

# Assigning a GTIN-12

## Fact Sheet

A GTIN-12 can be encoded in a UPC-A barcode, GS1 DataBar or other GS1 approved 2D barcodes\* and can be used for the identification of any retail trade item. Please note that once a GTIN-12 has been assigned to a trade item, and it has been introduced to the market, under no circumstances must it be transferred or reused for any other trade item.

\*When encoding A GTIN-12 in GS1 DataBar or other GS1 approved 2D symbols please ensure you had the 2 leading zeroes to make it a 14-digit number.

For details on the UPC-A and GS1 DataBar Barcodes please refer to the [UPC-A Barcode Fact Sheet](#) and the [GS1 DataBar at POS Fact Sheet](#) respectively.

**Table 1: GTIN-12 structure**

U.P.C. Company Prefix →	Item Reference ←	Check Digit
$n_1 n_2 n_3 n_4 n_5 n_6 n_7 n_8 n_9 n_{10} n_{11}$		$n_{12}$

**The U.P.C. Company Prefix** is allocated by GS1 US. The length of the U.P.C. Company Prefix is varying, and the numbering capacity you are allocated depends on the U.P.C. Company Prefix issued.

**The Item Reference** is a non-significant number that is assigned by the member company. It is purely for identification purposes and the individual digits in the number do not relate to anything or convey any specific item information. It is recommended that the Item Reference is assigned sequentially and that each item is numbered to the lowest level of identification, for example: size, colour, model, finish, type, style. The length of the Item Reference will depend on the length of your U.P.C. Company Prefix.

**The Check Digit** is mathematically calculated to ensure that the whole number is correct. Correct calculation is essential for successful scanning of the barcode:

- A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at [www.gs1au.org](http://www.gs1au.org)
- For manual calculation of the Check Digit refer to [the Manual Check Digit Calculation Fact Sheet](#).
- For either method of calculating the Check Digit use the GTIN-12 option.