Figure 9a

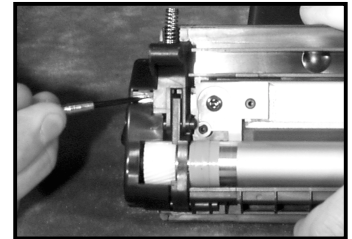


Figure 9b

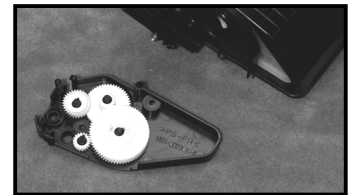


Figure 10

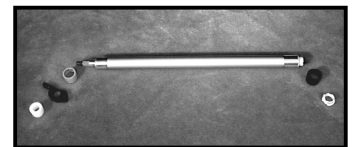


Figure 11



Figure 12



Figure 13



Figure 14

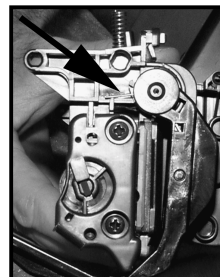


Figure 15