



IMPLEMENTATION GUIDE

ISBT 128 Bar Codes: Valid and Invalid Examples

Version 1.1.0

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1 Introduction

1.1 Purpose

The bar code examples provided in this guidance document are intended to assist users in evaluating the capabilities of their ISBT 128 bar code reading software.

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.

This guidance should be used in conjunction with the latest version of the *ISBT 128 Standard Technical Specification (ST-001)*, and the intended audience should already be familiar with the specifications of the Standard and have a comprehensive understanding of ISBT 128 data structures.

1.2 Scope

This document provides usable bar codes to help evaluate the operation of software when reading valid and invalid information. It is not intended to provide programming scripts for system configurations, but rather to test a system configuration.

The valid bar codes included in this guidance contain messages that include a valid ISBT 128 data identifier and a data string that complies with the format, syntax, and application of the data structure associated with the data identifier.

The invalid bar codes included in this guideline contain messages that include syntax-related errors, such as the use of unallowable coding values or the incorrect data message length, as defined by the specifications for the data structure.

This document is a supplement to *A Validation Tool for ISBT 128 Data Structures (IG-043)* and is intended to provide bar code examples only. For additional bar code examples and information pertaining to ISBT 128 compliance (e.g., information pertinent to features/elements unique to a data structure), see IG-043.

Note: *A Validation Tool for ISBT 128 Data Structures (IG-043) will eventually include information for all of the data structures used for the bar code examples provided herein (IG-013). Until then, IG-013 will remain available to users as an additional reference. Bar code examples will no longer be added to this document.*

1.3 Intended Audience

The intended audience for this document is as follows:

- Users of ISBT 128 (e.g., staff of facilities utilizing, or planning to utilize, the ISBT 128 Standard).
- ICCBBA-licensed vendors (e.g., software developers, label vendors, etc.).
- Other interested parties (e.g., regulators, auditors, etc.).

1.4 Normative References

ICCBBA: www.iccbba.org

ISBT 128 Standard Technical Specification (ST-001)

American National Standards Institute (ANSI): webstore.ansi.org

ANSI MH10.8.2:2010, Data Identifier and Application Identifier Standard (18 May 2010)

International Standards Organization (ISO):
[\[https://www.iso.org/store.html\]](https://www.iso.org/store.html)

1.5 Other Reference

The following guidelines are maintained on the ICCBBA website (www.iccbba.org):

A Validation Tool for ISBT 128 Data Structures (IG-043)

1.6 Background

ISBT 128 is a comprehensive standard for the transfer of information associated with transfusion and transplantation. The standard defines the specific rules about how data can be expressed in ISBT 128 data structures. In some cases, the standard allows options in order to support varying operational practice in a structured manner.

Computer systems that use ISBT 128 will in general have a high level of compliance with the ISBT 128 Standard, but there may be some limitations either due to the software itself or to the local configuration. Examples of such limitations may be:

- Limited support for options allowed within the ISBT 128 Standard.
- Use of national codes which cannot be interpreted internationally, or non-standard implementation of ISBT 128.
- Failure to fully implement all of the safety features provided by the ISBT 128 Standard.

Users of computer systems which use ISBT 128 need to ensure that they have a good understanding of the degree of compliance to the ISBT 128 Standard offered by the computer system. Users should also be aware of the implications if their software does not support all areas of the standard or if their software does not comply with parts of the standard.


1.7 Changes in this Version

The following table indicates the major changes between Version 1.0.0 and Version 1.1.0.


	Version 1.0.0	Version 1.1.0	Change	Rationale
1.	Title	Title	The title of the document was changed from <i>Technical Bulletin 10: Valid and Invalid Bar Codes for use in ISBT 128 Validations to Implementation Guide: ISBT 128 Bar Codes: Valid and Invalid Examples</i> .	This document is intended to provide additional bar code examples only and a supplement to IG-043.
2.	Section 1	Section 1	Section 1 was modified and now includes the following subsections: Purpose, Scope, Intended Audience, Normative References, Other Reference, and Background.	To align with the structure of ISBT 128 Implementation Guidelines and to provide clarification with regard to the purpose of this document.
3.		Section 1.2	A <i>note</i> was added to inform users that bar code examples will no longer be added to this document (IG-013).	See Section 1.2 herein.
4.	Section 2		Section 2 “ISBT 128 Data Structures” was removed.	This document is now intended to provide bar code examples only, users should reference <i>A Validation Tool for ISBT 128 Data Structures</i> (IG-043) for a summary on ISBT 128 data structures and data identifiers.

2 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	WHOLE BLOOD CPD/500mL/refg Irradiated; Autologous use only Divided Product (Part A0)
Complete message encoded in bar code: =<E00311A0			


26)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
	=<	E0624XBa	Apheresis RED BLOOD CELLS CP2D>AS3/XX/refg Open; Autologous Biohazard Donation; Divided Product (Part Ba)
Complete message encoded in bar code: =<E0624XBa			


27)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
	=<	E2560DA0	PLASMA CPDA-1/XX/<=-18C; Directed Donation; Divided Product (Part A0)
Complete message encoded in bar code: =<E2560DA0			


28)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
	=<	E51914Aa	FRESH FROZEN PLASMA CPD/XX/<=-18C ResLeu:<5log6; Designated Donation; Divided Product (Part Aa)
Complete message encoded in bar code: =<E51914Aa			

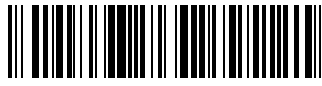
29)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
	=<	E0821V00	Thawed FRESH FROZEN PLASMA ACD-A/XX/refg; Volunteer Allogeneic Donation; Undivided Product
Complete message encoded in bar code: =<E0821V00			


30)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
	=<	E0471V00	Washed RED BLOOD CELLS None/450mL/refg Open; Volunteer Allogeneic Donation; Undivided Product
Complete message encoded in bar code: =<E0471V00			


31)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
	=<	E3071V00	Apheresis PLATELETS ACD-A/XX/20-24C Irradiated 1st container; Volunteer Allogeneic Donation; Undivided Product
Complete message encoded in bar code: =<E3071V00			


32)

Product Code (Data Structure 003)			
	Data Identifier	Data Content	Interpretation
	=<	E4129V00	POOLED PLATELETS NS/XX/20-24C Open ResLeu:<1log6; Volunteer Allogeneic Donation; Undivided Product
Complete message encoded in bar code: =<E4129V00			


33)

Expiration Date (Data Structure 004)			
	Data Identifier	Data Content	Interpretation
	=>	012060	29 FEB 2012
Complete message encoded in bar code: =>012060			


34)

Expiration Date (Data Structure 004)			
	Data Identifier	Data Content	Interpretation
	=>	012366	31 DEC 2012
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
		&{	022408279999999900	HLA-A2, 24; B8, 27
Complete message encoded in bar code: &{022408279999999900				


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
Complete message encoded in bar code: =[010302010702270519				

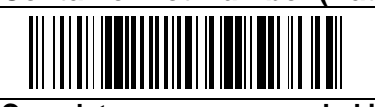
54)

Special Testing: Platelet HLA-DRB1 Alleles (Data Structure 016)				
	Data Identifier	Data Content	Interpretation	Check Character
		="	100115019999999999	DRB1*1001,1501
Complete message encoded in bar code: ="100115019999999999				


55)

Container Manufacturer and Catalog Number (Data Structure 017)			
	Data Identifier	Data Content	Interpretation
		=)	1BA0012345
Complete message encoded in bar code: =)1BA0012345			


56)

Container Lot Number (Data Structure 018)			
	Data Identifier	Data Content	Interpretation
		&)	00001234rZ
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
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			

3 Invalid Linear Bar Codes


1)

INVALID MESSAGE: wrong data identifier used		
	<i>Donation Identification Number (DIN)</i>	
	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		
	<i>ABO/Rh</i>	
	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		
	<i>Product Code</i>	
	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		
	<i>Expiration Date and Time</i>	
	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		

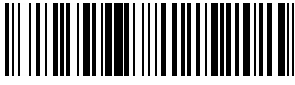
19)

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		

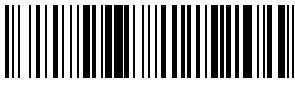
21)

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		

4 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			

5 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 Mnfctr. & 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			

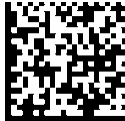
8)

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			