

**EANCOM<sup>®</sup> 2002 S4**

**Service Segments**

**Edition 2016 Upd. 2021**

Message Structure Chart ..... 2

Branching Diagram..... 3

Segments Description ..... 4

Segments Layout..... 5

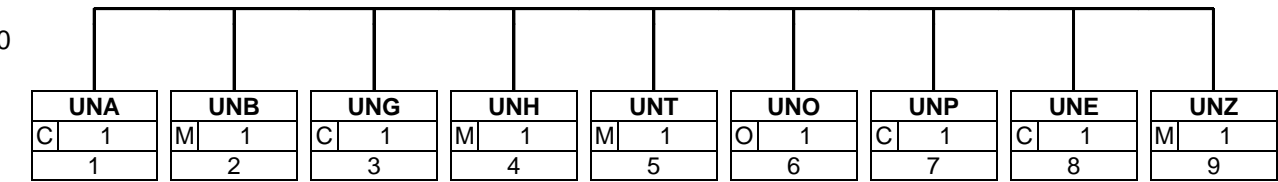
## 2. Message Structure Chart

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UNA	1	C	1	- Service string advice
UNB	2	M	1	- Interchange header
UNG	3	C	1	- Group header
UNH	4	M	1	- Message header
UNT	5	M	1	- Message trailer
UNO	6	O	1	- Object header
UNP	7	C	1	- Object trailer
UNE	8	C	1	- Group trailer
UNZ	9	M	1	- Interchange trailer

3. Branching Diagram

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#### 4. Segments Description

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UNA - C 1	- Service string advice This segment is used to inform the receiver of the interchange that a set of service string characters which are different to the default characters are being used.
UNB - M 1	- Interchange header This segment is used to envelope the interchange, as well as to identify both, the party to whom the interchange is sent and the party who has sent the interchange. The principle of the UNB segment is the same as a physical envelope which covers one or more letters or documents, and which details, both the address where delivery is to take place and the address from where the envelope has come.
UNG - C 1	- Group header Within EANCOM® the use of the UNG..UNE segments should not be used for grouping of multiple message types in the same interchange as this is not considered good practice. However, they can be used by organisations to create their own identifiable application level envelopes, which can be addressed from the originating department to a department in the recipient's system, e.g. to group multiple issuers in one transmission file with invoices.
UNH - M 1	- Message header
UNT - M 1	- Message trailer
UNO - O 1	- Object header The digital certificate will be attached using PKCS#7 format because it allows including more than one digital certificate (User Certificate and the Certification Chain). This file will be filtered using EDC or Hexadecimal filter. Once the file is filtered, the total number of bytes of the object to be attached will be obtained and detailed in DE0810.
UNP - C 1	- Object trailer This is segment used to check the completeness of an object and to end it.
UNE - C 1	- Group trailer Within EANCOM® the use of the UNG..UNE segments should not be used for grouping of multiple message types in the same interchange as this is not considered good practice. However, they can be used by organisations to create their own identifiable application level envelopes, which can be addressed from the originating department to a department in the recipient's system, e.g. to group multiple issuers in one transmission file with invoices.
UNZ - M 1	- Interchange trailer This segment is used to provide the trailer of an interchange.

## 5. Segments Layout

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### Notes:

1. The segments are presented in the sequence in which they appear in the message. The segment or segment group tag is followed by the (M)andatory / (C)onditional indicator, the maximum number of occurrences and the segment description.
2. Reading from left to right, in column one, the data element tags and descriptions are shown, followed by in the second column the EDIFACT status (M or C), the field format, and the picture of the data elements. These first pieces of information constitute the original EDIFACT segment layout.

Following the EDIFACT information, EANCOM® specific information is provided in the third, fourth, and fifth columns. In the third column a status indicator for the use of (C)onditional EDIFACT data elements (see 2.1 through 2.3 below), in the fourth column the restricted indicator (see point 3 on the following page), and in the fifth column notes and code values used for specific data elements in the message.

- 2.1 (M)andatory data elements in EDIFACT segments retain their status in EANCOM®.
- 2.2 Additionally, there are five types of status for data elements with a (C)onditional EDIFACT status, whether for simple, component or composite data elements. These are listed below and can be identified when relevant by the following abbreviations:

- REQUIRED	<b>R</b>	Indicates that the entity is required and must be sent.
- ADVISED	<b>A</b>	Indicates that the entity is advised or recommended.
- DEPENDENT	<b>D</b>	Indicates that the entity must be sent in certain conditions, as defined by the relevant explanatory note.
- OPTIONAL	<b>O</b>	Indicates that the entity is optional and may be sent at the discretion of the user.
- NOT USED	<b>N</b>	Indicates that the entity is not used and should be omitted.

- 2.3 If a composite is flagged as **N, NOT USED**, all data elements within that composite will have blank status indicators assigned to them.
3. Status indicators detailed in the fourth column which directly relate to the code values detailed in the fifth **column** may have two values:

- RESTRICTED	<b>*</b>	A data element marked with an asterisk (*) in the fourth column indicates that the listed codes in column five are the only codes available for use with this data element, in this segment, in this message.
- OPEN		All data elements where coded representation of data is possible and a restricted set of code values is not indicated are open (no asterisk in fourth column). The available codes are listed in the EANCOM® Data Elements and Code Sets Directory. Code values may be given as examples or there may be a note on the format or type of code to be used.

4. Different colours are used for the code values in the segment details: restricted codes are in red and open codes in blue.

## 5. Segments Layout

Segment number: 1

UNA - C 1 - Service string advice				
<p>Function:</p> <p>The service string advice shall begin with the upper case characters UNA immediately followed by six characters in the order shown below. The space character shall not be used in positions 010, 020, 040, 050 or 060. The same character shall not be used in more than one position of the UNA.</p>				
	EDIFACT	GS1	*	Description
UNA1 Component data element separator	M an1	<b>M</b>	*	Used as a separator between component data elements contained within a composite data element (default value: ":")
UNA2 Data element separator	M an1	<b>M</b>	*	Used to separate two simple or composite data elements (default value: "+" )
UNA3 Decimal mark	M an1	<b>M</b>	*	Used to indicate the character used for decimal notation (default value: ".")
UNA4 Release character	M an1	<b>M</b>	*	Used to restore any service character to its original specification (value: "?").
UNA5 Repetition separator	M an1	<b>M</b>	*	Used to indicate the character used for repetition separation (value: " * " ).
UNA6 Segment terminator	M an1	<b>M</b>	*	Used to indicate the end of segment data (default value: " ' " )
<p>Segment Notes:</p> <p>This segment is used to inform the receiver of the interchange that a set of service string characters which are different to the default characters are being used.</p> <p>When using the default set of service characters, the UNA segment need not be sent. If it is sent, it must immediately precede the UNB segment and contain the four service string characters (positions UNA1, UNA2, UNA4 and UNA6) selected by the interchange sender.</p> <p>Regardless of whether or not all of the service string characters are being changed every data element within this segment must be filled, (i.e., if some default values are being used with user defined ones, both the default and user defined values must be specified).</p> <p>When expressing the service string characters in the UNA segment, it is not necessary to include any element separators.</p> <p>The use of the UNA segment is required when using a character set other than level A.</p> <p>UNA:+.?*'</p>				

## 5. Segments Layout

Segment number: 2

UNB - M 1 - Interchange header				
Function: To identify an interchange.				
Notes: 1. S001/0002, shall be '4' to indicate this version of the syntax. 2. The combination of the values carried in data elements S002, S003 and 0020 shall be used to identify uniquely the interchange, for the purpose of acknowledgement.				
	EDIFACT	GS1	*	Description
S001 SYNTAX IDENTIFIER	M	M		See Part I chapter 5.2.7 and segment notes.
0001 Syntax identifier	Ma4	M	*	UNOA = UN/ECE level A UNOB = UN/ECE level B UNOC = UN/ECE level C UNOD = UN/ECE level D UNOE = UN/ECE level E UNOF = UN/ECE level F UNOG = UN/ECE level G UNOH = UN/ECE level H UNOI = UN/ECE level I UNOJ = UN/ECE level J UNOK = UN/ECE level K UNOW = UN/ECE level W UNOX = UN/ECE level X UNOY = UN/ECE level Y
0002 Syntax version number	Man1	M	*	4 = Version 4
0080 Service code list directory version number	Can..6	N		
0133 Character encoding, coded	Can..3	N		
S002 INTERCHANGE SENDER	M	M		
0004 Interchange sender identification	Man..35	M		GLN (n13)
0007 Identification code qualifier	Can..4	R	*	14 = GS1
0008 Interchange sender internal identification	Can..35	O		
0042 Interchange sender internal sub-identification	Can..35	N		
S003 INTERCHANGE RECIPIENT	M	M		
0010 Interchange recipient identification	Man..35	M		GLN (n13)
0007 Identification code qualifier	Can..4	R	*	14 = GS1
0014 Interchange recipient internal identification	Can..35	O		
0046 Interchange recipient internal sub-identification	Can..35	N		
S004 DATE AND TIME OF PREPARATION	M	M		
0017 Date	Mn8	M		CCYYMMDD
0019 Time	Mn4	M		HHMM
0020 Interchange control reference	Man..14	M		Unique reference identifying the interchange. Created

## 5. Segments Layout

Segment number: 2

		EDIFACT	GS1	*	Description
					by the interchange sender.
S005	RECIPIENT REFERENCE/ PASSWORD DETAILS	C	O		
0022	Recipient reference/password	Man..14	M		
0025	Recipient reference/password qualifier	C an2	O		
0026	Application reference	C an..14	O		Message identification if the interchange contains only one type of message.
0029	Processing priority code	C a1	O		A = Highest priority
0031	Acknowledgement request	C n1	O		1 = Requested
0032	Interchange agreement identifier	C an..35	O	*	EANCOM.....
0035	Test indicator	C n1	O		1 = Interchange is a test

### Segment Notes:

This segment is used to envelope the interchange, as well as to identify both, the party to whom the interchange is sent and the party who has sent the interchange. The principle of the UNB segment is the same as a physical envelope which covers one or more letters or documents, and which details, both the address where delivery is to take place and the address from where the envelope has come.

S001: The character encoding specified in basic code table of ISO/IEC 646 (7-bit coded character set for information interchange) shall be used for the interchange service string advice (if used) and up to and including the composite data element S001 'Syntax identifier' in the interchange header. The character repertoire used for the characters in an interchange shall be identified from the code value of data element 0001 in S001 'Syntax identifier' in the interchange header. The character repertoire identified does not apply to objects and/or encrypted data.

The default encoding technique for a particular repertoire shall be the encoding technique defined by its associated character set specification.

DE 0001: The recommended (default) character set for use in EANCOM® for international exchanges is character set A (UNOA). Should users wish to use character sets other than A, an agreement on which set to use should be reached on a bilateral basis before communications begin.

DE 0004, 0008, 0010 and 0014: Within EANCOM® the use of the Global Location Number (GLN) is recommended for the identification of the interchange sender and recipient.

DE 0008: Identification (e.g. a division) specified by the sender of the interchange, to be included if agreed, by the recipient in response interchanges, to facilitate internal routing.

DE 0014: The address for routing, provided beforehand by the interchange recipient, is used by the interchange sender to inform the recipient of the internal address, within the latter's systems, to which the interchange should be routed. It is recommended that the GLN be used for this purpose.

DE 0007: Identification (e.g. a division) specified by the recipient of the interchange, to be included if agreed, by the sender in response interchanges, to facilitate internal routing.

DE S004: The date and time specified in this composite should be the date and time at which the interchange sender prepared the interchange. This date and time may not necessarily be the same as the date and time of contained messages.

DE 0020: The interchange control reference number is generated by the interchange sender and is used to identify uniquely each interchange. Should the interchange sender wish to re-use interchange control reference numbers, it is recommended that each number be preserved for at least a period of three months before being re-used. In order to guarantee uniqueness, the interchange control reference number should always be linked to the interchange sender's identification (DE 0004).

DE S005: The use of passwords must first be agreed bilaterally by the parties exchanging the interchange.

DE 0026: This data element is used to identify the application, on the interchange recipient's system, to which the interchange is directed. This data element may only be used if the interchange contains only one type of message, (e.g. only invoices). The reference used in this data element is assigned by the interchange sender.

DE 0031: This data element is used to indicate whether an acknowledgement to the interchange is required. The EANCOM® APERAK or CONTRL message should be used to provide acknowledgement of interchange receipt. In addition, the EANCOM® CONTRL message may be used to indicate when an interchange has been rejected



## 5. Segments Layout

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Segment number: 2

due to syntax errors.

DE 0032: This data element is used to identify any underlying agreements which control the exchange of data. Within EANCOM®, the identity of such agreements must start with the letters 'EANCOM', the remaining characters within the data element being filled according to bilateral agreements.

UNB+UNOC:4+5412345678908:14+8798765432106:14+20020102:1000+12345555+++++EANCOMREF 52'

## 5. Segments Layout

Segment number: 3

<b>UNG</b> - C 1 - Group header				
Function: To head, identify and specify a group of messages and/or packages, which may be used for internal routing and which may contain one or more message types and/or packages.  Dependency Notes: 1. D2(010,060,070) All or none  Notes: 2. This data element is only used if the following conditions apply: i) the group contains messages only, and ii) the messages are of a single message type. 3. S004, if S004 is not present in UNG, the date and time of preparation is the same as indicated for the interchange in S004 in UNB. 4. This data element will be deleted from the UNG segment in the next version of the standard. Therefore its use in UNG is not recommended. 5. The combination of the values carried in data elements S006, S007 and 0048 shall be used to identify uniquely the group within its interchange, for the purpose of acknowledgement.				
	EDIFACT	GS1	*	Description
0038 Message group identification	C an..6	<b>C</b>		Identification of a message contained in the functional group, e.g. INVOIC.
S006 APPLICATION SENDER IDENTIFICATION	C	<b>C</b>		
0040 Application sender identification	M an..35	<b>M</b>		GLN (n13)
0007 Identification code qualifier	C an..4	<b>R</b>	*	14 = <b>GS1</b>
S007 APPLICATION RECIPIENT IDENTIFICATION	C	<b>C</b>		
0044 Application recipient identification	M an..35	<b>M</b>		GLN (n13)
0007 Identification code qualifier	C an..4	<b>R</b>	*	14 = <b>GS1</b>
S004 DATE AND TIME OF PREPARATION	C	<b>C</b>		
0017 Date	M n8	<b>M</b>		CCYYMMDD
0019 Time	M n4	<b>M</b>		HHMM
0048 Group reference number	M an..14	<b>M</b>		Unique reference identifying the functional group. Created by the interchange sender.
0051 Controlling agency, coded	C an..3	<b>C</b>	*	UN = <b>UN/CEFACT</b>
S008 MESSAGE VERSION	C	<b>C</b>		
0052 Message version number	M an..3	<b>M</b>	*	D = <b>Draft version/UN/EDIFACT Directory</b>
0054 Message release number	M an..3	<b>M</b>	*	The value of this data element depends on the message type. 01B = <b>Release 2001 - B</b>
0057 Association assigned code	C an..6	<b>R</b>		The value of this data element depends on the message type.
0058 Application password	C an..14	<b>D</b>		The use of this data element depends on agreements between the trading partners.
Segment Notes: Within EANCOM® the use of the UNG..UNE segments should not be used for grouping of multiple message				

## 5. Segments Layout

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Segment number: 3

types in the same interchange as this is not considered good practice. However, they can be used by organisations to create their own identifiable application level envelopes, which can be addressed from the originating department to a department in the recipient's system, e.g. to group multiple issuers in one transmission file with invoices.

UNG+INVOIC+5412345678908:14+8798765432106:14+20020102:1000+471123+UN+D:01B:EAN010'

## 5. Segments Layout

Segment number: 4

UNH - M 1 - Message header					
Function: To head, identify and specify a message.					
Notes: 1. Data element S009/0057 is retained for upward compatibility. The use of S016 and/or S017 is encouraged in preference. 2. The combination of the values carried in data elements 0062 and S009 shall be used to identify uniquely the message within its group (if used) or if not used, within its interchange, for the purpose of acknowledgement.					
		EDIFACT	GS1	*	Description
0062	Message reference number	M an..14	M		
S009	MESSAGE IDENTIFIER	M	M		
0065	Message type	M an..6	M		
0052	Message version number	M an..3	M		
0054	Message release number	M an..3	M		
0051	Controlling agency, coded	M an..3	M		
0057	Association assigned code	C an..6	C		
0110	Code list directory version number	C an..6	C		
0113	Message type sub-function identification	C an..6	C		
0068	Common access reference	C an..35	C		
S010	STATUS OF THE TRANSFER	C	C		
0070	Sequence of transfers	M n..2	M		
0073	First and last transfer	C a1	C		
S016	MESSAGE SUBSET IDENTIFICATION	C	C		
0115	Message subset identification	M an..14	M		
0116	Message subset version number	C an..3	C		
0118	Message subset release number	C an..3	C		
0051	Controlling agency, coded	C an..3	C		
S017	MESSAGE IMPLEMENTATION GUIDELINE IDENTIFICATION	C	C		
0121	Message implementation guideline identification	M an..14	M		
0122	Message implementation guideline version number	C an..3	C		
0124	Message implementation guideline release number	C an..3	C		
0051	Controlling agency, coded	C an..3	C		
S018	SCENARIO IDENTIFICATION	C	C		
0127	Scenario identification	M an..14	M		
0128	Scenario version number	C an..3	C		

## 5. Segments Layout

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Segment number: 4

	EDIFACT	GS1	*	Description
0130 Scenario release number	C an..3	<b>C</b>		
0051 Controlling agency, coded	C an..3	<b>C</b>		
Segment Notes:				

## 5. Segments Layout

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Segment number: 5

<b>UNT</b> - M 1 - Message trailer				
Function: To end and check the completeness of a message.  Notes: 1. 0062, the value shall be identical to the value in 0062 in the corresponding UNH segment.				
	EDIFACT	GS1	*	Description
0074	Number of segments in a message	M n..10	<b>M</b>	
0062	Message reference number	M an..14	<b>M</b>	
Segment Notes:				

## 5. Segments Layout

Segment number: 6

UNO - O 1 - Object header				
Function: To head, identify and specify an object.				
Notes: 1. The value in 0800 shall be unique within the interchange (except for a duplicate transfer). 2. One mandatory occurrence of S020 shall identify the Object Identification Number. 3. One occurrence of S021 is mandatory and shall be used for file format identification. 4. Data elements S302, S301, S300 and 0035 are for interactive EDI use only: - The value(s) in S302 shall be identical to the value(s) in S302 in the preceding UIB. - 0035, when used, test applies to the message or package only.				
		EDIFACT	GS1	* Description
0800	Package reference number	M an..35	<b>M</b>	Unique package reference number assigned by the sender
S020	REFERENCE IDENTIFICATION	M	<b>M</b>	
0813	Reference qualifier	M an..3	<b>M</b>	1 = <a href="#">Object identification number</a>
0802	Reference identification number	M an..35	<b>M</b>	Reference number to identify a group which relates to the object.
S021	OBJECT TYPE IDENTIFICATION	M	<b>M</b>	
0805	Object type qualifier	M an..3	<b>M</b>	48 = <a href="#">Filter type</a>
0809	Object type attribute identification	C an..256	<b>C</b>	EDA = <a href="#">UN/EDIFACT EDA filter (GS1 Permanent Code)</a> EDC = <a href="#">UN/EDIFACT EDC filter (GS1 Permanent Code)</a> HEX = <a href="#">Hexadecimal filter (GS1 Permanent Code)</a>
0808	Object type attribute	C an..256	<b>N</b>	
0051	Controlling agency, coded	C an..3	<b>N</b>	
S022	STATUS OF THE OBJECT	M	<b>M</b>	
0810	Length of object in octets of bits	M n..18	<b>M</b>	62 =
0814	Number of segments before object	C n..3	<b>C</b>	PCKS7 =
0070	Sequence of transfers	C n..2	<b>N</b>	
0073	First and last transfer	C a1	<b>N</b>	
S302	DIALOGUE REFERENCE	C	<b>C</b>	
0300	Initiator control reference	M an..35	<b>M</b>	Length of the object attached in bytes
0303	Initiator reference identification	C an..35	<b>N</b>	
0051	Controlling agency, coded	C an..3	<b>N</b>	
0304	Responder control reference	C an..35	<b>N</b>	
S301	STATUS OF TRANSFER - INTERACTIVE	C	<b>N</b>	
0320	Sender sequence number	C n..6		
0323	Transfer position, coded	C a1		
0325	Duplicate Indicator	C a1		
	DATE AND/OR TIME OF		<b>N</b>	

## 5. Segments Layout

Segment number: 6

	EDIFACT	GS1	*	Description
S300 INITIATION	C			
0338 Event date	C n..8			
0314 Event time	C an..15			
0336 Time offset	C n4			
0035 Test indicator	C n1	<b>N</b>		

### Segment Notes:

The digital certificate will be attached using PKCS#7 format because it allows including more than one digital certificate (User Certificate and the Certification Chain). This file will be filtered using EDC or Hexadecimal filter. Once the file is filtered, the total number of bytes of the object to be attached will be obtained and detailed in DE0810.

UNO+OB000001+1:CER123+46:EDC\*62:PKCS7+1238'

### Function:

To head, identify and specify an object.

### Notes:

1. The value in 0800 shall be unique within the interchange (except for a duplicate transfer).
2. One mandatory occurrence of S020 shall identify the Object Identification Number.
3. One occurrence of S021 is mandatory and shall be used for file format identification.
4. Data elements S302, S301, S300 and 0035 are for interactive EDI use only:
  - The value(s) in S302 shall be identical to the value(s) in S302 in the preceding UIB.
  - 0035, when used, test applies to the message or package only.



## 5. Segments Layout

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Segment number: 7

<b>UNP</b> - C 1 - Object trailer				
Function: To end and check the completeness of an object.				
Notes: 1. 0810, shall be identical to the value in data element 0810 in UNO. 2. 0800, shall be identical to the value in data element 0800 in UNO.				
	EDIFACT	GS1	*	Description
0810 Length of object in octets of bits	M n..18	<b>M</b>		This Data Element shall be identical to DE0810 of UNO segment.
0800 Package reference number	M an..35	<b>M</b>		This Data Element shall be identical to DE0800 of UNO segment.
Segment Notes: This is segment used to check the completeness of an object and to end it. UNP+1238+OB000001'				
Function: To end and check the completeness of an object.				
Notes: 1. 0810, shall be identical to the value in data element 0810 in UNO. 2. 0800, shall be identical to the value in data element 0800 in UNO.				

## 5. Segments Layout

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Segment number: 8

<b>UNE</b> - C 1 - Group trailer				
Function: To end and check the completeness of a group.				
Notes: 1. 0048, the value shall be identical to the value in 0048 in the corresponding UNG segment.				
	EDIFACT	GS1	*	Description
0060 Group control count	M n..6	<b>M</b>		Number of messages in the group.
0048 Group reference number	M an..14	<b>M</b>		Identical to DE 0048 in UNG segment.
Segment Notes: Within EANCOM® the use of the UNG..UNE segments should not be used for grouping of multiple message types in the same interchange as this is not considered good practice. However, they can be used by organisations to create their own identifiable application level envelopes, which can be addressed from the originating department to a department in the recipient's system, e.g. to group multiple issuers in one transmission file with invoices. UNE+25+471123'				

## 5. Segments Layout

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Segment number: 9

<b>UNZ</b> - M 1 - Interchange trailer				
<p>Function:</p> <p>To end and check the completeness of an interchange.</p> <p>Notes:</p> <p>1. 0020, the value shall be identical to the value in 0020 in the corresponding UNB segment.</p>				
	EDIFACT	GS1	*	Description
0036 Interchange control count	M n..6	<b>M</b>		Number of messages or functional groups within an interchange.
0020 Interchange control reference	M an..14	<b>M</b>		Identical to DE 0020 in UNB segment.
<p>Segment Notes:</p> <p>This segment is used to provide the trailer of an interchange.</p> <p>DE 0036: If functional groups are used, this is the number of functional groups within the interchange. If functional groups are not used, this is the number of messages within the interchange.</p> <p>UNZ+5+1234555'</p>				