

# 1 Allocating the Number

## EAN/UCC-13 Numbers

The Global Trade Item Number (GTIN) consists of 13 digits. Depending on the size of the number bank required (100000, 10000, 1000 numbers), EAN South Africa allocates the first 7, 8 or 9 digits (company prefix) to member organisations.

The brand owner allocates the next 5, 4 or 3 digits (the item number), one per item. We suggest that the very first number is assigned as the Global Location Number (GLN).

It is recommended that you number sequentially (i.e. starting from (0)(0)001 through to (9)(9)999.)

The last digit is a mathematically calculated check digit that ensures the whole number is correct.

Instructions on how to calculate the check digit are available from EAN South Africa or a Check Digit Program may be downloaded from the EAN South Africa web site: [www.ean.co.za](http://www.ean.co.za)

## EAN/UCC-8 Numbers

EAN/UCC-8 numbers are allocated for products too small to carry an EAN-13 bar code. They are used only where absolutely necessary after making every effort to fit an EAN-13 bar code on the product. Apply directly to EAN South Africa for EAN/UCC-8 numbers. Applications will be individually assessed. A sample of the product must be supplied.

## Re-using Numbers

A discontinued EAN/UCC number must not be re-used for a minimum of four years after the date the product was last delivered. EAN South Africa recommends that the numbers are never re-used due to Data Warehousing, etc.

## EAN/UCC-14 Numbers

EAN/UCC-14 numbers are used to identify fixed weight outer cases and are encoded using an ITF-14 bar code. The GTIN of the unit contained is extrapolated into a 14 digit number by prefixing it with a number from 1 to 8 and re-calculating the check digit. Each packing configuration is allocated a different prefix number.

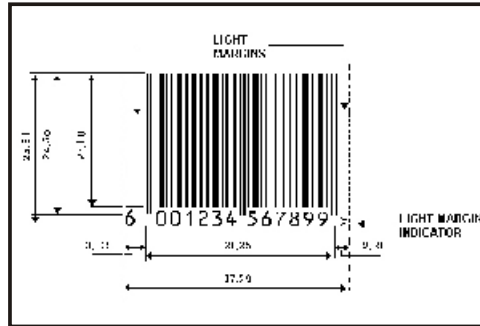
Please contact EAN South Africa for information on symbol marking variable measure delivery units.

# 2 Applying the Bar Code

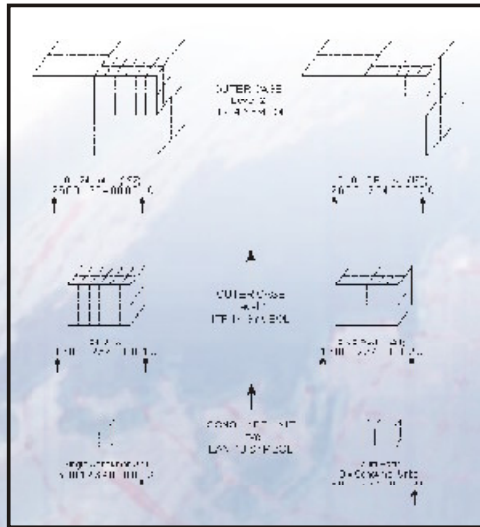
Decide how the bar code will be applied. Will it be pre-printed on the packaging or applied by label?

## Labels

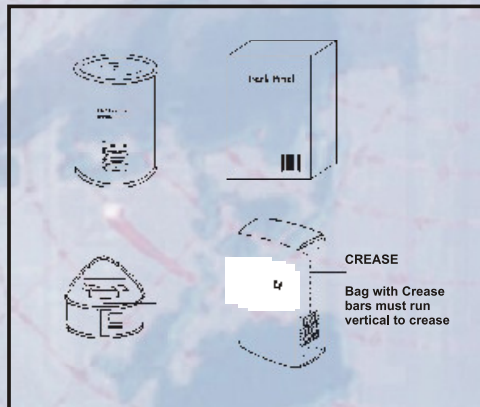
These can be produced by a Printing Company or in-house on a label printer.



Bar Code Size  
(Not to scale)



EAN/UCC-14 Numbers



Bar Code Location



EAN/UCC -13 numbers



EAN/UCC -13 numbers



EAN/UCC -13 numbers  
ladder fashion



EAN/UCC -8 numbers

## Pre-printed Bar Codes

If the bar code is to be pre-printed on the packaging, you will need a **Film Master**. The bar code is incorporated into the printing plate for printing.

# 3 Bar Code Size

The minimum size depends on the printing process used as well as the substrate on which the bar code is printed. When designing artwork for a product, the printer must be consulted as to the amount of space to leave for the bar code. The size, or magnification, of the bar code may vary between 200% and 75% of nominal size. Outside of these limits the bar code's scanning capabilities are noticeably reduced. Adherence to these specifications is crucial to ensure a 100% first time scan rate.

# 4 Bar Code Height

The height of the bar code must be proportional to its width. It should never be reduced (truncated) as this proportionately reduces the scannability of the bar code.

# 5 Colours

A scanner reads the bar code using a red light source so it 'sees' quite differently to the human eye. To scan properly, the scanner requires sufficient contrast between the dark bars and a light background. While black on white is the ideal combination, other colour combinations work just as well. Generally blue, green, indigo and violet (cold colours) can be used for the bars and orange, yellow and natural reds (warm colours) can be used for the background. For confirmation of colour combinations, consult your printer or EAN South Africa.

# 6 Quiet Zones

The Quiet Zone (light margin) is a solid, light area surrounding the bar code the same colour as the background. This area enables the scanner to recognise where the bar code begins and ends. Quiet Zones may not be infringed in any way; their size is determined by the size of the bar code.

# 7 Bar Code Location

When deciding on the bar code location, always take into consideration the packaging in its final form. Allow for overwrapping or any other packaging elements that may obscure the bar code. Locations for bar codes are recommended. Please contact EAN South Africa for the location guidelines.

## 8 Print Quality

Ensure that the print quality is of a high standard. It may be necessary to verify the bar code. EAN South Africa provides a free verification service to its members.

## 9 Make use of our Services

To ensure that the bar code is correct, use the services provided to members by EAN South Africa. These services include advice, lists of accepted printers and suppliers, a verification service as well as regular updates on EAN•UCC Standards.

## 10 Changing a Number

When making any changes to a product that has already been numbered, please consult EAN South Africa for assistance or consult

the following web site:  
[www.ean-int.org/gtinrules/i\\_index.htm](http://www.ean-int.org/gtinrules/i_index.htm)

## Please Remember

- Do not duplicate numbers
- Choose the correct bar code size
- Do not truncate the bar code
- Respect your light margins
- Be careful of colour combinations
- Locate the bar code intelligently

## Further Assistance

### *EAN South Africa Manuals*

All you need to implement, maintain and understand the EAN•UCC System. Please contact EAN South Africa direct for further information or visit the web site.

### *Workshops and Seminars*

EAN South Africa regularly conducts workshops and seminars around the country. Please consult the web site or contact EAN South Africa for dates and costs involved.

### *Global Standards Division*

Our technical team is available to answer all your technical queries by phone or email. ([info@cgcsa.co.za](mailto:info@cgcsa.co.za))

### *Bar Code Testing Service*

A free service available to all members.



### **EAN South Africa**

A Division of  
Consumer Goods Council of South Africa  
(Incorporated Association not for gain)  
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**EAN**   
SOUTH AFRICA

# Applying EAN/UCC Numbers and Bar Codes to Products



## THE KEY STEPS

This brochure gives you a checklist of the key steps involved in correctly identifying your products and applying bar codes.

These key steps refer to EAN/UCC-8, EAN/UCC-13 and EAN/UCC-14 numbers and their respective bar codes.



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