



# Elfin I

# **High Resolution Inkjet Printer**



## **User Manual**

#### **IMPORTANT**

To ensure the best printing quality, we recommend using only our specified cartridges and the corresponding accessories. Any malfunction or poor printing quality caused by improper use of other kinds of inks or accessories will be not be guarranteed.

#### **Safety Precautions**

There is high voltage inside the machine when it is live. Maintenance or disassembly by unqualified or unauthorized person is strictly prohibited, so as not to cause any accident.

Machine must be reliably grounded by connecting the grounding wire for the machine during equipment setup. Unreliable grounding will result in machine failure that the machine cannot work normally.

Do not expose ink to direct sunlight or high temperature (35°C above). The heat of direct sunlight or high temperature will affect ink's storage life and print quality.

If you get ink spill on the eyes or skin during use, please clean your eyes or skin by clean water.

Ink leakage inside printer can result in burnout damage to the machine. Switch off the machine and unplug it from power outlet when there's ink leakage inside printer. Contact qualified service technician for test and repair.

## **Warning Signs**

**Caution:** The sign " \( \frac{1}{2} \)" indicates information for caution of possible damage to hardware of inkjet printer or data loss.

**Attention:** The sign " indicates important notes helpful for your trouble-free operation of the machine.

# Content

Introd	luction

Chapter One: Important Precautions for Using	06
1.1 Important Setup Precautions	.06
1.2 Important Operation Precautions	.06
Chapter Two: Setup and Installation Instructions	07
2.1 Parts List	- 08
2.2 Set up the Equipment	.09
2.2.1 Set up Printer, Deflector and Anti-ShockMechanism	.09
2.2.2 Setup Procedures for Side Printing	.09
2.2.3 Setup Procedures for Down Printing	10
2.2.4 Screen 90° Flip Mechanism	11
2.3 Cartridge Installation (42ml)	_12
Chapter Three: Introduction	13
3.1 Printer	13
3.2 Technical Specifications	14
Chapter Four: How to Use the Printer and the Check Work before/after Use	15
4.1 How to Use the Printer	15
4.2 Check Work before Use	15
4.3 Check Work after Use	15
Chapter Five: Printer Operation Instructions	16
5.1 Main Interface	16
5.2 Printing Management	17
5.2.1 Find/Preview Data	17
5.2.2 Start Printing / Printing Report	17
5.2.3 Printing Delay	17
5.2.4 Print Initial Values	18
5.2.5 Stop Printing	18

5.3 Data Management	19
5.3.1 New/Edit Data	19
5.3.2 Add Text Object	20
5.3.3 Add Production Date Object	20
5.3.4 Add Expiration Date Object	20
5.3.5 Add Image Logo Object	21
5.3.6 Add Counter Object	21
5.3.7 Add Shift Code Object	21
5.3.8 Add Barcode Object	22
5.3.9 Add dynamical text	23
5.3.10 Add dynamical LOGO	23
5.3.11 Delete Data or Object	23
5.4 System Management	24
5.4.1 System Setting	24
5.4.2 Edit Options	25
5.4.3 Printing Options	26
5.4.4 User Management	27
5.4.5 Special Features	28
5.4.6 Screen Touch Correction	29
5.5 Tools Management	
5.5.1 Image Management	30
5.5.2 System Upgrade	
5.5.3 System Backup	
5.5.4 System Record	
5.5.5 About Equipment	31
5.5.6 System Reset	
5.6 Edit Input Method Options	
5.7 Status Bar	34
Chapter Six: Care and Maintenance	34
6.1 Printer Care and Maintenance	35
62 Ink Cartridge Care and Maintenance	35
Chapter Seven: Troubleshooting	36
7.1 Troubleshooting for Ink Cartridge	
7.2 Troubleshooting for Printer	
Appendix 1: Terms and Definitions	38

Please read this manual carefully before you use this equipment.

#### Introduction

Thank you for your purchase of high resolution printer. We want you to get helpful information for your work with this equipment; therefore we would like to explain a little bit about how to use this machine by this user manual by the following content:

- Important precautions for use of the machine
- Introduction of printer: Parts and components of the machine
- Setup and Installation Instructions: Instructions for Equipment Setup and Cartridge Installation.
- How to use the printer and the check work before/after use of the printer: explanations of general operation and startup/shutdown.
- Operation instructions: explanations on how to new/edit data for printing, and how to adjust printer settings.
- Care and Maintenance: Care and maintenance for printer and cartridge
- Troubleshooting: Common failures occurred and solutions
- Appendix 1 Terms and Definitions: Definitions for terms used in this document.

Please read this user manual carefully before first use of the printer for full understanding and attention of important information so that you will get maximum use from your new equipment. This will also help you have a guick reference to related sections when you have any problems during use.

- **Note 1:** If you cannot solve the problem encountered during use, please contact us for assistance.
- **Note 2:** The information contained herein is subject to change without notice. The amended information will be updated in user manual by new edition.
- **Note 3:** Any machine failure or damage caused by user's negligence in following this manual will not be covered by the warranty.

## **Chapter One: Important Precautions for Using**

Welcome to use Printer. In order to protect your personal safety and user rights, ensure correct installation and operation, and full play of the machine, it is important that you read the precautions carefully.

### \1.1 Important Setup Precautions

- 1.1.1 Use exclusive power supply for the equipment. Do not share same power supply with other equipment. Besides, Installation of an additional UPS is recommended.
- 1.1.2 Mount the support in sound and stable place. Do not choose the location that will be easily affected by shock or sway.
- 1.1.3 Choose well-working conveyor belt for high print quality.
- 1.1.4 Add deflector to the printer for production line setup in order to prevent any printing object hitting the nozzle plate to cause damage.
- 1.1.5 Make sure the printer is well grounded.
- 1.1.6 Maintain the distance between deflector and printing object at 0.5-2.5mm as recommended.
- 1.1.7 Make sure to insert and remove the ink cartridge by an angle of 15 degree so as not to cause damage to the cartridge.
- 1.1.8 Make sure the setup environment is tidy and clean. Clean the dust on printer from time to time when dusty environment is unavoidable.



## 1.2 Important Operation Precautions

- 1.2.1 Do not poke or impact the touch screen sharply.
- 1.2.2 Do not cover up the built-in photocell. Otherwise the printer doesn't print.
- 1.2.3 Use Non-woven to wipe the nozzle plate when the print is not clear or dots are missing.
- 1.2.4 Set print delay value for best print result when print position changes (see Section 5.2.3).
- 1.2.5 Do not insert or remove ink cartridge while the machine is in printing process so as not to cause damage to the cartridge.
- 1.2.6 Do not use compressed air for cleaning the touch screen. High pressure of the compressed air will damage the touch screen.
- 1.2.7 Do not use compressed air for direct or indirect cleaning of the ink cartridge. High pressure of the compressed air will damage the nozzle plate.
- 1.2.8 Read Chapter Seven for troubleshooting when there's failure occurs. If you cannot solve the problem encountered, contact your local dealer or our after-sale service.

Note: Depending on properties, some ink cartridge may require to be removed from printer after use. Turn off the machine and remove the cartridge from printer. Wipe the printhead clean with Nonwoven; cap the printhead with the designed cap for prevention of the nozzles from clogging. (Contact our after-sale service for information of ink properties.)

## Chapter Two: Installation and Setup Instructions

This chapter will illustrate how to set up the equipment and how to install an ink cartridge. Firstly please check the machine parts by looking at the packing picture and parts list.



#### 2.1 Parts List

Once you have unpacked your machine, check to make sure that you have all the parts shown here.



1、Printer



2、Deflector



3、USB disk



4、Power cord



5. Power adapter



6. Grounding wire



7、M3\*6 screw: 4pieces (for deflector)



8、Steel tube



9、bi-direction bracket



10、bi-pass clamp



11、Anti-shock mechanism



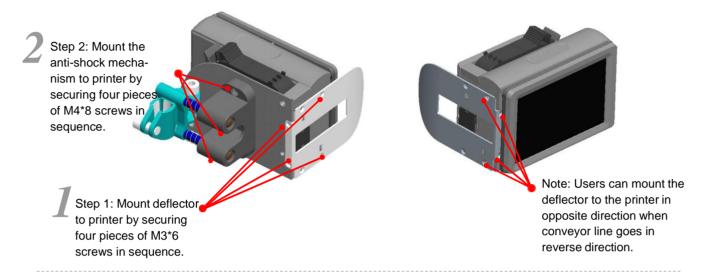
12 inner hexagon spanner



- 13、A. M8\*15screw: 6pcs (for bi-direction bracket)
  - B. M4\*8screw: 3pcs (for anti-shock mechanism)

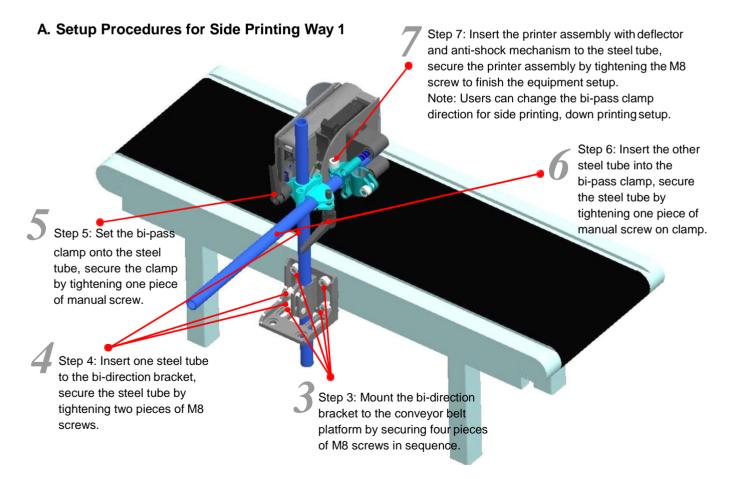
### 2.2 Set up the Equipment

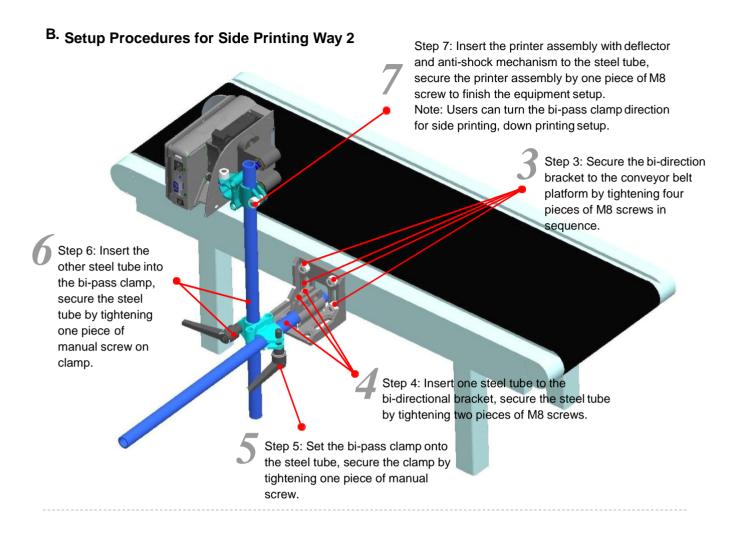
#### 2.2.1 Set up printer, deflector, and anti-shock mechanism



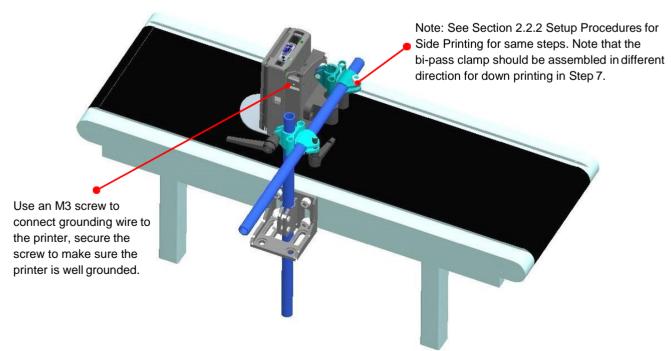
#### 2.2.2 Setup Procedures for Side Printing

Note: See Section 2.2.3 Setup Procedures for Down printing for grounding wire connection.



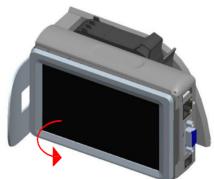


#### 2.2.3 Setup Procedures for Down Printing



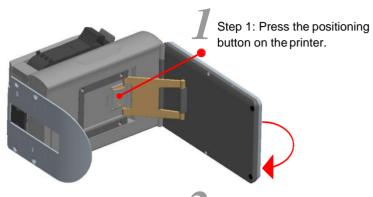
#### 2.2.4 Screen 90° Flip Mechanism

## **Unfolding**



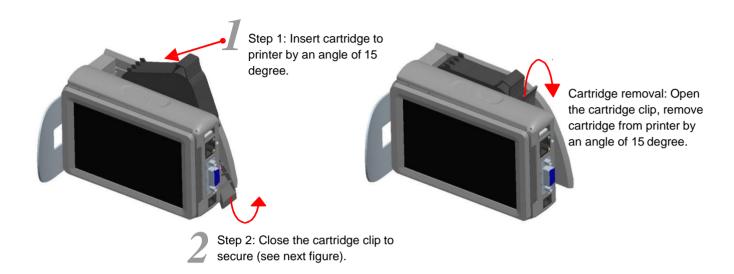
Flip screen outward until 90°. Listen for a click indicating the screen has snapped to place.

## Folding up



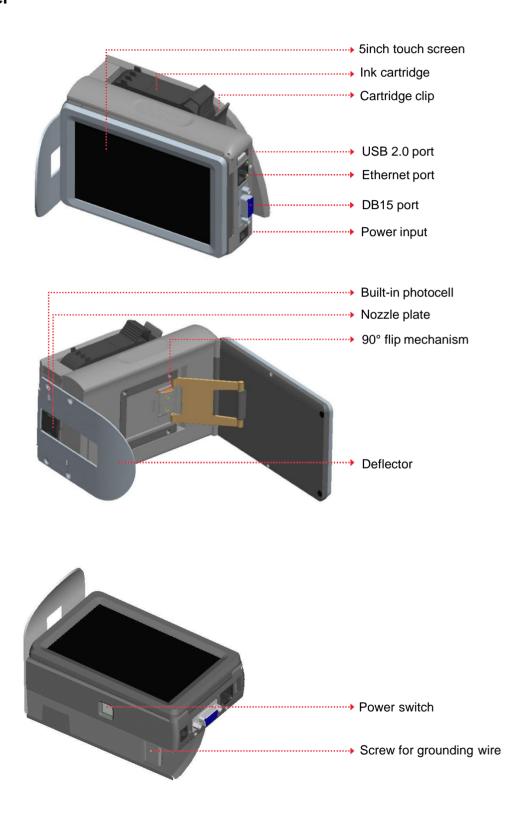
Step 2: Flip screen board inward until the screen board closed to printer.

## 2.3 Cartridge Installation (42ml)



## **Chapter Three: Introduction**

#### 3.1 Printer



## 3.2 Technical Specifications

#### A. Performance Values

Item	Specifications		Note
Technical source	HP TIJ 2.5 Thermal Ink J	HP TIJ 2.5 Thermal Ink Jet technology	
Dimension	(H*W*D):142*65*98mm	S,	
support size	Two steel tubes: \$16mm*350mm, and \$16m	mm*280mm.	Clamp and bracket not included With power adapter
Power supply	Output: 12V DC / 5A;	Input: AC 90V-240V/50-60HZ, 60W; Output: 12V DC / 5A; Power cord length: 1.8m;	
Print heights	1-12.7mm�		
	horizontal resolution (DPI)	Maximum speed (m/min)	
Print speed and	600	30.4	
resolution	400	45.7	
	300	60.9	
	150	121.9	
Print application	Barcode, alphabetic, date/time, expiration date code	date/time, expiration date, shift code, counter, lot-box	
Connection Ports	1.Ethernet port; 2.USB2.0 port; 3.DB15 port.	2.USB2.0 port;	
Interface	5inch full-color large LCD touch screen with resolution 800*480.		
Ink management	<ol> <li>1. Automatically recognizes ink types, and identifies optimum printing parameters for each ink type;</li> <li>2. Guarantees the using of genuine original HP ink;</li> <li>3. Automatic measuring system for the usage of ink.</li> </ol>		
Mounting	Standard side, downward	Standard side, downward and anti-shock support.	
Product Certification	CE, FCC.	·	
Environment	1. Working environment: -10°C~ +55°C; 10%-85%RH;		
requirement	2. Storage environment: -25°C~ +80°C; 10%-90%RH.		

#### **B. Features:**

Item	Specifications	Note
Languages	Chinese, English, Japanese, French, German, Spanish, Portuguese and Russian.	
Font	Default font is Arial; allow users to load fonts they need.	
Barcode	UPCA, UPCE, EAN13, EAN8, INT25, CODE39, CODE128, EAN128, PDF417, DATAMATRIX, QR.	
Date format	Variety of date formats available	
Counter	Flexible setting for common counter, lot-Box code counters.	
Print speed	Print speed can be set, automatically tested, or set and tested by external encoder.	
Built-in photocell	Good for simple print, no external photocell needed.	
Multi-management	Multi-level password protection (Operator, Technician and administrator).	

#### C. Ink Solutions:

- Support 42ml, 370ml, 350ml cartridges of HP TIJ2.5technology;
   Support ink of various colors: black, red, green, yellow and blue;
   Support porous, semi-porous and non-porous substrates.

# Chapter Four: How to Use the Printer and the Check Work before/after Use

In this Chapter, you will learn how to use the printer, including check work before and after use.

#### 4.1 How to Use the Printer

Sq#	Procedure		Instructions
1	cartridge Installation	Insert cartridge into the printer stall by an angle of 15 degree, close cartridge clip to secure. (see 2.3 Cartridge Installation)	
2	Turn on printer	Connect power adapter to printer power input, switch on power, printer enters initialization startup.	
3	Main Interface - Printing Management	After initialization startup, "main interface" appears (see Section 5.1).  Click to enter "Printing Management" (see Section 5.2).	Protog
4	Select data - Start printing	Select a file on data list, click  Start to Start printing.	InkJet
5	Printing report	When printing starts, the button change to the icon stop printing, meanwhile a printing report appears.	InkJet  Nesseptame M00001  Nesseptame M00001  Nesseptame M00001  Nesseptame M00001  Nesseptame M00001  Nesseptame M00001  Nesseptame M00001
6	Stop printing	Click stop printing, printing report exits, and the button returns to "Start printing" status.	InkJet III
7	Switch off	Exit printing, and switch off po	wer.

#### 4.2 Check Work before Use

Sq#	Item	Check Work
1	Printer support	Is the support securely mounted?
2	Printer position	Is the printer orientation correct? Is the nozzle plate parallel to printing object? Is the throw distance controlled within 0.5-2.5mm?
3	cartridge	Is the cartridge wiped clean? Has the cartridge been installed to printer?
4	Power input	Is the printer input voltage normal?
5	Printer status	Check status bar, is the equipment status normal?

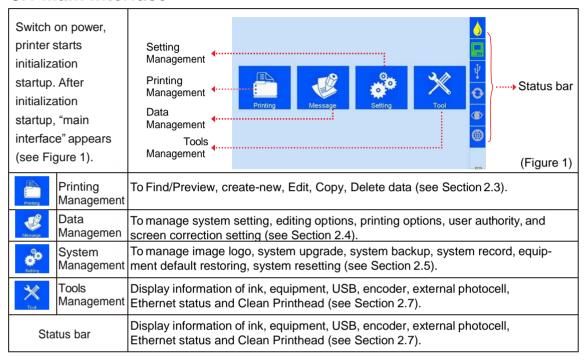
#### 4.3 Check Work after Use

Sq#	Item	Check Work
1	Printer Power Status	Is the printer power switched off?
2	cartridge	Is the cartridge removed from printer and wiped clean and printhead capped?

## Chapter Five: Printer Operation Instructions

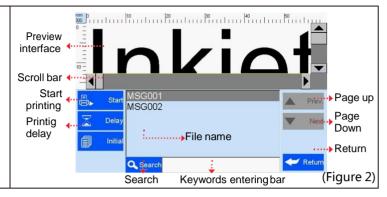
This chapter explains how to operate printer interface, including Printing Management, Data Management, System Management, Tools Management, and Status Bar.

#### 5.1 Main Interface



#### **5.2 Printing Management**

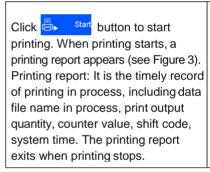




#### 5.2.1 Find/Preview Data (see Figure 2)

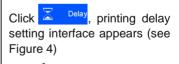
A. Find data	Find by Pageup/Pagedown/keywords.
B. Preview data	Preview data by locating or selecting a file of data to display on preview interface; data located/selected will be displayed in sequence on preview interface, and can be viewed scaled up and down by times of 1 and 2.
Note: Drag the scroll bar horizontally to view the data when it exceeds the screen horizontally.	

#### 5.2.2 Start Printing / Printing Report





#### 5.2.3 Printing Delay

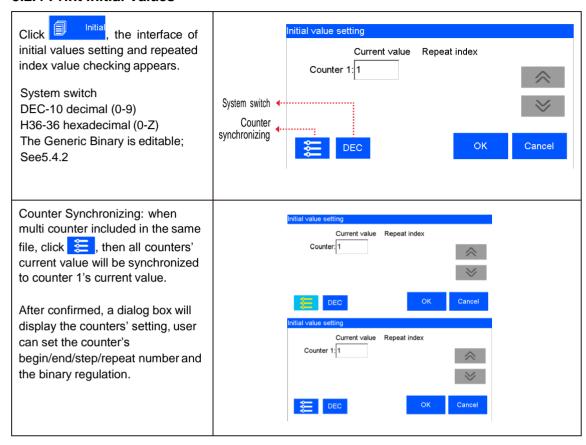


See Appendix 1: Terms and Definitions 1 for more information.



- A. Printing delay default value: 30mm;
- B. Printing delay value range: 0.0-999.9mm;
- C. It is allowed to set printing delay value during printing process: the newly set value becomes valid for immediately next printing.
- D. Printing delay value for each message are independent from one another, the delay setting for current data file will not affect another data file.

#### 5.2.4 Print Initial Values

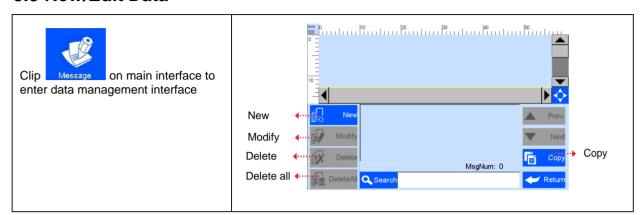


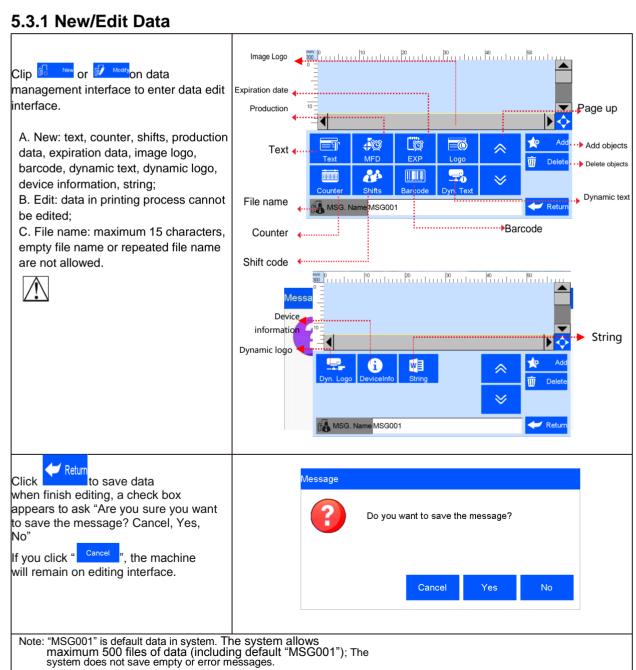
#### 5.2.5 Stop Printing

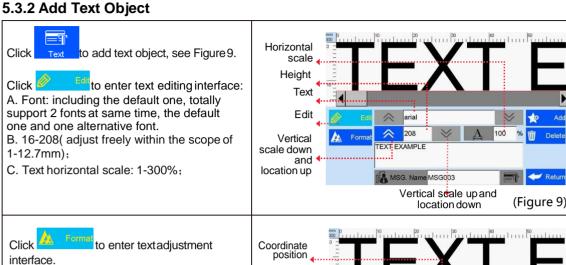
Click to stop printing and exit printing report, return to Start Printing status (see Figure 2).

Note: Printer automatically stops printing as power-off, cartridge empty while printing, alarming etc.

#### 5.3 New/Edit Data



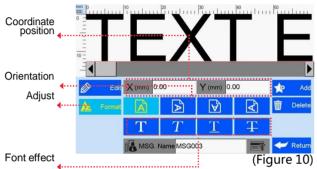




E. Coordinate location: adjustable range for X axis 0-3000mm; for Y axis, 0-12.7mm.

F. Text orientation: 0°, 90°, 180°, 270°. Four orientations adjustable.

G. Font effects: bold, italy, underline, strikeout, four effects adjustable.

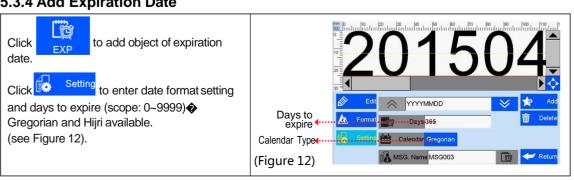


Note: Please refer to this Section (Section 5.3.2) regarding how to add objects as "production" date", "expiration date", "image", "counter", "shift code", "dynamical text""dynamical logo", but the content of "production date", "expiration date", "counter", "shift code", "dynamical text", "dynamical logo" cannot be revised or adjusted directly when you add, and the font, height, content and font effect of "image" "dynamical logo" cannot be revised directly. There is no option of horizontal scale " for "image" "barcode", "dynamical logo".

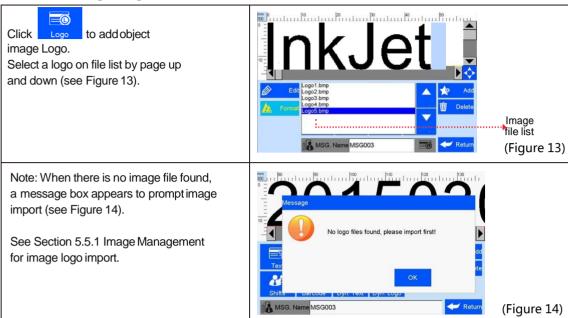
#### 5.3.3 Add Production Date



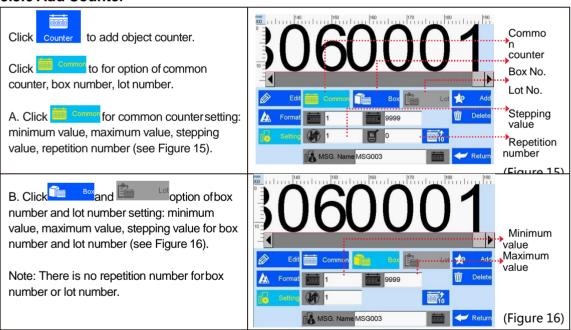
#### 5.3.4 Add Expiration Date



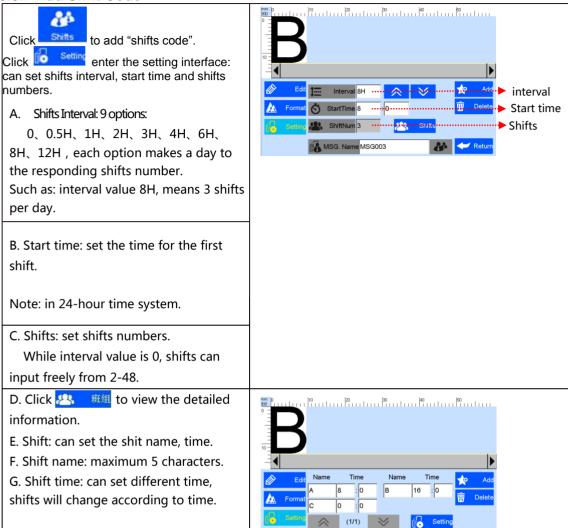
#### 5.3.5 Add Image Logo



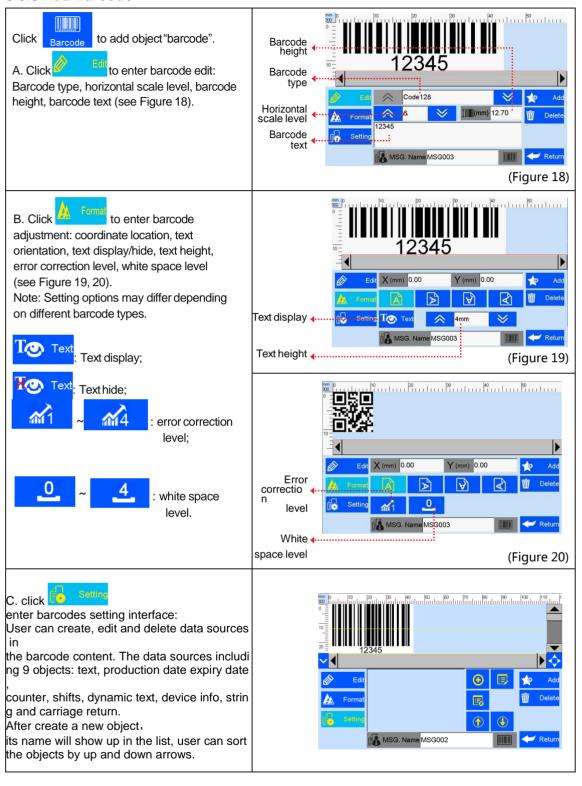
#### 5.3.6 Add Counter



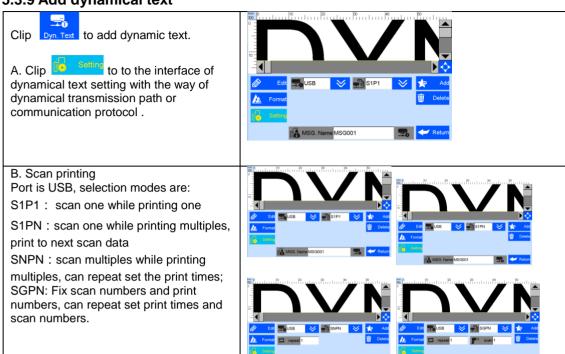
#### 5.3.7 Add Shift Code



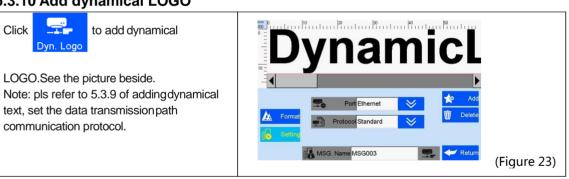
#### 5.3.8 Add Barcode



#### 5.3.9 Add dynamical text



#### 5.3.10 Add dynamical LOGO

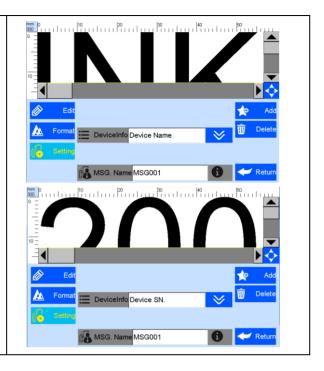


#### 5.3.11 Add Device Information



Clip Setting, enter device information setting interface, can choose device name and device SN No.

Device name can be defined by entering 2.4.5 user management, device SN No. cannot be changed.



#### 5.3.12 Add String



Clip setting to enter the string setting interface. The system default can add 5 different strings. One data allows maximum 20 string objects, each string of character maximum number is 75.

Note: when add one same string object, other same strings will be modified automatically while modify one of string.

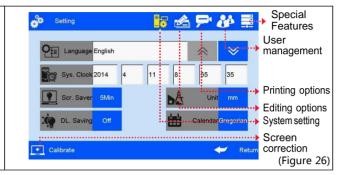


#### 5.3.13 Delete Object or Delete/Import/copy Data



#### **5.4 System Management**





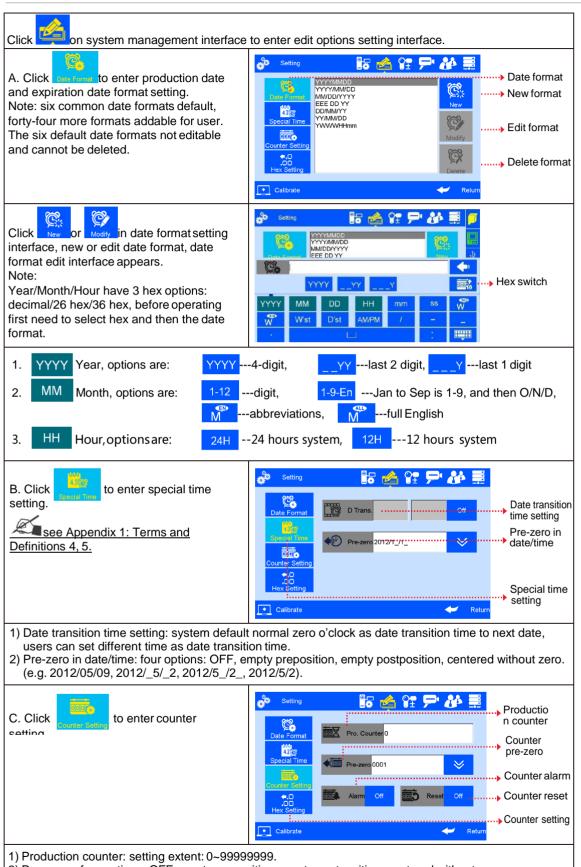
#### 5.4.1 System Setting

Click on system management interface to enter system setting (see Figure 27).

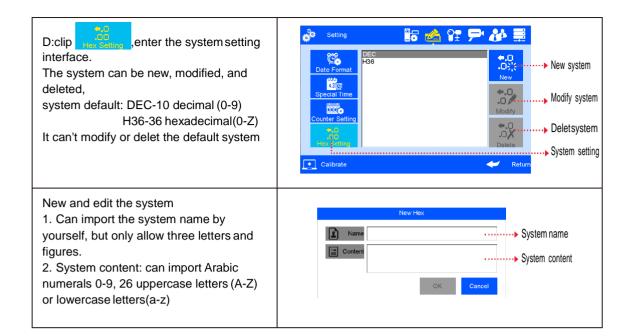


	(Figure 27)	
A. System language	Standard language in delivery country as defaultlanguage.	
B. System time	Manufacture time as default time, can be set by user.	
C. Screen saver time	see Appendix 1: Terms and Definition 3.  1) System default 5 minutes, 4 options for changeover: 5minutes, 3 minutes, 1 minute, OFF.  2) If screen saver is optioned OFF, screen enters standby status if inactive for 1 hour.  3) Screen becomes active when there's alarm or error.	
D. unit	Switch between mm and inch.language in delivery country as default language.	
E. Daylight saving time	Three modes for setting: OFF, European summer time, US summer time.	
F. Calendar Type	two modes available: Gregorian and Hijri.Default setting is Gregorian; System time will be changed according to the calendar setting.	

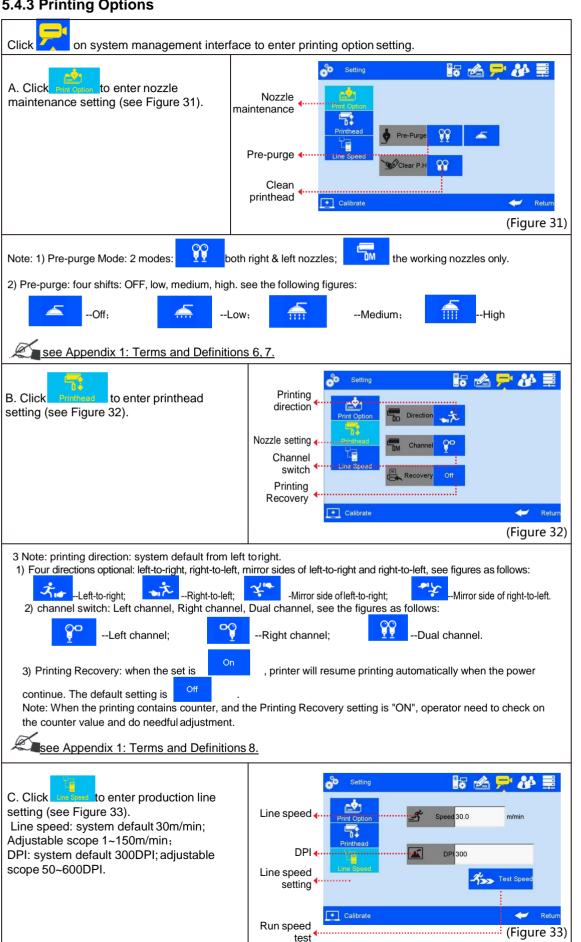
#### 5.4.2 Edit Options



- 2) Pre-zeros: four options: OFF, empty preposition, empty postposition, centered without zero (e.g. 0001,\_\_\_1, 1,\_\_\_, 1).
- 3) Counter alarm: ON or OFF option. When counter alarm is turned ON, the machine will stop printing, sound alarm and prompt message that print number reaches maximum value.
- 4) Counter reset: ON or OFF option. All counters will start from initial values if the counter reset is turned ON. The printing value will continue with the last one if the counter reset is turned OFF.

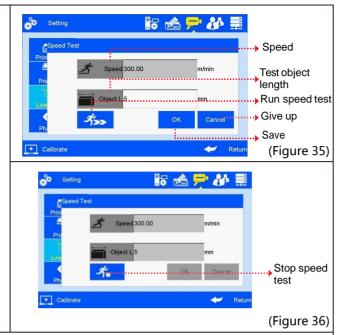


#### **5.4.3 Printing Options**



Click on line speed setting interface to run speed test (see Figure 35, 36).

Line speed test: input test object length 0~3000mm, click to enter speedtest startup interface, then start production line, put test object onto production line, the photocell will be sensing the object, and the machine will calculate line speed automatically. Click ok to save current speed test result. Click cancel , current speed test value will not be saved. If test repeated, system will take average value of multiple results. Click or cancel to save or give up test result.



Note: if external encoder is connected, system can detect automatically, and switch line speed interface to encoder DPI setting interface. User cannot programme line speed setting when external encoder is connected.

#### 5.4.4 User Management

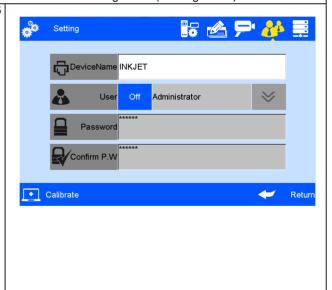
Click on system management interface to enter user management (see Figure 37).

A.Device name: can be defined, the maximum is 15 characters.

B.User permission management switch: system default OFF. A login dialogue box requests user name and password for access to operation of the printer when machine power is switched on.

C.User name: different names for different access permission. Administrator is of best authority, with access to all settings including password modification. Engineer is with access to data management and printing management; and operator is with access to printing management only.

D.Password and password confirmation:
administrator creates user name and set
password. Maximum 15 characters for password.



Note: Please contact local dealer or our company for printer unlocking when you forget administrator password.

#### 5.4.5 Special Features

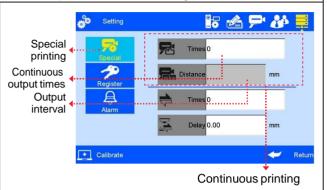


A. Click to enter "Special printing" setting.

#### **Continuous printing:**

See Appendix 1: Terms and Definitions 9 for more information.

- 1) Continuous output times: system default 0 (OFF). Adjustable scope 0~9999. Note: 0 is equal to OFF; 9999 equal to infinite.
- 2) Output interval: system default OFF, adjustable scope 0~999mm.



#### **Bidirectional printing:**

from left to right; from right to left

1)Reverse frequency: printing direction can be reversed automatically when the system senses the set printing times. For example, the set printing times is 3, when it is finished from right to left, printing direction will change into left to right automatically, vice versa.

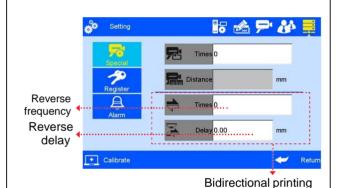
system default value: 0 (off) adjustable extent: 0 -9999

2)Reverse delay: printing delay according to the set direction system default value: 0 (off) adjustable extent: 0 -999.9

it should be set before printing not during printing process

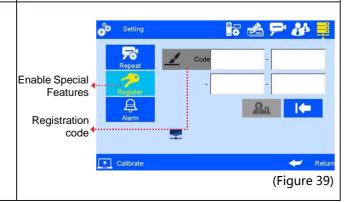
0.

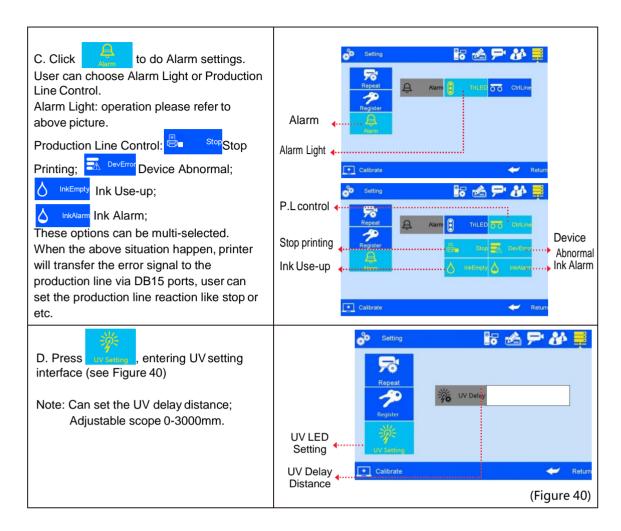
Note: normal delay (from right to left) set in the printing interface. see: 5.2.3



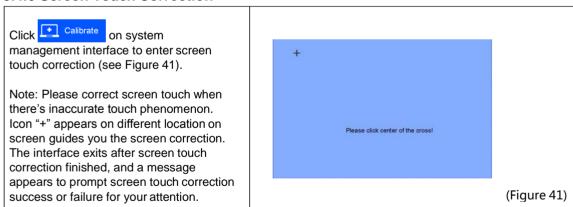
B. Click Register to enable "Special Features" (see Figure 39).

Note: Enable special features by registration code.

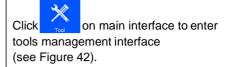


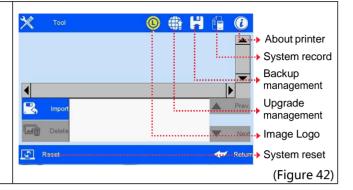


#### **5.4.6 Screen Touch Correction**



#### 5.5 Tools Management





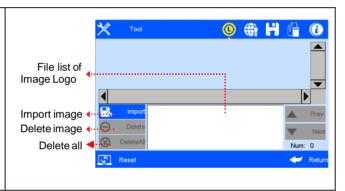
#### 5.5.1 Image Management

Click to enter image Logo management interface (see Figure 43).

Image import: import image from USB

or Ethernet.

Image format: Solid color BMP; Image height: 0-150 pixel point. Image length: 0-1000000 pixel point.

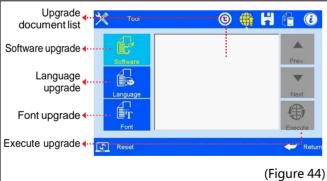


Note: 1) System prompts and cuts the excess part if the imported image exceeds borders.

- 2) Image import cannot be executed when pixel points exceed 100.
- 3) Image Logo document route: USB Disk/InkJet/Logo.

#### 5.5.2 System Upgrade

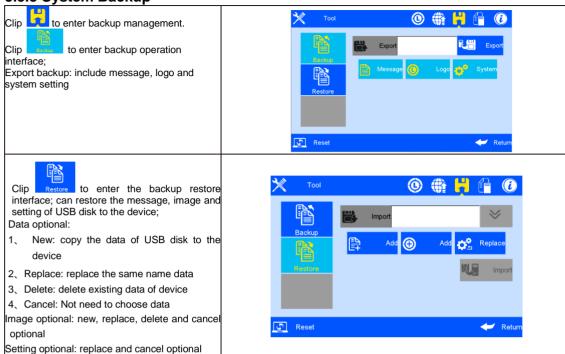




A. Software upgrade	System automatically searches for software upgrade documents in designated folder and displays the upgrade documents by list. User can select anyone in the list for upgrade.  Document route: USB Disk/InkJet/Upgrade/Application.
B. Language upgrade	System is loaded with multiple languages upon delivery. User can add one more language if needed. Document route: USB Disk/InkJet/Upgrade/Language.
C. Font upgrade	System supports two fonts; user can add another font besides the default Arial.  Document route: USB Disk/InkJet/Upgrade/Font.

Note: Software upgrade documents, language documents, font documents can only be identified when they are packed by the conversion tools provided by our company. The language documents, font documents are not replaceable and cannot be deleted.

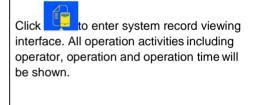
#### 5.5.3 System Backup



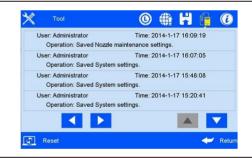
Note: Please check USB connection status and disk space is normal when execute backup import and export. Backup document route: USB

#### 5.5.4 System Record

Disk/InkJet/Backup.



export. Backup document route: USB Disk/InkJet/Backup.



System record information includes:

1) The printing activities: printing start and stop, initial values.

The printing activities: initial values setting diary.

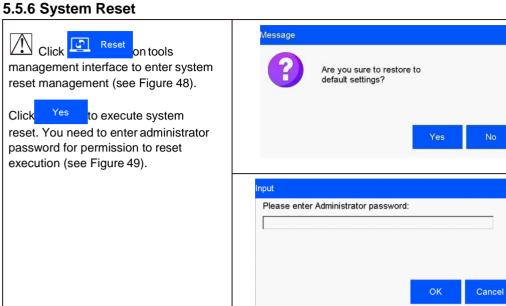
- 3) All operation activities in system management (including touch screen correction).
- 4) Image import and delete activities, system upgrade, backup, and reset activities.

Note: System record does not include querying and viewing activities.

#### 5.5.5 About Equipment







Note: System reset is to restore all defaults.

- 1) Restore all the settings to defaults, clear all data and images.
- 2) Maintain software version in current version; restore language and font to default.

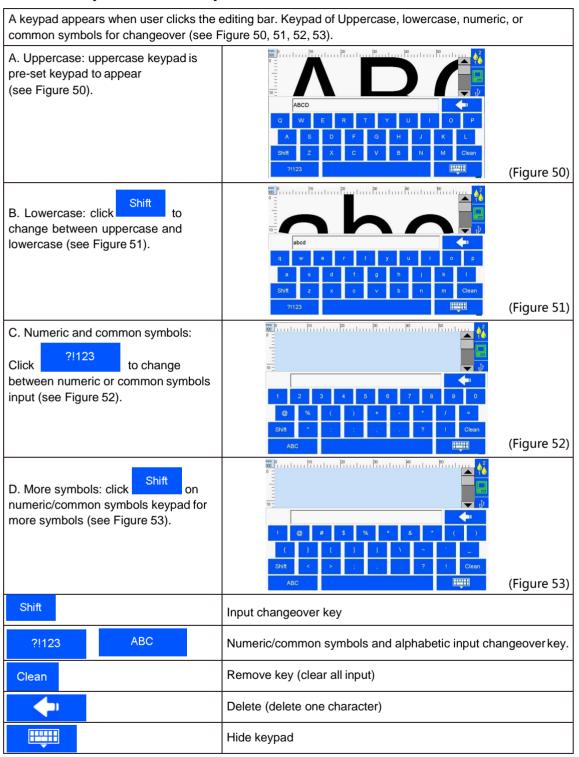
After system reset, system parameters are as follows:			
Item #	Item		
1	Language	English	

Item #	Item	Parameter
1	Language	English
2	System time	Manufacture time
3	Screen saver time	4 hours
4	Unit	Metric/mm
5	Daylight saving time	OFF
6	Date transition time setting	OFF
7	Pre-zero in date/time	OFF
8	Pre-zero in counter	OFF
9	Counter alarm	OFF
10	Counter reset	OFF
11	Pre-purge	OFF
12	Clean printhead	Standby
13	Printing direction	Left-to-right
14	Channel switch	Left channel
15	Print Recovery	OFF
16	Buffers number	5
17	Line speed	30m/min
18	DPI	300DPI
19	User permission management	OFF
20	Continuous output times	0 OFF
21	Data management	Only system default data Msg001
22	Printing delay	30mm
23	Printing initial value	Counter initial value and data source current value.

(Figure 48)

(Figure 49)

#### **5.6 Edit Input Method Options**



## 5.7 Status Bar (See Figure 1)

		`	,	
<b>6</b>	Ink information	Ink information includes dynamic and static information. Static information includes cartridge serial number, client code, cartridge type. Dynamic information: 1) ink original volume, and prospect print output for current data. 2) Ink remaining percentage, prospect print output for current data.  Ink status icons include:  1) Normal ( ): Normal ink status.  2) warning ( ): ink amount lower than 10%;		
		3) Error ( ): wrong cartridge, cartridge not installed, or ink used up.		
	Equipment status	Hardware and software status in printer.  (e.g. Printing not started )		
	USB information	Support three device Status: not connect	ays by icon for equipment normatices: USB disk, mouse, and keyboted (gray), normal connection (god equipment will be displayed between the displayed keyboard.	poard. green), warning (yellow).
0	Encoder information	Displays encoder or photocell connection status as unconnected (gray) and normally connected (green).	When encoder is  connected, click encoder signal test interface appears.	us: Encoder  Current Status: 6180 Running test  OK
<b>(</b>	Photocell information		When photocell is connected, click photocell signal test interface appears.	alus: Photocel  Current Status: ON  Test OKI
Ethernet information		therefore realizes equipr transmission on PC end.	o computer is realized by Ethernet por ment operation and upgrade . Information includes display IP, mask in automatic gain or manual input IP,	<b>⑤</b> DHOP ☑ Fixed IP
		Warning (yellow, int	connected (gray); d (green, interaction with PC softeraction with PC software wron activated, computer not switched)	g, connection failure,
*	UV status	When UV LED is connected with printer, UV status will displayed on the screen. UV status including: type, serier number, software version, hardware version, run time.		



Clean Printhead

Status: Invalid (grey), while printing going on, this function is invalid. Valid (green), can active this function.

## **Chapter Six: Care and Maintenance**

Printer is a precision machine. To keep your machine work properly and bring facilitation to your production; to keep your machine in good condition and extend equipment life, it is important to carry out proper care and maintenance on machine from time to time.

#### 6.1 Printer Care and Maintenance

- 6.1.1 Make sure power cord, power adapter cord, grounding wire is in good condition. Make sure the contact of each cord or wire is reliable.
- 6.1.2 Make sure the screw for grounding wire is secured and the grounding is reliable.
- 6.1.3Make sure the equipment is not displaced. Make sure the nozzle plate is parallel to printing object, and printing distance is controlled within 0.5-2.5mm. (Please use the designed tools provided by our company to secure the mounting support).
- 6.1.4 Clean ink cartridge: wipe nozzle plate with Non-woven to keep nozzles clean and unclogged. (Please refer to ink cartridge care and maintenance for instructions).
- 6.1.5 Keep touch screen clean. Do not hit touch screen sharply.
- 6.1.6 Keep machine surface and ports clean.
- 6.1.7 Check status bar, make sure equipment icon is normal and there's no alarming status on status bar. (In case of alarm status, check troubleshooting for solution)
- 6.1.8When machine is turned off, make sure to remove the cartridge from printer, clean the nozzle plate and cap the printhead, and place the cartridge in safe environment. (Please refer to cartridge care and maintenance for instructions).

#### 6.2 Ink Cartridge Care and Maintenance

Maintain correct methods for use and storage of the cartridge will keep the cartridge work with best print quality and extend cartridge life. Please always follow instructions in Ink Cartridge Care and Maintenance. The warranty will not cover damage or failure caused by negligence in following our care and maintenance instructions.

- 6.2.1 Ink volatilizes slowly if the cartridge is decapped. Keep new and undecapped cartridge in its original package. Decap new cartridge only when it is to be used.
- 6.2.2 Try to use up ink as soon as possible once the cartridge is decapped to prevent blockage because ink become dry on nozzle plate very soon.
- Note: Due to property difference, different inks have different dry time and care and maintenance methods. Contact our after-sale service for more information.
- 6.2.3If ink in cartridge is not used up at a time after decapped, remove the cartridge from printer and cap the printhead and store it in airtight container provided by our company. (Storage temperature is room temperature).
- Note: Do not use adhesive tape to seal the printhead, and do not store cartridge in soft plastic bag.
- 6.2.4 Nozzle plate is delicate. Do not touch or clean nozzle plate with anything sharp or rough so as not to scratch nozzle plate.
- 6.2.5 Use the Non-woven provided by our company to wipe and clean nozzle plate.
- Note: Wipe nozzle plate with the printhead facing down. Move the printhead in the direction of nozzle channel. Move the printhead in the direction across nozzle channel will damage the nozzles.
- 6.2.6 Do not shake ink cartridge or expose it to vibration. Shake or vibration will get air run into cartridge and affect print quality.
- To ensure best print quality, contact our company's after-sale service for information of instructions for different inks.

## **Chapter Seven: Troubleshooting**

- Note 1: The table below lists the most commonly seen problems and the solutions to each. If there's any other problem, contact your local dealer or our after-sale service for assistance.
- Note 2: The table below is for reference only because causes for each problem may differ depending on individual situation such as setup environment, operation demand.

## 7.1 Troubleshooting for Ink Cartridge

Sr.#	Problem	Problem	Solutions	Comments
1	The print has broken line or white line.	Nozzle blockage or damage.	A. See Section 6.2 Ink Cartridge Care and Maintenance, wipe and clean nozzle plate with Non-woven; B. See Section 5.4.3, purge the nozzles by the option "Clean Printhead".	If the problem is still unsolved: Check if there's any spring-loaded connectors depressed in Driver board; Check if there's contamination on cartridge
		2. Cartridge not in good contact with printer.	Remove the cartridge and re-insert.	contact plate.
2	The print is complete at first, and then becomes incomplete	Ink starvation or air bubbles blocking nozzles.	A. Check status bar if there's alarm of low ink. B. Send back to our company for test.	
3	The print is totally blank.	Ink used up or total nozzle blockage.	See Section 5.7 to check ink status: is ink used up?	
4	Unable to identify ink cartridge.	Connectivity     problem on printer     (defect or damage)	Remove cartridge and re-insert.	If problem is unsolved: Check if there's any spring-loaded connectors depressed in driver board. Check if there's contamination on cartridge. Check if there's contamination on ISM card. Check if there's any connector depressed on ISM card board.
		2. Cartridge dealer code mistake.	Remove cartridge and re-insert.	

## 7.2 Troubleshooting for Printer

Sr.#	Problem	Cause	Solutions	Comment
1	Printer cannot be switched on	1.No power input;	A. Make sure AC power input on adapter is correct, DC output on adapter is well connected with printer.  B. Check if power adapter light is normal. Replace a new adapter if light is dead, dim or blinking.	
		2. Printer switch not turned on.	Make sure the printer power switch is turned ON.	
		3. Equipment damage.	Contact local dealer or after-sale service.	
2	Printer does not print	Printing not started.	Click "Start printing" button to start printing.	
		2. No data for printing.	Select a file and click "Start printing" button.	
		3. Printing delay value too big.	Check if the printing delay value is normal.	
		4. Cartridge not installed.	Install a cartridge.	
		5. Cartridge installed but used up or damaged.	Check cartridge status according to Section 5.7, is ink used up or cartridge dealer code wrong?	If ink used up, or cartridge dealer code wrong, replace a new cartridge.
		6. Photocell not works.	Cover up the photocell to check according to 5.2.2 to see if there's variation in print output quantity in printing report.	When the external equipment is photocell, click for photocell signal test interface, test if photocell works.
		7. Encoder is connected but damaged.	Check if the encoder and its connection wire are in good condition; check if the production line is running well.	When the external equipment is encoder, click for encoder signal test interface, move encoder to check if the encoder works.

## Appendix 1: Terms and Definitions

Sr.#	Term	Definition	Comment
1	Printing delay	It is the distance from the point when photocell senses the printing object to the point when printing starts.  User can adjust the value to alter the print position on printing object.	E.g. Printing delay value is 30mm, printer starts printing at 30mm point after the photocell senses the printing object.
2	Printing initial value	It is beginning value in printing process for print data.	E.g. Set the initial value as 9, the counter counting starts from 9 for first print.
3	Screen saver time	It is a power saving function, the screen will automatically turn off and enter standby mode when the screen is inactive for a time period as set.	E.g. Set the screen saver time as one minute. The screen will automatically turn off and enter standby mode if the screen becomes inactive for one minute.
4	Customer year	It is the special year on customer demand. Customer can change the year in date format by any round number within scope.	E.g. The system date is 2012/07/31. Supposed the date by customer is 2010/07/31, customer can set the year in date as 2010. Then the date shown on the print will be 2010/07/31.
5	Date transition time setting	When system time reaches certain point, the printout date and time will be that of the next date.	For example: Current date is 07.10, set the date transition time to be 07:59,then the time of last printing out before that is recorded as 09/07 07:59, after that is 10/07,8:00. If the date transition time is 12:01,then the time of last printing out before that is recorded as 10/07 12:00,after that is 11/07.
6	Pre-purge	Ink becomes dry on nozzle plate during use. The dried ink will make the print not clear for half of first character. To prevent this phenomenon, user can turn this function ON.	When Pre-purge function is turned ON, printer will spray a little ink at optioned level during idle period in printing process to keep nozzle plate warm and moist so as to eliminate dried ink phenomenon.
7	Clean Printhead	Customer can use this function to purge nozzles.	Purge whole nozzle plate, make sure nozzles are unblocked.
8	Channel switch	Customer can switch for different channel to achieve best print quality according to print need and nozzle channel condition.	E.g. At option of single-channel printing, when there are damage in left channel nozzle or there are missing dots in print by left channel, user can switch to right channel printing.  At option of dual-channel printing, left channel and right channel will work at same time for printing to achieve darker print and best print quality.
9	Continuous printing	Multiple outputs of same print during one session of period photocell sensing the print object.	
10	Printing Recovery	When there is a power failure, and the setting is "ON", system will go back to the last printing status and resume printing when power gets back. The default setting for this function is "OFF"	When the printing contains counter, and the Printing Recovery setting is "ON", operator need to check on the counter value and do needful adjustment.

XiaMen Sojet Electronics Co.,Ltd.

Add: Room 402 4/F, Hong Ye Building, Chuang Ye Park,

Torch Hi-Tech Industrial Development Zone, XiaMen, Fujian, China

Tel: +86-592-5771357 Fax: +86-592-5565048

E-mail: partner@sojet-tech.com Website: www.sojet-tech.com

Zip code: 361006