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# Hewlett Packard® LaserJet® 4350/4250 Printer
# Remanufacturing Instructions

HP42X

HP42A

## About the Printers

In October 2004 Hewlett Packard® released the LaserJet® 4350 (55ppm) and the LaserJet®4250 (45ppm) portrait printers.The HP4350 and 4250 are higher speed extensions of the HP4300 and 4200 printers released in November of 2002.

The HP4350 and 4250 have a first page out time of less than 8 seconds, a one second improvement over that of the 4200. Other improvements included advanced toner formulation, increased memory and expanded paper handling options, all while maintaining approximately the same acquisition price as the 4100.

The HP4350 and 4250 are based on the same engine, and they both appear to be identical on the exterior (as well as quite similar to the HP4300 and 4200). Both feature an updated version of HP's Chai Java Embedded Printer Web server, and additional data functions have been added to the supplies status page. The organization of the page has been modified so that information important to the user is easier to locate, and it now includes a *First Install Date* and a *Last Used Date*.

## About the Cartridges

There are two toner cartridges for these printers, a standard yield HP42A and a high yield HP42X cartridge. Both cartridges can be installed in either printer. The standard and high yield toner cartridge designs are basically the same, with the 42X hopper being larger to accomodate the increased toner load.

The exterior designs of both the HP42X and HP42A cartridges look very much like their 4300 and 4200 counterparts, including the presence of a smart chip. Like the HP4300 and HP4200, the chip is a direct contact type. It is a non-RF based ASIC chip, having two electrical contacts that make a physical connection with the printer when the cartridge is installed. But like the 4300 and 4200, if the chip is missing the printer will give a "10.10.00" error, and the toner level information will not be available. With the use of a spent chip the printer will give a “non-HP cartridge installed error”and the toner level information will not be available. A unique electronic chip is dedicated to each cartridge model.

Internally the 42X and 42A are nearly identical, with minor differences that affect remanufacturing only slightly. The components are the same for both cartridges.

**Key Points**

- Externally both the hoppers and waste bins differ in size and shape, with the HP42X being larger, and having “slots” molded into the body similar to the HP4300. The HP42A has a tab molded into the waste bin body similar to the HP4200.
- Internally the components are the same for both cartridges. However, the wiper blade of the HP42X lies beneath a narrow retaining ledge molded into the waste bin housing. This ledge must be cut away before the wiper blade can be removed.
- Instead of a conventional wiper blade sealing foam along the back edge of the blade, there is a line of hot melt foam material that is sticky to the touch. Though inconvenient to remove and clean from the cartridge, it is not a major issue.
- Static Control Components Inc. offers a sealing solution to replace the OEM hot melt foam sealing material. A foam seal is used in the HP42A and adhesive caulk is used in the HP42X.

*Continued on page 2*

## Table of Contents



**www.scc-inc.com/imaging/Imaging.htm**

*Get the latest information on the web at Static Control's Online Engine Center at www.scc-inc.com/Engine*

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

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

**1.800.488.2426 (USA)**
**919.774.3808 (Int'l)**
**+44 (0) 118 923 8800 (UK)**
**info@scc-inc.com (USA e-mail)**
**info@scceurope.co.uk.(UK e-mail)**
**www.scc-inc.com/imaging/Imaging.htm**

**Version 2**
**January 2005**

*Continued from page 1*

- The "no shake" design incorporates two toner agitators within the toner reservoir, and one behind the mag roller.
- The mag roller saddles are magnetic, and have sealing foams beneath them that are prone to becoming impregnated with toner. These foams should be inspected and replaced as needed (refer to SSS™ 534 for instructions).
- The contact end plate is held in place with plastic welds which are easily removed. To reattach the end plate, however, the weld material must be removed. Static Control offers a kit that includes a drill template, bit, and screws for accurate alignment and installation of the contact end plate.
- The hopper cap is a one-piece, molded design similar to that on the HP4300/4200. Removal damages the cap, resulting in toner leakage if re-used. Static Control's new high volume replacement hopper cap also fits the 42A and 42X cartridges, preventing toner leakage.
- **The alignment of the contact end plate is critical.** An error mesage will be displayed and the printer will not function if the end plate is not properly aligned. There is an external contact to a sensor that recognizes the presence of a seal on a new cartridge. If the seal is not removed, the control panel message "*54.1 Remove Sealing Tape From Toner Cartridge*" will be displayed and the printer will not operate.

| **Printer Information:** | **Hewlett Packard® 42A Series** | **Hewlett Packard® 42X Series** |
|---|---|---|
| Introductory Price (OEM): | $899 to $2,129 | $1,649 to $2,529 |
| Date of Printer Introduction: | Oct. 2004 | Oct. 2004 |
| First Page Out: | <8 seconds | <8 seconds |
| Processor: | 460MHz | 460MHz |
| Print Speed (pages per minute): | 45ppm (letter) | 55ppm (letter) |
| Duty Cycle (pages per month): | 200,000 | 250,000 |
| Print Resolution (dpi): | 1200x1200 (REt) | 1200x1200 (REt) |

| **Cartridge Information:** | **Hewlett Packard® 42A Series** | **Hewlett Packard® 42X Series** |
|---|---|---|
| Cartridge Part Number (OEM): | **Q5942A** | **Q5942X** |
| Street Price*: | $150 | $224 |
| Wholesale Price*: | $123 | $164 |
| OEM Rated Page Yield: | 10,000@ 5% | 20, 000@ 5% |

**Prices as of October 2004*

**Cartridge Compatibility**:**

| **Q5942A** | **Q5942X** |
|---|---|
| HP4250 | HP4250 |
| HP4250n | HP4250n |
| HP4250tn | HP4250tn |
| HP4250dtn | HP4250dtn |
| HP4250dtnsl | HP4250dtnsl |
| HP4350n | HP4350n |
| HP4350tn | HP4350tn |
| HP4350dtn | HP4350dtn |
| HP4350dtnsl | HP4350dtnsl |

***Cartridge components are interchangeable between cartridges, but cartridges are keyed to prevent cross-model compatibility.*

# Tools and Supplies You Will Need

## Tools and Supplies

**Items Recommended for Basic Remanufacturing:**

- Protective Eyewear
- Phillips Screwdriver
- Small Flat-blade Screwdriver
- Medium Flat-blade Screwdriver
- Shallow trough for dipping the wiper blade
- 91-99% Isopropyl Alcohol
- Low RPM Drill and #39 Drill Bit .0995 inches (2.53 mm)
- Multi-purpose glue .....REPGLUE
- Conductive Cartridge Lubricant .....CONCLUBE
- Adhesive Caulk (HP42X only) .....ADHCAULK
- Cotton-Tipped Applicator .....Q-TIP
- Flush Cutting Pliers (Side Cutters) .....FCPLIER
- Hook Tool .....HTOOL
- Hopper Cap .....9KHCAP
- Mag Roller Journal Removal Press .....HP43MRPRESS-R
- Mag Roller Journal Insertion Press .....HP43MRPRESS-I
- Hopper Fixture:
  - HP42A .....HP42HJIG
  - HP42X .....HP43HJIG
- Ionized Compressed Air .....AIRGUNSET
- Kynar® Lubricating Powder .....KPOW
- Lint-free Cleaning Cloth .....LFCCLOTH
- Felt/Foam Scraper Tool .....FSTOOL
- OPC Drum (with gears).....Call for availability
- Toner qualified for the HP4250 & 4350 systems:
  .....Call for availability

**For Doctor Blade Replacement:**

- Doctor Blade .....HP43DBLADE

**For Electronic Chip Replacement:**

- *HP4250/4350 Replacement Chip* .....
  (HP4X50CHIPLY/HP4X50CHIPHY)
- SSS™ #709 "*HP4250/4350 Replacement Chip*" instructions

**For Hopper Splitting and Sealing**

- Splitter Tool .....HP85SPLITOOL-K
- Foam-Type RapidSeal™ with Tab .....HP43FTRSPK
- Adhesive Rail Clip .....HP43ADHRCLIP
- HP4300/4200 Short Locking Rails (3) .....CSHP43-500
- SSS™ #493 "*HP4300/4200 Splitting and Sealing Instructions*"
- SSS™ #522 "*Adhesive Rail Clip and Short Rails*" instructions

**For Wiper Blade Removal & Replacement:**

- Rotary tool with flex shaft attachment (HP42X Only)
- HP4300 Wiper Blade Ledge Tool .....(HP43WBTOOL)
- Wiper Blades .....HP43BLADE
- Wiper Blade Sealing Foams
  HP4250 .....HP42WBSFOAM
- SSS™ #441 "*HP8500 & HP4300/4200 Wiper Blade End Foams*
- SSS™ #501 "*HP4300/4200 Wiper Blade Sealing Foam*
- SSS #533 "*HP4300 Wiper Blade Ledge Tool*" instructions

**For Contact End Plate Reattachment: Call For Availablity**

- End Plate Kit, Contact Side .....**HP43EPLATE-2**
- Electric Drill (capable of accepting a 5/16 inch [7.93 mm] bit)
- Rotary tool with flex shaft, sanding disc
- SSS™ #590"*HP4300/4200 Contact End Plate Kit*" instructions.
- End Plate Screw (HP43EPSCREW)

*For more information about other replacement components available for these cartridges, contact a member of your Static Support Team, or visit our Web site at* ***www.scc-inc.com/imaging/Imaging.htm.***

## Use of Isopropyl Alcohol

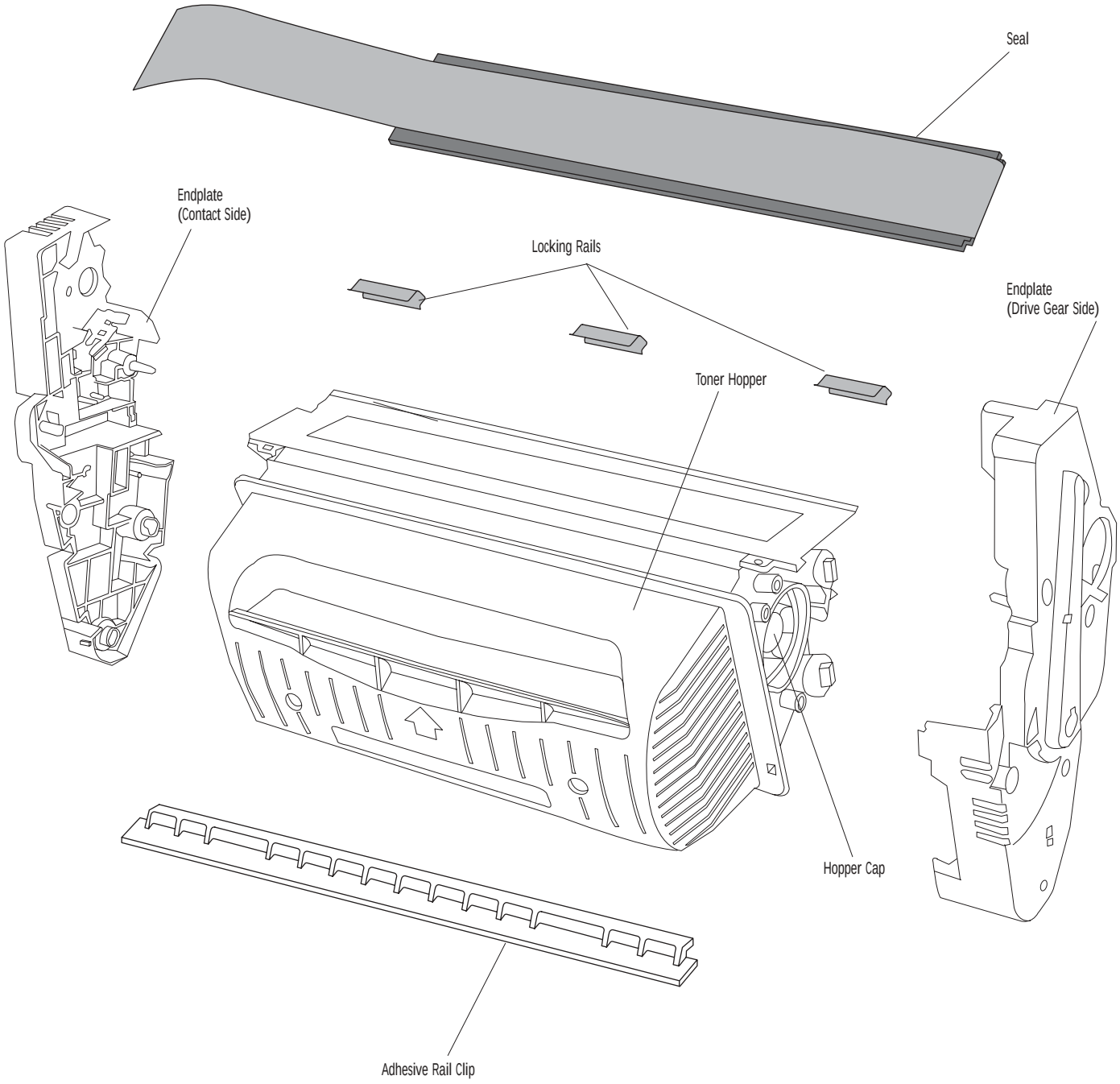
For best results, we recommend using ONLY 91-99% for cleaning as directed in these instructions. 91% isopropyl alcohol is available at most major drug stores; 99% isopropyl alcohol is available through distributors of chemical products. Follow the alcohol manufacturer's safety instructions.

## 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.

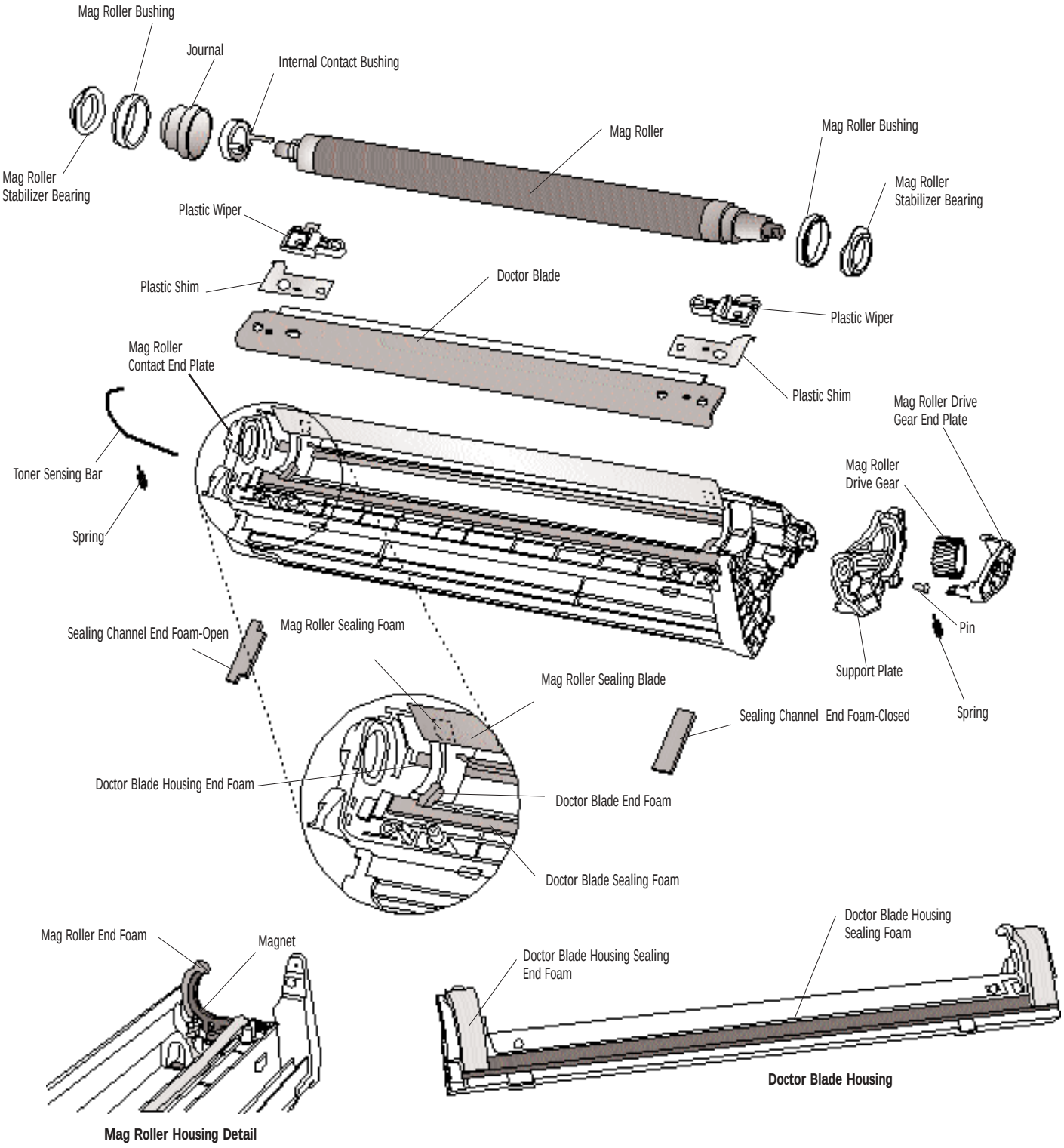
# HEWLETT-PACKARD® 42X

## TONER HOPPER SECTION



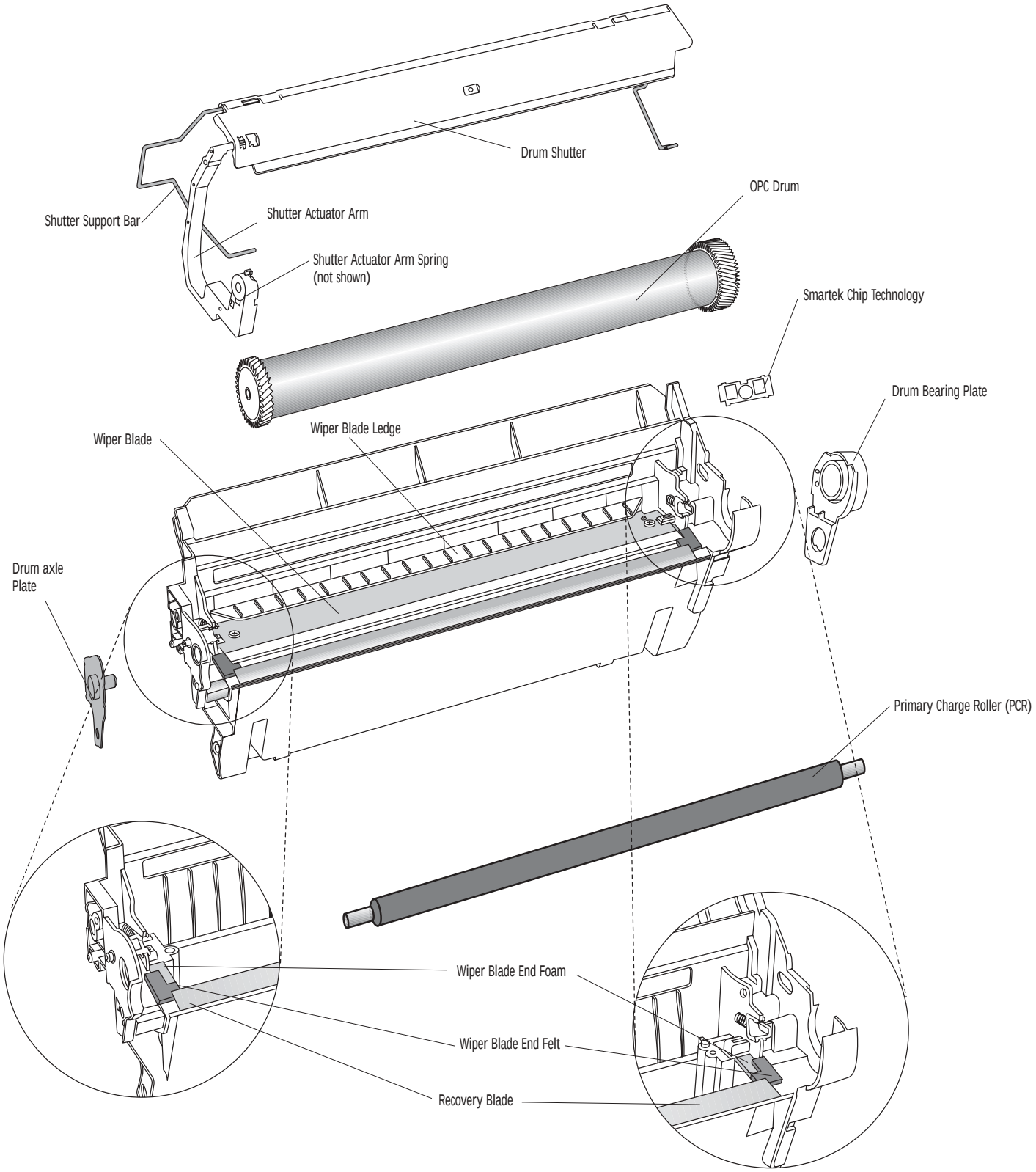
# HEWLETT-PACKARD® 42X

## MAG ROLLER SECTION



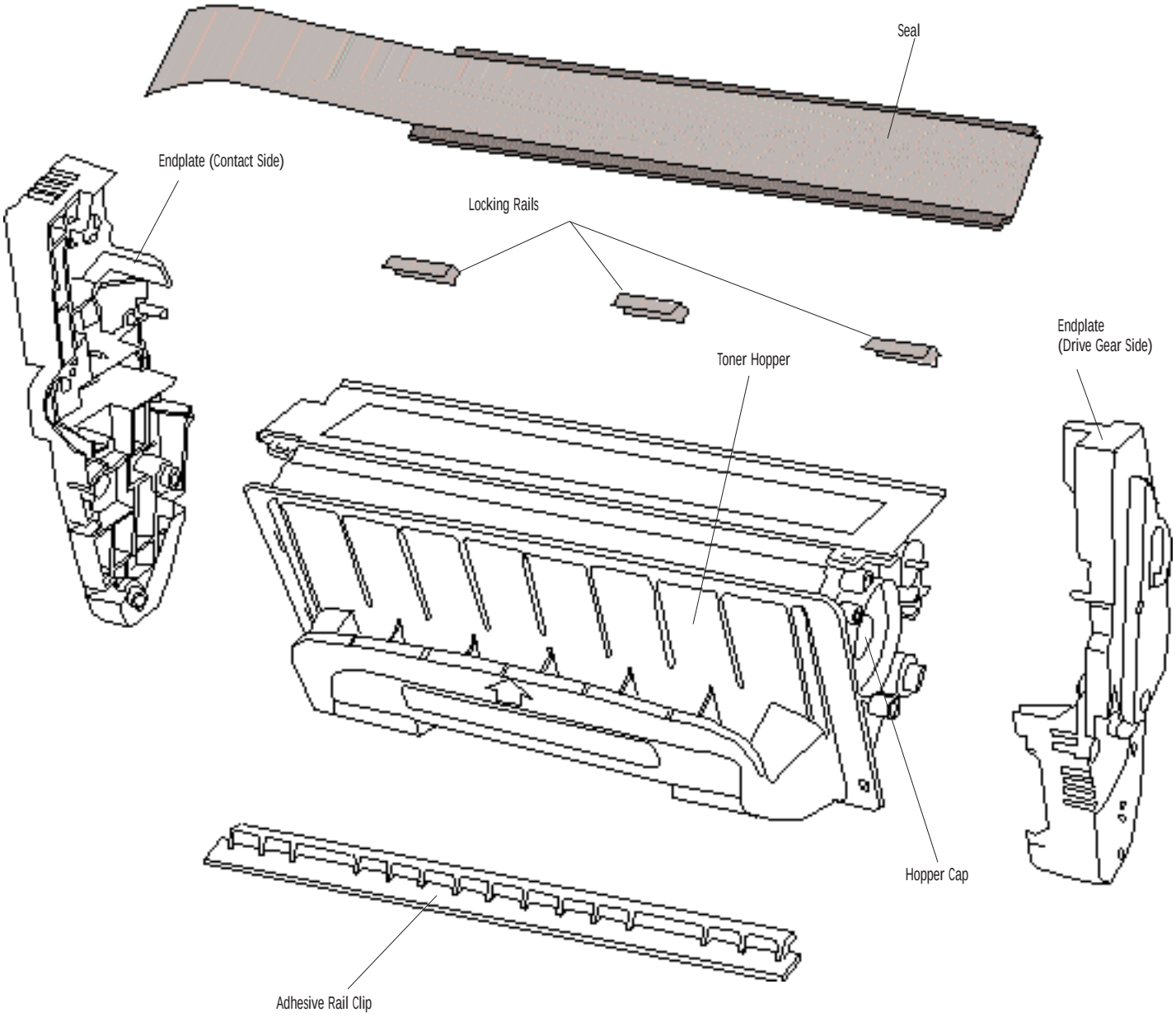
# HEWLETT-PACKARD® 42X

## DRUM SECTION



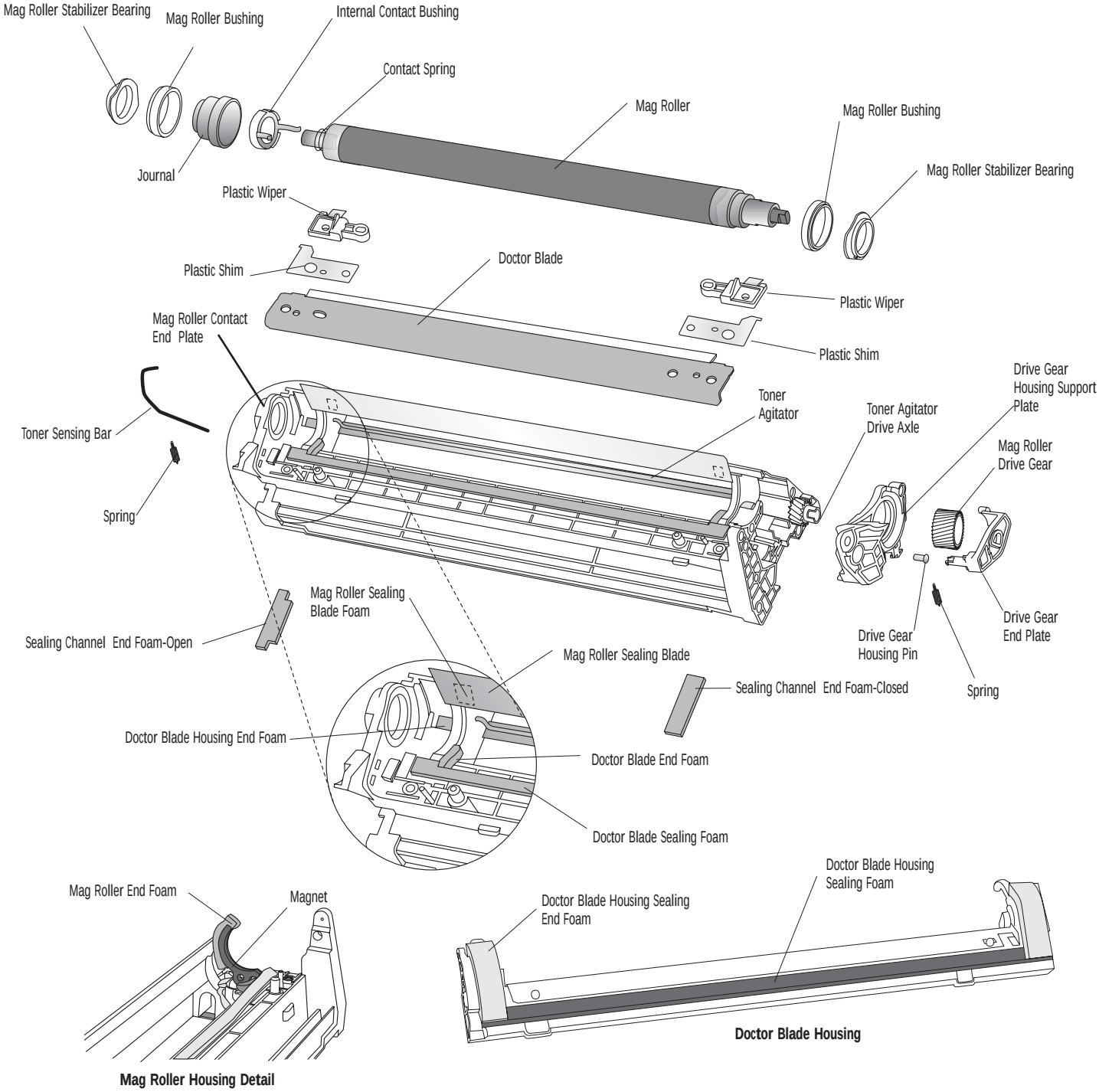
# HEWLETT-PACKARD® 42A

## TONER HOPPER SECTION



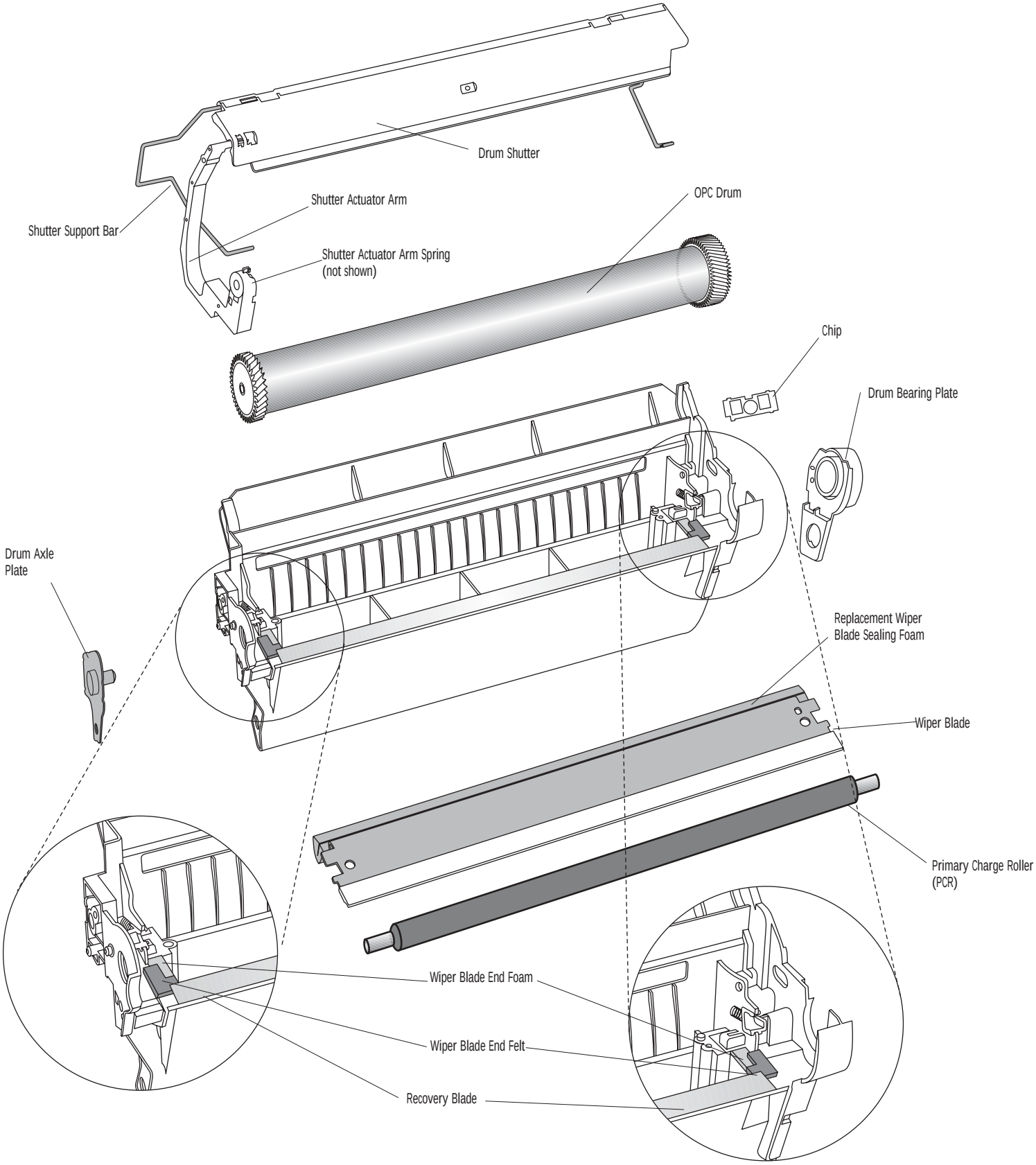
# HEWLETT-PACKARD® 42A

## MAG ROLLER SECTION



# HEWLETT-PACKARD® 42A

## DRUM SECTION



# Separation of the Cartridge

**Using these instructions:** Remanufacturing steps for the HP42X and 42A are identical, except for the first time removal of the HP42X wiper blade. The HP42X cartridge is shown in all photos and illustrations, except where they differ from the HP42A. For those steps, instructions for both cartridges are detailed with photos and/or illustrations of each.

**NOTE** Use cartridge holding fixture when working with the HP42X and 42A cartridges.

FIG 1

**1. Remove the drum shutter**

Fully open the shutter and carefully pull the end of the drum shutter support bar out of the drive gear-side end plate (FIG 2).


FIG 2

While holding the drum shutter in the open position, locate the drum shutter actuator arm spring on the contact (left) side of the cartridge (FIG 3).

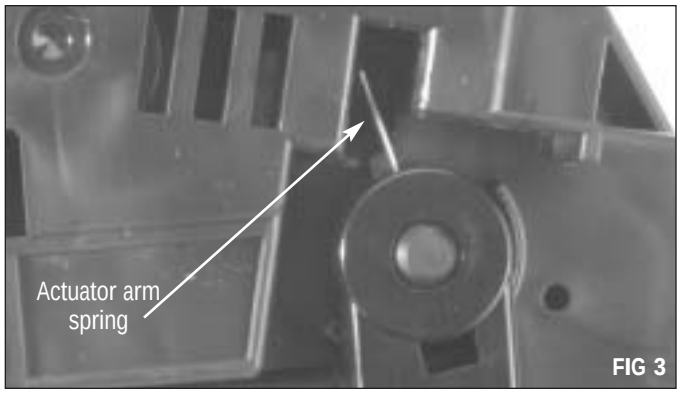


FIG 3

Open the shutter approximately one inch and insert a hook tool. Carefully lift the end of the actuator arm spring up. Let it drop onto the ledge on the spring cover and remove the tool (FIG 4). This will lock the spring in place on the actuator arm, preventing it from popping off when the shutter is removed.

**NOTE** If the drum shutter actuator arm spring is not secured in this manner it will fall onto your work surface when the shutter is removed. This spring is necessary for proper operation of the cartridge. Take care not to damage or misplace this spring.

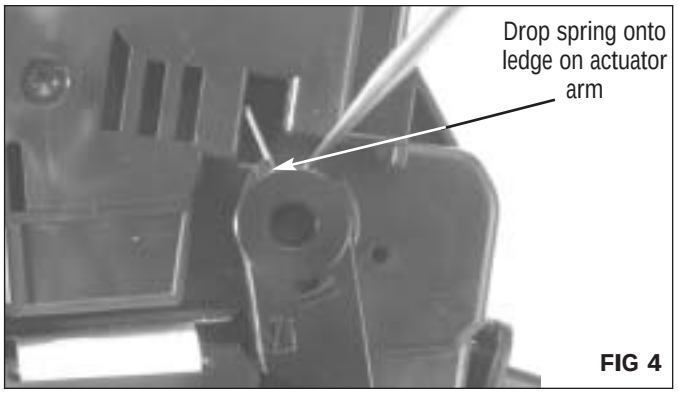


FIG 4

While looking at the contact end plate, close the shutter just enough to allow the actuator arm spring to clear the end plate (FIG 5).

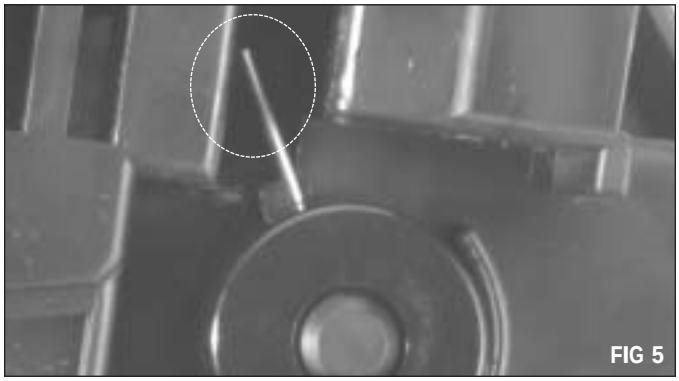


FIG 5

Use the hook tool to help pull the actuator arm away from the cartridge (FIG 6). While supporting the shutter to prevent bending, use the hook tool to pull the drum shutter support bar from the end plate.

FIG 6

**NOTE** It is not necessary to remove the actuator arm from the shutter.

**2. Remove the drive gear end plate**

Using a Phillips screwdriver, remove the four screws that secure the **drive gear-side** end plate (FIG 7).

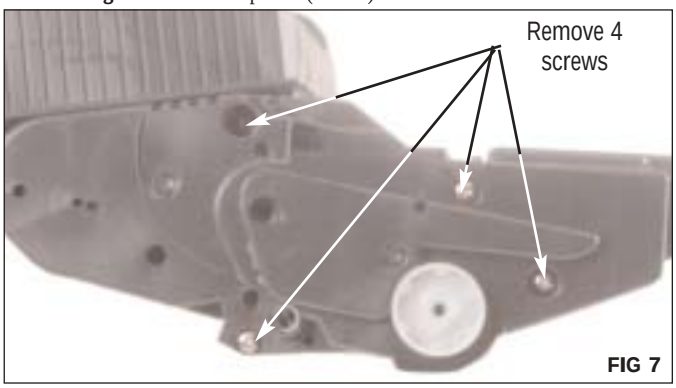



FIG 7

Carefully remove the end plate from the cartridge housing (FIG 8).

**NOTE** Several gears are housed within this end plate. They should be secure and not easily dislodged. However, care should be taken when moving and cleaning to insure the presence and proper placement of all gears.

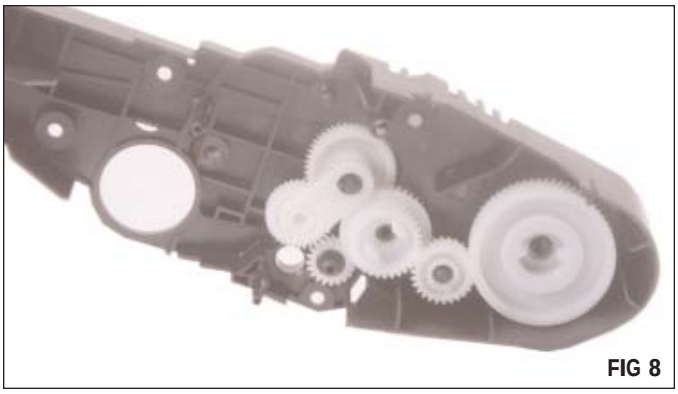


FIG 8

**3. Remove the contact end plate**

Insert the tip of a medium flat blade screwdriver at the base of each weld and carefully pry up. The weld should pop off at the base. (FIG 9).

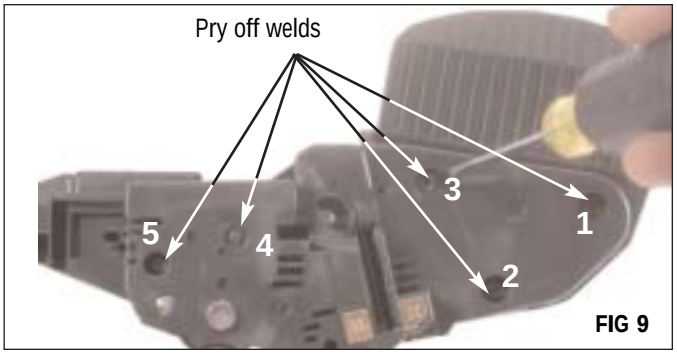


FIG 9

**Caution** The use of protective eyewear is strongly recommended when removing these welds. If adequate eye protection is not worn, serious eye injury may result.

Using the screwdriver in the locations shown, and in the order shown, break away the lower portion of the welds and remove the end plate (FIG 10a through 10e).

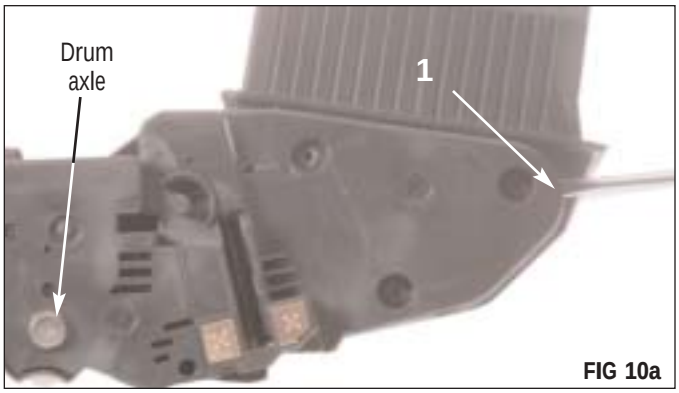


FIG 10a

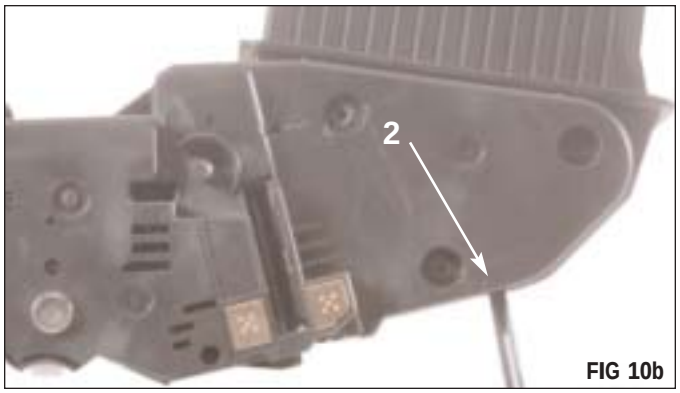


FIG 10b

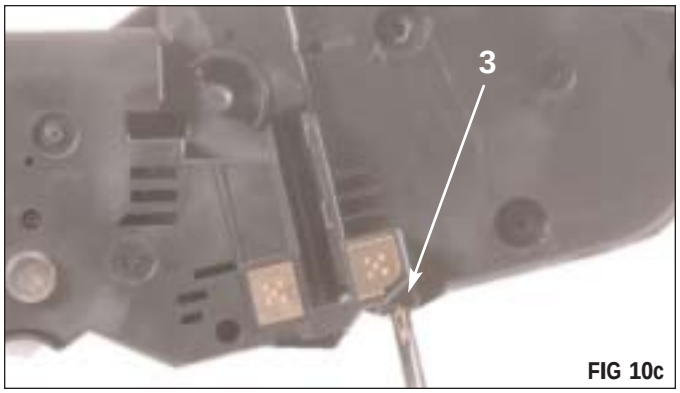


FIG 10c

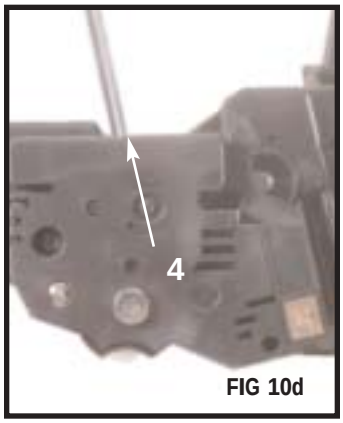


FIG 10d

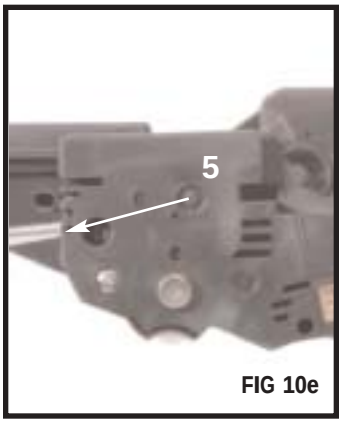


FIG 10e

Lift the waste bin section off the hopper/mag section and set the waste bin aside, taking care to protect the drum from light and impact damage.

**NOTE** The drum axle has a snug friction fit. To remove the end plate, you may need to rock the plate back and forth slightly as you pull it away from the cartridge housing.

# Disassembly of the Hopper Section

**1. Remove the mag roller drive gear housing end plate (drive side)**

**NOTE** Oils from your skin will adhere to the mag roller, which can cause print defects. If you plan to reuse the roller, be sure to use gloves or other protective materials when working near the mag roller.

Remove the mag roller drive gear end plate (FIG 11).

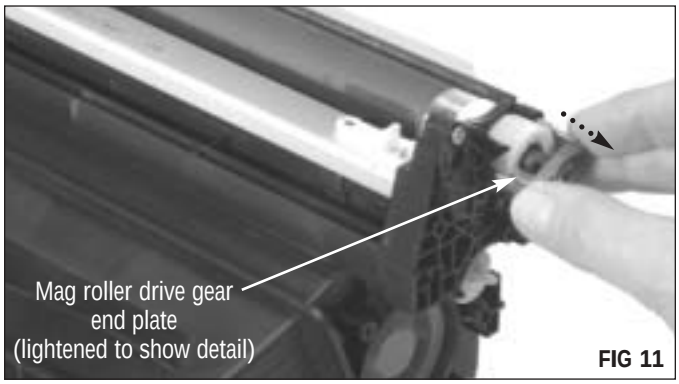


FIG 11

Remove the mag roller drive gear and the mag roller support plate pin. DO NOT remove the toner agitator drive gear (FIG 12).

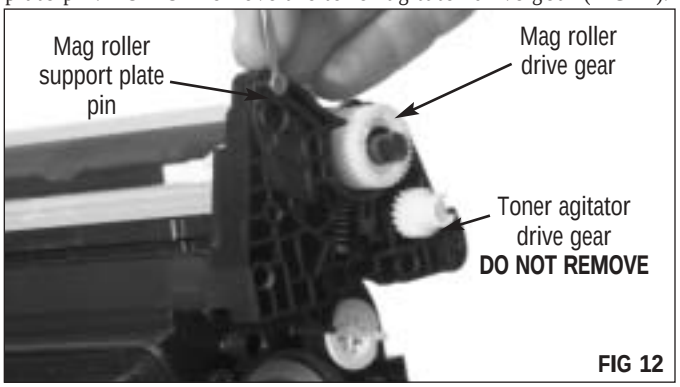


FIG 12

Remove the mag roller support plate spring and the Phillips screw that secures the mag roller drive gear housing support plate (FIG 13).

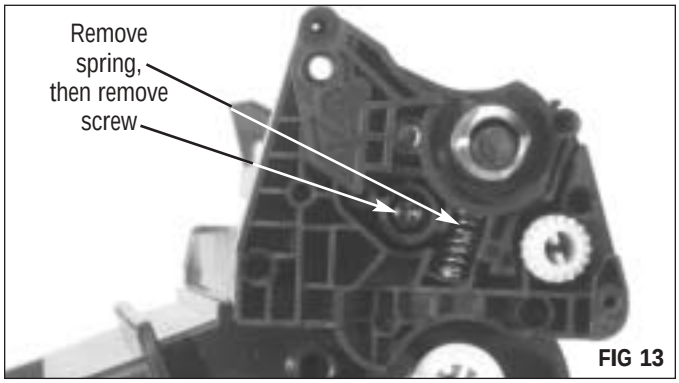


FIG 13

Remove the mag roller drive gear housing support plate (FIG 14).

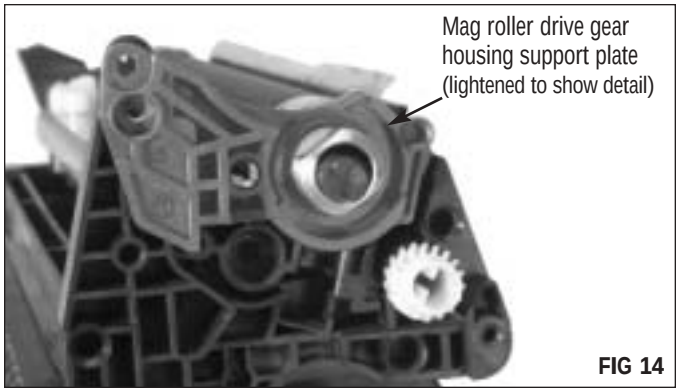


FIG 14

**2. Remove the contact end mag roller end plate (contact side)**

Remove the toner low sensor bar from the contact end of the mag roller assembly (FIG 15).

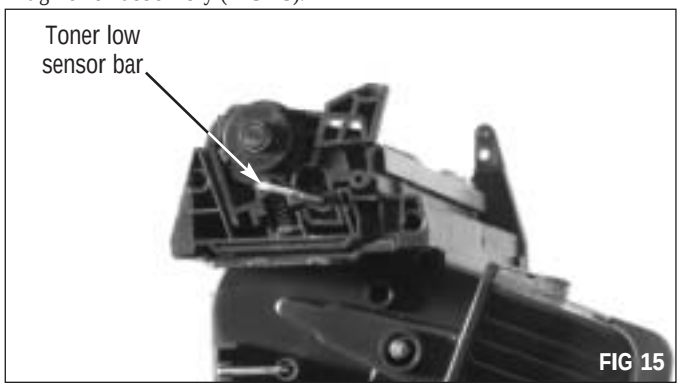


FIG 15

Remove the spring and the Phillips screw that secures the mag roller end plate (FIG 16).

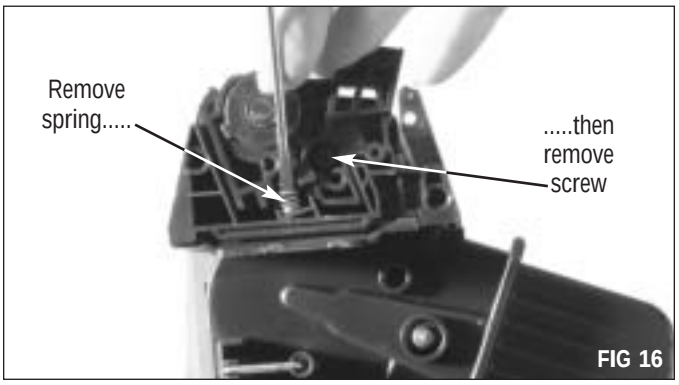


FIG 16

Remove the mag roller end plate (FIG 17).

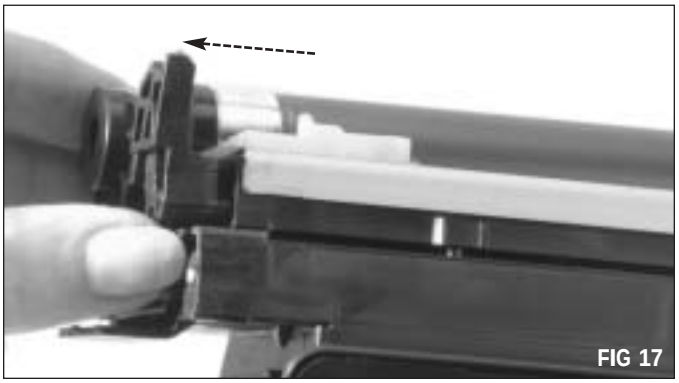


FIG 17

**3. Remove the plastic mag roller stabilizer bearing and store in a safe place for future use (FIG 18)**

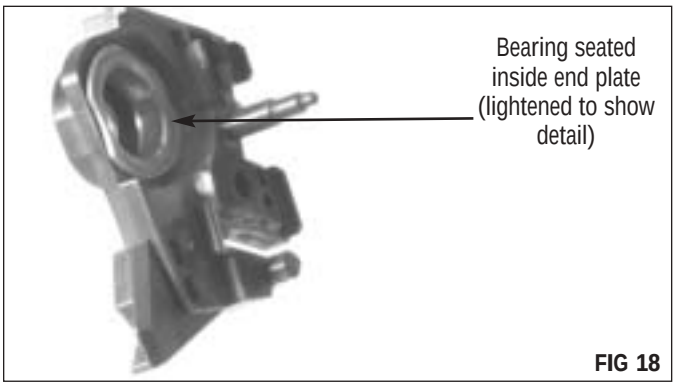


FIG 18

**4. Remove the mag roller (FIG 19)**

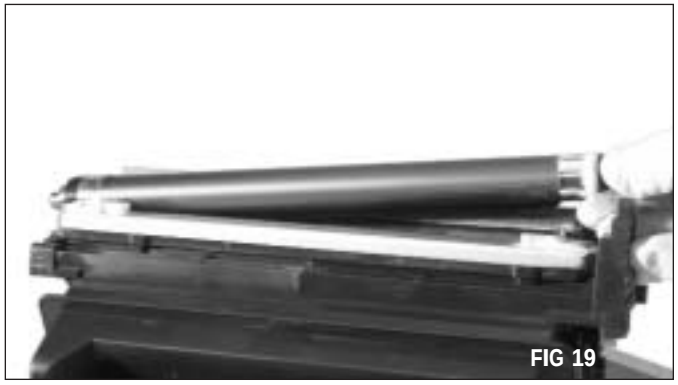


FIG 19

**NOTE** Remove the mag roller stabilizer bearing and put it in a safe place for future use. as the cartridge will not operate properly without it (FIG 21).

If the mag roller stabilizer bearing remained on the mag roller shaft when the end plate was removed, slide the bearing off and set it aside (FIG 20).

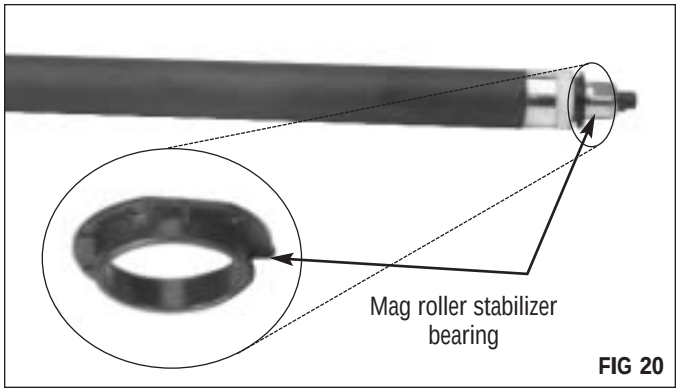


FIG 20

Remove the two mag roller bushings and set the mag roller aside (FIG 21).

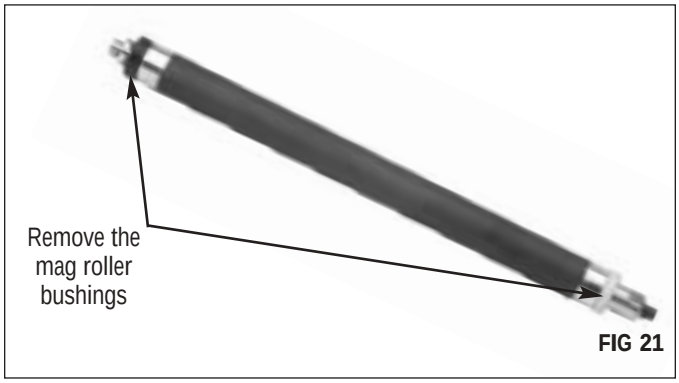


FIG 21

**5. Remove the doctor blade**

Remove the two screws that secure the doctor blade (FIG 22).

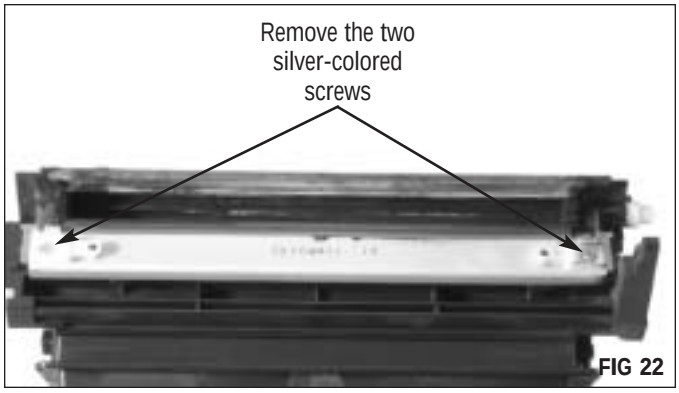


FIG 22

Remove the two white wipers and two clear shims (FIG 23).

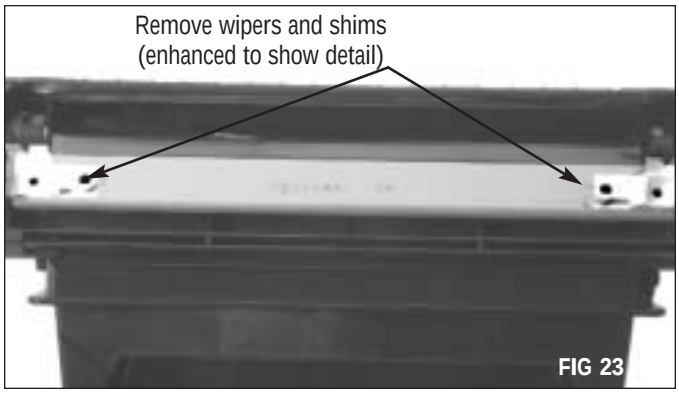


FIG 23

Lift the doctor blade from the housing and set it aside (FIG 24).

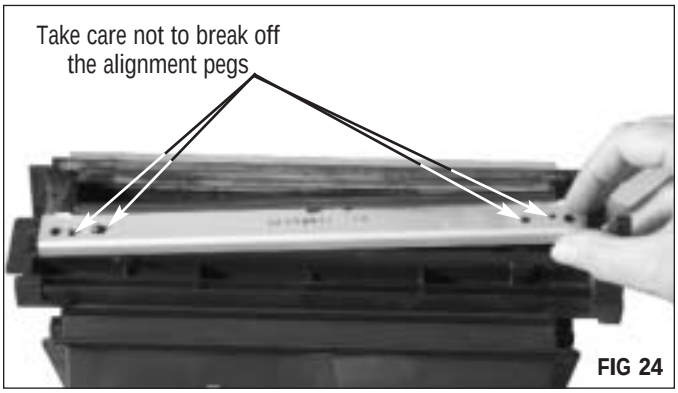


FIG 24

**6. Clean the hopper**

Dump any remaining toner from the hopper and blow clean with dry, filtered compressed air; then, remove the hopper cap with needlenose pliers or a flat-blade screwdriver (FIG 25 & 26).


FIG 25

If using a flat-blade screwdriver, take care not to damage the cartridge housing or rim of the hopper cap, as toner leakage may result. In the event the cap is damaged, a replacement cap is available from Static Control Components, Inc.

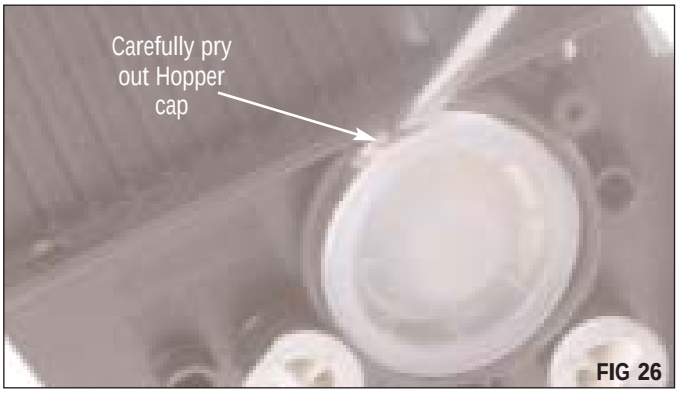


FIG 26

**7. Split the hopper section**

**Note** For optimum performance, split and seal the hopper/mag roller section. Use the HP8500 splitter tool (black cartridge) for splitting the HP42X and 42A hopper sections.

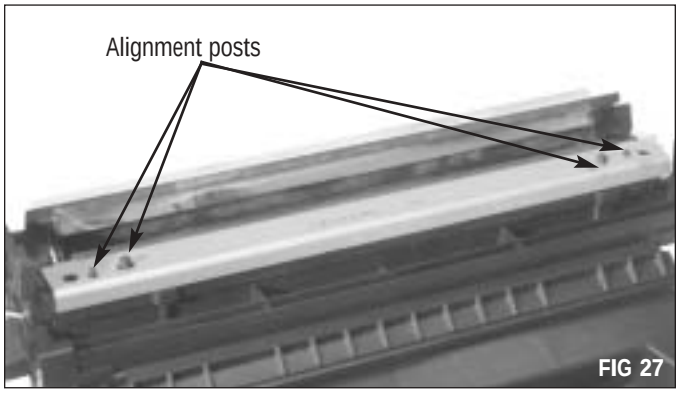
For detailed instructions, see SSS™ #493 "*HP4300/4200 Splitting and Sealing Instructions*", included with Static Control's HP4300/4200 Foam-type RapidSeal™.

After splitting, set the mag roller section aside.

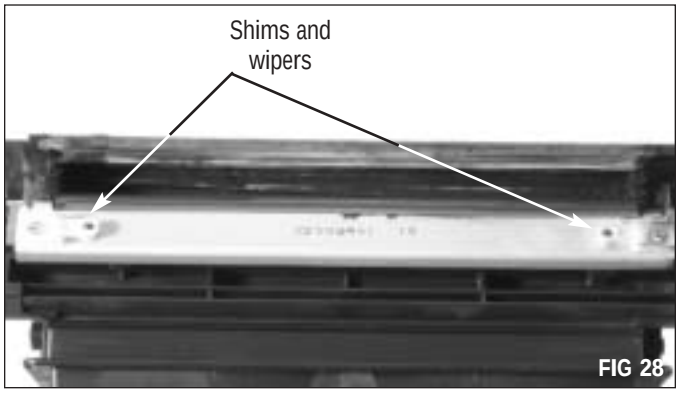
**NOTE** Use a Foam-Type RapidSeal™ to seal the HP42A and HP42X hoppers. For detailed instructions, see SSS™ #493 "*HP4300/4200 Splitting and Sealing Instructions*".

# Reassembly of the Hopper/Mag Roller Section

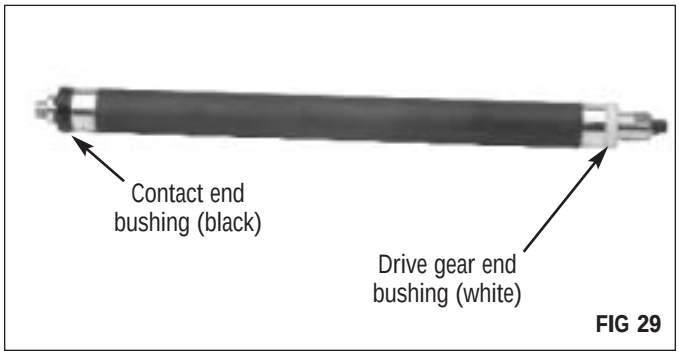
**1. Install the doctor blade**
Seat the doctor blade over the alignment posts (FIG 27).




Install two clear shims and wipers on to the doctor blade; then, use the two silver Phillips screws to secure the doctor blade, shims, and wipers (FIG 28).



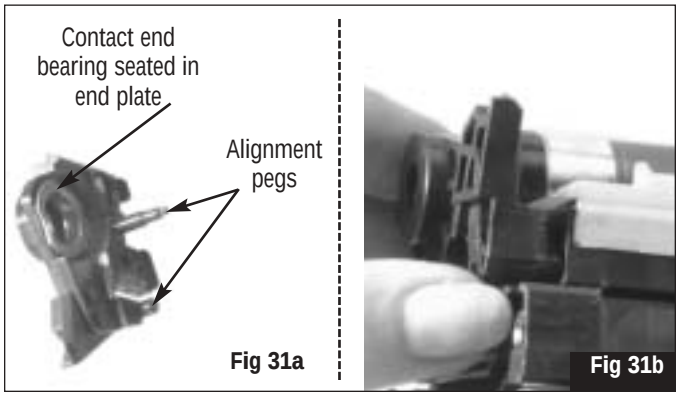

**2. Replace the mag roller**
After cleaning the mag roller install the mag roller bushings [black on contact end, white on drive gear end] (FIG 29).



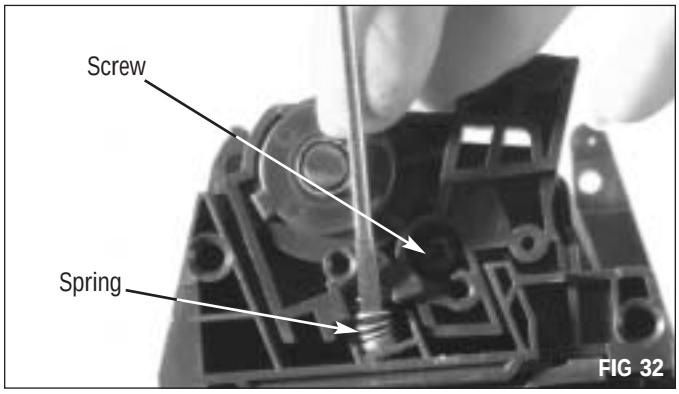

Using gloves or other protective material, seat the mag roller (FIG 30).


**NOTE** Make sure the bearing is seated properly before proceeding.

**3. Replace the mag roller contact end plate**
Make sure the bearing is seated in the end plate (FIG 31a) before seating the end plate (FIG 31b).




Replace the end plate screw, then the spring (FIG 32).



Install the toner low sensor bar (FIG 33).

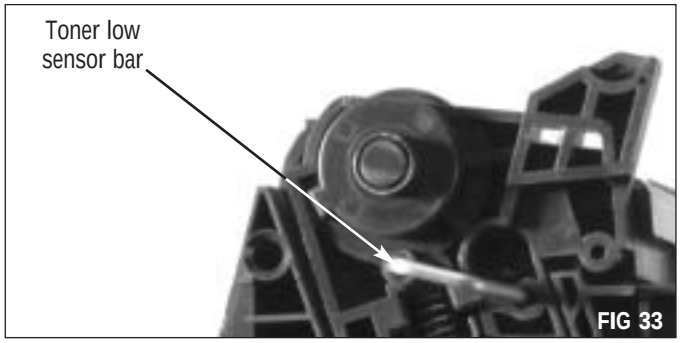


FIG 33

**4. Replace the mag roller drive gear end plate**

Make sure the bearing is secure in the end plate before positioning the alignment pegs and seating the drive gear end plate (FIG 34).

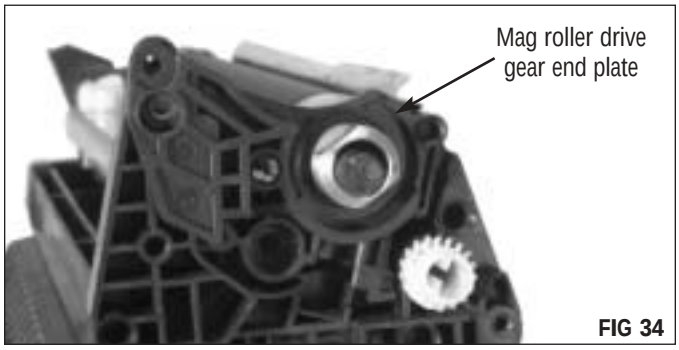


FIG 34

Install the mag roller drive gear housing support plate pin and screw (FIG 35).

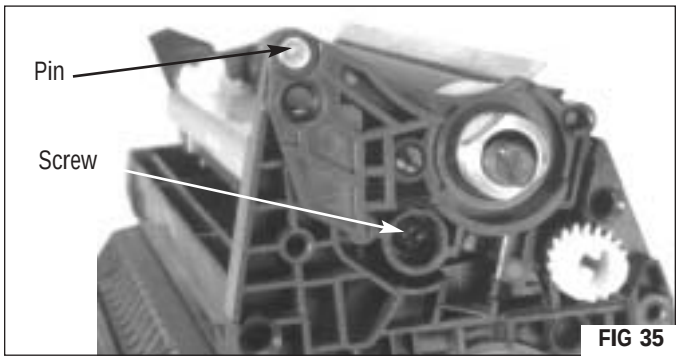


FIG 35

Install the mag roller drive gear housing support plate spring (FIG 36).

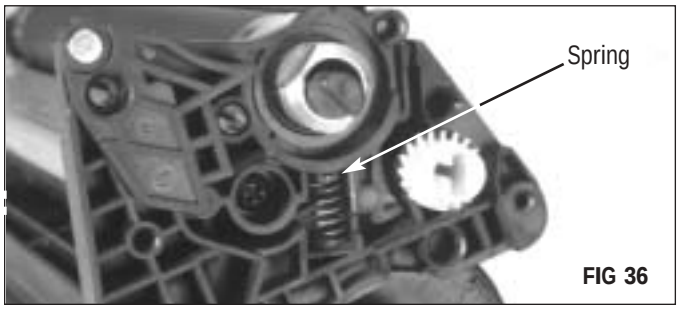


FIG 36

Install the mag roller drive gear (FIG 37).

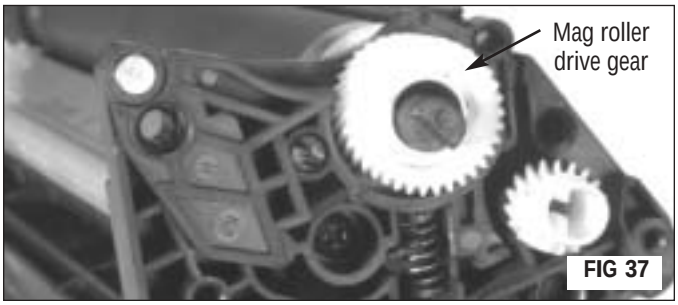


FIG 37

The mag roller drive gear end plate is keyed to match the end of magnetic developer roller magnet. Turn the contact end of the magnet to seat the drive gear cover (FIG 38) .

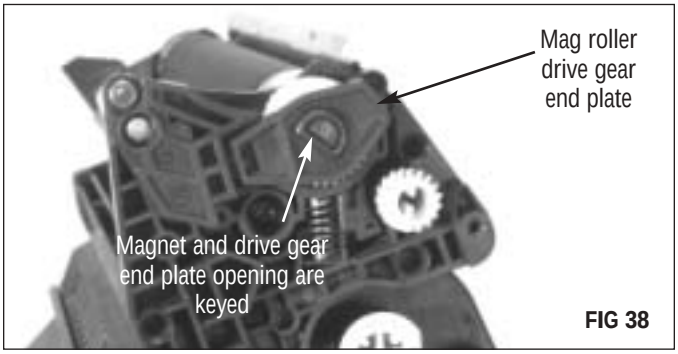


FIG 38

**5. Fill the hopper and replace the hopper cap**

The SCC replacement hopper cap is available (FIG 39). The Static Control hopper cap can be used for both the HP42A and the HP42X cartridges

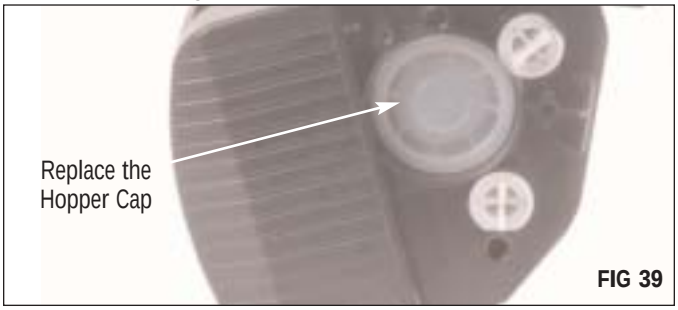


FIG 39

# Disassembly of the Waste Bin

**1. Remove the drum axle end plate**

Remove the Phillips screw from the drum axle end plate (FIG 40).

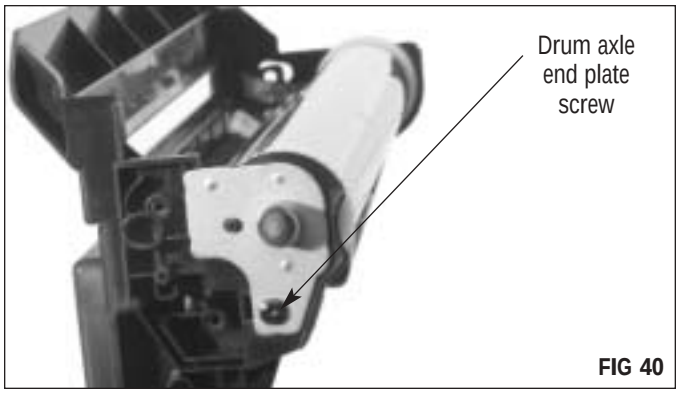



FIG 40

Using a small flat-blade screwdriver in the locations shown, carefully ease the end plate away from the cartridge housing (FIG 41).

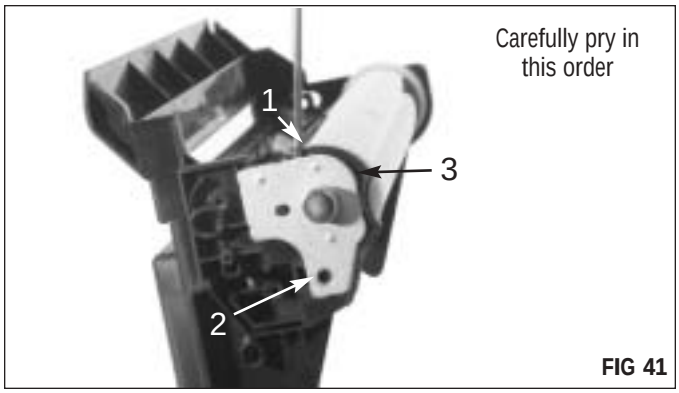



FIG 41

**NOTE** When the plate is removed, the drum can fall from the cartridge housing. Support the Drum by the gears while removing the Drum axle plate.

Remove the drum contact plate (FIG 42).

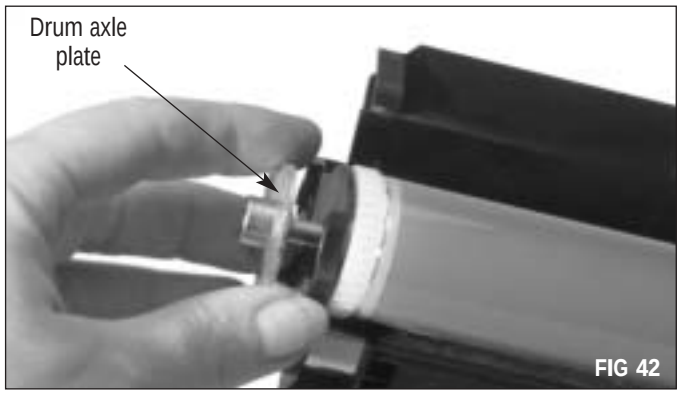



FIG 42

**2. Remove the OPC drum**

There is no need to remove the drive gear end plate (FIG 43 to remove the drum.

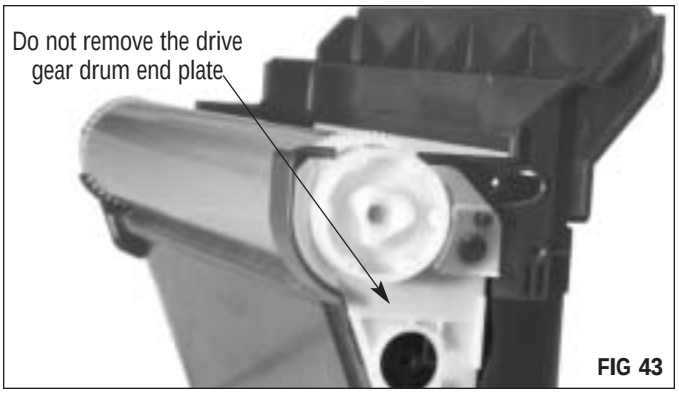


FIG 43

Remove the drum out of the housing by the contact end (small) helical gear (FIG 44). While supporting the large helical gear, lift up and away from the drive gear side of the housing.

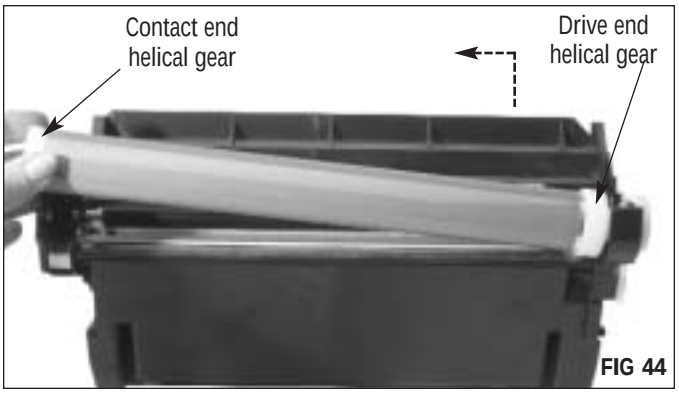


FIG 44

**NOTE** For best results, replace the OPC drum after the OEM cycle **and** after each remanufacturing cycle. A replacement drum with gears is available from Static Control.

When handling drums, handle by the gears only, or use clean latex gloves. Store it where it will be protected from light and impact damage.

**NOTE** Handle the PCR by the axle or use clean latex gloves. If you plan to reuse the PCR, store it in an upright position. Do not stack PCRs, lay anything on top of them, wrap them with rubber bands, or touch the surface of the PCR with your bare fingers.

**3. Install the PCR**

Using a pair of needlenose pliers, carefully pull each end of the PCR shaft toward you, freeing them from the PCR saddles (FIG 45a & 45b). Lift the PCR from the cartridge by the axle only, or use clean latex gloves .

FIG 45a

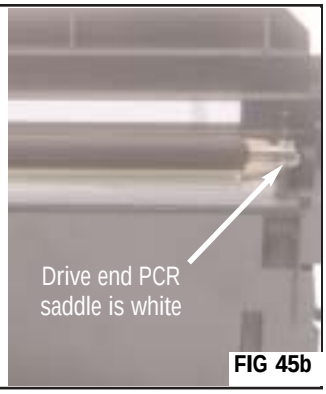


FIG 45b

**4. Remove the wiper blade sealing foam**

**NOTE** If working with a virgin HP42A or 42X cartridge you will find, in place of a conventional wiper blade sealing foam, a line of hot-melt foam material at the back edge of the wiper blade (FIG 46). This foam must be removed in order to extract the wiper blade.

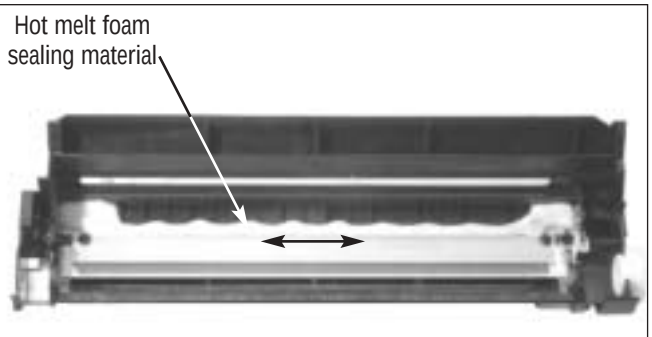


FIG 46

Using a felt/foam scraper tool to help lift the edges of the foam, remove the hot-melt material (which will be sticky) from the waste bin. Be sure to clean as much as possible from the corners (FIG 47).


FIG 47

**Note:** If working with a virgin HP42X cartridge you will find a retaining ledge at the back edge of the wiper blade. This ledge must be removed in order to extract the wiper blade. Refer to SSS™ #533 for detailed ledge removal instructions.

**5. Remove the wiper blade**

Remove the two screws that secure the wiper blade (FIG 48).

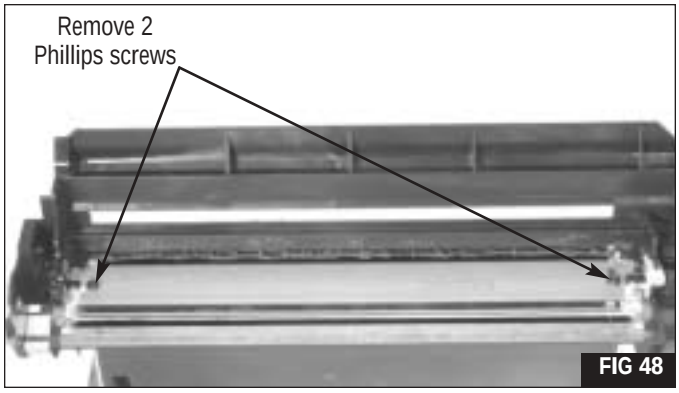


FIG 48

You may need to insert the end of a small flat-blade screwdriver to lift the back side of the blade from the waste bin housing (FIG 49).

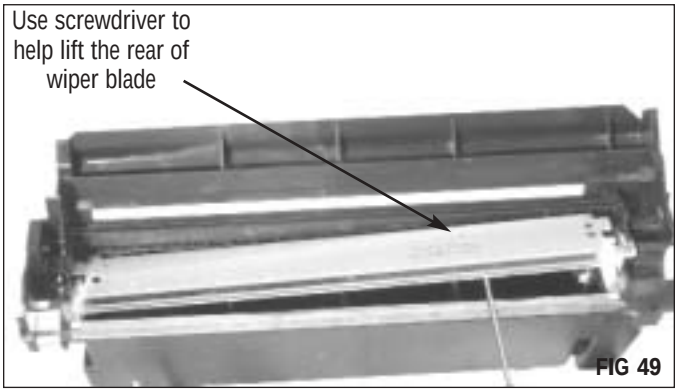


FIG 49

Remove the wiper blade from the waste bin housing (FIG 50).

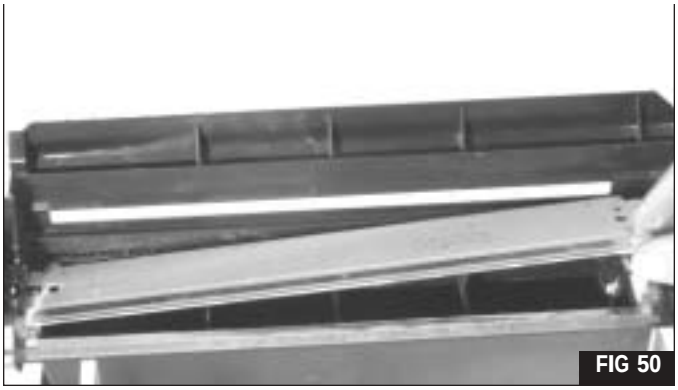


FIG 50

Using a cotton-tipped swab moistened with 91-99% isopropyl alcohol, remove any remaining hot-melt material from the waste bin.

**6. Clean the waste bin**

Dump any remaining toner from the waste bin and clean with ionized, dry, filtered, compressed air. Inspect the recovery blade, wiper blade end felts and foams for damage, and replace as needed (FIG 51).

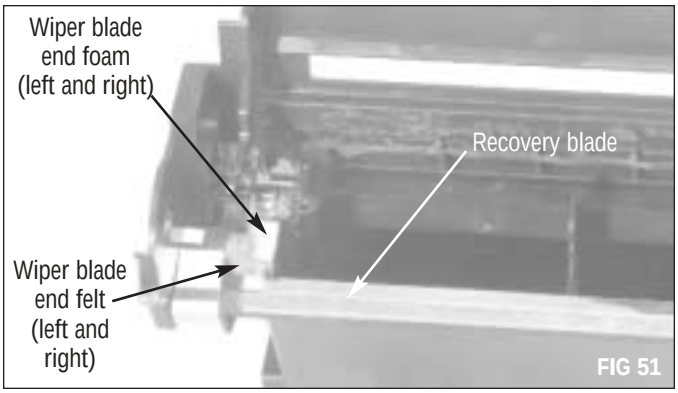


FIG 51

# Reassembly of the Waste Bin

**1. If neccesary, clean, inspect and replace the recovery blade, wiper blade end felts and wiper blade end foams. For detailed instructions see SSS# 441 and SSS# 715.**

**HP42A ONLY**

Install the wiper blade sealing foam for the HP42A cartridge see SSS™ #501 for complete instructions.

**2. Install the wiper blade**

**Note** A small amount of lubricant applied to the working edge of the wiper blade will help prevent blade "flip overs" during the first drum rotations.

Dip the edge of the wiper blade in a long, shallow trough containing Kynar® lubricating powder (FIG 52). Repeat once to insure even coverage. Tap once to remove excess Kynar® lubricating powder from the wiper blade.

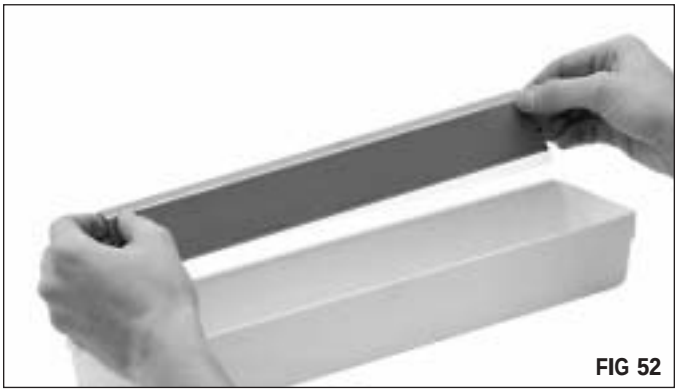


FIG 52

Position the wiper blade over the alignment features, and secure with two Phillips screws (FIG 53a).

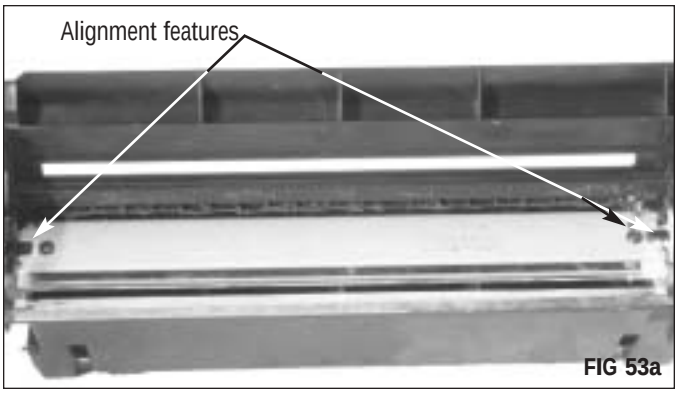



FIG 53a

**HP42X ONLY**

Apply a large continuous bead of Adhesive Caulk (ADHCAULK), ensuring that the opening between the metal stamping of the Wiper Blade and the Waste Bin is completely sealed (FIG 53b).

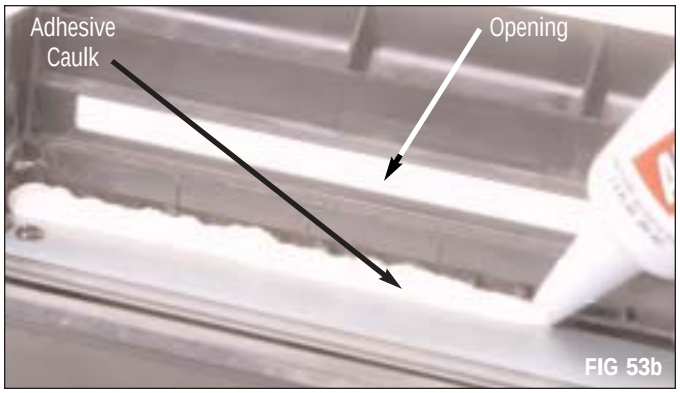



FIG 53b

**Note** Remanufacturing the cartridge can continue as the Adhesive Caulk does not require a cure time in this application.

**3. Install the PCR**

Clean the conductive PCR saddle (black, contact side of cartridge) with a cotton-tipped swab dampened with 91-99% isopropyl alcohol (FIG 54). Using the wooden end of the swab, apply a small amount of conductive cartridge lubricant to the inside of the PCR saddle.

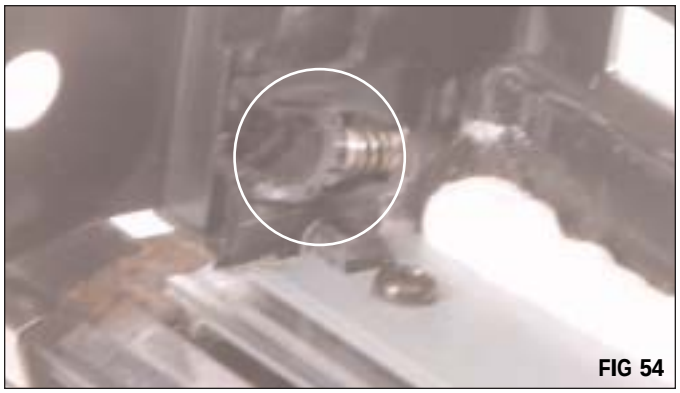


FIG 54

**Note** If you are reusing the OEM PCR, clean the roller using a soft, lint-free cloth dampened with water. Gently wipe the PCR in one direction. Be careful not to pinch or dent the surface of the PCR.

Handle the PCR by the axle only or use clean latex gloves. Position the PCR and snap each end of the shaft into the PCR saddles (FIG 55).

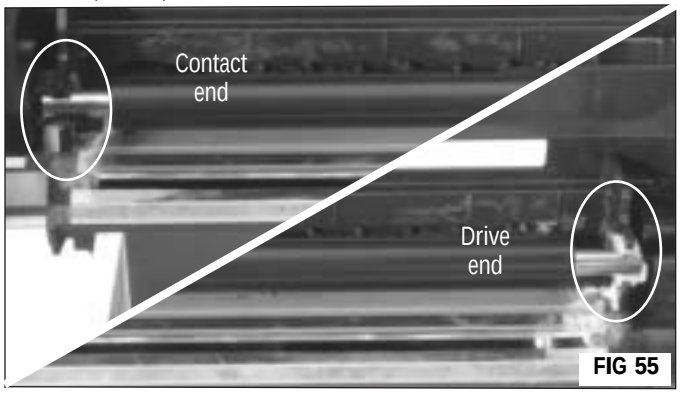


FIG 55

**4. Replace the OPC drum**

**Note** For best results, replace the OPC drum after the OEM cycle and after each remanufacturing cycle. A replacement drum with gears is available from Static Control.

Seat the drive gear side of the drum first by inserting the drum axle into the drum end plate (FIG 56), then seat the contact end.

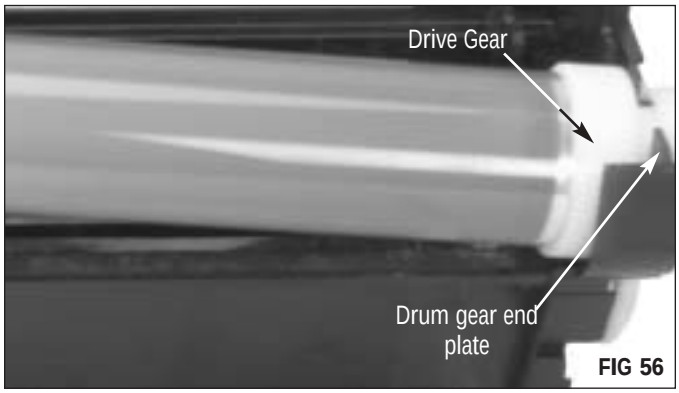


FIG 56

**5. Install the drum axle plate.**

**Note** Be sure the drum axle plate is fully seated. The drum axle, when installed incorrectly, can result in print defect intervals on the right side of the page.

The axle features a step that mates with a corresponding inverted step in the waste bin housing (FIG 57).

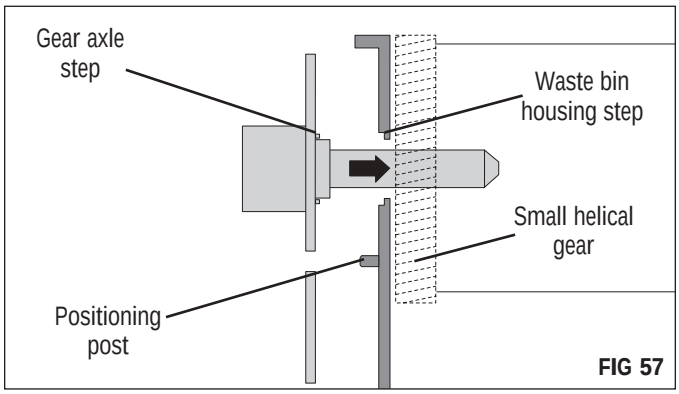


FIG 57

When the axle is correctly installed, a positioning post on the waste bin housing aligns in the center of a slot on the drum axle plate (FIG 58).

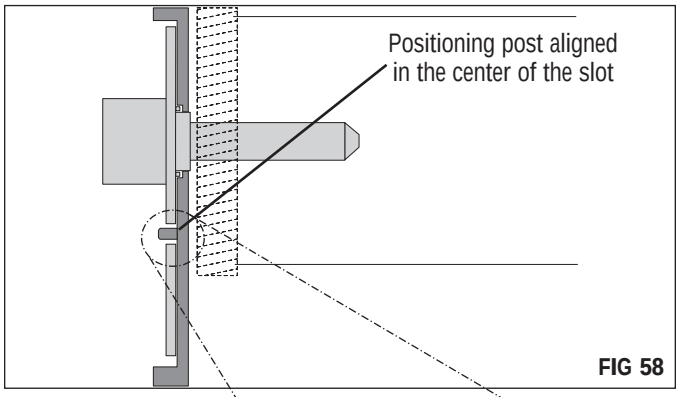
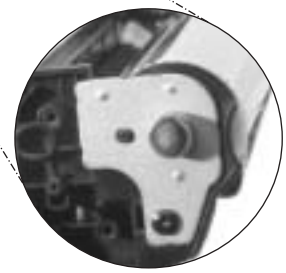


FIG 58



Secure the Drum axle plate with one Phillips screw (FIG 59).

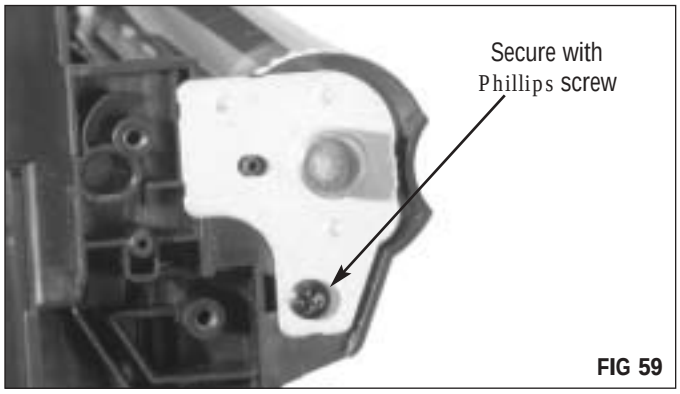



FIG 59

**Note** Ensure the drum is spinning freely and PCR is free of residual Kynar® powder.

# Reassembly of the Cartridge

**1. Join the two halves**

Seat the waste bin section on the hopper/mag roller section (FIG 60).

FIG 60

**Note** **See SSS#590 *HP4300/4200 Contact End Plate Kit Instructions* for detailed instructions on end cap clean up and hopper preparation for end cap reassembly.**

**Note** If the contact end plate does not seat properly, check the inside of the plate to insure that the weld recesses have been shaved smooth and level.

**2. Attach the contact end plate**

For sealed cartridges, position the contact end plate and pull the seal pull strip through the seal exit port (FIG 61). There is no need to lubricate the contacts inside the end plate.

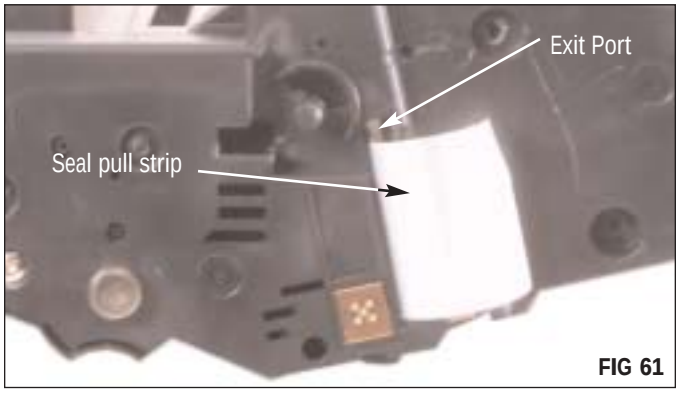



FIG 61

**NOTE:** For instructions on installing the Weld Replacement Screws see SSS™ 590 "HP4300/4200 Contact End Plate Kit"

**3.** Seat the contact end plate and secure with Phillips screws (FIG 62).

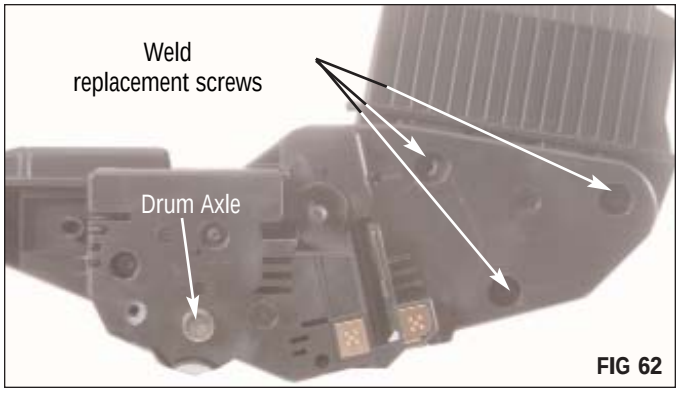


FIG 62

Using a .0995 inch(2.53 mm) drill bit (#39) and a low RPM drill; drill a hole into the contact side endplate (FIG 63).

The hole should be drilled .250 inches (6.35mm) deep. If the hole is drilled deeper than .250 inches (6.35mm) then fill in the hole with (REPGLUE) until the drilled hole is .250 inches deep. When hole is drilled to proper depth, install the (HP43EPSCREW).

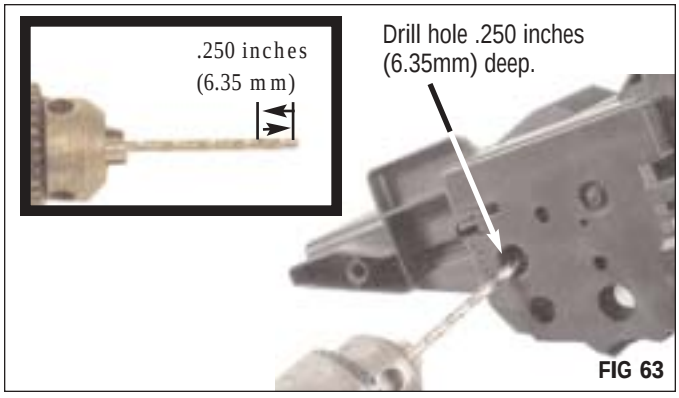


FIG 63

**4. Attach the drive gear end plate**
Install the drive gear end plate and secure with four Phillips screws (FIG 64).

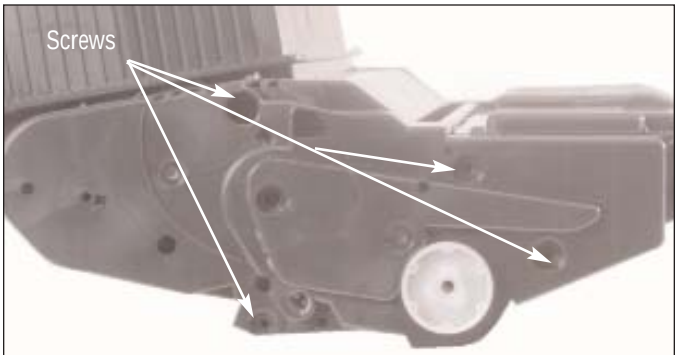


FIG 64

Make sure the drum shutter actuator arm spring is in place and positioned as shown (FIG 65).


FIG 65

Make sure the drum shutter actuator arm is in place and positioned as shown on the drum shutter (FIG 66).


FIG 66

**5. Replace the drum shutter**

The drum shutter arm and the hole on the drive gear side of the cartridge are keyed (FIG 67).

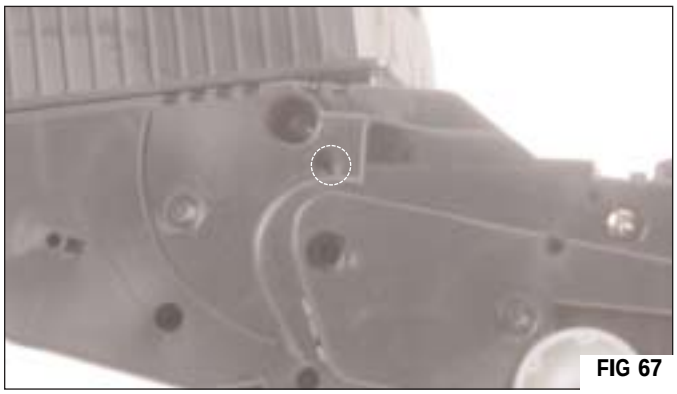


FIG 67

Insert the drive gear side shutter arm. You will have to turn the drum shutter to this angle to fit the keyed end into the cartridge. When arm is attached, rotate down to secure drum shutter in drive side (FIG 68).

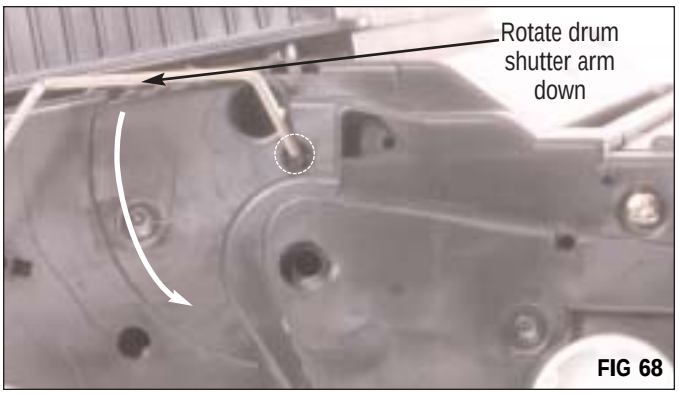



FIG 68

Insert the contact side shutter support bar (FIG 69).

FIG 69

Install the drum shutter actuator arm (FIG 70.

FIG 70

Using a hook tool, release the drum shutter actuator arm spring (FIG 71). Test the shutter to make sure it springs back into place when opened and released. Be careful not to damage the drum when doing so.

FIG 71

**Note** The cartridge must be post tested without a new chip and seal pull tab in place.

**6.** Post test cartridge. For detailed instructions on post testing see SSS# 709 *HP4350/4250 Chip Solution*.

**7. Install a new chip**

For complete instructions, see SSS™ #709 (FIG 72).

Fig 72

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