THE SAMSUNG SCX - 6320 TONER CARTRIDGE
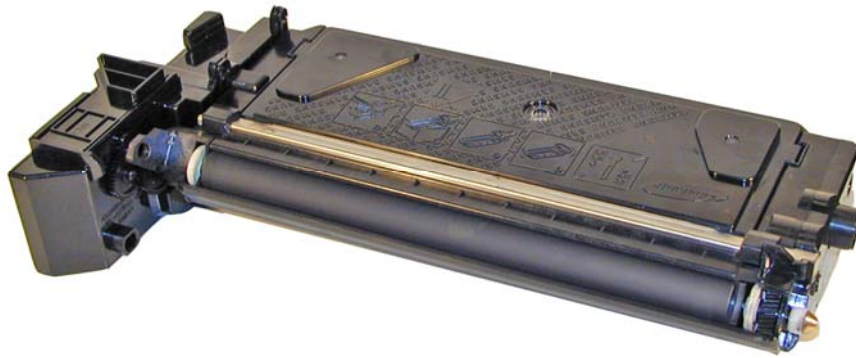
DOC# 0339

By Mike Josiah and the Technical Staff at Summit Technologies

SAMSUNG SCX - 6320 TONER CARTRIDGE REMANUFACTURING INSTRUCTIONS   Page 1

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Remanufacturing the Samsung SCX - 6320 Toner Cartridge

The Samsung SCX - 6320 Toner Cartridge

First released in November 2004, the Samsung SCX-6320 Engine is a 22 ppm fax engine that runs at 1200 dpi. The Samsung toner cartridge SCX-6320D8 is rated for 8,000 pages, and has a list price of $79.00 USD. This engine is similar to the Samsung SF-830 in that the toner and drum have been split into two different cartridges. These instructions cover both the toner cartridge and the drum unit. Both cartridges are very simple to remanufacture.

The toner cartridges are chipped, and the chip does need to be replaced each cycle. The chip also identifies if it is a Samsung, Xerox (US/Canada), or Xerox (Europe).

The SCX-6320 machines have a Toner Save function. The toner save mode is basically just like the Economode method used by other manufacturers. Only half the dots are printed using less toner.

Current Machines based on the SCX-6320 engine are:

Samsung SCX-6120
Samsung SCX-6220
Samsung SCX-6320F
Samsung SCX-6520FN

Xerox WorkCentre M20
Xerox WorkCentre M20i
Xerox CopyCentre C20

Part numbers for the cartridges are as follows:

Samsung Toner SCX-6320D8/XAA; 8,000 pages
Samsung Toner SCX-6320D4; 4,000 pages (Starter cartridge)
Samsung Drum unit SCX-6320R2; 20,000 pages
Samsung does not have different part numbers for Europe

Xerox Toner cartridge; 106R01047, 8,000 pages USA/ Canada
Xerox Toner cartridge; 106R01048, 8,000 pages Europe
Xerox Toner Starter cartridge; 4,000 pages
Xerox drum unit; 113R00671, 20,000 pages

Samsung and Xerox list pricing as of November 2005 for the toner cartridges is $79.99, the drum units list for $99.99

Machine and cartridge troubleshooting/information are covered at the end of this article.

Supplies required:

240g dedicated SCX-6320 toner
New replacement drum (For drum unit)
New replacement wiper blade (For drum unit)
Replacement fuse (For drum unit)- Same fuse as used in Samsung SF-5100
Conductive grease- Both cartridges

Tools Required

Phillips head screwdriver
Small common screw driver
Spring Hook
Vacuum approved for toner

Toner Cartridge:

1) Remove the two screws located on the waste chamber. Remove the waste chamber. Be careful not to lose the gears! See **Figure's 1 & 2**
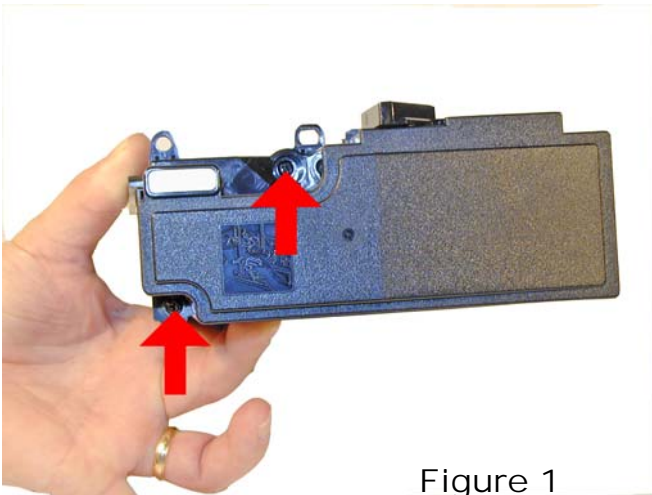
Figure 1
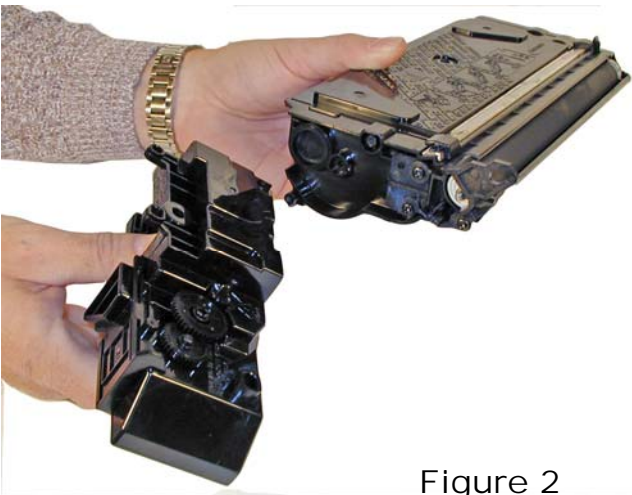
Figure 2

2) The gears on the waste chamber are on fairly tight so if you are careful there is no need to remove them. There are locking tabs on the center shafts that keep the gears in place. See **Figure's 3 & 4**
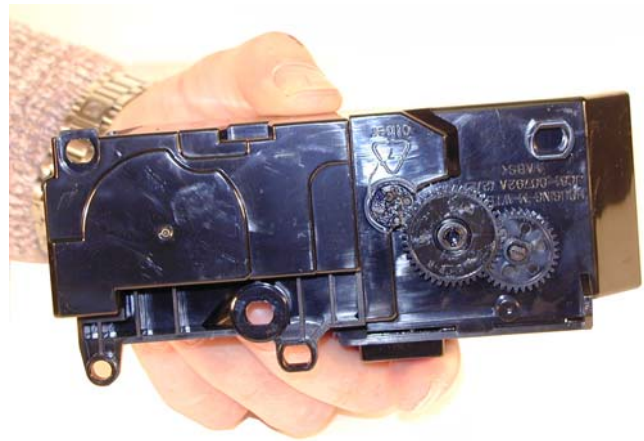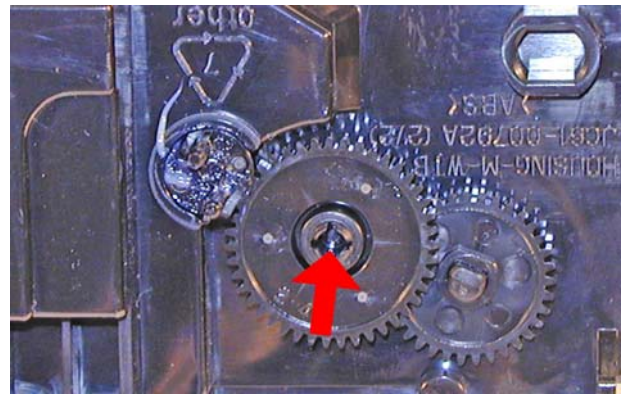

Figure 3

Figure 4

3) Vacuum/blow out the waste chamber clean.

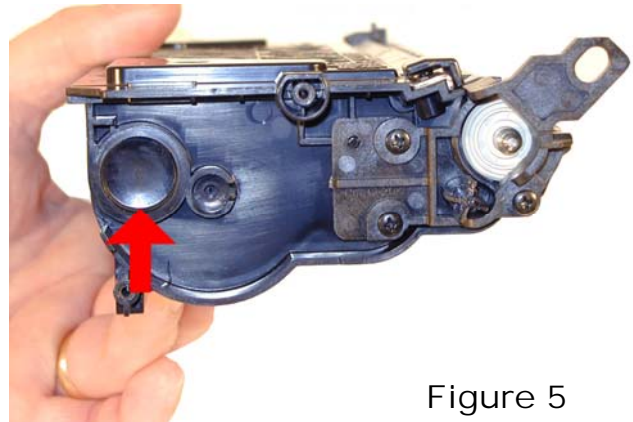4) On the same side of the cartridge as the waste chamber, remove the toner fill plug. See **Figure 5**

Figure 5

5) Dump the bulk of the remaining toner out of the cartridge. Vacuum/blow out the toner supply chamber clean. It is not necessary to get the cartridge completely clean now, as the developer roller needs to come out so the Dr. Blade can be cleaned. You will have easy access to clean out the hopper then.

6) Remove the waste chamber drive gear. See **Figure 6**

Figure 6

7) Remove the three developer roller screws and end cap. Watch out for the white bushing, it can fall out of the end cap. See **Figures 7, 8, & 9**
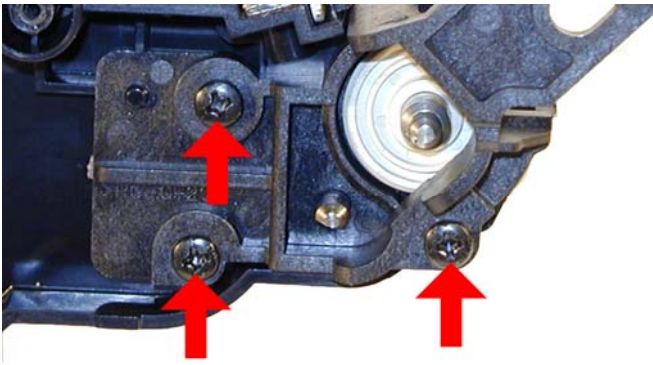
Figure 7

Figure 8

Figure 9

8) With a spring hook, bend up the middle of the developer roller cover, and remove from the cartridge. The cover has a small plastic tab that locks it in place on each side. See **Figure 10.**

9) Remove the three screws from **Figure 10** the opposite side end cap. See **Figure 11.**
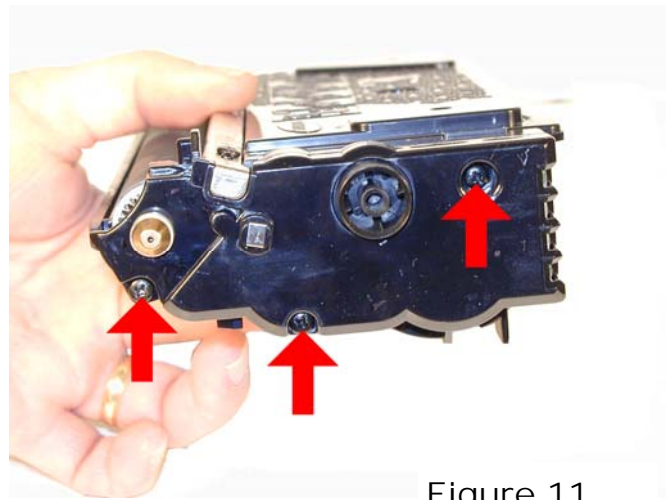

Figure 11

10) Note the location and placement of the gears, and remove them. The small gear that fits under the tail of the dr. blade comes off you just have to pry it up at an angle. See **Figure's 12 & 13.**
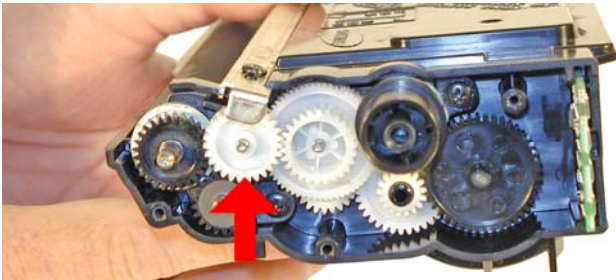

Figure 12

Figure 13

11) Remove the 2 screws on the small internal end cap from the gear side, on the developer roller shaft. Remove the end cap. See **Figure's 14 & 15**
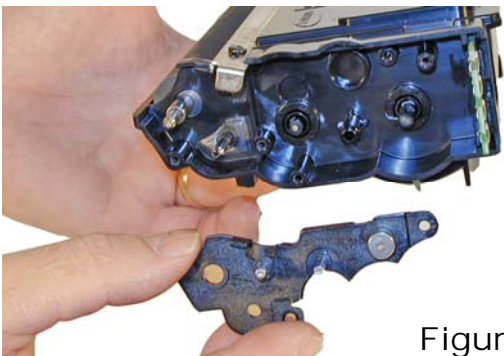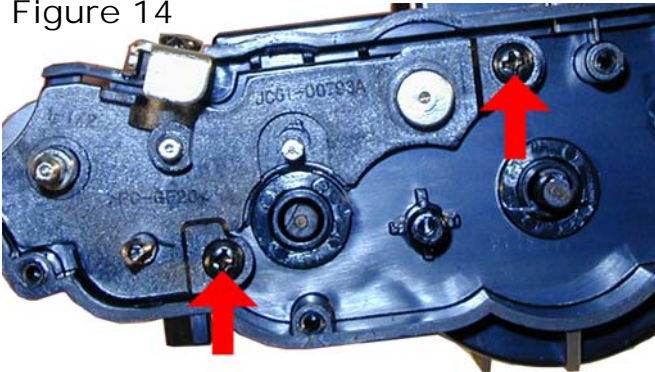
Figure 14

Figure 15

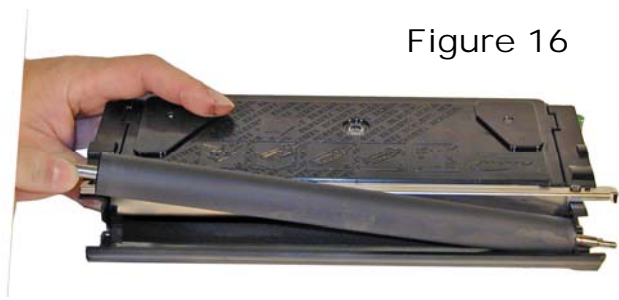12) Lift the developer roller out of the cartridge. See **Figure 16**

Figure 16

13) Clean out all the remaining toner from the hopper.

14) Clean the Dr. Blade. Until new blades are available, we do not recommend that this blade be removed, as it is held in place by an adhesive foam seal under the blade. If the blade is pried up (not an easy thing to do) the blade will bend, and become useless. Clean the blade with a cotton swab dampened with alcohol with the blade in place. Make sure that you do not drip any alcohol into the cartridge. See **Figure 17**
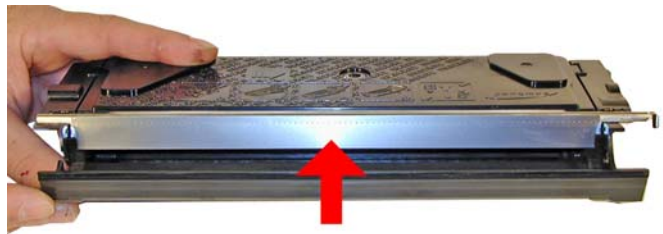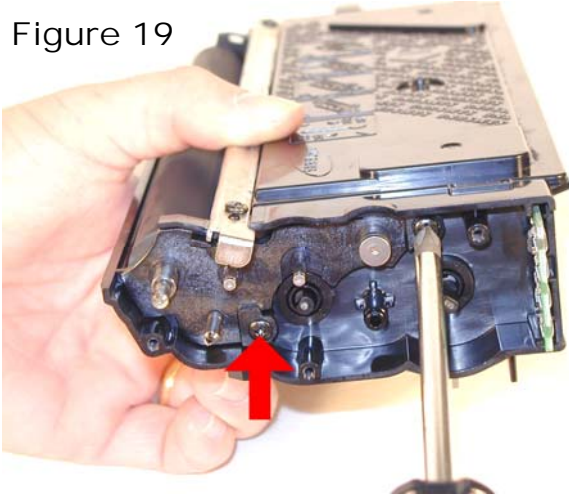

Figure 17

15) Install the developer roller. Be careful not to damage the shims! See **Figure 18**

Figure 18

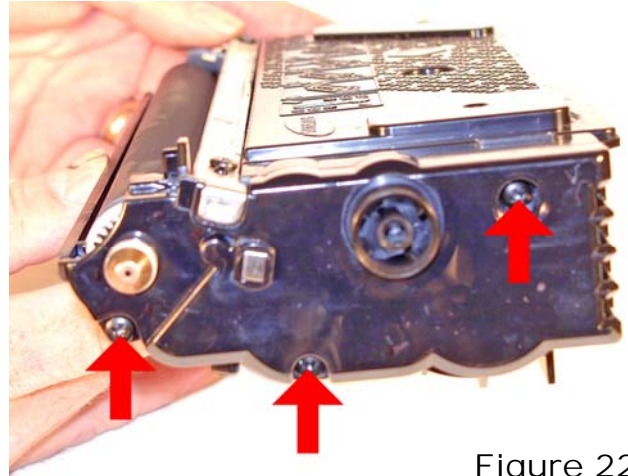16) Install the developer roller internal end cap and two screws. See **Figure 19**

Figure 19

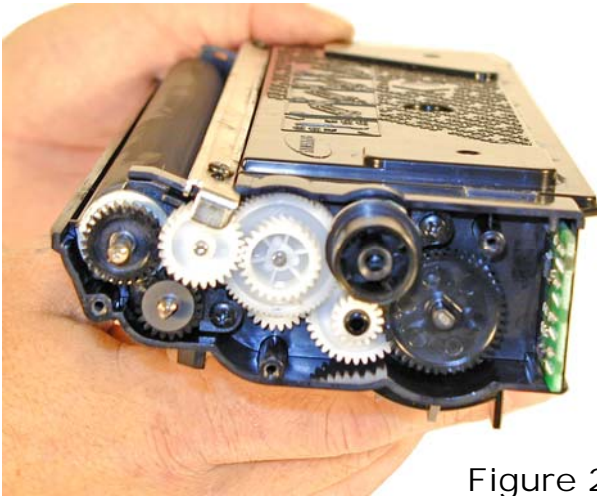17) Install the gears, start from left to right, and put the inside gears in place first. See **Figure 20**

Figure 20

18) Replace the chip. See **Figure 21**

Figure 21

19) Install the gear end cap and three screws. See **Figure 22**

Figure 22

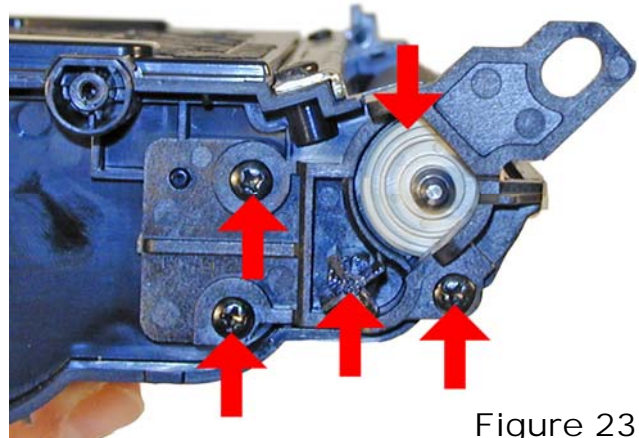20) Install the waste chamber drive gear, end cap, and three screws on the waste chamber side. See **Figure 23**
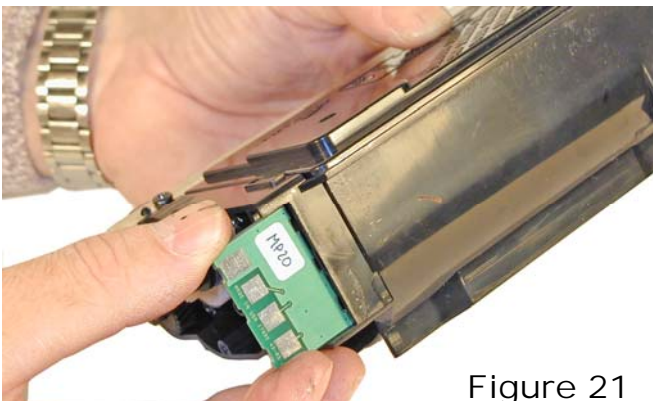

Figure 23

21) Install the developer roller cover in the same way it was removed. Do not bend it at too much of an angle, or it will stay bent. See **Figure 24**

Figure 24

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22) Fill with 250g SCX-6230 toner. See **Figure 25**

Figure 25

23) Install the fill plug, check for leaks. See **Figure 26**

Figure 26

24) Install the waste chamber and two screws. The waste chamber does not fit tight, even when the screws are snug. This is to allow it to fit to the waste section of the drum unit better. See **Figure 27**

Figure 27

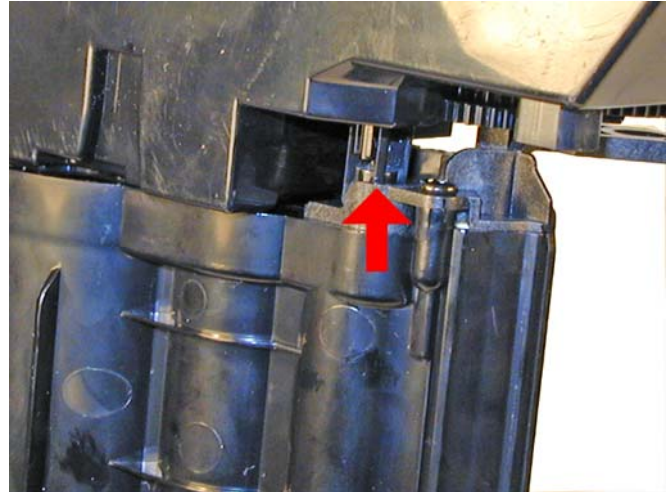25) Make sure the waste chamber drive gear is meshed with the waste chamber gears. See **Figure 28**
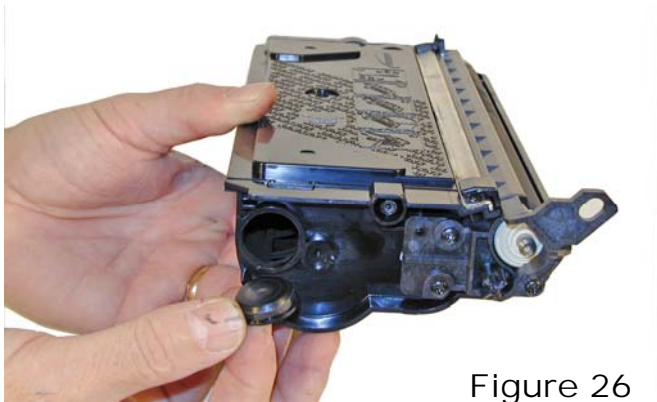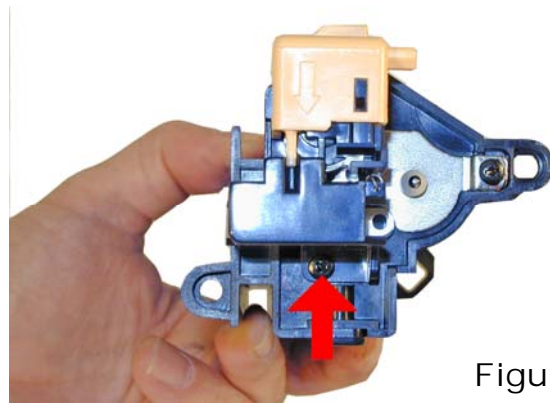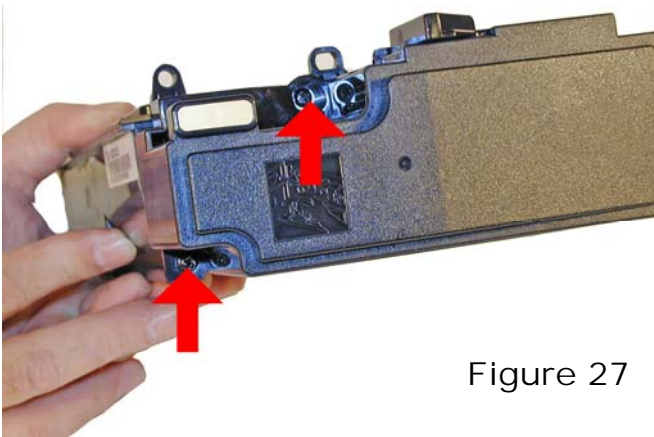

Figure 28

OPC Drum Cartridge

26) Remove the single screw from the handle end cap. See **Figure 29**

Figure 29

27) Press in on the tab, and remove the end cap. See **Figure 30**
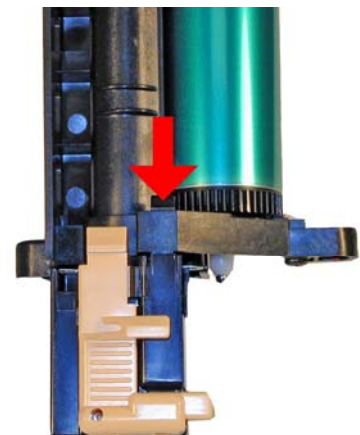
Figure 30

28) Remove the top two screws. See **Figure 31**

Figure 31

29) Remove the side screw, and lift off the PCR assembly. See **Figures 32 & 33**
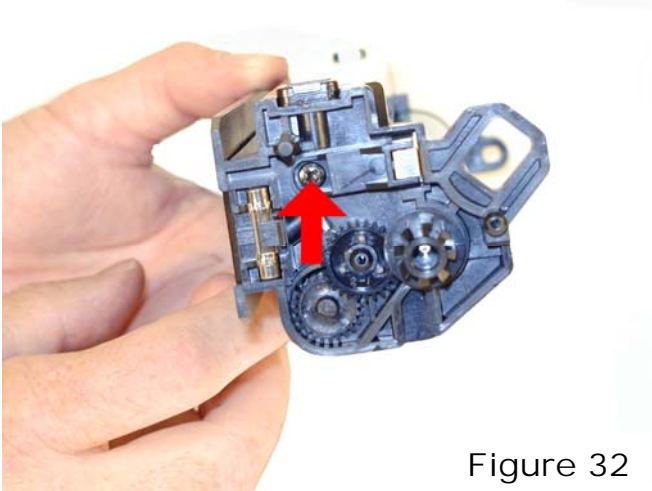
Figure 32

Figure 33

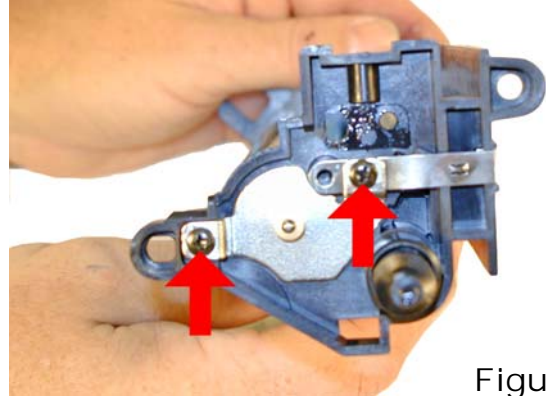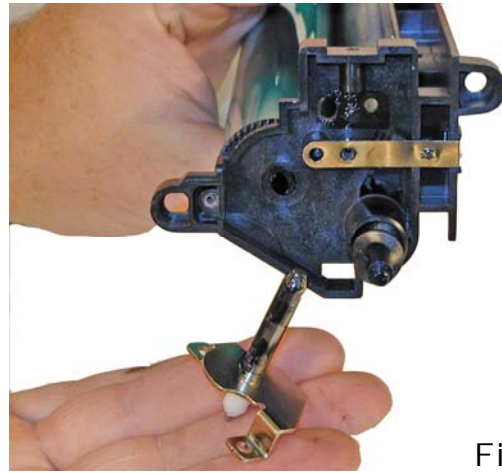30) Remove the two screws from the metal drum axle plate, and the axle plate. See **Figures 34 & 35**

Figure 34

Figure 35

31) Carefully pry off the opposite side drum drive gear. It is on tight! See **Figure 36**
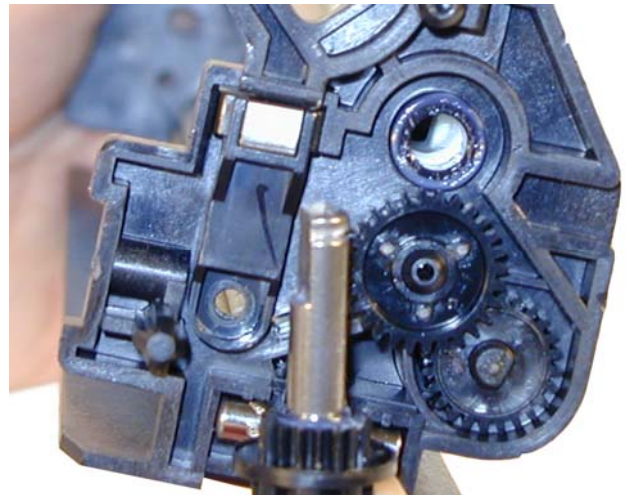
Figure 36

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32) Remove the drum, and place aside. See **Figure 37**

Figure 37

33) Remove the two screws and the wiper blade. See **Figure 38**
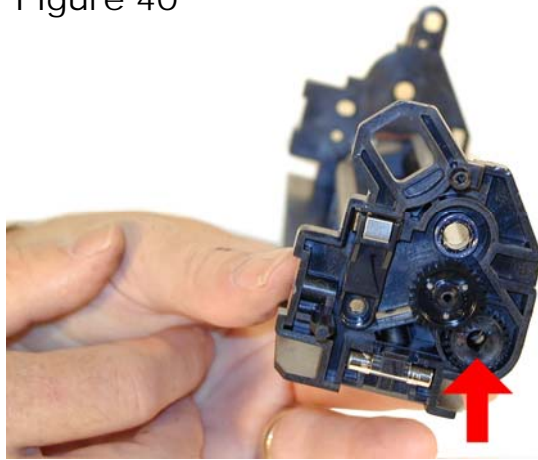

Figure 38

34) Remove the waste auger from the chamber. Be careful not to lose the gear on the end of the auger. Clean out all the waste toner from the chamber and auger. See **Figures 39 & 40.**

Figure 39

Figure 40

35) Install the cleaned auger in the chamber, keyed end into the gear. See **Figure 41**
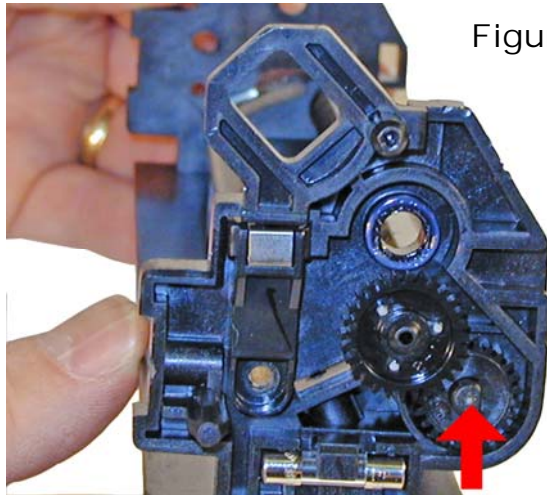

Figure 41

36) Install the new wiper blade and two screws. See **Figure 42**

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37) Install the OPC drum, make sure the white hub is towards the gear side, and that the tab on the hub is set in the slot on the top side. See **Figures 43 & 44**
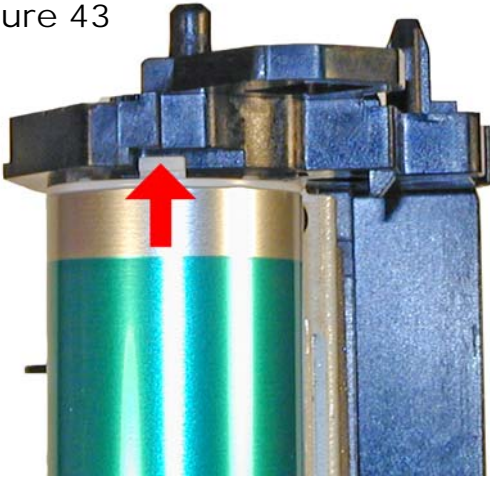
Figure 43

Figure 44

38) Snap in the drum drive gear. See **Figure 45**

Figure 45
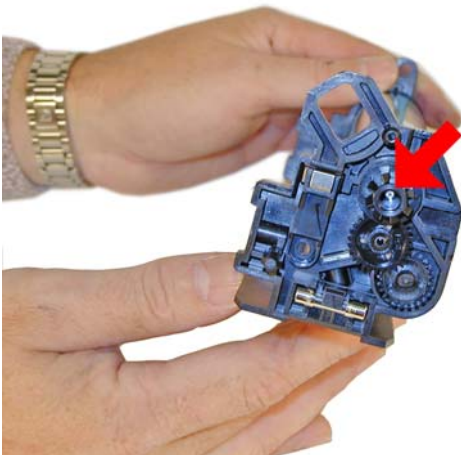
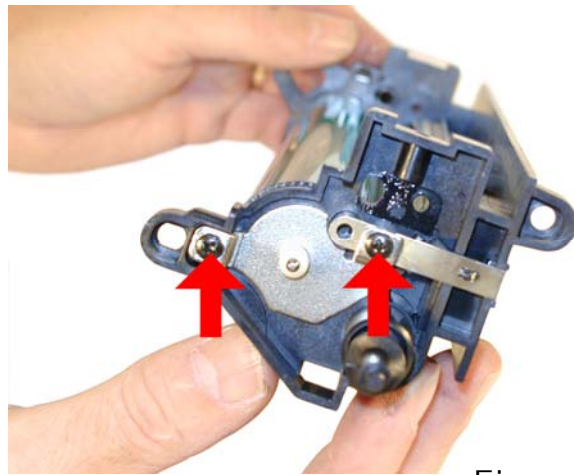39) Install the drum axle plate and screws. See **Figure 46**

Figure 46

40) On the PCR assembly, gear side, move the PCR drive gear so that it no longer meshes with the cleaning roller drive gear. See **Figure 47**
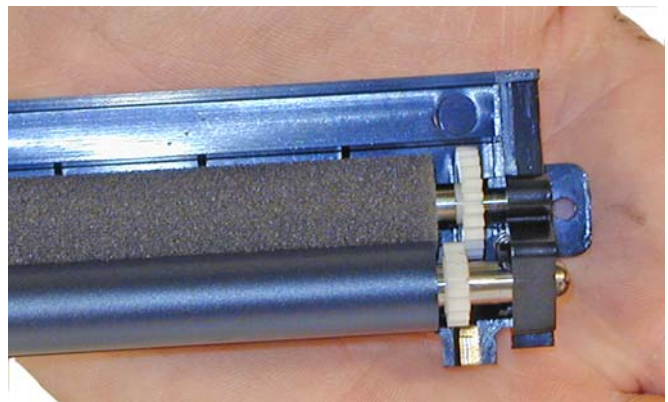

Figure 47

41) Press down on the PCR shaft and pry the black PCR holder out from the inside. Make sure you don't lose the spring! See **Figure 48**
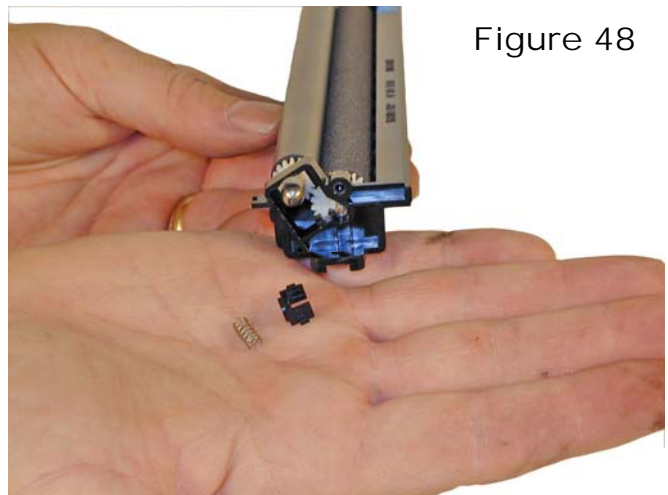
Figure 48

42) Slide the PCR over, and remove. See **Figure 49**

Figure 49

43) Vacuum/blow clean the PCR cleaning roller. Clean the PCR with a clean lint free cloth. For now we do not recommend any chemicals be used other than pure distilled water to clean the PCR.

44) Install the PCR. See **Figure 50**

Figure 50

45) Install the black PCR holder so that the tabs fit on both sides of the track. Install the spring. See **Figures 51 & 52**

Figure 51

Figure 52

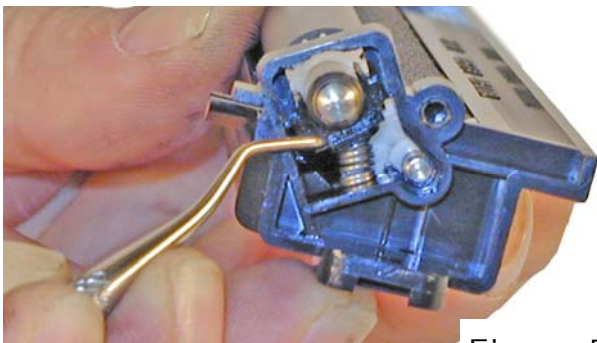46) Place a small amount of conductive grease on the "bullet" shaped end of the PCR. See **Figure 53**
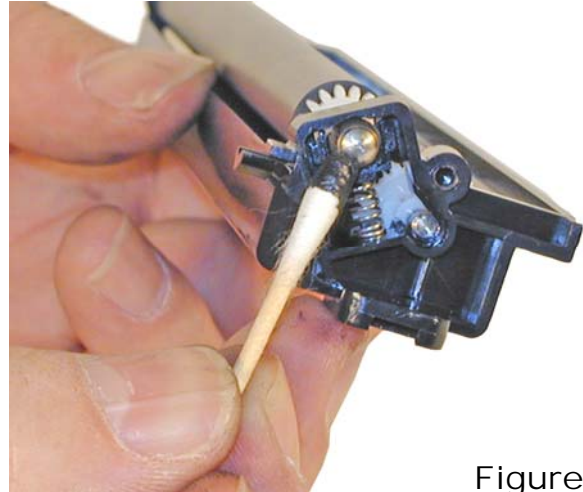
Figure 53

47) Set the two white gears so they mesh again. Failure to do this will allow a buildup on the PCR, ghosting and/ or back-grounding will then occur. See **Figure 54**
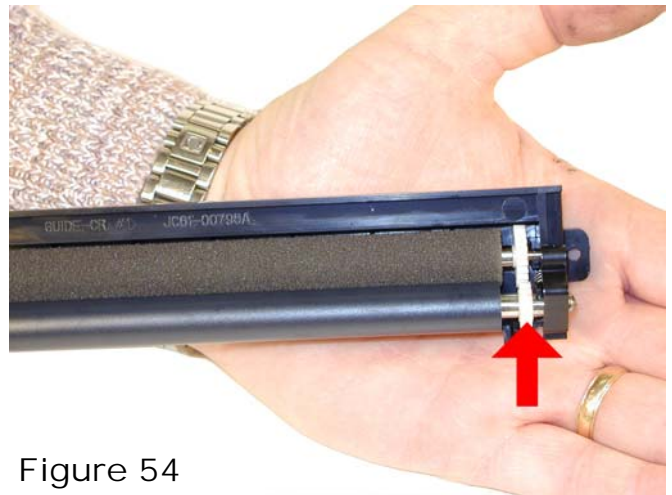
Figure 54

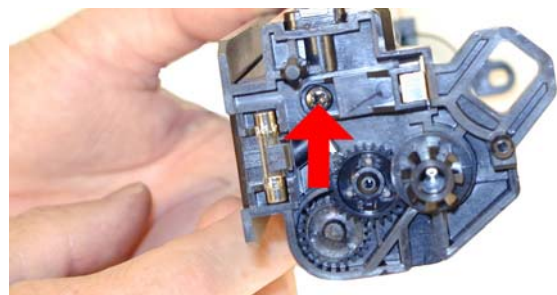48) Install the PCR assembly and three screws. See **Figures 55 & 56**

Figure 55

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Figure 56

49) Clean any remaining waste toner from the handle/ end cap. Install the end cap and screw. See **Figure 57**
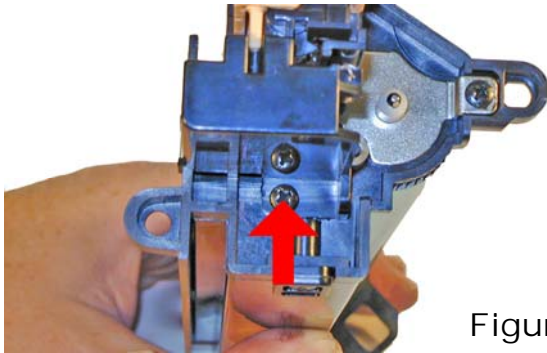

Figure 57
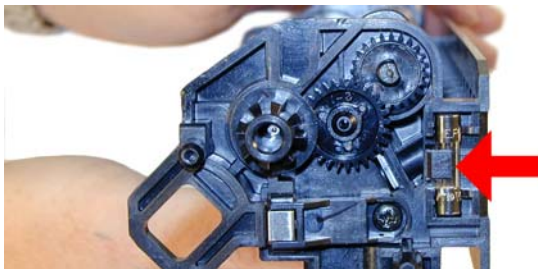
50) Replace the fuse. See **Figure 58**

Figure 58

Page Count:
Even though this is a small copier, it does keep a page count. It is accessible through the Control centre software. Click on the information tab to see the counter

Toner Low Notification:
As with many fax machines, you can program the machine to fax you when the cartridge needs to be replaced. This is done through the System Admin tools. If you are not the seller of the copier, this may have been done by the vendor, and may have been password protected.

Do not change this unless you have the machine owner's permission!

Resetting the Drum Counter (If the fuse does not work)
Press the "Machine Status" key
Using the navigation keys, scroll until SYSTEM ADMIN TOOLS appears on the display.
Press "Enter"
If it has been password protected, enter the password now.
Use the navigation keys again until you see NEW DRUM on the display
Press "Enter"
To set the counter to Zero, select ON, and press Enter

Running the Drum Cleaning Page:
Press the "Machine Status" key
Using the navigation keys, scroll until SYSTEM ADMIN TOOLS appears on the display.
Press "Enter"
If it has been password protected, enter the password now.
Use the navigation keys again until you see CLEAN DRUM on the display
Press "Enter"
The cleaning page will print

Cartridge Troubleshooting:
There is really not much that can go wrong with these cartridges. Fro our experience, it is a safe bet that most of the problems will come from either the developer roller or the DR. blade. Streaking, shading, back-grounding...all can come from these two parts. We will write an update after we have more information.

DEFECT CHART
OPC Drum	94.30mm
PCR	38.30mm
Toner Feed roller	43.80mm
Developer roller	54.30mm
Transfer roller	56.60mm
Upper Fuser roller	83.60mm
Lower Pressure roller	91.00mm

Machine Troubleshooting
As with most Samsung machines, the error codes are in plain English. There are however, a few messages that can be confusing (Different words are used for the same parts). They are as follows:

Drum Warning: The drum cartridge is nearing the end of its life
Drum Empty: The drum cartridge is finished.
No Developer Cartridge: This means the toner cartridge is missing. Actual developer is not used in these machines. I'm not sure why they didn't use a "no toner cartridge message", but that is why we included the messages here.

Invalid cartridge: The wrong cartridge is installed (Xerox/Samsung), or the wrong chip is installed.

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