

# SAMSUNG® CLP-610 • 660

## TONER CARTRIDGE REMANUFACTURING INSTRUCTIONS



SAMSUNG® CLP-610 TONER CARTRIDGE

# REMANUFACTURING THE SAMSUNG CLP-610 TONER CARTRIDGE

By Mike Josiah and the Technical Staff at UniNet

First released in October 2007, the Samsung CLP-610 based printers are built on 21-24 ppm depending on the machine (color and monochrome) engine with a maximum resolution of 2,400 x 600 dpi. The design is new for Samsung in that the cartridges are “all in one” instead of having a separate drum and toner as in other Samsung color lasers. These cartridges do not have a drum cover, and come new with a piece of heavy paper taped around the cartridge.

There are both LY and HY cartridges available for these machines. A list of the cartridges as well as their list pricing is as follows:

<b>CLP-K660A</b>	<b>\$99.99*</b>	<b>2,500</b>
<b>CLP-C660A</b>	<b>\$119.99*</b>	<b>2,000</b>
<b>CLP-M660A</b>	<b>\$119.99*</b>	<b>2,000</b>
<b>CLP-Y660A</b>	<b>\$119.99*</b>	<b>2,000</b>
<b>CLP-K660B</b>	<b>\$129.99*</b>	<b>5,500</b>
<b>CLP-C660B</b>	<b>\$149.99*</b>	<b>5,000</b>
<b>CLP-M660B</b>	<b>\$149.99*</b>	<b>5,000</b>
<b>CLP-Y660B</b>	<b>\$149.99*</b>	<b>5,000</b>

\*US dollar amount pricing as of February 2009.

## THE PRINTERS BASED ON THE CLP-610 ENGINE ARE:

**CLP-610ND**  
**CLP-660ND**  
**CLX-6200ND**  
**CLX-6200FX**  
**CLX-6210FX**  
**CLX-6240FX**

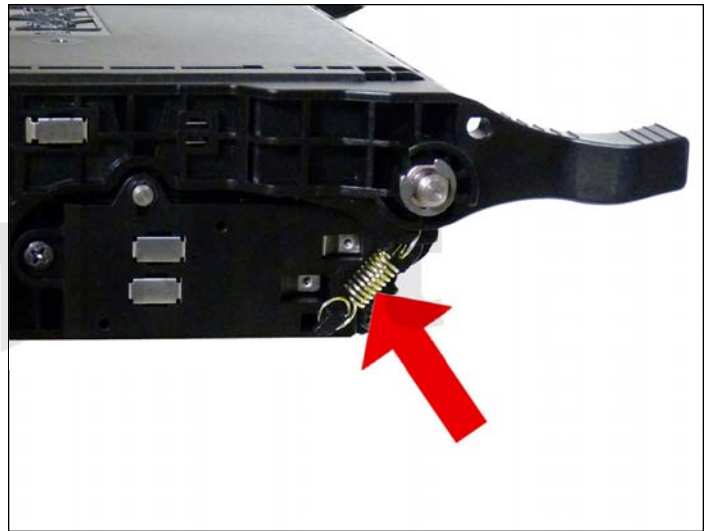
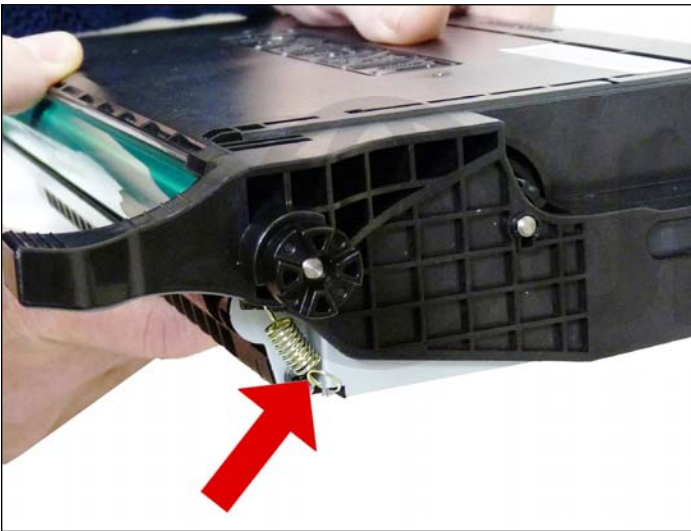
Cartridge troubleshooting as well as common error messages will be listed at the end of the instructions.

## REQUIRED TOOLS

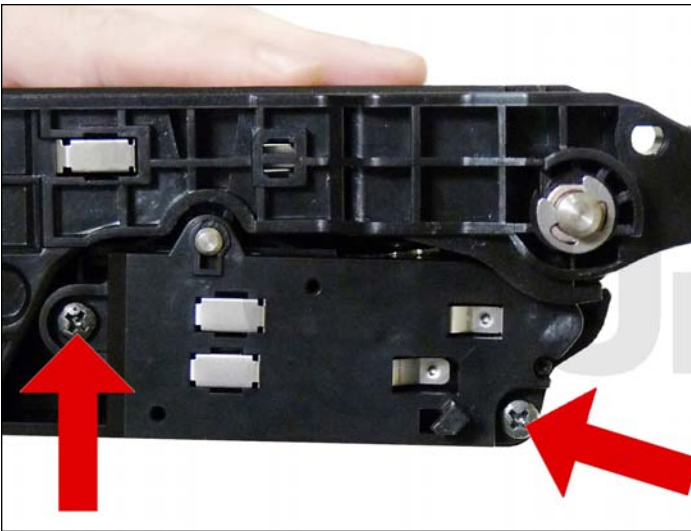
1. Toner approved vacuum
2. A small common screwdriver
3. A Phillips head screwdriver
4. Jewelers screwdriver set
5. Flush cutting wire cutters

## REQUIRED SUPPLIES

1. Samsung CLP-610 color toner (make sure you match the LY toner with a LY chip)
2. New replacement chip (LY, HY)
3. Conductive grease
4. 99% Isopropyl alcohol
5. Drum lubricating powder

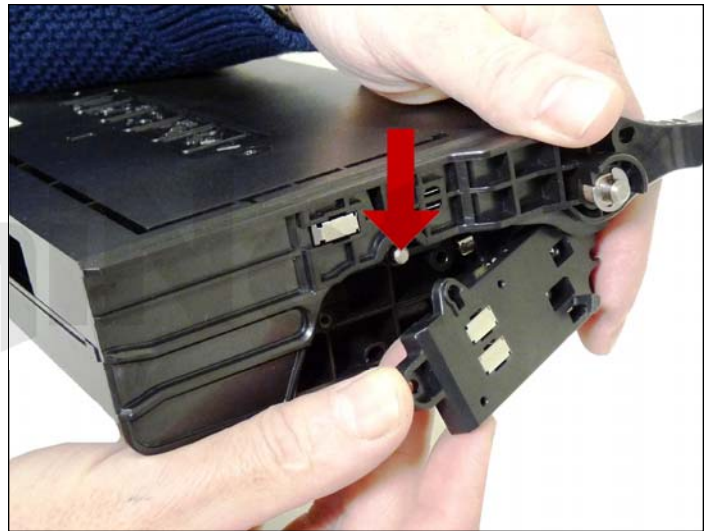


1. Remove the springs from both sides.



2. Remove the two screws from the contact plate.

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3. Carefully lift up on the contact plate to get access to the hinge pin (the contact plate cannot be removed yet).

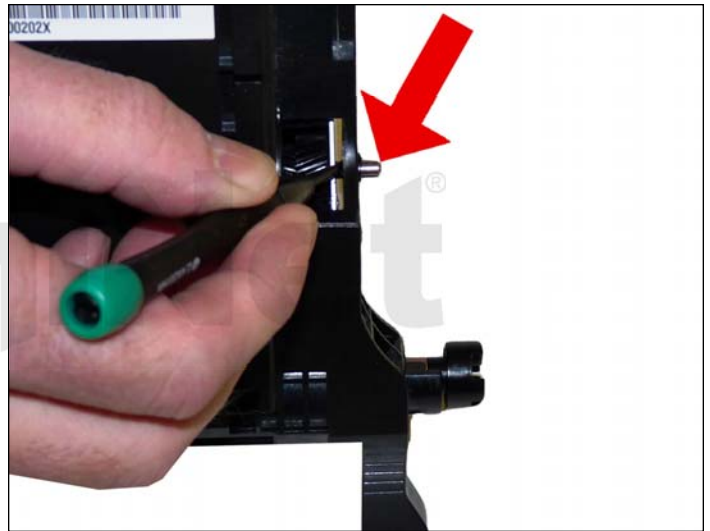
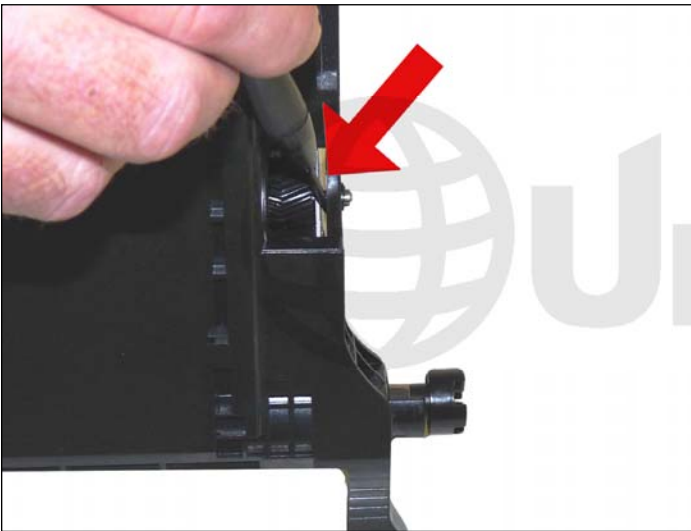


4. With a pair of wire cutters, remove the small hinge pin.



5. The contact plate can now be removed.





6. On the opposite side of the cartridge, take a small jewelers screwdriver and insert it down on the pin between the metal gear plate and the plastic wall of the cartridge. Keeping a steady force on the pin, press it out about 1/8".



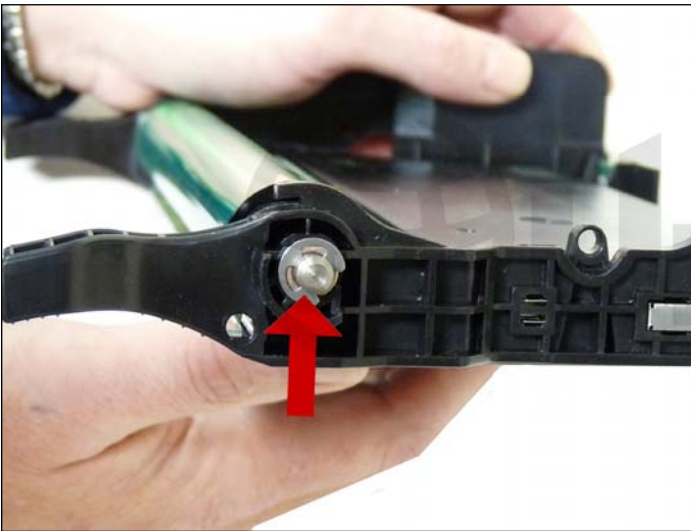
7. Remove the pin with the wire cutters.

Note that this pin is much longer than the first pin removed.



8. Separate the two halves.

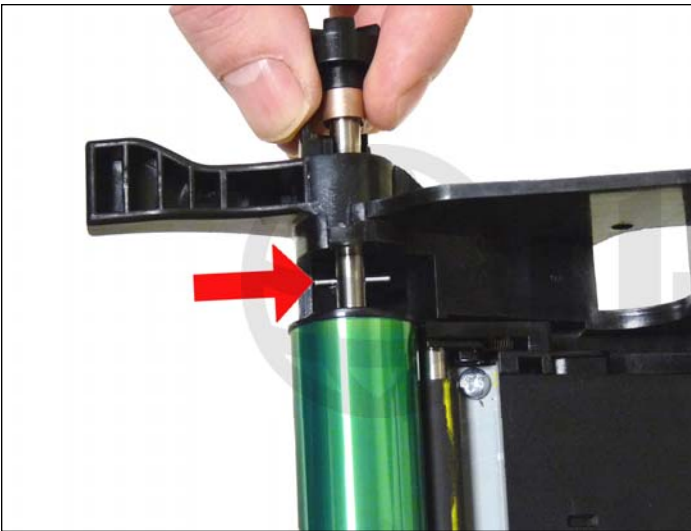
Place the toner hopper aside for now.



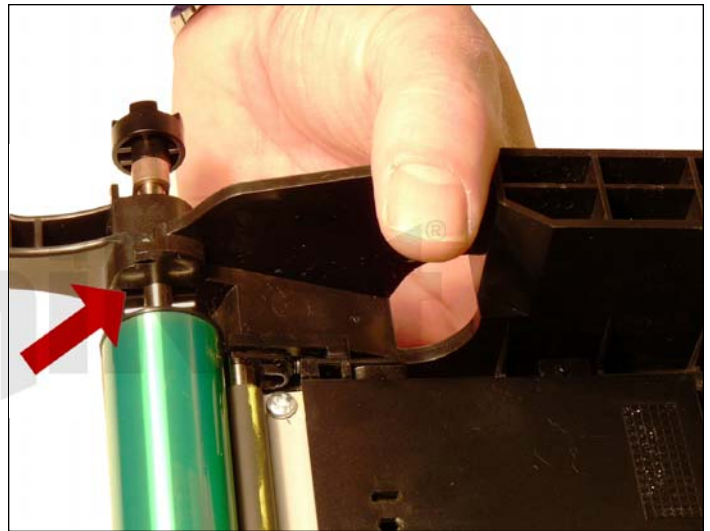
9. On the waste chamber, remove the E-ring from the non-drive gear side of the drum axle.



10. Remove the metal bushing.

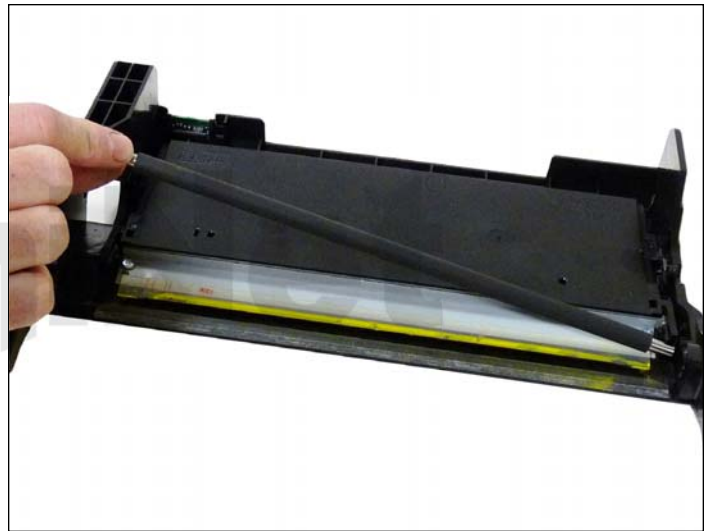


11. Align the roll pin with the slot in the sidewall of the cartridge. Slide the drum axle out of the cartridge.

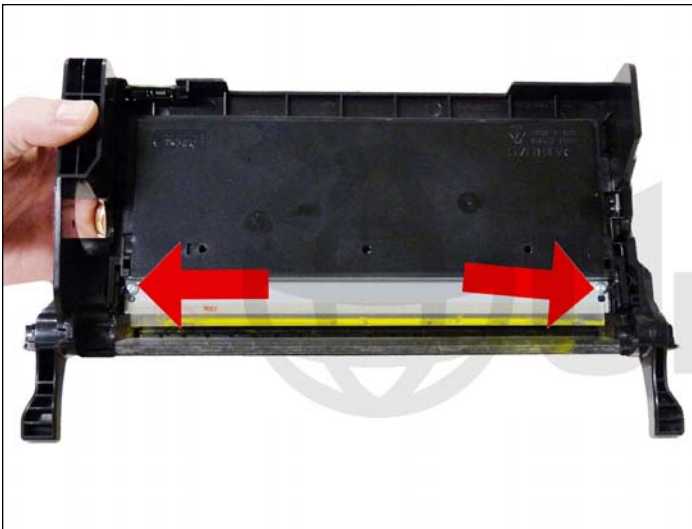




12. Remove the drum.



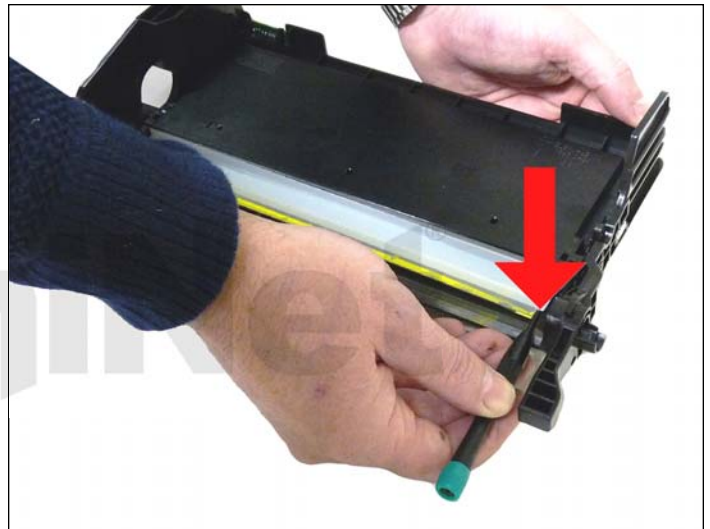
13. Remove the PCR. Clean the PCR with your normal PCR cleaner. **WARNING:** Do not clean the OEM PCR with alcohol, as this will remove the conductive coating from the roller. If the PCR is an aftermarket, follow the cleaning methods recommended by the manufacturer. If the PCR is an OEM, we recommend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



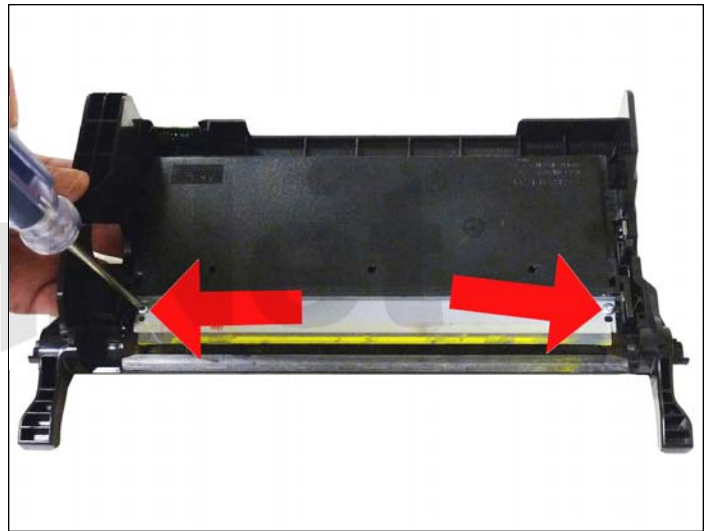
14. Remove the two screws and the wiper blade.

The wiper blade should be removed by prying up from the edge by the felt seal.

Clean out all remaining toner from the hopper.

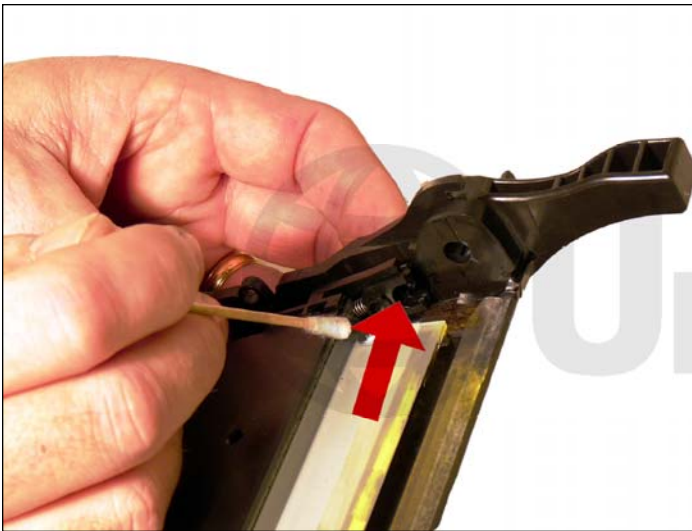






15. Coat the new wiper blade with your preferred lubricant and install in the cartridge.

Press the blade down firmly to seat it. Install the two screws.

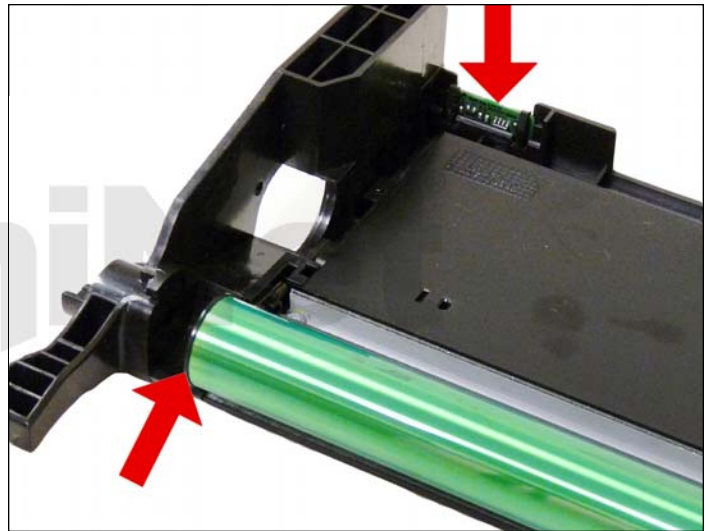


16. Place a small amount of conductive grease in each of the PCR holders, and on the PCR contact plate.

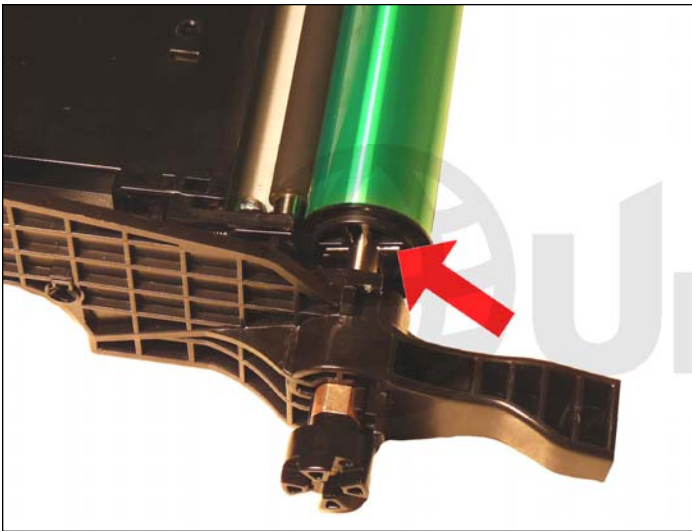


17. Install the cleaned PCR. Make sure the contact plate is touching the end of the PCR.

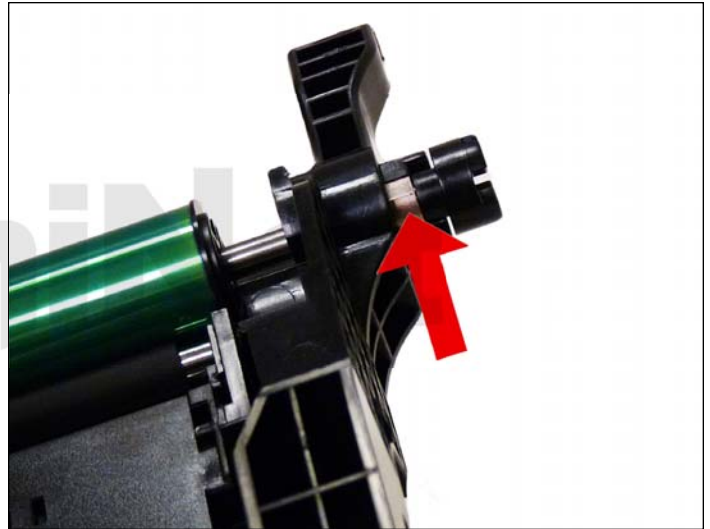
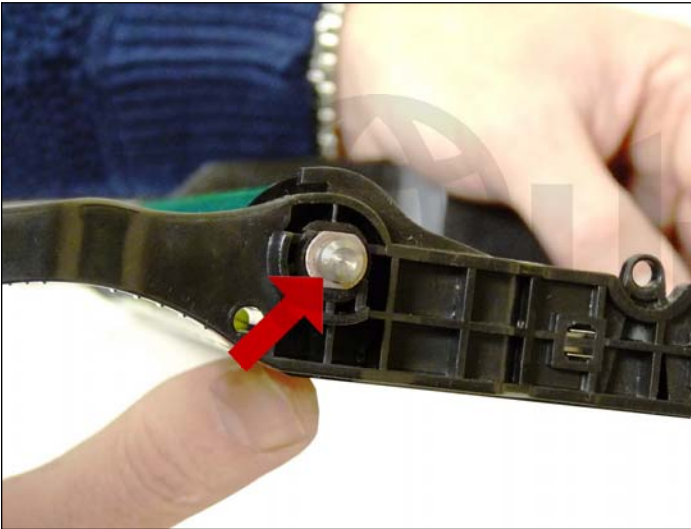




18. Install the OPC drum. Place the cross hub to the chip side of the hopper.



19. Install the drum axle by aligning the roll pin with the slot and the cross hub on the drum. Seat the roll pin in the hub.

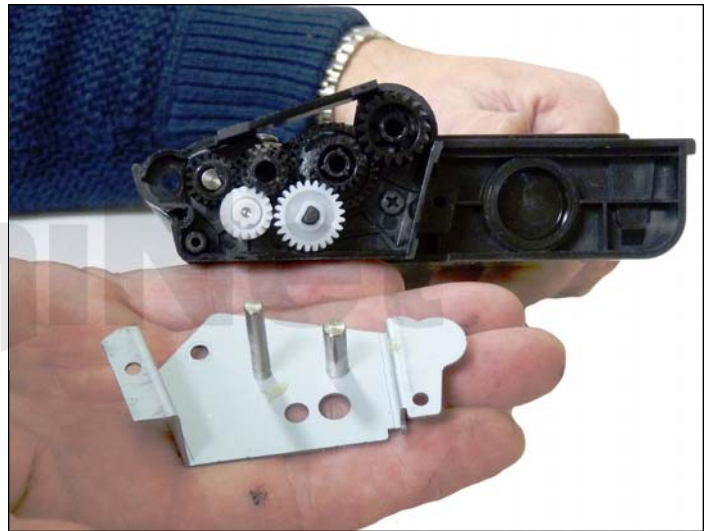


20. Install the bushing. Make sure both bushings on each side are in their respective slots.

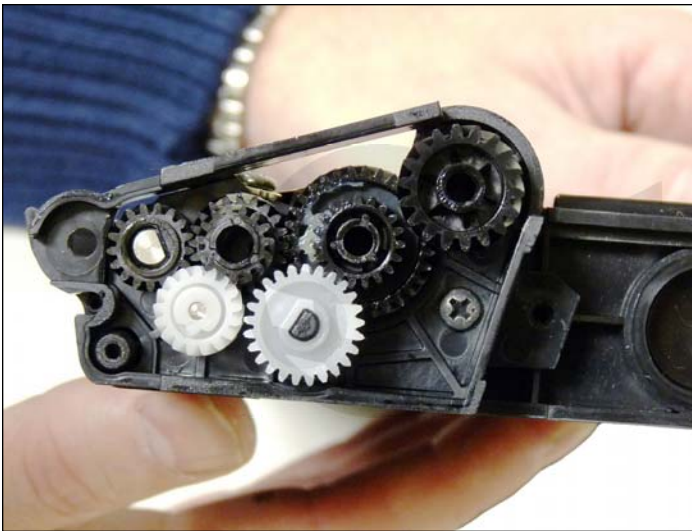


21. Install the E-ring on the axle.

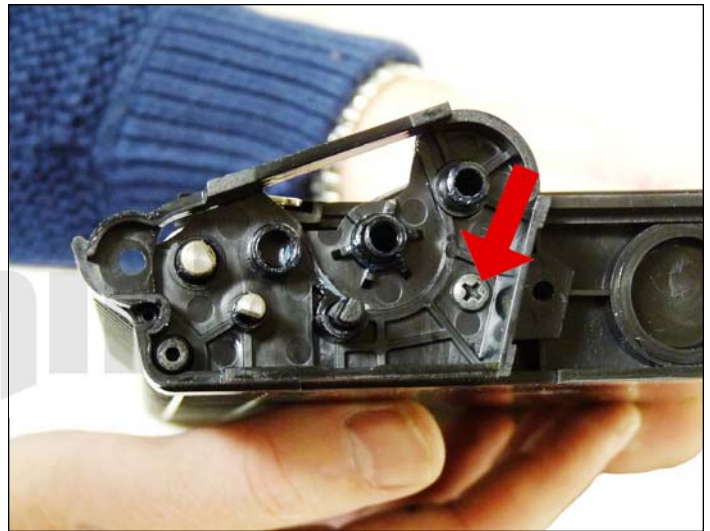
Place the waste chamber aside.



22. On the supply hopper, remove the two screws on the metal gear train cover. Remove the cover.

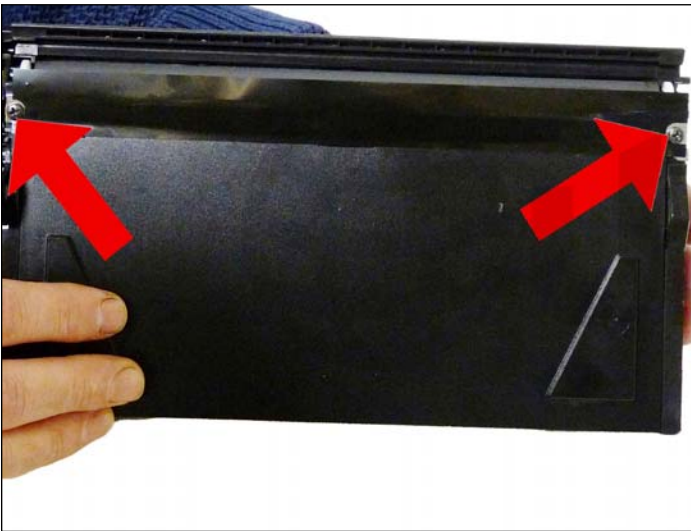


23. Remove the gears.



24. Remove the inner plastic gear plate and screw.





25. Remove the two screws on the doctor blade.



26. Carefully pry up on the doctor blade. The tape seal will come off with the doctor blade.



27. Remove the developer roller bushings.

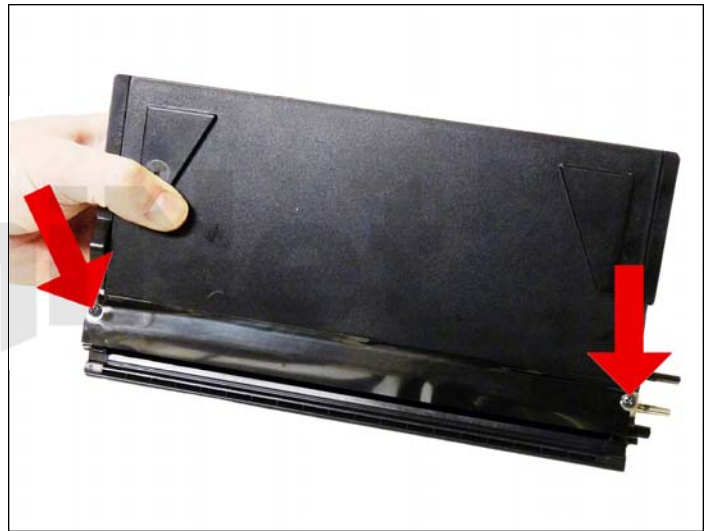


28. Remove the developer roller.





29. Remove the fill plug and clean out all remaining toner. Pay special attention to the feed roller. Any buildup here will cause streaking later on.



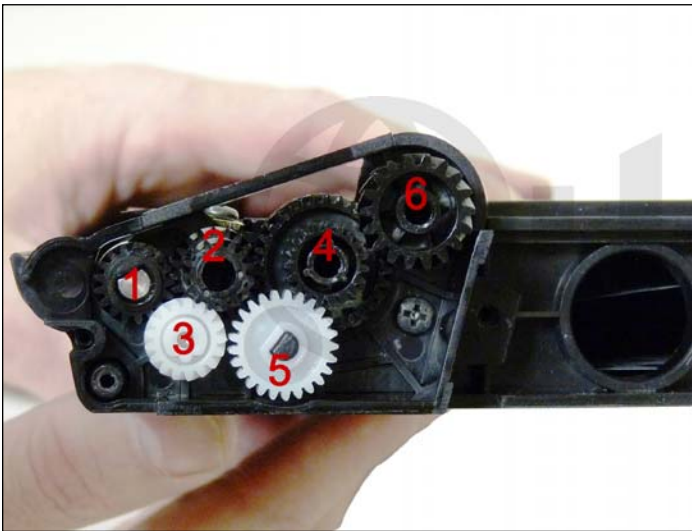
30. Install the cleaned doctor blade and two screws (do not use any chemicals to clean this blade, but also make sure there is not a buildup on the edge of the blade. If there is, carefully scrape it off).



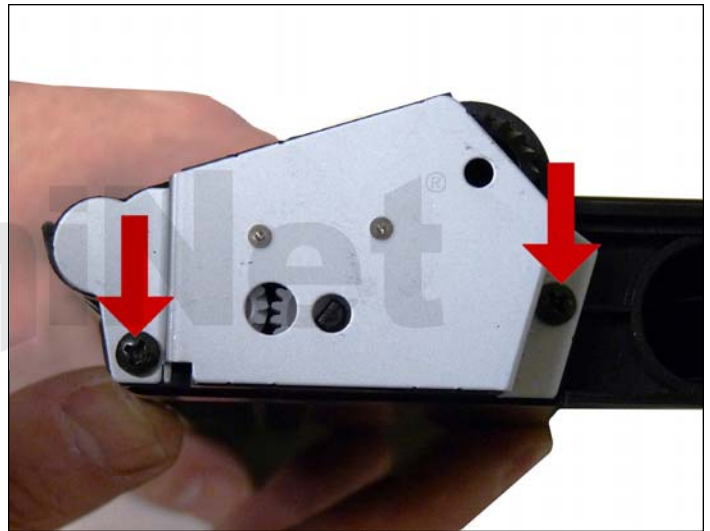
31. Install the developer roller and two bushings.



32. Install the inner gear plate and screw.



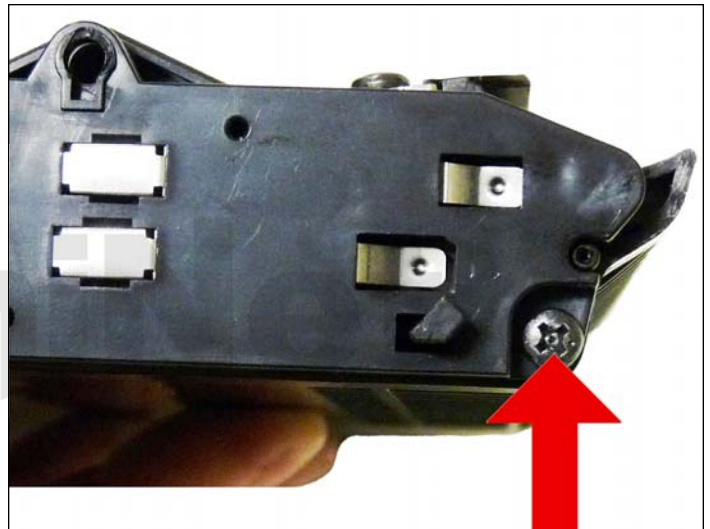
33. Install the gears in the order shown.



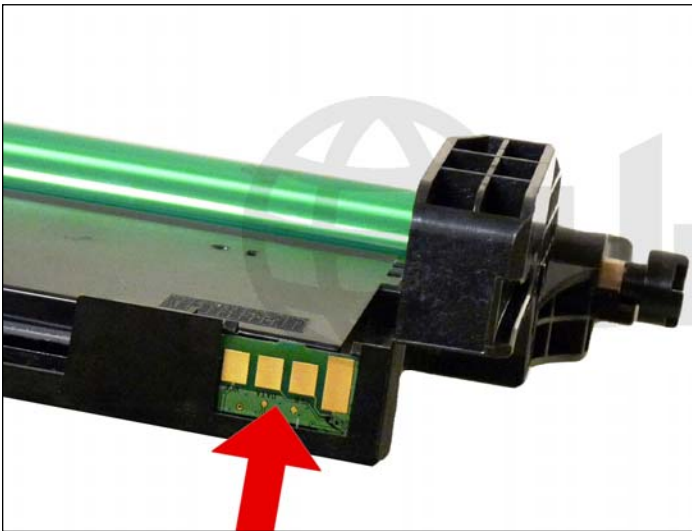
34. Install the outer metal gear plate and two screws.



35. Fill the hopper with the appropriate color toner.



36. Replace the contact plate and two screws.



37. Replace the chip in the waste chamber (keep the contact up and facing out).

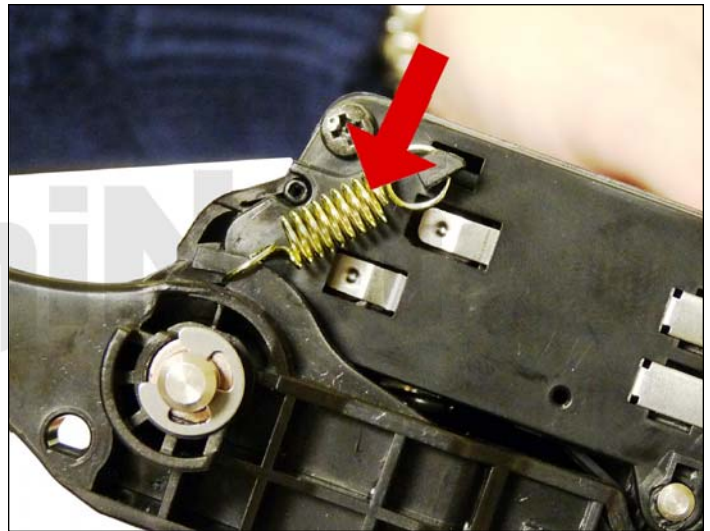
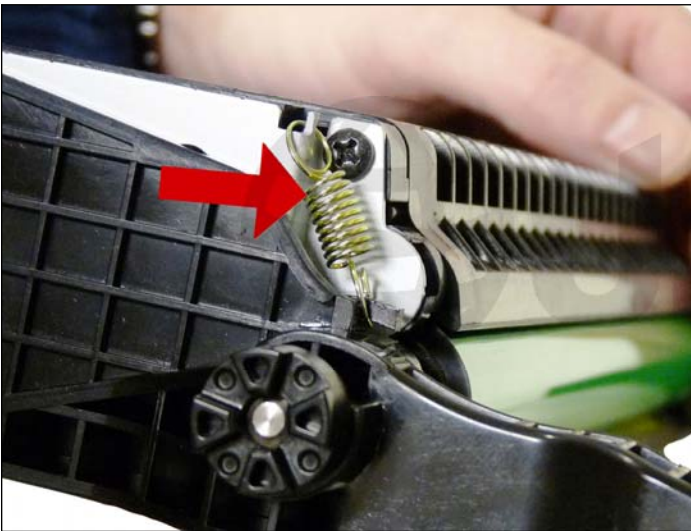


38. Place the two halves together.



39. Install the two metal hinge pins, long pin to the drive gear side.





40. Install the two springs across the two halves.

#### REPETITIVE DEFECT CHART

Upper fuser belt:	125.6 mm
OPC drum:	75.4 mm
Supply roller:	46.9 mm
Transfer roller:	45 mm
Supply roller color:	43 mm
Supply roller black:	40.8 mm
Developer roller color:	32.5 mm
Developer roller black:	30.6 mm
PCR	26.7 mm
Paper charge roller:	26.7 mm

#### PRINTER ERROR MESSAGES

All the error codes are in plain English so there is no need to go into them here.