MX1 Intelligent Inkjet Printer

Instructions

WARNING AND NOTE：

1. Do not plug or take out ink cartridge when machine is in printing;
   Do not set parameters when machine is in printing;
   When machine is in printing, any operation will damage core board.
2. If machine finishes working, take out cartridges at once and cap it well.
3. Please turn off machine with correct steps: click Power→Shut down→Press red power button on right side.
4. Please don’t put machine in wet conditions.
5. When clean machine, keep away from water, and do not use chemical solvent.
6. Do not use hard objects to crash machine in case of damage.

Common problems and ways of handling

1)Please check ink remaining；

2)Please check whether print setting and systems setting parameters are accurate or not;

3)Please check whether nozzle surface, and use dust-free tissue to clean it.

Content

Dear customers:

Thank for your trust for our MX1 intelligent inkjet printer. For better to use this machine, please read this instruction carefully, as it will help you learn convenient and correct operation about this machine. Otherwise the mistaken or incorrect operation may bring unnecessary trouble for you.

1.Diagram

Printer interface:

1. Power adapter interface

2. Machine switch button

3. Machine expansion interface

4. Interface for connecting external encoder

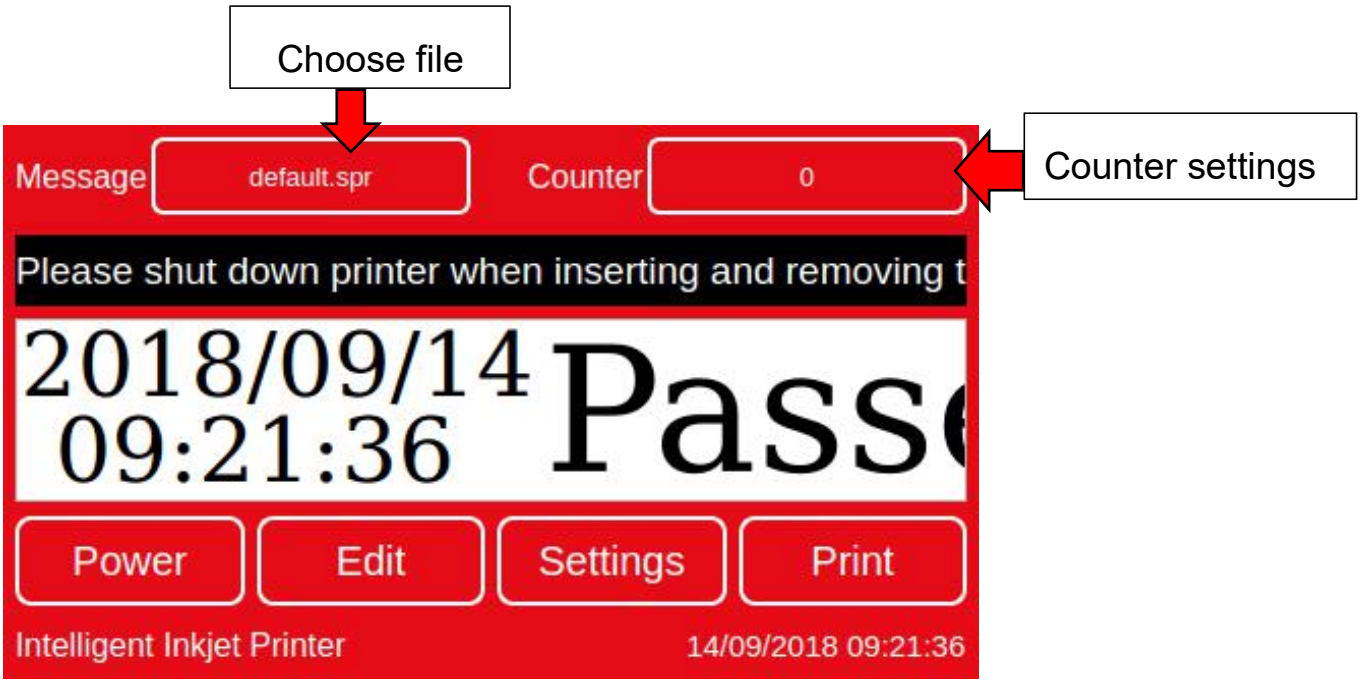
5. Interface for connecting printhead

6. RS232

2.Parameters

Model	MX1
Nozzle	TIJ 2.5 Thermal foaming nozzle
Operating system	Linux
CPU	Quad core 1.4Hz
Language	English, Chinese, Turkish, Arabic, Korean, Italian
Shape features	Aluminum alloy
Dimension	Controller: 128*86*42mm, Print head: 100*100*34mm
Net weight	Controller: 0.45KG, Print head: 0.25KG
Printing height	12.7mm
Printing distance	2-5mm
Print content	Text, time, batch number, serial number, logo, QR code, barcode
Storage	the system can store more than 1000 message (external USB make the information transfer in a free way)
Printing length	2000 characters for each message, no limitation on length
Printing speed	70m/min
External interface	USB, Photoelectric interface, RS232
Power consumption	the average power consumption is lower than 5W
Working environment	Temperature:0 - 45℃（best 20-30℃）; Humidity: 40% - 60% Rh
Printing material	board, carton, stone, pipe, cable, metal, plastic product, electronic, the fiber board, light steel keel, aluminum foil, etc.

3. Main menu



Power: close screen or shut down machine

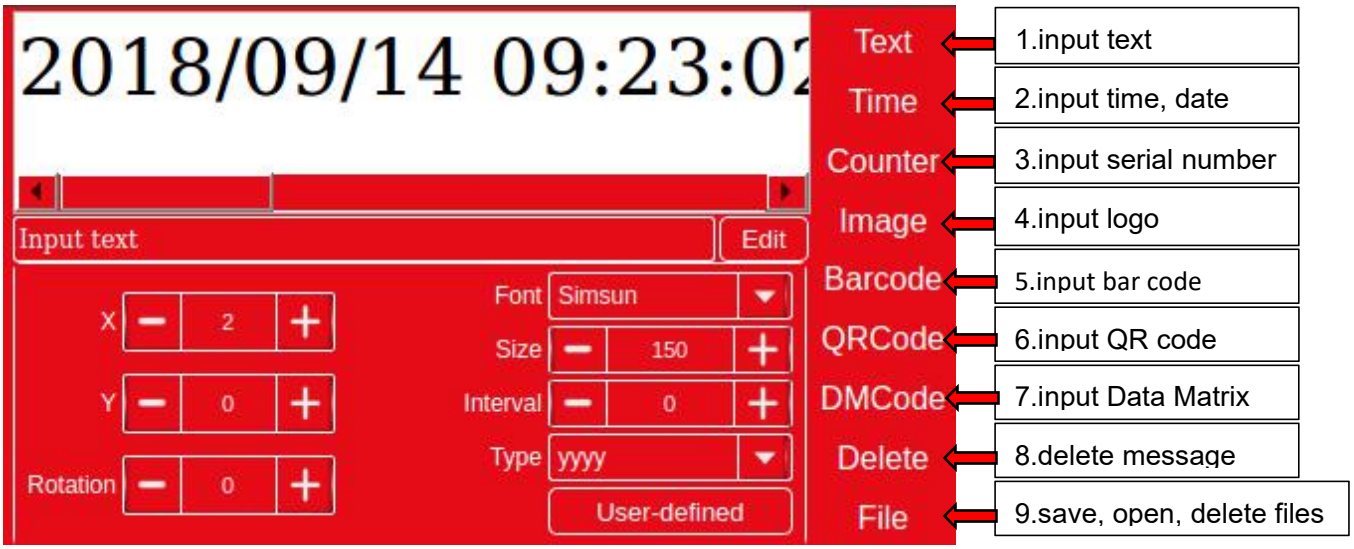
File: edit single file, group file and image

Setting: system setting and print setting

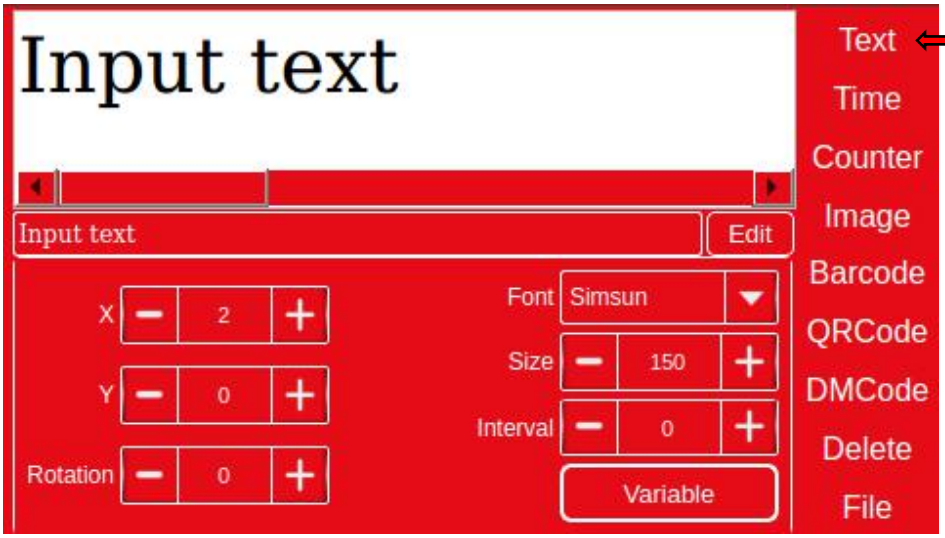
Print: click Print then it will become to Printing.

4. Files Manage

4.1 Edit single file:

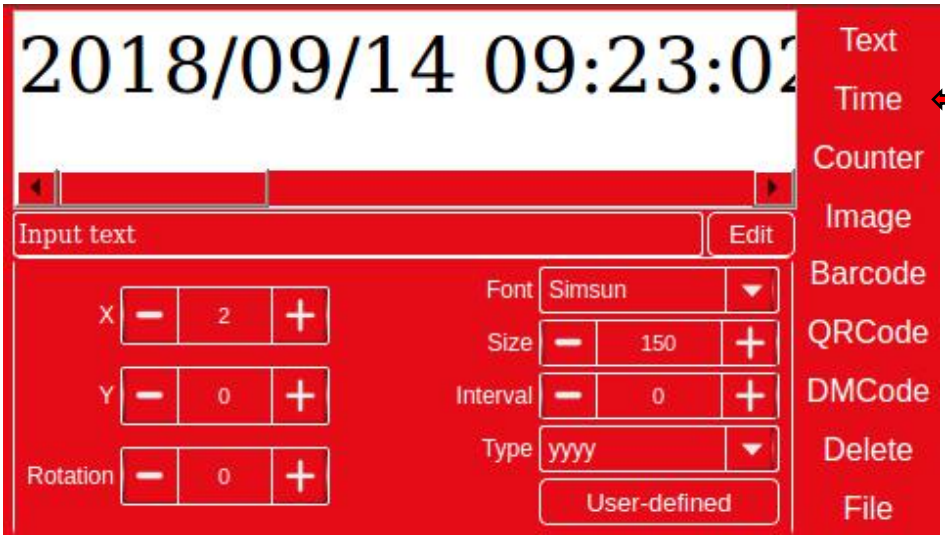


4.1.1 Input text



Click Text to input Chinese (CN), English (EN), number or symbol→ press Edit → click Empty → input the information you need (press EN key to change Chinese and English, press Caps to change case sensitivity)→ Finish → adjust the font, size as needed→ move the information in the center of the white blank →File→ Save or Save As → input the file name →OK →File →Exit. The editing is complete.

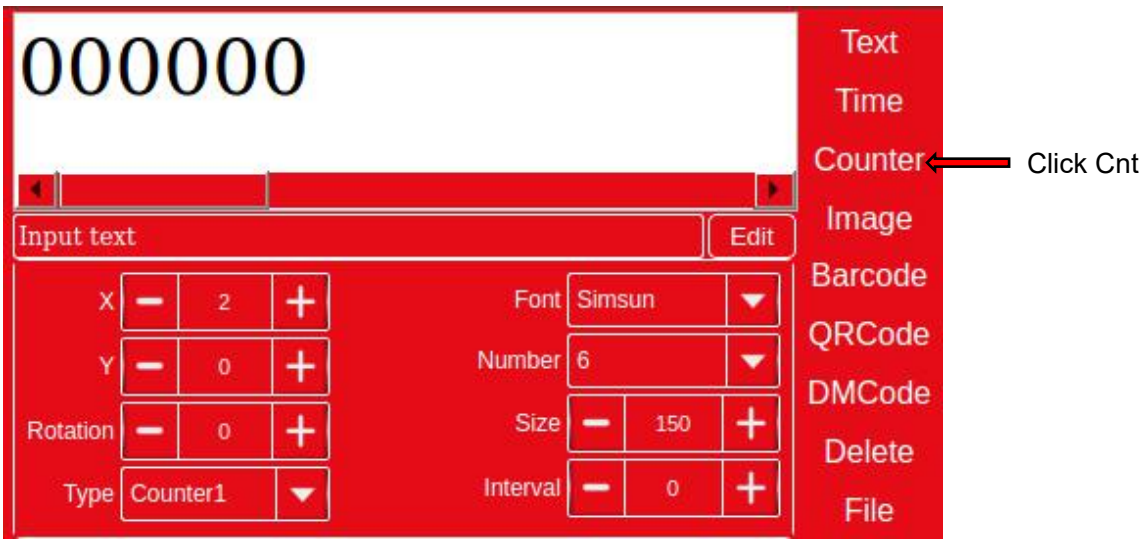
4.1.2 Input time



Click Time (windows will pop up system time)→ click User-defined to set time format as need →OK →File → Save or Save As.

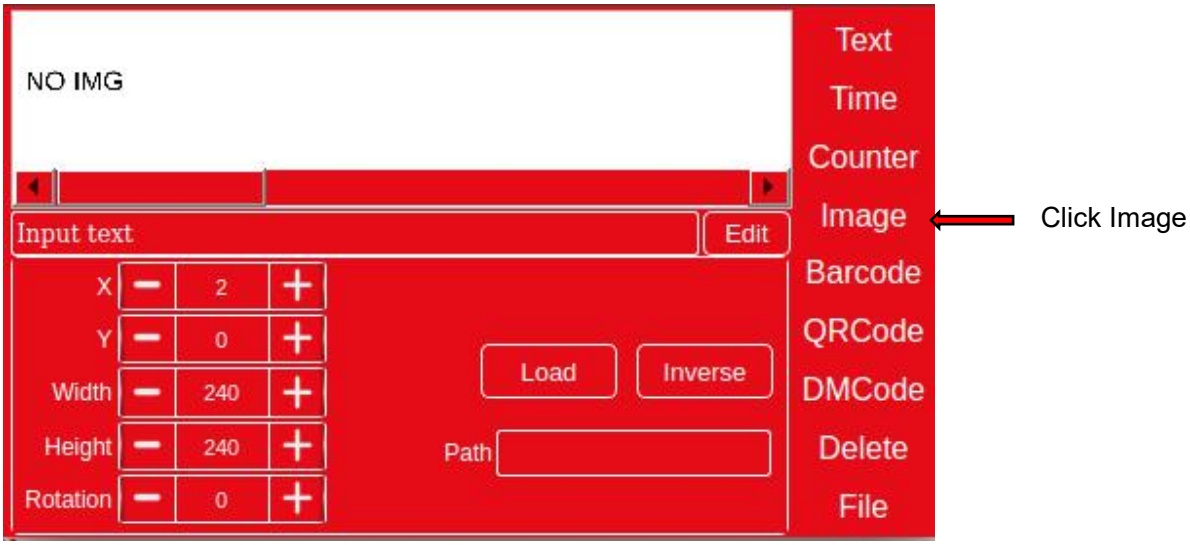
Note: click Type to choose quick set time format

4.1.3 Input serial number



Click Cnt, set type and size as need. One file could contain two different counters. Could set counter parameters in settings.

4.1.4 Input logo

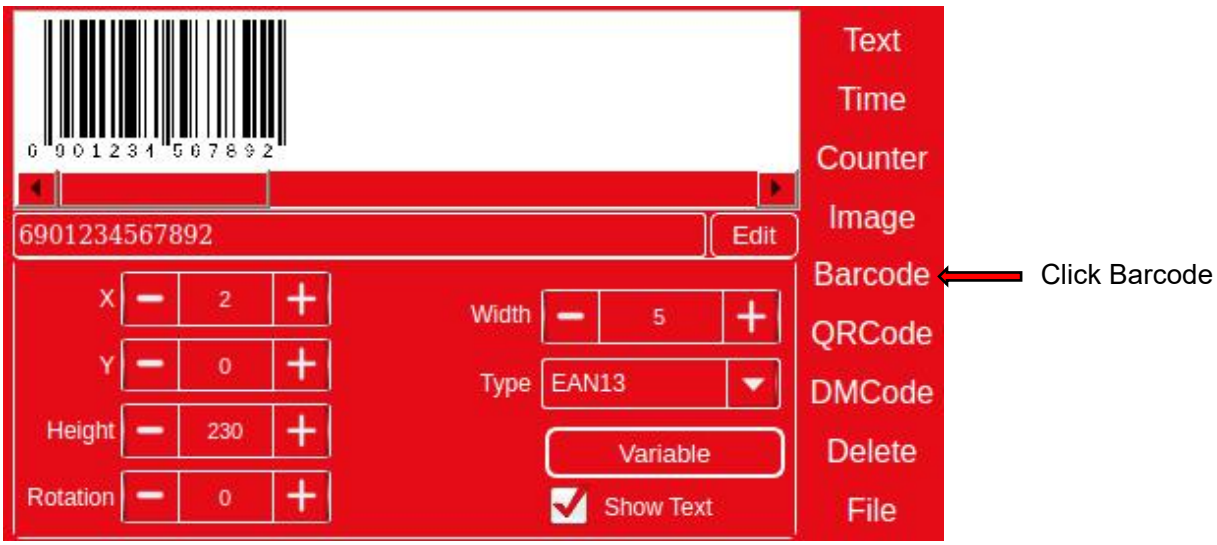


Insert USB disk with picture →File → Edit Single File →edit window pops up → Image → Load → U Disk → choose the picture → To Load(copy the picture to local) → Local →choose the picture →OK →adjust size and position →File →Save or Save As → input file name →Exit. The editing is complete.

Note:

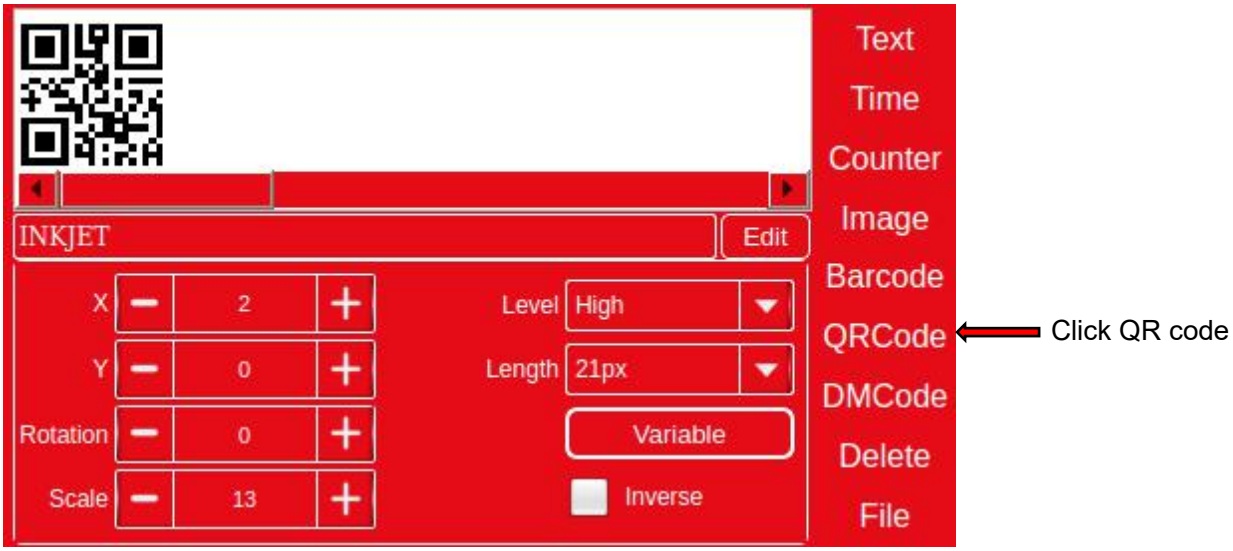
1. when choose picture from USB disk, please copy it to local first, and then repeat loading picture from local pictures.
2. Any pictures should be saved as monochrome BMP in computer before put in file and named as number or letter.
3. Edit file contain picture (machine can't print picture directly. Please add picture in .spr file before print.)

4.1.5 Input bar code



Click barcode →Edit (choose barcode type and input code number) → Finish → File → Save or Save As

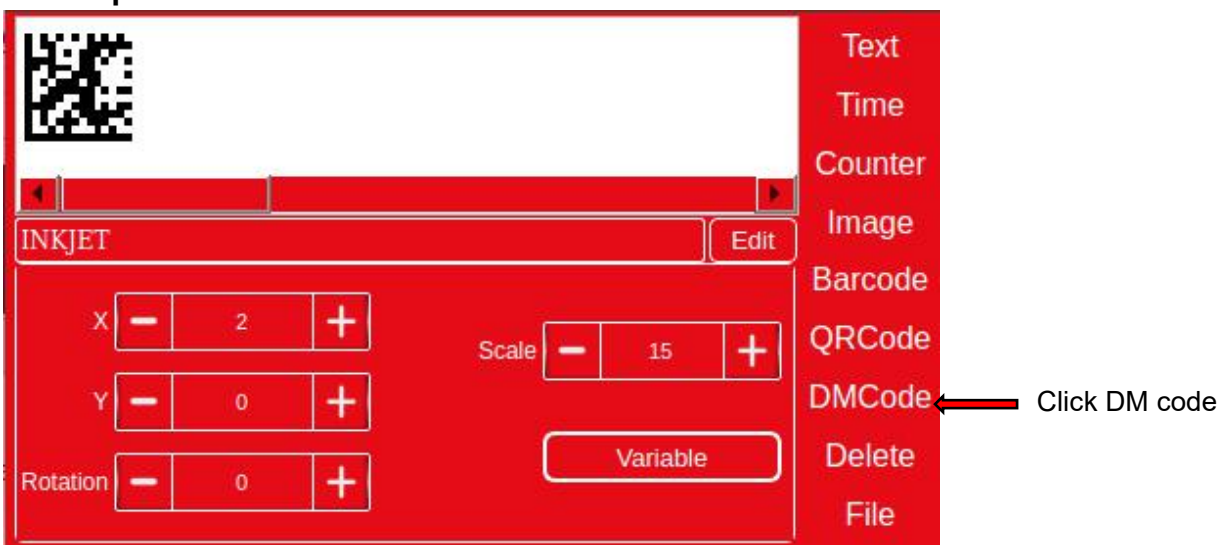
4.1.6 Input QR code



Click QR code →Edit (input code content) → Finish → File → Save or Save As

Note: the size of could be adjusted through Scale, resolution could be adjusted through Level. MX1 could print QR code from data base by USB disk.

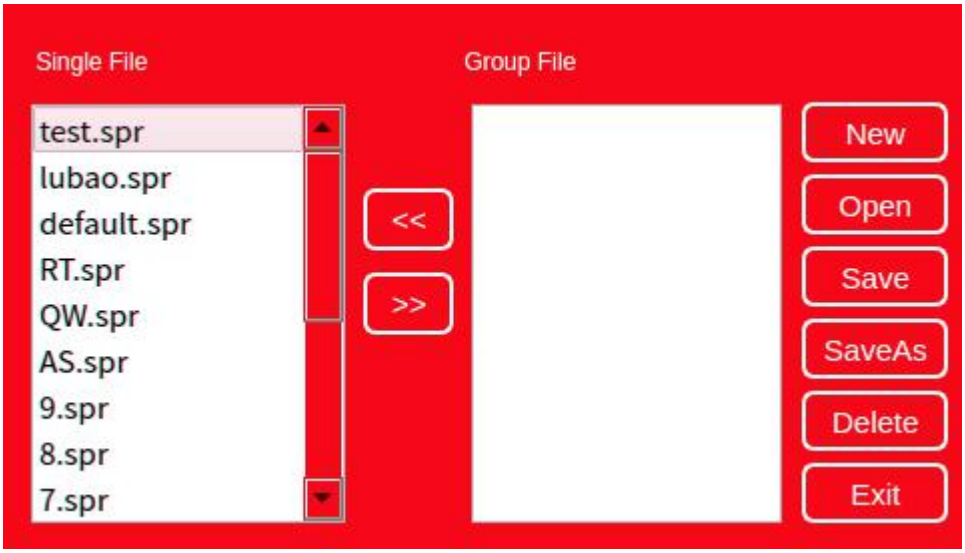
4.1.7 Input DM code



Click DM code →Edit (input code content) → Finish → File → Save or Save As

Note: the size of could be adjusted through Scale, resolution could be adjusted through Level

4.2 Edit group file

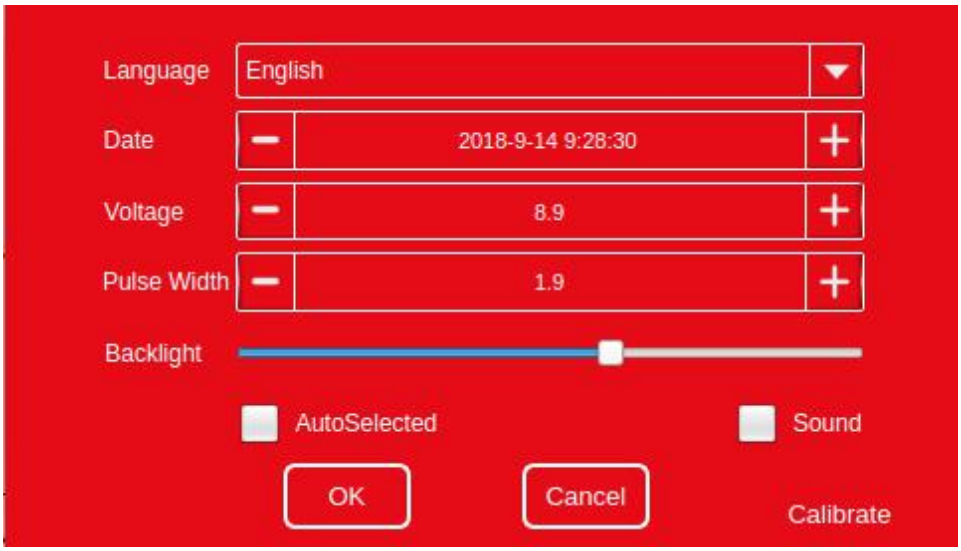


File → Edit group file → move single files to group files → Save or Save As → input file name (put number, letter) → OK →Exit

Note: group file consists of some single files.

5.Parameter Manager

5.1 System Setting

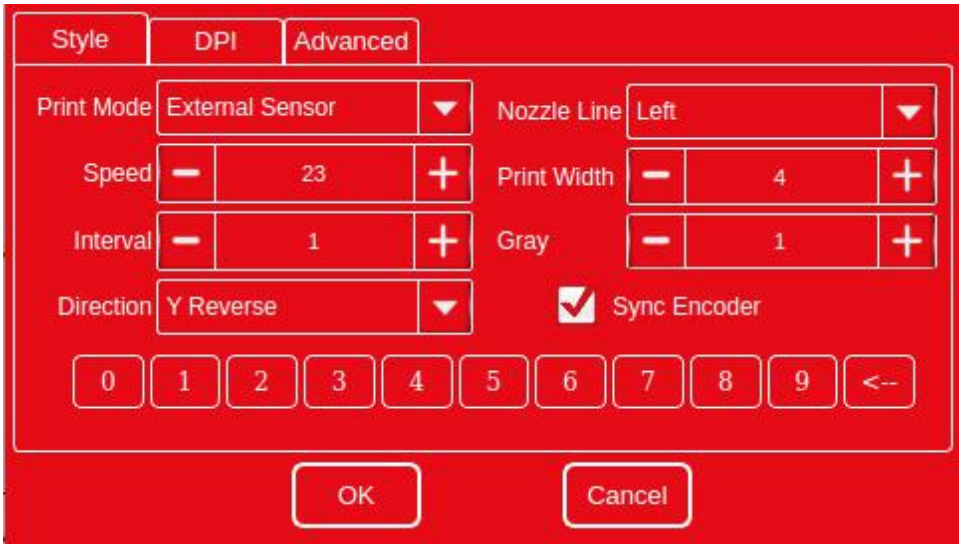


1. Language：choose language and system will reboot automatically.
2. Date：set system time
3. Voltage：set working voltage according to ink type.
4. Print pulse：set ink print pulse according to ink type
5. Idle pulse：set idle pulse (keep default value)
6. Backlight: set screen brightness
7. Auto selected: When tick this, ink cartridge will match correct parameters automatically.
8. Sound: tick it, there will be prompt tone when printing finish.
9. Calibrate: When machine screen touching is not correct.(If screen is no problem then don't click this). If machine screen has touch problem, inset a mouse to click Screen Calibration. When screen is into screen calibration, click cross as system indication.
10. Usual different ink type parameters

Ink type	Print pulse (μs)	Voltage (V)
JW11	120/2.4	25/10.5
JS10	88/1.8	21/8.8
JS12	80/1.6	23/9.6
JS21	88/1.8	22/9.0
JS31	80/1.6	23/9.6
JS41	80/1.6	23/9.0
JS51	80/1.6	23/9.6
JS61	80/1.6	23/9.6

5.2 Print setting

5.2.1Style



1. (Print Mode)Trig mode：

①External sensor: connect external eye through interface to start printing.

②Automatic: no need any trigger condition, it will print automatically.

2. **Speed:** when use online printing, adjust speed to fit conveyor speed. (if connect encoder, then don't need adjust this value). '0' means fastest. When machine speed is too fast, character will be too narrow. Then need to make speed value bigger. When machine speed is too low, character will be too wide. Then need to make speed value smaller.

3. **Interval(Delay):** means the time from system receive print signal to start print. '0' is the minimum

4. **Direction:** direction of printing. Normal, X Reverse, Y Reverse and XY Reverse.

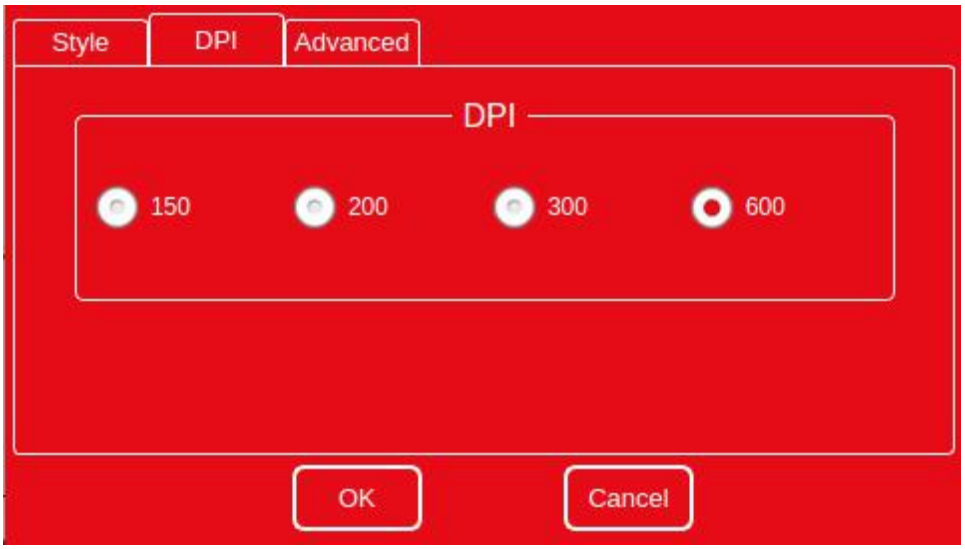
5. **Nozzle Line (Spray Mode):** Left nozzle or right nozzle means two lines of pinhole on the cartridge nozzle. Left line is left nozzle, right line is right nozzle. When one of them gets wrong, can choose the other nozzle

6. **Print Width (Sync Freq)**: when connecting an encoder, Sync Freq means width of character. When number gets larger, character will be wider.

7. **Gray:** when number gets larger, character color will be darker.

8. **Sync Encoder (Use sync wheel):** if machine connects a external encoder, need tick this.

5.2.2 DPI



X：different dpi could set on X direction. Default value is 600.

DPI: X direction could up to 600 maximum.

Advanced: could set repeated printing as need.

6.Operating Procedures

① Install all parts on conveyor, connect power cable and connect cable between controller and nozzle, insert ink cartridge, and turn on machine at last.

② Edit message and save it

③ Choose file need to print (Message), message need print will show on main menu.

④ Click Print (Print will be red Printing) means to start printing

⑤ Test speed and sensor position first. Should fix two factors, conveyor speed and sensor position. If printing is too narrow, please add machine speed value. If printing words is too wide, please reduce machine speed value. (If connect external encoder, then no need to adjust speed.)

⑥ Click Print again in the menu (it becomes white again), printing work is complete.

⑦ Turn off: Power - Shut down - OK - Press right side button.

⑧ Take out ink cartridge and cap it well

Note: If you want change any parameter, please must stop printing first. When machine is in printing status, any operation will damage system.

7.Packing list

NO.	Items	Quantity
1	Control Panel	1
2	Spray nozzle	1
3	Adapter + AC power cord	1
4	Connect cable	1
5	Sensor	1
6	Spare parts bag	1
7	Diameter 16 mm steel pipe (30cm * 3 + 15cm * 1)	4
8	Bearing support * 3, Nozzle fixture * 2, Conveyor connector * 1	6
9	Sensor stand * 1	1
10	M8 Hexagon screw * 12, M4 round head screw * 8	20
11	M8 Hexagon spanner * 1	1