



Programming User's Manual 2D Wireless Barcode Scanner HW-856A



Factory Virtuos CCD default



Factory Virtuos Wireless default



Firmware CCD module version



Firmware wireless module version

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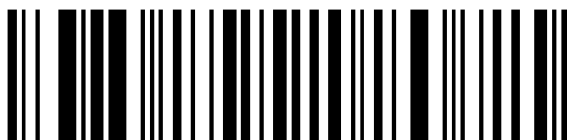
CCD module Default Settings

Scanning the below barcode can restore the CCD module scanner the default.



Default settings for CCD module

Wireless module Default Setting



Default setting for wireless module

Scanning the below barcode can restore the wireless module scanner the default.

Firmware Version CCD module.



Firmware CCD module version

Firmware Version wireless module



Firmware wireless module version

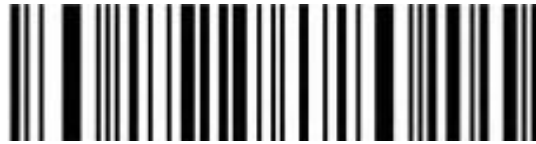
Battery Display



Display battery capacity

Note: Percentage display

USB cable Output Mode



USB priority output (Default)

If a USB cable is connected to the reader, data will only be sent via this port.



Output simultaneously USB and wireless

Note: USB and 2.4G or Bluetooth output at the same time (depending on the communication mode), in which 2.4g or Bluetooth output is unsuccessful, alarm will be given.

Data Transfer Mode



Immediate (Default)



Automatic Storage

Note: Automatic storage mode. Data is automatically saved in scanner when exceed communication distance, scan the "Upload all data" code to complete the data transfer.



Memory

Note: Memory mode, the scanned barcode will be automatically saved in scanner. If the data need to be viewed or uploaded, then scan the "Upload all data" code to complete the data transfer.

Memory mode



Upload all data



Clear all data



Upload and clear all data

Note: Clear all data can be effective under Memory mode & Automatic Storage mode.



Display stored data

USB Interface Type



USB-HID (Default)



USB-COM

(For old OS Driver is needed for USB Virtual Com Port)

Wireless Setting



2.4 Ghz (Default)



Bluetooth HID Mode



Bluetooth SPP Mode



Bluetooth BLE Mode

Note: Scan the Bluetooth code change to Bluetooth mode. When the scanner is restored, for Bluetooth mode scan the code again.

In Bluetooth SPP Mode recommended set Never Sleep.

USB HID Character Delay Setting Controls



Fast (default)



Medium



Slow



Ultra Slow

Bluetooth HID transmission rate



Fast



Medium(*)



Low



Ultra-low speed



Ultra-fast speed

IOS show/hide the Keyboard

(Under Bluetooth mode)



Show or Hide

Pairing Function



2.4G Receiver Pairing

Note: Scan this code, scanner will enter the automatic pairing mode for 1 minute, then re-insert the receiver. There will be a sound heard when pairing successfully.

For Bluetooth pairing setting, search by Bluetooth device.



Bluetooth HID Pairing

Scan the “Bluetooth HID Pairing” barcode, the scanner is ready to be connected by other bluetooth devices.

Sleeping Settings

Different Sleeping time choices:



Never Sleep



10 s



30 s



1 min



2 min



5 min (Default)



10 min



30 min



Immediate sleep – Sleep Now

Transfer module Sound Set



Mute



High (Default)



Medium



Low

Reading module Sound Set

General Settings



Mute



Unmute (Default)

Good Read Beep



On (Default)



Off

Indicator Beep Type



Type 1



Type 2



Type 3 (Default)

Beep Volume



High (Default)



Medium



Low

Illumination and Aimer

Illumination



Normal*



Always Off



Always On

Aimer



Normal*



Always Off



Always On

Keyboard Language Settings



USA (Default)



Germany



France



Italy



Canada



Spain



Brazil



Sweden



Portugal



Belgium



Turkey-F



Turkey-Q



Italian14



Netherlands



Poland



Finland



Latin America



Serbia



Hungary



Denmark



Norway



Japan



KORI-8 Convert to Russian



UTF-8 Convert to Turkey



Czech

UTF-8 chars Keyboard Conversion



UTF-8 keyboards conversion to Czech

Encoding Format

Below configuration barcodes allow you to choose input data encoding format:



UTF8



BIG5



AUTO - BIG5 or UTF8

Below configuration barcodes allow you to choose output data encoding format:



UNICODE (Word)



BIG5 (Notepad, Excel)

For QR code with UTF-8 coding recommended use for input and output **BIG5** settings!

USB-HID Data type



Transfer keyboard function keys – direct mode



Send ASCII - ALT Mode ON - Universal language



Keyboard+ASCII – direct + ALT mode - Mode 1 (Default)



0x1F Send ASCII – extended ALT Mode - Mode 2

HID Low ASCII Escape Character



Disable (Default)



Enable

GS (group separator) character conversion

For terminal emulation keys hotkey Ctrl+] <GS>, please activate *HID Low ASCII Escape Character Enable* or ALT Modes!



None (Default)



GS convert to <GS>



GS convert to |



GS convert to] *



GS convert to ^] *

*only in ALT-Modes

For user defined char conversion please generate customized QR text 2D barcode with this data format:

^&066&^C1(char)

(char) is conversion char, for example QR code - **^&066&^C1%** replace <GS> to %



GS convert to % (^&066&^C1)

Letter case conversion



Normal Letter Case (Default)



All Uppercase



All Lowercase



Case Inversion

Data Edit

Data sending in this format [Prefix][CodeID][Data][Suffix][Terminator]

Terminator character



None



Enter CR (*)



Line LF



Tab



Enter&Line CR+LF

Add Prefix and Suffix Settings

You can add characters to the front and back of the read data.

The syntax for adding is:

1. Read settings code Add Prefix or Add Suffix



Add Prefix Setting



Add Suffix Setting

2. Choose the location from which you want the characters will be added. If you want to add from the first or last position, select 0 1. Perform by reading the appropriate codes corresponding to the numbers in the Appendix - Data Code Table. It is necessary to always read two numbers! The difference between a Prefix and a Suffix is in which side you count the characters from. Prefix - front / Suffix - back.
3. In the Appendix, find the appropriate codes (Tables ASCII Code Table, Function and special keys, Ctrl, Alt, GUI keys) for the characters or keystrokes you want to add. And you will gradually read them with a reader.
4. At the end save your settings, reading the code and Saved Finished Set.

Finished Set for Data Edit



Saved and Finished Set

If you want to clear the settings, follow steps 1 and 4 only.

Note: For a better explanation, look at the examples in the Appendix.

Hidden Character Settings

You can cut-hide characters in retrieved data. You can cut from the front or back.

The syntax for hide is:

1. Read settings code Hide front or Hide back character



Hide front character



Hide back character

2. Select the location from which you want to hide the characters. If you want to hide from the first or last position, select 0 1. Perform by reading the appropriate codes corresponding to the numbers in the Appendix - Data Code Table. It is necessary to always read two numbers!
The difference between a Hide front and a Hide back is in which side you count the characters from.
3. Now select how many characters you want to hide. Again, select two numbers from the table in the appendix, similar to point 2.
4. At the end save your settings, reading the code and Saved Finished Set.

Finished Set for Data Edit



Saved and Finished Set

If you want to clear the settings, follow steps 1 and 4 only.

Note: For a better explanation, look at the examples in the Appendix.

Data editing

The Data editing function can customize the barcode content into the three fields of Start/Center/End by configuring the Start/End field length. Please configure the length of the Start/End field and the transport configuration according to the actual needs.

Note: Custom pre-suffix, start, end, CODE ID, AIM ID and other non-barcode content will not be affected by the data editing function.

Transmission configuration



Transfer the full Data field



Only transfer the Start field



Only transfer the Center field



Only transfer the End field

Field Length Configuration



Set Start field length



Set End field length

Hiding front character shortcut setting



Hide the first 1 bit



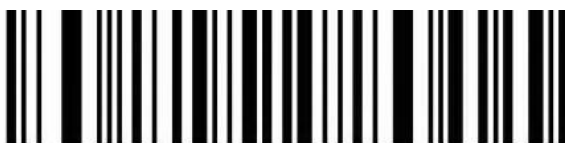
Hide the first 2 bits



Hide the first 3 bits



Hide the first 4 bits



Hide the first 5 bits



Hide the first 6 bits



Hide the first 7 bits



Hide the first 8 bits

Hiding back character shortcut setting



Hide the back 1 bit



Hide the back 2 bits



Hide the back 3 bits



Hide the back 4 bits



Hide the back 5 bits



Hide the back 6 bits



Hide the back 7 bits



Hide the back 8 bits

Scan Mode



Auto Sense Mode



Manual Trigger Mode



Continuous Mode

Auto-sensing Sensitivity



Medium



Low



High*



Ultra High

Repeat Barcode Detection(Auto Sense)

Use for decode same barcode of interval time, it will decode only one time if not exceeded set time.



0ms



1000ms



1500ms*



3000ms



5000ms

Code ID

Output Options



Enable Code ID



Disable Code ID*

BarCode General Settings



Enable All Symbolologies



Disable All Symbolologies



Enable All 1D Symbolologies



Disable All 1D Symbolologies



Enable All 2D Symbolologies



Disable All 2D Symbolologies

Inverse Barcode



Enable All Inverse Barcodes



Disable All Inverse Barcodes*



Enable All 1D Inverse Barcodes



Disable All 1D Inverse Barcodes*



Enable Inverse PDF417



Disable Inverse PDF417



Enable Inverse Data Matrix



Disable Inverse Data Matrix



Enable Inverse QR Code



Disable Inverse QR Code

Code128



Reset Code128 to Default

Enable/Disable Code128



Enable Code128*



Disable Code128

Min/Max Length Code128



Min Length = 00*



Max Length = 32



Set Min Length



Min Length = 04



Max Length = 255*



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

EAN-8



Reset EAN-8 to Default

Enable/Disable EAN-8



Enable EAN-8*



Disable EAN-8

Check Digit



Send Check Digit*



Not Send Check Digit

Supplement



Disable 2-digit Supplement*



Enable 2-digit Supplement



Disable 5-digit Supplement*



Enable 5-digit Supplement

EAN-13



Reset EAN-13 to Default

Enable/Disable EAN-13



Enable EAN-13*



Disable EAN-13

Check Digit



Send Check Digit*



Not Send Check Digit

Supplement



Disable 2-digit Supplement*



Enable 2-digit Supplement



Disable 5-digit Supplement*



Enable 5-digit Supplement

EAN-13 to ISBN



Disable EAN-13 to ISBN*



Enable EAN-13 to ISBN

EAN-13 to ISSN



Disable EAN-13 to ISSN*



Enable EAN-13 to ISSN

UPC-E0



Reset UPC-E0 to Default



Enable UPC-E0*



Disable UPC-E0

Check Digit



Send Check Digit*



Not Send Check Digit

System Number



Send System Number*



Not Send System Number

UPC-E1



Reset UPC-E1 to Default

Enable/Disable UPC-E1



Enable UPC-E1*



Disable UPC-E1

Check Digit



Send Check Digit*



Not Send Check Digit

System Number



Send System Number*



Not Send System Number

Supplement



Disable 2-digit Supplement*



Enable 2-digit Supplement



Disable 5-digit Supplement*



Enable 5-digit Supplement

UPC-A



Reset UPC-A to Default

Enable/Disable UPC-A



Enable UPC-A*



Disable UPC-A

UPC-A to EAN-13



Disable UPC-A to EAN-13*



Enable UPC-A to EAN-13

Check Digit



Send Check Digit*



Not Send Check Digit

System Number



Send System Number*



Not Send System Number

Supplement



Disable 2-digit Supplement*



Enable 2-digit Supplement



Disable 5-digit Supplement*



Enable 5-digit Supplement

Interleaved 2/5



Reset Interleaved 2/5 to Default

Enable/Disable Interleaved 2/5



Enable Interleaved 2/5*



Disable Interleaved 2/5

Min/Max Length



Min Length = 00*



Min Length = 04



Max Length = 32



Max Length = 255*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

Verification



Disable Verification*



Enable Verification
Not Send Check Digit



Enable Verification
Send Check Digit

Matrix 2/5



Reset Matrix 2/5 to Default

Enable/Disable Matrix 2/5



Enable Matrix 2/5



Disable Matrix 2/5*

Min/Max Length



Min Length = 00*



Max Length = 32



Set Min Length



Min Length = 04



Max Length = 255*



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

Verification



Disable Verification*



Enable Verification
Not Send Check Digit



Enable Verification
Send Check Digit

Industrial 2/5



Reset Industrial 2/5 to Default

Enable/Disable Industrial 2/5



Enable Industrial 2/5



Disable Industrial 2/5*

Min/Max Length



Min Length = 00*



Min Length = 04



Max Length = 32



Max Length = 255*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

Verification



Disable Verification*



Enable Verification
Not Send Check Digit



Enable Verification
Send Check Digit

IATA 2/5



Reset IATA 2/5 to Default

Enable/Disable IATA 2/5



Enable IATA 2/5



Disable IATA 2/5*

Min/Max Length



Min Length = 00*



Min Length = 04



Max Length = 32



Max Length = 255*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

Verification



Disable Verification*



Enable Verification
Not Send Check Digit



Enable Verification
Send Check Digit

Code39



Reset Code39 to Default

Enable/Disable Code39



Enable Code39*



Disable Code39

Send Start & Stop



Send Start & Stop



Not Send Start & Stop

Min/Max Length



Min Length = 00*



Max Length = 32



Set Min Length



Min Length = 04



Max Length = 255*



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

Verification



Disable Verification*



Enable Verification

Not Send Check Digit



Enable Verification

Send Check Digit

Enable/Disable Code32



Disable Code32*



Enable Code32

Full ASCII Code39



Enable Full ASCII Code39



Disable Full ASCII Code39*

Codabar



Reset Codabar to Default

Enable/Disable Codabar



Enable Codabar*



Disable Codabar

Min/Max Length



Min Length = 00*



Max Length = 32



Min Length = 04



Max Length = 255*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

Verification



Disable Verification*



Mod10 Verification
Send Check Digit



Mod10 Verification
Not Send Check Digit



Mod16 Verification
Send Check Digit



Mod16 Verification
Not Send Check Digit

Send Start & Stop



Not Send Start & Stop*



Start & Stop = ABCD/ABCD*



Start & Stop = ABCD/TN*e



Start & Stop = abcd/abcd



Start & Stop = abcd/tn*e

Code93

Reset to Default



Reset Code93 to Default

Enable/Disable Code93



Enable Code93*



Disable Code93

Min/Max Length



Min Length = 00*



Min Length = 04



Max Length = 32



Max Length = 255*



Set Min Length



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

Code11



Reset Code11 to Default

Enable/Disable Code11



Enable Code11



Disable Code11*

Min/Max Length



Min Length = 00*



Max Length = 32



Set Min Length



Min Length = 04



Max Length = 255*



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

MSI Plessey



Reset MSI Plessey to Default

Enable/Disable MSI Plessey



Enable MSI Plessey



Disable MSI Plessey*

Min/Max Length



Min Length = 00*



Max Length = 32



Set Min Length



Min Length = 04



Max Length = 255*



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

GS1 DataBar



Enable GS1 DataBar



Disable GS1 DataBar*

GS1 DataBar Limited



Enable GS1 DataBar Limited



Disable GS1 DataBar Limited*

GS1 DataBar Expanded



Enable GS1 DataBar Expanded



Disable GS1 DataBar Expanded*

Plessey



Reset Plessey to Default

Enable/Disable Plessey



Enable Plessey



Disable Plessey*

Min/Max Length



Min Length = 00*



Max Length = 32



Set Min Length



Min Length = 04



Max Length = 255*



Set Max Length

Min/Max Length can be 0 to 255 digits, converted into 00 to FF during configuration. Please refer to Barcode length range configuration for configuration method of **Set Min/Max Length**.

Check Digit



Send Check Digit



Not Send Check Digit*

PDF417



Enable PDF417*



Disable PDF417

MicroPDF417



Enable MicroPDF417



Disable MicroPDF417*

QR Code



Enable QR Code*



Disable QR Code

Micro QR Code



Enable Micro QR Code



Disable Micro QR Code*

Data Matrix



Enable Data Matrix*



Disable Data Matrix

Aztec













Enable Aztec

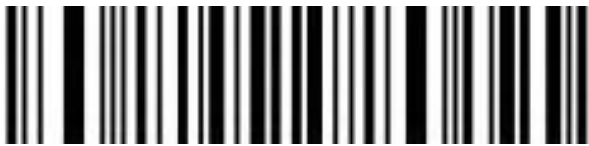


Disable Aztec*

Appendix

Data Code Table

	 0	
 1		 2
	 3	
 4		 5
	 6	
 7		 8
	 9	



Saved and Finished Set

Table of numbers for barcode length range configuration



0



1



2



3



4



5



6



7



8



9



A



B



C



D



E



F

Save & Abort for barcode length range configuration

If there is an error reading data barcode during configuration, you may cancel 1/all data by scanning below configuration barcodes.

For example, barcode data '1', '2', '3' have been scanned respectively during configuration. If you want to cancel '3', scan **Abort 1 Data**. If you want to cancel '123', scan **Abort All Data**. Alternatively you may scan **Abort Configuration** to cancel the whole configuration process.



Save Configuration



Abort 1 Data



Abort All Data



Abort Configuration

Direct Pressing Function Key

First must be Enable transfer function key

Scan the function code to input function key directly.



F1



F2



F3



F4



F5



F6



F7



F8



F9



F10



F11



F12



RIGHT



LEFT



DOWN



UP



INSERT



HOME



END



DELETE


































CAPS LOCK































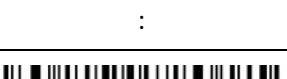
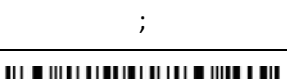

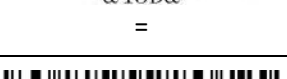
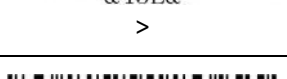
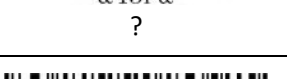






































CR

























ASCII Code Table

Some special characters are conditioned by the keyboard emulation used. ALT-Mode vs. ASCII mode





































	 ^&400&^ SOH - Null	
 ^&401&^ SOH (start of headline)	 ^&402&^ STX (start of text)	 ^&403&^ ETX
 ^&404&^ EOT	 ^&405&^ ENQ	 ^&406&^ ACK
 ^&407&^ BEL	 ^&408&^ BS	 ^&409&^ HT
 ^&40A&^ LF	 ^&40B&^ VT	 ^&40C&^ FF
 ^&40D&^ CR	 ^&40E&^ SO	 ^&40F&^ SI
 ^&410&^ DLE	 ^&411&^ DC1	 ^&412&^ DC2
 ^&413&^ DC3	 ^&414&^ DC4	 ^&415&^ NAK
 ^&416&^ SYN	 ^&417&^ ETB	 ^&418&^ CAN
 ^&419&^ EM	 ^&41A&^ SUB	 ^&41B&^ ESC
 ^&41C&^ FS	 ^&41D&^ GS	 ^&41E&^ RS





 ~&41F&~ US	 ~&420&~ SP	 ~&421&~ !
 ~&422&~ "	 ~&423&~ #	 ~&424&~ \$
 ~&425&~ %	 ~&426&~ &	 ~&427&~ .
 ~&428&~ (	~&429&~)	 ~&42A&~ *
 ~&42B&~ +	 ~&42C&~ ,	 ~&42D&~ -
 ~&42E&~ .	 ~&42F&~ /	 ~&430&~ 0
 ~&431&~ 1	 ~&432&~ 2	 ~&433&~ 3
 ~&434&~ 4	 ~&435&~ 5	 ~&436&~ 6
 ~&437&~ 7	 ~&438&~ 8	 ~&439&~ 9
 ~&43A&~ :	 ~&43B&~ ;	 ~&43C&~ <
 ~&43D&~ =	 ~&43E&~ >	 ~&43F&~ ?
 ~&440&~ @	 ~&441&~ A	 ~&442&~ B

 ~&443&~ C	 ~&444&~ D	 ~&445&~ E
 ~&446&~ F	 ~&447&~ G	 ~&448&~ H
 ~&449&~ I	 ~&44A&~ J	 ~&44B&~ K
 ~&44C&~ L	 ~&44D&~ M	 ~&44E&~ N
 ~&44F&~ O	 ~&450&~ P	 ~&451&~ Q
 ~&452&~ R	 ~&453&~ S	 ~&454&~ T
 ~&455&~ U	 ~&456&~ V	 ~&457&~ W
 ~&458&~ X	 ~&459&~ Y	 ~&45A&~ Z
 ~&45B&~ [	~&45C&~ \"	 ~&45D&~]
 ~&45E&~ ^	 ~&45F&~ -	 ~&460&~ ,
 ~&461&~ a	 ~&462&~ b	 ~&463&~ c
 ~&464&~ d	 ~&465&~ e	 ~&466&~ f

 ~&467&~ g	 ~&468&~ h	 ~&469&~ i
 ~&46A&~ j	 ~&46B&~ k	 ~&46C&~ l
 ~&46D&~ m	 ~&46E&~ n	 ~&46F&~ o
 ~&470&~ p	 ~&471&~ q	 ~&472&~ r
 ~&473&~ s	 ~&474&~ t	 ~&475&~ u
 ~&476&~ v	 ~&477&~ w	 ~&478&~ x
 ~&479&~ y	 ~&47A&~ z	 ~&47B&~ {
 ~&47C&~ |	~&47D&~ }	 ~&47E&~ ~

Function and special keys

 ^&47F&^ DEL	 ^&480&^ Caps Lock	 ^&481&^ F1
 ^&482&^ F2	 ^&483&^ F3	 ^&484&^ F4
 ^&485&^ F5	 ^&486&^ F6	 ^&487&^ F7
 ^&488&^ F8	 ^&489&^ F9	 ^&48A&^ F10
 ^&48B&^ F11	 ^&48C&^ F12	 ^&48D&^ PrintScreen
 ^&48E&^ Scroll Lock	 ^&48F&^ Pause	 ^&490&^ Insert
 ^&491&^ Home	 ^&492&^ PageUp	 ^&493&^ Delete
 ^&494&^ PageDown	 ^&495&^ End	 ^&496&^ RightArrow
 ^&497&^ LeftArrow	 ^&498&^ DownArrow	 ^&499&^ UpArrow
 ^&49A&^ Num Lock(keypad)	 ^&49B&^ /(keypad)	 ^&49C&^ *(keypad)
 ^&49D&^ -(keypad)	 ^&49E&^ +(keypad)	 ^&49F&^ Enter(keypad)
 ^&4A0&^ 1(keypad)	 ^&4A1&^ 2(keypad)	 ^&4A2&^ 3(keypad)

 ^&4A3&^ 4(keypad)	 ^&4A4&^ 5(keypad)	 ^&4A5&^ 6(keypad)
 ^&4A6&^ 7(keypad)	 ^&4A7&^ 8(keypad)	 ^&4A8&^ 9(keypad)
 ^&4A9&^ 0(keypad)	 ^&4AA&^ .(keypad)	

Ctrl, Alt, GUI keys

Note: There must always be a combination of pressing and releasing the function key. Otherwise, you will have problems with keyboard shortcuts, and your computer may be locked.

 ^&4D0&^ L-Ctrl Press	 ^&4D1&^ L-Shift Press	 ^&4D2&^ L-Alt Press
 ^&4D3&^ L-GUI Press	 ^&4D4&^ R-Ctrl Press	 ^&4D5&^ R-Shift Press
 ^&4D6&^ R-Alt Press	 ^&4D7&^ R-GUI Press	
 ^&4D8&^ L-Ctrl Release	 ^&4D9&^ L-Shift Release	 ^&4DA&^ L-Alt Release
 ^&4DB&^ L-GUI Release	 ^&4DC&^ R-Ctrl Release	 ^&4DD&^ R-Shift Release
 ^&4DE&^ R-Alt Release	 ^&4DF&^ R-GUI Release	

Barcode type ID Table

Code type	CODE ID (Default)
Code128	j
EAN-8	d
EAN-13	d
UPC-E0	c
UPC-E1	c
UPC-A	c
Interleaved 2/5	e
Matrix 2/5	v
Industrial 2/5	D
IATA 2/5	s
Code39	b
Codabar	a
Code93	i
PDF417	r
QR Code	Q
Data Matrix	u
Code 11	H
MSI Plessey	J
Micro QR Code	Q
Code32	b
ISBN	d
ISSN	d
Aztec	z
GS1 DataBar	R
GS1 DataBar Limited	R
GS1 DataBar Expanded	R
Plessey	p
MicroPDF417	s

AIM ID Table

Code type	AIM ID	Description
Codabar	]Fm	m: 0~1
Code128	]C0	m: 0, 1, 2, 4
Code32	]A0	
Code93	]G0	
Code39	]Am	m: 0, 1, 3, 4, 5, 7
Code11	]Hm	m: 0, 1, 3, 8, 9
EAN-13 / EAN-8	]Em	m: 0, 1, 3, 4
GS1 DataBar	]e0	
GS1-128 (EAN-128)	]C1	
Interleaved 2 of 5	]Im	m: 0, 1, 3
Matrix 2 of 5	]X0	
Industry 2 of 5	]S0	
UPC-A/ UPC-E	]Em	m: 0, 3
ISBN	]X0	
ISSN	]X0	
Aztec Code	]z0	
DataMatrix	]dm	m: 0~6
PDF417 / Micro PDF417	]Lm	m: 0~5
QR Code / Micro QR Code	]Qm	m: 0~6

Visible Character ASCII Table

Dec	Hex	Char	Dec	Hex	Char	Dec	Hex	Char
32	20	<SPACE>	64	40	@	96	60	`
33	21	!	65	41	A	97	61	a
34	22	"	66	42	B	98	62	b
35	23	#	67	43	C	99	63	c
36	24	\$	68	44	D	100	64	d
37	25	%	69	45	E	101	65	e
38	26	&	70	46	F	102	66	f
39	27	'	71	47	G	103	67	g
40	28	(	72	48	H	104	68	h
41	29	)	73	49	I	105	69	i
42	2A	*	74	4A	J	106	6A	j
43	2B	+	75	4B	K	107	6B	k
44	2C	,	76	4C	L	108	6C	l
45	2D	-	77	4D	M	109	6D	m
46	2E	.	78	4E	N	110	6E	n
47	2F	/	79	4F	O	111	6F	o
48	30	0	80	50	P	112	70	p
49	31	1	81	51	Q	113	71	q
50	32	2	82	52	R	114	72	r
51	33	3	83	53	S	115	73	s
52	34	4	84	54	T	116	74	t
53	35	5	85	55	U	117	75	u
54	36	6	86	56	V	118	76	v
55	37	7	87	57	W	119	77	w
56	38	8	88	58	X	120	78	x
57	39	9	89	59	Y	121	79	y
58	3A	:	90	5A	Z	122	7A	z
59	3B	;	91	5B	[	123	7B	{
60	3C	<	92	5C	\	124	7C	|
61	3D	=	93	5D	]	125	7D	}
62	3E	>	94	5E	^	126	7E	~
63	3F	?	95	5F	_			

Invisible Character ASCII Table

Decimal	Hexadecimal	Character
00	00	NUL
01	01	SOH
02	02	STX
03	03	ETX
04	04	EOT
05	05	ENQ
06	06	ACK
07	07	BEL
08	08	BS
09	09	HT
10	0A	LF
11	0B	VT
12	0C	FF
13	0D	CR
14	0E	SO
15	0F	SI
16	10	DLE
17	11	DC1
18	12	DC2
19	13	DC3
20	14	DC4
21	15	NAK
22	16	SYN
23	17	ETB
24	18	CAN
25	19	EM
26	1A	SUB
27	1B	ESC
28	1C	FS
29	1D	GS
30	1E	RS
31	1F	US

Example for user-defined prefix and suffix:

Example 1.1:

Set "XYZ" to the second position in the codes.

For example data in code is: 1234567890 - And it should look like this: **1XYZ234567890**

1. Read code from Add Prefix



Add Prefix Setting

2. Add to the second position, select two number from Appendix - Data Code Table - reading the appropriate codes corresponding to the numbers -> **0** and **2**.



0



2

3. In the Appendix, find the appropriate codes for chars X Y Z (Tables ASCII Code Table) to add. And you will gradually read them with a reader. **X** and **Y** and **Z**.



X



Y



Z

4. Save this settings reading code **Saved and Finished Set**.



Saved and Finished Set

Example 1.2:

Set two **Arrow Down** as last keystroke (remember that the last character is a terminator-CR).

1. Read code from Add Prefix



Add Suffix Setting

2. Add to the last position, select two number from Appendix - Data Code Table - reading the appropriate codes corresponding to the numbers-> **0** and **1**.



0



1

3. In the Appendix, find the appropriate codes for Arrows Down (Function and special keys Tables) to add. And you will gradually read them with a reader. **Arrows down**.



^&498&^

DownArrow



^&498&^

DownArrow

4. Save this settings reading code **Saved and Finished Set**.



Saved and Finished Set

Example for Hidden Character Settings

Hide two chars from second position.

For example data in code is: **1234567890** - And it should look like this: **14567890**

1. Read settings code Hide front character



Hide front character

2. Select second position select two number from Appendix - Data Code Table - reading the appropriate codes corresponding to the numbers -> **0** and **2**.



0



2

3. Now select how many characters you want to hide. Again, select two numbers from the table in the appendix, similar to point 2. -> **0** and **2**.



0



2

4. Save this settings reading code **Saved and Finished Set**.



Saved and Finished Set

Barcode length range configuration

Please sure it not bigger than current maximum length range when set up minimum length. Otherwise, it will show error. In the same way, must be make sure it's not smaller than current minimum length range when set up maximum length. Please for numbers and Save settings code only for Appendix ***Table of numbers for barcode length range configuration!!!***

Min/Max Length

Example: to set Min Length as 8 and set Max Length as 12

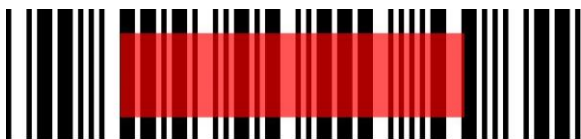
1. Scan **Set Min Length**
2. Scan **8** from ***Table of numbers for barcode length range configuration***
3. Scan **Save Configuration** from ***Save & Abort for barcode length range configuration***
4. Scan **Set Max Length**
5. Scan **1, 2** respectively from ***Table of numbers for barcode length range configuration***
6. Scan **Save Configuration** from ***Save & Abort for barcode length range configuration***

Read Skills

To get a good reading performance, a beam of aim light from scanner should be aimed at the centre of barcode, support to aim in any directions for read convenient, too.

More nearly barcode, the beam of aim light is smaller; More further barcode, the beam of aim light bigger. For reading barcode correctly, if barcode small, the scanner should be close to barcode, if barcode big, the scanner should be farther to barcode.

If the barcode is highly reflective (for example: coated surface), please adjust the scanner angle to read it successfully.



Safety

Please not direct aim eye when the scanner has a strong ray of light, to avoid causing any hurt or unwell.