

XEROX PHASER 3600 TONER
CARTRIDGE REMANUFACTURING INSTRUCTIONS

THE XEROX PHASER
3600
TONER CARTRIDGE

DOC# 0480

By Mike Josiah and the technical staff at Summit Technologies
– a distributor of Summit and Uninet Products.



Remanufacturing the Xerox Phaser 3600 Toner Cartridge

THE XEROX PHASER 3600 TONER CARTRIDGE

The Xerox Phaser 3600 printers are based on a Xerox 40 ppm, 1200 dpi engine. The time for first page out is 9 seconds or less and all versions have a 400Mhz processor. They are a fairly heavy duty machine in that they all have a monthly duty cycle of 200,000 pages.

The machines based on the Phaser 3600 engine are the:

Phaser 3600B
Phaser 3600N
Phaser 3600DN

This is one of those cartridges that can be tricky in that they have to be taken apart and put back together in a certain way. If you do not, the cartridge will at some point fall apart with parts coming out all over, and you will be left wondering where they go. Trust me...

There are two cartridges available for this series, the 106R01370 cartridges are rated for 7,000 pages at 5% coverage, and the 106R01371 cartridges are rated for 14,000 pages. New printers all come standard with the LY cartridge.

The service manual also mentions two Extra high

capacity cartridges, as I'm writing this, I cannot find mention of them anywhere else. They are both 20,000 page cartridges the Part #'s are 106R01372, and 106R01369 for a Metered/Pagepack cartridge. The Metered cartridge is used for Xerox's cost per page program.

In addition to an adhesive sealing strip, these cartridges also use a shipping lock. This lock keeps the developer roller away from the drum, and helps prevent the developer roller from getting a flat spot during storage. It is very important that the shipping lock be installed when shipping and also a good idea to store your cores with the lock in place.

As with all Xerox cartridges these days there is a chip, and the chip must be replaced each cycle.

The diagram below is an overview of how the cartridge works. It is a basic monochrome printing system but there is the addition of a PCR cleaning roller. This roller has a relatively high voltage on it (-1500 to -1300VDC). The roller uses that voltage to attract any toner buildup from the PCR. The rest of the diagram is useful if you have ever wondered what voltages were placed on particular parts inside a cartridge as it prints. **See Diagram A**



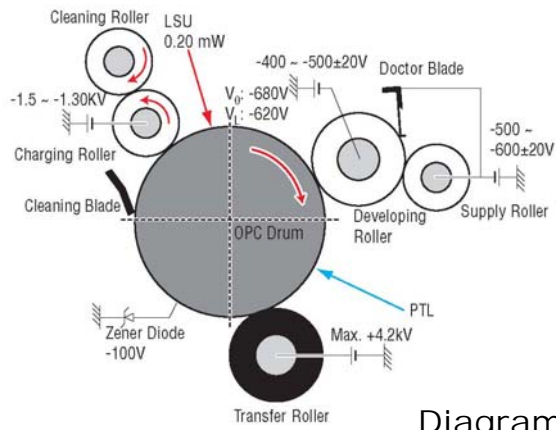


Diagram A

Required Tools

- Toner approved vacuum.
- A small Common screw driver
- #1 Phillips head screwdriver
- Needle nose pliers
- Spring Hook

Required Supplies

- 3600 toner,
- Replacement chip (Make sure you have the correct yield chip for your cartridge!)
- New Wiper Blade
- New Doctor Blade
- New OPC Drum
- Sealing Strip
- Shipping lock
- Drum lubricant
- PCR Cleaner
- Conductive grease

- 1) Remove the shipping lock. (If you keep your cores stored that way).
- 2) Place the cartridge with the handle facing up and close to you. (The waste is away from you). See **Fig. 1**



Figure 1

- 3) On the right side remove the drum cover arm. See **Figure 2**



Figure 2

- 4) Remove the same from the left side, remove the drum cover. See **Figures 3 & 4**

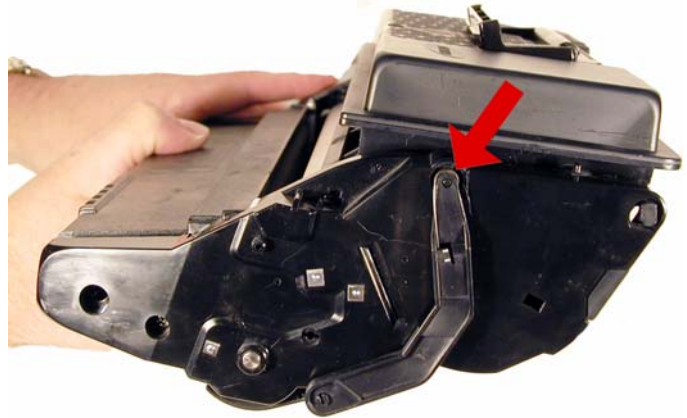


Figure 3



Figure 4



5) Remove the two screws on the left end cap. See **Figure 5**

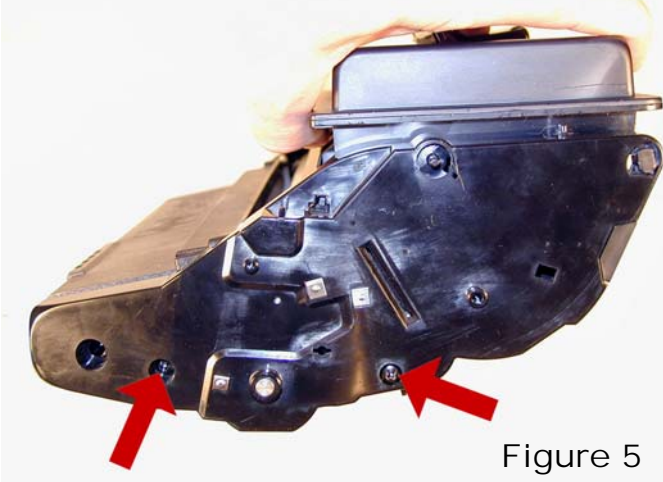


Figure 5

6) Remove the two black screws from the right side end cap. Do not remove the silver screw. See **Figures 6 & 7**

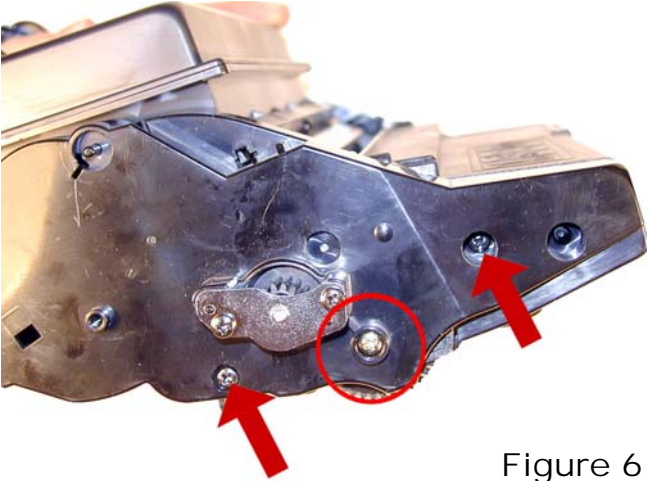


Figure 6



Figure 7

7) Remove the 2 screws on the metal plate. Remove the plate and gear. See **Figures 8 & 9**

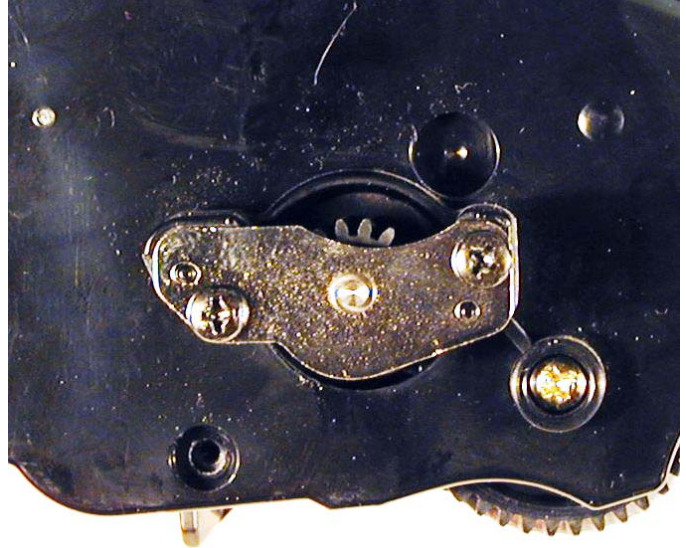


Figure 8

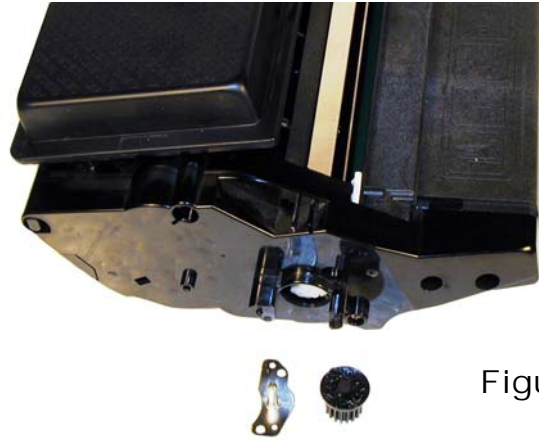


Figure 9

8) With a spring hook, remove the 2 springs from the back of the toner hopper. One on the left and one on the right side, about 1 inch from the back edge. See **Fig. 10**

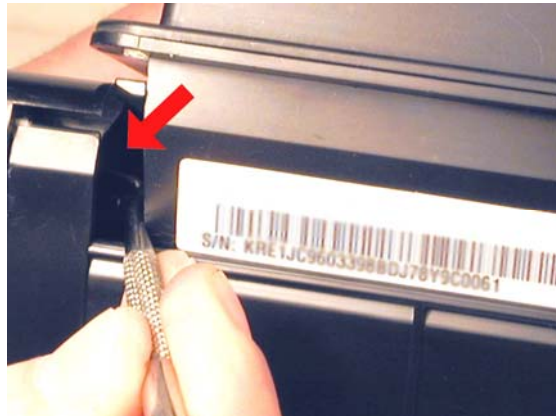


Figure 10

9) Carefully rock the left side end cap until it comes free from the cartridge frame. Turn the back edge up so it comes free from the hopper. The spring and possibly a small gear will fall from the cartridge. The installation of both parts will be shown later. See **Figures 11 & 12**



Figure 11



Figure 12

10) Slide the metal rod located above the developer roller away from the remaining end cap to free it from the end caps. See **Figure 13**



Fig. 13

11) Remove the toner hopper from the frame. **Fig. 14**

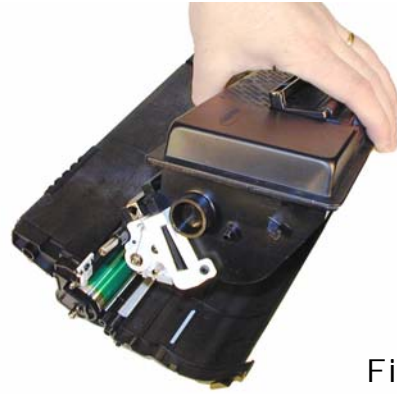


Figure 14

12) On the waste hopper. remove the gold colored screw from the drum axle, work the waste section away from the frame. See **Figure 15**.

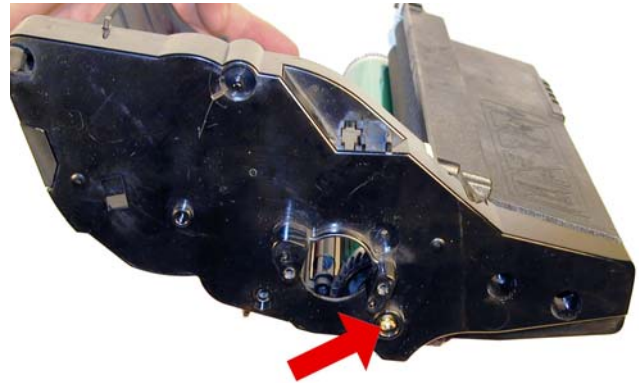


Figure 15

13) remove the waste section from the frame. See **Figure 16**



Figure 16

14) On the waste section, remove the drum axle by pulling it out from the small straight gear side. Note the conductive grease on the large helical gear side of the axle. See **Figure 17**

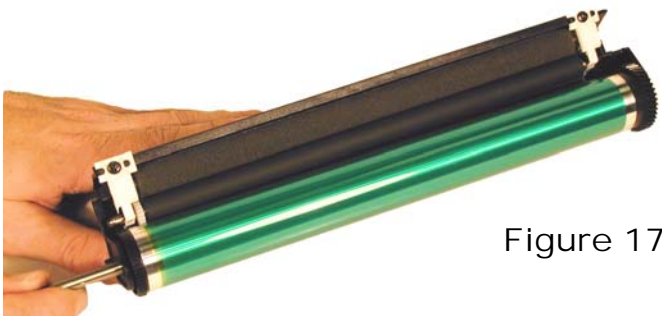


Figure 17

15) Remove the drum See **Figure 18**



Figure 18

16) Remove the 2 screws on the PCR assembly. See **Figure 19**



Figure 19

17) Pry up the white plastic holders and remove the PCR assembly. See **Figure 20**

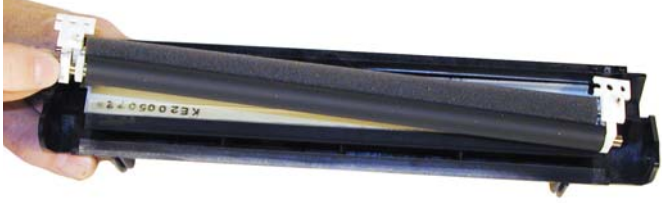


Figure 20

18) Remove the two screws on the wiper blade. Remove the blade. See **Figure 21**.



Figure 21

19) Clean out all the waste toner.

20) Install the new wiper blade and 2 screws. See **Figure 22**



Figure 22

21) Slide the holders off the PCR assembly, and clean the PCR with your preferred PCR cleaner. Blow off the PCR cleaning roller too. See **Figure 23**.



Figure 23

22) Re-assemble the PCR assembly and install it in the waste hopper. Install the 2 screws. Make sure it's not upside down! See **Figure 24**

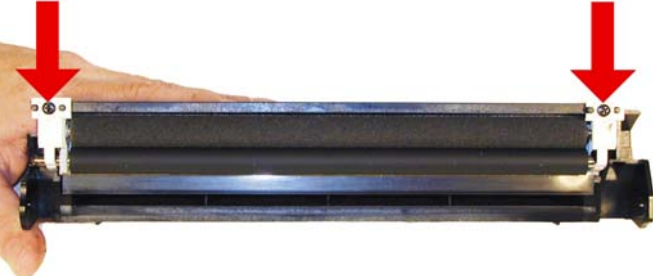


Figure 24



23) Install the drum and drum axle. Large gear to the non gear side of the PCR. Slide the drum axle through the large gear side. Keep the conductive grease to the large gear side. See **Figures 25 & 26**



Figure 25



Figure 26

24) Place the waste hopper aside.

25) On the toner hopper, remove the large black gear and small white gear from the developer roller shaft. See **Figure 27**

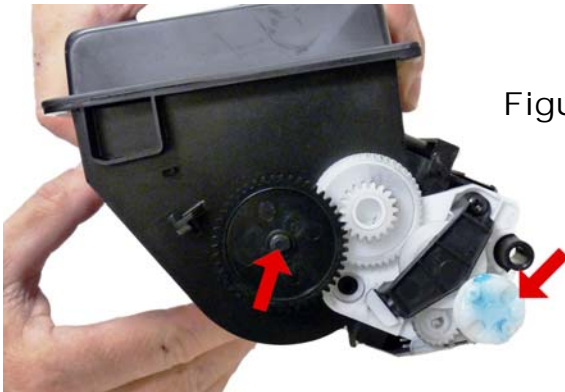


Figure 27

26) Slide out the metal bar. See **Figure 28**

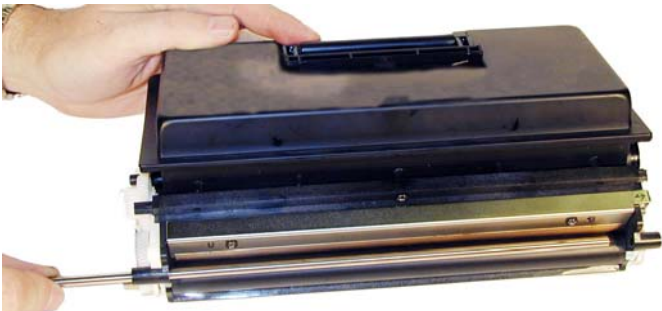


Figure 28

27) Remove the fill plug, and dump out all remaining toner from the hopper. Vacuum clean. See **Figure 29**

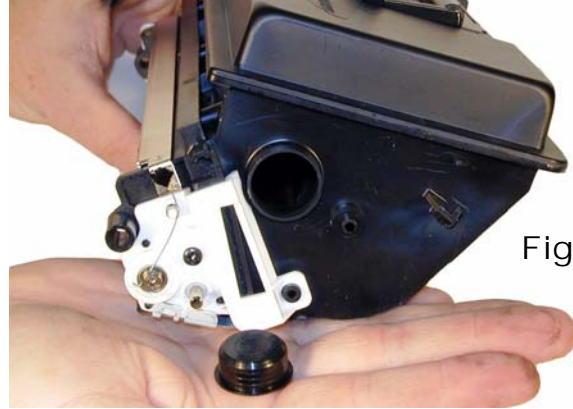


Figure 29

28) Remove the screw from the gear holder, remove the holder. See **Figure 30**



Figure 30

29) Remove the remaining 4 gears and the bearing. See **Figure 31**



Figure 31

30) Remove the bottom metal plate. Carefully pry it off the locking tabs located one on each side, and one in the middle of the hopper. See **Figures 32, 33 & 34**

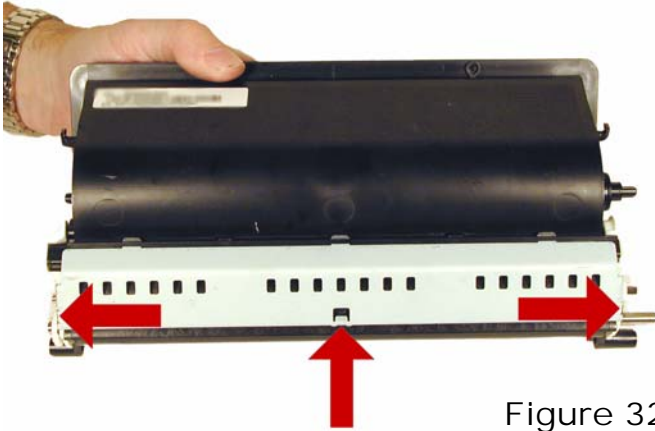


Figure 32



Figure 33



Figure 34

31) Remove the white plastic end cap. See **Figure 35**



Figure 35

32) On the opposite side of the hopper, release and remove the small spring. See **Figure 36**.

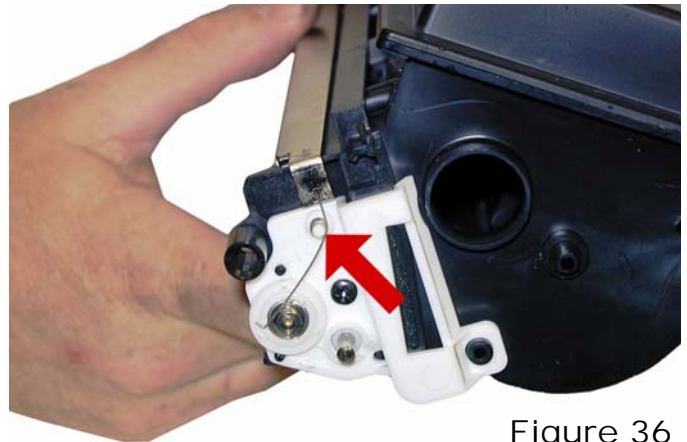


Figure 36

33) Remove the bearing. Note: this bearing can be hard to remove! Carefully pry it off. See **Figure 37**

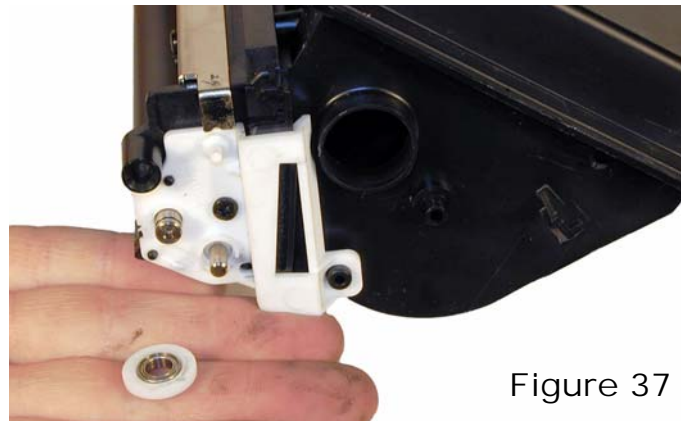


Figure 37

34) Remove the screw and the white plastic alignment plate. **Figure 38**

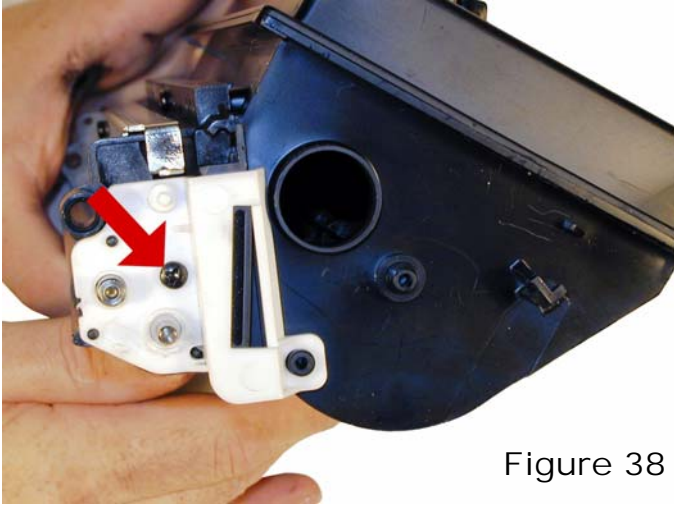


Figure 38

35) Remove the developer roller. See **Figure 39**



Figure 39

36) Remove the 2 screws and the doctor blade. See **Figure 40**

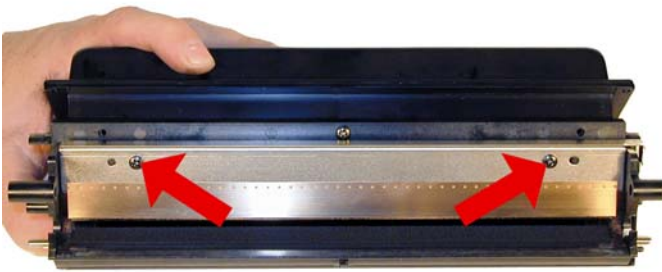


Figure 40

37) Remove the center screw from the toner hopper. The top half of the developer roller assy. will now come free. See **Figures 41 & 42**

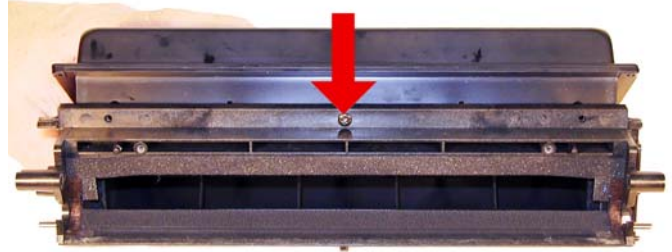


Figure 41



Figure 42

38) Clean out any remaining toner from both halves of the assembly. Make sure the foam seals are clean. If the supply roller is worn, it can easily be replaced now also. See **Figure 43**



Figure 43

39) Install the seal fold over the pull tab so it sits over the foam edge seal. Slide the tab through the slot. See **Figure 44**



Figure 44

41) Clean or replace the doctor blade. Install with the two screws into the hopper. See **Figure 47**

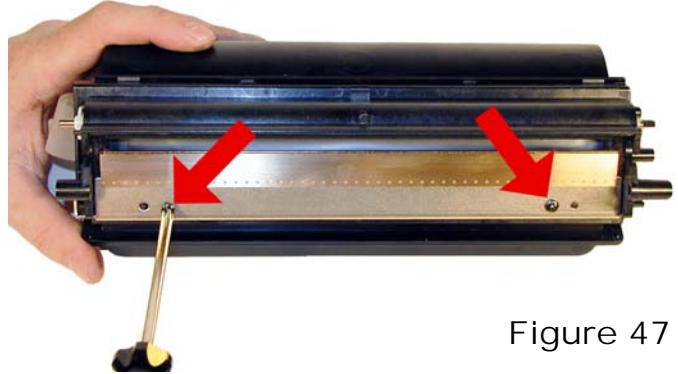


Figure 47

40) Slide the seal tab out the slot of the top cover. Set the three plastic tabs into their slots, and rotate the top cover down into place. Install the screw. Make sure the cover locks into place! Check the seam on the end of the hopper to be sure. See **Figs. 45 & 46**

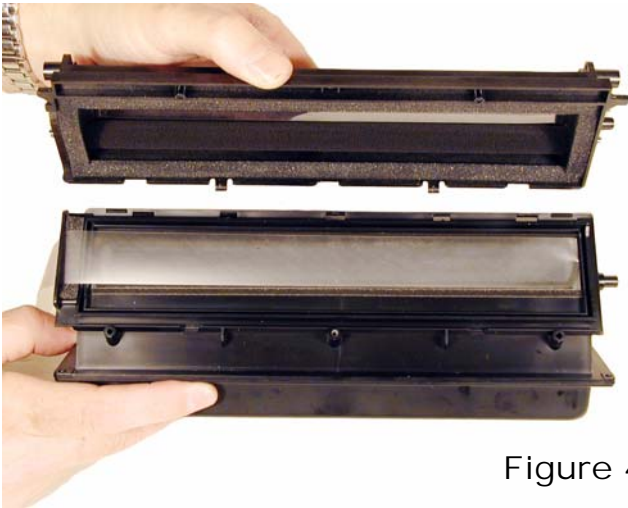


Figure 45

42) Install the developer roller long shaft side to the gear side of the hopper. (NON fill plug side) See **Figure 48**



Figure 48

43) Install the white plastic alignment plate and the screw on the fill plug side See **Figure 49**



Figure 49



Figure 46

44) Install the white plastic alignment plate on the gear side See **Figure 50**

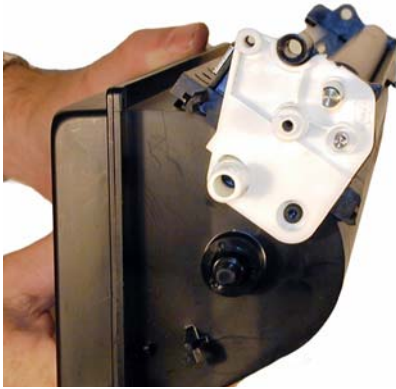


Figure 50

47) Install the bearing onto the developer roller shaft, gear side of the hopper. See **Figure 53**



Figure 53

45) Install the bearing onto the developer roller shaft of the fill plug side. See **Figure 51**

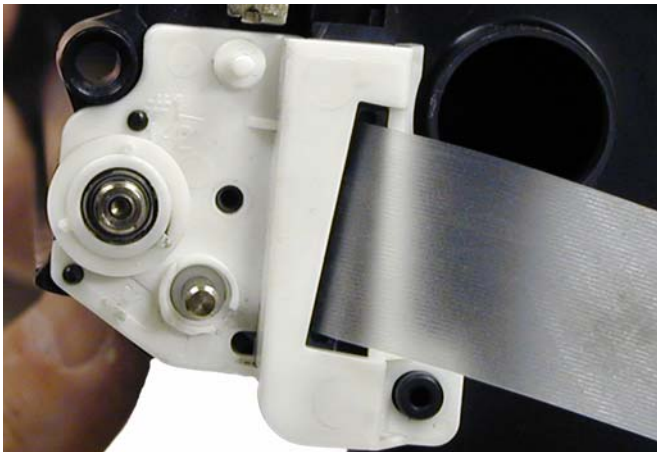


Figure 51

48) Install the four white gears as shown. See **Figure 54**

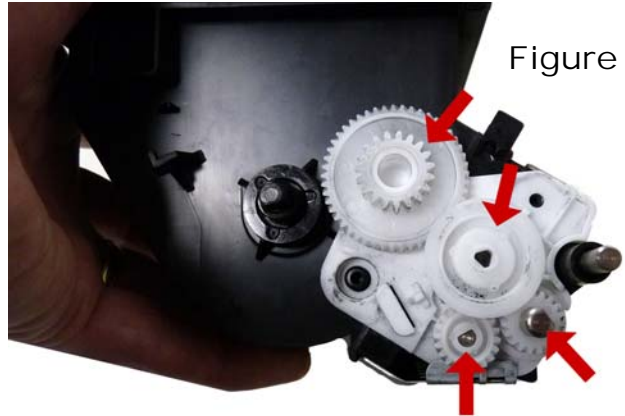


Figure 54

46) Install the small spring as shown onto the developer roller shaft. See **Figure 52**

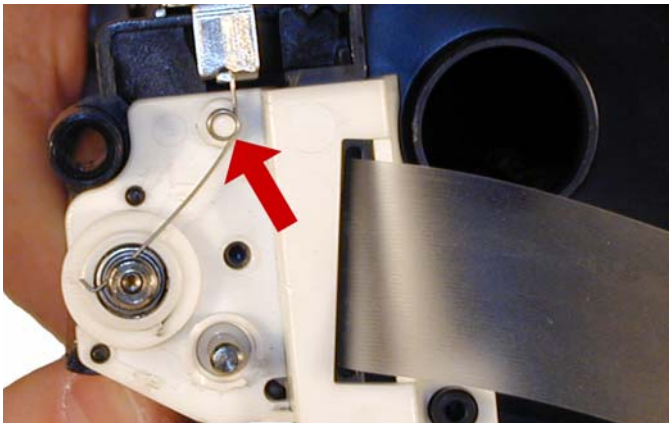


Figure 52

49) Install the gear holder and screw. See **Figure 55**



Figure 55

50) Install the large black gear, and the small white drive gear. See **Figure 56**



Figure 56

53) Install the waste chamber into the frame. See **Figure 59**

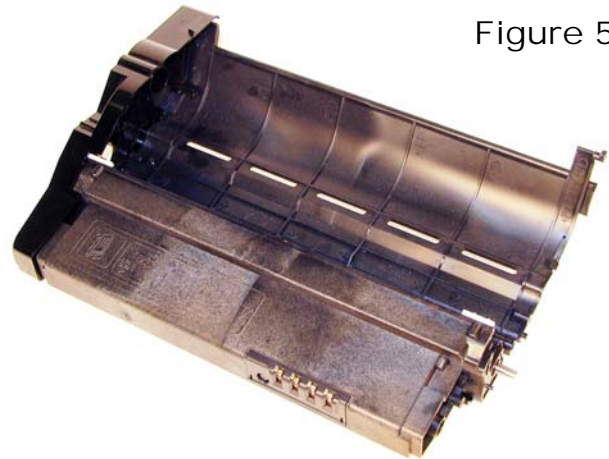


Figure 59

51) Install the bottom metal plate. Insert the three tabs first and rotate into place. Make sure all three locks snap into place! (2 sides and middle). See **Figure 57**



Figure 57

54) Install the gold screw into the drum axle. See **Fig.60**

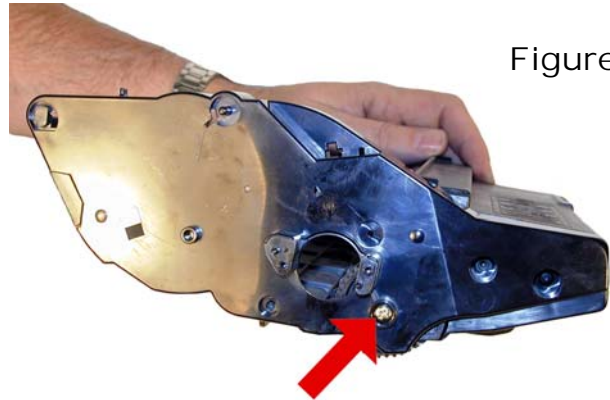


Figure 60

52) Fill the hopper with 4550 toner, 330g for the 12k, 165g for the 6k. Replace the fill plug, check for leaks. See **Figure 58**



Figure 58

55) Make sure the small round black plastic rod is in place, install the small drive gear. (This is the gear that came loose when the end cap was removed). See **Figure 61**

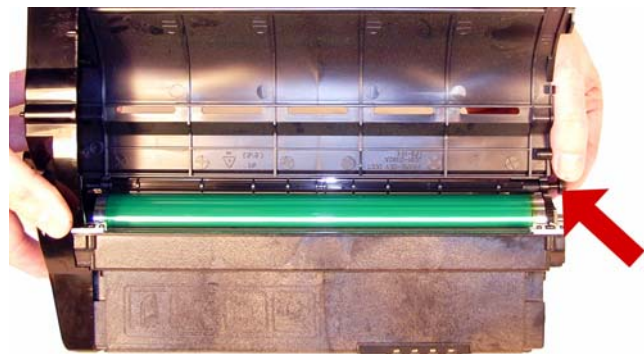


Figure 61

SUMMIT
TECHNOLOGIES

UniNet
IMAGING INC.

56) Install the hopper spring onto the end cap. **Fig. 62**

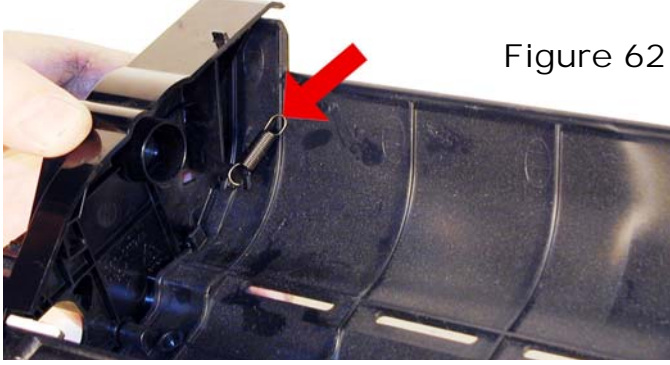


Figure 62

57) Place the hopper partially into the frame, hook up the spring onto the hopper. See **Figure 63**

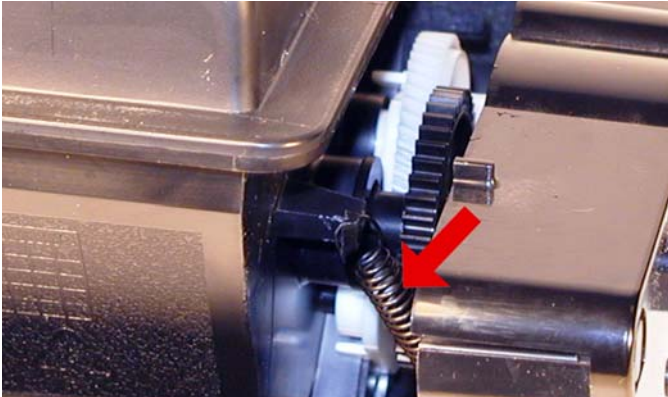


Figure 63

58) Partially install the metal rod on the toner hopper. Seat the hopper into the end cap, and seal the metal rod. Make sure the rod is seated into its hole, and the white drive gear is centered into the 1 inch hole. See **Figure 64**

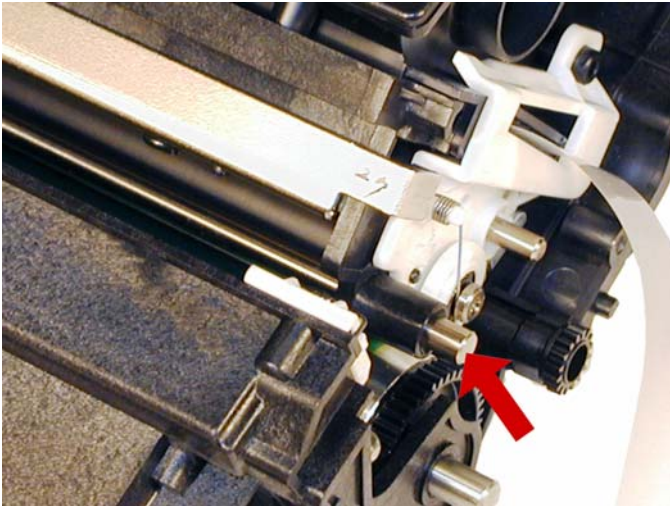


Figure 64

59) Rotate the remaining end cap and partially install on the frame so that the rear tab locks into place. See **Figure 65**

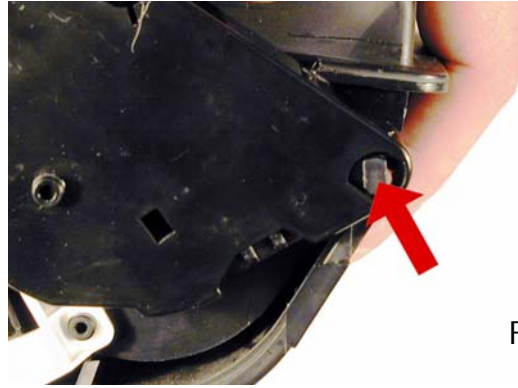


Figure 65

60) Install the spring from the end cap to the hopper. See **Figure 66**

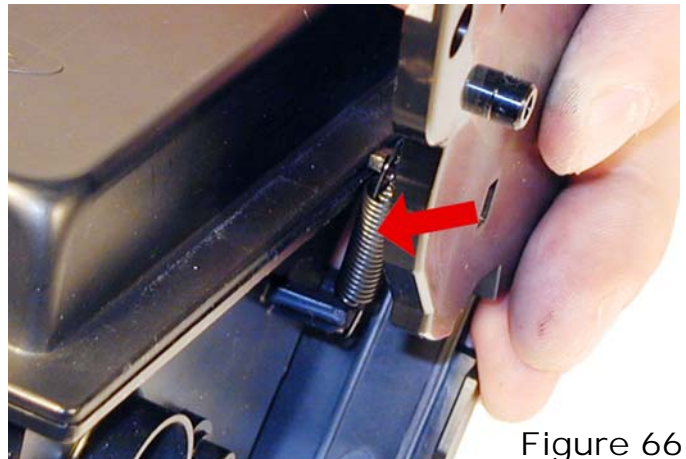


Figure 66

61) Pull the seal tab through the end cap seal slot. See **Figure 67**



Figure 67

62) Align and snap the end cap into place. See **Fig. 68**

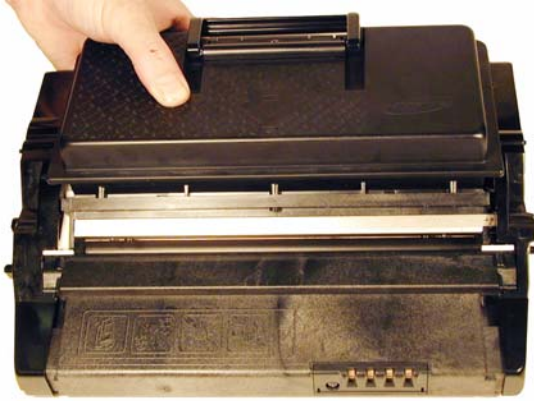


Figure 68

64) Install the two screws into the left side end cap. See **Figure 71**

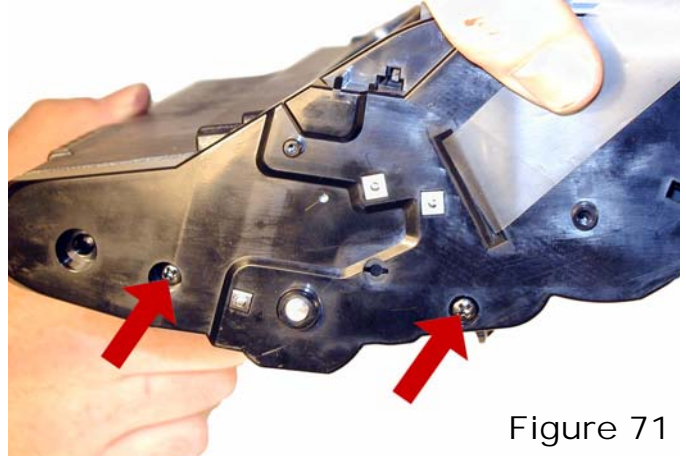


Figure 71

63) Install the drive gear, metal plate, and two screws. Make sure the tabs on the back of the black drive gear fit into the slots in the white drive gear. **Figs. 69 & 70**

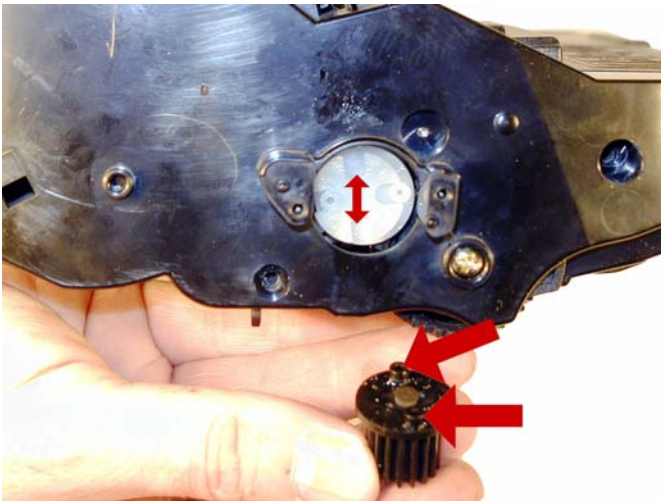


Figure 69

65) Install the two screws into the right side end cap. See **Figure 72**

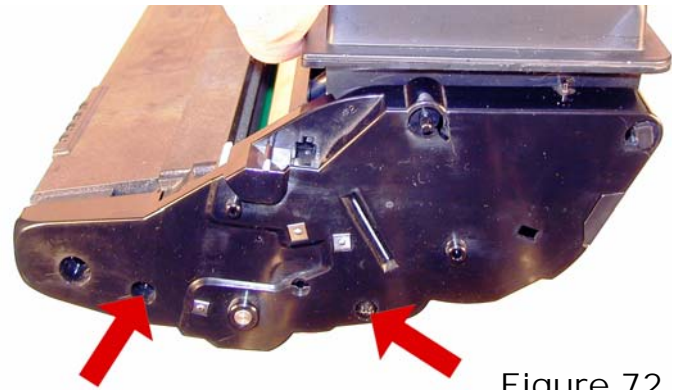


Figure 72

66) Install the drum cover arms. Place the arm into place, and rotate the tail of the springs so the fit into their respective slots. See **Figure 73**

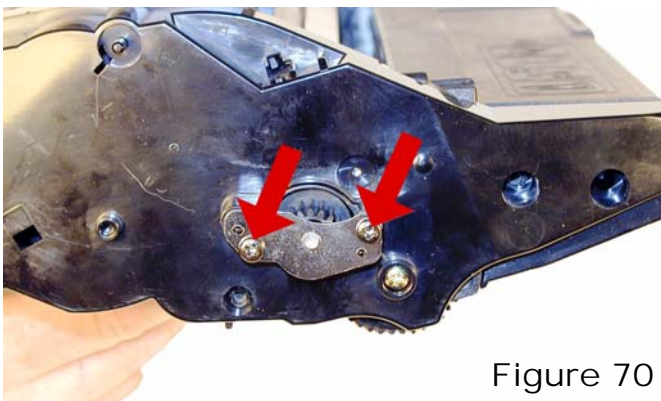


Figure 70

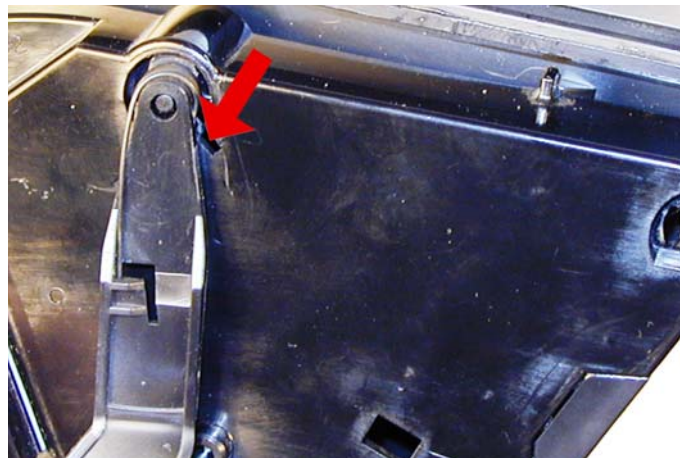


Figure 73

67) Install the shipping lock. See **Figure 74**



Figure 74

68) Remove the screw and cover for the chip. Replace the chip. See **Figure 75**

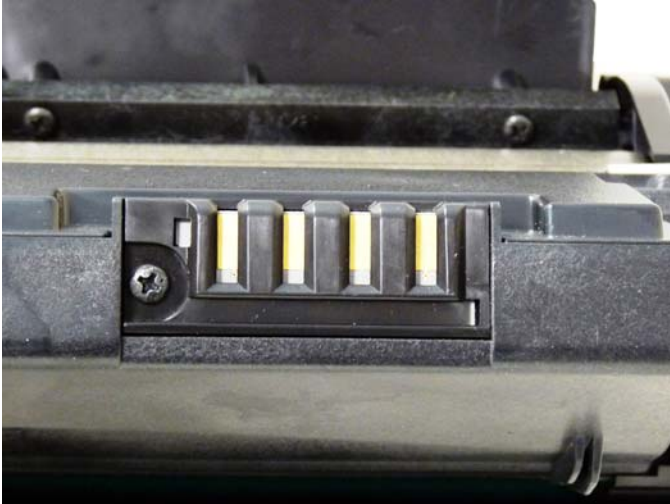


Figure 75

Repetitive Defect Chart:

PCR	38mm
Developer roller	50mm
Supply Roller	42mm
Transfer Roller	56mm
OPC Drum	94mm
Upper Fuser Roller	126mm (Mark on the front of the page)
Lower Fuser Roller	126mm (Mark on the back of the page)

Printing Test Pages

Press the MENU button until "Information" appears on the display. Press OK, Press the up or down arrow until the desired test page appears on the display. Some options are the Information page and Demo page.

Running the cartridge cleaning page:

With the printer at READY, Press the MENU>SYSTEM SETUP>MAINTENANCE>CLEAN DRUM
Select "PRINT YES"
The cleaning page will run

Running the Fuser cleaning page:

With the printer at READY, Press the MENU>SYSTEM SETUP>MAINTENANCE>CLEAN FUSER
Select "PRINT YES"
The cleaning page will run

