操作手册
Operation Manual

DK-D03S V2.3 版本

D S 系列热转印智能打码机
SERIES OF THERMAL TRANSFER OVERPRINTER

DIKAI

NOTICE

Thank you for choosing DIKAI to provide printing solutions.

DIKAI is a top manufacturer of coding machines & coding consumables in China, established in 1995, products include:

- Thermal Transfer Overprinter
- Ink Roll Coder
- Hot Stamp Coder
- Case & Carton Coder
- Thermal Transfer Ribbon
- Hot Ink Roll
- Hot Stamping Foil
- Brass/Steel/Rubber Types

If you have questions or comments, or any information wanted, please visit our website at **www.dikaiproducts.net**

Before using this printer, please read and fully comply with these instructions.

Version Clarification

Update Date	Manual Version	Revision Department	Description
2017/08/08	V1.1	Technology Department	Stop
2017/12/29	V2.0	Technology Department	Stop
2018/06/29	V2.1	Technology Department	Stop
2019/3/26	V2.2	Technology Department	Stop
2019/9/20	V2.3	Technology Department	Officially Published Version

Part NO. Y03S05014EN

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1. GENERAL & SAFETY INFORMATION

1.1 GENERAL

This Manual aims to explain how to safely install, operate and maintain D03S Thermal Transfer Overprinter.

1. Reproduction of any or part of this manual in any form whatsoever without the expressed written permission of DIKAI is forbidden. The contents of this manual are subject to revision without notice.

2. The use of non genuine DIKAI consumables and spare parts may adversely affect the performance of the product and could invalidate the warranty.

3. All efforts have been made to ensure the accuracy of the contents of this manual. However, should any errors be detected, DIKAI would greatly appreciate being notified.

4. DIKAI make no warranty of any kind with regard to this material, including, but not limited to, the implied warranties and fitness for purpose. DIKAI shall not be liable for any errors contained in this material or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

5. Thank you for choosing DIKAI to provide printing solutions. If questions arise, please contact the local business center or distributor to assist with your purchase.

1.2 INTRODUCTION

D03S is our new version smart coding machine developed on the basis of D03 which also adopts advanced thermal transfer technology, providing more flexible printing solutions for package and marking industries. As the latest contact printing technology, we keep on improving our products by continuous research & develop and technical innovation. Meanwhile, DK aims at extending TTO technology in every possible field.

We successfully applied for patents for D03S's unique creative structure and operating principle: compact size, easy operating & daily maintenance, fast printing speed, etc. Adopting 300 dpi print head brings more artistic print results.

D03S is available in two printer types, flexible for on-site installation:
D03S Model：

- ✓ **D03S Right Hand（D03S RH）**
- ✓ **D03S Left Hand（D03S LH）**

D03S can print lot number, date and time, variable data, etc directly onto kinds of packing film, variable data can be modified on controller.

1.3 LABEL

1. **High Voltage**

This label is located on the back panel of Controller Box.

This label warns the operator that the printer should be well ground connected.

If it's hiden after installation, please stick another WARNING label in conspicuous place.

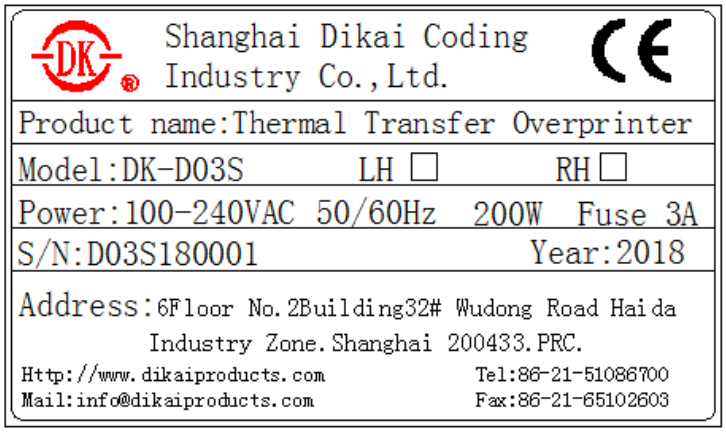
Electrical problems should be solved by well-trained engineer.

2. GROUND CONNECTION

This label warns that machine should be ground connected.

3. PRODUCT LABEL

SN/ POWER/ RELATED DATA



This label is located on the back panel of Control Box:

- ✧ Model Number
- ✧ Factory Location
- ✧ Serial Number
- ✧ Electricity Requirements
- ✧ DK logo
- ✧ Contact Information

1.4 PARAMETER

Print Head	32mm，300dpi;
Print Area	Intermittent:32mm X 60mm(W X L);
	Continuous: 32mm X 150mm(W X L);
TTR Length	Max 500m；
TTR Width	25mm 、33mm；
Print Speed	＜ 40 m/m (Continuous);
Frequency	＜ 200 p/m(Intermittent);
Supported Field Types	Time, date, variable data, logo, QR code, Barcode, etc;
Communication Interface	USB、Ethernet、RS232；
Suitable Voltage	AC110 ～ 220 V， 50/60Hz；
Power	200W；
Work Temperature	0 ～ 40℃；
Relative Humidity	10% ～ 95%（Non Condensing）；
Air Supply	0.6 Mpa（maximum），dry，non-pollution
Weight	Printer: 8.5kg，Controller 2.0kg;
Dimension	Printer 190mm×192mm×180mm (L×W×H);
	Controller 233mm×180mm×128mm (L×W×H);

2. SAFETY

2.1 OPERATION GUIDELINES

Before operating this unit, read this manual thoroughly. Pay particular attention to the WARNINGS AND CAUTIONS to prevent possible injury to personnel.

1. Please install the main power within 3 meters near the printer.
2. Please make sure air supply must be limited to not greater than 0.6Mpa under any circumstances.
3. Before any maintenance or repair on any part of the printer, disconnect the printer from the power supply.
4. Please do not put anything between print head and rubber anvil/ rubber roller when the printer is powered on. Damage to the print head may occur.
5. Please do not run the printer when any covers are taken off.
6. Please do not place the printer in a hazardous environment. Make sure the printer will not turn, move or topple.
7. The use of incompatible consumables can damage your printer. Use only consumables approved by DIKAI Company.
8. Please be aware of the danger of power and rub-out signal which can run the printer.
9. Please do move the printer with two hands to make sure not damage the printer.
10. Please do not ignore or remove warning labels on the printer.
11. Please complete detailed inspection of power in, otherwise it will cause the damage of printers.
12. Please install and check the power pocket by qualified electricians to avoid the danger of electro-shock.

2.2 APPLICATION AND ABUSING

The information for the safety, installation, operation, trouble shooting, schematics, parts illustrations and routine maintenance is listed throughout this manual.

The following operation methods, but not limited to, are considered as abusing:

- ✧ Maintain the printer without DK authorization.
- ✧ Do not abide by the safety requirements in this manual.
- ✧ Connect other brand machine to the printer.
- ✧ Un-qualified personnel operate or repair the system.
- ✧ Use unspecified power supply or unsuitable plastic film.

Till this manual is published, the above are the best instructions aiming at providing safe operating, handling, storing, transporting, discarding and distributing to products, but not guarantee or quality specification.

3. INSTALLATION

3.1 COMPONENTS

Diagraph 2 Components

Packing List:

1、D03S Controller
2、D03S Ribbon Cassette
3、D03S Printer
4、Air Pressure Regulator
5、Air Pressure Meter
6、Relay
7、USB
8、Sample TTR
9、Air Tube
10、Drive Cable
11、Power Cable (no plug)
12、I/O Cable
13、Power Cable

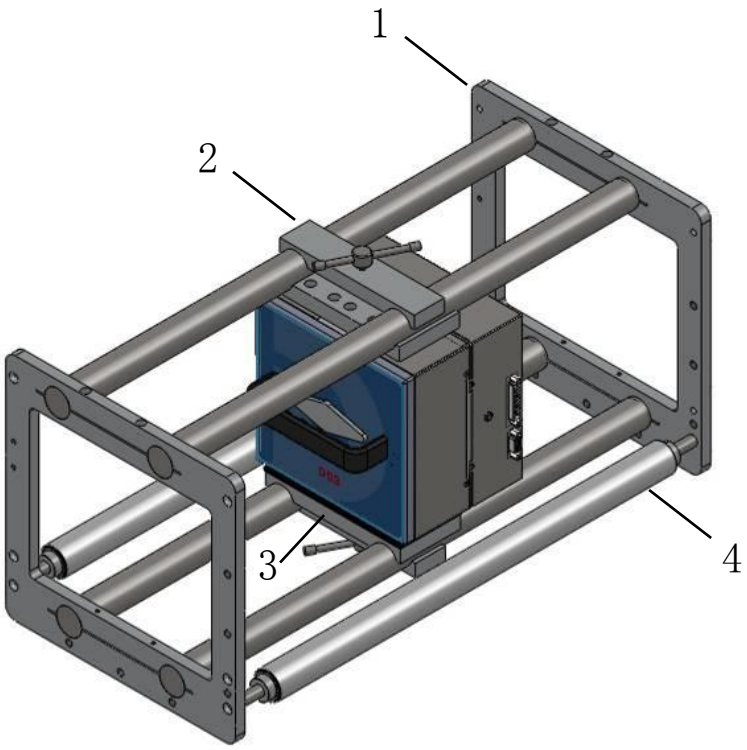
3.2 INSTALLATION REQUIREMENTS

Please make sure all below index are fully checked before installation.

1. Packaging machine runs well and all the signals are working;
2. Stable power supply: AC 100V-240V±10V (MAX 3A);
3. Compressed air: max. 0.6Mpa, dry and uncontaminated air
4. Reliable printing signal——can be from relay, NPN/ PNP sensor, photo sensor or PLC
5. Enough space for installing printer
6. The installation should be done by DIKAI engineer or well trained operator

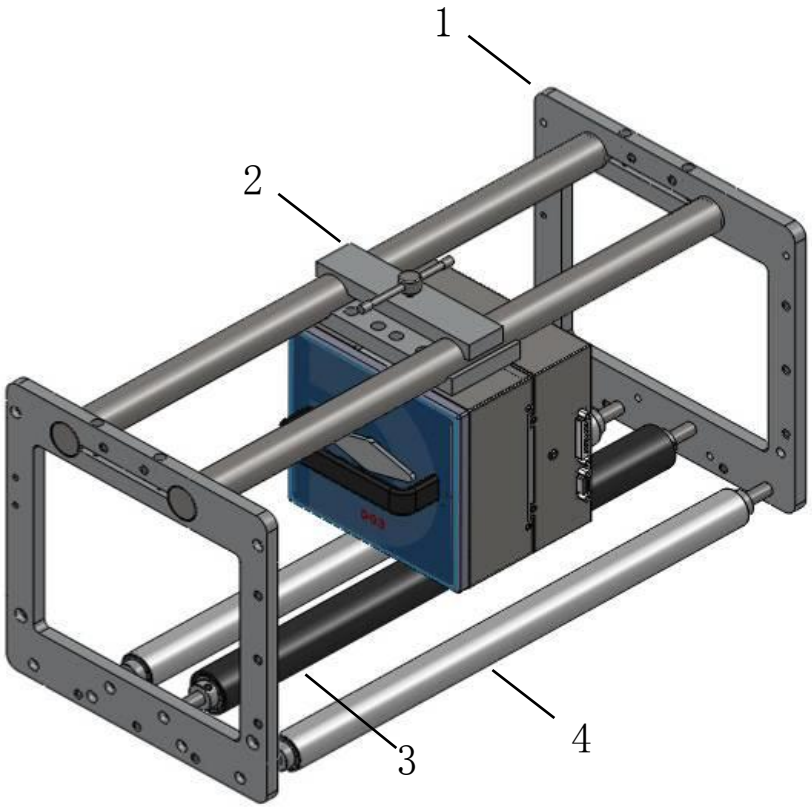
3.3 STANDARD BRACKETS

INTERMITTENT



1. Square-Shape Side Plate Assembly
2. Fixed Slider Block Assembly
3. Rubber Anvil Assembly
4. Transition Roller Assembly

CONTINUOUS



1. Square-Shape Side Plate Assembly
2. Fixed Slider Block Assembly
3. Rubber Roller Assembly
4. Transition Roller Assembly

Note：

Standard bracket lengths are 350mm, 450mm, 500mm, 542mm, 600mm and 770mm.

If standard bracket is not suitable for your packaging machine, do contact DIKAI for technical supports.

3.4 INSTALLATION OF THE MOUNTING BRACKET

- ✧ Make sure enough room for the mounting bracket installation and easy operation;
- ✧ Make sure the bracket is well fixed and the printer roller and the packaging machine roller are parallel;
- ✧ Mount the Printer Unit after the bracket is well installed, make sure Print head is paralleled to the rubber roller or rubber anvil;
- ✧ Make sure the gap between Print head and substrate is within 1.5~2.5mm;
- ✧ Make sure all the screws used for installation not influence the packing machine running.

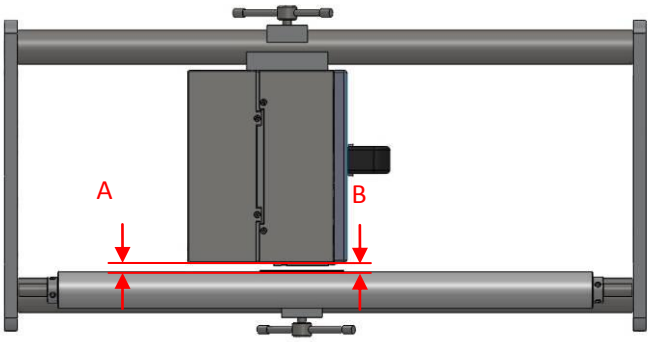
In fixing the printer, the key point is to adjust the gap between the printhead (original position) and the substrate

Note: Use wood, plastics or other non-conductive material instead of metal to measure the gap. Adjust the gap into proper by adding or removing cushion. The gap is the key to the performance of the machine.

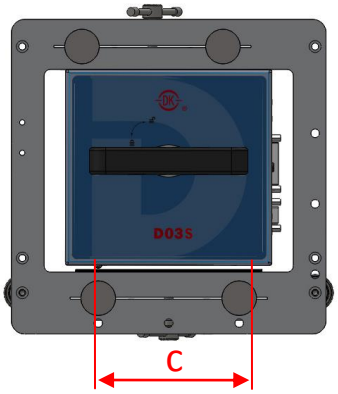
Here're some disciplines to follow:

1. Make sure the gap is between 1.5-2.5mm;
2. The print head is parallel to the substrate;
3. The substrate is more than 65mm width.

Intermittent：



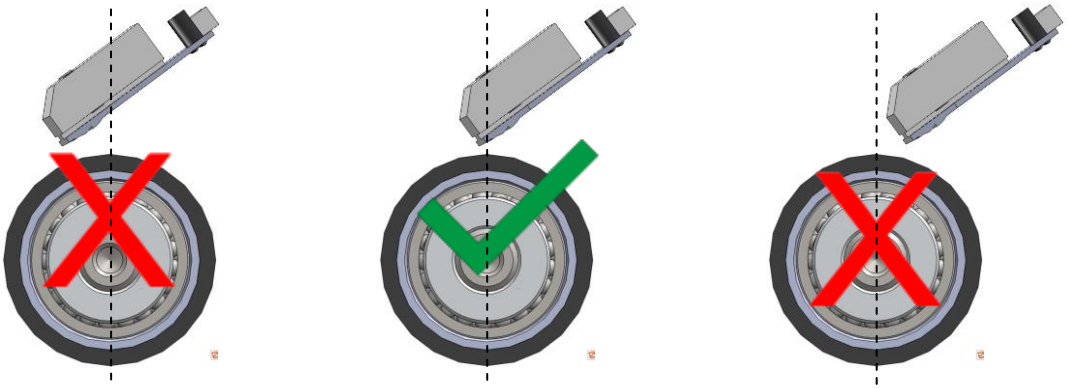
A=B=1.5-2.5mm



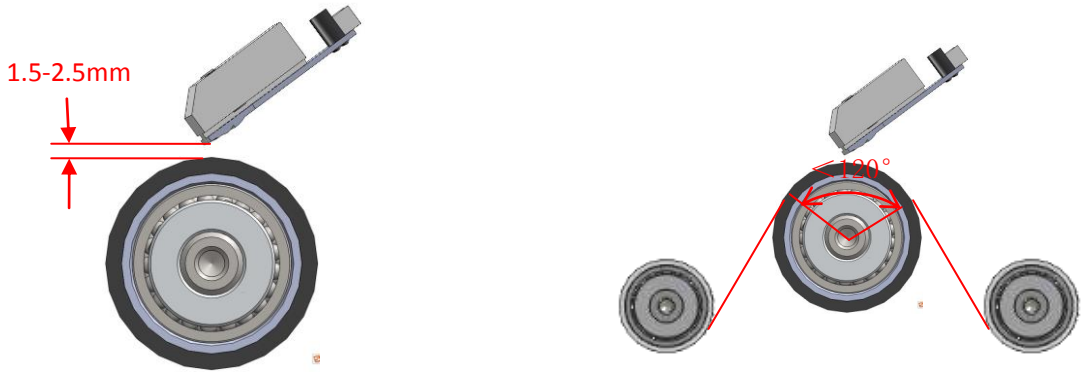
C≥65mm

Peel Roller (Print head) is paralleled to the Rubber Anvil.

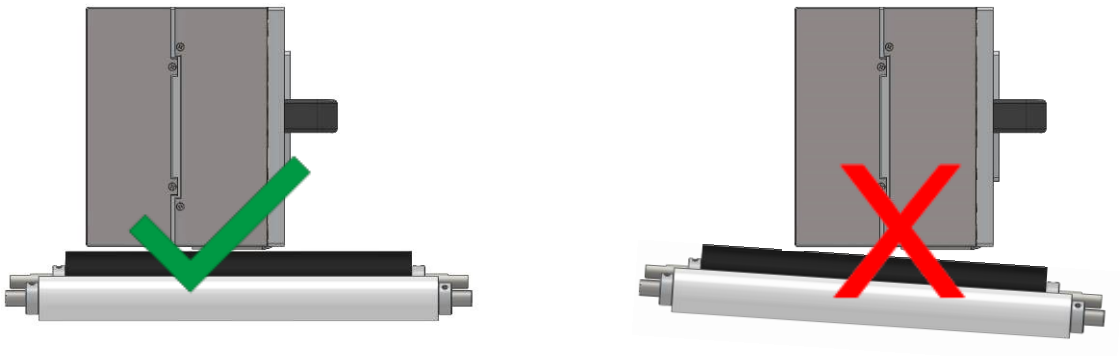
Continuous:



Make sure the Print head is pointing to the center of the Rubber Roller. It can be set by parameter “Vertical” from the Controller.



The gap between Print head and Rubber Roller should be within 1.5~2.5mm, and the wrapping angle is no more than 120°.



Print head is paralleled to the Rubber Roller.

3.5 INSTALLING THE CONTROLLER

Diagraph 1 The bottom of Controller

The control box is used for setting up the printer, it can access the maintenance and diagnostic function.

1. Mount the controller box away from potential sources of water spray or cleaning solutions.
2. Mount the controller box in the location convenient for operation and taking cables, no more than 3m from the printer unit.
3. Keep cables be in orderliness.

Take 4pcs rubber cushion off, fix the controller box by M6*16 screws, refer to Diagram 3.

CAUTION: Take care when mounting the Controller.Do not use screws which reach more than 10 mm into the Controller housing and electrical components.

3.6 CONTROLLER CONNECTION POINTS

The connection points for the Controller Box are shown below:

1. USB Connector

   Read and download print texts from the pre-loaded USB memory stick.

2. Drive Cable Connector

   A D-Type 44-pin connector, connect the drive cable. Please make sure the connection is good to avoid any damage.

3. Power Connector

   Can be connected to packing machine for power supply.

IMPORTANT: Never connect or disconnect the cables to the D03S control box with the power on. Failure to do this may result in personal injury or machine damage.

4. Communication Connector

To connect with communication systems to get requested print information.

2. External I/O Connector

I/O connector is a D-type 9-pin connector to get external signal and output “WARNING”, “Error” signal.

3. SD Card Connector

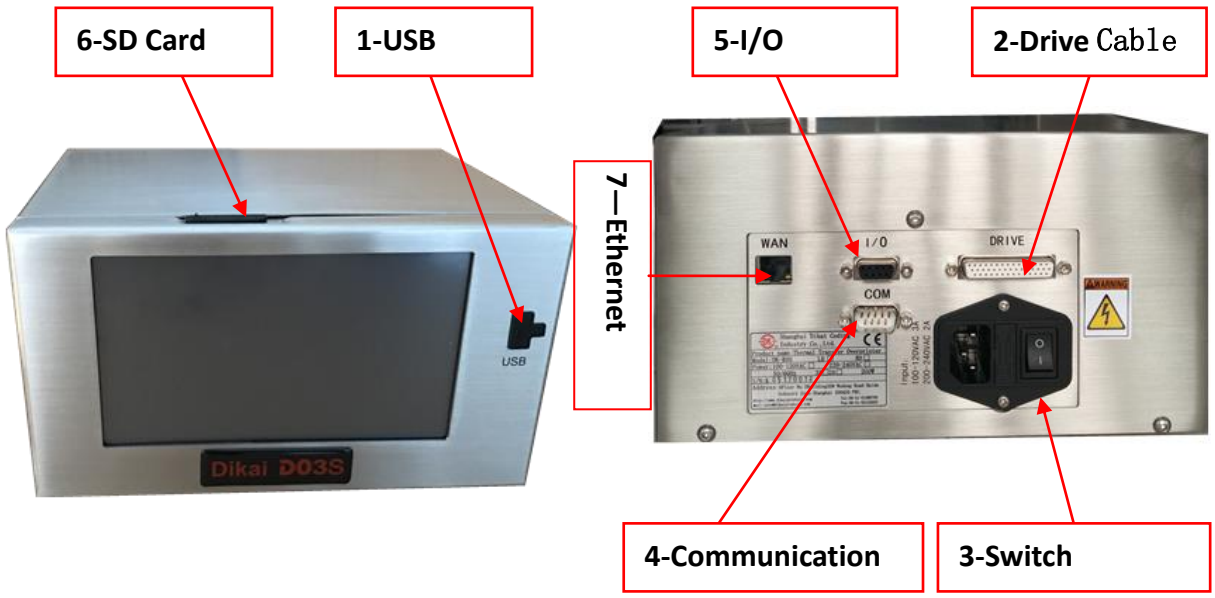
Update interface.

4. Ethernet Connector

Connect with Ethernet.

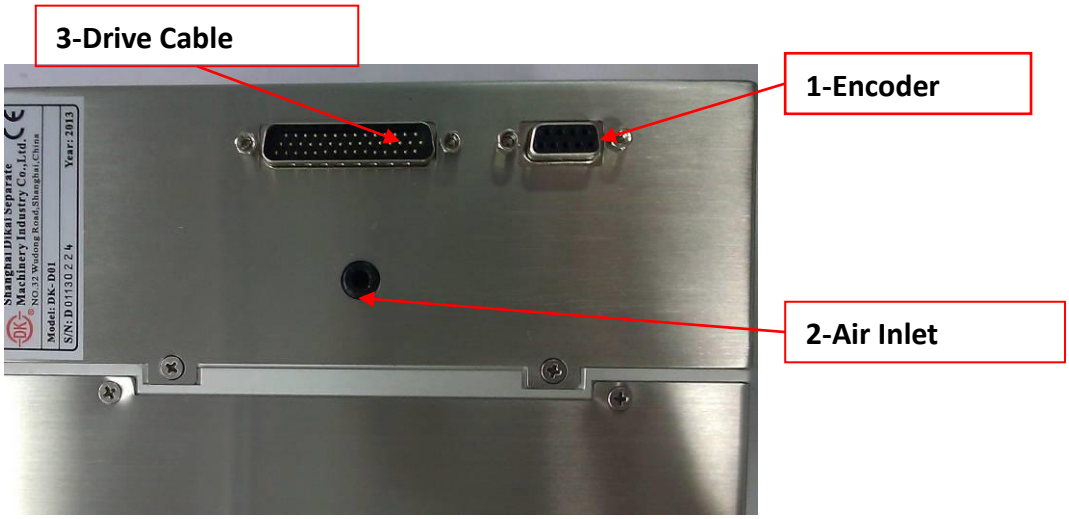
I/O Connector Instruction:

PIN	Description	Color
1	NC	Brown
2	SIG+ print signal +	Black
3	SIG- print signal-	Blue
4	ERR1+ Alarm Output 1 COM 1	Purple
5	ERR2+ Alarm Output 2 COM 1	Green
6	NC	Red
7	ERR1+ Alarm Output 1 NO 2	Orange
8	ERR2+ Alarm Output 2 NO 2	Yellow
9	NC	Grey



Diagraph 2 Connectors on Controller

3.7 PRINTER CONNECTORS



Diagraph 5 Connectors on Printer

Connectors on Printer

1. Encoder Connector

For continuous printers, an encoder is required to monitor the speed of the packaging film.

D03S requires the encoder to provide:

- ✧ Operating at 24V DC.
- ✧ 500 pulses per rev.

✧ Out dia. 53.05mm tracking wheel

Standard DK Encoder is a DB9 connector, can be insert to printer.

Diagraph 3 Encoder

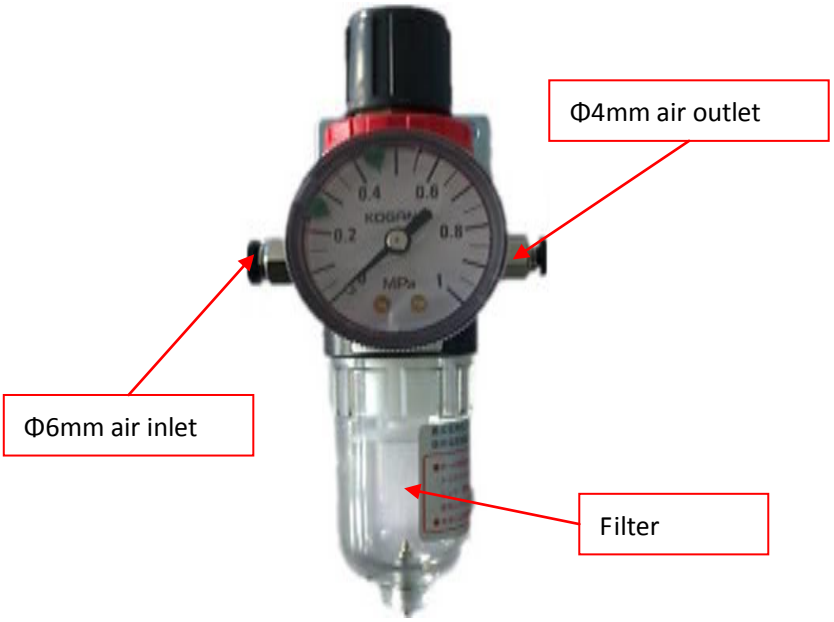
2. Air Inlet:

D03 requires the compressed air 0.25Mpa~0.45Mpa

Set the air pressure by the followings:

1. Mount the air pressure regulator: the IN connects 6mm air tube and the OUT connects 4mm air tube to join with the Air Inlet of printer.
2. The value on regulator should be between 0.25-0.45Mpa;
3. If not, pull out the knob, rotate clockwise to increase the pressure, or count-clockwise to decrease the pressure into proper (green area).

4. Press the Knob to lock the pressure regulator.



Diagraph 4 Air Pressure Regulator

3. Drive Cable Connector

A D-Type 44-pin connector, connect with the drive cable.

At no point should the unit be powered until these are securely attached to each unit.

3.8 PRINT SIGNAL

Print signals are provided by packing machine or extra sensor. When connect with packing machine, an extra relay is needed to avoid short circuit between packing machine & D03S.D03S prints once when the relay finish a closing course. If print signal is provided by extra sensor, D03S prints once when it changes from low to high voltage.

Please refer to 3.9 I/O Cable Connection for detailed wire connection.

Note: Defaulted print signal is PLC, for other print signal, switches should be changed according to below instruction.

3.9 I/O CABLE CONNECTION

1. Connect Print Signal

Currently only accept PLC signal, below is detailed wire connection:

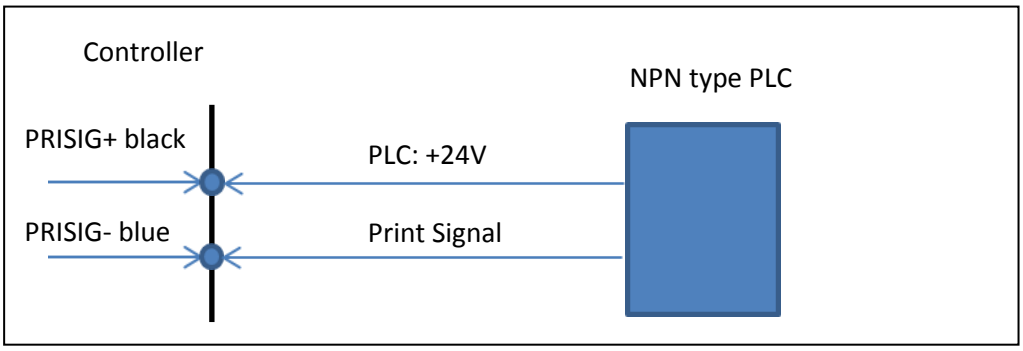
Remark:

PRISIG+： Print Signal +, Pin 2 in I/O cable, color black;

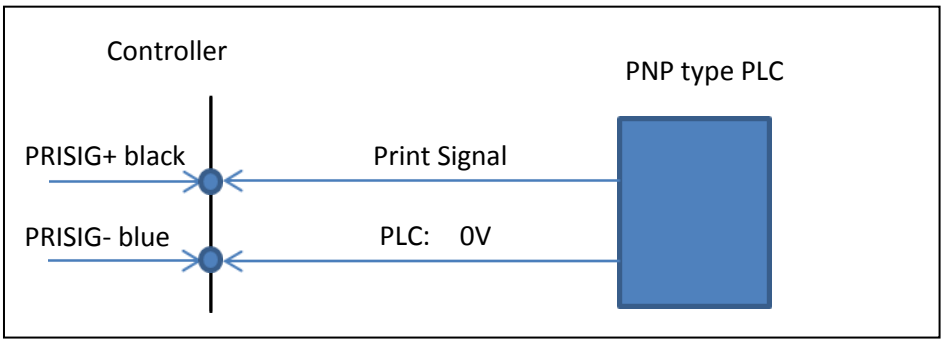
PRISIG-： Print Signal -, Pin 3 in I/O cable, color blue;

PRISIG+, PRISIG- are passive, after connected, max current consumption is 20 mA.

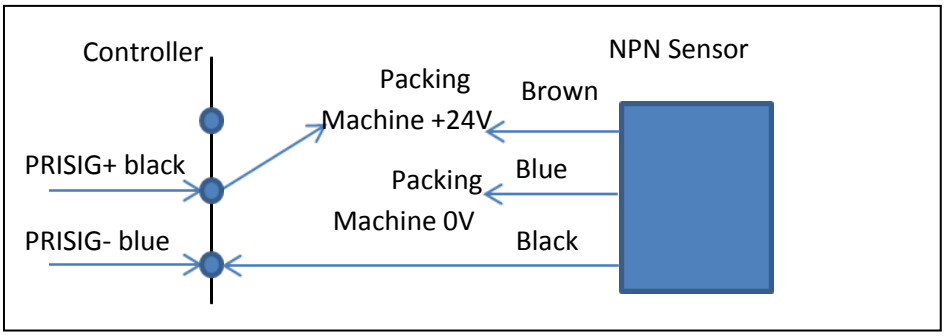
1) NPN type PLC wire connection:



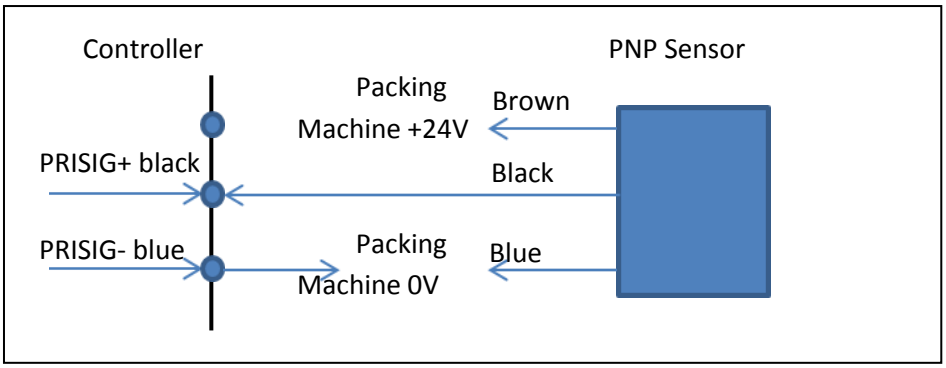
2) PNP type PLC wire connection:



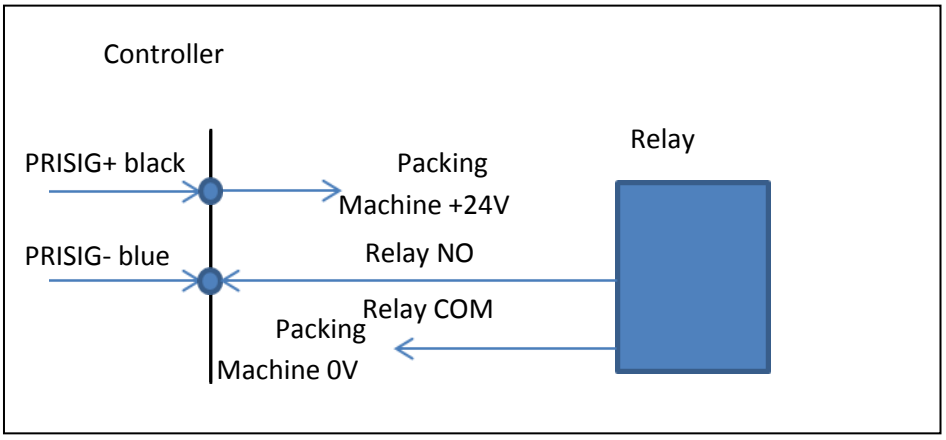
3) NPN type Sensor Wire Connection:

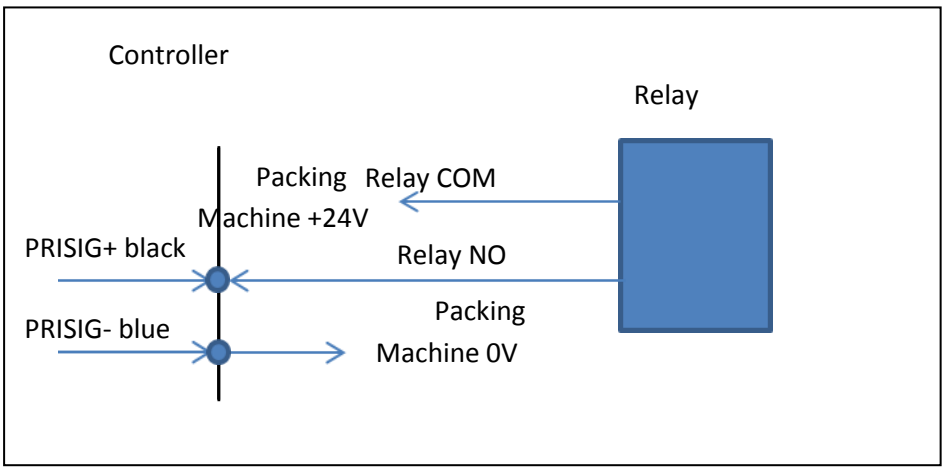


4) PNP type Sensor Wire Connection:



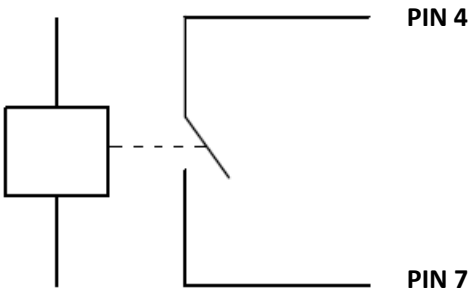
5) Relay Wire Connection:



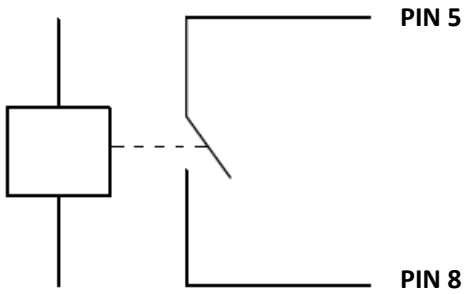


2. Alarm Output

I/O cable is a 9-pin cable, 4 & 7, 5 & 8 are normal open failure contact wires.



Alarm Output 1

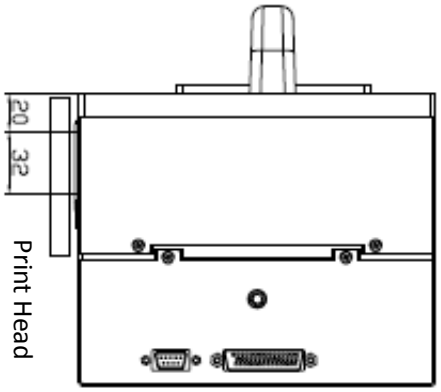


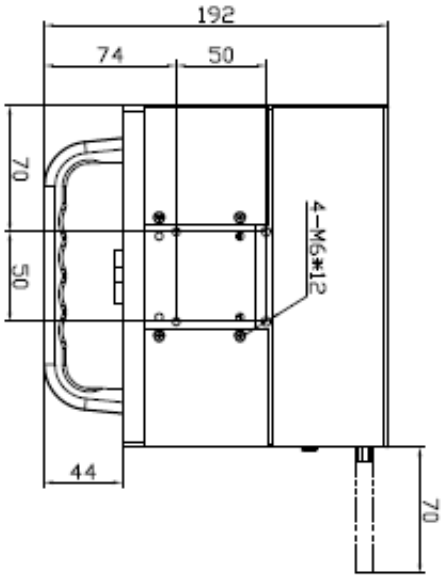
Alarm Output 2

Warning: Max rated current of alarm output relay is AC125V 0.5A、DC24V 1A. When higher voltage & current needed, an extra proximity sensor or contactor is a must. All wire connectors should be insulated protected during installation to avoid any breakdown.

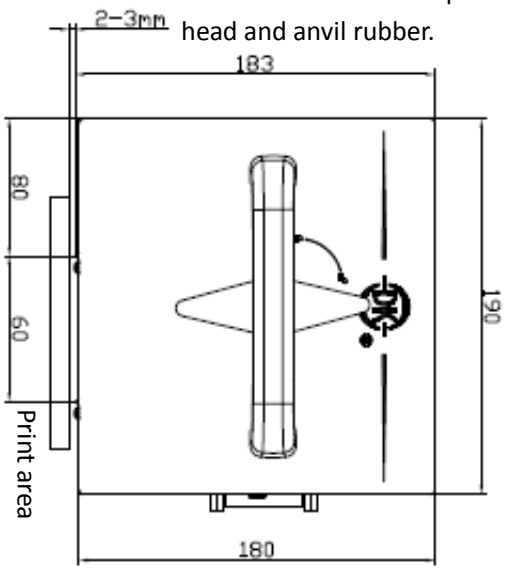
3.10 INSTALLATION DIMENSION

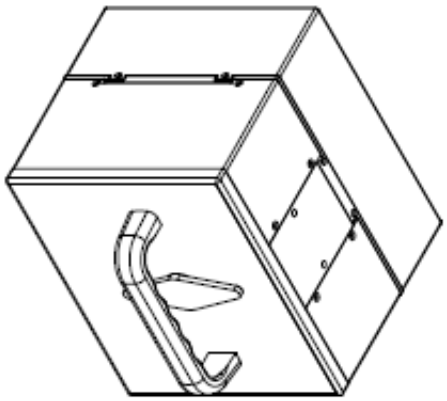
3.10.1 LEFT HAND

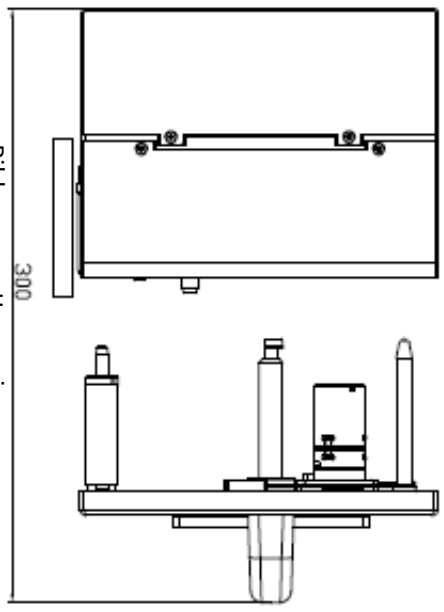




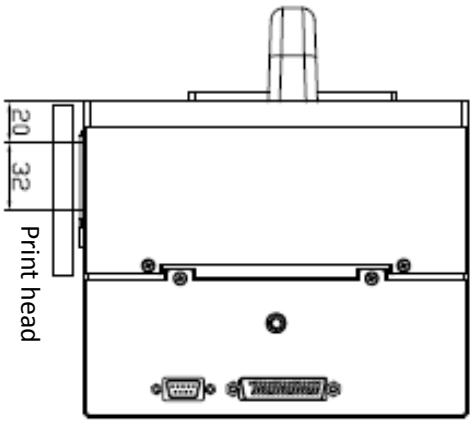
Best distance between print head and anvil rubber.

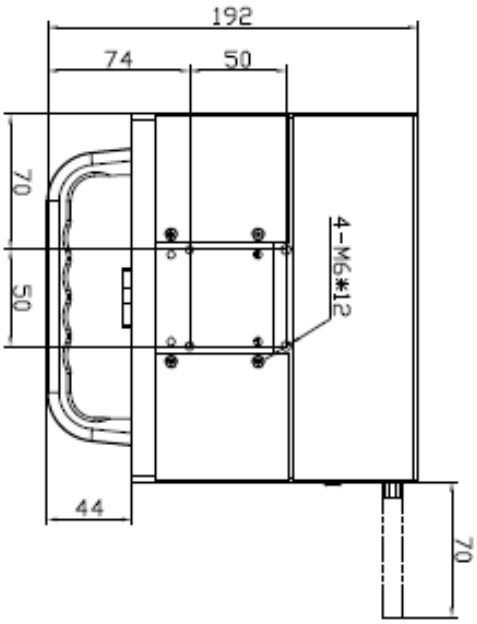




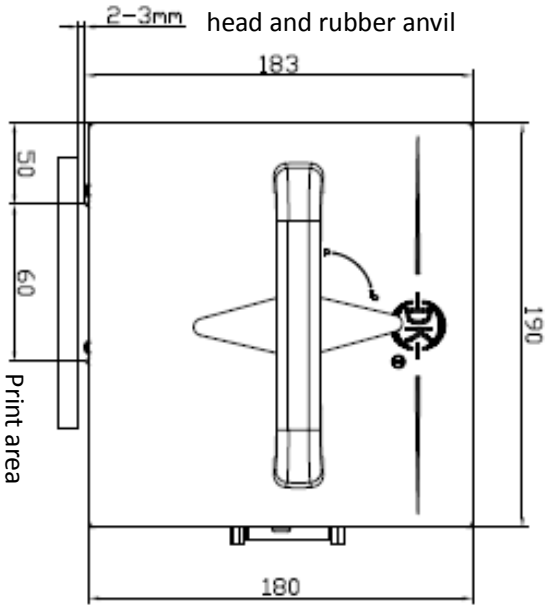


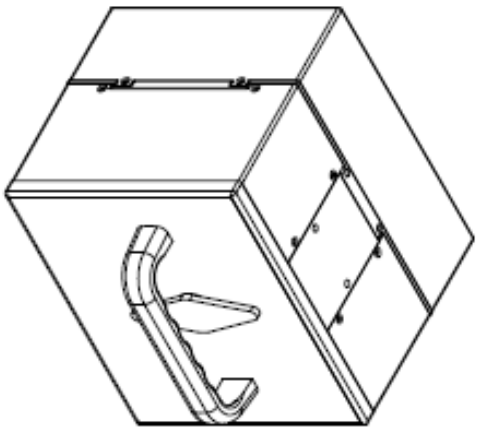
3.10.2 RIGHT HAND

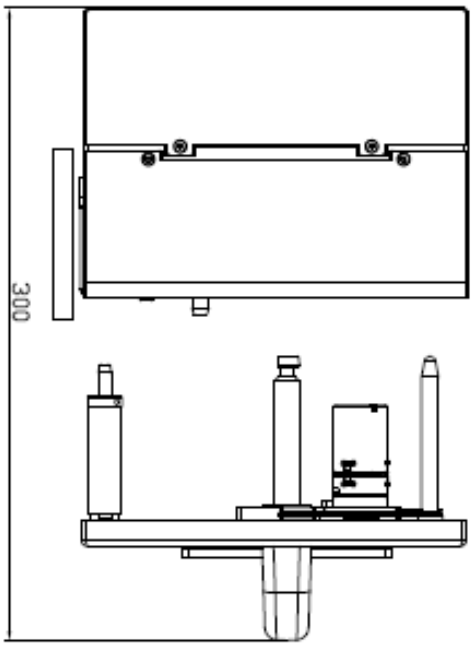




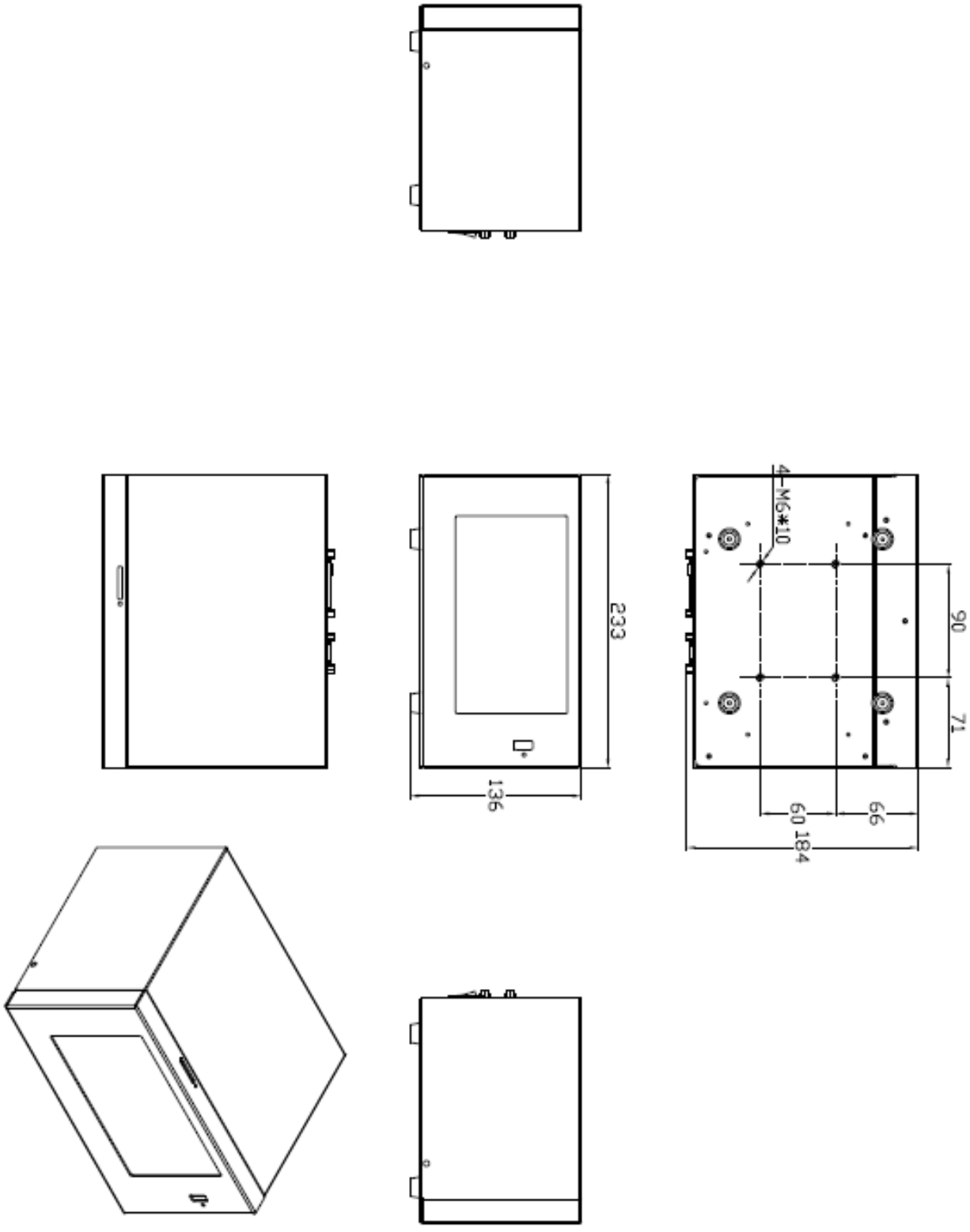
Best distance between print head and rubber anvil







3.10.3 CONTROLLER DIMENSION

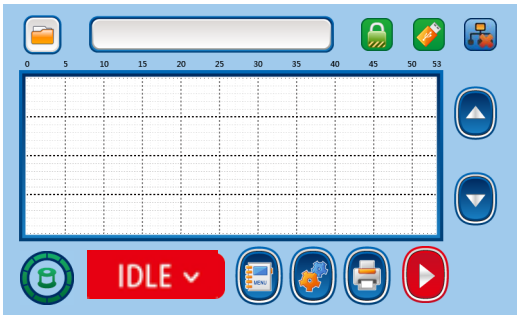


4. OPERATION

4.1 START THE PRINTER

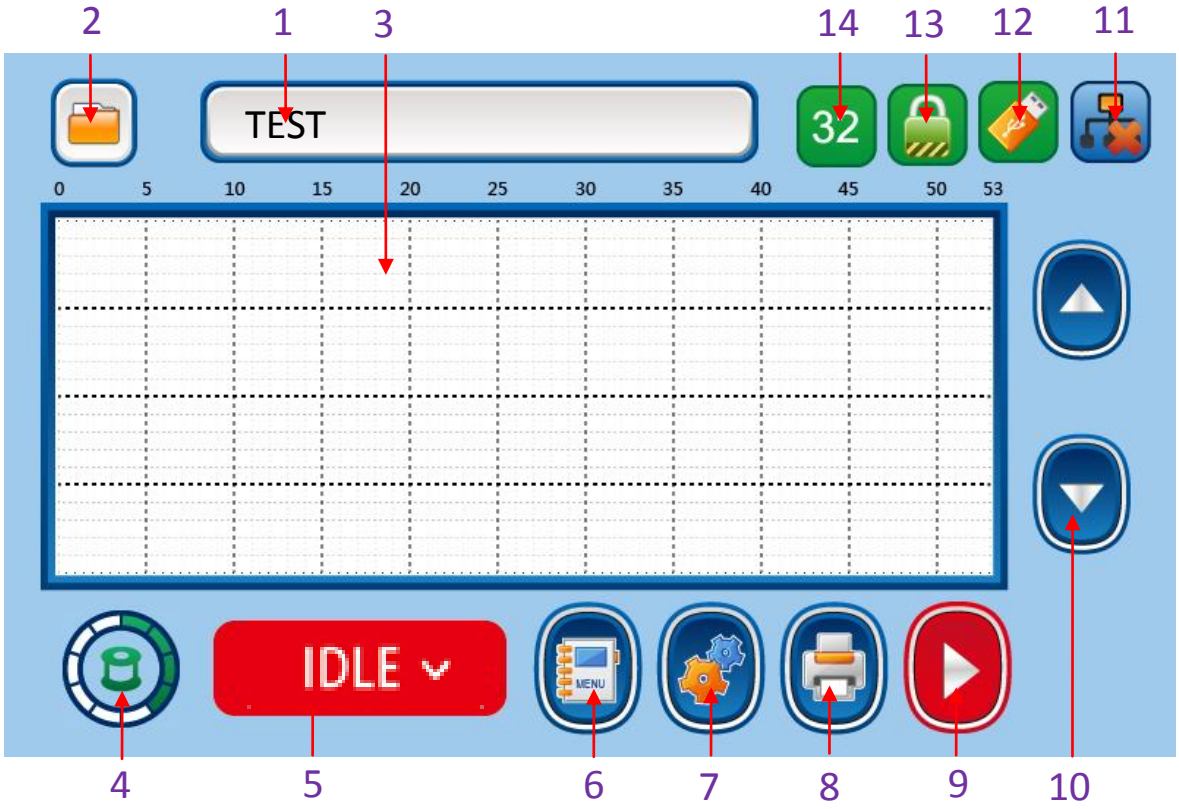
1. Make sure all the air pipe, drive cable, power cable, I/O cables are well connected, switch O to I to turn the machine on;

2. Power on the printer, enter into the above screen after a boot animation. Touch  to enter Software Update. Touch  to enter home screen. If no touch, 5seconds later it will automatically enter into home screen.



3. The printer starts initialization after entering home screen, then comes into "IDLE" mode (ready to print) after seconds of self-test.

4.2 HOME PAGE

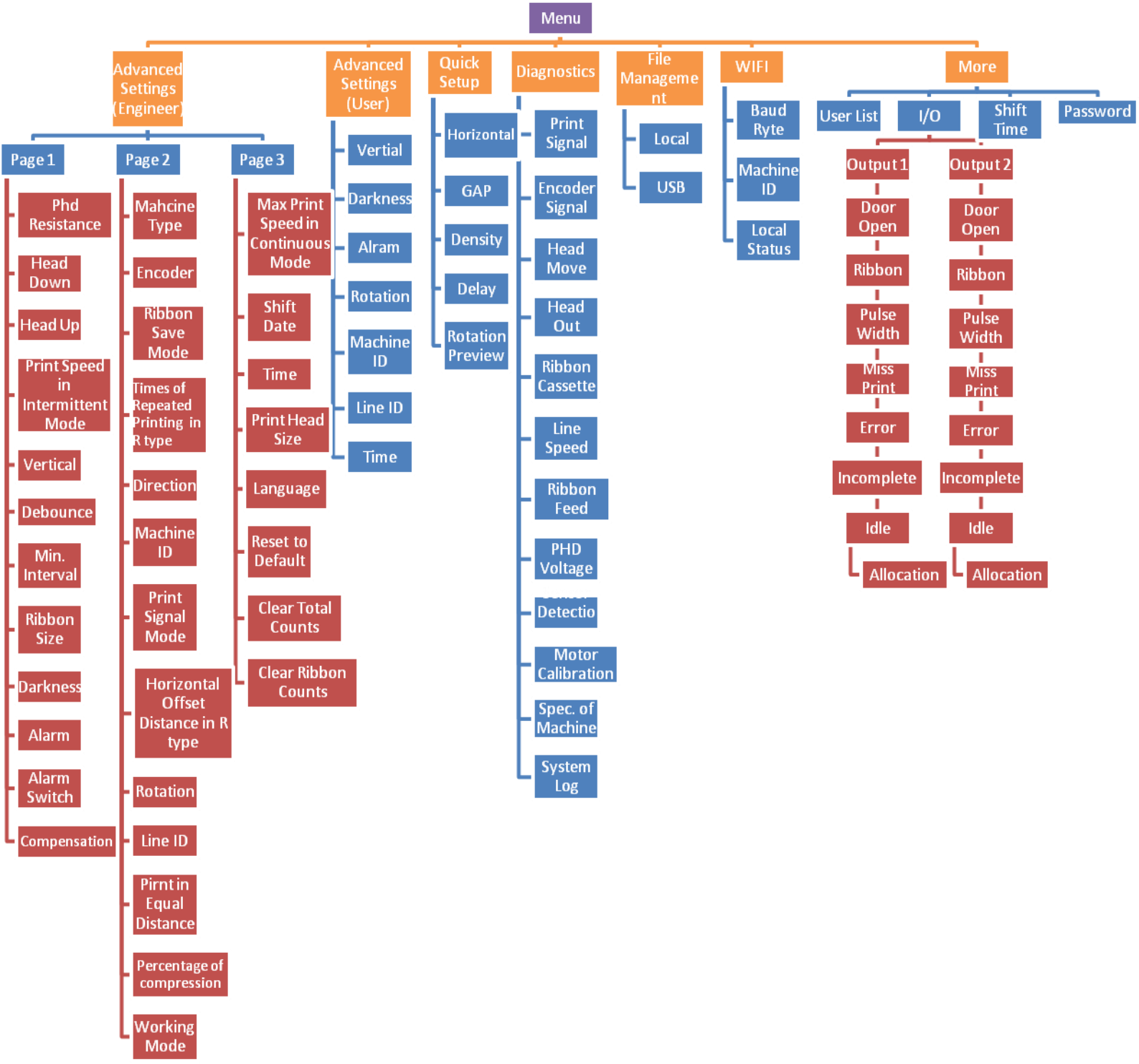


Item	Description	Icon and Description	
1	The Current Print Job		
2	Files Management		This option allows you to manage the various Database files.
3	Print Preview		Preview the current print job
4	The Percentage of Ribbon Remaining		100%
			Less than 70%
			Less than 30%
			Less than 3%
			0%, change a new ribbon

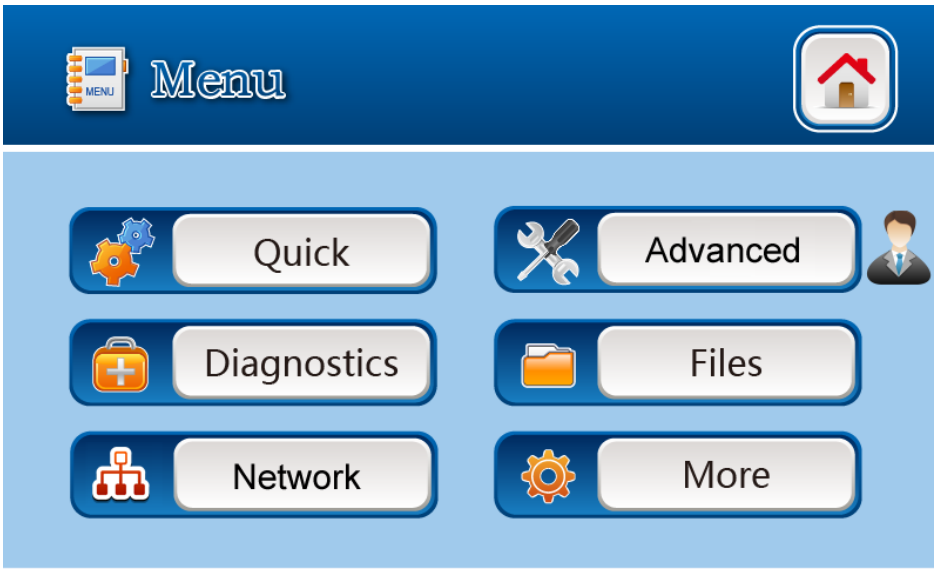
5	System Status		Ready
			Cassette Open
			Initialization
			Running
			Hardware Fault
			SD card loading problem
			Warning
			File Error
			System Time Abnormal
6	Menu		This option allows you to access the menu options
7	Quick Settings		This option allows access to the printer settings menus
8	Print Test		This option allows you to make a print test
9	On/ Off		Stop printing
			Start printing
10	Page Down/ Up		This button allows you to roll down to the next page
			This button allows you to roll up to the previous page
11	Network Connection		Online
			Offline
12	USB Connection		Connect
			Disconnect
13	Cassette Status		Cassette closed
			Cassette open
14	Print Head		32mm print head
			53mm print head

4.3 SCREEN ICONS

4.3.1 MENU STRUCTURE



4.3.2 MENU



4.3.3 QUICK SETUP

Name	Description	Option
Horizontal	Adjust the print in mm in the direction parallel to the print head	Unit 0.1mm
Gap	Ribbon gap between two prints	Unit 0.1mm
Density	Adjust the amount of energy being transferred into the print head	50-150 , default is 100
Delay	Delay to print after getting the print signal	Intermittent: Unit 1ms
		Continuous: Unit 1mm
180°	Preview of printing jobs at 180° rotation, only for preview, won't change the actual printing result	On
		Off

4.3.4 ADVANCED SETTINGS

Remark: Press  enter with password （8888）.

4.3.5 ADVANCED SETTINGS (USER PAGE)

Remark: Click "ADVANCED SETTINGS" to enter with password 1111.

Name	Description	Option
PHD Resistance	Set PHD resistance	As per data on PHD
Head Down Time	Time of print head going down. Please adjust this value when prints show blurring or bur in the beginning of printing.	Unit: ms
Head Up Time	Time of print head going up. Please adjust this value when prints show blurring or scratch in the end of printing.	Unit：ms
Print Speed in Intermittent Mode	Print head movement & heating speed in intermittent mode	Unit:m/min Range：6-20
Vertical	Int: adjust print content in vertical direction; Con: adjust print head position to make it in the central of rubber roller.	Unit：0.1mm
Debounce	Shield the signals with a voltage less than the default value	Unit：ms
Min Interval	INT: Shield all signal in minimum interval time;	Unit：ms
	CON: Shield all signal in minimum interval distance;	Unit：mm
Ribbon Type	width & type of ribbon using	15-25mm/30-40mm & 55-60mm for choice
Darkness	preheat print head	Range: 0-50

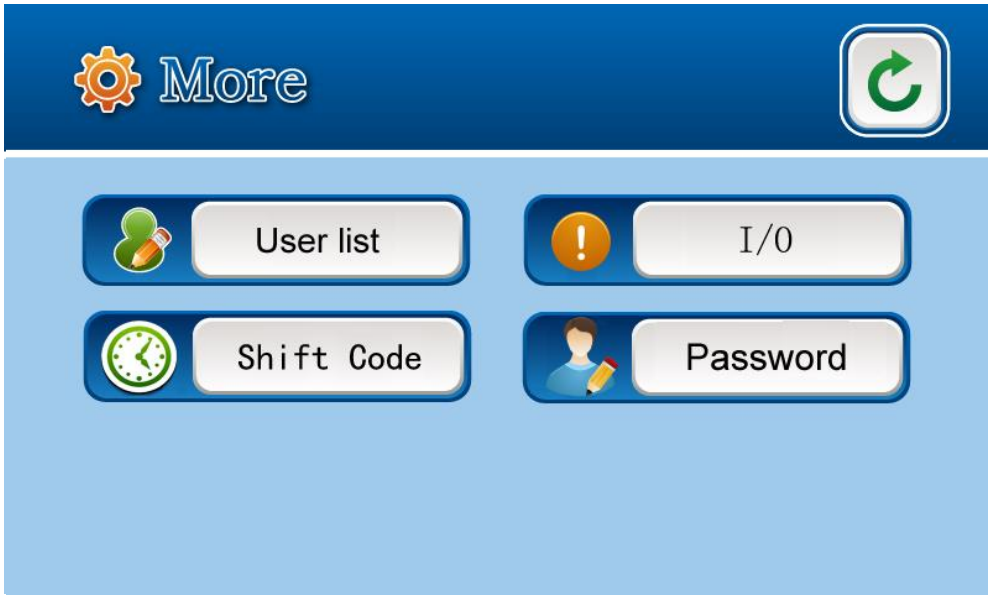
Alarm	Alarm output	NO/ NC
Alarm Switch	Switch of alarm output	ON/ OFF
Additional Print	Finish the print that is incomplete	ON/ OFF
Machine Type	Choose print mode	Intermittent/ Continuous
Optimization	Choose as priority. "Gap": ensure print gap on TTR; "Position": ensure print position on packing film, work together with "Compensate Position".	GAP & PRINT POSITION
Ribbon save mode	Applying ribbon save mode. "Normal"-No save; "R Type"-print narrow contents on wide ribbon, ribbon can be used for several times (work together with "Times of repeated printing in R type" & "R type transverse offset distance"; "Compress"- achieved by "Percentage of Compression" to get normal prints on packing film; "Precise"-make prints on packing film more clear.	NORMAL/ R-TYPE/ COMPRESS/ PRECISE
Times of repeated printing in R type	Vertical position keeps same while changing horizontal print position (works only in R-type ribbon save mode)	Range: 1-10 times
Working Mode	Choose "Automatic Material Handling" mode when packing machine on/ off frequently.	Normal/ Automatic Material Handling
Direction	Print direction. "Left Hand"- Face the printer, print head in the bottom, print cable is on the left side of print head; "Right Hand"- Opposite.	Left Hand/ Right Hand
Machine ID	Set Machine ID	Can be 2 numbers or alphabet letters
Rotation	Rotate print contents or mirror	0°
		90°
		180°
		270°
		Mirror
		90°M
		180°M
		270°M

Model of printing signal	Deal with the received signals. “Normal”-Print once when get a signal; “Equal Distance” – Automatically generate print signal by setting in “Print at equal distance”	Normal/ Equal Distance
R-type transverse offset distance	Horizontal distance between 2 R type prints	Unit：0.1mm Range:0-200
Compensate Position	Printer automatically adjust print position according to the print speed (should be in “Continuous” mode, set “Print Position” in “Optimization”), positive number means print position move on running direction, negative number means the opposite.	Unit：1/30mm Range:-20~20
Line ID	Modify Line ID in the print file	Can be 2 numbers or alphabet letters
Print at equal distance	In continuous mode, output print signal at equal distance	Unit： mm Range：30-999
Percentage of Compression	In “Compress” mode, percentage of compression	Percentage Range：50-120%
Minimum print speed in continuous mode	Minimum print speed in continuous mode	Unit：m/min Range：0-5
Language	Language on touch screen	English/ Chinese, etc
Shift Date	Set date and change time	Eg. 0240: time changes after 2h40’
Type of Print Head	Width of print head	32mm/ 53mm
Time	Set date and system time	Year/ month/ date/ hour/ minute/ second

4.3.6 FILE MANAGEMENT

Item	Description	Icon and Illustration	
1	Local	Local	Local Files
2	USB	USB	USB Files
3	Back		Back to previous page

4.3.7 MORE

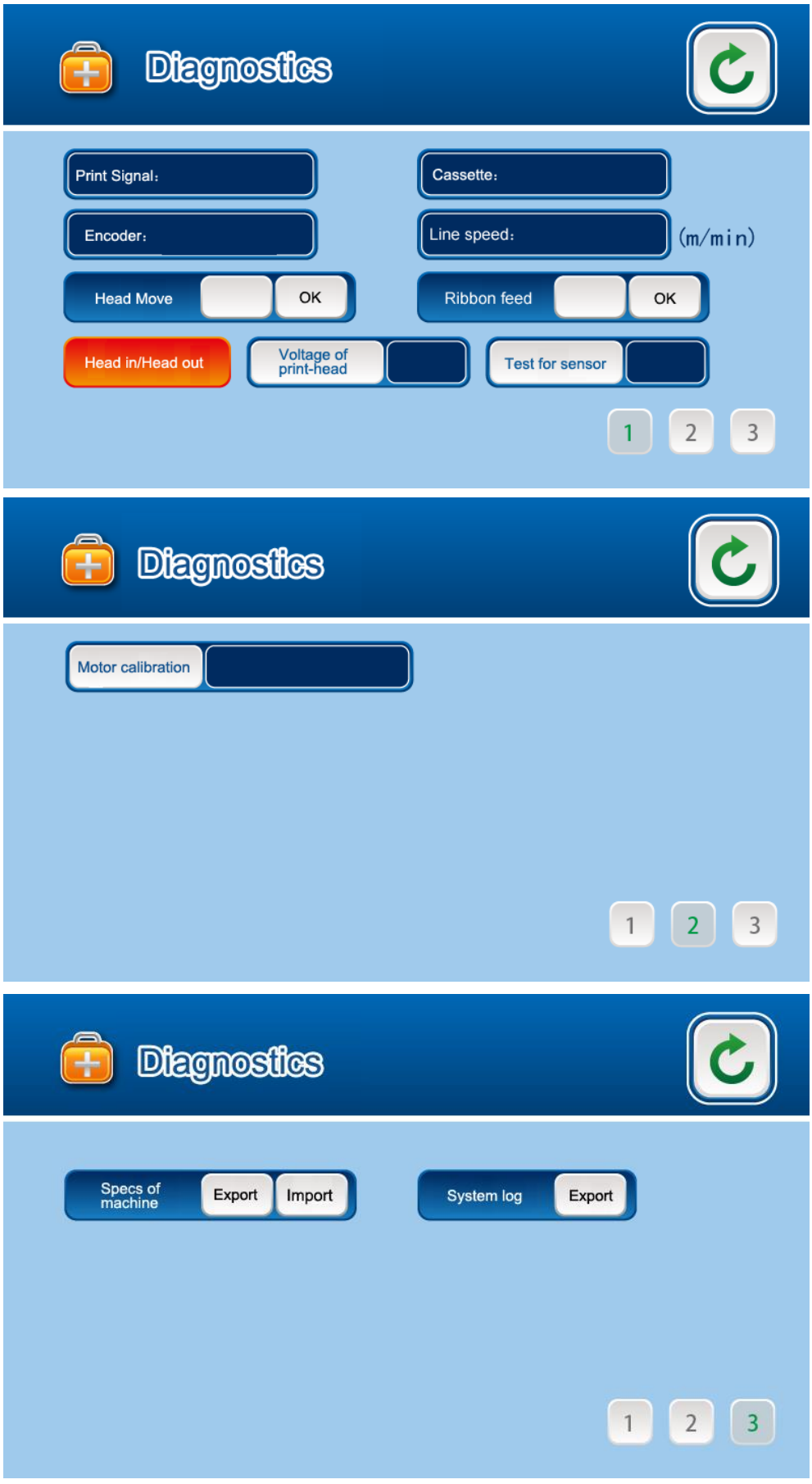


Item	Description	Option
User List	Print Shifts or groups	Add “User List” in print contents
I/O	Set alarm output	ON/ OFF
Shift Code	Import “Shift code” that you edited in Promark, you can print requested information in requested time period.	Can be at most 3 characters, can save 1500 records
Password	To change password	In 4 numbers

4.3.8 I/O

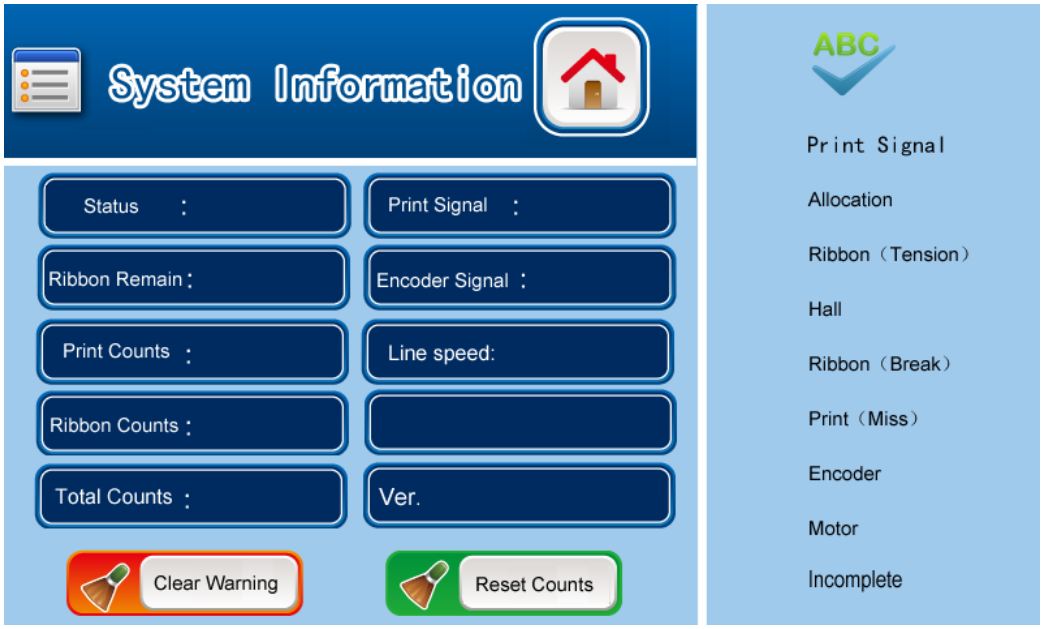
Name	Description	Option
Door Open	Alarm when door open	ON/ OFF
IDLE	Alarm in idle status	ON/ OFF
Error	Alarm in error status	ON/ OFF
Miss	Alarm when miss print, output 200ms pulse signal.	ON/ OFF
Ribbon	Alarm when ribbon is nearly used up	ON/ OFF
Pulse Width	Pulse width of output signal	Unit：ms
Incomplete	Alarm when the print is incomplete	ON/ OFF

4.3.9 DIAGNOSTICS



Name	Description	Option
Print Signal	Check print signal input	YES/ NO
Encoder	Check encoder input	YES/ NO
Head move	Make print head move vertically, works in continuous mode only; this function only provides preview, won't change the vertical data, if you want to adjust Vertical parameter, enter "Advanced Settings".	Valid data : 0-600 , click "OK" to finish (in Continuous mode only).
Head Out	Check the function of air cylinder and solenoid valve, air supply is needed.	Click "ok", head out; Click "ok" again, head in.
Print Head Voltage	Check supplied voltage for print head(unavailable yet)	Unit: V
Ribbon Cassette	Check if ribbon cassette is well locked	CLOSE/ OPEN
Line Speed	Print speed in continuous mode	Actual print speed
Ribbon Feed	Rewind ribbon length after finish initializing(unavailable yet)	Unit: mm
Test For Sensor	Check sensor connection(unavailable yet)	YES / NO
Motor Calibration	Motor should be calibrated when ribbon tension is abnormal, changing PCB, motor, connection board and drive cable, refer to 4.6.19 for details.	Show motor calibration data
Specs of machine	Copy machine setup data to USB	IMPORT/ EXPORT
System Log	System log of printer	EXPORT

4.3.10 SYSTEM INFORMATION

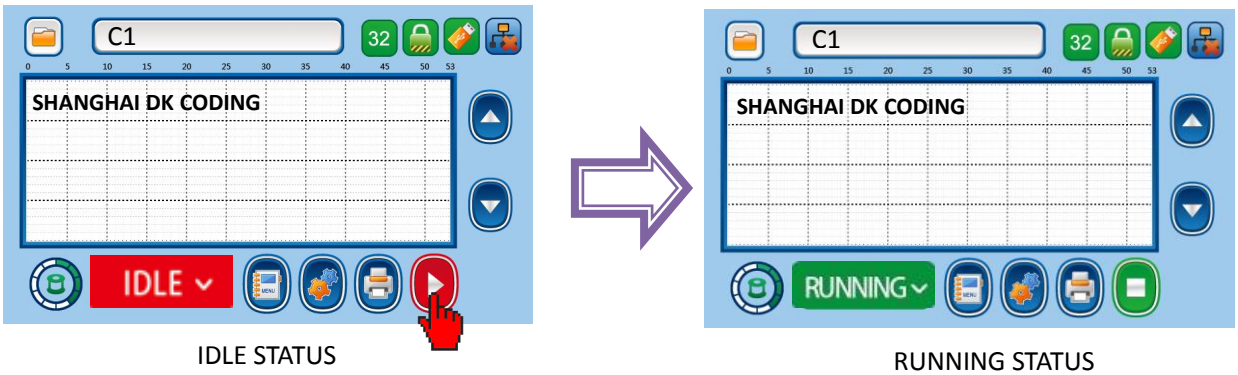


Name	Description	Option
Status	Machine status	NORMAL/ ABNORMAL
Print Signal	Print signal input	YES/ NO
Ribbon Cassette	Ribbon cassette well locked or not	CLOSE/ OPEN
Encoder Signal	Encoder signal input	YES/ NO
Print Head Temperature	Current print head temperature	Unit:℃
Line Speed	Running speed of packing film	As shown: m/min
Ver.	Software version	CURRENT VERSION
Ribbon Remain	Percentage of remaining ribbon	Percentage or remain ribbon and total length
Total Counts	Total print times of the printer	
Print Counts	Print times of one text	
Clear Warning	Clear warning after checking	
Reset Counts	Reset print counts to 0	
Communication	In communication system, miss prints	NORMAL/ ABNORMAL
Ribbon (Tension)	Check ribbon tension	NORMAL/ ABNORMAL
Print Head Hall	Check print head hall signal	NORMAL/ ABNORMAL

Ribbon (break)	Check ribbon status	NORMAL/ ABNORMAL
Print (Miss)	Print signal exists but miss prints	NORMAL/ ABNORMAL
Encoder	Check encoder signal	NORMAL/ ABNORMAL
Motor	Motor status	NORMAL/ ABNORMAL
Incomplete	Incomplete prints	NORMAL/ ABNORMAL

4.4 START/ STOP THE PRINTER

4.4.1 START THE PRINTER

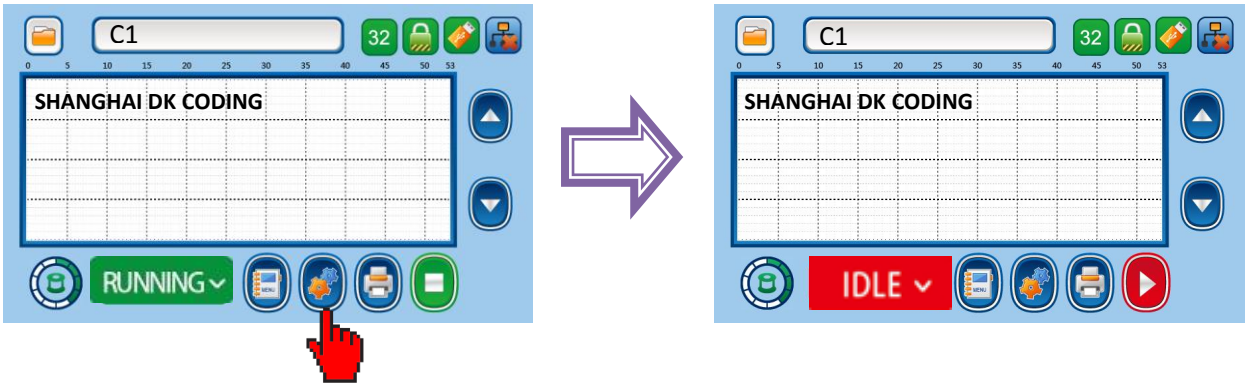


IDLE STATUS

RUNNING STATUS

1. After initialization, the printer stops in IDLE status (IDLE), choose the print job (refer to 4.5). ;
2. Click , change to "RUNNING";
3. Printer change from IDLE to RUNNING , printer starts working.

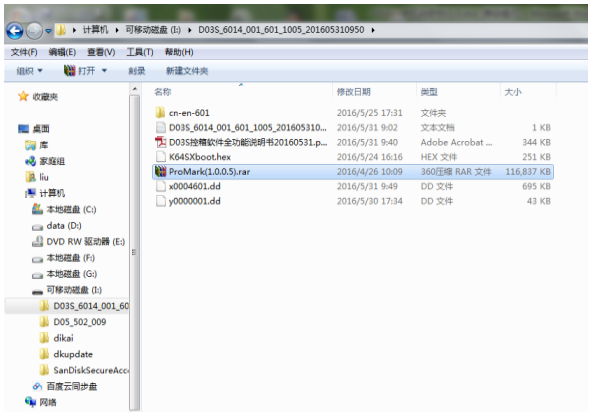
4.4.2 STOP THE PRINTER



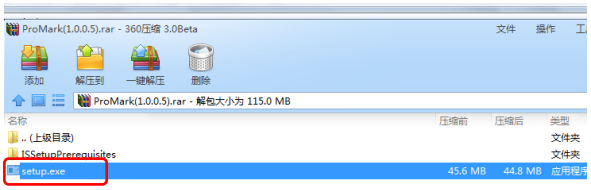
1. Click , printer stops and show ;
2. When machine changes from RUNNING to IDLE , machine stops.

4.5 FILE MANAGEMENT

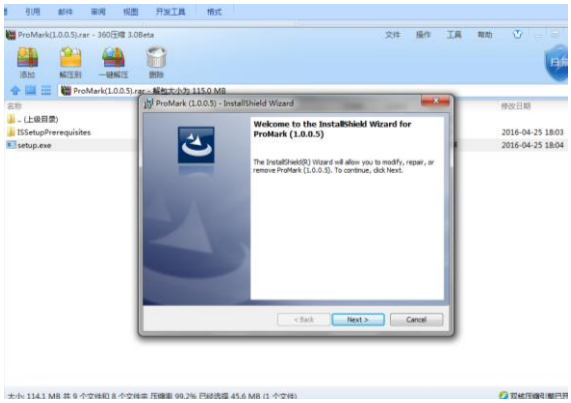
4.5.1 EDIT PRINT FILE



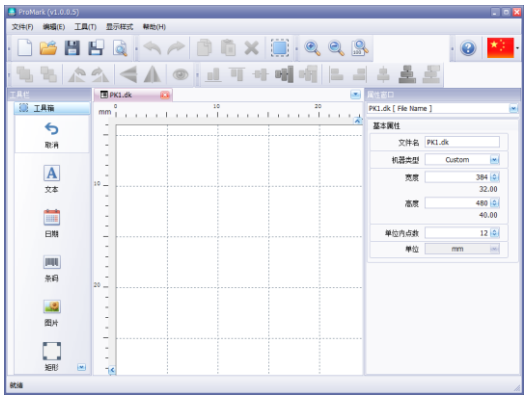
1. Open the USB and find “ProMarkPro” folder, copy it into computer;



2. Open “ProMark Pro”, double click “Setup” to install the software;



3. Go back to home page after installation;



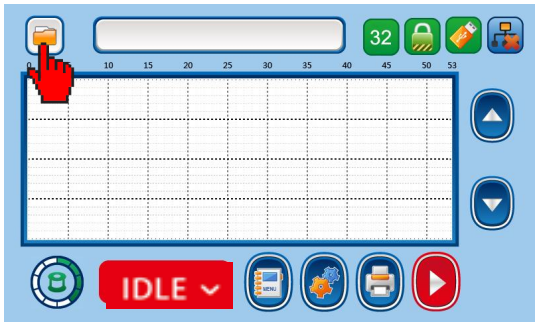
4. Double click  on homepage, enter to edit print file.

5 Save the print job by clicking  button (file name can’t exceed 8 characters), there will be 4 files named with .bmp, .dk, .ft and .xml.

6 Build a folder named ‘dikai’ on the Sandisk USB provided by DIKAI, copy all 4 files to the ‘dikai’ folder. The print job saved in other folder cannot be read by the printer.

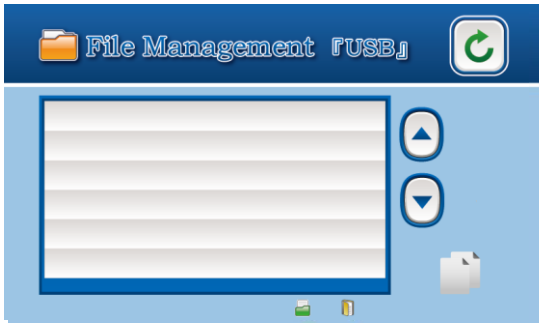
7 Connect the USB with the printer, and import the print job to LOCAL FILE.

4.5.2 IMPORT PRINT FILE

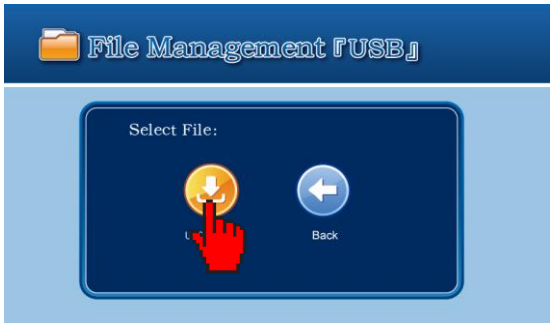


1. In IDLE status, click 

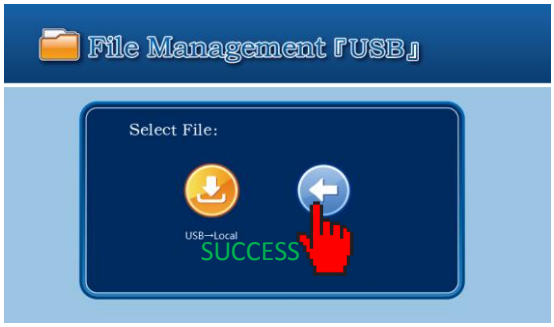
2. Click USB to import files into Local;



3. File list appears in File Management (USB), choose the needed file;

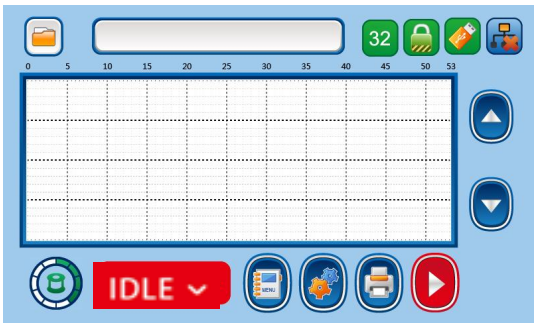


4. Click "USB-Local" to save file, or click Back to front page;



5. SUCCESS

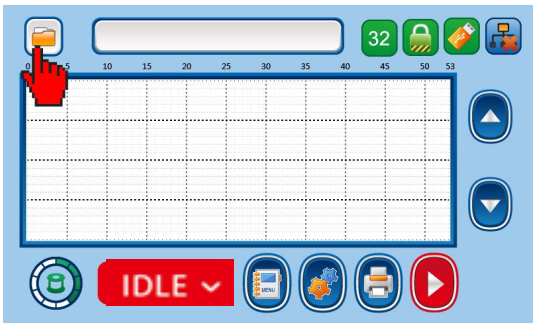
6. Click  back to "File Management"



7. Back to home page, complete the print file import

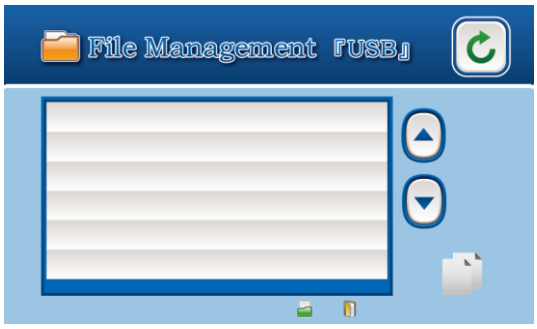
Note: Import means save file in USB to printer.

4.5.3 CHOOSE PRINT FILE

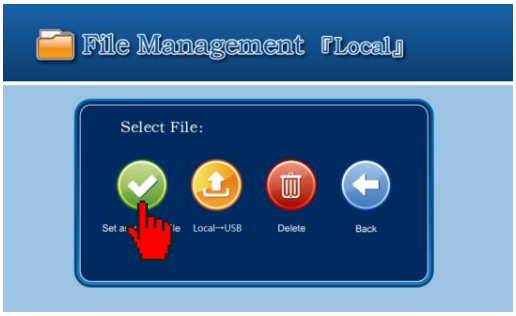


1. In home page, click  ;

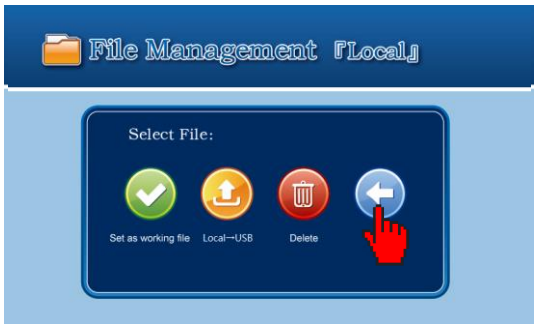
2. Click “Local” to find files;



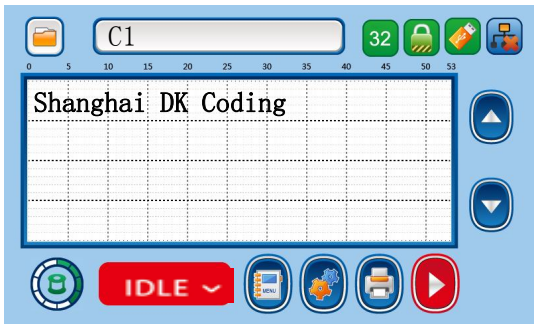
3. All imported files will appear, you can search by file name;



4. Click “Set as Working File”, “SUCCESS” appears when it is set;



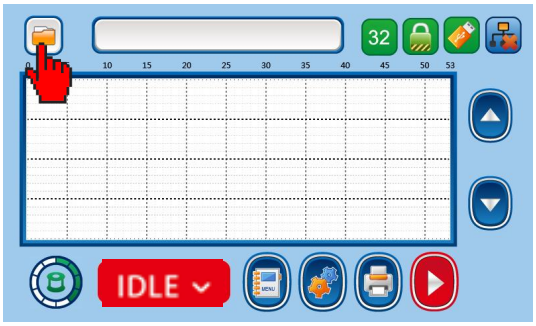
5. Click  to home page;



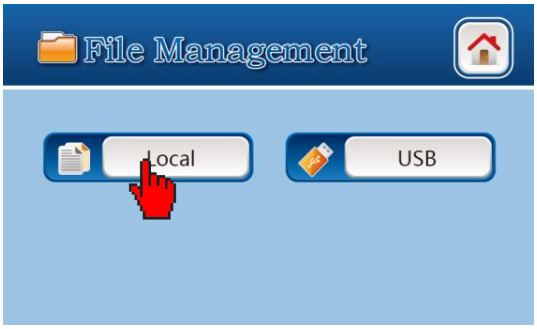
6. Preview print file on home page.

Note: Working file can only be chose from “Local”.

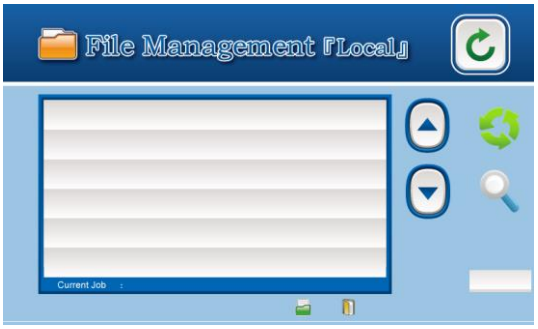
4.5.4 EXPORT PRINT FILE



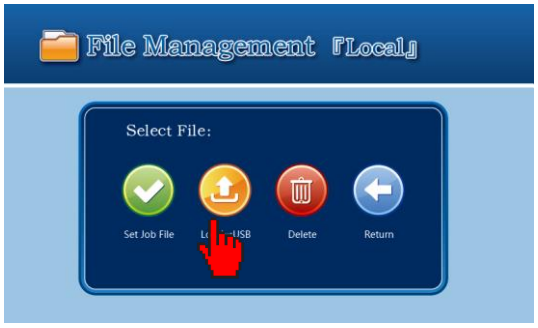
1. Insert the USB containing the “dikai” folder; enter file management from home screen or menu screen in IDLE status.



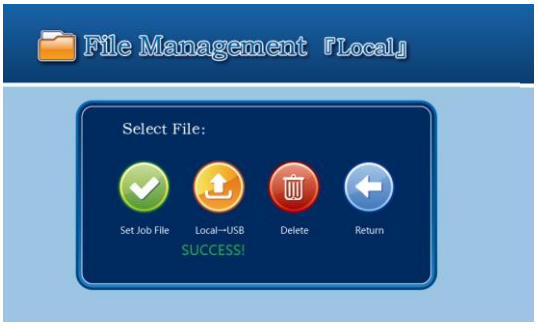
2. Click “Local”;



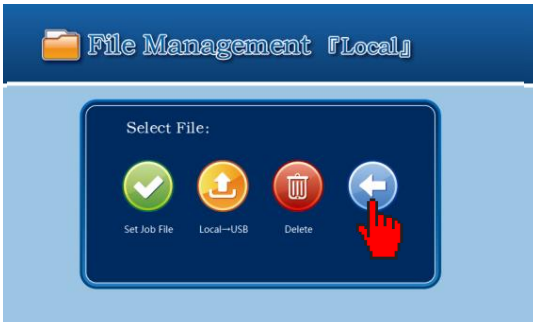
3. Select the print file;



4. Save the print job to USB by clicking ”save to USB”; click Return if there is any wrong



5. The print files are saved successfully when SUCCESS appears.



6. Go back to Local File Management screen by clicking Return.
Repeat to export more or finish by simply take off the USB

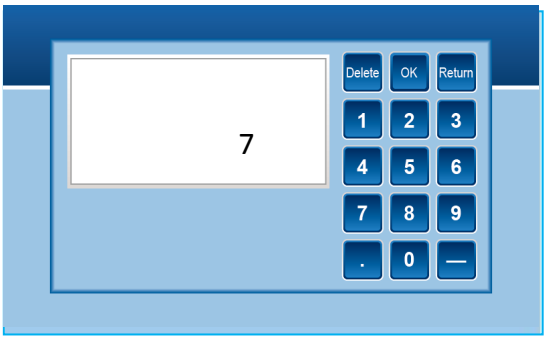
Note: Export the file means copy the local file to USB

4.6 PARAMETER SETTING

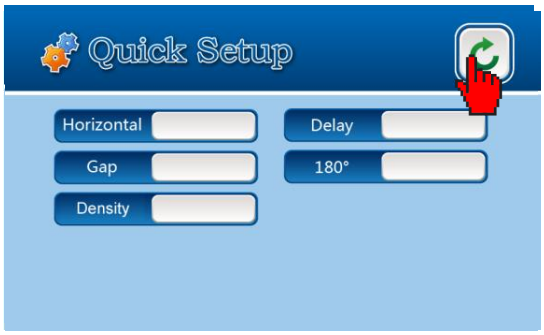
4.6.1 Set the Horizontal Offset

1. From the Home Screen (IDLE), click “Quick Set Up”.

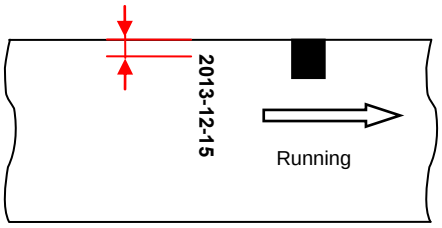
2. Click “Horizontal” option to pop up a Digit Keypad.



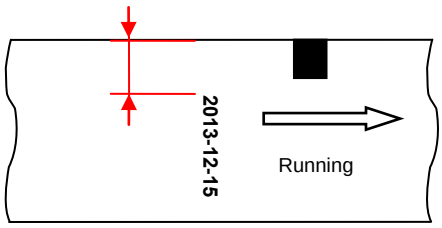
3. Enter the number (1 refers to 0.1mm), then click “OK” button back to Quick Setup Screen.



4. Click”Back” and go back to Home Screen. The Horizontal Offset setting is



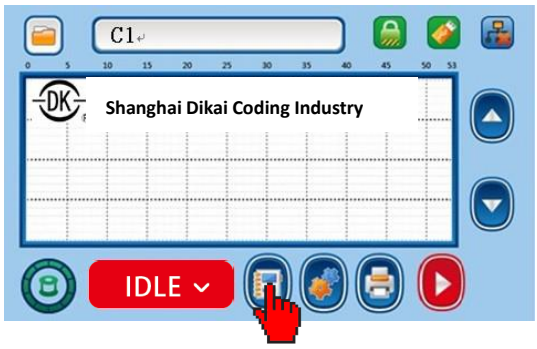
Print position (10=1mm)



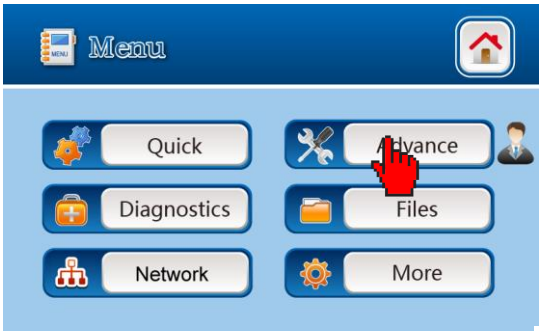
Print position (100=10mm)

Note: You can adjust the print position largely by moving the Printer unit along the bracket.

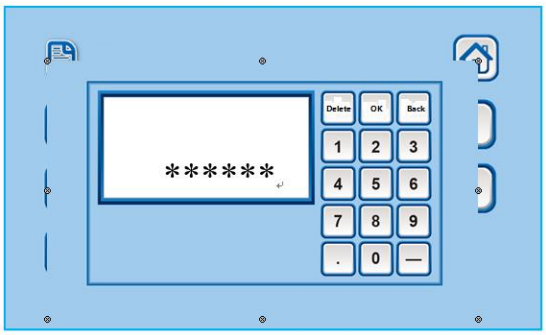
4.6.2 Set the Vertical Offset



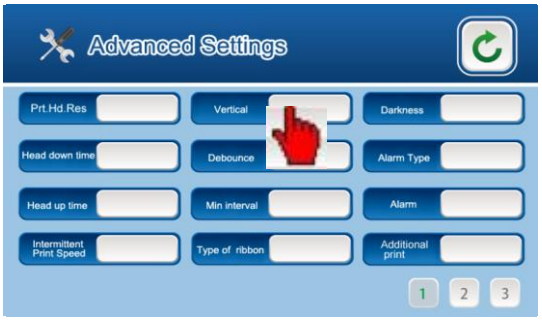
1. From the Home Screen (IDLE), click ”Menu”



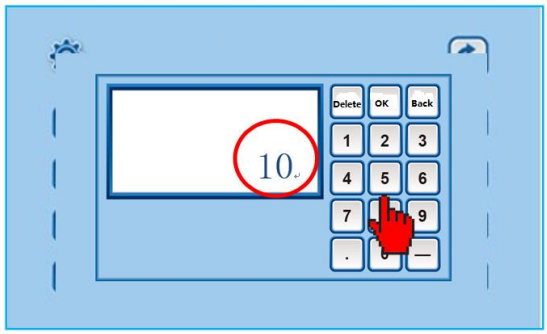
2. Click “Advance” to pop up a Digit Keypad.



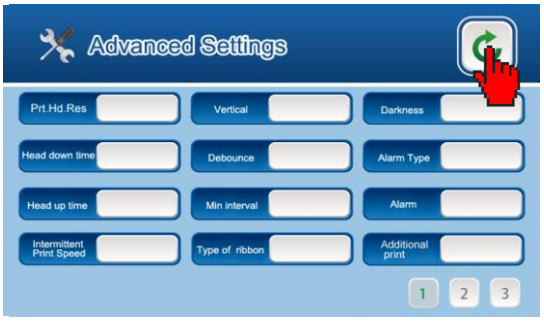
3. Enter password”1111”, and press OK to enter the Advanced settings Screen.



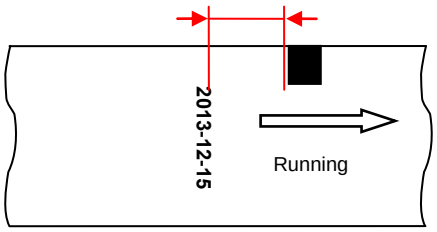
4. Press “Vertical” pop up to Digit Keypad.



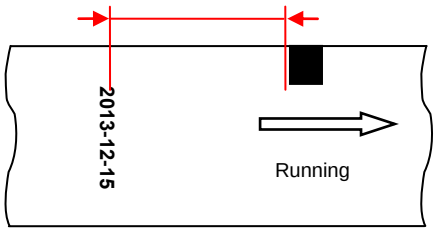
5. Enter the number (1 refers to 0.1mm), then click “OK” button back to Advanced Settings Screen.



6. Click ”Back” button back to Home Screen. The Vertical Offset setting is done.



Print position changes (100 = *10mm)*

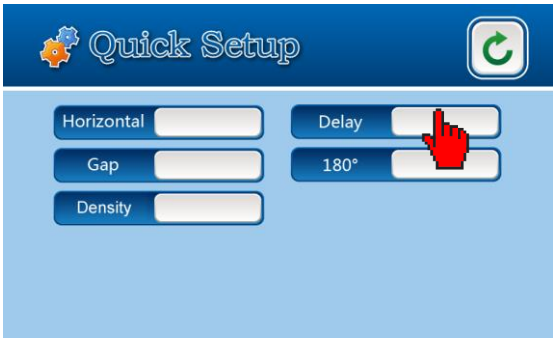


Print position changes (200 = *20mm)*

Note: the machine cannot enter the interface of Advanced Settings and Diagnosis in RUUNING mode.

4.6.3 Set the Print Delay

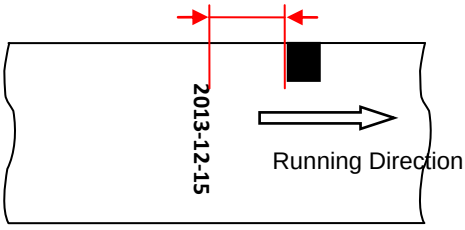
1. Click “Quick Set Up” from home screen.



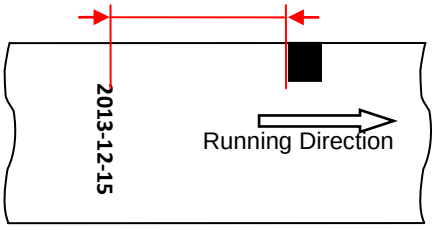
2. Click “Delay” to Digit Keypad.

3. Enter the number (intermittent: 1 means 1 MS; continuous: 1means 1mm), click “OK” to quick setup screen.

5. The delay setting is done, click “back” to home screen.



Print position when delay setting is 10



Print position when delay setting is 100

Note: The unit of delay setting of intermittent motion is: 1MS. It means the delay time of the print after receiving the print signal.

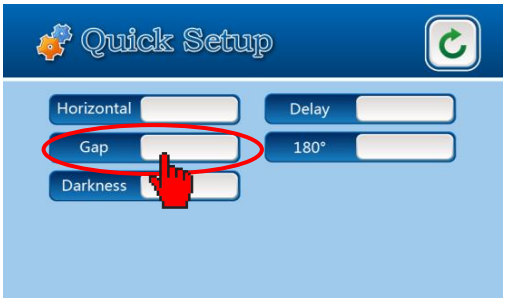
The unit is 1mm for continuous motion, It is a distance delayed after receiving the print signal (cannot be larger than the pouch length)

For example, if we want printing 100ms after getting the print signal, you can set the Print Delay in the Quick Setup screen as 100).

The print position can be small-scale precisely adjusted by “Horizotal Offset “and “Vertical Offset”. (1=0.1mm)

Note: In Continuous mode, Vertical Offset allows you to configure the position between print head and rubber roller.
If you need large-scale adjustment on the Print Position, you can reset the print signal and the bracket installation.

4.6.4 Set the Print Gap

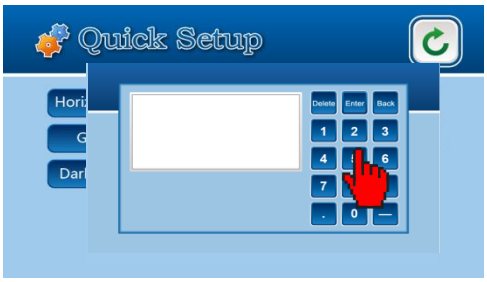


1. Select “Gap “from Quick Setup screen.

2. Enter the number (1 means 0.1MM), the setting is done clicking OK.

4.6.5 Set the Density from quick setup screen

1. Click” Density” button from the Quick Setup Screen.



2. Enter the number (1 refers to 1%), then click “Enter” button.

Note: Density means the color density percentage, the density increases as the percentage grows, meanwhile the stroke grows bolder; vice versa.

4.6.6 Preview the Image Rotation

1. Click Quick Setup from home screen.

2. Click quick setup on the Home screen and click 180°

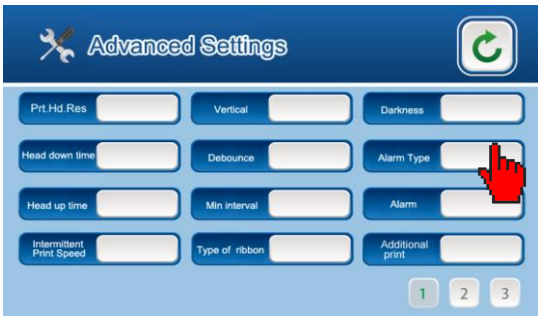
3. There are ON/OFF options to choose, click ON.

4. The setting is done, click back to home screen.

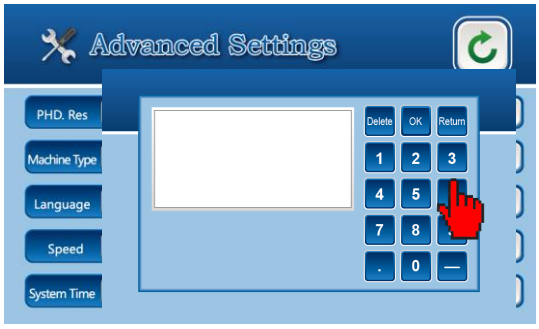
5. The print job rotates 180° on the preview screen.

Note: The setting is only to preview the 180° rotation of print job. The real print does not rotate.

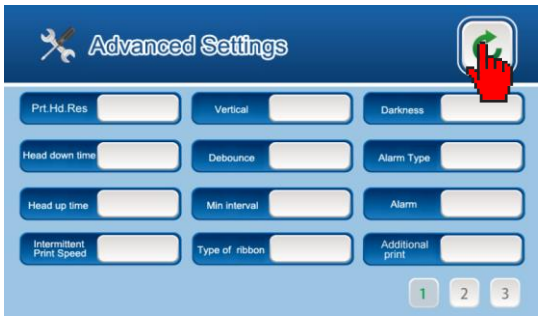
4.6.7 Set the darkness from user advanced settings screen



1. Click “Darkness” button from the Advanced Settings screen



2. Enter the right value of darkness you want and then click the “OK” button.



3. Return to the home screen.

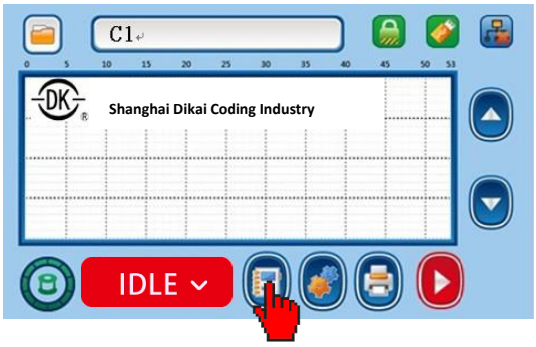
Note: The user can setup the darkness to adjust printing heat according to the material used. The printing head could be damaged if the temperature is too high. You can setup the darkness by changing the heating or cooling time of each line of points.

Usually, the printing strokes grow bolder as the darkness increases, vice versa. Some ribbons and underlayment may require special darkness to ensure the printing quality.

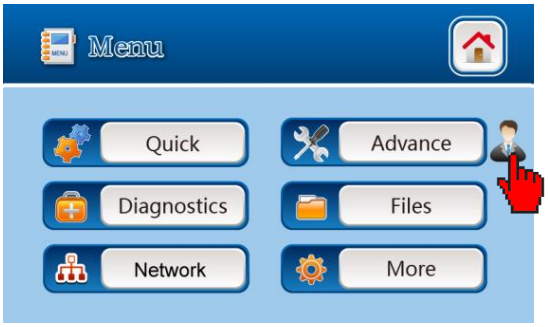
The darkness data can be adjusted between 0-50 to avoid print head damage because of wrong darkness input. Our suggestion is to set the darkness at the lowest level as required, thus the print head can sustain as long as possible. If the darkness level is too high, it can cause poor printing quality or ribbon broken (especially while printing barcodes or horizontal lines). If there is printing point damaged and there is no spare part, you can increase the darkness to fill the gap by enlarging the heating area. This is an emergency method before you got the new printing head.

If the new printing head is installed, the darkness should be decreased.

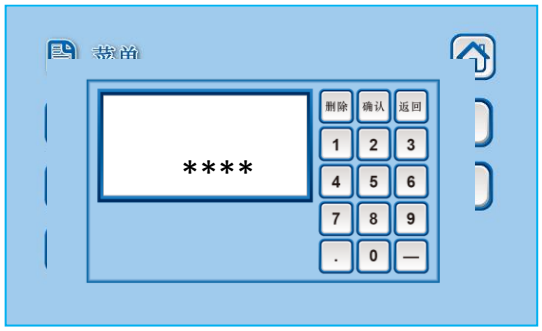
4.6.8 Set the Left-hand/ Right-hand



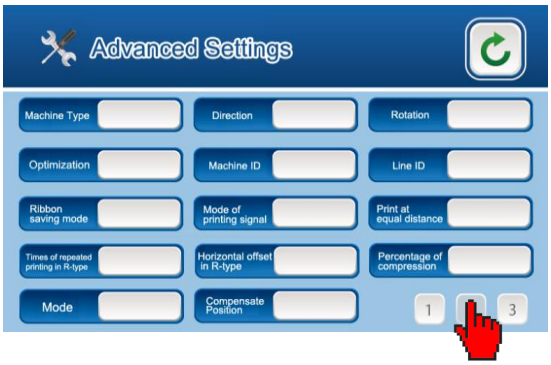
1. Click “MENU” from IDLE screen.



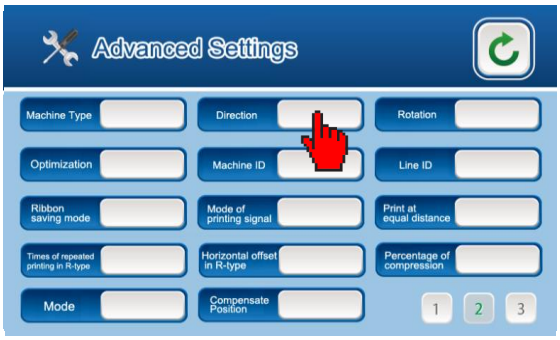
2. Click the portrait on Menu screen and you can get a digit keyboard



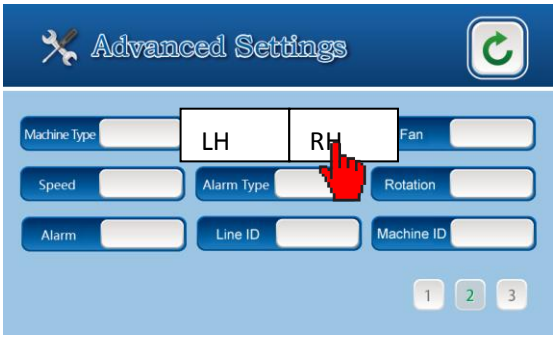
3. Enter password of “8888” to Advanced Settings screen.



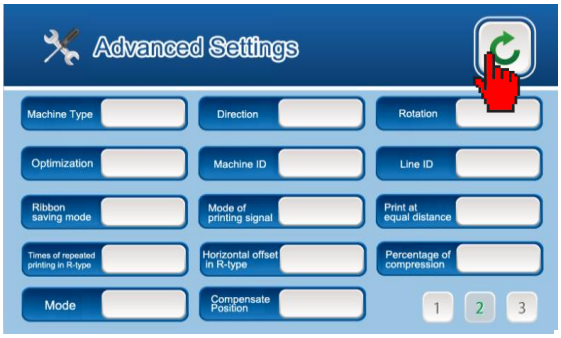
4. Go to page2 of advanced settings screen.



5. Click ”Direction”.



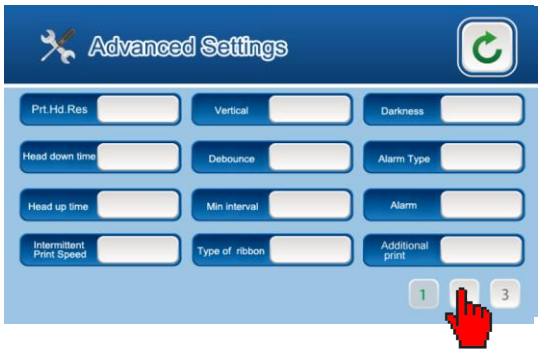
6. There are LH (left-hand) & RH (right-hand) options to choose.



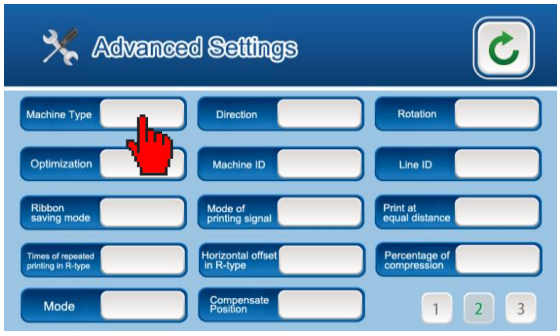
7. The setting is done, click Back to home screen.

Note: The Advanced Settings and Diagnostics Screens can only be entered when printer stops (in IDLE status).

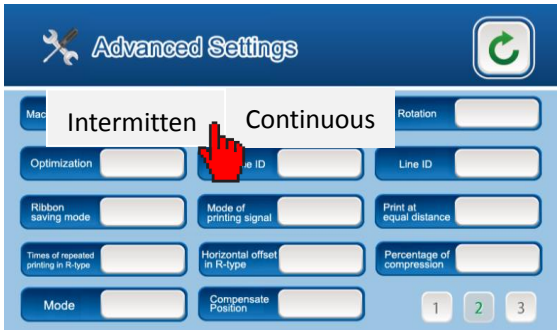
4.6.9 Set the Intermittent/ Continuous Mode



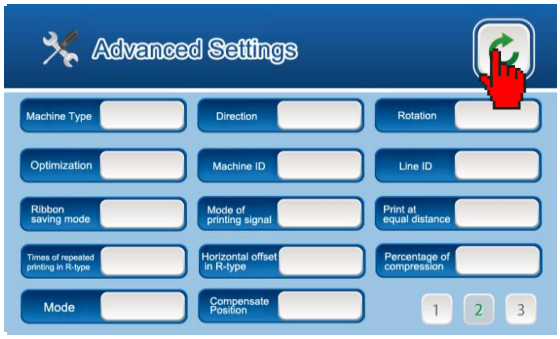
1. Enter Engineer settings screen from Menu and choose Page 2



2. Click Machine Type from Advanced Settings screen.



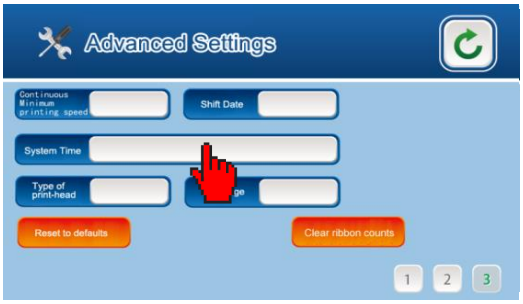
3. There are continuous and intermittent options to choose.



4. The Setting is done, click back to home screen.

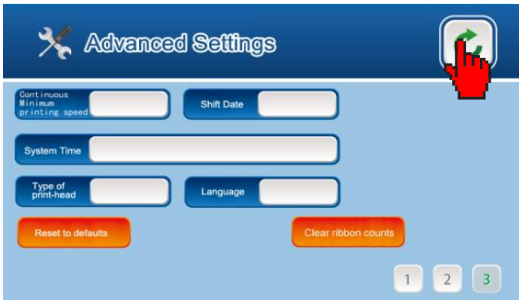
4.6.10 Set the System Time (Real Time Clock)

1. Enter into Advanced Settings from home screen.



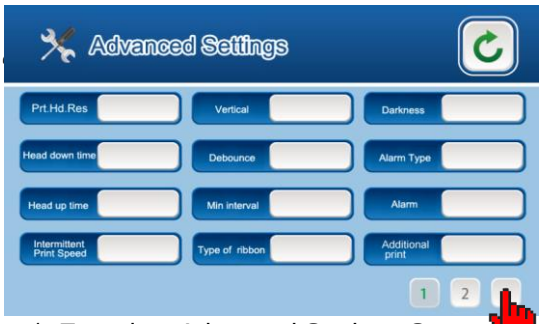
2. Click System Time to pop up the digital kevboard

3. Input the time you want and click OK, you can set up from year to second

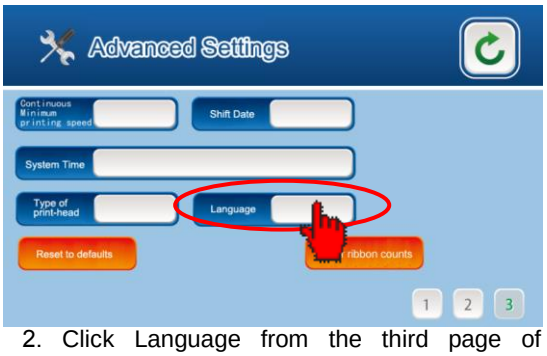


4. Click back to Home screen.

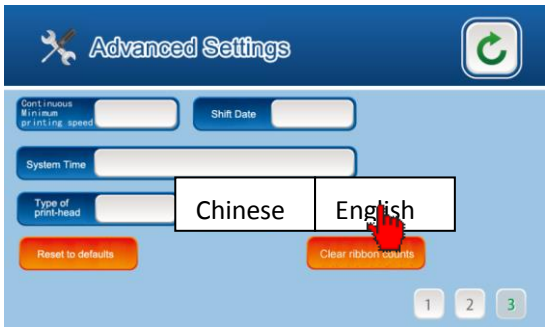
4.6.11 Set the Language



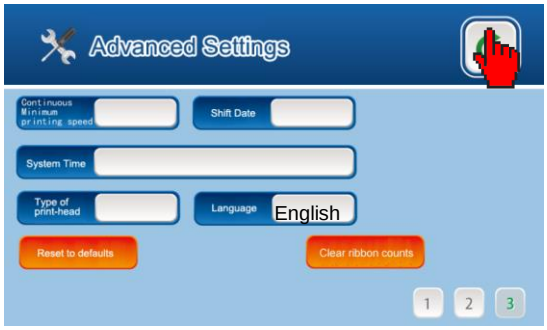
1. Enter into Advanced Settings Screen.



2. Click Language from the third page of Advanced Settings screen.



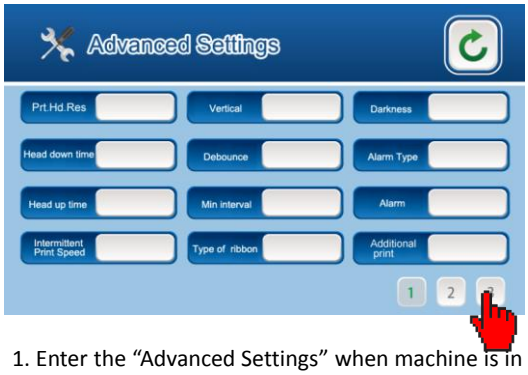
3. Choose the proper Language.



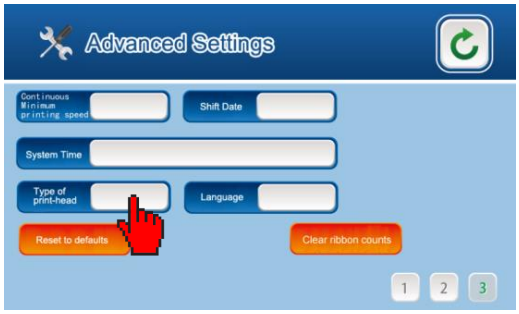
4. The setting is done, click back to home screen.

Note: cannot enter into advanced setting and system diagnostic screen when the printer is running. Currently Dikai D03s only supports two languages of Chinese& English

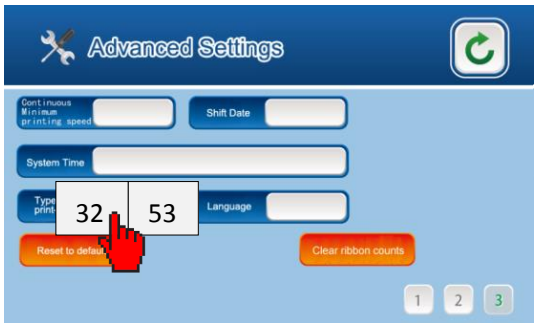
4.6.12 Choose the type of Printhead



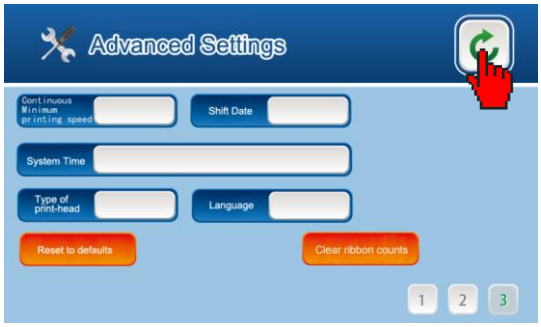
1. Enter the “Advanced Settings” when machine is in IDLE. Find Page 3 in “Engineers Advanced Settings”



3. Press the “Type of Printhead” in Page 3



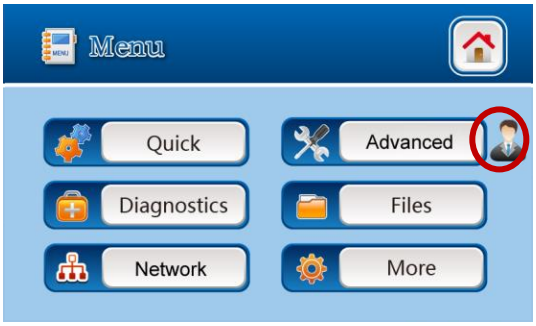
3. Choose the right type of print head according to the machine type.



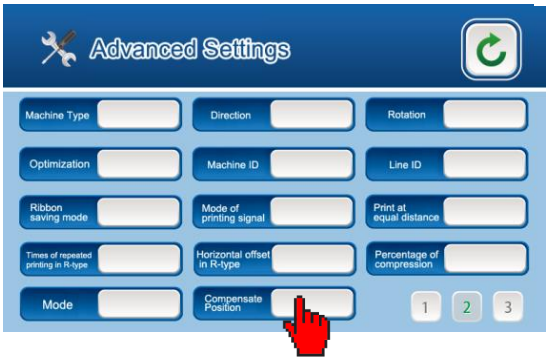
4. Press the return button to go back the main page after choosing right type of printhead.

PS: D03S can only support the type of printhead as“32”, other type is Unsupported.

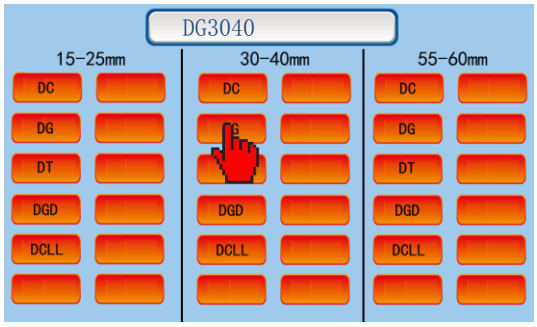
4.6.13 Choose the right type of ribbons



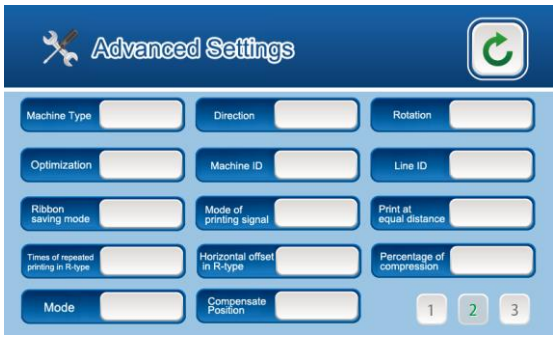
1, Press the “Menu” button and then enter the “Engineers advance settings”.



2, Enter the ribbon choosing page by press the “Ribbon type” button in the first page of “Advanced settings”.



3, Choose the right ribbons you are using in the ribbon choosing page



4, Return to “Advanced settings” after above steps.

Ps: D03S machine only supports the ribbon types showing in the page. Dikai will not guarantee the well-running of machines and ribbons if you use other types of ribbons.

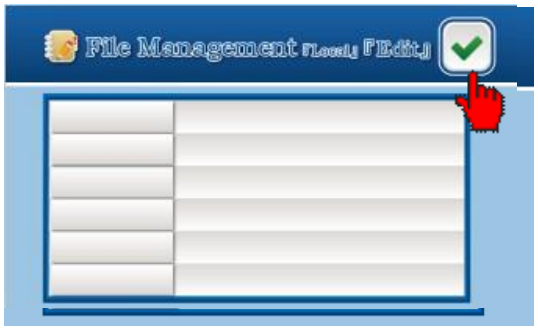
4.6.14 Edit of Custom Texts

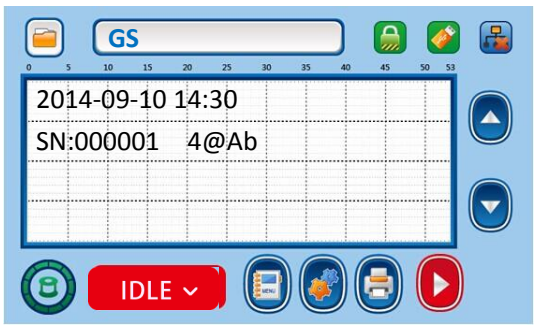
1. Click the file name to enter Edit screen from Home screen.

2. Click the text you need

3. Edit on the keyboard

4. The Custom texts, like text3, support all info entered from the key board. (The count file, like text2, only supports numbers), Click OK when set is done.



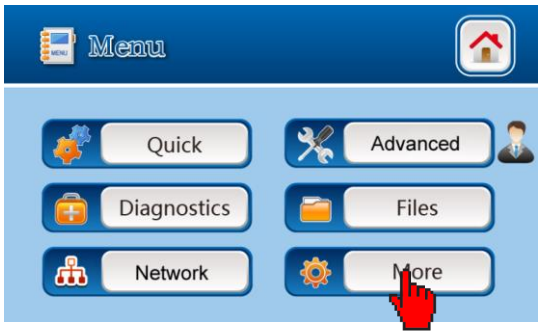


5. Click back to home screen.

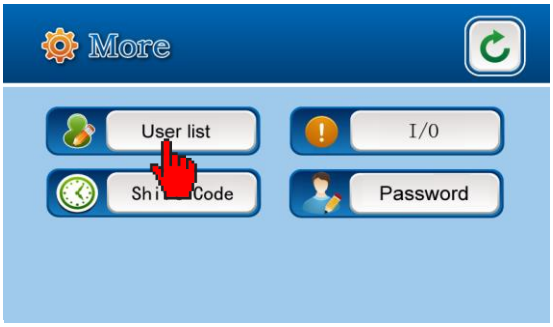
Note: The user can modify the custom text only if the custom-made or progressive increase or decrease editable widgets are added, other widgets cannot be modified

4.6.15 Set the Shift No.

1. Enter into Menu screen in IDLE status.

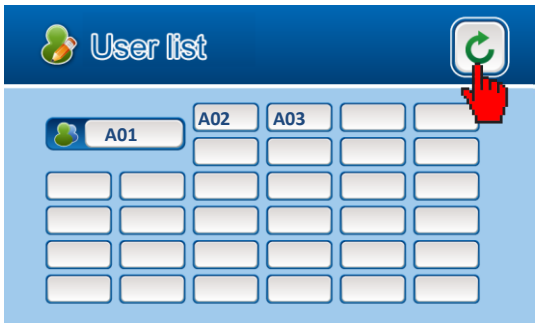


2. Click MORE from Menu screen.

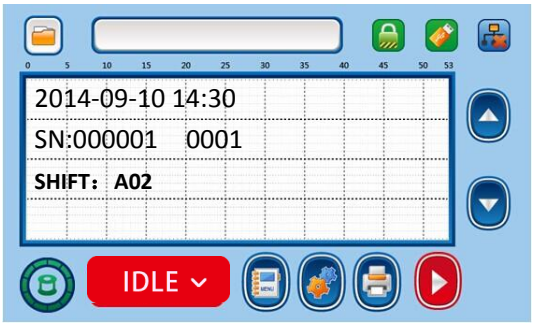


3. Click User list.

4. Select requested shift No. from User list screen (at most 32 shifts).



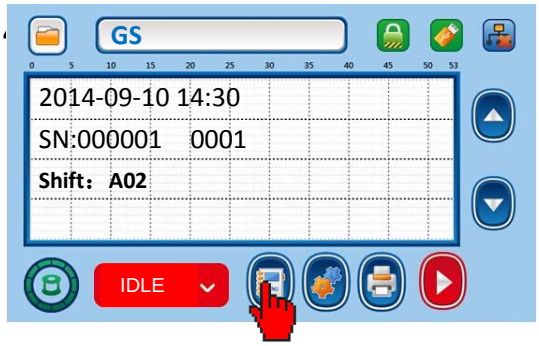
5. The setting is done, click back to home screen.



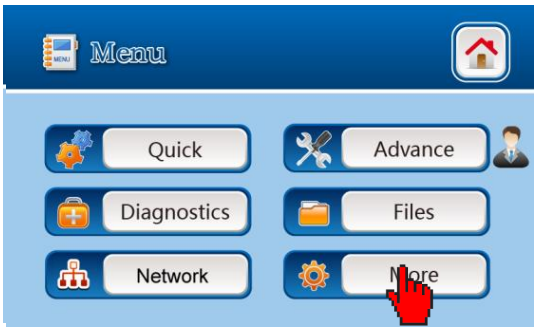
6. The shift No. is now changed

Note: you can choose the shift No. only when the shift information is added, otherwise you cannot enter the shift screen.

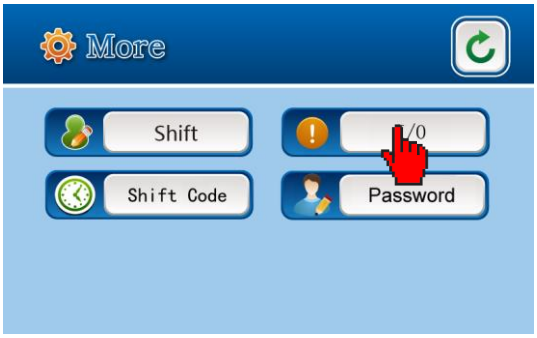
4.6.16 I/O



1. Click Menu on IDLE screen



2. Click More



3. Click I/O

4. Please choose ON or OFF as needed.

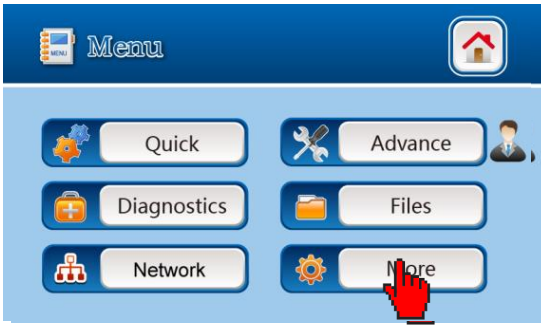
5. There will be alarm output if you choose ON, and no alarm if OFF

6. Click Return, the settings will save automatically

Note: I/O control the alarm output in current situation. ON means there will be alarm output if any fault occurs, OFF not. Page1 is Out1, Page2 Out2

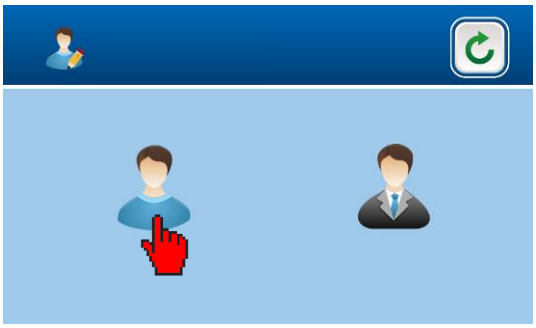
4.6.17 Change the password

1. Click Manu

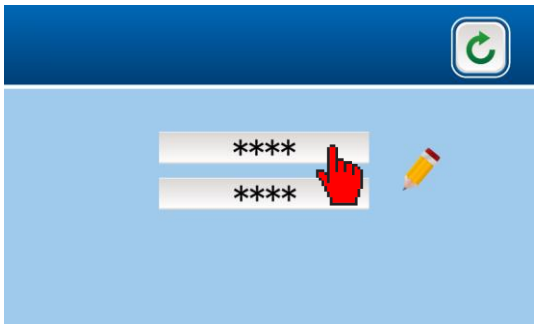


2. Click More

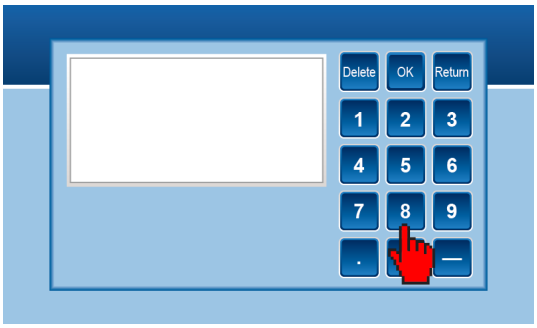
3. Click Password



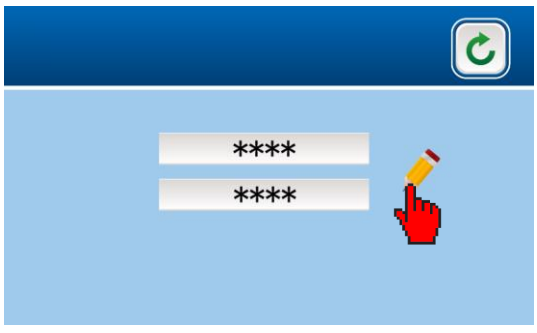
4. Input the current password on the password management screen and click OK. The default password is “1111”



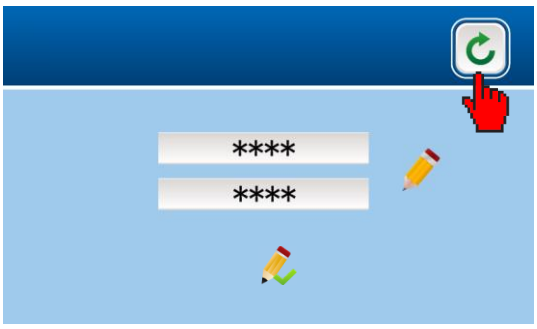
5. Click the password input column



6. Input the password with 4 digits (the same password for the two columns, otherwise the new password is invalid)

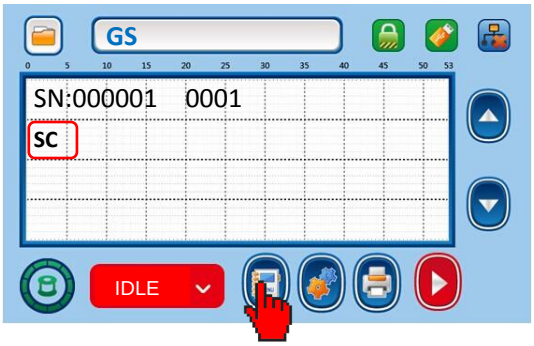


7. Click OK and finish

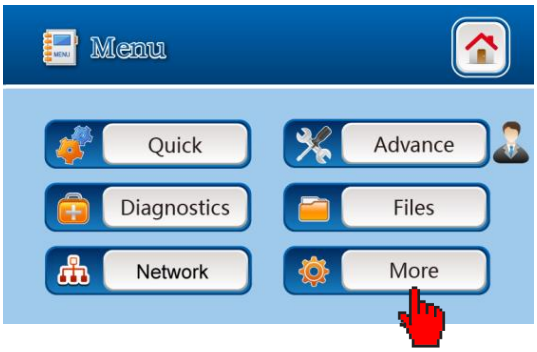


8, Finish and return（Success , Fail ）。

4.6.18 Shift code



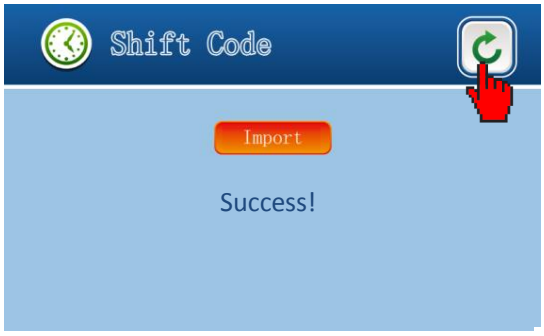
1. Save the SHIFTCODE file to DKUPDATE folder in the USB, click Menu on IDLE screen

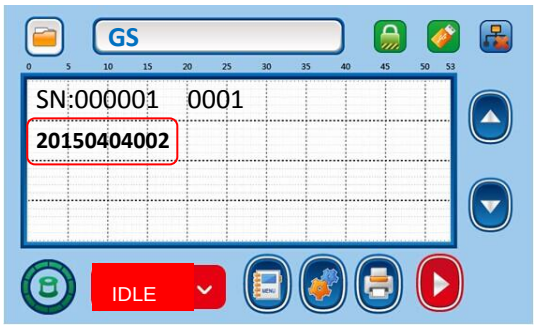


2. Click More

3. Click Shift Code

4. Click Import to import the code into local machine





5. Click Return after the successful import

Note: Shift code means the user can define the printing content within a time cycle through the help of SHIFTCODE

4.6.19 System calibration

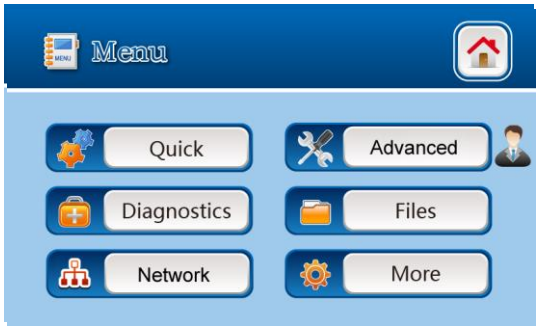
The machine should be system calibrated after any change of the followings:

➢ Change printer unit ➢Change main board ➢Change controller box ➢Change interface board

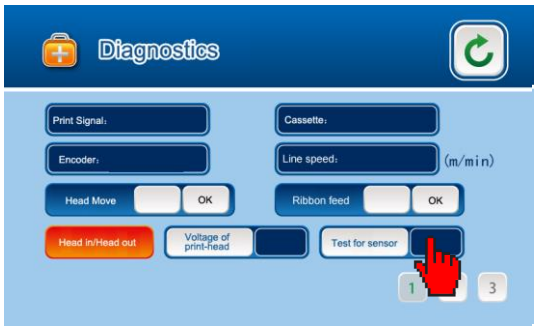
➢Change DB44 connection ➢Change driving motors ➢Update the software in PCB

1, Take off the ribbon cassette when the machine is on.

2. Enter the Menu when machine is IDLE



3. Enter the “System diagnosis” page.



4. Enter the second page of “System diagnosis”

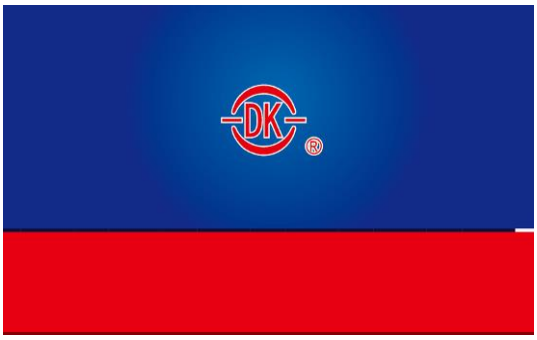
5. Press the calibration button in the page of “System diagnosis”

6. When the calibration is finished (in the condition that two or more times when the difference between the two numbers is less than 20) return the home screen.

Note: Ribbon cassette must be taken off and the connection between control box and print unit must be good during the system calibration. Otherwise the values are not accurate and the system will report errors.

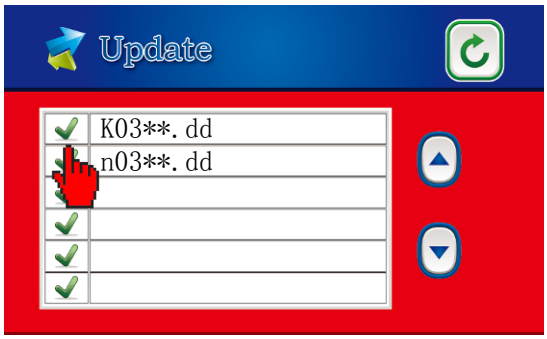
4.7 UPGRADING THE CONTROLLER BOX

4.7.1 Main board software upgrading.

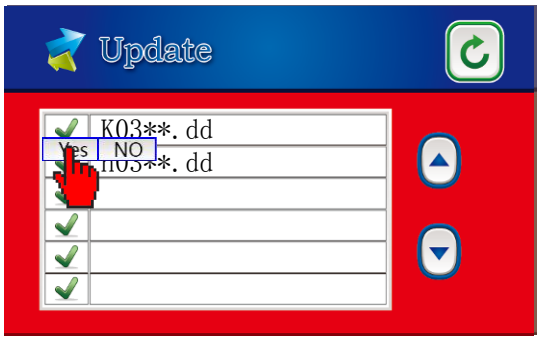


1. Save the upgrading program to USB with folder named “dkupdate”. Insert the USB when the printer is turned off.

2. Enter into the upgrading screen by clicking Update (It enters into the Home screen if does not click update in 5 seconds).



3. Click the right upgrading program from the screen.



4. Click YES to finish updating, and NO back to the previous screen.

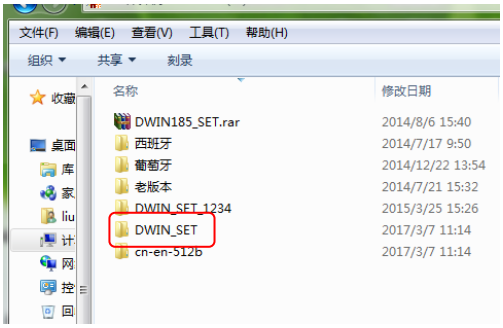
5. Don’t unplug the machine or have other illegal operations; × means the upgrading is failed and you need to reboot to do it again

6. √ means upgrading succeeds, reboot the machine and finish.

Note: there are two types of program (ARM & MCU) need to be upgraded at the same time. At most 6 files can be shown on one screen. And please save the files into “dikai” folder, otherwise the printer cannot read them

4.7.2 Interface upgrading

1, Use a SD card (Recommend Sandisk), and format it with “FAT32”and “4096”like in the picture.



2, Copy the folder named ”DWIN_SET” into the root directory of SD card.

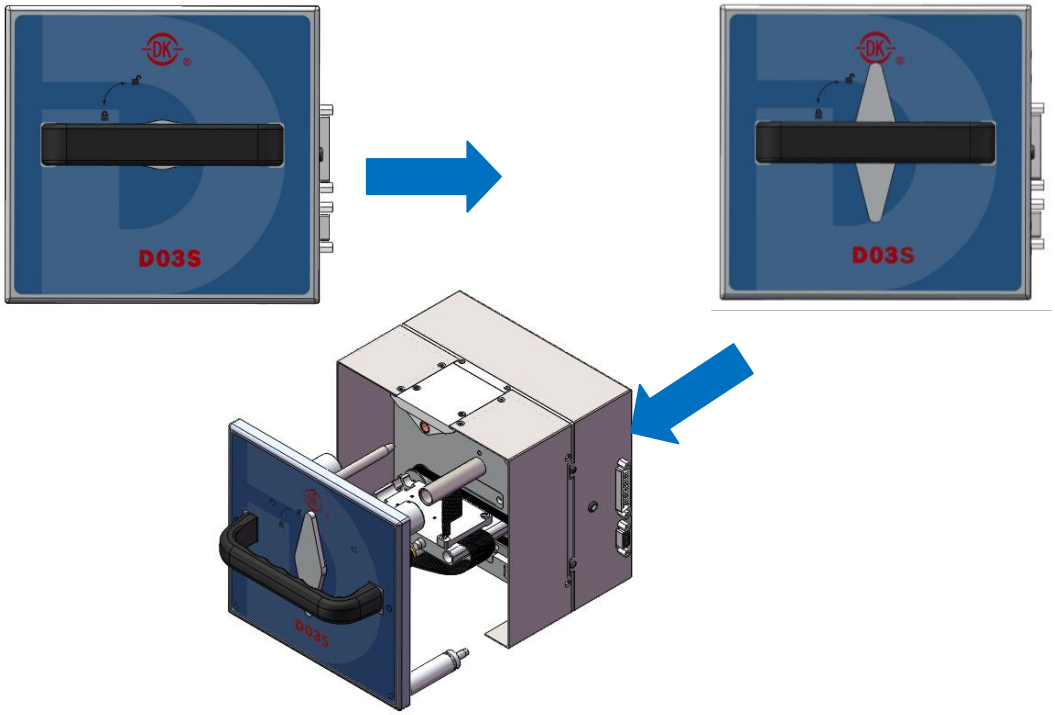
3, Turn on the control box on and insert the SD card into the control box.

4, The control box will do the upgrading automatically. Pull out the SD card when process completed and reboot the machine.

Please do keep to machine connected with power and do not pull out the SD card during the upgrading. Please do reboot the machine after the upgrading and check the version No. to make sure the upgrading is successful.

Please format the SD card into: fat32/a: 4096 if the machine cannot recognize the SD card. Also the control box can only recognize the SD card with 2~16G storage.

4.8 REMOVING THE CASSETTE

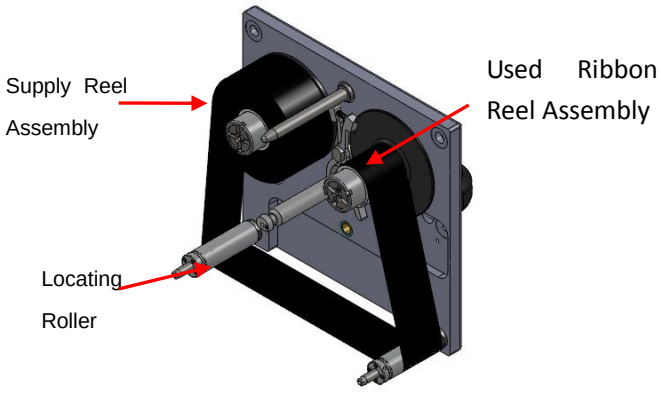


1. Stop the printer into ready screen (IDLE)
2. Unlock the cassette lever
3. Withdraw the cassette with the handle

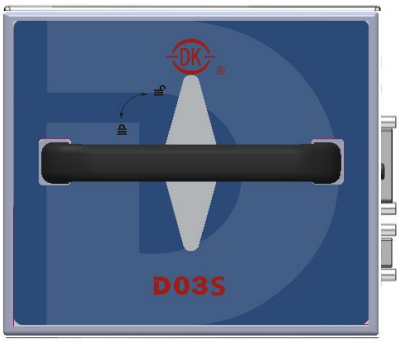
Note: Follow the opposite steps to install the cassette

4.9 LOADING OR REPLACING THE RIBBON

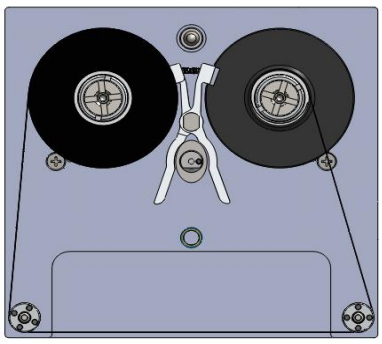
4.9.1 The Cassette Structure



4.9.2 Loading or Replacing TTR (Left-hand Machine)

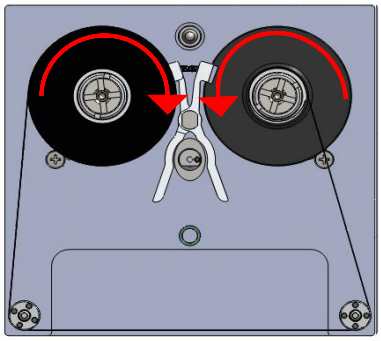


1. Remove the cassette.

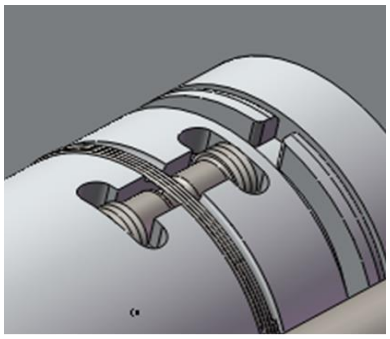


2. Put the cassette evenly on the worktable.

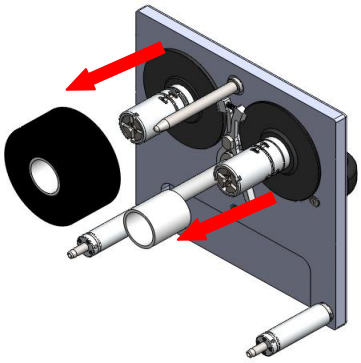
3. Lock the Reel on the elastic lever.



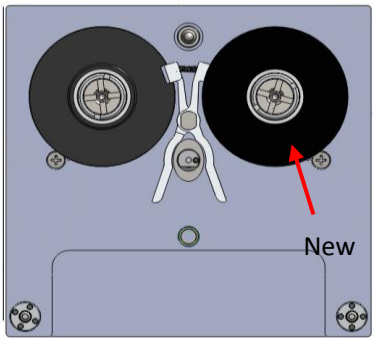
4. Rotate the locking sleeve as shown to unmovable position.



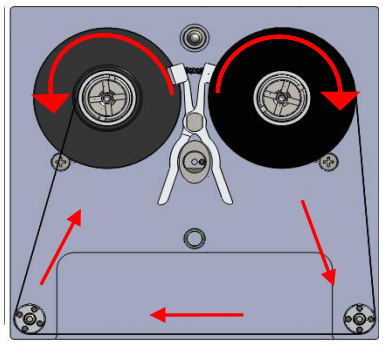
5. Put tight shaft to the lowest position.



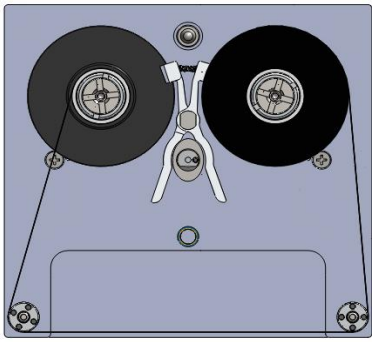
6. Take out the used TTR as shown.



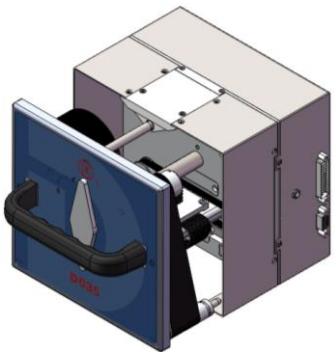
7. Put a new ribbon and core in Supply Reel Assy as shown.



8. Install the new ribbon refer to the directions in the picture.



9. Tighten the reel to make a proper tension.

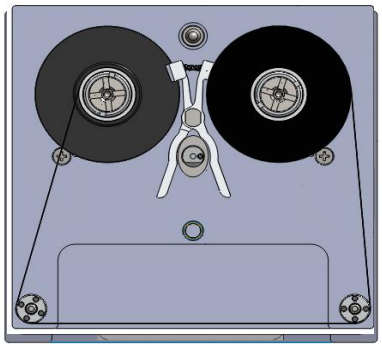


10. Install the cassette as shown.

11. Lock the cassette

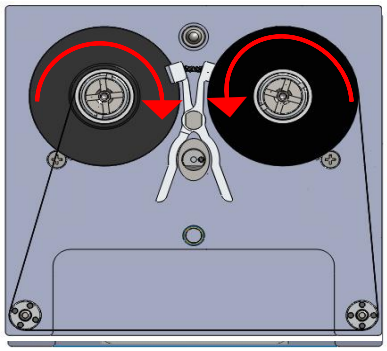
4.9.3 Loading or Replacing TTR (Right-hand Machine)

1. Remove the cassette.

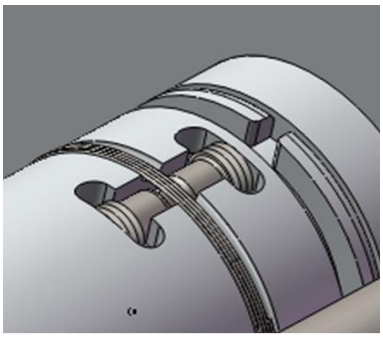


2. Put the cassette evenly on the worktable.

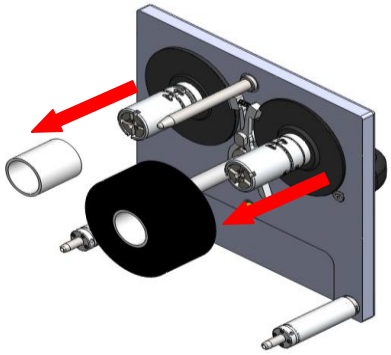
3. Lock the Reel on the elastic lever.



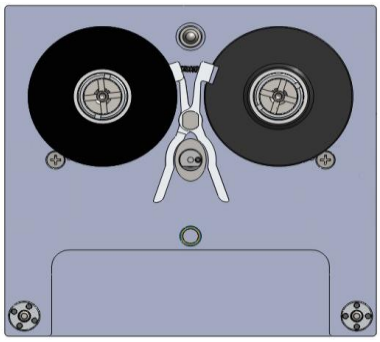
4. Rotate the locking sleeve as shown to unmovable position.



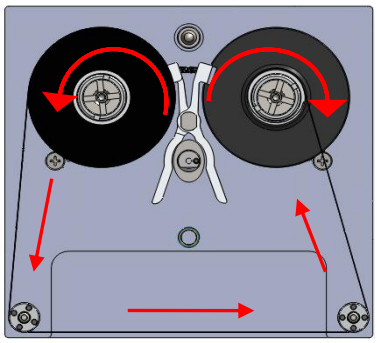
5. Put tight shaft to the lowest position.



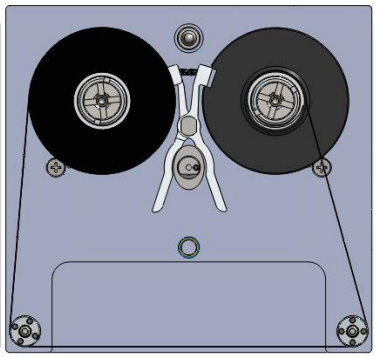
6. Take out the used TTR as shown.



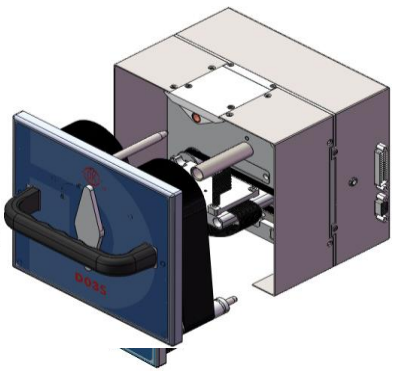
7. Put a new ribbon and core in Supply Reel Assy as shown.



8. Install the new ribbon as the directions in the picture.



9. Tighten the reel to make a proper tension.



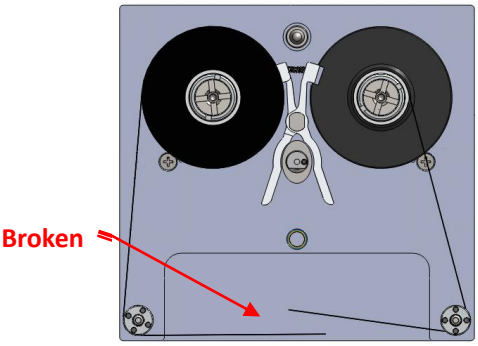
10. Install the cassette as showed.

11. Lock the cassette

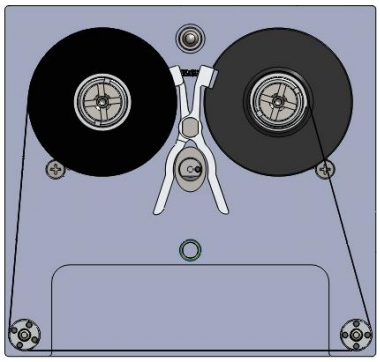
4.9.4 Re-connecting a Broken Ribbon

1. Remove the cassette.

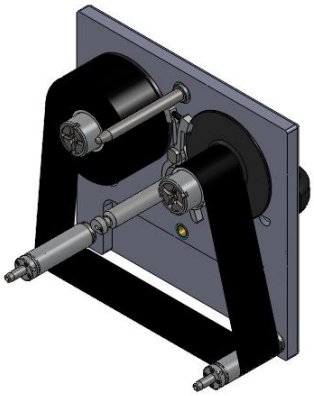
.



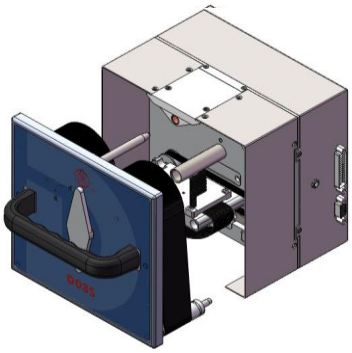
2. Wind the remaining waste ribbon onto the waste core.



3. Pull unused ribbon from the ribbon supply and wind it onto the waste ribbon take up, by using double-faced adhesive.



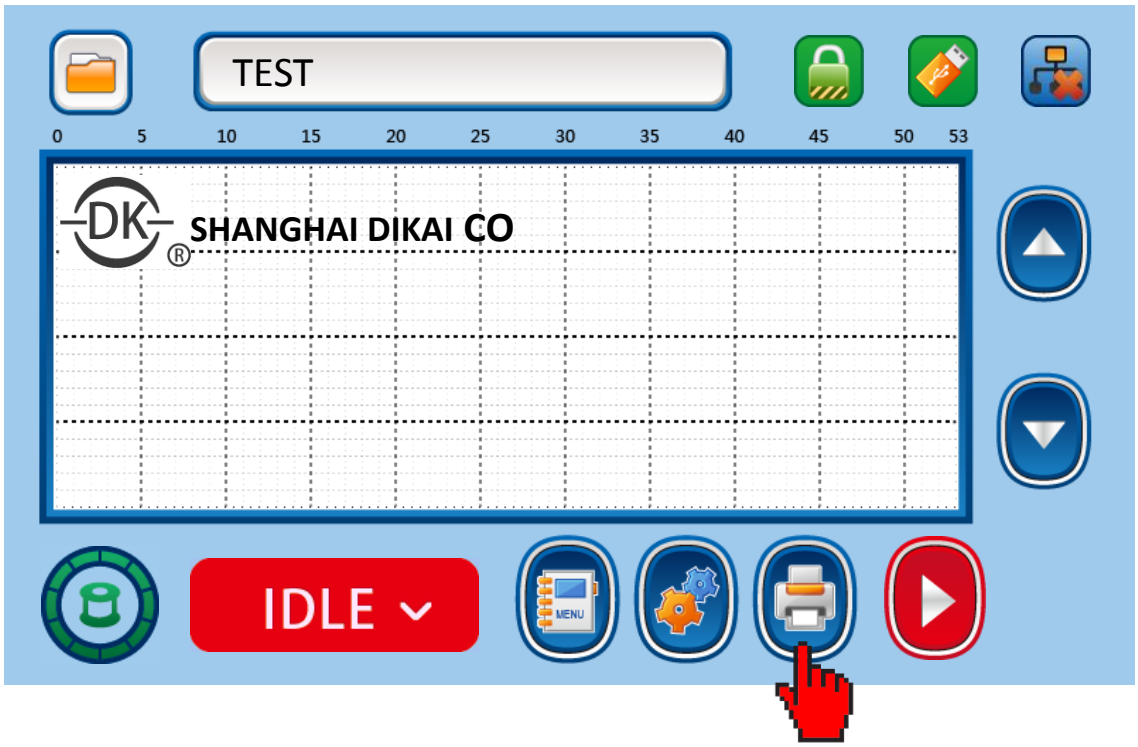
4. Rewind the ribbon and keep the joint between the two as flat as possible.



5. Install ribbon cassette as shown.

6. Lock the cassette

4.10 TEST THE CURRENT PRINT JOB



We need to test the print result after installation.

- ✧ Turn on the printer, wait to enter the Ready screen.
- ✧ Select print job (Refer to 4.7).
- ✧ Press TEST button  to make test print (there is no test function in continuous mode).
- ✧ Check if print is correct.

5. MAINTENANCE

5.1 CLEANING AND CARE

- ✧ To ensure that your D03S operates correctly, the entire unit should be cleaned on a regular basis.
- ✧ Turn off the power to the controller.
- ✧ Turn off and isolate the air supply to the printer body.
- ✧ Remove the printer cassette and clean inside the printer body. Since there are electronic components inside this case, DO NOT use water to clean the unit. Isopropanol cleaning wipes can be used for this purpose.
- ✧ To clean the debris from the inside of the printer body, DIKAI recommend the use of a soft bristle brush.

5.1.1 Care of the Printhead

Although purpose-built for its application, the print head is still subject to wear and tear. Careful consideration at the time of installation and regular preventative maintenance can significantly help to maximize print head life.
The most frequent cause of print head damage is abrasion-either from ingress of airborne particles or from an abrasive substrate surface. Consequently, print head life varies considerably among substrate materials and among applications.
The thermal ribbon protects the printhead against wear. With use of various ribbon widths and an abrasive substrate, it is possible that the unused, unprotected, section of the printhead is subjected to wear and damage. Usually, abrasive substrates have preprinted inks. Particularly, some red inks maybe more abrasive than other colors.

Procedures for all thermal transfer printers follow:

- Regularly clean the printhead. The frequency of cleaning is entirely application and environment specific.
- To minimize printhead wear, always use the minimum air pressure than delivers an acceptable print quality. Never exceed the maximum air pressure recommended for the particular D03S used.
- Use the minimum darkness setting that delivers the required print quality.

You'd better clean it before daily production:

1. Turn off the power to controller and remove the ribbon cassette. Allow the printhead to cool to normal room temperature before proceeding in order to prevent the possibility of thermal shock damage.
2. Please use printing head cleaning wipe provided by DIKAI or a soft cloth in Isopropanol (Refers to the below image).
3. Better clean the print head once a day if the printer keeps running.
4. Please DO NOT use any water, sharp items or abrasive materials to clean the print head

5.1.2 Clean of Rubber Roller or Rubber Anvil

The rubber roller and anvil rubber is also need to be cleaned, use clean no-woven cloth, soaked in clean water and wrung, clean dirt on the surface and make sure no hard object there in case the damage of print head.

DO NOT use alcohol to clean rubber roller or rubber anvil.

5.2 MAINTENANCE SCHEME

5.2.1 Quick/Regular Daily Checks

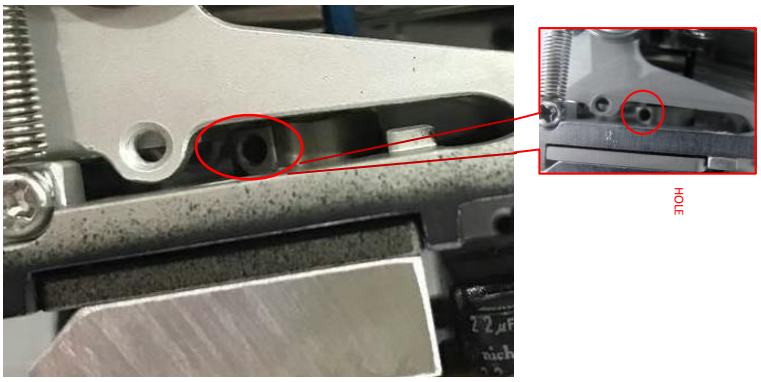
- ✧ Check and clean print head. Use Isopropanol wipes.
- ✧ Check that the ribbon is tracking through the cassette correctly. Pull the ribbon through by hand, and visually check if the ribbon is creasing across the width of the ribbon.
- ✧ Check Air is set to recommended pressure.
- ✧ Check for wear or internal debris.
- ✧ Check the peel roller, for any damage, must change a new one to make sure the roller works smoothly.
- ✧ Check if the print head is damaged by print result
- ✧ Check driving and connection parts of bracket and print head: Pulleys, bearings, mounting bracket and the shaft, the carriage moves smoothly.
- ✧ Check the elasticity of the return spring.
- ✧ Check that darkness/Speed settings are site standard. This will ensure that the print remains a good quality, and it may also highlight any potential problems. For example, if the darkness is unusually high, the print head may need cleaning. The darkness has probably been set up high to compensate.
- ✧ Check condition of Platen rubber. Clean or replace it if necessary. The platen rubber needs to be smooth, flat and free from debris. To change the platen rubber, first take the old platen rubber off. The entire adhesive should be removed from the metal platen base. Replace with a DIKAI platen rubber for best results.

5.2.2 Monthly Checks

- ✧ Check the mounting bracket: Check if the mounting bracket is firm, make sure each screws is fixed.
- ✧ Check cable connection: you must have proper tools to install DB44 cables, make sure the cable is securely connected before supplying power to the equipment.
- ✧ Check condition of peel roller: remove roller and inspect internally for wear. Replace or clear if necessary.
- ✧ Check condition of the ribbon guide rollers: Check that bearings are smooth.
- ✧ Check condition of ribbon sensor roller. Inspect the roller coating for wear and damage, if worn or damaged, replace the roller.
- ✧ Ensure all rollers are square to the Cassette or printer.
- ✧ Check condition of print head carriage drive belt and associated components: pulleys, bearings, retainers and shafts.
- ✧ Print a test image to check print head quality and alignment.
- ✧ Check Air cylinder
- ✧ Check that the tension roller slider is free to move.

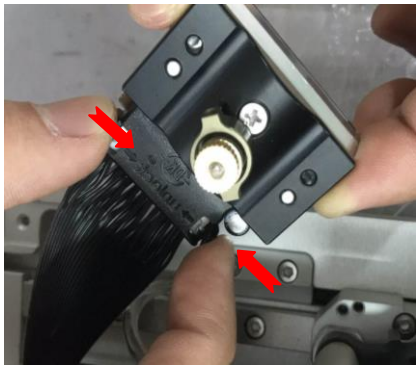
5.3 REPLACING THE PRINTHEAD

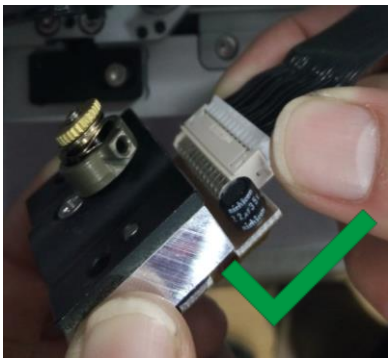
1. Turn off the power to the controller and cut off the air supply to the printer body.
2. Remove the ribbon cassette.



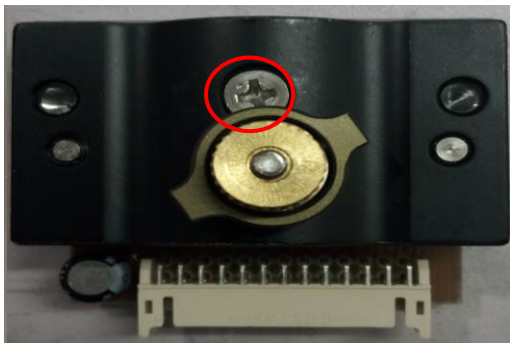
3. Insert Ø2mm screwdriver to the hole.

4. Take out the Printhead as shown.

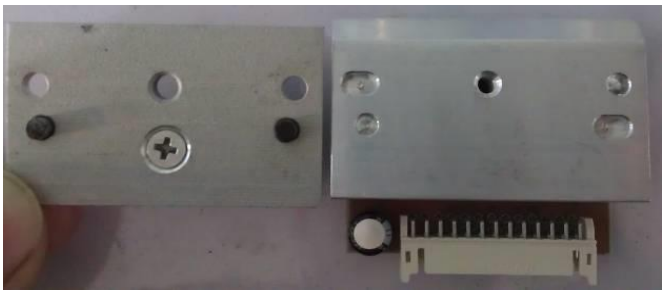




5. Pull out the print head cable, hold the cable instead of pulling.



6. Remove the retaining screw.



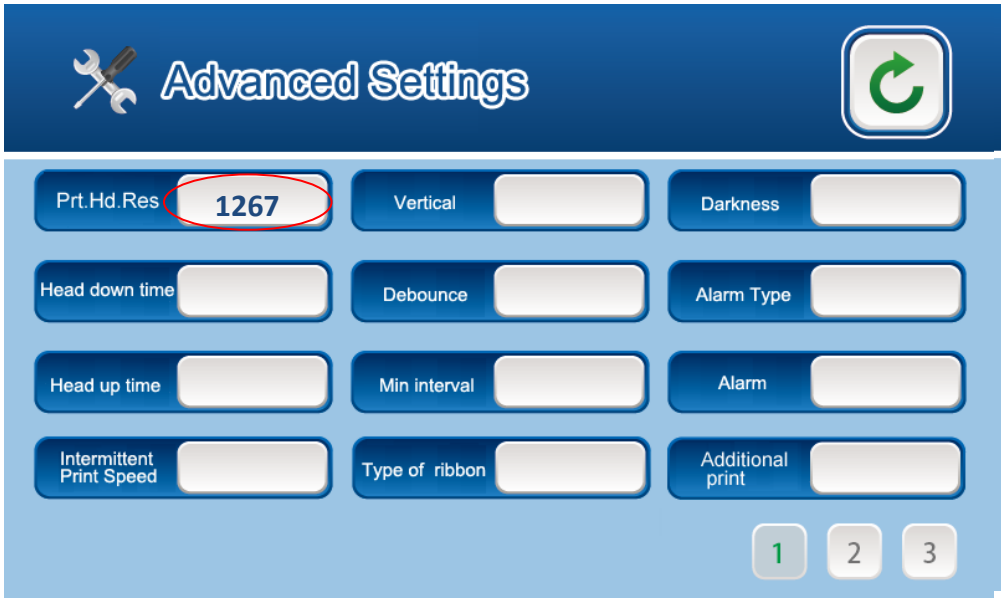
7. Note the location pin, remove the connection block, and carefully handle the old printhead.

8. Operate oppositely to replace a new printhead.

9. Make sure printhead is secured into the print module, set the correct printhead voltage

Each print head has a individual resistance level, and the voltage level setting required for each is different. A label on the print head displays the rating for that particular one. In this case, R=1267

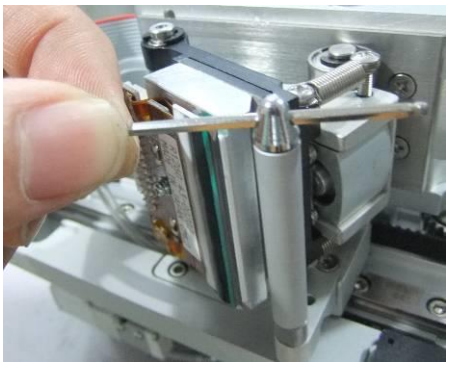
This value must be entered into the controller menu structure, or will be taken as an abuse.



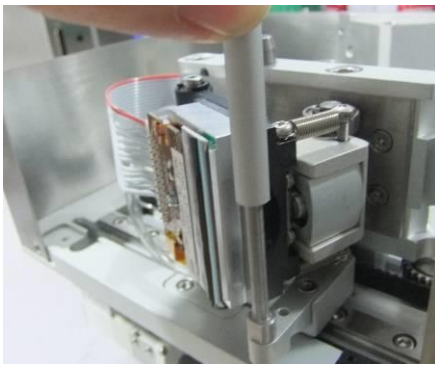
From the Advance Setup screen, select the Printhead Resistance to enter the real value printed on the label.

5.4 REPLACING THE REEL ROLLER

The peel roller is a wear part and should be checked regularly for damage and changed if necessary.



1. Remove the retaining screw from the end of peel roller using a 2mm



2. Remove the worn peel roller, replace a new one and fix it.

6. TROUBLE SHOOTING

The Diagnostics is displayed in abbreviated form on the Home screen, gives an aid to troubleshooting.

The icons informing you of problems or potential problems include the followings.

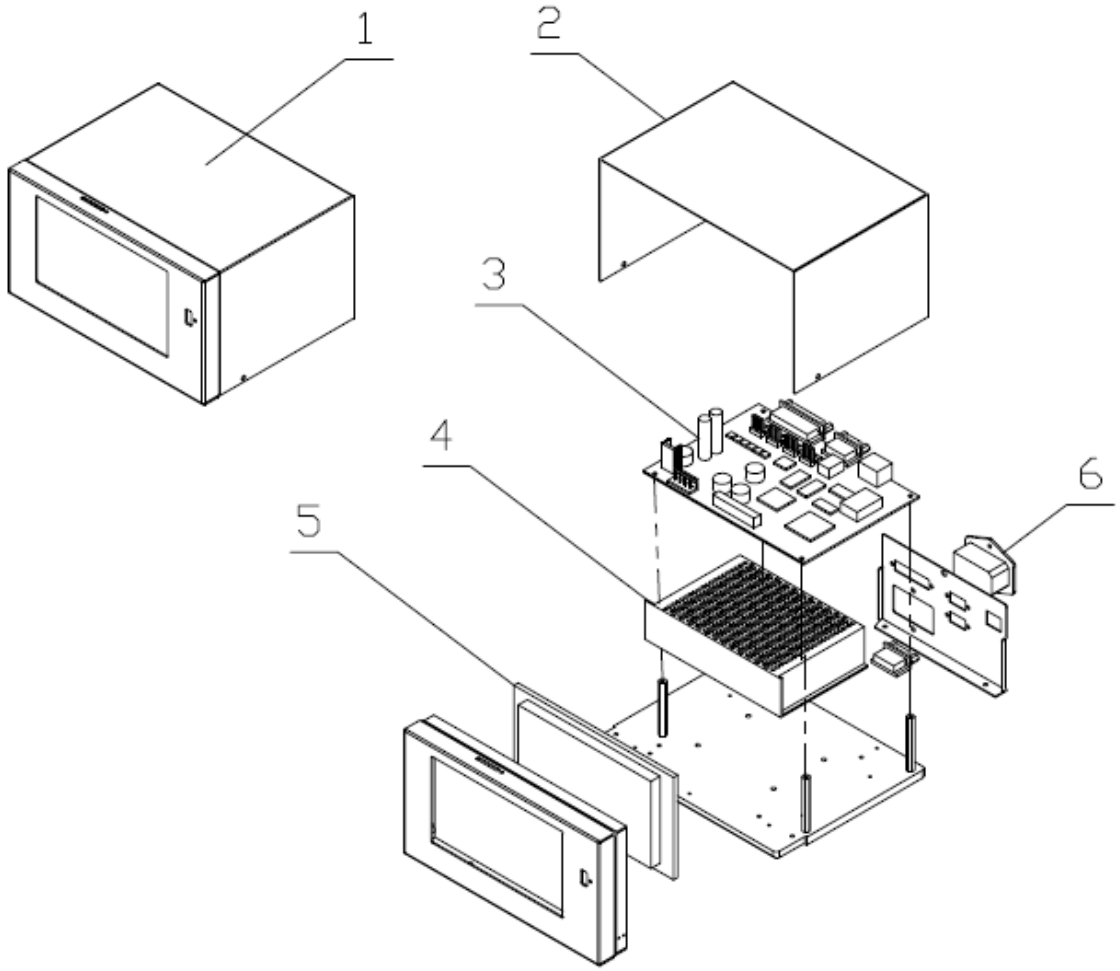
Icon	Diagnose	Cause	Solution
ERROR	Error with hall of printhead	The printhead is not at the home position or Hull can't recognize the magnet in printhead	Turn off power, remove ribbon cassette, check items as below. 1. reel support can move flexibly 2. hull H6 can recognize magnet 3. Driving belt is tight if not, please exchange with new one accordingly
	Ribbon Shortage	Ribbon finish or ribbon break	Pull out ribbon cassette, load a new ribbon or reconnect broken ribbon. Check if ribbon is installed correctly. Check if the 4 hall magnets can receive the signal; if not, adjust the position of H4 until all of them can do it.
	Abnormal Tension	Ribbon break or abnormal tension	Reconnect broken ribbon Check if hull works, there are three magnets in hull roller, all of them can recognize, if not, adjust the position of H4 until all of them can do it.
DOOR OPEN	Cassette Open	The cassette is not installed or doesn't installed correctly	Check if ribbon cassette is installed correctly. Check if hull works.
DISK ERROR	Local hard disk error	SD card error	Power off printer, remove SD card and insert again.
WARNING	Missed Prints	Missed prints	Check speed of packaging machine. 1. Surface Speed (Continuous) low speed mode: 2m/min~25m/min high speed mode: 4m/min~40m/min 2. Frequency Intermittent: less than 450ppm Continuous: 300ppm Printing signals are not acquired correctly Make sure printing signals effective.

	Print Job Error	Print job can't be recognized	Re-load print job. Change new SD card and reload print job. Re-edit print job.

Common Errors	Solution
Boot screen can't jump to ready screen	Restart printer
System time change to year 2069 automatically.	Restart printer. Change the button battery of touch screen.
Touch screen error	Calibrate touch screen. Keep touching no work area until sound "di.." stop, follow instructions shown in blue screen.
Control box is well connected, error flashes on the screen	Check if time in control box is set correctly. Check if there are too many merge variable data, if yes, cancel merge.
Print job download from USB is not fully shown	Use DIKAI U-disk.. Re-load print job.
No printing	Check if print job is selected correctly. Make sure proper space between printhead and rubber anvil or roller. Problem with printhead. Encoder isn't well connected (continuous mode).
Poor Printing Quality	TTR is not even. Dirty printhead, clean it with DK clean wipe. Dirty or damaged rubber anvil or roller. Make sure proper darkness. TTR is not available between printhead and reel roller. Make sure printer is steadily installed without any swing. Make sure proper space between printhead and rubber anvil or roller. Make sure proper air pressure.

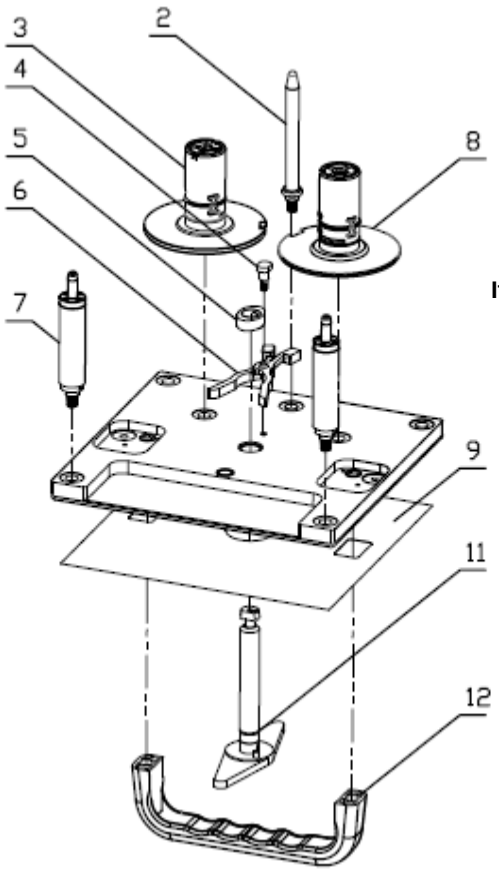
7. SCHEMATICS AND PARTS ILLUSTRATIONS

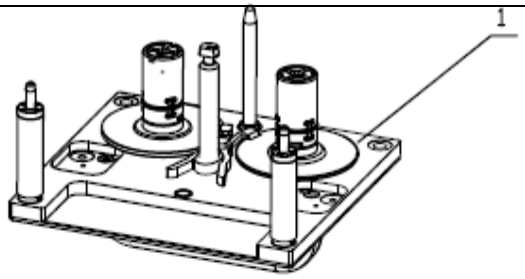
7.1 CONTROLLER BOX



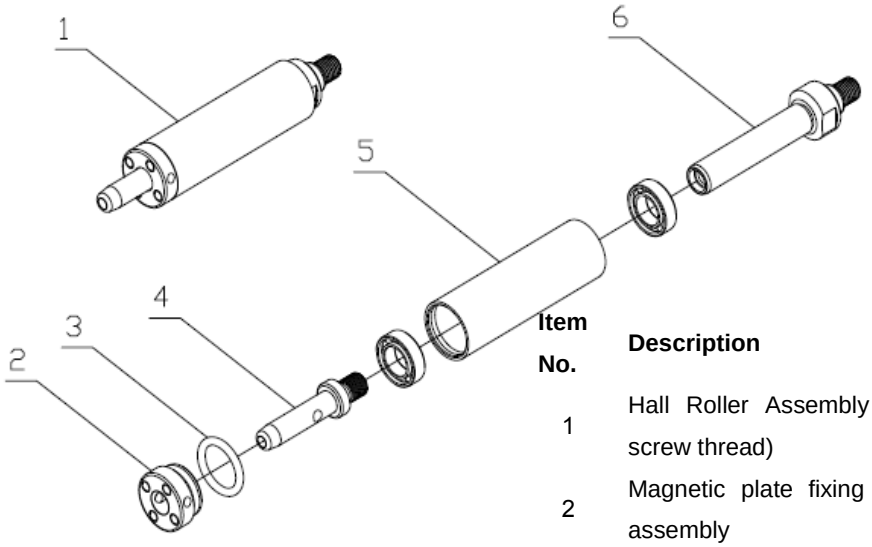
Item No	Description	Part No.	Quantity
1	D03S Controller Box	C03S03000	1
2	Metal Shell	C03S03027X	1
3	Main Control Board	C03S03008	1
4	Power Supply Unit	C03S03026	1
5	Touch Screen	C03S03032	1
6	Power Socket (With Switch)	C03S03025	1

7.2 CASSETTE ASSEMBLY

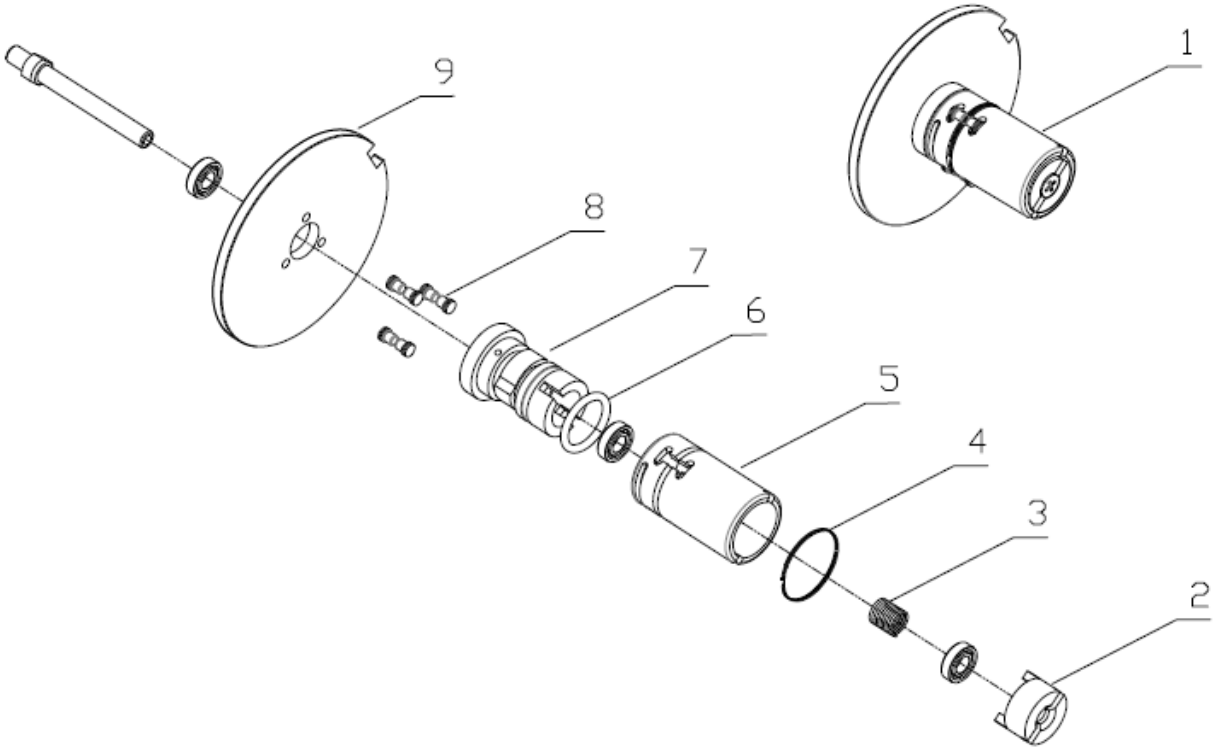




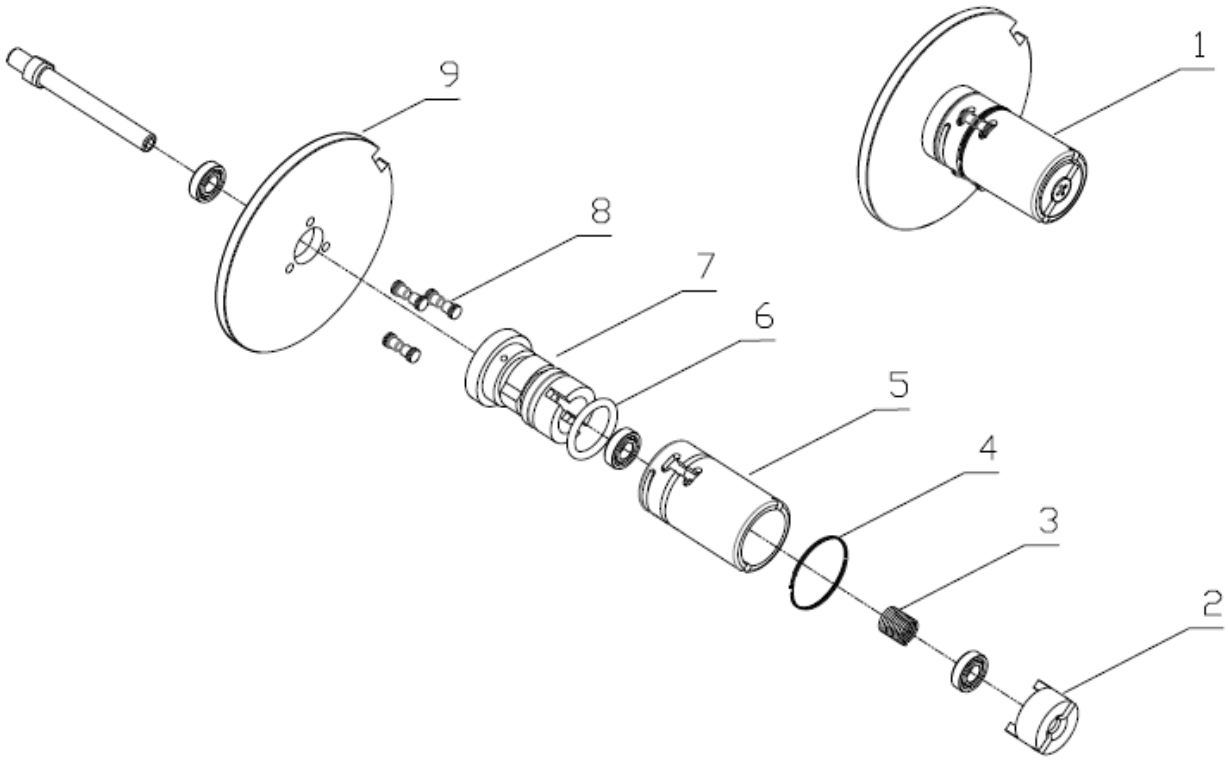
Item No.	Description	Part No.	Quantity
1	Cassette Assembly (LH)	C03S01000LH	
	Cassette Assembly (RH)	C03S01000RH	
2	Cassette Locating Pin	C03S01007	1
3	Supply Reel Assembly	C03S01012	1
4	Elastic Support Shaft	Y0101029	1
5	Elastic Cam	Y0301028	1
6	Friction Elastic Lever	Y0101027	2
7	Hall Roller Assembly	C0301024L	2
8	Take-up Reel Assembly	C03S01024L	1
9	D03S Cassette Paste	C0101036	1
11	Locking Reel Assembly	C0301003	2
12	Cassette Knob	C0301023	1



Item No.	Description	Part No.	Qty
1	Hall Roller Assembly (with screw thread)	C03S01024L	
2	Magnetic plate fixing block assembly	C03S01002L	1
3	O-Ring	Y9900557	1
4	Ribbon Locating Shaft	Y03S01003	1
5	Hall Roller (with screw thread)	Y03S01025L	1
6	Hall Shaft	Y03S01027	1



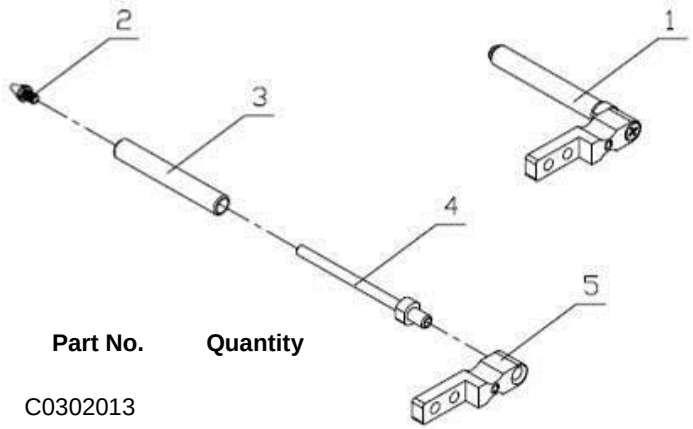
Item No.	Description	Part No.	Quantity
1	Supply Reel Assembly	C03S01012	
2	Transmission Sleeve	Y0101021	1
3	Compression Spring	Y0101031	1
4	Locking Clip	Y0301016	1
5	Locking Sleeve	Y0101015	1
6	O-Ring	Y0101035	1
7	Reel Base	Y03S01014	1
8	Tighten Shaft	Y0101006	3
9	Supply Reel	Y0101013HA	1



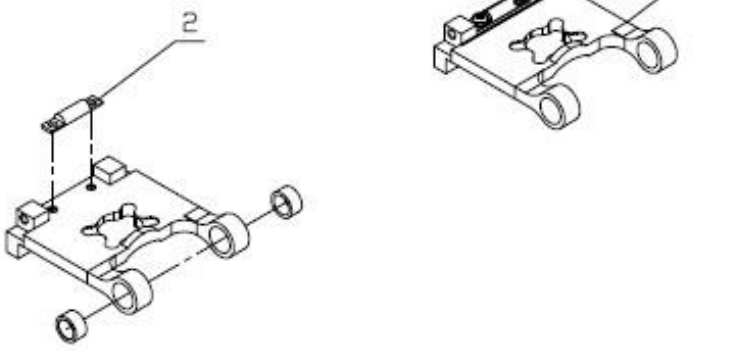
Item No.	Description	Part No.	Quantity
1	Take-up Reel Assembly	C03S01019	
2	Transmission Sleeve	Y0101021	1
3	Compression Spring	Y0101031	1
4	Locking Clip	Y0301016	1
5	Locking Sleeve	Y0101015	1
6	O-Ring	Y0101035	1
7	Reel Base	Y03s01020	
8	Tensioner Shaft	Y0101006	3
9	Take-up Reel	Y0101013HA	1

7.3 PRINTER UNIT

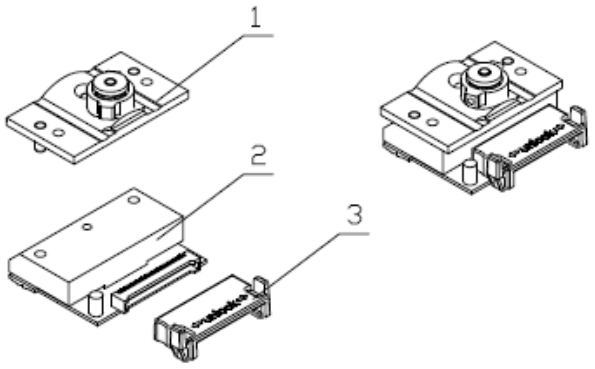
7.3.1 General Parts



Item No.	Description	Part No.	Quantity
1	Peel Roller Assembly	C0302013	
2	Peel Fix Cap	Y0102062	1
3	Peel Roller	C0102014	1
4	Peel Roller Shaft	Y0302015	1
5	Peel Roller Support	Y0302016	1

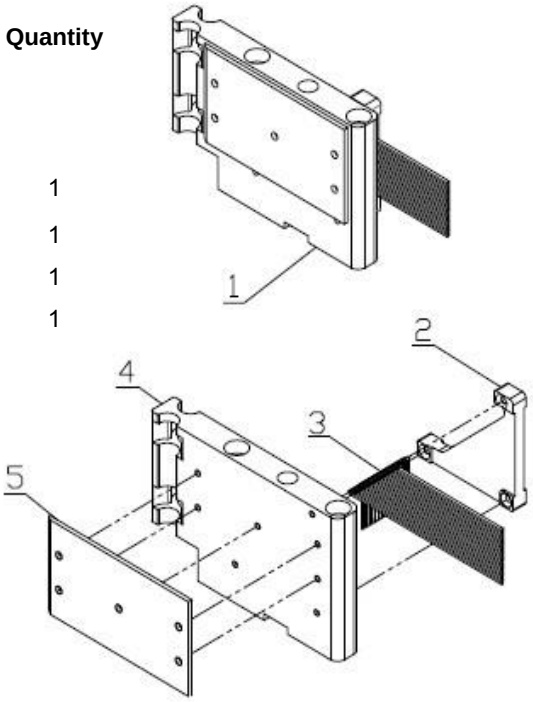


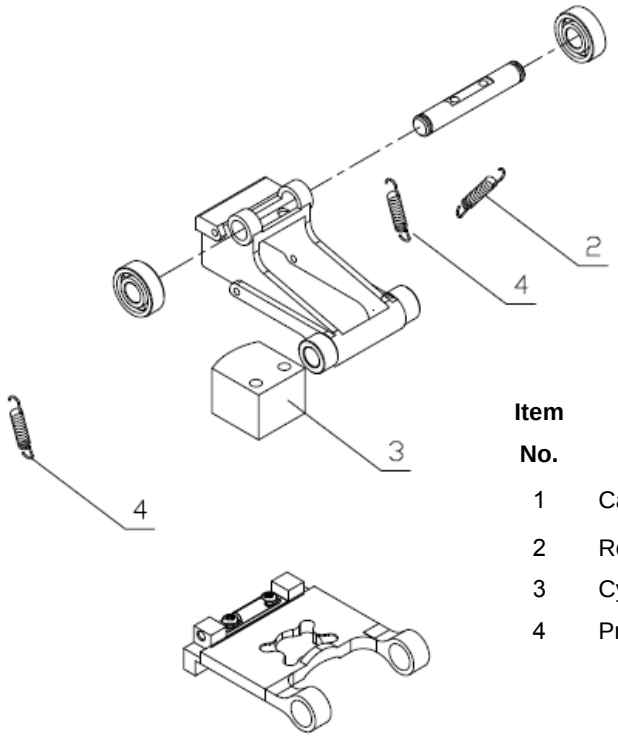
Item No.	Description	Part No.	Quantity
1	PHM Mounting Assembly	C0102003	
2	PHM Mounting Shaft	Y0102005	1



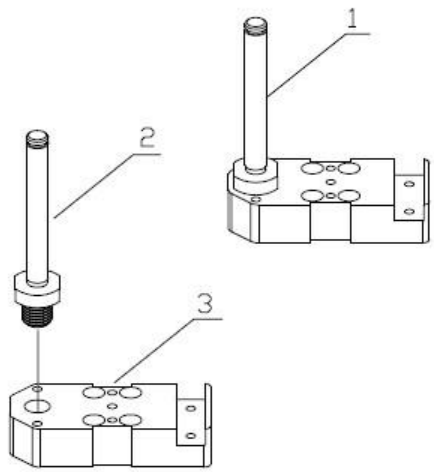
Item No.	Description	Part No.	Quantity
1	Printhead Module Assembly	C0102006	1
2	Printhead	C0102008	1
3	32 Cable Protector	Y0302094	1

Item No.	Description	Part No.	Quantity
1	Support Plate Assembly	Y0302074	
2	Cable Guide Block	Y0302061	1
3	Printhead Cable	Y0102058	1
4	Support Plate	Y0302022	1
5	Support Pad	Y0302057	1



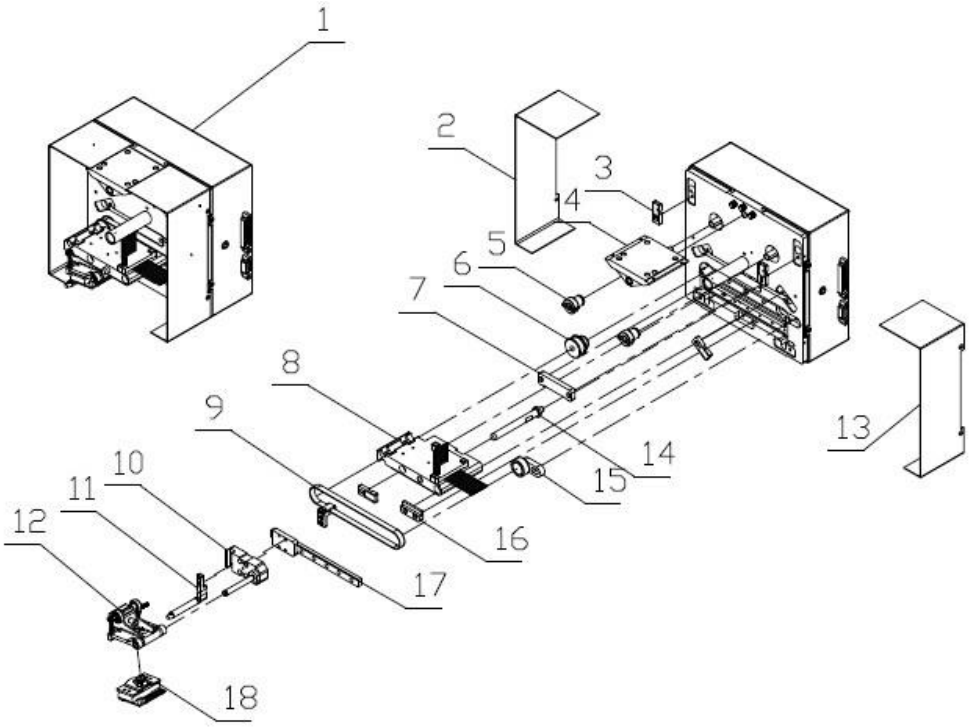


Item No.	Description	Part No.	Quantity
1	Carriage Cylinder Assembly	C0102010	
2	Reset Pull Spring	Y9900308	1
3	Cylinder	C0102076	1
4	Printhead Pull Spring	Y9900298	2

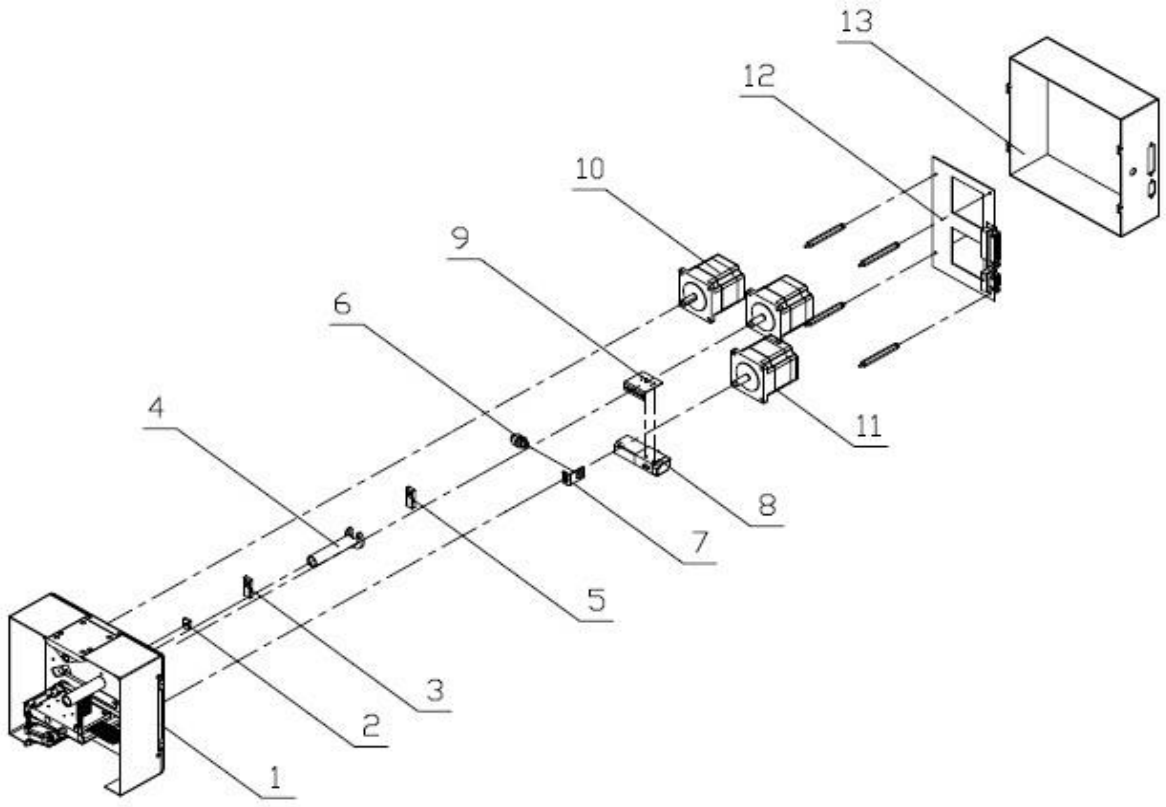


Item No.	Description	Part No.	Quantity
1	Shaft Mounting Block	C0302051	
2	Shaft	Y0102017	1
3	Mounting Block	Y0302018	1

7.3.2 Printer Unit



Item No.	Description	Part No.	Quantity
1	Printer Unit ---Left hand	C03S02000LH	1
	Printer Unit ---Right hand	C03S02000RH	1
2	Left Front Cover	Y0302043	1
3	Hall Element	C9900326	3
4	Mounting Block Assembly	C0102023X	1
5	Transmission Shaft	Y0302026	2
6	Driving Capstan	Y0102025	1
7	Printhead Cable Fixer	Y0302048	1
8	Support Assembly	Y0302074	1
9	Belt	Y9900323	1
10	Shaft Mounting Block	C0302051	1
11	Peel Roller Assembly	C0302013	1
12	Carriage Cylinder Assembly	C0102010	1
13	Right Front Cover	Y0302042	1
14	Support Shaft	Y0102031	1
15	Driven Capstan	C0302019	1
16	Pipe Fixer	Y0302024	1
17	Guide Rail	Y9900324	1
18	Printhead Module Assembly	C0102006	1



Item No.	Description	Part No.	Quantity
1	Basic Plate	Y03S02001	1
2	Locking Block	Y0102028	1
3	Hall Mounting Block	Y0302075	1
4	Locking Sleeve	Y0102027	1
5	Hall Element	C9900326	1
6	Connector	Y9900303	1
7	Connector Fix Block	Y0102050	1
8	Solenoid Valve	C9900290S	1
9	Solenoid Valve Fix Block	Y0302032	1
10	Motor	Y0302001	2
11	Motor	Y0102052Z	1
12	Interface PC Board	C0102037	1
13	Back Cover	Y0302045	1

7.4 OTHER SPARES

Item No.	Description	Part No.	Specifications	Quantity
1	Power Cable (with plug)	Y0105022	3m	1
2	Power Cable (no plug)	Y0105002	4m	1
3	Drive Cable	Y0105003	3m	1
4	I/O Cable	Y0105004	3m	1
5	TTO Ribbon Sample	DG33100BK	33mm*100m	1
6	Fastening Accessories	Y0105008		1
7	Air Pipe Assembly	C0105009		1
8	Air Pressure Regulator	C0105010G		1
9	Instructions Manual	DKTTOSM-C	English	1
10	Intermediate Relay	Y0105021		1
11	USB	Y9900321	8G	1

Optional Parts

Item No.	Description	Part No.	Specifications	Quantity
1	Rubber Anvil	SD31100JD	98mm*98mm (intermittent)	1
2	Encoder	C991500D-B45	5-24V (continuous)	1

Consumables

Item No.	Description	Part No.	Specifications	Quantity
1	Printhead 32mm	C0102008	32mm width, 300dpi	1
2	Rubber Anvil	SD31100JD	98mm*98mm	1
3	Cleaning Wipe	C9900286	50pcs/kit	1

7.5 RECOMMENDED SPARES

Item No.	Description	Part No.	Quantity
1	Peel Roll	C0102014	1
2	Hall Roll Assembly	C03S01024	2
3	Belt	Y9900323	1
4	Friction Elastic Lever	Y0101027	2
5	Tighten Shaft	Y0101006	3
6	Locking Clip	Y0301016	1
7	Hall Element	C9900326	1
8	Print Head Cable	Y0102058	1

8. CONSUMABLES INTRODUCTION

DIKAI TTR

- ⇨ DG, Wax/Resin TTR；
- ⇨ DC, Premium Wax/Resin TTR；
- ⇨ DB, Ultrathin Wax/Resin TTR；
- ⇨ DT, Resin TTR

Wax/Resin TTR

- ✧ Combination with wax and resin, with advantages of two material.
- ✧ Need medium temperature transfer ink to packing film.
- ✧ Suitable for high speed printing.
- ✧ Have good adhesion on most of packaging film.
- ✧ Best solution for most applications.
- ✧ Reasonable costs.
- ✧ Mostly used for candy/fast food industry.

Resin TTR

- ✧ High melting point, need higher temperature to transfer ink to packaging film.
- ✧ Suitable for low printing speed.
- ✧ Excellent adhesion and abrasive-resistance.
- ✧ Suitable for high demanding applications, such as polyethylene or low-temperature environment.
- ✧ Higher cost.
- ✧ Mostly used on infant food, pharmaceutical industries.

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