

Agilent Technologies Company Guideline

**For
Electronic
Data
Interchange
Transaction Set**

856

Advance Ship Notice/Manifest - Inbound

Functional Group ID=SH

**Version 003
Release 020**

March 2002

856**Ship Notice/Manifest****Functional Group=SH**

This standard provides the standardized format and establishes the data contents of a ship notice/manifest transaction set. A ship notice/manifest lists 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.

Notes:

3/190 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:

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

2/170 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

2/490 The HL segment is the only mandatory segment within the HL loop, and by itself, the HL segment has no meaning.

Trading Partner:

Agilent Inbound 856 Trading Partner Guidelines for version 3020

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
040	DTM	Date/Time Reference	O	10			Used

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>
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<u>LOOP ID - HL</u>				<u>200000</u>			
010	HL	Hierarchical Level	M	1		C2/010	Must use
120	TD5	Carrier Details (Routing Sequence/Transit Time)	O	12			Used
150	REF	Reference Numbers	O	200			Used
<u>LOOP ID - HL</u>				<u>200000</u>			
170	HL	Hierarchical Level	M	1		C2/170	Must use
210	PRF	Purchase Order Reference	O	1			Used
240	MEA	Measurements	O	40			Used
<u>LOOP ID - HL</u>				<u>200000</u>			
490	HL	Hierarchical Level	M	1		C2/490	Must use
500	LIN	Item Identification	O	1			Used
520	SN1	Item Detail (Shipment)	O	1			Used
640	REF	Reference Numbers	O	200			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>
190	CTT	Transaction Totals	M	1		N3/190	Must use
200	SE	Transaction Set Trailer	M	1			Must use

ST**Transaction Set Header**

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

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

Comments:

- The transaction set identifier (ST01) is intended for use by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the invoice 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>				
ST01	143	Transaction Set Identifier Code Description: Code uniquely identifying a Transaction Set.	M	ID	3/3	Must use				
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>856</td> <td>X12.10 Ship Notice/Manifest</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	856	X12.10 Ship Notice/Manifest				
<u>Code</u>	<u>Name</u>									
856	X12.10 Ship Notice/Manifest									
ST02	329	Transaction Set Control Number Description: Identifying control number assigned by the originator for a transaction set.	M	AN	4/9	Must use				

BSN Beginning Segment for Ship Notice

Pos: 020	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 4

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

Comments:

1. BSN03 is the date the shipment transaction set is created.
2. BSN04 is the time the shipment transaction set is created.

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 Description: Code identifying purpose of transaction set.	M	ID	2/2	Must use				
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>00</td> <td>Original</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	00	Original				
<u>Code</u>	<u>Name</u>									
00	Original									
BSN02	396	Shipment Identification Description: A unique control number assigned by the original shipper to identify a specific shipment. Trading Partner: Shipment ID Number	M	AN	2/30	Must use				
BSN03	373	Date Description: Date (YYMMDD). Trading Partner: Shipment Date Since the standard only allows Agilent Technologies to send a 'YYMMDD' date with no century reference, Agilent Technologies advises that trading partners who need to map century to their application use a windowing technique to calculate the century value. Recommended: If the 'YY' portion of the date is between 90-99, map '19' as the century value sent to the application; if the 'YY' portion of the date is between 00-89, map '20' as the century value sent to the application.	M	DT	6/6	Must use				
BSN04	337	Time Description: Time expressed in 24-hour clock time (HHMMSS) (Time range: 000000 through 235959) Trading Partner: Shipment Time Agilent requires a Shipment time to be sent in the BSN_04, If you do not capture an actual time in your application, please send "0000".	M	TM	4/6	Must use				

DTM Date/Time Reference

Pos: 040	Max: 10
Heading - Optional	
Loop: N/A	Elements: 2

To specify pertinent dates and times

Syntax:

- DTM02 R0203 -- At least one of DTM02 or DTM03 is required.

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 Description: Code specifying type of date or time, or both date and time.	M	ID	3/3	Must use						
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>011</td> <td>Shipped</td> </tr> <tr> <td>017</td> <td>Estimated Delivery</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	011	Shipped	017	Estimated Delivery				
<u>Code</u>	<u>Name</u>											
011	Shipped											
017	Estimated Delivery											
DTM02	373	Date Description: Date (YYMMDD). Trading Partner: Please send both Dates in your Ship Manifest as follows Actual Ship Date - "011" Expected Arrival Date - "017" Since the standard only allows Agilent Technologies to send a 'YYMMDD' date with no century reference, Agilent Technologies advises that trading partners who need to map century to their application use a windowing technique to calculate the century value. Recommended: If the 'YY' portion of the date is between 90-99, map '19' as the century value sent to the application; if the 'YY' portion of the date is between 00-89, map '20' as the century value sent to the application.	C	DT	6/6	Used						

HL Hierarchical Level

Pos: 010	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 2

To identify dependencies among and the content of hierarchically related groups of data segments.

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.

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	Hierarchical ID Number Description: A unique number assigned by the sender to identify a particular data segment in a hierarchical structure.	M	AN	1/12	Must use
HL03	735	Hierarchical Level Code Description: 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

TD5

Carrier Details (Routing Sequence/Transit Time)

Pos: 120	Max: 12
Detail - Optional	
Loop: HL	Elements: 1

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

Syntax:

R020405 -- At least one of TD502, TD504 or TD505 is required.

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>
TD505	387	Routing Description: Free-form description of the routing or requested routing for shipment, or the originating carrier's identity.	C	AN	1/35	Used
		Trading Partner: Carrier Name				

REF Reference Numbers

Pos: 150	Max: 200
Detail - Optional	
Loop: HL	Elements: 2

To specify identifying numbers.

Syntax:

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

Trading Partner:

Release Number REF01 = "RE"
 Bill of Lading Number REF01 = "BM"

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 Number Qualifier Description: Code qualifying the Reference Number.	M	ID	2/2	Must use						
		<table border="0"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>Bill of Lading</td> </tr> <tr> <td>RE</td> <td>Release Number</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	BM	Bill of Lading	RE	Release Number				
<u>Code</u>	<u>Name</u>											
BM	Bill of Lading											
RE	Release Number											

REF02	127	Reference Number Description: Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	C	AN	1/30	Used
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Trading Partner: The Bill of Lading Number is considered Mandatory by Agilent and must be present, please send the Bill of Lading Number with the REF01 = "BM"

Please return the Release Number sent in on the BEG04 of the 850 Purchase Order here, the REF01 = "RE", this is only required by Agilent when the Original Purchase Order was a Blanket Order (BEG02 = "BK")

HL Hierarchical Level

Pos: 170	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

To identify dependencies among and the content of hierarchically related groups of data segments.

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.

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	Hierarchical ID Number Description: 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	Hierarchical Parent ID Number Description: 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	Hierarchical Level Code Description: 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	

PRF Purchase Order Reference

Pos: 210	Max: 1
Detail - Optional	
Loop: HL	Elements: 2

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	Purchase Order Number Description: Identifying number for Purchase Order assigned by the orderer/purchaser. Trading Partner: Original Purchase Order Number, to be returned from the 850 Purchase Order field BEG03	M	AN	1/22	Must use
PRF04	323	Purchase Order Date Description: Date assigned by the purchaser to Purchase Order. Trading Partner: Original Purchase Order Date, to be returned from the 850 Purchase Order Date field BEG05 Since the standard only allows Agilent Technologies to send a 'YYMMDD' date with no century reference, Agilent Technologies advises that trading partners who need to map century to their application use a windowing technique to calculate the century value. Recommended: If the 'YY' portion of the date is between 90-99, map '19' as the century value sent to the application; if the 'YY' portion of the date is between 00-89, map '20' as the century value sent to the application.	O	DT	6/6	Used

MEA Measurements

Pos: 240	Max: 40
Detail - Optional	
Loop: HL	Elements: 4

To specify physical measurements, including dimensions, tolerances, weights and counts.

Syntax:

R03050608 -- At least one of MEA03, MEA05, MEA06 or MEA08 is required.

C0304 -- If MEA03 is present, then MEA04 is required

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>				
MEA01	737	Measurement Reference ID Code Description: Code specifying the application of physical measurement cited.	O	ID	2/2	Used				
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>PD</td> <td>Physical Dimensions</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	PD	Physical Dimensions				
<u>Code</u>	<u>Name</u>									
PD	Physical Dimensions									
MEA02	738	Measurement Qualifier Description: Code identifying the type of measurement.	O	ID	1/3	Used				
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>G</td> <td>Gross Weight</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	G	Gross Weight				
<u>Code</u>	<u>Name</u>									
G	Gross Weight									
MEA03	739	Measurement Value Description: The value of the measurement. Trading Partner: Total Gross Weight	C	R	1/10	Used				
MEA04	355	Unit of Measurement Code Description: Code identifying the basic unit of measurement.	C	ID	2/2	Used				

HL Hierarchical Level

Pos: 490	Max: 1
Detail - Mandatory	
Loop: HL	Elements: 3

To identify dependencies among and the content of hierarchically related groups of data segments.

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.
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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.

Trading Partner:

For every SCH Segment sent on the Original Purchase Order, please return a corresponding item level HL.

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	Hierarchical ID Number Description: 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	Hierarchical Parent ID Number Description: 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	Hierarchical Level Code Description: 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	

LIN**Item Identification**

Pos: 500	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

To specify basic item identification data.

Comments:

1. See the Data Dictionary for a complete list of ID's.
2. LIN01 is the line item identification
3. LIN02 through LIN31 provide for fifteen (15) different product/service ID's for each item. For Example: Case, Color, Drawing No., UPC No., ISBN No., Model No., SKU.

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	Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set.	O	AN	1/11	Used				
LIN02	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234).	M	ID	2/2	Must use				
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>BP</td> <td>Buyer Part Number</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	BP	Buyer Part Number				
<u>Code</u>	<u>Name</u>									
BP	Buyer Part Number									
LIN03	234	Product/Service ID Description: Identifying number for a product or service. Trading Partner: Buyer's Part Number, Please return the Buyer's Part Number exactly as it appears on the Original Purchase Order.	M	AN	1/30	Must use				

SN1 Item Detail (Shipment)

Pos: 520	Max: 1
Detail - Optional	
Loop: HL	Elements: 3

To specify line item detail relative to shipment

Comments:

1. SN101 is the ship notice line item identification.
2. SN103 defines the unit of measurement for both SN102 and SN104.

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>
SN101	350	Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set.	O	AN	1/11	Used
SN102	382	Number of Units Shipped Description: Numeric value of units shipped in manufacturer's shipping units for a line item or transaction set. Trading Partner: Shipped Quantity	M	R	1/10	Must use
SN103	355	Unit of Measurement Code Description: Code identifying the basic unit of measurement. Trading Partner: Unit of Measure that pertains to the quantity shipped	M	ID	2/2	Must use

REF Reference Numbers

Pos: 640	Max: 200
Detail - Optional	
Loop: HL	Elements: 2

To specify identifying numbers.

Syntax:

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

Trading Partner:

Shipment Line Number, this Segment within the Item Level is considered to be Mandatory by Agilent

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 Number Qualifier Description: Code qualifying the Reference Number.	M	ID	2/2	Must use						
		<table border="0"> <thead> <tr> <th></th> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>LI</td> <td>Line Number</td> <td></td> </tr> </tbody> </table>		<u>Code</u>	<u>Name</u>	LI	Line Number					
	<u>Code</u>	<u>Name</u>										
LI	Line Number											
REF02	127	Reference Number Description: Reference number or identification number as defined for a particular Transaction Set, or as specified by the Reference Number Qualifier.	C	AN	1/30	Used						
		Trading Partner: Shipment Line Number (Shipment Line Item Number) please return the value sent in the SCH_11 of the Original Purchase Order here.										

CTT Transaction Totals

Pos: 190	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 1

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

Comments:

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

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.						

SE**Transaction Set Trailer**

Pos: 200	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

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

Comments:

- SE is the last segment of each 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>
SE01	96	Number of Included Segments Description: Total number of segments included in a transaction set including ST and SE segments.	M	N0	1/6	Must use
SE02	329	Transaction Set Control Number Description: Identifying control number assigned by the originator for a transaction set.	M	AN	4/9	Must use