



SPECIFICATION AND BUSINESS PROCESS DOCUMENT

Gentex Corporation

Outbound Purchase Order
(EDI 850/PO)

Creation Date	April 1, 2012
Last Updated:	November 3, 2016
Document Ref:	ANSI X12 Version 004010 Reference Guide
Version:	1.5

Document Control

Change Record

Date	Version	Change Reference
01-April-12	1.0	No Previous Document
23-May-12	1.1	Transferred existing document to the standard format. Updated requirements for the N1ST. Updated the business requirements.
31-May-12	1.2	Added UOM Codes, updated BEG02 segment name to Purchase Order Type, updated/added comments for clarification on several segments
30-July-13	1.3	Updated dock door numbers for Centennial East and West ship to locations
1-Nov-13	1.4	Added Drop Ship EDI location and "Cake" to UOM list
3-Nov-16	1.5	Added NRB1 EDI Location and RRB Location to 850 List

Reviewers

Position
Gentex Functional Lead
Gentex EDI Lead
Gentex EDI Coordinator
Gentex Purchasing Systems Analyst

Contents

Document Control	ii
Introduction.....	1
Business Rules and Requirements.....	1
EDI levels and Segments.....	2
Segments/Elements Usage.....	4
Appendix: Sample 850	14

Introduction

The purpose of this document is to provide the details on policies and procedures for the outbound EDI process of Purchase order documents (850) as per Gentex's current process.

Any questions or concerns regarding EDI 850s at Gentex can be addressed directly by contacting us at edi@gentex.com.

Business Rules and Requirements

- Gentex will run the 850 documents generation program every 30 minutes and the supplier should get the EDI documents within 40 minutes from when an order is approved at Gentex.
- The Purchase order numbers on Standard POs will be unique on each file and with a revision number of '0' , where as Releases will have common PO numbers and lines with different release numbers across different EDI files. A release number should be greater than 0.
- Suppliers should ensure that they respond to our 850 document with a 997 (Functional Acknowledgement) within 5 minutes of receipt of our 850 document and an 855 within 24 hours or less depending on the lead time between the Supplier and Gentex.
- If there is a disruption of the normal EDI 850 due to any reason from Gentex then the suppliers are advised to use the Gentex Supplier portal to reconcile their orderboard to that of Gentex Purchase Orders. However in order to avoid duplications the suppliers are advised not to manually enter Orders from the Portal to their Order management systems unless Gentex has informed them that they will not be sending those files after the downtime.
- If an 850 file needs to be retransmitted, then Gentex can do so at Suppliers request.
- Only the Original Document (Standard Purchase Order or Release) will be communicated on the EDI 850. Later revisions of the purchase orders are communicated through e-mail since Gentex does not generate and communicate 860's at this time.

Processing Standard

Gentex uses ANSI X12 Version 004010 for the EDI 850.

Communication Information

VAN - Covisint
Production Sender/Receiver ID - 01:065855363SUP

Processing Times

The EDI 850 will be communicated within 40 minutes of an order being approved. Suppliers are expected to send a 997 within 5 minutes of receipt of the 850s. Suppliers are also required to send an 855 in under 24 hours after the receipt of the 850 file.

EDI levels and Segments

Note: Please ensure you are referring to the latest version of this Guide from our supplier website <http://www.gentex.com> > Corporate > Supplier Information.

This document provides the format and establishes the data contents of the Purchase Order Transaction Set (850) for use within the context of an Electronic Data Interchange (EDI) environment. This transaction set can be used to provide for customary and established business and industry practice relative to the placement of purchase orders for goods and services. This transaction will not be used to convey purchase order changes.

All information in this document is subject to change at the discretion of Gentex Corporation. The users of this document are advised to verify that they have the latest copy of this document from the Gentex Supplier website (as indicated above).

Seg. ID	Name	Req Des.	MaxUse	Loop Repeat
Header Level				
ST	Transaction Set Header	M	1	
BEG	Beginning Segment for Purchase Order	M	1	
PER	Communications Contact	M	1	
N1	Name	M	1	
Detail Item Level				
PO1	Baseline Item Data	M	1	
N1	Name	M	1	
Detail Shipment Level				
SCH	Line Item Schedule	M	200	
Summary Segments				
CTT	Transaction Totals	M	1	
SE	Transaction Set Trailer	M	1	

GLOSSARY:

Abbreviation	Meaning	Comment
C	Conditional	The presence of this is dependent on the presence of another item
M	Mandatory	This data segment should be included in all transactions. If this data segment is missing, a 997 will be sent indicating the document as rejected. Note some data segments may be marked as mandatory in the loop of data segments that are optional. If you choose to provide these optional segments, the mandatory segments associated with them must also be provided.
N	Not Used	This field is not mapped at Gentex currently. We do not have the capability to process this data currently and will not look at this data at this point in time. Suppliers can, however, send this data - it will just be ignored.
O	Optional	This data is completely optional. If you send it we can process and look at this data.

Segments/Elements Usage

Segment: **ST** Transaction set Header
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set.
Syntax:
Example: ST*850*100012379~

ARM	ELEM				
Req	ID	ELE#	NAME	ATTRIBUTES	COMMENTS
Required	ST01	143	Transaction Set ID	M ID 3/3	
Required	ST02	329	Transaction set Control Num	M AN 4/9	

Segment: **BEG** Beginning Segment for Purchase Order
Level: Heading
Loop: N/A
Usage: Mandatory
Max Use: 1
Purpose: To transmit identifying numbers to indicate the beginning of the Purchase Order transaction set.
Syntax:
Comment:
Example: BEG*00*SA*1298493*0*20120313~

ARM Req	ELEM ID	ELE#	NAME	ATTRIBUTES	COMMENTS
Required	BEG01	353	Transaction set purpose <u>Code</u> <u>Name</u> 00 Original	M ID 2/2	
Required	BEG02	92	Purchase Order Type <u>Code</u> <u>Name</u> RL Release Orders SA Stand Alone Orders KC Contract Orders	M ID 2/2	
Required	BEG03	324	Purchase Order Number	M AN 1/22	
Required	BEG04	328	Release Number Note: This field will be used to populate the Release number for Blanket releases and as Revision Numbers for Standard or stand alone purchase orders	O AN 1/30	If the 850 BEG02 segment is transmitted as 'SA', this indicates the Revision Number of the stand alone order or standard Purchase Order. If the 850 BEG02 is indicated as 'RL' this will indicate the Release Number.
Required	BEG05	373	Date	M DT 8/8	System date of transaction Date Format : CCYYMMDD

Segment: **PER Administrative Communications Contact**
Level: Heading
Loop: N/A
Usage: Mandatory
Max Use: 1
Purpose: To identify a person or office to whom administrative communications should be directed
Syntax:
Comment:
Example: PER*OC*MATTHEW SMITH*TE*616-772-1800~

ARM Req	ELEM ID	ELE#	NAME	ATTRIBUTES	COMMENTS
Required	PER01	366	Contact Function Code <u>Code</u> <u>Name</u> OC Order Contact	M ID 2/2	
Required	PER02	93	Name	M AN 1/60	If populated, this is the name of the person at Gentex who requested the goods/services
Required	PER03	365	Communication Number Qualifier <u>Code</u> <u>Name</u> TE Telephone	M ID 2/2	
Required	PER04	364	Communication Number	M AN 1/80	Telephone Number

Segment: N1 Name
Level: Heading
Loop: NA
Usage: Mandatory
Max Use: 1
Purpose: To identify a party by type of organization, name and code
Syntax:
Comments: SU identification code is provided to the supplier using our 850 document
Examples: N1*SU**92*13791-MAIN~

ARM Req	ELEM ID	ELE#	NAME	ATTRIBUTES	COMMENTS
Required	N101	98	Entity Identification Code <u>Code</u> <u>Name</u> SU Supplier Code	M ID 2/3	This is the supplier code + site as defined in Gentex EBS system
Required	N103	66	Identification Code Qualifier	C ID 1/2	'92' for Buyer assigned only
Required	N104	67	Identification Code	C AN 2/80	

Segment: PO1 **Baseline Item Data**
Level: Detail
Loop: PO1
Usage: Mandatory
Max Use: 1000
Purpose: To specify basic and most frequently used line item data.
Syntax:
Comments:

Example:
 PO1*1*50000*EA*0.54**MG*40000B00*BP*100-0010-000*DR*001*PD*SMD XTAL, 25.00000MHZ CTS 405C~

ARM	ELEM				
Req	ID	ELE#	NAME	ATTRIBUTES	COMMENTS
Required	PO101	350	Assigned Identification	M AN 1/20	
Required	PO102	330	Total Quantity Ordered	C R 1/15	
	PO103	355	Unit of measure code	M IC 2/2	** A value of UN (Unit) is used to communicate quantities for Semiconductor Die
			<u>Code</u> <u>Name</u>		
			EA Each		
			BG Bag		
			BO Bottle		
			BX Box		
			CK Cake		
			CA Case		
			CC Cubic Centimeter		
			CI Cubic Inch		
			UN Unit **		
			DZ Dozen		
			DR Drum		
			OZ Dry Ounce		
			FO Fluid Ounce		
			FT Foot		
			GA Gallon		
			GR Gram		
			KG Kilogram		
			KH Kilowatt Hour		
			LT Liter		
			MR Meter		
			ML Milliliter		
			PH Pack		
			PA Pail		
			PR Pair		
			PC Piece		
			LB Pound		
			QT Quart		
			RM Ream		
			RE Reel		
			RL Roll		
			SH Sheet		
			SV Skid		
			SO Spool		
			TO Troy Ounce		
			Y4 Tub		
			UQ Wafer		
			YD Yard		

Required	PO104	212	Unit Price	C R 1/17	
Required	PO106	235	Product/Service ID Qualifier <u>Code</u> <u>Name</u> MG MFG Part Number	C ID 2/2	Manufacturer's part number
Required	PO107	234	Product/Service ID	C AN 1/48	
Required	PO108	235	Product/Service ID Qualifier <u>Code</u> <u>Name</u> BP Customer Part Number	C ID 2/2	
Required	PO109	234	Product/Service ID	C AN 1/48	
Required	PO110	235	Product/Service ID Qualifier <u>Code</u> <u>Name</u> DR Drawing Revision	C ID 2/2	
Required	PO111	234	Product/Service ID	C AN 1/48	Gentex Item Revision Number (can be alpha or numeric depending on what Gentex has ordered).
Required	PO112	235	Product/Service ID Qualifier <u>Code</u> <u>Name</u> PD Part Description	C ID 2/2	
Required	PO113	234	Product/Service ID	C AN 1/48	

Segment: N1 Name
Level: Detail
Loop: PO1
Usage: Mandatory
Max Use: 1
Purpose: To identify a party by type of organization, name and code
Syntax:
Comments: ST identification code is provided to the supplier using our 850 document
Examples: N1*ST**92*STA~

ARM Req	ELEM ID	ELE#	NAME	ATTRIBUTES	COMMENTS
Required	N101	98	Entity Identification Code <u>Code</u> <u>Name</u> ST Ship to Location	M ID 2/3	
Required	N103	66	Identification Code Qualifier	C ID 1/2	'92' for Buyer assigned only
Required	N104	67	Identification Code	C AN 2/80	This is the location at Gentex to which the goods must be delivered

<u>Location Name</u>	<u>N104 Value</u>	<u>Gentex Physical Address</u>
Fire Protection	CHI	10985 Chicago Drive Zeeland, MI 49464
Centennial West	CENW	600 North Centennial Street Dock Doors 1-4 Zeeland, MI 49464
State Street South	STA	675 North State Street Zeeland, MI 49464
Riley	RIL	58 East Riley Street Zeeland, MI 49464
Centennial East	CENE	600 North Centennial Street Dock Doors 5-11 Zeeland, MI 49464
James	JAM	11768 James Street Holland, MI 49424
Riley Prototype Warehouse	PRO	380 East Riley Street Zeeland, MI 49464
Riley Raw Material Warehouse	DIST	310 East Riley Street Zeeland, MI 49464
Riley 220 (Chemical Synthesis)	CHEM	220 East Riley Street Zeeland, MI 49464
Case Karsten	CKN	790 Case Karsten Drive Zeeland, MI 49464
Drop Ship	DRP	This is a virtual location only used for items drop shipping to our customers. Suppliers will be contacted by Gentex to communicate specific N104 values for each customer along with the corresponding address. Forecast files (830) will be communicated with this location, but 850 files will not.
North Riley Building 1	NRB1	9001 Riley Street Zeeland, MI 49464
Resource Recovery	RRB	900 Brooks Avenue Holland, MI 49423

Segment: SCH Line Item Schedule
Level: Detail
Loop: SCH
Usage: Mandatory
Max Use: 200
Purpose: To specify the data for scheduling a specific line-item
Syntax:
Comments:
Example: SCH*5000*EA***112*20120313*****90~
 SCH*25000*EA***112*20120329*****91~

ARM	ELEM				
Req	ID	ELE#	NAME	ATTRIBUTES	COMMENTS
Required	SCH01	380	Quantity	M R 1/15	
Required	SCH02	355	Unit of Measure Code **	M ID 2/2	** Please reference the PO103 segment above for a complete list of UOM Codes
Required	SCH05	374	Date/Time Qualifier <u>Code</u> <u>Name</u> 112 Dock Date	M ID 3/3	
Required	SCH06	373	Dock Date	M DT 8/8	
Required	SCH12	350	Assigned Identification	M AN 1/11	Alphanumeric code assigned to the PO shipment line. Must be returned on the 855.

Segment: **CTT** Transaction Totals
Level: Summary
Usage: Optional
Max Use: 1
Purpose: To transmit total for a specific element in the transaction set
Comments: This segment is intended to provide hash totals to validate transaction completeness and correctness.
Examples: CTT*7*700~

ARM	ELEM				
Req	ID	ELE#	NAME	ATTRIBUTES	COMMENTS
Required	CTT01	354	Number Of Line Items	M N0 1/6	Total number of line items in the transaction set
Optional	CTT02	347	Quantity Hash Total	O R 1/10	

Segment: **SE** Transaction Set Trailer
Level: Summary
Loop: NA
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].
Examples: SE*250*0001~

ARM	ELEM				
Req	ID	ELE#	NAME	ATTRIBUTES	COMMENTS
Required	SE01	96	Number of Included Segments	M N0 1/10	
			Transaction set Control		
Required	SE02	329	Number	M AN 4/9	Same as ST02 value

Appendix: Sample 850

ISA*00* *00* *01*065855363SUP *01*XXXXXXXX *120504*0902*U*00401*000006467*0*T*<~
GS*PO*065855363SUP*XXXXXXXX*20120504*0902*102028*X*004010~
ST*850*1026229~
BEG*00*SA*247654*0*20090627~
PER*OC*MIKE SMITH*TE*616-772-1800~
N1*SU**92*SUPPLIERCODE~
PO1*1*53946*EA*0.01****BP*100-0033-000*DR*B*PD*PCB, CENTIPEDE IMAGER~
N1*ST**92*CENE~
SCH*17982*EA***112*20090615*****1~
SCH*17982*EA***112*20090622*****2~
SCH*17982*EA***112*20090713*****3~
PO1*1*4050*EA*0.01****BP*100-0001-000*DR*C*PD*PCB SINGLE QUAZI-DOT RED LCD~
N1*ST**92*RIL~
SCH*4050*EA***112*20090817*****1~
CTT*2
SE*14*1026229~
GE*1*102028~
IEA*1*000006467~