Wireless Barcode

User Manual

Table of Contents

Foreword

Introduction

This manual provides users with detailed instructions on the operation of the wireless barcode readers and related precautions.

Chapter 1: About the Product

Unpacking

Open the packaging and remove the product and accessories. Check all items against the packing list to ensure completeness and inspect for any damaged components. If any parts are damaged or missing, retain the original packaging and contact your supplier for after-sales service.

Power On, Power Off, Standby, and Restart

Power On: Connect the product to the host computer. The product will automatically power on and enter operational mode.

Shutdown: Disconnect the data cable from the product; remove the USB cable from the host computer or the power adapter from the RS-232 port.

Restart: If the product freezes or becomes unresponsive, power it off and then back on to restart.

Maintenance and Care

* Keep the reading window clean. The supplier is not liable for damage caused by improper maintenance.

* Avoid abrasion or scratches to the reading window from hard, rough objects;

* Use a soft brush to remove smudges from the recognition window;

* Clean the window with a soft cloth, such as eyeglass cleaning cloths or lens-specific cleaning cloths.

* Do not spray any liquids onto the recognition window;

* Do not use any cleaning agents other than clean water.

Barcode Reading Tips

For smaller barcodes, position the barcode closer to the product scanning window. For larger barcodes, position the barcode slightly farther from the product scanning window to facilitate accurate reading.

If the barcode has high reflectivity (e.g., coated surfaces), you may need to tilt the barcode at an angle to ensure successful scanning. Scanning Example:

Communication Port

The product must be connected to a host device for operation. The host can be a PC, POS terminal, or smart terminal equipped with either a USB or RS-232 interface.

USB	USB port on the host device	
RS-232	RS-232 port on the host device	

The scanner will be supplied with the appropriate cable based on the customer's order interface. If switching to another interface is required, please consult sales to purchase the corresponding cable.

Chapter 2: System Settings

Introduction

This product primarily configures options and functions by scanning a series of special barcodes. This chapter details the available settings and functions, along with their corresponding configuration codes.

This scanning-based configuration method is straightforward and intuitive, facilitating user operation.

Configuration Identifier

This is the identifier for scanning the configuration code to activate the default barcode function. It consists of two parts:

1. The barcode portion of the configuration code
2. The name of the setting option or function, such as "Enable Settings (Default)".

Factory Default Settings

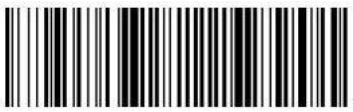
Restores the current menu settings, user default settings, and wireless pairing information to factory defaults. Inventory data is cleared, but the system time remains unchanged.

Factory Default Settings

User Default Settings

Save User Default Settings: Save the current menu settings to the user default settings;

Restore User Default Settings: When restoring the current menu settings to the user default settings, wireless pairing information, inventory data content, and system time will not be modified.



Save User Default Settings

Restore User Default Settings

Read version number

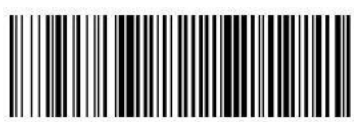
Read the current device version number. Version format: Product Name + System Version + Software Version

Read version number

Reading Mode

Level Trigger Mode: Press and hold the trigger key to initiate code reading. Reading ends upon successful decoding or when the trigger key is released.

Continuous Mode: After entering the decoding setup code mode, the system enters continuous decoding state. Pressing the button controls the start and end of decoding.



Level Trigger Mode (Default)

Continuous Mode

Menu Settings Mode

Use Setup Code

Enable Settings Function: Activates the setup code feature, allowing the scanner to be configured by reading the setup code.

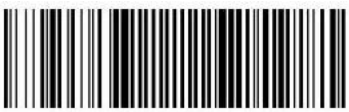
Exit Settings Function: Disables the setup code function, preventing scanner configuration via code reading.

Enable Settings (Default)

Exit Settings

Temporary Settings Mode

When the device enters Temporary Settings Mode, most menu settings will take effect normally but will not be saved to flash memory. Upon powering the device back on, it will revert to the configuration state prior to entering Temporary Settings Mode.



Enter Barcode Temporary Settings

Exit Barcode Temporary Settings

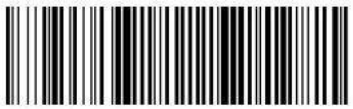
Attention: In Temporary Settings Mode, the "Factory Default Settings," "User Default Settings," and "Set System Time" menus will be saved to flash memory. Additionally, when configuring the "Wireless Interface Switch," "USB Interface Switch," and "USB HID Keyboard Polling Speed"

menus, the system will automatically reboot. Therefore, in Temporary Settings Mode, these menus will maintain their previous configuration states.

Chapter 3: Vibration Settings

Vibration Settings (Optional)

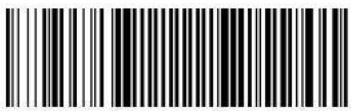
Disable Vibration Alerts



Enable Vibration Alert (Default)

Light Settings

Enable System Indicator Light (Default)



Turn off system indi cator lights

Sound Settings

Scanner sounds include: Decoding Success Alert, System Startup Alert, Setup Success Alert, Error Warning Alert, Wireless Connection Alert, and Wireless Disconnection Alert. This section

provides detailed configuration instructions for scanner sounds.

Buzzer Frequency Settings

This setting affects the frequency of all beep sounds.

2.0K（默认）

2.4K

2.7K

Buzzer Volume Setting

This setting affects the volume level of all alert tones. The adjustable volume range is 0 to 50.

High Volume (Default)

Medium Volume

Low Volume

Mute

Custom Volume

Example 【Setting Example】

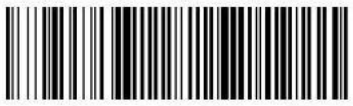
By reading the setting code from the "Appendix: Digital Character Table," the buzzer volume is set to 10:

1. Read "Startup Settings"
2. Read the "Custom Buzzer Volume (Duty Cycle)" setting code
3. Read the setting codes from the "Appendix: Numeric Character Table": "1", "0"
4. Read the setting code from the "Appendix: Numeric Character Table": "Save"
5. Read "Exit Settings"

After configuration, the volume is set to 10.

Decoding Success Beep Switch Settings

When enabled, the device emits a brief low-frequency beep upon successful decoding.



On (Default)

关闭

Decoding Success Beep Duration Setting

Unit: ms. Default: 80ms. Adjustable range: 1~200ms.

Short Duration (40ms)

Long (80ms) (Default)

Custom Decoding Success Beep Duration

【Setting Example】

Set the decoding success tone duration to 50ms by reading the setting code from the "Appendix: Numeric Character Table":

1. Read "Startup Settings"

2. Read the "Custom Decoding Success Beep Duration" setting code

3. Read the setting codes from the "Appendix Numeric Character Table": "5" "0"

4. Read the setting code from the "Appendix Numeric Character Table": "Save"

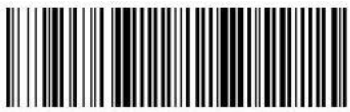
5. Read "Exit Settings"

After configuration, the successful decoding tone duration is set to 50ms.

System Startup Beep

When enabled, the device will emit a startup tone each time it powers on or restarts. This tone consists of a sequence of high-frequency short tones followed by a low-frequency long tone.

On (Default)



关闭

Settings Success Sound

When enabled, the device emits a high-to-low frequency tone upon successful menu configuration.

On (Default)

关闭

Error Warning Sound

When enabled, the device will emit two high-pitched beeps if the menu settings fail.

On (Default)

关闭

Wireless Connection Beep

When enabled, the device emits a low-frequency alert tone upon successful wireless connection.

On (Default)

关闭

Wireless Disconnection Alert Tone

When enabled, the device emits two low-frequency beeps when the wireless connection is lost.

On (Default)

关闭

Chapter 4: Wireless Settings

Wireless Interface Switching

2.4G Mode (Default)

Bluetooth Keyboard Mode

Bluetooth BLE Mode

Bluetooth SPP Mode

Enter Pairing Mode

Ensure the USB connection is disconnected and the wireless interface is in 2.4G Mode or Bluetooth Keyboard Mode.

Enter Pairing Mode

Example 【2.4G Mode Pairing Example】

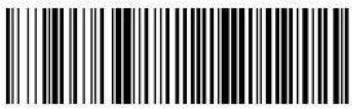
1. Scan the "Enter Pairing Mode" barcode. After entering pairing mode, the green indicator light will begin flashing;

2. Connect the receiver to a computer or other device. Upon successful pairing, the device will emit a connection confirmation tone, and the blue communication light will remain steady.

Long Press to Enter Pairing

While powered on, with the USB disconnected and the wireless interface in 2.4G mode or Bluetooth keyboard mode, press and hold the button for 10 seconds to enter pairing mode.

关闭



On (Default)

Bluetooth Name Configuration

The Bluetooth name displays device characteristics and aids user identification. The Bluetooth name string length must be between 0 and 16 bytes. For example, setting the Bluetooth name to "Scancer" will cause users to discover a Bluetooth device named "ScancerHID" when the wireless communication interface is in "Bluetooth HID Mode."

Set Bluetooth Name

Output Bluetooth Name

Example【Example 1】

By reading the setting code from the "Appendix ASCII Character Table," set the Bluetooth name content to: Scancer

1. Read "Start Setup"

2. Read the "Set Bluetooth Name" setting code

3. Read the setting codes from the "Appendix ASCII Character Table": "S", "c", "a", "n", "c", "e", "r"

4. Read "Appendix Numeric Character Table": "Save"

5. Read "Exit Settings"

【Setup Example 2】

By reading the setting codes from the "Appendix Numeric Character Table," set the Bluetooth name content to: Scanner

Through lookup, the ASCII hexadecimal code values corresponding to "Scanner" are: 53, 63, 61, 6E, 63, 65, 72

1. Read "Start Settings"

2. Read the "Set Bluetooth Name" setting code

3. Read the setting codes for the "Appendix Numeric Character Table": "5" "3" "6" "3" "6" "1" "6" "E" "6" "3" "6" "5" "7" "2"

4. Read "Appendix Numeric Character Table": "Save"

5. Read "Exit Settings"

After setup completes, the Bluetooth name changes to "Scancer+ Mode Name"

Bluetooth keyboard display

Keyboard Pop-up/Hide: Read the "Pop-up/Hide Keyboard" menu code to display or hide the keyboard on iOS systems.

Keyboard Control for Showing/Hiding Keyboard: While enabled, double-tap the key to show or hide the keyboard on iOS systems.

Keyboard Pop-up/Hide

Disable double-tap to show/hide keyboard

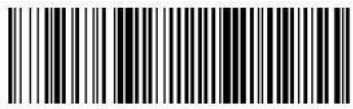
Enable double-tap to show/hide keyboard (default)

Sleep Mode

Disable Sleep: Scanner remains active at all times;

Enable Hibernation (Default): After the hibernation timer expires, the scanner stops working and disconnects power. Pressing the button again restores operation.

Disable Sleep



Enable Sleep (Default)

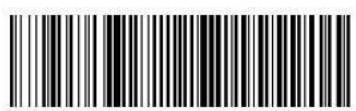
Attention: Effective only in level touch mode.

Sleep Time Setting

Customize sleep time in seconds, range: 10~655535 seconds.

1 minute (60 seconds)

5 minutes (300 seconds) (Default)



10 minutes (600 seconds)

Immediate Sleep

Custom Sleep Time

Example 【Setting Example】

By reading the setting code from the "Appendix Digital Character Table," set the custom sleep time to 10 seconds:

1. Read "Startup Settings"

2. Read the "Custom Sleep Time" setting code

3. Read the setting codes for the "Appendix Numeric Character Table": "1" "0"

4. Read the setting code for the "Appendix Numeric Character Table": "Save"

5. Read "Exit Settings"

After configuration, the device will enter sleep mode at the specified time whenever the sleep mode is set to "On".

Inventory Mode

Inventory/Real-time Upload Mode Selection

If the scanner operates beyond the wireless transmission range, it is recommended to use inventory mode.In inventory mode, upon successful barcode reading, the scanner emits a short beep (decoding success tone) and the indicator light flashes once. The scanned barcode is automatically stored in the scanner. It can store up to 6,000 EAN-13 barcodes. If internal storage

is full, the scanner emits a low-frequency short beep (warning tone) to alert the user.

Inventory Mode

Real-time Upload Mode (Default)

Display Count Count

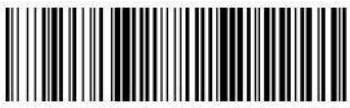
Output Format: Total Counts: N.

Output total stored entries

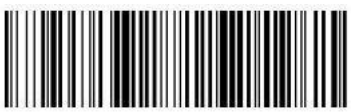
Prevent duplicate storage of identical barcodes

Enabled State: If the device continuously scans the same content during inventory, only the first instance will be stored. Subsequent entries will not be saved, and an error warning will be displayed.

Off state: All identical items scanned consecutively will be stored.



Off (Default)

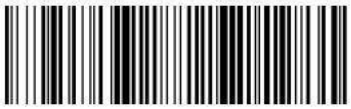


On

Inventory End Marker Switch

After inventory data upload completes, add an end-of-inventory marker at the termination point to notify users that data upload is finished.

Off (Default)



Enable

Inventory End Character Content Settings

The inventory end marker informs users that inventory data upload is complete. The character string length must be between 0 and 20 bytes.

The inventory end marker does not participate in any other form of data formatting. Each time it is set, it will overwrite the previous setting.

Customize End-of-Inventory Tag: Customizable length up to 20 characters, default is empty.

Custom Inventory Ending Character

【Setting Example 1】

By reading the setting code from the "Appendix ASCII Character Table," set the inventory end character content to: end

1. Read "Startup Settings"

2. Read the "Inventory End Character Setting" code

3. Read the setting codes from the "Appendix ASCII Character Table": "e", "n", "d" (see Appendix ASCII Character Table)

4. Read the setting code for the "Appendix Numeric Character Table": "Save"

5. Read "Exit Settings"

【Setting Example 2】

By reading the setting code from the "Appendix Numeric Character Table," set the inventory end character content to: end

1. Query results show the ASCII hexadecimal code values corresponding to "end" are: 65, 6E, 64

2. Read "Start Settings"

3. Read the "Inventory End Character Setting" code

4. Read settings from "Appendix Numeric Character Table": "6" "5" "6" "E" "6" "4"

5. Read the "Appendix Numeric Character Table": "Save"

6. Read "Exit Settings"

After configuration is complete, if the "Inventory End Character Switch" is enabled, execute "Data Upload" to send inventory data, then immediately send the inventory end character: end.

Data Upload

Output the inventory data item by item according to the menu settings during inventory.

Data Upload

Clear Inventory Data

Delete all inventory data.

Clear Inventory Data

Timestamp Function

View/Set Current Time

Current time format: "YYYY/MM/DD HH:MM:SS", e.g., "2023/09/14 18:00:00".

Modify current time: Create a time setting menu code or configure via command.

View current time

【Menu Example】

Create a special barcode setting the time to "2023/11/25 9:52:00".

1. Create a time setting menu with the content "CMD 01080100="2023/11/25 9:52:00";".

2. Read "Start Settings";

3. Read the time setting menu code;

4. Read "Exit Settings".

【Command Example】

1. Connect the USB cable;

2. Set "Wired Communication Interface Type" to "USB CDC Serial Port";

3. Open the USB CDC serial port using a serial communication tool and send the time setting menu command "CMD 01080100="2023/11/25 9:52:00";".

Time Display Format Settings

"Time + Prefix + Data + Suffix + Terminator" display format: 2024/03/08 09:53:10 6921734966001

"Prefix + Data + Suffix + Time + Terminator" display effect: 6921734966001 2024/03/08 09:54:48

Off (Default)

Time + Prefix + Data + Suffix + Terminator

Prefix + Data + Suffix + Time + Terminator

Battery Level Display

Display format: "Battery: XX%", where XX represents the battery percentage.

Battery Level Display

Chapter 5: Wired Settings

USB Interface Settings

USB HID Keyboard: When connected via USB cable, the device automatically switches to USB HID

keyboard mode.

USB CDC Serial Port: When connected via USB cable, the device automatically switches to USB CDC serial port mode.

USB Keyboard (Default)

USB CDC Serial Port

USB HID Keyboard Polling Rate

The access cycle for the PC to the USB HID keyboard, measured in milliseconds (ms). The default value is 1ms, with a configurable range of 1ms to 255ms.

Attention: Applies only to USB HID keyboards.

Polling Cycle 1ms (Default)

Polling Cycle 5ms

Polling cycle 10ms

Custom Polling Interval

Example 【Configuration Example】

Set the polling speed to 12ms by reading the configuration code from the "Appendix: Digital Character Table":

1. Read "Startup Settings"

2. Read the "Custom Polling Cycle" setting code;

3. Read the setting code from the "Appendix Numeric Character Table": "1" "2"

4. Read the setting code from the "Appendix Numeric Character Table": "Save"

5. Read "Exit Settings"

Chapter 6 HID Keyboard Settings

Txt/Excel/Word Output

Select the appropriate output format based on your target environment.

For example: To output content to Notepad on Windows systems, select "Windows System (Txt/Excel)".

Windows System (Txt/Excel) (Default)

Linux System (Txt/Excel/Word)

Code Page

When barcode data fails to display correctly, it is typically due to the barcode using a character encoding different from the current settings. To ensure proper data display, verify the correctness of the character encoding.

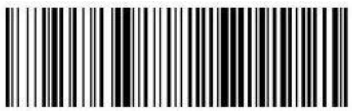
Code Page 1252 (Latin, Western Europe)

Code Page 936 (Simplified Chinese, GB2312, GBK) (Default)

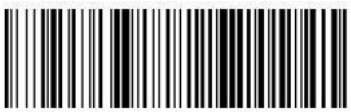
ASCII

Code Page 874 (Thai)

Code Page 1250 (Central European)



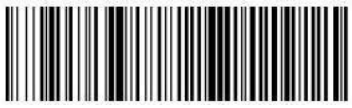
Code Page 1251 (Cyrillic)



Code Page 1253 (Greek)

Code Page 1254 (Turkish)

Code Page 1255 (Hebrew)



Code Page 1256 (Arabic)

Code Page 1257 (Baltic)

Code Page 1258 (Vietnamese)

National Keyboard Layouts

Keyboard layouts vary across different countries. Devices can be configured to emulate keyboard layouts for different countries based on specific requirements. By default, the scanner is set to the English (US) keyboard layout.

English (US) (Default)

Italian (Italy)

Spanish (Brazil)

Portuguese (Portugal)

Portuguese (Brazil)

French (France)

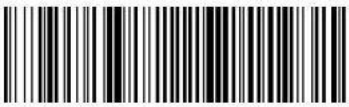
German (Austria)

Turkish Q

Turkish F

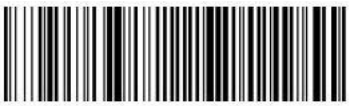
English (United Kingdom)

Japanese (Japan)



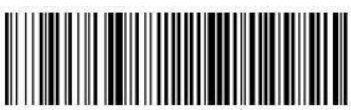
German (Switzerland)

Spanish (Spain)



French (Belgium)

French (Canada)



Czech (Czech Republic)

Danish (Denmark)

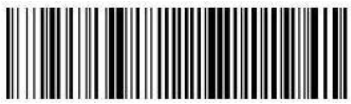
Swedish (Finland)

Greek (Greece)

Hungarian (Hungary)

Hebrew (Standard Keyboard)

Spanish (Latin America)



Dutch (Netherlands)

Written Norwegian

Polish (214)

Romanian (Romania)

Russian (Russia)

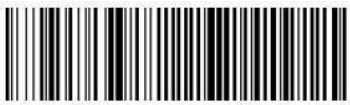
Slovak

Italian (142)

Spanish (Mexico)

Latin American Spanish (Argentina)

Serbian (Croatia)



Switzerland (French)

ATT

For Japanese (Japan), you need to switch to English mode.

For Hebrew (using a standard keyboard), lowercase mode must be active to output the following characters: "<>":;?".

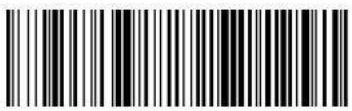
For Greek (Greece) and Russian (Russia), letters and some characters may not output on Linux systems.

For Spanish (Mexico), based on the Windows 10 Mexican Spanish QWERTY layout. For Serbian (Croatia), based on the Windows 10 Croatian QWERTY layout.

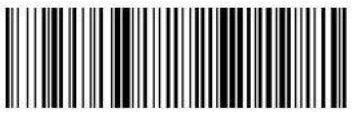
Control Character GS Replacement

Replace the 'GS' control character with different characters for output.

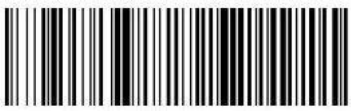
Do not replace (default)



替换成Ç



Replace with |



Replace with ^]

Replace with]

Replace with <GS>

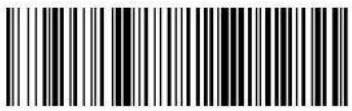
Replace with (GS)

Control Character Output

Raw Data Control Characters

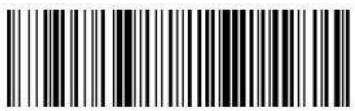
This function applies to all content transmitted by the "USB HID Keyboard" under the "USB HID Mode" communication interface. For the character set, refer to the "Appendix Control Character Table". Outputs control characters within the data.

Disable (Default)

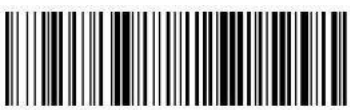


Character Set 0

Character Set 1



Character Set 2



Character Set 3

Character Set 4

Character Set 5

Prefix/Suffix Control Characters

For detailed character set information, refer to the appendix "Control Character Table." Output of prefix/suffix control characters for data.

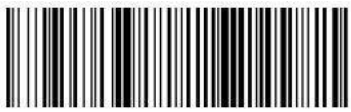
关闭

Character Set 0

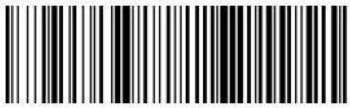
Character Set 1

Character Set 2

Character Set 3



Character Set 4



Character Set 5 (Default)

Key Press Delay

If data loss occurs at the receiving end, increase the delay time. HID keyboard key press delay time, measured in milliseconds (ms). Default value is 5ms. Configurable range: 1ms to 300ms.

ATT Applies to USB HID keyboards, 2.4G mode, and Bluetooth HID mode.

5ms (default)

10ms

20ms

Custom HID Keyboard Key Delay

Example 【Configuration Example】

Set the HID keyboard key delay to 10ms by reading the setting code from the "Appendix: Numeric Character Table":

1. Read "Startup Settings"

2. Read the "Custom HID Keyboard Key Delay" setting code;

3. Read the setting codes from the "Appendix: Numeric Character Table": "1" "0"

4. Read the setting code from the "Appendix: Numeric Character Table": "Save"

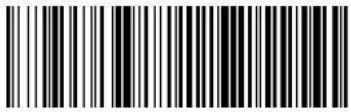
5. Read "Exit Settings"

Unknown Character Output

Enable: When no corresponding character key exists in the keyboard layout, output via "ALT key" combinations. This transmission method ensures any character can be successfully transmitted.

Off: No data is output when the keyboard layout lacks a corresponding character key.

Enable (Default)



关闭

CapsLock Key Setting

Enable CapsLock key lock: HID keyboard outputs data in uppercase mode;

Disable Caps Lock Key Lock: HID keyboard outputs data regardless of uppercase/lowercase state;

Disable CapsLock and NumLock: HID keyboard outputs data in both uppercase and lowercase modes. The numeric keypad cannot be used, which may prevent certain special characters from being output.

ATT This feature is disabled in "Linux System (Txt/Excel/Word)" mode.

CapsLock Key Setting Off (Default)

Enable CapsLock key setting

Disable CapsLock and NumLock keys

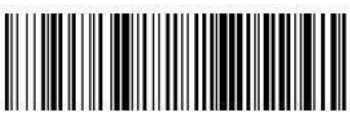
Simulate numeric keypad

Use numeric keypad for numbers

Off (default)

开启

"+" "-" "*" "/" Character uses numeric keypad



Off (Default)

Enable

Prepend "0"

Enabling the "Prepend '0'" function transmits character sequences sent via the numeric keypad as ISO characters with a leading zero. For example, ASCII "A" is transmitted as "ALT MAKE" 0065 "ALT BREAK". This function is only active when "Keyboard Emulation Input Characters" is enabled.

Off

Enable (Default)

Chapter 7 Data Format Settings

Prefix Settings

Custom prefixes allow adding user-defined strings before decoded information, with string lengths ranging from 0 to 11 bytes. For example, if a custom prefix is enabled and set to the string "prefix", scanning a barcode with data "123" will cause the scanner to append "prefix" before "123". The host will receive "prefix123".

If set to "Off," the decoded information contains only the barcode data without a prefix. The default setting disables custom prefix output.

ATT All barcodes share a common prefix data. Saving modified custom settings will clear the previous suffix data.

Enable

关闭（默认）

Custom Prefix

【Example 1】

By reading the setting code from the "Appendix ASCII Character Table," set the prefix content to: prefix

1. Read "Startup Settings"

2. Read the "Modify Custom Prefix" setting code

3. Read the setting codes from the "Appendix ASCII Character Table": "p", "r", "e", "f", "i", "x"

4. Read the "Appendix Numeric Character Table": "Save"

5. Read "Exit Settings"

【Example 2】

By reading the setting codes from the "Appendix Numeric Character Table," set the prefix content to: prefix Through lookup, the corresponding ASCII hexadecimal code values for "prefix" are: 70, 72, 65, 66, 69, 78

1. Read "Startup Settings"

2. Read the "Modify Custom Prefix" setting code

3. Read the setting codes for the "Appendix Numeric Character Table": "7" "0" "7" "2" "6" "5" "6" "6" "6" "9" "7" "8"

4. Read "Save" (see Appendix Numeric Character Table)

5. Read "Exit Settings"

After configuration, whenever "Prefix Setting" is enabled, the prefix will be prepended to decoded data: prefix

Suffix Settings

A custom suffix appends a user-defined string after decoded information, with a string length range of 0 to 11 bytes. For example, if a custom suffix is enabled and set to the string "suffix", scanning a barcode with data "123" will cause the scanner to append "suffix" after "123". The host receives "123suffix".

If set to "Off," the decoded information contains only the barcode data without any suffix. The default setting disables custom suffix output.

ATT: All barcodes share a common suffix data. Saving modified custom settings will clear the previous suffix data.

Enable

Off (Default)

Custom Suffix

【Example 1】

By reading the setting code from the "Appendix ASCII Character Table," set the prefix content to: suffix

1. Read "Startup Settings"

2. Read the "Modify Custom Prefix" setting code

3. Read the setting codes from the "Appendix ASCII Character Table": "s", "u", "r", "r", "i", "x"

4. Read "Appendix Numeric Character Table": "Save"

5. Read "Exit Settings"

【Example 2】

By reading the setting codes from the "Appendix: Numeric Character Table," set the prefix content to: suffix Through lookup, the corresponding ASCII hexadecimal code values for "suffix" are: 70, 72, 66, 66, 69, 78

1. Read "Start Settings"

2. Read the "Modify Custom Prefix" setting code

3. Read the setting codes for the "Appendix Numeric Character Table": "7" "3" "7" "5" "6" "5" "6" "6" "6" "9" "7" "8"

4. Read "Save" (see Appendix Numeric Character Table)

5. Read "Exit Settings"

After configuration, whenever "Suffix Setting" is enabled, the decoded data will append the suffix: suffix

Terminator Setting

The end-of-data suffix marks the conclusion of a complete data segment. It exists independently and does not participate in any other data formatting. The end-of-data suffix must be the final content sent in a data segment, with no additional data appended afterward. Options include Carriage Return, Line Feed, Carriage Return Line Feed, Tab, or ETX. The default end-of-data suffix is Carriage Return.

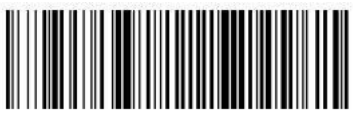
End-of-line character: <CR> (default)

End-of-line character: <LF>

Terminator: <CR,LF>

Terminator is <HT>

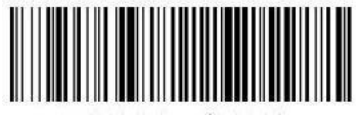
End-of-line character is <ETX>



No terminator

Case Output Settings

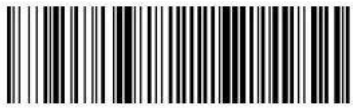
Performs case conversion on characters within the string; prefixes and suffixes remain unaffected.



Normal output (default)

Uppercase/lowercase reversal

All uppercase



All lowercase

Data Editing

ATT Prefixes and suffixes are excluded from processing and output normally.

Data Editing Selection

Raw Data Output (Default): Outputs recognized data without modification.

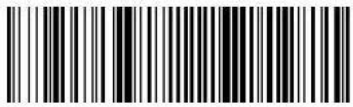
Front-End Data Output: Outputs data based on the length specified in "Front-End Data Length Settings." If the set length exceeds the recognized string length, the original data is output. Example: Recognized string "1234567890" with length set to 3 results in output "123".

Middle Data Output: Outputs data within the range defined by both the "Front Data Length Setting" and "Back Data Length Setting". If the sum of these lengths exceeds the read string length, the output is empty. Example: For the string "1234567890", with start/end field lengths set to 3 and 4 respectively, the final output is "456".

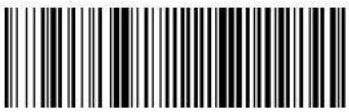
End Data Output: Outputs data based on the "End Data Length Setting". If the set length exceeds the read string length, the original data is output. Example: When reading the string "1234567890" with a length set to 3, the final output is "890".

Front and Back Data Output: Output data is constrained by both the "Front Data Length Setting" and "Back Data Length Setting". If the sum of these length values exceeds the read string length, the original data is output. Example: When reading the string "1234567890" with start/end field lengths set to 3 and 4 respectively, the final output data is "1237890".

Raw Data Output (Default)



Data Output Section



Intermediate Data Output

Back-end data output

Front-end and back-end data output

Front-end data length setting

Default value is 1. Must be configured with Appendix 1. Setting range: 1 to maximum value 512.

Custom Front-End Data Length

Example:

Set the front-end data length to 10 by reading the setting code from the "Appendix Numeric Character Table":

1. Read "Startup Settings"

2. Read the "Front-end Data Length Setting" code;

3. Read the setting code for the "Appendix Numeric Character Table": "1" "0"

4. Read the setting code for the "Appendix Numeric Character Table": "Save"

5. Read "Exit Settings"

After configuration, whenever "Data Editing Selection" is set to "Front-End Data Output," "Middle Data Output," or "Front-End and Back-End Data Output," decoded data will be output according to the configured format.

Front-End Data Length Setting

Default value is 1. Must be set in conjunction with Appendix 1. Valid range: 1 to maximum value 512.

Custom Rear Data Length

Example:

Set the rear segment data length to 12 by reading the setting code from the "Appendix Numeric Character Table":

1. Read "Startup Settings"

2. Read "Customize trailing data length"

3. Read data codes: "1" "2" (see Appendix 1)

4. Read "Save" (See Appendix 1: Save or Cancel)

5. Read "Exit Settings"

After configuration, whenever "Data Editing Selection" is set to "End Data Output," "Middle Data Output," or "Front and End Data Output," decoded data will be output according to the configured format.

Appendix

Appendix 1 Digital Character Table

0

1

2

3

4

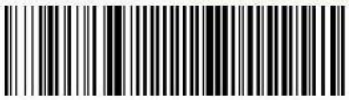
5

6

7

8

9

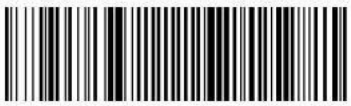


A

B

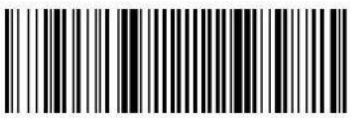
C

D



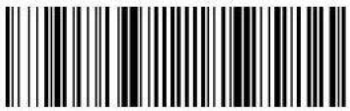
E

F

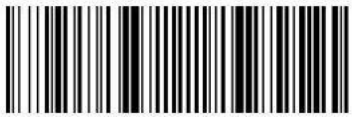


Save

Cancel Current Settings

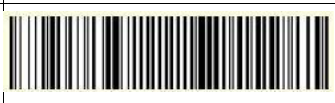


Cancel the previously read data string



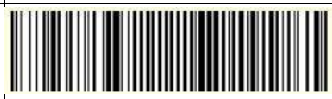
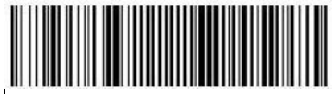
Cancel the data read in the previous session

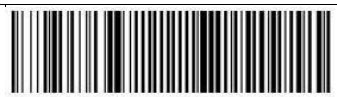
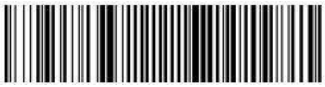
Appendix 2 ASCII Character Table

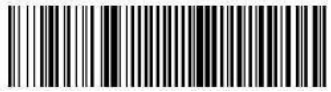
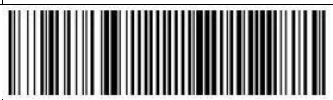
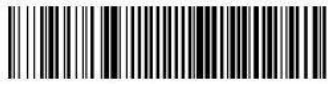
Binary	Decimal	Hexadecimal	Character/Abbreviation	Explanation	Set code
0	0	0	NUL (NULL)	Null Character	
1	1	1	SOH (Start Of Heading)	Start of Title	
10	2	2	STX (Start Of Text)	Body Start	
11	3	3	ETX (End Of Text)	End of Body	
100	4	4	EOT (End Of Transmission)	End of Transmission	
101	5	5	ENQ (Enquiry)	Request	
110	6	6	ACK (Acknowledge)	Response/Acknowledgment/Received Notification	
111	7	7	BEL(Bell)	Ring	
1000	8	8	BS (Backspace)	Backspace	
1001	9	9	HT (Horizontal Tab)	Horizontal Tab	
1010	10	0A	LF/NL (Line Feed/New Line)	Enter key	
1011	11	0B	VT (Vertical Tab)	Vertical Tab	
1100	12	0C	FF/NP (Form Feed/New Page)	Page Break Key	

1101	13	0D	CR (Carriage Return)	Carriage Return	
1110	14	0E	SO (Shift Out)	No switching required	
1111	15	0F	SI (Shift In)	Enable Switching	
10000	16	10	DLE (Data Link Escape)	Data Link Escape	
10001	17	11	DC1/XON (Device Control 1/ Transmission On)	Device Control 1/Start of Transmission	
10010	18	12	DC2 (Device Control 2)	Device Control 2	
10011	19	13	DC3/XOFF (Device Control 3/ Transmission Off)	Device Control 3/Transmission Interrupt	
10100	20	14	DC4 (Device Control 4)	Device Control 4	
10101	21	15	NAK (Negative Acknowledgment)	No Response/Abnormal Response/Rejection	
10110	22	16	SYN (Synchronous Idle)	Synchronous Idle	
10111	23	17	ETB (End of Transmission Block)	Transmission Block End/Block Transmission Termination	
11000	24	18	CAN (Cancel)	Cancel	
11001	25	19	EM (End of Medium)	End of Media/Media Storage Full/Media Interrupt	

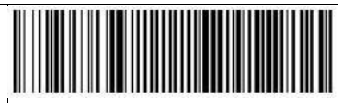
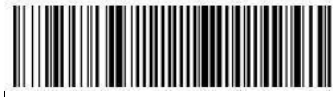
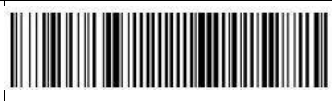
11010	26	1A	SUB (Substitute)	Substitute/Replace	

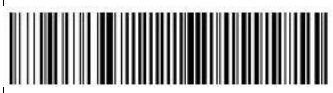
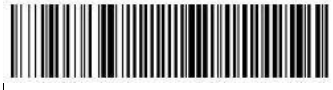
11011	27	1B	ESC (Escape)	Escape/Cancel	
11100	28	1C	FS (File Separator)	File Separator	
11101	29	1D	GS (Group Separator)	Group Separator/Grouping Symbol	
11110	30	1E	RS (Record Separator)	Record Separator	
11111	31	1F	US (Unit Separator)	Unit Separator	
100000	32	20	(Space)	Space	
100001	33	21	!		
100010	34	22	"		
100011	35	23	#		
100100	36	24	$		
100101	37	25	%		
100110	38	26	&		
100111	39	27	'		
101000	40	28	(		
101001	41	29	)		

101010	42	2A	*		
101011	43	2B	+		
101100	44	2C	,		
101101	45	2D	-		
101110	46	2E	.		
101111	47	2F	/		
110000	48	30	0		
110001	49	31	1		
110010	50	32	2		
110011	51	33	3		
110100	52	34	4		
110101	53	35	5		
110110	54	36	6		
110111	55	37	7		
111000	56	38	8		

111001	57	39	9		
111010	58	3A	:		
111011	59	3B	;		
111100	60	3C	<		
111101	61	3D	=		
111110	62	3E	>		
111111	63	3F	?	1,000,000	
1,000,000	64	40	@		
1000001	65	41	A		
1000010	66	42	B		
1000011	67	43	C		
1000100	68	44	D		
1000101	69	45	E		
1000110	70	46	F		
1000111	71	47	G		

1001000	72	48	H	
1001001	73	49	I	
1001010	74	4A	J	
1001011	75	4B	K	
1001100	76	4C	L	
1001101	77	4D	M	
1001110	78	4E	N	
1001111	79	4F	O	
1010000	80	50	P	
1010001	81	51	Q	
1010010	82	52	R	
1010011	83	53	S	
1010100	84	54	T	
1010101	85	55	U	
1010110	86	56	V	

1010111	87	57	W	
1011000	88	58	X	
1011001	89	59	Y	
1011010	90	5A	Z	
1011011	91	5B	[	
1011100	92	5C	\	
1011101	93	5D	]	
1011110	94	5E	^	
1011111	95	5F	—	
1100000	96	60	`	
1100001	97	61	a	
1100010	98	62	b	
1100011	99	63	C	
1100100	100	64	d	
1100101	101	65	e	

1100110	102	66	f		
1100111	103	67	g		
1101000	104	68	h		
1101001	105	69	i		
1101010	106	6A	j		
1101011	107	6B	k		
1101100	108	6C	l		
1101101	109	6D	m		
1101110	110	6E	n		
1101111	111	6F	o		
1110000	112	70	p		
1110001	113	71	q		
1110010	114	72	r		
1110011	115	73	S		
1110100	116	74	t		

1110101	117	75	u		
1110110	118	76	V		
1110111	119	77	w		
1111000	120	78	x		
1111001	121	79	y		
1111010	122	7A	z		
1111011	123	7B	{		
1111100	124	7C	|		
1111101	125	7D	}		
1111110	126	7E	~		
1111111	127	7F	DEL (Delete)	Delete	

Appendix 3 Control Escape Characters

Decimal	ASCII	Character Set 0	Character Set 1	Character Set 2 (Control+ASCII Mode)	Character Set 3 (Alt+Keypad Mode)	Character Set 4	Character Set 5
1	SOH	NULL	Home	Ctrl+A	Alt+001	Enter on the numeric keypad	NULL
2	STX	Ctrl+B	End	Ctrl+B	Alt+002	Caps Lock	Home
3	ETX	Ctrl+C	Up Arrow	Ctrl+C	Alt+003	Right Arrow	End
4	EOT	*Custom Key 1	Down Arrow	Ctrl+D	Alt+004	Up Arrow	NULL
5	ENQ	*Custom Key 2	Left Arrow	Ctrl+E	Alt+005	NULL	NULL
6	ACK	*Custom Key 3	Right Arrow	Ctrl+F	Alt+006	NULL	NULL
7	BEL	*Custom Key 4	Shift+Tab	Ctrl+G	Alt+007	Enter	NULL
8	BS	Back Space	Back Space	Back Space	Alt+008	Left Arrow	NULL
9	HT	Tab	Tab	Tab	Alt+009	Tab	Tab
10	LF	Enter	Enter	Ctrl+P	Alt+010	Down Arrow	Down Arrow
11	VT	NULL	NULL	Ctrl+Q	Alt+011	Tab	NULL
12	FF	NULL	NULL	Ctrl+R	Alt+012	delete	NULL
13	CR	Enter	Enter	Enter	Alt+013	Enter	Enter
14	S0	F1	Page Up	Ctrl+N	Alt+014	Insert	NULL
15	S1	F2	Page Down	Ctrl+O	Alt+015	Esc	NULL
16	DLE	F3	F11	Ctrl+P	Alt+016	F11	NULL
17	DC1	F4	NULL	Ctrl+Q	Alt+017	Home	NULL
18	DC2	F5	NULL	Ctrl+R	Alt+018	Print Screen	NULL
19	DC3	F6	NULL	Ctrl+S	Alt+019	Backspace	NULL

20	DC4	F7	NULL	Ctrl+T	Alt+020	Shift tab	NULL
21	NAK	F8	F12	Ctrl+U	Alt+021	F12	NULL
22	SYN	F9	F1	Ctrl+V	Alt+022	F1	NULL
23	TB	F10	F2	Ctrl+W	Alt+023	F2	NULL
24	CAN	F11	F3	Ctrl+X	Alt+024	F3	NULL
25	EM	F12	F4	Ctrl+Y	Alt+025	F4	NULL
26	SUB	NULL	F5	Ctrl+Z	Alt+026	F5	NULL
27	Esc	Esc	F6	Ctrl+[	Alt+027	F6	NULL
28	FS	ALT+028	F7	Ctrl+\	Alt+028	F7	NULL
29	GS	ALT+029	F8	Ctrl+]	Alt+029	F8	NULL
30	RS	NULL	F9	Ctrl+^	Alt+030	F9	NULL
31	US	NULL	F10	Ctrl+	Alt+031	F10	NULL