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POCKET MEMO

DPM8500

Barcode scanner configuration guide

PHILIPS

Table of contents

1 Introduction

This booklet describes the programmable parameters, and provides bar codes for programming the Pocket Memo dictation recorder with barcode scanner.

Operational Parameters

The Pocket Memo dictation recorder with barcode scanner is shipped with the factory default settings shown in the table below. These factory default values are stored in non-volatile memory and are preserved even when the scanner is powered down.

To change the parameter values:

① Scan the appropriate bar codes included in this chapter.

↳ The new values replace the existing memory values.

② The factory default values can be recalled by scanning the RESTORE DEFAULTS bar code on page 7.

Parameter defaults

The table lists the factory defaults for all parameters. To change any option, scan the appropriate bar code(s).

Parameter	Parameter no (Hex)	Factory default
Set Factory Default		All Defaults
UPC/EAN		
UPC-A	01h	Enable
UPC-E	02h	Enable
UPC-E1	0Ch	Disable
EAN-8	04h	Enable
EAN-13	03h	Enable
Bookland EAN	53h	Disable
Bookland ISBN Format	F1h 40h	ISBN-10
Decode UPC/EAN Supplementals	10h	Ignore
Decode UPC/EAN Supplemental Redundancy	50h	7
UPC/EAN/JAN Supplemental AIM ID Format	F1h A0h	Combined
Transmit UPC-A Check Digit	28h	Enable
Transmit UPC-E Check Digit	29h	Enable
Transmit UPC-E1 Check Digit	2Ah	Enable
UPC-A Preamble	22h	System Character
UPC-E Preamble	23h	System Character
UPC-E1 Preamble	24h	System Character
Convert UPC-E to A	25h	Disable
Convert UPC-E1 to A	26h	Disable
EAN-8 Zero Extend	27h	Disable
UPC/EAN Security Level	4Dh	1
UCC Coupon Extended Code	55h	Disable
Coupon Report	F1h DAh	Both Coupon Formats
ISSN EAN	F1h 69h	Disable
Code 128		
Code 128	08h	Enable
Set Length(s) for Code 128	D1h D2h	1-55
GS1-128 (formerly UCC/EAN-128)	0Eh	Enable
ISBT 128	54h	Enable
ISBT Concatenation	F1h 41h	Disable
Check ISBT Table	F1h 42h	Enable
ISBT Concatenation Redundancy	DFh	10
Code 39		
Code 39	00h	Enable
Trioptic Code 39	0Dh	Disable
Convert Code 39 to Code 32	56h	Disable

Parameter	Parameter no (Hex)	Factory default
Code 32 Prefix	E7h	Disable
Set Length(s) for Code 39	12h 13h	2-55
Code 39 Check Digit Verification	30h	Disable
Transmit Code 39 Check Digit	2Bh	Disable
Code 39 Full ASCII Conversion	11h	Disable
Code 93		
Code 93	09h	Disable
Set Length(s) for Code 93	1Ah 1Bh	4-55
Code 11		
Code 11	0Ah	Disable
Set Lengths for Code 11	1Ch 1Dh	4 to 55
Code 11 Check Digit Verification	34h	Disable
Transmit Code 11 Check Digit(s)	2Fh	Disable
Interleaved 2 of 5		
Interleaved 2 of 5	06h	Enable
Set Length(s) for I 2 of 5	16h 17h	14
I 2 of 5 Check Digit Verification	31h	Disable
Transmit I 2 of 5 Check Digit	2Ch	Disable
Convert I 2 of 5 to EAN 13	52h	Disable
Discrete 2 of 5		
Discrete 2 of 5	05h	Disable
Set Length(s) for D 2 of 5	14h 15h	12
Chinese 2 of 5		
Chinese 2 of 5	F0h 98h	Disable
Matrix 2 of 5		
Matrix 2 of 5	F1h 6Ah	Disable
Matrix 2 of 5 Lengths	F1h 6Bh F1h 6Ch	14
Matrix 2 of 5 Redundancy	F1h 6Dh	Disable
Matrix 2 of 5 Check Digit	F1h 6Eh	Disable
Transmit Matrix 2 of 5 Check Digit	F1h 6Fh	Disable
Inverse 1D		
Inverse 1D	F1h 4Ah	Regular
Codabar		
Codabar	07h	Disable
Set Lengths for Codabar	18h 19h	5-55
CLSI Editing	36h	Disable
NOTIS Editing	37h	Disable
MSI		
MSI	0Bh	Disable
Set Length(s) for MSI	1Eh 1Fh	6-55
MSI Check Digits	32h	One
Transmit MSI Check Digit	2Eh	Disable
MSI Check Digit Algorithm	33h	Mod 10/Mod 10
GS1 DataBar		
GS1 DataBar Omnidirectional	F0h 52h	Enable
GS1 DataBar Limited	F0h 53h	Enable
GS1 DataBar Expanded	F0h 54h	Enable
Convert GS1 DataBar to UPC/EAN	F0h 8Dh	Disable

2 Set default parameter

Scan Set Factory Defaults to restore the factory default values listed in the table on page 5.

Set Factory Defaults

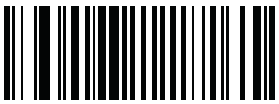
3 UPC/EAN

Enable/Disable UPC-A

Parameter # 01h

To enable or disable UPC-A, scan the appropriate bar code below.

***Enable UPC-A**
(01h)



Disable UPC-A
(00h)

Enable/Disable UPC-E

Parameter # 02h

To enable or disable UPC-E, scan the appropriate bar code below.

***Enable UPC-E**
(01h)

Disable UPC-E
(00h)

Enable/Disable UPC-E1

Parameter # 0Ch

To enable or disable UPC-E1, scan the appropriate bar code below.

NOTE: UPC-E1 is not a UCC (Uniform Code Council) approved symbology.

Enable UPC-E1
(01h)

***Disable UPC-E1**
(00h)

Enable/Disable EAN-8

Parameter # 04h

To enable or disable EAN-8, scan the appropriate bar code below.

***Enable EAN-8**
(01h)

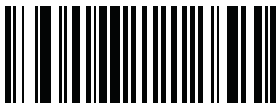
Disable EAN-8
(00h)

Enable/Disable EAN-13

Parameter # 03h

To enable or disable EAN-13, scan the appropriate bar code below

***Enable EAN-13**
(01h)



Disable EAN-13
(00h)

Enable/Disable Bookland EAN

Parameter # h53h

To enable or disable EAN Bookland, scan the appropriate bar code below.

Enable Bookland EAN
(01h)

***Disable Bookland EAN**
(00h)

NOTE: If you enable Bookland EAN, select a Bookland ISBN Format. Also select either Decode UPC/EAN Supplementals, Autodiscriminate UPC/EAN Supplementals, or Enable 978/979 Supplemental Mode in Decode UPC/EAN Supplementals.

Bookland ISBN Format

Parameter # F1h 40h

If Bookland EAN is enabled, select one of the following formats for Bookland data:

- Bookland ISBN-10 - The digital scanner reports Bookland data starting with 978 in traditional 10-digit format with the special Bookland check digit for backward-compatibility. Data starting with 979 is not considered Bookland in this mode.
- Bookland ISBN-13 - The digital scanner reports Bookland data (starting with either 978 or 979) as EAN-13 in 13-digit format to meet the 2007 ISBN-13 protocol.

***Bookland ISBN-10**
(00h)

Bookland ISBN-13
(01h)

NOTE: For Bookland EAN to function properly, ensure Bookland EAN is enabled (see Enable/Disable Bookland EAN), then select either Decode UPC/EAN Supplementals, Autodiscriminate UPC/EAN Supplementals, or Enable 978/979 Supplemental Mode in Decode UPC/EAN Supplementals.

Decode UPC/EAN Supplementals

Parameter # 10h

Supplementals are bar codes appended according to specific format conventions (e.g., UPC A+2, UPC E+2, EAN 13+2).

The following options are available:

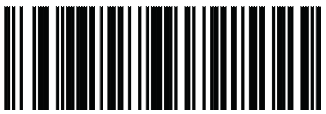
- If you select Ignore UPC/EAN with Supplementals, and the scanner is presented with a UPC/EAN plus supplemental symbol, the scanner decodes UPC/EAN and ignores the supplemental characters.
- If you select Decode UPC/EAN with Supplementals, the scanner only decodes UPC/EAN symbols with supplemental characters, and ignores symbols without supplementals.
- If you select Autodiscriminate UPC/EAN Supplementals, the scanner decodes UPC/EAN symbols with supplemental characters immediately. If the symbol does not have a supplemental, the scanner must decode the bar code the number of times set via Decode UPC/EAN Supplemental Redundancy before transmitting its data to confirm that there is no supplemental.
- If you select one of the following Supplemental Mode options, the scanner immediately transmits EAN-13 bar codes starting with that prefix that have supplemental characters. If the symbol does not have a supplemental, the scanner must decode the bar code the number of times set via Decode UPC/EAN Supplemental Redundancy before transmitting its data to confirm that there is no supplemental. The scanner transmits UPC/EAN bar codes that do not have that prefix immediately.
  - Enable 378/379 Supplemental Mode.
  - Enable 978/979 Supplemental Mode.
    - » NOTE: If you select 978/979 Supplemental Mode and are scanning Bookland EAN bar codes, see Enable/Disable Bookland EAN to enable Bookland EAN, and select a format using Bookland ISBN Format.
  - Enable 977 Supplemental Mode.
  - Enable 414/419/434/439 Supplemental Mode.
  - Enable 491 Supplemental Mode.
  - Enable Smart Supplemental Mode - applies to EAN-13 bar codes starting with any prefix listed previously.
    - » NOTE: To minimize the risk of invalid data transmission, select either to decode or ignore supplemental characters.

Select the desired option by scanning one of the following bar codes.

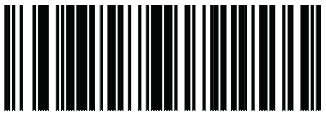
Decode UPC/EAN With Supplementals
(01h)

***Ignore UPC/EAN With Supplementals**
(00h)

Autodiscriminate UPC/EAN Supplementals
(02h)



Enable 378/379 Supplemental Mode
(04h)

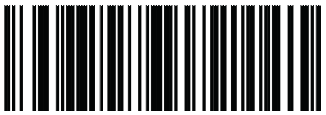


Enable 978/979 Supplemental Mode
(05h)

Enable 977 Supplemental Mode
(07h)

Enable 414/419/434/439 Supplemental Mode
(06h)

Enable 491 Supplemental Mode
(08h)



Enable Smart Supplemental Mode
(03h)

Decode UPC/EAN Supplemental Redundancy

Parameter # 50h

With Autodiscriminate UPC/EAN Supplementals selected, this option adjusts the number of times a symbol without supplementals are decoded before transmission. The range is from 2 to 20 times. Five or above is recommended when decoding a mix of UPC/EAN symbols with and without supplementals, and the autodiscriminate option is selected. Scan the bar code below to select a decode redundancy value. Next scan two numeric bar codes beginning on page 56. Single digit numbers must have a leading zero. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

Decode UPC/EAN Supplemental Redundancy
(Default: 7)

UPC/EAN/JAN Supplemental AIM ID Format

Parameter # F1h A0h

Select an output format when reporting UPC/EAN/JAN bar codes with Supplementals with Transmit Code ID Character set to AIM Code ID Character:

- Separate - transmit UPC/EAN with supplementals with separate AIM IDs but one transmission, i.e.:
  ]E<0 or 4><data>]E<1 or 2>[supplemental data]
- Combined – transmit UPC/EAN with supplementals with one AIM ID and one transmission, i.e.:
  ]E3<data+supplemental data>
- Separate Transmissions - transmit UPC/EAN with supplementals with separate AIM IDs and separate transmissions, i.e.:
  ]E<0 or 4><data>
  ]E<1 or 2>[supplemental data]

Separate
(00h)

***Combined**
(01h)

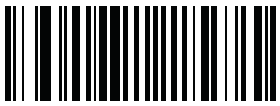
Separate Transmissions
NEW END

Transmit UPC-A Check Digit

Parameter # 28h

Scan the appropriate bar code below to transmit the symbol with or without the UPC-A check digit.

***Transmit UPC-A Check Digit**
(01h)

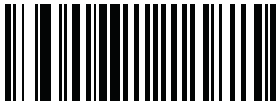


Do Not Transmit UPC-A Check Digit
(00h)

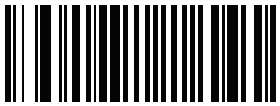
Transmit UPC-E Check Digit

Parameter # 29h

Scan the appropriate bar code below to transmit the symbol with or without the UPC-E check digit.



***Transmit UPC-E Check Digit (01h)**



Do Not Transmit UPC-E Check Digit (00h)

Transmit UPC-E1 Check Digit

Parameter # 2Ah

Scan the appropriate bar code below to transmit the symbol with or without the UPC-E1 check digit.

***Transmit UPC-E1 Check Digit (01h)**

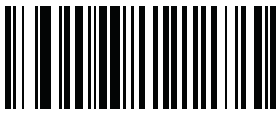
Do Not Transmit UPC-E1 Check Digit (00h)

UPC-A Preamble

Parameter # 22h

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-A symbol. Select one of the following options for transmitting UPC-A preamble to the host device: transmit system character only, transmit system character and country code ("0" for USA), or transmit no preamble.

No Preamble
(<DATA>)
(00h)



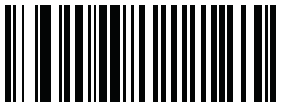
***System Character**
(<SYSTEM CHARACTER> <DATA>)
(01h)

System Character & Country Code
(< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
(02h)

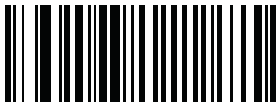
UPC-E Preamble

Parameter # 23h

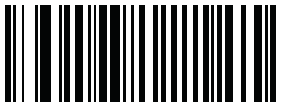
Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-E symbol. Select one of the following options for transmitting UPC-E preamble to the host device: transmit system character only, transmit system character and country code (“0” for USA), or transmit no preamble.



No Preamble
(<DATA>)
(00h)



***System Character**
(<SYSTEM CHARACTER> <DATA>)
(01h)



System Character & Country Code
(< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
(02h)

UPC-E1 Preamble

Parameter # 24h

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-E1 symbol. Select one of the following options for transmitting UPC-E1 preamble to the host device: transmit system character only, transmit system character and country code ("0" for USA), or transmit no preamble.

No Preamble
(<DATA>)
(00h)

***System Character**
(<SYSTEM CHARACTER> <DATA>)
(01h)

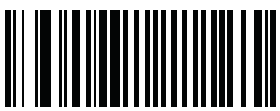
System Character & Country Code
(< COUNTRY CODE> <SYSTEM CHARACTER> <DATA>)
(02h)

Convert UPC-E to UPC-A

Parameter # 25h

Enable this parameter to convert UPC-E (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).

Scan DO NOT CONVERT UPC-E TO UPC-A to transmit UPC-E (zero suppressed) decoded data.



Convert UPC-E to UPC-A (Enable)
(01h)

***Do Not Convert UPC-E to UPC-A (Disable)**
(00h)

Convert UPC-E1 to UPC-A

Parameter # 26h

Enable this parameter to convert UPC-E1 (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit).

Scan DO NOT CONVERT UPC-E TO UPC-A to transmit UPC-E1 (zero suppressed) decoded data.

Convert UPC-E1 to UPC-A (Enable)
(01h)

***Do Not Convert UPC-E1 to UPC-A (Disable)**
(00h)

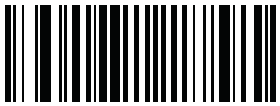
EAN Zero Extend

Parameter # 27h

When enabled, this parameter adds five leading zeros to decoded EAN-8 symbols to make them compatible in format to EAN-13 symbols.

Disable this parameter to transmit EAN-8 symbols as is.

Enable EAN Zero Extend
(01h)



***Disable EAN Zero Extend**
(00h)

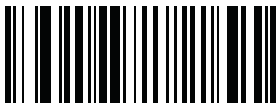
UPC/EAN Security Level

Parameter # 4Dh

The scanner offers four levels of decode security for UPC/EAN bar codes. Increasing levels of security are provided for decreasing levels of bar code quality. Select higher levels of security for decreasing levels of bar code quality. Increasing security decreases the scan engine's aggressiveness, so choose only that level of security necessary for the application.

UPC/EAN Security Level 0

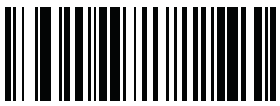
This default setting allows the scan engine to operate in its most aggressive state, while providing sufficient security in decoding most "in-spec" UPC/EAN bar codes.



UPC/EAN Security Level 0
(00h)

UPC/EAN Security Level 1

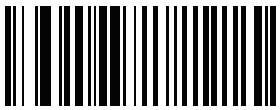
As bar code quality levels diminish, certain characters become prone to mis-decodes before others (i.e., 1, 2, 7, 8). If mis-decodes of poorly printed bar codes occur, and the mis-decodes are limited to these characters, select this security level.



***UPC/EAN Security Level 1**
(01h)

UPC/EAN Security Level 2

If mis-decodes of poorly printed bar codes occur, and the mis-decodes are not limited to characters 1, 2, 7, and 8, select this security level.



UPC/EAN Security Level 2
(02h)

UPC/EAN Security Level 3

If misdecodes still occur after selecting Security Level 2, select this security level. Be advised, selecting this option is an extreme measure against mis-decoding severely out of spec bar codes. Selection of this level of security significantly impairs the decoding ability of the scan engine. If this level of security is necessary, try to improve the quality of the bar codes.

UPC/EAN Security Level 3
(03h)

UCC Coupon Extended Code

Parameter # 55h

The UCC Coupon Extended Code is an additional bar code adjacent to a UCC Coupon Code. To enable or disable UCC Coupon Extended Code, scan the appropriate bar code below.

Enable UCC Coupon Extended Code (01h)

***Disable UCC Coupon Extended Code (00h)**

Coupon Report

Parameter # F1h DAh

Traditional coupon symbols (old coupon symbols) are composed of two bar codes: UPC/EAN and Code128. A new coupon symbol is composed of a single Databar Expanded bar code. The new coupon format offers more options for purchase values (up to $999.99) and supports complex discount offers such as a second purchase requirement.

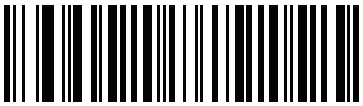
An interim coupon symbol also exists that contains both types of bar codes: UPC/EAN and Databar Expanded. This format accommodates both retailers that do not recognize or use the additional information included in the new coupon symbol, as well as those who can process new coupon symbols.

Scan a bar code below to select one of the following options for decoding coupon symbols:

- Old Coupon Symbols - Scanning an old coupon symbol reports both UPC and Code 128, scanning an interim coupon symbol reports UPC, and scanning a new coupon symbol reports nothing (no decode).
- New Coupon Symbols - Scanning an old coupon symbol reports either UPC or Code 128, and scanning an interim coupon symbol or a new coupon symbol reports Databar Expanded.
- Both Coupon Formats - Scanning an old coupon symbol reports both UPC and Code 128, and scanning an interim coupon symbol or a new coupon symbol reports Databar Expanded.

Old Coupon Symbols
(00h)

New Coupon Symbols
(01h)



***Both Coupon Formats**
(02h)

ISSN EAN

Parameter # F1h 69h

To enable or disable ISSN EAN, scan the appropriate bar code below

Enable ISSN EAN
(01h)

***Disable ISSN EAN**
(00h)

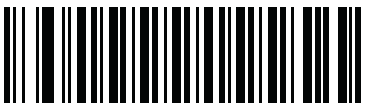
4 Code 128

Enable/Disable Code 128

Parameter # 08h

To enable or disable Code 128, scan the appropriate bar code below.

***Enable Code 128**
(01h)



Disable Code 128
(00h)

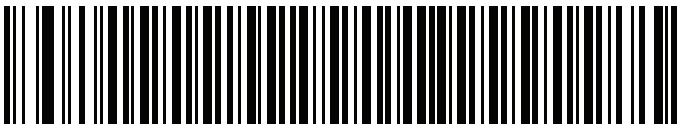
Set Lengths for Code 128

Parameter # L1 = D1h L2 = D2h

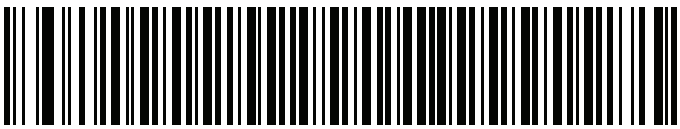
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Set lengths for Code 128 to any length, one or two discrete lengths, or lengths within a specific range.

NOTE: When setting lengths for different bar code types, enter a leading zero for single digit numbers.

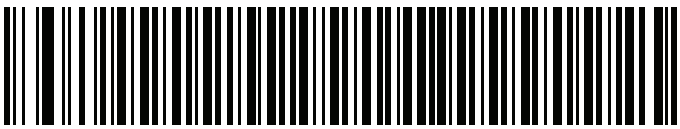
- One Discrete Length - Select this option to decode only Code 128 symbols containing a selected length. Select the length using the numeric bar codes beginning on page 56. For example, to decode only Code 128 symbols with 14 characters, scan Code 128 - One Discrete Length, then scan 1 followed by 4. To correct an error or change the selection, scan Cancel on page 57.
- Two Discrete Lengths - Select this option to decode only Code 128 symbols containing either of two selected lengths. Select lengths using the numeric bar codes beginning on page 56. For example, to decode only Code 128 symbols containing either 2 or 14 characters, select Code 128 - Two Discrete Lengths, then scan 0, 2, 1, and then 4. To correct an error or change the selection, scan Cancel on page 57.
- Length Within Range - Select this option to decode a Code 128 symbol with a specific length range. Select lengths using numeric bar codes beginning on page 56. For example, to decode Code 128 symbols containing between 4 and 12 characters, first scan Code 128 - Length Within Range. Then scan 0, 4, 1, and 2 (enter a leading zero for single digit numbers). To correct an error or change the selection, scan Cancel on page 57.
- Any Length - Select this option to decode Code 128 symbols containing any number of characters within the digital scanner's capability.



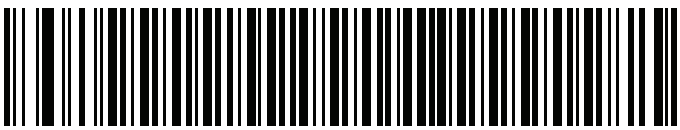
Code 128 - One Discrete Length



Code 128 - Two Discrete Lengths



Code 128 - Length Within Range



***Code 128 - Any Length**

Enable/Disable GS1-128 (formerly UCC/EAN-128)

Parameter # 0Eh

To enable or disable GS1-128, scan the appropriate bar code below. (See Appendix A, Miscellaneous Code Information for details on GS1-128 (formerly UCC/EAN-128).)

***Enable GS1-128**
(01h)

Disable GS1-128
(00h)

Enable/Disable ISBT 128

Parameter # 54h

To enable or disable ISBT 128, scan the appropriate bar code below.

***Enable ISBT 128**
(01h)

Disable ISBT 128
(00h)

ISBT Concatenation

Parameter # F1h 41h

Select an option for concatenating pairs of ISBT code types:

- If you select Disable ISBT Concatenation, the digital scanner does not concatenate pairs of ISBT codes it encounters.
- If you select Enable ISBT Concatenation, there must be two ISBT codes in order for the digital scanner to decode and perform concatenation. The digital scanner does not decode single ISBT symbols.
- If you select Autodiscriminate ISBT Concatenation, the digital scanner decodes and concatenates pairs of ISBT codes immediately. If only a single ISBT symbol is present, the digital scanner must decode the symbol the number of times set via ISBT Concatenation Redundancy before transmitting its data to confirm that there is no additional ISBT symbol

***Disable ISBT Concatenation**
(00h)

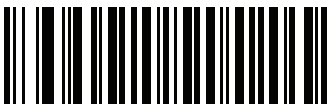
Enable ISBT Concatenation
(01h)

Autodiscriminate ISBT Concatenation
(00h)

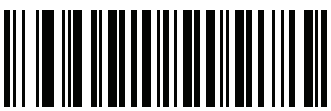
Check ISBT Table

Parameter # F1h 42h

The ISBT specification includes a table that lists several types of ISBT bar codes that are commonly used in pairs. If you set ISBT Concatenation to Enable, enable Check ISBT Table to concatenate only those pairs found in this table. Other types of ISBT codes are not concatenated.



***Enable Check ISBT Table**
(01h)



Disable Check ISBT Table
(00h)

ISBT Concatenation Redundancy

Parameter # DFh

If you set ISBT Concatenation to Autodiscriminate, use this parameter to set the number of times the digital scanner must decode an ISBT symbol before determining that there is no additional symbol.

Scan the bar code below, then scan two numeric bar codes in Numeric Bar Codes on page 56 to set a value between 2 and 20. Enter a leading zero for single digit numbers. To correct an error or change a selection, scan Cancel on page 57. The default is 10.

ISBT Concatenation Redundancy

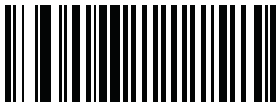
5 Code 39

Enable/Disable Code 39

Parameter # 00h

To enable or disable Code 39, scan the appropriate bar code below.

***Enable Code 39 (01h)**



Disable Code 39 (00h)

Enable/Disable Trioptic Code 39

Parameter # 0Dh

Trioptic Code 39 is a variant of Code 39 used in marking computer tape cartridges. Trioptic Code 39 symbols always contain six characters.

To enable or disable Trioptic Code 39, scan the appropriate bar code below.

Enable Trioptic Code 39 (01h)

***Disable Trioptic Code 39 (00h)**

NOTE: Trioptic Code 39 and Code 39 Full ASCII cannot be enabled simultaneously. If the Enable Trioptic Code 39 setting is not accepted*, disable Code 39 Full ASCII and try again.

* An SSI parameter entry error, event ID 07h, is sent to the host if packeted data communication is enabled to inform the user that the parameter change was not accepted.

Convert Code 39 to Code 32 (Italian Pharma Code)

Parameter # 56h

Code 32 is a variant of Code 39 used by the Italian pharmaceutical industry. Scan the appropriate bar code below to enable or disable converting Code 39 to Code 32.

NOTE: Code 39 must be enabled in order for this parameter to function.

Enable Convert Code 39 to Code 32 (01h)

***Disable Convert Code 39 to Code 32 (00h)**

Code 32 Prefix

Parameter # E7h

Enable this parameter to add the prefix character "A" to all Code 32 bar codes. Convert Code 39 to Code 32 (Italian Pharma Code) must be enabled for this parameter to function.

Enable Code 32 Prefix (01h)

***Disable Code 32 Prefix (00h)**

Set Lengths for Code 39

Parameter # L1 = 12h L2 = 13h

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Code 39 may be set for any length, one or two discrete lengths, or lengths within a specific range. If Code 39 Full ASCII is enabled, Length Within a Range or Any Length are the preferred options.

NOTE: When setting lengths, single digit numbers must always be preceded by a leading zero.

One Discrete Length - This option limits decodes to only those Code 39 symbols containing a selected length. Lengths are selected from the numeric bar codes beginning on page 56. For example, to decode only Code 39 symbols with 14 characters, scan Code 39 - One Discrete Length, then scan 1 followed by 4. To change the selection or cancel an incorrect entry, scan Cancel.

Code 39 - One Discrete Length

Two Discrete Lengths - This option limits decodes to only those Code 39 symbols containing either of two selected lengths. Lengths are selected from the numeric bar codes beginning on page 56. For example, to decode only those Code 39 symbols containing either 2 or 14 characters, select Code 39 - Two Discrete Lengths, then scan 0, 2, 1, and then 4. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

Code 39 - Two Discrete Lengths

Length Within Range - This option limits decodes to only those Code 39 symbols within a specified range. For example, to decode Code 39 symbols containing between 4 and 12 characters, first scan Code 39 - Length Within Range. Then scan 0, 4, 1, and 2. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

Code 39 - Length Within Range

Any Length - Scan this option to decode Code 39 symbols containing any number of characters.

Code 39 - Any Length

Code 39 Check Digit Verification

Parameter # 30h

When this feature is enabled, the scan engine checks the integrity of all Code 39 symbols to verify that the data complies with specified check digit algorithm. Only those Code 39 symbols which include a modulo 43 check digit are decoded. Only enable this feature if your Code 39 symbols contain a module 43 check digit.

Verify Code 39 Check Digit
(01h)

***Do Not Verify Code 39 Check Digit**
(00h)

Transmit Code 39 Check Digit

Parameter # 2Bh

Scan this symbol to transmit the check digit with the data.

Transmit Code 39 Check Digit (Enable)
(01h)

Scan this symbol to transmit data without the check digit.

***Do Not Transmit Code 39 Check Digit (Disable)**
(00h)

Enable/Disable Code 39 Full ASCII

Parameter # 11h

Code 39 Full ASCII is a variant of Code 39 which pairs characters to encode the full ASCII character set. To enable or disable Code 39 Full ASCII, scan the appropriate bar code below.

Enable Code 39 Full ASCII (00h)

***Disable Code 39 Full ASCII (00h)**

NOTE: Trioptic Code 39 and Code 39 Full ASCII cannot be enabled simultaneously. If the Enable Trioptic Code 39 setting is not accepted*, disable Code 39 Full ASCII and try again.

*An SSI parameter entry error, event ID 07h, is sent to the host if packeted data communication is enabled to inform the user that the parameter change was not accepted.

6 Code 93

Enable/Disable Code 93

Parameter # 09h

To enable or disable Code 93, scan the appropriate bar code below.

Enable Code 93
(01h)

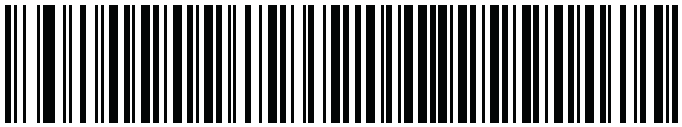
***Disable Code 93**
(00h)

Set Lengths for Code 93

Parameter # L1 = 1Ah L2 = 1Bh

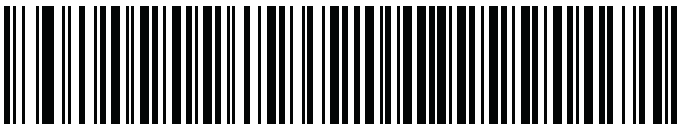
The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Code 93 may be set for any length, one or two discrete lengths, or lengths within a specific range.

One Discrete Length - Select this option to decode only those codes containing a selected length. For example, select Code 93 One Discrete Length, then scan 1, 4, to limit the decoding to only Code 93 symbols containing 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.



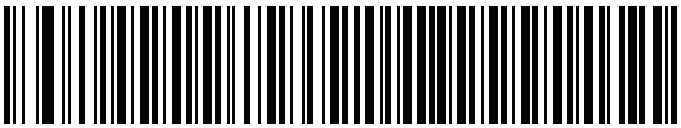
Code 93 - One Discrete Length

Two Discrete Lengths - Select this option to decode only those codes containing two selected lengths. For example, select Code 93 Two Discrete Lengths, then scan 0, 2, 1, 4, to limit the decoding to only Code 93 symbols containing 2 or 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.



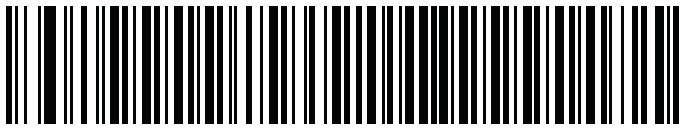
Code 93 - Two Discrete Lengths

Length Within Range - This option sets the unit to decode a code type within a specified range. For example, to decode Code 93 symbols containing between 4 and 12 characters, first scan Code 93 Length Within Range, then scan 0, 4, 1 and 2 (single digit numbers must always be preceded by a leading zero). Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57:



Code 93 - Length Within Range

Any Length - Scan this option to decode Code 93 symbols containing any number of characters.



Code 93 - Any Length

7 Code 11

Enable/Disable Code 11

Parameter # 0Ah

To enable or disable Code 11, scan the appropriate bar code below.

Enable Code 11
(01h)

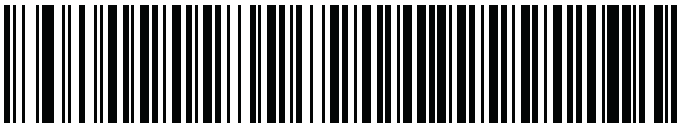
***Disable Code 11**
(00h)

Set Lengths for Code 11

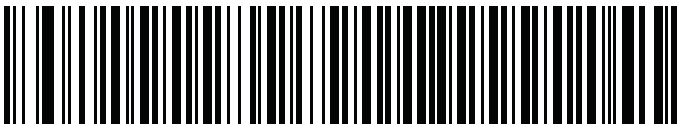
Parameter # L1 = 1Ch L2 = 1Dh

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Set lengths for Code 11 to any length, one or two discrete lengths, or lengths within a specific range.

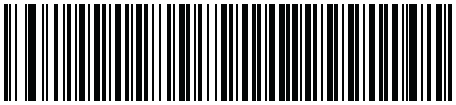
- One Discrete Length - Select this option to decode only Code 11 symbols containing a selected length. Select the length using the numeric bar codes beginning on page 56. For example, to decode only Code 11 symbols with 14 characters, scan Code 11 - One Discrete Length, then scan 1 followed by 4. To correct an error or to change the selection, scan Cancel on page 57.
- Two Discrete Lengths - Select this option to decode only Code 11 symbols containing either of two selected lengths. Select lengths using the numeric bar codes beginning on page 56. For example, to decode only those Code 11 symbols containing either 2 or 14 characters, select Code 11 - Two Discrete Lengths, then scan 0, 2, 1, and then 4. To correct an error or to change the selection, scan Cancel on page 57.
- Length Within Range - Select this option to decode a Code 11 symbol with a specific length range. Select lengths using numeric bar codes beginning on page 56. For example, to decode Code 11 symbols containing between 4 and 12 characters, first scan Code 11 - Length Within Range. Then scan 0, 4, 1, and 2 (single digit numbers must always be preceded by a leading zero). To correct an error or change the selection, scan Cancel on page 57.
- Any Length - Scan this option to decode Code 11 symbols containing any number of characters within the scan engine capability.



Code 11 - One Discrete Length



Code 11 - Two Discrete Lengths



Code 11 - Length Within Range

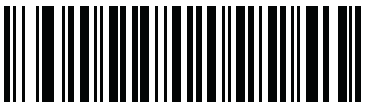
Code 11 - Any Length

Code 11 Check Digit Verification

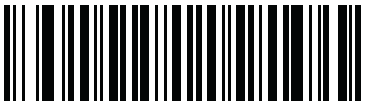
Parameter # 34h

This feature allows the scan engine to check the integrity of all Code 11 symbols to verify that the data complies with the specified check digit algorithm. This selects the check digit mechanism for the decoded Code 11 bar code. The options are to check for one check digit, check for two check digits, or disable the feature.

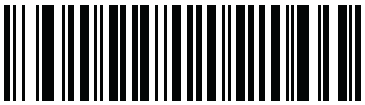
To enable this feature, scan the bar code below corresponding to the number of check digits encoded in your Code 11 symbols.



***Disable**
(00h)



One Check Digit
(01h)



Two Check Digits
(02h)

Transmit Code 11 Check Digits

Parameter # 2Fh

This feature selects whether or not to transmit the Code 11 check digit(s).

Transmit Code 11 Check Digit(s) (Enable)
(01h)

***Do Not Transmit Code 11 Check Digit(s) (Disable)**
(00h)

NOTE: Code 11 Check Digit Verification must be enabled for this parameter to function.

8 Interleaved 2 of 5

Enable/Disable Interleaved 2 of 5

Parameter # 06h

To enable or disable Interleaved 2 of 5, scan the appropriate bar code below.

***Enable Interleaved 2 of 5 (01h)**

Disable Interleaved 2 of 5

Set Lengths for Interleaved 2 of 5

Parameter # L1 = 16h L2 = 17h

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for I 2 of 5 may be set for any length, one or two discrete lengths, or lengths within a specific range.

NOTE: When setting lengths, single digit numbers must always be preceded by a leading zero.

One Discrete Length - Select this option to decode only those codes containing a selected length. For example, select I 2 of 5 One Discrete Length, then scan 1, 4, to decode only I 2 of 5 symbols containing 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

I 2 of 5 - One Discrete Length

Two Discrete Lengths - Select this option to decode only those codes containing two selected lengths. For example, select I 2 of 5 Two Discrete Lengths, then scan 0, 6, 1, 4, to decode only I 2 of 5 symbols containing 6 or 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

I 2 of 5 - Two Discrete Lengths

Length Within Range - Select this option to decode only codes within a specified range. For example, to decode I 2 of 5 symbols containing between 4 and 12 characters, first scan I 2 of 5 Length Within Range, then scan 0, 4, 1 and 2 (single digit numbers must always be preceded by a leading zero). Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

I 2 of 5 - Length Within Range

Any Length - Scan this option to decode I 2 of 5 symbols containing any number of characters.

NOTE: Selecting this option may lead to misdecodes for I 2 of 5 codes.

I 2 of 5 - Any Length

I 2 of 5 Check Digit Verification

Parameter # 31h

When enabled, this parameter checks the integrity of an I 2 of 5 symbol to ensure it complies with a specified algorithm, either USS (Uniform Symbology Specification), or OPCC (Optical Product Code Council).

***Disable**
(00h)

USS Check Digit
(01h)

OPCC Check Digit
(02h)

Transmit I 2 of 5 Check Digit

Parameter # 2Ch

Scan this symbol to transmit the check digit with the data.

Transmit I 2 of 5 Check Digit (Enable)
(01h)

Scan this symbol to transmit data without the check digit.

***Do Not Transmit I 2 of 5 Check Digit (Disable)**
(00h)

Convert I 2 of 5 to EAN-13

Parameter # 52h

This parameter converts a 14 character I 2 of 5 code into EAN-13, and transmits to the host as EAN-13. To accomplish this, I 2 of 5 must be enabled, one length must be set to 14, and the code must have a leading zero and a valid EAN-13 check digit.

Convert I 2 of 5 to EAN-13 (Enable)
(01h)

***Do Not Convert I 2 of 5 to EAN-13 (Disable)**
(00h)

9 Discrete 2 of 5

Enable/Disable Discrete 2 of 5

Parameter # 05h

To enable or disable Discrete 2 of 5, scan the appropriate bar code below.

Enable Discrete 2 of 5 (01h)

***Disable Discrete 2 of 5 (00h)**

Set Lengths for Discrete 2 of 5

Parameter # L1 = 14h L2 = 15h

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for D 2 of 5 may be set for any length, one or two discrete lengths, or lengths within a specific range.

One Discrete Length - Select this option to decode only those codes containing a selected length. For example, select D 2 of 5 One Discrete Length, then scan 1, 4, to decode only D 2 of 5 symbols containing 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

D 2 of 5 - One Discrete Length

Two Discrete Lengths - Select this option to decode only those codes containing two selected lengths. For example, select D 2 of 5 Two Discrete Lengths, then scan 0, 2, 1, 4, to decode only D 2 of 5 symbols containing 2 or 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

D 2 of 5 - Two Discrete Lengths

Length Within Range - Select this option to decode codes within a specified range. For example, to decode D 2 of 5 symbols containing between 4 and 12 characters, first scan D 2 of 5 Length Within Range, then scan 0, 4, 1 and 2 (single digit numbers must be preceded by a leading zero). Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

D 2 of 5 - Length Within Range

Any Length - Scan this option to decode D 2 of 5 symbols containing any number of characters.

NOTE: Selecting this option may lead to misdecodes for D 2 of 5 codes.

D 2 of 5 - Any Length

10 Chinese 2 of 5

Enable/Disable Chinese 2 of 5

Parameter # F0h 98h

To enable or disable Chinese 2 of 5, scan the appropriate bar code below.

Enable Chinese 2 of 5
(01h)

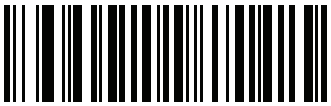
***Disable Chinese 2 of 5**
(00h)

11 Matrix 2 of 5

Enable/Disable Matrix 2 of 5

Parameter # F1h 6Ah

To enable or disable Matrix 2 of 5, scan the appropriate bar code below.



Enable Matrix 2 of 5
(01h)

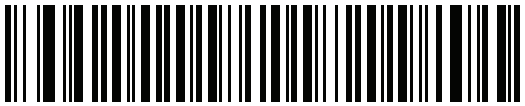
***Disable Matrix 2 of 5**
(00h)

Set Lengths for Matrix 2 of 5

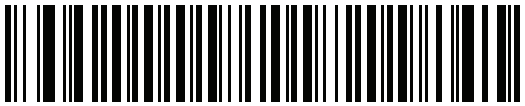
Parameter # L1 = F1h 6Bh L2 = F1h 6Ch

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Set lengths for Matrix 2 of 5 to any length, one or two discrete lengths, or lengths within a specific range.

- One Discrete Length - Select this option to decode only Matrix 2 of 5 symbols containing a selected length. Select the length using the numeric bar codes beginning on page 56. For example, to decode only Matrix 2 of 5 symbols with 14 characters, scan Matrix 2 of 5 - One Discrete Length, then scan 1 followed by 4. To correct an error or to change the selection, scan Cancel on page 57.
- Two Discrete Lengths - Select this option to decode only Matrix 2 of 5 symbols containing either of two selected lengths. Select lengths using the numeric bar codes beginning on page 56. For example, to decode only Matrix 2 of 5 symbols containing either 2 or 14 characters, select Matrix 2 of 5 - Two Discrete Lengths, then scan 0, 2, 1, and then 4. To correct an error or to change the selection, scan Cancel on page 57.
- Length Within Range - Select this option to decode a Matrix 2 of 5 symbol with a specific length range. Select lengths using the numeric bar codes beginning on page 56. For example, to decode Matrix 2 of 5 symbols containing between 4 and 12 characters, first scan Matrix 2 of 5 - Length Within Range. Then scan 0, 4, 1, and 2 (enter a leading zero for single digit numbers). To correct an error or change the selection, scan Cancel on page 57.
- Any Length - Scan this option to decode Matrix 2 of 5 symbols containing any number of characters within the digital scanner's capability.



***Matrix 2 of 5 - One Discrete Length**



Matrix 2 of 5 - Two Discrete Lengths

Matrix 2 of 5 - Length Within Range

Matrix 2 of 5 - Any Length

Matrix 2 of 5 Redundancy

Parameter # F1h 6Dh

To enable or disable Matrix 2 of 5 redundancy, scan the appropriate bar code below.

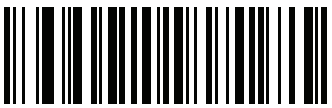
Enable Matrix 2 of 5 Redundancy (01h)

***Disable Matrix 2 of 5 Redundancy (00h)**

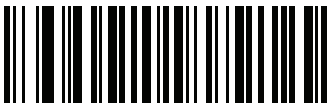
Matrix 2 of 5 Check Digit

Parameter # F1h 6Eh

The check digit is the last character of the symbol used to verify the integrity of the data. Scan the appropriate bar code below to transmit the bar code data with or without the Matrix 2 of 5 check digit.



Enable Matrix 2 of 5 Check Digit (01h)

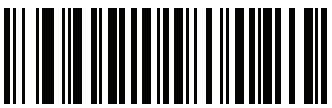


***Disable Matrix 2 of 5 Check Digit (00h)**

Transmit Matrix 2 of 5 Check Digit

Parameter # F1h 6Fh

Scan a bar code below to transmit Matrix 2 of 5 data with or without the check digit.



Transmit Matrix 2 of 5 Check Digit (01h)

***Do Not Transmit Matrix 2 of 5 Check Digit (00h)**

12 Inverse 1D

Parameter # F1h 4Ah

This parameter sets the 1D inverse decoder setting. Options are:

- Regular Only - the digital scanner decodes regular 1D bar codes only.
- Inverse Only - the digital scanner decodes inverse 1D bar codes only.
- Inverse Autodetect - the digital scanner decodes both regular and inverse 1D bar codes.

***Regular**
(00h

Inverse Only
(01h)

Inverse Autodetect
(02h)

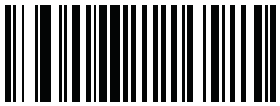
13 Codabar

Enable/Disable Codabar

Parameter # 07h

To enable or disable Codabar, scan the appropriate bar code below.

Enable Codabar (01h)



***Disable Codabar (00h)**

Set Lengths for Codabar

Parameter # L1 = 18h L2 = 19h

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Codabar may be set for any length, one or two discrete lengths, or lengths within a specific range.

One Discrete Length - Select this option to decode only those codes containing a selected length. For example, select Codabar One Discrete Length, then scan 1, 4, to decode only Codabar symbols containing 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

Codabar - One Discrete Length

Two Discrete Lengths - This option sets the unit to decode only those codes containing two selected lengths. For example, select Codabar Two Discrete Lengths, then scan 0, 2, 1, 4, to decode only Codabar symbols containing 6 or 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

Codabar - Two Discrete Lengths

Length Within Range - Select this option to decode a code within a specified range. For example, to decode Codabar symbols containing between 4 and 12 characters, first scan Codabar Length Within Range, then scan 0, 4, 1 and 2 (single digit numbers must always be preceded by a leading zero). Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.

Codabar - Length Within Range

Any Length - Scan this option to decode Codabar symbols containing any number of characters.

Codabar - Any Length

CLSI Editing

Parameter # 36h

When enabled, this parameter strips the start and stop characters and inserts a space after the first, fifth, and tenth characters of a 14-character Codabar symbol.

NOTE: Symbol length does not include start and stop characters.

Enable CLSI Editing (01h)

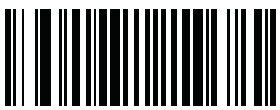
***Disable CLSI Editing (00h)**

NOTIS Editing

Parameter # 37h

When enabled, this parameter strips the start and stop characters from decoded Codabar symbol.

Enable NOTIS Editing (01h)



***Disable NOTIS Editing (00h)**

14 MSI

Enable/Disable MSI

Parameter # 0Bh

To enable or disable MSI, scan the appropriate bar code below.

Enable MSI
(01h)

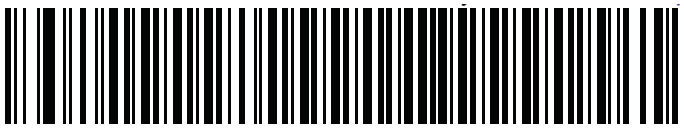
***Disable MSI**
(00h)

Set Lengths for MSI

Parameter # L1 = 1Eh L2 = 1Fh

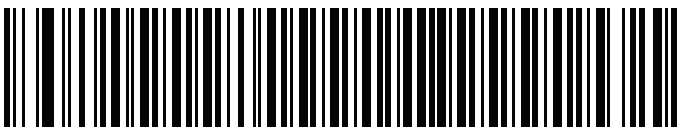
The length of a code refers to the number of characters (i.e., human readable characters) the code contains, and includes check digits. Lengths for MSI can be set for any length, one or two discrete lengths, or lengths within a specific range.

One Discrete Length - Select this option to decode only those codes containing a selected length. For example, select MSI - One Discrete Length, then scan 1, 4, to decode only MSI symbols containing 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.



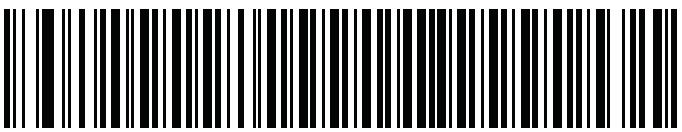
MSI - One Discrete Length

Two Discrete Lengths - Select this option to decode only those codes containing two selected lengths. For example, select MSI - Two Discrete Lengths, then scan 0, 6, 1, 4, to decode only MSI symbols containing 6 or 14 characters. Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.



MSI - Two Discrete Lengths

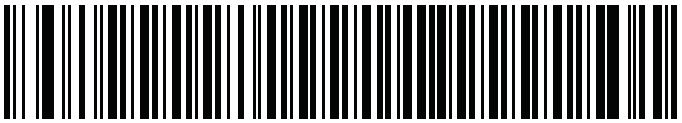
Length Within Range - Select this option to decode codes within a specified range. For example, to decode MSI symbols containing between 4 and 12 characters, first scan MSI Length Within Range, then scan 0, 4, 1 and 2 (single digit numbers must always be preceded by a leading zero). Numeric bar codes begin on page 56. To change the selection or cancel an incorrect entry, scan Cancel on page 57.



MSI - Two Discrete Lengths

Any Length - Scan this option to decode MSI Plessey symbols containing any number of characters.

NOTE: Selecting this option may lead to misdecodes for MSI codes.



MSI - Any Length

MSI Check Digits

Parameter # 32h

These check digits at the end of the bar code verify the integrity of the data. At least one check digit is always required. Check digits are not automatically transmitted with the data.

***One MSI Check Digit**
(00h)

If two check digits are selected, also select an MSI Check Digit Algorithm.

Two MSI Check Digit
(01h)

Transmit MSI Check Digit

Parameter # 2Eh

Scan this symbol to transmit the check digit with the data.

Transmit MSI Check Digit (Enable)
(01h)

Scan this symbol to transmit data without the check digit.

***Do Not Transmit MSI Check Digit (Disable)**
(00h)

MSI Check Digit Algorithm

Parameter # 33h

When the Two MSI check digits option is selected, an additional verification is required to ensure integrity. Select one of the following algorithms.

MOD 10/ MOD 11
(00h)

***MOD 10/ MOD 10**
(01h)

15 GS1-DataBar

Enable/Disable GS1 DataBar Omnidirectional

Parameter # F0h 52h

To enable or disable GS1 DataBar Omnidirectional, scan the appropriate bar code below.

***Enable GS1 DataBar Omnidirectional (01h)**

Disable GS1 DataBar Omnidirectional (00h)

Enable/Disable GS1 DataBar Limited

Parameter # F0h 53h

To enable or disable GS1 DataBar Limited, scan the appropriate bar code below.

***Enable GS1 DataBar Limited (01h)**

Disable GS1 DataBar Limited (00h)

Enable/Disable GS1 DataBar Expanded

Parameter # F0h 54h

To enable or disable GS1 DataBar Expanded, scan the appropriate bar code below.

***Enable GS1 DataBar Expanded (01h)**

Disable GS1 DataBar Expanded (00h)

Convert GS1 DataBar to UPC/EAN

Parameter # F0h 8Dh

This parameter only applies to GS1 DataBar Omnidirectional and GS1 DataBar Limited symbols. When this conversion is enabled, GS1 DataBar Omnidirectional and GS1 DataBar Limited symbols encoding a single zero as the first digit have the leading '010' stripped and the bar code reported as EAN-13.

Bar codes beginning with two or more zeros but not six zeros have the leading '0100' stripped and the bar code reported as UPC-A. The UPC-A Preamble parameter to transmit the system character and country code applies to converted bar codes. Note that neither the system character nor the check digit can be stripped.

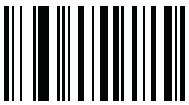
Enable Convert GS1 DataBar to UPC/EAN

***Disable Convert GS1 DataBar to UPC/EAN**

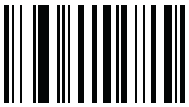
16 Numeric Bar Codes

For parameters requiring specific numeric values, scan the appropriately numbered bar code(s).

0



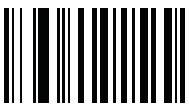
1



2

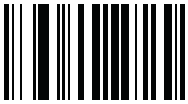
3

4



5

6



7

8

9

Cancel

To change the selection or cancel an incorrect entry, scan the bar code below.

Cancel

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