

DEX/UCS

Programmer's Guide

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Contents

Before You Begin.....	xiii
Safety Information.....	xiii
Global Services and Support	xiii
Warranty Information.....	xiii
Web Support	xiii
Telephone Support	xiii
Service Location Support	xiv
Who Should Read This Guide.....	xiv

1 Field by Field Discussion of DEX/UCS Transaction Sets..... 1

DEX/UCS Transaction Sets	2
DEX/UCS Envelope Header and Trailer	4
DXS - DEX/UCS Application Header	4
DXS01 - Communication ID/Global Location Number	5
DXS02 - Functional Identifier.....	5
DXS03 - Version	5
DXS04 - Transmission Control Number	6
DXS05 - Communication ID.....	6
DXS06 - Test Indicator	7
DXE - DEX/UCS Application Trailer	7
DXE01 - Transmission Control Number.....	7
DXE02 - Number of Included Sets.....	7
Transmitting Delivery and Return Base Record	8
ST - Transaction Set Header	8
ST01 - Transaction Set Identifier Code.....	8
ST02 - Transaction Set Control Number.....	8
ST03 - Implementation Convention Release.....	9
G82 - Delivery and Return Base Record Identifier.....	9
G8201 - Credit and Debit Flag	9
G8202 - Supplier and Delivery Return Number	9
G8203 - DUNS Number for the Receiver.....	10
G8204 - Receiver's Location Number	10
G8205 - DUNS Number for the Supplier.....	10
G8206 - Supplier's Location Number	10
G8207 - Physical Delivery or Return Date	11
G8208 - Product Ownership Transfer Date.....	11
G8209 - Purchase Order Number.....	11
G8210 - Purchase Order Date	11
G8211 - Shipment Method of Payment	11
G8212 - COD Method of Payment	12

Contents

N9 - Reference Number	12
N901 - Reference Number Qualifier	12
N902 - Reference Number	12
N903 - Free-Form Description	12
N904 - Date	13
N905 - Time	13
N906 - Time Code	13
LS - Loop Header	13
LS01 - Loop Identifier	14
G83 - Line Item Detail and DSD	14
G8301 - DSD Sequence Number	15
G8302 - Quantity	15
G8303 - Unit of Measure Code	15
G8304 - UPC Consumer Package Code	16
G8305 - Product/Service ID Qualifier	16
G8306 - Product/Service ID	17
G8307 - UPC Case Code	18
G8308 - Item List Cost	18
G8309 - Pack	18
G8310 - Cash Register Item Description	19
G8311 - Product/Service ID Qualifier	19
G8312 - Product/Service ID	20
G8313 - Inner Pack	21
G22 - Pricing Information	21
G2201 - Pre-Priced Option Code	22
G2202 - Price New, Suggested Retail	22
G2203 - Multiple Price Quantity	22
G2204 - Free-Form Message	22
G2205 - Date	22
G72 - Allowance or Charge (Item Level)	23
G7201 - Allowance or Charge Code	23
G7202 - Method of Handling Code	24
G7203 - Allowance or Charge Number	24
G7204 - Exception Number	25
G7205 - Allowance or Charge Rate	25
G7206 - Allowance or Charge Quantity	25
G7207 - Unit of Measure Code	26
G7208 - Allowance or Charge Total Amount	26
G7209 - Allowance or Charge Percent	26
G7210 - Dollar Basis for Percent	27
G7211 - Option Number	27
G23 - Terms of Sale (Item Level)	27
LE - Loop Trailer	27
LE01 - Loop Identifier	27
G72 - Allowance or Charge (Record Level)	28
G23 - Terms of Sale (Record Level)	28
G84 - Delivery and Return Record Totals	28

G8401 - Quantity	28
G8402 - Total Invoice Amount	28
G8403 - Total Deposit Dollar Amount	29
G86 - Signature	29
G8601 - Electronic Signature	29
G8602 - Name	30
G85 - Record Integrity Check	30
G8501 - Integrity Check Value	30
SE - Transaction Set Trailer	30
SE01 - Number of Included Segments	31
SE02 - Transaction Set Control Number	31
Transmitting Delivery or Return Acknowledgement or Adjustment	31
ST - Transaction Set Header	32
ST01 - Transaction Set ID	32
ST02 - Transaction Set Control Number	32
ST03 - Implementation Convention Release	33
G87 - Delivery and Return Adjustment Identification	33
G8701 - Initiator Code	33
G8702 - Credit Debit Flag	33
G8703 - Supplier's Delivery or Return Number	34
G8704 - Integrity Check Value	34
G8705 - Adjustment Number	35
G8706 - Receiver's Delivery or Return Number	35
G88 - Delivery or Return Identification Adjustment	35
G8801 - Physical Delivery or Return Date	36
G8802 - Product Ownership Transfer Date	36
G8803 - Purchase Order Number	36
G8804 - Purchase Order Date	36
G8805 - Receiver's Location Number	36
LS - Loop Header	37
LS01 - Loop Identifier	37
G89 - Line Item Detail Adjustment	37
G8901 - DSD Sequence Number	38
G8902 - Quantity	38
G8903 - Unit of Measure	39
G8904 - UPC/EAN Consumer Package Code	39
G8905 - Product/Service ID Qualifier	40
G8906 - Product/Service ID	40
G8907 - UPC Consumer Package Code	40
G8908 - Item List Cost	41
G8909 - Pack	41
G8910 - Inner Pack	41
G8911 - Product/Service ID Qualifier	41
G8912 - Product/Service ID	42
G22 - Pricing Information	42

Contents

G72 - Allowance or Charge (Item Level)	42
G7201 - Allowance or Charge Code	43
G7202 - Method of Handling	43
G7203 - Allowance or Charge Number	43
G7204 - Exception Number	43
G7205 - Allowance or Charge Rate	43
G7206 - Allowance or Charge Quantity	44
G7207 - Unit of Measure Code	44
G7208 - Allowance or Charge Total Amount	44
G7209 - Allowance or Charge Percent	44
G7210 - Dollar Basis for Percent	44
G23 - Terms of Sale (Item Level)	44
LE - Loop Trailer	44
LE01 - Loop Identifier	44
G72 - Allowance or Charge (Record Level)	45
G23 - Terms of Sale (Record Level)	45
G84 - Delivery and Return Record Totals	45
G8401 - Quantity	45
G8402 - Total Invoice Amount	46
G8403 - Total Deposit Dollar Amount	46
G85 - Record Integrity Check	46
G86 - Signature	46
SE - Transaction Set Trailer	46

2 Download Files 47

DEX/UCS Download	48
DEX/UCS Parameter File “xxDEX”	48
Type 0 - Route Level Information	48
Type 1 - Customer Level Information	49
Sample File Layout	52
DEX/UCS Product Information “xxDXP”	53
Type 0 - Default Product Information	54
Type 1 - Product Specific Information	55
Sample File Layout	55
Product Master File - Global Trade Item Number (GTIN)	56
Customer Master File	57

3 Upload Files	59
Transaction File	60
DEX/UCS Audit Trail “xxADT”	60
Begin DEX/UCS Invoice - BEGINV	60
End DEX/UCS Invoice - ENDINV	63
Begin DEX/UCS Data Generation - BEGGEN	63
End DEX/UCS Data Generation - ENDGEN	64
Begin DEX/UCS Data Reading - BEGRED	65
End DEX/UCS Data Reading - ENDRED	66
Begin DEX/UCS Communications Session - BEGCOM	67
End DEX/UCS Communications Session - ENDCOM	67
4 Graphical Representation of DEX/UCS Data Segments	71
DEX/UCS Requirements	72
DXS - DEX/UCS Application Header	74
ST - Transaction Set Header	74
G82 - Delivery/Return Base Record Identifier	75
N9 - Reference Number	75
LS - Loop Header	76
G83 - Line Item Detail/Direct Store Delivery	76
G22 - Pre-Pricing Information	77
G72 - Allowance or Charge	77
G23 - Terms of Sale	78
LE - Loop Trailer	78
G84 - Delivery and Return Record Totals	78
G85 - Record Integrity Check	78
G86 - Signature	78

Contents

SE - Transaction Set Trailer	79
DXE - DEX/UCS Application Trailer	79
G87 - Delivery and Return Adjustment Identification	79
G88 - Delivery or Return Identification Adjustment	80
G89 - Line Item Detail Adjustment	81

5 Changes Between DEX/UCS Versions

83

Version U3/1 and 003030UCS Differences	84
Version 003030UCS and 003040UCS Differences	84
Version 003040UCS and 003050UCS Differences	87
Version 003050UCS and 003070UCS Differences	88
Version 003070UCS and 004010UCS Differences	90
Version 004010UCS and 005010UCS Differences	90
Version 005010UCS and 005020UCS Differences	93
Version 005020UCS and 005030UCS Differences	93

A Acronyms

95

DEX/UCS	96
DSD	96
EDI	96
GTIN	96
NEX/UCS	97
RIC	97
GS1-US	97

UCS	97
UCS/DSD.....	97
UPC	98

Before You Begin

This section provides you with safety information, technical support information, and sources for additional product information.

Safety Information

This section explains how to identify and understand notes that are in this document.



Note: Notes either provide extra information about a topic or contain special instructions for handling a particular condition or set of circumstances.

Global Services and Support

Warranty Information

To understand the warranty for your Intermec product, visit the Intermec web site at www.intermec.com and click **Support > Returns and Repairs > Warranty**.

Disclaimer of warranties: The sample code included in this document is presented for reference only. The code does not necessarily represent complete, tested programs. The code is provided “as is with all faults.” All warranties are expressly disclaimed, including the implied warranties of merchantability and fitness for a particular purpose.

Web Support

Visit the Intermec web site at www.intermec.com to download our current manuals (in PDF).

Visit the Intermec technical knowledge base (Knowledge Central) at www.intermec.com and click **Support > Knowledge Central** to review technical information or to request technical support for your Intermec product.

Telephone Support

In the U.S.A. and Canada, call **1-800-755-5505**.

Outside the U.S.A. and Canada, contact your local Intermec representative. To search for your local representative, from the Intermec web site, click **About Us** > **Contact Us**.

Service Location Support

For the most current listing of service locations, go to www.intermec.com and click **Support** > **Returns and Repairs** > **Repair Locations**.

For technical support in South Korea, use the after service locations listed below:

AWOO Systems

102-1304 SK Ventium
522 Dangjung-dong
Gunpo-si, Gyeonggi-do Korea, South 435-776
Contact: Mr. Sinbum Kang
Telephone: +82-31-436-1191
E-mail: mjyun@awoo.co.kr

IN Information System PTD LTD

6th Floor
Daegu Venture Center Bldg 95
Shinchun 3 Dong
Donggu, Daegu City, Korea
E-mail: jmyou@idif.co.kr or korlim@gw.idif.co.kr

Who Should Read This Guide

This document provides general guidelines and suggestions for implementing DEX/UCS functionality in an application. This document need not be regarded as strict rules for DEX/UCS implementation. This is because many parts of DEX/UCS may have very business-specific ramifications, and may vary widely from customer to customer.

This document was written with the Intermec Technologies in-house application programming staff as the primary intended audience. It may be distributed to other groups.

This document assumes readers have familiarized themselves with the *UCS for DSD - Implementation and User Guide*, which may be obtained from the GS1-US organization.

1

Field by Field Discussion of DEX/UCS Transaction Sets

This chapter lists each field (data element) of the DEX/UCS transaction sets and what is necessary from the application to set these fields.

DEX/UCS Transaction Sets

Use this chapter with sections B, C, and D in the *UCS for Direct Store Delivery Implementation and User's Guide*, which may be obtained from the GS1-US organization. The notations used in this section are as follows:

<Segment ID> - <Segment Name>

<Reference Designator> - <Element Name>

Data Element and Segment Identifiers

Identifier	Description
<Segment ID>	The EDI segment identifier for the data segment.
<Segment Name>	The name of the data segment.
<Reference Designator>	The EDI “reference designator” for the data element, which has the segment ID of the data segment, the two-digit offset of the element (an offset “01”) within the segment. For example, G8203 is the third element in the G82 segment.
<Element Name>	The name of the data element.

Data Elements and Segments

Data Element and Segment	Description
M (Mandatory)	Use this data segment or data element in this place.
C (Conditional)	The presence of this data element is dependent on the presence or absence of other data elements in the same segment. This classification applies only to data elements. Data segments can only be mandatory or optional.
O (Optional)	Available information that may be useful to the message receiver and you may include in the transaction set at the option of the sender.

Some elements in the *UCS for Direct Store Delivery Implementation and User Guide*, which may be obtained from the GS1-US organization, list the interelemental conditional relationships that are mandatory to meet. Element conditions are expressed in the An1 [n2 [n3 . . .]] format (such as P0607 or E050809), where *nn* is a two-digit number specifying an offset of an element within the segment, and *A* is a character which defines the kind of conditional relationship which must occur between these elements. The machine readable relationships and data elements are defined in the following tables.

Data Elements and Segments

Data Element and Segment	Description
P (Paired)	If any one of the referenced data elements are present, they all must be present.
R (Required)	At least one of the referenced data elements must be present.
E (Exclusive)	Only referenced data element may be present.
C (Conditional)	If the first referenced data element is present, then all remaining referenced data elements must be present.
L (Conditional Paired)	If the first referenced data elements is present, then at least one of the remaining data elements must be present.

Data Element Types

Data Element Types	Description
Nm (Numeric)	Implied decimal points “m” character positions before the end.
Rm (Decimal)	Decimal point required, with “m” as the maximum decimal digits permitted. For Integer values, do not transmit the decimal point. The decimal point character, if used, is not included in the maximum or minimum character count for the data element.
AN (Alphanumeric)	For DEX/UCS, leading spaces are not allowed.
DT (Date)	Expressed as YYMMDD.

Data Element Types (continued)

Data Element Types	Description
TM (Time)	Expressed HHMM in military format (0-24).
ID (Identification)	Expressed as a code, as defined for the data element in question in the <i>Data Element Dictionary</i> .

All quantitative data elements are assumed positive or zero unless preceded by a minus (-) sign, subject to the following restrictions:

- All data elements that express quantities, (pieces, cases, pounds, percentages) are positive or zero.
- Data elements which increase the monetary amount due the seller are positive. (With DSD returns, the retailer is considered the seller.)
- Data elements that decrease the monetary amount due the seller are negative, and must be preceded by a minus (-) sign.

DEX/UCS Envelope Header and Trailer

Under DEX/UCS, all transaction sets are enclosed in a DXS/DXE envelope. A DXS data segment must appear before the first transaction set in a transmission. A DXE data segment must appear after the last transaction set in a transmission. This is typically a debit and credit invoice (base record) or adjustments and acknowledgments to these invoices. This chapter discusses what you should know about generating the envelope around transaction sets to be transmitted.

DXS - DEX/UCS Application Header

This control segment provides identification and control information. It must appear as the first segment in any DEX/UCS transmission. See [Chapter 3, “Upload Files”](#) for more information about the “xxDEX” file.

DXS01 - Communication ID/Global Location Number

Check this value if the “Comm Id Matching Mode” in “xxDEX” is set correctly. A sample debug message would be:

“DXS01 - Received Retailer’s Comm Id Does Not Match.”

Classification: M

Type: AN

Min/Max: 01/10

Transmission: The supplier’s UCS Communication ID/Global Location Number.

Reception: The retailer’s UCS Communication ID/Global Location Number.

DXS02 - Functional Identifier

A sample debug message would be:

“DXS02 - Unsupported Functional Group xx” where xx is the functional identifier received.

Classification: M

Type: ID

Min/Max: 02/02

Transmission: At this time, only the 894 and 895 transaction sets are defined for DEX/UCS. These are both in the “DX” functional group. Thus, hard-code the application to put “DX” in this field.

Reception: The application should generate an error if this field contains any value other than “DX.”

DXS03 - Version

A sample debug message would be:

“DXS03 - Incorrect DEX/UCS Version xxxxxxxxxxxx” where xxxxxxxxxxxx is the version that was received.

Classification: M

Type: AN

Min/Max: 01/12

Transmission: This corresponds to the data format version used in the DEX/UCS format tables by the DEX/UCS support routines.

In theory, all DEX/UCS partners support the current and previous versions of DEX/UCS, as the versions can update every twelve months. Supporting two versions guarantees an overlap and communications between partners.

The version to use for data exchange is determined by the first transaction set to send, which is the 894 transaction set that must come from the supplier. The supplier is not required to support more than one version, as the supplier always picks the version.

Suppliers generally want to support at least two versions to accommodate early and late retailers upgrading in the twelve month period.

Reception: This field must match the value downloaded in the customer level record of the “xxDEX” file. If not, the application should generate an error.

DXS04 - Transmission Control Number

Classification: M

Type: N0

Min/Max: 01/05

Transmission: A sequence number, not unlike an invoice number. After each good transmission, this number should increment, rolling over when necessary.

DXS05 - Communication ID

DXS05 is an optional field. If it is received, it is checked based on the value of the “COMM ID MATCHING MODE” flag for the customer. An error message should generate if this field does not match the downloaded value.

Classification: O

Type: AN

Min/Max: 01/10

Transmission: This is the UCS Communication ID/Global Location Number.

Reception: This is the UCS Communication ID/Global Location Number.

DXS06 - Test Indicator

There must be information specifically defined in the specification regarding this element to use it. If no request to use this element, then ignore it.

Classification: O

Type: ID

Min/Max: 01/01

Transmission: An optional field that indicates whether the transmission is used for test versus production purposes. There are only two valid values for this field:

- P (Production data)
- T (Test data)

DXE - DEX/UCS Application Trailer

This control segment delineates the transactions and provide control information. It must appear as the last data segment in each DEX/UCS transmission.

DXE01 - Transmission Control Number

Classification: M

Type: N0

Min/Max: 01/05

Transmission: This field must contain the same value as was assigned in the DXS04 data element. If they are different, an error is generated.

DXE02 - Number of Included Sets

If the received value is incorrect, an error is generated by the DEX/UCS support routines.

Classification: M

Type: N0

Min/Max: 01/06

Transmission: This field is automatically generated by the DEX/UCS support routines when this segment is “written.”

Transmitting Delivery and Return Base Record

The 894 Base Record Transaction Set is essentially an invoice. Only the supplier is allowed to transmit this transaction set. This transactions set contains either debits (sales) or credits (returns). Debits and credits cannot mix on the same invoice. This section discusses what you should know about generating and transmitting the base record.

ST - Transaction Set Header

This data segment starts any transaction set, and assigns a control number to it. It is coded here to indicate that this transaction set is a delivery and return base record. See [Chapter 3, “Upload Files”](#) for information about the “xxDEX” file.

ST01 - Transaction Set Identifier Code

The Transaction Set Identifier Code should always contain the value of 894.

Classification: M

Type: ID

Min/Max: 03/03

ST02 - Transaction Set Control Number

An application can treat this number as a sequence number in a similar manner to the DXS04 element. It should increment with every transaction set so that all transaction sets have a different number. The application should roll this number over when necessary.

Classification: M

Type: AN

Min/Max: 04/09

ST03 - Implementation Convention Release

This field is not supported.

Classification: O

Type: AN

Min/Max: 01/35

G82 - Delivery and Return Base Record Identifier

This segment transmits identifying number, dates, and other basic data relating to this transaction set. See [Chapter 3, “Upload Files”](#) for information about the “xxDEX” file.

G8201 - Credit and Debit Flag

This indicates whether this record is for a delivery or a return. C (Credit) is used for any return transaction. D (Debit) is used for any delivery transaction. Within DEX/UCS, invoices must consist entirely of either debit items or credit items. This application must logically separate tickets to accommodate this requirement.

Classification: M

Type: ID

Min/Max: 01/01

G8202 - Supplier and Delivery Return Number

This field value should be the same as the invoice number that would appear on the printed ticket.

Classification: M

Type: AN

Min/Max: 01/22

G8203 - DUNS Number for the Receiver

The DUNS number assigned by Dun & Bradstreet. The number uniquely identifies the company with this receiver. It is downloaded in a customer record from the “xxDEX” file.

Classification: O

Type: ID

Min/Max: 09/09

G8204 - Receiver’s Location Number

This is downloaded in a customer record from the “xxDEX” file. The retailer uses this to uniquely identify a particular location.

Classification: M

Type: AN

Min/Max: 01/13

G8205 - DUNS Number for the Supplier

The DUNS number assigned by Dun & Bradstreet. The number uniquely identifies the company associated with this supplier. It is downloaded in a customer record from the “xxDEX” file.

Classification: O

Type: ID

Min/Max: 09/09

G8206 - Supplier’s Location Number

This field is downloaded in a route level record from the “xxDEX” file. The retailer uses it to uniquely identify a particular location or route.

Classification: M

Type: AN

Min/Max: 01/13

G8207 - Physical Delivery or Return Date

This is the current date from the system clock at the time the transaction set is generated.

Classification: M

Type: DT

Min/Max: 08/08

G8208 - Product Ownership Transfer Date

Intermec Technologies does not support this field.

Classification: O

Type: DT

Min/Max: 08/08

G8209 - Purchase Order Number

If this is known to the application, and it is a requirement, then assign the purchase order number to this field. Otherwise, this field is not supported.

Classification: O

Type: AN

Min/Max: 01/22

G8210 - Purchase Order Date

If this is known to the application, and it is a requirement, then assign the purchase order date to this field. Otherwise, this field is not supported.

Classification: O

Type: DT

Min/Max: 08/08

G8211 - Shipment Method of Payment

This field is not supported.

Classification: O

Type: ID

Min/Max: 02/02

G8212 - COD Method of Payment

This field is not supported.

Classification: O

Type: ID

Min/Max: 01/01

N9 - Reference Number

This optional segment provides tax reference numbers for Canadian requirements.

N901 - Reference Number Qualifier

The two values valid in the DEX/UCS environment are as follows:

- 4O (Canadian Goods and Services or Quebec Sales Tax Reference Number)
- 4G (Provincial Tax Identification Number)

Classification: M

Type: ID

Min/Max: 02/03

Relationship: None

N902 - Reference Number

The reference associated with the N901 qualifier.

Classification: M

Type: AN

Min/Max: 01/50

Relationship: R0203

N903 - Free-Form Description

Not supported in DEX/UCS.

Classification: C

Type: AN

Min/Max: 01/45

Relationship: R0203

N904 - Date

Not supported in DEX/UCS.

Classification: O

Type: DT

Min/Max: 08/08

Relationship: None

N905 - Time

Not supported in DEX/UCS.

Classification: O

Type: TM

Min/Max: 04/08

Relationship: C0605

N906 - Time Code

Not supported in DEX/UCS.

Classification: O

Type: ID

Min/Max: 02/02

Relationship: C0605

LS - Loop Header

The loop header indicates that the next segment begins a loop. It is used once before any loop iterations are made to indicate the beginning of line item detail records.

LS01 - Loop Identifier

Always transmit the string “0100”.



Note: The leading “0” is important. No other value is supported.

Classification: M

Type: ID

Min/Max: 01/04

G83 - Line Item Detail and DSD

This data segment provides the basic and most often used line item data for the delivery and return. Use it at the start of each item loop.

These segments should generate and transmit in the same order in which they would appear on the invoice. The exception to this is free goods and samples, which require special handling. Free goods and samples are not handled as line items under DEX/UCS, but rather as allowances to a line item.

No line items with a zero quantity should transmit with the base invoice. For applications with case and unit entry of items, DEX/UCS treats them as separate line items. Thus, one line item would have to generate for the case quantity, and another would have to generate for the unit quantity. See [Chapter 3, “Upload Files”](#) for information about the “xxDXP” file.

Example

To sell 10 items and get 2 free, send a line item for 12 items with a corresponding allowance which states 2 are free.

Practical Application of Example

To handle this in an application when generating the 894 transaction set, search for free items before the G83 record is written. If a free item does not have a corresponding sale item (same item sold and given free), then a “dummy” sale item should generate related to the free item.

G8301 - DSD Sequence Number

This sequence number serially labels the individual G83 segments in the base record. The transmission of line items must follow the order of this sequence number, such as the first item has sequence number “1,” the second is “2,” the third is “3,” etc.

Classification: M

Type: N0

Min/Max: 01/04

Relationship: None

G8302 - Quantity

This is the quantity of the item sold or returned. It must have an associated unit of measure, given in G8303. This must always be positive.

Classification: M

Type: R3

Min/Max: 01/15

Relationship: None

G8303 - Unit of Measure Code

This data element is used with quantity to specify the quantity of the delivery or return. The valid unit of measure codes for DEX/UCS are:

- BX (Box)
- CA (Case)
- CT (Carton)
- EA (Each)
- DZ (Dozen)
- GA (Gallon)
- KE (Keg)
- KG (Kilogram)
- LB (Pound)
- PK (Package)

- PL (Pallet/unit load)
- TK (Tank)
- UN (Unit)

Classification: M

Type: ID

Min/Max: 02/02

Relationship: None

As of version 005010UCS (5010), G8304 is no longer used. G8305 and G8306 now identify the item level Global Trade Item Number (GTIN).

G8304 - UPC Consumer Package Code

This identifies the retail selling unit. To identify what it is, either this field, a “product and service ID,” or both must transmit with each line item. If the UPC (Universal Product Code) is nonzero, then use it here. Otherwise, use G8305 and G8306 data elements to identify products.

This field is 12 digits long, a UPC code is 10 digits long. Under UCS, a UPC code is preceded by a two-digit prefix. The most commonly used prefix is “00”. If the prefix is not known or included in the download, use “00”. You may include the prefix in the “xxDXP” file.

Classification: C

Type: AN

Min/Max: 12/12

Relationship: R0405

G8305 - Product/Service ID Qualifier

This is a code identifying the type or source of the descriptive number used in Product/Service ID (G8306). See the Product/Service ID Qualifiers (G8305) table below.

Classification: C

Type: ID

Min/Max: 02/02

Relationship: R0405, P0506

Product/Service ID Qualifiers (G8305)

ID Qualifier	Type	Description
“DI”	Deposit item number	Used for deposit items such as empty bottles that do not contain products for resale. G8306 identifies the deposit item using an identifying code, usually a GTIN.
“EN”	EAN/UCC-13	Data structure for the 13-digit EAN.UCC GTIN.
“EO”	EAN/UCC-8	Data structure for the 8-digit EAN.UCC GTIN.
“NR”	Nonresaleable item number	(excludes deposits) Identifies items other than deposits that are not for resale, such as display racks. G8306 identifies the non-resale item using either a code or a description.
“UK”	GTIN 14-digit data structure	Data structure for the 14-digit EAN.UCC GTIN.
“UP”	UCC-12	Data structure for the 12-digit EAN.UCC GTIN. Also known as the UPC.
“VN”	Vendor’s (Seller’s) item number	If the product delivered or returned is identified by a vendor number instead of a GTIN, G8305 should code as “VN” and the item number provided in G8306.

G8306 - Product/Service ID

Identifying number for a product or a service. G8306 is a form of identification number qualified by G8305.

As of version 005010UCS (5010), G8307 is no longer used. G8311 and G8312 now identify the case level GTIN.

Classification: C

Type: AN

Min/Max: 01/48

Relationship: P0506

G8307 - UPC Case Code

This field may be in the “xxDXP” file or the Product Master file. If it exists and is nonzero, then it should transmit. The UPC prefix, also in the “xxDXP” or Product Master, should concatenate to the beginning of this element, if not already.

There is a paired relationship between this element and the G8309-Pack element. If this element is sent, then you must also send the G8309 element.

Classification: C

Type: AN

Min/Max: 12/12

Relationship: None

G8308 - Item List Cost

This is the cost of the item as it would appear on the printed invoice. This cost is prior to subtracting any discounts or adding any charges (such as deposits). This field should always be positive, regardless of invoice type.

For free or sample items without a corresponding sale item, the application must determine what the list cost for the item would be. More explanation of how free items are sent is discussed later.

Classification: C

Type: R4

Min/Max: 01/09

Relationship: None

G8309 - Pack

This field is sent if the Unit of Measure Code used in element G8303 is “CA”. The value should pertain to the number of items with the same UPC as assign to the G8304 element.

Classification: C

Type: N0

Min/Max: 01/06

Relationship: None

G8310 - Cash Register Item Description

This provides a description of the item for use in the check-in process. It corresponds to the product description field in the product master file. It should transmit if any of the following conditions are true:

- The TRANSMIT PRODUCT DESCRIPTION field in the “xxDEX” file record for the customer is on (set to 1).
- The TRANSMIT PRODUCT DESCRIPTION field in the “xxDXP” file record for the item is on (set to 1).
- No UPC Consumer Package Code (G8304) field is transmitted with the product.

Classification: O

Type: AN

Min/Max: 01/20

Relationship: None

G8311 - Product/Service ID Qualifier

Code identifying the type or source of the descriptive number in Product/Service ID. See the Product/Service ID Qualifiers (G8311) table below.

Classification: C

Type: ID

Min/Max: 02/02

Relationship: P1112

Product/Service ID Qualifiers (G8311)

ID Qualifier	Type	Description
“AC”	Aggregation code	Consolidates part families. Identifies an aggregation or grouping, such as a style, to which this item belongs and can be treated as a set for check-in count purposes. G8305/G8306 identify the specific item or case. G8312 provides this item’s aggregation or group identification. All items in the aggregation should list consecutively in delivery/return records.
“EN”	EAN/UCC-13	Data structure for the 13-digit EAN.UCC GTIN.
“EO”	EAN/UCC-8	Data structure for the 8-digit EAN.UCC GTIN.

Product/Service ID Qualifiers (G8311) (continued)

ID Qualifier	Type	Description
“UK”	GTIN 14-digit data structure	Data structure for the 14-digit EAN.UCC GTIN.
“UP”	UCC-12	Data structure for the 12-digit EAN.UCC GTIN. Also known as the UPC.
“WA”	Random weight aggregation code	Identifies a random weight aggregation or grouping to which this item belongs and which can be treated as a set for check purposes. Use of this code indicates that receiving should take place at the group level, with the group quantity being the total number of G83 segments with an identical group identifier in G8312. Item level receiving allows adjustments to the item weight. There can be a separate G83 segment for each random weight item. G8302 should contain the actual weight of the random weight item indicated in this G83 segment only. G8303 should contain the code “LB” (pounds), “KG” (kilogram), or other weight-related items. G8308 should contain the cost per unit of measure referenced in G8303. G8312 should contain a descriptor for the group. All items belonging to the same aggregation/group should list separately in the delivery/return record, with the same value in the G8311 and G8312.

G8312 - Product/Service ID

This data element is the identifying number for a product or service. G8311 and G8312 can identify the case level GTIN and allow a supplier to use G8305 and G8306 to identify the consumer unit. See the Method for Specifying Case Deliveries in DEX/UCS table below.

Classification: C

Type: AN

Min/Max: 01/48

Relationship: P1112

Method for Specifying Case Deliveries in DEX/UCS

Line Item Number	Line Item Name	Description
G8302	Quantity	Indicates number of cases

Method for Specifying Case Deliveries in DEX/UCS (continued)

Line Item Number	Line Item Name	Description
G8303	Unit of Measure	“CA” (Case)
G8305	Product/Service ID Qualifier	“UP”
G8306	Product/Service ID	GTIN of consumer package inside case.
G8308	Item List Cost	Cost of the case of product.
G8309	Pack	Number of consumer units inside case.
G8311	Product/Service ID Qualifier	“UP”
G8312	Product/Service ID	GTIN of case package.

G8313 - Inner Pack

The number of eaches per inner container. The data element provides the number of eaches per inner pack.

Example

If there were 2 inner containers within a shipping container, and each inner container held 6 consumer units, the value of this data element would be 6.

Classification: O

Type: N0

Min/Max: 01/06

Relationship: None

G22 - Pricing Information

This data segment provides information concerning retail pricing. Only use this section if an item’s retail price is known by the application, and the retail price is printed on the invoice.

G2201 - Pre-Priced Option Code

The only code to use in the field is “Y.”

Classification: M

Type: ID

Min/Max: 01/01

G2202 - Price New, Suggested Retail

Transmits retail price value to print on the invoice.

Classification: O

Type: N2

Min/Max: 02/07

G2203 - Multiple Price Quantity

This field is not supported.

Classification: O

Type: N2

Min/Max: 01/02

G2204 - Free-Form Message

This field is not supported.

Classification: O

Type: AN

Min/Max: 01/60

G2205 - Date

Not supported in DEX/UCS.

Classification: O

Type: DT

Min/Max: 08/08

G72 - Allowance or Charge (Item Level)

This data segment specifies allowances or charges that are applied to the list item cost. The list item cost for this particular line item was provided in the data element **“G8308 - Item List Cost” on page 18.**

The sign convention requires that all charges that increase the amount due the seller are stated as positive amounts or rates, and that all allowances that decrease the amount due the seller are stated as negatively signed amounts or rates. Hence, charges are always positive and allowances are always negative, regardless of invoice type (debit or credit).

Allowances or charges can be sent as a rate, amount, or percent, and are specified using data elements G7205, G7208 or G7209, respectively. Only use one of these elements in each occurrence of a G72 data segment. The choice of which data element to use depends on how to express the allowance or charge.

G7201 - Allowance or Charge Code

This identifies the type of allowance or charge that is to apply. Although there are other values that can be specified, the following table provides examples. See the UCS manual for additional information.

Examples of Types of Allowances or Charges

Code Number	Code Description	Application
“1”	Free Goods Allowance	For free or sample items.
“97”	Cents Off Allowance	A “generic” code used for any type of discount.
“525”	Deposit Charge	Typically used for bottles or cans from a beverage supplier.

Classification: M

Type: ID

Min/Max: 01/03

Relationship: None

G7202 - Method of Handling Code

This code indicates the method of handling for the allowance or charge. See the Method of Handling Codes (Item Level) table below for supported codes.

Classification: M

Type: ID

Min/Max: 02/02

Relationship: None

Method of Handling Codes (Item Level)

Code	Description
"02" (Off Invoice)	The other codes described here are for special circumstances and are only to be used if a customer requests that they be used.
"15" (Information Only)	When this code is used, the allowance or charge amounts are not to add or subtract from the transaction. The information is provided for information only.
"12" (Not Processed)	Only use this code in the 895 acknowledgement and Adjust Record to remove G72 segments for an item.

G7203 - Allowance or Charge Number

This field is not supported.

Classification: C

Type: AN

Min/Max: 01/16

Relationship: R03050809

G7204 - Exception Number

This field is not supported.

Classification: C

Type: AN

Min/Max: 12/12

Relationship: None

G7205 - Allowance or Charge Rate

This data element is used if the allowance or charge to apply is specified in terms of a rate, such as dollar amount per unit. This data element is positive for charges, and negative for allowances. Observe the following guidelines:

- For allowances, transmit the discount amount per item.
- For deposits, transmit the deposit amount per item.
- For free items or samples, transmit the negation of the item cost (G8308).

Classification: O

Type: R4

Min/Max: 01/15

Relationship: E050809, R03050809

G7206 - Allowance or Charge Quantity

If this element is transmitted, then the following element (G7207) must also transmit. These fields only need to transmit if the quantity that is to receive the allowance or charge, as defined in G7205, is different from those assigned in the G8302 and G8303 elements. Observe the following guidelines:

- For deposits, do not use this field. All items are typically charged for deposits, even if they are a free item or sample.
- For discounts, this field is only used if an item has a discount and the same item is also being given away as the result of a promotion or as a sample. In this case, the quantity receiving the discount is the quantity from the G8302 element less the free item or sample quantity.

- For free or sample items, this field would contain the quantity of free or samples items being given to the retailer.

Classification: C

Type: R3

Min/Max: 01/10

Relationship: P0607

G7207 - Unit of Measure Code

This field is only required if an allowance or charge quantity (G7206) is transmitted. It should contain the same code transmitted in the line item detail (G8303).

Classification: C

Type: ID

Min/Max: 02/02

Relationship: P0607

G7208 - Allowance or Charge Total Amount

This field contains the actual total amount of the allowance or charge for this item.

Classification: C

Type: N2

Min/Max: 01/15

Relationship: E050809, R03050809

G7209 - Allowance or Charge Percent

This data element expresses the allowance (negative amount) or charge (positive amount) in terms of a percent. A value of 10.5% or 0.105 of the dollar basis is expressed as 10.5 in this field.

Classification: C

Type: R3

Min/Max: 01/06

Relationship: E050809, P0910

G7210 - Dollar Basis for Percent

Use this data element if G7209 is used. State the dollar basis to which the percent allowance or charge is applied; calculate its dollar amount. This amount should be positive.

Classification: C

Type: R2

Min/Max: 01/09

Relationship: P0910

G7211 - Option Number

This field is not supported.

Classification: O

Type: AN

Min/Max: 01/20

Relationship: C1103

G23 - Terms of Sale (Item Level)

This data segment is not supported in any application at this time. It would specify terms of sale that apply specifically to this line item.

LE - Loop Trailer

The loop trailer indicates the end of the line item detail section. After all loop iterations are made, it is used once.

LE01 - Loop Identifier

Always transmit the string “0100”.



Note: The leading “0” is important. No other value is supported.

Classification: M

Type: ID

Min/Max: 01/06

G72 - Allowance or Charge (Record Level)

The purpose of this segment is to show any taxes or whole ticket discounts. Taxes are represented as percentages, and whole ticket discounts may represent as a dollar value discount or percentage discount. In either case, the rules for sending amounts or percentages are the same as those outlined in the Item level G72. To review the details of this section, see [“G72 - Allowance or Charge \(Item Level\)” on page 23.](#)

G23 - Terms of Sale (Record Level)

This data segment is not supported in any application. It would specify terms of sale that apply to the delivery or return transactions as a whole.

G84 - Delivery and Return Record Totals

This data segment provides summary data on the total items in the delivery or return in terms of quantity and amount. In this segment, use either G8401, G8402, or both.

G8401 - Quantity

The quantity is the numerical sum of all G8302 quantities in the base record. When a mix of units of measure is used, this sum has no physical meaning. It serves as a numerical check.

Classification: C

Type: R3

Min/Max: 01/15

Relationship: R0102

G8402 - Total Invoice Amount

This is the total amount due for this DEX/UCS invoice. This total should be positive unless allowances exceed costs. Do not include previous balance due amounts in this field.

Classification: C

Type: N2

Min/Max: 01/10

Relationship: R0102

G8403 - Total Deposit Dollar Amount

This is the total of all extended amounts for deposit charges on line items. Although deposit amounts are reflected here, also include them in the total invoice amount (G8402). This total is generated by either of the following segments and the data contained within those segments:

- The G83 Line Item Detail segments where G8305 is coded “DI”. In this case, the contribution to the total deposit dollar amount is calculated by multiplying the quantity in G8302 by the item list cost in G8308 for each deposit item segment.
- The G72 data segments at the item level having the G7201 Allowance or Charge Code set equal to “525”. In this case, the contribution to the total deposit dollar amount is calculated by multiplying the G7205 dollar rate per unit by the quantity in G7206 if used; otherwise by the quantity in G8302 for the associated line item.

Classification: O

Type: N2

Min/Max: 01/06

Relationship: R0102

G86 - Signature

G8601 - Electronic Signature

This field is generated by the DEX/UCS standard routines. The algorithm used in calculating this value depends on which version of DEX/UCS is supported.

- For versions prior to 003050UCS (3050): The CRC-16 value of the data characters, starting with the “S” in the “ST” segment and ending with the line feed before the “G86,” is computed. The Signature Key Value is converted to a 32-bit number, which can be thought of as a 4-byte string. The 4-byte string is passed through the CRC-16 algorithm, yielding a new CRC-16 value based on both the data and the downloaded key. The resulting CRC-16 value is

converted into its 4-character hexadecimal representation. This becomes the signature.

- For version 003050UCS and greater: The CRC-16 value of the data from the following data elements is computed.

Classification: M

Type: AN

Min/Max: 01/12

G8602 - Name

G8602 can provide a keyed representation of a signature in clear text.

Classification: O

Type: AN

Min/Max: 01/60

G85 - Record Integrity Check

This segment provides a secure means for checking whether the contents of the records, including the signature, are unchanged.

G8501 - Integrity Check Value

This is generated by the DEX/UCS standard routines. It is calculated by using the CRC algorithm in the *UCS for DSD Implementors and User Guide*, which may be obtained from the GS1-US organization. The algorithm is applied to the contents of the entire transaction set up to this segment (such as from the beginning of the ST segment up through and including the end of the G86 segment).

Classification: M

Type: AN

Min/Max: 01/12

SE - Transaction Set Trailer

This data segment indicates the end of the transaction set and provides the count of the transmitted segments.

SE01 - Number of Included Segments

This value contains the total number of data segments contained in this particular transaction set (the base record), including both the header and trailer segments.

Classification: M

Type: N0

Min/Max: 01/10

SE02 - Transaction Set Control Number

This element contains the same transaction set control number that was entered in ST02 of the ST data segment of this transaction.

Classification: M

Type: AN

Min/Max: 04/09

Transmitting Delivery or Return Acknowledgement or Adjustment

(895 Transaction Set)

This section describes how an application should generate the 895 transaction sets, and how it should handle receiving 895 transaction sets from a retailer.

Any 895 transaction set containing only the mandatory data segments is considered an acknowledgment. When a valid acknowledgment is exchanged, the invoice is considered complete and closed. The application should not allow the user to modify an acknowledged invoice, this includes voiding the invoice.

Under DEX/UCS, it is convention to only resolve quantities at the back door. Pricing and discount or charge disputes should resolve at a higher level, typically headquarters. However, discussions with retailers have revealed that although they do not want disputes to occur at the back door, they may send back price and discount or charge differences if their systems thinks they are wrong.

Applications should track when a quantity adjustment creates a change to discount values, and should retransmit the discounts when this occurs.

The 895 Transaction set is enclosed between the DXS and DXE segments in the same way that the 894 Transaction set is. See the previous chapter related to the DXS and DXE segments for information regarding the transmission and reception of these segments.

ST - Transaction Set Header

The data segment indicates the start of a transaction and the need to assign a control number.

ST01 - Transaction Set ID

Classification: M

Type: ID

Min/Max: 03/03

Transmission: Always send “895,” to identify this as an acknowledgment/adjustment transaction.

Reception: The retailer is only allowed to send “895” in this field. If any other value appears here, regard the transaction as invalid.

ST02 - Transaction Set Control Number

Classification: M

Type: AN

Min/Max: 04/09

Transmission: An application can treat this number as a sequence number in a similar manner to the DXS04 element. It should increment with every transaction set so that all transaction sets have a different number. The application should roll this number over when necessary. The initial value is downloaded in the route level record of the “xxDEX” file.

Reception: Ignore this field.



Note: This field is compared to the value in the data element SE02, by the DEX/UCS Standard Routines. If they are not the same, an error is generated.

ST03 - Implementation Convention Release

Classification: O

Type: AN

Min/Max: 01/35

Transmission: This field is not supported.

Reception: Ignore this field.

G87 - Delivery and Return Adjustment Identification

This data segment provides reference data concerning the acknowledgement and adjust record. It is different from the data (G82) used in the base record for this purpose.

G8701 - Initiator Code

This indicates the party initiating this record.

Classification: M

Type: ID

Min/Max: 01/01

Transmission: Always transmit an “S” for Supplier.

Reception: An error should generate if any value other than an “R,” for Retailer, is received.

G8702 - Credit Debit Flag

This reference code indicates whether the transaction is a debit or a credit. It must have the same value as the G8201 data element in the base record.

Classification: M

Type: ID

Min/Max: 01/01

Transmission: Send the same value that was sent in the G8201 element of the base invoice record (894).

Reception: Generate an error if it is not the same as the G8201 element from the base invoice (894).

G8703 - Supplier's Delivery or Return Number

This reference data element provides the transaction number assigned by the supplier to identify this particular record set. It is a mandatory field and should have the same value as data element G8202 in the base record for this set.

Classification: M

Type: AN

Min/Max: 01/22

Transmission: Send the same value that was sent in the G8202 element of the base invoice record (894).

Reception: Generate an error if it is not the same as the G8202 element from the base invoice (894).

G8704 - Integrity Check Value

This reference data element should duplicate the value of the integrity check value contained in the data element G8501 of the immediately preceding acknowledgement and adjust record, or of the base record if this is the first acknowledgement and adjust record.

Classification: M

Type: AN

Min/Max: 01/22

Transmission: The last value from the G8501 data element received or sent in the base record.

Reception: Generate an error if this value does not match the last RIC value exchanged for this transaction.



Note: The application should retain the values of the last RIC value successfully sent or received for each invoice within a transaction set for use in this field.

G8705 - Adjustment Number

This data element sequentially numbers the acknowledgement and adjust records from one to a maximum of nine.

Classification: M

Type: N0

Min/Max: 01/01

Transmission: Transmit the current adjustment number for the invoice.

Reception: An error should generate if the adjustment number received does not match the value expected by the application.



Note: The application should maintain the adjustment count for each invoice. It should start at one and be incremented after an adjustment is successfully exchanged.

G8706 - Receiver's Delivery or Return Number

This reference data element provides the transaction number assigned by the receiver to identify this particular record set.

Classification: O

Type: AN

Min/Max: 01/22

Transmission: Only send this field if it was previously received in an adjustment from the retailer.

Reception: Retain this field for transmission in subsequent acknowledgement and adjust records. The value is not important, other than to have the capability to transmit it.

G88 - Delivery or Return Identification Adjustment

This data segment transmits identification adjustment data.

Transmission: There is no support for sending this segment.

Reception: If this segment is received from the retailers system, ignore it beyond the fact that the transaction set is not an acknowledgement. Only change data if the application design call for it.

G8801 - Physical Delivery or Return Date

Pertains to the value sent in the G8207 data element.

Classification: O

Type: DT

Min/Max: 08/08

G8802 - Product Ownership Transfer Date

Pertains to the value sent in the G8208 data element.

Classification: O

Type: DT

Min/Max: 08/08

G8803 - Purchase Order Number

Pertains to the value sent in the G8209 data element.

Classification: O

Type: AN

Min/Max: 01/22

G8804 - Purchase Order Date

Pertains to the value sent in the G8210 data element.

Classification: O

Type: DT

Min/Max: 08/08

G8805 - Receiver's Location Number

Pertains to the value sent in the G8204 data element.

Classification: O

Type: AN

Min/Max: 01/06

LS - Loop Header

Transmission: This segment is sent only if line item adjustments are to transmit.

Reception: This segment is received only if line item adjustments were sent by the retailer.

LS01 - Loop Identifier

Classification: M

Type: ID

Min/Max: 01/06

Transmission: Always transmit the string “0100”.



Note: The DEX/UCS Standard Routines generate an error if any value other than “0100” is found in this field, regardless of whether the segment is transmitted or received.

Reception: Ignore this field.

G89 - Line Item Detail Adjustment

While not a requirement under DEX/UCS, a business convention used by some DEX/UCS partners is to only resolve the invoice quantities at the back door, and resolve cost disputes at the headquarters level.

However, there are some retailers who attempt to resolve cost discrepancies at the back door by sending back cost and discount information to the supplier. Rather than disputing with the retailer, the application should treat these adjustments as information only. The supplier will replace current price and discount values on the invoice at design time.

When new items are added to an invoice, they are assigned sequence numbers $N+1$, $N+2$, \dots , where “N” is the highest sequence number assigned thus far. The requirement that items transmit in ascending sequence number order, as in the 894 transaction set, is not true for the 895 transaction set. Rather than needing to verify received sequence numbers, use these as look-up keys. Treat any key value that fails a search as a retailer add item.

There are three situations when an adjustment to a line item should transmit.

- The quantity had adjusted.
- The item is a retailer add item which is rejected.
- The discounts applied to an item have changed.

G8901 - DSD Sequence Number

Classification: M

Type: ID

Min/Max: 01/03

Transmission: When transmitting a line item that was part of the base invoice, this value should be the same as the G8301 value for this item.

When transmitting an item that was added by the supplier, this number should be the next unused sequence number following the N+1, N+2, . . . , rule, as described above.

When transmitting an item that was added by the retailer, this number should be the same as the G8901 value that was received from the retailer.



Note: The leading “0” is important. No other value is supported.

Reception: This field determines which line item from the original invoice the retailer is trying to adjust.

Any item received with a sequence number which does not already exist should be treated as an add item.

G8902 - Quantity

Classification: O

Type: R3

Min/Max: 01/15

Transmission: The new adjusted quantity for the item should transmit here. If a retailer add item is rejected, then a quantity of zero should transmit. This quantity should include any free or sample quantities.

Reception: The quantity received in this field replaces the current invoice item quantity.



Note: If a line item adjustment is received, that does not necessarily indicate that the quantity is changed.

G8903 - Unit of Measure

Classification: O

Type: ID

Min/Max: 02/02

Transmission: This field should only transmit if this is an item that was added by the supplier and is transmitted for the first time. If this is the case, the same rules for transmitting this field in the G83 data segment apply.

Reception: If this is not a retailer add item, then ignore this field.

If this is a retailer add item, and a “xxDXP” file record exists for the item, the values should compare for validity. If the Units of Measure are the same, the product could be considered valid. If not, generate an adjustment returning the Unit of Measure value from the “xxDXP” file and any quantity adjustment required.

G8904 - UPC/EAN Consumer Package Code

This field is no longer used for versions 005010UCS (5010) and later

Classification: O

Type: AN

Min/Max: 12/12

This information is valid for versions prior to 005010UCS (5010).

Transmission: This field should not transmit unless this is an item that was added by the supplier, and is transmitted for the first time. If this is the case, the same rules for transmitting this field in the G83 data segment apply.

Reception: If this is not a retailer add item, ignore this field.

If this is a retailer add item, it should identify the item the retailer is trying to add.

G8905 - Product/Service ID Qualifier

Classification: O

Type: ID

Min/Max: 02/02

Transmission: This field should not transmit unless this is an item that was added by the supplier and is transmitted for the first time. If this is the case, the same rules for transmitting this field in the G83 data segment apply.

Reception: If this is not a retailer add item, ignore this field.

If this is a retailer add item, then this field contains the qualifier as to the contents of the item identification in the G8906 element.

G8906 - Product/Service ID

Classification: O

Type: AN

Min/Max: 01/30

Transmission: This field should not transmit unless this is an item that was added by the supplier and is transmitted for the first time. If this is the case, the same rules for transmitting this field in the G83 data segment apply.

Reception: If this is not a retailer add item, then ignore this field.

If this is a retailer add item, then this field contains the item identification value.

G8907 - UPC Consumer Package Code

For versions 005010UCS (5010) and later, this field is no longer used.

Classification: O

Type: AN

Min/Max: 12/12

Transmission: This field should not transmit unless this is an item that was added by the supplier and is transmitted for the first time. If this is the case, the same rules for transmitting this field in the G83 data segment apply.

Reception: If this is not a retailer add item, then ignore this field.

If this is a retailer add item, the value contained in this field should identify the product added by the retailer.

G8908 - Item List Cost

Classification: O

Type: R4

Min/Max: 01/09

Transmission: This field should not transmit unless this is an item that was added by the supplier and is transmitted for the first time. If this is the case, the same rules for transmitting this field in the G83 data segment apply.

Reception: Ignore this field. In most cases the application reprices the item based on download files.

G8909 - Pack

Classification: O

Type: N0

Min/Max: 01/06

Transmission: This field should not transmit unless this is an item that was added by the supplier and is transmitted for the first time, and the unit of measure associated with this item is “CA.” If this is the case, the same rules for transmitting this field in the G83 data segment apply.

Reception: Ignore this field.

G8910 - Inner Pack

The number of eaches per inner container.

Classification: O

Type: N0

Min/Max: 01/06

Transmission: This field is not currently used.

Reception: Ignore this field.

G8911 - Product/Service ID Qualifier

Classification: O

Type: ID

Min/Max: 02/02

Transmission: This field should not transmit unless this is an item that was added by the supplier and is transmitted for the first time. If this is the case, the same rules for transmitting this field in the G83 data segment apply.

Reception: If this is not a retailer add item, ignore this field.

If this is a retailer add item, then this field contains the qualifier as to the contents of the item identification in the G8906 element.

G8912 - Product/Service ID

Classification: O

Type: AN

Min/Max: 01/30

Transmission: This field should not transmit unless this is an item that was added by the supplier and is transmitted for the first time. If this is the case, the same rules for transmitting this field in the G83 data segment apply.

Reception: If this is not a retailer add item, then ignore this field.

If this is a retailer add item, then this field contains the item identification value.

G22 - Pricing Information

Transmission: This data segment should not transmit unless the item was added by the supplier. If this is a supplier add item, the same rules apply as in the 894 base record transaction set.

Reception: Ignore this data segment, if received, beyond the fact that the transaction set is not an acknowledgment.

G72 - Allowance or Charge (Item Level)

Transmission: These segments should only transmit if a discount has changed for an item. If a discount has changed for the item, remove any G72 segments that were sent before sending the new discount values. To inform the retailer to remove existing G72 segments, send the following G72 segment before sending any new G72 segments.

- G7201 (Allowance or Charge code) “96”
- G7202 (Method of Handling code) “12”
- G7203 (Allowance or Charge number) “96”

Reception: We would like to ignore received allowance or charge information because we do not want to put the route person in the situation of resolving specific costs at the back door. However, some applications allow the route person the ability to view or change allowances and charges if they are received. This is an application specific request, and if there is no mention in the specification for supporting this, all G72 segments received are ignored.

There is one case where we do not want to ignore a received allowance, and that is when the received allowance is a free goods allowance. Current applications handle free goods and samples as separate line items. We want to separate the free goods quantity from the sold quantity. Another reason this is important is related to cost. Although we are not trying to resolve exact costs at the back door, we do not want the retailer deciding what they do and do not have to pay for.

For invoices which are strictly free goods and samples, you can ignore the received G72 segments because there is no question regarding what the retailer must pay for. Only when sales and returns and free goods are mixed on the same ticket do we have to check for receiving free goods allowances.

G7201 - Allowance or Charge Code

This field describes the possible types of adjusted allowance or charge.

- “1” (Frees)
- “97” (Cents off)
- “525” (Deposits)

G7202 - Method of Handling

Ignore this field.

G7203 - Allowance or Charge Number

Ignore this field.

G7204 - Exception Number

Ignore this field.

G7205 - Allowance or Charge Rate

This field, if received, contains the adjusted rate of the allowance or charge.

G7206 - Allowance or Charge Quantity

Only receive this field if the quantity an adjustment is applied to needs adjustment. Most likely, this field is only sent if free items are adjusted, or if quantity is different from the value that was sent in G8302/G8902.

G7207 - Unit of Measure Code

Ignore this field. An assumption made is that the Unit of Measure is the same as that which is transmitted in the G8303/G8903 field.

G7208 - Allowance or Charge Total Amount

This field contains the adjusted total amount of the allowance or charge.

G7209 - Allowance or Charge Percent

This field contains the percent that the adjusted allowance or charge is using.

G7210 - Dollar Basis for Percent

This field contains the adjusted dollar basis for percent, which when multiplied by the value in G7209, would yield the amount of the allowance or charge.

G23 - Terms of Sale (Item Level)

Transmission: This data segment is not supported.

Reception: If this data segment is received, ignore it beyond the fact that this transaction set is not an acknowledgment.

LE - Loop Trailer

Transmission: This data segment is transmitted only if line item adjustments were generated.

Reception: This data segment is transmitted only if line item adjustments were received.

LE01 - Loop Identifier

Transmission: This field should always contain the string “0100”.

Reception: Ignore this field. The DEX/UCS Standard Routines generates an error if an invalid loop identifier is contained in this field.

G72 - Allowance or Charge (Record Level)

Transmission: To avoid an adjustment dispute with the retailer over cost, transmit this data segment only when an invoice-level allowance or charge changes. In this event, the same rules apply as in the 895 base record transaction set.

Reception: Processing of Record level adjustments should follow the same conventions as those outlined in the Item Level G72 Reception process.

If the application does not define a process for reviewing allowance/charge changes, then ignore this segment beyond the fact that the transaction set is not an acknowledgment.

G23 - Terms of Sale (Record Level)

Transmission: This data segment is not supported.

Reception: This data segment is received, ignore it beyond the fact that this transaction set is not an acknowledgment.

G84 - Delivery and Return Record Totals

This data segment should transmit only if any of the following conditions exist:

- A line item adjustment (G89) is transmitted in this transaction set. This transmission would indicate a quantity or discount adjustment.
- The application contains a flag to resend totals after receiving adjustments from the retailer in order for the retailer to have up-to-date totals on their system.

G8401 - Quantity

Transmission: Transmit the hash total quantity of the entire invoice, such as what the G8401 value would be in an 894 transaction set if you were sending it at this point.

Reception: Ignore this field.

G8402 - Total Invoice Amount

Transmission: Transmit the total dollar amount for the entire invoice, in the same manner as with the 894 transaction set.

Reception: Ignore this field.

G8403 - Total Deposit Dollar Amount

The number of eaches per inner container.

Transmission: Transmit the deposit dollar amount total for the entire invoice, in the same manner as with the 894 transaction set.

Reception: Ignore this field.

G85 - Record Integrity Check

Transmission: Same as the 894 transaction set.

Reception: Retain this value to return in the G87 data segment.

G86 - Signature

Transmission: Same as the 894 transaction set.

Reception: Ignore this field.

SE - Transaction Set Trailer

Transmission: Same as the 894 transaction set.

Reception: Ignore this segment beyond the fact that it signifies the end of one set of data pertaining to one invoice.

2

Download Files

This chapter lists the parameters associated with downloading files.

DEX/UCS Download

To add DEX/UCS to an application with minimal disruption to host processing requirements, the parameters which control DEX/UCS processing in the mobile computer are downloaded in separate files. This was done for the following reasons:

- It does not require our existing customers to modify the download formats of existing files.
- It does not require existing customers to carry DEX/UCS overhead if they do not wish to use DEX/UCS.
- DEX/UCS overhead can be confined to that subset of retail customers which use DEX/UCS.

DEX/UCS Parameter File “xxDEX”

This file contains the DEX/UCS parameter information at the route level and the customer level. The name of this file should be “xxDEX,” where “xx” is the filename prefix used by the download files.

This file contains two record types of level information:

- Type 0 (Route)
- Type 1 (Customer)

For every DEX/UCS customer, type 0 records should always be the first record in the file, followed by type 1 records.

Type 0 - Route Level Information

This record contains all DEX/UCS parameters relevant to the entire route. The fields in this record are presented in the following table.

DEX/UCS Parameters for the Entire Route

Field	Description
Supplier’s UCS Communication ID	A 10-digit number field. The first six digits are assigned to the supplier by the UCC. The last four digits are at the suppliers discretion to assign.
Supplier’s DUNS Number	A 9-digit number field assigned to the supplier by Dun and Bradstreet.

DEX/UCS Parameters for the Entire Route (continued)

Field	Description
Supplier's Location Number	A 6-character field assigned by the supplier.
Signature Key	A nonzero, 32-bit (10-digit) number as a key to generate all signature values.
Transaction Set Control Number	A 9-digit number that is the initial value of the transaction set control number.
Transmission Control Number	A 5-digit number that is the initial value of the transmission control number.
Audit Trail Error Handling Mode	<p>This flag designates what information goes into the DEX/UCS audit trail file in the event that a data format error is detected while processing DEX/UCS data. It can have the following values:</p> <ul style="list-style-type: none"> • “0” Do not retain any DEX/UCS data containing data format errors. • “1” Retain DEX/UCS data up to the point where the data format error was detected. • “2” Retain all DEX/UCS data, regardless of whether data format errors were detected.

Type 1 - Customer Level Information

This record contains all DEX/UCS parameters relevant to individual customers on a route. The fields in this record are presented in the following table.

DEX/UCS Parameters for Individual Customers Route

Field	Description
Customer Number	The customer number as it appears in the downloaded customer file. It is used here as a look-up key.
Stop Number (when applicable)	The customer stop number, as it appears in the customer master file.
Retailer's UCS Communications ID	A 10-digit number. The first six digits are assigned by the UCC. The last four digits are at the retailer's discretion to assign.
Retailer's DUNS Number	A 9-digit number field assigned by Dun and Bradstreet.
Retailer's Location Number	A 6-character field assigned by the retailer.

DEX/UCS Parameters for Individual Customers Route (continued)

Field	Description
DEX/UCS Version	The DEX/UCS version to be used with this retailer. This is a 12-character field.
Communications Initiator Flag	<p>This flag designates who is to start communications and has these values:</p> <ul style="list-style-type: none">• “0” Supplier always initiates.• “1” The party wishing to send data initiates.• “2” “Autosenses” who is to initiate. <p>For flag values “0” and “2,” the flag can pass directly into the PGDXC1P routine as the “COMM_MODE” parameter. For flag values “1,” the application must determine whether to pass in a mode of “0” or “1,” depending on whether the application is ready to send or receive data, respectively.</p>
Communications ID Matching Mode	<p>This flag specifies whether the Communications IDs received from the retailer are to be matched against those downloaded to the mobile computer. This is important as different DEX/UCS partners may place different priorities on what fields identify each other. These values are supported:</p> <ul style="list-style-type: none">• “0” Do not check Communications IDs.• “1” Check retailer’s Communications ID. If no match, generate an error.• “2” Check supplier’s Communications ID. If no match, generate an error.• “3” Check both retailer and supplier Communications IDs. If neither matches, generate an error. <p>This flag should be ANDed with 1 to get the mode to pass to the PGDXC1P routine as the “ID_CHECK” parameter. The application must check the Communications IDs in the DXS segment. The flag ANDed with “1” determines if the downloaded retailer’s Communications ID must match the value in DXS01. The flag ANDed with “2” determines if the downloaded supplier’s Communications ID must match the value in DXS05.</p>

DEX/UCS Parameters for Individual Customers Route (continued)

Field	Description
Debugging Mode	<p>The complexity of DEX/UCS should not be visible to the route person. When an error is detected, a descriptive message is uploaded in the DEX/ UCS audit trail to help a programmer find the cause of the problem. However, when two DEX/UCS partners get together for the first time, it may prove necessary to display these descriptive messages. Therefore, this flag was introduced here strictly to aid in testing. These values are supported:</p> <ul style="list-style-type: none"> • “0” Do not display debug messages. Process all data errors. • “1” Do not display debug messages. Ignore invalid RIC value. • “2” Display debug messages. Process all data errors. • “3” Display debug messages. Ignore invalid RIC value. <p>This value should be ANDed with “1” to determine what value to pass for an ICC_CHECK parameter. If the result of the AND is “1,” pass a zero. If the result is a “1,” pass a zero. This value should be ANDed with “2” to determine if the application should display data format error messages. The application needs to generate data format errors.</p>
Product Aggregation Mode (when applicable)	<p>Some applications group their products by some value. For example, beverage applications may group products by container type (6-pack, 12-pack). For those applications which allow product delivery grouping to be specified, it is desirable to allow the transmission of an aggregation code to speed the receiving process. This flag has these values:</p> <ul style="list-style-type: none"> • “0” Do not transmit aggregation codes with products. • “1” Transmit aggregation codes with products. <p>The aggregation information is placed in the Product or Service ID and Product or Service ID Qualifier fields of G83 and G89 data segments for items that are not using these fields for other purposes.</p>
Transmit Product Description	<p>The product description is an optional field in DEX/UCS. Its primary purpose is to allow retailers the opportunity to receive a product which may not be on their files. Transmitting the description with every line item increases the size of the audit trail significantly, therefore, this feature was made optional. This flag has these values:</p> <ul style="list-style-type: none"> • “0” Do not transmit product descriptions. • “1” Transmit product description.

Sample File Layout

The following is a sample DEX/UCS parameter file layout. This example assumes an eight-digit customer number. Based on the differences between applications, account for the customer number, the stop number, and additional flag values in the header definition and the record redefinition.

Example

Filename: DEX/UCS Parameter File

File Header: <DxxDEX 00000X001N020N009X023>

Sample DEX/UCS Parameter File Layout

	Field	Picture	Comments
Route:	Type	9	= 0
	Signature Key	N(10)	1-4294967295
	Supplier's Communications ID	N(10)	
	Supplier's DUNS Number	N(9)	
	Location Number	9(6)	
	Transaction Set Control Number	Z(5)9(4)	
	Transmission Control Number	Z(4)9	
	Audit Trail Error Handling Mode	9	0 (Discard bad data) 1 (Retain bad data up to point of error) *2 (Retain all data)
	Filler	99	
Customer:	Type	9	= 1
	Filler	NN	
	Customer Number	N(8)	
	Retailer's Communications ID	N(10)	
	Retailer's DUNS Number	N(9)	
	Retailer's Location	XZ(5)	
	DEX/UCS Version	XZ(11)	
	Communication Initiator Flag	9	0 (Supplier initiates) 1 (Sender initiates) *2 (Autosense)

Sample DEX/UCS Parameter File Layout (continued)

Field	Picture	Comments
Communications ID Matching Mode	9	*0 (Do not check) 1 (Check retailer's) 2 (Check supplier's) 3 (Check both)
Debugging Mode	9	0 (Check RIC, do not show debug) *1 (Do not check RIC, do not show debug) 2 (Check RIC, show debug) 3 (Do not check RIC, show debug)
Product Aggregation	9	0 (Do not aggregate) 1 (Aggregate products)
Transmit Product Description	9	0 (Do not transmit) 1 (Transmit)

* Denotes default values.

DEX/UCS Product Information “xxDXP”

There is some additional information required for DEX/UCS which is not generally supported in existing applications. This information is supplied in a separate file called “xxDXP,” where “xx” is the file name prefix used by the application.

Some customers may choose to provide this additional information in their current product file, or the information may already be in the current product file. If this is the case, then this file is not needed by the application and can be omitted. The reasons for adding this information in a separate file are:

- It does not require customers to change the download formats of their existing files.
- It does not require customers to carry DEX/UCS overhead if they do not wish to utilize DEX/UCS.

- DEX/UCS overhead on products can be restricted to that group of products which DEX/UCS retailers are allowed to buy.

This file contains two record types:

- Type 1: DEX/UCS product information for specific products.
- Type 0: Default DEX/UCS product information for those products without Type 1 records.

Type 0 - Default Product Information

This record should contain the DEX/UCS product parameters for those products that do not have specific DEX/UCS product information records. The fields on this record are presented in the following table.

DEX/UCS Product Parameters Exception

Parameter	Description
Unit of Measure (where applicable)	The unit of measure code to transmit with a line item. This corresponds to the selling unit for the line item. In general, this is “EA” for each, or “CA” for case. There are various other units of measure to use for products sold by weight “LB,” the only allowable values in DEX/UCS can be found in the previous section under the G8303 - Unit of Measure field discussion.
UPC Prefix	A two-digit number which is concatenated to the beginning of the UPC for a line item. The first digit represents the country, and the second digit represents product type. For example, B“00” is United States Grocery and “03” is United States Drug.
Transmit Product Description	<p>As mentioned before, the product description is an optional field in DEX/UCS, whose primary purpose is to allow retailers an opportunity to receive a product which may not be on their files. It provides the ability to select individual products whose descriptions are transmitted, rather than sending all product descriptions. This flag has these values:</p> <ul style="list-style-type: none">• “0” Transmission of product description depends on flag in the “xxDEX” file. Do not override.• “1” Always transmit a product description. Override flag in the “xxDEX” file.



Note: The UPC Prefix is no longer in use as of version 005010UCS (5010).

Type 1 - Product Specific Information

This record should contain the DEX/UCS product parameters for those products that do not have specific DEX/UCS product information records. The fields on this record are presented in the following table.

DEX/UCS Product Parameters Exception

Parameter	Description
Product Description	Corresponds to the product number in the product master file. It acts as a key in finding a DEX/UCS product information record. If there is no corresponding type “1” record for a product, then use the type “0” default record.
Unit of Measure (where applicable)	See previous table.
UPC Prefix	See previous table.
UPC Case	The UPC contained in this field pertains to the case of the product sold. The Unit of Measure in the preceding field should be “CA,” and this field would contain the UPC for the case of items. This field should only transmit if it is nonzero. <ul style="list-style-type: none"> For versions prior to 005010UCS (5010): For items that do not have a type “1” record, no UPC should transmit in the G8307 or G8907 fields. It is the responsibility of this download file to give us the information we need. For versions 005010UCS (5010) or greater: For items that do not have a type “1” record, no UPC should transmit in the G8912 field.
Transmit Product Description	See previous table.

Sample File Layout

The following is a sample DEX/UCS product information file layout. This example assumes a six-digit customer number

Example

Filename: DEX/UCS Product Information

File Header: <DxxDXP 00000X001N006X002N002X014X001>.



Note: Based on the differences between applications, account for customer number, stop number, and additional flag values in the header definition and in the redefinition of the records.

Sample DEX/UCS Product Information File Layout

	Field	Picture	Comments
Default:	Type	9	= 0
	Filler	Z(5)N	zero fill
	Unit of Measure	XX	
	UPC Prefix	NN	
	Filler	X(14)	Spaces
	Transmit Product	9	
	Description		
Product:	Type	9	= 1
	Product Number	Z(5)N	
	Unit of Measure	XX	
	UPC Prefix	NN	
	Case UPC	X(14)	Left justified, leading spaces.
	Transmit Product	9	
	Description		

* Denotes default values.

Product Master File - Global Trade Item Number (GTIN)

The GTIN is the primary product identifier under DEX/UCS. Unless a product does not have a GTIN, the GTIN should transmit as the primary product identifier.

In the product master, the GTIN field must reflect the Consumer Package GTIN. This is typically the UPC that scans the product in a store's checkout lane. Case code are located in the "xxDXP" file, unless provided in the product master file.

All products that are identified by a GTIN should contain the GTIN in the product master file. With rare exceptions, this typically includes all sellable and returnable items.

Products not identified by a GTIN should contain all spaces in this field.

While it is highly suggested that all GTINs be unique in the product master file, it is not required.

Customer Master File

You should treat all customers as split-ticket customers, regardless of what is downloaded as the ticket type. Beyond separating debits (sales, samples) from credits (returns, buybacks), there is no specification as to how to split up tickets.

3

Upload Files

This chapter lists the parameters associated with uploading files.

Transaction File

No transaction file changes need to be implemented for DEX/UCS customers. If the ticket type is uploaded, it should always upload as split ticket regardless of the download value. Customers wishing to gain the full benefits of DEX/UCS have to process the audit trail.

DEX/UCS Audit Trail “xxADT”

To gain all the benefits of DEX/UCS, keep a complete audit trail of all DEX/UCS transactions. Thus, a DEX/UCS audit trail file is maintained and uploaded containing a complete copy of all DEX/UCS transactions which have taken place since the last successful telecommunications. This information is supplied in a separate file called “xxADT,” where “xx” is the file name prefix used by the application.

To aid in the host processing of this file, the application may intersperse some sort of delimiter records amongst the DEX/UCS data. These records mark the beginning and ending of DEX/UCS transmissions and DEX/UCS invoices. These records are defined in “pseudo-EDI” format, such that they follow basic EDI conventions for data formatting although they are not true EDI data segments.



Note: The application is responsible for writing these records at the appropriate times.

Begin DEX/UCS Invoice - BEGINV

This record is written by the application when it is first known that this invoice is processed through DEX/UCS. This includes when DEX/UCS invoice processing is restarted after an abort occurs.

BEGINV	*	BEGINV01	*	BEGINV02	*
		START DATE		START TIME	
		M DT 06/06		M TM 06/06	

BEGINV03		BEGINV04	
SUPPLIER DEL/RTN NUMBER	*	CUSTOMER NUMBER R0405	*
M AN 01/22		C AN 01/??	

BEGINV05		BEGINV06	
STOP NUMBER R0405	*	COMPLETION CODE	N L
C N0 01/??		M N0 03/03	

Record Document by DEX/UCS

Entry	Description
BEGINV01 - Invoice Start Date	The date is taken from the system clock when it is known that this invoice is handled through DEX/UCS.
BEGINV02 - Invoice Start Time	The time is taken from the system clock when it is known that this invoice is handled through DEX/UCS.
BEGINV03 - Supplier Delivery or Return Number	The invoice number. It should match the value transmitted in the 894 transaction set. If there are multiple invoice numbers used, such as a single burst, then place the first invoice number in this field.
BEGINV04 - Customer Number	The customer number. Its maximum length is not specified as it varies from program to program.
BEGINV05 - Stop Number (if applicable)	The stop number. Its maximum length is not specified as it varies from program to program. If an application does not support stop numbers, then remove this field from this data segment.

Record Document by DEX/UCS (continued)

Entry	Description
BEGINV06 - Completion Code	<p>This field specifies the completion status code for DEX/UCS processing for this invoice. Zero indicates that the DEX/UCS processing was completed successfully. Any other value means there was a problem. The application should upload one of the following values:</p> <ul style="list-style-type: none">• “0” DEX/UCS completed successfully. The invoice was processed and accepted through DEX/UCS.• “1” User Abort. The route person aborted DEX/UCS processing.• “2” System Abort - Too Many Adjustments. Too many adjustments were made to the invoice.• “3” Fatal Systems Abort - Cannot Create Data. Data generated by the application was not syntactically correct and an application change is required.• “4” Fatal Systems Abort - Cannot Read Data. The program could not process the syntactically correct data.• “104” Initialization Error - Work Area Too Small. The internal buffer for DEX/UCS processing is not large enough to accommodate the largest data segment in the desired DEX/UCS version.• “105” Initialization Error - Unsupported Version. The desired DEX/UCS version is not present in the downloaded DEX/UCS tables. Either the customer information is incorrect, or download new tables that support the desired version.• “106” Initialization Error - DEX/UCS Table Files Missing. One or more of the required DEX/UCS tables is missing.• “107” Initialization Error - Memory Full. There is not enough memory to create the necessary work files for DEX/UCS.• “108” Initialization Error - Directory Full. There are too many files present to create the necessary work files for DEX/UCS.• “109” Initialization Error - Stack Overflow. Attempted to use too much memory to access DEX/UCS.• “110” Initialization Error - Incompatible Tables. The downloaded DEX/UCS data format tables are incompatible with the application. Download new tables.

End DEX/UCS Invoice - ENDINV

This record is written by the application whenever DEX/UCS processing ends for an invoice. This means either the invoice was acknowledged, or that DEX/UCS processing was aborted. This record is written after a DEX/UCS processing abort, even if DEX/UCS processing is restarted.

ENDINV	*	BEGGEN01	*	BEGGEN02	N L
		SUPPLIER DEL/RTN NUMBER		END TIME	
		M AN 01/22		M TM 06/06	

Record Document by DEX/UCS

Entry	Description
ENDINV01 - Supplier Delivery or Return Number	The invoice number. It should match the value assigned in the BEGINV03 field.
BEGINV02 - Invoice End Time	The time at which DEX/UCS invoice processing was completed.

Begin DEX/UCS Data Generation - BEGGEN

This record is written by the application whenever the application begins to generate DEX/UCS data to transmit. This segment and the ENDGEN segment act as an envelope around the DEX/UCS data that is generated.

BEGGEN	*	BEGGEN01	*	BEGGEN02	*
		NUMBER OF DATA CHARACTERS GENERATED		DATA GENERATION STATUS CODE	
		M NO 01/06		M AN 01/01	

BEGGEN03	N L
DATA SENT SUCCESSFULLY	
M NO 01/01	

Record Document by DEX/UCS

Entry	Description
BEGGEN01 - Number of DEX/UCS Data Characters Generated	The number of DEX/UCS data characters stored in this BEGGEN/ENDGEN envelope. The amount and type of data that follows this segment depends on the value of the Audit Trail Error Handling Mode flag from the “xxDEX” file.
BEGGEN02 - Data Generation Status Code	<p>A one-character code that indicates the success or failure of DEX/UCS data generation. A code of “G” indicates a “Good” conversion, such as no data format errors were detected. Any other code indicates an error. The following codes are defined. (This value can be found in the SNDSTAT.ERR_CODE field.)</p> <ul style="list-style-type: none">• “G” No data format errors detected.• “D” Invalid data for field type.• “F” Special processing requirements failed.• “L” Invalid field length.• “M” Mandatory information missing.• “S” Incorrect segment ID encountered.• “U” Invalid or incorrect code.• “X” “ST” data segment missing.• “T” Error while reading from a file.• “K” Error while writing to a file.
BEGGEN03 - Data Sent Successfully	<p>Signifies whether the DEX/UCS data generated here was eventually transmitted successfully. The following values are defined:</p> <ul style="list-style-type: none">• “0” Data was not sent successfully.• “1” Data was sent successfully.

End DEX/UCS Data Generation - ENDGEN

This record is written by the application upon the completion of generating DEX/UCS data to transmit.

ENDGEN	*	ENDGEN01	N L
		DATA FORMAT ERROR MESSAGE	
		C AN 01/60	

Record Document by DEX/UCS

Entry	Description
ENDGEN01 - Data Format Error Message	An English text error message describing the error that was encountered. This field is only written if the value of BEGGEN02 is not “G.” This value can be found in the SNDSTAT.ERR_MESSAGE field.

Begin DEX/UCS Data Reading - BEGRED

This record is written by the application whenever the application begins to read and process DEX/UCS data received from a retailer. This segment and the ENDRED segment serve as an envelope around the received DEX/UCS data.

BEGRED	*	BEGRED01	*	BEGRED02	N L
		NUMBER OF DATA CHARACTERS READ		DATA READ STATUS CODE	
		M NO 01/06		M AN 01/01	

Record Document by DEX/UCS

Entry	Description
BEGRED01 - Number of DEX/UCS Data Characters Read	The number of DEX/UCS data characters stored in this BEGRED/ENDRED envelope. The amount and type of data that follows this segment depends on the value of the Audit Trail Error Handling Mode flag from the “xxDEX” file.
BEGRED02 - Data Read Status Code	<p>A one-character code that indicates the success or failure of processing received DEX/UCS data. A code of “G” indicates a “Good” conversion, such as no data format errors were detected. Any other code indicates an error. The following codes are defined. (Except for codes “W” and “C,” this value is found in the RCVSTAT.ERROR_CODE field. The application should generate codes “W” and “C.”)</p> <ul style="list-style-type: none">“G” No data format errors detected.“W” Warning, transaction set ignored. Data received did not match any existing pending DEX/UCS invoice.

Record Document by DEX/UCS (continued)

Entry	Description
BEGRED02 - Data Read Status Code (continued)	<ul style="list-style-type: none">• “C” Communications IDs do not match based on the value of the COMM ID MATCHING MODE field in the “xxDEX” file described earlier.• “D” Invalid data for field type.• “F” Special processing requirements failed.• “L” Invalid field length.• “M” Mandatory information missing.• “S” Incorrect segment ID encountered.• “V” Invalid or incorrect code.• “X” “ST” data segment missing.• “T” Error while reading from a file.• “K” Error while writing to a file.

End DEX/UCS Data Reading - ENDRED

This record is written by the application upon the completion of reading and processing DEX/UCS data received.

ENDRED	*	ENDRED01 DATA FORMAT ERROR MESSAGE	N L
		C AN 01/60	

Record Document by DEX/UCS

Entry	Description
ENDRED01 - Data Format Error Message	An English text error message describing the error that was encountered. This field is only written if the value of ENDRED02 is not “G” or “C.”

Begin DEX/UCS Communications Session - BEGCOM

This record is written by the application when a DEX/UCS communications session is started.

BEGCOM	*	BEGCOM01			N L
		COMMUNICATIONS START TIME			
		M	TM	06/06	

Record Document by DEX/UCS

Entry	Description
BEGCOM01 - Communications Start Time	The System clock time at the point DEX/UCS communications is started.

End DEX/UCS Communications Session - ENDCOM

This segment is written by the application when a DEX/UCS communications session has ended.

ENDCOM	*	ENDCOM01			*	ENDCOM02			*
		COMMUNICATIONS END TIME				COMMUNICATIONS COMPLETION CODE			
		M	TM	06/06		M	N0	03/03	

	*	ENDCOM03			*	ENDCOM04			N L
		COMMUNICATIONS COMPLETE SUB- STATUS				COMMUNICATIONS ERROR STAGE			
		M	N0	01/05		M	N0	01/01	

Record Document by DEX/UCS

Entry	Description
ENDCOM01 - Communications End Time	The system clock time at the point when DEX/UCS communications ends.

Record Document by DEX/UCS (continued)

Entry	Description
ENDCOM02 - Communications Completion Code	<p>Specifies whether or not DEX/UCS communications was successful. Zero indicates that DEX/UCS was successful. Any other value indicates that communication was not successful. This code has the following values. (This value can be found in the COMMSTAT.STATUS_CODE field.)</p> <ul style="list-style-type: none">• “0” Communications successful.• “1” Communications protocol error.• “2” Nonzero handshake response code received from the retailer or transmitted by the application.• “3” File access error.• “4” Bad Communications ID. Retailer responded with a Communications ID that did not match the one we had on record for them. This error only occurs if the COMM ID MATCHING MODE flag is set to check the retailer’s Communications ID.• “5” Received invalid communications handshake block from the retailer.• “6” User aborted communications.• “7” Bad Communications version. Retailer responded with a communications version not in our list.• “201” Error processing DEX/UCS communications table. No communications versions in the table that the application could support.• “202” Incompatible DEX/UCS communications table. Either a new DEX/UCS communications table required, or a program change required.
ENDCOM03 - Communications Completion Substatus	<p>Further defines the completion status of the DEX/UCS communications session. It is meaningful only for certain COMPLETION CODE values. For completion code values not listed below, ignore this field. (This value can be found in the COMMSTAT.SUB_STATUS field.)</p> <ul style="list-style-type: none">• Completion Code 0 - Successful Communications. Substatus values: “0” Data was received, “1” Data was transmitted.• Completion Code 1 - Protocol Error. The substatus field contains the error code returned by the DEX/UCS communications device driver.

Record Document by DEX/UCS (continued)

Entry	Description
ENDCOM03 - Communications Completion Substatus (continued)	<ul style="list-style-type: none"> • Completion Code 2 - Nonzero Response Code. The substatus field contains the received nonzero response code. • Completion Code 3 - File Access Error. Substatus field contains the error code returned by file handler device driver.
ENDCOM04 - Communications Error Stage	<p data-bbox="420 375 1204 488">Indicates the point at which DEX/UCS communications failed. It should only be present if the COMPLETION CODE is nonzero. It has the following values. (This value can be found in the COMMSTAT.STAGE field.)</p> <ul style="list-style-type: none"> • “0” Communications failed prior to any actual communications. • “1” Communications failed during the initial bid for line control. • “2” Communications failed in exchanging the handshake initiator block. • “3” Communications failed in exchanging the Handshake response block. • “4” Communications failed in exchanging the DEX/UCS data.

4

Graphical Representation of DEX/UCS Data Segments

This chapter provides graphical representations of each of the DEX/UCS data segments.

DEX/UCS Requirements

To better understand the software requirements of the DEX/UCS process, it may be helpful to view the requirements of a DEX/UCS transaction, as defined in the UCS Standards Manual.

A transaction set is composed of a series of data segments that are made up of data elements. A data element provides an individual piece of information, such as a name or a quantity. A data segment provides a logical collection of data elements, such as the name and address of a party to the transaction or the quantity, identification, and cost of an item in an order.

A data segment starts with a data segment identifier, then contains one or more data elements separated by an asterisk (*) delimiter, and is terminated by the ASCII control characters CR and LF.

Each data segment used in DEX/UCS, and its description, is laid out in the following table.

XXX9	9999	*
9		or
X-----X		N
(xmmnn)		L
X	Type min/max	

Data Segments Used in DEX/UCS

Data Segment	Description
XXX99	XXX99 Each data element within a segment is identified by its sequential position in the segment. In this label, “XXX” is the Segment ID, and “00” is the position in the segment, starting at 1.
9999	XXX99 Each data element within a segment is identified by its sequential position in the segment. In this label, “XXX” is the Segment ID, and “00” is the position in the segment, starting at 1. A two-to-four digit numerical code identifier assigned to this data element in the Date Element Dictionary contained in the UCS Standards Manual.
X----X	The description of the data element.

Data Segments Used in DEX/UCS (continued)

Data Segment	Description
(Xmmnn) (optional)	Specifies any data element relationship requirements. “X” specifies the type of requirement; “mm” and “nn” refer to the first and last two digits of data elements in the data segment to which the rule applies.
P (Paired)	If any one element is present, all must be present.
R (Required)	At least one element must be present.
E (Exclusive)	Only one element must be present.
C (Conditional)	If first element is present, then remaining elements must be present.
L (Conditional Paired)	If first element is present, then at least one of the remaining elements must be present.
X	Letter specifying element classification.
M (Mandatory)	This element must be present.
C (Conditional)	This element may be useful to the message receiver and may be included in the transaction set at the option of the sender.
Type	Data element types:
Nm (Numeric)	Implied decimal point “m” characters positions before the end.
Rm (Decimal)	Decimal point explicitly required. Maximum of “m” characters after the decimal point are allowed.
AN (Alpha/Numeric)	Leading spaces or zeros are not allowed.
DT (Date)	Expressed YYMMDD.
TM (Time)	Expressed HHMM in military format (0-24).
ID (Identification)	Expressed as code, as defined for data elements in the Data Element Dictionary.
min/max	The minimum and maximum length of the data element. Decimal points and numeric signs are not counted as part of the length.
*	The element delimiter. If an optional data element is left out, successive delimiters must indicate its unused position. An exception to this rule is where one or more optional data elements are left out at the end of a data segment. Here the data segment terminator can terminate the segment at the appropriate earlier point in the segment.
NL	The segment terminator. In DEX/UCS, where data is transmitted in ASCII characters, it consists of the ASCII control characters CR and LF.

DXS - DEX/UCS Application Header

DXS	*	DXS01 67 SENDERS COMM ID	*	DXS02 479 FUNCTIONAL ID	*	DXS03 480 VERSION	*
		M AN 01/10		M ID 02/02		M ID 01/12	

DXS04 404 TRANSMISSION CONTROL NUMBER	*	DXS05 67 RECEIVER'S COMM ID	*	DXS06 376 TEST INDICATOR	N L
M NO 01/05		O AN 01/10		O AN 01/01	

ST - Transaction Set Header

ST	*	ST01 143 TRANSACTION SET ID	*	ST02 329 TRANSACTION SET CONTROL NUMBER	*	ST03 1705 IMPLEMENTATION CONVENTION REFERENCE	N L
		M ID 03/03		M AN 04/09		O AN 01/35	

G82 - Delivery/Return Base Record Identifier

G82	*	G8201	478	*	G8202	861	*	G8203	860	*
		DEBIT/CREDIT FLAG			SUPPLIER'S DEL/RTN NUMBER			RECEIVER'S DUNS NUMBER		
		M	ID	01/01	M	AN	01/22	M	ID	09/09

G8204	862	*	G8205	860	*	G8206	860	*
RECEIVER'S LOCATION NUMBER			SUPPLIER'S DUNS NUMBER			SUPPLIER'S LOCATION NUMBER		
M	AN	01/06	M	ID	09/09	M	AN	01/06

G8207	872	*	G8208	873	*	G8209	324	*
PHYSICAL DEL/RTN DATE			PRODUCT OWNERSHIP TRANSFER DATE			P.O. NUMBER		
M	DT	08/08	O	DT	08/08	O	AN	01/22

G8210	323	*	G8211	146	*	G8212	625	N L
P.O. DATE			SHIPMENT METHOD OF PAYMENT			COD METHOD OF PAYMENT		
O	DT	08/08	O	ID	02/02	O	ID	01/01

N9 - Reference Number

N9	*	N901	128	*	N902	127	*	N903	369	*
		REFERENCE NUMBER QUALIFIER			REFERENCE NUMBER R0203			FREE-FORM DESCRIPTION R0203		
		M	ID	02/02	C	AN	01/30	C	AN	01/45

N904	373	*	N905	337	*	N906	623	N L
DATE			TIME			TIME CODE		
O	DT	08/08	C	TM	04/08	C	ID	02/02

LS - Loop Header

LS	*	LS01	447	N L
		LOOP IDENTIFIER		
		M	ID 01/06	

G83 - Line Item Detail/Direct Store Delivery

G83	*	G8301204			*	G8302380			*	G8303355			*
		DSD SEQUENCE NUMBER				QUANTITY				UNIT OR BASIS FOR MEASUREMENT CODE			
		M	N0	01/04		M	R3	01/15		M	ID	02/02	

G8304766			*	G8305235			*	G8306234			*
UPC/EAN CONSUMER PACKAGE CODE R0405				PRODUCT/SERVICE ID QUALIFIER (R0405, P0506)				PRODUCT/SERVICE ID P0506			
C	AN	12/12		C	ID	02/02		C	AN	01/48	

G8307438			*	G8308237			*	G8309356			*
CASE UPC CODE C0709				ITEM LIST COST				PACK C0709			
O	AN	12/12		O	R4	01/09		O	N0	01/06	

G8310			878	*	G8311			235	*	G8312			234	*
CASH REGISTER					PRODUCT/SERVICE					PRODUCT/SERVICE				
ITEM DESCRIPTION					ID QUALIFIER					ID				
P1112					P1112					P1112				
O	AN	01/20			O	ID	02/02			O	AN	01/30		

G8313	N L	G8313	810
		INNER PACK	
		O	N0 01/06

G22 - Pre-Pricing Information

G22	*	G2201 288	*	G2202 420	*	G2203 289	*
		PRE-PRICED OPTION CODE		PRICE NEW, SUGGESTED RETAIL		MULTIPLE PRICE QUANTITY	
		M ID 01/01		O N2 02/07		O N0 01/02	

G2204 3	*	G2205 373	N L
FREE-FORM MESSAGE		DATE	
O AN 01/60		O DT 08/08	

G72 - Allowance or Charge

G72	*	G7201 340	*	G7202 331	*	G7203 341	*
		ALLOWANCE OR CHARGE CODE		ALLOWANCE OR CHARGE METHOD OF HANDLING CODE		ALLOWANCE OR CHARGE NUMBER R03050809	
		M ID 01/03		M ID 02/02		C AN 01/16	

G7204 769	*	G7205 359	*	G7206 339	*
EXCEPTION NUMBER		ALLOWANCE OR CHARGE RATE E050809, R03050809		ALLOWANCE OR CHARGE QUANTITY P0607	
O AN 01/16		C R4 01/15		C R3 01/10	

G7207 355	*	G7208 360	*	G7209 332	*
UNIT OR BASIS OF MEASUREMENT CODE P0607		ALLOWANCE OR CHARGE TOTAL AMOUNT E050809, R03050809		PERCENT, DEC- IMAL FORMAT E050809, P0910	
C ID 02/02		C N2 01/15		C R3 01/06	

G7210 828	*	G7211 770	N L
DOLLAR BASIS FOR PERCENT P0910		OPTION NUMBER C1103	
C R2 01/09		O AN 01/20	

G23 - Terms of Sale

Not supported at this time.

LE - Loop Trailer

LE	*	LE01	447	N L
		LOOP IDENTIFIER		
		M	AN 01/06	

G84 - Delivery and Return Record Totals

G84	*	G8401380			*	G8402361			*	G8403865			N L
		QUANTITY R0102				TOTAL INVOICE AMOUNT R0102				TOTAL DEPOSIT DOLLAR AMOUNT			
		C	R3	01/15		C	N2	01/10		O	N2	01/06	

G85 - Record Integrity Check

G85	*	G8501	886	N L
		INTEGRITY CHECK VALUE		
		M	AN 01/12	

G86 - Signature

G86	*	G8601	867	*	G8602	93	N L
		SIGNATURE			NAME		
		O	AN 01/12		O	AN 01/60	

SE - Transaction Set Trailer

SE	*	SE01	96			*	SE02	329			N L		
		NUMBER OF INCLUDED SEGMENTS					TRANSACTION SET CONTROL NUMBER						
		M	N0	01/10			M	AN	04/09				

DXE - DEX/UCS Application Trailer

DXE	*	DXE01			96	*	DXE02			97	N L		
		TRANSMISSION CONTROL NUMBER					NUMBER OF TRANSACTION SETS INCLUDED						
		M	N0	01/05			M	N0	01/06				

G87 - Delivery and Return Adjustment Identification

G87	*	G8701868			*	G8702478			*	G8703861			*
		INITIATOR CODE				CREDIT/DEBIT FLAG CODE				SUPPLIER DELIVERY /RETURN NUMBER			
		M	ID	01/01		M	ID	01/01		M	AN	01/22	

	G8704866			*	G8705869			*	G8706870			N L
	INTEGRITY CHECK VALUE				ADJUSTMENT NUMBER				RECEIVER DELIVERY/ RETURN NUMBER			
	M	AN	01/12		M	N0	01/01		O	AN	01/22	

G88 - Delivery or Return Identification Adjustment

G88	*	G8801	872		*	G8802	873		*	G8803	324		*			
		PHYSICAL DELIVERY OR RETURN DATE				PRODUCT OWNERSHIP TRANSFER DATE				PURCHASE ORDER NUMBER						
		O	DT	08/08		O	DT	08/08		O	AN	01/22				

G8804			323			*	G8805			862			N L
PURCHASE ORDER DATE							RECEIVER'S LOCATION NUMBER						
O	DT	08/08					O	AN	01/06				

G89 - Line Item Detail Adjustment

G89	*	G8901 204	*	G8902 380	*	G8903 355	*
		DSD SEQUENCE NUMBER		QUANTITY		UNIT OR BASIS FOR MEASUREMENT CODE	
		M N0 01/04		O R3 01/15		O ID 02/02	

G8904 766	*	G8905 235	*	G8906 234	*
UPC/EAN CONSUMER PACKAGE CODE		PRODUCT/SERVICE ID QUALIFIER		PRODUCT/SERVICE ID P0506	
O AN 12/12		O ID 02/02		O AN 01/48	

G8907 438	*	G8908 237	*	G8909 356	*
UPC CASE CODE		ITEM LIST COST		PACK	
O AN 12/12		O R4 01/09		O N0 01/06	

G8910 810	*	G8911 235	*	G8912 234	N L
INNER PACK		PRODUCT/SERVICE ID QUALIFIER		PRODUCT/SERVICE ID P0506	
O N0 01/06		O ID 02/02		O AN 01/48	

5

Changes Between DEX/UCS Versions

This chapter details changes made to DEX/UCS Standards.

Version U3/1 and 003030UCS Differences

- Data element 380 (Quantity) was changed from a maximum of 10 characters to a maximum of 15 characters.
- A relational condition was added to the G83 segment which makes G8309 (Pack) required if G8307 (UPC Case Code) is used. The requirement designator of G8309 (Pack) was therefore changed from Optional to Conditional.
- The Version number used in DXS03 (Version/Release/Industry ID) are in the new format 003030UCS.

The changes to the guidelines for specifying case deliveries are presented in the following table.

Method for Specifying Case Deliveries in DEX/UCS

Segment	Description
G8302 Quantity	Number of cases
G8303 Unit of Measure	CA (case)
G304 UPC Consumer Package Code	Consumer package UPC in case
G8305 Product of Service ID Qualifier	Do not use for Case UPC
G8306 Product or Service ID	Do not use for Case UPC
G8307 UPC Case Code	UPC code for product case
G8308 Item List Cost	Cost of product case
G8309 Pack	Always indicates number of consumer packages in case

Version 003030UCS and 003040UCS Differences

- Add existing code 15 (Information Only) as a valid code for G7202 (Method of Handling Code) and add the following (U98-38) guideline for its use:

When this code is used, the allowance or charge amounts are not to be added or subtracted from the transaction. The data is provided for information only.

- Add the following sentence to the first dash point under G8204 (Receiver's Location Number): "The DUNS plus 4 can be used by placing the DUNS Number in G8203 and the four-digit suffix in G8204 (left justified)."
- Add the following sentence to the first dash point under G8206 (Supplier's Location Number): "The DUNS plus 4 can be used by placing the DUNS Number in G8205 and the four-digit suffix in G8206 (left justified)."
- Add DE235 (Product or Service ID Qualifier) and DE234 (Product or Service ID) to the end of segment G83 (Line Item Detail/DSD) as G8311 and G8312 respectively and Optional, Relational Condition R1112. Also, add the following (U93-08) guideline:

This second pair of Product or Service ID Qualifier and Product or Service ID data elements allow a supplier to use G8305 to identify the type of item (such as non-resale or deposit item) and at the same time, use G8311 and G8312 to specify a second type of identifier such as the user-defined shipping container (Code UF) in which the item was shipped, or an aggregate code (Code AC) to group items by style.
- The new standard for Deposit items - Not Associated With an Item is presented in the following tables. This standard is now consistent with the standard for deposit items which are directly associated with a resale item. (U93-72)

G83 Line-Item Detail and DSD

Segment	Description
G8301 DSD Sequence Number	Sequence number
G8302 Quantity	Number of deposit units
G8303 Unit of Measure Code	EA (each)
G8305 Product or Service ID Qualifier	DI (deposit item)
G8306 Product of Service ID	12-digit UPC code
G8308 Item List Cost	Zero

G72 Allowance or Charge (Item Level)

Segment	Description
G7201 Allowance or Charge Code	550 (deposit charge or nonresale item)
G7202 Method of Handling	02 (off invoice)
G7205 Allowance or Charge Rate	Deposit charge per unit
G7206 Allowance or Charge Quantity	
G7207 Unit of Measure	

Add the following new convention to section E. SPECIAL CONVENTIONS:

FREE GOODS

When delivering consumer items which are free due to a special promotion, the total quantity of all goods ordered or invoiced at the regular cost should be stated in the G83 segment as G8302 (DE380 Quantity) and G8308 (DE237 Item List Cost). Use the G72 segment to provide the details of the free goods offering.

Example

A supplier delivers 11 units of a product, giving 1 unit free. The regular cost of the product is \$1.55 each. The Delivery or Return Base Record Transaction Set (894) example is presented in the following tables.

G83 Line Item Detail/DSD

Segment	Example
G8301 DSD Sequence Number	1
G8302 Quantity	11
G8303 Unit of Measure Code	EA (each)
G8304 UPC Consumer Package Code	001234542345
G8308 Item List Cost	Zero
G8309 Pack	

G72 Allowance or Charge (Item Level)

Segment	Example
G7201 Allowance or Charge Code	1 (free goods)
G7202 Method of Handling	02 (off invoice)
G7205 Allowance or Charge Rate	-1.55
G7206 Allowance or Charge Quantity	1
G7207 Unit of Measure	EA (each)

Version 003040UCS and 003050UCS Differences

- 1 Use the following standard algorithm to calculate the electronic signature in the G86 segment:
 - 894 - Delivery or Return Base Record
 - Use:
 - G8201 (Credit and Debit Flag Code)
 - G8202 (Supplier Delivery or Return Number)
 - Private Algorithm
 - Signature Key
 - 895 - Delivery or Return Acknowledgement and Adjustment
 - Use:
 - G8702 (Credit and Debit Flag Code)
 - G8703 (Supplier Delivery or Return Number)
 - Private Algorithm
 - Signature Key
- 2 Add DE373 (Date) to the end of the G22 (Pricing Information) segment as G2205, Optional. This change was approved for use in the Price Change Transaction Set (879). Since this data element is not required for DSD, a guideline is added to the DSD Implementation and User Guide which states that G2205 (DE373 Date) is not used in DEX/UCS. (U94-17)
- 3 Add the N9 (Reference Number) segment to the Header Area, Optional, Maximum Use of >1. (U94-23, U94-47, and U94-48)

4 Add the following code values to N901:

- “08” Carrier Assigned Package Identification Number
Provides a third-party delivery service tracking number when using the 894 transaction set in the NEX/UCS environment.
- “4O” Canadian Goods and Services or Quebec Sales Tax Reference Number
- “4G” Provincial Tax Identification Number
- “LA” Shipping Label Serial Number
UCC/EAN-128 Serial Shipping Container Code. This code is normally used in the NEX/UCS environment.

Version 003050UCS and 003070UCS Differences

- 1** The guidelines for specifying delivery of random weight items were defined. There are two methods that can be used, both are detailed below.

The first method uses a single G83 segment and is presented in the following table.

G83 Line Item Detail/DSD

Segment Element	Description
G8301 DSD Sequence Number	Item sequence number
G8302 Quantity	Total random weight of all pieces
G8303 Unit of Measure	LB (pounds)
G8304 UPC/EAN Consumer Package Code	UPC of item
G8308 Item List Cost	Price per unit of measure
G8310 Cash Register Item Description	Description of item

The second method uses a separate G83 segment for each random weight item. This method is presented in the following table.

G83 Line Item Detail/DSD

Segment Element	Description
G8301 DSD Sequence Number	Item sequence number
G8302 Quantity	Random weight of a single item
G8303 Unit of Measure	LB (pounds)
G8304 UPC/EAN Consumer Package Code	UPC of item (same for each occurrence)
G8305 Product/Service ID Qualifier	WA (random weight aggregation code)
G8306 Product/Service ID	Descriptor for the group
G8308 Item List Cost	Price per unit of measure
G8310 Cash Register Item Description	Description of item

- 2** Added a new element to the G83 Line Item Detail/DSD segment.
G8313 - Inner Pack provides the number of eaches per inner pack. For example, if there were 2 inner containers within a shipping container, and each inner container held 6 consumer units, then the value in this data element would be 6.
- 3** Added a new element to the G86 Signature segment.
G8606 - Name can provide a keyed representation of a signature in clear text.
- 4** Added a new element to the G89 Line Item Detail Adjustment.
G8910 - Inner Pack corresponds to the G83 element G8313 Inner Pack element.

Version 003070UCS and 004010UCS Differences

- 1** For Y2K purposes, expanded all Date fields in the 894 and 895 transaction sets to 8 digits.

Segments affected:

G82 - Delivery/Return Base Record Identifier

N9 - Reference Number

G22 - Pricing Information

G23 - Terms of Sale

G88 - Delivery/Return Identification Adjustment

- 2** Changed the maximum size of the G7205 - Allowance or Charge Rate from 9 to 15.

Version 004010UCS and 005010UCS Differences

- 1** Marked G8304 (UPC./EAN Consumer Package Code) in transaction set 894 as “Not Used.” Use G8305 (Product/Service ID Qualifier) and G8306 (Product/Service ID) to specify item level GTINs instead.

- 2** Continued to use G8305 and G8306 in transaction set 894 to specify the following. Leave these codes in G8305:

DI - Deposit Item Number

NR - Non-resaleable Item (excluding deposit) Number

VN - Vendor’s (Seller’s) Item Number

- 3** Do not use G8305 and G8306 in transaction set 894 to specify the following. Use G8311 and G8312 instead.

AC - Aggregation Code

UC - UPC Suffix (Defines Packing Variation)

UF - User-defined Shipping Container Identifier

UO - SSCC-18 and Application Identifier

WA - Random Weight Aggregation Code

- 4** Added the following codes to G8305 in transaction set 894 to specify the appropriate item level GTIN in G8306:

EN - EAN/UCC-13

EO - EAN/UCC-8

UK - EAN/UCC-14

UP - UCC-12

- 5** Marked G8307 (UPC. Case Code) in transaction set 894 as “Not Used.” Use G8311 and G8312 to specify case level GTINs.

- 6** Added the following codes to G8311 in transaction set 894 to specify the appropriate case level GTIN in G8312.

EN - EAN/UCC-13

EO - EAN/UCC-8

UK - EAN/UCC-14

UP - UCC-12

- 7** Marked G8904 (UPC./EAN Consumer Package Code) in the G89 segment in transaction set 895 as “Not Used.” Use G8905 (Product/Service ID Qualifier) and G8906 (Product/Service ID).

- 8** Marked G8907(UPC./EAN Consumer Package Code) in the G89 segment in transaction set 895 as “Not Used.” Use G8911 (Product/Service ID Qualifier) and G8912 (Product/Service ID).

The current definition of the G89 segment does not include the G8911 (Product/Service ID Qualifier) and G8912 (Product/Service ID) elements. This is remedied in a later version of the DEX/UCS standard.

The GTIN is the EAN.UCC System identifier for the trade items which encompasses both products and services. GTINs provide the capability to deliver unique identification worldwide. The most commonly recognized and used GTINs are the UPC. and EAN-13 symbols.

This changes the representation of delivery items in the G83 and G89 segments. Changes to the G83 segment for each and case deliveries are presented in the following tables.

G83 Line Item Detail/DSD (Eaches delivery)

Segment Element	Description
G8301 DSD Sequence Number	Item sequence number
G8302 Quantity	Quantity being delivered
G8303 Unit of Measure	EA (eaches)
G8304 UPC/EAN Consumer Package Code	Not Used
G8305 Product/Service ID Qualifier	“UP” (UCC-12 aka UPC)
G8306 Product/Service ID	GTIN of item (12-digit UPC)
G8308 Item List Cost	Price per unit of measure
G8310 Cash Register Item Description	Description of item

G83 Line Item Detail/DSD (Case delivery)

Segment Element	Description
G8301 DSD Sequence Number	Item sequence number
G8302 Quantity	Quantity being delivered
G8303 Unit of Measure	CA (cases)
G8304 UPC/EAN Consumer Package Code	Not Used
G8305 Product/Service ID Qualifier	“UP” (UCC-12 aka UPC)
G8306 Product/Service ID	GTIN of item (12-digit UPC)
G8307 UPC Case Code	Not Used
G8308 Item List Cost	Price per unit of measure
G8310 Cash Register Item Description	Description of item
G8311 Product/Service ID Qualifier	“UP” (UCC-12 aka UPC)
G8312 Product/Service ID	GTIN of case (12-digit UPC)

Version 005010UCS and 005020UCS Differences

- 1** G8203 (DUNS Number) and G8205 (DUNS Number) were made optional.
- 2** G8204 (Receiver's Location Number) and G8206 (Supplier's Location Number) were increased to 13 characters.
- 3** Guideline for G8204 & G8206) was changed to include use of Global Location Number.
- 4** G8911 (Product/Service ID Qualifier) and G8912 (Product/Service ID) are added.

Version 005020UCS and 005030UCS Differences

- 1** DXS01 (Communications ID) and DXS05 (Communications ID) changed to data element 67.
- 2** G8911 (Product/Service ID Qualifier) and G8912 (Product/Service ID) opened for use.
- 3** G8304 (UPC/EAN Consumer Package Code) & G8307 (UPC Case Code) removed from use.
- 4** G8904 (UPC/EAN Consumer Package Code) & G8907 (UPC Case Code) removed from use.
- 5** G72 (Allowance or Charge) guideline added at the summary level.

A

Acronyms

This chapter lists the common acronyms when using DEX/UCS.

DEX/UCS

Direct Exchange/Uniform Communications Standard or DEX/UCS refers to the part of UCS which transmits directly between computers with no intervening network. It is a face-to-face change between parties. DEX/UCS involves the exchange of invoice information between the supplier and a retailer at the retailer's back door receiving area.

DSD

Direct Store Delivery or DSD is the section of the grocery industry dealing with products delivered from a supplier directly to a store, rather than to some intermediate warehouse or distributor. DSD offers retailers reduced overhead expenses, but results in a loss of inventory control.

EDI

Electronic Data Interchange or EDI is a set of standards. The EDI standards are a collective group of standards of different industries used for exchanging data between computers. All EDI standards share certain basic concepts for formatting data. There are EDI standards covering transportation, warehousing, grocery retail, general merchandise retail, general business, and other industries.

GTIN

Global Trade Item Number or GTIN is the foundation for the EAN.UCC system for uniquely identifying trade items (products and services) that are sold, delivered, warehoused, and billed throughout retail and commercial distribution channels.

NEX/UCS

Network Exchange/Uniform Communications Standard or NEX/UCS refers to the part of UCS transmitted using telephone networks. This usually refers to headquarters-to-headquarters or headquarters-to-branch data exchanges. Common NEX/UCS transactions include promotion announcements, statements, orders, and authorized product lists.

RIC

Record Integrity Check or RIC is a value that is transmitted as a part of each DEX/UCS transaction set, not just at the time of the transmission but, more importantly, after the data has been archived. The RIC is a CRC-16 checksum value, represented in hexadecimal, of all the data in the transaction set, beginning with the “ST” in the transaction set header segment, and ending with the line feed immediately preceding the “G85” segment.

GS1-US

The GS1 System Administrator in the United States or the GS1-US administers the U.P.C. and develops worldwide standards and solutions for identification numbers, data carriers, electronic commerce, and global data synchronization.

UCS

Uniform Communications Standard or UCS is an EDI standard that applies specifically to the grocery retail industry.

UCS/DSD

Uniform Communications Standard/Direct Store Delivery or UCS/DSD refers to the UCS which deals specifically with direct store delivery. Grocers hope to regain some of the lost inventory control by using UCS/DSD. They also hope to increase efficiency.

UPC

Universal Product Code or UPC is a bar code symbology used throughout the grocery and retail industries.



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