# Translating Your U.P.C. to GS1 DataBar to a GTIN with a Batch/Lot Number

## Step 1: Locate the U.P.C. Number on the product

### Translation Sample

**Universal Product Code (U.P.C.)**

***Always 12 numeric digits***


| 6 | 1 | 4 | 1 | 4 | 1 | = U.P.C. Company Prefix |
|---|---|---|---|---|---|---|

***(Note: Only to be used for creating a U.P.C. barcode symbol.)***

| 0 | 0 | 7 | 3 | 4 | = Item Reference |
|---|---|---|---|---|---|

| 9 | = [1]calculated Check Digit |
|---|---|

### Supplier Translation

**Universal Product Code (U.P.C.)**

***Always 12 numeric digits***

**Look at your product to obtain your U.P.C. number**

| | | | | | | | | | | = U.P.C. Company Prefix |
|---|---|---|---|---|---|---|---|---|---|---|

***(Note: U.P.C. Company Prefix varies in length between 6 and 9 digits.)***

| | | | | | = Item Reference |
|---|---|---|---|---|---|

***(Note: Item Reference length varies between 5 and 1 digits respectively based on the length of your U.P.C. Company Prefix.)***

| | = calculated Check Digit |
|---|---|

[1] The Check digit is a result from an algorithmic function, which is calculated by the barcode software. Its verification, which must be carried out in the application software, ensures that the number is correctly composed.

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## Step 2: Covert the U.P.C. to a 14-Digit Format

### Translation Sample

**Global Trade Item Number® (GTIN®)**

***Convert to a 14-digit number, but remains a GTIN-12 Data Structure***

| | |
|---|---|
| 0 | = Filler Zero (Always 0 for a GTIN-12) |
| 0 6 1 4 1 4 1 | = GS1 Company Prefix |

***(Note: Add a zero (0) in front of the U.P.C. Company Prefix to convert your U.P.C. Company Prefix to a GS1 Company Prefix.)***

| | |
|---|---|
| 0 0 7 3 4 | = Item Reference |
| 9 | = calculated Check Digit |

**Full Number:** 00614141007349

### Supplier Translation

**Global Trade Item Number (GTIN)**

***Convert to a 14-digit number, but remains a GTIN-12 Data Structure***

| | |
|---|---|
| | = Filler Zero (Always 0 for a GTIN-12) |
| 0 | = GS1 Company Prefix |

***(Note: Add a zero (0) in front of the U.P.C. Company Prefix to convert your U.P.C. Company Prefix to a GS1 Company Prefix.)***

| | |
|---|---|
| | = Item Reference |

***(Note: Item Reference length varies between 5 and 1 digits respectively based on the length of your GS1 Company Prefix.)***

| | |
|---|---|
| | = calculated Check Digit |

**Full Number:**

# Translating Your U.P.C. to GS1 DataBar to a GTIN with a Batch/Lot Number

## Step 3: Insert the 14-Digit Formatted data into a GS1 DataBar Stacked Omnidirectional symbol (for loose Produce)

### Translation Sample

**Global Trade Item Number (GTIN) within a GS1 DataBar Stacked Omnidirectional barcode at the item level:**

**This barcode can ONLY encode the GTIN.**


**01** = [2] **Implied GS1 Application Identifier (AI) for GTIN**

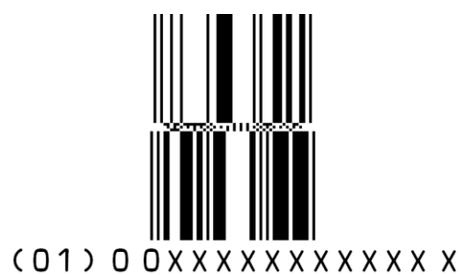
**Global Trade Item Number (GTIN)**

| 0 | 0 | 6 | 1 | 4 | 1 | 4 | 1 | 0 | 0 | 7 | 3 | 4 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

### Supplier Translation

**Global Trade Item Number (GTIN) within a GS1 DataBar Stacked Omnidirectional barcode at the item level:**

**This barcode can ONLY encode the GTIN.**




**01** = **Implied GS1 Application Identifier (AI) for GTIN**

**Global Trade Item Number (GTIN)**

| 0 | 0 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

[2] GS1 Application Identifiers are the field of two to four digits at the beginning of an Element String that uniquely defines its format, length, and meaning. They are all identified in Section 3 of the most recent version of the GS1 General Specifications. Parentheses surrounding the Application Identifier, AI are not encoded within the barcode and are used for the Human Readably only.

# Translating Your U.P.C. to GS1 DataBar to a GTIN with a Batch/Lot Number

## Step 4: Convert the GTIN-12 to a GTIN-14 data structure for the Case Level

### Translation Sample

**Global Trade Item Number (GTIN)**

***GTIN-14 is always 14 numeric digits***

| 1 | = Indicator Digit (may have a value of 1 thru 8 depending on product hierarchy) |
|---|---|

| 0 | 6 | 1 | 4 | 1 | 4 | 1 | = GS1 Company Prefix |
|---|---|---|---|---|---|---|---|

***(Note: Add a zero (0) in front of the U.P.C. Company Prefix to convert your U.P.C. Company Prefix to a GS1 Company Prefix.)***

| 0 | 0 | 7 | 3 | 4 | = Item Reference |
|---|---|---|---|---|---|

| 6 | = calculated Check Digit |
|---|---|

### Supplier Translation

**Global Trade Item Number (GTIN)**

***GTIN-14 is always 14 numeric digits***

| | = Indicator Digit (may have a value of 1 thru 8 depending on product hierarchy) |
|---|---|

| 0 | | | | | | | | | | = GS1 Company Prefix |
|---|---|---|---|---|---|---|---|---|---|---|

***(Note: Add a zero (0) in front of the U.P.C. Company Prefix to convert your U.P.C. Company Prefix to a GS1 Company Prefix.)***

| | | | | | = Item Reference |
|---|---|---|---|---|---|

***(Note: Item Reference length varies between 5 and 1 digits respectively based on the length of your GS1 Company Prefix.)***

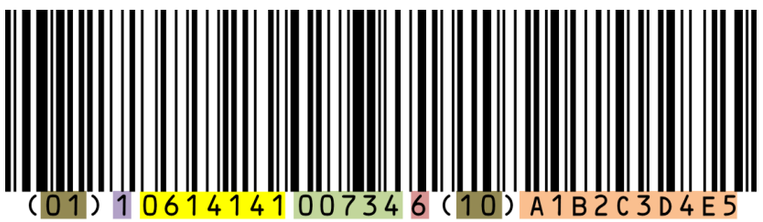
| | = calculated Check Digit |
|---|---|

# Translating Your U.P.C. to GS1 DataBar to a GTIN with a Batch/Lot Number

## Step 5: Insert the GTIN-14 and Batch/Lot Number into the GS1-128 data carrier (for Cases)

### Translation Sample

**Global Trade Item Number (GTIN) linked with a Batch/Lot Number within a GS1-128 barcode**




**01** = [3]**GS1 Application Identifier (AI) for GTIN**

**Global Trade Item Number (GTIN)**

| 1 | 0 | 6 | 1 | 4 | 1 | 4 | 1 | 0 | 0 | 7 | 3 | 4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

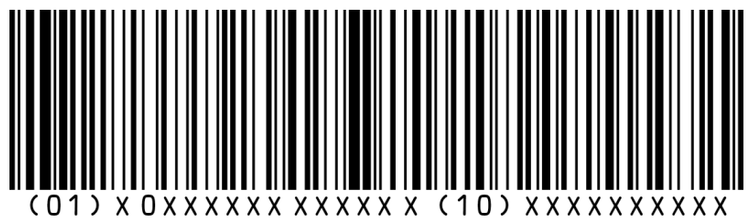
**10** = **GS1 Application Identifier (AI) for Batch/Lot Number**

| A | 1 | B | 2 | C | 3 | D | 4 | E | 5 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

= **Batch/Lot Number (encodes a variable length up to 20 alphanumeric characters)**

### Supplier Translation

**Global Trade Item Number (GTIN) linked with a Batch/Lot Number within a GS1-128 barcode**




**01** = **GS1 Application Identifier (AI) for GTIN**

**Global Trade Item Number (GTIN)**

| | 0 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**10** = **GS1 Application Identifier (AI) for Batch/Lot Number**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

= **Batch/Lot Number (encodes a variable length up to 20 alphanumeric characters)**

[3] GS1 Application Identifiers are the field of two to four digits at the beginning of an Element String that uniquely defines its format, length, and meaning. They are all identified in Section 3 of the most recent version of the GS1 General Specifications. Parentheses surrounding the Application Identifier, AI are not encoded within the barcode and are used for the Human Readably only.