User Manual for

Inkjet Industrial Inline Printer

Bentsai E62P /E64PSeries

Please read the user manual carefully before use and keep it properly for future reference. The images in this manual are for reference only and the actual product shall prevail. All content has been thoroughly reviewed and proofread. We apologize for any printing errors or omissions.

Version:20240811A

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1. Important Notice

To get the best printing results, use original ink cartridges and accessories. If you use unauthorized ones and it causes problems or poor print quality, the warranty won't cover it.

2. Safety Instructions

1.Only trained and authorized personnel should maintain or disassemble the printer to avoid accidents.
2.Keep ink cartridge away from direct sunlight and high temperatures (above 35°C) to maintain print quality and shelf life.
3.If ink gets on your skin, rinse it off immediately with water. If it gets in your eyes, rinse thoroughly with water and seek medical attention if you experience any discomfort.

3. How to Use this User Manual

If you run into any issues while using the printer, check the relevant sections of the manual and take note of the problems. If you still can't resolve the issue, get in touch with us.We may update this manual from time to time without prior notice.

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4.Technical Specifications

Item	Parameters
Operation System	Linux
Display	7 " LCD touch screen
Ports	Ethernet, USB, USB, DB9, Bluetooth, Wi-Fi
Language	English / German / French / Italian / Spanish / Portuguese / Slovenian / Serbo-Croatian / Czech / Bulgarian / Romanian / Polish / Greek / Hungarian / Russian / Ukrainian / Slovak / Arabic / Persian / Turkish / Chinese / Traditional-Chinese / Japanese / Korean / Hindi / Thai / Vietnamese / Indonesian / Burmese (Available languages vary for different regions)
Trigger	Sensor
Communication	Ethernet. Bluetooth and Wi-Fi Connection Optional.
Status Display	Green: Ready. Blue: Printing. Red: Alarm
Printable Content	Text, Alphanumeric, Images, Dates, Counter, QR codes, Data matrix codes DateMatrix、QR、GridMatrix、GS1DM)
	Code128、Code128B、Code39、EAN8、EAN13、UPCA、UPCE、EAN128、INT25、ITF14、Code93、GS1RSS14、GS1EAN128、GS1-Truncated、GS1RSS14Limit、GS1RSS14EX、GS1-Stacked、GS1-StackedOmni、GS1-StackedEx
Input Language	Could be added and removed based on the Language list
Fonts type	Vector and Dotmatrix
Resolution	X Direction DPI: 75/100/150/200/300/600/1200; Y Direction DPI: 300/600
Printable Lines	12.7mm printhead max 5 lines . 25.4mm printhead max 10lines. Total print lines increases with the number of printheads.
Print Height	12.7mm*(1~4)/25.4mm*(1~4)
Print Distance	2-5mm (distance between printhead and object)
Speed	Speed varies on resolution settings.
Ink Type	Water based/Solvent
Ink Options	Black, White, Red, Yellow, Blue, Green, Invisible
Cartridge Capacity	42ml
Usage Conditions	Temperature: 5-35℃; Humidity: 10%-80%
Storage Conditions	Temperature: 0-45℃; Humidity: 10%-80%
Power	Input: AC100-240V Output: DC 24V/4A
Net Weight	5.25KG/6.75KG
Inner storage	8GB
Packaging	380*160*368cm\465*160*368cm

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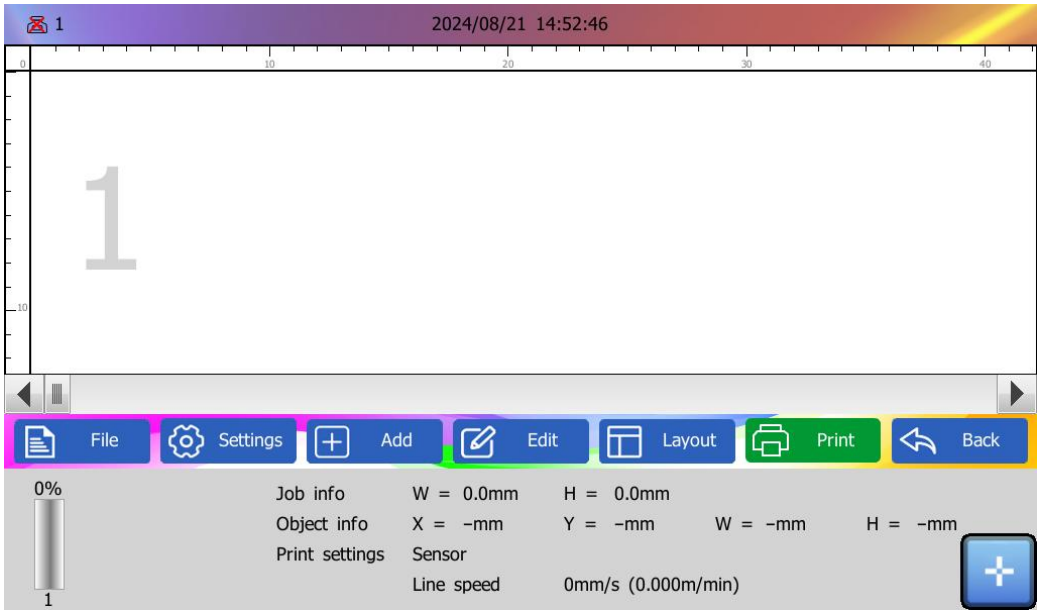
5. Main Menu

The main interface includes functional units such as Print Editing, Print Management, System Settings, Device Maintenance, U-Disk, Network Settings, Cartridge Information, Network Information, Device Information, and Shutdown Button. The operation methods for each unit will be explained in detail as below.

6. Edit

Click "Edit" on the main interface to enter the print message editing unit.



6.1 File

Click "File" to see a dropdown menu with options for New, Open, Save, and Cost.

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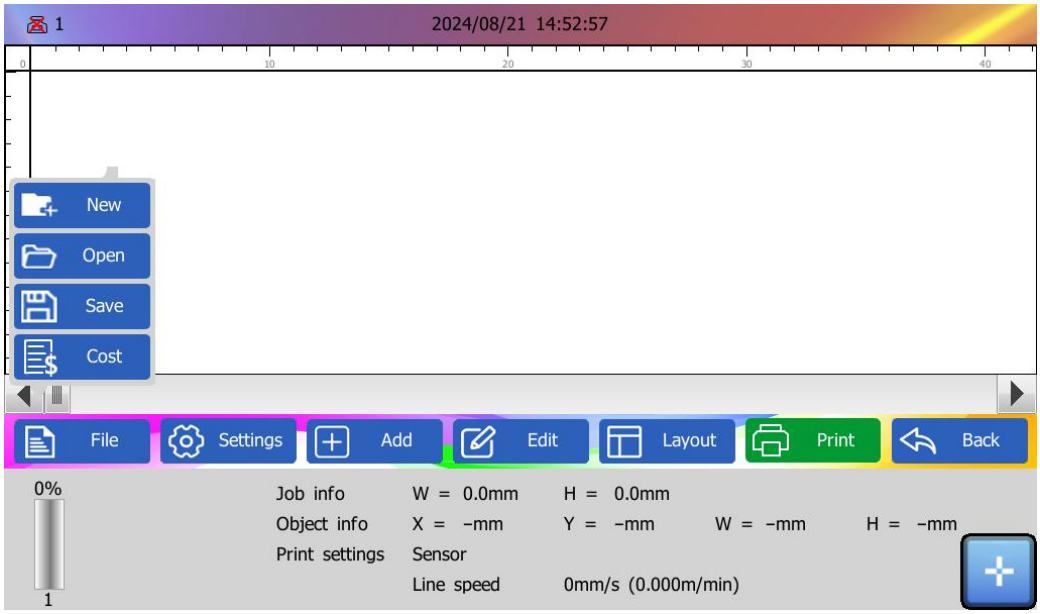
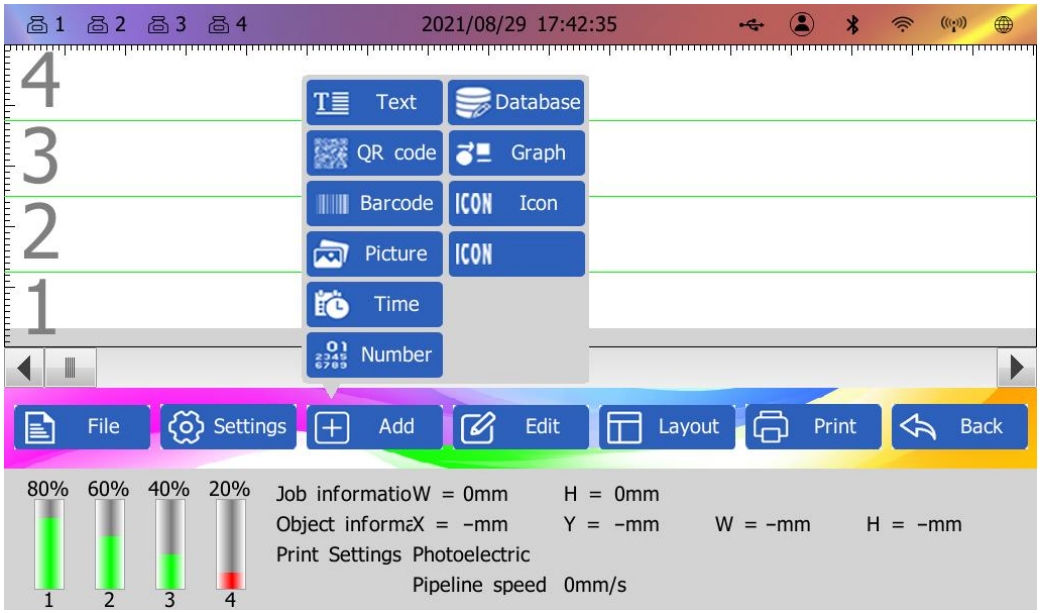


6.1.1 Create New Message

Click “New” and then click the “Add” button to add text, QR codes, barcodes, images, time, databases, graphics, shifts, dynamic data, and UDI objects to the new print message.



6.1.2 Text

Click “Text” to enter the text input box for the print message, and click the blank area of the text box to enter the keyboard input interface.

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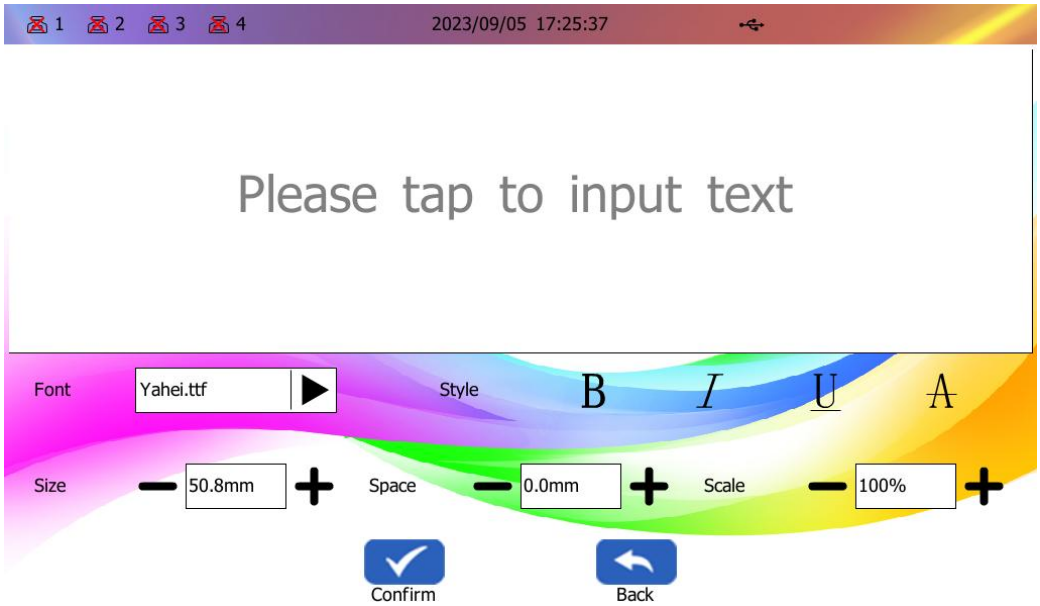

Press and hold the “US” key on the default English keyboard, then release it to switch keyboard languages. For adding additional keyboard languages, see section 7.7.

Text Settings:

Font: Click on “Font” and select a font from the dropdown menu. You can choose from the built-in default fonts. To use other fonts, import external fonts in .ttf format via a USB drive.
Size: Click on “Size” and use the +/- buttons to adjust the font height, or directly click the input box to enter the font height (range: 0.8mm ≤ font size ≤ 71.1mm).
Style: Click the example icons on the right to choose styles such as bold, italic, underline, and strikethrough.
Space: You can adjust the distance between characters. Use the +/- buttons to change the spacing or directly click the input box to enter a number (minimum 0 mm, maximum 20mm).
Scaling: Use the +/- buttons to adjust the overall size of the text. The minimum size is 50%, and the maximum size is 150%.

Additional Setting for Text

By clicking the “Set Up” button, you can adjust the grayscale level of the text when printing, choose hollow text with outlines, and add an inverted color background to the text. You can also set whether to print the object here.
Grayscale Level: The grayscale levels can be set to 100%, 75%, 50%, and 25%. The lower the grayscale level, the lighter the color of the printed text. Adjusting the grayscale will affect the amount of ink used.
Outline: By enabling this feature and setting the outline width, you can create hollow text. The **width** setting determines the outline width of the hollow text, ranging from the thinnest at 0.3mm to the thickest at 3mm.

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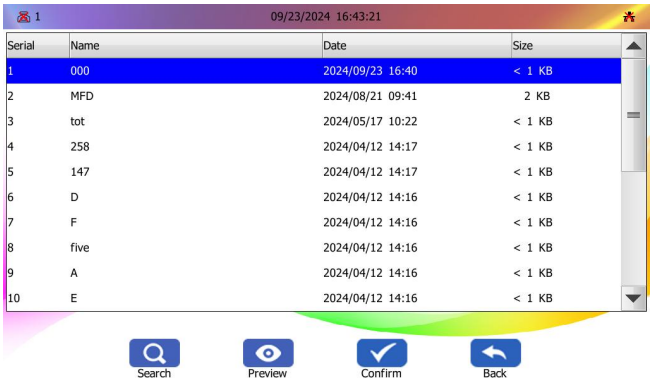
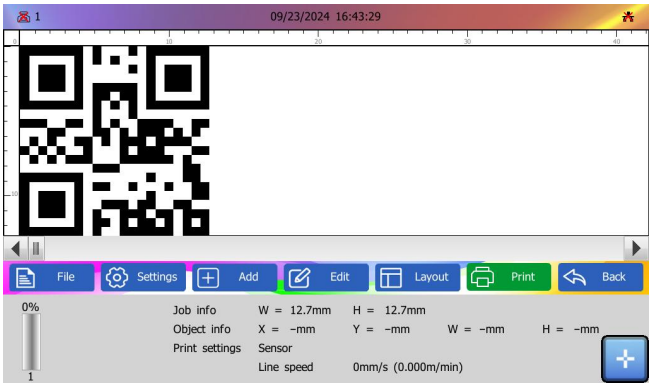
Object Printing: Through its right-side menu, you can choose to print the added text content (Object print) or not print (Object not Print). You can also choose to add an inverted color background to the text content by selecting Inversion.

6.1.3 Open a saved Message

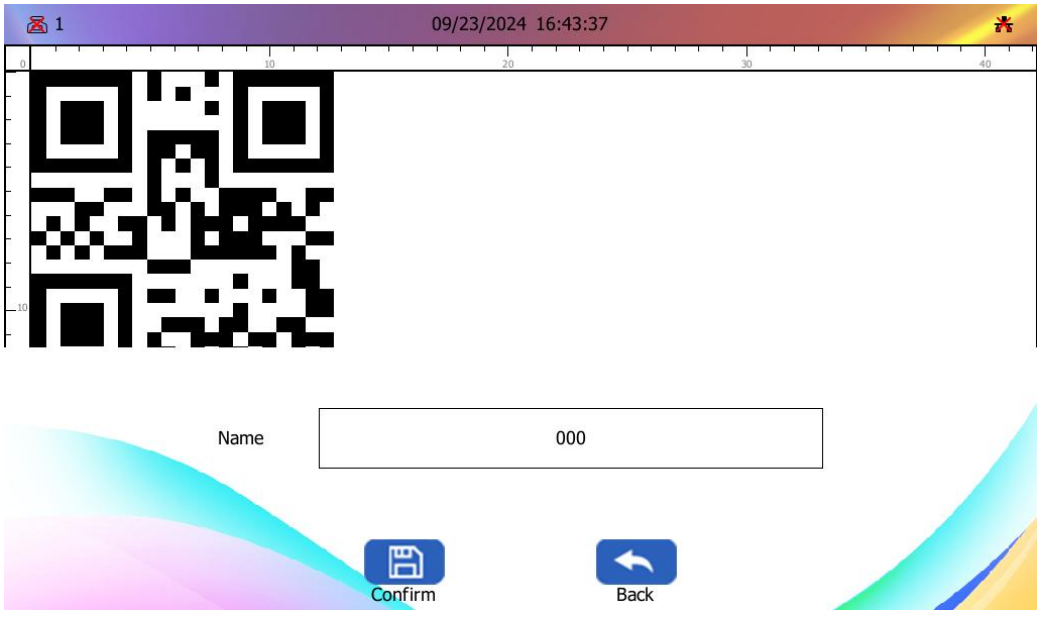
Click on the "File" button, then click the "Open" button to open existing print files from the saved file list.





6.1.4 Save a Message

After finishing editing a new message, click "Save" and add a file name to save the file. If you want to export or import saved files, use English characters or numbers for naming, and avoid using special symbols.



6.1.5 Cost Calculation

To estimate the ink cost for printing a file, open the file and click the "Cost" button. Please note that you can only view the printing cost if the ink cartridge is installed and recognized.

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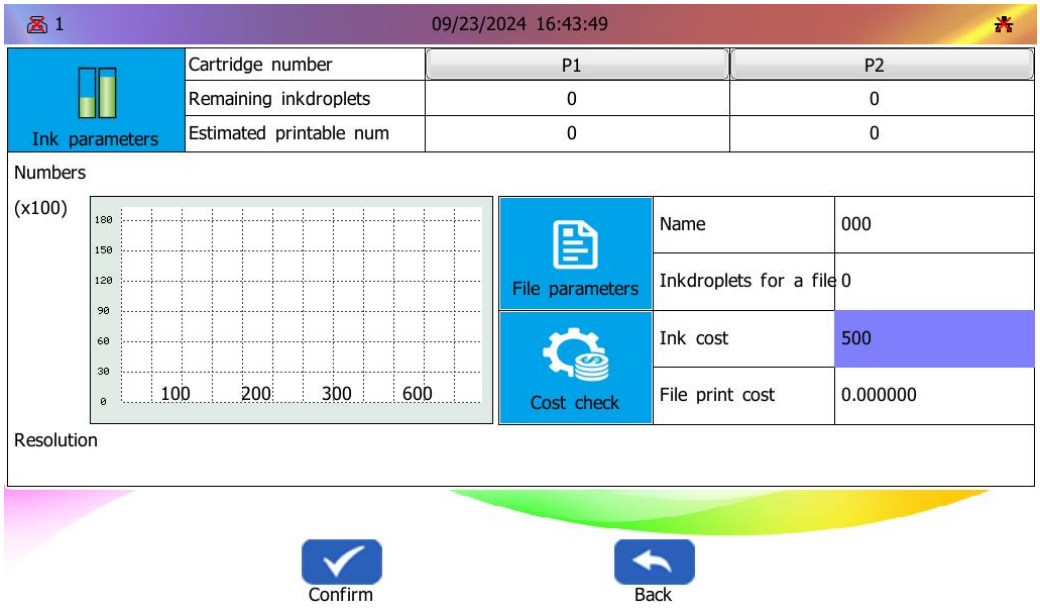


Cartridge Number: The printhead number(s) will be displayed based on the number of recognized ink cartridges.

Remaining Ink droplets: The ink cartridge will display the remaining number of ink droplets in realtime based on usage.

Estimated Printable Numbers: The number of copies that can be printed will be displayed based on file to be printed.

Name: The actual name will be displayed based on the currently opened file.

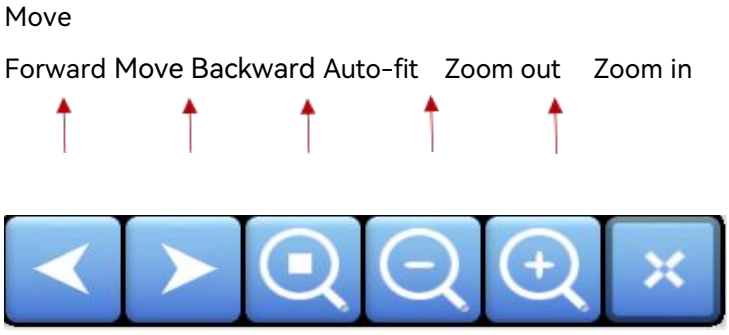
Ink droplets for a File: Displays the number of ink droplets consumed for printing the current file for one time.

Ink Cost: You can manually modify and input the price of the ink cartridge.

File print cost: The cost estimated to print the currently opened file once.

6.2. Toolbar

When editing a print message, you can click the “+” icon at the bottom right corner of the screen to expand the toolbar. The buttons on this toolbar allow you to select, zoom in, and zoom out on the editing object. Pressing the “X” key again will hide this toolbar.



Move Forward: Move the selected object forward.

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Move Backward : Move the selected object backward.

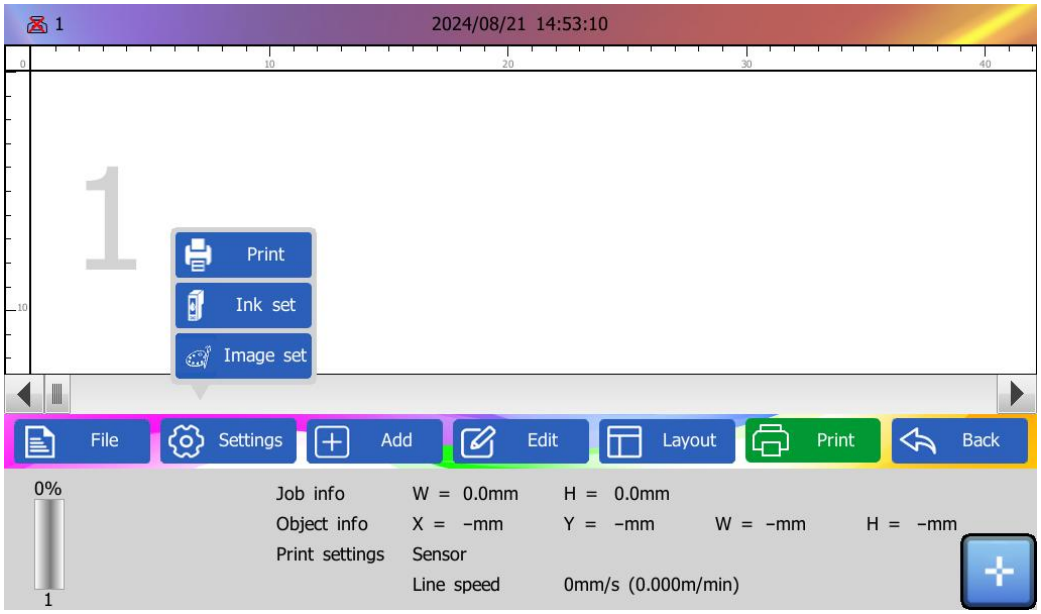
Auto-fit: After zooming in or out, click it to return the edit area to its initial state.

Zoom in : Each click enlarges the editing area by 5%. Long press to continuously zoom in.

Zoom out: Each click reduces the editing area by 5%. Long press to continuously zoom out.

6.3. Settings

In the editing window, click "Settings" to enter the settings unit, including print settings, ink cartridge settings, and image settings.



6.3.1 Print Setting

Click Print Settings to enter the next level menu. In this interface, you can set the print resolution, print direction, sensors, nozzle selection, print delay, print speed, synchronizing wheel, trigger mode, print mode, and more.

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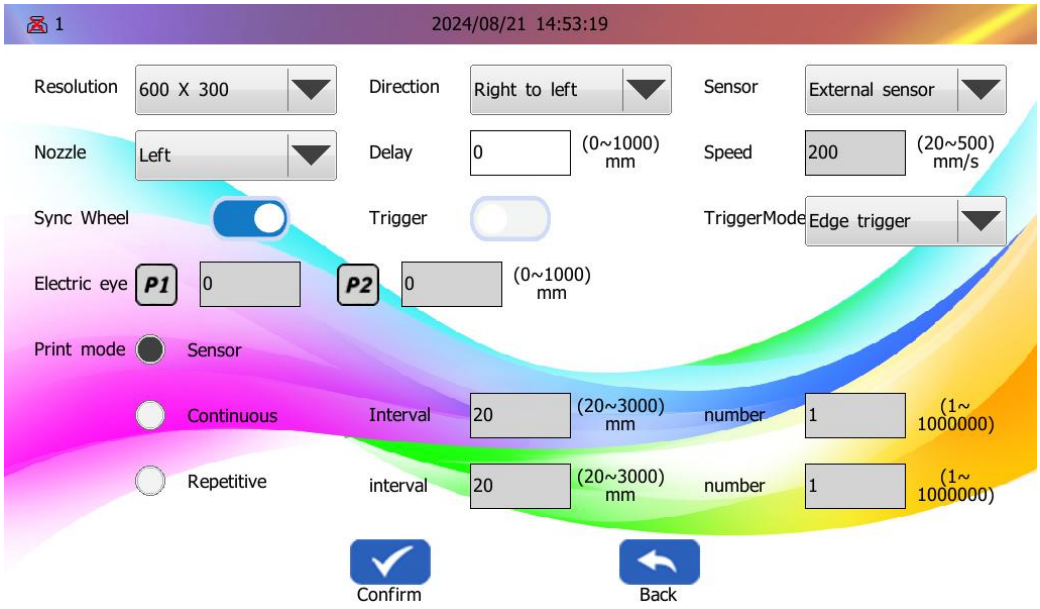
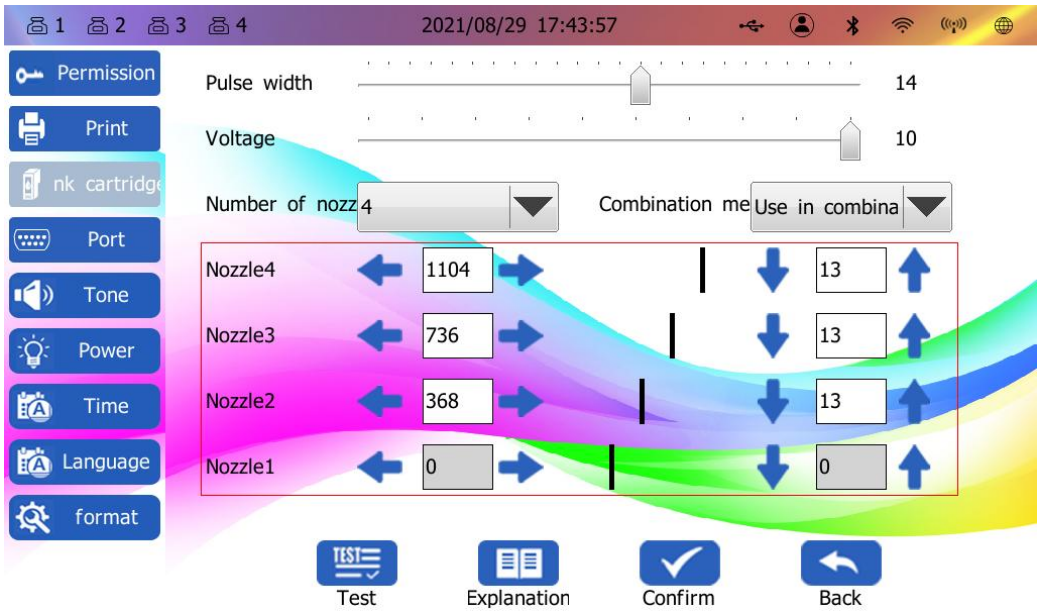


6.3.2 Ink Cartridge Setting

In the Editing window, click on "Settings", then select the "Ink set "option from the drop-down menu to proceed.



After installing the cartridge, the printer will automatically recognize the type of cartridge installed and set the appropriate pulse width and voltage.

Pulse width: Automatically recognized at 2.5μs.

Voltage: Automatically recognized. For water-based cartridges, it is 11.8V, and for solvent-based cartridges, it is 9.3V .These settings cannot be manually adjusted.

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When using Bentsai original ink cartridges, changing this pulse width or voltage value would cause printing problems. And if changed manually, restarting the machine will restore to the default value.

6.3.2.1 Printhead Setting

Click “Settings” in the editing window, and then click “Ink set” in the drop-down menu to configure the printhead combinations.
If the inkjet printer has a single printhead, there is no need for stitching combinations. Set the printhead to 1 and the combination to 1.
If the inkjet printer has dual printheads, Printhead 1 and Printhead 2 can be combined for stitching or used individually
If the inkjet printer has 4 printheads, they can be configured for overall stitching, paired stitching, or used individually based on actual needs.

6.3.2.2 Printhead Stitching

Two or more printheads can be used for stitching printing. When configuring for stitching printing, first select the number of printheads, then set the combination to be used together.
Dual printheads: could be stitched or use individually.
Four printheads: Each can be used individually or in combinations of 2, 3, or 4 for stitching.

6.3.2.3 Stitching Alignment

Example: Left and Right Alignment.

From the printed sample shown above, it was found that the stitching of printhead 4 is offset to the right. Using a caliper, a misalignment of 1mm was detected. You can align it by clicking the left arrow 10 times or by directly entering an increment value to move printhead 4 to the left by 10 units.

Note:

A printhead adjustment value of 1 represents an actual stitching deviation of 0.1mm. If the actual

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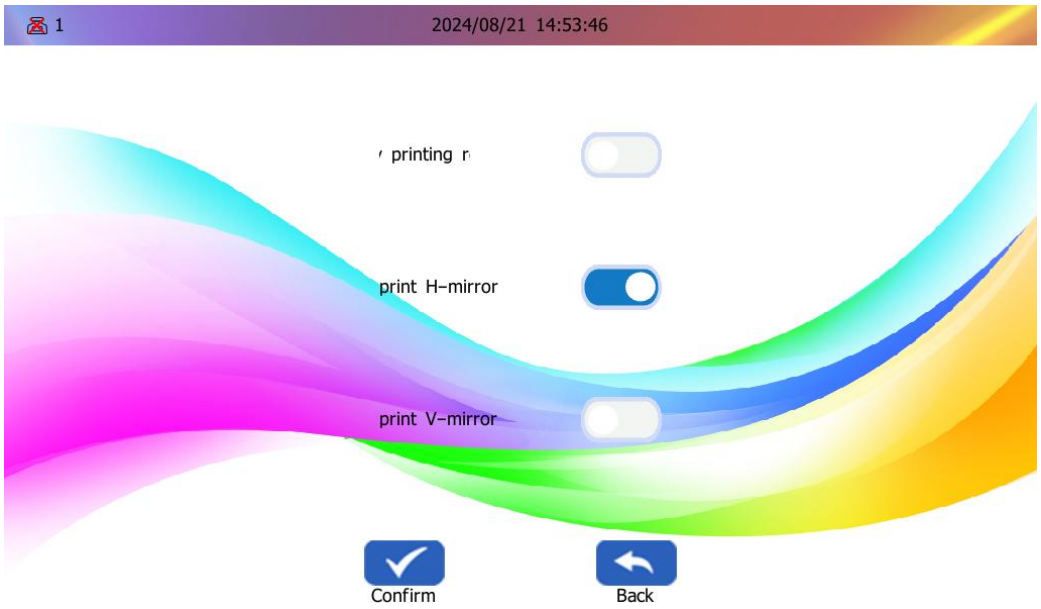
stitching deviation is 1mm, adjust in the opposite direction by 10 units.

Example: UP and Down Alignment.

From the printed sample shown above, it was found that the stitching between printhead 2 and printhead 3 is misaligned vertically. You can correct the stitching by adjusting printhead 3 upwards by 3 units.

6.4 Image Setting

In the editing window, click on “Settings”, then select “Image Set” from the dropdown menu.



Print Horizontal Mirroring: When enabled, the print head will print all content as a horizontal mirror image. There is no need to enable horizontal mirroring in message edit settings.

Print Vertical Mirroring: When enabled, the print head will print all content as a vertical mirror image. There is no need to enable vertical mirroring in the message edit settings.

Print Report: When this switch is enabled, a dialog box will appear after each print job is completed, asking whether to generate a print report.

6.5 Edit Print Message

In the main interface, click on “Edit”, and then click on “Add”. You can choose the format of your content to add.

Format Types: You can create new text, QR codes, barcodes, pictures, time, serial numbers, databases, graphics, shifts, dynamic text, and UDI codes.

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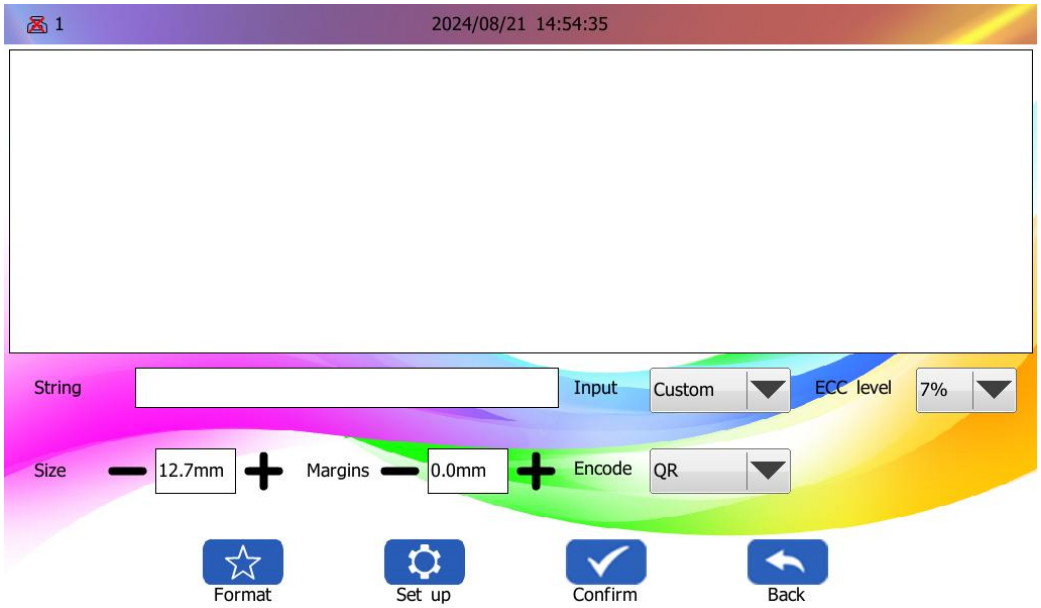
6.5.1 Add a QR code

In the editing interface, click on “Add” and select Create a QR Code.



String : Please enter the string content for the QR code you want to add.

Encoding Method: Please select the type of QR code you need to use.

Input: Select the string type. The default is custom, but you can also choose the date or serial number as the content for the QR code.

Format: When the QR code is set to date or serial number, you can click the format button at the bottom to make the corresponding settings. If custom is selected, the format cannot be set.

ECC Level: Set the error correction level of the QR code to 7%, 15%, 25%, or 30%. (Note: The ECC level that can be set varies for each type of QR code.).

Size: Set the size of the QR code, with a minimum of 3mm and a maximum of 71mm.

Margin: Set the distance between the text and the QR code, with a minimum of 0mm and a maximum of 3mm.

Set up: You can select the grayscale level for printing through the Set-up button at the bottom. You can also choose to print the object (Object print), not print the object (Object not print), or invert the colors (Inversion).

6.5.2 Add a Barcode

In the editing interface, click on “Add” and select Create a Barcode.

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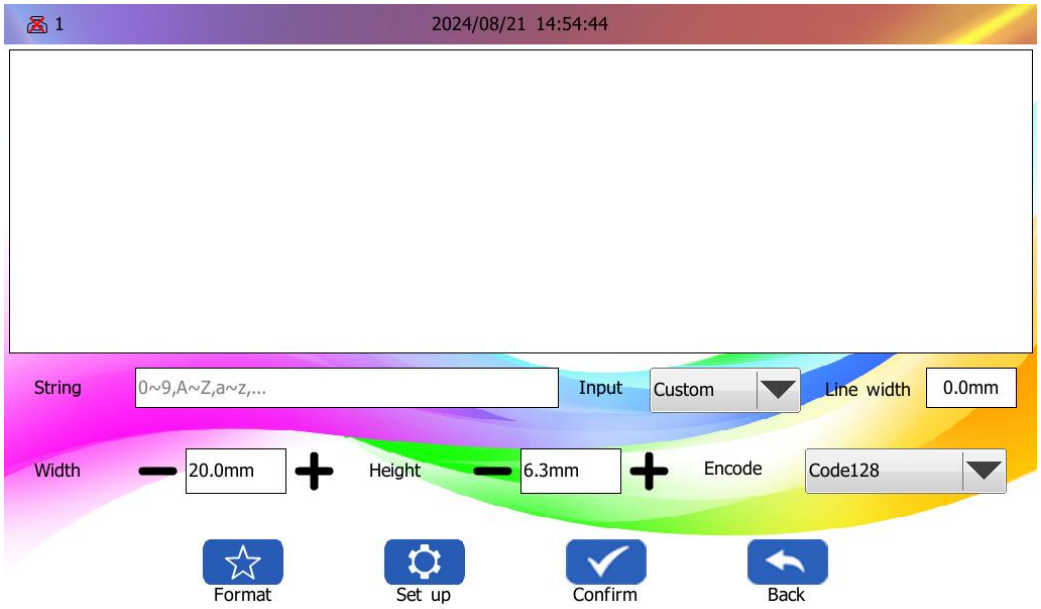

String: You can enter alphanumeric content to generate a barcode. The default encoding type is Code128, but you can select other encoding types from the dropdown menu.
Format: Formatting can only be set when the Input method is set to date or serial number. If custom mode is selected, this setting is invalid.
Line Width: You can enter a value to set the width of the barcode's vertical lines. Once set, you can preview the result.
Width: Set the width of the barcode bars, with a minimum of 20mm and a maximum of 300mm.
Height: Set the height of the barcode bars, with a minimum of 5mm. The maximum height should be set according to the actual height of the printheads.
Barcode Set-up: Click the "Set-up" button at the bottom to configure the barcode parameters.
Trimming Level: Adjust the margin between the text and the barcode.
String Alignment (Align): Left align, right align, center align and space center.
Front Margin: The maximum front margin is 5mm and the minimum is 0mm.
String Size: The minimum can be set to 1mm, and the maximum can be set to 5mm.
Horizontal Scaling: The minimum scaling is 30%, and the maximum is the original size.
Vertical Scaling: The minimum scaling is 20%, and the maximum is the original size.
String top: The barcode string is at the top.
String Hiding (Hidden): Hide the barcode string.

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6.5.3 Add a image

In the editing interface, click on “Add”and select add a image.
Select the image to add from the imported list. You can also quickly select by searching within the image list. After selection, you can preview it. Click to confirm and add the selected picture.
If there is no image in the list, import them via USB. Supported formats including: BMP, JPG, PNG, and JPEG. Best resolution: 566*12800.

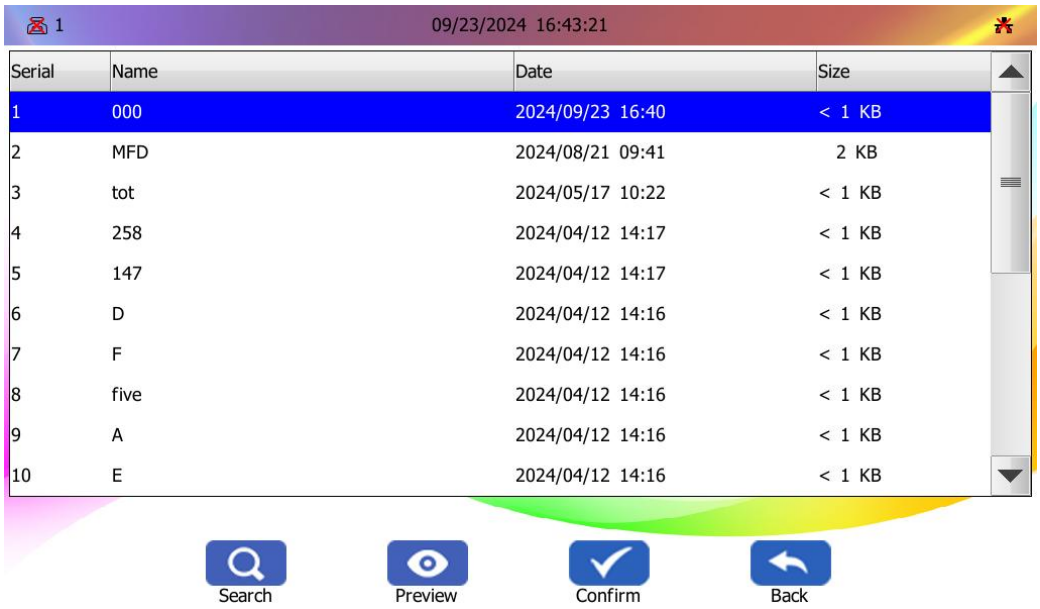
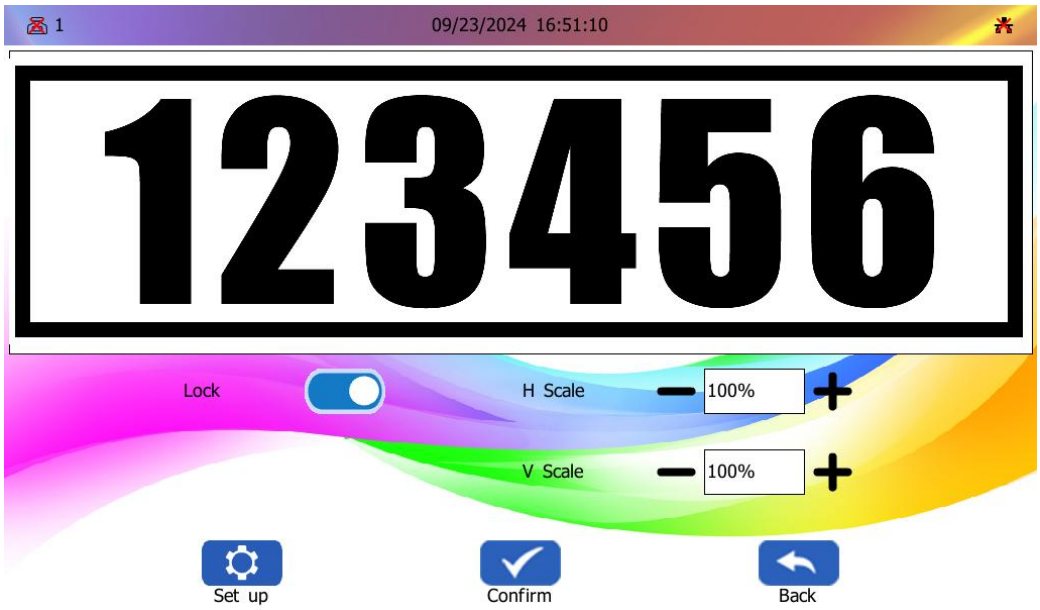


Image settings:

Lock Aspect Ratio: Locks the ratio between horizontal and vertical scaling. When this feature is selected, the object will resize proportionally.
Horizontal Scaling: Default value is 100, with a minimum of 10% and a maximum of 300%.
Vertical Scaling: Default value is 100, with a minimum of 10% and a maximum of 300%.



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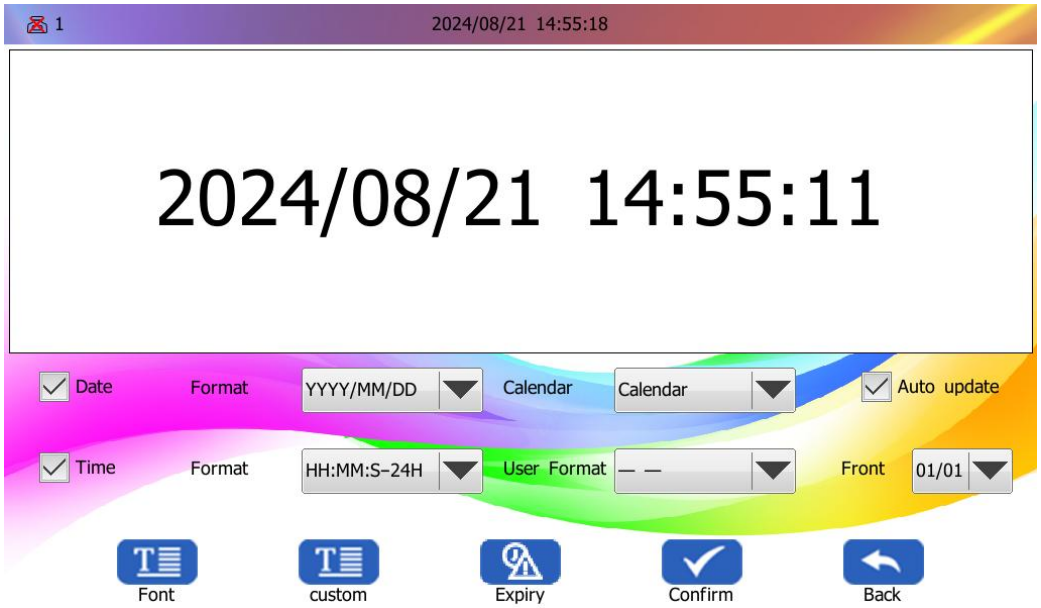
Setup: You can adjust the printing properties of the added pictures by clicking the Set up button at the bottom. Options include grayscale, object print, object not print, and inversion.

6.5.4 Add time

In the editing interface, click on "Add "and select to add date and time.



You can set the date and time format, calendar type, and whether to update automatically. You can also click 'Custom' to set the date and time format.

User format: Needs to be added in the custom settings.

Expiry: Can be set by entering the number of days when expiration.

Font Settings: You can adjust the font, size, style, and spacing.

Printing Settings: You can also set the printing properties by clicking the Set up at the bottom of the font settings.

6.5.5 Add serial number

In the editing interface, click on "Add" and select add serial numbers.

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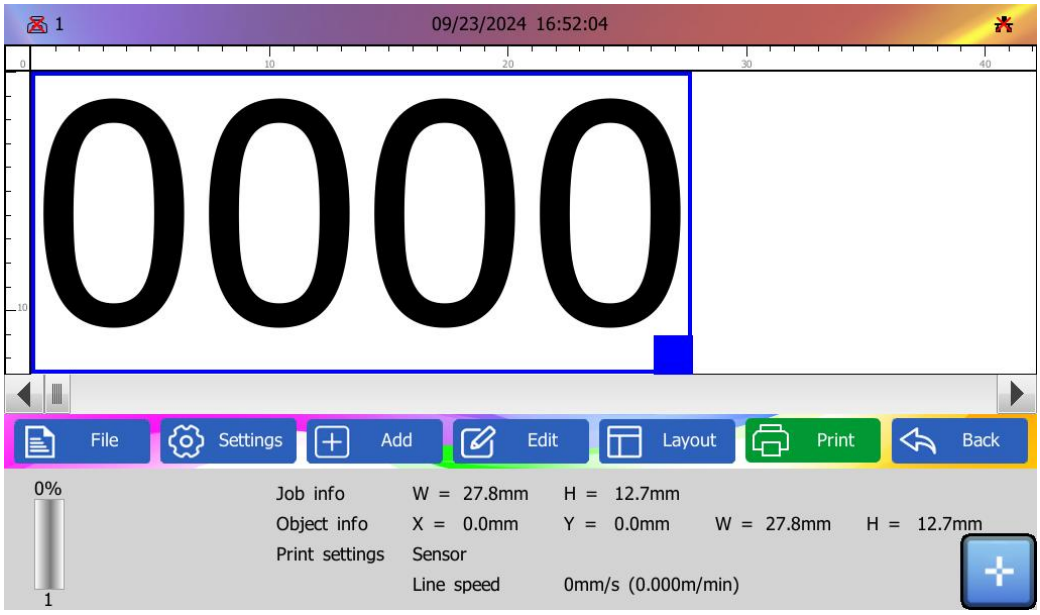

The serial number can be set to automatically increment or decrement.

Initial Value: Set the minimum value of the counter.

End Value: Set the maximum value of the counter.

Current Value: Set the starting value for the counter to print (within the range of the initial and end values).

Change Value: Set the difference between adjacent serial numbers.

Base: Choose the base of the serial number.

Repeat: This refers to the number of times to repeat the print. Enter the number of times the serial number needs to be printed repeatedly.

Format: Click the dropdown menu to select from four formats: 0001、1__、__1、1.

Click “Font” to configure the font type, size, and style. On the font settings page, click “Set-up” at the bottom to individually configure the print attributes. For detailed setup instructions, please refer to section 5.5.1.

6.5.6 Add a Database

In the editing interface, click the “Add” button and select add a database object.

First, copy the TXT or CSV file to the database directory on the USB drive. Then, connect the USB drive to the device to perform the import operation.

Note:

The TXT or CSV file needs to be in UTF-8 format. UTF-8 format with BOM is preferred.

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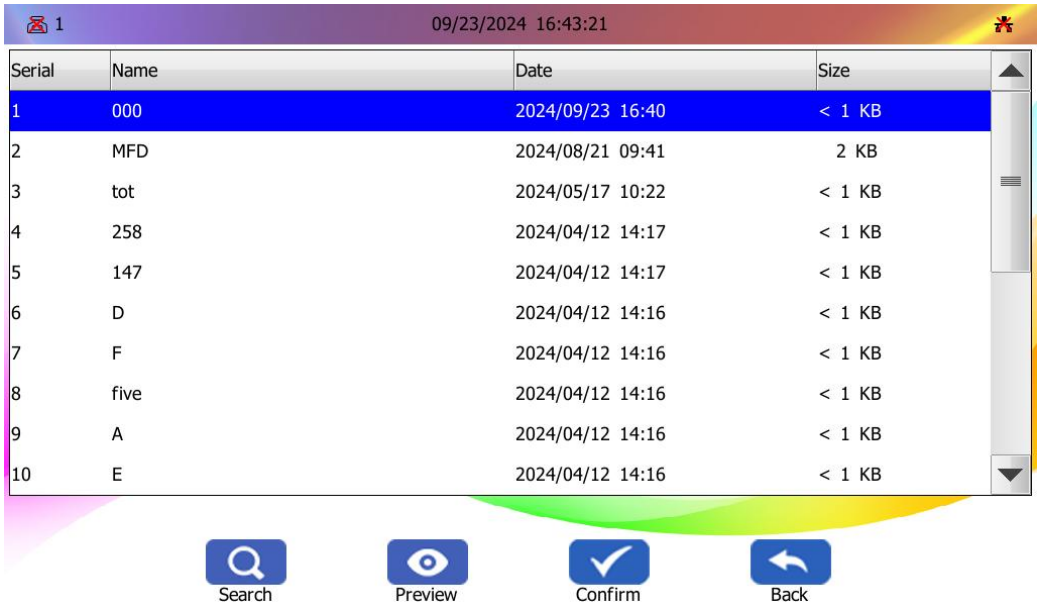

You can select the data type from the dropdown menu: the default is variable text, but you can also choose variable QR code or variable barcode.

If there are many databases, you can choose to search by file name to find the database.

After selecting “Confirm”, you will enter the data list, which can display up to 5 columns and 1,000,000 entries.

After selecting the database to be printed, configure the print settings, including the starting line number, ending line number, and the number of print cycles. You can also locate any line through a search function.

Initial row: means the starting line number.

Stop row: means the ending line number.

Repeat: means the number of repeated prints required.

Search: local any line through the search function.

Click “Set-up” to configure the font type, size, and style. On the font settings page, click “Set-up” at the bottom to individually configure the print attributes. For detailed setup instructions, please refer to section 5.5.1.

6.5.7 Add Graphics

In the editing interface, click “Add,” then select “Graphic” from the drop-down menu.

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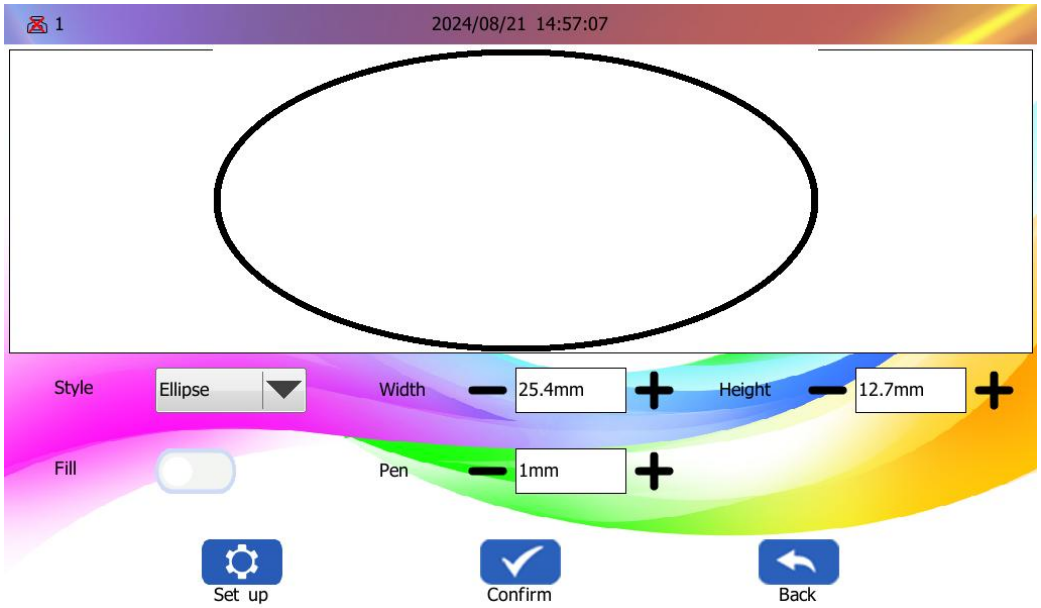


You can choose the style of the graphic, such as an ellipse, rectangle, or straight line.

Width: Minimum 7.0mm, Maximum 300mm .

Height: Minimum 5.0mm, Maximum 71mm.

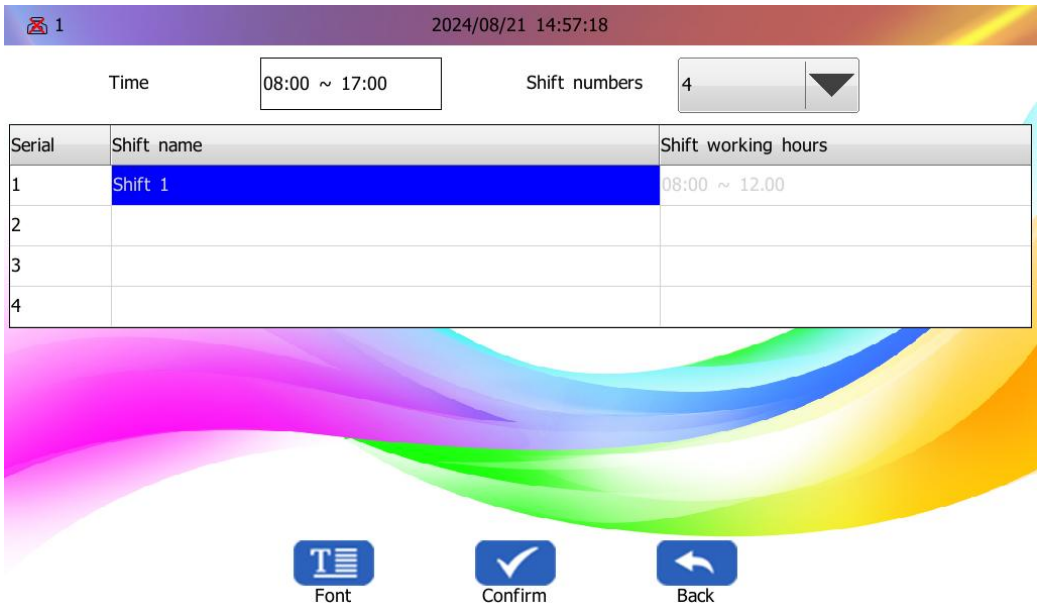
Pen（Stroke）: Minimum 1mm, Maximum 2mm.

When selecting an ellipse or rectangle, enable the fill option to fill the entire content within the shape. The straight line does not have a fill function.

Setup: You can click the "Set-up" button to configure the print grayscale level, enable or disable object printing, and set reverse printing. For detailed configuration methods, please refer to the 5.5.1 documentation.

6.5.8 Add Number of Shifts

In the Edit interface, you can click "Add" and then select "Shift" from the drop-down menu.



To set up shifts, you first need to specify the number of shifts, and then set the shift names and working hours. Once the number of shifts is confirmed, you can set the working hours for each

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shift.

Number of Shifts: The default is 4 shifts. To set a different number of shifts, click the drop-down menu and select the desired number.

Shift Name: This field cannot be empty.

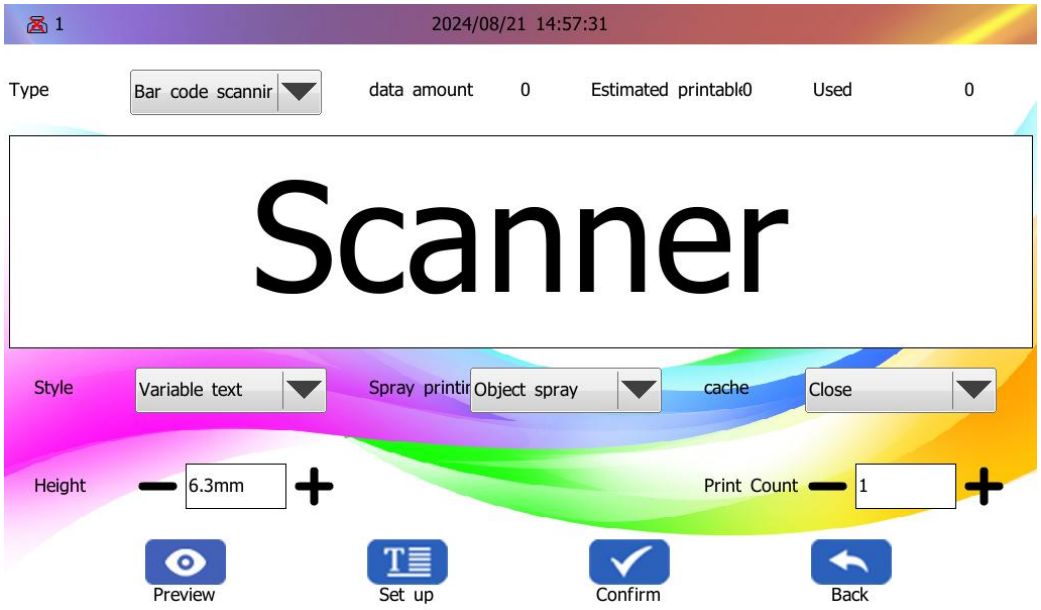
Shift Working Hours: The minimum working time can be set to 1 minute, and the maximum can be set to 23 hours 59 minutes and 59 seconds. Working hours cannot overlap.

After editing the shift information, you can configure print parameters for the shift information to be printed, such as font, font size, style, spacing, and scaling. You can also set printing attributes, such as grayscale level, whether to print the object or not, and other related settings.

After completing the shift setup and clicking “Confirm,” you can add the necessary print content under each shift. This includes adding text, QR codes, barcodes, images, time, serial numbers, databases, dynamic text, UDI codes etc.

6.5.9 Add Dynamic Text

In the Editing interface, click the “Add” button and select to add a Dynamic text object.



Type: The types of dynamic text sources that can be added are: barcode scanner, scale, and computer.

Style: The optional formats for dynamic text are: variable text, variable QR code, and variable barcode.

Printing Properties: You could select to print (Object print), not-to-print (Object not print) and Reverse printing (Inversion).

Cache: Can be turned on or off. Up to 10 items can be cached.

Preview: Click ‘Preview’ to view the cache list. You can click to delete files from the cache.

Height: The Height can be set for the outline, with a minimum of 0.3mm and a maximum of 3.0mm.

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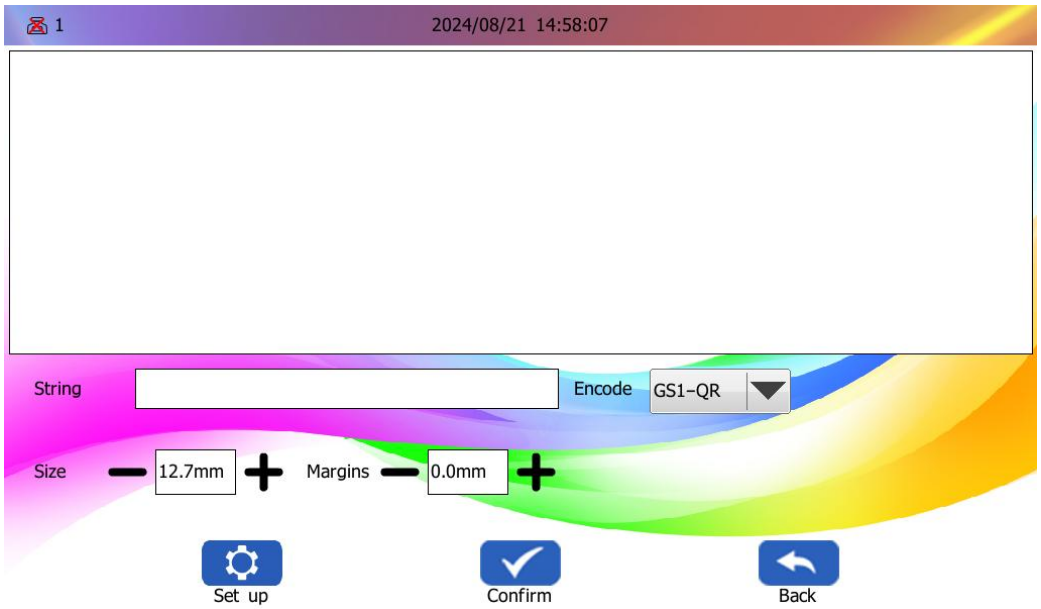
6.5.10 Add a UDI code

In the editing interface, click ： “Add”to add a UDI code object.



Please select the encoding format and enter the string content.

String: Click on the input box to input according to the encoding format.

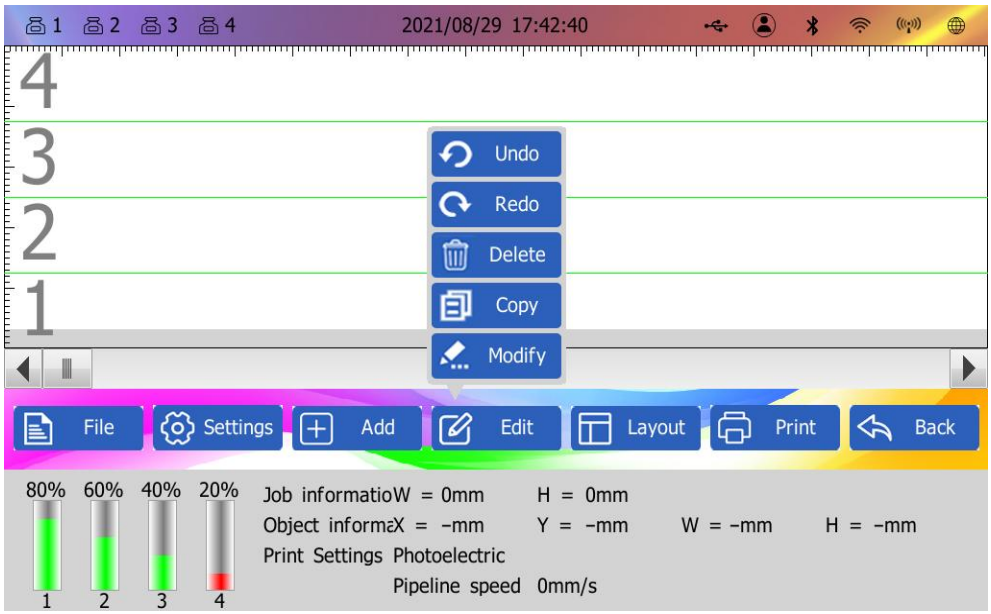
6.6 Edit

In the print editing interface, click “Edit”. The editing functions include Undo, Redo, Delete, Copy, Modify and adjust.

6.6.1 Undo , Delete and Redo

Undo and Delete: When edit the print message, you can choose to undo or delete the newly added content

Redo: Restore the deleted content.



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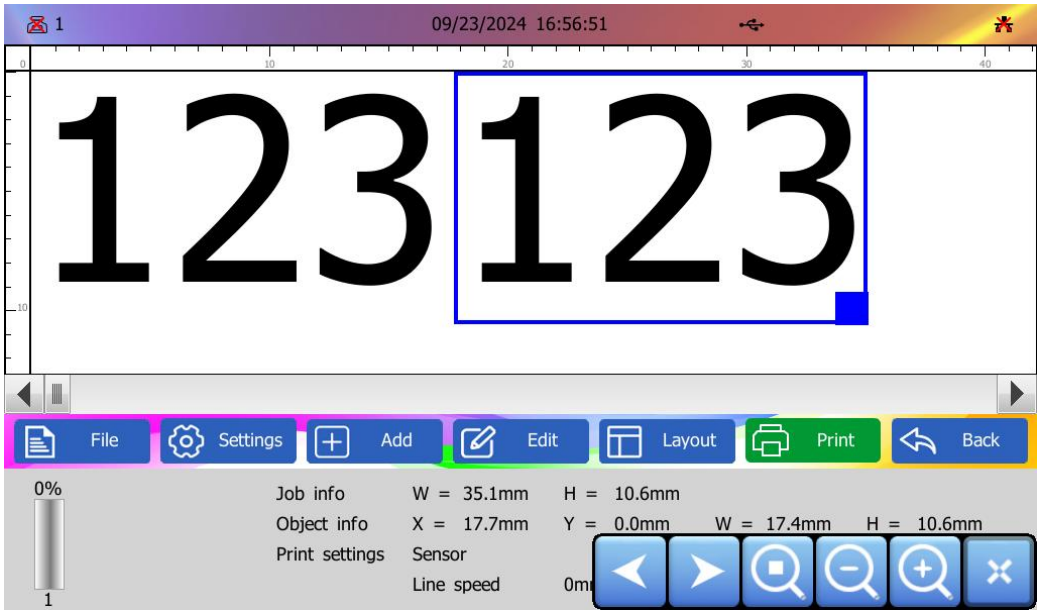
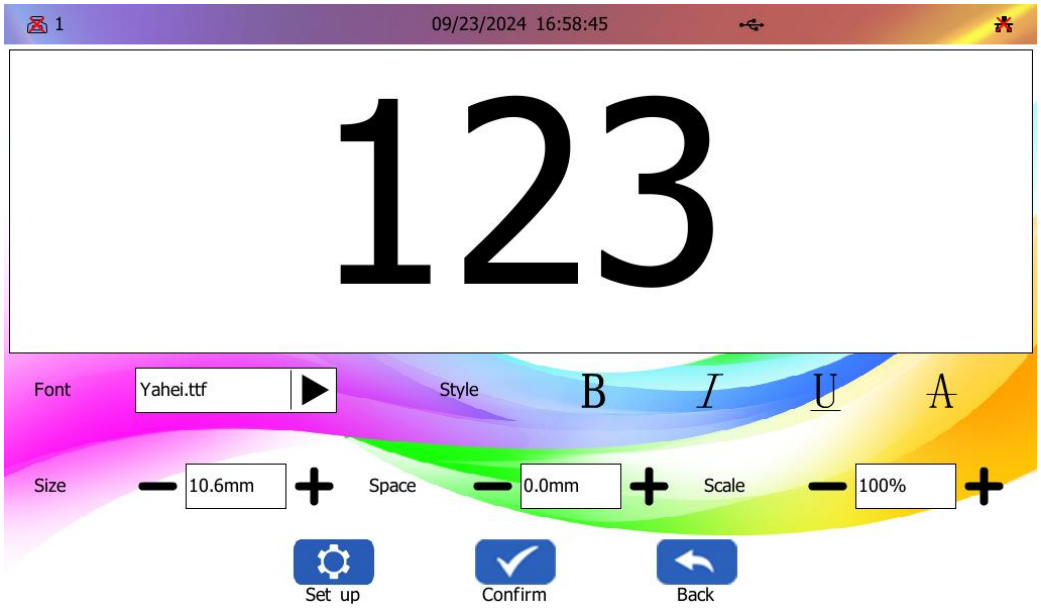
6.6.2 Copy

Copy the selected content.



6.6.3 Modify

Modify the selected content.



Click “Font” to configure the font type, size, and style. On the font settings page, click “Set-up” at the bottom to individually configure the print attributes. For detailed setup instructions, please refer to section 5.5.1.

6.6.4 Adjust

You can adjust the selected content, including zooming, rotating, mirroring, and other operations.

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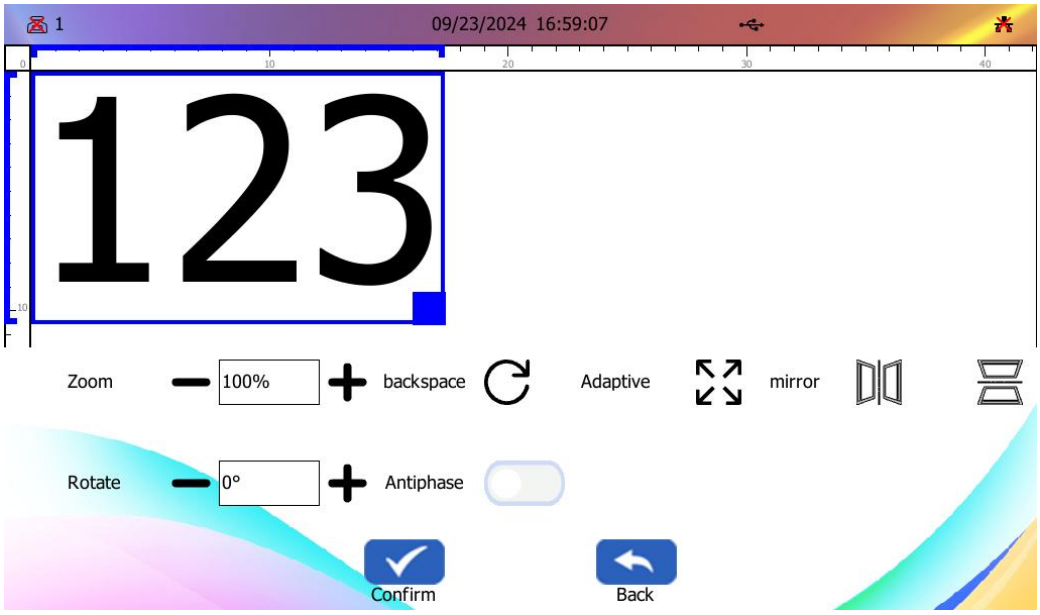

Zoom: Minimum zoom is 50%, maximum zoom is 200%.

Rotate: Rotation range is 1-359°.

Reset: Reset the rotation angle to 0°.

Adaptive: Adjust the editing area size to its initial size.

Horizontal Mirror: Rotate 180 degrees horizontally.

Vertical Mirror: Rotate 180 degrees vertically.

Inversion: Invert colors (white text on black background becomes black text on white background).

6.7 Layout

Layout: Adjust the position of the edited message content.

6.7.1 Align, Multiple Section, No overlap and Lock

Align: To use the alignment function, you need to select at least two objects. This function can be used in conjunction with the multi-select feature.

Multiple: When using the multi-select feature, first select this function. Then click on the targets in the message box to select them individually.

Lock: Click to lock the object. Once the lock function is enabled, all objects created in the editing window will be locked and cannot be moved. Click again to disable the lock function.

No-overlap: Enabling the anti-overlap function prevents the printing targets in the editing window from overlapping when moved.

6.7.2 Coordinates

To reposition multiple printing objects, first select the object and click the coordinates (Coord) in the Layout. Use the icons to move up, down, left, or right. For quick adjustments, change the values in the number box.

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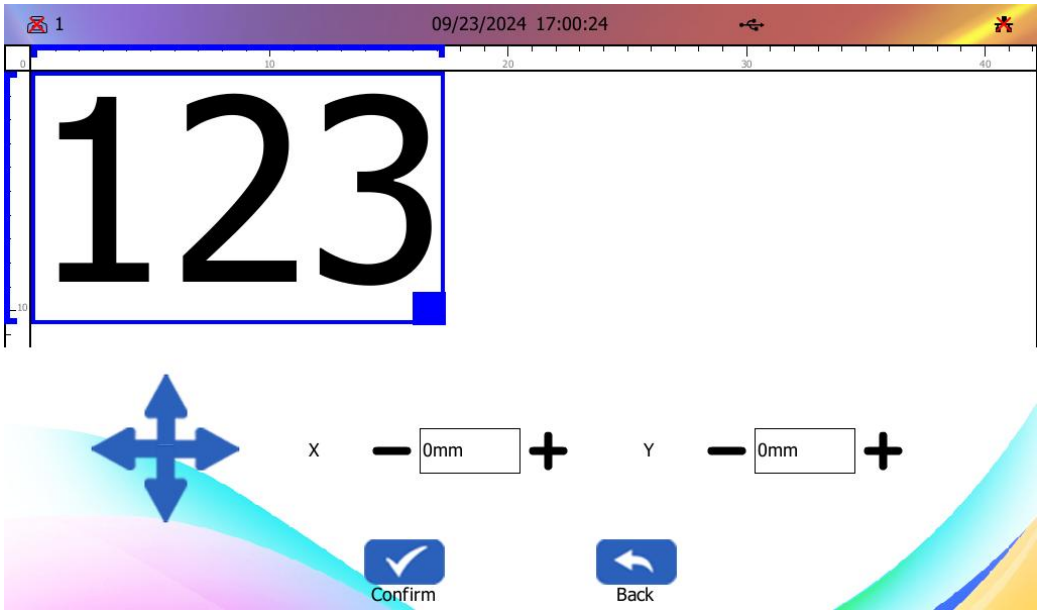
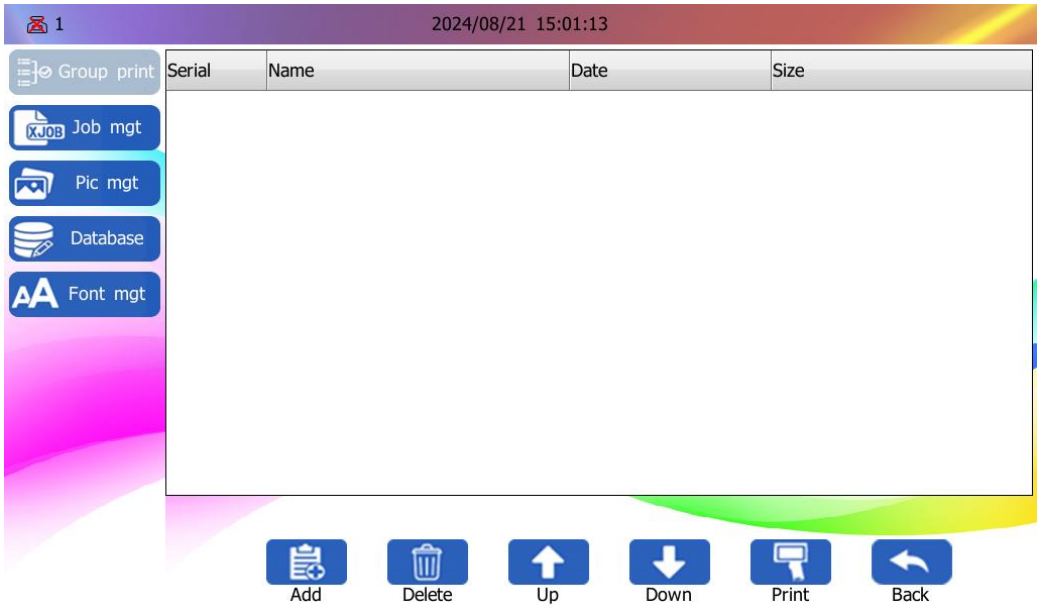


7. Management

Clicking the main menu “Management” allows you to manage group printing, print jobs, images, database, and fonts.



7.1 Group Printing

Click “Management”to open the dropdown menu, and then click “Group print” to add multiple files from the file list for sequential printing. The printing order can be moved up or down. Click “Confirm “to finalize the print group.

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7.2 Job management, Picture Management, Database Management and Font Management

You can sort, delete, and rename files, images, databases, and fonts.

Select All: Select all (used for the delete function).

Sort: Click the sort function to choose from name, date, and size formats.

Delete: Select the serial number, click to check the box, then click delete.

Rename: Select the serial number, click to check the box, then click rename to change the file name.

8. Setting

On the main interface, click on Settings to enter the settings screen. In the left menu bar, the available options for settings are: Permissions Settings, Print Settings, Port Settings, Tone Settings, Power Settings, Time Settings, Language Settings, Device Reset, and Keyboard Settings.

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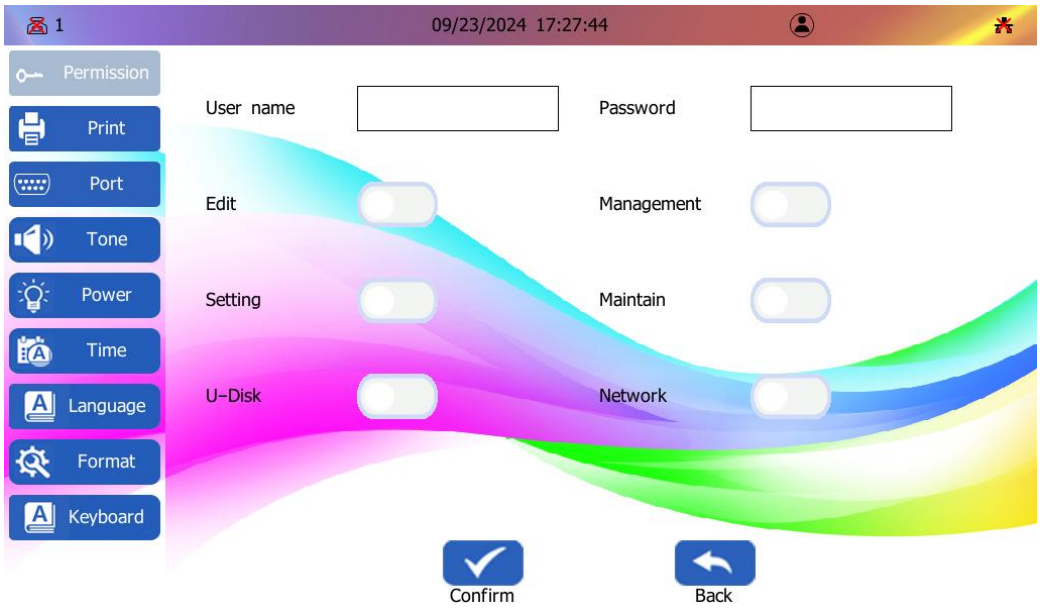
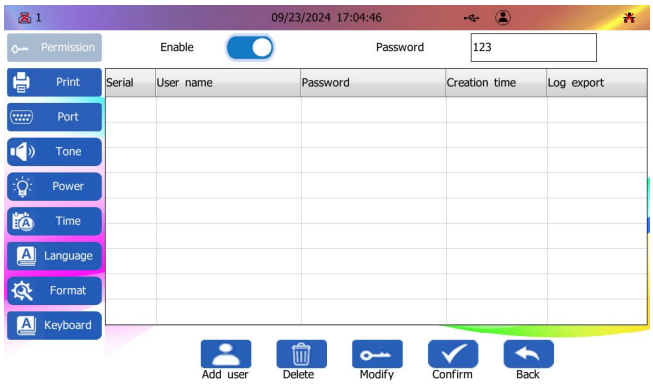
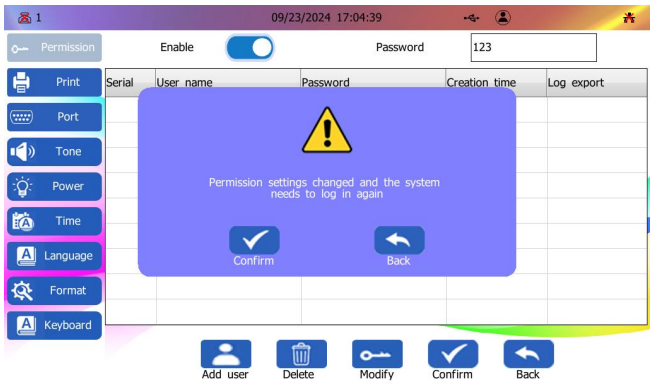
8.1 Permission Setting

On the main interface, click on Settings, then click on Permissions in the left menu to proceed.



When using the permission management function for the first time, enter the permission menu, turn on the enable switch, and set the initial administrator password. The administrator has the highest authority and can set the permissions of subordinate users. If you forget the administrator password, please enter 4009638508 to reset the administrator password.





After the administrator password is set and takes effect, you will need to enter the password to proceed to the next step. To disable the permission function, simply turn off the enable switch and click Confirm to save your setting.

The administrator can add subordinate users and assign their operational permissions. For example, to grant subordinate users permissions for editing, setting, storing, managing, maintaining, or network settings, click to enable the assigned permissions and confirm to save.

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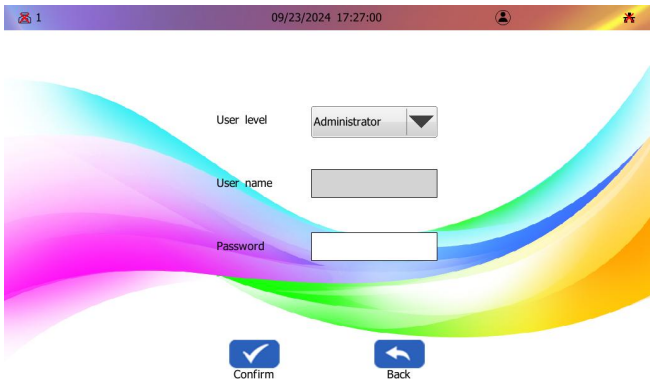
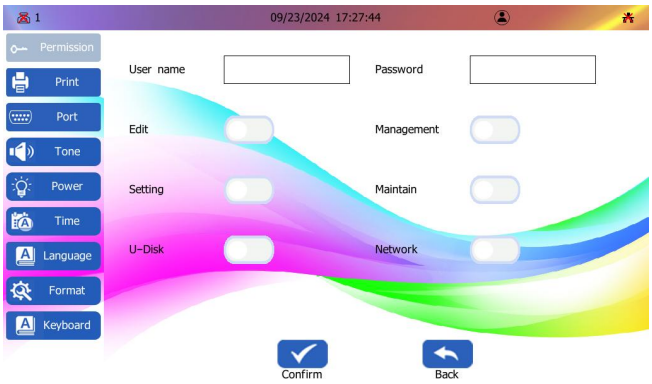
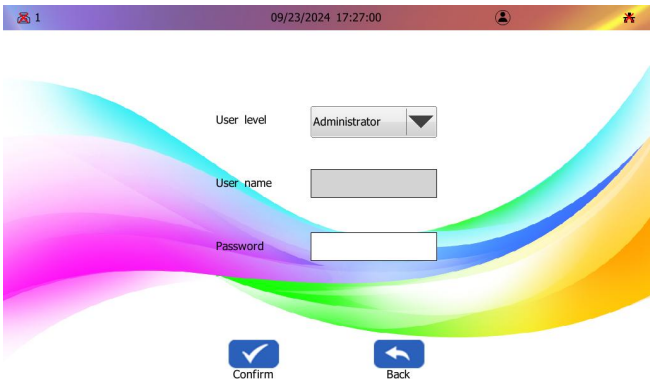
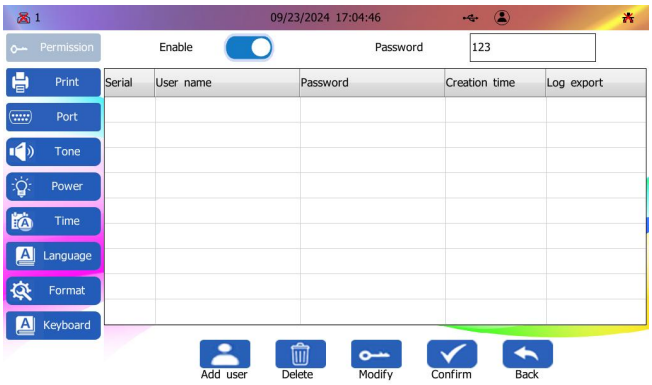




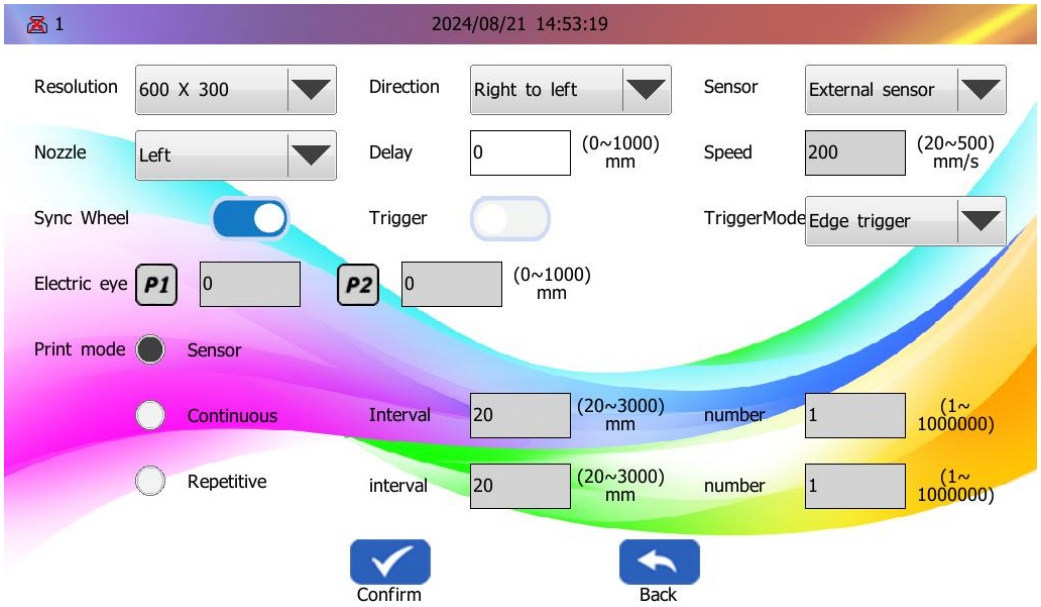
After restarting, you need to select a user and enter the login password to proceed to the next steps.





8.2 Print Setting

On the main interface, click on Settings, then select Print from the left menu to configure print-related settings.



Resolution: Set the resolution for printing. The format of the resolution is horizontal resolution x vertical resolution. The maximum resolution for a one-inch cartridge is 1200x300.

Nozzle Selection: You can choose from Left-side inkjet, Right-side inkjet, Bilateral (dual-side) inkjet, or Alternating inkjet. The one-inch cartridge has only one row of nozzles, so selection is not

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applicable.

Tips:

a. If one side of the nozzle is damaged and printing defects occur, you can switch between the left and right nozzles to resolve the problem.

b. When dual-side inkjet is selected, the vertical resolution of the half-inch cartridge is 600dpi. c. When alternating inkjet is selected, you can set the usage ratio of the left and right nozzles during alternating inkjet.

Print Direction: The default is left to right. Click the drop-down key to select from left to right, from right to left, or auto-detect. Do not use auto-detect for dual or more printheads.

Sensor: Depending on the usage, you can choose external sensor, printer built-in sensor, or independent sensing of built-in sensors.

External Sensor: When using a photoelectric sensor, you can adjust the height or value of the sensor to detect objects. When using a fiber optic sensor, you can only adjust the sensor's value.

Built-in Sensor: Set the sensor according to the number of printheads installed.

Independent Induction: Independent sensing requires the use of the printhead's built-in sensor, and the distance between the sensor and the detected object needs to be within the range of 1-5mm.

Encoder: When the conveyor is not equipped with an encoder, you need to disable it.

Trigger: This option can only be activated in continuous mode. It cannot be enabled in other modes.

Trigger Mode

Edge Trigger: One detection, one print.

Level Trigger: Continuous detection is required for printing. Printing stops when the sensor eye stops detecting.

Print Delay: This is the distance from detecting the object to start printing. Each printhead can be set with an independent delay. This function requires hardware support. For use on different conveyor lines, the conveyor speed and printing direction must be the same for it to function correctly.

Print Speed: If an encoder is installed, no setting is required. If no encoder is installed, the speed must be matched. Please enter the conveyor line speed in the numeric input box according to the actual speed of the production line. (The maximum speed varies with different resolutions).

Print Mode

Printing modes can be selected from three options: Sensor (single sensing mode), Continuous mode, or Repetitive mode.

Sensor: Only one print each time when the print is triggered.

Continuous: Continuous printing of multiple prints in one trigger. The interval and number of continuous prints can be set.

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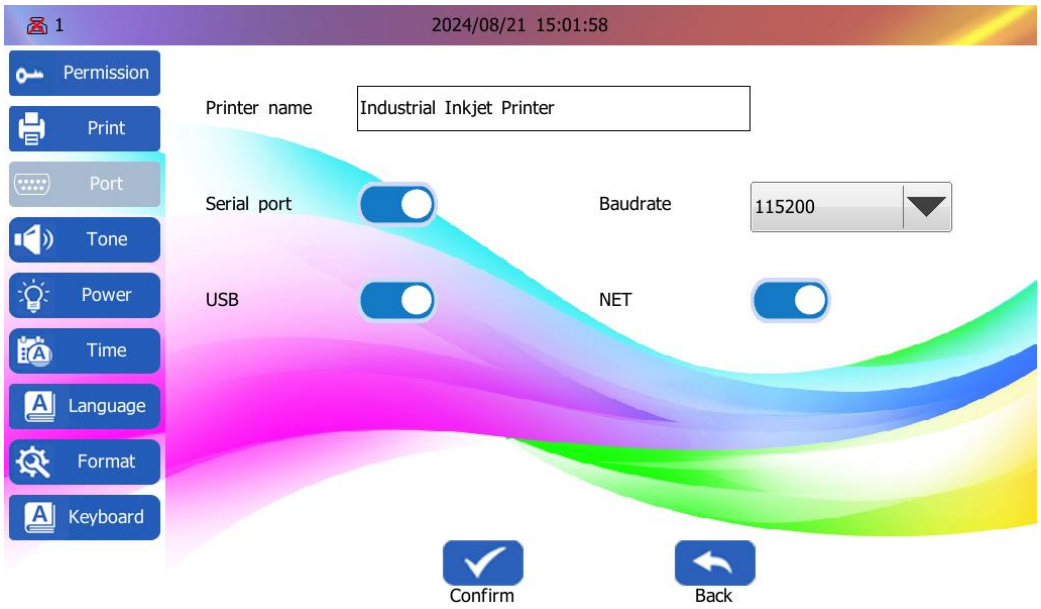
Repetitive

The number of prints and the printing interval can be set according to the needs. For each sensing, the printer can print the corresponding copies at the set interval.

8.3 Port Setting

Click Setting in the main interface to select the Port for settings.



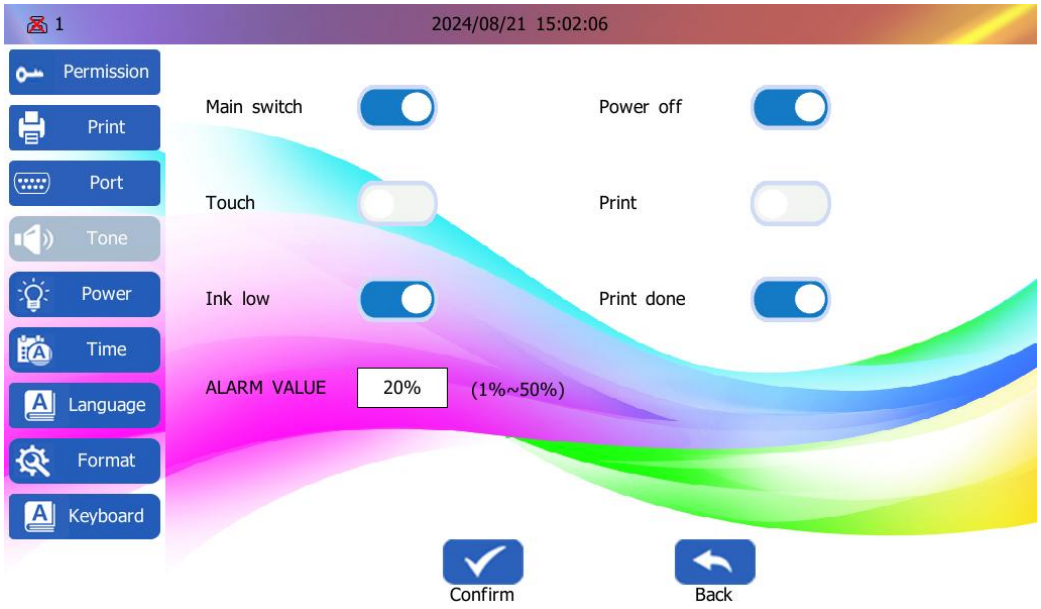
Printer name: Can be customized and modified (special characters are not supported).

Serial communication, USB communication, and network communication are not recommended to be turned off.

The default serial port baud rate is 11520, and users do not need to change it under any circumstances.

8.4 Tone Setting.

Click on Settings in the main interface to set the prompt sound.



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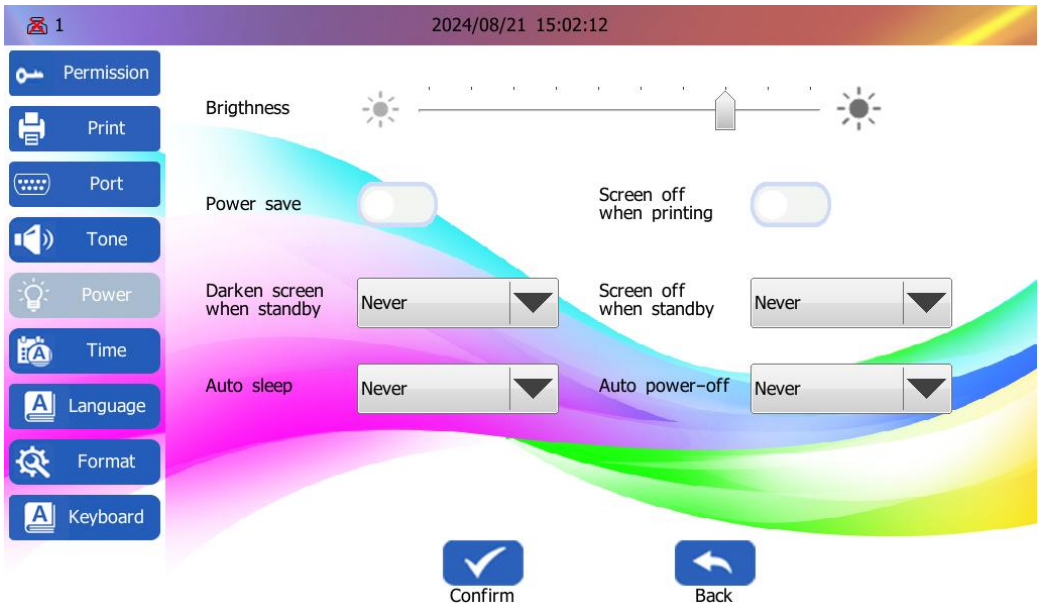
Alarm Value(Ink low): Users can set the low ink alarm value when the remaining ink volume is between 1% and 50%.

8.5 Power Setting

Click on Settings in the main interface to set the power.



8.6 Time Setting

Click on Settings in the main interface to set the date and time.

Adjusting System Time

Enable the time adjustment button to manually calibrate the system time and change the date and time format. Scroll the values up and down to set the date and time. After completing the adjustments, click confirm to save the changes.

Date Jump

Enable this feature to customize the jump time. When date jump is enabled, the date will change at

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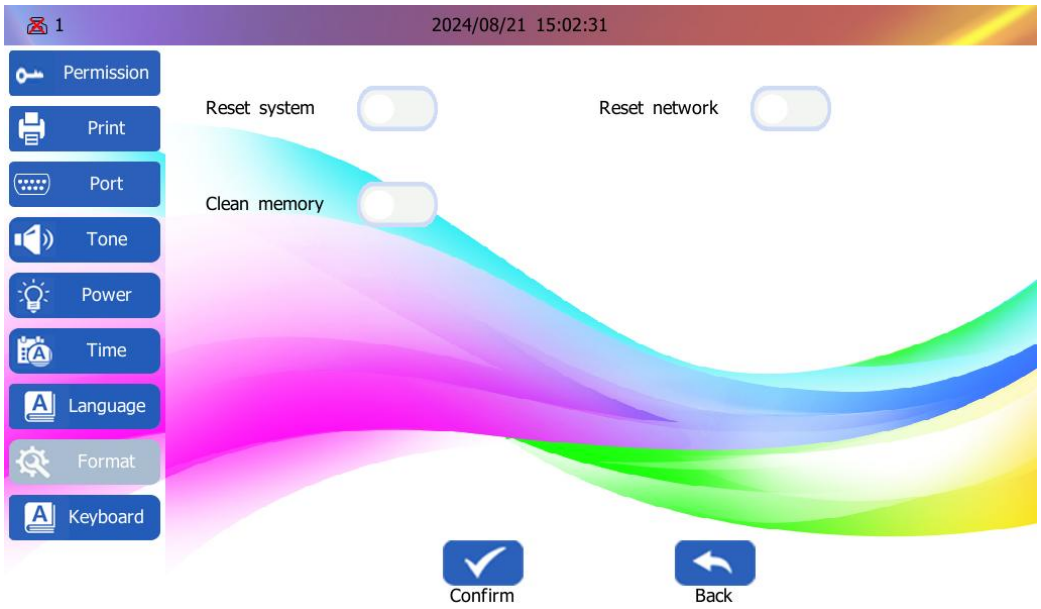
the set time point rather than following the system time changes.

8.7 Language Setting

In the main interface, click on Settings and Language to make adjustments.

8.8 Device Reset

In the main interface, click on Settings and select Reset to perform the operations.



Reset System

Restore all settings in the system to factory defaults.

Reset Network Settings

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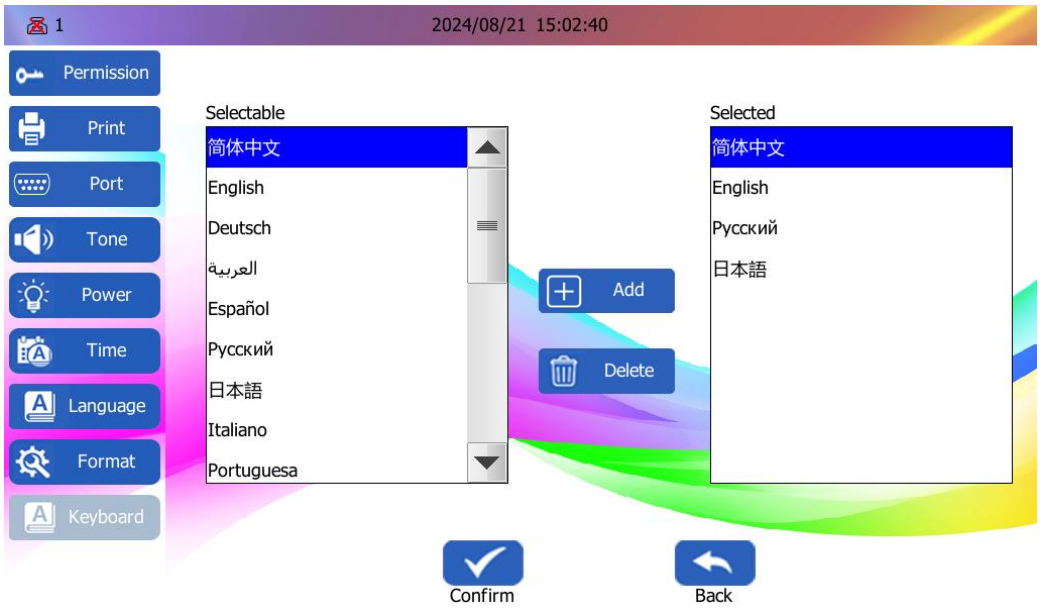
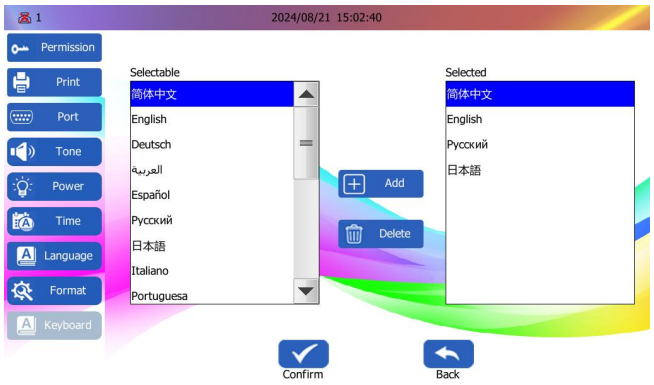
Restore all network settings to factory defaults.

Clean memory: Clear the files saved in the printer and restore factory settings (use with caution).

8.9 Keyboard Language Setting

Click on “Setting” in the main menu to open the settings menu. Then, select “Keyboard” from the left-side menu. You can add or remove keyboard languages according to your needs.





When entering text on the keyboard, long press the “US” Key for 3 seconds to switch between the keyboard input languages you have added.

9. Printer Maintenance

Click the “Maintain” icon on the main menu to perform nozzle maintenance, print tests, firmware upgrades, and device tests.

9.1 Nozzle Maintenance

Click “Maintain “to open the dropdown menu, then click Nozzle Maintenance to perform the relevant settings.

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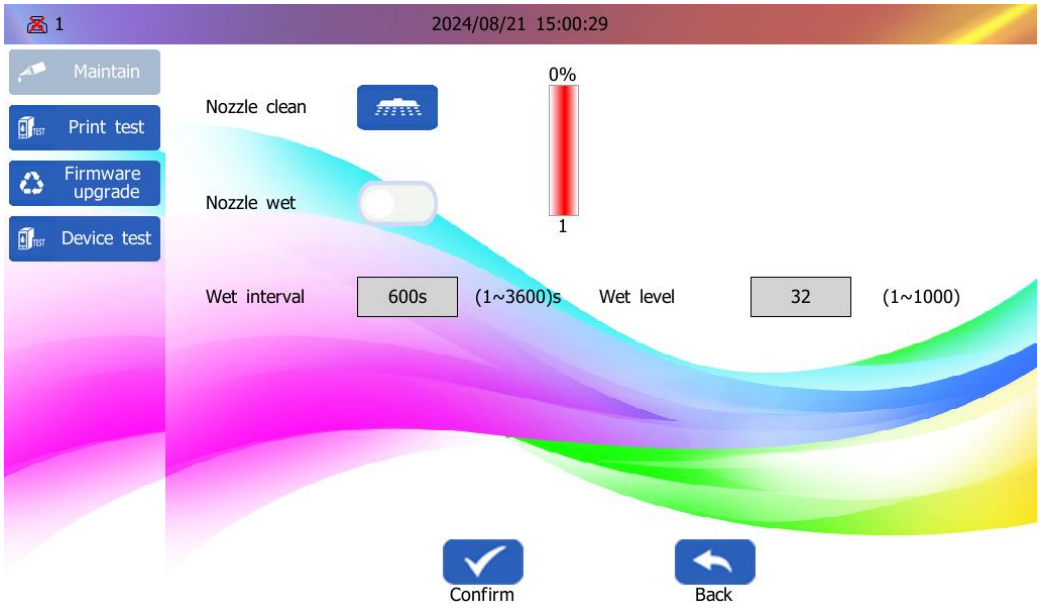
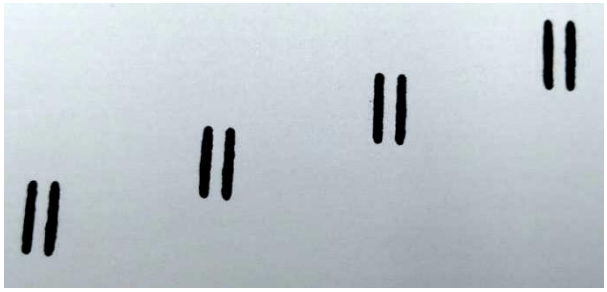


Nozzle Cleaning: If the ink cartridge has been idle for a long time, it may not print properly. You can use the nozzle cleaning function to resolve this issue.

Nozzle Wet: By turning on the nozzle wet switch, you can set the interval and level of moisturizing during idle times. The higher the moisturizing level, the greater the ink output. Please note that nozzle moisturizing can only be enabled when an ink cartridge is installed. The image below shows the print test results after enabling the nozzle moisturizing function.



9.2 Print Test

Click "Print Test"to print a test page and check the print quality. The content of the test page will vary depending on the number of installed printheads.

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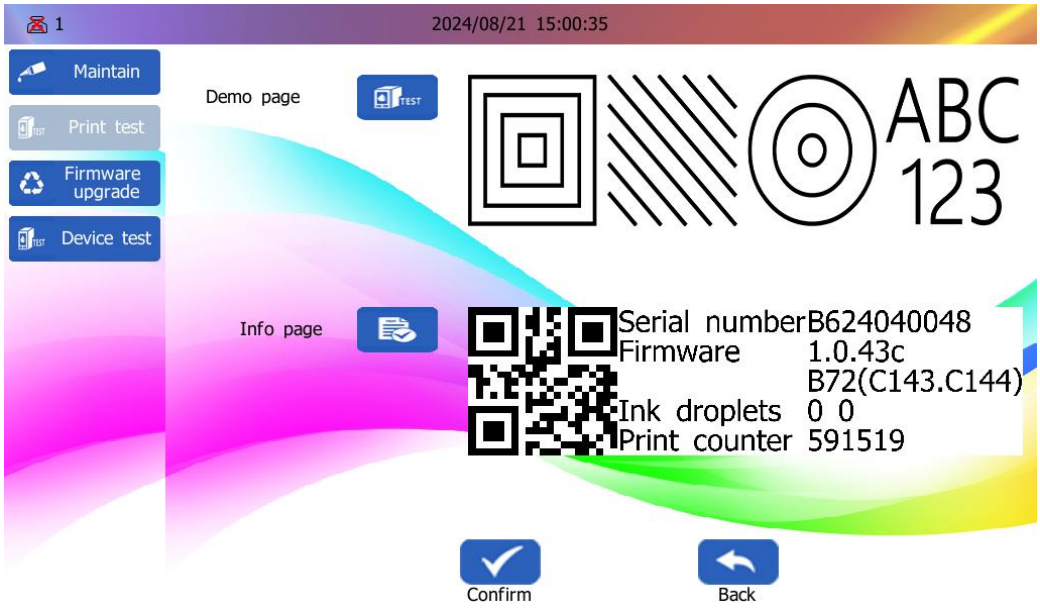
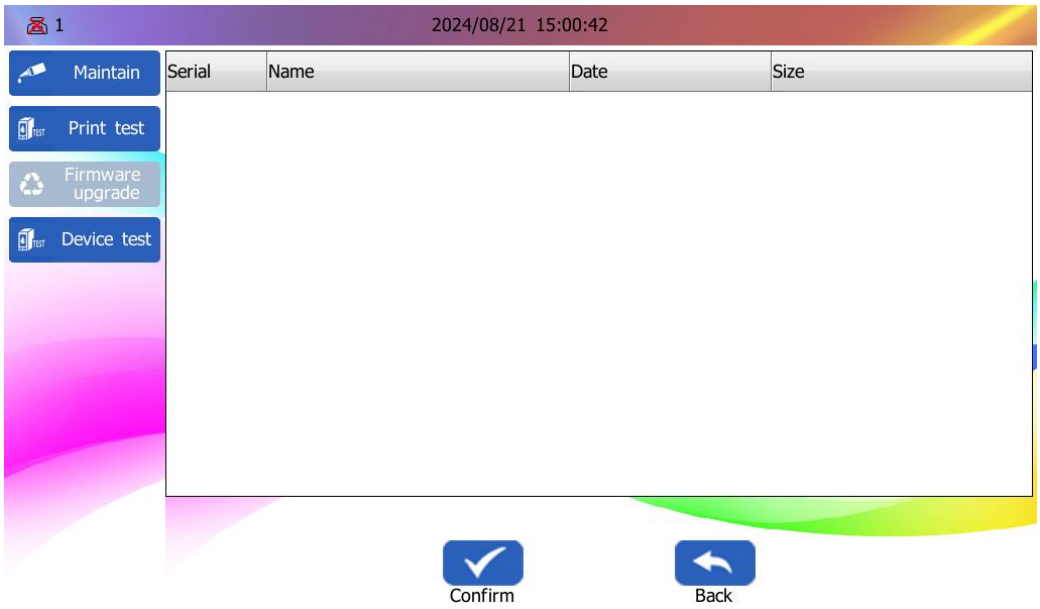


9.3 Firmware Upgrade

Click this button to perform a **Firmware Upgrade**. When upgrading the firmware, insert the USB drive containing the firmware upgrade files into the printer's USB port. If the firmware upgrade package is in a compressed format, please unzip it first. If the firmware upgrade pack contains multiple files, as shown in the example below, you can only upgrade one file at a time. Please install the files one by one.



b60_fw_all_v1.0.39cT3 is the firmware file.
b60_fw_boot_v1.0.39b is the boot file.

9.4 External Device Test

Click this button to test the connection or technical parameters of external devices.

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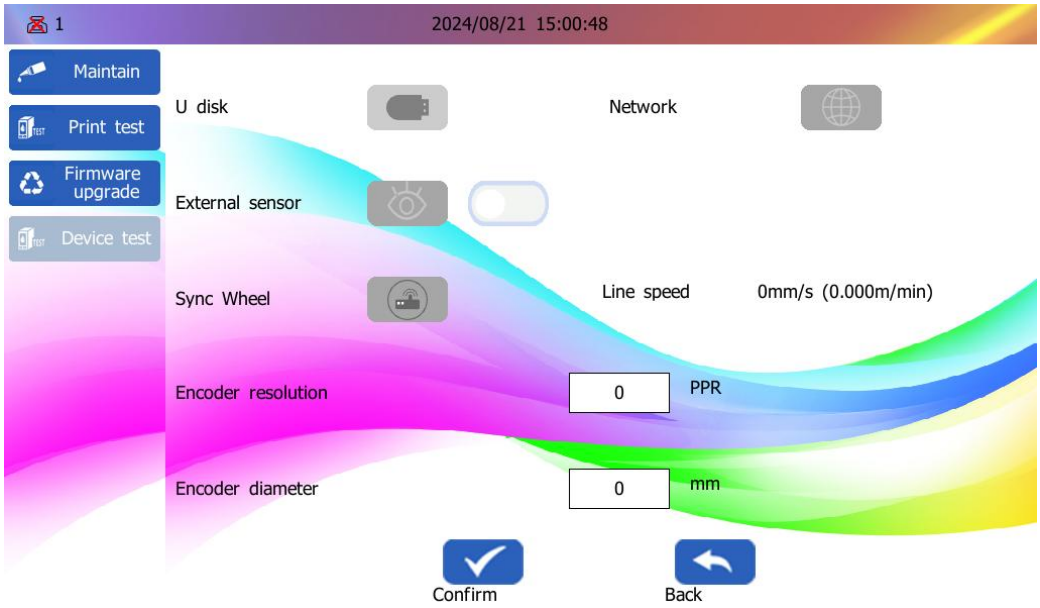

USB Drive: Insert the USB drive, and the USB drive icon will light up.

Network: Insert the network cable, and the network icon will light up.

External Sensor: When the external sensor is connected, the sensor icon will light up.

Synch wheel: If the synchronization wheel is connected, the indicator will light up. Once the conveyor is started, its speed will be displayed.

Encoder Resolution, Encoder Diameter: When using a third-party encoder, you need to set the encoder diameter and resolution correctly for it to function properly.

Device Test Indicator On/Off Status.

	ON	OFF
U-Disk		
External Sensor		
Network		
Encoder		

10. U-Disk

Click on “U-Disk” In the main menu to perform operations such as data import, data export, and data backup.

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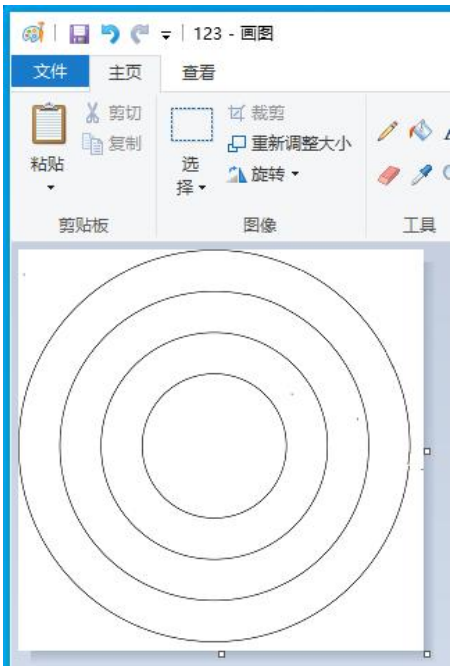
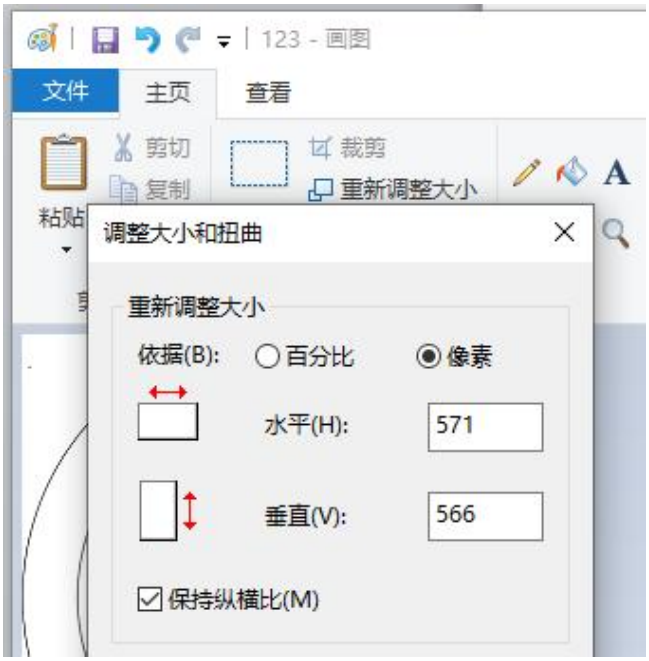
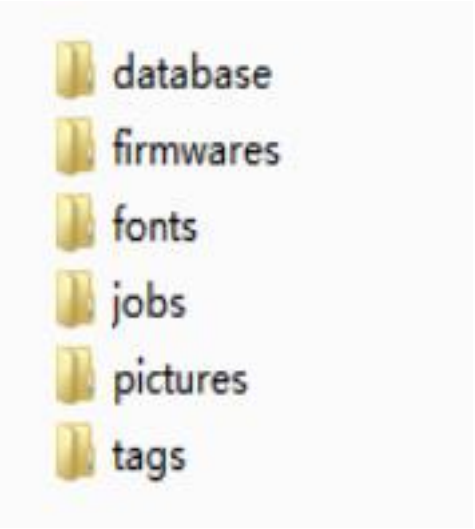
10.1 Preparations before Importing Images





Use the built-in Paint tool in Windows to drag in or add images from the file manager, and click “Resize” to modify the image pixels. It is recommended to change the image pixels to 566 vertical and 12800 horizontal.



After adjusting the image pixels, please save the image in one of the following formats: PNG, JPG, JPEG, or BMP. The image file name should only contain letters and numbers, and no special characters. Save the image file to a USB drive and then insert the USB drive into the printer’s USB port to import the image.

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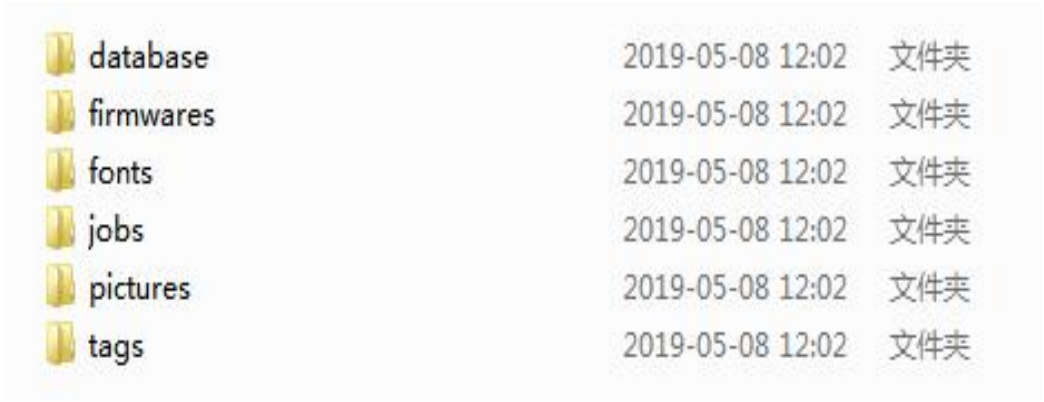
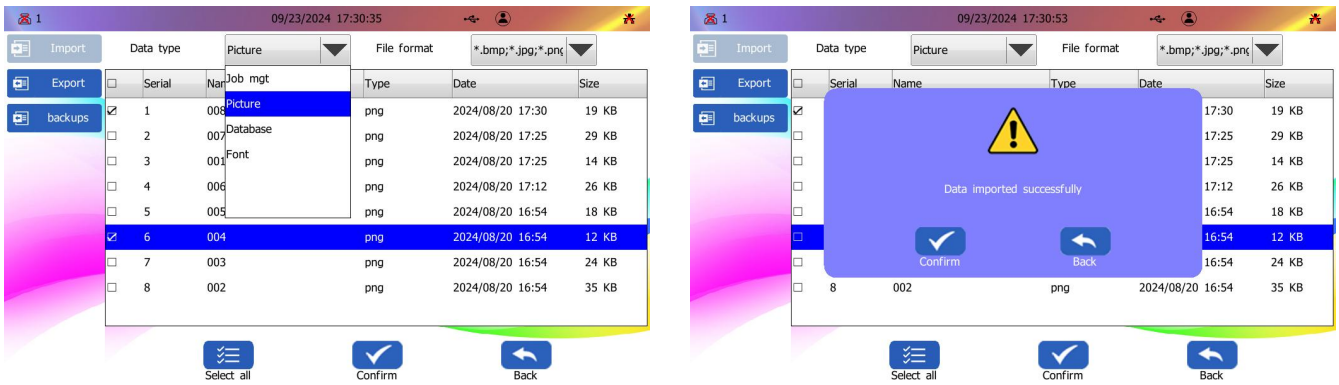
10.2 Preparations before Importing a Database



Font Import: Download the TTF format font file and copy it to the “fonts” folder on the USB drive. Then, insert the USB drive into the USB port of printer to install it.

10.3 Data Import

Click the U-Disk icon to select data import.



Insert the USB drive into the printer’s USB port. When the screen shows a popup indicating that the USB drive has been inserted, Click “Confirm” to enter removable storage. Select the type of data you need to import for data import. The files of that type will be displayed in the list. Select the files you need to import and then click “Confirm” to execute the import operation.

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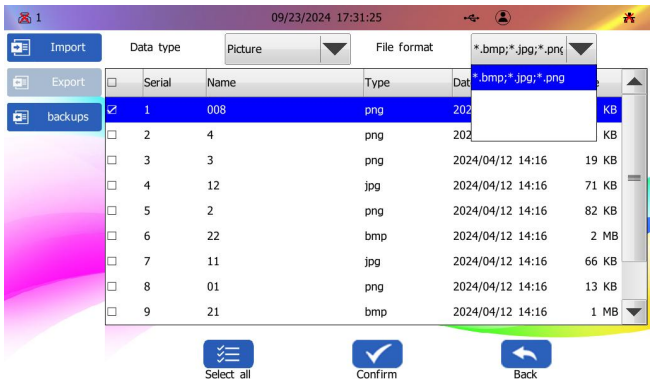
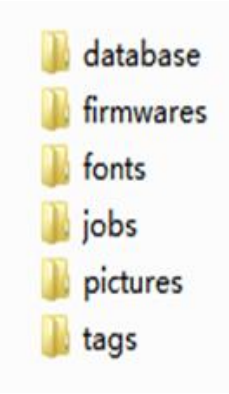
10.4 Data Output

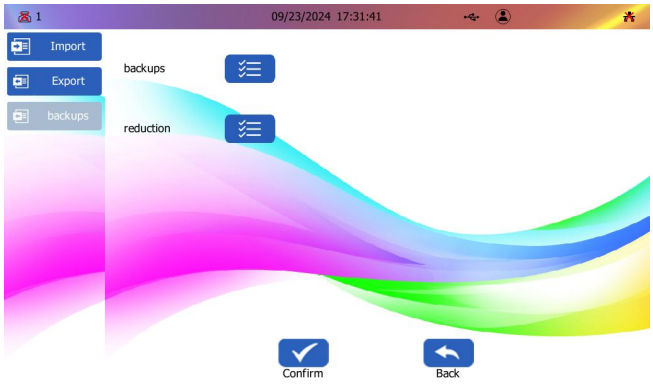
Click the U-Disk Icon to select data export. You can export jobs, images, databases, and fonts from the printer to an external USB drive.

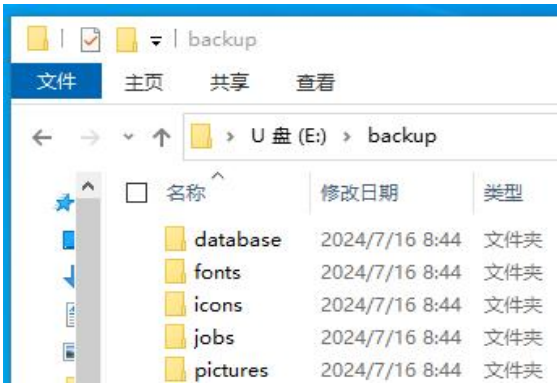




10.5 Data Backup and Restoration

Click the U-Disk icon to perform data backup or restore operations.





Insert the USB drive into the printer controller's USB port. Click on "Backups" and wait for the prompt to show that the data export was successful. At this point, the data has been successfully imported into the USB drive, and all files are stored in the "backup" folder on the USB drive.

The data restoration path is the same as the backup path. Insert the USB drive into the printer controller's USB port, select "Restore," and wait for the prompt to indicate that the data import was successful.

11. Network Setting

Click on the Setting in the main menu to configure network parameters.

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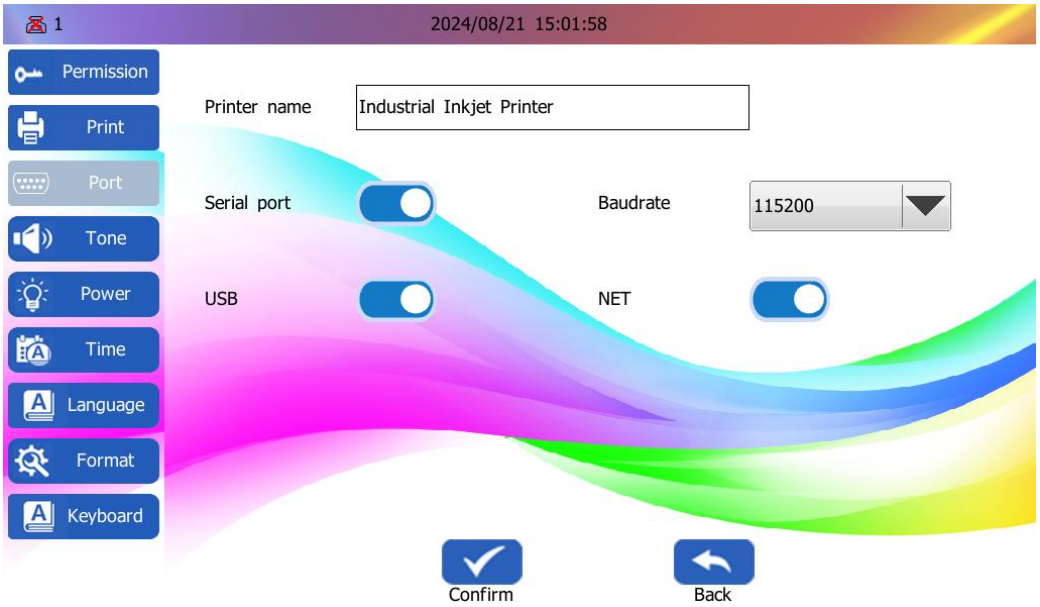
11.1 Port Setting

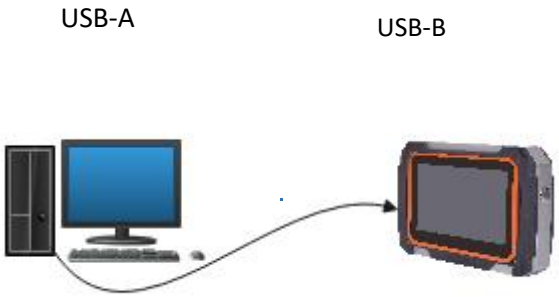
Please click on the “Port” on the left to configure the settings.

The existing interface of the inkjet printer supports **USB** communication and **Ethernet** communication.

Serial communication is a reserved interface, and the serial port baud rate defaults to 11520, and the user does not need to change it under any circumstances.



11.2 USB Connection



When using a USB cable to transfer data between a PC and the printer, it’s recommended to keep the cable length within 5 meters. Longer cables can lead to signal degradation and reduced data transfer efficiency.

11.3 Ethernet Connection Method

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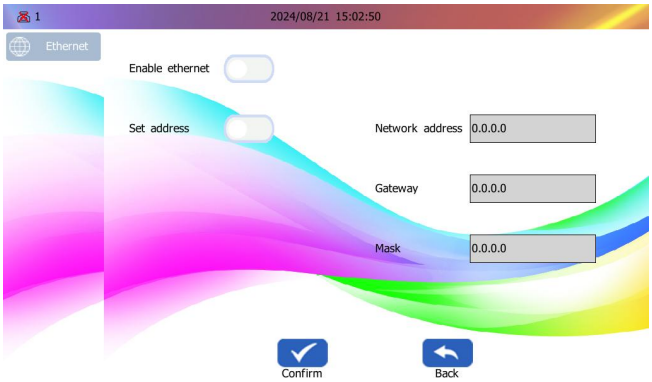
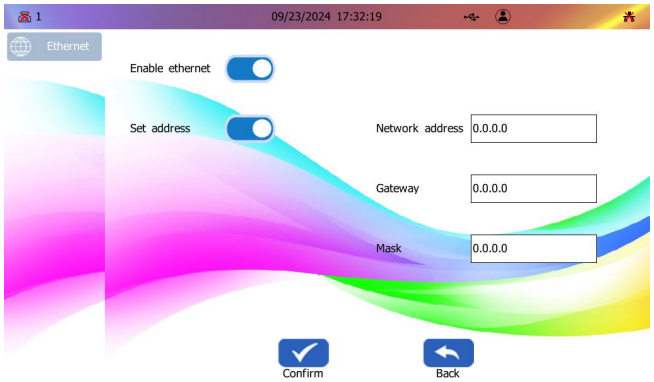
PC+Switch+ Printer

PC + Printer





12. Ethernet Connection

To use Ethernet connection, you need to enable the Ethernet option and set the network address, default gateway address, and subnet mask address. After completing the settings, click Confirm to save. On the computer, open our printer PC APP, click Select Network Connection, and after finding the relevant device, click Confirm to connect.

If you need the PC app for our printer, please contact your account manager.

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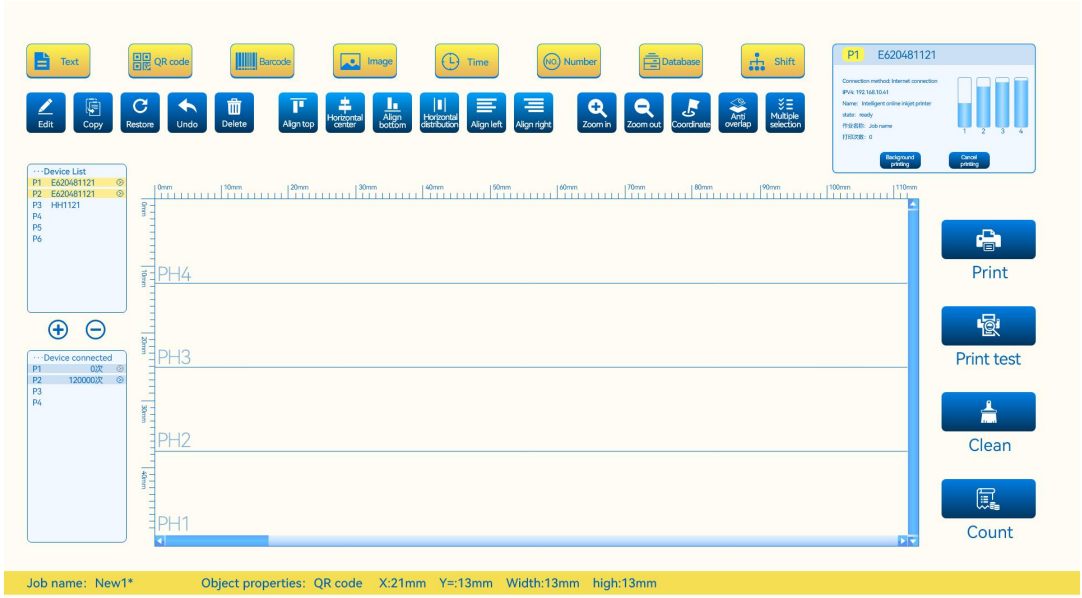
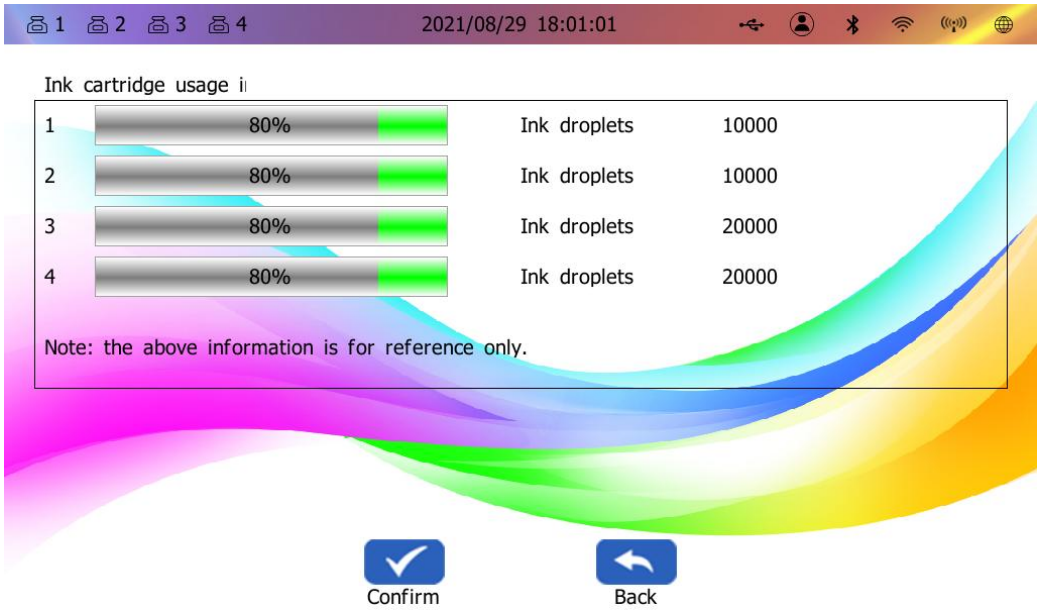


13. Cartridges

Click the Cartridge icon at the bottom of the main interface to check the status of the ink cartridge and the remaining ink level.



The ink droplets displayed on this interface indicates the number of ink droplets consumed of each installed cartridge. Each new cartridge has a fixed total number of ink droplets, and the remaining number of ink droplets is calculated by subtracting the consumed droplets from the total ink droplets.

14. Network Info

Click the network icon at the bottom of the main interface to view Ethernet network information."

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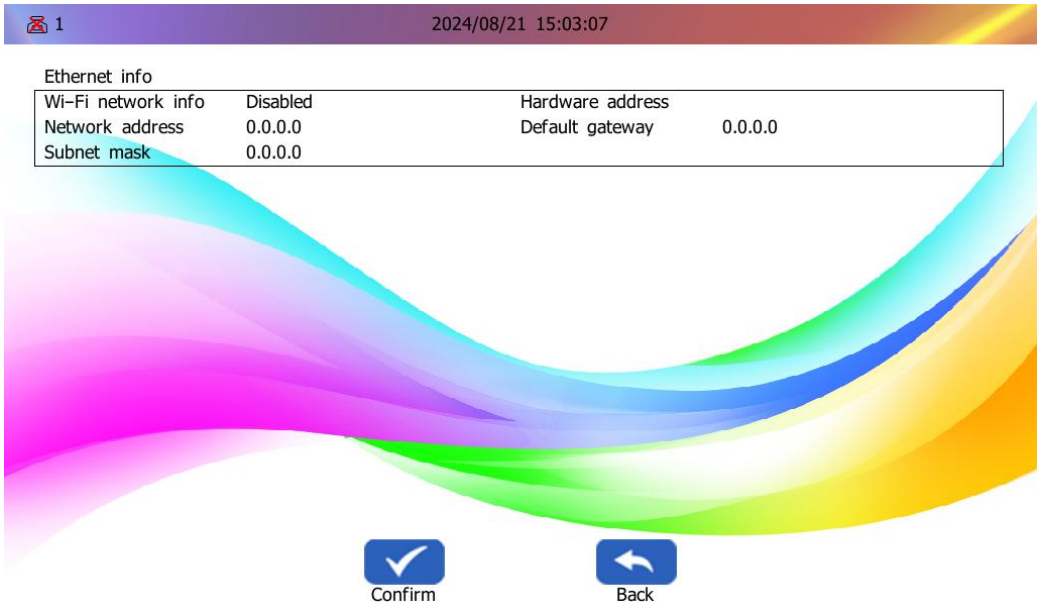
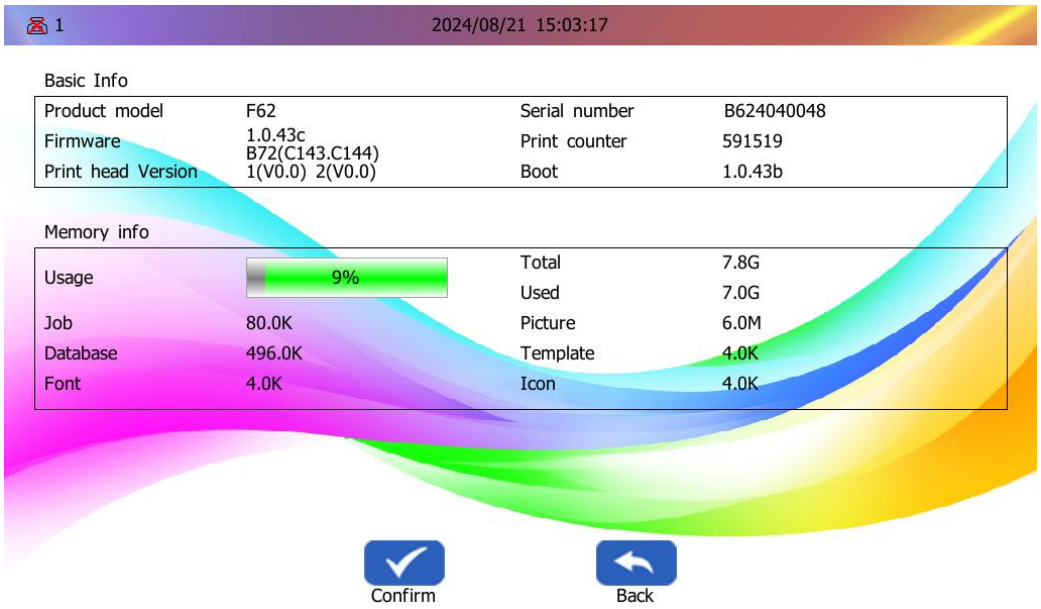


15. Device Info

Click the Device Info icon at the bottom of the main interface to view device information and storage status.



The basic information section allows you to view details such as the product model, system firmware version, current printhead version, device serial number, number of prints, and BOOT version.

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16. Warranty Instructions

Dear customer,

Thank you for purchasing our Inline Industrial Inkjet Printer!

To ensure the safe use of the product and your benefits and interests, please read the following content carefully, fill in and keep the warranty card properly.

This product is a precision instrument. In case of any abnormality, refer to this manual for troubleshooting or contact the customer service center of your seller.

Term of Service

1. This product is with a one-year warranty period. The starting date of the warranty period is subject to the date of the product invoice.
2. During the warranty period, if the product is under normal use and maintenance and failure is caused by the quality of the machine itself, the company will provide free repair and replacement parts.
3. Vulnerable parts are excluded, such as ink cartridges ,screens , removable storage, switches, chargers, batteries, which shall not be covered by the warranty.

17. Disclaimer

Any of the following conditions shall not be covered by the warranty:

1. Damage due to improper transportation , use , storage , and maintenance , or man-made damage.
2. Unauthorized repair or the user installs, disassembles, and repairs the machine by himself.
3. Damages caused by using non- original consumables or accessories which are not provided by the company.
4. Missed or modified warranty card.
5. Beyond the warranty period.
6. Damage caused by force manure .

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18. Warranty Card

Product Related information

Customer Name:	Contact Phone:
Mailing Address:	
Product Model:	Product ID:
Store Purchased:	Purchase Date:
Maintenance Store:	Invoice No.:

Maintenance Record

Date of Maintenance:		
Failure Description:		
Solution :		
Maintained by:	Contact Phone:	Staff Signature:

Fill in this warranty card in time after purchasing this printer. Please keep the warranty card properly, and it is not required to send it back to the seller. Carry the warranty card and the original invoice for maintenance.

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