POSX
POINT OF SALE SIMPLIFIED

ION Short Range

Barcode Scanner

User's Guide

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Chapter 1 - System Information

1.1 About this manual

This User's Guide provides detailed programming instructions. Barcode scanners are factory programmed for the most common communication settings. If you need to change these settings, programming is accomplished by scanning the barcodes in this guide.

1.2 How to set up the parameter -I

(1) Scan Start Configuration

(2) Scan all necessary barcodes

(3) Scan End Configuration to end the programming

Start configuration

End configuration

Standard Product Defaults Setting

Check Version

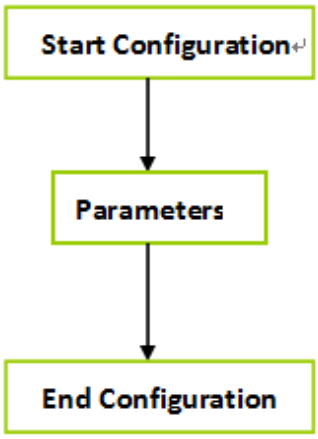
An asterisk (*) next to an option indicates the default setting.

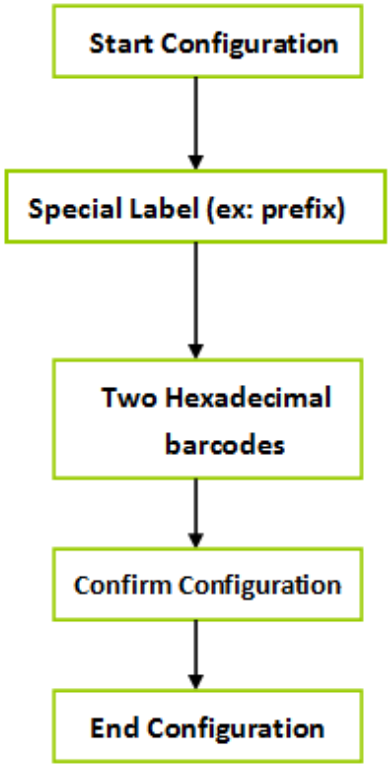
1.3 How to set up the parameter - II

Generally, you will only need to scan one barcode for most parameters. You will hear two beeps when you successfully set the new values. In some cases, when using special parameters you may need to read more than one barcode. For example:

- Hexadecimal barcodes, such as, prefix or suffix
- Numeric barcode, such as, inter-character delay or min/max length.

To complete the change, you will need to scan the "Confirm" barcode after you scan the parameter barcode. Below is the flow chart to explain two different configurations.





Chapter 2 - System setup

2.1 Interface selection

The scanner is designed to switch easily from interfaces.

No configuration is required for USB interface. Simply plug the scanner in and you are ready to scan.

Start configuration

End configuration

ITEM	OPTION
Interface Selection	KEYBOARD
	RS-232
	* USB
	USB COM

2.1.1 Keyboard emulation parameters setting

Start configuration

End configuration

ITEM	OPTION
Device Selection for keyboard Interface	*IBM AT
	IBM XT
	IBM PS/2 30-80
	IBM 5550
	PS/2 25，30
	NEC 9801
	Reserved 1
	Reserved 2

Start configuration

End configuration

ITEM	OPTION
Language for Keyboard Interface	* USA
	ITALIAN
	SPANISH
	FRENCH
	GERMAN
	JAPANESE
	Multi-Language Support
	Reserved 1

Start configuration

End configuration

ITEM	OPTION
Function Key	* Disable
	Enable
Emulate External Keyboard	* Disable
	Enable
ALT Mode	* Disable
	Enable

NOTE : Emulate External Keyboard

Scan the “Enable” barcode if you do not have an external keyboard. After scanning the Enable barcode, you will need to restart your computer.

Start configuration

End configuration

ITEM	OPTION
Caps Lock	* Disable
	Enable
Num Lock	* Disable
	Enable
Inter Character Delay (Default：00)	Ref: Appendix（00—64H）

Start configuration

End configuration

ITEM	OPTION
Terminator	None
	* CR
	Tab
	ESC
	CR + LF
Block transmission delay (Default：00)	Ref: Appendix（00—0AH）
Keyboard Speed (Default 00: high clock rate)	Ref: Appendix（00—08H）

2.1.2 RS-232 communication setting

Start configuration

End configuration

ITEM	OPTION
Baud Rate	1200bps
	2400bps
	4800bps
	* 9600bps
	19200bps
	38400bps
Data Bits	7 Bits
	* 8 Bits

Start configuration

End configuration

ITEM	OPTION
Stop Bits	* 1 Stop Bits
	2 Stop Bits
Parity	* NONE
	ODD
	EVEN
	Mark
	Space

Start configuration

End configuration

ITEM	OPTION
Inter-character delay (Default：00)	Ref: Appendix（00—64H）
Block transmission delay (Default：00)	Ref: Appendix (00-0AH)
Response delay (Default：00)	Ref: Appendix (00-0AH)
Handshaking	* None
	RTS/CTS
	ACK/NAK
	Xon/Xoff

Start configuration

End configuration

ITEM	OPTION
Terminator For RS-232	None
	* CR+LF
	CR
	LF
	Tab
	STX/ETX
	EOT

Start configuration

End configuration

ITEM	OPTION
Handshaking	* None
	RTS/CTS
	ACK/NAK
	Xon/Xoff

2.2 Scanning mode selection

Start configuration

End configuration

ITEM	OPTION
Reading Mode	* Trigger On/Good Read Off
	Trigger On/Off
	Continuous/Trigger Off
	Continuous/Testing
	Continuous/Trigger on
	Continuous /Auto power on
	Flash
	Flash / Auto Power On

2.3 Beeper tone selection

Start configuration

End configuration

ITEM	OPTION
Beep Tone (Default：09H)	Ref: Appendix (00-10H)
Beep Sound Duration (Default：05H)	Ref: Appendix (00-10H)
Power On Beeper	* Enable
	Disable
Beeper	* ON
	OFF

2.4 String Options (Prefix & Suffix)

This section describes the alterations which can be made to the format of the transmitted data string. A prefix and suffix, 10 characters maximum, may be included in front of or at the end of a scanned barcode.

Format

{Prefix} {Code ID} {Bar Code} {Suffix}

How to set up a prefix?

To configure “## “as prefix

(1) Scan Start Configuration barcode

(2) Scan Preamble barcode

(3) Scan ‘#” twice from FULL ASCII table

(4) Scan Confirm configuration barcode

(5) Scan End Configuration barcode.

How to set up a suffix?

To configure “$$” as suffix

(1) Start configuration barcode

(2) Scan Postamble barcode

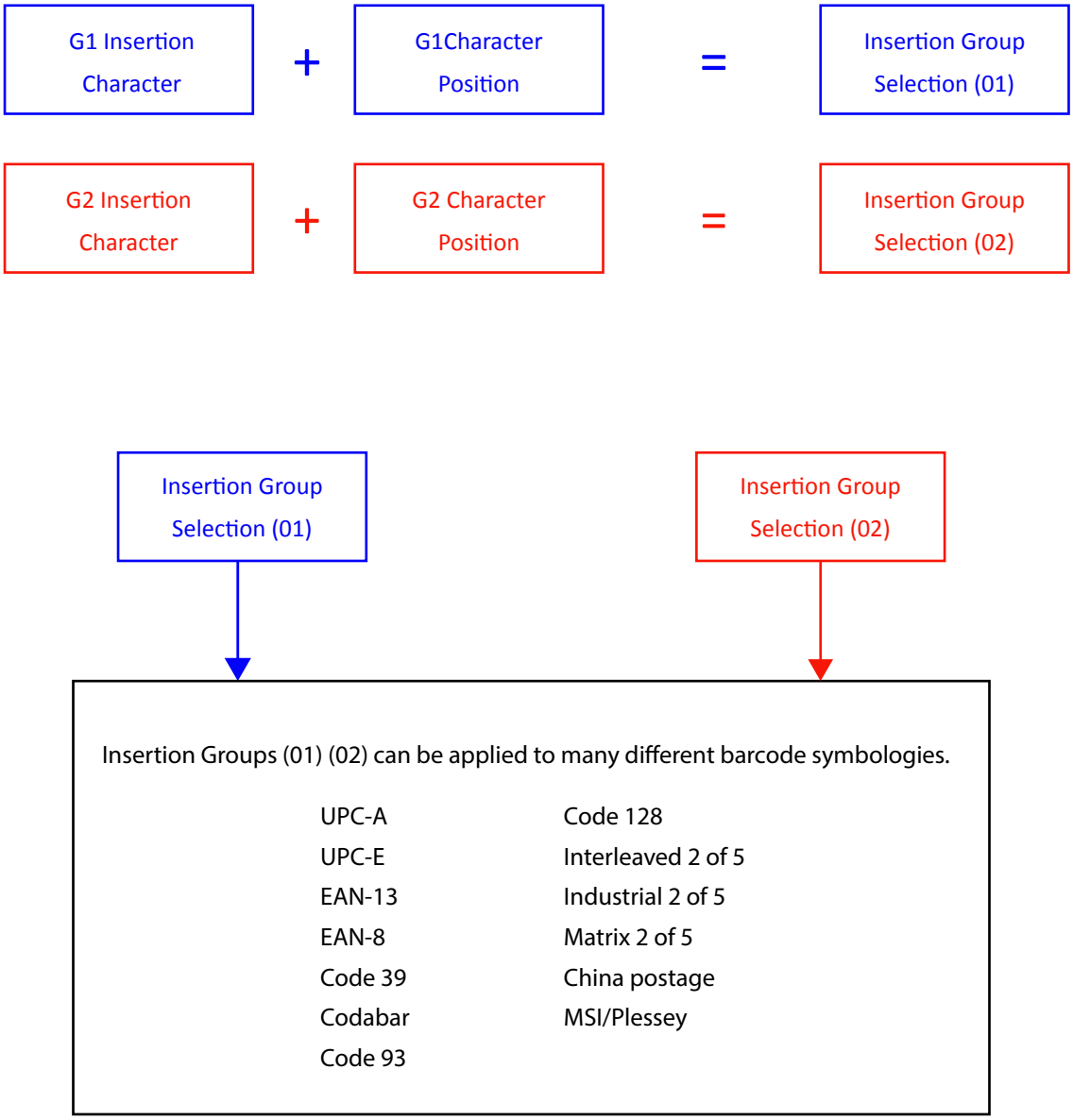
(3) Scan ‘$” twice from FULL ASCII table

(4) Scan Confirm configuration barcode

(5) Scan End configuration barcode.

2.5 Setup Insertion

This section describes how to setup the insertion of output.



NOTE :

Max. 10 charters can be inserted each time

Max. Insertion group is two

Insertion Group (01) or (02) can be used on different barcode symbologies at the same time

Example:

To insert character “A” before the third digit(3)

Final Output will be: 12A3456789

How to set up a character you want to insert

(1) Scan Start Configuration barcode

(2) Scan “G1 Insertion character”

(3) Scan “4” and “1” from FULL ASCII Table

(4) Scan Confirm configuration barcode

(5) Scan End configuration barcode

How to set up position you wish to place the character

(6) Scan Start Configuration barcode

(7) Scan “G1 Character Position”

(8) Scan “0” and “3” from FULL ASCII Table (which repesents the position)

(9) Scan Confirm configuration barcode

(10) Scan End configuration barcode

How to set up insertion for code 39

Go to chapter 3.5 (code 39)

(11) Scan Start Configuration barcode

(12) Scan “Insert group selection” barcode

(13) scan “0” and “1” from FULL ASCII Table
(which presents the group- 01 you just set up previously)

(14) Scan Confirm configuration barcode

(15) Scan End configuration barcode

Start configuration

End configuration

Confirm configuration

ITEM	OPTION
Preamble (Default：00)	Ref: Appendix
Postamble (Default：00)	Ref: Appendix
G1 Insertion character (Default：00)	Ref: Appendix
G2 Insertion character (Default：00)	Ref: Appendix
G1 Character Position to be inserted (Default：00)	Ref: Appendix
G2 Character Position to be inserted (Default：00)	Ref: Appendix

Start configuration

End configuration

ITEM	OPTION
Bar Code ID	*Disable
	Enable
Accuracy	* Read 1 Time
	Read 2 Times
Reading	Bar equals high
	Bar equals low

Code Type	ID	Code Type	ID
UPC-A	F	Interleaved 25	N
UPC-E	G	Industrial 25	O
EAN-13	H	Matrix 25	P
EAN-8	I	China Postal Code	Q
Code 39	J	MSI/Plessey	R
Codabar	K	Code 32	S
Code 93	L	Code 11	T
Code 128	M	Telepen	V

Chapter 3 - Barcode parameters setting

How to set up a Code ID?

(1) Scan Start configuration barcode

(2) Go to the ASCII Table and scan the barcodes that represent the characters you want inserted.

(3) Scan Confirm configuration barcode

(4) Scan End configuration barcode

Start configuration

End configuration

Confirm configuration

3.1 UPC-A

ITEM	OPTION
Read	Disable
	* Enable
Code ID Setting (Default : F)	Ref: Appendix (20-7EH)

Start configuration

End configuration

ITEM	OPTION
UPC-A Expand to EAN-13	* Disable
	Enable
Check Digit Send	Disable
	* Enable
Truncate Leading Zero	* Disable
	Enable
Truncate Leading (Default:00)	Ref: Appendix (00-0DH)
Truncate Ending (Default:00)	Ref: Appendix (00-0DH)
Insert group selection	Ref: Appendix（00—02H）

Start configuration

End configuration

ITEM	OPTION
Supplement digits	* NONE
	2 digits
	5 digits
	2 or 5digits
	Auto-discriminate Supplement

3.2 UPC-E

Start configuration

End configuration

ITEM	OPTION
Read	Disable
	* Enable
Code ID setting (Default : G)	Ref: Appendix (20-7EH)

Start configuration

End configuration

ITEM	OPTION
UPC-E Expand to UPC-A	* Disable
	Enable
Check Digit Send	Disable
	* Enable
Truncate Leading (Default:00)	Ref: Appendix (00-08H)
Truncate Ending (Default:00)	Ref: Appendix (00-08H)
Insert group selection (Default:00)	Ref: Appendix (00-02H)

Start configuration

End configuration

ITEM	OPTION
Truncate Leading Zero	* Disable
	Enable
Supplement digits	* None
	2 digits
	5 digits
	2 or 5 digits
	Auto-discriminate Supplement

3.3 EAN-13

Start configuration

End configuration

ITEM	OPTION
Read	Disable
	* Enable
Code ID setting (Default : H)	Ref: Appendix (20-7EH)
Check Digit Send	Disable
	* Enable
Truncate Leading (Default : 00)	Ref: Appendix (00-0DH)
Truncate Ending (Default : 00)	Ref: Appendix (00-0DH)

Start configuration

End configuration

ITEM	OPTION
Supplement digits	* None
	2 digits
	5 digits
	2 or 5 digits
	Auto-discriminate Supplement
ISBN/ISSN Conversion	* Disable
	Enable
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.4 EAN-8

Start configuration

End configuration

ITEM	OPTION
Read	Disable
	* Enable
Code ID setting (Default : I)	Ref: Appendix (20-7EH)
Check Digit Send	Disable
	* Enable
Truncate Leading (Default : 00)	Ref: Appendix (00-08H)

Start configuration

End configuration

ITEM	OPTION
Truncate Ending (Default : 00)	Ref: Appendix (00-08H)
Supplement digits	* None
	2 digits
	5 digits
	2 or 5 digits
	Auto-discriminate Supplement
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.5 Code39

Start configuration

End configuration

ITEM	OPTION
Read	Disable
	* Enable
Code ID setting (Default : J)	Ref: Appendix (20-7EH)
Check-sum verification	* Disable
	Enable
Check-sum transmission	Disable
	* Enable

Start configuration

End configuration

ITEM	OPTION
Append	* Disable
	Enable
Min. code length (Default: 00)	Ref: Appendix (00-32H)
Max. code length (Default: 32H)	Ref: Appendix (00-32H)
Format	* Standard Code39
	Code 39 Full ASCII

Start configuration

End configuration

ITEM	OPTION
Transmit Start/End Character	* Disable
	Enable
Truncate Leading (Default: 00)	Ref: Appendix (00-32H)
Truncate Ending (Default: 00)	Ref: Appendix (00-32H)
Insert group selection (Default: 00)	Ref: Appendix (00-02H)

3.6 Codabar

Start configuration

End configuration

ITEM	OPTION
Read	Disable
	* Enable
Code ID setting (Default : K)	Ref: Appendix (20-7EH)

Start configuration

End configuration

ITEM	OPTION
Check-sum verification	Disable
	* Enable
Check-sum transmission	* Disable
	Enable
Append	* Disable
	Enable
Truncate Leading (Default:00)	Ref: Appendix (00-7EH)

Start configuration

End configuration

ITEM	OPTION
Truncate Ending (Default:00)	Ref: Appendix (00-7EH)
Start/End type	* ABCD/ABCD
	abcd/abcd
	abcd/tn*e
Start/End transmission	* Disable
	Enable
Min. code length (Default: 05)	Ref: Appendix (00-3CH)

Start configuration

End configuration

ITEM	OPTION
Max. code length (Default: 3CH)	Ref: Appendix (00-3CH)
Insert group selection (Default: 00)	Ref: Appendix (00-02H)

3.7 Code93

Start configuration

End configuration

ITEM	OPTION
Read	Disable
	* Enable
Code ID setting (Default : L)	Ref: Appendix (20-7EH)
Check-sum verification	Disable
	* Enable

Start configuration

End configuration

ITEM	OPTION
Check-sum transmission	* Disable
	Enable
Min. code length (Default: 00)	Ref: Appendix (0-50H)
Max. code length (Default: 50H)	Ref: Appendix (0-50H)
Truncate Leading (Default: 00)	Ref: Appendix (00-7EH)
Truncate Ending (Default: 00)	Ref: Appendix (00-7EH)
Insert group selection	Ref: Appendix (00-02H)

3.8 Code 128

Start configuration

End configuration

ITEM	OPTION
Read	Disable
	* Enable
Code ID setting (Default : M)	Ref: Appendix (20-7EH)
Check-sum verification	Disable
	* Enable

Start configuration

End configuration

ITEM	OPTION
Check-sum transmission	* Disable
	Enable
FNC2 Append	* Disable
	Enable
UCC/EAN128	* Disable
	Enable
FNC1 transmission	* Disable
	Enable

Start configuration

End configuration

ITEM	OPTION
Truncate Leading (Default: 00)	Ref: Appendix (00-7FH)
Truncate Ending (Default: 00)	Ref: Appendix (00-7FH)
Min. code length (Default: 00)	Ref: Appendix (00-7FH)
Max. code length (Default: 7FH)	Ref: Appendix (00-7FH)
Insert group selection (Default: 00)	Ref: Appendix (00-02H)

3.9 Interleaved 2 of 5

Start configuration

End configuration

ITEM	OPTION
Read	* Disable
	Enable
Code ID setting (Default : N)	Ref: Appendix (20-7EH)
Check-sum verification	Disable
	*Enable
Check-sum transmission	Disable
	* Enable

Start configuration

End configuration

ITEM	OPTION
Truncate Leading (Default : 00)	Ref: Appendix (00-7EH)
Truncate Ending (Default : 00)	Ref: Appendix (00-7EH)
Min. code length (Default : 00)	Ref: Appendix (00-7FH)
Max. code length (Default : 7FH)	Ref: Appendix (00-7FH)
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.10 Industrial 2 of 5

Start configuration

End configuration

ITEM	OPTICON
Read	* Disable
	Enable
Code ID setting (Default : O)	Ref: Appendix (20-7EH)
Min. code length (Default : 00)	Ref: Appendix (00-32H)
Max. code length (Default : 32H)	Ref: Appendix (00-32H)

Start configuration

End configuration

ITEM	OPTION
Truncate Leading (Default : 00)	Ref: Appendix (00-32H)
Truncate Ending (Default : 00)	Ref: Appendix (00-32H)
Check-sum verification	* Disable Enable
Check-sum transmission	Disable * Enable
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.11 Matrix 2 of 5

Start configuration

End configuration

ITEM	OPTION
Read	* Disable
	Enable
Code ID setting (Default : P)	Ref: Appendix (20-7EH)
Check-sum verification	* Disable
	Enable

Start configuration

End configuration

ITEM	OPTION
Check-sum transmission	Disable
	* Enable
Truncate Leading (Default : 00)	Ref: Appendix (00-50H)
Truncate Ending (Default : 00)	Ref: Appendix (00-50H)
Min. code length (Default : 0B)	Ref: Appendix (00-50H)
Max. code length (Default : 50H)	Ref: Appendix (00-50H)
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.12 CHINA POSTAL CODE

Start configuration

End configuration

ITEM	OPTION
Read	* Disable
	Enable
Code ID setting (Default : Q)	Ref: Appendix (20-7EH)
Check-sum verification	* Disable
	Enable
Check-sum transmission	Disable
	* Enable

Start configuration

End configuration

ITEM	OPTION
Truncate Leading (Default : 00)	Ref: Appendix (00-50H)
Truncate Ending (Default : 00)	Ref: Appendix (00-50H)
Min.code length (Default : 00)	Ref: Appendix (00-50H)
Max.code length (Default : 50H)	Ref: Appendix (00-50H)
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.13 MSI/Plessey

Start configuration

End configuration

ITEM	OPTION
Read	* Disable
	Enable
Code ID setting (Default : R)	Ref: Appendix (20-7EH)
Check-sum verification	* Disable
	MOD 10
	MOD 10/10
	MOD 11/10

Start configuration

End configuration

ITEM	OPTION
Check-sum transmission	Disable
	* Enable
Truncate Leading (Default : 00)	Ref: Appendix (00-3CH)
Truncate Ending (Default : 00)	Ref: Appendix (00-3CH)
Min. code length (Default : 00)	Ref: Appendix (00-3CH)
Max. code length (Default : 3CH)	Ref: Appendix (00-3CH)
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.14 CODE 32 (Italian Pharma-Code)

Start configuration

End configuration

ITEM	OPTION
Read	* Disable
	Enable
Code ID Setting (Default:S)	Ref: Appendix (20-7EH)
Check-sum verification	Disable
	* Enable
Check-sum transmission	Disable
	* Enable

Start configuration

End configuration

ITEM	OPTION
Truncate Leading (Default : 00)	Ref: Appendix (00-0AH)
Truncate Ending (Default : 00)	Ref: Appendix (00-0AH)
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.15 CODE 11

Start configuration

End configuration

ITEM	OPTION
Read	* Disable
	Enable
Code ID setting (Default:T)	Ref: Appendix (20-7EH)
Check-sum verification	Disable
	* Enable

Start configuration

End configuration

ITEM	OPTION
Check-sum transmission	* Disable
	Enable
Truncate Leading (Default : 00)	Ref: Appendix (00-50H)
Truncate Ending (Default : 00)	Ref: Appendix (00-50H)
Min. code length (Default : 00)	Ref: Appendix (00-50H)
Max. code length (Default : 50H)	Ref: Appendix (00-50H)
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.16 Telepen

Start configuration

End configuration

ITEM	OPTION
Read	* Disable
	Enable
Code ID setting (Default:V)	Ref: Appendix (20-7EH)
Check-sum verification	Disable
	* Enable
Data Format	Only Numnic
	*Full ASCII

Start configuration

End configuration

ITEM	OPTION
Check-sum transmission	* Disable
	Enable
Truncate Leading (Default : 00)	Ref: Appendix (00-40H)
Truncate Ending (Default : 00)	Ref: Appendix (00-40H)
Min. code length (Default : 00)	Ref: Appendix (00-40H)
Max. code length (Default : 40H)	Ref: Appendix (00-40H)
Insert group selection (Default : 00)	Ref: Appendix (00-02H)

3.17 GS1 Data Bar (RSS)

Start configuration	End configuration

ITEM	OPTION
RSS-14	Enable
	*Disable
RSS-14 LIMITED	Enable
	*Disable
RSS-14 EXPANDED	Enable
	*Disable
RSS TO UPC/EAN	Enable
	*Disable

3.18 Function Key Emulation

Start configuration

End configuration

ITEM	OPTION
Function Key	* Disable
	Enable
Code 39 format	Full ASCII Code 39

To scan a function key barcode label, Full ASCII Code 39 must be enabling. Please refer to Full ASCII Code 39 Table to produce the function key barcode label.

Function Code

UP($A)	F1($Q)
DOWN($B)	F2($R)
LEFT($C)	F3($S)
RIGHT($D)	F4($T)

PAGE UP($E)	F5($U)
PAGE DOWN($F)	F6($V)
BS($H)	F7($W)
TAB($I)	F8($X)
HOME($K)	F9($Y)
END($L)	F10($Z)
ENTER($M)	ESC(%A)
INSERT($N)	F11(%B)
DELETE($O)	F12(%C)

Appendix A –

Dec	Hex	Char.	Dec	Hex	Char.
0	00	NUL	32	20	SP
1	01	SOH	33	21	!
2	02	STX	34	22	“
3	03	ETX	35	23	#
4	04	EOT	36	24	$
5	05	ENQ	37	25	%
6	06	ACK	38	26	&
7	07	BEL	39	27	‘
8	08	BS	40	28	(
9	09	HT	41	29	)
10	0A	LF	42	2A	*
11	0B	VT	43	2B	+
12	0C	FF	44	2C	,
13	0D	CR	45	2D	-
14	0E	SO	46	2E	.
15	0F	SI	47	2F	/
16	10	DLE	48	30	0
17	11	DC1	49	31	1
18	12	DC2	50	32	2
19	13	DC3	51	33	3
20	14	DC4	52	34	4
21	15	NAK	53	35	5
22	16	SYN	54	36	6
23	17	ETB	55	37	7
24	18	CAN	56	38	8
25	19	EM	57	39	9
26	1A	SUB	58	3A	:
27	1B	ESC	59	3B	;
28	1C	FS	60	3C	<
29	1D	GS	61	3D	=
30	1E	RS	62	3E	>
31	1F	US	63	3F	?

Dec	Hex	Char.	Dec	Hex	Char.
64	40	@	96	60	‘
65	41	A	97	61	a
66	42	B	98	62	b
67	43	C	99	63	c
68	44	D	100	64	d
69	45	E	101	65	e
70	46	F	102	66	f
71	47	G	103	67	G
72	48	H	104	68	h
73	49	I	105	69	i
74	4A	J	106	6A	j
75	4B	K	107	6B	k
76	4C	L	108	6C	l
77	4D	M	109	6D	m
78	4E	N	110	6E	n
79	4F	O	111	6F	o
80	50	P	112	70	P
81	51	Q	113	71	q
82	52	R	114	72	r
83	53	S	115	73	s
84	54	T	116	74	t
85	55	U	117	75	u
86	56	V	118	76	v
87	57	W	119	77	w
88	58	X	120	78	x
89	59	Y	121	79	y
90	5A	Z	122	7A	z
91	5B	[	123	7B	{
92	5C	\	124	7C	|
93	5D	}	125	7D	}
94	5E	^	126	7E	~
95	5F	_	127	7F	DEL

Table-Hex HEXADCIMAL

1

2

3

4

5

6

7

8

9

0

A

B

C

D

E

F

Confirm configuration

End Configuration

Function Key Table

	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		F10
B	HOME	ESC
C	END	F11
D	ENTER	F12
E	INSERT	
F	DELETE	

POSX

DEFAULT

CHECK VERSION

Version: 3.1