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# EDI - GENERAL INFORMATION

The purpose of this guide is to document the use of Electronic Data Interchange as implemented by DENSO for NASWEB. DENSO EDI transaction sets will adhere to ANSI X-12 Standards Version 4 Release 1.

The following are some general rules regarding the formatting and transmission of EDI files.....

- The EDI transmission will consist of fixed-length 80 character records.
- These records are created by concatenating the logical, variable-length EDI data segments and passing this data stream into 80-character records.
- Data segments can span records.
- No record shall be padded except for the last record, which may be padded with EBCDIC HEX 40 characters.

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# FORMAT OF AN EDI INTERCHANGE CONTAINING AN 830 TRANSACTION SET

## PLANNING SCHEDULE WITH RELEASE CAPABILITY

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# SEGMENT SUMMARY

## *EDI 830 - Planning Schedule with Release Capability*

| Segment | Segment Name | Description |
|---|---|---|
| ISA | Interchange Control Header | Start interchange and identify sender, receiver, and other key transmission data |
| GS | Functional Group Header | Identify a group of related transactions |
| ST | Transaction Set Header | Identifies the specific transaction set to follow (830) |
| BFR | Beginning Segment for Planning Schedule | Identifies beginning of a Planning Schedule transaction set. |
| N1 | Name | Identifies Supplier/Manufacturer |
| N2 | | Additional Name Information |
| N3 | | Address Information |
| LIN | Item Identification | Specify basic item identification data (Part number, etc) |
| UIT | Unit Detail | Specify item unit detail |
| PO4 | Item Physical Details | Specify physical qualities, packaging, weights relating to the item |
| REF | Reference Numbers | Specify identifying numbers |
| PER | | Administrative Communications Contact |
| FST | Forecast Schedule | Specifies forecasted dates and quantities |
| CTT | Transaction Totals | Transmit totals for specific elements in transmission |
| SE | Transaction Set Trailer | Indicates end of transaction set and provide count of segments |
| GE | Functional Group Trailer | Indicates end of a functional group |
| IEA | Interchange Control Trailer | Indicates the end of an interchange of one or more functional groups |

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# EXAMPLE EDI TRANSMISSION
# CONTAINING AN 830 TRANSACTION SET

## ***EDI 830 - Planning Schedule with Release Capability***

The following is an example of an EDI transmission created by DENSO. This example contains an **830** transaction set, and is the basis for the segment examples used in this document. Deliminters/terminators may vary. Every segment will be followed by a segment deliminter.

```
ISA*00*          *00*          *01*884981002      *ZZ*WEBEDI         *101014*034
9*U*00401*000012752*0*P*>~GS*PS*884981002*WEBEDI*20101014*0349*6275*X*004010~ST*
830*000023539~BFR*04**001*DL*A*20101025*20110223*20101013~N1*SU*BOWLES FLUIDICS
CORP*92*XC-A69~N1*ST**92*GNC_N1~N2*ASMO GNC,INC.*1125 SUGG PKWY~N3*GREENVILLE, N
C 27834 USA~LIN**BP*AX060770-3351*PD*X322 NOZZLES*PO*0000980000*RN*286~UIT*EA~PO
4*1*2000*BX~REF*DK*N1~REF*RV*1~PER*EX*CIGMA*TE*3206*****11000~FST*0*D*D*20101025
~FST*0*D*D*20101026~FST*0*D*D*20101027~FST*0*D*D*20101028~FST*0*D*D*20101029~FST
*0*D*D*20101101~FST*0*D*D*20101102~FST*0*D*D*20101103~FST*0*D*D*20101104~FST*0*D
*D*20101105~FST*0*D*D*20101108~FST*0*D*D*20101110~FST*0*D*D*20101111~FST*0*D*D*2
0101112~FST*0*D*D*20101115~FST*0*D*D*20101116~FST*0*D*D*20101117~FST*0*D*D*20101
119~FST*0*D*D*20101122~FST*0*D*D*20101123~FST*0*D*D*20101124~FST*0*D*D*20101129~
FST*0*D*D*20101130~FST*0*D*D*20101201~FST*0*D*D*20101202~FST*2000*D*D*20101203~F
ST*0*D*D*20101206~FST*2000*D*D*20101208~FST*2000*D*D*20101214~FST*0*D*D*20101217
~FST*2000*D*D*20101220~FST*0*D*D*20101221~FST*2000*D*D*20110103~FST*2000*D*D*201
10105~FST*0*D*D*20110110~FST*2000*D*D*20110113~FST*2000*D*D*20110114~FST*2000*D*
D*20110117~FST*2000*D*D*20110121~FST*0*D*D*20110124~FST*2000*D*D*20110128~FST*0*
D*D*20110131~FST*2000*D*D*20110204~FST*2000*D*D*20110207~FST*2000*D*D*20110210~F
ST*0*D*D*20110211~FST*2000*D*D*20110214~FST*2000*D*D*20110221~CTT*1~SE*62*000023
539~GE*1*6275~IEA*1*000012752~
```

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# SEGMENT DETAIL

## ISA -- Interchange Control Header Segment

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| ISA* | Segment Identifier | 1-4 | | | Interchange Control Header Segment ID | |
| 00* | ISA01 | 5-7 | 2/2 | ID | Use '00' | |
| blank | ISA02 | 8-18 | 10/10 | AN | Authorization qualifier | |
| 00* | ISA03 | 19-21 | 2/2 | ID | Use '01' | |
| blank | ISA04 | 22-32 | 10/10 | AN | Security Information | |
| 01* | ISA05 | 33-35 | 2/2 | ID | Use '01' | |
| Denso Affiliate Duns# | ISA06 | 36-51 | 15/15 | ID | Sender's DUNS number | |
| ZZ* | ISA07 | 52-54 | 2/2 | ID | Use '01' | |
| WEBEDI* | ISA08 | 55-70 | 15/15 | ID | Receiver ID | |
| YYMMDD* [1] | ISA09 | 71-77 | 6/6 | DT | Creation Date of this Interchange | |
| HHMM* | ISA10 | 78-82 | 4/4 | TM | Creation Time of this interchange | |
| U* | ISA11 | 83-84 | 1/1 | ID | 'U' = US | |
| 00401* | ISA12 | 85-90 | 5/5 | ID | AIAG version number | |
| 000000001* | ISA13 | 91-100 | 9/9 | N0 | Interchange control number | |
| 0* | ISA14 | 101-102 | 1/1 | ID | '0' = No acknowledgment requested | |
| P | ISA15 | 103-103 | 1/1 | ID | 'P' = production | |
| * | ISA16 | 104-104 | 1/1 | ID | Element deliminter | |
| > | ISA17 | 105-105 | 1/1 | ID | subelement deliminter | |
| ~ | ISA18 | 106-106 | 1/1 | ID | Segment deliminter | |

Segment Example.....
ISA*00* *00* *01*884981002 *ZZ*WEBEDI *101014*0349*U*00401*000012752*0*P*>~

[1] Version 4010 uses the 6-digit date only on the ISA segment.

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# SEGMENT DETAIL

**GS -- Functional Group Header Segment**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| GS* | Segment Identifier | 1-3 | | | Functional Group Header Segment ID | |
| PS* | GS01 | 4-6 | 2/2 | ID | Use 'PS' (Planning Schedule) | |
| Denso Affiliate Duns # | GS02 | 7-16 | 2/12 | ID | Sender's DUNS number | |
| WEBEDI* | GS03 | 17-26 | 2/12 | ID | Receiver's ID | |
| YYYYMMDD* | GS04 | 27-33 | 8/8 | DT | Creation Date of this Interchange | |
| HHMM* | GS05 | 34-38 | 4/4 | TM | Creation Time of this interchange | |
| 1* | GS06 | 39-40 | 1/9 | N0 | GS segment Sequence Number | |
| X* | GS07 | 41-42 | 1/2 | ID | Use ' X ' (ASC X12 Standard) | |
| 004010 | GS08 | 43-48 | 1/12 | ID | AIAG version number | |

Segment Example.....
GS*PS*884981002*WEBEDI*20101014*0349*6275*X*004010~

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# SEGMENT DETAIL

**ST -- 830 Transaction Set Header**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| ST* | Segment Identifier | 1-3 | | | Transaction Set Header Segment ID | |
| 830* | ST01 | 4-7 | 3/3 | ID | Use '830' - Identifies this Transaction Set as a Planning Schedule | |
| 0001 | ST02 | 8-11 | 4/9 | AN | Transaction Set sequence number - this will start with 0001 and will be incremented for each additional transaction set (ST/SE envelope) included within this functional group (GS/GE envelope). | |

Segment Example.....

ST*830*0001~

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# SEGMENT DETAIL

**BFR -- Beginning Segment for Planning Schedule**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| BFR* | Segment Identifier | 1-4 | | | Beginning Segment for Planning Schedule Segment ID | |
| 00* | BFR01 | 5-7 | 2/2 | ID | "00" or "05" (Original) "04" (Replacement) | |
| * | BFR02 | 8-8 | 1/30 | AN | Conditional Field not used by Denso | |
| 001* | BFR03 | 9-12 | 1/30 | AN | 001 used by Denso | |
| DL* | BFR04 | 13-15 | 2/2 | ID | Schedule Type - Denso uses DL (Delivery Based) | |
| A* | BFR05 | 16-17 | 1/1 | ID | Quantity Qualifier - DENSO uses ' A ' (Actual Discreet quantities) | |
| YYYYMMDD* | BFR06 | 18-24 | 8/8 | DT | Start Date to which this Planning Schedule applies. | |
| YYYYMMDD* | BFR07 | 25-31 | 8/8 | DT | End Date to which this Planning Schedule applies. | |
| YYYYMMDD* | BFR08 | 32-38 | 8/8 | DT | Creation Date of this Planning Schedule | |

Segment Example..... BFR*00**001*DL*A*19990607*19991029*19990611~

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# SEGMENT DETAIL

**N1 -- Name**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| N1* | Segment Identifier | 1-3 | | | Name Segment ID | |
| SU* | N101 | 4-6 | 2/2 | ID | Identity Code - Denso uses 'SU' (Supplier/Manufacturer) and 'ST' (Ship To Plant Code) | |
| xxxxxxxxxxxxxx* | N102 | 7-29 | 1/35 | AN | Name (optional) | |
| 92 | N103 | 30-32 | 1/2 | ID | Use '92' | |
| xxxx | N104 | 33-36 | 2/17 | AN | Denso assigned Code | |

Segment Example.....
N1*SU*BOWLES FLUIDICS CORP*92*XC-A69~
N1*ST**92*GNC_N1~

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# SEGMENT DETAIL

**N2 – Additional Name Information**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| N2* | Segment Identifier | 1-3 | | | Segment ID | |
| XXXXXXXXXXXXX* | N201 | 4-39 | 1/35 | AN | Company Name | |
| XXXXXXXXXXXXX | N202 | 40-74 | 1/35 | AN | Company Address 1 | |

Segment Example.....
N2*ASMO GNC,INC.*1125 SUGG PKWY~

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# SEGMENT DETAIL

**N3 – Address Information**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| N2* | Segment Identifier | 1-3 | | | Segment ID | |
| XXXXXXXXXXXXX* | N301 | 4-39 | 1/35 | AN | Company Address 2 | |
| XXXXXXXXXXXXX | N302 | 40-74 | 1/35 | AN | Company Address 3 | |

Segment Example.....
N3*GREENVILLE, NC 27834 USA~

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# SEGMENT DETAIL

**LIN - Item Identification**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remark |
|---|---|---|---|---|---|---|
| LIN* | Segment Identifier | 1-4 | | | Item Identification Segement ID | |
| * | LIN01 | 5-5 | 1/11 | AN | Optional Data Element, not currently used by Denso | |
| BP* | LIN02 | 6-8 | 2/2 | ID | 'BP' | |
| xxxxxxxxxxbbb* | LIN03 | 9-24 | 1/30 | AN | Product Part Number | |
| PD* | LIN04 | 25-27 | 2/2 | ID | "PD" = Next element is the part description | |
| xxxxxxxxxxxxxxxxx* | LIN05 | 28-57 | 1/30 | AN | Part Number Description | |
| PO* | LIN06 | 58-60 | 2/2 | ID | 'PO' | |
| xxxxxxxxxxxxx* | LIN07 | 61-70 | 1/30 | AN | Purchase Order Number | |
| RN* | LIN08 | 71-73 | 2/2 | ID | 'RN' | |
| xxxxxxxxxxxxx | LIN09 | 74- | 1/30 | AN | Release Number | |

Segment Example.....

LIN**BP*AX060770-3351*PD*X322 NOZZLES*PO*0000980000*RN*286~

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# SEGMENT DETAIL

**UIT --Unit Detail**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| UIT* | Segment Identifier | 1-4 | | | Unit Detail Segment ID | |
| EA | UIT01 | 5-6 | 2/2 | ID | Unit of measure | |

Segment Example.....

UIT*EA~

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# SEGMENT DETAIL

**PO4 -- Item Physical Details**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| PO4* | Segment Identifier | 1-4 | | | Item Physical Details Segment ID | |
| 1* | PO401 | 5-6 | 1/6 | N0 | Number of inner packs per outer pack units | Always 1 |
| 9999999* | PO402 | 7-10 | 1/8 | R | Barcode Tag LOTSIZE | |
| XX | PO403 | 11-12 | 2/2 | ID | 'BX' for Box qty 'PL' for Pallet qty | |

Segment Example.....
PO4*1*2000*BX~

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# SEGMENT DETAIL

**REF -- Reference Numbers**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| REF* | Segment Identifier | 1-4 | | | Reference Numbers Segment ID | |
| DK* | REF01 | 5-7 | 2/2 | ID | Denso uses ‘ DK ‘ = Dock Code ‘RV’ = Receiving Warehouse ‘ZZ’ = ‘A’ Part flag | |
| xxx | REF02 | 8-10 | 1/30 | AN | Dock Code, Receiving Warehouse, or 1=’A’ Part | |

Segment Example.....
REF*DK*N1~
REF*RV*1~
REF*ZZ*1~

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# SEGMENT DETAIL

**PER - Administrative Communications Contact**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| PER* | Segment id | 1-4 | | | Segment ID | |
| EX* | PER01 | 5-7 | 2/2 | ID | use "EX" (Expeditor) | |
| JOHNbDOE* | PER02 | 8-16 | 1/35 | AN | Expeditor's Name | |
| TE* | PER03 | 17-19 | 2/2 | ID | Use "TE" (Expeditor's Phone #) | |
| 4239827000* | PER04 | 20-29 | 1/80 | AN | Expeditor's Phone # | |
| * | PER05 | 30-30 | 1/1 | AN | Optional/Not used | |
| * | PER06 | 31-31 | 1/1 | AN | Optional/Not used | |
| * | PER07 | 32-32 | 1/1 | AN | Optional/Not used | |
| * | PER08 | 33-33 | 1/1 | AN | Optional/Not used | |
| 12345 | PER09 | 34-38 | 1/5 | AN | Planner code | |

Segment Example:
PER*EX*CIGMA*TE*3206*****11000~

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# SEGMENT DETAIL

**FST -- Forecast Schedules**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| FST* | Segment Identifier | 1-4 | | | Forecast Scedule Segment ID | |
| 9999* | FST01 | 5-11 | 1/15 | R | Quantity | |
| C* | FST02 | 12-13 | 1/1 | ID | C = Firm<br>D = Planning | |
| D* | FST03 | 14-15 | 1/1 | ID | D = Discrete<br>W = Weekly Bucket (Monday through Sunday) | |
| YYYYMMDD | FST04 | 16-21 | 8/8 | DT | Either a discrete date, or the first date of a forecasted bucket (Weekly or Four week) as qualified by FST03. | |

Segment Examples.....

FST*1728*C*D*19990615~ (Firm, Discrete dates forecast example
FST*7392*D*W*19990621~ (Planning Weekly bucket example)

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# SEGMENT DETAIL

## CTT- TRANSACTION TOTALS

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| CTT* | Segment Identifier | 1-4 | | | Transaction Totals Segment ID | |
| 9999 | CTT01 | 5-8 | 1/6 | N0 | Number of Line Items (count of LIN segments within this ST/SE envelope) | |

Segment Examples.....
CTT*6~

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# SEGMENT DETAIL

## SE - TRANSACTION SET TRAILER

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| SE* | Segment Identifier | 1-3 | | | Transaction Set Trailer Segment ID | |
| 9999* | SE01 | 4-8 | 1/10 | N0 | Total number of segments included in this transaction set, including the ST and SE segments. | |
| 0001* | SE02 | 9-13 | 4/9 | AN | Transaction set control number - this will match the value in ST02. | |

Segment Examples.....

SE*94*0001~

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# SEGMENT DETAIL

**GE - Functional Group Trailer**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| GE* | Segment Identifier | 1-3 | | | Functional Group Trailer Segment Identifier | |
| 1* | GE01 | 4-5 | 1/6 | N0 | Total number of ST segments in this functional group. (Will typically be '1') | |
| 1 | GE02 | 6-6 | 1/9 | N0 | Data interchange control number - Must match GS06 in this GS/GE envelope. | |

Segment Examples.....

GE*1*1~

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# SEGMENT DETAIL

**IEA - Interchange Control Trailer**

| Value/ Format | Data Element Name | Data Element Bytes Position (per example) | Data Element minimum/ maximum Field Length (per AIAG standards) | Data Type | Description/Comments | Remarks |
|---|---|---|---|---|---|---|
| IEA* | Segment Identifier | 1-4 | | | Interchange Control Trailer Segment Identifier | |
| 1* | IEA01 | 5-6 | 1/5 | N0 | Total number of Functional Groups (GS Segments) included in this ISA/IEA envelope. | |
| 999999999 | IEA02 | 7-15 | 9/9 | N0 | Interchange Control Number - Must match ISA13. | |

Segment Examples.....

IEA*1*000000001~