

# SAMSUNG® ML-2545

## TONER CARTRIDGE REMANUFACTURING INSTRUCTIONS



SAMSUNG ML-2545 TONER CARTRIDGE

# REMANUFACTURING THE SAMSUNG ML-2545 TONER CARTRIDGES

By Mike Josiah and the Technical Staff at UniNet



First released in January 2012, the Samsung ML-2545 series of printers are based on a 24-ppm engine with a maximum resolution of 1200 x 600 DPI. The first page out is stated to be under 10.0 seconds. Depending on the model number, other options and specifications are available.

The MLT-D105L/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 taped around the cartridge.

All new cartridges opened so far have shown some toner leakage on the drum that would have shown on any prints for at least a few pages.



These cartridges, while they look similar to other Samsung cartridges, have taken a dramatic change in that there are no screws in 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 these instructions.

The standard cartridge (Samsung part number: MLT-D105S) is rated for 1,500 pages. The high yield cartridge (MLT-D105L) is rated for 2,500 pages. As with pretty much all cartridges these days, the cartridge has a chip that has to be replaced each cycle. The OEM chips are regional so be sure to get the proper chip for your region. These machines when new ship with a 1,000-page starter cartridge.

The MLT-D105S has a list price of \$62.99\* and the MLT-D105L has a list price of \$74.99\*

\*Pricing (in U.S. American Dollars) as of September 2010

**A FEW MACHINES THAT USE THIS CARTRIDGE**

<b>ML-1910</b>	<b>ML-1915</b>	<b>ML-2525</b>	<b>ML-2525W</b>	<b>ML-2580N</b>
<b>SCX-4600</b>	<b>SCX-4623F</b>	<b>SF-650</b>	<b>SF-650P</b>	

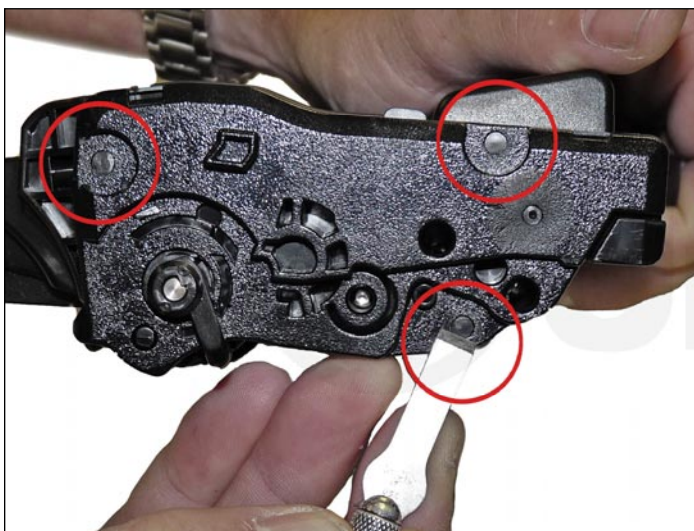
Cartridge troubleshooting will be listed at the end of these instructions.

**REQUIRED TOOLS**

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

**REQUIRED SUPPLIES**

1. New toner for use in Samsung ML-2545
2. New replacement chip for use in ML-2545 (check for the proper region)
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
11. Small tube of silicone caulk



1. Place the cartridge with the handle up, facing towards you. With the chisel blade knife, slice off the heads of the three plastic rivets. Leave the end cap in place for now.



2. On the right side end cap: take the chisel blade knife and slice off the heads of the four plastic rivets.

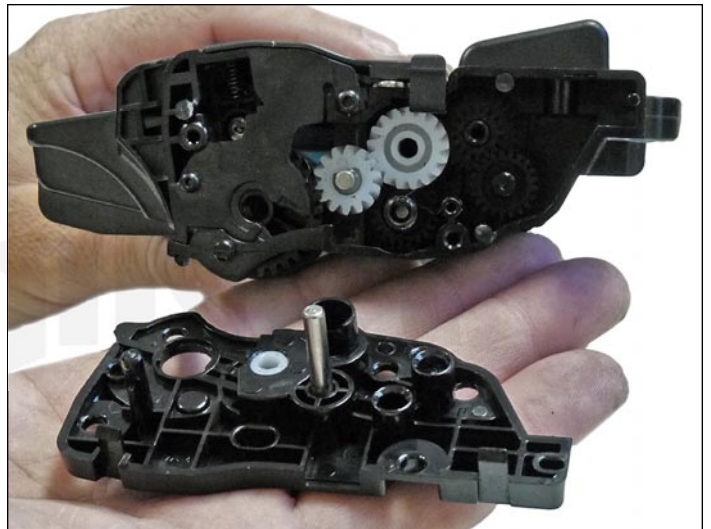
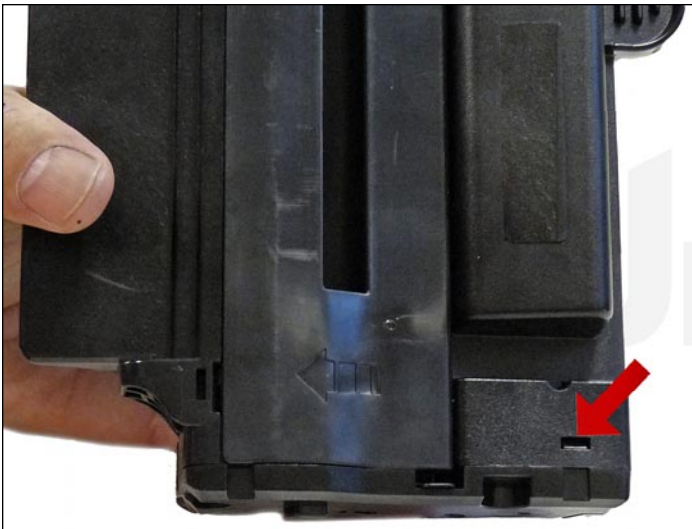




3. Remove the drum axle arm from the right (large gear side) of the cartridge.

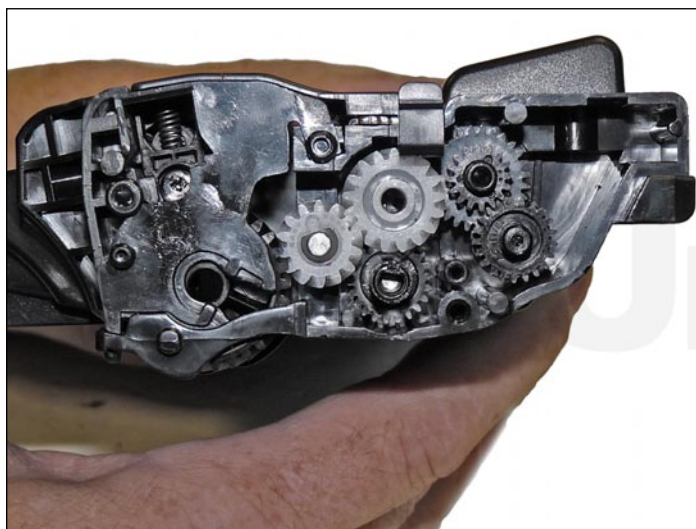
The drum axle will most likely come with the arm.

Remove it completely.



4. While still on the left end cap, locate the top tab.

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



5. Remove the gears.

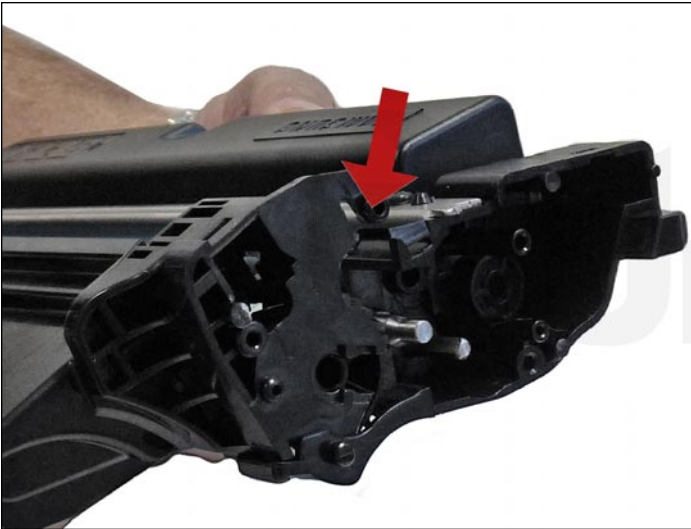


6. On the right side end cap: remove the remaining arm and press in on the top tab.

Remove the end cap.



7. Separate the two halves slightly, and lift off the middle top cover.

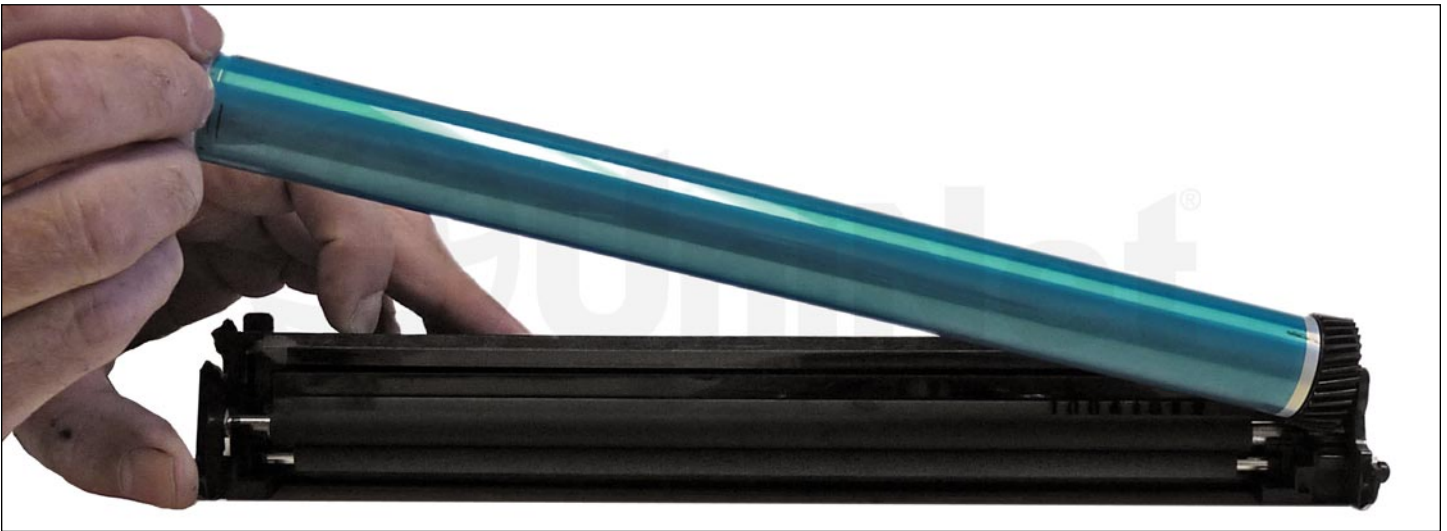


8. Lift up on the drum/waste hopper and remove.

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

Remove the drum/waste assembly.





9. Remove the drum.



10. Remove the PCR (primary charge roller) from the assembly.



11. Remove the PCR cleaning-roller.

12. 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.



13. Remove both PCR holders by pressing in on the tabs at the bottom of the holder. These holders need to be removed to allow access to the wiper blade.





14. Remove the two screws from the wiper blade.

Remove the blade.

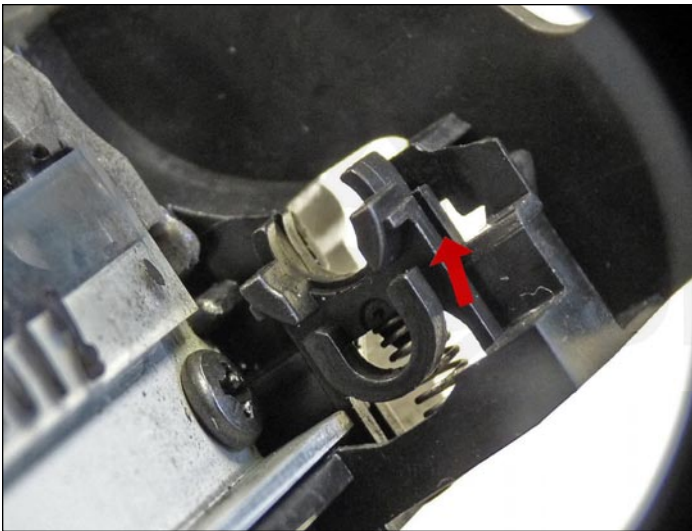


15. Clean out all the waste toner from the hopper.

Make sure the seals are clean.



16. Install the cleaned (or new) wiper blade and two screws.



17. Install the two PCR holders. There are slots in the holders that fit over tabs in the cartridge.



18. Blow off or vacuum the PCR-cleaning roller. Install in the waste hopper.



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





20. The large gear side of the drum axle shaft has conductive grease on it.

Regardless of whether you are replacing the drum or not, clean the old grease off, and replace with new.



21. Install the drum and axle from the small gear side of the drum into the waste hopper.

Make sure the keyed end of the shaft is on the small gear side.



22. 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 around the edge, lifting slightly until it comes loose.



23. Remove the developer roller.



24. Remove the two screws from the doctor blade.

Remove the blade.



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

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





27. 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 ice cream type wooden stick works great for scraping the blade clean without damaging it.



28. Install the doctor blade and two screws.

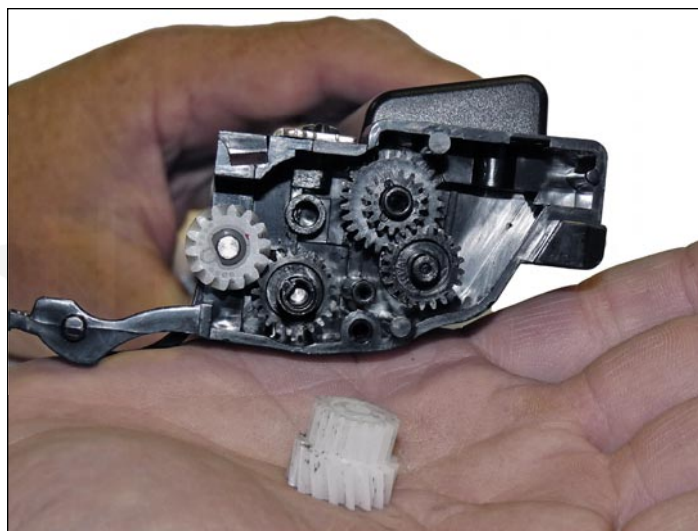
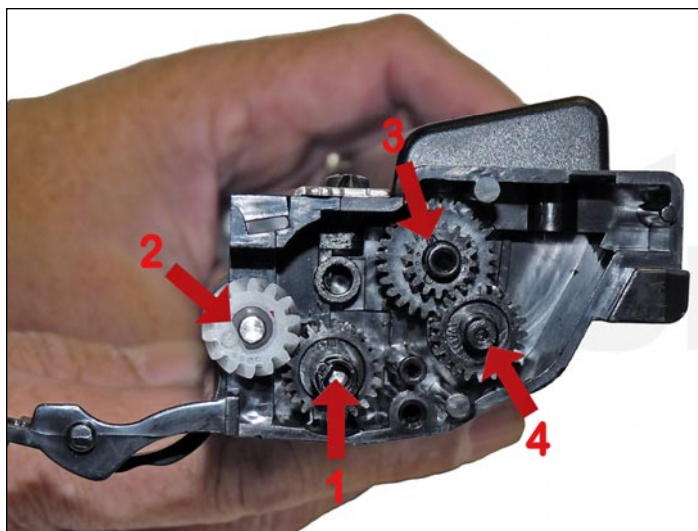


29. Clean the developer roller with a dedicated developer-roller cleaner, and replace into the hopper.

Place the long shaft side to the gear side of the cartridge.

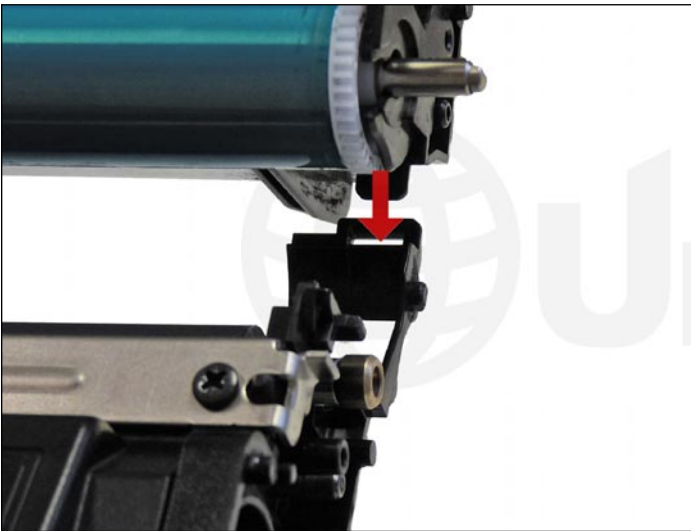


30. Fill the hopper with new toner for use in ML-2545, replace the fill plug, and check for leaks.

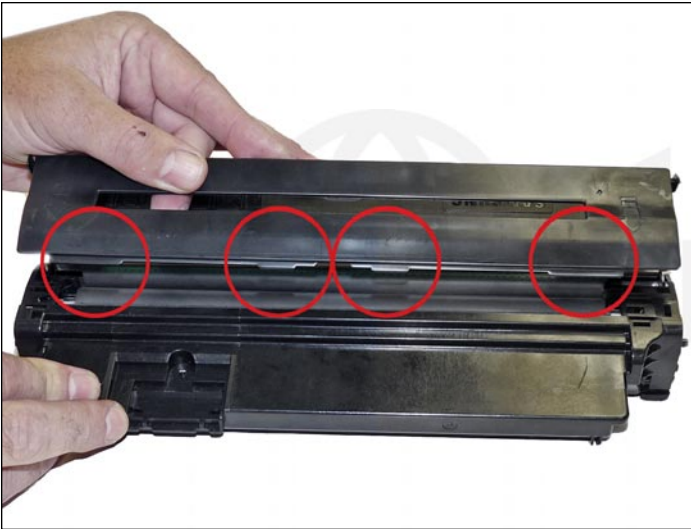


31. Install the gears as shown.

Do not install the large white floating gear yet.



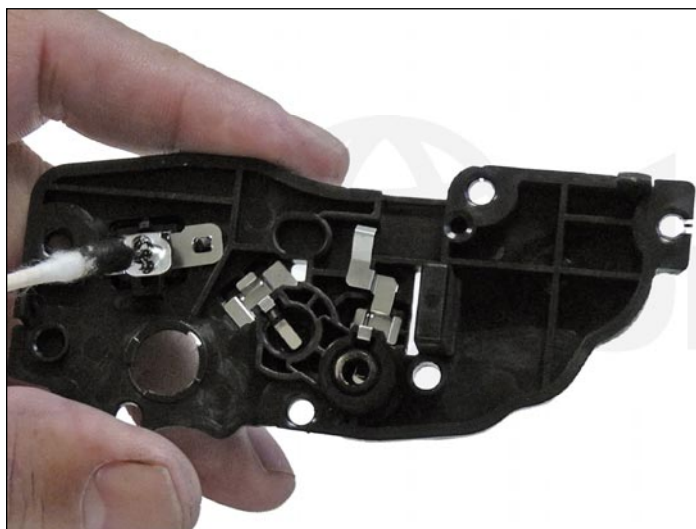
32. Fit both sides of the waste hopper tabs into the toner hopper.



33. Slide the middle top cover/PCR assembly into place.

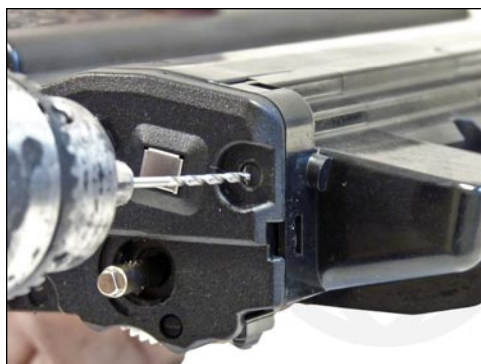
Make sure all the middle tabs fit under the edge of the waste hopper.





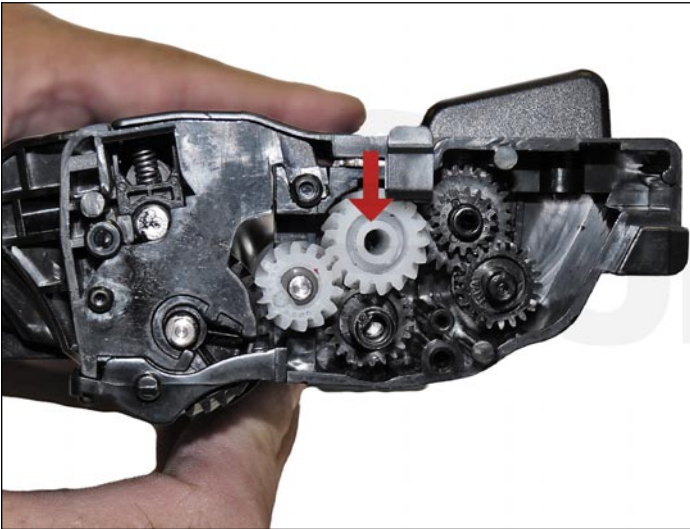
34. Clean the contacts on the left side end cap, and replace the conductive grease.

Snap the end cap into place.

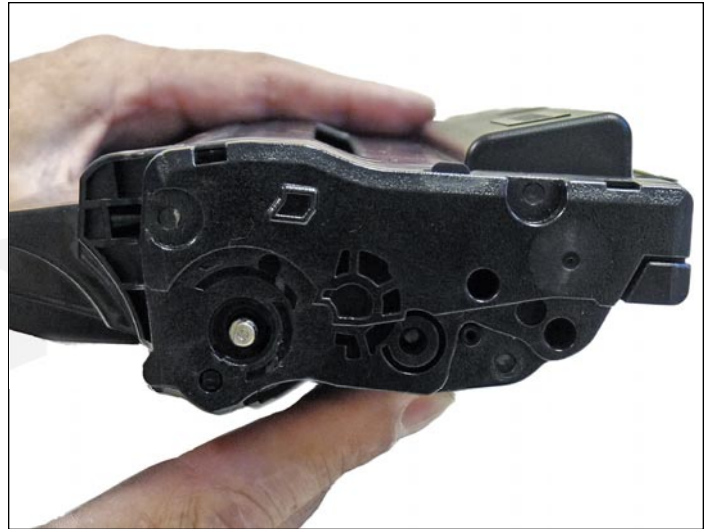
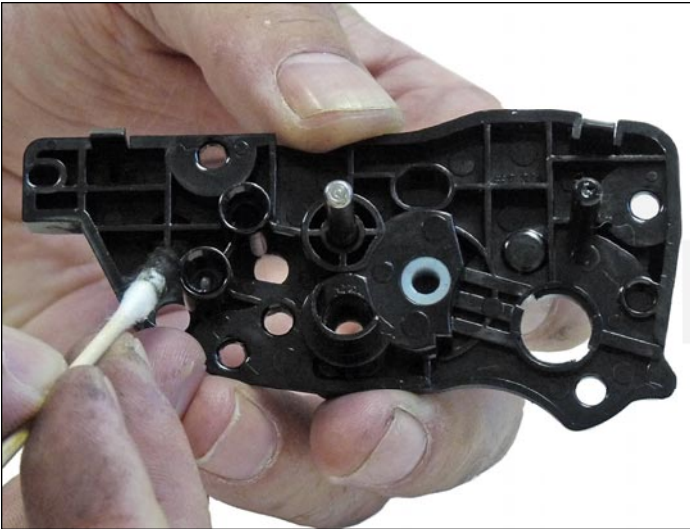


35. Drill four small holes that correspond to the screw size you are using.

Install the four screws into the end cap.

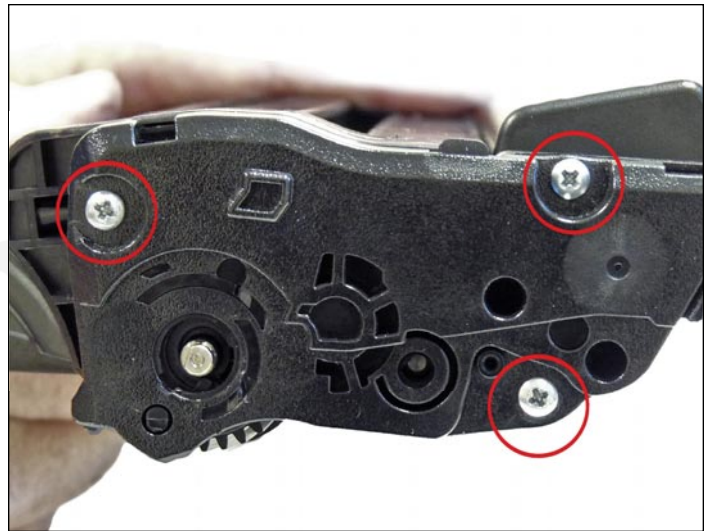
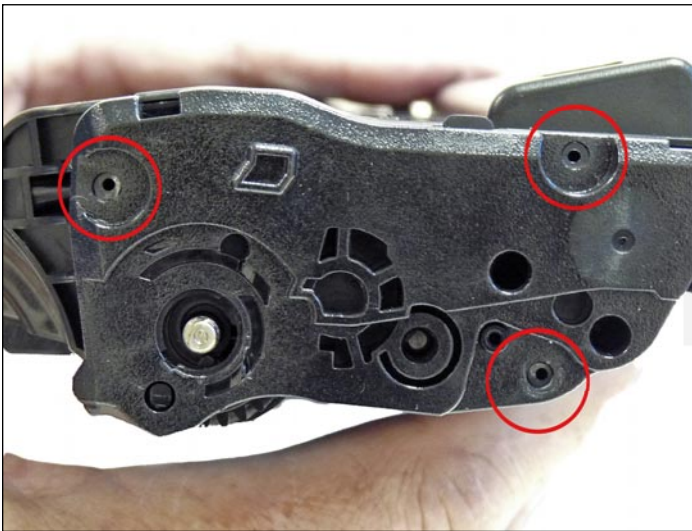


36. Install the large white floating gear on the gear side of the cartridge.



37. Clean the hubs on the gear side end cap, and replace the conductive grease.

Snap the end cap into place.



38. Drill three small holes that correspond to the screw size you're using.

Install the three screws into the end cap.

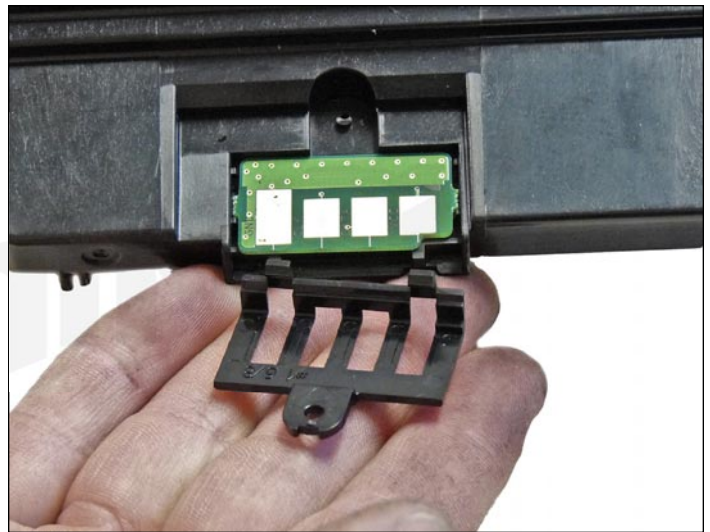
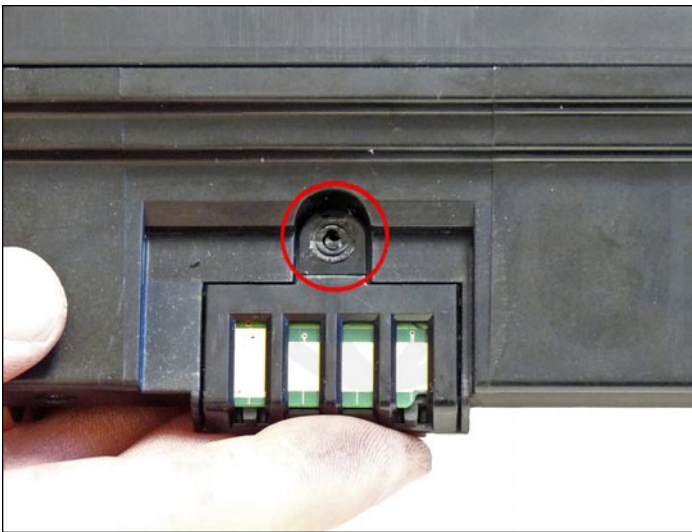
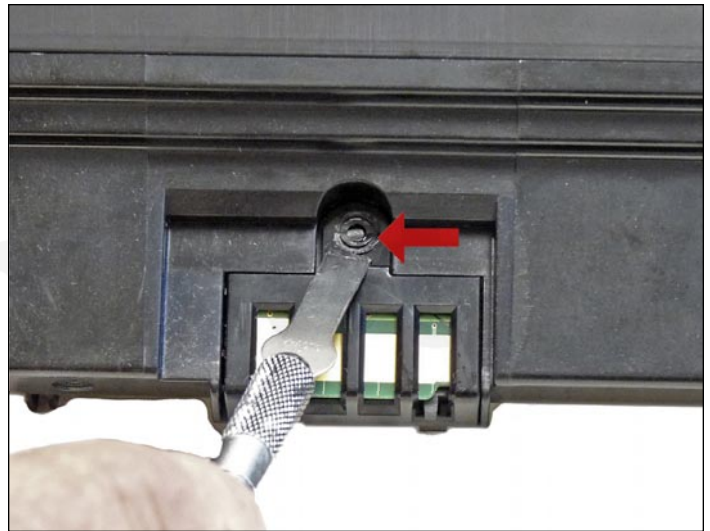


39. Install the two drum axle arms as shown. The white starter drum separator is different since the cartridge is shipped inside the printer when purchased. There is a shipping lock inside the printer that forces you to remove the starter cartridge from the printer in order to remove the printer shipping lock. Once the printer shipping lock is removed, the cartridge is then reinstalled.

When the starter cartridge is removed, the separator is adjusted to prepare for printing. The standard and high yield replacement cartridges are different in color and shape (black color compared to white in the starter cartridge). The drum separator in the replacement cartridges is adjusted when the cartridge is installed, not like the starter cartridge that is adjusted when the cartridge is removed.

We recommend you position the white starter cartridge drum separator in the "used" position, as this will insure that the drum is at the proper distance from the developer roller.

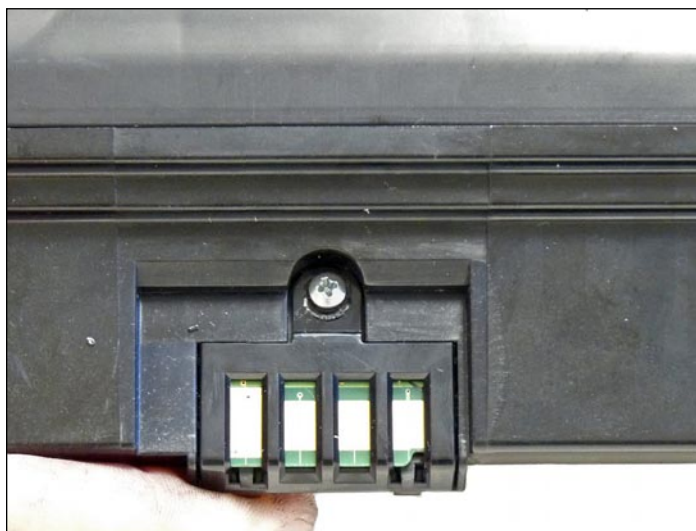




40. To replace the chip, slice off the top of the plastic rivet with the chisel blade knife.

Drill out the plastic rivet with a small drill.

Remove the cover and chip.



41. Install the new chip and cover. Insert a small screw that corresponds to the hole drilled to hold everything in place. It's very easy when drilling the hole for this screw to drill through into the waste chamber. Place a small amount of silicone caulk in the hole and screw, before installing the screw.

## COMMON CARTRIDGE PROBLEMS

### Repetitive Defect Chart

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

## PRINTING TEST PAGES

### Demo Page

1. With the printer in the Ready state, press and hold the Cancel button for about two seconds until the status LED blinks slowly.
2. Release the button.

### Configuration Page

1. With the printer in the Ready state, press and hold the Cancel button for about five seconds until the status LED blinks fast.
2. Release the button.

### Cleaning Page

1. With the printer in the Ready state, press and hold the cancel button for about eight seconds until the status LED blinks fast.
2. Release the button.

### Supplies Status Page

1. With the printer in the Ready state, press and hold the cancel button for about 10 seconds until the status LED blinks fast.
2. Release the button.