American National Standard for Financial Services

ANSI X9.100-160-1–2015

Magnetic Ink Printing (MICR)

Part 1: Placement and Location

Developed by
Accredited Standards Committee X9, Incorporated
Financial Industry Standards

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American National Standards Institute

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Foreword

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Introduction

This publication is a revision of American National Standard Specifications for Placement and Location of MICR Printing, X9.13-1999. The material presented in this standard is a result of the combined efforts of financial institutions, check printers, business forms manufacturers, software suppliers and manufacturers of processing and test equipment for the financial services industry. This standard specifies the check sizes and the printing format for the various fields contained on the check. The continued successful use of this standard in the United States payments system justifies the reissuing of this standard with revisions that bring it up to date.

The revisions issued in 1983 and 1990 changed the original by providing for a new field, the External Processing Code (EPC), with additional tolerance for proper printing, added rules governing the distance between the routing and auxiliary On-Us fields on checks, established a rule requiring an On-Us symbol to start and stop a serial number in the auxiliary On-Us field.

Building on the 1990 document, a 1999 revision incorporated an expanded definitions section and provided for an optical clear band along the aligning edge of the document in addition to the already familiar MICR clear band. In addition, rules governing the spacing tolerances between printed characters both within fields and between fields, and from document edges and printed characters have been clarified. Finally, a normative annex addressing approved EPC applications was added along with an informative annex to enable metric conversion of the dimensions referenced in this standard.

In the 2004 revision, the normative annex for EPC applications was removed and replaced by a new standard part 2 (ANSI X9.100-160-2) covering the same material. That revision also created a new limit of 17 MICR characters in the auxiliary On-Us field. Previously, the number of characters in this field was constrained by the length of the check (up to 21 characters could be printed). The 17-character maximum is necessary to insure interoperability between this and other X9 standards that support electronic interchange and the creation of IRDs (substitute checks).

While this revision makes no substantive changes to MICR printing, and does not attempt to alter allowable characters contained within the On-Us or auxiliary On-Us fields, the use of dashes in either field, or of embedded or trailing On-Us symbols within the On-Us field, is considered non-traditional and should be examined for alternatives. There is a strong desire to eliminate these usages from this standard as changing check capture platforms to reproduce these formats is seen as major obstacle to full adoption of Check 21. Users of this standard are strongly cautioned that future changes should be expected. If it is necessary to eliminate dashes sooner that the next 5-year review will allow, this standard may be opened early to address that need. While seldom if ever used, this revision does now eliminate the option to print the EPC field in MICR Position 45; thus, EPC is now restricted to be only printed in MICR Position 44, as originally designated.

It is important to note that ASC X9 is responsible for the assignment of EPC digits (see X9.100-160-2) for specific future applications as well as the monitoring of their use within the check processing community. It is expected that printers of checks will continue to exercise careful concern for all of the considerations specified in this standard in order to ensure maximum performance and continued success.

Suggestions for the improvement or revision of this Standard are welcome. They should be sent to the X9 Committee Secretariat, Accredited Standards Committee X9, Inc., Financial Industry Standards, 275 West Street Suite 107, Annapolis, Maryland 21401, USA.

This Standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Financial Services, X9. Committee approval of the Standard does not necessarily imply that all the committee members voted for its approval.

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The X9B7 MICR Specifications editorial group which that made significant contributions to the development of this standard had the following members:

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VerifyValid	John FitzPatrick
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This 2015 revision of this standard cancels and fully replaces ANSI X9.100-160–2009, as well as all previous versions of it and the former X9.13.

1 Scope

Part 1 of this standard covers only design considerations that apply to placement and location of magnetic ink printing on checks, drafts, and other documents intended for automated processing among depository institutions. Although some aspects of Part 1 may still be applicable, other types of documents such as internal control forms are not covered. A complete understanding of MICR printing requires reference to other standards and technical guidelines listed in Clause 2.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the specific edition cited applies. For undated references, the most recent edition of the referenced document (including any amendments) applies.

Accuity. Skokie, IL; *American Bankers Association Key to Routing Numbers*

ANSI X9.100-110, *Document Imaging Compatibility*

ANSI X9.100-10, *Paper for MICR Documents*

ANSI X9.100-20, *Print and Test Specifications for Magnetic Ink Printing (MICR)*

ANSI X9.100-140*, Image Replacement Document - IRD*

ANSI X9.100-151, *Check Correction Strips*

ASC X9 TR 2, *Understanding, Designing and Producing Checks*

ASC X9 TR 100, Organization of Check-related Payments Standards

Federal Reserve Regulation CC (12 CFR 229)

3 Terms and Definitions

The defining standard is listed in parentheses after each term. The first listing is the current defining standard and the second listing, if present, is the past or future defining standard. If a definition starts with the words, “As used in this standard,…”, it indicates the definition is altered to meet the needs of this standard and differs from the definition in the referenced defining standard.

3.1
aligning edge (ANSI X9.100-160-1)
The bottom edge of a document when its face is viewed.