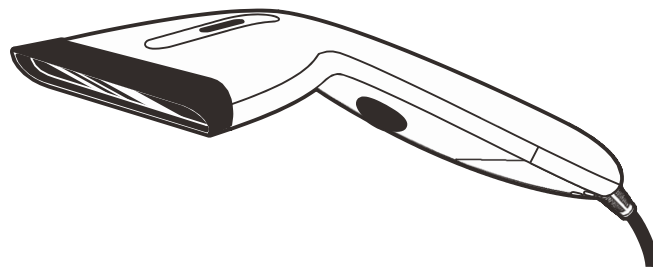


IDT CH®

Value through Innovation



Release Notes

<u>Version</u>	<u>Date</u>	<u>Notes</u>
June 2009	June 30, 2009	First release
Oct 2009	Oct 1, 2009	Correct Interleaved 2 of 5 setting code
Sep 2010	Sep 14, 2010	Correction for Tab barcode
Nov 2010	Nov 11, 2010	Add truncation of UPC-A, UPC-E, EAN-13 and EAN-8
Oct 2011	Oct 20, 2011	Add "Function key emulation barcode"
Jan 2013	Jan 11, 2013	Correction for the setting barcodes of code 93 and Interleaved 2 of 5.
May 2013	May 29, 2013	Correction for the setting barcodes of Num Lock Key.
Sep 2015	Sep 21, 2015	Add 2 or 5 auto and replace 232 interface 7 and even set
Jan 2016	Jan 15, 2016	Add code ID table
Mar 2016	Mar 03, 2016	Min length for codebar is corrected to "6" instead of "0"

Table of Contents

Factory Defaults Setting

Recall Defaults.....	1
Firmware Version.....	1

Scanner Operation

Interface Selection.....	1
Buzzer Options	1
Scan Mode.....	2
Prefix/Suffix.....	2
Others.....	3

Keyboard

Keyboard Types.....	4
Country/Scan Code.....	5
Special Keyboard Features.....	5
Inter-scan code Delay.....	6
Suffix Characters.....	6
Delay between re-read	7
Keyboard Speed.....	7

RS 232

Baud Rate.....	7
Data/Stop Bits.....	8
Parity Features.....	8
Inter-character delay.....	9
Delay between re-read	7
Protocol response delay	9
Flow control.....	9
Data Suffix.....	10

Table of Contents

Code Types and Decode Rules

UPC-A.....	11
UPC-E.....	12
EAN-13.....	13
EAN-8.....	15
Code 39.....	16
Codabar.....	18
Code 93.....	20
Code 128.....	21
Interleaved 2 of 5.....	22
Industrial 2 of 5.....	23
Matrix 2 of 5.....	24
China Post.....	25
MSI/Plessey.....	26
Code 32.....	27
Code 11.....	28

Appendix

ASCII Barcode.....	29
ASCII Table.....	30
Table of Function Key Emulation.....	31
Code ID Table.....	32

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

End of Configuration



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 Infomation)



Disable barcode ID <Default>

Keyboard

Keyboard Types



IBM AT <Default>



IBM XT



IBM PS/2 30-80



IBM 5550



PS/2 25, 30

4



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 blts transmltted for each character



7 Data Blts



1 Stop Bits <Default>r



2 StopBlts

Parity Features

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



No <Default>



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



Even parity
Select to set the parity bit to either a 1 or a 0 to ensure an even number of blts 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 desired Inter-character delay by scanning Decimal Digits on Appendix (00-64H).
3. Read the "Valldate" 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 desired Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Validate" label to complete this setting.

Checksum Transmission



Enable <Default>



Disable

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



Enable



Disable <Default>

Truncation



Before median cut-off
See appendix A(00-0DH)

Instructions :

1. Before the median cut-off : when set to 0, it won't delete the bar code in front of the data, set up the steps to the steps to set up code.
2. After the median cut-off : when set to 0, it won't delete the bar code behind the data, set up the steps to the steps to set up code.



After median cut-off
See appendix A(00-0DH)f

Select insert group (G1/G2)



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



End of Configuration

UPC-A



Start of Configuration

Supplementary code



NONE <Default>



2 Digits



5 Digits



2 or 5 Digits



UPU-A ADD-ON 2/5 AUTO Enable

UPC-E



Disable UPC-E



Enable UPC-E <Default>

Set Code ID <Default G>



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.

UPC-E convert to UPC-A

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



End of Configuration



Enable



Disable <Default>



UPU-E ADD ON 2/5 AUTO Enable



End of Configuration

UPC-E



Start of Configuration

Checksum Transmission



Disable



Enable <Default>

Truncation



Before median cut-off
See appendix A(00-08H)



After median cut-off
See appendix A(00-08H)

Instructions :

1. Before the median cut-off : when set to 0, it won't delete the bar code in front of the data, set up the steps to the steps to set up code.
2. After the median cut-off : when set to 0, it won't delete the bar code behind the data, set up the steps to the steps to set up code.

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>

Truncation



Before median cut-off
See appendix A(00-0DH)



After median cut-off
See appendix A(00-0DH)

Instructions:

1. Before the median cut-off : when set to 0, it won't delete the bar code in front of the data, set up the steps to the steps to set up code.
2. After the median cut-off : when set to 0, it won't delete the bar code behind the data, set up the steps to the steps to set up code.

Select insert group (G1/G2)



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

Supplementary code



NONE <Default>



2 Digits



5 Digits



2 or 5 Digits

ISBN / ISSN Conversion



Disable <Default>



Enable



End of Configuration



Start of Configuration

EAN-13 ADD ON 2/5 AUTO 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>

Truncation



Before median cut-off
See appendix A(00-08H)



After median cut-off
See appendix A(00-08H)

Instructions :

1. Before the median cut-off : when set to 0, it won't delete the bar code in front of the data, set up the steps to the steps to set up code.
2. After the median cut-off : when set to 0, it won't delete the bar code behind the data, set up the steps to the steps to set up code.

Select insert group (G1/G2)



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

Supplementary code



NONE <Default>



2 Digits



5 Digits



2 or 5 Digits



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 Min.Length qualification
2. Read the Decimal value label on Appendix(06-3CH)
3. Read the validate label to complete this setting

Min. Length



Enable<Default06>

1. Read the label to enable Min.Length qualification
2. Read the Decimal value label on Appendix(06-3CH)
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 desired Code ID by scanning the table of ASCII (20-7EH).
3. Read the "Valldate" 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 "Valldate" 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 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

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 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>

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 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 <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 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>

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 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>

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 desired 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



1



2



3



4



5



6



7



8



9



A



B



C



D



E



F



Y



N



Valldate

ASC II Table



















	0	1	2	3	4	5	6	7
1	SOH	DC1	!	1	A			q
3	ETX	DC3	#	3	C	S		
5	ENQ	NAK	%	5	E	U		
7	BEL	ETB		7	G	W	g	w
9	HT	EM)	9	'	Y	l	y
B	VT	ESC			K	[k	{
	CR	GS			M	}	m	}

Table of Function Key Emulation

	0	1
1	UP	F1
3	LEFT	F3
5	PAGE UP	F5
7		F7
9	TAB	F9
B	HOME	ESC
	ENTER	F12


Function key emulation barcode :

Please enable full ASCII CODE 39 before using the following function barcodes.

 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)
	 F7(\$W)
 BS(\$H)	 F8(\$X)
 TAB(\$I)	 F9(\$Y)
	 F10(\$Z)

Function key emulation barcode :

Please enable full ASCII CODE 39 before using the following function barcodes.

 HOME(\$K)	 ESC(%A)
 END(\$L)	 F11(%B)
 ENTER(\$M)	 F12(%C)
 INSERT(\$N)	 F13(%D)
 DELETE(\$O)	 F14(%E)

Appendix : Code ID Table:

Symbology	Code ID
UPC-A	F
UPC-E	G
EAN13	H
EAN8	I
CODE39	J
CODABAR	K
CODE93	L
CODE128	M
INTERLEAVED 2 of 5	N
INDUSTRIAL 2 of 5	O
MATRIX 2 of 5	P
CHINA POST	Q
MSI/PLESSEY	R
CODE32	S
CODE11	T