

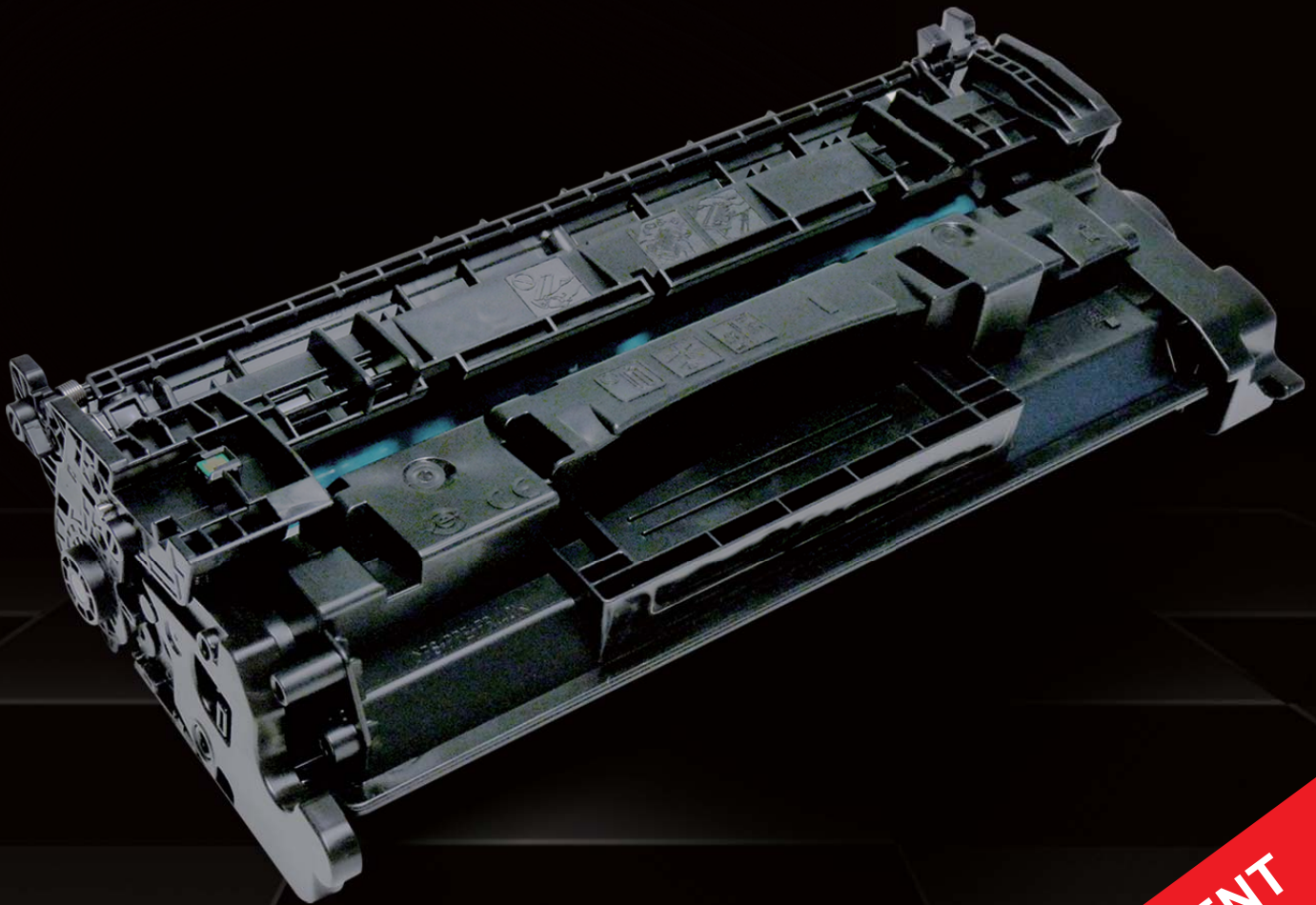
# Tech Zone



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## REMANUFACTURING THE HP LASERJET ENTERPRISE M507/MFP M528 CF-289A/X/Y TONER CARTRIDGE



RT's Cartridge Library

SUPPLEMENT



# Mike Josiah

## Remanufacturing the HP LaserJet Enterprise M507/MFP M528 CF-289A/X/Y toner cartridge

First introduced in April 2019, the LaserJet Enterprise M507 series of laser printers is based on 45ppm, 1200dpi engine that comes standard with 512Mb upgradable to 1.5GB Memory. The first page out is stated to be as fast as 5.9 seconds.

Four different cartridges are available for this series, (three for the MFP series)

CF289A rated at 5,000 pages
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CF289X rated for 10,000 pages
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CF289Y rated for 20,000 pages
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CF289YC Contract cartridge, rated for 20,000 pages
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The cartridges are similar in design to the M404 series, but are not interchangeable. The drum drive gear uses the now infamous patented Canon dongle gear. If you replacement drum with gears is not IP Protected, we have the gear replacement procedure outlined for you. See Figure 1 for a picture of the dongle gear.

The printers released in this series so far are as follows:

LaserJet Enterprise M507dn
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LaserJet Enterprise M507x
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LaserJet Enterprise MFP M528dn
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LaserJet Enterprise MFP M528f
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LaserJet Enterprise MFP M528z
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### Supplies required

- LY toner for use in HP-M507 toner for the CF289A cartridge (5,000 pages)
- HY toner for use in HP-M507 toner for the CF289X cartridge (10,000 pages)
- EHY toner for use in HP-M507 toner for the CF289Y & YC cartridge (20,000 pages)
- Replacement Chip (Yield dependant)
- Wiper Blade (Optional)
- New Drum (Optional)
- Wiper Blade (Optional)
- Dr. Blade (Optional)
- Magnetic roller (Optional)

- Sealing Strip (Optional)
- Cotton Swabs
- Isopropyl Alcohol
- Drum Padding Powder

### Tools Required

- Jeweler's screwdriver
- Phillips head screw driver
- Small Common screw driver
- X-Acto type razor knife
- Flush Cutting wire cutters

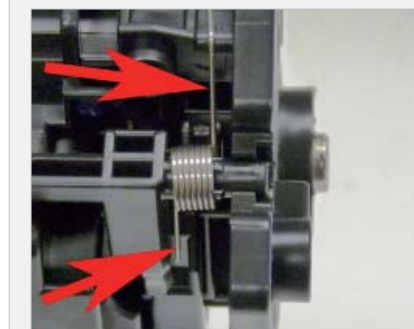
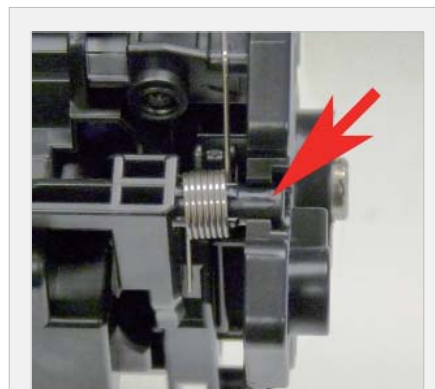
### Tools required to remove and install used OEM gears

- Metal 1/16" rod about 18" long (From local hardware store)
- Needle nose Pliers
- Super glue or equivalent
- Rubber mallet
- Ohm (Continuity) meter

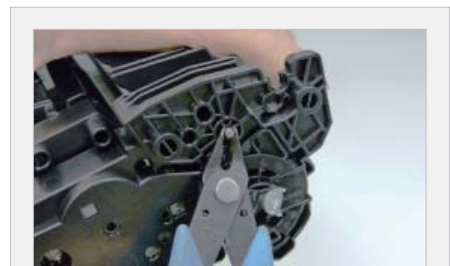
There are two pins that need to be removed to open the cartridge. The best and easiest way to remove them without damaging the cartridge is to cut two small slots in the plastic next to each of them.



**2** There are two small slots on opposite sides of each pin.



**1** Remove the drum cover by prying up on each end. Note the spring position so that it can be replaced later.







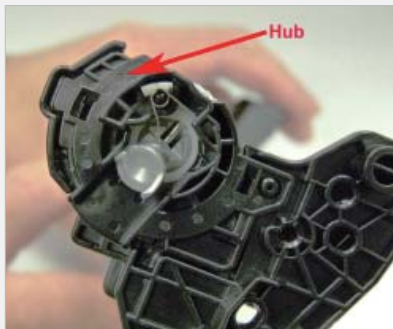
**step >** **3** Grab the pins with a pair of pointed flush cutting wire cutters, and remove. Flush cutting wire cutters have blades that are flat on the bottom side. Normal wire cutters have curved blades. The flush cutting kind are better for grabbing recessed pins. Note that the pins for both sides are the same.



**step >** **4** Separate the two halves.



**step >** **5** With a flat head screwdriver, press the drum axle pin out from the inside of the cartridge wall as shown. There is NOT a small shoulder as in older versions. Press the axle out just enough so that you can grab it with the flush cutting wire cutters. You may have to make two small cuts on each die of the pin from the outside in order for the cutters to be able to grab it.



The drum hub on the opposite side is welded. The weld can be broken or drilled out, but there is a good chance that the hub will either warp if pried off, or will be hard to align if drilled out.



**step >** **6** The drum dongle gear has a spring that holds it off to one side. (Necessary for it to engage the printer). Release the tail of the spring off the gear and remove the drum.



**step >** **7** Remove the PCR and clean with your standard PCR cleaner.



**step >** **8** Remove the 2 screws and the Wiper Blade, there is an adhesive seal that hold the blade in place. Carefully lift it up.



**step >** **9** Clean out the waste toner, make sure the seals are clean. If toner gets on the blade seal it can be cleaned with alcohol to activate the adhesive again.

## LOOKING FOR STEP-BY-STEP GUIDES FOR CARTRIDGES?



Mike Josiah's popular toner cartridge procedures are available in hardcopy format in some regions, and online to all regions as a library of cartridge models—sponsored by UniNet Imaging: [www.uninetimaging.com](http://www.uninetimaging.com)



**step >** **10** Coat the wiper blade with your preferred lubricant. Install the blade and 2 screws.

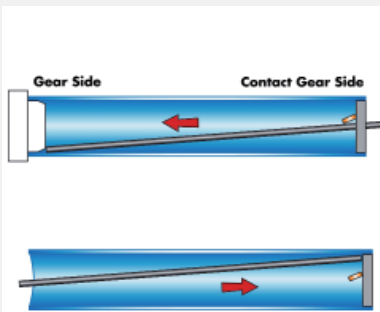


**step >** **11** Re-install the cleaned PCR. Note that a new OEM PCR has a small amount of conductive grease on the black (contact) side.



**step >** **12** Re-Install the OEM OPC Drum and metal axle pin. The metal axle pin should have a small amount of conductive grease on the tip. Remove the old grease and replace before inserting the pin. Make sure the axle pin is fully inserted.

**If you are replacing the OEM drum, follow this procedure to remove the gears and install them on the new drum:**



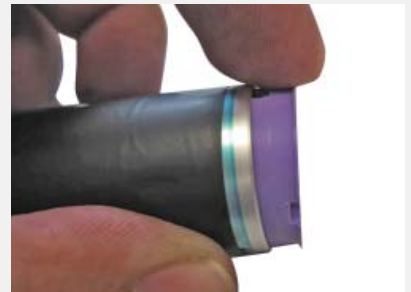
**step >** **13** Slide a 1/16" metal rod about 18" long along the drum wall until it meets the side wall of the dangle gear. Lightly tap the rod a few times with a hammer, rotate the drum, do the same until it comes loose. Normally it will take three to four taps for the gear to come loose. Do the same for the contact side taking care not to place the rod anywhere near the copper contacts that bite into the drum.



**step >** **14** Straighten out the contacts on the contact gear.



**step >** **15** Lightly sand the inside of the new drum where you will be installing the contact gear. This will help ensure good electrical contact.



**step >** **16** Apply a few drops of super glue around the inside of the new drum about 1/8" in from the edge. Make sure you leave space with no glue present for the contacts to touch the metal drum wall. These contacts must be metal to metal with no glue in between them. If any glue is in between the contacts and drum wall, there will be drum ground issues (solid black pages). Install the contact gear.



**step >** **17** On the opposite side, place a few drops of medium or thick super glue on the inside wall of the drum about 1/8" in from the edge. This will prevent the glue from overflowing into the drum coating when the drive gear is installed.



**step >** **18** Install the drive gear. Place the drum onto a flat surface and gently tap the gear with a rubber mallet until the gears sits flush. (Do not hit the dangle gear!)





**19** Check the drum ground with an ohm meter. Place the probes into the drum contact and drum (very edge on the drum where there is no coating), and check for continuity. Be very careful to keep the one lead on the edge of the drum. The top metal part has a clear protective coating on it and is easily scratched. Do not press in hard or the lead will slide across the drum ruining it. Allow the glue to dry for about a couple of minutes and the drum should be ready to use.



**20** On the supply chamber, remove the two screws from the end cap on the gear side of the cartridge.



**21** Remove the end cap.



**22** Remove the magnetic roller assembly.



**23** Remove the Doctor Blade and two screws.



**24** Clean out any remaining toner from the hopper. Note the Dr. Blade seal. It is a sticky substance that can be clean with alcohol if toner gets on it. If this seal becomes damaged, replace it with 100% silicon caulk.



**25** Remove the remnants of the old seal. These cartridges use a self-removing seal system. This picture shows a new cartridge with the seal starting to remove from right to left.

At this time no new seals are available.



**26** Fill through the Mag roller opening with \*g of toner for use in the HP CF226A or X series toner cartridges. There is not a fill plug in these cartridges.

\* Amount to be determined



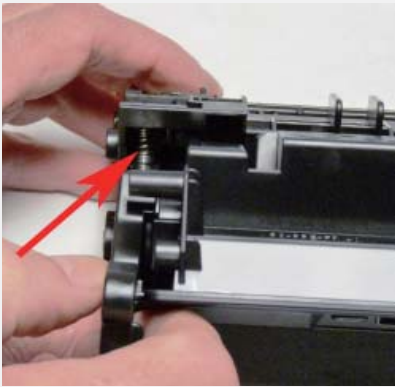
**27** Re-install the doctor Blade and two screws. Make sure the contact spring is touching the blade! This is a new type of contact for HP to use on this blade.



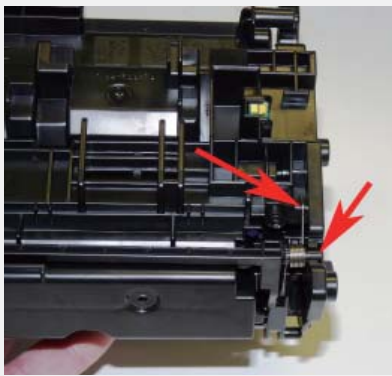
**28** Install the magnetic roller. Turn the roller until the keyed end fits into the keyed slot in the end cap. This can be tricky to do until you get the hang of it. The keyed magnet is shown extended from the sleeve. The proper orientation for the keyed side is facing down.



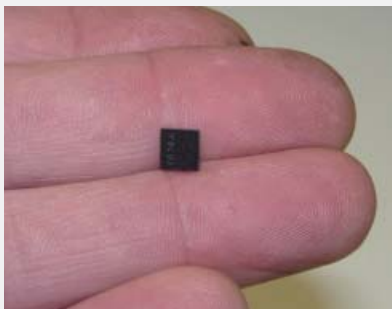
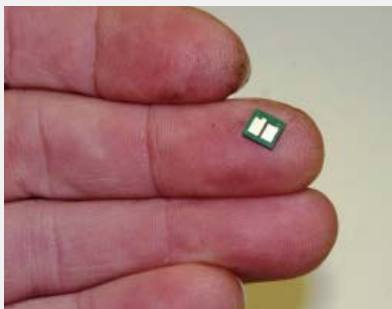
**29** Install the end cap and two screws.



**step > 30** Place the two halves together, make sure that the two springs are aligned, and insert the two pins. Make sure that the pins are slightly pushed in so that they do not interfere with installing the cartridge in the printer.



**step > 31** Install the drum cover; make sure the spring is situated correctly, and the slot on the cover fits into the tab on the cartridge.



**step > 32** Replace the chip by slicing off the top two corners of melted plastic and sliding the chip out. After replacing the chip if it seems a little loose in the slot, place a dab of hot glue on each of the corners that you sliced off. The hot glue is easily removed when recycling the cartridge again, but will firmly hold the chip in place.



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