

Optra™ E Remanufacturing Instructions



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

Reference Information:

OEM Part Numbers:

Toner hopper: 69G8256

OPC unit: 69G8257

OEM Yields:

(G256) 3,000 pages @ 5%

(G257) 20,000 pages @ 5%

Materials Needed:

Toner (90 g)

OPC (if needed)

Lint-free, wax-free cloths

Cotton swabs

Conductive Grease

Recommended Tools:

Phillips head screwdriver

Spring hook

Needle-nose pliers

Approximate Remanufacturing Time:

Toner Hopper- 25 min.

OPC Unit- 20 min.



Optra E Cartridge

Introduction

The Lexmark OPTRA E™ laser printer uses a two component system to conduct printing operations. While these two cartridges are relatively new, the technology they employ is not. Many of the components in these two hoppers are similar to those found in the Epson ActionLaser™ 1000/1500. This is not surprising since the engine is a Minolta™ design. The developer roller assembly consists of a foam substrate within a thin, flexible plastic sleeve. The doctor blade, like that in the Epson™, is a T-shaped aluminum configuration which is very susceptible to scratches and dings. The OPC unit has a charge roller which vaguely resembles the charge brush assembly also found in the Epson™. The charge roller is functionally similar to that found in an EX, but is physically different from anything on the market to date. Another oddity of the OPTRA™ E OPC unit is the fact that there is no waste hopper associated with it. Apparently no waste toner is produced during printing with the OEM product.



Figure 1

Disassembly Instructions - Toner Hopper

1. With the developer roller facing you, locate and remove the hopper plug on **Figure 2** the left side of the cartridge (FIG 1). Remove the plug and evacuate all remaining toner from the hopper. Be careful to avoid damaging internal hopper components.
2. Lift up the shutter assembly and hook it over the handle on top of the cartridge. It will be necessary to move the left arm of the assembly out slightly to avoid damaging the stops (FIG 2).
3. Using a spring hook, free the top of the springs on the face of the toner hopper (FIG 3). Do not allow the springs to scratch the surface of the developer roller. On each end of the developer roller there are retaining bushings, each with a finger pointing in toward the center of the hopper (FIG 4). Gently rotate the bushings (fingers) toward you until they are free, and then remove them. The developer roller is now free and can be removed. Utmost care must be taken to avoid damaging the delicate surface of the roller; even a slight scratch can impair print quality. On each end of the developer roller you will find clear (or white) mylar spacers. Save the spacers for use during reassembly.
4. Carefully remove the developer sleeve from the foam substrate and place it over a wooden or metal dowel (an EX size mag sleeve or PCR will work as a substitute for support during cleaning (FIG 5). Gently clean the surface of



Figure 1



Figure 3



Figure 4

the sleeve with 99% Isopropyl Alcohol and a clean, lint-free cloth. The developer roller sleeve is very delicate and great care must be taken to avoid scratching or crimping it. It is important to remove the sleeve from the substrate prior to cleaning it because if any alcohol contaminates the substrate, it will be unusable. To clean the substrate, gently blow it off with compressed air. Place the sleeve back on the substrate, replace the mylar spacers and set the entire assembly aside.

5. Remove any residual toner from the development area (located behind the developer roller) to prevent cross contamination. **Note:** The black mylar strip along the bottom and the clear mylar strip on the inside (FIG 6) are easily damaged.

Reassembly - Toner Hopper

6. Replace the developer roller assembly ensuring the top of the mylar spring catch protrudes over the top of the roller (FIG 7). When replacing the retaining bushings, take note of the small tab on the inside face of the left bushing and the corresponding slot on the cartridge (FIG 8). Both bushings must be placed on the developer roller shaft with the fingers slightly forward. Lock the roller in place by rotating the fingers back toward the cartridge.
7. Affix one end of each spring to the mylar spring catch and the other end to the cartridge face. The mylar catch goes over the top of the bushing fingers holding them in place (FIG 9).
8. Fill the cartridge with 90 grams of a quality toner and then replace the hopper plug. Wipe residual toner from all exposed surfaces of the cartridge (especially the contact points). The toner hopper is now ready for use.

Disassembly - OPC Unit

9. Hold the OPC unit by the large tabs with the copper contact end to the right. Remove the two screws that hold the shutter bracket in place on each end of the cartridge (FIG 10a & 10b).
10. On the right end of the OPC unit, remove the screw holding the copper contact and the OPC axle in place. Next, remove the diode (located beneath the copper contact FIG 11). Then use a small flat tipped screwdriver to remove the OPC axle plate.
11. Holding the shutter open, grasp the non-gear end of the OPC with a clean, dry, lint-free cloth and carefully remove it from the cartridge. Clean, and inspect but DO NOT LUBRICATE THE OPC. Replace if necessary.
12. Carefully remove the charge brush roller by moving the roller toward the non-gear end and then lifting the geared end up and out (FIG 12). Using low pressure air, gently blow residual debris from the surface of the roller. Set the roller aside. With a dry, clean, lint-free cloth, remove residue from all surfaces of the OPC unit housing.

Reassembly - OPC Unit

13. Insert the non-gear end of the charge roller into the contact end of the OPC unit, and slowly lower the geared end into the charge roller trough.
14. Insert the geared end of the OPC into the OPC unit (the gears of the OPC and the charge roller should be on the same end). Then lower the non-gear end into the unit.



Figure 5

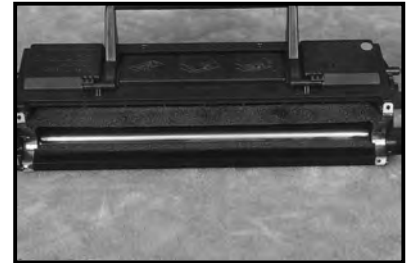


Figure 6



Figure 7



Figure 8

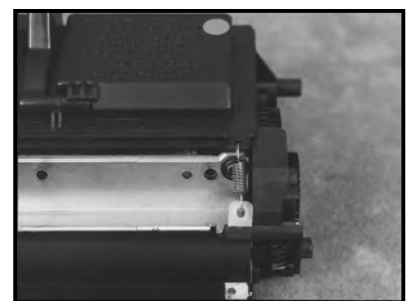


Figure 9

15. Replace the axle plate on the contact end of the cartridge so that the axle pin is inserted into the OPC, and the end of the charge roller protrudes through the circular hole in the axle plate (FIG 13). Glue the diode in place ensuring proper polarization. Place the copper contact over the diode and secure in place with one screw.
16. Place the shutter bracket on the cartridge and secure in place with one screw on each end. The OPC unit is now ready for use.



Figure 10a



Figure 10b



Figure 11



Figure 12



Figure 13