



## **General Guidelines from the Uniform Code Council (UCC) and EAN International**

The Uniform Code Council, Inc. is a not-for-profit standards organization, which administers the Universal Product Code (U.P.C.).

This Pep Boys Requirement Manual contains recommendations for compliant marking of retail items, cases, and pallets of products distributed to our company.

Your organization may wish to contact either, (or both) the UCC or EAN International with any questions regarding bar code compliance, assignments, or technology.

### **Bar Code Structures/Symbols**

Standardization of product identification codes is the key to successful communication between and within organizations. The Uniform Code Council (UCC) and International Article Numbering (EAN) system enables any specified product or shipping container to be given a standard number, which identifies it explicitly anywhere in the world.

Until January 1, 2005, trade items that are scanned at the retail Point-of-Sale (POS) in North America require U.P.C. symbols and UCC-12 Numbers. The Uniform Code Council recommended in June 1997, that all North American retailers enable the capture of EAN/UCC-13 and EAN/UCC-8 Numbers in addition to the current UCC-12 Numbers at the POS by January 1, 2005.

All Bar Codes must contain both the bar-code symbol and human readable characters. The human readable interpretation must be in accordance with the “*General EAN.UCC Specifications*” for the defined symbology.

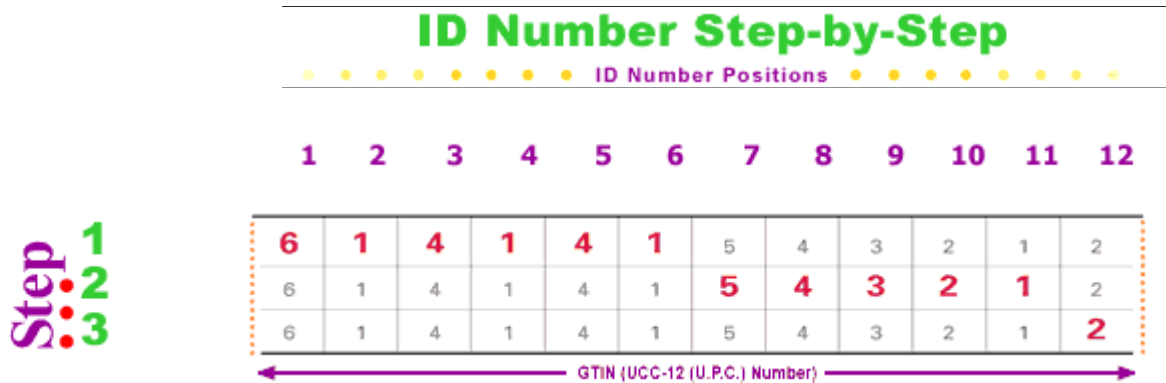
**Retail Unit Bar Codes:**

*A retail unit bar code is placed on any Level of an item that is considered a salable unit. (each, pack, case etc.) For example, a case of oil would contain a retail bar code, UPC or EAN.*

*The smallest salable product unit of measure can vary with the many sectors of the supply chain. The UCC-12 Identification Number, must be used as the standard for item level marking.*

**Bar Code Layout**

Until January 2005, the UCC-12, which is carried by the UPC-A Bar Code Symbol, (carries 30 bars and 29 spaces) or a UPC-E, (a UCC-12 structure which is compressed.) must be used as the standard for item level marking. The three steps detailed for creating UCC-12 Numbers are applicable whether the products are scanned inside or outside North America.



# Step 1



Positions One through Six make up the UCC Company Prefix. This globally unique number is assigned by the UCC to suppliers of products and/or services. The numbers **614141** in Positions One through Six indicate that the UCC has assigned a six-digit UCC Company Prefix to this supplier. While this UCC Company Prefix is six digits long in this example, it is important to note that they are not always six digits long.



UPC-A Symbol



# Step 2

6	1	4	1	4	1	5	4	3	2	1	2
---	---	---	---	---	---	---	---	---	---	---	---

Positions Seven through Eleven make up the Item Reference. This is the number that you (the supplier of the trade item) assign to your product or service. The numbers **54321** are used in Positions Seven through Eleven. The Item Reference number will not always be 5 digits long. The length of the UCC Company Prefix that precedes it determines its length. This is because when they are combined in UCC-12 Numbers they must equal 11 digits. For example, if an eight-digit UCC Company Prefix is used, then the corresponding Item Reference would be three digits long because  $11 \text{ digits} - 8 \text{ digits} = 3 \text{ digits}$ .



## Step 3

Position Twelve is a Check Digit for the entire UCC-12 Number. Typically, the bar code printing software calculates this number for you using the eleven preceding digits. In this particular example, the calculated Check Digit **2** is placed in Position twelve.



The Check Digit will change when the preceding eleven digits in the UCC-12 change.



### **Standard Pack Container:**

*A Standard Pack Container code EAN/UCC-14 (typically an ITF-14 symbol) is placed on all packages used to ship an item, including sleeves, over-packs, cases, pallets, etc. For example, a case of oil would contain both a retail bar code and a shipping container code, as the case is salable and shippable.*

Once you have assigned a UCC-12 to the item, you should now assign the EAN/UCC-14 to the carton. If you have a carton with 10 of the same item and a carton with 15 of the same item, a different EAN/UCC-14 would be assigned for each unique quantity. For this reason the UCC-12, plus 2 preceding zeros cannot be the same as the EAN/UCC 14 number. EAN/UCC-14 Numbers allow you to create identification (ID) numbers for items packaged above the unit level based on the ID number you assigned to the item at the unit level. This works by adding an Indicator digit to the left of the ID number you assigned to the unit level item. Because the indicator digit can be a 1, 2, 3, 4, 5, 6, 7, or 8, eight new and unique numbers can be created that all have the ID number you assigned to the unit level item in common. For example, you might use the

Indicator 1 to identify one size container for a product and use Indicator 2 to identify another size shipping container for the same product. Note: ITF-14 Symbols are most often used because they can be printed directly on corrugated boxes or cartons.

## ID Number Step-by-Step

● ● ● ● ● ● ● ● ID Number Positions ● ● ● ● ● ● ● ●

**1 2 3 4 5 6 7 8 9 10 11 12 13 14**

<b>Step</b>	<b>1</b>	<b>1</b>	0	6	1	4	1	4	1	5	4	3	2	1	0
	<b>2</b>	1	<b>0</b>	6	1	4	1	4	1	5	4	3	2	1	0
	<b>3</b>	1	0	<b>6</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>4</b>	<b>1</b>	5	4	3	2	1	0
	<b>4</b>	1	0	6	1	4	1	4	1	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>	0
	<b>5</b>	1	0	6	1	4	1	4	1	5	4	3	2	1	<b>9</b>

Step 1



1	0	6	1	4	1	4	1	5	4	3	2	1	9
---	---	---	---	---	---	---	---	---	---	---	---	---	---

Step 1 provides the Indicator digit in the EAN/UCC-14 Number. For fixed measure trade items, Indicator digits 1, 2, 3, 4, 5, 6, 7, or 8 are used. This provides up to eight different EAN/UCC-14 Numbers that are associated with the EAN/UCC-13 or UCC-12 that is used to identify the unit level packaging. In our example, an Indicator digit of **1** is used in Position 1 of the EAN/UCC-14 Number. The **1** indicates a level of packaging above the unit level (e.g., multi-pack, case, pallet) that relates to the unit level.

ITF-14 Symbol



## Step 2

1	0	6	1	4	1	4	1	5	4	3	2	1	9
---	---	---	---	---	---	---	---	---	---	---	---	---	---

Step 2 is required when a UCC-12 Number is used to identify the unit level of packaging because there is an empty position between the Indicator digit and the UCC-12 Number. When the UCC-12 Number is used to identify the unit level and an EAN/UCC-14 Number is used to identify packaging above the unit level, a 0 (zero) is used to fill Position 2.

ITF-14 Symbol



1 06 14141 54321 9



# Step 3



Positions Three through Eight in the example make up an EAN/UCC Company Prefix. The UCC or an EAN Member Organization (MO) assigns this globally unique number to suppliers of products and/or services. Because we are using a UCC-12 Number in the example, the numbers **614141** in Positions Three through Eight indicate that the UCC has assigned a six-digit UCC Company Prefix to this supplier (for UCC-12 Numbers EAN/UCC Company Prefixes are called UCC Company Prefixes). While the UCC Company Prefix in this example is six digits long, it is important to note that they are not always six digits long.

ITF-14 Symbol



# Step 4



Positions Nine through Thirteen make up the GTIN's Item Reference. This is a number that suppliers assign to their products or services. In the example, the numbers **54321** are used in Positions Nine through Thirteen. It is important to note that the Item Reference will not always be five digits long. The length of the UCC Company Prefix that precedes it determines the length. When a UCC Company Prefix is combined with an Item Reference, they must equal 11 digits. For example, if an eight-digit UCC Company Prefix is used, then the corresponding Item Reference would be three digits long because  $11 \text{ digits} - 8 \text{ digits} = 3 \text{ digits}$ .



1 06 14141 **54321** 9

# Step 5

1	0	6	1	4	1	4	1	5	4	3	2	1	9
---	---	---	---	---	---	---	---	---	---	---	---	---	---

Position Fourteen is the Check Digit for the entire ID number. Typically, bar code design or printing software calculates this number using the 13 preceding digits. In our example, the calculated Check Digit **9** is placed in Position Fourteen. The Check Digit will change when the 13 preceding digits in the ID number change.



### **Pallet Labels:**

*The SSCC is an 18-digit data structure that distinctively identifies logistic units. It is used in conjunction with an EDI Advanced Ship Notice (856)*

It's easy to get confused between the EAN/UCC-14 and the Serial Shipping Container Code (SSCC) or Pallet Label because both can be applied to the outside of shipping containers.

The EAN/UCC-14 and the SSCC are both applied to cartons and shipping containers but they serve two different purposes. The EAN/UCC-14 identifies items inside and package level. The SSCC identifies the actual transport unit itself and links it to a particular data file containing information such as a P.O. number, etc.

The SSCC is different for each carton and shipping container, regardless of its contents. The SSCC can be applied in addition to the EAN/UCC-14. The SSCC is especially useful for tracking cartons containing custom quantities of mixed products. The SSCC is normally not printed until the customer and destination for that particular carton is known. Generally, this means printing after the picking process and before the shipping process

Common examples of containers that need a SSCC ID number are pallets, cases, or cartons assigned to a particular customer, delivery, or purchase order.

Please see the "**Pep Boys ASN Requirement Document**" for additional requirements.

### **Bar Code Quality**

The Bar code quality must be in accordance with the "*General EAN/UCC Specifications*"

#### **Numbering**

- Although the Uniform Code Council recognizes the reuse of a trade item number after 48 months, the Automotive Aftermarket has determined that this industry will not reuse trade item numbers for 72 months (6 years)

#### **Size**

- The Uniform Code Council updates the specs routinely please visit their site for "*General EAN/UCC Specifications*".

## Bar Code Placement

When discussing symbol location we are referring to the symbol placement on the design. When assigning symbol placement, the packaging process should be considered. You should consult the packaging engineer to make sure the symbol will not be obscured or damaged (e.g., over a carton edge, beneath a carton fold, beneath a package flap, or covered by another packaging layer).

## Pep Boys Policy Requirements

Pep Boys expects its vendor partners to provide accurate bar code information that meets industry standards for every item.

- **Bar Codes** – Up to January 1, 2005 all salable units of an item must be bar coded with a UPC-12. All items that are repacked must be bar coded with an EAN-UCC-14.
- **Changes** – Any changes to an item, regarding bar codes or its associated attributes, (dimensions, manufacturer part number, weight, description, etc.) must be forwarded to your Merchandising Representative 60 days in advance of the effective date of the change.
- **Quality** – Quality bar code information reflects important traits such as print quality, bar code size, placement, and other physical characteristics of a bar code and the human readable characters.
- **Audits** – The Data Integrity group will perform periodic audits of bar codes for quality assurance purposes. Product lines will be randomly selected for quality assurance audits. The vendor partner will be evaluated on bar code accuracy, print quality, readability, size, placement of bar code and scan-ability.

## Further Information

If you need further information about Bar Code Guidelines for the Automotive Aftermarket, please contact:



Uniform Code Council, Inc.  
7887 Washington Village Drive  
Suite 300  
Dayton, OH 45459-8605  
USA

Telephone: 937-435-3870  
Fax: 937-435-7317  
WWW: [www.uc-council.org](http://www.uc-council.org)

Companies based outside of the US should visit the EAN International Website;



[www.ean-int.org](http://www.ean-int.org)

If you need further information from Pep Boys concerning our bar-code policies, please contact:



Pep Boys  
3111 West Allegheny Avenue  
Philadelphia, PA 19132

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