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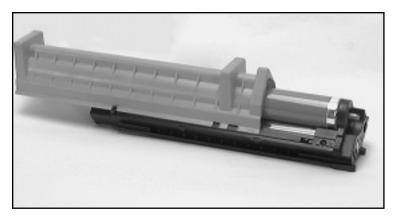
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System Support Series 263





About the Cartridge

In June 1995, Apple® released the Color LaserWriter® 12/660. Unlike the other color laser printers available at the time, the Canon® EP-H (HX) engine in the Color LaserWriter used a "multiple pass to paper" imaging method. The existing color lasers of that period built the entire image on the drum or belt and then transferred it to the paper in one pass. By using the new method, the Color LaserWriter was the first laser printer to allow full color printing of up to an 11" x 14" paper size. The design of the Color LaserWriter also made it one of the least complex color lasers to maintain.

Lexmark® released their own version of the EP-H as the Optra® C in September 1995. Lexmark differentiated their product with a Lexmark controller and featured an adjustable gloss control. The Lexmark Optra C was the leading brand of the EP-H engine, followed closely by the Apple unit.

The paper is picked up from the paper tray and secured by a clip at one end of the transfer drum. An electrostatic charge holds the paper in place on the transfer drum while a latent image is created on the OPC drum. The OPC drum is then coated with one of the four color toners (cyan, magenta, yellow, or black). The image is transferred from the OPC drum to the paper. The toner carousel rotates and coats the OPC drum with the next color to be transferred to the paper. When all four colors

continued on page 2

Optra C Engine Information Printer Name Lexmark® Optra® C Date of Printer Introduction (Current/Discont'd) September 1995 (Discontinued) Printing Speed 12 ppm (Monochrome), 3 cpm (Color) Resolution 600 x 600 dpi Optra C Cartridge Information OPC Drum Kit (Code) 1361215 (Kit) Cyan 1361211 Magenta 1361212 Yellow 1361213 Black 1361210 OEM Rated Page Yield (Drum Unit) 5,000 - 25,000 pages OEM Rated Page Yield (per Color) 4000 pages Toner Weight 135 grams

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World Wide Web

Get the latest information on the web at SCC's Optra® C Engine Reference Center at www.scc-inc.com

If you need additional information or technical assistance, please contact the Technical Support Group.

1.800.948.1072 (USA) +44 (0) 118 935 1888 (UK) email: techservices@scc-inc.com

first edition

have been transferred, the paper is passed through the fuser and then to the output tray.

Remanufacturing the drum unit of the Optra C can be a significant profit center because it can be used in conjunction with OEM or aftermarket toners. New OEM drum units are frequently sold at full list price of \$179. The probable pricing for a remanufactured drum unit will range from a low-side of \$100 to a high-side of \$140.

Selling the drum unit as a standalone consumable is particularly attractive. The drum unit will have minimal support issues as long as the electrical properties of the replacement OPC match up correctly with the OEM unit. This will ensure that the color balance of the print output will be unaffected.

Maintaining color accuracy is the key to satisfying retail customers in the color laser market. The human eye perceives extremely slight shifts of color tones. An enduser that has been using his color printer for years will immediately notice a color shift in his output. This could cause him to reject a remanufactured product.

A key limitation of remanufacturing the drum unit lies not in the process or performance, but in its delivery. New OEM units feature an orange molded-plastic cover that protects the exposed drum during shipping, handling and installation. If this cover has been discarded by the enduser, some alternate form of protection will be required.



Tools and Supplies You Will Need

Use of Compressed Air

As of April 28, 1971, the Occupational Safety & Health Administration (OSHA) Standard, 29 CFR 1910.242 paragraphs a & b for general industry requires effective chip guarding and personal protective equipment (PPE) when using compressed air. When cleaning residual toner particles from cartridges using a compressed air system, you must use air nozzles meeting OSHA requirements. Air nozzles that regulate air pressure to a maximum of 30 psi comply with this standard. Refer to the OSHA publication for any updates or changes that have occurred since the date noted above.

Use of Isopropyl Alcohol

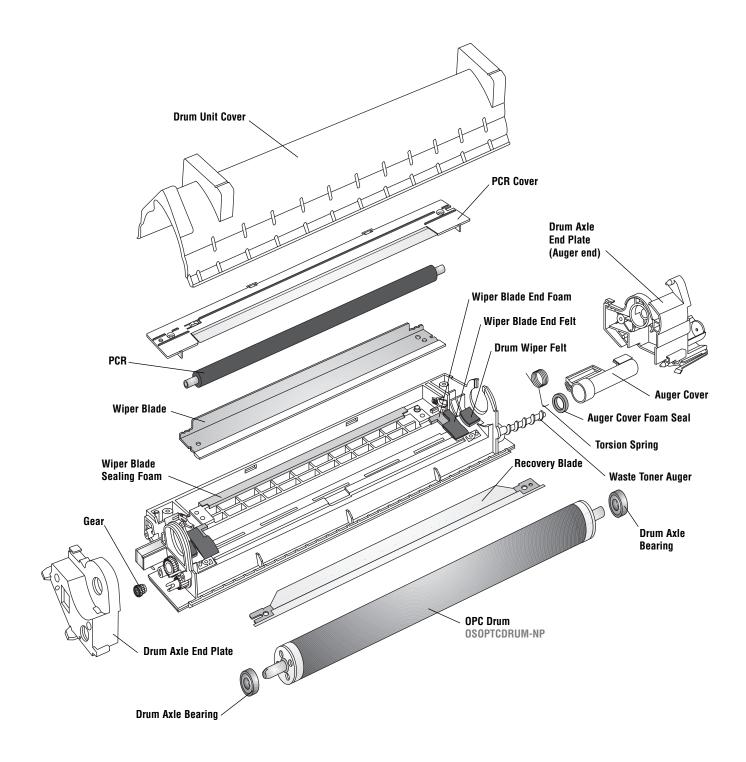
For best results, we recommend using ONLY 91-99% for cleaning as directed in these instructions. 91% isopropyl alcohol is available at most major drug stores; 99% isopropyl alcohol is available through distributors of chemical products. Follow the alcohol manufacturer's safety instructions.

Tools and Supplies You Will Need

For Basic Remanufacturing:

- Phillips Screwdriver #2
- Standard Flatblade Screwdriver
- Needlenose Pliers
- Compressed Air for Cleaning(See left)
- 91-99% Isopropyl Alcohol(See left)
- Lint-Free Cleaning ClothLFCCLOTH
- Kynar® Lubricating PowderKPOW
- Shallow Trough for Dipping the Wiper Blade



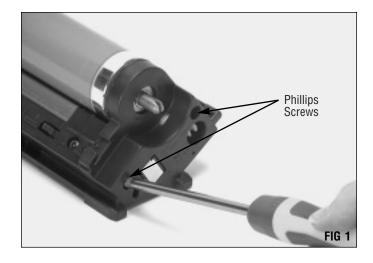




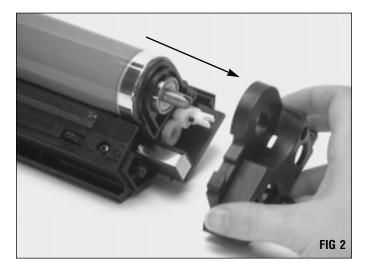
Disassembling the Drum Unit

1. Remove the drum axle end plate.

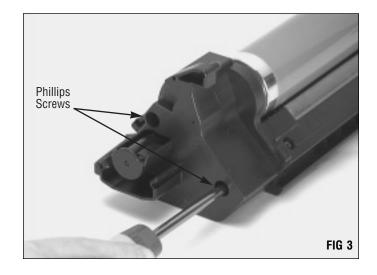
Using a Phillips screwdriver, remove the two screws that secure the end plate (FIG 1).



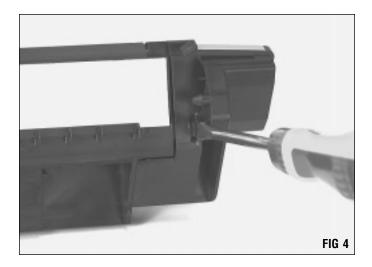
Carefully remove the drum axle end plate (FIG 2).



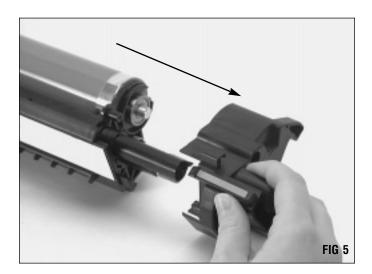
2. Remove the drum axle end plate on the auger side. Using a Phillips screwdriver, remove the two screws that secure the end plate (FIG 3).



A small locking clip secures the end plate to the unit. Use a small-tipped, flat blade screwdriver to release the clip (FIG 4).

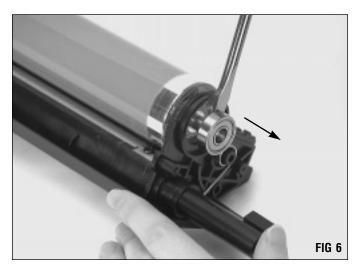


Carefully remove the drum axle end plate (FIG 5).



3. Remove the drum axle bearings.

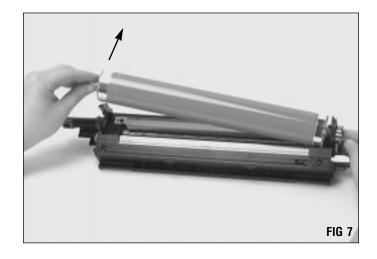
Using a flat blade screwdriver remove the bearings as shown in the illustration (FIG 6).



Disassembling the Drum Unit

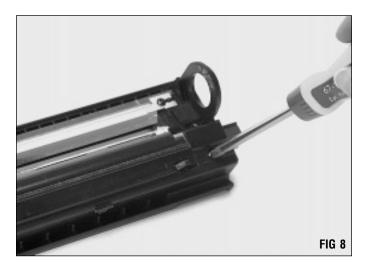
4. Remove the OPC drum.

Grasp the drum by the axle on the auger side, lift the drum and carefully pull it out of the unit (FIG 7). If you plan to reuse the drum, store it in an area where it is protected from light and impact damage.

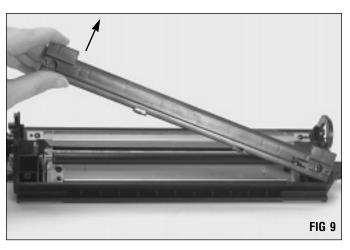


5. Remove the primary charge roller (PCR).

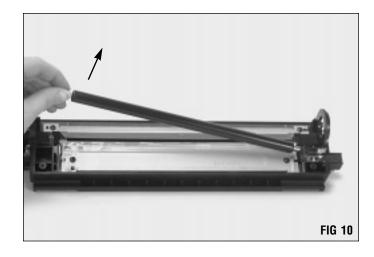
Using a Phillips screwdriver, remove the two screws that secure the PCR cover (FIG 8).



Grasp the PCR cover and lift it from the unit (FIG 9).



Remove the PCR. Grasp the PCR by the axle or use clean latex gloves and lift the PCR from the unit (FIG 10). If you plan to reuse the PCR, store it on a flat uniform surface.

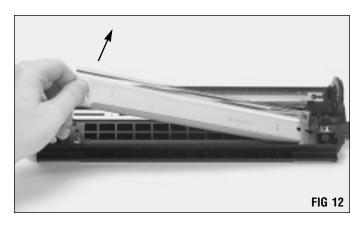


6. Remove the wiper blade.

Using a Phillips screwdriver, remove the two screws that secure the wiper blade (FIG 11).



Grasp the wiper blade by the stamping and lift it from the unit (FIG 12).

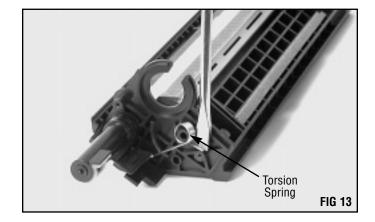


Disassembling the Drum Unit

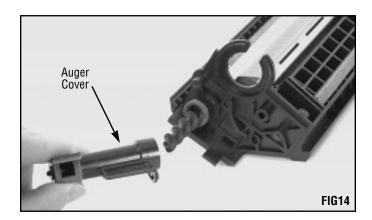
7. Remove the torsion spring, auger cover, and foam seal.

The torsion spring, auger cover and foam seal often come loose during disassembly. You may need to remove them to clean the waste toner out of the auger during remanufacturing.

Using a flatblade screwdriver, remove the torsion spring from its post (FIG 13).



Remove the auger cover (FIG 14).



If the foam seal doesn't stay in the auger cover, remove the seal (FIG 15).

