

# SAMSUNG® SF-830

## DRUM CARTRIDGE REMANUFACTURING INSTRUCTIONS



SAMSUNG SF-830 DRUM CARTRIDGE

# REMANUFACTURING THE SAMSUNG SF-830 DRUM CARTRIDGE

By Mike Josiah and the Technical Staff at UniNet

First released in February 2002, the Samsung SF-830 is a 12ppm fax engine that runs at 600 dpi. The Samsung drum cartridge SCX-5312R2 is rated for 15,000 pages. These drum units are very similar in function to the Sharp AI-1000 in that they have a long plastic auger that moves the waste toner along into a small cavity at the end which in turn dumps into the waste chamber on the toner cartridge. As with the AI-1000 drum units, these cartridges are very easy to remanufacture.

The OEM parts will all go another cycle, but not more than that. Check with your supplier to see if supplies are available.

## CURRENT MACHINES BASED ON THE SF-830 ENGINE:

**Samsung SCX-5112**

**Samsung SCX-5312F**

**Samsung SCX-5315F**

**Samsung SCX-5115**

**Samsung SF-830**

**Samsung SF-835P**

**Samsung Msys 830**

**Samsung Msys 835P**

All the Samsung machines so far use the SCX-5312R2 cartridge.

**Xerox WorkCentre Pro 412**

**Xerox FaxCentre F12**

**Xerox WorkCentre M15**

**Xerox WorkCentre M15i**

**Xerox WorkCentre 312**

**Xerox WorkCentre Pro 412**

All the Xerox machines with the exception of the M15 and M15i use the 113R506 cartridge.

The M15 machines use the 113R663 cartridge. Both are rated for 15,000 pages.

We were not able to obtain either of the Xerox cartridges at the time of this writing.

We will update any differences or compatibility issues a later time.

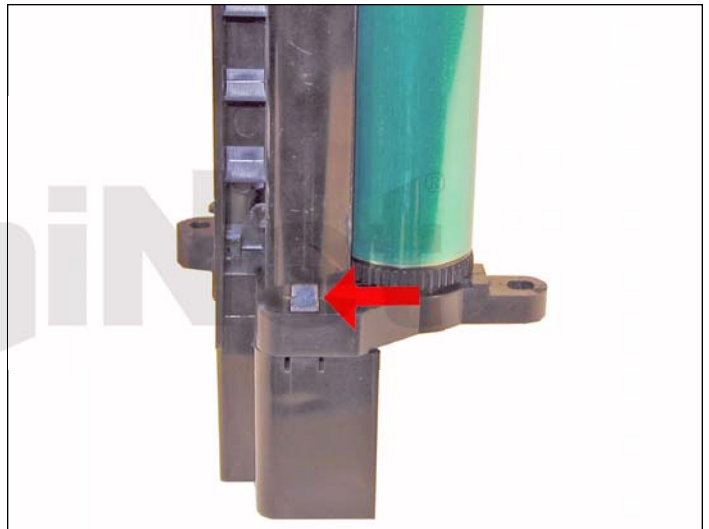
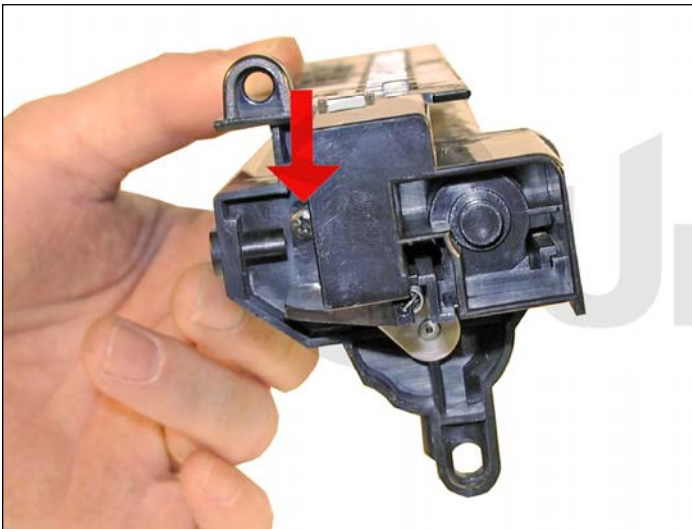
Machine and cartridge troubleshooting are covered at the end of this article.

## SUPPLIES REQUIRED

1. Replacement drum
2. Wiper blade
3. Conductive grease

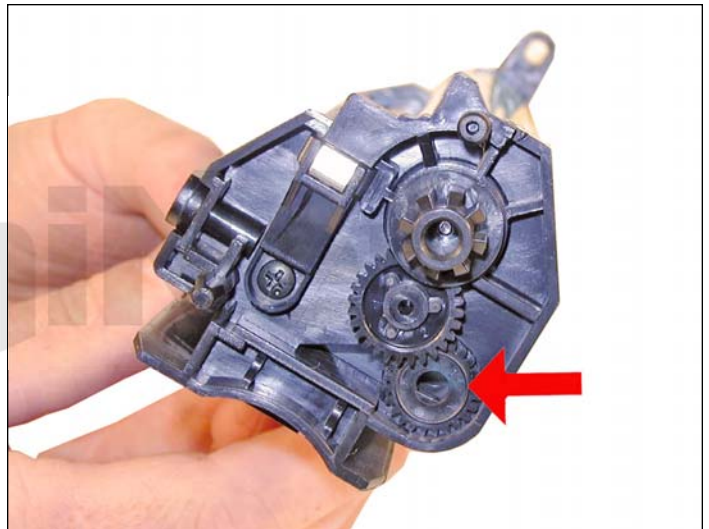
## TOOLS REQUIRED

1. Phillips head screwdriver
2. Small common screwdriver
3. Vacuum approved for toner



1. Remove the screw located on the waste chamber.

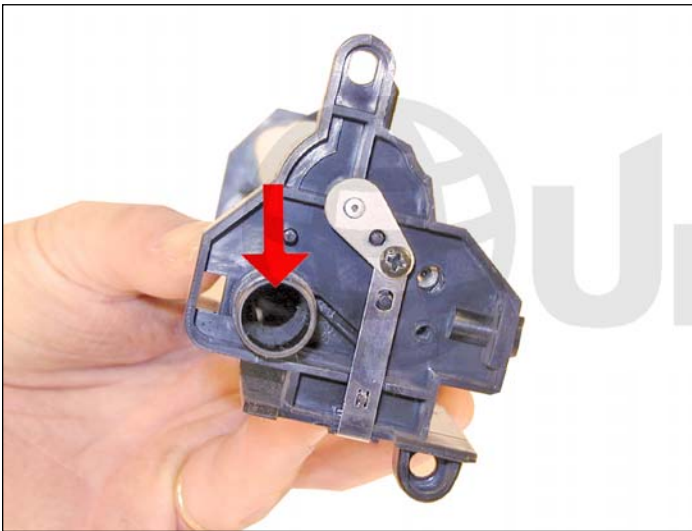
Press in on the tab, and remove the waste chamber.



2. Remove the waste auger from the cartridge.

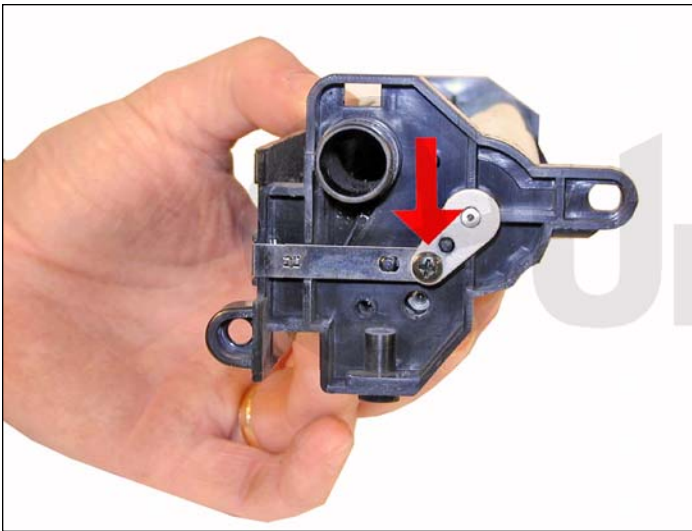
The augers drive gear will come loose at this point.

Remove the gear, and place aside (the gear is on the opposite side of the cartridge).

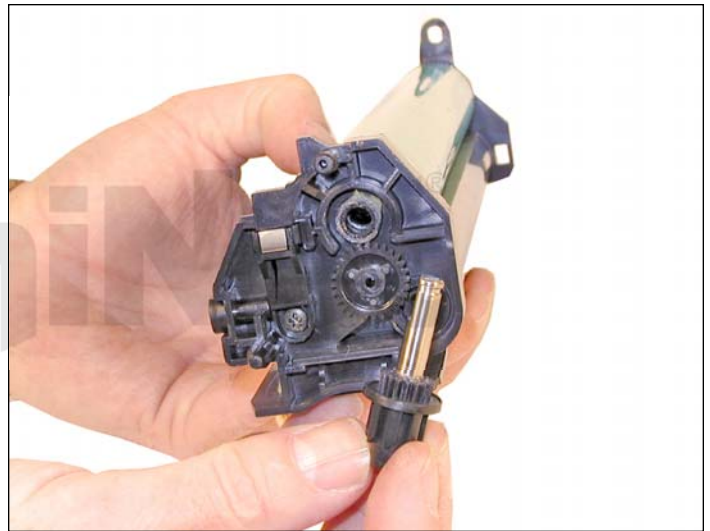
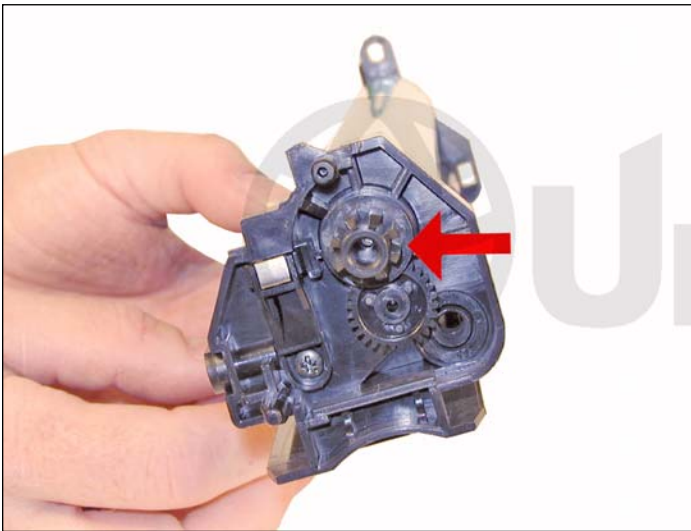


3. Vacuum the auger and foam seal clean.

Vacuum and dump out any remaining bulk toner on the auger's chamber.

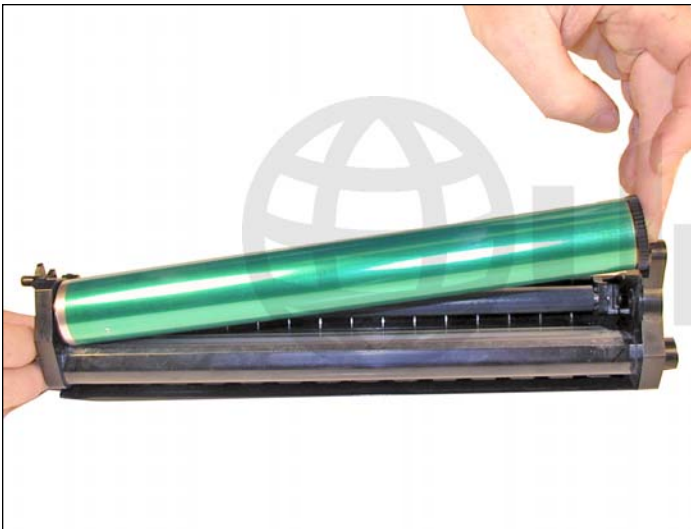


4. Remove the screw on the drum axle, and the drum axle pin.

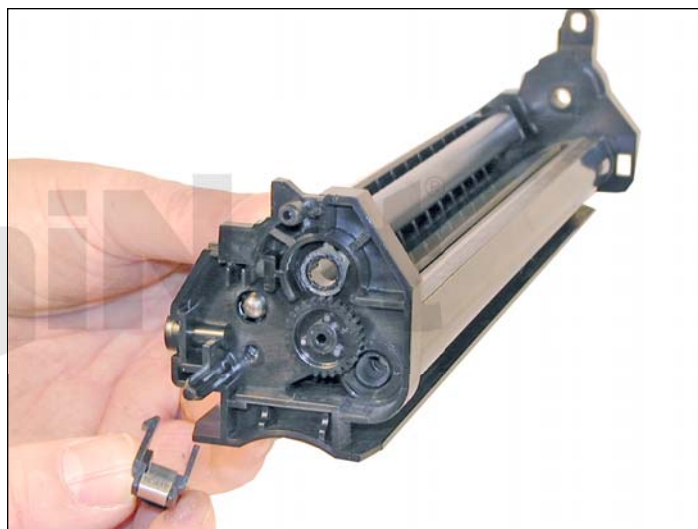
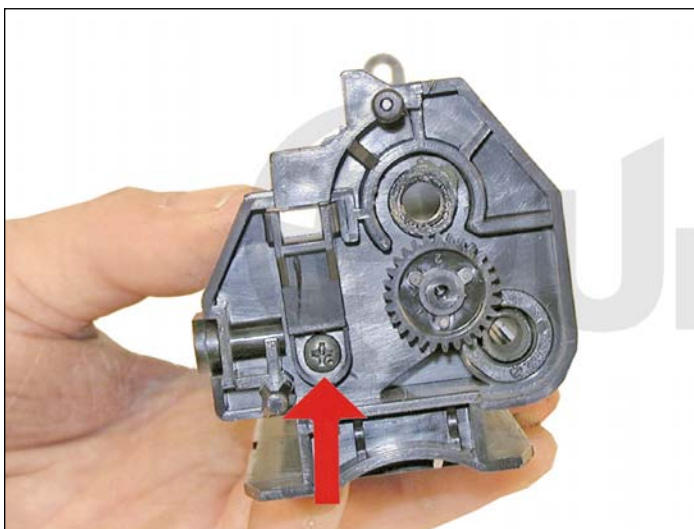


5. On the opposite side of the cartridge pry out the drum drive gear and axle pin from the drum.

Be careful no to damage the teeth when removing the gear.



6. Remove the drum.



7. On the right side of the cartridge, remove the screw and contact insert.

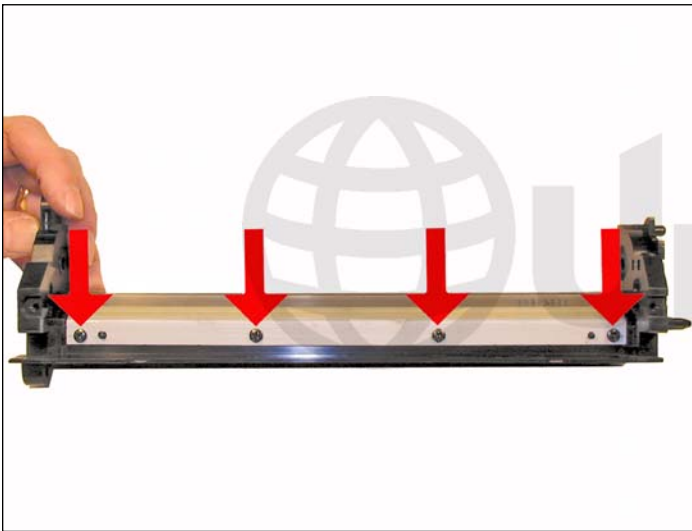
The insert can be removed by pressing in on the plastic tabs.



8. Remove the two screws from the PCR assembly.



9. Press in on the PCR shaft from the right side, and lift the assembly up from the left.



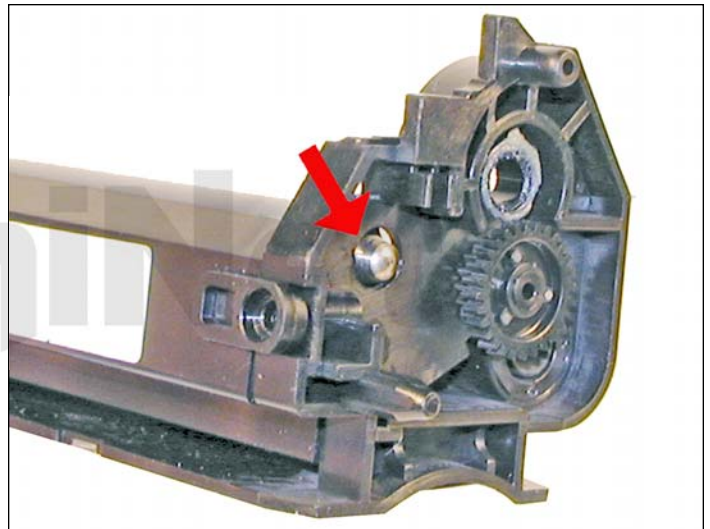
10. Remove the four screws from the wiper blade and remove the blade. Clean out any remaining toner.



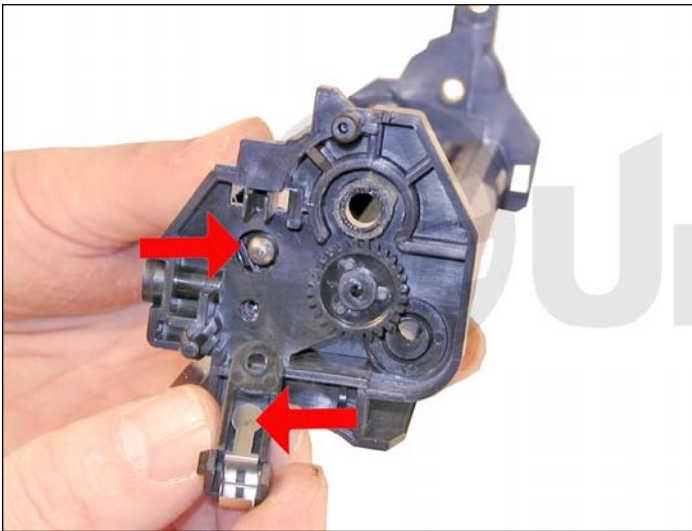
11. When new wiper blades are available, the blade should be replaced. The OEM blades in out tests will last for one more cycle. We do not recommend that they be pushed farther than that. Install the new/cleaned wiper blade and four screws.



12. Clean the PCR with your normal cleaner used for Samsung cartridges. Wipe off the old conductive grease from the shaft. Re-install the PCR in the assembly. The longer bullet shaped end of the PCR is the right side.



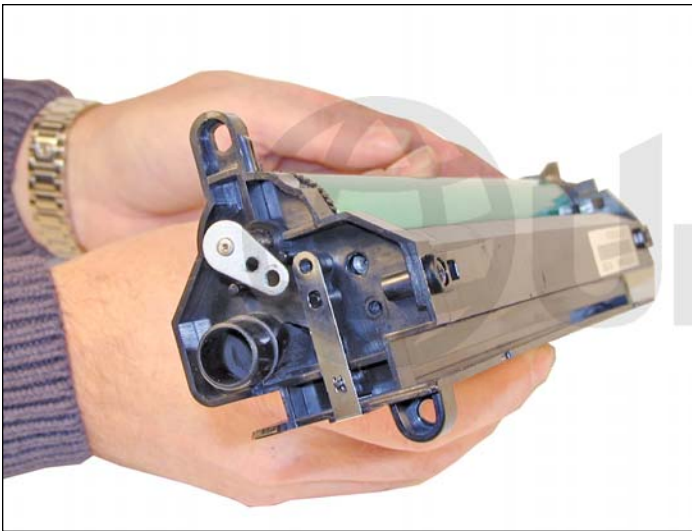
13. Install the PCR assembly right side first.



14. Place a small amount of conductive grease on the tip of the PCR shaft. Clean all the old conductive grease from the contact plate, and replace it with new grease. Install it on the cartridge and install the screw.



15. Install the drum gear side to the right. As with the wiper blade, the OEM drum if in good shape should run another cycle. Further than that is not a good idea.

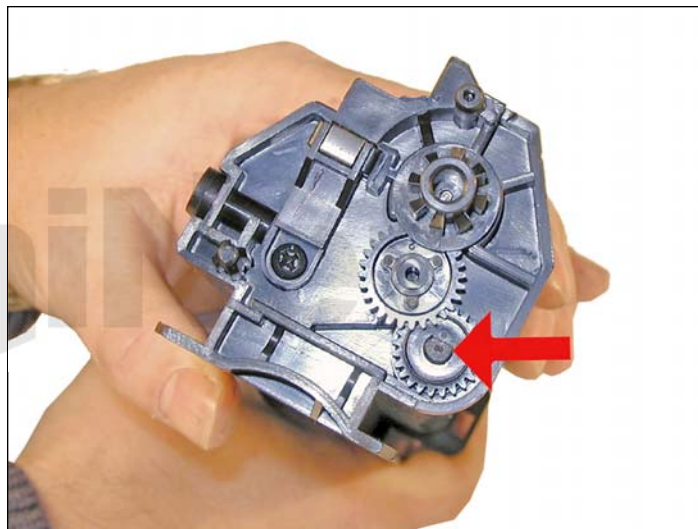
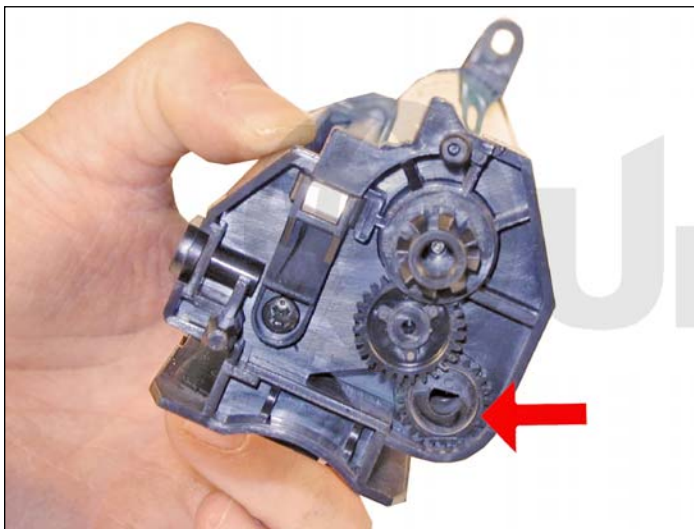


16. Clean the old conductive grease off the drum axle pin. Place new grease on the shaft, and install into the cartridge. Install the axle screw.



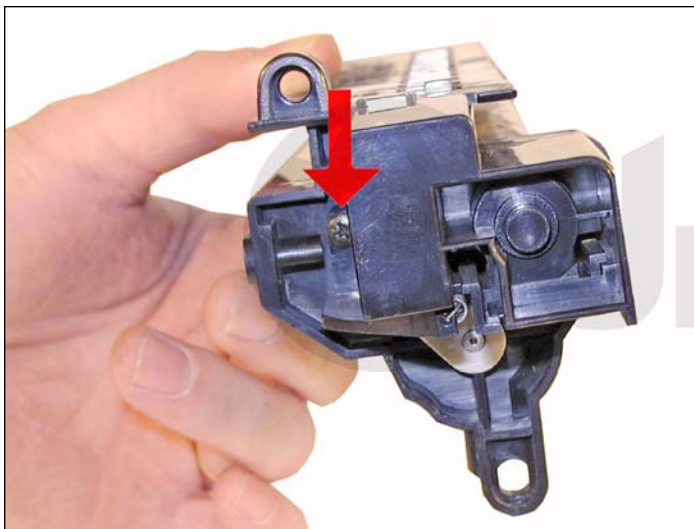
17. On the left side of the cartridge, install the drum drive gear and axle. Make sure the teeth of the gear mesh properly.





18. On the gear side, install the auger drive gear under the middle gear.

Slide the auger keyed/foam seal side first. Make sure the keyed end fits into the keyed slot on the gear.



19. Install the waste chamber and screw.

**CARTRIDGE TROUBLESHOOTING:**

No real problems have been noted so far.

**REPETITIVE DEFECT TABLE:**

**Drum** 94mm

**PCR** 39mm

**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 Drum cartridge is missing. Actual developer is not used in these machines.

I'm not sure why they didn't use a "no drum cartridge message" but that is why we included the drum messages here.

**Invalid cartridge:**

A non-Samsung toner cartridge is installed, or the encoder piece is missing.

See text at the beginning of the toner cartridge article.