

TECHNICAL GUIDE

THE RECYCLER

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Remanufacturing the HP Enterprise Flow MFP M880 and M855 Toner Cartridges



By Mike Josiah and the Technical Staff at Uninet

THE RECYCLER

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Although keeping up with industry news may seem to be just one more thing to add to your To-Do List, there are several important benefits.

1. Knowing what is happening means you will make better decisions, and spot threats and opportunities early on that might impact on your business. Knowing something early can give you a real competitive edge.
2. Keeping up-to-date with what is going is key for building your expertise and knowledge. Demonstrating your knowledge and expertise will earn you the trust and respect of the people around you. From a leadership viewpoint, this is invaluable!
3. Finally, knowing what is going on will alert you to changes that you need to think about and possibly avoiding mistakes or missing opportunities. Both are pretty embarrassing, especially if your boss knows more than you do!



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Remanufacturing the HP Enterprise Flow MFP M880 and M855 Toner Cartridges

The HP M880 and M855 printers were introduced in October of 2013 and are based on a 46ppm, 1200dpi laser engine. The processor is rated at 800MHz, and the memory for the M855 is fixed at 1GB; the M880 is fixed at 2.5GB but also has a 320GB hard drive.

The engines for both machines are very similar, as are the cartridges, but they are NOT interchangeable. There are physical differences that prevent using cores across the machines plus different chips. **Figure A** shows the main physical difference between the two toner cartridges. It's interesting to note that both machine groups share the same drum units (see below).

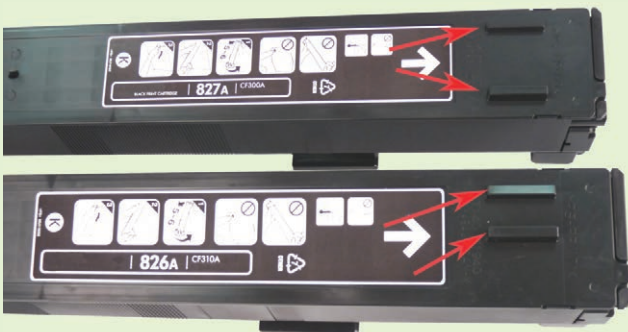


Figure A

Both series of these printers are very large and very expensive. The cartridges are also large and expensive. This is good news for us as the margins are high and they are high-use machines. They have separate toner and drum units, and the toner cartridges are very easy to remanufacture.

All cartridges use chips that need to be replaced each cycle.

The two groups of machines are the:

Colour LaserJet Enterprise M855dn and M855xh (826A toner series)

Colour LaserJet Enterprise M880z, M880z+ and M880z+NFC/Wireless Direct (828A toner series)

The toner cartridges used in the M855 machines are as follows:

Black	CF310A (826A)	29,000	\$405 List (€342)
Cyan	CF311A (826A)	31,500	\$665 List (€561)
Magenta	CF312A (826A)	31,500	\$665 list (€561)
Yellow	CF313A (826A)	31,500	\$665 List (€561)

The drum units used are:

Black	CF358A (828A)	30,000	\$120 List (€101)
Cyan	CF359A (828A)	30,000	\$332 List (€280)
Magenta	CF364A (828A)	30,000	\$332 List (€280)
Yellow	CF365A (828A)	30,000	\$332 list (€280)

The toner cartridges used in the M880 machines are as follows:

Black	CF300A (827A)	29,500	\$138 List (€116)
Cyan	CF301A (827A)	32,000	\$615 List (€519)
Magenta	CF302A (827A)	32,000	\$615 list (€519)
Yellow	CF303A (826A)	32,000	\$615 List (€519)

The drum units used are:

Black	CF358A (828A)	30,000	\$120 List (€101)
Cyan	CF359A (828A)	30,000	\$332 List (€280)
Magenta	CF364A (828A)	30,000	\$332 List (€280)
Yellow	CF365A (828A)	30,000	\$332 list (€280)

Toner cartridge remanufacturing

Tools needed:

Toner-approved vacuum

A small common screw driver

A Phillips head screwdriver

Modified soldering iron, or drill with half inch (12.5mm) drill bit (see text and picture)

Hot glue gun or drill and self tapping screws (see text)

Supplies needed:

Toner for use in the M855 and M880 printers

Replacement chip for toner cartridge - make sure you have the correct cartridge series and colour!

Toner magnet cloths

1 The toner cartridge does not have a fill plug or an opening large enough to clean or refill it through. Because of this, the cartridge needs to have a hole cut. This is best done with a soldering iron with a screw-in tip, and a half inch copper plumbing end-cap drilled, filed and screwed on the iron. You can also drill the hole, but you must be very careful not to get plastic shavings inside the cartridge (See Figure 1). The soldering iron was bought at Radio Shack. The tip is not a common thread size, but a #8 screw can be forced in. If the screw is too long, use a lock washer to take up the space.



2 The best place to do this is under the end-cap. This way there is no chance the sealing label will be pulled off. Carefully peel off the label on the end-cap. The label is easily torn so take some care in removing it (see Figures 2 and 3).



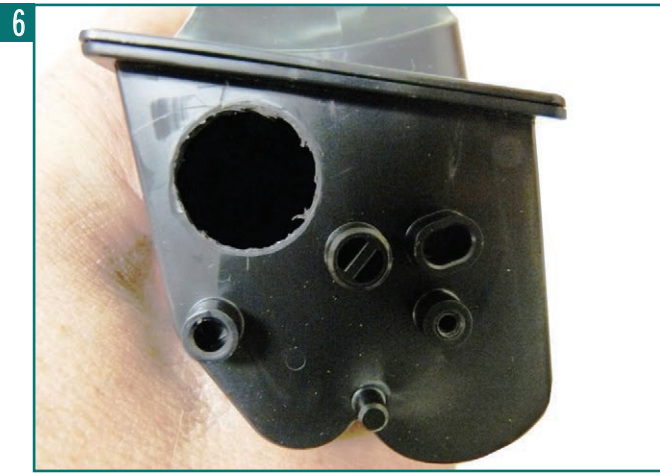
3 Remove the screw (See Figure 4).



4 Press in on the middle curved section and slide the cover up and off the cartridge (See Figure 5).



5 Place the hole in the top left section as shown (see Figures 6).



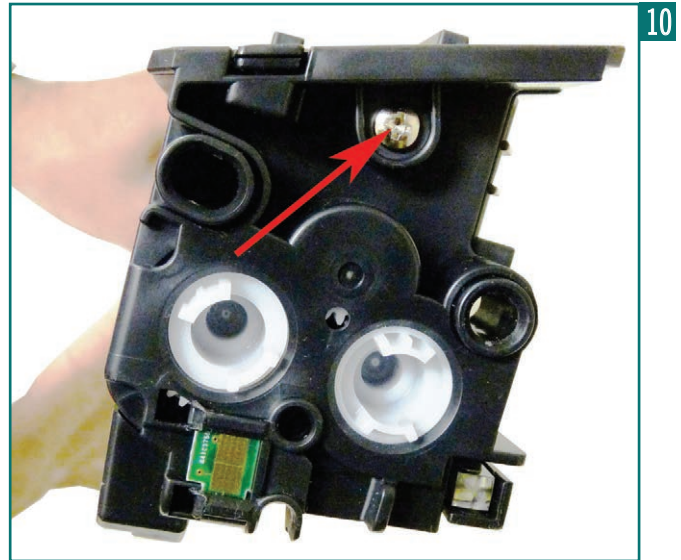
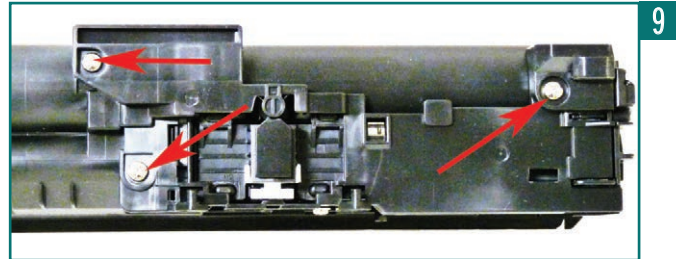
6 Clean all the remaining toner, and fill with toner for use in the M855 and M880 printers (see Figure 7).



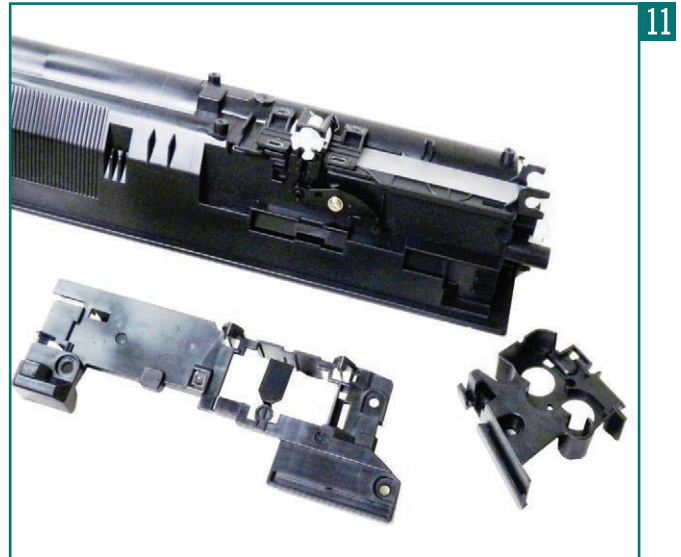
7 Cover the hole with a good quality label seal: check for leaks (see Figures 8).



8 Once a seal is available, it will be installed by removing the three screws on the top of the seal assembly, and single screw on the side cover (see Figures 9 and 10).

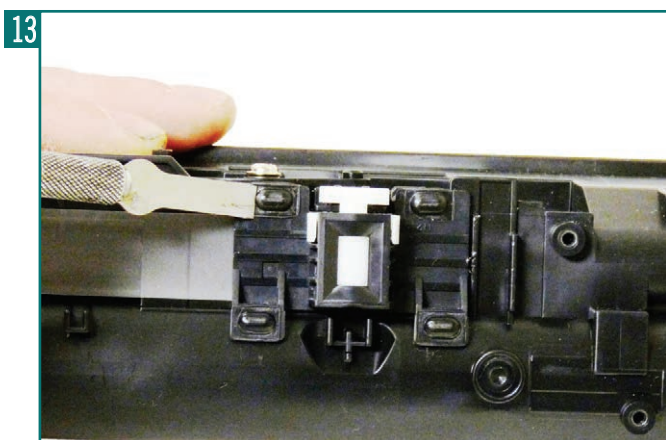
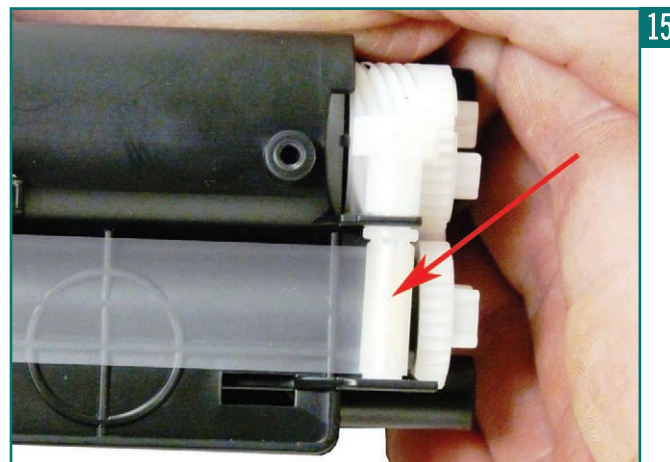
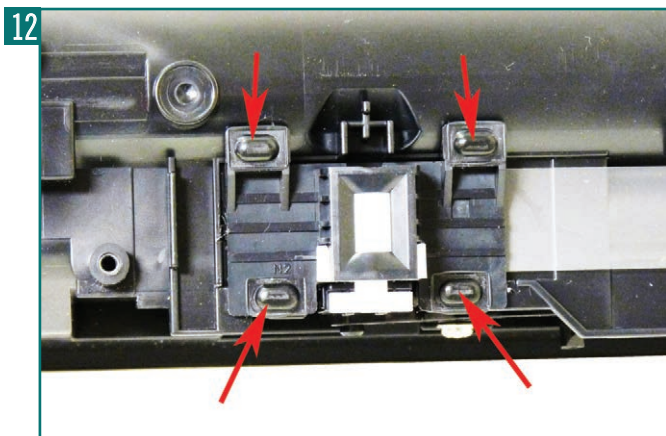


9 Remove the top and side covers (See Figure 11).

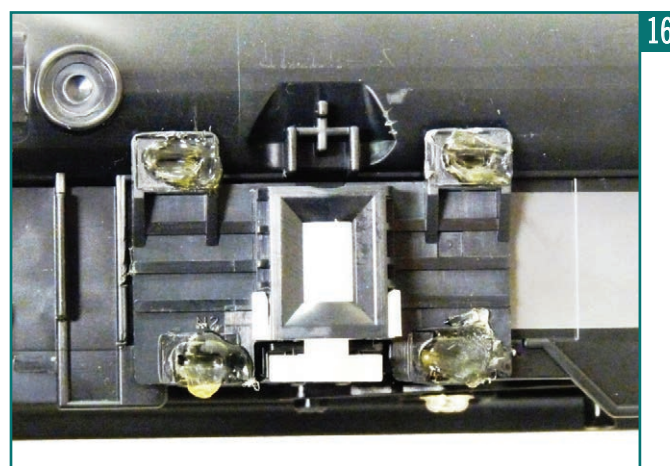


10 Slice the melted plastic off, and if using screws to re-attach the cover, drill four small holes in the areas indicated on the seal cover. The preferred and easier method is to use a hot glue gun to secure the cover when re-attaching it. (See Figures 12 & 13).

12 Install the new seal. Wrap the tail around the take up gear. (See Figure 15).

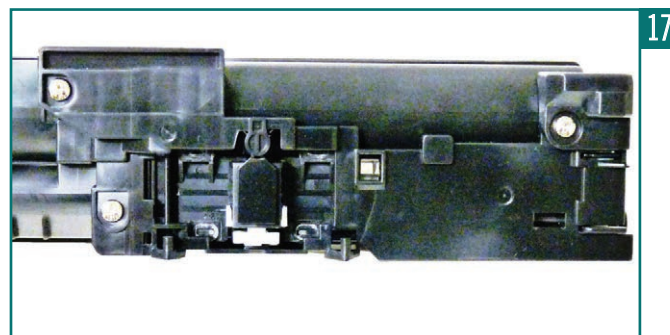
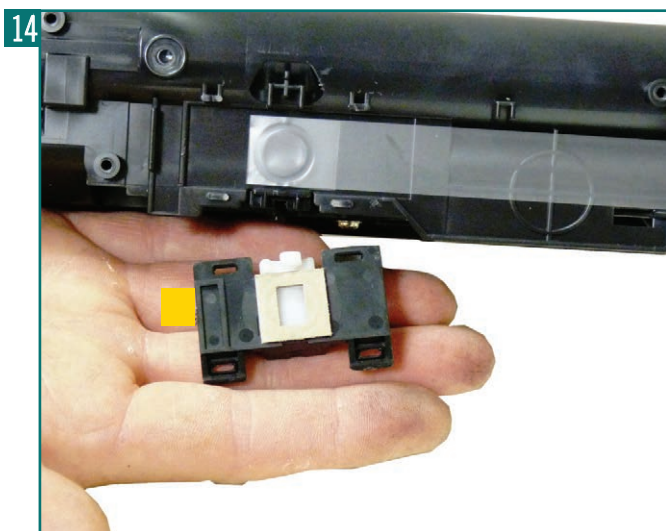


13 Place the seal cover back on and using a hot glue gun, glue the cover in place. If you drilled holes, install the four small self-tapping screws. (See Figure 16).

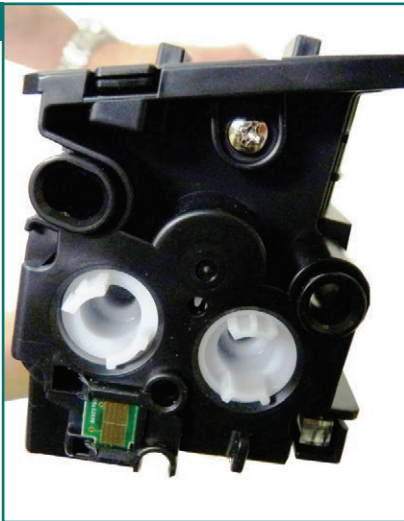


11 Remove the seal cover by carefully prying it off (See Figure 14).

14 Install the top cover, side cover and four screws. The three short screws are for the top cover, and the single long screw is for the side cover. (See Figures 17 & 18).



18



15 Slide the fill side end-cap in place. Install the screw and replace the label (be careful here as the label is easily torn) (See Figure 19).

19



16 Slice off the melted plastic tabs and replace the chip (See Figures 20 & 21).



20



21

That's it! There are no shipping locks used or needed.

Repetitive defect chart:

NOTE: The toner cartridges are just large hoppers. There is nothing inside that can cause a repetitive defect. The items listed below are for the OPC, transfer or fuser modules in the printer:

36mm	Developer roller (in OPC cartridge)
40mm	PCR (in OPC cartridge)
50mm	Transfer roller #1
71mm	Transfer roller #2
82mm	Tension roller (in the transfer unit)
94mm	OPC drum (colour of defect will determine the faulty drum).
144mm	Lower fuser roller
148mm	Upper fuser roller

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