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Hewlett Packard® LaserJet® 1320/1160
Remanufacturing Instructions

HP 49A

HP 49X

Table of Contents

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on the web at Static Control's
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documents are available on
our Web site in Adobe®
Acrobat® format.*

*If you need additional
information or technical
assistance, please contact
your Regional Support Team.*

Version 4
August 2006

Reference Info

In September 2004 HP announced the release of the HP LaserJet® 1160/1320. These 20/22 ppm monochrome printers are targeted for small and medium sized businesses. Printers are affordably priced with an introduction price of $329 (HP1160) and $429 (HP1320). The sole version of the HP 1160 cannot be networked, while the four models of the HP 1320 have network capabilities.

The HP1160/1320 utilize the same standard yield cartridge (2,500), while a high yield (6,000) cartridge is also available for the HP 1320. Cartridges are chipped, providing supplies status information, toner low and toner out alerts, internet enabled supplies, ordering and remote troubleshooting capabilities. These cartridges' completely different design appears to prevent conversion of older models into these newly designed cartridges.

In addition, the HP 1160/1320 standard and high yield cartridges' waste bin and hopper sections hold different capacities and have physical differences. Causing conversion of standard to high yield to possibly be difficult as well.

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.

....

Engine Information — HP1160

Engine Information	HP1160
Printer Price	$329
First Page Out	Less than 9 seconds
Processor	133 MHz
Memory	16MB/16MB
Print Speed (pages per minute)	20
Duty Cycle	10,000 pages per month
Print Resolution (dpi)	600 x 600 dpi

Engine Information — HP1320

Engine Information	HP1320
Printer Price	$429
First Page Out	Less than 9 seconds
Processor	133 MHz
Memory	16MB/144MB
Print Speed (pages per minute)	20
Duty Cycle	10,000 pages per month
Print Resolution (dpi)	600 x 600 dpi

Tools and Supplies You Will Need

For Basic Remanufacturing:

- Phillips Screwdriver
- Standard Flatblade Screwdriver
- Small-Tipped Flatblade Screwdriver
- Needlenose Pliers
- Funnel for Toner Bottle
- #32 Drill Bit
- Compressed Air for Cleaning ....*(See pg. 1)*
- 91-99% Isopropyl Alcohol ....*(See pg. 1)*
- Lint-Free Cleaning Cloth ....LFCCLOTH
- Cotton Swab ....QTIP
- Conductive Cartridge Lubricant ....CONCLUBE
- Kynar® Lubricating Powder ....KPOW
- Curved Scraper Blade Tool ....CSBTOOL
- Shallow Trough for Dipping the Wiper Blade
- Hopper Entry Tool HP1320HETOOL
- Hopper Cap HP1320HCAP
- HP1320 Plexiglass Hopper Jig HP1320HJIG
- HP 1320/1160 Cartridge/Stabilizer Pins HP1320PIN
- HP 1200 Pin Removal Tool HP12PRTOOL
- Super Glue ....REPGLUE

Cartridge Information

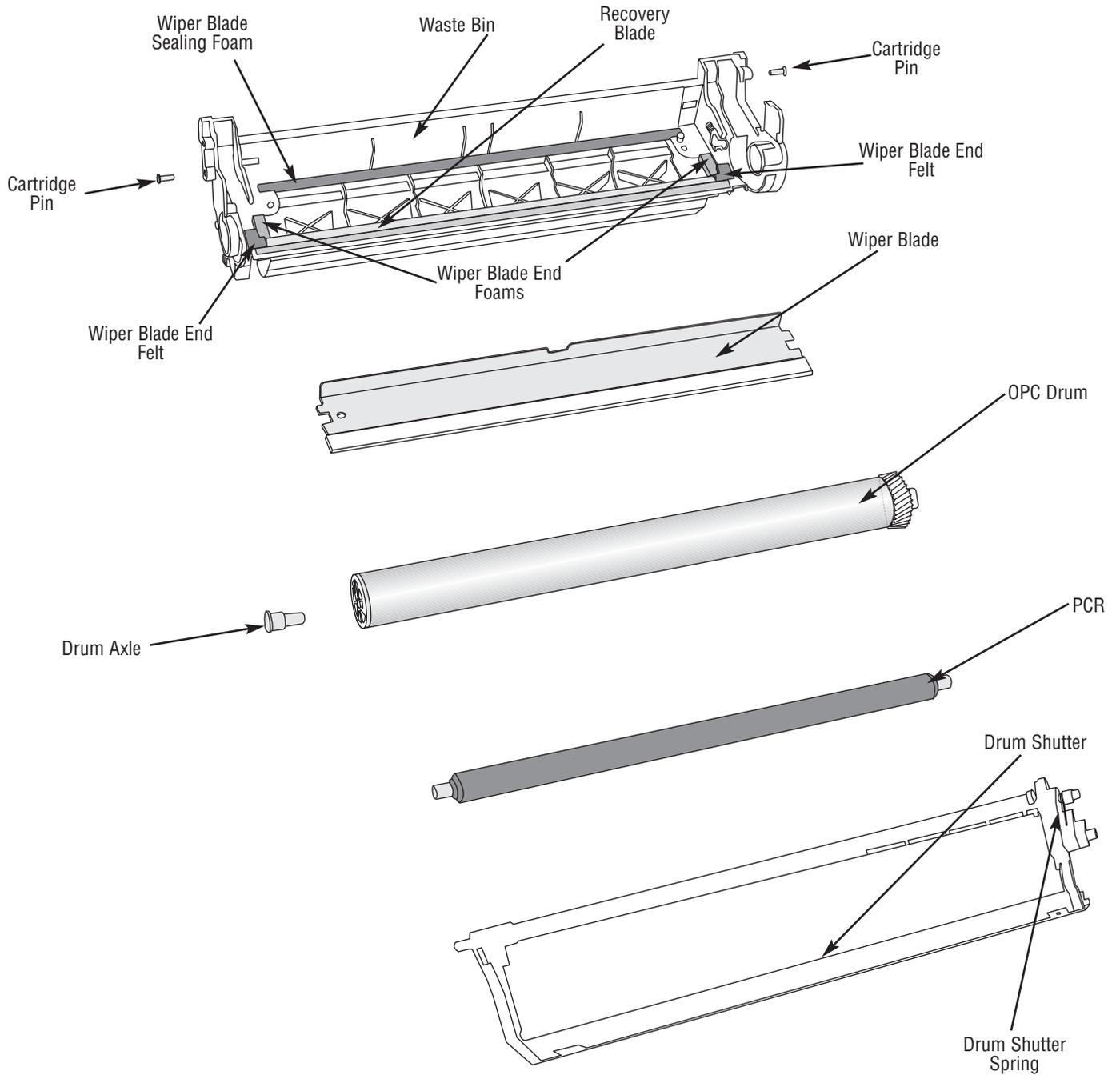| Part Number	Q5949A Standard Yield	Q5949X (HP1320 only) High Yield
OEM MSRP*	$72.00	$92.00
OEM Rated Page Yield	2,500	6,000
Wholesale (Supplies Network)*	$59.00	$107.00

*Prices as of May 2003

HP49X Waste Bin Unit

Wiper Blade
Sealing Foam

Waste Bin

Recovery
Blade

Cartridge
Pin

Cartridge
Pin

Wiper Blade End
Felt

Wiper Blade End
Foams

Wiper Blade

Wiper Blade End
Felt

OPC Drum

Drum Axle

PCR

Drum Shutter

Drum Shutter
Spring

HP49X Toner Unit

Mag Roller End Felts

Mag Roller
Sealing Blade

Exit Port
Plug

Geared Side
End plate

Mag Roller
End Foams

Toner Hopper

Contact Side
End plate

Mag Roller
Wiper Tabs

Doctor Blade

Mag Roller Drive
Gear

Mag Roller

Mag Roller Bushing

HP49A Toner Unit

Mag Roller
End Foams

Mag Roller
Sealing Blade

Exit Port
Plug

Geared Side
End plate

Toner Hopper

Contact Side
End plate

Mag Roller
Wiper Tabs

Doctor Blade

Mag Roller

Mag Roller Drive
Gear

Mag Roller Bushing

HP49A Waste Bin Unit

Wiper Blade
Sealing Foam

Waste Bin

Recovery
Blade

Cartridge
Pin

Cartridge
Pin

Wiper Blade End
Felt

Wiper Blade End
Foams

Wiper Blade

Wiper Blade End
Felt

OPC Drum

Drum Axle

PCR

Drum Shutter

Drum Shutter
Spring

Separation of the Cartridge

Using these instructions: Remanufacturing steps for the HP49X and HP49A are identical. For illustration purposes, the HP49A cartridge is shown in all photos and illustrations, except as noted.

1. Remove the Drum Shutter.
    a. Open the Drum Shutter. Holding the spring side of the shutter; use a small flatblade screwdriver to dislocate the shutter post from the slot (FIG 1a).
    b. Slide the non-spring side from the slot (FIG 1b)

Remove drum shutter post

Screwdriver

FIG 1a

Remove Post from Slot

FIG 1b
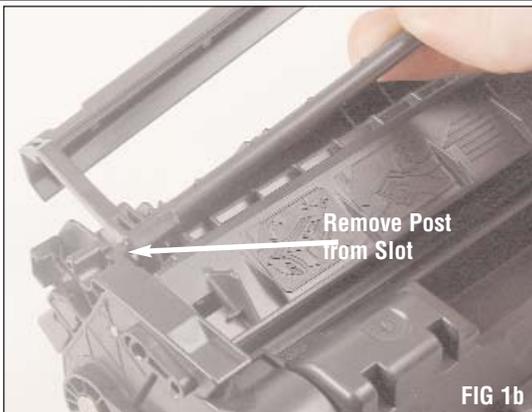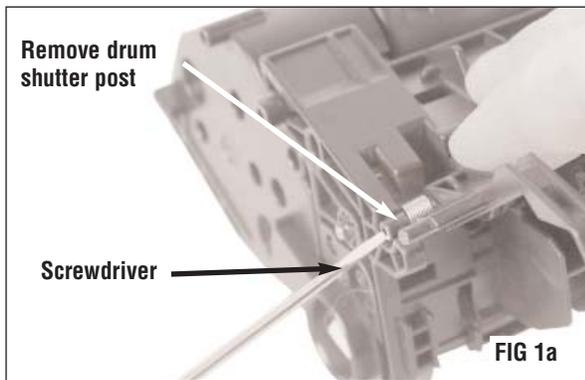
Note: When removing the shutter be careful not to damage shutter axle.

2. Remove the cartridge pins.
    a. Using a low rpm drill and a #32 drill bit, drill a hole into the square slots on the back of the Waste Bin (FIG 2a and 2b). The drill bit will push the pins out enough to pull out.

FIG 2a

FIG 2b
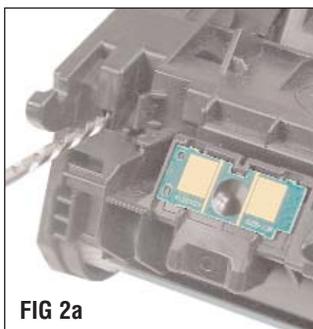
Note: If the drill does not push the pin out of the cartridge, use the HP1200 pin removal tool to push the pins out of the cartridge.

Note: Drill until pins are pushed out. Drilling too deep into the Waste Bin can damage the cartridge.

b. Using needlenose pliers, remove the cartridge pins (FIG 3).

Remove pins from each side of the cartridge

FIG 3
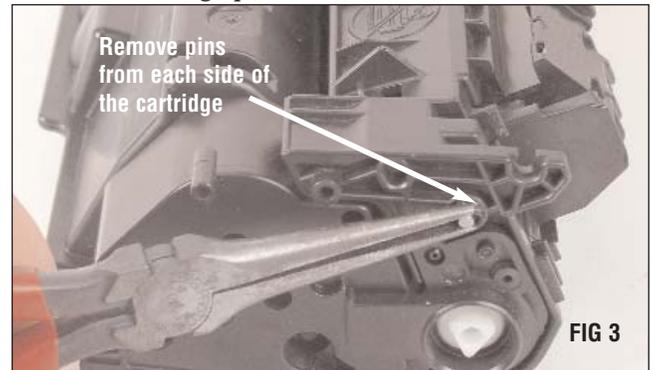
3. Separate the two sections (FIG 4).

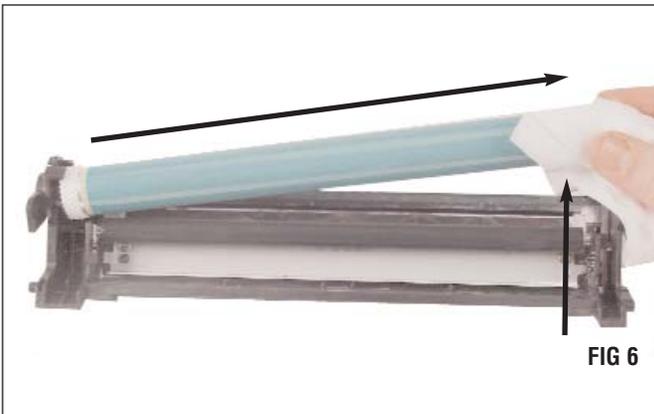

Separate Sections

FIG 4
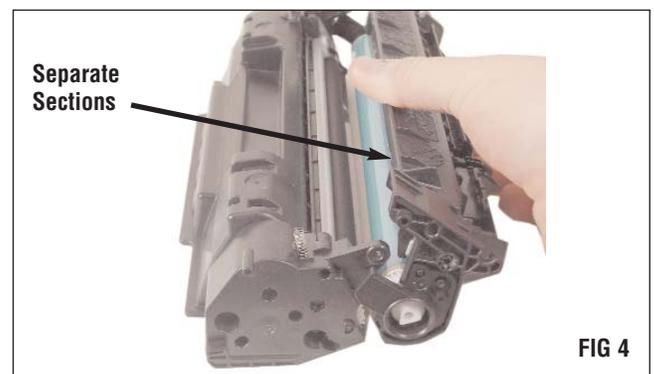
Disassembly/Assembly of the Waste Bin Section

1.   Using needlenose pliers, remove the drum axle from the cartridge (FIG 5).

FIG 5

3.   Carefully lift the non-gear side of the drum with a dry, lint free cloth and slide the gear side of the drum out of the Waste Bin (FIG 6).

FIG 6

4.   Using needlenose pliers, lift the PCR from the Waste Bin by the metal shaft (FIG 7). Be sure to store the PCR on end.

FIG 7

5.   Using a phillips screwdriver, remove the two screws that secure the Wiper Blade in place; then, remove the Wiper Blade (FIG 8).

FIG 8

6.   Clean the Waste Bin using dry, filtered compressed air (FIG 9).

FIG 9

7. Inspect the Recovery Blade, the Wiper Blade Sealing Foam, and the Wiper Blade End Felts/Foams for damage and replace if needed (FIG 10).

Inspect Felts and Foams

Wiper Blade Sealing Foam

Recovery Blade

FIG 10
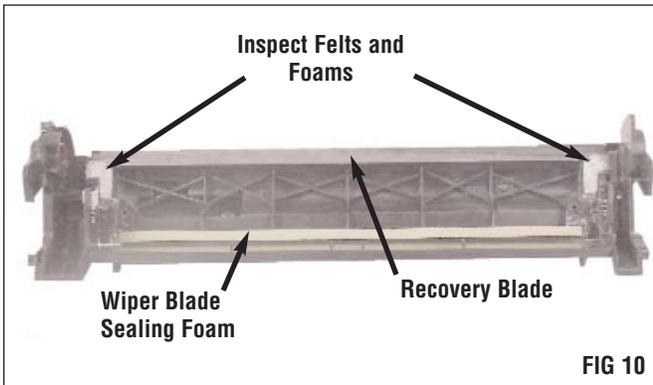
8. Use 91-99% Isopropyl alcohol and a cotton swab to clean the PCR saddles (FIG 11).

FIG 11

9. Dip the working edge of the Wiper Blade into a trough of Kynar™ Powder; then install the Wiper Blade into the Waste Bin securing with two screws (FIG 12).

Install Wiper Blade and Secure with two screws

FIG 12

10. Apply conductive grease to the black PCR saddle; (FIG 13) then install the PCR.

Apply Conductive grease to the black PCR saddle

FIG 13
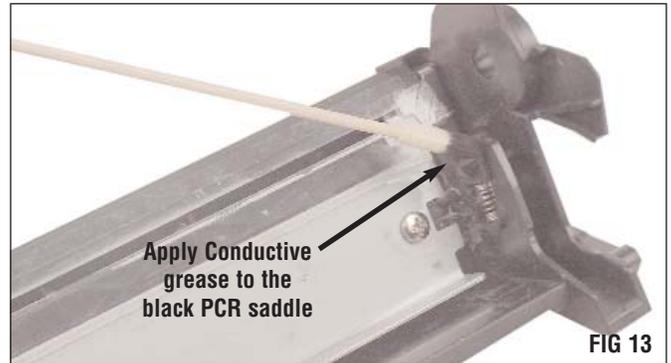
11. Lightly dust the drum with Kynar™ Powder and gently install the geared end of the drum into the Waste Bin Bearing Plate and set down in the cartridge (FIG 14).

FIG 14
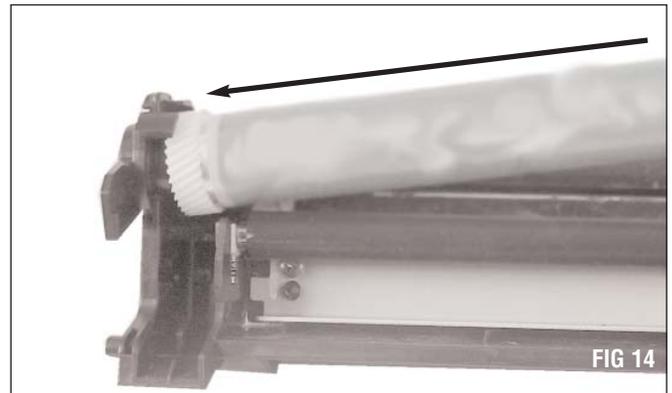
12. Install the drum axle to secure the drum in the Waste Bin (FIG 17).
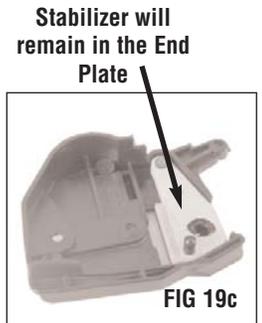
Install Drum Axle

FIG 17
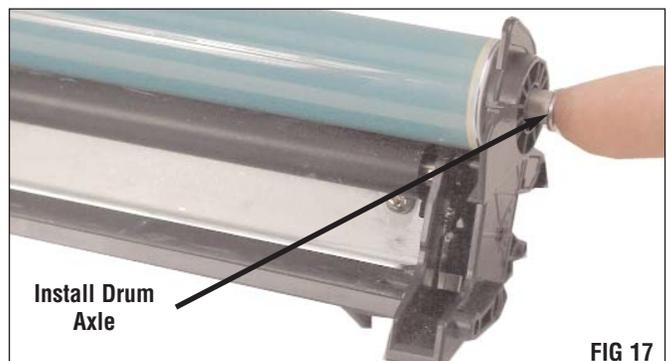
Disassembly of the Toner Hopper Section

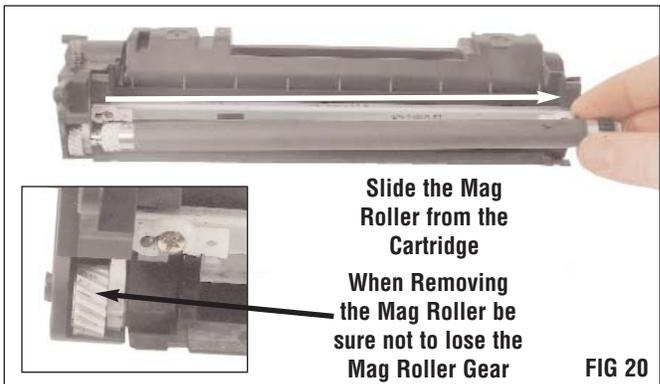Note: Step 1 only needs to be done on cartridges being remanufactured for the first time.

1. To break the sonic weld use a #32 drill bit and drill through the weld (FIG 18a). Install the Stabilizer Pin into the drilled hole. Apply a small amount of super glue to the pin, beneath the head and gently tap in to the hole with a small hammer (FIG 18b).

Drill through sonic weld

FIG 18a

Apply small bead of super glue around pin

Install Pin

FIG 18b
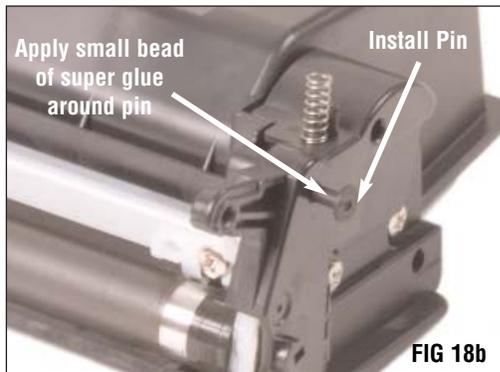
2. Using a phillips screwdriver, remove the two phillips screws on the contact side end plate (FIG 19a). Use a flat blade screwdriver to break any remains of the sonic weld. Remove the End Plate (FIG 19b and 19c).

Remove two screws

FIG 19a

Stabilizer will remain in the End Plate

FIG 19b

FIG 19c

3. Remove the Mag Roller from the Toner Hopper (FIG 20).

Slide the Mag Roller from the Cartridge

**When Removing the Mag Roller be sure not to lose the Mag Roller Gear**

FIG 20

4. Using a phillips screwdriver remove the two screws that secure the Doctor Blade to the Hopper (FIG 21). Remove the Mag Roller Wiper Tabs from the Doctor Blade; then remove the Doctor Blade

Remove the two screws from the Doctor Blade

FIG 21
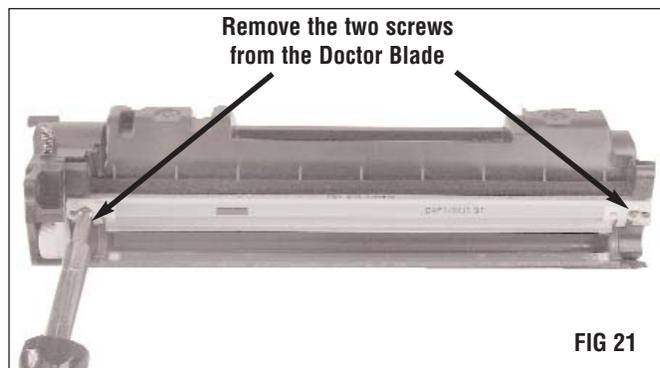
Note: If you are not sealing the cartridge skip to "Assembly of the Toner Hopper" on page 12. If skipping to page 12, do not forget to clean out the hopper with dry filtered, compressed air.

Open, Clean, Seal and Fill the Hopper

1. Using a curved scraper blade tool; push the exit port plug out the end of the Toner Hopper (FIG 22).

Exit Port Plug

Curved Scraper Blade Tool

FIG 22
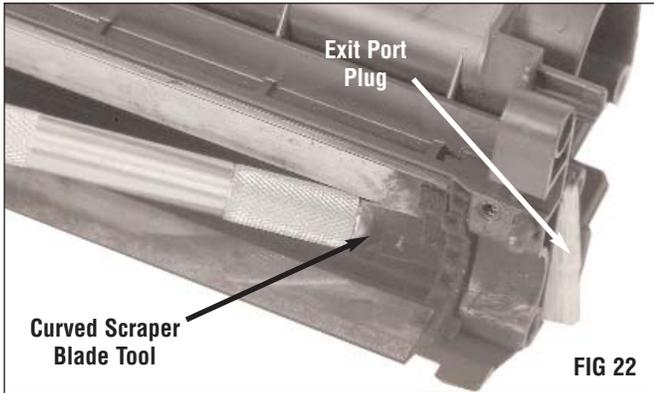
Note: Be sure to wear safety glasses while performing the following steps.

2. Install the Hopper Entry Tool into a drill. Place tool into the Hopper against the curved feature as shown in (FIG 23). Drill Hopper entry hole until collar stops against Hopper section; then remove.

FIG 23

3. Clean the Hopper using dry, filtered compressed air. Be sure that all plastic material, shavings and remaining toner are removed from the inside of the cartridge and on the surface where the Hopper cap will be placed (FIG 24 and 25).

FIG 24

FIG 25

4. Seal the Hopper. For complete sealing instructions refer to SSS™ 722 "Adhesive ProSeal" or SSS™ 740 "Rigid Insertable Seal."

5. Fill the Hopper with toner; then, clean the surface of the entry hole with a lint free cloth dampened with 91-99% Isopropyl alcohol.

6. Apply the Hopper cap to the hopper entry hole (FIG 26). Then install the Exit Port Plug.

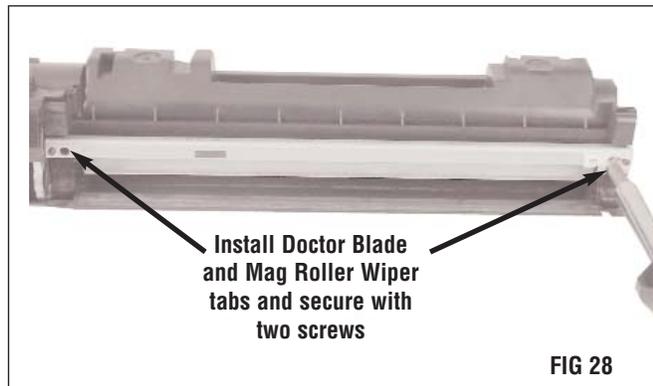
FIG 26
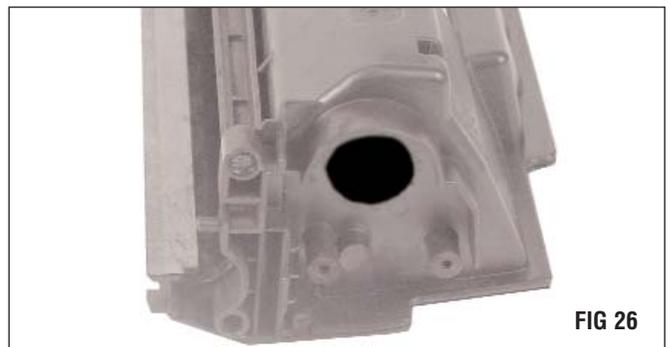
Assembly of the Toner Hopper Section

1.   Inspect the Mag Roller End Foams and Doctor
   Blade Sealing Foam for damage. Replace as
      needed (FIG 27).

Inspect Sealing Foam

Inspect Foams

FIG 27
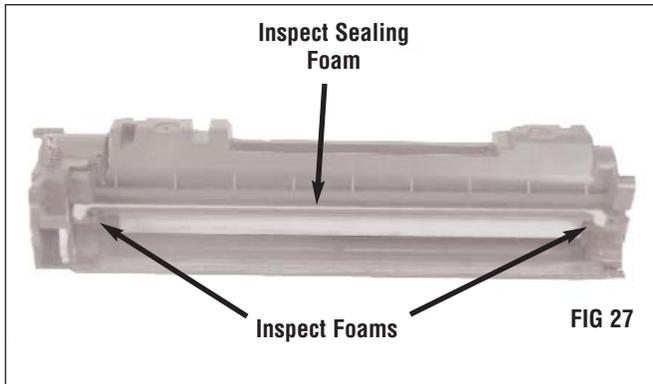
2.   Install the Doctor Blade and the Mag Roller Wiper
      tabs, and secure with two screws. (FIG 28).

Install Doctor Blade and Mag Roller Wiper tabs and secure with two screws

FIG 28

3.   Install the Mag Roller into the Hopper The Mag
      Roller has a keyed end that must fit into the keyed
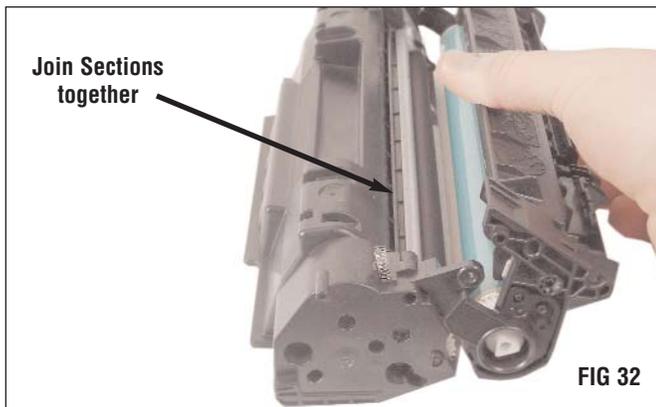   slot of the end plate (FIG 29 and 30).

Install Mag Roller

FIG 29

Note: Keyed Slot

FIG 30
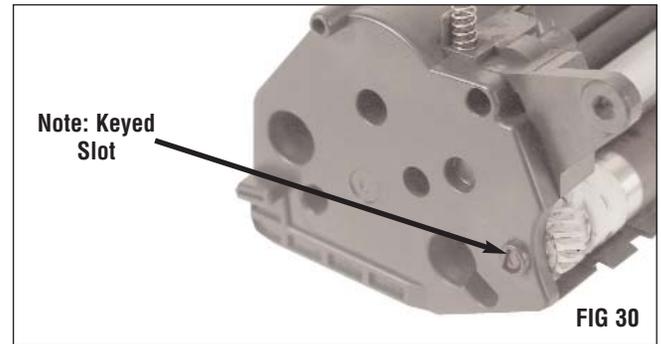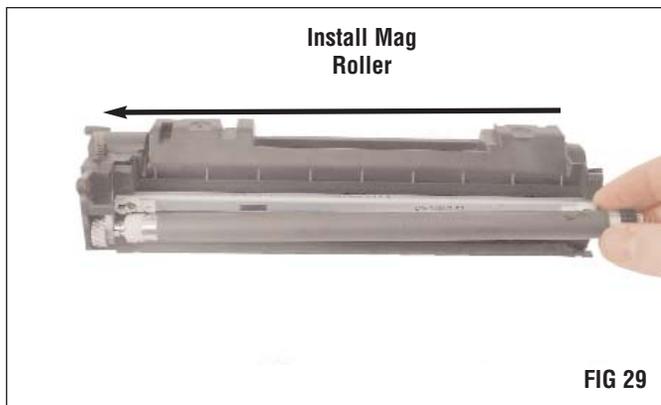
4.   Attach the contact end plate to the Hopper and
      secure with two screws (FIG 31).


Secure with two screws

FIG 31
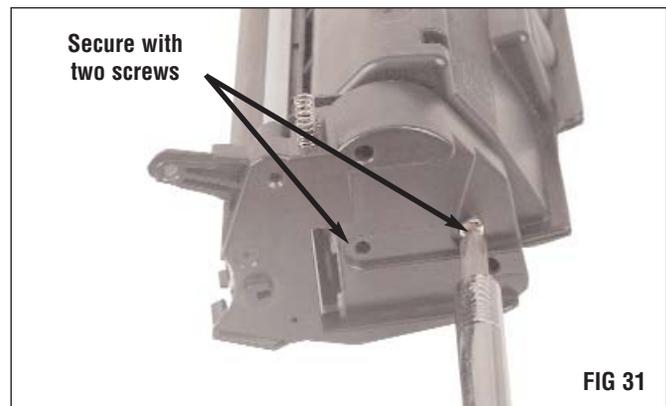
Assembly of the Two Sections

1.   Join the Waste Bin with the Toner Hopper, and secure each side of the cartridge with a cartridge pin (FIG 32).

Join Sections together

FIG 32

2.   Attach the drum shutter to the cartridge (FIG 33 and 34). Be sure that the tension spring fits into the proper slot.

Spring Location

Press down into slot

FIG 33

Press post into slot

FIG 34
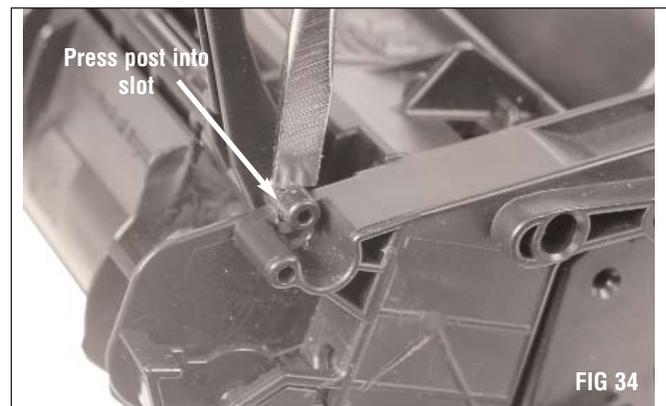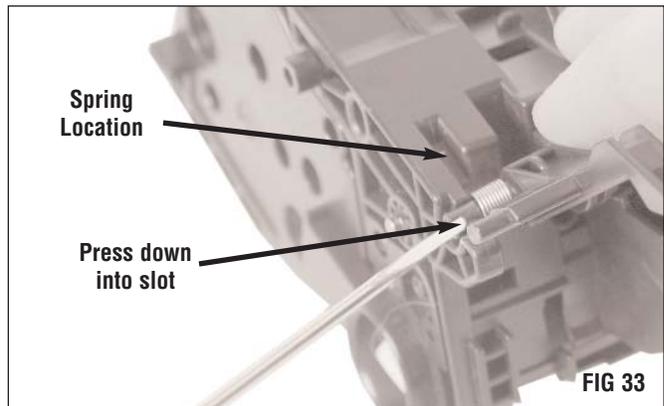
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