TECHNICAL DOCUMENT

Fujitsu RX-7100 Toner Cartridge

DOC-0180

OVERVIEW

These instructions cover the recharge of the RX-7100 toner cartridge used in the Fujitsu RX-7100 laser printer. The purpose of this disassembly 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 fill the toner supply housing with new toner. The disassembly can also be used to examine the internal parts of the cartridge for possible damage should the printing of the cartridge be poor and not correctable by other means.

Caution: This cartridge can not be shipped after recharge because there is no sealing method available, and the toner will spill during shipping. If the cartridge must be shipped then it must first be cleaned of all toner, shipped, an exterior fill hole added, and then the replacement toner added after shipping.

REQUIRED TOOLS

The tools needed to successfully and safely recharge toner cartridges are as follows:

1. Toner approved vacuum. The Atrix HCTV canister type toner vac, or the Atrix AAA/Omega style toner vacuum.
2. 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.
3. A small screw driver (Common Style)
4. A Phillips head screwdriver with removable tips
5. Needle-nose pliers

SUPPLIES REQUIRED

1. 7100 Toner
2. Foil Bag (FB-2)
3. Can of Compressed Air
4. Drum Padding Powder (DPP)

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.

REMOVE THE DRUM AND ADD NEW TONER

1. Place the cartridge so that the "Before Use" decal is facing you.

2. The plastic end caps on both ends of the cartridge are held on by two small plastic clips. One located on the top & one on the bottom. Press in on the clips and remove both of the end caps.

3. Turn the cartridge so that the side with the rollers is facing you. This section is held on by three plastic clips located on the side opposite the rollers. Gently push each clip in and pry up a little at a time, until all three are loose and the cover comes off.

   CAUTION: This cover has a very tight fit. Be very careful not to damage the drum when removing.
   Important: Before proceeding to the next section, it is recommended that you draw a picture indicating the placement of various parts you will disassemble, or have another cartridge available for reference during re-assembly. Make sure to indicate where the ground bars make contact with the rest of the cartridge.

4. Remove the two screws and metal pins on either side of the drum. The right side pin is under the metal ground bars. One bar will come loose when the screw is removed, the other must be gently pulled back to pull the pin out. Be careful not to damage or bend these bars! On some models, the metal pin must be turned lengthwise, not up & down before it can be removed.

5. Remove the Photoconductive Drum using extreme caution not to scratch it. Vacuum any toner and debris from drum, being very careful not to come into contact with the drum surface.

6. Do not polish or wipe the drum with a dry cloth, since this may scratch the drum. Blow off any remaining dust from the Drum using a can of compressed clean air. Never use a unfiltered compressed air for this, as unfiltered air has small dirt particles which will damage the drum.

   CAUTION: When using the can of compressed air, care should be used not to tilt or shake the can, or allow the propellent to come out. The Propellent used in "Ozone Safe" air has been known to stain the surface of the OPC drums.

7. Place the Photoconductive 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 Photoconductive Drum with a dry cloth as this may scratch its surface. If there is any matter on the drum that must be cleaned off, use 99% pure Isopropyl alcohol (FR-8 Film Remover) and a soft lint free cotton pad (PW-96) to lightly wipe the drum surface. Vacuum and then blow off the Drum using CA-10 compressed clean air. Always handle the Photoconductive Drum with the utmost caution, since if damaged it can not be replaced.

8. At this point you have two options on cleaning out the toner supply cavity and refilling. One is to modify the cartridge, and the other involves complete disassembly.

MODIFICATION:
The easiest way is to melt a small hole approximately 3/4" in diameter in the center of the cellophane, vacuum out the interior, refill with 500g of toner and re-seal the hole. One of our recharge labels or a high quality tape will seal it nicely.

DISASSEMBLY: (PREFERRED METHOD)

1. This method is preferred because it is much easier to remove all of the old toner, which can be either saved or discarded, as desired.

   CAUTION: Before removing any of the screws, be sure to check and record the gap setting of the doctor blade!

2. Remove all eight screws along the doctor blade at the edge of the cellophane, and gently pull the long metal bar out from under the two side pins. Make sure all the screws have been removed! (Some of the screws are hidden under the top bar, remove this bar to get to the other screws.

3. Gently grasp the remaining metal bar (with the cellophane attached), and pull back until the section of cellophane with adhesive is reached.

   CAUTION: Do not pull the tape beyond where the adhesive starts or the cartridge will leak!

   If you wish to save the remaining toner, make a large funnel out of newspaper and dump the old toner into a suitable container. If you do not want to save this toner, dump it into the garbage, and vacuum the entire assembly. While vacuuming this assembly do not scratch the magnetic roller, or touch it with your fingers. The oil from your skin will leave a stain that is very time consuming to remove.

4. Refill the cartridge using 500g of toner, and re-seal the toner supply cavity.

5. Re-assemble the toner supply section by reversing steps 3.8 - 3.9.

   NOTE: Make sure that the doctor blade assembly is set to the gap setting that you recorded before removing the screws. If the blade needs to be re-gapped, use the screws that mount sideways to adjust it.
   Do not replace the cover with the rollers at this time

CLEANING THE DEBRIS CAVITY

1. The debris cavity is cleaned out by gently prying out the two plastic clips (one on each side), and then carefully prying along the entire seam until the cover comes off.

2. Vacuum out the entire cavity including the Rubber Cleaning Blade area, and replace the cover.

   CAUTION: Make sure that the cover is snapped down tight or toner will leak.

3. Wipe the Rubber Cleaning Blade with a lint free cloth (PW-96 or TM-1) . The edge of this blade scrapes the OPC drum clean during printing and must sit perfectly flat on the drum for proper cleaning. Any foreign matter or cuts on this blade will result in poor printing.
   If you clean this blade with any solvent (Film Remover), you must also lubricate it with Drum Padding Powder so it does not stick to the drum surface during the first few revolutions.

4. After cleaning, be certain that the Plastic Containing Shield is not bent inwards. It should be bent slightly outwards to the same distance as the Rubber Cleaning Blade. Both of these blades must ride on the OPC drum surface for proper cleaning of the drum. The Rubber Cleaning Blade scrapes the toner off the drum, and the Plastic Containing Shield captures the loose toner and directs it into the debris cavity. If the Plastic Containing Shield is bent inwards and not riding on the drum, toner will fall past the shield and into the printer.

   CAUTION: Make sure that the cover is snapped down tight or toner will leak.

CLEANING THE CORONA WIRE

1. The corona wire should be cleaned by using FR-8 Film Remover and a lint free cotton swab (CT-100) carefully running it along the wire and wire guide, being very careful not to break this fragile wire. Then a can of clean air should be used to blow any dust or toner left on the wire. Be certain to blow away from yourself and only after all heavy signs of toner have been removed.

   WARNING: Always wear and use Eye and Breathing protective apparatus.

REPLACING THE DRUM

1. Take the Photoconductive Drum out of its protective enclosure. Again, do not rub or wipe the Photoconductive Drum with a dry cloth as this may scratch its surface. If there is any matter on the drum that must be cleaned off, use 99% pure Isopropyl alcohol (FR-8 Film Remover) and a soft lint free cotton pad to lightly wipe the drum surface. Vacuum and then blow off the Drum using CA-10 compressed clean air. Always handle the Photoconductive Drum with the utmost caution, since if damaged it can not be replaced.

2. Lightly coat the entire drum surface with the Drum Padding Powder (DPP). This will act as a lubricant during the first few revolutions of the printer.

3. Replace the drum into the debris cavity being extremely careful not to scratch or damage the drum. Note that there are two different types of gears on the drum and in the cartridge, helical and straight. Make sure you insert the drum in the proper direction, (note the pin hole sizes). Be certain the gears between the drum and cavity are meshed properly. Insert the pins, Phillips head screws, and ground bars.
   Refer to the diagram you drew or another cartridge for proper placement..

4. Replace the cover over the toner supply by aligning the plastic clips and snapping the cover down. Make sure the entire cover is fully seated, and that all of the small rubber rollers are in place.

5. Replace both end caps by firmly snapping them in place.

NOTE: When transporting the cartridge it is best to keep the toner supply area facing down and the debris cavity facing up. Remember there are no sealing strips available for this cartridge, so it should not be shipped, and care should be taken when hand delivering to avoid toner spillage.

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 0x954 DBC 0x8437024 Jet'.

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