



A Technical Bulletin

in support of

ISBT 128

Bulletin Number 10

**Valid and Invalid Bar Codes
for use in *ISBT 128* Validations**

July 2009

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1 Introduction

This technical bulletin provides:

- guidance to help software developers and their customers understand *ISBT 128* data structures;
- usable bar codes for software validation, to help verify the correct operation of software when reading valid and invalid information.

A complete understanding of *ISBT 128* data structures is recommended in order to fully utilize the process control features inherent to each individual *ISBT 128* bar code. For the purposes of validation, facility identification numbers A9991 through A9999 have been reserved and are not associated with any existing facility.

The **valid** bar codes included in this document contain proper *ISBT 128* messages that follow the data structure formats outlined in the *ISBT 128 Standard Technical Specification*. Interpretation of the messages encoded in these bar codes requires understanding of the pertinent *ISBT 128* data structures.

The **invalid** bar codes included in this document contain messages that are intentionally encoded improperly and contain data structures that **do not** follow the *ISBT 128* data structure formats outlined in the *ISBT 128 Standard Technical Specification*. When set up correctly, the user's software system should recognize the discrepancies in the messages and reject the bar codes.

It is recommended that both valid and invalid bar codes be used to validate the user's system when implementing *ISBT 128*. Users should be aware of the limitations of their system and have viable workaround procedures for the specific types of bar codes that are not supported by their system.

2 ISBT 128 Data Structures

ISBT 128 data structures are composed of a data identifier and data content.

- The data identifier is the first two characters in a data structure that identify the data structure. These will always be present when the data structure is used as a bar code, but may be omitted when the data structure is used in situations in which the data structure identity is unambiguously and explicitly defined (the donation identification number is an exception to this rule).
- The data content is made up of the characters in a data structure that encode the information for which the data structure is named. The data content does not include the data identifier (again the donation identification number is an exception to this rule).

The following is an extract from the ISBT 128 Standard Technical Specification v3.6.0.

2.1 Data Identifiers

Each *ISBT 128* data structure, with the exception of the Donation Identification Number, begins with a two character data identifier that serves to identify the data structure. The first character of the data identifier is always = or & . The second character of the data identifier is a non alphanumeric ASCII character. Table 3 of the *ISBT 128 Technical Specification v3.5.1* shows a complete list of data identifiers with their corresponding data structures.

The exception to the above system is the Donation Identification Number that has a first data identifier character of = and a second data identifier character that can be any of the alphanumeric characters 1–9, A–N, P–Z (but not a–z). Note that for this data structure only, the second data identifier character is also the first character of the data content.

2.1.2 The Role of Data Identifiers in *ISBT 128* Bar Codes

Data identifier characters are for use in circumstances in which the context of the data structure presentation makes it necessary to also indicate the nature of the information being conveyed. In bar codes the data identifiers are essential to ensure correct interpretation.

In order to accurately interpret information from an *ISBT 128* bar code it is essential that application software carry out the following steps before interpreting the data values:

1. Analyze the data identifier characters to ensure that the bar code entered is of the correct type;
2. Verify that the length of the data content match that defined for the corresponding data structure;

3. Verify that the format of the data characters match that defined for the corresponding data structure.

Failure to carry out these checks could lead to incorrect assignment of critical information.

The following example illustrates this.

An *ISBT 128* ABO/Rh Blood Group's bar code for an A, RhD Positive unit will read as:

=%6200

where “=%” are the data identifier characters indicating that this is an ABO/Rh Blood Groups data structure, and “6200” are the data content values for A, RhD Positive.


A Special Testing (Red Blood Cell Antigens) bar code on a Group O, RhD negative unit could have the value:

=\620000000000000000


If the data identifier characters are ignored by the application software, entry of this second bar code in response to a blood groups prompt could cause the system to incorrectly assign the unit as A, RhD Positive.

3 Valid Linear Bar Codes


1)

Donation Identification Number (Data Structure 001)			
	Data Identifier	Data Content	Check Character
		=	A99990812345600
Complete message encoded in bar code: =A99990812345600			


2)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	9500
Complete message encoded in bar code: =%9500			


3)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	5100
Complete message encoded in bar code: =%5100			


4)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	0600
Complete message encoded in bar code: =%0600			


5)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	6200
Complete message encoded in bar code: =%6200			


6)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	1700
Complete message encoded in bar code: =%1700			


7)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	7300
Complete message encoded in bar code: =%7300			


8)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	2800
Complete message encoded in bar code: =%2800			


9)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	8400
Complete message encoded in bar code: =%8400			


10)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	9700
Complete message encoded in bar code: =%9700			


11)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	6500
Complete message encoded in bar code: =%6500			


12)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	6900
Complete message encoded in bar code: =%6900			


13)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	2700
Complete message encoded in bar code: =%2700			


14)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	4800
Complete message encoded in bar code: =%4800			


15)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	5500
Complete message encoded in bar code: =%5500			


16)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	6600
Complete message encoded in bar code: =%6600			


17)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	7700
Complete message encoded in bar code: =%7700			


18)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	8800
Complete message encoded in bar code: =%8800			


19)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	A000
Complete message encoded in bar code: =%A000			


20)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	E000
Complete message encoded in bar code: =%E000			


21)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	G000
Complete message encoded in bar code: =%G000			


22)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	H000
Complete message encoded in bar code: =%H000			


23)

Blood Groups ABO and RhD (Data Structure 002)			
	Data Identifier	Data Content	Interpretation
		=%	51E0
Complete message encoded in bar code: =%51E0			


24)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
		=<	E0150V00
Complete message encoded in bar code: =<E0150V00			


25)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
		=<	E00311A0
Complete message encoded in bar code: =<E00311A0			


26)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
		=<	E0624XBa
Complete message encoded in bar code: =<E0624XBa			


27)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
		=<	E2560DA0
Complete message encoded in bar code: =<E2560DA0			


28)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
		=<	E51914Aa
Complete message encoded in bar code: =<E51914Aa			


29)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
		=<	E0821V00
Complete message encoded in bar code: =<E0821V00			


30)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
		=<	E0471V00
Complete message encoded in bar code: =<E0471V00			


31)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
		=<	E3071V00
Complete message encoded in bar code: =<E3071V00			


32)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
		=<	E4129V00
Complete message encoded in bar code: =<E4129V00			


33)

Expiration Date (Data Structure 004)			
	Data Identifier	Data Content	Interpretation
		=>	012060
Complete message encoded in bar code: =>012060			


34)

Expiration Date (Data Structure 004)			
	Data Identifier	Data Content	Interpretation
		=>	012366
Complete message encoded in bar code: =>012366			


35)

Expiration Date (Data Structure 004)			
	Data Identifier	Data Content	Interpretation
		=>	009060
Complete message encoded in bar code: =>009060			


36)

Expiration Date (Data Structure 004)			
	Data Identifier	Data Content	Interpretation
		=>	009365
Complete message encoded in bar code: =>009365			


37)

Expiration Date (Data Structure 004)			
	Data Identifier	Data Content	Interpretation
		=>	010001
Complete message encoded in bar code: =>010001			


38)

Expiration Date and Time (Data Structure 005)			
	Data Identifier	Data Content	Interpretation
		&>	0120602359
Complete message encoded in bar code: &>0120602359			


39)

Expiration Date and Time (Data Structure 005)			
	Data Identifier	Data Content	Interpretation
		&>	0123661300
Complete message encoded in bar code: &>0123661300			


40)

Expiration Date and Time (Data Structure 005)			
	Data Identifier	Data Content	Interpretation
		&>	0090600001
Complete message encoded in bar code: &>0090600001			


41)

Expiration Date and Time (Data Structure 005)			
	Data Identifier	Data Content	Interpretation
		&>	0093650959
Complete message encoded in bar code: &>0093650959			


42)

Collection Date (Data Structure 006)			
	Data Identifier	Data Content	Interpretation
		=*	008060
Complete message encoded in bar code: =*008060			


43)

Collection Date (Data Structure 006)			
	Data Identifier	Data Content	Interpretation
		=*	008366
Complete message encoded in bar code: =*008366			


44)

Collection Date (Data Structure 006)			
	Data Identifier	Data Content	Interpretation
		=*	007060
Complete message encoded in bar code: =*007060			


45)

Collection Date (Data Structure 006)			
	Data Identifier	Data Content	Interpretation
		=*	007365
Complete message encoded in bar code: =*007365			


46)

Collection Date and Time (Data Structure 007)			
	Data Identifier	Data Content	Interpretation
		&*	0080601200
Complete message encoded in bar code: &*0080601200			


47)

Production Date (Data Structure 008)			
	Data Identifier	Data Content	Interpretation
		=}	008060
Complete message encoded in bar code: =)008060			


48)

Production Date and Time (Data Structure 009)			
	Data Identifier	Data Content	Interpretation
		&}	0080601200
Complete message encoded in bar code: &}0080601200			


49)

Special Testing: General (Data Structure 010)			
	Data Identifier	Data Content	Interpretation
		&(N0008
Complete message encoded in bar code: &(N0008			


50)

Special Testing: Red Blood Cell Antigens – General (Data Structure 012)				
	Data Identifier	Data Content	Interpretation	Check Character
		=\	486881355800000199	C+c+E+e+ K+k+ Cw+ M+N+ S+s+ P1- Lu(a-) Le(a-b+) Fy(a-b+) Jk(a+b+) CMV-
Complete message encoded in bar code: =\486881355800000199				


51)

Special Testing: Red Blood Cell Antigens – Finnish (Data Structure 013)				
	Data Identifier	Data Content	Interpretation	Check Character
		&\	486881355800000199	C+c+E+e+ K+k+ Cw+ M+N+ S+s+ P1- Lu(a-) Le(a-b+) Fy(a-b+) Jk(a+b+) CMV-
Complete message encoded in bar code: &\486881355800000199				


52)

Special Testing: Platelet HLA and Platelet Specific Antigens (Data Structure 014)				
	Data Identifier	Data Content	Interpretation	Check Character
	&{	02240827999999900	HLA-A2, 24; B8, 27	S
Complete message encoded in bar code: &{02240827999999900				


53)

Special Testing: Platelet HLA-A and -B Alleles (Data Structure 015)				
	Data Identifier	Data Content	Interpretation	Check Character
	=[010302010702270519	HLA-A*0103, 0201; B*0702, 2705; CMV negative	K
Complete message encoded in bar code: =[010302010702270519				


54)

Special Testing: Platelet HLA-DRB1 Alleles (Data Structure 016)				
	Data Identifier	Data Content	Interpretation	Check Character
	="	10011501999999999	DRB1*1001,1501	L
Complete message encoded in bar code: ="10011501999999999				


55)

Container Manufacturer and Catalog Number (Data Structure 017)			
	Data Identifier	Data Content	Interpretation
	=)	1BA0012345	Whole Blood Collection Set; Baxter Catalog Number
Complete message encoded in bar code: =)1BA0012345			


56)

Container Lot Number (Data Structure 018)			
	Data Identifier	Data Content	Interpretation
	&)	00001234rZ	Container Lot Number = 1234rZ
Complete message encoded in bar code: &)00001234rZ			


57)

Donor Identification Number (Data Structure 019)				
	Data Identifier	Data Content	Interpretation	Check Character
	=;	A99990000001234567890	A9999; ID 1234567890	0
Complete message encoded in bar code: =;A99990000001234567890				


58)

Staff Member Identification Number (Data Structure 020)			
	Data Identifier	Data Content	Interpretation
		='	A999900395A
Complete message encoded in bar code: ='A999900395A			


59)

Manufacturer and Catalog Number: Items Other Than Containers (Data Structure 021)			
	Data Identifier	Data Content	Interpretation
		=-	BA00123456
Complete message encoded in bar code: =-BA00123456			


60)

Lot Number: Items Other Than Containers (Data Structure 022)			
	Data Identifier	Data Content	Interpretation
		&-	0000120407
Complete message encoded in bar code: &-0000120407			


61)

Patient Date of Birth (Data Structure 024)			
	Data Identifier	Data Content	Interpretation
		=#	0119900315
Complete message encoded in bar code: =#0119900315			

62)


Patient Identification Number (Data Structure 025)			
	Data Identifier	Data Content	Interpretation
		&#	0510JD12345678
Complete message encoded in bar code: ǾJD12345678			

63)


Expiration Month and Year (Data Structure 026)			
	Data Identifier	Data Content	Interpretation
		=]	201212
Complete message encoded in bar code: =]201212			

4 Invalid Linear Bar Codes


1)

INVALID MESSAGE: wrong data identifier used		
	Donation Identification Number (DIN)	
	Incorrect Data Identifier	Data Content
	X	A99990812345600
Invalid message encoded in the bar code: XA99990812345600		
Corrected message for comparison: =A99990812345600		


2)

INVALID MESSAGE: wrong data identifier used		
	ABO/Rh	
	Incorrect Data Identifier	Data Content
	=1	9500
Invalid message encoded in the bar code: =19500		
Corrected message for comparison: =%9500		


3)

INVALID MESSAGE: wrong data identifier used		
	Product Code	
	Incorrect Data Identifier	Data Content
	A1	E0150V00
Invalid message encoded in the bar code: A1E0150V00		
Corrected message for comparison: =<E0150V00		


4)

INVALID MESSAGE: wrong data identifier used		
	Expiration Date and Time	
	Incorrect Data Identifier	Data Content
	X>	0100311530
Invalid message encoded in the bar code: X>0100311530		
Corrected message for comparison: &>0100311530		


5)

INVALID MESSAGE: wrong data identifier used		
	Collection Date and Time	
	Incorrect Data Identifier	Data Content
	=X	0080011300
Invalid message encoded in the bar code: =X0080011300		
Corrected message for comparison: &*0080011300		


6)

INVALID MESSAGE: wrong coding values used		
	Donation Identification Number (DIN)	
	Data Identifier	Incorrect Data Content
	=	a99990812345699
Invalid message encoded in the bar code: =a99990812345699		
Corrected message for comparison: =A99990812345600		


7)

INVALID MESSAGE: wrong coding values used		
	ABO/Rh	
	Data Identifier	Incorrect Data Content
	=%	9501
Invalid message encoded in the bar code: =%9501		
Corrected message for comparison: =%9500		


8)

INVALID MESSAGE: wrong coding values used		
	Product Code	
	Data Identifier	Incorrect Data Content
	=<	G0150V00
Invalid message encoded in the bar code: =<G0150V00		
Corrected message for comparison: =<E0150V00		


9)

INVALID MESSAGE: wrong coding values used		
	Product Code	
	Data Identifier	Incorrect Data Content
	=<	E0150V aB
Invalid message encoded in the bar code: =<E0150V aB		
Corrected message for comparison: =<E0150V Ab		


10)

INVALID MESSAGE: wrong coding values used		
	Expiration Date and Time	
	Data Identifier	Incorrect Data Content
	&>	010 366 2359
Invalid message encoded in the bar code: &>010 366 2359		
Corrected message for comparison: &>010 365 2359		


11)

INVALID MESSAGE: wrong coding values used		
	Expiration Date and Time	
	Data Identifier	Incorrect Data Content
	&>	010365 2400
Invalid message encoded in the bar code: &>010365 2400		
Corrected message for comparison: &>010365 2359		


12)

INVALID MESSAGE: wrong coding values used		
	Collection Date and Time	
	Data Identifier	Incorrect Data Content
	&*	007 366 2359
Invalid message encoded in the bar code: &*007 366 2359		
Corrected message for comparison: &*007 365 2359		


13)

INVALID MESSAGE: wrong coding values used		
	Collection Date and Time	
	Data Identifier	Incorrect Data Content
	&*	007365 2400
Invalid message encoded in the bar code: &*007365 2400		
Corrected message for comparison: &*007365 2359		


14)

INVALID MESSAGE: wrong message lengths (too short)		
	Donation Identification Number (DIN)	
	Data Identifier	Incorrect Data Content
	=	A999908123456
Invalid message encoded in the bar code: =A999908123456		
Corrected message for comparison: =A99990812345600		


15)

INVALID MESSAGE: wrong message lengths (too long)		
	Donation Identification Number (DIN)	
	Data Identifier	Incorrect Data Content
	=	A999908123456123
Invalid message encoded in the bar code: =A999908123456123		
Corrected message for comparison: = A99990812345612		


16)

INVALID MESSAGE: wrong message lengths (too short)		
	ABO/Rh	
	Data Identifier	Incorrect Data Content
	=%	95
Invalid message encoded in the bar code: =%95		
Corrected message for comparison: =%9500		


17)

INVALID MESSAGE: wrong message lengths (too long)		
	ABO/Rh	
	Data Identifier	Incorrect Data Content
	=%	=%95000
Invalid message encoded in the bar code: =%95000		
Corrected message for comparison: =%9500		


18)

INVALID MESSAGE: wrong message lengths (too short)		
	Product Code	
	Data Identifier	Incorrect Data Content
	=<	E0150
Invalid message encoded in the bar code: =<E0150		
Corrected message for comparison: =<E0150V00		


19)

INVALID MESSAGE: wrong message lengths (too long)		
	Product Code	
	Data Identifier	Incorrect Data Content
	=<	E0150V000
Invalid message encoded in the bar code: =<E0150V000		
Corrected message for comparison: =<E0150V00		


20)

INVALID MESSAGE: wrong message lengths (too short)		
	Expiration Date and Time	
	Data Identifier	Incorrect Data Content
	&>	010030120
Invalid message encoded in the bar code: &>010030120		
Corrected message for comparison: &>0100301200		


21)

INVALID MESSAGE: wrong message lengths (too long)		
	Expiration Date and Time	
	Data Identifier	Incorrect Data Content
	&>	01003012000
Invalid message encoded in the bar code: &>01003012000		
Corrected message for comparison: &>0100301200		

22)


INVALID MESSAGE: wrong message lengths (too short)		
	Collection Date and Time	
	Data Identifier	Incorrect Data Content
	&*	010030120
Invalid message encoded in the bar code: &*010030120		
Corrected message for comparison: &*0100301200		

23)


INVALID MESSAGE: wrong message lengths (too long)		
	Collection Date and Time	
	Data Identifier	Incorrect Data Content
	&*	01003012000
Invalid message encoded in the bar code: &*01003012000		
Corrected message for comparison: &*0100301200		

5 Valid Data Matrix Bar Codes


1)

	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+02001
	001	DIN	=A99990812345600
	003	Product Code	=<E0150V00
Complete Message: =+02001=A99990812345600=<E0150V00			


2)

	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+02002
	001	DIN	=A99990812345600
	002	ABO/Rh	=%5100
Complete Message: =+02002=A99990812345600=%5100			


3)

	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+04003
	001	DIN	=A99990812345600
	002	ABO/Rh	=%5100
	003	Product Code	=<E0150V00
	005	Expiration Date/Time	&>0090312359
Complete Message: =+04003=A99990812345600=%5100=<E0150V00&>0090312359			

4)


	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+03004
	001	DIN	=A99990812345600
	003	Product Code	=<E0150V00
	005	Expiration Date/Time	&>0090312359
Complete Message: =+03004=A99990812345600=<E0150V00&>0090312359			

5)

	Data Structures Contained	
	Data Structure & Number	Message
023	Compound Message	+=02005
017	Container Mnfctr. & Catalog Number	=)1FE0012345
018	Container Lot No.	&)0508081730


Complete Message:
+=02005=)1FE0012345&)0508081730

6)

	Data Structures Contained	
	Data Structure & Number	Message
023	Compound Message	+=02006
024	Patient Date of Birth	=#0119781204
025	Patient Identification#	�


Complete Message:
+=02006=#0119781204�
NOTE: Data Structure 025 can be variable in length

7)

	Data Structures Contained	
	Data Structure & Number	Message
023	Compound Message	+=03000
001	DIN	=A99990812345600
003	Product Code	=<E0150V00
002	ABO/Rh	=%5100


Complete Message:
+=03000=A99990812345600=<E0150V00=%5100

8)

	Data Structures Contained	
	Data Structure & Number	Message
023	Compound Message	+=05000
001	DIN	=A99990812345600
002	ABO/Rh	=%5100
003	Product Code	=<E0150V00
005	Expiration Date/Time	&>0090312359
010	Special Testing: General	&(N0008

Complete Message:
+=05000=A99990812345600=%5100=<E0150V00&>0090312359&(N0008


9)

	Data Structures Contained	
	Data Structure & Number	Message
023	Compound Message	+=03000
001	DIN	=A99990812345600
003	Product Code	=<E0150V00
006	Collection Date	=*008060


Complete Message:
+=03000=A99990812345600=<E0150V00=*008060

6 Invalid Data Matrix Bar Codes


1)

INVALID MESSAGE: wrong data identifiers used			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	X+02001
	001	DIN	=A99990812345600
003	Product Code	&1E0150V00	
Invalid message encoded in the bar code: X+02001=A99990812345600&1E0150V00			
Corrected message for comparison: =+02001=A99990812345600=<E0150V00			


2)

INVALID MESSAGE: wrong coding values used			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+02002
	001	DIN	=a99990812345600
002	ABO/Rh	=%510A	
Invalid message encoded in the bar code: =+02002=a99990812345600=%510A			
Corrected message for comparison: =+02002=A99990812345600=%5100			


3)

INVALID MESSAGE: wrong message lengths			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+04003
	001	DIN	=A999908123456
	002	ABO/Rh	=%51000
	003	Product Code	=<E0150
005	Expiration Date/Time	&>0090312359	
Invalid message encoded in the bar code: =+04003=A999908123456=%51000=<E0150&>0090312359			
Corrected message for comparison: =+04003=A99990812345600=%5100=<E0150V00&>0090312359			


4)

INVALID MESSAGE: wrong data structure message order			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+03004
	003	Product Code	=<E0150V00
	005	Expiration Date/Time	&>0090312359
001	DIN	=A99990812345600	
Invalid message encoded in the bar code: =+03004=<E0150V00&>0090312359=A99990812345600			
Corrected message for comparison: =+03004=A99990812345600=<E0150V00&>0090312359			


5)

INVALID MESSAGE: incorrect reference to Table W2 (wrong data structures used)			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+02005
	017	Container Mnfr. & Catalog Number	=)1FE0012345
022	Lot No: Noncontainer	&-0508081730	
Invalid message encoded in the bar code: =+02005=)1FE0012345&-0508081730 NOTE: The wrong lot number data structure was used. Table W2 specifies that 005 should use data structures 017 and 018.			
Corrected message for comparison: =+02005=)1FE0012345&)0508081730			


6)

INVALID MESSAGE: wrong data identifier and wrong message length			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	XX02006
	024	Patient Date of Birth	=#011978124
025	Patient Hosp. ID No.	�	
Invalid message encoded in the bar code: XX02006=#011978124� NOTE: Data Structure 025 can be variable in length			
Corrected message for comparison: =+02006=#0119781204�			


7)

INVALID MESSAGE: wrong number of data structures (too few)			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+04000
	001	DIN	=A99990812345600
	003	Product Code	=<E0150V00
002	ABO/Rh	=%5100	
Invalid message encoded in the bar code: =+04000=A99990812345600=<E0150V00=%5100			
Corrected message for comparison: =+03000=A99990812345600=<E0150V00=%5100			


8)

INVALID MESSAGE: wrong number of data structures (too many)			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+04000
	001	DIN	=A99990812345600
	002	ABO/Rh	=%5100
	003	Product Code	=<E0150V00
	005	Expiration Date/Time	&>0090312359
010	Special Testing: General	&(N0008	
Invalid message encoded in the bar code: =+04000=A99990812345600=%5100=<E0150V00&>0090312359&(N0008			
Corrected message for comparison: =+05000=A99990812345600=%5100=<E0150V00&>0090312359&(N0008			


9)

INVALID MESSAGE: wrong number of data structures (too many)			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+02002
	001	DIN	=A99990812345600
	002	ABO/Rh	=%5100
005	Expiration Date/Time	&>0090312359	
Invalid message encoded in the bar code: =+02002=A99990812345600=%5100&>0090312359			
Corrected message for comparison: =+02002=A99990812345600=%5100			

10)

INVALID MESSAGE: wrong coding values used			
	Data Structures Contained		
	Data Structure & Number	Message	
	023	Compound Message	=+03000
	001	DIN	=A99990812345699
	003	Product Code	=<E0150VaB
006	Collection Date	=*008060	
Invalid message encoded in the bar code: =+03000=A99990812345699=<E0150VaB=*008060			
Corrected message for comparison: =+03000=A99990812345600=<E0150VAb=*008060			

11)

INVALID MESSAGE: inconsistent location codes within the same message		
	Data Structures Contained	
	Data Structure & Number	Message
	023	Compound Message =+02006
	024	Patient Date of Birth =#0119781204
025	Patient Identification# �	
Invalid message encoded in the bar code: =+02006=#0119781204�		
Corrected message for comparison: =+02006=#0119781204� or =+02006=#0519781204� NOTE: Data Structure 025 can be variable in length		