Laser Scanner Programming Guide (SE923 laser engine)

CONTENT

Technical note

There are two types of laser barcode scanner engines used in RF-series hand terminals. This document applies to hand terminals with serial numbers above 46330. As a default the hand terminal reads most of the common barcode types. However, sometimes it is necessary to manually program it to support certain types of barcodes as well as different features of the barcodes. For the programming you need the hand terminal and this manual including special programming barcodes.

The hand terminals are programmed by reading the programming barcodes that can be found in this manual with the hand terminal's barcode reader.

How to recognise the type of the laser barcode engine

The type of the laser barcode reader engine can be recognised by checking how the engine looks like through the laser lens window.

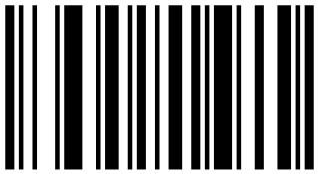
Note! Do not switch the laser reader on when you check the type of the laser barcode reader.

Se923 laser engine LM500 laser engine

Picture 1: This programming manual is valid for SE923 laser engine only. There is another document available at Nordic ID internet pages with which you are able to program the LM500+ laser engine. This programming manual is valid for only RF-series products (PiccoLink RF600 and Nordic ID RF650/RF650Direct). Please note that sometimes the SE923 laser engine is located in the other side of the whole inside the laser lens; this is the case when the hand terminal is equipped also with an RFID reader/writer.

How to program the laser barcode reader into default value

Please make sure you are in the starting page by resetting the hand terminal (SHIFT+DEL). Please read the below barcode with the hand terminal by pressing the SCAN-button (the yellow button with barcode image marked on it). Note! Hand terminal does not acknowledge a successful reading e.g. by giving any beep – it only shuts down the laser beam immediately after a successful reading. Please note that if you have a hand terminal software version 4.8 or upper, all barcode scanning takes place under Settings (SHIFT+0), Choose 'Laser Configuration'.



SET ALL DEFAULTS

Operational parameters

The SE-923 is shipped with the default settings shown in below Table 1. These default values are stored in non-volatile memory and are preserved even when the scanner is powered down. You can change the default values by scanning the appropriate bar codes included in this chapter. These new values replace the standard default values in memory. The default parameter values can be recalled by scanning the SET ALL DEFAULTS bar code on previous page.

Below table lists the defaults for all parameters. If you wish to change any option, scan the appropriate bar code(s).

Parameter	**Default**
Set Default Parameter	All Defaults
Laser on Time	3.0 sec
Aim Duration	0.00 sec
Power Mode	Low Power
Trigger Mode	Level
Time-out Between Same Symbol	1.0 sec
Transmit "No Read" Message	Disable
Parameter Scanning	Enable
Linear Code Type Security Levels	1
Bi-directional Redundancy	Disable
UPC/EAN	
UPC-A	Enable
UPC-E	Enable
UPC-E1	Disable
EAN-8	Enable
EAN-13	Enable
Bookland EAN	Disable
Decode UPC/EAN Supplementals	Ignore
Decode UPC/EAN Supplemental Redundancy	7

Transmit UPC-A Check Digit	Enable
Transmit UPC-E Check Digit	Enable
Transmit UPC-E1 Check Digit	Enable
UPC-A Preamble	System Character
UPC-E Preamble	System Character
UPC-E1 Preamble	System Character
Convert UPC-E to A	Disable
Convert UPC-E1 to A	Disable
EAN-8 Zero Extend	Disable
Convert EAN-8 to EAN-13 Type	Type is EAN-13
UPC/EAN Security Level	0
UPC/EAN Coupon Code	Disable
Code 128	
USS-128	Enable
UCC/EAN-128	Enable
ISBT 128	Enable
Code 39	
Code 39	Enable
Trioptic Code 39	Disable
Convert Code 39 to Code 32	Disable
Code 32 Prefix	Disable
Set Length(s) for Code 39	2-55
Code 39 Check Digit Verification	Disable
Transmit Code 39 Check Digit	Disable
Code 39 Full ASCII Conversion	Disable
Code 93	
Code 93	Disable
Set Length(s) for Code 93	4-55
Interleaved 2 of 5	
Interleaved 2 of 5	Enable
Set Length(s) for I 2 of 5	14
I 2 of 5 Check Digit Verification	Disable
Transmit I 2 of 5 Check Digit	Disable
Convert I 2 of 5 to EAN 13	Disable
Discrete 2 of 5	
Discrete 2 of 5	Disable
Set Length(s) for D 2 of 5	12
Codabar	
Codabar	Disable
Set Length(s) for Codabar	5-55
CLSI Editing	Disable
NOTIS Editing	Disable
MSI Plessey	
MSI Plessey	Disable
Set Length(s) for MSI Plessey	6-55
MSI Plessey Check Digits	One
Transmit MSI Plessey Check Digit	Disable
MSI Plessey Check Digit Algorithm	Mod 10/Mod 10
Data Options	
Transmit Code ID Character	None
Prefix/Suffix Values Prefix Suffix 1 Suffix 2	 NULL LF CR
Scan Data Transmission Format	Data as is
Scan Angle	
Scan Angle	Normal Width

Laser on Time

This barcode sets the maximum time decode processing continues during a scan attempt. It is programmable in 0.1 second increments from 0.5 to 9.0 seconds. To set a Laser On Time, scan the bar code below. Next scan two numeric bar codes on page 46 that correspond to the desired on time. Times less than 1.0 second must have a leading zero. For example, to set an on time of 0.5 seconds, scan the bar code below, then scan the “=” and “5” bar codes. If you make an error, or wish to change your selection, scan the CANCEL bar code on page 47.

LASER ON TIME

Aim Duration

The aim mode is programmable in 0.1 second increments from 0.0 to 9.9 seconds. No aim pattern is visible when the value is 0.0.

To set aim duration, scan the bar code below. Next scan two number bar codes beginning on page 46 that correspond to the desired aim duration. Times less than 1.0 second must have a leading zero. For example, to set an aim duration of 0.5 seconds, scan the bar code below, then scan the “0” and “5” bar codes. If you make an error , or wish to change your selection, scan the CANCEL bar code on page 47.

AIM DURATION

Power Mode

This parameter determines whether or not power remains on after a decode attempt. When in Low Power mode, the scanner enters into a low power consumption mode whenever possible, provided all WAKEUP signals have been released. When in Continuous On mode, power remains on after each decode attempt.

CONTINUOUS ON

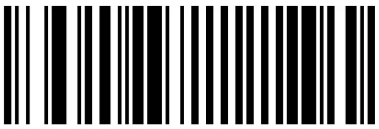
LOW POWER

Triggering Modes

Choose one of the options below to trigger the scan engine.

Level	A trigger pull activates the laser and decode processing. The laser remains on, and decode processing continuous until a trigger release, a valid decode, or the Laser On Time-out is reached.
Pulse	A trigger pull activates the laser and decode processing. The laser remains on and decode processing continues until a valid decode, or the Laser On Time-out is reached.
Continuous	The laser is always on and decoding.
Blinking	This trigger mode is used for triggerless ScanStand operation. Scanning range is reduced in this mode. This mode cannot be used with scanners that support an aim mode.
Host	Triggering signal comes from a host command. Any actual trigger pull will be interpreted by the scan engine as level triggering option.

LEVEL



PULSE

CONTINUOUS

BLINKING

HOST

Time-out Between Same Symbol

When in Continuous triggering mode, this parameter sets the minimum time that must elapse before the scanner decodes a second bar code which is identical to one which has just been decoded. This reduces the risk of accidentally scanning the same symbol twice. It is programmable in 0.1 second increments from 0.00 to 9.9 seconds.

To set a time-out between same symbol, scan the bar code below. Next scan two numeric bar codes beginning on page 46 that correspond to the desired time-out. Times les than 1.0 second must have a leading zero. For example, to set a time-out of 0.5 seconds, scan the bar code below, then scan the “0” and “5” bar codes. If you make an error, or wish to change your selection, scan the CANCEL barcode on page 47.

TIME-OUT BETWEEN SAME SYMBOL

Transmit “No Read” Message

When enabled, if a symbol does not decode, “NR” is transmitted. Any prefix or suffixes which have been enabled are appended around this message.

ENABLE NO READ

When disabled, if a symbol does not read, nothing is sent to the host.

DISABLE NO READ

Parameter Scanning

To disable decoding of parameter bar codes, scan the bar code below. Note that the Set Defaults parameter bar code will still be decoded. To enable decoding of parameter bar codes, scan ENABLE PARAMETER SCANNING, SET ALL DEFAULTS.

ENABLE PARAMETER SCANNING

DISABLE PARAMETER SCANNING

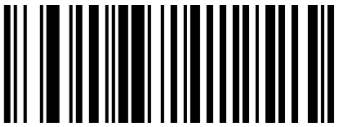
Linear Code Type Security Level

The scanner offers four levels of decode security for linear code types (e.g. Code 39, Interleaved 2 of 5). Please note this does not apply to Code 128. Higher security levels are selected for decreasing levels of bar code quality. AS security levels increase, the scanner's aggressiveness decreases.

Linear Security Level 1

The following code types must be successfully read twice before being decoded:

Code Type	Length
Codabar	All
MSI Plessey	4 or less
Discrete 2 of 5	8 or less
Interleaved 2 of 5	8 or less



LINEAR SECURITY LEVEL 1

Linear Security Level 2

The following code types must be successfully read twice before being decoded:

Code Type	Length
All	All

LINEAR SECURITY LEVEL 2

Linear Security Level 3

Code types other than the following must be successfully read twice before being decoded. The following codes must be read three times:

Code Type	Length
MSI Plessey	4 or less
Discrete 2 of 5	8 or less
Interleaved 2 of 5	8 or less

LINEAR SECURITY LEVEL 3

Linear Security Level 4

The following code types must be successfully read three times before being decoded:

Code Type	Length
All	All

LINEAR SECURITY LEVEL 4

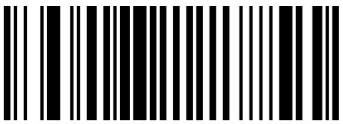
Bi-directional Redundancy

This parameter is only valid when a Linear Code Type Security Level has been enabled. When this parameter is enabled, a bar code must be successfully scanned in both directions (forward and reverse) before being decoded.

ENABLE BI-DIRECTIONAL REDUNDANCY

DISABLE BI-DIRECTIONAL REDUNDANCY

Enabling/disabling UPC-A bar code

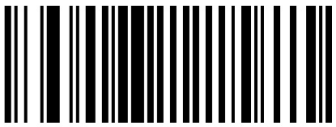


ENABLE UPC-A

DISABLE UPC-A

Enabling/disabling UPC-E bar code

ENABLE UPC-E



DISABLE UPC-E

Enabling/disabling UPC-E1 bar code

ENABLE UPC-E1

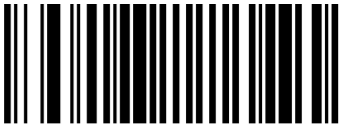
DISABLE UPC-E1

Enabling/disabling EAN-8

ENABLE EAN-8

DISABLE EAN-8

Enabling/disabling EAN-13



ENABLE EAN-13

DISABLE EAN-13

Enabling/disabling Bookland EAN

ENABLE BOOKLAND EAN

DISABLE BOOKLAND EAN

Decode UPC/EAN Supplementals

Supplementals are additionally appended characters (2 or 5) according to specific code format conventions (e.g. UPC a+2, UPC E+2, EAN 8+2). Three options are available:

- If UPC/EAN with supplemental characters is selected, UPC/EAN symbols without supplemental characters are not decoded.
- If UPC/EAN without supplemental characters is selected, and the scanner is presented with a UPC/EAN plus supplemental symbol, the UPC/EAN is decoded and the supplemental characters ignored.
- An autodiscriminate option is also available. If this option is selected, scan Decode UPC/EAN Supplemental Redundancy on page 17, then select a value form the numeric bar codes beginning on page 46. A value of 5 or more is recommended.

Note: In order to minimize the risk of invalid data transmission, the scanner manufacturer recommends that you select whether to read or ignore supplemental characters.

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

DECODE UPC/EAN WITH SUPPLEMENTALS

IGNORE UPC/EAN WITH SUPPLEMENTALS

AUTODISCRIMINATE UPC/EAN SUPPLEMENTALS

Decode UPC/EAN Supplemental Redundancy

With Autodiscriminate UPC/EAN Supplementals selected, this option adjusts the number of times a symbol without supplementals will be 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 code beginning on page 46. Single digit numbers must have a leading zero. If you make an error, or wish to change your selection, scan the CANCEL bar code on page 47.

DECODE UPC/EAN SUPPLEMENTAL REDUNDANCY

Transmit UPC-A Check Digit

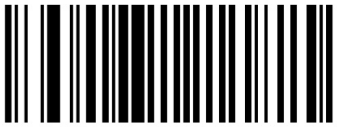
Scan the appropriate bar code below to transmit the symbol with our without the UPC-A check digit.

DO NOT TRANSMIT UPC-A CHECK DIGIT

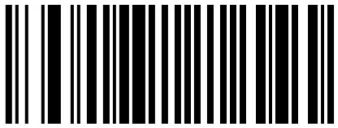
TRANSMIT UPC-A CHECK DIGIT

Transmit UPC-E Check Digit

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



TRANSMIT UPC-E CHECK DIGIT



DO NOT TRANSMIT UPC-E CHECK DIGIT

Transmit UPC-E1 Check Digit

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

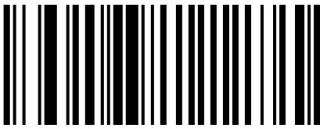
TRANSMIT UPC-E1 CHECK DIGIT

DO NOT TRANSMIT UPC-E1 CHECK DIGIT

UPC-A Preamble

Three options are given for lead-in characters for UPC-A symbols transmitted to the host device: transmit system character only, transmit system character and country code, and no preamble transmitted. The lead-in characters are considered part of the symbol.

NO PREAMBLE



SYSTEM CHARACTER

SYSTEM CHARACTER & COUNTRY CODE

UPC-E Preamble

Three options are given for lead-in characters for UPC-E symbols transmitted to the host device: transmit system character only, transmit system character and country code, and no preamble transmitted. The lead-in characters are considered part of the symbol.

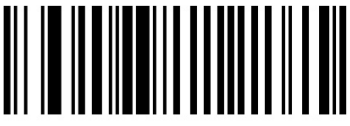
NO PREAMBLE

SYSTEM CHARACTER

SYSTEM CHARACTER & COUNTRY CODE

UPC E1 Preamble

Three options are given for lead-in characters for UPC-E1 symbols transmitted to the host device: transmit system character only, transmit system character and country code, and no preamble transmitted. The lead-in characters are considered part of the symbol.



NO PREAMBLE

SYSTEM CHARACTER

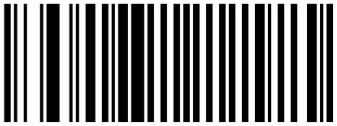
SYSTEM CHARACTER & COUNTRY CODE

Convert UPC-E to UPC-A

This parameter converts 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).

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

CONVERT UPC-E TO UPC-A (ENABLE)



DO NOT CONVERT UPC-E TO UPC-A

Convert UPC-E1 to UPC-A

CONVERT UPC-E1 TO UPC-A

DO NOT CONVERT UPC-E1 TO UPC-A

EAN Zero Extend

When this parameter is enabled, five leading zeros are added to decoded EAN-8 symbols to make them compatible in format to EAN-13 symbols. Disabling this parameter returns EAN-8 symbols to their normal format.

ENABLE EAN ZERO EXTEND

DISABLE EAN ZERO EXTEND

Convert EAN-8 to EAN-13 Type

When EAN Zero Extend is enabled, this parameter gives you the option of labeling the extended symbol as either an EAN-13 bar code, or an EAN-8 bar code. This affects Transmit Code ID Character and DECODE_DATA message. When EAN Zero Extend is disabled, this parameter has no effect on bar code data.

TYPE IS EAN-13

TYPE IS EAN-8

UPC/EAN Security Level

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. There is an inverse relationship between security and scanner aggressiveness, so be sure to choose only that level of security necessary for any given application.

UPC/EAN Security Level 0

This is the default setting which allows the scanner to operate in its most aggressive state, while providing sufficient security in decoding “in-spec” UPC/EAN bar codes.

UPC/EAN SECURITY LEVEL 0

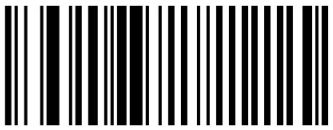
UPC/EAN Security Level 1

As bar code quality levels diminish, certain characters become prone to mis-decodes before others (i.e. 1, 2, 7, 9). If you are experiencing mis-decodes of poorly printed bar codes, and the mis-decodes are limited to these characters, select this security level.

UPC/EAN SECURITY LEVEL 1

UPC/EAN Security Level 2

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



UPC/EAN SECURITY LEVEL 2

UPC/EAN Security Level 3

If you have tried Security Level 2, and are still experiencing misdecodes, 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 scanner. If this level of security is necessary, you should try to improve the quality of your bar codes.

UPC/EAN SECURITY LEVEL 3

UPC/EAN Coupon Code

When enabled, this parameter decodes UPC-A, UPC-A with 2 supplemental characters, UPC-A with 5 supplemental characters, and UPC-A/EAN128 bar codes. Autodiscriminate UPC/EAN Supplementals must be enabled.

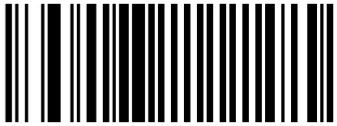
ENABLE UPC/EAN COUPON CODE

DISABLE UPC/EAN COUPON CODE

CODE 128

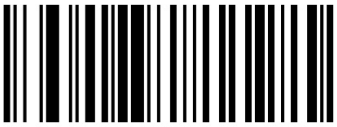
Enable/Disable USS-128

ENABLE USS-128

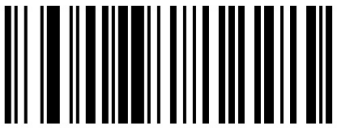


DISABLE USS-128

Enable/Disable UCC/EAN-128



ENABLE UCC/EAN-128



DISABLE UCC/EAN-128

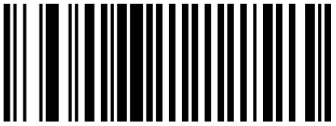
Enable/Disable ISBT 128

ENABLE ISBT 128

DISABLE ISBT 128

CODE 39

ENABLE CODE 39



DISABLE CODE 39

Enable/Disable Trioptic Code 39

Trioptic Code 39 symbols always contain six characters. Trioptic Code 39 and Code 39 Full ASCII should not be enabled simultaneously.

ENABLE TRIOPTIC CODE 39

DISABLE TRIOPTIC CODE 39

Convert Code 39 to Code 32

CONVERT CODE 39 TO CODE 32

DO NOT CONVERT CODE 39 TO CODE 32

Code 32 Prefix

Enable this parameter to add the prefix to add the prefix character “A” to all Code 32 bar codes.

ENABLE CODE 32 PREFIX

DISABLE CODE 32 PREFIX

Set Lengths for Code 39

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

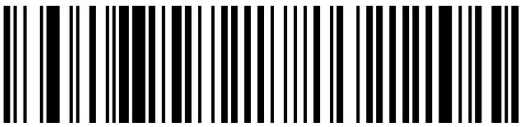
One Discrete Length

This option allows you to decode only those codes containing a selected length. For example, if you select Code 39 One Discrete Length, then scan 1, 4, only Code 39 symbols containing 14 characters are decoded. Numeric bar codes begin on page 46. If you make an error, or wish to change your selection, scan the CANCEL bar code on page 47.

CODE 39 - ONE DISCRETE LENGTH

Two Discrete Lengths

This option allows you to decode only those codes containing two selected lengths. For example, if you select Code 39 Two Discrete Lengths then scan 0, 2, 1, 4 only Code 39 symbols containing 2 or 14 characters are decoded. Numeric bar codes begin on page 46. If you make an error, or wish to change your selection, scan the CANCEL bar code on page 47.



CODE 39 - TWO DISCRETE LENGTHS

Length Within range

This option allows you to decode a code type 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 (single digit numbers must always be preceded by a leading zero). Numeric bar codes begin on page 46. If you make an error, or wish to change your selection, scan the CANCEL bar code on page 47.

CODE 39 - LENGTH WITHIN RANGE

Any Length

Scanning this option allows you to decode Code 39 symbols containing any number of characters.

CODE 39 - ANY LENGTH

Code 39 Check Digit Verification

When enabled, this parameter checks the integrity of a Code 39 symbol to ensure it complies with specified algorithms. Only those Code 39 symbols which include a modulo 43 check digit are decoded when this parameter is enabled.

ENABLE CODE 39 CHECK DIGIT

DISABLE CODE 39 CHECK DIGIT

Transmit Code 39 Check Digit

Scan this symbol if you want to transmit the check digit with the data.

TRANSMIT CODE 39 CHECK DIGIT

Scan this symbol if you want to transmit the data without the check digit.

DO NOT TRANSMIT CODE 39 CHECK DIGIT

Enable/Disable Code 39 Full ASCII

To enable or disable Code 39 Full ASCII, scan the appropriate bar code below. When enabled, the ASCII character set assigns a code to letters, punctuation marks, numerals, and most control keystrokes on the keyboard. The first 32 codes are non-printable and are assigned to keyboard control characters such as BACKSPACE and RETURN. The other 96 are called printable codes because all but SPACE and DELETE produce visible characters.

Code 39 Full ASCII interprets the bar code special character ($ + % /) preceding a Code 39 character and assigns an ASCII character value to the pair. For example, when Code 39 Full ASCII is enabled and a +B is scanned, it is interpreted as b, %J as ?, and $H emulates the keystroke BACKSPACE. Scanning ABC$M outputs the keystroke equivalent of ABC ENTER.

Code 39 full ASCII and Trioptic Code 39 should not be enabled simultaneously. The scanner does not autodiscriminate between Code 39 and Code 39 Full ASCII.

ENABLE CODE 39 FULL ASCII

DISABLE CODE 39 FULL ASCII

Code 93

ENABLE CODE 93

DISABLE CODE 93

Set lengths for Code 93

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

One & two discrete Lengths – Please see explanation on one & two discrete lengths on preceding chapter about Code 39.

CODE 93 - ONE DISCRETE LENGTH

CODE 93 - TWO DISCRETE LENGTHS

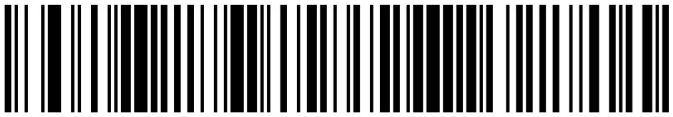
Set Length for Code 93

Please see explanation on length within range on preceding chapter about Code 39.

CODE 93 - LENGTH WITHIN RANGE

Any Length

Scanning this option allows you to decode Code 93 symbols containing any number of characters.



CODE 93 - ANY LENGTH

Interleaved 2 of 5

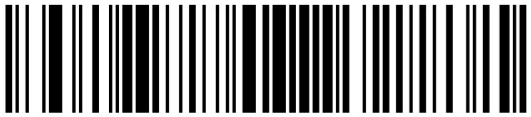
ENABLE INTERLEAVED 2 OF 5

DISABLE INTERLEAVED 2 OF 5

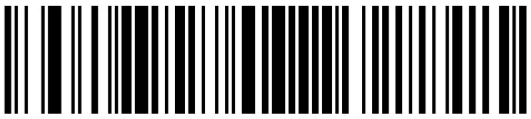
Set Lengths for Interleaved 2 of 5

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

One & two discrete Lengths – Please see explanation on one & two discrete lengths on preceding chapter about Code 39.



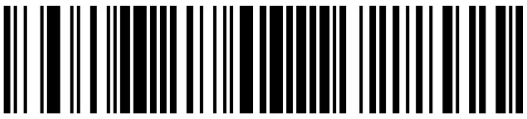
I 2 of 5 - ONE DISCRETE LENGTH



I 2 of 5 - TWO DISCRETE LENGTHS

Length Within Range

Please see explanation on length within range on chapter about Code 39.



I 2 of 5 - LENGTH WITHIN RANGE

Any length

Scanning this option allows you 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 or 5 Check Digit Verification

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

USS CHECK DIGIT

OPCC CHECK DIGIT

Transmit I 2 of 5 Check Digit

Scan this symbol if you want to transmit the check digit with the data.

TRANSMIT I 2 of 5 CHECK DIGIT

Scan this symbol if you want to transmit the data without the check digit.

DO NOT TRANSMIT I 2 of 5 CHECK DIGIT

Convert I 2 of 5 to EAN-13

This parameter converts a 14 character I 2 of 5 code into EAN-13, and transmits to the host as EAN-13. In order to accomplish this, the I 2 of 5 code 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)

DO NOT CONVERT I 2 of 5 to EAN-13

Discrete 2 of 5

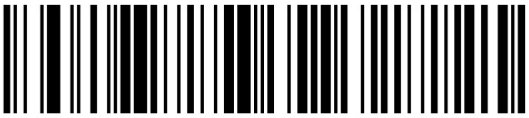
ENABLE DISCRETE 2 OF 5

DISABLE DISCRETE 2 OF 5

Set Lengths for Discrete 2 of 5

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

One & two discrete Lengths – Please see explanation on one & two discrete lengths on chapter about Code 39.

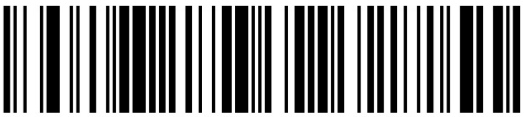


D 2 of 5 - ONE DISCRETE LENGTH

D 2 of 5 - TWO DISCRETE LENGTHS

Length Within Range

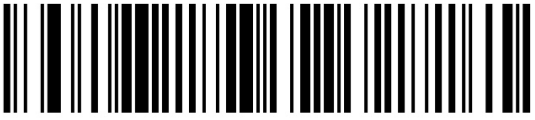
Please see explanation on length within range on chapter about Code 39.



D 2 of 5 - LENGTH WITHIN RANGE

Any length

Scanning this option allows you 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

Codabar

ENABLE CODABAR

DISABLE CODABAR

Set Lengths for Codabar

Lengths for Codabar may be set for any length, one or two discrete lengths, or lengts within a specific range. The length of a code refers to the number of characters (i.e. human readable characters) the code contains. It also includes any start or stop characters.

One & two discrete Lengths – Please see explanation on one & two discrete lengths on chapter about Code 39.

CODABAR - ONE DISCRETE LENGTH

CODABAR - TWO DISCRETE LENGTHS

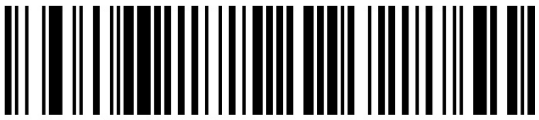
Length Within Range

Please see explanation on length within range on chapter about Code 39.

CODABAR - LENGTH WITHIN RANGE

Any length

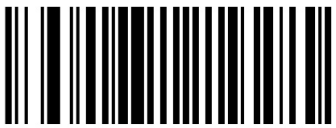
Scanning this option allows you to decode Codabar symbols containing any number of characters.



CODABAR - ANY LENGTH

CLSI Editing

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).



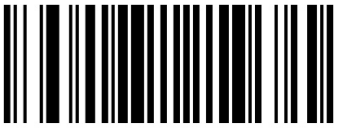
ENABLE CLSI EDITING

DISABLE CLSI EDITING

NOTIS Editing

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

ENABLE NOTIS EDITING



DISABLE NOTIS EDITING

MSI Plessey

ENABLE MSI PLESSEY

DISABLE MSI PLESSEY

Set Lengths for MSI Plessey

Lengths for MSI Plessey may be set for any length, one or two discrete lengths, or lengths within a specific range. The length of a code refers to the number of characters (i.e. human readable characters) the code contains. It also includes any start or stop characters.

One & two discrete Lengths – Please see explanation on one & two discrete lengths on chapter about Code 39.

MSI Plessey - ONE DISCRETE LENGTH

MSI Plessey - TWO DISCRETE LENGTHS

Length Within Range

Please see explanation on length within range on chapter about Code 39.

MSI Plessey - LENGTH WITHIN RANGE

Any length

Scanning this option allows you to decode MSI Plessey symbols containing any number of characters. (Note: Selecting this option may lead to misdecodes for MSI Plessey codes).

MSI Plessey - ANY LENGTH

MSI Plessey Check Digits

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 Plessey CHECK DIGIT

If two check digits are selected, an MSI Plessey Check Digit Algorithm must also be selected.

TWO MSI Plessey CHECK DIGIT

Transmit MSI Plessey Check Digit

Scan this symbol if you want to transmit the check digit with the data.

TRANSMIT MSI Plessey CHECK DIGIT (ENABLE)

Scan this symbol if you want to transmit the data without the check digit.

DO NOT TRANSMIT MSI Plessey CHECK DIGIT (DISABLE)

MSI Plessey Check Digit Algorithm

When the Two MSI Plessey check digits option is selected, an additional verification is required to ensure integrity. Either of the two following algorithms may be selected.

MOD 10/ MOD 11

MOD 10/ MOD 10

Transmit Code ID Character

A code ID character identifies the code type of a scanned bar code. This may be useful when the scanner is decoding more than one code type. In addition to any single character prefix already selected, the code ID character is inserted between the prefix and the decoded symbol. The user may select no code ID character, a Symbol Code ID character, or an AIM Code ID character. The Symbol Code ID characters are listed below.

A	UPC-A, UPC-E, UPC-E1, EAN-8, EAN-13
B	Code 39, Code 32
C	Codabar
D	Code 128, ISBT 128
E	Code 93
F	Interleaved 2 of 5
G	Discrete 2 of 5, or Discrete 2 of 5 IATA
J	MSI Plessey
K	UCC/EAN-128
L	Bookland EAN
M	Trioptic Code 39
N	Coupon Code

AIM CODE ID CHARACTER

SYMBOL CODE ID CHARACTER

NONE

Prefix/Suffix Values

A prefix and/or one or two suffixes may be appended to scan data for use in data editing. These values are set by scanning a four digit number (i.e. four bar codes) that correspond to terminal's key codes. See Numeric Bar Codes on page 46. If you make an error, or wish to change your selection, scan the CANCEL bar code on page 47. (Note: In order to use Prefix/Suffix values, the Scan Data Transmission Format must be set. See next page).

SCAN PREFIX

SCAN SUFFIX 1

SCAN SUFFIX 2

DATA FORMAT CANCEL

Scan Data Transmission Format

To change the Scan Data Transmission Format, scan one of the eight bar codes below or on the following pages corresponding to the desired format.

DATA AS IS

<DATA> <SUFFIX 1>

<DATA> <SUFFIX 2>

<DATA> <SUFFIX 1> <SUFFIX 2>

<PREFIX> <DATA >

<PREFIX> <DATA> <SUFFIX 1>

<PREFIX> <DATA> <SUFFIX 2>

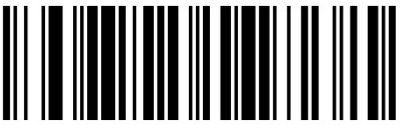
<PREFIX> <DATA> <SUFFIX 1> <SUFFIX 2>

Scan Angle

Choose one of the options below to adjust the visible scan width in scanners that support laser clipping. The scan width is reduced by software control.

No Clipping

Minimum Clipping



Medium Clipping

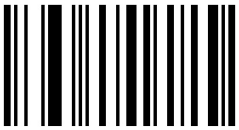
Maximum Clipping

Numeric Bar Codes

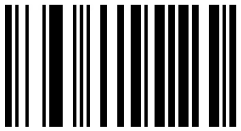
For parameters requiring specific numeric values, scan the appropriately numbered bar code(s).

0

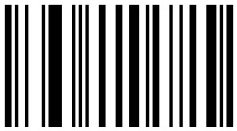
5



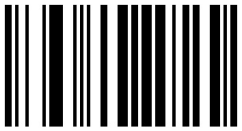
1



6



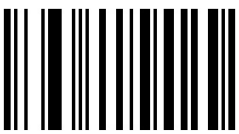
2



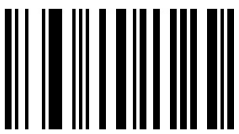
7

3

8



4



9

CANCEL

If you make an error, or wish to change your selection, scan the bar code below.

CANCEL