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Chapter 1 Instructions for using the test tool

(ESC instruction test tool)

Note: If the printer is in TSC mode, please switch to ESC mode before the test, such as in 1.17.2.

1.1 How to connect to a computer with a tool

Open the tool to check the port, identify the USB point to connect the printer and enter the Settings interface. As shown in Figure Figure 1.1.

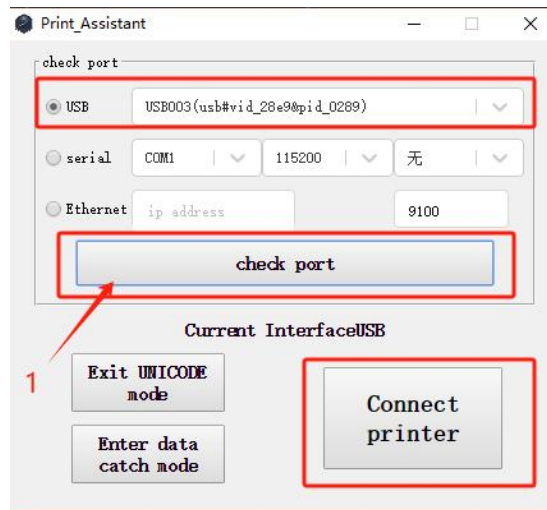


Figure 1.1 Schematic diagram of the tool connecting to the computer

1.2 Grab the Bluetooth data through the tool

1.2.1 Connect the printer

First, the printer is connected with the APP or the device, the computer connects to the printer through USB, and then open the tool to click the detection port, identify the USB and then click to enter the data capture mode. As shown in Figure Figure 1.2.1.

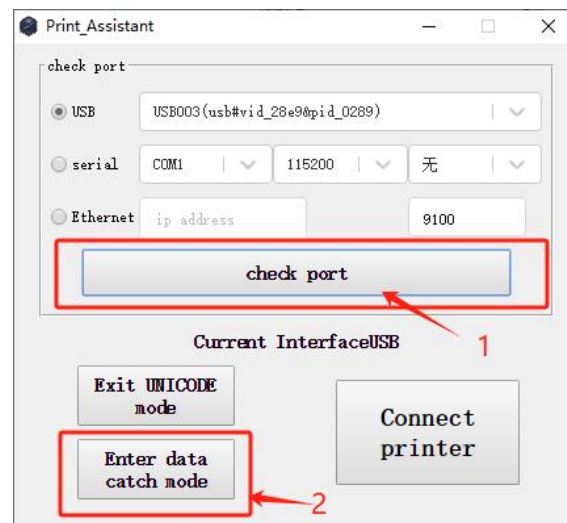


Figure 1.2.1 Schematic diagram of the tool connecting to the computer

1.2.2 Capture data

After entering this interface, you can use the APP or device to send the printed content through the tooth blue. After the content is sent, the printer will not print the content. The tool will receive the data as shown in the figure, and then click to save the file, save the captured data to the computer, select the save path, and capture the data. As shown in Figure Figure 1.2.2.

After the capture data is completed, the printer will not print the content, restart the printer, the printer can work normally.

Note: First use the APP to test the printer to print normally and then grasp the packet test.



Figure 1.2.2 Schematic diagram of the capture data

1.3 How to upgrade the firmware

Select bootloader Upgrade, select upgrade file, click Open file, select the printer program to be upgraded, click Update, the upgrade is complete. As shown in Figure Figure 1.3.

After the upgrade, the printer will automatically shut down. When the power button, the red and blue lights will flash, and the long press until the printer is on.

Note: Before and after the upgrade, you can click to get the version number to confirm whether the upgrade is successful. As shown in Figure Figure 1.3.1.

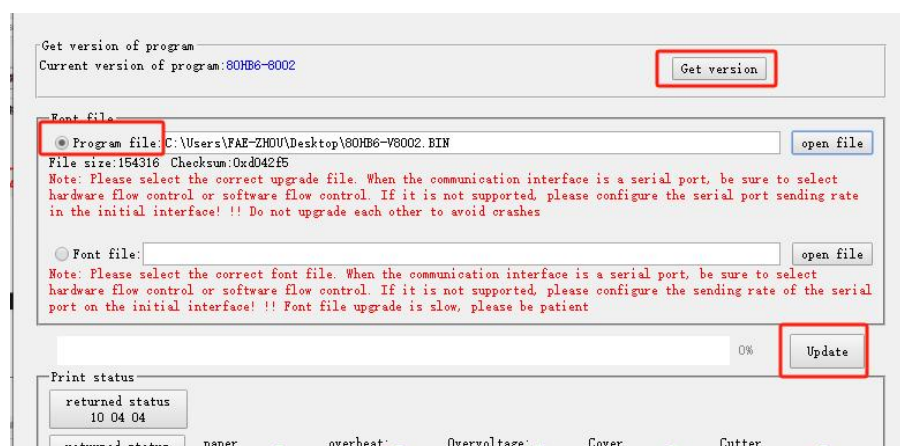


Figure 1.3 Schematic diagram of the upgrade firmware

1.4 How to upgrade the word library

Select bootloader upgrade, select the font file, click open the file, select the font file version to be upgraded, click update, upgrade the font needs a longer time, about one minute, the printer will automatically shut down after the upgrade.

As shown in Figure Figure 1.4.

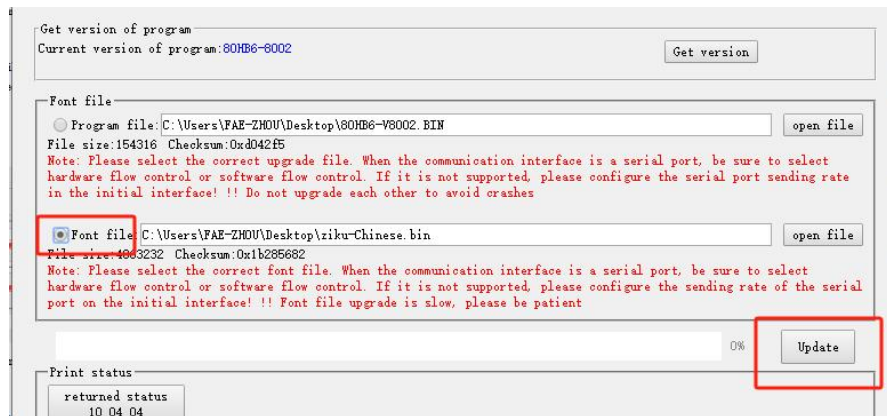


Figure 1.4 Schematic diagram of the upgrade word library

1.5 How to print the self-test information, initialize, and restore the factory settings.

1.5.1 Print self-inspection pages

Click on the quick test bar, click to print the self-test information, you can print out the basic information of this printer. As shown in Figure Figure 1.5.

The self-check information of the printer includes: model, SN, coding mode, language, supported connection mode, port rate, printing concentration, single or multiple connection, Bluetooth name, PIN matching code, MAC address, supported barcode type, etc.



Figure 1.5 Schematic diagram of the printer initialization

1.5.2 Printer initialization

Click the quick test bar, as shown in Figure 1.5, click the printer initialization, you can restore the basic parameters of the printer, such as the modified height, width, QR code width, one-dimensional code width and the basic parameters of the power loss will not be saved.

1.5.3 factory data reset

Click the quick test bar, as shown in Figure 1.5. Click to restore the factory Settings to

restore the printer to the basic state of the factory. Such as: Bluetooth name, language Settings, encoding mode and other power loss will save the parameters.

1.6 Quick print to test ESC various test content.

All kinds of test documents in the quick test are set test content, you can choose the content you want to test, and click to print the test content. You can also click a key to test all, you can print the test content in the quick test bar once. As shown in Figure Figure 1.6.

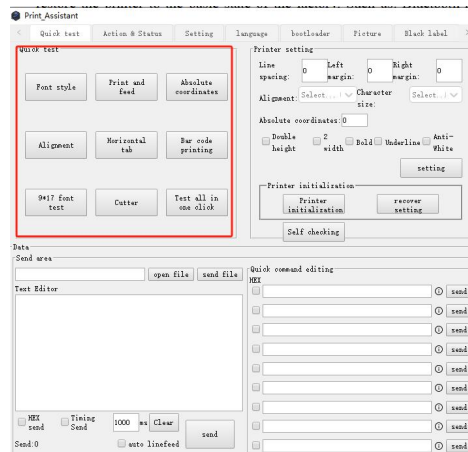


Figure 1.6 Schematic diagram of the quick test

1.7 Print the BIN file test

Select the edited BIN file, and click Send to print out the edit content.

As shown in Figure Figure 1.7.

Note: Only the BIN file printing test is supported.

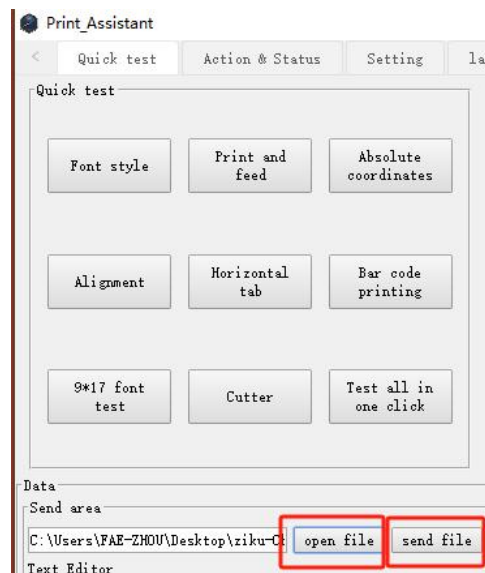


Figure 1.7 Intent of printing the BIN file

1.8 Combine the test command printing method

The sent commands will be displayed in this window. In the 16 decimal format, the window

will be displayed with a 16 decimal command. As shown in Figure Figure 1.8.

1.8.1 Combine multiple commands to be printed by reissuing

The method of printing combination life: 1. Change the language to PC850 Western European (1B 23 23 53 4C 41 4E 02) + 2. Set the coding mode to UTF-8 (1B 23 23 43 44 54 59 02) + 3. Change the Bluetooth name to 123456 (1B 23 23 42 54 52 4E 06 31 32 33 34 35 36).

After the three commands are sent, click to send again. The printer performs the three commands such as the above. Check the automatic restart window, the printer will execute the above three commands and repeatedly print together, according to the set restart time, and the input can be customized when the restart interval.

Click to clear to clear the data from the command display window.

As shown in Figure Figure 1.8.

1.8.2 Use BIN files to combine multiple command printing

As shown in Figure 1.8, click to save a BIN file, which can save a BIN file to the computer, and send the above three operation commands through the file.

As shown in Figure Figure 1.7.

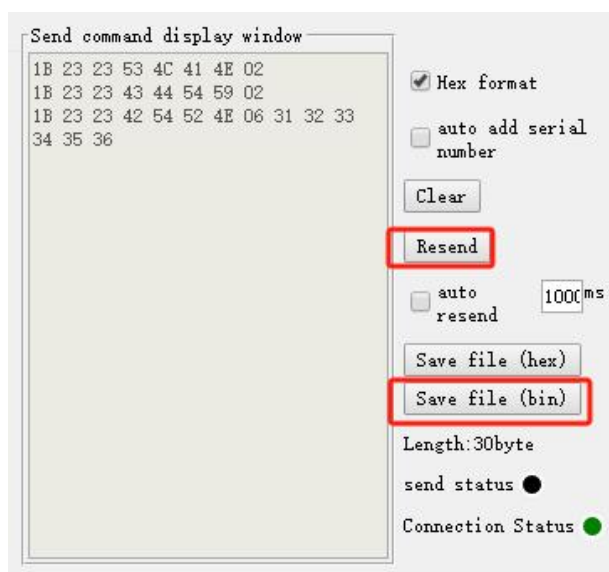


Figure 1.8 Schematic diagram of the combined test

1.9 Quick commands to edit the test method

The shortcut command editor may send the specified command, tick the command bar, and click send.

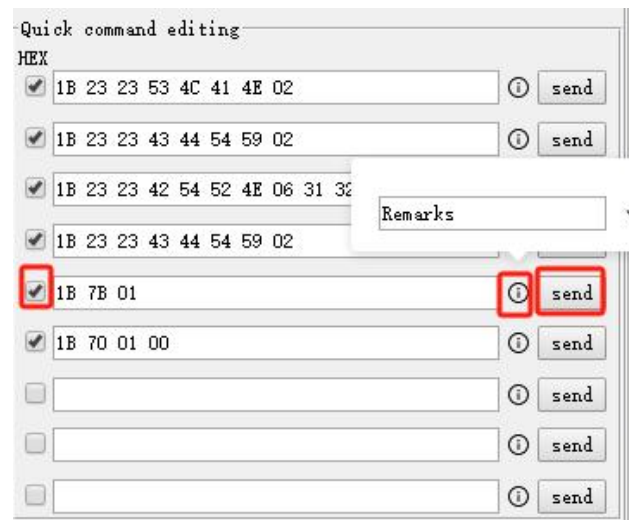


Figure 1.9 Schematic diagram of the shortcut command

1.10 How to test the custom input print content

The text editing box can output the content you want to print, and click the send below to print the input content. When the print content is too little or less than a line, it is best to tick the automatic line change, and do not check the test text to execute the full line. As shown in Figure 1.10.

By sending the tick, you can print the content in the file editing window at the selected time.

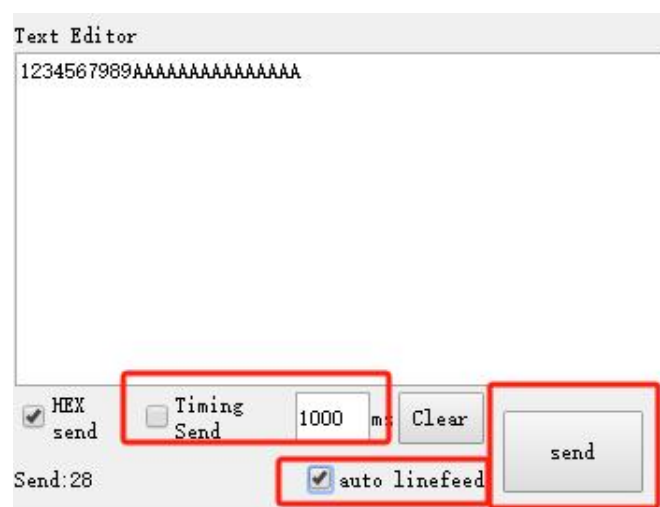


Figure 1.10 Schematic diagram of text editing

1.11 Test picture printing

Select the picture to print, you can test the height, width, GS / ESC print mode test. As shown in Figure Figure 1.11.

Note: Picture size, the 58 machine support is a maximum width of 384 pixels, and the 80 machine maximum support is 576 pixels.



Figure 1.11 Schematic diagram of picture printing

1.12 Open and close the black mark

Click to open the black mark, click the printer to walk the paper button, or click into the paper to the next one, the printer will execute the paper command to find the next black mark. The printer is placed in the black label or label paper, will take a black label paper or label paper, the paper is normal. If the printed paper used does not have a black mark, it will issue a long buzzer alarm to report the error. After clicking off the black mark, you can print the continuous paper normally. As shown in Figure Figure 1.12.

After the black label is opened, when the paper is incorrect, you can set the length, width of the paper and the distance of the sensor printing, print the distance to the paper throwing, and make independent adjustment.

The revised black mark data can be cleared by restoring the factory Settings. Using the black mark detection function, the printer will detect the black mark of the thermal printing paper. As shown in Figure Figure 1.5.



Figure 1.12 Black logo diagram

1.13 Mullanguage settings and test methods

1.13.1 Multi-country language setting

Select the desired language, click on the language Settings, and the language is changed. Click Print the list of characters to see the test text of the selected language.

Select the coding method: generally printing foreign languages is to select UTF-8, and then click on the setting to complete the setting of the coding mode. If you choose UNICODE, the sample test area should be changed to UNICODE. If the test is not used, it is best to exit the UNICODE setting. As shown in Figure Figure 1.13.

1.13.2 Mullanguage test method

Copy the test text to the test sample display area, be sure to return to the line, otherwise the last line can not be printed.

After the content is input, the point sample test can print the test text. The coding mode of test samples should be synchronized, UTF-8, and the coding mode of sample tests should also be UTF-8. As shown in Figure Figure 1.13.

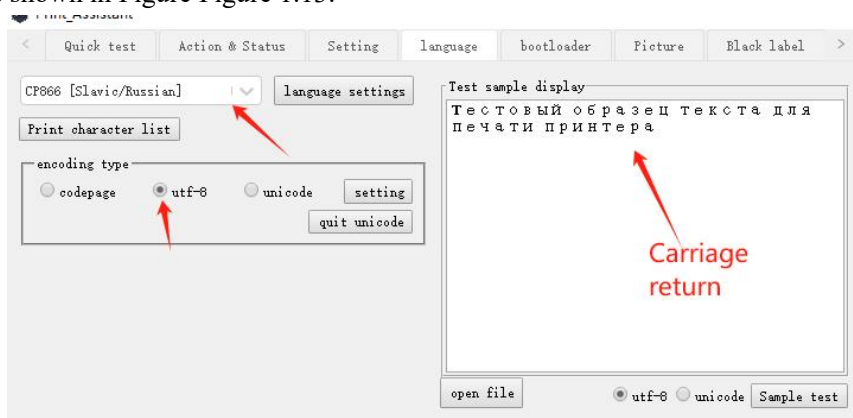


Figure 1.13 Schematic diagram of many languages

remarks:

- FC437 [USA, European Standard]
- PC850 [multilingual, Western European]
- PCS 60 [Portuguese]

PC863 [Canada-French]
 FC865 [Nordic-German, Germanic language]
 FC1252 [West urope], as in: see CP1252
 FC737 [Green] such as: Greece
 FC862 [Hebrew] Like: Hebrew, Israel
 CP755 [East Europe] such as: Eastern Europe
 Iran[Iran]
 CF775 [Baltic language]
 CF932 [Japanese Shift-JIS] eg: Japanese
 CF949 [Korean] For example: Korean language
 CF950 [Traditional Chinese Big5] like: Chinese (Taiwan), Chinese (Macao Special Administrative Region)
 CF936 [Simplified Chinese GBK] like: Chinese (People's Republic of China), Chinese (Hong Kong Special Administrative Region), Chinese (Singapore)
 PC1252 If: see CP1252
 FC866 [Cyrillice * 2] eg.: Cyrillic (Russia)
 FC852 [Latin2] such as: Latin
 PC858 [Western European language]
 CP861 [Icelandic]
 CF866 [Slavic / Russian]
 CP855 [Slavic Bulgaria]
 CP857 [Turkish language]
 CP864 [Arabic]
 CF869 [Greek (2)]
 CP Fashto v
 CF874 [Thai article]
 CP1250 [Central European Latin-2] such as: Czech, Hungarian, Polish, Romanian, Croatian, Slovak, Albanian, Slovene, Serbian (Latin)
 CP1251 [Cyrillic Veslavic Russian] e. g.: Bulgarian, Russian, Ukrainian, Belgian, Macedonian (FYROM), Kazakh, Kyrgyz, Tatar, Mongolian, Azerbaijani, Uzbek, Serbian
 CF1252 [Western Europe (Latin I)] such as Catalan, Danish, German, English, Spanish, Finnish, French, Icelandic, Italian, Dutch, Norwegian, Portuguese, Indonesian, Basque, Afirrian, Faroese, Malay, Swahili, Galicia, Swedish
 CF1255 [Hebrew]
 CP1256 [Arabic]
 CF1257 [Baltic] such as: Estonian, Latvian, Lithuanian,
 CP1258 [Vietnam]
 CP KAINADA [Carnadavan]
 CP MYAKMAR The Ethiopian language
 CP KHMAR Khmer language such as: Cambodian language
 CP KHMAR Hindi, such as: Hindi

1.14 print setup

1.14.1 Set row spacing

Line spacing setting is independent of each other in standard mode and page mode;

In the standard mode, use the longitudinal moving units;

In page mode, select using lateral or longitudinal move units based on the direction of the print area and the print start location

Units, as shown in Figure Figure 1.14.

1.14.2 alignment

Arrange all the print data in a specified alignment. As shown in Figure Figure 1.14.

This command is only valid in the header in standard mode;

This command changes only the internal flag bit in page mode;

This command performs aligned in the print area;

This command adjusts the blank area according to the HT, ESC \$ or ESC \ command.

1.14.3 Character size

Test characters 9 * 17 and 12 * 24 print tests to see whether printing of each size is supported. As shown in Figure Figure 1.14.

1.14.4 High, wide, bold, underlined, antiwhite

High: Set the print characters to print at 2 times the normal height.

Width: Set the print characters to print at 2 times the normal width.

Bold: Bold mode is valid for both English characters and Chinese characters. All print modes except bold mode are English digital only

Fame effective.

Underline: Underline can be added under all characters (including right spacing), but not for the HT setting.

Anti-white: black and white anti-display printing mode.

As shown in Figure Figure 1.14.

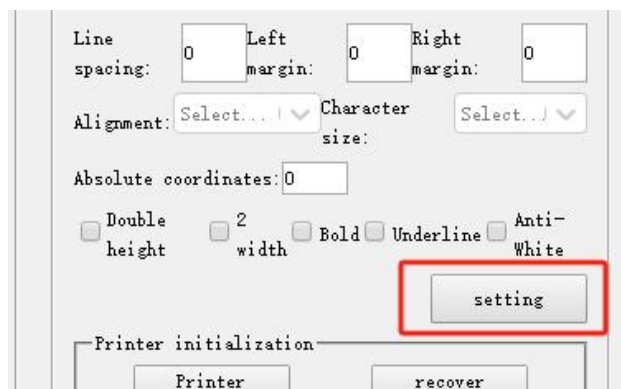


Figure 1.14 Schematic diagram of the printing setting

1.15 Receive information window

Any command with a return value can see the prompt information in the receiving area, and you can save the received information into a file.

As shown in Figure Figure 1.15.

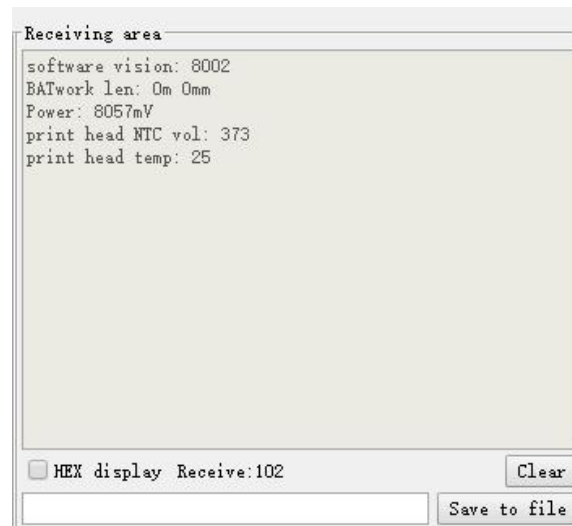


Figure 1.15 Schematic diagram of the received information

1.16 Printer action and status query

1.16.1 List of the printer functions

Test various functions of the printer, such as printing version number, printing function list, printing language list, printing serial number, enter aging mode, enter 16 input mode, paper feeding, test open box, knife, etc. As shown in Figure Figure 1.16.

1.16.2 Get the printer information

All kinds of information of the printer can be obtained, such as version number, machine model, voltage of the print head, temperature of the print head, etc.

As shown in Figure Figure 1.16.

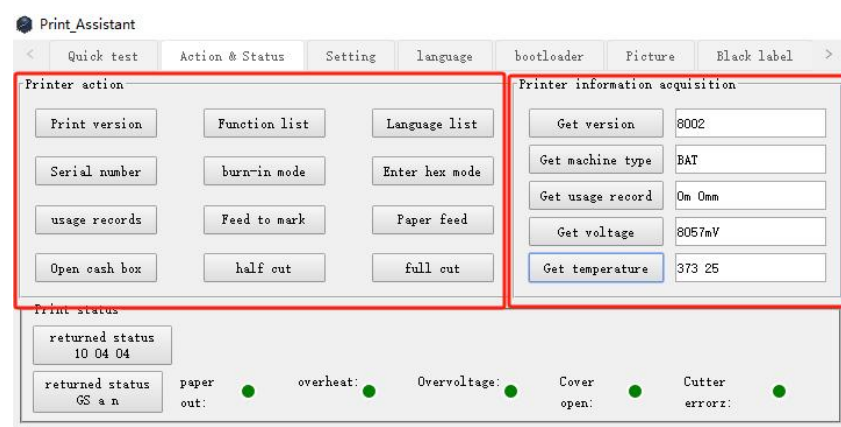


Figure 1.16 Action and state intention

1.17 Set the various parameters for the printer

Set the concentration of the printer, set the wave rate of the printer, set the aging time and other parameters.

1.17.1 Printer settings parameters

As shown in Figure Figure 1.17.1.

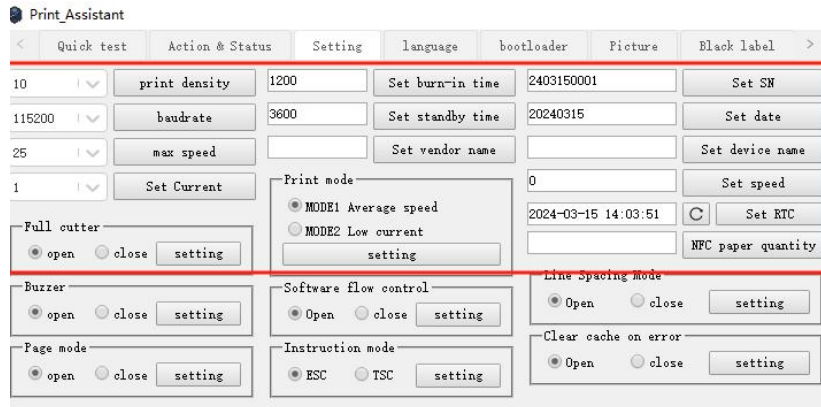


Figure 1.17.1 Schematic diagram of setting parameters

1. Set the printer concentration

Test the printing concentration, adjust the concentration level of 0-39, and select the concentration level to test the printing effect.

2. Set the Porter rate

Set the port rate corresponding to the machine, the commonly used port rate is: 9620,115200, etc.

3. Set the aging time

Set the aging time in seconds and set the specified aging time, after which the specified aging content is printed.

4. Set standby time

The standby time is set in seconds, as shown in Figure 1.171. The standby time is set as 3600, and the printer will automatically shut down.

5. Set the factory date

Set date format: January 01,2020 Set to: 20220101.

6. Set up the motherboard serial number

After setting the factory date of the printer, the serial number of the motherboard will

automatically generate the serial number according to the date, and the serial number will be automatically added each time.

7. Set the printer top speed

After successful setting, the buzzer calls and the indicator light flashes.

8. Set the power level

After successful setting, the buzzer calls and the indicator light flashes.

9. Set the machine name

After successful setting, the buzzer calls and the indicator light flashes.

10. Set the name of the manufacturer

After successful setting, the buzzer calls and the indicator light flashes.

11. Set the RTC time

Set the time for RTC for online synchronization.

12. Query the NFC paper quantity

Read the amount of NFC paper prints left.

1.17.2 Printer function settings

As shown in Figure Figure 1.17.2.

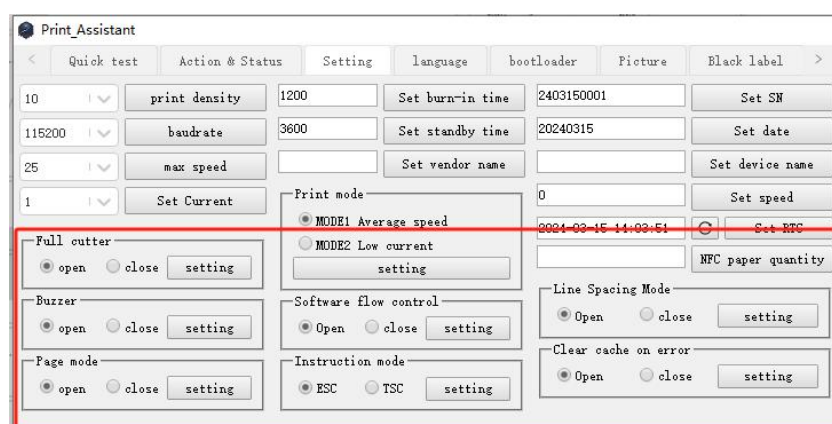


Figure 1.17.2 Schematic diagram of setting parameters

1. Switch of cutting knife

After successful setting, the buzzer calls and the indicator light flashes.

2. Switch of the buzzer

When the buzzer is turned off, the buzzer does not sound when the printer makes an error.

3. Page mode switch

Page mode switches, page mode instructions are limited to printers that support the page mode function.

4. Print mode: average speed / low current mode switch

Aal speed mode: printing speed to maintain a speed printing, consumption current is relatively large.

Small current mode: the printing speed will be adjusted according to the printing content, and there will be speed in printing, and the consumption current is small.

5. Switch for the software flow control

On / off the software flow control function.

6. Printer instruction mode: ESC / TSC mode switching

Modify the printer instruction mode: ESC instruction / TSC instruction

7. Switch for the row-spacing mode

Switch in row spacing mode: in standard mode, use the longitudinal moving units; in page mode, select the lateral or longitudinal moving units based on the direction of the print area and the printing start position.

8. Clear the cache function on an error

Function: Clear the cache function when errors are on / off.

1.18 One-dimensional code and QR code test

1.18.1 One dimensional code test

As shown in Figure Figure 1.18.1.

Test unit width, the height of the bar code.

Text display mode: do not print, above the barcode, below the barcode, on and below the barcode are printed.

Supported barcode types: UPC-A, JAN 13, JAN 8, COD39, TIF, CODARAR, CODE93, CODE128.

Barcode configuration window showing settings for 1D barcode. The window includes tabs for language, bootloader, Picture, Black label, Barcode, Communication, NV-Logo, and MD5. The Barcode tab is active, showing sub-tabs for 1D barcode and QR code. The 1D barcode sub-tab is selected. Fields include Cell width (2), Bar code height (162), Text (Do not print), HEX input (checkbox), Bar code data (123456789000), and Bar code type (UPC-A). A Print button is visible. A description at the bottom states: Bar code description: Input character range is 0 ~ 9, support 11 ~ 12 bit data, check digits are automatically generated.

Figure 1.181 Schematic diagram of the one-dimensional code

1.18.2 QR code test

As shown in Figure Figure 1.18.2.

1. QR code method: QRCode

Test to change the pixel point width, die city version, error correction level. Enter the QR code data to be tested in the coding data, click to send, and then click to print, you can printer to test the content.

2. QR code method: PDF417

Test the data of the change row / column, cell width, row height, error correction level. Enter the QR code data to be tested in the coding data, click to send, and then click to print, you can printer to test the content.

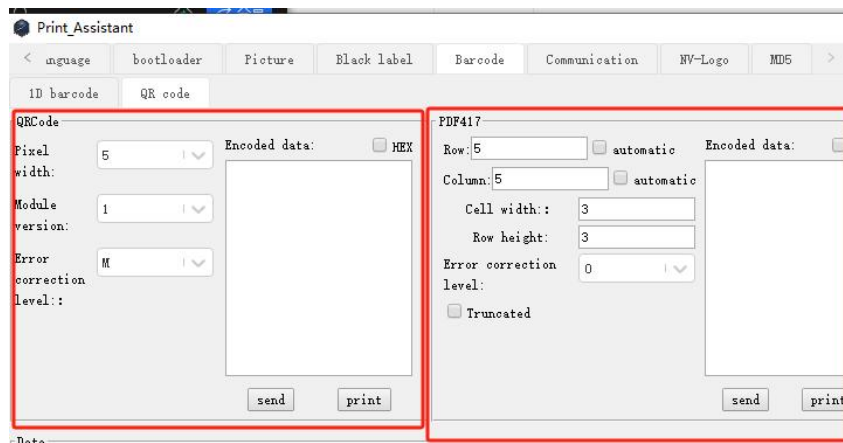


Figure 1.182 Schematic diagram of QR code

1.19 CI

As shown in Figure Figure 1.19.1.

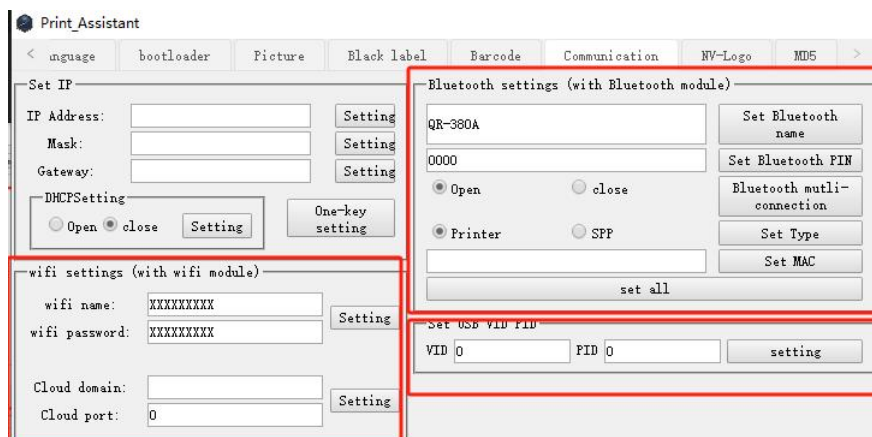


Figure 1.19.1 Schematic diagram of the communication interface

1.19.1 Bluetooth Settings

Manually change the custom Bluetooth name, change the Bluetooth PIN code, open and close the Bluetooth multiple connection, Bluetooth type Printer / SPP setting.

1.19.2 The WIFI distribution network sets up the router

In the communication interface bar, manually set the name and password of the router, and click Set to complete the WIFI distribution network.

You can manually set the cloud server domain and port.

Figure 1.19.2WIFI Schematic diagram of the distribution network

1.19.3 Set up IP information

You can manually set up the new IP information for the printer.

1.19.4 Set the VID, the PID

The printer VID, PID can be replaced manually.

1.20 LOGO download

After opening the picture to be uploaded, you can see the picture to be uploaded in the picture preview on the right side. Click Add the picture, click to download the picture, and you can download the picture to the printer. Download to the printer of the picture, click to print the picture can test to print the picture downloaded to the printer, to delete the printer of the picture, click to delete the printer picture.

Note the picture size, the 58 machine support has a maximum width of 384 pixels, and the 80 machine supports a maximum of 576 pixels. As shown in Figure Figure 1.20.

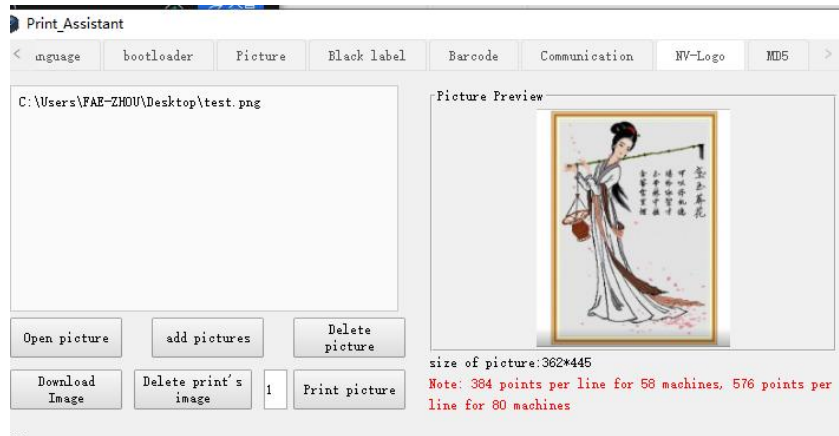


Figure 1.20 LOGO download diagram

1.21 MD5

MD5 encryption is mainly used to bundle machines with software.

MD5 encryption mainly consists of three parts

- Downloadable only write ID, only write ID can only be written, can not be read out.

Maximum 8 bytes.

- Random secret key, you need to download the random secret key before obtaining the MD5 data.

Up to 16 bytes long.

- MD5 returns the value, by writing only ID and random secret key, the synthetic new file, this new file through MD5 operation output of 16 bytes of cipheric information.

As shown in Figure Figure 1.21.



Figure 1.21 Schematic diagram of MD 5 download