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Pitney Bowes® 9800 Series/Panasonic® Panafax® UF-744/788
Remanufacturing Instructions

About the Cartridge

The Pitney Bowes® 9800 (PB9800) cartridge is used in several fax machines, including the Pitney Bowes 9800 Series and Panafax® UF-744/788 machine models. Each OEM sells their own version of the cartridge which is identical except for the drum helical gear and the position of the cartridge sensor tab.

The PB9800 cartridge is comprised of four main sections: the waste bin, toner hopper, magnetic toner removal roller housing and corona wire assembly. There are several ways to disassemble the cartridge depending on whether you install a seal or how in-depth you wish to remanufacture the cartridge. These instructions provide the disassembly process required for seal installation.

The hopper and waste bin sections are separated by removing two screws from the top side of the cartridge. The waste bin is pivoted on the drum axle hubs until the waste bin section slides freely from the hopper section. The drum stays installed on the toner hopper section.

Waste Bin Section

The waste bin houses the wiper blade, recovery blade, and drum shutter. SCC Imaging Division (SCC) currently offers a replacement **wiper blade**, as well as both mylar- and poly-style **recovery blades**. Due to differences in the recovery blade mounting surfaces on early- and current-style waste bin sections, blades of different lengths are required for each style. SCC offers one PB9800 recovery blade for both styles. The blade is designed to fit the current-style waste bin; the same blade is trimmed to accommodate the earlier style waste bin. A cutting guide and complete instructions are included with the recovery blade, as well as included in these instructions.

To reduce the risk of drum damage, SCC recommends installing a **drum shutter** felt to the interior surface of the drum shutter.

The waste bin also features wiper blade end foams and felts to seal the ends of the polyurethane blade and a wiper blade sealing foam to seal the underside of the blade stamping.

Magnetic Toner Removal Roller Housing

The magnetic toner removal roller housing (MTR housing) is removed from the toner hopper in order to install a seal. The housing contains the OPC drum and a **magnetic toner removal roller** (MTR roller) that removes toner from the non-exposed areas of the OPC drum surface. *See pages 5-7 for an overview of the PB9800 development system.*

A **scraper blade** installed adjacent to the MTR roller is used to remove toner from the roller. We do not recommend removing the toner removal roller or the scraper blade assembly from the housing, as reassembling the components in the housing can be very time-consuming.

Note that a doctor blade is not present in the PB9800 cartridge. The configuration of the development system does not require a metering device such as a doctor blade or doctor bar.

continued on the next page

PB9800 Quick Reference

Estimated Remanufacturing Time	10 minutes
Toner Weight	300 grams
Toner Class	Magnetic, Monocomponent
Seal Type	WhiteSeal™ (Lay-in Seal)
Recommended Test Machine	Pitney Bowes 9800 Series Fax Machine

Table of Contents

About the Cartridge

The **OPC drum** features a magnet that is an integral part of the image development process. A **drum axle/magnet alignment pin** installed at one end of the drum axle keeps the drum magnet stationary and properly aligned when the drum is installed in the MTR housing. SCC offers a replacement alignment pin in case the original alignment pin is lost or bent. *Additional information about the drum alignment pin is on page 4, Critical Issues.*

The drum is removed by unseating the drum axle hubs from the ends of the housing. The OPC drum is the same for both the PB9800 and Panafax UF-744/788 cartridges; however the helical gear teeth are oriented differently for each cartridge. *For details regarding the drum differences, see PB9800/Panafax UF-744/788 Cartridge Differences on page 8.*

The replacement process for the drum requires removing the magnet/axle assembly from the old drum and installing it in the replacement drum. To avoid damage to the magnet/axle assembly, use a tubing cutter to cut off the drive gear end of the drum. With the gear removed, the assembly is easily removed. Detailed cutting instructions are included with the drum (SSS 140). It is very important that you follow the instructions carefully in order to avoid damage to the magnet/axle assembly. SCC's replacement drums are sold with gears for convenience in assembling the drum with drum magnet/axle assembly. *For more information regarding the drum and magnet/axle assembly, refer to Critical Issues on page 3.*

Air gap rollers are installed between the drum and toner removal roller to set the air gap required for proper image development. The air gap rollers are fragile, as well as highly susceptible to wear. For optimum reliability, SCC recommends replacing the air gap roller every other remanufacturing cycle. *Refer to Critical Issues on page 4 for additional information.*

Toner Hopper Assembly

The toner hopper holds **300 grams of toner** that is available from SCC in bottles. SCC offers a **WhiteSeal**™ designed for the PB9800 application. A cardboard stabilizer incorporated into the seal facilitates placement and alignment of the seal in the seal channel. Peel-to-expose adhesive secures the seal to the hopper in only a matter of seconds. A **seal exit port plug** and **top felt** are removed each time a new seal is installed. The exit port plug can be reused; however, the top felt is usually damaged when it is removed and must be replaced. For remanufacturing convenience, a replacement top felt and a pull tab are included with the PB9800 WhiteSeal.

A mylar **OPC drum sealing blade** installed on the hopper seals the length of the drum to prevent leakage from the hopper. Bends, waves or other damage to the blade can allow leakage. An OPC drum sealing blade installation kit and replacement blades are under development. Please contact a member of your SCC Sales Team for availability.

The toner hopper houses two **toner agitator gears** and two idler gears. We do not recommend removing the gear housing end plate or the gears as they can be extremely difficult to realign with the agitator paddles once they are removed.

A **cartridge sensor tab,** located in one of seven slots molded into the hopper body, interfaces with the fax machine to identify that the cartridge is present in the machine. The tab can be moved to different positions in order for the cartridge to work in PB9800 or Panafax UF-744/788 fax machines. A replacement cartridge tab is available from SCC. *For details regarding tab placement, see PB9800/Panafax UF-744/788 Cartridge Differences on page 8.*

Corona Wire Assembly

The corona wire assembly houses the corona wire used to charge the OPC drum. There are two styles of assemblies, early- and late-style, that differ in regard to placement of **locking tabs** on each side of the **corona wire grid** and the interior sides of the corona wire assembly. For this reason, **early- and late-style grids** and assemblies can not be interchanged. Later style assemblies also feature a **hooked post** to hold the corona wire eyelet. Early style assemblies feature a **support post** and removable **spacer** component. *Refer to page 8 of SSS 123-B, Cartridge Components of an illustration of the corona wire assembly.*

SCC laboratory testing has shown that the **corona wire** becomes worn and pitted at approximately 25,000 pages. To ensure optimum reliability throughout the entire cartridge cycle, SCC recommends replacing the corona wire each remanufacturing cycle. SCC offers a replacement corona wire and detailed replacement instructions.

Fuser Wand

The OEM cartridge ships with a **fuser wand** that is installed into the printer by the end user. For best results with fuser cleaning, SCC recommends replacing the **wand body felt** each time the cartridge is remanufactured. The wand body felt only or the wand body and felt are available from SCC.

Cartridge Information

	Pitney Bowes 9800 Series	Panasonic Panafax UF-744/788
OEM Part Number	PB9800	UG3309
OEM Published Yield[1]	10,000 pages	10,000 pages
Current List Price (U.S.)[2]	$295.00	$298.00
Ave. Wholesale Price (U.S)[2]	$235.00	$168.00

[1] *Based on 5% toner coverage.* [2] *Current prices reflect information as of August 1997.*

Critical Issues

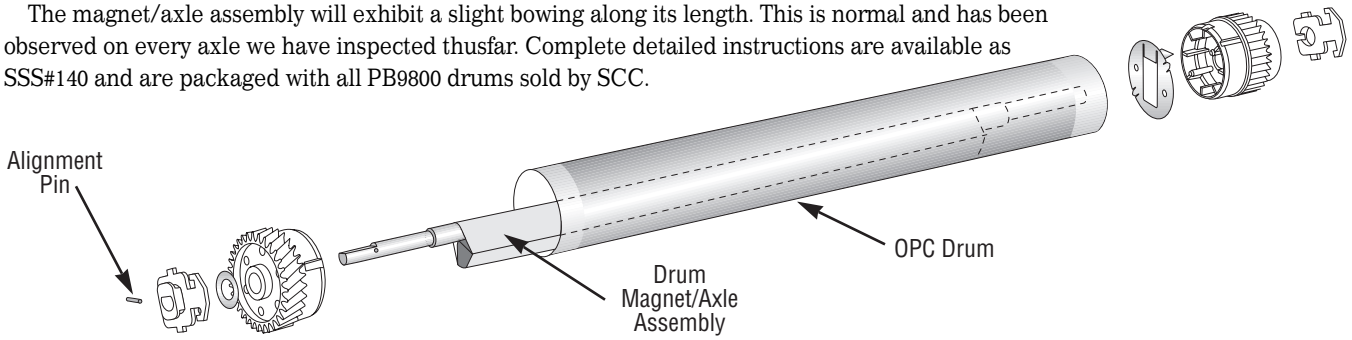
OPC Drum Axle Damage and Operational Issues

The PB9800 OPC drum contains a stationary magnet/axle assembly that is an essential part of the development process. The OPC drum gears revolve on this axle.

The magnet/axle assembly can easily be damaged while disassembling the OPC drum to remove the axle. Damaged axles can cause operational problems and should be discarded. No replacement for the axle is available or planned.

Bent axles can cause the magnet to rub or bind against the OPC inside diameter (inside drum wall). There is an air gap of only a few thousandths of an inch between the magnet and the inside diameter of the OPC drum. Contact between the magnet and the drum can also cause rotational drum noises. We have not observed any print defects associated with a bent axle condition unless the bending is so severe that the drum will not rotate on the axle. In this case the drum would not properly function and printer gear train could be damaged.

The magnet/axle assembly will exhibit a slight bowing along its length. This is normal and has been observed on every axle we have inspected thusfar. Complete detailed instructions are available as SSS#140 and are packaged with all PB9800 drums sold by SCC.



OPC Drum Disassembly/Assembly Procedure

Do not strike the drum axle on a work surface to force the gear from the drum (FIG 1). This can bend the axle and/or dislocate the magnet bonded to the axle. For best results in avoiding damage to the magnet/axle assembly, we recommend the following procedure:

Use a tubing cutter to cut off the drive gear end of the drum. It is very important to place the cut 1/2" to 5/8" back from the inside of the drive gear to prevent cutting into the magnet (FIG 2). With the drive gear removed, the drum axle/magnet assembly is easily removed from the drum.

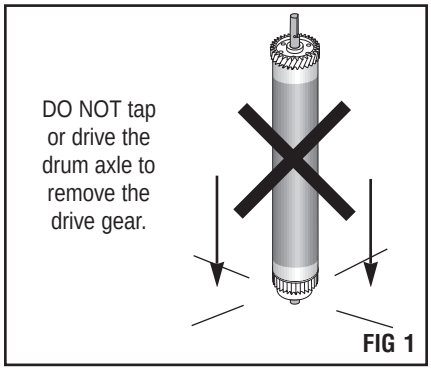


FIG 1

Corona Wire

The corona wire is one of the most life-limiting components in the PB9800 cartridge. Life tests conducted in the SCC Imaging Lab have shown that the corona wire typically becomes worn and pitted at approximately 25,000 pages. Resulting print defects include vertical streaking with fuzzy-edged lines, similar to print defects resulting from a worn or failed SX corona wire. To ensure optimal performance throughout the entire cartridge cycle , we recommend replacing the corona wire each remanufacturing cycle.

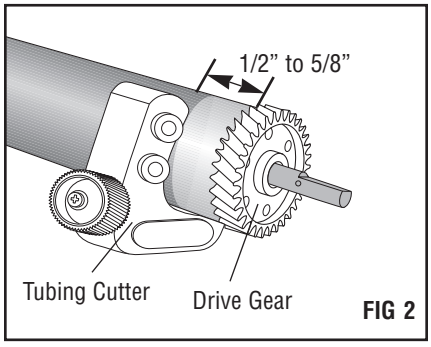


FIG 2

Critical Issues

Magnet/Axle Plastic Coating Inspection and Maintenance

A clear plastic coating wraps around the magnet/axle assembly. The ends of this coating can be frayed or loose. Trim any loose or frayed ends to prevent them from being caught between the close air gap between the magnet and the interior of the drum (FIG 3). If the loose end folds back over the magnet, it can create a contact point with the drum interior. This rubbing can cause a print defect similar to a bent axle and cause rotational drum noises. We do not currently recommend the complete removal of the plastic coating.

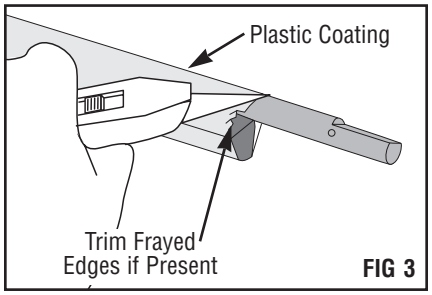


FIG 3

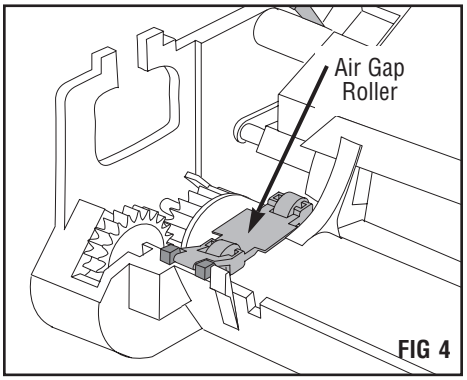


FIG 4

Air Gap Rollers

Installed between the OPC drum and magnetic toner removal roller, the air gap rollers provide a gap for toner transfer between the drum and toner removal roller (FIG 4). Maintaining a constant and correct air gap is important for image quality.

The air gap rollers are susceptible to wear during normal cartridge operation, as well as breakage (FIG 5). As a smaller component, the air gap rollers are also easily lost. To ensure proper imaging, make sure both air gap rollers are in good condition (not excessively worn) and present in the cartridge.

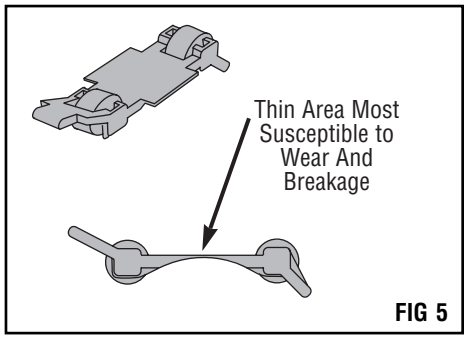


FIG 5

Inspect the air gap rollers for wear and breakage each time you remanufacture the cartridge. For optimum reliability, we recommend replacing both air gap rollers every other remanufacturing cycle.

Drum Axle Alignment Pin

There are two types of drum axle alignment pins: a solid steel pin and a rolled steel pin (FIG 6). The “rolled” alignment pin, fits tightly in the drum axle and can be difficult to remove. Our testing has shown that prying the pin from the axle can cause the drum axle to bend. For best results, remove the drum alignment pin by pulling it straight out from the axle.

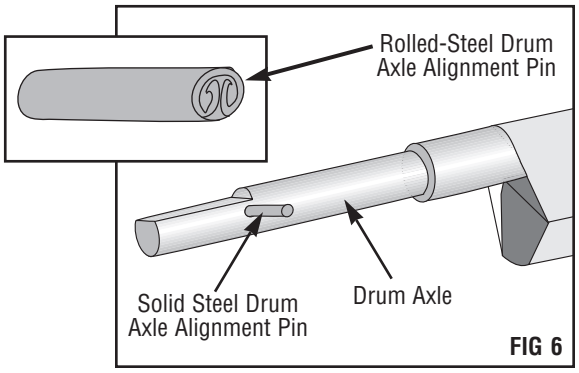


FIG 6

Pitney Bowes® vs. Canon® Development Processes

A Comparison of Pitney Bowes® and Canon® Image Development Processes

Most notable about the PB9800 cartridge is its development system, which differs from the more widely-known Canon® development system. The main difference occurs in the delivery of toner to latent image on the surface of the drum. Instead of delivering toner only to the latent image as is the case with the Canon system, the Pitney Bowes system attracts toner to both the latent image (exposed areas) and non-exposed areas of the drum. A magnet inside the drum attracts toner to the area of the drum surface where the magnetic field is present. A magnetic toner removal roller then removes toner from the non-exposed areas, leaving the correct amount of toner present on the latent image. The illustrations below show the development process for the Canon and Pitney Bowes systems.

Differences Between Pitney Bowes® and Canon® Componentry include:

- magnetic toner removal roller (PB9800) vs. magnetic developer roller (Canon)

The magnetic toner removal roller does not deliver toner to the latent image on the drum; instead the roller removes toner from non-exposed areas of the drum.

- air gap rollers (PB9800) vs. mag roller bushings (Canon)

Air gap rollers function similarly to the mag roller bushings in Canon systems in that they set the air gap between the toner removal roller and drum required for proper image development.

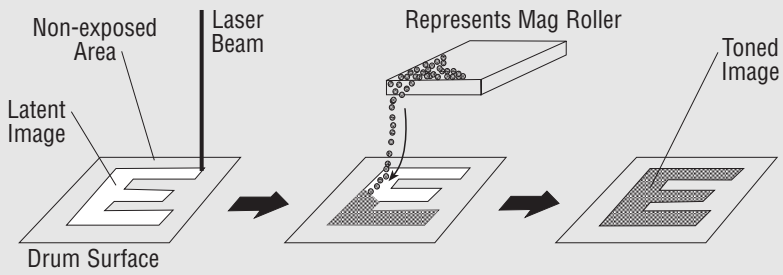
- magnet inside the drum (PB9800) vs. no magnet inside drum (Canon)

The magnet inside the drum attracts toner from the hopper to the drum surface.

- doctor blade not present (PB9800) vs. doctor blade present (Canon)
- toner removal roller scraper blade (PB9800) vs. no cleaning mechanism for the magnetic developer roller (Canon)

The scraper blade removes toner from the toner removal roller.

Canon® Development Process

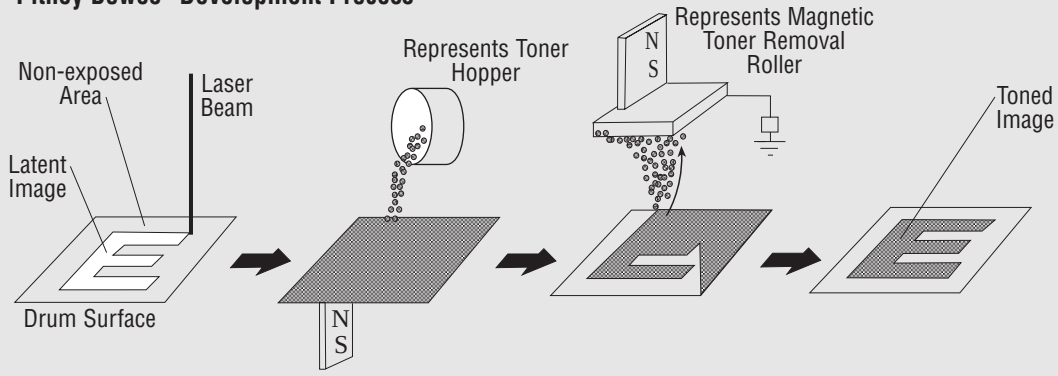


Exposure
A latent image is formed on the surface of the drum by the laser beam. The latent image is the area that has been exposed to the laser beam.

Development
Toner from the magnetic developer roller is attracted to the latent image, forming a toned image.

Toned Image
The toned image is transferred to the paper and then to the fuser assembly.

Pitney Bowes® Development Process



Exposure
A latent image is formed on the surface of the drum by the laser beam. The latent image is the area that has been exposed to the laser beam.

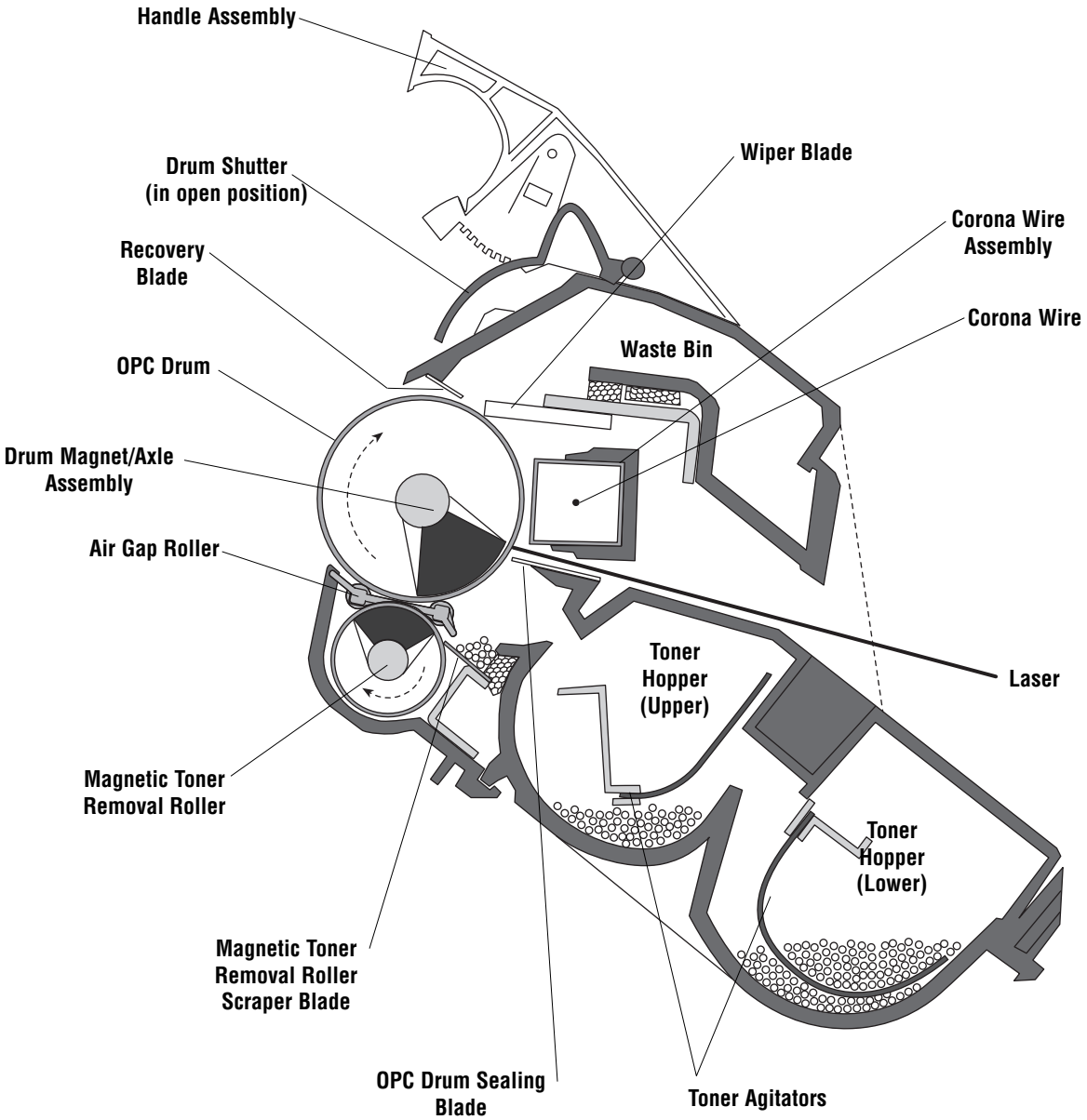
Development
Toner is magnetically attracted to surface area of the drum opposite the drum magnet. Both the latent image and non-exposed areas of the drum are covered with toner.

The magnetic toner removal roller removes toner from the non-exposed areas of the drum leaving a toned image.

Toned Image
The toned image is then transferred to the paper and then to the fuser assembly.

Pitney Bowes® 9800 Series Development Process

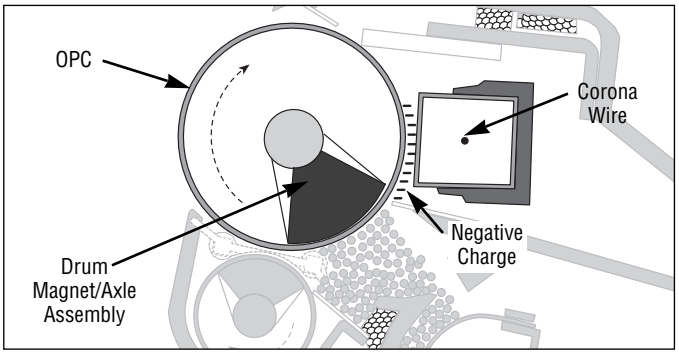
The illustration below is a schematic of the Pitney Bowes 9800 cartridge imaging components as viewed from the right side of the cartridge. The cartridge is oriented as it would appear installed in the fax machine.



In many respects, the Pitney Bowes® 9800 Series and Panafax® UF-744/788 cartridges function similarly to Canon cartridges. Most of the steps in the electrophotographic process, including charging, exposure of the drum as well as the transferring and fusing processes are the same. The key difference between the two processes lies in the development phase in which a latent image is developed into a toned image. The following illustrations are provided to show how the latent image is developed in the Pitney Bowes system.

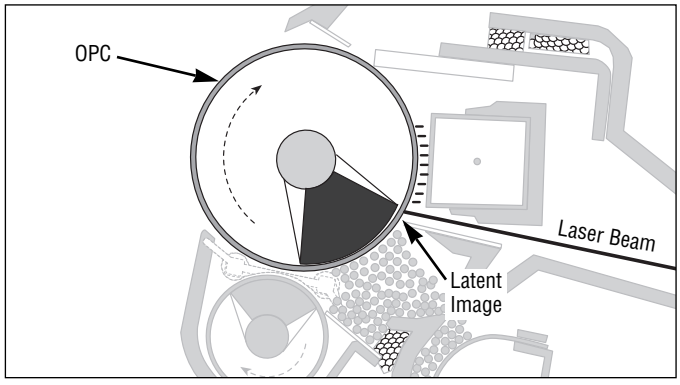
1 Charging

The imaging process begins with the charging of the drum. A constant flow of charge from the corona wire assembly produces a blanket of negative charge on the surface of the rotating drum. Note that the magnet inside the drum stays stationary and the drum sleeve rotates around the magnet axle assembly.



2 Exposure

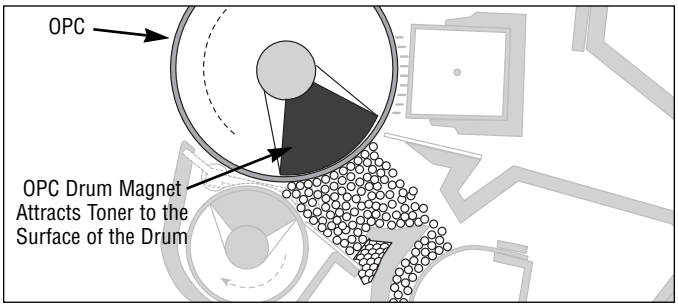
The evenly charged OPC surface then passes under a laser beam which exposes the OPC one line at a time. The energy from the laser activates the photoconductor and the surface charge dissipates to ground forming a latent image that will be toned in the development phase.



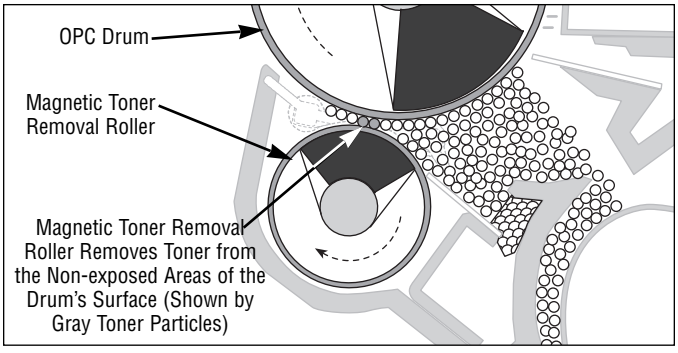
3 Development

At the development station, the latent image on the drum is developed into a visible "toned image" that will be transferred to paper. In the Pitney Bowes 9800 cartridge, development occurs in two phases--attraction of toner to the OPC drum and removal of toner from the drum to form a toned image.

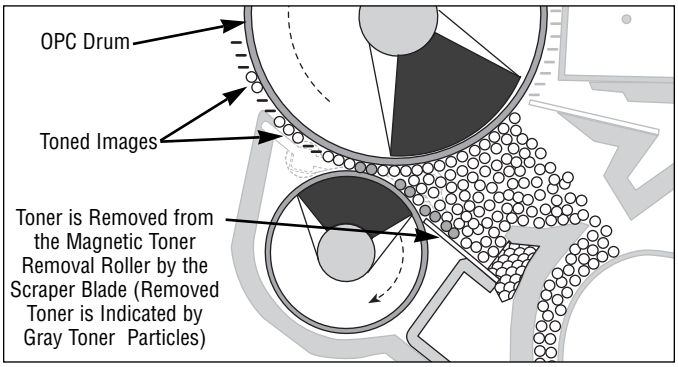
The stationary magnet inside the drum attracts toner to the surface of the drum where the magnetic field is present, including the latent image and non-exposed areas (non-latent image areas).



Toner is removed from the non-exposed areas by the magnetic toner removal roller (MTR roller) to form a toned image that will be transferred to paper. The MTR roller rotates in the opposite direction from that of the drum to convey the removed toner back to the development station for reuse.



Toner is removed from the MTR roller by the scraper blade.



PB9800/Panafax® UF-744/788 Cartridge Differences

The Pitney Bowes 9800 (PB9800) and the Panafax UF-744/788 fax machines use the fundamentally same cartridge with only a few differences that distinguish one cartridge from another.

OPC Drum Helical Gear

The cartridges use the same OPC drum, but with different OPC drum helical gears. More specifically, the orientation of the gear teeth on the drum's helical gear is different for Pitney Bowes 9800 Series and the Panafax UF-744/788 cartridges.
For the Pitney Bowes 9800 Series, the gear teeth are oriented from lower left to upper right (FIG 1). In the Panafax UF-744/788, the gear teeth are oriented from upper left to lower right (FIG 2).

Pitney Bowes® 9800 Series OPC Drum Helical Gear

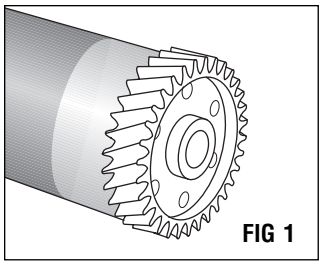


FIG 1

Panafax® UF-744/788 OPC Drum Helical Gear

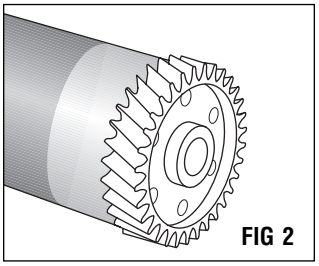


FIG 2

Cartridge Sensor Tab

The cartridge features a cartridge sensor tab that is installed in one of seven slots molded into the hopper body of the cartridge. The tab interfaces with the fax machine to identify that the cartridge is present. The tab is installed in different slots for the Pitney Bowes 9800 Series or Panafax UF-744/788 cartridges.

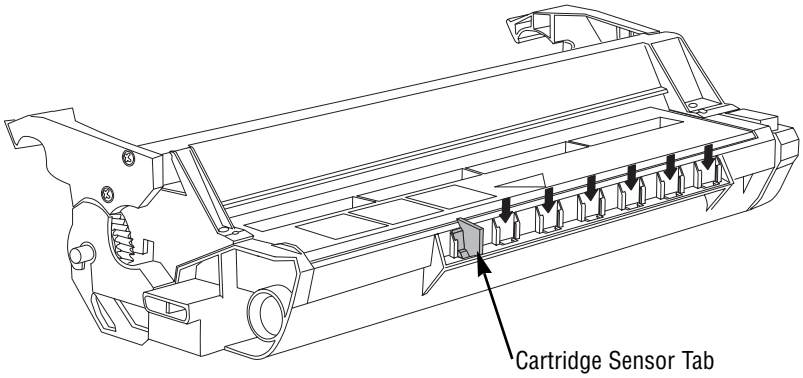


FIG 3

Slot 1
Panafax® UF-744/788

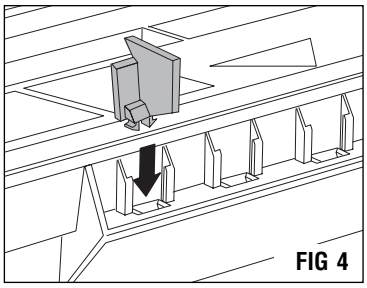


FIG 4

Slot 2
Pitney Bowes® 9800 Series

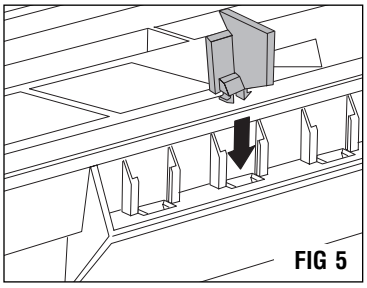


FIG 5

Orienting the cartridge as shown in FIG 3, install the tab in slot 1 (the slot closest to the hopper cap) for the Panafax UF-744/788 (FIG 4); or, install the tab in slot 2 (the second slot closest to the hopper cap) for the Pitney Bowes 9800 Series (FIG 5).

For instructions on how to remove the cartridge sensor tab, refer to page 14 of this manual.

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.

Minimum Tools and Supplies

Items Recommended for Basic Remanufacturing:

- Phillips Screwdriver
- Small Flat-blade Screwdriver
- Needlenose Pliers
- Funnel Attachment for Toner Bottle
- Compressed Air for Cleaning ..... *(See left)*
- 91-99% Isopropyl Alcohol ..... *(See left)*
- Lint-free Foam Tip Swab ..... LFSWAB
- Cotton Swab ..... QTIP
- Kynar® Lubricating Powder ..... KPOW
- Shallow trough for dipping the wiper blade
- Drum Shutter Felt 4LDSFELT
- Pitney Bowes 9800 Toner PB9800-300B
- Corona Wire PB9800CWIRE

WhiteSeal™ Seal Installation:

- PB9800 WhiteSeal™ PB9800WHSEAL
  Contents: WhiteSeals, pull tabs, seal exit port plug top felts
- Hopper Fixture PB9800JIG

Drum Replacement:

- PB9800 OPC Drum with Gears OSPB9800DRGR
  or Panafax® UF-744/788
  OPC Drum with Gears OSPAN744DRGR
- OPC Drum Alignment Pin PB9800PIN
- Instant Adhesive LOCTITE401
- Tubing Cutter
- Utility Knife

For additional information regarding recommended component replacement schedules, see pages 10-13 of SSS 123-B, Cartridge Components. For more information about other replacement components available for the PB9800 cartridge,

Separating the Cartridge

IMPORTANT **Disassemble the cartridge on a soft, non-abrasive surface. The OPC drum is exposed during some of the remanufacturing procedure.**

1. **Remove two Phillips screws from the top of the cartridge.** Position the cartridge so that the top of the cartridge is facing upward as shown in FIG 1. Remove two Phillips screws from each end of the cartridge.

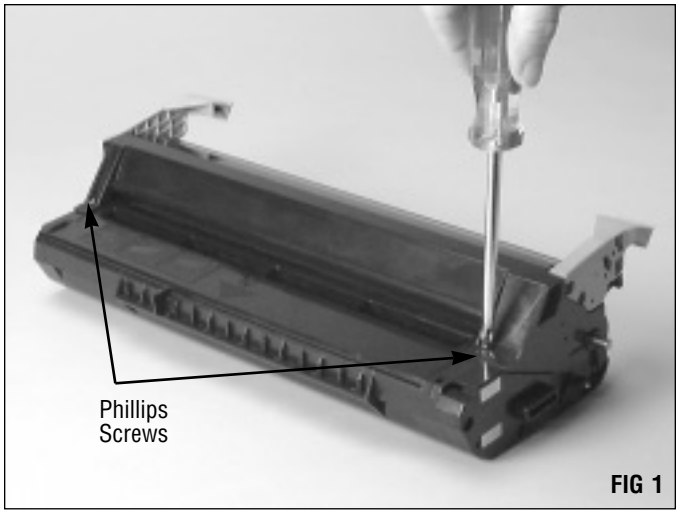


FIG 1

2. **Separate waste bin and hopper sections.** Grasp the drum shutter and hold it in an open position as shown in FIG 2. As you hold the drum shutter open, pivot the waste bin section as indicated by the arrow in FIG 2 to disengage the waste bin section from the drum axle hubs (FIG 3).

   Note that the drum stays installed on the hopper section when the two cartridge sections are separated.

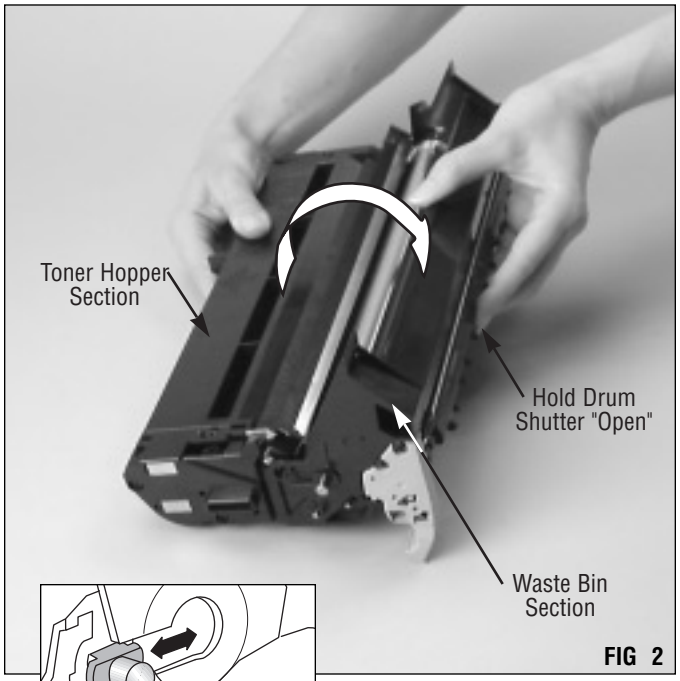


FIG 2

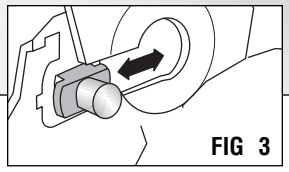


FIG 3

Disassembling the Toner Hopper Section

1. **Remove the corona wire assembly.**
   Carefully lift the left end of the assembly (helical gear end of the hopper), then lift the right end of the assembly to remove it (FIG 4).

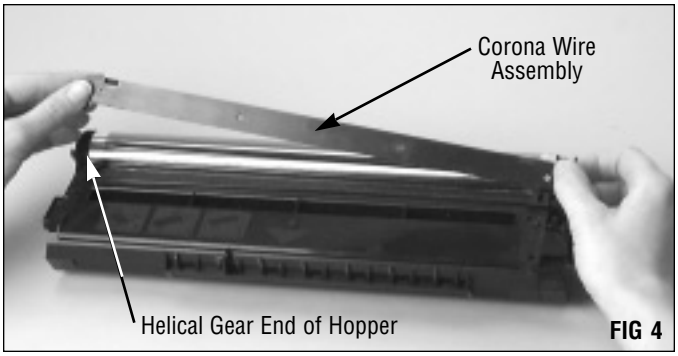


FIG 4

2. **Remove the OPC drum.**
   Position the hopper so that the drum spur gear end of the hopper is facing you. Using a small, flat-blade screw driver, pry the drum spur gear axle hub outward away from the end of the drum until the hub is disengaged from the hub seat (FIGs 5 and 6). Do not remove the drum axle hubs from the axle unless you are planning to replace the drum.

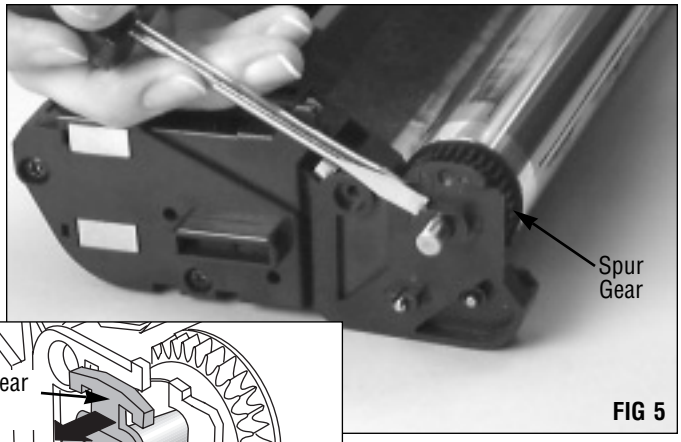


FIG 5

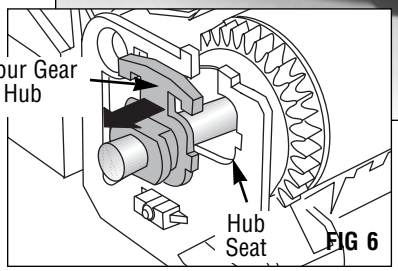


FIG 6

   At the opposite end of the hopper, use a small, flat-blade screw driver to pry the drum helical gear axle hub outward away from the end of the drum until the hub is disengaged from the hub seat (FIGs 7 and 8).

IMPORTANT **The OPC drum magnet/axle alignment pin is used to stabilize the drum magnet in the correct position for imaging. A replacement Drum Alignment Pin (PB9800PIN) is available, if the pin is lost or damaged.**

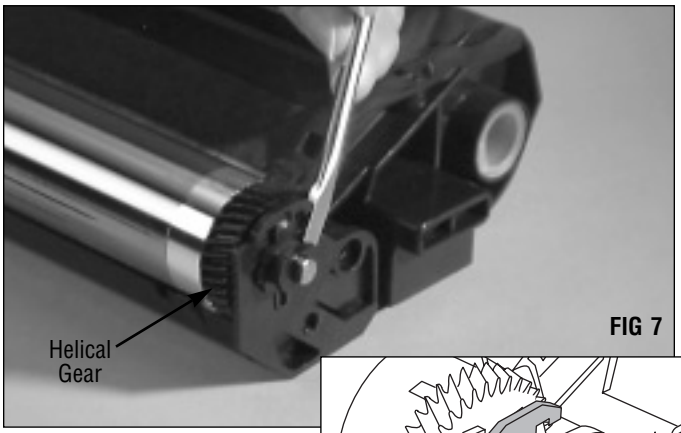


FIG 7

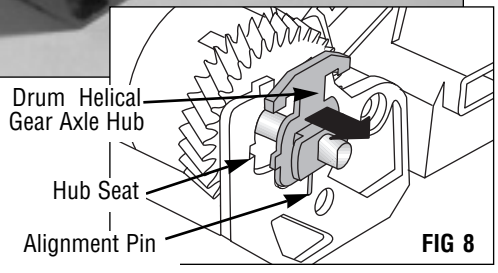


FIG 8

Disassembling the Toner Hopper Section

Grasp the drum by the axle hubs and lift the drum from the hopper (FIG 9). If you plan to reuse the drum, place it in an area that is protected from light and impact damage. For best results against field failures, we recommend replacing the OEM drum after the OEM cycle, and replace the SCC PB9800 system-qualified drum every other remanufacturing cycle.

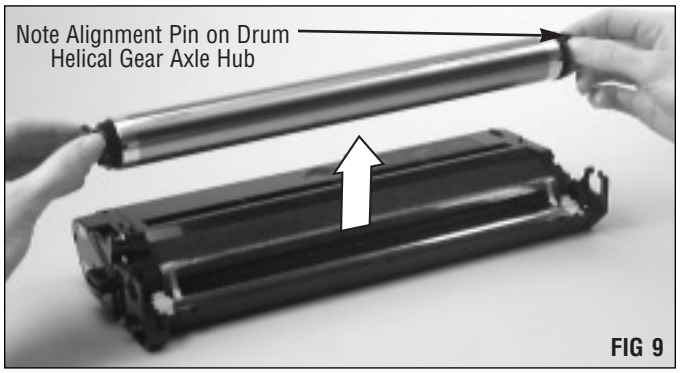


FIG 9

IMPORTANT **Drum replacement requires removing the drum magnet/axle assembly and installing it in the replacement drum. If you are using SCC's replacement drum, follow the replacement instructions very carefully in order to avoid damage to the magnet/axle assembly.** *Refer to SSS 140, PB9800 Drum Replacement Instructions, for complete information.*

3. **Remove the air gap rollers.**
   Two air gap rollers are located at each end of the magnet toner removal roller housing (FIG11).

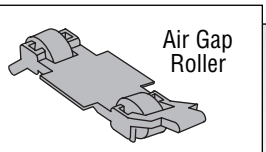


FIG 10

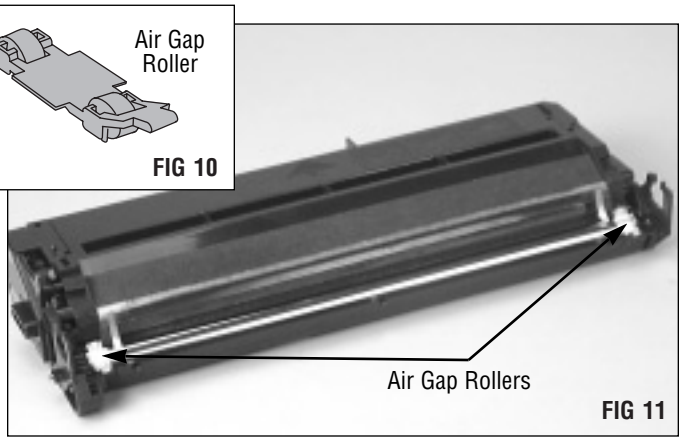


FIG 11

IMPORTANT **The air gap rollers are fragile. Store them in an area that is protected from impact damage.**

4. **Remove the magnetic toner removal (MTR) roller housing.**
   Remove four (4) Phillips screws in order to separate the housing from the hopper body.

   Remove one screw from the spur gear end of the housing (FIG 12).

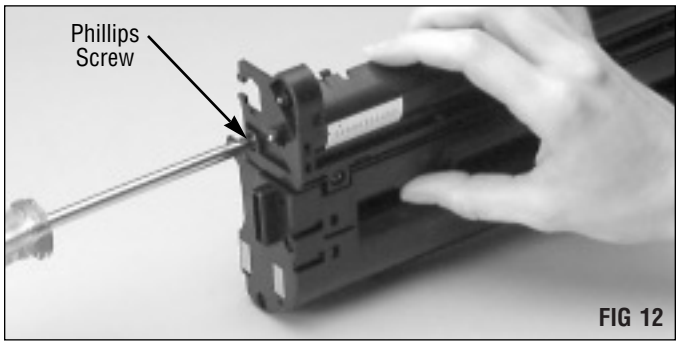


FIG 12

   Remove one screw from the helical gear end of the housing (FIG 13).

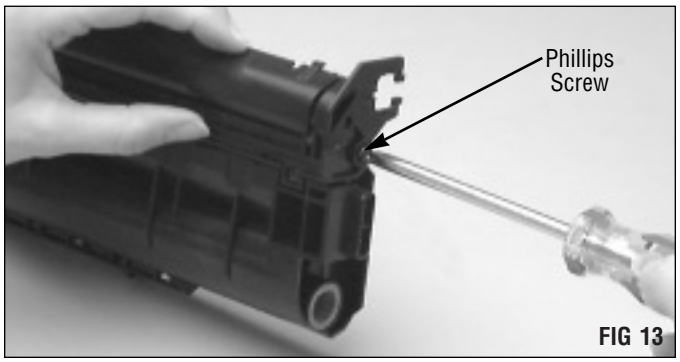


FIG 13

Position the hopper section so that the bottom of the hopper body is facing upward as shown in FIG 14. Remove two screws from the back side of the hopper.

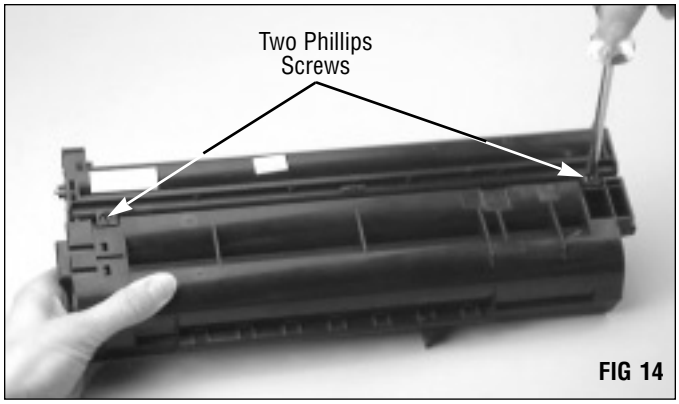


FIG 14

Separate the MTR roller housing from the toner hopper section (FIG 15).

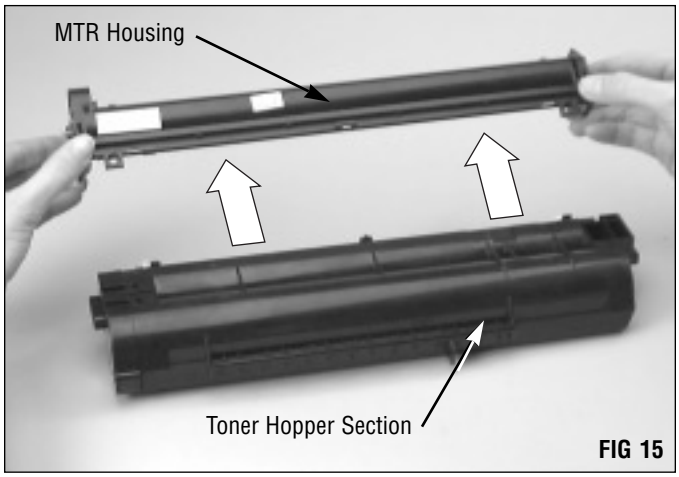


FIG 15

5. **Clean the toner hopper.**
Dump the bulk of the toner from the toner hopper, then use dry, filtered compressed air or a toner vacuum to thoroughly clean the hopper.

Direct compressed air on and around the sealing foam and felt components to remove as much toner and debris as possible (FIG 16).

NOTE We do not recommend removing the gear housing end plate or the agitator drive gears located on the end of the hopper. If removed, the gears can be extremely difficult to reinstall on the toner agitator paddles inside the hopper.

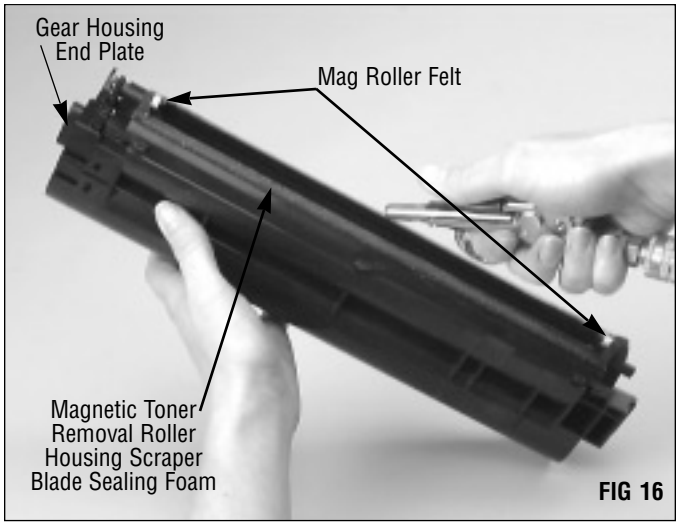


FIG 16

Disassembling the Toner Hopper Section

5. Inspect the sealing components (FIG 17).
The OPC drum sealing blade should display a smooth surface. Replace the blade if it is bent, dislodged or missing. An OPC Drum Sealing Blade Installation Kit and replacement blades are under development. Contact a member of your SCC Sales Team for availability.

Replacement mag roller felts and magnetic toner removal roller housing sealing foam (not visible in FIG 17) are under development. If these components are not present on the cartridge, torn or dislodged, retire the hopper section until replacement components are made available. For the location of the toner removal roller housing sealing foam, refer to page 4 of 123-B, *Cartridge Components*.

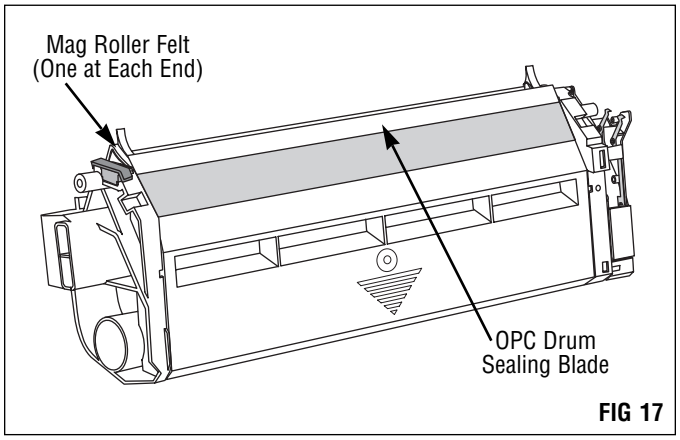


FIG 17

6. Check the cartridge sensor tab.
The Cartridge Sensor Tab (PB9800SENTAB) interfaces with the fax machine to identify that the cartridge is present.

The sensor tab is installed in different positions for identification in Pitney Bowes and Panafax fax machines (FIG 18).

Refer to FIGs 19 and 20 to identify the proper tab placement for the type of cartridge you are remanufacturing. A cartridge tab must be installed in order for the cartridge to operate. If the tab is missing or damaged, install a replacement tab.

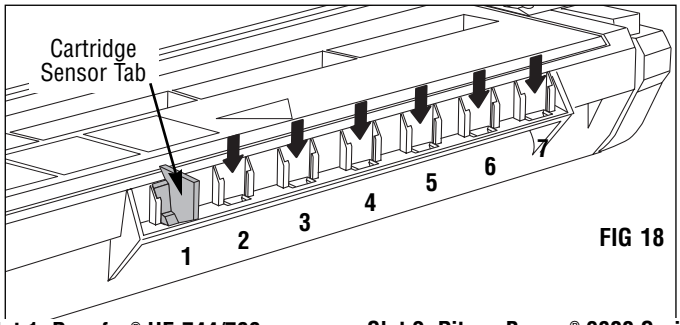


FIG 18

Slot 1: Panafax® UF-744/788

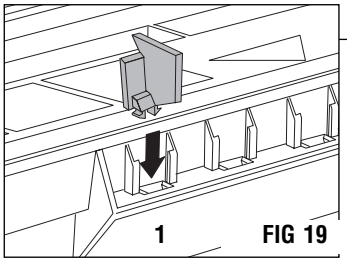


FIG 19

Slot 2: Pitney Bowes® 9800 Series

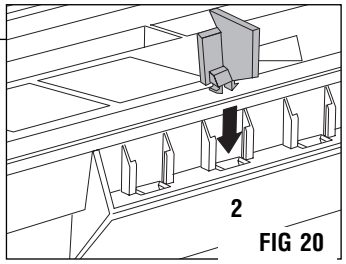


FIG 20

To remove the sensor tab, use a pair of needle nose pliers to pinch together the latching prongs on the underside of the tab (FIG 21).

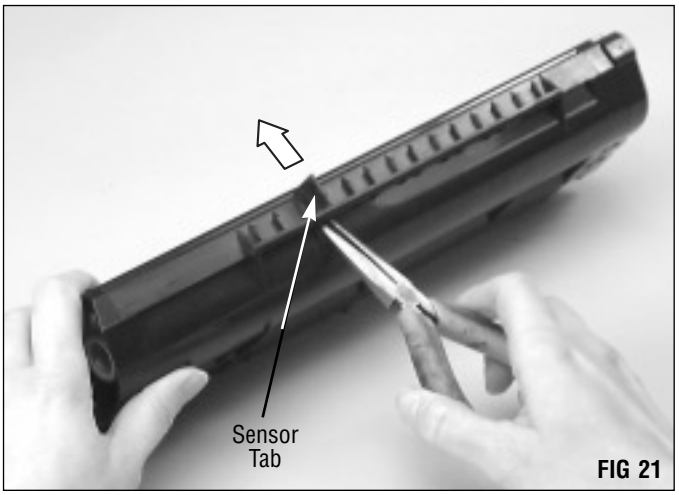


FIG 21

Disassembling the Waste Bin Section

1. **Remove the wiper blade.**
   Remove two Phillips screws from the wiper blade stamping (FIG 22).

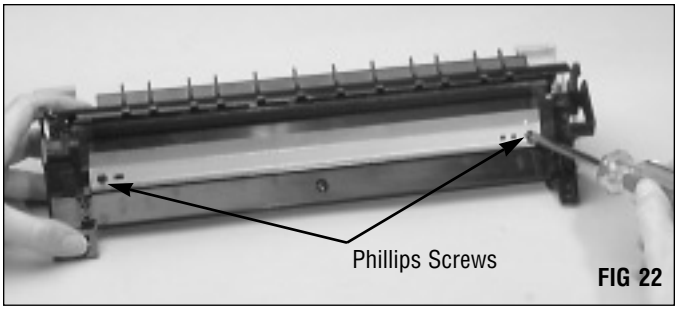


FIG 22

   Remove the wiper blade from the waste bin section (FIG 23). If you plan to replace the drum, we also recommend replacing the Wiper Blade (PB9800BLADE) for best performance results.

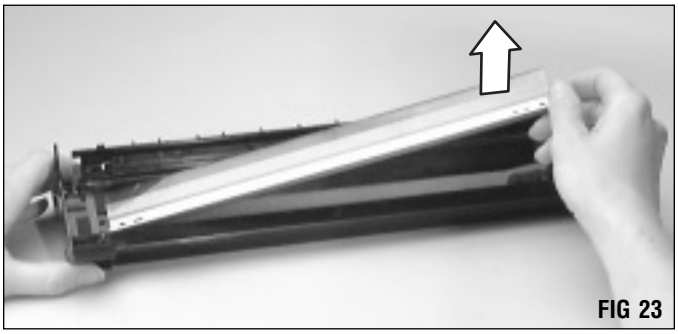


FIG 23

2. **Clean the waste bin section.**
   Dump the bulk of the toner from the waste bin, then clean with dry, filtered compressed air. Direct air around the waste bin sealing components to remove as much toner and debris as possible (FIG 24).

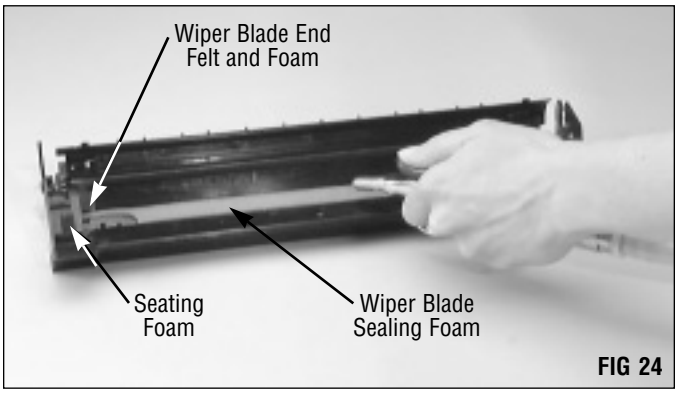
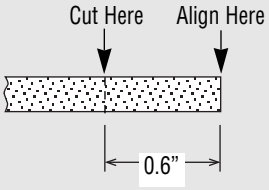


FIG 24

Disassembling the Waste Bin Section

3. **Inspect the recovery blade.**
   The blade should display a flat surface (FIG 25). Replace the recovery blade (PB9800RBLADE-mylar or PRECB-PB9800-poly) if bends or kinks are present on the blade. Refer to FIGs 26 and 27 for placement instructions. Detailed instructions are also packaged with the blades.

CAUTION **Early-style and current-style waste bin sections are designed slightly different which require recovery blades of different lengths. SCC offers one PB9800 Recovery Blade for both styles. The blade is designed to fit the current-style waste bin. In order to fit the early-style waste bin, the current-style blade must be trimmed. Use the guide below to ensure the proper trim amount.**



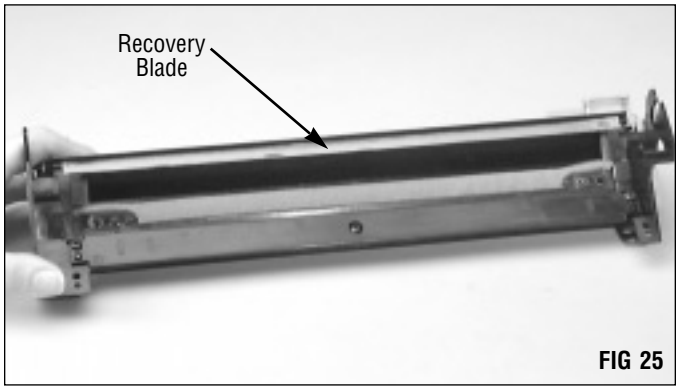
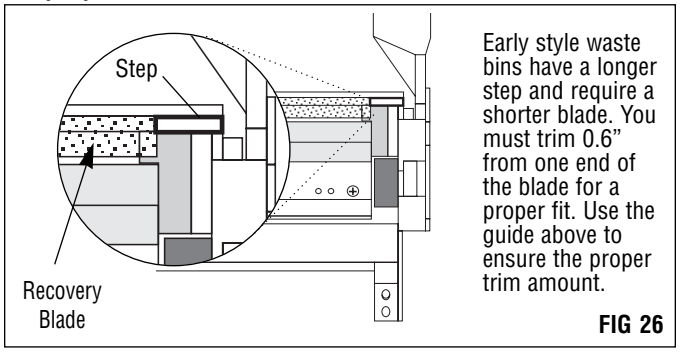


FIG 25

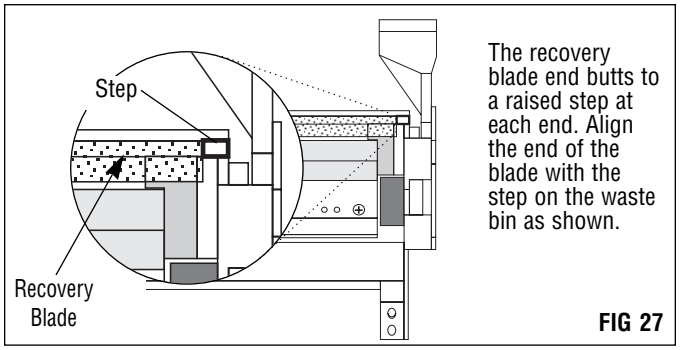
Early Style Waste Bin



Early style waste bins have a longer step and require a shorter blade. You must trim 0.6” from one end of the blade for a proper fit. Use the guide above to ensure the proper trim amount.

FIG 26

Current Style Waste Bin



The recovery blade end butts to a raised step at each end. Align the end of the blade with the step on the waste bin as shown.

FIG 27

4. **Install a drum shutter felt (recommended).**
The Drum Shutter Felt (4LDSFELT) is an aftermarket component recommended to protect the drum from impact damage caused by the drum shutter. If you have already installed a drum shutter felt, replace it only if it is peeling, detached or missing.

Remove the release liner from the felt (FIG 28). Install the felt on the interior surface of the drum shutter, aligning the top edge of the felt with the top edge of the shutter and centering the length of the felt with the length of the shutter (FIG 29).

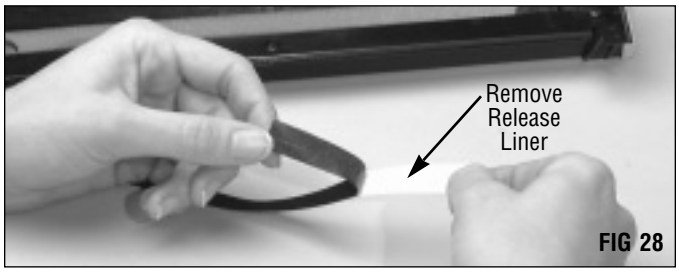


FIG 28

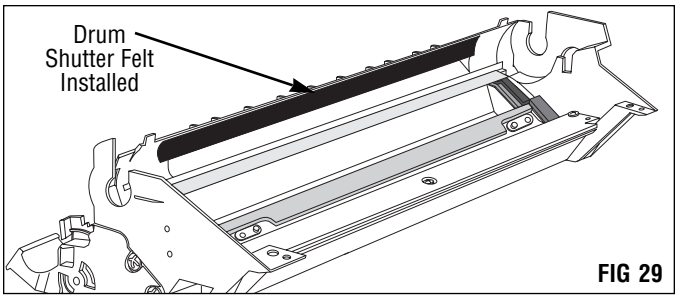


FIG 29

Installing a PB9800 WhiteSeal™

1. **Place the toner hopper in the hopper fixture.**
   A plexiglass hopper fixture (PB9800JIG) is available to facilitate assembly and disassembly of the hopper section. To prevent the fixture from shifting, secure it to your surface with bolts or C-clamps.

   Note that the support plates on the sides of the fixture are of different heights. Place the hopper in the fixture with the arrow on the hopper body on the same side as the short support plate of the hopper fixture (FIG 30). Make sure the hopper fits securely and firmly in the fixture.

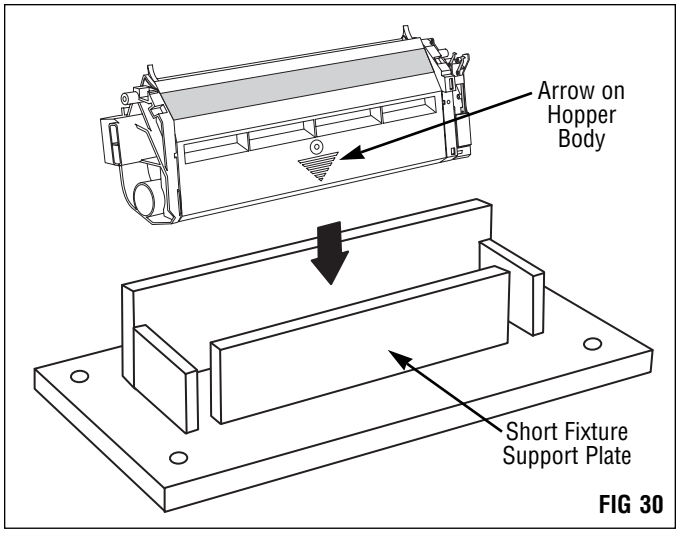


FIG 30

   Position the hopper and fixture so that the seal exit port plug and hopper cap are on your right (FIG 31). This orientation is recommended for seal installation.

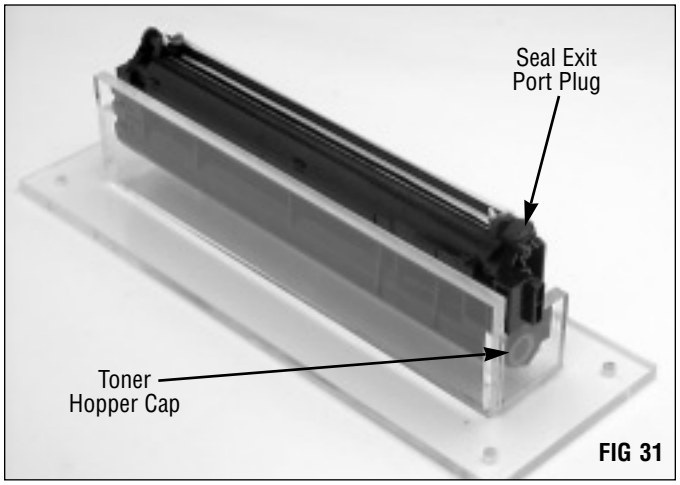


FIG 31

2. **Remove the seal exit port plug.**
   Using a Foam/Felt Scraper Blade Tool (FSTOOL), carefully peel the seal exit port plug top felt from the top of the plug (FIG 32). For best results, remove the felt and adhesive as one piece. Note that the plug may stay attached to the felt when the felt is removed (FIG 33).

   Do not be concerned about damaging the seal exit port plug top felt as a replacement felt is used when the seal exit port plug is reinstalled. However, be careful not to damage the plug or the small piece of felt attached to the plug bottom.

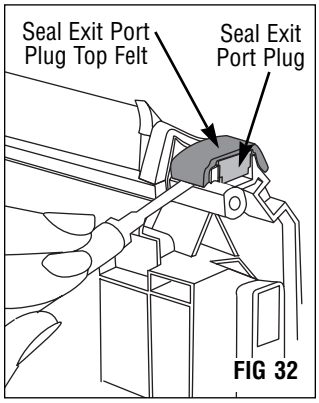


FIG 32

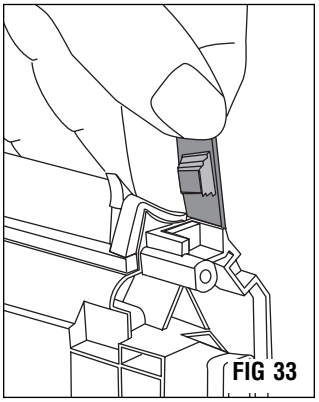


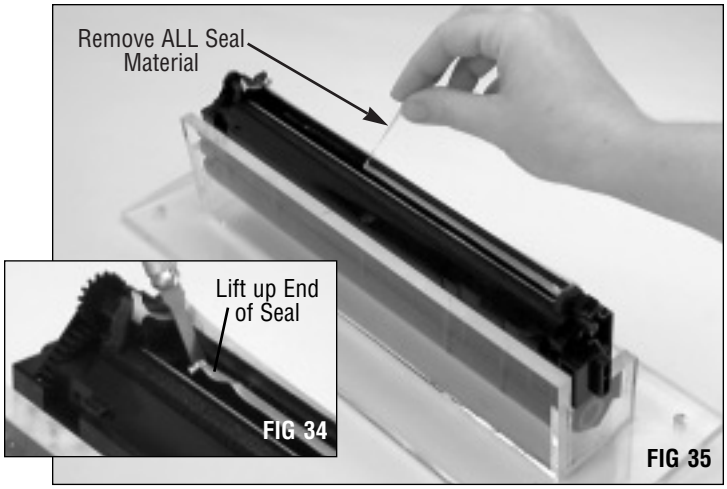
FIG 33

CAUTION **Do not lose the seal exit port plug.**

3. **Remove the previously used aftermarket seal.**
The OEM seal is completely removed when the end user pulls the strip to release the toner. SCC's aftermarket seal, however, leaves residual material in the channel.

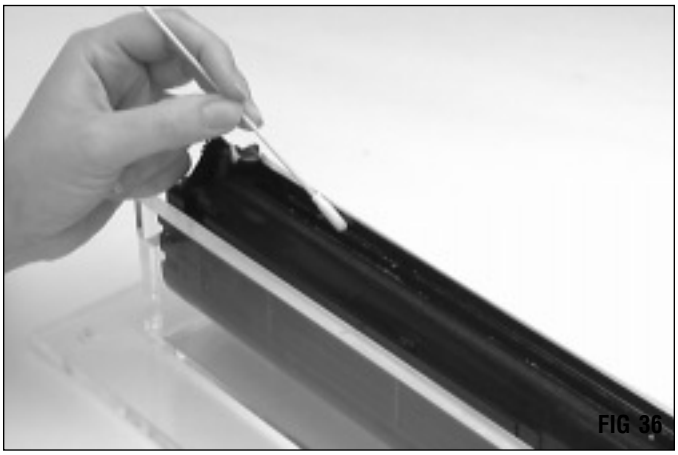
Using the Foam/Felt Scraper Blade Tool (FSTOOL), lift up one end of the seal (FIG 34); then using your fingers or a pair of needle nose pliers, carefully pull the seal and adhesive together as one unit from the channel (FIG 35).

If any adhesive stays in the channel, rub it off with your finger.



4. **Clean the seal channel.**
Using a Lint-Free Cloth (LFCCLOTH) or Lint-Free Swab (LFSWAB) dampened with 91-99% isopropyl alcohol, clean toner and debris from the channel (FIG 36). If there is any adhesive from the previously used seal, make sure you remove all traces of adhesive and seal material. Allow a few minutes for the alcohol to evaporate and dry.

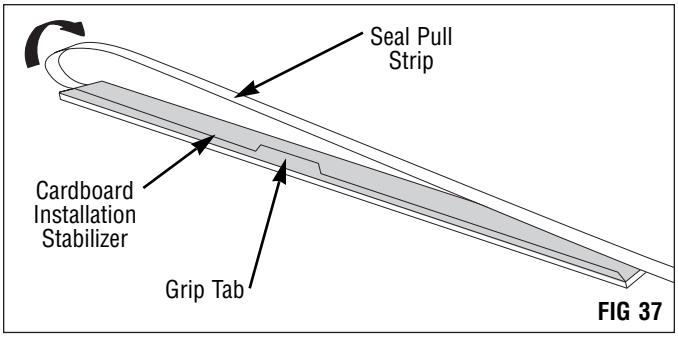
CAUTION Make sure the sealing channel is completely dry before you install the seal. Otherwise the seal adhesive will not secure the seal to the channel and will cause leakage.

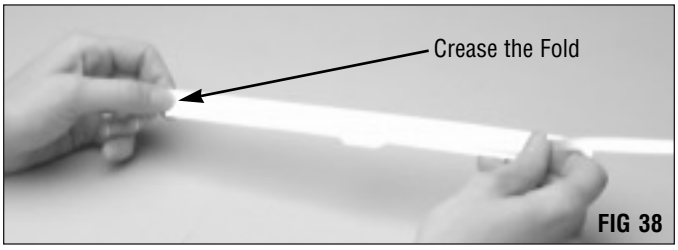


5. **Prepare the PB9800 WhiteSeal™ WhiteSeal (PB9800WHSEAL).**
Fold the pull strip over the top of the seal (over the cardboard installation stabilizer) (FIG 37) and crease the fold (FIG 38).

The PB9800 WhiteSeal includes seals, pull tabs, and replacement seal exit port plug top felts.

CAUTION Do not remove the cardboard installation stabilizer at this time. The stabilizer is used to position and install the seal in the seal channel. The stabilizer is removed only after the seal is fully positioned in the seal channel.





Installing a PB9800 WhiteSeal™

Carefully remove the release liner from the bottom of the seal (FIG 39).

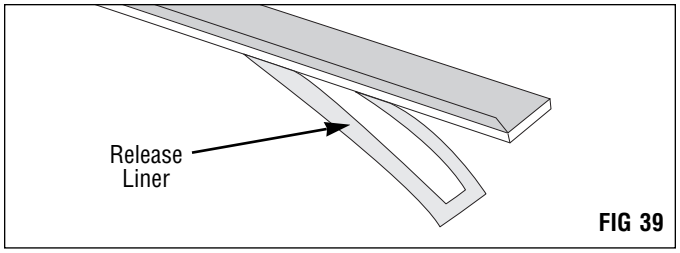


FIG 39

6. Install the seal.
Position the seal just above the seal channel, and center the seal between the two ends of the channel (FIG 40).

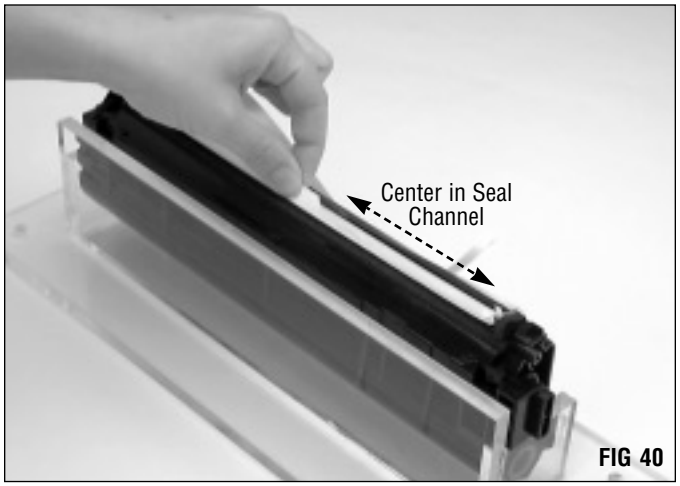


FIG 40

Make sure that the seal is positioned against the back wall of the seal channel, then tack the seal in place (FIGs 41 and 42).

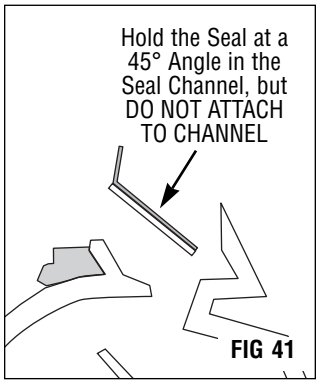


FIG 41

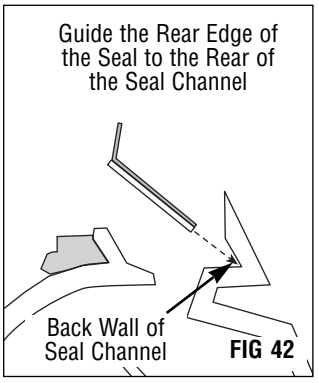


FIG 42

Once the back edge of the seal is in place, lay the front edge of the seal in the channel (FIGs 43 and 44).

IMPORTANT The back ledge of the seal channel is extremely narrow, therefore it is critical that you secure you secure the seal over the entire width of the ledge.

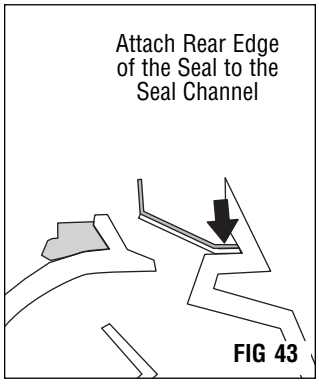


FIG 43

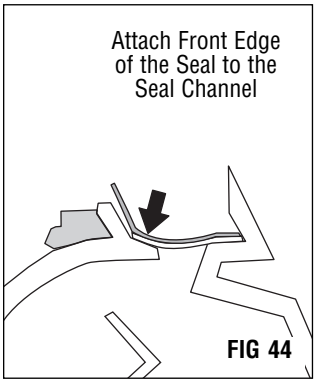


FIG 44

7. **Secure the seal to the seal channel.**
   Use your finger to press down on the THE PERIMETER OF THE SEAL, particularly the ends of the seal (FIG 46).

IMPORTANT **The ends of the seal are most susceptible to leakage if not fully secured to the seal channel.**

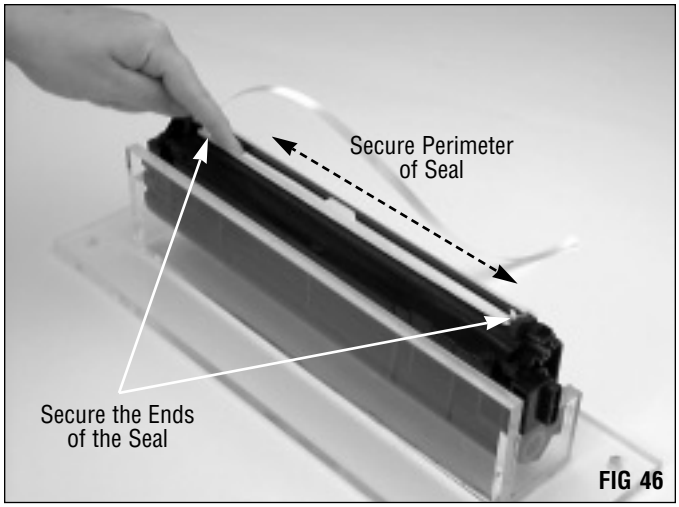


FIG 46

8. **Remove the cardboard installation stabilizer from the seal.**
   Starting at the right end of the hopper, remove the cardboard carefully to avoid lifting the seal (FIG 47).

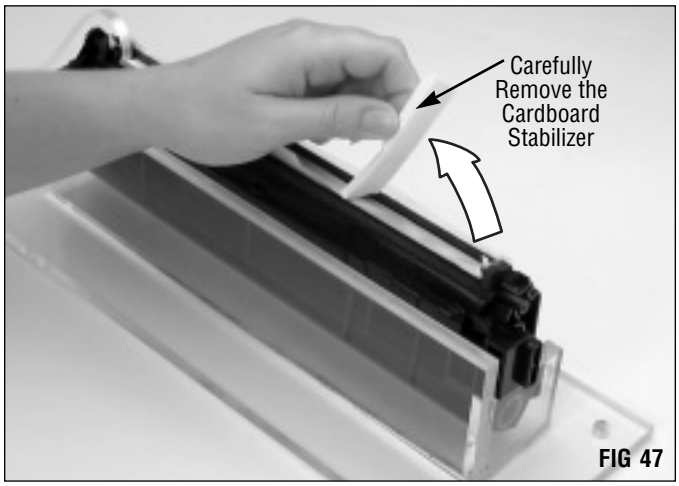


FIG 47

9. **Secure the seal to the seal channel.**
   Again, press down on the perimeter of the seal, particularly the ends of the seal (FIG 48).

IMPORTANT **The ends of the seal are most susceptible to leakage if not fully secured to the seal channel.**

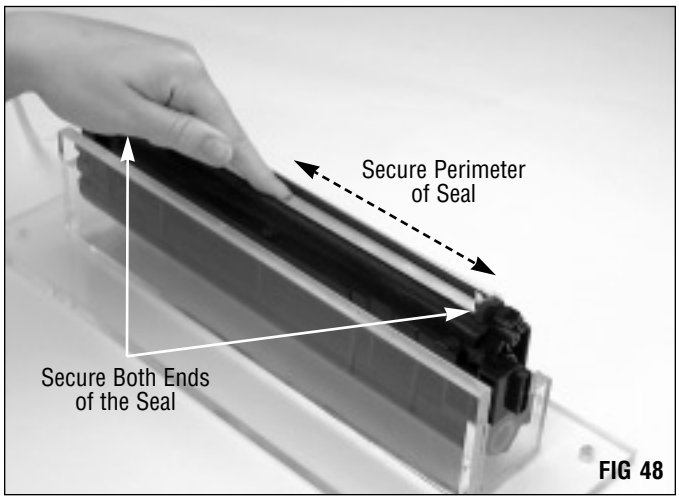


FIG 48

Installing a PB9800 WhiteSeal™

10. **Fold the pull strip over the seal.**
Make sure the pull strip is completely straight and not twisted (FIG 49).

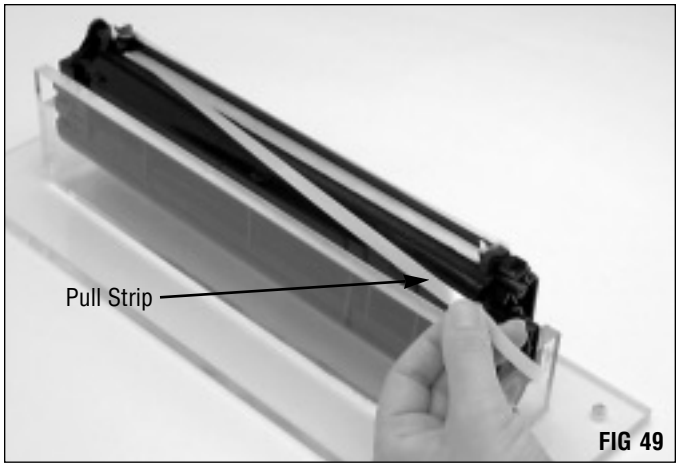


FIG 49

11. **Install the pull tab.**
Remove the the pull tab from the pad (included with the seal).

Secure the pull tab to the end of the pull strip (FIGs 50 and 51).

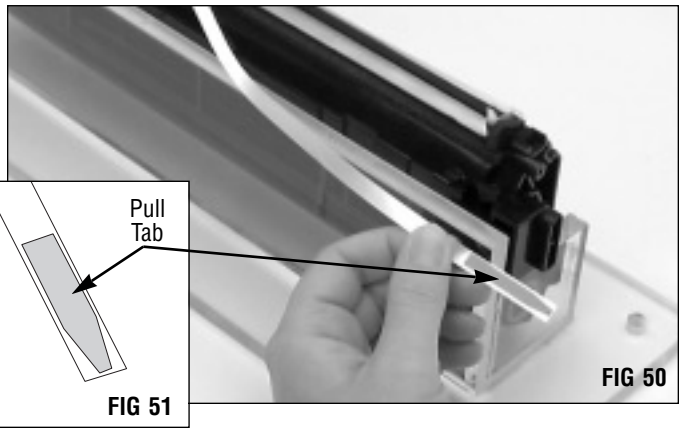


FIG 50

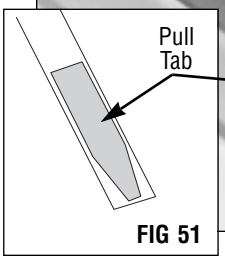


FIG 51

Using a pair of scissors, trim the end of the seal to conform to the angle of the pull tab (FIGs 52 and 53).

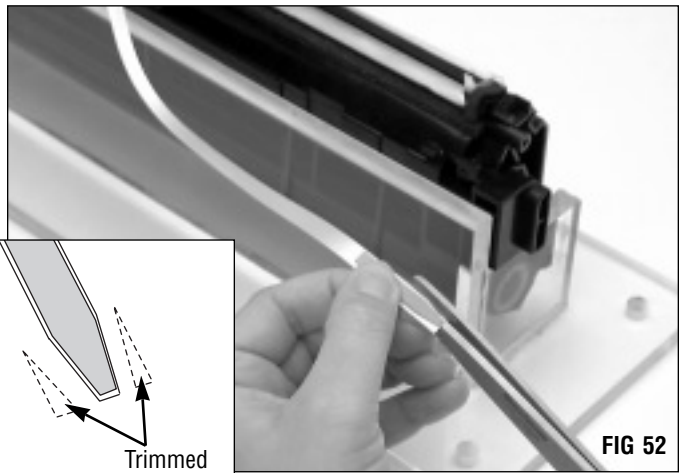


FIG 52

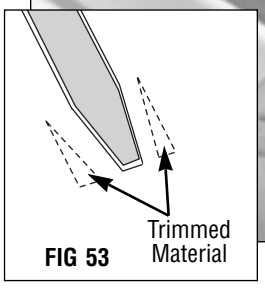


FIG 53

12. **Thread the pull strip.**
Bend the tip of the pull tab at an angle (FIG 54).

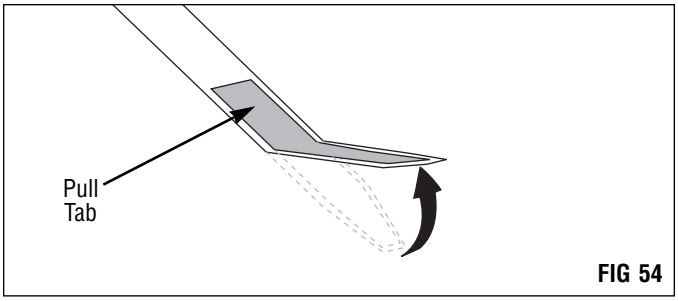


FIG 54

Thread the pull tab/pull strip through the seal exit port as shown in FIG 55. Note the small step at the base of the seal channel (FIG 56).

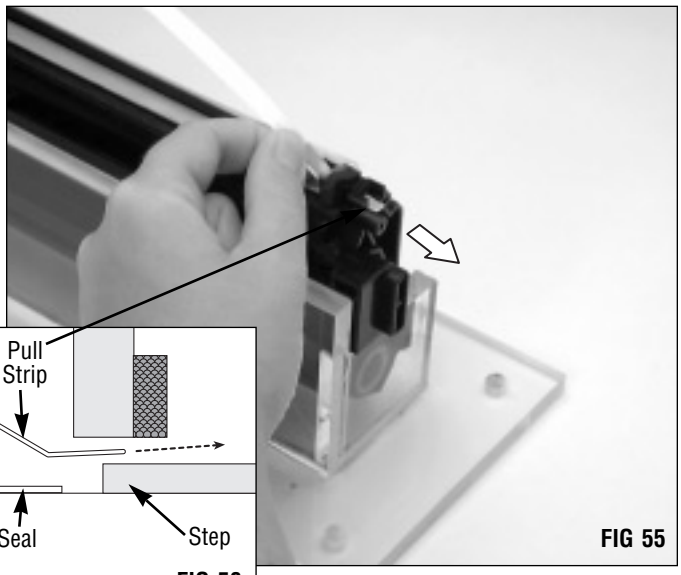


FIG 55

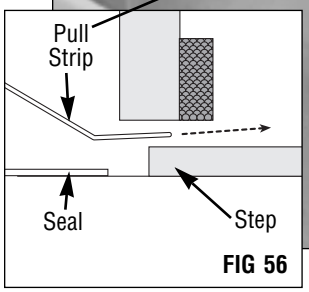


FIG 56

Pull the strip through the port until the strip lays flat in the seal channel (FIG 57).

CAUTION **Do not pull the strip with too much force; otherwise the pull strip may disengage from the seal and release toner from the hopper.**

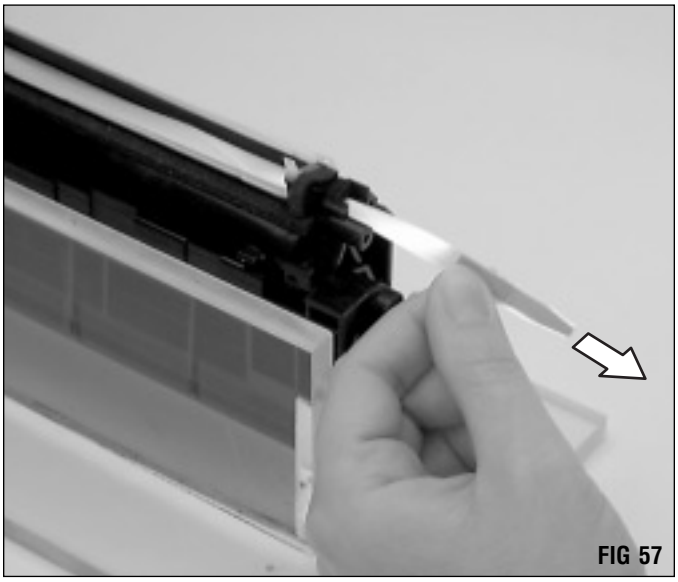


FIG 57

Installing a PB9800 WhiteSeal™

13. Install the seal exit port plug.
Remove any residual felt material from the **top** of the plug.

CAUTION Do not remove the bottom felt from seal exit port plug (FIG 58) as a replacement is not currently available.

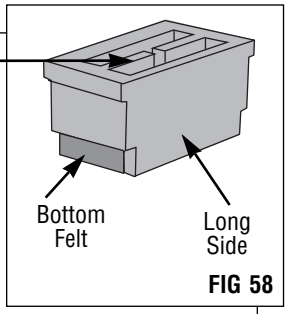


FIG 58

Position the plug in the channel with the long side facing outward and the bottom felt oriented on the bottom as shown in FIG 59.

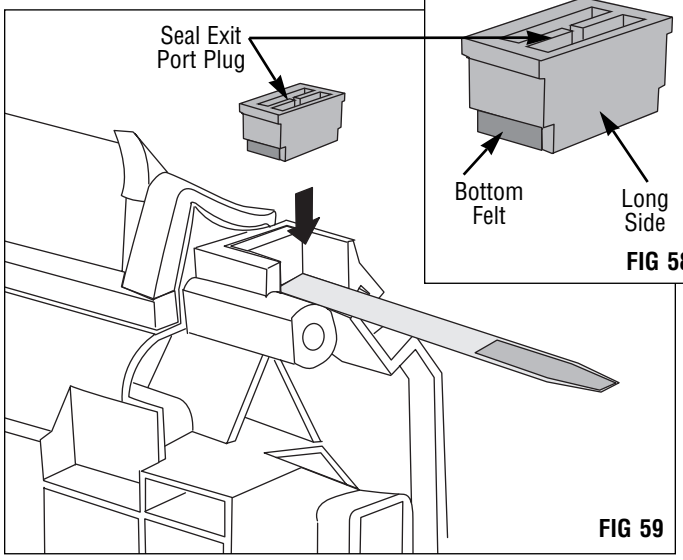


FIG 59

Install the Seal Exit Port Plug Top Felt (PB9800EPFELT) over the top of the plug as shown in FIG 60.

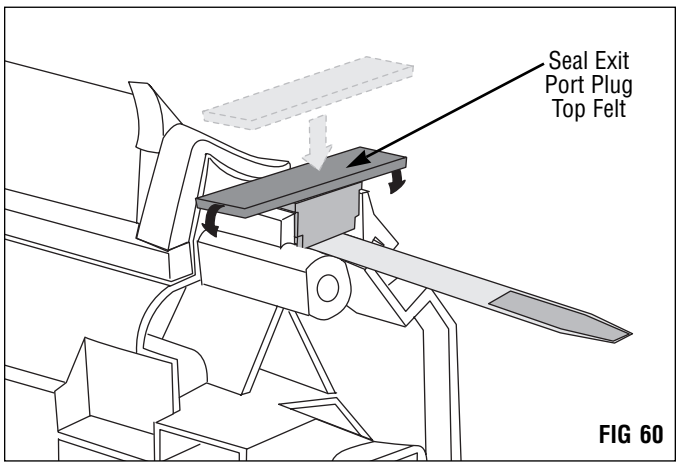


FIG 60

Make sure both ends of the felt overlap the sides of the port (FIG 61).

Set the hopper section aside until you are ready to reassemble the hopper, magnetic toner removal roller housing, and drum.

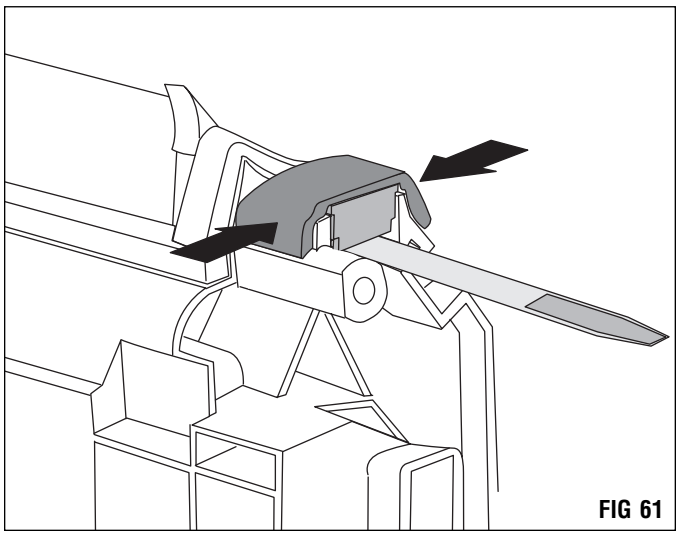


FIG 61

Assembling the Waste Bin Section

1. **Clean the wiper blade.**
   If you are reusing the wiper blade, clean the blade with dry, filtered compressed air (FIG 62). If you replaced the drum, we also recommend replacing the wiper blade for best performance results.

CAUTION Do not use alcohol or any alcohol-based solvent to clean the polyurethane blade.


FIG 62

2. **Pad the wiper blade.**
   Kynar Lubricating Powder (KPOW) applied to the working edge of the wiper blade will help prevent "flip overs" during the first few rotations of the drum in a newly remanufactured cartridge. Pad the wiper blade regardless of whether you are using a new replacement blade or reusing the old blade.

   Dip the edge of the blade in a long, shallow container of lubricating powder as shown in FIG 63. Examine the blade to ensure even coverage. Repeat.

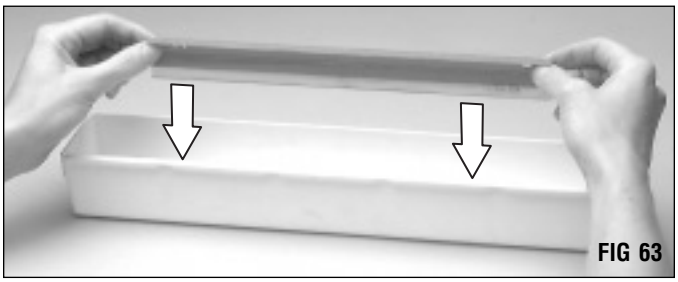


FIG 63

3. **Install the wiper blade.**
   Position the stamping over the locating posts on the waste bin section (FIG 64) and secure the blade with two Phillips screws (FIG 65).

   Set the waste bin section aside until you are ready to reassemble the cartridge.

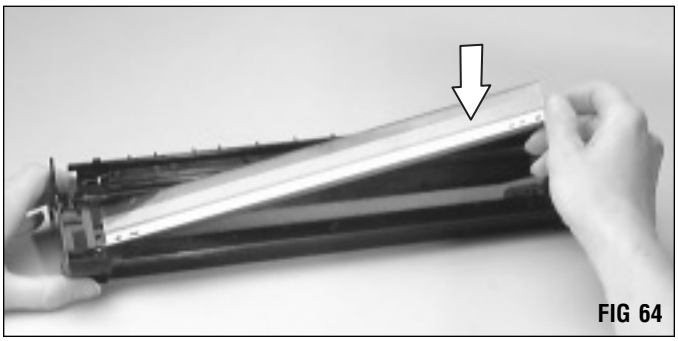


FIG 64

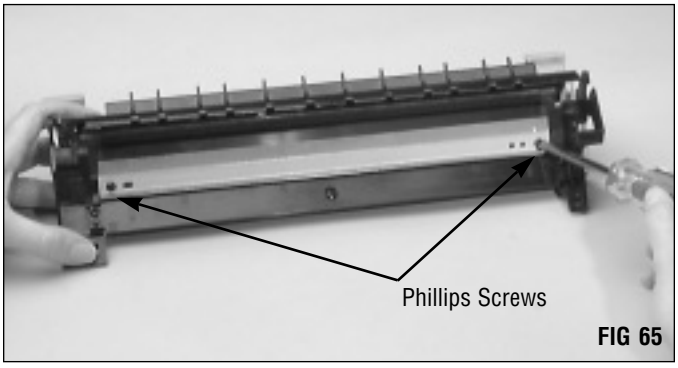


FIG 65

Assembling the Toner Hopper Section

1. **Clean the magnetic toner removal roller housing (MTR roller housing).**
   Using the spur gear at one end of the housing, rotate the magnetic toner removal roller as you clean the roller and area around the roller with dry, filtered compressed air or a lint-free cloth (FIG 66).

CAUTION **For best results, we do not recommend using solvents or other cleaning solutions to clean the magnetic toner removal roller. Do not touch the surface of the roller with your bare fingers.**

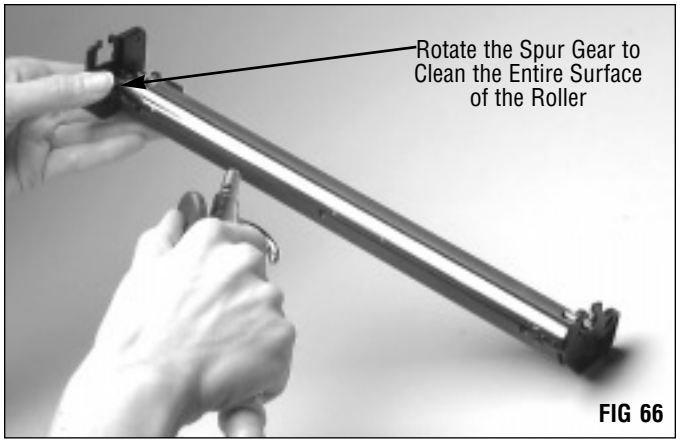


FIG 66

2. **Install the MTR roller housing.**
   Position the toner hopper on your work surface so that the base of the hopper is face up as shown in FIG 67.

   Align the notches on the MTR roller housing with the screw bosses on the hopper body, as indicated by the arrows in FIG 67.


FIG 67

   Secure the housing with two Phillips screws on the bottom side of the hopper body (FIG 68).

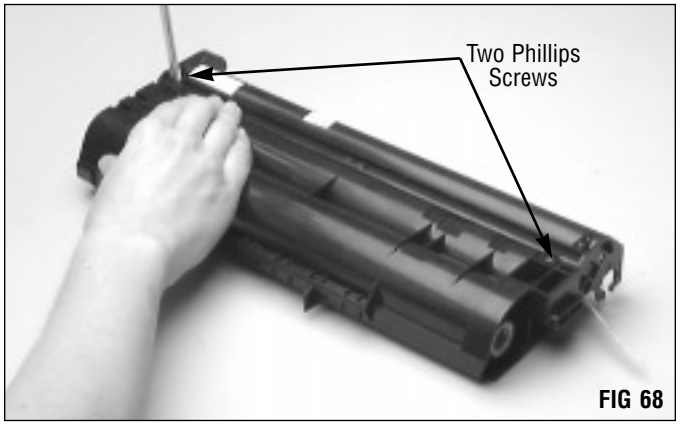


FIG 68

Install one Phillips screw at each end of the housing as shown in FIGs 69 and 70.

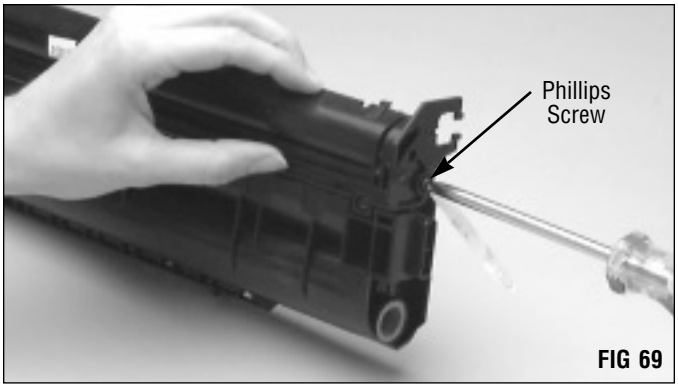


FIG 69

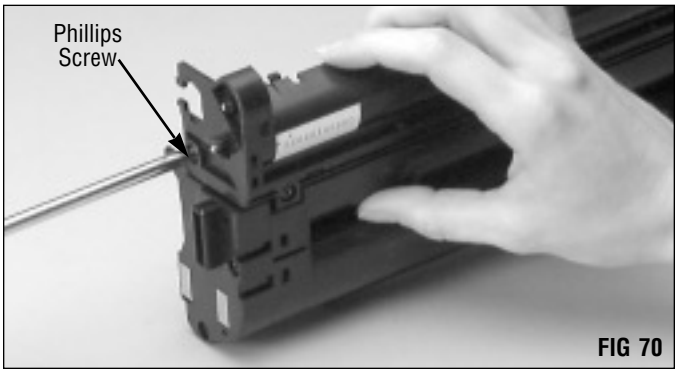


FIG 70

3. **Inspect the air gap rollers and install.**
Air Gap Rollers (PB9800AGROLL) are used to provide the proper air gap between the magnetic toner removal roller and OPC drum.

Inspect the air gap rollers for excessive wear or breakage. Air gap rollers should be replaced if excessively worn, damaged or lost. To ensure optimum reliability, we recommend replacing the rollers every other cycle.

Position the hopper section so that the exposed area of the toner removal roller is face up (FIG 70).

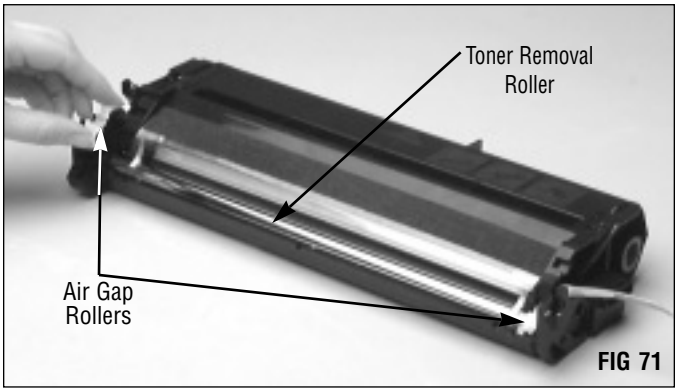


FIG 71

Install one air gap roller at each end of the toner removal roller as shown in FIG 70. Make sure the air gap rollers are oriented with the rounded side positioned on the toner removal roller and the tanged end positioned between

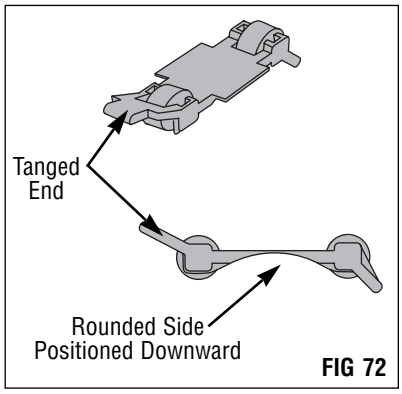


FIG 72

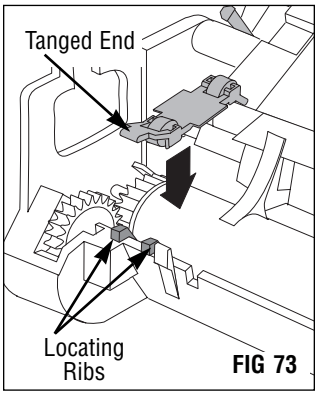


FIG 73

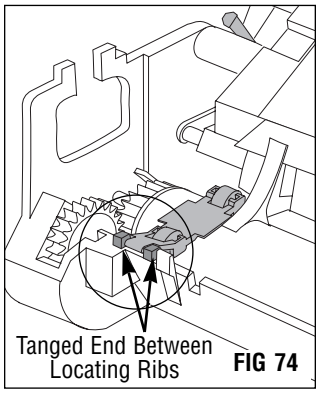


FIG 74

Assembling the Toner Hopper Section

4. **Clean the OPC drum.**
   If you are reusing the drum, clean it with dry, filtered compressed air (FIG 75). If you replaced the drum, continue to step 5.

CAUTION **Do not touch the coated area of the OPC drum with your fingers or the compressed air nozzle.**


FIG 75

5. **Pad the OPC drum.**
   Kynar Lubricating Powder (KPOW) applied to the surface of the OPC drum will prevent wiper blade "flip overs" during the first few rotations of the drum in a newly remanufactured cartridge.

   Pad the coated area of the OPC drum with lubricating powder being careful to avoid powder on the gears (FIG 76).

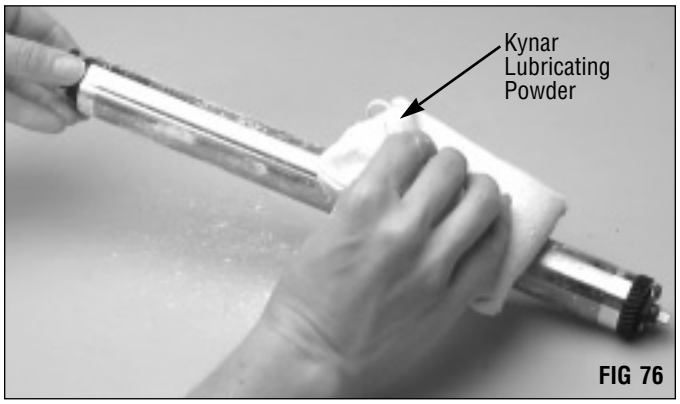


FIG 76

6. **Install the OPC drum.**

IMPORTANT **The Panafax and Pitney Bowes drums are different. Make sure you are using the correct drum for your application.** *See page 8, PB9800/Panafax UF-744/788 Cartridge Differences, for more details.*

   Place the drum in the toner removal roller housing with the drum helical gear on the right as shown in FIG 77.

   If you replaced the drum, make sure the drum magnet/axle assembly, drum axle hubs, and drum alignment pin are installed correctly. *Refer to page 4 of SSS 123-B, Cartridge Components, for an illustration of and assembled drum.*

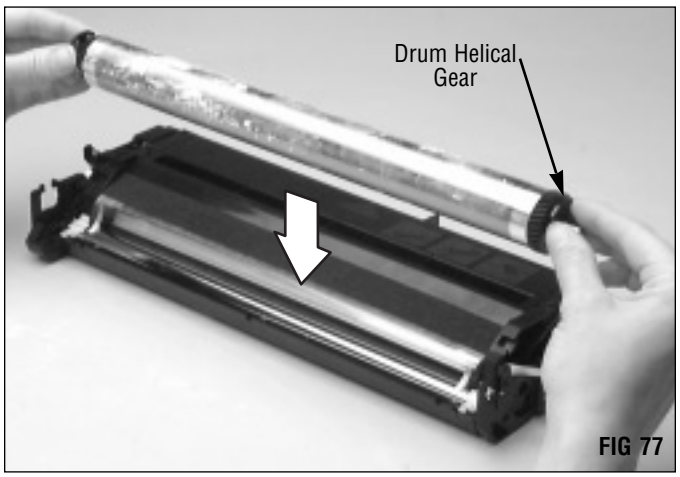


FIG 77

Rotate the drum helical gear axle hub so that it aligns with the hub seat in the housing (FIG 79). Note that the pin must line up with the vertical locating slot on the assembly.

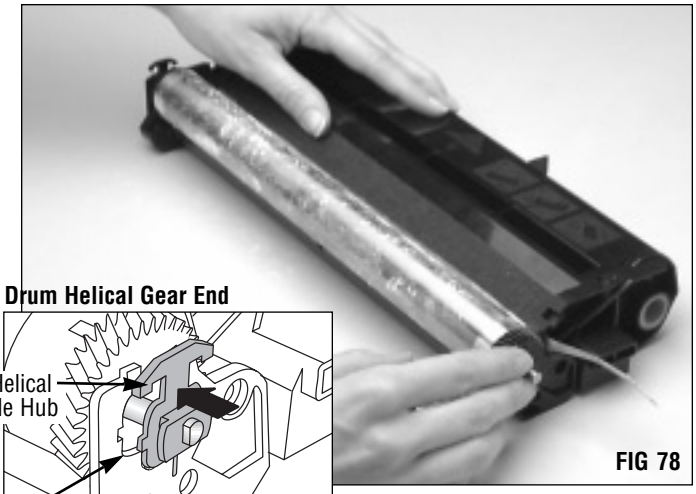


FIG 78

Push the hub into the hub seat until the hub is installed flush against the housing and the OPC drum magnet alignment pin is installed in the vertical slot (FIG 80).

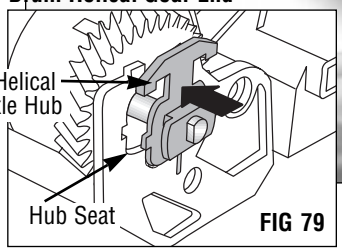


FIG 79

CAUTION **The alignment pin is required to keep the drum magnet in the proper position for imaging. If the alignment pin is bent or missing, install a Drum Axle Alignment Pin (PB9800PIN). If you replaced the drum, you will need to install a replacement alignment pin. Detailed installation instructions are packaged with the pin.**

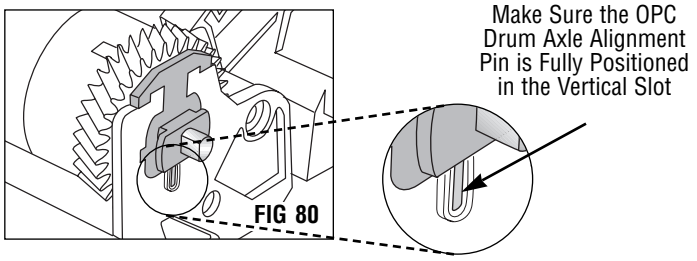


FIG 80

At opposite end of the cartridge, align the drum spur gear axle hub with the hub seat in the housing (FIG 82).

Hold the drum helical gear axle hub to keep the hub installed, and at the same time, push the spur gear drum axle hub into the hub seat until the hub is installed flush against the housing (FIG 83).

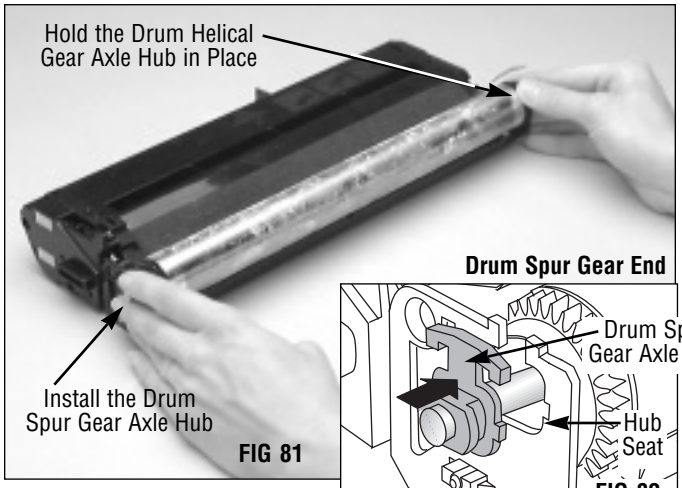


FIG 81

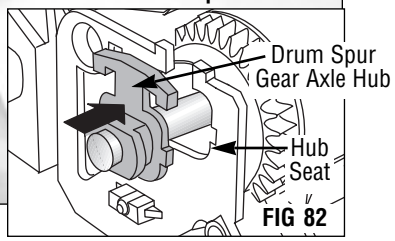


FIG 82

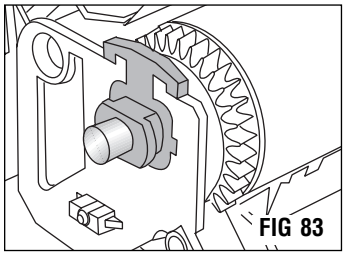


FIG 83

Assembling the Toner Hopper Section

7. **Replace the corona wire (recommended each cycle).**
The Corona Wire (PB9800CWIRE) becomes worn and pitted after approximately 25,000 pages. Typical corona wire defects appear as vertical lines, similar to wiper blade defects. However, corona wire vertical line defects have fuzzy edges and appear randomly on the page.

   To ensure optimum performance throughout the entire cartridge cycle, we recommend replacing the corona wire each time you remanufacture the cartridge. A replacement Corona Wire Spring (PB9800CWIRESPRING) is available from SCC.

   The Corona Wire includes a corona wire tension spring and support post spacer (for early-style corona wire assemblies). Refer to product instructions for complete installation procedures.

IMPORTANT **There are two styles of corona wire assemblies that differ in terms of placement of locking tabs along the sides of the assembly and gid. The grids and assemblies of these two styles can not be interchanged.** *Refer to page 2, About the Cartridge, for more information.*

8. **Clean and inspect the corona wire assembly.**
Clean the corona wire assembly with dry, filtered compressed air (FIG 85).

9. **Install the corona wire assembly.**
Orient the assembly so that the corona cage is facing the toner port and the contact end of the assembly is on the contact end of the hopper.

   Install the contact end of the assembly first (FIG 86). Hold the contact on the hopper section so that you can install the contact on the assembly to the left of the end plate contact.

   Position the body of the assembly so that the locating tabs (right end of assembly) are saddled over the ledge on the hopper body (FIG87).

   Position the assembly with the locating tabs at the left end of the assembly in the receptacle in the hopper body.

Early-Style Corona Wire Assembly

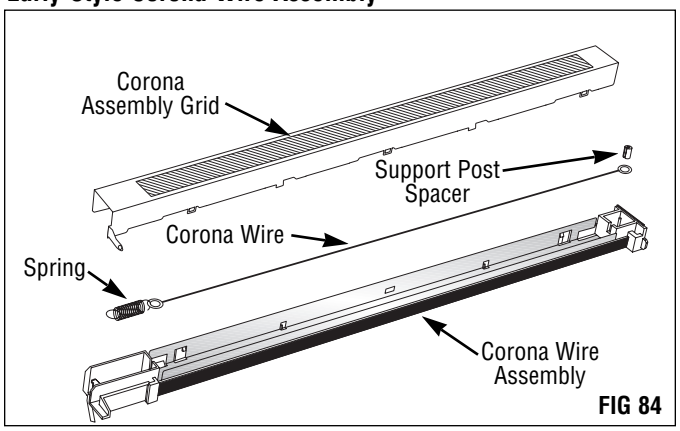


FIG 84


FIG 85

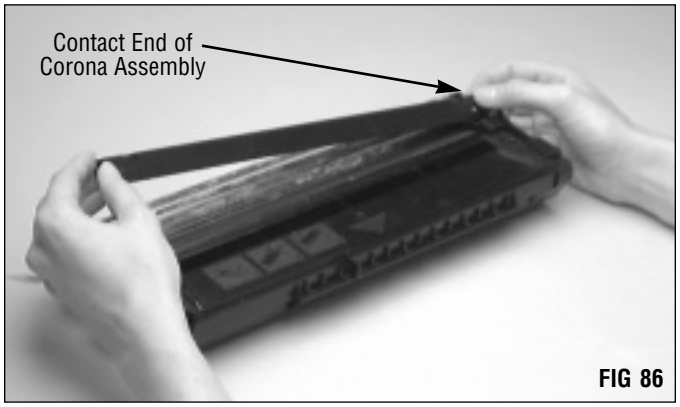


FIG 86

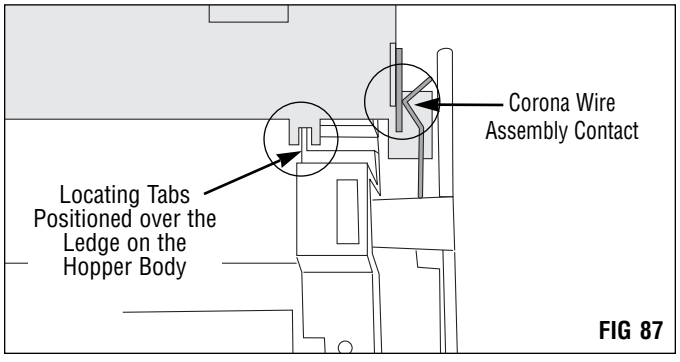


FIG 87

Assembling the Cartridge

1. **Bring the hopper and waste bin sections together.**
   Position the waste bin section so that the green handle assemblies are facing upward. Open the drum shutter and hold it in an open position (FIG 88). Use a piece of tape to hold the shutter in this position (FIG 89).

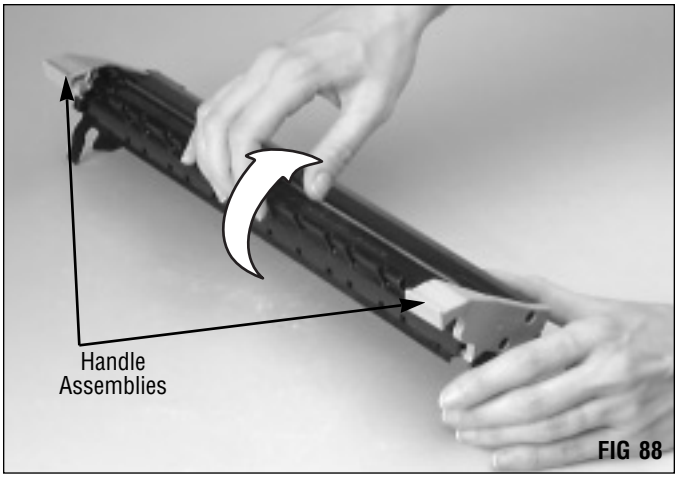


FIG 88

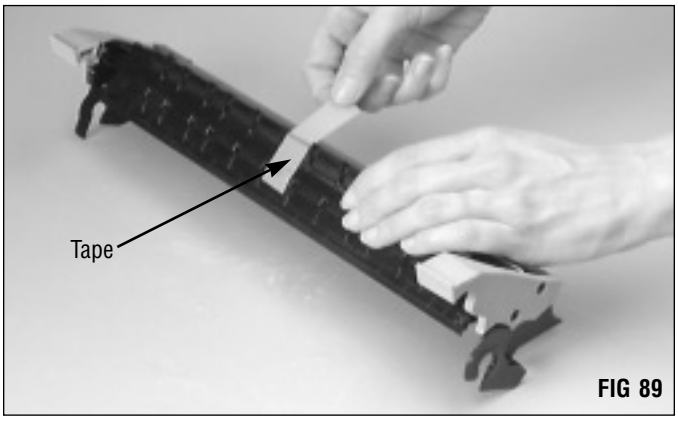


FIG 89

Position the hopper section so that the corona wire assembly is facing upward as shown in FIG 90.

Pivot the waste bin section so that the drum axle hubs slide into the drum axle hub seat (FIG 91).

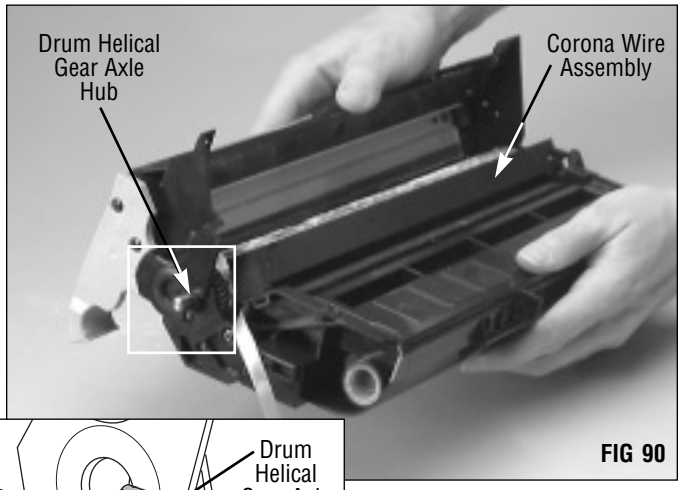


FIG 90

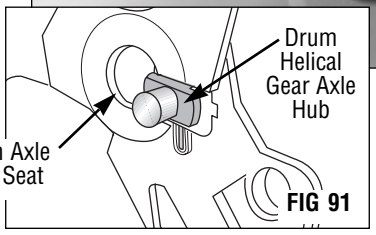


FIG 91

Assembling the Cartridge

If you installed a seal, thread the pull strip through the pull strip opening (FIG 92).

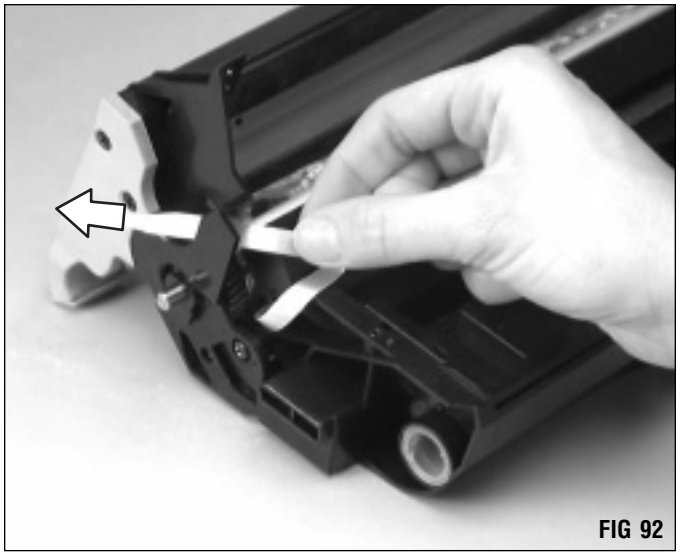


FIG 92

Pivot the waste bin section toward the hopper section as indicated by the arrow in FIG 93.

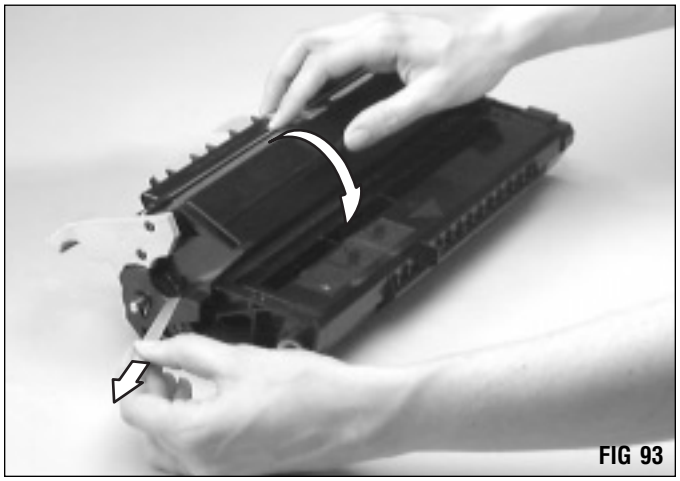


FIG 93

Secure the waste bin section with two Phillips screws (FIG 94).

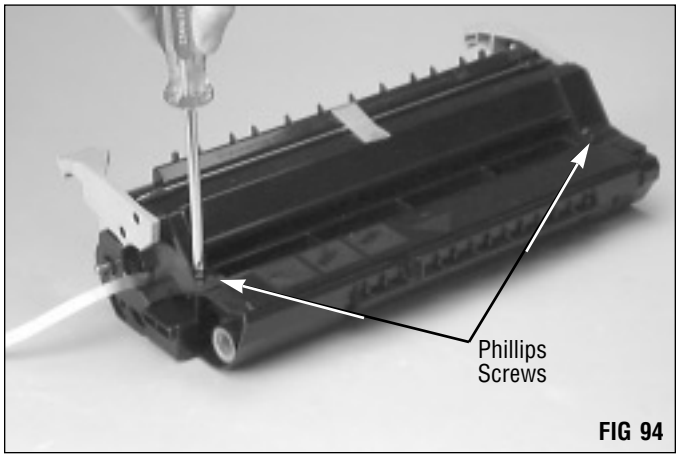


FIG 94

Manually rotate the drum helical gear in it's normal rotational direction as indicated by the arrow in FIG 95. Rotating the drum wipes the lubricating powder from the drum and deposits the powder in the waste bin.

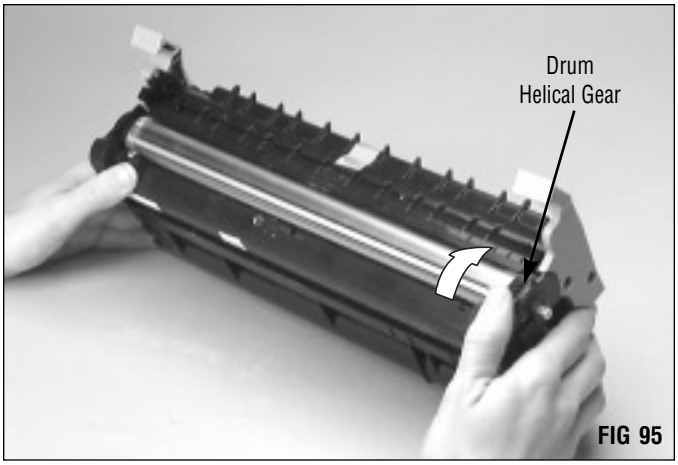


FIG 95

Remove the tape from the drum shutter (FIG 96).

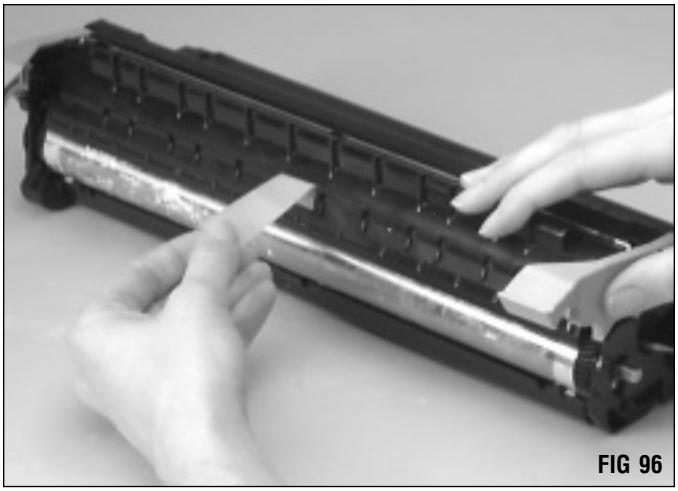


FIG 96

Filling the Hopper with Toner

1. **Remove the hopper cap.**
   Use a pair of needle nose pliers to remove the cap (FIG 97). Note that the cap is very easily damaged when removed. A replacement Hopper Cap (PB9800HCAP) is available from SCC.

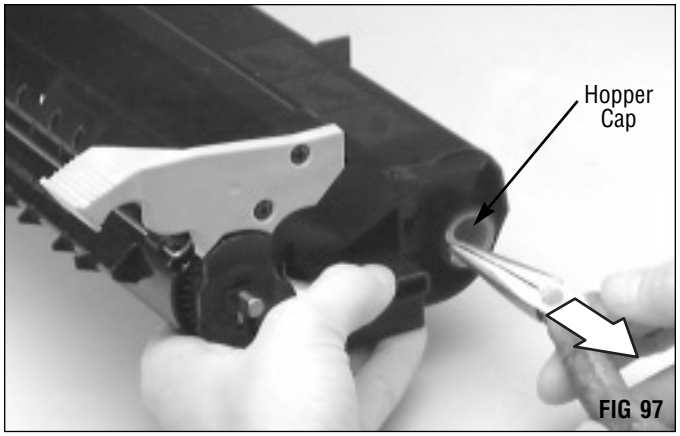


FIG 97

2. **Fill the hopper with toner.**
   Make sure the cartridge is fully assembled before filling the hopper.

   Shake the toner bottle well to aerate the toner.
   Pitney Bowes 9800 Toner (PB9800-300B)

   A funnel attachment with a small diameter opening is recommended to fill the hopper through the fill hole (FIG 98).

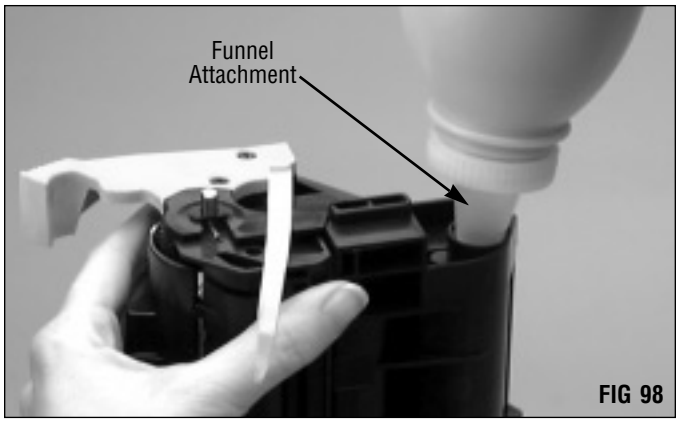


FIG 98

   As you fill the hopper, periodically turn the drum drive gear to move the toner to the back chamber of the hopper (FIG 99).

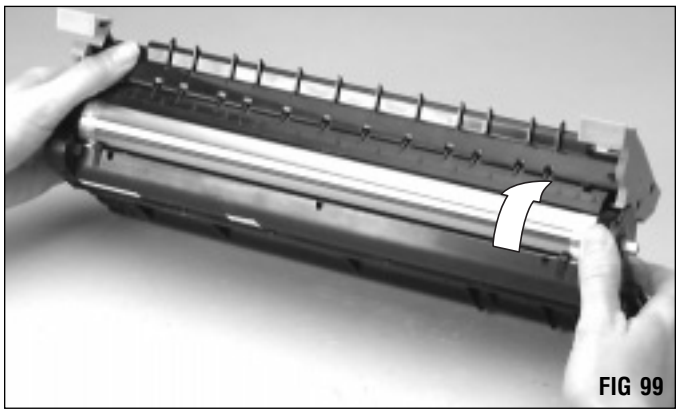


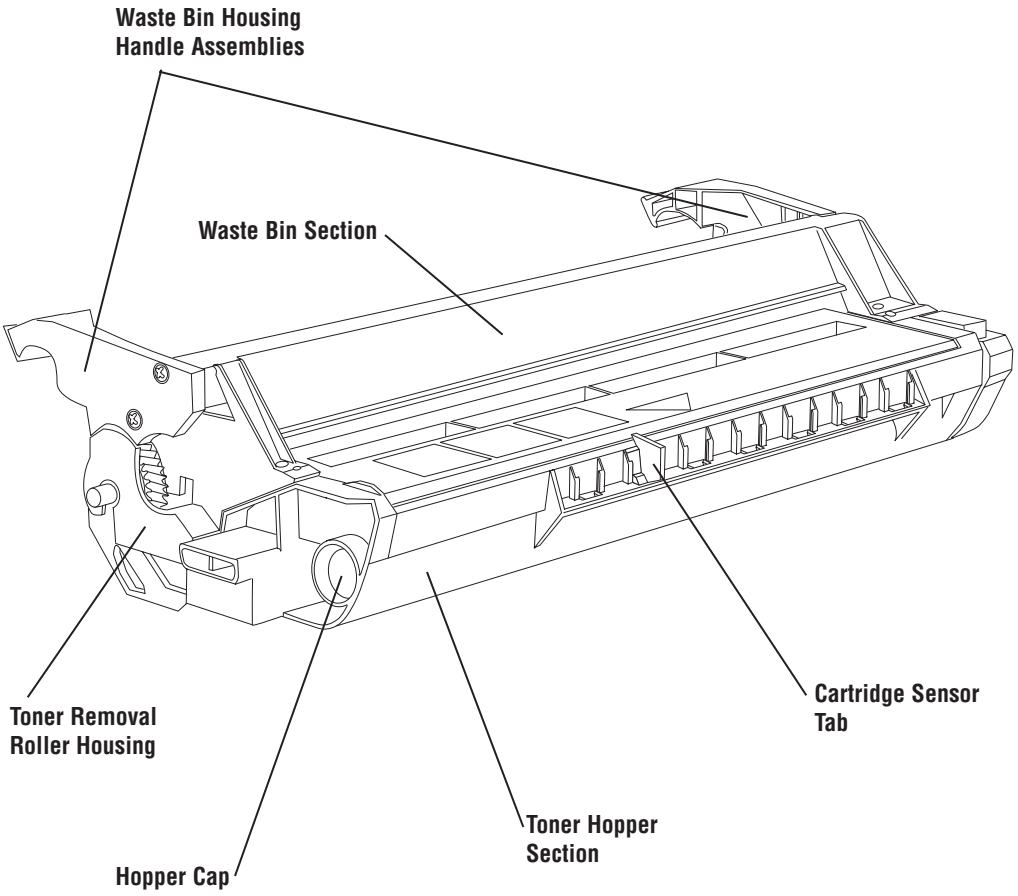
FIG 99

3. **Install the hopper cap (PB9800HCAP).**

Notes

Pitney Bowes® 9800 Series/Panasonic® Panafax® UF-744/788
Cartridge Components

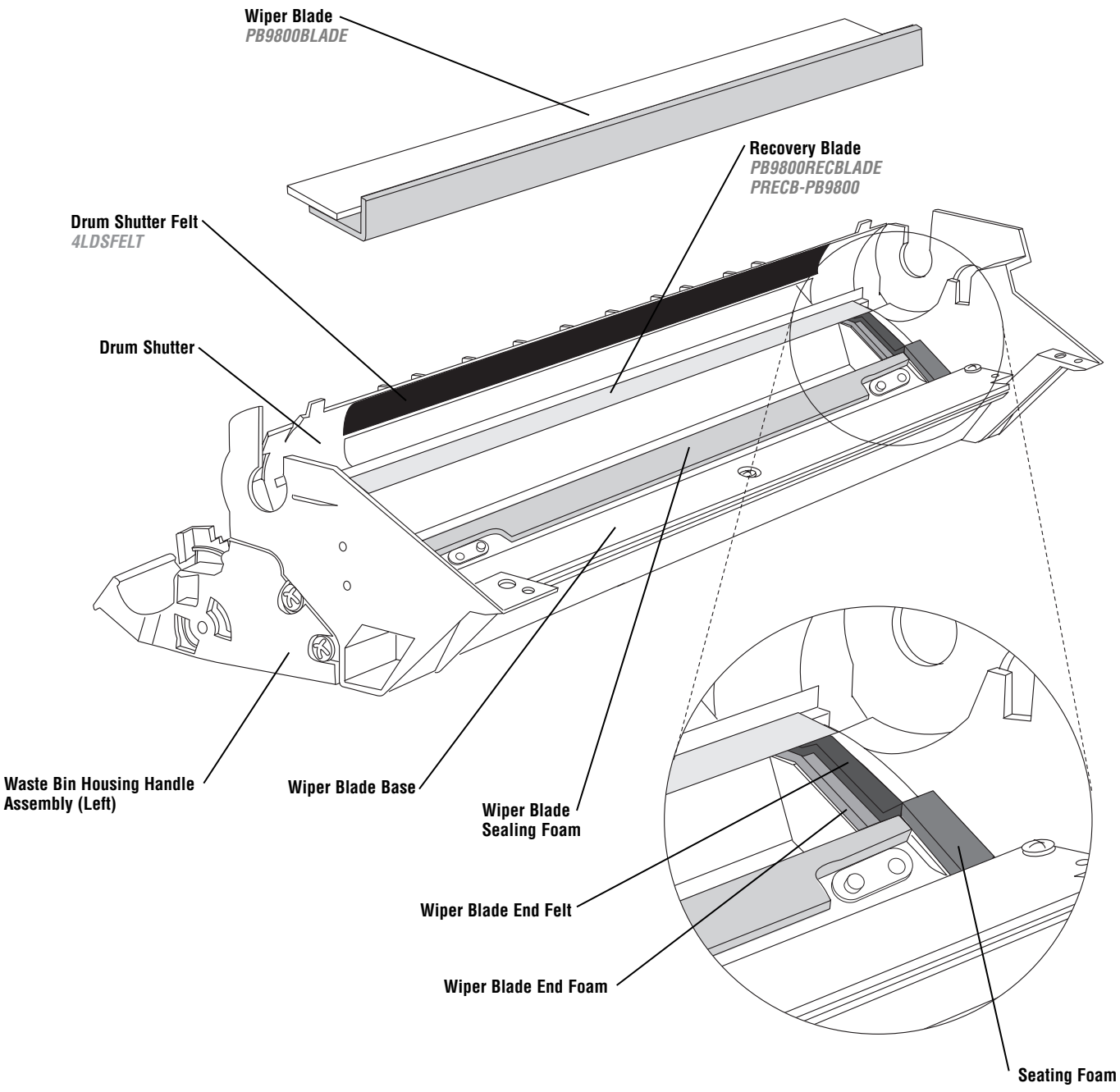
Top View of Cartridge



This fully illustrated **Cartridge Components** *guide gives you a complete breakdown of all cartridge components, along with component terms and definitions. Use the illustrations for training or referencing replacement components.*

Table of Contents

Waste Bin Section-Terms and Definitions



♦ **Tool, Kit or System Available. Contact your SCC Sales Team.** SCC parts indicated in gray.

Drum Shutter
Protects the drum from light damage when the cartridge is out of the machine. When the cartridge is installed in the machine, the shutter opens so that the drum is exposed to the paper.

Drum Shutter Felt
Shutter felt is an aftermarket component installed on the interior of the drum shutter surface. It protects the drum from potential damage caused by the opening and closing of the shutter.

Recovery Blade
Acts as a dam at the base of the waste bin, keeping toner from falling out of the waste bin onto the paper. (Also called catcher blade, scavenger blade)

Seating Foam
The foam seats against the corona assembly when the waste bin section is installed on the hopper section.

Waste Bin Housing Handle (Left and Right)
Used to grip the cartridge when installing the cartridge in or removing the cartridge from the machine.

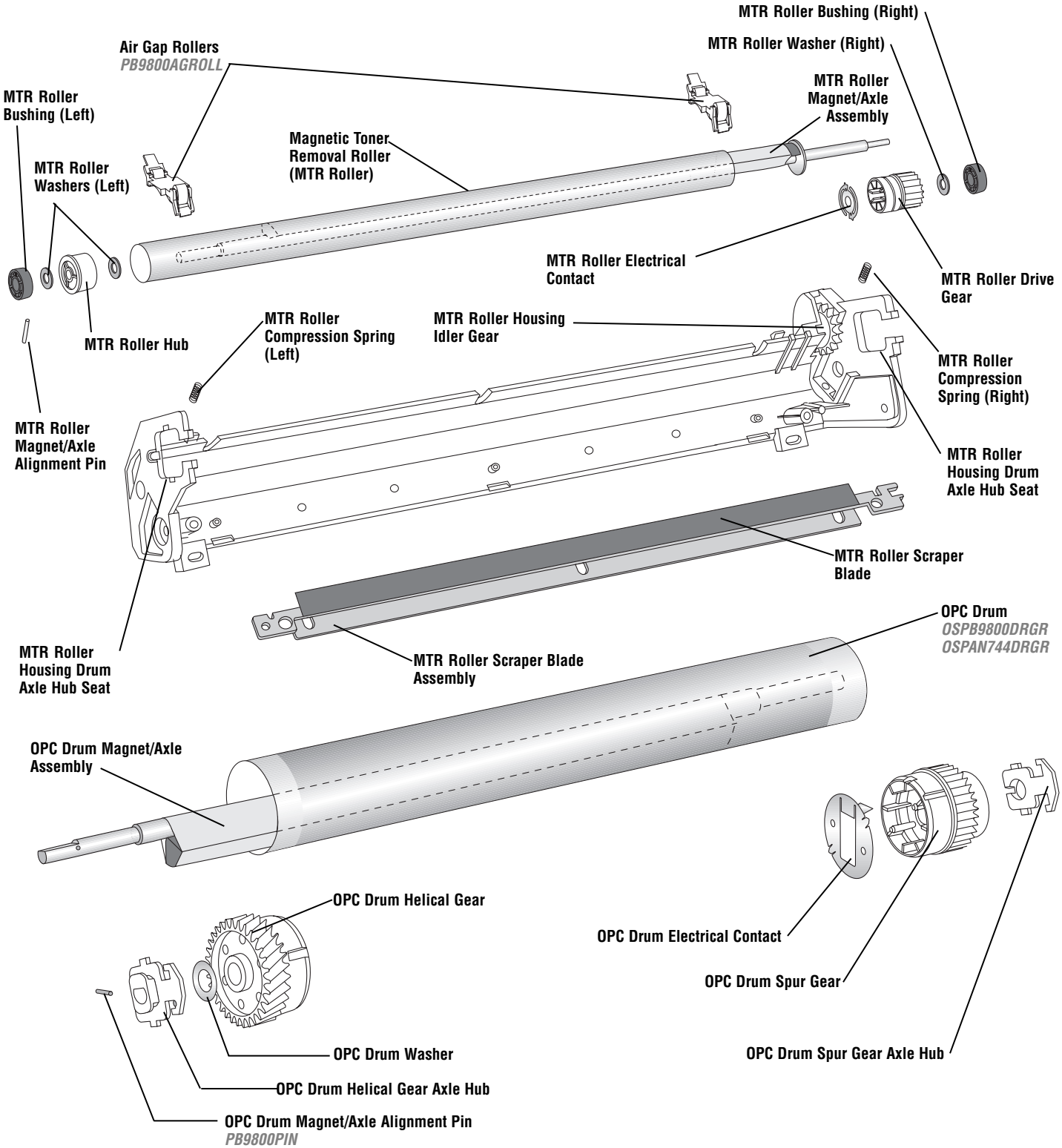
Wiper Blade
Cleans the drum by wiping away toner that was not transferred to the paper. Constructed of a metal stamping (base) and polyurethane blade. (Also called cleaning blade)

Wiper Blade Base
Removable plastic base to which the wiper blade is attached.

Wiper Blade End Foam and Felt
Bottom layer of foam and top layer of felt seal the area at the ends of the wiper blade; prevents leakage from the waste bin.

Wiper Blade Sealing Foam
A strip of foam installed underneath the base of the wiper blade that seals the area between the wiper blade and waste bin; prevents leakage from the waste bin.

Toner Removal Roller Housing-Terms and Definitions



♦ **Tool, Kit or System Available. Contact your SCC Sales Team.** SCC parts indicated in gray.

Air Gap Rollers
Small, plastic rollers that separate the OPC drum from the magnetic toner removal roller, providing the proper air gap for toner removal.

Magnetic Toner Removal Roller (MTR Roller)
Consists of a sleeve around a axle magnet assembly; the roller is used to remove toner from the non-exposed areas of the OPC drum surface.

MTR Roller Magnet/Axle Alignment Pin
Installed at the gear hub disk end of the toner removal roller drum axle magnet assembly. When the toner removal roller is installed in the toner removal roller housing, the pin fits into a location slot in the housing to keep the magnet stationary and in the correct position inside the toner removal roller sleeve.

MTR Roller Magnet/Axle Assembly
A steel rod with an attached magnet installed inside the toner removal roller along the length of the roller. The rod holds the roller in position in the toner removal roller housing and provides electrical contact with the machine. The magnet is part of the image development process.

MTR Roller Bushing (Right and Left)
Support for the toner removal roller axle/magnet assembly.

MTR Roller Compression Spring (Left and Right)
Applies pressure against the toner removal roller to maintain constant and uniform contact against the air gap roller.

MTR Roller Drive Gear
Installed at one end of the toner removal roller sleeve; used to rotate the drum and houses the toner removal roller electrical contact.

MTR Roller Drum Axle Hub Seat (Left and Right)
Located at each end of the toner removal roller housing to house the drum axle hubs.

MTR Roller Electrical Contact
Installed in the toner removal roller drive gear and makes contact with the toner removal roller axle; provides electrical contact between the toner removal roller and the machine.

MTR Roller Hub
Installed at one end of the toner removal roller sleeve as a supporting member for the sleeve. The hub and sleeve rotate on the magnet/axle assembly.

MTR Roller Idler Gear
Interfaces with the toner removal roller drive gear.

MTR Roller Scraper Blade Assembly
Removes toner from the toner removal roller to ensure a clean surface for image development. The assembly is comprised of a blade and metal stamping.

MTR Roller Washers
Friction reduction component to reduce wear between the toner removal drive gear and bushing at the contact end of the roller as well as between the toner removal roller hub and bushing at the non-contact end of the roller.

Organic Photo Conductor (OPC) Drum
An aluminum cylinder coated with light-sensitive organic photoconductive material used to retain an image written to it by a laser beam. (Also called OPC, drum, photoreceptor)

OPC Drum Magnet/Axle Alignment Pin
Located in the helical gear end of the drum axle, the drum axle alignment pin fits into a slot in the toner removal roller housing. This pin keeps the magnet stationary and in the correct position for proper imaging.

OPC Drum Magnet/Axle Assembly
A steel rod with an attached magnet installed inside the drum along the length of the drum. The rod holds the drum in position in the toner removal roller housing and provides electrical contact with the machine. The magnet is part of the image development process.

OPC Drum Electrical Contact
Provides electrical contact between the drum and machine. The metal contact makes contact with the drum axle when it is installed in the drum.

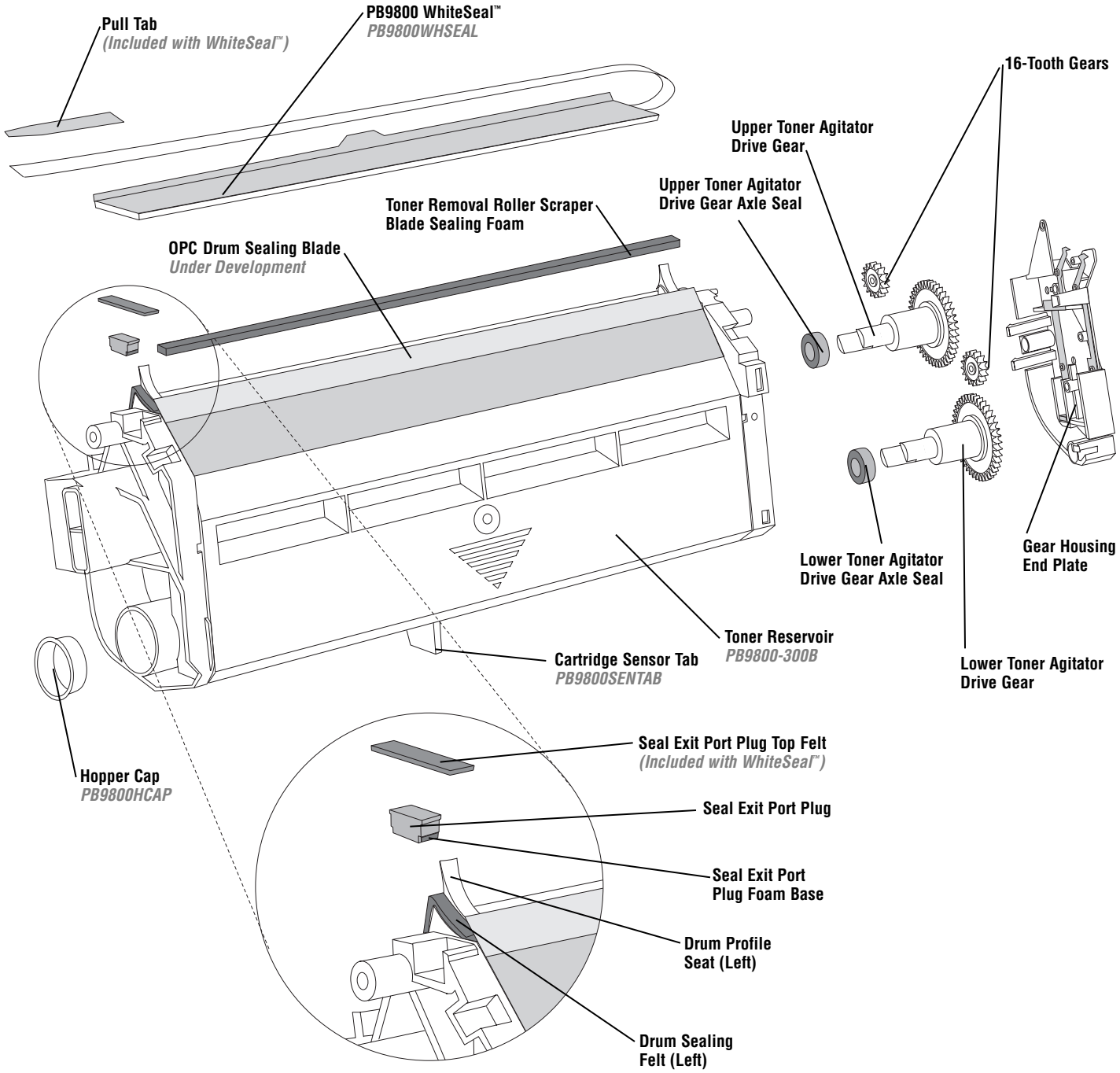
OPC Drum Washer (Helical Gear End)
Friction reduction component installed at the drum helical gear end of the drum to reduce wear between the gear and drum axle hub.

OPC Drum Gear Axle Hubs (Helical Gear and Spur Gear)
Installed at each end of the drum axle magnet assembly; the hubs fit into the hub seats at each end of the toner removal roller housing. The drum helical gear axle hub is keyed.

OPC Drum Helical Gear
The helical gear teeth have different orientations in the Pitney Bowes® 9800 Series and the Panafax® UF-744/788 cartridges (See Component Management Chart on pages 10-13 for details). When the drum is installed in the toner removal roller housing, the helical gear is located at the left end of the housing.

OPC Drum Spur Gear
Houses the drum electrical contact; when the drum is installed in the toner removal roller housing, the drum spur gear is located at the right end of the housing the same end at which the toner removal roller housing idler gear is located.

Toner Hopper Section-Terms and Definitions



♦ **Tool, Kit or System Available. Contact your SCC Sales Team.** SCC parts indicated in gray.

16-Tooth Gears
Two idler gears installed in the toner agitator drive train.

Cartridge Sensor Tab
Interfaces with the machine to identify that the cartridge is present. The tab is located in different slots for the Pitney Bowes 9800 and Panafax UF-744/788 cartridges.

Drum Profile Seat
Positioning interface between the drum and the toner removal roller; reduces friction between the drum and drum sealing felt

Drum Sealing Felt
Seal the ends of the drum to prevent leakage from the hopper; similar in function to that of a mag roller felt used in the Canon® application.

Gear Housing End Plate
A removable end plate that covers the toner agitator drive train on the toner hopper section. Electrical contacts are also housed in this end plate.

Hopper Cap
Plugs the fill opening of the hopper.

Lower Toner Agitator Drive Gear Axle Seal
Installed on the lower toner agitator drive gear axle to seal the area between the gear axle the hopper body in order to prevent leakage from the hopper.

Lower Toner Agitator Drive Gear
Rotates the lower toner agitator bar in the hopper; located at the drive train end of the hopper section.

OPC Drum Sealing Blade
Installed along the top length of the drum to prevent toner leakage; works on the same principle as that of the mag roller sealing blade.

PB9800 WhiteSeal™
Installed in the sealing channel to contain the toner in hopper until the seal pull tab is pulled by the end user; comprised of a seal base, pull strip and a cardboard installation stabilizer.

Pull Tab
Attached to the seal pull strip to enable the end user to remove the seal pull strip and release toner into the development station.

Seal Exit Port Plug
Installed in the seal channel at the non-contact end of the hopper to seal the area where the seal pull strip exits the hopper.

Seal Exit Port Plug Foam Base
Installed on the bottom of the seal exit port plug to prevent leakage from the hopper.

Seal Exit Port Plug Top Felt
A strip of felt installed over the seal exit port plug to secure the plug.

Toner Removal Roller Scraper Blade Sealing Foam
Seals the area where the scraper blade assembly seats against the hopper body; prevents leakage from the hopper.

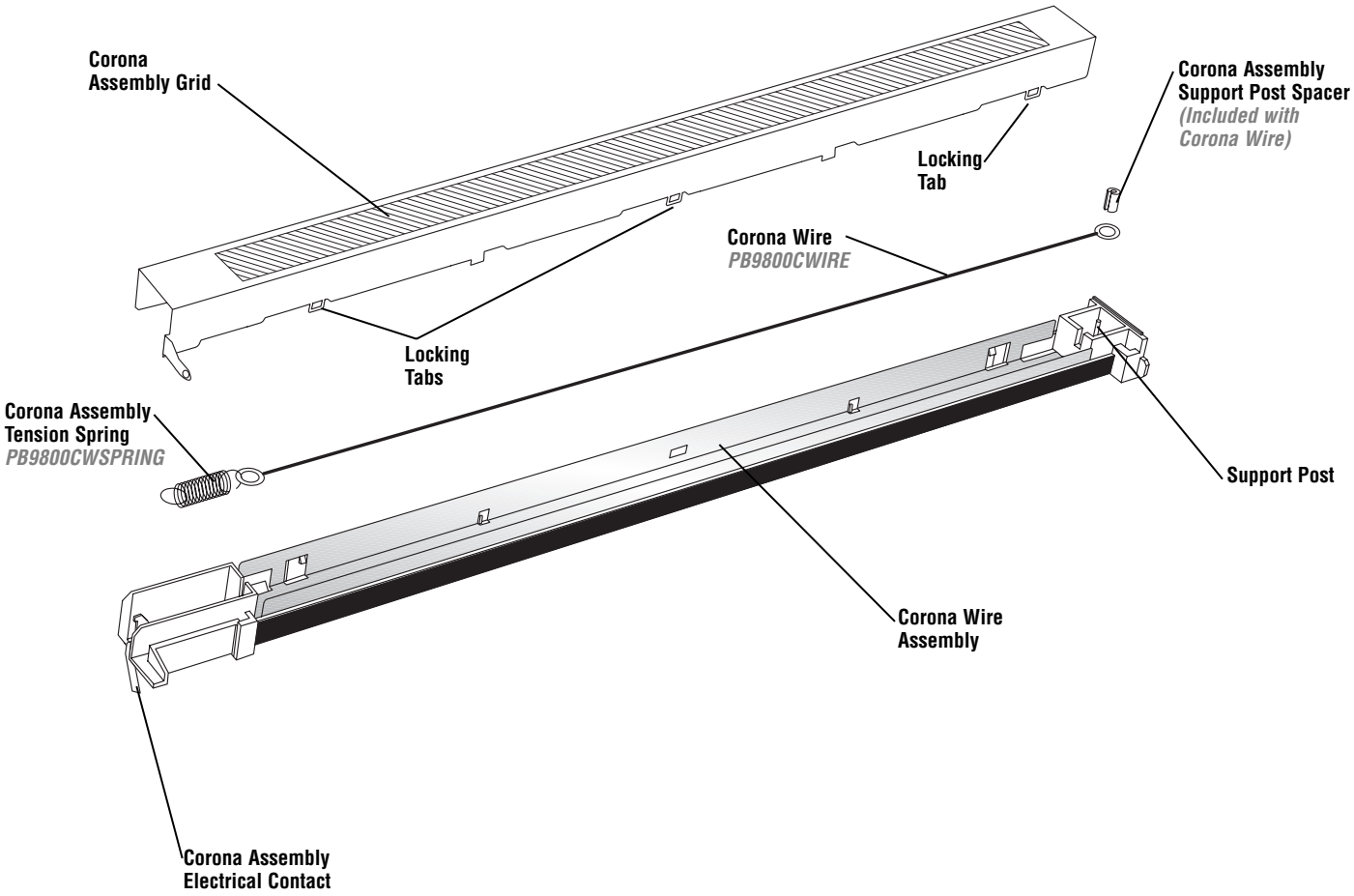
Toner Reservoir
Contains toner needed for image development.

Upper Toner Agitator Drive Gear Axle Seal
Installed on the upper toner agitator drive gear axle to seal the area between the gear axle the hopper body in order to prevent leakage from the hopper.

Upper Toner Agitator Drive Gear
Rotates the upper toner agitator bar in the hopper; located at the drive train end of the hopper section.

Corona Assembly-Terms and Definitions

IMPORTANT There are two styles of corona wire assemblies. The earlier style assembly, illustrated below, has a support post and support post spacer that anchor the corona wire eyelet. The later style assembly, not shown in the illustration below, features a hooked post instead of a straight support post and spacer. The location of the locking tabs on the grid are also different on each of the two styles, which means that the early style and later style grids are not interchangeable. The earlier style of corona assembly is featured in the illustration below.



♦ **Tool, Kit or System Available. Contact your SCC Sales Team.** SCC parts indicated in gray.

Corona Wire
Uniformly charges the OPC drum surface; housed in the corona assembly.

Corona Assembly Grid
Aids in the charging of the drum. Note that the grid shown on the facing page is an earlier style grid, which is different from the later style grid. The locking tabs are located at different positions on the two assemblies, therefore the early and late style grids are not interchangeable.

Corona Assembly Electrical Contact
Interfaces with a contact on the gear housing end plate; provides electrical contact between the assembly and the machine via the end plate.

Corona Assembly Support Post Spacer (Early Style Assemb.)
Prevents the eyelet from shifting upward and off of the anchor post. The spacer is not present on later style corona assemblies.

Corona Assembly Tension Spring
Provides constant tension on the corona wire in order to keep the wire straight with respect to the interior of the assembly.

Corona Wire Assembly
Houses a combination of components that charge the OPC drum when an AC voltage is applied to the assembly.

Support Post (Early Style Assemblies)
An anchor point for the corona wire eyelet which is opposite the tension spring. Later style corona assemblies feature a hooked post instead of the post and spacer configuration.

Component Management Chart

COMPONENT	CODE	CLEAN	LUBRICATE
Air Gap Rollers	PB9800AGROLL	Dry, filtered compressed air	NA
Cartridge Sensor Tab	PB9800SENTAB	Dry, filtered compressed air	NA
Corona Wire	PB9800CWIRE	Lint-free swab dampened with 91-99% isopropyl alcohol	NA
OPC Drum	OSPB9800DRGR OSPAN744DRGR	Dry, filtered compressed air	Pad coated area of drum with Kynar® lubricating powder; install in the cartridge and rotate against the wiper blade at least 6 full rotations
Drum Axle/Magnet Alignment Pin	PB9800PIN	Lint-free cloth	NA
Drum Shutter Felt	4LDSFELT	Dry, filtered compressed air	NA
Magnetic Toner Removal Roller Housing	NA	Dry, filtered compressed air	NA
Magnetic Toner Removal Roller	NA	Dry, filtered compressed air only; do not use solvents or other cleaning solutions to clean the roller; do not touch the surface of the roller with your fingers	NA

EVALUATE	REPLACE
Air gap rolllers are fragile and suseptible to wear during normal cartridge operation. The roller should be fully assembled with both rollers in installed in the magnetic toner removal roller housing.	Replace the air gap roller assembly if either of the small rollers are damaged or missing or if the assembly is visibly worn. To ensure optimum reliability, replace the air gap rollers every other remanufacturing cycle.
The tab must be installed in one of the slots on the hopper body in order for the machine to identify that a cartridge is present. *See page 8 in SSS 123-A, PB9800 Series Remanufacturing Instructions for details on the correct position of the tab for Pitney Bowes 9800 series and Panafax UF-744/788 cartridge.*	Replace missing or damaged tabs.
Laboratory test results have shown that the corona wire becomes worn and pitted at approximately 25,000 pages. The corona wire should display a smooth surface; pretest cartridges to check for corona-wire related defects.	For best results against field failures, replace the corona wire each time your remanufacture the cartridge.
Life tests on the OEM drum have shown that the drum is likely to fail during the second remanufacturing cycle. The Pitney Bowes 9800 and PanaFax 744 cartridges have different helical gears. *See page 8 of SSS 123-A, PB9800/Panafax UF-744/788 Cartridge Differences, for details.*	For best results use the OEM drum for one remanufacturing cycle; replace SCC's system-qualified drum every other cycle. Note that the drum magnet/axle assembly, inside the drum, must be removed from the OEM drum and installed in the replacement drum. *Refer to SSS 140, How to Replace Your PB9800/Panafax UF-744/788 OPC Drum for complete instructions.*
The pin should fit securely in the drum axle/magnet assembly. When the drum is installed in the toner removal roller housing the pin should be fully positioned in the vertical slot in the housing.	Replace the pin if bent, damaged or missing. The pin is removed from the drum axle when replacing the drum. Use caution when removing the pin from the drum axle to avoid bending the axle. *For more information, refer to page 4 of SSS 123-A, PB9800 Series Remanufacturing Instructions for more information regarding the alignment pin.*
The felt is an aftermarket component installed on the interior surface of the drum shutter to protect the drum from impact damage caused by the opening and closing of the shutter. The felt should appear clean and be fully secured to the shutter.	Replace if the felt starts to peel, becomes dislodged or is missing.
For best results, do not disassemble. Reassembling the components in the housing can be very time-consuming.	NA
To avoid damage to the roller do not remove it from the housing.	NA

Component Management Chart

COMPONENT	CODE	CLEAN	LUBRICATE
Magnetic Toner Removal Roller Scraper Blade	NA	Dry, filtered compressed air	NA
OPC Drum Sealing Blade	Under Development	Dry, filtered compressed air	NA
Recovery Blade	PB9800RBLADE (mylar) PRECB-PB9800 (poly)	Dry, filtered comprressed air	NA
PB9800 WhiteSeal™	PB9800WHSEAL	Clean seal mounting surface with a lint-free swab dampened with 91-99% isopropyl alcohol	NA
Pull Tab	Included with the PB9800 WhiteSeal	NA	NA
Seal Exit Port Plug	NA	Dry, filtered compressed air	NA
Seal Exit Port Plug Top Felt	Included with the PB9800 WhiteSeal (PB9800EPFELT)	Dry, filtered compressed air	NA
Toner	PB9800-300B	Clean hopper with dry, filtered compressed air	NA
Toner Hopper Cap	PB9800HCAP	Dry, filtered compressed air	NA
Wiper Blade	PB9800BLADE	Dry, filtered compressed air	NA
Wand Body/Felt	PB9800FELT (Felt) PB9800WAND (Wand Body and Felt)	NA	NA

EVALUATE	REPLACE
The blade should display a smooth surface free of kinks or bends. Make sure the blade assembly is fully secured to the housing.	NA
The blade should display a smooth surface free of kinks or bends.	SCC replacement blade under development. Contact a memeber of your SCC Sales Team for availability.
Blade should display a smooth surface and be competely secured to the mounting surface; Note that there are two styles of waste bin sections that require blades of different lengths. *Refer to SSS 123-A, Pitney Bowes 9800 Series Remanufacturing Instructions or to the product instructions for details.*	Replace the blade if bent, kinked or damaged.
Remove previously used seal (if present) before installing a new seal.	Replace the seal each time you remanufacture the cartridge.
Install on the end of the seal pull strip; also facilitates threading the pull strip through the seal exit port	Install a new pull tab each time a new seal is installed.
Plug must be installed in the sealing channel where the seal pull strip exits the hopper, otherwise severe leakage can result	Replace the plug if it is missing or severely damaged.
The felt should be installed securely over the top of the seal exit port plug. The felt is removed each time a new seal is installed.	Replace the felt each time a new seal is installed
NA	NA
The cap should fit securely over the fill hole. Note that the cap is easily damaged when it is removed from the hopper.	Replace if the cap is damaged or does not fit securely in the fill hole.
Test print each remanufacturing cycle to check for vertical streak print defects.	Replace if wiper blade-related defects are detected. For best performance results, we install a new wiper blade each time a new drum is installed.
The end user will often forget to change the fuser wand each time they replace the toner cartridge. A worn fuser wand will have toner buildup and can cause smudging on the printerdpage. Failure to change the wand can cause fuser damage.	Replace the wand felt each time you remanufacture the cartridge for best results with fuser cleaning.

Notes

Notes

Imaging System Technology You Can Count On!

The development of cartridge imaging systems, such as the Pitney Bowes 9800 Imaging System, is the primary mission of our imaging 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 designed cartridge application.

This dedication and commitment results in integrated cartridge systems that Static Control fully supports, allowing you to quickly attack new market opportunities with complete confidence in the reliability and performance of your cartridges.

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