

WECAN PRECISION MACHINERY USER MANUAL

Model: XE-16

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Company Profile

We are manufacturing a series of program controlled (PLC, IC) automatic padprinting machines, screen printing machines, UV curing machines, hot-stamping machines, laser marking machine, screen stretching systems, exposure machines, automation lines and other peripheral equipment.

We are doing more than this. We offer our customers better and broader choices of more than 300 different kinds of printing pads. We provide you with our professional service such as clichés engraving, artwork preparation, screen processing, special printing pad design and so forth.

With our constant effort, we have built up a good reputation both at home and abroad. Our machines are always among the best sellers in the markets. We are doing business with people from various countries. Our business has exceeded the boundary of countries. We have agents in the United Kingdom, the U.S.A, France, Italy, Australia, New Zealand, Portugal, Greece, Cyprus, Spain, Czech Republic, Russia, Poland, Uzbekistan, Mexico, Indonesia, Malaysia, Singapore, Korea, Philippines, and so on.

We are deeply convinced that we will achieve more with our effort and your support!

Should you be interested in being a member of Wecan Industrial Co., Ltd, welcome aboard!

Should you be interested in doing business with Wecan Industrial Co., Ltd, Thank you for your interest and we're sure we can live up to your expectation with our desirable products and service!

Introduction

This user manual is aimed at giving you a direction on how to install, operate and maintain the pad printing machine. Please note that all the illustrations inside this manual are just for reference. They do not reflect the real size or dimension of the corresponding objects, therefore there might be some discrepancies from the realities. Please pay attention, thank you!

Safety Precaution

Please pay attention to the following:

1. In order to properly operate the machine, please read this user manual carefully before putting it into operation.
2. When the machine is in motion, never touch any moving parts of the machine with your hand or other part of your body.
3. Shut down the main power supply and air supply before inspection or transportation of the machine.
4. Prior to repair of the parts and accessories inside the machine, do release the unnecessary air stored inside the machine.
5. The electric, pneumatic as well as mechanic systems of this machine are engineered by professional personels. Please do not make any modification to it so as to avoid accident and injury!

General introduction to pad printing machine and its application:

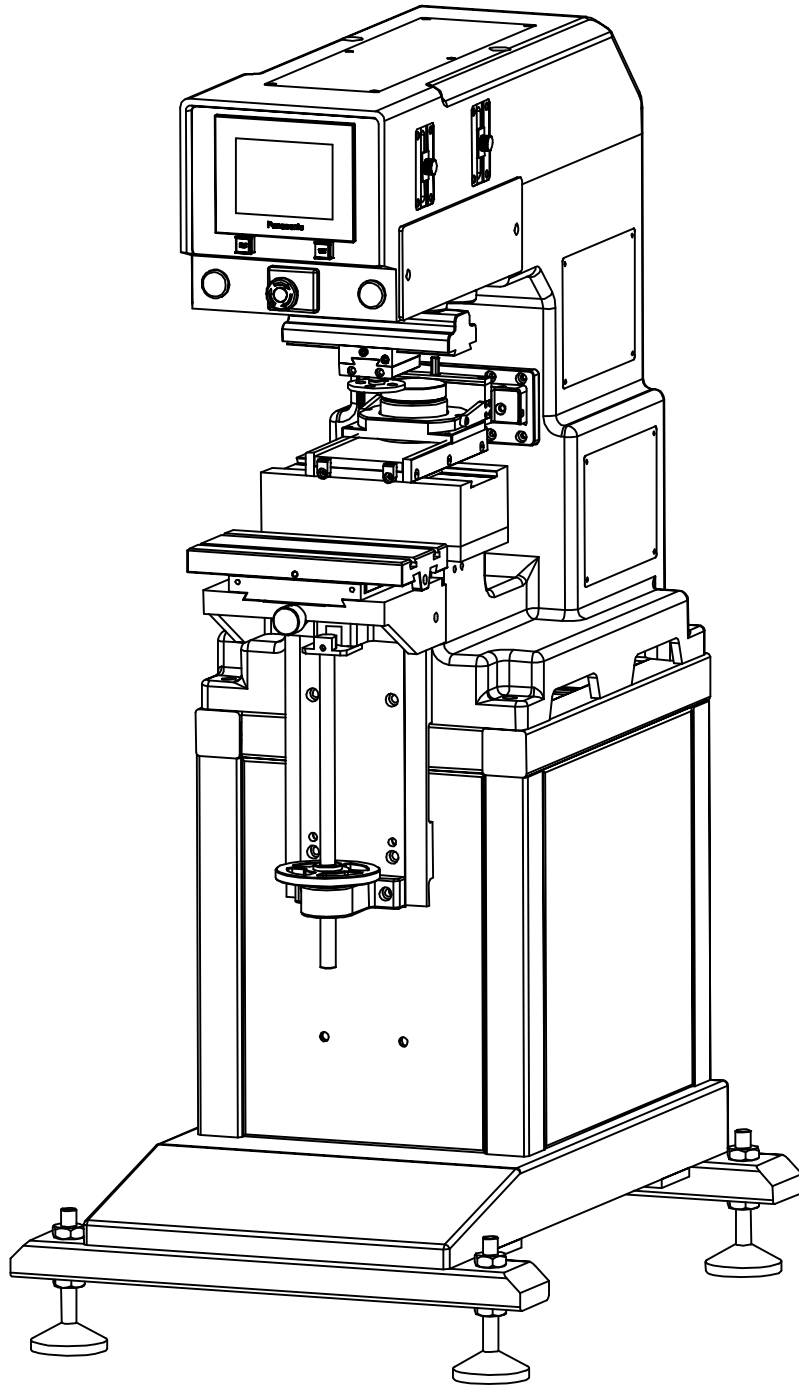
Pad printing machine is a kind of machine which adopts transfer printing method. Transfer printing method renders images and characters to be printed visible on the cliché through positive film and etches them on the plate. The etched cliché is then placed into the inkwell. Machine will pick up the ink and blade away the ink which is not on the image. Afterwards, pad presses the cliché, picking up the ink on the image and then transfers the image onto the workpieces.

Pad printing is the most versatile printing method. Pad printing machines are widely applied to printing on commodity, toys, stationery, electronics component, electric appliances, plastics, leather, metal, glass, light industry and food packaging, etc.

Specifications:

1. Model:	XE-16
2. Color:	1-color
3. Max. cliché size:	100mm×200mm
4. Max. print area:	∅75mm
5. Print speed:	1600PCS/hour
6. Max-print height:	280mm
7. External dimension:	770mmX580mmX1400mm
8. Weight:	approx. 110Kg
9. Power:	220V/110V 50/60Hz
10. Air pressure:	0.6-0.8MPa (6bar-8bar)

3D-View of XE-16



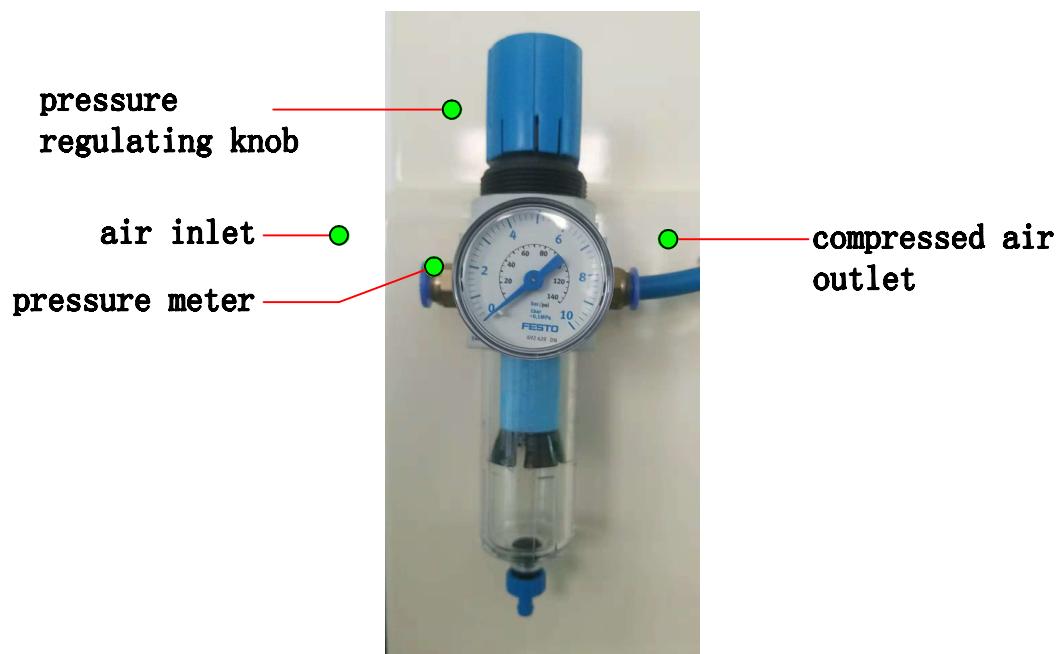
Installation and Adjustment

section 1:Installation

Pneumatic system:

Connect to the air supply. Air pressure should be controlled at 4bar-10bar (0.4MPa-1MPa). In the adjustment before starting the machine, air pressure should be controlled between 4bar-6bar (0.4MPa-0.6MPa).

Please guarantee the clean and dry compressed air supply!



Electric system:

Connect the power plug to the appropriate alternative current (220V 50/60Hz)

For your safety, the machine should be properly grounded!



Section 2: Mechanical Adjustmetn

1、 Adjustment of horizontal adjusting support

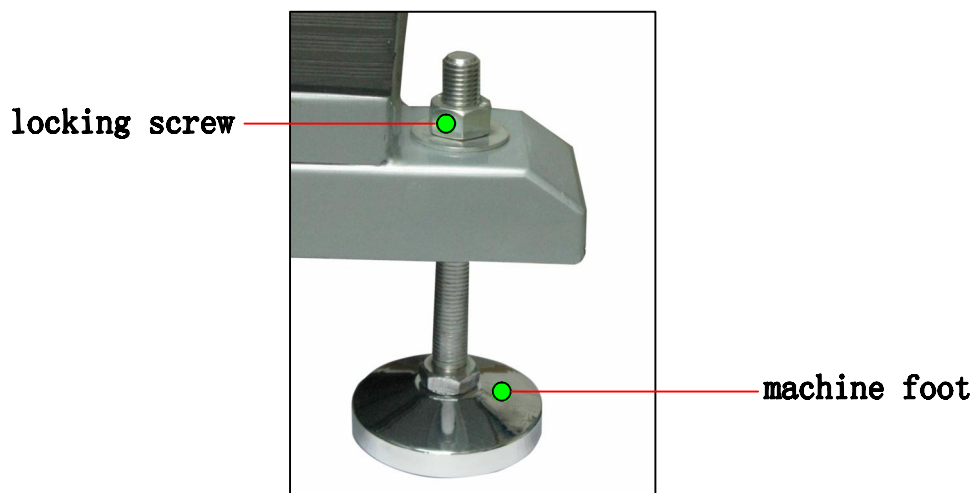
Place it in a safe environment

Place the pad printing machine on the flat floor. If the conditions fail to meet this requirement, adjust the horizontality and the vertical distance between the machine house and the floor with the horizontal adjusting supports of the machine .

Here are the procedures:

- Place the horizon meter on the flat surface of the machine to measure the horizontality.
- Loosen the locking screws, turn the machine feet to adjust the height of the machine. Tighten the locking screws after the adjustment is completed.

(Test result: Adjust the support until the horizon meter shows it's horizontal)



horizontal adjusting support

2 Vertical stroke adjustment of pad

The stroke of pad can be adjusted by means of adjustment of the printing object and the cliché. The adjustment knob should be initially fixed on higher position. Move it down slowly while adjusting.

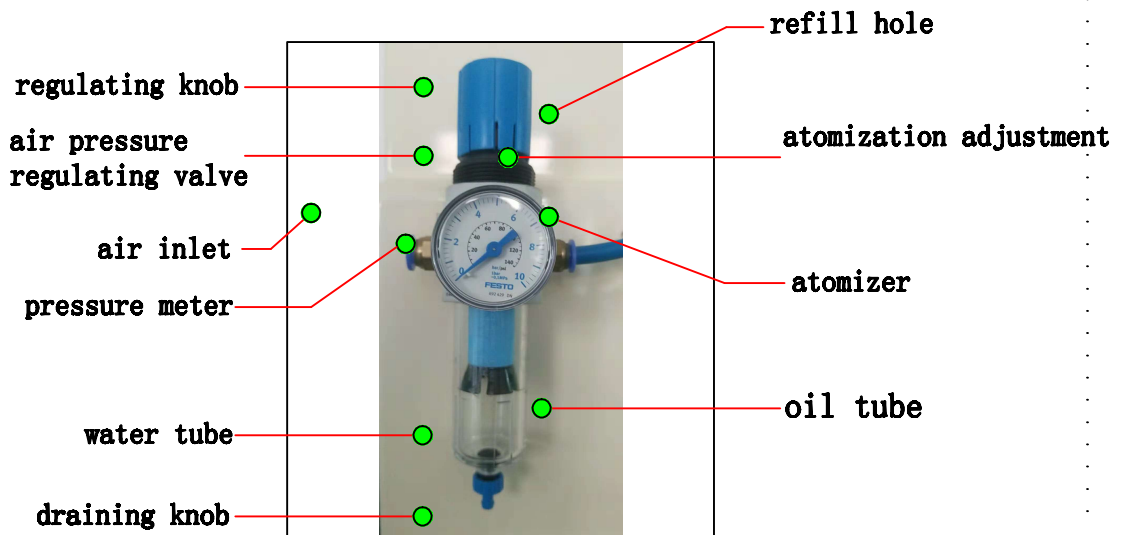
The stroke can be changed by means of turning the adjusting knob



3, Air Pressure Regulation

Pull up and turn the regulating knob of air pressure regulator. Clockwise to increase air pressure and air flow. Anti-clockwise to reduce it until 0. Air pressure should be adjusted at around 6 bar. (0.6mpa). Press down the regulating cap when the adjustment is completed.

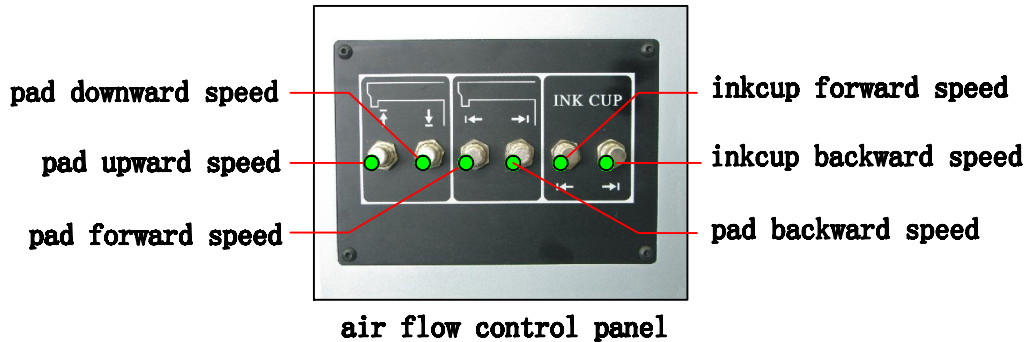
Note: Drain water out of the water tube on a regular basis. Make sure that water in the water tube as well as oil (oil category: SOVG32) added in the oil tube should not exceed the warning line (max.).



4、 Speed adjustment of pad and inkcup

Speed of pad is controlled by 6 flow controlling valves on the right side of the machine.

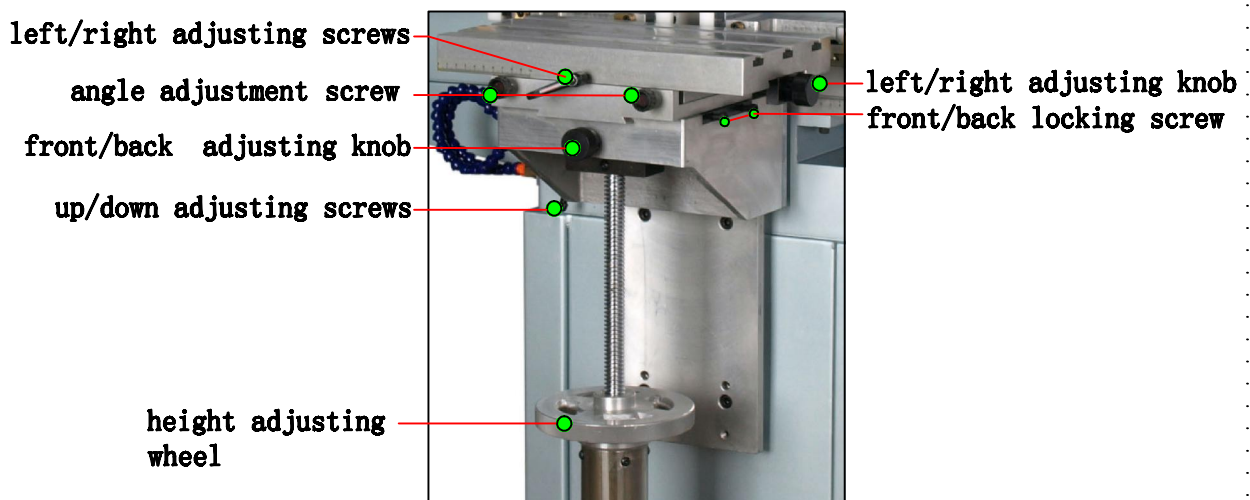
Notes: If the speed of machine is changed, remember to adjust the drying rate of the ink.



5、 Worktable adjustment

Worktable is used to place the jig or workpieces to be printed. Adjustment in front/back, left/right, up/down direction can be made according to your requirement. Way to adjust them is shown as below. Tighten all the screws upon completion of adjustment so as to avoid displacement.

Notes: Position of worktable should be adjusted from a lower position. After mounting the jigs and workpieces, it should be gradually adjusted to a higher position.



Notes: Position of worktable should be adjusted from a lower position. After mounting the fixtures and workpieces, it should be gradually adjusted to a higher position.

Accessories Installation and Adjustment

1. Installation of inkcup and steel plate

1. Clean the inkcup before putting it into inkcup detach holder and lock it tight.



2. Put certain amount of diluted ink into the inkcup.



3. Place the steel plate onto the inkcup with the image side down and loosen the inkcup detach holder.



locking
Screw

4. Hold the steel plate with your hand and rotate it altogether with the detach holder and then take off the holder.

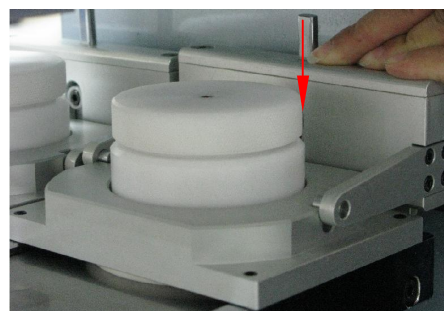


5. Push the inkcup and steel plate into the inkwell and rotate the inkcup collar by 90°. Rotate two pressing blocks of the steel plates by 90°. Tighten two screws to fix the steel plate.



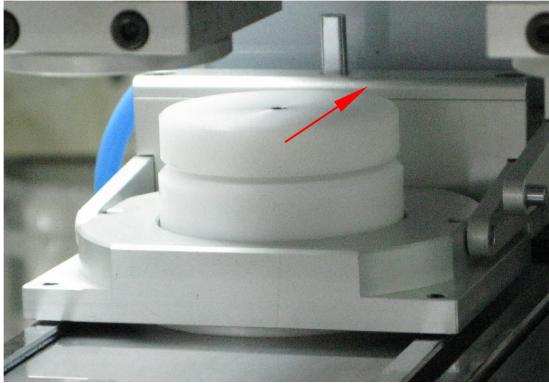
pressing block
pressing screw

6. Move the inkcup to an appropriate position, press down the drawing arms. Fasten the two bolts of the drawing arm. Now the machine is ready to start.

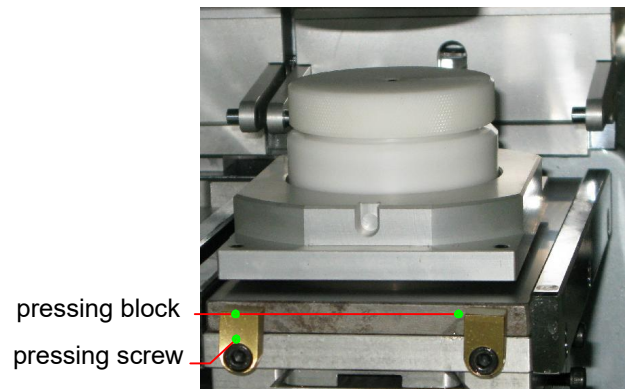


2. Dismantle of inkcup and steel plate

1. Pull the trigger backwards as the arrow shows. Then the drawing arms spring up.



2. Rotate the inkcup by 90°, loosen two screws in the front so that the two steel plates will loosen automatically.



3. Pull out the inkcup altogether with the steel plate, rotate them by 180°



4. Place the inkcup and steelplate on the detach holder and tighten the screw.



5. Draw out the steel plate along the groove and loosen the screws.

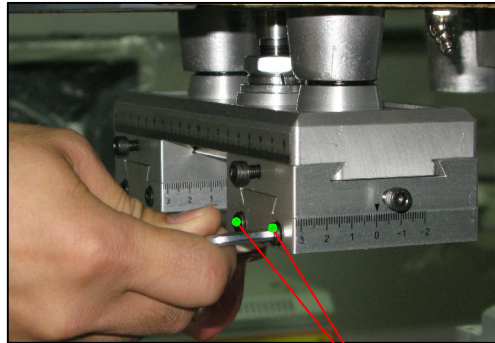


6. Take out the inkcup and clean it.



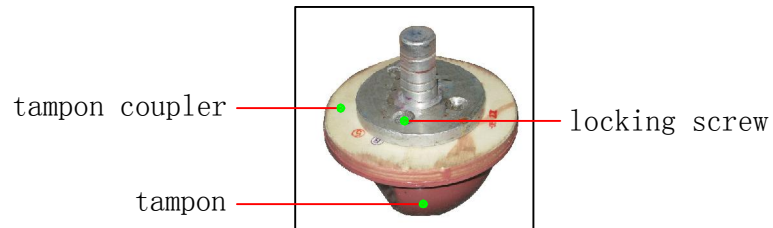
3. Mounting of Tampon

1. Loosen the tampon locking screw and take down the tampon coupler.



locking screw of tampon holder

2. Mount the tampon onto the tampon coupler.



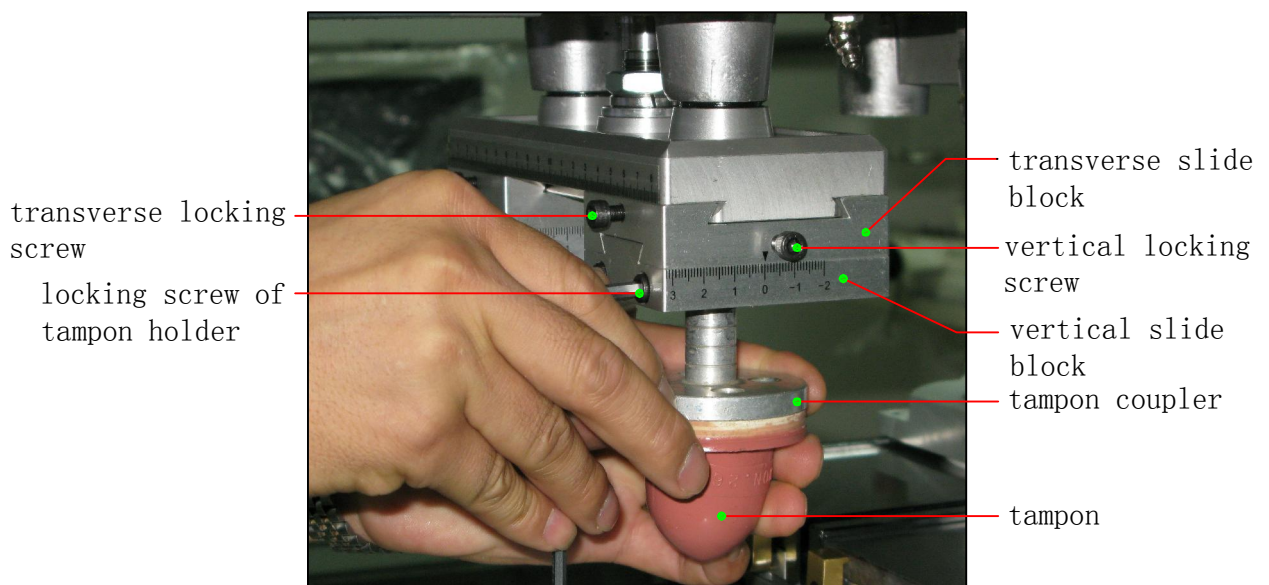
tampon coupler

locking screw

tampon

3. Afterwards, mount the tampon and tampon coupler onto the tampon holder and lock them tight.

Tampon can be freely adjusted in front or back, left or right direction when the transverse and vertical locking screws are loosened.



transverse locking screw

locking screw of tampon holder

transverse slide block

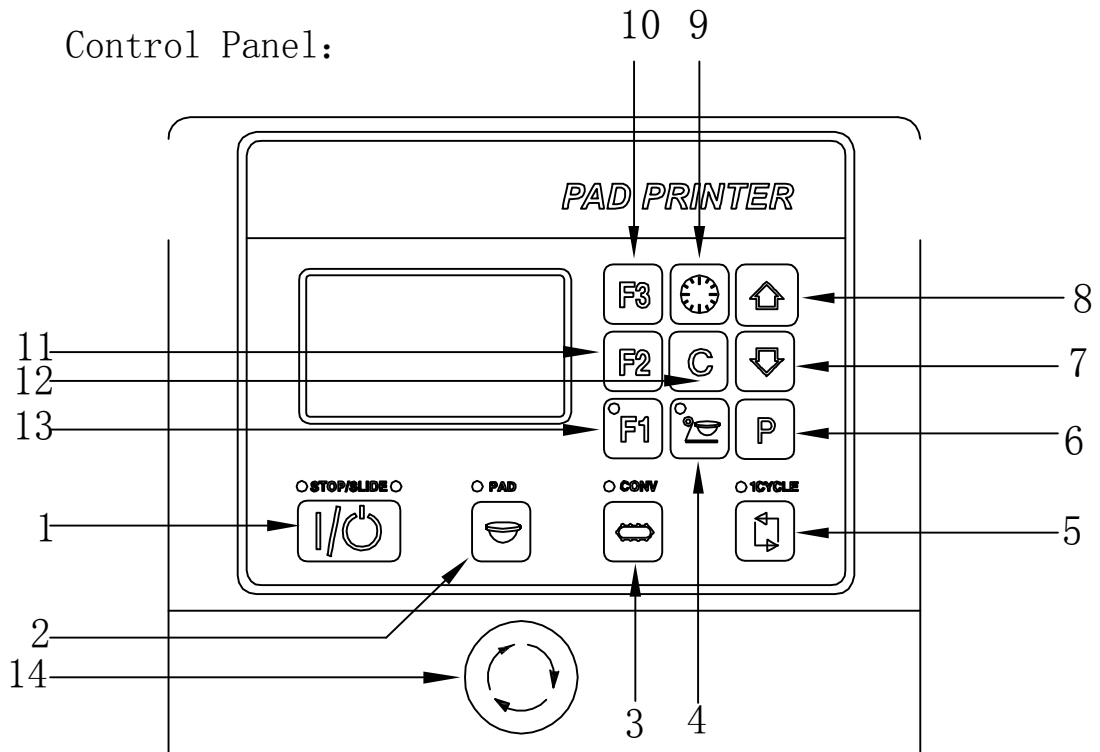
vertical locking screw







vertical slide block








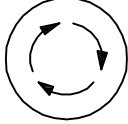
tampon coupler

tampon

Operation Instruction



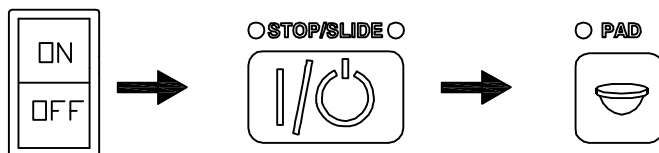
1.  machine STOP/SLIDE.
2.  pad up/down button. when machine stops (STOP is on), press this button once, pad finishes up and down once; when cliché is in for-/backward motion, press this button to start printing, press again to stop printing.
3.  worktable manual start button.
4.  pad clean, pad auto clean with the light on, and no clean while off.
5.  single cycle printing and cyclic printing button.
6.  program setting button.

7.  motion parameter/delay parameter down.
8.  motion parameter/delay parameter up.
9.  delay setting.
10.  spare button F3.
11.  spare button F2.
12.  counter clear.
13.  spare button F1.
14.  emergency stop. press this button, machine stops running and remind "the emergency stop button is pressed down". to recover, rotate as the arrow shows (clockwise) to spring out the button.

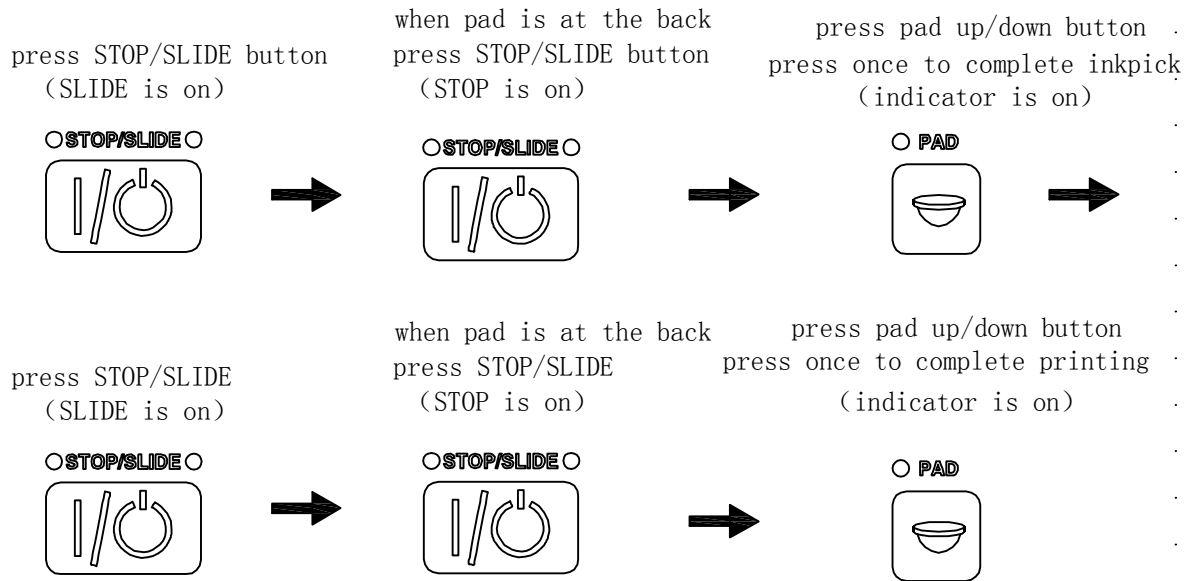
Operation Program

1. How to start machine

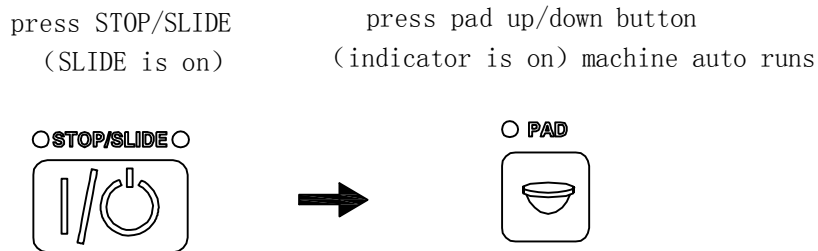
switch on the power press STOP/SLIDE press pad up/down button
 (on machine right side) (SLIDE is on) (indicator is on)



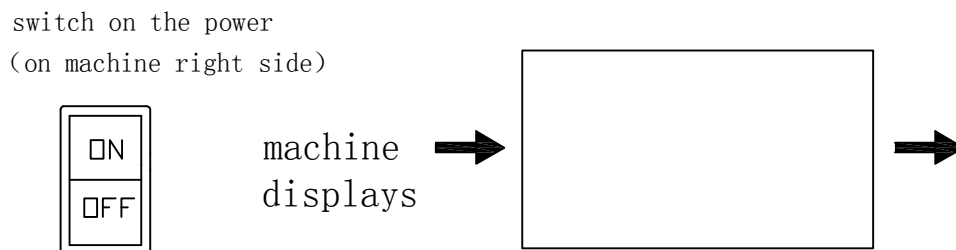
2. How to start manual operation



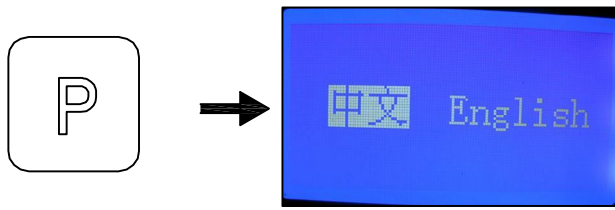
3. How to start auto run



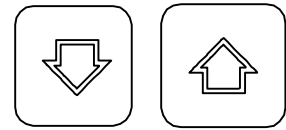
4. How to change the display language



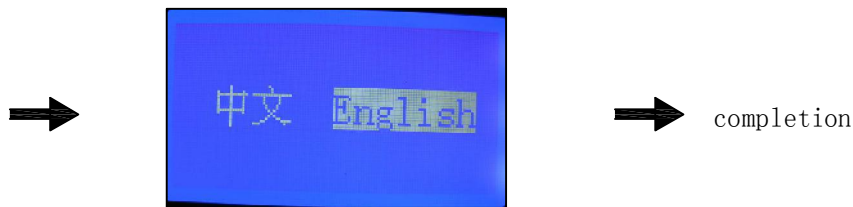
press program setting button screen displays



press parameter up/down button to select required language



screen displays



If other key has been pressed after connecting power, you should reconnect after power being switched off. Machine will save the language after being selected. screen displays the pre-selected language when reconnect. No other selection is needed before running.

5. How to stop/auto start machine

A. press STOP/SLIDE
MACHINE STOPS
(STOP is on)

press STOP/SLIDE button
(SLIDE is on)

press pad up/down button
to auto run machine
(indicator is on)

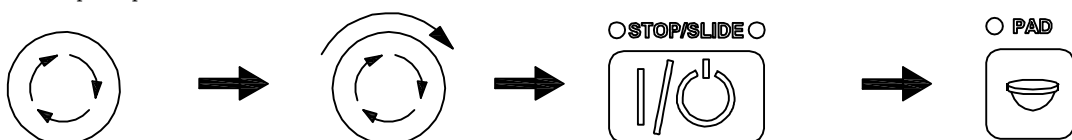


B. press emergency
stop in urgent case,
machine stops operation

rotate as the arrow
shows (clockwise), to
spring out the button

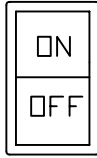
press STOP/SLIDE
(SLIDE is on)

press pad up/down button
machine auto runs
(indicator is on)



6. How to select machine type

switch on the power
(on machine right side)



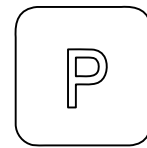
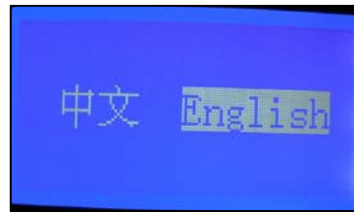
machine
displays



press program setting

screen displays

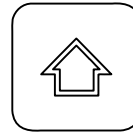
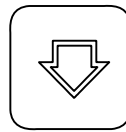
press program setting



screen displays

press parameter up/down selection
to select required type

screen displays



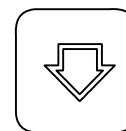
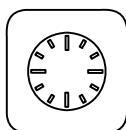
if other key has been pressed after connecting power, you should reconnect the power after power being switched off. machine will save the machine type after being selected. screen displays the pre-selected type when machine is restarted. no other selectin is needed before running.

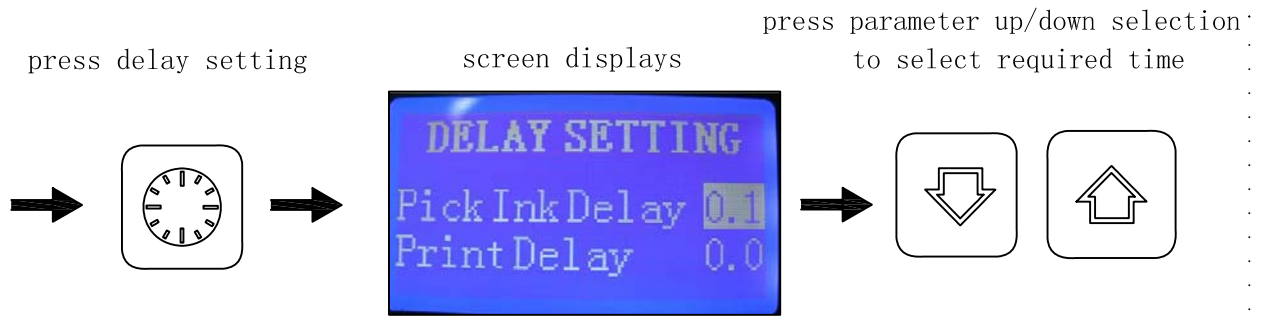
7. Delay Setting

when machine stops or in auto
printing, press delay setting

screen displays

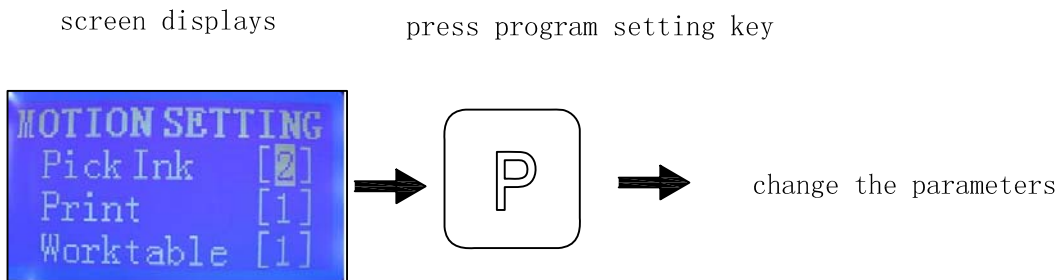
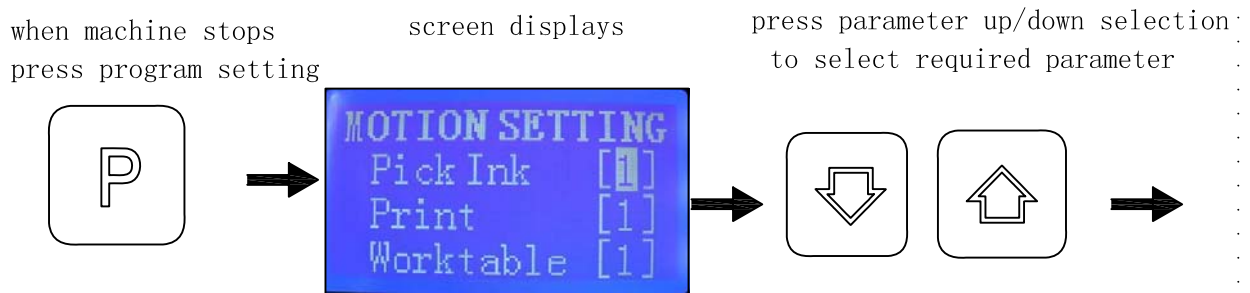
press parameter up/down selection
to select required time





machine will save the delay after being selected. screen displays the pre-selected delay when machine is restarted. no other selectin is needed before running.

8. How to change parameter

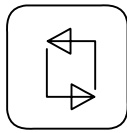


machine will save the parameter after being selected. screen displays the pre-selected parameter when machine is restarted. no other selectin is needed before running.

9. How to select 1 CYCLE and cyclic printing

when machine stops
press 1 cycle setting

1CYCLE

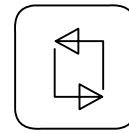


screen displays
 1CYCLE indicator is on



when machine stops
press 1 cycle setting

1CYCLE



screen displays
 1CYCLE indicator is on



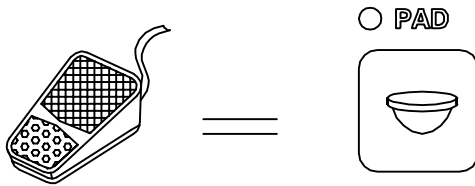
machine will save the 1 cycle / cyclic printing after being selected.
screen displays the pre-selected mode when machine is restarted. no
other selectin is needed before running.

10. Counting



with the machine in auto-mode, the counter will start counting automatically and value will be displayed on the screen. If the power is suddenly cut off, machine will automatically memorize it and also add the new value to the old one after machine is restarted.

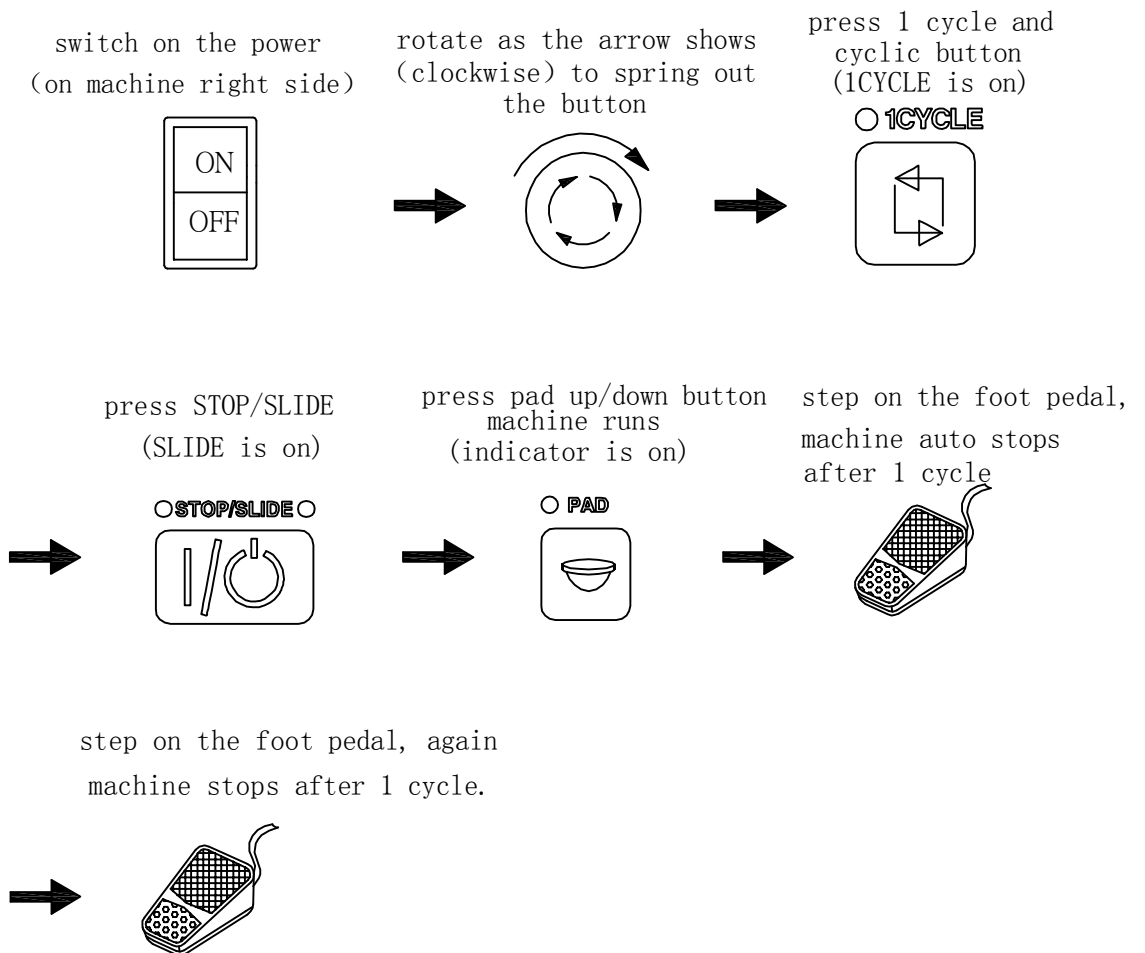
11. Foot Pedal



Function of foot pedal equals to that of pad up/down button.

In 1 cycle mode, function of foot pedal equals to that of 1 cycle button.

12.1 cycle mode



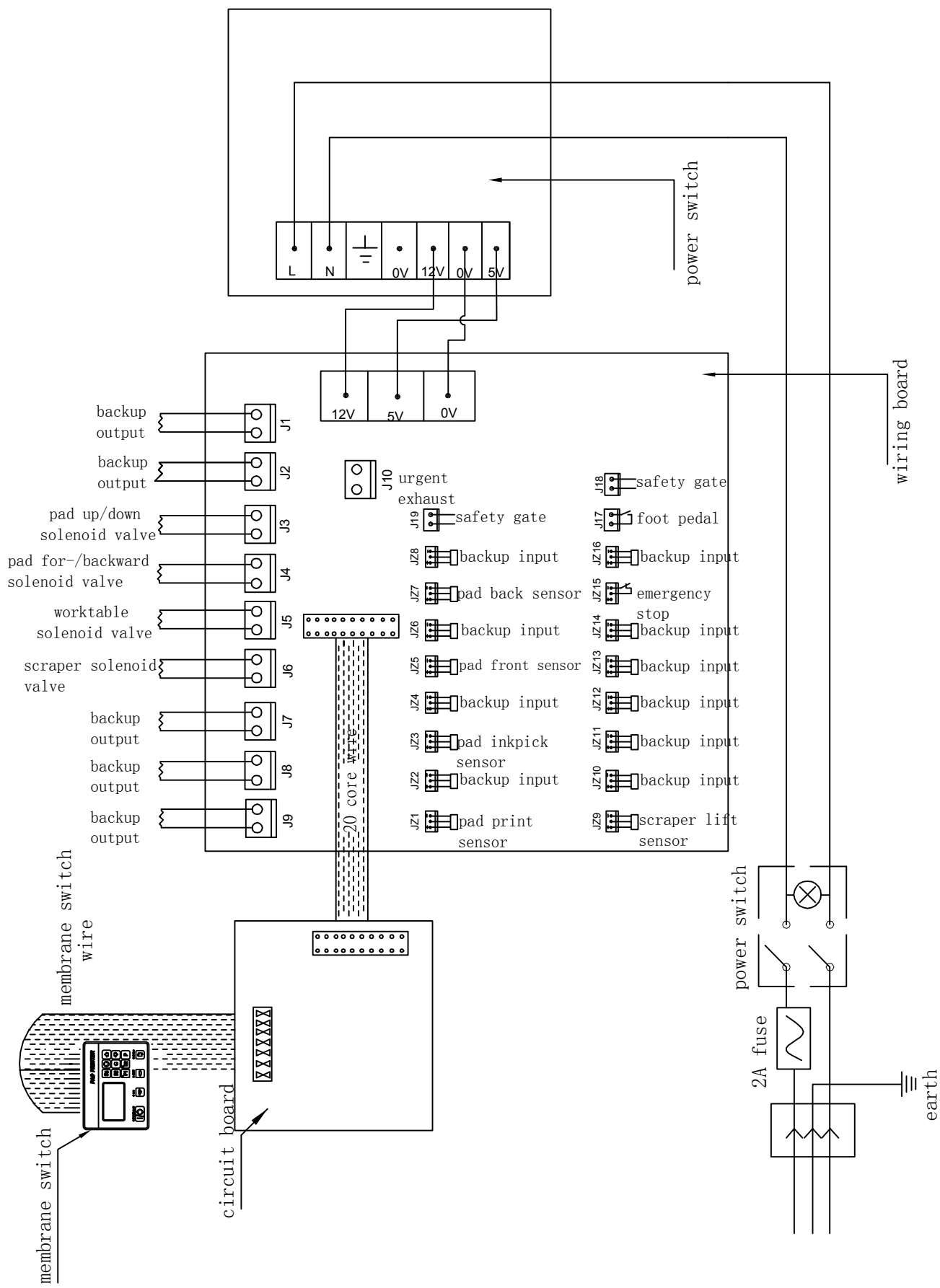
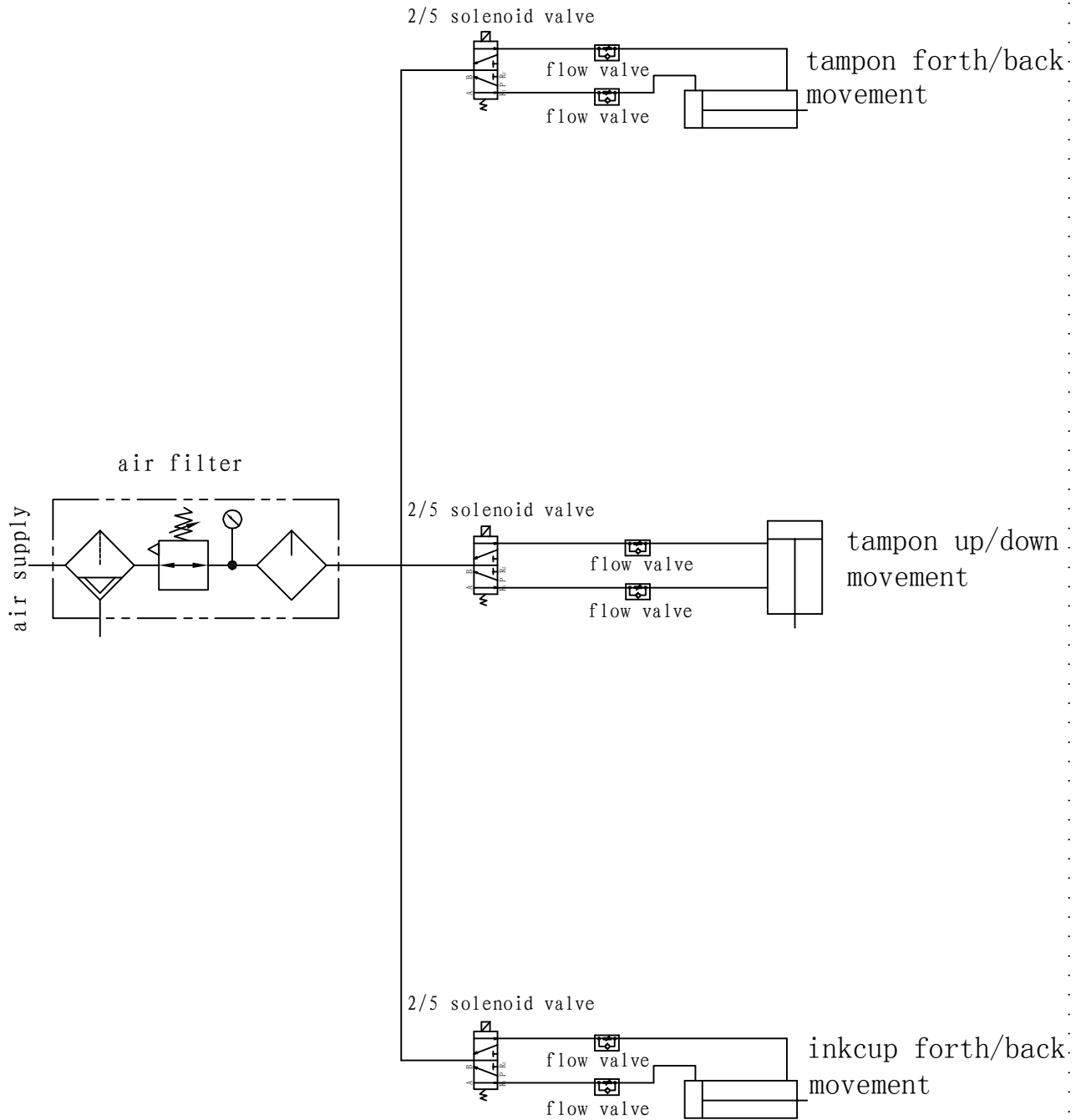


Diagram of pneumatic system



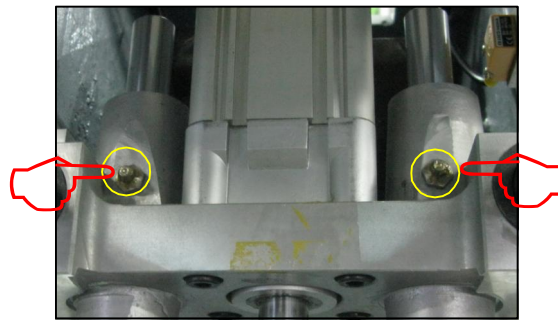
Routine Maintenance

For proper and satisfactory operation of your machine, it's strongly recommended that you do some routine maintenance under the following directions:

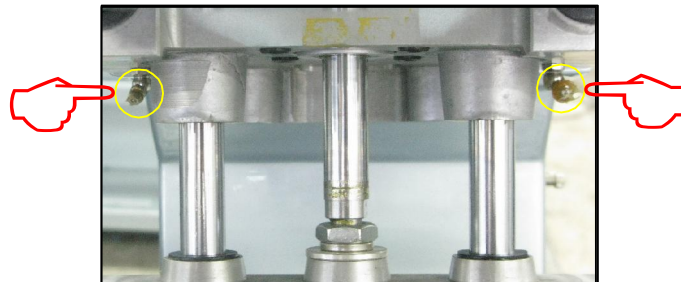
refill grease on a regular basis

Please add certain amount of grease to the refill hole of the parts illustrated below on a regular basis (suggestion: every three months). Recommended grease type: EP1

1. refill holes of the for/backward moveable parts of the linkage.

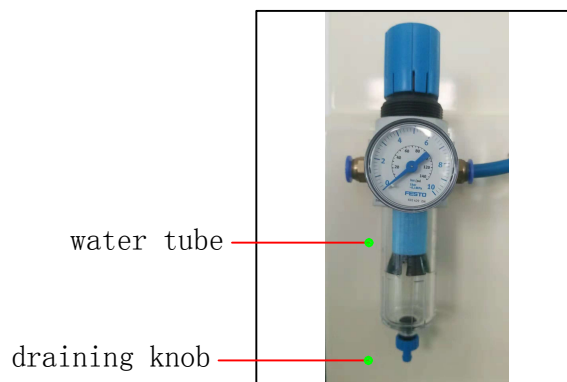


2. refill holes of the up/downward moveable parts of the linkage.



inspection of air filter unit

Drain the water out of the water tube regularly. Water should never exceed the warning line.



air filter unit

Notes and Cautions

1. Prior to connecting the power, the system should be properly grounded. The supply voltage should be $220V \pm 10\%$.
2. The voltage at the power plug, fuse, power switch, transformer and so on is 220V. Beware of it when the machine is under maintenance.
3. When the power is shut down with the air supply still being connected, the linkage may slide backward automatically. Be careful!
4. Keep the machine free of dust. Lubricate the moving parts on a regular basis.
5. Check and release the water in the water tube of air filter unit regularly. Never allow the water to exceed the warning line.
6. pad is essential in printing. It should be taken good care of. Never use erosive material or rough and sharp object to rub the pad.
7. Cut off pneumatic and power supply after work or when the machine is not used.
8. The linkage should be stopped at the end position and ink on the image of the cliché should be wiped off. Dilute the ink with thinner before starting the machine next time and carry out trial printing for several times before production.
9. When the machine is not used for several days or printing is completed, inkcup and cliché should be dismantled and cleaned.
10. If the emergency stop button is pressed, restart the machine 5 seconds after the release of the emergency stop button.
11. If the phenomenon of parts jam occurs during operation, never use any hard object(e.g hammer) to beat the jammed parts or accessories of the machine.

12. Modification, repairs and maintenance work must be carried out by trained personnel only! Without expressed approval from Wecan, wiring inside the machine must not be modified.

Troubleshooting

The possibilities of failure of the machine are at minimum if it is operated and maintained properly. In case problem arises, consult our service department or local agent and describe the details of the case. A checklist in the following tells you how to deal with common system problems.

1. After connecting the power supply, if the indicator does not light:
 - A. Check the AC and the DC fuse. They may burn out.
 - B. Check the power plug and socket to see if they are in the correct position or damaged.
 - C. Check the internal wiring for the open circuit and the loosened socket and plug.
2. If the system does not function or does not function properly or ceases after one or several strokes.
 - A. Check the stroke switches for damages, disconnected wires and check whether the optical fiber sensor is blocked.
 - B. Check the air supply and air flow.
 - C. Check if the moving parts are mechanically obstructed or can not reach the correct position.
 - D. Uncover the safe guard and check if the magnetic switch is damaged, loosened or sensed and the indicator is on.

Accessories

We supply

1. Clichés: processed with German material. (including film design and image etching);
2. various kinds of pads;
3. Ink and thinner from Japan, Italy, Germany, USA.
4. doctor blades, ink rollers, inkwells, inkcup and so on.