

大诚光驰平板打印机介绍

Introduction of Dacen flat printer

大诚光驰售前培训教材 V-0.0.3



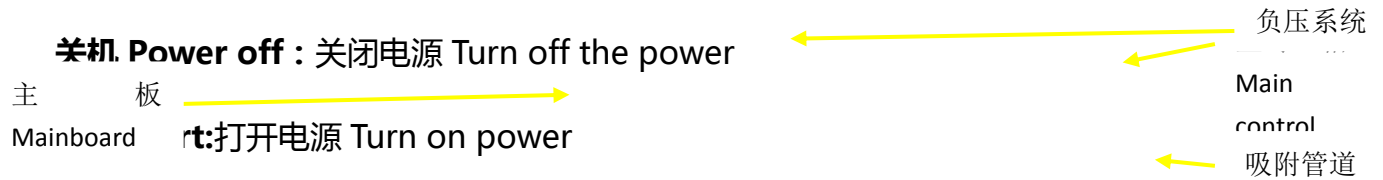
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前面板各按键的功能

The functions of the buttons on the front panel



uum : 分为前、中、后三个部分，作用是为了吸住材料，防止材料因发生变形而刮蹭到喷头。It is divided into three parts: the former, the middle and the back. The purpose is to absorb materials and prevent materials from scraping to the sprinklers due to deformation.

急停开关 Stop:按下急停开关后，**机器断电**，无法传送指令，断开连接，小车立刻停止工作。After pressing the emergency stop switch, the machine is power-off, unable to transmit instructions, disconnect, and the carriage immediately stops working.



急停开关 emergency stop switch

机器前部电路集成箱

Circuit integrated box for the front part of the machine

总开关 Main switch : 电源的总阀。Total power switch

接触器 Contactor : 接通和切断电路, 而且还具有低电压释放保护作用。Connect and disconnect the circuit, but also has the protective effect of low voltage release

支路开关 Branch switch : 电源盒开关、伺服驱动器开关、UV 水冷箱开关、吸附开关。Power box switch, servo driver switch, UV water cooling box switch, vacuum adsorption switch.

主板继电器 Main board relay : 用较小的电流去控制较大电流的一种“自动开关”, 在电路中起到自动调节, 安全保护, 转换电路。A kind of "automatic switch" that controls the larger current with a smaller current. It plays an automatic regulation, safety protection and conversion circuit in the circuit.

主板 Mainboard : 主板的作用相当于人的大脑, 给各个电路发送指令, 使各个元器件能有效运行。The Mainboard is equivalent to the role of human brain, to send instructions to each circuit, so that all components can run effectively.

主板蜂鸣器 Main board buzzer:。当蜂鸣器叫了九声时, 光纤线损坏。

光纤线 Optical fiber cable : 主板与头板的连接桥梁, 主要作用是替主板传递数据。The main connection between the motherboard and the head board is to transfer data for the motherboard.

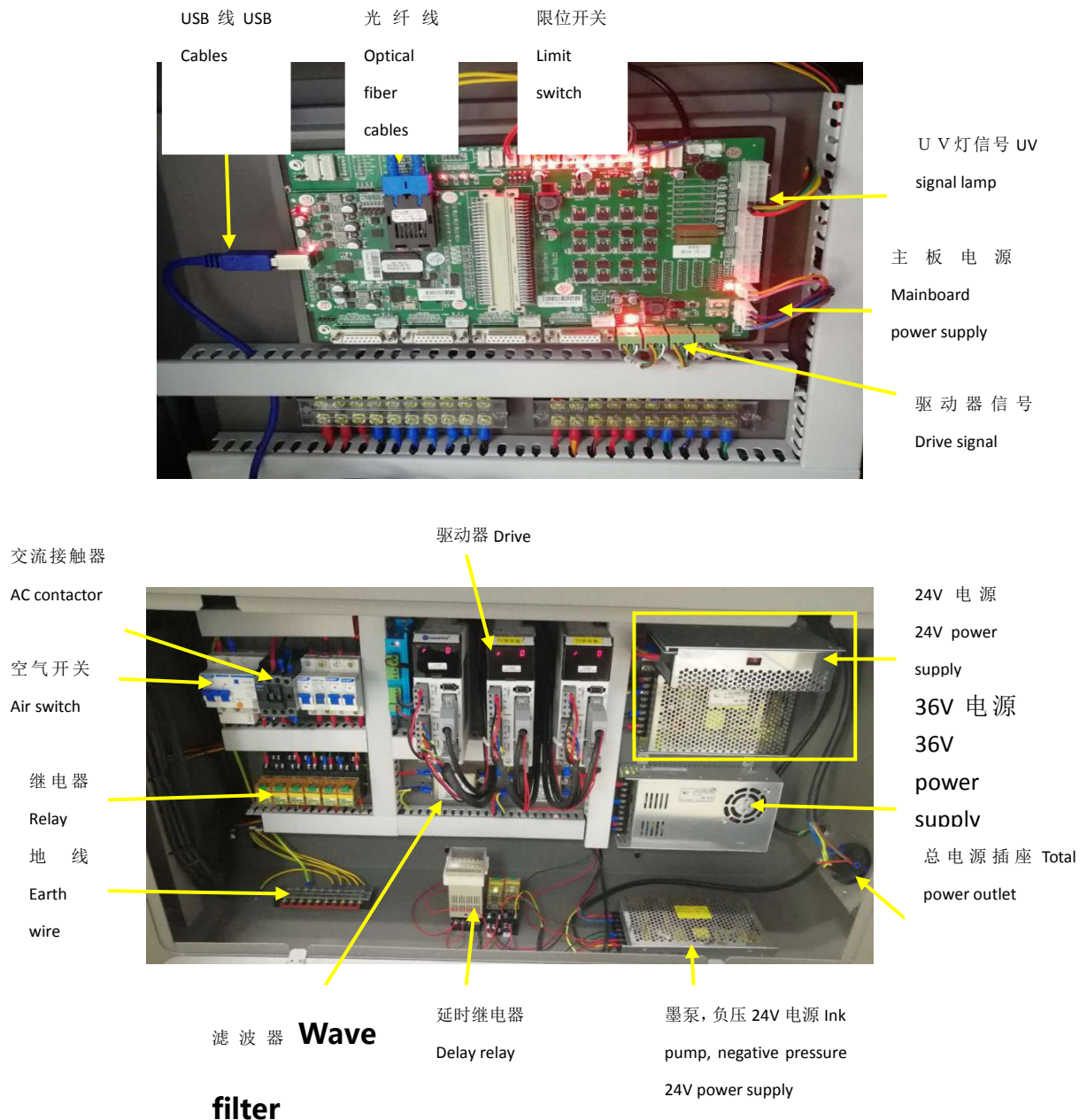
USB 连接线 USB connection line : 作用是连接主板与电脑。The role is to connect the motherboard and the computer.

伺服驱动器 Servo driver : X 轴驱动, 控制左右。Y 轴驱动, 控制前后。Z 轴驱动, 控制上下。The X axis is driven to control the left and right. Y axis drive, before and after control. Z axis

drive, control up and down.

滤波器 Wave filter：作用是减少或者消除杂波对电力系统的影响，使电流得到既纯净又稳定的电源。The function is to reduce or eliminate the influence of clutter on the power system, so that the current can get a clean and stable power supply.

电源 Power supply：给各个元件供电。Power supply for each component.



墨路系统 Ink road system

一级墨盒 Big cartridge : 墨水添加入口处，给二级墨盒提供墨水。The ink is added to the entrance to provide ink for the small cartridge.

大墨盒过滤器 Big cartridge filter : 过滤一级墨盒的杂质，防止颗粒较大的杂质进入喷头，堵塞喷头。Filter impurities in the Big cartridge, prevent larger particles from entering the spray head, and block the sprinklers.

大墨盒浮子开关 Big cartridge float switch : 感应一级墨盒墨量是否缺墨。Whether the ink volume of the Big ink cartridge is lacking.

搅拌电机 Stirred motor : 给墨水均匀搅拌，防止墨水沉淀。只有黑色和白色才有搅拌电机，因为黑色和白色这两种墨水颗粒较大，容易沉淀，导致一级墨盒上面的溶液较稀，下面的溶液较浓，影响墨水的调配，所以搅拌器的作用是使一级墨盒的墨水均匀分布。(添加墨水时，把墨瓶内的墨水摇晃均匀) The ink is stirred evenly to prevent the ink from precipitating. Only black and white have stirred motor, because the black and white two kinds of ink particles are larger and easy to precipitate, which leads to the thinner solution on the big cartridge. The solution is thicker below and affects the mixing of the ink, so the action of the mixer is to make the ink of the big cartridge evenly distributed.(When adding ink, shake the ink evenly in the ink bottle.)

一级墨盒报警器 Big cartridge case alarm : 当墨水低于一定值时，浮子开关不能漂浮在上面。此时，报警器就会报警，相应的墨盒灯就会亮起。提示您一级墨盒缺墨(墨盒里面还有一些墨水缓冲)，需要添加墨水。哪个墨盒灯亮加入哪个墨水，切记不要加错！When the ink is lower than a certain value, the float switch can not float in the above. At this point, the alarm goes, and the corresponding cartridge lamp will light up. It is suggested that you lack ink in the big

cartridge (there are some ink left for buffer in the cartridge), and you need to add ink. Make sure to add the correct color according to which cartridge lamp is on, be sure to remember not to mix with the wrong color.

墨泵 Ink pump :墨泵的作用相当于水泵 ,把一级墨盒的墨水抽到二级墨盒。The function of ink pump is equivalent to that of water pump, and the ink of the big cartridge is pumped to the small cartridge.

延时继电器 Delay relay :作用是给白墨和黑墨的搅拌电机供电 ,每隔几分钟供电一次 ,防止墨水沉淀 ,还能延长搅拌电机的使用寿命。The function is to supply the stirring motor of white ink and black ink, and supply it once every few minutes to prevent ink precipitation and prolong the service life of the stirring motor.

二级墨盒 Small cartridge :一级墨盒的墨水抽到二级墨盒 ,给喷头直接调用墨水 ,稳定供墨。The ink of the big cartridge is pumped to the small cartridge, and the ink is directly injected to the nozzle to stabilize the ink supply.

二级墨盒阀口 Small cartridge valve :打开墨水的阀门 ,相当于水龙头 ,给喷头供墨,竖着表示打开 ,横着表示关闭 ,开机之后打开阀口 ,关机或者断电关闭阀口。The valve that opens the ink is equivalent to the faucet, provides the ink for the printhead, the vertical is open, the level is closed, the valve is opened after the machine is on, When the machine is shut down so is the valve.

二级墨盒过滤器 Small cartridge filter :作用是过滤杂质 ,避免堵塞喷头。The effect is to filter impurities to avoid blocking the nozzle.

二级墨盒浮子开关 Small cartridge float switch:感应二级墨盒是否缺墨。(缺墨会向主板发送信号使对应的墨泵工作 ,补充相应的墨水)As a sensor for small cartridge to tell if it is lack of ink.

(If so, It will send a signal to the motherboard and makes the corresponding ink pump work, added the corresponding ink.)

喷头数据线 Printhead data cable：连接头板与喷头的数据线，作用是头板给喷头传输数据。

The data cable connecting to the head board and the printhead is used to transmit data from the main board to the printhead.

供墨板蜂鸣器 Ink supply buzzer:当二级墨盒缺墨时，供墨板蜂鸣器会发出滴滴的响声。注意听蜂鸣器叫几声，叫一声说明二级墨盒 K 缺墨，叫三声说明二级墨盒 M 缺墨。依次类推。 When the small cartridge lacks ink, the ink supply buzzer starts beeping. Pay attention to the buzzer for how many times it beeps. When it beeps once, it means that the small cartridge K is short of ink, and three times indicates that the small cartridge M is short of ink. The analogy is in turn.

蜂鸣器复位按钮 Buzzer reset button：二级墨盒缺墨水时，墨泵停止工作，按下蜂鸣器按钮墨泵正常工作。 When the small cartridge lacks ink, the ink pump stops working, and the ink pump is operated normally by pressing the buzzer button.

缺 墨 报
警 Lack
of ink
alarm

墨泵电源 Ink
pump power
supply

搅 拌 电 机
Stirred
motor

大墨瓶 Big
cartridge

墨泵 Ink
pump

过滤器
Filter

供墨板电源 Ink

蜂鸣器复位按钮
Buzzer reset button

墨泵信号 Ink

二级墨盒

墨阀口

安全瓶浮子开关信号 Safety bottle

二级墨盒浮子开

二级墨盒过滤器

喷头数据线

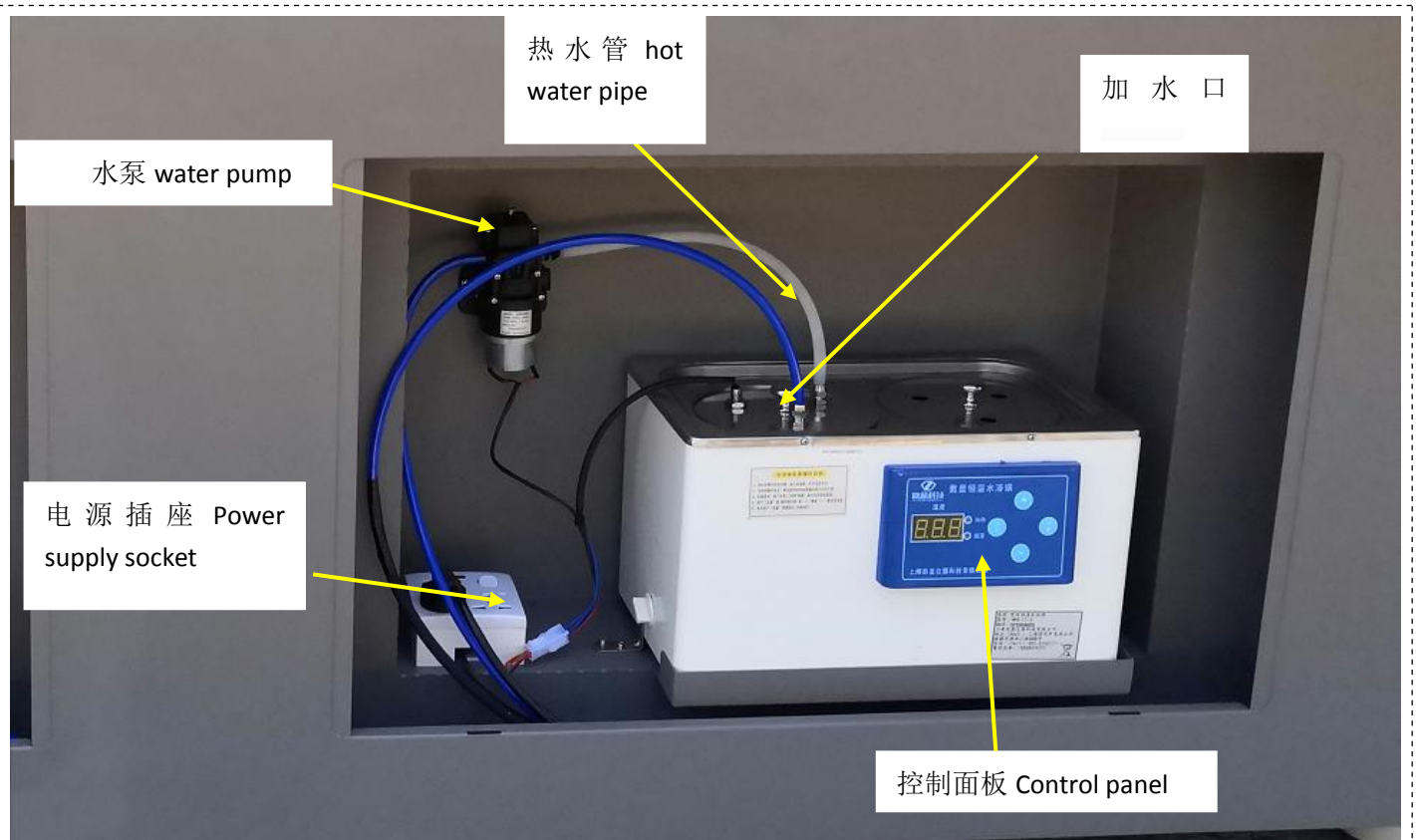
加热水路循环系统

Heating water circulation system

喷头恒温循环水箱 Spray nozzle constant temperature circulating water tank :

给喷头循环升温，增加墨水的流畅性。当水箱缺水时，报警器会发出警报声，打开盖子，添加纯净水或者饮用水，不要加浑浊的自来水或污水，避免堵塞水管，影响喷头正常工作。水温正常范围为 **43°C~47°C**。 Circulate and raise the temperature of the printhead to increase the smoothness of the ink. When the water tank is short of water, the alarm will go off, open the lid, add purified water or drinking water, and do not add turbid tap water or sewage, so as to avoid blocking water pipes and affecting the normal operation of the printhead. The normal range of water temperature is 43 c ~ 47 c.

如何调节水箱温度 How to adjust the water tank temperature：首先按一下左手边绿色的按钮(Set)，然后按第二个(Shift/AT)选择小数或者个位数或者十位数，然后按第三个(Dec/Rst)或第四个(Inc)往上调还是往下调。调节好后，按两下最左边的绿色按钮(Set)，完成调整。 First, press the green button on the left side (set), then press the second bottom (shift / at) to select decimal or single digits or ten digits, and then press the third bottom (dec / rst) or fourth (Inc) to go up or down. After adjustment, press the green button on the left(set) twice to finish the adjustment.



LED-UV 灯恒温水箱 Led - uv lamp thermostatic water tank :

原理：把冷水输送到散热片，降低温度。LED-UV 灯是水冷箱，给 UV 灯降低温度，水箱的水是无限循环流动的、密封的。一般情况下不要打开盖子，只有 LED-UV 水箱发出缺水报警时才能打开盖子，添加纯净水或者不含杂质的水。水箱面板显示（P1 为水流保护）（P2 为缺水报警）。

温度调节是根据材料的性质决定，有些材料容易受到温度的影响而发生变形，刮蹭到碰头。

Principle: send cold water to the radiator to reduce the temperature. Led - uv lamp is using a water cooling box, which lowers the temperature of uv lamp, and the water inside the tank is infinitely circulating and flowing and sealed. Generally speaking, do not open the lid, only when the led - uv water tank gives a water shortage alarm, can the lid be opened, and purified water or water without impurities be added. The water

tank panel displays (P1 is water flow protection) (p2 is water shortage alarm).

Temperature regulation is determined by the nature of materials, and some materials are susceptible to the influence of temperature and deform, scraping to meet.



- 1.P1-流量报警
- 2.P2-液位报警
- 3.EEE-温度传感器断线报警
- 4.LLL-温度传感器短路报警
- 5.仪表温度闪烁-超温报警
- 6.PPP-流量和液位同时报警

1. P1-Flow alarm
2. P2-Liquid level alarm
3. EEE- Broken line alarm of temperature sensor
4. LLL- Short-circuit alarm of temperature sensor
5. Instrument temperature blinking- Overtemperature warning
6. PPP-Flow and liquid level alarm went off at the same time

负压系统

Negative pressure system

负压发生器是针对墨水的向上吸力（负压）与向下推力（正压）。 The negative pressure

generator is aimed at upward suction (negative pressure) and downward thrust (positive pressure) of ink.

以大气压为零的情况下，墨水由于受到地球引力的作用而往下滴，当喷头滴墨时，把负压值往偏离零的负方向调节，增加吸力吸住墨水。When the atmospheric pressure is zero, the ink is dripped down because of the effect of the earth's gravity. When the nozzle drops ink, the negative pressure is adjusted to the negative direction of the deviation to increase the suction to absorb the ink.

当喷头工作时有些喷头不出墨。可能负压值的吸力太大，吸住了墨水，此时把负压值往零的正方向调节，增加推力。Some nozzles are not out spraying ink when the print head works. Maybe the suction value of the negative pressure value is too high, and the ink is absorbed. At this time, the negative pressure is adjusted to the positive direction of zero, and the thrust is increased.

负压值有两个调节器，一个是调节个位数，另一个是调节小数。先调节小数，当小数值达到最大值时，进一位个数。此时把小数调到最小值以此类推，一直调整到不吸墨也不滴墨喷头能正常工作。

一开始不能调节个位数的原因是为了防止调节的数值太大，影响调节喷头的出墨状态。There are two regulators for negative pressure value, one is to adjust the single digit, the other is to adjust the decimal. First adjust the decimal number and enter the number when the small value reaches the maximum. At this time, the decimal number is transferred to the minimum value and so on. It needs to be adjusted to no ink absorption or dripping, then it can work normally.

The reason why the single digit number can not be adjusted at the beginning is to prevent the adjustment value from being too large, which affects the adjustment of the ink

status of the printhead.



负压系统 Negative
pressure system

机器配件

Machine accessories

光栅条的作用 The effect of raster strip :光栅条是利用红外光探测 ,让光谱反射回馈 ,进而定位X轴。Raster bars are detected by infrared light, allowing spectral reflection feedback, and then locate the X axis.

导轨 Guide rail : 小车左右 , 前后移动的轨道。 当导轨没油时 , 加一些机油或者润滑油 , 避免导轨生锈 ,影响打印效果。The cartridge moves left and right, forward and backward. When the guide rail is not oiled, add some oil or lubrication to avoid rusting of the guide rail and affect the printing effect.

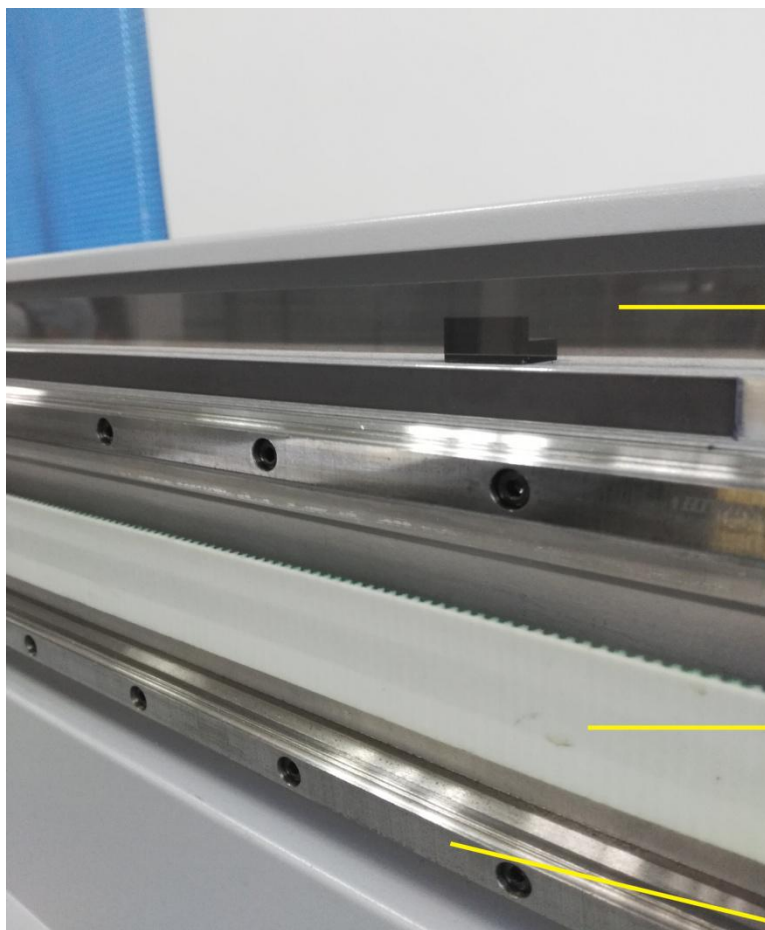
皮带 Belt : 拉动小车左右移动。 Pull the cartridge to move left and right.

清洗功能 Cleaning function : 当喷孔出墨不完整时, 按压清洗功能, 把墨水通出来, 从而使喷头正常工作。When the nozzle is spraying the ink completely, press the cleaning function bottom to pass the ink out, so that the printhead can work normally.

废墨仓 Waste ink silo : 收集废墨水。Collecting waste ink

排气孔 Exhaust hole : 排掉墨管里面的空气, 如果墨管有空气, 将会影响墨水的连续性, 进而影响出墨状态。排气时先持续按清洗按钮不要松开手, 当喷头滴下墨水时, 打开排气孔迅速关闭然后又打开, 重复几次, 直至没有气泡。Drain the air in the ink pipe. If there is air in the ink tube, it will affect the continuity of the ink and then affect the ink state too. Do not loosen the hand by pressing the cleaning button. When the nozzle drops ink, turn on the vent quickly and open again, repeat several times until there is no bubble.

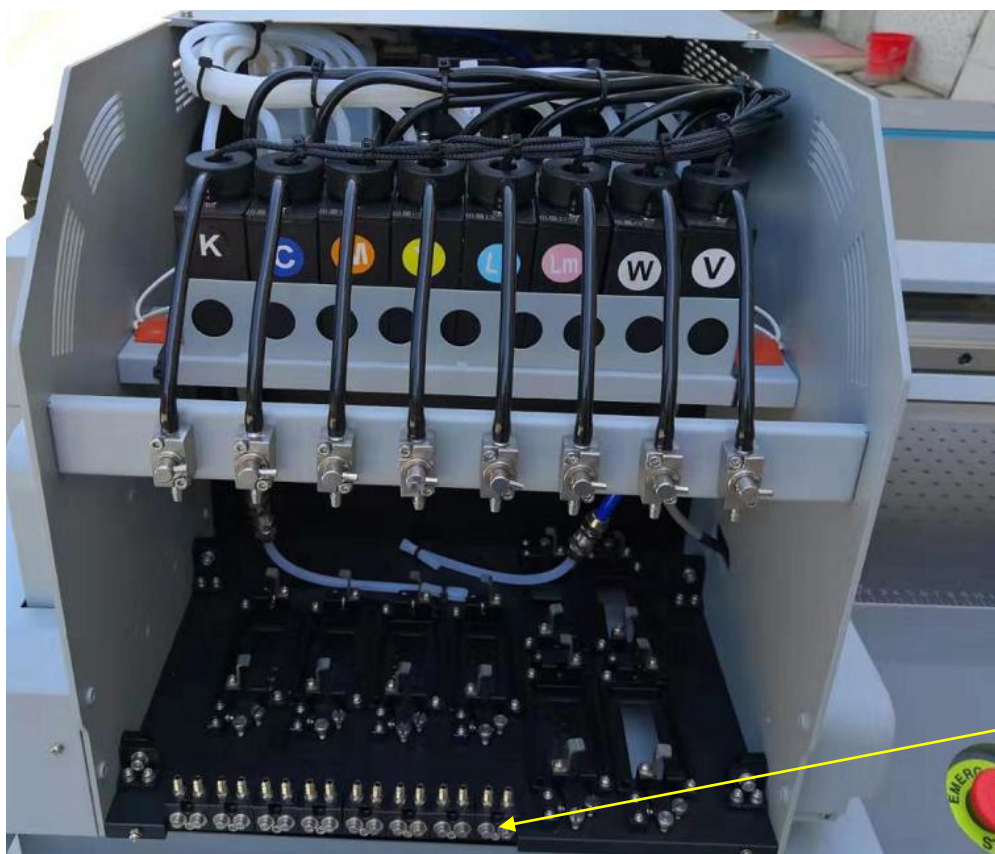
防撞装置 Anticollision device : 撞到防撞装置后, 机器断电, 小车停止运行。然后重新开机。After hitting the anti-collision device, the machine is cut off and the cartridge stops running. And then reboot.



光栅条 Grating strip

皮带 Belt

导轨 Guide rail



排气阀

Exhaust valve

打印机初始化运动流程

Printers initialize the movement process

当启动机器后，打开控制软件，打印机会初始化运动 When the machine is started, the control software is on, and the printer initiates movement.

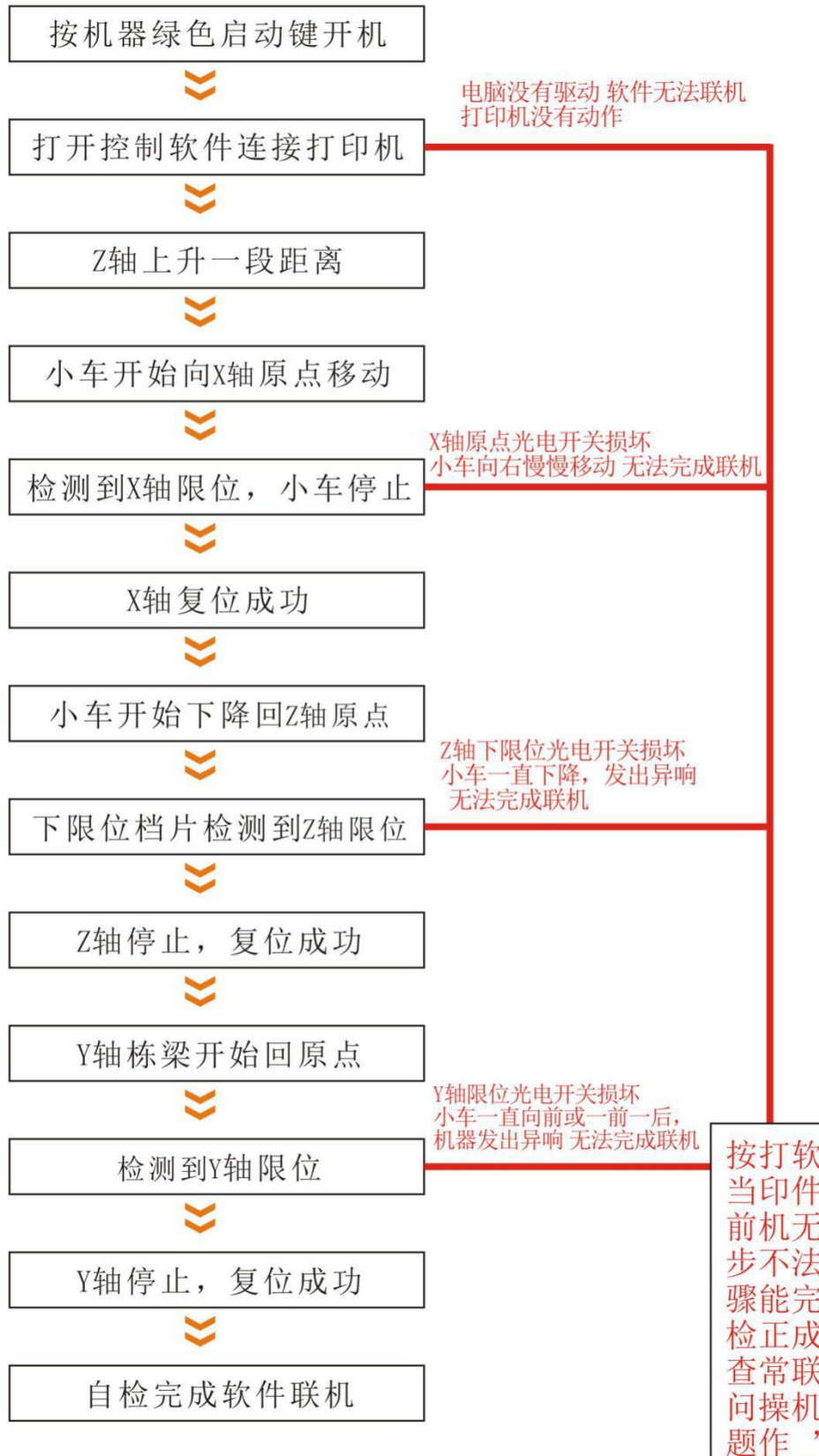
东芝喷头平板机开机自检动作



正常流程

东芝喷头平板机开机自检动作

流程异常



打印机工作生产注意事项(日常)

Notices of printers' working production (daily)

1. 设备工作前注意确认喷头状态，停机一段时间后再次打印喷头状态图，状态图完整方可打印。 1. before the work of the equipment, pay attention to confirm the state of the nozzle, and then print the state chart of the nozzle again after shutdown for a period of time, and the state diagram can be printed completely.
2. 设备开机前 10 分钟左右为预热状态，打开软件设置—参数设置，确认水温达到 43°C—47°C 以内。 2. 10 minutes before the start of the device, the system is preheated, and the software settings are set up. The parameters are set to confirm that the water temperature reaches 43 degrees C - 47 degrees C. ·
3. 设备工作前必须确认材料和喷头有 1MM 间距。打印平台无杂物。 3. the equipment must have 1MM spacing between the material and the nozzle before working. There is no sundries on the printing platform.
4. 设备工作时，如果喷头某个颜色长时间不出墨，必须要加上彩条。 When the machine works, If certain color won' t come out for quite a long time, then must add color bar to check.
5. 设备工作时必须注意材料是否变形，如果与喷头刮蹭必须立刻暂停打印，调整喷头高度。 5. when the equipment is working, it is necessary to pay attention to whether the material is deformed. If it scrapes with the print head you must stop printing immediately and adjust the height of the print head.
6. 打印完成后，如果长时间不使用要将喷头保湿。 if the printing is finished, the print head should be moisturized if it is not used for a long time.
7. 设备关机时，先压墨(不要擦掉喷头表面的墨水) ;再关闭阀门，并用遮光布盖住小车。 When the

equipment is shut down, first press the ink (do not erase the ink on the surface of the print head); then close the valve and cover the cartridge with shading cloth.

打印机长久保养流程

Long term maintenance process for printer

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大诚光驰东芝喷头长期保养方式图例

专业 专心 专注



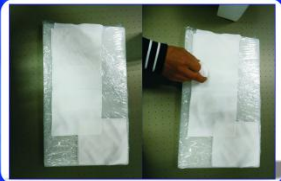
一、准备工具材料

注意事项：准备工具保鲜膜，无尘布约45X20板材，专用清洗液



二、制作简易托盘

注意事项：用保鲜膜将板材包裹住，保证清洗液不会漏到板材上。



三、将无尘布打湿

注意事项：将无尘布按喷头位置摆放好，并用少量清洗液打湿



四、将小车升高并移动到托盘位置

注意事项：移动之前请将喷头压出墨水，并关闭墨水阀门，将小车移动到最右力。



五、手动将小车下降把喷头位置对准无尘布

注意事项：下降到托盘受力喷头与无尘布完全接触为止。



六、用黑色遮光布将小车盖好保证喷头不受光照影响

注意事项：将遮光布盖在喷车上，之后可用保鲜膜拉伸膜将小车固定，密封。