



Shipping Label Specifications

October 2003

Shipping Labeling Requirement and Guidelines

Purpose

Shipping container marking and labeling is a technique used to connect information to physical units. The purpose of marking containers with bar codes is to provide a machine-readable key to data.

Three core technologies enable the business practices of electronic commerce: EDI, identification codes, and bar codes. EDI moves the data, identification codes identify the meaning of the data, and bar codes connect the data with the goods. The total integration of these three technologies is required for complete success of the project.

This document is based upon the labeling standards and guidelines provided by Uniform Code Council, Inc (refer to UCC publication, “Application Standard for Shipping Container Codes”). The UCC Common label format uses the Serial Shipping Container Code (SSCC) identifier (SSCC-18) coded in the UCC/EAN-128 bar code symbology. For complete information on UCC guidelines contact UCC at 937-435-3870 or visit their web site at <http://www.ucc-council.org>

Key Benefits

The benefits of the SSCC-18 identifier are:

- Shipped Units are identified with a number that is unique worldwide
- Provides a link with bar coded information on a shipped unit and the information that is communicated between trading partners via an ASN-856 EDI transaction
- Voluntary standards are established for the EAN.UCC logistics label of which the SSCC is mandatory
- Standards are global
- The SSCC encompasses a common vendor numbering scheme that uses the EAN.UCC Company Prefix so that the number cannot be duplicated
- All numeric structure leads to faster data processing.

This document will explain Factory Card & Party Outlet labeling requirements and provide guidelines to implement shipping container labels.

UCC-128 Shipping Label Approval Process

Before using the UCC-128 shipping labels on shipments to our stores or warehouse, your labels must be verified and approved by Factory Card & Party Outlet.

- a. Mail a minimum of 10 labels in the Factory Card & Party Outlet format to:

EDI Administrator
Factory Card Outlet
2727 Diehl Road
Naperville, IL 60563

- b. Upon receipt of your labels, we will scan them for conformity. The conformation process will include:

- (1) Scanner decoded number matches the digits on the printed label
- (2) Check Digit is correct
- (3) Human Readable fields of correct height
- (4) Label format contains all specified fields
- (5) Bar code quality allows for proper scanning of labels

- c. Factory Card will notify you of your test results within 3 business days.

If there are any questions about these Shipping Label Specifications or the above approval process, please contact:

EDI Administrator
Factory Card & Party Outlet
2727 Diehl Road
Naperville, IL 60563
Phone: 630-579-2069
Fax: 630-579-2469
EDIadm@FactoryCard.com

Labeling Requirements

Factory Card & Party Outlet requires shipping container labels for all shipments shipped with ASN information. All shipping container labels are required to follow the labeling guidelines described in this document. All shipping container labels should be approved and certified with Factory Card prior to usage. All labels should have unique SSCC-18 carton id bar codes.

Label usage

All store shipments should have carton labels as described in this document and should not have any label on the pallet.

All cross-dock shipments should have both carton and pallet labels as described in this document (*Future Use*).

All warehouse shipments should only have pallet labels as described in this document and there should not be any carton labels (*Future Use*).

Label Size

The recommended minimum label size for SSCC labels is 4 inches (105 mm) wide and 6 inches (128 mm) tall.

Label Placement

Carton Label

The bottom edge of the bar code that contains the SSCC-18 identifier should be located 1.25" from the container's natural bottom. It shall appear on a minimum of one side and should appear on two adjacent sides. The label should not be placed on top or bottom of the package (flap side of the package).

The outer edge of the quiet zone shall be no closer than 0.75" to the edge of the vertical face. It is recommended that the outermost bar be no closer than 1.25" to the edge of the vertical face.

Pallet Label (future use, only for warehouse shipments)

The pallet label should be placed right of center on a vertical face, allowing a minimum of two inches from either edge. It may also be in the upper one-half of the unit load, but in no case shall the bottom edge of the label be higher than 60 inches from the bottom of the unit load.

Technical Considerations

SSCC-18 Definition

The unique identification of logistics units is achieved in the EAN.UCC System by the use of the SSCC (Serial Shipping Container Code). The SSCC-18 is an 18-digit numeric data structure. The uniqueness of the data structure is ensured through the use of the EAN.UCC Company Prefix that is supplied by the UCC or EAN. This Company Prefix, when combined with the serial number that is assigned by the member company, acts as an identifier or “license plate” and provides access to information stored in computer files, which are transferred through electronic business transactions.

The SSCC-18 identifier is used in conjunction with EDI transactions such as the Advanced Ship Notice (ASN). When used this way, information about the products that are contained in a particular carton are linked to the SSCC-18. The UCC/EAN-128 bar code is then scanned by Factory Card to speed receipts at stores.

How Factory Card will utilize the SSCC label

A typical example using the SSCC label in conjunction with an ASN-856 transaction is described in the following steps:

1. Factory Card sends a Purchase Order to a Supplier.
2. The supplier begins to pick the order. As the order is picked, the supplier maintains a record of which products are picked and placed into a particular carton. Item Numbers identifying the picked products and the quantity of each is information that would be collected during the picking process.
3. When the carton is closed, the supplier assigns an SSCC-18 identifier to that carton. The SSCC-18 is cross-referenced in the *database of the supplier* with the contents of that particular carton.
4. The SSCC-18 (or license plate) is encoded in a UCC/EAN-128 bar code on the shipping label and placed on the carton (Note: FCO requires a shipping label on each carton shipped directly to a store).
5. The supplier creates and transmits an Advanced Ship Notice (the ASN or document type 856) to Factory Card via EDI. The ASN contains all the information concerning the order and each carton within the order that Factory Card needs to know (quantity of items, P.O. #, SSCC-18 identifiers, etc.). It is the responsibility of the supplier to ensure that Factory Card receives the EDI ASN-856 transmission *prior* to the physical receipt of the product.
6. Factory Card receives and processes the ASN and stores the information in their system.
7. Factory Card, upon receipt of the EDI ASN/856 containing the serial number, can choose to use the information to schedule appointments for carriers to deliver the products.
8. The shipment is delivered to the receiving location.
9. The Factory Card Store scans the bar code containing the SSCC-18 identifier located on the SSCC label on the carton.
10. Factory Card's application retrieves the information that relates to the SSCC-18 that was just scanned.
11. Using the SSCC-18 as the search key, the system finds all the details for that carton.
12. Factory Card is now able to process the carton without having to open the carton and manually account for the contents. It should be noted that Factory Card will conduct sufficient audits of shipments to ensure the accuracy of the shipper.

SSCC-18 Identifier Data Structure

The identifier contains 20 characters of information. The human readable form of it should be printed above the actual bar code in the format (00) 0 0123456 77777777 8.

Let us consider the following SSCC-18 identifier as an example;

0000123456777777778

This identifier actually has the following composition;

00 0 0123456 77777777 8

00: Application Identifier

0: Packaging Type

0012345: Company Prefix

77777777: Shipping Container Serial Number

8: Modulo Check Digit

Note: Before the Application identifier, there is also a code in non-human-readable form, called start code/Function Code 1. This code takes up 2 characters and tells the bar code scanner that an UCC/EAN-128 symbol follows and that it will be encoded in the double density numeric code.

Application Identifier:

This identifies the type of bar code and occupies one position. The value 00 identifies the bar code as an SSCC-18 serial shipping container code. The reason it requires just one position is because of double density coding.

Packaging Type:

The type of packaging the bar code represents is identified by this code. The following values are generally used:

- 0 - Serial number shipping or carton identification
- 1 - Serial Pallet (larger than a case/carton)
- 2 - Serial container, such as truckload
- 3 - Unidentified
- 4 - Usually used for intra-company purpose

5-9 - reserved for future use

EAN.UCC Company Prefix:

Every manufacturing company will have a unique identifier given by UCC council. The inclusion of the EAN.UCC Company Prefix ensures uniqueness throughout the world. The EAN.UCC Company Prefix is assigned to companies in varying lengths.

Note: A UCC Company Prefix is converted to an EAN.UCC Company Prefix by adding a leading zero. Examples: the UCC Company Prefix 614141 will be 0614141 and the UCC Company Prefix 81123456 will be 081123456.

Shipping Container serial number:

This is a 7- to 9-digit number. This number *uniquely* identifies the contents of the shipping container on which it is placed. ***This number is assigned by the shipper (manufacturer) and must remain unique for 1 year because this is the number that, in coordination with the ASN, identifies the shipment, its contents by SKU, its destination, and corresponding reference information such as purchase order number.***

The Serial number varies in length as a function of the EAN.UCC Company Prefix length. Note: The combined length of the EAN.UCC Company Prefix and Serial Reference is always 16 digits.

With a 6-digit UCC Company Prefix, one can assign 10 billion SSCCs (1 digit Extension digit times a 9 digit Serial Reference). With an 8-digit UCC Company Prefix, one can assigned 100 million SSCCs (1 digit Extension digit times a 7 digit Serial Reference).

Modulo check digit:

This is a single digit number that verifies the accuracy of the previous 19 UCC-128 characters. The check digit used for the UCC-128 is the MODULO-10 check digit; it is calculated using the algorithm below:

STEP 1: Start at the left and add all characters in the odd positions.

STEP 2: Multiply the sum from STEP 1 by 3.

STEP 3: Start at the left and add all characters in the even positions.

STEP 4: Add the numbers calculated in STEP 2 with the number from STEP 3.

STEP 5: The check digit is the smallest number that can be added to the result in STEP 4 to create a multiple of 10.

Label Format

Zone 1	Zone 2
Zone 3	
Zone 4	Zone 5
Zone 6	Zone 7
Zone 8	

Zone 1 Ship from Address

Zone 1 is required to contain the Ship from address. The required size for zone 1 is 0.8” height and 1.5” width. It must have a label “From” on the top left corner of this zone. The font size for the ship from address must be at least 8.

Zone 2 Ship to Address

Zone 2 is required to contain the Ship to address. The required size for zone 2 is 0.8” height and 2.5” width. A label “Ship to” is required in the top left corner of this zone. The ship to city and zip code must be in font 14, and the name and street address must be in font 10.

Zone 3 For Vendor/Carrier information

Zone 3 is reserved for any information provided by the vendor. The required size of zone 3 is 2.0” height and 4.0” width. Factory card does not specify contents for this zone. The vendors may use this zone for their own information (order information, SKU, quantity, etc.) or for information required by their carrier.

Zone 4 Postal code/Store number bar code

The required size of zone 4 is 2.0” width and 0.9” height. The bar codes in this zone must be at least 0.550” high. The human readable identifier must be printed for all bar codes. The placement of human readable identifiers must be above the corresponding bar code. The required font size is 10.

Direct-to-Store Shipments

Zone 4 is optional for direct-to-store labels. It may contain the postal code or zip code in a UCC/EAN-128 encoded bar code with application ID 420. If included, it must have a label “Postal code” on the top left corner of this zone.

Cross-Dock Shipments

For cross-dock labels, zone 4 is required to contain the 5-digit store number of the final destination in a UCC/EAN-128 encoded bar code with application ID 413. It is required to have the label “For Store” on the top left corner of this zone.

Warehouse Pallet Shipments

For warehouse pallet labels, zone 4 is required to contain the 5-digit warehouse number of the final destination in a UCC/EAN-128 encoded bar code with application ID 413.

Zone 5 Store number or/and Final destination address

The required size for zone 5 is 2.0” width and 0.9” height.

Direct-to-Store Shipments

Labels for direct-to-store shipments are required to contain the 5-digit destination store number (as specified on our purchase order) in font 48 or higher. It must have the label “Store Number” on the top of this zone.

Cross-Dock Shipments

For cross-dock shipment carton labels this zone is used to print the final destination store number and address. The store number must be in font 24 or larger, the name and street address must be in font 8, and the city, state, and zip code must be in font 10 or larger.

Warehouse shipments

Warehouse shipment pallet labels are required to print the 5-digit warehouse numbers in font 48 or larger.

Zone 6 Seasonal Wave Code

Zone 6 is used to print the Seasonal Wave Code. This is required if it has been provided on our purchase order. If one is not present on the PO then this zone should be blank. The required size of this zone is 2.5" width and 0.3" height. The required font size of this code must be 14.

Zone 7 Order Information

Zone 7 is used to print the purchase order number and the department number from our purchase order. This information is required. The required size of this zone is 1.5" width and 0.3" height. The font size of this information must be 10 or larger.

Zone 8 SSCC-18 Container Serial Code

This is the most critical zone and it must contain the unique serial number for the carton or pallet. The SSCC-18 serial code must follow the guidelines as described in the above section. The human readable form must be present in the same format as shown in the sample label, and must be placed above the bar code in a font size of 12 or larger. It must have the label "SSCC-18" on the top left corner of the zone. The required size for this zone is 4.0" width and 2.0" height. The required bar code height must be at least 1.25".

Sample Labels

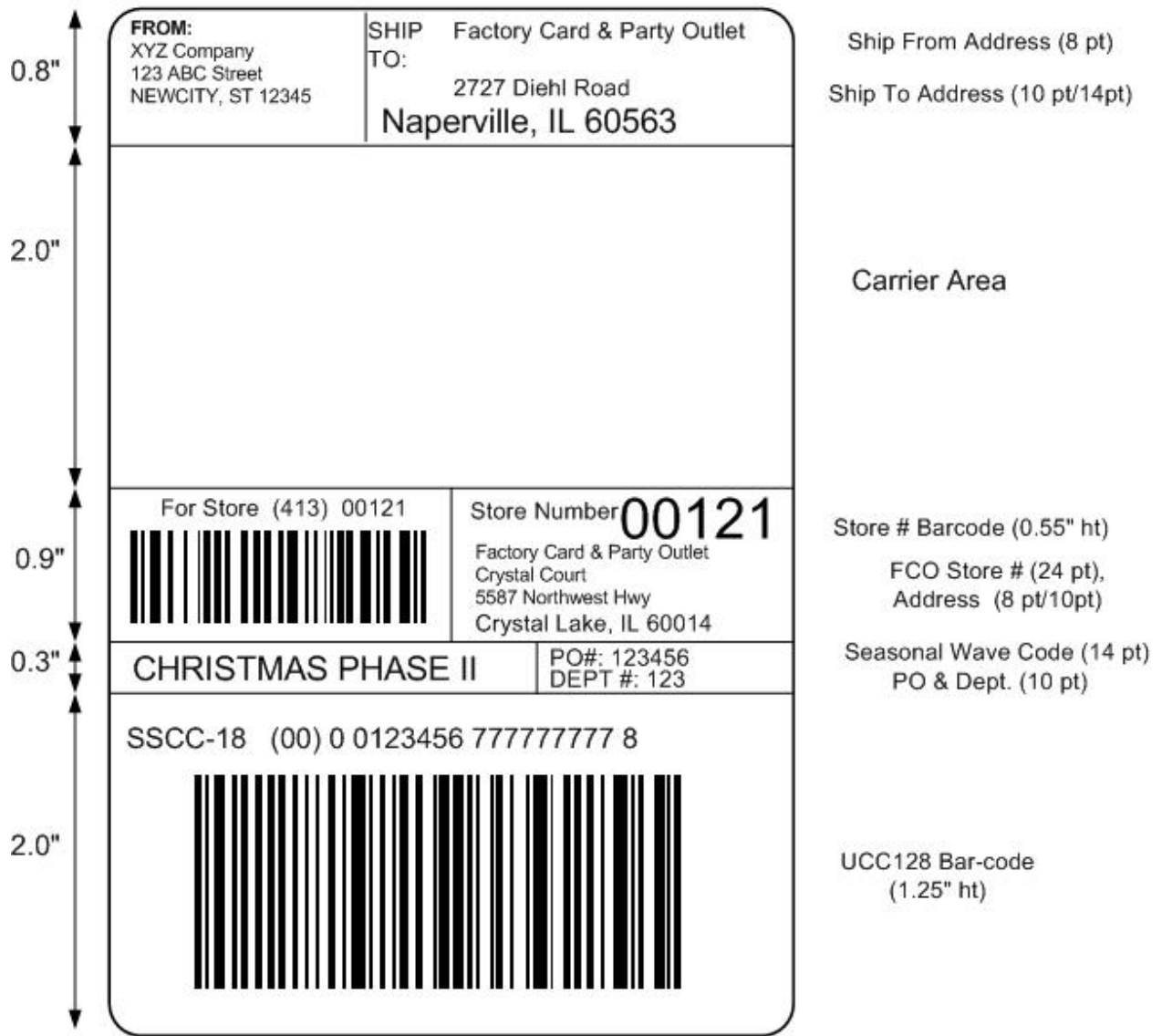
Direct Store Label



NOTES by zone:

- (1) The "From" address is in font size 8.
- (2) The "Ship To" name and street address are in font size 10; the "Ship To" city, state, and zip code are in font size 14.
- (3) The "Carrier Area" is available for carrier or shipper information.
- (4) The FCPO postal bar-code is 0.5" in height. THIS FIELD IS OPTIONAL. The human readable postal code (with application code (420)) is above the bar-code in font size 10.
- (5) The FCPO store number is in font size 48.
- (6) The FCPO Wave Code is in font size 14.
- (7) The FCPO PO# and Dept# are in font size 10.
- (8) The SSCC-18 bar code is 1.25" in height. The human readable SSCC-18 code is in font size 12.

DC & Cross-Dock Label



NOTES by zone:

- (1) The "From" address is in font size 8.
- (2) The "Ship To" name and street address is in font size 10; the "Ship To" city, state, and zip code are in font size 14.
- (3) The "Carrier Area" is available for carrier or shipper information.
- (4) The FCPO store number bar-code is 0.55" in height. The human readable store number (with application code (413)) is above the bar-code in font size 10.
- (5) The FCPO store number is in font size 24. The FCPO store address is in font sizes 8 (name and street address) and 10 (city, state, and zip code).
- (6) The FCPO Wave Code is in font size 14.
- (7) The FCPO PO# and Dept# are in font size 10.
- (8) The SSCC-18 bar code is 1.25" in height. The human readable SSCC-18 code is in font size 12.

Label Scannability Factors:

Some of the key aspects that affect the overall label quality and FCOs ability to scan bar codes are:

Size:

The UCC has specific guidelines for the size of a barcode depending on the type of barcode. FCO recommends usage of nominal sizes for the barcodes as recommended in the UCC guides. The recommended minimum label size for SSCC-128 labels is 4 inches (105 mm) wide and 6 inches (128 mm) tall.

Quiet Zone:

The areas to the immediate left and right of a barcode are referred to as Quiet zones. The Quiet zone should be free of printings or markings of any kind. The location of the barcode symbol from the edge of the packaging should provide enough space to allow for an adequate Quiet zone. The Quiet zone prepares the scanner for reading the barcode. For UCC 128 codes, the Quiet zone should be the greater of: 10 times the narrowest bar or space in the bar code OR .25 inches.

Color:

Scanners are able to scan a barcode by seeing the contrast created by the difference in color between the bars and spaces. The actual color of the barcode is immaterial. The greater the contrast, the more light that gets reflected, allowing the scanner to get a better read of the barcode. Black and white provides the best contrast. Red is not an allowed color for the barcodes.

Barcode Location:

The location of the shipping label, and hence the barcode symbol, are critical aspects of the scanning process. The UCC "Shipping container code and Symbol specifications Manual" provide detailed information regarding UCC 128 symbol locations on a container. The bottom edge of the bar code that contains the SSCC-18 should be located 1.25" from the container's natural bottom. It shall appear on a minimum of one side and should appear on two adjacent sides. The label should not be placed on top or bottom of the package (flap side of the package).

The outer edge of the quiet zone shall be no closer than 0.75" to the edge of the vertical face. It is recommended that the outermost bar be no closer than 1.25" to the edge of the vertical face.

Other Factors:

The scannability is affected by other factors such as surface on which the barcode is printed, correct alignment and thickness of the bars and spaces and flatness of the surface. Please refer to the UCC guidelines for additional factors impacting the quality of barcodes.