

BATTLE OF THE MICR CARTRIDGES



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NEVER DUPLICATED

Why Buy OEM MICR vs. Remanufactured and Cloned Toner?

Often this question is posed to us and while it's generally bad form to answer a question with a question, we ask: would you like to incur more costs or less?

There are three main manufacturing methods when it comes to ink and toner cartridges: OEM, remanufactured, and clones.

1. Original Equipment Manufacturer (OEM)

These cartridges and toner are held to the highest manufacturing standards and will work perfectly with other manufacturer original products.

2. Remanufactured Toner Cartridges (Reman)

These cartridges are generally made from disassembled, used, OEM cartridges and filled with a generic aftermarket toner.

3. Clone Toner Cartridges

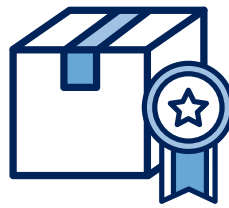
These cartridges are newly made to inferior standards then filled with generic aftermarket toner to cut corners. These cartridges are not OEM and thus are not held to the same toner manufacturing quality standards.

While a remanufactured or clone toner cartridge may be a cheaper option up front, it can cost you far more than the OEM in:

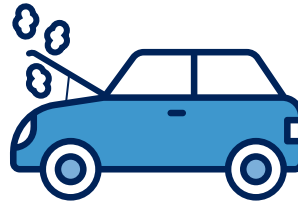
- Reprints
- An increase in service calls
- Hardware replacement
- General inefficiencies revolving around premature or catastrophic failure of a remanufactured or clone cartridge

Our clients' workflows are based on printing checks, which is the same as printing money.

As you can imagine, less than perfect performance, spotty reliability, and any sort of inefficiencies are the differences between a satisfied customer and a lost opportunity. That's why being an HP OEM manufacturer is so important to us...and our customers.



Buying an OEM Cartridge is buying a certified product made by the manufacturer.



Buying a Reman Cartridge is like performing an oil change with used oil.



Expectation
vs. Reality

Buying a Clone Cartridge is like buying clothing from an unauthorized website.

OEM

- ✓ Genuine / Original
- ✓ Won't Void Warranty
- ✓ Highest Standards
- ✓ High Quality Toner
- ✓ Quality Assurance
- ✓ High Adhesion

REMAN & CLONES

- ✗ Generic Aftermarket Toner
- ✗ Reprints
- ✗ Increased Service Calls
- ✗ Low Quality Standards
- ✗ Inefficiencies & Failures
- ✗ Hardware Replacement

OEM quality, performance, safety, and compatibility are unsurpassed. In fact, 73% of clone cartridges do not work right out of the box or fail prematurely.¹ Meanwhile, TROY OEM MICR toner and cartridges meet or exceed OEM equivalent page yield² and are formulated to optimize adhesion to the paper stock. This means that your OEM MICR toner cartridge is going to last longer, produce consistent character quality, and will deter fraud since printed toner is more difficult to remove from the paper.

Remanufactured and Clone Cartridges Will Cost You More in the Long Run.

The toner cartridge itself isn't the only thing that can fail when using remanufactured and clone cartridges; your printer is at severe risk as well. These cartridges can cause a **slurry of expensive problems and frustration.** Here's a short list:

40%

Increase in toner and paper waste due to poor quality prints¹

50%

Higher costs associated with premature toner failure, reprints, and services³

4x

The service calls and costs⁴

PRINTER DAMAGE

Permanent damage to your printer resulting in premature replacement of hardware⁴

OEM MICR cartridges are specifically designed for your printer model and are manufactured using high quality materials and rigorous processes. Without this attention to detail and quality, remanufactured and cloned cartridges often rupture, leaking toner throughout the printer causing catastrophic and sometimes permanent damage. Additionally, OEM MICR toner cartridges do not void your printer warranty while remanufactured and cloned cartridges can. **So, all repair or replacement costs are 100% out of pocket when you use remanufactured and cloned cartridges.**

The question isn't "***if***" a remanufactured or clone cartridge will fail and cause damage to your printer, it's "***when***".

98%

of non-HP cartridges are low quality, have premature failure or are dead on arrival¹

Bad for Your Office Air.

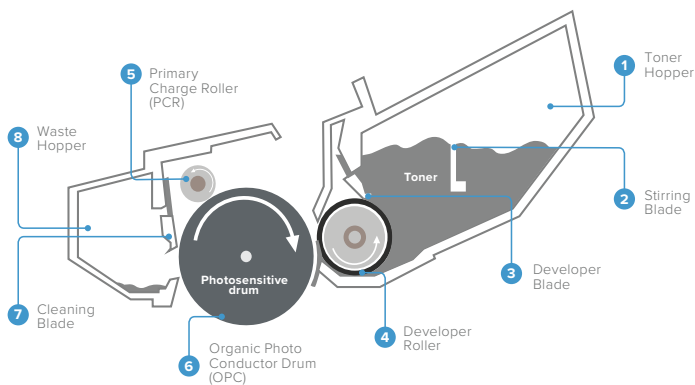
Remanufactured and clone toner cartridges aren't just bad for your office hardware, **they're bad for your office, your staff, and the environment.** Clone cartridges emit up to 53% over allowed limits of Styrene⁵, 60% over allowed limits of particles⁵, and 130% over allowed limits of volatile organic compounds⁵. All of these particles being emitted into the office environment decrease indoor air quality⁵ and have unknown health effects for employees and customers⁵.



Remans: The Frankenstein of Cartridges.

Remanufactured toner cartridges are used OEM MICR toner cartridges that have been disassembled and refilled with inferior, generic, aftermarket toner. The Frankenstein of toner cartridges, the remanufacturing process uses a mixture of new and used parts to piece together a passable toner cartridge.

Remanufactured cartridges present a unique set of problems as many crucial, wearable parts either can't be replaced or are replaced with inferior and incompatible parts. This results in poor print quality or total premature failure of the cartridge. These wearable parts include:



1. Toner Hopper: Filled with low quality generic toner causing **printing inconsistencies**

2. Stirring Blade: If worn or inoperative, leaves unused toner in cartridge resulting in **premature replacement** of cartridge

3. Developer Blade: When worn, dirty, or misaligned can result in **streaking and print defects** where one side of the page is darker than the other

4. Developer Roller: Printer damage and **repetitive print defects** can be caused by leaking seals and roller imperfections

5. Primary Charge Roller: If reused - can cause irregular prints; if replaced with aftermarket parts - may not match OPC drum causing **poor print quality**

6. Organic Photo Conductor Drum (OPC): If reused - both mechanical and electronic wear and tear result in **imperfections**; if replaced - incompatibility could cause **poor print quality or total failure** of cartridge

7. Cleaning Blade: Could cause early failure of OPC drum resulting in **reduced print quality**

8. Waste Hopper: Premature filling of this hopper in combination with worn seals could result in **cartridge bursting**

As you can see, there are many possibilities for failure that could result in reprints, repairs, service calls, and/or replacement of hardware. The up-front savings is immaterial when compared to the costs associated with reprints and fixing all the trouble caused by the remanufactured cartridge.

Bad for the Environment.

Clone cartridges don't have a recycling process like OEM cartridges. Instead of providing free shipping and packaging back to a recycling facility, the vast majority of clone cartridges end up being disposed of in landfills. Purchasing these cartridges increases your organization's carbon footprint and is environmentally irresponsible. With the push toward corporate social responsibility, this may offset some of the good deeds you're doing in your community.

Clones: Imitations Not Duplicates.

Clones are some of the cheapest toner cartridges on the market today and as the adage goes: **“you get what you pay for.”**

The difference between clones and remanufactured cartridges is that clones are newly made imitations of an OEM cartridge versus salvaging parts from spent OEM MICR toner cartridges. This may lead

you to believe that this a good thing, but clones are generally made with inferior aftermarket parts and toner. Unlike biological clones, a clone toner cartridge is not identical to the original.

These lower quality parts and toner can result in the same problems you would experience with remanufactured cartridges:

Damage to
Your Printer

Low Print
Quality

Poor
Reliability

Negative Health
Effects

Detriment to The
Environment

Clones are created outside of the United States where manufacturing standards are low and patent infringement is either tolerated or goes undetected. This situation promotes corner cutting during the manufacturing process to keep end user costs low. Unfortunately, the end users are the ones who ultimately spend more as there is little recourse available once the cartridge fails. Costs to the user include reprints, printer repairs or replacement, premature cartridge failure, and possible health issues.

There is no recycling program for these clone cartridges. This creates a large carbon

footprint because these cartridges are being mass produced new, used with varying results, and then thrown away. Most of these cartridges end up in landfills and will stay there for the next 450 -1000 years before they decompose.

On the other hand, OEM cartridges are manufactured in a controlled environment, to the highest standards and endure rigorous testing before being released into the market. Additionally, TROY specifically holds several patents that are specific to the MICR toner and cartridge manufacturing process along with adhering to ISO standards.

**THE CHOICE
IS CLEAR**

OEM

The most important thing to remember is

when you're printing checks - you're printing money.

These rigorous quality standards aren't a luxury, they're a necessity.

- ✓ Superior print quality and reliability
- ✓ Robust, free recycling programs
- ✓ Won't void your printer warranty
- ✓ Meets air quality standards
- ✓ Highest quality standards
- ✓ Minimal repair costs
- ✓ Specially formulated toner
- ✓ Controlled manufacturing

So, if you answered **“less”** to the question - “Would you like to incur more costs or less? **Your choice is clear: OEM.**



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About us

TROY Group, Inc. is a globally recognized leader in MICR solutions and security printing. As the only HP OEM Partner for MICR, TROY is the only company in the world authorized to enhance HP printers and consumables for use in secure printing workflows. TROY manufactures patented MICR toner & inks to the tightest quality and environmental tolerances. TROY offers a total check printing solution including MICR printers, MICR toner, software, security check stock, digital signatures, security fonts and post-sale services.



¹ 2016 SpencerLab Monochrome Reliability study compared Original HP mono cartridges with three brands of NBC cartridges sold in North America for the HP Pro M127 and Pro 400 printers, HP 83A and 80A cartridges.

<http://www.spencerlab.com/reports/HPReliability-NA-NBC2016NB.pdf>

² Page yield based on standard 5% coverage printing continuously

³ HP calculations based on results from a 2016 SpencerLab North America Mono Reliability study comparing 3 brands of new-build cartridges for the HP Pro M127 and Pro 400 Printers, HP 83A and 80A cartridges.

www.spencerlab.com/reports/HPReliability-NA-NBC2016NB.pdf

Calculations include paper, cartridge replacement, and labor for reprints. Page use assumes 27% external, 49% internal, and 24% individual use. Labor rate from a 2016 Mercer Global Pay Study. Purchase price for 83X HP cartridge is \$73 and a 50% lower price for non-HP. Actual prices, costs and savings may vary.

⁴ A 2017 NA Market Strategies International study. Results based on 199 surveys from HP ServiceOne Partners who have at least 6 months of experience servicing HP monochrome and Color LaserJet printers with HP and non-HP toner cartridges installed, and have done so within the previous 12 months of the study.

marketstrategies.com/hp/NA-Technician2017.pdf

⁵ 2018 WKI Blue Angel Indoor Air Quality compliance study. The study tested 4 New Build Compatible toner cartridge brands sold as substitutes for HP LaserJet Pro MFP M425dn with cartridge 280A. The tests were carried out in compliance of Blue Angel labeling of office equipment in accordance with RAL-UZ 205.

<https://www.advancedfraudsolutions.com/white-paper-check-fraud/>