

# Configuration Guide

# Release Notes

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<u>Version</u>	<u>Date</u>	<u>Notes</u>
June 2009	June 30, 2009	First release

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# Factory Default Setting

---



Start of Configuration

## Reset



Restore the factory parameter

## Version



Show the firmware version

# Scanner Operation

---

## Communication - Interface Selection



RS 232



Keyboard (Default)



USB

## Buzzer Options



Boot Sound ON (Default)



Boot Sound OFF



Normal Beep (Default)



NO Beep



End of Configuration

# Scanner Options

---



Start of Configuration

## Scan Mode



**Button switch mode**



**Turn OFF mode after identification (Default)**



**Continuous recognition**



**Test reading mode**



**Continuous recognition / LED on**



**Continuous recognition / Timeout off**



**Continuous recognition / flash**

## Scan accuracy



**Scan once then transmit <Default>**



**Scan twice then transmit**

## Bar level setting



**Bar = High <Default>**



**Bar = Low**



End of Configuration

# Scanner Options



Start of Configuration

## Prefix / Suffix

### Prefix /Suffix String

A max. of 10 ASCII characters could be added before or after the bar code data.  
No action can be done if it is set to 0.

Format:

<i>Prefix</i>	<i>Barcode Data</i>	<i>Suffix</i>
---------------	---------------------	---------------

Instructions:

1. Read start of configuration
2. Read Set Prefix/Suffix label.
3. See table of ASCII code, find the desire characters by reading Decimal Digits on Appendix (ASCII table).
4. Read the "Validate" label to complete this setting.
5. Read End of configuration code.

### G1/G2 group of characters

Each group could add a max. of 10 ASCII characters. Characters can not be insert when it is set to 0.

Instructions:

1. Read start of configuration
2. Read G1/G2 insert character
3. Find the desire characters by reading Appendix (ASCII table).
4. Read G1/G2 insert character location
5. Scan the desire location on Appendix (ASCII table).
6. Read the "Validate" label to complete this setting.
7. Repeat the same steps for G2.
8. Read End of configuration code.



**Set Prefix Characters**



**Set Suffix Characters**



**G1 Insert Character**



**G2 Insert Character**



**G1 Insert Character Location**



**G2 Insert Character Location**



End of Configuration

# Scanner Options

---



Start of Configuration

## Barcode ID



Enable barcode ID (ID+barcode information)



Disable barcode ID <Default>

# Keyboard

---

## Keyboard Types



IBM AT <Default>



IBM XT



IBM PS/2 30-80



IBM 5550



PS/2 25, 30



NEC 9801



End of Configuration



# Keyboard



Start of Configuration

## Country/Scan Code



**USA Keyboard <Default>**



**Italy Keyboard**



**Spain Keyboard**



**France Keyboard**



**Germany Keyboard**



**Japan Keyboard**

## Special Keyboard Features



**Disable Function Key <Default>**



**Enable Function Key**  
Use ASCII characters to send Function Key Codes



**Disable Keyboard Emulation <Default>**



**Enable Keyboard Emulation**  
Use this with special stand-alone models that are not cabled for an external keyboard.



**Disable Alt-Mode <Default>**



**Enable Alt-Mode**



**Disable Caps Lock <Default>**



End of Configuration

# Keyboard



Start of Configuration

## Special Keyboard Features



**Enable Caps Lock**



**Disable Num Lock Key <Default>**



**Enable Num Lock Key**  
Only for PC/AT. Num Lock Key Emulation.

## Inter-Character Delay



**Enable Inter-Character delay <Default 00>**

Instructions:

1. Read the label.
2. Program the desired inter-character delay by reading Decimal Digits on Appendix (00-64H).
3. Read the "Validate" label to complete this setting.

## Suffix



**None**



**CR <Default>**

The Scanner transmits a carriage return after each barcode.



**Tab**

The Scanner transmits a TAB (ASCII 09H) after each barcode.



**ESC**



**CR + LF**



End of Configuration

# Keyboard

---



Start of Configuration

## Delay between Reread



**Enable Delay between Reread <Default 00>**  
Appendix 00-0AH

## Keyboard Speed



**<Default 00, High Clock>**  
Appendix 00-08H

# RS 232

---

## Baud Rate



1200



2400



4800



9600 <Default>



19200



38400



End of Configuration

# RS 232



Start of Configuration

## Data/Stop Bits



### 8 Data Bits <Default>

The Number of data bits transmitted for each character



### 7 Data Bits



### 1 Stop Bits <Default>



### 2 StopBits

## Parity Features

A parity bit is an extra data bit used to help catch data transmission errors. The Scanner's parity must match the host's parity.



### No <Default>



### Odd parity

Select to set the parity bit to either a 1 or a 0 to ensure an odd number of bits are 1's.



### Even parity

Select to set the parity bit to either a 1 or a 0 to ensure an even number of bits are 1's.



### Space parity

Select to set the parity bit always 0.



### Mark parity

Select to set the parity bit always 1.



End of Configuration

# RS 232

---



Start of Configuration

## Inter-Character Delay



### Enable Inter-Character delay <Default 00>

Instructions:

1. Read the label.
2. Set the desire inter-character delay by scanning Decimal Digits on Appendix (00-64H).
3. Read the "Validate" label to complete this setting.

## Delay between reread



### Enable Delay between Reread <Default 00>

Appendix (00-0AH)

## Protocol response delay



### Enable <Default 00>

Appendix (00-0AH)

## Flow Control



### None <Default>



### Enable RTS/CTS



### Enable ACK/NAK



### Enable Xon/Xoff



End of Configuration

# RS 232

---



Start of Configuration

## Data Suffix



None



CR+LF <Default>



CR



LF



Tab



STX/ETX



EOT



End of Configuration

# Code Types and Decode Rules

---



Start of Configuration

## UPC-A

---



**Disable UPC-A**



**Enable UPC-A <Default>**

### Set Code ID <Default F>

---



Instructions:  
1. Read "Set Code ID" label.  
2. Set the desire Code ID by scanning the table of ASCII (20-7EH).  
3. Read the "Validate" label to complete this setting.

### UPC-A convert to EAN-13 Add 0 in front of barcode data.

---



**Enable**



**Disable <Default>**

### Checksum Transmission

---



**Enable <Default>**



**Disable**

### Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**

### Supplementary code

---



**NONE <Default>**



**2 Digits**



End of Configuration

# UPC-A

---



Start of Configuration

## Supplementary code

---



5 Digits



2 or 5 Digits

# UPC-E

---



Disable UPC-E



Enable UPC-E <Default>

## Set Code ID <Default G>

---



Instructions:

1. Read "Set Code ID" label.
2. Set the desire Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

## UPC-E convert to UPC-A

Converting 8 digits UPC-E to 12-digits UPC-A

---



Enable



Disable <Default>



End of Configuration



# UPC-E

---



Start of Configuration

## Checksum Transmission

---



Disable



Enable <Default>

## Select insert group (G1/G2)

---



See ASCII (00-02H) <Default 00>

## Supplementary code

---



NONE <Default>



2 Digits



5 Digits



2 or 5 Digits

# EAN-13

---



Disable EAN-13



Enable EAN-13 <Default>



End of Configuration

# EAN-13

---



Start of Configuration

## Set Code ID <Default H>

---



Instructions:  
1. Read "Set Code ID" label.  
2. Set the desired Code ID by scanning the table of ASCII (20-7EH).  
3. Read the "Validate" label to complete this setting.

## Checksum Transmission

---



Disable



Enable <Default>

## Supplementary code

---



NONE <Default>



2 Digits



5 Digits



2 or 5 Digits

## Select insert group (G1/G2)

---



See ASCII (00-02H) <Default 00>

## ISBN / ISSN Conversion

---



Disable <Default>



Enable



End of Configuration

# EAN-8

---



Start of Configuration



**Disable EAN-8**



**Enable EAN-8 <Default>**

## Set Code ID <Default I>

---



Instructions:  
1. Read "Set Code ID" label.  
2. Set the desired Code ID by scanning the table of ASCII (20-7EH).  
3. Read the "Validate" label to complete this setting.

## Checksum Transmission

---



**Disable**



**Enable <Default>**

## Supplementary code

---



**NONE <Default>**



**2 Digits**



**5 Digits**



**2 or 5 Digits**

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration

# Code 39

---



Start of Configuration



**Disable Code 39**



**Enable Code 39 <Default>**

## Set Code ID <Default J>

---



Instructions:

1. Read "Set Code ID" label.
2. Set the desired Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

## Checksum Verification

---



**Disable <Default>**



**Enable**

## Checksum Transmission

---



**Disable**



**Enable <Default>**

## Standard / Full ASCII Code 39

---



**Full ASCII**



**Standard <Default>**



End of Configuration

# Code 39

---



Start of Configuration

## Start / Stop Transmission

---



**Disable <Default>**



**Enable**

## Max. Length

---



**Enable <Default 32H>**

1. Read the label to enable Max. Length qualification
2. Read the Decimal Value label on Appendix (00-32H)
3. Read the "Validate" label to complete this setting

## Min. Length

---



**Enable <Default 00>**

1. Read the label to enable Min. Length qualification
2. Read the Decimal Value label on Appendix (00-32H)
3. Read the "Validate" label to complete this setting

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration

# Codabar

---



Start of Configuration



**Disable Codabar**



**Enable Codabar <Default>**

## Set Code ID <Default K>

---



Instructions:

1. Read "Set Code ID" label.
2. Set the desired Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

## Checksum Verification

---



**Disable**



**Enable <Default>**

## Checksum Transmission

---



**Disable <Default>**



**Enable**

## Start / Stop Characters Selection

---



**ABCD/ABCD <Default>**



**abcd/abcd**



**abcd/tn\*e**



End of Configuration

# Codabar

---



Start of Configuration

## Start / Stop Transmission

---



**Disable <Default>**



**Enable**

## Max. Length

---



**Enable <Default 3CH>**

1. Read the label to enable Max. Length qualification
2. Read the Decimal Value label on Appendix (00-3CH)
3. Read the "Validate" label to complete this setting

## Min. Length

---



**Enable <Default 00>**

1. Read the label to enable Min. Length qualification
2. Read the Decimal Value label on Appendix (00-3CH)
3. Read the "Validate" label to complete this setting

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration

# Code 93

---



Start of Configuration



**Disable Code 93**



**Enable Code 93 <Default>**

## Set Code ID <Default L>

---



Instructions:  
1. Read "Set Code ID" label.  
2. Set the desire Code ID by scanning the table of ASCII (20-7EH).  
3. Read the "Validate" label to complete this setting.

## Checksum Verification

---



**Disable**



**Enable <Default>**

## Checksum Transmission

---



**Disable <Default>**



**Enable**

## Code Length

---



**Enable Min. Length <Default 00>**



**Enable Max. Length <Default 50H>**

1. Read the label to enable Max./Min. Length qualification  
2. Read the Decimal Value label on Appendix (00-50H)  
3. Read the "Validate" label to complete this setting

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration



# Code 128

---



Start of Configuration



**Disable Code 128**



**Enable Code 128 <Default>**

## Set Code ID <Default M>

---



Instructions:

1. Read "Set Code ID" label.
2. Set the desire Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

## Checksum Verification

---



**Disable**



**Enable <Default>**

## Checksum Transmission

---



**Disable <Default>**



**Enable**

## Code Length

---



**Enable Max. Length <Default 7FH>**



**Enable Min. Length <Default 00>**

1. Read the label to enable Max./Min. Length qualification
2. Read the Decimal Value label on Appendix (00-7FH)
3. Read the "Validate" label to complete this setting

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration

# Interleaved 2 of 5

---



Start of Configuration



**Disable Code Interleaved 2 of 5 <Default>**



**Enable Code Interleaved 2 of 5**

## Set Code ID <Default N>

---



Instructions:

1. Read "Set Code ID" label.
2. Set the desire Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

## Checksum Verification

---



**Disable <Default>**



**Enable**

## Checksum Transmission

---



**Disable**



**Enable <Default>**

## Code Length

---



**Enable Min. Length <Default 00>**



**Enable Max. Length <Default 7FH>**

1. Read the label to enable Max./Min. Length qualification
2. Read the Decimal Value label on Appendix (00-7FH)
3. Read the "Validate" label to complete this setting

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration

# Industrial 2 of 5

---



Start of Configuration



**Disable Code industrial 2 of 5 <Default>**



**Enable Code industrial 2 of 5**

## Set Code ID <Default 0>

---



Instructions:

1. Read "Set Code ID" label.
2. Set the desire Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

## Checksum Verification

---



**Disable <Default>**



**Enable**

## Checksum Transmission

---



**Disable <Default>**



**Enable**

## Code Length

---



**Enable Min. Length <Default 00>**



**Enable Max. Length <Default 32H>**

1. Read the label to enable Max./Min. Length qualification
2. Read the Decimal Value label on Appendix (00-32H)
3. Read the "Validate" label to complete this setting

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration

# Matrix 2 of 5

---



Start of Configuration



**Disable Matrix 2 of 5 <Default>**



**Enable Matrix 2 of 5**

## Set Code ID <Default P>

---



Instructions:

1. Read "Set Code ID" label.
2. Set the desire Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

## Checksum Verification

---



**Disable <Default>**



**Enable**

## Checksum Transmission

---



**Disable**



**Enable <Default>**

## Code Length

---



**Enable Min. Length <Default 00>**



**Enable Max. Length <Default 50H>**

1. Read the label to enable Max./Min. Length qualification
2. Read the Decimal Value label on Appendix (00-50H)
3. Read the "Validate" label to complete this setting

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration

# China Post

---



Start of Configuration



**Disable China Post <Default>**



**Enable China Post**

## Set Code ID <Default Q>

---



Instructions:

1. Read "Set Code ID" label.
2. Set the desire Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

## Checksum Verification

---



**Disable <Default>**



**Enable**

## Checksum Transmission

---



**Disable**



**Enable <Default>**

## Code Length

---



**Enable Min. Length <Default 00>**



**Enable Max. Length <Default 50H>**

1. Read the label to enable Max./Min. Length qualification
2. Read the Decimal Value label on Appendix (00-50H)
3. Read the "Validate" label to complete this setting

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration

# MSI/Plessey

---



Start of Configuration



**Disable MSI/Plessey <Default>**



**Enable MSI/Plessey**

## Set Code ID <Default R>

---



Instructions:

1. Read "Set Code ID" label.
2. Set the desire Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

## Checksum Verification

---



**Disable <Default>**



**MOD 10**



**MOD 10/10**



**MOD 11/10**

## Checksum Transmission

---



**Disable**



**Enable <Default>**

## Code Length

---



**Enable Min. Length <Default 00>**



**Enable Max. Length <Default 3CH>**

1. Read the label to enable Max./Min. Length qualification
2. Read the Decimal Value label on Appendix (00-3CH)
3. Read the "Validate" label to complete this setting

## Select insert group (G1/G2)

---



**See ASCII (00-02H) <Default 00>**



End of Configuration

# Code 32

---



Start of Configuration



**Disable Code 32 <Default>**



**Enable Code 32**

---

## Set Code ID <Default R>



Instructions:

1. Read "Set Code ID" label.
2. Set the desired Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

---

## Checksum Verification



**Disable**



**Enable <Disable>**

---

## Checksum Transmission



**Disable**



**Enable <Default>**

---

## Select insert group (G1/G2)



**See ASCII (00-02H) <Default 00>**



End of Configuration

# Code 11

---



Start of Configuration



**Disable Code 11 <Default>**



**Enable Code 11**

---

## Set Code ID <Default T>



Instructions:  
1. Read "Set Code ID" label.  
2. Set the desired Code ID by scanning the table of ASCII (20-7EH).  
3. Read the "Validate" label to complete this setting.

---

## Checksum Verification



**Disable**



**Enable <Disable>**

---

## Checksum Transmission



**Disable <Default>**



**Enable**

---

## Select insert group (G1/G2)



**See ASCII (00-02H) <Default 00>**





















End of Configuration



# ASCII Barcode

---

	0		A
	1		B
	2		C
	3		D
	4		E
	5		F
	6		Y
	7		N
	8		
	9		



Validate

## ASC II Table

---

	0	1	2	3	4	5	6	7
0	NUL	DLE	SP	0	@	P	`	p
1	SOH	DC1	!	1	A	Q	a	q
2	STX	DC2	"	2	B	R	b	r
3	ETX	DC3	#	3	C	S	c	s
4	EOT	DC4	\$	4	D	T	d	t
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB	'	7	G	W	g	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUM	*	:	J	Z	j	z
B	VT	ESC	+	;	K	[	k	{
C	FF	FS	,	<	L	\	l	
D	CR	GS	-	=	M	}	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	_	o	Del

## Table of Function Key Emulation

---

	0	1
0	NULL	
1	UP	F1
2	DOWN	F2
3	LEFT	F3
4	RIGHT	F4
5	PAGE UP	F5
6	PAGE DOWN	F6
7		F7
8	BS	F8
9	TAB	F9
A	LF	F10
B	HOME	ESC
C	END	F11
D	ENTER	F12
E	INSERT	
F	DELETE	