EAST HILL
INDUSTRIES, INC

UPC A Barcode Size Standards

Of the many varieties of barcodes, the UPC (Universal Product Code) is the most common

The UPC A barcode represents the GTIN-12, which consists of 12 numbers that identify an individual product. The UPC can be reduced to 80% and can be increased up to 200% without significantly jeopardizing reliable scanning. The “clear zone” or “clear area” to the left and right of the code is necessary to prevent scanners from erroneously picking up background artifacts that can cause scanning failures. It is always best to print barcodes as 100% black on a white field. Other color combinations can work but the precise color combination should be throroughly tested with retail scanning equipment before proceeding. If you are not sure of the precise scanning environment, stick with black on white. Never print a BARCODE in red, it will not be recognized by many types of scanners.

If your company needs to obtain a certified manufacturing code or needs additional information regarding the process, please go to: **http://www.gs1us.org/** or **http://www.barcodehq.com/upcnumber.html**

MINIMUM CLEAR AREA

100% UPC A
MINIMUM CLEAR ZONE
(1.5”w x 1.06”h)

100% UPC A
MINIMUM CLEAR ZONE &
MAXIMUM TRUNCATION*
(1.5”w x .5”h)

80% UPC A
MINIMUM CLEAR ZONE
(1.2”w x .85”h)

80% UPC A
MINIMUM CLEAR ZONE &
MAXIMUM TRUNCATION*
(1.2”w x .5”h)

RECOMMENDED CLEAR AREA

100% UPC A
RECOMMENDED CLEAR ZONE
(1.675”w x 1.06”h)

100% UPC A
RECOMMENDED CLEAR ZONE &
MAXIMUM TRUNCATION*
(1.5”w x .5”h)

80% UPC A
RECOMMENDED CLEAR ZONE
(1.375”w x .85”h)

80% UPC A
RECOMMENDED CLEAR ZONE &
MAXIMUM TRUNCATION*
(1.2”w x .5”h)

* Barcodes may be truncated to a reduced height. We do not recommend less than .5” high.
The width should remain as shown above in **“suggested clear zone”** and never less than the **“minimum clear zone.”**

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EAN13 Barcode Size Standards

The EAN13 format is required for most international applications

The EAN13 barcode represents the GTIN-13, which consists of 13 numbers that identify an individual product. The EAN13 can be reduced to 80% and can be increased up to 200% without significantly jeopardizing reliable scanning. The “clear zone” or “clear area” to the left and right of the code is necessary to prevent scanners from erroneously picking up background artifacts that can cause scanning failures. It is always best to print barcodes as 100% black on a white field. Other color combinations can work but the precise color combination should be throroughly tested with retail scanning equipment before proceeding. If you are not sure of the precise scanning environment, stick with black on white. Never print a BARCODE in red, it will not be recognized by many types of scanners.

If your company needs to obtain a certified manufacturing code or needs additional information regarding the process, please go to: **http://www.gs1us.org/** or **http://www.barcodehq.com/upcnumber.html**

MINIMUM CLEAR AREA

100% EAN13
MINIMUM CLEAR ZONE
(1.5”w x 1.06”h)

100% EAN13
MINIMUM CLEAR ZONE &
MAXIMUM TRUNCATION*
(1.5”w x .5”h)

80% EAN13
MINIMUM CLEAR ZONE
(1.2”w x .85”h)

80% EAN13
MINIMUM CLEAR ZONE &
MAXIMUM TRUNCATION*
(1.2”w x .5”h)

RECOMMENDED CLEAR AREA

100% EAN13
RECOMMENDED CLEAR ZONE
(1.675”w x 1.06”h)

100% EAN13
RECOMMENDED CLEAR ZONE &
MAXIMUM TRUNCATION*
(1.5”w x .5”h)

80% EAN13
RECOMMENDED CLEAR ZONE
(1.375”w x .85”h)

80% EAN13
RECOMMENDED CLEAR ZONE &
MAXIMUM TRUNCATION*
(1.2”w x .5”h)

* Barcodes may be truncated to a reduced height. We do not recommend less than .5” high.
The width should remain as shown above in **“suggested clear zone”** and never less than the **“minimum clear zone.”**

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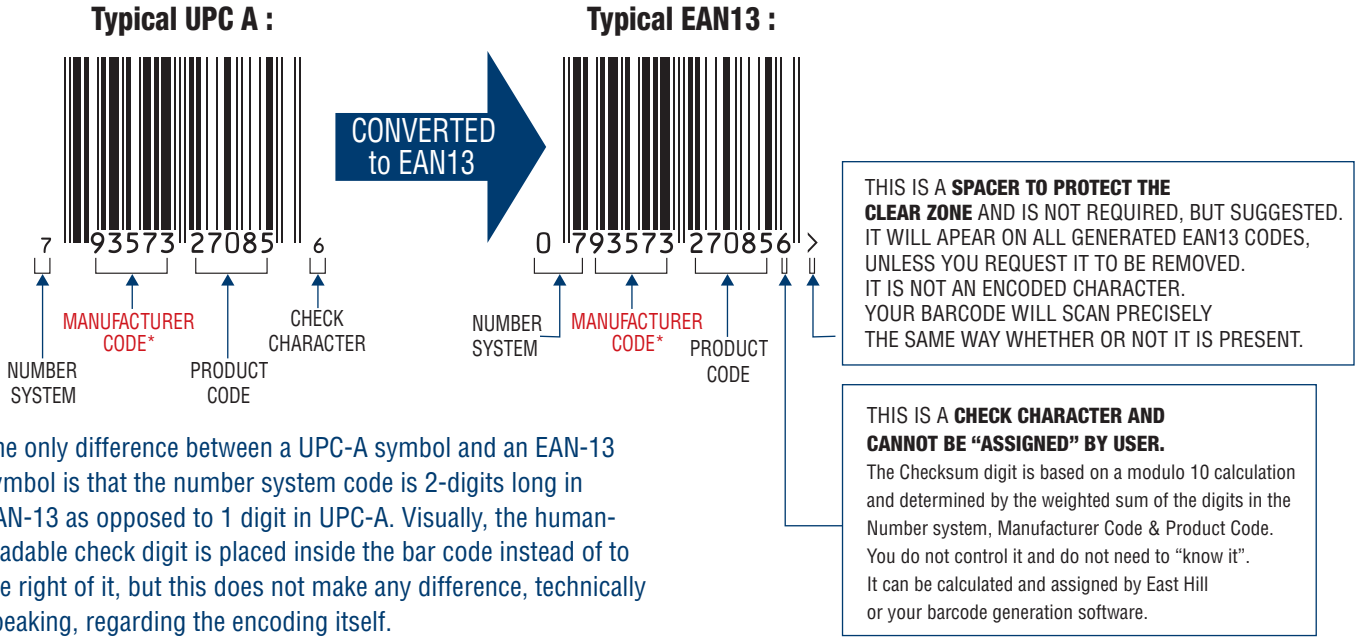
Converting UPC A to EAN13 International Standard

The EAN13 format is required for most international applications

EAN-13, based upon the UPC-A standard, was implemented by the International Article Numbering Association (EAN) in Europe. This standard was implemented mostly because the UPC-A standard was not well designed for international use. EAN-13 is a superset of UPC-A. This means that any software or hardware capable of reading an EAN-13 symbol will automatically be able to read a UPC-A symbol. The only difference between EAN-13 and UPC-A is that the number system code in UPC-A is a single digit from 0 through 9 whereas an EAN-13 number system code consists of two digits ranging from 00 through 99 (essentially a country code). Each country has a numbering authority which assigns manufacturer codes to companies within its jurisdiction. The manufacturer code is still five digits long, as is the product code, and the check digit is calculated in exactly the same way.

NOTE: Since EAN-13 is a superset of UPC-A and requires very little additional effort to handle than UPC-A code, it is recommended that all new designes implement EAN-13 rather than UPC-A. As already mentioned, this guarantees compatibility with UPC-A but also will make your software/hardware appealing to the international community. Otherwise your design will be restricted to the U.S. and Canada. Additionally, the UCC Council has announced that as of January 1, 2005, all bar code systems in the U.S. and Canada must be able to handle EAN-13 bar codes so that international manufacturers do not have to worry about printing a different bar code for their products destined for North America.



The only difference between a UPC-A symbol and an EAN-13 symbol is that the number system code is 2-digits long in EAN-13 as opposed to 1 digit in UPC-A. Visually, the human-readable check digit is placed inside the bar code instead of to the right of it, but this does not make any difference, technically speaking, regarding the encoding itself.

*The Manufacturer Code is a unique code assigned to each manufacturer by the numbering authority. It is not uncommon to receive a "variable-length manufacturer code" if the numbering authority determines that you do not have many products. In short, your manufacturer code may extend into the first few characters of the "product code." Since the Manufacturer Code is static, you may have fewer than five characters for individual product numbers. Always verify your complete manufacturer code and number system before beginning individual product assignment.

If your company needs to obtain a certified manufacturing code or needs additional information regarding the process, please go to: **http://www.gs1us.org/** or **http://www.barcodehq.com/upcnumber.html**

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