

BROTHER® HL-L6200 SERIES TN820/850/880 TONER CARTRIDGE REMANUFACTURING INSTRUCTIONS



BROTHER TN880 TONER CARTRIDGE

REMANUFACTURING THE BROTHER HL-L6200 SERIES TONER CARTRIDGE TN820/850/880

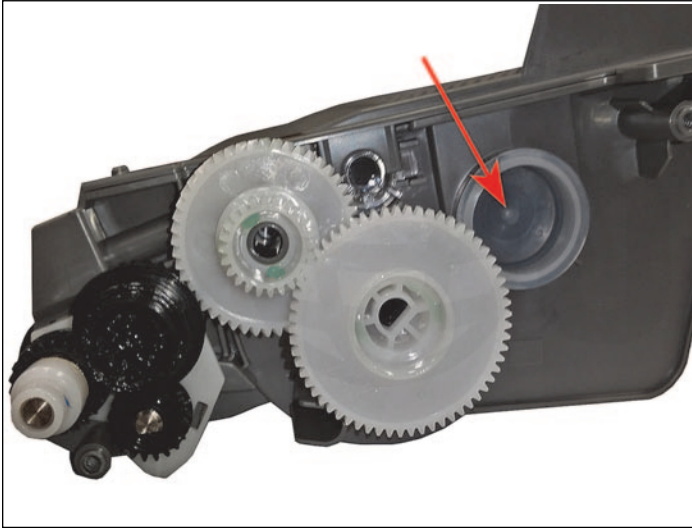
By Mike Josiah and the Technical Staff at UniNet

Released in February 2016, the Brother HL-L6200 printer engine is based on a new 48-52ppm, 1200 DPI laser engine. These machines have a first page out in less than 7.5 seconds, and come standard with 256Mb of memory depending on the machine. All the machines in this series so far also have duplexing built in. The starter cartridge does not come with any reset gears.

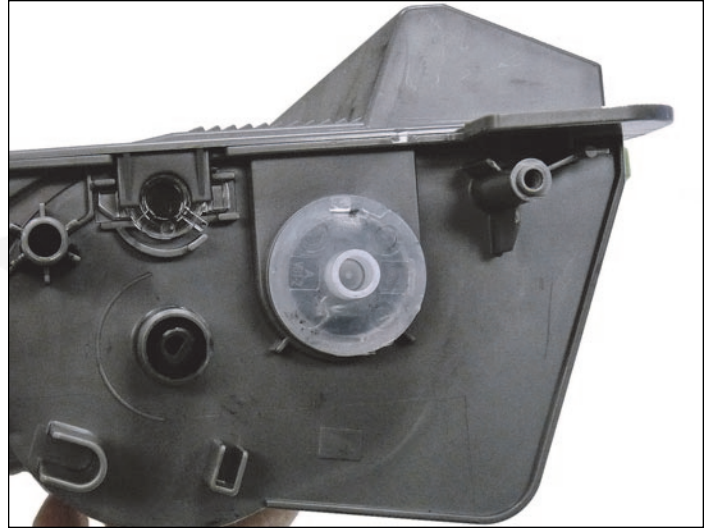
There are four different toner cartridges available for these machines. The TN820 is rated for 3,000 pages, The TN850 is rated for 8,000 pages and the TN880 is rated for 12,000 pages. Then there is also the TN890, which is rated for 20,000 pages but will only fit into the HL-6400 and MFC-L6900 series of machines. There are different part numbers for these cartridges depending on your region. There are no part numbers listed for Middle East/Africa as at the time of this writing they have not been released there yet. The part numbers are as follows:

	Standard	High Yield	Super High Yield	Ultra High Yield	Standard Drum
N/S America	TN820	TN850	TN880	TN890*	DR820/DR890*
Europe	TN3430	TN3480	TN3512	TN3520	DR3400
Asia/Oceania	TN3420	TN3440	TN3470	TN3490	DR3425
ME/Africa					

*The UHY cartridges will fit into the HL-L6400 and MFC-L6900 series of machines only.



Shown is a Starter cartridge fill plug.



Shown is a replacement cartridge fill plug. It has a built in shaft for the reset gear.

Replacement fill plugs/reset gear kits are in development and should be available as you read this.

CURRENT MACHINES RELEASED SO FAR* FOR THIS SERIES**HL-L5000D****HL-L5100DN****HL-L5200DW****HL-L5200DWT****HL-L6200DW****HL-L6200DWT****HL-L6250DW****HL-L6300DW****HL-L6400DW****HL-L6400DWT****DCP-L5500DN****DCP-L5600DN****DCP-L5650DN****MFC-L6700DW****MFC-L6750DW****MFC-L6800DW****MFC-L6900DW****MFC-8950DW****MFC-8950DWT*****As of April 1, 2016**

There is a reset gear that resets the printer each time a new toner cartridge is installed. In our machine, the starter cartridge was a TN820 and did NOT have a reset gear installed. The TN850, TN880 and the TN890 cartridges use different reset gears. These different gears are how the machine knows if there is a Standard, High Yield, Super High Yield or Ultra High Yield cartridge installed. New replacement reset gears should be available as you read this.

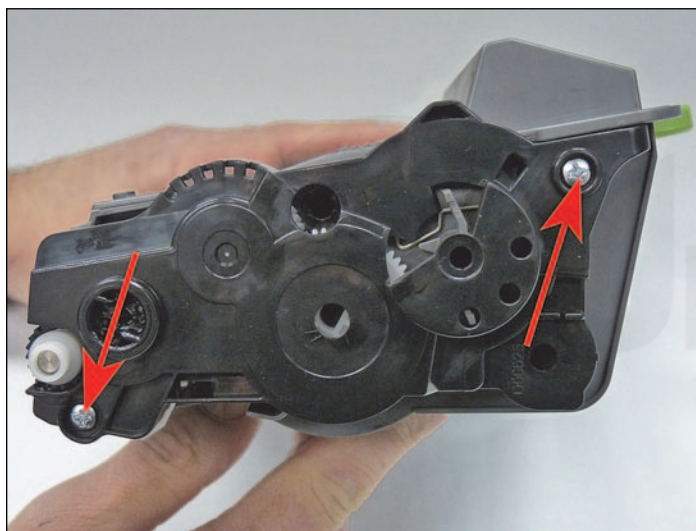
Reset gears serve two purposes. First they reset the printer so it knows a new toner cartridge was installed. Secondly they tell the printer which cartridge was installed. When the printer senses a new toner cartridge, the bias voltage is set to a high voltage. As the cartridge is used, the bias voltage is reduced gradually down. This process is necessary because according to Brother, a new toner cartridge has a tendency to print light. As the cartridge is used, the density increases. To keep the density level even throughout its life, the density bias voltage is reduced accordingly. Each time a new cartridge is installed, the bias voltage is reset to the high voltage point, and the cartridge page count is reset to zero. Since different yields would dictate different decreases in density over time, Brother uses different reset gears, which tell the printer how fast to reduce the bias voltage.

REQUIRED TOOLS

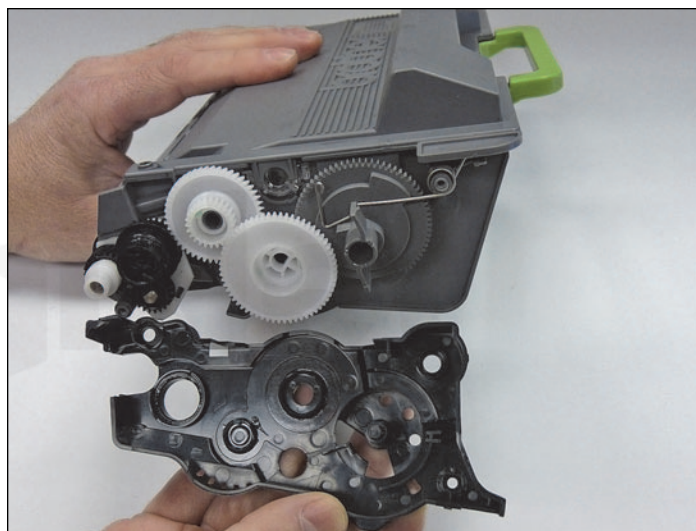
1. Toner approved vacuum
2. Phillips head screwdriver
3. Small common jewelers screwdriver
4. Needle nose pliers

REQUIRED SUPPLIES

1. Toner in the appropriate load for use in the Brother HL-L6200 series of cartridges
2. Replacement fill plug and reset gear (if necessary)
3. Developer roller cover
4. Dedicated developer roller cleaner (not alcohol!)
5. Lint free cotton cloths
6. Toner magnet cloths
7. White lithium grease

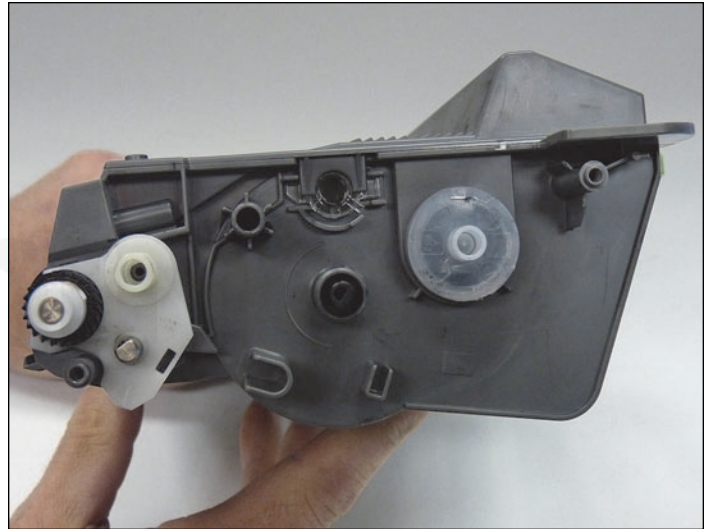
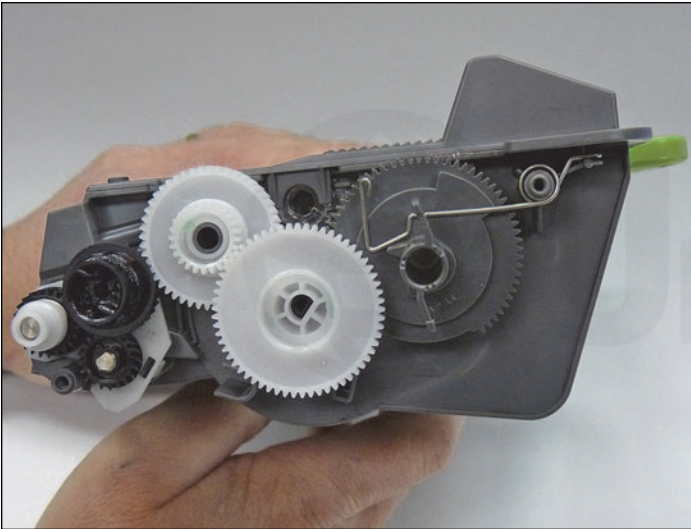


1. Vacuum the exterior of the cartridge.

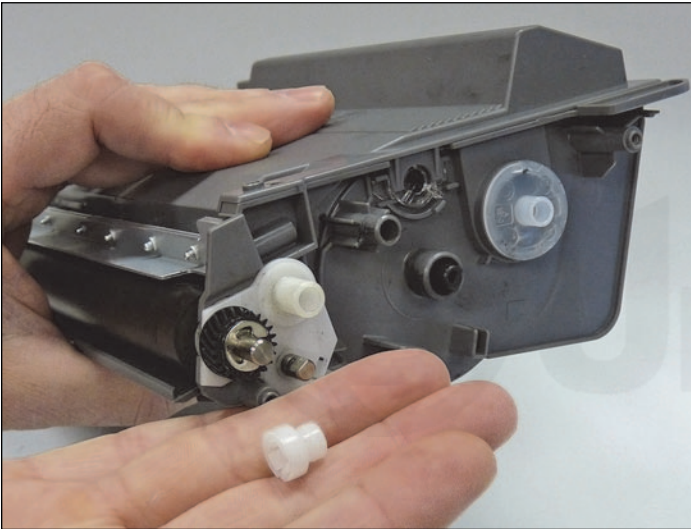


3. Remove the end cap.

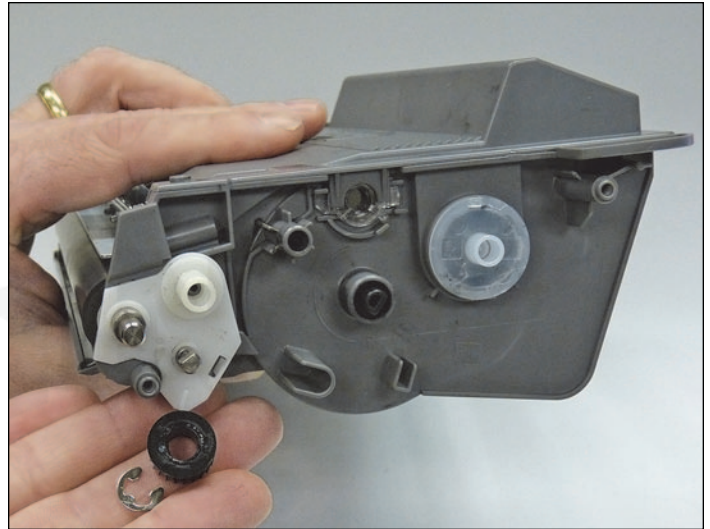
2. On the GEAR SIDE, remove the two screws on the end cap.



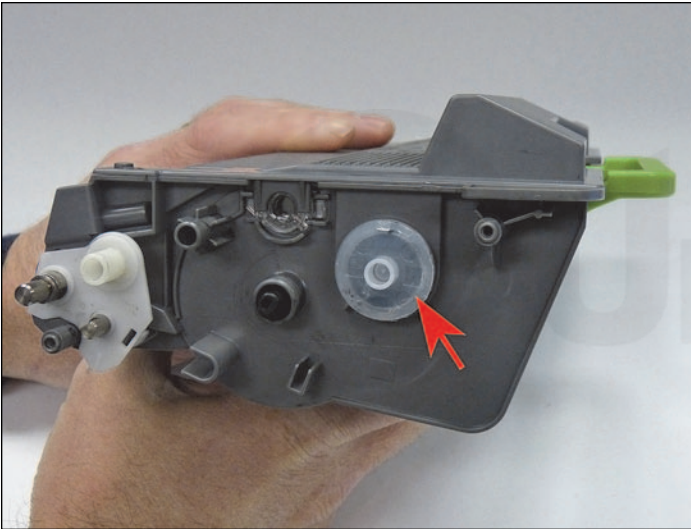
4. Remove the five gears and spring as shown.



5. Remove the white plastic spacer from the developer roller shaft.



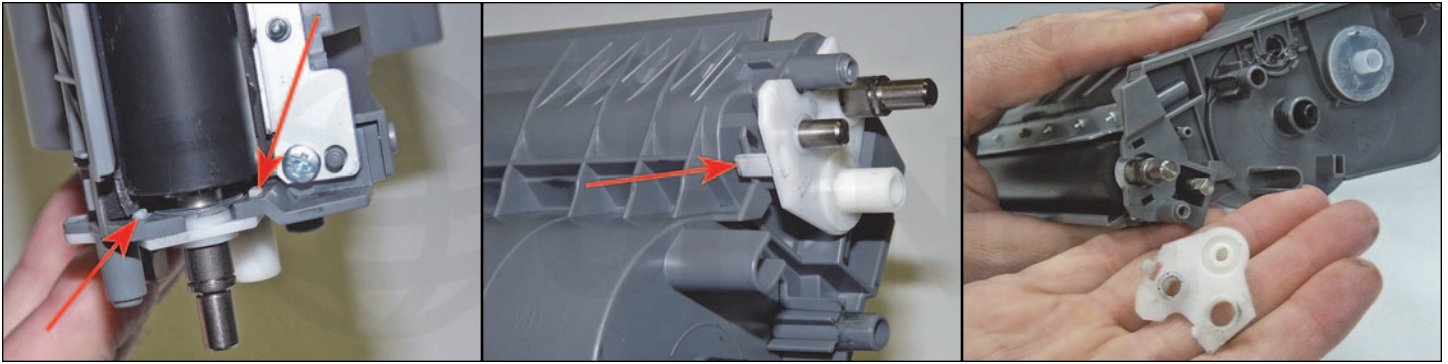
6. Remove the E-ring and the developer roller drive gear.



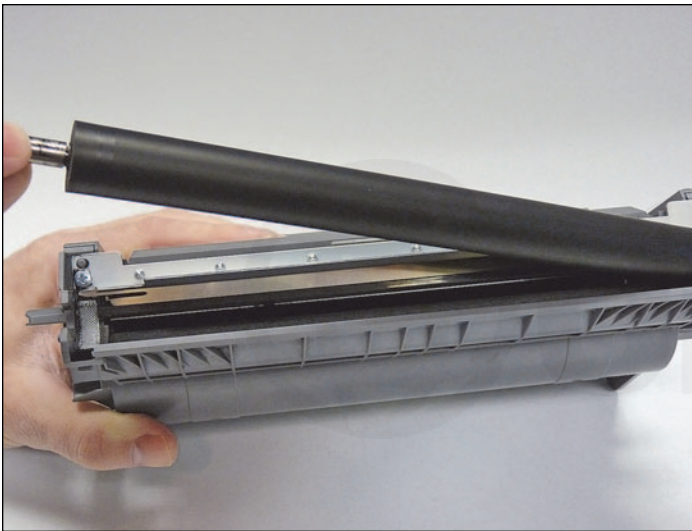
7. The fill plug is welded in place. It can be removed but will leak afterwards. It should be left in place until a new replacement plug is available.



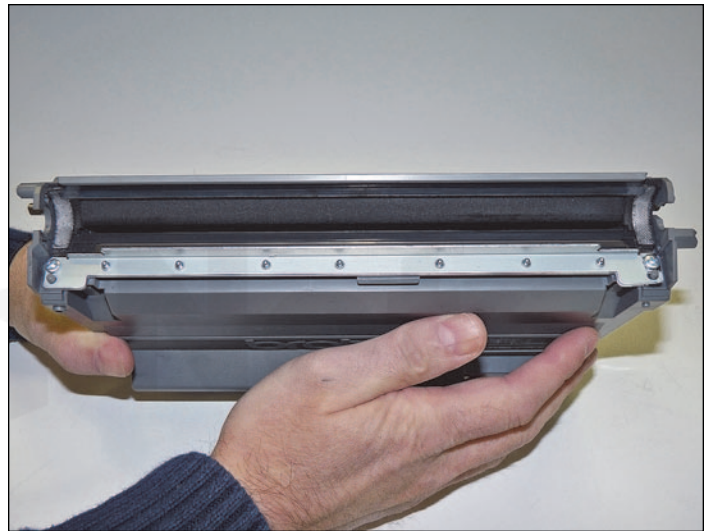
8. On the non-gear side of the developer roller remove the screw, pry up the locking tab and remove bushing plate.



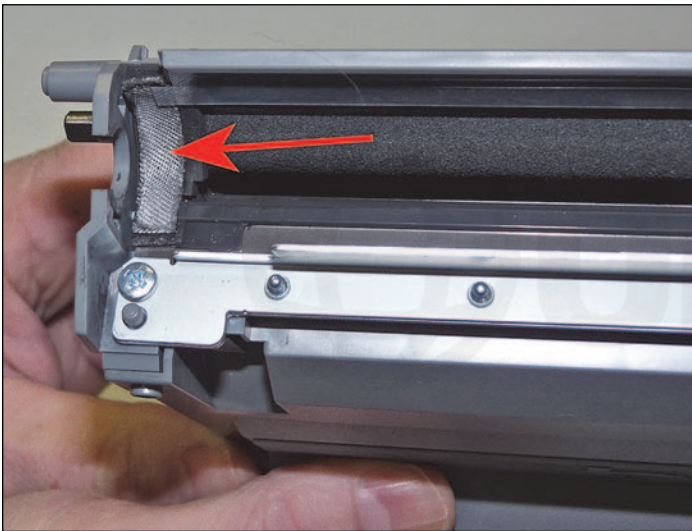
9. On the gear side of the developer roller, press in on the two locking tabs, pry up the third and remove the white plastic bushing plate.



10. Remove the developer roller. Dump the remaining toner and vacuum/blow out the cartridge.



11. Vacuum the doctor blade and foam feed roller clean. Until new blades are available, we do not recommend that the doctor blade be removed or the developer roller felt seals disturbed. The doctor blade can be easily cleaned by blowing the excess toner off, and wiping down with a lint free cloth. Be very careful not to leave any lint behind!



12. Inspect the magnetic roller felts. If they are compressed (shiny), rough them up with a small screwdriver.



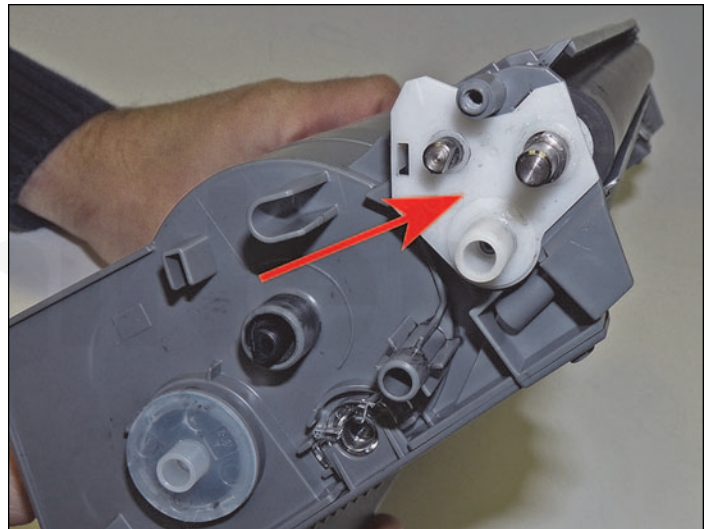
13. Clean the developer roller with a lint free cloth and a dedicated developer roller cleaner. Do not use any chemicals other than a dedicated developer roller cleaner to clean the roller. Any type of alcohol cleaner will strip the conductive coating off the roller.

14. Fill the cartridge with toner for use in the Brother HL-L6200 series of toner cartridges.

15. Re-install the developer roller with the long shaft to the gear side.

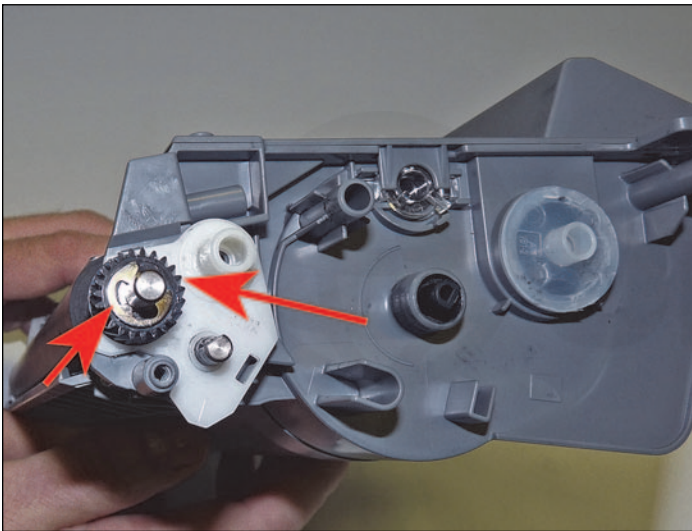


16. Install the non-gear side developer roller bushing and screw.



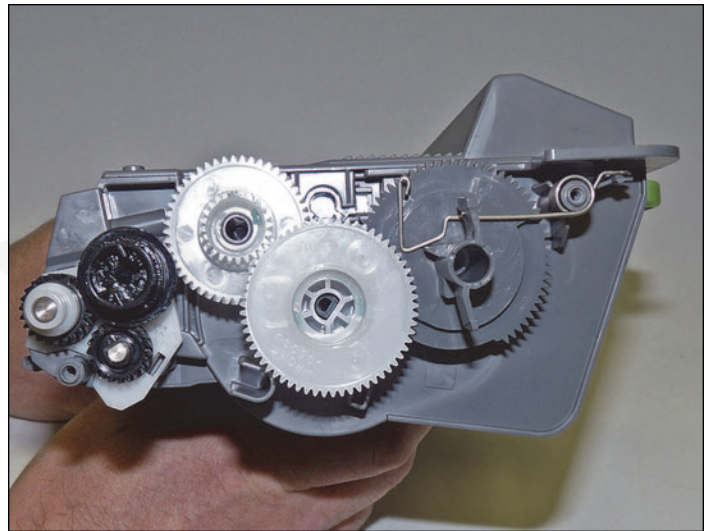
17. Install the gear side developer roller bushing.

Make sure it snaps in place.



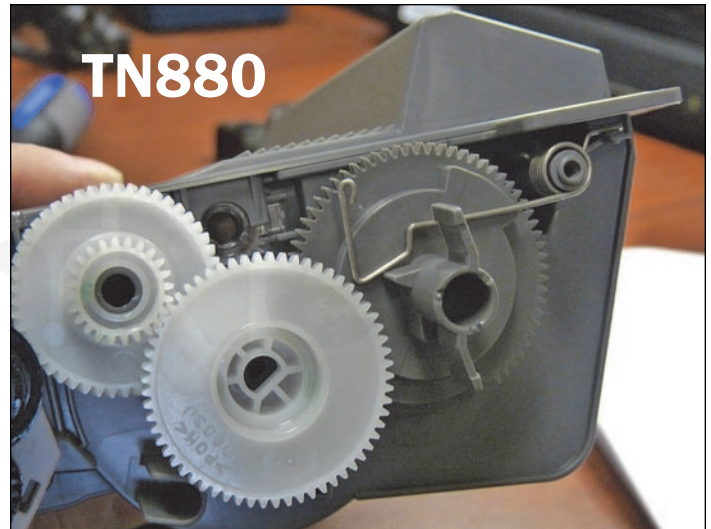
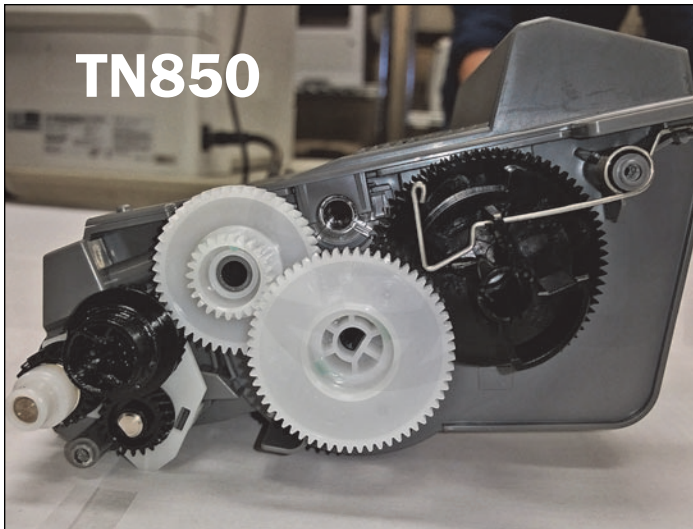
18. Clean the gears, making sure that they have no toner on them. This is a good time to also check the gear shafts to make sure there is enough grease. If the shafts appear dry, or the grease is contaminated with toner, clean the shaft and inside of the gear. Replace the grease with white lithium grease.

19. Install the developer roller gear, E-ring, white axle spacer.

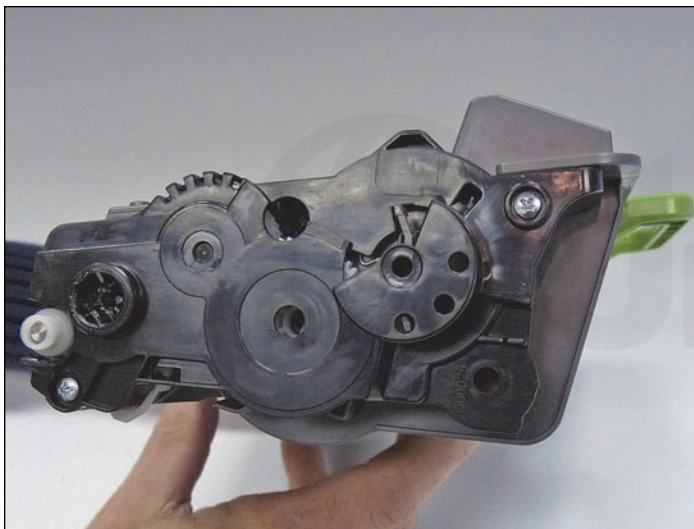


20. The cartridge we are remanufacturing is a starter cartridge and did not come with a retaining plate, reset gear or spring. These items need to be installed for the printer to accept a starter cartridge as new.

21. Install all the gears as shown.

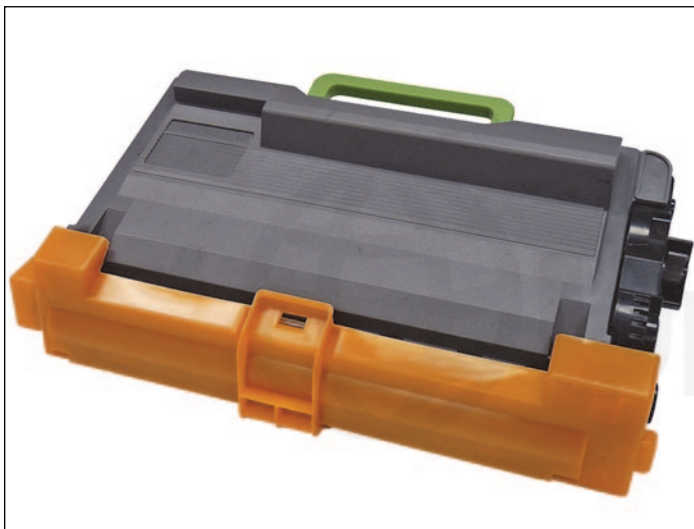


22. Depending on the cartridge you have, set the reset gears as shown.



23. Install the gear side end cap and two screws.

Make sure the reset gear is still in its proper place.



24. Wipe the cartridge down to remove any remaining toner dust. (Be careful not to touch the developer roller!)

25. Install the developer roller cover.

TEST PAGES (HL-L6200 SERIES)

1. Take the machine offline by pressing any of the arrows
2. Press the up or down arrows until you see Machine Info
3. Press OK
4. Press the up or down arrows until you see Test Print
5. Press OK
6. The page selected will print

TEST PAGES (HL-L6400 SERIES)

1. Press the Settings Icon until you see Machine Info
2. Press Test Print
3. The page selected will print