

# 856

## Ship Notice/Manifest

### Functional Group=SH

This Draft Standard for Trial Use 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.

#### Not Defined:

<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>
	ISA	Interchange Control Header	M	1			Must use
	GS	Functional Group Header	M	1			Must use

#### 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>
010	ST	Transaction Set Header	M	1			Must use
020	BSN	Beginning Segment for Ship Notice	M	1			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>LOOP ID - HL</b>					<b>200000</b>	<b>C2/010L</b>	
010	HL	Hierarchical Level - Shipment	M	1		C2/010	Must use
110	TD1	Carrier Details (Quantity and Weight)	O	20			Used
120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12			Used
150	REF	Reference Identification	O	>1			Used
200	DTM	Date/Time Reference	O	10			Used
<b>LOOP ID - N1</b>					<b>200</b>		
220	N1	Name	O	1			Used
<b>LOOP ID - HL</b>					<b>200000</b>	<b>C2/010L</b>	
010	HL	Hierarchical Level	M	1		C2/010	Must use
050	PRF	Purchase Order Reference	O	1			Used
<b>LOOP ID - HL</b>					<b>200000</b>	<b>C2/010L</b>	
010	HL	Hierarchical Level	M	1		C2/010	Must use
190	MAN	Marks and Numbers	O	>1			Used
<b>LOOP ID - HL</b>					<b>200000</b>	<b>C2/010L</b>	
010	HL	Hierarchical Level	M	1		C2/010	Must use
020	LIN	Item Identification	O	1			Used
030	SN1	Item Detail (Shipment)	O	1			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>
010	CTT	Transaction Totals	O	1		N3/010	Used
020	SE	Transaction Set Trailer	M	1			Must use

#### Not Defined:

<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>
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GE	Functional Group Trailer	M	1	Must use
IEA	Interchange Control Trailer	M	1	Must use

**Notes:**

3/010 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:**

- 2/010L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
- 2/010 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
- 2/010L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
- 2/010 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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- 2/010L The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.
- 2/010 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

# ISA Interchange Control Header

Pos:	Max: 1
Not Defined - Mandatory	
Loop: N/A	Elements: 16

User Option (Usage): Must use

To start and identify an interchange of zero or more functional groups and interchange-related control 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>				
ISA01	I01	<b>Authorization Information Qualifier</b> <b>Description:</b> Code to identify the type of information in the Authorization Information <b>All valid standard codes are used.</b>	M	ID	2/2	Must use				
ISA02	I02	<b>Authorization Information</b> <b>Description:</b> Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)	M	AN	10/10	Must use				
ISA03	I03	<b>Security Information Qualifier</b> <b>Description:</b> Code to identify the type of information in the Security Information <b>All valid standard codes are used.</b>	M	ID	2/2	Must use				
ISA04	I04	<b>Security Information</b> <b>Description:</b> This is used for identifying the security information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03)	M	AN	10/10	Must use				
ISA05	I05	<b>Interchange ID Qualifier</b> <b>Description:</b> Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified <b>All valid standard codes are used.</b>	M	ID	2/2	Must use				
ISA06	I06	<b>Interchange Sender ID</b> <b>Description:</b> Identification code published by the sender for other parties to use as the receiver ID to route data to them; the sender always codes this value in the sender ID element	M	AN	15/15	Must use				
ISA07	I05	<b>Interchange ID Qualifier</b> <b>Description:</b> Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified  <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>12</td> <td>Phone (Telephone Companies)</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	12	Phone (Telephone Companies)	M	ID	2/2	Must use
<u>Code</u>	<u>Name</u>									
12	Phone (Telephone Companies)									
ISA08	I07	<b>Interchange Receiver ID</b> <b>Description:</b> Identification code published by the receiver of the data; When sending, it is used by the sender as their sending ID, thus other parties sending to them will use this as a receiving ID to route data to them <b>All valid standard codes are used.</b>	M	AN	15/15	Must use				
ISA09	I08	<b>Interchange Date</b> <b>Description:</b> Date of the interchange	M	DT	6/6	Must use				
ISA10	I09	<b>Interchange Time</b> <b>Description:</b> Time of the interchange	M	TM	4/4	Must use				
ISA11	I10	<b>Interchange Control Standards Identifier</b> <b>Description:</b> Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer	M	ID	1/1	Must use				

ISA12	I11	<p><b>All valid standard codes are used.</b></p> <p><b>Interchange Control Version Number</b>  <b>Description:</b> Code specifying the version number of the interchange control segments  <b>All valid standard codes are used.</b></p>	M	ID	5/5	Must use
ISA13	I12	<p><b>Interchange Control Number</b>  <b>Description:</b> A control number assigned by the interchange sender</p>	M	N0	9/9	Must use
ISA14	I13	<p><b>Acknowledgment Requested</b>  <b>Description:</b> Code sent by the sender to request an interchange acknowledgment (TA1)  <b>All valid standard codes are used.</b></p>	M	ID	1/1	Must use
ISA15	I14	<p><b>Usage Indicator</b>  <b>Description:</b> Code to indicate whether data enclosed by this interchange envelope is test, production or information  <b>All valid standard codes are used.</b></p>	M	ID	1/1	Must use
ISA16	I15	<p><b>Component Element Separator</b>  <b>Description:</b> Type is not applicable; the component element separator is a delimiter and not a data element; this field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator</p>	M		1/1	Must use

# GS Functional Group Header

<b>Pos:</b>	<b>Max: 1</b>
<b>Not Defined - Mandatory</b>	
<b>Loop: N/A</b>	<b>Elements: 8</b>

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

To indicate the beginning of a functional group and to provide control 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>
GS01	479	<b>Functional Identifier Code</b> <b>Description:</b> Code identifying a group of application related transaction sets <b>All valid standard codes are used.</b>	M	ID	2/2	Must use
GS02	142	<b>Application Sender's Code</b> <b>Description:</b> Code identifying party sending transmission; codes agreed to by trading partners	M	AN	2/15	Must use
GS03	124	<b>Application Receiver's Code</b> <b>Description:</b> Code identifying party receiving transmission; codes agreed to by trading partners <b>All valid standard codes are used.</b>	M	AN	2/15	Must use
GS04	373	<b>Date</b> <b>Description:</b> Date expressed as CCYYMMDD	M	DT	8/8	Must use
GS05	337	<b>Time</b> <b>Description:</b> 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)	M	TM	4/8	Must use
GS06	28	<b>Group Control Number</b> <b>Description:</b> Assigned number originated and maintained by the sender	M	N0	1/9	Must use
GS07	455	<b>Responsible Agency Code</b> <b>Description:</b> Code identifying the issuer of the standard; this code is used in conjunction with Data Element 480 <b>All valid standard codes are used.</b>	M	ID	1/2	Must use
GS08	480	<b>Version / Release / Industry Identifier Code</b> <b>Description:</b> Code indicating the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments; if code in DE455 in GS segment is X, then in DE 480 positions 1-3 are the version number; positions 4-6 are the release and subrelease, level of the version; and positions 7-12 are the industry or trade association identifiers (optionally assigned by user); if code in DE455 in GS segment is T, then other formats are allowed <b>All valid standard codes are used.</b>	M	AN	1/12	Must use

## Semantics:

- GS04 is the group date.
- GS05 is the group time.
- The data interchange control number GS06 in this header must be identical to the same data element in the associated functional group trailer, GE02.

## Comments:

1. A functional group of related transaction sets, within the scope of X12 standards, consists of a collection of similar transaction sets enclosed by a functional group header and a functional group trailer.

# ST Transaction Set Header

Pos: 010	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

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

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	<b>Transaction Set Identifier Code</b> <b>Description:</b> Code uniquely identifying a Transaction Set <b>All valid standard codes are used.</b>	M	ID	3/3	Must use
ST02	329	<b>Transaction Set Control Number</b> <b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M	AN	4/9	Must use

## Semantics:

1. The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).

# BSN Beginning Segment for Ship Notice

Pos: 020	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 5

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

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	<b>Transaction Set Purpose Code</b> <b>Description:</b> Code identifying purpose of transaction set <b>All valid standard codes are used.</b>	M	AN	2/2	Must use
BSN02	396	<b>Shipment Identification</b> <b>Description:</b> A unique control number assigned by the original shipper to identify a specific shipment	M	AN	2/30	Must use
BSN03	373	<b>Date</b> <b>Description:</b> Date expressed as CCYYMMDD	M	DT	8/8	Must use
BSN04	337	<b>Time</b> <b>Description:</b> 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)	M	TM	4/8	Must use
BSN05	1005	<b>Hierarchical Structure Code</b> <b>Description:</b> Code indicating the hierarchical application structure of a transaction set that utilizes the HL segment to define the structure of the transaction set <b>All valid standard codes are used.</b>	O	AN	4/4	Used

## Syntax:

1. C0706 - If BSN07 is present, then all of BSN06 are 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.



# Loop HL

Pos: 010	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

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>
010	HL	Hierarchical Level - Shipment	M	1		Must use
110	TD1	Carrier Details (Quantity and Weight)	O	20		Used
120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12		Used
150	REF	Reference Identification	O	>1		Used
200	DTM	Date/Time Reference	O	10		Used
220		Loop N1	O		200	Used

# HL Hierarchical Level - Shipment

Pos: 010	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

User Option (Usage): Must use

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> <b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	M	AN	1/12	Must use
HL02	734	<b>Hierarchical Parent ID Number</b> <b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O	AN	1/12	Used
HL03	735	<b>Hierarchical Level Code</b> <b>Description:</b> Code defining the characteristic of a level in a hierarchical structure	M	ID	1/2	Must use
		<u>Code</u> <u>Name</u>				
		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: 110	Max: 20
Detail - Optional	
Loop: HL	Elements: 4

User Option (Usage): Used

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>
TD102	80	<b>Lading Quantity</b> <b>Description:</b> Number of units (pieces) of the lading commodity	X	N0	1/7	Used
TD106	187	<b>Weight Qualifier</b> <b>Description:</b> Code defining the type of weight	O	ID	1/2	Used
		<u>Code</u> <u>Name</u>				
		G                    Gross Weight				
TD107	81	<b>Weight</b> <b>Description:</b> Numeric value of weight	X	R0	1/10	Used
TD108	355	<b>Unit or Basis for Measurement Code</b> <b>Description:</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	X	ID	2/2	Used
		<u>Code</u> <u>Name</u>				
		LB                   Pound				

### Syntax:

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

# TD5 Carrier Details (Routing Sequence/Transit Time)

Pos: 120	Max: 12
Detail - Optional	
Loop: HL	Elements: 3

User Option (Usage): Used

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

### Element Summary:

Ref	Id	Element Name	Req	Type	Min/Max	Usage
TD502	66	<b>Identification Code Qualifier</b> <b>Description:</b> Code designating the system/method of code structure used for Identification Code (67)	X	ID	1/2	Used
		<b>Code</b> <b>Name</b> 2                    Standard Carrier Alpha Code (SCAC)				
TD503	67	<b>Identification Code</b> <b>Description:</b> Carrier Code (SCAC)	X	AN	2/80	Used
TD505	387	<b>Routing</b> <b>Description:</b> Name of the carrier	X	AN	1/35	Used

### Syntax:

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

# REF Reference Identification

Pos: 150	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

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	<b>Reference Identification Qualifier</b> <b>Description:</b> Code qualifying the Reference Identification	M	ID	2/3	Must use
		<b>Code</b> <b>Name</b>				
		BM            Bill of Lading Number				
REF02	127	<b>Reference Identification</b> <b>Description:</b> Bill of Lading	X	AN	1/30	Used

## Syntax:

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

## Semantics:

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

# DTM Date/Time Reference

Pos: 200	Max: 10
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

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	<b>Date/Time Qualifier</b> <b>Description:</b> Code specifying type of date or time, or both date and time	M	ID	3/3	Must use
		<b>Code</b> <b>Name</b> 017                Estimated Delivery				
DTM02	373	<b>Date</b> <b>Description:</b> Date expressed as CCYYMMDD	X	DT	8/8	Used

## Syntax:

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

# Loop N1

Pos: 220	Repeat: 200
Optional	
Loop: N1	Elements: N/A

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>
220	N1	Name	O	1		Used

# N1

# Name

<b>Pos: 220</b>	<b>Max: 1</b>
<b>Detail - Optional</b>	
<b>Loop: N1</b>	<b>Elements: 4</b>

**User Option (Usage):** Used

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	<b>Entity Identifier Code</b> <b>Description:</b> Code identifying an organizational entity, a physical location, property or an individual	M	ID	2/3	Must use
		<u>Code</u> <u>Name</u> ST            Ship To				
N102	93	<b>Name</b> <b>Description:</b> Store Name	X	AN	1/60	Used
N103	66	<b>Identification Code Qualifier</b> <b>Description:</b> Code designating the system/method of code structure used for Identification Code (67)	X	ID	1/2	Used
		<u>Code</u> <u>Name</u> 92            Assigned by Buyer or Buyer's Agent				
N104	67	<b>Identification Code</b> <b>Description:</b> Store Number	X	AN	2/80	Used

**Syntax:**

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



# Loop HL

Pos: 010	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

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>
010	HL	Hierarchical Level	M	1		Must use
050	PRF	Purchase Order Reference	O	1		Used

# HL Hierarchical Level

<b>Pos: 010</b>	<b>Max: 1</b>
<b>Detail - Mandatory</b>	
<b>Loop: HL</b>	<b>Elements: 3</b>

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

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> <b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	M	AN	1/12	Must use
HL02	734	<b>Hierarchical Parent ID Number</b> <b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O	AN	1/12	Used
HL03	735	<b>Hierarchical Level Code</b> <b>Description:</b> Code defining the characteristic of a level in a hierarchical structure	M	ID	1/2	Must use
		<u>Code</u> <u>Name</u>				
		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: 050	Max: 1
Detail - Optional	
Loop: HL	Elements: 1

**User Option (Usage):** Used

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> <b>Description:</b> Identifying number for Purchase Order assigned by the orderer/purchaser	M	AN	1/22	Must use

## Semantics:

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

# Loop HL

Pos: 010	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

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>
010	HL	Hierarchical Level	M	1		Must use
190	MAN	Marks and Numbers	O	>1		Used

# HL Hierarchical Level

Pos: 010	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

User Option (Usage): Must use

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> <b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	M	AN	1/12	Must use
HL02	734	<b>Hierarchical Parent ID Number</b> <b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O	AN	1/12	Used
HL03	735	<b>Hierarchical Level Code-Pack</b> <b>Description:</b> Code defining the characteristic of a level in a hierarchical structure	M	ID	1/2	Must use
		<u>Code</u> <u>Name</u>				
		P                    Pack				

## 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.

# MAN Marks and Numbers

Pos: 190	Max: >1
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

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	<b>Marks and Numbers Qualifier</b> <b>Description:</b> Code specifying the application or source of Marks and Numbers (87) <b>All valid standard codes are used.</b>	M	ID	1/2	Must use
MAN02	87	<b>Marks and Numbers</b> <b>Description:</b> Marks and numbers used to identify a shipment or parts of a shipment	M	AN	1/48	Must use

## Syntax:

1. P0405 - If either MAN04,MAN05 is present, then all are required
2. C0605 - If MAN06 is present, then all of MAN05 are 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.

# Loop HL

Pos: 010	Repeat: 200000
Mandatory	
Loop: HL	Elements: N/A

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>
010	HL	Hierarchical Level	M	1		Must use
020	LIN	Item Identification	O	1		Used
030	SN1	Item Detail (Shipment)	O	1		Used

# HL

# Hierarchical Level

<b>Pos: 010</b>	<b>Max: 1</b>
<b>Detail - Mandatory</b>	
<b>Loop: HL</b>	<b>Elements: 3</b>

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

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> <b>Description:</b> A unique number assigned by the sender to identify a particular data segment in a hierarchical structure	M	AN	1/12	Must use
HL02	734	<b>Hierarchical Parent ID Number</b> <b>Description:</b> Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to	O	AN	1/12	Used
HL03	735	<b>Hierarchical Level Code</b> <b>Description:</b> Code defining the characteristic of a level in a hierarchical structure	M	ID	1/2	Must use
		<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:</b> 020	<b>Max:</b> 1
<b>Detail - Optional</b>	
<b>Loop:</b> HL	<b>Elements:</b> 2

**User Option (Usage):** Used

To specify basic item identification data

## 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>
LIN02	235	<b>Product/Service ID Qualifier</b> <b>Description:</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234)	M	ID	2/2	Must use
		<b>Code</b> <b>Name</b>				
		UP            U.P.C. Consumer Package Code (1-5-5-1)				
LIN03	234	<b>Product/Service ID</b> <b>Description:</b> UPC Number	M	AN	1/48	Must use

## Syntax:

1. P0405 - If either LIN04,LIN05 is present, then all are required
2. P0607 - If either LIN06,LIN07 is present, then all are required
3. P0809 - If either LIN08,LIN09 is present, then all are required
4. P1011 - If either LIN10,LIN11 is present, then all are required
5. P1213 - If either LIN12,LIN13 is present, then all are required
6. P1415 - If either LIN14,LIN15 is present, then all are required
7. P1617 - If either LIN16,LIN17 is present, then all are required
8. P1819 - If either LIN18,LIN19 is present, then all are required
9. P2021 - If either LIN20,LIN21 is present, then all are required
10. P2223 - If either LIN22,LIN23 is present, then all are required
11. P2425 - If either LIN24,LIN25 is present, then all are required
12. P2627 - If either LIN26,LIN27 is present, then all are required
13. P2829 - If either LIN28,LIN29 is present, then all are required
14. P3031 - If either LIN30,LIN31 is present, then all are 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: 030	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

**User Option (Usage):** Used

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	<b>Number of Units Shipped</b> <b>Description:</b> Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set	M	R0	1/10	Must use
SN103	355	<b>Unit or Basis for Measurement Code</b> <b>Description:</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken <b>All valid standard codes are used.</b>	M	ID	2/2	Must use

## Syntax:

1. P0506 - If either SN105,SN106 is present, then all are required

## Semantics:

1. SN101 is the ship notice line-item identification.

## Comments:

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

# CTT Transaction Totals

Pos: 010	Max: 1
Summary - Optional	
Loop: N/A	Elements: 1

**User Option (Usage):** Used

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	<b>Number of Line Items</b> <b>Description:</b> Total number of line items in the transaction set	M	NO	1/6	Must use

## Syntax:

1. P0304 - If either CTT03,CTT04 is present, then all are required
2. P0506 - If either CTT05,CTT06 is present, then all are required

## Comments:

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

# SE Transaction Set Trailer

Pos: 020	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

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

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> <b>Description:</b> Total number of segments included in a transaction set including ST and SE segments	M	N0	1/10	Must use
SE02	329	<b>Transaction Set Control Number</b> <b>Description:</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M	AN	4/9	Must use

**Comments:**

- SE is the last segment of each transaction set.

# GE Functional Group Trailer

Pos:	Max: 1
Not Defined - Mandatory	
Loop: N/A	Elements: 2

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

To indicate the end of a functional group and to provide control 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>
GE01	97	<b>Number of Transaction Sets Included</b> <b>Description:</b> Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element	M	N0	1/6	Must use
GE02	28	<b>Group Control Number</b> <b>Description:</b> Assigned number originated and maintained by the sender	M	N0	1/9	Must use

**Semantics:**

1. The data interchange control number GE02 in this trailer must be identical to the same data element in the associated functional group header, GS06.

**Comments:**

1. The use of identical data interchange control numbers in the associated functional group header and trailer is designed to maximize functional group integrity. The control number is the same as that used in the corresponding header.

**IEA****Interchange Control Trailer**

Pos:	Max: 1
Not Defined - Mandatory	
Loop: N/A	Elements: 2

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

To define the end of an interchange of zero or more functional groups and interchange-related control 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>
IEA01	I16	<b>Number of Included Functional Groups</b> <b>Description:</b> A count of the number of functional groups included in an interchange	M	NO	1/5	Must use
IEA02	I12	<b>Interchange Control Number</b> <b>Description:</b> A control number assigned by the interchange sender	M	NO	9/9	Must use