Wireless 2D barcode scanner user manual

HW-3809/3809B/3890/3890B

This manual is suitable for 2D 2.4G, 433M, Bluetooth scanner

Content

1. System settings

The user can directly scan and set the barcode to achieve the described function.

@0B@
Default Factory

Scanning the " Default Factory" bar code will restore all the bar coder's attribute settings to the factory state.

Quickly use the scanner (applicable to 2.4G, 433M)

(The factory is matched by default, use it directly, no need to match again)

Description of the matching process:

1. Press the button, the buzzer "Di-di-di" will beep three times, the blue light will be on, and the scanner will start normally.

2. Plug in the receiver, the blue light on it is on, and the receiver is working normally.

3. Please plug the computer into the receiver and scan the pairing barcode within 30 seconds to match the scanner and receiver.

4. Open a text document and scan your barcode.

@019909@
Match

Scan the "match" setting bar code, the scanner will connect to the receiver

Quickly use the scanner (applicable to Bluetooth and Bluetooth extension products)

In Android device and IOS device, Bluetooth connection operation

1. When the button is pressed, the scanner starts, and the bluetooth status light turns on and flashes in red to indicate that the scanner enters the pairing mode.

2. Turn on the Bluetooth of the mobile phone and select the name of the Bluetooth device as "Scanner xxx".

3. Select "Scanner xxx" and click Wait for connection. If the connection is successful, there will be two di-di beeps.

Bluetooth scanner is recommended to use 2.4G mode or wired mode under windows

(Please consult to confirm whether the purchased product contains the 2.4G function and wired function of the Bluetooth extension)

1. Switch the Bluetooth scanner to 2.4G mode, insert the 2.4G receiver that comes with it, and scan the "matching" setting code.

2. Use the standard USB cable to connect directly to the computer and you can use it.

Matching operation and networking instructions

(Applicable to 2.4G, 433M)

Matching operation description

Plug the receiver into the computer's USB port, the system will automatically install the receiver driver, the blue light on the receiver indicates that the receiver is working normally, please scan the "Match" barcode within 30 seconds to connect the scanner to the receiver.

(1) When the pairing is successful, the buzzer will sound "Di-da-di", "DI-di-di".

(2) If the pairing fails, the buzzer will sound "Di---en".

If the pairing fails, please unplug the receiver, plug it in again, and perform the matching operation again. If the matching still fails, the receiver may be damaged, and the product has been paired successfully when it leaves the factory.

Networking mode: one-to-one, many-to-one

One-to-one: One scanner is connected to one receiver.

　　1. Insert the receiver into the USB port of the computer.

　　2. Scan the " Match " barcode and connect the scanner and the receiver.

Many to one: Multiple scanners to one receiver.

If you have 2 scanners: Scanner A, Scanner B, Scanner C.

1. Insert the receiver into the USB port of the computer.

2. Matching scanner A: A scans the " Match " bar code, and A is connected to the receiver.

3. Unplug the receiver and reinsert the USB port.

4. Matching scanner B: B scans the "matching" bar code, and B connects with the receiver.

5. Unplug the receiver and reinsert the USB port.

　　6. Matching scanner C: C scans the "Match" bar code, and C connects to the receiver.

　　In this way, all three scanners of A, B, and C can transmit data to this receiver.

How to distinguish data sources in many-to-one network mode?

When there are multiple scanners to a receiver, if you need to distinguish which scanner the data received by the receiver comes from?

As in the above example A, B, C for a receiver, the scanner A can be set with the prefix character "A", B with the prefix character "B", and C with the prefix character "C", so that the data received by the receiver, if there is The prefix "A" represents the data sent by the A scanner.

For example, if the received data is "B123456", it means that the data is scanned and transmitted by the B scanner, and other things are the same.

2. Working mode setting

The scanner has two working modes under wireless transmission: "instant upload mode" and "storage mode", which can be switched by setting to adapt to different usage scenarios.

Instant upload mode:

Upload the scanned barcode data to the receiving end immediately.

@0199000@
Instant upload mode

 (1) Successful upload: The blue light flashes once, and the buzzer will sound: "Di".

(2) Upload failure: The red light flashes once, and the buzzer will sound: "Di---en".

If it is a prompt of upload failure status, please confirm whether the scanner and the receiver are matched and successfully connected, please unplug the receiver and perform the matching connection operation again (because the receiver only allows the matching operation within 40 seconds after power-on).

If it is a prompt of a successful upload state but there is no barcode data, please confirm whether the receiver is set to virtual serial port mode, please set the scanner to "USB keyboard" mode.

Transmission speed setting
Set the delay between each character, the range of 00-99 is adjustable, the larger the value, the slower

@01993500@ Transmission without delay	@01993515@ Transmission speed 15	@01993530@ Transmission speed 30
@01993540@ Transmission speed 40	@01993550@ Transmission speed 50	@01993560@ Transmission speed 60

1. In Bluetooth mode, the setting option is stored in the host, and the default is "Transmission Speed 30".

2. In 2.4G and 433M mode, this setting option is stored in the receiver, the default is "transmission without delay", because it is stored in the receiver, so if there is no matching receiver, scanning this setting code is Invalid and will report an error.

Note: If the transmission speed is set to a larger value, upload data in the storage mode. If the storage mode upload speed is set too fast, the data will be lost. Please set the storage mode upload speed to the speed corresponding to the transmission speed.

For example: the transmission is set to 60, and the upload speed of the storage mode is set to 60, or even slower, to ensure that no data is lost.

Storage mode:

Set to the storage mode, the scanner will first store the scanned barcode data into the internal memory. Within the range of wireless transmission, scan the "display total number" setting code to view the total number of barcode data stored in the internal memory. Upload data" setting code to upload the stored barcode data to the computer.

@0199001@
Storage mode

Ps: During use, it is found that data cannot be transferred. Please confirm whether it is set to storage mode? The sound of barcode reading in "storage mode" and the sound of "instant upload mode" are different, please pay attention to distinguish.

@019901@	@019903@

Display total number (display the number of barcodes stored)	Upload data

@019902@
Clear
(clear all the barcode data stored in the memory-please use it with caution)

1. Successful storage: The blue light flashes once, and the buzzer will sound: "Di-en".

2. Storage failure: The red light flashes once, and the buzzer will sound: "Di---en", which means the memory is full. Please upload the barcode data in the storage, and then scan the reset code to clear the memory.

3. Upload completed: the buzzer will sound: "Di-do-en".

Upload barcode speed setting in storage mode
Set the transmission speed delay between each barcode (001-255) * 50ms range can be set 2.4G and 433M default is 000 without delay, and the default Bluetooth mode is 010

@019925000@ Upload speed No delay	@019925001@ Upload speed 001	@019925002@ Upload speed 002
@019925040@ Upload speed 040	@019925050@ Upload speed 050	@019925060@ Upload speed 060

Power and standby settings

@019904@
Remaining battery

In order to better control the energy consumption, the scanner is equipped with two-level sleep settings, followed by entering standby time and entering shutdown time.

Enter standby time setting
In the standby state, the engine power is turned off, but the CPU is still working in standby. When the button is pressed, it can quickly enter the working state. The last three digits of the bar code indicate (001-999) * The time of 10 seconds can be set freely.

@019905001@ 10s to standby	@019905004@ 40s to standby *
@019905030@ 5min to standby	@019905180@ 30min to standby
@019905360@ 60min to standby	@019905999@ 166.5min to standby

Enter shutdown time setting

The scanner enters the shutdown time after the set standby time.

In the shutdown state: the scanner processor cuts off the power of the whole machine, and the power consumption is zero.

The last three digits of the bar code indicate (001-999) * The time of 10 seconds can be set freely.

@019906001@ Power off after 10s standby	@019906008@ Power off after 80s standby *
@019906030@ Power off after 5min standby	@019906180@ Power off after 30min standby
@019906360@ Power off after 60min standby	@019906999@ Power off after 166.5min standby

Dedicated setting code for never shut down

Two setting codes are set for Never Shut Down, to apply certain application scenarios in a targeted manner.

@019907@ Never shut down	@019911@ Never shut down:	@019936@ Shut down

		effective once	

Battery level indication description:

Press the button to turn on the scanner. Please observe the color of the LED light and the sound of the buzzer to check the battery level.

1. When the machine is turned on, the blue light is on, the buzzer "Di-di-di" and no red light flashes, indicating that the battery is normal.

2. When the machine is turned on, the blue light is on, the buzzer "Di-di-di", and the red light flashes three times, indicating that the battery power is less than 30%, and the scanner should be charged as soon as possible.

3. When power on, the blue light goes out, the buzzer does not sound, the red light flashes three times, and the automatic shutdown means that the battery power is less than 20%, and the scanner enters the low-voltage protection mode. Please charge the scanner immediately.

4. When the button is pressed, the scanner has no response. Please charge the scanner for 30 minutes. If it can be started, please continue to charge until it is used. If it still cannot be turned on, the battery is damaged and the battery needs to be replaced.

Charging LED description:

Products without base:

For products that do not contain a base, please plug in the supplied USB cable for charging.

1. Charging status: The blue light of the scanner is always on, and the red light is gradually changing.

2. Charging is complete: the blue light of the scanner is always on and the red light is off.

3. Micro-current charging: The blue light of the scanner is off, and the red light is gradually changing. This stage is in battery protection mode. Please do not stop charging at this stage and use the scanner.

Products with base:

Please place the scanner in the dedicated dock for charging.

1. When the base is working, the blue light is on. When the scanner is inserted, the green light of the base is always on, and the buzzer Di-di indicates that the connection between the base and the scanner is good, charging starts, and the green LED light goes out when the

charging is completed.

2. The description of the scanner charging indicator is the same as that of the product without a base.

Receiver interface mode setting

(2.4G,433M) Receiver interface setting (2.4G, 433M)

Plug the USB receiver into the computer, and the blue LED is always on to indicate that the receiver is powered on.

The flashing blue LED indicates that the receiver is in poor contact or is damaged.

The receiver supports two communication interfaces: USB keyboard and USB virtual serial port.

  @01991500@ USB keyboard *	 @01991501@ USB virtual serial port

The receiver supports 25 languages in the USB keyboard mode, please refer to the appendix for related setting codes.

Ps: During use, everything else is normal but data cannot be transferred. It may be set to the USB virtual serial port mode.

Wired USB function switch

Plug in the USB cable, the scanner will automatically switch to wired mode, and the national language settings will be consistent with the current wireless settings.

Unplug the USB cable, it will automatically become wireless mode, and the wired function can be disabled by the following setting code.

  @0199310@ Wired USB function-on *	 @0199311@ Wired USB function-off
Note: Please consult to confirm whether the purchased product contains the line function.	

Reading mode selection

Manual mode*	
Continuous mode	Induction mode
If the self-sensing function, you should set a longer waiting time to shut down, the experience is better. (Please consult to confirm whether the purchased product contains sensor function)	

Buzzer settings

Volume setting: reading volume and boot volume

@014205@ Large reading volume *	@014203@ Normal reading volume
@014201@ Low reading volume	@014200@ Reading sound off

Tone setting: Reading tone and power-on tone

@014206@ Audio 2048HZ	@014207@ Audio 2731HZ*

tartup sound setting: Boot sound only

[QR] @014209@ Large boot volume *	[QR] @014211@ Normal boot volume
[QR] @014213@ Low boot volume	[QR] @014208@ boot volume off

Two. Dedicated settings for Bluetooth scanner

1. The current Bluetooth scanner products include Bluetooth and 2.4G dual-mode switching functions.

2. When the scanner is started for the first time, the scanner defaults to Bluetooth mode.

3. Scan the "Default Factory " barcode, the scanner will also return to Bluetooth mode.

Press the scanner button, the buzzer "Di-di-di" flashes red, etc., the blue light is on, it means the scanner is in Bluetooth mode, and the green light is on, it means the scanner is in 2.4G mode.

Bluetooth/2.4G switching operation

Method 1: Long press the button for 10 seconds to switch freely.

Method 2: Scan the setting code to switch.

[QR] @0199430@ Bluetooth mode	[QR] @0199431@ 2.4G mode

Long press to switch process description

Bluetooth switch to 2.4G:

When in Bluetooth mode, press and hold the button for 10 seconds, when the buzzer sounds "Di-da-di", "DI-di-di". The scanner restarts, which means that the switching operation is completed, release the button, and the green light is on, indicating that it has successfully switched to the 2.4G mode. At this time, data can be transmitted through the 2.4G receiver.

2.4G switch to Bluetooth:

When in 2.4G mode, long press the button for 10 seconds, when the buzzer sounds "Di-da-di", "DI-di-di". The scanner restarts, which means that the switching operation is complete, release the button, and the blue light is on, indicating that it has successfully switched to the Bluetooth mode. At this time, data can be transmitted via Bluetooth.

Bluetooth mode setting

@000600@	@000601@	@000602@
HID keyboard*	SPP mode	BLE mode

IOS keyboard settings

The Bluetooth scanner supports the pop-up of the keyboard during use under the IOS system, which can be realized by scanning the setting code or by double-clicking the key continuously to realize the pop-up or hide of the keyboard.

@0199332@

Show/hide IOS system keyboard

Continuous double-click pop-up keyboard function-settings

@0199450@	@0199451@
Double click to show/hide IOS system keyboard function-off	Double click to show/hide the IOS system keyboard function-open *

Bluetooth connection settings

@0199330@	@0199331@	@019932@
Disconnect	Connect to the recently matched host	Clear all matching records

3. Code reading function setting

<table>
<tr><td colspan="2" align="center">

Barcode ID

The scanner defines an ID character for each type of bar code, and the setting allows the transmission of the bar code ID, and the type of bar code scanned can be distinguished by outputting the ID characters.
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<tr>
<td align="center">

@01400@
Transmission of barcode ID-prohibited *
</td>
<td align="center">

@01401@
Transmit barcode ID-allowed
</td>
</tr>
</table>

Various types of barcodes and corresponding ID characters

Serial number	ID symbol	Barcode type	
1	a	UPC-A, UPC-E, EAN-8, EAN-13	
2	b	Code 39, Code 32	
3	c	Coda bar	
4	d	Code 128	
5	e	Code 93	
6	f	Interleaved 2 of 5	
7	g	Discrete 2 of 5	Currently no support
8	h	CODE11	
9	i	MSI	
11	j	GS1-DataBar, /UCC/EAN-128	Currently no support
12	k	Bookland EAN, Bookland EAN/ISBN	Currently no support
13	l	Trioptic Code 39	Currently no support
14	m	Coupon Code	Currently no support
15	n	GS1DataBar-14, GS1DataBarLimited, GS1DataBar Expanded, RSS	
16	o	SETUP128	Currently no support
17	p	PDF417	
18	q	Data Matrix(DM)	
19	r	QR	
20	s	Aztec Code	
21	t	Maxi Code	

22	u	Veri Code	Currently no support
23	v	HanXin	Currently no support

Continuous scan repeat code time setting

In some application scenarios, continuous reading of the same barcode produces two or more transmissions, but the actual application only requires barcode data once. At this time, you can set the re-code detection interval as needed to avoid problems.

@019922000@ No repeated code detection*	@019923@ Permanent repeated code detection
@019922010@ Interval time: 1s	@019922050@ Interval time: 5s
@019922020@ Interval time: 2s	@019922100@ Interval time: 10s
@019922030@ Interval time: 3s	@019922150@ Interval time: 15s
@019922040@ Interval time: 4s	@019922250@ Interval time: 25s

1.The interval time setting is determined by the last three digits 000-250, that is, 1s to 250s.

2.For example, the interval time is now set to 5s. After scanning A barcode, scanning A barcode within 5 seconds will not be transmitted and the transmission failure will be

handled. Scanning other barcodes will not cause problems, scanning other barcodes and scanning again A barcode allows transmission.

4. Various types of barcode options

UPCA	
 UPCA-on*	 UPCA-off
UPCE	
 UPCE-on*	 UPCE-off
EAN13	
 EAN13-on*	 EAN13-off
EAN8	
 EAN8-on*	 EAN8-off
UPC&EAN with code Additional digits refer to the 2 digits or 5 digits added after the UPC&EAN barcode.	
 UPC/EAN with code-off*	 UPC/EAN with code-on

CODE39	
 CODE39-on*	 CODE39-off
 全ASCLL-off*	 全ASCLL-on
CODE39 barcode data can include all ASCII characters, but the barcode reader can only read part of ASCII characters by default. By setting, you can turn on the function of reading complete ASCII characters.	
 Transmission CODE39 start/stop-off *	 Transmission CODE39 start/stop-on*
Code 39 barcode data has a character "*" before and after it as the start and stop characters.	

CODE93	
 CODE93-on	 CODE93-off*

CODE128	

CODE128-on*	CODE128-off

CODE11	
CODE11-on	CODE11-off*

MSI	
MSI code- on	MSI code-off

CODABAR	
CODABAR-on	CODABAR-off*

GS1-Databar	
GS1-Databar-off*	GS1-Databar-on

Cross 25		
You must set the permission and then set any length to read the Cross 25, that is, you need to scan 2 setting codes.		
 Cross 25-off*	 Cross 25-on	 Read any length of Cross 25
Industry 25		
You must set the permission and then set any length to read the Industrial 25, that is, you need to scan 2 setting codes.		
 Industry 25-off*	 Industry 25-on	 Read any length of Industry 25
Matrix 2 of 5		
You must set permission and then set any length to read Matrix 2 of 5, that is, you need to scan 2 setting codes.		
 Matrix 2 of 5-off*	 Matrix 2 of 5-on	 Read any length of Matrix 2 of 5
Standard 2of 5		
You must set the permission and then set any length to read Standard 2of 5,		
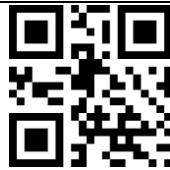
that is, you need to scan 2 setting codes.		
Standard 2of 5-off*	Standard 2of 5-on	Read any length of Standard 2of 5

QR Code	
QR Code-on*	QR Code-off

Data Matrix		
Data Matrix-on*		Data Matrix-off
Only Normal	Only reversed	Normal+reversed

PDF417	
PDF417-enable*	PDF417-disable

Aztec code

Aztec code-enable	Aztec code-disable*
Maxi code	
Maxi code-enable	Maxi code-disable*

5. Data edit

Commonly used terminator

The suffix (end terminator) is used to mark the end of a piece of complete data information. The suffix (end terminator)　must be the last content of a piece of data when it is sent, and there will be no additional data after that.

@0202011000$0D@ CR *	@0202011000$0A@ LF
@0202011000$09@ Tab	@019919@ CR+LF
@0B20201@ None no end terminator	

Case setting

@01993001@ Convert uppercase and lowercase	@01993002@ All lowercase
@01993003@ All uppercase	@01993000@ Cancel case setting

Data editing related setting codes

@08900@ Insert characters	@08901@ Delete character	@08999@ Save Settings	@08998@ Clear settings
@09000@ Insert before barcode	Please scan the corresponding barcode in the ASCLL Barcode Table to insert or delete after which digits		@09254@ Insert after barcode

Barcode type		
@08000@ All types	@08001@ UPC&EAN	@08002@ Code39
@08003@ Coda bar	@08004@ Code128	@08005@ Code93
@08006@ Interleaved 2 of 5	@08008@ Code11	@08009@ MSI
@08015@ GS1-Databar	@08017@ PDF417	@08018@ Data Matrix

@08019@	@08020@	@08021@
QR	Aztec Code	Maxi Code

If do not scan barcode type barcodes, means all barcode types are defaulted.

Set save data group			
@08100@	@08101@	@08102@	@08103@
1st group	2nd group	3rd group	4th group
@08104@	@08105@	@08106@	@08107@
5th group	6th group	7th group	8th group

If the barcode of the data group is not scanned, the first group is defaulted, and the settings of different data groups can take effect at the same time.

Insert character operation example

During the setting process, scanning other irrelevant barcodes will exit the setting state

一、 Insert characters，Code128 barcode data：123456789

Insert A before the barcode	Insert C after the 3rd digit of the barcode	Insert E after the barcode
@08900@ Insert characters		
@08000@ All types (can be omitted, all types are default)		
@08100@ The first group (can be omitted, the first group is the default)		
@09000@ Before barcode	@09003@ **003 ETX**	@09254@ After barcode

 @09065@ **065 A**	 @09067@ **067 C**	 @09069@ **069 E**
Each data group can be set to insert less than 10 characters		
 @08999@ Save setting		
Setting results		
A123456789	123C456789	123456789E

1. Different barcode types can be set, so that this setting is only valid for a single type of barcode.

2. Different data groups can be set so that different settings can be effective at the same time.

Example of deleting characters

During the setting process, scanning other irrelevant barcodes will exit the setting state

二、   Delete character，Code128   data：123456789

Delete 1 digit before the barcode	Delete 2 digits after the 3rd digit of the barcode	Delete 3 digits after the barcode
 @08901@ Delete character		
 @08000@ All types (can be omitted, all types are default)		
 @08100@ The first group (can be omitted, the first group is the default)		
 @09000@ Before barcode	 @09003@ **003 ETX**	 @09254@ After barcode

@09001@ **001 SOH**	@09002@ **002 STX**	@09003@ **003 ETX**

@08999@ Save settings

Setting results		
23456789	1236789	123456

1. Different barcode types can be set, so that this setting is only valid for a single type of barcode.

2. Different data groups can be set so that different settings can be effective at the same time.

Appendix 1: ASCLL code comparison table

Hex	Dec	Description	Hex	Dec	Description	Hex	Dec	Description
#00	0	NUL(CTRL @)	#22	34	"	#44	68	D
#01	1	SOH(CTRL A)	#23	35	#	#45	69	E
#02	2	STX(CTRL B)	#24	36	$	#46	70	F
#03	3	ETX(CTRL C)	#25	37	%	#47	71	G
#04	4	EOT(CTRL D)	#26	38	&	#48	72	H
#05	5	ENQ(CTRL E)	#27	39	'	#49	73	I
#06	6	ACK(CTRL F)	#28	40	(	#4A	74	J
#07	7	BEL(CTRL G)	#29	41	)	#4B	75	K
#08	8	BS(Backspace)	#2A	42	*	#4C	76	L
#09	9	HT(Tab)	#2B	43	+	#4D	77	M
#0A	10	LF(CTRL J)	#2C	44	,	#4E	78	N
#0B	11	VT(CTRLK)	#2D	45	—	#4F	79	O
#0C	12	FF(CTRLL)	#2E	46	。	#50	80	P
#0D	13	CR(Enter)	#2F	47	/	#51	81	Q
#0E	14	SO(CTRL N)	#30	48	0	#52	82	R
#0F	15	SI(CTRLO)	#31	49	1	#53	83	S
#10	16	DLE(CTRLP)	#32	50	2	#54	84	T
#11	17	DC1(CTRL Q)	#33	51	3	#55	85	U
#12	18	DC2(CTRL R)	#34	52	4	#56	86	V
#13	19	DC3(CTRL S)	#35	53	5	#57	87	W
#14	20	DC4(CTRLT)	#36	54	6	#58	88	X

#15	21	NAK(CTRL U)	#37	55	7	#59	89	Y
#16	22	SYN(CTRL V)	#38	56	8	#5A	90	Z
#17	23	ETB(CTRL W)	#39	57	9	#5B	91	[
#18	24	CAN(CTRL X)	#3A	58	:	#5C	92	\
#19	25	EM(CTRL Y)	#3B	59	;	#5D	93	]
#1A	26	SUB(CTRL Z)	#3C	60	<	#5E	94	^
#1B	27	ESC(ESC)	#3D	61	=	#5F	95	_
#1C	28	FS(CTRL \)	#3E	62	>	#60	96	`
#1D	29	GS(CTRL])	#3F	63	?	#61	97	a
#1E	30	RS(CTRL ^)	#40	64	@	#62	98	b
#1F	31	US(CTRL_)	#41	65	A	#63	99	c
#20	32	(space)	#42	66	B	#64	100	d
#21	33	!	#43	67	C	#65	101	e

Hex	Dec	Description	Hex	Dec	Description	Hex	Dec	Description
#66	102	f	#89	137	F10	#AC	172	Page Up Keypad
#67	103	g	#8A	138	F11	#AD	173	Page Down Keypad
#68	104	h	#8B	139	F12	#AE	174	Up Arrow Keypad
#69	105	i	#8C	140	Left shift make	#AF	175	Down Arrow Keypad
#6A	106	j	#8D	141	Left shift break	#B0	176	Left Arrow Keypad
#6B	107	k	#8E	142	Right shift mark	#B1	177	Right Arrow Keypad
#6C	108	l	#8F	143	Right shift break	#B2	178	Center Keypad
#6D	109	m	#90	144	Left ALT mark	#B3	179	Insert
#6E	110	n	#91	145	Left ALT break	#B4	180	Delete
#6F	111	o	#92	146	Right ALT mark	#B5	181	Home
#70	112	p	#93	147	Right ALT break	#B6	182	End
#71	113	q	#94	148	Left control mark	#B7	183	Page Up
#72	114	r	#95	149	Left control break	#B8	184	Page Down
#73	115	s	#96	150	Right control mark	#B9	185	Up Arrow
#74	116	t	#97	151	Right control break	#BA	186	Down Arrow
#75	117	u	#98	152	/Keypad	#BB	187	Left Arrow
#76	118	v	#99	153	*Keypad	#BC	188	Right Arrow
#77	119	w	#9A	154	-Keypad	#BD	189	
#78	120	x	#9B	155	+Keypad	#BE	190	Num Lock
#79	121	y	#9C	156	-Keypad	#BF	191	Caps Lock
#7A	122	z	#9D	157	enter Keypad	#C0	192	Scroll Lock
#7B	123	{	#9E	158	0Keypad	#C1	193	Print Screen

#7C	124	|	#9F	159	1Keypad	#C2	194	Pause
#7D	125	}	#A0	160	2Keypad			
#7E	126	~	#A1	161	3Keypad			
#7F	127	DEL	#A2	162	4Keypad			
#80	128	F1	#A3	163	5 Keypad			
#81	129	F2	#A4	164	6 Keypad			
#82	130	F3	#A5	165	7 Keypad			
#83	131	F4	#A6	166	8 Keypad			
#84	132	F5	#A7	167	9 Keypad			
#85	133	F6	#A8	168	Insert Keypad			
#86	134	F7	#A9	169	Delete Keypad			
#87	135	F8	#AA	170	Home Keypad			
#88	136	F9	#AB	171	end Keypad			

Appendix 2：ASCLL Barcode Table

（Barcode data format @09XXX@）

@09000@ 000　　NUL/SP	@09001@ 001　　SOH	@09002@ 002　　STX
@09003@ 003　　ETX	@09004@ 004　　EOT	@09005@ 005　　ENQ
@09006@ 006　　ACK	@09007@ 007　　BEL	@09008@ 008　　Back Space
@09009@ 009　　HT/TAB	@09010@ 010　　LF	@09011@ 011　　VT
@09012@ 012　　FF	@09013@ 013　　CR/ENTER	@09014@ 014　　SO
@09015@ 015　　SI	@09016@ 016　　DLE	@09017@ 017　　DC1

@09018@ **018 DC2**	@09019@ **019 DC3**	@09020@ **020 DC4**
@09021@ **021 NAK**	@09022@ **022 SYN**	@09023@ **023 ETB**
@09024@ **024 CAN**	@09025@ **025 EM**	@09026@ **026 SUB**
@09027@ **027 ESC**	@09028@ **028 FS**	@09029@ **029 GS**
@09030@ **030 RS**	@09031@ **031 US**	@09032@ **032 SP**
@09033@ **033 !**	@09034@ **034 "**	@09035@ **035 #**
@09036@ **036 $**	@09037@ **037 %**	@09038@ **038 &**
@09039@ **039 '**	@09040@ **040 (**	@09041@ **041)**
@09042@ **042 ***	@09043@ **043 +**	@09044@ **044 ,**
@09045@ **045 -**	@09046@ **046 .**	@09047@ **047 /**
@09048@ **048 0**	@09049@ **049 1**	@09050@ **050 2**

@09051@ 051　　3	@09052@ 052　　4	@09053@ 053　　5
@09054@ 054　　6	@09055@ 055　　7	@09056@ 056　　8
@09057@ 057　　9	@09058@ 058　　:	@09059@ 059　　;
@09060@ 060　　<	@09061@ 061　　=	@09062@ 062　　>
@09063@ 063　　?	@09064@ 064　　@	@09065@ 065　　A
@09066@ 066　　B	@09067@ 067　　C	@09068@ 068　　D
@09069@ 069　　E	@09070@ 070　　F	@09071@ 071　　G
@09072@ 072　　H	@09073@ 073　　I	@09074@ 074　　J
@09075@ 075　　K	@09076@ 076　　L	@09077@ 077　　M
@09078@ 078　　N	@09079@ 079　　O	@09080@ 080　　P
@09081@ 081　　Q	@09082@ 082　　R	@09083@ 083　　S

@09084@ **084　　T**	@09085@ **085　　U**	@09086@ **086　　V**
@09087@ **087　　W**	@09088@ **088　　X**	@09089@ **089　　Y**
@09090@ **090　　Z**	@09091@ **091　　[**	@09092@ **092　　**
@09093@ **093　　]**	@09094@ **094　　^**	@09095@ **095　　_**
@09096@ **096　　`**	@09097@ **097　　a**	@09098@ **098　　b**
@09099@ **099　　c**	@09100@ **100　　d**	@09101@ **101　　e**
@09102@ **102　　f**	@09103@ **103　　g**	@09104@ **104　　h**
@09105@ **105　　i**	@09106@ **106　　j**	@09107@ **107　　k**
@09108@ **108　　l**	@09109@ **109　　m**	@09110@ **110　　n**
@09111@ **111　　o**	@09112@ **112　　p**	@09113@ **113　　q**
@09114@ **114　　r**	@09115@ **115　　s**	@09116@ **116　　t**

@09117@ 117　　u	@09118@ 118　　v	@09119@ 119　　w
@09120@ 120　　x	@09121@ 121　　y	@09122@ 122　　z
@09123@ 123　　{	@09124@ 124　　|	@09125@ 125　　}
@09126@ 126　　~	@09127@ 127　　DEL	@09128@ 128　　F1
@09129@ 129　　F2	@09130@ 130　　F3	@09131@ 131　　F4
@09132@ 132　　F5	@09133@ 133　　F6	@09134@ 134　　F7
@09135@ 135　　F8	@09136@ 136　　F9	@09137@ 137　　F10
@09138@ 138　　F11	@09139@ 139　　F12	@09140@ 140　　l_Shift on
@09141@ 141　　l_Shift off	@09142@ 142　　r_Shift on	@09143@ 143　　r_Shift off
@09144@ 144　　l_Alt on	@09145@ 145　　l_Alt off	@09146@ 146　　r_Alt on
@09147@ 147　　r_Alt off	@09148@ 148　　l_Ctrl on	@09149@ 149　　l_Ctrl off

@09150@ **150 r_Ctrl on**	@09151@ **151 r_Ctrl off**	@09152@ **152 /(KP)**
@09153@ **153 *(KP)**	@09154@ **154 -(KP)**	@09155@ **155 +(KP)**
@09156@ **156 _(KP)**	@09157@ **157 Enter(KP)**	@09158@ **158 0(KP)**
@09159@ **159 1(KP)**	@09160@ **160 2(KP)**	@09161@ **161 3(KP)**
@09162@ **162 4(KP)**	@09163@ **163 5(KP)**	@09164@ **164 6(KP)**
@09165@ **165 7(KP)**	@09166@ **166 8(KP)**	@09167@ **167 9(KP)**
@09168@ **168 Inert**	@09169@ **169 Delete**	@09170@ **170 Home**
@09171@ **171 End**	@09172@ **172 Page Up**	@09173@ **173 Page Down**
@09174@ **174 Up**	@09175@ **175 Down**	@09176@ **176 Left**
@09177@ **177 Right**	@09178@ **178 Center**	@09179@ **179 Insert**
@09180@ **180 Delete**	@09181@ **181 Home**	@09182@ **182 End**

@09183@ **183 Page Up**	@09184@ **184 Page Down**	@09185@ **185 Up**
@09186@ **186 Down**	@09187@ **187 Left**	@09188@ **188 Right**
@09189@ **189**	@09190@ **190 Num Lock**	@09191@ **191 caps lock**
@09192@ **192 scroll lock**		

Appendix 3: National Language Setting

@0005000@ UNITED STATES	@0005009@ FRANCE	@0005018@ SERBIA/YUGOSLAVIA
@0005001@ BELGIUM	@0005010@ GERMANY	@0005019@ SLOVENIA
@0005002@ BRAZIL	@0005011@ HUNGARY	@0005020@ SPAIN
@0005003@ CANADIAN-FRENCH	@0005012@ ITALY	@0005021@ SWEDEN
@0005004@ CROATIA	@0005013@ LATIN AMERICA	@0005022@ SWITZERLAND (FRENCH)
@0005005@	@0005014@	@0005023@

CZECHOSLOVAKIA (CZECH)	NETHERLANDS	SWITZERLAND (GERMAN)
@0005006@	@0005015@	@0005024@
CZECHOSLOVAKIA (SLOVAK)	NORWAY	UNITED KINGDOM
@0005007@	@0005016@	@0005025@
DENMARK	POLAND	UNIVERSAL
@0005008@	@0005017@	
FINLAND	PORTUGAL	