HP 2600 CARTRIDGE REMANUFACTURING INSTRUCTIONS



HP 2600N COLOR LASER PRINTER

Parts •

Coatings

PRELIMINARY **TECHNICAL DETAILS** AND REMANUFACTURING **INSTRUCTIONS FOR CMYK CARTRIDGES**

INCLUDES ALTERNATE SEAL ASSEMBLY USING **UniNet QUICKSEAL®**





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HP 2600N DETAILS

- New Canon engine 8 ppm.
- New AIO Cartridges.
- Miniature ASIC Chip 20% smaller in size than prior chips.
- · Smaller and cheaper.
- · Size and weight reduction.
- · Difficulties to recycle working on options.
- Major challenge to produce compatible chip.
- Below \$500.00.00 USD.

ELECTROPHOTOGRAPHIC SYSTEM

- New Canon engine 600 x 600 dpi.
- 780nm ASGI Laser con 4 prisms.
- · Single Pass.
- Direct imaging into paper. No transference band.
- New Chemical Toner.
- · Fast fusing, accept wide range of media.

CARTRIDGES WITHOUT CHIPS

- · Printer Initializes.
- Acts as if cartridge is missing, red light at panel, screen indicates "Install 'Black' Cartridge," etc.
- · Immediately shows figure of missing cartridge.
- Without chip in any individual cartridge printer would not work.
- Yellow indicates "10.1003 supply error."
- Cyan indicates "10.1001 supply error."
- Magenta indicates "10.1002 supply error."
- · Cannot reset chip and cannot print without chip.







HP 2600N CARTRIDGE

· Gross weight of cartridges are: BLK = 675g. YCM = 642g.

CARTRIDGE DATA

• Black ref. Q6000A yields 2500 A4 pages at 5% coverage. Hopper with 110g toner.

- Cyan ref. Q6001A yields 2000 A4 pages at 5% coverage. Hopper with 90 g. toner.
- Magenta ref. Q6003A yields 2000 A4 pages at 5% coverage. Hopper with 90g toner.
- Yellow ref. Q6002A yields 2000 A4 pages at 5% coverage. Hopper with 90g toner.
- · Optical detection for toner depletion.
- Metal pin left-side acts also as an electrical contact for PCR and Wiper Blade.
- Right-side pin is plastic and hollow, yet it can be extracted to disassemble the cartridge and is reusable.

CHINA

• Design of image section is such that it does not allow disassembly of the OPC drum.







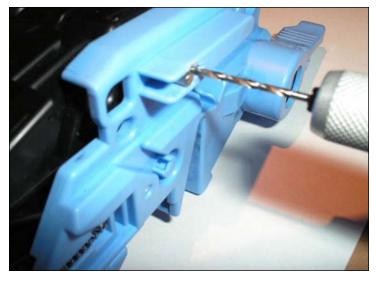


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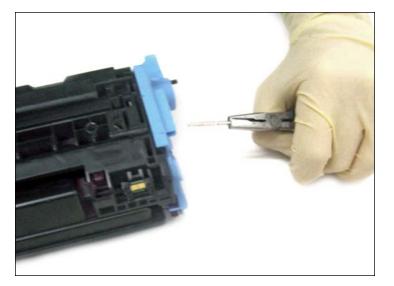


CARTRIDGE DISASSEMBLY: METAL PIN REMOVAL

1. Drill a parallel hole 2,5mm x 3mm deep just above the pin at the front of the cover as shown to allow extraction with needle pliers.



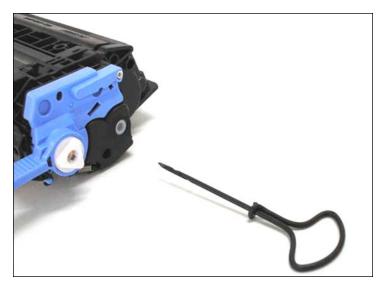
2. Grip the metal pin to pull it out with pliers. using a pair of tweezers, move the top metal tab back and forth while pulling slowly. This will allow disengagement of the pin from the internal contact without breaking the plate. Do not use apply any undue force in pulling. See step 15 explaining the consequences.



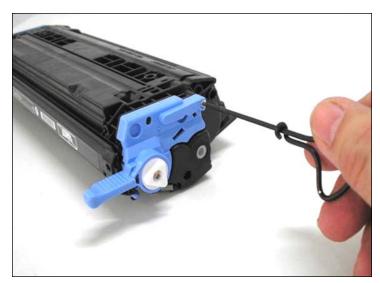
3. Metal pin extracted.

NOTES

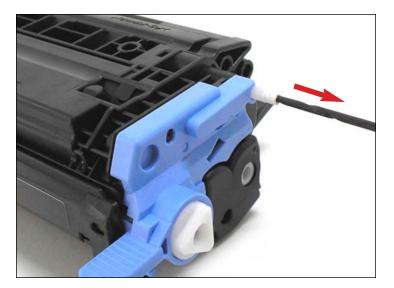




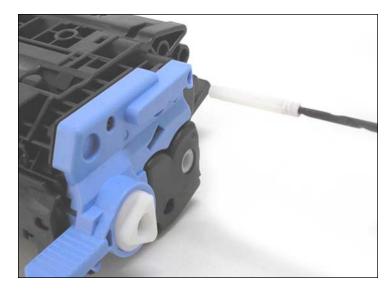
CARTRIDGE DISASSEMBLY: PLASTIC PIN REMOVAL 4. A 2mm (0,078") conical Boring Tool is used for this procedure. Alternatively use a 14-13 wood screw.



5. Thread the tool 3 or 4 turns into the plastic pin hole.

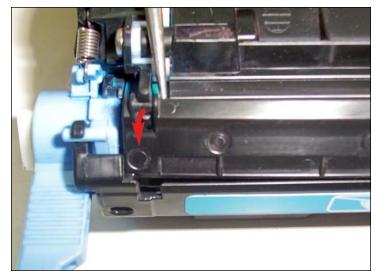


6. Once tool is firmly into the pin, start pulling straight out to dislodge the pin from the cartridge.



7. Pin extracted.





RELEASING THE DRUM SHUTTER FROM THE HOPPER

8. Using a scriber or small screwdriver, push the drum shutter toner hopper tab out from its housing on one side of the hopper.



9. Repeat the same procedure for the opposite side.

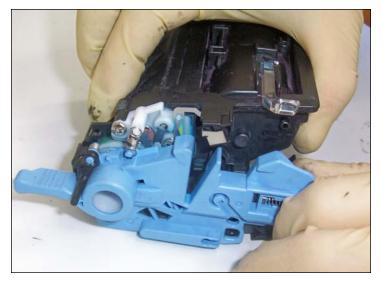




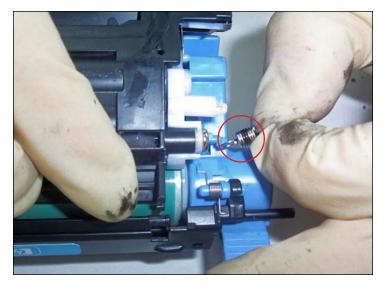


CARTRIDGE SEPARATION PROCEDURE

10. Insert a flat screwdriver in the area shown between the two sections of the cartridge and pry them apart.



11. Pull the sections apart far enough to grasp with your hands.



REMOVING THE TENSION SPRINGS

12. Remove the tension spring on the side of the cartridge as shown.

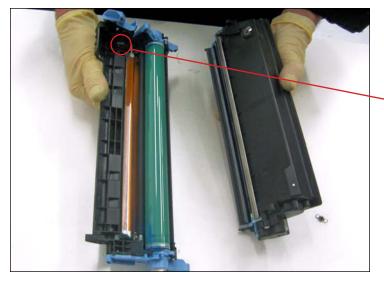
Note: The springs are different. The spring pictured here has a black mark which means it is the smaller spring that provides more tension.



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

Note: Spring tabs are very fragile and will recommend caution when installing or removing them in a difference manner.



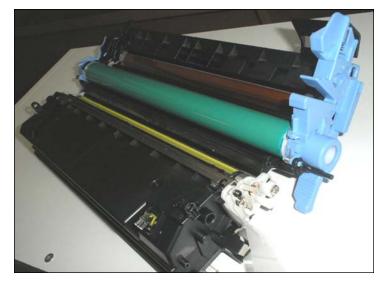


14. With the springs removed, carefully separate the two sections as shown.



ABOUT THE ELECTRICAL CONTACT

15. If undue force is applied during the removal of the metal pin and without concern for the integrity of the electrical contact (shown) it can be rendered useless.



16. Cartridge sections shown side by side.

NOTES

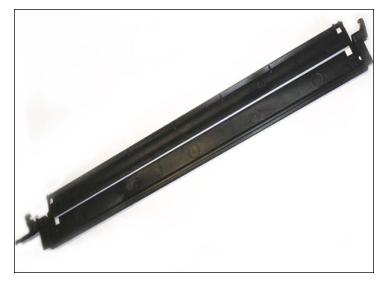




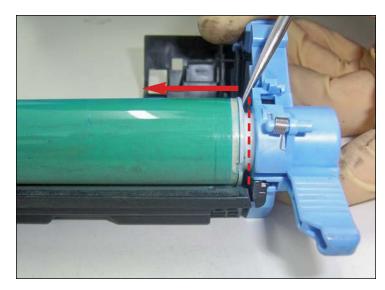
RELEASING THE DRUM SHUTTER FROM THE DRUM UNIT 17. Unhook the drum shutter from its support tab on one side of the drum unit.



18. Repeat the same procedure on the opposite side.



19. Drum shutter completely removed.



DRUM REMOVAL PROCEDURE

20. To replace the drum and to reach other components, it is necessary to actually cut off the non-contact plastic spindle shown.

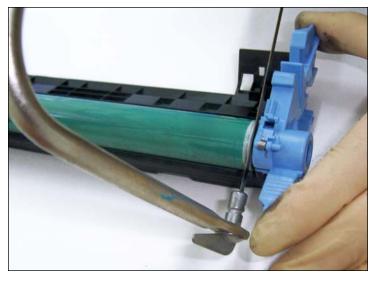
Use a scriber or small flathead screwdriver to push the drum away to avoid damaging the end cap during cutting.



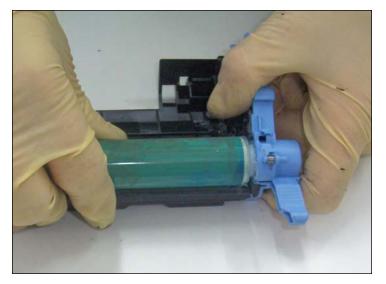


CUTTING THE OPC

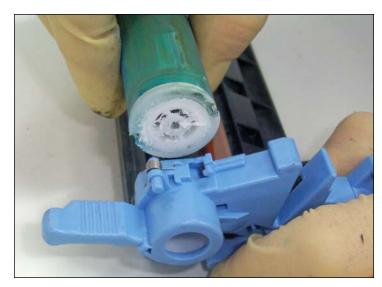
21. Using a hacksaw, begin cutting the non-contact spindle halfway only.



22. Rotate drum 90° counter-clockwise midway the cut to avoid going too deep and damage components.

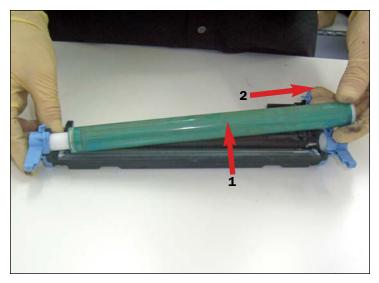


23. The drum can now be removed.



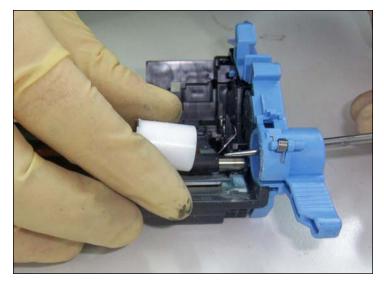
24. Drum shown with spindle severed off.



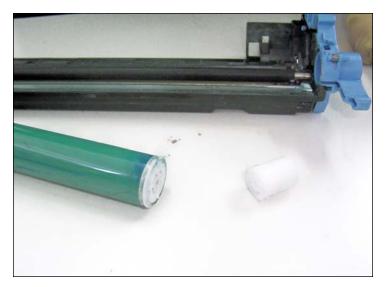


REMOVING THE OPC

25. Carefully lift the drum from the right side shown and slide it out.



26. Push in the sawed-off spindle out through the end cap as shown.



27. Spindle removed.

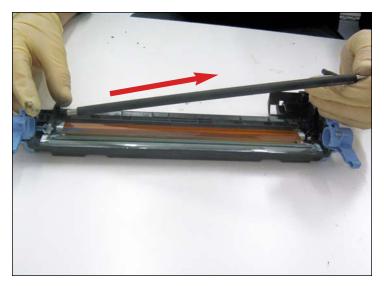
NOTES





REMOVING & CLEANING THE PCR

28. Using a pair of needle-nose pliers, pull the PCR out from one side as shown.



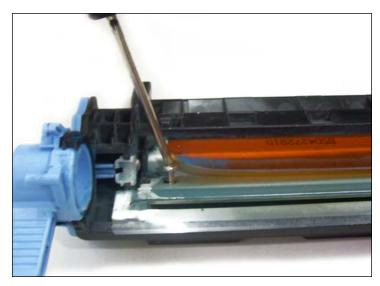
29. Then slide it out



30. Clean with a small amount of water and mild soap in case of contamination, otherwise use a simple dry pad.

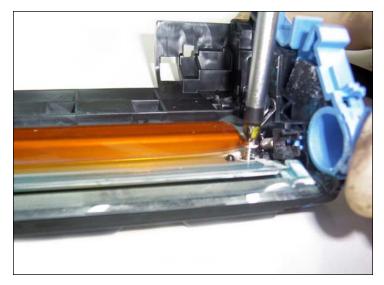
NOTES



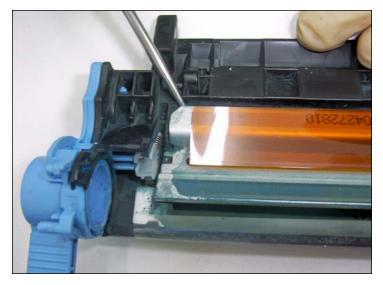


DISASSEMBLING THE WIPER BLADE

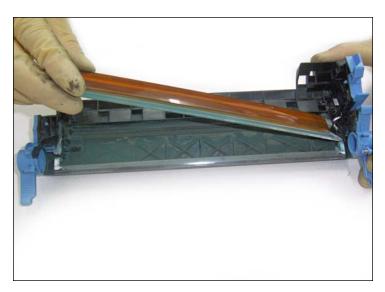
31. Disassemble the blade by removing the two phillips screws that hold it in place.



32. Be careful not to crease or damage the PCR contact strip attached.

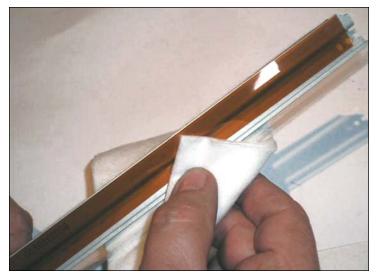


33. Use a scriber or flathead screwdriver to pry the wiper blade assembly from its adhesive seal.

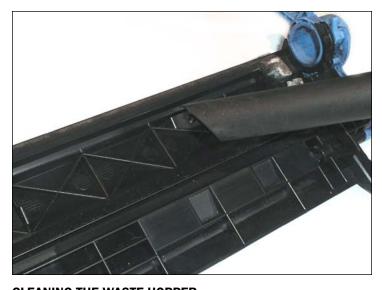


34. Lift the wiper blade out from one side and to the next.





CLEANING THE WIPER BLADE ASSEMBLY 35. Clean the wiper blade with a dry, lint-free cotton pad.

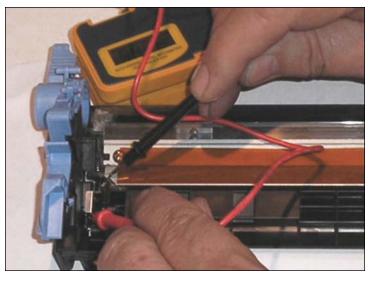


CLEANING THE WASTE HOPPER 36. Use a vacuum to clean the waste bin. This will allow you to re-use the OEM adhesive.

Avoid using compressed air to keep the toner from scattering and disrupting the purpose of the OEM adhesive seal.

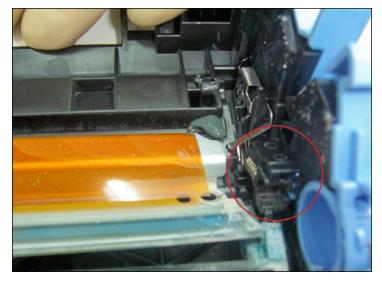


ASSEMBLING THE WIPER BLADE 37. Install the clean wiper blade assembly and tighten with the two Phillips screws.



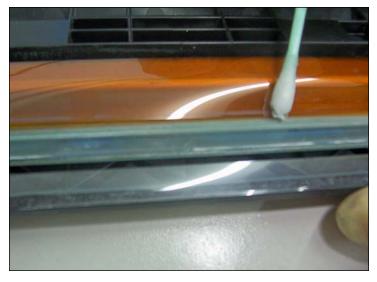
TESTING THE WIPER BLADE CONTACT 38. Check the electrical continuity with a Tester to ensure good contact of the wiper blade frame against main contact.



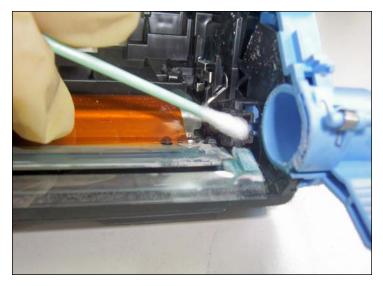


CLEANING THE PCR CONTACT STRIP

39. Remember to clean the PCR contact strip and PCR saddles where residual toner may still be present.



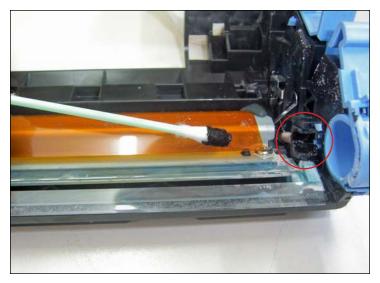
40. Using a cotton tip swab, clean the edges and underlining of the PCR blade.



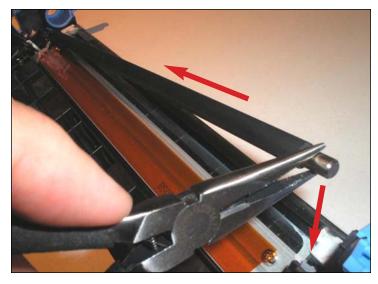
41. Apply a small amount of isopropyl alcohol for best results.

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42. Apply a small amount of conductive grease onto the black PCR saddles on both sides. Do not over-lubricate.

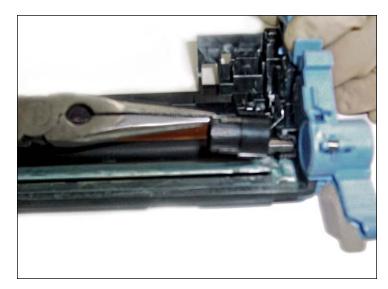


ASSEMBLING THE PCR

43. Install the PCR by sliding it into the saddle on one side then lowering it onto the other saddle using a pair of needle-nose pliers.



INSTALLING THE NEW UNIDRUM® OPC DRUM SOLUTION 44. A new covered OPC drum with pre-inserted drive/contact spindle and a separate non-contact spindle (shown) is required for this procedure.



45. First, lubricate the blue axle housings with a minimum amount of white bearing grease. Insert the non-contact spindle (shown) into the housing.

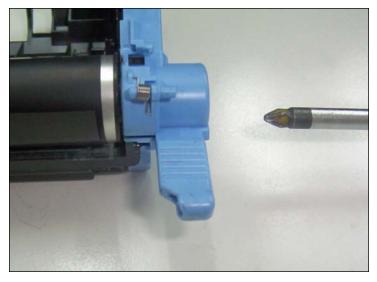




46. Carefully slide the drum with its drive/contact spindle into the axle housing on the left as shown.



47. Lower the opposite end of the drum into place as shown. Align flange with the axle attachment.

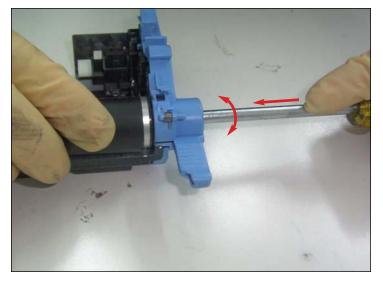


48. The next step is fitting the pieces together using a phillips screwdriver.

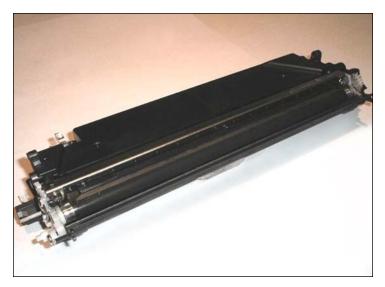


49. Close-up of axle housing.





50. Rotate the spindle back and forth to align it with the OPC. Once it is aligned, push inward until the spindle locks.

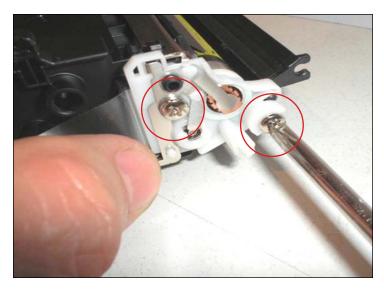


DISASSEMBLING THE DEVELOPER UNIT



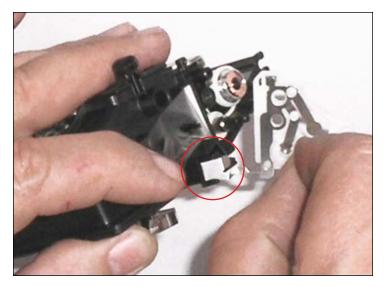
51. Before disassembling the toner hopper use a gapping tool to measure the gap between the doctor blade and the hopper.

This will ensure accurate repositioning of the doctor blade in the assembly process.



REMOVING THE CONTACT PLATE 52. Unscrew the two phillips screws shown to remove the contact side end-plate.

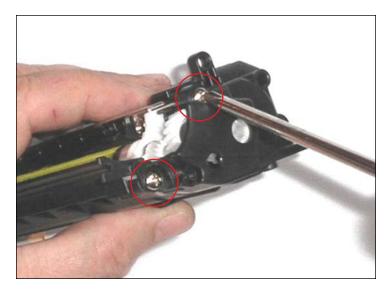




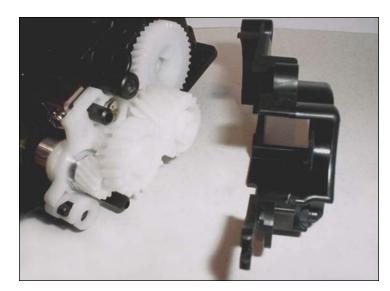
53. Carefully separate the contact plate assembly from the developer unit while keeping the contoured contact (shown) from being distorted, especially at the point of separating it from the pillar.



54. Contact plate removed with contoured contact shown intact.

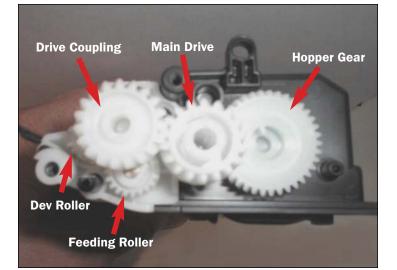


REMOVING THE GEAR-SIDE END PLATE 55. Unscrew the two phillips screws shown.

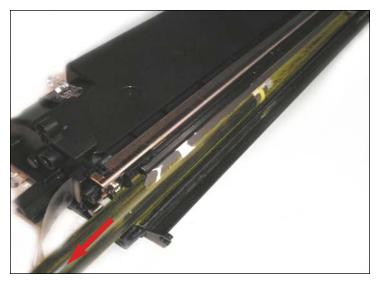


56. Separate plate carefully.





POSITIONING THE GEARS 57. Note the position of all the gears shown.



REMOVING THE DEVELOPER SLEEVE

58. After removing the gears, slide out the developer sleeve without damaging the <u>mylar</u> blade -- not the doctor blade beneath.



DEVELOPER SLEEVE MAINTENANCE

59. Secure the two bushings and clean the developer roller sleeve with compressed air. Alternate with a lint-free cotton pad. Be sure to clean the two bushings thoroughly.

RECYCLING TIP: APPLYING THE UNINET UNIVERSAL DEVELOPER ROLLER SLEEVE COATING SOLUTION (#6694)

This solution extends the life of the developer roller sleeve by applying a coating of Teflon and sealants to the transfer layer. The coating fills in surface scratches and provides much-needed lubrication to the sleeve to prevent wear that can lead to failure.

HOW TO APPLY:

• FIRST, pre-clean the developer roller sleeve with a dry lint free cloth. The cloth should remove toner and surface contaminants from the sleeve.

• SHAKE WELL. Pour a few drops of the solution onto a cotton pad. It must be a lint-free pad!

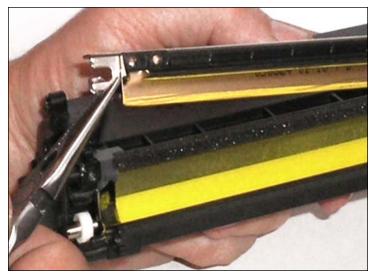
• Apply the solution in a back and forth circular motion along the axis of the developer roller sleeve. Go around the sleeve at least two times, applying a thin even coat

• Allow to dry for 3 to 5 minutes. Install the developer roller sleeve in the cartridge. You have successfully completed the process.

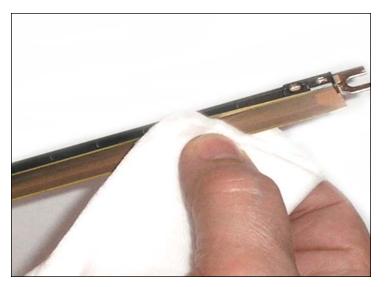




REMOVING THE DOCTOR BLADE 60. Remove the blade assembly by unscrewing both phillips screws on both ends of it.



61. Lift doctor blade carefully.

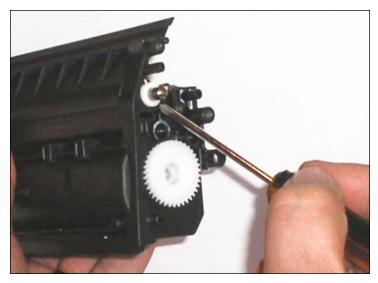


DOCTOR BLADE MAINTENANCE

62. Clean the working edge with a soft pad. Be aware that the working edge is made of coated steel which can be damaged by cleaning with solvents or applying excessive pressure.

NOTES

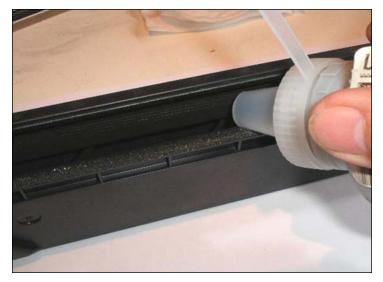




CLEANING THE FEEDING ROLLER & HOPPER 63. Note that the feeding roller cannot be taken out.



64. Vacuum the toner from the roller and from the hopper. Secure foam seal at each end.



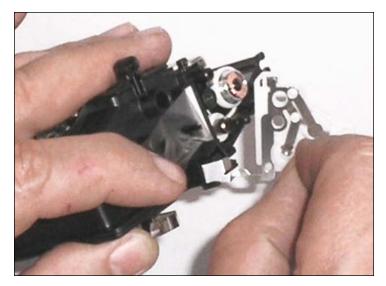
REFILLING THE TONER HOPPER

65. Refilling can be done thru the opening in the mag roller and the space on top of the feeding roller. Use a 12mm beak in the bottle and load the proper toner volume.

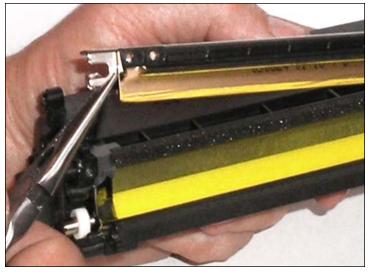


ASSEMBLING THE DEVELOPER ROLLER 66. Reinsert the bushings on each end of the developer roller shown and slide into place.

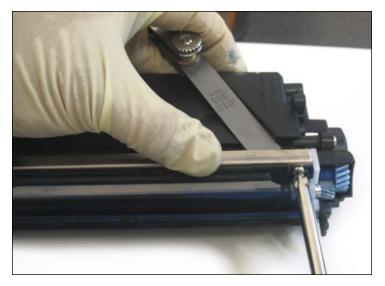




67. Apply a very small amount of conductive grease in the contacts ends, then install the contact plate with the two phillips screws.



ASSEMBLING THE DOCTOR BLADE 68. Fit Doctor Blade assembly into place.



69. Prior to installation, insert a gapping tool between the doctor blade and the hopper and adjust to the original measurement gap taken at disassembly (Step 54).

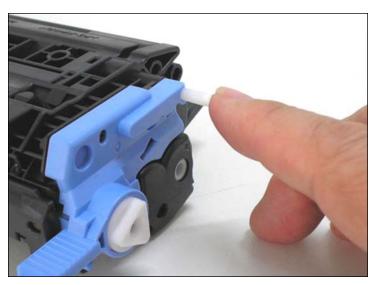
NOTES



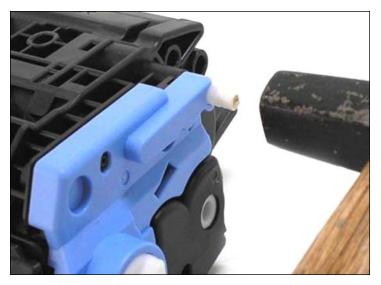


JOINING BOTH SECTIONS: METAL & PLASTIC PINS 70. Join both sections aligning the pin insertion points.

Insert the metal pin back into place until a click is heard.



71. Insert the plastic pin by hand mid way.



72. Then drive it home with a small hammer.



73. Section assembly is complete.

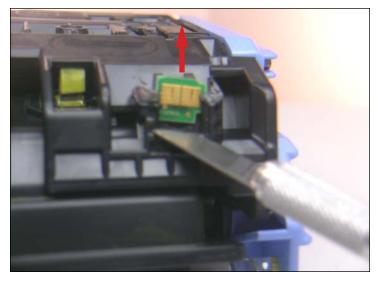




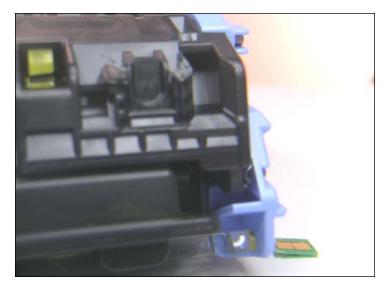
OEM CHIP REMOVAL PROCEDURE 74. Locate the OEM chip at the rear of the hopper.



75. Using an X-Acto knife, carefully cut away the melted plastic tabs above the chip that anchor it into place.

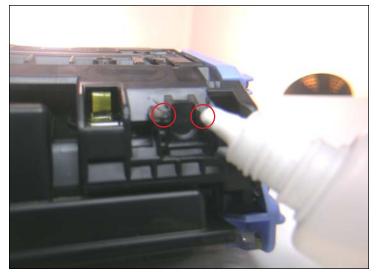


76. Slide the blade beneath the base of chip and begin lifting it up carefully, sliding it out through the slotted housing as shown.



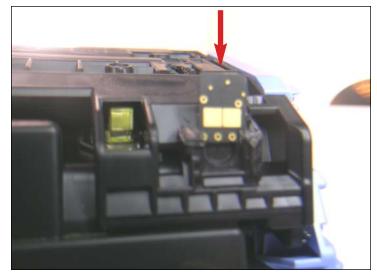
77. OEM chip removed.





REPLACING THE CHIP

78. Apply a small amount of plastic cement into the slots near the broken tabs shown. This will seal the sides of the replacement chip into place. NOTE: Be careful not to apply so much glue that would cover up the contacts rendering the chip useless.



79. Insert the new chip into the slots with the golden contact position shown.

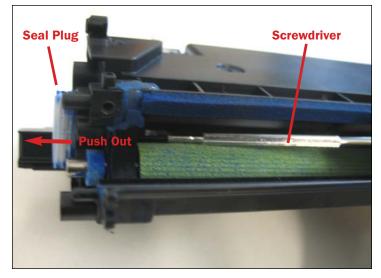


80. New chip inserted.

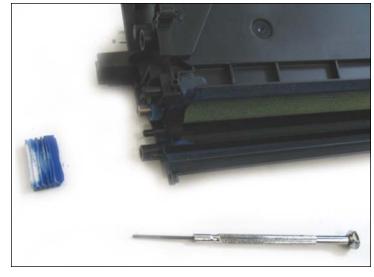


81. Allow the cement to dry before testing the cartridge.





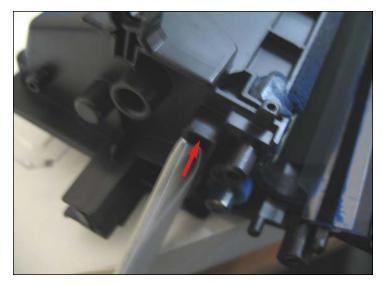
ALTERNATE SEAL ASSEMBLY USING UNINET QUICKSEAL[®] 82. Using a small flat head screwdriver force the exit seal plug (shown) from the inside.



83. Seal removed. Make sure the hopper is completely clean before installing the new seal.



PREPARING THE QUICKSEAL[®] 84. Fold both ends of the seal backward using your fingers. Bend in such a way to resemble the illustration shown.

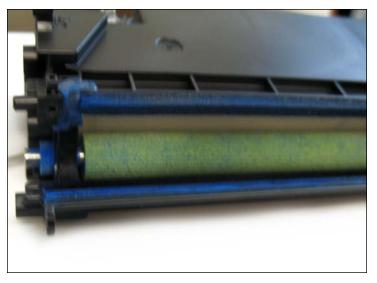


85. Insert the folded tips through the exit seal port opening as shown. Avoid peeling the adhesive backing while inserting the seal.

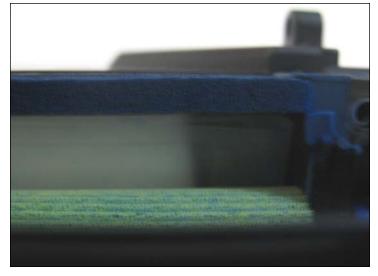




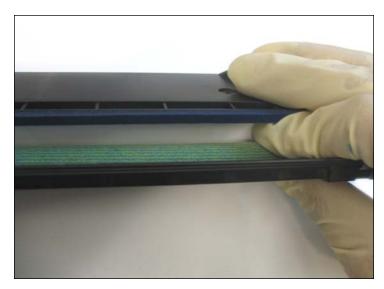
86. Once the seal tips have entered continue with the next step.



87. This point of reference illustrates the proper manner in which the seal has entered through the port.

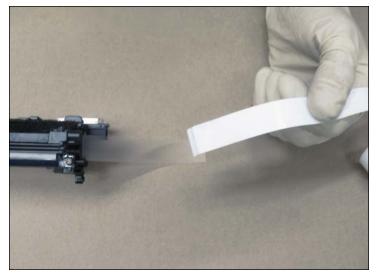


88. With the seal completely inserted, pull the white adhesive backing to reveal a small section.

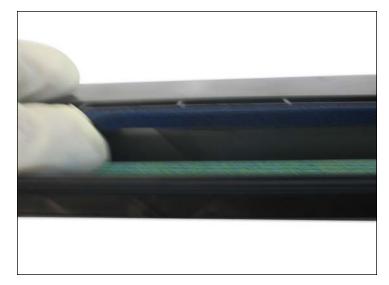


89. Adhere that small section to the hopper to secure the seal as shown.

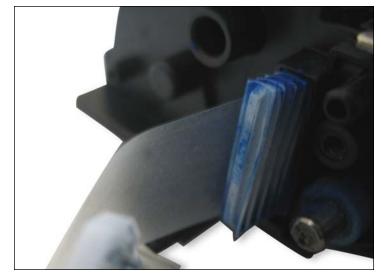




90. With the seal in place, pull the white backing to reveal the remaining portion.



91. Apply pressure to properly adhere the remaining seal to the hopper.



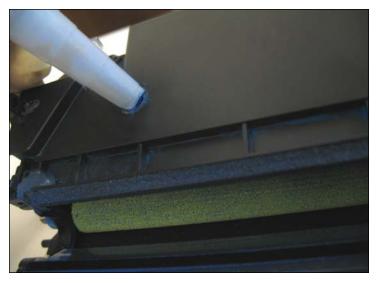
92. Install the exit seal port plug to complete assembly.



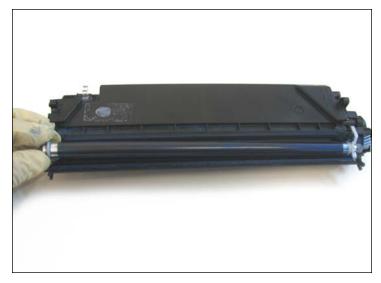
93. Using a soldering tool, melt a small hole through the top of the hopper. This will serve as an opening for refilling the cartridge.

NOTE: Soldering is recommended for limiting the amount of residue inside the cartridge. Drilling can also be utilized but make sure you clean the cartridge thoroughly afterward and always drill before installing the seal.

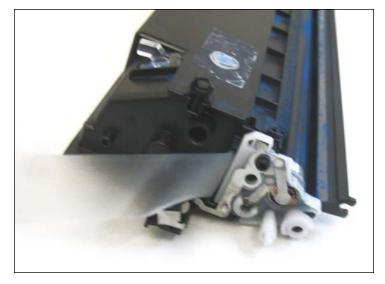




94. Refill the cartridge as shown, then cover the opening with sealing tape.



REASSEMBLING THE TONER HOPPER 95. Install the developer roller with the gear-side first.



96. With the developer roller in place, you can now install the contact plate and continue to the remaining assembly instructions beginning with step 67.

NOTES

