



**Document  
Version**

**1.2**

**SUPPLIER PRODUCT  
LABELING REQUIREMENTS**

7-8-2008

## Revision History

Date	Version	Description	Author
9-7-2007	1.0	Initial Release Review Comments	RH (Formatted and Edited by BC)
2-13-2008	1.1	Clarification comments where added to section 7.4	WW
7-8-2008	1.2	Added Clarification notes in the following: <ul style="list-style-type: none"><li>- 2.0 added small shipment comment</li><li>- 3.1 and 3.2 reworded for clarity</li><li>- 3.0 and 4.0 modified data examples to consistently use the LIN06 and 07</li><li>- 4.0 added additional physical shipment examples</li><li>- 5.4 Added barcode symbology breakdown and other useful links</li><li>- 6.2 Reworded for clarity</li><li>- 6.3 added sentence for handling unit</li><li>- 6.4 bullet 1 reworded handling unit statement</li><li>- 7.1 added note about emailing example labels</li><li>- 7.2 Added label dimensional information</li><li>- 7.3 label application clarified</li><li>- 7.5 pictures updated for accuracy and new banded small shipment picture added</li></ul>	RH

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## 1.0 Purpose

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The purpose of this initiative is to improve the warehouse receiving process through the use of electronic 856 Advanced Ship Notifications (ASNs) associated with License Plates on handling units containing both human readable data and industry standard scannable barcodes.

## 2.0 Overview

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An electronic 856 ASN matching the physical structure of the shipment, must be sent to CARQUEST as soon as the truck is sealed. The ASN must contain the Bill of Lading number as a reference on the shipment, and a Packing Slip Identification (ID) as a reference within each order in the shipment. The Packing Slip Identification (ID) reference number may be repeated across orders within a 856 ASN message, but cannot be repeated across different 856 ASN messages.

A License Plate (LP) must be used on each handling unit in the shipment when labeling Pallets, Cartons and loose Items. A handling unit is the largest physical object that is loaded on a truck for transport. The most common handling unit for a large shipment is the Pallet. For small shipments the largest handling unit is often the Carton. To view handling unit examples refer to section 4.0 of this document. Each LP must contain a scannable barcode with human readable text that can be tied back to the contents of the handling unit in the ASN.

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**Note:** CARQUEST will only accept the Application Identifier (00) accompanied by the Serial Shipping Container Code, as a scannable code. For details refer to section 5.0.

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The human readable text portion of the scannable barcode must be provided in the appropriate hierarchical level of the ASN message corresponding to the physical shipment. Refer to sections 3.0, 4.0 and 5.0 for ASN, handling unit, and bar code examples. When the shipment is received into the Distribution Center (DC), the LP is scanned and the handling unit is matched to the ASN information already in the CARQUEST system.

## 3.0 856 ASN

### 3.1 856 ASN Hierarchal Loop Structure

The 856 ASN is the electronic representation of the supplier's physical shipment. The 856 uses hierarchal loops (HLS) to represent the physical shipment in electronic form. Hierarchal loops can be designated with a function by assigning the HL segment hierarchal level code HL03 to a specific value. The HL03 values used in the CARQUEST implementation are S, O, T, P, and I.

#### HL03 Explanations:

- S = HL Shipment (CARQUEST requires one HLS per 856)
- O = HL Order (as Orders on the shipment, the HLO loops would repeat as children of the HLS)
- T = HL Tare (Pallet level, Child of the Order)
- P = HL Pack (Case level, Child of the Order or Tare)
- I = HL Line Item (The individual unit or item requested in the PO1 segment of the 850 Purchase Order. Can be a child of the Order, Tare or Pack).

The HL loops can be sent in the following nested combinations to represent how the truck is loaded:

- S-O-I
- S-O-T-I
- S-O-P-I
- S-O-T-P-I

Correct hierarchical level (HL) Parent IDs (HL02) are required in order to process the details for each line item.

An ASN sent in the "Pick-and-Pack" format, can have multiple packaging levels. One Shipment can have one or more Orders. The packaging for an Order can include Tares (Pallets), Packs (Cartons) and loose Items. Tares can have further packaging of Packs and Items, and Packs can have Items.

### 3.2 Changes Affecting Current 856 ASN Senders

A barcode shipping label License Plate (LP) must be implemented on the largest handling unit (Pallet, Cartons, or Items). In the 856 ASN:

- A 'Tare' level (HLT) must be added to accommodate Pallets, with the HLT:MAN segment used to convey the shipping barcode

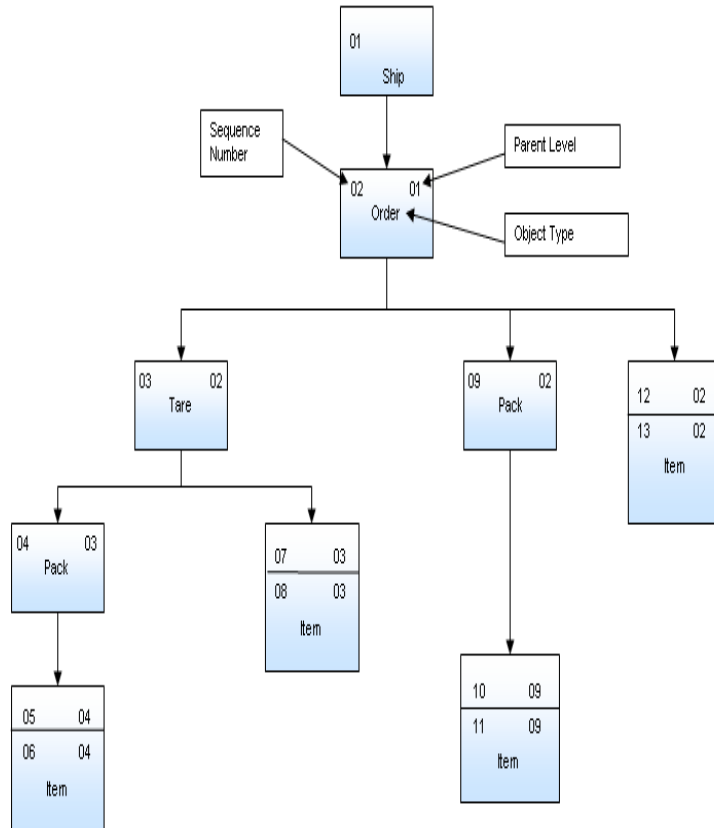
- A 'Pack' level (HLP) must be added to accommodate Cartons, with the HLP:MAN segment used to convey the shipping barcode
- An 'Item' level (HLI) must be changed to accommodate loose Items on a shipment, using a HLI:MAN segment to convey the shipping barcode

The following example shows the ASN Hierarchical Levels (Packaging):

```

ISA*00*                *00*                *01*TESTSNDR          *01*TESTRCVR
*070614*0331*;*00404*000072539*0*P*^
GS*SH*TESTSNDR*TESTRCVR*20070614*0331*72541*X*004040
ST*856*0001
BSN*00*9016858*20070614*032641
DTM*011*20070614
DTM*017*20070618
HL*1**S
TD1*UNT*4****G*2777*LB
TD5*B*2*FDEG*M**SH
REF*BM*8016855
N1*ST**54*MON
N1*SF**ZZ*AAA
HL*2*1*O
PRF*00861
REF*PK*2016811
HL*3*2*T ←----- S-O-T-P-I
MAN*AI*00107259750085851607
HL*4*3*P
HL*5*4*I
LIN*1*BP*G20170-1616*PL*19*MF*ABC
SN1**1*EA
HL*6*4*I
LIN*1*BP*G20170-1616*PL*20*MF*ABC
SN1**1*EA
HL*7*3*I ←----- S-O-T-I
LIN*1*BP*G20170-1616*PL*21*MF*ABC
SN1**1*EA
HL*8*3*I
LIN*1*BP*G20170-1616*PL*22*MF*ABC
SN1**1*EA
HL*9*2*P ←----- S-O-P-I
MAN*AI*00107259750085851407
HL*10*9*I
LIN*1*BP*G20170-1616*PL*23*MF*ABC
SN1**1*EA
HL*11*9*I
LIN*1*BP*G20170-1616*PL*24*MF*ABC
SN1**1*EA
HL*12*2*I ←----- S-O-I
LIN*1*BP*G20170-1616*PL*25*MF*ABC
SN1**1*EA
MAN*AI*00107259750085851306
HL*13*2*I
LIN*1*BP*G20170-1616*PL*26*MF*ABC
SN1**1*EA
MAN*AI*00107259750085851307
SE*45*0001
GE*1*72541
IEA*1*000072539

```



**Note:** According to industry standards, each hierarchical level must indicate Hierarchical Parent ID as well as the hierarchical ID of the level. The only exception to the Hierarchical Parent ID being required is the Shipment level, which should not have an assigned Hierarchical Parent ID.

The highest level handling unit on the shipment (Tares, Packs or loose Items) must include human readable barcode data as transmitted in the manifest (MAN) segment of the HL loop representing the handling unit.

An ASN must be electronically received by CARQUEST prior to the DC receiving the physical shipment.

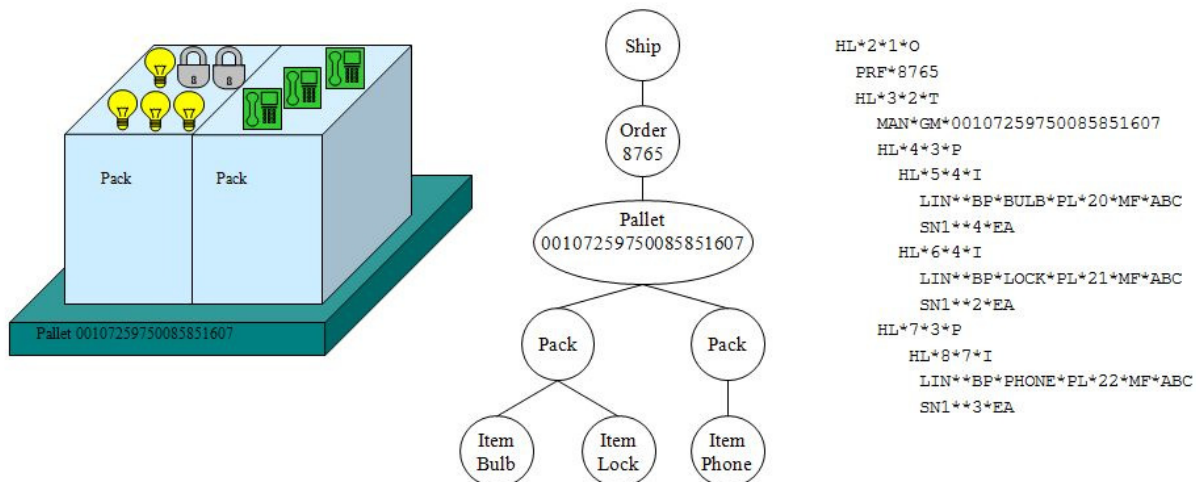
**Note:** CARQUEST audits 856 ASN shipments for data accuracy and timeliness.

For a copy of CARQUEST's 856 ASN Specifications guideline, please contact EDI Support.

## 4.0 Handling Units

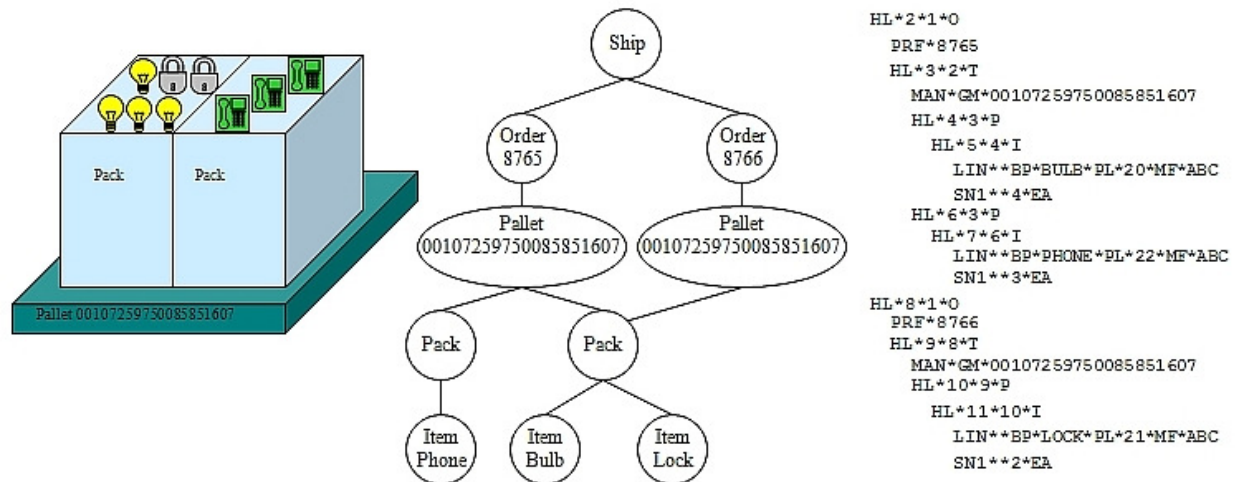
While CARQUEST can accept License Plates (LPs) at the Pallet, Carton or Item handling unit level, the shipping scenario will dictate what the largest handling unit will be. For most shipments the largest handling unit is the Pallet. For small shipments the largest handling unit is the Carton. CARQUEST only requires the highest level on containerization to have a LP.

**Figure 4.1:** The following example shows a Pick and Pack HLS-O-T-P-I container with a LP labeling the Pallet handling unit:

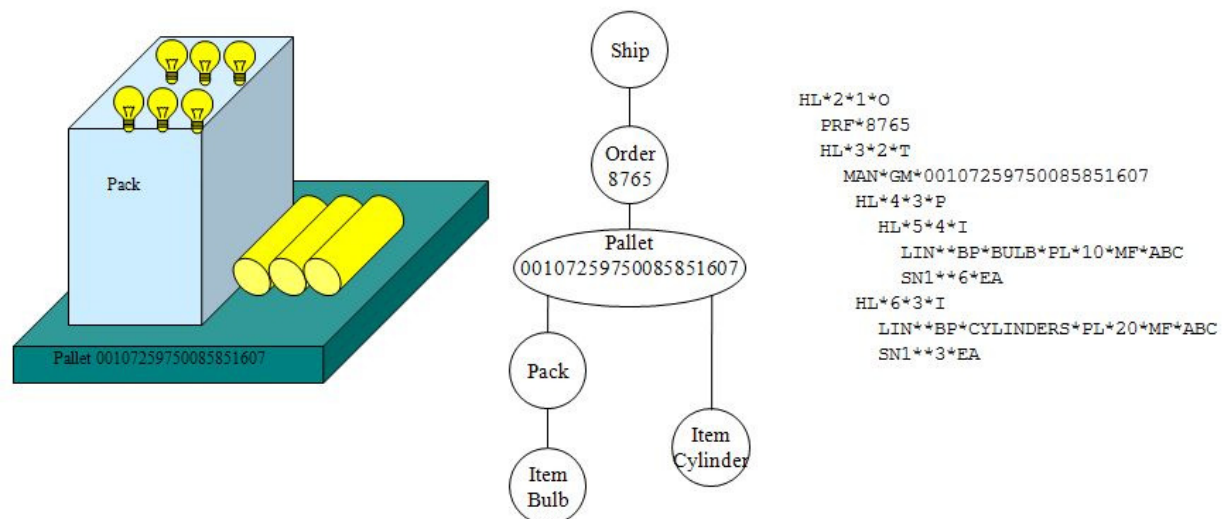




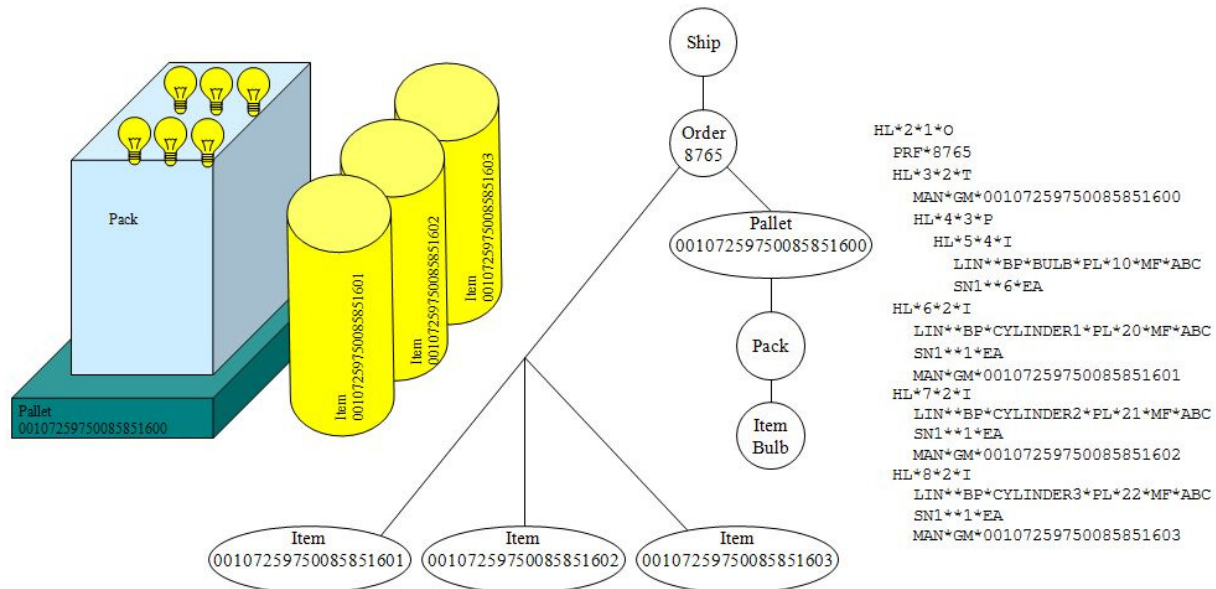
**Figure 4.2:** The following example shows a Pick and Pack multiple order HLS-O-T-P-I container with a LP labeling the Pallet handling unit. Please note the HLO looping and repeating HLT MAN segments because multiple orders are loaded on the same pallet:



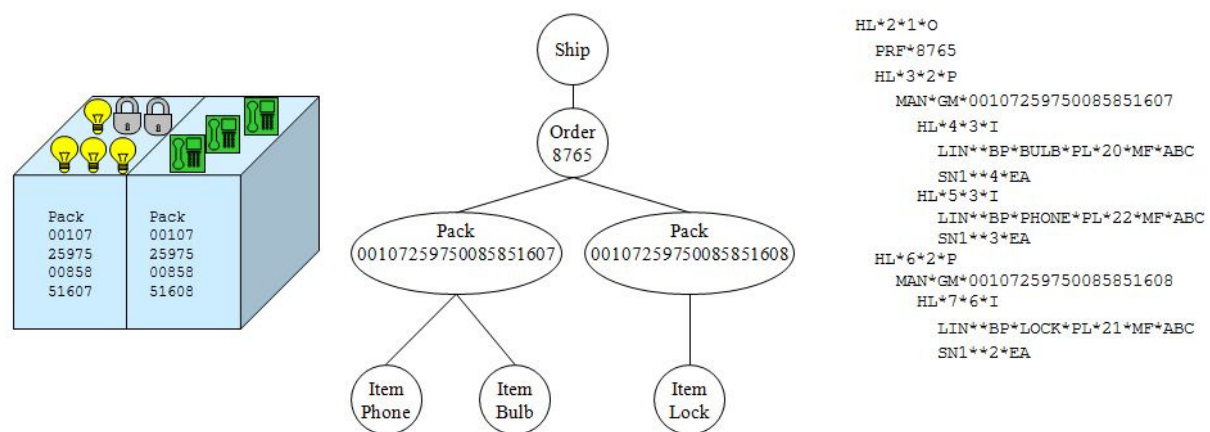
**Figure 4.3:** The following example shows a Pick and Pack HLS-O-T-P-I and HLS-O-T-I container with a LP labeling the Pallet handling unit:



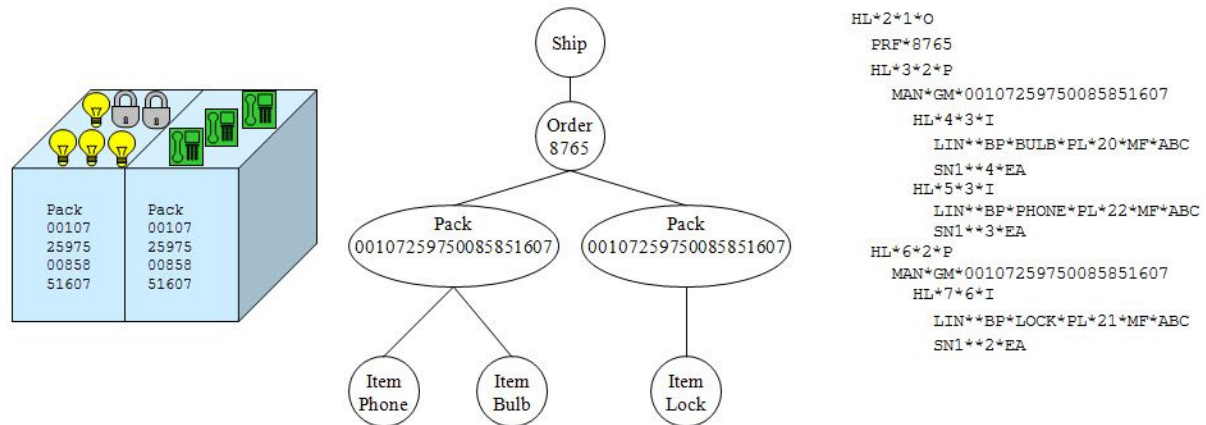
**Figure 4.4:** The following example shows a Pick and Pack HLS-O-T-P-I and HLS-O-I container LPs labeling the Pallet and Item handling units:



**Figure 4.5:** The following example shows a Pick and Pack HLS-O-P-I container LPs labeling loose Carton handling units. Please note the two Cartons have different LP barcode IDs. The physical shipment should have a LP label on each carton with a unique barcode ID.



**Figure 4.6:** The following example shows a Pick and Pack HLS-O-P-I container LPs labeling shrink wrapped or banded Carton handling units. Please note the two Cartons share the same LP barcode ID because they are shipping as one unit. The physical shipment should have a single LP label on it.



## 5.0 Barcodes

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### 5.1 GS1-128 (UCC/EAC-128)

GS1-128, formerly referred to as UCC/EAC-128, uses Code 128 symbology, with Application Identifier (AI) prefixes to describe the meaning and format for the number(s) that follow it.

### 5.2 SSCC 18

SSCC 18 is a widely used bar code symbology that is regulated by the Uniform Code Council. It is referred to as a Serial Shipping Container Code and is used in supply chain management for container tracing and internal control.

### 5.3 Barcode Example

The following example is from  
[http://www.neodynamic.com/barcodes/SSCC\\_18\\_Barcode.aspx](http://www.neodynamic.com/barcodes/SSCC_18_Barcode.aspx).

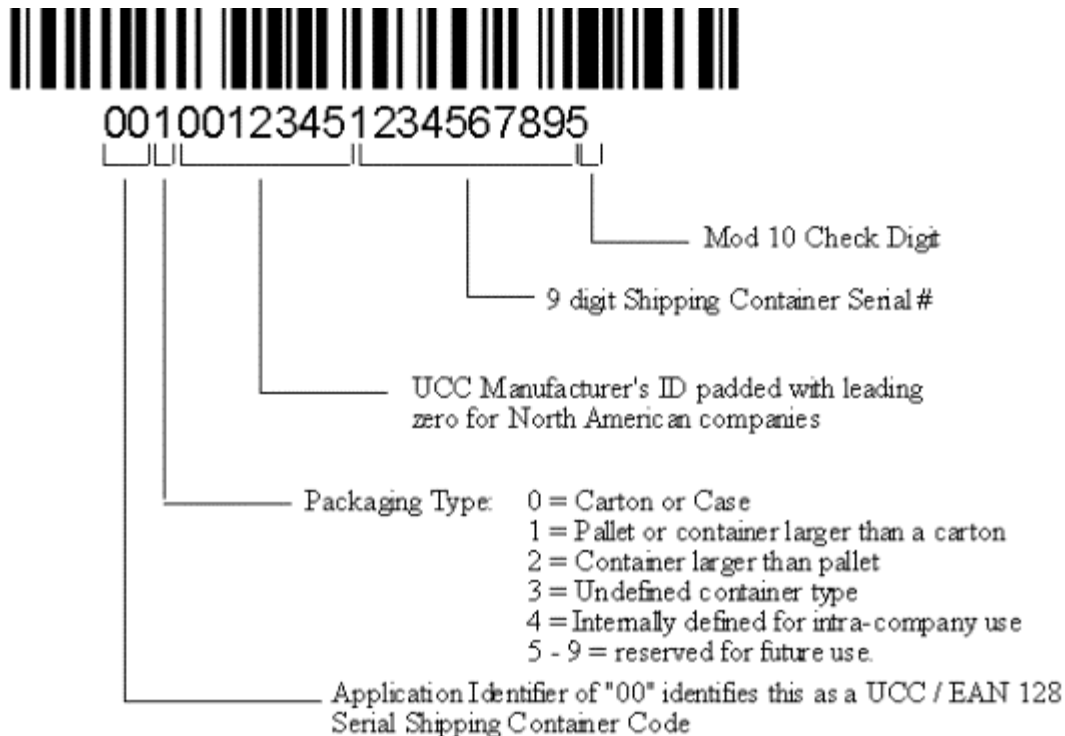
Example:



CARQUEST requires the use of the AI "00" code, which references the Serial Shipping Container Code (SSCC). This numeric code has a length of 18 and allows for the handling unit to be tied back to its contents. CARQUEST does not expect other AI codes to be included in the barcode label.

## 5.4 Barcode format and additional information

The contents of the barcode number is as follows:



Helpful links:

Barcode number breakdown above <http://www.insightu.org/opwa/scfg-ch4.asp#4-5-sscc>

Searching for your GTIN Manufacturer ID [http://directory.gs1.org/client/search\\_by\\_name/](http://directory.gs1.org/client/search_by_name/)

General information on GS1 implementation  
<http://www.gs1.org/productssolutions/barcodes/#1>

## 5.5 New Barcode Approval

Before a barcode is used on a shipping label that is to be received by CARQUEST, it must be approved by CARQUEST. Refer to section 7.1 for instructions.

Note: Barcodes must not be reused within a 90-day period.

## 6.0 CARQUEST Distribution Centers Shipping Requirements

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### 6.1 Pallet Labeling

Each Pallet handling unit on a physical shipment must have a unique License Plate with barcode attached to the lower right hand box on the front and back of the Pallet. The barcode must be readable by electronic scanner and CARQUEST receiving teammates. In the 856 ASN message, the MAN01 element in the HLT:MAN segment must have the value of 'AI' (UCC/EAN-128 Application Identifier (AI) and Data) or 'GM' (SSCC-18 and Application Identifier).

On the physical shipment, the Pallets should be serialized, with the LP identifying each unique Pallet in the shipment (Handling Unit 1 of 3, Handling Unit 2 of 3, Handling Unit 3 of 3, etc.).

The following is an example of a HLT loop in the 856 ASN.

Example:

```
HL*8*3*T  
MAN*AI*00106862260024599671
```

### 6.2 Pack Labeling

Each Cartons handling unit on the physical shipment must have a unique License Plate and barcode attached when the Carton is the largest unit being shipped. The barcode must be readable by electronic scanner and CARQUEST receiving teammates. In the 856 ASN message, the MAN01 element in the HLP:MAN segment must have the value of 'AI' (UCC/EAN-128 Application Identifier (AI) and Data) or 'GM' (SSCC-18 and Application Identifier). When Cartons are not on a Pallet they should be serialized per physical shipment, with the information conveyed on the LP for the individual Cartons (Handling Unit 1 of 3, Handling Unit 2 of 3, Handling Unit 3 of 3, etc.).

The following is an example of the HLP loop in the 856 ASN.

Example:

```
HL*8*3*P  
MAN*AI*00106862260024599672
```

### 6.3 Loose Item Labeling

Each loose item handling unit on the physical shipment must have a unique License Plate and barcode attached. A loose item will not be containerized and is therefore the largest unit being shipped. The barcode must be readable by electronic scanner and CARQUEST receiving teammates. In the 856 ASN message, the MAN01 element

in the HLI:MAN segment must have the value of 'AI' (UCC/EAN-128 Application Identifier (AI) and Data) or 'GM' (SSCC-18 and Application Identifier).

In the 856 ASN, the HLI:MAN segment should only be used if the item is loose on the physical shipment (not packed on a Pallet or in a Carton).

The following is an example of the HLI loop:

Example:

```
HL*13*2*I  
LIN*1*BP*G20170-1616*PL*26*MF*ABC  
SN1**1*EA  
MAN*AI*00107259750085851307
```

## 6.4 Small Package Guidelines

The packing list and labeling requirements are the same when shipping with a small package carrier (such as FedEx, UPS, DHL, etc.) as they are when shipping with a large package carrier. The following conditions must be met:

- Barcode labels must be affixed on the largest handling unit
- The data in the barcode labels must match the HL:MAN (HLP, or HLI)
- The 856 ASN must be transmitted to CARQUEST before the physical shipment is received by the DC.

Contact EDI Support for additional information.

## 7.0 Physical Shipment Requirements

### 7.1 Getting Shipping Labels Approved

Shipping labels must be pre-approved by CARQUEST before they are used. When submitting a shipping label proposal to CARQUEST, email a scanned copy of the label until the basic format requirements are met. To complete label approval, mail a copy of the 856 EDI transaction, Pack Slip(s), and the associated shipping labels to CARQUEST EDI support. Please include the following contact information:

- Company name
- Contact name
- Contact telephone number
- Contact FAX number
- Contact e-mail address.

After CARQUEST EDI Support has reviewed your data and test shipping labels you will be contacted to schedule an actual physical shipment test.

## 7.2 Shipping Label Information

- CARQUEST accepts 4 x 6 inch and 4 x 6<sup>1/2</sup> inch labels.
- The License Plate on the largest handling unit must contain the following information:
  - Ship From Address – Supplier's address, city, state and zip code
  - Ship To Address – DC address, city, state and zip code
  - Carrier SCAC and name
  - Bill of lading number
  - DC abbreviation (in large bold type)
  - Scannable serial shipping container code
  - Handling unit weight (optional)
  - Handling unit serialization (optional)
  - Handling unit type (optional)

## 7.3 Shipping Label Application

The following shipping label requirements/directions must be followed in order for CARQUEST to accept deliveries:

- Only apply the CARQUEST label to the largest shipping Handling Unit.
- Placement on the Handling Unit
  - For Pallets shipping labels must be located diagonally from each other on the lower right hand area of the front **and** back of the Pallet to facilitate the scanning of the barcodes. The bottom right corner of the label should be 8 to 12 inches above the wood portion of the pallet and 2 to 6 inches from the right edge of the pallet.
  - For Cartons labels must be located two inches from the top or bottom and one and a half inches from the leading or trailing edge on the longest, flattest side to facilitate the scanning of the barcode. If the handling unit is a short-sided Carton, fold the top over, keeping the barcode on the side.
  - For loose Items shipping labels must be easily viewable to facilitate the scanning of the barcode.
  - Labels arriving at the DC must be readable by electronic scanners and CARQUEST receiving teammates. Using the correct combination of paper, ink and adhesive will ensure that the barcode is legible.

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**Note:** Do not cover the label with tape, or place the label over binding straps as this may render the label un-readable.

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- Pallets should have two shipping labels while other handling units should only have one. Any other shipping labels must be:
  - ◆ Removed (unless they are required by law or internal processing)
  - ◆ Completely covered or completely defaced to render their barcodes unscannable. (unless they are required by law or internal processing)
- Never place labels over:
  - ◆ Part numbers
  - ◆ HAZMAT labels
  - ◆ Placards
  - ◆ Carton certifications
  - ◆ Other forms of identification or important information.

If you have questions about CARQUEST's handling unit marking or shipping label requirements, please contact EDI Support.

## 7.4 Shipping Label (License Plate) Example

The following is an example of a 4 x 6 inch shipping label License Plate to be used on the largest containerized unit as the shipping scenario dictates:

From: Supplier Name 1. 123 Supplier St. Charlotte, NC 28201	2. Ship To: CARQUEST RAL DC 2635 Millbrook Rd. Raleigh, NCC 27604
3.	4. CARRIER: YFSY Yellow Freight  BOL# 798456123789
WEIGHT: 200 lbs 5.	
6.	
7. Handling Unit: 1 of 3 Pallet	8. <b>RAL</b>
9. 	

1. From – Box field containing the SENDER Company and Address.
2. To – Box containing the CARQUEST destination DC address.
3. This box must be blank
4. Carrier Information – a box fields containing the carrier SCAC, carrier name, and BOL for the shipment.
5. Weight – an optional box field containing the weight of the handling unit (HU), Pallet, case, or item that the barcode label is affixed to.
6. This box must be blank

7. Handling Unit – An optional box field containing the number of HU's associated with a specific shipment. This would be the total number of units (Pallets, Cases, or Items) that have the above CARQUEST required bar code label. Please note, this is not the total number of line items on the shipment.
8. This box field contains the 3 character CARQUEST DC code that corresponds to the Ship To address displayed in BOX 2. (Should be a large bold font)
9. SCAN BAR – This is the UCC128/SSCC-18 scanning tag. It must match the number transmitted in the associated 856 MAN02.

Note : All Fields are REQUIRED unless otherwise noted

## 7.5 Label Placement on Pallets and Cartons

For pallets place the labels front and back diagonally from each other so when viewing the pallet from front or back the label placement is the same.



- Loose Carton labeling example:



For small shipments place the label on the side of the Carton.

- Shrink wrapped or banded Cartons labeling example: Note that the label is not placed over the bands or across boxes

