



MICR Check Stock Quality Issues

When buying MICR (Magnetic Ink Character Recognition) check stock the following issues must be addressed:

Quality

Quality MICR check printing with the MICR Laser Printers requires that the check stock match the printer's requirements. Printech can supply paper specifically made for our printers. If you wish to order check stock from other suppliers, please show the following requirements to your sales representative.

Size

The standard paper tray will adapt to A4, Letter, Executive and B5 sizes. Both the standard tray and all optional trays are auto size sensing.

Letter 8.5 x 11 inches

Legal 8.5 x 14

B5 7.2 x 10.1

A4 8.3 x 11.7

Executive 7.25 x 10.5

A5 5.83 x 8.27

Layout

Layout your check design before any paper is purchased or layout your design to existing stock. Keep in mind, perforations, orientation, special logos and any color elements. Remember, the printer can print just about anything as long as it is black.

Weight

We recommend 24 lb paper.

Stiffness

We recommend taber M.D. 2.5 and C.D. 1.1 minimum.

Smoothness

For best toner fusing, we recommend a Sheffield rating of around 150 points.

Grain Direction

When printing in Portrait, we recommend Laser Short Grain paper. The grain runs along the 8.5" dimension of a letter size page. Conversely, Laser Long Grain paper for checks printed in landscape orientation where the check and the grain would be oriented parallel to the 11.5" edge of a letter size page. In summation, the grain should run the same direction as the check passes through the reader sorter.





Perforations

All perforations in the stock should be Micro-Perfs.

Moisture

The paper moisture content should be between 4.7 and 5.5%. Storage conditions have much to do with the final moisture content of most papers. Store your check stock in a cool, dry, environmentally stable and secure area.

Security Features

Check stock security features we have found to be of merit are:

1. **A true papermachine watermark** – Highest level paper security feature providing a high level of document authentication. Can be seen in ordinary light. Resists photocopying and scanning. Adds prestige and helps authentication.
2. **Full chemical reactant stains** – Readily shows tampering. Full reaction to bleach, polar/non-polar solvents, and acid/base attempts at document alteration.
3. **Visible embedded fibers** - Green and red fibers added in a controlled count per area of paper.
4. **Invisible embedded fibers** – Only visible under ultraviolet light. Fibers fluoresce yellow when exposed to UV light.
5. **Border Copy Warning** – A notice or warning designed to advise document handlers and potential fraud artists of specific overt and covert safeguards present.
6. **Microprinting** – Miniature print appears as a line or rule. Difficult to scan or copy. Can be verified with a magnifying glass. Helps authentication.
7. **Optically dead composition** – Paper does not fluoresce when exposed to UV light. This feature enhances the visibility of fluorescent printing and invisible fibers. It avoids interference with UV based security scanning devices. Additionally, optically dead paper is not readily available to counterfeiters in the marketplace. Only true security papers are optically dead.
8. **Void Pantograph** – Uses a background pattern that exposes the word “VOID” when color copied or scanned.
9. **Consecutive Control Numbers** for a tight inventory control of the security paper.
10. **Printloc** – Locks toner into the paper. Prevents character or number removal by scraping or tape pulling.
11. **Superior performance** – smoothness, high sheet strength, great printed quality and problem-free runnability, makes Defensa the preferred choice in top-level protection. Defensa meets or exceeds ANSI X9.18 specifications for checks and is compatible with all laser printers.





MICR Toner

Printech Brand MICR toner cartridges are specifically engineered to print quality MICR documents with your printer. When using specialized MICR printers, we can add a special sensor to the toner cartridge so that our CheckPlus laser check printing software can determine if the appropriate MICR toner cartridge is loaded in the printer before allowing checks to be printed.

The use of inferior quality MICR toner cartridges may result in expensive printer repairs and bank check reject fees due to inferior MICR character formation.

When toner becomes low, the printer will stop and display TONER LOW. Replace the MICR toner cartridge with a new one. We do not recommend that you shake the cartridge and reinstall as you can with non-MICR toner to increase the life of the cartridge. Once low toner is sensed, there might not be enough MICR toner left to produce quality MICR documents.

Security Issues

Printing negotiable documents from blank paper on desktop MICR laser printers makes security a top priority for any company embarking on a desktop check printing project.

Good security programs integrate both hardware and software, as well as your employees and financial institution into a secure check production system. Recent changes relative to the responsibilities of banks and their customers have a bearing on the ultimate liability for fraudulent documents. Customers must have systems designed and documented to show "Ordinary Care and Good Faith Effort" is in place to avoid liability.

In the past, financial institutions generally credited corporations when fraud was discovered. The new regulations attempt to define who may have been negligent in the transaction and put the liability on that party or parties. Clearly, if a fraudulent occurrence can be traced to a corporation's lack of security procedures, or the design of their negotiable documents, the regulations will protect the banks, or at best cause the loss will be shared.

Minimizing the Exposure

1. Review and document your internal negotiable document printing procedures.
2. Investigate employee backgrounds before assigning security authority.





3. Split responsibilities, for example, an accounts payable production/security officer should not also balance the account.
4. Enhance your check stock with security elements.
5. Store all printed checks and check stock in a secure place.
6. Use as many hardware and software levels of password protection as possible.
7. Your check printing software should have several levels of password protection for printing checks as well as audit trails to document check production.
8. Troy laser printers are designed with many security features which conventional laser printers lack.
9. Positive Pay - Many banks will receive information on issued checks from their large customers. This enables the bank to compare this information with items received for processing. Exception items are flagged and sent to the corporation for verification. Ask your financial institution for recommendations concerning these services.
10. Troy printers provide a Master Lock system as well as tray locks. These features give your printer increased security for printing negotiable documents.

MICR and Secure Fonts

The E13B and CMC7 MICR Fonts are shipped as resident fonts in the printer, in addition to a secure convenience amount font. These resources can only be accessed after MICR Mode is activated by the CheckPlus software.

