

# Setting Manual of Wireless Barcode Scanner ( 2.4GHz )



**REV: 02**

### **Special attention:**

- 1. Immediate charging after battery alarms in using!**
- 2. Receiving seat can upload data after inserting computer and waiting for 15 seconds (when LED light begins to flicker).**
- 3. In the case of setting chaos and wireless scanning gun can not be used normally, please refer to Page 20 factory default.**

## 2.4G Introduction of wireless scanning gun

Respected customers, thank you for your choice of our wireless scanning gun! In order to ensure you can use it better, please carefully read the setting manual before using.

1. Adopts 2.4G wireless transmission, indoor transmission distance with obstacle is about 20 meters, outdoor transmission distance without obstacle can reach 100 meters. With functions of quick transmission speed, low error rate, data cache, scanning total and ID display, etc., it can be used as ordinary scanning gun and simple inventory. Adopts one-to-one encryption technology and data are safe and reliable.

2. Can support 20 barcode guns be used simultaneously in the same range without interfering to each other, each gun owns unique ID number and can set 99 different IDs.

3. Wireless scanning gun and wireless receiving terminal set up communication linkage automatically.

4. Without any drive, plug and play.

5. Humanistic shape design, manual/automatic scanning mode can be choosed according to users' needs, simple operation setting can meet the using needs of different industries, and make up the inconvenience of wired scanning gun to you.

6. Adopts high-speed decoder, with the characteristics of quick decoding speed, high precision of reading code and wide range (**scanning 4mil-43mil dentisy barcode, can be adjusted to 3mil according to customers' requirements, barcodes width can reach 40CM, with 50 bits of data size**), to meet use needs of different users.

7. Super-long use time. This machine adopts large capacity

lithium battery supply power, fully charge one time can be continuously used for more than 48 hours. About 20 seconds unused, it will shut down automatically and get into dormancy, the dormancy current is nearly 0, super-long standby.

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## Product accessories

Name of accessories	Quantity of accessories
Hand-held scanning gun	1
USB receivnig seat	1
Charging wire	1
Setting maunal (with warranty card)	1
Sling	1

## Product parameters

Function items	Parameters
<b>Code reading depth of field</b>	4mil(0.1mm)/5-60mm
	5mil(0.12mm)/10-100mm
	10mil(0.25mm)/15-250mm
	35mil(0.89mm)/140-600mm
	43mil(1.1mm)/150-800mm
<b>Light source type</b>	Visible red laser 650nm
<b>Scanning mode</b>	One-line scanning
<b>Scanning speed</b>	120 times per second
<b>Scanning precision</b>	0.10mm (pcs0.9)
<b>Scanning width</b>	20mm@scanner window, 260mm@260mm
<b>Scanning corner</b>	32°
<b>Scanning elevation</b>	68°
<b>Scanning angle of avertence</b>	52°
<b>Decoding ability</b>	International general one-dimensional barcode
<b>Support interface</b>	USB

<b>Function items</b>	<b>Parameters</b>
<b>Printing contrast</b>	Minimum 30% reflection difference
<b>Error rate</b>	1 / 6 million
<b>Indication way</b>	Buzzer/Indicator light
<b>Scanning way</b>	Maunal /Automatic
<b>Hand-held machine size</b>	7cm×4cm×16cm
<b>Hand-held machine weight</b>	300g
<b>Material quality</b>	ABS+PC
<b>Drop test</b>	2 meters free fall
<b>Wireless frequency</b>	2.4GHz
<b>Effective distance</b>	About100 meters in open place without interference About 20 meters indoor with obstacle or interference
<b>Working current</b>	60mA of work, ≤5uA ofdormancy
<b>Laser level</b>	Level-1 laser safty standards
<b>Charge power</b>	5VDC

## **Installation introduction**

1. Insert USB receiving seat into PC's USB interface.
2. Press hand-held machine's control to wake up scanning gun to enter working condition.
3. Detailed operation, please refer to operation instructions.

## **Operation instructions**

1. Please ensure hand-held scanning gun has adequate power before operating scanning.
2. Receiving seat is firmly inserted computer's USB interface, the first insert will indicate that new hardware is installed successfully.
3. Receiving seat inserts computer, the red LED indicator will always light, if users want to change wireless channel, need to scan relevant setting barcode in 15 seconds (ordinary

doesn't need set, this machine of leaving factory restores default 01 channel).

4. After receiving seat inserts computer, press scanning gun's control for one time to wake up scanning gun (after wake-up, the scanning gun will have two continuous sounds of "drop, drop", at the same time the blue LED lamp lights) to realize automatic matching, if need to re-match, need to be finished within 15s of receiver's LED lights, when receiving seat LED light changing to flashing mode, can implement scanning operation.

### **5. Scanning mode operation**

**A Ordinary mode scanning** (default "ordinary mode"), the mode is real-time upload mode. **a**, scanning barcode and upload, if it is successful, the blue LED light will flicker once, at the same time buzzer will give two continuous sounds (two sounds are continuous when signal is good, and there will be about 0.5 seconds interval between two sounds when signal is bad); **b**, both LED and buzzer have no action when scanning is not successful; **c**, if scanning is successful but unload fails due to beyond receiving range or channel setting is not correct, the buzzer will sound once, blue LED lights flickers once, about after one second, the buzzer will sound three times continuously, and at the same time blue LED light will flicker three times to indicate.

**B Collection scanning mode** (scanning 'collection mode SET' is this mode). Under this mode, the data will be stored in barcode gun (the number is about 500-10000, more than 500 need to customize), when need to upload, scanning 'data upload' barcode under inventory mode of setting barcode, all cache barcode will be uploaded computer one

by one in effective receiving range, buzzer will sound once when upload one barcode successfully. If fail, each barcode will sound three times continuously. Scanning 'data total' barcode will show total of cache barcode. Scanning 'clear data' can clear the cache. Under inventory mode, if cache is full, scanning barcode will appear buzzer sound for long time, at this time data should be uploaded computer and saved, if want to continue scan, need to clear data and then carry out next collection mode scanning.

## **6. Charging operation**

If scanning gun's electricity is short, should warn for any buzzer sound when starting or uploading, etc, the specific performance is that, the last sound of single operation will continue 3s indication. At this time should stop scanning and charge. Correctly insert special charging line crystal head attached with machine into the seat of scanning gun, and insert another end to computer USB interface or 5VDC special USB interface power (note: please use computer 5V USB interface or special 5VDC power supply to charge, the informal power will cause permanent damage to scanning gun and battery), yellow LED light will light when is at charge state, the charging will complete after about four hours and the yellow LED light will go out.

## **Function setting**

### **1. Barcode gun recovery function setting**

When barcode gun appears the situations of laser light always illuminating, reading code or abnormal function, first restore setting, generally, this situation is due to user scan and read some other types barcodes of guns. Scan Page 9,

The scanning gun restores set barcode “1”, and then scans “2”. Can also refer to Page 20’s factory default and operate.

## **2. Automatic scanning setting**

Scan and set barcode “automatic scanning”, the laser light always lights, place barcode in the right position of depth of field and to automatic scanning, and then carry out the second scanning after taking away. If restore to manual scanning, scan and read Page 9 in proper order, the scanning gun restores set barcode “1”, and then scan “2”.

## **3. Wireless mode function setting**

### **A Channel setting** (setting under normal mode)

When leaving factory, the channel is uniformly designed as 01(setting range of 01-20), if users need to set different scanning guns as different channels, scan and read “CHSET” barcode in proper order under Page 9 channel setting and then scans corresponding digital barcode under setting parameter (first scanning should set ten digits of channel, and then scan single digit).

### **B User ID setting** (setting under normal mode)

When leaving factory, the channel is uniformly designed as 00 (setting range of 00-99), if users need to distinguish different scanning gun, they can set different ID. Scan and read “IDSET” barcode in proper order under Page 10 user ID setting and then scan corresponding digital barcode under setting parameter (first scanning should set ten digits of channel, and then scan single digit). If users need to show ID number before barcode, need to scan “ID display” barcode under Page 10 user ID setting, if do not display, need to scan “ID hidden” barcode.

## **C Setting parameters** (Setting channels under normal mode)

Page 10/11 barcodes (0-9) under setting parameters are the parameters of channel setting and users' ID setting.

### **D Normal mode**

When leaving factory, the uniform setting is normal and immediate upload mode. The barcode successfully scanned and read within effective range will immediately be uploaded computer. If the user has set inventory mode, only needs to scan and read Page 11 “normal mode SET” barcode to set back to normal mode.

### **E Collection mode**

This mode is simple collection mode, users need only to scan Page 11 barcode of “collection mode SET”. Under this mode, data will be cached in scanning gun (about 500-10000, determined according to barcode data number, more than 500 need to customize), after completing scanning, need to upload, in effective range, scan and read Page 11 “data upload” barcode to complete, need to show the number of scanning barcode, scan and read Page 11 “data total” barcode, need to clear data and scan and read Page 11 “clear data” barcode.

## **Barcode setting**

### **1. Scanning gun restores setting**



1



2

## 2. Automatic scanning setting



Automatic scanning

## 3. Channel setting



CHSET (first set ten digits, and then set single digit, with a range of 01-20)

## 4. User ID setting



IDSET (first set ten digits, and then set single digit, with a range of 00-99)



ID display setting



ID hidden setting

## 5. Parameters setting



0



2



4



1



3



5



6



7



8



9

## 6. Normal mode



Normal mode SET

## 7. Collection mode



Collection mode SET



Data upload



Data total



Clear data

## Functions indication

<b>Action contents</b>	<b>Representation</b>
Receiving end inserts computer	Insert computer and match in 15 seconds, LED light always lights and LED flickers after successful matching. First insert, computer will indicate and install hardware automatically.
Scanning gun wakes up	Buzzer sounds twice continuously, blue LED light lights.
Scanning gun restores setting and automatic scanning setting	Scan and read Page 9, scanning gun restores setting barcode “1” and “2”, and “automatic scanning” setting barcode, after successfully scan, both buzzer and LED have no response. The method of judging success of scanning and reading these three barcodes as follows: scan and read these three barcodes according to right angle and depth of field, when laser light covers barcode, doesn't loosen scanning gun's control and laser light is extinguished, generally means successful scanning. If press scanning gun for 5 seconds and laser light is extinguished, means reading code read is overtime, at this time reading barcode is unsuccessful and needs to scan and read again.

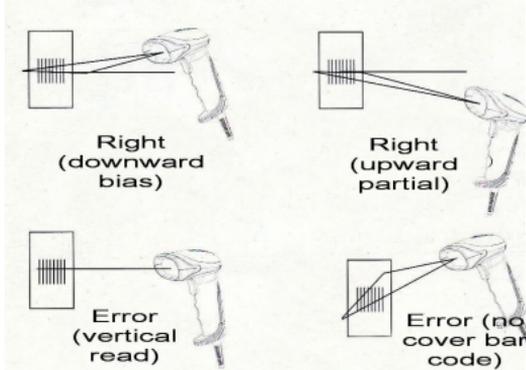
<p>Scanning gun mode function setting</p> <p>Scanning gun reads code</p>	<p>When scan and read 3-7 items of “barcode setting”, buzzer will sound once for successful setting and blue LED light flickers once. Read code and upload successfully, buzzer sounds continuously twice (two sounds are continuous when signal is good, there will be about 0.5 seconds interval between two sounds when signal is bad), at the same time blue LED light flickers once; read code successfully but not upload, after buzzer sounds once about one second later it sounds continuously three times, red LED light flickers three times. Both buzzer and LED have no response if reading code is unsuccessful.</p>
<p>Charging warning</p>	<p>When electricity is insufficient, every time the last sound of buzzer is continuous three seconds of alarm warning, at this time should stop using scanning gun to charge, yellow LED light lights when charge normally and extinguish when charge completely.</p>
<p>Collection mode cache warning</p>	<p>Under collection mode, can cache 500-10000 barcodes, the specific quantity can be determined by barcode capacity, generally, the design of product is 500, more than 500 needs to reserve. When cache is full, buzzer will give 4 seconds continuous long sounds warning.</p>

## **Common problems**

The wireless scanning gun is a durable product, the general problems are caused by improperly setting parameters or unfamiliar of the operation and so on. The users only need to read this setting manual carefully and operate by it, the problems can be eliminated basically.

<b>Faults performance</b>	<b>Reasons analysis</b>	<b>Solutions</b>
No uploading data	Beyond the range of receiving or get the interference.	100 meters range without obstacles, 20 meters range with obstacles or interference. If beyond the range, it is difficult to receive it, please shorten to effective distance to receive.
	Scanning gun doesn't match the receiving channel.	Refer to Page 20, factory default.
	In the same receiving range, there are two or more scanning guns of the same channel in use.	Change scanning gun channel, or move the barcode gun out of the range of same type scanning gun to use.
	Barcode gun setting is chaotic.	Barcode gun scans the setting code of other types scanning guns and causes function disordered, refer to Page 20, simple factory default.

Doesn't read code	Barcode gun setting is chaotic.	Ditto
	The read code is not standard.	This scanning gun supports international standard one dimensional barcode. Some barcodes not compiled according to the standard will not be able to read.

Doesn't read code	Code printing has problems	Low the barcode contrast ratio or change the barcode ratio by printing. If it is confirmed that the barcode printing has problems, it is necessary to improve the barcode printing quality.
Low sensitivity of code reading	Incorrect method for scanning gun to read codes	<p>Scanning guns and barcodes need to keep a bevel angle to get a best codes reading effect.</p> 
	Codes not read in the depth of filed.	Different codes in different densities have different depths of filed. Please read the codes within reasonable depths of filed. (Refer to product parameters/depths of filed of code reading)
	Printing of code is not clear or standard, etc.	1. Adjust angle of code reading and depth of filed to appropriate position; 2. Improve code printing quality.

Low sensitivity of code reading	The lens of scanning gun is too dirty.	Use clean cloth wipe with clear water, then use it after lens dried.
	The code is damaged and has dirt, etc.	Wipe out the dirt on the codes or improve the code printing.
“00” or “01” displayed before the code.	Set scan gun to ID display.	Scanning “ID hidden settings”
Under quite environment, scanning gun works with “DADA” sound	When scanning gun works, swing device sounds with swinging.	Normal performance
Scanning gun’s laser only has one bright spot	Scanning gun is not used in long time and the swing device is not activated.	After open the scanning gun, tap its head on the table.
Silent, laser long bright or automatic flicker	Setting of scanning gun is chaotic.	Scan and read the codes of other types of scanning guns, barcode function is chaotic, refer to Page 20 simple factory default.

<p>Data of display barcode is messy code.</p>	<p>Scanning gun setting is incorrect or computer input method is not set correctly.</p>	<p>1. Refer to the introduction above. 2. If the problem is not solved, turn off the receiving seat, and restart the computer. 3. Check whether the computer input method is English, doesn't set other inputs.</p>
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## Notes

### 1. Lithium battery maintenance

The wireless gun is equipped with high capacity lithium battery, please maintenance it by routine maintenance of lithium battery, please especial pay attention to:

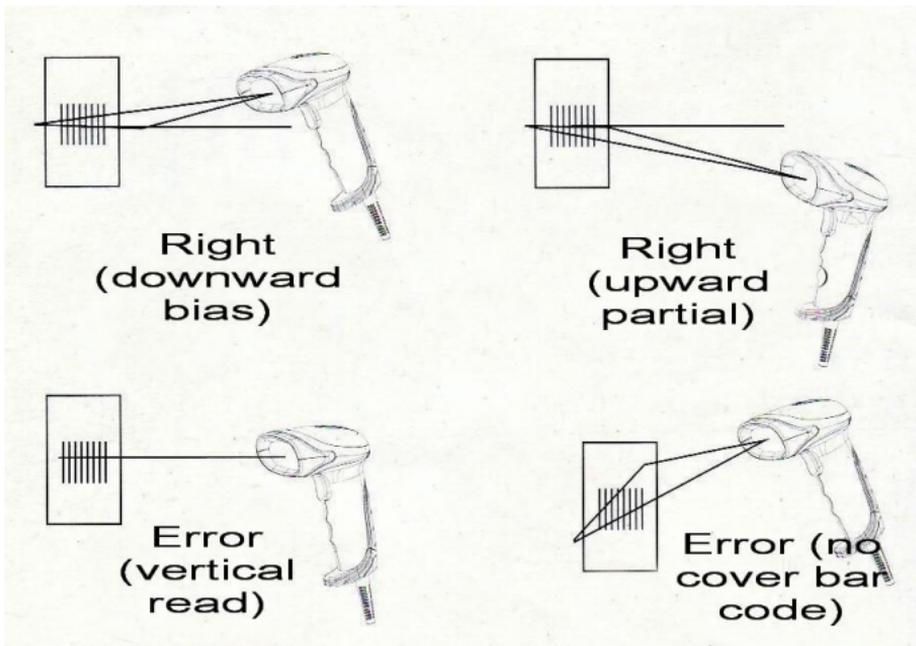
A Avoid to set the scanning gun into the fire or expose in 60°C or higher temperature long time. Generally, the use and storage temperature is - 20 °C to 45 °C, humidity is 5% - 85%.

B In the first use, you should charge enough and then use it (in electricity alarm state, you need about 4 hours to charge enough). The standard for charge is 5 VDC power supply.

C You should charge after using every time, in case the power is short next time. **If the electricity alarming when using, please charge in time**, in order to avoid the battery under less electricity state long time and affect the capacity, or cause permanent damage to battery. The user should turn off the charging power supply in time after the completion of charge.

### 2. The schematic diagram of the angle of code reading

When use the laser scanning gun in first time, you would not familiar with it and would make some misunderstandings.



### **3. Maintenance of dustproof lens on the scanning gun window**

Dustproof lens has great importance to code reading, please keep the lens clean to ensure the effect of code reading. the lens will cling to sweat in different temperature environments, or cling to dust due to long-term use, need to use clean cotton (do not use hard object to wipe out the lens which will leave scratches on it) wipe it with clear water, then use it after dried.

**4. When the data is not uploaded completely in collection mode, do not exceed the receiving range, do not scan and read other barcodes when uploading or turn off the receiving seat.**

When the data is not uploaded in collection mode, if it exceeds the range or turns off the receiving seat, will continue to alarm 3 times by uploading one barcode. The uploading cannot be artificially terminated, so the uploading

completion time is greatly been extended, you can carry out other operations until all data uploading is finished.

## 5. Noun explanation of barcode density and depth of field of code reading

Barcode density is the minimum distance between white or black bars of the codes. Reading code depth of field refers to the effective reading code range of one certain density barcode, if you exceed the range of reading code, it will not sensitive to read code or you can't read

<b>Read yards</b>	4mil (0.1mm) /5-60mm↕
	5mil (0.12mm) /10-100mm↕
	10mil (0.25mm) /15-250mm↕
	35mil (0.89mm) /140-600mm↕
	43mil (1.1mm) /150-800mm↕

Take the first as example, 4mil (0.1mm), it refers that, the range of scanning gun window away from codes is about 5mm-60mm when scanning the codes which spacing is 0.1mm. If beyond the range, the code reading will not have a good effect.

A qualified scanning gun can read from 4mil high density barcode (or even 3mil) to 43mil super barcode, this is also one important standard on barcode gun quality test. Our scanning gun is improved in the circuit and the optical system, all model scanning guns can reach this standard 100%, so the user doesn't have to match the different codes with different scanning guns.

# Product quality assurance

## 1. Warranty regulations

A Under normal circumstances, the company will provide free warranty for the product since the release date within 12 months, it will be provided life-long maintenance.

B In the warranty period, if the maintenance is caused by product quality, we will not collect any maintenance free. If the maintenance is caused by other problems, we will charge the corresponding cost.

C In the warranty period, you should pay for the send freight of the product. We will pay return freight according to the damage situation.

## 2. The following circumstances are not in warranty range

A. The users operate by inappropriate ways, or not use it by the instructions of the setting manual or maintenance by others who don't have the authorization of our company.

B Damaged on the way to transport to our company to repair.

C The wear and scratches on the surface of all the accessories of the product will not affect the damage of the function.

D Damages caused by the force majeure or accidents.

E Make this product used in other unfavorable use ranges, and caused damages

### Quality Certificate

Product model:	
Product No.:	
Release date:	
Inspector:	

## Factory default

If the users set in chaos accidentally in use and the scanning gun can't be used normally, **within 15 seconds** of receiving seat access to computer, you can scan the following barcodes from top to bottom when the LED light bright, then it can restore to factory default.



Scanning success, buzzer sounds one time



Scanning success, buzzer sounds one time



Scanning success, buzzer sounds one time



Scanning success, buzzer sounds one time



Scanning success, buzzer sounds one time



Scanning success, buzzer sounds one time

If the receiving seat lamp changes from bright to flicker, can operate code reading and data upload.

## Warranty card

**(The contents of card need to be filled in by seller)**

If customers need to repair, please cut off the warranty card by the dotted line, and send it with product to us or the distributor. Thank you!

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Product model	
Product No.	
Purchase date	
Distributor	

Signature or seal of distributor: