

## TECHNICAL DOCUMENT

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## Canon PC-850 Toner Cartridge

DOC-0172

### OVERVIEW



These instructions cover the recharging of the Canon PC-850 (F-100) toner cartridge used in the Canon PC-850 copier.

Although this cartridge looks very similar to the NP-1500 cartridge, they are not interchangeable. The F-100 cartridge is rated for 8,500 pages at 5% coverage.

The PC-850 is fairly heavy duty with a duty cycle of 10,000 pages/ month, and a copy speed of 12 cpm. This machine is mostly sold in warehouse clubs such as SAM's, or The Price Club (COSCO).

The actual Canon part number for the PC-850 (F-100) cartridge is F41-9921-000.

The purpose of this disassembly procedure is to vacuum out toner that will have spilled inside the cartridge during shipping and/ or rough handling, to clean the debris cavity, and to clean and fill the supply chamber with new toner. This disassembly 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.

**NOTE:** These Instructions should be read completely before proceeding with the recharge

### REQUIRED TOOLS



1. Phillips head screw driver.
2. Small Common Screwdriver
3. Toner approved vacuum
4. Needle Nose Pliers
5. Safety goggles and breathing mask.

### SUPPLIES REQUIRED



1. Black Toner 500 Grams (Part # 1585)
2. Cotton Swabs (CT-100)
3. Lint Free Cotton Pads (PW-96)
4. Toner Magnet (TM-1)

5. 99% Isopropyl Alcohol (FR-8)
6. Clean compressed air

**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 canister type toner vac, OR the Atrix AAA portable style vacuum. 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.

## 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.
5. 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. With the cartridge face down, (Drum side up) release the gray end cap by prying the plastic clips up, and pulling gently.
2. Remove the gray end cap.
3. Remove the two screws on the drum axle plate, but DO NOT REMOVE THE PLATE!! This plate holds the drum in place, keeping it from being damaged. It will be removed later.
4. Remove the spring that holds the supply and waste chambers together.
5. On the top left side of the cartridge, there is a metal plate that covers the left side of the charge roller. Remove the three screws and the plate. Be careful not to lose the small rubber piece that fits under the plate!
6. On the left side of the cartridge, there is another metal plate held in by two screws. Remove the screws and plate.
7. On the right side of the cartridge, remove the drum axle plate. Underneath this plate you will see a small plastic pin. With needle nose pliers or pin pulling pliers, remove the pin.

## REMOVE THE OPC DRUM



1. Gently pry the two halves of the cartridge apart. You will have to slide the toner supply section, and the waste chamber in different directions to separate them.
2. Take the waste chamber and place it so that the large gear is on the right. lift and pull the drum out from the left side until it is free.
3. Vacuum any remaining toner and debris from the drum, being very careful not to come into contact with the drum surface. Do not polish or wipe the drum with a dry cloth, since this may scratch the drum. Blow off any remaining dust using a can of compressed clean air. Never use un-filtered compressed air for this as un-filtered air will have small dirt particles which blown at high speeds, will damage the drum.

**CAUTION:** When using the Compressed clean air, be very careful not to tilt or shake the can while spraying, as the propellant may spray out of the can and possibly ruin the drum.

4. If you are going to reuse the drum, place the OPC Drum in a soft lint free cloth and then into a dark colored bag, or cover from bright light by some other suitable means. Again, do not rub or wipe the OPC Drum with a dry cloth as this may scratch its surface. If there is any matter left on the drum that must be cleaned off, use 99% pure Isopropyl Alcohol (FR-8), and a soft lint free cotton pad (PW-96) to lightly wipe the drum surface. Vacuum and then blow off the Drum

using the Compressed Air. Always handle the OPC drum with the utmost caution. If there is any doubt as to the drum condition, it should be replaced.

## CLEANING THE DEBRIS CAVITY



1. Turn the plastic drum insert to the right, until it can be pushed through the cartridge, and be removed. Remove the Primary Charge roller, and clean with NU-Finish Car Polish.
2. Empty the waste chamber through the slot between the Wiper Blade, and Recovery Blade. It is easier to tap the cartridge on the table to loosen any residual toner.

**WARNING:** Be very careful not to bend or otherwise damage the small thin recovery blade located next to the Wiper Blade. 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, it may be possible to carefully bend the blade to a height equal to, or slightly higher than the Wiper Blade. Make sure that the edge of this blade is even across its entire length. If the blade cannot be repaired, replace it with our part # RB-850.

3. Re-install the drum insert, and PCR in the waste chamber, Place aside.

## CLEANING THE TONER SUPPLY HOUSING



1. Pry out the fill plug located on the side of the toner supply. Dump out any remaining toner and vacuum clean.

**NOTE:** Before vacuuming, rotate the magnetic roller and, observe the layer of toner on the roller surface. The toner should form an even consistent layer with no clumps or lumps showing. Should the layer of toner be thicker in some areas, the Magnetic Roller should be cleaned using a dedicated magnetic roller cleaner (MRC-16) or 99% Pure Isopropyl Alcohol. Always remove the roller before cleaning and make sure it is completely dry before re-installing it.

2. To remove the Magnetic Roller, take off the gear assembly on the side of the hopper, and lift out the magnetic roller.
3. Once a seal becomes available, it can be inserted through the fill cap side. Until then we recommend that this cartridge be hand delivered only.
4. Fill the supply with toner and check for leaks.

## RE-ASSEMBLE THE CARTRIDGE



1. Replace the metal plate and rubber piece on the left side of the cartridge.
2. Coat the OPC drum with Zinc Sterate Padding Powder (DPP), and install in the cartridge large gear on the right. Install the axle pin.
3. Place the two halves together, and re-install the spring.
4. Re-install the gray end cap.
5. Test and box the cartridge.
6. This cartridge does not use a felt wand.

## RE-SET THE COPIER



If the Copier does not reset itself when the cartridge is inserted, the following procedure should be followed. This procedure is directly from Canon.

If the "Replace Cartridge" light is still lit in the display after replacing the cartridge, the customer can follow the below steps to reset the copier. This procedure should be done every time the cartridge is replaced:

1. \* Hold down the "A" (Automatic Exposure) key for approximately four (4) seconds or longer.
2. \* After approximately four (4) seconds have elapsed, "UC" appears in the Copy quantity/Copy ratio display.
3. \* Press the "Start" key. "UC" will flash for about 20 seconds in the Copy quantity/Copy ratio display.
4. The copier will automatically perform a toner distribution operation, and then you will return to the normal copying mode.

**NOTE:** Be sure to press the "A" key after replacing each cartridge. If you do not, your first few copies will not be clear

copy images or the Replace Cartridge indicator may light. If either of these two problems occurs, press the main unit power switch to OFF and then to ON again. Afterwards, perform the above steps.

If copies are too dark or too light after you have replaced the cartridge, open the front door and adjust the copy exposure using the exposure recalibration slide control switch.

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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 0x3464 Thread 0x3738 DBC 0x8437024 Jet'.

/script/catSearch.asp, line 58