

# DELL® 2145CN

## TONER CARTRIDGE REMANUFACTURING INSTRUCTIONS



DELL 2145CN TONER CARTRIDGE

# REMANUFACTURING THE DELL 2145CN TONER CARTRIDGE

By Mike Josiah and the Technical Staff at UniNet



First released in November 2009, the Dell 2145cn based printers are built on a multifunction 21ppm (color and monochrome) engine with a maximum resolution of 2,400 x 600 dpi. These machines come equipped to print, copy, fax, scan and duplex.

These cartridges do not have a drum cover, and come new with a piece of heavy paper taped around the cartridge (see image).

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

<b>330-3785</b>	<b>\$84.99*</b>	<b>2,500 pages</b>
<b>330-3788</b>	<b>\$89.99*</b>	<b>2,000 pages</b>
<b>330-3787</b>	<b>\$89.99*</b>	<b>2,000 pages</b>
<b>330-3786</b>	<b>\$89.99*</b>	<b>2,000 pages</b>
<b>330-3789</b>	<b>\$149.99*</b>	<b>5,500 pages</b>
<b>330-3792</b>	<b>\$169.99*</b>	<b>5,000 pages</b>
<b>330-3791</b>	<b>\$169.99*</b>	<b>5,000 pages</b>
<b>330-3790</b>	<b>\$169.99*</b>	<b>5,000 pages</b>

\*Pricing in U.S. American Dollars, as of December 2010.

Cartridge troubleshooting, as well as common error messages will be listed at the end of this article.

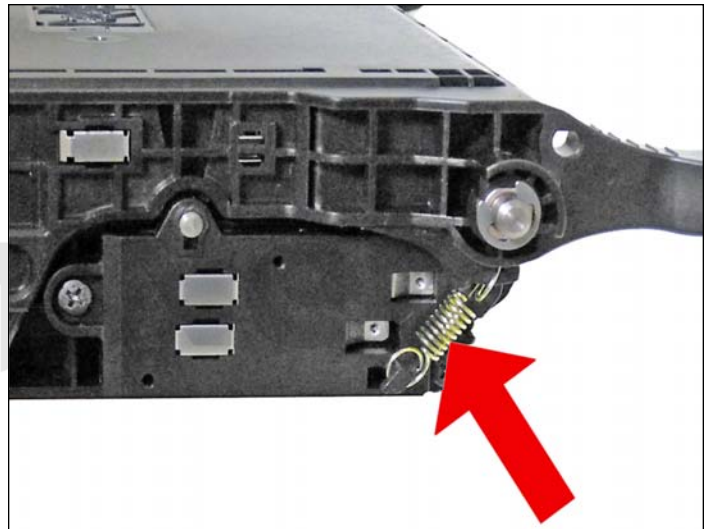
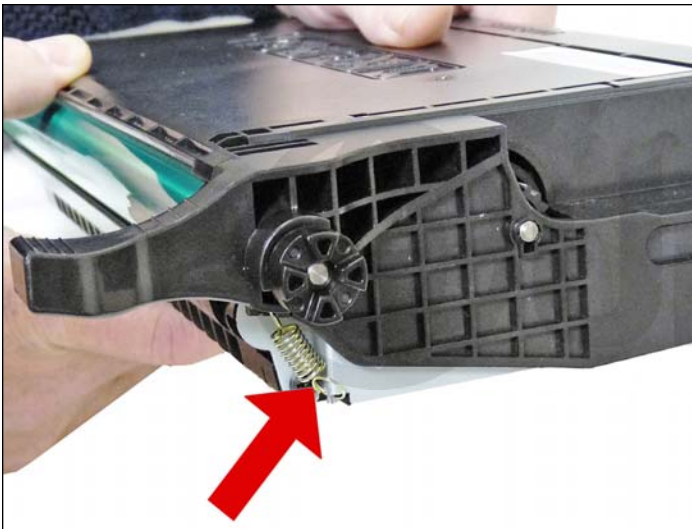
**REQUIRED TOOLS**

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

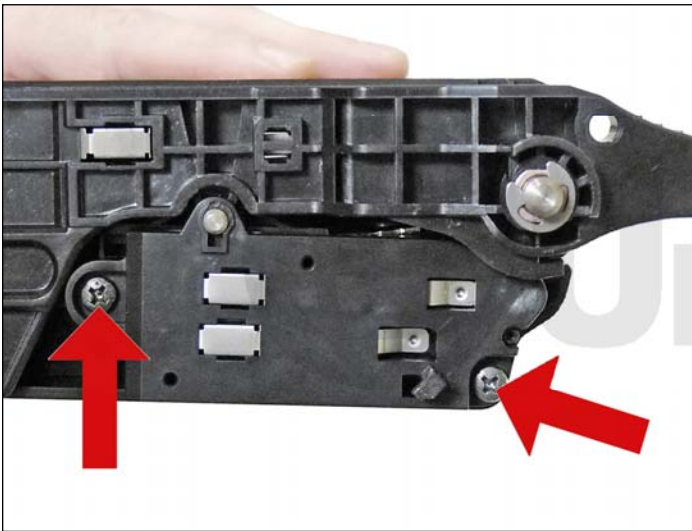
**REQUIRED SUPPLIES**

1. C/M/Y/K toner for use in Dell 2145cn (make sure you match the LY toner with a LY chip)\*\*
2. New replacement chip (LY/HY)\*\*
3. New replacement drum
4. Conductive grease
5. 99% Isopropyl alcohol
6. Drum lubricating powder

**\*\*NOTE: At the time of this writing only high yield toner and chips are available.**



1. Remove the springs from both sides of the cartridge.



2. Remove the two screws from the contact plate.

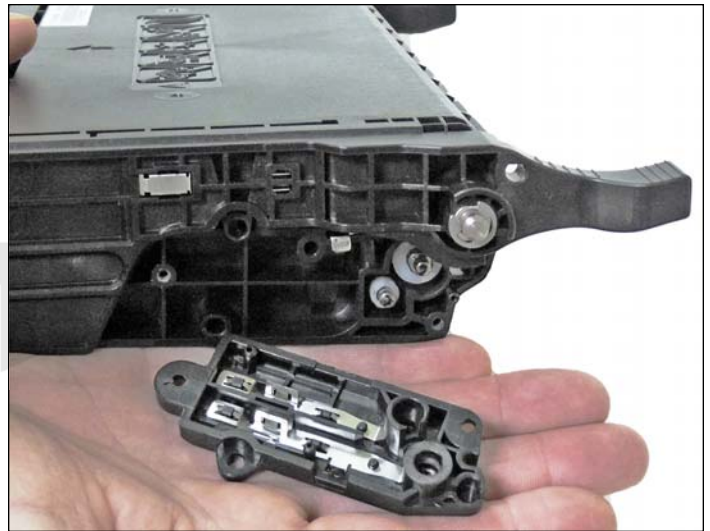


3. Carefully lift up on the contact plate to get access to the hinge pin (the contact plate cannot be removed yet).

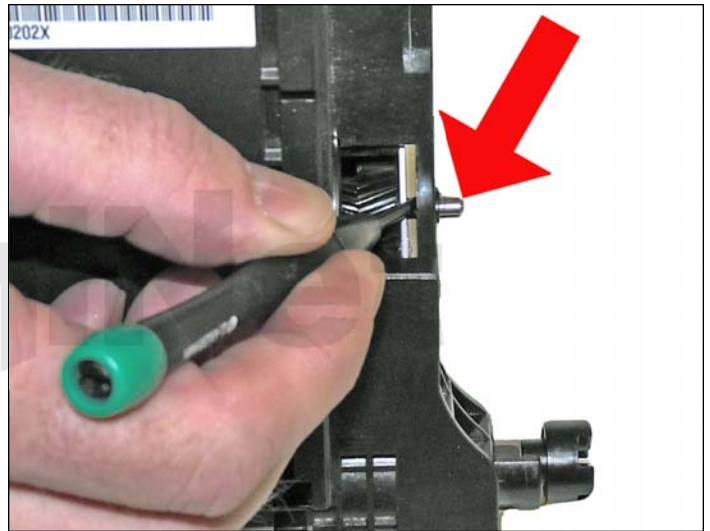
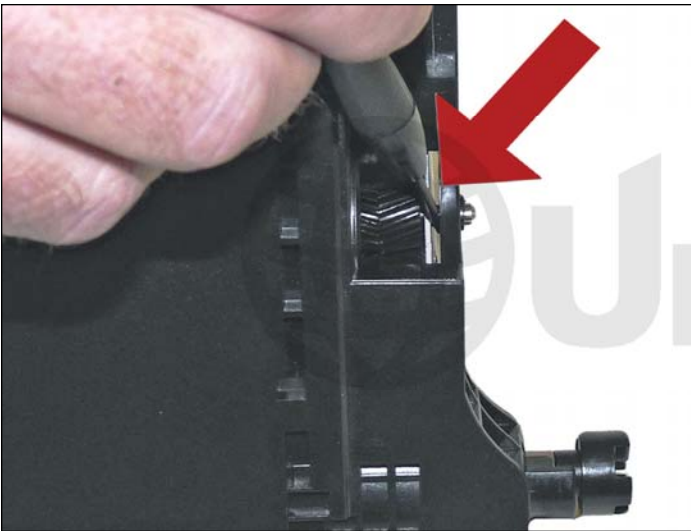




4. With a pair of wire cutters, remove the small hinge pin.



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 the pin out by about 1/8".



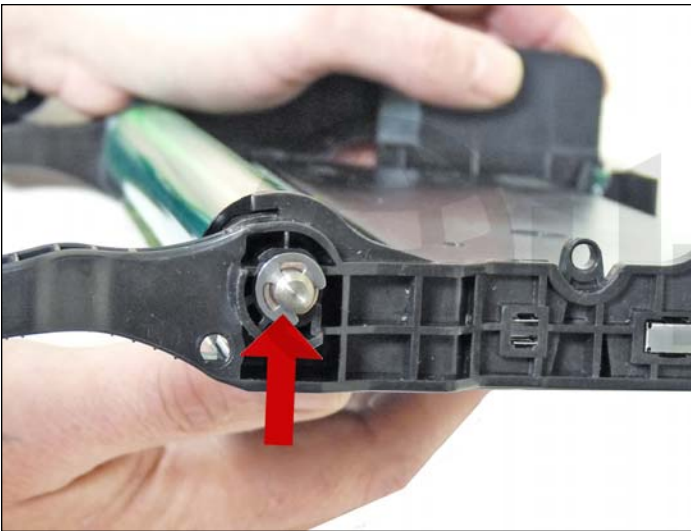
7. Remove the pin with the wire cutters.

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



8. Separate the two halves.

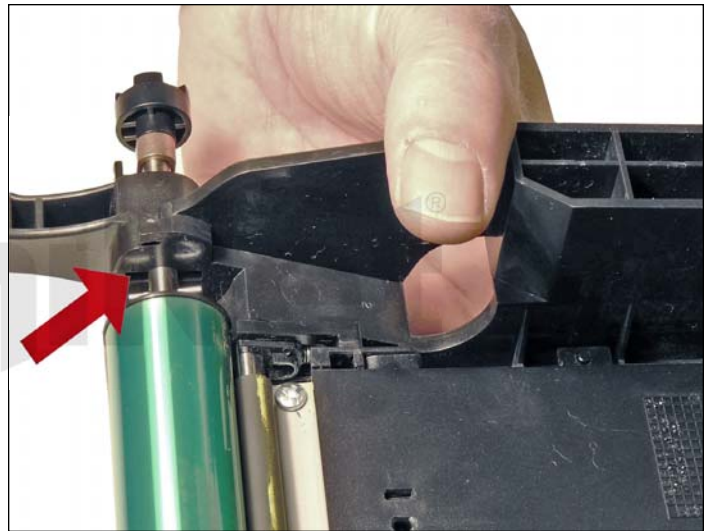
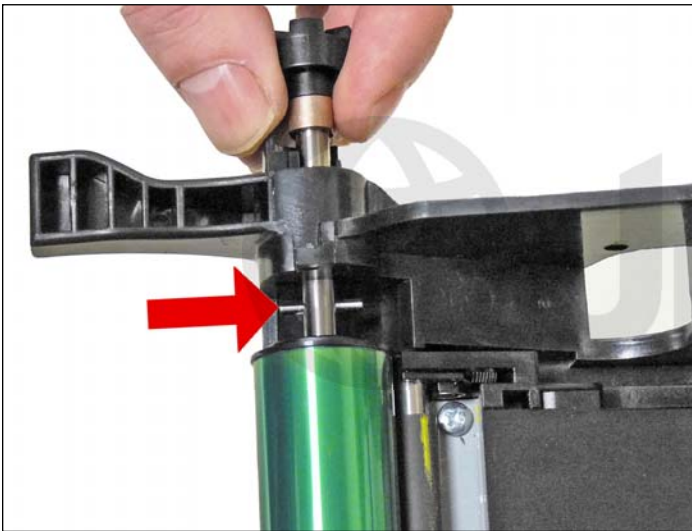
Place the toner hopper aside for now.



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



10. Remove the metal bushing.

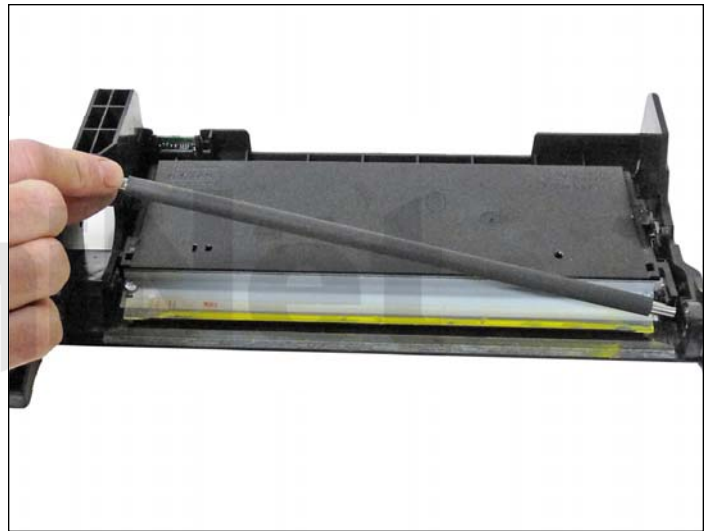


11. Align the roll pin with the slot in the sidewall of the cartridge.

Slide the drum axle out of the cartridge.

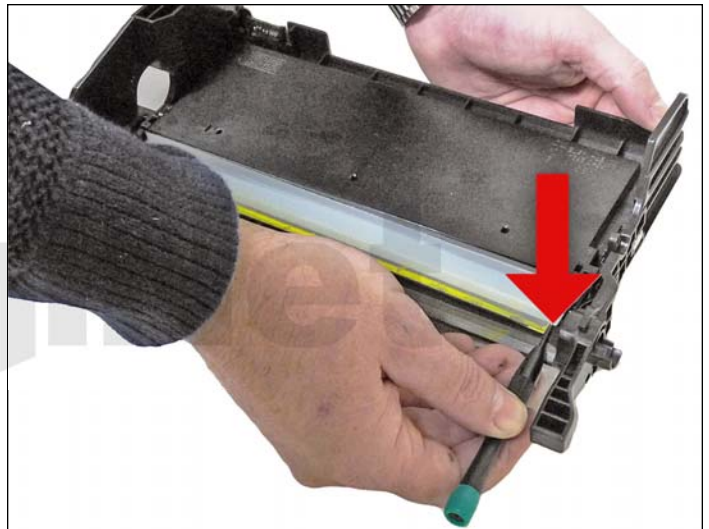
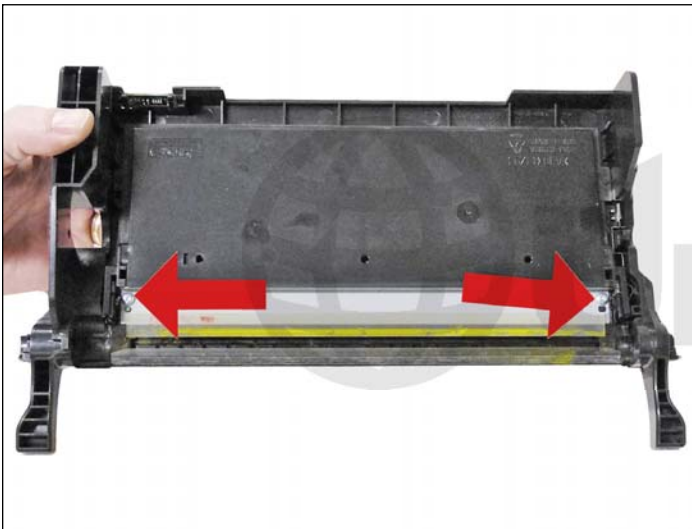


12. Remove the drum.



13. Remove the PCR and clean 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.

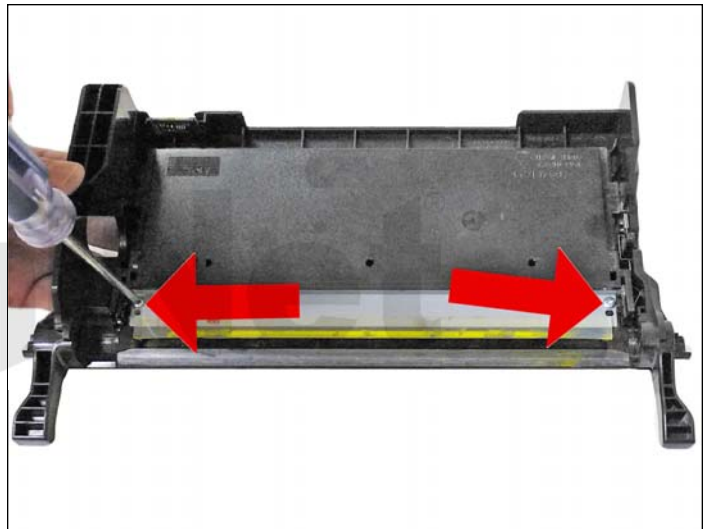




14. Remove the two screws and the wiper blade.

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.



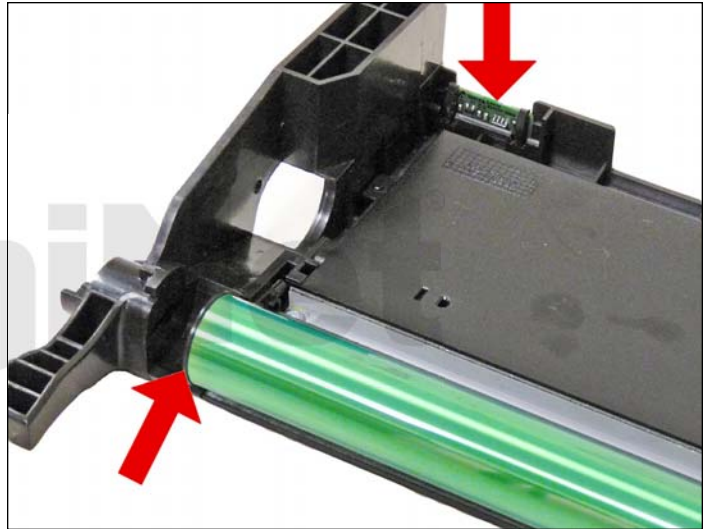
17. Install the cleaned PCR.

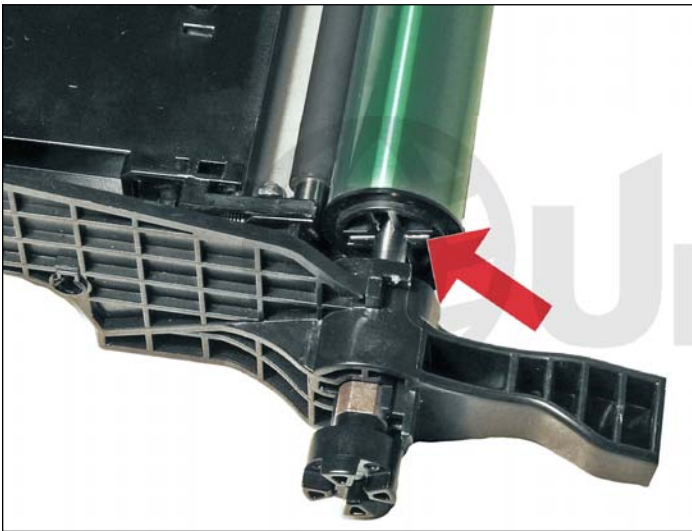
Make sure the contact plate is touching the end of the PCR.



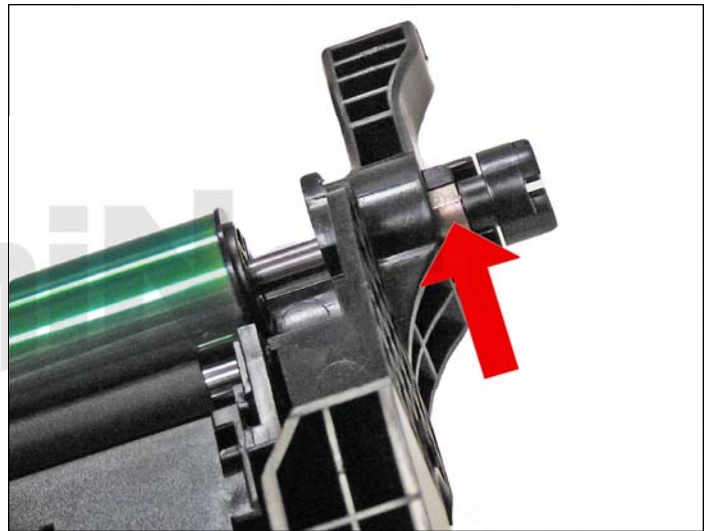
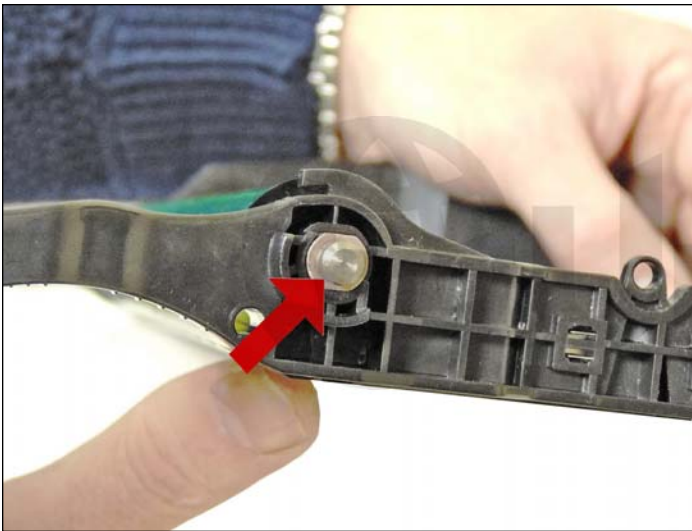
18. Install the OPC drum.

Place the cross hub of the drum to the chip side of the hopper.



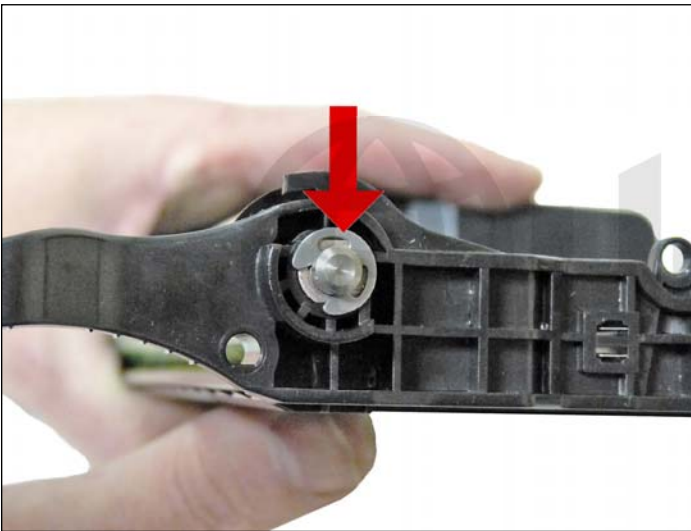


19. Install the drum axle by aligning the roll pin with the slot and the cross hub on the drum. Seat the roll pin in the hub.



20. Install the bushing.

Make sure both bushings on each side are in their respective slots.



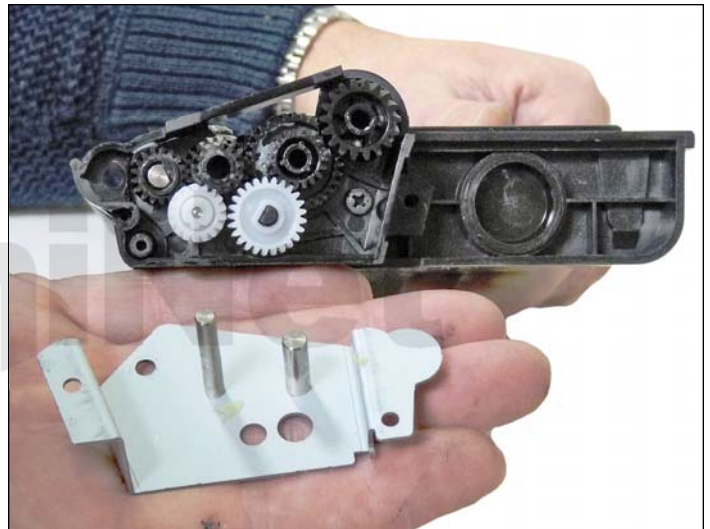
21. Install the E-ring on the axle.

Place the waste chamber aside.

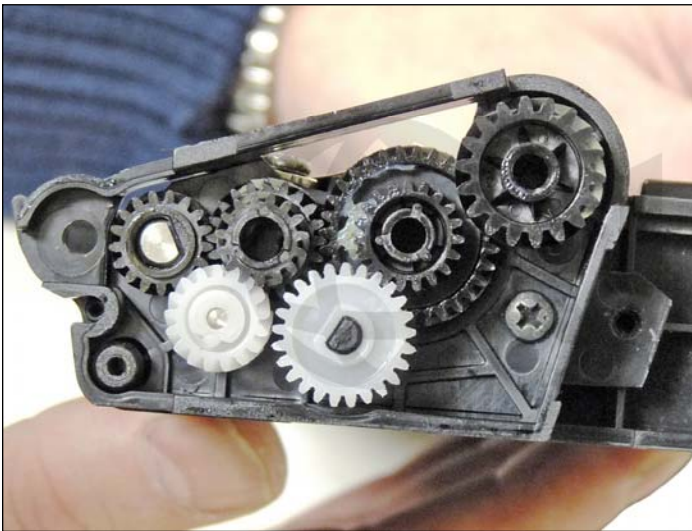


22. On the supply hopper, remove the two screws on the metal gear train cover.

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.

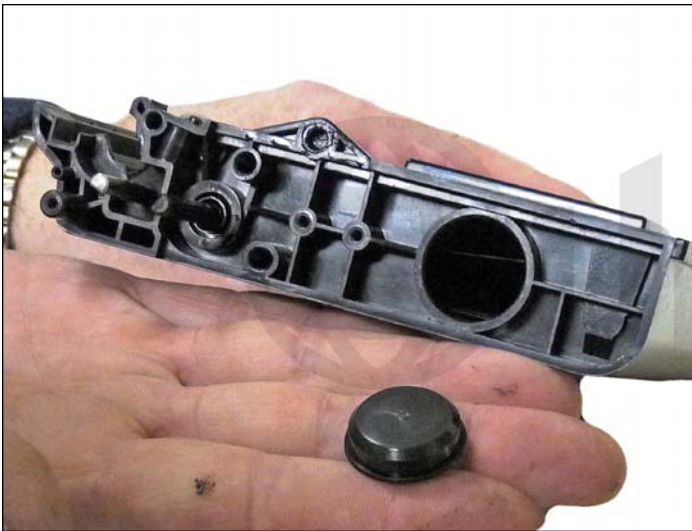




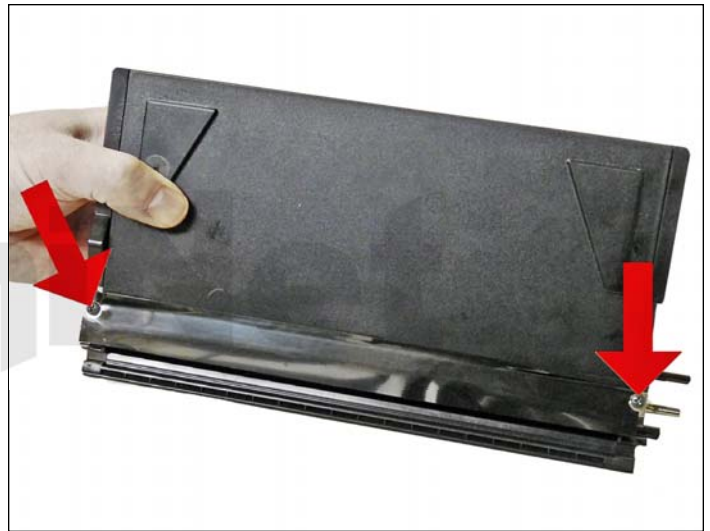
27. Remove the developer roller bushings.



28. Remove the developer roller.



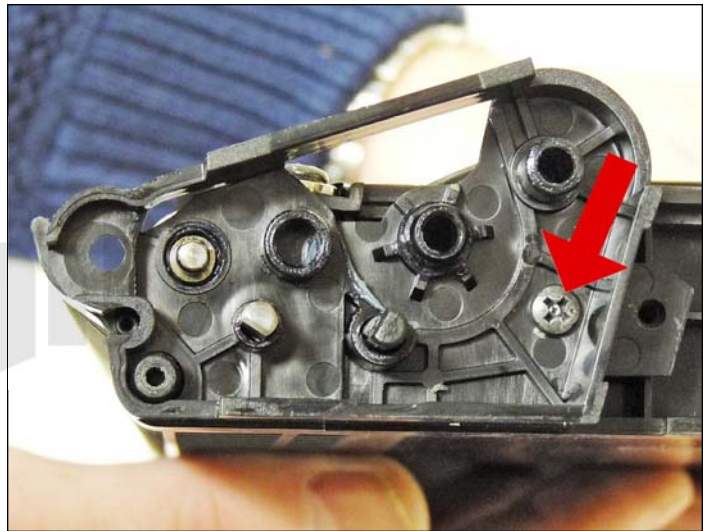
29. Remove the fill plug and clean out all remaining toner. Pay special attention to the feed roller. Any buildup here will cause streaking later on.



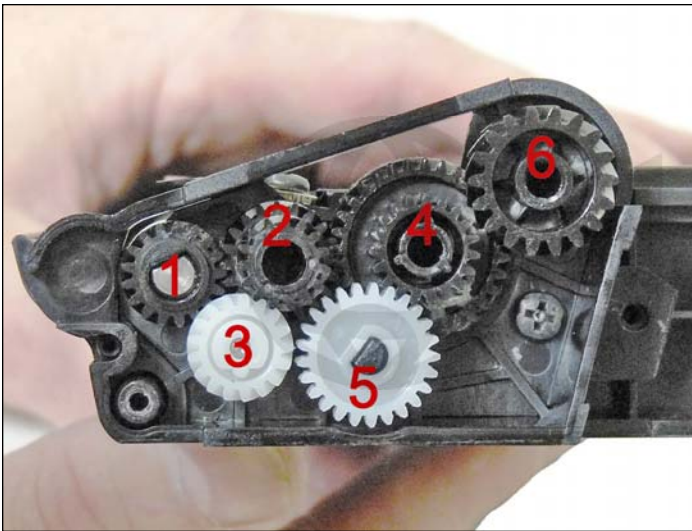
30. Install the cleaned doctor blade and two screws. Do not use any chemicals to clean this blade, but also make sure there is no build-up on the edge of the blade. If there is, carefully scrape it off.



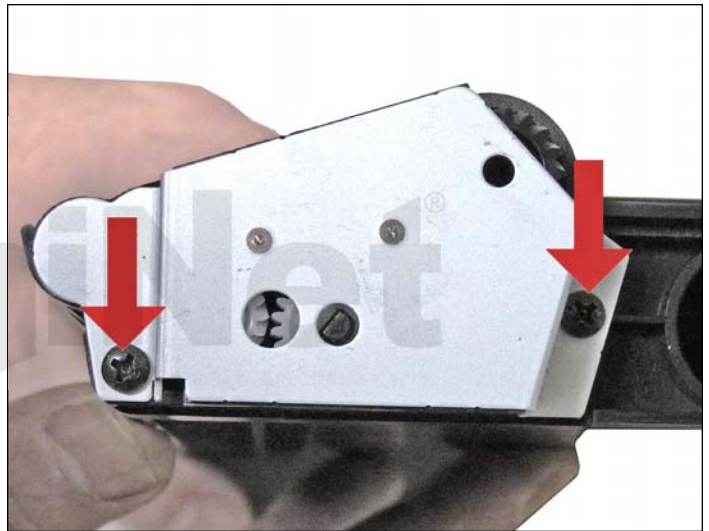
31. Install the developer roller and two bushings.



32. Install the inner gear plate and screw.



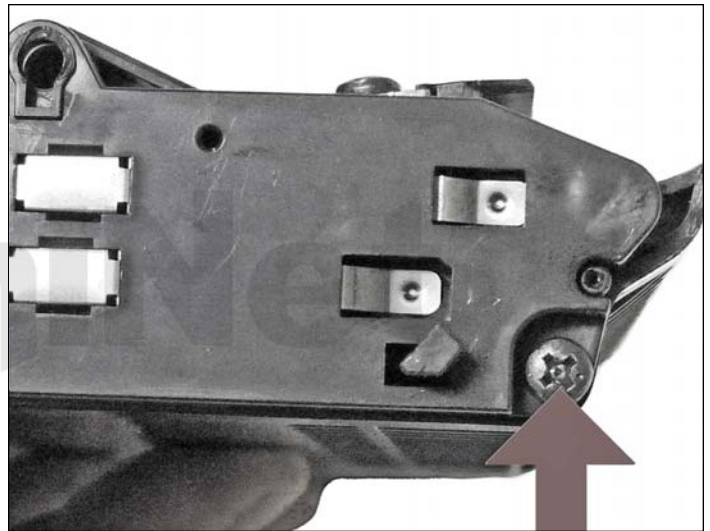
33. Install the gears in the order shown.



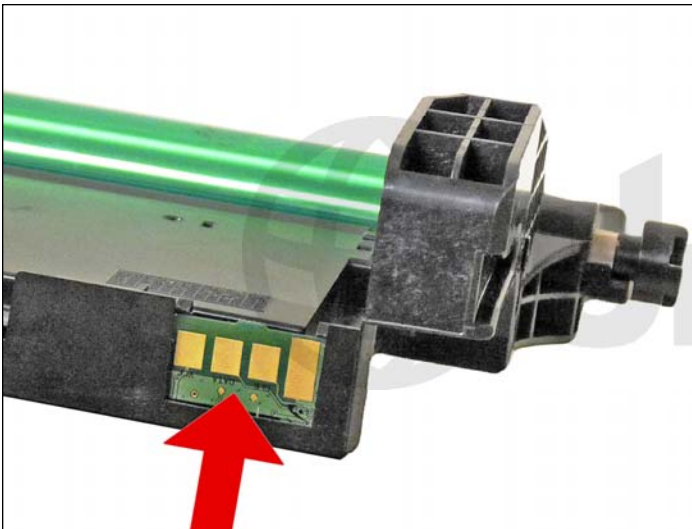
34. Install the outer metal gear plate and two screws.



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.



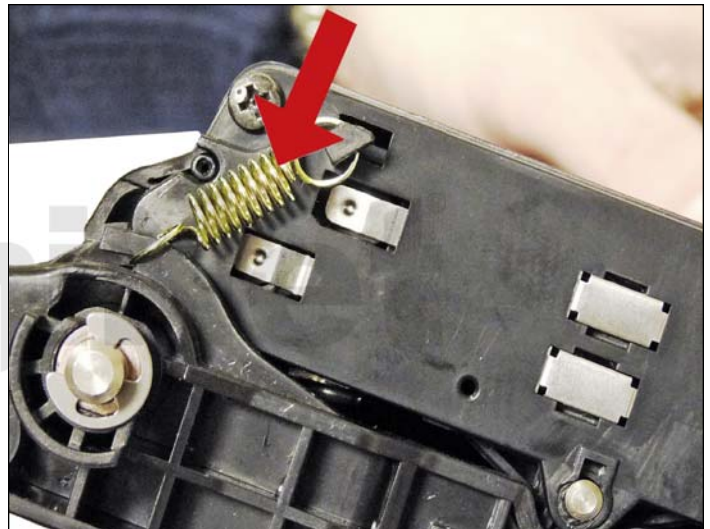
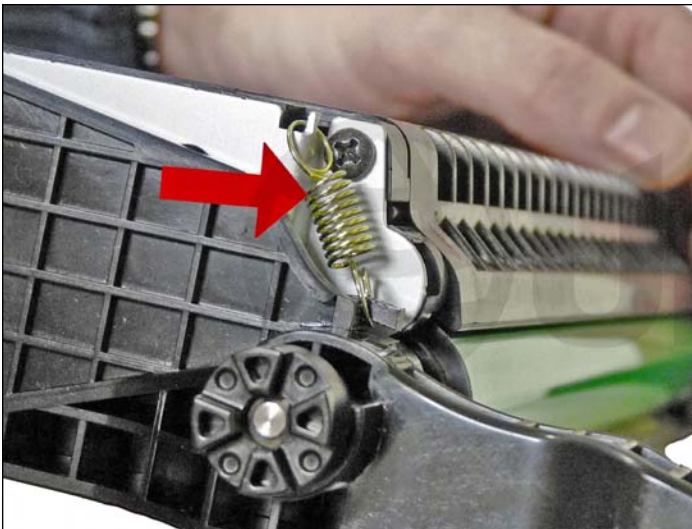
38. Place the two halves together.





39. Install the two metal hinge pins.

Long pin goes to the drive gear side.



40. Install the two springs across the two halves.





41. Place the OEM cardboard around the cartridge to protect the drum. If not available, a piece can easily be cut from a shirt size gift box.

#### REPETITIVE DEFECT CHART

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

#### PRINTER ERROR MESSAGES

All the error codes are self-explanatory, so there is no need to explain them here.