

**EDI SYSTEM
VENDOR INVOICING
IMPLEMENTATION GUIDE
Version 1.3**

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Trading Partner: All

Notes: Inbound document for EMD

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Document Revision History

SINo	Date	Change	Version	Page#
1	02/19/08	Final Draft	1.0	
2	03/20/08	<ul style="list-style-type: none"> • EDI Sample Document Details updated • SAC Segment corrected in the detail level from SLN Loop to SAC Loop • TDS 01 / SAC 05 Amount Data Type Attribute changed from N2 → R • TXI Tax Codes list updated • N1 Segment EMD Comments Updated 	1.1	<ul style="list-style-type: none"> • Page# 40 • Page# 8 & 9 • Page 33, 32 & 37 • Page #34 & 35 • Page #18
3	05/07/08	Finalized the version, need to check all the pages for minor updates.	1.2	Most of the pages
4	06/18/08	Updated the document with additional Examples	1.3	Page 40 & 41

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System Overview

The below system overview details the EDI documents considered in the implementation of the EDI 810 as well as their timing and flow. EMD provides a detailed description and sample of each technical document. The invoice document details are provided below. The 824 and 997 document details will be shared separately.

Transactions in use:

- ◆ 810 Invoice
- ◆ 824 Application Advice
- ◆ 997 Functional Acknowledgement

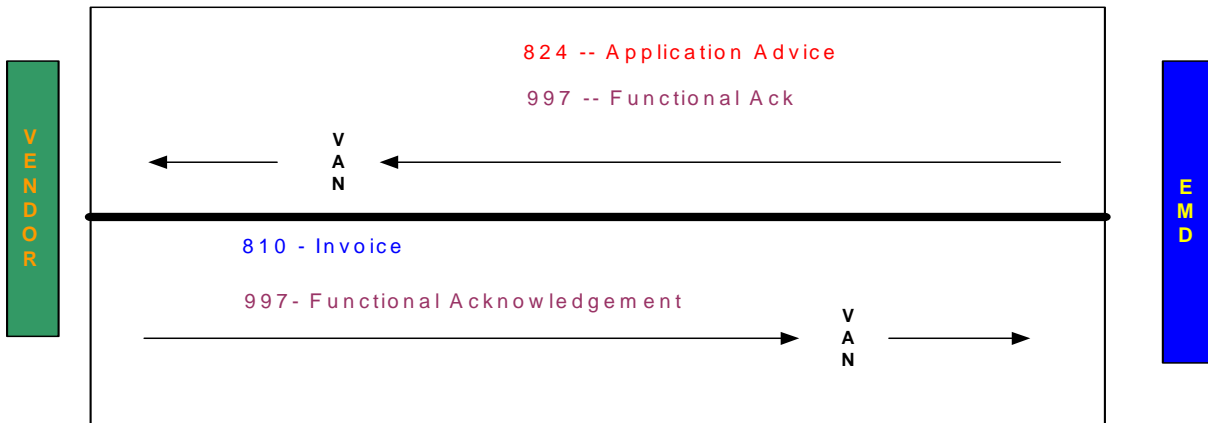
Standards

ANSI X12

Versions in use:

- ◆ 004010

Who sends what?



Document Trading Expectations

The ISA Control Number should not be repeated for a Sender/Receiver ID

810 INVOICE (*Refer Page 4 until end for detailed document information*)

Mandatory: Vendor sends an EDI X12 compliant invoice which passes EMD initial application edit, based upon the requirements listed below (ref page 4). A 997 will be returned within one EMD business day. If the invoice fails the application edit process, an 824 rejection can be expected within one EMD business day.

824 APPLICATION ADVICE (*See the EDI 824 Implementation Guide for detailed document description*)

Mandatory: If the Vendor sends an Invoice (810) that does not pass EMD editing process, an Application Advice (824) will be sent noting the item in error. The Application Advice will be sent within 24 hours (Monday - Friday), not including holidays and weekends. At this point, the Vendor should correct the problem and resubmit another 810. A Functional Acknowledgment (997) must be sent back by the end of that business day.

997 FUNCTIONAL ACKNOWLEDGMENT (*See the EDI 997 Implementation Guide for detailed document description*)

Mandatory: Used to acknowledge the receipt of documents. X12 Standard Compliance is checked at this level and documents are accepted, accepted with errors or rejected. All documents transmitted between EMD and its Vendors must be acknowledged with a Functional Acknowledgment (997) by the end of each business day.

VAN information, transmission schedule and standards/versions supported

- ◆ VAN information
 - ◆ EDS
- ◆ TRANSMISSION SCHEDULE
 - 24 x 7
- ◆ STANDARDS SUPPORTED
 - ◆ X12
- ◆ VERSIONS SUPPORTED
 - ◆ 004010
- ◆ DOCUMENTS SUPPORTED
 - ◆ 810, 824 and 997

EDI 810 INVOICE - MAPPING GUIDE

Functional Group ID=**IN**

Introduction:

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.

810 Invoice document structure

The below table provides the details of the segments that are used in the EMD EDI MAP. Please refer to the first column for inclusiveness of the segments.

M - Mandatory, **Not Used** - Excluded and **R** - Recommended (Not Mandatory, but its use is preferred)

Heading:

	<u>Pos. No.</u>	<u>Seg ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max. Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
	M 010	ST	Transaction Set Header	M	1		
	M 020	BIG	Beginning Segment for Invoice	M	1		
Not Used	030	NTE	Note/Special Instruction	O	100		
	M 040	CUR	Currency	M	1		
	R 050	REF	Reference Identification	M	12		
Not Used	055	YNQ	Yes/No Question	O	10		
	R 060	PER	Administrative Communications Contact	O	3		

LOOP ID - N1					200
M	070	N1	Name	M	1
R	080	N2	Additional name Information	O	2
M	090	N3	Address Information	M	2
M	100	N4	Geographic Location	M	1
Not Used	110	REF	Reference Identification	O	12
Not Used	120	PER	Administrative Communications Contact	O	3
Not Used	125	DMG	Demographic Information	O	1
R	130	ITD	Terms of Sale/Deferred Terms of Sale	O	>1
M	140	DTM	Date/Time Reference	M	10
Not Used	150	FOB	F.O.B Related Instructions	O	1
Not Used	160	PID	Product/Item Description	O	200
Not Used	170	MEA	Measurements	O	40
Not Used	180	PWK	Paperwork	O	25

Not Used	190	PKG	Making, Packaging, Loading	O	25
Not Used	200	L7	Tariff Reference	O	1
Not Used	212	BAL	Balance Detail	O	>1
Not Used	213	INC	Installment Information	O	1
Not Used	214	PAM	Period Amount	O	>1

LOOP ID - LM					10
Not Used	220	LM	Code Source Information	O	1
Not Used	230	LQ	Industry Code	M	100
LOOP - N9					1
Not Used	240	N9	Reference Identification	O	1
Not Used	250	MSG	Message Text	M	10
LOOP - V1					>1
Not Used	260	V1	Vessel Identification	O	1
Not used	270	R4	Port Or Terminal	O	>1
Not Used	280	DTM	Date / Time Reference	O	>1
LOOP ID - FA1					>1
Not Used	290	FA1	Type of Financial Accounting Data	O	1
Not Used	300	FA2	Accounting Data	M	>1

Detail:

	<u>Pos.</u> <u>No.</u>	<u>Seg.</u> <u>ID</u>	<u>Name</u>	<u>Req.</u> <u>Des.</u>	<u>Max.</u> <u>Use</u>	<u>Loop</u> <u>Repeat</u>	<u>Notes and</u> <u>Comments</u>
LOOP ID - IT1						20000	
	M 010	IT1	Baseline Item Data (Invoice)	M	1		
	Not Used 012	CRC	Conditions Indicator	O	1		
	Not Used 015	QTY	Quantity	O	5		N1
	Not Used 020	CUR	Currency	O	1		
	Not Used 030	IT3	Additional Item Data	O	5		
	Not Used 040	TXI	Tax Information	O	10		
	Not Used 050	CTP	Pricing Information	O	25		
	Not Used 060	PAM	Period Amount	O	10		
	Not Used 059	MEA	Measurements	O	40		
LOOP ID - PID						1000	
	M 060	PID	Product/Item Description	M	1		
	Not Used 070	MEA	Measurements	O	10		
	Not Used 080	PWK	Paperwork	O	25		
	Not Used 090	PKG	Marking, Packing, Loading	O	25		
	Not Used 100	PO4	Item Physical Details	O	1		
	Not used 110	ITD	Terms of Sale / Deferred Terms of Sale	O	2		
	M 120	REF	Reference Identification	O	>1		
	Not Used 125	YNQ	Yes/No Question	O	10		
	Not Used 130	PER	Administrative Communications Contact	O	5		
	Not Used 140	SDQ	Destination Quantity	O	500		
	Not Used 150	DTM	Date/Time Reference	O	10		
	Not Used 160	CAD	Carrier Detail	O	>1		
	Not Used 170	L7	Tariff Reference	O	>1		
	Not Used 175	SR	Requested Service Schedule	O	1		
LOOP ID - SAC						25	
	R 180	SAC	Service, Promotion, Allowance, Or Charge	O	1		

Information					
Not Used	190	TXI	Tax Information	O	10
LOOP ID - SLN					1000
Not Used	200	SLN	Subline Item Detail	O	1
Not Used	205	DTM	Date/Time Reference	O	1
Not Used	210	REF	Reference Identification	O	>1
Not Used	220	PID	Product/Item Description	O	1000
Not Used	230	SAC	Service, Promotion, Allowance, Or Charge Information	O	25
Not Used	235	TC2	Commodity	O	2
Not Used	237	TXI	Tax Information	O	10
LOOP ID - N1					200
Not Used	240	N1	Name	O	1
Not Used	250	N2	Additional name Information	O	2
Not Used	260	N3	Address Information	O	2
Not Used	270	N4	Geographic Location	O	1
Not Used	280	REF	Reference Identification	O	12
Not Used	290	PER	Administrative Communications Contac	O	3
Not Used	295	DMG	Demographic Information	O	1
LOOP ID - LM					10
Not Used	300	LM	Code Source Information	O	1
Not Used	310	LQ	Industry Code	M	100
LOOP ID - V1					>1
Not Used	320	V1	Vessel Identification	O	1
Not Used	330	R4	Port Or Terminal	O	>1
Not Used	340	DTM	Date/Time Reference	O	>1
LOOP ID - FA1					>1
Not Used	350	FA1	Type of Financial Accounting Data	O	1
Not Used	360	FA2	Accounting Data	M	>1

Summary:

	<u>Pos.</u> <u>No.</u>	<u>Seg.</u> <u>ID</u>	<u>Name</u>	<u>Req.</u> <u>Des.</u>	<u>Max.</u> <u>Use</u>	<u>Loop</u> <u>Repeat</u>	<u>Notes and</u> <u>Comments</u>
	M	010	TDS	Total Monetary Value Summary	M	1	
	R	020	TXI	Tax Information	O	10	
	Not Used	030	CAD	Carrier Detail	O	1	
	Not Used	035	AMT	Monetary Amount	O	>1	
						LOOP ID - SAC	25
	R	040	SAC	Service, Promotion, Allowance, or Charge Information	O	1	
	Not Used	050	TXI	Tax Information	O	10	
						LOOP ID - ISS	>1
	Not Used	060	ISS	Invoice Shipment Summary	O	1	
	Not Used	065	PID	Product / Item Description	O	1	
	M	070	CTT	Transaction Totals	M	1	N2
	M	080	SE	Transaction Set Trailer	M	1	

Transaction Set Notes

1. The QTY segment is used to specify a quantity of units which are expected as payments.
2. 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.

Segment : **ST** Transaction Set Header
Position : 010
Loop :
Level : Heading
Usage : Mandatory
Max Use : 1
Purpose : To indicate the start of a transaction set and to assign a control number
Syntax :
Notes :
Semantic Notes : 1. 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 :

EMD Example: ST}810}125000018^

Date Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
M	ST01	143 Transaction Set Identifier Code	M Id 3/3
		Uniquely Identifying a Transaction Set	
M	ST02	329 Transaction Set Control Number	M AN 4/9
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set Sender-assigned sequential control number to match control number in SE segment.	

Segment : **BIG** Beginning Segment for Invoice
Position : 020
Loop :
Level : Heading
Usage : Mandatory
Max Use : 1
Purpose : To indicate the beginning of an invoice transaction set and transmits identifying numbers and dates
Syntax Notes :
Semantic Notes : 1. BIG01 is the invoice issue date. Should not be greater than current date
 2. BIG03 is the date assigned by the purchaser to purchase order.
Comments : 1. BIG07 is used only to further define the type of invoice when needed.
Notes :

EMD Example:
 BIG}20070616}MA270991}}BADCE05412}}PR}00^
 BIG}20071025}499J}}MFNKB4815C}}CR}CO^

Date Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	BIG01	373 Date		M DT 8/8
			Date expressed as CCYYMMDD	
M	BIG02	76 Invoice Number		M AN 1/22
			Identifying number assigned by issuer	
			Do not send dashes, slashes, spaces or periods	
M	BIG04	324 Purchase Order Number		M AN 1/22
			Identifying number for Purchase Order assigned by the orderer/purchaser. Maintain the integrity of EMD purchase order number. Purchase order number can be a combination of alpha and numeric characters.	
			EMD Examples: 4500206666 4500020202	
M	BIG07	640 Transaction Type Code		O ID 2/2

Code specifying the type of transaction

Examples:

DI Debit Invoice

DR Debit Memo

PR Product (or Service)

Note: Currently we are not validating this element.

M BIG08

353 Transaction Purpose Code

O ID 2/2

00 - Original Invoice

CO - Corrected Invoice

Segment	:	CUR Currency
Position	:	040
Loop	:	
Level	:	Heading
Usage	:	Mandatory
Max Use	:	1
Purpose	:	To specify the currency (dollars, pounds, francs, etc.) used in a transaction
Syntax Notes	:	<ol style="list-style-type: none"> 1. If CUR08 is present, then CUR07 is required. 2. If CUR09 is present, then CUR07 is required. 3. If CUR10 is present, then at least one of CUR11 or CUR12 is required. 4. If CUR11 is present, then CUR10 is required. 5. If CUR12 is present, then CUR10 is required. 6. If CUR13 is present, then at least one of CUR14 or CUR15 is required. 7. If CUR14 is present, then CUR13 is required. 8. If CUR15 is present, then CUR13 is required. 9. If CUR16 is present, then at least one of CUR17 or CUR18 is required. 10. If CUR17 is present, then CUR16 is required. 11. If CUR18 is present, then CUR16 is required. 12. If CUR19 is present, then at least one of CUR20 or CUR21 is required. 13. If CUR20 is present, then CUR19 is required. 14. If CUR21 is present, then CUR19 is required.
Semantic Notes	:	
Comments	:	See Figures Appendix for examples detailing the use of the CUR segment.
Notes	:	EMD Examples: CUR}BY}CAD^

Date Element Summary

<u>Ref.</u>	<u>Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	CUR01	98	Entity Identifier Code	M ID 2/3
			Code identifying an organizational entity, a physical location, property or an individual	
			BY Buying Party (Purchaser)	
			SE Selling Party	
M	CUR02	100	Currency Code	M ID 3/3
			Code (Standard ISO) for country in whose currency the charges are specified	

Segment : **REF** Reference Identification
Position : 050
Loop :
Loop : Heading
Usage : Mandatory
Max Use : 12
Purpose : To specify identifying information
Syntax Notes :
 1. At least one of REF02 or REF03 is required.
 2. If either C04003 or C04004 is present, then the other is required.
 3. If either C04005 or C04006 is present, then the other is required.
Semantic Notes :
 1. REF04 contains data relating to the value cited in REF02
Comments :
Notes :

- This segment will be used when the Invoice has the required GST (Goods Service Tax) Code. The GST code is required on Invoices for Orders that are shipped from CANADA.
- Also, this segment we refer for the Order Packaging Slip#. If the invoice has only one packaging slip# then we would recommend using the header level REF Segment with Qualifier "PK".

EMD Example:
 REF}PK}MA-21096}PACKAGING SLIP NO.^
 REF}ZZ}ABSCI123456789}GST Code^

Date Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	REF01	128	Reference Identification Qualifier	M ID 2/3
			Code qualifying the Reference Identification	
			PK Packaging Slip No	
			ZZ Good Service Tax Code	
M	REF02	127	Reference Identification	M AN 1/30
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	

Segment : **PER** Administrative Communications Contact
Position : 060
Loop :
Loop : Heading
Usage : Optional
Max Use : 3
Purpose : To identify a person or office to whom administrative communications should be directed
Syntax Notes : 4. If either PER03 or PER04 is present, then the other is required
5. If either PER05 or PER06 is present, then the other is required
6. If either PER07 or PER08 is present, then the other is required
Semantic Notes :
Comments :
Notes :

EMD Example:
PER}AR}XXXXXXXXXXXX}TE}XXX-XXX-XXXX}FX}XXX-XXX-XXXX^

Date Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	PER01	366	Contact Function Code	M ID 2/2
			Code identifying the major duty or responsibility of the person or group named	
			AR Accounts Payable Department CR Customer Relations	
M	PER02	93	Name	O AN 1/60
			Free-form name	
M	PER03	365	Communication Number Qualifier	X ID 2/2
			Code identifying the type of communication number	
			TE Telephone	
M	PER04	364	Communication Number	X AN 1/80
			Free-form name	
			Complete communications number including country or area code when applicable	

M PER05 365 Communication Number Qualifier X ID 2/2

Code identifying the type of communication number

FX Facsimile

M PER04 364 Communication Number X AN 1/80

Free-form name

Complete communications number including country or area code when applicable

Segment	:	N1 Name
Position	:	070
Loop	:	N1 Mandatory
Level	:	Heading
Usage	:	Mandatory
Max Use	:	1
Purpose	:	To identify a party by type of organization, name, and code
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	:	
Comments	:	<ol style="list-style-type: none"> 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. EMD System looks for specific details with regard to Vendor RemitTo Code and Address. Vendor / RemitTo code should match with the EMD PO Vendor no. 2. EMD System looks for SoldTo, ShipFrom and ShipTo Details within the Received Invoice apart from RemitTo Details 3. N105 and N106 further define the type of entity in N101. 4. N1 "RI" Segment is Mandatory within Invoice document. This determines the remit-to details. N1 "RI" 04 identifier drives the invoice processing; this value should be the Supplier ID at EMD. 5. N104 data element is the EMD Vendor No assigned within EMD System for the Supplier. EMD System expects this from Vendor system.
Notes	:	<p>EMD Example:</p> <pre>N1}ST}EMD COMPANY}92}1000^ N1}RI}ACME MANUFACTURING LTD}92}104757^ N1}SF}ACME PLANT}92}568^ N1}SE}ACME MANUFACTURING LTD^</pre>

Date Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	N101	98	Entity Identifier Code	M ID 2/3
			Code identifying an organizational entity, a physical location, property or an individual	
			RE Party to receive commercial invoice	

remittance
 ST ShipTo
 BY SoldTo
 SF ShipFrom
 RI RemitTo

M	N102	93	Name	X	ID	1/60
			Free-form name			
	N103	66	Identification Code Qualifier	X	ID	1/2
			Code designating the system/method of code structure used for Identification Code (67)			
		92	Assigned by Buyer or Buyer's Agent			
	N104	67	Identification Code	X	AN	2/80
			Used for Ship-To. Return the EMD-assigned ship-to code sent in on the EDI purchase order (850) (If available).			

Segment : **N2** Additional Name Information
Position : 080
Loop : N1 Mandatory
Level : Heading
Usage : Optional
Max Use : 2
Purpose : To specify additional names or those longer than 35 characters in length
Syntax Notes :
Semantic Notes :
Comments :
Notes : EMD Example: N2}4/F., WAYSON COMMERCIAL BLDG.^

Date Element Summary

<u>Ref.</u>	<u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	N201	93	Name	M AN 1/60
			Free-Form Name	

Segment : **N3** Address Information
Position : 090
Loop : N1 Mandatory
Level : Heading
Usage : Mandatory
Max Use : 2
Purpose : To specify the location of the named party
Syntax Notes :
Semantic Notes :
Comments :
Notes :

EMD Comments: Required by EMD.

EMD Example:

N3}501 MANITOU DR^
N3}PO BOX. 501^

Date Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	N301	166	Address Information	M AN 1/55
			Address Information	
	N302	166	Address Information	O AN 1/55
			Address Information	

Segment	:	N4 Geographic Location
Position	:	100
Loop	:	N1 Mandatory
Level	:	Heading
Usage	:	Mandatory
Max Use	:	1
Purpose	:	To specify the location of the named party
Syntax Notes	:	If N406 is present, then N405 is required
Semantic Notes	:	<ol style="list-style-type: none"> 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.
Comments	:	
Notes	:	<p>EMD Comments: Required by EMD EMD Example: N4}NAPLES}FL}123456789}US^</p>

Date Element Summary

<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
N401	19	City Name	O AN 2/30
		Free-form text for city name	
N402	156	State or Province Code	O ID 2/2
		Code (Standard State/Province) as defined by appropriate government agency	
N403	116	Postal Code	O ID 3/15
		Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	
		Zip code for U.S. remittance address must be 9 digits (do not include dash).	
N404	26	Country Code	M ID 2/3
		Code identifying the country	
		Please use the ISO 2 Alpha Code, Though using ISO 3 Alpha code doesn't reject the document.	

Segment : **ITD** Terms of Sale / Deferred Terms of Sale

Position : 130

Loop :

Level : Heading

Usage : Optional

Max Use : >1

Purpose : To specify terms of sale

Syntax Notes :

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

Semantic Notes :

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.

Notes :

If no discount applies, use: ITD01 and ITD07.
 If discount applies, use: ITD01, ITD03, ITD05 and ITD07.
EMD Example:

```
ITD}05}}}}}}60^
ITD}08}}1}}10}}30^
```

Date Element Summary

Ref. Des.	Data Element	Name	Attributes
M ITD01	336	Terms Type Code	M ID 2/2
	05	Discount Not Applicable	
	08	Basic Discount Offered	
	09	Proximo	
	10	Instant	
	20	Progress Payment	
ITD03	338	Terms Discount Percent	O R 1/6
		Terms discount percentage, expressed as a percent, available to the purchaser if an invoice is paid on or before the Terms Discount Due Date	
ITD05	351	Terms Discount Days Due	X N0 1/3

Number of days in the terms discount period by which payment is due if terms discount is earned

M ITD07

386 Terms Net Day

M N0 1/3

Number of days until total invoice amount is due (discount not applicable)

Segment : **DTM** Date / Time Reference
Position : 140
Loop :
Level : Heading
Usage : Mandatory
Max Use : 10
Purpose : To specify pertinent dates and times
Syntax Notes :

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

Semantic Notes :
Comments : EMD System looks for Order Shipped Date
Notes : **EMD Example:** DTM|011|20070621^

Date Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
M	DTM01	374	Date / Time Qualifier	M ID 3/3
			Code specifying type of date or time, or both date and time	
			011 Shipped Date	
M	DTM02	373	Date	M DT 8/8
			Date expressed as CCYYMMDD	

Segment : **IT1** Baseline Item Data (Invoice)

Position : 010

Loop : IT1 Mandatory

Level : Detail

Usage : Mandatory

Max Use : 1

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

Syntax Notes :
 1. If any of IT102 IT103 or IT104 is present, then all are required.
 2. If either IT106 or IT107 is present, then the other is required.
 3. If either IT108 or IT109 is present, then the other is required.
 4. If either IT110 or IT111 is present, then the other is required.
 5. If either IT112 or IT113 is present, then the other is required.
 6. If either IT114 or IT115 is present, then the other is required.
 7. If either IT116 or IT117 is present, then the other is required.
 8. If either IT118 or IT119 is present, then the other is required.
 9. If either IT120 or IT121 is present, then the other is required.
 10. If either IT122 or IT123 is present, then the other is required.
 11. If either IT124 or IT125 is present, then the other is required.

Semantic Notes : 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.

Notes : EMD Comments: Required by EMD

EMD Example:

```
IT1}00101}900.0000}EA}17.69000}}BP}WP103198^
IT1}00301}20.0000}EA}2.60000}}BP} WP103198}EC}A^
```

Date Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
M	IT101	350 Assigned Identification	O AN 1/20

Alphanumeric characters assigned for differentiation within transaction set

Maintain the integrity of the EMD purchase order line item number on all invoices. EMD requires this number on any transaction returned to EMD, such as invoice (810).

IT102 358 Quantity Invoiced X R 1/10
 Number of units involved (Supplier Units)

IT103 355 Unit or Basis for Measurement Code X ID 2/2

Code specifying the units in which a value is being expressed or manner in which a measurement has been taken

EMD requires you to maintain the integrity of the EMD purchase order "Unit for Measurement Code" on all invoices.

IT104 212 Unit Price X R 1/17
 Price per unit of product, service, commodity, etc.

IT106 235 Product/ Service ID Qualifier X R 2/2

Code identifying the type/source of the descriptive number used in Product/Service ID (234)

EMD Buyer's Part Number (BP) must be returned if sent on PO.

BP Buyer's Part Number
 IN Buyer's Item Number
 PI Purchaser's Item Code

IT107 234 Product/ Service ID Qualifier X AN 1/48
 Identifying number for a product or service

IT108 235 Product/ Service ID Qualifier X ID 2/2

Code identifying the type/source of the descriptive number used in

Product/Service ID (234)

VN Vendor's (Seller's) Item Number
 MF Manufacturer
 MG Manufacturer's Part Number
 VP Vendor's (Seller's) Part Number

IT109 234 Product/ Service ID Qualifier X AN 1/48
 Identifying number for a product or service

Segment	:	PID Product / Item Description
Position	:	060
Loop	:	PID Mandatory
Level	:	Detail
Usage	:	Mandatory
Max Use	:	1
Purpose	:	To describe a product or process in coded or free-form format
Syntax Notes	:	<ol style="list-style-type: none"> 1. If PID04 is present, then PID03 is required. 2. At least one of PID04 or PID05 is required. 3. If PID07 is present, then PID03 is required. 4. If PID08 is present, then PID04 is required. 5. If PID09 is present, then PID05 is required.
Semantic Notes	:	<ol style="list-style-type: none"> 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. 4. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate. 5. PID09 is used to identify the language being used in PID05.
Comments	:	<ol style="list-style-type: none"> 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.

Notes : If the document consists more than 1 PID segment for an IT1 Segment, out system consider the first PID segment for the Item description, rest of the segments will be ignored.

EMD Example: PID}F}}}}RING,C 18150,FM40142069,C^

Date Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
M PID01	349	Item Description Type	M ID 1/1
		Code indicating the format of a description	
		F Free-form	
M PID05	352	Description	M AN 1/80

A free-form description to clarify the related data elements and their content

Segment : **REF** Reference Identification
Position : 120
Loop : IT1 Optional
Level : Detail
Usage : Optional
Max Use : >1
Purpose : To specify identifying information
Syntax Notes : 1. At least one of REF02 or REF03 is required.
2. If either C04003 or C04004 is present, then the other is required.
3. If either C04005 or C04006 is present, then the other is required.
Semantic Notes : 1. REF04 contains data relating to the value cited in REF02.
Comments :
Notes : REF Segment is referred for the Packaging Slip No. This is used when the invoice has more than one line item with different packaging slip nos.

Date Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	REF01	128	Reference Identification Qualifier	M ID 2/3
			Code qualifying the Reference Identification	
			PK Packing List Number	
M	REF02	127	Reference Identification	M AN 1/30

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

EMD Comment: Used for packing list.

Segment	:	SAC Service, Promotion, Allowance, or Charge Information
Position	:	180
Loop	:	SAC Optional
Level	:	Detail
Usage	:	Optional
Max Use	:	1
Purpose	:	To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge
Syntax Notes	:	<ol style="list-style-type: none"> 1. At least one of SAC02 or SAC03 is required. 2. If either SAC03 or SAC04 is present, then the other is required. 3. If either SAC06 or SAC07 is present, then the other is required. 4. If either SAC09 or SAC10 is present, then the other is required. 5. If SAC11 is present, then SAC10 is required. 6. If SAC13 is present, then at least one of SAC02 or SAC04 is required. 7. If SAC14 is present, then SAC13 is required. 8. If SAC16 is present, then SAC15 is required.
Semantic Notes	:	<ol style="list-style-type: none"> 1. If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required. 2. SAC05 is the total amount for the service, promotion, allowance, or charge. 3. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence. 4. SAC08 is the allowance or charge rate per unit. 5. SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity. 6. SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount that is applicable to service, promotion, allowance, or charge. 7. SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used. 8. SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion. 9. SAC16 is used to identify the language being used in SAC15.
Comments	:	<ol style="list-style-type: none"> 1. SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02. 2. In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.
Notes	:	EMD Comments: EMD requires a code in SAC02 and SAC12. <u>This segment will be used to refer the Item Level Surcharges.</u> EMD prefers to

have tax charges billed in the summary TXI segment.

EMD Example:

SAC}C}F150}}4000}}}}}}06^
 SAC}A}D240}}2700}}}}}}04}}FREIGHT^

Date Element Summary

<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M SAC01	248	Allowance or Charge Indicator	M ID 1/1
		Code which indicates an allowance or charge for the service specified	
		A Allowance	
		C Charge	
M SAC02	1300	Service, Promotion, Allowance or Charge Code	M ID 4/4
		Code identifying the service, promotion, allowance, or charge	
		C030 Delivery Surcharge	
		F750 Processing Charges (ex. LOT Process charges)	
		G760 Set-Up	
		C640 Energy Surcharge	
		H850 Misc. Fees & Taxes	
		G660 Scrap	
		F155 Packaging	
		F180 Pallet	
		D240 Freight	
		D230 Freight Surcharge	
		ZZZZ Misc. Charges - (ex. LOT , Qualification, Sample Charges)	
<p>Note: Any charges where the code is not available would be identified as ZZZZ and proper description will be provided in SAC15, which is mandatory.</p>			
M SAC05	610	Amount	M N2 1/15
		Monetary Amount	
M SAC12	331	Allowance or Charge Method of Handling Code	M ID 2/2
		Code indicating method of handling for an allowance or charge	
		04 Credit Customer Account	
		06 Charge to be Paid by Customer	
SAC15	352	Description	X AN /80

A free-form description to clarify the related data elements and their content

Segment : **TDS** Total Monetary Value Summary
Position : 010
Loop :
Level : Summary
Usage : Mandatory
Max Use : 1
Purpose : To specify the total invoice discounts and amounts
Syntax Notes :
Semantic Notes :

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.

Notes : EMD Example: TDS}139997^

Date Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	TDS01	610	Amount	M R 1/15
			Monetary Amount	

Segment : **TXI** Tax Information
Position : 020
Loop :
Level : Summary
Usage : Optional
Max Use : 10
Purpose : To Specify tax information
Syntax Notes :
 1. At least one of TXI02 TXI03 or TXI06 is required.
 2. If either TXI04 or TXI05 is present, then the other is required.
 3. If TXI08 is present, then TXI03 is required.
Semantic Notes :
 1. TXI02 is the monetary amount of the tax.
 2. TXI03 is the tax percent expressed as a decimal.
 3. TXI07 is a code indicating the relationship of the price or amount to the associated segment.
Comments : EMD System looks for GST Registered#
Notes :

- EMD System assumes the Invoice as a **Tax Exempt Invoice**, if TXI Segment is not available. Ref: below 1st example, page.

EMD Example:

TXI}ZZ}0}}1}}N/A^	- Tax Exempt Invoice
TXI}ST}19.13}}2^	- State Tax
TXI}GS}19.13}}2^	- Goods Service Tax
TXI}PS}19.13}}2^	- Provincial Tax on Services

Date Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	TXI01	963	Tax Type Code	M ID 2/2
			Code specifying the type of tax.	
			Please refer below Tax Code table for more details.	
			ST State Sales Tax	
			ZZ Tax Exempt Invoice	
			GS GST Related Tax	
			PS PST Tax (Provincial Tax on Services)	
	TXI02	782	Monetary Amount	X R 1/18
			Monetary Amount	
	TXI03	954	Percent	X R 1/10

		Percentage expressed as a decimal			
TXI04	955	Tax Jurisdiction Code Qualifier	X	ID	2/2
		Code identifying the source of the data used in tax jurisdiction code			
		CD Customer defined			
TXI05	956	Tax Jurisdiction Code	X	AN	1/20
		Code Identifying the taxing jurisdiction			
		Should contain the two character state abbreviation, if the tax related to State or Local Sales Tax.			
TXI06	441	Tax Exempt Code	X	ID	1/1
		Code Identifying exemption status from Sales and use tax			
		Please refer below table which determines the Tax Type within EMD. If TXI 06 is populated with "1" then the invoice will be treated as Tax Exempt Invoice. If it is "2" then the invoice will be processed with the taxable amount provided in TXI 02.			
TXI09	325	Tax Identification Number	O	AN	1/20
		Should contain the Tax Registered Number			

The below table provides the information on determining the EMD SAP Tax Code with the information populated in the TXI (01 & 06):

TXI (01)	TXI (06)	Comments	EMD SAP Cd
ZZ	1	Tax Exempt Invoice	I0
ST	2	Taxable	I1
GS	2	GST Related Tax	G
PS	2	PST Tax	P

Segment	:	SAC Service, Promotion, Allowance, or Charge Information
Position	:	040
Loop	:	SAC Optional
Level	:	Summary
Usage	:	Optional
Max Use	:	1
Purpose	:	To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge
Syntax Notes	:	<ol style="list-style-type: none"> 9. At least one of SAC02 or SAC03 is required. 10. If either SAC03 or SAC04 is present, then the other is required. 11. If either SAC06 or SAC07 is present, then the other is required. 12. If either SAC09 or SAC10 is present, then the other is required. 13. If SAC11 is present, then SAC10 is required. 14. If SAC13 is present, then at least one of SAC02 or SAC04 is required. 15. If SAC14 is present, then SAC13 is required. 16. If SAC16 is present, then SAC15 is required.
Semantic Notes	:	<ol style="list-style-type: none"> 10. If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required. 11. SAC05 is the total amount for the service, promotion, allowance, or charge. 12. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence. 13. SAC08 is the allowance or charge rate per unit. 14. SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity. 15. SAC10 and SAC11 used together indicate a quantity range, which could be a dollar amount that is applicable to service, promotion, allowance, or charge. 16. SAC13 is used in conjunction with SAC02 or SAC04 to provide a specific reference number as identified by the code used. 17. SAC14 is used in conjunction with SAC13 to identify an option when there is more than one option of the promotion. 18. SAC16 is used to identify the language being used in SAC15.
Comments	:	<ol style="list-style-type: none"> 4. SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02. 5. In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.
Notes	:	EMD Comments: EMD requires a code in SAC02 and SAC12. EMD prefers

to have tax charges billed in the summary TXI segment.

EMD Example:

SAC}C}F150}}40000}}}}}}06^
 SAC}A}D240}}2700}}}}}}04}}FREIGHT^
 SAC}C}F180}}2700}}}}}}06}}Pallet Charges^

Date Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
M SAC01	248	Allowance or Charge Indicator	M ID 1/1
		Code which indicates an allowance or charge for the service specified A Allowance C Charge	
M SAC02	1300	Service, Promotion, Allowance or Charge Code	M ID 4/4
		Code identifying the service, promotion, allowance, or charge C030 Delivery Surcharge F750 Processing Charges (ex. LOT Process charges) G760 Set-Up C640 Energy Surcharge H850 Misc. Fees & Taxes G660 Scrap F155 Packaging F180 Pallet D240 Freight D230 Freight Surcharge ZZZZ Misc Charges - (ex. LOT , Qualification, Sample Charges)	
Note: For any of the charges where the code is not available would be identified as ZZZZ and proper description will be provided in SAC15, which is mandatory.			
M SAC05	610	Amount	M N2 1/15
		Monetary Amount	
M SAC12	331	Allowance or Charge Method of Handling Code	M ID 2/2
		Code indicating method of handling for an allowance or charge 04 Credit Customer Account 06 Charge to be Paid by Customer	
SAC15	352	Description	X AN /80

A free-form description to clarify the related data elements and their content

Segment : **CTT** Transaction Totals

Position : 070

Loop :

Level : Summary

Usage : Mandatory

Max Use : 1

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

Syntax Notes :
 1. If either CTT03 or CTT04 is present, then the other is required.
 2. If either CTT05 or CTT06 is present, then the other is required.

Semantic Notes :

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

Notes : EMD Example: CTT}2^

Date Element Summary

<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M CTT01	354	Number of Line Items	M N0 1/6

Total number of line items in the transaction set

Total number of IT1 segments in transaction set.

Segment : **SE** Transaction Set Trailer
Position : 080
Loop :
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.
Notes : EMD Example: SE}16}125000018^

Date Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	SE01	96	Number of Included Segments	M N0 1/10
			Total number of segments included in a transaction set including ST and SE segments	
M	SE02	329	Transaction Set Control Number	M AN 4/9
			Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	

This must match the control number on the ST segment for this transaction set.

Sample EDI Document

#1

ISA*00* *00* *01*9012345720000 *01* 62002T*080302*1952*U*00200*000000124*0*T*:
GS*IN*901234572000*62002T*20080302*1952*124*T*004010
ST*810*000000033
BIG*20080308*TEST**4500208725***PR
CUR*SE*USD
REF*PK*PS 57544A*PACKING LIST NO.
N1*BY*ELECTRO-MOTIVE DIESEL
N3*PO BOX 2377
N4*LA GRANGE*IL*60525*USA
N1*ST*ELECTRO-MOTIVE
N3*9301 W 55TH STREET
N4*LA GRANGE*IL*60525*USA
N1*RI*XXXXX SIDE INDUSTRIAL SUPPLY, INC*92*104757
N3*10 NORTH LEFOX
N4*SOUTH ELGIN*IL*60177*USA
N1*SI*XXXX SIDE INDUSTRIAL SUPPLY, INC
N3*10 NORTH LEFOX
N4*SOUTH ELGIN*IL*60177*USA
ITD*05*3*****30
DTM*011*20080308
IT1*10*10*EA*2.00**PI*40105414
PID*F****GASKET
REF*PK*PS 57544A*PACKING LIST NO.
DTM*011*20080308
SAC*C*H850***150*****01***PRICE ADJUSTMENT
IT1*20*20*EA*3**PI*8123282
PID*F****TERMINAL LUG-1/4
SAC*C*H850***500*****01***PRICE ADJUSTMENT
TDS*9250
TXI*ZZ*0****1***N/A
SAC*C*D240***500*****01***FREIGHT AMOUNT
SAC*C*F180***100*****01***PALLET CHARGE
SE*31*000000033
GE*1*124
IEA*1*000000124

#2

ISA*00* *00* *01*9012345720000 *01*62002T *080302*1952*U*00200*000000100*0*T*
GS*IN*901234572000*62002T*20080302*1952*100*T*004010
ST*810*000000019
BIG*20080229*TEST2700-1**5500038913***PR
CUR*SE*CAD
REF*PK*PS 26007*PACKING LIST NO.
REF*ZZ*ABSCI123456789
N1*BY*ELECTRO-MOTIVE CANADA CO.
N3*PO BOX 10379
N4*LA GRANGE*IL*60525*US
N1*ST*ELECTRO-MOTIVE CANADA CO
N3*847 Highbury Ave
N4*LONDON*ON*N5Y 4W6*CA
N1*RI*XXXXX*92*109006
N3*PO BOX 184
N4*WOODSTOCK*ON*N4S 0A9*CA
N1*SF*XXXXXXX
N3*PO BOX 1684
N4*WOODSTOCK*ON*N4S 0A9*CA
ITD*05*3*****30
DTM*011*20080229
IT1*10*2*EA*191.25**PI*40114572
PID*F****GUARD ASM
TDS*40163
TXI*GS*19.13****2
SE*24*000000019
GE*1*100
IEA*1*000000100

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