

# Air Freight Details and Invoice

ANSI X12 110 - Version 4010

Author:

Modified:

Version:

Functional Group:

Standard:

# 110 Air Freight Details and Invoice

Functional Group ID = IA

This specification contains the format and establishes the data contents of the Air Freight Details and Invoice Transaction Set (110) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide a customer with an air invoice for transportation and other charges related to shipments, including Original Invoices, Past Due Billings, Balance Due Bills, and Revisions. The CONTAX implementation follows the ANSI X12 Version 4010 base standard as the authoritative reference. Files conforming to 4010 are accepted by the IL platform.

Pos. No.	Seg. ID	Name	Req.	Max Use	Loop / Repeat	Notes
	<b>ISA</b>	Interchange Control Header	M	1		Must Use
	<b>GS</b>	Functional Group Header	M	1		Must Use
010	<b>ST</b>	Transaction Set Header	M	1		Must Use
020	<b>B3</b>	Beginning Segment for Carrier's Invoice	M	1		Must Use
030	<b>B3A</b>	Invoice Type	O	1		Used
045	<b>C2</b>	Bank ID	O	1		Used
050	<b>C3</b>	Currency	O	1		Used
065	<b>ITD</b>	Terms of Sale/Deferred Terms of Sale	O	1		Used
075	<b>N1</b>	Name	M	1	N1 3	Must Use
080	<b>N2</b>	Additional Name Information	O	1	N1	Used
090	<b>N3</b>	Address Information	O	2	N1	Must Use
100	<b>N4</b>	Geographic Location	O	1	N1	Must Use
110	<b>N9</b>	Reference Identification	O	10	N1	Used
010	<b>LX</b>	Assigned Number	M	1	LX 9999	Must Use
020	<b>N1</b>	Name (Shipper/Consignee)	O	1	N1 2	Must Use
030	<b>N2</b>	Additional Name Information	O	1	N1	Used
040	<b>N3</b>	Address Information	O	2	N1	Must Use
050	<b>N4</b>	Geographic Location	O	1	N1	Must Use
060	<b>N9</b>	Reference Identification	O	10	N1	Used
085	<b>P1</b>	Pick-up	O	1	LX	Used
090	<b>R1</b>	Route Information (Air)	O	1	LX	Must Use
100	<b>POD</b>	Proof of Delivery	O	1	LX	Used
110	<b>V9</b>	Event Detail	O	1	LX	Used
140	<b>NTE</b>	Note/Special Instruction	O	10	LX	Used
150	<b>L5</b>	Description, Marks and Numbers	O	1	L5 4	Must Use

160	<b>L0</b>	Line Item — Quantity and Weight	M	1	L5	Must Use
163	<b>L4</b>	Measurement (Dimensional Weight)	O	4	L5	Used
165	<b>L10</b>	Weight	O	4	L5	Must Use
167	<b>SL1</b>	Tariff Reference (Air Service Level)	O	1	L5	Used
175	<b>L1</b>	Rate and Charges	M	1	L1 30	Must Use
180	<b>C3</b>	Currency (charge level)	O	1	L1	Used
015	<b>L3</b>	Total Weight and Charges	M	1		Must Use
045	<b>SE</b>	Transaction Set Trailer	M	1		Must Use
	<b>GE</b>	Functional Group Trailer	M	1		Must Use
	<b>IEA</b>	Interchange Control Trailer	M	1		Must Use

**Transaction Set Notes** 1. The heading N1 Loop (position 075) is used only to convey entity information relevant to the debtor or for a party other than the shipper or consignee. 2. The detail N1 loop (position 020, within LX) conveys entity information for the shipper and consignee. 3. Dimensional weight = (L × W × H) ÷ 166 (inches) or ÷ 6,000 (cm). Air carriers bill the higher of actual weight or dimensional weight. Use L4 within the L5 loop.

# ISA Interchange Control Header

**Position:** N/A  
**Level:** Not Defined  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To start and identify an interchange of one or more functional groups and interchange-related control segments.

## Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
ISA01	I01	<b>Authorization Information Qualifier</b> 00 No Authorization Information Present	M ID 2/2
ISA02	I02	<b>Authorization Information</b> — Information used for additional identification or authorization of the sender.	M AN 10/10
ISA03	I03	<b>Security Information Qualifier</b> 00 No Security Information Present	M ID 2/2
ISA04	I04	<b>Security Information</b> — Security information about the sender. Type set by ISA03.	M AN 10/10
ISA05	I05	<b>Interchange ID Qualifier</b> — Qualifier for the system/method of code structure used for the Interchange Sender ID.	M ID 2/2
ISA06	I06	<b>Interchange Sender ID</b> — Exactly 15 characters; pad with trailing spaces.	M AN 15/15
ISA07	I05	<b>Interchange ID Qualifier</b> — Qualifier for the system/method of code structure used for the Interchange Receiver ID.	M ID 2/2
ISA08	I07	<b>Interchange Receiver ID</b> — Exactly 15 characters; pad with trailing spaces.	M AN 15/15
ISA09	I08	<b>Interchange Date</b> — Date of the interchange in YYMMDD format.	M DT 6/6
ISA10	I09	<b>Interchange Time</b> — Time of the interchange in HHMM format.	M TM 4/4
ISA11	I10	<b>Interchange Control Standards Identifier</b> U U.S. EDI Community of ASC X12, TDCC, and UCS	M ID 1/1
ISA12	I11	<b>Interchange Control Version Number</b> 00401 Version 4010 (ASC X12)	M ID 5/5
ISA13	I12	<b>Interchange Control Number</b> — Must match IEA02. Nine digits, zero-padded.	M NO 9/9
ISA14	I13	<b>Acknowledgment Requested</b> 0 No Acknowledgment Requested   1 Interchange Acknowledgment Requested	M ID 1/1
ISA15	I14	<b>Test Indicator</b> I Information   P Production Data   T Test Data	M ID 1/1
ISA16	I15	<b>Component Element Separator</b> — Delimiter for component data elements within composite data structures. Must differ from the element separator and segment terminator. Typically '>'. The '~' character must not be used as ISA16.	M AN 1/1

# GS

## Functional Group Header

**Position:** N/A  
**Level:** Not Defined  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the beginning of a functional group and to provide control information.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
GS01	479	<b>Functional Identifier Code</b> IA Air Freight Details and Invoice (110)	M ID 2/2
GS02	142	<b>Application Sender's Code</b> — Code identifying the party sending the transmission.	M AN 2/15
GS03	124	<b>Application Receiver's Code</b> — Code identifying the party receiving the transmission.	M AN 2/15
GS04	373	<b>Date</b> — Date expressed as CCYYMMDD.	M DT 8/8
GS05	337	<b>Time</b> — Time in HHMM, HHMMSS, HHMMSSD, or HHMMSSDD format.	M TM 4/8
GS06	28	<b>Group Control Number</b> — Must match GE02.	M NO 1/9
GS07	455	<b>Responsible Agency Code</b> T TDCC   X ASC X12	M ID 1/2
GS08	480	<b>Version/Release/Industry Identifier Code</b> 004010 Draft Standards approved through October 1997	M AN 1/12

## ST Transaction Set Header

**Position:** 010  
**Level:** Header  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the start of a transaction set and to assign a control number.

**Comments:**

1. *ST is the first segment of each transaction set.*

**Data Element Summary**

Ref. Des.	Data Element	Name / Description	Attributes
ST01	143	<b>Transaction Set Identifier Code</b> 110 Air Freight Details and Invoice	M ID 3/3
ST02	329	<b>Transaction Set Control Number</b> — Unique control number within the functional group. Must match SE02.	M AN 4/9

# B3

## Beginning Segment for Carrier's Invoice

**Position:** 020  
**Level:** Header  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To transmit basic data relating to the carrier's invoice.

### Syntax Notes:

1. If either B309 or B310 is present, then the other is required.

### Semantic Notes:

1. B306 is the billing date.
2. On collect freight bills, B309 will be the actual delivery date. For shipments invoiced prior to delivery, B309 will be the estimated date of delivery.
3. If B314 is used, B304 will indicate the party or parties responsible for payment of the transportation terms identified in B314.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
B302	76	<b>Invoice Number</b> — Identifying number assigned by issuer (Air Waybill number).	M AN 1/22
B303	145	<b>Shipment Identification Number</b> — Identification number assigned to the shipment by the shipper. Does not contain blanks or special characters.	O AN 1/30
B304	146	<b>Shipment Method of Payment</b> CC Collect   PP Prepaid (by Seller)   TP Third Party Pay	M ID 2/2
B306	373	<b>Date</b> — Billing/invoice date expressed as CCYYMMDD.	M DT 8/8
B307	193	<b>Net Amount Due</b> — Total charges to be paid by the receiver expressed in the standard monetary denomination.	M N2 1/12
B308	202	<b>Correction Indicator</b> AR Adding Revenue   BE Billing Error   BD Balance Due Billing	O ID 2/2
B309	32	<b>Delivery Date</b> — Date for delivery of cargo expressed as CCYYMMDD. Required if B310 is present.	X DT 8/8
B310	374	<b>Date/Time Qualifier</b> — Required if B309 is present. 017 Estimated Delivery   035 Delivered   140 Actual	X ID 3/3
B311	140	<b>Standard Carrier Alpha Code</b> — IATA 2-letter or SCAC code.	M ID 2/4
B312	373	<b>Date</b> — Pick-up date expressed as CCYYMMDD.	O DT 8/8
B313	375	<b>Tariff Service Code</b> A Air Freight   C Cargo   D Deferred   N Next Flight Out   O Overnight   S Second Day	O ID 2/2
B314	335	<b>Transportation Terms Code</b> — Incoterms code applicable to the shipment transportation responsibility.	O ID 3/3

# B3A Invoice Type

---

**Position:** 030  
**Level:** Header  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To indicate the type of invoice and number of shipments.

**Semantic Notes:**

1. B3A02 is the number of shipments invoiced.

**Data Element Summary**

Ref. Des.	Data Element	Name / Description	Attributes
B3A01	640	<b>Transaction Type Code</b> 01 Original Invoice   06 Credit Memo   07 Debit Memo   20 Order Acknowledgment	M ID 2/2
B3A02	21	<b>Number of Shipments</b> — Total number of shipments on this transaction.	O NO 1/5

## C2

## Bank ID

---

**Position:** 045  
**Level:** Header  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To specify data required for electronic payment routing.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
C201	8	<b>Bank Client Code</b> — Code identifying payee or payer.	M ID 1/1
C202	66	<b>Identification Code Qualifier</b> — Code designating the system/method of code structure used for Identification Code.	M ID 1/2
C203	67	<b>Identification Code</b> — Code identifying a party or other code.	M AN 2/80

# C3 Currency

---

**Position:** 050  
**Level:** Header  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To specify the currency being used in the transaction set.

**Semantic Notes:**

1. C301 is the billing currency.
2. C303 is the payment currency.
3. C304 is the rated currency.

**Comments:**

1. Currency is implied by the code for the country in whose currency the monetary amounts are specified.

**Data Element Summary**

Ref. Des.	Data Element	Name / Description	Attributes
C301	100	<b>Currency Code</b> — Code (Standard ISO) for the country in whose currency the charges are specified.	M ID 3/3
C302	280	<b>Exchange Rate</b> — Value to be used as a multiplier conversion factor to convert monetary value from one currency to another.	O R 4/10
C303	100	<b>Currency Code</b> — Payment currency code (ISO).	O ID 3/3
C304	100	<b>Currency Code</b> — Rated currency code (ISO).	O ID 3/3

# ITD

## Terms of Sale/Deferred Terms of Sale

**Position:** 065  
**Level:** Header  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To specify terms of sale.

### Syntax Notes:

1. If *Terms Discount Percent (ITD03)* is present, then at least one of *ITD04*, *ITD05*, or *ITD13* is required.
2. If *Terms Deferred Due Date (ITD09)* is present, then at least one of *ITD10* or *ITD11* is required.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
ITD01	336	<b>Terms Type Code</b> — Code identifying type of payment terms.	O ID 2/2
ITD02	333	<b>Terms Basis Date Code</b> — Code identifying the beginning of the terms period.	O ID 1/2
ITD03	338	<b>Terms Discount Percent</b> — Terms discount percentage available if invoice paid by discount due date.	O R 1/6
ITD04	370	<b>Terms Discount Due Date</b> — Date payment is due to earn discount, expressed as CCYYMMDD.	O DT 8/8
ITD05	351	<b>Terms Discount Days Due</b> — Number of days in the terms discount period.	O NO 1/3
ITD06	446	<b>Terms Net Due Date</b> — Date when total invoice amount is due, expressed as CCYYMMDD.	O DT 8/8
ITD07	386	<b>Terms Net Days</b> — Number of days until total invoice amount is due.	O NO 1/3
ITD08	362	<b>Terms Discount Amount</b> — Total amount of terms discount.	O N2 1/10
ITD12	352	<b>Description</b> — Free-form description to clarify payment terms.	O AN 1/80

# N1

## Name

Heading Loop N1, repeats up to 3

---

<b>Position:</b>	075
<b>Level:</b>	Header
<b>Usage:</b>	Mandatory
<b>Max Use:</b>	1
<b>Purpose:</b>	To identify a party by type of organization, name, and code. Used for the debtor or for a party other than the shipper or consignee.

### Syntax Notes:

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

### Semantic Notes:

1. N105 and N106 further define the type of entity in N101.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N101	98	<b>Entity Identifier Code</b> BT Bill-to-Party   CA Carrier   CN Consignee   SH Shipper	M ID 2/3
N102	93	<b>Name</b> — Free-form name.	X AN 1/60
N103	66	<b>Identification Code Qualifier</b> 2 Standard Carrier Alpha Code (SCAC)   91 Assigned by Seller or Seller's Agent   92 Assigned by Buyer or Buyer's Agent   AC Carrier Account	X ID 1/2
N104	67	<b>Identification Code</b> — Account number with carrier. Shipped account when N101=SH; billed account when N101=BT.	X AN 2/80

# N2

## Additional Name Information

Heading Loop N1

**Position:** 080  
**Level:** Header  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To specify additional names or those longer than 60 characters.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N201	93	<b>Name</b> — Free-form name (continued from N102).	M AN 1/60
N202	93	<b>Name</b> — Free-form name (continuation line 2).	O AN 1/60

# N3

## Address Information

Heading Loop N1

**Position:** 090  
**Level:** Header  
**Usage:** Optional  
**Max Use:** 2  
**Purpose:** To specify the location of the named party.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N301	166	<b>Address Information</b> — Address information.	M AN 1/55
N302	166	<b>Address Information</b> — Address information (continued).	O AN 1/55

# N4

## Geographic Location

Heading Loop N1

---

<b>Position:</b>	100
<b>Level:</b>	Header
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify the geographic place of the named party.

### Semantic Notes:

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.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N401	19	<b>City Name</b> — Free-form text for city name.	O AN 2/30
N402	156	<b>State or Province Code</b> — Standard state/province code.	O ID 2/2
N403	116	<b>Postal Code</b> — International postal zone code excluding punctuation and blanks.	O ID 3/15
N404	26	<b>Country Code</b> — Code identifying the country.	O ID 2/3

# N9

## Reference Identification

Heading Loop N1, max 10

---

<b>Position:</b>	110
<b>Level:</b>	Header
<b>Usage:</b>	Optional
<b>Max Use:</b>	10
<b>Purpose:</b>	To transmit identifying information as specified by the Reference Identification Qualifier.

### Syntax Notes:

1. At least one of N902 or N903 is required.

### Semantic Notes:

1. When N901 = SCA, N902 contains the Standard Carrier Alpha Code (SCAC) of the interline carrier. This must be sent for third-party logistics providers.

### Comments:

1. Accepted N901 qualifier codes include: AW Air Waybill Number | CR Customer Reference Number | SI Shipper's Identifying Number | SCA Standard Carrier Alpha Code. Any valid 4010 element 128 qualifier is accepted.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N901	128	<b>Reference Identification Qualifier</b> — Any valid 4010 element 128 qualifier is accepted.	M ID 2/3
N902	127	<b>Reference Identification</b> — Reference information as specified by the qualifier.	X AN 1/30
N903	369	<b>Free-form Description</b> — Free-form descriptive text related to the reference.	O AN 1/45



## Assigned Number

*Loop LX, repeats up to 9999*

**Position:** 010  
**Level:** Detail  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To reference a line number in a transaction set.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
LX01	554	<b>Assigned Number</b> — Number assigned for differentiation within a transaction set. Increment by 1 starting at 1.	M NO 1/6

# N1

## Name

Detail Loop N1, repeats up to 2 — shipper and consignee

---

<b>Position:</b>	020
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To identify a party by type of organization, name, and code. Used to convey entity information relevant to the shipper and consignee.

### Syntax Notes:

1. At least one of N102 or N103 is required.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N101	98	<b>Entity Identifier Code</b> BT Bill-to-Party   SF Ship From   ST Ship To	M ID 2/3
N102	93	<b>Name</b> — Free-form name.	X AN 1/60
N103	66	<b>Identification Code Qualifier</b>	O ID 1/2
N104	67	<b>Identification Code</b>	O AN 2/80

# N2

## Additional Name Information

Detail Loop N1

**Position:** 030  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To specify additional names or those longer than 60 characters.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N201	93	<b>Name</b> — Free-form name (continued from N102).	M AN 1/60
N202	93	<b>Name</b> — Free-form name (continuation line 2).	O AN 1/60

# N3

## Address Information

Detail Loop N1

**Position:** 040  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 2  
**Purpose:** To specify the location of the named party.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N301	166	<b>Address Information</b> — Address information.	M AN 1/55
N302	166	<b>Address Information</b> — Address information (continued).	O AN 1/55

# N4

## Geographic Location

Detail Loop N1

---

<b>Position:</b>	050
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify the geographic place of the named party.

### Semantic Notes:

1. N402 is required only if city name (N401) is in the U.S. or Canada.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N401	19	<b>City Name</b> — Free-form text for city name.	O AN 2/30
N402	156	<b>State or Province Code</b> — Standard state/province code.	O ID 2/2
N403	116	<b>Postal Code</b> — International postal zone code.	O ID 3/15
N404	26	<b>Country Code</b> — Code identifying the country.	O ID 2/3

# N9

## Reference Identification

Detail Loop N1, max 10

---

<b>Position:</b>	060
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	10
<b>Purpose:</b>	To transmit identifying information as specified by the Reference Identification Qualifier.

### Syntax Notes:

1. At least one of N902 or N903 is required.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
N901	128	<b>Reference Identification Qualifier</b> — Any valid 4010 element 128 qualifier is accepted.	M ID 2/3
N902	127	<b>Reference Identification</b> — Reference information as specified by the qualifier.	X AN 1/30
N903	369	<b>Free-form Description</b> — Free-form descriptive text related to the reference.	O AN 1/45

# P1

## Pick-up

Loop LX

---

<b>Position:</b>	085
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify the pick-up details including time, date, and equipment.

### Semantic Notes:

1. P107 is the number of shipments tendered.

### Comments:

1. P103 is the pick-up date qualifier.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
P101	108	<b>Pick-up or Delivery Code</b> — Code specifying the location or type of pickup or delivery.	O ID 1/2
P102	109	<b>Pick-Up Date</b> — Date the carrier picks up the shipment from the shipper or supplier expressed as CCYYMMDD.	M DT 8/8
P103	374	<b>Date/Time Qualifier</b> 011 Shipped	M ID 3/3

# R1

## Route Information (Air)

Loop LX

---

<b>Position:</b>	090
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify airline and airport routing sequences.

### Semantic Notes:

1. R101 and R102 are optional SCAC fields identifying carriers on the route.
2. R103 is the origin airport code (IATA 3-letter code, e.g., LAX, ORD, JFK).
3. R104 is the air carrier code (IATA 2-letter carrier code, e.g., AA, UA, DL).
4. R105 is the destination airport code (IATA 3-letter code, e.g., FRA, NRT, LHR).

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
R101	140	<b>Standard Carrier Alpha Code</b> — SCAC of the origin or primary carrier on this routing segment.	O ID 2/4
R102	140	<b>Standard Carrier Alpha Code</b> — SCAC of a secondary or interline carrier.	O ID 2/4
R103	5	<b>Airport Code</b> — IATA 3-letter code for the origin airport.	M ID 3/5
R104	4	<b>Air Carrier Code</b> — IATA 2-letter code for the air carrier.	M ID 3/3
R105	5	<b>Airport Code</b> — IATA 3-letter code for the destination airport.	M ID 3/5
R106	55	<b>Flight/Voyage Number</b> — Flight number.	O AN 2/10



# Proof of Delivery

Loop LX

**Position:** 100  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To provide proof of delivery details for the shipment.

## Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
POD01	373	<b>Date</b> — Delivery date expressed as CCYYMMDD.	M DT 8/8
POD02	337	<b>Time</b> — Delivery time in HHMM to HHMMSSDD format.	O TM 4/8
POD03	93	<b>Name</b> — Free-form name of the person who signed for the delivery.	M AN 1/60

---

<b>Position:</b>	110
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify information about a specific shipment event.

**Semantic Notes:**

1. V903 is the event date.
2. V904 is the event time.

**Data Element Summary**

Ref. Des.	Data Element	Name / Description	Attributes
V901	304	<b>Event Code</b> — Code identifying the event about which a report is made.	O ID 3/3
V902	106	<b>Event</b> — Free-form description of event.	O AN 1/25
V903	373	<b>Date</b> — Event date expressed as CCYYMMDD.	O DT 8/8
V904	337	<b>Time</b> — Event time in HHMM to HHMMSSDD format.	O TM 4/8

# NTE

## Note/Special Instruction

Loop LX, max 10

---

**Position:** 140  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 10  
**Purpose:** To transmit information in a free-form format for comment or special instruction.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
NTE01	363	<b>Note Reference Code</b> — Code identifying the functional area or purpose for which the note applies.	O ID 3/3
NTE02	352	<b>Description</b> — A free-form description to clarify the related data elements and their content.	M AN 1/80

# L5

## Description, Marks and Numbers

Loop L5, repeats up to 4

---

<b>Position:</b>	150
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify the line item in terms of description, quantity, packaging, and marks and numbers.

### Syntax Notes:

1. If either L503 or L504 is present, then the other is required.

### Semantic Notes:

1. L502 may be used to send quantity information as part of the product description.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
L501	213	<b>Lading Line Item Number</b> — Sequential line number for a lading item.	O NO 1/3
L502	79	<b>Lading Description</b> — Description of an item as required for rating and billing purposes.	O AN 1/50
L503	22	<b>Commodity Code</b> — Code describing a commodity or group of commodities.	X AN 1/30
L504	23	<b>Commodity Code Qualifier</b> — Code identifying the commodity coding system used for Commodity Code.	X ID 1/1
L505	103	<b>Packaging Code</b> — Code identifying the type of packaging. Part 1: Packaging Form; Part 2: Packaging Material.	O AN 3/5

# L0

## Line Item — Quantity and Weight

Loop L5

<b>Position:</b>	160
<b>Level:</b>	Detail
<b>Usage:</b>	Mandatory
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify quantity, weight, volume, and type of service for a line item including applicable quantity/rate-as data.

### Syntax Notes:

1. If either L002 or L003 is present, then the other is required.
2. If either L004 or L005 is present, then the other is required.
3. If either L006 or L007 is present, then the other is required.
4. If either L008 or L009 is present, then the other is required.
5. If L011 is present, then L004 is required.

### Semantic Notes:

1. L008 is the number of handling units of the line item tendered to the carrier.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
L001	213	<b>Lading Line Item Number</b> — Sequential line number.	O NO 1/3
L002	220	<b>Billed/Rated-as Quantity</b> — Basis for rating (miles, value, volume, etc.).	X R 1/11
L003	221	<b>Billed/Rated-as Qualifier</b> — Code identifying the type of quantity or value on which the rate is based.	X ID 2/2
L004	81	<b>Weight</b> — Numeric value of weight.	X R 1/10
L005	187	<b>Weight Qualifier</b> B Billed Weight   G Gross Weight	X ID 1/2
L006	183	<b>Volume</b> — Value of volumetric measure.	X R 1/8
L007	184	<b>Volume Unit Qualifier</b> E Cubic Feet   X Cubic Meters	X ID 1/1
L008	80	<b>Lading Quantity</b> — Number of units (pieces) of the lading commodity.	X NO 1/7
L009	211	<b>Packaging Form Code</b> BDL Bundle   BOX Box   CAS Case   CTN Carton   PCS Pieces   PLT Pallet   ROL Roll   SKD Skid	X ID 3/3
L011	188	<b>Weight Unit Code</b> K Kilograms	O ID 1/1

# L4

## Measurement (Dimensional Weight)

Loop L5, max 4

---

<b>Position:</b>	163
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	4
<b>Purpose:</b>	To describe physical dimensions of a package. Dimensional weight = (L x W x H) ÷ 166 (inches) or ÷ 6,000 (cm). The carrier bills the higher of actual weight or dimensional weight.

### Semantic Notes:

1. L401 is the length, L402 is the width, L403 is the height of the package.
2. L404 specifies the unit of linear measure used for all three dimensions.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
L401	82	<b>Length</b> — Largest horizontal dimension of the package when upright.	M R 1/8
L402	189	<b>Width</b> — Shorter horizontal dimension of the package when upright.	M R 1/8
L403	65	<b>Height</b> — Vertical dimension of the package when upright.	M R 1/8
L404	90	<b>Measurement Unit Qualifier</b> CM Centimeters   FT Feet   IN Inches	M ID 1/1

# L10

## Weight

Loop L5, max 4

**Position:** 165  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 4  
**Purpose:** To transmit additional weight information for a line item.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
L1001	81	<b>Weight</b> — Numeric value of weight.	M R 1/10
L1002	187	<b>Weight Qualifier</b> B Billed Weight   G Gross Weight	M ID 1/2
L1003	188	<b>Weight Unit Code</b> K Kilograms	O ID 1/1

# SL1

## Tariff Reference (Air Service Level)

Loop L5

---

<b>Position:</b>	167
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To reference details of the tariff and service level used to arrive at applicable rates or charges for the air shipment.

### Syntax Notes:

1. At least one of SL103 or SL104 is required.

### Semantic Notes:

1. SL101 is the service level requested by the customer (e.g., overnight, second day, next-flight-out).

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
SL101	284	<b>Service Level Code</b> 2 Second Day   3 Third Day   G Ground   H Two-Hour   N Next Day Air   O Next Flight Out   S Saturday Delivery   X Priority Overnight	M ID 2/2
SL102	171	<b>Tariff Number</b> — Standard tariff number governing the rates applied to the commodity.	O AN 1/7
SL103	22	<b>Commodity Code</b> — Code describing a commodity or group of commodities.	X AN 1/30
SL104	320	<b>Scale</b> — A carrier-maintained reference used to further identify a schedule of rates within a tariff.	X AN 1/10

# L1

## Rate and Charges

Loop L1, repeats up to 30

<b>Position:</b>	175
<b>Level:</b>	Detail
<b>Usage:</b>	Mandatory
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify rate and charges detail relative to a line item including freight charges, advances, special charges, and entitlements.

### Syntax Notes:

1. At least one of L104, L105, or L106 is required.
2. If either L102 or L103 is present, then the other is required.
3. If either L114 or L115 is present, then the other is required.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
L101	213	<b>Lading Line Item Number</b> — Sequential line number for a lading item.	O N0 1/3
L102	60	<b>Freight Rate</b> — Rate that applies to the specific commodity.	X R 1/9
L103	122	<b>Rate/Value Qualifier</b> — Code qualifying how to extend charges or interpret value. See Appendix A for the complete list.	X ID 2/2
L104	58	<b>Charge</b> — Freight or special charge for a line item; total charges for the invoice. Expressed in the standard monetary denomination for the currency specified.	X N2 1/12
L105	191	<b>Advances</b> — Incidental charges occurring during transportation paid by the carrier on the customer's behalf (e.g., fuel dumps, airport handling, storage).	O N2 1/9
L106	117	<b>Prepaid Amount</b> — Money paid at point of origin (usually by shipper) in the standard monetary denomination.	O N2 1/9
L107	120	<b>Rate Combination Point Code</b> — Code denoting the connecting station for a joint rate obtained by combining two or more published rates.	O AN 3/9
L108	150	<b>Special Charge or Allowance Code</b> — Code identifying type of special charge or allowance. See Appendix B for common air codes. Any valid 4010 element 150 code is accepted.	O ID 3/3
L109	220	<b>Billed/Rated-as Quantity</b> — Quantity basis for rating (miles, value, volume, etc.).	X R 1/11
L110	221	<b>Billed/Rated-as Qualifier</b> — Code identifying the type of quantity or value on which the rate is based.	X ID 2/2
L111	257	<b>Tariff Application Code</b> — Code indicating to which traffic a tariff applies.	O ID 1/1
L112	276	<b>Special Charge Description</b> — Identification of special charge; used whenever an applicable L108 code cannot be found.	O AN 2/25
L113	257	<b>Tariff Application Code</b> — Code indicating to which traffic a tariff applies.	O ID 1/1
L114	74	<b>Declared Value</b> — Monetary assigned value expressed in the standard monetary denomination. Used for cargo insurance and declared value charges.	O N2 2/12
L115	122	<b>Rate/Value Qualifier</b> — Code qualifying the declared value. Required if L114 is present. DV Declared Value for Carriage   NV No Value Declared	X ID 2/2

# C3

## Currency

Within L1 Loop — charge-level currency

---

<b>Position:</b>	180
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify the currency for the charges in this L1 segment when different from the transaction-level currency.

### Semantic Notes:

1. C301 is the billing currency for this specific charge line.
2. C303 is the payment currency for this specific charge line.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
C301	100	<b>Currency Code</b> — Code (Standard ISO) for the currency of this charge.	M ID 3/3
C302	280	<b>Exchange Rate</b> — Multiplier conversion factor to convert from this currency to the transaction currency.	O R 4/10
C303	100	<b>Currency Code</b> — Payment currency code (ISO) for this charge.	O ID 3/3
C304	100	<b>Currency Code</b> — Rated currency code (ISO) for this charge.	O ID 3/3

## L3 Total Weight and Charges

<b>Position:</b>	015
<b>Level:</b>	Summary
<b>Usage:</b>	Mandatory
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify the total shipment in terms of weight, volume, rates, charges, advances, and prepaid amounts applicable to one or more line items.

### Syntax Notes:

1. If either L301 or L302 is present, then the other is required.
2. If either L309 or L310 is present, then the other is required.
3. If either L314 or L315 is present, then the other is required.
4. If L312 is present, then L301 is required.

### Semantic Notes:

1. L305 is the total charges.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
L301	81	<b>Weight</b> — Numeric value of total shipment weight.	X R 1/10
L302	187	<b>Weight Qualifier</b> B Billed Weight   G Gross Weight	X ID 1/2
L303	60	<b>Rate</b> — Total freight rate applied.	X R 1/9
L304	122	<b>Rate/Value Qualifier</b> — Code qualifying the total freight rate.	X ID 2/2
L305	58	<b>Charge</b> — Total charges expressed in the standard monetary denomination.	X N2 1/12
L309	183	<b>Volume</b> — Value of volumetric measure.	X R 1/8
L310	184	<b>Volume Unit Qualifier</b> E Cubic Feet   X Cubic Meters	X ID 1/1
L311	80	<b>Lading Quantity</b> — Number of units (pieces) of the lading commodity.	O N0 1/7
L312	188	<b>Weight Unit Code</b> K Kilograms	X ID 1/1
L313	171	<b>Tariff Number</b> — Standard tariff number governing the rates applied.	O AN 1/7
L314	74	<b>Declared Value</b> — Monetary assigned value for the total shipment in the standard monetary denomination.	O N2 2/12
L315	122	<b>Rate/Value Qualifier</b> — Code qualifying the declared value. Required if L314 is present. DV Declared Value for Carriage   NV No Value Declared	X ID 2/2

# SE

## Transaction Set Trailer

---

**Position:** 045  
**Level:** Summary  
**Usage:** Mandatory  
**Max Use:** 1  
**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).

**Comments:**

1. SE is the last segment of each transaction set.

**Data Element Summary**

Ref. Des.	Data Element	Name / Description	Attributes
SE01	96	<b>Number of Included Segments</b> — Total number of segments included in a transaction set including ST and SE segments.	M NO 1/10
SE02	329	<b>Transaction Set Control Number</b> — Must be unique within the functional group. Must match ST02.	M AN 4/9

## GE Functional Group Trailer

**Position:** N/A  
**Level:** Not Defined  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the end of a functional group and to provide control information.

**Syntax Notes:**

1. The data interchange control number GE02 must be identical to GS06.

**Data Element Summary**

Ref. Des.	Data Element	Name / Description	Attributes
GE01	97	<b>Number of Transaction Sets Included</b> — Total number of transaction sets included in the functional group.	M NO 1/6
GE02	28	<b>Group Control Number</b> — Must match GS06.	M NO 1/9

# IEA

## Interchange Control Trailer

---

**Position:** N/A  
**Level:** Not Defined  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To define the end of an interchange of one or more functional groups and interchange-related control segments.

### Data Element Summary

Ref. Des.	Data Element	Name / Description	Attributes
IEA01	I16	<b>Number of Included Functional Groups</b> — A count of the number of functional groups included in a transmission.	M NO 1/5
IEA02	I12	<b>Interchange Control Number</b> — Must match ISA13 exactly. Nine digits, zero-padded.	M NO 9/9

## Appendix A — Rate/Value Qualifier Codes (L103)

The following Rate/Value Qualifier codes are used in L103 for air freight charges. Any valid 4010 element 122 qualifier is accepted.

Code	Description
BL	Bill of Lading Declared Value
CG	Chargeable Weight (higher of actual vs. dimensional/volumetric weight — primary air billing basis)
CM	Per Cubic Meter
CO	Cost per Unit
CW	Per Hundred Weight
FC	Flat Charge
FF	Percent of Tariff Rate
FR	Flat Rate
GW	Per Gross Weight
KG	Per Kilogram
KP	Per Kilometer
LF	Per Loaded 436L Pallet
MN	Minimum
PB	Per Pound
PD	Per Day
PH	Per Hundred (of Basic Unit)
PM	Per Mile
PP	Per Piece
PR	Per Hour
PW	Percentage of Charges
RB	Rate per Hundred
SP	Per Stop
VM	Volume
WM	Weight or Measurement

## Appendix B — Special Charge or Allowance Codes (L108)

---

The following codes are commonly used for L108 (Special Charge or Allowance Code) in air freight. The 4010 element 150 code list is open — any valid code not listed here is also accepted. When an applicable code cannot be found, use L112 (Special Charge Description) for free-form text.

Code	Description
AWC	Air Waybill Charge
COD	Collect on Delivery Charge
DAP	Dangerous Goods Surcharge
DGR	Dangerous Goods Regulation Charge
DOC	Documentation Charge
DSC	Discount
DVC	Declared Value Charge
FUE	Fuel Surcharge
HAZ	Hazardous Cargo Charge
MSG	Miscellaneous Charge
OAW	On Board Air Waybill Charge
OOG	Out of Gauge / Oversize Charge
PKG	Packaging Charge
SAC	Security Surcharge
SSF	Single Shipment Fee
STC	State/Country Surcharge
STO	Storage Charge
WAR	War Risk Surcharge