

# Integration Specification

## X12 5010 856

### Ship Notice / Manifest



**Purpose:** 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.



# Table of Contents

<b>EDI Segment Hierarchy</b>	<b>3</b>
<b>ISA Interchange Control Header</b>	<b>5</b>
<b>GS Functional Group Header</b>	<b>6</b>
<b>ST Transaction Set Header</b>	<b>7</b>
<b>BSN Beginning Segment for Ship Notice</b>	<b>8</b>
<b>HL Hierarchical Level (<i>Shipment</i>)</b>	<b>9</b>
<b>TD5 Carrier Details (Routing Sequence / Transit Time)</b>	<b>10</b>
<b>REF Reference Identification</b>	<b>11</b>
<b>DTM Date/Time Reference</b>	<b>12</b>
<b>N1 Name</b>	<b>13</b>
<b>N2 Additional Name Information</b>	<b>14</b>
<b>N3 Address Information</b>	<b>15</b>
<b>N4 Geographic Location</b>	<b>16</b>
<b>HL Hierarchical Level (<i>Order</i>)</b>	<b>17</b>
<b>PRF Purchase Order Reference</b>	<b>18</b>
<b>HL Hierarchical Level (<i>Package</i>)</b>	<b>19</b>
<b>MAN Marks and Numbers</b>	<b>20</b>
<b>HL Hierarchical Level (<i>Item</i>)</b>	<b>21</b>
<b>LIN Item Identification</b>	<b>22</b>
<b>SN1 Item Detail (Shipment)</b>	<b>23</b>
<b>CTT Transaction Totals</b>	<b>24</b>
<b>SE Transaction Set Trailer</b>	<b>25</b>
<b>GE Functional Group Trailer</b>	<b>26</b>
<b>IEA Interchange Control Trailer</b>	<b>27</b>
<b>856 Sample</b>	<b>28</b>



### EDI Segment Hierarchy

ID	Segment Name	Req	Max Use	Usage
ISA	Interchange Control Header	M	1	Must Use
GS	Functional Group Header	M	1	Must Use

### Transaction Set Header

ID	Segment Name	Req	Max Use	Usage
ST	Transaction Set Header	M	1	Must Use
BSN	Beginning Segment for Ship Notice	M	1	Must Use

### Shipment Detail – HL Loop S

ID	Segment Name	Req	Max Use	Usage
HL	Hierarchical Level 'S'	M	1	Must Use
TD5	Carrier Details – Routing Sequence/Transit Time	M	12	Must Use
REF	Reference Identification	M	1	Optional

### Order Detail – N1 Loop

ID	Segment Name	Req	Max Use	Usage
N1	Name	O	1	Optional
N2	Additional Name Information	O	1	Optional
N3	Address Information	O	1	Optional
N4	Geographic Location	O	1	Optional

### Order Detail – HL Loop O

ID	Segment Name	Req	Max Use	Usage
HL	Hierarchical Level 'O'	M	1	Must Use
PRF	Purchase Order Reference	M	1	Must Use



### Order Detail – HL Loop P

ID	Segment Name	Req	Max Use	Usage
HL	Hierarchical Level 'P'	M	1	Must Use
MAN	Marks and Numbers	M	1	Must Use

### Line-Item Detail – HL Loop I

ID	Segment Name	Req	Max Use	Usage
HL	Hierarchical Level 'I'	M	10	Must Use
LIN	Line Item Identification	M	10	Must Use
SN1	Shipment Item Detail	M	10	Must Use

### Transactions Summary

ID	Segment Name	Req	Max Use	Usage
CTT	Transaction Totals	M	1	Must Use
SE	Transaction Set Trailer	M	1	Must Use
GE	Functional Group Trailer	M	1	Must Use
IEA	Interchange Control Trailer	M	1	Must Use



# ISA Interchange Control Header

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

**Purpose:** To start and identify an interchange of zero or more functional groups and interchange-related control segments.

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
ISA01	Authorization Information Qualifier	M	ID	2/2	Must Use
ISA02	Authorization Information	M	AN	10/10	Must Use
ISA03	Security Information Qualifier	M	ID	2/2	Must Use
ISA04	Security Information	M	AN	10/10	Must Use
ISA05	Interchange ID Qualifier	M	ID	2/2	Must Use
ISA06	Interchange Sender ID	M	AN	15/15	Must Use
ISA07	Interchange ID Qualifier	M	ID	2/2	Must Use
ISA08	Interchange Receiver ID	M	AN	15/15	Must Use
ISA09	Interchange Date 'YYMMDD'	M	DT	6/6	Must Use
ISA10	Interchange Time 'HHMM'	M	TM	4/4	Must Use
ISA11	Interchange Control Standards Identifier 'U'	M	ID	1/1	Must Use
ISA12	Interchange Control Version Number '00501'	M	ID	5/5	Must Use
ISA13	Interchange Control Number	M	N0	9/9	Must Use
ISA14	Acknowledgment Requested '0'	M	ID	1/1	Must Use
ISA15	Interchange Usage Indicator 'P' or 'T'	M	ID	1/1	Must Use
ISA16	Component Element Separator ':'	M	ID	1/1	Must Use



# GS Functional Group Header

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

**Purpose:** To indicate the beginning of a functional group and provide control information.

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
GS01	Functional Identifier Code 'SH'	M	ID	2/2	Must Use
GS02	Application Senders Code	M	AN	2/15	Must Use
GS03	Application Receivers Code	M	AN	2/15	Must Use
GS04	Date 'CCYYMMDD'	M	DT	8/8	Must Use
GS05	Time 'HHMMSS'	M	TM	4/8	Must Use
GS06	Group Control Number	M	N0	1/9	Must Use
GS07	Responsible Agency Code 'X'	M	ID	1/2	Must Use
GS08	Version / Release / Industry Identifier '005010'	M	AN	1/12	Must Use



# ST Transaction Set Header

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
ST01	Transaction Set Identifier Code '856'	M	ID	3/3	Must Use
ST02	Transaction Set Control Number	M	AN	4/9	Must Use



# BSN Beginning Segment for Ship Notice

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
BSN01	Transaction Set Purpose Code '00'	M	ID	2/2	Must Use
BSN02	Shipment Identification	M	AN	2/30	Must Use
BSN03	Date 'CCYYMMDD'	M	DT	8/8	Must Use
BSN04	Time 'HHMM'	M	TM	4/4	Must Use
BSN05	Hierarchical Structure Code '0001'	M	ID	4/4	Must Use





# HL Hierarchical Level (Shipment)

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
HL01	Hierarchical ID Number	M	AN	1/12	Must Use
HL02	Hierarchical Parent ID Number	X	AN	1/12	Not Used
HL03	Hierarchical Level Code 'S'	M	ID	1/1	Must Use
HL04	Hierarchical Child Code	X	ID	1/1	Not Used

## Semantics:

1. HL02 is an empty space
2. The HL segment is used to identify levels of detailed information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.
3. The HL segment defines a top-down/left-right ordered structure.
4. 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.
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.

## Syntax Rules:

1. HL03 - Default to code 'S' (Shipment)



# TD5 Carrier Details (Routing Sequence/Transit Times)

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
TD501	Routing Sequence Code	O	AN	1/1	Optional
TD502	Identification Code Qualifier	O	AN	2/2	Optional
TD503	Carrier Name	M	AN	2/80	Must Use
TD504	Transportation Method / Type Code 'M' or 'K'	M	ID	1/2	Must Use
TD505	Ship Method	M	AN	1/35	Must Use

## Semantics

1. TD504 – Defaulted to 'M' (Motor / Common Carrier) or 'K' (Back Haul)



# REF Reference Identification (Tracking Number)

User Option (Usage): Used.

Purpose: To specify identifying information

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
REF01	Reference Identification Qualifier - 'CN'	M	ID	2/2	Used
REF02	Reference Identification	M	AN	1/30	Used

## Syntax

1. REF01 – Defaulted to code 'CN' (Carrier Tracking Number)
2. REF02 – Default to the carrier tracking number
  - a. Example for UPS shipment - **REF\*CN\*1Z97X2420313740137~**
  - b. Example for FedEx shipment – **REF\*CN\*940345123049~**
  - c. Example for USPS shipment – **REF\*CN\*9434609105116011094879~**

**Do not include container number, UPC information, or any additional characters in the tracking number field.**

Example of an invalid tracking number - **REF\*CN\*TRACKING#1Z97X242031374013~**



# DTM Date/Time Reference

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
DTM01	Date/Time Qualifier - '011'	M	ID	3/3	Must Use
DTM02	Date 'CCYYMMDD'	M	DT	8/8	Must Use
DTM03	Time 'HHMM'	O	TM	4/4	Optional

## Syntax

1. DTM01 – Defaulted to code '011 (Shipped)



# N1 Name

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
N101	Entity identifier Code 'ST'	M	ID	2/2	Must Use
N102	Free Form Name	M	AN	1/60	Must Use



# N2 Address Information

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
N201	Primary Address	O	ID	2/2	Optional



# N3 Additional Name Information

User Option (Usage): Must use.

Purpose: To specify a company name

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
N301	Primary Address	M	AN	1/55	Must Use
N302	Secondary Address	M	AN	1/55	Must Use



# N4 Geographic Location

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

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

ID	Segment Name	Req	Type	Max Use	Usage
N401	City Name	M	AN	2/30	Must Use
N402	State	M	ID	2/2	Must Use
N403	Postal Code	M	ID	3/15	Must Use
N404	Country Code	M	ID	2/3	Must Use





# HL Hierarchical Level (Order)

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
HL01	Hierarchical ID Number	M	AN	1/12	Must Use
HL02	Hierarchical Parent ID Number	M	AN	1/12	Must Use
HL03	Hierarchical Level Code 'O'	M	ID	1/1	Must Use
HL04	Hierarchical Child Code	O	ID	1/1	Optional



# PRF Purchase Order Reference

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

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

ID	Segment Name	Req	Type	Max Use	Usage
PRF01	Purchase Order Number	M	AN	1/22	Must Use



# HL Hierarchical Level (Package)

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
HL01	Hierarchical ID Number	M	AN	1/12	Must Use
HL02	Hierarchical Parent ID Number	M	AN	1/12	Must Use
HL03	Hierarchical Level Code 'P'	M	ID	1/1	Must Use
HL04	Hierarchical Child Code	O	ID	1/1	Optional



# MAN Mark and Numbers Information

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

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

ID	Segment Name	Req	Type	Max Use	Usage
MAN01	Marks and Numbers Qualifier 'GM'	M	ID	1/2	Must Use
MAN02	Marks and Numbers	M	AN	1/48	Must Use

### Syntax

1. MAN02 – Default to the carrier tracking number
  - a. Example for UPS shipment – **MAN\*GM\*1Z97X2420313740137~**
  - b. Example for FedEx shipment – **MAN\*GM\*940345123049~**
  - c. Example for USPS shipment – **MAN\*GM\*9434609105116011094879~**

**Do not include container number, UPC information, or any additional characters in the tracking number field.**

Example of an invalid tracking number - **MAN\*GM\*TRACKING#1Z97X242031374013~**



# HL Hierarchical Level (Item)

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
HL01	Hierarchical ID Number	M	AN	1/12	Must Use
HL02	Hierarchical Parent ID Number	M	AN	1/12	Must Use
HL03	Hierarchical Level Code 'I'	M	ID	1/1	Must Use
HL04	Hierarchical Child Code	O	ID	1/1	Optional



# LIN Item Identification

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
LIN01	Line Number	O	N	1/10	Optional
LIN02	Product/Service ID Qualifier 'UP'	M	ID	2/2	Must Use
LIN03	UPC Number	M	ID	1/48	Must Use
LIN04	Product/Service ID Qualifier 'VN'	M	ID	2/2	Must Use
LIN05	SKU Number	M	ID	1/48	Must Use



# SN1 Item Detail (Shipment)

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
SN101	Line Number	O	N	1/10	Optional
SN102	Number of Units Shipped	M	R	1/10	Must Use
SN103	Unit of Basis Measurement Code 'EA'	M	ID	2/2	Must Use



# CTT Transaction Totals

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

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

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
CTT01	Number of Line Items	M	N0	1/6	Must Use
CTT02	Sum of Line-Item Quantities	M	AN	1/10	Must Use

## Semantics:

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





# SE Transaction Set Trailer

**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

ID	Segment Name	Req	Type	Max Use	Usage
SE01	Number of Included Segments	M	N0	1/10	Must Use
SE02	Transaction Set Control Number	M	AN	4/9	Must Use

## Syntax Rules

1. SE02 – The value for SE02 must be identical to the value in ST02



# GE Functional Group Trailer

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

**Purpose:** To indicate the end of a functional group and to provide control information

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
GE01	Number of Transaction Sets Included	M	N0	1/6	Must Use
GE02	Group Control Number	M	N0	1/9	Must Use

## Syntax Rules

1. GE02 – The value for GE02 must be identical to the value in GS06



# IEA Interchange Control Trailer

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

**Purpose:** To define the end of an interchange of zero or more functional groups and interchange related control segments

## Element Summary

ID	Segment Name	Req	Type	Max Use	Usage
IEA01	Number of Transaction Sets Included	M	N0	1/5	Must Use
IEA02	Interchange Control Number	M	N0	9/9	Must Use



# 856 Sample

ISA\*00\* \*00\* \*ZZ\*SENDERID \*12\*8582247800/801  
\*231129\*1739\*|\*00501\*100011130\*0\*P\*:  
GS\*SH\* SENDERID\*8582247800/801\*20231129\*1739\*12130\*X\*005010  
ST\*856\*12130  
BSN\*00\*IF3647802\*20231129\*1501\*0001  
HL\*1\*\*S  
TD5\*\*2\*UPS\*M\*Ground  
REF\*CN\*1Z8XF1790394186360  
DTM\*011\*20231129  
N1\*ST\*Diana Sinohui  
N2\*GovX  
N3\*123 Main St\*ABC  
N4\*San Diego\*CA\*92111\*US  
HL\*2\*1\*O  
PRF\*TESTPO\*\*\*20231129  
HL\*3\*2\*P  
MAN\*CP\*1Z8XF1790394186360  
HL\*4\*3\*I  
LIN\*\*UP\*850032307604\*SK\*SSRAN-2.0  
SN1\*\*1\*EA  
CTT\*4  
SE\*19\*12130  
GE\*1\*12130  
IEA\*1\*100011130

