



GSMP:

General Specifications Change Notification (GSCN)

WR #	GSCN Name	Effective Date
WR 23-056	2D in Retail MSWG: Symbol placement guidelines	Jun 23

Associated Work Request (WR) Number:

WR-21-001 (Future State ASP request), WR-22-031 (ASP future state conformance requirements), WR-22-172 (section 8 optimisation), WR-22-327 (HRI), WR 22-376 (Multiple barcodes management practices)

Background:

Phase 2 of the 2D in Retail work addresses the changes required for cross-application standards and rules to be used during both the transition period and the future state of 2D barcodes at retail point-of-sale (POS), which were defined during phase 1. The third and final set of cross application rules to be updated is the section on symbol placement guidelines for trade items scanned in general retail.

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Figure 4.14.3-1. Short forms by date type

Date type	Short form
Production	PROD
Packaging	PACK
Best Before	BEST
Expiration	EXP

AIDC techniques are suggested over any manual process to ensure accurate and timely stock rotation. Every effort should be made to adopt an automated process to increase productivity and date management.

4.15 Multiple barcode management practices for trade items (cross-sector)

When additional barcodes are introduced into an existing scanning environment or business application, all application standard conformant existing barcodes must SHALL remain acceptable as choices. This section provides a set of management practices intended to permit the use of multiple barcodes on the same package trade item.



Note: Additional barcodes encoded with GTIN and GTIN attributes such as lot number, serial number or expiry date are also stored in the respective master data records.

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4.15.1 Multiple barcode management practices for trade items (all sectors)

- Current standards:** All scanning systems SHALL deploy symbology identifiers (see section 5.1.3) and when using GS1 Application Identifiers, process them according to GS1 rules (see section 7.8).
- GTIN plus attribute(s) flag:** Where applications require GTIN plus additional data to be captured in a multiple barcode symbol environment, modifications to systems should-SHOULD be made to automate this requirement to-optimize efficiency.
- Adjacent placement:** Wherever-When two symbols-barcodes can be used for the same application (i.e., point-of-sale, point of care, POS, POC, general distribution) they SHOULD be placed adjacent to each one another while maintaining their. Adjacent placement of symbols SHALL never infringe on symbol Quiet Zones. The orientation (stack or row of symbolsbarcodes) or sequence (which symbol-barcode is placed on the left, right, top, or bottom) shall-SHALL be determined by the brand owner.
 - Where adjacent placement on one panel surface of an object is not possible, the barcodes SHOULD be placed on an adjoining surface of the object. is not permitted based on space limitations, placement on adjacent panels SHOULD be attempted. This practice does not supersede any section 6 symbol-barcode placement rule (e.g., 8 mm (0.3 inch) free space between symbols-barcodes and panel edge).
- Non-adjacent placement:** Wherever-When two symbols-barcodes are used for different applications (e.g., point-of-sale, POS, B2C extended packaging), they SHOULD be placed non-adjacent to one another.
- Obscure placement:** Wherever-When a symbol-barcode is used for production control purposes only (e.g., Data Matrix encoded with a non-GS1 syntax to match label to product), it SHOULD be made as obscure as possible or even obstructed on the trade item package.
- Product URL barcode indication:** For barcodes encoding AI (01) (8200) see section 4.14 Human-readable interpretation rules, rule 12.)
- Use of GS1-128 or GS1 2D symbol-barcode as supplemental symbol-barcode with EAN/UPC or ITF-14 as the main symbol-barcode:** In general retail and general distribution, where EAN/UPC or ITF-14 is used to encode the GTIN and where a GS1-128 or GS1 2D symbol-barcode is used to encode GTIN attributes, the same GTIN SHALL be encoded in all GS1 symbolsbarcodes.



6-7. GS1-128 as supplemental barcode: When an EAN/UPC or ITF-14 is used to encode GTIN and where GS1-128 is used to encode GTIN attributes, GS1-128 SHOULD encode GTIN and the GTIN attributes in a single barcode to ensure accurate data association.

7-8. Use of GS1 2D symbol barcode as supplemental symbol barcode with GS1-128 as main symbol barcode: In general distribution, where GS1-128 is used to encode GTIN and attributes, these element strings at a minimum SHALL be encoded in the supplemental GS1 2D symbol barcode.

4.15.2 GS1 multiple barcode management practice for general retail

In addition to the requirements outlined in section 4.15.1, the following rules applies-apply to the use of multiple barcodes for general retail.

- 1. Use of GTIN:** All GS1 barcodes on a single trade item SHALL encode the same GTIN.
- 2. Use of GTIN attributes:** When the GTIN and GTIN attributes occur in multiple barcodes on a single trade item, the attribute values SHALL be the same.
- 3. Migration to 2D barcodes:** A GS1 DataMatrix, QR Code (GS1 Digital Link URI) or Data Matrix (GS1 Digital Link URI), SHALL be used in addition to the EAN/UPC, or a GS1 DataBar retail POS family of barcodes, to ensure stakeholders that are not yet able to consistently scan 2D barcodes are not negatively impacted. Application Standard Profiles in section 8 provide information on conformance requirements for the transition period and future use of 2D barcodes at retail POS.

When there is more than one barcode with GTIN on trade items, it is essential that the POS systems will ensure:

- The system SHALL only process one set of the desired data in the final transaction.
- Scanning systems SHOULD only produce one acknowledgement (e.g., beep) when multiple barcodes are scanned from the same trade item.

! **Important:** If the points above are not implemented, unintended POS transactions may occur.

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- 4. Placement when using a 2D barcode for multiple applications:** When a 2D barcode will be scanned in multiple applications (e.g., point-of-sale, inventory management and consumer engagement), placement for POS takes precedence. The same adjacent placement rules as stated in section 4.16.1 are applicable.

✓ Note: Where GS1 DataBar and 2D barcodes are used, GTIN and GTIN attributes SHALL be encoded in a single barcode to ensure accurate data association

GTIN in GS1 DataBar processing: In order to facilitate migration away from a multiple barcode environment where one retailer requires EAN/UPC and another GS1 DataBar Expanded, at a minimum, retail pharmacies SHALL be able to process the AI (01) GTIN from GS1 DataBar Expanded.

4.15.3 GS1 multiple barcode management practices for healthcare

In addition to the requirements outlined in section 4.15.1, the following rules apply to the use of multiple barcodes for healthcare.

- 1. GTIN in GS1 DataMatrix and GS1 DataBar processing (retail healthcare):** In order to facilitate migration away from a multiple barcode environment where one retail pharmacy requires EAN/UPC and another retail pharmacy requires GS1 DataMatrix or GS1 DataBar Expanded, at a minimum, retail pharmacies SHALL have the capability to process the AI (01) GTIN from GS1 DataMatrix and GS1 DataBar in addition to the capability for EAN/UPC.



6 Symbol placement guidelines

6.1 Introduction

This section includes guidelines for the placement of barcodes on packages and containers. It gives the general principles that apply, mandatory rules and recommendations for symbol placement on specific packaging and container types. [Additionally, this includes placement rules for transitioning from a linear barcode to a 2D barcode for general retail.](#)

Consistency of symbol placement is critical to successful scanning. With manual scanning, variation of symbol placement makes it difficult for the scanning operator to predict where the symbol is located and this reduces efficiency. With automated scanning, the symbol must be positioned so that it will pass through the field of vision of a fixed scanner as it travels past. Respecting the guidance in this section will result in the consistency and predictability required.

The guidelines in this global specification replace previous local recommendations; however, manufacturers should not scrap packaging that has been printed according to previous guidelines. When packaging is redesigned, the global specifications in this document shall be observed. If government regulatory guidelines are inconsistent with those in this manual, the government guidelines should always take precedence.



Note: Barcodes in this guideline that are used as examples are “for position only” and are not intended to denote correct symbol type, size, colour, or quality.

6.2 General placement principles

The following general principles for barcode placement shall be considered for any package type, whether it is scanned at the point-of-sale (POS) or [a general distribution scanning environment elsewhere in the supply chain](#). Trade items intended to be scanned at a ~~point-of-sale~~ POS ~~must SHALL~~ be marked with an EAN-13, UPC-A, EAN-8, UPC-E, GS1 DataBar Omnidirectional, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded or GS1 DataBar Expanded Stacked barcode. [During the 2D transition period, a GS1 DataMatrix, Data Matrix \(GS1 Digital Link URI\) or QR Code \(GS1 Digital Link URI\) may be applied to trade items scanned at retail POS, in addition to the linear barcode. For further information on the conformance requirements for future use of 2D barcodes at retail POS, please refer to the Application Standard Profiles in section 8.](#)

The barcodes that are scanned [in general distribution scanning environments elsewhere](#) are the EAN-13, UPC-A, ITF-14, GS1 DataBar [family](#) and GS1-128 barcodes

EAN-8 and UPC-E barcodes are intended for use on very small trade items sold at ~~the point-of-sale~~ POS (see section 2.1.3).

6.2.1 Number of ~~symbols~~ barcodes

Barcodes representing different Global Trade Item Numbers (GTINs) must never be visible on any one item. Although a minimum of one symbol is required, two symbols representing the same GTIN are recommended on trade items for scanning in warehousing or general distribution scanning environments (see section 6.7). Two or more symbols representing the same GTIN are recommended on large, heavy, or bulky items for ~~point-of-sale~~ POS (see section 6.4.9) and are permissible on random wraps intended for ~~point-of-sale~~ POS (see section 6.3.3.7). Two ~~symbols~~ barcodes, ~~EAN/UPC encoding GTIN and another encoding GTIN plus attributes~~, may be required during [the 2D barcode transition migration periods to new data carriers](#) (see section 4.15 for multiple barcodes). [For a summary of all conformance requirements for AIDC application standards, 2D barcodes, cross-application rules and related technical specifications, see section 8.](#)

6.2.2 Scanning environment

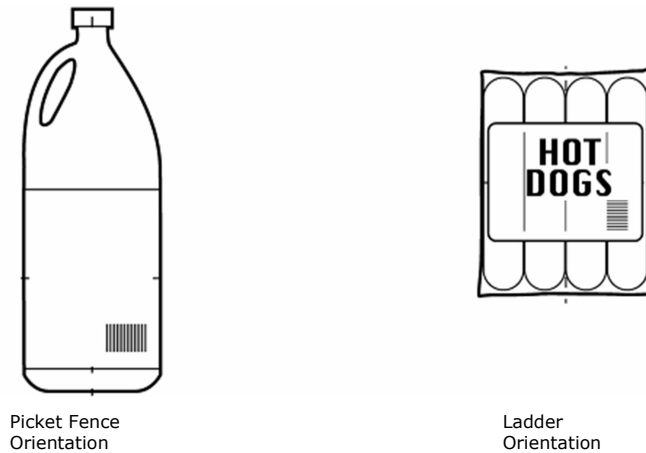
Before considering the package type, determine whether the item will be scanned in a ~~POS~~ point-of-sale or a general distribution scanning environment. If the item is scanned at a ~~point-of-sale~~ POS only, the barcode placement guidelines in sections 6.3, 6.4, 6.5 and 6.5.5 apply. However, if the

item is scanned in both a point-of-sale and general distribution scanning environment or in a general distribution scanning environment only, the requirements [barcode placement rules in \(see section 6.7\)](#) take precedence.

6.2.3 Orientation

Barcode orientation is determined primarily by the print process and any curvature of the item. If the printing process and curvature allow, the preferred placement is picket fence orientation, in which the bars of the barcode are perpendicular to the surface on which the package stands in its normal display position. For human readable interpretation rules see section 4.14. Empirical data has demonstrated that it makes no difference to the scanning process one way or the other. Rules for positioning barcodes on curved surfaces are given in section 6.2.3.2.

Figure 6.2.3-1. Barcode orientation



6.2.3.1 Printing direction

Barcode orientation is often determined by the printing process. Some printing processes give much higher quality results if the bars of the symbol run in the direction of the print, also known as the web direction. The printing company should always be consulted.

6.2.3.2 Trade items with curved surfaces

When a barcode is printed onto a curved surface it is sometimes possible for the extremes of the symbol to disappear around the curve, so that both ends cannot be visible to the scanner at the same time. This is more likely to occur the bigger the symbol and the tighter the curve of the packaging. In these situations, bars must be printed using certain combinations of the X-dimension and diameter of the curved surface (e.g., in ladder orientation on a can, in picket fence orientation on a cylindrical packet of biscuits). This helps ensure that the curve results in an apparent loss of height of the bars rather than the more serious apparent loss of complete bars.

6.2.3.3 Avoiding scanning obstacles

Anything that will obscure or damage a barcode will reduce scanning performance and SHALL be avoided. For example:

- Never position the barcode on the item in an area with inadequate space. Do not let the other graphics encroach on the space for the barcode.
- Never place barcodes, including Quiet Zones, on perforations, die-cuts, seams, ridges, edges, tight curves, folds, flaps, overlaps and rough textures.
- Never put staples through a barcode or its Quiet Zones.
- Never fold a symbol around a corner.
- Never place a symbol under a package flap.
- Barcodes used for production control purposes SHOULD be obstructed wherever possible before entering general distribution (see section 4.15.)

6.3 General placement guidelines for point-of-sale (POS)

This section outlines the guidelines for barcode placement on trade items that will be scanned at ~~POS~~the point-of-sale. For detailed information on specific package types, see sections 6.4, 6.5 and 6.5.5. Section 6.7 outlines guidelines for barcode placement on trade items that will be scanned in warehousing or general distribution scanning environments.

6.3.1 Number of ~~symbols~~barcodes

At least one barcode is needed on a trade item intended for ~~the point-of-sale~~POS. Exceptions include large, heavy, or bulky items (see section 6.4.9) and random or unregistered wrapping (see section 6.3.3.7) where two or more symbols with the same Global Trade Item Number (GTIN) may be required. During the 2D transition period, the 2D barcode may also be applied in addition to the linear barcode. When there is more than one barcode with GTIN on trade items, it is essential that the POS systems will ensure:

- The system SHALL only process one set of the desired data in the final transaction.
- Scanning systems SHOULD only produce one acknowledgement (e.g., beep) when multiple barcodes are scanned from the same trade item.

! Important: If the points above are not implemented unintended POS transactions may occur.

Trade items SHALL never have two or more barcodes encoding different Global Trade Item Numbers (GTINs). At the ~~point-of-sale~~POS, this is particularly relevant with multipacks, such as over-wrapped items, sleeved items and banded items, where the individual inner units carry a different GTIN from that on the outer wrapper or container. The barcodes on the inner products must be totally obscured so that they cannot be read by the ~~point-of-sale~~POS system. (See section 6.3.3.7 for over-wrap special considerations.)

6.3.2 Identifying the back of the trade item

The front of the trade item is the primary trading/advertising area, which typically displays the product name and the company's logo. The back of the trade item is directly opposite the front and is the preferred placement area for the barcode on most trade items.

6.3.3 Symbol placement

Information in this section is provided to guide symbol placement when developing packaging for new products and should be adopted when changing the graphics of existing products.

6.3.3.1 Preferred placement

Preferred barcode placement is on the lower right quadrant of the back, respecting the proper Quiet Zone areas around the barcode and the edge rule (see the edge rule in section 6.3.3.3 and special considerations in section 6.3.3.7).

When a linear barcode and a 2D barcode are both being used for retail POS applications, the entire 2D barcode including Quiet Zones SHOULD be placed within a 50 millimetre (1.969 inch) radius from the centre of the linear barcode.

Important: If the 2D barcode is outside of the 50 millimetre (1.969 inch) radius of the linear barcode, the scanning system may not identify that both barcodes are related to the same trade item.

Figure 6.3.3.1-1. 2D barcode placement in relation to the linear barcode



Figure 6.3.3.1-2. 2D barcode placement in relation to the linear barcode example

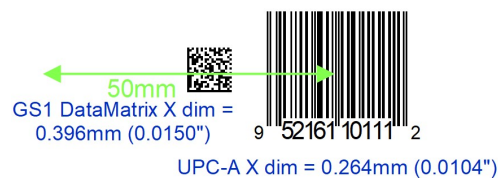


Figure 6.3.3.1-3. Hang tag 2D barcode placement in relation to the linear barcode example



Figure 6.3.3.1-4. Maximum POS X-dimension 2D barcode placement in relation to the linear barcode example



Note: Larger barcodes can appear on trade items, such as cereal boxes, dog food bags and may exceed the recommended 50 mm (1.969 inches) radius. The linear barcode and 2D barcode separation SHOULD be kept as minimal as possible and SHALL respect the quiet zones.



6.3.3.2 Undesirable alternative

The undesirable alternative placement for a barcode is the lower right quadrant of a side of the container other than the back.

6.3.3.3 Edge rule

When possible, the barcode must not be closer than 8 mm (0.3 in.) or farther than 100 mm (4 inch) from the nearest edge of the package/container. Previous guidelines suggested a distance of 5 millimetres (0.2 inch) as a minimum. Practical experience has shown this to be inadequate. For example, cashiers often grab the edges of bags and other trade items with their thumbs. Avoid placing the barcode too close to the edge. Such placement reduces efficiency at the ~~point-of-sale~~POS.

6.3.3.4 Avoid truncated symbols

Truncation of a barcode is the reduction of the height of a barcode relative to its length. Truncation is not recommended because it destroys the ability of a symbol to be scanned omnidirectionally at the ~~point-of-sale~~POS. A truncated symbol can only be scanned when the trade item is oriented in particular directions across the scanning beam. Truncation, therefore, reduces checkout efficiency. The more the height of the symbol is reduced, the more critical becomes the alignment of the symbol across the scanning beam. Truncation SHALL be avoided unless absolutely necessary (e.g., when printing on a tightly curved surface) and then the maximum height possible SHALL be printed. See section [6.2.3.2](#) for rules on the relationship between the diameter of the item and the X-dimension.

6.3.3.5 Bottom marking

Bottom marking of the trade item with the barcode continues to be acceptable, except for large, heavy, or bulky trade items. However, back (side) marking is preferred.

6.3.3.6 Exceptions to the general placement guidelines

Some trade items require special considerations for barcode placement.

- Bags

When bag contents settle, the bag edges can bulge to the extent that barcodes located on the lower right quadrant may not be flat enough to permit successful scanning. For this reason, barcodes on bags SHOULD be placed in the centre of the back about one third up from the bottom and as far from the edge as possible while respecting the edge rule. (See section [6.4.1](#) for more details on bags.)

- Blister packs or unpackaged items

Trade items that cause scanners to read beyond the flat plane include blister packs and unpackaged items (e.g., deep bowls). For these items, the distance between the scanner window and the barcode on the container or item must be considered. The barcode must not be closer than 8 millimetres (0.3 inch) or farther than 100 millimetres (4 inches) from any edge of the package/container. (See sections [6.4.2](#) and [6.4.16](#) for more details on blister packs and unpackaged items.)

- Large, heavy, or bulky items

Any package/container weighing more than 13 kilograms (28 pounds) or having two dimensions greater than 450 millimetres (18 inches) (width/height, width/depth, or height/depth) is considered a large, heavy, or bulky item. Large, heavy, or bulky items tend to be hard to handle. 'Large, heavy, or bulky items may require ~~two or more symbols/barcodes with the same Global Trade Item Number (GTIN) ideally in multiple locations one on top and one on the bottom of the opposite quadrant~~' (see section [6.4.9](#) for more details on large, heavy, or bulky items.)

- Thin items or containers

Thin items or containers are packages/containers with a dimension less than 25 millimetres (1 inch) (height, width, or depth). Examples of thin items or containers are packages of pizza, powdered drink mixes and writing pads. Any placement of the symbol on the edge hinders effective scanning because the symbol is obscured from the cashier and is likely to be truncated. (Refer to section 6.4.12 for more details on thin items or containers.)

6.3.3.7 Special packaging considerations for barcode placement

Some packaging methods require special considerations for barcode placement.

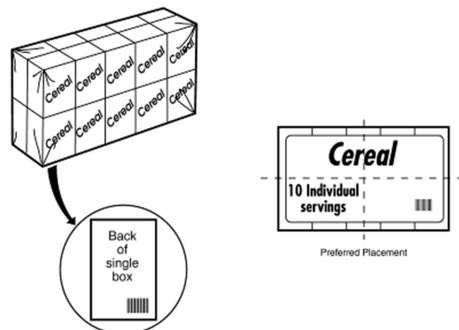
Over-wrap

Trade items sold in multiples are mechanically gathered and covered with clear over-wrap material that will carry print. Typical over-wrapped items are small cereal boxes and chocolate bars. Package over-wrap can create two distinct problems:

- Obscuring the barcodes on individual units inside the multipack is necessary so they are not confused with the outer multipack barcode, which must be different.
- Over-wrapping with such materials as cellophane causes diffraction or reflection of the light beam of the scanner and can reduce contrast, which causes scanning inefficiencies.

To determine proper barcode placement for over-wrapped packaging, follow the guidelines specific to the applicable package type/shape. (See section 6.4 for details on symbol placement for specific package types.)

Figure 6.3.3.7-1. Barcode placement on over-wrapped item



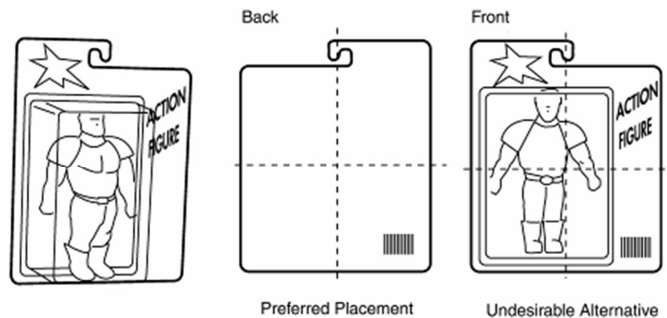
Random (unregistered) wrap

Some wrappers, like those used on sandpaper or margarine, have a repeating design and are neither cut nor placed on the product such that a particular part of the design always appears in the same location. This is referred to as random or unregistered wrapping. As the wrapper is not registered, it is unlikely that the symbol will appear on one face of the package when the wrapper is placed on the product.

The presence of more than one barcode on a package can have a detrimental effect on scanning productivity and, more importantly, can lead to a double read. For this reason, it is essential that the POS systems be updated to only process one set of the desired data in the final transaction or the use of registered packaging is preferred for random wrap. If random wrap must be used, the minimum requirement is to print the symbol with sufficient frequency so that a full symbol will appear on one package face.

If any additional barcodes are outside of the 50 millimetres (1.969 inches) radius from the centre of the linear barcode, the scanning system may not identify that both barcodes are related to the same trade item. Double-reads are more likely when the gaps between the symbols are larger. Repeating symbols SHOULD never be more than 150 millimetres (6 inches) apart.

Figure 6.4.2-1. Symbol placement on blister packs



6.4.3 Bottles and jars

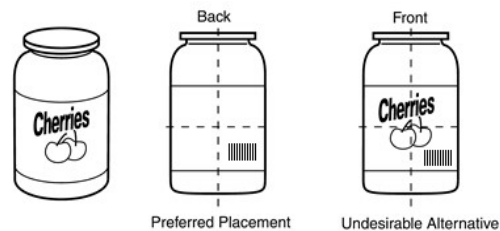
Bottles and jars normally carry spot labels applied to confined areas of the package, not covering the entire surface or wrapping around the entire perimeter.

- Package characteristics: Small or large-mouth containers sealed with removable lids.
- Unique considerations: Application of the barcode to the neck of a bottle is not allowed. Symbol placement on the neck of the bottle necessitates additional handling at the **point-of-salePOS**, and space limitations on this area of the bottle usually result in symbol truncation.

When a barcode is printed onto a curved surface it is sometimes possible for the extremes of the symbol to disappear around the curve. See section 6.2.3.2 for rules on the relationship between the diameter of the item and the X-dimension.

- Barcode placement: Identify the front of the package/container. (Refer to section 6.3.2 for instructions on how to identify the package front):
 - Preferred placement: On the lower right quadrant of the back, near the edge, respecting the proper Quiet Zone areas around the barcode.
 - Undesirable alternative: On the lower right quadrant of the front, near the edge, respecting the proper Quiet Zone areas around the barcode.
 - Edge rule: See section 6.3.3.3.

Figure 6.4.3-1. Symbol placement on bottles and jars

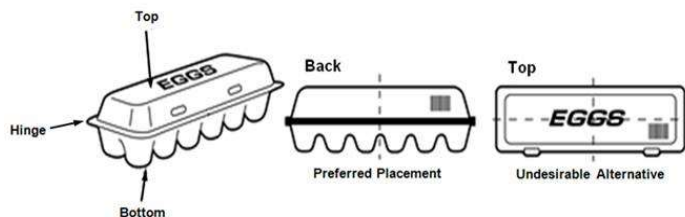


6.4.7 Egg cartons

Moulded pulp, foam, or plastic egg cartons come in sizes according to the number of eggs contained.

- Package characteristics: Irregular shaped hexahedrons of plastic or moulded pulp with a hinged lid.
- Unique considerations: The recommended symbol placement is on the side of the lid portion of the egg carton that opens and closes to cover the eggs. The uneven surface of the moulded bottom of an egg carton prevents barcode placement in this area.
- Barcode placement: To determine barcode placement on an egg carton, first identify the top of the carton by locating the primary trading/advertising area, which is marked with the product name and the company's logo. The bottom of the egg carton is the moulded area directly opposite the top in which the eggs sit. The sides are divided horizontally by a hinged lid. The front of the carton is the long side containing the opening/closing mechanism. The back of the carton is directly opposite the front, on the long side with the hinge:
 - Preferred placement: Near the edge, on the right half of the back, above the hinge on the lid, respecting the proper Quiet Zone areas around the barcode.
 - Undesirable alternative: On the lower right quadrant of the top, on the lid adjacent to the opening/closing mechanism, near the edge, respecting the proper Quiet Zone areas around the barcode.
 - Edge rule: See section [6.3.3.3](#).

Figure 6.4.7-1. Symbol placement on egg cartons



6.4.8 Jugs

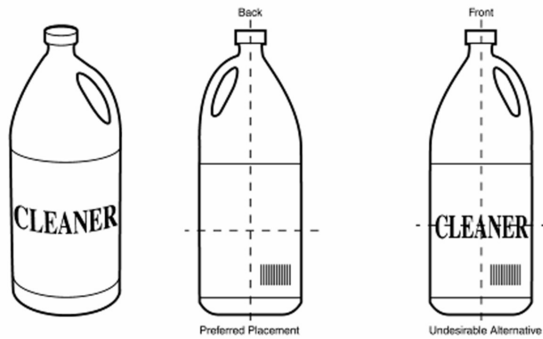
Jugs are glass or plastic containers with a built-in handle(s) that aids in pouring of contents. Jugs normally carry spot labels applied to defined areas of the package, not covering the entire surface of the trade item or wrapping around the entire perimeter of the item.

- Package characteristics: Glass or plastic vessels with built-in handles and removable lids.
- Unique considerations: Application of the symbol to the neck of the jug is not allowed. Placement of the symbol on the neck of the jug necessitates additional handling at the **point-of-sale-POS** and space limitations on the neck usually result in symbol truncation.

When a barcode is printed onto a curved surface it is sometimes possible for the extremes of the symbol to disappear around the curve. See section [6.2.3.2](#) for the rules on the relationship between the diameter of the item and the X-dimension.

- Barcode placement: Identify the front of the package/container. (Refer to section [6.3.2](#) for instructions on how to identify the package front):
 - Preferred placement: On the lower right quadrant of the back, near the edge, respecting the proper Quiet Zone areas around the barcode.
 - Undesirable alternative: On the lower right quadrant of the front, near the edge, respecting the proper Quiet Zone areas around the barcode.
 - Edge rule: See section [6.3.3.3](#).

Figure 6.4.8-1. Symbol placement on jugs

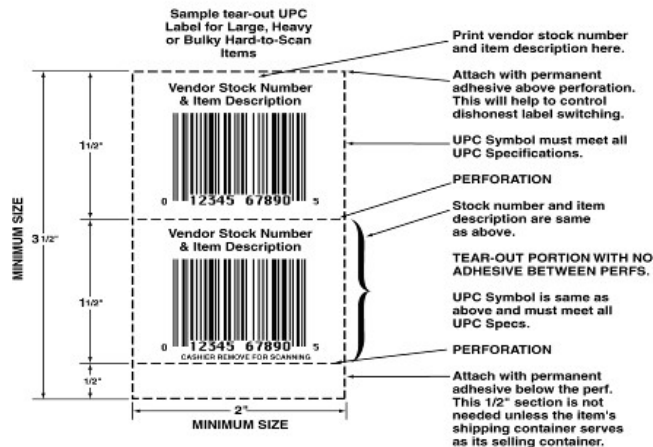


6.4.9 Large, heavy, or bulky items

- **Package characteristics:** Items considered large, heavy, or bulky have a physical dimension of 450 millimetres (18 inches) or more in any two dimensions (width/height, width/depth or height/depth) and/or weigh in excess of 13 kilograms (28 pounds).
- **When a linear barcode and a 2D barcode are both being used for retail POS applications, the entire 2D barcode including Quiet Zones SHOULD be placed within a 50 millimetre (1.969 inches) radius from the centre of the linear barcode.**
- **Unique considerations:**
 - **Number of ~~symbols~~barcodes:** Large, heavy, or bulky items ~~may SHOULD have require two or more symbols~~ **barcodes with the same Global Trade Item Number (GTIN) ideally placed one on top and one on the bottom of the opposite quadrant/faces of the trade item.**
 - **Special labels:** A special double label with a tear-out barcode may be applied to large, heavy, or bulky items that are too heavy or awkward to pick up and pass over a fixed scanner. This label has one section that is permanently adhered to the item's box (or to a hang-tag or card if the item is not boxed). This section has a non-HRI text (number and item description) printed above a full-size barcode. Beneath a perforation, a second section contains exactly the same non-HRI text and an identical full-size barcode. The two sections are virtually identical except that the section below the perforation has no adhesive on its back.

Figure 6.4.9-1.

SAMPLE ILLUSTRATION OF THE DOUBLE LABEL
WITH TEAR-OUT UPC



- When the item is brought to the **point-of-salePOS**, the lower half of the label below the perforation is removed. The cashier then either scans the label or, if the symbol cannot be scanned, the cashier key-enters the human readable interpretation beneath the symbol. The top label remains attached to the item or its box.

In instances where the large, heavy, or bulky item is displayed and sold in its shipping container, a third section of label is recommended. Beneath the tear-out label, a second perforation and a 12 millimetres (0.50 inch) section with permanent adhesive SHALL be added. This provides a more secure vehicle for the tear-out section and makes it less likely to tear off in transit.

- Human readable interpretation: Human readable interpretation on large, heavy, or bulky items SHOULD be a minimum of 16 millimetres (5/8 inch) high. This facilitates easier capture of the number by the cashier without having to pick up the product and move it across the scanner.
- Barcode placement: Identify the front of the **package/containertrade item** (See section 6.3.2, for instructions on how to identify the package front).
- Preferred placement:
 - Bags: ~~Two-bBarcode(s) are required;SHOULD be placed -one-~~ on the front of the bag, at the top of the upper right quadrant, near the edge and the other(s) on the back of the bag, centred in the lower right quadrant, near the edge (to accommodate settling of contents).

Figure 6.4.9-2. Symbol placement on large, heavy, or bulky bags

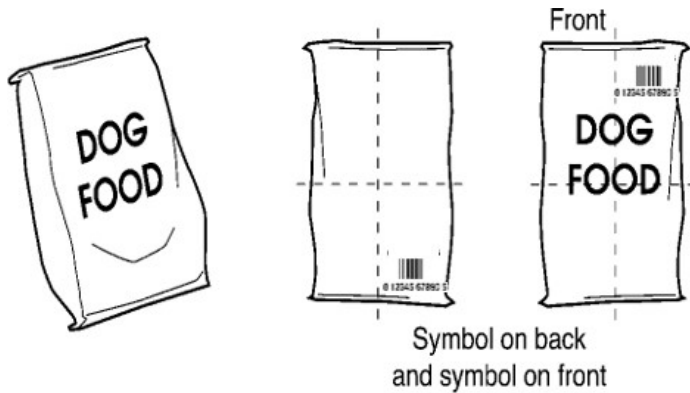
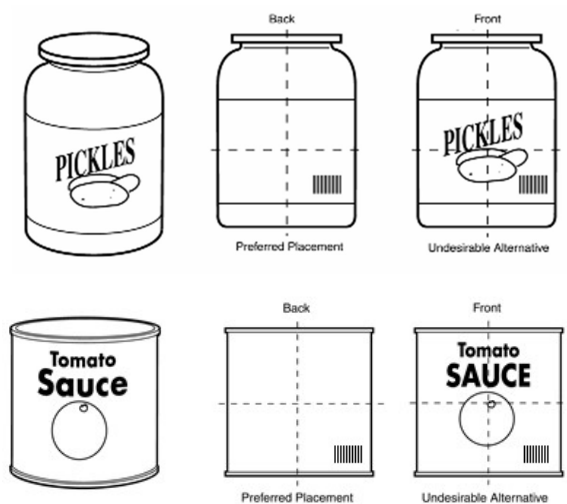


Figure 6.4.9-3. Symbol placement on large, heavy, or bulky jars, cans, jugs, or tubs



- Undesirable alternative: On the lower right quadrant of the front, near the edge, respecting the proper Quiet Zone areas around the barcode.
- Edge rule: See section [6.3.3.3](#).

6.4.10 Multipacks

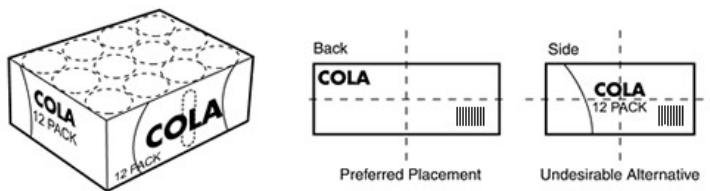
Multipacks are single items that are packaged together as one unit or trade item. Multipacks provide convenience to the consumer and/or may represent a price reduction compared to purchasing items individually. Typical multipacks contain bottles, cans, jars and tubs.

- Package characteristics: multiple single items bound together to create one package.
- Unique considerations: as a general rule, a barcode **MUST** be placed on every consumer package traded through the supply chain. Consequently, items sold in multipacks as well as those sold individually must carry a unique barcode for each consumer package variation or aggregation.

To avoid confusion at the **point-of-salePOS**, the multipack barcode SHALL be the only visible symbol when both the multipack and individual items are symbol-marked. The binder of the multipack acts as a screen to obscure the symbols on the individual items.

- Special note for can multipacks: Avoid placing the symbol on the top or bottom of the container, since cans have a tendency to cause impressions in the corrugated cardboard and distort the symbol. These can impressions in the symbol may reduce scannability.
- Barcode placement: identify the front of the package/container. (Refer to section 6.3.2 for instructions on how to identify the package front):
 - Preferred placement: on the lower right quadrant of the back, near the edge, respecting the proper Quiet Zone areas around the barcode.
 - Undesirable alternative: on the lower right quadrant of another side, near the edge, respecting the proper Quiet Zone areas around the barcode.
 - Edge rule: See section 6.3.3.3.

Figure 6.4.10-1. Symbol placement on multipacks



6.4.11 Publishing items

Publishing items represent printed materials sold individually for consumer use including books, magazines, newspapers and tabloids. Barcode placement on published items varies depending on type. In addition, the main symbol on books and paperbacks must appear on the outside cover of the book (to facilitate payment).

- Package characteristics: printed paper media that is bound, stapled, or folded.
- Unique considerations: in addition to the regular barcode, some publishing items have add-on symbols that carry supplementary information such as an Issue Code. Barcode placement on published items varies depending on the media type. If an add-on symbol is used, it must be located to the right of the regular barcode and parallel to it.
- Barcode placement: identify the front of the package/container. (Refer to section 6.3.2 for instructions on how to identify the package front):
 - Preferred placement:
 - Books: on the lower right quadrant of the back, near the spine, respecting the proper Quiet Zone areas around the barcode.

Figure 6.4.11-1. Symbol placement on books

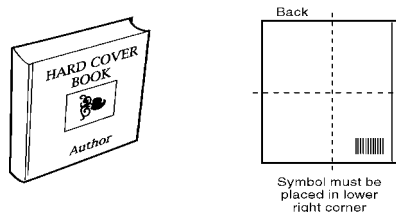


Figure 6.4.16-6. Tableware using spot label below backstamp



6.4.17 Sets (grouping of individually barcoded items)

For barcoding purposes, sets are defined as two or more items that are packaged and sold together as one unit, regardless of whether those items can be sold separately as well. If the items are packaged together for shipping purposes but are not intended to be sold as a single unit, they do not qualify as a set. Examples of sets include a pair of candlesticks, a set of four soup bowls and a five-piece dinner place setting.

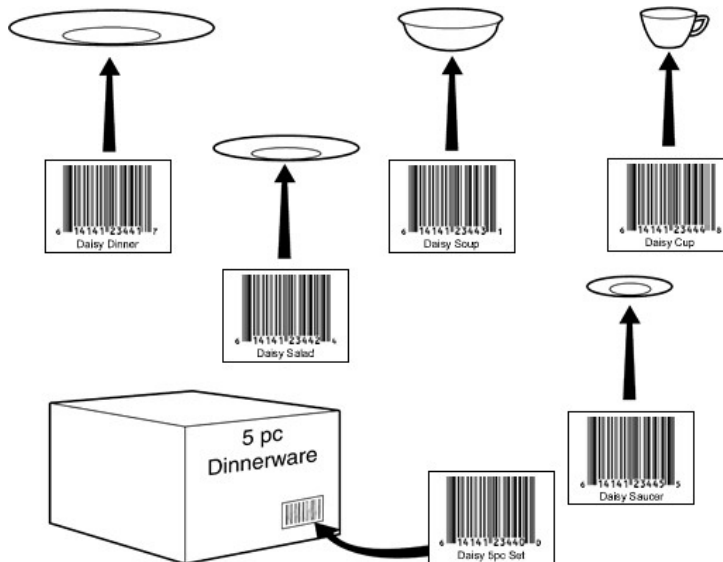
If a set is not intended to be sold as individual components, only the package for the set needs to include a barcode.

Figure 6.4.17-1. Example of a set where individual components are not sold separately



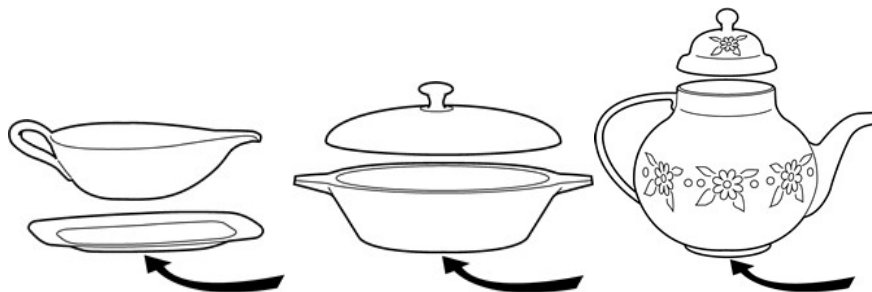
If the set is made up of components that can be ordered as separate trade items, then the components of the set must be marked. If the set can be sold as individual components or as the set, then both the package and the components need to be marked with unique symbols. The barcodes on the inner products must be totally obscured so that they cannot be read by the ~~point-POS of sale~~ system when sold as a set. (See section [6.3.3.7](#) for over-wrap special considerations.)

Figure 6.4.17-2. Example of a multi-piece set sold as a set or as individual components



If an item is made up of multiple components that cannot be sold separately, such as a teapot with lid, the main piece only SHALL be marked with one symbol. Such items are not considered sets.

Figure 6.4.17-3. Items with multiple pieces that are not sold separately (these are not considered sets)



6.4.18 Sporting goods

Sporting goods is a category composed of many irregular sized and shaped goods. An understanding of each product type, the logistics involved in the supply chain and the sales floor presentation are key to improving the overall **point-of-salePOS** efficiency. Of particular importance is consistent barcode placement for sporting goods as presented at the retail **point-of-salePOS**. This enables the **point-of-salePOS** operator to accurately predict the symbol location and thereby improve efficiency. The following examples, while not exhaustive, provide the general principles that are applied to similar product types.

6.4.18.1 Archery bows, arrows

- Preferred placement:



6.5.1 Information zones concept

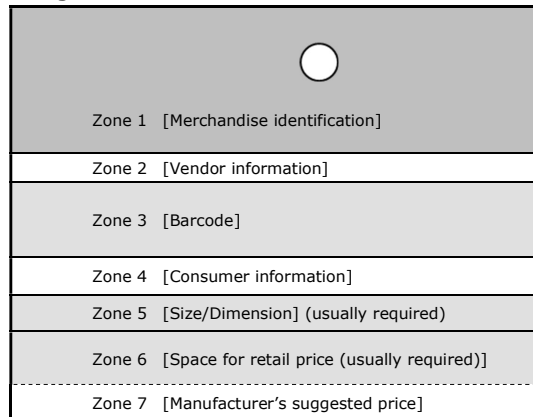
There are seven information zones that carry product information needed for the vendor, retailer and consumer. Some information is optional based upon the type of label.

6.5.1.1 General label information zones

Zones	Information type	Description	Status: Required/Optional
Zone 1	Merchandise identification	This is the primary human readable merchandise identifier, usually the style number, although it may be pattern, model, or garment type. The merchandise identifier is located in the upper left-hand portion of Zone 1.	Always required (see Note)
Zone 2	Vendor information	This includes optional vendor production information, such as vendor stock keeping unit (SKU), cut number, dye lot, colour and pattern. (Vendor information helps ensure that the correct barcode is attached to the product.)	Optional
Zone 3	Data structure (GTIN-13, GTIN-12, GTIN-8)	Barcode(s)	Always required
Zone 4	Consumer information	This includes optional product information for the consumer, such as fibre content, fire retardancy and country of origin.	Optional
Zone 5	Size/dimension	Size/dimension is a key requirement for the consumer. Size information can be emphasised in large bold print and is located in the right-hand portion of Zone 5. Vendors may optionally include a style name as a selection aid for the consumer.	Usually required unless defined by the product (e.g., towels)
Zone 6	Retail price	Allow space to print the price with minimum dimension characters of 25 mm (1 in.) x 32 mm (1.25 in.). For plastic packaged, boxed and banded products, the required space for price can be provided by several methods: For barcode marking on an adhesive label, the space for price can be included as part of the label. For barcode marking designed into the packaging, the space for price can be included on the package artwork. Providing package space adjacent to Zone 5 that is reserved for retail item pricing creates an implied space for price. Implied space replaces the requirement for actual space on labels or package artwork. If implied space for price is used, no information of importance SHALL be printed in the area that might be covered by adhesive item price labels.	Usually required unless defined by the ticket format (e.g., sewn-in tickets)
Zone 7	Manufacturer's suggested retail price	This is for use only if merchandise is pre-priced or the suggested retail price is printed on the tag. If provided, the area must be perforated for optional removal.	Optional
Note: Size and colour are optional in Zone 1 if vendor usage requires this information to define the product.			

6.5.1.2 General label format

See the figures [6.5.1.2-1](#) and [6.5.1.2-2](#) for examples of how the zones appear in a typical vertical and horizontal label format.

Figure 6.5.1.2-1. Vertical label format

Figure 6.5.1.2-2. Horizontal label format

Zone 1	Zone 3	Zone 4	Z
Zone 2		Zone 6 (Usually required)	O
			N
	Zone 5 (Usually required)		E
			7

KEY Required Optional

6.5.2 Hangtag (hanging label) format

Although hangtags (hanging labels) are primarily associated with hanging ready-to-wear apparel, a wide variety of products are identified with hangtags. Flat-folded apparel, jewellery, belts, handbags, lamps and furniture are all identified by some form of hangtag. Therefore, the voluntary hangtag format guidelines outlined in this section provide for flexibility in hangtag design while maintaining the overall concept of the information zones.

Hangtags serve a dual purpose. First, they provide brand identification to the consumer. Second, because the back of a hangtag is frequently used for product information and product identification codes, it SHALL carry the barcode that identifies the product.

The typical hangtag layout features the vendor's logo on the front and product identification codes and the barcode on the back. Vendors may optionally include an additional logo on the back of the hangtags. However, a logo SHALL NOT appear at the bottom because a retail price label may obscure it or it could be torn off if a manufacturer's suggested retail price is removed. Background printing of logos SHALL be avoided, because this may obscure required information or important consumer information. Logos must never obscure the barcode.

6.5.2.1 Hangtag label information zones

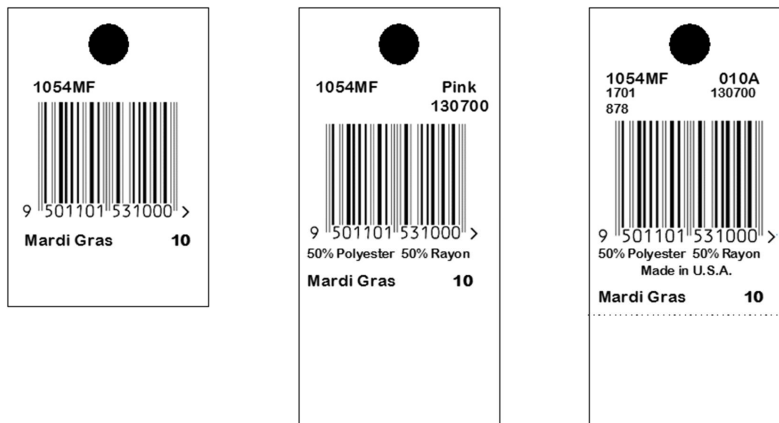
Zones	Information type	Description	Status: Required/ Optional
Zone 1	Merchandise identification	This is the primary human readable merchandise identifier, usually the style number, although it may be pattern, model, or garment type. The merchandise identifier SHALL be located in the upper left-hand portion of Zone 1.	Always required (see Note)

Zones	Information type	Description	Status: Required/ Optional
Zone 2	Vendor information	This includes optional vendor production information, such as vendor stock keeping unit (SKU), cut number, dye lot, colour and pattern. (Vendor information helps ensure that the correct barcode is attached to the product.)	Optional
Zone 3	Data structure (GTIN-13, GTIN-12, GTIN-8)	Barcode(s)	Always required
Zone 4	Consumer information	This includes optional product information for the consumer, such as fibre content, fire retardancy and country of origin.	Optional
Zone 5	Size/dimension	Size/dimension is a key requirement for the consumer. Size information can be emphasised in large bold print and is located in the right-hand portion of Zone 5. Vendors may optionally include a style name as a selection aid for the consumer.	Usually required unless defined by the product (e.g., towels)
Zone 6	Retail price	Allow space to print the price with minimum dimension characters of 25 mm (1 in.) x 32 mm (1.25 in.).	Usually required unless defined by the ticket format (e.g., sewn-in tickets)
Zone 7	Manufacturer's suggested retail price	This is for use only if merchandise is pre-priced or the suggested retail price is printed on the tag. If provided, the area must be perforated for optional removal.	Optional

Note: Size and colour are optional in Zone 1 if vendor usage requires this information to define the product.

6.5.2.2 Hanging tag label examples

Figure 6.5.2.2-1. Hanging tag examples



6.5.3 Sewn-on (joker) label format

Used almost exclusively for apparel merchandise, joker labels are similar in format to hangtags, but differ in one important respect: They are sewn directly onto the product instead of hung from the product. Because it is sewn on, only one side of the label is available for the vendor's logo, the barcode and merchandise identification information.

Inclusion of a vendor logo on the label is optional. If it is included, it SHALL NOT appear at the bottom, because it may be obscured by a retail price label, or it could be torn off by the removal of



a manufacturer's suggested retail price. Background printing of logos SHALL be avoided, because this may obscure required information or important consumer information. Logos must never obscure the barcode.

6.5.3.1 Sewn-on (joker) label information zones

Zones	Information type	Description	Status: Required/Optional
Zone 1	Merchandise identification	This is the primary human readable merchandise identifier, usually the style number, although it may be pattern, model, or garment type. The merchandise identifier is located in the upper left-hand portion of Zone 1.	Always required (see Note)
Zone 2	Vendor information	This includes optional vendor production information, such as vendor stock keeping unit (SKU), cut number, dye lot, colour and pattern. (Vendor information helps ensure that the correct barcode is attached to the product.)	Optional
Zone 3	Data structure (GTIN-13, GTIN-12, GTIN-8)	Barcode(s)	Always required
Zone 4	Consumer information	This includes optional product information for the consumer, such as fibre content, fire retardancy and country of origin.	Optional
Zone 5	Size/dimension	Size/dimension is a key requirement for the consumer. Size information can be emphasised in large bold print and SHALL be located in the right-hand portion of Zone 5. Vendors may optionally include a plain language style name on the size line as a selection aid for the consumer.	Usually required unless defined by the product (e.g., towels)
Zone 6	Retail price	Allow space to print the price with minimum dimension characters of 25 mm (1 in.) x 32 mm (1.25 in.).	Usually required unless defined by the ticket format (e.g., sewn-in tickets)
Zone 7	Manufacturer's suggested retail price	This is for use only if merchandise is pre-priced or the suggested retail price is printed on the tag. If provided, the area must be perforated for optional removal.	Optional
Note: Size and colour are optional in Zone 1 if vendor usage requires this information to define the product.			

6.5.3.2 Sewn-on (joker) label examples

Figure 6.5.3.2-1. Vertical layout



Figure 6.5.3.2-2. Horizontal layout



6.5.4 Sewn-in label formats

Sewn-in labels are often used for towel products. Sewn-in labels may be paper based, for removal by the consumer, or cloth based and more permanent.

Because a portion of the sewn-in label is normally covered by a hem, the label SHALL be designed with sufficient blank space on the end that will be attached to the product. Care must be taken to ensure that the product identification information on the label is not obscured by the hem and that it does not interfere with the readability of the barcode at the point-of-sale (POS).



6.5.4.1 Sewn-in label information zones

Zones	Information Type	Description	Status: Required/Optional
Zone 1	Merchandise identification	This is the primary human readable merchandise identifier, usually the style number, although it may be pattern, model, or garment type. The merchandise identifier is located in the upper left-hand portion of Zone 1.	Always required (see Note)
Zone 2	Vendor information	This includes optional vendor production information, such as vendor stock keeping unit (SKU), cut number, dye lot, colour and pattern. (Vendor information helps ensure that the correct barcode is attached to the product.)	Optional
Zone 3	Data structure (GTIN-13, GTIN-12, GTIN-8)	Barcode(s)	Always required
Zone 4	Consumer information	This includes optional product information for the consumer, such as fibre content, fire retardancy and country of origin.	Optional
Zone 5	Size/dimension	Size or dimension is optional for sewn-in labels. Size or dimension may assist the consumer with product selection or may help the vendor ensure that the correct label and barcode are attached to the product.	Usually required unless defined by the product (e.g., towels) and readily apparent to the consumer.
Zone 6	Retail price	Allow space to print the price with minimum dimension characters of 25 mm (1 in.) x 32 mm (1.25 in.).	Usually required unless defined by the ticket format (e.g., sewn-in tickets)
Zone 7	Manufacturer's suggested retail price	This is for use only if merchandise is pre-priced or the suggested retail price is printed on the tag. If provided, the area must be perforated for optional removal.	Optional

Note: Size and colour are optional in Zone 1 if vendor usage requires this information to define the product.

6.5.5 Plastic packaged products label location guidelines

The plastic packaged category covers a wide assortment of merchandise, including sheets, pillowcases, table linens, pantyhose, underwear, stationery supplies, pillows, bedspreads and numerous types of flat-folded apparel that are plastic packaged. There are two methods of marking plastic packaged products with barcodes:

1. Incorporate the barcode and other merchandise identification information into the packaging's artwork.
2. Print the barcode and other merchandise identification information on an adhesive label that can be press-applied to the product.

Inclusion of a vendor logo on the label is optional. If it is included, the logo SHALL NOT appear at the bottom, because it may be obscured by a retail price label, or it could be torn off by the removal of a manufacturer's suggested retail price. Background printing of logos SHALL be avoided, because this may obscure required information or important consumer information. Logos must never obscure the barcode.



6.5.5.1 Plastic packaged products label information zones

Zones	Information Type	Description	Status: Required/Optional
Zone 1	Merchandise identification	This is the primary human readable merchandise identifier, usually the style number, although it may be pattern, model, or garment type. The merchandise identifier is located in the upper left-hand portion of Zone 1.	Always required (see Note 1)
Zone 2	Vendor information	This includes optional vendor production information, such as vendor stock keeping unit (SKU), cut number, dye lot, colour and pattern. (Vendor information helps to ensure that the appropriate barcode is attached to the product.)	Optional
Zone 3	Data structure (GTIN-13, GTIN-12, GTIN-8)	Barcode(s)	Always required
Zone 4	Consumer information	This includes optional product information for the consumer, such as fibre content, fire retardancy and country of origin.	Optional (see Note 2)
Zone 5	Size/dimension	Size/dimension is a key requirement for the consumer. Size information can be emphasised in large bold print and is located in the right-hand portion of Zone 5. Vendors may optionally include a style name as a selection aid for the consumer.	Usually required (see Note 3)
Zone 6	Retail price	Allow space to print the price with 25 mm (1 in.) x 32 mm (1.25 in.) minimum dimension characters. For plastic packaged products, this required space for price can be provided by several methods: For barcode marking on an adhesive label, the space for price can be included as part of the label. For barcode marking designed into the packaging, the space for price can be included on the package artwork. Providing package space adjacent to Zone 5 that is reserved for retail item pricing creates an implied space for price. Implied space replaces the requirement for actual space on labels or package artwork. If implied space for price is used, no information of importance SHALL be printed in the area that might be covered by adhesive item price labels.	Usually required
Zone 7	Manufacturer's suggested retail price	This is for use only if merchandise is pre-priced or the suggested retail price is printed on the tag. If provided, the area must be perforated for optional removal.	Optional
Note 1: Size and colour are optional in Zone 1 if vendor usage requires this information to define the product. Note 2: Some jurisdictions require that certain products include a permanently affixed statement of information of this type in Zone 4 that may not be satisfied by inclusion on the package. Note 3: Size may be omitted from Zone 5 if the size information is readily available on the product packaging.			

6.5.5.2 Plastic packaged products label placement guidelines

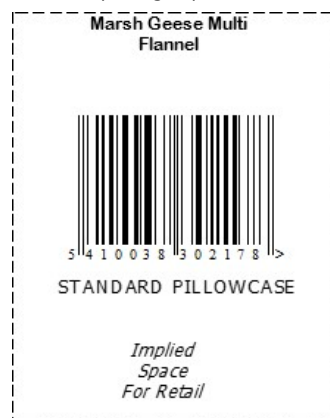
Consistent barcode placement is required for successful scanning at the **point-of-sale** POS. The symbol placement guidelines for plastic packaged products have been designed with the flexibility to accommodate differences that may arise from industry to industry:

- On plastic packaged products, the front top right-hand corner is the preferred placement for the barcode and other product identification information.
- The barcode and other product identification information may be located on the front or back of plastic packaged products. However, all products within a particular merchandise category must have their barcodes placed on the same side of the package.

- Caution:** Placement of the barcode on the back of a product may result in the presentation of the product on the display counter in a backside up orientation by some retailers so that the barcode and retail price appear together in full view by the customer.
- The orientation of the barcode and other product identification information SHALL be consistent with any graphics or descriptive data on the plastic package.
- Where possible, the symbol and other product identification information, whether built into the package artwork or an adhesive label, must not be closer than 8 millimetres (0.3 inch) or farther than 100 millimetres (4 inches) from the nearest edge of the package. Experience has shown that the previously recommended minimum distance of 5 millimetres (0.2 inch) is inadequate. Also, cashiers often grab packages on the edge with their thumbs. Avoid placing the barcode too close to the edge. Such placement reduces **point-of-salePOS** efficiency and may cause distortion of the symbol. (See section 6.3.3.3, *Edge rule*.)
- The barcode and other product identification information on plastic packaged products is normally to be located on the front top right-hand corner. However, for very large, bulky, or unusually shaped products, this may be impractical or inappropriate. See section 6.4.9 for information on large, heavy and bulky items.
- Note:** Section 6.4 specifies the lower right quadrant of the back of the package or container as the recommended location for the barcode. This recommendation applies to plastic packaged products that are sold in a grocery store environment.

6.5.5.3 Plastic packaged products label example

Figure 6.5.5.3-1. Plastic packaged products label example



6.5.6 Boxed products label formats

Some boxed products may be sold in or out of the box. Other boxed products are actually sets that may also be sold as individual items. Some boxes carry significant amounts of design graphics, while others are plain boxes containing the product.

Box size can range from very small, as in jewellery or cosmetics, to very large, as in home furnishings. For extremely large boxed products, consider using a two-part tear-off barcode label to facilitate scanning at the **point-of-salePOS** while leaving one label on the box.

There are two methods of marking boxed products with barcodes:

- Incorporate the barcode and other merchandise identification information the box's artwork.



- Print the barcode and other merchandise identification information on an adhesive label that can be affixed to the box.

Inclusion of a vendor logo in the box marking format is optional. If the logo is included, it SHALL NOT appear at the bottom, because it may be obscured by a retail price label, or it could be torn off if a manufacturer's suggested retail price is removed. Background printing of logos SHALL be avoided, because this may obscure required information or important consumer information.

6.5.6.1 Boxed products label information zones

Zones	Information Type	Description	Status: Required/Optional
Zone 1	Merchandise identification	This is the primary human readable merchandise identifier, usually the style number, although it may be pattern, model, or garment type. The merchandise identifier is located in the upper left-hand portion of Zone 1.	Always required (see Note 1)
Zone 2	Vendor information	This includes optional vendor production information, such as vendor stock keeping unit (SKU), cut number, dye lot, colour and pattern. (Vendor information helps ensure that the correct barcode is attached to the product.)	Optional
Zone 3	Data structure (GTIN-13, GTIN-12, GTIN-8)	Barcode(s)	Always required
Zone 4	Consumer information	This includes optional product information for the consumer, such as fibre content, fire retardancy and country of origin.	Optional (see Note 2)
Zone 5	Size/dimension	Size/dimension is a key requirement for the consumer. Size information can be emphasised in large bold print and is located in the right-hand portion of Zone 5. Vendors may optionally include a style name as a selection aid for the consumer.	Usually required (see Note 3)
Zone 6	Retail price	Allow space to print the price with minimum dimension characters of 25 mm (1 in.) x 32 mm (1.25 in.). For boxed products, this required space for price can be provided by several methods: For barcode marking on an adhesive label, the space for price can be included as part of the label. For barcode marking designed into the packaging, the space for price can be included on the package artwork. Providing package space adjacent to Zone 5 that is reserved for retail item pricing creates an implied space for price. Implied space replaces the requirement for actual space on labels or package artwork. If implied space for price is used, no information of importance is printed in the area that might be covered by adhesive item price labels.	Usually required
Zone 7	Manufacturer's suggested retail price	For use only if merchandise is pre-priced or the suggested retail price is printed on the tag. If provided, the area must be perforated for optional removal.	Optional

Note 1: Size and colour are optional in Zone 1 if vendor usage requires this information to define the product.
Note 2: Some jurisdictions require that certain products include a permanently affixed statement of information of this type in Zone 4 that may not be satisfied by inclusion on the package.
Note 3: Size may be omitted from Zone 5 if the size information is readily available on the product packaging.

6.5.6.2 Packaged versus freestanding single selling units

Certain single selling units (trade items) may be sold as freestanding items, or they may be sold in a package. This creates a dilemma for the supplier: to mark the item or mark the package? For the definition of a trade item pertaining to this scenario, see section [2.1](#).

6.5.6.3 Boxed products label placement guidelines

Consistent barcode placement within an industry or product category is required if merchandise carrying a barcode is to successfully scan at the ~~point-of-sale~~POS. Since the category of boxed products includes a diverse merchandise group, location guidelines have been designed with considerable flexibility to accommodate differences that may arise from industry to industry:

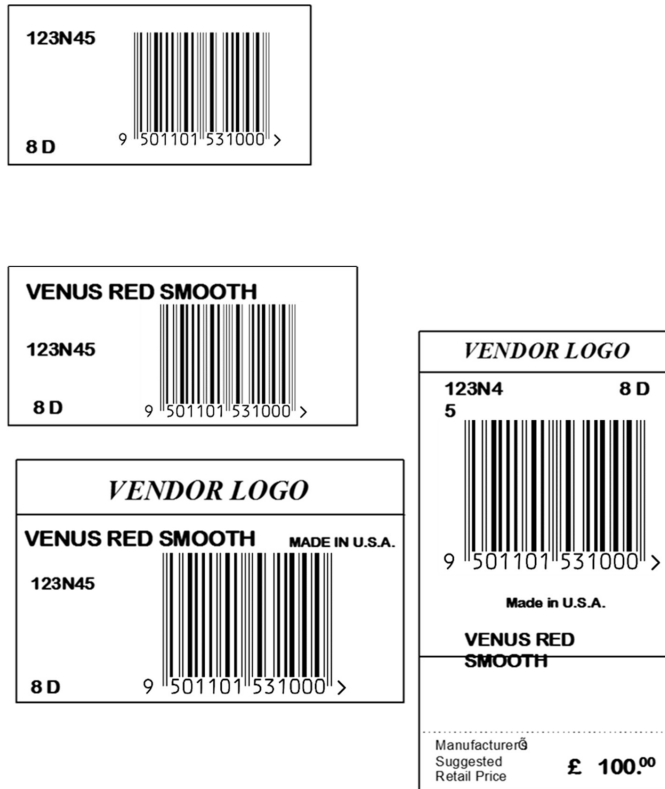
- The exposed surface of the box is the preferred location for barcodes and other product identification information on boxed products sold primarily in the department or specialty store environment.
- The orientation of the barcode and other product identification information SHALL be consistent with any graphics or descriptive data on the box.
- Where possible, the symbol and other product identification information, whether built into the package artwork or an adhesive label, must not be closer than 8 millimetres (0.3 inch) or farther than 100 millimetres (4 inches) from the nearest edge of the package. Experience has shown that the previously recommended minimum distance of 5 millimetres (0.2 inch) is inadequate. Also, cashiers often grab packages on the edge with their thumbs. Avoid placing the barcode too close to the edge. Such placement reduces ~~point-of-sale~~POS efficiency and may cause distortion of the symbol. (See section [6.3.3.3](#), *Edge rule*.)
- The barcode and other product identification information on plastic packaged products is normally to be located on the front top right-hand corner. However, for very large, bulky, or unusually shaped products, this may be impractical or inappropriate. See section [6.4.9](#) for information on large, heavy and bulky items.



Note: Section [6.4](#) specifies the lower right quadrant of the back of the package or container as the recommended location of the barcode. This recommendation applies to plastic packaged products that are sold in a grocery store environment.

6.5.6.4 Boxed products label examples

Figure 6.5.6.4-1. Label examples for boxed products



6.5.7 Banded products label formats

Banded packaging involves a specialised group of products. This type of packaging is most commonly associated with hosiery (socks) or yarn products. There are the two methods of marking banded products with barcodes:

- Incorporate the barcode and other merchandise identification information into the band's artwork.
- Print the barcode and other merchandise identification information on an adhesive label that can be applied to the band.

The typical banded product label has the vendor's logo on the front and the product identification codes, consumer information and barcode on the back. The vendor's logo can also be printed on the back of the band as part of the band marking format. However, care **MUST** be taken to ensure that there is no obstruction of the barcode or other important product identification information. Background printing of logos **SHALL** be avoided.



6.5.7.1 Banded products label information zones

Zones	Information Type	Description	Status: Required/Optional
Zone 1	Merchandise identification	This is the primary human readable merchandise identifier, usually the style number, although it may be pattern, model or garment type. The merchandise identifier is in the upper left-hand portion of Zone 1.	Always required (see Note 1)
Zone 2	Vendor information	This includes optional vendor production information, such as vendor stock keeping unit (SKU), cut number, dye lot, colour and pattern. (Vendor information helps ensure that the correct barcode is attached to the product.)	Optional
Zone 3	Data structure (GTIN-13, GTIN-12, GTIN-8)	Barcode(s)	Always required
Zone 4	Consumer information	This includes optional product information for the consumer, such as fibre content, fire retardancy and country of origin.	Optional (see Note 2)
Zone 5	Size/dimension	Size/dimension is a key requirement for the consumer. Size information can be emphasised in large bold print and is in the right-hand portion of Zone 5. Vendors may optionally include a style name as an aid to the consumer in selection.	Usually required (see Note 3)
Zone 6	Retail price	Allow space to print the price with minimum dimension characters of 25 mm (1 in.) x 32 mm (1.25 in.). For banded products, this required space for price can be provided by several methods: For barcode marking on an adhesive label, the space for price can be included as part of the label. For barcode marking designed into the packaging, the space for price can be included on the package artwork. Providing package space adjacent to Zone 5 that is reserved for retail item pricing creates an implied space for price. Implied space replaces the requirement for actual space on labels or package artwork. If implied space for price is used, no information of importance is printed in the area that might be covered by adhesive item price labels.	Usually required
Zone 7	Manufacturer's suggested retail price	This is for use only if merchandise is pre-priced or the suggested retail price is printed on the tag. If provided, the area must be perforated for optional removal.	Optional
Note 1: Size and colour are optional in Zone 1 if vendor usage requires this information to define the product. Note 2: Some jurisdictions require that certain products include a permanently affixed statement of information of this type in Zone 4 that may not be satisfied by inclusion on the package. Note 3: Size may be omitted from Zone 5 if the size information is readily available on the product packaging.			

6.6 GS1 Logistic Label design

These specifications constitute the basis for all GS1 Logistic Labels. Other sections, most notably section [3 GS1 Application Identifier](#), section [5.4 GS1-128](#), section [5.6 GS1 DataMatrix](#) and section [5.7 GS1 QR Code](#), SHALL be read in conjunction with the following sub-sections.

6.6.1 Scope

These specifications detail the structure and layout of GS1 Logistic Labels. Emphasis is given to the basic requirements for practical application in an open trade environment. Primary topics include:

- The unambiguous identification of logistic units.
- The efficient presentation of text and machine-readable data.
- The information requirements of the key partners in the supply chain: suppliers, customers and carriers.

6.7.2 Recommendation to include a barcode on two sides

At least one side of all general distribution scanning items SHALL display the barcode information. The following is recommended:

- For outer cases or cartons (trade item groupings identified with a GTIN) it is recommended that the barcode is duplicated on a second side of the item when the printing process (e.g., pre-printing on corrugated cartons) makes this cost effective.
- For pallets (logistic units identified with an SSCC) it is recommended that two identical logistic labels are placed on adjacent sides. If possible one logistic label ~~should~~ **SHOULD** be on one short side and the second identical logistic label on the adjacent right-hand side as shown in the diagram below.

Figure 6.7.2-1. Two identical barcodes

