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Xerox® XC 800 (Sharp® Z-80)
Remanufacturing Instructions
For Both the Drum and Toner Cartridges

About the Cartridges

The Sharp® Z-80 engine was first used in the Xerox® XC personal copier line, which included three series of copiers. Hundreds of thousands of these analog copiers have been sold in the U.S. since their original introduction in November 1996. The XC 800 series featured a copy speed of 8 copies per minute (cpm), while the XC 1000 series featured an increased speed of 10 cpm and the XC 1200 series had a 12 cpm copy speed. All models ship with starter cartridges, have a maximum copy size of 8-1/2 x 14" and a toner-save mode. In 1997, Sharp released the Z-820, Z-835, and Z-845 copiers using the same engine.

The engine features a dual-component developing system using a drum cartridge and a toner cartridge. Both toner and developer are housed in the toner cartridge and have OEM weights of 170g and 165g respectively. The toner cartridge has a list price of around $137, and a typical wholesale price of about $129. The drum unit lists for around $154 with a typical wholesale price of about $136.

With the exception of the starter cartridge, the drum unit features an automatic drum count resetting mechanism. Starter cartridges can be reset manually through the copier diagnostics mode after the cartridge has been installed in the copier.

The assembly and disassembly of the cartridges is fairly easy. The wiper blade is made of polyurethane attached to a metal stamping. The doctor blade is in a fixed position and made of steel. The developer roller has an aluminum sleeve with a silver coating. It is important to note that although the Sharp and Xerox cartridges use the same internal components, the cartridges are not interchangeable between printers without modification.

Sharp® Z80 Engine Information

Copier Name	Xerox® XC
Date of Introduction (Current/Discontinued)	November 1996 (Current)
Print Speed	8 cpm (800 Series)
	10 cpm (1000 Series)
	12 cpm (1200 Series)

Xerox® XC Cartridge Information

Toner Cartridge OEM Part Number (Code)	6R881 (Xerox®)
Cartridge List/Wholesale Price*	$137/$129
OEM Rated Page Yield	4,000 pages
Toner Weight	170 grams
Developer Weight	165 grams
Toner Class	Magnetic, Bi-component
Drum Cartridge OEM Part Number (Code)	13R544 (Xerox®)
Cartridge List/Wholesale Price*	$154/$136
OEM Rated Page Yield	12,000 pages

**Prices as of February 2000*

Model Compatibility

Xerox® XC 810/811/820/822/830/855/865/875/1020/1030/1033/1040/1044/1045/1245/1250/1255, Sharp® Z-820**/Z-835**/Z-845**

***Some modification necessary for cartridge compatibility*

Table of Contents

WWW.SCC-INC.COM

Get the latest information on the web at Static Control's Xerox® XC 800 Online Engine Center at
www.scc-inc.com

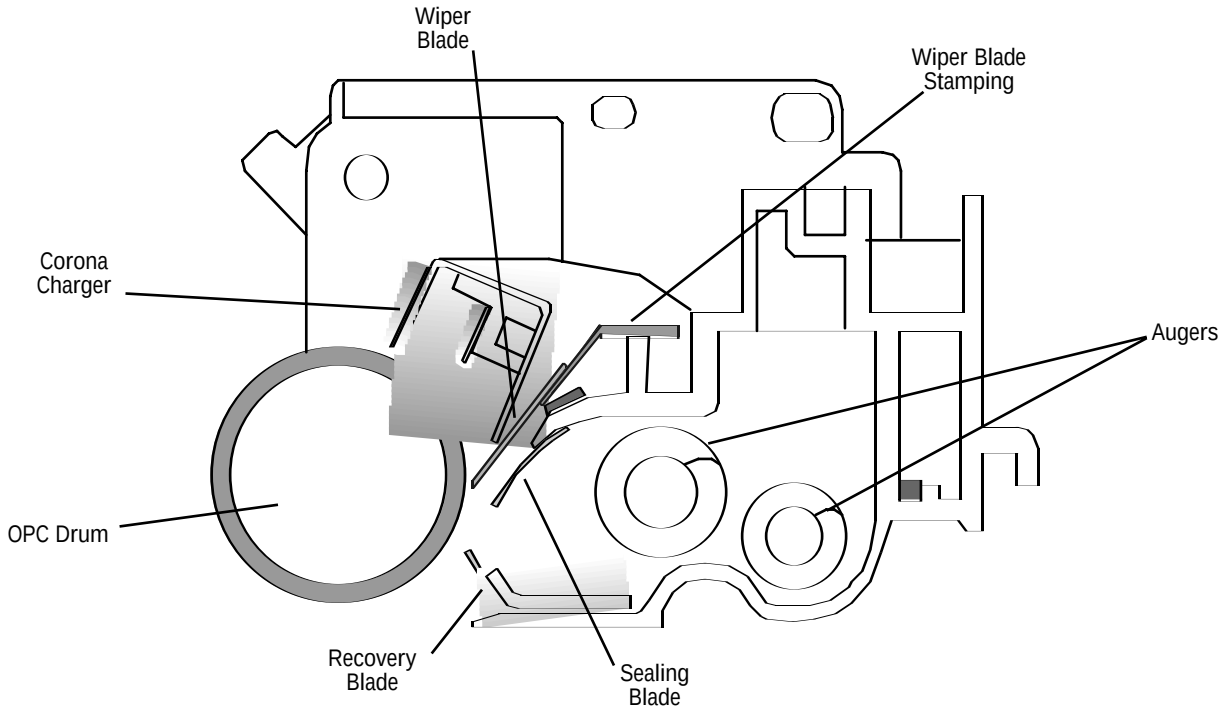
System Support Series™ Documents are available on our Web site in Adobe® Acrobat® format.

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

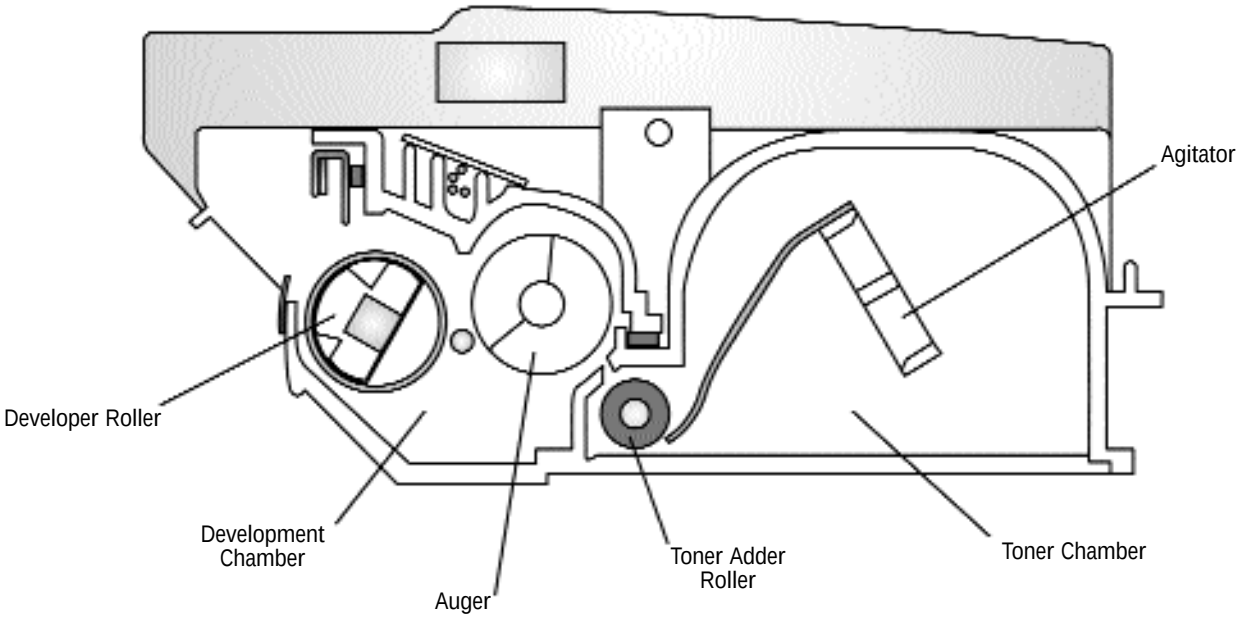
1.800.948.1072 (USA)
+44 (0) 118 935 1888 (UK)
e-mail: techservices@scc-inc.com
www.scc-inc.com

Version 1 - February 2000

OPC Drum Unit



Toner/Developer Unit



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:

- 91-99% Isopropyl Alcohol ..... *(See left)*
- Compressed Air for Cleaning ..... *(See left)*
- Toner .....
- Developer .....
- Hopper Cap Removal Instrument .....
- Lubricating Powder .....
- Lint-Free Cleaning Cloth .....
- Phillips Screwdriver #2
- Shallow Trough for Dipping the Wiper Blade
- Standard Flat-Blade Screwdriver

System Support Series™ Available

SSS™#	Title
280	How to Use Your Xerox® XC (Sharp® Z-80) Shipping Protector (XCSHPRT)

Disassembly of The Drum Unit

1. Remove the drum

After locating the axle on the auger end of the drum cartridge, place the tip of a flat blade screwdriver between the stop on the cartridge and the lower portion of the outer ring of the axle (FIG 1).

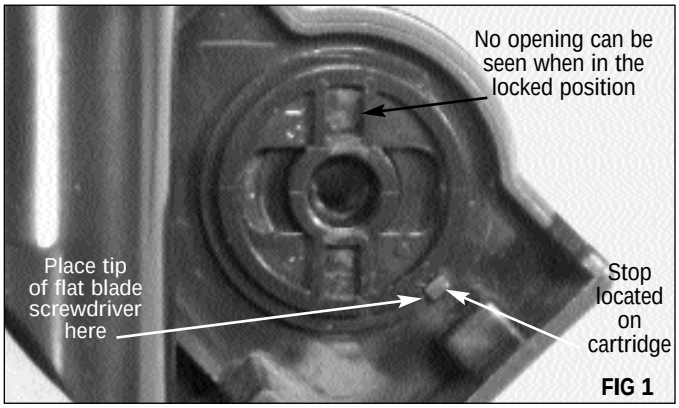


FIG 1

Using the screwdriver blade, carefully rotate the axle clockwise until the top portion of the outer ring axle rests against the stop on the cartridge (FIG 2).

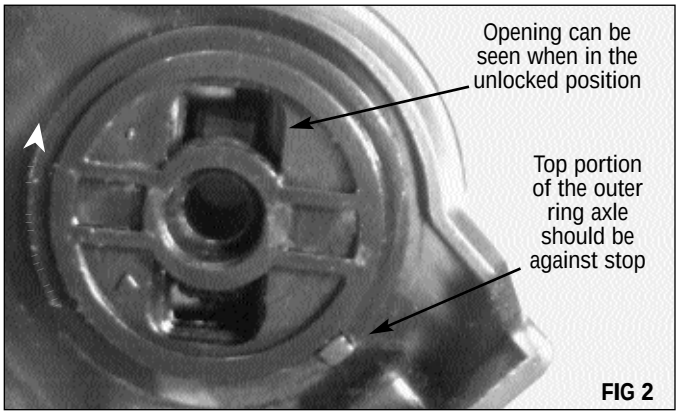


FIG 2

Using the flat blade screwdriver, gently pry the axle assembly out of the drum and cartridge (FIG 3).

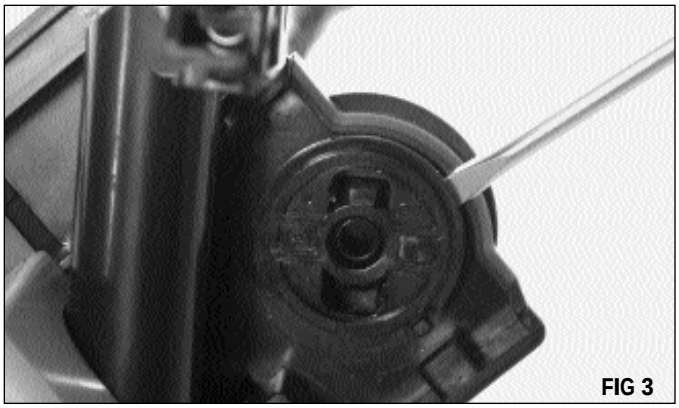


FIG 3

NOTE The XC drum must be removed by the auger end (end without gear) first. Since there is no gear present by which to grasp the drum, gloves or another protective material should be used when removing the drum.

With the drive gear end of the unit on your right, **g**rasp the drum by the auger end (end without gear). Lift up, then to your left to free the drum from the drive end axle (FIG 4). If you plan to reuse the drum, store it so that it is protected from light and impact damage.

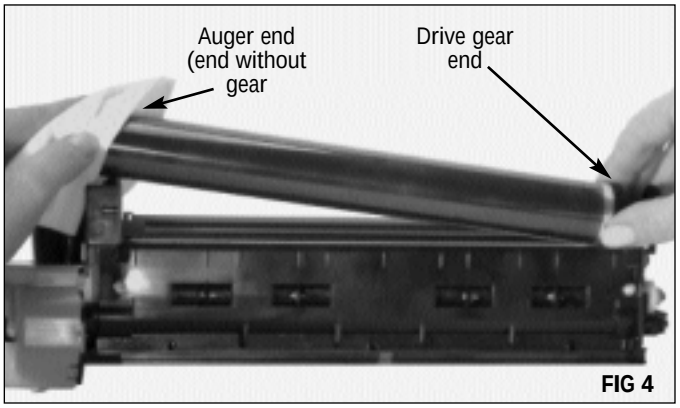


FIG 4

NOTE There is no need to remove the green endplate on the auger end of the cartridge.

2. Remove the corona assembly

Turn the cartridge so that the corona assembly is on top. Using a Phillips screwdriver, remove the two outermost screws (FIG 5).

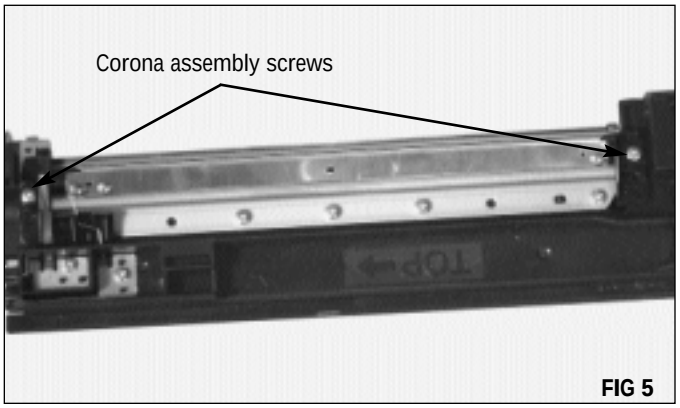


FIG 5

NOTE There are two electrical contacts (one wire, one metal strip) connected to the corona assembly that fit beneath the two screws on the cartridge contact plates. Use care not to bend or break these contacts.

Using a Phillips screwdriver, loosen, but do not remove the screws on the two electrical contact plates (FIG 6).

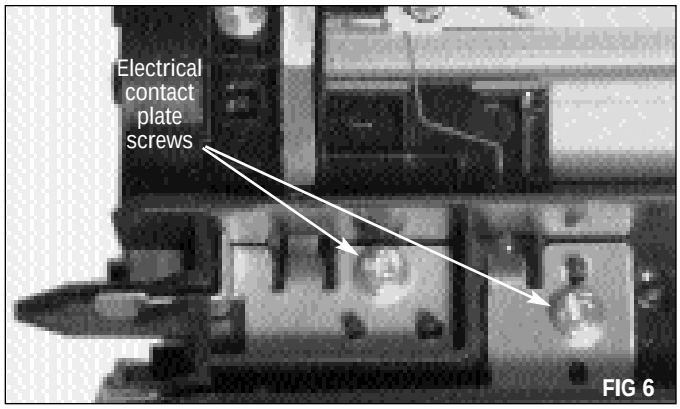


FIG 6

NOTE There is an electrical contact on the upper left corner of the cartridge, next to the wiper blade, that can easily be lost during removal of the corona assembly and cleaning of the cartridge. Your XC drum cartridge will not operate without this contact.

Lift the corona assembly up, and slide it forward, away from you (FIG 7). Make sure the electrical contacts do not bind on the contact plate screws.

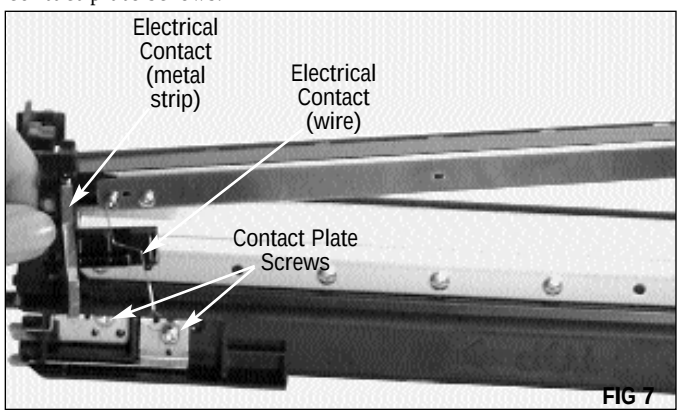


FIG 7

Remove the electrical contact on the upper left corner of the cartridge by lifting it straight up (FIG 10). Take care not to misplace this contact, as your cartridge will not work without it.

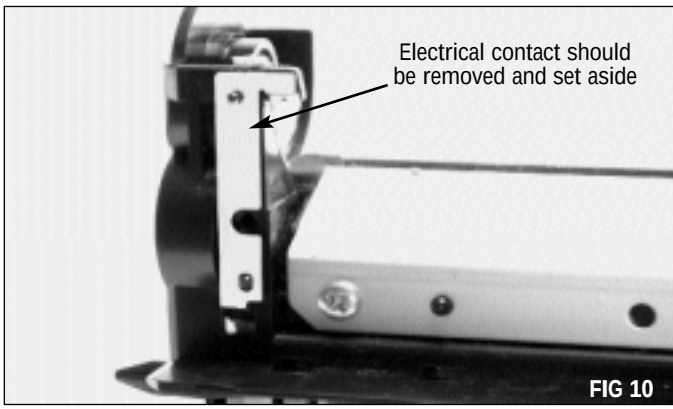


FIG 10

3. Remove the wiper blade

Using a Phillips screwdriver, remove the five screws that secure the wiper blade (FIG 11). Lift the wiper blade up and out, and set it aside.

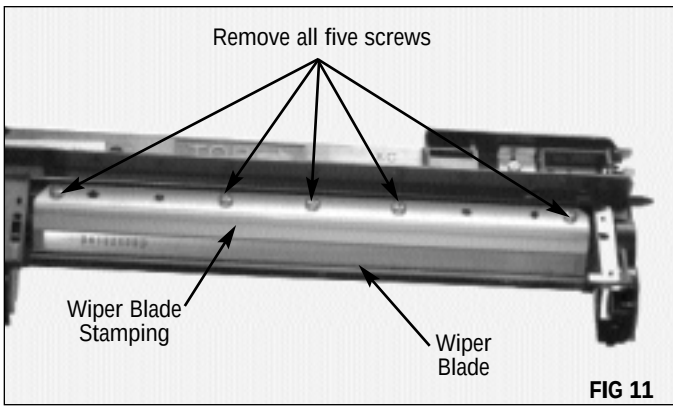


FIG 11

Disassembly of the Drum Unit

4. Clean and inspect the cartridge

Using dry filtered compressed air of not more than 30 psi, carefully clean the toner auger area (FIG 12).

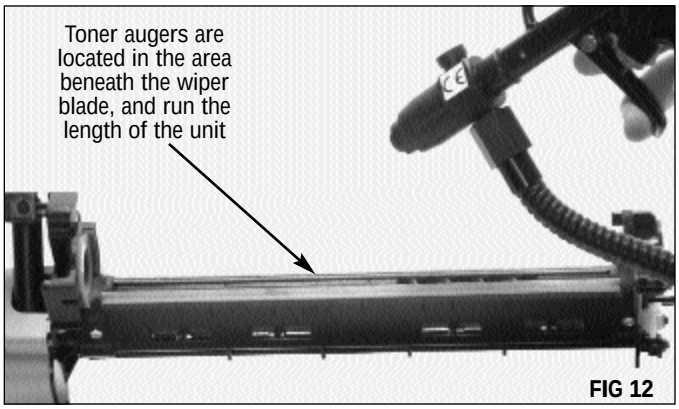


FIG 12

Inspect the foams, recovery blade and intermediate mylar wiper blade for damage (FIG 13).

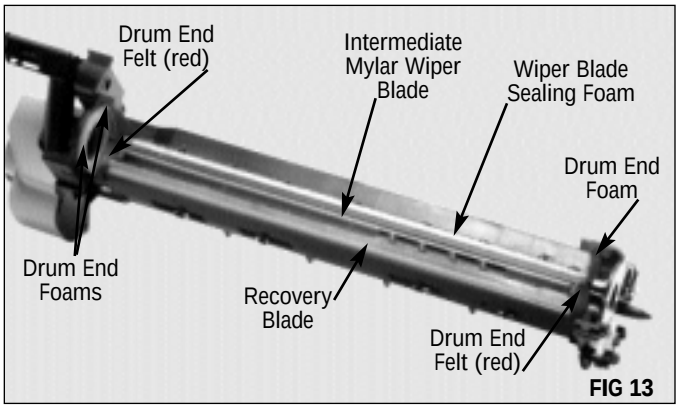


FIG 13

5. Clean the waste toner delivery system

Push back the spring-loaded cover of the waste toner delivery tube (FIG 14).

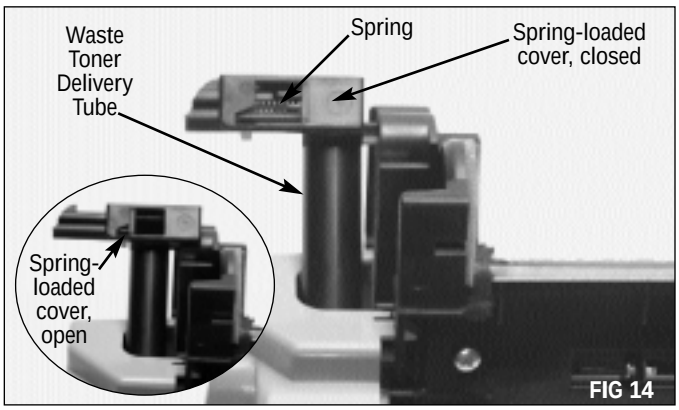


FIG 14

NOTE To prevent loss of the small spring located in the toner delivery tube mechanism, use caution when directing the compressed air stream in and around this area.

While keeping your hand and fingers out of the stream of compressed air, gently clean any excess toner from the waste toner delivery system (FIG 15).

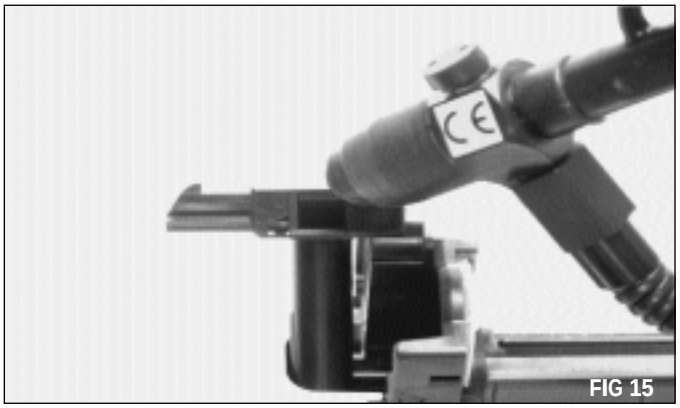


FIG 15

Make sure both the spring and the cover of the waste toner delivery tube are in place before proceeding (FIG 16).

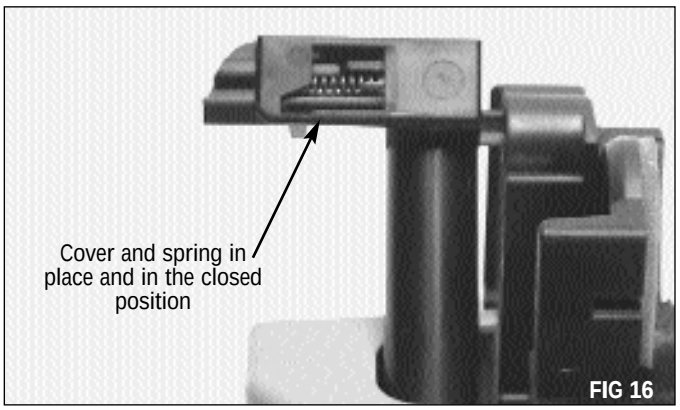


FIG 16

6. Reset the drum (for initial starter cartridges, see NOTE below)

Using a flat blade screwdriver, remove the retaining clip over the white gear (FIG 17). Take care not to bend the clip.

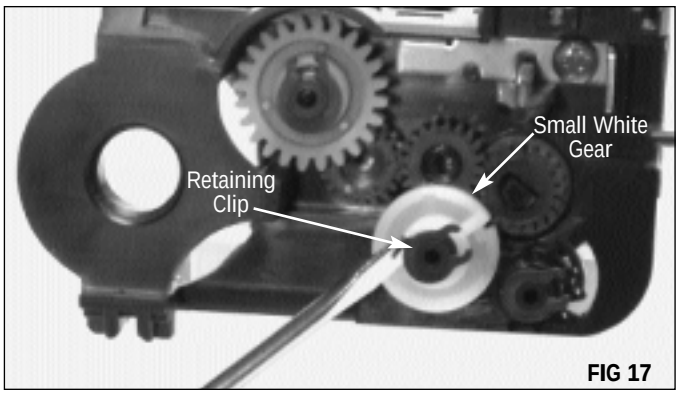


FIG 17

NOTE Initial starter cartridges (those that come installed in the machine when purchased) do not contain the drum count reset mechanism, and must be reset using the copier diagnostic mode. For instructions, refer to page 8.

Remove the small white gear (FIG 18). You may need to gently pry it off using a flat blade screwdriver.

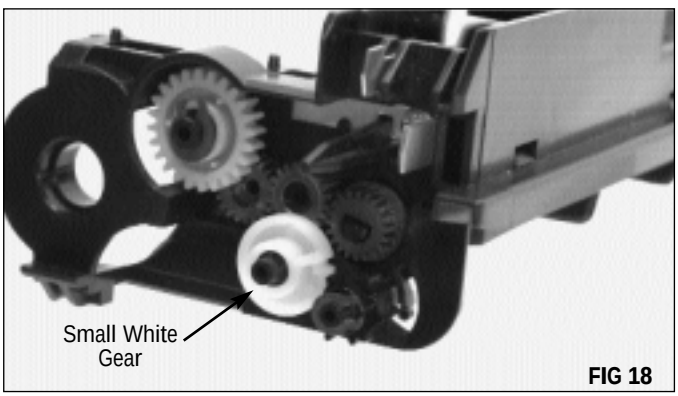


FIG 18

Slightly loosen the retaining clip on the reset gear with a flat blade screwdriver before attempting to reposition the reset tab (FIG 19). If the tab does not move easily, do not force it, but further loosen the retaining clip. Take care not to bend the clip.

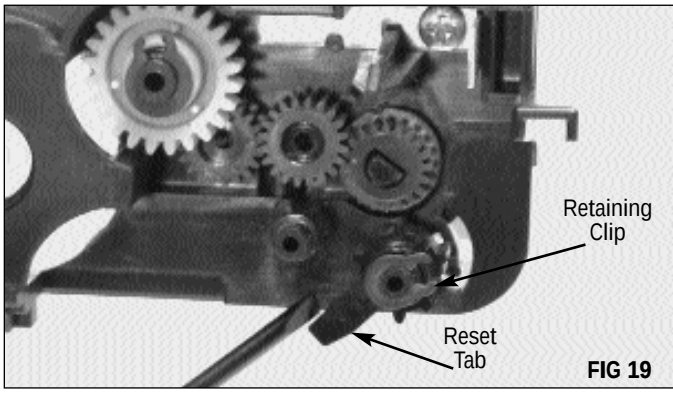


FIG 19

Rotate the tab counter clockwise so that it is in the one o'clock position (FIG 20).

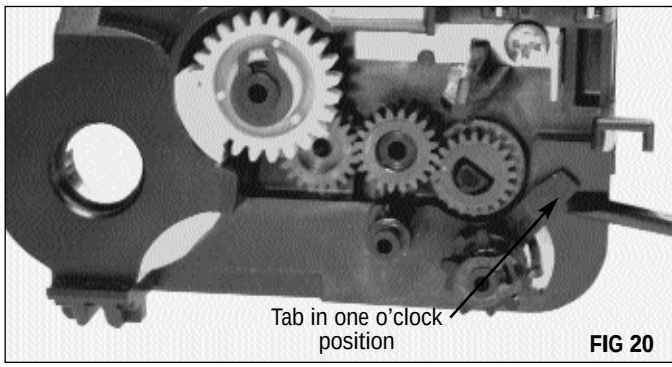


FIG 20

Replace the small white gear and retaining clip. Be sure to secure the retaining clip on the reset gear if you loosened it.

NOTE The tab will move downward during the first initialization of the copier after the cartridge is installed. This will trip a photo-sensor to reset the drum count to zero.

Resetting the Drum Count via the Diagnostic Mode

If your cartridge is an initial starter OPC unit, the drum count must be reset using the copier's diagnostic mode.

NOTE The timing of following steps is important. To insure proper operation, read all instructions in this section before beginning drum count reset using the copier's diagnostic mode.

7. Clear the current mode

Turn the copier off, wait approximately five seconds, then turn the copier on again.

8. Reset the drum count

Using the control panel keys, within four seconds of powering up the copier, press **Clear/Stop**, **Exposure Mode**, **Clear/Stop**, then **Exposure Mode** again (FIG 21). The display window should now be blank.

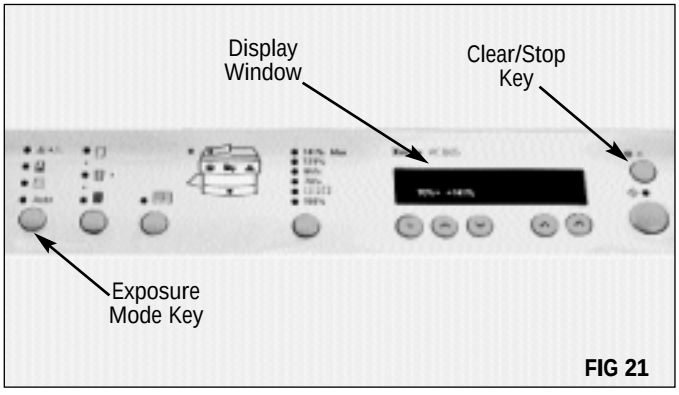


FIG 21

Using the **Copy Quantity** keys, select "24", then press the **Start** key (FIG 22).

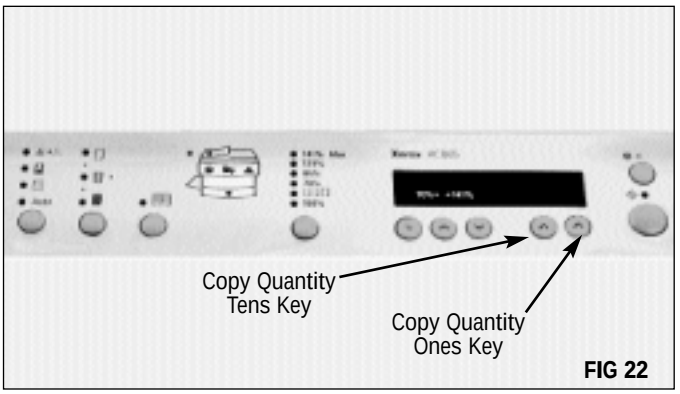


FIG 22

Using the **Copy Quantity** keys, select "7" then press the **Start** key (FIG 23).

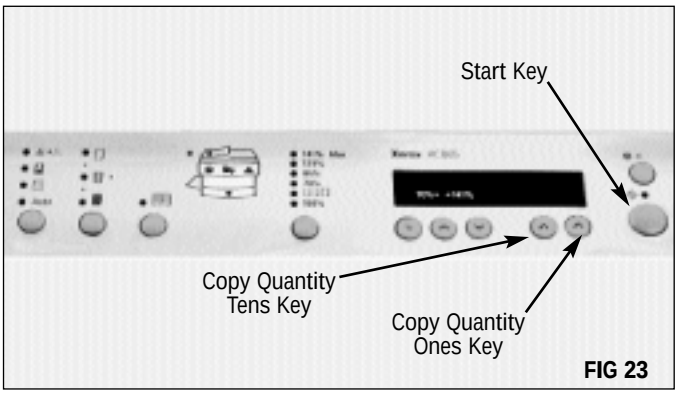


FIG 23

Turn the copier off, then on again. The drum count is now reset to zero.

Reassembly of the Drum Unit

7. Lubricate the wiper blade

When applied to the working edge of the blade, Kynar® Lubricating Powder (KPOW) will help prevent blade "flip overs" during the first drum rotations of the remanufactured cartridge. Static Control recommends padding the wiper blade with each cartridge remanufacturing cycle.

Before installing the wiper blade, dip the edge of the blade in the Kynar® powder. Examine the length of the blade to ensure even coverage, and repeat the dipping process one time (FIG 24).

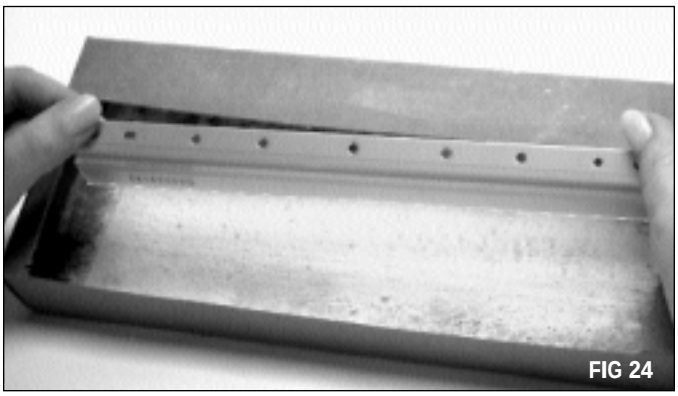


FIG 24

8. Replace the wiper blade

After seating the wiper blade, replace the five screws that secure the wiper blade (FIG 25).

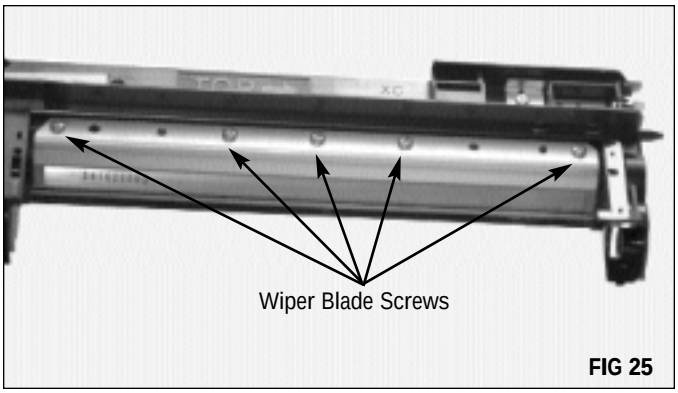


FIG 25

9. Replace the corona assembly

Replace the electrical contact on the upper left corner of the cartridge by aligning the holes over the pegs and allowing the contact to rest in place. No screws are used at this time (FIG 26).

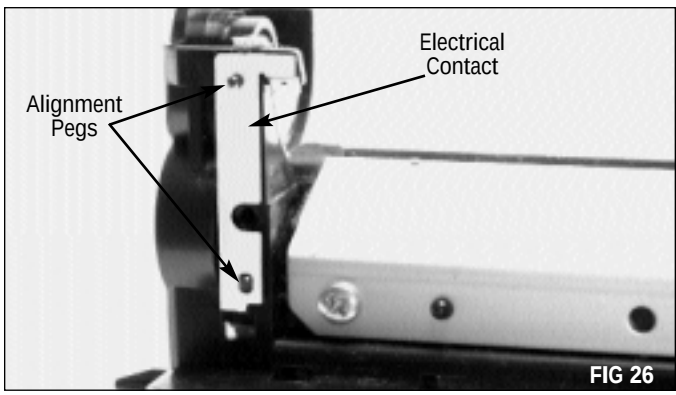


FIG 26

Locate the two slots in the cartridge where the electrical contacts slide under the contact plates (FIG 27).

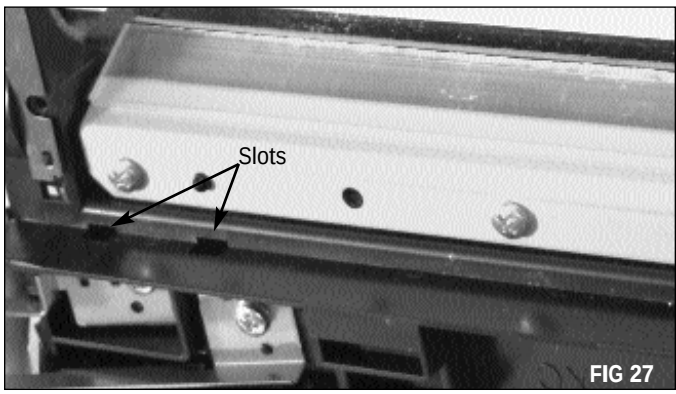


FIG 27

While looking into the slots, move the arms of the contact plates forward until you can see a space between the plates and the cartridge (FIG 28).

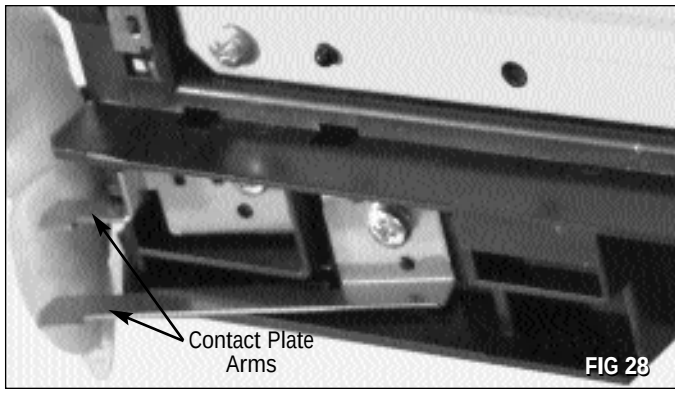


FIG 28

Reassembly of the Drum Unit

Insert the electrical contacts into the slots and under the contact plates (FIG 29).

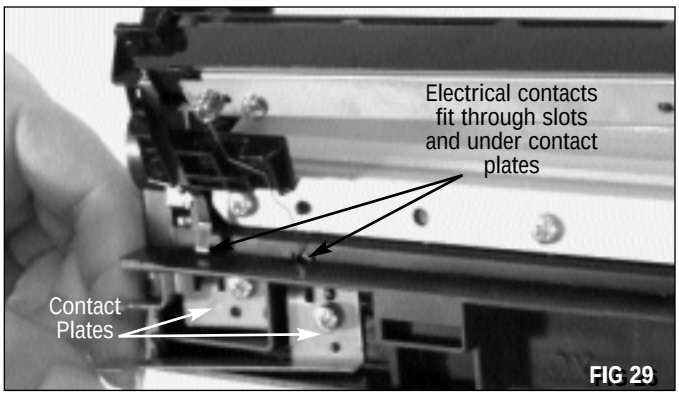


FIG 29

Lay the cartridge so that the corona assembly rests in place. The two electrical contact plates should fall into position, with the arms extended through the slots in the cartridge (FIG 30). Make sure the plates are completely seated over the positioning pegs.

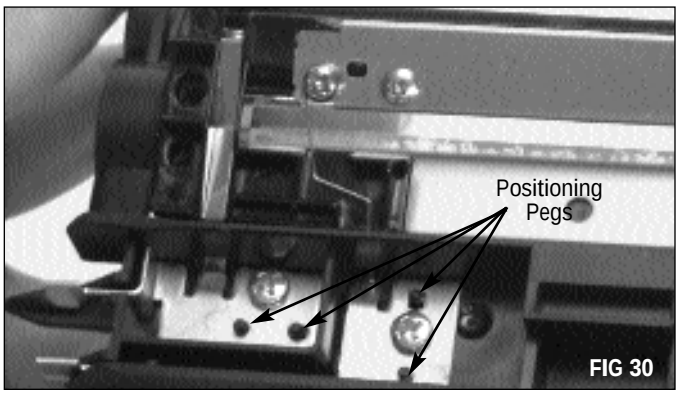


FIG 30

Using a Phillips screwdriver, tighten the two electrical contact plate screws (FIG 31).

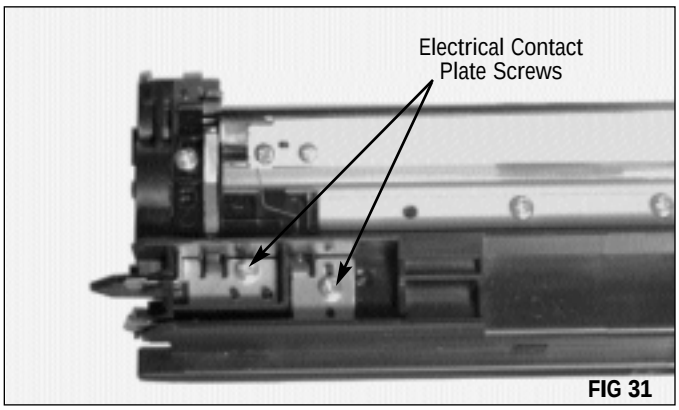


FIG 31

Make sure that the ends of the corona assembly are seated down over the pegs. Using a Phillips screwdriver, replace the two screws at either end of the corona assembly (FIG 32).

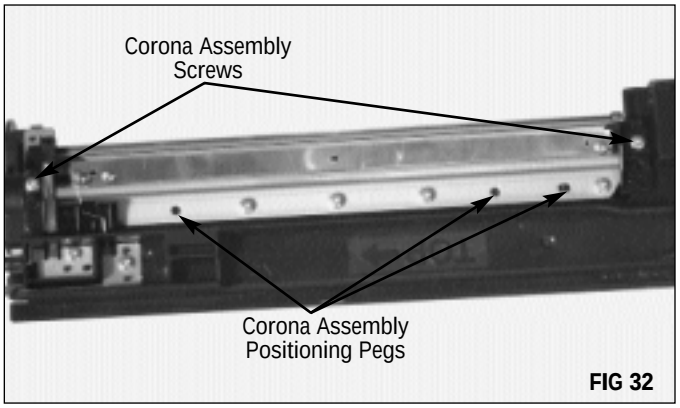


FIG 32

10. Replace the OPC drum

Hold the drum by the helical gear, rotating the drum as you gently pad the coated area with Kynar® Lubricating Powder (KPOW). Be careful to avoid sprinkling Kynar on the gear (FIG 33).

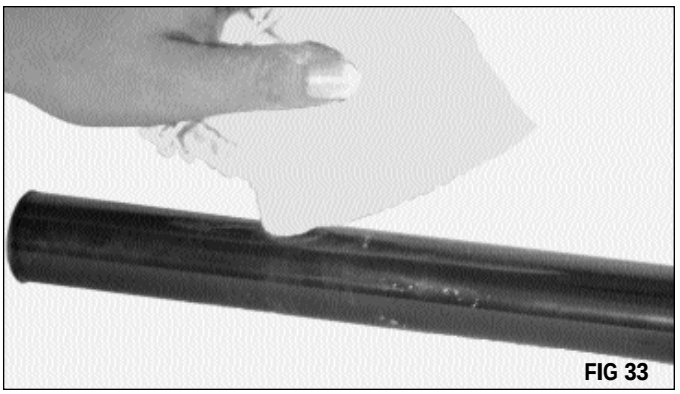


FIG 33

NOTE Do not use cleaning agents or coatings on the drum, and be careful not to nick the drum surface.

Install the drive gear end of the drum first by placing the drum axle (molded to the gear) inside the axle ring on the cartridge (FIG 31).

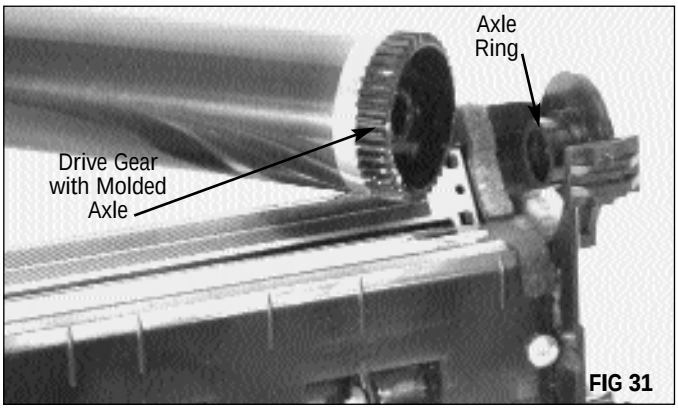


FIG 31

NOTE The XC drum must be replaced by the drive gear end first. Since there is no gear present on the auger end by which to grasp the drum, the use of gloves or other protective material should be used when handling the drum.

Damage to the end foam on the auger end of the cartridge can easily occur when seating the auger end of the drum. To prevent this, press the foam against the cartridge with one finger while carefully easing the drum into place (FIG 32).

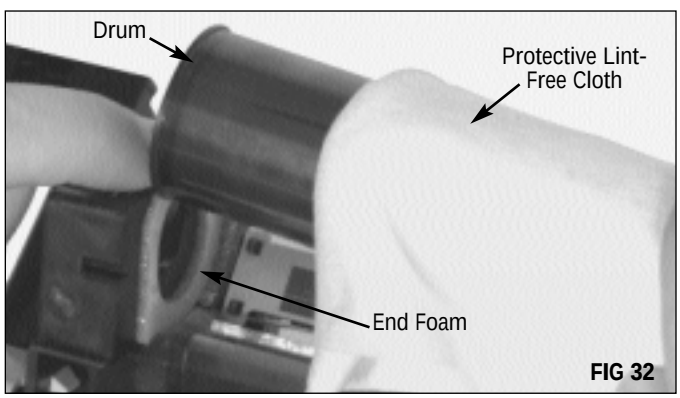


FIG 32

NOTE Be sure to protect the drum from light and impact damage during storage. Use of disposable drum protector paper is recommended.

11. Reinstall the drum axle

The XC drum axle is keyed to fit into the cartridge one way only (FIG 33).

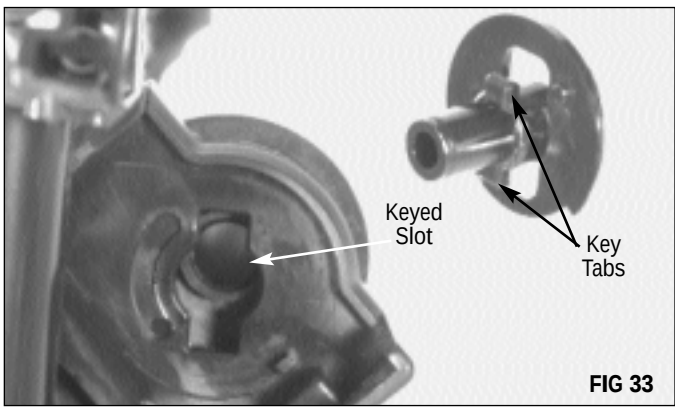


FIG 33

Insert the drum axle into the drum. You may need to turn the axle slightly until it falls into place (FIG 34).

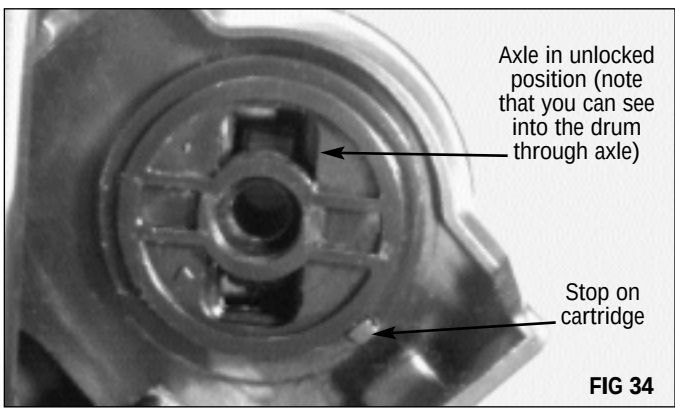


FIG 34

Using a flat blade screwdriver, turn the axle counter-clockwise until the locking mechanism snaps into place (FIG 35).

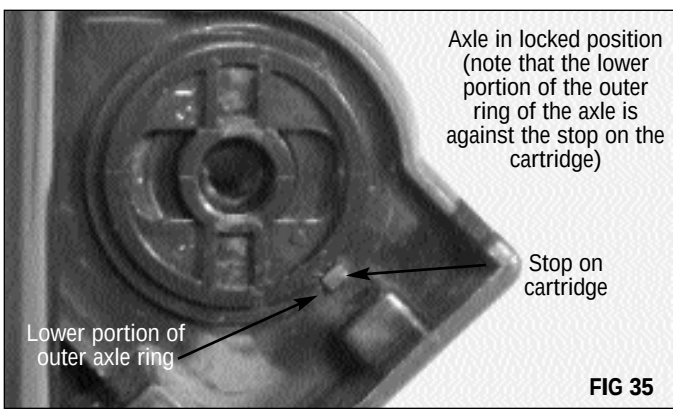


FIG 35

Store the drum unit so that it is protected from light and impact damage.

Disassembly of the Toner/Developer Unit

12. Remove the waste bin

Remove the two screws with a Phillips screwdriver (FIG 36). Gently pull the waste bin away from the cartridge, and set the waste bin aside.

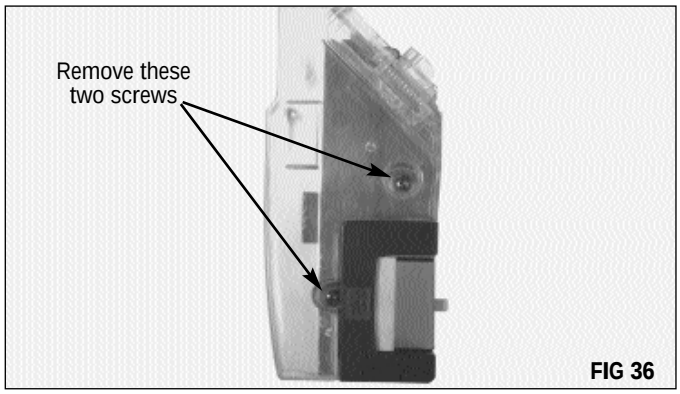


FIG 36

13. Remove the endplate

Using a Phillips screwdriver, remove the one screw that secures the endplate (FIG 37).

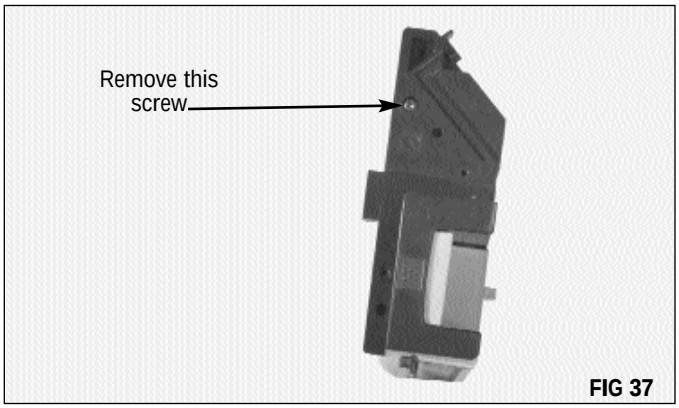


FIG 37

Carefully loosen the bottom of the endplate, pulling toward the top of the cartridge. If the locking tab on the top of the cartridge does not disengage easily, use a small flat blade screwdriver to ease it out of position (FIG 38).

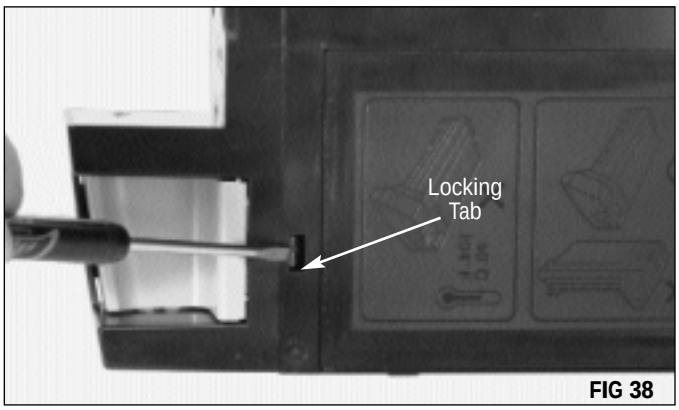


FIG 38

NOTE If you are not replacing the developer, go to step 15 on page 12.

14. Separate the developer unit from the toner unit

Remove the two screws that secure the toner unit and developer unit together (FIG 39).

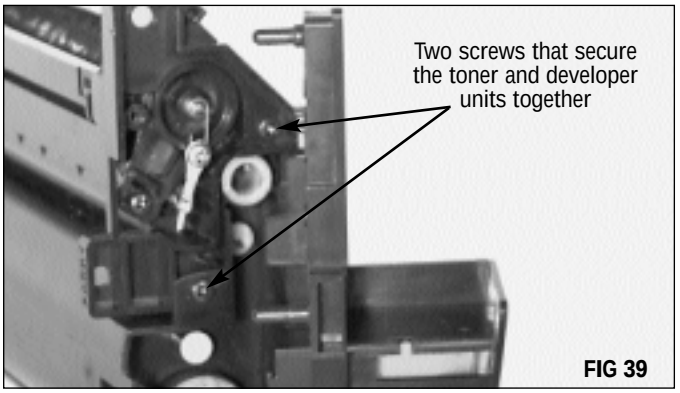


FIG 39

Lift the hopper section off of the developer roller section (FIG 40).

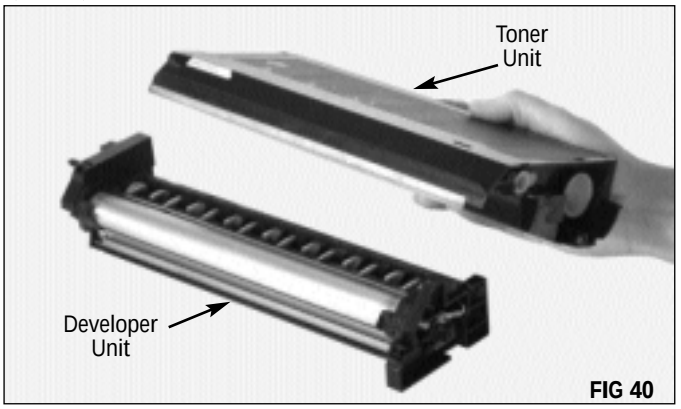


FIG 40

15. Remove the toner and developer hopper caps

Insert the large end of the Hopper Cap Removal Tool (XDHCRTOOL) into the toner hopper cap, and turn clockwise two to three turns (FIG 41).

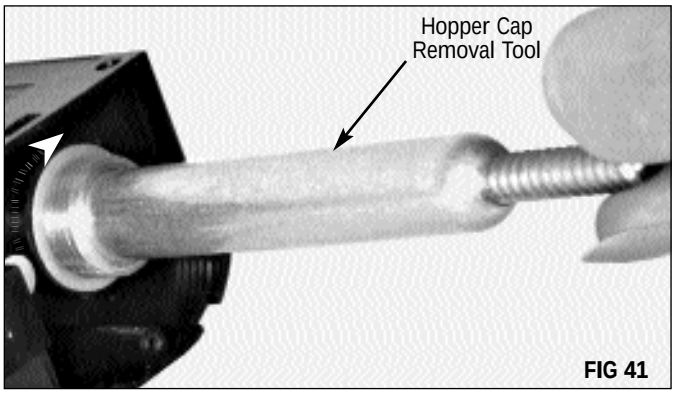


FIG 41

Placing your thumb against the unit for leverage, carefully pull the toner hopper cap out of the fill hole (FIG 42).

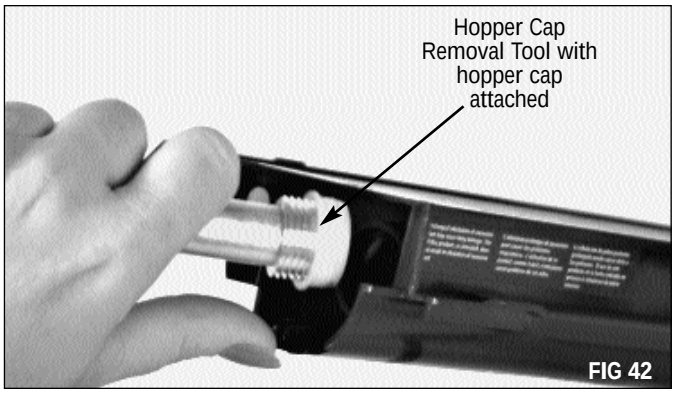


FIG 42

Insert the small end of the hopper cap removal tool into the developer hopper cap, and turn clockwise two to three turns (FIG 43).

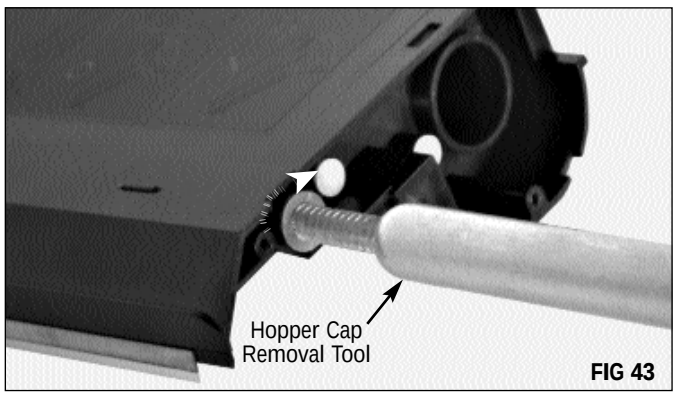


FIG 43

Placing your thumb against the unit for leverage, carefully pull the developer cap out of the fill hole (FIG 44).

FIG 44

After dumping any remaining toner from the toner hopper, clean with dry, filtered compressed air (FIG 45).


FIG 45

Clean the developer section with dry, filtered compressed air, rotating the developer roller to remove any remaining developer (FIG 46). Repeat until all developer has been removed. You may need to use a small brush to help clean the developer roller.


FIG 46

Reassembly of the Toner/Developer Unit

16. Reattach the developer and toner sections

Reattach the developer section to the toner hopper and secure with the two screws (FIG 47).

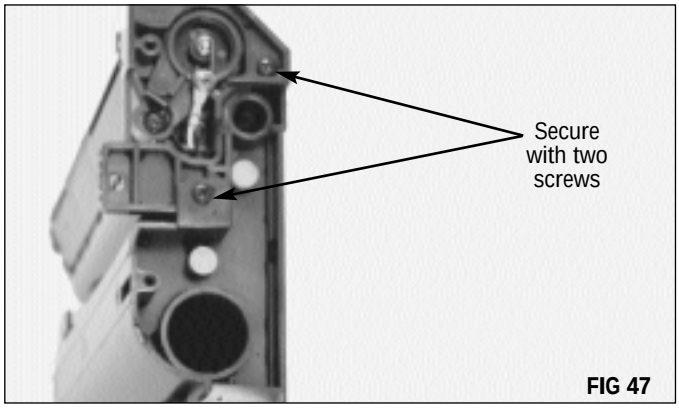


FIG 47

Fill the toner hopper and replace the toner hopper cap (FIG 48).

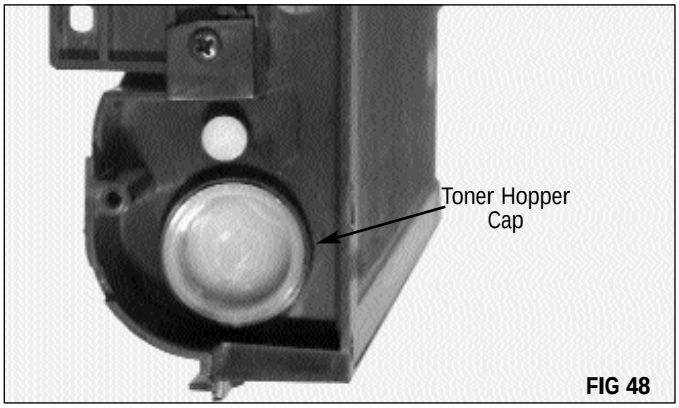


FIG 48

Replenish the developer and replace the developer cap (FIG 49).

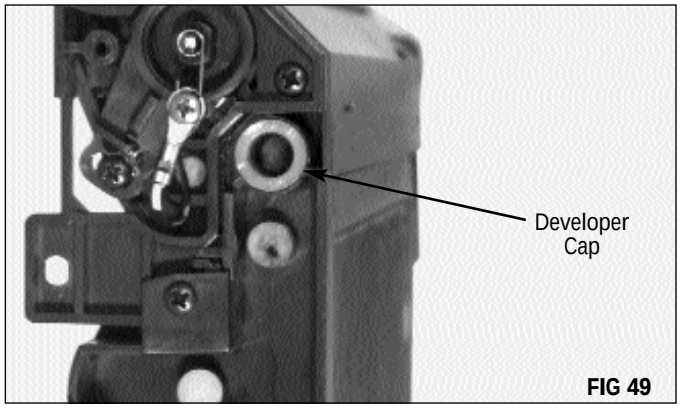


FIG 49

17. Replace the endplate

Align the two posts on the endplate with the holes in the cartridge (FIG 50).

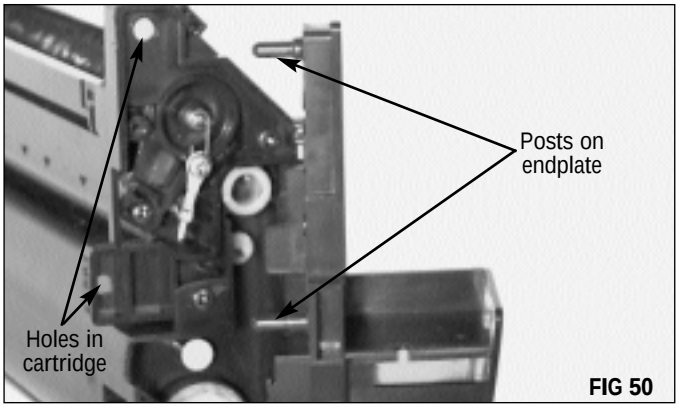


FIG 50

Press the endplate into position. The locking tab on the opposite side should snap into place. If not, use a flat blade screwdriver to help guide the tab into the slot (FIG 51).

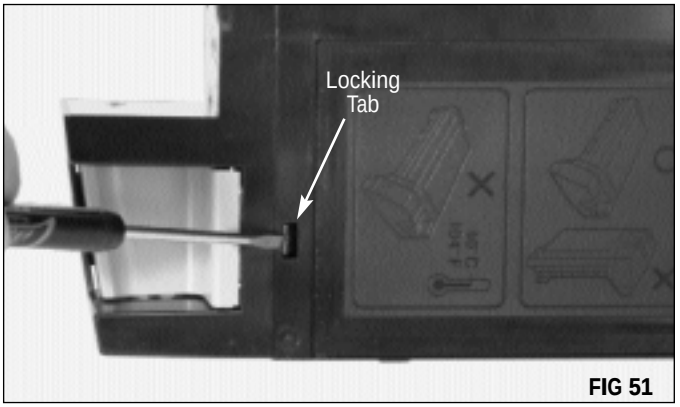


FIG 51

Using a Phillips screwdriver, secure the endplate with one screw (FIG 52)

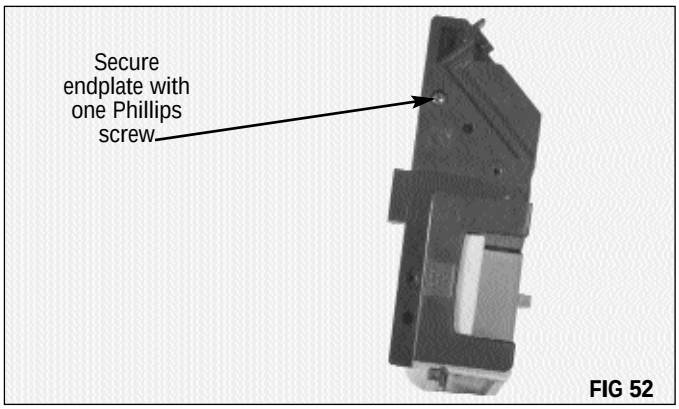


FIG 52

18. Empty and clean the waste bin

Hold the shutter open and dump all toner from the bin (FIG 53). Remove any residual toner using dry, filtered compressed air. Be sure to clean around the sealing felt, and inspect for damage which could result in toner leakage.

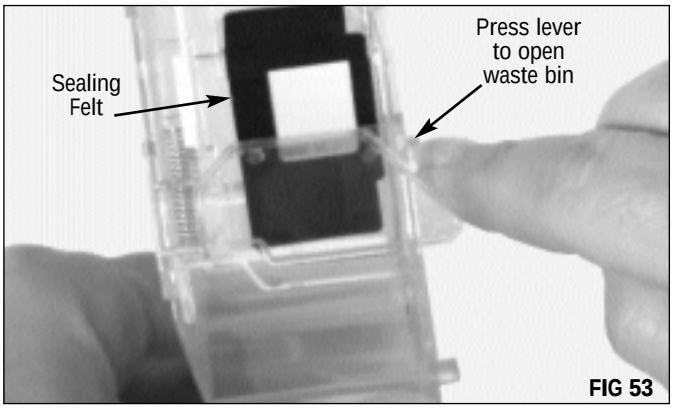


FIG 53

19. Replace the waste bin

Position the waste bin and, using a Phillips screwdriver, secure with two screws (FIG 54).

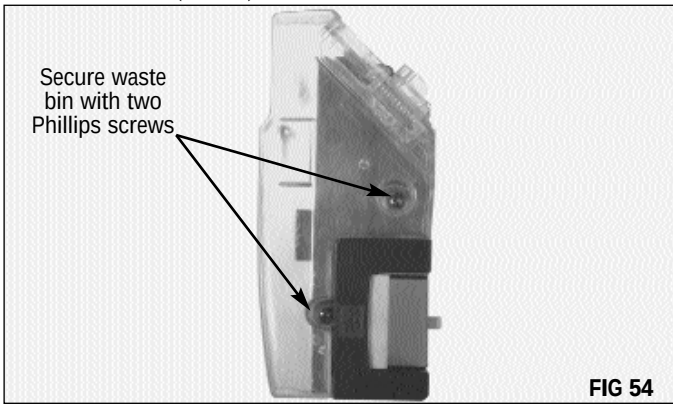


FIG 54

NOTE To guard against toner and developer leakage through the mag roller port, Static Control recommends the use of our Shipping Protector (XCSHPRT). Refer to SSS™ 280 for instructions.

Imaging System Technology You Can Count On!

The development of cartridge imaging systems, such as the Xerox® XC 800 System, is the primary mission of our technology laboratories. Through extensive testing and research, we develop the optimum combination of matched components for each cartridge system. Our engineering and manufacturing expertise provides us with total control in design, quality and development to produce products from the ground up. The result is a system of components that seamlessly work together in each cartridge application.

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