



810 Invoice
ANSI ASC X12 Version 4010

ERICO International
31700 Solon Rd.
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Preface

Purpose and Scope

The purpose of this guide is to provide ERICO's trading partners with the necessary information to be able to receive Invoices via EDI from ERICO. The material presented here covers the 810 transaction set of version 004 release 010 of the ANSI ASC X12 standard. Contact ERICO for information on other standards and versions that are supported.

American National Standards Institute Accredited Standards Committee X12

ERICO uses ANSI ASC X12 standard format transaction sets for the exchange of electronic documents with its EDI trading partners. ERICO is a leader in the use of EDI in the Electrical Industry and firmly supports the use of ANSI ASC X12 standards in EDI trading partner relationships. The use of such standards cultivates a common language between trading partners and expedites EDI setup.

Mandatory Requirements

To implement electronic invoices, ERICO requires a list of all locations. This list should include the business name of each location and the complete address including the street, city, state, and zip. ERICO will assign an internal customer code to each location on the list that you supplied.

Pricing Lists

It may be necessary to download ERICO's pricing list(s) from our public website, if you do not have any other means of receiving our pricing data. This will help to ensure that critical data (Part number, UPC, List price, etc.) is accurate within your systems. It will also help expedite the EDI testing process. ERICO's price lists can be found at: <http://www.erico.com/priceLists.asp>. Note that there may be multiple price lists required, as ERICO carries multiple product lines.

If you have any questions about ERICO price lists, please contact Customer Service:
<http://www.erico.com/static.asp?id=14>

Communications

ERICO uses a third party Value Added Network to send and receive EDI transmissions. Below is our Network information and contact.

Network: IDX2
Network ID: 340961012 Qualifier :01
Network Contact: George Warren
Network Contact Phone Number: (925) 449-0606 x3722
Network Contact email: george.warren@activant.com

Additional Notes:

It is important to understand that ERICO's Freight Policy applies. For freight policy information, go to <http://www.erico.com/globalSearch.asp?keywords=freight>

ERICO Terms and Conditions of sale can be found at:
http://www.erico.com/public/library/Terms/TermsConds_US_1-04.pdf



Trading Partner Profile

Customer Name _____

Address _____

Main Phone Number _____

Primary EDI Contact _____

Phone Number _____

Email Address _____

Secondary Contact _____

Phone Number _____

Email Address _____

Transaction Sets

- 810 Invoice 820 Remittance Advice 850 Purchase Order
- 855 Purchase Order Acknowledgement 856 Advanced Ship Notice

Do you require a 997 Functional Acknowledgement? Yes No

ISA ID _____ Qualifier _____

GS ID _____ (if same as ISA, leave blank)

EDI Version 4010 4030 4060

Table of Contents

810	Invoice	1
ISA	Interchange Control Header	2
GS	Functional Group Header	4
ST	Transaction Set Header	6
BIG	Beginning Segment for Invoice	7
CUR	Currency	8
REF	Reference Identification	9
N1	Loop Name	10
N1	Name	11
N3	Address Information	12
N4	Geographic Location	13
ITD	Terms of Sale/Deferred Terms of Sale	14
DTM	Date/Time Reference	15
IT1	Loop Baseline Item Data (Invoice)	16
IT1	Baseline Item Data (Invoice)	17
PID	Loop Product/Item Description	19
PID	Product/Item Description	20
TDS	Total Monetary Value Summary	21
CAD	Carrier Detail	22
CTT	Transaction Totals	23
SE	Transaction Set Trailer	24
GE	Functional Group Trailer	25
IEA	Interchange Control Trailer	26

810**Invoice****Functional Group=IN**

Purpose: This Draft Standard for Trial Use contains the format and establishes the data contents of the Invoice Transaction Set (810) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide for customary and established business and industry practice relative to the billing for goods and services provided.

Not Defined:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
	ISA	Interchange Control Header	M	1			Must use
	GS	Functional Group Header	M	1			Must use

Heading:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
010	ST	Transaction Set Header	M	1			Must use
020	BIG	Beginning Segment for Invoice	M	1			Must use
040	CUR	Currency	O	1			Must use
050	REF	Reference Identification	O	12			Must use

<u>LOOP ID - N1</u>					<u>200</u>		
070	N1	Name	O	1			Must use
090	N3	Address Information	O	2			Must use
100	N4	Geographic Location	O	1			Must use
130	ITD	Terms of Sale/Deferred Terms of Sale	O	>1			Must use
140	DTM	Date/Time Reference	O	10			Must use

Detail:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
<u>LOOP ID - IT1</u>					<u>200000</u>		
010	IT1	Baseline Item Data (Invoice)	O	1			Must use
<u>LOOP ID - PID</u>					<u>1000</u>		
060	PID	Product/Item Description	O	1			Must use

Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
010	TDS	Total Monetary Value Summary	M	1			Must use
030	CAD	Carrier Detail	O	1			Must use
070	CTT	Transaction Totals	O	1		N3/070	Must use
080	SE	Transaction Set Trailer	M	1			Must use

Not Defined:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>	<u>Usage</u>
	GE	Functional Group Trailer	M	1			Must use
	IEA	Interchange Control Trailer	M	1			Must use

Notes:

3/070 Number of line items (CTT01) is the accumulation of the number of IT1 segments. If used, hash total (CTT02) is the sum of the value of quantities invoiced (IT102) for each IT1 segment.

ISA Interchange Control Header

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

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:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ISA01	I01	Authorization Information Qualifier	M	ID	2/2	Must use

Description: Code to identify the type of information in the Authorization Information

<u>Code</u>	<u>Name</u>
00	No Authorization Information Present (No Meaningful Information in I02)

ISA02	I02	Authorization Information	M	AN	10/10	Must use
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Description: Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)

ISA03	I03	Security Information Qualifier	M	ID	2/2	Must use
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Description: Code to identify the type of information in the Security Information

<u>Code</u>	<u>Name</u>
00	No Security Information Present (No Meaningful Information in I04)

ISA04	I04	Security Information	M	AN	10/10	Must use
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Description: This is used for identifying the security information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03)

ISA05	I05	Interchange ID Qualifier	M	ID	2/2	Must use
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Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified

<u>Code</u>	<u>Name</u>
01	Duns (Dun & Bradstreet)

ISA06	I06	Interchange Sender ID	M	AN	15/15	Must use
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Description: Identification code published by the sender for other parties to use as the receiver ID to route data to them; the sender always codes this value in the sender ID element

ISA07	I05	Interchange ID Qualifier	M	ID	2/2	Must use
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Description: Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified

<u>Code</u>	<u>Name</u>
01	Duns (Dun & Bradstreet)

ISA08	I07	Interchange Receiver ID	M	AN	15/15	Must use
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Description: Identification code published by the receiver of the data; When sending, it is used by the sender as their sending ID, thus other parties sending to them will use this as a receiving ID to route data to them

ISA09	I08	Interchange Date	M	DT	6/6	Must use
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Description: Date of the interchange

ISA10	I09	Interchange Time	M	TM	4/4	Must use
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		Description: Time of the interchange				
ISA11	I10	Interchange Control Standards Identifier	M	ID	1/1	Must use
		Description: Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer All valid standard codes are used.				
ISA12	I11	Interchange Control Version Number	M	ID	5/5	Must use
		Description: Code specifying the version number of the interchange control segments				
		<u>Code</u>		<u>Name</u>		
		00401		Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997		
ISA13	I12	Interchange Control Number	M	N0	9/9	Must use
		Description: A control number assigned by the interchange sender				
ISA14	I13	Acknowledgment Requested	M	ID	1/1	Must use
		Description: Code sent by the sender to request an interchange acknowledgment (TA1)				
		<u>Code</u>		<u>Name</u>		
		0		No Acknowledgment Requested		
ISA15	I14	Usage Indicator	M	ID	1/1	Must use
		Description: Code to indicate whether data enclosed by this interchange envelope is test, production or information				
		<u>Code</u>		<u>Name</u>		
		P		Production Data		
		T		Test Data		
ISA16	I15	Component Element Separator	M		1/1	Must use
		Description: Type is not applicable; the component element separator is a delimiter and not a data element; this field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator				

GS Functional Group Header

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

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
GS01	479	Functional Identifier Code	M	ID	2/2	Must use
Description: Code identifying a group of application related transaction sets						
		<u>Code</u>	<u>Name</u>			
		IN	Invoice Information (810,819)			
GS02	142	Application Sender's Code	M	AN	2/15	Must use
Description: Code identifying party sending transmission; codes agreed to by trading partners						
GS03	124	Application Receiver's Code	M	AN	2/15	Must use
Description: Code identifying party receiving transmission; codes agreed to by trading partners						
GS04	373	Date	M	DT	8/8	Must use
Description: Date expressed as CCYYMMDD						
GS05	337	Time	M	TM	4/8	Must use
Description: Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)						
GS06	28	Group Control Number	M	N0	1/9	Must use
Description: Assigned number originated and maintained by the sender						
GS07	455	Responsible Agency Code	M	ID	1/2	Must use
Description: Code identifying the issuer of the standard; this code is used in conjunction with Data Element 480						
		<u>Code</u>	<u>Name</u>			
		X	Accredited Standards Committee X12			
GS08	480	Version / Release / Industry Identifier Code	M	AN	1/12	Must use
Description: Code indicating the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments; if code in DE455 in GS segment is X, then in DE 480 positions 1-3 are the version number; positions 4-6 are the release and subrelease, level of the version; and positions 7-12 are the industry or trade association identifiers (optionally assigned by user); if code in DE455 in GS segment is T, then other formats are allowed						
		<u>Code</u>	<u>Name</u>			
		004010	Draft Standards Approved for Publication by ASC X12 Procedures Review Board through October 1997			

Semantics:

1. GS04 is the group date.
2. GS05 is the group time.
3. The data interchange control number GS06 in this header must be identical to the same data element in the

associated functional group trailer, GE02.

Comments:

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

ST Transaction Set Header

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

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
ST01	143	Transaction Set Identifier Code	M	ID	3/3	Must use

Description: Code uniquely identifying a Transaction Set

<u>Code</u>	<u>Name</u>
810	Invoice

ST02	329	Transaction Set Control Number	M	AN	4/9	Must use
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Description: Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

Semantics:

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

BIG Beginning Segment for Invoice

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

User Option (Usage): Must use

Purpose: To indicate the beginning of an invoice transaction set and transmit identifying numbers and dates

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>
BIG01	373	Date	M	DT	8/8	Must use
		Description: Date expressed as CCYYMMDD				
BIG02	76	Invoice Number	M	AN	1/22	Must use
		Description: Identifying number assigned by issuer				
BIG03	373	Date	O	DT	8/8	Must use
		Description: Date expressed as CCYYMMDD				
BIG04	324	Purchase Order Number	O	AN	1/22	Must use
		Description: Identifying number for Purchase Order assigned by the orderer/purchaser				
BIG07	640	Transaction Type Code	O	ID	2/2	Must use
		Description: Code specifying the type of transaction				
		<u>Code</u>		<u>Name</u>		
		DI		Debit Invoice		

Semantics:

1. BIG01 is the invoice issue date.
2. BIG03 is the date assigned by the purchaser to purchase order.
3. BIG10 indicates the consolidated invoice number. When BIG07 contains code CI, BIG10 is not used.

Comments:

1. BIG07 is used only to further define the type of invoice when needed.

CUR Currency

Pos: 040	Max: 1
Heading - Optional	
Loop: N/A	Elements: 2

User Option (Usage): Must use

Purpose: To specify the currency (dollars, pounds, francs, etc.) used in a transaction

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>
CUR01	98	Entity Identifier Code	M	ID	2/3	Must use

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

<u>Code</u>	<u>Name</u>
SE	Selling Party

CUR02	100	Currency Code	M	ID	3/3	Must use
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Description: Code (Standard ISO) for country in whose currency the charges are specified

Syntax Rules:

1. C0807 - If CUR08 is present, then CUR07 is required.
2. C0907 - If CUR09 is present, then CUR07 is required.
3. L101112 - If CUR10 is present, then at least one of CUR11 or CUR12 is required.
4. C1110 - If CUR11 is present, then CUR10 is required.
5. C1210 - If CUR12 is present, then CUR10 is required.
6. L131415 - If CUR13 is present, then at least one of CUR14 or CUR15 is required.
7. C1413 - If CUR14 is present, then CUR13 is required.
8. C1513 - If CUR15 is present, then CUR13 is required.
9. L161718 - If CUR16 is present, then at least one of CUR17 or CUR18 is required.
10. C1716 - If CUR17 is present, then CUR16 is required.
11. C1816 - If CUR18 is present, then CUR16 is required.
12. L192021 - If CUR19 is present, then at least one of CUR20 or CUR21 is required.
13. C2019 - If CUR20 is present, then CUR19 is required.
14. C2119 - If CUR21 is present, then CUR19 is required.

Comments:

1. See Figures Appendix for examples detailing the use of the CUR segment.

REF Reference Identification

Pos: 050	Max: 12
Heading - Optional	
Loop: N/A	Elements: 2

User Option (Usage): Must use

Purpose: To specify identifying information

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3	Must use
Description: Code qualifying the Reference Identification						
		<u>Code</u>	<u>Name</u>			
		L1	Letters or Notes			
REF02	127	Reference Identification	X	AN	1/30	Must use
Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier						

Syntax Rules:

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

Semantics:

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

Loop Name

Pos: 070	Repeat: 200
Optional	
Loop: N1	Elements: N/A

User Option (Usage): Must use

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

Loop Summary:

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

N1

Name

Pos: 070	Max: 1
Heading - Optional	
Loop: N1	Elements: 4

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
N101	98	Entity Identifier Code	M	ID	2/3	Must use
		Description: Code identifying an organizational entity, a physical location, property or an individual				
		<u>Code</u>		<u>Name</u>		
		BT		Bill-to-Party		
		SF		Ship From		
		ST		Ship To		
N102	93	Name	X	AN	1/60	Must use
		Description: Free-form name				
N103	66	Identification Code Qualifier	X	ID	1/2	Used
		Description: Code designating the system/method of code structure used for Identification Code (67)				
		<u>Code</u>		<u>Name</u>		
		92		Assigned by Buyer or Buyer's Agent		
N104	67	Identification Code	X	AN	2/80	Used
		Description: Code identifying a party or other code				

Syntax Rules:

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

Comments:

1. This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2. N105 and N106 further define the type of entity in N101.

N3 Address Information

Pos: 090	Max: 2
Heading - Optional	
Loop: N1	Elements: 2

User Option (Usage): Must use

Purpose: To specify the location of the named party

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>
N301	166	Address Information	M	AN	1/55	Must use
		Description: Address information				
N302	166	Address Information	O	AN	1/55	Used
		Description: Address information				

N4 Geographic Location

Pos: 100	Max: 1
Heading - Optional	
Loop: N1	Elements: 3

User Option (Usage): Must use

Purpose: To specify the geographic place of the named party

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>
N401	19	City Name	O	AN	2/30	Must use
		Description: Free-form text for city name				
N402	156	State or Province Code	O	ID	2/2	Must use
		Description: Code (Standard State/Province) as defined by appropriate government agency				
N403	116	Postal Code	O	ID	3/15	Must use
		Description: Code defining international postal zone code excluding punctuation and blanks (zip code for United States)				

Syntax Rules:

1. C0605 - If N406 is present, then N405 is required.

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.

ITD Terms of Sale/Deferred Terms of Sale

Pos: 130	Max: >1
Heading - Optional	
Loop: N/A	Elements: 6

User Option (Usage): Must use
Purpose: To specify terms of sale

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>
ITD02	333	Terms Basis Date Code	O	ID	1/2	Must use
Description: Code identifying the beginning of the terms period						
		<u>Code</u>	<u>Name</u>			
		3	Invoice Date			
ITD03	338	Terms Discount Percent	O	R	1/6	Must use
Description: Terms discount percentage, expressed as a percent, available to the purchaser if an invoice is paid on or before the Terms Discount Due Date						
ITD04	370	Terms Discount Due Date	X	DT	8/8	Must use
Description: Date payment is due if discount is to be earned expressed in format CCYYMMDD						
ITD06	446	Terms Net Due Date	O	DT	8/8	Must use
Description: Date when total invoice amount becomes due expressed in format CCYYMMDD						
ITD08	362	Terms Discount Amount	O	N2	1/10	Must use
Description: Total amount of terms discount						
ITD12	352	Description	O	AN	1/80	Must use
Description: A free-form description to clarify the related data elements and their content						

Syntax Rules:

1. L03040513 - If ITD03 is present, then at least one of ITD04, ITD05 or ITD13 is required.
2. L08040513 - If ITD08 is present, then at least one of ITD04, ITD05 or ITD13 is required.
3. L091011 - If ITD09 is present, then at least one of ITD10 or ITD11 is required.

Semantics:

1. ITD15 is the percentage applied to a base amount used to determine a late payment charge.

Comments:

1. If the code in ITD01 is "04", then ITD07 or ITD09 is required and either ITD10 or ITD11 is required; if the code in ITD01 is "05", then ITD06 or ITD07 is required.

DTM Date/Time Reference

Pos: 140	Max: 10
Heading - Optional	
Loop: N/A	Elements: 2

User Option (Usage): Must use

Purpose: To specify pertinent dates and times

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
DTM01	374	Date/Time Qualifier	M	ID	3/3	Must use

Description: Code specifying type of date or time, or both date and time

<u>Code</u>	<u>Name</u>
003	Invoice
011	Shipped

DTM02	373	Date	X	DT	8/8	Must use
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Description: Date expressed as CCYYMMDD

Syntax Rules:

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

Loop Baseline Item Data (Invoice)

Pos: 010	Repeat: 200000
Optional	
Loop: IT1	Elements: N/A

User Option (Usage): Must use

Purpose: To specify the basic and most frequently used line item data for the invoice and related transactions

Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
010	IT1	Baseline Item Data (Invoice)	O	1		Must use
060		Loop PID	O		1000	Must use

IT1**Baseline Item Data (Invoice)**

Pos: 010	Max: 1
Detail - Optional	
Loop: IT1	Elements: 9

User Option (Usage): Must use**Purpose:** To specify the basic and most frequently used line item data for the invoice and related transactions**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>
IT101	350	Assigned Identification	O	AN	1/20	Must use
		Description: Alphanumeric characters assigned for differentiation within a transaction set				
IT102	358	Quantity Invoiced	X	R	1/10	Must use
		Description: Number of units invoiced (supplier units)				
IT103	355	Unit or Basis for Measurement Code	X	ID	2/2	Must use
		Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
		<u>Code</u>		<u>Name</u>		
		EA		Each		
IT104	212	Unit Price	X	R	1/17	Must use
		Description: Price per unit of product, service, commodity, etc.				
IT105	639	Basis of Unit Price Code	O	ID	2/2	Must use
		Description: Code identifying the type of unit price for an item				
		<u>Code</u>		<u>Name</u>		
		HP		Price per Hundred		
		TP		Price per Thousand		
IT106	235	Product/Service ID Qualifier	X	ID	2/2	Must use
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				
		<u>Code</u>		<u>Name</u>		
		UC		U.P.C. Suffix (Defines Packing Variations)		
IT107	234	Product/Service ID	X	AN	1/48	Must use
		Description: Identifying number for a product or service				
IT108	235	Product/Service ID Qualifier	X	ID	2/2	Must use
		Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234)				
		<u>Code</u>		<u>Name</u>		
		VC		Vendor's (Seller's) Catalog Number		
IT109	234	Product/Service ID	X	AN	1/48	Must use
		Description: Identifying number for a product or service				

Syntax Rules:

1. P020304 - If either IT102, IT103 or IT104 are present, then the others are required.
2. P0607 - If either IT106 or IT107 is present, then the other is required.
3. P0809 - If either IT108 or IT109 is present, then the other is required.
4. P1011 - If either IT110 or IT111 is present, then the other is required.
5. P1213 - If either IT112 or IT113 is present, then the other is required.
6. P1415 - If either IT114 or IT115 is present, then the other is required.

7. P1617 - If either IT116 or IT117 is present, then the other is required.
8. P1819 - If either IT118 or IT119 is present, then the other is required.
9. P2021 - If either IT120 or IT121 is present, then the other is required.
10. P2223 - If either IT122 or IT123 is present, then the other is required.
11. P2425 - If either IT124 or IT125 is present, then the other is required.

Semantics:

1. IT101 is the purchase order line item identification.

Comments:

1. Element 235/234 combinations should be interpreted to include products and/or services. See the Data Dictionary for a complete list of IDs.
2. IT106 through IT125 provide for ten different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

Loop Product/Item Description

Pos: 060 Repeat: 1000
 Optional
 Loop: PID Elements: N/A

User Option (Usage): Must use

Purpose: To describe a product or process in coded or free-form format

Loop Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Usage</u>
060	PID	Product/Item Description	O	1		Must use

PID Product/Item Description

Pos: 060	Max: 1
Detail - Optional	
Loop: PID	Elements: 2

User Option (Usage): Must use

Purpose: To describe a product or process in coded or free-form format

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>
PID01	349	Item Description Type	M	ID	1/1	Must use

Description: Code indicating the format of a description

<u>Code</u>	<u>Name</u>
F	Free-form

PID05	352	Description	X	AN	1/80	Must use
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Description: A free-form description to clarify the related data elements and their content

Syntax Rules:

1. C0403 - If PID04 is present, then PID03 is required.
2. R0405 - At least one of PID04 or PID05 is required.
3. C0703 - If PID07 is present, then PID03 is required.
4. C0804 - If PID08 is present, then PID04 is required.
5. C0905 - If PID09 is present, then PID05 is required.

Semantics:

1. Use PID03 to indicate the organization that publishes the code list being referred to.
2. PID04 should be used for industry-specific product description codes.
3. PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.
4. PID09 is used to identify the language being used in PID05.

Comments:

1. If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
2. Use PID06 when necessary to refer to the product surface or layer being described in the segment.
3. PID07 specifies the individual code list of the agency specified in PID03.

TDS Total Monetary Value Summary

Pos: 010	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 4

User Option (Usage): Must use

Purpose: To specify the total invoice discounts and amounts

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>
TDS01	610	Amount Description: Monetary amount	M	N2	1/15	Must use
TDS02	610	Amount Description: Monetary amount	O	N2	1/15	Must use
TDS03	610	Amount Description: Monetary amount	O	N2	1/15	Must use
TDS04	610	Amount Description: Monetary amount	O	N2	1/15	Must use

Semantics:

1. TDS01 is the total amount of invoice (including charges, less allowances) before terms discount (if discount is applicable).
2. TDS02 indicates the amount upon which the terms discount amount is calculated.
3. TDS03 is the amount of invoice due if paid by terms discount due date (total invoice or installment amount less cash discount).
4. TDS04 indicates the total amount of terms discount.

Comments:

1. TDS02 is required if the dollar value subject to discount is not equal to the dollar value of TDS01.

CAD Carrier Detail

Pos: 030	Max: 1
Summary - Optional	
Loop: N/A	Elements: 2

User Option (Usage): Must use

Purpose: To specify transportation details for the transaction

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>
CAD01	91	Transportation Method/Type Code	O	ID	1/2	Must use

Description: Code specifying the method or type of transportation for the shipment

<u>Code</u>	<u>Name</u>
T	Best Way (Shippers Option)

CAD05	387	Routing	X	AN	1/35	Must use
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Description: Free-form description of the routing or requested routing for shipment, or the originating carrier's identity

Syntax Rules:

1. R0504 - At least one of CAD05 or CAD04 is required.
2. C0708 - If CAD07 is present, then CAD08 is required.

CTT Transaction Totals

Pos: 070 Max: 1
 Summary - Optional
 Loop: N/A Elements: 2

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
CTT01	354	Number of Line Items	M	N0	1/6	Must use
		Description: Total number of line items in the transaction set				
CTT02	347	Hash Total	O	R	1/10	Must use

Description: Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element. Example: -.0018 First occurrence of value being hashed. .18 Second occurrence of value being hashed. 1.8 Third occurrence of value being hashed. 18.01 Fourth occurrence of value being hashed. ----- 1855 Hash total prior to truncation. 855 Hash total after truncation to three-digit field.

Syntax Rules:

1. P0304 - If either CTT03 or CTT04 is present, then the other is required.
2. P0506 - If either CTT05 or CTT06 is present, then the other is required.

Comments:

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

SE Transaction Set Trailer

Pos: 080	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

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:

<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	M	NO	1/10	Must use
		Description: Total number of segments included in a transaction set including ST and SE segments				
SE02	329	Transaction Set Control Number	M	AN	4/9	Must use
		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.

GE Functional Group Trailer

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

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
GE01	97	Number of Transaction Sets Included	M	N0	1/6	Must use
Description: Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element						
GE02	28	Group Control Number	M	N0	1/9	Must use
Description: Assigned number originated and maintained by the sender						

Semantics:

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

Comments:

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

IEA Interchange Control Trailer

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

User Option (Usage): Must use

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>	<u>Usage</u>
IEA01	I16	Number of Included Functional Groups	M	N0	1/5	Must use
		Description: A count of the number of functional groups included in an interchange				
IEA02	I12	Interchange Control Number	M	N0	9/9	Must use
		Description: A control number assigned by the interchange sender				