

HP 2300 REMANUFACTURING INSTRUCTIONS



HP 2300 LASERJET PRINTER



HP 2300 TONER CARTRIDGE



HP 2300 PRINTER SPECIFICATIONS

Released in March 2003, the HP 2300 series of printers are the first new HP laser printers to hit the market this year. Designed around an improved version of the HP 2200 engine, the performance of the HP2300 rivals that of the HP 4100 more than it does the HP 2200. The HP2300 features 1200 x 1200 dpi resolution, has a print speed of 25 pages per minute (except the HP 2300L, which can only print 20ppm) and can deliver the first page in just 10 seconds.

At an estimated starting price of \$600 for the base model HP2300L, which is lower than the price of the HP 2200 and \$700 for the HP 2300, which is about \$300 less than the HP 4100.

Like the machine the toner cartridge looks very similar to the HP 2200, the most notable changes being the design of the toner hopper and the green chip that is on the top left side of the waste hopper. The same style chips as found on the HP 4200 and HP 4300, are used to store information such as the cartridge serial number, the cartridge manufacturing date, the number of pages printed using that cartridge, as well as “toner low” and “toner out” status. All this information can be viewed by running a Printer Supplies Status Page. The HP 2300 will run with a used or “spent” chip, or with no chip at all, however steps must be taken and messages must be overlooked to run the cartridge.

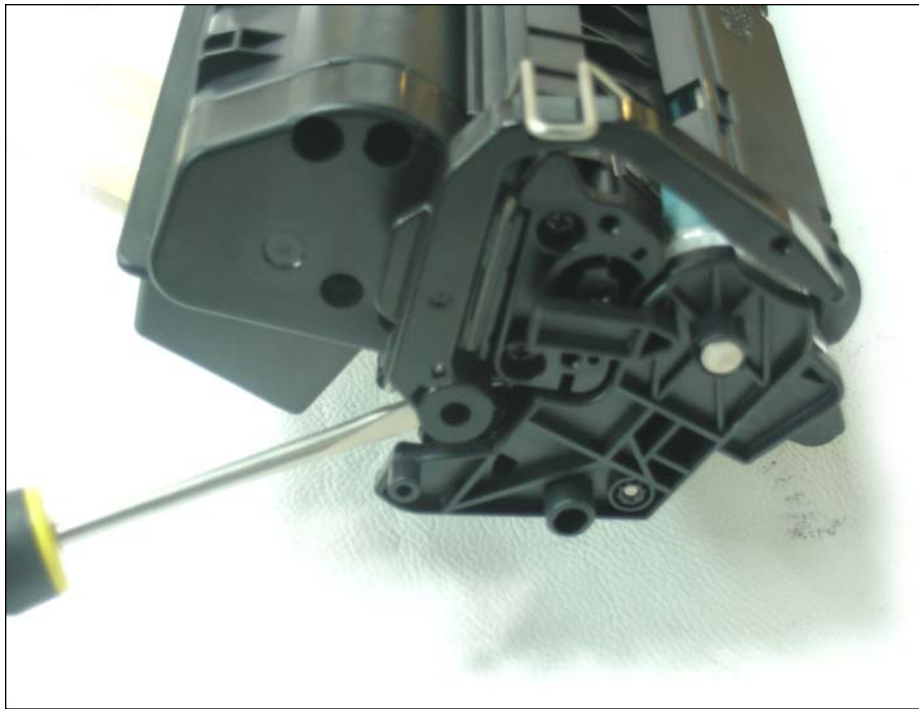
Without a chip the machine will display a “10.10.00 Supplies Memory Error”. To use the cartridge without the chip the green button with the check on it must be pressed. The machine will then display “Non HP Cartridge Detected” before going to ready. There are two other disadvantages to using the cartridge without the chip. The first is that the machine will never display toner low (the cartridge will continue to run until it is stopped by the user). The second problem is with the Supplies Status Page. All the

information that is normally displayed, estimated pages remaining, toner low reached, toner out reached, etc., are replaced by a warning. “A non Hewlett-Packard supply had been detected. Certain features (such as remaining toner value data) may not be available as a result of using this non Hewlett-Packard supply.”

The use of a cartridge with a used or “spent” chip has disadvantages as well. The first, being that the display will continually flash “Replace Cartridge.” The biggest problem being the information on the supply status page will be incorrect. The toner gauge will read 0% or 1%, the estimated pages remaining will always read 0, and the toner low and toner out message will always read reached. The only information that may be useful will be the pages printed with this supply, however it will continue adding to the previous total, having not been reset.

The cartridge itself (Q2610A) holds approximately 360 grams of toner and yields an estimated 6,000 pages @ 5% coverage that is 1,000 pages more than the HP2200. The estimated street price of this cartridge is around \$128. Some of the components on this cartridge, for example Doctor, Wiper and recovery Blades, mag roller bushings, shim washer for doctor blade, pins, etc are the same as for the HP 2200.

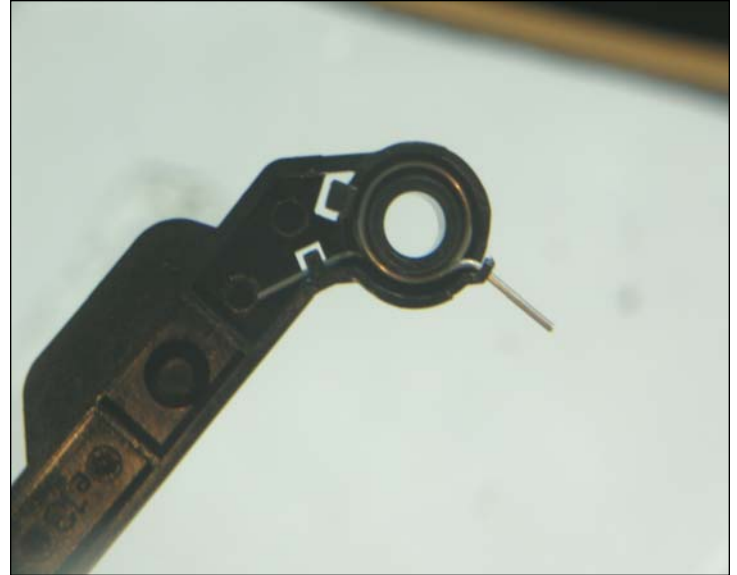




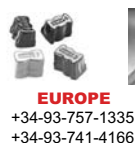
1. Like the HP2100 the cartridge pins need to be removed from the inside out. Place the cartridge top down so the drum is facing up. Using a small flat blade screwdriver, release the locking clip that holds the drum shutter arm to the toner hopper.

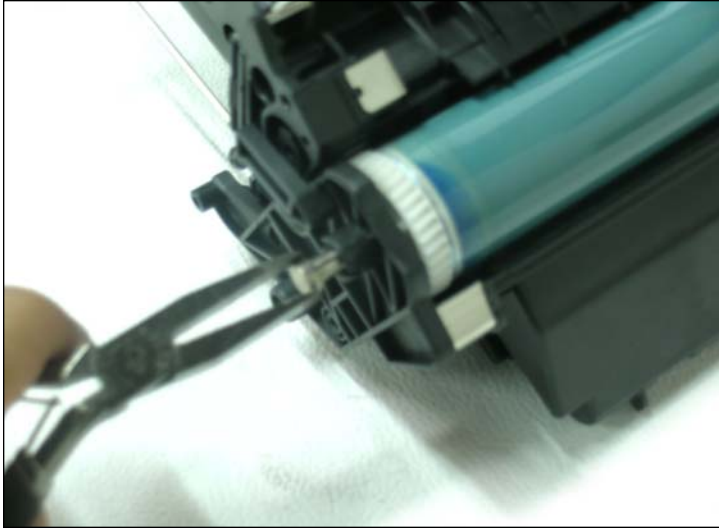


2. Remove the drum shutter arm from the drum shutter.



3. Attach the shutter arm tension spring to the shutter arm as shown.





4. Slide open the drum shutter exposing the drum. Using needle nose pliers remove the drum axle pin from the small gear side of the drum.

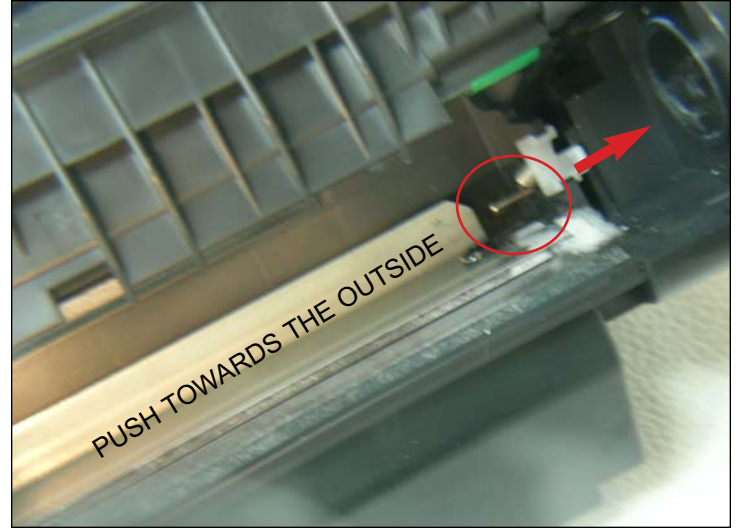
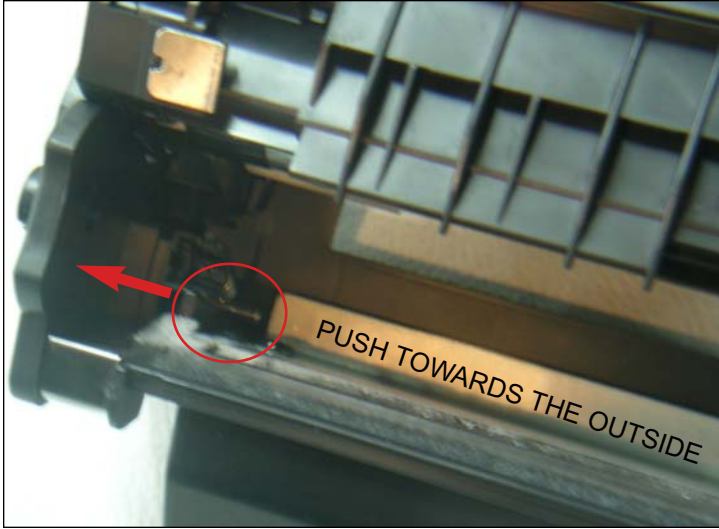


5. With your left hand press the waste hopper and toner hopper together, while lifting the small gear end of the drum out from the cartridge.



6. Using needle nose pliers grasp the PCR by the metal shaft and remove.
 NOTE: Clean the PCR using Uninet PCR Cream # 563 or mild soap and water.
 Allow the PCR to dry perfectly before using.

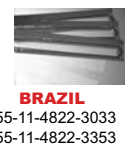
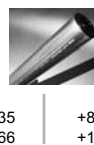
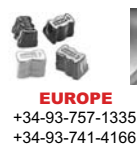


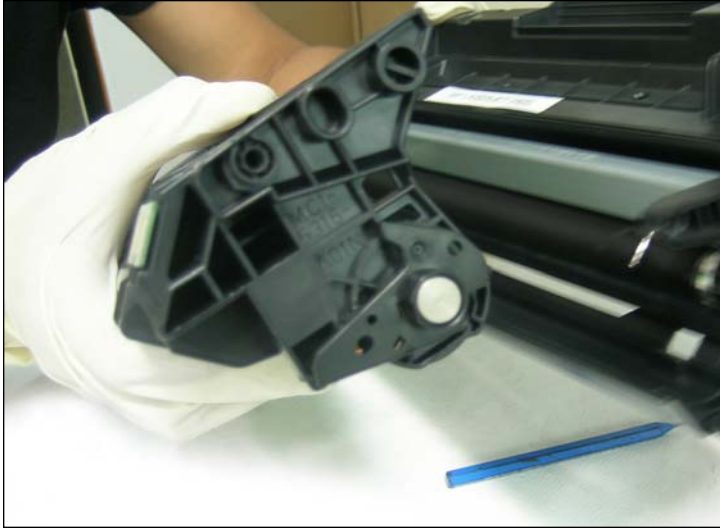


7. Locate the cartridge pins on each side of the cartridge next to the metal stamping of the wiper blade. Using a screwdriver press the in towards the outside of the cartridge.



8. Using diagonal cutters remove the cartridge pins from the both sides of the cartridge.





9. Separate the two sections of the cartridge.



10. Using a Phillips screwdriver remove the two screws holding the wiper blade to the waste hopper. Remove the wiper blade. Dump the waste toner from the hopper. Clean the waste hopper with a vacuum or compressed air.

NOTES



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11. Apply padding powder to the wiper blade. Place the wiper blade onto the waste hopper. Install the two screws that hold the wiper blade in place.



12. Clean the PCR saddles using a swab and alcohol, and apply new conductive grease to the black conductive saddle.

Install the cleaned PCR.

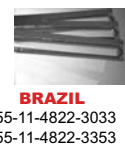
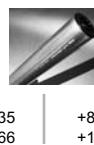
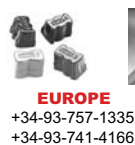


13. Apply padding powder to the drum. Install the drive gear side of the drum into the bearing hub.



14. Slide the drum axle pin into the small gear side of the drum.

Set the waste hopper section of the cartridge aside and cover.





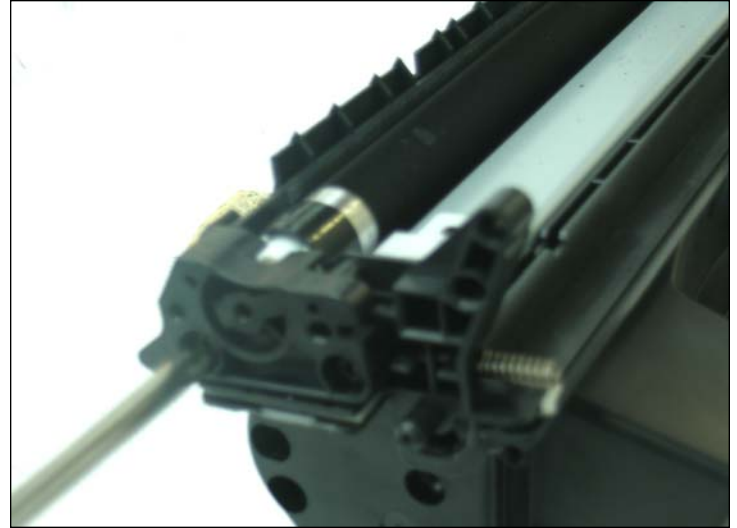
15. Remove the drum shutter bar from each side of the toner hopper and remove the shutter.



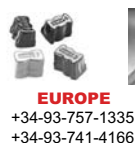
16. Using a Phillips screwdriver remove the two screws that hold the toner hopper gear housing end cap to the hopper.



17. Pull the gear housing end cap from the end of toner hopper.

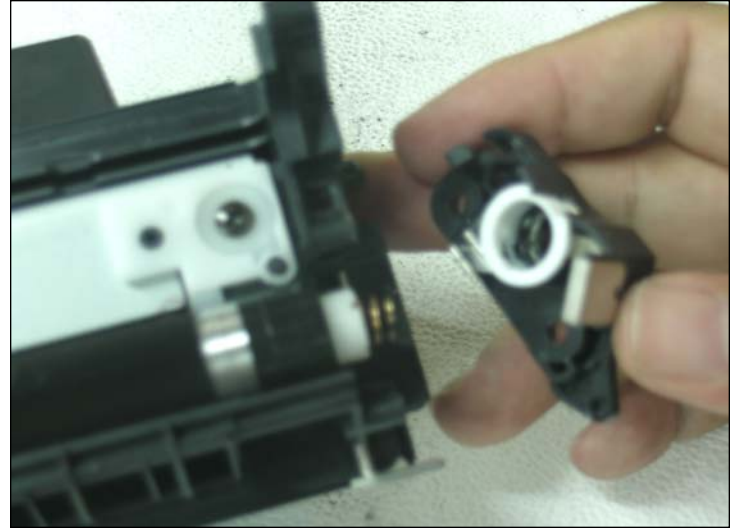


18. Carefully rotate the cartridge 180°, remove the two Phillips screws from the contact mag roller contact end cap.





19. Using a small flat blade screwdriver press down on the locking clip that holds the contact end cap to the toner hopper.



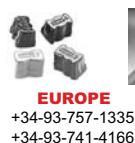
20. Remove the end cap. NOTE: Do not lose the white bearing that sits inside the contact end cap.

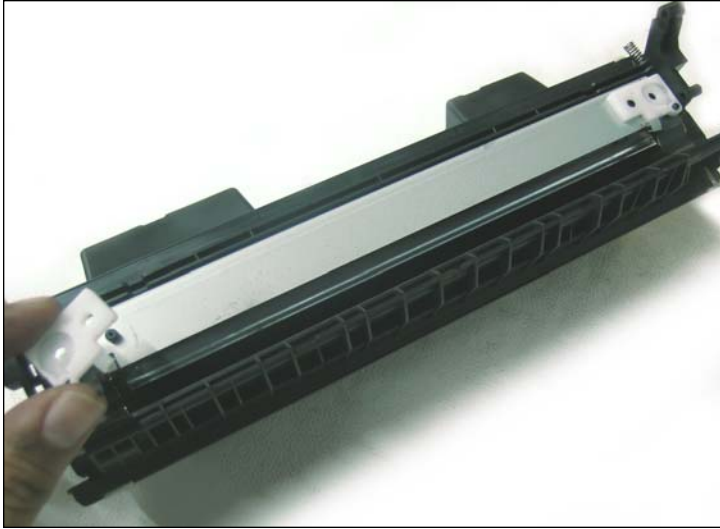


21. Lift the mag roller out from the toner hopper. Remove the black drive gear, the stabilizing bar and the mag roller bushings from the ends of the mag roller. Using dry compressed air or a vacuum, clean the toner off the mag roller. Clean the roller using a lint-free cloth and a mag roller cleaner. Clean the roller bushings should be cleaned using a lint-free cloth and alcohol. NOTE: Do not lose the C-bearing that sits inside the stabilizing bar.



22. Remove the two screws holding the doctor blade to the toner hopper. NOTE: The two screws used to hold the doctor blade are longer than the normal cartridge screws. Make sure the correct screws are used when reassembling the toner hopper.





23. Remove both mag roller scrapers from each end of the mag roller.



24. Lift out the doctor blade. Clean the doctor blade first using compressed air or a vacuum, then using a lint free cloth and alcohol.

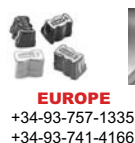


25. Remove the mylar spacers that sit behind the doctor blade on each end of the toner hopper.

Clean the toner hopper using a vacuum or dry compressed air.

Fill the toner hopper using the correct gram fill.

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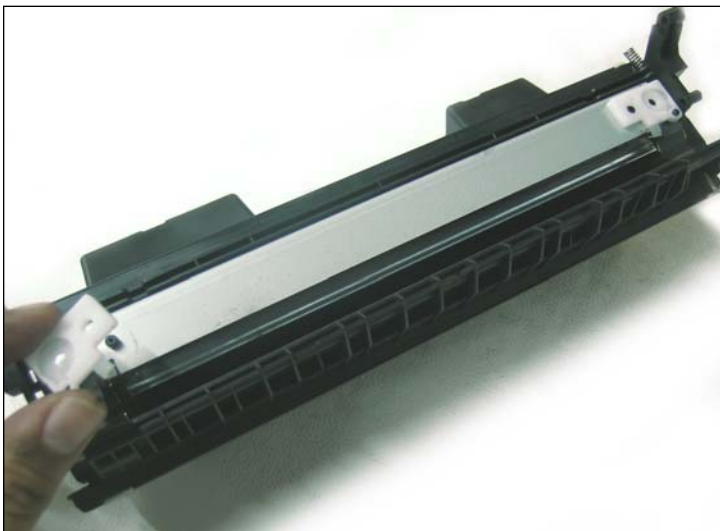




26. Install the two mylar shims that sit under the doctor blade.



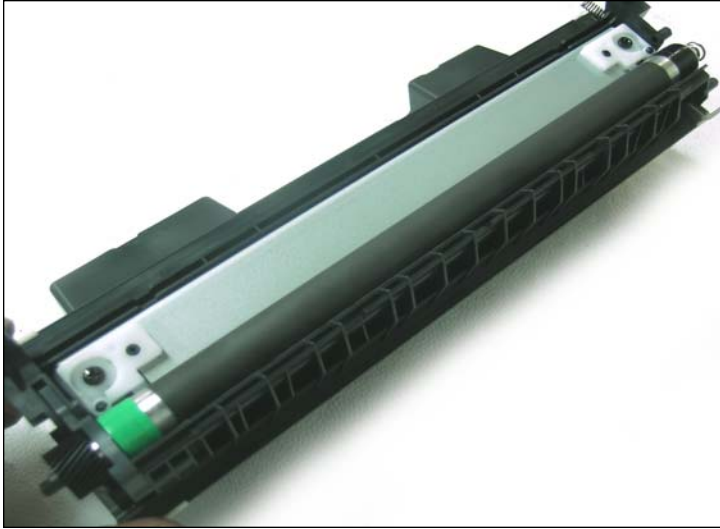
27. Place the doctor blade onto the toner hopper.



28. Set the mag roller scrapers onto each end of the doctor blade and install the two large screws that hold the doctor blade in place.



29. Slide the black mag roller bushing onto the contact side of the mag roller, and the green bushing onto the drive gear side of the roller. Install the stabilizing bar onto the mag roller with the C-bear facing towards the mag roller bushing. The mag roller drive gear will fit onto the mag roller either way, however the flat side of the drive gear needs to face the mag roller-stabilizing bar and the side of the gear that has the dimples faces outward.



30. Place the mag roller into the toner hopper.



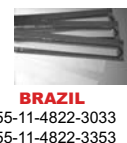
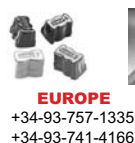
31. Press the mag roller contact end cap onto the toner hopper. Install the two screws that hold the end cap.



32. Slide the gear housing end cap onto the toner hopper. Install the two screws that hold the end cap to the hopper.



33. Install the drum shutter bar into the slots on each end of the toner hopper.

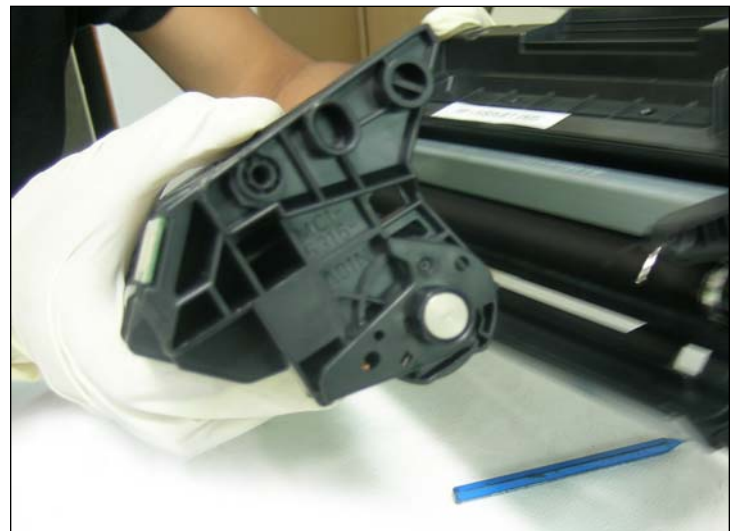




34. Slide the drum shutter arm onto the alignment post and install the shutter arm to the drum shutter.



35. Open the shutter to engage the tension spring.



36. Holding the drum shutter open join the toner hopper and waste hopper together.



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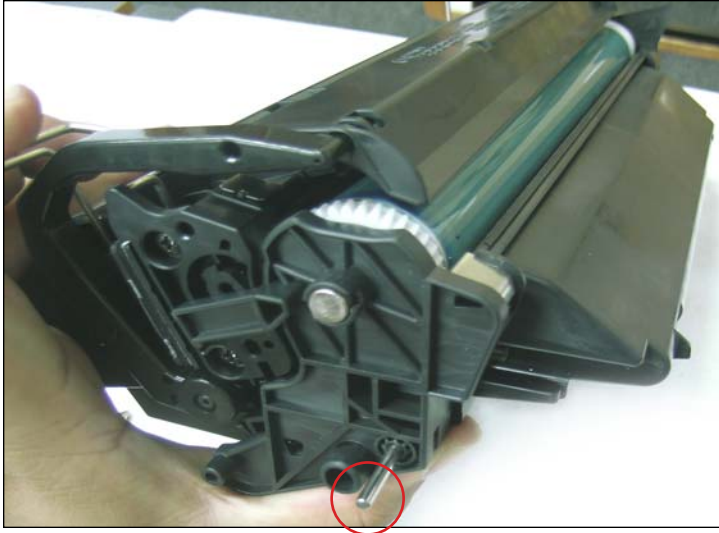
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37. Install the long cartridge pin on the drive gear side, and the short cartridge pin on the small gear side of the cartridge. Test the cartridge.

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