



## **“Must I buy a specially modified MICR printer or can I use a standard laser printer with a MICR print cartridge to print checks?”**

The biggest challenge for a MICR (Magnetic Ink Character Recognition) printer engineer is toner adhesion. MICR toner is composed of more than 50% iron oxide. Since the microscopic particles of iron oxide cannot be made to melt they must be surrounded by a softer, densely black material that can be made to fuse into the check paper's surface fibers carrying the iron oxide with it. This is done through increased fuser temperatures and sometimes greater pressure on the opposing fuser rollers. These toner fusing modifications are the main differences between a laser printer specifically modified for check printing and one that has not been modified.

The American Banking Association (ABA) along with a MICR ANSI committee have created a performance standard for MICR printers which states that among other things a check must withstand 20 passes at high speed over a MICR read head. The Canadian and UK standards are even tougher. Printers properly modified will meet this test. Standard laser printers with a MICR cartridge installed, for the most part, will not meet this test.

When a check sheds a portion of the MICR toner that makes up the MICR line at the bottom of the check, it not only produces a bad “read” for that check but it can foul the read head to the extent that subsequent checks passing the read head will not read properly either. Banks take a dim view of this situation. The factor that makes the standard printer option at all viable is that in the modern check clearing system, a check rarely has to make 20 passes over a MICR read head.

In addition to the above mentioned modifications, most engineered laser MICR printers also provide enhanced security features such as defeating reprint capability, paper tray locks, internal audit capability, data encryption/decryption, etc. They also carry a performance guaranty from their manufacturers that states in essence that if the end user ever incurs bank charges because of bad checks produced on that equipment, the manufacturer will reimburse the user.

The major laser printer manufacturers do not directly produce MICR enabled laser printers. Instead they have partnered with third party companies who perform the actual MICR enhancements. The major manufacturers however do recognize and approve of the MICR enhancement modifications and as a result they will honor the original printer warranty, servicing and maintaining those modified printers.

Your choice of printers is one involving your budget and your printer brand preference. Whether you prefer the Hewlett-Packard or Lexmark laser printer brands, Printech has a MICR solution for you.

We will be happy to share our 21 years of experience in the sensitive document production business with you. Please contact us with details of your check printing needs. You may do so by dialing 305-592-2838 or emailing us at [info@printech.com](mailto:info@printech.com).

