

THE XEROX PHASER 4510 TONER CARTRIDGE



DOC# 0407

By Mike Josiah and the technical staff at Summit Technologies
– a Division of Uninet Imaging.

Remanufacturing the Xerox Phaser 4510 Toner Cartridge



The Xerox Phaser 4510 Toner Cartridge

First introduced in April 2007, the Phaser 4510 machine is based on a 45ppm, 1200dpi Fuji-Xerox laser printer engine. There are two cartridges available the low yield 113R00711 is rated for 10,000 pages, and the HY 113R00712 is rated for 19,000 pages. The first page out is stated to be under 8 seconds. The processor is 533Mhz, and they all come standard with 128Mb ram max 512Mb. These machines tend to be used as workgroup printers, so if you have a customer that has one, the cartridge volume will be on the high side.

With the list prices of these cartridges at \$159.99 for the LY and \$224.99 for the HY, they are a nice profitable cartridge to do. Though they are a bit unique in their construction, they are fairly easy to remanufacture

While this cartridge looks very similar to the Phaser 4500 from the outside, it is very different. This is especially true for the toner and chips. The chip itself is an RF type and is a black round disk that fits into the side of the cartridge.

Like the Phaser 4500, they both use white plastic pins located on each side of the cartridge that lock the two halves of the cartridge in place. The heads of these pins have a one way screw head on them. See **Figure 1**. We have contacted multiple specialty screw manufacturers to see if a special tool is available, but were not able to find one. They can be removed by inserting a 1" long #6 or #8 wood screw into the center of the pin. You can

then twist the pin to release the two small tabs and pull it out. The text below will go more into detail on this.

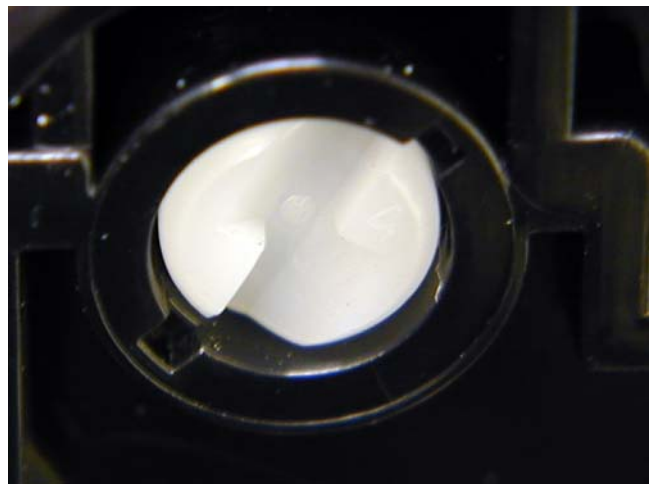


Figure 1

The machines that are based on the Xerox 4510 engine are as follows.

Phaser 4510
Phaser 4510 B
Phaser 4510 N
Phaser 4510 DT
Phaser 4510 DX

How to run test prints as well as printer error codes will be discussed at the end of this article.

Supplies required

820g Phaser 4510 toner for the HY cartridge or 410g 4510 toner for the LY cartridge.

Replacement Plastic Cartridge Pins (When available)

New Replacement Chip

Sealing strip

New drum (Optional)

New Doctor Blade (Optional)

New mag roller Sleeve (optional)

Cotton Swabs

Isopropyl Alcohol

Drum Padding Powder

Conductive Grease

Dedicated Magnetic Roller Cleaner

Tools Required

Phillips head screw driver.

Small Common screwdriver

A 1" long #6 or #8 wood screw

Needle Nose pliers

Spring Hook

Vacuum approved for toner

1) On either side of the cartridge is a white plastic pin with one way screw heads. These pins are what holds and locks both halves together. Specialty drivers to remove them are not available, so the only way as of now to remove them is to insert a 1" long #6 or #8 wood screw into the center of the pin. Once the screw has been inserted, turn the pin/screw so that the 2 small tabs in the pin are free. Remove the pin. See **Figures 2, 3, & 4**

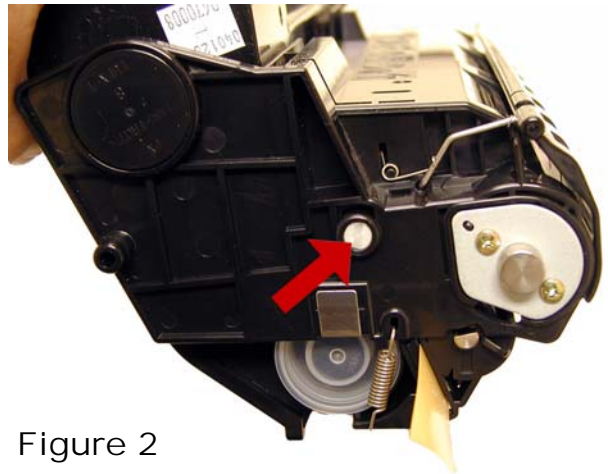


Figure 2



Figure 3

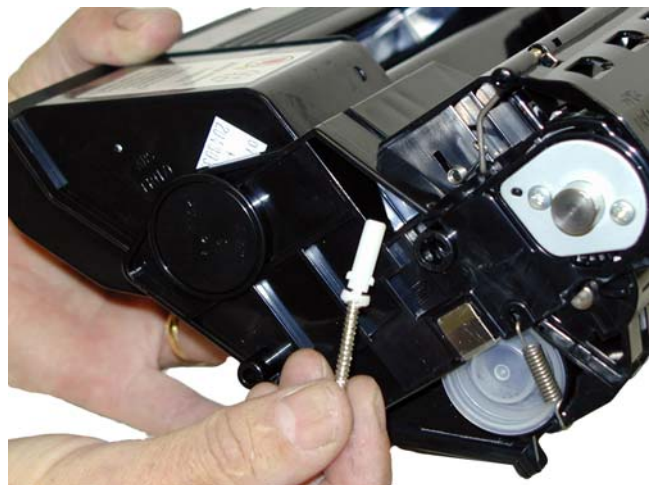


Figure 4

2) Remove the spring from the right (fill plug) side of the cartridge. Separate the two halves by lifting the waste chamber straight up off the supply chamber. See **Figures 5 & 6**

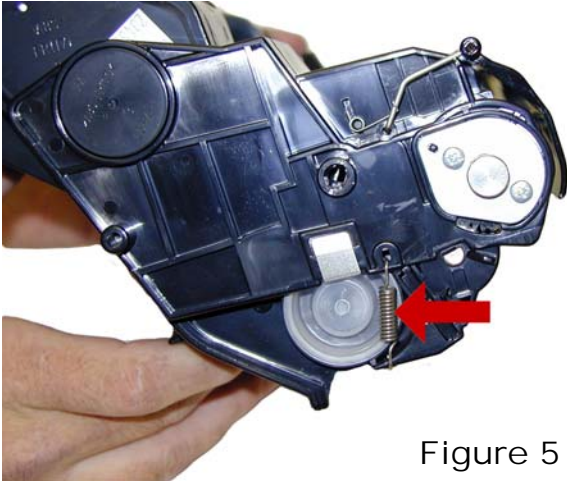


Figure 5

4) Remove the two screws and plastic drum bushing from the right side of the cartridge. See **Figure 8**



Figure 8

5) Remove the drum. See **Figure 9**

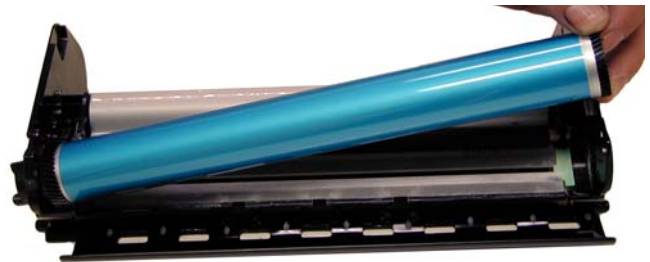


Figure 9



Figure 6

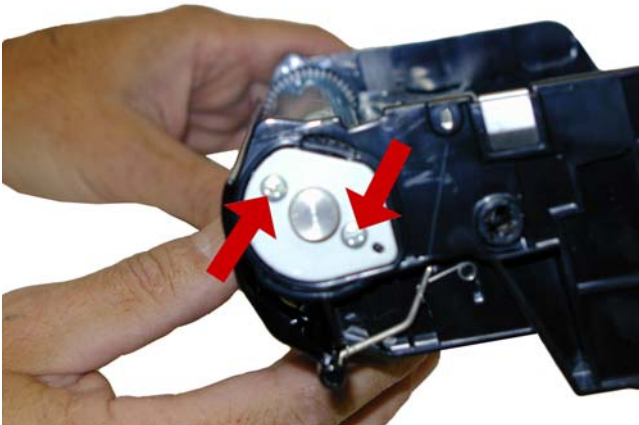
6) Remove the PCR from its holders. See **Figure 10**



Figure 10

3) Remove the two screws and metal drum axle pin from left side of the cartridge. See **Figure 7**

Figure 7



7) Remove the two screws and wiper blade. This blade has a very tight fit. Be careful not to break the alignment pins! See **Figure 11**



Figure 11

8) Clean out the waste chamber. Be very careful not to lose or damage the foam wiper blade seal. See **Fig. 12**



Figure 12

9) Coat the wiper blade with your preferred lubricant, and install in the cartridge. As stated previously, this blade has a very tight fit. Be careful not to break the alignment pins! Install the two long screws the four short screws are for the drum axle pins only. See **Figure 13**



Figure 13

10) Clean the PCR contacts with a cotton swab and alcohol. Place a small amount of conductive grease on the Black PCR holder. See **Figure 14**

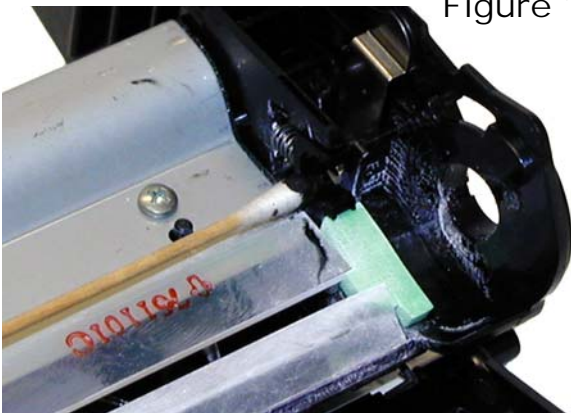


Figure 14

11) Clean the PCR with your preferred PCR cleaner, and install in the holders. See **Figure 15**



Figure 15

12) Install the drum, axle pins, and screws. Make sure that there is clean conductive grease on the drum axle pin shaft. See **Figure 16**

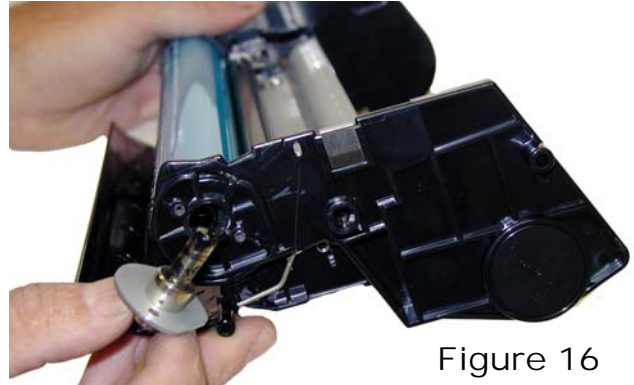


Figure 16

13) While the cartridge is apart this is the best time to remove the old chip. Press in on the 2 tabs from the inside wall of the cartridge, and remove the chip. See **Figures 17 & 18**



Figure 17



Figure 18

14) With a small jewelers screwdriver, pry out the upper fill plug. See **Figure 19**. Dump out any remaining toner from the upper hopper. See **Figure 19**

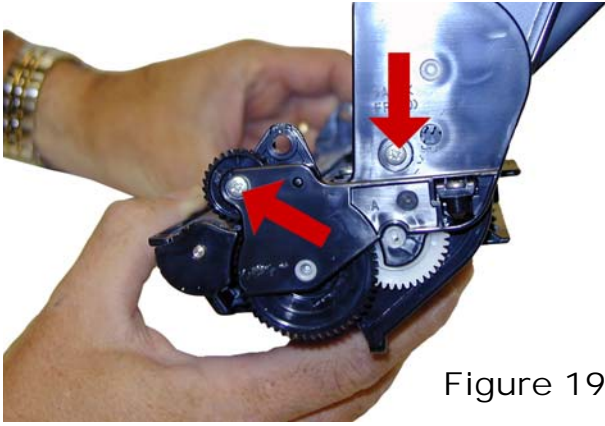


Figure 19

15) With the same jewelers screwdriver, pry out the lower fill plug, and dump out any remaining toner from the lower section. See **Figure 20**



Figure 20

16) On the side opposite the fill plug, remove the two screws and end cap and gears as shown. Leave the top large white gear in place. See **Figures 21, 22 & 23**

Figure 21



Figure 22



Figure 23

17) Lift up the locking arm on the right side of the magnetic roller. With the keyed shaft of the magnetic roller free, lift up on the keyed end by the locking arm. Pull the entire magnetic roller assembly free. See **Figures 24 & 25**



Figure 24

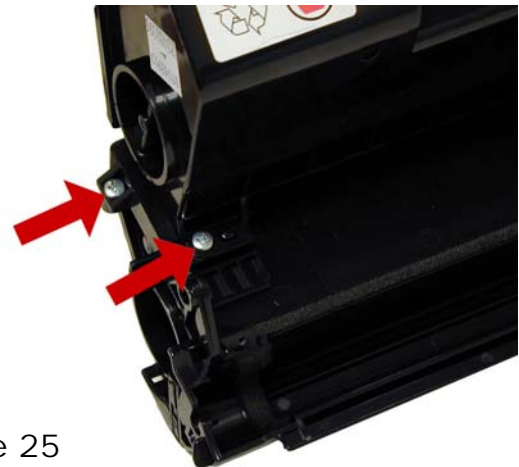


Figure 25

18) Remove the two screws and doctor blade. Watch out for the alignment pins! Clean out any remaining toner. See **Figure 26**

19) Remove the four screws that hold the upper supply section to the lower. Remove the upper section. See **Figures 27, 28 & 29**

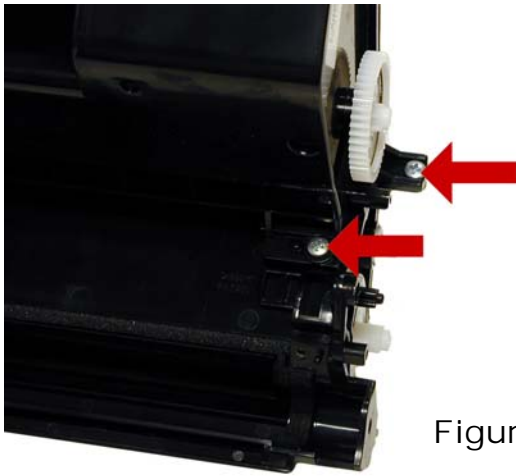


Figure 26

20) Remove the 2 agitators from the lower hopper and clean them off. See **Figures 30 & 31**



Figure 30



Figure 27



Figure 31

21) Thoroughly clean out both the lower and upper chambers. Be careful not to lose or damage the square foam seals on the lower chamber! See **Figure 32**

Figure 28



Figure 29

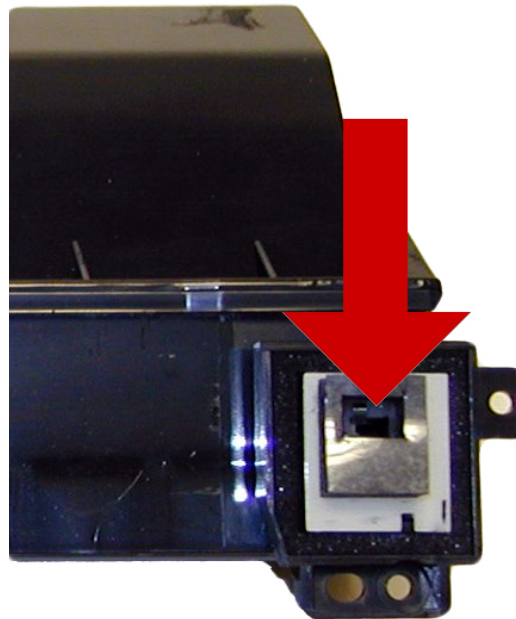
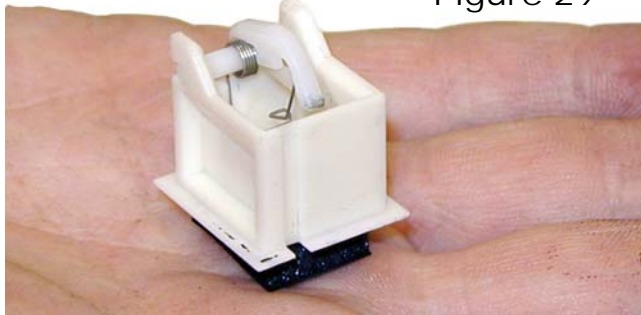


Figure 32

22) Install the 2 agitators. Make sure the rectangle hole is towards the top of the cartridge. See **Figures 33 & 34**



Figure 33

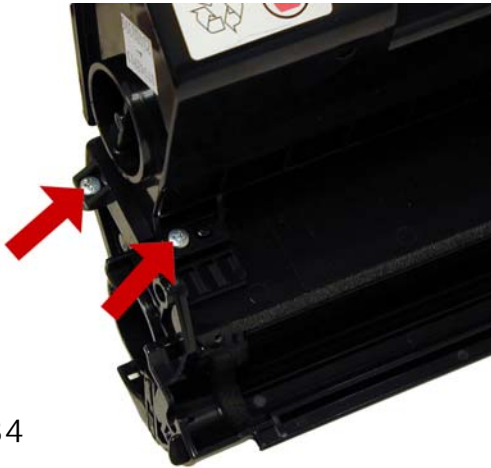


Figure 34

23) Place the upper chamber onto the lower, and install the four screws. See **Figures 35 & 36**

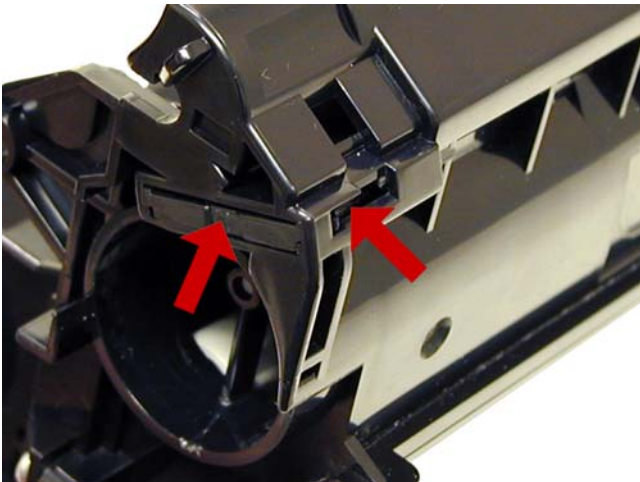


Figure 35



Figure 36

24) If you are installing a seal, on the lower section, remove the seal plug by pressing in on the side tab. See **Figure 37**



Figure 37

25) Install the seal. Make sure the seal tab is slid into the seal tab slot. See **Figure 38**



Figure 38

26) Install the seal plug. See **Figure 39**

27) Install the cleaned doctor blade and two screws. Be careful not to damage the alignment pins. See **Figure 40**



Figure 39

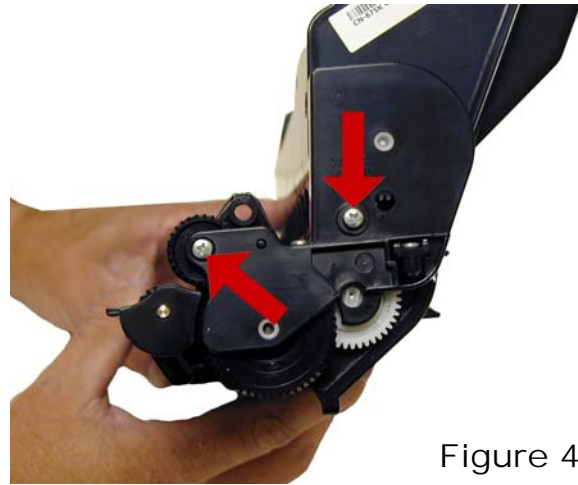


Figure 42

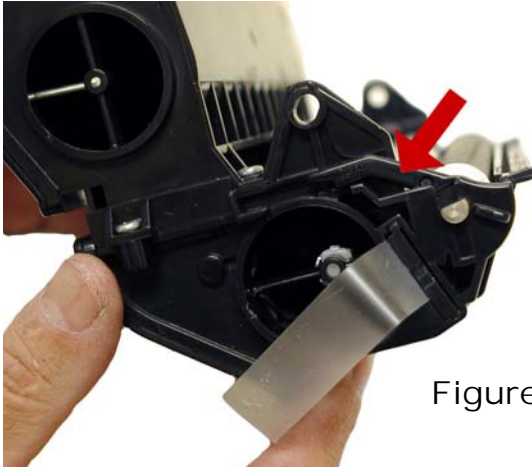


Figure 40

29) Install the gears in the order shown. Install the end cap and two screws. See **Figures 43 & 44**

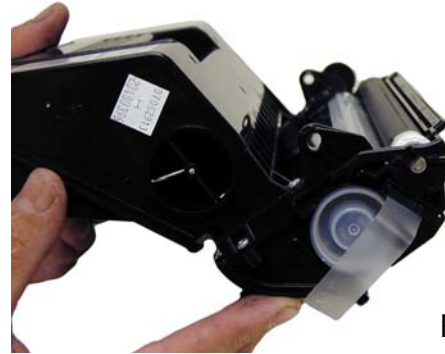


Figure 43

28) Clean the magnetic roller assembly with a dedicated magnetic roller cleaner. Install the assembly left side (round shaft) first. Make sure the locking arm is firmly locked in place. See **Figure's 41 & 42**

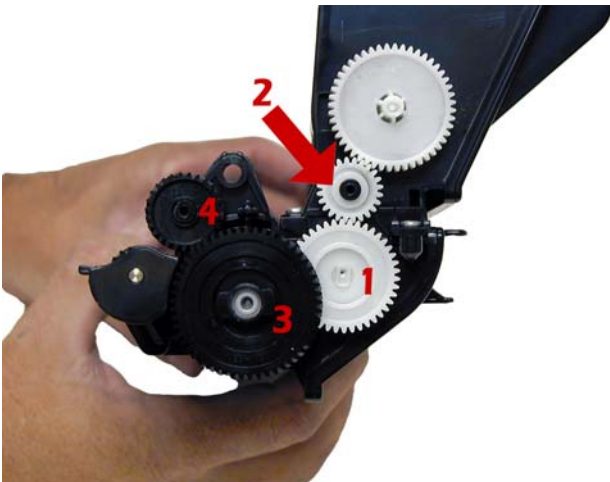


Figure 41



Figure 44

30) Install the lower fill plug. See **Figure 45**

31) Fill with **820g** Phaser 4510 toner in the upper chamber. See **Figure 46**

32) Install the upper fill plug, check for leaks. See **Figure 47**



Figure 45

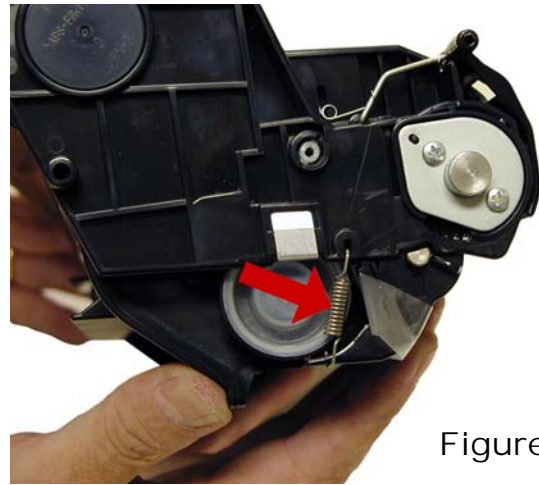


Figure 48

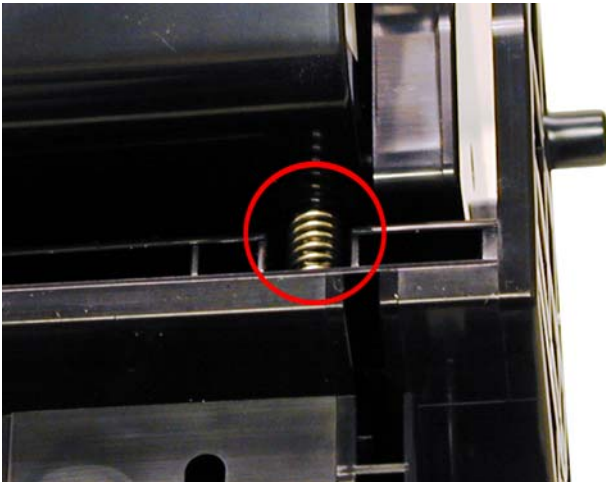


Figure 46

34) Install the two white plastic locking pins. See **Figure 49**



Figure 49

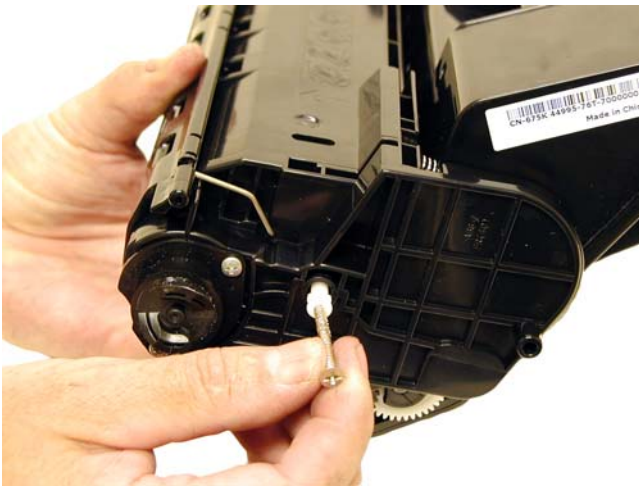


Figure 47

35) Install the spring onto the outside of the cartridge. See **Figure 50**

33) Install the toner supply section onto the waste chamber. Make sure the spring on the supply hopper fits into the plastic ring on the waste hopper. See **Figure 48**.



Figure 50

36) Replace the RF chip. Line the 2 tabs on the back of the chip with the slots, and snap into place. See **Figure 51**

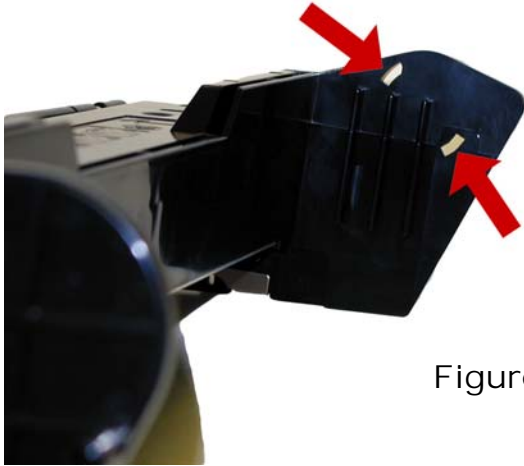


Figure 51



Select "TEST PRINTS". Press the OK button

A series of test pages will then print out

MACHINE ERROR CODES

The error codes in these machines follow the trend of using all English messages (No Number Codes). There is no need to list them here. It should be noted however that for many errors there are two levels of error codes. If there is a secondary code, the primary will tell you which button to press to get the second. Usually it is the help? Button.

CARTRIDGE DEFECT LISTING

We have found no strange defects related to these cartridges. The following is a list of repetitive defects for the more common failures.

94.4mm	OPC Drum
94.2mm	Fuser Assembly
52mm	Magnetic Roller
51mm	Transfer roller
38mm	PCR

RUNNING TEST PAGES

Press the MENU button until "TROUBLESHOOTING" is displayed. Press the OK button
Select "PRINT QUALITY PROBLEMS". Press the OK button