

MICR Placement Guidelines

This placement specifications document is a summary of the placement requirements obtained from the ABA (American Bankers Association) and the ISO. All measurements are in inches. To convert inches to CM, multiple the value by 2.54; for example, 4 inches * 2.54 = 10.16 CM.

MICR Character Width

The nominal width of each MICR character is 1/8 of an inch (or 8 characters per inch).

MICR spacing can be measured by printing the MICR string of

100022233344455566677788899900001

and measuring the distance between the top of the first "1" and the last "1". The distance should be as close to 4 inches as possible. Using this calibration method, the allowable tolerance is +/- 1/8 of an inch.

MICR Character Spacing

Some check stock provides a small rectangle watermark on it that simplifies the placement of the left most ON US symbol which surrounds the routing number. We recommend using this stock if possible to ease alignment.



Figure 1-1: On MICR checks, the MICR line is read in from right to left. Because of this, all measurements mentioned in this document are measured from the right side of the check unless otherwise specified.

Routing Number Placement

The Routing Number and the symbols surrounding it should be centered between an area 5 11/16" and 4 5/16" measured from the right side of the check. The left symbol of the Routing Number should be centered between 5 11/16" and 5 9/16" measured from the right side of the check, as in **Figure 1-1**. Some check stock provides a small rectangle watermark on it that simplifies the placement of the left-most ON US symbol which surrounds the routing number.

Account Number Placement

The first symbol or character of the account number should start just to the right of 4 3/16" and should be centered between 4 3/16" and 4 1/16". The Account Number should be printed 2/16" (or one space) to the right of the routing number's transit symbol and to the left of an area that is 2 1/16" from the right side of the check, as in **Figure 1-1**.

MICR Line Vertical Placement

The bottom of the MICR numbers should be 3/16" from the bottom of the check.

Check Number Placement

The check number should be placed to the left of 5 $\frac{13}{16}$ " but to the right of 7 $\frac{14}{16}$ ". The right-most symbol of the check number (the ON US SYMBOL) can be positioned $\frac{1}{8}$ inch to the left of the left-most symbol of the routing number. On personal checks, there is not room for the check number to be placed to the left of the routing number. To solve this problem, the check number may be placed $\frac{2}{16}$ " (or one space) to the right of the ON US SYMBOL of the account number, as in **Figure 1-2**.

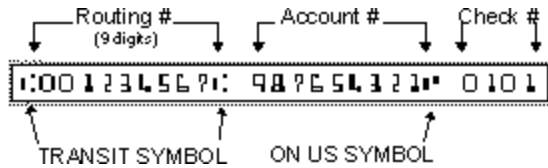


Figure 1-2: Alternate method of printing check number on smaller sized checks.

MICR Clear Band

A horizontal band 0.625" high on both the front and back of the check must be kept free of any magnetic ink, other than the MICR E13B Font. The background reflectance of the MICR clear band must be at least 60%.

MICR Ink Performance

MICR printing is required to withstand at least 20 passes, without degrading the performance of a MICR reader.

Paper Quality

Paper should be made from virgin pulp. Do not use recycled paper, because certain particles embedded in the paper can be a cause of rejects.

For more information on the ABA and ANSI standards of MICR check printing, visit www.ansi.org.

Print Quality Issues

Refer to the [MICR Font Troubleshooting Site](#) when troubleshooting print quality issues.