Static Control®

REMANUFACTURING INSTRUCTIONS

# *Samsung® ML-3310/3710,SCX-4833/5637 & Related Models*

## *MLT-D205S/MLT-D205L/MLT-D205E*

## SSS™ 1169



Other SSS™ documents available in Adobe® Acrobat® PDF format.

V.2 - 06.13

# TOOLS & SUPPLIES

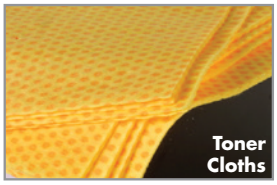
- Curved Scraper Blade Tool (CSBTOOL)
- Small Slotted Screwdriver
- Standard Phillips Screwdriver
- 3/32″ (2.5mm) Drill bit
- Low RPM Drill
- Lint-Free Swab (LFSWAB)
- Conductive Lubricant (CONCLUBE)
- Lint-Free Cleaning Cloth (LFCCLOTH)
- Toner Cloths (TCLOTH)
- Deionized Water
- Lubriplate 105™ Cartridge Lubricant (LUBE105)
- Dry, Filtered, Ionized Compressed Air For Cleaning
- Cartridge Cleaning Workstation
- End Plate Screws (PXSCREW)
- Vacuum (TONERVAC 115 (US) or TONERVACC220 (EU))
- Toner Pour Spout (TPS)
- Safety Glasses



















## SAMSUNG® MLT-D205S
## STANDARD YIELD CARTRIDGE


**Specifications:**

- 2,000 page standard yield cartridge
- Smaller toner hopper and waste bin
- Can only be built as a low yield cartridge

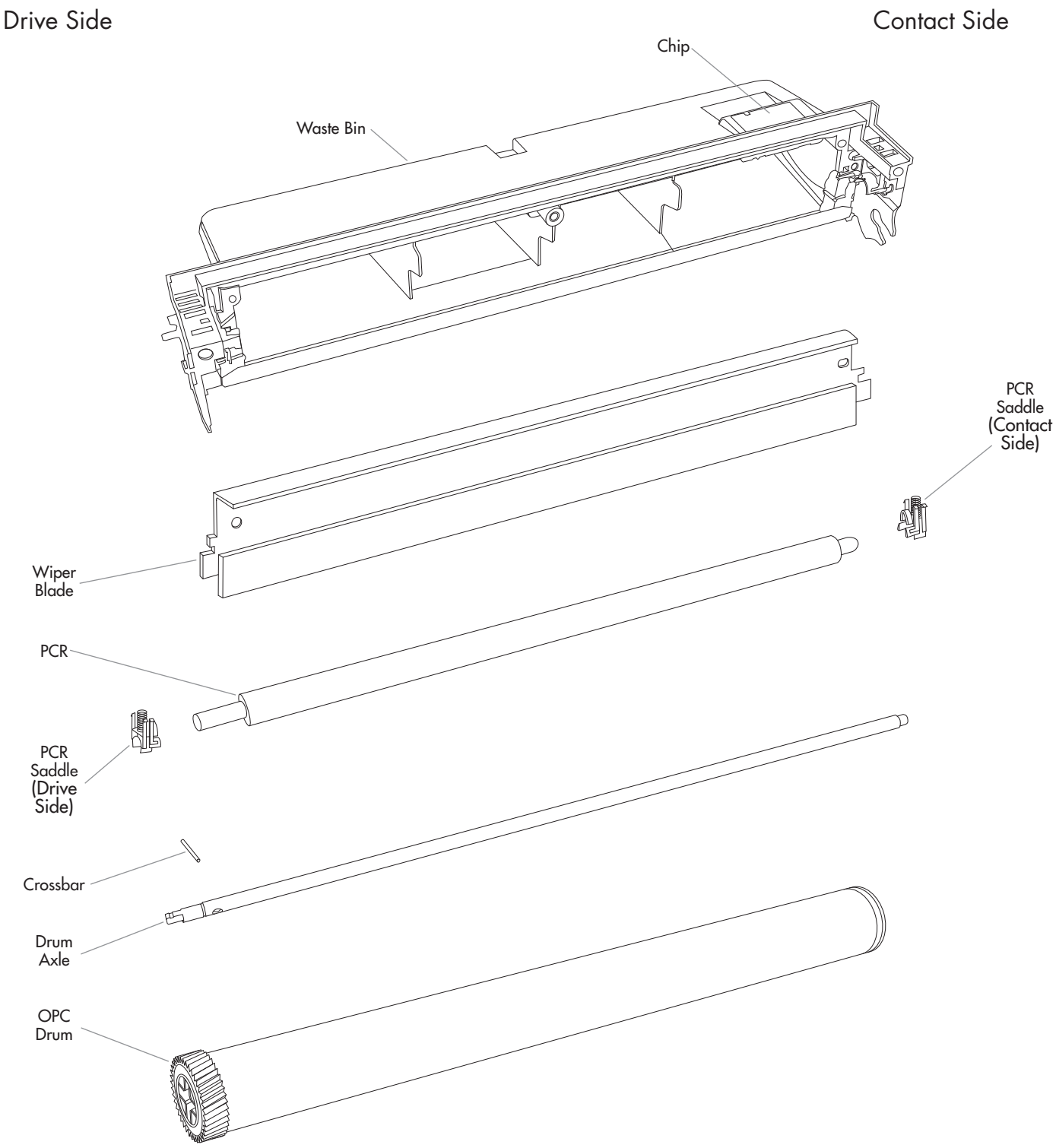
## SAMSUNG® MLT-D205L & E
## HIGH & EXTRA HIGH YIELD CARTRIDGE


**Specifications:**

- High yield (205L) has 5,000 page yield
- Extra high yield (205E) has 10,000 page yield
- 205L and 205E cartridges are physically identical and fully interchangeable
- With the correct toner fill weight and chip, the 205L high yield core can be converted to the extra high yield 205E cartridge. Once a cartridge has been remanufactured to be a 205E, it can only be used in printers that accept 205E cartridges. Printer models that accept 205E cartridges will vary by region.

*Starter cartridges have been seen in both standard and high/extra high configurations and should be remanufactured accordingly.

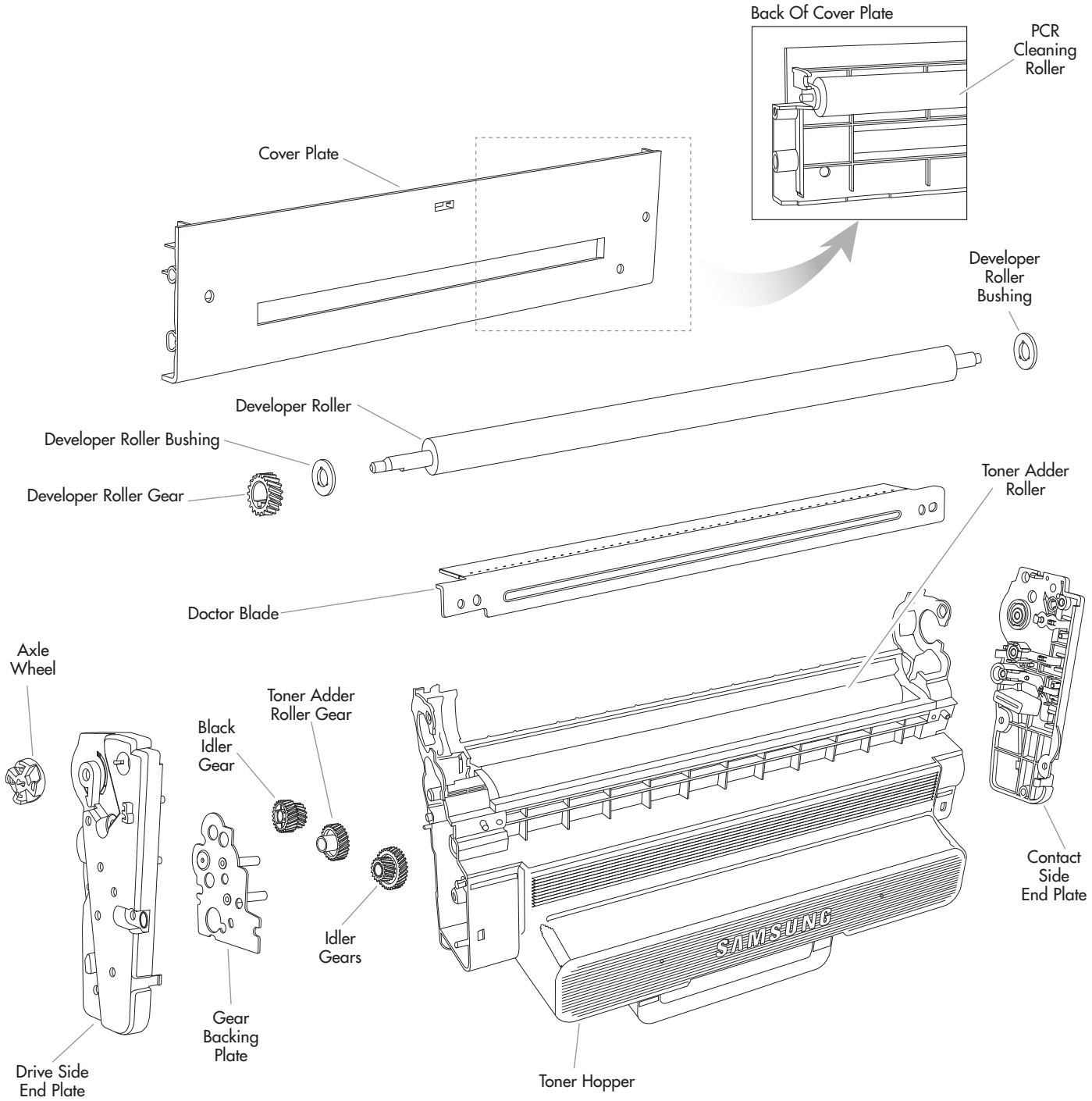
# SAMSUNG® MLT-D205
## WASTE BIN



# SAMSUNG® MLT-D205
## TONER HOPPER

Drive Side

Contact Side



## STEP 1.1

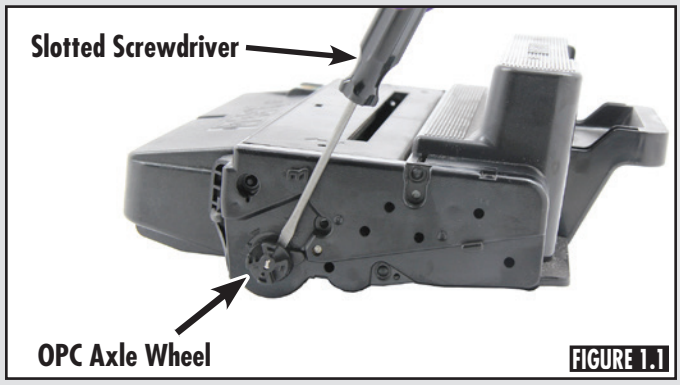


FIGURE 1.1

Use a small slotted screwdriver to remove the OPC axle wheel. Set aside. (Figure 1.1)

## STEP 1.2

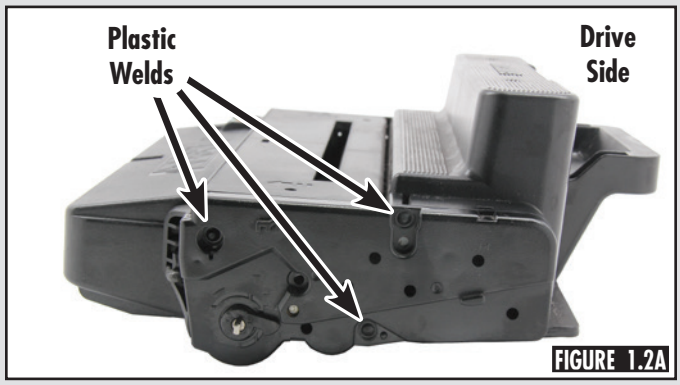


FIGURE 1.2A

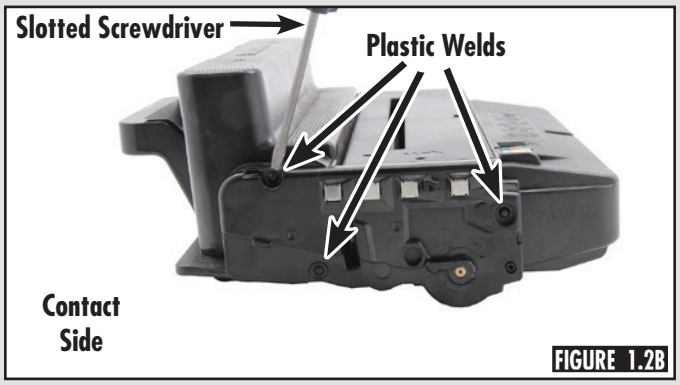


FIGURE 1.2B

Using a small slotted screwdriver, pry off the six plastic welds. Three are located on the drive side end plate (Figure 1.2A) and three on the contact side end plate (Figure 1.2B).

## STEP 1.3 (OPTIONAL)

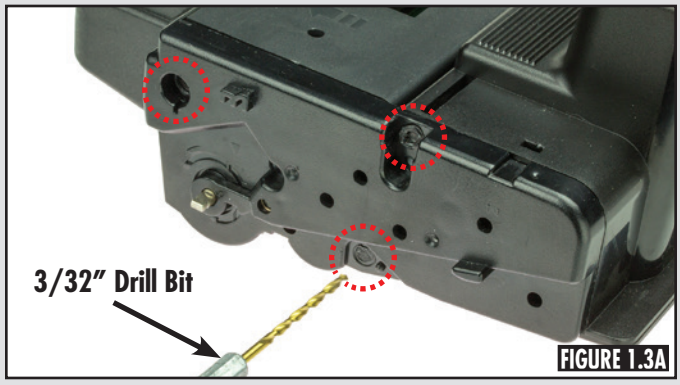


FIGURE 1.3A

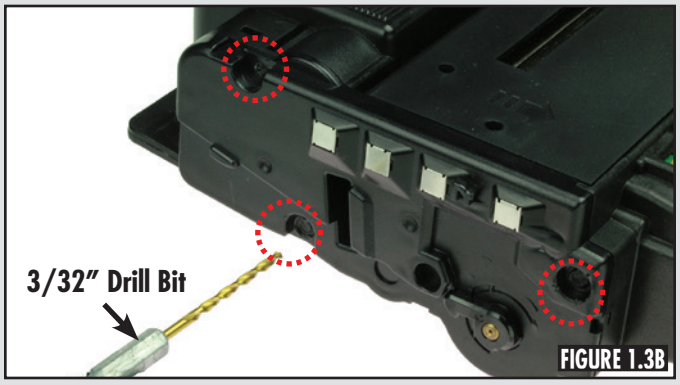


FIGURE 1.3B

To help secure the end plates during cartridge reassembly, use a 3/32" (2.5mm) drill bit to drill out the center of the posts. Be certain to only drill out the center of the post.(Figure 1.3A and Figure 1.3B)

## STEP 1.4

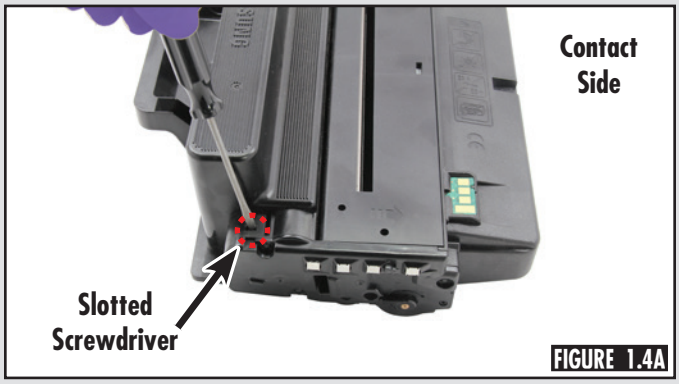


FIGURE 1.4A

Using a small slotted screwdriver, press inside the slots of the three locking tabs to release the contact side end plate. Locations of locking tabs are shown in Figure 1.4A, Figure 1.4B, and Figure 1.4C.

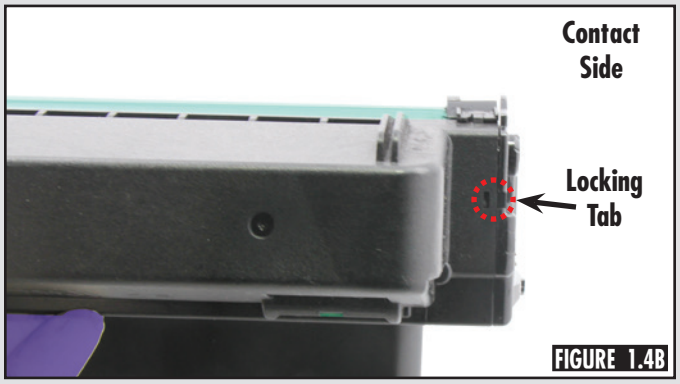


FIGURE 1.4B

Note: Use care when releasing the locking tabs to prevent damaging the tabs.

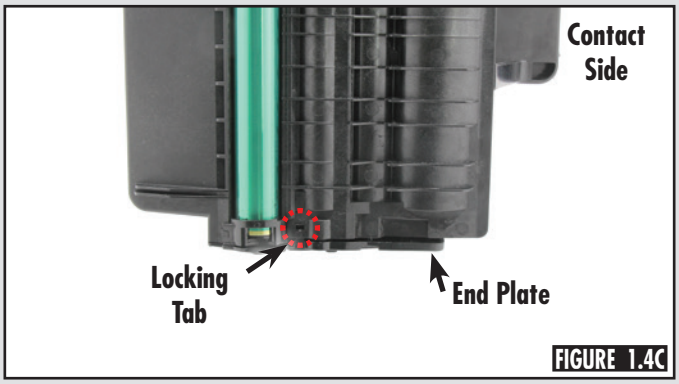


FIGURE 1.4C

## STEP 1.5

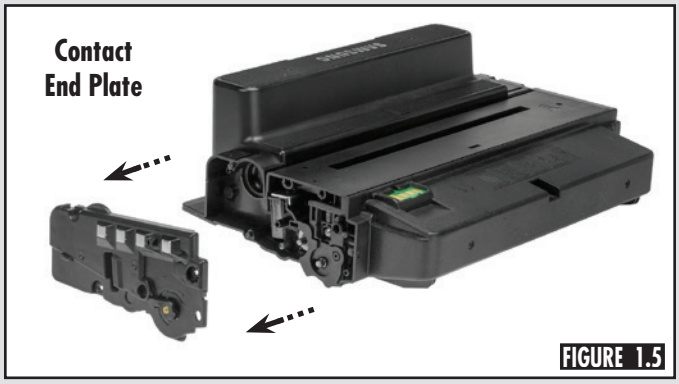


FIGURE 1.5

Gently pry the contact side end plate loose and remove. (Figure 1.5)

## STEP 1.6

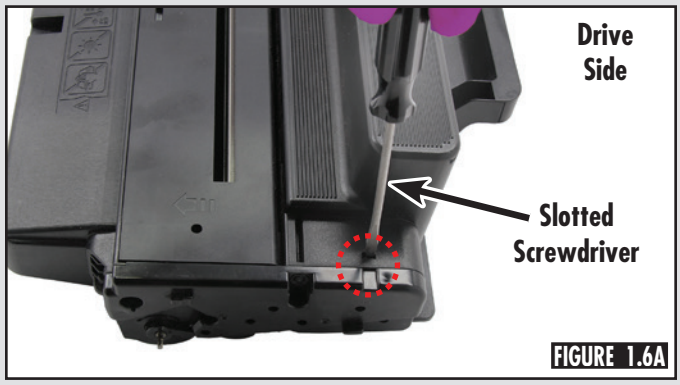


FIGURE 1.6A

Using a small slotted screwdriver, press inside the slots of both the tabs to release the drive side end plate. There is one on the top (Figure 1.6A) and another on the bottom near the OPC drum (Figure 1.6B).

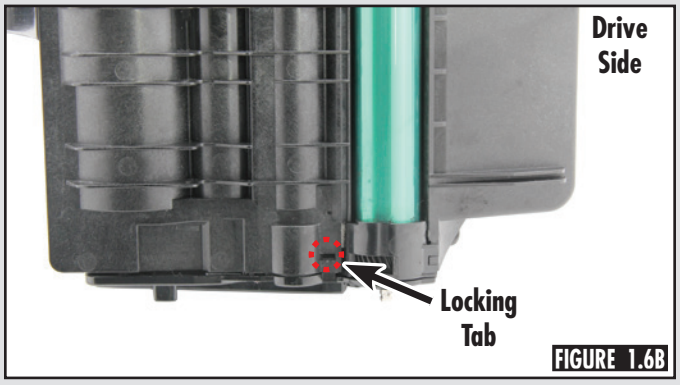


FIGURE 1.6B

**Note:** Use care when releasing the locking tabs to prevent damaging the tabs.

## STEP 1.7

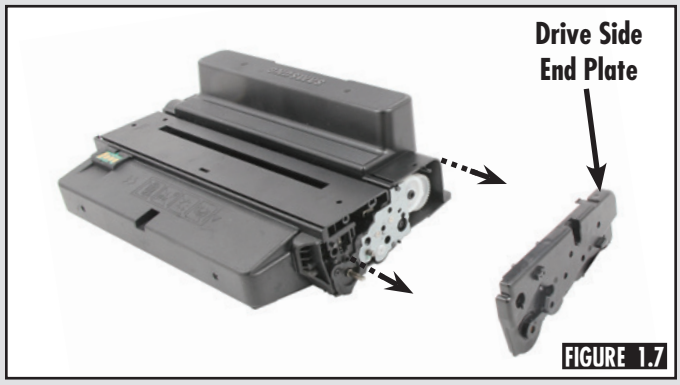


FIGURE 1.7

Gently pry the drive side end plate loose and remove. (Figure 1.7)

## STEP 1.8

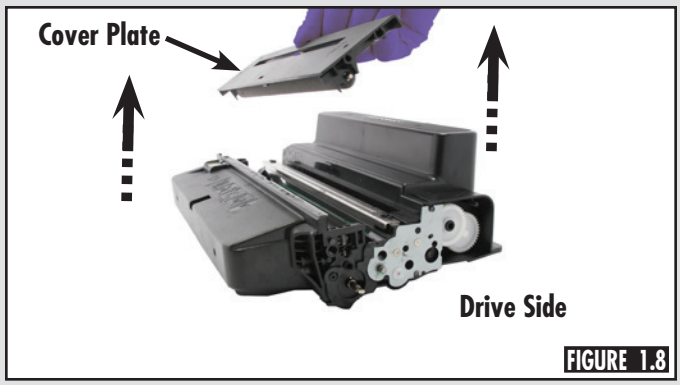
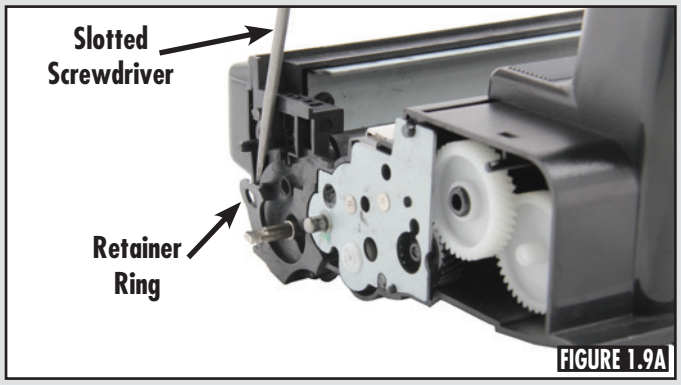


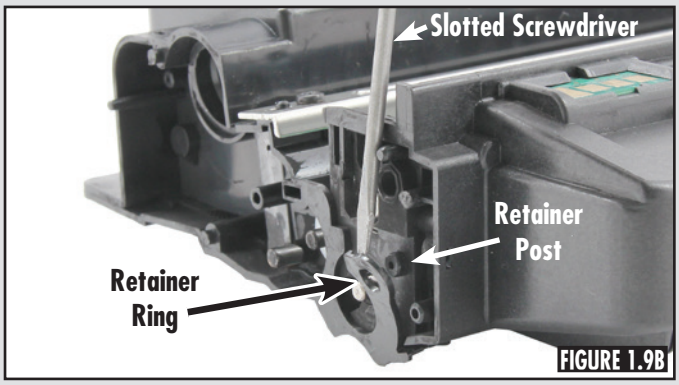
FIGURE 1.8

Remove the cover plate from the cartridge by gently pulling from the drive side first, then from the contact side. (Figure 1.8)

**Note:** After removing the cover plate, blow the PCR cleaning roller with dry, filtered, ionized, compressed air.

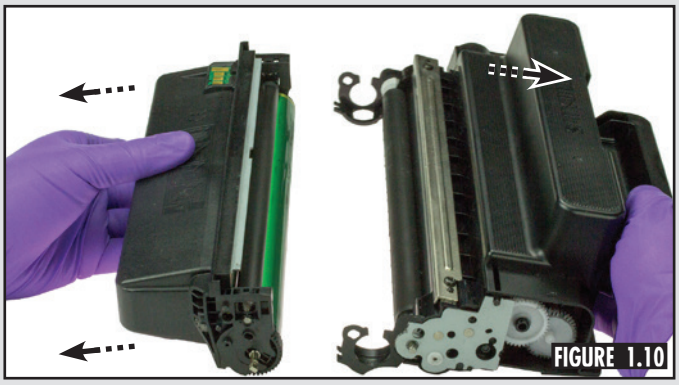
## STEP 1.9




With a small slotted screwdriver, gently flex the retainer rings up and over the retainer posts as shown in Figures 1.9A and 1.9B to release the waste bin from the toner hopper.

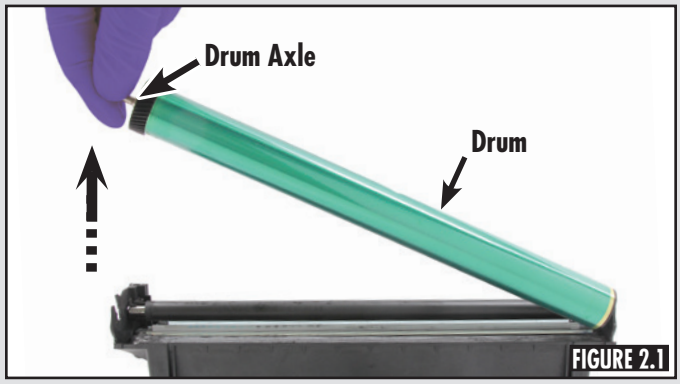
## STEP 1.10




Separate the waste bin from the toner hopper. (Figure 1.10)

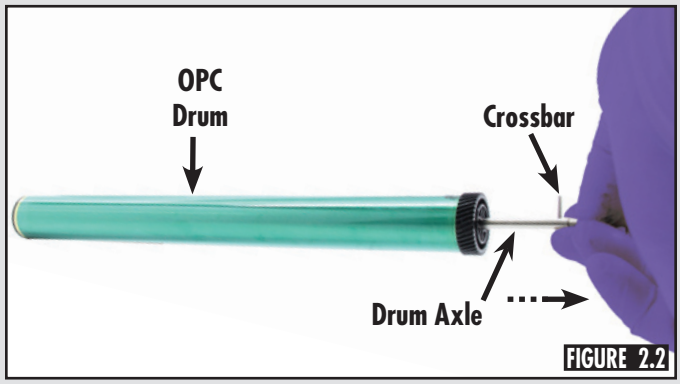
**Note:** Make sure the OPC drum is secure in the waste bin.

## STEP 2.1




Remove the drum from the waste bin as shown in Figure 2.1.

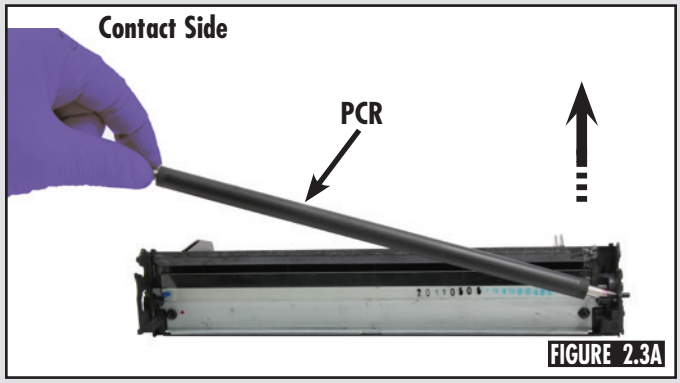
## STEP 2.2

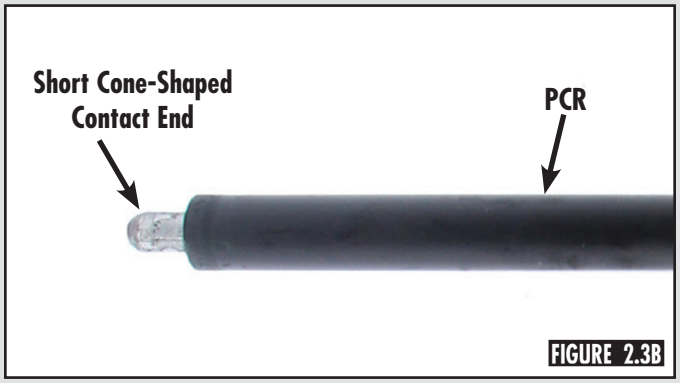



Grasping the end of the OPC drum axle with the crossbar, slide the axle from the drum (Figure 2.2) and discard OPC drum.

**Note:** The crossbar can be removed and set aside before sliding the axle away from the drum.

## STEP 2.3




Lift the PCR out of the saddles as shown in Figure 2.3A. Note the orientation of the PCR. The short cone shaped end fits the contact side (Figure 2.3B).

## STEP 2.4

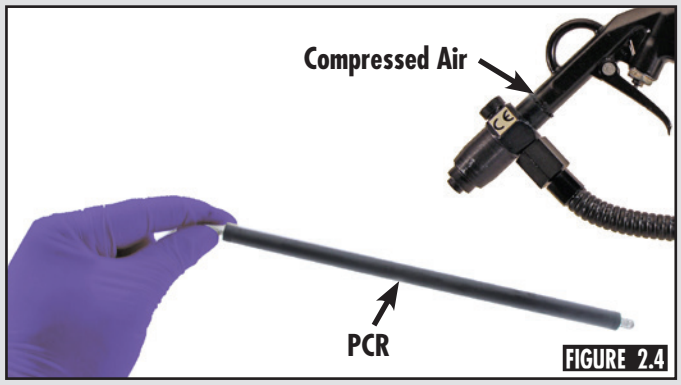


FIGURE 2.4

**Note:** If further cleaning is required, use a lint-free cloth dampened with 91-99% isopropyl alcohol followed by another lint-free cloth dampened with deionized water.

Use a lint-free cloth dampened with deionized water to remove any residue. Clean the PCR end shafts of any debris using a lint-free cloth. Blow dry the PCR with dry, filtered, ionized, compressed air. (Figure 2.4)

## STEP 2.5

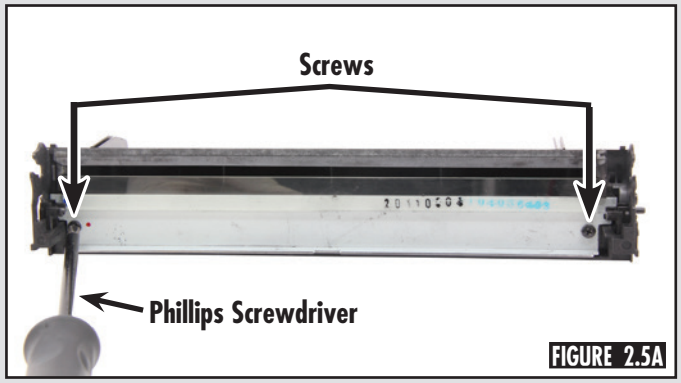


FIGURE 2.5A

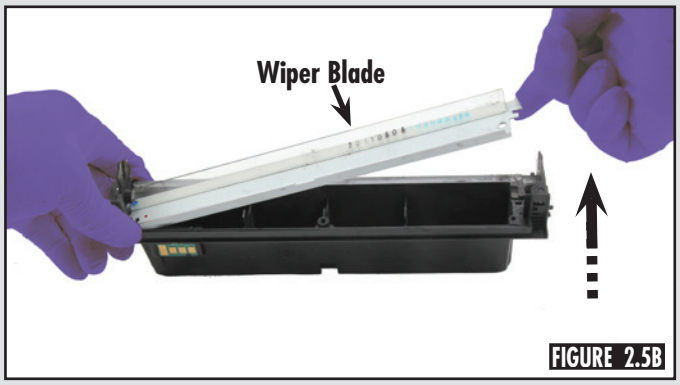


FIGURE 2.5B

Using a Phillips screwdriver, remove the two screws from the wiper blade and lift the wiper blade from the waste bin as shown in Figures 2.5A and 2.5B.

## STEP 2.6

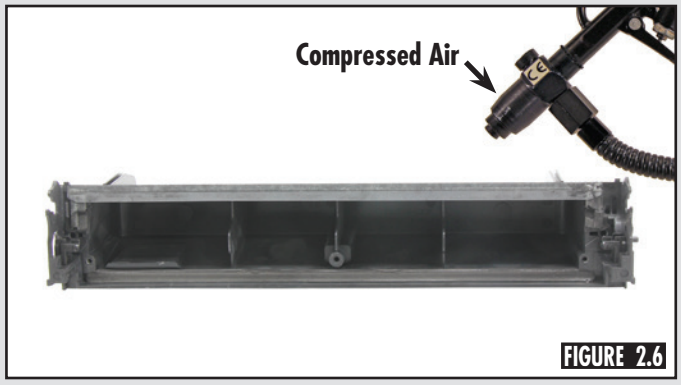
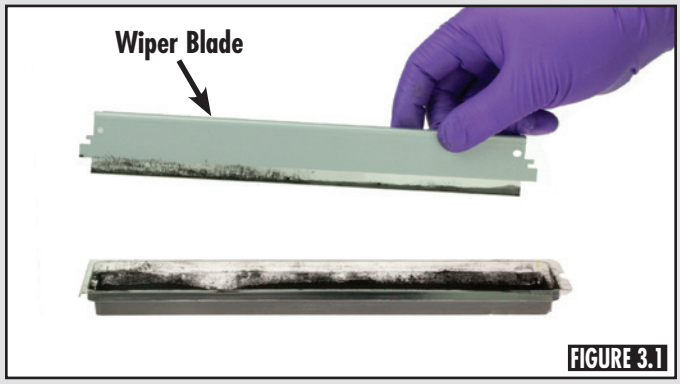


FIGURE 2.6

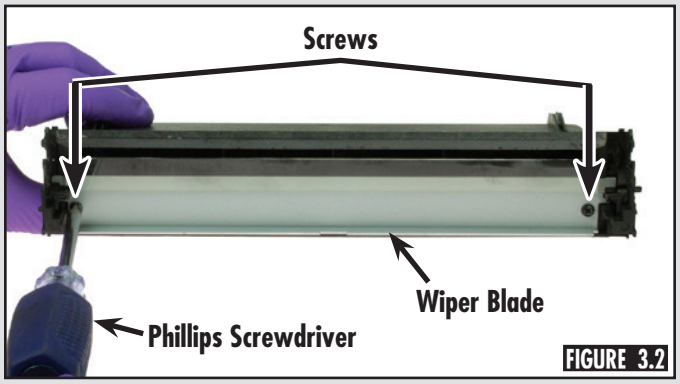
Using dry, filtered, ionized, compressed air, blow any remaining waste toner from the waste bin as shown in Figure 2.6.

## STEP 3.1



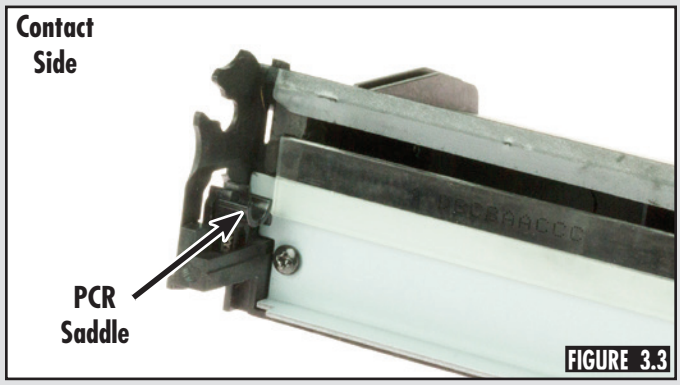

Dip the new wiper blade into a tray of approved toner as shown in Figure 3.1. Tap the metal stamping to remove excess toner.

## STEP 3.2



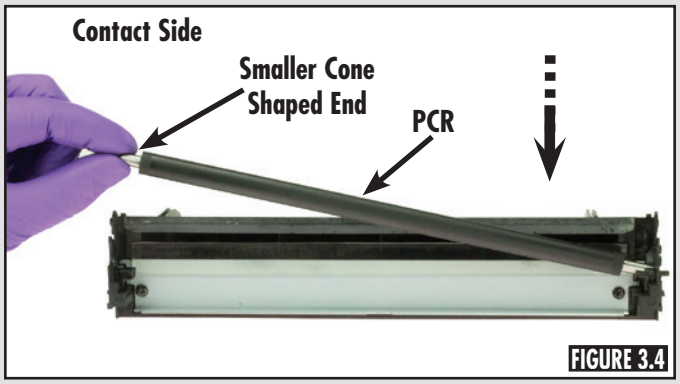

Place the wiper blade into the waste bin and secure with two screws. (Figure 3.2)

## STEP 3.3



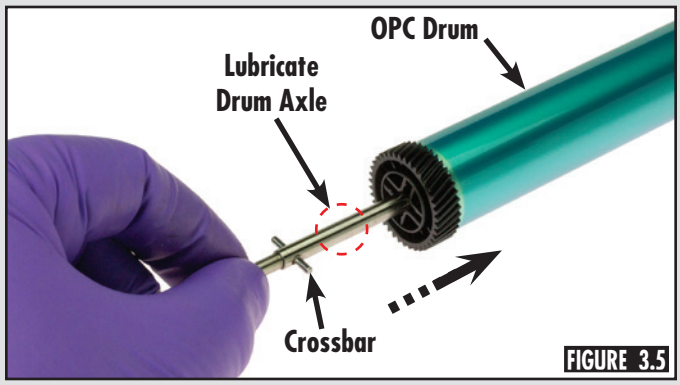

Using a linf-free swab, apply conductive lubricant to the contact side PCR saddle. (Figure 3.3)

## STEP 3.4




Ensure that the small cone shaped end is placed into saddle nearest to the contact side (Figure 3.4). Make sure that the PCR is securely locked into the saddles.

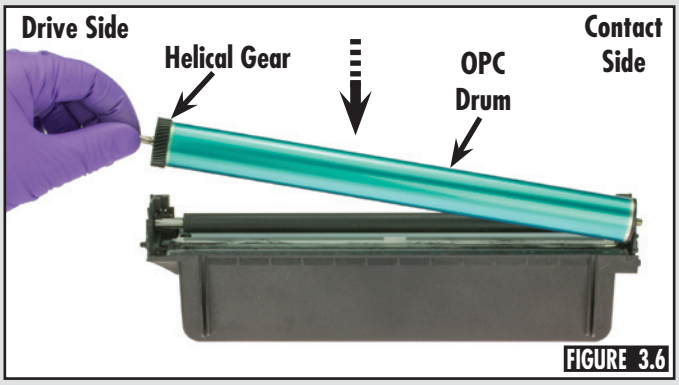
## STEP 3.5




Install crossbar into axle and slide the lubricated drum axle into the drive side of the Static Control drum as shown in Figure 3.5.

**Note:** Add conductive lubricant to the drum axle in the area shown in Figure 3.5.

## STEP 3.6

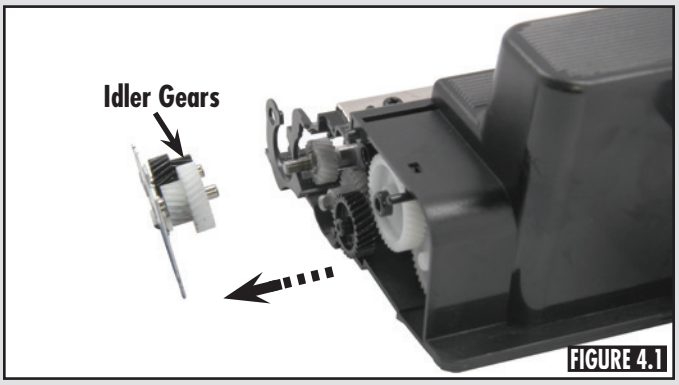



Place the Static Control OPC drum into the waste bin as shown in Figure 3.6.

**Note:** Notice the contact and drive sides of the waste bin. The chip is located on the contact side of the waste bin.

**Note:** Cover drum with light blocking paper and set aside.

## STEP 4.1



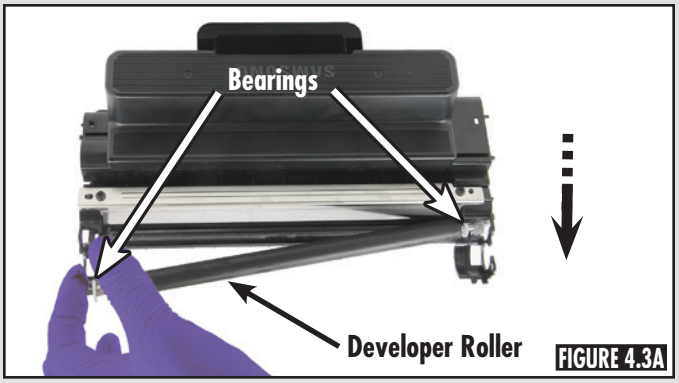

Use a small slotted screwdriver to carefully remove the gear backing plate from the drive side of the toner hopper. The two idler gears will remain attached to the gear plate as shown in Figure 4.1.

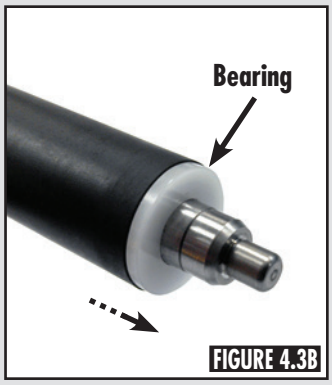
## STEP 4.2

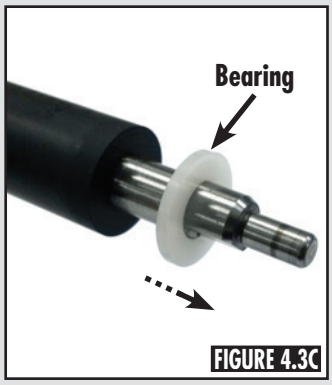

**Warning:** Make sure other gears, except for the two idler gears attached to the gear plate, remain attached to the drive side of the toner hopper.

Remove only the developer roller gear and toner adder roller gear from the drive side of the toner hopper. (Figure 4.2)

## STEP 4.3




Remove the developer roller by lifting it out of the toner hopper (Figure 4.3A). Remove the plastic bearings from the developer roller and set aside (Figure 4.3B and Figure 4.3C).

## STEP 4.4

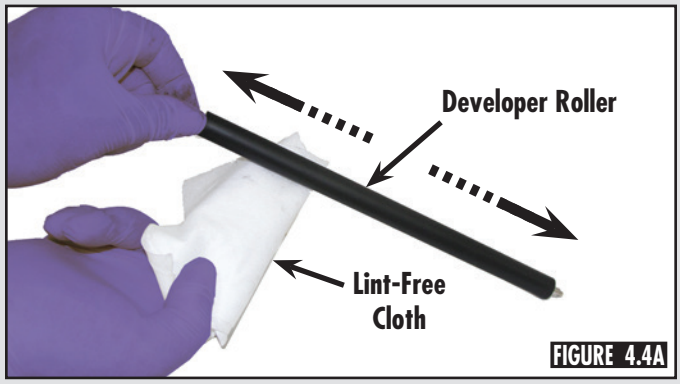


FIGURE 4.4A

Using a lint-free cloth dampened with 91-99% isopropyl alcohol, clean the developer roller starting from the center and wiping outward (Figure 4.4A). Rotate the developer and repeat the cleaning action. To remove cleaning residue, wipe roller using a lint-free cloth dampened with deionized water.

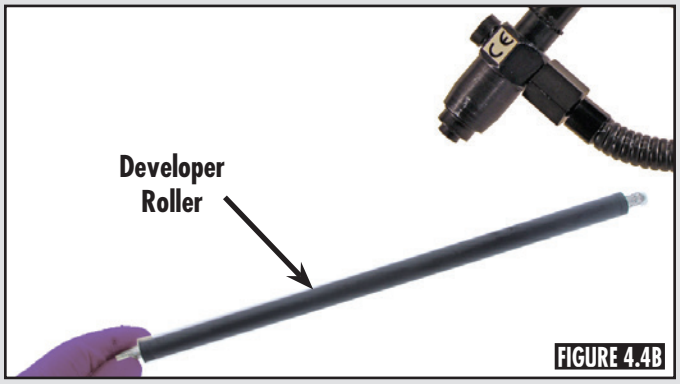


FIGURE 4.4B

To dry the roller, use dry, filtered, ionized, compressed air. (Figure 4.4B)

## STEP 4.5

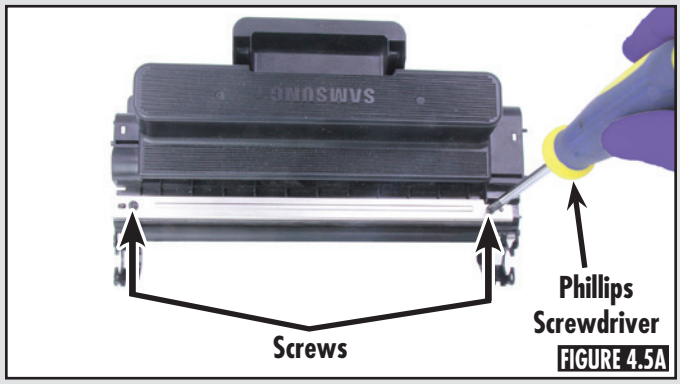


FIGURE 4.5A

Using a Phillips screwdriver, remove the two screws securing the doctor blade and remove the doctor blade. (Figures 4.5A and 4.5B)

FIGURE 4.5B

## STEP 4.6

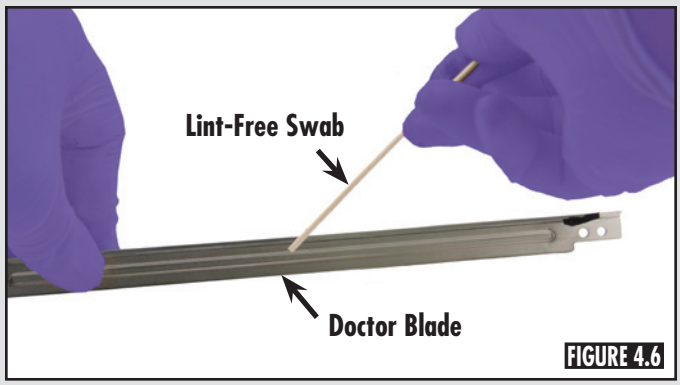
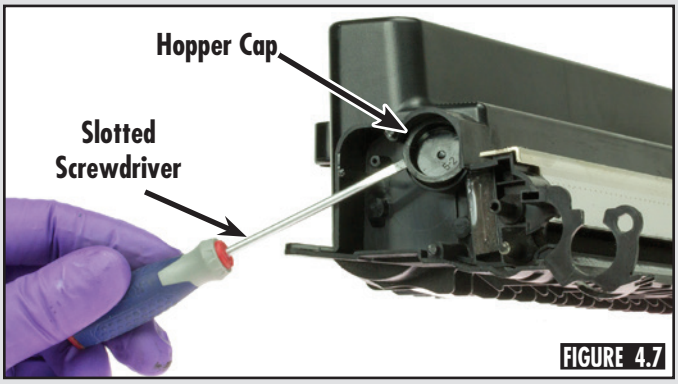


FIGURE 4.6

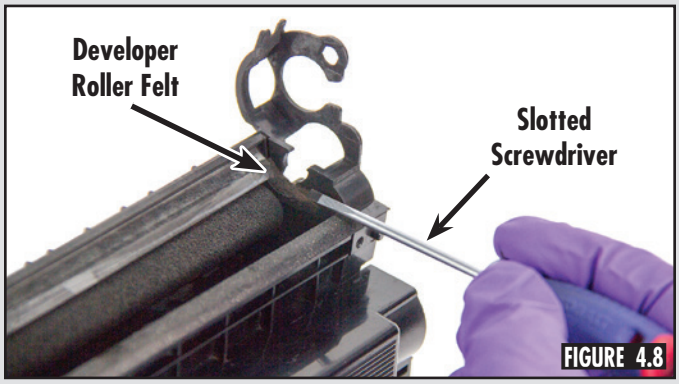
Blow the doctor blade with dry, filtered ionized, compressed air to remove toner from doctor blade. Use the wooden end of a lint-free swab to clean the working edge of the doctor blade as shown in Figure 4.6.

## STEP 4.7



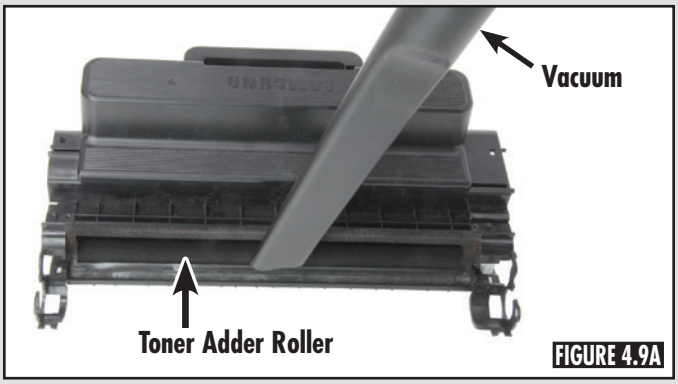

Use a small slotted screwdriver to pry the hopper cap from the hopper. (Figure 4.7)

## STEP 4.8




Use a small slotted screwdriver to fluff up the developer roller end felts. (Figure 4.8)

## STEP 4.9



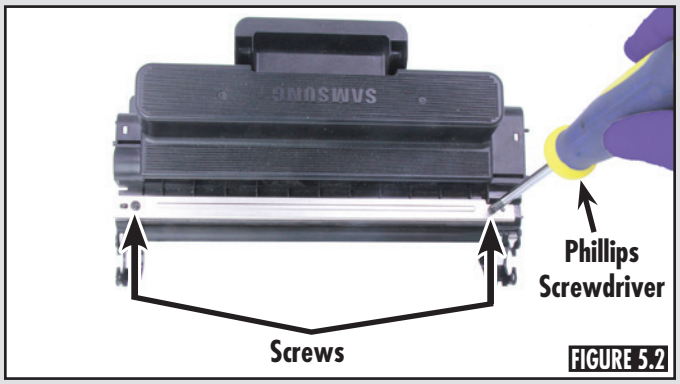


Dump the remaining toner and vacuum toner adder roller (Figure 4.9A). Blow the toner hopper with dry, filtered, ionized, compress air (Figure 4.9B).

## STEP 5.1

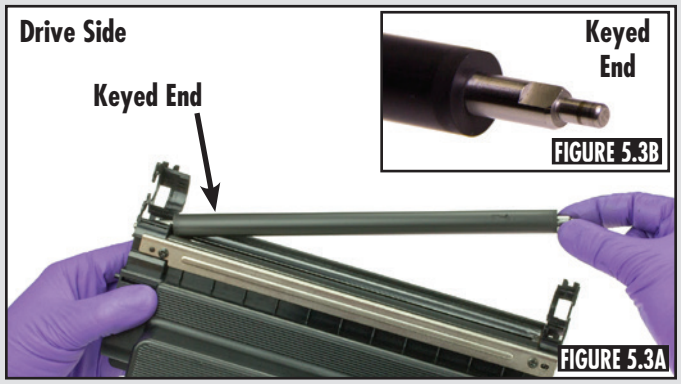

Align the doctor blade as shown and place onto toner hopper. (Figure 5.1)

## STEP 5.2



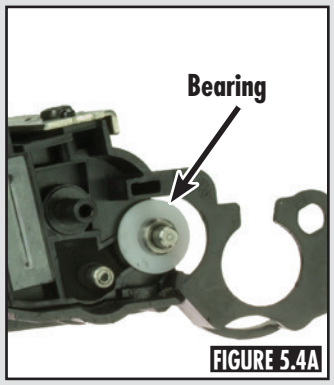

Secure the doctor blade with two screws. (Figure 5.2)

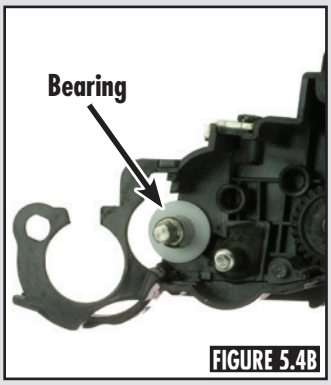
## STEP 5.3




Place the developer roller into hopper (Figure 5.3A) starting with the keyed end (Figure 5.3B) on the drive side.

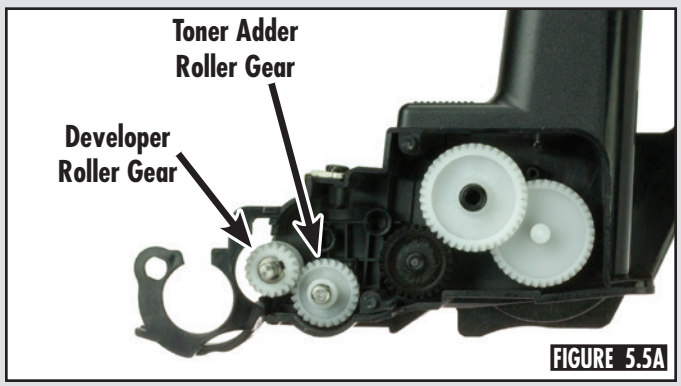
## STEP 5.4



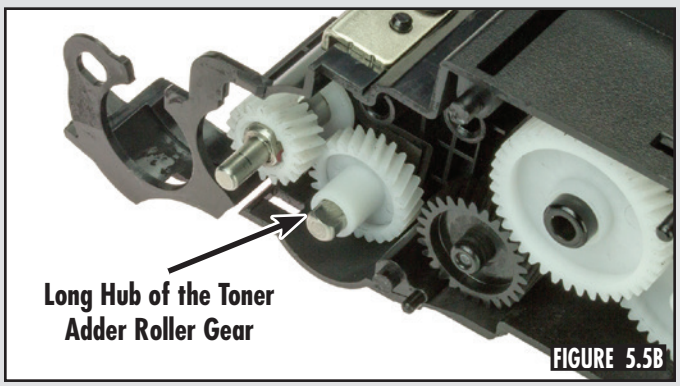




Place one bearing onto each end of the developer roller. (Figure 5.4A and 5.4B)

## STEP 5.5

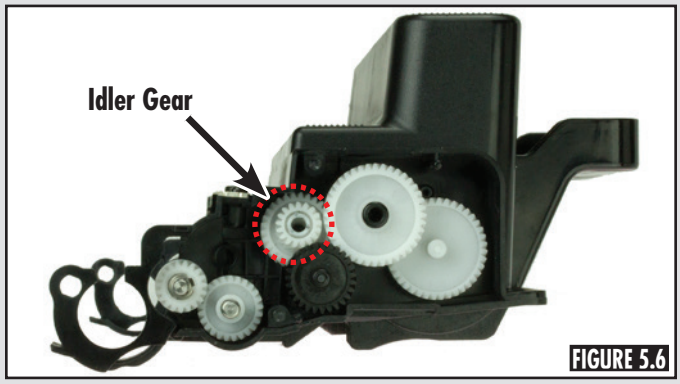



Place the toner adder roller gear onto the toner adder roller shaft then place the developer roller gear onto the developer roller shaft as shown in Figure 5.5A.



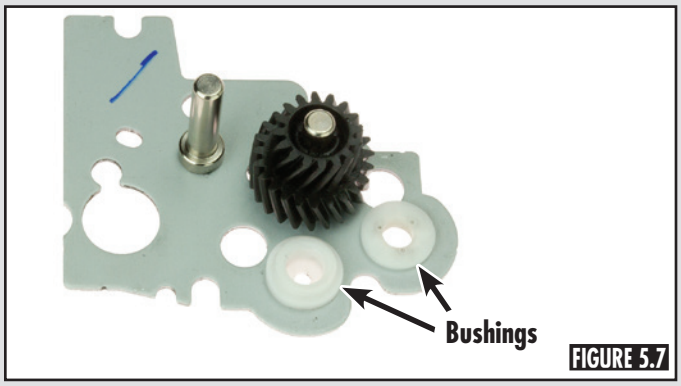

**Note:** Ensure the long hub of the the toner adder roller gear faces outward toward gear backing plate. (Figure 5.5B)

## STEP 5.6



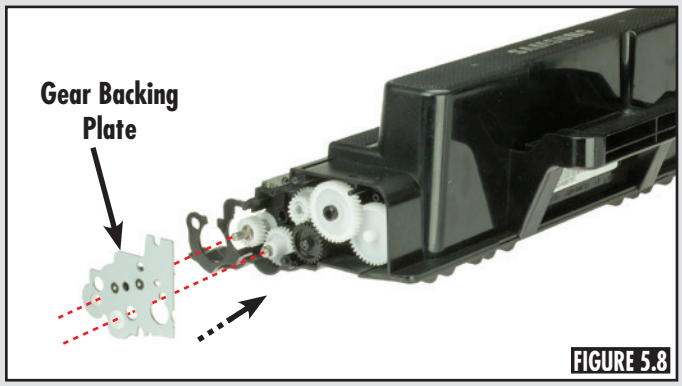

Remove the white idler gear from the gear backing plate and place into the drive side of the toner hopper as shown in Figure 5.6.

## STEP 5.7



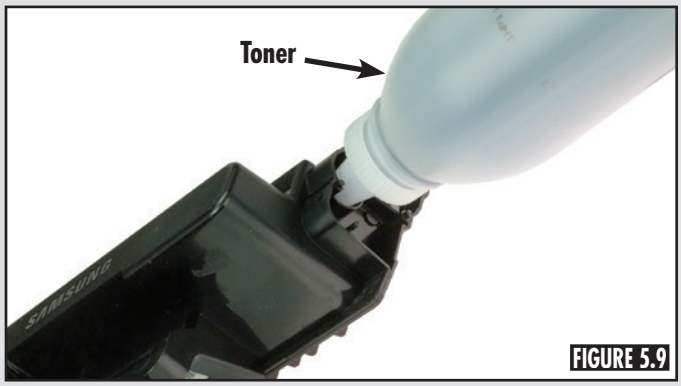

On the gear backing plate, make sure the two bushings are installed. (Figure 5.7)

## STEP 5.8



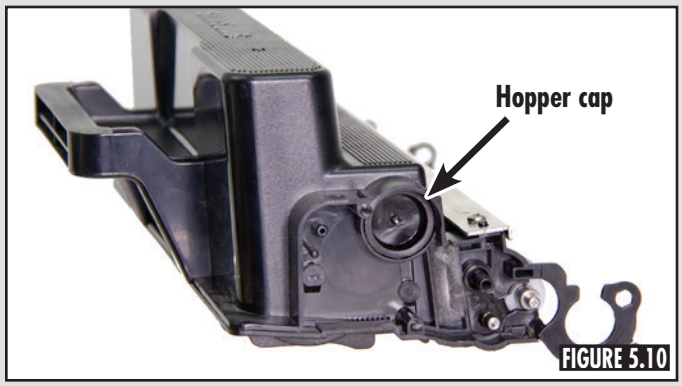

Place the gear backing plate onto the drive side of the toner hopper as shown in Figure 5.8. When the backing plate is installed, black idler gear goes over white idler gear.

## STEP 5.9



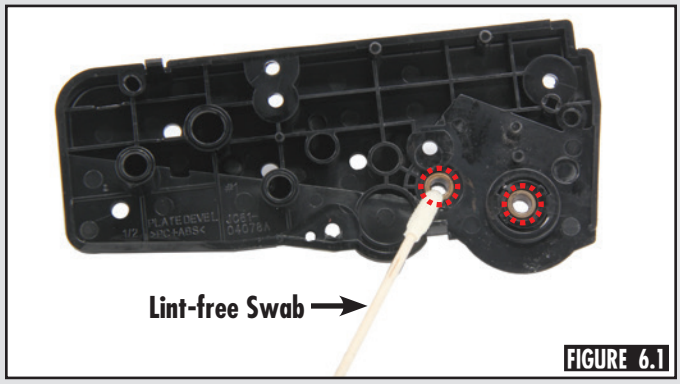

Fill the cartridge with qualified toner. (Figure 5.9)

## STEP 5.10



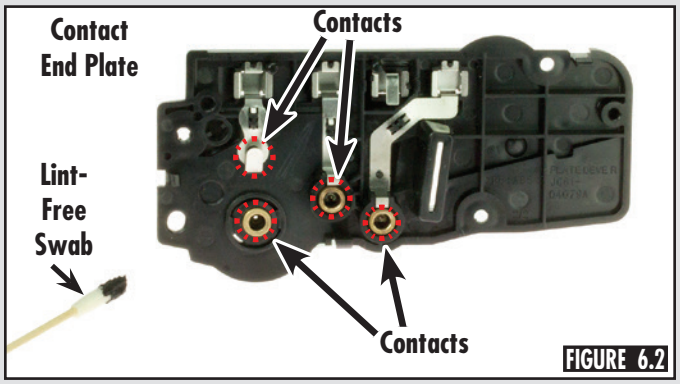

Install the hopper cap. (Figure 5.10)

## STEP 6.1



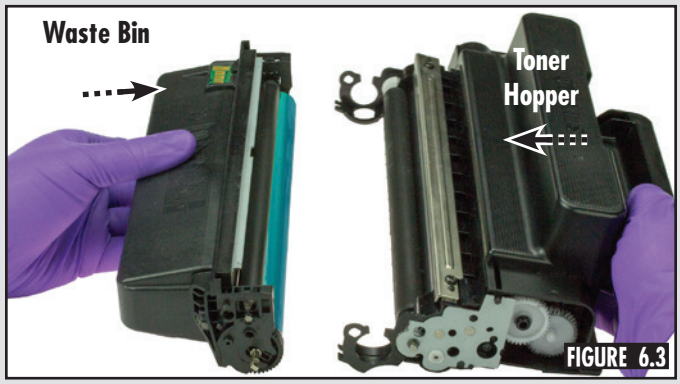

Use a lint-free swab to clean and then apply cartridge lubricant to the drive side end plate as shown in Figure 6.1.

## STEP 6.2



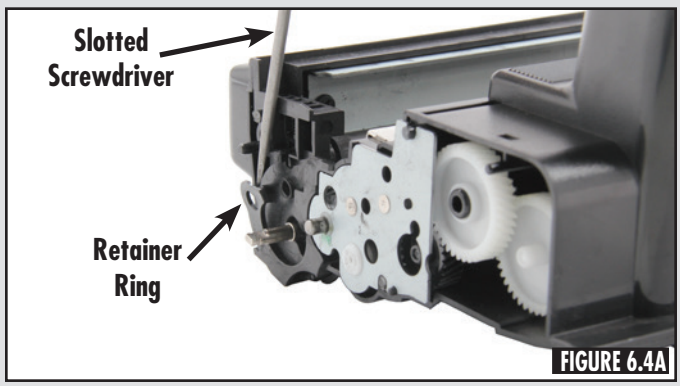

Use a lint-free swab to clean and then apply conductive lubricant to the contact side end plate as shown in Figure 6.2.

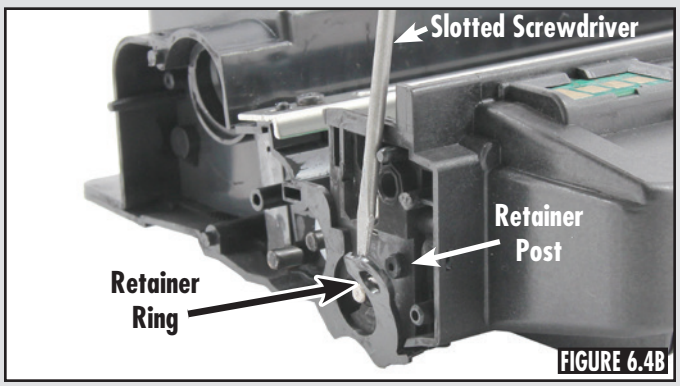
## STEP 6.3




Bring together the toner hopper and waste bin as shown in Figure 6.3.

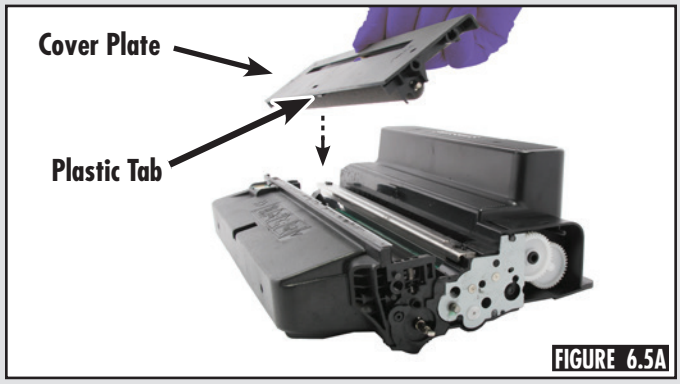
## STEP 6.4

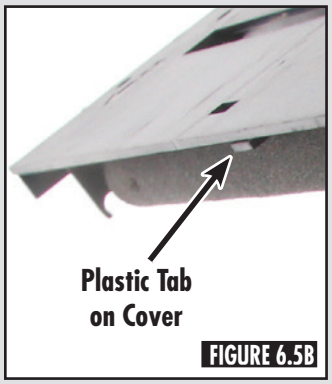


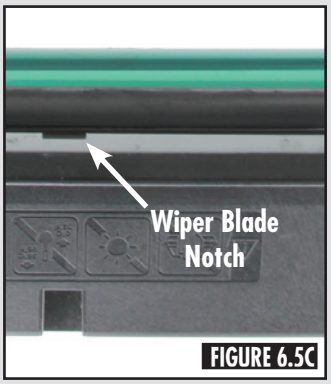




Lift the retainer ring up and onto the retainer post on each side of the cartridge. (Figures 6.4A and 6.4B)

## STEP 6.5

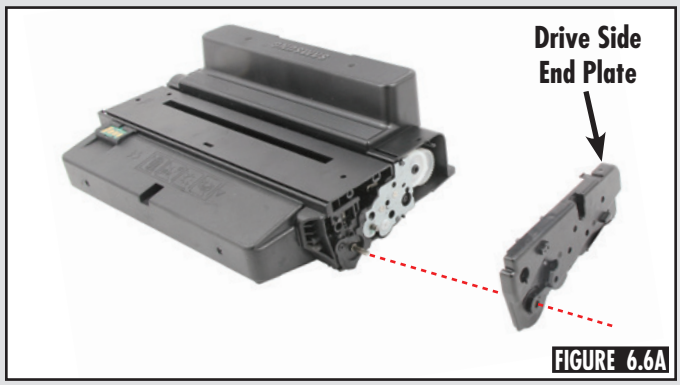


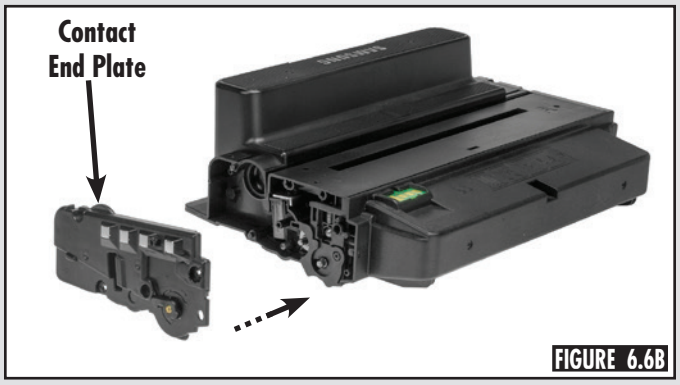




Place the cover plate onto the cartridge (Figure 6.5A). Match plastic tab (Figure 6.5B) on the cover plate with the notch in the metal stamping of the wiper blade (Figure 6.5C).

## STEP 6.6



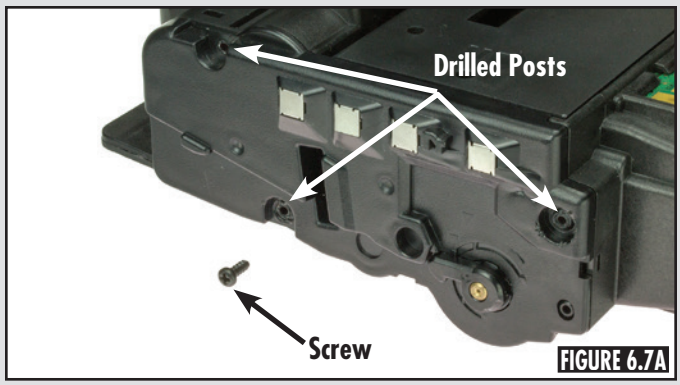



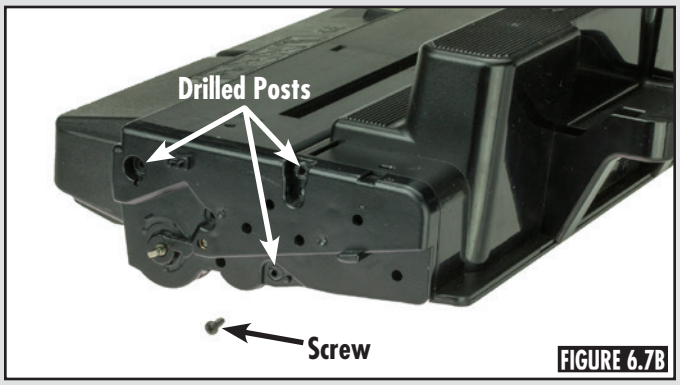

Place the end plates onto the cartridge (Figure 6.6A and Figure 6.6B).

**Note:** When installing the drive side end plate, ensure the drum axle, locking tabs and metal developer roller shaft are properly aligned in the drive side end plate.

**Note:** Ensure contact side end plate is properly aligned with drum axle and toner adder roller shaft.

## STEP 6.7 (OPTIONAL)




If you drilled out the posts in step 1.3, use a Phillips screwdriver to install the screws to secure the end plates. (Figure 6.7A and Figure 6.7B)

## STEP 6.8

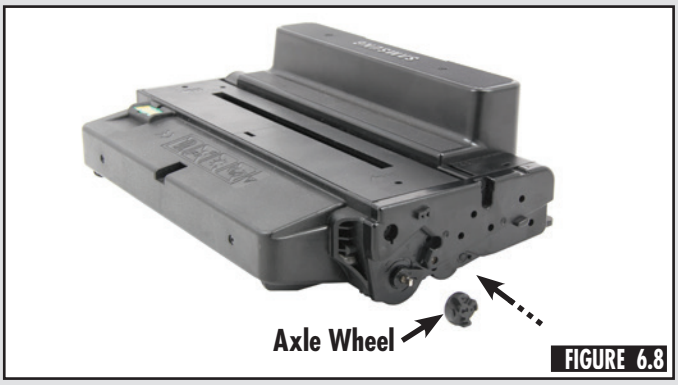



FIGURE 6.8

Place the OPC axle wheel onto the drum axle on the drive side of cartridge. (Figure 6.8)

**Note:** Refer to SSS™ 1161 for chip installation 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.

## USE OF ISOPROPYL ALCOHOL

For best results 91-99% isopropyl alcohol should be used for cleaning as directed in this instruction. 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.

## ILLUSTRATIONS

The illustrations and photos in this document might differ slightly from your cartridge. Every effort is made to include the most up to date photos and illustrations at the time of printing. However, the OEM may make changes which were not available at the time of printing.

## SAFETY INFORMATION

- Always wear eye protection while operating power tools.
- Always wear eye protection and protective clothing while working with toner and or other chemicals.
- Do not swallow or ingest toner, isopropyl alcohol, toner dust, or any chemicals or materials used in the process of remanufacturing.
- Employers should not allow employees to use compressed air for cleaning themselves or their clothing. The eyes and other body parts, such as the respiratory system, may be damaged as the result of inadequate personal protective equipment, lack of chip guards, and/or uncontrolled release of compressed air.

## DEDICATION TO TRAINING

In order to produce consistent high quality prints that are virtually indistinguishable from the OEM, it is essential to follow Static Control's remanufacturing instructions exactly as directed. Static Control is dedicated to informing customers of the latest innovations in training and knowledge. Access to these instructions, our technical support staff and View on Demand Webinars is available to all customers in good standing.

## ELECTROPHOTOGRAPHICALLY MATCHED COMPONENTS

We provide these critical components that have been electrophotographically matched for use in remanufactured toner cartridges. It is vital that the critical components be replaced as a system to ensure consistent high quality performance. We provide additional components such as felts, foams and recovery blades, should you decide they are necessary. Using Static Control's system of components allows you to use less expensive non-virgin cartridges and create remanufactured cartridges that provide high quality prints virtually indistinguishable from the OEM.

## INDUSTRY LEADER

Static Control is the global leader in aftermarket imaging and remanufacturing technology. Offices are located worldwide and all research, development, manufacturing and engineering takes place at their Sanford, North Carolina, USA world headquarters. Currently, Static Control manufactures in-house over 8,000 imaging products and supplies over 15,000 imaging products to the aftermarket industry.

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