www.avpos.es

User manual AVPOS BT43

About This User Guide

Pls read all the content of the user guide carefully to use the products safely and effectively. You are advised of keeping it properly for your using reference.

Disclaimer

Please do not dismantle the product or tear up the seal on it, otherwise we won't provide warranty or replacement service.

The pictures in this user guide are for reference only. If there are any pictures which not match the actual product, please take actual products as the standard. Updated information is subject to change without notice.

Version Record

Version number	Version description	Version date
SW:LW-1.16A 17:40:05 Aug 29 2018 Boot: 1.04A	Initial version	2018-8-30
SW:LW-1.17B 17:13:18 Sep 27 2018 Boot: 1.04A	1、 repair the upload menu data 2、increase the Belgian French keyboard 3、increase the ending suffix Tab 4、Increase cast uppercase, lowercase, and no case conversion	2018-9-28
SW:LW-1.17D 12:40:19 Nov 06 2018 Boot: 1.04A	Fix bugs about BLE mode sometimes fails	2019-1-5
SW:LW-1.18B.17：27:56 Mar 15 2019 Boot: 1.05A	Modify the settings menu (no need to read the settings and exit settings)	2019-3-29
SW:LW- 1.19C 16:58:20 Aug 15 2019 Boot: 1.04A	修复 BLE 模式特定长度下会出现断开现象	2019-10-30

CATALOG

1、Product Introduction

This user guide applies to AVPOS BT43 scanners, which identify 1D barcodes by laser-scan pattern. The scanners above are of strong identification capability, and support automatic continuous scanning mode with fast and flexible scanning speed.

In this chapter, we will introduce the instruction of scanner with pictures, please compare to the scanner you bought when reading this user guide, which is good for your understanding. This chapter applies to regular users, maintenance personnel, and software developers.

1.1 Main feature

* Complete independent research and development, possessing the complete set of patent, plug and play without the need to install driver.

* Wide voltage design to avoid the data can't be transmitted due to voltage fluctuation.

* 32-bit master chip equipped with patented software, the scanner can smoothly decode reflective, wrinkled, blurred, and colorful barcode, and can also normally scan in light and dark environment.

* Adopt all tantalum capacitors and anti-oxidation optical technology, avoiding the problem of performance declining after long-term using.

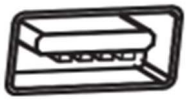
1.2 Unpack your device

After you open the shipping carton containing the product, take the following steps:

- Take the accessories for scanner out from package.
- Check with the packing list to see if everything is complete and in good condition. If there are any damaged or missing components, please keep the original package and contact your supplier for after-sales service.

1.3 Communication port

The scanner must be connected to a host to operate. Host can be a PC, POS machine, intelligent terminal with USB interface.

USB USB interface on host 

1.4 LED Indicator light

Indicator status	Description
Red light on	charging
Red light off	No charging
Green light on	No decoding
Green light off	Decode successful
Single blue light on	Paired successfully or connected to USB
Two blue lights flash alternately	Bluetooth HID pairing mode

1.5 Start-up, shutdown and restart

Start-up：Connect host computer with scanner, which will automatically start-up and in working state.

Shutdown：Remove the data cable which is connected with scanner; remove the USB which is connected with host computer.

Restart：If the scanner crashes or doesn't respond, please switch it off and restart.

1.6 Maintenance

* The reading window must be kept clean and the supplier's damage caused by improper maintenance is exempt from warranty liability;

* Avoid hard and rough objects from wearing or scratching the reading window;

* Use a brush to remove stains on the recognition window;

*Please use a soft cloth to clean the window. For example, a glasses cleaning cloth and a lens-specific cleaning cloth;

* Do not spray any liquid into the identification window;

* Do not use any cleaner other than clean water.

1.7 Reading skills

If the barcode is small, it should be closer to the scanning window; if the barcode is large, it should be far away from the scanning window a little more, thus easier to be read correctly.

If the barcode is highly reflective (for example, the coated surface), you may need to tilt the barcode at an angle to successfully scan it.

Barcode scanning example：

2、System Setting

This product mainly sets the options and functions by reading a series of special barcodes. In this chapter, we will introduce the options and functions that can be set by users in detail and provide the corresponding setting codes.

This method of setting scan is more direct and easy to understand, and it is convenient for users to operate.

2.1Mark setting

2.2 setting barcodes

2.2.1 Bluetooth Virtual Mode

A: Press the button to start the scanner. After the startup is successful, the green indicator light is always on;

B: Scan below “Bluetooth virtual mode”

Bluetooth virtual mode

C: The Bluetooth indicator flashes after the bar code "enter pairing mode" is scanned and successfully enters the virtual pairing mode.

Enter pairing mode

D:Connect the receiver to a computer or other device. When the buzzer beeps, it means pairing successfully and the blue light is always on.

2.2.2 Bluetooth HID Mode:Match with Android, iOS mobile phone or PC

Method 1: Manually enter the Bluetooth HID mode

A:Press the button to start the scanner. After the startup is successful, the green indicator light is always on;

B:Long press the button for 8 seconds,enter Bluetooth HID pairing mode,After successfully entering the HID pairing mode, the buzzer will sound “deep” and the blue indicators on the left and right sides will flash alternately;

C: Turn on Bluetooth on the receiving device and search for "Barcode Scanner HID";

D: Click on the Bluetooth device "Barcode Scanner HID" to pair;

E:After the pairing is successful, the buzzer will “deep” once and the blue indicator on the left will be on.

Method 2: Scan into Bluetooth HID mode

A:Press the button to start the scanner. After the startup is successful, the green indicator light is always on.

B: Scan the "Bluetooth HID Mode" barcode below

Bluetooth HID mode (default))

C: Scan the barcode below to enter the pairing status,after successfully entering the HID pairing mode, the blue indicator flashes alternately after the buzzer “deep”.

Enter pairing status

C: Turn on Bluetooth on the receiving device and search for "Barcode Scanner HID";

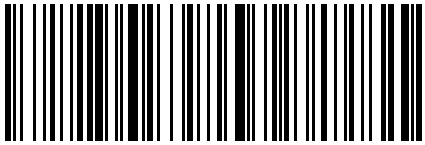
D: Click on the Bluetooth device "Barcode Scanner HID" to pair;

E:After the pairing is successful, the buzzer will “deep” once and the blue indicator on the left will be on.

2.2.3 Bluetooth SPP mode:Android device or PC-side enterprise or private customized Bluetooth serial port software

A:Press the button to start the scanner. After the startup is successful, the green indicator light is always on;

B: Scan the “Bluetooth SPP Mode” barcode below. After successfully entering the Bluetooth SPP mode, the blue light on the left will flash.



Bluetooth SPP mode

C: Turn on Bluetooth in the receiving device and search for "Barcode Scanner SPP";

D: Click on the Bluetooth device "Barcode Scanner SPP" to pair;

E:After the pairing is successful, the buzzer will “deep” once and the blue indicator on the left will be on;

2.2.4 Bluetooth BLE mode:IOS device enterprise or private customized

A:Press the button to start the scanner. After the startup is successful, the green indicator light is always on.

B: Scan the following “Bluetooth BLE Mode” barcode; successfully enter the Bluetooth BLE mode, the blue LEDs on both the left and right sides flash at the same time.

Bluetooth BLE mode

C: Open Bluetooth in the receiving device and search for Barcode Scanner BLE;

D: Click on the Bluetooth device "Barcode Scanner BLE" to pair;

E: After the pairing is successful, the buzzer will “beep” once, and the blue LEDs on both the left and right sides will be on at the same time;

2.2.5 Bluetooth personality setting

Choose the personalized bar code you need (please operate carefully before you read the following instructions, thank you);

How to set the Bluetooth name: first scan the Bluetooth name barcode, then scan a barcode.

This barcode will be set to the name of the Bluetooth.

Note: a) The name can only be set up to 16 bytes,if the name barcode exceeds 16 bytes, the scanner only takes the first 16 bytes as the Bluetooth name.

b)The full Bluetooth name includes:Bluetooth Name + Protocol Type,Only Bluetooth name

modification is supported.After modifying the Bluetooth name, the names of all Bluetooth protocols have changed.

For example: If the Bluetooth name is set to: Scanner, the name of the Bluetooth HID is: Scanner HID, The name of the SPP is: ScannerSPP, and the name of the BLE is: ScannerBLE;

Set the Bluetooth name

Query current Bluetooth name:

Read Bluetooth name

The following barcodes will take effect in any mode:

Enable long press enter Bluetooth search

Disable long press enter Bluetooth HID search

Note: When the Bluetooth HID connection is successful and the keyboard is English, double-click can pop up/hide the keyboard. (Effective in IOS system)

Keyboard pop-up/hide in Bluetooth HID mode (to be confirmed)

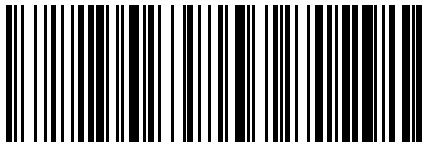
Close button double-click on the keyboard to pop/hide

2.2.6 Real-time mode

In real-time mode, the scanned data is transmitted directly to the computer via wired or wireless,Aaer the transmission is successful, the scanner will emit a low-frequency short tone and the

green indicator will flash once.

If the transmission fails, three low-frequency short tones are issued to warn, and the green light flashes three times.



Enter real-time mode (default)

2.2.7 Warehousing mode

If the scanner works beyond the wireless transmission range, the storage mode is recommended.In warehousing mode, the scanned data is stored in the scanner's internal storage.

In the storage mode, after scanning a bar code, the scanner will emit a short tone (the frequency is low first and then high).At the same time, the green light flashes once and the scanned bar code is automatically stored in the scanner.

Enter warehousing mode

View the number of barcodes stored in the warehouse by scanning the “Show Total Storage Items” barcode.

Display total warehouse entries

Upload warehousing data by scanning the “Data Upload” barcode,barcodes stored in the scanner after data upload are not automatically deleted.The user uploads the warehousing data multiple times

by scanning the "data upload".

Data upload

Note: Please try to ensure that the wireless signal connection is good when uploading data,or upload with the data cable connected.

Clear barcode data in the warehouse by scanning the “Clear Warehousing Data” barcode.After the barcode is cleared, it will not be uploaded again. Please confirm whether the data has been uploaded before clearing.

Clear warehousing data

2.2.8 Initialization setting

If you accidentally scan other function setting codes during use, resulting in the scanning function not working properly, you can restore the initialization status by scanning the initialization bar code.

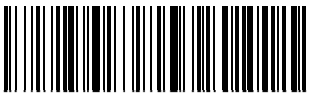
Restore factory settings

2.2.9 Read version information

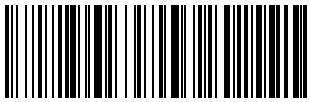
Read Version Information

2.2.10 Volume Setting

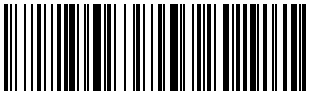
2.2.10.1 Volume Setting



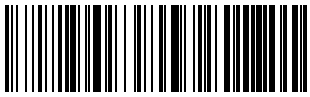
Volume Low



Mute

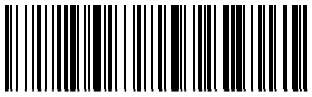


Volume Middle

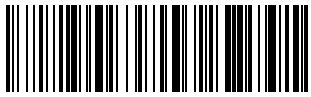


Volume High
（Default）

2.2.11.2 Buzzer Frequency setting



Buzzer Frequency 2K



Buzzer Frequency 2.7K
（Default）

2.2.11 Language setting

Select the required language keyboard

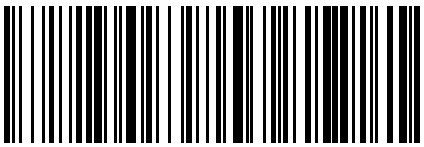
English (Default)

German

French

Spanish

Italian



Japanese

International General Keyboard

Belgian French

2.2.12 Communication mode switching

Select the required communication mode bar code (mode three choices one);

Bluetooth HID mode (default)

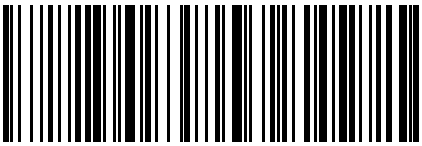
Bluetooth SPP mode

Bluetooth BLE mode

Bluetooth virtual mode

2.2.10 Sleep time setting

Select sleep time interval barcode



Sleep time 30S (default)

Sleep time 1 minutes

Sleep time 5 minutes

Sleep time 10 minutes

Sleep time 30 minutes

Never sleep

Sleep immediately

Display battery

2.2.13 Transmission speed setting

Select the required transmission speed (speed selection is related to reading barcode);

Fast transmission

Medium speed transmission

(recommended for use in IOS system Bluetooth mode)

Low speed transmission

(recommended for Bluetooth mode in Android)

Ultra low speed transmission (recommended test mode used)

2.2.14 Add ending character setting

Select the end you want to add;

Add Enter at the End

Add Line Breaks at the end

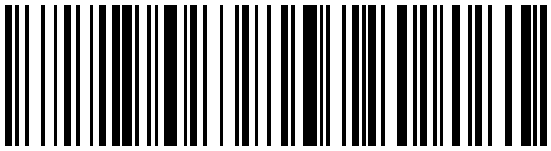
Add Enter and Line Breaks at the end(default)

Add Tab at the end

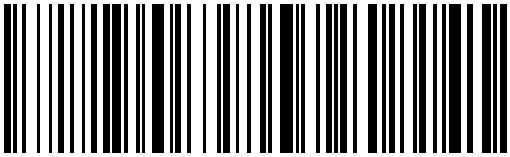
End does not add

2.2.15 Add prefix/suffix

Method of adding prefix and suffix:First scan to add prefix or suffix, then scan the corresponding barcode (see appendix), up to 32 bytes.



Add prefix



Add suffix

2.2.16 Hide prefix/suffix

Method of hiding prefixes and suffixes:First scan the hidden prefix or suffix, then scan the

hidden bits, hiding up to 16 bytes.

Hidden barcode prefix

Hide 1 bit

Hide 2 bits

Hide 3 bits

Hide 4 bits

Hide 5 bits

Hide 6 bits

Hide 7 bits

Hide 8 bits

Hide 9 bits

Hide 10 bits

Hide 11 bits

Hide 12 bits

Hide 13 bits

Hide 14 bits

Hide 15 bits

Hide 16 bits

2.2.17 Control character escape

Enable Control character escape

2.2.18 GS Character barcode setting

Open GS symbol to convert to |

Turn off GS symbol to | (default)

2.2.19 USB Keyboard case output control

Force conversion to uppercase

Case interchange

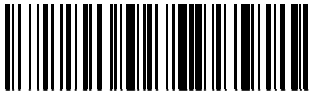
Read the “Enter Setup/Exit Settings” barcode to activate the setup code function. The laser

scanning platform can be set by reading more than one setup code.

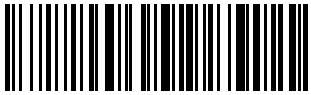
To exit the setup code function, just read the “Enter Setup/Exit Setup” barcode again; if you need to restore the factory settings, you need to identify the “Restore Factory Settings” barcode.

The order of setting is as follows:

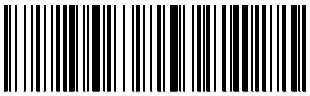
Enter setting ⟹ **Setting** barcode ⟹ **Exit setting**



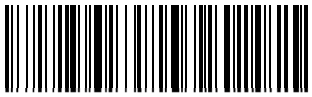
Enter setting



Exit setting



Software version number



Wireless default setting / add suffix

ZM002

Restore scan mode and code default settings

Scan mode

ZM003

Manually trigger scan mode

ZM004

Automatic continuous scan mode

ZM005

Automatic flash scan mode

2.3 Symbologie

2.3.1 EAN-8

ZM070

Enable EAN8

ZM076

Disable EAN8

ZM071

Enable EAN8 Transfer check

（default）

ZM077

Disable EAN8
Transfer check

Enable EAN8 to EAN13

Disable EAN8 to EAN13

（default）

2.3.2 UPC/EAN Additional code

Note: EAN includes EAN-8, EAN-13, UPC includes UPC-A, UPC-E

I 2 additional

Disable UPC/EAN 2 additional code

Enable UPC/EAN 5 additional code

Disable UPC/EAN 5 additional code

ZM074

ZM07A

C/EAN
code

Ignore UPC/EAN
5additional code

2.3.3 EAN-13

ZM07C

Enable EAN13
（default）

ZM082

Disable EAN13

ZM07D

Enable EAN13 transfer check
（default）

ZM083

Disable EAN13 transfer
check


ZM07E

Enable EAN13 lead code
（default）


ZM084

Disable EAN13 lead
code


ZM0FA

Enable EAN13 to ISSN


ZM0FB

Enable EAN13 to ISBN

Disable EAN13 to ISSN and
ISBN

2.3.4 ISSN\ISBN

ZM088

Enable ISSN（default）

ZM08A

Disable ISSN

ZM089

Enable ISSN to EAN-13

ZM08B

Disable ISSN to EAN-13

ZM090

Set ISBN as 10 data bits

ZM08C

Enable ISBN

ZM091

Disable ISBN to EAN13

ZM08D

Set ISBN as 13 data bits

ZM08E

ZM08F

2.3.5 UPC-A

ZM092

Enable UPC-A（default）

ZM09A

Disable UPC-A

ZM093

Enable UPC-A transfer check code（default）

ZM09B

Disable UPC-A

transfer check code

ZM094

Enable UPC-A transfer country code

ZM09C

Disable UPC-A transfer country code

ZM095

Enable UPC-A transfer system code（default）

ZM09D

Disable UPC-A transfer system code

EAN13

ZM0A1

Disable UPC-A to EAN13

2.3.6 UPC-E

Enable UPC-E（default）

Disable UPC-E

ZM0A3

Enable UPC-E transfer check codes（default）

ZM0AB

Disable UPC-E transfer check codes

er

ZM0AC

Disable UPC-E transfer country code

ZM0A5

Enable UPC-E transfer system codes

ZM0AD

Disable UPC-E transfer system codes

ZM0B1

Disable UPC-E to UPC-A（default）

2.3.7 CODE39

ZM0B2

Enable CODE39

ZM0B7

Disable CODE39

ZM0B3

Enable CODE39 check codes

ZM0B8

Disable CODE39 check codes

ZM0B4

Disable CODE39 transfer check codes

ZM0B9

Enable CODE39 transfer check codes

ZM0B5

Enable CODE39 transfer start bits and end bits

ZM0BA

Disable CODE39 transfer start bits and end bits

ZM0B6

Disable CODE39 full ASCII reading（default）

ZM0BB

Enable CODE39 full ASCII reading

2.3.8 CODE32

ZM0BC

Enable CODE32

ZM0BE

Disable CODE32

ZM0BD

Enable CODE32 to CODE39（default）

ZM0BF

Disable CODE32 to CODE39

2.3.9 CODE128

ZM0C0

Enable CODE128

ZM0C2

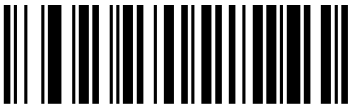
Disable CODE128

ZM0C1

Enable CODE128
check code

ZM0C3

Disable CODE128
check code



ZM104

Enable CODE128 transfer check code（default）

ZM103

Disable CODE128 transfer check code

ZM0C4

Enable UCC-EAN128 （default）

ZM0C7

Disable UCC-EAN128

ZM0C5

Enable UCC-EAN128 check code

ZM0C8

Disable UCC-EAN128 check code

ZM0C6

Enable UCC-EAN128 to CODE128

ZM0C9

Disable UCC-EAN128 to CODE128

ZM10C

Enable UCC-EAN128 transfer check codes（default）

ZM10B

Disable UCC-EAN128 check codes

2.3.10 CODE93

ZM0CA

Enable CODE93
（default）

ZM0CD

Disable CODE93

ZM0CB

Enable CODE93 check

ZM0CE

Disable CODE93 check

ZM0CC

Enable CODE93 transfer check codes

ZM0CF

Disable CODE93 transfer check codes

2.3.11 CODE11

ZM0D0

Enable CODE11

ZM0D3

Disable CODE11

ZM0D1

Enable CODE11 check codes

ZM0D4

Disable CODE11 check codes

ZM0D2

Enable CODE11 transfer check codes

ZM0D5

Disable CODE11 transfer check codes

2.3.12 CODABAR

ZM0D6

Enable CODABAR

（default）

ZM0D8

Disable CODABAR

ZM0D7

Enable CODABR transfer start bit and end bit（default）

ZM0D9

Disable CODABR transfer start bit and end bit

2.3.13 MSI

ZM0DA

Enable MSI（default）

ZM0DE

Disable MSI

ZM0DF

Enable MSI prefix MOD10 check

ZM0DB

Disable MSI prefix MOD10 check

ZM0E0

Disable MSI suffix MOD10

ZM0DC

Enable MSI suffix MOD11

ZM0DD

Enable MSI transfer check codes

ZM0E1

Disable MSI transfer check codes（default）

2.3.14 Interleaved 2 of 5 （ITF5）

ZM0E2

Enable ITF 25

ZM0E5

Disable ITF 25

ZM0E6

Disable ITF 25 check transfer check code

2.3.15 China Post 25 code

ZM0E8

Enable China Post 25 code

ZM0EB

Disable China Post 25 code

ZM0E9

Enable China Post 25 code check code

ZM0EC

Disable China Post 25 code check code

ZM0EA

Enable sending China Post 25 code check code

ZM0ED

Disable sending China Post 25 code check code

2.3.16 Matrix 2 of


ZM0EE

Enable Matrix 2 of 5


ZM0F1

Disable Matrix 2 of 5


ZM0EF

Enable Matrix 2 of 5 check code


ZM0F2

Disable Matrix 2 of 5 check code

Disable Matrix 2 of 5 sending check code

Enable Matrix 2 of 5 sending check code

ZM0F0

Disable Matrix 2 of 5
sending check code

ZM0F3

Enable Matrix 2 of 5
sending check code

2.3.17 Industrial 2 of 5

ZM0F4

Enable Industrial
2 of 5

ZM0F7

Disable Industrial 2
of 5

ZM0F5

Enable industrial 2 of
5 check code

ZM0F8

Disable industrial 2
of 5 check code

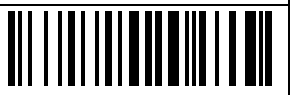
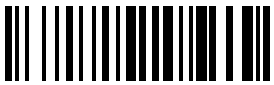
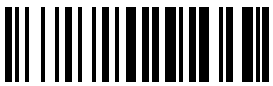
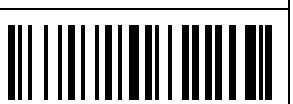
ZM0F6

Disable industrial 2 of 5
sending check code

ZM0F9

Enable industrial 2 of 5
sending check code

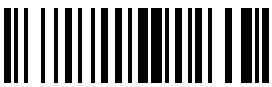
Appendix 1 Prefix/Suffix Control Character Table

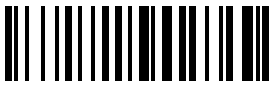
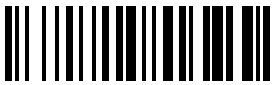
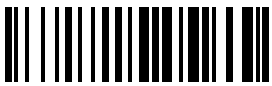
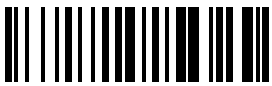
NO.	Disable control character	Enable control character	Setting barcode	NO.	Disable control character	Enable control character	Setting barcode
1	Insert	Ctrl+A		17	↑	Ctrl+Q	
2	Home	Ctrl+B		18	↓	Ctrl+R	
3	End	Ctrl+C		19	←	Ctrl+S	
4	Delete	Ctrl+D		20	→	Ctrl+T	
5	PageUp	Ctrl+E		21	F12	Ctrl+U	
6	PageDown	Ctrl+F		22	F1	Ctrl+V	
7	ESC	Ctrl+G		23	F2	Ctrl+W	
8	Backspace	Ctrl+H		24	F3	Ctrl+X	
9	Tab	Ctrl+I		25	F4	Ctrl+Y	
10	Enter	Enter		26	F5	Ctrl+Z	
11	Caps Lock	Ctrl+K		27	F6	Ctrl+[	
12	Print Screen	Ctrl+L		28	FS	Ctrl+\	

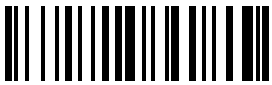
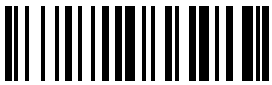
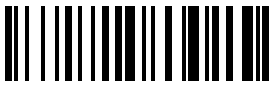
13	Enter	Ctrl+M		29	GS	Ctrl+]	
14	F7	Ctrl+N		30	F9	Ctrl+^	
15	F8	Ctrl+O		31	F10	Ctrl+_	
16	F11	Ctrl+P					

Appendix 2 Prefix/Suffix Visible Character Table

NO.	Visible Character	Setting bar code	NO.	Visible Character	Setting bar code
32	space		44	,	
33	!		45	-	
34	"		46	.	
35	#		47	/	
36	$		48	0	

37	%		49	1	
38	&		50	2	
39	'		51	3	
40	(		52	4	
41	)		53	5	
42	*		54	6	
43	+		55	7	
56	8		70	F	
57	9		71	G	
58	:		72	H	
59	;		73	I	
60	<		74	J	
61	=		75	K	

62	**>**		76	**L**	
63	**?**		77	**M**	
64	**@**		78	**N**	
65	**A**		79	**O**	
66	**B**		80	**P**	
67	**C**		81	**Q**	
68	**D**		82	**R**	
69	**E**		83	**S**	
84	**T**		98	**b**	
85	**U**		99	**c**	
86	**V**		100	**d**	
87	**W**		101	**e**	
88	**X**		102	**f**	

89	**Y**		103	**g**	
90	**Z**		104	**h**	
91	**[**		105	**i**	
92	****		106	**j**	
93	**]**		107	**k**	
94	**^**		108	**l**	
95	**_**		109	**m**	
96	**`**		110	**n**	
97	**a**		111	**o**	
112	**p**		120	**x**	
113	**q**		121	**y**	
114	**r**		122	**z**	
115	**s**		123	**{**	

116	**t**		124	**|**	
117	**u**		125	**}**	
118	**v**		126	**~**	
119	**w**		127	**DEL**