



SEALED CUP PAD PRINTER

OPERATION INSTRUCTION

One color pad printer

PM1-100

PM1-150

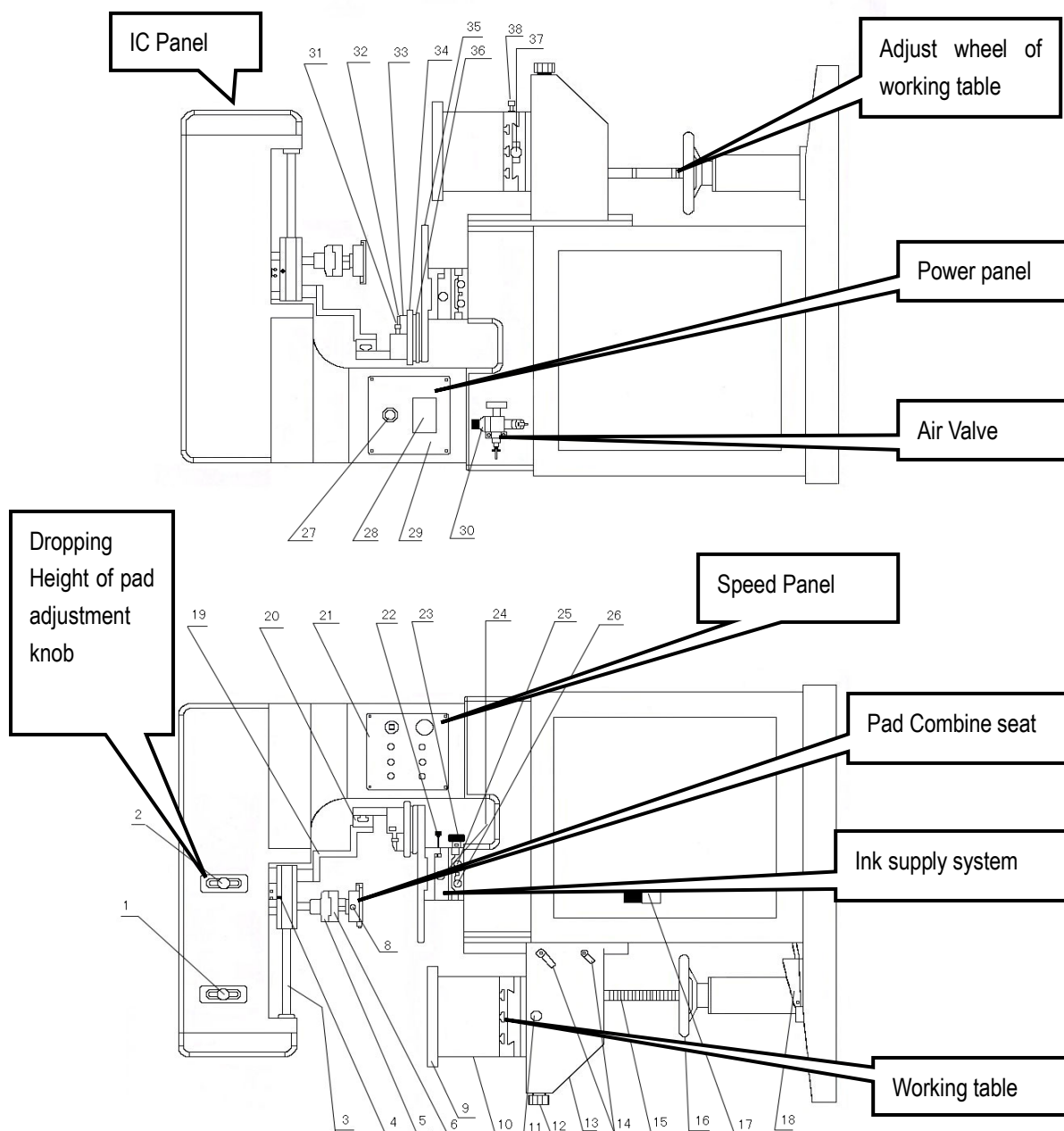
PM1-200





Preface

LC Industrial company Limited published a series of new type pad printing machines, which adopt the full automation control system, and has more stable and reliable operation. The automation program is much more flexible, which simplifies the operation procedure components of the machine are made of coin alloy, which is light and sturdy, and is in compatible with the Europe and Japan made pneumatic organs , also with the famous brand hardened shaft and bushing, to extend the service life of mechanical parts, also, with our exclusive---the super long slide stroke and machine-turning design, you can print large size substrate easily and adjust the machine conveniently.



(Machine Structure Drawing)



In order to protect the rights and interests of our customers, every printer has been checked and tested strictly before being dispatched from the factory, and we try our best to provide our customers with the perfect after sales service

Our goal is to provide our customers with first class products and services, which are of the first class technology and quality!

Name of parts:

1.Structure instruction

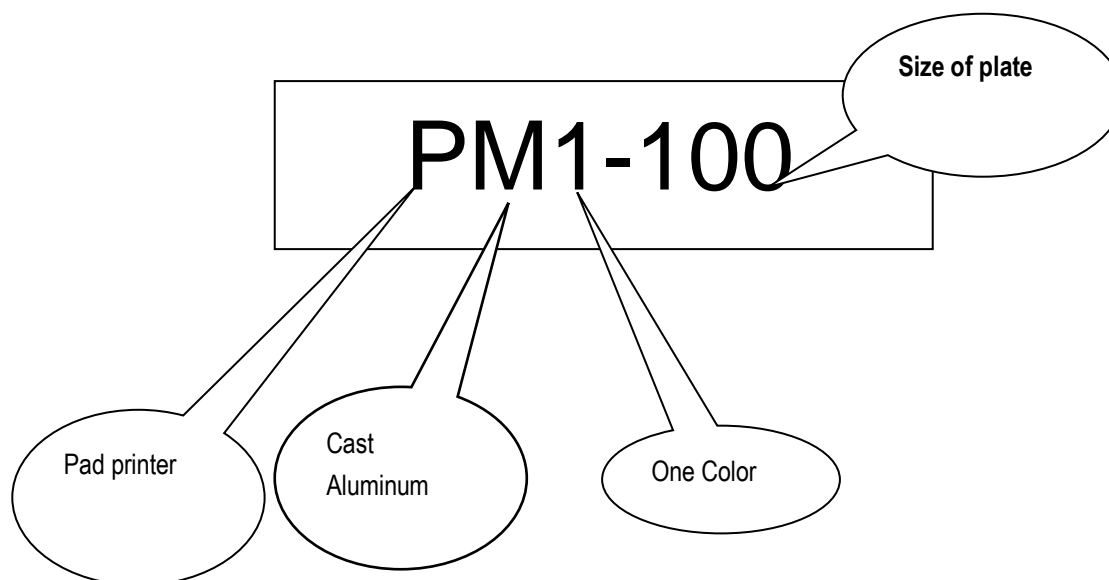
1. Knob for adjusting the vertical stroke length of printing
2. Knob for adjusting the vertical stroke length of dipping ink.
3. Slide shaft.
4. lube nipple port
5. Interval plate
6. Transverse slide 7. Fixture of printing pad 8. Setscrew 9. Shuttle
10. Pedestal of shuttle
11. Setscrew for fixing the shuttle after adjusting its position in front-back direction
12. Inching knob for adjusting the position of worktable in front-back direction
13. Mounting plate for lifting the worktable
14. Spanner wrench for locking the height of the mounting plate
15. Lifting screw 16. Hand wheel for lifting
17. Door to interior structure 18. Foot-switch
19. Bracing Frame of ink cup 20. Transverse slide of ink cup
21. Operation panel of pneumatic system
22. Knob for adjusting the angle of plate
23. Knob for adjusting the position of plate in front-back direction
24. Setscrew for fixing the plate after adjusting its position in front-back direction
25. Inching knob for adjusting the position of the first plate on the right in left-right direction
26. Inching knob for adjusting the position of the second plate on the right in left-right direction
27. Fuse 28. Power switch
29. Operation panel of electric circuit
30. Moisture filter
31. Setscrew of the bolt
32. Cover of ink cup
33. Ink container
34. Ring for fixing the ink container
35. Steel ring
36. Pad printing plate
37. Inching knob for adjusting the position of shuttle in left-right direction
38. Setscrew for fixing the shuttle after adjusting its position in left-right direction.



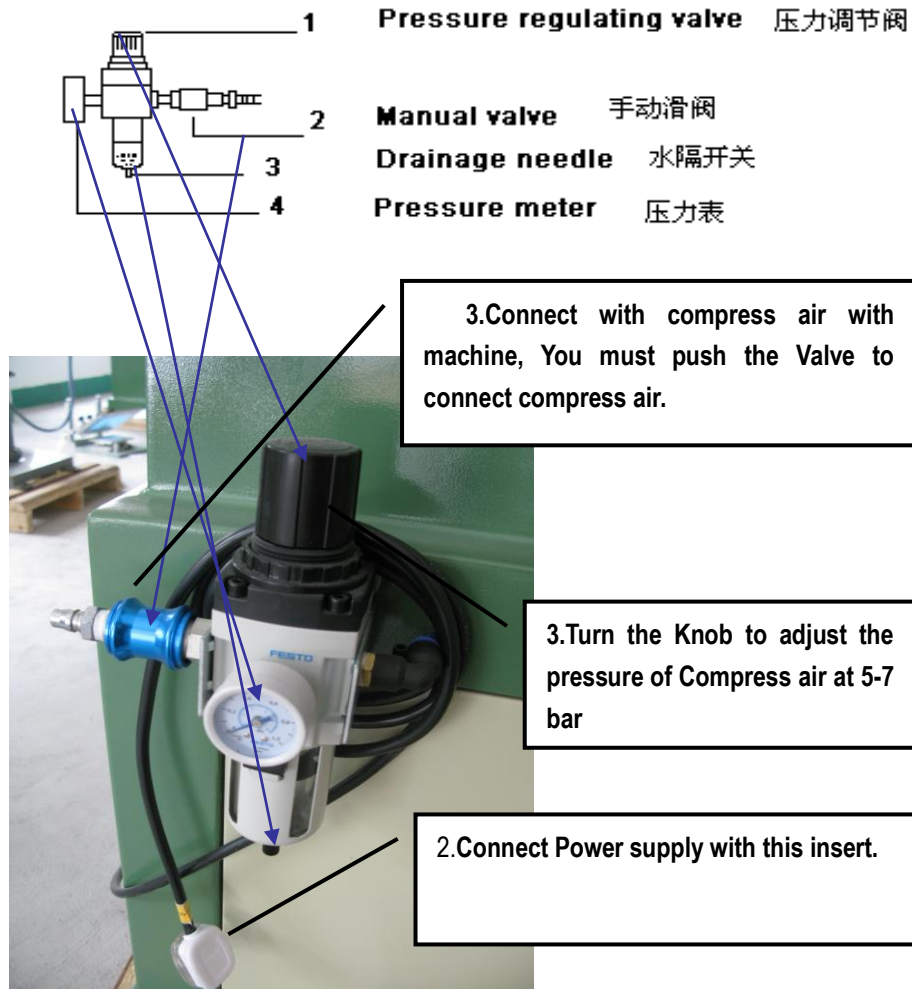
2. Models and plate size of pad printers

Model	SIZE of Pad plate	Description	Plate size
PM1-100	100*100mm	Pneumatic 1-colour pad printer	100×100 mm
PM1-150	100*150mm	Pneumatic 1-colour pad printer	100×150 mm
PM1-200	100*200mm	Pneumatic 1-colour pad printer	100×200 mm

Model :



3. Installation, adjusting and usage



This printing machine is appropriate to be installed in a clean, slow airflow, ash-free workshop, where the temperature should be kept at about 25°C (the printing ink is easy to volatile if the temperature is too high) to ensure the accuracy, the printer should not be rammed fiercely in the course of transport.

1). Leveling the machine.

There are level adjusting screws distributed over the four foot-pads of machine, when adjusting, put the provided foot-pads on the ground first, which should be aimed at the screws. Turn the screw nut and then revolve the screws one by one in order to level the machine, finally, tighten the screw nut to prevent the screw from coming loose.

2). Power supply.

The machine applies both 220v and 240v electrical source, the consumption of compressed air is 0.43/CYCLE.

3) Adjusting the pressure meter.

When the machine is working, the pressure of compressed air in-breathed usually should be adjusted to



5 BAR. if you find the index is on the high side, push the pressure regulating valve upwards, and then revolve it anticlockwise to the standard pressure, while on the contrary, revolve it reversely, after adjusting press the valve downwards in order to fix it within the confines of standard pressure.

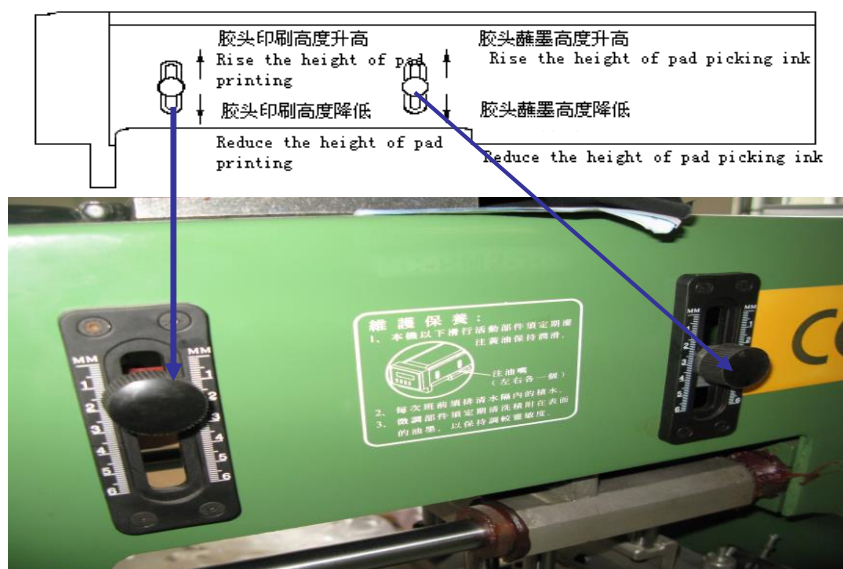
4). Testing each mechanical part:

Whether each mechanical part is operating normally is important to the print quality and service life of the machine, so checking and testing all the components of the printer before printing is a matter of importance.



- 1> Connect the machine to the electrical source, and turn on the power switch, see if the counter on the IC panel displays "000000", if it displays other numbers, then the machine can not be started, you should check the electric circuit.
- 2> Press the key "Table" (refer to drawing 5) to see whether the pad moves smoothly in front-back direction, and if there are some odd sounds.
- 3> Press the key "Table" (refer to drawing 5) to see if the pad moves normally in vertical direction, and if the height of pad needs to be adjusted.
- 4> Press the "setting" (refer to drawing 5) to see if the shuttle or conveyor moves normally, and then enter the automatic printing mode. To see if the slide speed of shuttle or conveyor is consistent with the lifting speed of pad, and if there are any odd sounds.

5). Adjusting the vertical stroke length of pad (see drawing 3)



Making rubber pad to contact with plate:

1. Adjust the pad seat;
2. Adjust the Knob B.

Making rubber pad to contact with plate:

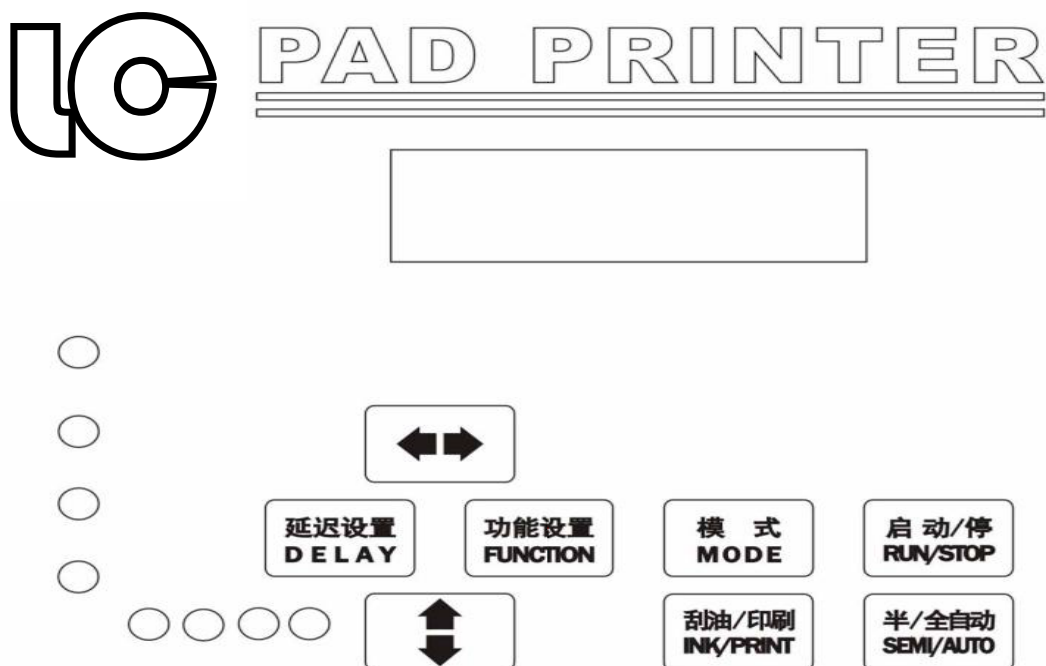
1. adjust the pad seat;
2. adjust the Knob A;



Drawings and instructions of each key part



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Email: sales@lcpadprinter.cn



6) Instructions of the keys

1, DISPLAY SCREEN; After the machine electricity display shows the following content;

M0 T1 T2 0-0 P1

AUTO STOP 0000

"M0" is the mode of "T1 T2 0-0" is speed, "P1" is the number of oil absorption, "AUTO" is fully automatic mode, is to STOP state "STOP", "0000" is the number of printing.

2, MODE : each light press 1 time, mode 1, switching, code is as follows:

M0 > -- an oil absorption, seal, no workbench (monochrome machine mode)

M1 > -- an oil absorption, printed twice, workbench through work (two-color machine mode)

M2 > -- an oil absorption, printing, workbench through work (single color mixing mill mode)

T1 - and T2 T3-0 0 0 (speed mode) > - show/change the machine speed.

T1 is print head for printing time, 0-9 (9 is the fastest), can be set to "delay Settings";

T2 is cycle working hours, 0-9 (9 is the fastest), the machine stops according to the "delay Settings" Settings, run time Settings to "set function";

Residence time after T3 is workbench mobile, 0-99 (0 for fastest), the machine stops by the wiper/printing, semi/full automatic key set.

Note: in this mode is set to end, to be prepared in accordance with the "mode" button to return to the required working mode, restart the machine.

COUNTER the SV (counting alarm Settings mode) > -- the setting values of 0-9999 time, number of printing the setting values to achieve, to stop work and buzzer, long press "semi/full automatic, numerical value to zero, to complete a batch printing.

3, "BEFORE/AFTER": stop mode, press, sliding head forward or backward run again. According to this setting when machine is running the cycle time of T2.

4, "UP/DOWN": in the condition of downtime, press, glue next run once on the head. The machine stop time into a state according to the rubber head straight up and down (with steel plate washing).

5, "DELAY" : when the machine stop set "T1 T2 time", long press the shift between the T1 T2, T3, the run-time can be set up "T1" time.

6, "FUNCTION" n: the machine stops, the press, shuttle worktable shift; Run-time, press, glue head oil absorption times P1 in 1/2 transformation.

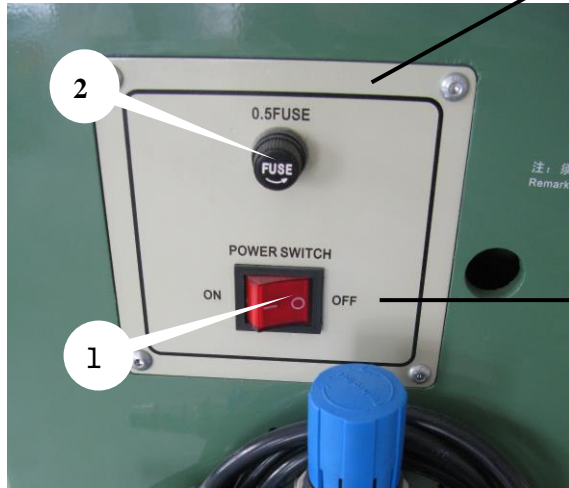
7, "RUN/STOP" : click this button at any time, start or stop the machine running.

8, "PRINT/INK": Automatic wiper switch function, each time you press the, can from the state of fully automatic printing directly to automatic wiper status, or from automatic wiper status into fully automatic printing, need not stop. Stop condition can increase "T3" time.

9, "SEMI/AUTO": Semi-automatic (run 1 week)/automatic (continuous) mode change the key. Stop condition, can reduce the "T3" time, number of long press this button to print out.



● Power supply panel



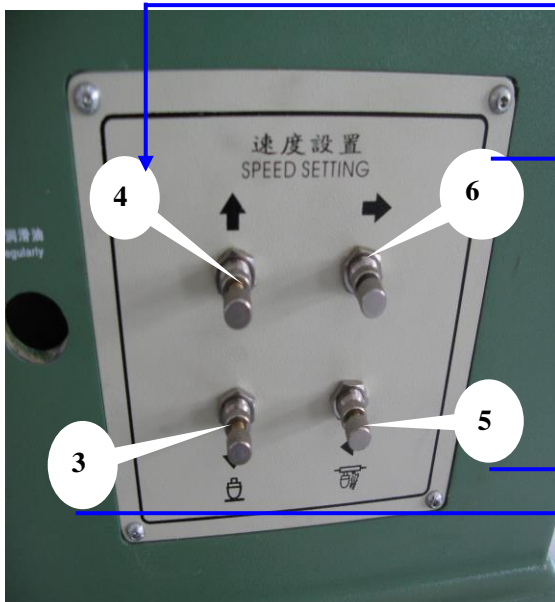
1. Power switch

When you connect power line with machine, Please press the switch to open the power. Then the indicator on the IC panel will be turn on

2. Fuse

When you find the indicator is not light after turn on the power switch, Please check the fuse, Please confirm the fuse is good before you check other parts.

● Speed Panel



4. Adjust the speed of rubber pad from Down to up

6. Adjust the speed of rubber pad from working table to plate

5. Adjust the speed of rubber pad from plate to working table

3. Adjust the speed of rubber pad from up to down

These adjustment screws installed on the cylinder, so they adjust only the rubber pad moving speed, The machine speed must be adjusted through the speed setting on IC panel.

- **Foot switching**

Notice:

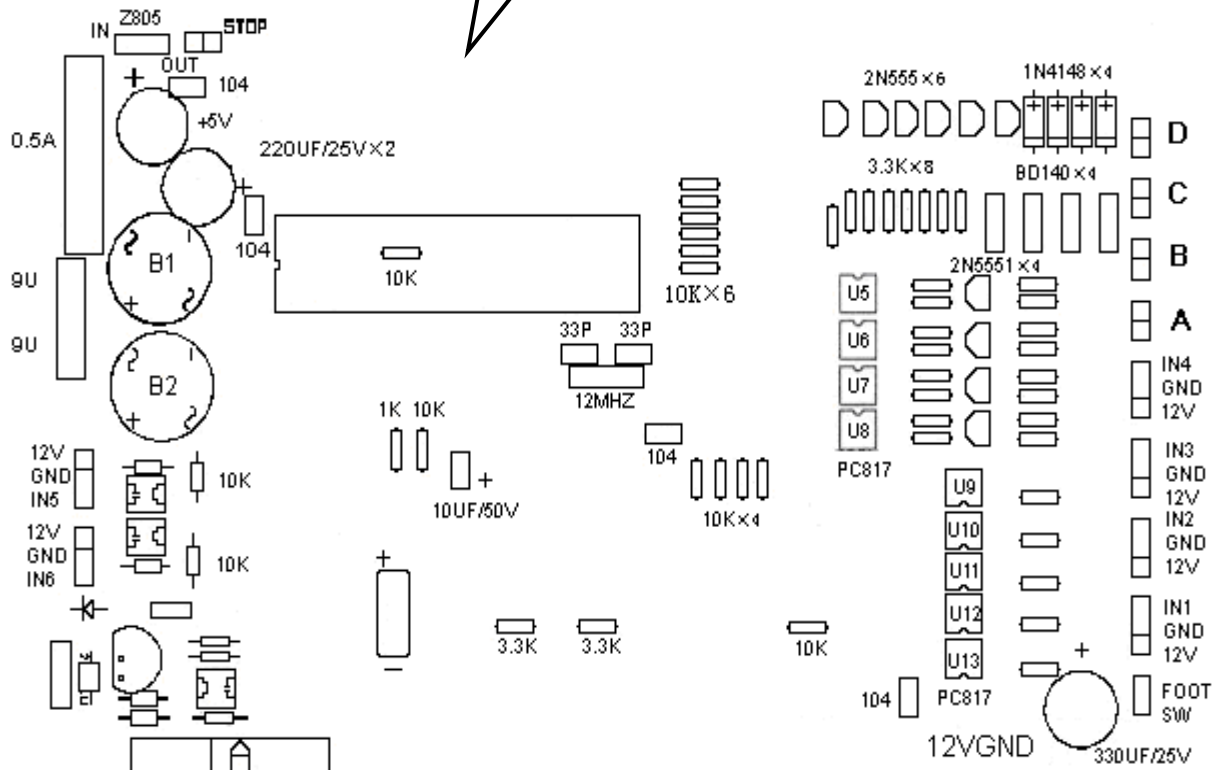
Please be careful of press the hand of operator when operating the machine with foot switching.



Foot Switching:

Pad printer can be operated by Foot switching, Press one time by footer hand, the machine will be finish one printing circle. This mode must be running under semi-automatically setting.

5.Circuit Diagram





Instructions:

D----connects to solenoid valve of the last two cylinders for sliding the shuttle. (The4 color pad printer with shuttle)

C----connects to solenoid valve for sliding the conveyor (pad printer with conveyor)/connects to solenoid valve of the first two cylinders for sliding the shuttle (the4-colour pad printer with shuttle)/connects to solenoid valve for sliding the shuttle (the 2-colour pad printer with shuttle)

B----connects to solenoid valve for lifting the pad

A----connects to solenoid valve sliding the sliding carriage.

IN4

GND ----Connects to the proximity sensor for controlling the down stroke length of the pad in its forwards stroke.

12V

IN3

GND ----Connects to the proximity sensor for controlling the down stroke length of the pad in its forwards stroke.

12V

IN2

GND ----Connects to the proximity sensor for controlling the up stroke length of the pad in its forwards stroke.

12V

IN1

GND ----Connects to the proximity sensor for controlling the up stroke length of the pad in its forwards stroke.

12V

FOOTSW-----connects to the foot switch.

12v

GND

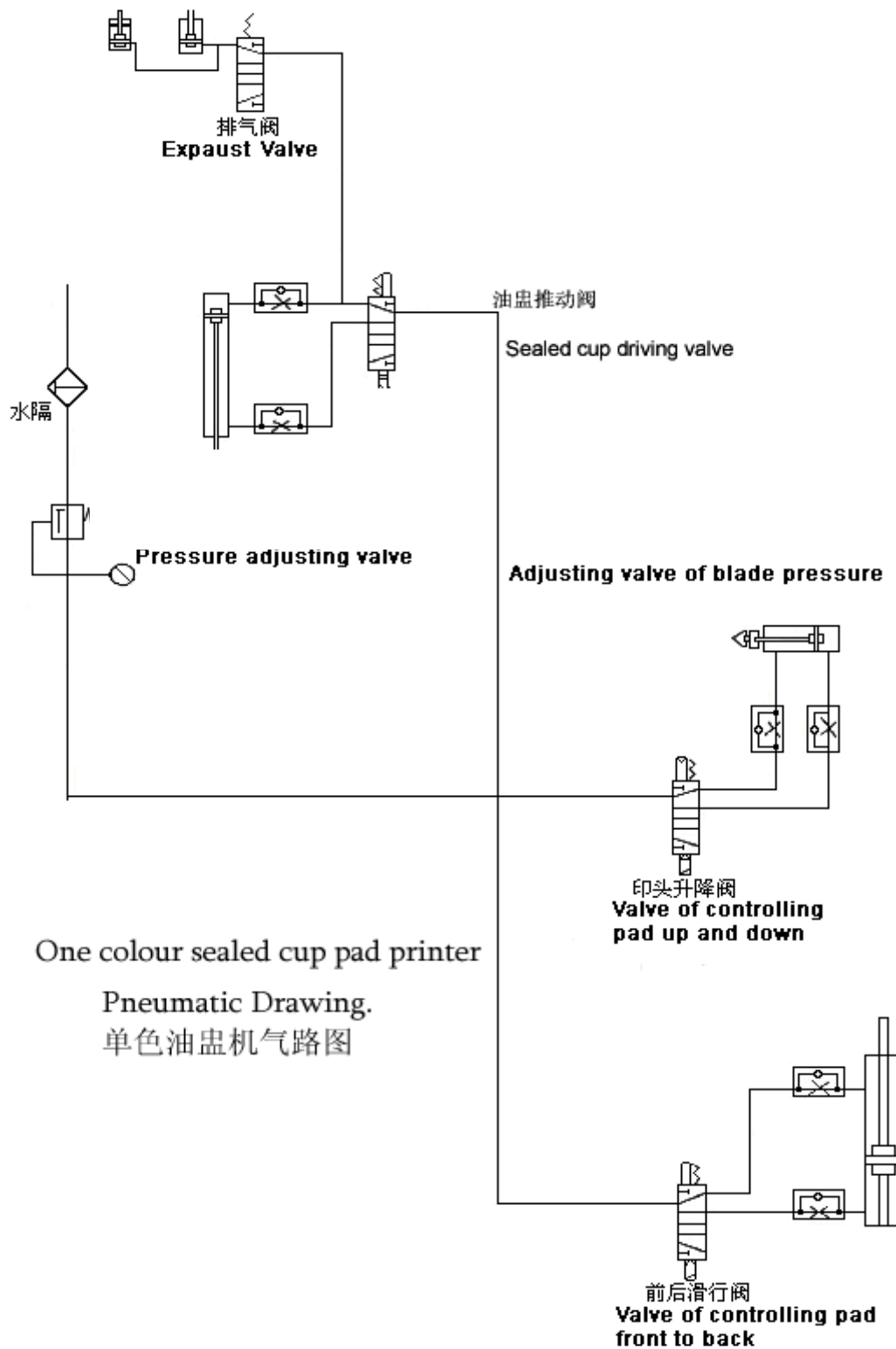
IN5-----Connects to the proximity sensor of the conveyor cylinder

12v

GND

IN6

6. Pneumatic drawing

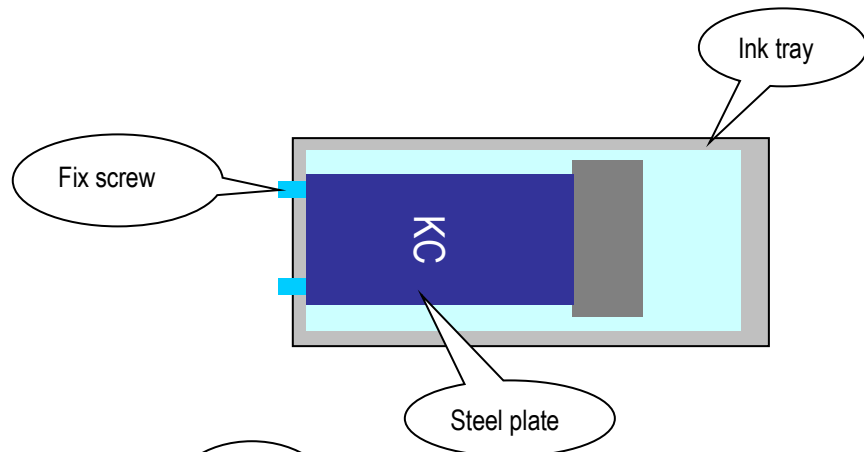


7. Operation Process

1) Connecting

power supply

220V/50HZ to machine; Some countries use one phase 110V Voltage, we will change the power supply according to your requirements, please confirm it before you ordering our machine.

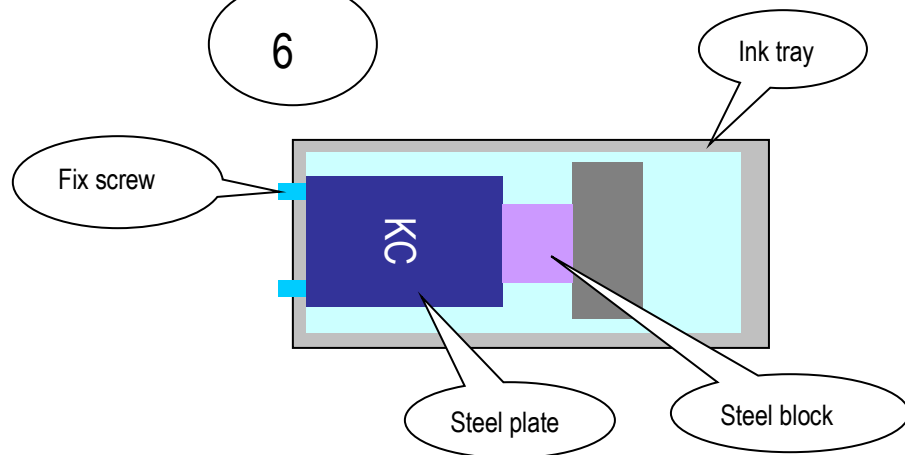


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2) Connecting

with compress

air.



So one compressor must be installed in your printing room. Please ordering one set compressor before you ordering our machine. Of course, we will help you to order if you make demands to our sales representative

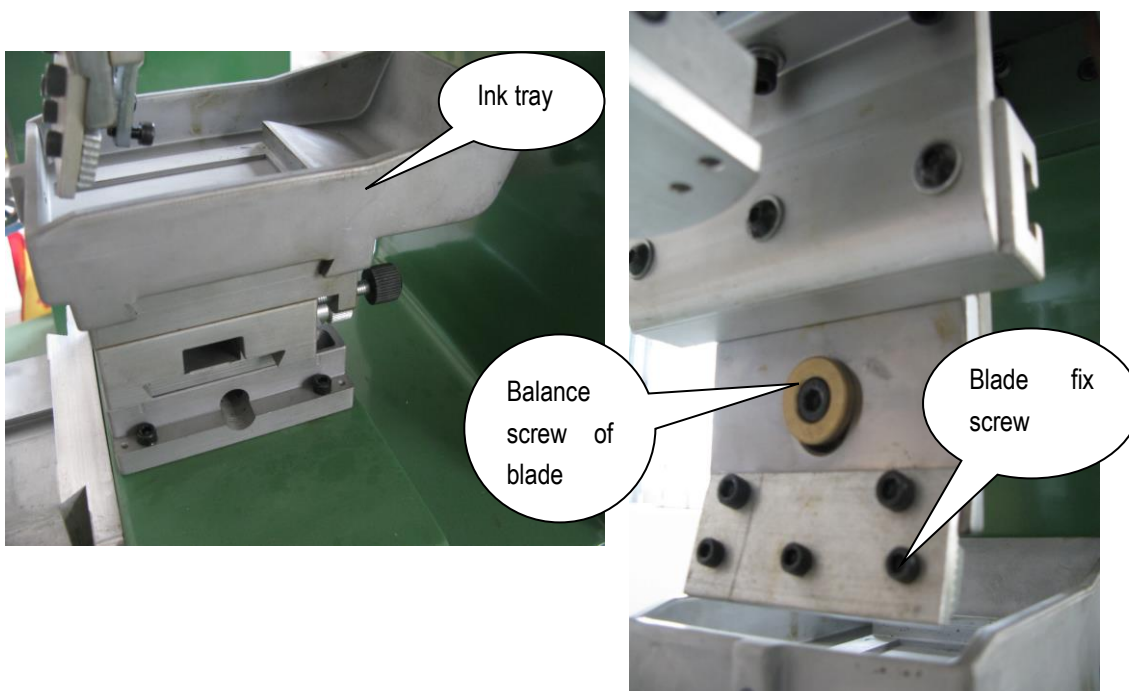
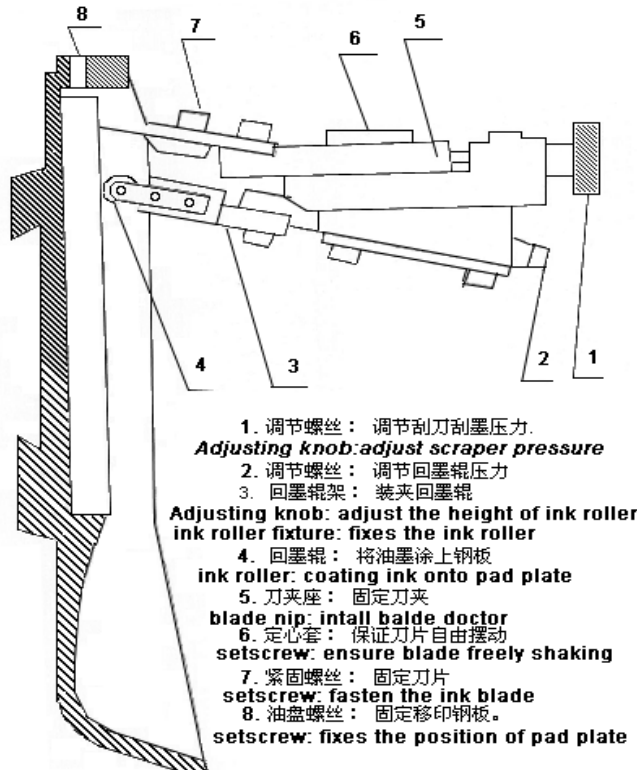
3) Installing pad plate.

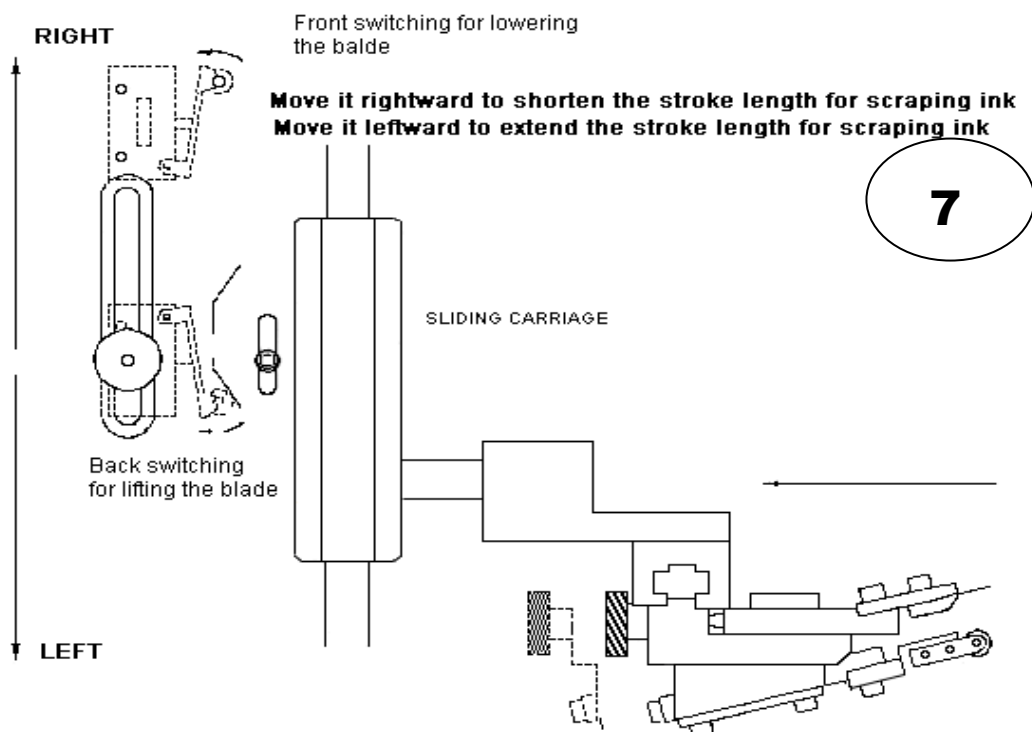
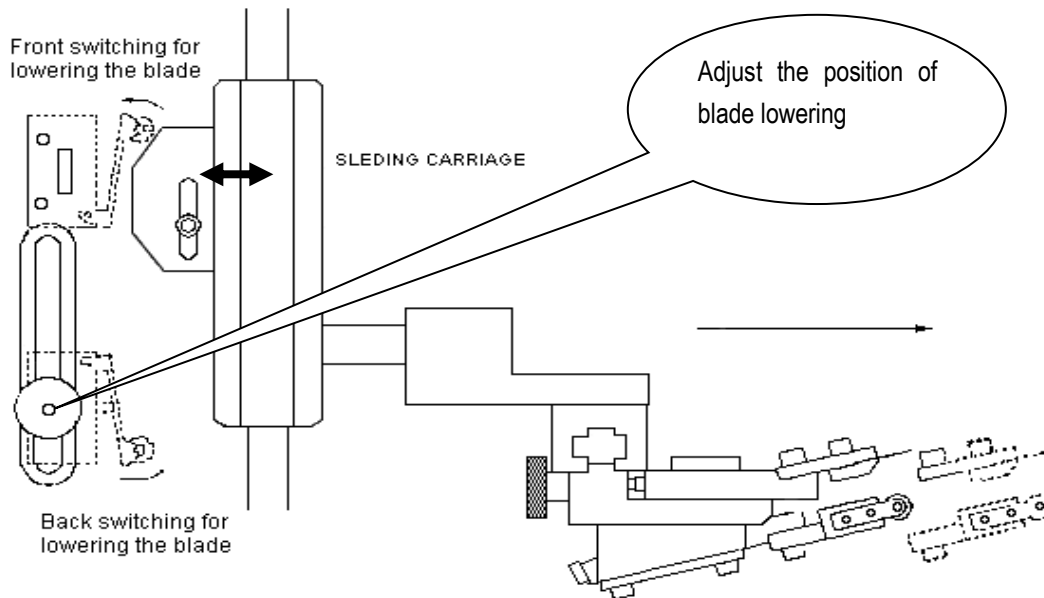
Any printing document must be etched onto pad plate. Our inkwell pad printer use 10mm thickness steel plate. At the first order, if you provide printing document to our sales representative by email, we will make one pc free, we will give you a technology support on how to make steel plate by yourself, we will provide completely plate-making solution for you. Loose the screw (8) at the front end of ink-tray and put the pad plate into it, then fix the screw. Maybe you use more smaller size plate, Please add one pc steel block into ink tray



4) Install blade doctor .

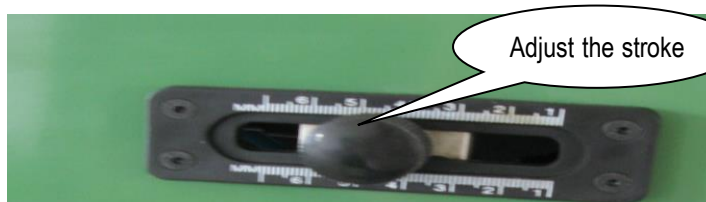
We send two pcs steel blades with machine freely, the length is 300mm, cut it according to the width of steel plate, make sure the blade cover the words on plate so that it can remove the ink when printing. Please make sure the blade parallel with plate, the fix the screw (7).





5) Install ink roller.

There are one set ink roller (4) in tool box, Please install it according to the drawing.



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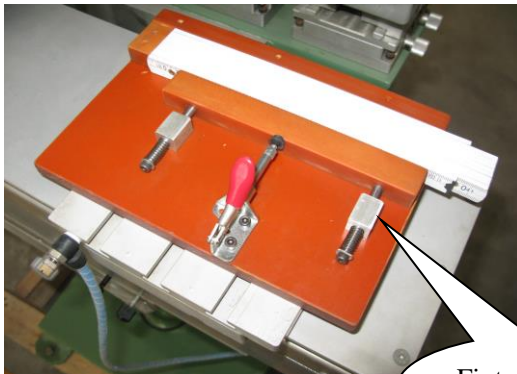


6) Adding ink and thinner.

Different base materials substrate need different ink types, Marabu ink is famous ink brand in the world, LC printing Machine provide LOGO, ALPHA ink for you if you want to use more cheaper ink and thinner. We will give you some advice on how to choose ink, please enquire to our sales representative. Any ink need testing before printing. First adding ink to the ink tray with ink adjustment blade, then pour some thinner according to the percent of 1:5, Start the machine at the key of to make the blade and ink roller to coat ink, if the blade can not remove ink coated on the plate, Please adjust the screw (1) or adjust the pressure button on the side of pad printer to increase the pressure of blade a bit till the blade remove the ink completely.

7) Installed rubber pad.

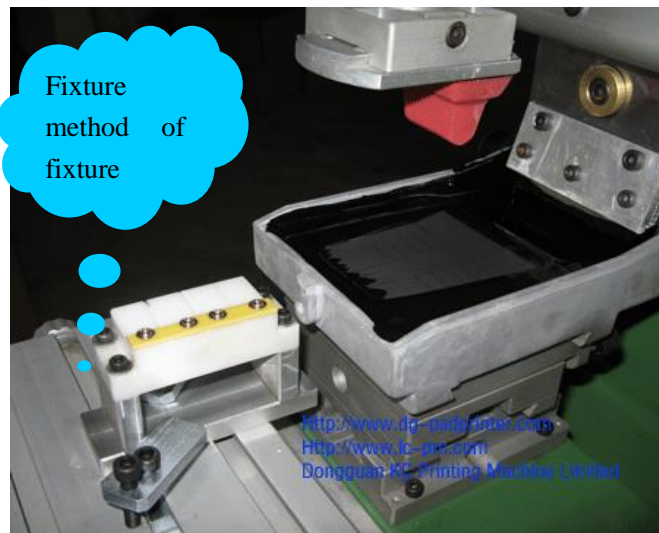
Please choose rubber pad according to the design size on the plate, Make sure the bottom size of rubber pad can cover completely the design one the pad plate. First loose the screw 9, (8-drawing), take down the guide plate (50), use one screwdriver to fix the rubber pad. Then install the guide plate into the sliding carriage (4). Please move the position of rubber pad to contact with printing design, Fix all screws and keep the rubber pad not movement.



Fixture for ruler



Fixture for disk



Fixture method of fixture

Printing testing drawing

<http://www.dg-lc-printer.com>
<http://www.lc-print.com>
Dongguan LC Printing Machine Limited



8) Install fixture.

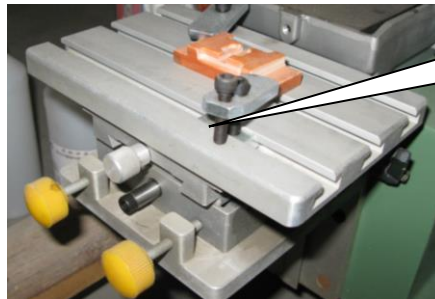
It is very important to make fixture according to your objects to be printed. Some fixtures made by unsaturated polyester putty, other precision fixture need to make with lathe machine and milling machine. At the first order, we will suggest you sending some products you printed, we will make one only a little money.

There are T model trench on the working table. It used to fix the fixture when printing. Before printing, please put the fixture

onto the working table, adjust the position of rubber pad so that the rubber pad can print the words to a correct position, then fix the screw. Precision position adjustment need to use the micro-adjustment screw of working table.

Adjustment of the working table. Drawing 10.

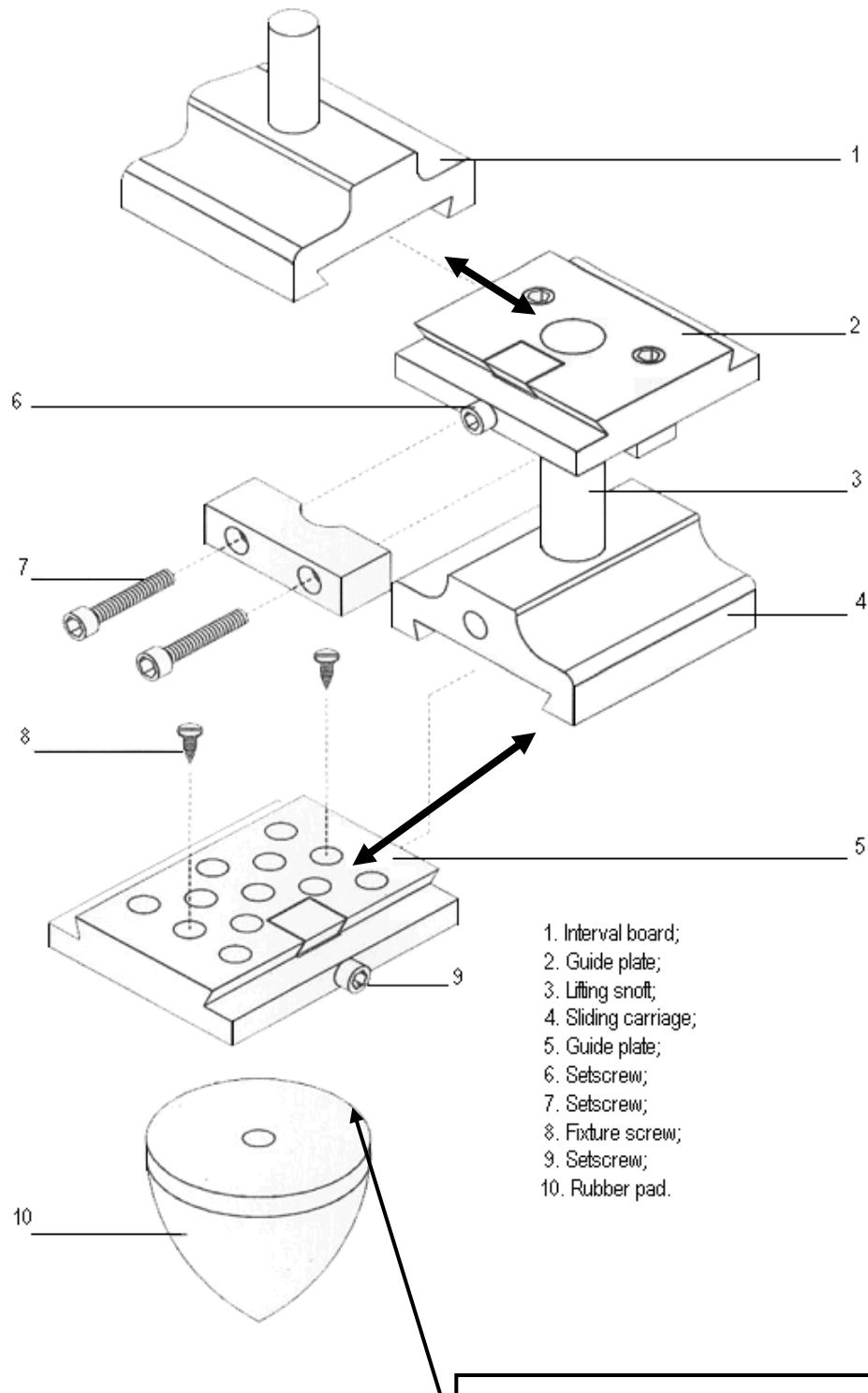
- Working table can be adjusted as up-down direction. Then turn the handle wheel (6);
- Working table can be adjusted as left-right direction. First loose the screw (4), then adjust the screw(1);
- Working table can be adjusted as front-back direction, First loose the screw(8), Then adjust the screw(5);
- Working table can be adjusted as angle direction by turning the screw (3).



Fixture on
working table

9) Test printing.

Some operator like cover PP plastics tape onto the products when testing printing because the printed drawing will be removed easily with Tina solvent or other solvent. After you adjust the position, printing quality, you begin to work.



1. Interval board;
2. Guide plate;
3. Lifting snoff;
4. Sliding carriage;
5. Guide plate;
6. Setscrew;
7. Setscrew;
8. Fixture screw;
9. Setscrew;
10. Rubber pad.

Two pcs guide plate can be move in the guide slot, after adjustment, Please fix all setscrews.

The adjustment method:

- 1: loose the setscrew; all movement parts must be loose through loose the setscrew;
- 2: adjustment: Put one object on the fixture, and press the button" testing printing: and check the

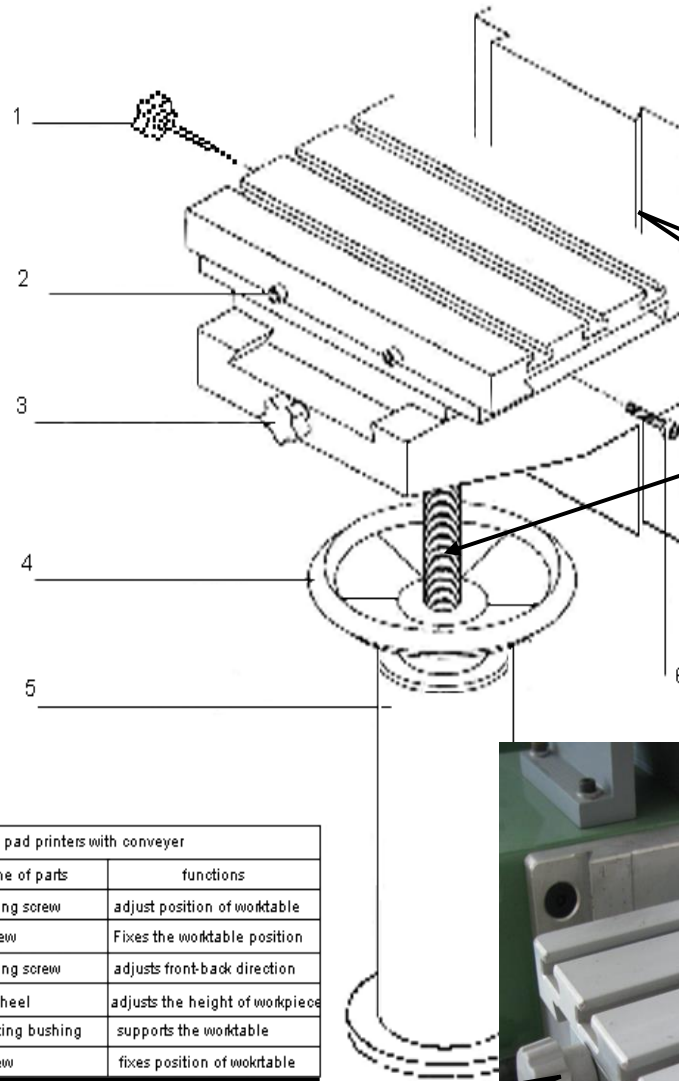


printing position. Then adjust the working table;

3; after adjustment, please remember fix these screw, or the printing position maybe change in the printing works.

Some advice on test printing;

- When testing ,Please paste PP Tape onto object and check the position and quality, after confirm ok, please remove PP tape to print.
- When printing, if you find printing quality is not good, Please take cloth with dipping in alcohol to clean;
- Please clean the rubber pad when you find the colour shallow.



Please adding some lubricating oil for regular date

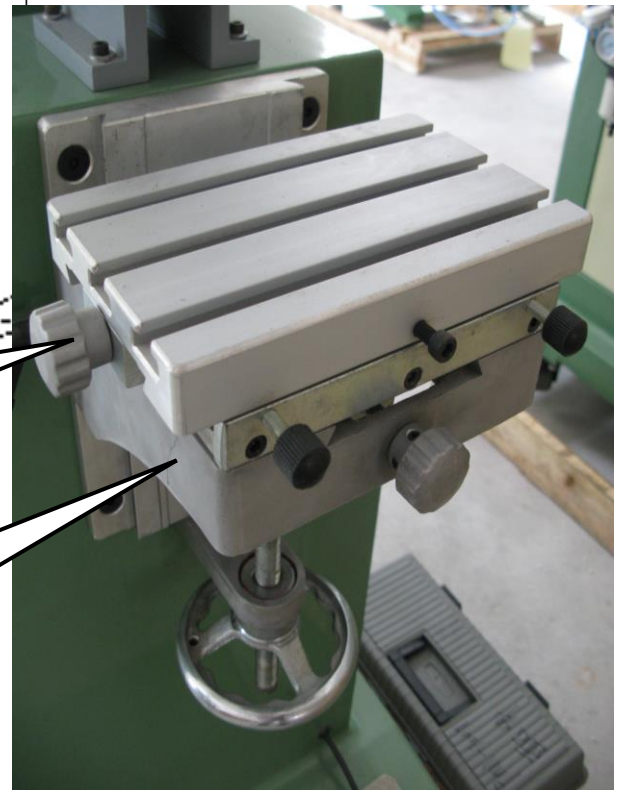
worktable of pad printers with conveyer		
no	name of parts	functions
1	Adjusting screw	adjust position of worktable
2	Setscrew	Fixes the worktable position
3	adjusting screw	adjusts front-back direction
4	handwheel	adjusts the height of workpiece
5	supporting bushing	supports the worktable
6	setscrew	fixes position of worktable

Working table can be adjusted :

Up-down position direction;
Back-front position direction;
Left-right position direction;
Angle direction.

Make pad to touch the products:

Large-distance: working table up-down;
Middle-distance: the pad stroke of up-down;
Small-distance: pad seat.



- Unless stop the machine, Please keep the machine running in the mode –f pad only move from front to back to avoid ink become drying.

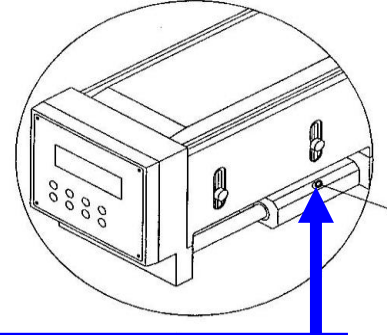


8. Maintain

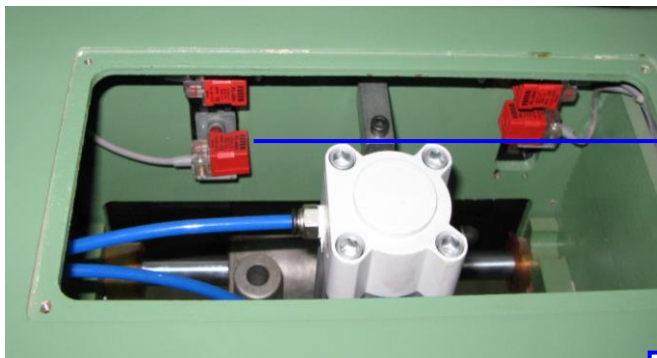
- keep the cleanness of the surface of machine.
- wipe the slide parts and infuse lubricant to them weekly.
- drain the contaminant water accumulated in the filter frequently in order to prevent the water from flowing into the inner pneumatic system.



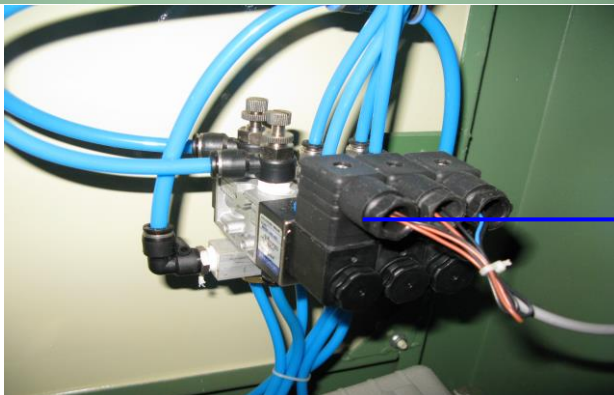
2. Please adding some lubricating oil for regular date



1. Please adding some lubricating oil after removing the Plastics plate



Four magnetic switch control the rubber pad movement, Please keep them clean,



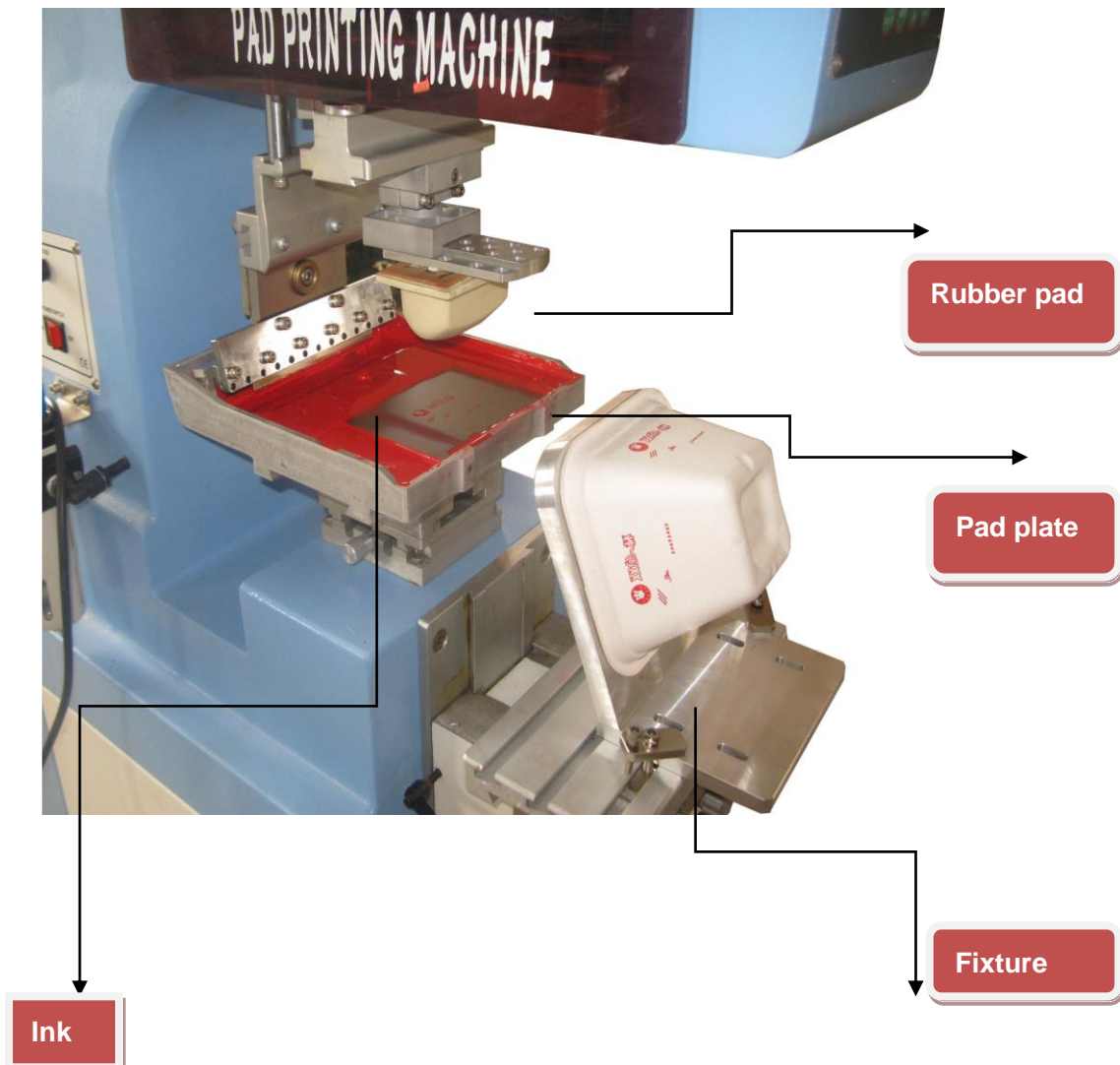
Clean-drying compress air will prolong the usage life of Magnetic valve. Compress air, drying machine and air store tin ordered together suggested .

Three magnetic valve control all cylinders: Please keep them clean, Please keep the plastics tube to connect well.

After the printing work, remember to wash the pad, plate and sealed cup.



9. Printing Factors



Any printing task include below factors:

Pad plate- base on printing documents, you need make etched plate and onto pad printer, Please read<how to make pad plate > to know process of plate-making;

Printing ink- base on materials to be printed, different type ink to be choice. Pour some ink into sealed cup and have a test before printing;

Rubber pad- Rubber pad made by silicon rubber, commonly only 10-20 types rubber pad can print most of substrates;

Fixture- If you want to get precision printing , Fixture made with lathe machine. Some fixture made by butty.

