

**Wireless/Bluetooth
1D Image Barcode Scanner
User Manual**

Thank you for choosing our company's product. **This is a user manual for both the 2.4G wireless and Bluetooth version.** To have a better operating experience, please read this manual carefully.

CONTENT

Packing list

- 1*Wireless/Bluetooth 1D image barcode scanner;
- 1*USB adapter;
- 1*Charging cable;
- 1*Charger;
- 1*User manual



Warning:

1. Please pull out the power supply and cable from the scanner in stormy weather to avoid damaging.
2. Keep away from heat and maintain ventilation.
3. Keep away from water in the environment of storage, transportation and operation.
4. Please use the original Bluetooth adapter of the device.

Disclaimer

Our company is not responsible for the loss caused by natural disasters that beyond our abilities, like earthquake, flood, etc. In any case, our company does not assume any responsibility for the loss brought with the use of this product (including the loss caused by the manual instructions), such as loss of profit, loss of reputation, business interruption, or lost/change of the stored data, and, consequently, lead to any special, accidental, consequential, or indirect damages.

Due to improper use of unspecified communication hardware or software as a result of the loss, our company does not assume any liability.

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This manual is provided according to the actuality. Unless otherwise stated in the applicable law, our company does not document the accuracy, reliability or content of any type, express or tacit guarantee.

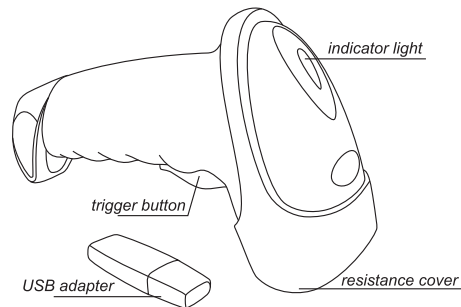
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Brief Introduction

To meet the customers' requirements, we develop the 2.4G wireless and Bluetooth version based on our 1D image CCD barcode scanner. The linear imager inside can capture and decode 1D bar codes both on paper and electronic screen at a high speed. The Bluetooth version is suitable for WIN 7, WIN 8, WIN XP, Android and IOS. It will bring you a totally different experience of scanning bar codes.

Housing Design Description



Technology Parameters

Performance Parameters

Transmission Distance: Bluetooth: 10meters; 2.4G wireless: 30meters (open distance)

Transmission Frequency: 2.4GHZ

Storage: 64K(About 3500 14b 1d barcodes)(the memory capacity can be customized)

Sensor: Linear CCD sensor

Light source: 632nm red diode(LED)

Processor: 32-bit ARM Cortex-M3 MCU

Decoding capability: Codabar, Code 11, Code 93, MSI, Code128, UCC/EAN-128, Code 39, EAN-8, EAN-13, UPC-A, Industrial 25, Standard 25, 2/5 Matrix, etc.

Resolution: 4mil(0.1mm), PCS45%

Depth of field: 500mm@20mil/0.5mm, PCS90%

Decoding speed: 500 scans/sec

Trigger mode: Manual, Automatic scanning, Continuous scanning

Scanning width: 5cm-30cm

Prompt mode: Buzzer, Indicator light(LED)

Print Contrast: 30%

Scanning Angle: Roll35°,Pitch65°,Yaw65°

Physical Parameters

Product type: Handheld wireless barcode scanner

Material: ABS+TPE+PC

Size: L*W*H:166mm*88mm*64mm

Color: White/black

Power Supply: DC 5V ±5%

Charging cable: 1.5m universal USB cable (USB-A---USB-B)

Battery: 3.7V 1500mAH 18650 lithium battery

Operating current: 245mA(operating mode);317mA(maximum peak)

Charging time: 3.5 hours

Weight: 170g±5g(without cables)

Environment Parameters

Operating Temp.: 0 to 50 °C / 32 to 122 °F

Storage Temp.: -20 to 70 °C / -4 to 158 °F

Operating Humidity: 20 - 95% (non-condensing)

Storage Humidity: 20 - 95% (non-condensing)

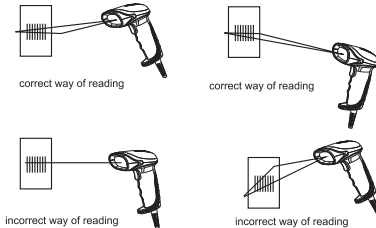
IP Grade: ≥IP54

ESD protection: 15kv

Shock resistance: 1.5m free fall on concrete surface

Reading Angle

- Maintain a level between the scanner and the bar code to make a best reading.
- Do not keep the scanner in 90°with the bar code, otherwise the scanner can't read.
- The scanner must aim at the bar code and the beam must cover the whole bar code. If don't, error maybe occur.



Notice:

1.The barcode scanner has been set well before delivery. It can be used directly. Please do not scan the bar codes in the manual optionally to test the scanner. In case of scanning the setting bar codes and abnormal condition occurs, please reset the scanner to factory default. For more details about how to reset factory default, please read page 9.

2.The wireless adapter should be connected to the fixed computer USB

interface. Do not plug in or pull out the adapter frequently in order to help improving the working efficiency and avoid man-made damage.

3.The Bluetooth adapter is used when the device has no Bluetooth function, for example, the desktop computer. If the device has Bluetooth function, the scanner can pair with the device directly without the adapter. For more details, please check the Bluetooth Adapter Installation Guide on page 4 to 5.

LED Indicator& Beeper

Indicator Light Color	Instruction
Green light and will be off soon	Reading successfully and comes a short beep
Red light is on always	Charging (red light will be off when fully charged)
Blue light blinking (Bluetooth)	Press the button for 10 seconds. The blue light blinks and scanner enters into pairing mode. After pairing successfully, the blue light is on always.
Beep Sound	Instruction
A short beep	Reading successfully
A long beep	Auto shutdown and enter into sleep mode
Two short beep	Power on
Three short beep	Fail to upload data, please pair again
Three long beep	Low power, please charge

Charging

Please connect the RJ45 interface of the charging cable to the bottom of the scanner and the USB interface to the computer. Or, connect the 5V 500mA power adapter to the power socket. Charging time will be 2-3 hours. After fully charged, the scanner can work 8-12 hours continuously.

Pairing Instruction

Power On

Press the button. The scanner will have two short beep sounds and the indicator light will blink two times. The scanner is power on.

Power Off

The default auto shutdown time is 20 seconds. If there's no operation for 20 seconds, the buzzer will have a long beep sound, and then enter into sleep mode.

Enter into Paring Mode

- 1.For Bluetooth scanner, please press the button for 10 seconds or scan the setup bar code below, then the scanner will enter into pairing mode.
- 2.For 2.4G wireless scanner, please plug the adapter to the computer and scan the setup bar code below within 10 seconds. Otherwise, the scanner won't pair to the computer. If fail to pair, please pull out the adapter and plug in again, then repeat the same step.



scan and pair

Bluetooth Adapter Installation Guide-Windows XP

1. Plug in the Bluetooth adapter. Bluetooth device icon will show on the system tray.
2. Double click the Bluetooth icon then the Bluetooth device dialog box will show. (User can also click the Bluetooth device from the control panel.)
3. Click 'add' and the Bluetooth device wizard will show.
4. Scan the setup code 'scan and match' or press the trigger button for 10 seconds in order to let the Bluetooth scanner get into matching condition. The LED light flashes quickly. Select 'My device is set up and ready to be found' and click 'next'.
5. There will be a Bluetooth device wizard dialog box that shows 'Barcode Scanner' icon. If not, click 'search again'.
6. Double click 'Barcode Scanner' icon and see the passkey dialog box.
7. Select 'don't use a passkey' and click 'next' to start installing the driver.
8. After installation, there will be an extra Barcode Scanner in the Bluetooth device and an extra HID Keyboard Device in the device manager. The Bluetooth adapter installation is finished now.
9. Now open any edit box like notepad to start reading and uploading bar codes.

Bluetooth Adapter Installation Guide-Windows 7

1. Plug in the Bluetooth adapter then the Bluetooth icon will show.
2. Double click the Bluetooth icon and then the 'Devices and Printers' will show.
3. Activate the scanner and scan the setup code 'scan and match' or press the trigger button for 10 seconds, then LED light flashes quickly and the Bluetooth scanner enters to the matching condition.
4. Click 'add a device' and there comes a dialog box that shows 'Barcode Scanner'.
5. Right click the device icon and right click again to select the properties.
6. Select 'Drivers for keyboard, mice, etc [HID]' in the properties dialog box and click yes.
7. After installation there will be a balloon to show installation success. The device manager has a new HID keyboard device.
8. Now the Bluetooth installation finished. Open any edit box like notepad to start reading and uploading bar codes.

Bluetooth Adapter Installation Guide-Windows 8

1. Plug in the Bluetooth adapter.
2. Open 'control panel' and click 'add a device'.
3. Activate the scanner and scan the setup code 'scan and match' or press the trigger button for 10 seconds, then LED light flashes quickly and the Bluetooth scanner enters to the matching condition.
4. Click 'add a device' and there comes a dialog box that shows 'Barcode Scanner'. Select the device and click 'next'.
5. Now the Bluetooth installation finished. Open any edit box like notepad to start reading and uploading bar codes.

Paired with Android/IOS/Mac Devices

1. Please confirm the scanner is in pairing mode. Otherwise, the device can't search the scanner.
2. Click the searched Bluetooth device directly. It can finish the pairing automatically.

Scanning Mode Setup (for wireless & Bluetooth)

Setup Instruction:

1. Normal mode means real-time transmission. Scan 'Normal Mode' bar code, the scanner will be in real-time transmission.
2. In inventory mode, the scanner will save the bar code it reads. When need to upload the data to computer, scan 'Data Upload' bar code.
3. Scan 'Total Number of Data' bar code, the computer will show how many bar codes the scanner reads under inventory mode.
4. Scan 'clear data' bar code means clear all the bar codes being read under inventory mode.



Normal Mode



Inventory Mode



Non-volatile Mode



Upload Data



Total Number of Data



Clear Data

Sleep Time Settings (for wireless & Bluetooth)

Setup Instruction:

1. Scan 'Sleep Time' bar code.
2. Scan the time you want to set.



Sleep Time



20 seconds



30 seconds



60 seconds



2 minutes



5 minutes



10 minutes



20 minutes



no sleep

User ID Settings (only for wireless)

1. First, scan 'ID settings'.
2. Scan two numeral bar codes below. For example, scan '0' and '1', ID number will be 01. After finish setup, the ID number will be shown in front of all the barcodes read by the scanner.
3. User ID is set to be shown. If need to hide user ID, scan 'ID Hidden'. Scan 'ID Display' will show the User ID.



ID Settings



ID Display



ID Hidden



0



1



2



3



4



5



6



7



8



9

Language Settings (only for wireless)



American English (default)



German



French



Italian



Spanish



Russian

Bluetooth IOS Keyboard Display/Hidden



IOS Keyboard Display/Hidden
(%%ShowPads)

Double Click Button-Display Bluetooth IOS Keyboard



Double Click Button-Display
(%%BT_Pads_En)

Bluetooth Transmit Speed Control (only for Bluetooth)



Low Speed



High Speed (default)

Shutdown/Initialization/Version information (for wireless & Bluetooth)



Shutdown



Initialization



Software Version



Hardware Version

Function Settings

Setting steps

1. Scan startup setup bar code.



2. Scan the needed parameter bar codes according to the demand.

(1)Interface (2)Serial mode parameters
(3)Reading mode (4)Barcode type

3. If need to stop the current programming, scan the below setup bar code. If don't, please skip this step.



4. Scan terminate setup bar code to end the setup.



5. If need to save the well set parameters permanently, scan the below 'save parameter' bar code.



6. This setup bar code is to recover the saved parameters and replace the current settings with the previous saved parameters.



7. Scan the below setup bar code to show the information of decoder version and date code.



8. If need to reset factory defaults, scan the below setup bar code **twice**.



Notes:

For wireless scanner, the interface should be serial mode. When the scanner reset factory defaults, please also reset the interface to serial mode. The whole setting steps are 8→8→1→serial(COM)→3→5.

Interface



Serial(COM)



USB

Recognition Mode



Off after reading



Button on/off



Continuous scan/button off



Continuous scan/
auto-sensing enable



Pulse/auto-sensing enable



Test mode

Explanation :

1. Off after reading: After a regular time or reading a bar code, the light will be off.
2. Button on/off: The light is on when pressing the button and off when releasing. Keep pressing the button, the light will be on until reading a bar code.
3. Continuous scan/button off: The scanner will only read once for the same bar code. Unless move the scanner and aim at the bar code again, the scanner reads the same bar code (light source can be controlled by the switch).
4. Continuous scan/auto-sensing enable: The scanner will only read once for the same bar code. Unless move the scanner and aim at the bar code again, the scanner reads the same bar code. The power supply starts automatically when power on (power supply can't be controlled by the switch).
5. Pulse/auto-sensing enable: The scanner will only read once for the same bar code. Unless move the scanner and aim at the bar code again, the scanner reads the same bar code. In order to save power, the light source begins pulse after 7 seconds when there's no bar code in front of the scanner. (light source can be controlled by the switch).
6. Test mode: Press the button, the light will be on continuously. When there's a bar code in front, it will keep reading unless moving out the bar code (for internal testing).

Capital and Lower-case



Normal mode



Capital



Lower-case

Explanation:

1. Normal mode: The transferred characters are the original one.
2. Capital: Output characters as capital. The Caps Lock on keyboard will influence this function. Please check and make sure it is not Caps Lock when testing.
3. Lower-case: Output characters as lower-case. The Caps Lock on keyboard will influence this function. Please check and make sure it is not Caps Lock when testing.

ALT Mode



ON



OFF

Explanation:

The function of ALT: When ALT on, the transferred characters will be always the original one no matter it is Caps Lock or not. This function is only for PC.

Numeric Key



Enable



Disable

Explanation:

Numeric keyboard: With this function, the output bar code is from the numeric key.

Bar Code Termination Characters Settings



None



CR



LF



CR+LF



Space



TAB



STX-ETX

Explanation:

This function is related to the receiving software of the host and effects by the software.

1. None: Data will upload one after another without interruption.
2. CR: After outputting data, the cursor will be back to the left side and waiting for the next data.
3. LF: After outputting data, line feed and waiting for the next data.
4. CR+LF: After outputting data, the cursor will be back to the left side, then line feed and waiting for the next data.
5. Space: After outputting data, there will be a space and waiting for the next data.
6. TAB: After outputting data, there will be a tab and waiting for the next data.
7. STX-ETX: Add ASCII code of STX in front and add ASCII code of ETX behind the bar code. This function is only for RS232 interface.

Bar Code Parameters Definition

1. Choose the Identifiable Bar Code

Explanation:

Scan the setup bar code with 'on', the scanner will read the corresponding bar code. Otherwise, the scanner won't read. '<>' symbol means factory default value.



UPC-A <ON>



OFF



UPC-E <ON>



OFF



EAN-13/JAN-13 <ON>



OFF



EAN-8/JAN-8 <ON>



OFF



CODE 39 <ON>



OFF



CODE 128 <ON>



OFF



CODABAR/NW7 <ON>



OFF



Interleave 25 <ON>



OFF



Industrial 25 ON



<OFF>



Matrix 25 ON



<OFF>



CODE 93 ON



<OFF>



CODE 11 ON



<OFF>



China Postage ON



<OFF>



MSI/PLESSEY ON



<OFF>



Bc412 ON



<OFF>



Code 2 of 6 ON



<OFF>



Telepen ON



<OFF>



All bar codes ON

2. UPC/EAN/JAN

2.1 Choose Bar Code Type



UPCA=EAN13 ON



UPCA=EAN13<OFF>



ISBN ON



ISBN <OFF>



Supplements enable



Auto identify supplements

Explanation:

1. *UPCA=EAN13:* This setting will insert '0' in front of UPCA as a complementing bit.

2. *ISBN:* This is the book number. Choose 'off', the scanner will transmit the below data. Otherwise, it will transmit the above data.

2.2 Supplements Settings



Supplements disable



Supplements-2 digits



Supplements-5 digits



Supplements-2 or 5 digits

2.3 Check Digit Settings



UPC-A Transmit check digit<ON>



OFF



UPC-E Transmit check digit<ON>



OFF



EAN-8 Transmit check digit<ON>



OFF



EAN-13 Transmit check digit<ON>



OFF



ISSN Transmit check digit<ON>



OFF

Explanation:

'ON' means transmit check digit. 'OFF' means not transmit.

3. Code 39

3.1 Choose Bar Code Type



< Standard >



Code 39 collected



Italy Pharmacy Code-32<OFF>



ON

3.2 Transmit Check Digit Settings



<Not calculate check digit>



Calculate and transmit check digit



Calculate check digit, not transmit

3.3 Transmit Start/Stop Digit Settings (start/stop character is **)



ON



<OFF>

4. Code 128

4.1 Transmit Check Digit Settings



Not calculate check digit



Calculate and transmit check digit



<Calculate check digit, not transmit>

5. Matrix 25

5.1 Transmit Check Digit Settings



<Not calculate check digit>



Calculate check digit, not transmit

6. Interleave 25

6.1 Transmit Check Digit Settings



<Not calculate check digit>



Calculate check digit, not transmit

6.2 Even/Odd settings



<Even>



Odd

6.3 Brazil Bank Code



<OFF>



ON

7. Industrial 25

7.1 Transmit Check Digit Settings



< Not calculate check digit >



Calculate and transmit check digit



Calculate check digit, not transmit

8. CODABAR/NW7

8.1 Start/Stop Digits Settings before Transmitting



ON



<OFF>

8.2 Start/ Stop Digits Definition



<A/B/C/D> <start>



<A/B/C/D> off



A start



A stop



B start



B stop



C start



C stop



D start



D stop

9. Code 93

9.1 Transmit Check Digit Settings



<Calculate 2 check digits, not transmit>



Not calculate check digit

10. Code 11

10.1 Transmit Check Digit Settings



<Not calculate check digit>



Calculate 1 check digit, not transmit



Calculate 2 check digits, not transmit

11. MS1/PLESSEY

11.1 Transmit Check Digit Settings



<Not calculate check digit>



Calculate check digit, not transmit

12. BC 412

12.1 Transmit Check Digit Settings



Not calculate check digit



Calculate check digit, not transmit

13. Code 2 of 6

13.1 Transmit Check Digit Settings



Not calculate check digit



Calculate and transmit 1 check digit



Calculate and transmit 2 check digits



Calculate and transmit check digit



<Calculate and transmit check digit>



<Calculate and transmit check digit>



Calculate check digit, not transmit

14. Telepen Parameter Definition

14.1 Choose Bar Code Type



<Telepen character collected>



Telepen digit collected

14.2 Transmit Check Digit Settings



Not calculate check digit



Calculate and transmit check digit



Calculate check digit, not transmit

Comprehensive Parameter Definition

1. Barcode ID Definition



ON



<OFF>



Default parameters

Explanation:

There will be one character added at the beginning of the decoded bar code when using this function. According to the below form, user can know the bar code type. The bar code ID can be user-defined.

Barcode Type	ID	Barcode Type	ID
UPC-A	A	UPC-E	B
EAN-8	C	EAN-13	D
CODE 39	E	CODE 128	F
Interleave 25	G	Industrial 25	H
Matrix 25	I	Codabar/NW7	J
CODE 93	K	CODE 11	L
China Postage Code	M	MSI/PLESSEY	N
Bc412	O	Code 2 of 6	P
Telepen	T		

Setting steps:

1. Scan bar code type

2. Scan the needed character from Appendix B

Note: The scanner can't self-inspect conflicts. The user-defined ID will cover the default value. Therefore, one ID may represent two or more bar code types.



UPC-A



UPC-E



EAN-13/JAN-13



EAN-8/JAN-8



CODE 39



CODE 128



CODABAR/NW7



Interleave 25



Industrial 25



Matrix 25



CODE 93



CODE 11



China Postage code



MSI/PLESSEY



BC412



Code 2 of 6



Telepen

2. Accuracy



1 time



2 times



3 times



4 times

Explanation: Time-delay between two bar code transmitting.

1. Lower error rate.

2. This setting is the repeated decoding times. Multi-decoding will compare with the last decoding result and will transmit the better one. The bigger the number the longer the decoding time.

3. Buzzer Volume



<high>



Middle



Low



Off

4. Continuous Identifying Sensitivity



<Fast>



Slow

Explanation:

The reading speed of the decoder under continuous reading mode.

5. Inversion Output



<OFF>



ON

Explanation:

The transmission of the characters is reverse.

6. Delete Output Characters

This is a function to delete characters in the designated position of the bar code for different bar code type. (Max. 6 sets data at the same time)

Setting Steps:

1. Scan startup setup bar code on page 8.
2. Scan the corresponding set number bar code.
3. Scan the corresponding bar code type.
4. Scan the bar code that represents the position of the character to be deleted in Appendix A on page 25.
5. Scan the setup bar code 'End' from 'Position of the Deleted Character' on page 23.
6. Scan the bar code that represents the amount of the character to be deleted in Appendix A on page 25.
7. Scan the setup bar code 'End' from 'Amount of the Deleted Character' on page 23.
8. Repeat the above steps can set another definition.

6.1 Select Deletion Set Number



1st set



2nd set



3rd set



4th set



5th set



6th set

6.2 Select Bar Code Type



UPC-A



UPC-E



EAN-13/JAN-13



EAN-8/JAN-8



CODE 39



CODE 128



CODABAR/NW7



Interleave 25



Industrial 25



Matrix 25



CODE 93



CODE 11



China Postage Code



MSI/PLESSEY



BC412



Code 2 of 6



Telepen



All bar codes

6.3 Position of the Deleted Character

1. Decimalism Numeral Table (Appendix A)
2. End



6.4 Amount of the Deleted Character

1. Decimalism Numeral Table (Appendix A)
2. End



7. Insert Characters

This is a function to insert characters in the designated position of the bar code for different bar code type. (Max. 6 sets data at the same time)

Setting Steps:

1. Scan startup setup bar code on page 8.
2. Scan the corresponding set number bar code.
3. Scan the corresponding bar code type.
4. Scan the bar code that represents the position of the character to be inserted in Appendix A on page 25.
5. Scan the setup bar code 'End' from 'Position of the Inserted Character' on page 25.
6. Scan the bar code that represents the character to be inserted in Appendix B or C on page 26-31.
7. Scan the setup bar code 'End' from 'The Inserted Character' on page 25.
8. Repeat the above steps can set another definition.

7.1 Select Insertion Set Number



1st set



2nd set



3rd set



4th set



5th set



6th set

7.2 Select Bar Code Type



UPC-A



UPC-E



EAN-13/JAN-13



EAN-8/JAN-8



CODE 39



CODE 128



CODABAR/NW7



Interleave 25



Industrial 25



Matrix 25



CODE 93



CODE 11



China Postage Code



MSI/PLESSEY



BC412



Code 2 of 6



Telepen



All bar codes

7.3 Position of the Inserted Character

1. Decimalism Numeral Table (Appendix A)
2. End



7.4 The Inserted Character

1. ASCII table, Function Key Table (Appendix B, Appendix C)
2. End



Appendix A (Decimalism Numeral Table)



0



1



2



3



4



5



6



7



8



9

Appendix B

NULL



00

ETX



03

ACK



06

HT



09

FF



0C

SI



0F

DC2



12

NAK



15

CAN



18

STX



02

ENQ



05

BS



08

VT



0B

SO



0E

DC1



11

DC4



14

ETB



17

SUB



1A

SOH



01

EOT



04

BEL



07

LF



0A

CR



0D

DLE



10

DC3



13

SYN



16

EM



19

ESC



1B

RS



1E

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21

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24

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2A

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6A



Appendix C

