

LEXMARK™ E-260 • 360 • 460 TONER CARTRIDGE & DRUM UNIT REMANUFACTURING INSTRUCTIONS



TONER CARTRIDGE



DRUM UNIT

REMANUFACTURING THE LEXMARK E260/360/460 TONER CARTRIDGE & DRUM UNIT

By Mike Josiah

The Lexmark E260/360/460 machines were introduced in January 2006. They are replacing the E250/350/450 series of machines. These cartridges are not backwards compatible with the E250/350/450series, they are all physically different. The cartridges and chips (toner cartridges) are all new.



Figures above show the new cheese cloth type wrapper the new cartridges come in and the new plastic spacer. The plastic spacer keeps the PCR from flattening contacting the drum.

The new machines are based on a Lexmark 35 or 40ppm (depending on the printer), 1200 DPI engine. With a street price of around \$199.00 USD (January 2009) for the E260, these machines continue to be very popular.

One major change in these cartridges is the way the drum is held into the cartridge. Gone are the days where there was just an E-ring you had to remove to be able to remove the drum. Now there is a plastic locking ring that can be tricky to remove without damaging it. It can be done but you have to be careful. You also need to watch your fingers as you remove this ring. You can easily slip and damage some fingers (trust me on this).

As with all the Lexmark E series machines, there are two cartridges used for this engine, a toner and drum unit. These instructions cover the drum unit. While the toner cartridges are different for different regions of the world, the drum unit is the same worldwide. A listing of all the cartridges available worldwide as well as US pricing follows.

NOTE: These cartridges are NOT backwards compatible with the E250/450/series. The cartridges are physically different and chips used in the toner cartridges are all new.

These cartridges also use chips that's should be replaced each cycle for the cartridges to have full functionality.

CARTRIDGES FOR USE IN THE E260/360/460 • USA & CANADA

Part#	Type	Yield	List Price
E260A11A	Std. Return cartridge	3,500	\$95.50 USD*
E260A21A	Standard cartridge	3,500	\$122.50 USD*
E360H11A	HY Return E360/460 ONLY	9,000	\$175.50 USD*
E360H21A	HY Standard E360/460 ONLY	9,000	\$202.50 USD*
E460X11A	EHY Return cartridge E460 ONLY	15,000	\$321.50 USD*
E460X21A	EHY Standard Cartridge E460 ONLY	15,000	\$348.50 USD*
E260X22G	OPC Drum cartridge (All)	30,000	\$37.50 USD*

*Pricing from January 2009

CARTRIDGES FOR USE IN THE E260/360/460 • EUROPE & THE MIDDLE EAST

Part#	Type	Yield
0E260A11E	Std. Return cartridge	3,500
0E260A21E	Standard cartridge	3,500
0E360H11E	HY Return E360/460 ONLY	9,000
0E360H21E	HY Standard E360/460 ONLY	9,000
0E460X11E	EHY Return cartridge E460 ONLY	15,000
0E460X21E	EHY Standard Cartridge E460 ONLY	15,000
0E260X22G	OPC Drum cartridge (All)	30,000

CARTRIDGES FOR USE IN THE E260/360/460 • LATIN AMERICA

Part#	Type	Yield
E260A11L	Std. Return cartridge	3,500
E260A21L	Standard cartridge	3,500
E360H11L	HY Return E360/460 ONLY	9,000
E360H21L	HY Standard E360/460 ONLY	9,000
E460X11L	EHY Return cartridge E460 ONLY	15,000
E460X21L	EHY Standard Cartridge E460 ONLY	15,000
E260X22G	OPC Drum cartridge (All)	30,000

The same drum cartridge as noted above is used worldwide.

MACHINES BASED ON THIS ENGINE**Lexmark E260d, E260dn, E360d, E362dn, E460dn, E460dw**

How to take test prints, resetting the printer* as well as cartridge troubleshooting are covered at the end of the article. *NOTE: These drum units do not use chips. They do however need to be reset when replaced. The reset procedure is listed at the end of this article.

SUPPLIES REQUIRED FOR TONER CARTRIDGE

- Lexmark E260/460 toner:
120g (low yield E260)
310g (high yield E360)
514g (extra high yield E460)
Preliminary weights testing is on-going.
- Toner magnet cloths
- Lint-free synthetic cotton 4"x 4" pads
- 99% pure isopropyl alcohol
- Cotton Swabs

SUPPLIES REQUIRED FOR DRUM UNIT

- New Replacement drum
- New Wiper Blade
- Cotton Swabs
- Isopropyl Alcohol
- Drum Padding Powder

TOOLS REQUIRED

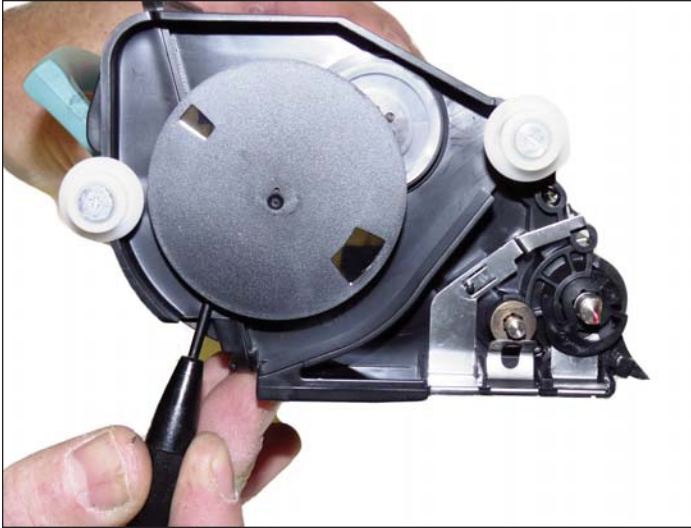
- Phillips head screw driver.
- Small Common screw driver
- Vacuum approved for toner
- Needle Nose Pliers



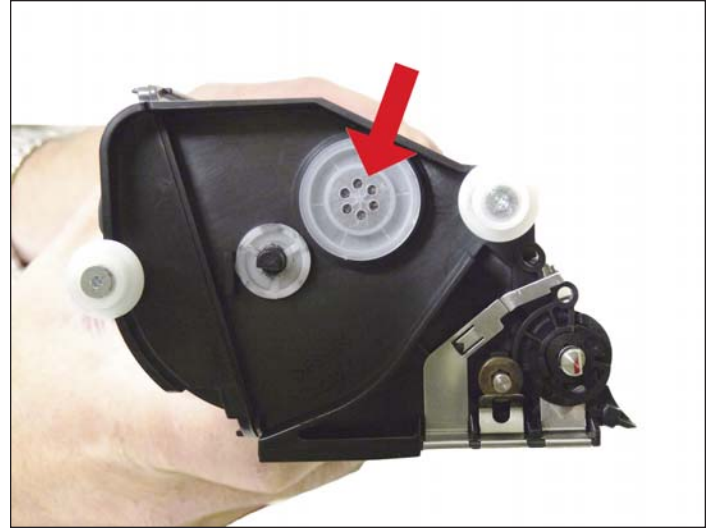
TONER CARTRIDGE INSTRUCTIONS



1. Remove the developer roller screw & cover. Remove the screw and bend the cover out from the middle. There are 2 pins on each side that will break if you just pull it off



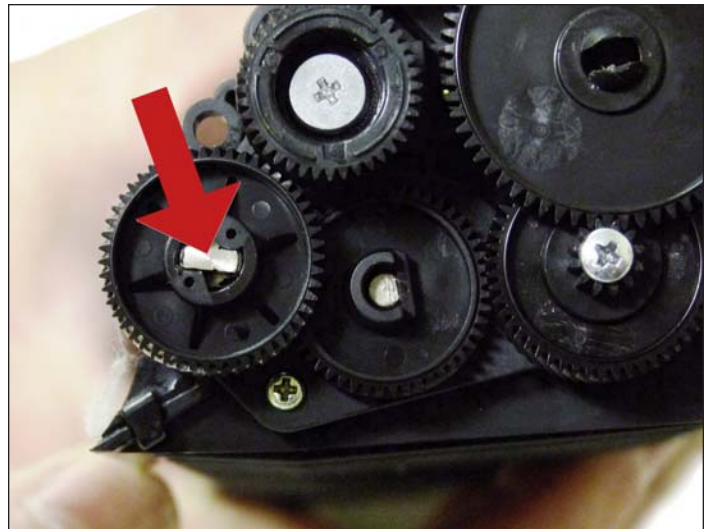
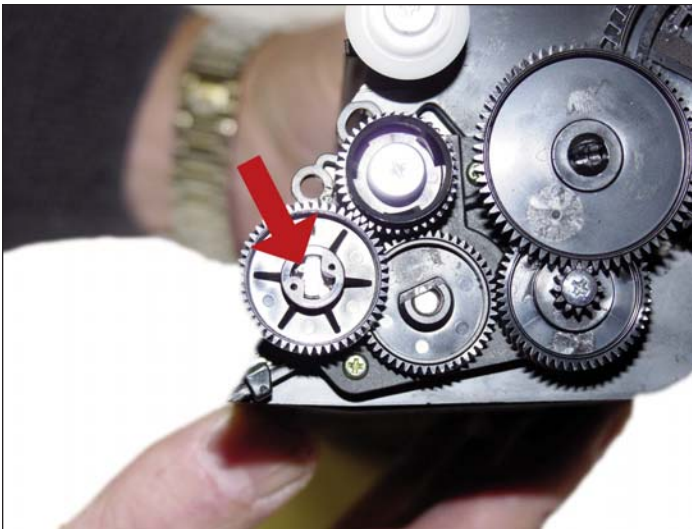
2. Remove the encoder wheel. Pry it off from the back side.



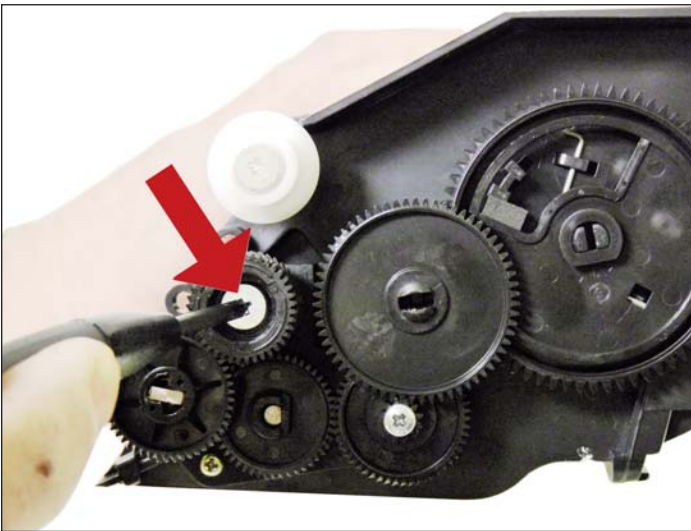
3. Remove the fill plug, and dump out any remaining toner.



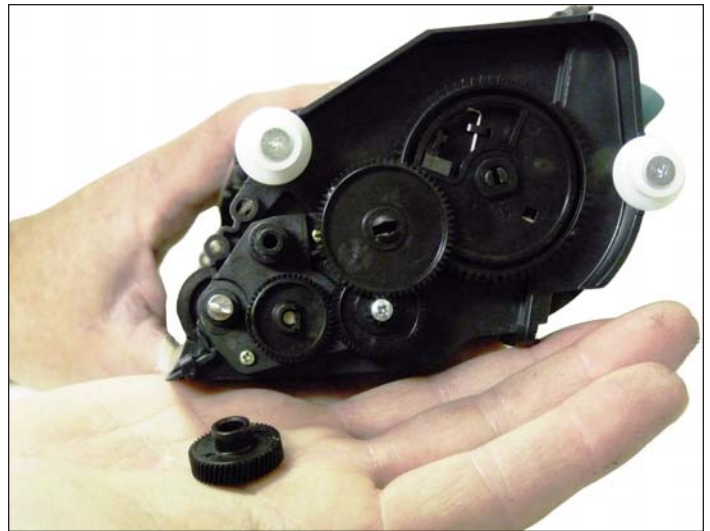
4. Remove the leaf spring. The doctor blade will come loose. Place the blade aside.



5. On the gear side of the cartridge, remove the developer roller drive gear. This gear is locked on the shaft. While holding the roller, turn the gear to the right to release the lock. The gear does not come off yet.



6. Remove the screw and the top idler gear.



7. Remove the developer roller drive gear.



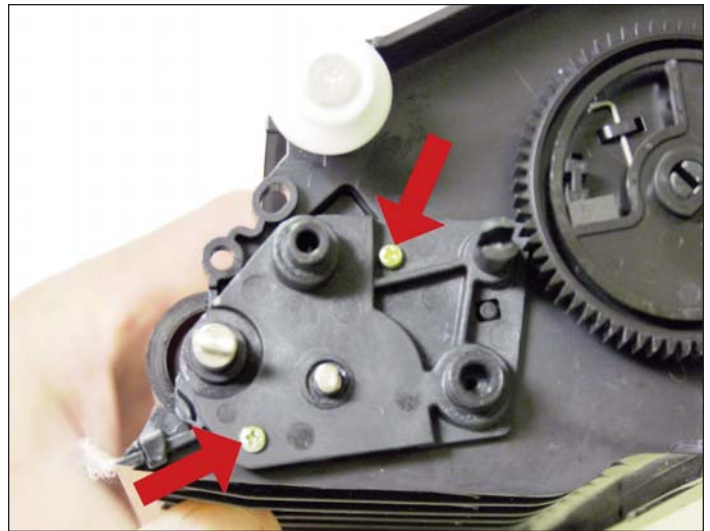
8. Remove the large idler gear by pressing in the 2 clips in the center of the gear.



9. Remove the screw and lower idler gear.



10. Remove the feed roller gear. This has a tight fit. Pry off carefully.



11. Remove the two screws and the gear plate.



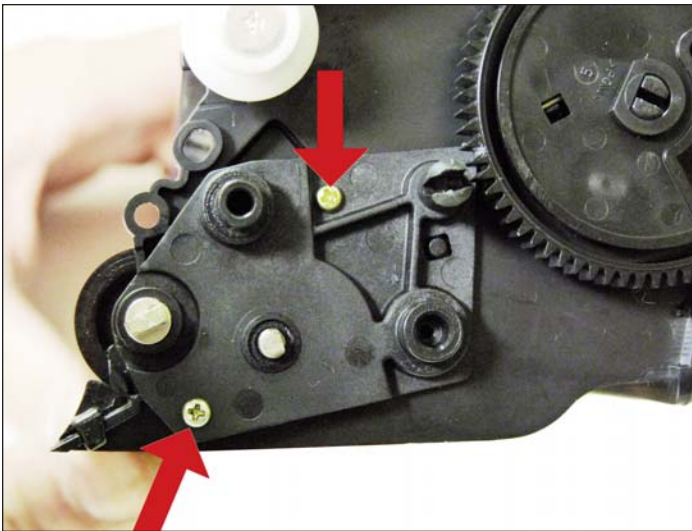
12. Remove the developer roller. Clean the toner feed roller with compressed air.



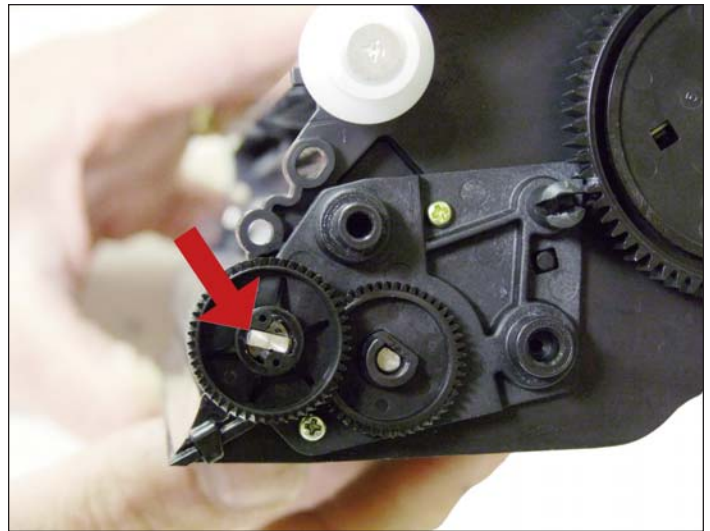
13. Clean the white developer roller seals with a cotton swab.



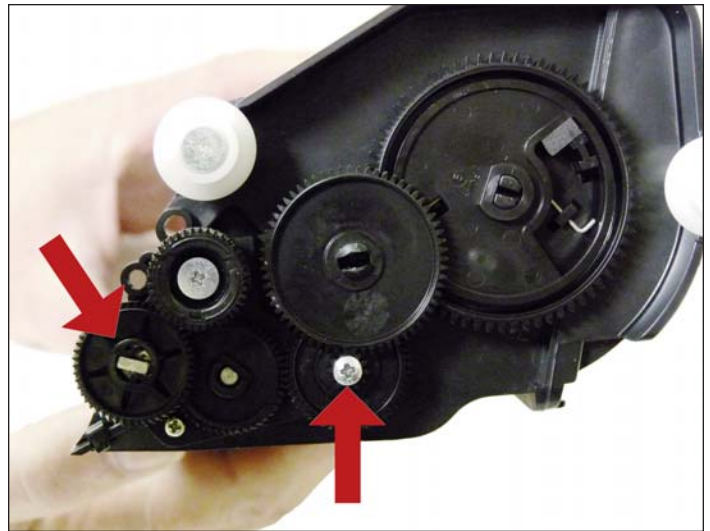
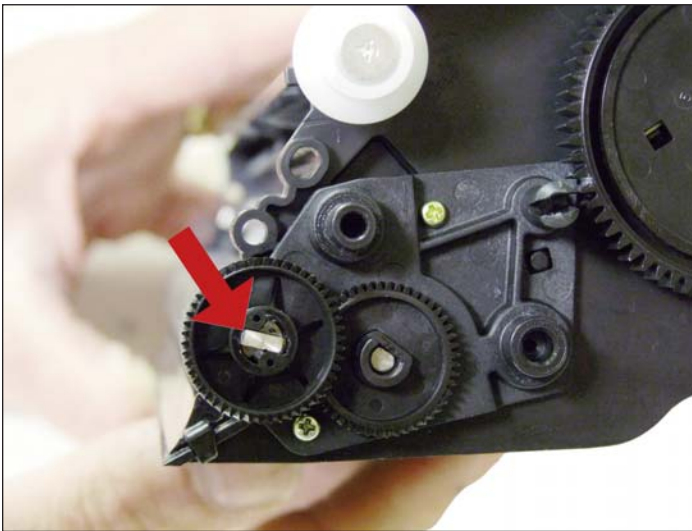
14. Wipe the developer roller with a clean lint free cloth, and re-install the developer roller. At this point we do not recommend that any chemicals be used to clean this roller. Install the keyed end of the roller to the gear side.



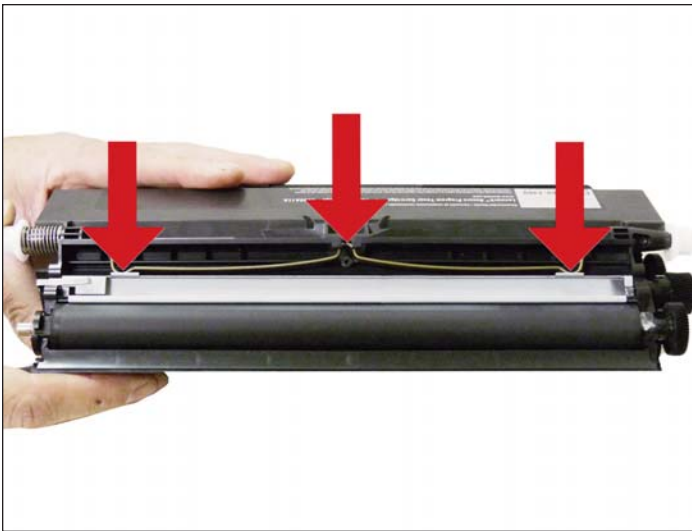
15. Install the gear plate and two screws.



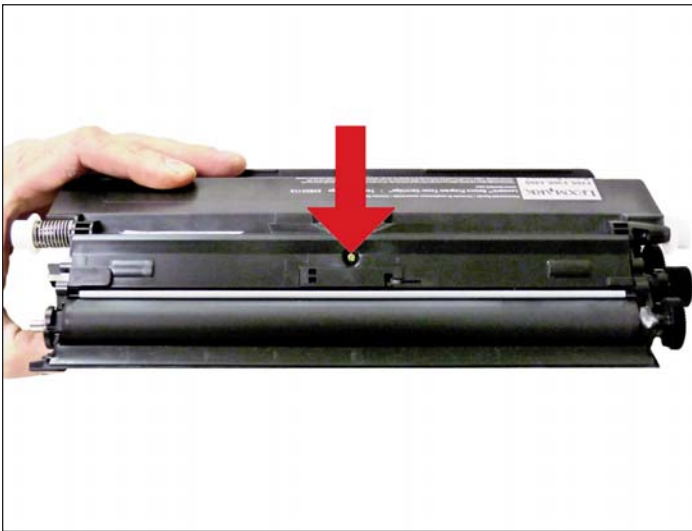
16. Install the feed roller gear. This gear has a tight fit. Make sure it is fully seated.



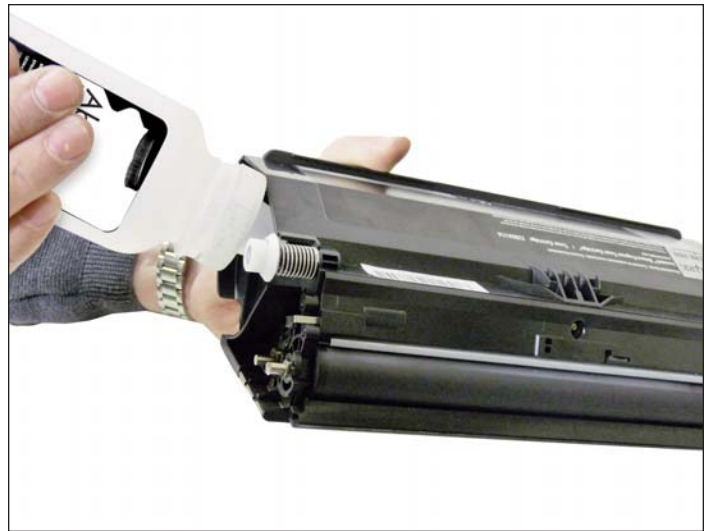
17. Install the developer roller gear (lock it in place!), top idler gear and screw, the bottom idler gear and screw, and the large idler gear (snaps in place).



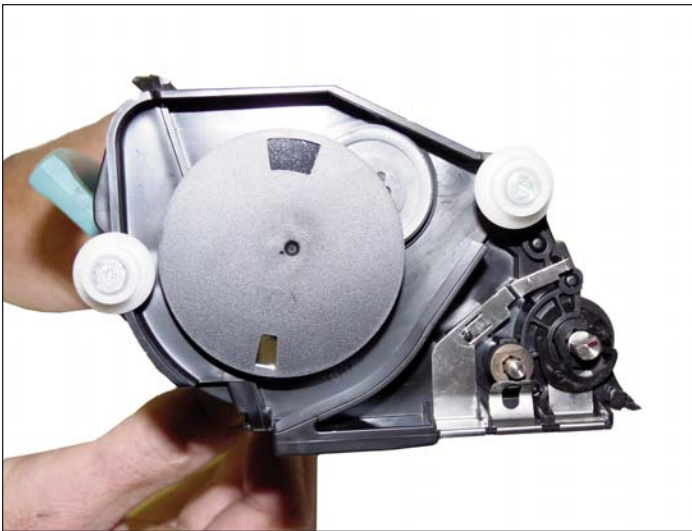
18. Install the doctor blade making sure it is positioned correctly and install the leaf spring.



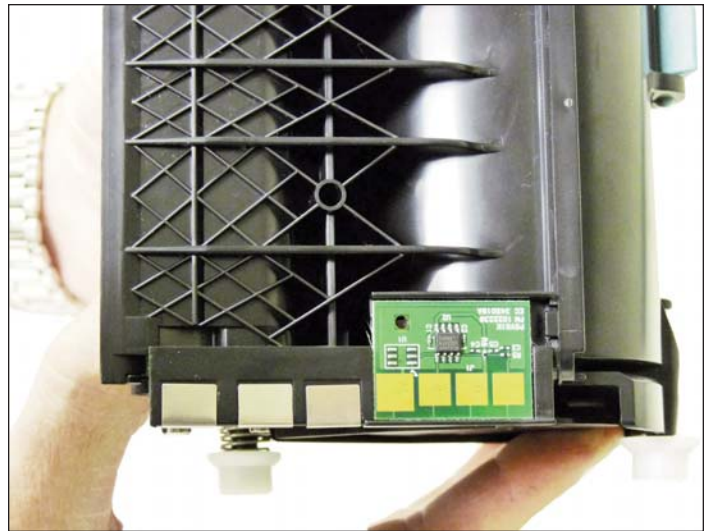
19. Re-install the developer roller cover and screw.



20. Fill the cartridge with the proper amount of E260 toner and install fill plug.



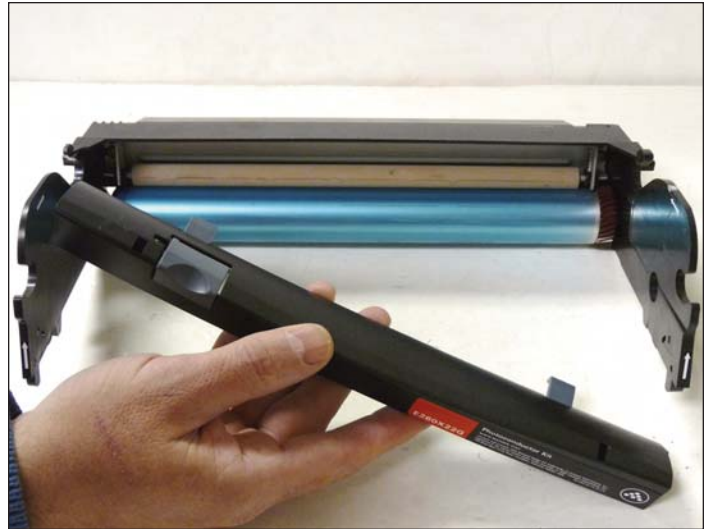
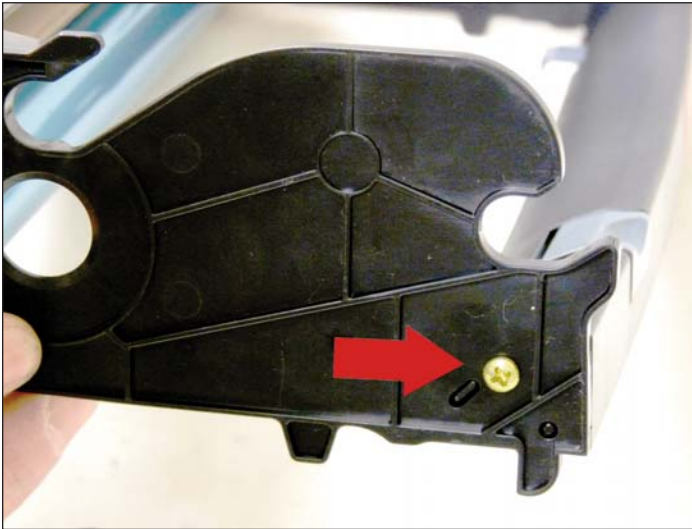
21. Install the encoder wheel.



22. Replace the chip.

DRUM UNIT INSTRUCTIONS

As stated in the introduction, the drum is held in place by a new type of plastic locking ring. This ring must be removed in order to be able to remove the drum. Take your time and be careful with this.



1. Remove the two screws from the handle as shown above. Remove the handle.



2. With a pair of needle nose pliers, push the inside of the retaining ring to the left while slightly bending the cartridge wall out. Turn the ring until the tabs are centered in the 2 slots. Turn slowly and watch your fingers. It is easy to slip and hurt yourself here.



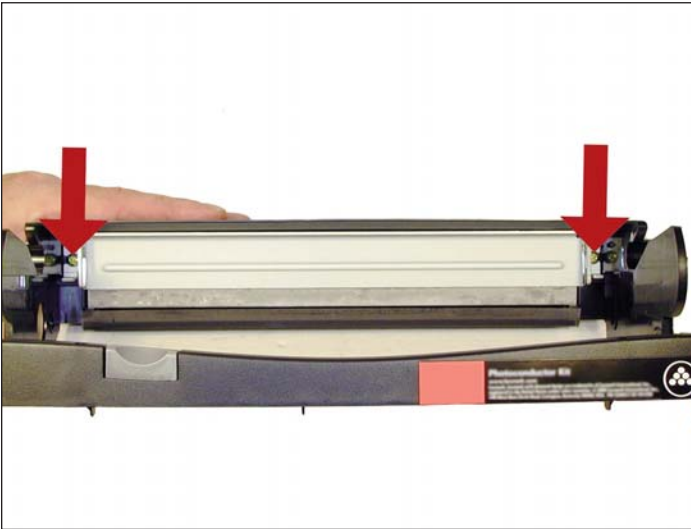
3. From the inside of the cartridge, take a common screwdriver and gently pry up the locking ring/drive hub from the center. The drive hub will come off with it. Make sure you pry it off straight up. If it becomes deformed from prying it off at an angle, it may not sit properly when re-installed.



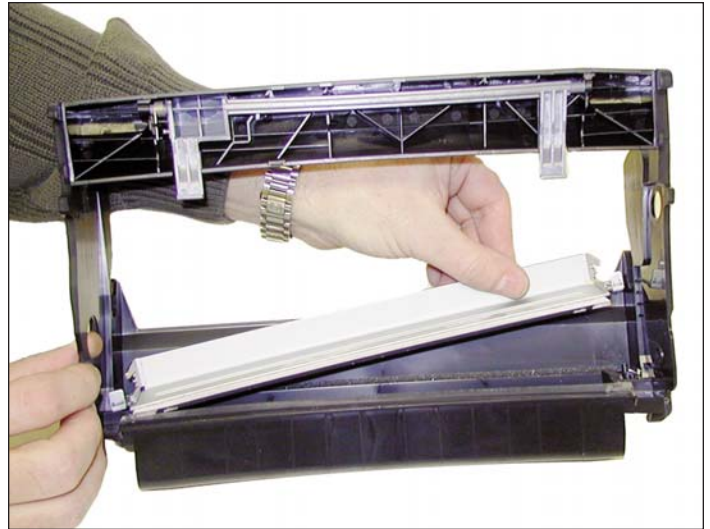
4. Carefully remove the drum.



5. Carefully lift out the PCR. The PCR holders and springs will come out with the PCR. Be very careful not to touch the roller with your skin. As with any PCR, the oils naturally present in your skin will be absorbed by the roller and cause printing problems (extra marks on the page).



6. Remove the two screws from the wiper blade.



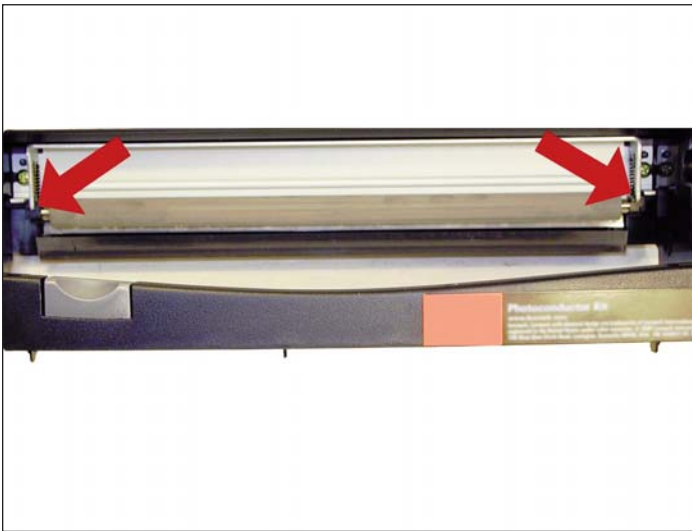
7. Remove the wiper blade, and clean out any waste toner.



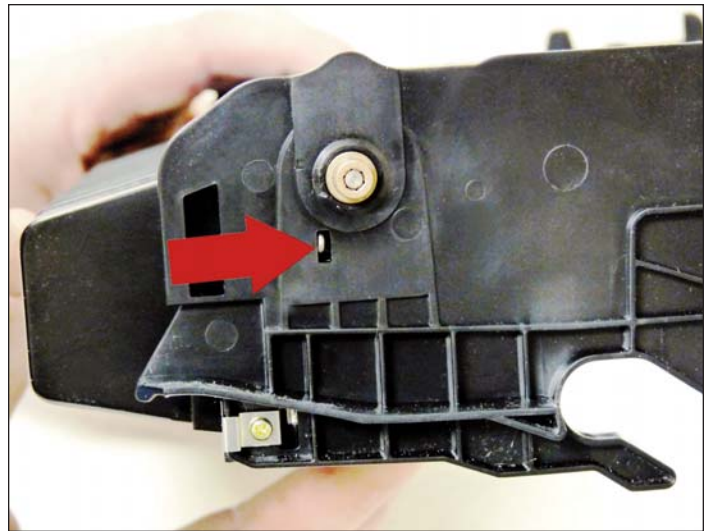
8. Install a new wiper blade coated with your preferred lubricant and two screws.



9. Clean the PCR with your preferred PCR cleaner, and clean the PCR holders with 99% pure isopropyl alcohol. Snap on to the ends of the PCR.



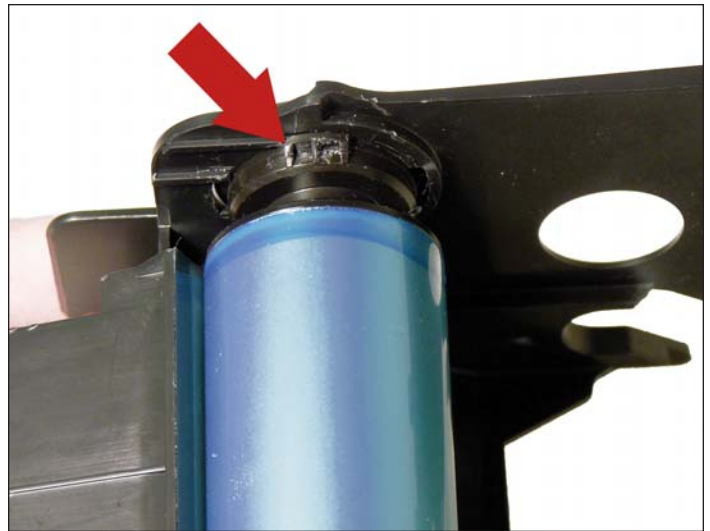
10. Install the PCR and holders. Make sure the springs fit in the proper place.



11. With the waste chamber facing away from you, install the drum so that the large gear is on the left side, the tail of the spring should lock into the hole in the cartridge wall.



12. Install the locking ring making sure the tabs on the ring line up with the 2 slots in the cartridge wall. From the outside of the cartridge with the tips of the needle nose pliers in the two slots, press the ring in and turn the locking hub so it locks into the cartridge wall. Turning the ring to the right is easier to do than the opposite direction.





13. Press in the drive hub. Make sure it fits properly and is flush with the locking ring when seated!



14. Install the handle and 2 screws.

Just to make sure that everything is meshing properly and lubricated properly, rotate the drum by the large gear in the proper direction. This is always a good idea for drum units as a final check before installing the cartridge in your test machine.



15. After the cartridge has been tested, if the plastic drum spacer is available, install it now.

RESETTING THE E260 DRUM UNIT

Install the toner cartridge into the new/remanufactured drum unit. With the front door still open, Press and hold the “X” Button for 5 seconds. On the E260 the lights will cycle. Close the front door. On the E360 the display will read: “Resetting PC.” Close the front door.

RESETTING THE E360/460 DRUM UNIT

Install the toner cartridge into the new/remanufactured drum unit. With the front door still open, Press and hold the “X” Button for 5 seconds. On the E360/E460 the display will read: “Resetting PC.” Close the front door.

PRINTING TEST PAGES E460 SERIES

1. Press the “Key” button on the control panel
2. Press the “Down arrow” until UTILITIES MENU appears on the display
3. Press the Select button
4. Press the “Down Arrow” until the PRINT MENUS, PRINT STATS, or PRINT FONTS appears on the display.

REPETITIVE DEFECT CHART

38.8mm	PCR
48.3mm	Developer Roller
52.4mm	Transfer Roller
80.0mm	Upper fuser Belt
98.3mm	OPC Drum

PRINTER ERROR CODES

Most error codes are in plain English so we will not repeat them here, but a few are numeric. There are quite a few of the “XX” numbers under each category. We have just listed the basics here.

30.XX: cartridge errors: there is a mechanical issue with the cartridge or the chip is bad.

31.XX: defective cartridge errors: the cartridge is missing, the chip is bad/or missing or the chip reader in the printer is defective.

200.XX: paper jam.

920.XX, 921.XX, 922.XX: all various fuser errors.