

# **Performance Foodservice 856 Ship Notice/Manifest**

**X12/V5010/856 : 856 Ship Notice/Manifest**

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# 856 Ship Notice/Manifest

## Functional Group=SH

**Purpose:** This X12 Transaction Set contains the format and establishes the data contents of the Ship Notice/Manifest Transaction Set (856) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to list the contents of a shipment of goods as well as additional information relating to the shipment, such as order information, product description, physical characteristics, type of packaging, marking, carrier information, and configuration of goods within the transportation equipment. The transaction set enables the sender to describe the contents and configuration of a shipment in various levels of detail and provides an ordered flexibility to convey information. The sender of this transaction is the organization responsible for detailing and communicating the contents of a shipment, or shipments, to one or more receivers of the transaction set. The receiver of this transaction set can be any organization having an interest in the contents of a shipment or information about the contents of a shipment.

### General Usage:

*Performance Foodservice will support ASNs in the following structures:*

*Shipment-Order-Tare-Pack-Item (SOTPI)*

*Shipment-Order-Tare-Item (SOTI)*

*Shipment-Order-PAck-Item (SOPI)*

### Heading:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
0100	ST	Transaction Set Header	M	1			Must use
0200	BSN	Beginning Segment for Ship Notice	M	1			Must use
0400	DTM	Date/Time Reference	M	2			Must use

### Detail:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
<b><u>LOOP ID - HL</u></b>					<b><u>200000</u></b>	<b><u>C2/0100L</u></b>	
0100	HL	Hierarchical Level- Shipment	M	1		C2/0100	Must use
1100	TD1	Carrier Details (Quantity and Weight)	M	1			Must use
1200	TD5	Carrier Details (Routing Sequence/Transit Time)	M	1			Must use
<b><u>LOOP ID - TD3</u></b>					<b><u>1</u></b>		
1300	TD3	Carrier Details (Equipment)	O	1			Used
1400	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	1			Used
1500	REF	Reference Information	M	3			Must use
<b><u>LOOP ID - N1</u></b>					<b><u>2</u></b>		
2200	N1	Party Identification	M	1			Must use
2300	N2	Additional Name Information	O	1			Used
2400	N3	Party Location	M	2			Must use
2500	N4	Geographic Location	M	1			Must use

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
<b><u>LOOP ID - HL</u></b>					<b><u>200000</u></b>	<b><u>C2/0100L</u></b>	
0100	HL	Hierarchical Level- Order	M	1		C2/0100	Must use
0500	PRF	Purchase Order Reference	M	1			Must use
1500	REF	Reference Information	M	3			Must use
<b><u>LOOP ID - HL</u></b>					<b><u>200000</u></b>	<b><u>C2/0100L</u></b>	
0100	HL	Hierarchical Level-Pack	M	1		C2/0100	Must use
0600	PO4	Item Physical Details	O	1			Used
1500	REF	Reference Information	O	>1			Used
1900	MAN	Marks and Numbers Information	M	1			Must use
2000	DTM	Date/Time Reference	O	3			Used
2150	PAL	Pallet Type and Load Characteristics	O	1			Used
<b><u>LOOP ID - HL</u></b>					<b><u>200000</u></b>	<b><u>C2/0100L</u></b>	
0100	HL	Hierarchical Level-Pack	M	1		C2/0100	Must use
0600	PO4	Item Physical Details	O	1			Used
1500	REF	Reference Information	O	>1			Used
1900	MAN	Marks and Numbers Information	M	1			Must use
2000	DTM	Date/Time Reference	O	3			Used
2150	PAL	Pallet Type and Load Characteristics	O	1			Used
<b><u>LOOP ID - HL</u></b>					<b><u>200000</u></b>	<b><u>C2/0100L</u></b>	
0100	HL	Hierarchical Level-Item	M	1		C2/0100	Must use
0200	LIN	Item Identification	M	1			Must use
0300	SN1	Item Detail (Shipment)	M	1			Must use
0600	PO4	Item Physical Details	O	1			Used
0700	PID	Product/Item Description	M	2			Must use
1500	REF	Reference Information	O	>1			Used
2000	DTM	Date/Time Reference	O	3			Used

**Summary:**

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
0100	CTT	Transaction Totals	O	1		N3/0100	Used
0200	SE	Transaction Set Trailer	M	1			Must use

**Notes:**

3/0100 Number of line items (CTT01) is the accumulation of the number of HL segments. If used, hash total (CTT02) is the sum of the value of units shipped (SN102) for each SN1 segment.

**Comments:**

- 2/0100L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
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# ST Transaction Set Header

Pos: 0100	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To indicate the start of a transaction set and to assign a control number

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ST01	143	Transaction Set Identifier Code	M	ID	3/3	Must use

**Description:** Code uniquely identifying a Transaction Set

**CodeList Summary** (Total Codes: 318, Included: 1)

**Code Name**

856 Ship Notice/Manifest

ST02	329	Transaction Set Control Number	M	AN	4/9	Must use
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**Description:** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

## Semantics:

1. The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
2. The implementation convention reference (ST03) is used by the translation routines of the interchange partners to select the appropriate implementation convention to match the transaction set definition. When used, this implementation convention reference takes precedence over the implementation reference specified in the GS08.

# BSN Beginning Segment for Ship Notice

Pos: 0200	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 4

**User Option (Usage):** Must use

**Purpose:** To transmit identifying numbers, dates, and other basic data relating to the transaction set

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
BSN01	353	Transaction Set Purpose Code	M	ID	2/2	Must use

**Description:** Code identifying purpose of transaction set

**CodeList Summary** (Total Codes: 66, Included: 2)

### Code Name

00 Original

#### **User Note 1:**

*Used as confirmation of shipments direct to PFS*

06 Confirmation

#### **User Note 1:**

*Used as confirmation of shipments direct to consumer*

BSN02	396	Shipment Identification	M	AN	2/30	Must use
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**Description:** A unique control number assigned by the original shipper to identify a specific shipment

BSN03	373	Date	M	DT	8/8	Must use
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**Description:** Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year

BSN04	337	Time	M	TM	4/8	Must use
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**Description:** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)

## Syntax Rules:

1. C0706 - If BSN07 is present, then BSN06 is required.

## Semantics:

1. BSN03 is the date the shipment transaction set is created.
2. BSN04 is the time the shipment transaction set is created.
3. BSN06 is limited to shipment related codes.

## Comments:

1. BSN06 and BSN07 differentiate the functionality of use for the transaction set.

# DTM Date/Time Reference

Pos: 0400	Max: 2
Heading - Mandatory	
Loop: N/A	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify pertinent dates and times

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
DTM01	374	Date/Time Qualifier	M	ID	3/3	Must use

**Description:** Code specifying type of date or time, or both date and time

**CodeList Summary** (Total Codes: 1280, Included: 2)

**Code Name**

011 Shipped

**User Note 1:**

*Mandatory*

017 Estimated Delivery

**User Note 1:**

*Mandatory*

DTM02	373	Date	M	DT	8/8	Must use
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**Description:** Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year

## Syntax Rules:

1. R020305 - At least one of DTM02, DTM03 or DTM05 is required.
2. C0403 - If DTM04 is present, then DTM03 is required.
3. P0506 - If either DTM05 or DTM06 is present, then the other is required.

# Loop Hierarchical Level

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
0100	HL	Hierarchical Level- Shipment	M	1		Must use
1100	TD1	Carrier Details (Quantity and Weight)	M	1		Must use
1200	TD5	Carrier Details (Routing Sequence/Transit Time)	M	1		Must use
1300		Loop TD3	O		1	Used
1400	TD4	Carrier Details (Special Handling, or Hazardous Materials, or Both)	O	1		Used
1500	REF	Reference Information	M	3		Must use
2200		Loop N1	M		2	Must use
0100		Loop HL	M		200000	Must use



# HL Hierarchical Level- Shipment

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	<b>Hierarchical ID Number</b>	M	AN	1/12	Must use

**Description:** A unique number assigned by the sender to identify a particular data segment in a hierarchical structure

HL03	735	<b>Hierarchical Level Code</b>	M	ID	1/2	Must use
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**Description:** Code defining the characteristic of a level in a hierarchical structure

**CodeList Summary** (Total Codes: 250, Included: 1)

**Code Name**

S Shipment

## Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

# TD1 Carrier Details (Quantity and Weight)

Pos: 1100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 5

**User Option (Usage):** Must use

**Purpose:** To specify the transportation details relative to commodity, weight, and quantity

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
TD101	103	Packaging Code	M	AN	3/5	Must use

**Description:** Code identifying the type of packaging; Part 1: Packaging Form, Part 2: Packaging Material; if the Data Element is used, then Part 1 is always required

**CodeList Summary** (Total Codes: 155, Included: 3)

**Code Name**

CTN Carton  
 MXD Mixed  
 PLT Pallet

TD102	80	Lading Quantity	M	N0	1/7	Must use
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**Description:** Number of units (pieces) of the lading commodity

TD106	187	Weight Qualifier	C	ID	1/2	Used
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**Description:** Code defining the type of weight

**User Note 1:** *If any of TD106, TD107 or TD108 is present, all are required*

**CodeList Summary** (Total Codes: 52, Included: 1)

**Code Name**

G Gross Weight

TD107	81	Weight	C	R	1/10	Used
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**Description:** Numeric value of weight

**User Note 1:** *If any of TD106, TD107 or TD108 is present, all are required*

TD108	355	Unit or Basis for Measurement Code	C	ID	2/2	Used
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**Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

**User Note 1:** *If any of TD106, TD107 or TD108 is present, all are required*

**CodeList Summary** (Total Codes: 844, Included: 1)

**Code Name**

LB Pound

## Syntax Rules:

1. C0102 - If TD101 is present, then TD102 is required.
2. C0304 - If TD103 is present, then TD104 is required.
3. C0607 - If TD106 is present, then TD107 is required.
4. P0708 - If either TD107 or TD108 is present, then the other is required.
5. P0910 - If either TD109 or TD110 is present, then the other is required.

# TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 1200	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 4

**User Option (Usage):** Must use

**Purpose:** To specify the carrier and sequence of routing and provide transit time information

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
TD502	66	<b>Identification Code Qualifier</b>	O	ID	1/2	Used
<p><b>Description:</b> Code designating the system/method of code structure used for Identification Code (67)</p> <p><b>CodeList Summary</b> (Total Codes: 241, Included: 1)</p> <p><b>Code Name</b></p> <p>2 Standard Carrier Alpha Code (SCAC)</p>						
TD503	67	<b>Identification Code</b>	X	AN	2/4	Used
<p><b>Description:</b> Code identifying a party or other code</p> <p><b>User Note 1:</b> <i>Min/Max = 2/4</i></p>						
TD504	91	<b>Transportation Method/Type Code</b>	M	ID	1/2	Must use
<p><b>Description:</b> Code specifying the method or type of transportation for the shipment</p> <p><b>CodeList Summary</b> (Total Codes: 80, Included: 2)</p> <p><b>Code Name</b></p> <p>H Customer Pickup</p> <p>M Motor (Common Carrier)</p>						
TD505	387	<b>Routing</b>	M	AN	1/35	Must use
<p><b>Description:</b> Free-form description of the routing or requested routing for shipment, or the originating carrier's identity</p>						

## Syntax Rules:

1. R0204050612 - At least one of TD502, TD504, TD505, TD506 or TD512 is required.
2. C0203 - If TD502 is present, then TD503 is required.
3. C0708 - If TD507 is present, then TD508 is required.
4. C1011 - If TD510 is present, then TD511 is required.
5. C1312 - If TD513 is present, then TD512 is required.
6. C1413 - If TD514 is present, then TD513 is required.
7. C1512 - If TD515 is present, then TD512 is required.

## Semantics:

1. TD515 is the country where the service is to be performed.

## Comments:

1. When specifying a routing sequence to be used for the shipment movement in lieu of specifying each carrier within the movement, use TD502 to identify the party responsible for defining the routing sequence, and use TD503 to identify the actual routing sequence, specified by the party identified in TD502.

# Loop Carrier Details (Equipment)

Pos: 1300	Repeat: 1
Optional	
Loop: TD3	Elements: N/A

**User Option (Usage):** Used

**Purpose:** To specify transportation details relating to the equipment used by the carrier

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
1300	TD3	Carrier Details (Equipment)	O	1		Used

# TD3 Carrier Details (Equipment)

Pos: 1300	Max: 1
Detail - Optional	
Loop: TD3	Elements: 1

**User Option (Usage):** Used

**Purpose:** To specify transportation details relating to the equipment used by the carrier

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
TD301	40	Equipment Description Code	X	ID	2/2	Used

**Description:** Code identifying type of equipment used for shipment

**User Note 1:** *Send if the shipment is temperature controlled*

**CodeList Summary** (Total Codes: 139, Included: 1)

**Code Name**

RT    Controlled Temperature Trailer (Reefer)

## Syntax Rules:

1. E0110 - Only one of TD301 or TD310 may be present.
2. C0203 - If TD302 is present, then TD303 is required.
3. C0405 - If TD304 is present, then TD305 is required.
4. P0506 - If either TD305 or TD306 is present, then the other is required.

# TD4 Carrier Details (Special Handling, or Hazardous Materials, or Both)

Pos: 1400	Max: 1
Detail - Optional	
Loop: HL	Elements: 1

**User Option (Usage):** Used

**Purpose:** To specify transportation special handling requirements, or hazardous materials information, or both

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
TD401	152	Special Handling Code	X	ID	2/3	Used

**Description:** Code specifying special transportation handling instructions

**User Note 1:** *Send if the shipment contains hazardous material*

**CodeList Summary** (Total Codes: 556, Included: 1)

**Code Name**

HM Endorsed as Hazardous Material

## Syntax Rules:

1. R010204 - At least one of TD401, TD402 or TD404 is required.
2. C0203 - If TD402 is present, then TD403 is required.

## Semantics:

1. TD405 identifies if a Material Safety Data Sheet (MSDS) exists for this product. A "Y" indicates an MSDS exists for this product; an "N" indicates an MSDS does not exist for this product.

# REF Reference Information

Pos: 1500	Max: 3
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify identifying information

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

**Description:** Code qualifying the Reference Identification

**User Note 1:** One of either Bill of Lading, Carrier Pro Number or Tracking Number is required. A Tracking Number can be sent in place of a Carrier Pro number, but both should not be provided.

**CodeList Summary** (Total Codes: 1731, Included: 4)

### Code Name

2I	Tracking Number
BM	Bill of Lading Number
CN	Carrier's Reference Number (PRO/Invoice)
SN	Seal Number

### **User Note 1:**

*Optional*

REF02	127	Reference Identification	M	AN	1/50	Must use
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**Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

## Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

## Semantics:

1. REF04 contains data relating to the value cited in REF02.

# Loop Party Identification

Pos: 2200	Repeat: 2
Mandatory	
Loop: N1	Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify a party by type of organization, name, and code

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
2200	N1	Party Identification	M	1		Must use
2300	N2	Additional Name Information	O	1		Used
2400	N3	Party Location	M	2		Must use
2500	N4	Geographic Location	M	1		Must use



# N1 Party Identification

Pos: 2200	Max: 1
Detail - Mandatory	
Loop: N1	Elements: 4

**User Option (Usage):** Must use

**Purpose:** To identify a party by type of organization, name, and code

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N101	98	Entity Identifier Code	M	ID	2/3	Must use

**Description:** Code identifying an organizational entity, a physical location, property or an individual

**CodeList Summary** (Total Codes: 1500, Included: 2)

### Code Name

SF Ship From

#### **User Note 1:**

*Mandatory*

ST Ship To

#### **User Note 1:**

*Mandatory*

N102	93	Name	M	AN	1/60	Must use
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**Description:** Free-form name

N103	66	Identification Code Qualifier	C	ID	1/2	Used
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**Description:** Code designating the system/method of code structure used for Identification Code (67)

**User Note 1:** *Required when BSN01=00 and N101=ST*

**CodeList Summary** (Total Codes: 241, Included: 2)

### Code Name

9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix

92 Assigned by Buyer or Buyer's Agent

N104	67	Identification Code	C	AN	2/80	Used
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**Description:** Code identifying a party or other code

**User Note 1:** *Required when BSN01=00 and N101=ST*

## Syntax Rules:

1. R0203 - At least one of N102 or N103 is required.
2. P0304 - If either N103 or N104 is present, then the other is required.

## Comments:

1. This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2. N105 and N106 further define the type of entity in N101.

# N2 Additional Name Information

Pos: 2300	Max: 1
Detail - Optional	
Loop: N1	Elements: 1

**User Option (Usage):** Used

**Purpose:** To specify additional names

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N201	93	Name	M	AN	1/60	Must use

**Description:** Free-form name

# N3 Party Location

Pos: 2400	Max: 2
Detail - Mandatory	
Loop: N1	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify the location of the named party

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N301	166	<b>Address Information</b>	M	AN	1/55	Must use
		<b>Description:</b> Address information				
N302	166	<b>Address Information</b>	O	AN	1/55	Used
		<b>Description:</b> Address information				

# N4 Geographic Location

Pos: 2500	Max: 1
Detail - Mandatory	
Loop: N1	Elements: 4

**User Option (Usage):** Must use

**Purpose:** To specify the geographic place of the named party

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N401	19	<b>City Name</b>	M	AN	2/30	Must use
		<b>Description:</b> Free-form text for city name				
N402	156	<b>State or Province Code</b>	M	ID	2/2	Must use
		<b>Description:</b> Code (Standard State/Province) as defined by appropriate government agency				
N403	116	<b>Postal Code</b>	M	ID	3/15	Must use
		<b>Description:</b> Code defining international postal zone code excluding punctuation and blanks (zip code for United States)				
N404	26	<b>Country Code</b>	O	ID	2/3	Used
		<b>Description:</b> Code identifying the country				

## Syntax Rules:

1. E0207 - Only one of N402 or N407 may be present.
2. C0605 - If N406 is present, then N405 is required.
3. C0704 - If N407 is present, then N404 is required.

## Comments:

1. A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
2. N402 is required only if city name (N401) is in the U.S. or Canada.

# Loop Hierarchical Level

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
0100	HL	Hierarchical Level- Order	M	1		Must use
0500	PRF	Purchase Order Reference	M	1		Must use
1500	REF	Reference Information	M	3		Must use
0100		Loop HL	O		200000	Used

# HL Hierarchical Level- Order

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	<b>Hierarchical ID Number</b>	M	AN	1/12	Must use
<b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure						
HL02	734	<b>Hierarchical Parent ID Number</b>	M	AN	1/12	Must use
<b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to						
HL03	735	<b>Hierarchical Level Code</b>	M	ID	1/2	Must use
<b>Description:</b> Code defining the characteristic of a level in a hierarchical structure						
<b>CodeList Summary</b> (Total Codes: 250, Included: 1)						
<b><u>Code</u> <u>Name</u></b>						
O Order						

## Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

# PRF Purchase Order Reference

Pos: 0500	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To provide reference to a specific purchase order

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PRF01	324	<b>Purchase Order Number</b>	M	AN	1/22	Must use

**Description:** Identifying number for Purchase Order assigned by the orderer/purchaser

PRF04	373	<b>Date</b>	O	DT	8/8	Used
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**Description:** Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year

## Semantics:

1. PRF04 is the date assigned by the purchaser to purchase order.

# REF Reference Information

Pos: 1500	Max: 3
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify identifying information

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

**Description:** Code qualifying the Reference Identification

**CodeList Summary** (Total Codes: 1731, Included: 3)

**Code Name**

19 Division Identifier

**User Note 1:**

*Optional - Recommended to send if provided on the Purchase Order*

*PFS assigned division number*

CO Customer Order Number

**User Note 1:**

*Required if present on the Purchase Order*

IA Internal Vendor Number

**User Note 1:**

*Mandatory - PFS assigned Vendor ID*

REF02	127	Reference Identification	M	AN	1/50	Must use
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**Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

## Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

## Semantics:

1. REF04 contains data relating to the value cited in REF02.



# Loop Hierarchical Level

Pos: 0100	Repeat: 200000
Optional	
Loop: HL	Elements: N/A

**User Option (Usage):** Used

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## User Note 1:

*Pallet Level is optional, but should be provided if the ASN being sent is a Shipment-Order-Tare-Pack-Item (SOTPI) structure*

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
0100	HL	Hierarchical Level-Pack	M	1		Must use
0600	PO4	Item Physical Details	O	1		Used
1500	REF	Reference Information	O	>1		Used
1900	MAN	Marks and Numbers Information	M	1		Must use
2000	DTM	Date/Time Reference	O	3		Used
2150	PAL	Pallet Type and Load Characteristics	O	1		Used
0100		Loop HL	M		200000	Must use

# HL Hierarchical Level-Pack

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	<b>Hierarchical ID Number</b>	M	AN	1/12	Must use
<b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure						
HL02	734	<b>Hierarchical Parent ID Number</b>	M	AN	1/12	Must use
<b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to						
HL03	735	<b>Hierarchical Level Code</b>	M	ID	1/2	Must use
<b>Description:</b> Code defining the characteristic of a level in a hierarchical structure						
<b>CodeList Summary</b> (Total Codes: 250, Included: 1)						
<b><u>Code</u> <u>Name</u></b>						
T Shipping Tare						

## Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

# PO4 Item Physical Details

Pos: 0600	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

**User Option (Usage):** Used

**Purpose:** To specify the physical qualities, packaging, weights, and dimensions relating to the item

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PO405	187	<b>Weight Qualifier</b>	M	ID	1/2	Must use

**Description:** Code defining the type of weight

**CodeList Summary** (Total Codes: 52, Included: 1)

Code Name

G Gross Weight

PO406	384	<b>Gross Weight per Pack</b>	M	R	1/9	Must use
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**Description:** Numeric value of gross weight per pack

PO407	355	<b>Unit or Basis for Measurement Code</b>	M	ID	2/2	Must use
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**Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

**CodeList Summary** (Total Codes: 844, Included: 1)

Code Name

LB Pound

## Syntax Rules:

1. P0203 - If either PO402 or PO403 is present, then the other is required.
2. C0506 - If PO405 is present, then PO406 is required.
3. P0607 - If either PO406 or PO407 is present, then the other is required.
4. P0809 - If either PO408 or PO409 is present, then the other is required.
5. C1013 - If PO410 is present, then PO413 is required.
6. C1113 - If PO411 is present, then PO413 is required.
7. C1213 - If PO412 is present, then PO413 is required.
8. L13101112 - If PO413 is present, then at least one of PO410, PO411 or PO412 is required.
9. C1716 - If PO417 is present, then PO416 is required.
10. C1804 - If PO418 is present, then PO404 is required.

## Semantics:

1. PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.
2. PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3. PO417 is the ending package identifier in a range of identifiers.
4. PO418 is the number of packages in this layer.

## Comments:

1. PO403 - The "Unit or Basis for Measure Code" in this segment position is for purposes of defining the unit of measure of the "Size" identified in the PO402. For example: If the carton contains 24 12-Ounce packages, it would be described as follows: Data element 356 = "24"; Data element 357 = "12"; Data element 355 = "OZ".

2. PO413 defines the unit of measure for PO410, PO411, and PO412.

# REF Reference Information

Pos: 1500	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

**Purpose:** To specify identifying information

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

**Description:** Code qualifying the Reference Identification

**CodeList Summary** (Total Codes: 1731, Included: 1)

**Code Name**

LT Lot Number

REF02	127	Reference Identification	M	AN	1/50	Must use
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**Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

## Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

## Semantics:

1. REF04 contains data relating to the value cited in REF02.

# MAN Marks and Numbers Information

Pos: 1900	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To indicate identifying marks and numbers for shipping containers

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
MAN01	88	Marks and Numbers Qualifier	M	ID	1/2	Must use

**Description:** Code specifying the application or source of Marks and Numbers (87)

**CodeList Summary** (Total Codes: 21, Included: 2)

### Code Name

CP Carrier-Assigned Package ID Number

GM EAN.UCC Serial Shipping Container Code (SSCC) and Application Identifier

MAN02	87	Marks and Numbers	M	AN	1/48	Must use
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**Description:** Marks and numbers used to identify a shipment or parts of a shipment

**User Note 1:** *When MAN01 = GM, Min/Max is 20/20*

## Syntax Rules:

1. P0405 - If either MAN04 or MAN05 is present, then the other is required.
2. C0605 - If MAN06 is present, then MAN05 is required.

## Semantics:

1. MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks and numbers assigned to the same physical container.
2. When both MAN02 and MAN03 are used, MAN02 is the starting number of a sequential range and MAN03 is the ending number of that range.
3. When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.

## Comments:

1. When MAN01 contains code "UC" (U.P.C. Shipping Container Code) and MAN05/MAN06 contain a range of ID numbers, MAN03 is not used. The reason for this is that the U.P.C. Shipping Container code is the same on every carton that is represented in the range in MAN05/MAN06.
2. MAN03 and/or MAN06 are only used when sending a range(s) of ID numbers.
3. When both MAN02/MAN03 and MAN05/MAN06 are used to send ranges of ID numbers, the integrity of the two ID numbers must be maintained.

# DTM Date/Time Reference

Pos: 2000	Max: 3
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

**Purpose:** To specify pertinent dates and times

### User Note 1:

*Send if applicable to the whole pallet, else use item level*

### Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
DTM01	374	<b>Date/Time Qualifier</b>	M	ID	3/3	Must use

**Description:** Code specifying type of date or time, or both date and time

**CodeList Summary** (Total Codes: 1280, Included: 3)

<u>Code</u>	<u>Name</u>
036	Expiration
405	Production
511	Shelf Life Expiration

DTM02	373	<b>Date</b>	M	DT	8/8	Must use
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**Description:** Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year

### Syntax Rules:

1. R020305 - At least one of DTM02, DTM03 or DTM05 is required.
2. C0403 - If DTM04 is present, then DTM03 is required.
3. P0506 - If either DTM05 or DTM06 is present, then the other is required.

# PAL Pallet Type and Load Characteristics

Pos: 2150	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

**Purpose:** To identify the type and physical attributes of the pallet, and, gross weight, gross volume, and height of the load and the pallet

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PAL02	884	<b>Pallet Tiers</b>	O	N0	1/3	Used
<b>Description:</b> The number of layers per pallet						
PAL03	885	<b>Pallet Blocks</b>	O	N0	1/3	Used
<b>Description:</b> The number of pieces (cartons) per layer on the pallet						

## Syntax Rules:

1. P0506 - If either PAL05 or PAL06 is present, then the other is required.
2. C0710 - If PAL07 is present, then PAL10 is required.
3. C0810 - If PAL08 is present, then PAL10 is required.
4. C0910 - If PAL09 is present, then PAL10 is required.
5. L10070809 - If PAL10 is present, then at least one of PAL07, PAL08 or PAL09 is required.
6. P1112 - If either PAL11 or PAL12 is present, then the other is required.
7. P1314 - If either PAL13 or PAL14 is present, then the other is required.

## Semantics:

1. PAL04 (Pack) is the number of pieces on the pallet.
2. PAL05 (Unit Weight) is the weight of the pallet alone, before loading.
3. PAL07 and PAL08 (Length and Width) are the dimensions of the pallet before loading.
4. PAL09 (Height) is the height of the pallet and load.
5. PAL11 and PAL13 (Gross Weight and Gross Volume) are measured after loading and includes the pallet.



# Loop Hierarchical Level

Pos: 0100	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## User Note 1:

*If Pallet HL loop was provided, this HL loop should be sent as a 'P' (Pack/Carton)*

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
0100	HL	Hierarchical Level-Pack	M	1		Must use
0600	PO4	Item Physical Details	O	1		Used
1500	REF	Reference Information	O	>1		Used
1900	MAN	Marks and Numbers Information	M	1		Must use
2000	DTM	Date/Time Reference	O	3		Used
2150	PAL	Pallet Type and Load Characteristics	O	1		Used
0100		Loop HL	M		200000	Must use

# HL Hierarchical Level-Pack

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	<b>Hierarchical ID Number</b>	M	AN	1/12	Must use
<b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure						
HL02	734	<b>Hierarchical Parent ID Number</b>	M	AN	1/12	Must use
<b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to						
HL03	735	<b>Hierarchical Level Code</b>	M	ID	1/2	Must use
<b>Description:</b> Code defining the characteristic of a level in a hierarchical structure						
<b>CodeList Summary</b> (Total Codes: 250, Included: 2)						
<b><u>Code</u> <u>Name</u></b>						
P Pack						
T Shipping Tare						

## Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

# PO4 Item Physical Details

Pos: 0600	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

**User Option (Usage):** Used

**Purpose:** To specify the physical qualities, packaging, weights, and dimensions relating to the item

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PO405	187	<b>Weight Qualifier</b>	M	ID	1/2	Must use

**Description:** Code defining the type of weight

**CodeList Summary** (Total Codes: 52, Included: 1)

Code Name

G Gross Weight

PO406	384	<b>Gross Weight per Pack</b>	M	R	1/9	Must use
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**Description:** Numeric value of gross weight per pack

PO407	355	<b>Unit or Basis for Measurement Code</b>	M	ID	2/2	Must use
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**Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

**CodeList Summary** (Total Codes: 844, Included: 1)

Code Name

LB Pound

## Syntax Rules:

1. P0203 - If either PO402 or PO403 is present, then the other is required.
2. C0506 - If PO405 is present, then PO406 is required.
3. P0607 - If either PO406 or PO407 is present, then the other is required.
4. P0809 - If either PO408 or PO409 is present, then the other is required.
5. C1013 - If PO410 is present, then PO413 is required.
6. C1113 - If PO411 is present, then PO413 is required.
7. C1213 - If PO412 is present, then PO413 is required.
8. L13101112 - If PO413 is present, then at least one of PO410, PO411 or PO412 is required.
9. C1716 - If PO417 is present, then PO416 is required.
10. C1804 - If PO418 is present, then PO404 is required.

## Semantics:

1. PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.
2. PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3. PO417 is the ending package identifier in a range of identifiers.
4. PO418 is the number of packages in this layer.

## Comments:

1. PO403 - The "Unit or Basis for Measure Code" in this segment position is for purposes of defining the unit of measure of the "Size" identified in the PO402. For example: If the carton contains 24 12-Ounce packages, it would be described as follows: Data element 356 = "24"; Data element 357 = "12"; Data element 355 = "OZ".

2. PO413 defines the unit of measure for PO410, PO411, and PO412.

# REF Reference Information

Pos: 1500	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

**Purpose:** To specify identifying information

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

**Description:** Code qualifying the Reference Identification

**CodeList Summary** (Total Codes: 1731, Included: 1)

**Code Name**

LT Lot Number

REF02	127	Reference Identification	X	AN	1/50	Used
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**Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

## Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

## Semantics:

1. REF04 contains data relating to the value cited in REF02.

# MAN Marks and Numbers Information

Pos: 1900	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To indicate identifying marks and numbers for shipping containers

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
MAN01	88	Marks and Numbers Qualifier	M	ID	1/2	Must use

**Description:** Code specifying the application or source of Marks and Numbers (87)

**CodeList Summary** (Total Codes: 21, Included: 2)

### Code Name

CP Carrier-Assigned Package ID Number

GM EAN.UCC Serial Shipping Container Code (SSCC) and Application Identifier

MAN02	87	Marks and Numbers	M	AN	1/48	Must use
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**Description:** Marks and numbers used to identify a shipment or parts of a shipment

**User Note 1:** *When MAN01 = GM, Min/Max is 20/20*

## Syntax Rules:

1. P0405 - If either MAN04 or MAN05 is present, then the other is required.
2. C0605 - If MAN06 is present, then MAN05 is required.

## Semantics:

1. MAN01/MAN02 and MAN04/MAN05 may be used to identify two different marks and numbers assigned to the same physical container.
2. When both MAN02 and MAN03 are used, MAN02 is the starting number of a sequential range and MAN03 is the ending number of that range.
3. When both MAN05 and MAN06 are used, MAN05 is the starting number of a sequential range, and MAN06 is the ending number of that range.

## Comments:

1. When MAN01 contains code "UC" (U.P.C. Shipping Container Code) and MAN05/MAN06 contain a range of ID numbers, MAN03 is not used. The reason for this is that the U.P.C. Shipping Container code is the same on every carton that is represented in the range in MAN05/MAN06.
2. MAN03 and/or MAN06 are only used when sending a range(s) of ID numbers.
3. When both MAN02/MAN03 and MAN05/MAN06 are used to send ranges of ID numbers, the integrity of the two ID numbers must be maintained.

# DTM Date/Time Reference

Pos: 2000	Max: 3
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

**Purpose:** To specify pertinent dates and times

### User Note 1:

*Send if applicable to the whole pallet/carton, else use item level*

### Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
DTM01	374	Date/Time Qualifier	M	ID	3/3	Must use

**Description:** Code specifying type of date or time, or both date and time

**CodeList Summary** (Total Codes: 1280, Included: 3)

<u>Code</u>	<u>Name</u>
036	Expiration
405	Production
511	Shelf Life Expiration

DTM02	373	Date	M	DT	8/8	Must use
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**Description:** Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year

### Syntax Rules:

1. R020305 - At least one of DTM02, DTM03 or DTM05 is required.
2. C0403 - If DTM04 is present, then DTM03 is required.
3. P0506 - If either DTM05 or DTM06 is present, then the other is required.

# PAL Pallet Type and Load Characteristics

Pos: 2150	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

**Purpose:** To identify the type and physical attributes of the pallet, and, gross weight, gross volume, and height of the load and the pallet

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PAL02	884	<b>Pallet Tiers</b>	O	N0	1/3	Used
<b>Description:</b> The number of layers per pallet						
PAL03	885	<b>Pallet Blocks</b>	O	N0	1/3	Used
<b>Description:</b> The number of pieces (cartons) per layer on the pallet						

## Syntax Rules:

1. P0506 - If either PAL05 or PAL06 is present, then the other is required.
2. C0710 - If PAL07 is present, then PAL10 is required.
3. C0810 - If PAL08 is present, then PAL10 is required.
4. C0910 - If PAL09 is present, then PAL10 is required.
5. L10070809 - If PAL10 is present, then at least one of PAL07, PAL08 or PAL09 is required.
6. P1112 - If either PAL11 or PAL12 is present, then the other is required.
7. P1314 - If either PAL13 or PAL14 is present, then the other is required.

## Semantics:

1. PAL04 (Pack) is the number of pieces on the pallet.
2. PAL05 (Unit Weight) is the weight of the pallet alone, before loading.
3. PAL07 and PAL08 (Length and Width) are the dimensions of the pallet before loading.
4. PAL09 (Height) is the height of the pallet and load.
5. PAL11 and PAL13 (Gross Weight and Gross Volume) are measured after loading and includes the pallet.



# Loop Hierarchical Level

Pos: 0100      Repeat: 200000  
 Mandatory  
 Loop: HL      Elements: N/A

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
0100	HL	Hierarchical Level-Item	M	1		Must use
0200	LIN	Item Identification	M	1		Must use
0300	SN1	Item Detail (Shipment)	M	1		Must use
0600	PO4	Item Physical Details	O	1		Used
0700	PID	Product/Item Description	M	2		Must use
1500	REF	Reference Information	O	>1		Used
2000	DTM	Date/Time Reference	O	3		Used

# HL Hierarchical Level-Item

Pos: 0100	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

**User Option (Usage):** Must use

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
HL01	628	<b>Hierarchical ID Number</b>	M	AN	1/12	Must use
<b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure						
HL02	734	<b>Hierarchical Parent ID Number</b>	M	AN	1/12	Must use
<b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to						
HL03	735	<b>Hierarchical Level Code</b>	M	ID	1/2	Must use
<b>Description:</b> Code defining the characteristic of a level in a hierarchical structure						
<b>CodeList Summary</b> (Total Codes: 250, Included: 1)						
<u>Code</u> <u>Name</u>						
I Item						

## Comments:

1. The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
2. The HL segment defines a top-down/left-right ordered structure.
3. HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.
4. HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.
5. HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.
6. HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

# LIN Item Identification

<b>Pos: 0200</b>	<b>Max: 1</b>
<b>Detail - Mandatory</b>	
<b>Loop: HL</b>	<b>Elements: 9</b>

**User Option (Usage):** Must use

**Purpose:** To specify basic item identification data

### User Note 1:

*One of PFS SKU (SK), Vendor Part Number (VN) or UPC (UA) must be returned as sent on the Purchase Order*

*Recommended to send all part numbers received back on the 856*

### Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
LIN01	350	<b>Assigned Identification</b>	M	AN	1/20	Must use

**Description:** Alphanumeric characters assigned for differentiation within a transaction set

**User Note 1:** Return as sent on the Purchase Order

LIN02	235	<b>Product/Service ID Qualifier</b>	M	ID	2/2	Must use
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**Description:** Code identifying the type/source of the descriptive number used in Product/Service ID (234)

**CodeList Summary** (Total Codes: 519, Included: 4)

**Code Name**

SK Stock Keeping Unit (SKU)

**User Note 1:**

*PFS assigned SKU*

UA U.P.C./EAN Case Code (2-5-5)

UK GTIN 14-digit Data Structure

VN Vendor's (Seller's) Item Number

LIN03	234	<b>Product/Service ID</b>	M	AN	1/48	Must use
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**Description:** Identifying number for a product or service

LIN04	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2	Used
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**Description:** Code identifying the type/source of the descriptive number used in Product/Service ID (234)

**CodeList Summary** (Total Codes: 519, Included: 4)

**Code Name**

SK Stock Keeping Unit (SKU)

UA U.P.C./EAN Case Code (2-5-5)

UK GTIN 14-digit Data Structure

VN Vendor's (Seller's) Item Number

LIN05	234	<b>Product/Service ID</b>	X	AN	1/48	Used
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**Description:** Identifying number for a product or service

LIN06	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2	Used
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**Description:** Code identifying the type/source of the descriptive number used in

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
		Product/Service ID (234)				
		<b>CodeList Summary</b> (Total Codes: 519, Included: 4)				
		<b>Code</b>		<b>Name</b>		
		SK		Stock Keeping Unit (SKU)		
		UA		U.P.C./EAN Case Code (2-5-5)		
		UK		GTIN 14-digit Data Structure		
		VN		Vendor's (Seller's) Item Number		
LIN07	234	<b>Product/Service ID</b>	X	AN	1/48	Used
		<b>Description:</b> Identifying number for a product or service				
LIN08	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2	Used
		<b>Description:</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234)				
		<b>CodeList Summary</b> (Total Codes: 519, Included: 4)				
		<b>Code</b>		<b>Name</b>		
		SK		Stock Keeping Unit (SKU)		
		UA		U.P.C./EAN Case Code (2-5-5)		
		UK		GTIN 14-digit Data Structure		
		VN		Vendor's (Seller's) Item Number		
LIN09	234	<b>Product/Service ID</b>	X	AN	1/48	Used
		<b>Description:</b> Identifying number for a product or service				

### Syntax Rules:

1. P0405 - If either LIN04 or LIN05 is present, then the other is required.
2. P0607 - If either LIN06 or LIN07 is present, then the other is required.
3. P0809 - If either LIN08 or LIN09 is present, then the other is required.
4. P1011 - If either LIN10 or LIN11 is present, then the other is required.
5. P1213 - If either LIN12 or LIN13 is present, then the other is required.
6. P1415 - If either LIN14 or LIN15 is present, then the other is required.
7. P1617 - If either LIN16 or LIN17 is present, then the other is required.
8. P1819 - If either LIN18 or LIN19 is present, then the other is required.
9. P2021 - If either LIN20 or LIN21 is present, then the other is required.
10. P2223 - If either LIN22 or LIN23 is present, then the other is required.
11. P2425 - If either LIN24 or LIN25 is present, then the other is required.
12. P2627 - If either LIN26 or LIN27 is present, then the other is required.
13. P2829 - If either LIN28 or LIN29 is present, then the other is required.
14. P3031 - If either LIN30 or LIN31 is present, then the other is required.

### Semantics:

1. LIN01 is the line item identification

### Comments:

1. See the Data Dictionary for a complete list of IDs.
2. LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

# SN1 Item Detail (Shipment)

Pos: 0300	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To specify line-item detail relative to shipment

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SN102	382	Number of Units Shipped	M	R	1/10	Must use

**Description:** Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set

SN103	355	Unit or Basis for Measurement Code	M	ID	2/2	Must use
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**Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

**CodeList Summary** (Total Codes: 844, Included: 5)

**Code Name**

CA	Case
EA	Each
KG	Kilogram
LB	Pound
PK	Package

## Syntax Rules:

1. P0506 - If either SN105 or SN106 is present, then the other is required.

## Semantics:

1. SN101 is the ship notice line-item identification.
2. SN105 is quantity ordered.

## Comments:

1. SN103 defines the unit of measurement for both SN102 and SN104.

# PO4 Item Physical Details

Pos: 0600	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

**User Option (Usage):** Used

**Purpose:** To specify the physical qualities, packaging, weights, and dimensions relating to the item

## User Note 1:

*Send if the item is a catch weight item*

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PO405	187	<b>Weight Qualifier</b>	M	ID	1/2	Must use

**Description:** Code defining the type of weight

**CodeList Summary** (Total Codes: 52, Included: 1)

**Code Name**

G Gross Weight

PO406	384	<b>Gross Weight per Pack</b>	M	R	1/9	Must use
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**Description:** Numeric value of gross weight per pack

PO407	355	<b>Unit or Basis for Measurement Code</b>	M	ID	2/2	Must use
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**Description:** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

**CodeList Summary** (Total Codes: 844, Included: 1)

**Code Name**

LB Pound

## Syntax Rules:

1. P0203 - If either PO402 or PO403 is present, then the other is required.
2. C0506 - If PO405 is present, then PO406 is required.
3. P0607 - If either PO406 or PO407 is present, then the other is required.
4. P0809 - If either PO408 or PO409 is present, then the other is required.
5. C1013 - If PO410 is present, then PO413 is required.
6. C1113 - If PO411 is present, then PO413 is required.
7. C1213 - If PO412 is present, then PO413 is required.
8. L13101112 - If PO413 is present, then at least one of PO410, PO411 or PO412 is required.
9. C1716 - If PO417 is present, then PO416 is required.
10. C1804 - If PO418 is present, then PO404 is required.

## Semantics:

1. PO415 is used to indicate the relative layer of this package or range of packages within the layers of packaging. Relative Position 1 (value R1) is the innermost package.
2. PO416 is the package identifier or the beginning package identifier in a range of identifiers.
3. PO417 is the ending package identifier in a range of identifiers.
4. PO418 is the number of packages in this layer.

## Comments:

1. PO403 - The "Unit or Basis for Measure Code" in this segment position is for purposes of defining the unit of measure of the "Size" identified in the PO402. For example: If the carton contains 24 12-Ounce packages, it would be described as follows: Data element 356 = "24"; Data element 357 = "12"; Data element 355 = "OZ".
2. PO413 defines the unit of measure for PO410, PO411, and PO412.

# PID Product/Item Description

Pos: 0700	Max: 2
Detail - Mandatory	
Loop: HL	Elements: 3

**User Option (Usage):** Must use

**Purpose:** To describe a product or process in coded or free-form format

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
PID01	349	Item Description Type	M	ID	1/1	Must use

**Description:** Code indicating the format of a description

**CodeList Summary** (Total Codes: 3, Included: 1)

Code Name

F Free-form

PID02	750	Product/Process Characteristic Code	M	ID	2/3	Must use
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**Description:** Code identifying the general class of a product or process characteristic

**CodeList Summary** (Total Codes: 238, Included: 1)

Code Name

08 Product

PID05	352	Description	M	AN	1/80	Must use
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**Description:** A free-form description to clarify the related data elements and their content

## Syntax Rules:

1. C0403 - If PID04 is present, then PID03 is required.
2. R0405 - At least one of PID04 or PID05 is required.
3. C0703 - If PID07 is present, then PID03 is required.
4. C0804 - If PID08 is present, then PID04 is required.
5. C0905 - If PID09 is present, then PID05 is required.

## Semantics:

1. Use PID03 to indicate the organization that publishes the code list being referred to.
2. PID04 should be used for industry-specific product description codes.
3. PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.
4. PID09 is used to identify the language being used in PID05.

## Comments:

1. If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
2. Use PID06 when necessary to refer to the product surface or layer being described in the segment.
3. PID07 specifies the individual code list of the agency specified in PID03.



# REF Reference Information

Pos: 1500	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

**Purpose:** To specify identifying information

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use

**Description:** Code qualifying the Reference Identification

**CodeList Summary** (Total Codes: 1731, Included: 1)

**Code Name**

LT Lot Number

REF02	127	Reference Identification	M	AN	1/50	Must use
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**Description:** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

**User Note 1:** *If applicable, this must be sent*

## Syntax Rules:

1. R0203 - At least one of REF02 or REF03 is required.

## Semantics:

1. REF04 contains data relating to the value cited in REF02.

# DTM Date/Time Reference

Pos: 2000	Max: 3
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

**Purpose:** To specify pertinent dates and times

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
DTM01	374	Date/Time Qualifier	M	ID	3/3	Must use

**Description:** Code specifying type of date or time, or both date and time

**CodeList Summary** (Total Codes: 1280, Included: 3)

### Code Name

036	Expiration
405	Production
511	Shelf Life Expiration

DTM02	373	Date	X	DT	8/8	Used
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**Description:** Date expressed as CCYYMMDD where CC represents the first two digits of the calendar year

## Syntax Rules:

1. R020305 - At least one of DTM02, DTM03 or DTM05 is required.
2. C0403 - If DTM04 is present, then DTM03 is required.
3. P0506 - If either DTM05 or DTM06 is present, then the other is required.

# CTT Transaction Totals

Pos: 0100	Max: 1
Summary - Optional	
Loop: N/A	Elements: 1

**User Option (Usage):** Used

**Purpose:** To transmit a hash total for a specific element in the transaction set

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
CTT01	354	Number of Line Items	M	N0	1/6	Must use

**Description:** Total number of line items in the transaction set

## Syntax Rules:

1. P0304 - If either CTT03 or CTT04 is present, then the other is required.
2. P0506 - If either CTT05 or CTT06 is present, then the other is required.

## Comments:

1. This segment is intended to provide hash totals to validate transaction completeness and correctness.

# SE Transaction Set Trailer

Pos: 0200	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

**User Option (Usage):** Must use

**Purpose:** To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

## Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
SE01	96	<b>Number of Included Segments</b>	M	N0	1/10	Must use
		<b>Description:</b> Total number of segments included in a transaction set including ST and SE segments				
SE02	329	<b>Transaction Set Control Number</b>	M	AN	4/9	Must use
		<b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set				

## Comments:

- SE is the last segment of each transaction set.