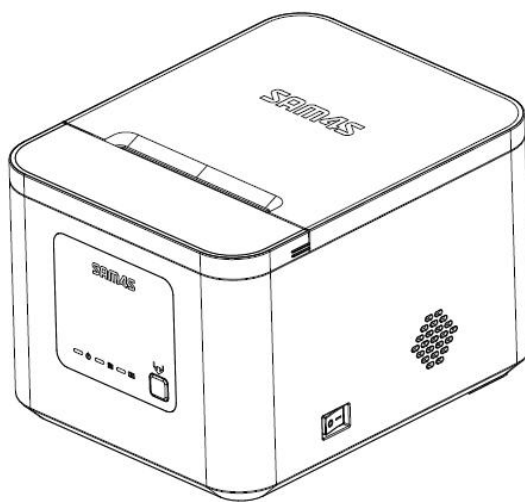


# SAM4S

## HCUBE-102D

## User Manual



Rev.1.0

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## Statement

### Warnings



This must be complied with in order to avoid any damage to the human body and to the equipment.



This is showing the important information and tips for the printer operating.



***Note: Due to the continuous improvement of the product, the specifications, fittings, parts, designs and procedures described in the manual are subject to the actual machine without prior notice.***

## Important Safety Instructions

### ◆ Safety Warning



Warnings: The print head will become very hot during printing; avoid contact with the print head after printing has finished.



Warnings: Do not touch the printer head and connector in case static damage the printer head.

### ◆ Instructions

Carefully read the installation and operating instructions provided with the printer before starting up your printer.

- 1) Place the printer on a flat and stable surface.
- 2) Leave enough space around printer for operation and maintenance.
- 3) Do not place the printer on or near a heat source.
- 4) Do not use the printer near water. Never spill liquid into the printer.
- 5) Do not expose the printer to high temperatures, direct sunlight or dust.
- 6) Protect the printer from shock, impact and vibration.
- 7) Be certain the power source is within the voltage rating and frequency listed for the printer.
- 8) Switch off the printer power supply when won't use it for a long time.
- 9) Do not place the power cord where it can be stepped on. If the power cord becomes damaged or frayed, replace it immediately.
- 10) To ensure the print quality and reliability, you are suggested to use the recommended paper or the same quality paper.
- 11) Please switch off the power supply when connect/disconnect all the ports or it will cause damage to the printer control circuit.
- 12) Never carry out maintenance or repair work yourself. Always contact a qualified service technician.
- 13) Keep this User Manual in a place which is easily accessible at all times.

**◆ Other Precautions**

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◆ **WEEE (Waste Electrical and Electric Equipment)**

This information only applies to customers in the European Union, according to Directive 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 04 July 2012 on waste electrical and electronic equipment, and to customers in countries in Europe, Middle East and Africa (EMEA) where they have implemented equivalent regulations.



For other countries, please contact your local government to investigate the possibility of recycling your product.



**Note: The product needs to be reliably earthing after being powered on.**



**Caution: Operating this device in a residential environment may cause radio interference.**



# **1 OVERVIEW**

## **1.1 Introductions**

HCUBE-102D is a thermal receipt printer, featured by high print quality, high print speed, high stability, etc. It can be used in commercial POS system, food industry and occasions which need real-time field print receipts.

HCUBE-102D can connect with other equipment through USB, Serial Interface, Ethernet and cash drawer interfaces. And the printer drivers are available for the WINDOWS 7/WINDOWS 8/WINDOWS 10/WINDOWS 11/WINDOWS Vista operating system.

## **1.2 The Main Features**

- 1) Low noise
- 2) High print speed
- 3) Easy paper loading
- 4) Cash drawer interface

## 2 GETTING STARTED

### 2.1 Packing List

After receiving your printer, please check for possible shipping damage:

- 1) Inspect the outside of both the box and the printer for possible damage.
- 2) Check whether you have received the following accessories together with the printer. If there are any items missing, please contact your local dealer.



Printer



Power Cord



Quick Start Guide



Serial Cable



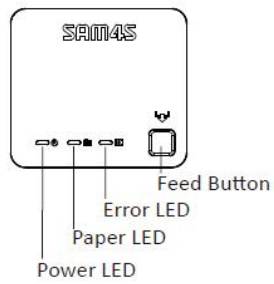
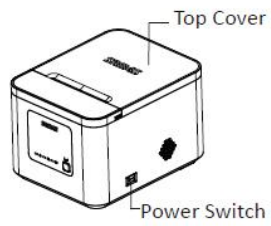
Power Adapter



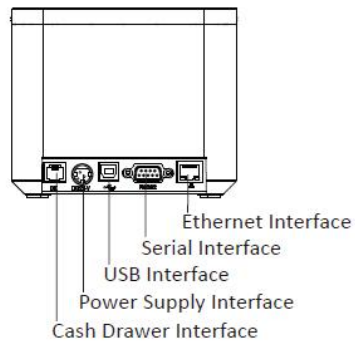
**Notes:** *The items in the package are actually dependent on the order.*

## 2.2 Appearance

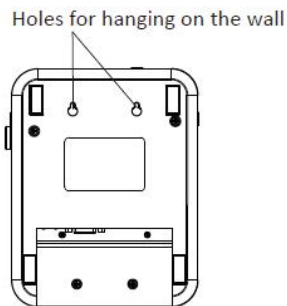
### ■ Front & Side View



### ■ Back View



### ■ Bottom View



## 3 SPECIFICATION

### 3.1 Printer Specification

Item		Parameter
Printing Parameter	Printing Method	Direct thermal line printing
	Resolution	Default 203 dpi, 180 dpi can be emulated
	Print Width	72mm
	Print Speed	Max. 230mm/s
	Print density	Adjustable from degree 1 to degree 4
	Print Direction	Vertical and horizontal
Interface	Default	Type-B USB 2.0, Ethernet, Cash drawer
Auto cutter		Partial Cut
Page mode		Not supported
Memory	RAM	4MB
	Flash	2MB
Character set	Font	ANK Font A: 12*24 Font B: 9*17 CHN: GBK 24*24dots
	Number of Columns	Default 203 dpi : 48 CPL (FontA), 64 CPL (FontB) Emulated 180 dpi : 42 CPL (FontA), 56 CPL (FontB)
	Alphanumeric	95
	Code page	PC437(std.Europe), Katakana, PC850(Multilingual), PC860(Portuguese), PC863(Canadian), PC865(Nordic), PC857(Turkish), PC737(Greek), ISO08859-7(Greek), WPC1252, PC866(Cyrillic #2), PC852(Latin 2), PC858(Euro), KU42(Thai), TIS11(Thai), TIS18(Thai), PC720(Arabic), WPC775(Baltic Rim), PC855(Cyrillic), PC862(Hebrew), PC864(Arabic), ISO8859-2(Latin2), ISO8859-15(Latin9), WPC1250(Latin 2), WPC1251(Cyrillic), WPC1253(Greek), WPC1254(Turkish), WPC1255(Hebrew), WPC1256(Arabic), WPC1257, WPC1258, MIK(Cyrillic), PC755(Latin 2), Iran, Iran II, Latvian, ISO-8859-1, ISO-8859-3, ISO-8859-4(Baltic), ISO-8859-5, ISO-8859-6(Arabic), ISO-8859-8, ISO-8859-9, PC856, PC3848(ABICOMP), MONGOLIAN, VISCII
Graphics		Support bitmap printing with different density and user defined bitmap printing (Max. 196K for total)
Barcode	1D	UPC-A, UPC-E, CODE39, CODE93, CODE128, EAN128, EAN8, EAN13, Interleaved 2 of 5
	2D	QR Code, PDF417
Detection	Sensor	Paper end, cover opening, cutter jam, TPH over-temperature
LED indicator	Power indicator	Blue
	Paper indicator	Orange
	Error indicator	Red

Item		Parameter
Power supply	Input	AC100V-240V 50/60HZ
	Output	DC 24V±5%, 1.5A
Paper	Paper Loading	Easy-loading structure of upward open cover
	Paper Type	Standard thermal paper
	Paper Width	57.5±0.5 / 79.5±0.5mm
	Paper Thickness	0.056~0.13mm
	Paper Roll Diameter	83mm Max.
Condition	Operating	0~45℃ / 5~95%RH No condensation
	Storage	-20~70℃ / 15~95%RH No condensation
Reliability	TPH Life	100km
	Cutter Life	1,200,000 times
Emulation		ESC/POS
Packing Information	Printer Dimension (W*D*H)	140mm*179mm*117mm
	Accessories	Power adaptor, Power Cord, Quick Guide, USB Cable
Driver		Windows 7/8/10/11, Windows Server 2019 Linux, Javapos, OPOS, MacOS

## **3.2 Printing Media Specification**

### **3.2.1 Continuous Thermal Paper Specification**

Paper Type : Standard thermal paper

Paper Width : 57.5±0.5 / 79.5±0.5mm

Paper Outer Diameter : Max. 83 mm

Paper Thickness : 0.056~0.13mm

### **3.2.2 Notices**

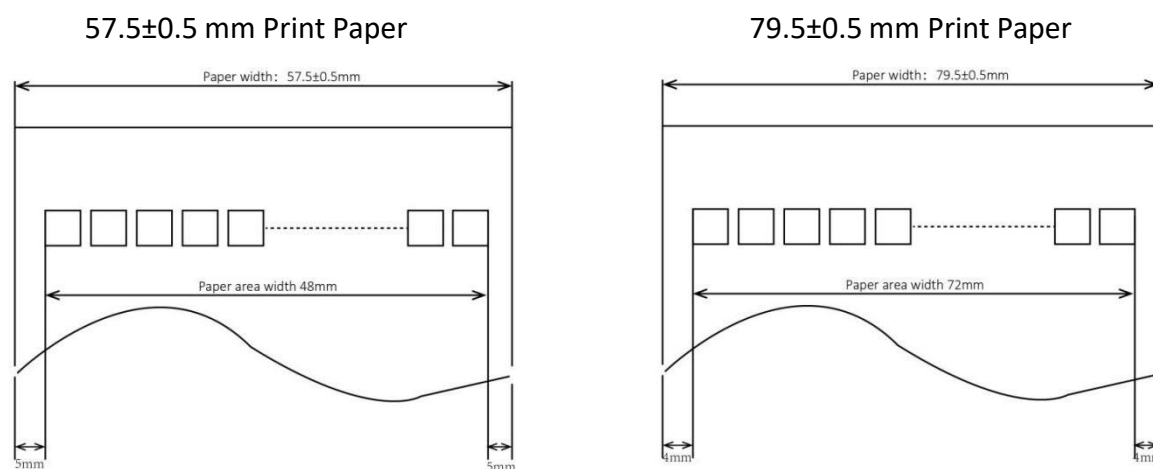


**Notes:**

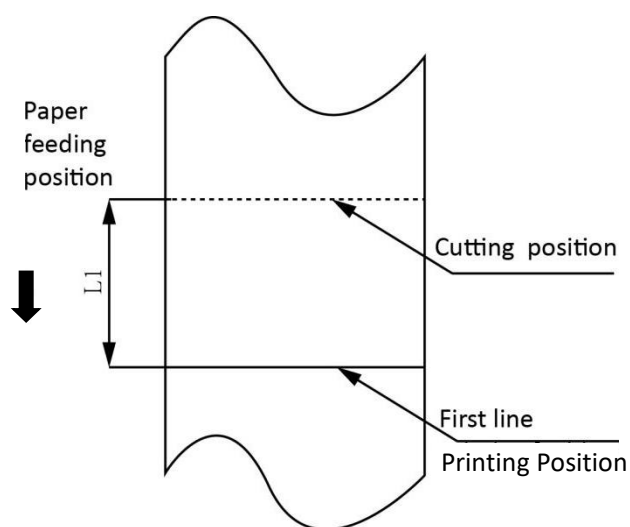
- 1) Please use the recommended thermal paper or same quality paper, otherwise it will influence the printing quality and decrease the thermal printer head life;***
- 2) Don't stick the paper on the core of paper roll.***
- 3) If the thermal paper is polluted by chemical or oil, the thermal paper heat sensibility would decrease, which would influence the printing quality;***
- 4) Don't use finger nail or hard articles to touch the surface of thermal paper, otherwise it will cause color fading;***
- 5) When the environment temperature is higher than 70°C, the thermal paper color will fade, so pay attention to the influence of temperature, humidity and sunlight.***

## 3.3 Printing and Cutting Position

### 3.3.1 Printing Position



### 3.3.2 Cutting Position

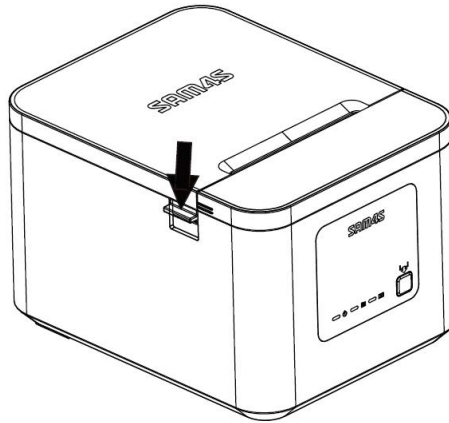


Type	Paper Cutting Position(L1)
HCUBE-102D	8.5mm

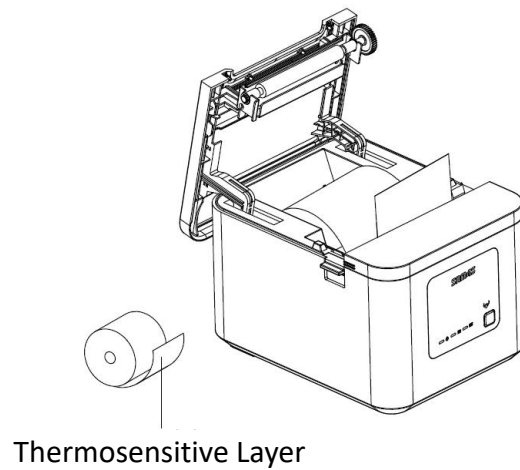
## 4 INSTALLATION AND USAGE

### 4.1 Media Loading

- 1) Press the cover opening button to open the top cover.

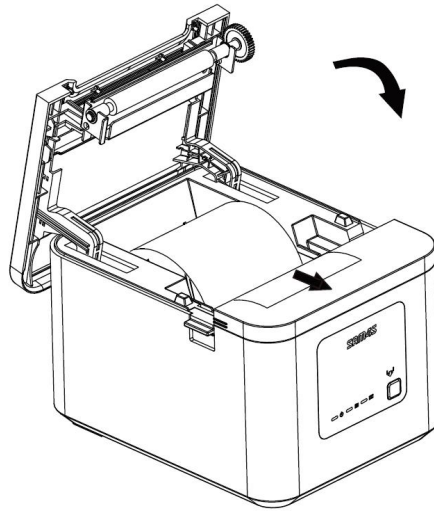


- 2) Load the roll paper in the correct direction.

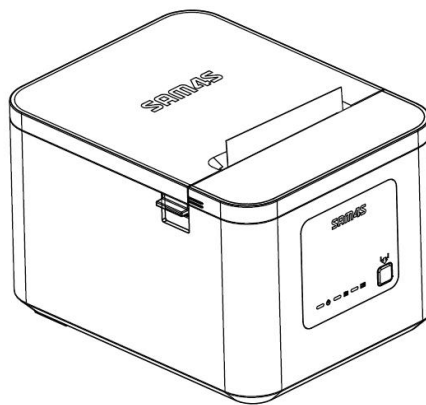




- 3) Pull out some roll paper and close the printer cover.

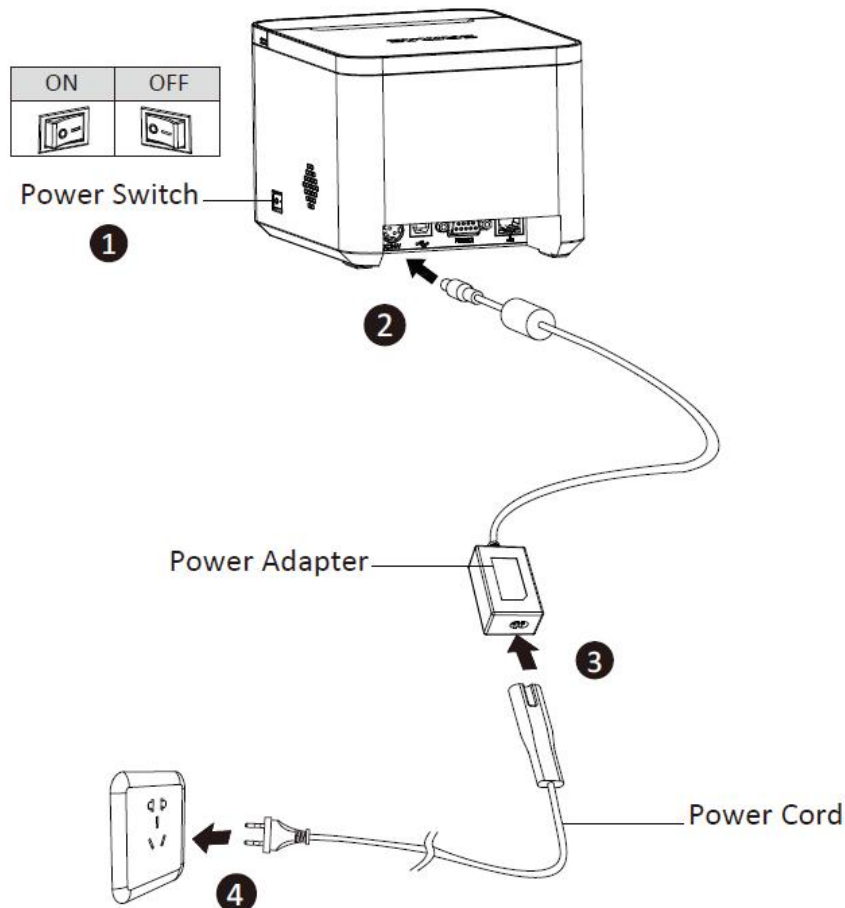


- 4) Tear the extra paper.



## 4.2 Power Connection

- 1) Make sure the printer power is turned off.
- 2) Connect power adapter with printer.
- 3) Connect power adapter with power cord.
- 4) Plug the other side of power cord into the socket outlet.



**Notes:**

- 1) The power adapter and power cord vary by country or region.
- 2) Disconnect or connect the power adapter by correct method, or damage may be caused.
- 3) Please choose AC 220V input voltage. If the input voltage is incorrect, the printer may be damaged.



**Notes:**

- 1) Please only use the power adapter recommended by supplier or equivalent products.
- 2) When disconnecting the power adapter plug, handhold plug connector shell to avoid the

*pulling on the cable in force.*

*3) Avoid dragging the power adapter cable, otherwise it will damage the cables, causing fire and shock.*

*4) Avoid putting power adapter around a heating device, otherwise the cable may melt, causing fire and shock.*

*5) If you do not use the printer for a long time, disconnect the power supply of printer power adapter.*

### **4.3 Cash Drawer Connection**

1) Make sure the printer's power switch is turned off;

2) Connect the cash drawer cable into the cash drawer interface on the rear side of the printer.



**Warning:**

*Cash drawer interface can only be connected to a voltage of 24V cash drawer device (can't connect to the phone line, etc.)*

## 4.4 LED Indicator and Beeper

Function specification of indicated light and beeper.

LED Name	LED Status	Printer Status
POWER LED (Blue)	ON	The printer works well.
	OFF	The printer is power off.
ERROR LED (Red)	Flash	The printer is in error status.
	OFF	The printer is in normal status.
PAPER LED (Orange)	ON	The printer is in paper end status. The printer cover is open.
	OFF	The printer is in normal status.

Error Description	POWER LED	ERROR LED	PAPER LED	Beeper
cover opening	ON	ON	ON	"Beep ,Beep--,Beep"
Paper End	ON	ON	ON	"Beep, Beep, Beep"
Cutter Jam	ON	Flash	OFF	"Beep—, Beep—"
TPH over-temperature	ON	Flash	OFF	"Beep ,Beep--,Beep"
Over-voltage / Low-voltage	ON	Flash	OFF	"Beep, Beep, Beep"



**Note:** The printer uses a thermistor to detect the temperature of the print head. If the temperature of print head is higher than 65℃, printer will send a warning. If the temperature of print head is higher than 80℃, printer will stop working until the temperature is lower than 60℃.

## **4.5 Print Test**

### **4.5.1 Print Self-Test**

The self-test checks the printer's current settings, status and whether the printer has any problem.

- 1) Make sure the power is connected and paper is loaded properly.
- 2) Make sure the printer is off and top cover is closed properly.
- 3) Press the paper feed button and power button simultaneously to turn the printer on. The printer is ready to receive data as soon as it completes the self-test.

### **4.5.2 Printing of Windows Driver Program**

- 1) Install the Windows Driver program.

Please refer to the Windows Driver Instruction at Chapter 9.

- 2) Please set the "Ports" as the type you use.
- 3) Use the Windows Driver Program to print out the "Print Test Page".

## 5 INTERFACES

HCUBE-102D supports Ethernet, cash drawer and USB interfaces.

### 5.1 USB

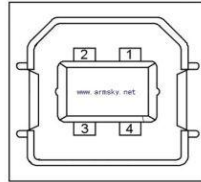


Figure 5-1

PIN NO.	SIGNAL NAME
1	VBUS
2	D-
3	D+
4	GND

### 5.2 Cash Drawer Interface

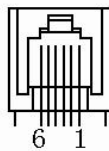


Figure 5-2

PIN NO.	SIGNAL NAME
1	FG
2	Drawer 1
3	DRSW
4	VDR
5	Drawer 2
6	GND

#### Electrical characteristics

- Driving voltage: DC 24V
- Driving current: Maximum 0.8 A ( In 510 ms)

Detection signal for drawer status: “L” = 0 ~ 0.5 V      “H” = 3 ~ 5 V

## 5.3 Power Port Connector

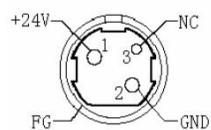


Figure 5.3

PIN NO.	SIGNAL NAME
1	+24V
2	GND
3	N.C
SHELL	F.G

## 5.4 Serial Interface

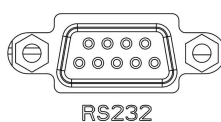


Figure 5.4

PIN NO.	SIGNAL NAME
1	-
2	TXD
3	RXD
4	-
5	GND
6	DTR
7	-
8	RTS
9	-

## 5.5 Ethernet Interface

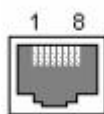


Figure 5.5

PIN NO.	SIGNAL NAME
1	TX+
2	TX-
3	RX+
4	n/c
5	n/c
6	RX-
7	n/c
8	n/c



**Note:** The printer is equipped with an Ethernet interface, and use the network connection router, switch and other network communication equipment which meet RJ45 interface standard. When connecting directly with PC, it is suggested that the cross network line in accordance with RJ45 interface standard should be adopted.



## 6 TROUBLESHOOTING

Your printer is very reliable, but occasionally problems may occur. This chapter provides information on some common problems you may encounter and how to solve them. If you encounter problems that you can not resolve, contact your dealer for assistance.

### 6.1 Printer Not Working

Problem Description	Probable Reason	Solution
LED is not on, printer is not working	Printer has no power	Connect to the power supply
	Printer is not on	Turn on the printer
	Circuit board is broken	Contact with the dealer

### 6.2 LED Indicator and Beeper Alarm

Problem Description	Probable Reason	Solution
Error LED and paper LED are always on and beeper alarms	Printer cover is open	Close the printer cover
	Paper end	Reload the roll paper
Error LED blinks and beeper alarms	Thermal print head is overheated	Turn the printer off and resume when it cools
	Over-voltage	Print with specified voltage
	Low-voltage	Print with specified voltage
	Cutter jam	Restart the printer. ( Or refer to 6.5 )

### 6.3 Troubles Occur During Printing

Problem Description	Probable Reason	Solution
Blurred printing or spot	Incorrect roll paper loading	Check if the roll paper is loaded.
	Unqualified roll paper	Use recommended thermal roll paper.
	Dirty thermal head or print roller	Clean the thermal head or print roller.
	Low print density	Increase the print density level.
Paper is not feeding normally	Paper is jammed	Open the printer cover, and check the paper path and remove jammed paper.
Vertical print words are missing	Dirty thermal head or print roller	Clean the thermal head or print roller.
	Thermal head is damaged	Contact with your dealer for assistance.

### 6.4 Problems Emerge During the Paper Cutting

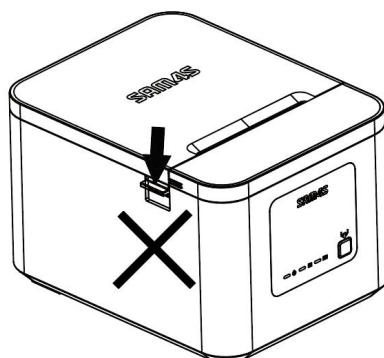
Problem Description	Probable Reason	Solution
Cutter jam, the movable cutter cannot go back	Cutter abrasion, insufficient cutting	Replace the cutter.
	Worm gear and worm wheel abrasion	Replace the worm gear and worm wheel.
	Motor is burnt	Replace the motor.
	Paper scraps	Clean the paper scraps on the transmission system.
Insufficient cutting	Cutter edge abrasion, paper is too thick	Replace the cutter.
Paper jam	Thermal printer head is over heated	Reduce the density of printing.
	Driving too fast	Reduce the printer speed to the limit of thermal printer head.
	Wrong paper feeding position	Put the paper parallel with the paper mount and insert into the space between platen roller and the thermal printer head.



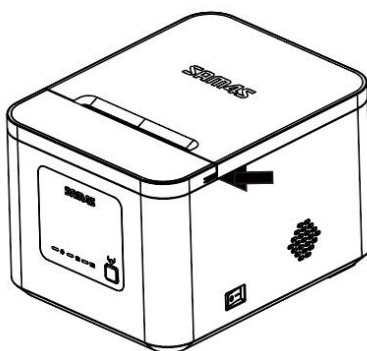
**Note:** About the density setting, pls refer to Utility Tool for POS Instruction at chapter 8.

## 6.5 Troubleshooting for Cutter Jam

1) When cutter jam occurs, do not press the cover opening button to avoid damaging the blade.



2) Fix the printer by one hand and press either side of the convex bars by the other hand. Push up and open the front cover.



3) Please rotate the gear until the blade returns to its normal position, as shown in Figure 2.

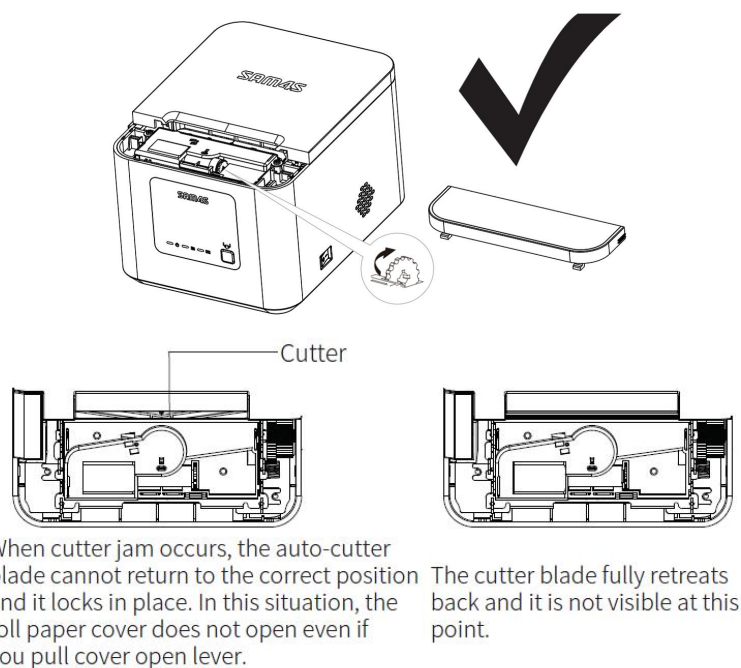


Figure 1

Figure 2

## 7 PRINTER CLEANING AND MAINTENANCE

Print quality might be degraded by dust, foreign substance, adhesive substance, or other pollution materials stuck in the printer head or inside the printer.

When dirty, clean the print head as following steps:

### ※ CAUTION

- 1) Make sure to turn off the printer prior to cleaning.
- 2) As the print head gets hot during printing, turn the printer off and wait approximately 2~3 minutes before starting to clean.
- 3) When cleaning the print head, take care not to touch the heated portion of the print head.

Print Head is susceptible to damage from static electricity, etc.

- 4) Take care not to allow the print head become scratched and/or damaged in any way.

### 7.1 Cleaning Head

- 1) Open the printer cover and then use cotton stick with medical alcohol to clean the head in the direction from the center of the head to the edges.
- 2) After cleaning the head, do not use the printer until the alcohol used for cleaning evaporates completely (1~2 min.) and the printer has completely dried.

### 7.2 Cleaning Sensors, Roller and/or Paper Path

- 1) Open the printer cover and then remove the paper.
- 2) Remove any dust or foreign substance using dry cloth or cotton swab.
- 3) Soak the cloth or cotton swab in alcohol for medical use and use it to remove adhesive foreign substances or other pollution materials.
- 4) After cleaning the parts, do not use the printer until the alcohol evaporates completely (1~2 min.) and the printer has completely dried.

※ ***Clean the parts whenever print quality or paper detection degraded.***

## **8. UTILITY TOOL FOR POS INSTRUCTION**

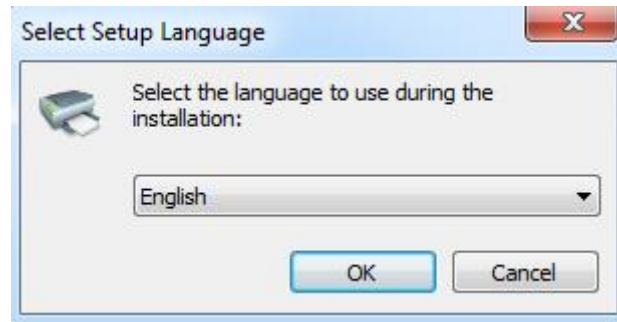
Utility Tool is applicable to the following operating system:

- Microsoft Windows 10 (32 bit/64 bit)
- Microsoft Windows 8 (32 bit/64 bit)
- Microsoft Windows 7 SP1 (32 bit/64 bit)

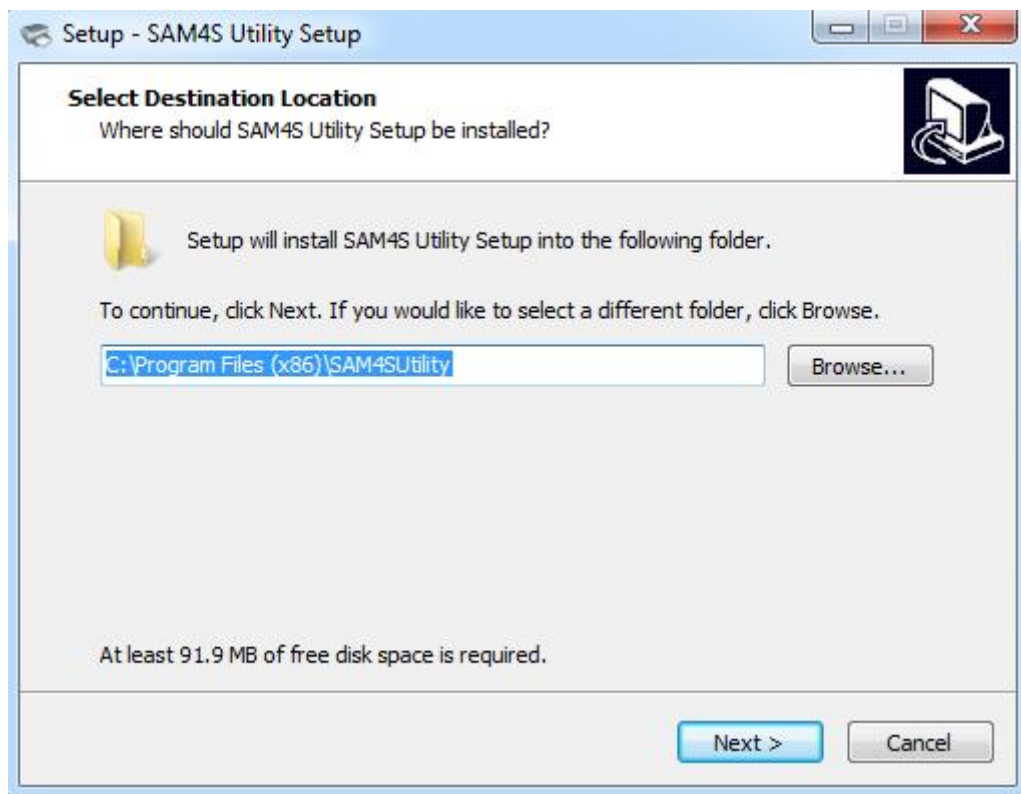
## 8.1 Utility Tool Installation

The following screens take Win 7 for example.

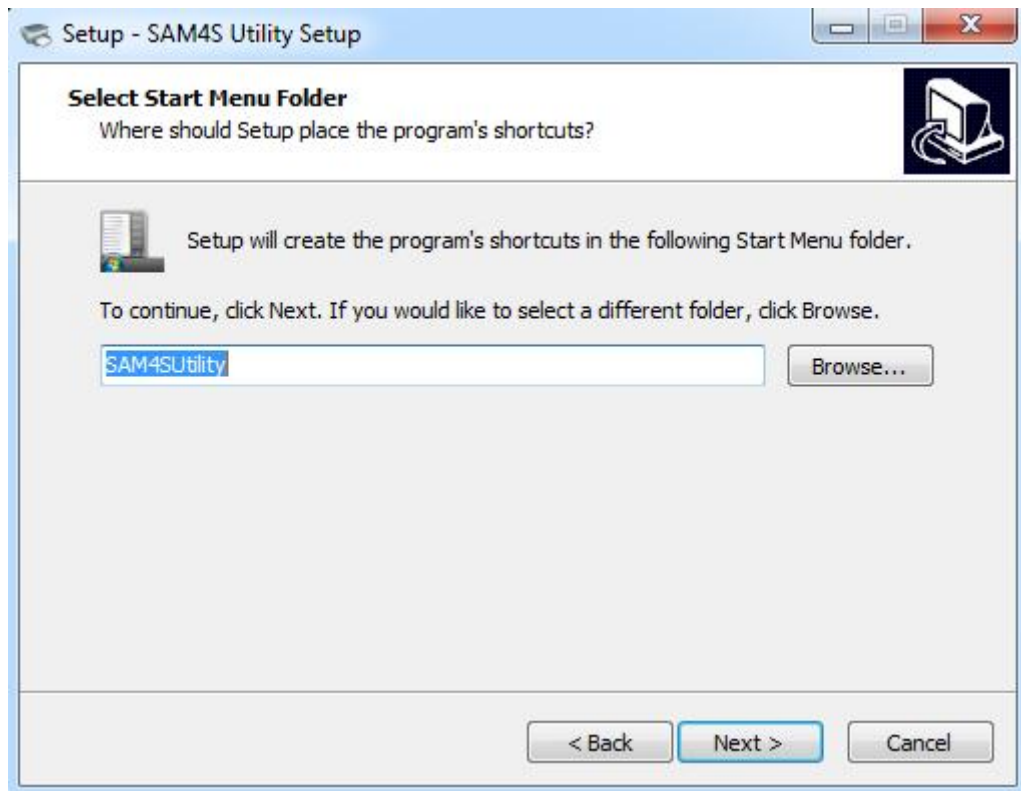
- 1) Open the installation package.
- 2) Choose “English” and click “OK”.



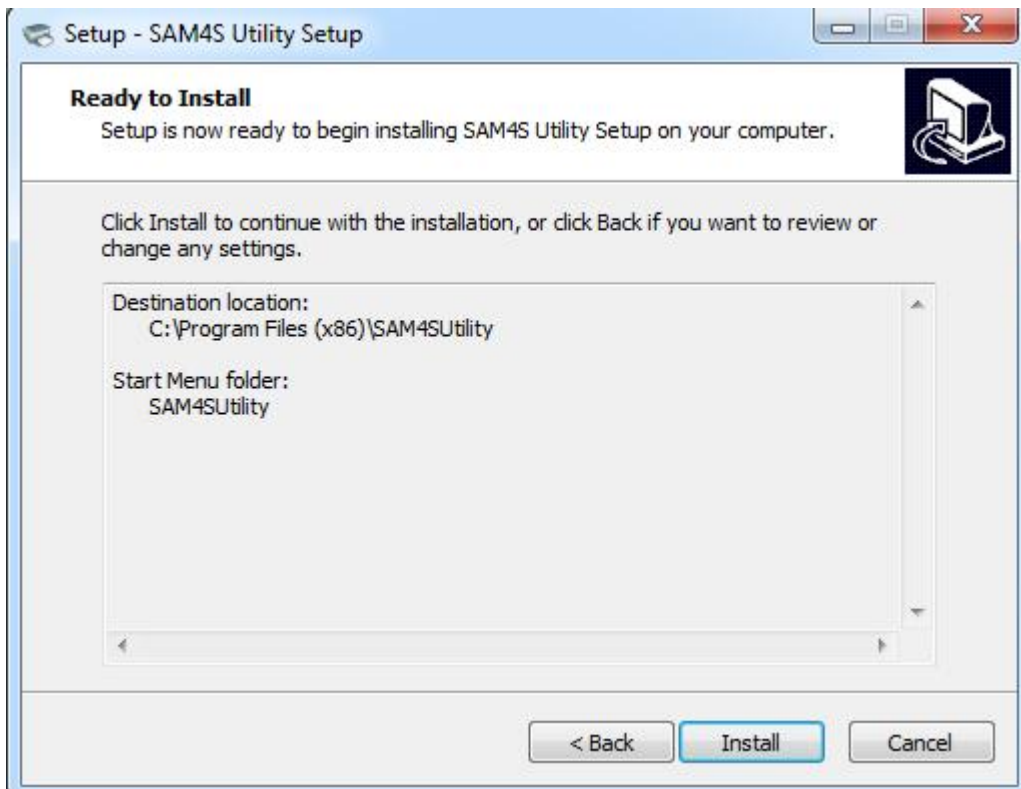
- 3) Click “Next”.



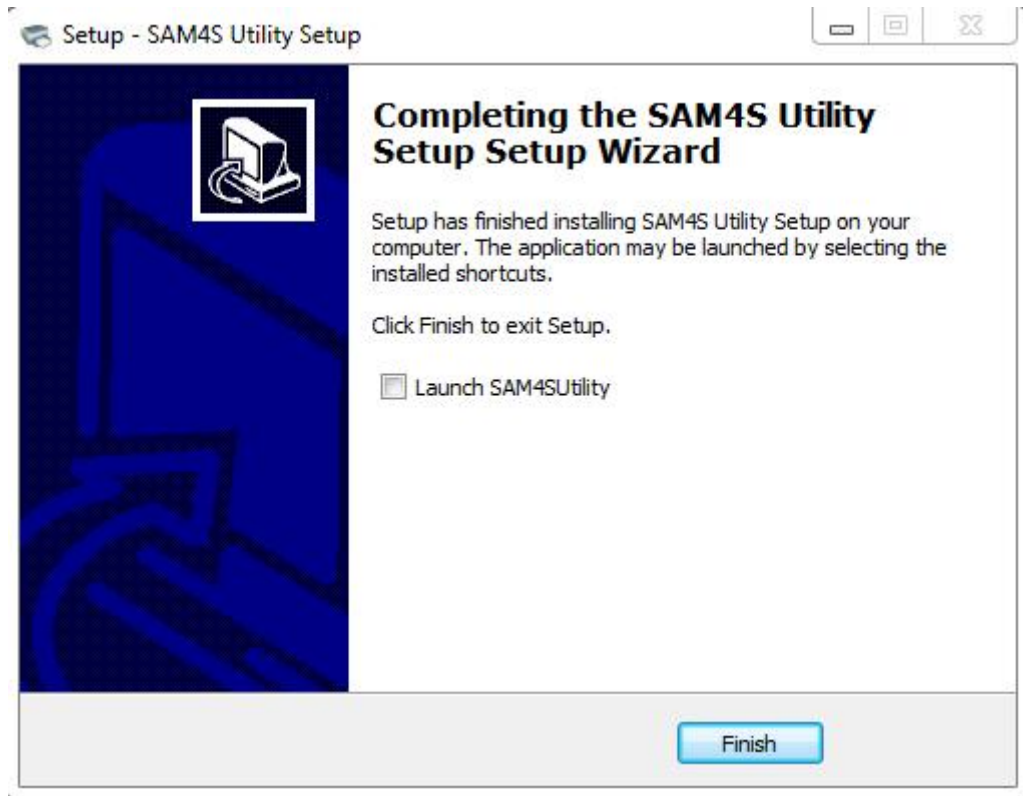
4) Select start menu folder. Click “Next”.



5) Click “Install”.



6) Click "Finish". Utility is installed successfully.





## 8.2 Using Utility Tool

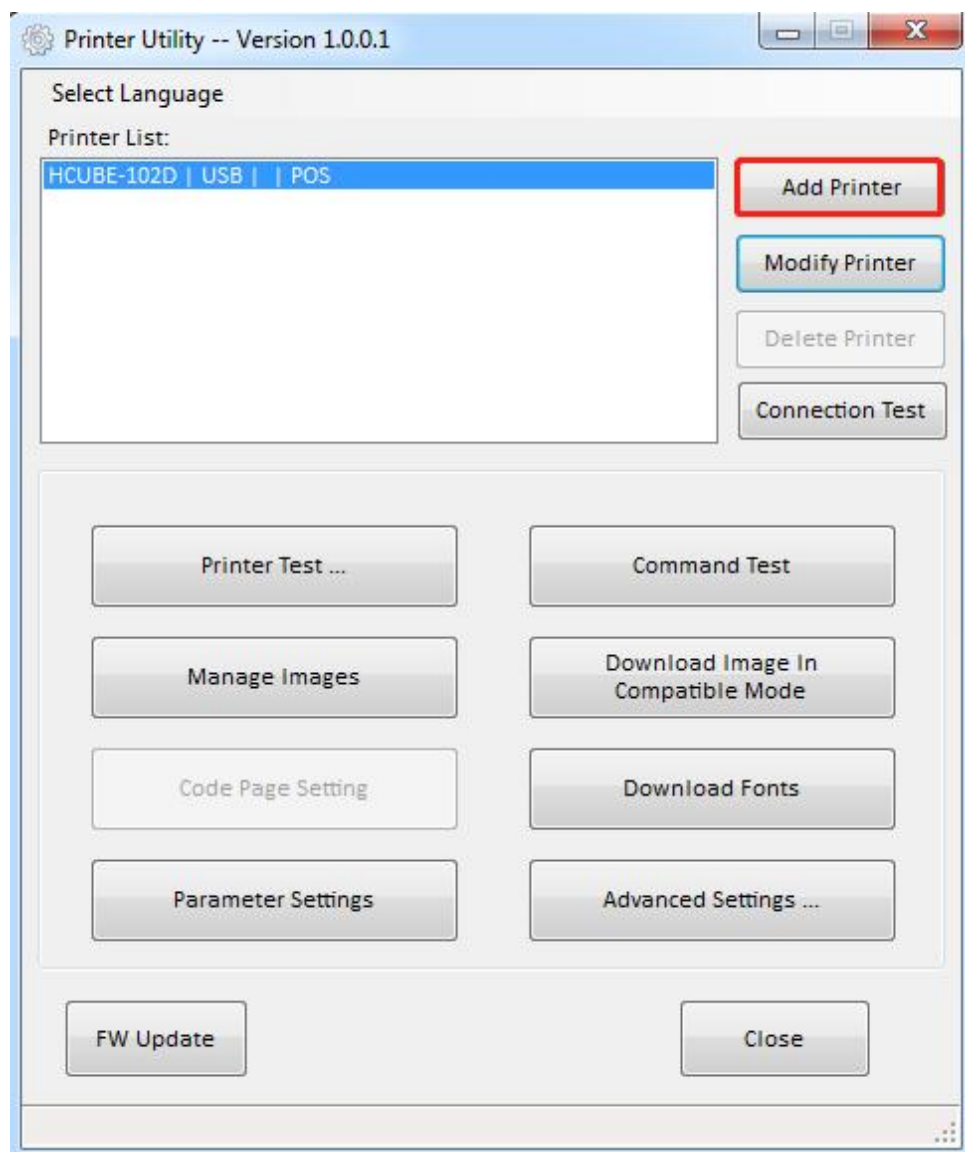


Warning: In different operating system, screen has a slight difference. Please operate it according to the tips. Take HCUBE-102D (Windows 7) for example.

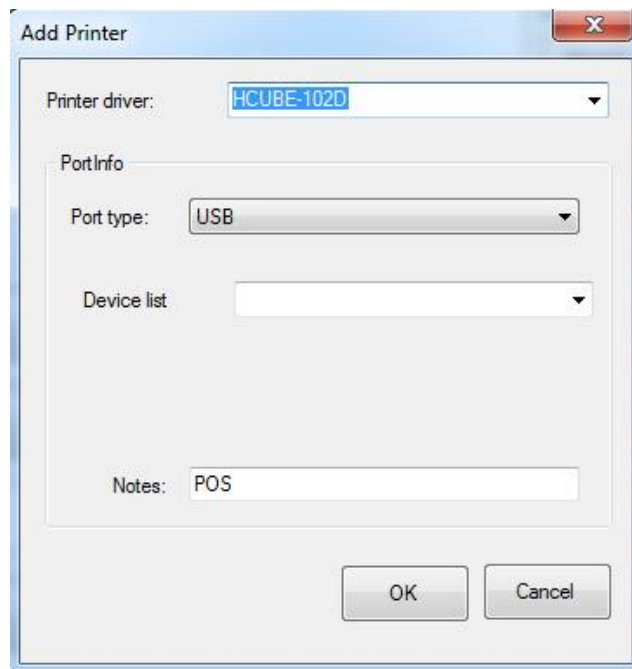
### 8.2.1 Add/Modify/Delete/Connect Printer

#### 8.2.1.1 Add printer

- 1) Click "Add Printer".

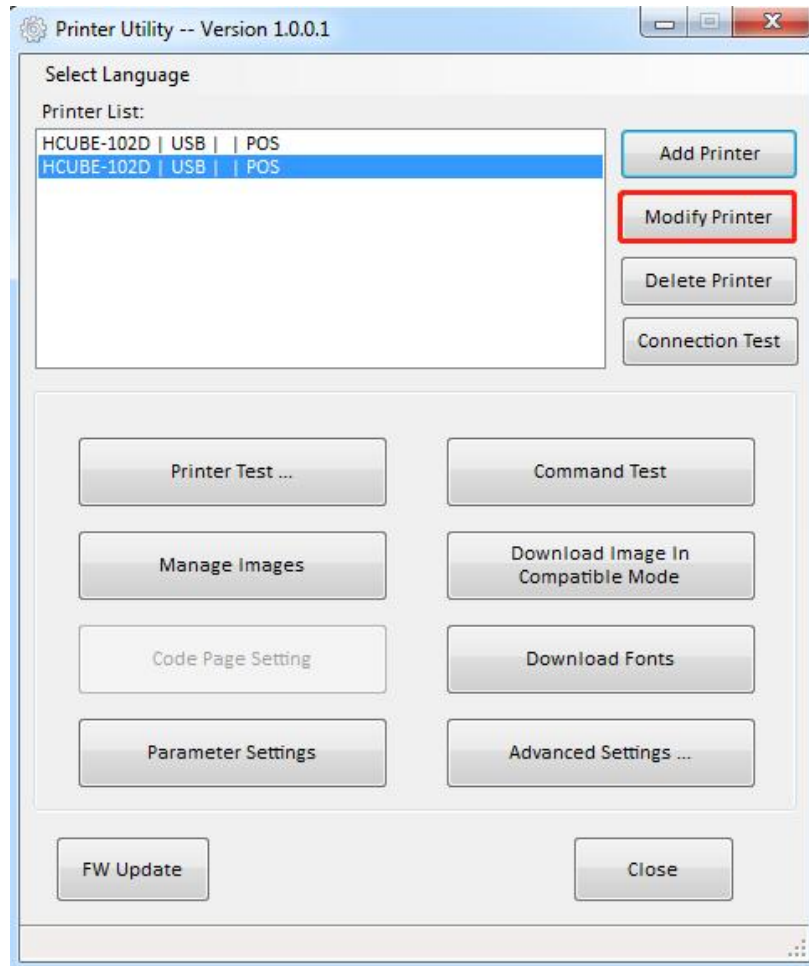


2) Choose the appropriate printer type and port. Then click “OK”. (Take HCUBE-102D for example.)

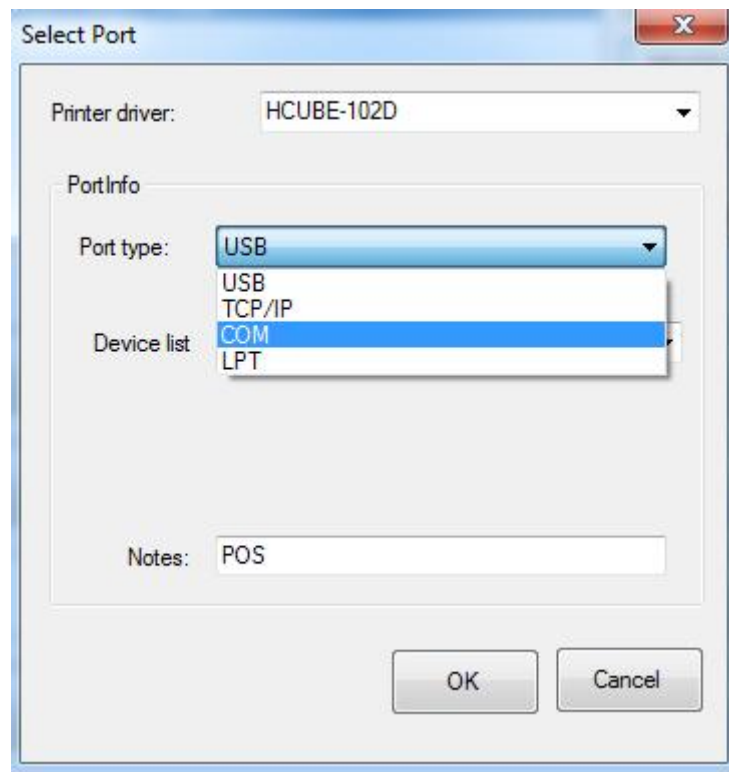


### 8.2.1.2 Modify printer

- 1) Choose the printer you want to modify in the list. Click “Modify Printer”.



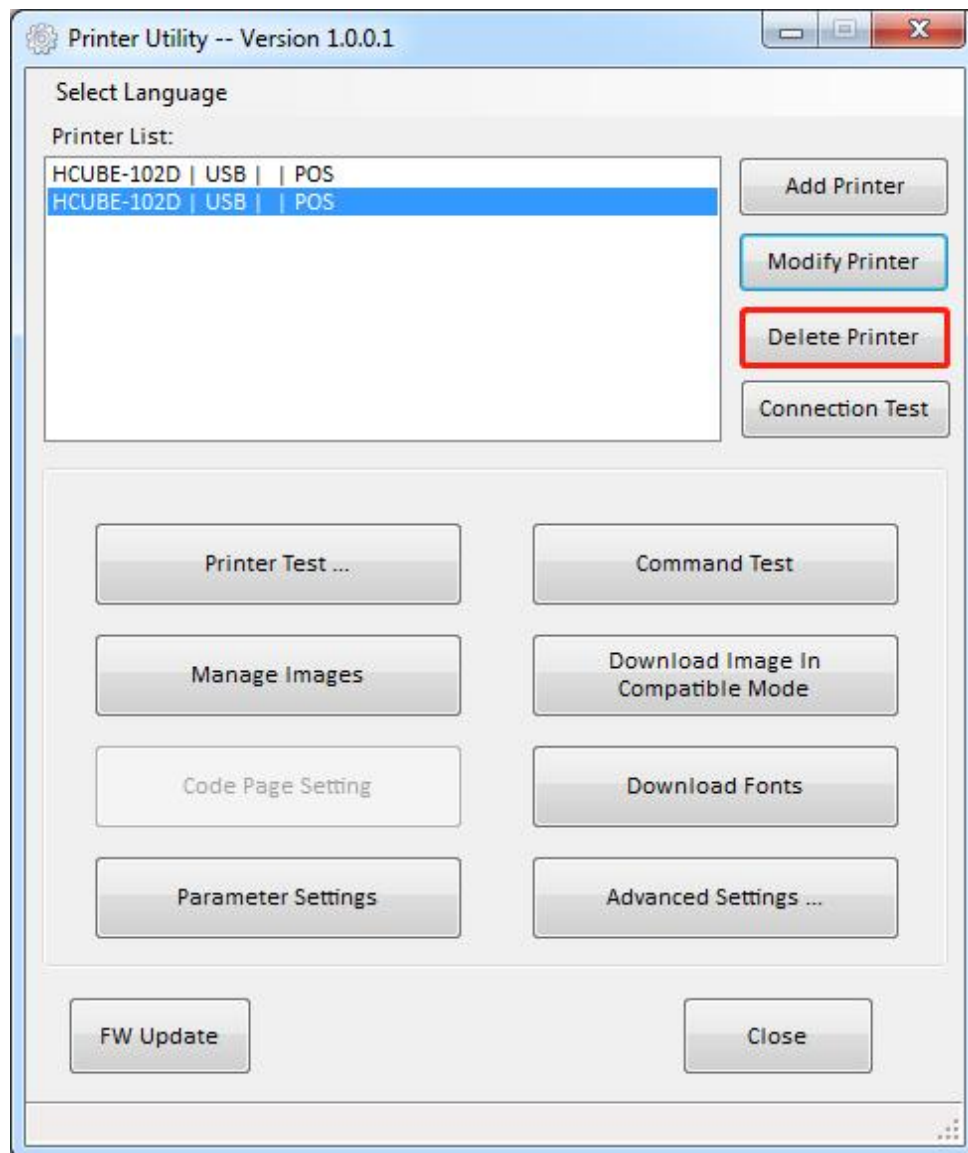
2) Choose the new printer and new port. Then click “OK”.



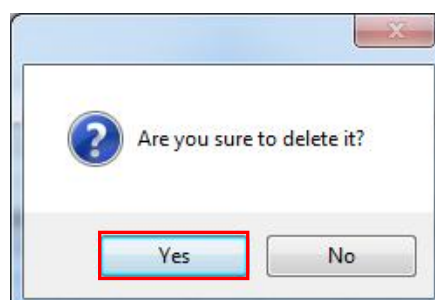
3) The new printer is added successfully.

### 8.2.1.3 Delete printer

- 1) Choose the printer you want to delete in the list and click “Delete Printer”.



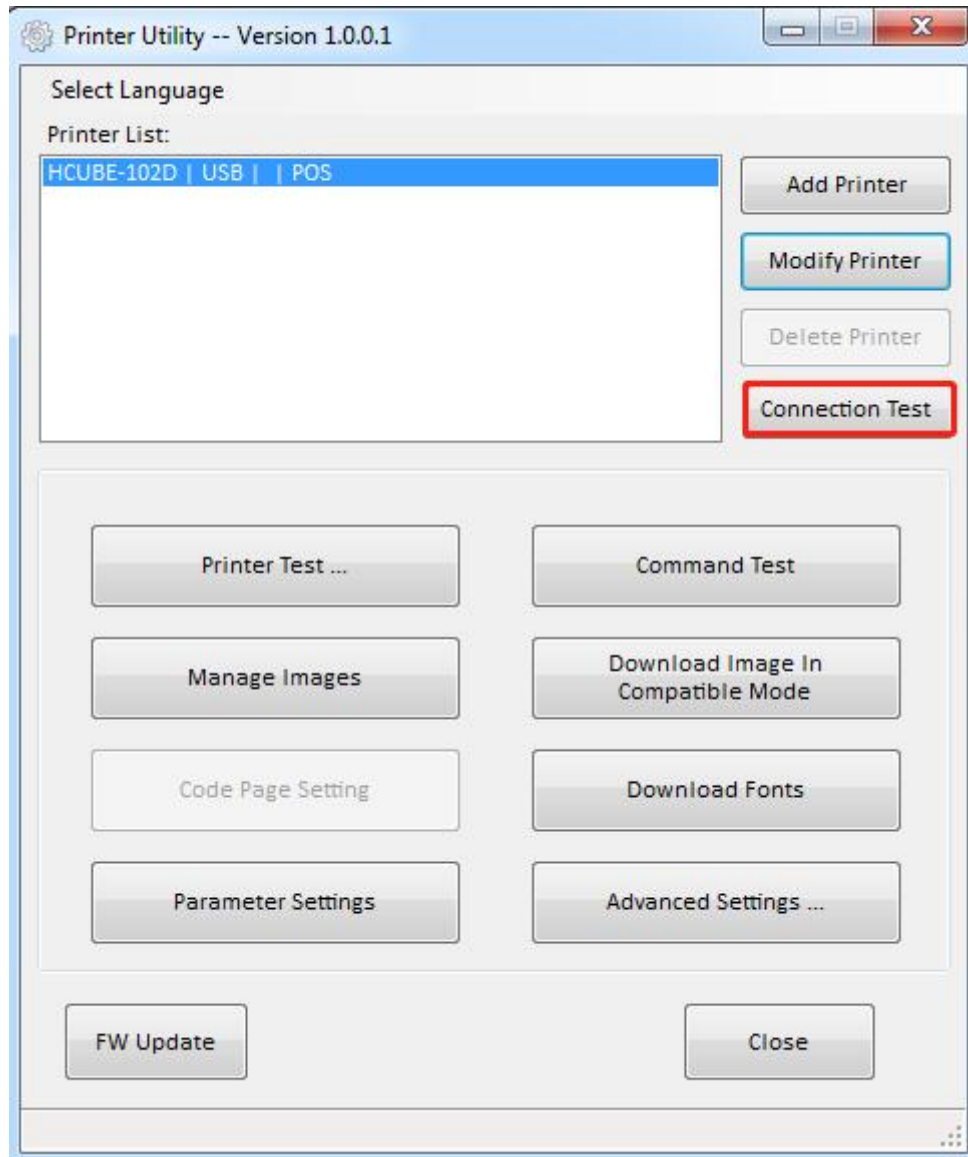
- 2) Click “Yes”, then the printer is deleted.



### 8.2.1.4 Connection Test

**Make sure printer is connected to computer and it is powered on.**

- 1) Choose the printer. Click “Connection Test”.



2) If the connection is successful, it will appear the following window. If the connection is unsuccessful, please connect the printer with computer.



**Notes:**

- 1) Make sure printer is connected with computer and power on.***
- 2) Make sure printer is loaded with paper.***
- 3) Before using the following function, carry out the "Connection Test" first.***

## 8.2.2 Functions

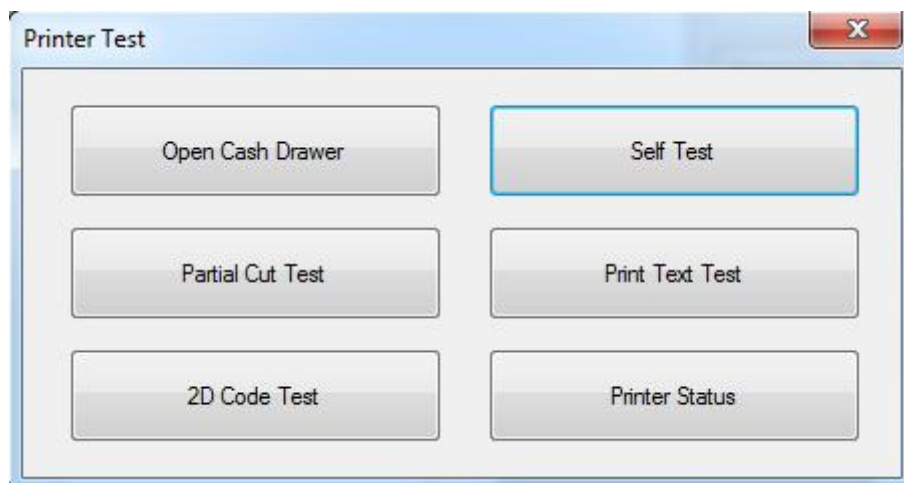
Printer Test contains the following items:

- Printer Test
- Command Test
- Manage Images
- Download Image in Compatible Mode
- Download Fonts
- Parameter Setting
- Advanced Settings

### 8.2.2.1 Printer Test

#### 1) Self Test

Click “Self Test” to see if the printer will print properly.

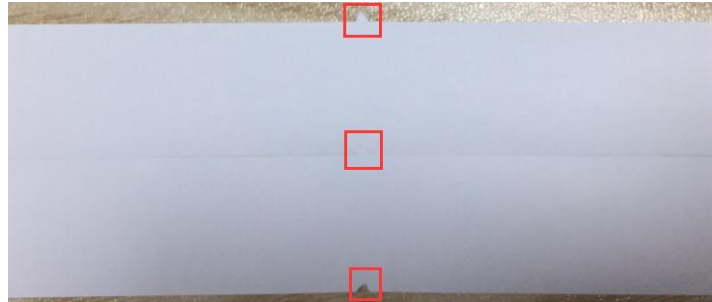




## 2) Cutter Test

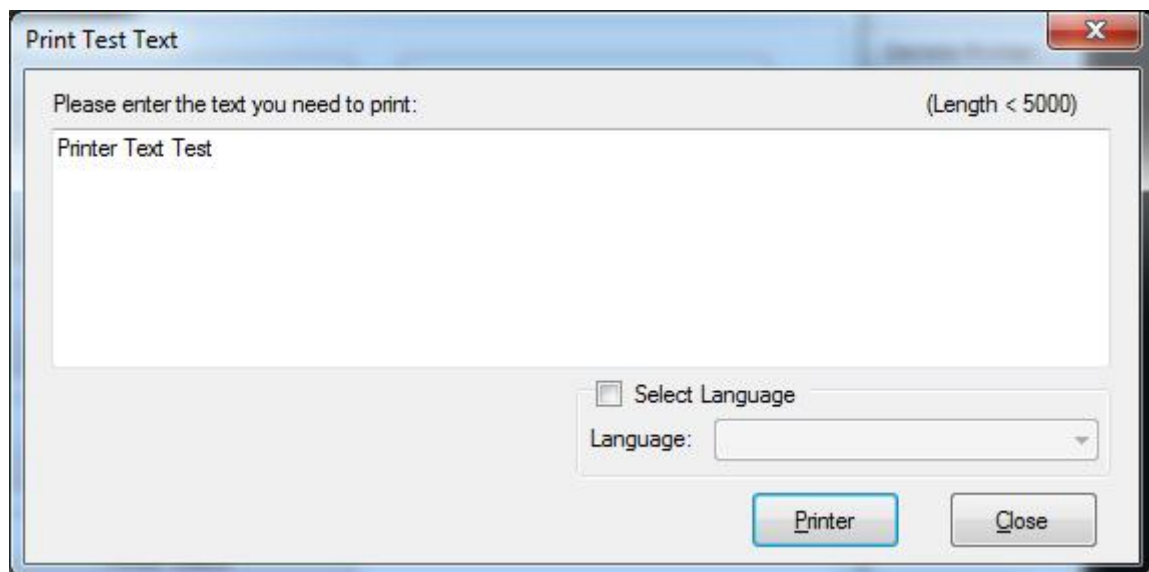
Click the cutter test and the paper will be cut automatically. Cutting method is partial cut (Partial cut: Not fully cut off, leave a connection point between the two sheets of paper).

As shown in the figure:



## 3) Print Test Text

Click "Print Test Text", input the text you want to print. When you click "Print", the printer starts printing text content. Such as: Print Text Test.

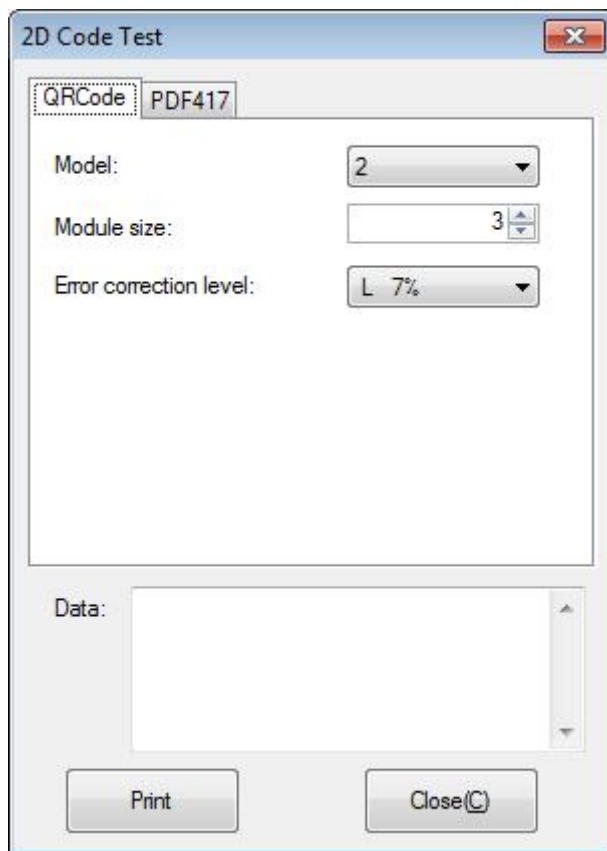


### **Note:**

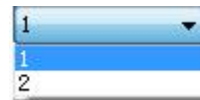
*The language option in the lower right corner is checked according to the input text. (For example: The input is Simplified Chinese, the language is checked for Simplified Chinese, the printer prints the input text according to the setting options, and if you check other languages, the printer does not print the text)*

### 4) 2D Code

Click the QRCode mode.



#### ▲ Model: 1~2

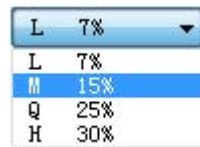


#### ▲ Module size: 1~16

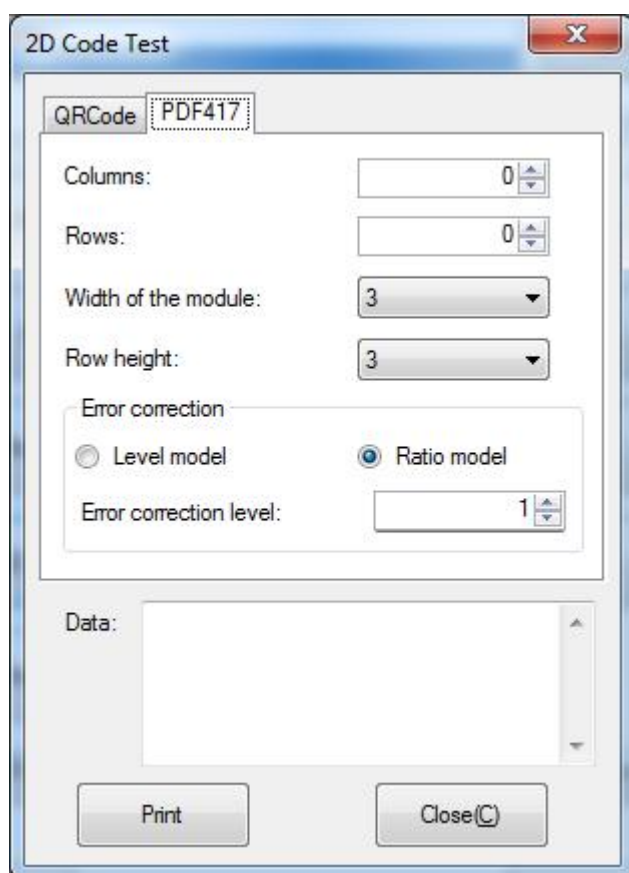
The larger the module value, the larger the printed QR code is, and the smaller the opposite.

#### ▲ Error correction level: 7%~30%

The higher the error correction level, the more intensive the module graphics.



Click the PDF417 mode.



▲ Columns: 0~30

▲ Rows: 0~90

▲ Width of the module: 2~6

The larger the module value, the wider the width of the printed PDF417 barcode, and the smaller the opposite.



▲ Row height: 2~8

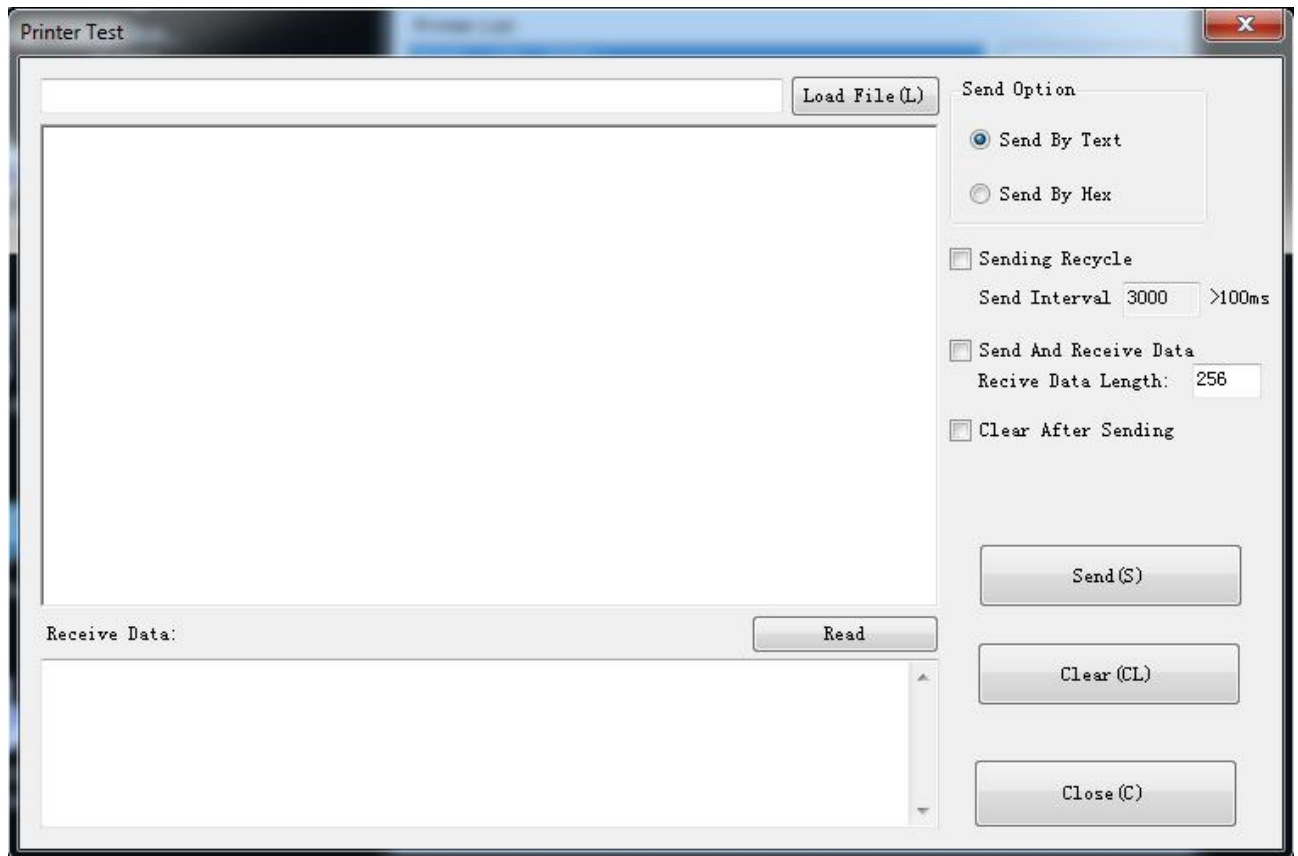
The larger the module value, the longer the printed PDF417 barcode, and the smaller the opposite.

▲ Error connection level

### 8.2.2.2 Command Test

In the command test, you can send command to the printer. Input text or hexadecimal data. Select a file or enter a command in the input box.

- 1) Click “Send by Text”, input text content.



**▲Sending Recycle:**

When the interval is set to 3000ms (you can set the interval as needed), then click “Send”, the printer starts to recycle printing. Click “Stop” to stop the recycle printing.

Send Option

☒ Send By Text

☐ Send By Hex

☒ Sending Recycle

Send Interval 3000 >100ms

☐ Send And Receive Data

Receive Data Length: 256

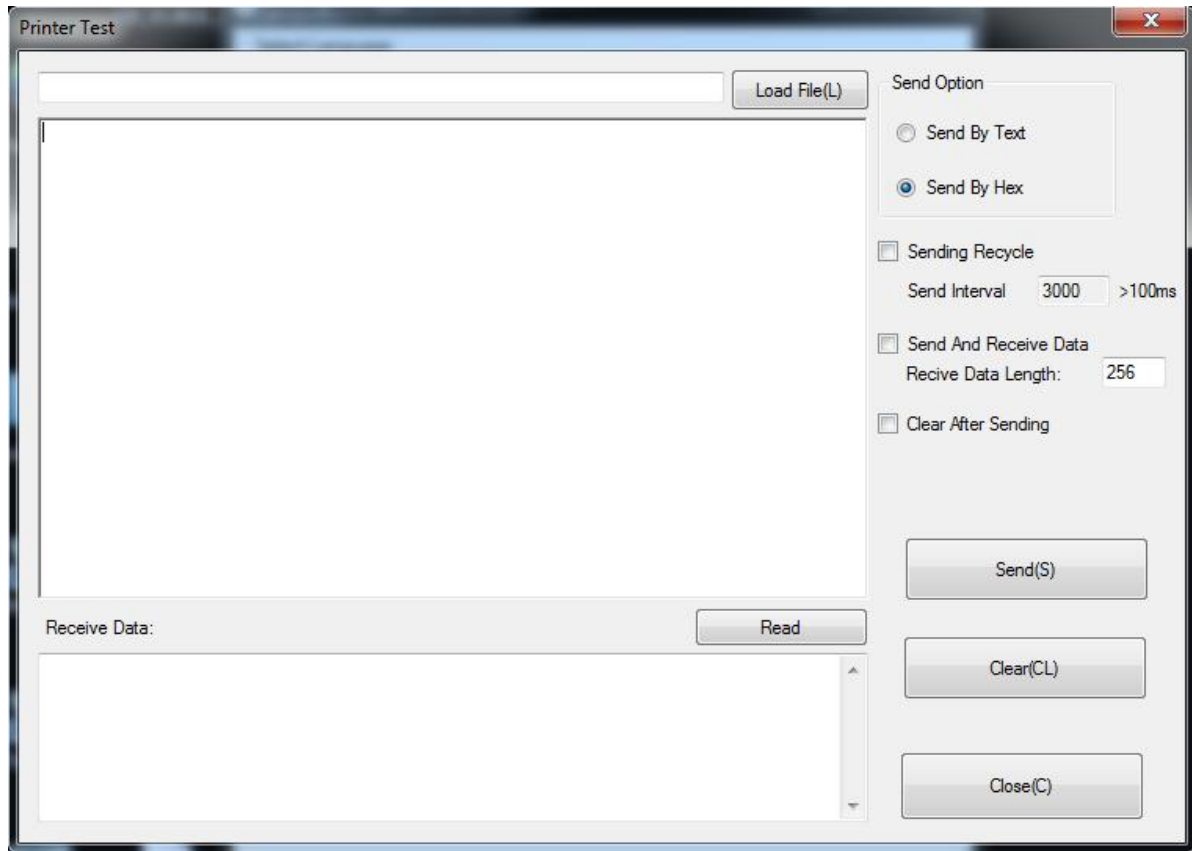
☐ Clear After Sending

Send (S)

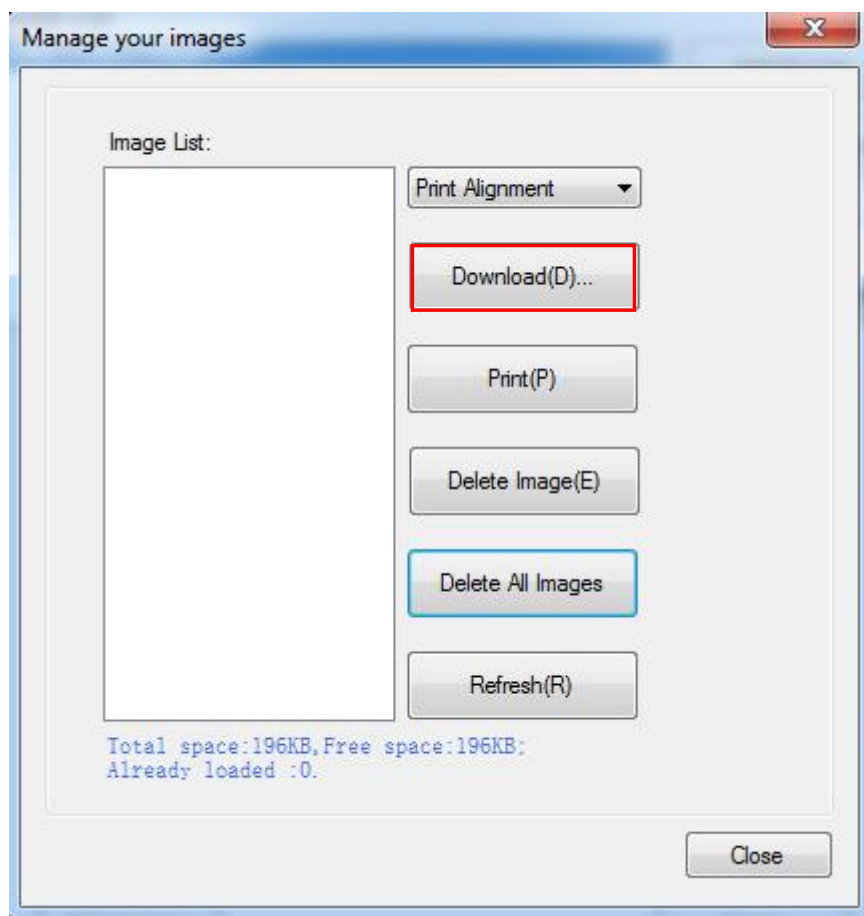
Clear (CL)

Close (C)

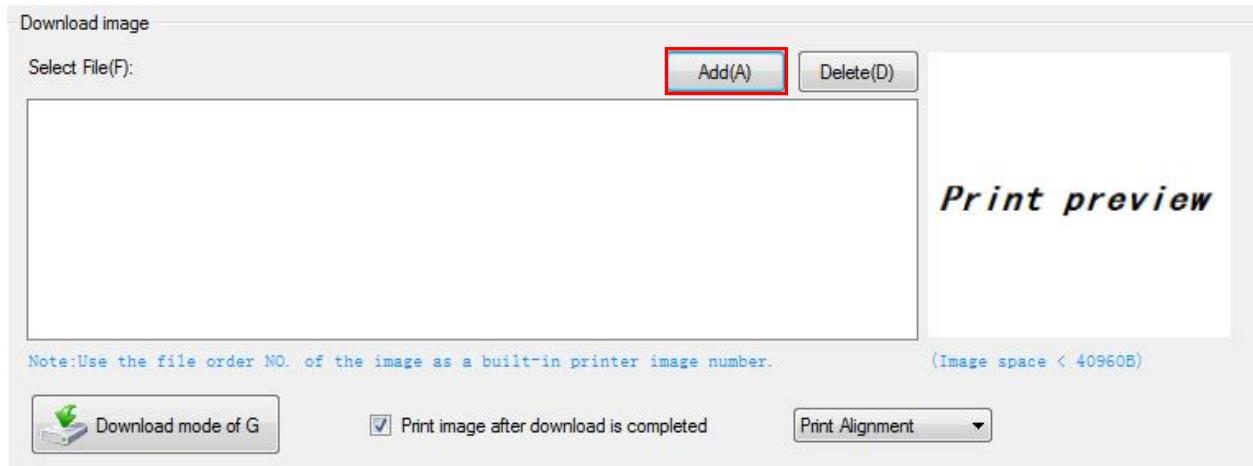
2) Click “Send by Hex”, input the content. (Convert text to HEX or send ESC command)



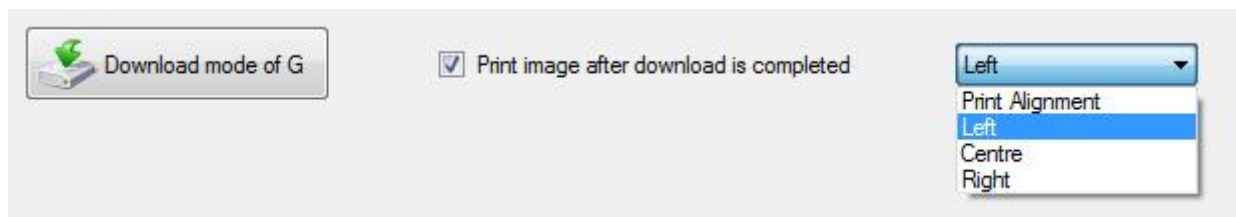
### 8.2.2.3 Manage Images



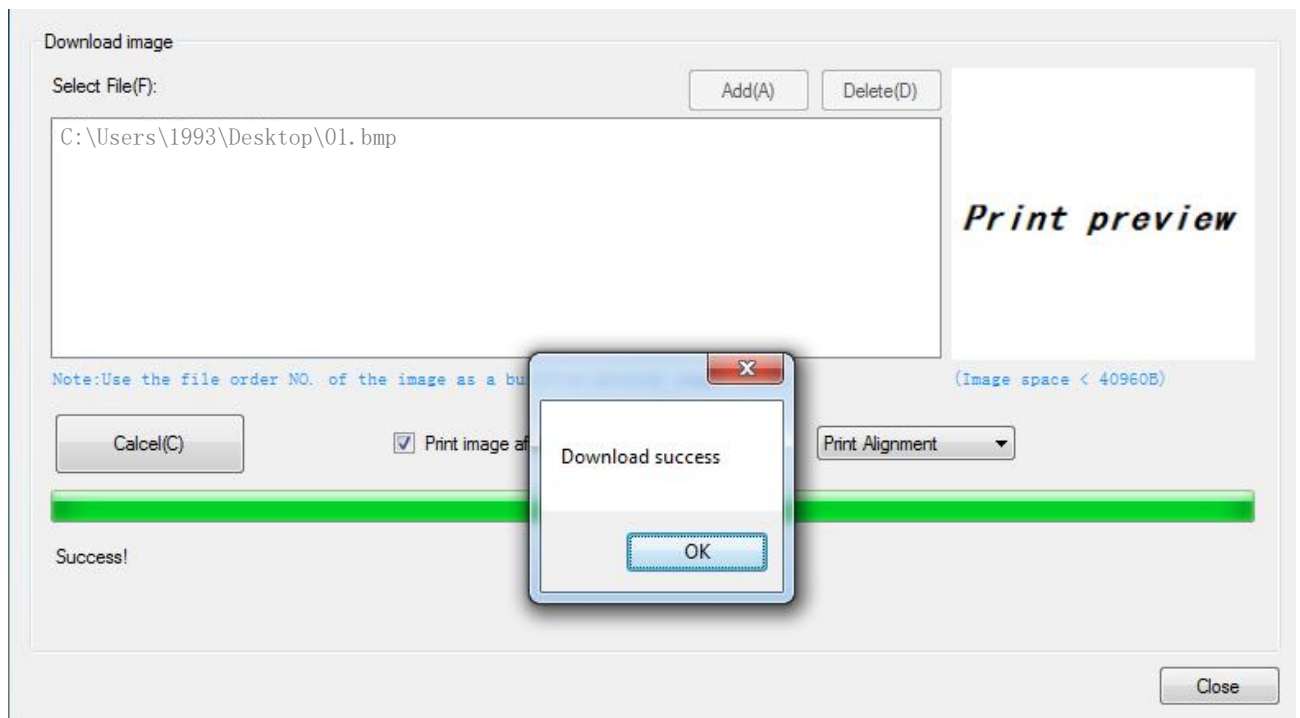
- 1) Click "Download" to add the image, if you want to print the picture, set the print location before clicking "Download mode of G" to print the picture. (It is recommended to use a picture in BMP format)



- 2) Select the print location, center, left, and right. (Such as, left print).





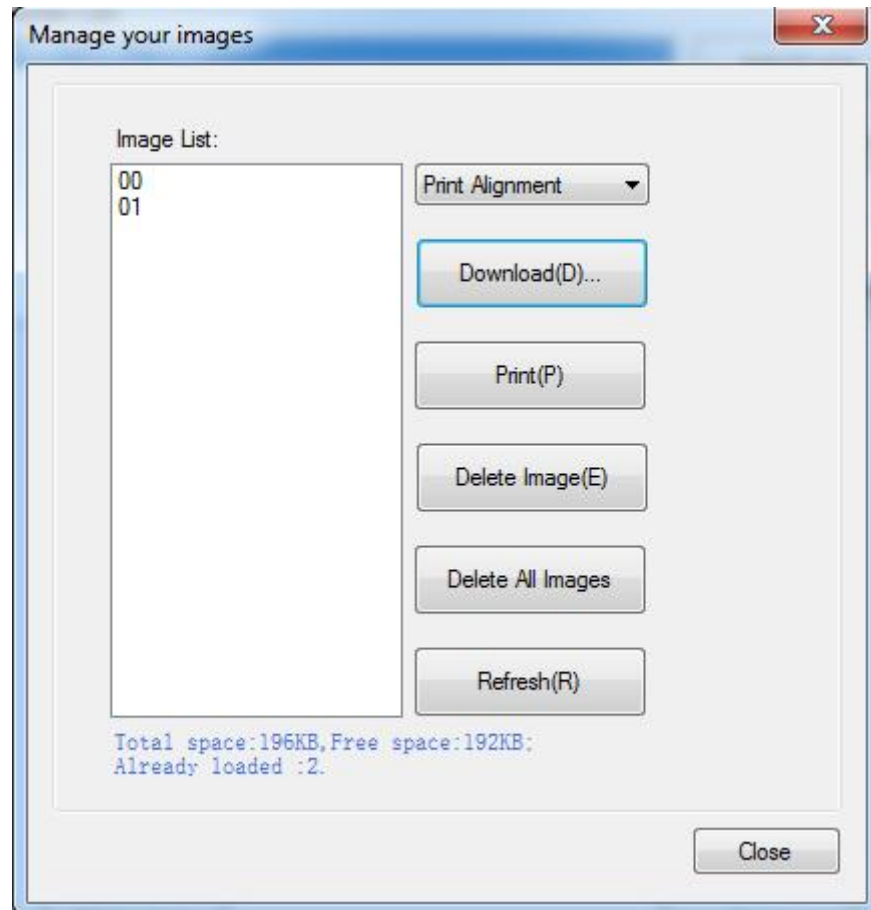


**Note:** Total memory for the bitmap is 196K.

## 3) Delete Image.



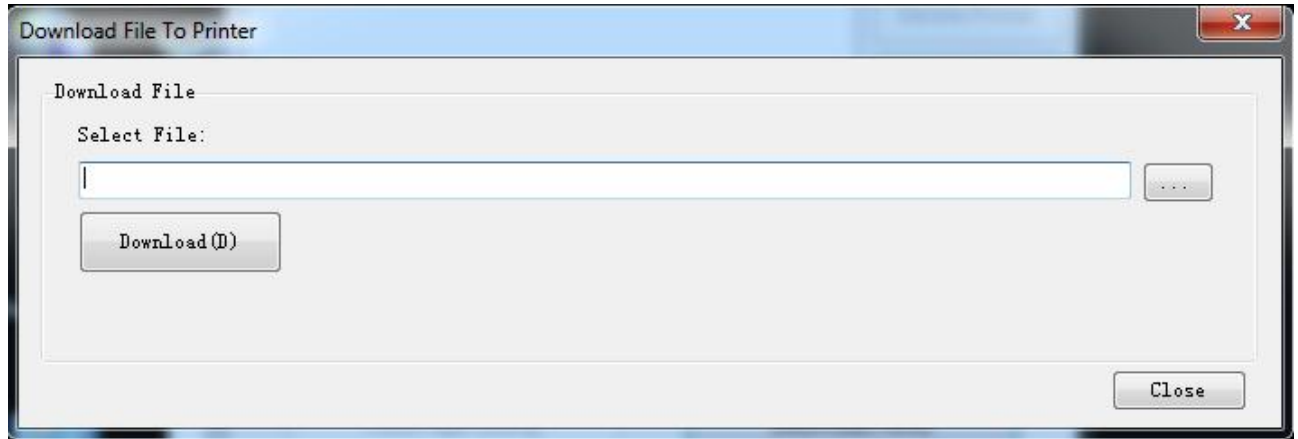
**Note:** Each time click "Download mode of G", an image list number will be generated.



Click the image list, select "Delete selected image" will delete the image, click "Delete all Images", without clicking the list option to delete all the images in the list.

### 8.2.2.4 Download Fonts

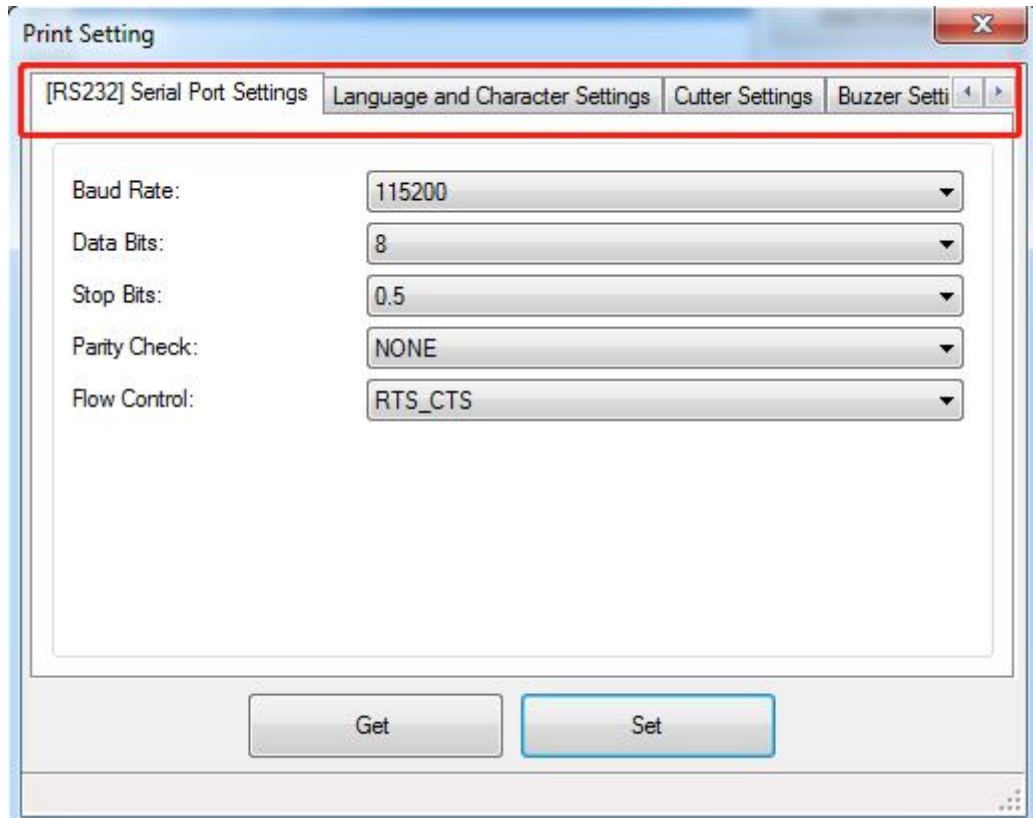
Select the font from the existing file and click "Download".



**Note:** After downloading the font successfully, you need to restart the printer to take effect.

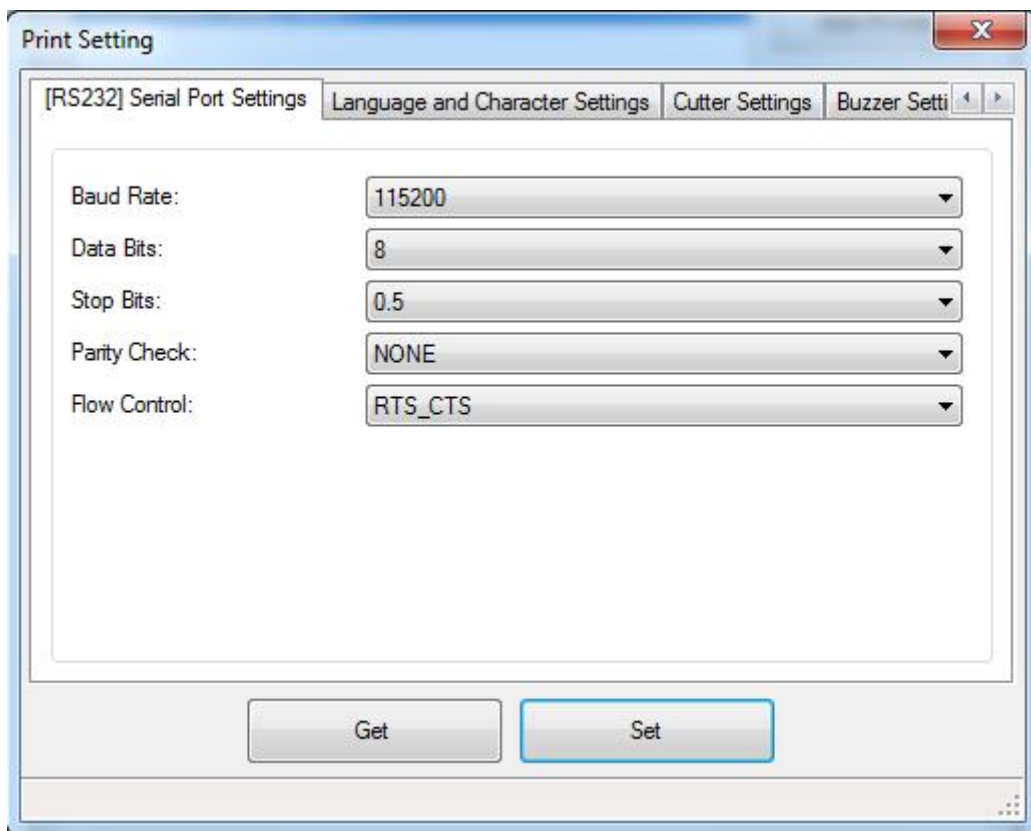
### 8.2.2.5 Parameter Setting

- 1) Click “Parameter Setting” to set “Serial Port Settings”, Language And Character Settings”, “Cutter Settings”, “Buzzer Settings”, “Other”, and “Parameter Settings”.



◆ **Serial Port Settings**

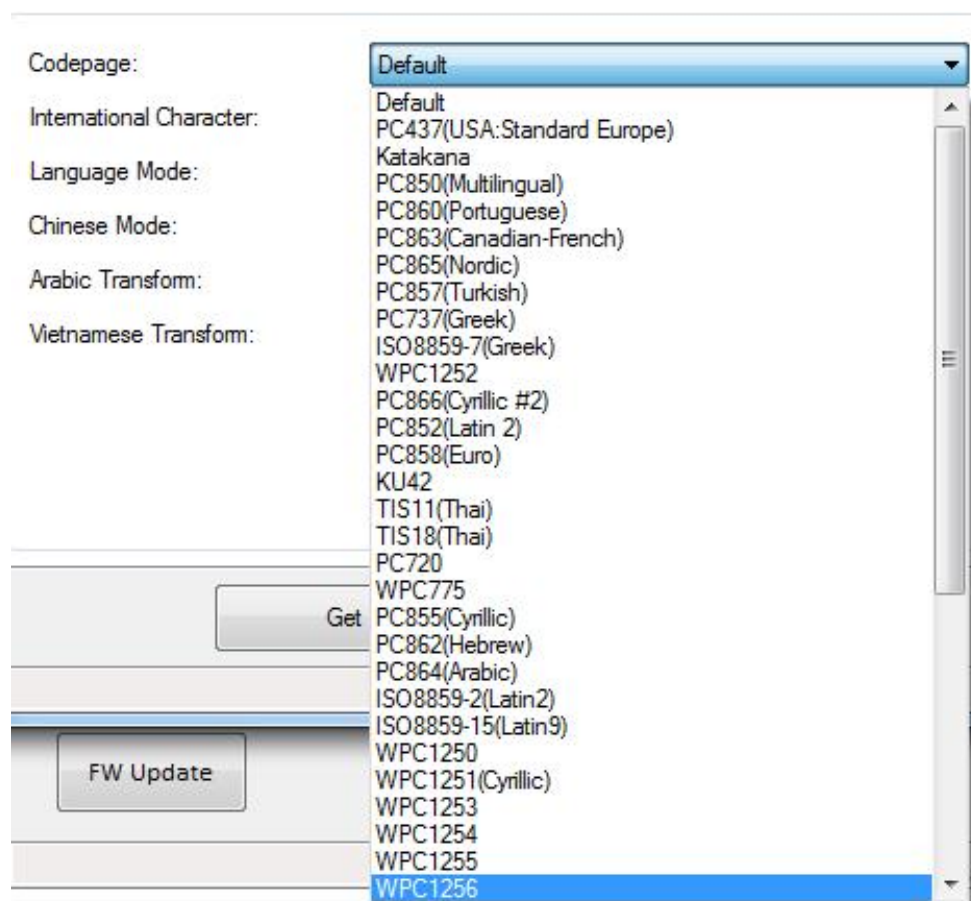
Click the items to set “Baud Rate”, “Data Bits”, “Stop Bits”, “Parity Check”, and “Flow Control”.



## ◆ Language and Character Settings

Click the items to set “Codepage”, “International Character”, “Language Mode”, “Chinese Mode”, “Arabic Transform” and “Vietnamese transform”.

### • Codepage



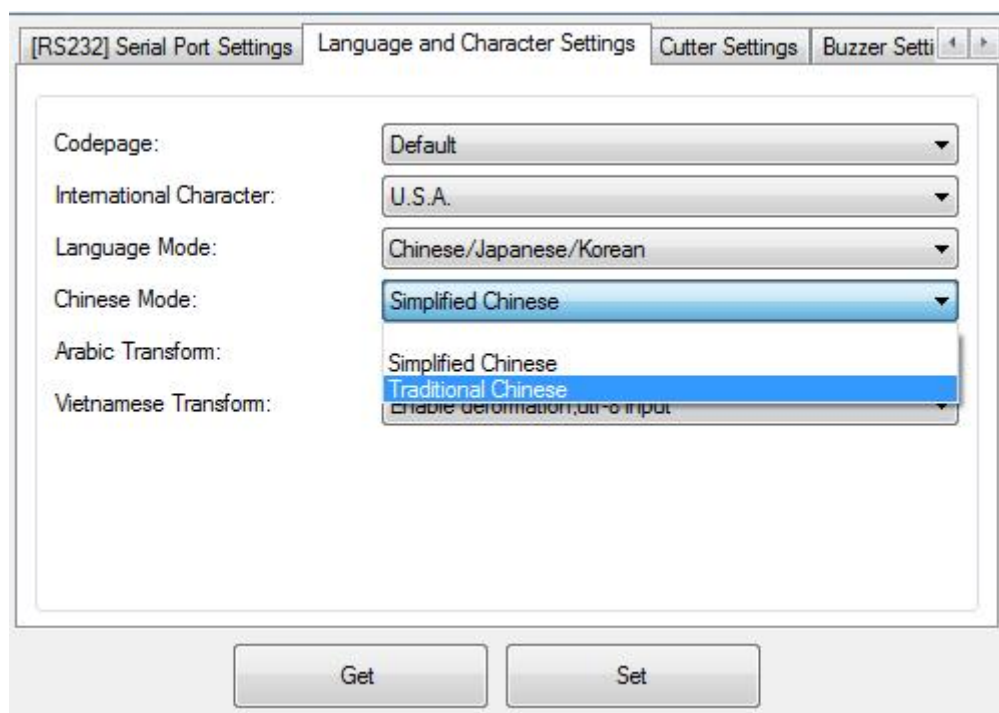
- International Character

Codepage:	Default
International Character:	U.S.A.
Language Mode:	U.S.A.
Chinese Mode:	France
Arabic Transform:	Germany
Vietnamese Transform:	U.K.
	Denmark I
	Sweden
	Italy
	Spain I
	Japan
	Norway
	Denmark II
	Spain II
	Latin
	Korea
	Slovenia/Croatia
	China

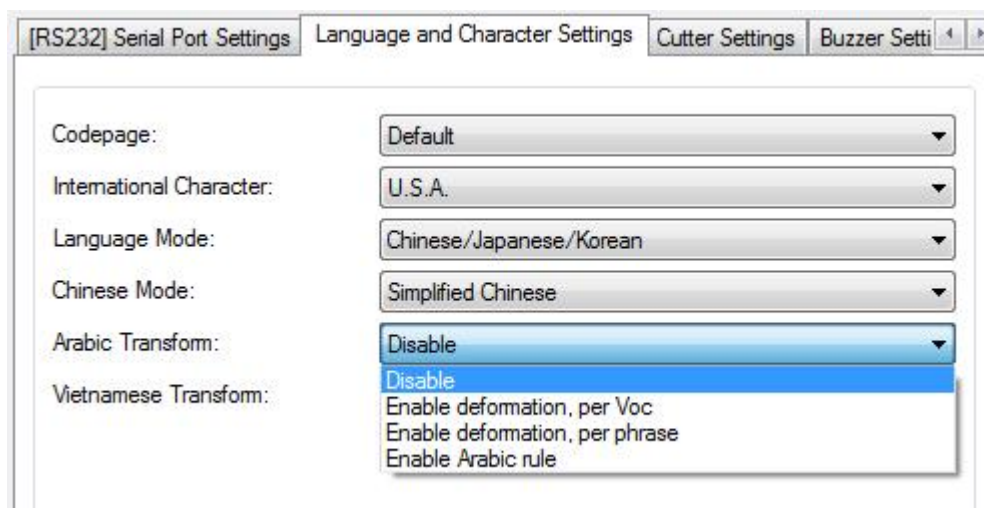
- Language Mode ( The default mode is “Chinese/Japanese/Korean”)

Codepage:	Default
International Character:	U.S.A.
Language Mode:	Chinese/Japanese/Korean
Chinese Mode:	Chinese/Japanese/Korean
Arabic Transform:	Multi language
Vietnamese Transform:	Disable
	Enable deformation,ascii input

- Chinese Mode

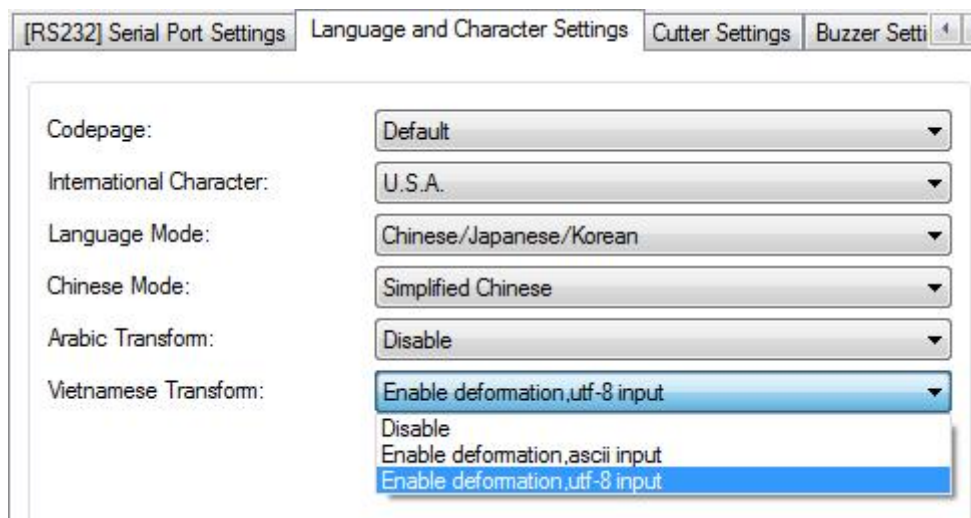


- Arabic Transform





- Vietnamese transform



## ◆ Cutter Settings

Enable or disable “Cut paper after the cover is closed” / “Cut paper when power on”.



### Enable “Cut paper after the cover is closed”:

When the printer closes the cover, it will automatically cut the paper.

### Disable “Cut paper after the cover is closed”:

The printer does not cut the paper automatically after closing the cover.

### Enable “Cut paper when power on”:

The printer will automatically cut paper when it is powered on.

### Disable “Cut paper when power on”:

The printer does not cut paper automatically after it is powered on.

## ◆ Buzzer Settings

Buzzer Volume: Very Low/Low/Standard/loud

Enable Buzzer	<input checked="" type="checkbox"/>
Buzzer Volume	Very Low
Built-in Buzzer	
Beeping after Cutting	

Very Low  
 Low  
 Standard  
 Loud

Tick “Beeping after cutting” (The beeping time, times and interval time can be set for what you want, such as 1 milliseconds, 2 milliseconds or 3 milliseconds, etc.):

The following setting is set as an example:

When cutting one piece of paper each time, the printer will emit the “Beep” for one time, and the beeping time is two milliseconds and beeping interval is three milliseconds.

Built-in Buzzer		
Beeping after Cutting	<input checked="" type="checkbox"/>	
Beeping Times	<input type="text" value="3"/>	(1-255)
Beeping Time	<input type="text" value="1"/>	(1-64) (100ms)
Beeping Interval	<input type="text" value="1"/>	(1-64) (100ms)
External Buzzer		
Beeping after Cutting	<input type="checkbox"/>	
Beeping Times	<input type="text" value="120"/>	(1-255)

## ◆ Other

Click the items to set “Print Density”, “Paper Width”, “Auto Line Feed”, “DPI Mode”, “USB Port Mode”, and “Paper Type”

### • Print Density

The print density value varies according to the paper material and it can be adjusted to suit your needs.

Print Density:	3
Paper Width:	1 2 3
Auto Line Feed:	4
DPI Mode:	203
USB Port Mode	USB
Paper Type:	Papel continuo

### • Paper Width

Print Density:	3
Paper Width:	80mm(576dot)
Auto Line Feed:	58mm(360dot) 58mm(384dot) 58mm(416dot) 80mm(512dot)
DPI Mode:	80mm(576dot)
USB Port Mode	USB
Paper Type:	Papel continuo



**Note:** Select the paper width above according to the paper print width.

- Auto Line Feed

Print Density:	3
Paper Width:	80mm(576dot)
Auto Line Feed:	Disable
DPI Mode:	Disable Enable
USB Port Mode	USB
Paper Type:	Papel continuo

- DPI Mode (Default “203DPI”)

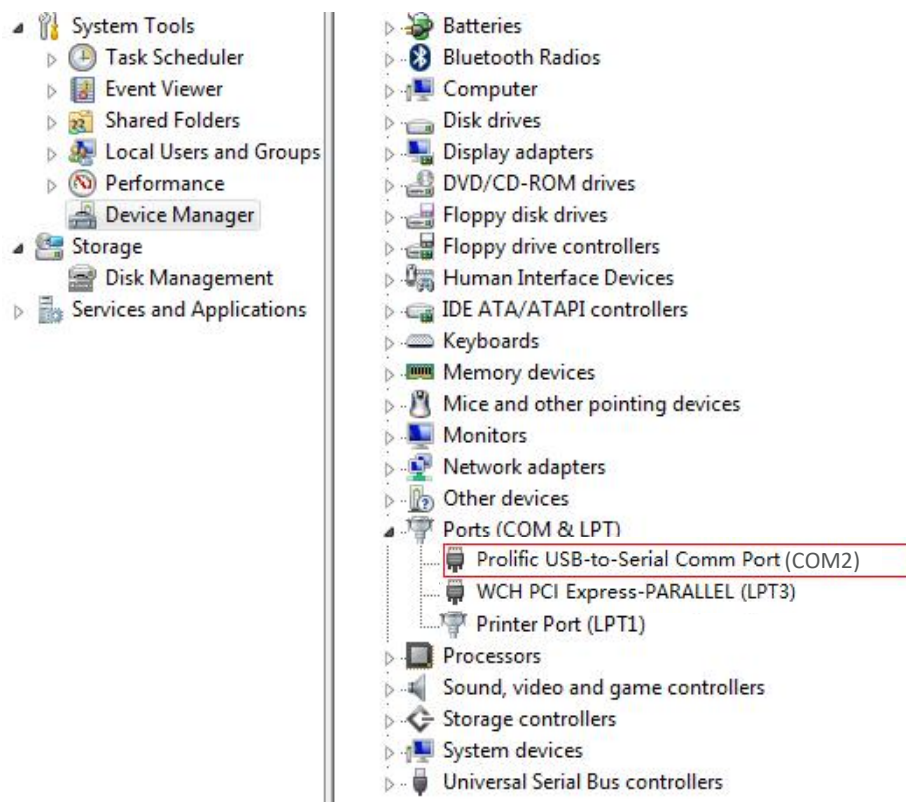
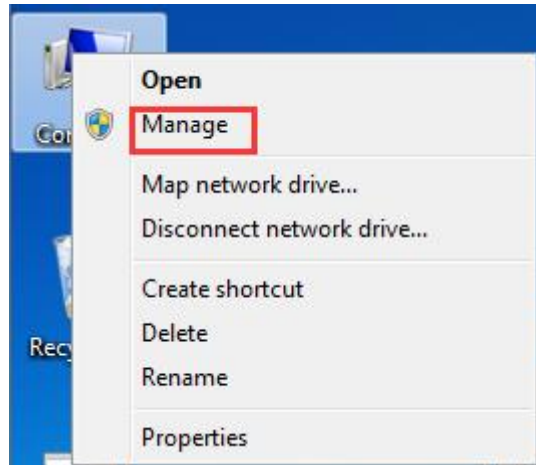
Print Density:	3
Paper Width:	80mm(576dot)
Auto Line Feed:	Disable
DPI Mode:	203
USB Port Mode	203 180
Paper Type:	Papel continuo

- USB Port Mode

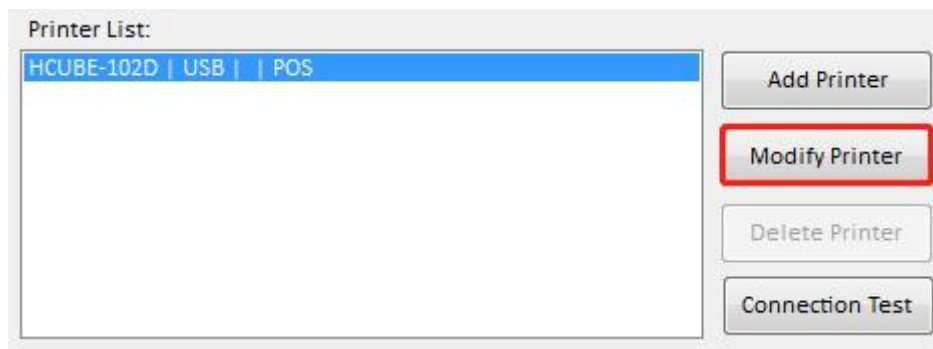
Print Density:	3
Paper Width:	80mm(576dot)
Auto Line Feed:	Disable
DPI Mode:	203
USB Port Mode	USB
Paper Type:	USB Virtual Serial Port

- Check the Virtual Serial Port

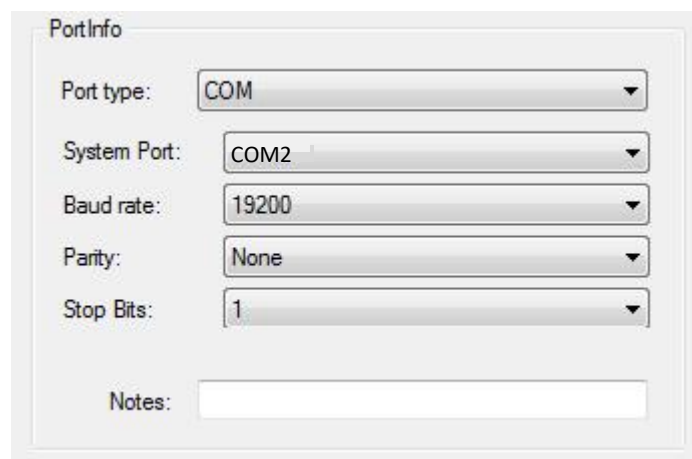
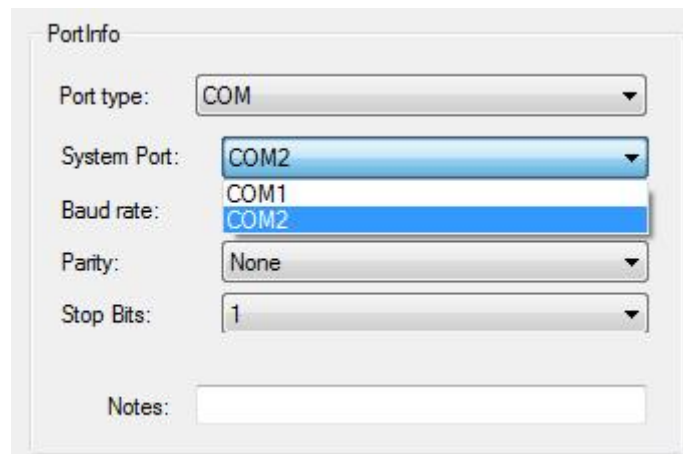
- ① Right-click the computer and select "Manage".
- ② Click "Device Manager" to view the virtual port. (such as: COM2).



- ③ Return to the printer utility and click "Modify Printer".



- ④ Change the port to "COM2".



### ◆ Parameter Settings

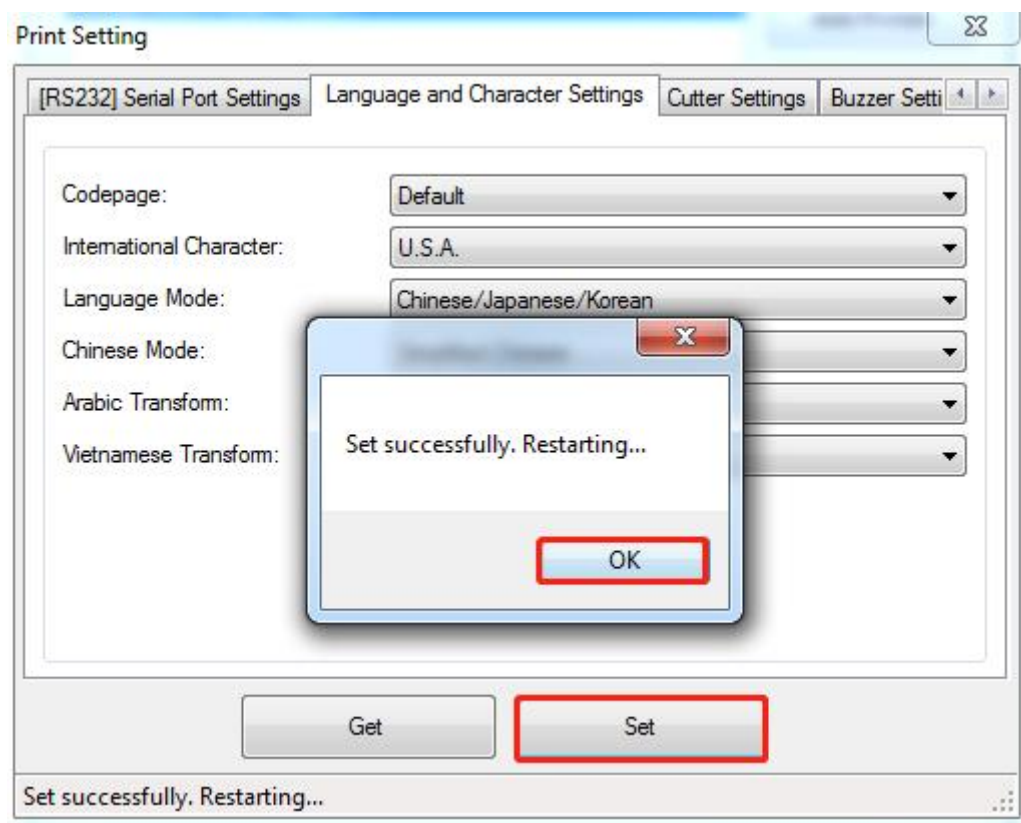
Click the items to set “Detect Paper AD Value”, and “Set AD Threshold Value”.

Detect Paper AD Value:	<input type="text" value="3869"/>
Set AD Threshold Value:	<input type="text" value="2400"/>

Detect Paper AD Value: Read the current paper AD value.

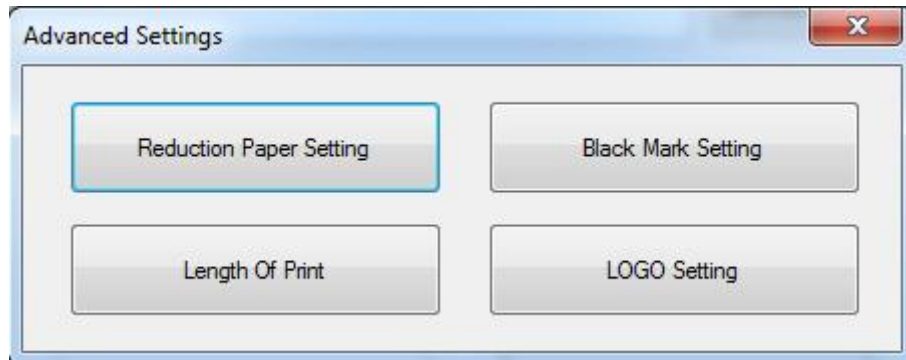
Set AD Threshold Value: Set the AD threshold for paper to be compatible with various paper types.

2 ) After finishing setting all the above parameters, click "Set", the printer would restart automatically, then the settings would take effect.



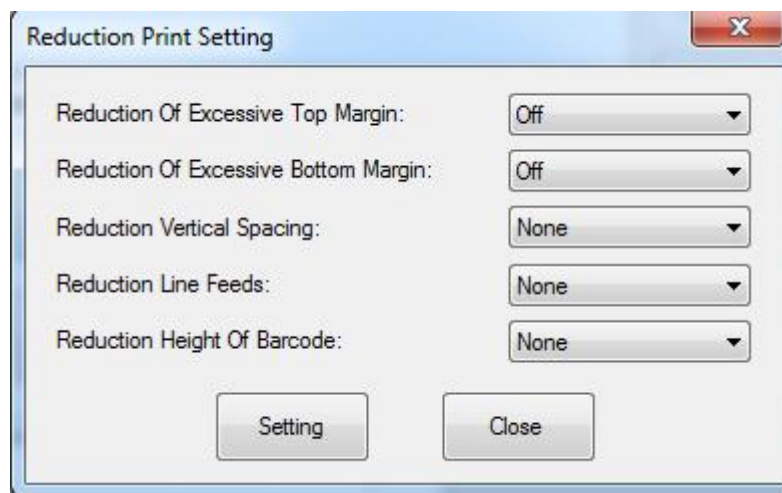
### 8.2.2.6 Advanced Setting

Advanced Settings contain following items. Click the button and printer will execute the appropriate action. The change will take into effect after restarting the printer.



#### ◆ Reduction Paper Setting

Choose the item and click "Setting".



#### ① Reduction Of Excessive Top Margin:

When the printer is in the "off" state, the blank part at the top of the printed paper is larger than the blank part at the top of the paper printed in the "on" state.

#### ② Reduction Of Excessive Bottom Margin:

When the printer is in the "off" state, the blank part of the bottom of the printed paper is larger than the blank part of the bottom of the paper printed in the "on" state.

#### ③ Reduction Vertical Spacing: 25%~75%



The bigger the reduction vertical spacing, the narrower the interval between two lines of characters.

④ Reduction Line Feeds: 25%~75%

The higher the reduction line feeds, the narrower the interval between two lines of characters.

⑤ Reduction Height of Barcode: 25%~75%

The bigger the reduction height of barcode, the smaller the height of the barcode.

### ◆ Ethernet Setting

This mode is divided into “Auto Assignment IP” and “Static IP Mode”, select one of the modes to connect as needed.



**Note:** IP addresses can be obtained from the Self-test page.

Ethernet Setting

Ethernet Setting

DHCP: Static IP Mode

IP address: Static IP Mode

Subnet mask: 255 . 255 . 255 . 0

Default gateway: 10 . 0 . 21 . 1

MAC: 50 : 23 : 0D : 53 : 21 : 16

Set

Close

- Static IP Mode

1) Change the printer IP address so that the printer IP address (such as: 192.168.0.33) is the same segment as the host IP address (such as: 10.0.21.89).

Here is the illustration:

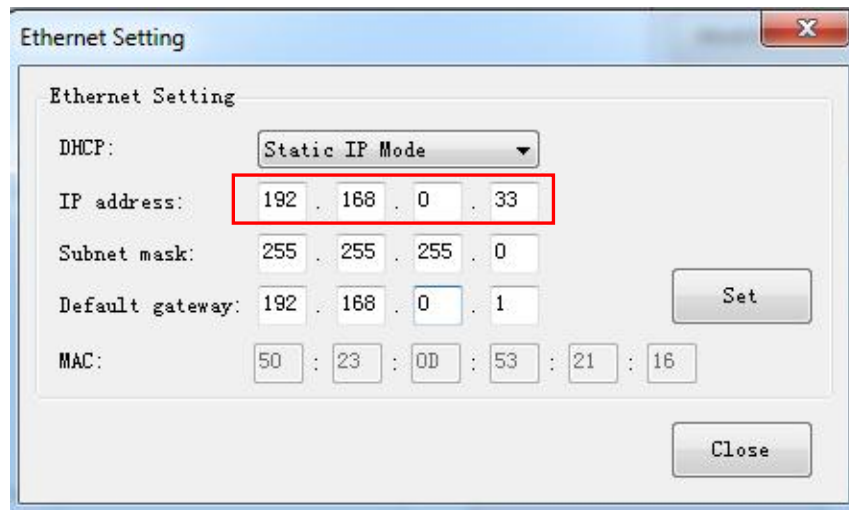


Figure ■ Printer IP Address

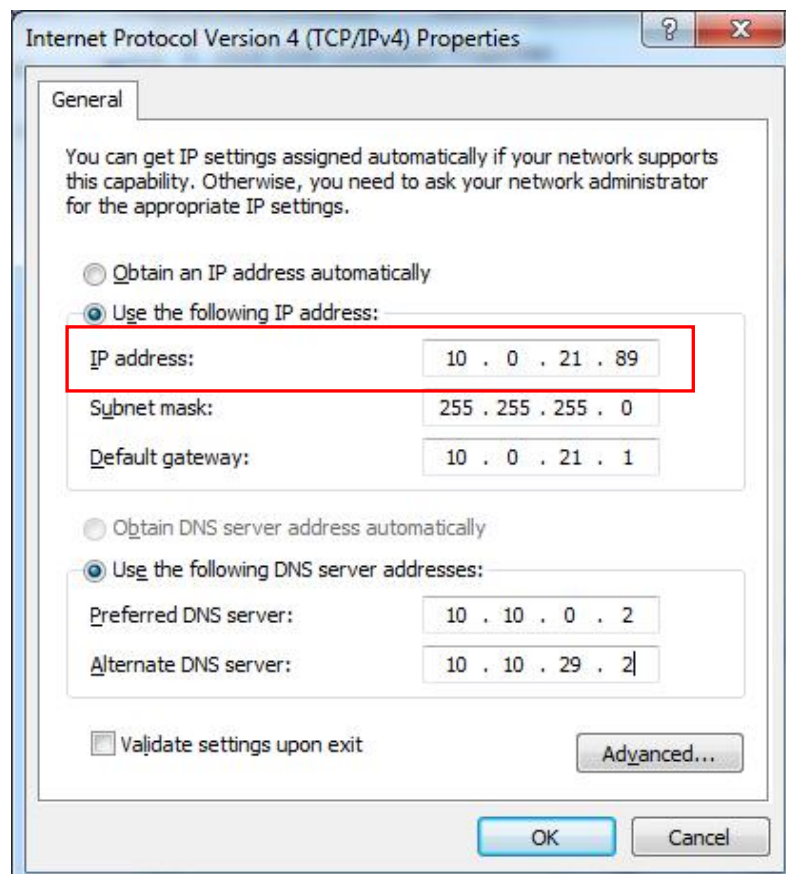
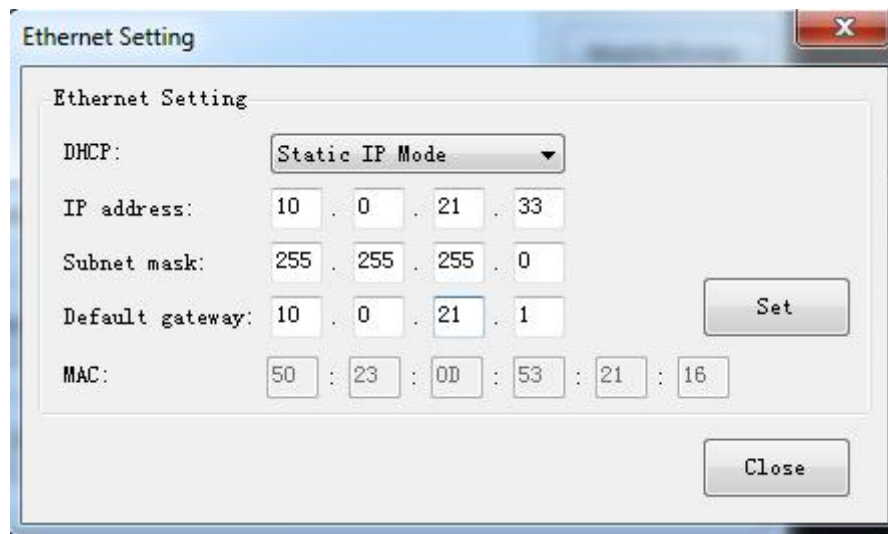


Figure ■ Host IP Address

2) Set the same network segment.



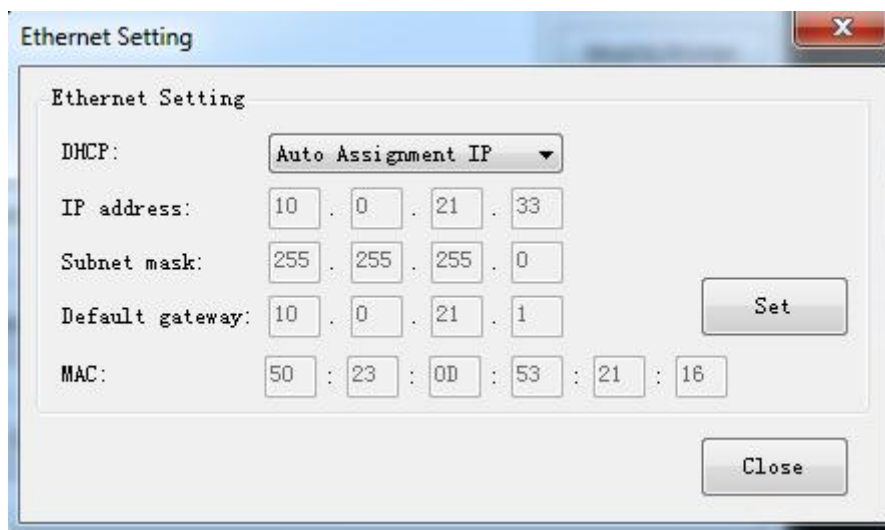
The screenshot shows the 'Ethernet Setting' dialog box. The 'DHCP' dropdown is set to 'Static IP Mode'. The 'IP address' is 10.0.21.33, 'Subnet mask' is 255.255.255.0, and 'Default gateway' is 10.0.21.1. The 'MAC' address is 50:23:0D:53:21:16. There are 'Set' and 'Close' buttons.

Field	Value
DHCP	Static IP Mode
IP address	10 . 0 . 21 . 33
Subnet mask	255 . 255 . 255 . 0
Default gateway	10 . 0 . 21 . 1
MAC	50 : 23 : 0D : 53 : 21 : 16

Figure ■ Printer IP Address

- Auto Assignment IP

This mode automatically assigns the IP address to the printer.



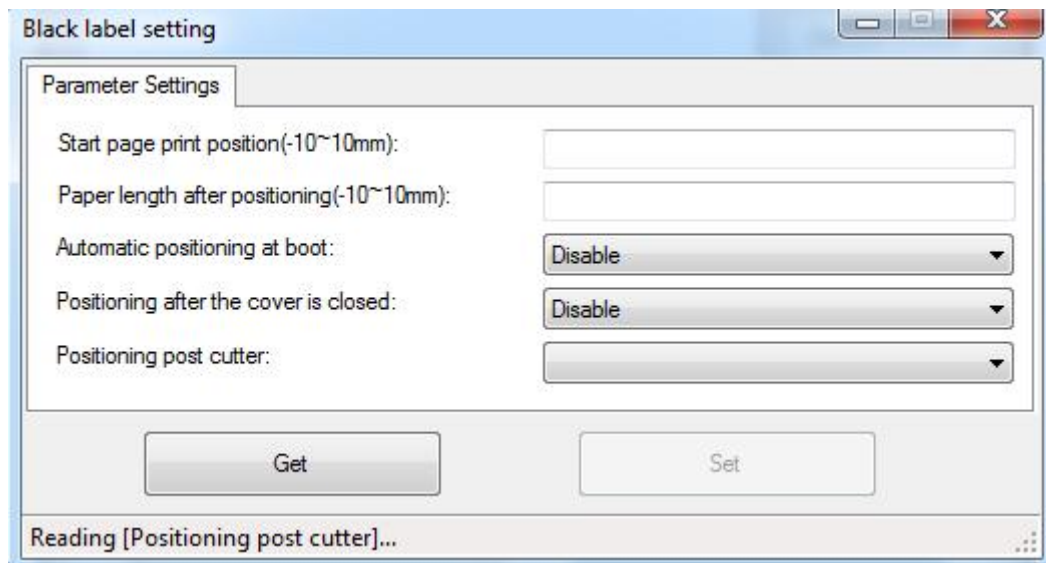
The screenshot shows the 'Ethernet Setting' dialog box. The 'DHCP' dropdown is set to 'Auto Assignment IP'. The 'IP address' is 10.0.21.33, 'Subnet mask' is 255.255.255.0, and 'Default gateway' is 10.0.21.1. The 'MAC' address is 50:23:0D:53:21:16. There are 'Set' and 'Close' buttons.

Field	Value
DHCP	Auto Assignment IP
IP address	10 . 0 . 21 . 33
Subnet mask	255 . 255 . 255 . 0
Default gateway	10 . 0 . 21 . 1
MAC	50 : 23 : 0D : 53 : 21 : 16

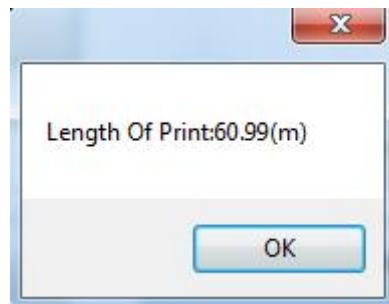
When the settings are complete, click "Write", then restart the printer.

### ◆ Black Mark Setting

Choose the item and click “Set”.



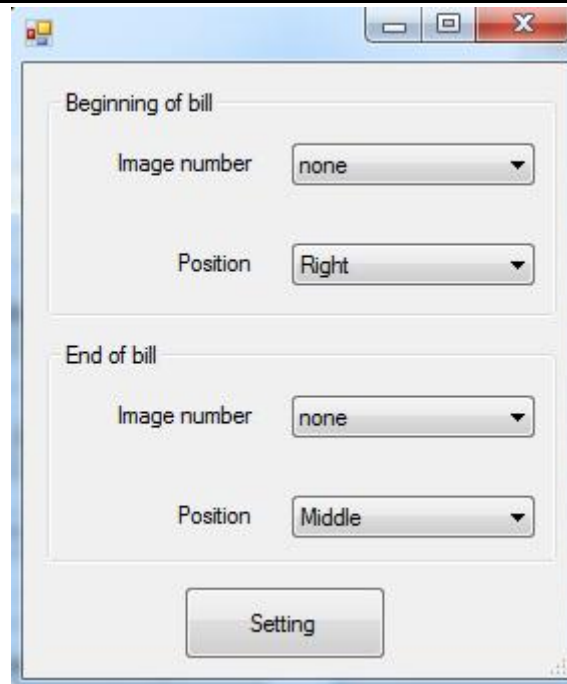
### ◆ Length Of Print



Click “Length of Print” to obtain the length of the paper that the printer has printed.

### ◆ LOGO Setting

Choose the item and click “Setting”.



Beginning of bill

Image number

Position

End of bill

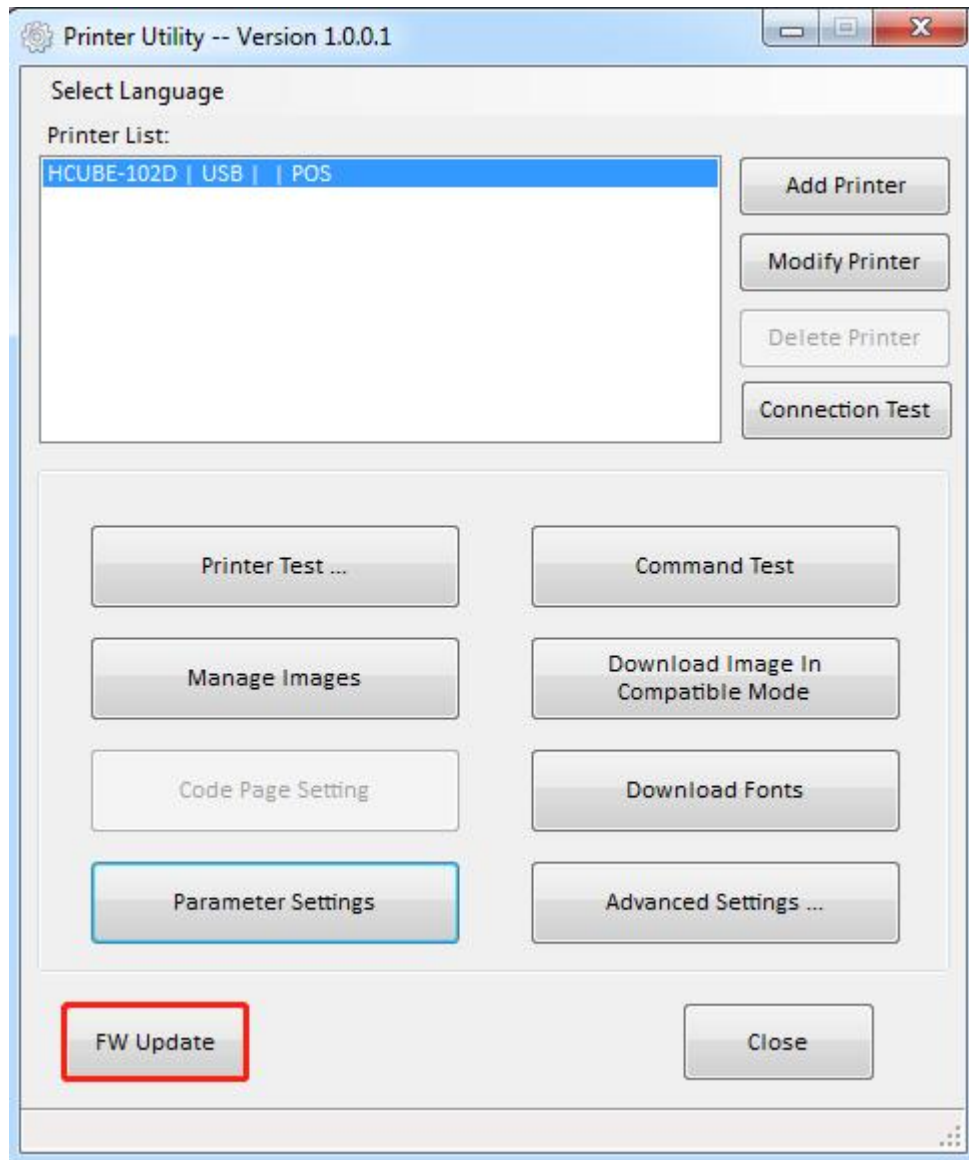
Image number

Position

Setting

## 8.3 Firmware Update

1) Click “FW Update”.

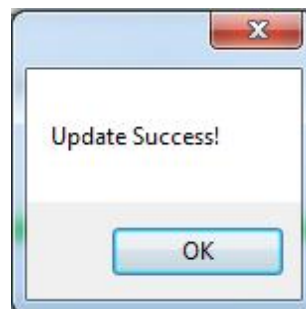


2) Add the “bin” file, and click “Update”.



3) Click “Update”.

4) Update success.



5) Restart the printer.

## **9 WINDOWS DRIVER INSTRUCTION**

### **9.1 Information**

This Windows Driver Instruction provides information on installation, detailed specifications, and usage of the printer's Windows Driver according to PC operating system (OS).

We maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. As follows, product specifications and/or user manual content may be changed without prior notice.

### **9.2 Operating System (OS) Environment**

The following operating systems are supported for usage.

- Microsoft Windows 11 IoT
- Microsoft Windows 10 (32 bit/64 bit)
- Microsoft Windows 8 (32 bit/64 bit)
- Microsoft Windows 7 (32 bit/64 bit)
- Microsoft Windows Vista (32 bit/64 bit)
- Microsoft Windows Server 2019

### **9.3 Windows Driver Preparation**

Follow the link <http://sam4s.com/eng/asp/download.asp> and find the product name

HCUBE-102D, then you can download Windows Driver and other items.

The Windows Driver installation file name is:

SAM4S\_POS\_Printer\_Windows\_Driver\_v2.7.4.1.exe



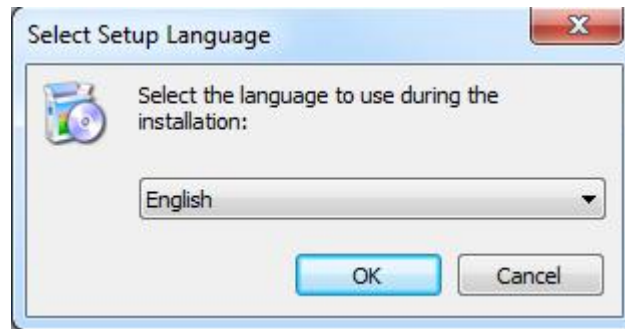
## 9.4 Windows Driver Installation



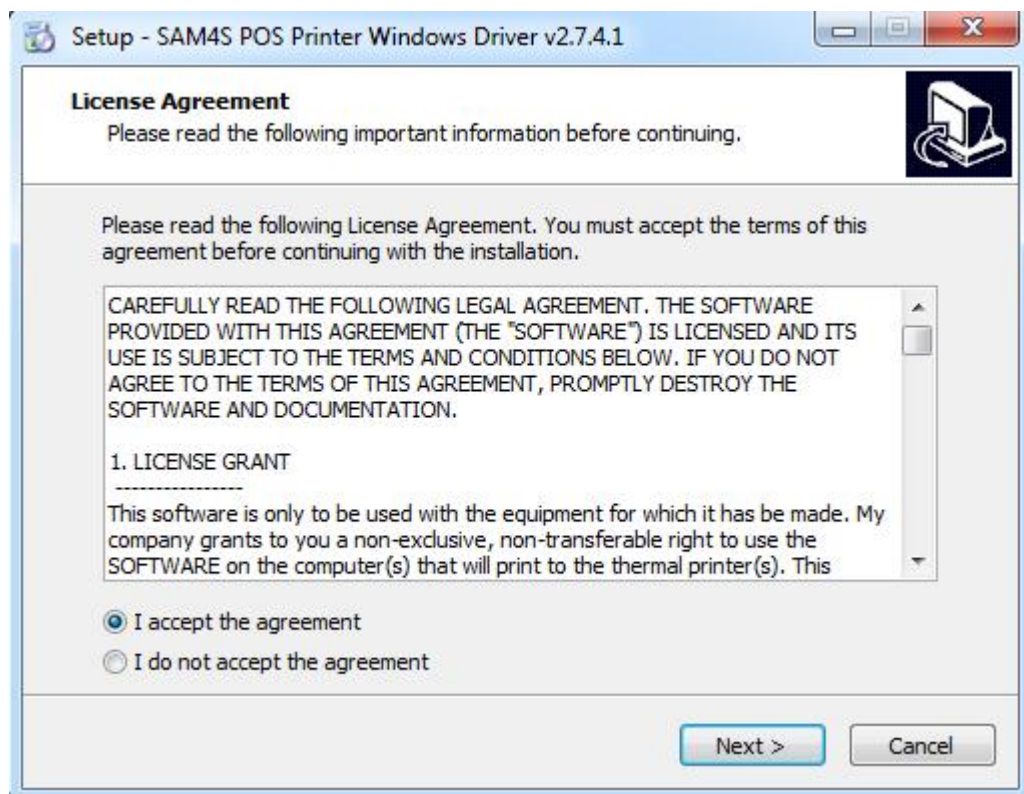
### Warning:

Under different operating system, the screen has slight difference. Please operate it according to the tips. Take HCUBE-102D (Windows 7) as example.

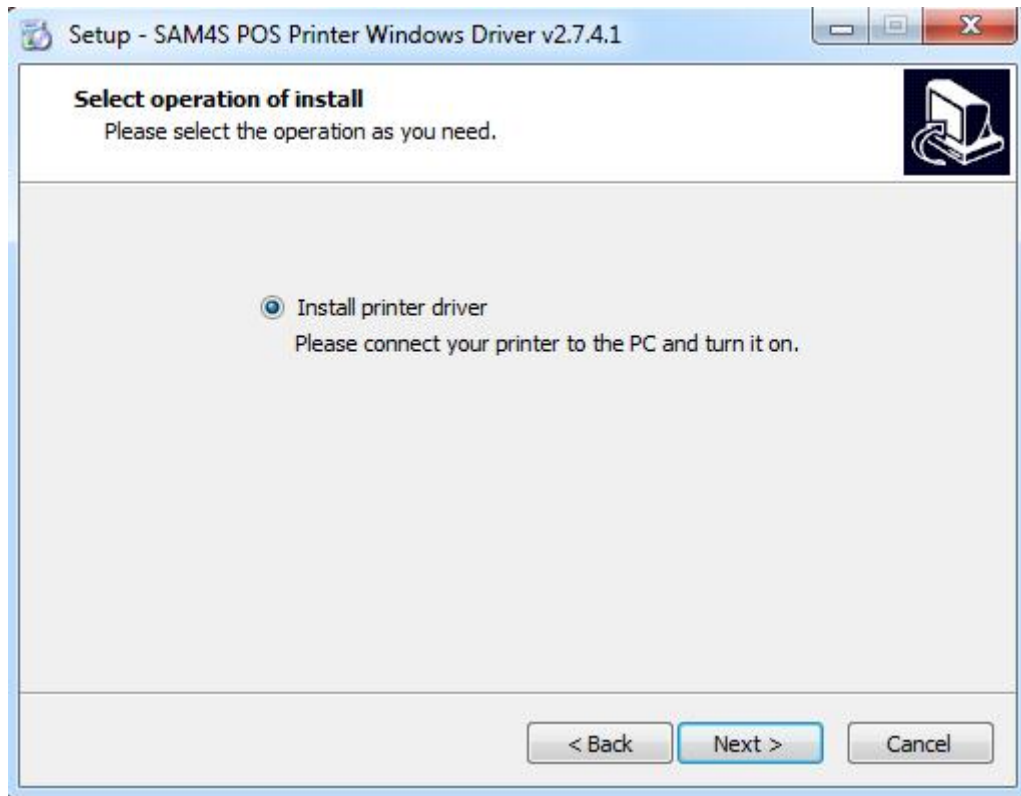
- 1) Double click Windows Driver, and choose the language.



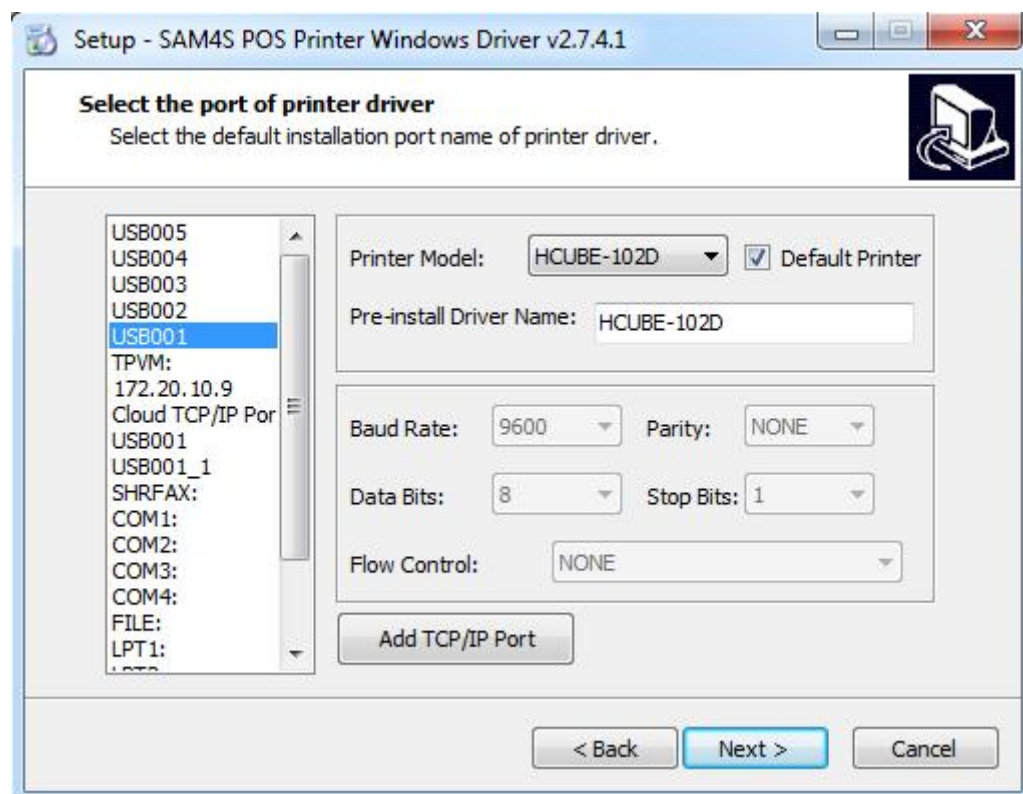
- 2) Choose "I accept the agreement" and click "Next".



3) Click “Next”



4) Choose the matched type and port (USBxxx is for USB port, COMx is for serial port). Choose the type and port of driver, such as “HCUBE-102D”, “USB001”. Click “Next”.





**Note:** If printer is already connected with computer by USB port, it only needs to click “Install”, then it will be installed automatically. Otherwise, proceed to the next step.

5) Click “Finish”. POS printer driver is installed successfully.



6) After installation, the icon will be found in “Start” → “Devices and Printers”.

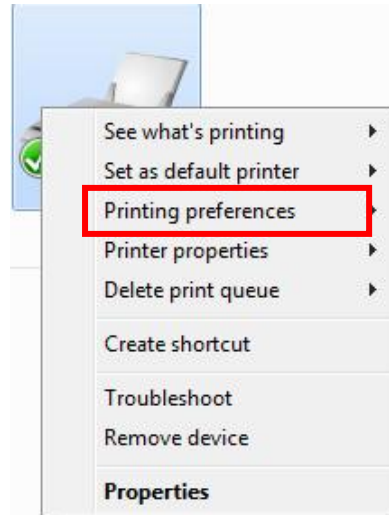


**Note:** If you already installed the driver (No matter what kind of port), when you connect the printer with computer, it will create a USB port automatically.

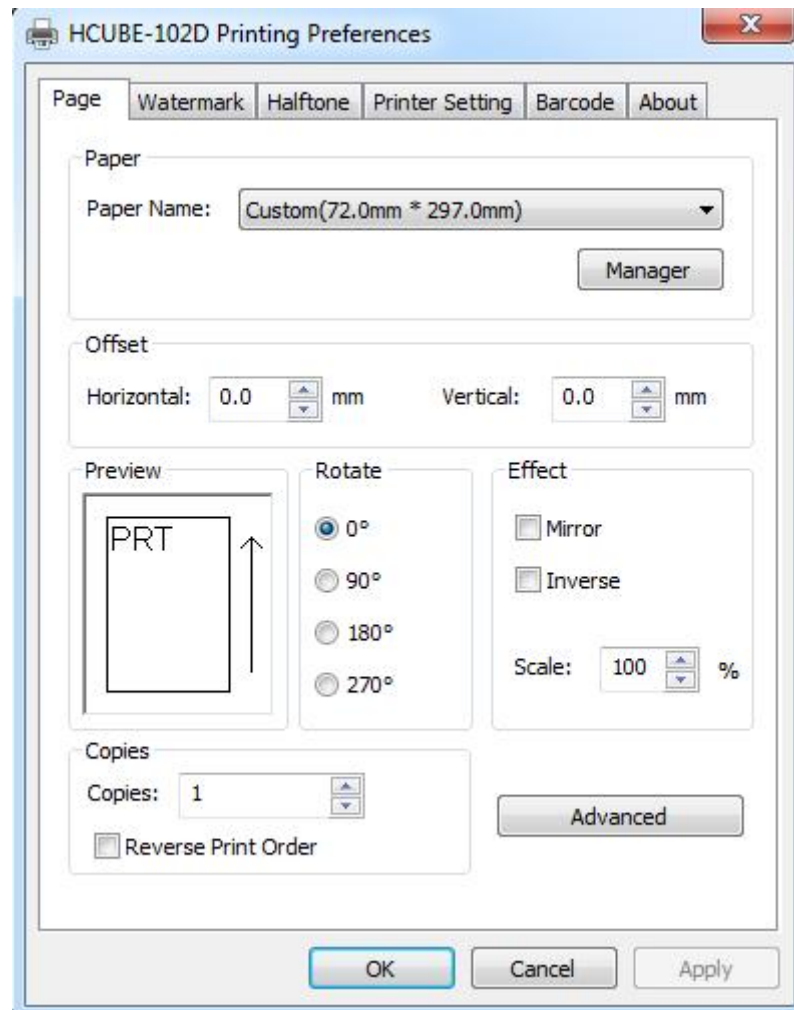
## 9.5 Detailed Windows Driver Setting

### 9.5.1 Printing Preferences

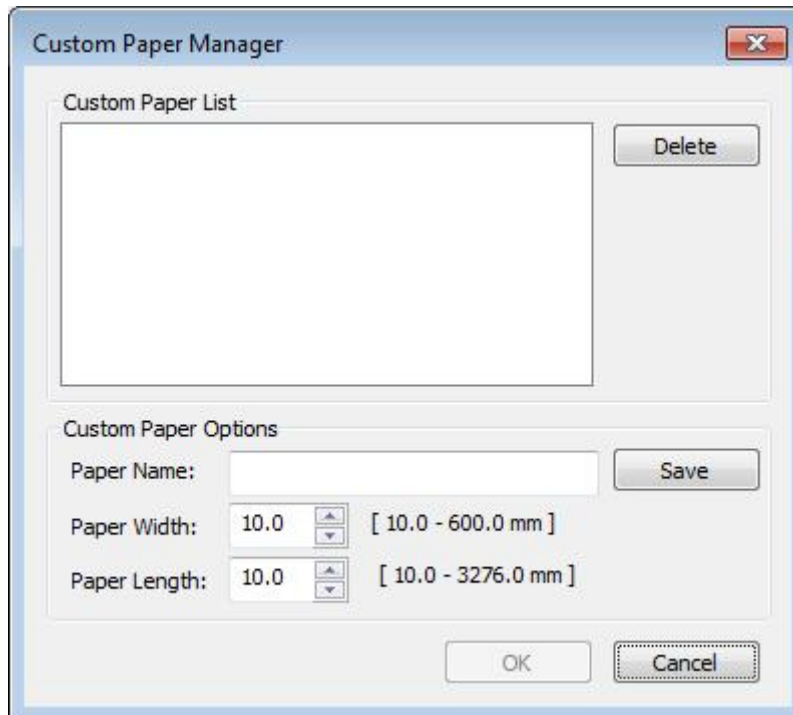
1) Click “Start” → “Devices and Printers”. Right click “HCUBE-102D” and choose “Printing preferences”.



2) According to the different needs, choose “Paper”\“Offset”\“Rotate”\“Effect”\“Copies” in “Page”.



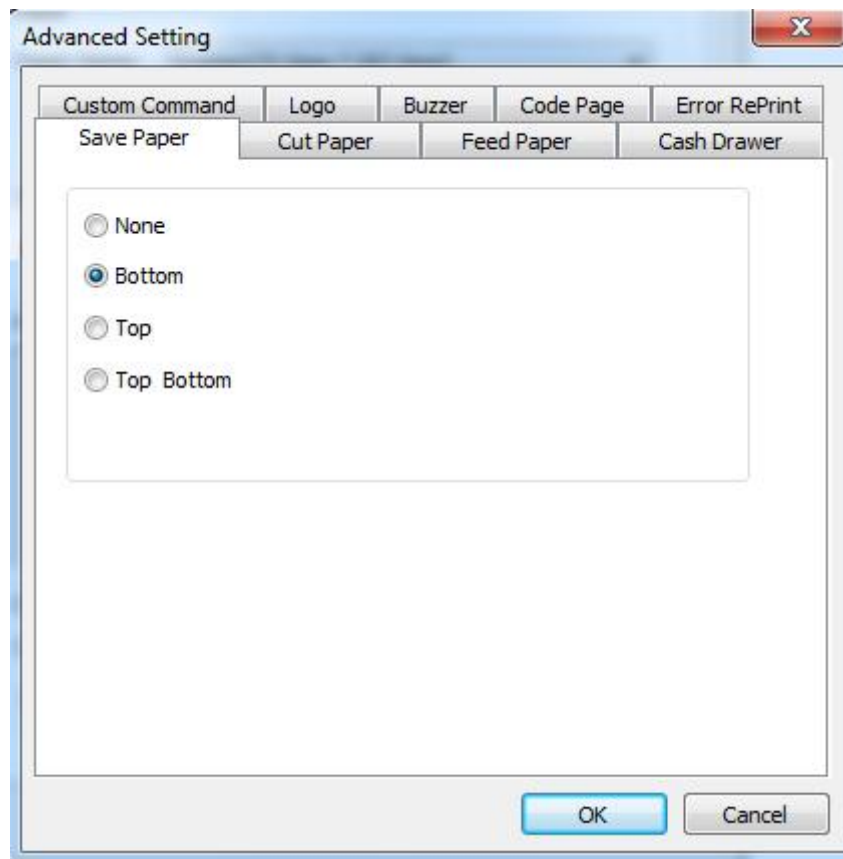
- Click on “Manager”, add or delete paper.



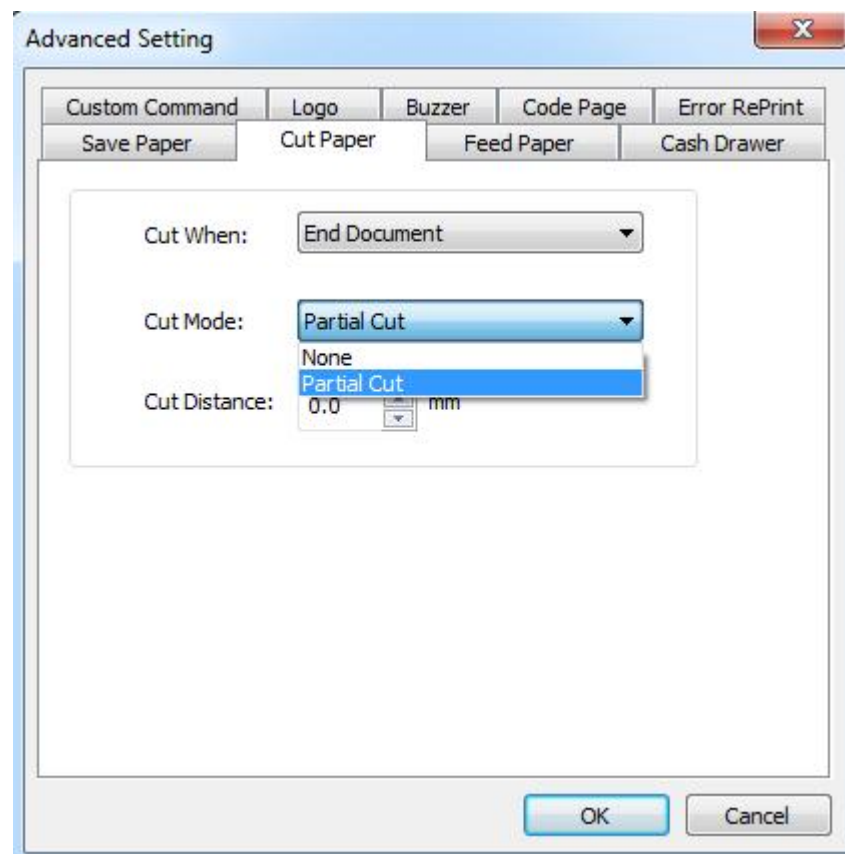
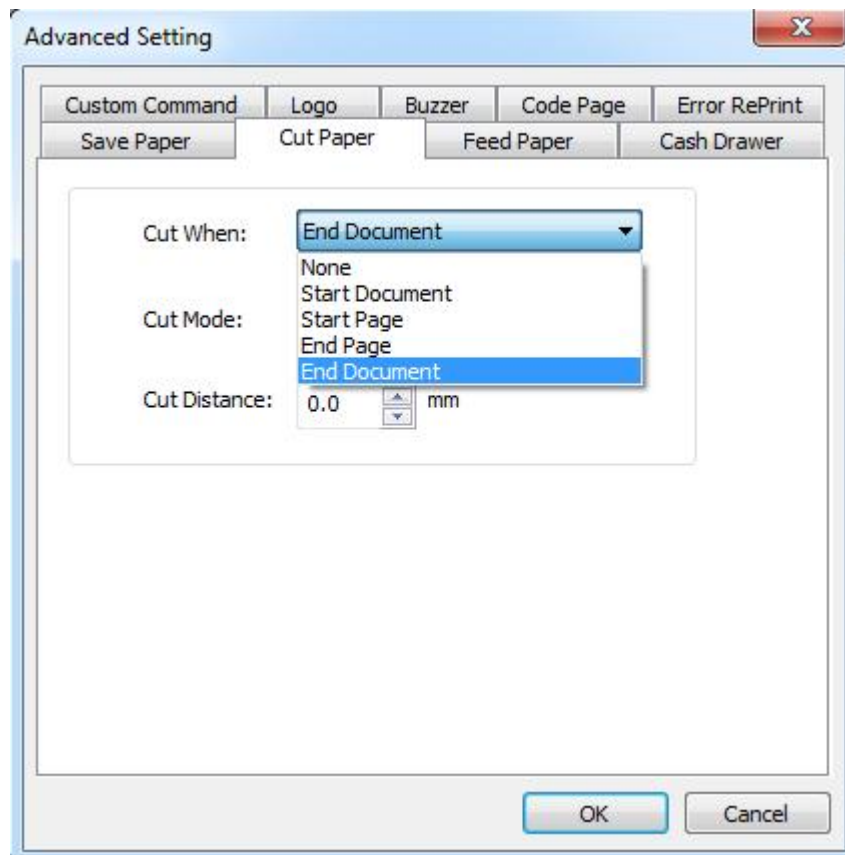
The image shows a software dialog box titled "Custom Paper Manager". It has a standard Windows-style title bar with a close button (X) in the top right corner. The dialog is divided into two main sections. The top section, labeled "Custom Paper List", contains a large empty rectangular box for listing papers, with a "Delete" button positioned to its right. The bottom section, labeled "Custom Paper Options", contains input fields for "Paper Name:", "Paper Width:", and "Paper Length:". The "Paper Width:" field shows a value of "10.0" with up and down arrow buttons and a range "[ 10.0 - 600.0 mm ]". The "Paper Length:" field shows a value of "10.0" with up and down arrow buttons and a range "[ 10.0 - 3276.0 mm ]". To the right of these fields is a "Save" button. At the bottom of the dialog are "OK" and "Cancel" buttons.

●Click on “Advanced” to set “Save Paper”, “Cut Paper”, “Feed Paper”, “Cash Drawer”, “Custom Command”, “Logo”, “Buzzer”, “Code Page”, and “Error Reprint”.

▪ Save paper

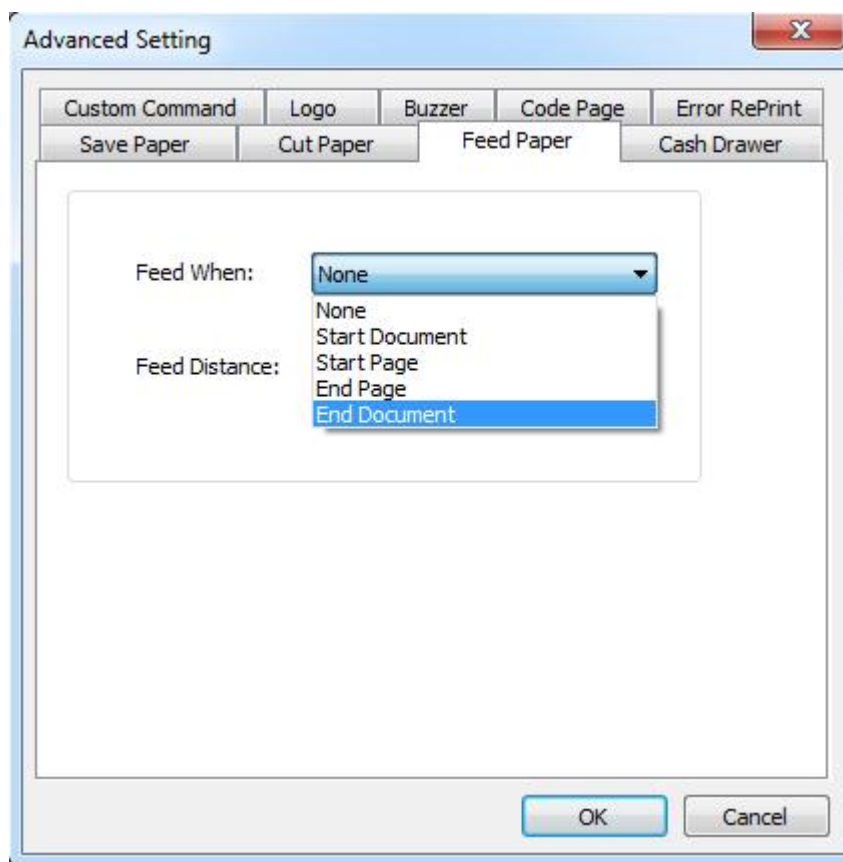


## ■ Cut Paper

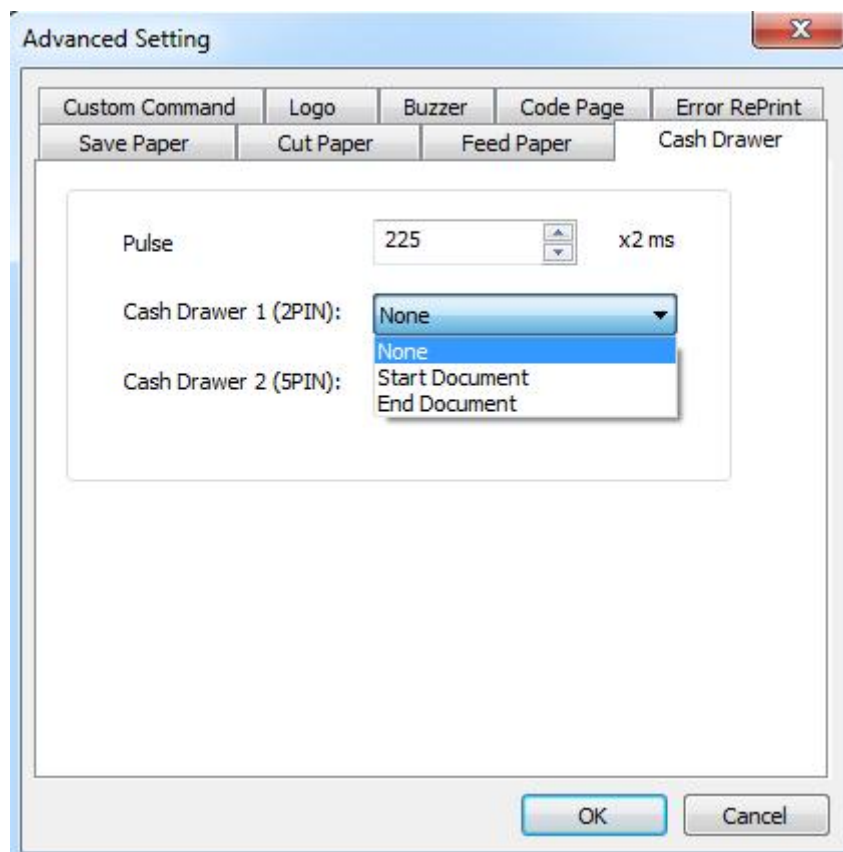


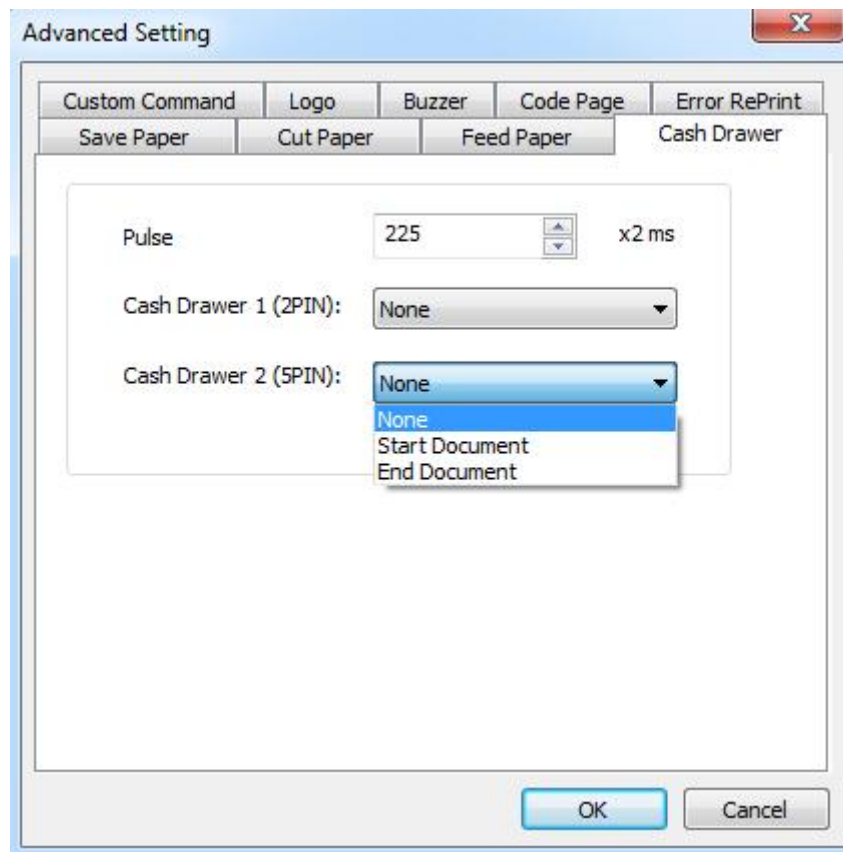


## Feed paper

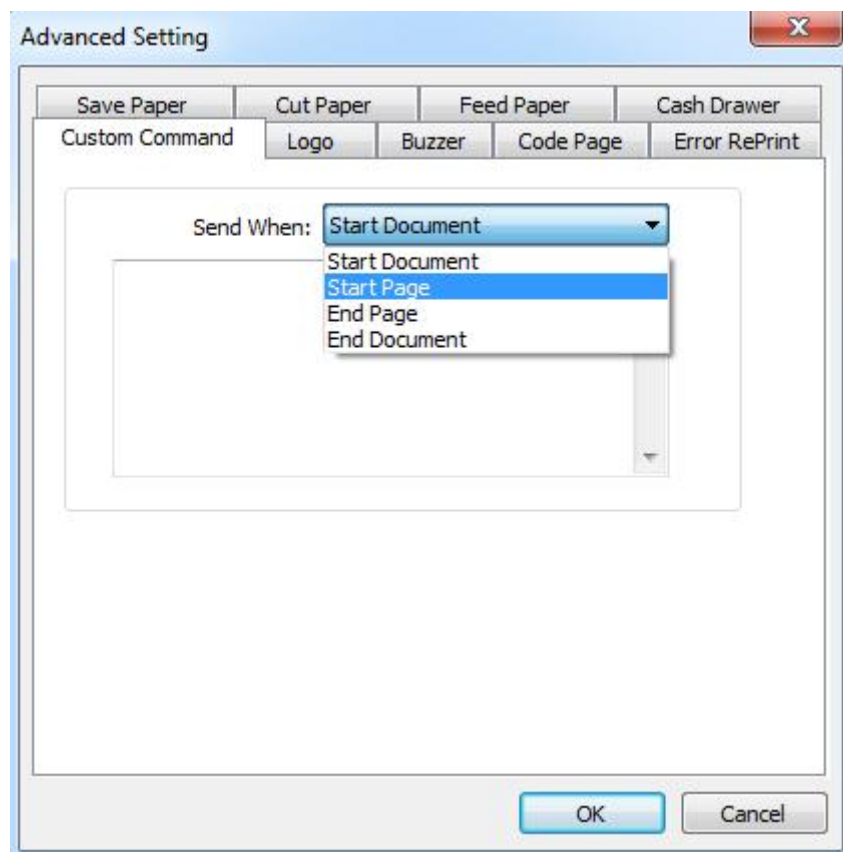


## Cash drawer

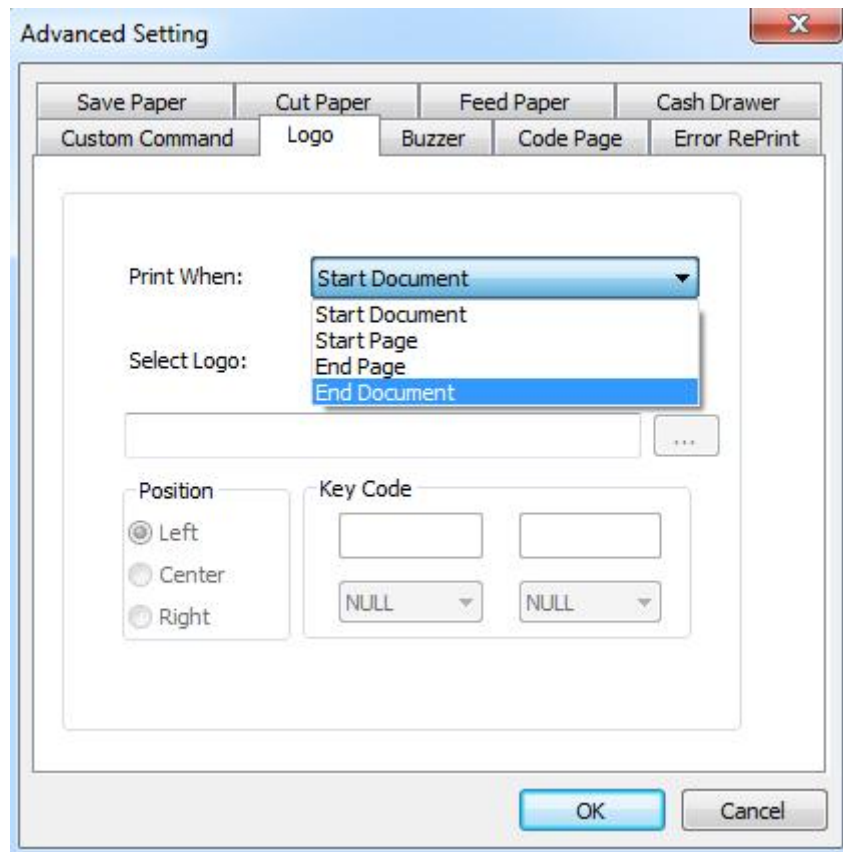




## Custom command



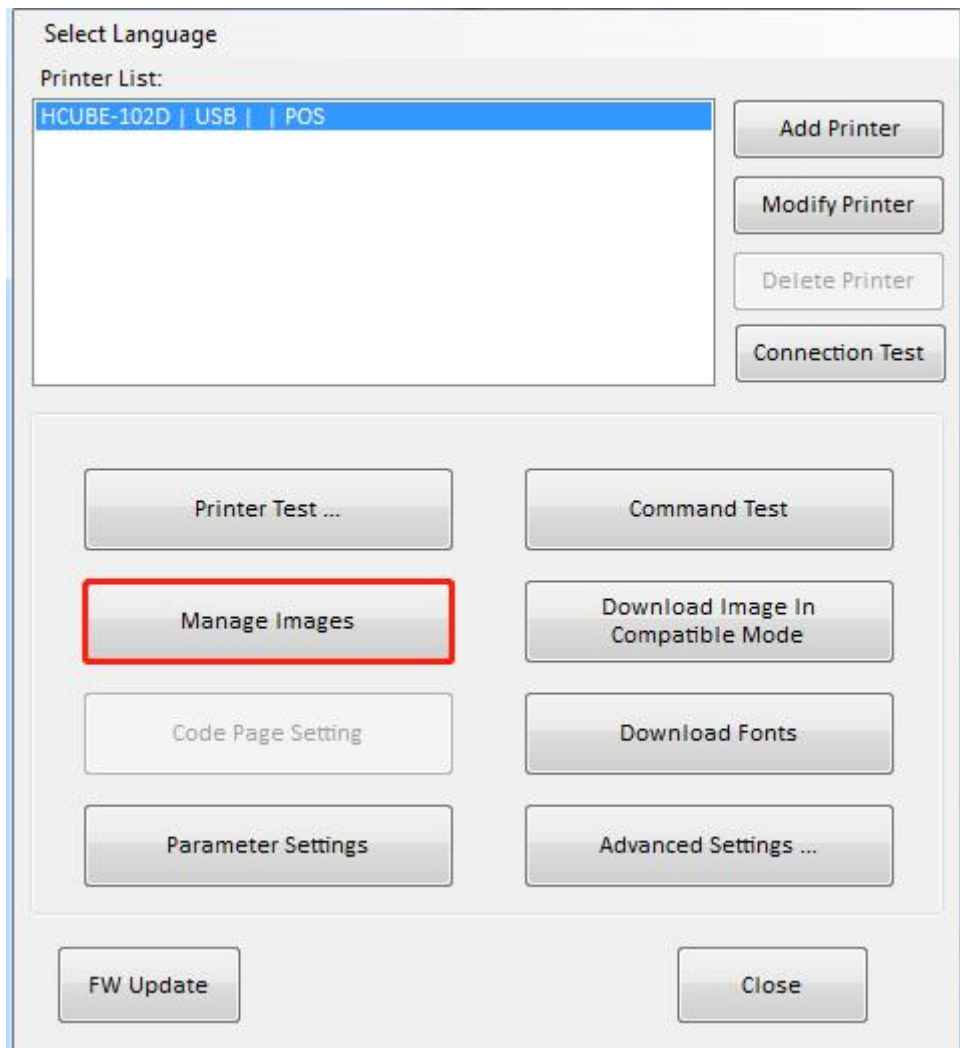
### ■ Logo



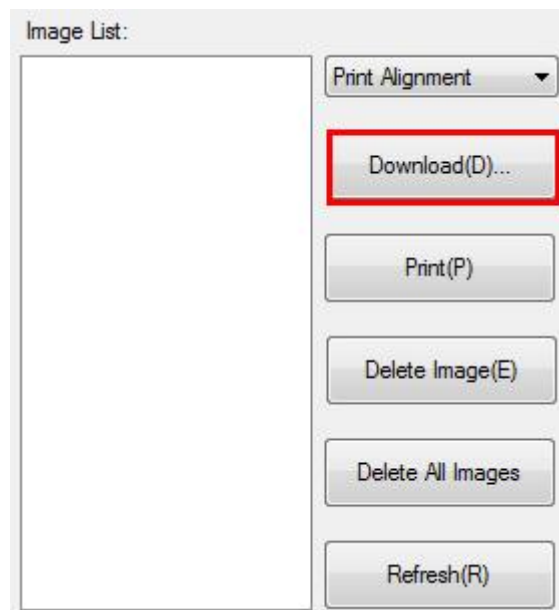


**Note:** this setting needs to be set in utility.

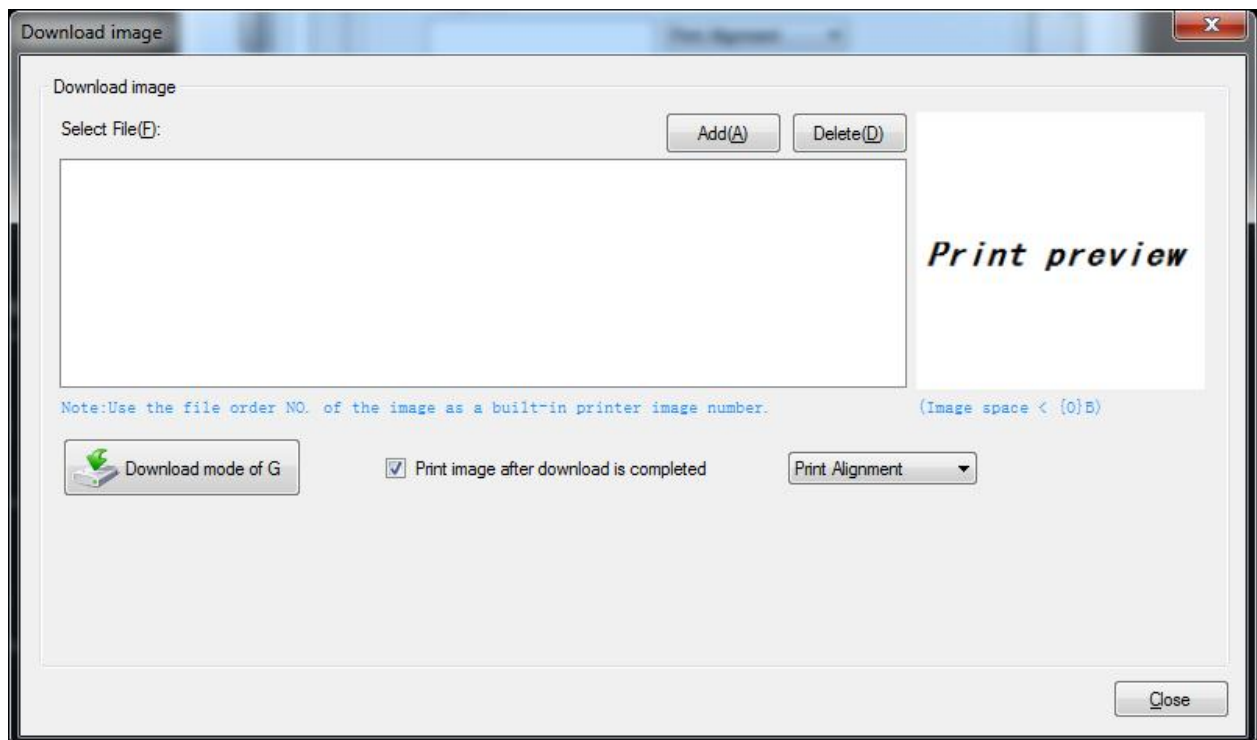
- ① Open the utility and click "Manage Images".

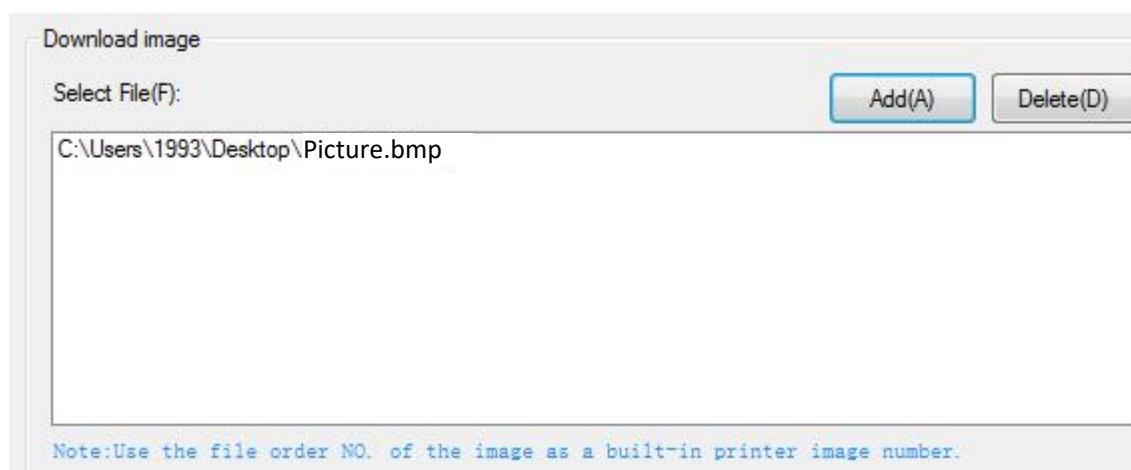


- ② Click "Download".

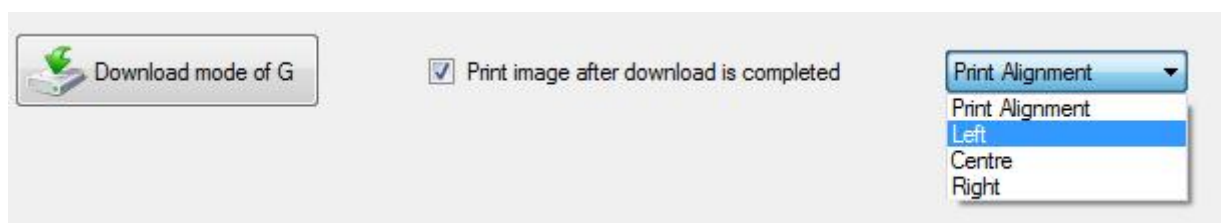


- ③ Click "Add" to add a logo. (BMP format is recommended)





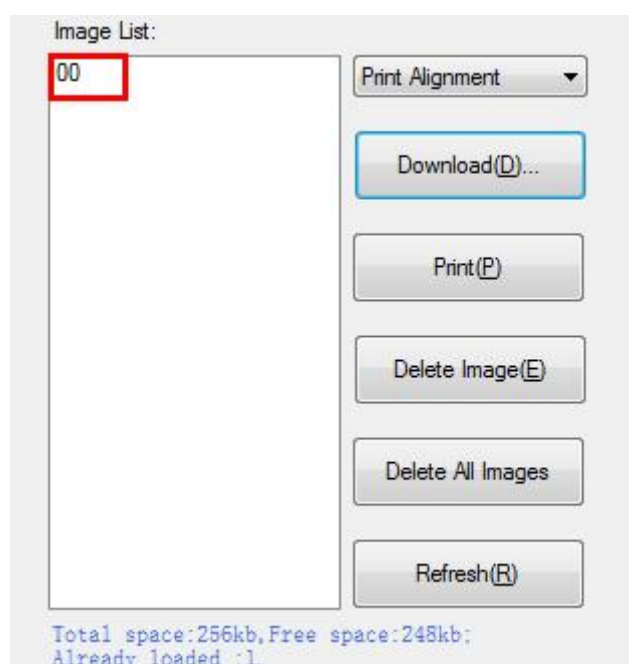
- ④ Select the print location, and then click "Download mode of G". (Such as: left print)



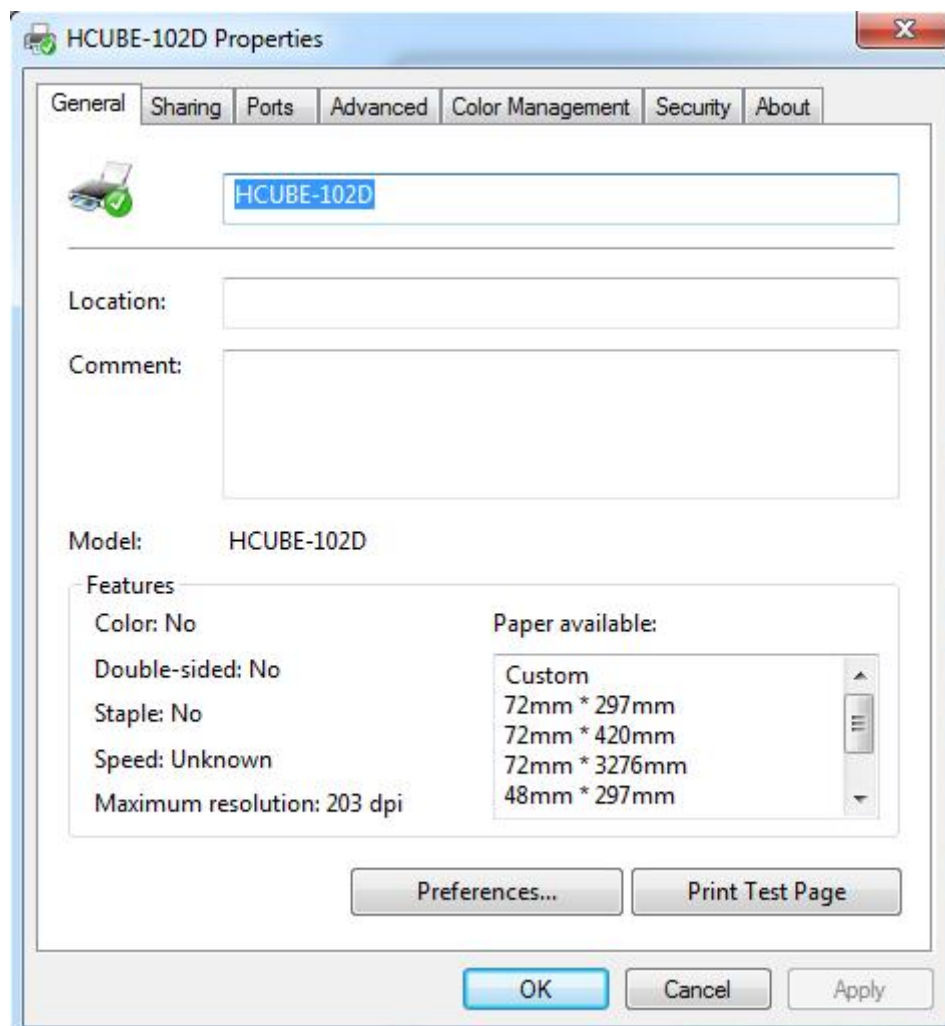
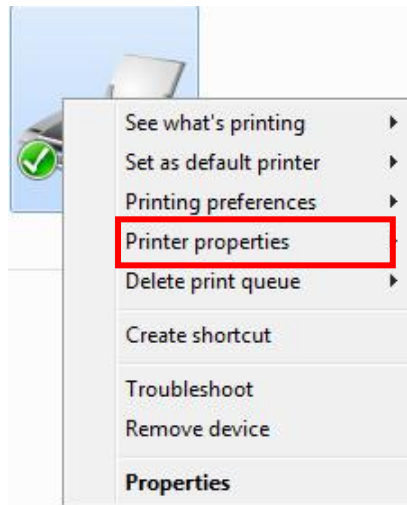
- ⑤ Return to image list to view the image number.



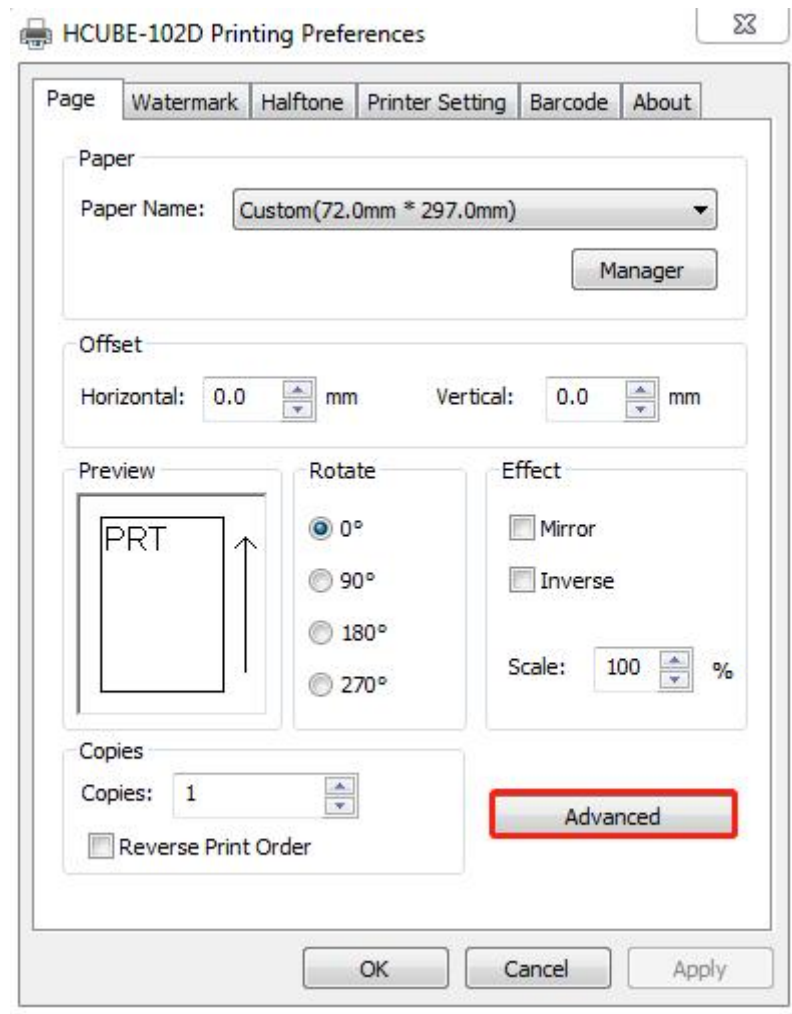
**Note: each time click "Download mode of G", an image list number will be generated.**



- ⑥ Select Printer properties, click “Print Test Page” to view the printing effect.



- ⑦ Click the “Advanced”, then click “Logo”.





Advanced Setting

X

Save Paper

Cut Paper

Feed Paper

Cash Drawer

Custom Command

Logo

Buzzer

Code Page

Error RePrint

Print When:

Start Page

Select Logo:

Do not print logo

...

Position

Left

Center

Right

Key Code

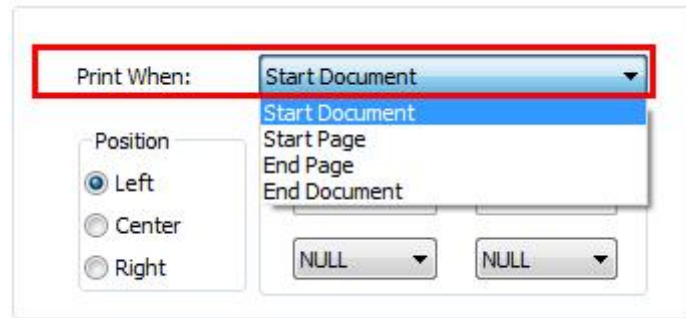
NULL

NULL

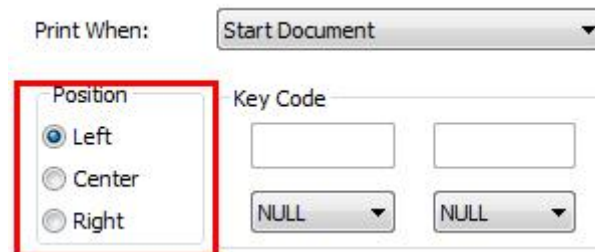
OK

Cancel

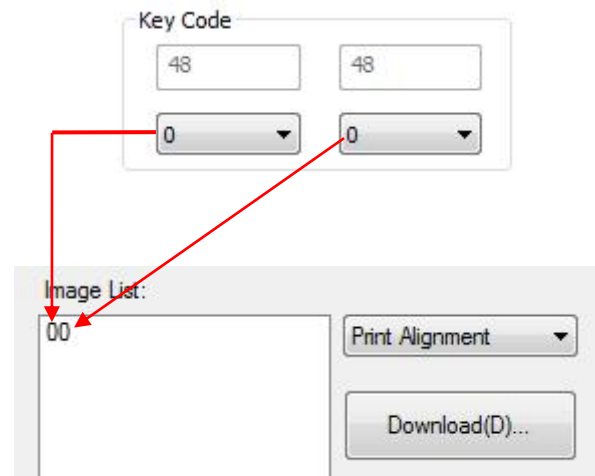
- ⑧ Set the printing time to print and click "OK". (Such as: Start Document)



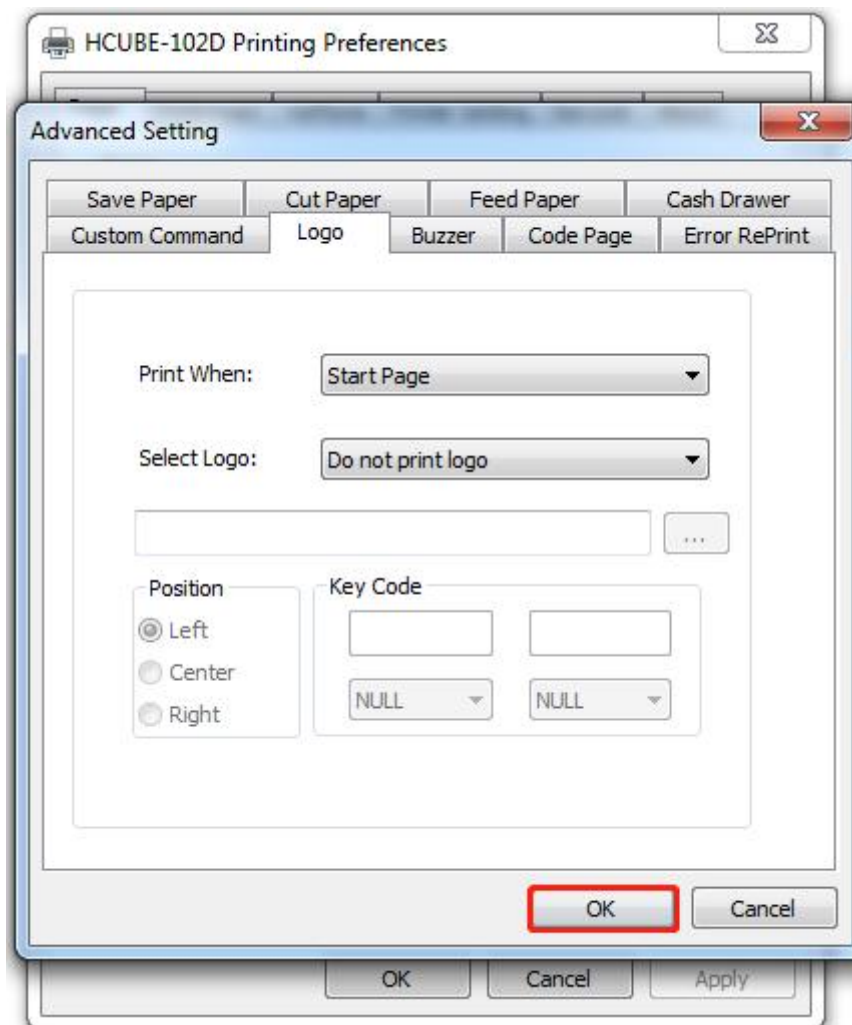
- ⑨ Return to the logo setting in driver, also select "Print left".



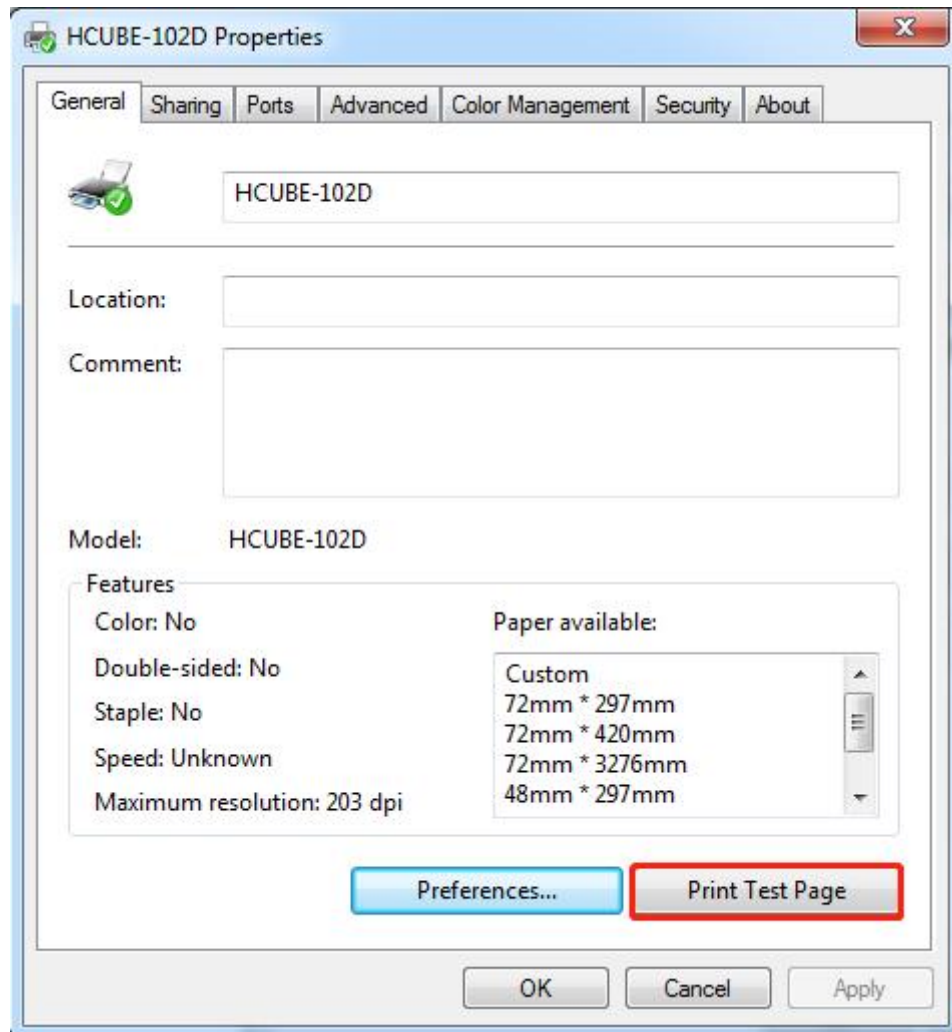
- ⑩ Set the key Code according to the image number. (Such as: 0 0)



⑪ Then click "OK".



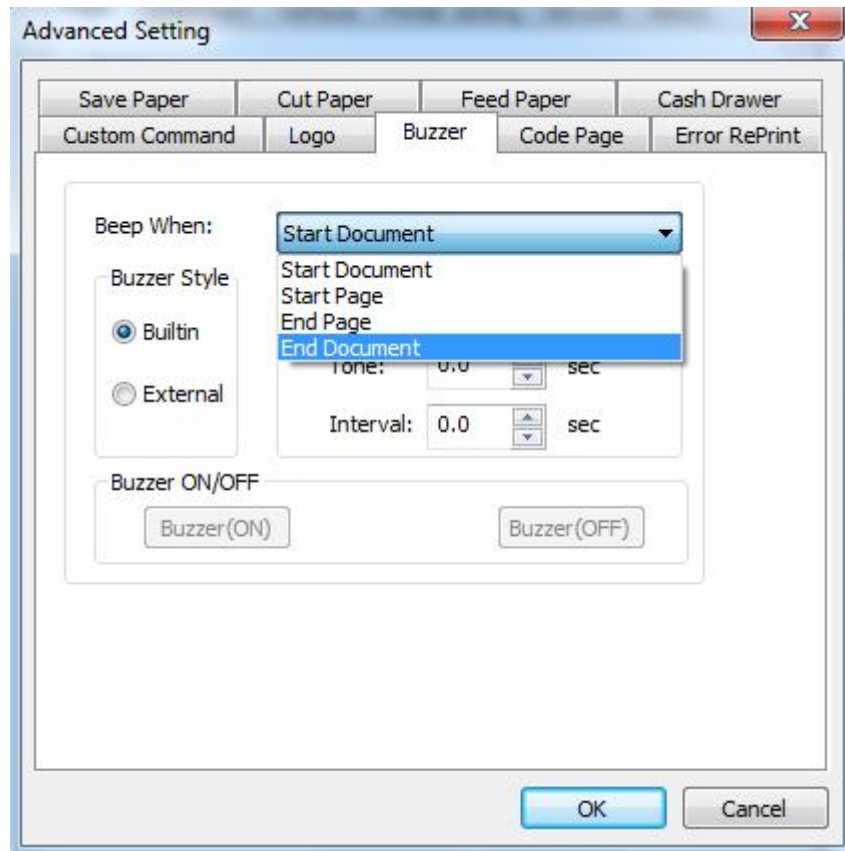
- ⑫ Click “Print Test Page” to view the printing effect.



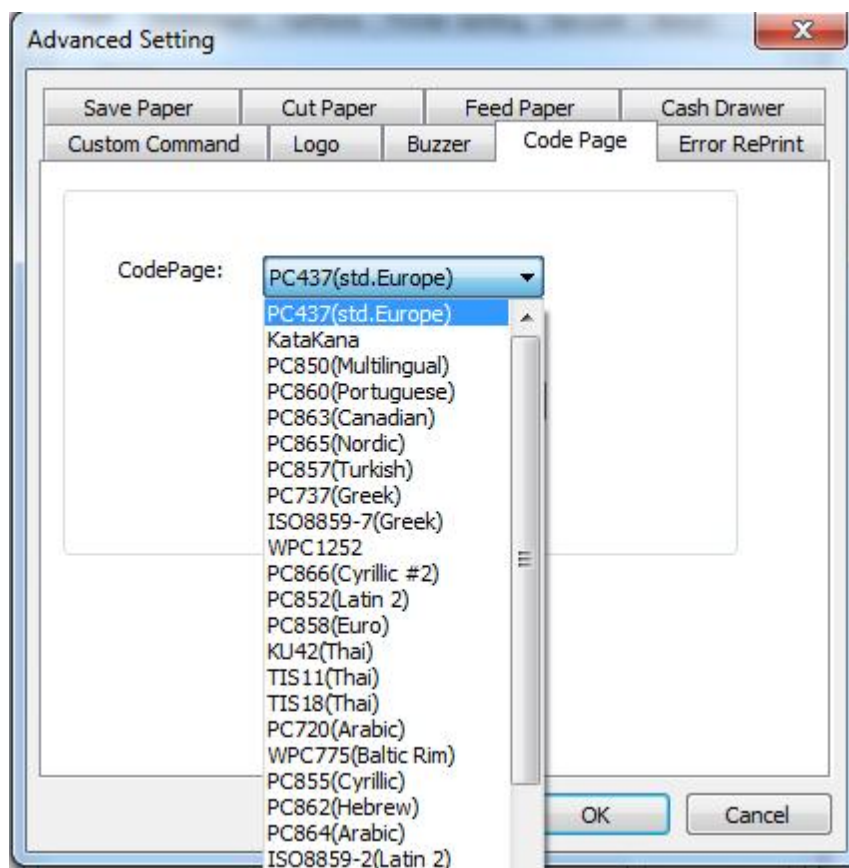
## ■ Buzzer



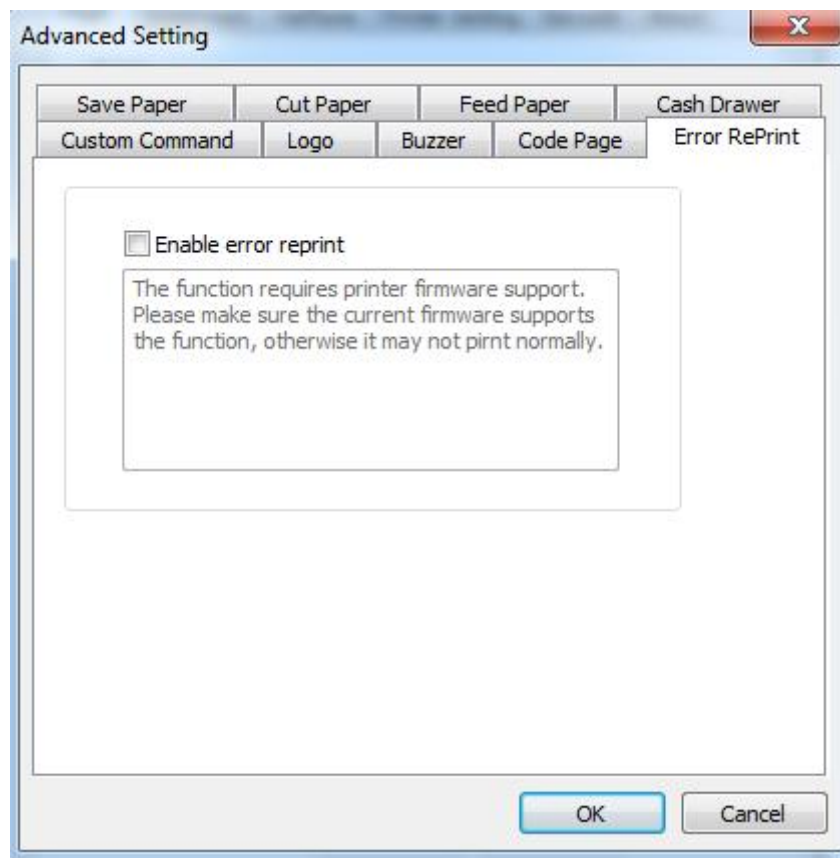
**Note:** this setting need to be set in utility.



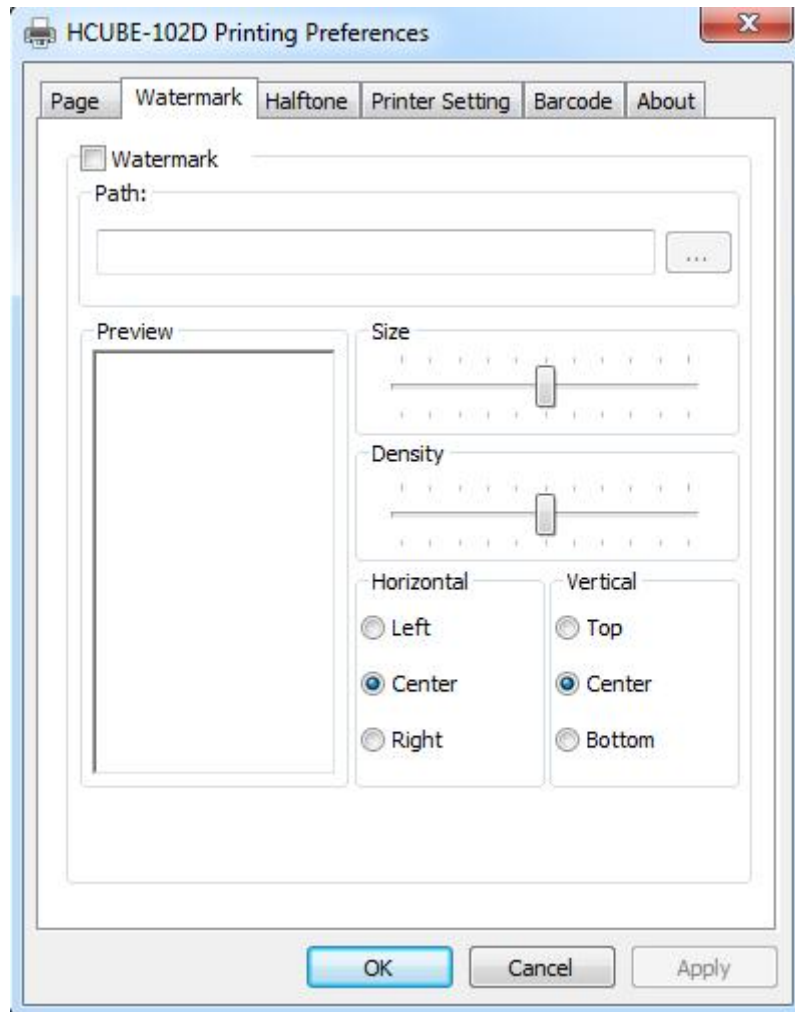
## ■ Code Page



- Error Reprint

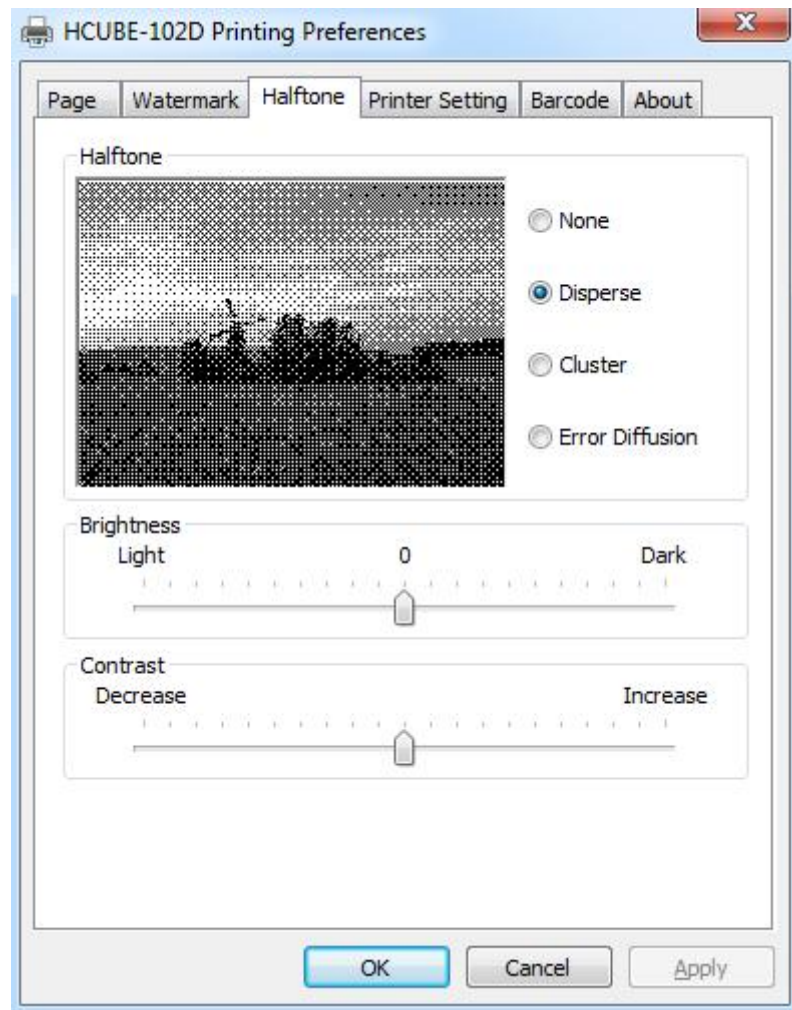


3) Click “Watermark”. Set watermark to print (Only BMP file can be selected).





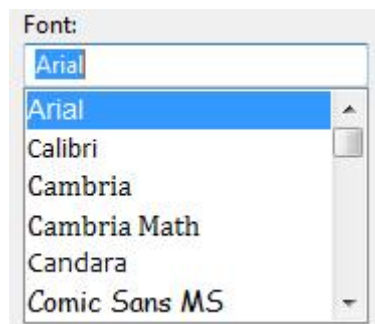
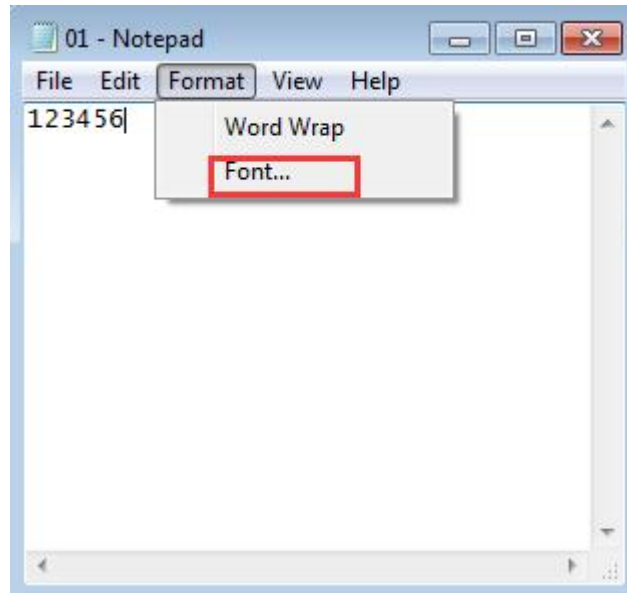
4) Click “Halftone” to set the halftone.



5) Set up the “Barcode”.

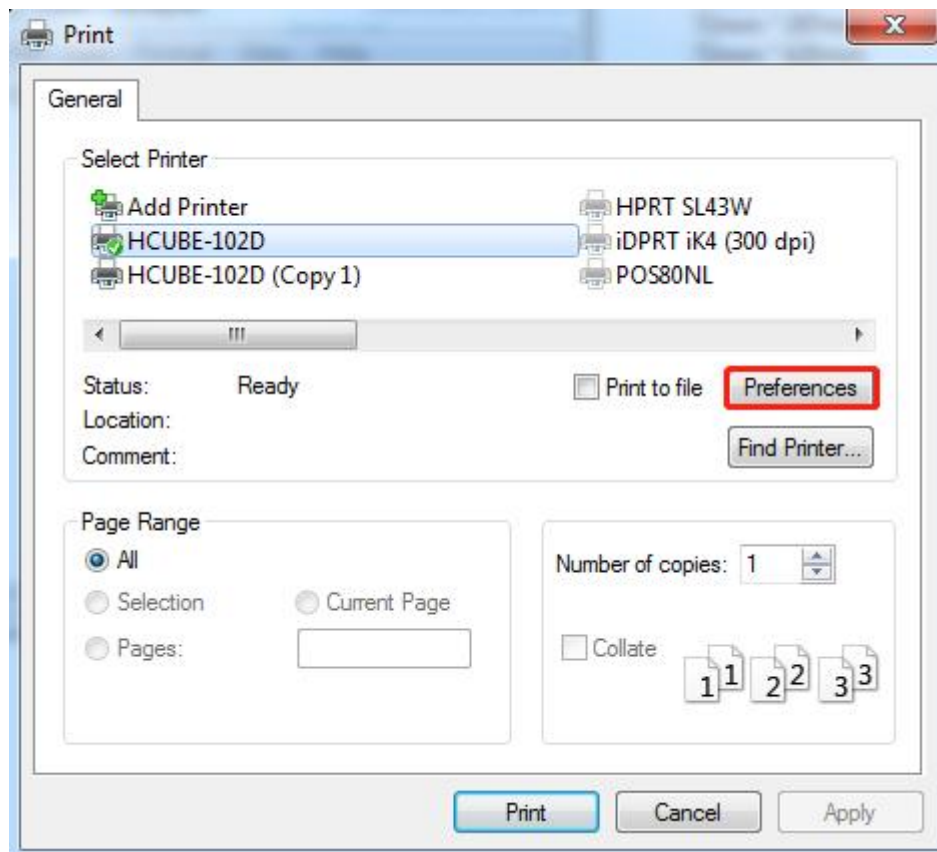
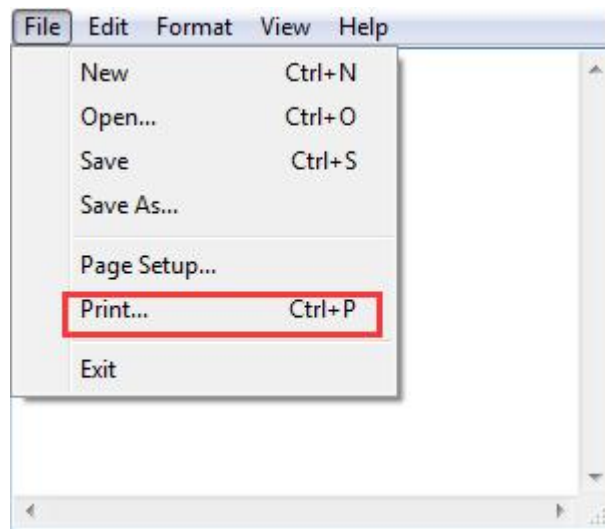
Assuming the font type of the main document is “Italics”, if you want to convert the data “123456” to the barcode printing, the steps are as follows:

- Sets the data "123456" font type to a different font from the main document. Such as: Arial.



- Open the Preference.

If the document is open, you can set it in the document: file-print-preferences.





2) Set the "Font Name" and the "Barcode Option".

Barcode Setting

Font

Font Name: 01

Barcode Options

Symbology: Code39

Width: Auto(3) HRI Position: Below Bars

Height: Auto(162) HRI Font: Auto

Orientation: 0

Symbology Options

Model: Auto Cols: Auto(0)

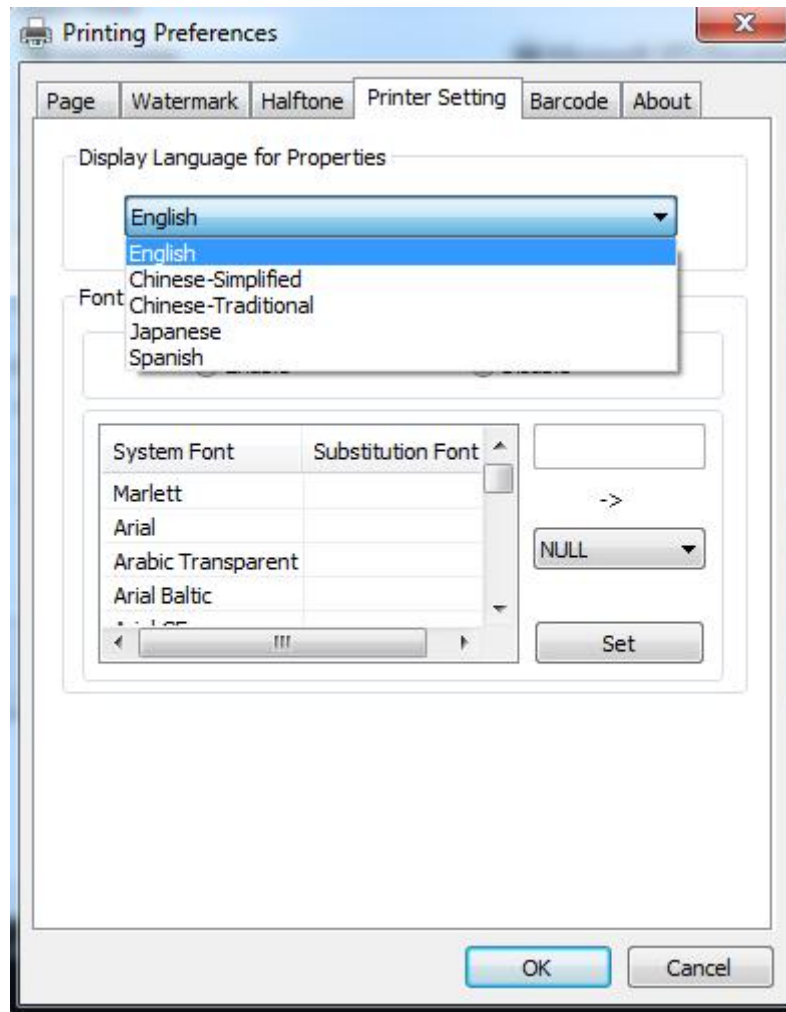
Error Correction: Auto Rows: Auto(0)

OK Cancel

[illegible]

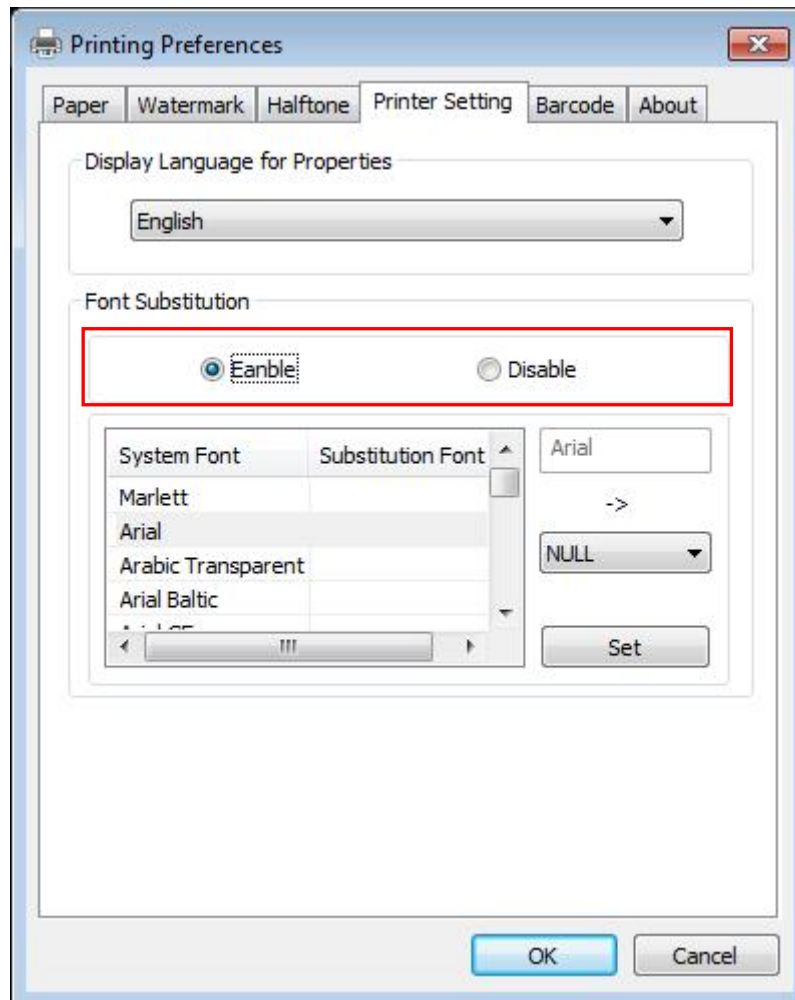
3) Click the “Printer Setting”.

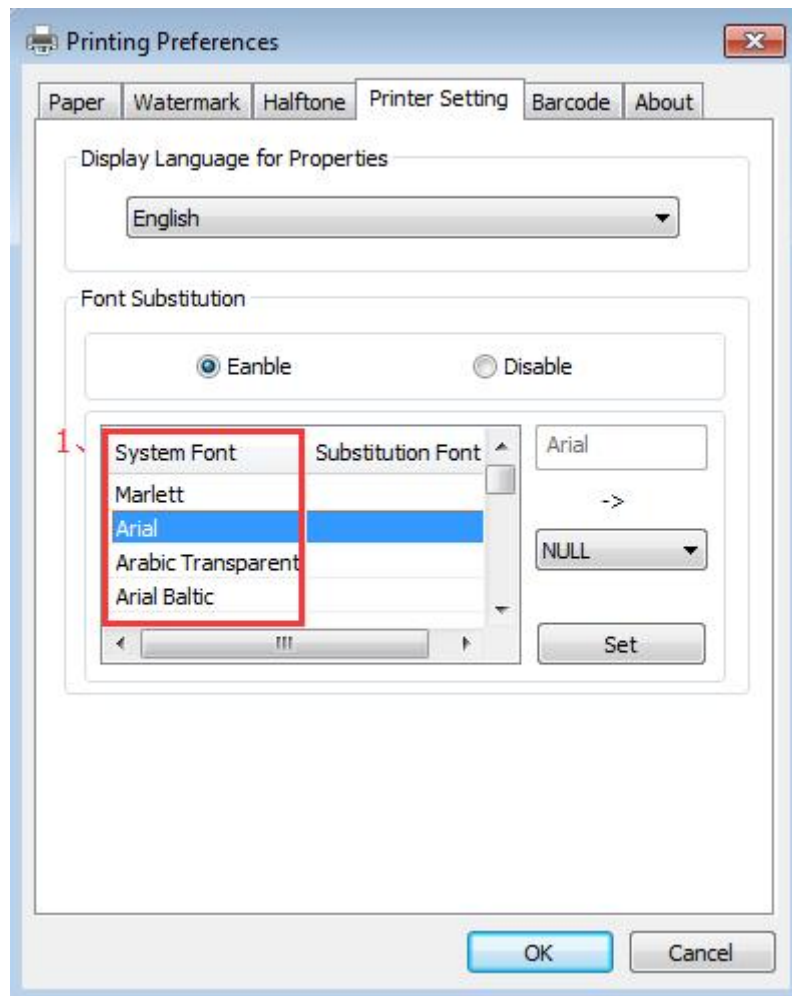
- Choose the “Display Language for Properties”



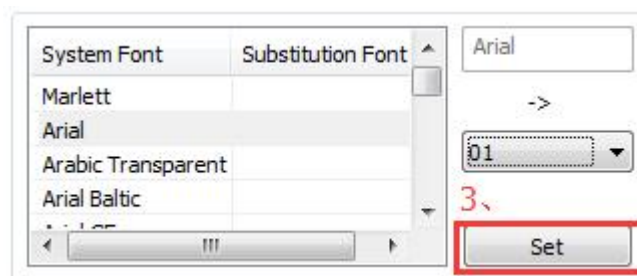
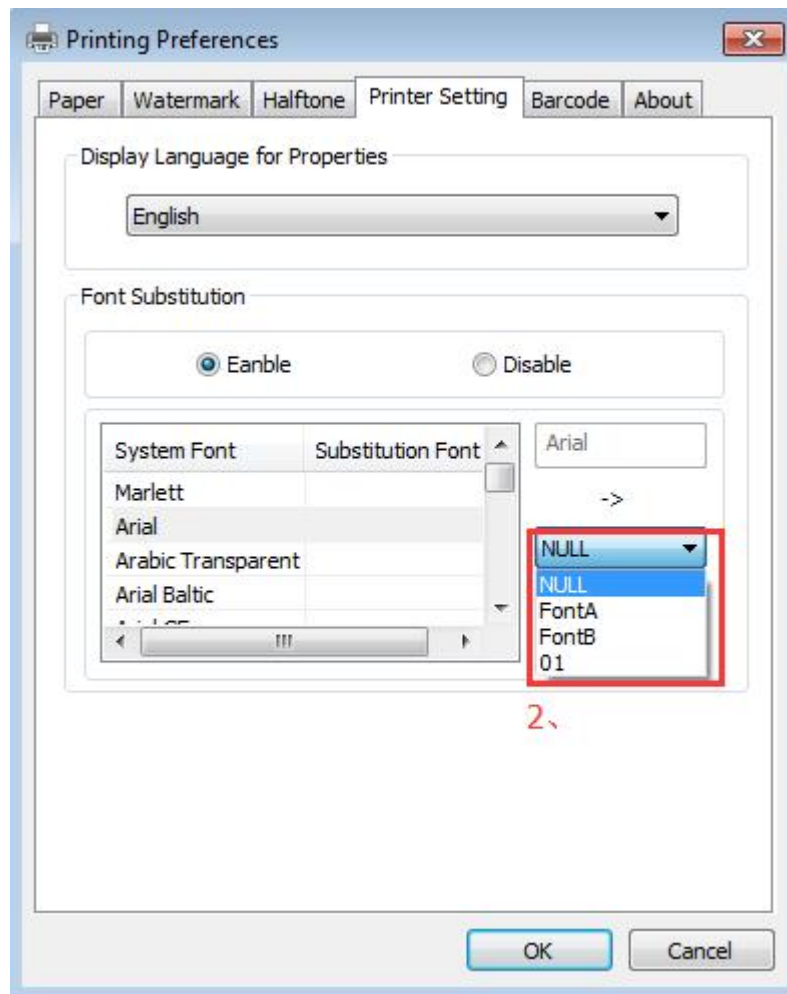
- Turn on the “Font Substitution”, select the system text need to be replaced (for example, Arial), and then select the font you want to replace (for example, 01) and click Settings, and the replacement font will display "01".

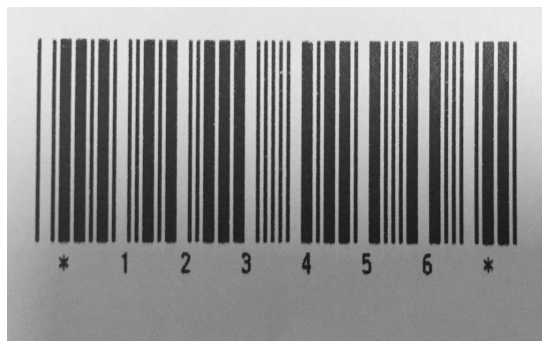
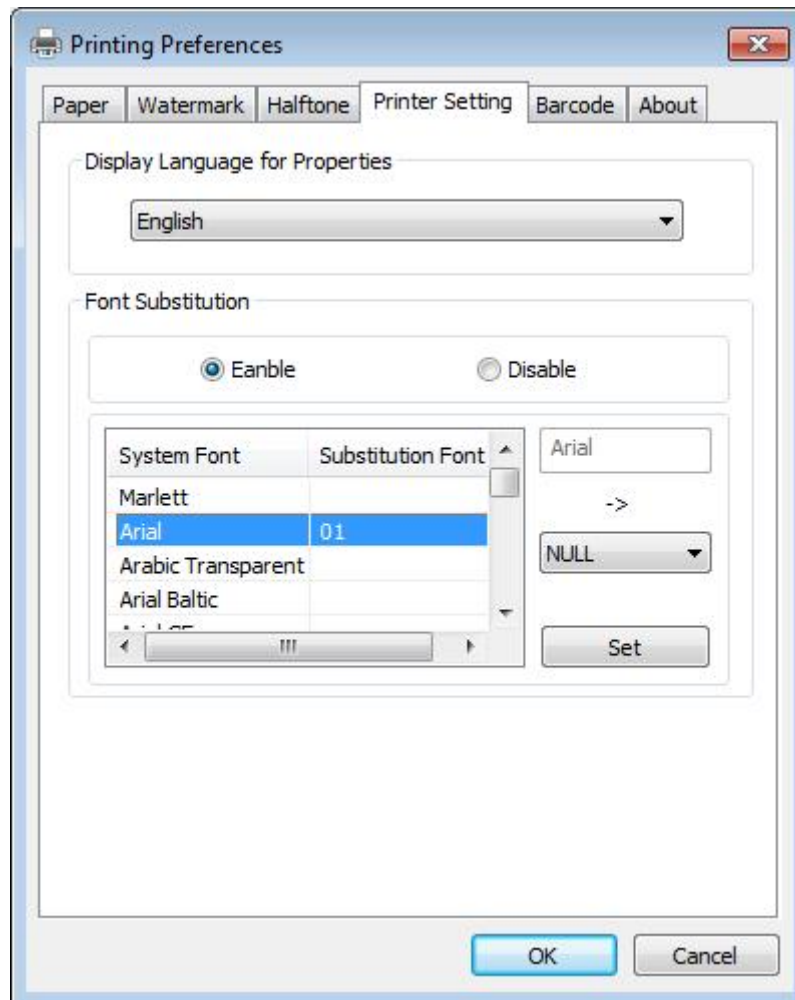
the steps are as follows:





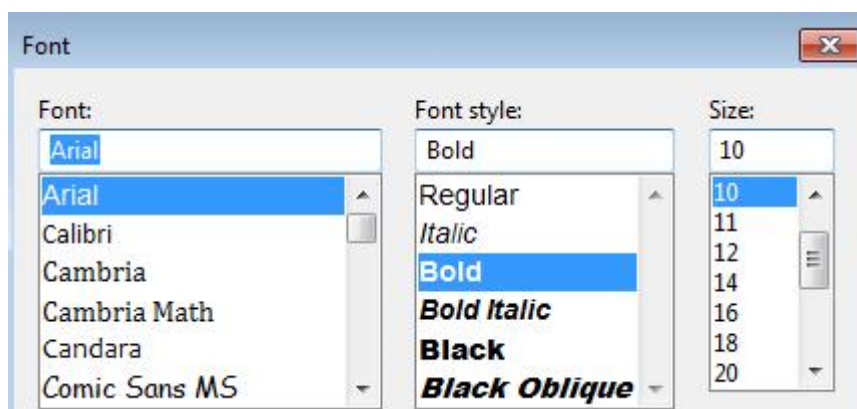




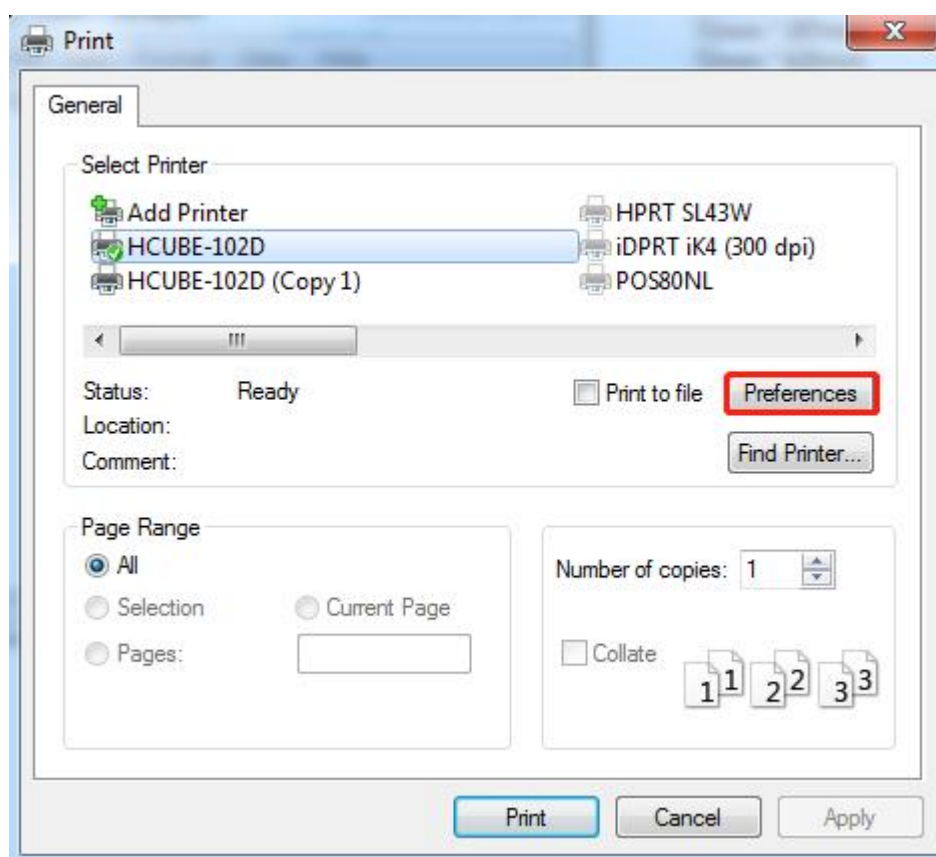


- If you do not have a barcode set, the action is as follows:

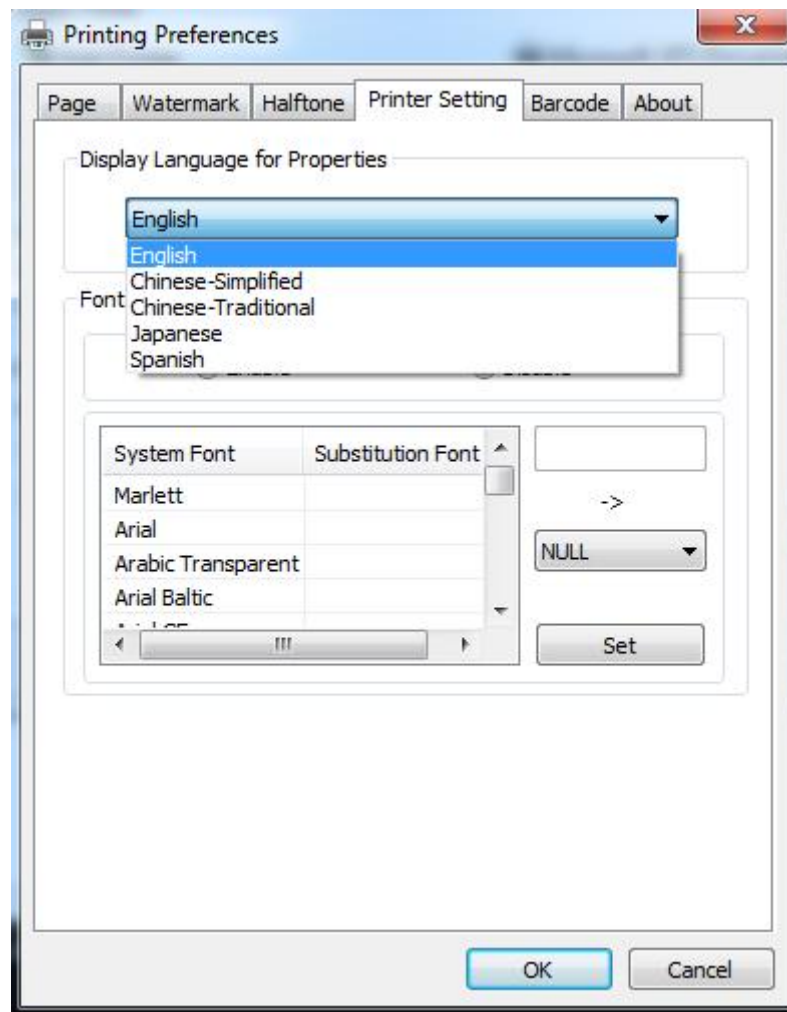
1) Suppose you change the size of the data "123456", for example:



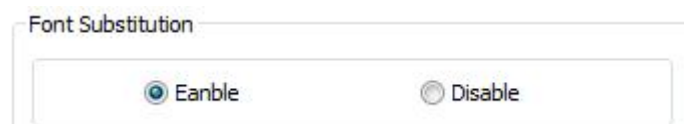
2) Set the Printing preferences.



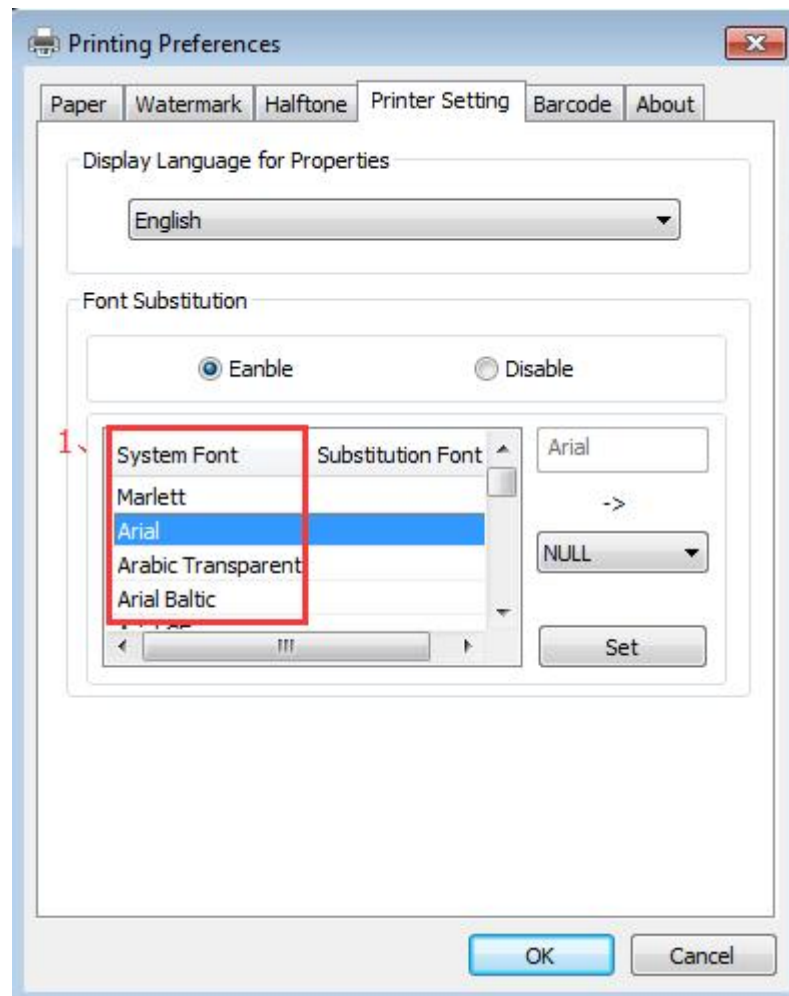
- 3) Click the “Printer Setting”.
- Choose the “Display Language for Properties”.



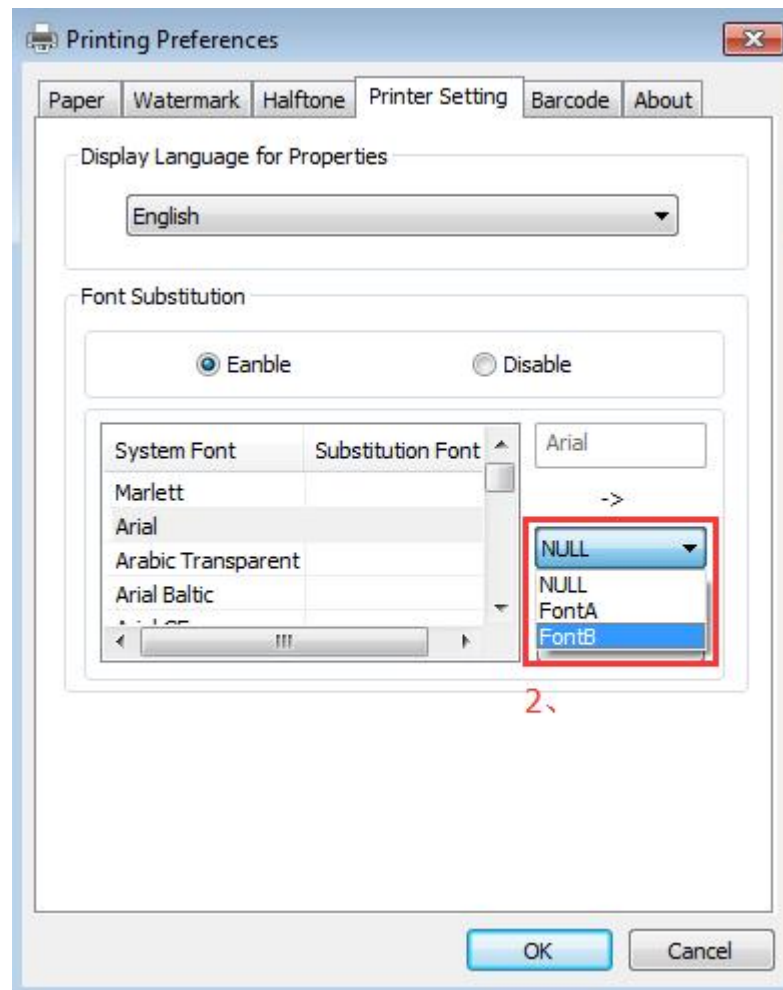
- 4) Turn on the “Font Substitution”.



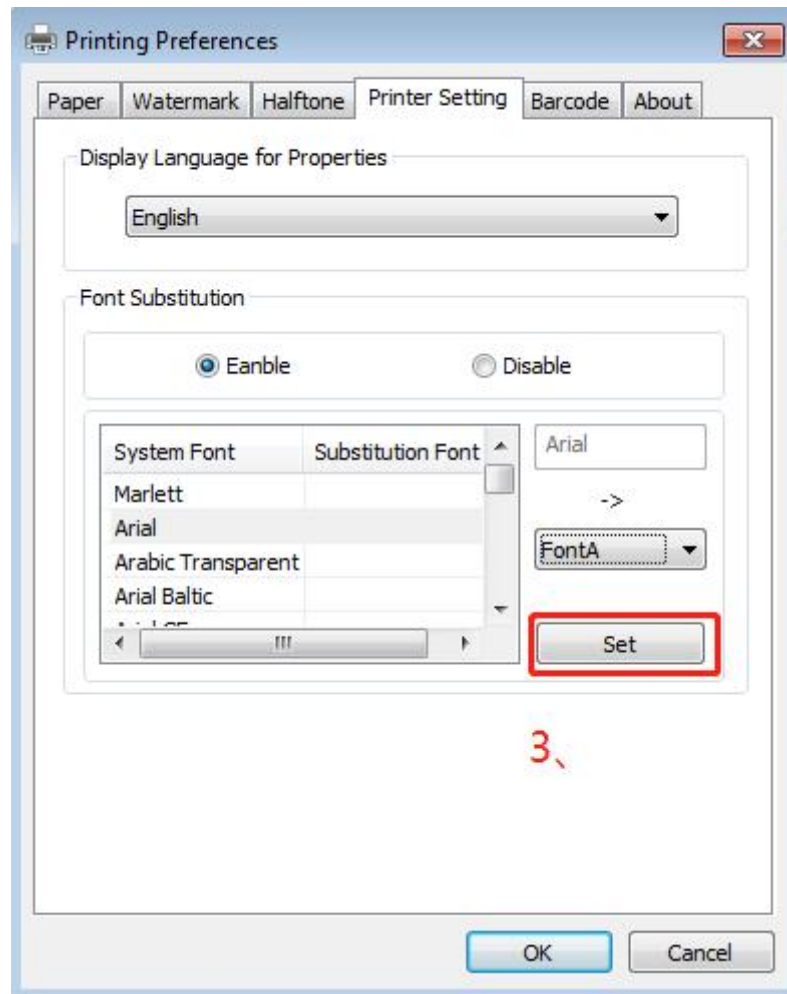
5) Select the “System Font”, for example: Arial.

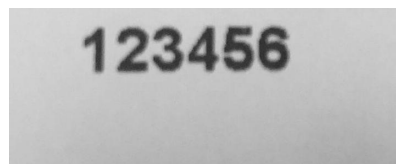
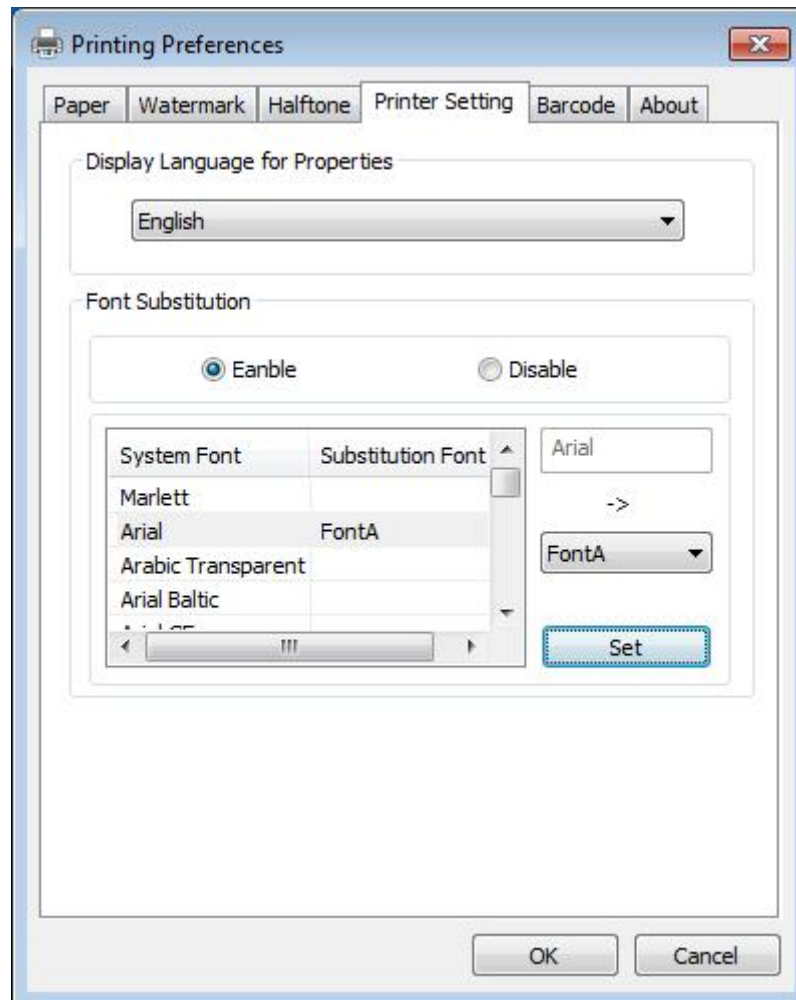


6) Select the font to that you want to replace.



7) Click "Set".

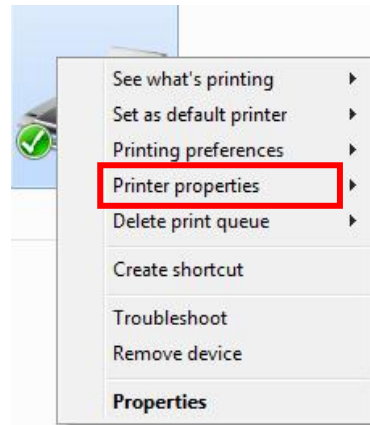




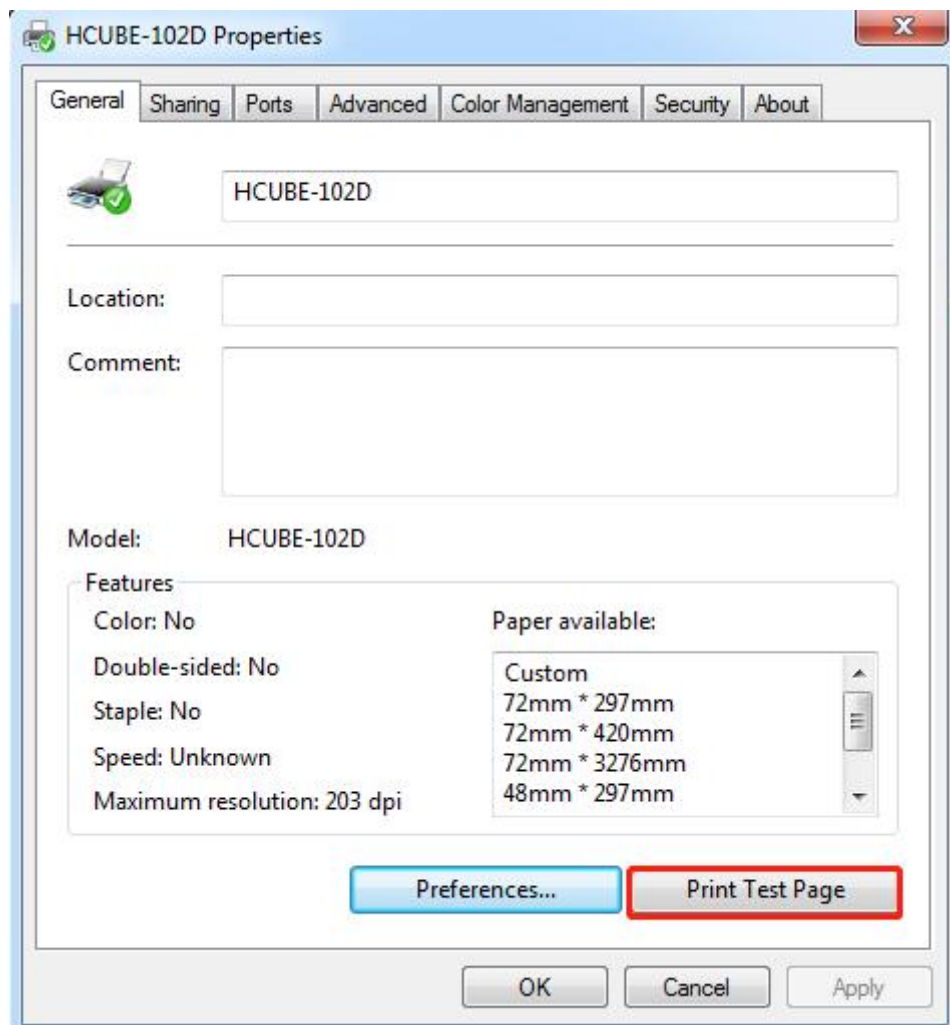


### 9.5.2 Other Settings

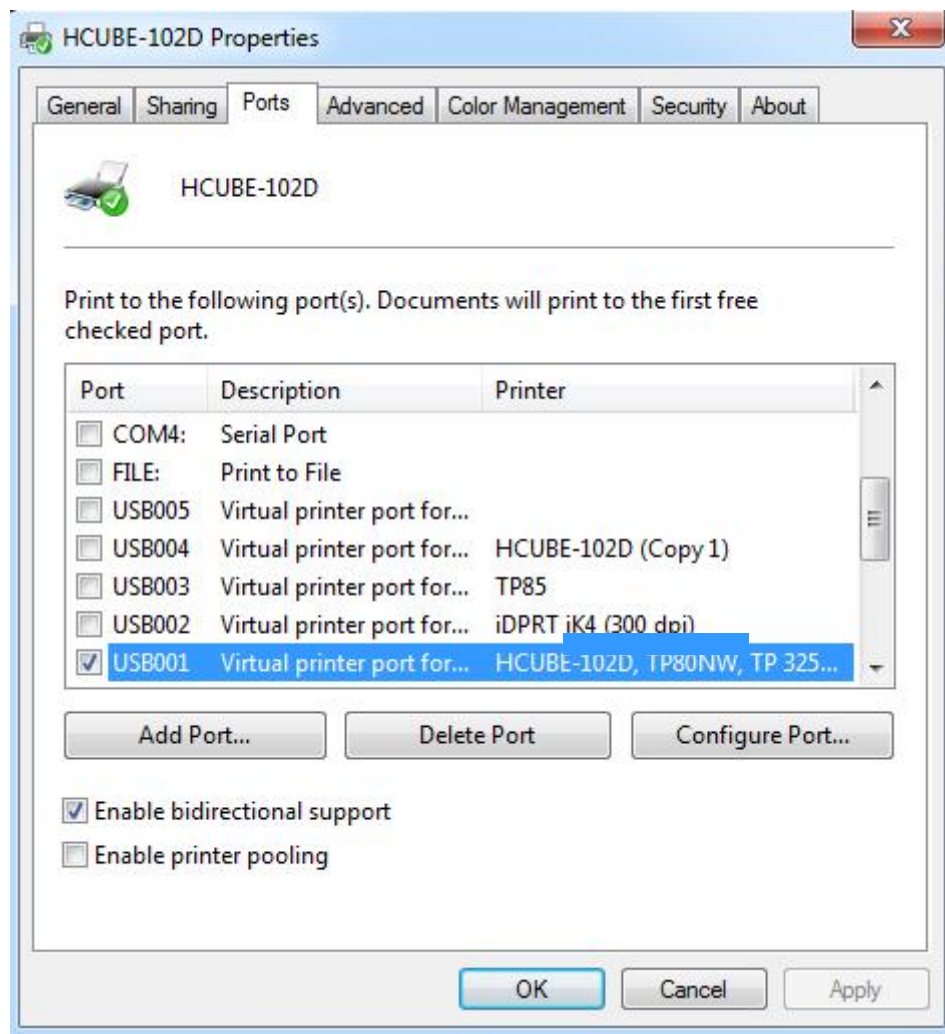
1) Click "Start"→"Devices and Printers". Right click "HCUBE-102D" and choose "Printer properties".



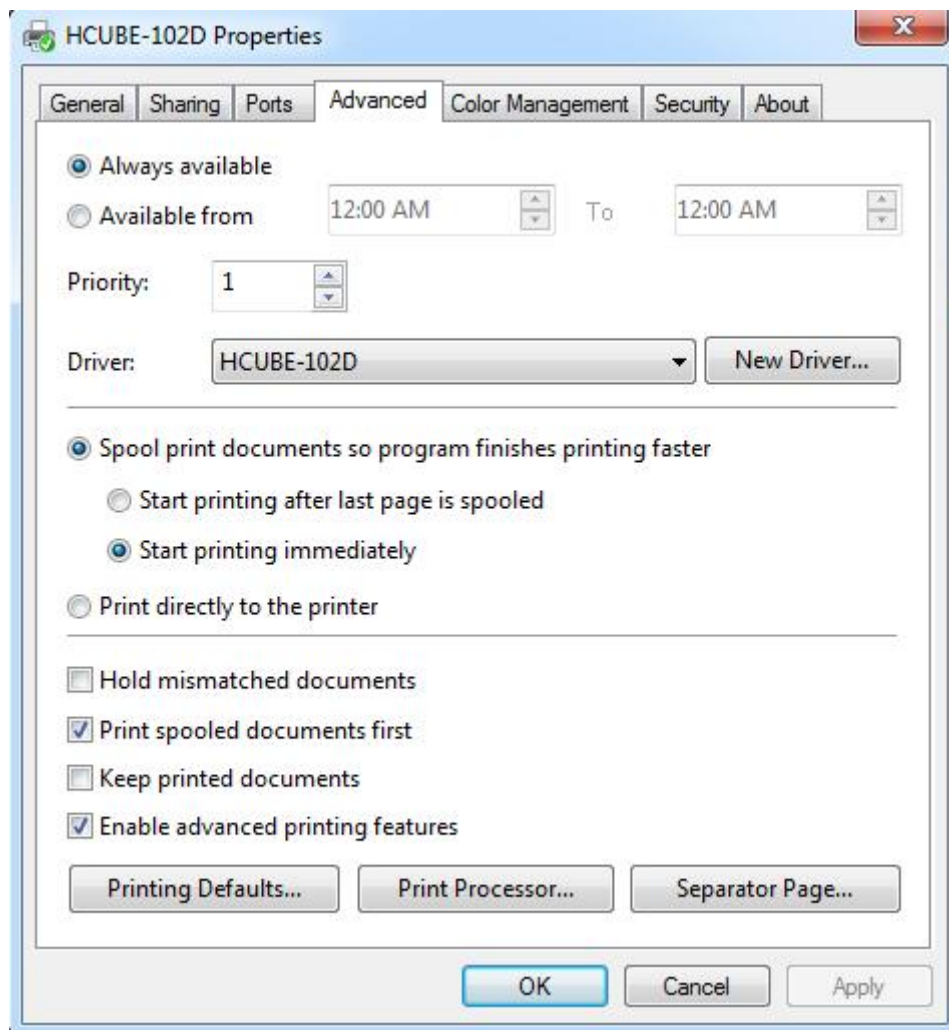
2) Choose "General", click on "Print Test Page", then it will print the current settings.



3) Click "Port" to change the other connecting port.

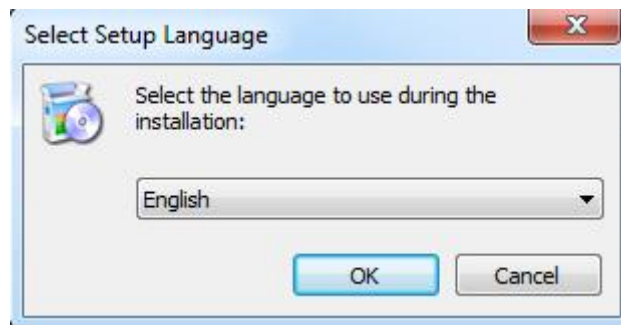


4) Click “Advanced” to set the available time for using.

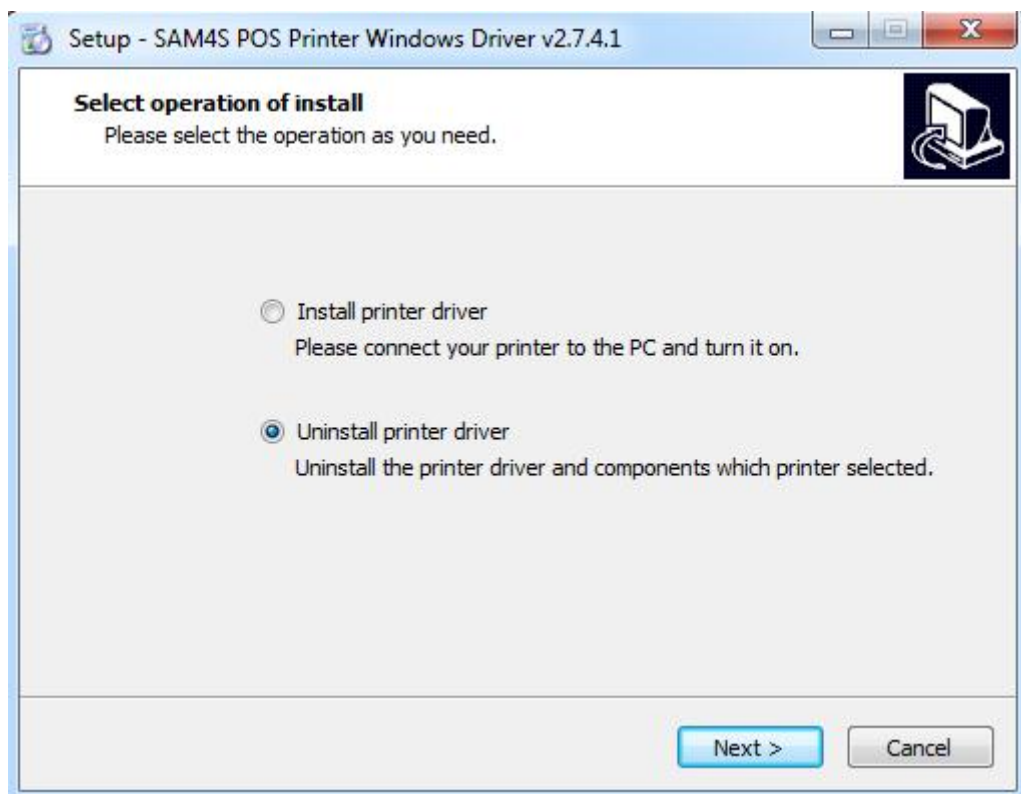


## 9.6 Uninstall Windows Driver

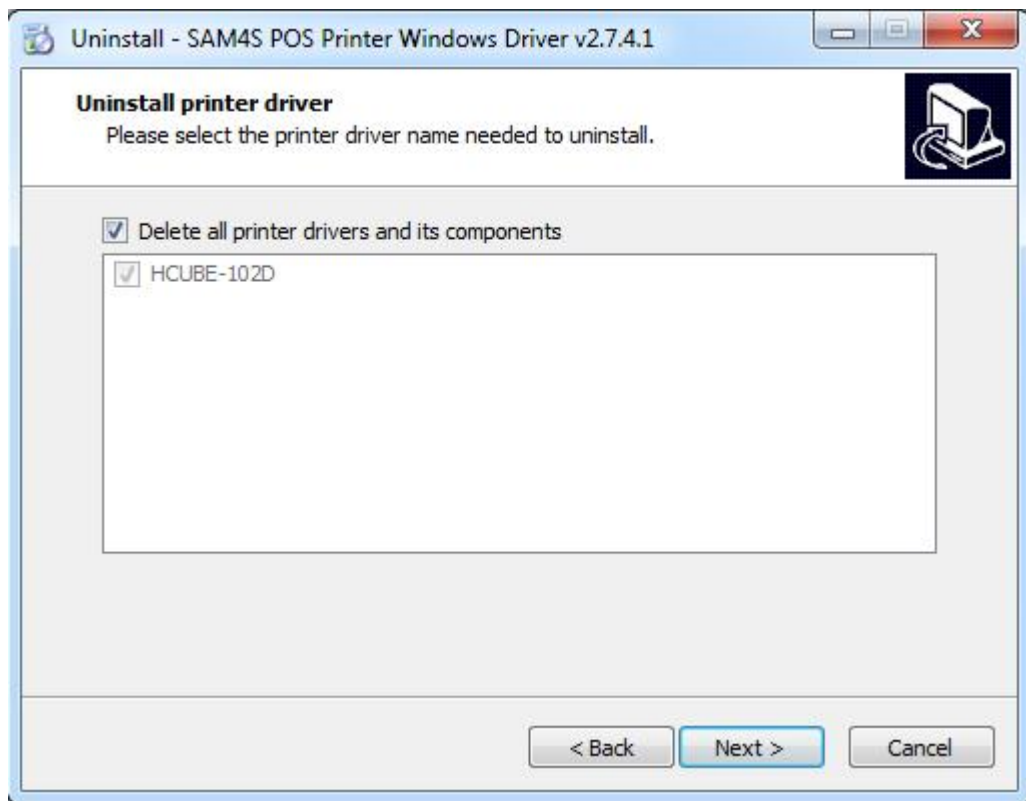
- 1) Double click Windows Driver, and then click “OK”.



- 2) Choose “Uninstall printer driver”, then click “Next”.



- 3) Choose “HCUBE-102D”, then click “Next”



- 4) Then it is complete to uninstall.

## **9.7 Specification**

### **Resolution:**

203×203dpi

### **Paper Size:**

Custom (72.0mm \* 297.0mm)

72mm \* 297mm

72mm \* 420mm

72mm \* 3276mm

48mm \* 297mm

48mm \* 420mm

48mm \* 3276mm