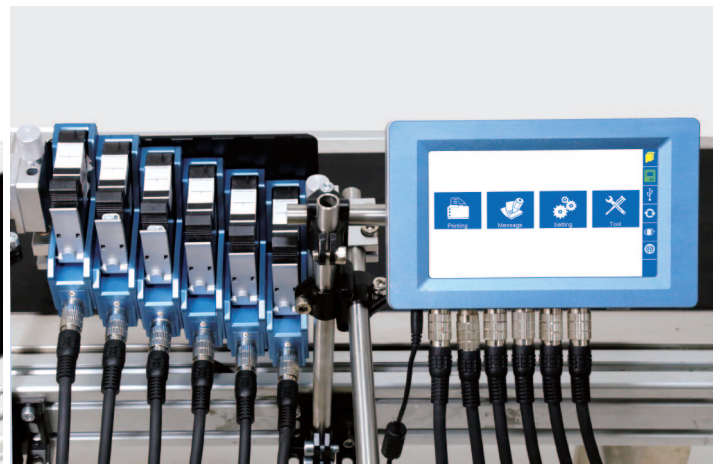
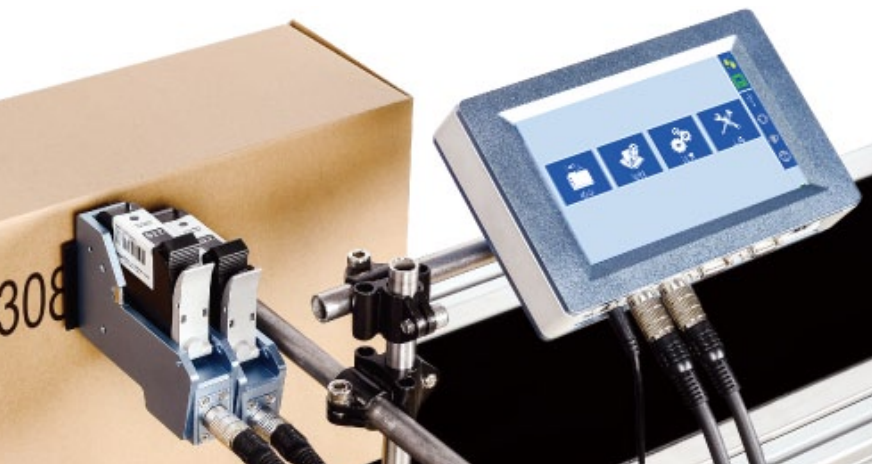


Operation Manual



Apply to: **Elfin II** **Elfin IIC** **Elfin VI** **Elfin VIC** **Elfin VIE**

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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 quick 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.



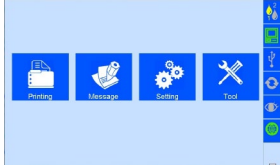






Note 3: Any machine failure or damage caused by user's negligence in following this manual will not be covered by the warranty.

Chapter 1: 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.

 **Note:** After printer starts, firstly set the printheads and build-in photocell, details please refer to Section 2.4.3

1.1 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).  |
| 4 | Select data - Start printing | Select a file on data list, click  to Start printing.  |
| 5 | Printing report | When printing starts, the button change to the icon  for stop printing, meanwhile a printing report appears.  |
| 6 | Stop printing | Click  to stop printing, printing report exits, and the button returns to "Start printing" status.  |
| 7 | Switch off | Exit printing, and switch off power. |

1.2 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? |

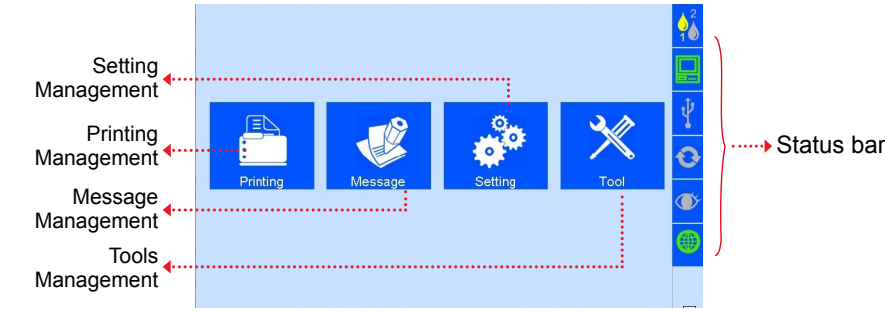




1.3 Check Work after Use

| 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 2: Printer Operation Instructions

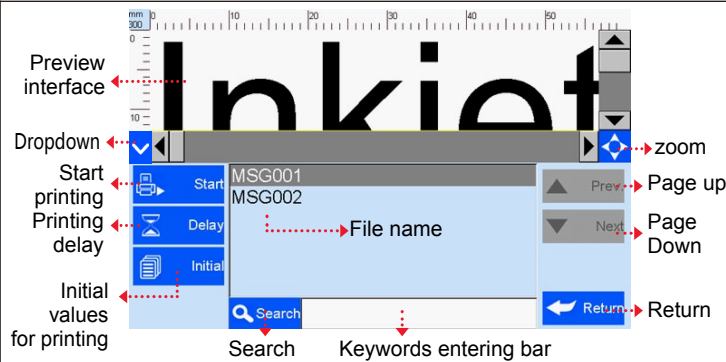
This chapter explains how to operate printer interface, including Printing Management, Data Management, System Management, Tools Management, and Status Bar.

2.1 Main Interface

| | | |
|--|---------------------|--|
| Switch on power, printer starts initialization startup. After initialization startup, "main interface" appears . | |  |
|  | Printing Management | To find and preview data, start/stop printing, set printing delay value, and set printing initial values (see Section 2.2). |
|  | Message Management | To Find/Preview, File-new, Edit, Delete data (see Section 2.3). |
|  | Setting Management | To manage system setting, editing options, printing options, user authority, and screen correction setting (see Section 2.4). |
|  | Tools Management | To manage image logo, system upgrade, system backup, system record, equipment default restoring, system resetting (see Section 2.5). |
| Status bar | | Display information of ink, equipment, USB, encoder, external photocell, and Ethernet status (see Section 2.7). |

2.2 Printing Management

Click  on main interface to enter printing management.




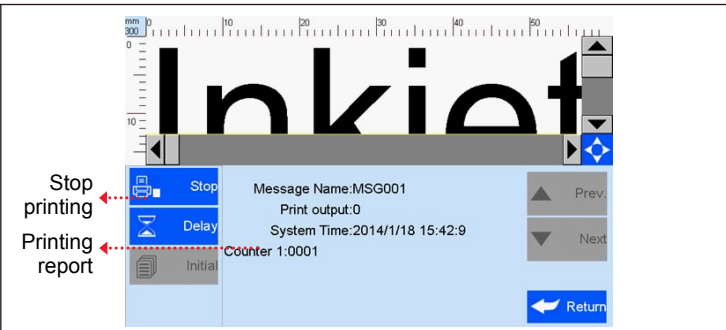
2.2.1 Find/Preview Data

| | |
|-----------------|--|
| 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; ddata located/selected will be displayed in sequence on preview interface. |



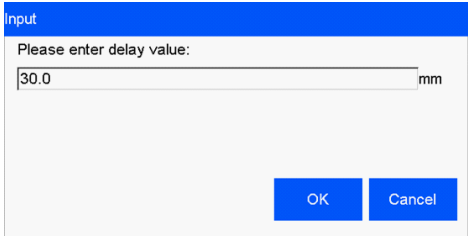

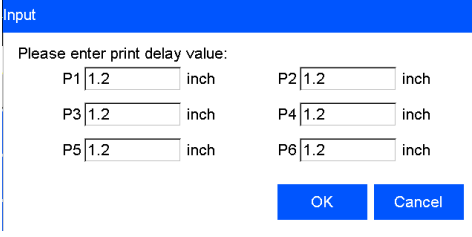
Note: Drag the scroll bar horizontally to view the data when it exceeds the screen horizontally.
While the message is for multi-printheads, can drop down to check the full content,
and also can zoom to preview.

2.2.2 Start Printing / Printing Report


Click  button to start printing. When printing starts, a printing report appears.
Printing report: It is the timely record of printing in process, including data file name in process, print output quantity, counter value, shift code, system time. The printing report exits when printing stops.






2.2.3 Printing Delay

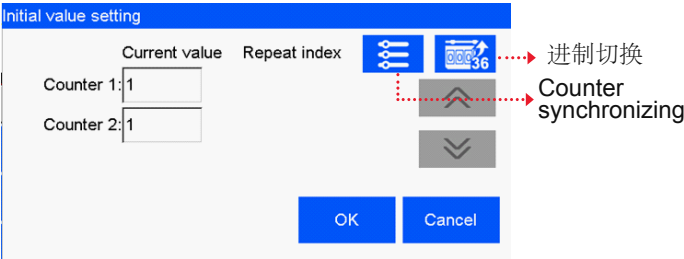
| | |
|---|--|
| <p>Click  Delay, printing delay setting interface appears.</p> <p> See Appendix 1: Terms and Definitions 1 for more information.</p> |  |
| <p>Attention: while choosing  printheads separated model, user can set printing delay for each printhead separately (for example only have P1 and P2 connected, so only need to set printing delay for these two.)</p> |  |
| 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. | |


2.2.4 Print Initial Values

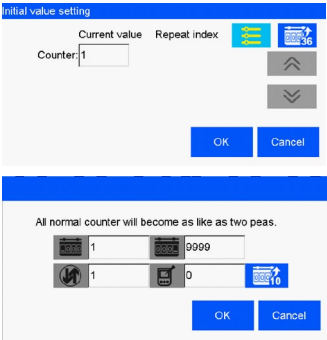
Click  Page, the interface of initial values setting and repeated index value checking appears.

36 Base System: select the regulation, when setting is , input is 0-Z (not including I ). Default setting is decimal from 0-9. 26进制则为 : A-Z


 See Appendix 1: Terms and Definitions 2 for more information.




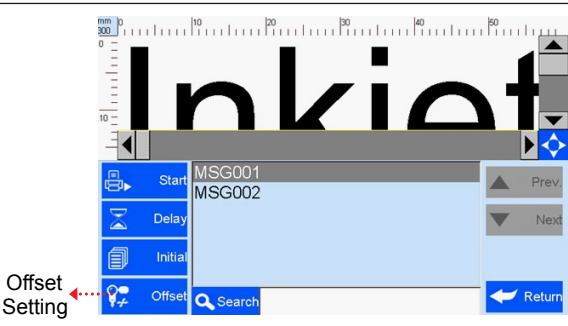
Counter Synchronizing: when multi counter included in the same file, click , then all counters' current value will be synchronized to counter 1's current value. After confirmed, a dialog box will display the counters' setting, user can set the counter's begin/end/step/repeat number and the binary regulation.




2.2.5 Offset Adjustment

Click  **Offset**, enter the offset setting interface.

 See Appendix 2: [Offset Adjustment Example](#).

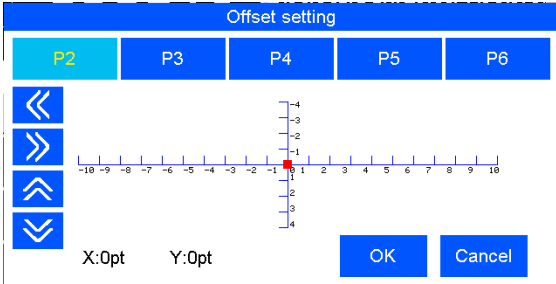



Offset Setting

Note: while printheads is  bined mode, user can set the offset value.

While printing content mismatch, user can adjust slightly according to the printed sample.


The basis of the adjustment is P1, by adjust the offset value of P2/P3/P4/P5/P6 to get the final satisfied printing result.






Adjust the offset, need to make sure the combined printheads is vertical with the production line, or mismatch will occur.


2.2.6 Stop Printing

Click  **Stop** to stop printing and exit printing report, return to Start Printing status .



Note: Printer automatically stops printing when there is case as power-off, out of ink, alarming etc.

2.3 New/Edit Data

Click  on main interface to enter data management interface .



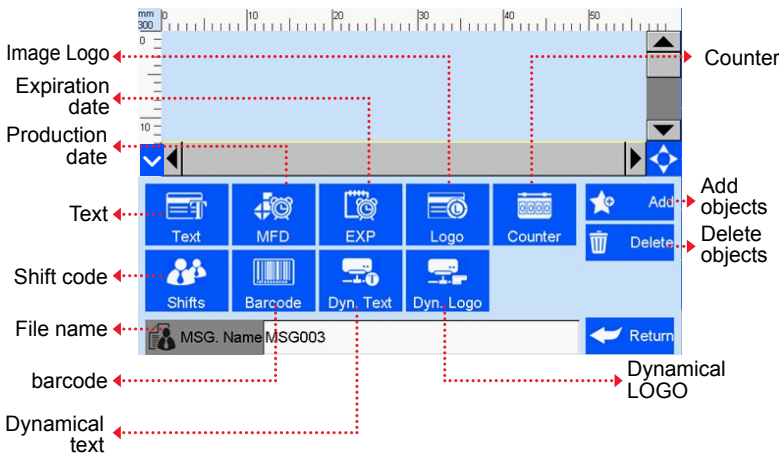
2.3.1 New/Edit Data



Click  or  on Data Management interface to enter data edit interface.


A. New: text, counter, shift, production date, expiration date, image logo, barcode.


B. Edit: data in printing process cannot be edited.

C. File name: maximum 15 characters, empty file name or repeated file name not allowed.





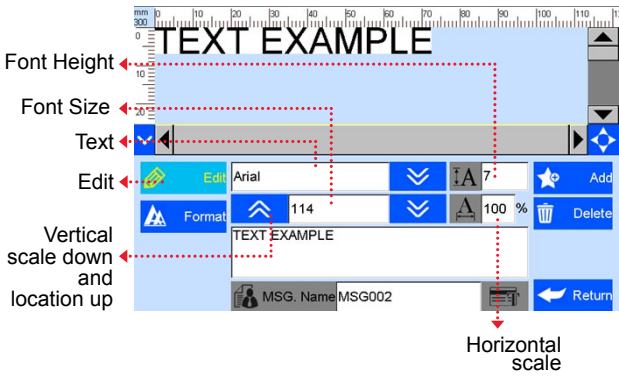

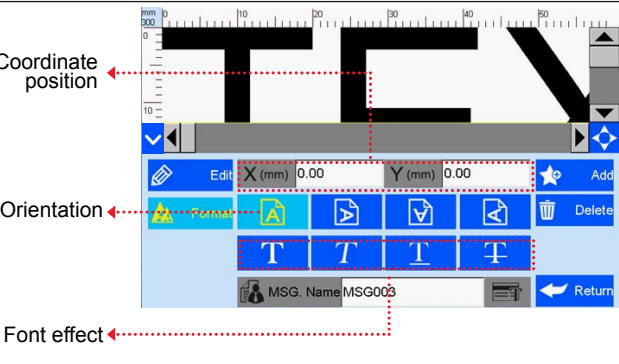


 Click  to save data when finish editing, a check box appears to ask “Are you sure you want to save the message? Cancel, Yes, No”

If you click “”, the machine will remain on editing interface.






Note: “MSG001” is default data in system, not editable and not erasable.
The system allows maximum 500 files of data (including default MSG001).
The system does not save empty data.




2.3.2 Add Text Object

| | |
|--|---|
| <p>Click  to add text object.</p> <p>Click  to enter text editing interface:</p> <p>A. Font: default font Arial, support 2 fonts at same time, Arial and one alternative font.</p> <p>B. Font Height: can set within 1-76.2mm;</p> <p>C. Font Size: 16-1252</p> <p>C. Text horizontal scale: 1-300%;</p> <p>D. Text content cannot exceed 25 characters.</p> |  <p>Font Height</p> <p>Font Size</p> <p>Text</p> <p>Edit</p> <p>Format</p> <p>Vertical scale down and location up</p> <p>Horizontal scale</p> |
| <p>Click  to enter text adjustment interface.</p> <p>E. Coordinate location: adjustable range for X axis 0-3000mm; for Y axis, 0-25.4mm.</p> <p>F. Text orientation: 0°, 90°, 180°, 270°. Four orientations adjustable.</p> <p>G. Font effects: bold, italic, underline, strikethrough, four effects adjustable.</p> |  <p>Coordinate position</p> <p>Orientation</p> <p>Font effect</p> |
| <p> Note: Please refer to this Section (Section 5.3.2) regarding how to add objects as “production date”, “expiration date”, “image Logo”, “counter”, “shift code”, “dynamical text”, “dynamical logo”, but the content of “production date”, “expirationdate”, “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 Logo”, “dynamical logo” cannot be revised directly. There is no option of horizontalscale “” for “logo”, “barcode”, “dynamical logo”.</p> | |


2.3.3 Add Production Date

| | |
|---|--|
| <p>Click  to add object "production date".</p> <p>Click  to enter date format setting, choose a format by arrow up and down, Gregorian and Hijri available.</p> |  <p>Date format</p> <p>Calendar Type</p> <p>Adjust</p> |
|---|--|

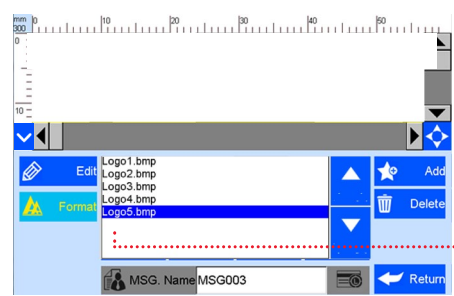
2.3.4 Add Expiration Date

| | |
|---|---|
| <p>Click  to add object of expiration date.</p> <p>Click  to enter date format setting and days to expire (scope: 0~9999), Gregorian and Hijri available.</p> |  <p>Days to expire</p> <p>Calendar Type</p> |
|---|---|

2.3.5 Add Image Logo

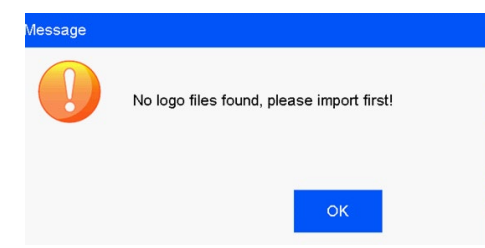
Click  to add object image Logo.

Select a logo on file list by page up and down .





Note: When there is no image file found, a message box appears to prompt image import .


See Section 5.5.1 Image Management for image logo import.

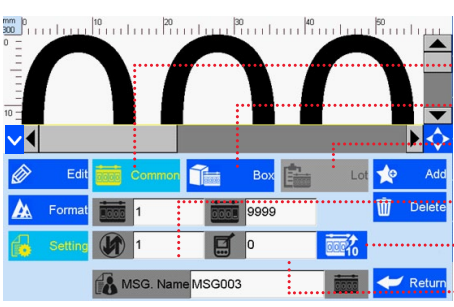




2.3.6 Add Counter

Click  to add object counter.

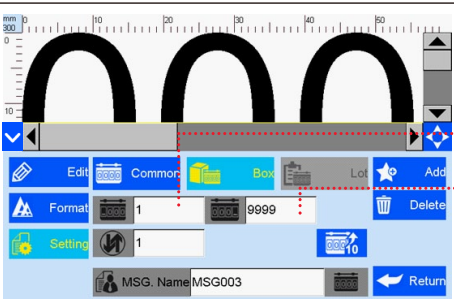
Click  to for option of common counter, box number, lot number.

A. Click  for common counter setting: minimum value, maximum value, stepping value, repetition number.





B. Click  and  for option of box number and lot number setting: minimum value, maximum value, stepping value for box number and lot number .

Note: There is no repetition number for box number or lot number.



2.3.7 Add Shift Code

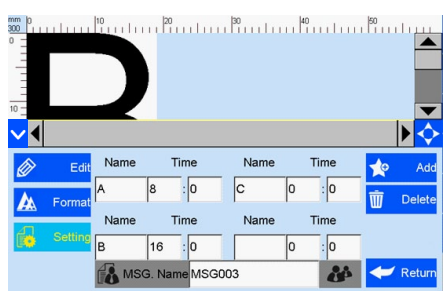
Click  to add object "shift code".

Click  to enter setting.



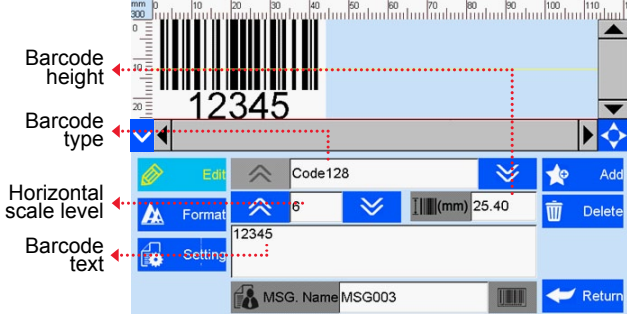







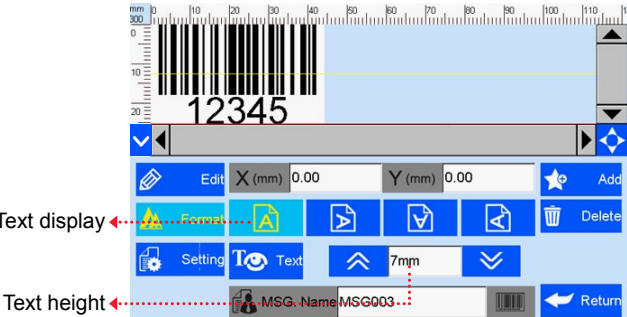




Shift code: shift name and time for setting.

Shift name: maximum five characters.



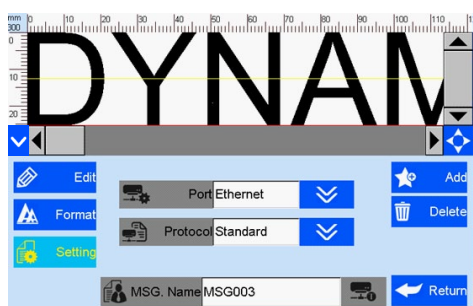
Shift time: four different times for setting. Shift code varies according to different time periods.




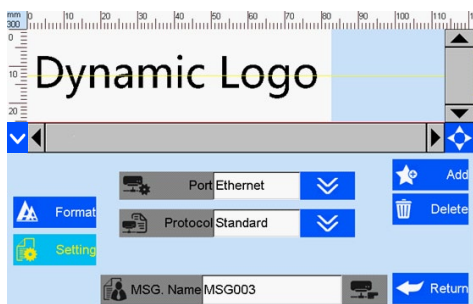
2.3.8 Add Barcode

| | |
|--|---|
| <p>Click  to add object "barcode".</p> <p>A. Click  to enter barcode edit: Barcode type, horizontal scale level, barcode height, barcode text .</p> |  <p>Barcode height</p> <p>Barcode type</p> <p>Horizontal scale level</p> <p>Barcode text</p> |
| <p>B. Click  to enter barcode adjustment: coordinate location, text orientation, text display/hide, text height, error correction level, white space level . Note: Setting options may differ depending on different barcode types.</p> <p> Text : Text display;</p> <p> Text : Text hide;</p> <p> ~  : error correction level;</p> <p> ~  : white space level.</p> |  <p>Text display</p> <p>Text height</p>  <p>Error correction level</p> <p>White space level</p> |
| <p>C. Click  to enter barcode setting: barcode can include data source of production date, expiration date, counter and shift code,dynamical text. When an object is inserted to a barcode, its icon will be lightened, for example, when a barcode contains a production date, the icon of production date will be lightened like  .</p> |  |

2.3.9 Add dynamical text

| | |
|---|--|
| <p>Click  to add dynamical text.</p> <p>A.Click  to the interface of dynamical text setting with the way of dynamical transmission path or communication protocol .</p> |  |
|---|--|


2.3.10 Add dynamical LOGO

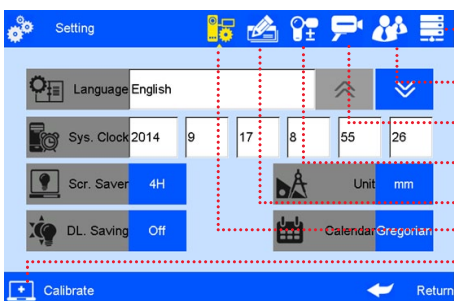
| | |
|--|--|
| <p>Click  to add dynamical LOGO. See the picture beside.</p> <p>Note: pls refer to 5.3.9 of adding dynamical text, set the data transmission path communication protocol.</p> |  |
|--|--|

2.3.11 Delete Object or Delete/Import/copy Data

| | |
|---|---|
| <p>Select an object on data editing interface, click  Delete to delete the object, a dialog box appears to prompt if you are sure that you want to delete.</p> |  |
| <p> Select a file on the list on data management interface, click  Delete to delete the file, a dialog box appears to prompt if you are sure that you want to delete . Note: data in printing process cannot be deleted.</p> |  |
| <p>Click  Import in File Management interface, it will import all files saved in U disk under defined route. User will be prompted if same name already existed. Before import, insert the U disk firstly.</p> |  |
| <p>Select  Copy a file and click in File Management interface, the same message will be copied and saved as the same name with "C1" suffix, for example: MSG002's copy will be named as MSG002C1.</p> |  |


2.4 System Management

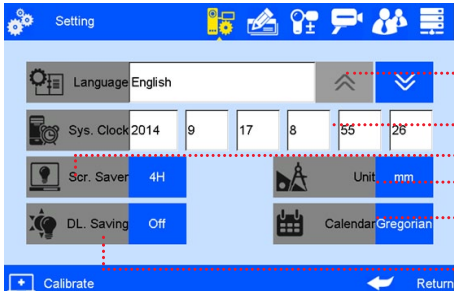
Click  to enter system management.




- Special Features
- User management
- Printing options
- Printheads settings
- Editing options
- System setting
- Screen correction

2.4.1 System Setting



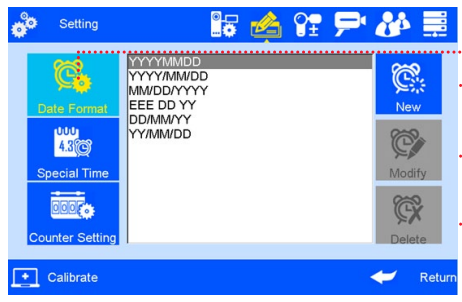


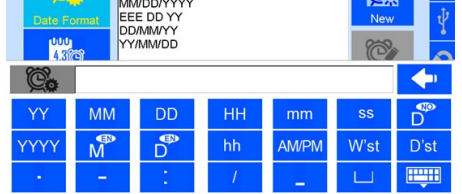


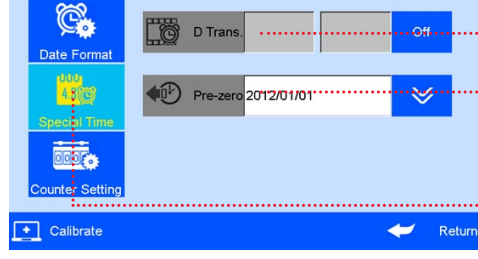

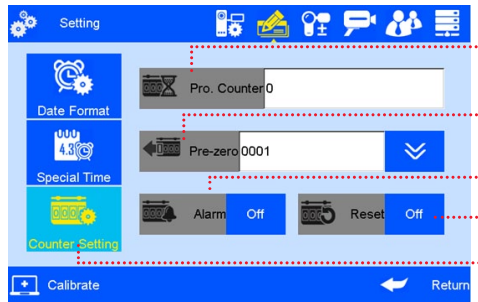
Click  on system management interface to enter system setting .




- System Language
- System time
- Screen saver time
- unit
- Calendar Type
- Daylight saving time


| | |
|-------------------------|--|
| A. System language | Standard language in delivery country as default language. |
| B. System time | Manufacture time as default time, can be set by user. |
| C. Screen saver time | <p> see Appendix 1: Terms and Definition 3.</p> <p>1) System default 4 hours, 4 options for changeover: 0.5 hour、 2 hours、 4 hours、 off (8 hours) ;</p> <p>2) If screen saver is optioned OFF, screen enters standby status if inactive for 8 hour.</p> <p>3) Screen becomes active when there's alarm or error.</p> |
| 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. |

2.4.2 Edit Options

| | |
|--|--|
| <p>Click  on system management interface to enter edit options setting interface.</p> <p>A. Click  to enter production date and expiration date format setting. Note: six common date formats default, forty-four more formats addable for user. The six default date formats not editable and cannot be deleted.</p> |  |
| <p>Click  or  in date format setting interface, new or edit date format, date format edit interface appears.</p> |  |
| <p>B. Click  to enter special time setting.  see Appendix 1: Terms and Definitions 4, 5.</p> |  <p>(Figure 30)</p> |
| <p>1) Date transition time setting: system default normal zero o'clock as date transition time to next date, users can set different time as date transition time. 2) Pre-zero in date/time: four options: OFF, empty preposition, empty postposition, centered without zero. (e.g. 2012/05/09, 2012/_5/_2, 2012/5/_2_, 2012/5/2).</p> <p>C. Click  to enter counter setting.</p> |  |
| <p>1) Production counter: setting extent: 0~99999999. 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.</p> | |

2.4.3 Printheads Settings


Click  from system management interface, enter the Printheads Settings interface.

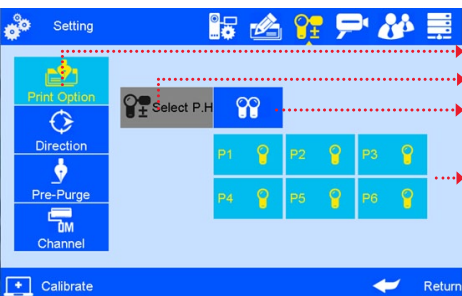
A. Click  enter printheads setting, select the printheads mode to be "combined" or "separated";

1) combined: begin with P1, can combine the adjacent printhead(s) by sequence, (see the right picture);


Note: this model is not workable on uneven surface printer or egg printing printer.

2) separated: begin with P1, enable any printhead(s) user required (see right below picture);

Message copy: while in separated mode, click , can copy the message of P1 to any other enabled printhead(s).




Printhead(s) Allocation interface showing a 2x3 grid of printhead selection buttons (P1-P6) with lightbulb icons. Red dashed lines point to the 'Print Option' button, the 'Select P.H.' button, and the grid itself.


B. Click  enter printing direction setting:

1) while printheads setting is combined (see right above picture);


2) while setting is separated, can set the printing direction separately for each (as right below picture);

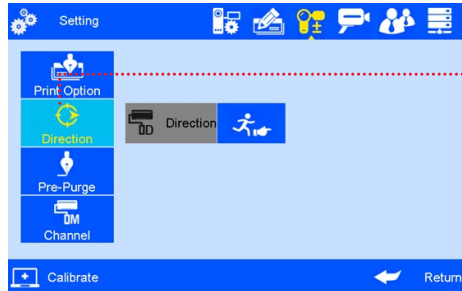
3) printing direction: default is from left to right; 4 options:

 — left to right

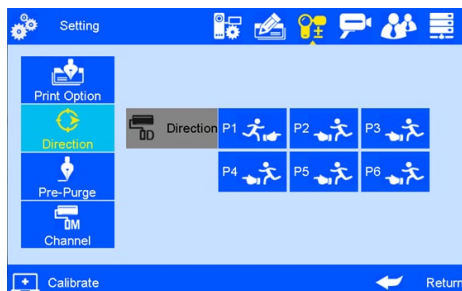
 — right to left

 — mirror side left to right


 — mirror side right to left




printing direction interface showing a 'Direction' button with a right-pointing arrow icon. Red dashed lines point to the 'Print Option' button and the 'Direction' button.




Individual printhead direction settings interface showing a 2x3 grid of direction selection buttons (P1-P6) with stick figure icons. Red dashed lines point to the 'Print Option' button, the 'Direction' button, and the grid.



C. Click  enter prepurge setting;



1) 2 channel settings:

 both right and left channels;


 only the working channel

2) 4 levels:

 -- Off;
  - Low;

 -- Medium;
  --High


3) while in separated mode, can set the prepurge for each printhead (refer to bottom-right picture)




Pre-Purge


Prepurge channel


Prepurge levels

D. Click  enter channel switch setting:

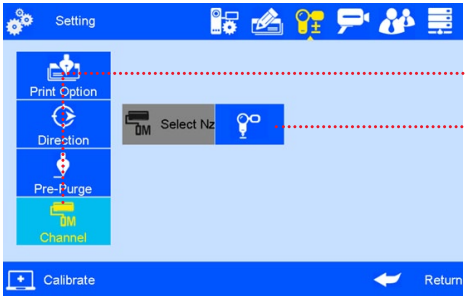
1) default is left channel, 3 modes optional:

 -- Left channel

 -- Right channel

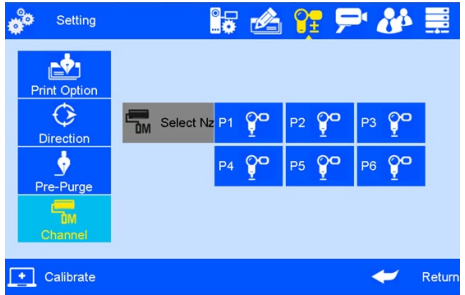
 -- Both channels

2) while in separated model, user can set the channel separated for each printhead (refer to bottom-right picture).




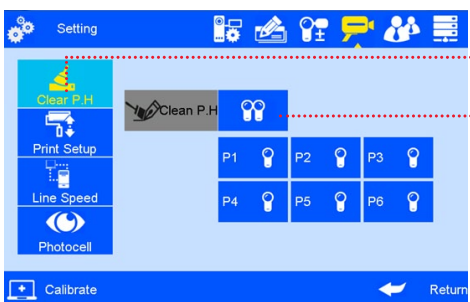

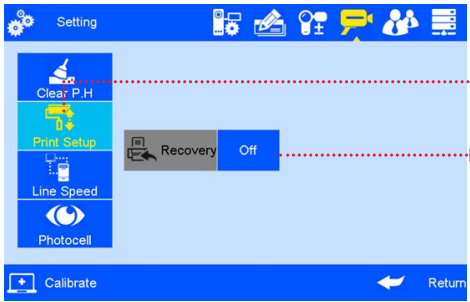



Channel switch

Select channel(s)

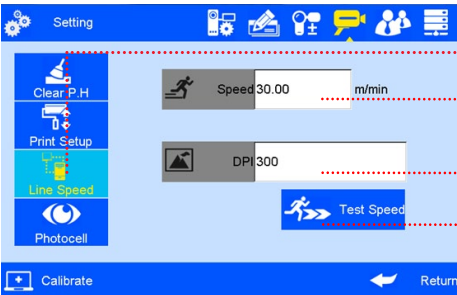


2.4.4 Printing Options

| | |
|---|---|
| <p>Click  from the system management interface to enter printing option interface.</p> <p>A. Click  enter "clean printhead" settings;</p> <p>1) Clean printhead: spit 300 ink drops at one time. Invalid if click it during printing.</p> <p>2) User may click  to clean all printheads, and also can choose to clean a specified one.</p> |  <p>Clean printhead</p> <p>Clean printhead</p> |
| <p>B. Click  enter printing setting interface;</p> <p>Printing recovery: when power off or printer shut down and restart, printer get back to the former status and the printing will continue.</p> <p>Default: off</p> |  <p>Printing Setting</p> <p>Printing Recovery</p> |

Click  , to enter production line Setting.

Line speed: system default 30m/min;
Adjustable scope 1~150m/min;
DPI: system default 300DPI;
Adjustable scope 50~600DPI.






Line Setting





Line speed

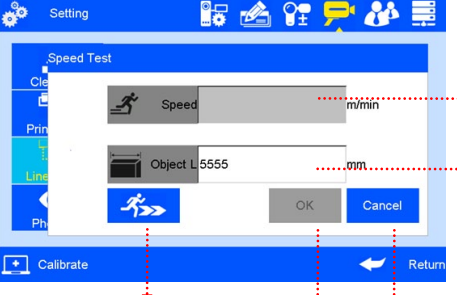
DPI

Line speed setting

Click  on line speed setting interface to run speed test.

Line speed test: input test object length 0~3000mm, click  to enter speed test 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  to save current speed test result.

Click  current speed test value will not be saved. If test repeated, system will take average value of multiple results. Click  to stop speed test, and click  or  to save or give up test result.



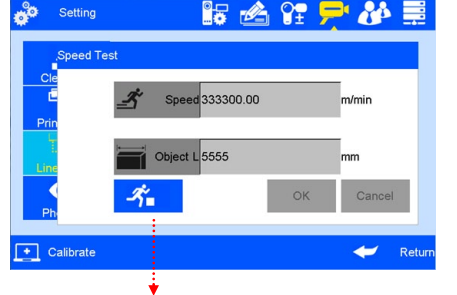
Speed

Test object length

Run speed test


Save

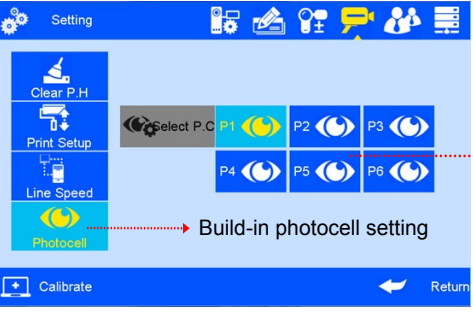
Cancel



Stop speed test

Note: if an encoder is connected, system can detect it automatically, and switch line speed interface to encoder DPI setting interface, in this case user cannot set the line speed.

D.Click  , enter the build-in photocell setting.




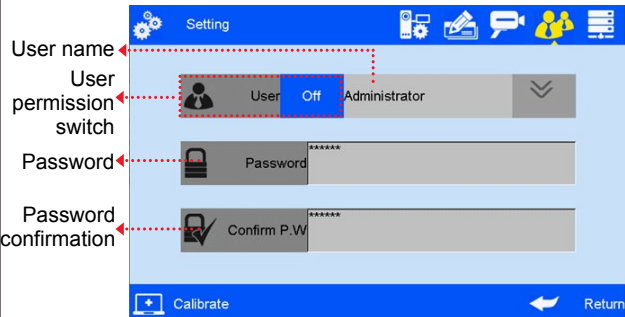
Build-in photocell switch

Build-in photocell setting




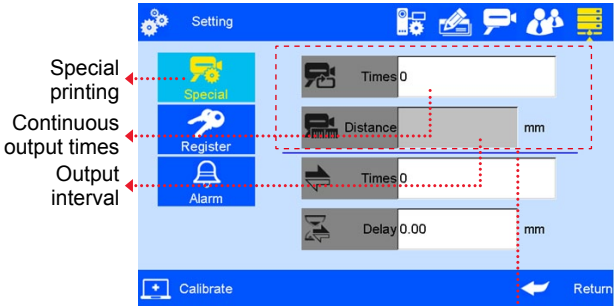
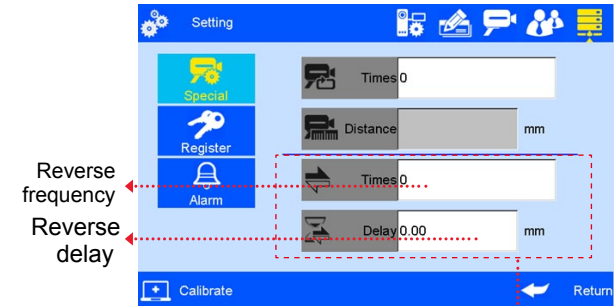
Note: 1) Built-in photocell setting: While the printheads are combined, user can set the working photocell.

Note: setting can not be adjusted while printing.

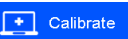
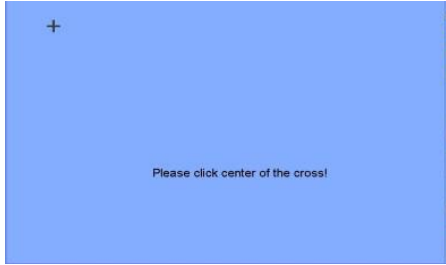
2.4.5 User Management

| | |
|--|--|
| Click  on system management interface to enter user management (see Figure 37). | |
| <p>A. 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.</p> <p>B. 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.</p> <p>C. Password and password confirmation: administrator creates user name and set password. Maximum 15 characters for password. Default administrator password "888888".</p> |  |
| <p>Note: Please contact local dealer or our company for printer unlocking when you forget administrator password.</p> | |


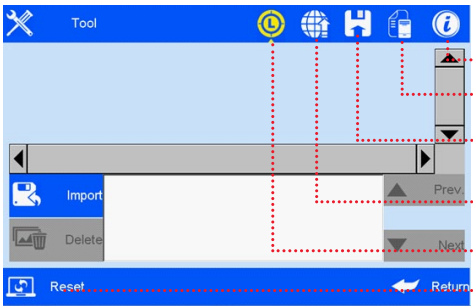
2.4.6 Special Features

| | |
|--|---|
| <p>Click  on system management interface to enter “Special Features” setting.</p> | |
| <p>A. Click  to enter “Special printing” setting .</p> <p>Continuous printing:</p> <p> See Appendix 1: Terms and Definitions 9 for more information.</p> <p>1) Continuous output times: system default 0 (OFF). Adjustable scope 0~9999. Note: 0 is equal to OFF; 9999 equal to infinite.</p> <p>2) Output interval: system default OFF, adjustable scope 0~9999mm.</p> |  <p>Continuous printing</p> |
| <p>Bidirectional printing:</p> <p>from left to right; from right to left</p> <p>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</p> <p>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</p> <p>Note: normal delay (from right to left) set in the printing interface. see: 5.2.3; This function is only suitable for the model of stitched printheads and single printhead.</p> |  <p>Bidirectional printing</p> |


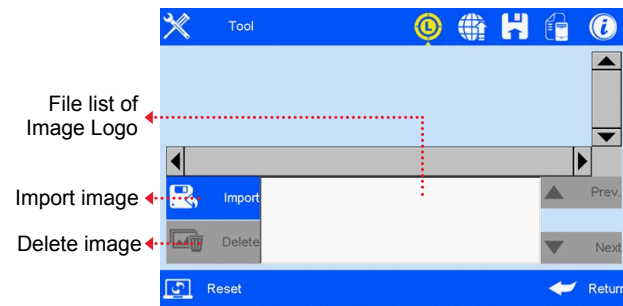
2.4.7 Screen Touch Correction

| | |
|--|--|
| <p>Click  on system management interface to enter screen touch correction.</p> <p>Note: Please correct screen touch when there's inaccurate touch phenomenon. Icon “+” appears on different location on screen guides you the screen correction. The interface exits after screen touch correction finished, and a message appears to prompt screen touch correction success or failure for your attention.</p> |  |
|--|--|


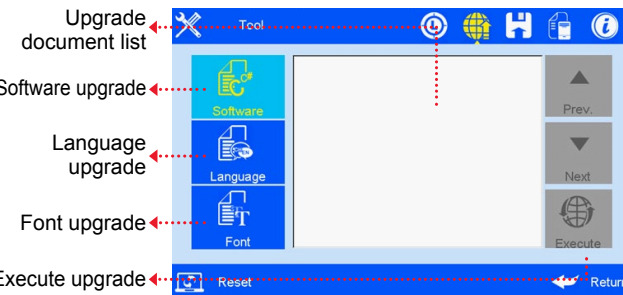
2.5 Tools Management

| | |
|---|--|
| <p>Click  on main interface to enter tools management interface.</p> |  |
|---|--|



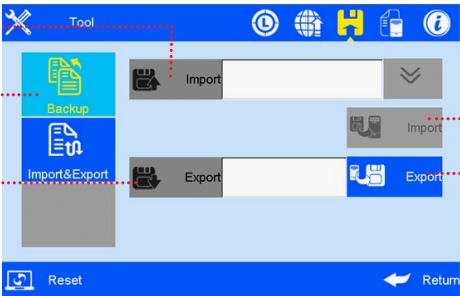

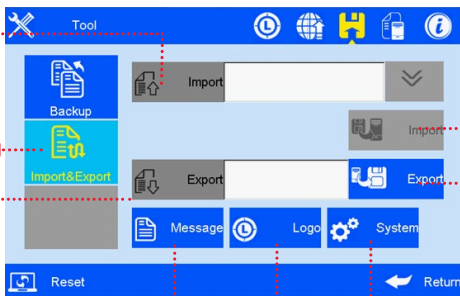
2.5.1 Image Management

| | |
|--|--|
| <p>Click  to enter image Logo management interface.</p> <p>Image import: import image from USB or Ethernet.</p> <p>Image format: Solid color BMP;</p> <p>Image height: 0-900 pixel point.</p> <p>Image length: 0-10000 pixel point.</p> |  |
| <p>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.</p> | |


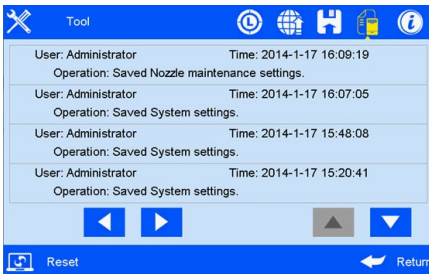
2.5.2 System Upgrade

| | |
|--|--|
| <p>Click  to enter upgrade management interface.</p> <p>Users can upgrade the software, add or change languages and fonts by USB.</p> |  |
| <p>A. Software upgrade</p> | <p>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.</p> |
| <p>B. Language upgrade</p> | <p>System is loaded with multiple languages upon delivery. User can add one more language if needed. Document route: USB Disk/InkJet/Upgrade/Language.</p> |
| <p>C. Font upgrade</p> | <p>System supports two fonts; user can add another font besides the default Arial. Document route: USB Disk/InkJet/Upgrade/Font.</p> |
| <p>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.</p> | |


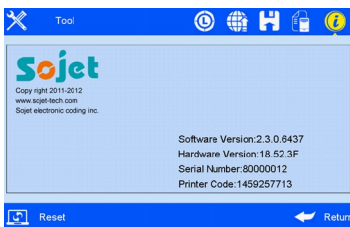
2.5.3 System Backup

| | |
|--|--|
| <p>Click  to enter backup management.</p> <p>Click , enter the backup interface;</p> <p>A. Import backup: Import all the documents except system record to printer by USB. B. Export backup: Export the documents including input data, machine settings, images, system record, excluding software, fonts, languages, status, and user management.</p> |  |
| <p>Click , enter "backup import" interface;</p> <p>A. Import: import files, images or settings from USB disk's default route to printer. B. Export: export files, images or settings from printer to USB disk. Note: While importing, existing information will not be covered, if same name is found, will indicate. While exporting, can multiple choose on files, images or settings.</p> |  |
| <p>Note: Please check USB connection status and disk space is normal when execute backup import and export. Backup document route: USB Disk/InkJet/Backup.</p> | |

2.5.4 System Record


| | |
|---|--|
| <p>Click  to enter system record viewing interface. All operation activities including operator, operation and operation time will be shown.</p> |  |
| <p>System record information includes:</p> | <p>1) The printing activities: printing start and stop, initial values.</p> |
| | <p>The printing activities: initial values setting diary.</p> |
| | <p>3) All operation activities in system management (including touch screen correction).</p> |
| | <p>4) Image import and delete activities, system upgrade, backup, and reset activities.</p> |
| <p>Note: System record does not include querying and viewing activities.</p> | |


2.5.5 About Equipment

| | |
|--|--|
| <p>Click  to enter equipment information viewing interface.</p> <p>Information displays current hardware version, software version, machine serial number, dealer code, company Logo, company name and website.</p> |  |
|--|--|

2.5.6 System Reset



Click  **Reset** on tools management interface to enter system reset management .

Click  **Yes** to execute system reset. You need to enter administrator password for permission to reset execution.

Message



Are you sure to restore to default settings?

Yes

No

Input

Please enter Administrator password:

OK

Cancel

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 | 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 | Customer year | OFF |
| 7 | Date transition time setting | OFF |
| 8 | Pre-zero in date/time | OFF |
| 9 | Pre-zero in counter | OFF |
| 10 | Counter alarm | OFF |
| 11 | Counter reset | OFF |
| 12 | Pre-purge | OFF |
| 13 | Clean printhead | Standby |
| 14 | Printing direction | Left-to-right |
| 15 | Channel switch | Left channel |
| 16 | Print Recovery | OFF |
| 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. |

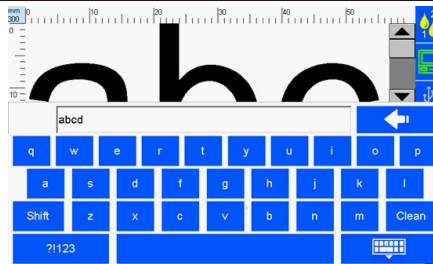
2.6 Edit Input Method Options

A keypad appears when user clicks the editing bar. Keypad of Uppercase, lowercase, numeric, or common symbols for changeover.

A. Uppercase: uppercase keypad is pre-set keypad to appear (see Figure 50).

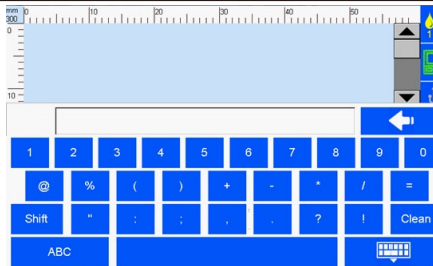


B. Lowercase: click **Shift** to change between uppercase and lowercase.

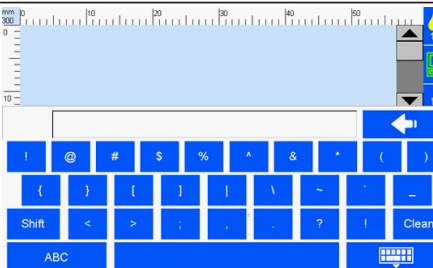


C. Numeric and common symbols:

Click **?123** to change between numeric or common symbols input.



D. More symbols: click **Shift** on numeric/common symbols keypad for more symbols.



Shift

Input changeover key

?123

ABC

Numeric/common symbols and alphabetic input changeover key.

Clean

Remove key (clear all input)


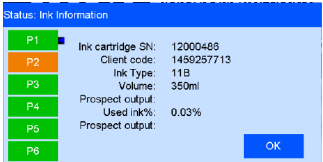














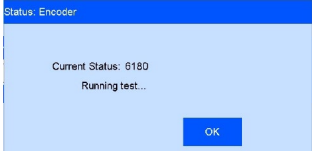


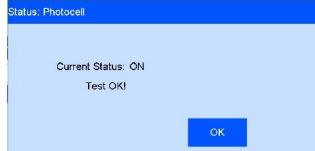

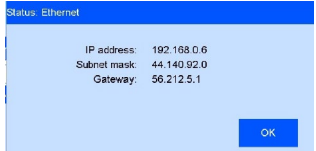


Delete (delete one character)



Hide keypad

2.7 Status Bar

| | | |
|---|------------------------------|---|
|  | <p>Ink information</p> | <p>Ink information includes dynamic and static information. Static information includes cartridge serial number, client code, cartridge type. Dynamic information: 1) Ink volume, prospect print output for current data. 2) Ink used percentage, remaining prospect print output for current data. Note: User can click the left buttons to check the parameters for each cartridge, different colors have different meanings.</p> <div data-bbox="933 226 1257 388">  </div> <p> —Normal  —Warning ;  —Error.</p> |
| | | <p>Ink status icons include:</p> <p>1) Normal (): Normal ink status.</p> <p>2) warning (): ink amount lower than 10%;</p> <p>3) Error (): wrong cartridge, cartridge not installed, or ink used up.</p> |
|  | <p>Equipment status</p> | <p>Hardware and software status in printer. (e.g. Printing not started)</p> <div data-bbox="989 916 1233 1034">  </div> |
|  | <p>USB information</p> | <p>Automatically displays by icon for equipment normally connected to USB port. Support three devices: USB disk, mouse, and keyboard. Status: not connected (gray), normal connection (green), warning (yellow).</p> <p>Normally connected equipment will be displayed by icon  USB disk,  mouse, or  keyboard.</p> |
|  | <p>Encoder information</p> | <p>Displays encoder or photocell connection status as unconnected (gray) and normally connected (green).</p> <p>When encoder is connected, click  , encoder signal test interface appears.</p> <div data-bbox="941 1325 1257 1476">  </div> |
|  | <p>Photocell information</p> | <p>When photocell is connected, click  , photocell signal test interface appears.</p> <div data-bbox="941 1504 1257 1655">  </div> |
|  | <p>Ethernet information</p> | <p>The printer connection to computer is realized by Ethernet port, therefore realizes equipment operation and upgrade transmission on PC end. Information includes display IP, mask code, MAC, gateway.</p> <div data-bbox="957 1698 1273 1849">  </div> <p>Status includes: Unconnected (gray); Normally connected (green, interaction with PC software normal); Warning (yellow, interaction with PC software wrong, connection failure, software on PC not activated, computer not switched on etc.).</p> |

Chapter 3: 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.

3.1 Printer Care and Maintenance

- 3.1.1 Make sure power cord, power adapter cord, grounding wire is in good condition. Make sure the contact of each cord or wire is reliable.
- 3.1.2 Make sure the screw for grounding wire is secured and the grounding is reliable.
- 3.1.3 Make 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).
- 3.1.4 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).
- 3.1.5 Keep touch screen clean. Do not hit touch screen sharply.
- 3.1.6 Keep machine surface and ports clean.
- 3.1.7 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)
- 3.1.8 When 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).

3.2 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.

- 3.2.1 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.
- 3.2.2 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.
- 3.2.3 If 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.
- 3.2.4 Nozzle plate is delicate. Do not touch or clean nozzle plate with anything sharp or rough so as not to scratch nozzle plate.
- 3.2.5 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.
- 3.2.6 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 4: 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.

4.1 Troubleshooting for Ink Cartridge

| Sr.# | Problem | Problem | Solutions | Comments |
|------|---|---|--|---|
| 1 | The print has broken line or white line. | 1. 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 2.4.3, 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 contact plate. |
| | | 2. Cartridge not in good contact with printer. | Remove the cartridge and re-insert. | |
| 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 2.7 to check ink status: is ink used up? | |
| 4 | Unable to identify ink cartridge. | 1. 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. | |

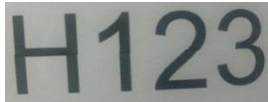
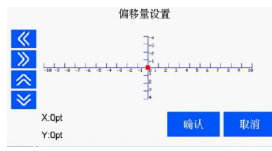
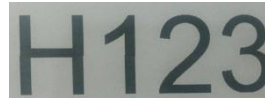
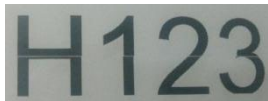
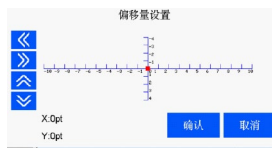
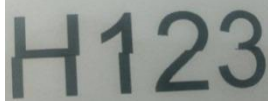
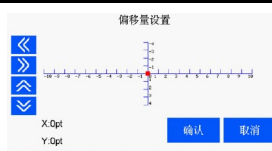
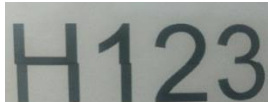
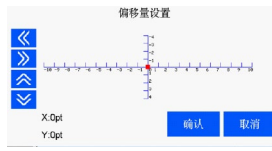
4.2 Troubleshooting for Printer

| 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 | 1. Printing not started. | Pls check firstly if the current status is in 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 2.7, 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 2.2.2 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. |

Appendix 2: Offset Adjustment Example

| Problem | Printing | Offset Adjustment | After Adjustment |
|--|--|--|---|
| X-axis align Y-axis overlay |  |  |  |
| | Adjust downward, scope(Y-axis: -4~4) | | |
| X-axis align Y-axis separate |  |  | |
| | Adjust upward, scope (Y-axis: -4~4) | | |
| X-axis left dislocation Y-axis align |  |  | |
| | Adjust to right, scope (X-axis: -10~10) | | |
| X-axis right dislocation Y-axis align |  |  | |
| | Adjust to left, scope (X-axis: -10~10) | | |
| Note: 1、Adjust scope varies in different case, unit: dot; 2、If mismatch remain after adjustment, please check if the printheads is installed vertically with the production line. | | | |



High Resolution Inkjet Printer

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