

Ship Notice/Manifest

Transaction Set (856)

(Outbound from TI)

ANSI Version Format: 2040

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How To Use This Documentation

This document was created to aid in your implementation of the ANSI 2040 standard for the ship notice/manifest that will be sent from Texas Instruments.

A complete description of the ship notice/manifest segments are outlined in the ANSI 2040 Standards Manual. If you require/need to be sent additional segments not listed in this documentation, an agreement must be reached with Texas Instruments.

Data Element Attributes

- M = Mandatory (must be transmitted)
- C = Conditional (presence of this field is dependent on the value or presence of other data elements within the segment)
- O = Optional (the appearance of the element is either at the option of the sending party or based on agreement between the trading partners)

Data Element Types

- AN = Alphanumeric
- NN = Numeric
 - 1st N signifies numeric
 - 2nd N signifies the number of decimal places to the right of a fixed, implied decimal point (the decimal point is not transmitted for this data element type)
- R = Numeric Decimal (decimal point required to be transmitted when fractional values are present)
- ID = Field contains a code value (codes are contained within predetermined lists maintained by the standards committee and are found in the appendix of ANSI manuals)
- DT = Date formatted in YYMMDD, where
 - YY = Last 2 digits of the year (00-99)
 - MM= Numeric month (01-12)
 - DD = Numeric day (01-31)
- TM = Time formatted in HHMM, where
 - HH = Military hour (00-23)
 - MM= Minute (00-59)

Data Element Length

- The number to the left of the "/" specifies the minimum length of the field as required by the standard.
- The number to the right of the "/" specifies the maximum length of the field as required by the standard.
- When the minimum and maximum lengths are the same, this signifies the field has a fixed length.
- The minimum and maximum lengths do not include the decimal point (when data element is R).

Ship Notice/Manifest(856) - Outbound

The ship notice/manifest transaction set enables the sender to describe the contents and configuration of a shipment in various levels of detail and provides an ordered flexibility to convey information

SEG. ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
ISA	Interchange Control Header	M	1	
GS	Functional Group Header	M	1	
ST	Transaction Set Header	M	1	
BSN	Beginning Segment (Ship Notice)	M	1	
DTM	Date/Time Reference	O	10	
LOOP ID - HL				
HL	Hierarchical Level	M	1	200,000
LIN	Item Identification	O	1	
SN1	Item Detail (Shipment)	O	1	
PRF	Purchase Order Reference	O	1	
MEA	Measurements	O	40	
TD1	Carrier Details (Quantity and Weight)	O	20	
TD5	Carrier Details (Routing Sequence/Transit Time)	O	12	
TD3	Carrier Details (Equipment)	O	12	
REF	Reference Numbers	O	200	
LOOP ID - CLD				
CLD	Load Detail	O	1	200
REF	Reference Numbers	O	200	
LOOP ID - N1				
N1	Name	O	1	200
CTT	Transaction Totals	M	1	
SE	Transaction Set Trailer	M	1	
GE	Functional Group Trailer	M	1	
IEA	Interchange Control Trailer	M	1	

ISA - Interchange Control Header

Status: Mandatory

Purpose: To start and identify an interchange of one or more functional groups and interchange related control segments.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
ISA01	I01	Authorization Information Qualifier	M	ID	2/2	00 - No Authorization Information Present 01 - UCS Communications ID
ISA02	I02	Authorization Information	M	AN	10/10	Supplied by TI if using direct dial service
ISA03	I03	Security Information Qualifier	M	ID	2/2	00 - No Security Information Present 01 - Password
ISA04	I04	Security Information	M	AN	10/10	Supplied by TI if using direct dial service
ISA05	I05	Interchange ID Qualifier	M	ID	2/2	TI accepts all; TI uses 01 - DUNS (Dun & Bradstreet)
ISA06	I06	Interchange Sender ID	M	ID	15/15	Defined by Sender
ISA07	I05	Interchange ID Qualifier	M	ID	2/2	TI accepts all; TI uses 01 - DUNS (Dun & Bradstreet)
ISA08	I07	Interchange Receiver ID	M	ID	15/15	Defined by Receiver
ISA09	I08	Interchange Date	M	DT	6/6	Current Date: YYMMDD
ISA10	I09	Interchange Time	M	TM	4/4	Current Time: HHMM
ISA11	I10	Interchange Standards ID	M	ID	1/1	U - American National Standards Committee X12
ISA12	I11	Interchange Version ID	M	ID	5/5	This version number covers X12 control segments only. Positions 1-3 = major version number; positions 4-5 = release level of the version.

ISA - Interchange Control Header (continued)

Field #	Element	Field Name	Req.	Type	Size	TI Usage
ISA13	I12	Interchange Control Number	M	N0	9/9	This number is assigned by sender; together with sender ID, it uniquely identifies interchange data to receiver. It is suggested that sender, receiver, and all third parties be able to maintain an audit trail of interchanges using this number.
ISA14	I13	Acknowledgment Requested	M	ID	1/1	0 - No Acknowledgment Requested 1 - Interchange Acknowledgment Requested
ISA15	I14	Test Indicator	M	ID	1/1	T - Test Data P - Production Data
ISA16	I15	Sub Element Separator	M	AN	1/1	Defined by Sender

GS - Functional Group Header

Status: Mandatory

Purpose: To start and identify a functional group of related transaction sets and provide control and application identification information.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
GS01	479	Functional ID Code	M	ID	2/2	Code identifying a group of application related transaction sets
GS02	142	Application Sender's Code	M	ID	2/12	Defined by Sender
GS03	124	Application Receiver's Code	M	ID	2/12	Defined by Receiver
GS04	29	Data Interchange Date	M	DT	6/6	Date sender generated a functional group of transaction sets. Format: YYMMDD
GS05	30	Data Interchange Time	M	TM	4/4	Time expressed in 24-hour clock time when the sender generated a functional group of transaction sets (local time at sender's location). Format HHMM
GS06	28	Data Interchange Control Number	M	N0	1/9	Sequentially assigned by sender
GS07	455	Responsible Agency Code	M	ID	1/2	X - Accredited Standards Committee X12
GS08	480	Version/Release/ Industry ID Code	M	ID	1/12	Code indicating the version, release, and industry ID of the EDI standard being used. Positions 1 - 3 = major version number; positions 4 - 6 = release number.

ST - Transaction Set Header

Status: Mandatory

Purpose: The first segment of each transaction set, containing the transaction set identifier and control numbers.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
ST01	143	Transaction Set ID Code	M	ID	3/3	856 - Ship Notice/Manifest
ST02	329	Transaction Set Control Number	M	AN	4/9	The control number is assigned by the sender. It should be sequentially assigned within each functional group to aid in error recovery and research. The control number in the SE segment (SE02) must be identical to the control number in the ST segment for each transaction.

BSN - Beginning Segment (Ship Notice/Manifest)

Status: Mandatory

Purpose: To transmit identifying numbers, dates and other basic data relating to the transaction set.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
BSN01	353	Transaction Set Purpose Code	M	ID	2/2	00 - Original
BSN02	396	Shipment Identification	M	AN	2/30	Bill of Lading Number
BSN03	373	Date	M	DT	6/6	Date Ship Notice is Sent (YMMDD)
BSN04	337	Time	M	TM	4/4	Time Ship Notice is Sent (HHMM)

DTM - Date/Time Reference

Status: Optional

Purpose: To specify pertinent dates and times.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
DTM01	374	Date/Time Qualifier	M	ID	3/3	011 - Shipped 017 - Estimated Delivery
DTM02	373	Date	C	DT	6/6	Date (YYMMDD)
DTM03	337	Time	C	TM	4/4	Time (HHMM)
DTM04	623	Time Code	O	ID	2/2	CT - Central Time

HL - Hierarchical Level (First HL Loop Occurrence)

Status: Mandatory

Purpose: To identify dependencies among the content of hierarchically related groups of data segments.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
HL01	628	Hierarchical ID Number	M	AN	1/12	1 - Shipment Level
HL02	734	Hierarchical Parent ID	O	AN	1/12	Not Used
HL03	735	Hierarchical Level Code	M	ID	1/2	S - Shipment
HL04	736	Hierarchical Child Code	O	ID	1/1	Not Used

MEA - Measurements

Status: Optional

Purpose: To specify physical measurements, including dimensions, tolerances, weights and counts.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
MEA01	737	Measurement Reference ID Code	O	ID	2/2	PD - Physical Dimensions
MEA02	738	Measurement Qualifier	O	ID	1/3	G - Gross
MEA03	739	Measurement Value	C	R	1/10	Gross Weight
MEA04	355	Unit of Measure Code	C	ID	2/2	LB - Pound

NOTE: MEA05 through MEA09 are not used.

TD1 - Carrier Details (Quantity and Weight)

Status: Optional

Purpose: To specify the transportation details relative to commodity, weight and quantity.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
TD101	103	Packaging Code	O	ID	5/5	BOX90 - Cardboard Box CRT90 - Crate CTN90 - Carton DRM90 - Drum PLT90 - Pallet SKD90 - Skid TBN90 - Tote Bin
TD102	80	Lading Quantity	C	N0	1/7	Number of Packages

NOTE: TD103 through TD108 are not used.

TD5 - Carrier Details (Routing Sequence/Transit Time)

Status: Optional

Purpose: To specify the carrier, sequence of routing and to provide transit time information.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
TD501	133	Routing Sequence Code	O	ID	1/2	B - Origin/Delivery Carrier (Any Mode) O - Origin Carrier (Air, Motor, or Ocean)
TD502	66	ID Code Qualifier	C	ID	1/2	02 - Standard Motor Carrier Alpha Code (SCAC)
TD503	67	ID Code	C	ID	2/17	Carrier's SCAC Code
TD504	91	Transportation Method Mode	C	ID	1/2	A - Air AE - Priority M - Surface PC - Private Carrier
TD505	387	Routing	C	AN	1/35	Carrier Name

NOTE: TD506 through TD511 are not used.

TD3 - Carrier Details (Equipment)

Status: Optional

Purpose: To specify transportation details relating to the equipment used by the carrier

Field #	Element	Field Name	Req.	Type	Size	TI Usage
TD301	40	Equipment Description Code	M	ID	2/2	AF - Air Freight TL - Truck
TD302	206	Equipment Initial	O	AN	1/4	Not Used
TD303	207	Equipment Number	C	AN	1/10	Conveyance Number

NOTE: TD304 through TD307 are not used.

REF - Reference Numbers

Status: Optional

Purpose: To specify identifying numbers.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
REF01	128	Reference Number Qualifier	M	ID	2/2	AW - Air Waybill Number BM - Bill of Lading Number CJ - Clause Number CN - Carrier's Reference Number GC - Government Contract Number GP - Government Priority Number MU - Military Specification Number
REF02	127	Reference Number	M	AN	1/30	Reference Number qualified by REF01
REF03	352	Description	O	AN	1/80	Not Used

NOTE: If REF01 = GC, then REF02 will contain a contract number up to 30-characters.
If REF01 = GP, then REF02 will contain a priority rating up to 4-characters.

N1 - Name

Status: Optional

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

Field #	Element	Field Name	Req.	Type	Size	TI Usage
N101	98	Entity ID Code	M	ID	2/2	SF - Ship From ST - Ship To
N102	93	Name	C	AN	1/35	Name
N103	66	ID Code Qualifier	C	ID	1/2	01 - Dun & Bradstreet 91 - Assigned by Seller 92 - Assigned by Buyer
N104	67	ID Code	C	ID	2/17	Code qualified by N103

HL - Hierarchical Level (Secondary HL Loop Occurences)

Status: Mandatory

Purpose: To identify dependencies among the content of hierarchically related groups of data segments.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
HL01	628	Hierarchical ID Number	M	AN	1/12	2 through 51 - Item Level
HL02	734	Hierarchical Parent ID	O	AN	1/12	Not Used
HL03	735	Hierarchical Level Code	M	ID	1/2	I - Item
HL04	736	Hierarchical Child Code	O	ID	1/1	Not Used

LIN - Item Identification Detail

Status: Optional

Purpose: To specify basic item identification data.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
LIN01	350	Assigned Identification	O	AN	1/6	Line item identifying number
LIN02	235	Product/Service ID Qualifier	M	ID	2/2	BP - Buyer's Part Number
LIN03	234	Product/Service ID	M	AN	1/30	Customer Part Number
LIN04	235	Product/Service ID Qualifier	O	ID	2/2	EC - Engineering Change Level
LIN05	234	Product/Service ID	C	AN	1/30	Revision level to a drawing
LIN06	235	Product/Service ID Qualifier	O	ID	2/2	VP - Vendor's Part Number
LIN07	234	Product/Service ID	C	AN	1/30	TI Part Number

NOTE: LIN08 through LIN31 are not used.

SN1 - Item Detail (Shipment)

Status: Optional

Purpose: To specify line item detail relative to shipment.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
SN101	350	Assigned Identification	O	AN	1/6	Not Used
SN102	382	Number of Units Shipped	M	R	1/10	Number of Units Shipped
SN103	355	Unit of Measure Code	M	ID	2/2	EA - Each
SN104	646	Quantity Shipped to Date	O	R	1/9	Number of Units Shipped to Date

NOTE: SN105 through SN108 are not used.

PRF - Purchase Order Reference

Status: Optional

Purpose: To provide reference to a specific purchase order.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
PRF01	324	Purchase Order Number	M	AN	1/22	Purchase Order Number
PRF02	328	Release Number	O	AN	1/8	Not Used
PRF03	327	Change Order Sequence Number	O	AN	1/8	Not Used
PRF04	323	Purchase Order Date	O	DT	6/6	Purchase Order Date (YYMMDD)
PRF05	350	Assigned Identification	O	AN	1/6	Not Used
PRF06	637	Contract Number	O	AN	1/30	Not Used

REF - Reference Numbers

Status: Optional

Purpose: To specify identifying numbers.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
REF01	128	Reference Number Qualifier	M	ID	2/2	PK - Pack List Number
REF02	127	Reference Number	M	AN	1/30	Pack List Number
REF03	352	Description	O	AN	1/80	Not Used

CLD - Load Detail

Status: Optional

Purpose: To specify the number of material loads shipped.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
CLD01	622	Number Customer Loads	M	N0	1/5	Number of Containers
CLD02	382	Number Units Shipped	M	R	1/10	Number of Units per Container
CLD03	103	Packaging Code	O	ID	5/5	BOX90 - Cardboard Box CRT90 - Crate CTN90 - Carton DRM90 - Drum PLT90 - Pallet SKD90 - Skid TBN90 - Tote Bin
CLD04	357	Size	O	R	1/8	Not Used
CLD05	355	Unit of Measure Code	O	ID	2/2	Not Used

REF - Reference Numbers

Status: Optional

Purpose: To specify identifying numbers.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
REF01	128	Reference Number Qualifier	M	ID	2/2	LS - Bar-Coded Serial Number LT - Lot Number PK - Pack List Number
REF02	127	Reference Number	M	AN	1/30	Reference Number qualified by REF01
REF03	352	Description	O	AN	1/80	Not Used

CTT - Transaction Totals

Status: Mandatory

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

Field #	Element	Field Name	Req.	Type	Size	TI Usage
CTT01	354	Number of Line Items	M	N0	1/6	Number of line item segments in this transaction set

NOTE: CTT02 through CTT07 are not used.

SE - Transaction Set Trailer

Status: Mandatory

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.

Field #	Element	Field Name	Req.	Type	Size	TI Usage
SE01	96	Number of Included Segments	M	N0	1/6	The total number of all segments in the transaction set, including the ST and SE segments.
SE02	329	Transaction Set Control Number	M	AN	4/9	The control number is assigned by the sender. It should be sequentially assigned within each functional group to aid in error recovery and research. The control number in the SE segment must be identical to the control number in the ST segment (ST02) for each transaction.

GE - Functional Group Trailer

Status: Mandatory

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

Field #	Element	Field Name	Req.	Type	Size	TI Usage
GE01	97	Number of Included Transaction Sets	M	N0	1/6	The total number of transaction sets included.
GE02	28	Data Interchange Control Number	M	N0	1/9	The data interchange control number must match the same data element (GS06) in the functional group header segment.

IEA - Interchange Control Trailer

Status: Mandatory

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

Field #	Element	Field Name	Req.	Type	Size	TI Usage
IEA01	I16	Number of Included Groups	M	N0	1/5	A count of the number of functional groups included in a transmission.
IEA02	I12	Interchange Control Number	M	N0	9/9	This number is assigned by sender; together with sender ID, it uniquely identifies interchange data to receiver. It is suggested that sender, receiver, and all third parties be able to maintain an audit trail of interchanges using this number.