

SAMSUNG® PROXPRESS M332ND

TONER CARTRIDGE REMANUFACTURING INSTRUCTIONS

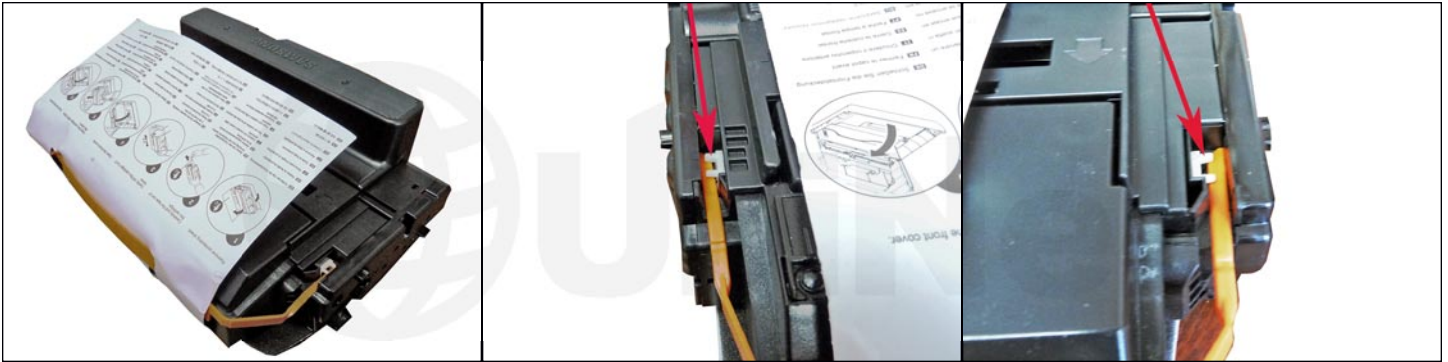


SAMSUNG MLT-D203 TONER CARTRIDGE

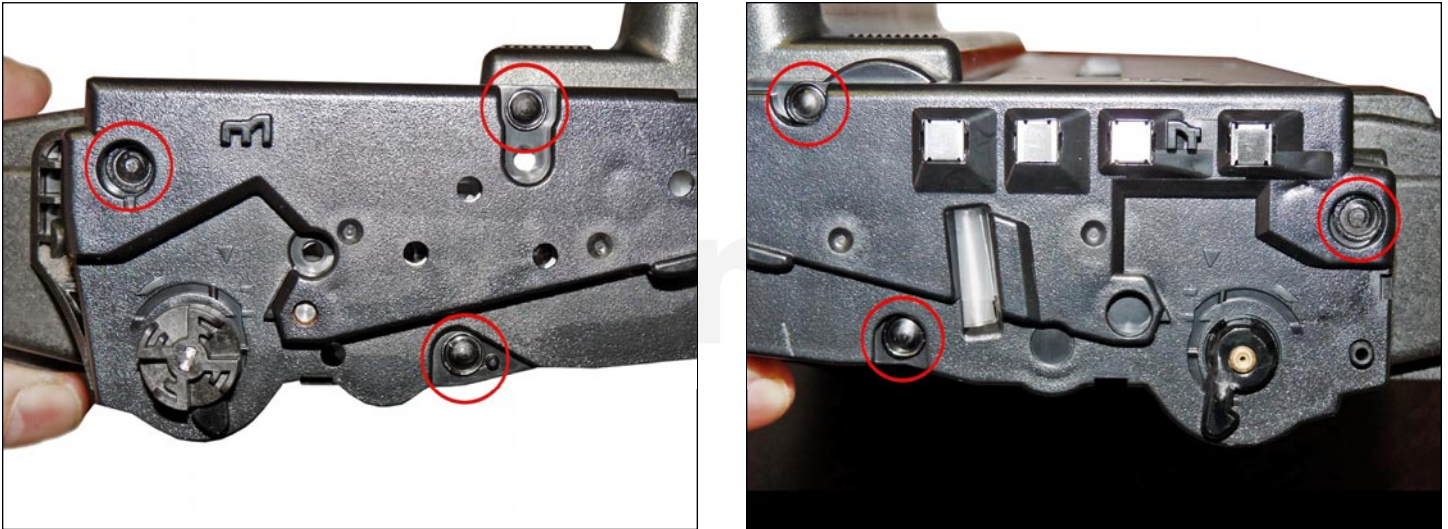
REMANUFACTURING THE SAMSUNG PROXPRESS M3320ND TONER CARTRIDGE

By Mike Josiah and the Technical Staff at UniNet

First released in August 2013 the Samsung ProXpress M3320 series of printers are based on a 35-42 ppm engine with a maximum optical resolution of 1200 x 1200 DPI. Certain machines have an enhanced resolution of 4800 x 4800 DPI. The first page out is stated to be under 6.5 seconds. Depending on the model number, other options/specifications are available.



The MLT-D203E/L/S cartridges do not have a drum cover, and come new with a piece of heavy paper with a thin sheet of foam on the inside. The protective sheet is held in place by a shipping lock that holds the PCR away from the drum. This lock helps prevent flat spots that can occur during storage.



One again there are no screws on the outside of the cartridge at all. There are plastic rivets that need to be cut off, holes drilled and screws installed to hold them back on. It's not a hard process and it's covered completely in the instructions. It is very important however that all three places on each end cap be drilled and screwed back in place. If this is not done, print defects such as banding will occur.

The **Standard** cartridge (Samsung part # MLT-D203S) is rated for 3,000 pages. The **High Yield** cartridge (Samsung part # MLT-D203L) is rated for 5,000 pages; the **Extra High Yield** cartridge (Samsung part # MLT-D203E) is rated for 10,000 pages; and the **Ultra High Yield** cartridge (Samsung part # MLT-D203U) is rated for 15,000 pages.

The **Extra High Yield “E”** cartridges only work in the M3820, M3870, M4020 and M4070 printers; and the **Ultra High Yield “U”** cartridges only work in the M4020 and M4070 printers.

As with pretty much all cartridges these days, the cartridge has a chip and it has to be replaced each cycle. The OEM chips are regional, so be sure to get the proper chip for your region.

The **MLT-D203S** has a list price of *USD\$78.99; the **MLT-D203L** has a list price of *USD\$116.99; the **MLT-D203E** lists for *USD\$170.99; and the **MLT-D203U** lists for *USD\$216.99.

***Pricing (in U.S. American Dollars) as of March 2014.**

STANDARD LASERS & MULTIFUNCTION MACHINES THAT USE THESE CARTRIDGES SO FAR

ML-M3320ND
 ML-M3370FD (multifunction)
 ML-M3820DW
 ML-M3870FW (multifunction)
 ML-M4020ND
 ML-M4070FR (multifunction)

Print troubleshooting will be listed at the end of these instructions.

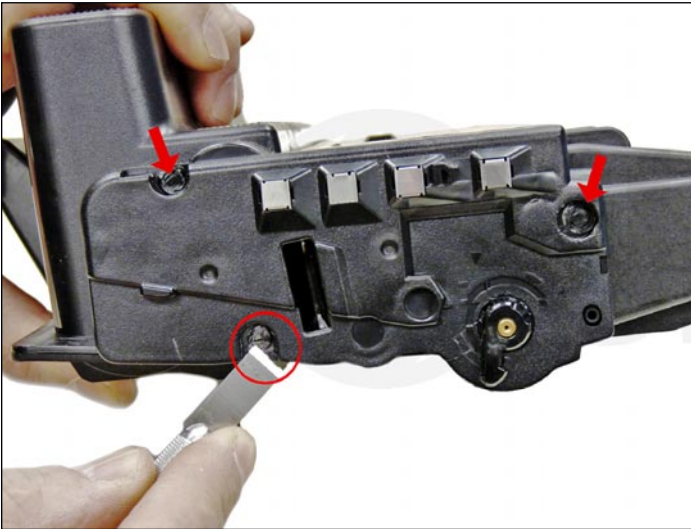
REQUIRED TOOLS

1. Toner approved vacuum
2. A small common screwdriver
3. A Phillips head screwdriver
4. Needle nose pliers
5. Chisel type razor blade knife
6. Hot glue gun

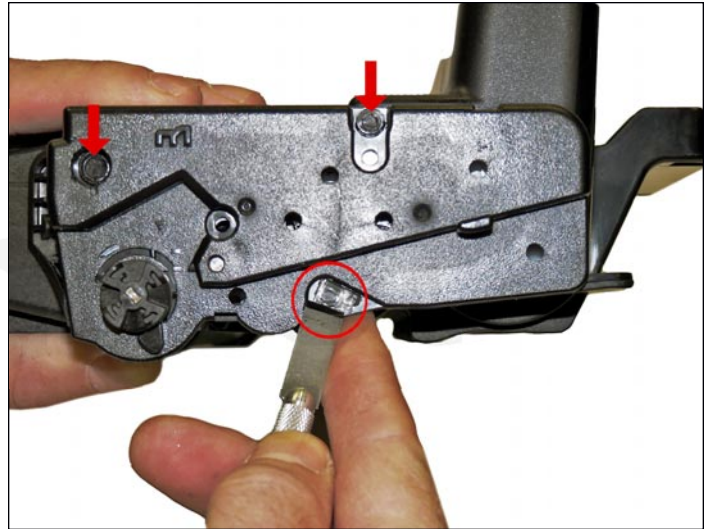
REQUIRED SUPPLIES

1. New replacement toner for use in Samsung ML-3320
2. New replacement chip for ML-3320 (check for the proper region and cartridge (S/L/E))
3. New OPC drum (optional)
4. New developer roller (optional)
5. New PCR (optional)
6. New wiper blade (optional)
7. New doctor blade (optional)
8. Conductive grease
9. 99% isopropyl alcohol
10. Drum lubricating powder

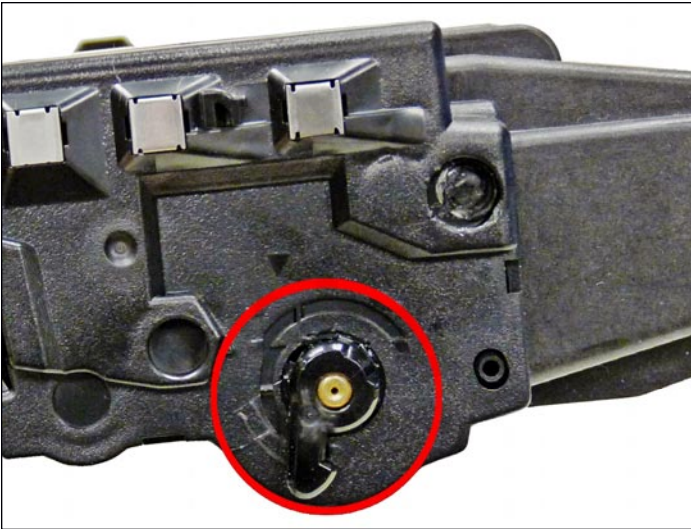




1. On the contact side of the cartridge, slice off the heads of the three plastic rivets with a chisel blade knife. If your knife is too wide, you may find it necessary to drill out the upper recessed rivets on both sides. Leave the end cap on for now.



2. On the opposite-side end cap, take the chisel blade knife and slice off the heads of the three plastic rivets. See above step for recessed rivets. Leave the end cap on for now.



3. The drum axle arms on both sides of the cartridge stay with the end cap. There is no need to remove them.



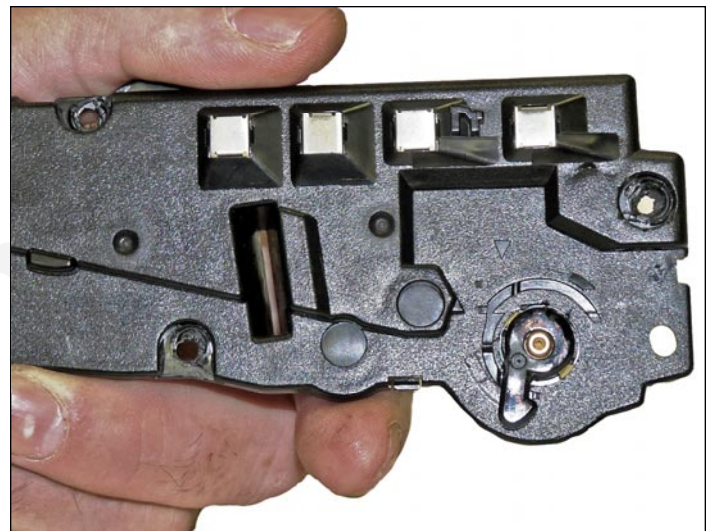
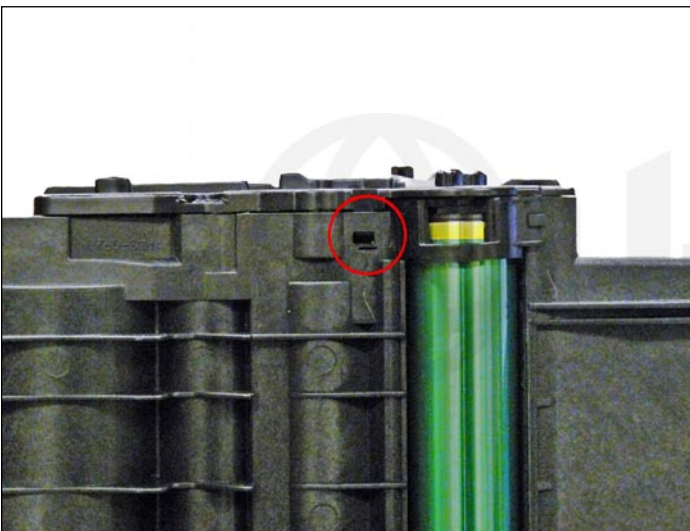
4. Remove the drum drive gear.



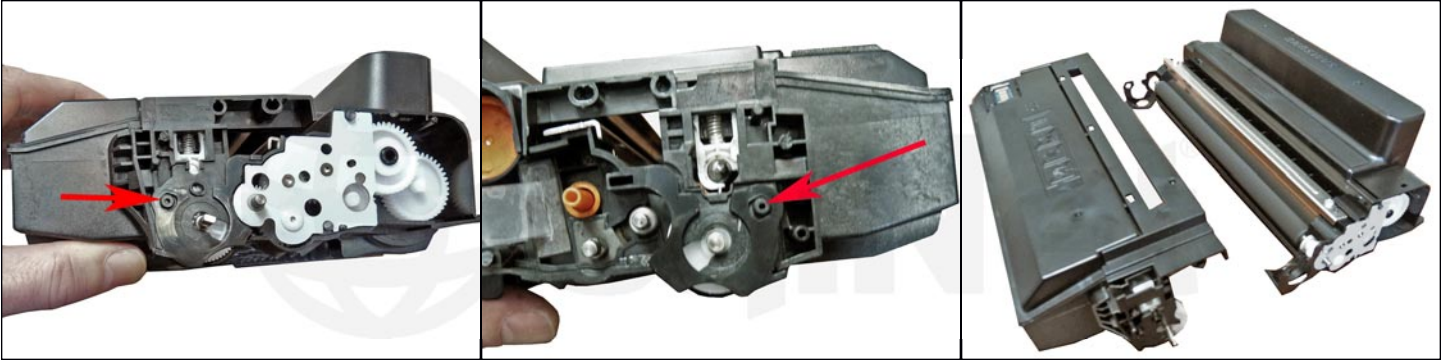
5. While still on the same side, locate the two tabs.

Press in on each tab, and remove the end cap.

The drum axle arm will come off with the end cap.



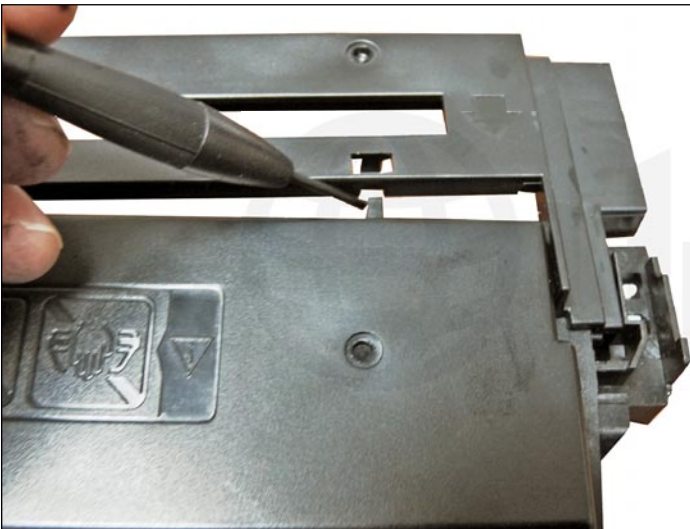
6. On the right side end cap, press in on the three tabs and remove the end cap.



7. Gently pry up on the tabs on both sides of the cartridge and remove the waste hopper.

Be careful to hold the drum so it does not become damaged.

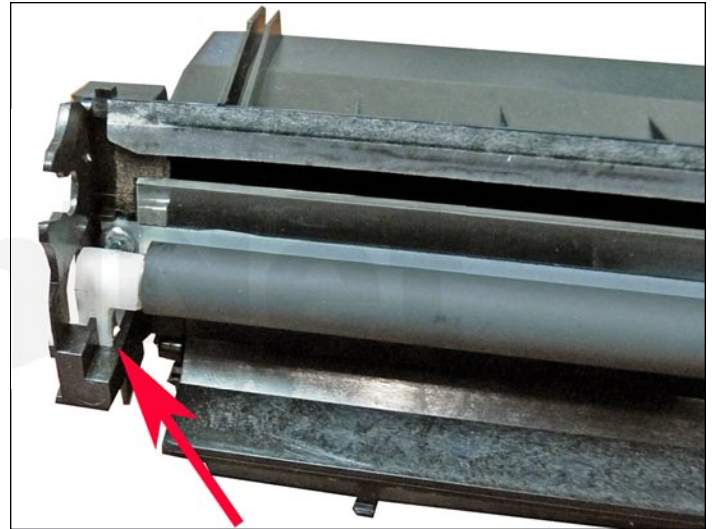
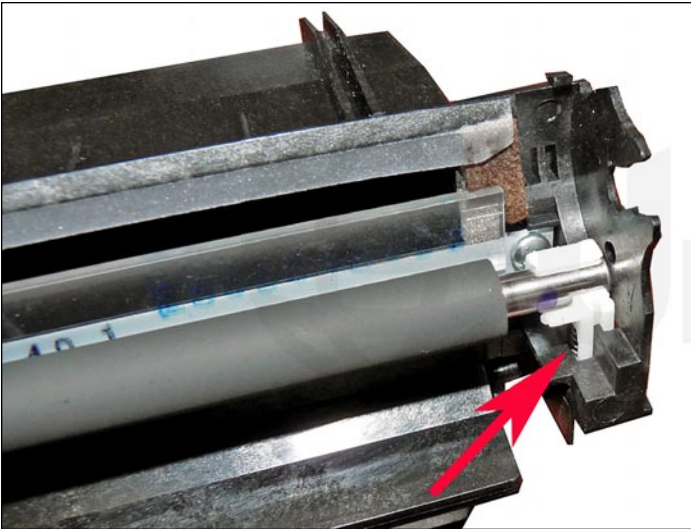
Remove the drum/waste assembly.



8. Pry off the middle cover/PCR-cleaning assembly, by pressing down on the three top tabs.



9. Remove the drum.



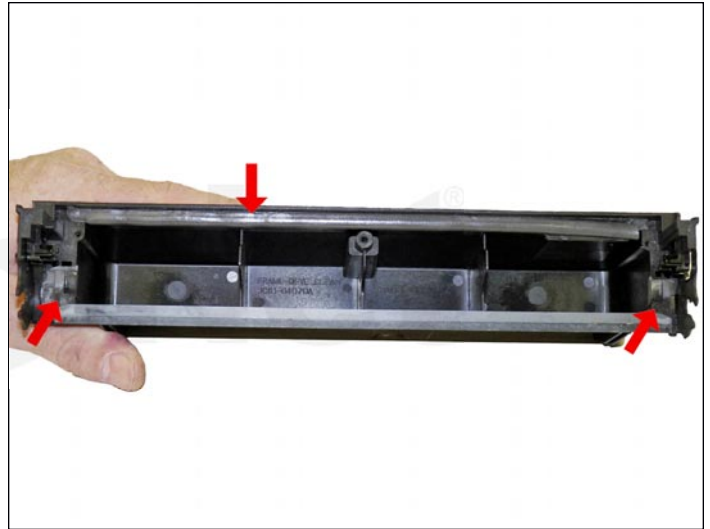
10. Remove the PCR from the assembly by prying up the two PCR holders on each side (they will come out with the PCR).

11. Clean the PCR with your normal PCR cleaner.

WARNING: Do not clean the OEM PCR with alcohol, as this will remove the conductive coating from the roller. If the PCR is an aftermarket, follow the cleaning methods recommended by the manufacturer. If the PCR is an OEM, we recommend it be cleaned with your standard PCR cleaner.



12. Remove the two screws from the wiper blade, and remove the blade.



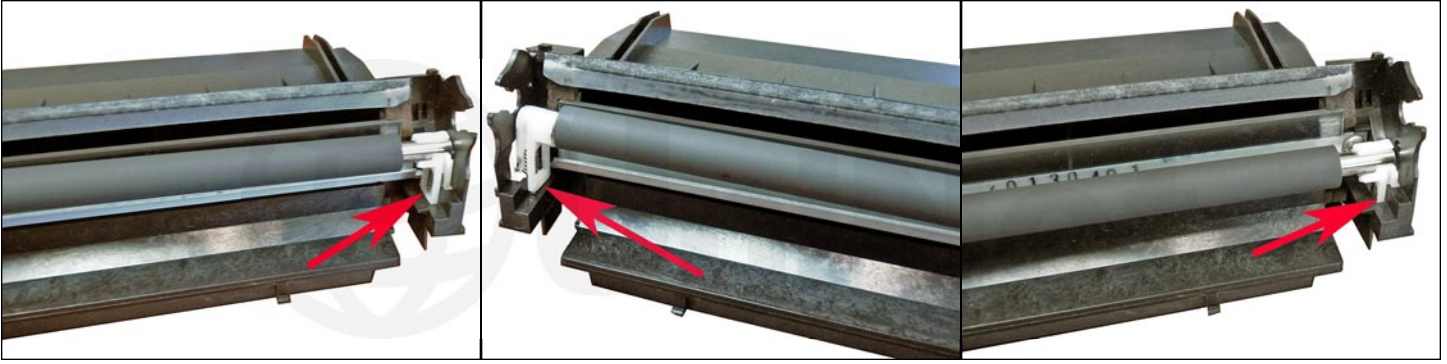
13. Clean out all the waste toner from the hopper.

Make sure the seals are clean.



14. Install the new wiper blade and two screws.

It is easier to install if you slide it in under the PCR holders.



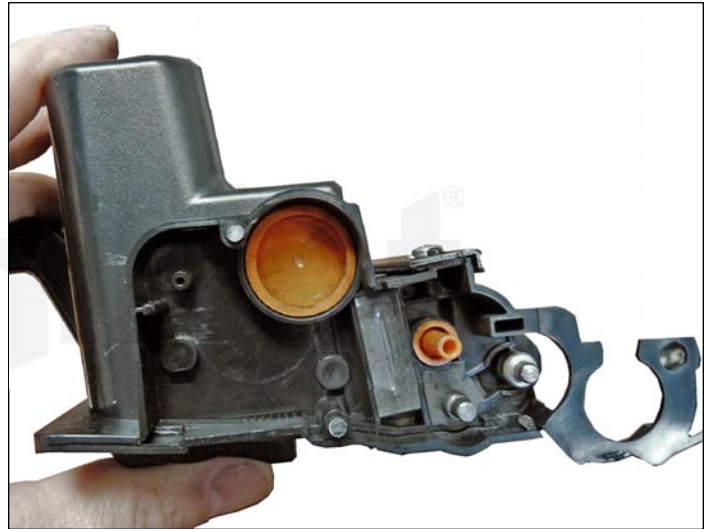
15. Place a small amount of conductive grease in the holders, and install the PCR and holders.

The holders will fit over their slots as you align them.

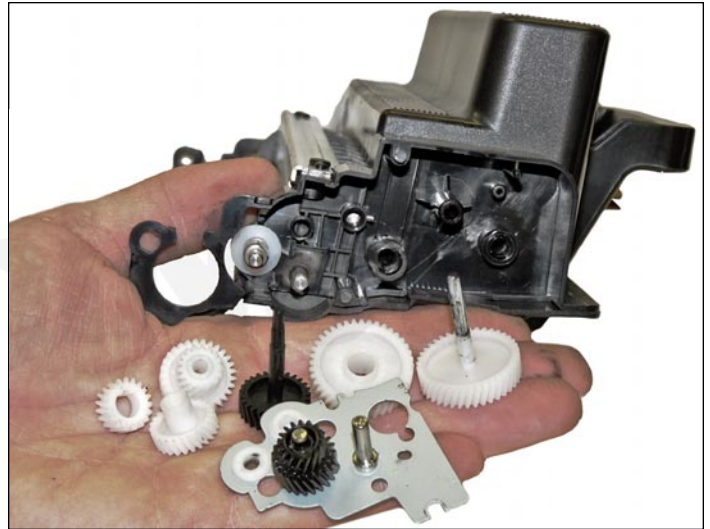
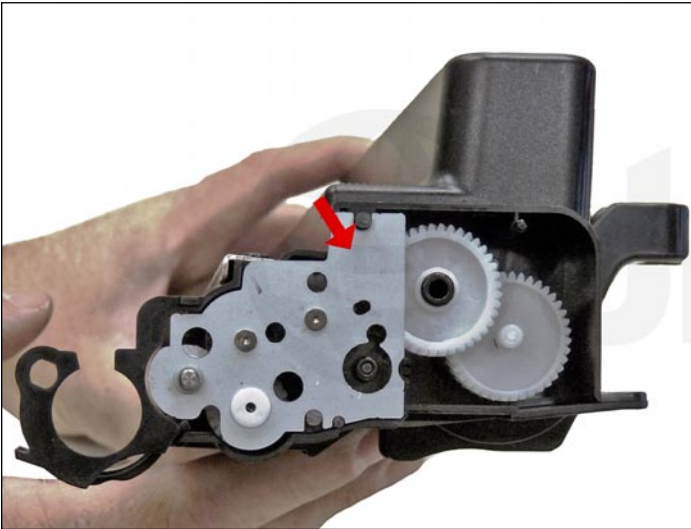
Press them down and check to make sure the springs are working.



16. Install the drum with the large gear to the gear or non-chip side of the drum into the waste hopper.



17. On the supply hopper, carefully pry out the fill plug and dump out any remaining toner. The fill plug can be difficult to remove as it is recessed. Take a small common screwdriver and work it around the edge lifting slightly until it comes loose.



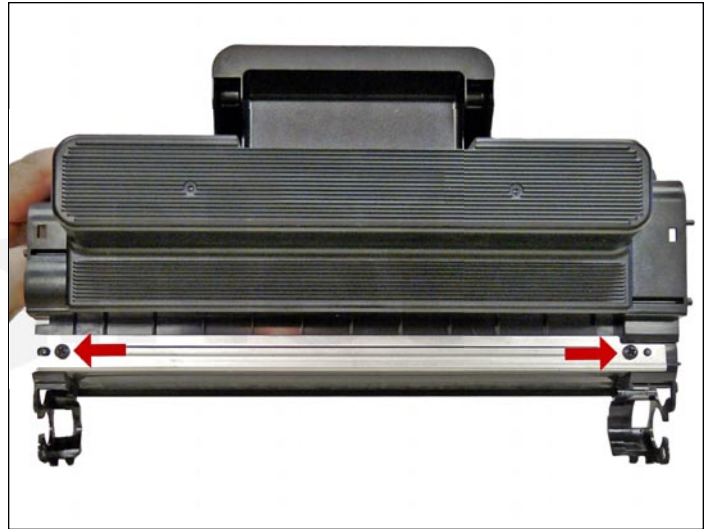
18. Pry off the gear plate, and remove the gears.



19. Remove the developer roller bushings from both sides.

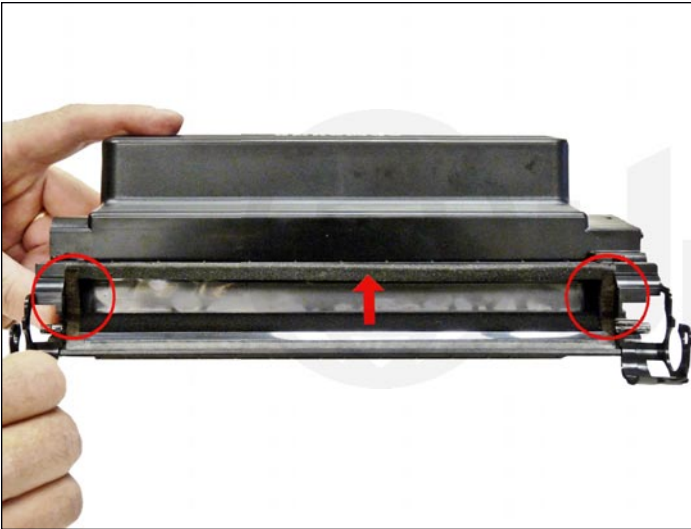


20. Remove the developer roller.

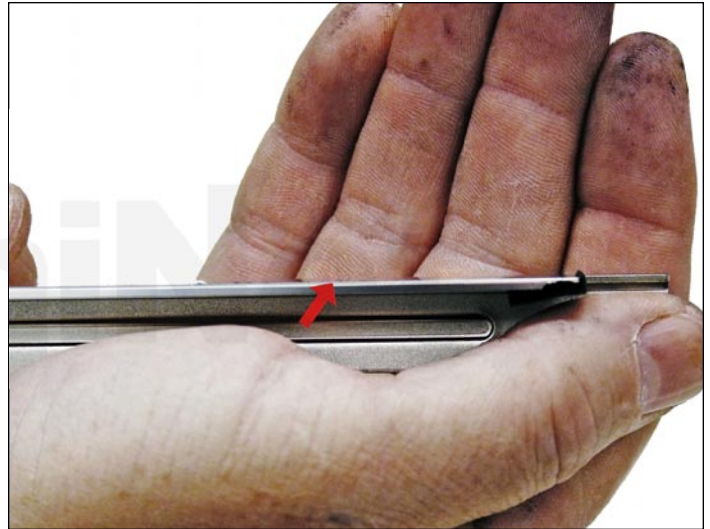


21. Remove the two screws from the doctor blade, and remove the blade.

22. Clean out all the remaining toner from the hopper.



23. Make sure the doctor blade sealing foam and the developer rollers seals are clean and intact.



24. Clean the doctor blade edge so there is no evidence of build up along the edge. If any buildup exists, the cartridge will streak.

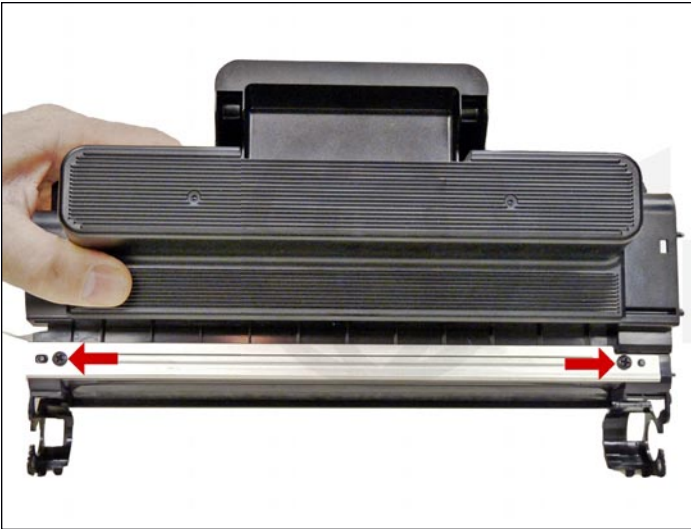
No chemicals should be used. We have found using a clean, wooden ice cream-type stick works great for scraping the blade clean without damaging it.



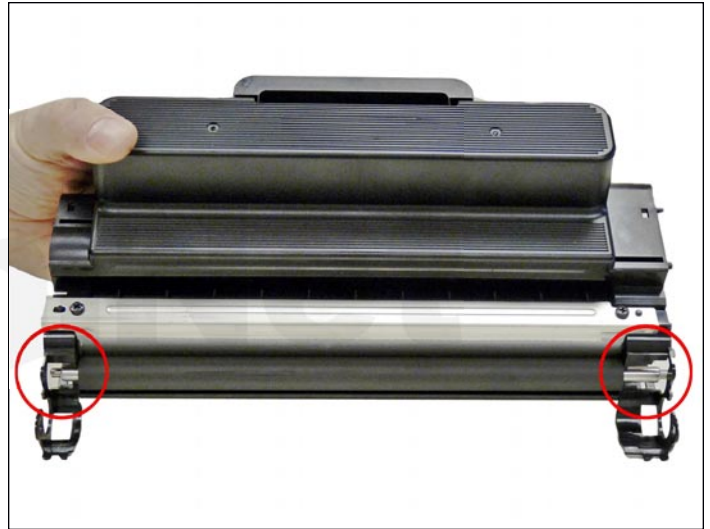
25. Install the seal through the developer roller opening.



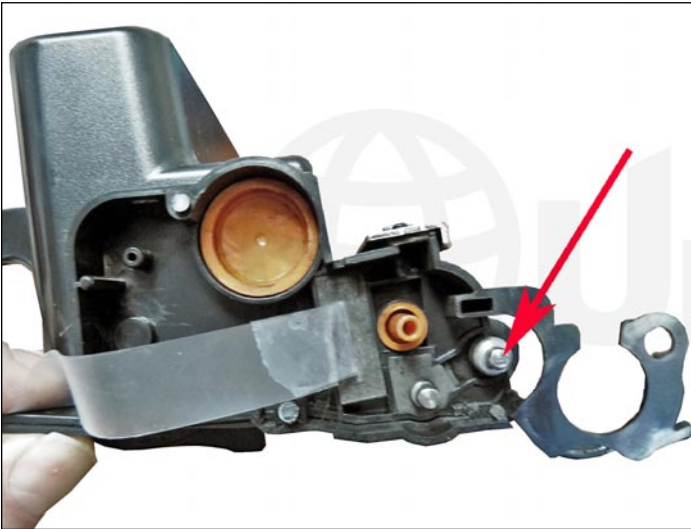
26. Pull the tail of the seal through the seal port.



27. Install the doctor blade and two screws.



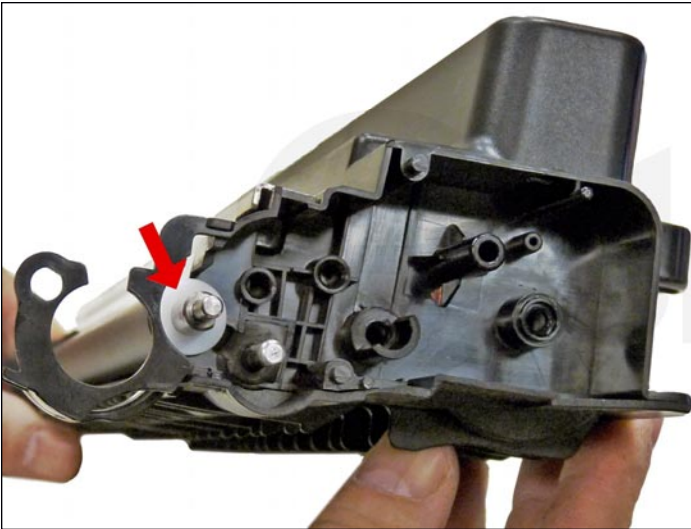
28. Clean the developer roller with a dedicated developer roller cleaner, and replace into the hopper. Place the long-shaft side to the gear side of the cartridge. It should snap in place if installed correctly.



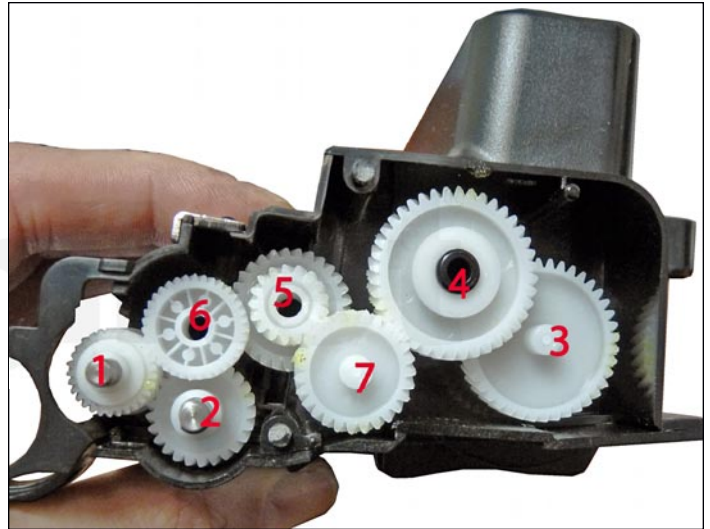
29. Clean and replace the conductive grease on the short-shaft side of the roller.



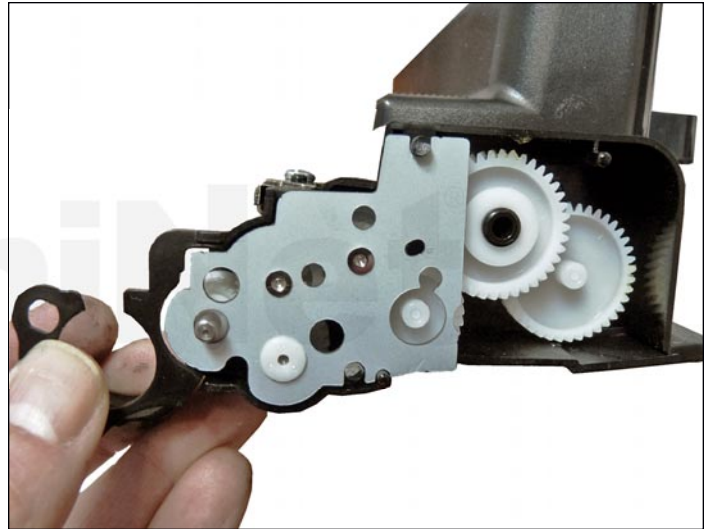
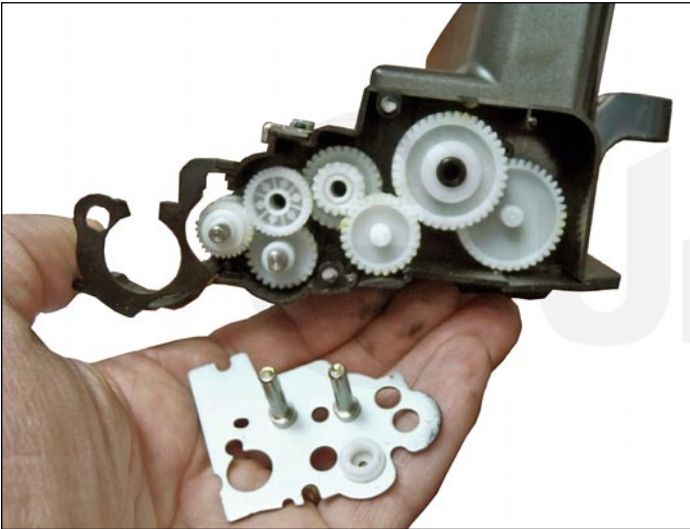
30. Fill the hopper with toner for use in the Samsung ProXpress M3320, replace the fill plug, and check for leaks.



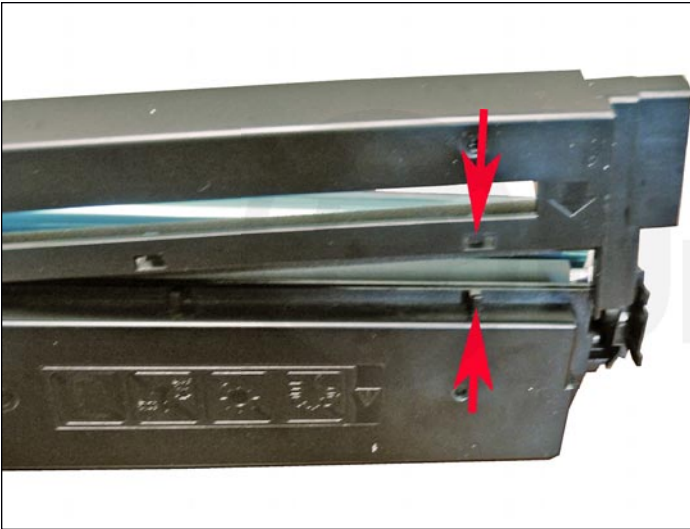
31. Replace the bushings on both side of the developer roller.



32. Install the gears in the order as shown.

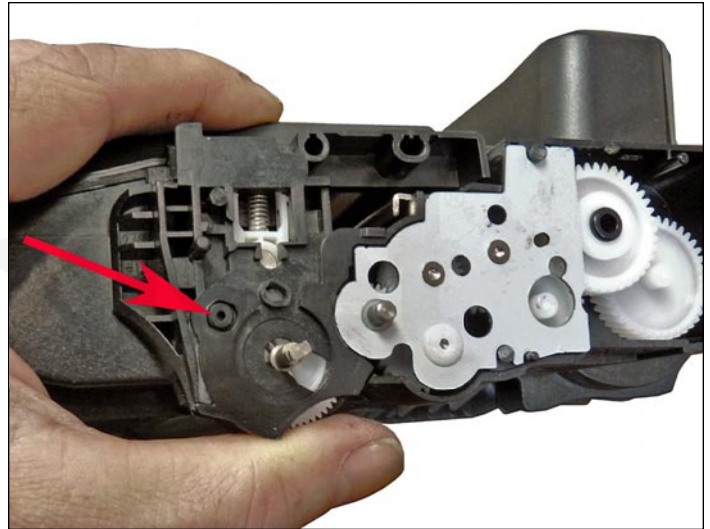
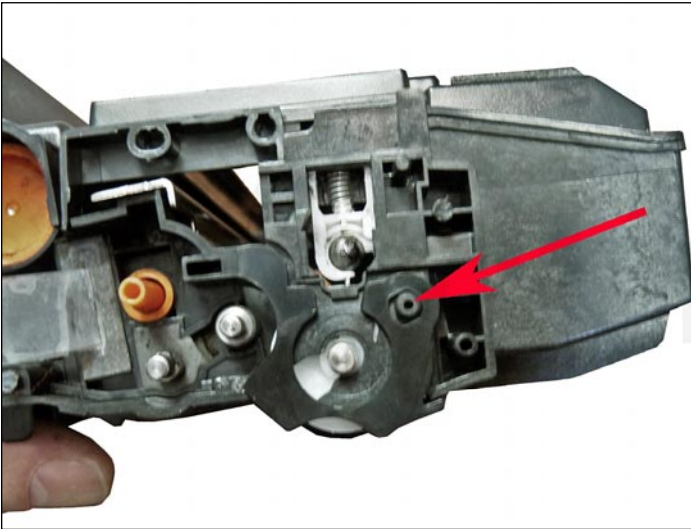


33. Install the gear axle plate.

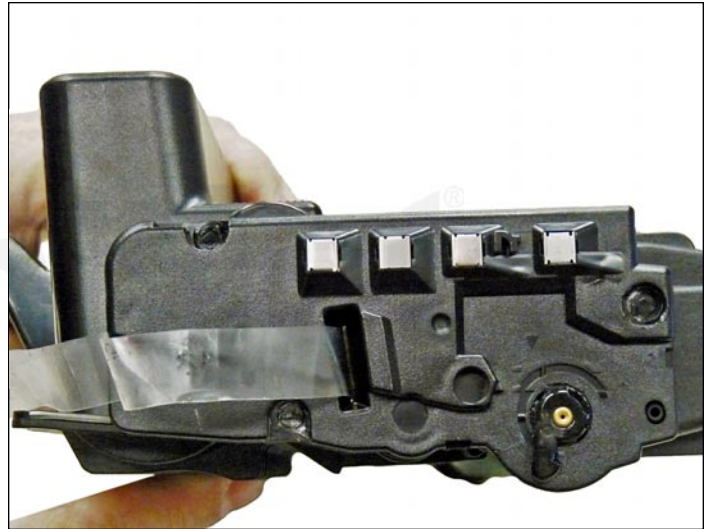
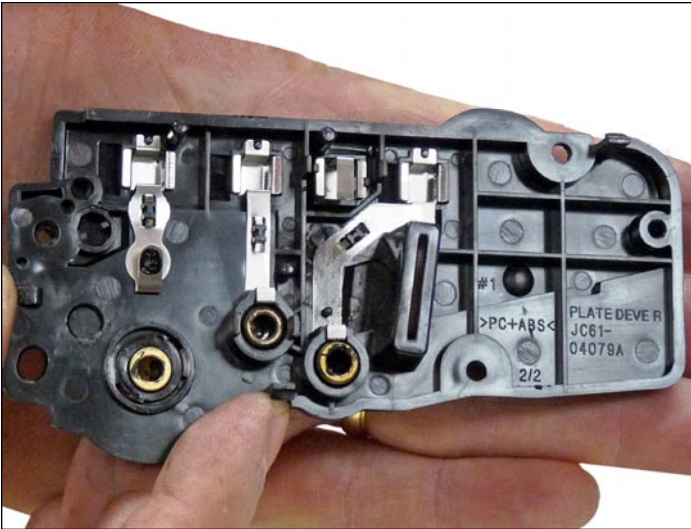


34. Blow off or vacuum the PCR cleaner and install the assembly back onto the waste chamber.

Make sure the three tabs are locked in place.

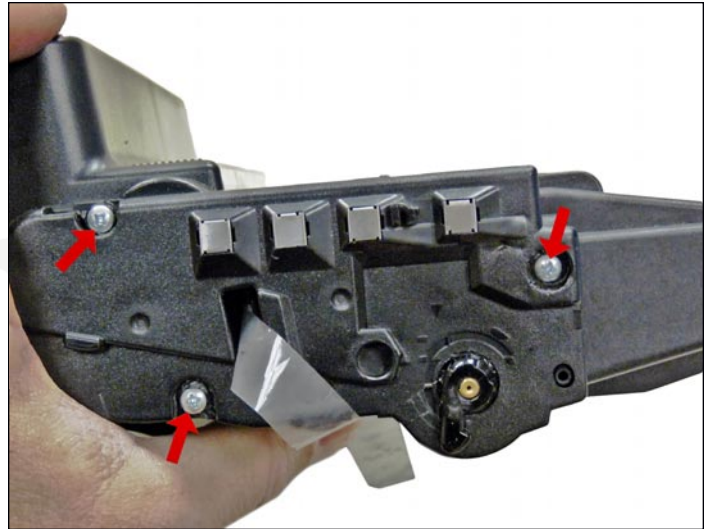


35. Fit both sides of the waste hopper tabs into the toner hopper.



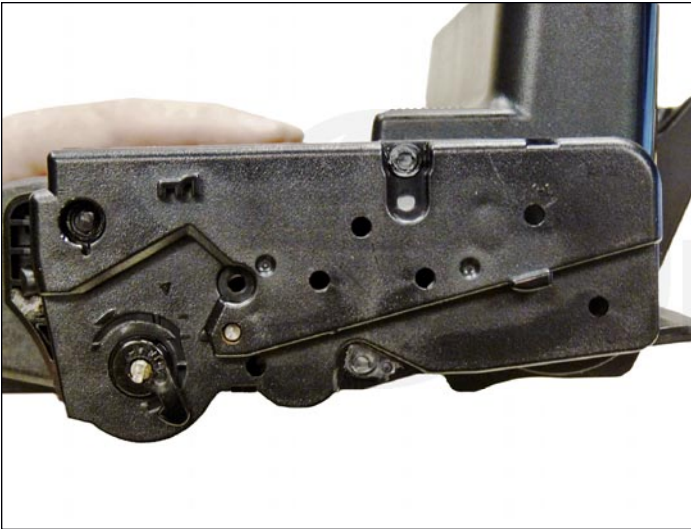
36. Clean the contacts on the left side end cap, and replace the conductive grease.

Snap the end cap into place.



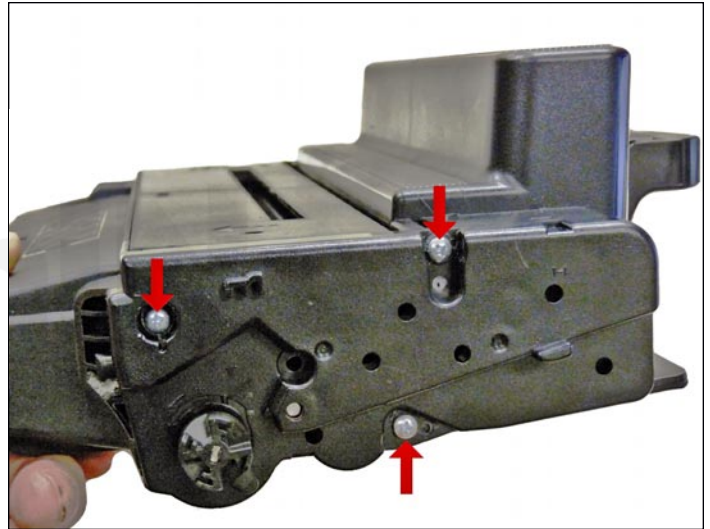
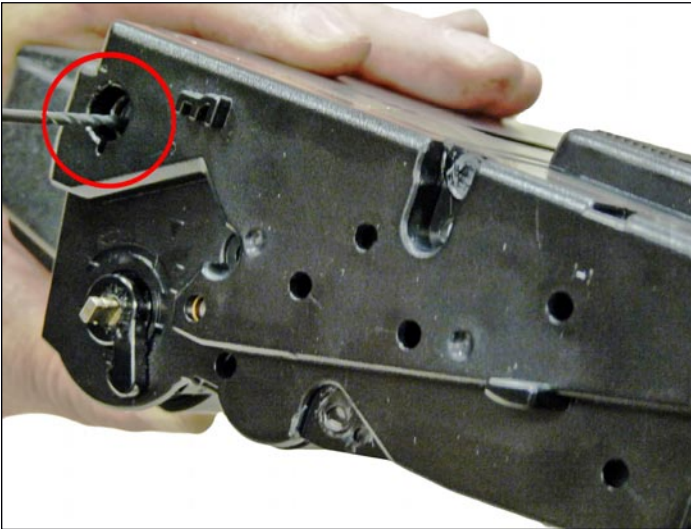
37. Drill three small holes that correspond to the screw size you are using.

Install the three screws into the end cap.



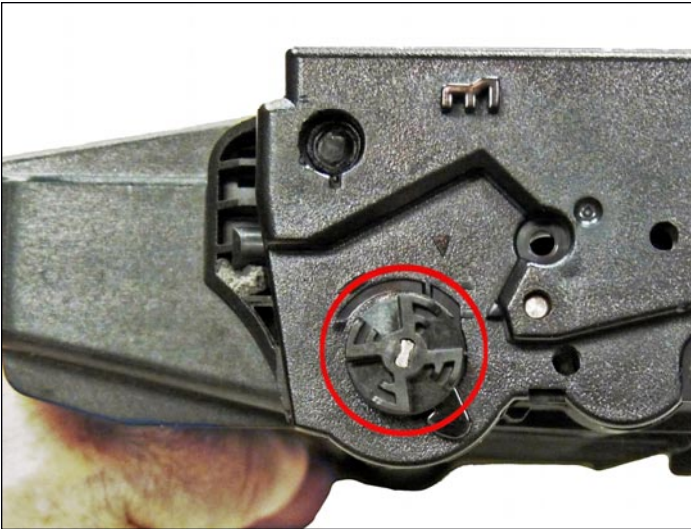
38. Clean the hubs on the gear or right side end cap.

Snap the end cap into place.

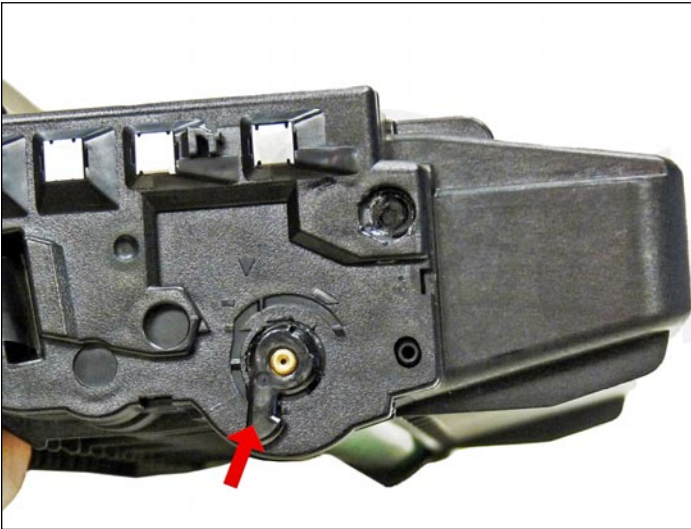


39. Drill three small holes that correspond to the screw size you are using.

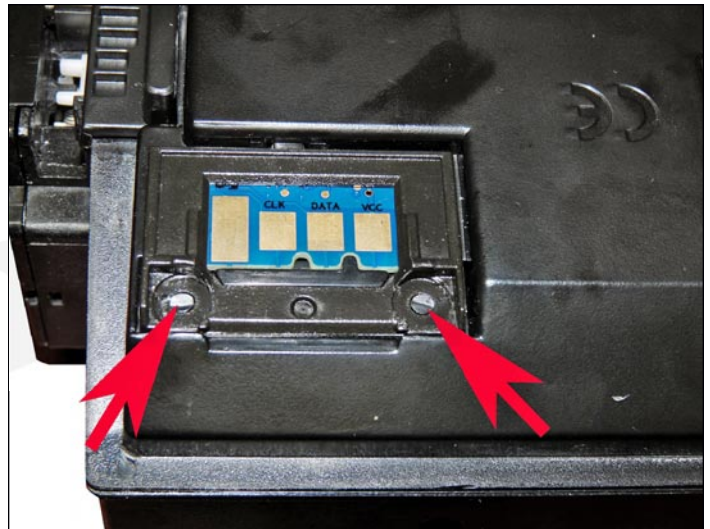
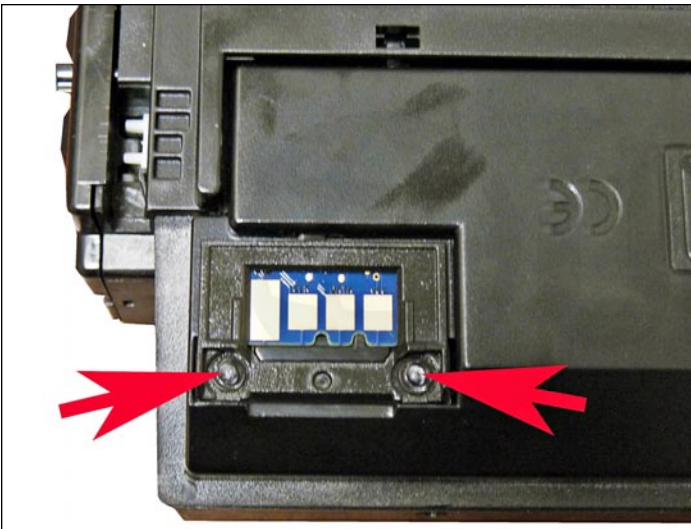
Install the three screws into the end cap.



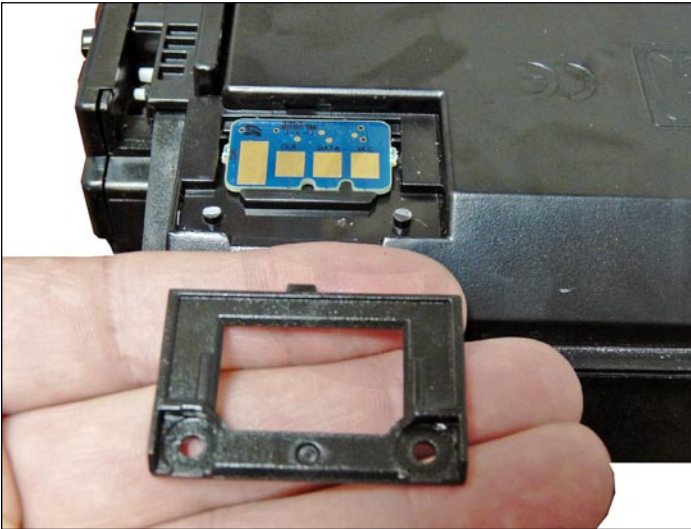
40. Install the drum drive gear.



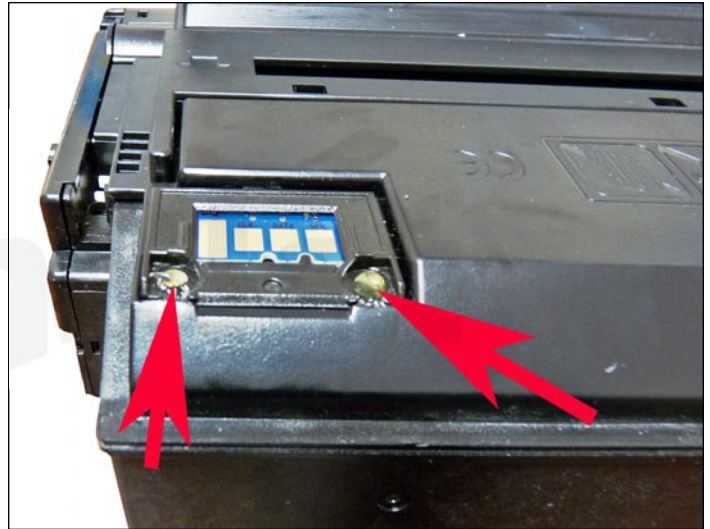
41. The drum separators are fixed to the end caps. They should be set as shown. These arms keep the drum and developer rollers separated until the cartridge is installed in the printer.



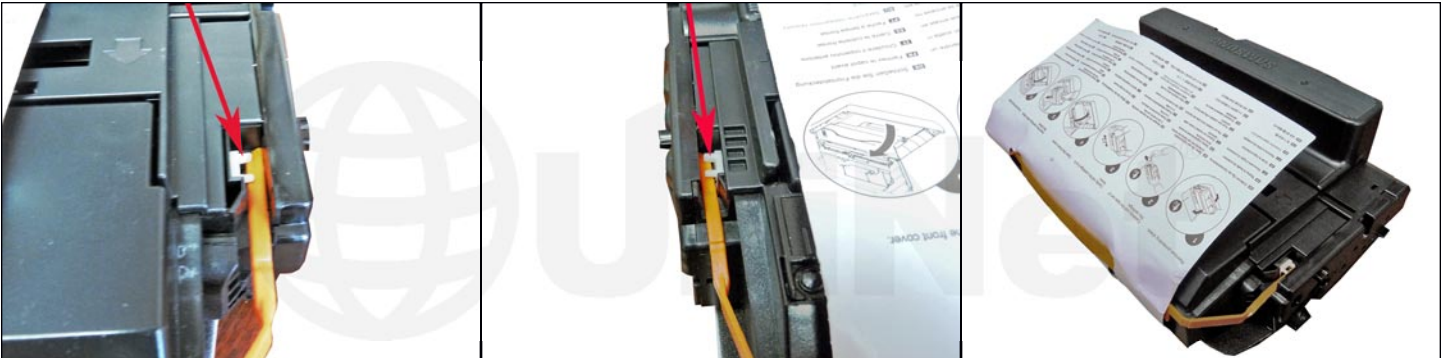
42. Slice off the two plastic rivets on the chip holder.



43. Remove the chip cover and replace the chip.



44. You can drill and insert screws into the posts, but ideally, using a hot glue gun here will be better and allow the core to be used many times.



45. Install both sides of the PCR-lock into the PCR holders as show.

This lock keeps the PCR from touching the drum and will help prevent flat spots on the PCR during storage.

REPETITIVE DEFECT CHART

Upper heat roller:	77.5 mm
OPC drum:	75.6 mm
Lower pressure roller:	75.4 mm
Supply roller:	49.0 mm
Transfer roller:	47.0 mm
PCR:	37.5 mm
Developer roller:	35.0 mm

PRINTING TEST PAGES

Depending on the model machine you have, there are different control panel configurations. To have test prints run on the laser printers, press the Menu button and scroll to the INFORMATION menu. From there you can select the Menu Map, Configuration, Supplies Info, Demo, Fonts, etc. pages.