

SAMSUNG CLP-610 TONER CARTRIDGE REMANUFACTURING INSTRUCTIONS

THE CLP-610 TONER CARTRIDGE



DOC# 0465

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



Remanufacturing the Samsung CLP-610 Toner Cartridge



THE CLP-610 TONER CARTRIDGE

First released in October 2007, the Samsung CLP-610 based Printers are built on 21-24 ppm depending on the machine (color and monochrome) engine with a maximum resolution of 2,400 x 600 dpi. The design is new for Samsung in that the cartridges are “all in one” instead of having a separate drum and toner as in other Samsung color lasers.

These cartridges do not have a drum cover, and come new with a piece of heavy paper taped around the cartridge. There are both LY and HY cartridges available for these machines. A list of the cartridges as well as their list pricing is listed below:

CLP-K660A	\$99.99*	2,500
CLP-C660A	\$119.99*	2,000
CLP-M660A	\$119.99*	2,000
CLP-Y660A	\$119.99*	2,000
CLP-K660B	\$129.99*	5,500
CLP-C660B	\$149.99*	5,000
CLP-M660B	\$149.99*	5,000
CLP-Y660B	\$149.99*	5,000

*Pricing as of February 2009

The printers based on the CLP-610 engine are:

CLP-610ND
 CLP-660ND
 CLX-6200ND
 CLX-6200FX
 CLX-6210FX
 CLX-6240FX

Cartridge troubleshooting as well as common error messages will be listed at the end of the instructions

Required Tools

- 1) Toner approved vacuum.
- 2) A small Common screw driver
- 3) A Phillips head screwdriver
- 4) Jewelers screwdriver set
- 4) Flush cutting wire cutters

Required Supplies

Samsung CLP-610 Color Toner (Make sure you match the LY toner with a LY chip)
 New replacement chip (LY, HY)
 Conductive Grease



99% Isopropyl alcohol
Drum lubricating powder

1) Remove the springs from both sides. See **Figs 1 & 2**



Figure 1



Figure 2

2) Remove the two screws from the contact plate. See **Figure 3**

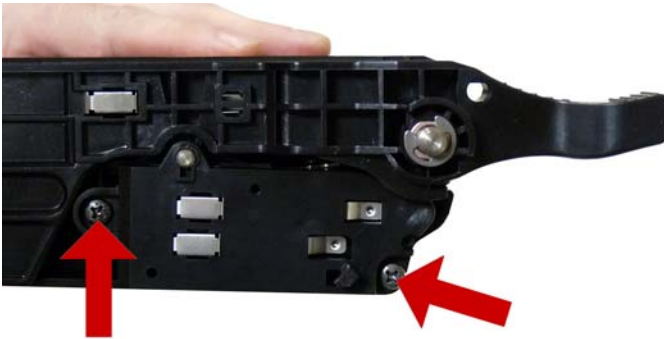


Figure 3

3) Carefully lift up on the contact plate to get access to the hinge pin. (The contact plate cannot be removed yet). See **Figures 4 & 5**



Figure 4



Figure 5

4) With a pair of wire cutters, remove the small hinge pin. See **Figure 6**



Figure 6



5) The contact plate can now be removed. See **Figure 7**

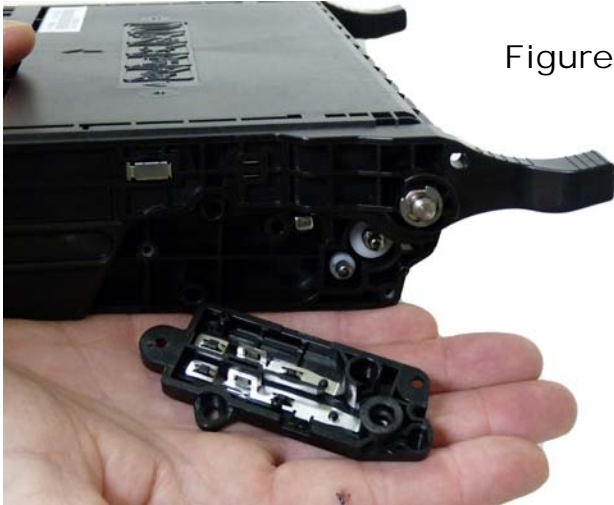


Figure 7

7) Remove the pin with the wire cutters. Note that this pin is much longer than the first pin removed. See **Figure 10**

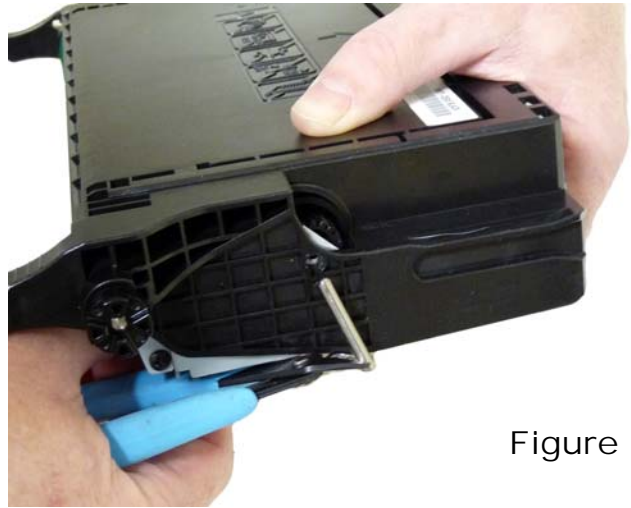


Figure 10

6) On the opposite side of the cartridge, take a small jewelers screwdriver and insert it down on the pin between the metal gear plate and the plastic wall of the cartridge. Keeping a steady force on the pin, press it out about 1/8". See **Figures 8 & 9**



Figure 8

8) Separate the two halves See **Figure 11**



Figure 11

Place the toner hopper aside for now.

9) On the waste chamber, remove the E-ring from the non-drive gear side of the drum axle. See **Figure 12**

Figure 9



Figure 12

10) Remove the metal bushing. See **Figure 13**

Figure 13



11) Align the roll pin with the slot in the sidewall of the cartridge. Slide the drum axle out of the cartridge. See **Figures 14 & 15**

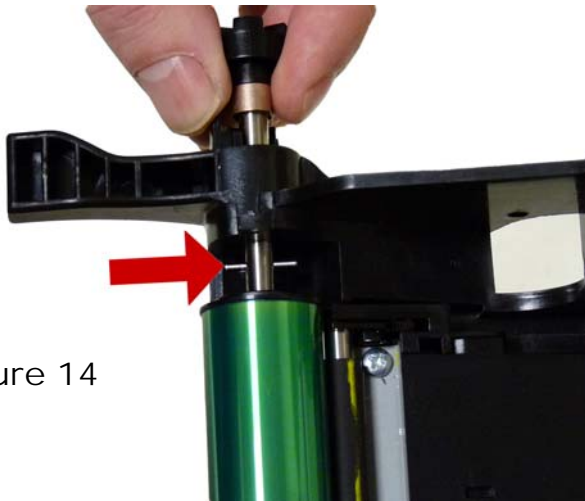


Figure 14

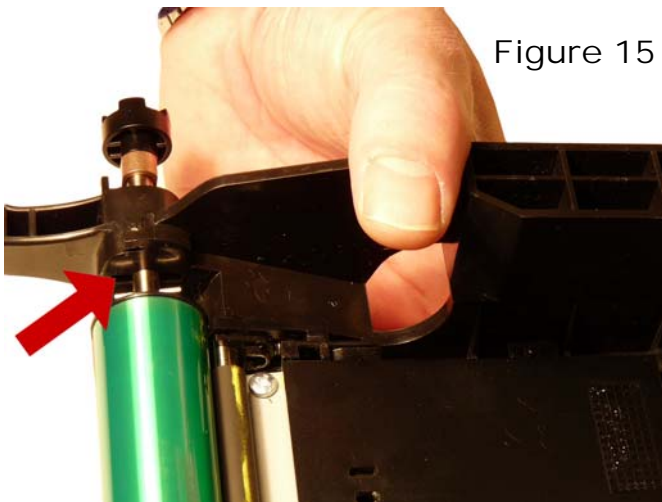


Figure 15

12) Remove the drum. See **Figure 16**



Figure 16

13) Remove the PCR. See **Figure 17**

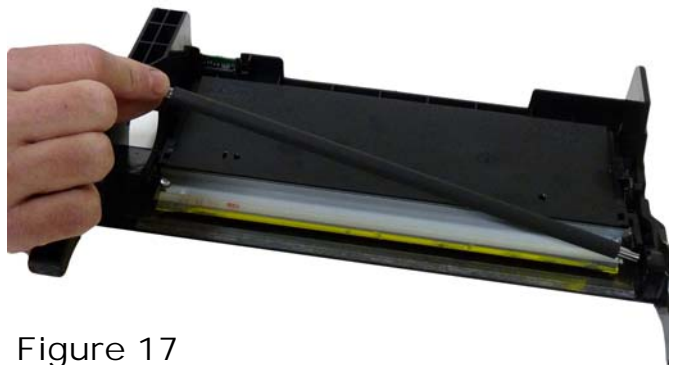


Figure 17

Clean the PCR with your normal PCR cleaner.

WARNING: Do not clean the OEM PCR with alcohol, as this will remove the conductive coating from the roller. If the PCR is an aftermarket, follow the cleaning methods recommended by the manufacturer. If the PCR is an OEM, we recommend it be cleaned with your standard PCR cleaner.

14) Remove the two screws and the wiper blade. The wiper blade should be removed by prying up from the edge by the felt seal. See **Figures 18 & 19**

15) Clean out all remaining toner from the hopper.

16) Coat the new wiper blade with your preferred lubricant and install in the cartridge. Press the blade down firmly to seat it. Install the two screws. See **Figures 20 & 21**

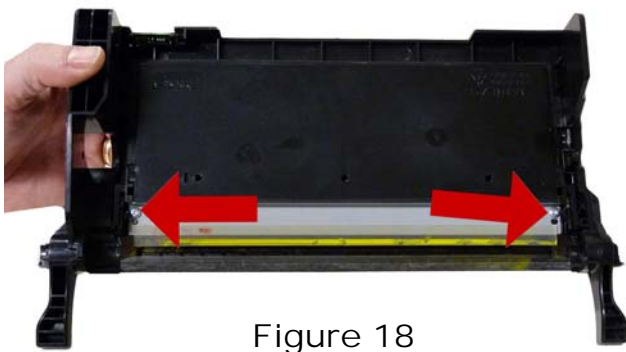


Figure 18

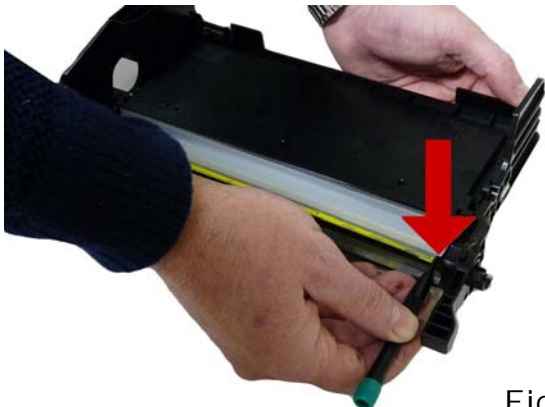


Figure 19



Figure 20

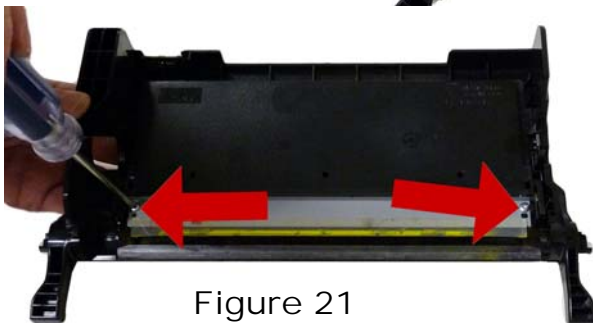


Figure 21

17) Place a small amount of conductive grease in each of the PCR holders, and on the PCR contact plate. See **Figure 22**

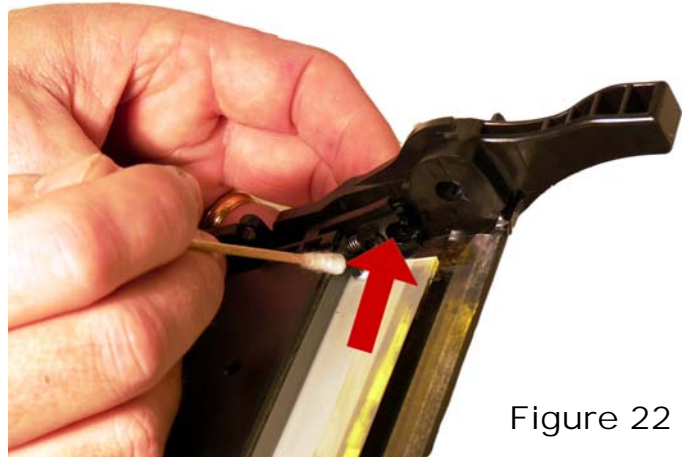


Figure 22

18) Install the cleaned PCR. Make sure the contact plate is touching the end of the PCR. See **Figure 23**



Figure 23

19) Install the OPC drum Place the cross hub to the chip side of the hopper. See **Figures 24 & 25**

20) Install the drum axle by aligning the roll pin with the slot and the cross hub on the drum. Seat the roll pin in the hub. See **Figure 26**

21) Install the bushing. Make sure both bushings on each side are in their respective slots. See **Figures 27 & 28**

21) Install the E-ring on the axle. See **Figure 29**



Figure 24

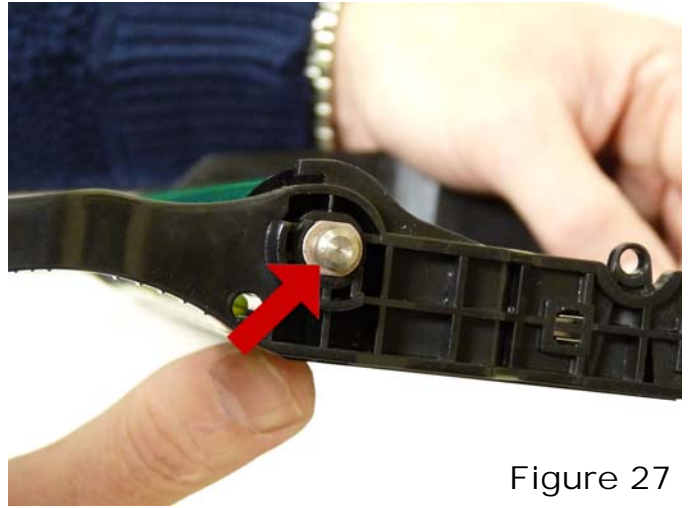


Figure 27

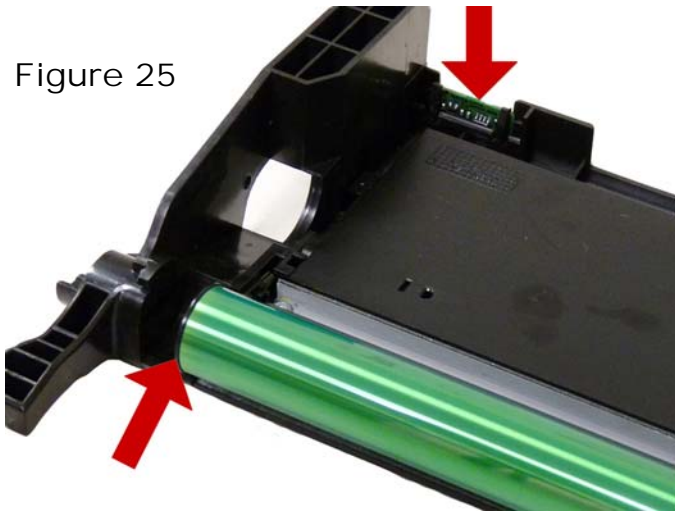


Figure 25



Figure 28

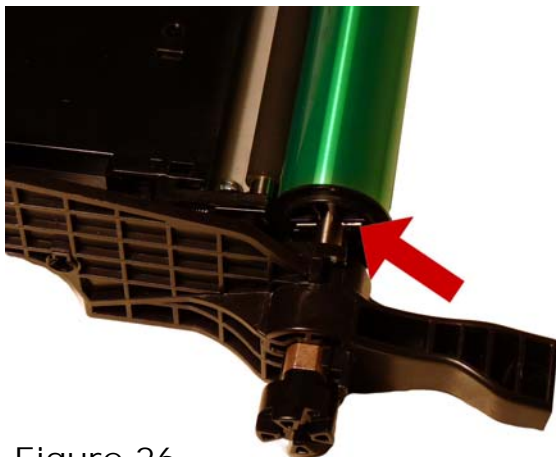


Figure 26



Figure 29



Place the waste chamber aside.

22) On the supply hopper, remove the two screws on the metal gear train cover. Remove the cover. See **Figures 30 & 31**

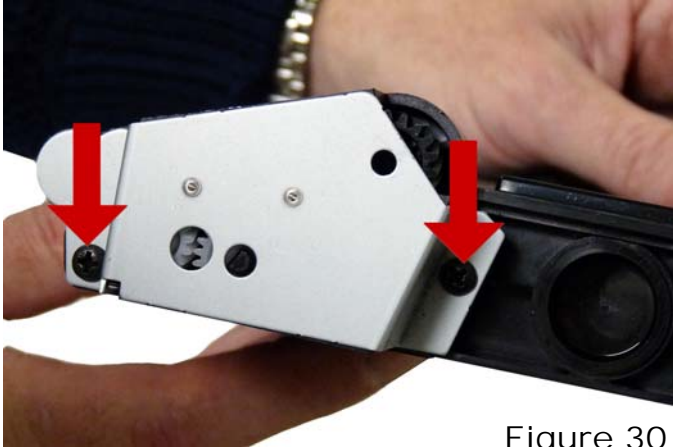


Figure 30

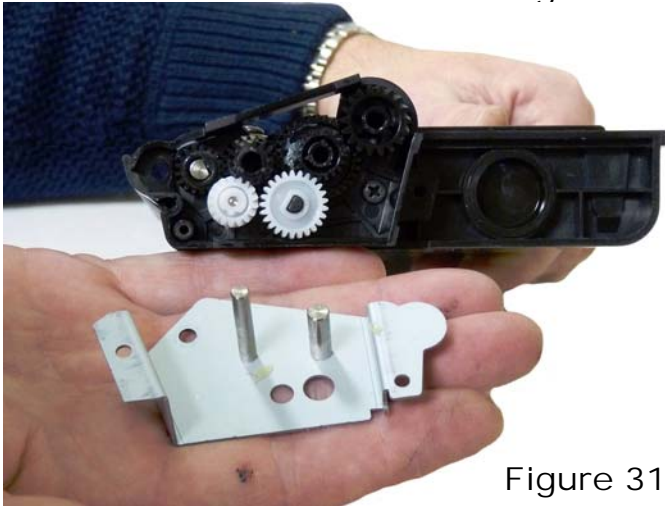


Figure 31

23) Remove the gears. See **Figure 32**

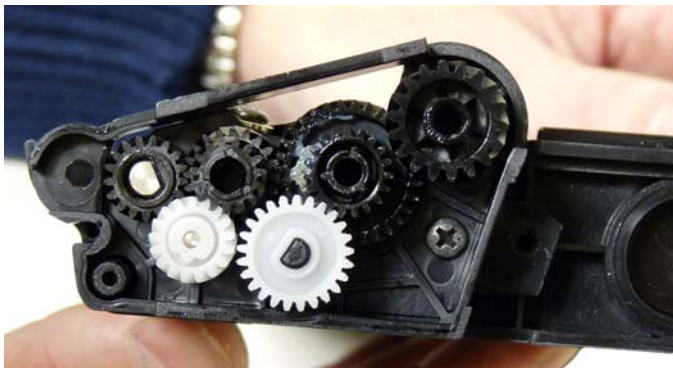


Figure 32

24) Remove the inner plastic gear plate and screw. See **Figure 33**

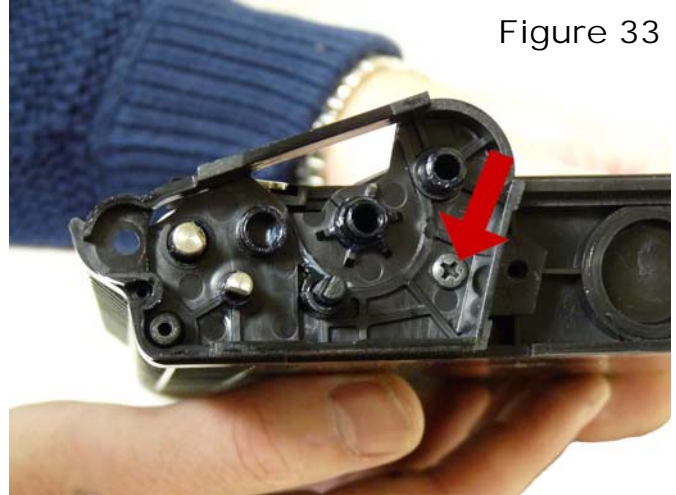


Figure 33

25) Remove the two screws on the doctor blade. See **Figure 34**



Figure 34

26) Carefully pry up on the doctor blade. The tape seal will come off with the doctor blade. See **Figure 35**



Figure 35

27) Remove the developer roller bushings. See **Fig 36**



Figure 36



Figure 39

28) Remove the developer roller. See **Figure 37**



Figure 37

31) Install the developer roller and two bushings. See **Figure 40**



Figure 40

29) Remove the fill plug and clean out all remaining toner. Pay special attention to the feed roller. Any buildup here will cause streaking later on. See **Fig 38**



Figure 38

32) Install the inner gear plate and screw. See **Fig 41**



Figure 41

30) Install the cleaned doctor blade and two screws (Do not use any chemicals to clean this blade, but also make sure there is not a buildup on the edge of the blade. If there is, carefully scrape it off). See **Figure 39**



33) Install the gears in the order shown. See **Figure 42**



Figure 42

34) Install the outer metal gear plate and two screws. See **Figure 43**

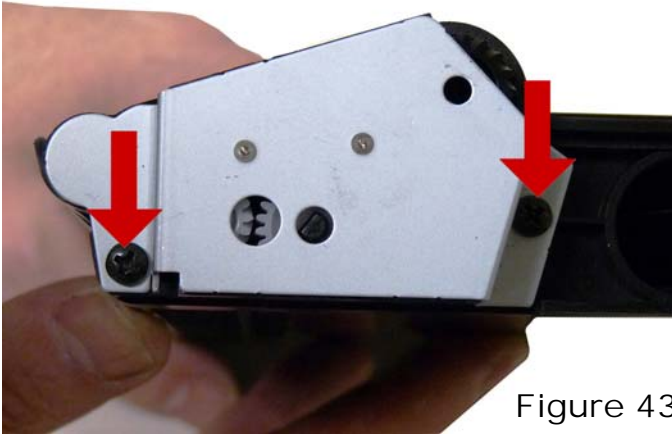


Figure 43

35) Fill the hopper with the appropriate color toner. See **Figure 44**



Figure 44

36) Replace the contact plate and two screws. See **Figure 45**



Figure 45

37) Replace the chip in the waste chamber. (Keep the contact up and facing out). See **Figure 46**

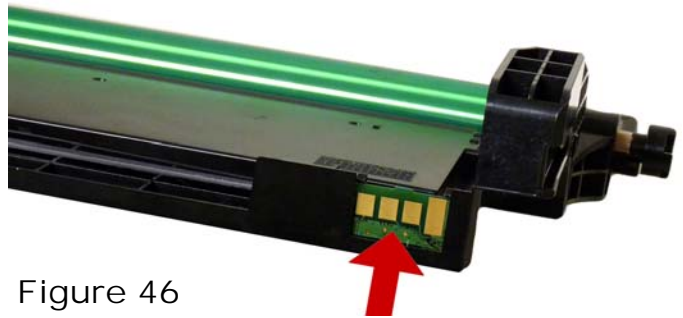


Figure 46

38) Place the two halves together. See **Figure 47**



Figure 47

39) Install the 2 metal hinge pins. Long pin to the drive gear side. See **Figure 48**

40) Install the 2 springs across the two halves. See **Figures 49 & 50**



Figure 48

Repetitive defect chart:

Upper fuser belt: 125.6mm
 OPC drum: 75.4mm
 Supply Roller: 46.9mm
 Transfer roller: 45mm
 Supply roller color: 43mm
 Supply roller black: 40.8mm
 Developer roller color: 32.5mm
 Developer roller Black: 30.6mm
 PCR 26.7mm
 Paper charge roller: 26.7mm

Printer Error Messages:

All the error codes are in plain English so there is no need to go into them here.

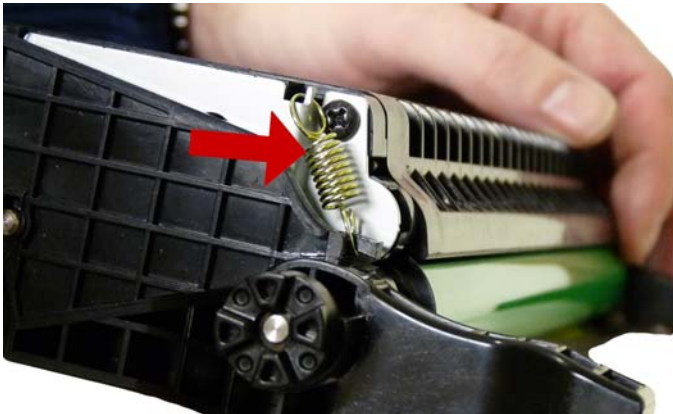


Figure 49

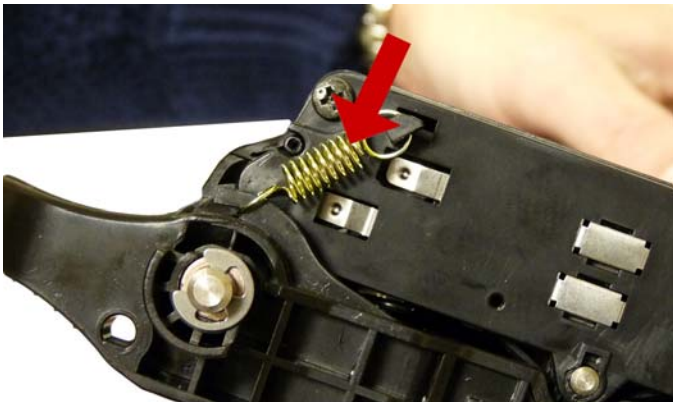


Figure 50