

Intelligent TIJ Inkjet Printer

Operation Manual



The image above shows the TIJ single-head model.

Please read this instruction manual carefully before use and keep it properly.

The images in this manual are for reference only; the actual product shall prevail. All content has been reviewed and proofread.

We apologize for any printing errors or omissions!

Table of Contents

Product Warranty Card	- 1 -
Precautions for Using Quick-Dry Ink Cartridges	- 2 -
TIJ Inkjet Printer Interface Description	- 3 -
TIJ Inkjet Printer Interface	- 4 -
1. Printing	- 5 -
2. Storage Instructions for TIJ High-Capacity Models	- 6 -
3. Editing Functions	- 8 -
3.1. Menu Description for 1-2 Head Models	- 9 -
3.1.1. Text	- 10 -
3.1.2. Date	- 12 -
3.1.3. Counter	- 13 -
3.1.4. Graphics Code (Barcode/QR Code)	- 14 -
3.1.5. Table	- 15 -
3.1.6. Common Icons	- 16 -
3.1.7. Image	- 16 -
3.1.8. TXT File	- 18 -
3.1.9. EXCEL File	- 19 -
3.1.10. More Functions	- 20 -
3.1.11. Print Settings	- 21 -
4. System Settings	- 27 -
4.1. Time Settings	- 27 -
4.2. File Management	- 27 -
4.3. Sensor Detection	- 28 -
4.4. System Information	- 29 -
4.5. System Settings	- 29 -
4.6. Remote Settings	- 31 -

Product Warranty Card

Under normal use and maintenance, if product quality issues are found within the warranty period, the company will provide free repair or replacement. The product quality warranty period is shown in the table below:

Model:		Distributor:	
Serial Number:		Purchase Date:	
Remarks:			
Product Warranty Period	Product	Warranty Period	
	Inkjet Printer		
Cause of failure:			
Contact Number:			

Disclaimer:

This product is not covered under warranty if damaged due to human factors such as severe impact, exposure to open flames, water ingress, corrosion by unknown chemicals, or unauthorized disassembly during use.

If the machine encounters a fault, please back up important information on the device before sending it for repair to prevent loss.

If the inkjet printer shows abnormal operation, please contact the maintenance engineer by phone or call the manufacturer's service hotline immediately.

Untrained personnel are strictly prohibited from operating the inkjet printer.

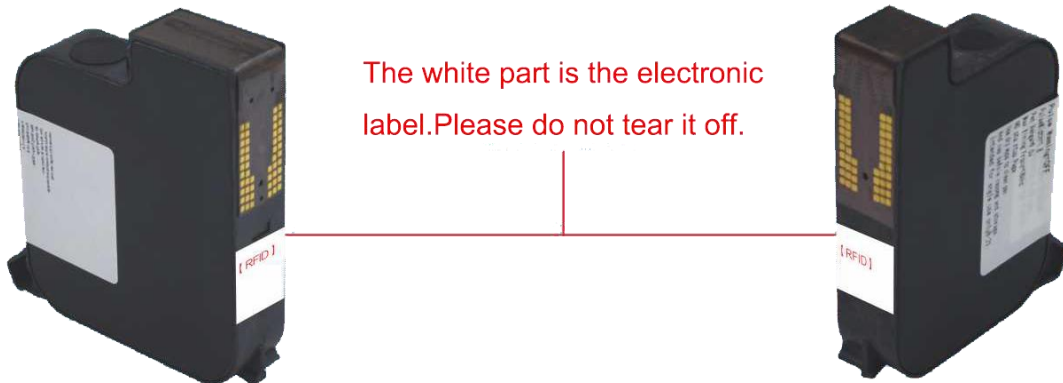
Unauthorized disassembly of the inkjet printer is strictly prohibited without permission from the manufacturer's staff.

The inkjet printer operator must read the manual carefully before operating the machine.

The company reserves the final right to interpret this disclaimer.

Precautions for Using Quick-Dry Ink Cartridges

1. The machine power must be turned off before installing or removing the ink cartridge.
2. If the machine is not used for more than 20 minutes, the ink cartridge must be removed from the machine and secured with the clip. [Be sure to keep the clip safe]
3. Due to the specific properties of the ink cartridge, it is best to use it up within 3 months after opening and powering on.
4. Because the ink cartridge is quick-drying, slight stringing or missing lines during use are normal.
5. If stringing or missing lines occur, you can wipe the print head gently in one direction with a soft paper towel. [Do not use hard materials that could damage the print head]
6. If it is quick-dry white ink, shake it for 5-10 minutes before each use, otherwise the color will be relatively light. [Be careful not to shake too vigorously]

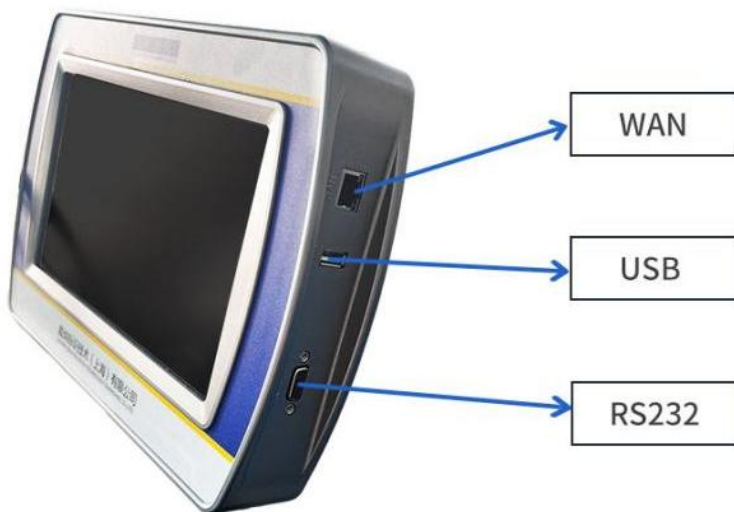
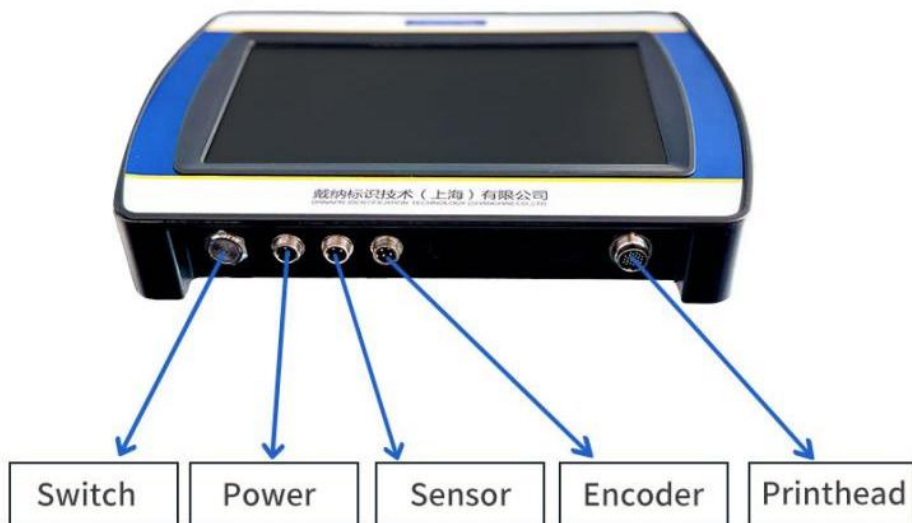


1 inch ink cartridge(25.4mm)

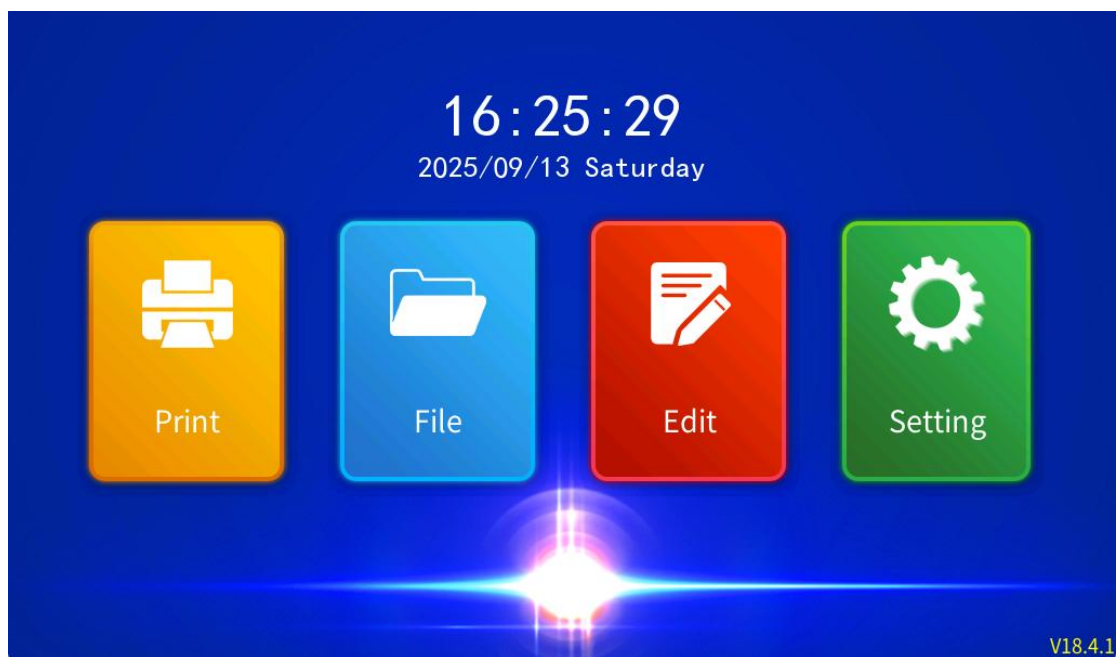
1/2 inch ink cartridge(12.7mm)

TIJ Inkjet Printer Interface Description

Note: Strictly prohibit hot-plugging the print cable, otherwise it may burn out the print head.



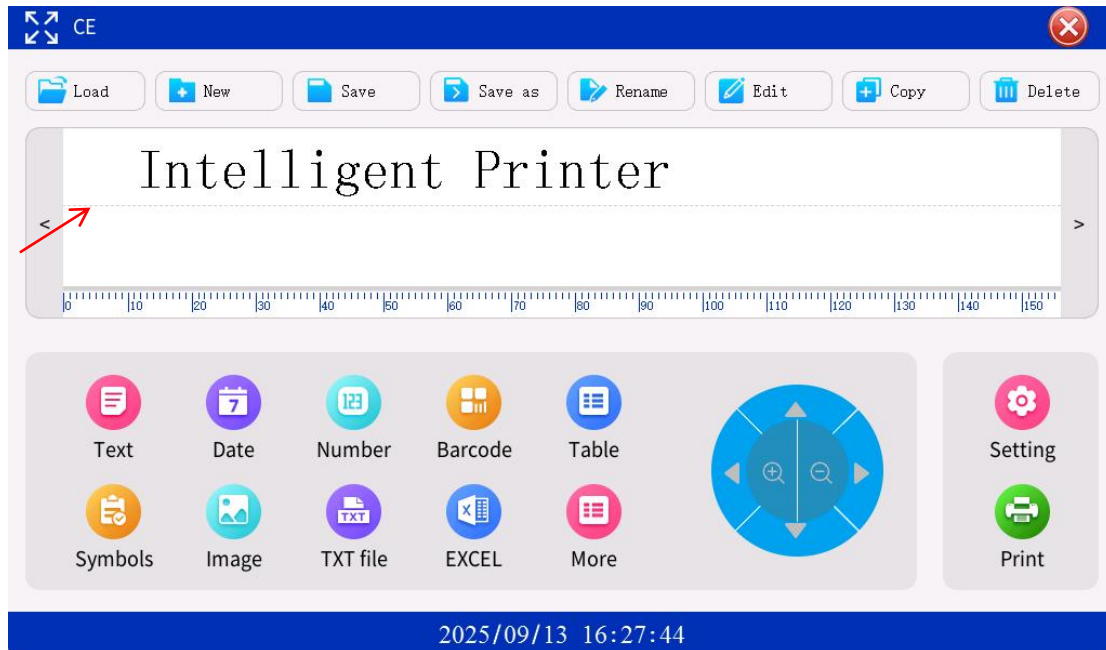
TIJ Inkjet Printer Interface



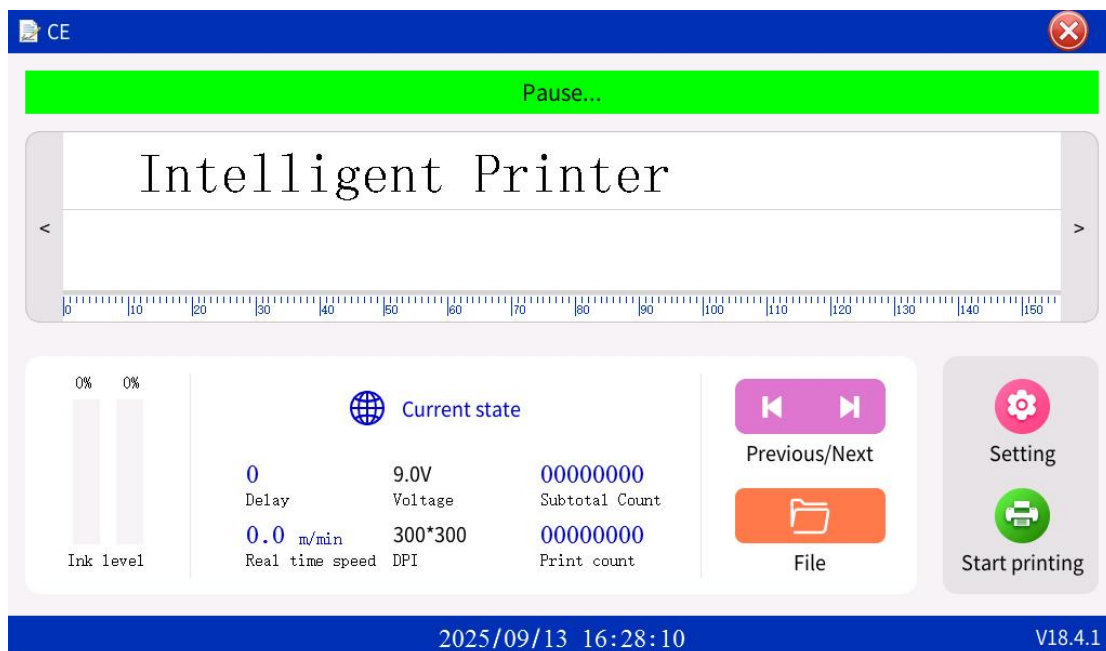
Print: Enter print interface Edit: Enter edit interface File: View saved files Settings: Enter system settings Language selection: Switch system language



1. Printing



Red arrow in the edit box indicates the dividing line between nozzles 1 and 2



Previous: Print previous item

Start Printing: Click to start printing

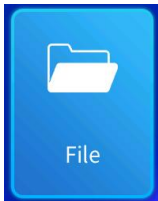
Next: Print next item

Return: Enter edit interface

Print Settings: Enter settings interface

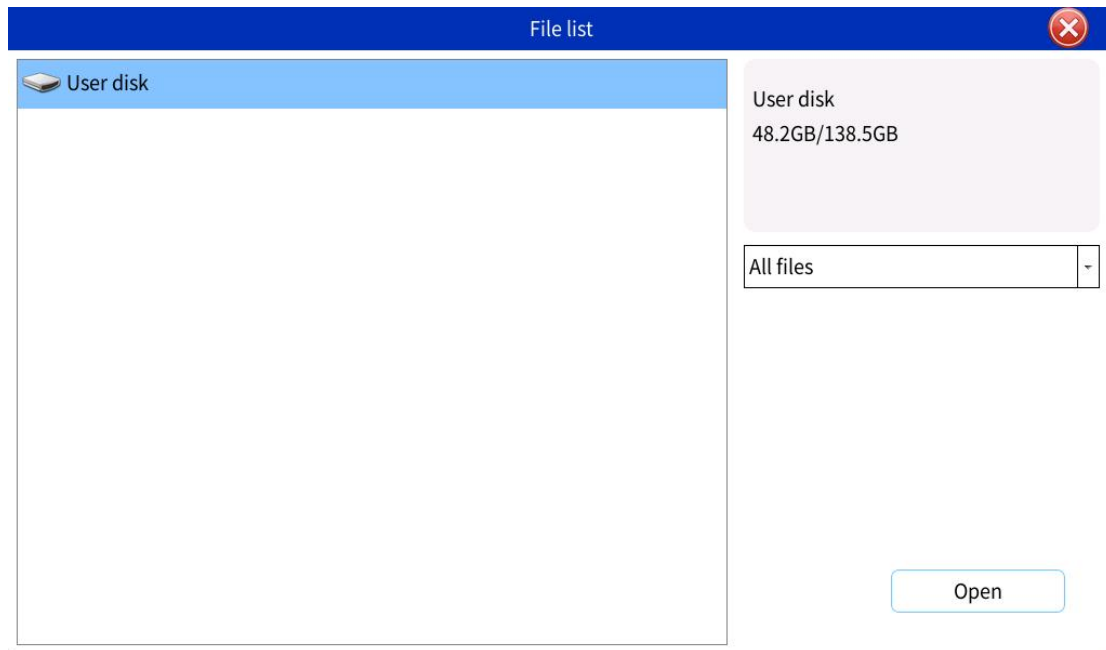
File Selection: View saved files

The status bar displays parameters such as print delay, print speed, dpi, ink cartridge voltage, etc.; for display only, cannot be clicked to modify. The ink level bar cannot modify the remaining amount by default; special versions can be modified according to actual needs, the modified value is for reference only. It shows a red reminder when below 20%.

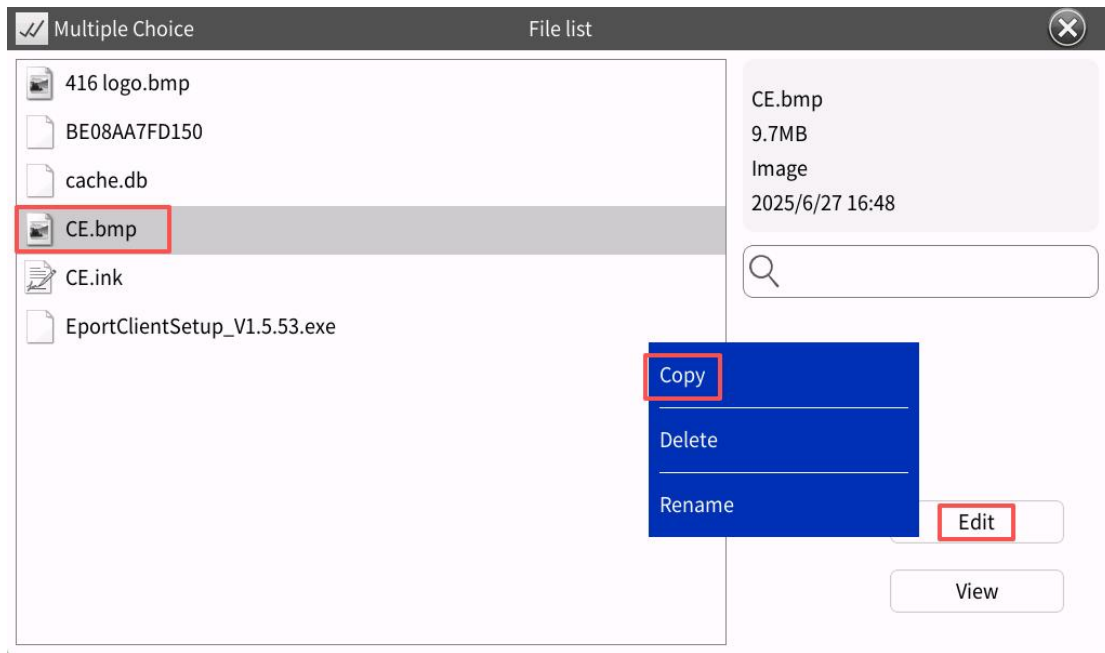


2. Storage Instructions for TIJ High-Capacity Models

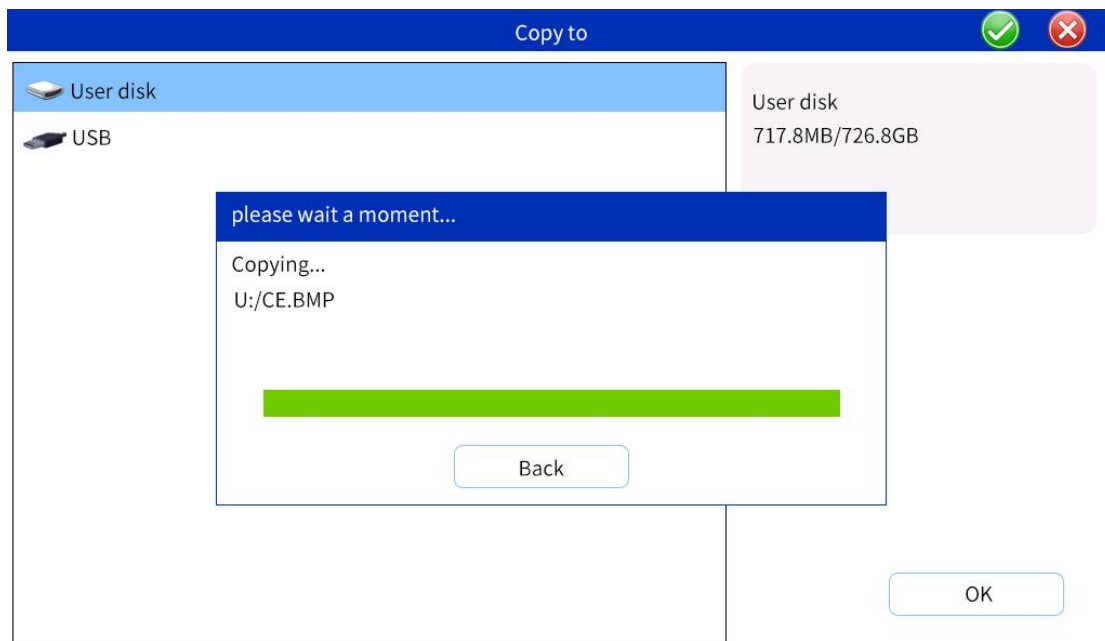
Step 1: Insert the USB drive, click File Management on the main interface, the following interface appears:



Step 2: Open the removable disk, find the corresponding file, take the file named "CE" as an example, select and copy it. As shown below:



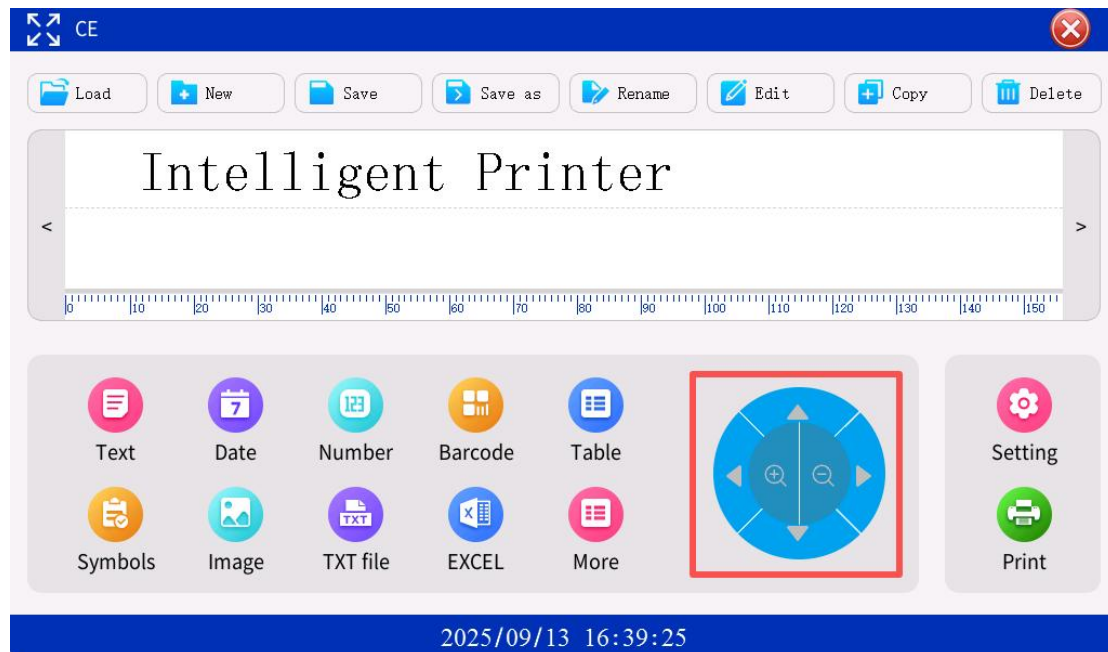
Step 3: After copying is complete, return to the following image and select Local Disk.



Step 4: Open the Local Disk interface and paste. Return to the edit interface to call the currently pasted file. Files including images, txt, excel, font files, etc., can all be stored inside the inkjet printer using the above method.



3. Editing Functions



 (Move Down)  (Move Up)  (Move Left)  (Move Right)  (Font Enlarge)

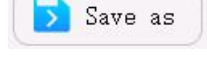
 (Font Reduce)  (Full Screen Mode)

Full Screen Interface



Scaling 100% 50% 25%

3.1. Menu Description for 1-2 Head Models

 Text	Edit Chinese, numbers, English, symbols, etc.		Exit current interface
 Date	Edit variable year, month, day, hour, minute, second	 Print	Click to enter print interface, click again to start printing
 Number	Edit variable serial numbers, patterned numbers	 Load	Open saved message
 Barcode	Edit barcodes, QR codes, etc.	 New	Create a new message (defaults to the print parameters bound to the last called message name)
 Table	Create a new blank table	 Save	Click to save message name (and bind print parameters)
 Symbols	R mark, diameter mark, handle with care, upward, etc.	 Save as	Save as another file
 Image	Edit product, image, logo (USB import only)	 Rename	Rename message name
 TXT file	Import TXT file (USB import only)	 Edit	Modify edited message, or double-click text to modify
 EXCEL	Import EXCEL file (USB import only)	 Delete	Delete edited message segment
 More	Add message segment	 Copy	Copy a content item



Text

3.1.1. Text

Click "Text" to enter the interface below, where you can edit Chinese, English, numbers, symbols, etc.

Font
Text input
✓
✗

<
>
<---

1	2	3	4	5	6	7	8	9	0
Q	W	E	R	T	Y	U	I	O	P
A	S	D	F	G	H	J	K	L	
Caps	Z	X	C	V	B	N	M	Enter	
ABC	123	YY	Space				Symbol		

123 Insert counter, <--- Delete character, < > Page turn selection,

YY Insert date,supports specific letters representing specific time, month, day of week,

ABC Switch input method

Language
✗

English	PY	Phonetic	Russian
Arabic	French	German	Polish language
Vietnamese language	Japanese	Greek	Korean
Turkish language	Spanish	Italian	Uzbek
Portuguese	farsi	Thai	Ukrainian
Hungarian	Romanian	Handwriting	



Font Settings

Font: Song typeface, Kai typeface, Li typeface, Hei typeface, etc.

Style: Solid, Dot Matrix, Strikethrough

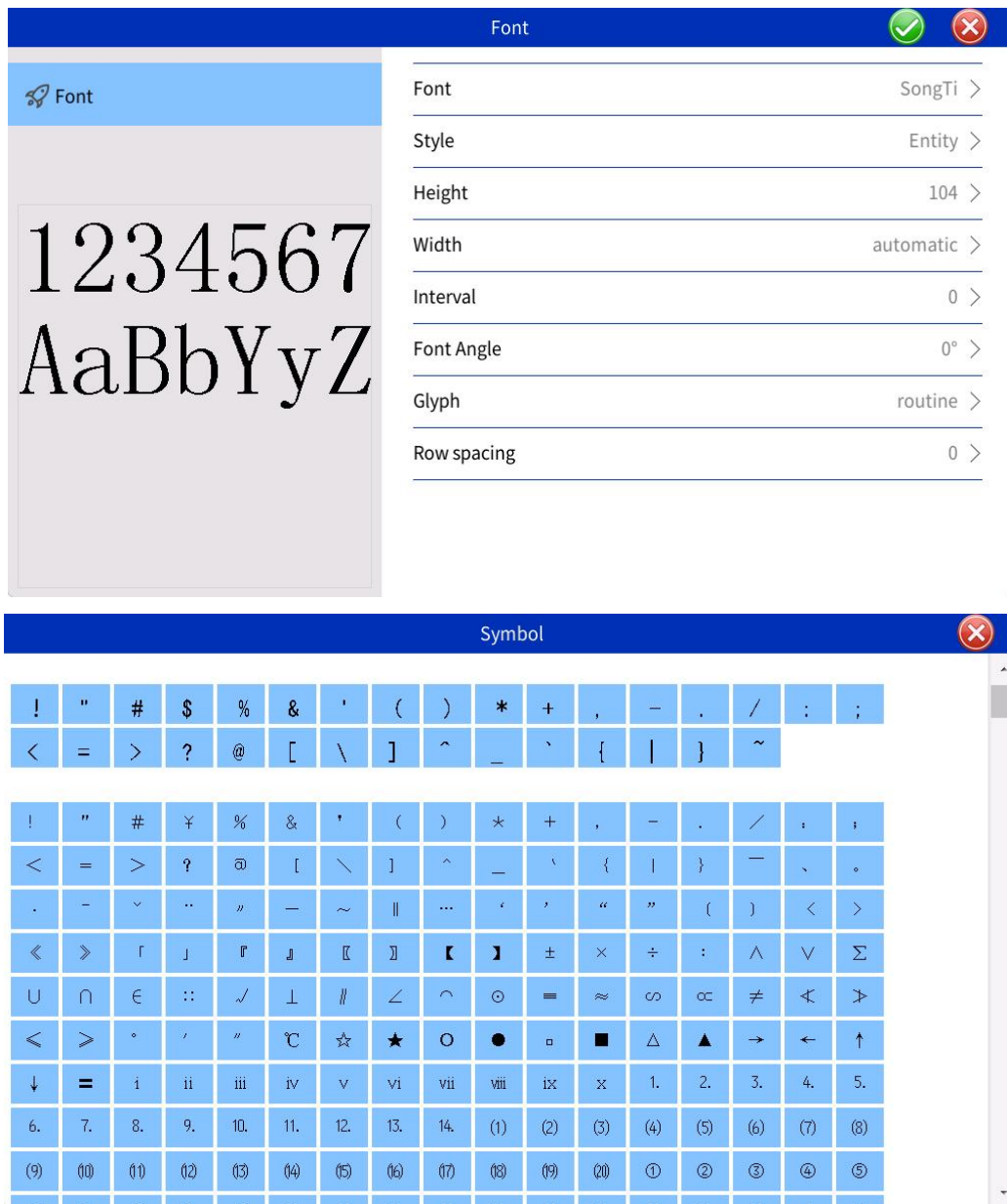
Character Height: 12-999 (Single/Dual head), 12-3000 (3-6 head), 12-4000 (7-10 head)

Character Width: 0-999 (Single/Dual head), 0-1999 (3-10 head)

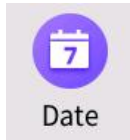
Character Spacing: 0-99

Rotation Angle: 0-360 degrees single font rotation

Font Style: Regular, Bold, Italic, Bold Italic



Note: Using full-width symbols will increase the character spacing.



3.1.2. Date

Click "Date", select the corresponding date or time format. Expiration Date: Set the validity period (used in combination with the production date). Font Settings: See "Page 11" for details.



Date/Time

2025-09-13

Term

0



(0)Year

(0)Month

(0)Day



3.1.3. Counter

Base: Decimal, Hexadecimal

Repeat Count: Number of times to repeat printing

Digits: Number of digits (1-15 digits)

Step: The step size for counter changes

Change: Auto-increment, Auto-decrement

Maximum Value: The end value for counting

Current Value: The current value of the count

Minimum Value: The start value for counting

Font Settings: See "Page 11" for details.

Leading Zeros: Yes (e.g., 0001, 0002, 0003), No (e.g., 1, 2, 3)

Variable Settings

Font		Number			
Hex	Decimal	Repeat	0/1		
Bit	4	Stepping	1		
Supply	Yes	Max value	9999		
Change	Increment	Min value	0		
Current value	0	Decimal places	Nothing		



3.1.4. Graphics Code (Barcode/QR Code)

Graphics Code: Enter the text to be recognized in the right box, the corresponding barcode will be displayed in the left box.

Graphics Code Settings: Change barcode type

Barcode Type: EAN2/5/8/13/14, CODE128, QR Code, Data Matrix (DM) Code, GS1 Code, etc.

Horizontal Stretch: Freely modify the value to change the width ratio of the QR code, ensuring the printed QR code is square.

It is not recommended to modify the horizontal stretch ratio when printing variable codes, as it may affect the printing speed.

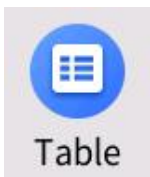
When printing barcodes, you can choose whether to display the barcode text and the size of the barcode text.

Select code ✓ ✕

UPCA
UPCE
EAN2/5/8/13
EAN14
INT25
CODE39
CODE128
EAN128
PDF417
DATAMATRIX
QR
HANXIN
ITF14

Barcode text:Small	Border:default	automatic
Size:100	Transverse stretch:100%	routine

The horizontal stretch ratio is recommended to be the default 100%. The maximum value is 250%, modification is not recommended. Supports adding barcode borders.



3.1.5. Table

Table: Can insert a blank table of up to 4 rows and 5 columns, the line thickness can be adjusted.

Row Height: 11-151

Column Width: 11-999

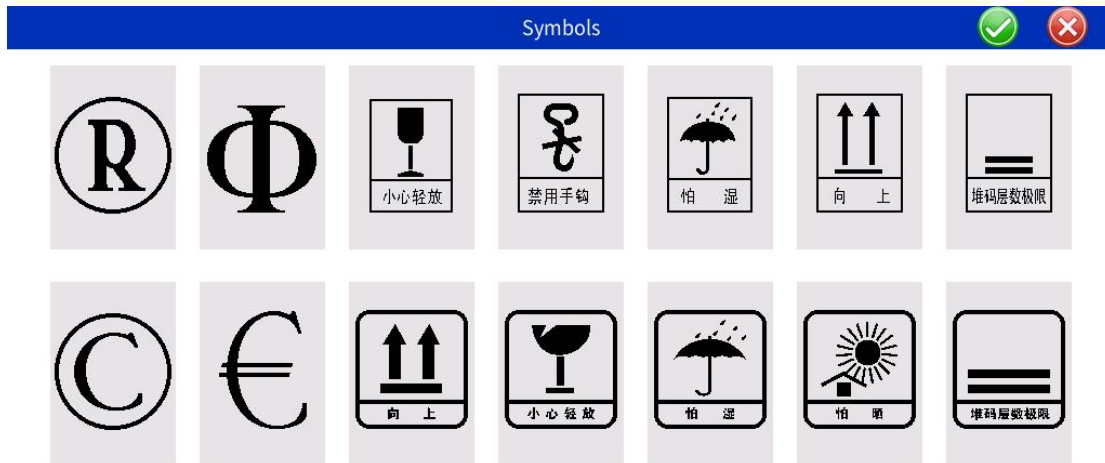
Merge Cells: Supported

Setting
Table ✓ ✕

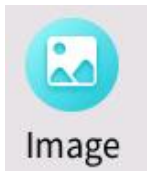
	A	B	C
1			
2			
3			
4			

3.1.6. Common Icons

Common Icons: R symbol, diameter symbol, handle with care, no hand hooks, etc., built into the inkjet printer system.

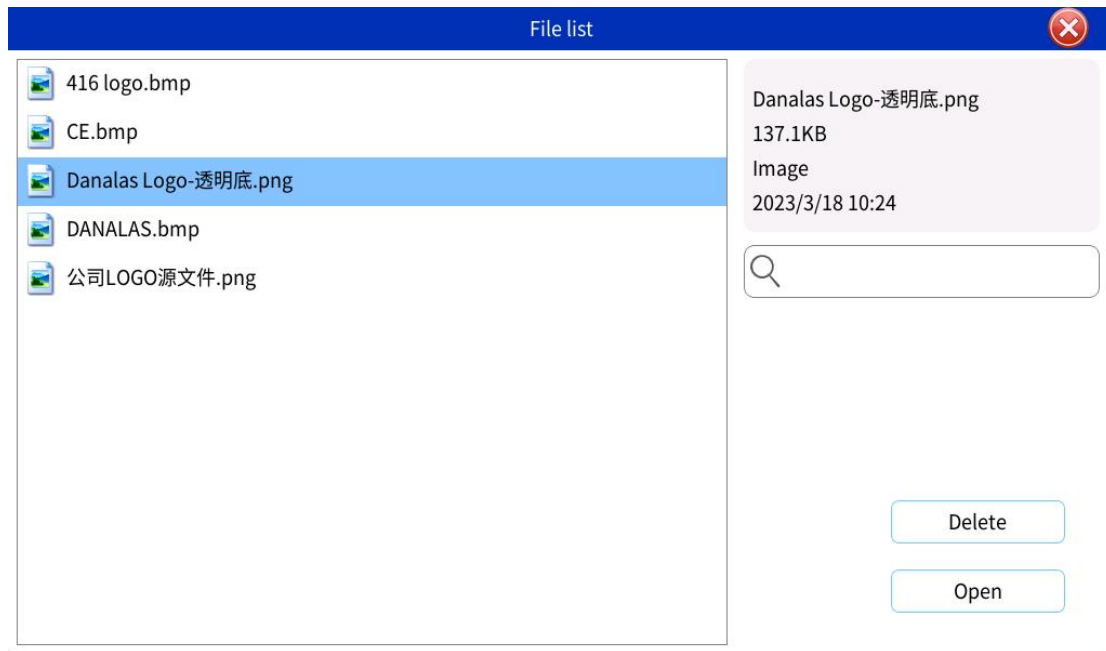


Click to adjust symbol size



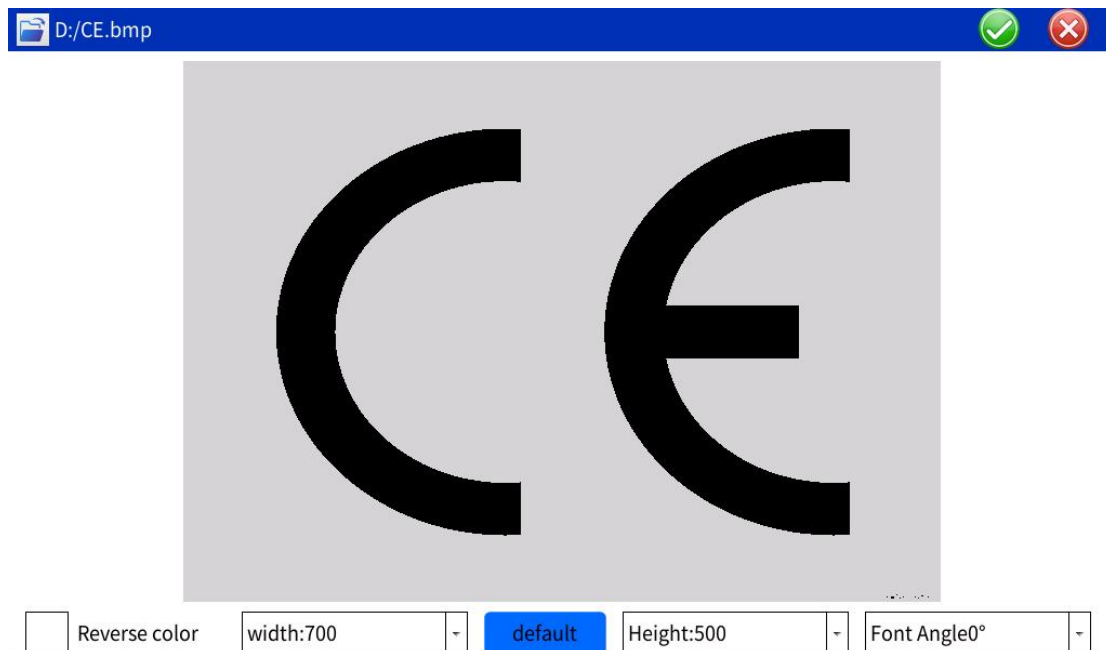
3.1.7. Image

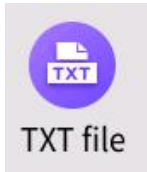
USB Drive: Read images from the USB drive and import them into the inkjet printer. BMP format is recommended. Images named in Chinese, English, and characters can be recognized (try to use monochrome bitmaps).



After reading the file from the USB drive, select the image to be printed and import it. You can custom adjust the image width, height, and rotate it to any angle. Recommended dimensions: 150 vertical pixels per half-inch, 300 vertical pixels per inch; increase by 150 or 300 pixels for each additional print head.

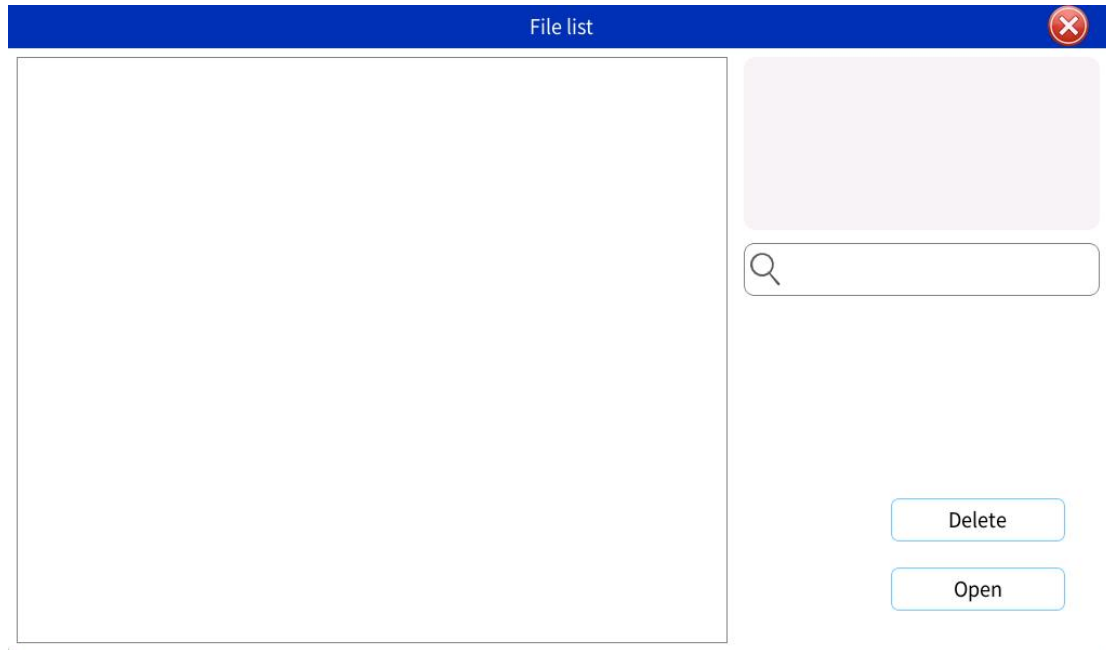
Invert Colors: Black parts become white, white parts become black.





3.1.8. TXT File

TXT File: Read USB drive information, select the corresponding txt file and click "Import".



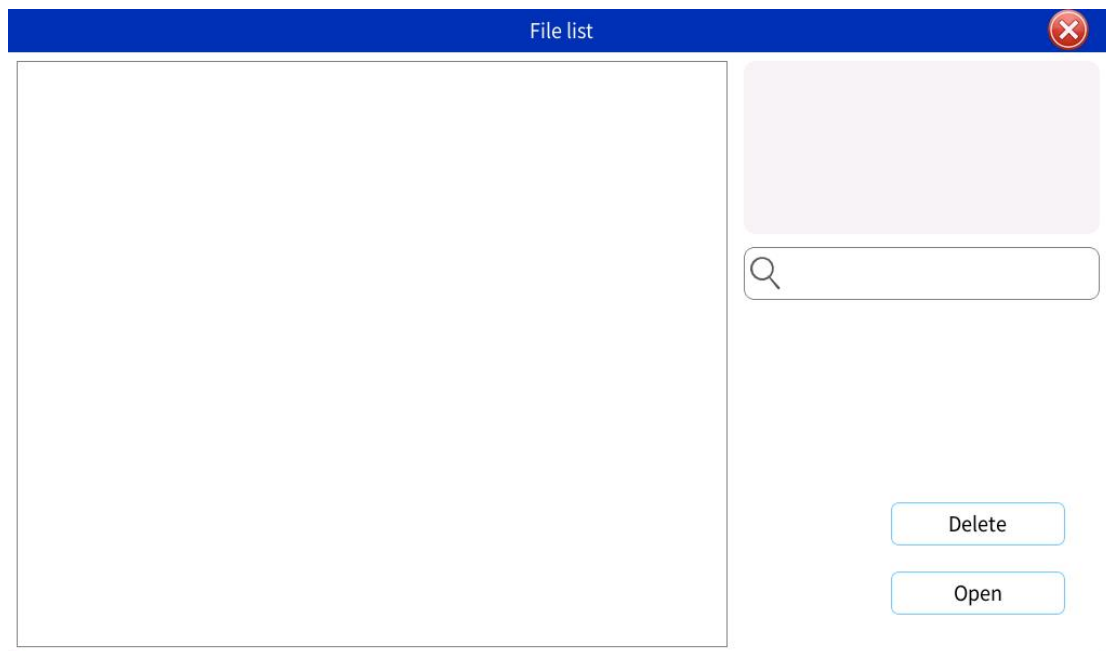
The right area will preview the txt file content. Swipe up in the blank area to preview content below. The total number of lines is displayed in the lower right corner; approx. 53,000 lines, 255 characters per line limit; Start Line: Choose which line to start printing from; Repeat Count: Repeat printing each message; Font Settings: See "Page 9" for details; Generate Barcode: After checking, the top left becomes "Graphics Code Settings". After selecting the corresponding barcode type, the inkjet printer will automatically generate and print the corresponding barcode according to the txt text information. See "Page 11" for details. TXT Secondary Editing: Supports secondary modification of txt text content within the inkjet printer.



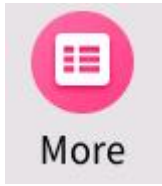
3.1.9. EXCEL File

EXCEL File: Read USB drive information, select the corresponding EXCEL file and click "Import".

(Only .xls format files)

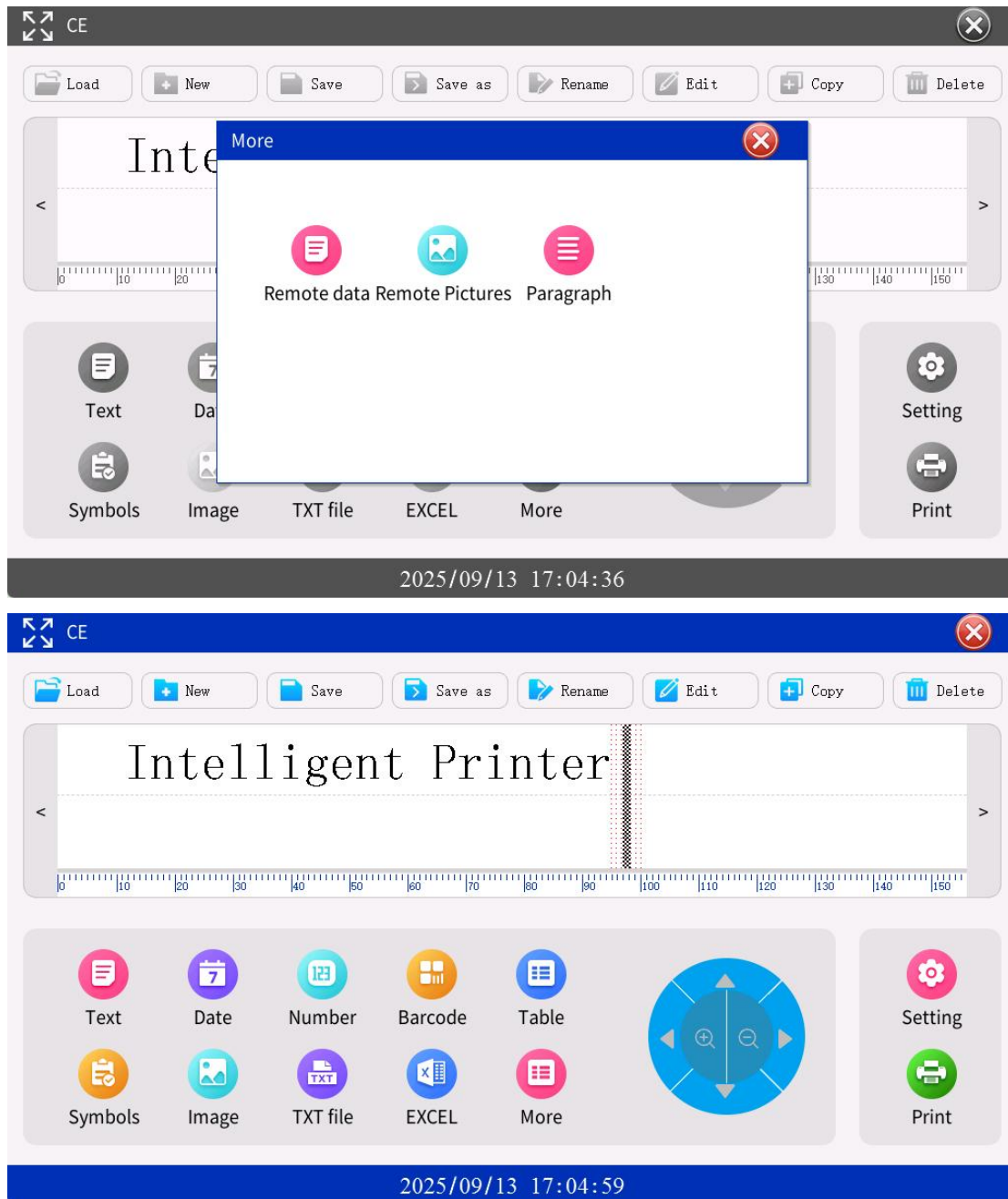


The right area will preview the excel file content. Select a column by swiping up in the blank area to preview the information in that column; 255 characters per line limit; Start Line: Choose which line to start printing from; Repeat Count: Repeat printing each message; Font Settings: See "Page 9" for details; Generate Barcode: After checking, the top left becomes "Graphics Code Settings". After selecting the corresponding barcode type, the inkjet printer will automatically generate and print the corresponding barcode according to the excel table information. See "Page 11" for details..



3.1.10. More Functions

Click "More Functions" to add a segment separator for printing. A segment separator will appear in the main edit box.



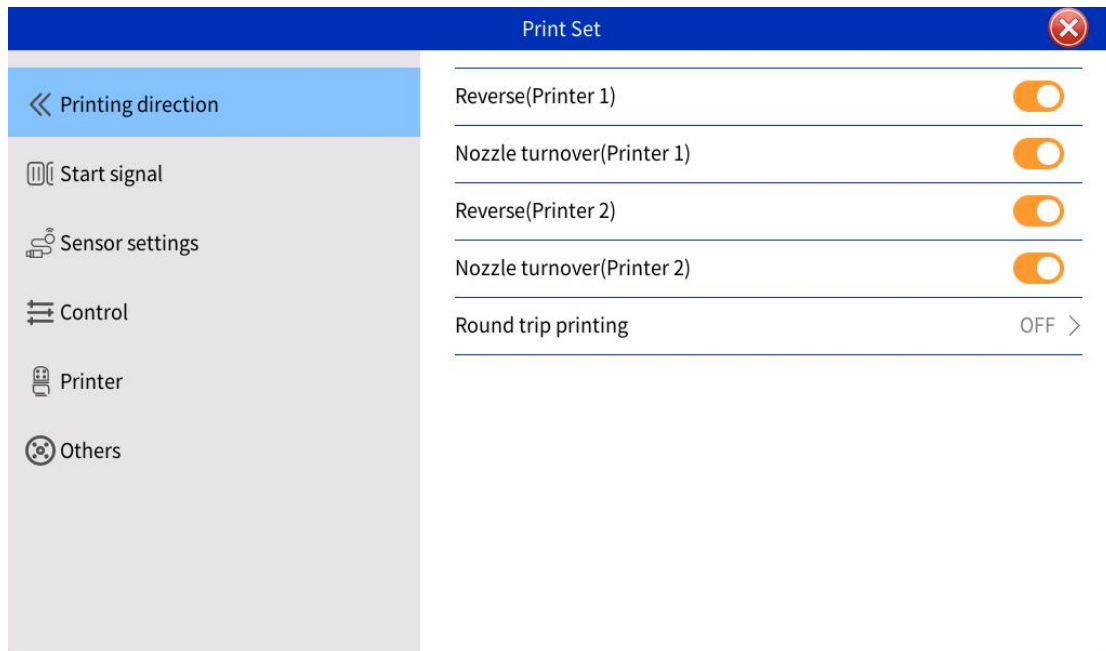
Do not insert a segment separator if segmentation is not required.



Setting

3.1.11. Print Settings

Print Direction Reverse Printing: Flip the message horizontally for printing Print Head Flip: Flip each print head vertically separately for printing Bidirectional Printing: Print in both directions, used for coding on plates, eggs, etc., as shown below:



Start Signal Settings

Photoelectric Switch: On, Off

Photoelectric Phase: Details please contact after-sales engineer

Sensor Masking Distance: Unit: Pulses of the synchronizer. Within the set pulse distance, the photoelectric sensor only senses the object once to prevent false triggering.

Photoelectric Continuous Print Count: Number of prints per photoelectric sensor trigger

Photoelectric Continuous Print Interval: The larger the value, the larger the interval

Print Delay: After triggering printing, delay printing for a period of time (When the encoder is enabled, it defaults to collecting encoder pulse signals for printing)

Photoelectric Signal Unit: Millisecond Pulse Signal Unit: Dot

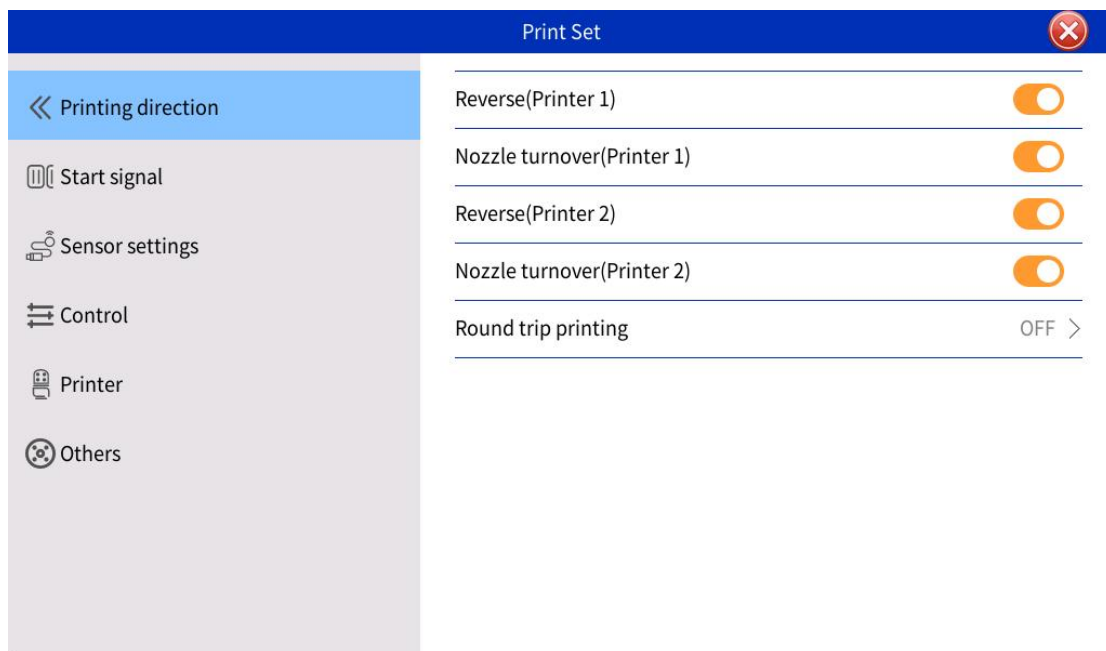
Continuous Print Control

Auto Print Function Off

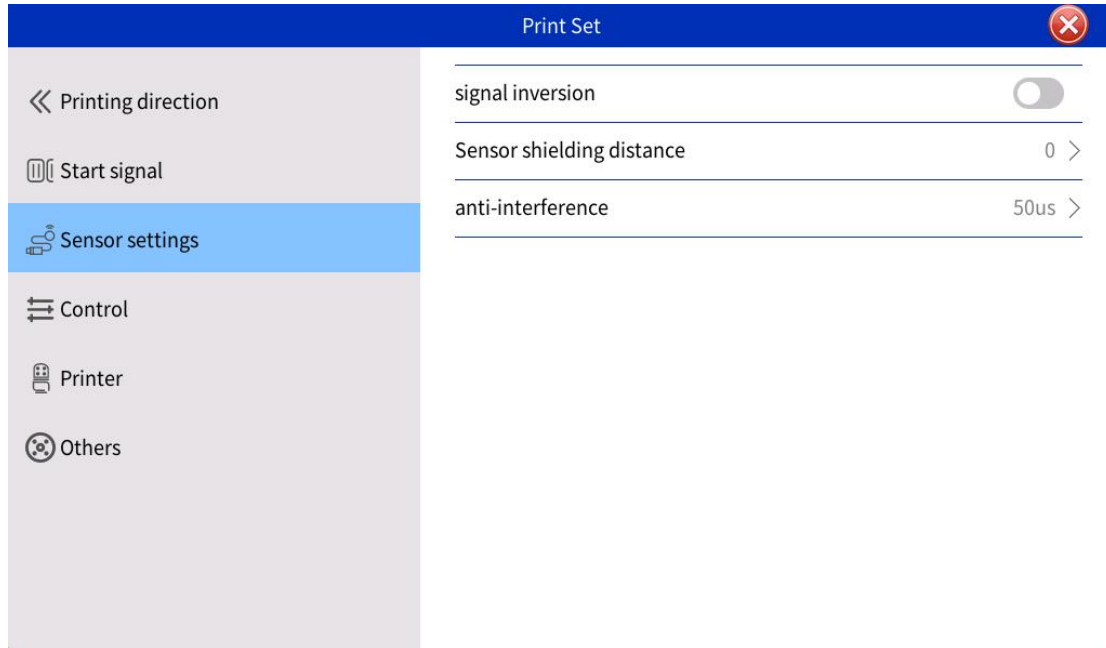
Print a message automatically at regular intervals. The interval time is set from the continuous print interval. And the encoder must be turned off. : Print a message automatically every certain number of pulses. The encoder interval pulse count is set by the continuous print interval.

Continuous Print Settings:

When set to "Timed", according to the set time and count, the inkjet printer will print immediately after clicking "Start Printing". When set to "Encoder", according to the set interval and count, after clicking "Start Printing", the inkjet printer needs to be moved to print, as shown below:



Sensor Settings



Synchronization Method

Synchronization Method Encoder Switch: On, Off

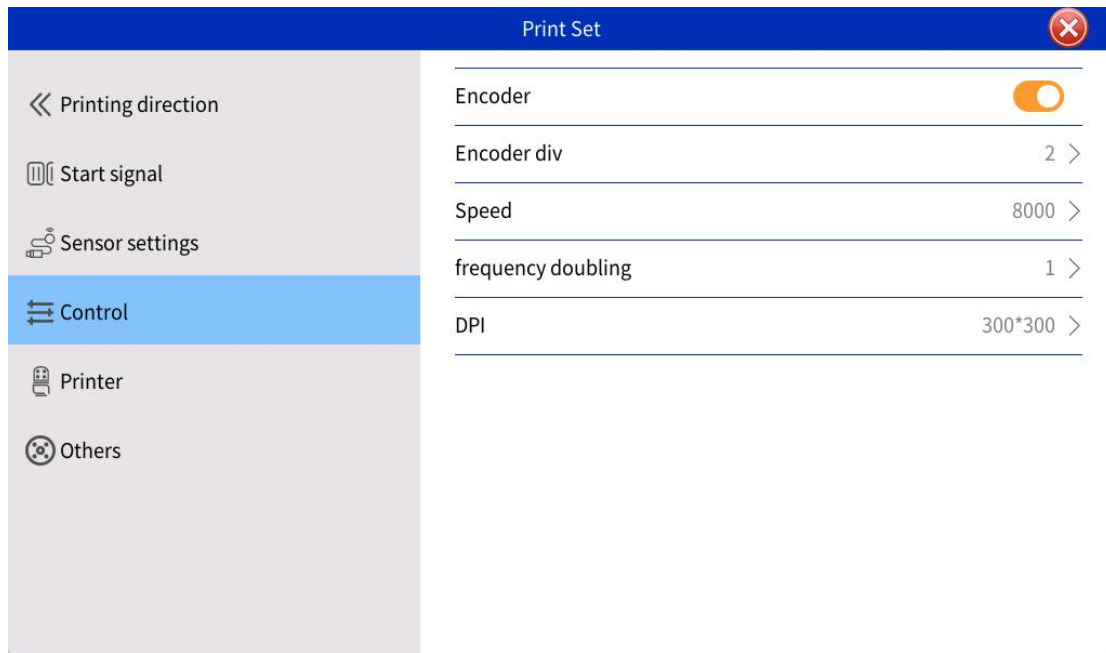
Encoder Divider: The larger the value, the wider the print columns, the longer the message

Printing Speed: The larger the value, the faster the ink ejection speed, maximum value is 500000

Synchronization Multiplier: The larger the value, the longer the printed characters, but does not change the number of print columns.

When installing the encoder, it is recommended to keep the sync wheel close to the surface of the product being printed. Do not install it on the drive shaft to avoid inaccurate pulse signal output. Pay attention to choosing a sync wheel with suitable pulse value and a sync silicone wheel with appropriate diameter.

Different parameter values will affect the character width, as shown below:



Print Head Settings

Nozzle Selection: Left nozzle, Right nozzle, Simultaneous printing (Half-inch models only)

Left-Right Spacing: Used with simultaneous printing, can adjust the left-right spacing to overlap left and right (Half-inch models only)

Voltage Setting: Quick-dry cartridge recommended 8.6-9.2V; Water-based black cartridge recommended 10.5-11.5V; Consult manufacturer's engineer for special cartridge types.

Pulse Width Setting: 1.6-2.2us, consult manufacturer's engineer for special cartridge types.

Ink Density: Normal, Bold 1-9x. Normal is recommended, bold will increase ink consumption.

Print Head Selection: Head 1 (Use head 1 alone), Head 2 (Use head 2 alone), Dual Head Stitching (Heads 1 & 2 stitched). For 3-10 head models, select the number of heads to stitch according to actual needs. Overlap: Ensure alignment in the horizontal direction. Head Spacing: Ensure alignment in the vertical direction. If the sync multiplier or encoder divider changes, these two parameters need to be readjusted.

Ink Heating: Print head pre-heating, supports 5 temperature levels, must be used under the guidance of an engineer.

Voltage and Pulse Width values must be adjusted carefully according to the cartridge type under the guidance of the manufacturer's engineer!!! To avoid the risk of damaging the machine and cartridges.

Print Set

Printing direction

Start signal

Sensor settings

Control

Printer

Others

Left or Right

Voltage

Pulse width

Grayscale

Printer

Splicing settings

Ink heating

Right

9.0V

2.0us

routine

P1/P2

OFF

The voltage should be adjusted carefully under the guidance of the manufacturer!

Grayscale

routine

Double

Fourfold

Six times

Eight times

Bold

Triple

Five times

Seven times

Nine times

Splicing settings

Nozzle delay

Overlap

P1

P2

0

360

Other Settings

Print Sound: Off, Start Only, Finish Only, Start & Finish, Auto (Manual print mode has sound prompts for start and finish; sensor printing only has a start sound prompt, no finish prompt). Turning off print sound can improve print speed to some extent.

Screen Update: Update screen display content while printing

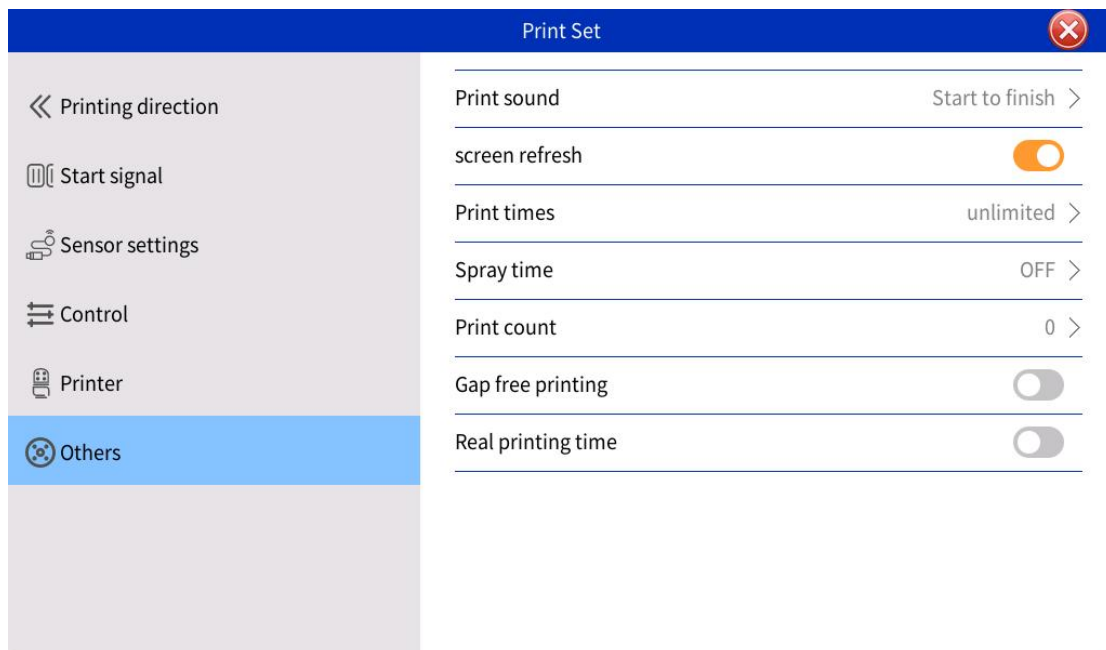
Loop Printing: Continuously loop printing the same content.

Print Count: The value indicates the number of times (Do not change arbitrarily).

Flush Setting: Value represents milliseconds.

High DPI: Enable 300dpi; Disable 150dpi.

Print Real Time: Print the current time in real time.

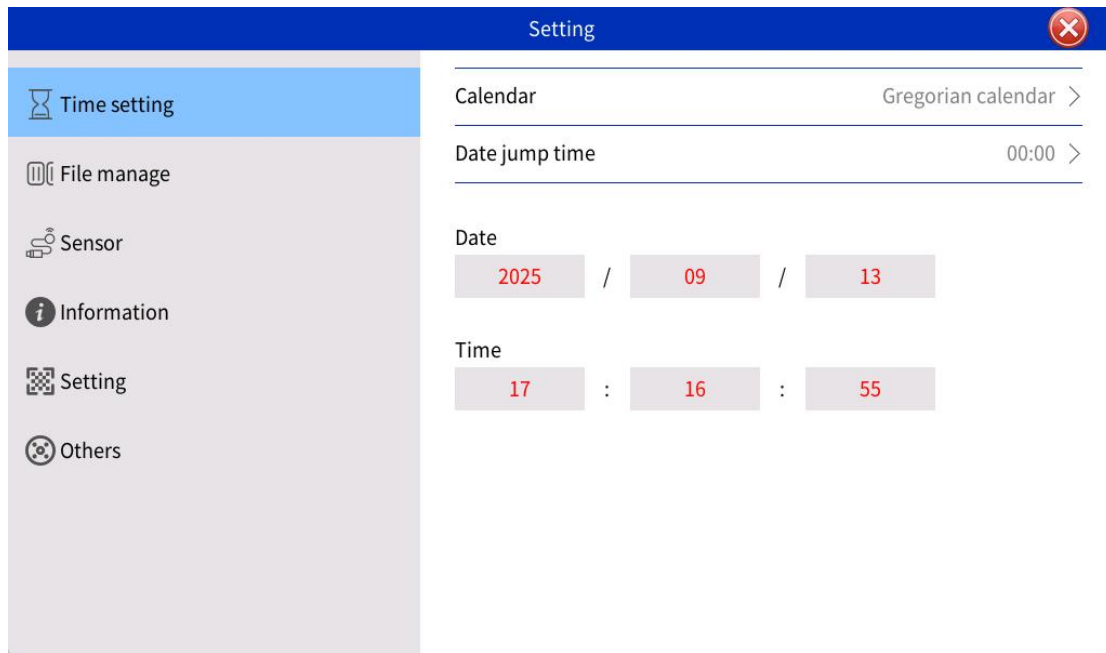




4. System Settings

4.1. Time Settings

Can set the system time: year, month, day, hour, minute, second.



4.2. File Management

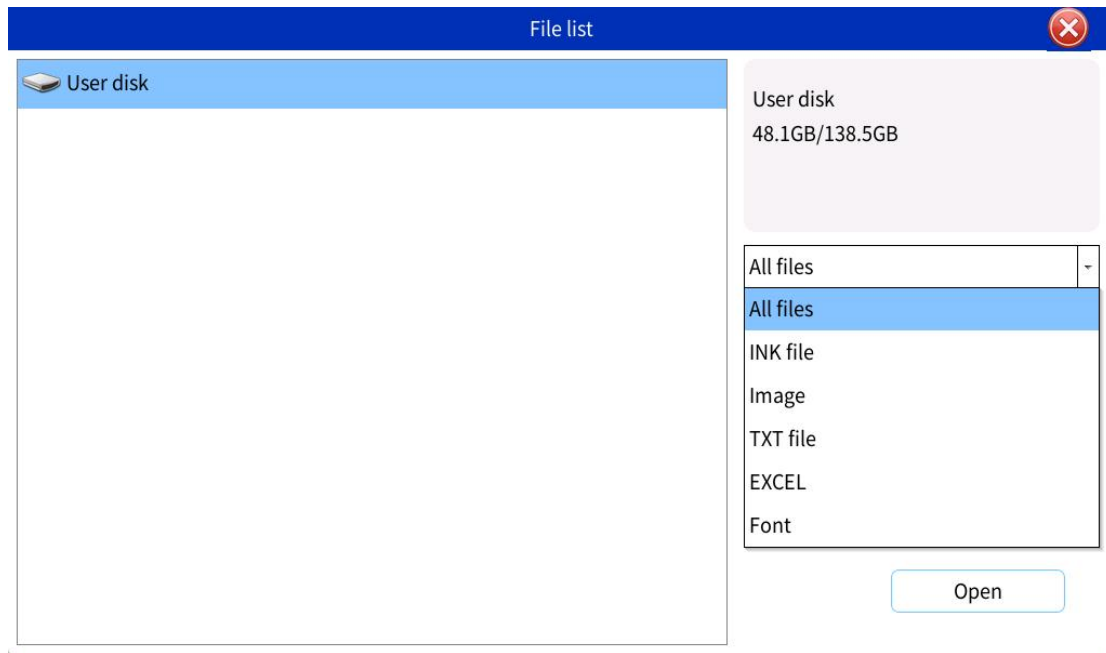
Record Import: Import print information from USB drive.

Record Export: Export print information to USB drive.

Import file as shown below.

Can select all for import or export.

Import or export must be between machines with the same version number. Check the version number carefully.

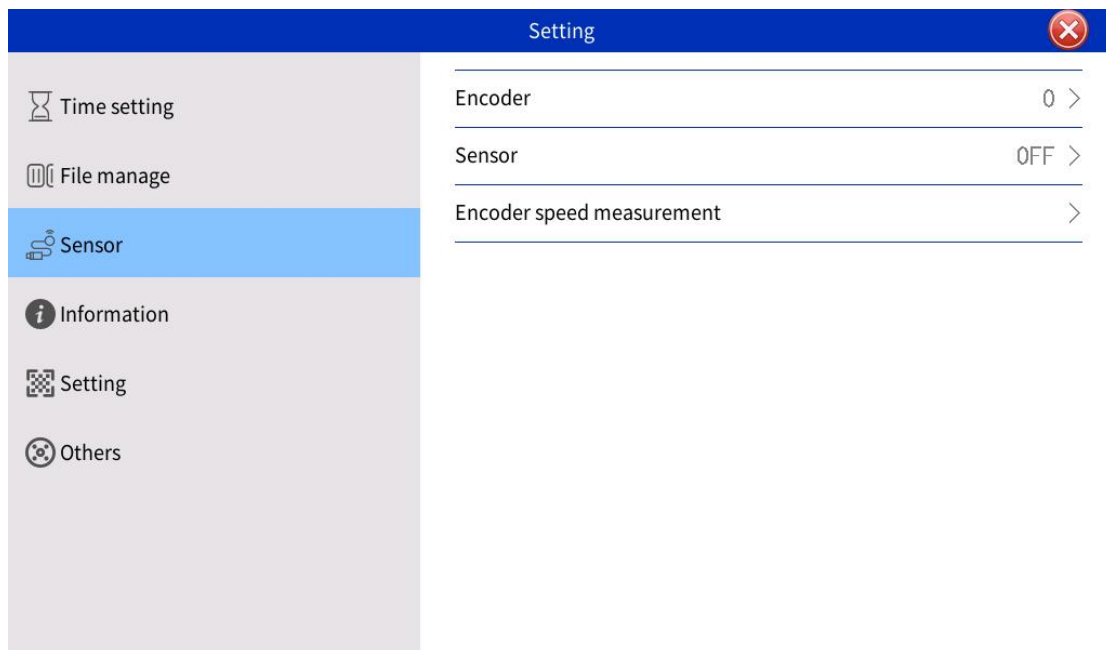


4.3. Sensor Detection

Sensor Signal: Used with photoelectric sensor. Displays "ON" when sensing, "OFF" when not sensing.

Encoder: Displays the number of pulses received.

Encoder Speed Measurement: Can be used to detect production line speed. Requires modifying the corresponding pulse count and sync wheel diameter.



4.4. System Information

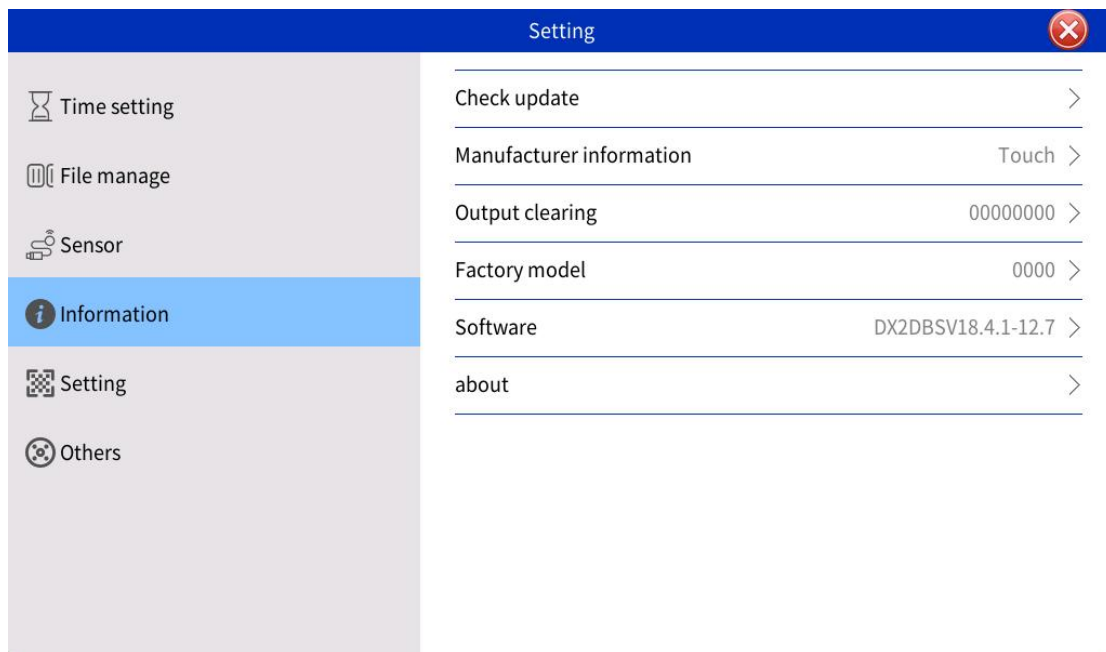
Check for Updates: Update system version, contact manufacturer's engineer for use.

Manufacturer Information: Modify the name in the top left corner of the main interface. Characters should not be too long.

Production Count Reset: Clear total production data.

Factory Mode: Contact manufacturer's engineer for use.

Software Version: Displays current software version number.



4.5. System Settings

Key Sound: On, Off

Restore Factory Settings: Clear all information and parameters.

Touch Screen Test: Used to detect if the display touch points are normal.

Auto Screen Off: Set screen saver time.

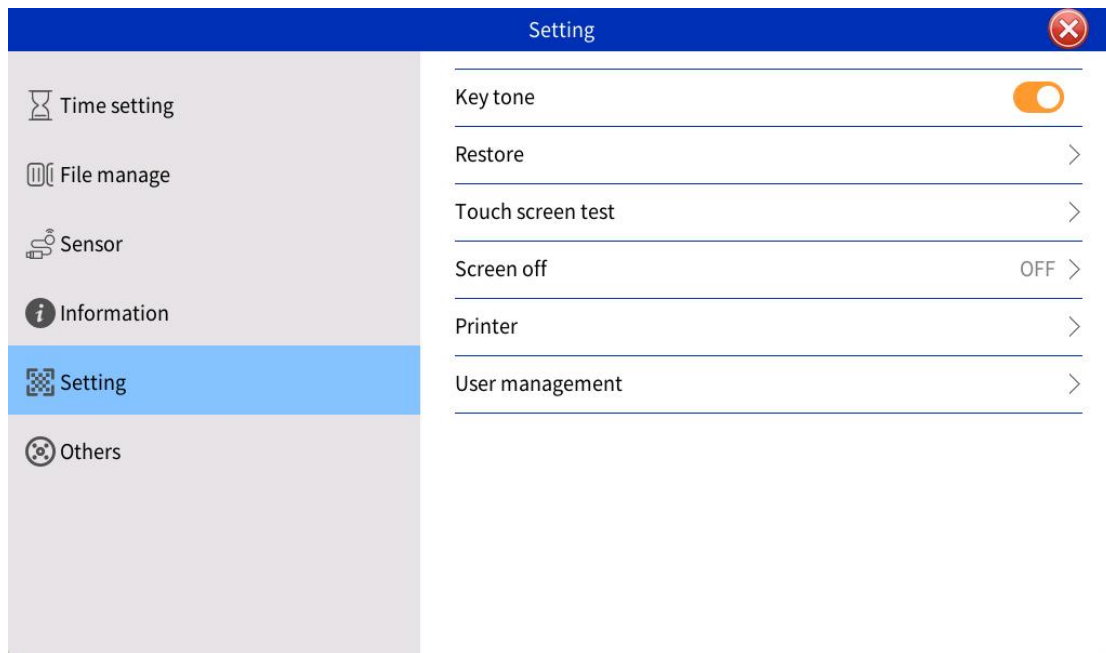
Low Ink Alarm: Automatically alarms when ink level is below the set alarm value.

Alarm Value: Set the alarm value.

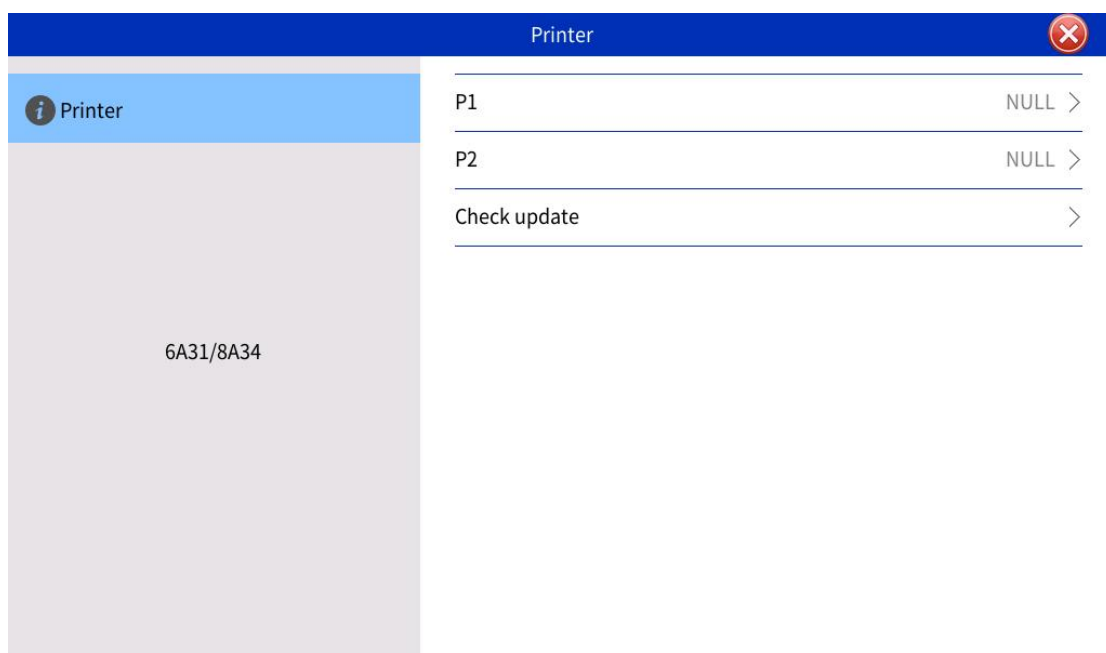
Print Head Settings: Used to detect the actual voltage of the print head.

Multi-Frame Buffer: Used to reduce the printing interval during multi-head stitching and wide-format

printing. Usage: Within the distance from the fixed installation position of the photoelectric sensor to the last print head, the number of buffer frames should be (number of products to be printed) + 1. For example: if there are 3 products to be printed, select X4, and so on. If the selected buffer frames are lower than X4, missing prints may occur. Note: 1. Do not select buffer frames exceeding the standard. Choosing a higher number of frames will affect the printing speed of the inkjet printer to some extent. 2. Enabling multi-frame buffer will reduce the edit area range. 3. Bidirectional printing is not supported after enabling multi-frame buffer.



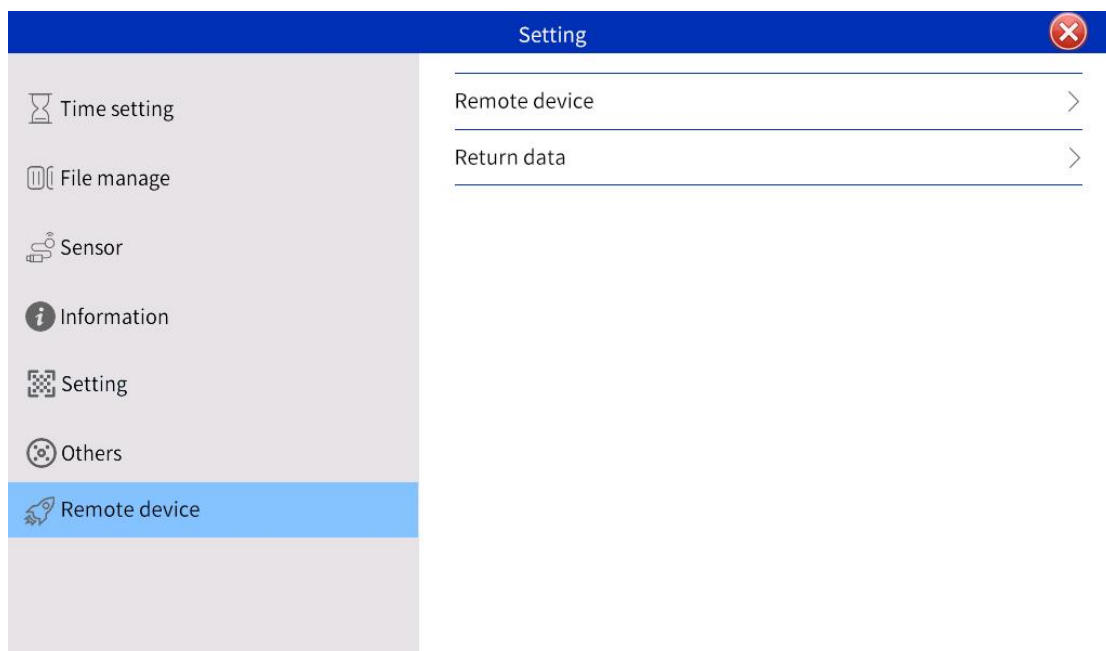
Print Head Settings



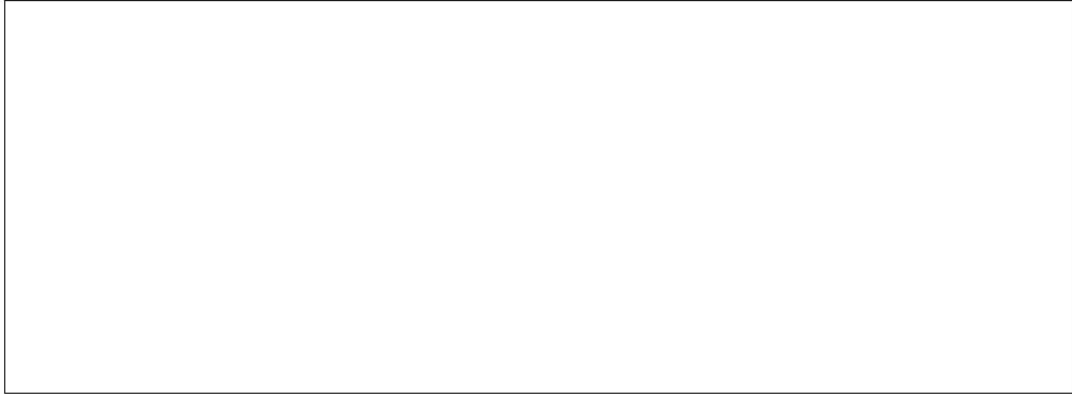
4.6. Remote Settings

Remote Connection (Requires communication version model)

1. Insert the module into the inkjet printer interface;
2. Click Settings -> Remote Connection, turn on the remote connection switch and wait for it to start successfully;
3. Click Connection Settings;
4. Select the connection method as Serial Port, WIFI, or Ethernet Port;
5. If selecting Serial Port, set the baud rate to match the other device's baud rate. If selecting WIFI, set the WIFI name, password, and port number (usually default is fine). The IP address can be obtained automatically or entered manually;
6. Click the OK button and wait for the settings to take effect;
7. After the settings take effect, it will automatically return to the previous page where you can view the connection status. If Serial Port is selected, the serial baud rate is displayed. If WIFI is selected, relevant information is displayed, as shown below.



Remote device 		
Current state	Wired network (Not connected)	
IP address	192.168.0.106	V25032111
Port number	2000	<button>Connect</button>
Remote device	Not connected	



Remote device  	
☒ OFF	
☐ wireless network	
☐ wired network	
☐ Serial port	

Remote device	
☐ OFF	port number 2000
☐ wireless network	Obtain IP address automatically OFF
☒ wired network	IP address 192.168.0.106
☐ Serial port	Subnet mask 255.255.255.0
	Default Gateway 192.168.0.1

Remote device	
☐ OFF	Baud rate 115200
☐ wireless network	
☐ wired network	
☒ Serial port	

Retuin date



☒ Subtotal Count

☒ Print count

☒ Ink level

Remote Connection - Edit Print Content

1. Enter the inkjet printer edit page, create a new file;
2. Click Add -> Remote Data, enter the remote data edit page;
3. Set remote data
 - 3.1 Data Extraction: Choose whether to extract the received data. There are 3 options (No extraction, Extract by position, Extract by character)
 - 3.2 Encoding: Choose the encoding method for the string, supports ANSI and UTF8
 - 3.3 Print Complete: Choose Return Data, then after each print is complete, the inkjet printer will return a message to the external device. The external device can immediately send the next data based on the message.
 - 3.4 Data Received: Choose Trigger Print, then every time the inkjet printer receives data from an external device, it immediately triggers printing.
 - 3.5 Receive Test: Click Receive Test to enter the test page and test if the parameters just set work correctly. Send a piece of data from the external device, the inkjet printer will receive the data and display the original data and the extracted print data or barcode.
4. Click OK to add the remote data to the edit interface. You can see an additional object in the edit page, its content is the print data received during the receive test. If no receive test has been performed, its content is "NOP".