

Air Freight Details and Invoice

ANSI X12 110 Version 4010

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Air Freight Details and Invoice

Functional Group ID=IA

Introduction:

This Draft Standard for Trial Use 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.

Notes:

1/075L The N1 Loop is used only to convey entity information relevant to the debtor or for a party other than the shipper or consignee.

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2/020L The N1 loop is used to convey entity information relevant to the shipper and consignee. 2/020 The N1 loop is used to convey entity information relevant to the shipper and consignee.

Heading:

	Pos	<u>Id</u>	Segment Name	<u>R</u>	Req	Max Use	Repeat	<u>Notes</u>	<u>Usage</u>
	010	ST	Transaction Set Header	-	M	1			Must use
	020	B3	Beginning Segment	for	M	1			Must use
			Carrier's Invoice						
_	050	C3	Currency		O	1			Used
	LOOP II	<u> </u>					<u>3</u>	N1/075L	
	075	N1	Name	-	M	1		N1/075	Must use
	090	N3	Address Information		O	2			Must use
	070	113	Address information		O	2			Wast use
	100	N4	Geographic Location		O	1			Must use
	110	N9	Reference Identification		O	10			Used

Detail:

LOOP	D - LX				9999	
010	LX	Assigned Number	M	1		Must use

Pos	Id	Segment Name	Req	Max Use	Repeat	Notes	Usage
LOOP	ID - N1				<u>2</u>	N2/020L	
020	N1	Name	0	1		N2/020	Must use
040	N3	Address Information	0	2			Must use
050	N4	Geographic Location	0	1			Must use
090	R1	Route Information (Air)	0	1			Must use
LOOP	<u>ID - L5</u>				<u>4</u>		
150	L5	Description, Marks and Numbers	0	1			Must use
160	L0	Line Item - Quantity and Weight	M	1			Must use
165	L10	Weight	0	4			Must use
LOOP	ID - L1				<u>30</u>		
175	L1	Rate and Charges	М	1			Must use

Summary:

Pos	<u>Id</u>	Segment Name	Req	Max Use	Repeat	<u>Notes</u>	<u>Usage</u>
015	L3	Total Weight and Charges	M	1			Must use
045	SE	Transaction Set Trailer	M	1			Must use

ST Transaction Set Header

Position: 010 Loop: N/A Level: Header Usage: Mandatory Max Use: 1

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

Syntax Notes:

Semantic Notes: The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the

Invoice Transaction Set).

Comments: Notes:

Data Element Summary

Ref	<u>Id</u>	Element Name	Att	ribute	<u>es</u>
ST01	143	Transaction Set Identifier Code	M	ID	3/3

Description: Code uniquely identifying a Transaction Set

CodeList Summary (Total Codes: 298, Included: 1)

Code Name

110 Air Freight Details and Invoice

ST02 329 Transaction Set Control Number M AN 4/9

Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

B3 Beginning Segment for Carrier's Invoice

Position: 020 Loop: N/A Level: Header Usage: Mandatory Max Use: 1

Purpose: To transmit basic data relating to the carrier's invoice

Syntax Notes: P0910 - 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 the data in B309 will be the actual delivery date. For the shipments invoiced prior to delivery, the 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

Comments:

<u>Ref</u>	<u>Id</u>	Element Name	<u>Attributes</u>
B302	76	Invoice Number	M AN 1/22
		Description: Identifying number assigned by issuer	
B303	145	Shipment Identification Number	O AN 1/30
		Description: Identification number assigned to the shipm the shipment from origin to ultimate destination and is not blanks or special characters)	
B304	146	Shipment Method of Payment	M ID 2/2
		Description: Code identifying payment terms for transpo CodeList Summary (Total Codes: 28, Included: 2)	rtation charges
		<u>Code</u> <u>Name</u>	
		CC Collect	
		PP Prepaid (by Seller)	
B306	373	Date	M DT 8/8
		Description: Date expressed as CCYYMMDD	
B307	193	Net Amount Due	M N2 1/12

			Total charges to be paid by the receiver of the nomination for the currency specified	s transaction set expressed in the standard	
B309	32	Delivery Dat	te	X DT 8/8	
		Description: format CCYY	Date for delivery of cargo to final consignee YMMDD	or to next mode expressed in	
B310	374	Date/Time Q	Qualifier	X ID 3/3	
		Description: Code specifying type of date or time, or both date and time			
		CodeList Summary (Total Codes: 1112, Included: 1)			
		Code	Name		
		035	Delivered		

M ID 2/4

Description: Standard Carrier Alpha Code

Standard Carrier Alpha Code

B311

140

C3 Currency

Position: 050 Loop: N/A Level: Header Usage: Optional Max Use: 1

Purpose: To specify the currency being used in the transaction set

Syntax Notes: Semantic Notes:

C301 is the billing currency.
 C303 is the payment currency.
 C304 is the rated currency.

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

Element Summary:

<u>Ref</u> C301	<u>Id</u> 100	Element Name Currency Code		ibutes D 3/3
	Code (Standard ISO) for country in whose currency the charges are specif	ïed	
C302	280	Exchange Rate	O I	R 4/10.

Value to be used as a multiplier conversion factor to convert monetary value from one currency to another

Loop Name

Position: 075 Loop: N1 Level: Header Usage: Mandatory Max Use: 3

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

Syntax Notes: Semantic Notes: Comments:

Loop Summary:

Pos	<u>Id</u>	Segment Name	<u>Attribute</u>	es
075	N1	Name	M	1
090	N3	Address Information	O	2
100	N4	Geographic Location	O	1
110	N9	Reference Identification	O	10

N1 Name

Position: 075 Loop: N1 Level: Header Usage: Mandatory Max Use: 1

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

Syntax Notes:

1. R0203 - At least one of N102 or N103 is required

2. If either N103 or N104 is present, then the other is required

Semantic Notes:

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.

Element Summary:

Ref	<u>Id</u>	Element Name Attributes
N101	98	Entity Identifier Code M ID 2/3
		Description: Code identifying an organizational entity, a physical location, property or an individual
		CodeList Summary (Total Codes: 1312, Included: 3)
		<u>Code</u> <u>Name</u>
		BT Bill-to-Party
		CN Consignee
		SH Shipper
N102	93	Name X AN 1/60
		Description: Free-form name
N103	66	Identification Code Qualifier X ID 1/2
		Description: Code designating the system/method of code structure used for Identification Code (67)
N104	67	Identification Code X AN 2/17
		Description: Account Number with carrier (Shipped account when applicable SH, billed account

when applicable BT)

N3 Address Information

Position: 090 Loop: N1 Level: Header Usage: Mandatory Max Use: 2

Purpose: To specify the location of the named party

Syntax Notes:

Semantic Notes: R0203 - At least one of N102 or N103 is required

Comments:

<u>Ref</u>	<u>Id</u>	Element Name	Attribute	es	
N301	166	Address Information	M	AN	1/55
		Description: Address information			
N302	166	Address Information Description: Address information	O	AN	1/55

N4 Geographic Location

Position: 100 Loop: N1 Level: Header Usage: Mandatory Max Use: 1

Purpose: To specify the geographic place of the named party

Syntax Notes: Semantic Notes: Comments:

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

<u>Ref</u> N401	<u>Id</u> 19	Element Name City Name	Attributes O AN 2/30
		Description: Free-form text for city n	ame
N402	156	State or Province Code	O ID 2/2
		Description: Code (Standard	State/Province) as defined by appropriate government agency
N403	116	Postal Code	O ID 3/15
		Description: Code defining int (zip code for United States)	ernational postal zone code excluding punctuation and blanks
N404	26	Country Code	O ID 2/3
		Description: Code identifying the cou	ıntry

N9 Reference Identification

Position: 110 Loop: N1 Level: Header Usage: Optional Max Use: 10

Purpose: To transmit identifying information as specified by the Reference Identification Qualifier

Syntax Notes: Semantic Notes:

1. R0203 - At least one of N902 or N903 is required.

2. N901 is the Standard Carrier Alpha Code (SCAC of the interline carrier. This must be sent for third-party logistics providers

Comments:

N902

1. N901 - AW, CR, SI and SCA are required

Element Summary:

127

<u>Ref</u>	<u>Id</u>	Element Name		Attributes			
N901	128	Reference Identification Qualifier		M II) 2/3		
		Description: Code qualifying the Reference Identification					

CodeList Summary (Total Codes: 1503, Included: 3)

Code Name

AW Air Waybill Number

CR Customer Reference Number

SI Shipper's Identifying Number for Shipment (SID)

SCA Standard Carrier Alpha Code

Reference Identification X AN 1/30

Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

Loop Assigned Number

Position: 010 Loop: LX Level: Header Usage: Mandatory Max Use: 9999

Purpose: To reference a line number in a transaction set

Syntax Notes: Semantic Notes: Comments:

Loop Summary:

Pos	<u>Id</u>	Segment Name	Req	Max Use	Repea	t <u>Usage</u>
010	LX	Assigned Number	M	1		Must use
020		Loop N1	O		2	Must use
090	R1	Route Information (Air)	O	1		Must use
150		Loop L5	M		4	Must use

LX Assigned Number

Position: 010 Loop: LX Level: Detail Usage: Mandatory Max Use: 1

Purpose: To reference a line number in a transaction set

Syntax Notes: Semantic Notes: Comments:

Element Summary:

 Ref
 Id
 Element Name
 Attributes

 LX01
 554
 Assigned Number
 M N0 1/6

Description: Number assigned for differentiation within a transaction set

Loop Name

Position: 020 Loop: N1 Level: Header Usage: Mandatory Max Use: 1

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

Syntax Notes: Semantic Notes: Comments:

Loop Summary:

Pos	<u>Id</u>	Segment Name	<u>Req</u>	Max Use	Repeat	<u>Usage</u>
020	N1	Name	O	1		Must use
040	N3	Address Information	O	2		Must use
050	N4	Geographic Location	O	1		Must use

N1 Name

Position: 020 Loop: N1 Level: Detail Usage: Mandatory Max Use: 1

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

Syntax Notes: Semantic Notes:

1. R0203 - At least one of N102 or N103 is required.

Comments:

Element Summary:

Ref	<u>Id</u>	Element Name	<u>Attributes</u>
N101	98	Entity Identifier Code	M ID 2/3

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

individual

CodeList Summary (Total Codes: 1312, Included: 2)

CodeNameSFShip FromSTShip To

N102 93 **Name** X AN 1/60

Description: Free-form name

N3 Address Information

Position: 040 Loop: N1 Level: Detail Usage: Mandatory Max Use: 2

Purpose: To specify the location of the named party

Syntax Notes: Semantic Notes: Comments:

<u>Ref</u>	<u>Id</u>	Element Name	<u>Attributes</u>
N301	166	Address Information	M AN 1/55
		Description: Address information	
N302	166	Address Information Description: Address information	O AN 1/55

N4 Geographic Location

Position: 050 Loop: N1 Level: Detail Usage: Mandatory Max Use: 2

Purpose: To specify the geographic place of the named party

Syntax Notes: Semantic Notes: Comments:

1. A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.

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

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

P1 Pick-up

Position: 085 Loop: LX Level: Detail Usage: Optional Max Use: 1

Purpose: To specify the pick-up details including time, date, and equipment

Syntax Notes: Semantic Notes:

1. P107 is the number of shipments tendered

Comments:

1. P103 is the pick-up date qualifier

Element Summary:

Ref	<u>Id</u>	Element Name		Attributes		
P103	109	Pick-Up Date	M	DT	8/8	
		Description: Date the carrier picks up the shipment from the shipper or supplier expressed in format CCYYMMDD				
P103	374	Date/Time Qualifier	M	ID	3/3	
		Description: Code specifying type of data or time				

Description: Code specifying type of date or time,

or both date and time

011 Shipped

R1 Route Information (Air)

Position: 090 Loop: LX Level: Detail Usage: Optional Max Use: 1

Purpose: To specify airline and airport routing sequences

Syntax Notes: Semantic Notes: Comments:

Element Summary:

<u>Id</u>	Element Name	<u>Att</u>	<u>ributes</u>	
5	Airport Code	M	ID	3/5
	Description: Code (IATA) for airport			
4	Air Carrier Code	M	ID	3/3
	Description: Code (IATA) for the air carrier			
5	Airport Code	M	ID	3/5
	5	5 Airport Code Description: Code (IATA) for airport 4 Air Carrier Code Description: Code (IATA) for the air carrier	5 Airport Code M Description: Code (IATA) for airport 4 Air Carrier Code M Description: Code (IATA) for the air carrier	5 Airport Code M ID Description: Code (IATA) for airport 4 Air Carrier Code M ID Description: Code (IATA) for the air carrier

Description: Code (IATA) for airport

Loop Description, Marks and Numbers

Position: 150 Loop: L5 Level: Detail Usage: Mandatory Max Use: 4

Purpose: To specify the line item in terms of description, quantity, packaging, and marks and numbers

Syntax Notes: Semantic Notes: Comments:

Loop Summary:

<u>Pos</u>	<u>Id</u>	Segment Name	<u>Req</u>	Max Use	Repeat	<u>Usage</u>
150	L5	Description, Marks and Numbers	O	1		Must use
160	L0	Line Item - Quantity and Weight	M	1		Must use
165	L10	Weight	O	4		Must use
175		Loop L1	M		30	Must use

L5 Description, Marks and Numbers

Position: 150 Loop: L5 Level: Detail Usage: Mandatory Max Use: 1

Purpose: To specify the line item in terms of description, quantity, packaging, and marks and numbers

Syntax Notes: Semantic Notes: Comments:

<u>Ref</u>	<u>Id</u>	Element Name	<u>Attributes</u>
L501	213	Lading Line Item Number	O NO 1/3
		Description: Sequential line number fo	r a lading item
L502	79	Lading Description	O AN 1/50
		Description: Description of an item	n as required for rating and billing purposes
L503	22	Commodity Code	X AN 1/30
		Description: Code describing a co	mmodity or group of commodities

L0 Line Item - Quantity and Weight

Position: 160 Loop: L5 Level: Detail Usage: Mandatory Max Use: 1

Purpose: To specify quantity, weight, volume, and type of service for a line item including applicable "quantity/rate-as"

data

Syntax Notes:

- P0405 If either L004 or L005 is present, then the other is required.
 P0607 If either L006 or L007 is present, then the other is required.
 P0809 If either L008 or L009 is present, then the other is required.
- 4. C1104 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.

Comments:

Ref L001	<u>Id</u> 213	Element N	l <u>ame</u> ne Item Number	<u>Attri</u> O	<u>butes</u> 1/3	N0
		Description	n: Sequential line number for a lading	g item		
L004	81	Weight		X	R	1/10
		Description	n: Numeric value of weight			
L005	187	Weight Qu	alifier	X	ID	1/2
		Description	n: Code defining the type of weight			
		CodeList S	Summary (Total Codes: 51, Included	: 1)		
		Code	<u>Name</u>			
		В	Billed Weight			
		G	Gross Weight			
L006	183	Volume		X	R	1/8
		Description	n: Value of volumetric measure			
L007	184	Volume Ur	nit Qualifier	X	ID	1/1

Description: Code identifying the volume unit

CodeList Summary (Total Codes: 16, Included: 1)

Code Name

X Cubic Meters

L008 80 Lading Quantity X N0 1/7

Description: Number of units (pieces) of the lading commodity

L009 211 Packaging Form Code X ID 3/3

Description: Code for packaging form of the lading quantity

CodeList Summary (Total Codes: 134, Included: 8)

CodeNameBDLBundleBOXBoxCASCaseCTNCartonPCSPiecesPLTPallet

SKD SKD

Roll

ROL

L011 188 **Weight Unit Code** O ID 1/1

Description: Code specifying the weight unit

CodeList Summary (Total Codes: 8, Included: 1)

Code Name

K Kilograms

L10 Weight

Position: 165 Loop: L5 Level: Detail Usage: Mandatory Max Use: 4

Purpose: To transmit weight information

Syntax Notes: Semantic Notes: Comments:

Element 8	umma	. y •					
<u>Ref</u> L1001	<u>Id</u> 81	Element N Weight	<u>lame</u>	Req M	<u>Type</u>	Min/Max 1/10Must use	<u>Usage</u>
		Description	1: Numeric value of weight				
L1002	187	Weight Qu	alifier	M	ID	1/2	
		Description	a: Code defining the type of weight				
		CodeList S	ummary (Total Codes: 51, Included	1: 2)			
		Code	<u>Name</u>				
		В	Billed Weight				
		G	Gross Weight				
L1003	188	Weight Un	it Code	О	ID	1/1	
		Description	a: Code specifying the weight unit				
		CodeList S	ummary (Total Codes: 8, Included:	1)			
		Code	<u>Name</u>				
		K	Kilograms				

Loop Rate and Charges

Position: 175 Loop: L1 Level: Detail Usage: Mandatory Max Use: 30

Purpose: To specify rate and charges detail relative to a line item including freight charges, advances, special charges, and

entitlements
Syntax Notes:
Semantic Notes:
Comments:

Loop Summary:

Pos	<u>Id</u>	Segment Name	<u>Req</u>	Max Use	Repeat	<u>Usage</u>
175	L1	Rate and Charges	M	1		Must use

L1 Rate and Charges

Position: 175 Loop: L1 Level: Detail Usage: Mandatory Max Use: 1

Purpose: To specify rate and charges detail relative to a line item including freight charges, advances, special charges, and

entitlements

Syntax Notes:

1. R040506 - At least one of L104, L105 or L106 is required.

Semantic Notes: Comments:

Element Summary:

<u>Ref</u>	<u>Id</u>	Element Name	A	ttrib	ıtes
L101	213	Lading Line Item Number	O	N0	1/3
		Description: Sequential line number for a lading item			
1.102	<i>c</i> 0	Eusiah4 Da4a	v	ъ	1 /0
L102	60	Freight Rate	X	R	1/9
		Description. Data that applies to the specific commed	:		
		Description: Rate that applies to the specific commod	ıty		
L103	122	Rate/Value Qualifier	X	ID	2/2

Description: Code qualifying how to extend charges or interpret value

CodeList Summary (Total Codes: 163, Included: 19)

<u>Code</u>	<u>Name</u>
BL	Bill of Lading Declared Value
CM	Per Cubic Meter
CO	Cost per Unit
CW	Per Hundred Weight
FC	Flat Charge
FF	Percent Of Tariff Rate
FR	Flat Rate
KG	Per Kilograms
KP	Per Kilometer

		LF	Per Loaded 436L Pallet			
		PD	Per Day			
		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			
L104	58	Charge		X	N2	1/12
			For a line item: freight or special chathe standard monetary denomination			
L108	150	Special Char	ge or Allowance Code	О	ID	3/3
		Description:	Code identifying type of special char	rge or al	lowance	
L112	276	Special Char	ge Description	О	AN	2/25

Description: Identification of special charge; this data element is used whenever an applicable code cannot be found in data element 150

L3 Total Weight and Charges

Position: 015 Loop: N/A Level: Summary Usage: Mandatory Max Use: 1

Purpose: 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. P0102 If either L301 or L302 is present, then the other is required
- 2. C1201 If L312 is present, then L301 is required

Semantic Notes:

1. L305 is the total charges

Comments:

Element Summary:

Ref	Id	Element Name		<u>Attributes</u>	
L301	81	Weight	X	R	1/10
L302	187	Description: Numeric value of weight Weight Qualifier	X	ID	1/2
2002	107	, regar Quinner		12	1, 2
		Description: Code defining the type of weight			
		CodeList Summary (Total Codes: 51, Included:	1)		
		Code Name			
		B Billed Weight			
L305	58	Charge	M	N2	1/12
		Description: For a line item: freight or special ch expressed in the standard monetary denomination			
L309	183	Volume	X	R	1/8
L310	184	Description: Value of volumetric measure Volume Unit Qualifier	X	ID	1/1
L310	104	volume Omt Quamier	Λ	Ш	1/1
		Description: Code identifying the volume unit			
L311	80	Lading Quantity	M	N0	1/7

Description: Number of units (pieces) of the lading commodity

L312 188 **Weight Unit Code** M ID 1/1

Description: Code specifying the weight unit

CodeList Summary (Total Codes: 8, Included: 1)

<u>Code</u> <u>Name</u>

K Kilograms

SE Transaction Set Trailer

Position: 045 Loop: N/A 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)

Syntax Notes: Semantic Notes: Comments:

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

Element Summary:

<u>Ref</u> SE01	<u>Id</u> 96	Element Name Number of Included Segments	M	Attributes N0	1/10
		Description: Total number of segments included	in a tran	saction set in	ncluding ST and SE segments
SE02	329	Transaction Set Control Number	M	AN	4/9
		Description: Identifying control number that mus	t be uni	que within th	e transaction set functional

Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

Comments:

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