

HP® COLOR LASERJET 5500

TONER CARTRIDGE REMANUFACTURING INSTRUCTIONS



HP® COLOR LASERJET 5500 TONER CARTRIDGE

REMANUFACTURING THE HP COLOR LASERJET 5500 TONER CARTRIDGE

By Javier Gonzalez and the Technical Staff at UniNet



REMOVING THE OEM CHIP

1. Locate the OEM chip that is glued to the rear of the cartridge.



2. Using a small flathead screwdriver, release the glued chip as shown.

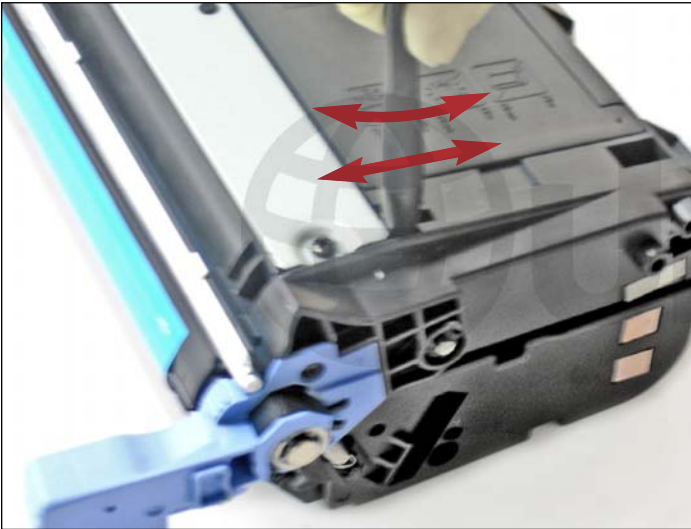


3. Chip removed. It will need be replaced by a new smartchip after reassembling of the cartridge.



CARTRIDGE DISASSEMBLY

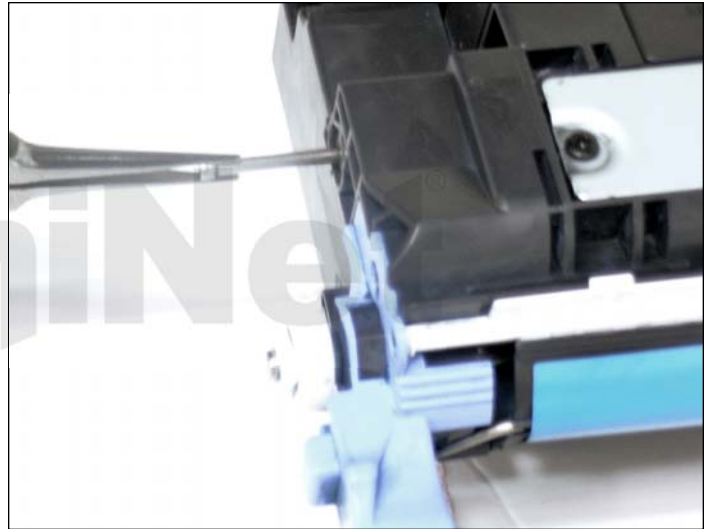
4. Use a 3/32 size bit to drill a hole in a small opening located on top of the cartridge.



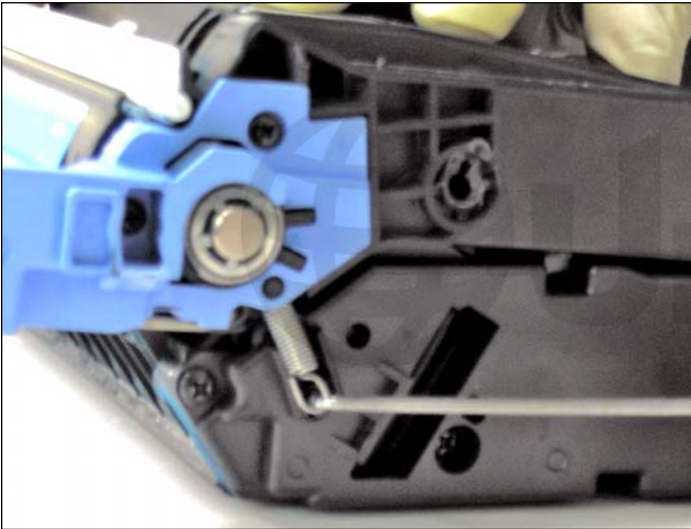
5. You will need to extract the metal pins that hold the toner hopper and drum unit together. Insert a small flathead screwdriver into the pin hole near the end cap shown. Turn or move it from side to side to maneuver the pin out.



6. Pull out the pin out completely using needle nose pliers.



7. Repeat the same procedure on the other side of the cartridge.



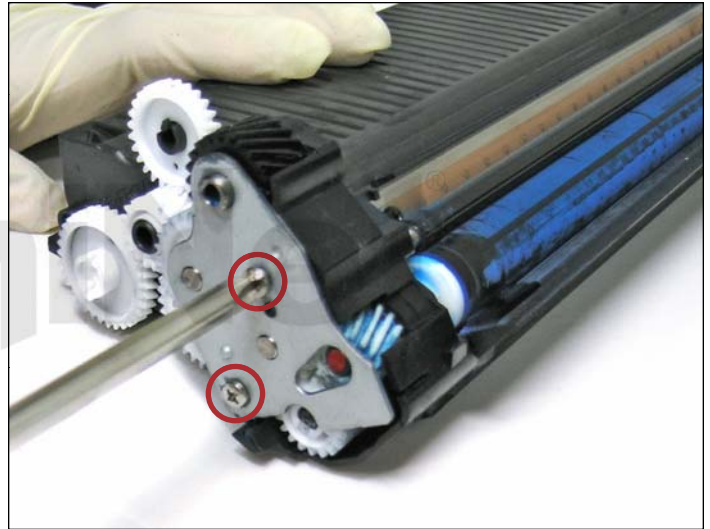
8. Release the spring located on the contact side.



9. Lift the drum unit away from the toner hopper.



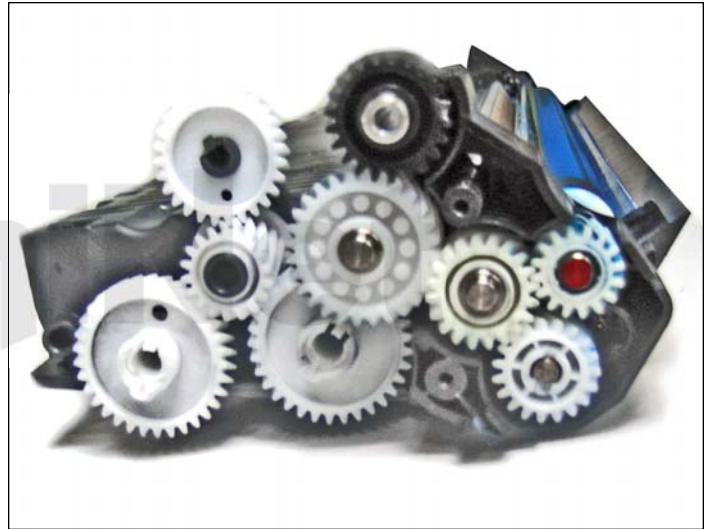
10. Remove the pin bearing on the gear side end plate.



11. Remove the two screws on the end plate.



12. Remove the end plate.



13. Remove all the gears shown.



14. Gears removed.



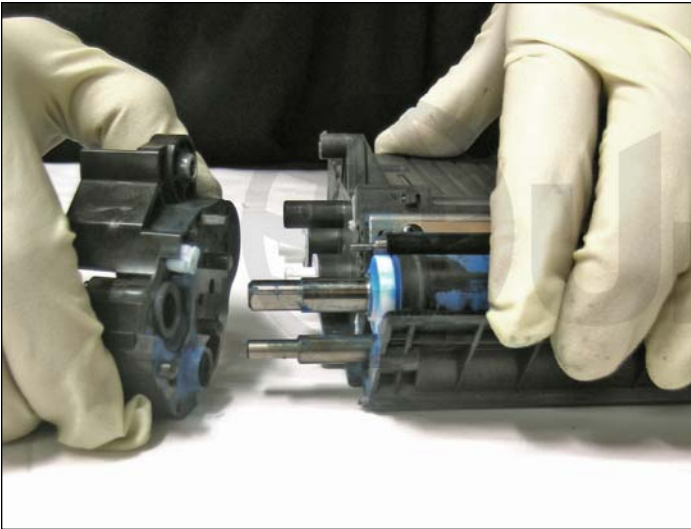
15. Remove the two screws on the contact side (gearless).



16. Remove the gearless end cap.



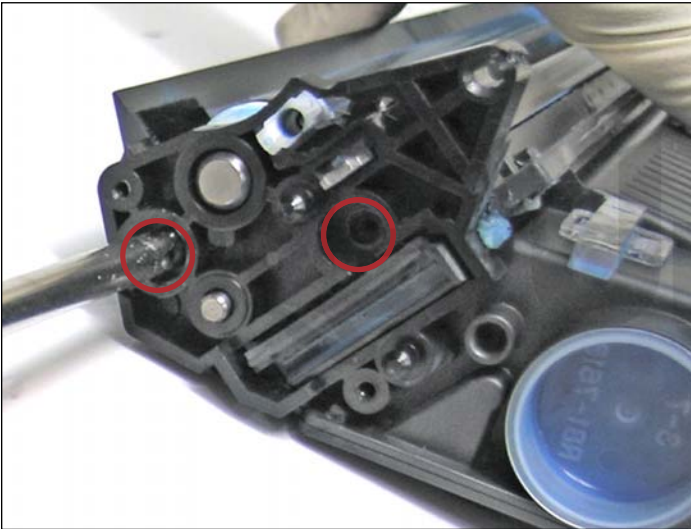
17. Remove the screws from the gear side support plate.



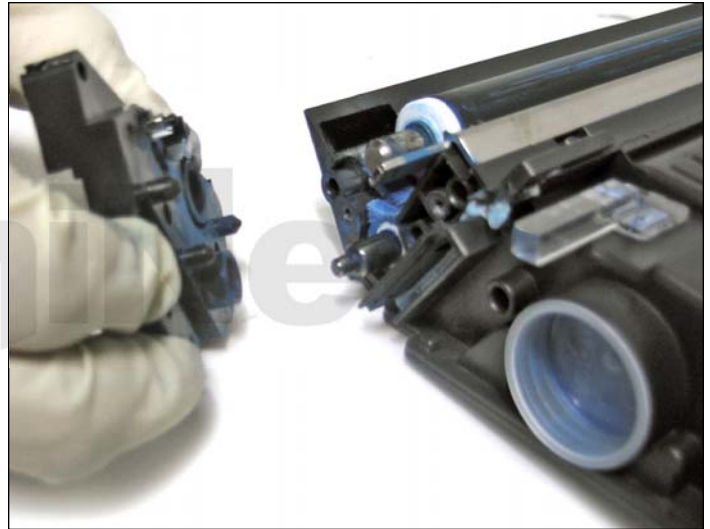
18. Slide the support plate out as shown.



19. With the gear side support plate removed, you can now remove the toner charging roller.



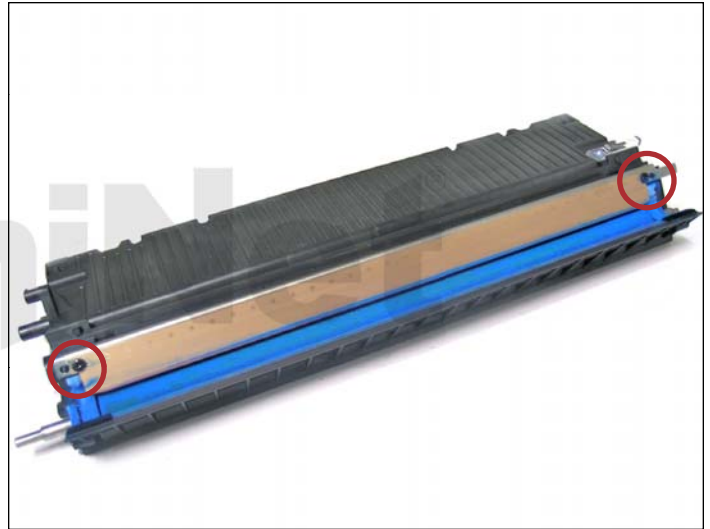
20. Remove the two screws from the developer roller support plate shown.



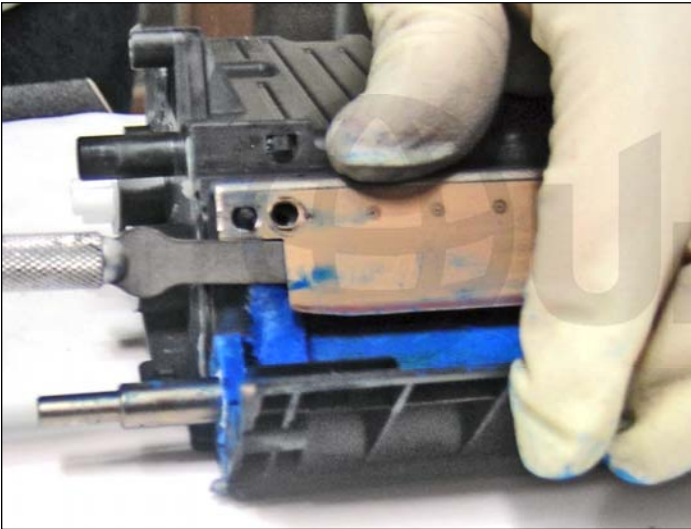
21. Remove the developer roller support plate.



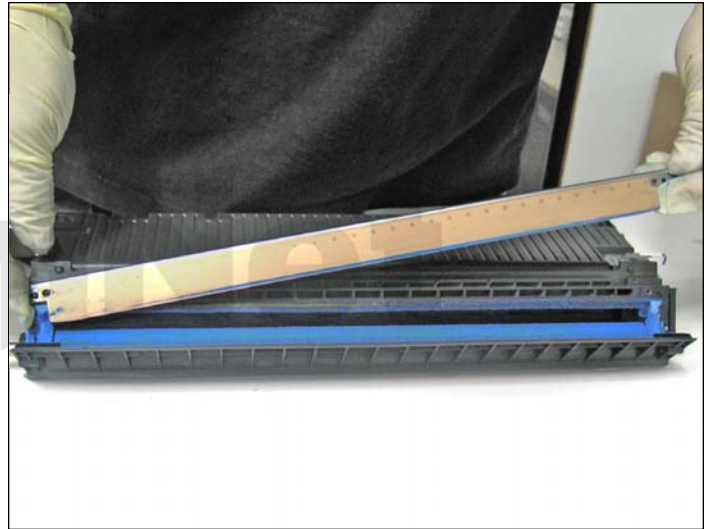
22. Remove the developer roller and set aside.



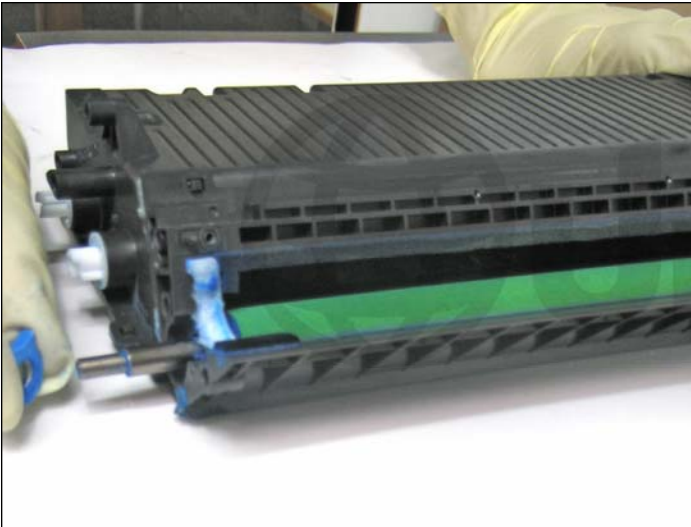
23. Remove the two screws on both ends of the doctor blade shown.



24. Before removing the doctor blade, you must first cut it loose from the foam seal glued to it underneath.



25. Remove the doctor blade.



REMOVING THE SUPPLY ROLLER*

***NOTE:** If you are not going to change the supply roller, skip steps 26, 27 and 29.

26. Remove the felt o-rings from opposite ends of the supply roller as shown.



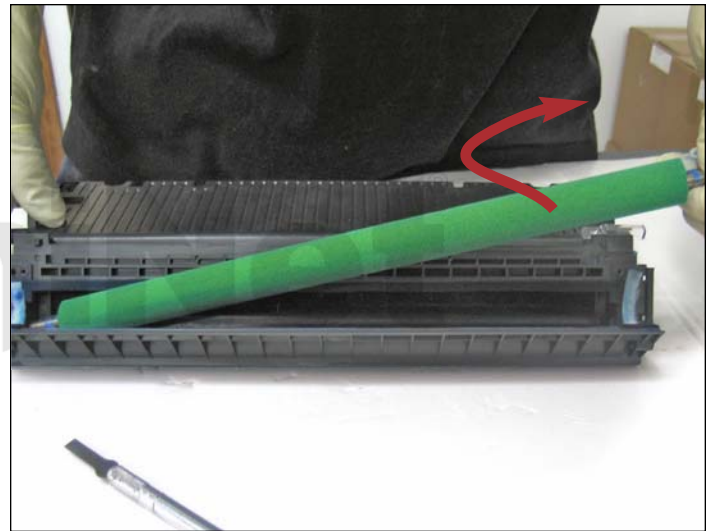
27. Using a square utility knife, carefully separate the magnetic roller felt from the supply roller shown.

Remove the rubber bearing that is holding the supply roller in place.



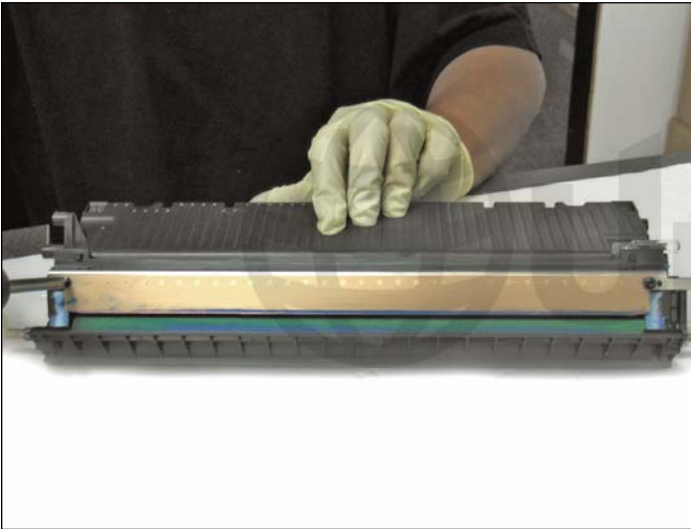
28. Remove the toner fill plug.

Empty residual toner and clean thoroughly using air pressure.

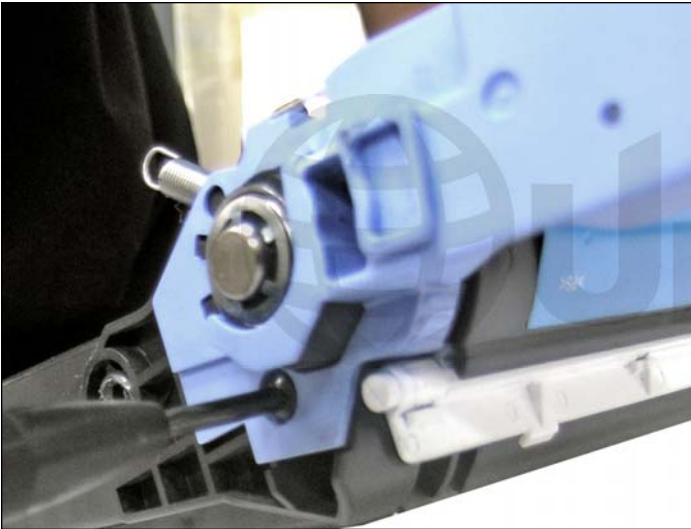


29. Remove the supply roller out in the manner shown.

Clean the hopper again with the roller removed.



31. Reinstall all components and refill with new toner for use in HP 5500.



DRUM UNIT DISASSEMBLY

32. Remove the two screws show on the blue handle on the gearless side of the drum unit.

Remove the handle.



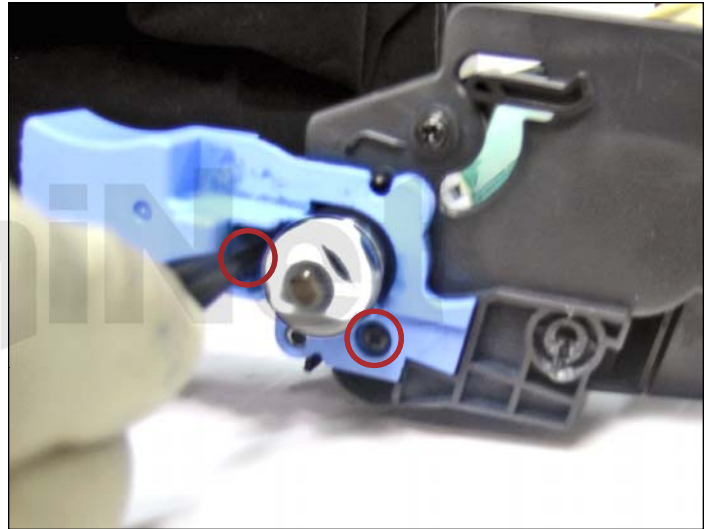
33. Remove the loose spring attached.



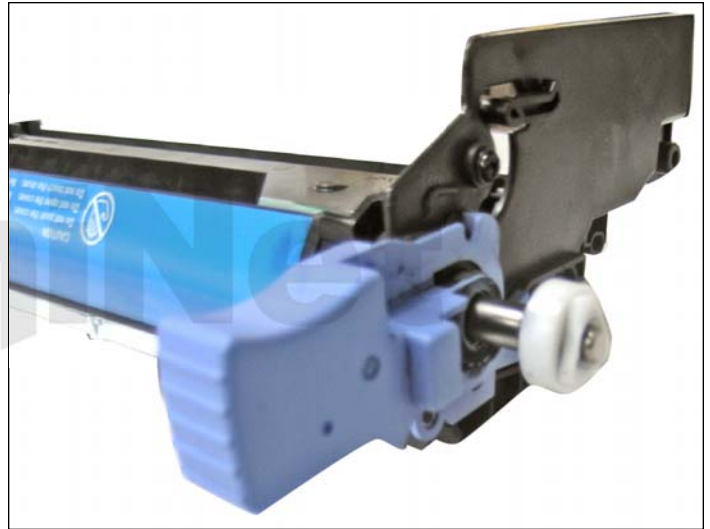
34. Remove the drum retainer ring shown.



35. Remove the inner brass ring behind it.



36. Remove the two screws from the blue handle on the gear side of the drum unit. Note that the drum axle inside is attached to it.

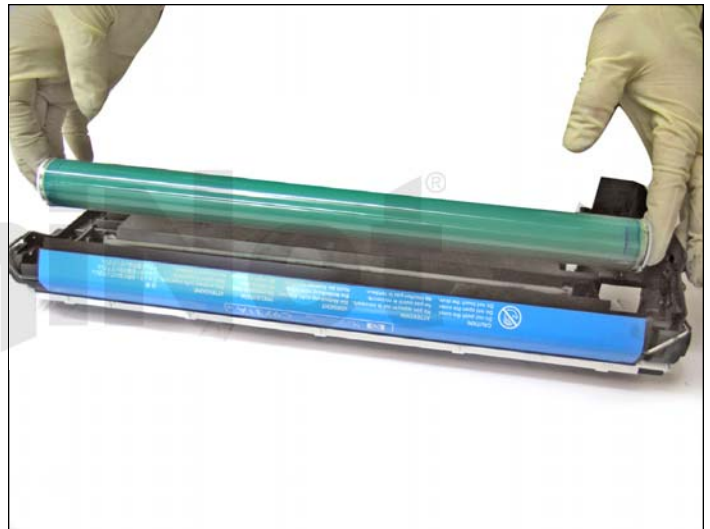


37. Use a pin puncher tool and hammer to punch in the drum axle in from the gearless side.

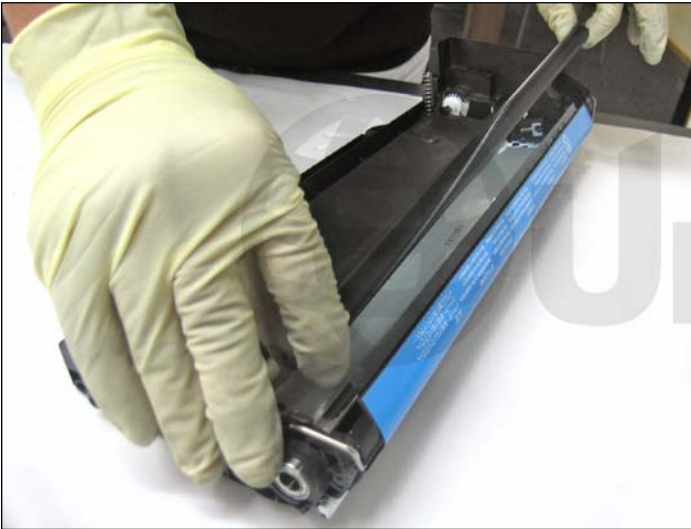
The axle and handle will come out through the opposite end.



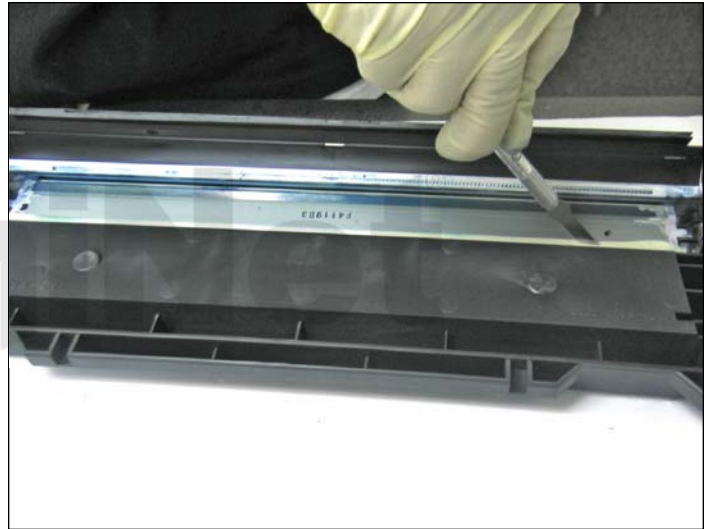
38. Slide the axle out completely as shown.



39. Remove the drum.



40. Remove the PCR.



41. Using an X-Acto knife, cut through the OEM seal to loosen the wiper blade.

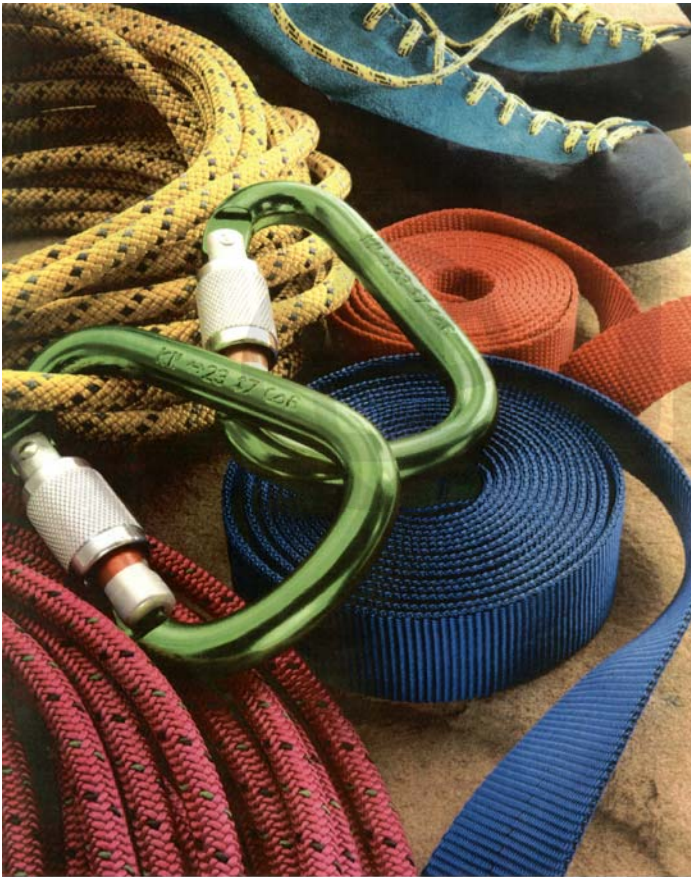


42. Remove the two screws from the wiper blade. Empty and clean the waste section thoroughly and reinstall when done.

NOTE: A new smartchip must be fitted after reassembly of the toner cartridge.

COLOR CALIBRATION:

1. Start from the READY position display, press the green check button which will take you to the MENU page.
2. Highlight option #3 (CONFIGURE DEVICE) and press the check button again. This will take you to the next window.
3. Highlight option #2 (PRINT QUALITY) and press the check button.
4. In the next window, scroll all the way down until you get to CALIBRATE NOW.
5. press the check button once more.
6. The machine will take several minutes to complete the calibration.



printed on an hp Color LaserJet 5500 printer



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COLOR CALIBRATION RESULTS:

True color representation shown with calibration.

Poor color representation shown without calibration. Image seems to have a reddish tint. Note the “blue” belt in the picture has turned purple.

DEFECTS DUE TO CARTRIDGE REMANUFACTURING:

Problem: Toner leakage and dark spots on printed image (toner build up).

Details: During printing, toner accumulates between the doctor blade and developer roller. If extensive, spots develop on printed images.

Causes:

1. Defective doctor blade or developer roller.
2. Improper assembly of cartridge (especially, the side leakage):
Imbalance in tightening of doctor blade
Worn-out end felt of developer roller
3. Weak charging of toner/possibly due to improper storage condition.

Suggestion:

1. Care in regeneration of cartridge components and not using damaged components.
2. Precise control of blade gap and replacement of end felt.
3. Maintaining the charging power of toner/proper toner storage.

Problem: Backgrounding.

Details: Toner speckles being printed in the margin of printed image.

Causes:

1. PCR contamination/defective PCR or wiper blade.
2. Lack of re-usability of OPC drum (defective surface or improper cleaning).
3. Calibration error due to worn-out transfer belt.
4. Weak charging of toner/possibly due to improper storage condition.

Suggestion:

1. Replace PCR and/or wiper blade.
2. Replace OPC drum.
3. Replace transfer belt.
4. Maintaining the charging power of toner/proper toner storage.

Problem: Streaking.

Details: Development of streaks on printed images.

Causes:

1. Physical or chemical damages of doctor blade and/or developer roller surface (scratches, damages of surface coating etc.).
2. Toner coating forms on blade due to an insufficient gap between doctor blade and developer roller.

Suggestion:

1. Proper regeneration of the components and selection of good components.
2. Change the cartridge assembly method.

- Problem:** Scattered toner in the edge of paper
- Details:** Traces of toner in the paper margin and edge section and contamination of transfer belt.
- Causes:**
1. Localized wear of OPC drum, wiper blade, PCR, developer roller, and/or doctor blade.
 2. Side leakage (toner build-up).
- Suggestion:**
1. Replace the worn component.
 2. Be careful with sealing properly during the cartridge assembly (end felt, sealing blade, recovery blade, etc.).

DEFECTS DUE TO IMPROPER TONER:

- Problem:** Image density (ID) problem
- Details:** ID of printed images is either too low or too high. Color gradation deviates too much from the linearity.
- Causes:**
1. Weak charging power of toner/possibly due to improper storage.
 2. Defective OPC drum, doctor blade, developer roller, adder roller.
 3. Calibration error due to defective Smartchip, worn-out transfer belt (may be a simple mis-calibration at printer switch-on).
- Suggestion:**
1. Maintaining the charging power of toner/proper toner storage.
 2. Replace worn components.
 3. Replace the Smartchip or the transfer belt (repeat the calibration more than three times before deciding to replace).