

## TECHNICAL DOCUMENT

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## Kyocera F-1000 OPC Cartridges

DOC-0224

### OVERVIEW



These instructions cover the recycling of the Kyocera DK2, and DK-3 OPC cartridges used in the Kyocera F-1000, and F-3010 laser printer engines. The F-1000 printer is a 10 ppm laser printer that uses a three cartridge system. The OPC (part # DK-2) cartridge is rated at 10,000 pages. The F-3010 printer is an 18 ppm laser printer that also uses a three cartridge system. The OPC (part # DK-3) cartridge is rated at 10,000 pages. Both of these cartridges are very similar in appearance but cannot be interchanged. One of the visible differences is the presence of a copper contact on the left side of the F-1000 cartridge above the drum axle. Both of these cartridges can be recycled using the same supplies.

The purpose of this procedure is to vacuum out toner that will have spilled inside the cartridge during shipping and/or rough handling, to clean the Waste chamber, to replace the OPC Drum with a new Long Life Replacement Drum, replace the Wiper Blade, and install a new reset fuse.

This procedure should also be used to examine the internal parts of the cartridge for possible damage, or wear should the printing of the cartridge be poor and not correctable by any other means.

### REQUIRED TOOLS



- Phillips head screw driver.
- Small Common screw driver
- Soldering Iron
- Vacuum approved for toner

- Safety goggles and breathing mask.

**WARNING:** Always wear safety goggles and breathing mask when working with or around toner. Do not disperse the toner into the air. Use approved toner vacuums and filters at all times.

- Approved Vacuum systems:

Toner approved vacuum. The Atrix HCTV toner Vac, or the Atrix AAAOmegas Toner Vac. Some type of approved toner vacuuming system is important because toner consists of very fine particles that will pass right through a normal vacuum filter, and blow out the exhaust, creating a real mess.

## REQUIRED SUPPLIES



- Long Life OPC Drum
- Wiper Blade
- Fuse-1000
- Cotton Swabs
- Isopropyl Alcohol
- Drum Padding Powder

## PREPARE WORK AREA



1. Before proceeding with the following procedure you should have a work area available with approximately 4' x 3' clear space. It should be covered with some disposable paper since toner will spill on this area. It is recommended that brown craft paper be used and taped to the work area. This will hold the paper in place when trying to vacuum toner from the paper.
2. A garbage can with a strong plastic liner should be adjacent to the work area to empty used toner. It should be at least 2' deep to prevent toner from clouding up and over the top of the bag during disposal.
3. Have a few rags available and some disposable paper towels. TM-1 Toner Magnets are perfect for this.
4. The work area should be capable of being ventilated, if by accident toner becomes dispersed into the air. An exhaust fan in one window is recommended for ventilation.  
If the Circulation of air in the work area room is combined with other rooms in the building, toner dust may be carried into the other rooms. A separate and isolated HVAC system is recommended for the work area room.

## DISASSEMBLY



1. Place the cartridge so that the label is facing you . Carefully slide off the protective plastic cover
2. Remove the four screws on the right side. Slowly slide the end cap off. Don't try to fully remove it yet.
3. Remove the 2 small C-clips and orange pull handle on the corona wire cleaning bar. Remove the end cap.
4. Remove the ground wire screw and the C-clip from the drum axle. Push the axle through the OPC far enough so that the axle can be removed from the opposite side.
5. Remove the drum. Vacuum any extra toner left over in the cartridge. If the OPC is a long life drum and you are going to re-use it, place it in a light proof bag. It is not recommended that the OEM Drum be re-used.
6. With a razor blade, follow the groove, and cut through the DK-3 sticker. Remove the six screws on the top cover. Remove the single screw on the side of the cartridge that is keeping the top cover attached. There is a small orange label pointing at it. Remove the top cover.

Note that there are three types of screws on the top cover. Two small machine screws located over the drum area, two long machine screws over the corona wire section, and the last two screws on the top are self tapping.

7. Remove the two screws on the silver plate located just under the corona wire assembly, and in front of the wiper blade. Note that the DK-3 cartridge does has a piece of foam across it's length. Remove the plate.
8. With the pliers, remove the two springs one on each side of the wiper blade and the screw in the middle. Remove the metal spacer that the screw fits into. The wiper blade can be removed by prying the center metal tab in until it clears the back of the cartridge. Lift the blade out of the cartridge. The wiper blade should be replaced each cycle.
9. Dump any remaining toner into the garbage and vacuum thoroughly. Make sure that the auger is clean along with the spring loaded door on the bottom left side. The waste toner is moved through these areas and they must be clean. The spring loaded door is square and has foam across the bottom of it.
10. Clean the Corona Wire Assembly with a Q-tip and alcohol. make sure you clean both the wire and the Grid.
11. Coat the edge of the NEW Wiper Blade lightly with a small amount of DPP Drum padding powder, and replace the blade. Re-install the 2 springs, metal spacer, center screw, the silver plate, and it's 2 screws.

**NOTE:** Be very careful not to bend or otherwise damage the small thin recovery blade located next to the Wiper Blade was located. If this blade is bent down lower than the height of the wiper blade, toner will accumulate on top of the blade and spill into the printer. If the blade does get bent or damaged, replace it with our part # RB-1000.

12. Locate the small fuse board held on by two screws. The fuse board has 2 copper contacts with the fuse in between them (small black rectangular fuse). This board does not have any wiring on it. Remove the screws, and board.
13. Carefully un-solder the old fuse and solder in the new one. make sure you have a good electrical contact. Replace the board, and screws
14. Re-install the top cover, being careful to put the screws in their proper location. (See step 3.6)
15. Install the OPC drum keeping the gear on the fuse board side of the cartridge. Make sure the gear meshes with the small black gear underneath it.
16. Insert the drum axle from the fuse board side of the cartridge. Make sure that the metal pin in the axle fits into the end of the drum gear, and that the brown plastic spacer fits into the side of the cartridge.
17. Re-install the large C-clip on the drum axle, and re-attach the drum ground wire with it's screw.
18. Install the end cap and the 4 screws. install the 2 small c-clips and the orange pull tab on the corona wire cleaning bar.
19. Re-install the protective plastic around the cartridge. Store in a foil bag

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## RECOMMENDED SUPPLIES



Microsoft OLE DB Provider for ODBC Drivers error '80004005'

[Microsoft][ODBC Microsoft Access Driver]General error Unable to open registry key 'Temporary (volatile) Jet

DSN for process 0x698 Thread 0xedc DBC 0x978aecc Jet'.

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