SAMSUNG® ML-1640 • 2240

TONER CARTRIDGE REMANUFACTURING INSTRUCTIONS

SAMSUNG ML-1640 TONER CARTRIDGE

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REMANUFACTURING THE SAMSUNG ML-1640 TONER CARTRIDGES

By Mike Josiah and the Technical Staff at UniNet

First released in September 2008, the Samsung ML-1640 printer is based on a 16ppm, 600 x 600 dpi engine. The ML-2240 is based on a 22ppm, 1200 dpi engine. Both use the same cartridge.

The 108S cartridge is based on the cartridge design of the ML-2010. They have a large handle which folds over the cartridge when installed. These cartridges do have a chip that must be replaced each cycle. This chip proved very difficult for the aftermarket to develop but it is available now.

Other than the toner cartridge, all the other consumables are rated for 50,000 pages (fuser, transfer roller, paper pickup rollers). That coincidentally is also the rated life for the printer. It seems Samsung considers both models throw away machines.

These cartridges do not have a built-in drum cover, but do come new with a thin black plastic cover taped around the cartridge.

The replacement cartridge itself is rated for 1,500 pages at 5% coverage (ISO 19752). The starter cartridge is rated for 700 pages.

PRINTERS BASED ON THIS ENGINE

Samsung ML-1640
Samsung ML-2240

CARTRIDGE

MLT-D108S

REQUIRED TOOLS

1. Toner approved vacuum
2. A small common screwdriver
3. A Phillips head screwdriver
4. Needle nose pliers

REQUIRED SUPPLIES

1. Toner for use in Samsung ML-1640
2. Replacement chip
3. Conductive grease
4. Drum lubricating powder

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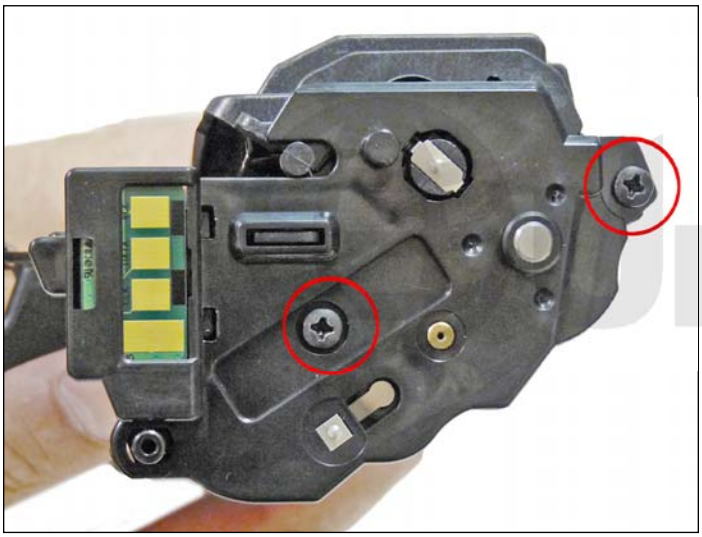
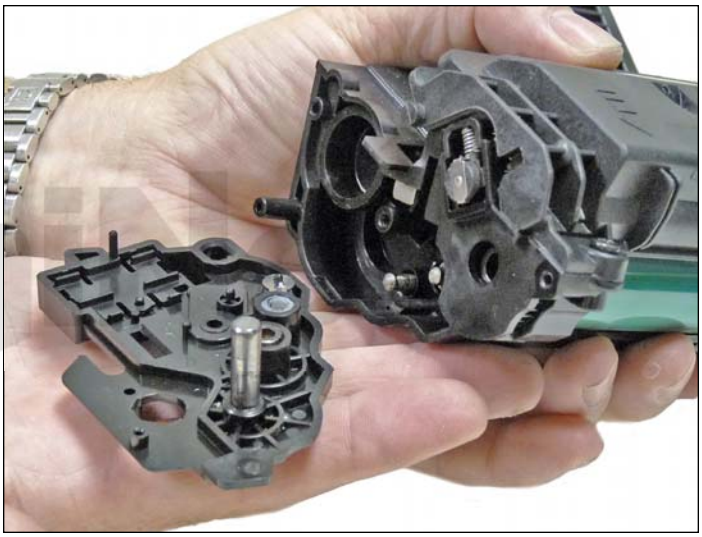
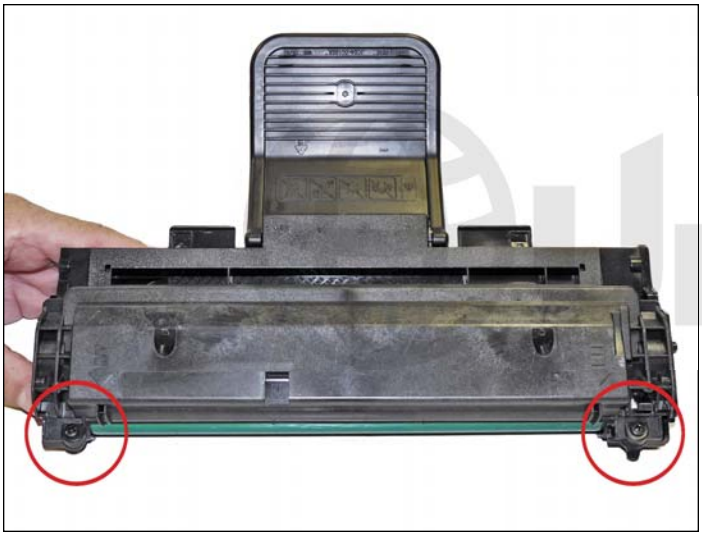


1. Place the cartridge with the handle facing away from you.

Remove the two screws on the left end cap.

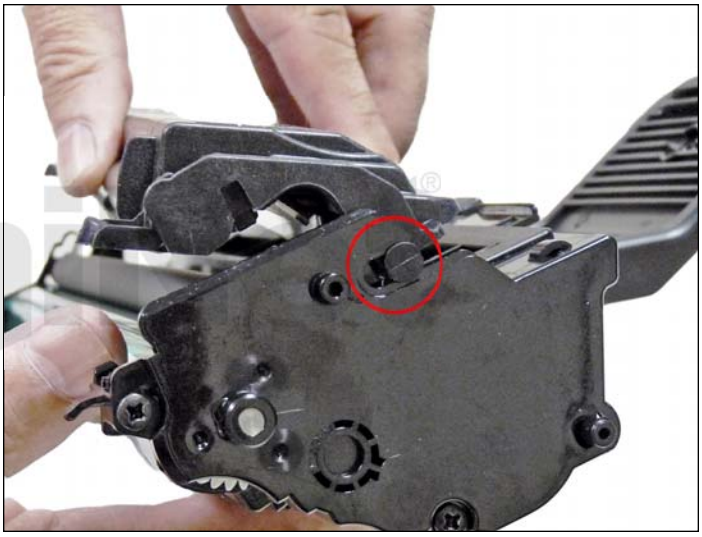


2. Gently pry off the left end cap.



3. On the front edge of the cartridge, there are two screws.

Remove them.



4. Lift up and remove the waste chamber from the cartridge. Make sure the tab on the right side slide out of the slot. If you try to lift the cover off without sliding the tab out, it will break off.

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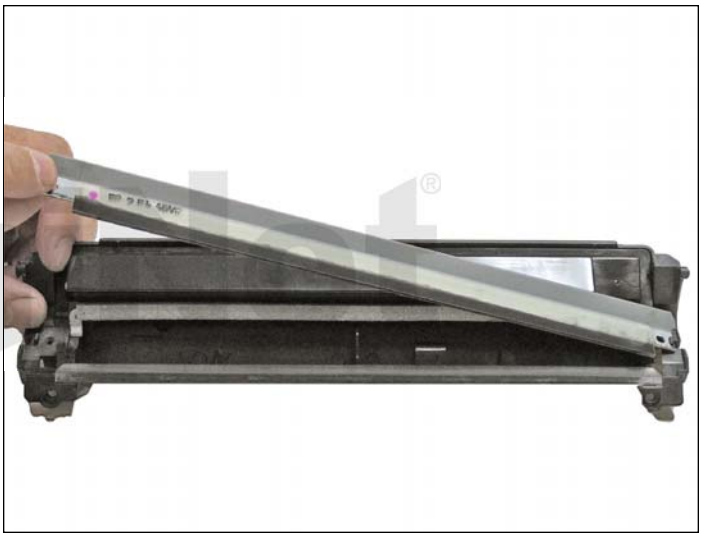
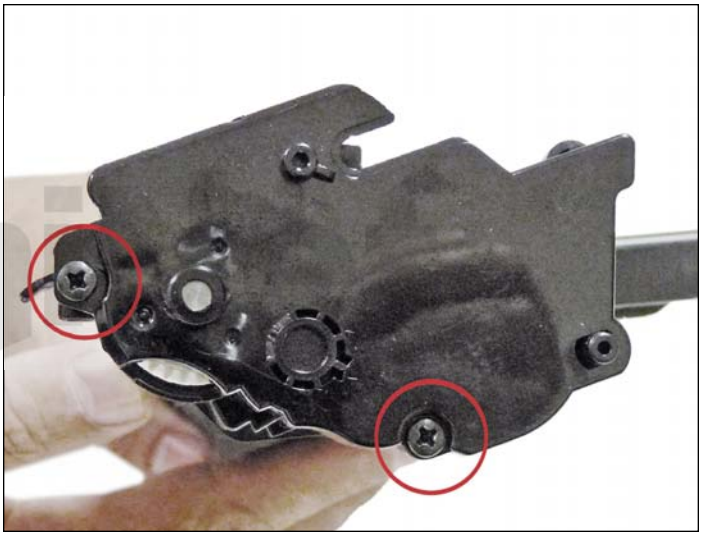


5. Remove the two screws and wiper blade from the waste chamber.

Clean out any remaining toner from the waste chamber.

6. Re-install the wiper blade and two screws.

Place the waste chamber aside.



7. Remove the two screws from the right side end cap.

Carefully pry off the end cap.

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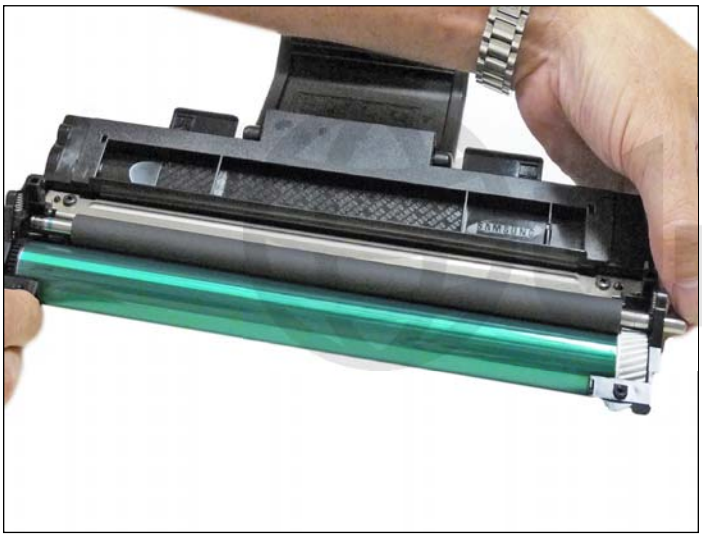
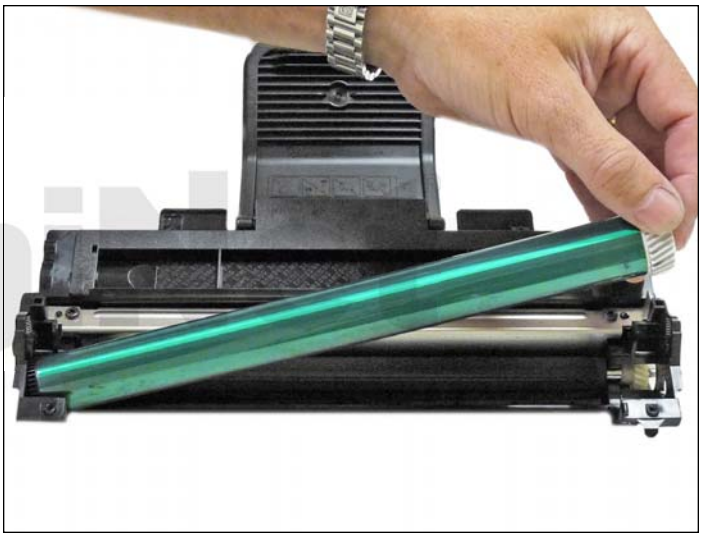
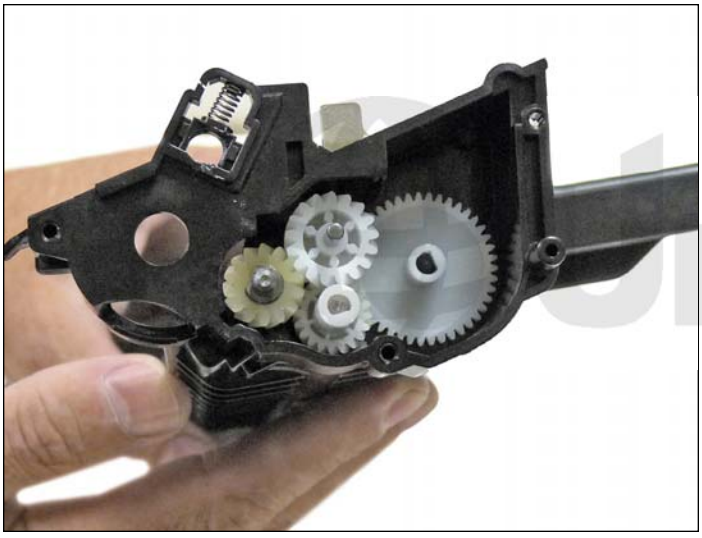


8. Slide the PCR away from the contact side, lift up and remove. Clean the PCR with your normal PCR cleaner.

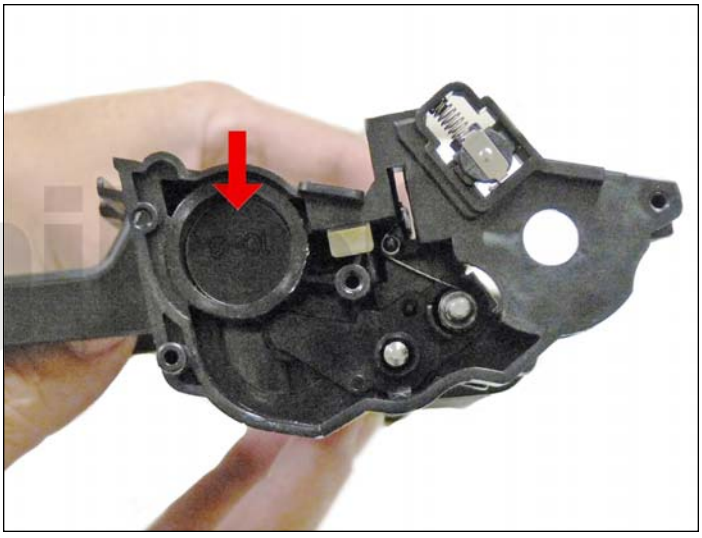
WARNING: Do not clean the OEM PCR with alcohol, as this will remove the conductive coating from the roller. If the PCR is an aftermarket, follow the cleaning methods recommended by the manufacturer. If the PCR is an OEM, we recommend it be cleaned with your standard PCR cleaner.



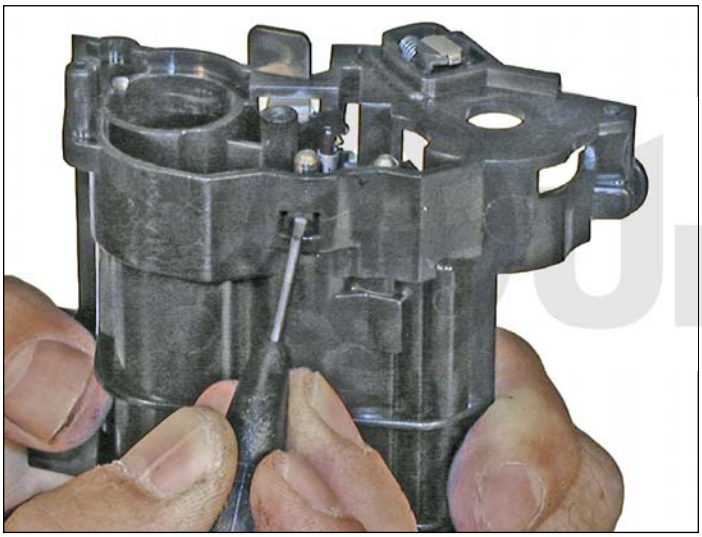
9. Remove the OPC drum.

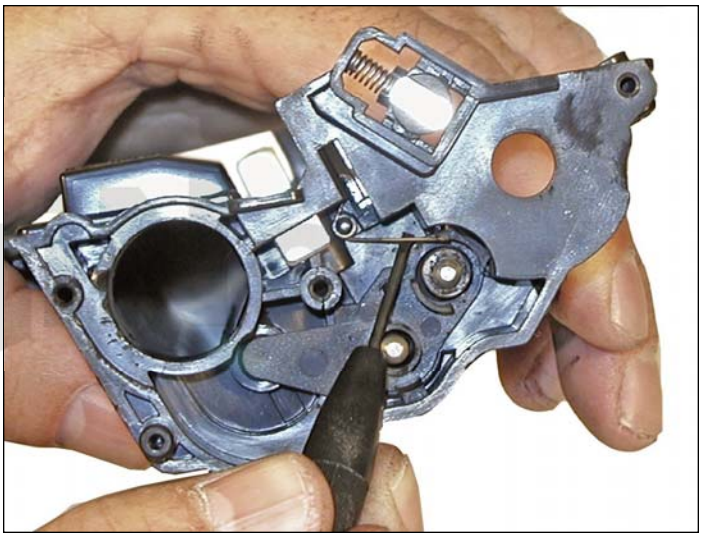


10. Remove the four gears, and place aside.



11. Carefully pry out the fill plug. It fits tight and is easily damaged. Work a small jeweler's screwdriver around the edge until the plug comes free. Clean out any remaining toner from the hopper.

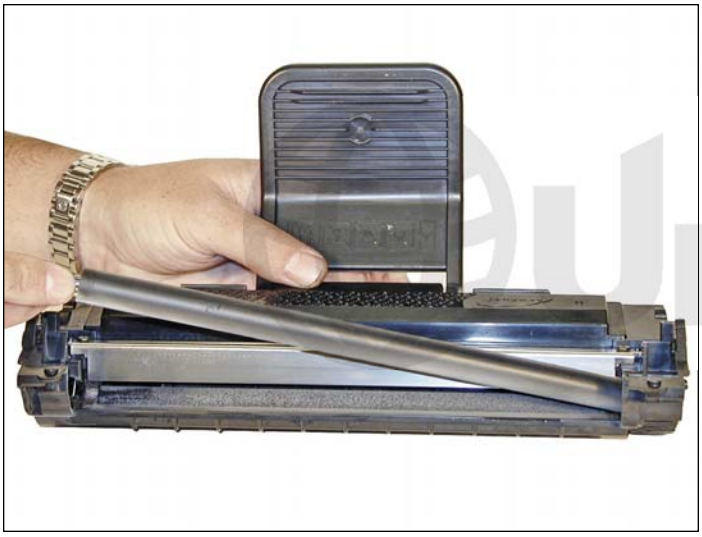




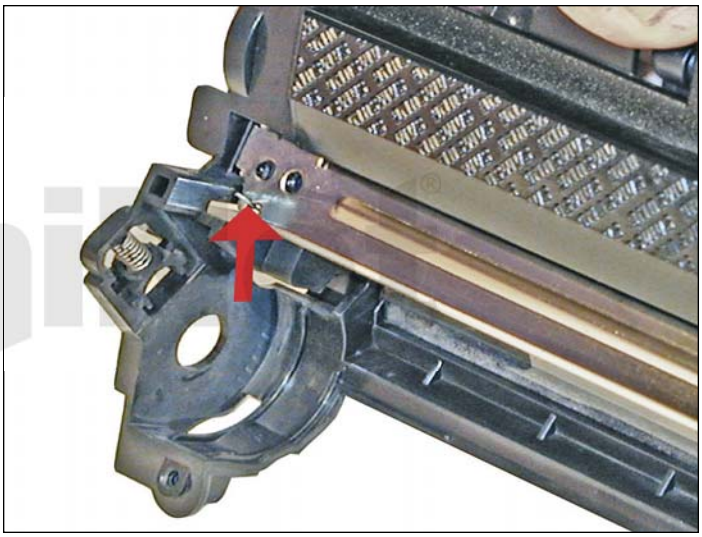
12. Gently pry out the roller plate from the cartridge by pressing in on a tab located on the bottom of the cartridge.

There is a spring that is in contact with the developer roller shaft.

Move the tail of the spring up so that as the plate is lifted out, it will fall behind it.

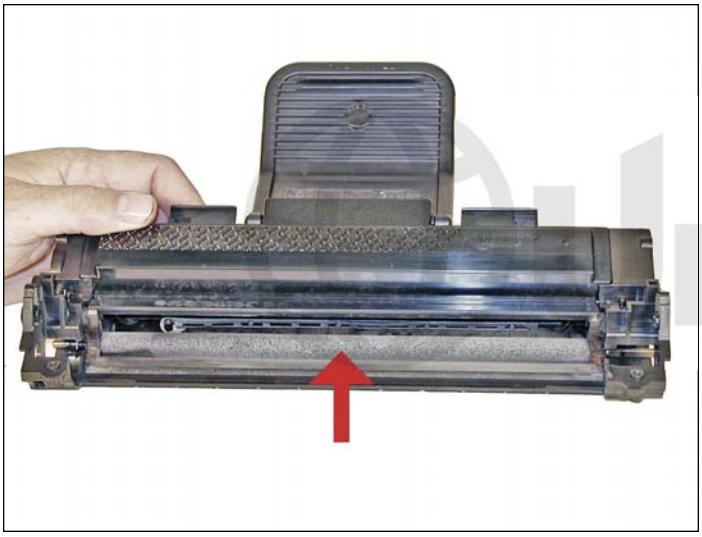


13. Remove the developer roller by lifting it out.



14. Remove the two screws on the doctor blade. On the fill plug side of the blade, there is the other tail of the spring. Lift it up while removing the doctor blade so it is not damaged.

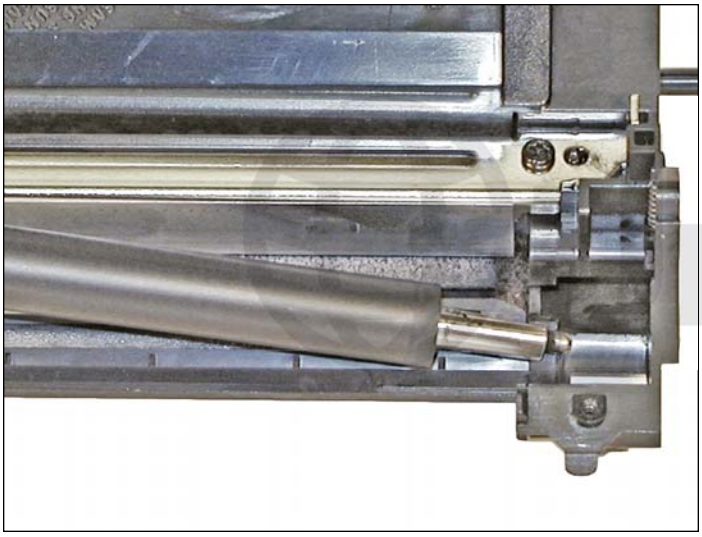
It is highly recommended that the doctor blade be cleaned. Failure to do so will cause streaking. Dampen a cotton swab with alcohol, and clean the blade. Be careful not to press too hard and damage the blade. If the blade has a heavy buildup of toner on it, clean it with acetone, and then alcohol.



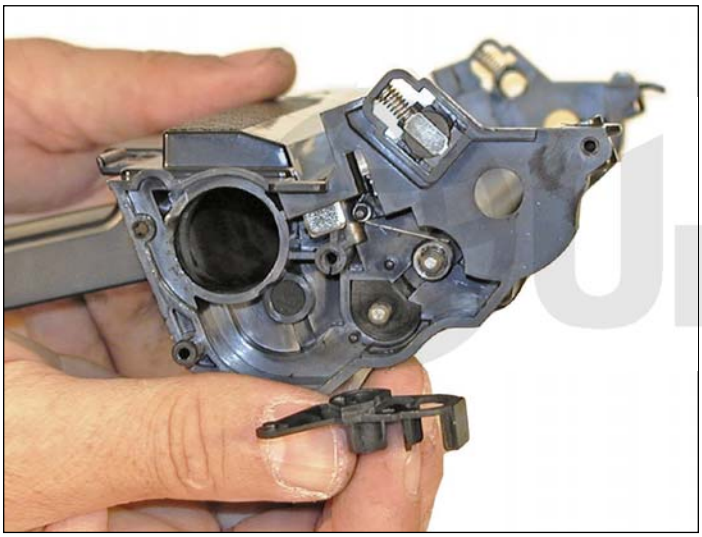
15. Clean the feed roller and any remaining toner from the hopper.

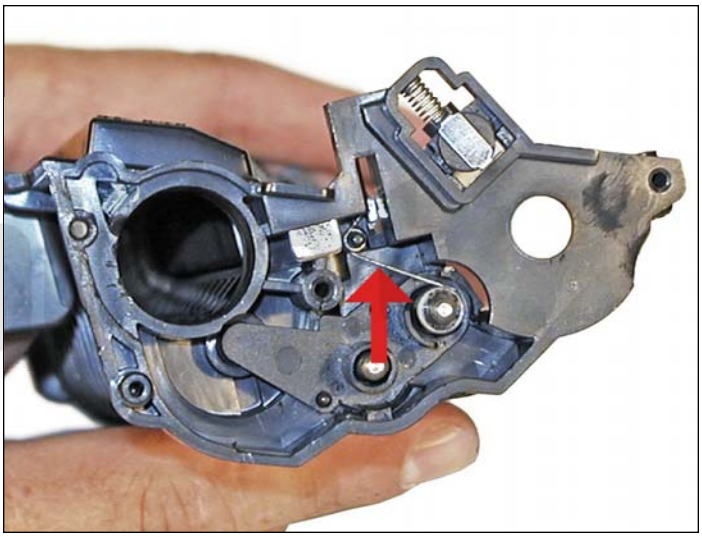
16. Re-install the doctor blade and two screws.

Make sure the tail of the spring fits into the proper slot.



17. Install the developer roller, keyed end to the gear side of the cartridge.



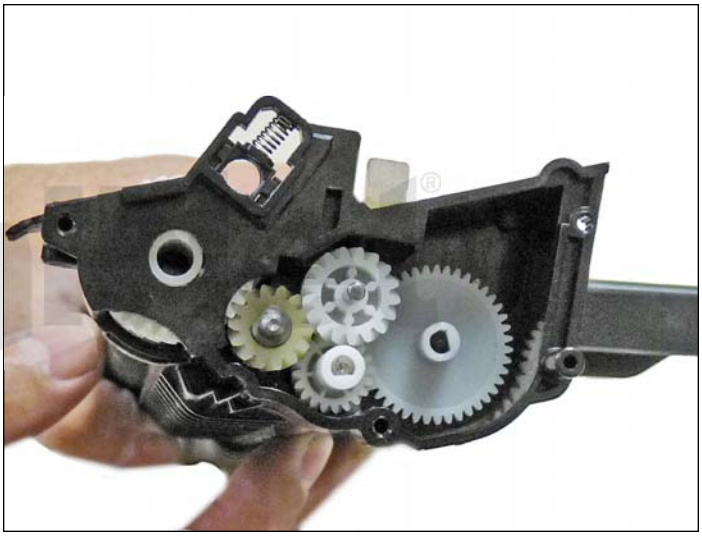


18. Install the roller plate.

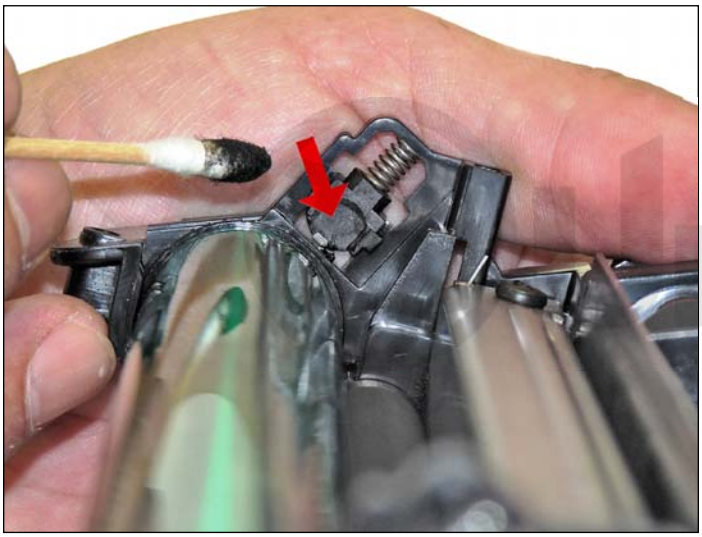
Route the tail of the spring so that it sits on top of the plate and is in contact with the shaft of the developer roller.

Lock the plate in place with the tab.

19. Install the drum in place.



20. Install the four gears as shown.

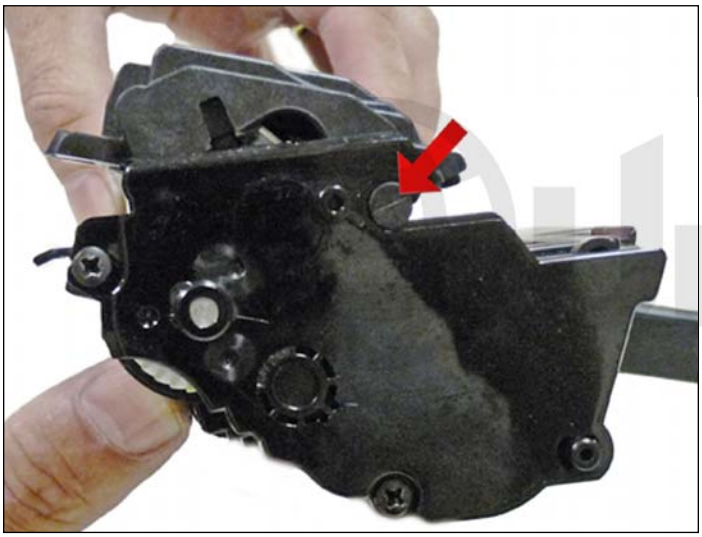


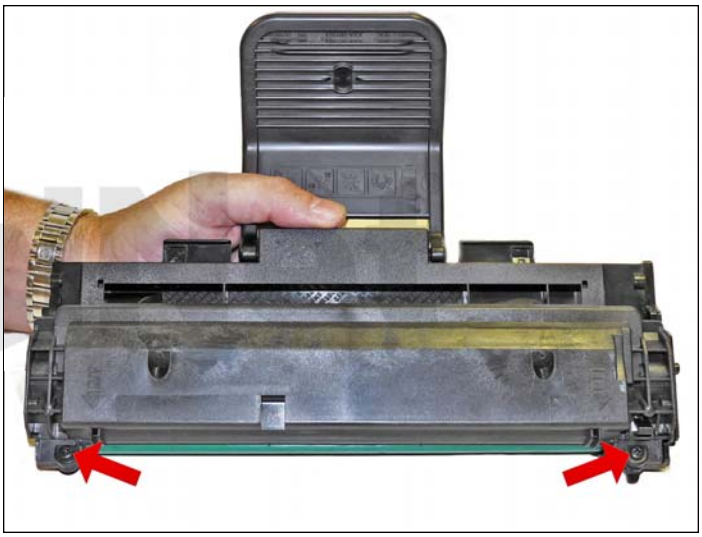
21. Clean out the old conductive grease from the PCR contact hub and replace with new. A small amount of grease is fine, more is not better when it comes to conductive grease.

22. Install the PCR by sliding it through the large gear or non contact side, and into the contact hub.

23. Fill the hopper with the appropriate toner. Replace the fill plug, check for leaks.

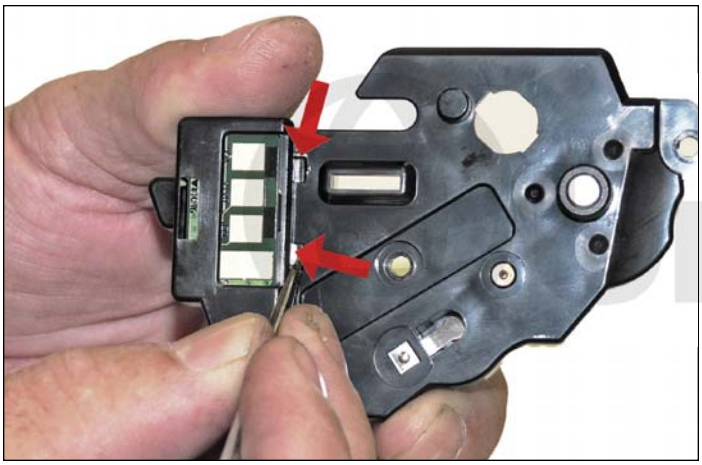
24. Install the gear side end cap, and two screws. Make sure the PCR fits correctly in its holder, and all the gears are aligned.

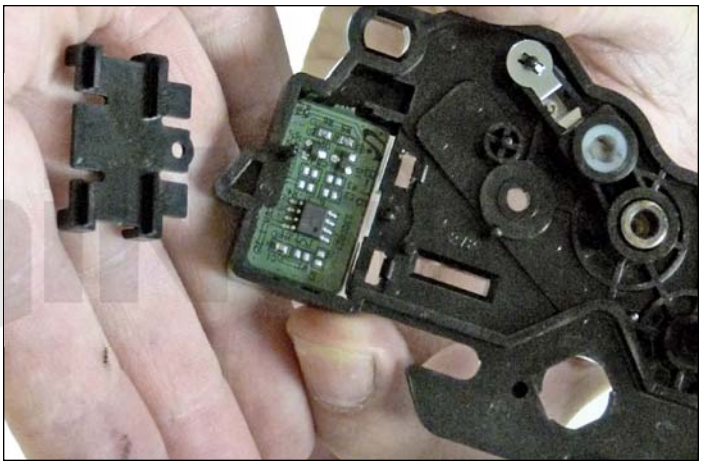


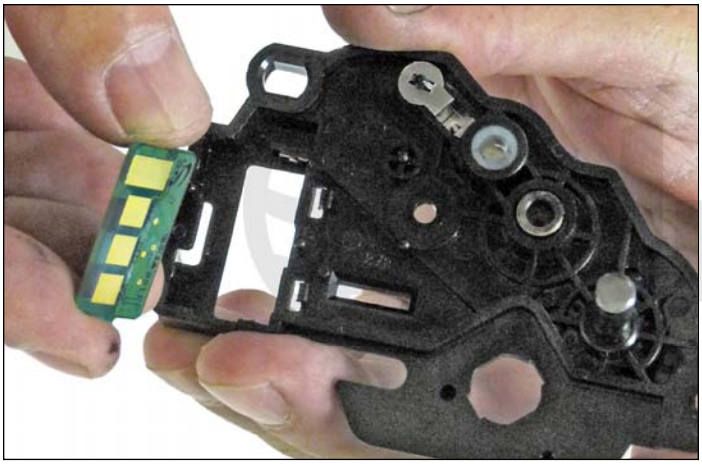


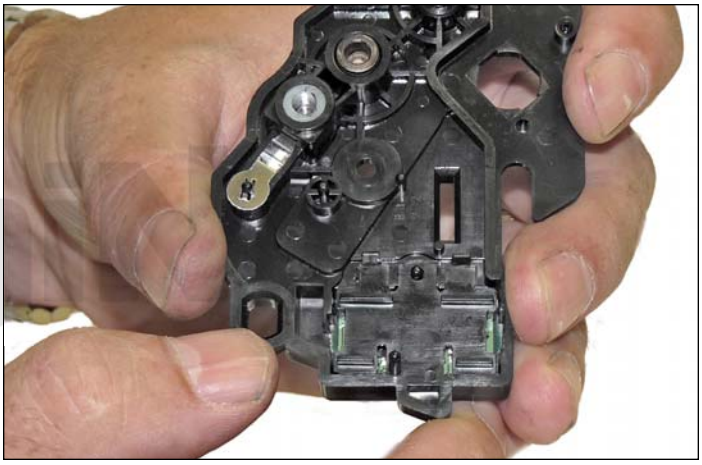
25. Install the waste chamber by sliding the tab through the slot in the end cap.

Rotate it down, and install the two screws.









26. Install the replacement chip by pressing in on the two chip tabs from the outside of the end cap.

The chip cover will come free.

Replace the chip and re-install the chip cover. Make sure it snaps in place.

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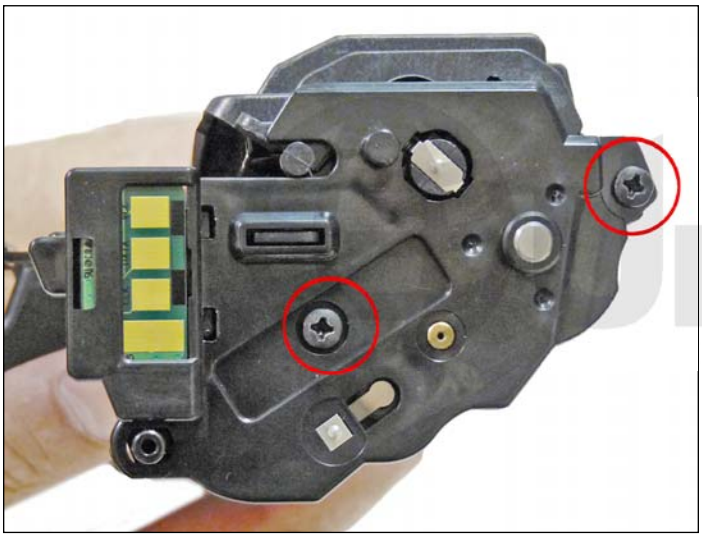

27. Install the remaining end cap and two screws.

PRINTING TEST PAGES

Demo Page:

1. Press and hold the “CANCEL” button until all the STATUS LED blinks.
2. A demo page will print out.

REPETITIVE DEFECT CHART

OPC drum:	**75.5 mm**
Lower fuser roller:	**75.4 mm**
Upper fuser roller:	**63.9 mm**
Supply roller:	**47.5 mm**
Transfer roller:	**46.2 mm**
PCR:	**37.7 mm**
Developer roller:	**35.2 mm**