

Cable Labeling Machine

User Manual

Print-and-Apply Cable Folding Labeling Machine

Bilingual Edition

中英对照版

线缆贴标机

使用说明

Cable Labeling Machine

User Manual

Print-and-Apply Cable Folding Labeling Machine

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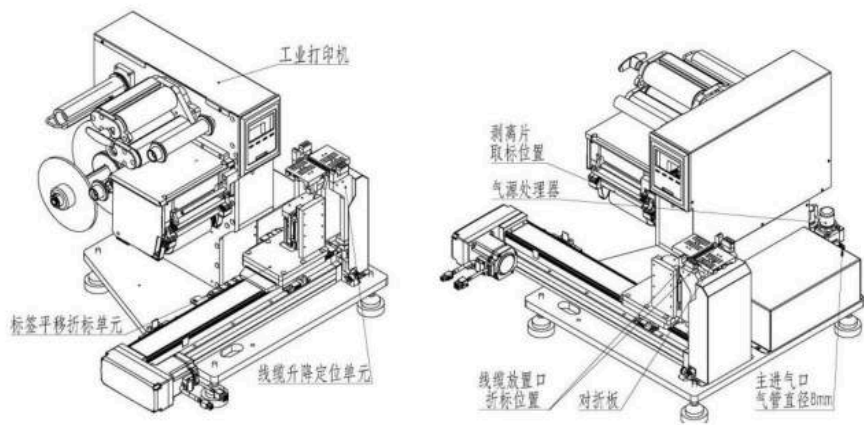
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一、打印线缆对折贴标机篇

打印线缆对折贴标机整体结构



打印线缆对折贴标机性能指标

1、打印线缆对折贴标机物品清单

- 1.1 工业打印机
- 1.2 标签平移折标单元
- 1.3 线缆升降定位单元
- 1.4 配件（航空插头、脚踏开关等）

2、打印线缆对折贴标机打印性能

- 2.1 打印模式 热转印/热敏
- 2.2 分辨率 203dpi/306dpi/600dpi （V420-C/V430-C/V460-C）
- 2.3 标签尺寸 宽度 110 最大长度 100mm
- 2.4 纸卷长度 180m
- 2.5 色带长度 300m （V420-C4/V430-C4）
 260m （V460-C4）
- 2.6 打印速度 125mm/s （V420-C4/V430-C4）
 50mm/s （V460-C4）

Part 1: Print-and-Apply Cable Folding Labeling Machine

Overall Structure

Performance Specifications

1. Packing List

- 1.1 Industrial printer
- 1.2 Label transfer & folding unit
- 1.3 Cable lifting/locating unit
- 1.4 Accessories (aviation plugs, foot switch, etc.)

2. Print Performance

- 2.1 Print mode: thermal transfer / thermal direct
- 2.2 Resolution: 203 dpi / 306 dpi / 600 dpi (V420-C / V430-C / V460-C)
- 2.3 Label size: width 110 mm (max), max length 100 mm
- 2.4 Media roll length: 180 m
- 2.5 Ribbon length: 300 m (V420-C4 / V430-C4); 260 m (V460-C4)
- 2.6 Print speed: 125 mm/s (V420-C4 / V430-C4); 50 mm/s (V460-C4)

3、打印线缆对折贴标机性能

- 3.1 折线种类 气缸
- 3.2 取标方式 伺服电动
- 3.3 贴标方式 对折
- 3.4 标签尺寸 最大宽度 110 最大长度 100 mm
- 3.5 对折夹头定制 适用标签宽度 110mm, 标签高度 10-100 毫米
- 3.6 外部信号 输入 3: 清除数据 输出 3: 故障报警
- 3.7 生产节拍 约 4 秒/张

4、打印线缆对折贴标机软件

- 4.1 标签编辑 NPL 指令集
- 4.2 数据来源 网口输入 USB 输入 串口输入
- 4.3 标签打印 用户自行发送标签打印数据到打印贴标机
- 4.4 打印方式 windows 电脑驱动打印
指令集控制打印
模板控制打印

5、保修条款

- 5.1 打印头保修 30 公里或三个月以先到达为准
- 5.2 打印主机及贴标主体部分保修一年
- 5.3 耗材除外

6、外形尺寸及重量

- 6.1 外形尺寸: 约 634x521x497mm (长 x 宽 x 高)
- 6.2 重 量: 约 57kg

7、需要的耗材

- 7.1 碳带
- 7.2 标签

3. Machine Performance

- 3.1 Folding type: pneumatic cylinder
- 3.2 Label pickup method: servo-electric
- 3.3 Labeling method: folding
- 3.4 Label size: max width 110 mm, max length 100 mm
- 3.5 Folding clamp customization: suitable label width 110 mm, label height 10-100 mm
- 3.6 External signals: input 3 - clear data; output 3 - fault alarm
- 3.7 Cycle time: approx. 4 s per label

4. Software

- 4.1 Label editing: NPL command set
- 4.2 Data sources: network port input, USB input, serial port input
- 4.3 Label printing: user sends label print data to the print & apply machine
- 4.4 Printing methods: Windows PC driver printing; command-set controlled printing; template controlled printing

5. Warranty Terms

- 5.1 Printhead warranty: 30 km or 3 months, whichever comes first
- 5.2 Printer main unit and labeling body: 1 year
- 5.3 Consumables excluded

6. Dimensions and Weight

- 6.1 Dimensions: approx. 634 x 521 x 497 mm (L x W x H)
- 6.2 Weight: approx. 57 kg

7. Consumables Required

- 7.1 Thermal transfer ribbon
- 7.2 Labels

打印线缆对折贴标机使用及维护

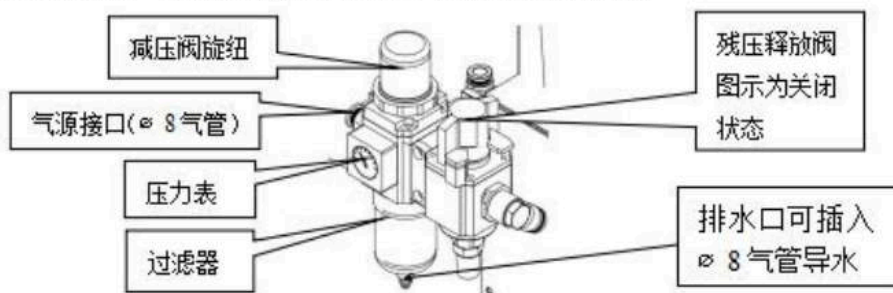
- 1、设备使用 AC220V 电源。
- 2、使用气源压力 0.8-1Mpa，气流量 60L/min，气管外径 8 毫米
- 3、气源的接入及气源处理组件使用说明：

1) 初次安装在气源接口处插入外径 8 的气源供气管，调整压力表压力至 0.4-0.5Mpa，保证真空发生器供给压力稳定。

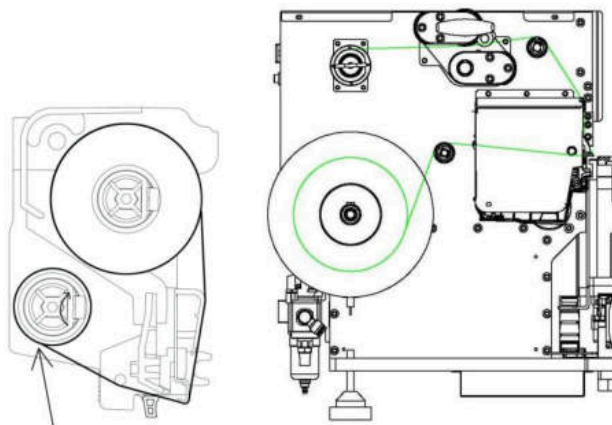
2) 如需调整压力提起减压阀旋钮顺时针旋转增加压力，逆时针旋转为减小压力。调整完成后下压旋钮进行锁定。

3) 图中残压释放阀处于关闭状态，下压红色旋钮，顺时针旋转 90 度贴标机接通气源，此时吸标板上升至吸标位置。（注意：打开残压阀线缆升降定位单元回升起，关闭残压阀吸标板会下落，注意刮碰。避免损坏设备及刮碰人员！）

4) 气源处理组件需每日检查空气过滤器中的水，空气过滤器为手动排水，如果过滤器中的水满了，或日常维护需要排水时，手动向内推开排水口接头即可排水。



- 4、定期保养气泵，排水排油。保证气源洁净、含水量不可过高。
- 5、使用时注意穿纸及碳带安装路径。如图示意穿纸及碳带安装路径，只有正确穿纸才不会影响正常工作。



- 6、初次使用，正确安装碳带及标签纸卷，设置标签大小，按走纸键走准标签，接通气源线缆升降定位单元升起复位，后面板接上脚踏开关，按下后部打印开关红灯常亮，连接网线（需要设置打印机 ip）或 usb（第三方排版软件需要安装打印机驱动），通过电脑上排版软件或上位机发送数据给打印机，设备开始工作，标签平移折标单元滑动到取标位置，打印机打印出来标签吸附到对折板上返回折标位置，人工拉直线缆放置到两个线缆放置口中，脚踩下脚踏开关线缆升降定位单元下落，人手顺势压

Operation and Maintenance

1. The machine uses AC 220V power.
2. Use air supply pressure 0.8-1 MPa, air flow 60 L/min, air tube outer diameter 8 mm.
3. Air supply connection and air treatment unit instructions:
 - 1) On initial installation, insert an 8 mm OD air supply tube into the air supply port and adjust the pressure gauge to 0.4-0.5 MPa to keep the vacuum generator supply pressure stable.
 - 2) To adjust pressure, lift the pressure reducing valve knob; rotate clockwise to increase, counterclockwise to decrease. After adjustment, push the knob down to lock it.
 - 3) In the diagram the residual pressure release valve is closed. Press the red knob down and rotate 90° clockwise to connect the air supply to the labeling machine; the label pickup plate then rises to the pickup position. (Note: opening the residual pressure valve causes the cable lifting/locating unit to retract and rise; closing it causes the label pickup plate to drop - watch out for scraping/collision to avoid damaging the equipment or injuring personnel!)
 - 4) The air treatment unit must be checked daily for water in the air filter. The air filter drains manually; when it is full or during routine maintenance, push the drain port fitting inward to drain.
4. Perform regular maintenance on the air pump, draining water and oil. Keep the air supply clean with no excessive moisture.
5. Pay attention to the media and ribbon threading paths when in use. Follow the threading paths shown in the diagram; only correct threading ensures normal operation.
6. On first use, correctly install the ribbon and label roll, set the label size, press the FEED key to advance to the correct label position, connect the air supply so the cable lifting/locating unit rises and resets, connect the foot switch to the rear panel, press the rear print switch (red light stays on), connect the network cable (the printer IP must be set) or USB (third-party layout software requires the printer driver), and send data to the printer via layout software or the host computer. The machine starts working; the label transfer & folding unit slides to the pickup position; the printer prints the label, which is sucked onto the folding plate and returns to the folding position; manually pull the cable straight and place it into the two cable placement slots; step on the foot switch so the cable lifting/locating unit lowers, and the operator presses down in the same motion to

线缆完成折标动作。注意两个线缆放置口之间是夹板动作危险区间，切勿夹手。如需暂停折标，按下打印开关，红灯灭掉，完成当前折标工作后，设备停止工作。再次按下打印开关红灯常亮恢复工作状态。

7、遇到电磁阀、真空发生器、滑台等电气、机械故障时需打开护罩检查时，建议联系售后服务。

打印线缆对折贴标机常见故障排除

故障现象	解决办法
更换不同材料标签	关闭打印机，按住 feed 按键，开机，当报错指示灯闪烁松手，打印机自动校验纸张，当打印机停止走纸，观察标签位置是否正确。
色带错误	检查色带是否安装正确。 安装时，收紧色带，不可留余太多。 关机重新启动打印机，按走纸键试试，是否恢复正常。
色带缺失	如色带已用尽，更换新的色带。 检查打印参数配置，打印热敏纸时无碳带打印方式选择热感。
无法正常开机	检查电源供电是否正常，是否符合 220V 供电要求。 总电源开关  是否按到 - 位。
打印效果差	调节打印浓度或打印速度。 打印头脏：清洁打印头。
点缺失	打印头脏：清洁打印头。 打印头损坏：关闭打印机，联系售后进行处理。

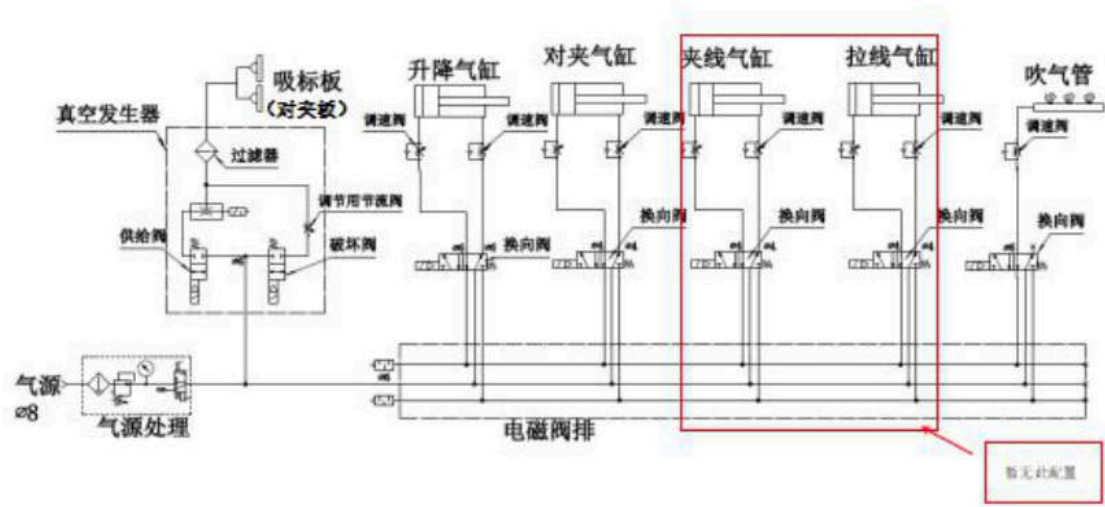
complete the folding action. Note: the area between the two cable placement slots is a clamping hazardous zone - keep hands away. To pause folding, press the print switch; the red light goes off, and after completing the current fold the machine stops. Press the print switch again (red light stays on) to resume operation.

7. If solenoid valve, vacuum generator, slide table, or other electrical/mechanical faults require opening the cover for inspection, contact after-sales service.

Common Fault Troubleshooting

Fault	Solution
Replacing labels of different material	Turn off the printer, press and hold the FEED key, power on; release when the error indicator flashes.
Ribbon error	Check whether the ribbon is installed correctly. When installing, tighten the ribbon and avoid leaving gaps.
Ribbon missing	If the ribbon is used up, replace it. Check print parameter settings; for thermal paper printing without ribbon, set the ribbon width to 0.
Cannot power on	Check whether the power supply is normal and meets the 220V requirement. Check whether the power switch is turned on.
Poor print quality	Adjust print darkness or print speed. Dirty printhead: clean the printhead.
Missing dots	Dirty printhead: clean the printhead. Damaged printhead: turn off the printer and contact after-sales service.

气动原理图



易损件清单

序号	名称	型号	数量	品牌
1	接头	PC4M5	2	亚德客
2	打印头	V4X0T-106	1	NMK
3	胶辊组	D421-107	1	NMK

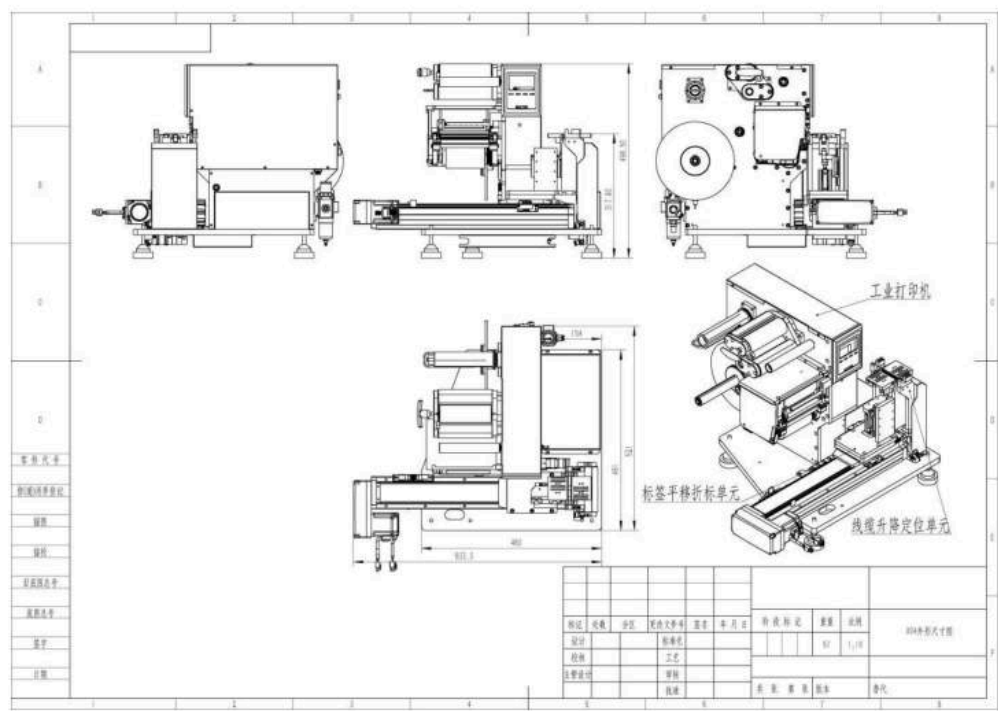
Pneumatic Schematic

Illustration/diagram page - see the original Chinese document for the image.

Wear Parts List

No.	Name	Model	Qty	Brand
1	Fitting	PC4M5	2	AirTAC
2	Printhead	V4X0T-106	1	NMK
3	Platen roller assembly	D421-107	1	NMK

外形尺寸图



操作及控制

软件连接打印贴标机处理说明

1、关于打印贴标机使用的打印指令文件。

客户提供详细标签样式，我们生成一种打印机可以识别的指令文件（文本形式），文件中将用户需要变化的字段（如产品名称，编号，条码号等）做一些特殊的处理，比如标记为 111111，222222。。。。，打印时软件提前读取文件信息，将变化的字段数据替换其中。再将这个数据用 U T F 8 格式发给打印机就可以了。数据发送后，打印机可以给用户返回成功或失败，和失败后的故障信息，故障信息按位体现到返回信息中。

2、模板打印

下载模板文件

使用 BarLabel 软件生成模板文件 xxx.FRM，并下载到打印机中。

调用模板打印

FR“xxx.FRM”	//调用模板“xxx.FRM
?	//参数提示符
1	//第一个参数的值
Kg	//第二个参数值
4.2	//第三个参数的值

Dimension Drawing

Illustration/diagram page - see the original Chinese document for the image.

Operation and Control

Software Connection to the Print & Apply Machine

1. Regarding the print command file used by the print & apply machine.

The customer provides the detailed label layout; we generate a command file (text form) that the printer can recognize. In the file, the fields the user needs to change (e.g., product name, number, barcode number) are specially processed - for example marked as 111111, 22222, ... At print time the software reads the file information in advance and replaces the variable field data. This data is then sent to the printer in UTF-8 format. After the data is sent, the printer returns success or failure, plus fault information after a failure; the fault information is reflected bit-by-bit in the return message.

2. Template printing

Download template file: use BarLabel software to generate a template file xxx.FRM and download it to the printer.

Recall template printing:

```
FR"xxx.FRM"  
?  
1  
Kg  
4.2  
    // recall template "xxx.FRM"  
    // parameter prompt  
    // value of first parameter  
    // value of second parameter  
    // value of third parameter
```

P1,1	//启动打印
------	--------

3、关于打印机网口使用说明

设备后面板网口共有三种用途，分别是模板下载、网络打印、状态反馈。以下将对三种用途分别进行说明。

在使用网口前,首先要让打印贴标机和上位机处于同一网段,打印贴标机默认出厂 IP 为 192.168.1.69, 网关为 192.168.1.1, 端口为 9100, 用户可在系统设置-通讯接口-网络接口菜单下自行设置 IP 地址和本地端口, 打印贴标机共有两个网络端口, 分别是 9100 和 9200, 9100 端口用于打印数据的接收、打印模板的下载、控制指令的接收, 9200 端口主要用于打印贴标机状态的输出。

用法说明

1) 模板下载

利用 Barlabel 标签编辑软件制作号打印模板, 下载打印模板的方式选择网络打印, 选择需要下载的模板文件 (.FRM) 填写打印贴标机的 IP 地址及 IP 端口, 即可通过网口将打印模板下载到打印贴标机中。



使用 FR 指令调用打印模板时, 也可以通过网口发送 FR 指令。

2) 网络打印

网络打印可细分为直接打印和调用驱动打印, 直接打印即将打印内容以指令集的方式通过 TCP/IP 协议发送到打印贴标机中, 打印机的 TCP/IP 连接方式为服务端长连接方式, 调用驱动打印即安装 Nmark 打印机驱动, 上位机通过调用打印机驱动, 将标签数据发送到打印贴标机中。

2.1) 直接打印

直接打印用户可利用本公司开发的 Barlabel 标签编辑软件进行标签编辑, 该软件不需要安装驱动即可打印标签, 用户在打印时选择网络打印, 填写好打印机 IP 地址以及端口即可直接通过网口将标签数据下发给打印机。

2.2) 调用驱动打印

调用网络驱动打印, 用户需要在电脑上安装对应型号的打印贴标机网络驱动 (安装教程参考 Nmark 打印贴标机驱动安装教程及使用说明) 然后通过网络驱动下发打印数据。

```
P1,1  
// start printing
```

3. Network port usage

The rear panel network port has three purposes: template download, network printing, and status feedback, described separately below.

Before using the network port, ensure the print & apply machine and the host computer are on the same subnet. The default factory IP is 192.168.1.69, gateway 192.168.1.1, port 9100. Users can set the IP address and local port under System Settings - Communication Interface - Network Interface menu. The machine has two network ports, 9100 and 9200. Port 9100 receives print data, downloads templates, and receives control commands; port 9200 mainly outputs machine status.

Usage

- 1) Template download - use Barlabel label editing software to create the print template; choose network printing as the download method, select the template file (.FRM), enter the machine IP address and port, and download the template via the network port. When using the FR command to recall a template, the FR command can also be sent via the network port.
- 2) Network printing - subdivided into direct printing and driver printing. Direct printing sends print content as command sets via TCP/IP to the machine; the printer's TCP/IP connection uses a server-side persistent connection. Driver printing installs the Nmark printer driver and the host computer sends label data through the driver.
 - 2.1) Direct printing - use Barlabel label editing software; no driver needed. When printing select network printing, enter the printer IP address and port, and send label data directly via the network port.
 - 2.2) Driver printing - install the network driver for the corresponding machine model on the computer (see the Nmark print & apply driver installation guide), then send print data through the network driver.

2.3) TCP MODBUS 调用方式

以 MThings 软件为例

网络参数配置

参数名	数值
链接名称	NET000
链接模式	TCP客户端
重新建链周期 (秒)	0
链接空闲保持时间 (秒)	6000
传输模式	MODBUS-TCP(同步)
本地IP	
本地端口	--
目标域名/IP	192.168.1.229
目标端口	9400
会话密钥	

确认取消

打印机 IP 为 192.168.1.229，端口 9400

连接成功后发送数据

新增 移除 曲线 发送 ☐ 循环发送

ID	发送报文PDU	延迟时间	超时时间	发送间隔	延迟时间曲线
☒ 1	10 03 e8 00 03 06 31 2E 46 52 4D 00	0	5000	0	☐ 未选择
☒ 2	10 04 4C 00 04 08 31 31 31 31 31 31 31 31 31 31	0	5000	0	☐ 未选择
☒ 3	10 04 B0 00 04 08 32 32 32 32 32 32 32 32 32 32	0	5000	0	☐ 未选择
☒ 4	10 13 88 00 01 02 00 01	0	5000	0	☐ 未选择

10 03 e8 00 03 06 31 2E 46 52 4D 00(03 e8 对应 1000,31 2E 46 52 4D 00 为 1.FRM 的十六进制)

10 04 4C 00 04 08 31 31 31 31 31 31 31 31 31 31(04 4C 对应 1100, 31 31 31 31 31 31 31 31 31 为 11111111 的十六进制)

10 04 B0 00 04 08 32 32 32 32 32 32 32 32 32 32(04 B0 对应 1200,32 32 32 32 32 32 32 32 32 为 22222222 的十六进制)

10 13 88 00 01 02 00 01(13 88 对应 5000,00 01 启动打印)

2.4) 调用 Barlabel 后台打印进程说明

①后台打印进程执行文件：

2.3) TCP MODBUS method

Example using MThings software. Printer IP 192.168.1.229, port 9400. After connecting, send data:

```
10 03 e8 00 03 06 31 2E 46 52 4D 00
10 04 4C 00 04 08 31 31 31 31 31 31 31 31
10 04 B0 00 04 08 32 32 32 32 32 32 32 32
10 13 88 00 01 02 00 01
03 e8 = 1000; 31 2E 46 52 4D 00 = hex for "1.FRM"
04 4C = 1100; 31 31 31 31 31 31 31 31 = hex for "11111111"
04 B0 = 1200; 32 32 32 32 32 32 32 32 = hex for "22222222"
13 88 = 5000; 00 01 = start printing
```

2.4) Barlabel background print process

① Background print process executable:

NMKPCL_Cmd.exe

②后台打印进程输入命令行说明：

1. 选择打印端口：

/I=USB //选择 usb 打印

/I=NET:192.168.1.69,9100 //选择网络打印，设置 IP 地址和端口

2.选择打印模版文件

/F=xxx.BLX //xxx.BLX 是通过 barlabel 制作的打印文件

3.修改模版里面的文本内容

/VT=Text0:1234 //Text0 是文本对象名称 1234 是修改后的文本内容

4.修改模版里面的条码内容

/VB=CodeBar0:1234 //CodeBar0 是条码对象名称 1234 是修改后的条码内容

5.启动打印

/P

特别说明：上面的 1 和 2 顺序不可以改变，必须放在前 2 个参数中，3 和 4 根据实际需求添加，不限数量，5 必须放在最后面。

③后台打印进程返回值说明：

0 ： 打印进程执行成功

-1 ： 进程内核异常

-2 ： 进程内核异常

-3 ： 缺少必需的打印参数项（二.后台打印进程输入命令行说明的步骤 1,2,5 是打印不能缺少的）

-4 ： BLX 文件加载异常

-5 ： USB 端口打开异常

-6 ： 网络端口打开异常

-7 ： 网络参数格式出错误（/I=NET:192.168.1.69,9100 其中 192.168.1.69 是 IP 地址 9100 是端口，中间的 ‘.’ 和 ‘,’ 不可缺少）

-8 ： 没有选择打印端口

-9 ： 没有选择 BLX 文件

-10 ： 打印 BLX 时发生异常

范例：

C 盘根目录有一个标签文件 test.BLX

NMKPCL_Cmd.exe 文件在 D 盘 Release 文件夹中

标签中 Text0 文本内容替换为 1234，CodeBar0 替换为 5678，用 usb 打印

执行代码如下：

cd /d D:\Release

NMKPCL_Cmd.exe /I=USB /F=C:\\test.BLX /VT=Text0:1234 /VB=CodeBar0:5678 /P

NMKPCL_Cmd.exe

② Background print process command-line input:

1. Select print port:
/I=USB // select USB printing
/I=NET:192.168.1.69,9100 // select network printing, set IP and port
2. Select print template file:
/F=xxx.BLX // xxx.BLX is a print file made with Barlabel
3. Modify text content in the template:
/VT=Text0:1234 // Text0 = text object name; 1234 = new content
4. Modify barcode content in the template:
/VB=CodeBar0:1234 // CodeBar0 = barcode object name; 1234 = new content
5. Start printing:
/P

Special note: items 1 and 2 must be the first two parameters and cannot be reordered. Items 3 and 4 are added as needed, unlimited in number. Item 5 must be placed last.

③ Background print process return values:

- 0 : print process succeeded
- 1 : process kernel error
- 2 : process kernel error
- 3 : missing required print parameters (steps 1, 2, 5 are mandatory)
- 4 : BLX file load error
- 5 : USB port open error
- 6 : network port open error
- 7 : network parameter format error (/I=NET:192.168.1.69,9100 - 192.168.1.69 is the IP,
9100 is the port; the '.' and ',' must be present)
- 8 : no print port selected
- 9 : no BLX file selected
- 10 : error while printing BLX

Example:

A label file test.BLX is in the C drive root directory; NMKPCL_Cmd.exe is in D:\Release. Replace Text0 with 1234 and CodeBar0 with 5678, print via USB. Command:

```
cd /d D:\Release
NMKPCL_Cmd.exe /I=USB /F=C:\\test.BLX /VT=Text0:1234 /VB=CodeBar0:5678 /P
```

3) 状态反馈

用户可以通过 9200 端口监控打印贴标机状态，软件链接到打印机后，将打印机可以识别的数据信息发给打印机，打印机执行指定的命令，或打印标签数据命令。之后软件可以收取打印机返回的信息，得到打印成功或失败后的故障信息。

返回的故障信息说明

0X7B 0XFF 0XFF 0X00 0X04 0X7C 0X00 0X00 0X00 0X00 0X7D

以上就是一个打印机打印后返回的信息（0X 表示 16 进制数据）。

各个数据说明如下：

byte0: 数据开始标志

byte1,byte2:

0XFF 0XFF 正在打印中

0XFF 0XFE 打印完成

0XFF 0XFD 贴标完成

0XFF 0XFC 打印机空闲

byte3,byte4: 打印机状态数据长度（0x00 0x04）

byte5: 分割字符

byte6,byte7,byte8,byte9: 对应的 bit31---bit0，相应的 bit 置 1，表示打印机不同的错误状态其中：

bit0--打印暂停

bit1--打印头抬起

bit2--缺纸

bit3--色带异常

bit4--色带缺失

bit5--黑标错误

bit6--打印头温度过高

bit7--打印头电压过低

bit8--打印数据异常

bit9--切刀异常

bit10--程序复位重启

bit11--贴标臂异常

...

bit24:打印机剩余标签个数

bit25:打印机剩余标签个数

bit26:打印机剩余标签个数

bit27:打印机剩余标签个数

bit28:打印机剩余标签个数

bit29:打印机剩余标签个数

bit30:打印机剩余标签个数

3) Status feedback

Users can monitor machine status via port 9200. After the software connects to the printer, it sends data the printer can recognize; the printer executes the specified command or prints the label data. The software can then receive the printer's return message to obtain success/failure and fault information.

Returned fault information:

0X7B 0XFF 0XFF 0X00 0X04 0X7C 0X00 0X00 0X00 0X00 0X7D

The above is a message returned by the printer after printing (0X indicates hexadecimal). Each byte is explained as follows:

byte0: data start flag

byte1,byte2:

0XFF 0XFF printing in progress

0XFF 0XFE printing complete

0XFF 0XFD labeling complete

0XFF 0XFC printer idle

byte3,byte4: printer status data length (0x00 0x04)

byte5: separator character

byte6-byte9: correspond to bit31-bit0; a set bit indicates an error state:

bit0 - printing paused

bit1 - printhead lifted

bit2 - out of paper

bit3 - ribbon error

bit4 - ribbon missing

bit5 - black mark error

bit6 - printhead overtemperature

bit7 - printhead voltage too low

bit8 - print data error

bit9 - cutter error

bit10 - program reset/restart

bit11 - labeling arm error

...

bit24-bit31: remaining label count

bit31:打印机剩余标签个数

byte10:数据结束标志

...

打印过程中，打印机实时返回打印机状态数据。

打印机空闲时，间隔 5 秒返回一条状态数据。

4) 扫码打印

用户可利用网口连接网络扫码器进行扫码打印，环境部署中将打印机作为服务端，扫码器作为客户端使用 TCP/IP 的通讯方式，配置读码器时，服务端 IP 地址为打印机 IP 地址，数据端口为 9300。这种方式适用于脱机模板打印，扫码器扫码得到的信息可以用来替换模板中的变量和触发打印。

```
byte10: data end flag
```

```
...
```

During printing, the printer returns status data in real time. When idle, it returns one status message every 5 seconds.

4) Scan-to-print

Users can connect a network barcode scanner via the network port for scan-to-print. In deployment the printer acts as server and the scanner as client using TCP/IP. When configuring the scanner, the server IP is the printer IP and the data port is 9300. This is suitable for offline template printing; the scanned code replaces variables in the template and triggers printing.

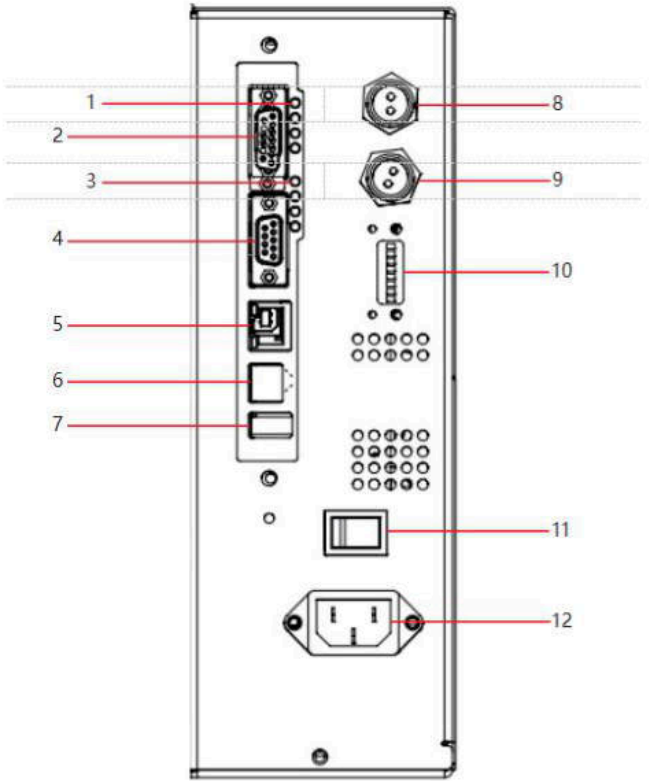
硬件连接说明

V4X0 工业贴标机 IO 接口接线说明

适用范围

版本日期	2025-01-17
适用范围	V4X0A-1.0BGA主板、V4X0B主板、V460A-1.0B主板

1、后面板接口定义



1	1.输出电源指示灯 2.打印完成指示灯 3.贴标完成指示灯 4.报警信号指示
2	灯信号输入、信号输出接口C
3	5.打印使能指示灯 6.贴标使能指示灯 7.清除数据指示灯 8.清除错误指示
4	灯RS232数据串口
5	RJ45数据网口
6	USB数据接口
7	USB设备接口
8	启动打印航插A
9	启动贴标航插B
10	传感器选择开关

Hardware Connection Instructions

V4X0 Industrial Labeling Machine I/O Interface Wiring

Version date: 2025-01-17

Applicable scope: V4X0A-1.0BGA mainboard, V4X0B mainboard, V460A-1.0B mainboard

1. Rear Panel Interface Definitions

Illustration/diagram page - see the original Chinese document for the image.

1 Output power indicator 2 Print complete indicator
3 Labeling complete indicator 4 Alarm signal indicator
5 Print enable indicator 6 Labeling enable indicator
7 Clear data indicator 8 Clear error indicator
Signal input / signal output interface C
RS232 data serial port
RJ45 data network port
USB data interface
USB device interface
Start print aviation plug A
Start labeling aviation plug B
Sensor selection switch

11	电源总开关
12	电源线接口

1.1 开关机方法

开机方法：按“电源总开关”到“--”闭合位置。

关机方法：按“电源总开关”到“o”断开位置。

1.2 传感器选择开关用法（务必关机后更改）

当打印的标签高度很小时，可以使用对射传感器，让标签走纸更精准

传感器选择开关	1-4路拨码开关	5-8路拨码开关
选择反射传感器	ON	数字侧
选择对射传感器	数字侧	ON

1.3“RS232 数据串口”DB9 引脚定义：

打印机串口DB9母		
引脚号	功能说明	缩写
1	悬空	
2	发送数据	TXD
3	接收数据	RXD
4	悬空	
5	信号地	GND
6	悬空	
7	悬空	
8	悬空	
9	悬空	

1.4“信号输入、信号输出接口 C” DB15 引脚定义：

引脚号	线色	引脚定义	引脚缩写	引脚号	线色	引脚定义	引脚缩写
14	粉色	输出24V	24V	10	蓝	打印完成输出+	ENDP+
15	浅绿	输出0V	0V	9	绿	打印完成输出 -	ENDP -
3	棕	报警信号输出+	ALM+	11	紫	清除数据输入+	CLR+
8	黄	报警信号输出 -	ALM -	12	灰	清除数据输入 -	CLR -
4	棕白	贴标完成输出+	ENDT+	13	白	清除错误输入	CERR
5	红	贴标完成输出 -	ENDT -	其余引脚悬空			

- 11 Main power switch
- 12 Power cord interface

1.1 Power on/off

Power on: set the "Main power switch" to the "-" (closed) position.

Power off: set the "Main power switch" to the "O" (open) position.

1.2 Sensor selection switch (must be changed after powering off)

When the label height is very small, use the through-beam sensor for more precise label feeding.

Sensor selection switch: 1-4 DIP switch / 5-8 DIP switch

Select reflective sensor: ON / digit side. Select through-beam sensor: digit side / ON.

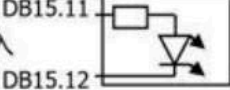
1.3 "RS232 data serial port" DB9 pin definitions:

Printer serial port DB9 female

Pin	Function	Abbr.
1	Not connected	-
2	Transmit data	TXD
3	Receive data	RXD
4	Not connected	-
5	Signal ground	GND
6	Not connected	-
7	Not connected	-
8	Not connected	-
9	Not connected	-

1.4 "Signal input / signal output interface C" DB15 pin definitions:

Pin	Wire color	Pin definition	Abbr.
14	Pink	24V output	24V
15	Light green	0V output	0V
3	Brown	Alarm signal output +	ALM+
8	Yellow	Alarm signal output -	ALM-
4	Brown-white	Labeling complete output +	ENDT+
5	Red	Labeling complete output -	ENDT-
10	Blue	Print complete output +	ENDP+
9	Green	Print complete output -	ENDP-
11	Purple	Clear data input +	CLR+
12	Gray	Clear data input -	CLR-
13	White	Clear error input	CERR
-	-	Remaining pins not connected	-

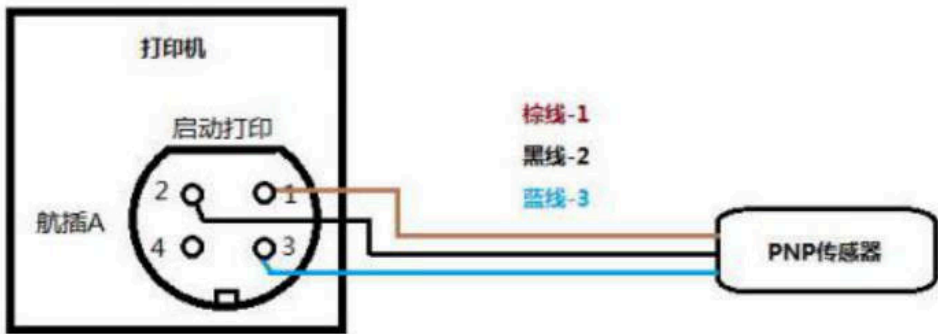
输入信号 (非隔离 PNP 型)	启动打印	输入信号为高电平有效 
	启动贴标	
	清除错误	
输入信号 (光耦隔离型)	清除数据	NPN 或 PNP 型输入 
输出信号 (光耦隔离型)	打印状态	NPN 或 PNP 型输出 
	贴标状态	
	报警状态	

2.启动打印航插 A、启动贴标航插 B 接线说明

启动打印和启动贴标输入信号均为非隔离型 PNP 输入信号。



1) 必须接 PNP 型光电传感器



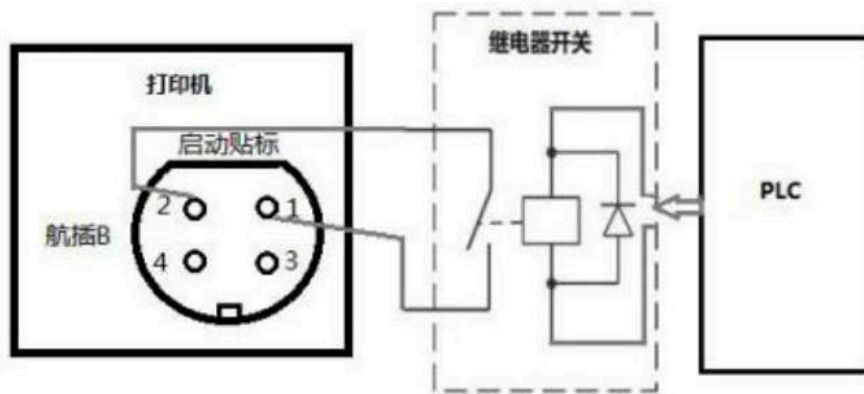
2) 接 PLC 方法

2. Start Print Aviation Plug A and Start Labeling Aviation Plug B Wiring

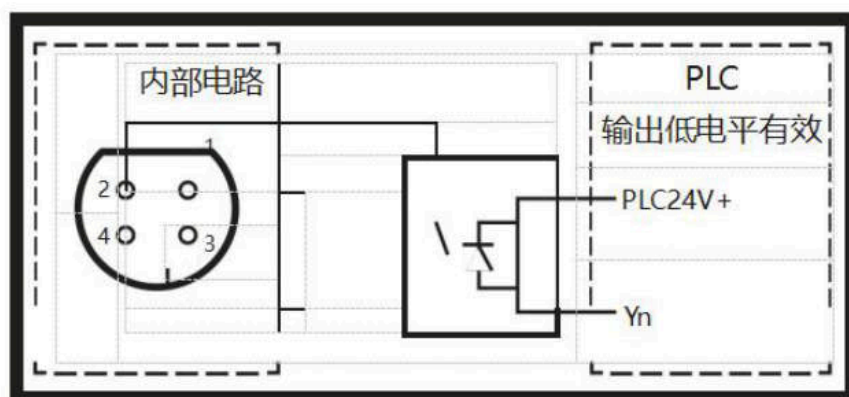
The start print and start labeling input signals are both non-isolated PNP input signals.

- 1) Must connect a PNP-type photoelectric sensor
- 2) PLC connection method

Illustration/diagram page - see the original Chinese document for the image.



3) 经由继电器接 PLC 方法

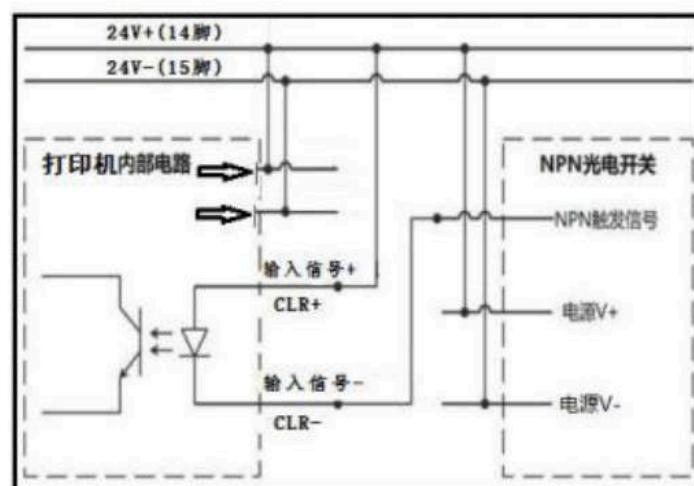


3.接口 C 接线说明 (图中 24V+为打印机输出的 24V, 24V-为打印机输出的 0V)

3.1 清除数据输入信号接法

清除数据输入信号为隔离型信号。可以接 NPN 型输入也可以接 PNP 型输入。

1) 接 NPN 型传感器



2) 接 PNP 型传感器

3) Connecting to PLC via relay

Illustration/diagram page - see the original Chinese document for the image.

3. Interface C wiring (in the diagrams, 24V+ is the 24V output by the printer, 24V- is the 0V output by the printer)

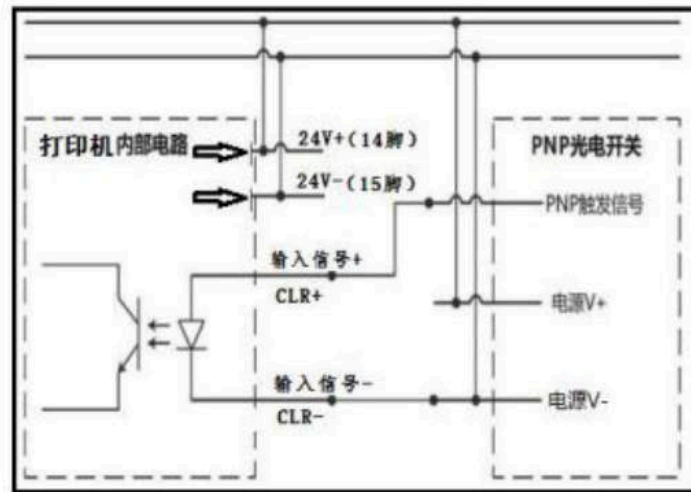
3.1 Clear data input signal connection

The clear data input signal is an isolated signal; it can accept NPN or PNP input.

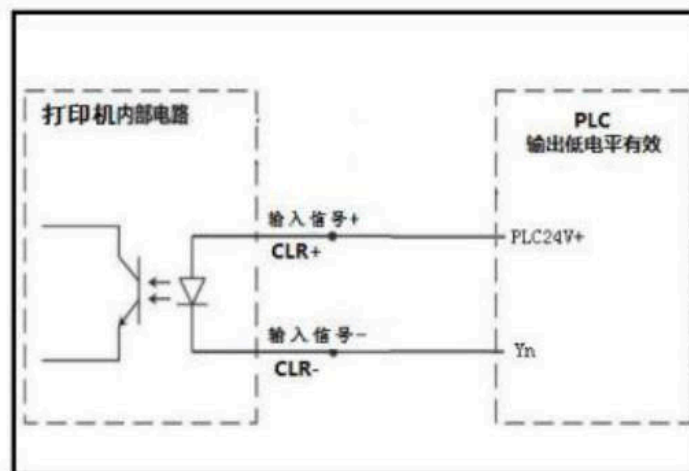
1) Connect NPN-type sensor

2) Connect PNP-type sensor

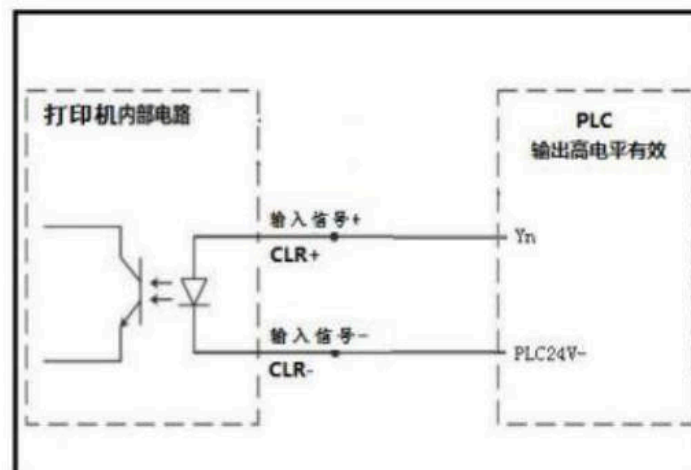
Illustration/diagram page - see the original Chinese document for the image.



3) 对接 PLC 输出有效信号为低电平的方法



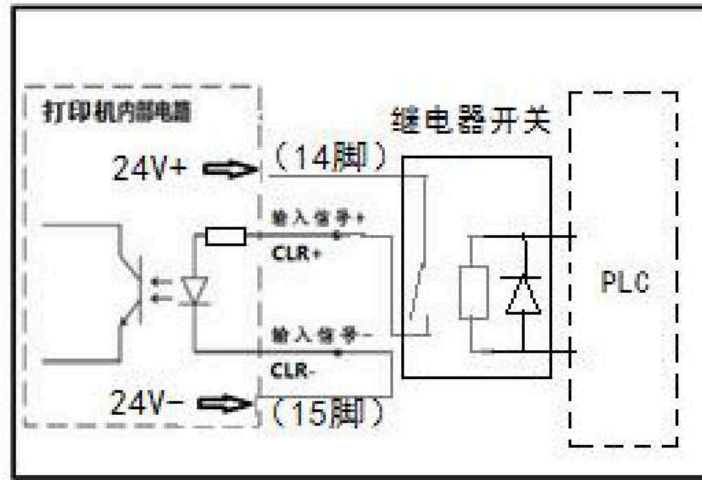
4) 对接 PLC 输出有效信号为高电平的方法



5) 清除数据输入信号经由中间继电器接 PLC 输出端方法

- 3) Method for PLC output active-low signal
- 4) Method for PLC output active-high signal
- 5) Clear data input via intermediate relay to PLC output

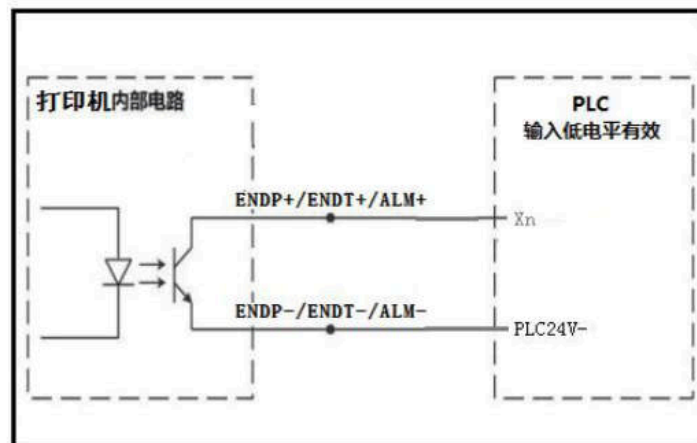
Illustration/diagram page - see the original Chinese document for the image.



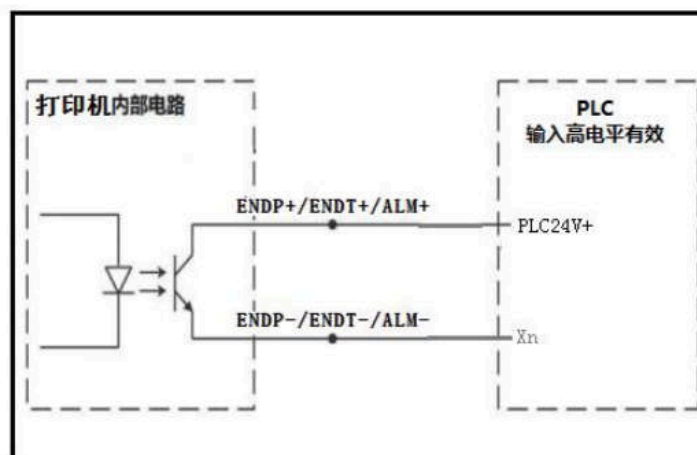
3.2 接口 C-输出信号接法 (打印完成输出、贴标完成输出、报警信号输出)

这三种输出信号为隔离型信号。可以 NPN 型输出也可以 PNP 型输出。

1) PLC 输入有效信号为低电平



2) PLC 输入有效信号为高电平



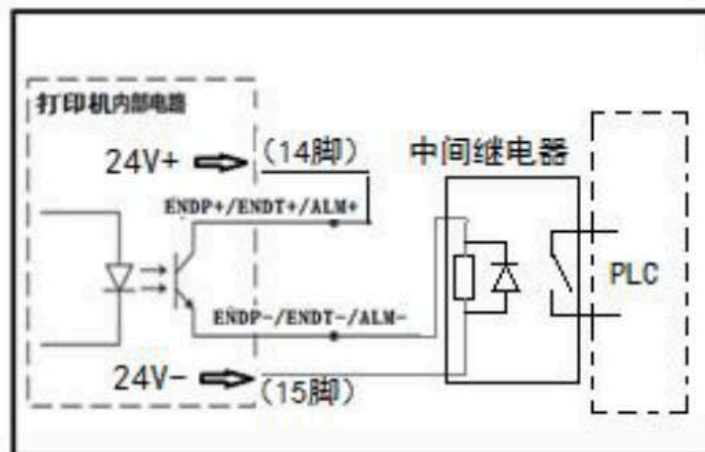
3) 接口 C 输出信号经由中间继电器接 PLC 输入端方法

3.2 Interface C output signal connection (print complete output, labeling complete output, alarm signal output)

These three output signals are isolated; they can be NPN or PNP output.

- 1) PLC input active-low
- 2) PLC input active-high
- 3) Interface C output via intermediate relay to PLC input

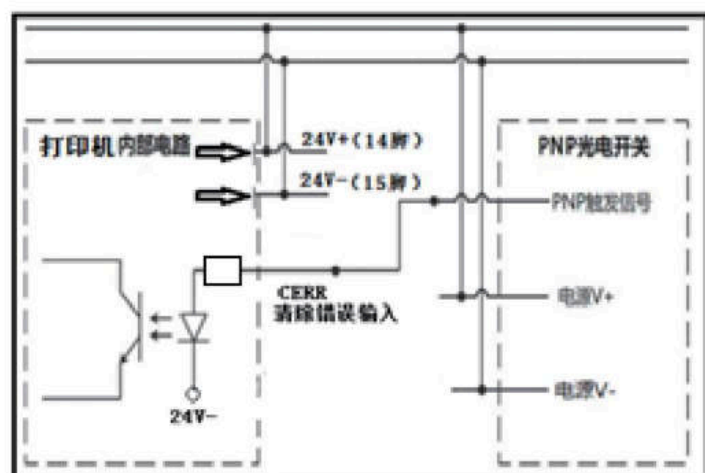
Illustration/diagram page - see the original Chinese document for the image.



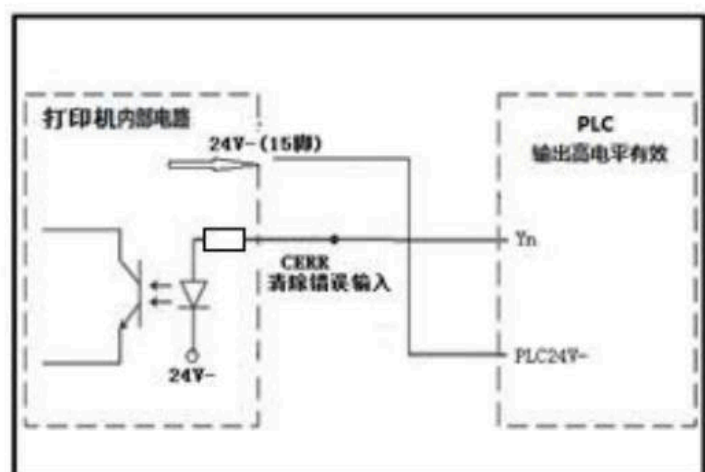
3.3 接口 C-清除错误信号

清除错误输入信号为非隔离型 PNP 输入信号。

1) 必须接 PNP 型光电传感器



2) 对接 PLC 输出有效信号为高电平的方法



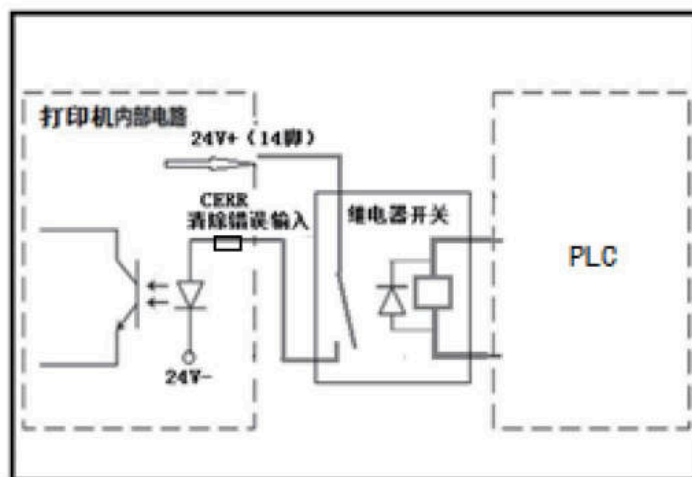
3) 清除错误输入信号经由中间继电器接 PLC 输出端方法

3.3 Interface C clear error signal

The clear error input signal is a non-isolated PNP input signal.

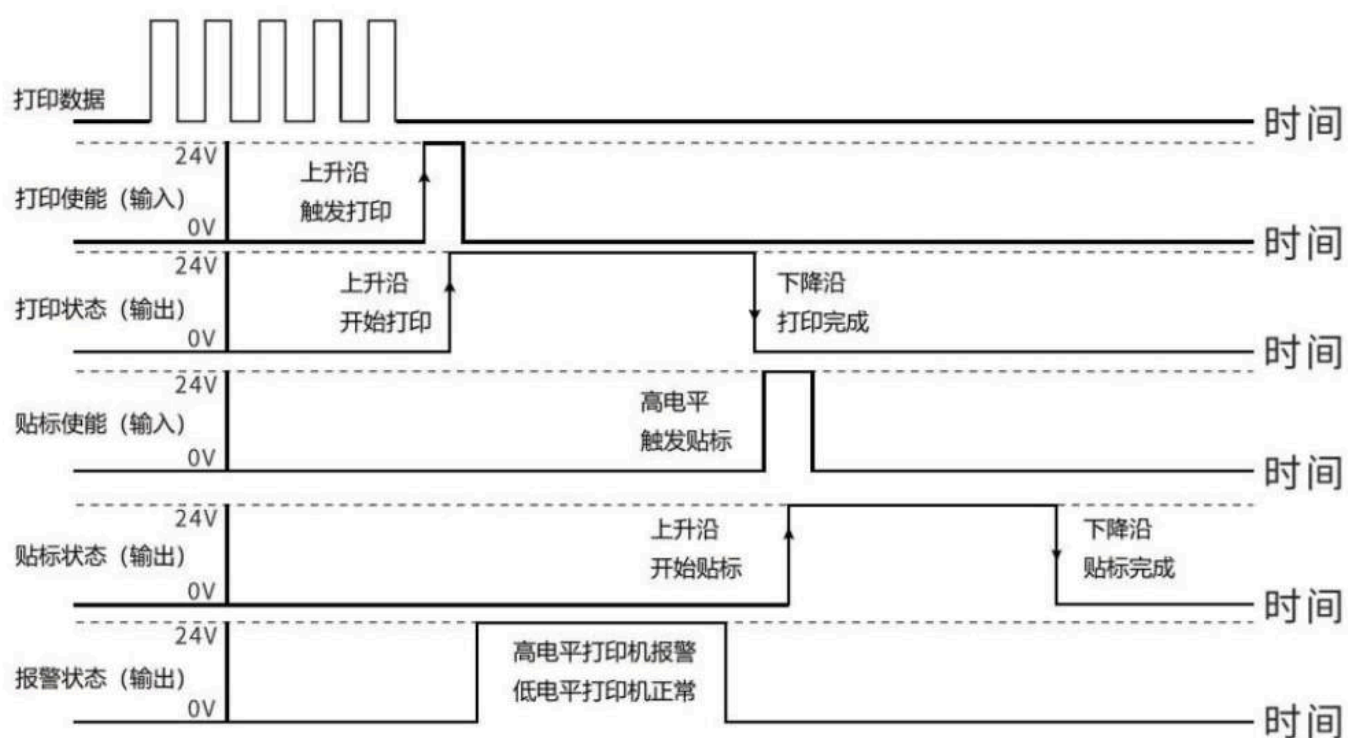
- 1) Must connect a PNP-type photoelectric sensor
- 2) Method for PLC output active-high signal
- 3) Clear error input via intermediate relay to PLC output

Illustration/diagram page - see the original Chinese document for the image.



4. 时序图

贴标机打印贴标时序控制图：



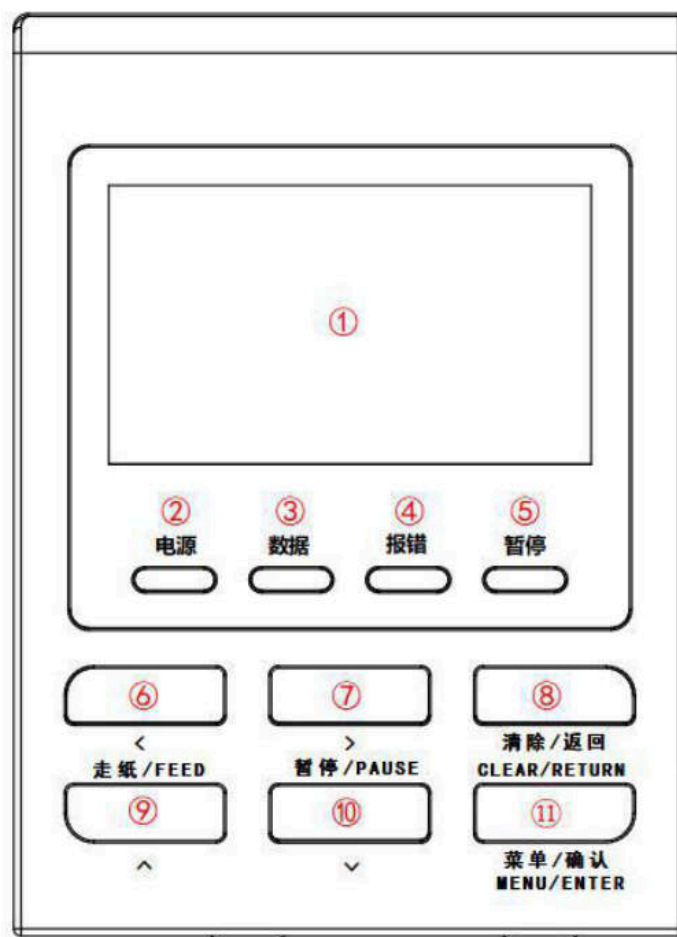
控制面板说明

4. Timing Diagram

Illustration/diagram page - see the original Chinese document for the image.

Control Panel Description

Illustration/diagram page - see the original Chinese document for the image.



1	显示屏显示打印机当前状态
2	电源（绿色指示灯）
3	数据（绿色指示灯）
4	报错（红色指示灯）
5	暂停（红色指示灯）
6	每次按下‘走纸/FEED’可以强制打印机送出一张空白标签 ‘<’方向键左，仅在菜单中有效
7	按下‘暂停/PAUSE’可以暂停/启动打印机打印 ‘>’方向键右，仅在菜单中有效
8	‘清除’消除错误，使打印机重新打印 ‘返回’返回上一层或退出菜单，仅在菜单中有效
9	‘^’方向键上，仅在菜单中有效，可更改参数值，常见用途是增大选
10	项值 ‘v’ 方向键下，仅在菜单中有效，可更改参数值，常见用途是减
11	小选项值 ‘菜单’ 按下进入菜单功能 ‘确认’ 仅在菜单中有效。可以选择并确认显示屏上的

屏幕说明 以下是打印机开机以后屏幕显示的信息

1. Display: shows the current printer status
2. Power (green indicator)
3. Data (green indicator)
4. Error (red indicator)
5. Pause (red indicator)
6. Each press of 'FEED' forces the printer to feed one blank label. '<' left arrow, menu only.
7. Press 'PAUSE' to pause/resume printing. '>' right arrow, menu only.
8. 'Clear' clears errors so the printer can print again. 'Back' returns to the previous level / exits the menu, menu only.
9. '^' up arrow, menu only, changes parameter values (commonly to increase).
10. 'v' down arrow, menu only, changes parameter values (commonly to decrease).
11. 'Menu' enters the menu. 'OK' (menu only) selects and confirms items on the screen.

Screen description - the following is the information shown after the printer starts:



V4X0B-T	打印机型号
NSCL	当前打印机使用的指令集
在线	打印机当前状态
打印数量	000000当前打印的数量，重启打印机后恢复000000.
等待打印数据	等待上位机向打印机传送打印数据

用户菜单 以下是打印机的用户菜单以及各菜单中显示的项目。

菜单

1	系统设置
2	打印参数
3	传感器校正
4	贴标臂
5	RFID
6	模板打印
7	配置选择
8	出厂设置
9	版本信息
10	系统重启
11	LANGUAGE
12	新手向导

1.系统设置	软件设置 【密码：1234】	指令集	NSCL
			NTPL
			NZPL
		触发模式	连续
			单次
		参数锁定	纸张类型

V4X0B-T - printer model

NSCL - current command set

Online - current printer status

Print count 000000 - current print count; resets to 000000 after restart

Waiting for print data - waiting for the host to send print data

User menu - the following are the printer's user menu and items shown in each menu:

- 1 System settings
- 2 Print parameters
- 3 Sensor calibration
- 4 Labeling arm
- 5 RFID
- 6 Template printing
- 7 Configuration selection
- 8 Factory settings
- 9 Version info
- 10 System restart
- 11 LANGUAGE
- 12 Beginner wizard

1. System settings

Software settings [Password: 1234]

Command set: NSCL / NTPL / NZPL

Trigger mode: continuous / single

Parameter lock

Media type

			送纸偏移
			坐标偏移
			标签大小
			打印方式
			打印速度
			打印浓度
		兼容模式	DEFAULT
			TOSHIBA
			ZEBRA
		起始偏移	
		打印机标识	显示
			不显示
		残缺标签重打	
		退纸模式	打印前退纸
			打印后退纸
	通讯接口	USB	
		RS232	波特率
			数据位
			停止位
			校验位
		网络接口	IP
			子网
			网关
			端口
	密码设置	设置密码	
		关闭密码	

Feed offset
Coordinate offset
Label size
Print mode
Print speed
Print darkness
Compatibility mode: DEFAULT / TOSHIBA / ZEBRA
Start offset
Printer ID
Display / Hide
Defective label reprint
Rewind mode: rewind before print / rewind after print
Communication interface: USB / RS232
Baud rate
Data bits
Stop bits
Parity
Network interface: IP / subnet / gateway / port
Password setting: set password / disable password

	实时时钟	日期	
		时间	
		星期	
	报警设置	色带报警设置	仅报警提示
			报警且停止打印
		无数据报警	不报警
			打印启动时报警
			等待数据时报警
	U 盘更新		
2.打印参数	打印高度		
	打印宽度		
	标签间隙		
	打印方式	热敏（不用碳带）	
		热转（碳带打印）	
	纸张类型	连续纸	
		黑标纸	
		间隙纸	
	打印速度		
	打印浓度		
	进纸偏移		
	X 轴偏移		
	Y 轴偏移		
	文本间距		
	打印数量	受控	

Real-time clock: date / time / day of week

Alarm settings:

Ribbon alarm setting: alarm prompt only / alarm and stop printing

No-data alarm: no alarm / alarm at print start / alarm while waiting for data

USB drive update

2. Print parameters

Print height

Print width

Label gap

Print mode: thermal direct (no ribbon) / thermal transfer (with ribbon)

Media type: continuous / black mark / gap

Print speed

Print darkness

Feed offset

X offset

Y offset

Text spacing

Print count: controlled / uncontrolled

		不受控	
3.传感器校正	传感器自动检测		
	反射传感器设置		
	透射传感器设置		
	更新传感器信息		
	打印传感器曲线		
4.贴标臂	参数设置	贴标类型	工业机
			贴标机
			刮贴机
		回卷电机	使能
			禁止
		打印信号	脉冲
			电平
			禁止
		贴标信号	脉冲
			电平
			禁止
		打印周期	
		贴标延时	
		回卷长度	
		回卷速度	
		回卷暂停	
		延时回卷	
		掉签检测	使能

3. Sensor calibration

Sensor auto-detection

Reflective sensor setting

Through-beam sensor setting

Update sensor info

Print sensor curve

4. Labeling arm

Parameter settings

Labeling type: industrial printer / labeling machine / scrape labeling machine

Rewind motor: enable / disable

Print signal: pulse / level / disable

Labeling signal: pulse / level / disable

Print cycle

Labeling delay

Rewind length

Rewind speed

Rewind pause

Delayed rewind

Label drop detection: enable / disable

			禁止
		退纸延时	
		退纸速度	
		真空长度	
		压感过滤	
		到位信号	使能
			禁止
		贴标完成	贴标版复位
			贴标版脱离接触
		真空保持	
		吹标延时	
		回卷保持	长回卷
			短回卷
	测试模式	单次贴标测试	
		循环贴标测试	
		单步贴标测试	
		贴标臂测试	
		回卷点击测试	
		打印循环测试	
	贴标方式	打印贴标	
		不打印贴标	
	手动控制	贴标臂	
		吹气管	
		吸标板	

Rewind delay
Rewind speed
Vacuum length
Pressure filtering
In-position signal: enable / disable
Labeling complete
Labeling plate reset
Labeling plate disengage
Vacuum hold
Blow-off delay
Rewind hold
Long rewind / short rewind

Test mode

Single labeling test
Cycle labeling test
Step labeling test
Labeling arm test
Rewind motor test
Print cycle test
Labeling mode: print & label / label without printing

Manual control

Labeling arm
Blow tube
Label pickup plate

		继电器	
5.RFID			
6.模板打印	模板		
	变量		
	模式	FR 指令	
		协议数据	
		IO 信号	
		条码扫描	
7.配置选择	配置选择	配置_1	
		配置_2	
		配置_3	
		配置_4	
		配置_5	
	当前配置=>		
	当前配置<=		
8.出厂设置	恢复出厂	否	
		是	
	系统检测	系统配置页	
		打印头检测	
		标签打印测试	
	实时检测	打印头温度	
		碳带传感器	
		回卷传感器	
		USB 通讯日志	

Relay

5. RFID

6. Template printing

Template / variable

Mode: FR command / protocol data / IO signal / barcode scan

7. Configuration selection

Configuration selection: config_1 / config_2 / config_3 / config_4 / config_5

Current config => / Current config <=

8. Factory settings

Restore factory: no / yes

System detection: system config page / printhead detection / label print test / real-time detection

Printhead temperature

Ribbon sensor

Rewind sensor

USB communication log

	打印里程		
	调试模式		
	报警记录		
9.版本信息	HARD:		
	BOOT:		
	SOFT:		
	TYPE:		
	SN:		
10.系统重启	否		
	是		
11.LANGUAGE	CHINESE		
	ENGLISH		
12.新手向导	打印参数		
	传感器校正		
	网络接口		
	贴标参数		

菜单使用说明

1、贴标臂功能使用说明：

打印机需处于关机状态，按住菜单按键，打开打印机开关，当报错指示灯闪烁松开手，再次进入菜单中，贴标臂中的功能方可修改。

2、菜单设置使用说明：

菜单中参数或设置更改后需要先返回主界面，再关机重启打印机方可保存生效。

Print mileage

Debug mode

Alarm record

9. Version info

HARD: / BOOT: / SOFT: / TYPE: / SN:

10. System restart: no / yes

11. LANGUAGE: CHINESE / ENGLISH

12. Beginner wizard: print parameters / sensor calibration / network interface / labeling parameters

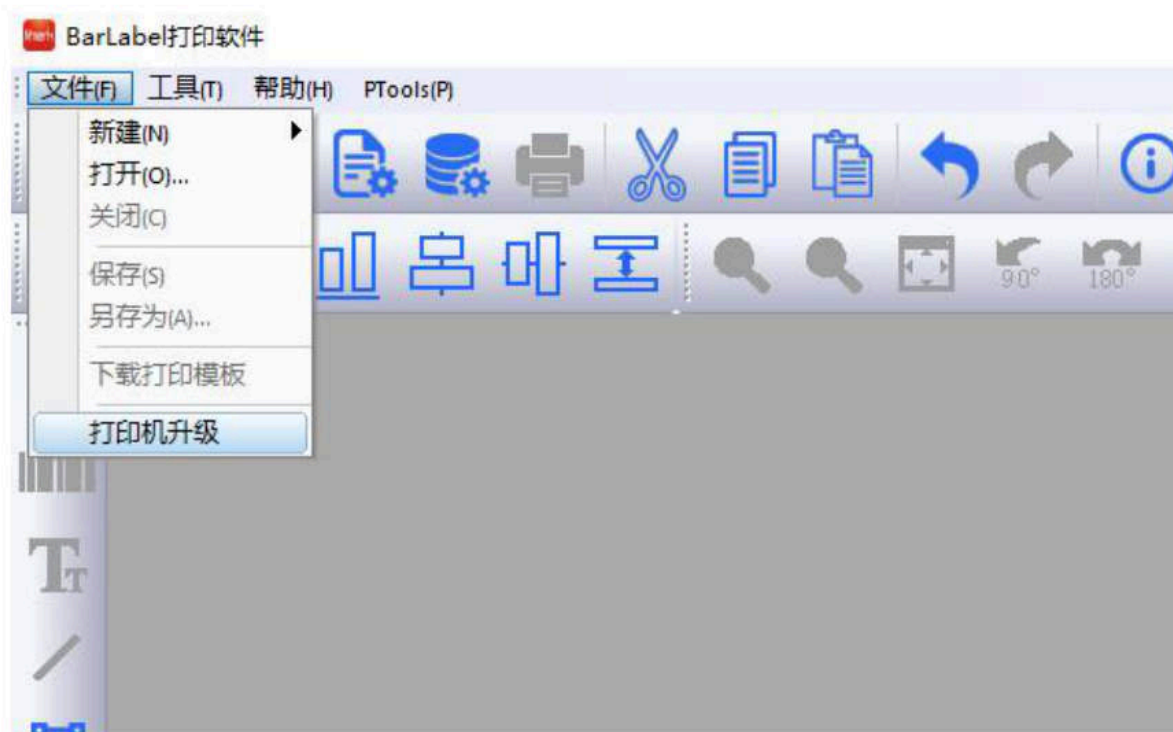
Menu Instructions

1. Labeling arm function: the printer must be off; hold the Menu key and turn on the printer; release when the error indicator flashes; then re-enter the menu - the labeling arm functions can now be modified.
2. Menu setting usage: after changing parameters or settings in the menu, return to the main screen first, then power off and restart the printer to save and apply the changes.

打印机程序升级

1. BarLabel 升级

打开 BarLabel 软件，选择“文件” -- “打印机升级”



选择“本地升级” -- “选择”，找到升级文件，点击升级



2. PTools 升级

Printer Firmware Upgrade

1. BarLabel upgrade

Open BarLabel, select "File" - "Printer Upgrade"; select "Local Upgrade" - "Select", locate the upgrade file, click Upgrade.

2. PTools upgrade

Illustration/diagram page - see the original Chinese document for the image.

打开 PTools 软件，选择打印机，点击 “连接”



点击 “高级设置” -- “打印机升级”



选择 “本地升级” -- “选择” 找到升级文件，点击 “升级”



Open PTools, select the printer, click "Connect"; click "Advanced Settings" - "Printer Upgrade"; select "Local Upgrade" - "Select", locate the upgrade file, click "Upgrade".

Illustration/diagram page - see the original Chinese document for the image.

3. U 盘升级

准备 U 盘，格式化，文件系统选择 FAT32

将升级文件拷贝到 U 盘中

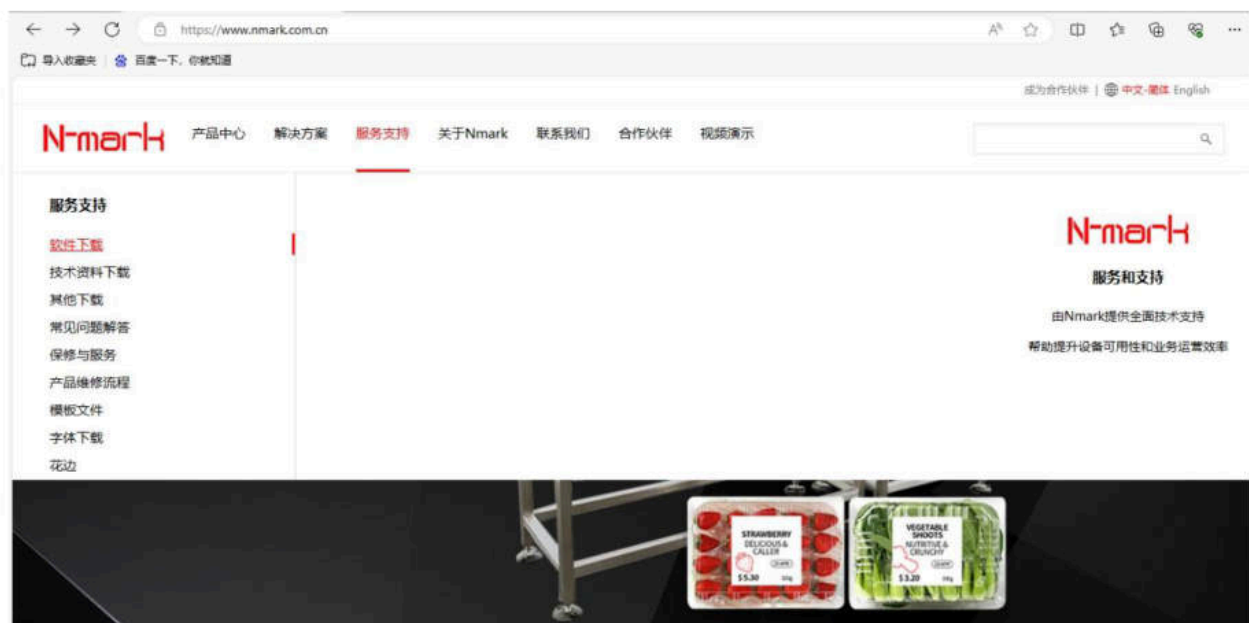
在打印机菜单上点击“菜单” -- “系统设置” -- “U 盘更新”，进入 U 盘选中升级文件，点击“确认”

打印机开始升级程序。

二、驱动安装

下载

1.电脑浏览器输入官方网址 www.nmark.com.cn，进入官方网站，进入网站首页，点击服务支持，选择软件下载。



2.点击打印机驱动下载，点击下载按钮。

3. USB drive upgrade

Prepare a USB drive, format it with FAT32 file system; copy the upgrade file to the USB drive. On the printer menu, tap "Menu" - "System Settings" - "USB Drive Update", enter, select the upgrade file and tap "OK"; the printer starts upgrading.

Part 2: Driver Installation

Download

1. In the computer browser enter the official website www.nmark.com.cn, go to the homepage, click Service Support, select Software Download.
2. Click printer driver download, click the Download button.

Illustration/diagram page - see the original Chinese document for the image.



安装驱动

安装 usb 驱动

1. 下载后解压打开文件夹，双击 PrnInst.exe 运行

Common	2019/8/28 10:33	文件夹	
Tools	2019/8/28 10:33	文件夹	
Win32	2019/8/28 10:33	文件夹	
Win64	2019/8/28 10:33	文件夹	
License.eng	2019/5/16 7:52	ENG 文件	47 KB
Nmark.cat	2019/8/14 14:07	安全目录	33 KB
Nmark.inf	2019/8/14 14:03	安装信息	11 KB
PrnInst.exe	2019/8/14 14:08	应用程序	2,613 KB
readme.txt	2019/5/20 13:55	文本文档	4 KB

2. 点击下一步。

Install Driver

Install USB driver

1. After download, extract and open the folder, double-click PrnInst.exe to run.
2. Click Next.

Illustration/diagram page - see the original Chinese document for the image.



3. 点击安装驱动



4. 选择我同意许可合约的条款， 点击下一步

3. Click Install Driver.

4. Select "I agree to the terms of the license agreement", click Next.

Illustration/diagram page - see the original Chinese document for the image.

许可协议

安装前请仔细阅读许可协议

NiceLabel

NICELABEL PRINTER DRIVERS - WINDOWS DRIVERS FOR THERMAL PRINTERS LICENSE AND LIMITED WARRANTY

NiceLabel Printer Drivers are true Windows printer drivers that can be used for label printing by the NiceLabel software products or any third-party Windows application. Optimal results and fastest printout speeds can be best obtained from the NiceLabel software products.

The only two allowable distribution channels of NiceLabel Printer Drivers are from the NiceLabel CD-ROM/DVD and downloadable distributions on the NiceLabel website (<http://www.nicelabel.com>). You may not distribute, lease or rent NiceLabel Printer Drivers

- ☒ 我同意许可合约的条款 (A)
☐ 我不同意许可合约的条款 (B)

退出 (E)

< 上一步 (P)

下一步 (N) >

5. 选择 USB 端口

选择端口

选择打印机已绑定的端口

NiceLabel

→ 网络端口(T)
安装有线或无线网络打印机

→ USB端口(U)
安装USB即插即用设备

→ 其他(O)
安装串口 (COM) 或并口 (LPT)

退出 (E)

< 上一步 (P)

下一步 (N) >

6. 重新连接 USB 线

5. Select USB port.

6. Reconnect the USB cable.

Illustration/diagram page - see the original Chinese document for the image.

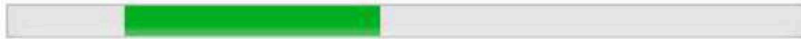
打印机安装向导

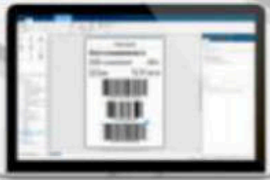
检测USB打印机

自动检测连接到USB的打印机

NiceLabel

请连接USB打印机并打开电源。如果打印机已连接，请断开连接后重新连接USB端口。





Easily design and print
barcode labels

Get your free trial

退出 (E)

<上一步 (P)

Next >

7. 点击安装

打印机安装向导

打印机选项

请在安装前指定打印机选项

NiceLabel

Printer name:	Nmark D-430
驱动程序版本:	8.0.22.17536
端口名:	USB018
选择语言:	简体中文
位置:	
备注:	

☐ 我要将这打印机设置为 Windows 默认打印机 (D)

退出 (E)

<上一步 (P)

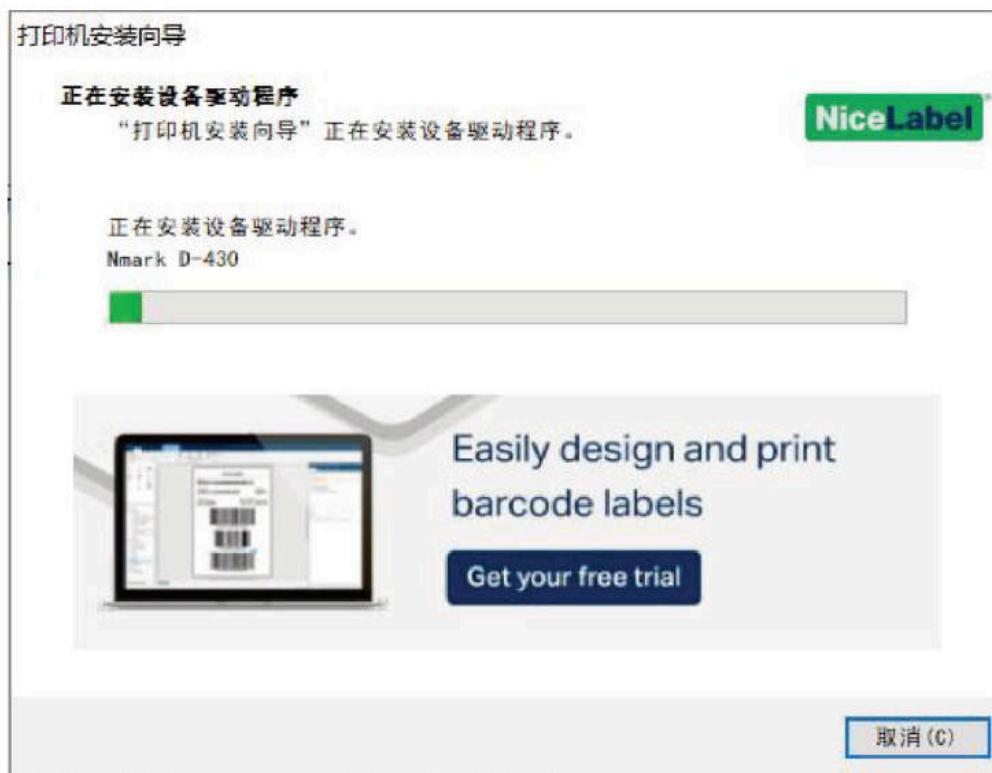
安装 (I)

8. 等待安装完成

7. Click Install.

8. Wait for installation to complete.

Illustration/diagram page - see the original Chinese document for the image.



9.安装完成，点击退出



安装网络端口驱动

1.重复上述步骤一到步骤四，选择网络端口

9. Installation complete, click Exit.

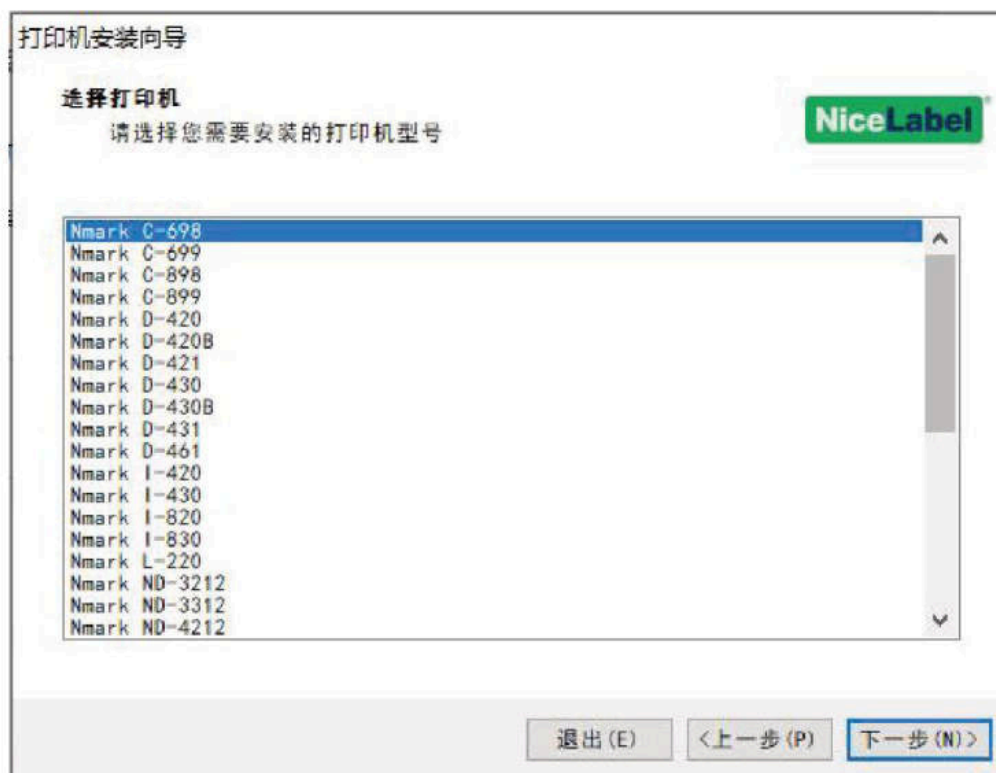
Install network port driver

1. Repeat steps 1-4 above, select network port.

Illustration/diagram page - see the original Chinese document for the image.



2.选择与打印机对印的驱动程序，点击下一步



3.选择创建一个新的网络端口，点击下一步

2. Select the driver that matches the printer, click Next.
3. Select "Create a new network port", click Next.

Illustration/diagram page - see the original Chinese document for the image.

打印机安装向导

选择网络端口

选择您打印机已连接的端口

NiceLabel

☒ 创建一个新的网络端口 (C)

☐ 使用现有端口 (U)

端口	类型	配置
LAN_Nmark_V-430	Advanced Port Mo...	192.168.0.69:9100
LAN_Nmark_V-430_(1)	Advanced Port Mo...	192.168.1.69:9100
LAN_TCP/IP	Advanced Port Mo...	192.168.0.69:9100
LAN_TSC_TTP-346MU	Advanced Port Mo...	192.168.0.211:9100

☐ 显示所有端口 (A)

配置 (0)

退出 (E)

<上一步 (P)

下一步 (N) >

4.输入打印机 ip 地址，打印机默认出厂 ip 地址为 192.168.1.69，点击下一步

打印机安装向导

添加网络端口

为目标打印机配置端口

NiceLabel

端口名:

LAN_Nmark_V-430_(1)_(1)

打印机名或 IP 地址

192.168.1.69

端口号:

9100

退出 (E)

<上一步 (P)

下一步 (N) >

5.点击安装

4. Enter the printer IP address (default factory IP 192.168.1.69), click Next.
5. Click Install.

Illustration/diagram page - see the original Chinese document for the image.

打印机安装向导

打印机选项

请在安装前指定打印机选项

NiceLabel

Printer name:	Nmark V-430
驱动程序版本:	8.0.22.17536
端口名:	LAN_Nmark_V-430_(1)_(1)
选择语言:	简体中文
位置:	
备注:	

☐ 我要将这打印机设置为 Windows 默认打印机 (D)

退出 (E)

<上一步 (P)

安装 (I)

6.等待安装完成

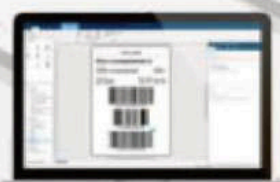
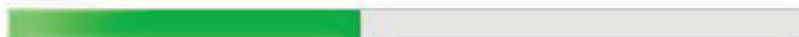
打印机安装向导

正在安装打印机驱动

安装向导正在安装打印机驱动。

NiceLabel

添加任意端口或语言监控器...



Easily design and print
barcode labels

Get your free trial

取消 (C)

7.安装完成，点击退出

6. Wait for installation to complete.

7. Installation complete, click Exit.

Illustration/diagram page - see the original Chinese document for the image.



驱动设置

安装完成后，进入电脑控制面板，选择设备和打印机，右键打印机属性，点击端口，取消勾选启用双向支持，网络驱动修改 ip 地址选中打印机端口，点击配置端，即可修改 ip 地址。

三、Nmark 打印贴标机色带报警说明

1.功能描述

色带报警功能时 Nmark 打印贴标机上的一项基础功能，设置该功能可以让用户第一时间知悉色带的使用情况，提醒用户及时更换色带，提高生产效率。色带报警功能有三种表现形式，一种为屏幕显示，一种为 IO 信号输出，一种为 TCP/IP 数据输出，IO 信号输出和 TCP/IP 数据输出可利用在无人值守系统中，通过获取输出信号确定色带是否用完。

Driver Settings

After installation, open the computer Control Panel, select Devices and Printers, right-click the printer properties, click Ports, and uncheck "Enable bidirectional support". For the network driver, to change the IP address select the printer port and click "Configure Port" to modify the IP address.

Part 3: Nmark Print & Apply Ribbon Alarm

1. Function description

The ribbon alarm is a basic function of Nmark print & apply machines. It lets users know the ribbon usage status immediately and reminds them to replace the ribbon in time, improving productivity. It has three forms: screen display, IO signal output, and TCP/IP data output. IO and TCP/IP output can be used in unattended systems to determine whether the ribbon is used up by reading the output signal.

2.设置方法及模式介绍

进入打印机菜单，进入系统设置子菜单，选择报警设置，可设置色带报警模式，有仅报警提示和报警且停止打印两种报警模式可选。

仅报警提示模式：

当色带用完后，在屏幕上提示色带错误，请检查色带是否用尽，信号输出端口输出报错信号，TCP/IP 输出报警数据。

报警且停止打印模式：

当色带用完后，在屏幕上提示色带错误，请检查色带是否用尽，信号输出端口输出报错信号，TCP/IP 输出报警数据，同时停止打印机的打印任务。

3.外部信号接口输出

对与不同系列的 Nmark 打印贴标机，所使用的外部接口不同，本说明着重介绍报警输出相关的内容，其他内容请参考使用说明书获取更新信息。

4.TCP/IP 输出

关于具体的 TCP/IP 通讯说明可参考设备说明书操作及控制篇以下着重介绍报警输出。

返回的数据帧格式为：

0X7B 0XFF 0XFF 0X00 0X04 0X7C 0X00 0X00 0X00 0X00 0X7D 0X7B 为 byte0，色带报警标志位为 byte9 的 bit4，当发生色带报警时，将该位置 1。

2. Setup and modes

Enter the printer menu, go to the System Settings submenu, select Alarm Settings, where the ribbon alarm mode can be set: "alarm prompt only" or "alarm and stop printing".

Alarm prompt only mode: when the ribbon is used up, the screen shows a ribbon error prompting to check whether the ribbon is exhausted; the signal output port outputs an error signal; TCP/IP outputs alarm data.

Alarm and stop printing mode: when the ribbon is used up, the screen shows a ribbon error; the signal output port outputs an error signal; TCP/IP outputs alarm data; and the printer's print jobs are stopped.

3. External signal interface output

Different Nmark print & apply machine series use different external interfaces; this section focuses on the alarm output content. For other content, refer to the user manual for updated information.

4. TCP/IP output

For specific TCP/IP communication, refer to the Operation and Control chapter of the manual; this section focuses on the alarm output. The returned data frame format is:

0X7B 0XFF 0XFF 0X00 0X04 0X7C 0X00 0X00 0X00 0X00 0X7D

0X7B is byte0; the ribbon alarm flag is bit4 of byte9; when a ribbon alarm occurs, this bit is set to 1.

四、Nmark 工业打印机及打印贴标机错误出纸的解决方案

在线打印

在线打印模式下打印过程中出现连续两张标签，可以使用以下几个方法查看：

- 1.在打印贴标机打印菜单中查看纸张类型和标签大小是否正确。
- 2.纸张类型如果为黑标纸，打开打印头，检查一下标签纸下方的传感器位置是否偏离，如果偏离，手动移动到便签纸底下。如果传感器表面有污渍，利用酒精擦拭传感器表面。
- 3.清除所有打印任务，在打印机菜单中找到参数校准，选择传感器自动检测校准传感器参数。如果打印贴标机类型为 V4X0B 系列，在传感器校准完成后，屏幕会显示传感器曲线，如果曲线波峰太小或者传感器曲线为一条直线，可能传感器损坏。
- 4.更换纸张类型为间隙纸，需要在打印机系统设置，软件设置里边将纸张类型锁定按照步骤三校准传感器参数。
- 5.适当增加贴标臂选项中的贴标延时，以过滤干扰型号。

注：传感器校准方法见下方在线打印方法传感器校准方法

脱机模板

在线打印模式下打印过程中出现连续两张标签，可以使用以下几个方法查看：

- 1.在打印贴标机打印菜单中查看纸张类型和标签大小是否正确。
- 2.纸张类型如果为黑标纸，打开打印头，检查一下标签纸下方的传感器位置是否偏离，如果偏离，手动移动到标签纸底下。如果传感器表面有污渍，利用酒精擦拭传感器表面。传感器图片见图 1。
- 3.关闭打印贴标机，按住走纸键不松手，当报错灯闪烁时，松开走纸键，打印贴标机自动校准传感器

Part 4: Solutions for Incorrect Media Feed on Nmark Industrial Printers and Print & Apply Machines

Online printing

When two consecutive labels appear during online printing, try the following:

1. In the print menu, check whether the media type and label size are correct.
2. If the media type is black mark, open the printhead and check whether the sensor under the label is misaligned; if so, manually move it under the label. If the sensor surface is dirty, wipe it with alcohol.
3. Clear all print jobs; in the printer menu find parameter calibration and select sensor auto-detection to calibrate sensor parameters. For V4X0B series, after calibration the screen shows the sensor curve; if the peak is too small or the curve is a straight line, the sensor may be damaged.
4. When changing the media type to gap media, lock the media type in System Settings - Software Settings, then calibrate the sensor as in step 3.
5. Appropriately increase the labeling delay in the labeling arm options to filter interference.

Note: see "Sensor calibration for online printing" below.

Offline templates

When two consecutive labels appear, try the following:

1. In the print menu, check whether the media type and label size are correct.
2. If the media type is black mark, open the printhead and check the sensor position; move it under the label if misaligned; wipe with alcohol if dirty. See Figure 1 for the sensor.
3. Turn off the machine, hold the FEED key, release when the error light flashes; the machine auto-calibrates sensor parameters.

参数。4.将模板触发模式修改为 FR 指令，重启打印贴标机，在打印机菜单中找到参数校准，选择传感器自动检测校准传感器参数。如果打印贴标机类型为 V4X0B 系列，在传感器校准完成后，屏幕会显示传感器曲线，如果曲线波峰太小或者传感器曲线为一条直线，可能传感器损坏。

6.不修改模板触发模式，将纸张类型修改为除连续纸外的另外一个，需要在打印机系统设置，软件设置里边将纸张类型锁定按照按照步骤四校准传感器参数。

7.适当增加贴标臂选项中的贴标延时，以过滤干扰型号。

注：传感器校准方法见下方脱机模板方法传感器校准方法



在线打印方式传感器校准方法

V4X0 系列传感器校准方法

1.进入打印机菜单，选择打印参数

4. Change the template trigger mode to FR command, restart, find parameter calibration in the menu and select sensor auto-detection. For V4X0B series, after calibration the screen shows the sensor curve; if the peak is too small or the curve is a straight line, the sensor may be damaged.
5. Without changing the template trigger mode, change the media type to one other than continuous; lock the media type in System Settings - Software Settings, then calibrate as in step 4.
6. Appropriately increase the labeling delay in the labeling arm options to filter interference.

Note: see "Sensor calibration for offline templates" below.

Sensor Calibration for Online Printing

V4X0 series sensor calibration:

1. Enter the printer menu, select Print Parameters.

Illustration/diagram page - see the original Chinese document for the image.



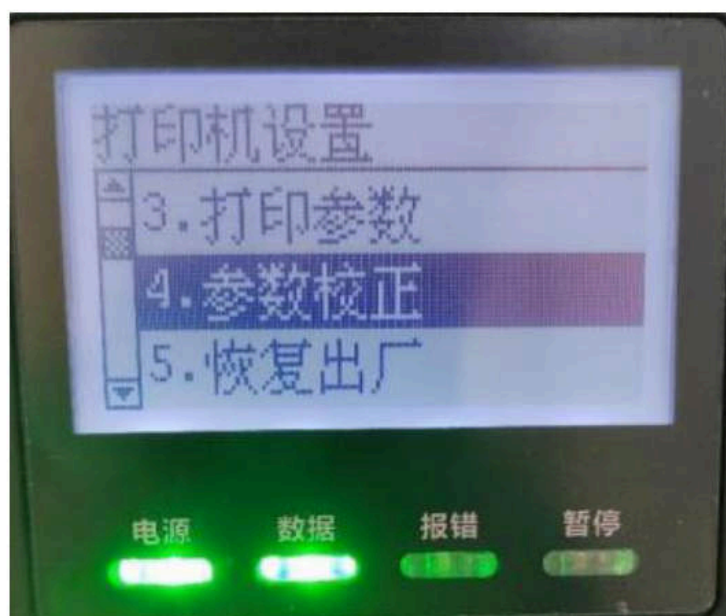
2.进入打印参数菜单，查看纸张类型，如果纸张类型为黑标，必须确保黑标传感器位于标签纸正下方



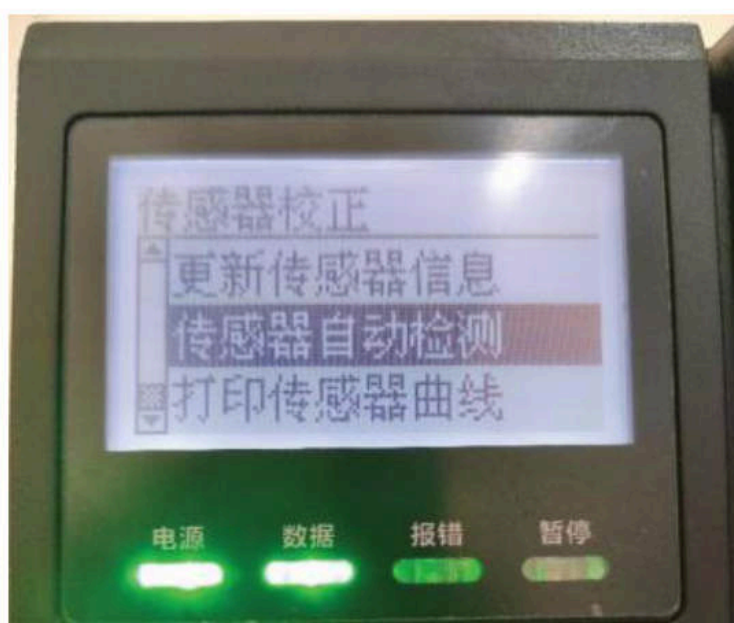
3.返回打印机菜单界面，选择参数校正，按确认键进入

2. Enter the Print Parameters menu, check the media type. If black mark, ensure the black mark sensor is directly under the label.
3. Return to the printer menu, select Parameter Calibration, press OK to enter.

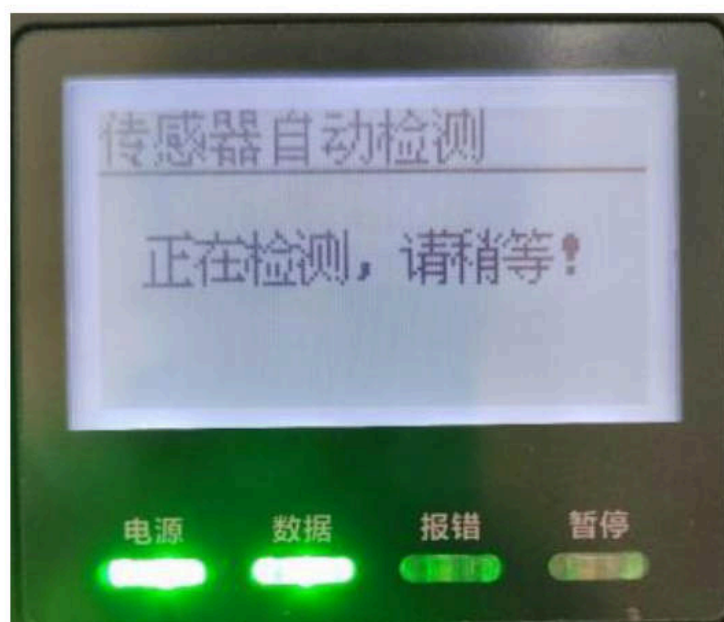
Illustration/diagram page - see the original Chinese document for the image.



4.选择传感器自动检测，按确认键开始进行传感器校准。



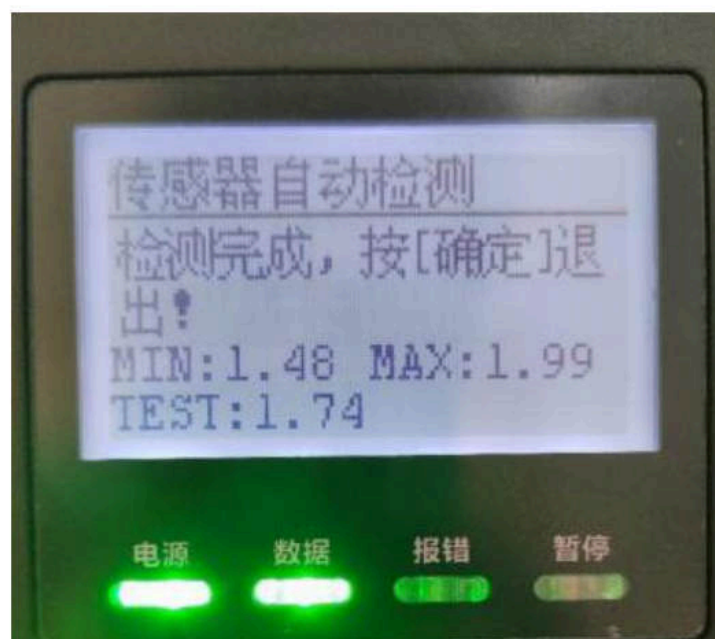
5.等待校准完成



4. Select Sensor Auto-Detection, press OK to start calibration.
5. Wait for calibration to complete.

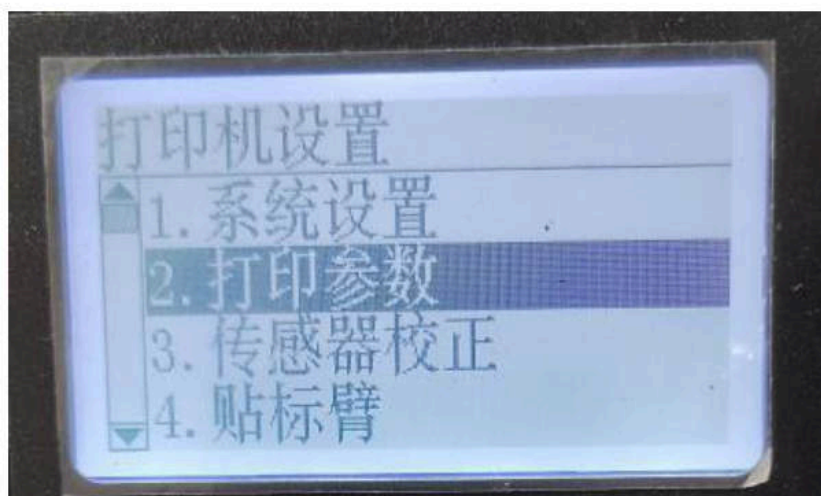
Illustration/diagram page - see the original Chinese document for the image.

6.校准完成后屏幕显示传感器最大值，最小值以及测试值



V4X0B 系列传感器校准方法

1.进入打印机菜单，选择打印参数



2.进入打印参数菜单，查看纸张类型，如果纸张类型为黑标，必须确保黑标传感器位于标签纸正下方

6. After calibration the screen shows the sensor maximum, minimum, and test values.

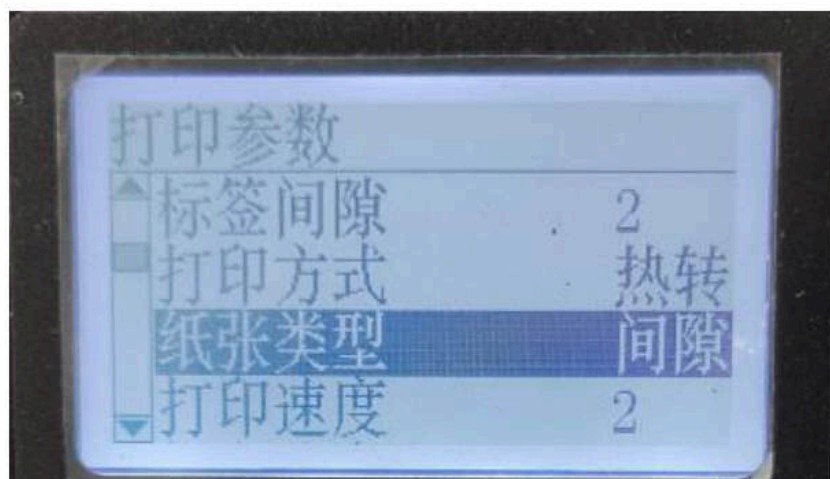
Illustration/diagram page - see the original Chinese document for the image.

V4X0B series sensor calibration:

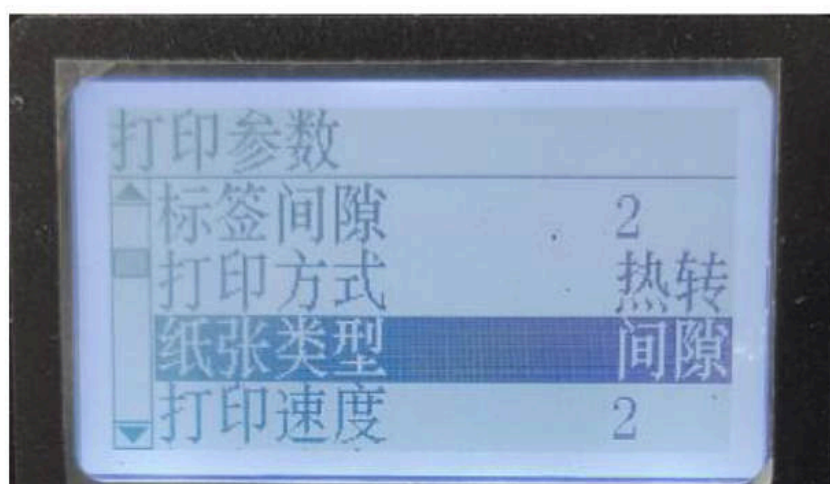
1. Enter the printer menu, select Print Parameters.

2. Enter the Print Parameters menu, check the media type. If black mark, ensure the black mark sensor is directly under the label.

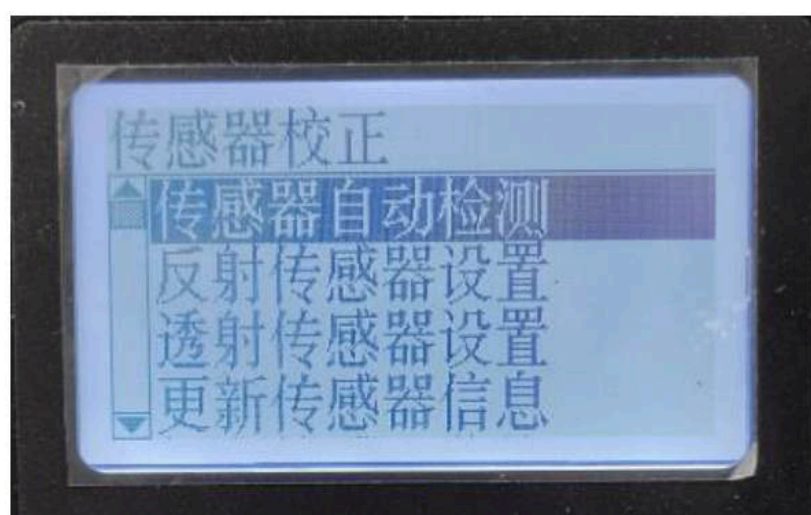
Illustration/diagram page - see the original Chinese document for the image.



3.返回打印机菜单界面，选择传感器校正，按确认键进入



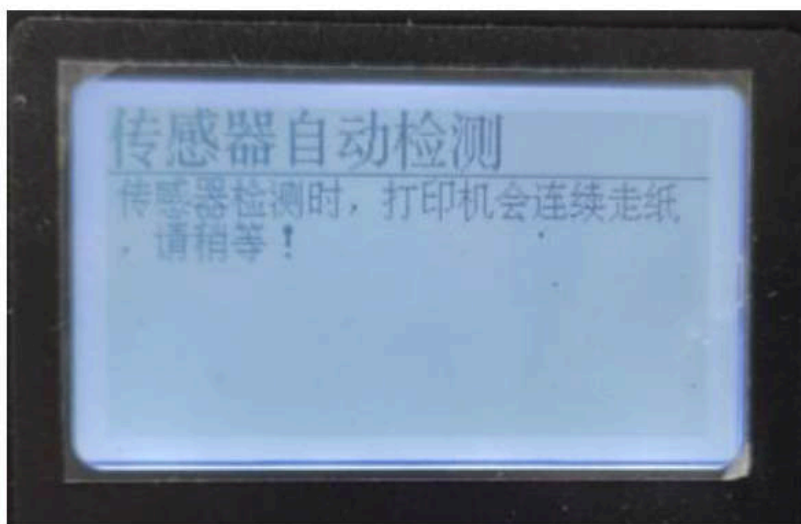
4.选择传感器自动检测，按确认键开始进行传感器校准



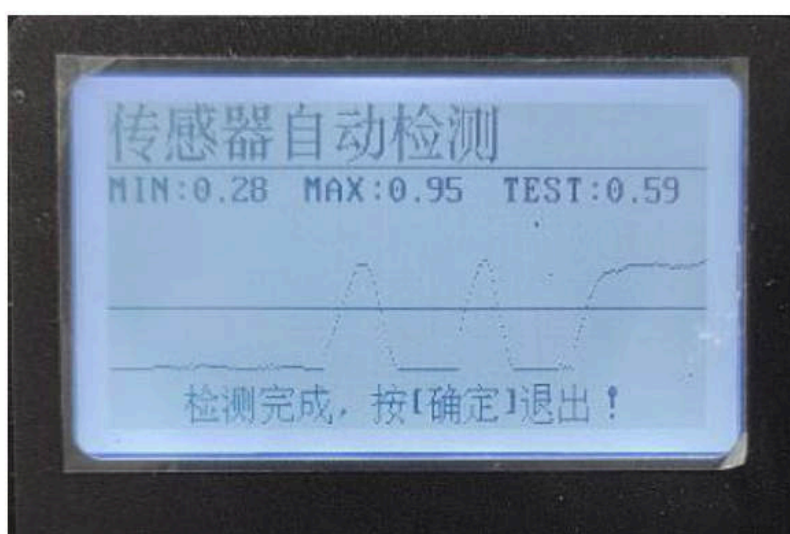
5.等待校准完成

3. Return to the printer menu, select Sensor Calibration, press OK.
4. Select Sensor Auto-Detection, press OK to start calibration.
5. Wait for calibration to complete.

Illustration/diagram page - see the original Chinese document for the image.



6.校准完成后屏幕显示传感器最大值, 最小值以及测试值。同时会在屏幕上打印出所选的传感器曲线



脱机模板方式传感器校准方法

方式 1: 将模板触发方式修改为 FR 指令, 关闭打印机, 按住键盘走纸键不松手, 开启电源, 当报错灯闪烁时松开走纸键, 打印机开始自动校准传感器。

方式 2. 修改纸张类型, 需要在打印机系统设置, 软件设置里边将纸张类型锁定, 直接关闭打印机, 按住键盘走纸键不松手, 开启电源, 当报错灯闪烁时松开走纸键, 打印机开始自动校准传感器。

6. After calibration the screen shows the sensor maximum, minimum, and test values, and also prints the selected sensor curve on the screen.

Illustration/diagram page - see the original Chinese document for the image.

Sensor calibration for offline templates:

Method 1: change the template trigger mode to FR command, turn off the printer, hold the FEED key, power on, release when the error light flashes; the printer auto-calibrates the sensor.

Method 2: change the media type and lock it in System Settings - Software Settings, turn off the printer, hold the FEED key, power on, release when the error light flashes; the printer auto-calibrates the sensor.

五、Nmark 打印贴标机相关参数说明

打印参数

打印高度：所使用的标签高度。

打印宽度：所使用的标签宽度。

间隙高度：两个标签之间的间隙大小。

打印方式：无色带使用热感，有色带使用热转。

纸张类型：使用的标签纸类型，修改纸张类型可修改使用的传感器，连续纸不使用传感器，黑标纸使用反

射传感器，间隙纸使用透射传感器。

打印浓度：浓度越大，颜色越深。浓度越小，颜色越浅。

打印速度：控制打印标签的速度。

进纸偏移：下一张标签边缘距离剥离片边缘的位置。

X 轴偏移：标签内容在标签纸上的横向位置偏移。

Y 轴偏移：标签内容在标签纸上的纵向位置偏移。

文本间距：模板中文本变量的字符间距。

打印数量：有受控和不受控两种，受控表示上位机发送多少标签数据，贴标机打印多少标签数据，不受控

表示贴标机打印的标签数量与上位机发送的数量无关。

贴标参数

贴标类型：设置贴标机的工作模式，与机器类型有关。

回卷电机：使能/禁止回卷电机

Part 5: Nmark Print & Apply Related Parameter Descriptions

Print parameters

Print height: the height of the label used.

Print width: the width of the label used.

Gap height: the size of the gap between two labels.

Print mode: no ribbon - thermal direct; with ribbon - thermal transfer.

Media type: the type of label stock used; changing the media type changes the sensor used - continuous media uses no sensor, black mark media uses the reflective sensor, gap media uses the through-beam sensor.

Print darkness: higher - darker; lower - lighter.

Print speed: controls the label print speed.

Feed offset: distance from the next label edge to the peel plate edge.

X offset: horizontal offset of the label content on the media.

Y offset: vertical offset of the label content on the media.

Text spacing: character spacing of text variables in the template.

Print count: controlled or uncontrolled. Controlled means the machine prints as many labels as the host sends; uncontrolled means the number printed is independent of the host.

Labeling parameters

Labeling type: sets the machine working mode, related to the machine type.

Rewind motor: enable/disable the rewind motor.

打印信号：脉冲/电平/禁止（选脉冲或电平方式，发送打印数据后需要 io 触发打印）贴标信号：脉冲/电平/禁止（选脉冲或电平方式，打印完成后需要 io 触发贴标）

打印周期：两次打印之间的时间间隔

贴标延时：接收到贴标信号后，延时贴标

回卷长度：回卷电机退纸长度

回卷速度：回卷电机的速度

回卷暂停：回卷电机暂停的距离，影响标签和贴标板之间的缝隙大小

延时回卷：回卷暂停后，设置回卷重新启动的延时，保证标签更好的吸紧

掉签检测：是否检测贴标板下方有标签

退纸延时：控制贴标板下压过程中，回卷电机回退的时机

退纸速度：打印机电机回退速度

真空长度：正打印过程中，控制贴标板的吸真空位置大小

压感过滤：过滤贴标板开始下压时异常信号

到位信号：贴标板接触到贴标问题触发的信号

贴标完成：贴标完成信号触发的位置

真空保持：设置贴标板接触物体的时间长短

吹标延时：吹标时长（吹标机使用）

回卷保持：回卷电机模式

系统参数

指令集：选择打印机当前支持指令集

触发模式：打印信号触发后打印的数量

参数锁定：某个参数锁定后，该参数不受上位机影响

Print signal: pulse / level / disable (with pulse or level, an IO trigger is needed after sending print data).

Labeling signal: pulse / level / disable (with pulse or level, an IO trigger is needed after printing to label).

Print cycle: the interval between two prints.

Labeling delay: delay labeling after receiving the labeling signal.

Rewind length: the length the rewind motor rewinds.

Rewind speed: the rewind motor speed.

Rewind pause: the rewind motor pause distance; affects the gap between the label and the labeling plate.

Delayed rewind: delay before the rewind restarts after pause, for better label suction.

Label drop detection: whether to detect a label under the labeling plate.

Rewind delay: controls the rewind motor back-feed timing during labeling plate press-down.

Rewind speed: the printer motor back-feed speed.

Vacuum length: controls the vacuum suction position/size of the labeling plate during printing.

Pressure filtering: filters abnormal signals when the labeling plate begins pressing down.

In-position signal: signal triggered when the labeling plate contacts the labeling target.

Labeling complete: the position where the labeling-complete signal is triggered.

Vacuum hold: sets how long the labeling plate stays in contact with the object.

Blow-off delay: the blow-off duration (for blow labeling machines).

Rewind hold: the rewind motor mode.

System parameters

Command set: selects the currently supported command set.

Trigger mode: the number of labels printed after the print signal is triggered.

Parameter lock: once a parameter is locked, it is not affected by the host.

传感器参数

反射黑标阈值：检测标签起始和结束的阈值

反射缺纸阈值：检测有无纸张的阈值，大于该值，表示无纸

透射间隙阈值：检测标签起始和结束的阈值

透射缺纸阈值：检测有无纸张的阈值，大于该值，表示无纸

模板打印触发模式

FR 指令：FR 指令

协议数据：特殊协议

IO 信号：需要连接外部的 IO 信号

条码扫描：主 USB 口连接扫码枪

六、Nmark 打印贴标机 USB 打印对接其他专用软件指导

由于 USB 通讯的特殊性，使用其他打印机专用软件调用 Nmark 打印机驱动会出现错误，当必须使用其他专用软件时，可以利用以下方法解决无法调用驱动的错误。首先，需要明确打印机是否支持专用软件输出的指令集，以及专用软件对应打印机与 Nmark 打印贴标机分辨率相同的打印机的 USB 参数，获取参数可以利用 BusHound 软件。确定以上信息后便可进行修改。

BusHound 获取参数教程

1.打开 BusHound 软件，点击 Devices，勾选打印机以及 USB Printing Support。

Sensor parameters

Reflective black mark threshold: threshold for detecting label start and end.

Reflective out-of-paper threshold: threshold for detecting media presence; above this value means no paper.

Through-beam gap threshold: threshold for detecting label start and end.

Through-beam out-of-paper threshold: threshold for detecting media presence; above this value means no paper.

Template print trigger modes

FR command: FR command.

Protocol data: special protocol.

IO signal: requires an external IO signal.

Barcode scan: a barcode scanner connected to the main USB port.

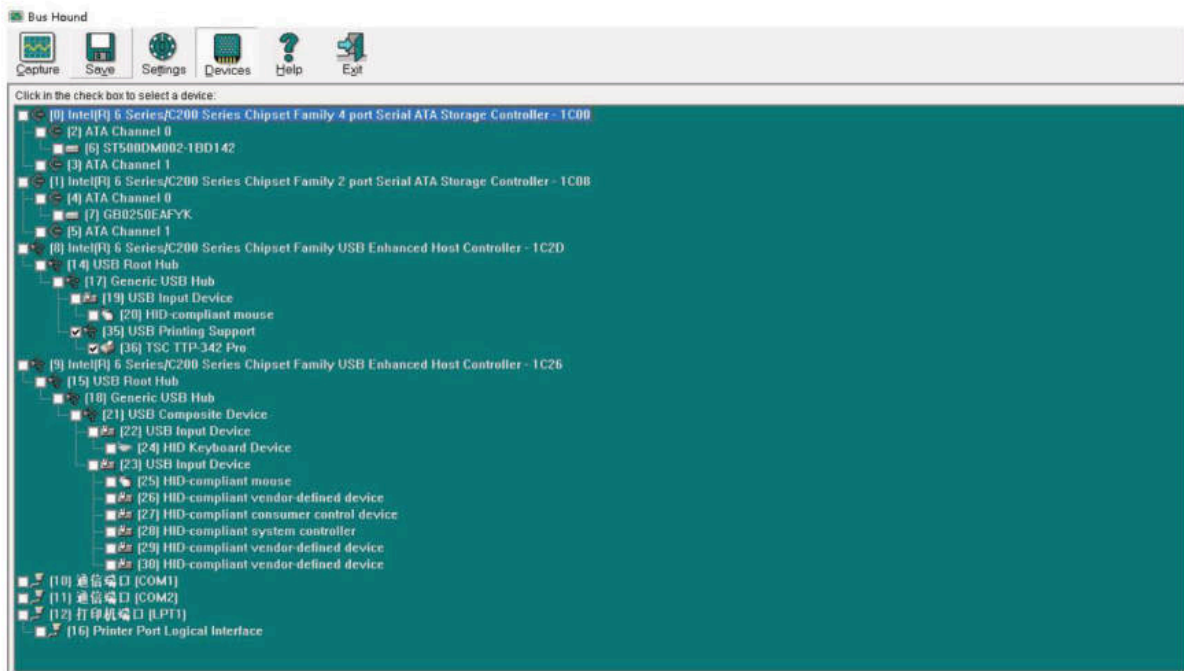
Part 6: Nmark Print & Apply USB Printing Integration with Other Specialized Software

Because of the special nature of USB communication, calling the Nmark printer driver from other specialized printer software will error. When a specialized software must be used, the following method solves the driver-call error. First confirm whether the printer supports the command set output by the specialized software, and the USB parameters of a printer that the specialized software uses with the same resolution as the Nmark machine; use BusHound to obtain these parameters. Then make the modifications.

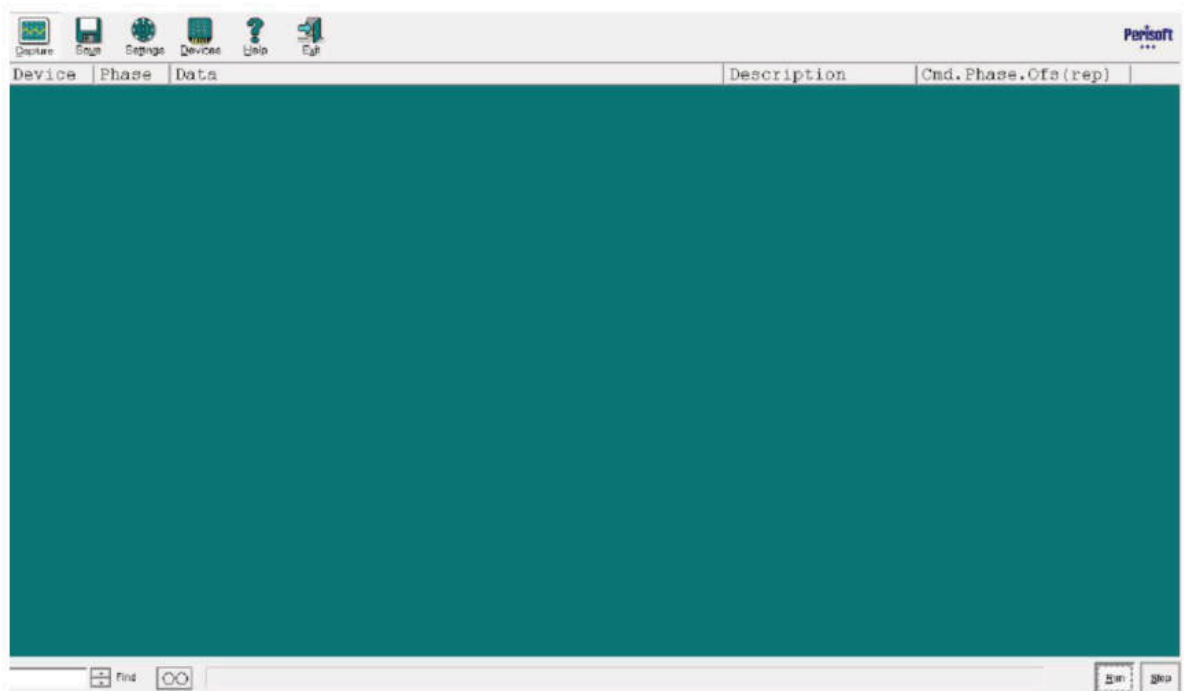
BusHound parameter capture tutorial

1. Open BusHound, click Devices, check the printer and USB Printing Support.

Illustration/diagram page - see the original Chinese document for the image.



2. 点击 Capture 回到，点击 stop 清空窗口，点击 run 开始抓取



3. 重启打印机，获取到相关参数

2. Click Capture, click Stop to clear the window, click Run to start capturing.
3. Restart the printer to obtain the relevant parameters.

Illustration/diagram page - see the original Chinese document for the image.

```
CTL 80 06 0100 0000 0012 GET DESCRIPTOR
IN 12 01 00 02 02 00 00 40 03 12 31 01 00 01 01 02 .....@..1.....
03 01 ..
CTL 80 06 0200 0000 0109 GET DESCRIPTOR
IN 09 02 20 00 01 01 00 80 32 09 04 00 00 02 07 01 .. .....2.....
02 00 07 05 02 02 40 00 00 07 05 82 02 40 00 00 .....@.....@..
CTL 00 09 0001 0000 0000 SET CONFIG
CTL 80 06 0303 0409 0103 GET DESCRIPTOR
IN 10 03 50 00 72 00 69 00 6e 00 74 00 65 00 72 00 ..P.r.i.n.t.e.r.
CTL a1 00 0000 0000 03f1 get device id
IN 00 2f 4d 46 47 3a 54 53 43 3b 43 4d 44 3a 54 53 ./MFG:TSC;CMD:TS
50 4c 3b 4d 44 4c 3a 54 54 50 2d 33 34 32 20 50 PL;MDL:TTP-342 P
72 6f 3b 43 4c 53 3a 50 52 49 4e 54 45 52 3b ro;CLS:PRINTER;
CTL a1 00 0000 0000 0400 get device id
USTS c0010000 canceled
```

注：VID:1203 PID:0131

参数修改方法

1.利用 Nmark 打印贴标机配置工具修改 Nmark 打印贴标机 USB 参数。

修改方法如下：

- (1) 打开 Ptools 软件，选择已连接的 Nmark 打印机，点击连接



Note: VID:1203, PID:0131

Parameter modification method

1. Use the Nmark print & apply configuration tool to modify the Nmark machine USB parameters:

(1) Open Ptools, select the connected Nmark printer, click Connect.

Illustration/diagram page - see the original Chinese document for the image.

(2) 点击 USB 参数，点击读取，此步骤需要超级用户权限

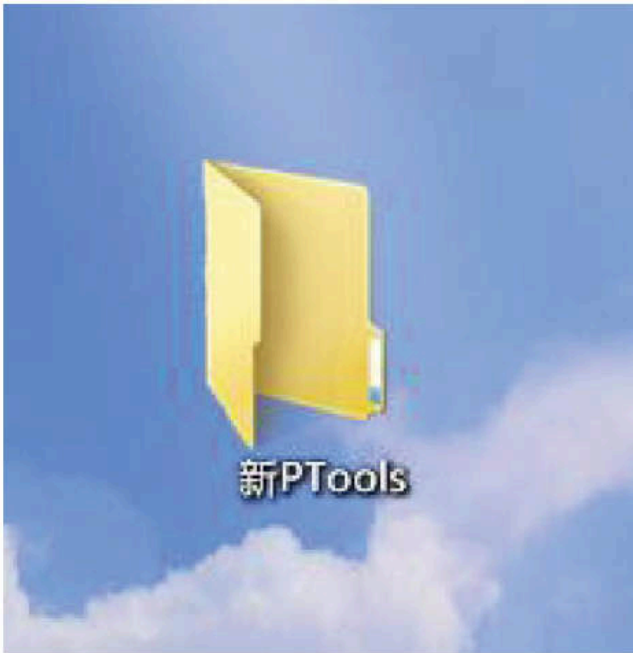


(3) 修改 USB 参数为打印软件所对应的打印机的 USB 参数，点击设置，重启打印机即可

安装专用软件对应打印机的驱动

Ptools 升级程序

1.解压后，双击 ptools 图标



(2) Click USB Parameters, click Read (this step requires superuser privilege).

(3) Change the USB parameters to those of the printer used by the print software, click Set, restart the printer.

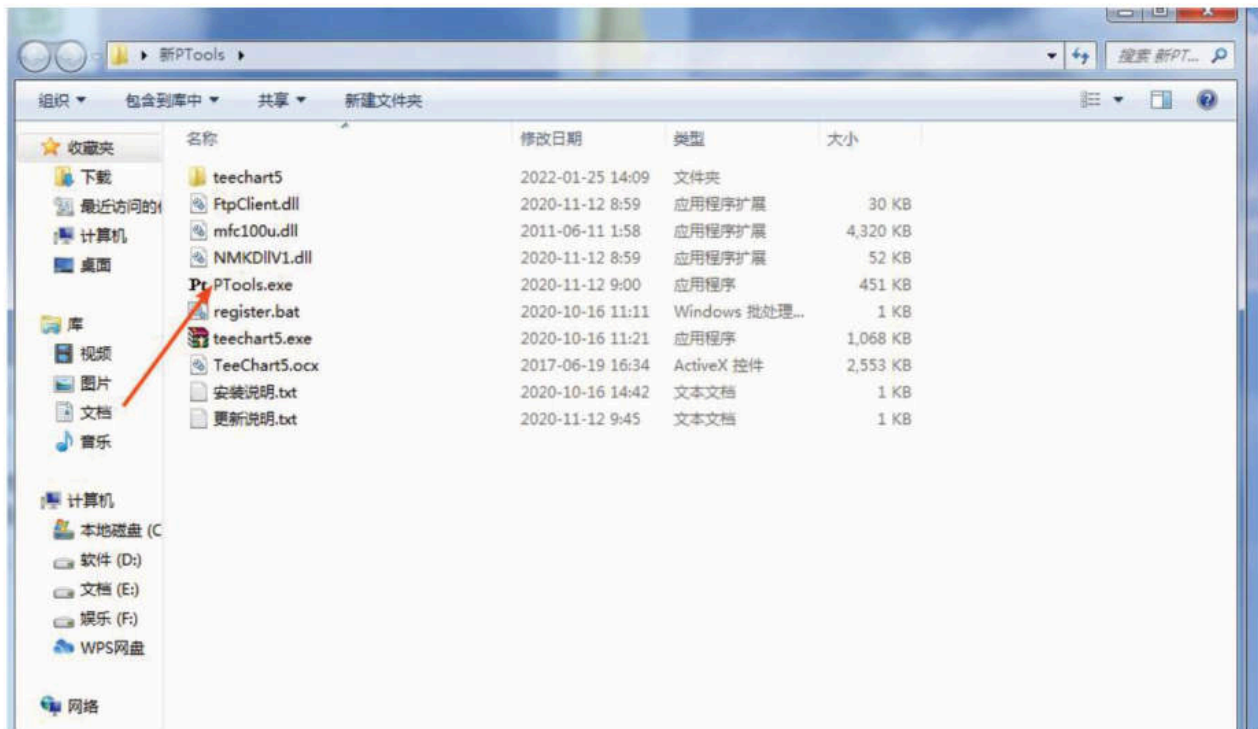
Install the driver for the printer used by the specialized software

Ptools upgrade utility

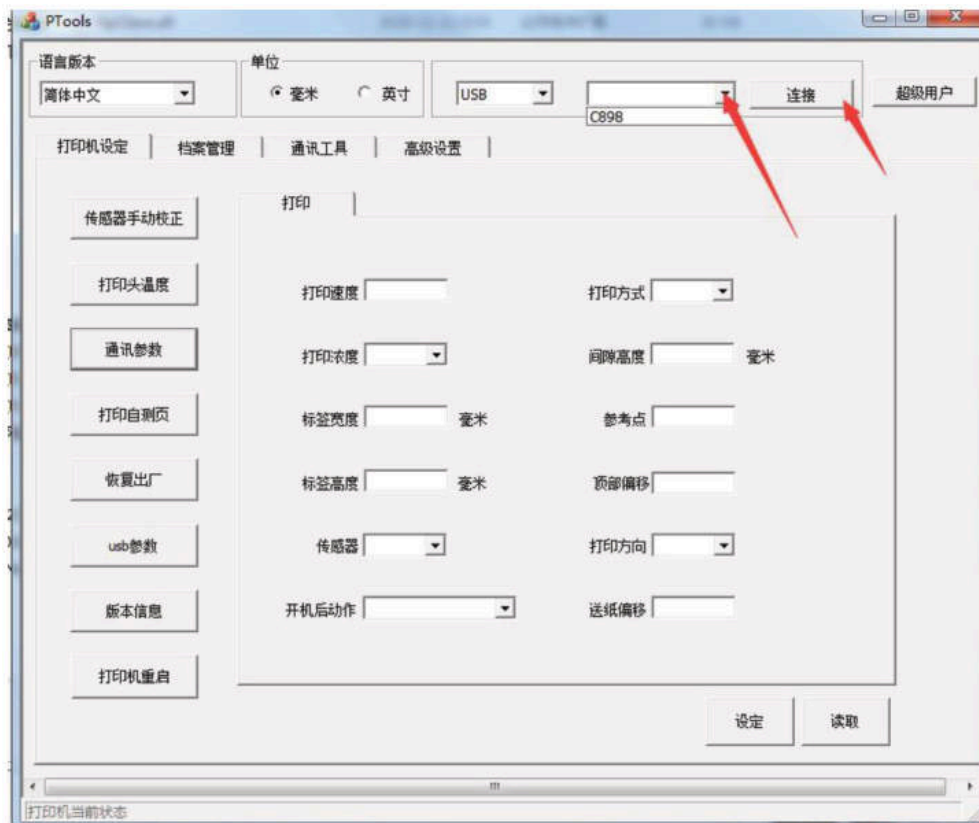
1. After extraction, double-click the Ptools icon.

Illustration/diagram page - see the original Chinese document for the image.

2. 双击 ptools 图标



3. 连接好 usb 线，找到机器型号，选中，点连接



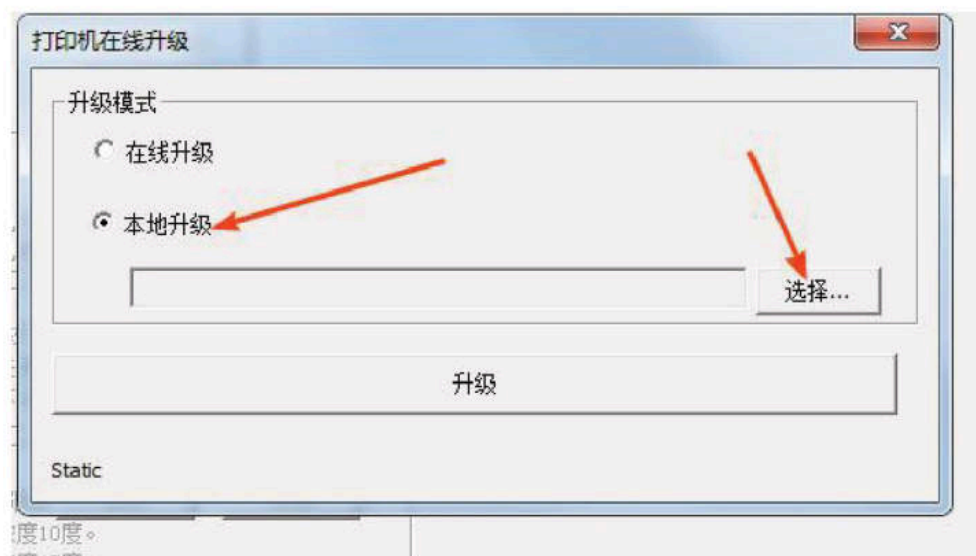
4. 点击高级设置，点击打印机升级

2. Double-click the Ptools icon.
3. Connect the USB cable, find the machine model, select it, click Connect.
4. Click Advanced Settings, click Printer Upgrade.

Illustration/diagram page - see the original Chinese document for the image.



5. 点击本地升级，点击选择

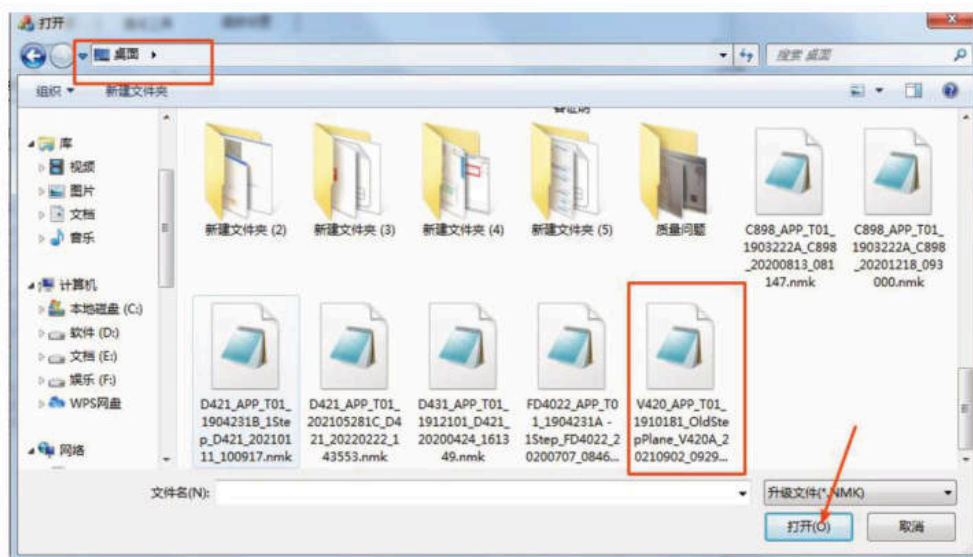


6. 找到升级文件位置，点击打开

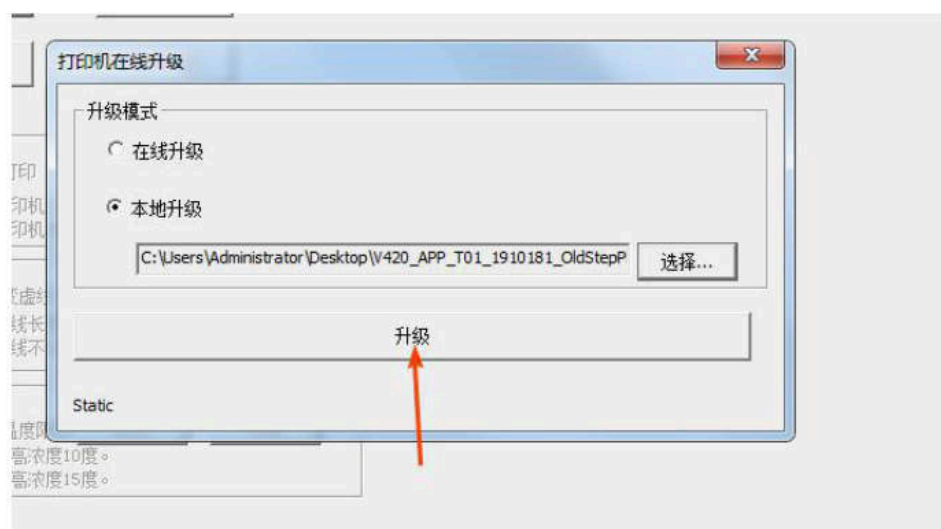
5. Click Local Upgrade, click Select.

6. Find the upgrade file location, click Open.

Illustration/diagram page - see the original Chinese document for the image.



7.点击升级



七、触摸屏 Nmark 打印软件使用说明

注：本文档着重介绍调用 U 盘文件方式打印

软件介绍

Nmark 标签打印软件可以通过软件标签编辑和调用 U 盘内存储的标签文件两种方式进行标签打印。标签编辑方式即用户在使用时可以在触摸屏上进行标签的制作，不需要使用其他软件。调用 U 盘方式即用户将在电脑上用本公司开发的 Barlabel 标签编辑软件编辑好所需要的所有标签文件，将.BLX 文件存储到 U 盘内，Nmark 标签打印软件通过调用 U 盘内的文件进行打印。

7. Click Upgrade.

Illustration/diagram page - see the original Chinese document for the image.

Part 7: Touchscreen Nmark Print Software Instructions

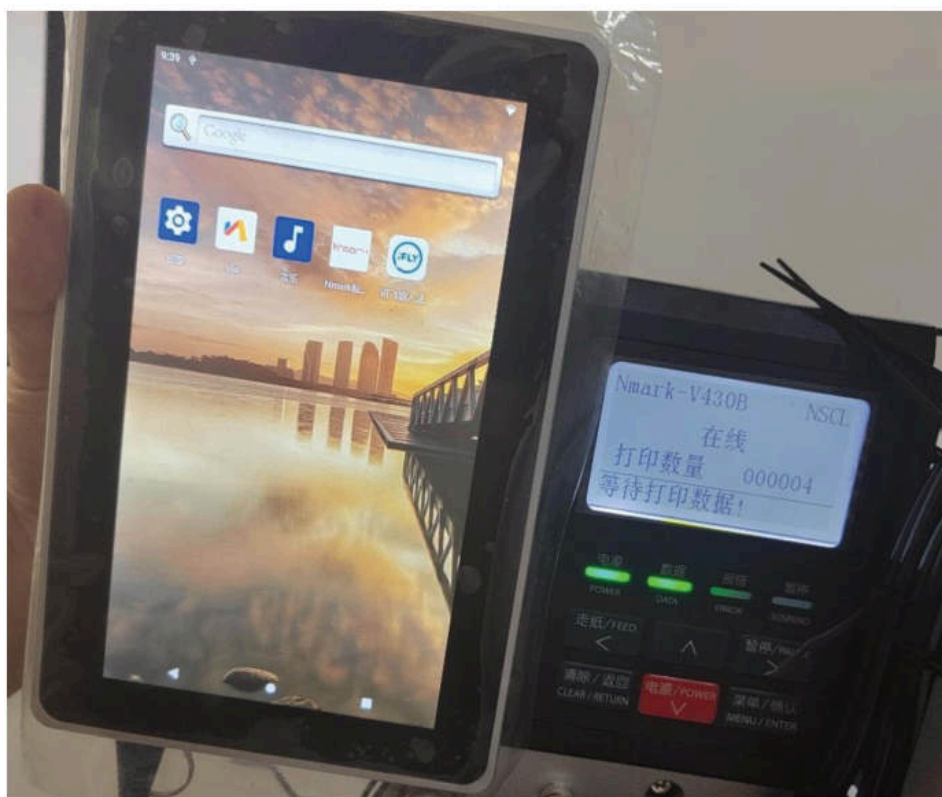
Note: this document focuses on printing by calling files from a USB drive.

Software introduction

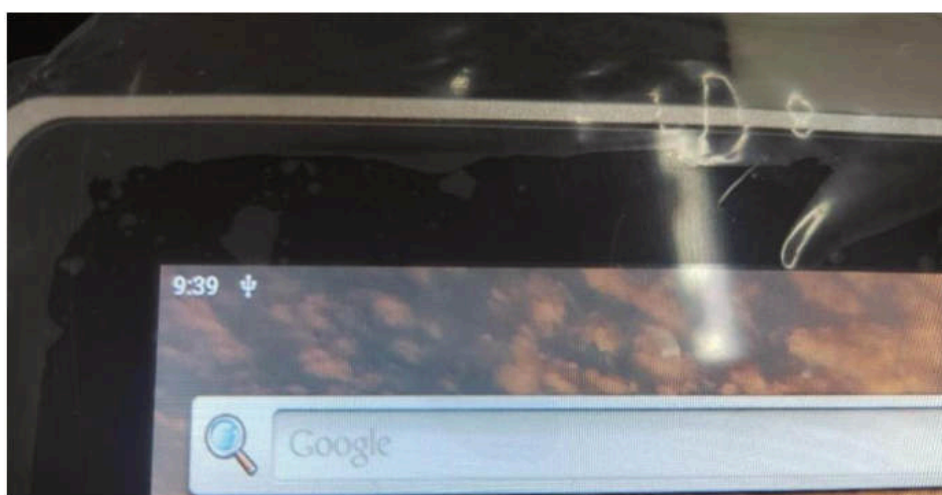
Nmark label printing software supports two label printing methods: on-screen label editing and calling label files stored on a USB drive. Editing means users create labels on the touchscreen without other software. The USB drive method means the user prepares all needed label files with Barlabel on a computer, stores the .BLX files on a USB drive, and the Nmark software prints by calling files from the USB drive.

使用步骤

1.为触摸屏和 Nmark 打印机上电。



2.将已经存储了标签文件的 U 盘插在触摸屏下方的任意一个 USB 接口上,屏幕显示连接图标即为连结成功。

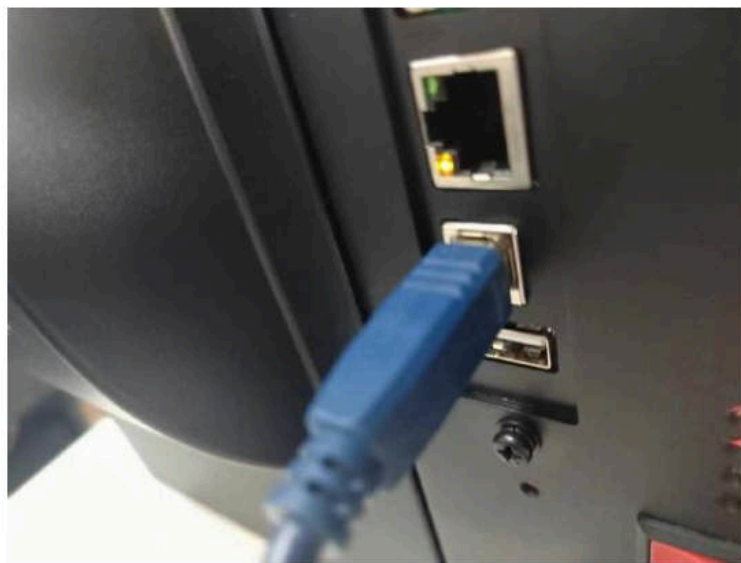


3.用 USB 线连接触摸屏和 Nmark 打印机

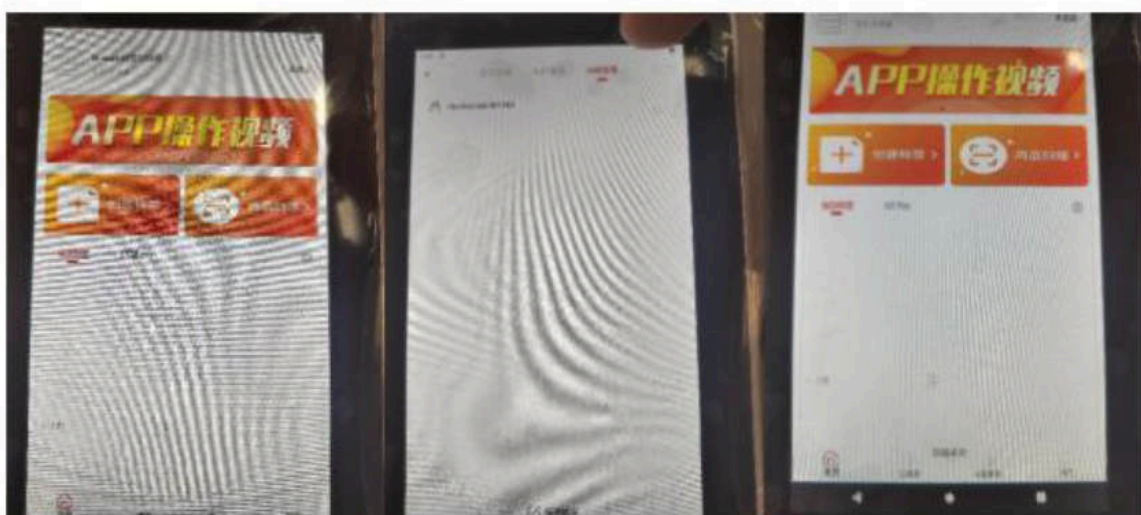
Usage steps

1. Power on the touchscreen and the Nmark printer.
2. Insert the USB drive containing the label files into any USB port under the touchscreen; a connection icon appears to indicate success.
3. Connect the touchscreen to the Nmark printer with a USB cable.

Illustration/diagram page - see the original Chinese document for the image.



4.打开 Nmark 标签打印软件，点击右上角未连接，选择 USB 连接，选择弹出的 USB 设备，弹出权限申请时选择确定，再次选择弹出的 USB 设备，下方提示连接成功。

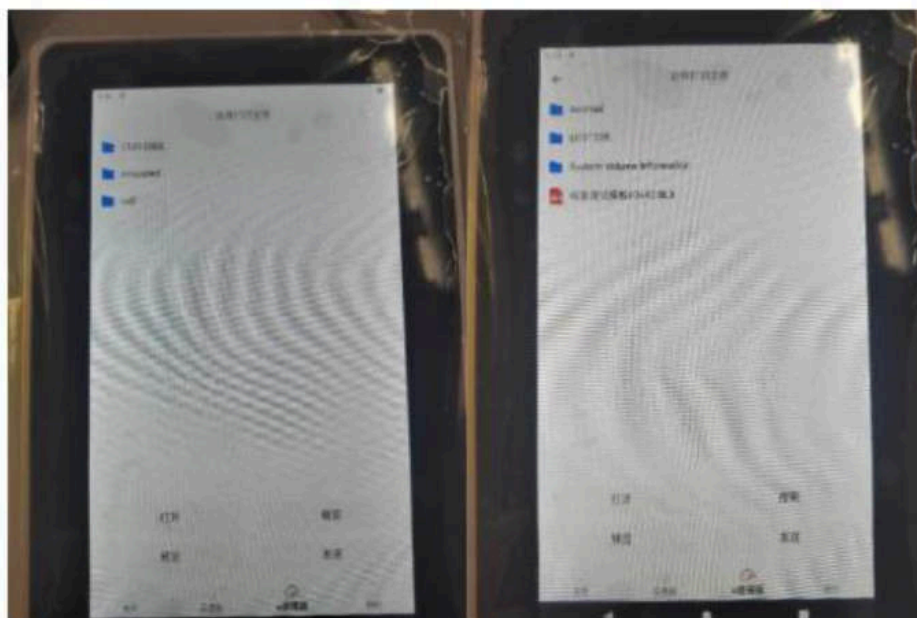


5.选择 U 盘模板，点击名为 U 盘 id 号的文件夹，打开后即可找到存储的标签文件，选择需要打印的标签文件，点击打开，等待加载完成，点击发送打印机即可打印出需要的标签

4. Open the Nmark label printing software, tap "Not connected" in the top right, select USB connection, select the popped-up USB device; when the permission request appears select OK; select the USB device again; the prompt below shows connection success.

5. Select USB drive template, tap the folder named with the USB drive ID, open it to find the stored label files; select the label file to print, click Open, wait for loading, click Send to Printer to print the label.

Illustration/diagram page - see the original Chinese document for the image.



6.触摸屏上对标签进行二次编辑，打开 U 盘中需要编辑的标签文件，点击编辑按钮，界面会自动跳转到标签 编辑界面，编辑完成后需要保存标签文件，文件会自动保存在本地目录下，可以在主界面查看 U 盘里的标 签文件不会被修改



7.将 U 盘文件存储在触摸屏内部共有两种方法

方法 1：在触摸屏软件里打开 U 盘里的标签文件，点击编辑，进入编辑界面，可以选择编辑或

6. Secondary editing on the touchscreen: open the label file to edit, click the Edit button; the interface jumps to the label editing screen; after editing, save the label file (saved to the local directory automatically; viewable from the main screen). Files on the USB drive are not modified.

7. Two ways to store USB files inside the touchscreen:

Method 1: open the label file from the USB drive in the touchscreen software, click Edit to enter the editing screen, optionally edit, then save - the file is saved in the touchscreen.

Illustration/diagram page - see the original Chinese document for the image.

者不编辑文件，然后保存，即可将文件保存在触摸屏中。

方法 2：在 U 盘模板界面选择需要保存在本地的标签文件，选择复制，可以选择覆盖或者跳过同名，然后在软件“我的”界面，打开我的文件即可看到保存的标签文件。

软件更新方法

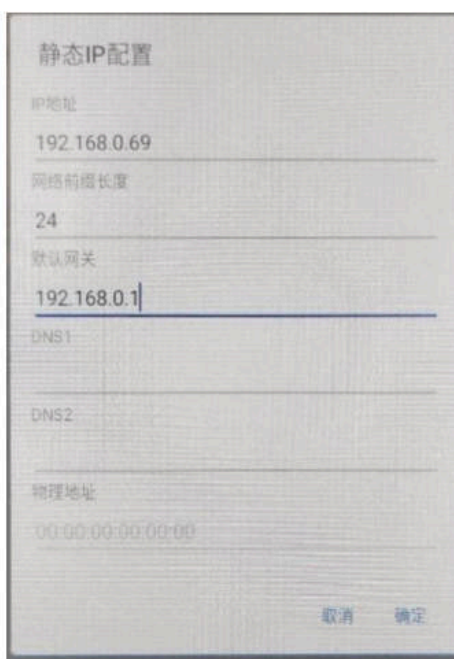
需要更新软件时，打开 via 浏览器，打开保存的书签，即可进入更新网站，卸载旧版本，下载安装最新版本即可。

网络打印使用方法

1.连接网线打印

(1)触摸屏和打印机之间利用网线直连

打开触摸屏设置，选择网络和互联网点击以太网，选择静态 IP 模式，配置相关参数，网络前缀长度输入 24，IP 地址以及默认网关根据用户所在环境的局域网自行配置。触摸屏的 IP 地址必须和打印机 IP 地址处 在同一个网段。



The screenshot shows a 'Static IP Configuration' dialog box. It contains several input fields with the following values: IP Address is 192.168.0.69, Network Prefix Length is 24, Default Gateway is 192.168.0.1, DNS1 is empty, DNS2 is empty, and Physical Address is 00-00-00-00-00-00. At the bottom right, there are 'Cancel' and 'Confirm' buttons.

Field	Value
IP地址	192.168.0.69
网络前缀长度	24
默认网关	192.168.0.1
DNS1	
DNS2	
物理地址	00-00-00-00-00-00

(2)触摸屏和打印机之间通过交换机或者路由器连接

Method 2: on the USB drive template screen select the label file to save locally, select Copy; choose overwrite or skip for same-name files; then in the software's "My" screen open My Files to see the saved label file.

Software update method

When updating, open the Via browser, open the saved bookmark to enter the update site, uninstall the old version, and download/install the latest version.

Network printing usage

1. Network cable printing

(1) Direct connection between the touchscreen and the printer via network cable: open touchscreen settings, select Network & Internet, tap Ethernet, select Static IP mode, configure parameters; set network prefix length 24; configure the IP address and default gateway according to the local LAN. The touchscreen IP must be in the same subnet as the printer IP.

(2) Connection via a switch or router:

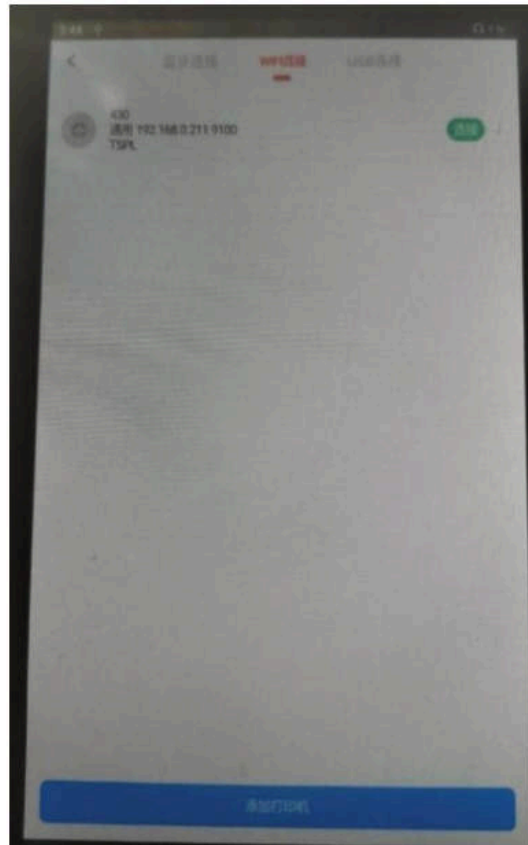
这种连接方式不需要手动配置触摸屏的 IP 地址，交换机或路由器会自动给触摸屏分配 IP 地址

2.利用 WIFI 进行打印

将打印在路由器上，触摸屏连接该路由器的 WIFI。

打开 Nmark 标签打印软件，点击右上角未连接，点击 WIFI 连接，添加打印机，输入打印机名称、IP 地址以及端口号，打印机默认端口号为 9100.点击确定。列表中出现新增的打印机即可。

点击连接，等待软件返回首页。



八、Barlabel 打印模板制作与调用功能说明

新建模板

打开 Barlabel 软件，点击文件，新建，打印模板

This method requires no manual IP configuration; the switch/router assigns the touchscreen an IP automatically.

2. Wi-Fi printing

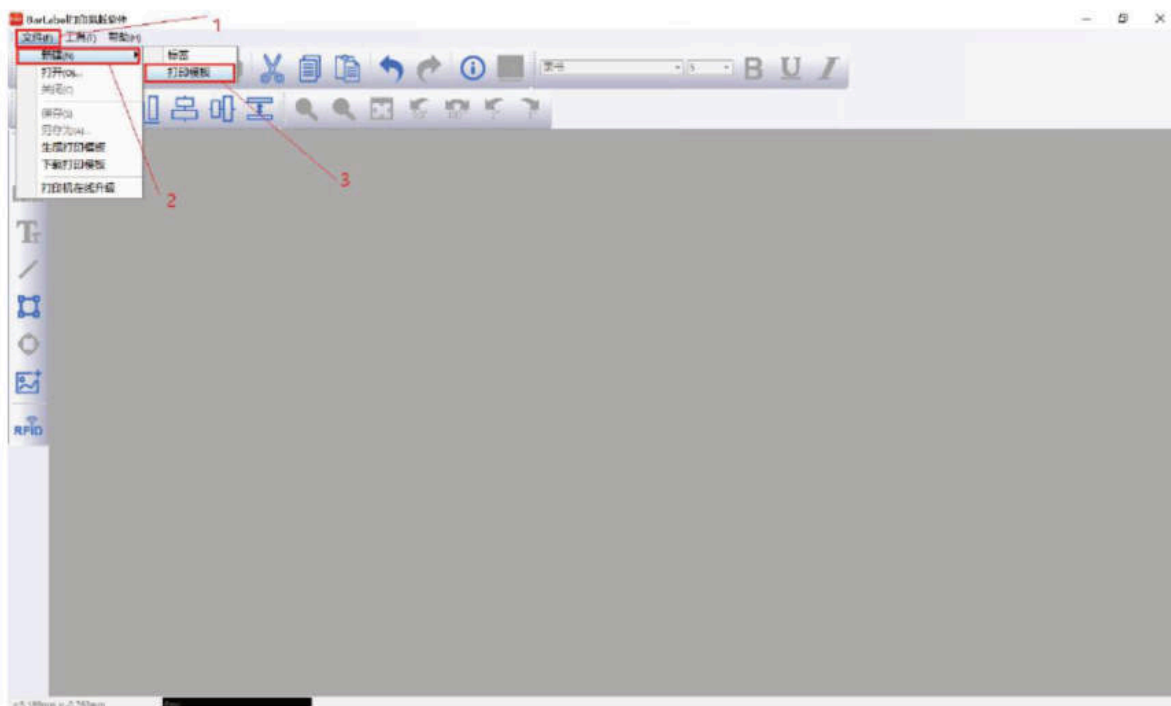
Connect the printer to the router; the touchscreen connects to that router's Wi-Fi. Open the Nmark software, tap "Not connected" in the top right, tap Wi-Fi connection, add printer, enter the printer name, IP address and port (default port 9100), click OK. The new printer appears in the list. Click Connect and wait for the software to return to the home page.

Part 8: Barlabel Print Template Creation and Recall

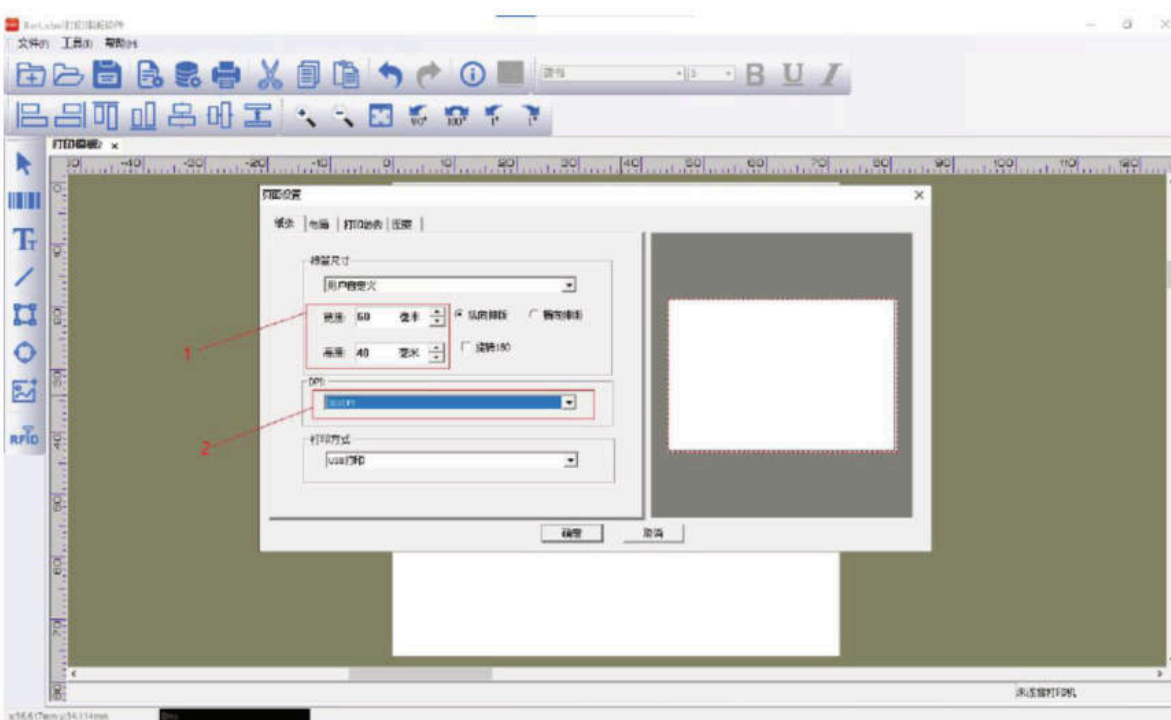
Create template

Open Barlabel, click File, New, Print Template.

Illustration/diagram page - see the original Chinese document for the image.



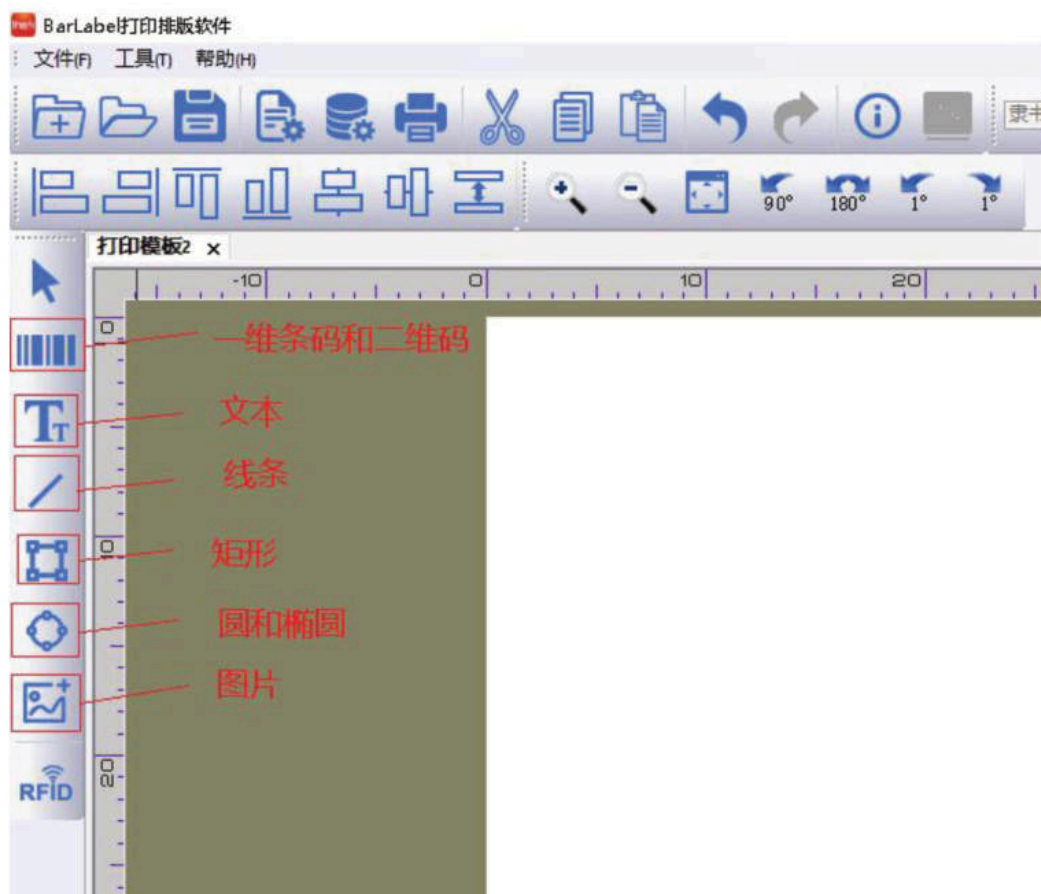
双击空白区域，修改模板宽度和高度、分辨率、打印方式。



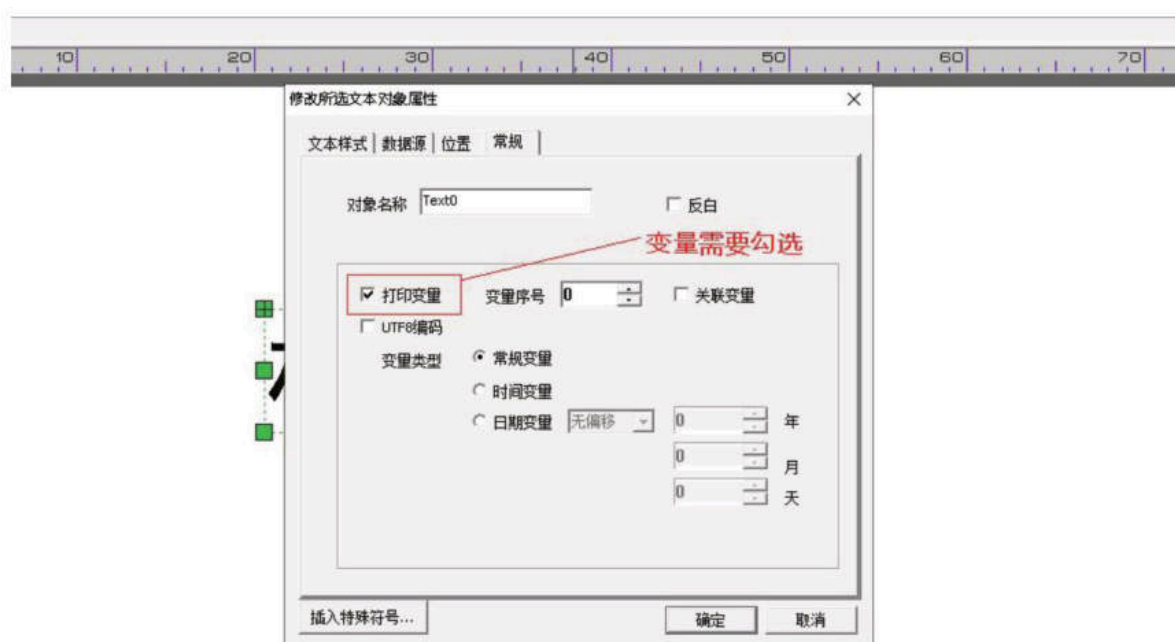
利用左边的控件进行模板编辑。

Double-click the blank area to modify the template width and height, resolution, and print mode. Use the controls on the left to edit the template.

Illustration/diagram page - see the original Chinese document for the image.



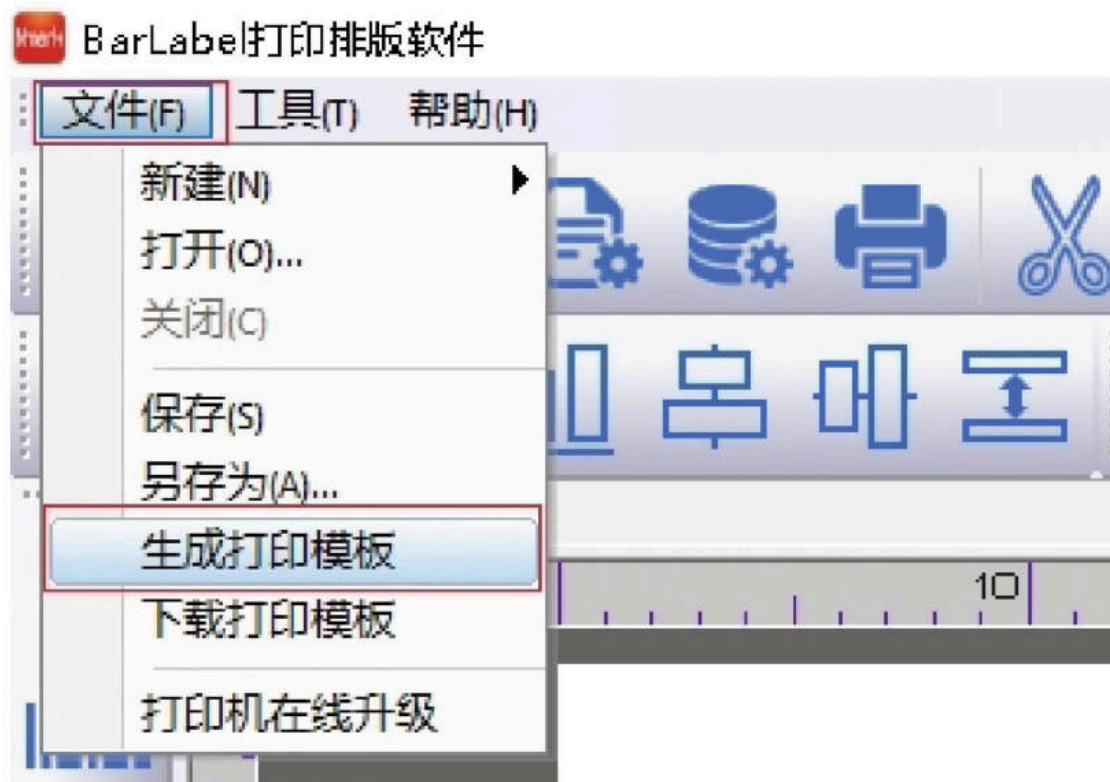
放置好内容后，可双击修改内容的具体属性，如果该项为变量，需要在常规中勾选打印变量



排版完成后点击文件，生成打印模板，编辑文件名称，保存即可

After placing content, double-click to modify specific properties; if an item is a variable, check "print variable" in General. After layout, click File, Generate Print Template, edit the file name, and save.

Illustration/diagram page - see the original Chinese document for the image.



下载模板

用 USB 或者网线连接打印机，如果通过网络下载，需要确保打印机与电脑处于同一局域网。

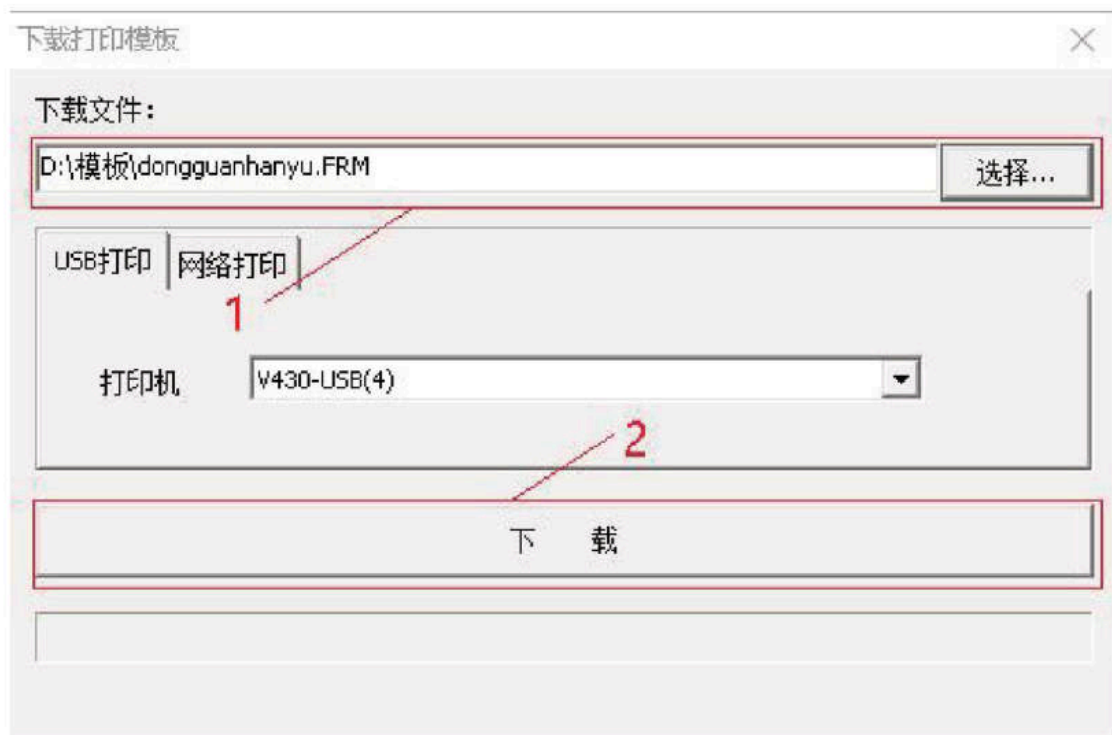
打开 Barlabel 软件,点击文件，下载打印模板，选择生成的同名 FRM 文件，根据自己的通信接口，点击下载即可



Download template

Connect the printer via USB or network cable; for network download ensure the printer and computer are on the same LAN. Open Barlabel, click File, Download Print Template, select the generated same-name FRM file, and download per your communication interface.

Illustration/diagram page - see the original Chinese document for the image.

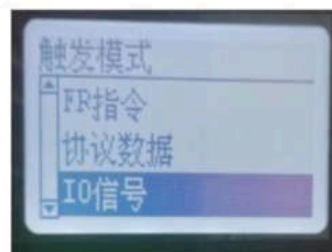
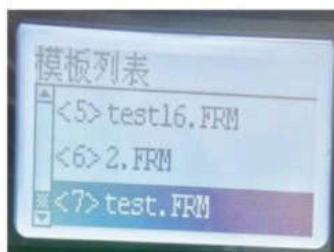


提示下载完成



模板下载成功后，需要在打印机上选择需要打印的模板，并设置触发模式，同时需要在打印机菜单，系统设置，软件设置下设置打印机触发模式，选择打印模板的方式如下。

菜单键进入打印机菜单，进入模板打印选项。



选择“模板”行，按“确认”键，可进入模板列表，选择需要脱机打印的模板。

选择“模式”行，按“确认”键，可进入模式列表，共有4种模式可以选择，FR指令、协议数据、IO信号、条码扫描。

A "Download complete" prompt appears.

After download, select the template to print on the printer and set the trigger mode; also set the printer trigger mode under Menu - System Settings - Software Settings. To select a print template:

Press Menu to enter the printer menu, go to Template Printing.

Select the "Template" row and press OK to enter the template list and choose the template for offline printing.

Select the "Mode" row and press OK to enter the mode list; there are 4 modes: FR command, protocol data, IO signal, barcode scan.

Illustration/diagram page - see the original Chinese document for the image.

FR 指令：本公司自定义调用打印模板的专用指令。

协议数据：特殊协议

IO 信号：外部 IO 接口接收的信号，需要在贴标臂菜单中将需要使用的外部接口使能。条码扫描：通过连接在打印机后面板的 USB 扫码枪进行触发。

说明：打印机非脱机模式下，必须把“模式” 改为“FR 指令”

调用模板有在线调用和脱机调用两种方式。

在线调用即通过电脑上位机发送调用指令，打印机收到指令后，找到打印机内部对应的模板文件或打印机后面板 USB_HOST 接口连接的 U 盘中的模板文件（部分机型支持），并将指令代码中的内容赋值给打印模板中的变量。

脱机调用依托外部信号，可使用外部 IO 接口触发或扫码枪触发。变量内容可以利用键盘编辑。

调用模板

1.在线调用

打印机支持 USB、TCP、RS232 三种通讯方式，调用命令格式如下

FR" TEST.FRM" 表示调用模板的名字，后面需要跟回车换行("\r\n")

? 固定格式，必须有，后面需要跟回车换行("\r\n")

数据 1 第一个变量的数据，后面需要跟回车换行("\r\n")

数据 2 第二个变量的数据，后面需要跟回车换行("\r\n")

数据 3 第三个变量的数据，后面需要跟回车换行("\r\n")

P1,1 表示启动打印，固定格式，必须有，后面需要跟回车换行("\r\n")

说明：如果模板还有多个变量，可在第五行和第六行之间顺序插入，每个变量后面需要跟回车换行("\r\n")，指令中的? 以及" " 必须在英文输入法下输入。

2.脱机调用

模板触发模式选择 IO 信号或者条码扫描即可实现脱机调用，脱机调用修改模板内容可使用键盘进行

FR command: the company's dedicated command for recalling print templates.

Protocol data: special protocol.

IO signal: signal received via the external IO interface; the interface used must be enabled in the labeling arm menu.

Barcode scan: triggered via a USB barcode scanner on the printer rear panel.

Note: in non-offline mode, "Mode" must be changed to "FR command".

Template recall has two ways: online and offline.

Online recall: the host computer sends the recall command; the printer finds the corresponding template file internally, or in a USB drive on the USB_HOST port (some models), and assigns the command values to the template variables.

Offline recall relies on external signals, using external IO or scanner trigger; variable content can be edited with the keyboard.

Recall template

1. Online recall

The printer supports USB, TCP, and RS232 communication; the call command format is:

```
FR"TEST.FRM"  
?  
data1  
data2  
data3  
P1,1  
FR"TEST.FRM" - template name, must be followed by CRLF ("\r\n")  
? - fixed format, required, followed by CRLF ("\r\n")  
data1 - first variable, followed by CRLF ("\r\n")  
data2 - second variable, followed by CRLF ("\r\n")  
data3 - third variable, followed by CRLF ("\r\n")  
P1,1 - start printing, fixed format, required, followed by CRLF ("\r\n")
```

Note: if the template has more variables, insert them sequentially between the fifth and sixth lines, each followed by CRLF ("\r\n"). The "?" and quotes in the command must be entered in English input mode.

2. Offline recall

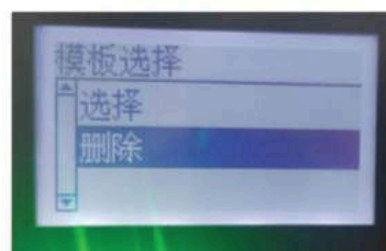
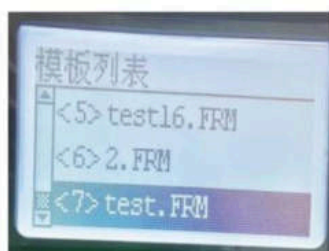
Set the template trigger mode to IO signal or barcode scan for offline recall; template content can be edited with the keyboard.

修改。在利用 Barlabel 建立打印模板时，常规变量会按照建立顺序自动排序，时间变量和日期变量不参与排序，建立好模板后，将模板文件下载到打印机中，按照描述的选择模板的方式选择需要打印的打印模板。在变量菜单中按照模板中变量的顺序在初值位置利用键盘输入变量内容，可以根据模板中的变量类型在打印机中选择变量类型。

模板中有时间和日期变量时，只需在模板变量列表中添加时间变量和日期变量即可，无需考虑顺序。

3. 删除模板

选择“模板”行，按“确认”键，可进入模板列表，选择需要删除的打印模板，选择删除，确认删除即可。



九、附录

附录一 常见问题及解决方法

1. 标签打印完成后，标签未停留在贴标板上，贴标机提示标签丢失报警？

1.1 观察标签打印停止的位置是否正确？标签打印停止的位置，应该是下一张标签的边缘在剥离片的后面 1mm 左右，如果位置相差太大，需要调整进纸偏移，进纸偏移默认是 27mm，调整方法参考《打印贴标机 使用说明》或视频二维码。

In Barlabel template creation, normal variables are auto-sorted in creation order; time and date variables do not participate in sorting. After creating the template, download it to the printer, select the template as described, then in the variable menu enter variable content at the initial-value positions using the keyboard; the variable type can be selected on the printer according to the template.

For time/date variables, just add them to the template variable list; order does not matter.

3. Delete template

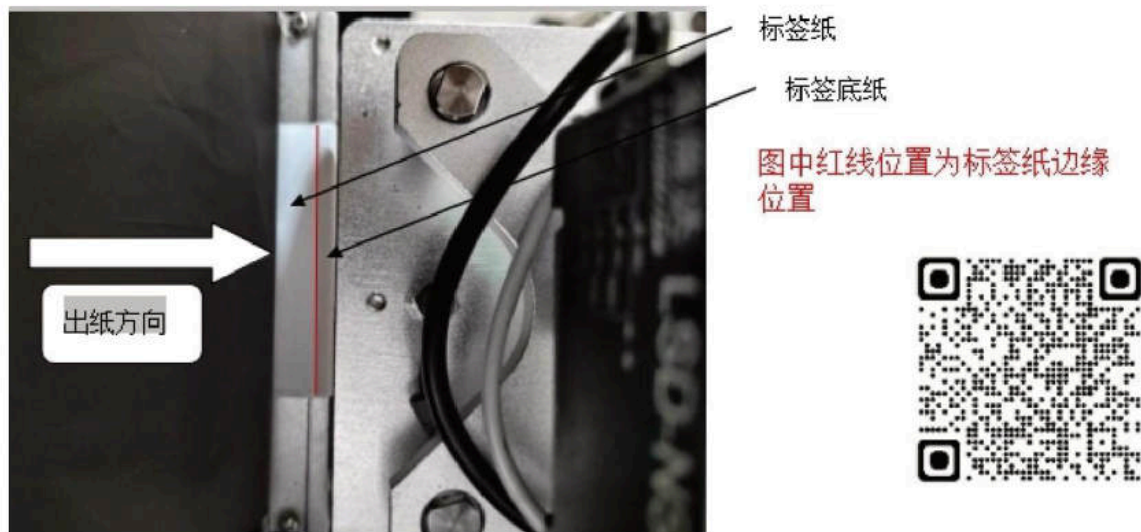
Select the "Template" row, press OK to enter the template list, choose the template to delete, select Delete and confirm.

Part 9: Appendix

Appendix 1: FAQ and solutions

1. After label printing, the label does not stay on the labeling plate and the machine reports "label lost"?

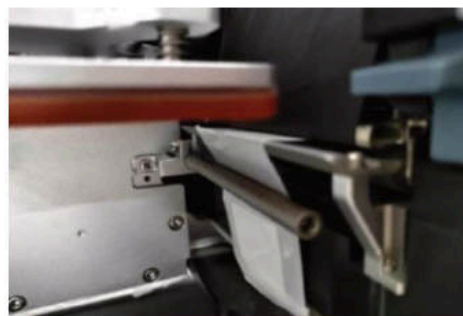
1.1 Check whether the label print stop position is correct. The stop position should be about 1 mm behind the peel plate at the next label's edge; if the offset is too large, adjust the feed offset (default 27 mm); see the user manual or the video QR code.



1.2 检查吹气管是否被遮挡，或者吹气角度不合适。调整方法参考《打印贴标机使用说明》或视频二维码。 错误装纸：



正确装纸：



1.3 真空是否足够和有效，吸标不稳考虑适当的增加或减少气孔的个数。如果标签过大，需要考虑调整真空大小，减小真空形成的范围防止吸力过大，标签不能顺利推出。

1.4 通过屏幕菜单调整延时回卷的大小(部分机型为真空延时)。

1.5 标签是否符合要求，标签要选择贴标用的标签纸，不可伤到标签底纸，且标签地址不宜太厚。

1.6 纸张类型设置使用反射传感器。

1.7 贴标板高低不合适或不平行

1.8 剥离不稳定,回卷轴转动不稳,回卷轴的摩擦片压力需要增加,或者需要更换了

- 1.2 Check whether the blow tube is blocked or the blow angle is inappropriate. See the manual or the video QR code. Wrong media loading / Correct media loading:
- 1.3 Check whether the vacuum is sufficient and effective. If suction is unstable, consider increasing or decreasing the number of air holes. If the label is too large, adjust the vacuum size and reduce the vacuum area to prevent excessive suction that keeps the label from being pushed out smoothly.
- 1.4 Adjust the delayed rewind via the screen menu (vacuum delay on some models).
- 1.5 Check whether the label meets requirements; use label stock suitable for labeling, do not damage the label liner, and the label must not be too thick.
- 1.6 Set the media type to reflective sensor.
- 1.7 The labeling plate height is inappropriate or not parallel.
- 1.8 Unstable peeling; the rewind shaft rotates unstably; increase the friction plate pressure or replace it.

1.9 气压太低，导致贴标板区域无法形成有效真空，标签因重力掉落。

2.打印内容位置不准怎么调整？

2.1 可以通过屏幕菜单，调整打印机的 X 轴偏移和 Y 轴偏移。参考《打印贴标机使用说明》或视频二维码。

2.2 校正一下传感器参数

2.3 设置纸张类型反射传感器

2.4 如果是打开打印头,就要多走几个标签,让打印机适应一下

3.换了不同尺寸的标签，打印和贴标的位置不准？

3.1 更换标签后打印机无法立即将传感器阈值自动调整到合适范围，需要打印 5, 6 个标签打印贴标机才会适应。然后打印贴标机就可以正常工作了。

3.2 需打印的标签尺寸与模板的尺寸不一致。

4.怎样调整贴标的速度？

可以通过调整气缸的进气和出气气量来调整。参考打印贴标机使用说明或视频二维码。

5.打印机不识别纸张出现黑标错误怎么办？

5.1 手动拿走标签后按清除/返回按键多打印几个标签看看。

5.2 没有打印纸了。

5.3 标签纸有缺失，或者标签纸之前的缝隙没有了。

5.4 标签尺寸设置的过小。

5.5 在菜单里面校正纸张,测试曲线和高低参数值

6.贴标打印机 io 如何输出？

6.1 触发打印后，打印开始并输出 24V 高电平，打印完成输出低电平。

6.2 触发贴标后，贴标开始并输出 24V 高电平，贴标完成输出低电平。

6.3 详情请参考打印贴标机操作手册。

7.不希望软件改变贴标机参数怎么办？

1.9 Air pressure too low, so the labeling plate area cannot form effective vacuum and the label drops due to gravity.

2. Print content position inaccurate?

2.1 Adjust the X and Y offsets via the screen menu. See the manual or the video QR code.

2.2 Calibrate the sensor parameters.

2.3 Set the media type to reflective sensor.

2.4 If the printhead was opened, feed a few labels to let the printer adapt.

3. Changed to a different label size, print/labeling position off?

3.1 After changing labels the printer cannot immediately auto-adjust the sensor threshold; print 5-6 labels for it to adapt, then it works normally.

3.2 The label size to print does not match the template size.

4. How to adjust the labeling speed?

Adjust the cylinder intake and exhaust air flow. See the manual or the video QR code.

5. Printer does not recognize media and shows a black mark error?

5.1 Remove the label manually and press Clear/Back, then print a few labels.

5.2 Out of paper.

5.3 Label stock missing, or the gap between labels is gone.

5.4 Label size set too small.

5.5 Calibrate the media in the menu; test the curve and high/low parameter values.

6. How does the print & apply machine output IO?

6.1 After triggering print, printing starts and outputs 24V high level; when complete, outputs low level.

6.2 After triggering labeling, labeling starts and outputs 24V high level; when complete, outputs low level.

6.3 See the operation manual for details.

7. Do not want software to change the labeling machine parameters?

7.1 如果所有的参数都不允许修改可以将打印机的打印模式修改为打印机模式,即在打印机上将所有的参数锁死。

7.2 如果不允许部分参数被修改,可以将打印模式指令集方式下不希望改变的参数锁定。

8.打印数据发送了,打印机不打印?

8.1 观察打印机屏幕是否显示"等待打印数据",如果显示"等待打印数据"则打印数据并没有发送过来。

8.2 打印机屏幕如果显示"等待打印信号",则需要触发打印 IO 信号。

8.3 打印机屏幕是否有显示报错提示,打印机必须在无错状态才能正常打印。

8.4 如果是采用打印机驱动,需要了解打印机驱动安装是否正确

8.4 检查连接线是否有问题。

8.5 如果数据灯闪了,说明数据过来了,打印机没有解析,查看打印机目前选择的指令集是否正确,一般采用 NSCL 指令集。

8.6 如果是网口连接,查看打印机网口配置是否正确。

9.碳带报错什么原因?

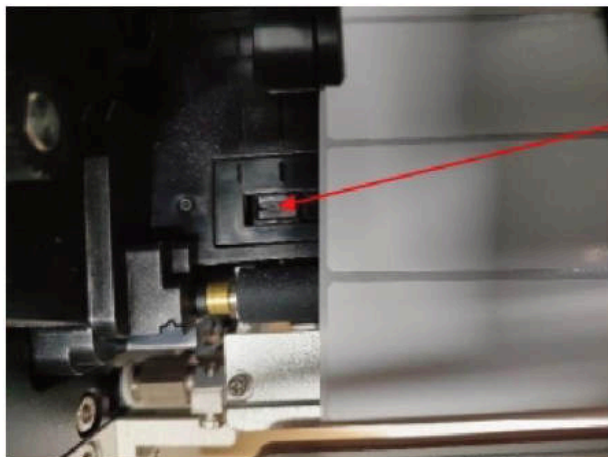
9.1 后部碳带轴管没有安装好。

9.2 碳带用完。

9.3 扣合打印头的时候没有将碳带拉紧一些。

10.缺纸报错

10.1 传感器位置太偏,标签纸没有遮挡传感器。



传感器

10.2 标签纸用完或中间缺失部分标签纸。

7.1 If all parameters must be locked, change the printer print mode to printer mode (lock all parameters on the printer).

7.2 If only some parameters must not be changed, lock the undesired parameters in the print command set mode.

8. Print data sent but the printer does not print?

8.1 Check whether the screen shows "Waiting for print data"; if so, the data has not arrived.

8.2 If the screen shows "Waiting for print signal", the print IO signal needs to be triggered.

8.3 Check for error prompts; the printer must be error-free to print.

8.4 If using the printer driver, check whether it is installed correctly.

8.5 Check the connection cable.

8.6 If the data light flashes, data has arrived but the printer did not parse it; check the currently selected command set - usually NSCL.

8.7 If network connection, check the printer network configuration.

9. Ribbon error cause?

9.1 The rear ribbon core is not installed properly.

9.2 The ribbon is used up.

9.3 The ribbon was not pulled tight when closing the printhead.

10. Out-of-paper error

10.1 The sensor position is too far off; the label does not cover the sensor.

10.2 The label stock is used up, or some labels are missing in the middle.

10.3 标签纸比较透光，需要校正传感器的参数。

11.耗材如何安装操作

11.1 安装碳带和纸卷时，按下卡扣开关打开打印头，将标签纸卡在卡纸片之间，将色带未使用部分安装 在下面，使用过的部分安装在上边。

11.2 更换标签纸时，首先打开打印头部分，用手前推右侧挡纸片上的卡扣，将两侧挡纸片分开，拿出旧 纸，将新纸放好后，利用挡纸片卡住标签纸。

12.如何安装打印机驱动？

可以用 USB 接口驱动，也可以用网口驱动，USB 驱动只要按照我们提供的打印机驱动程序，按照提示安 装就可以了，网口驱动需要配置打印机的网口参数 ip 地址和端口，这可以通过打印机按键和屏幕显示来 设置。我们的打印机驱动兼容 win7 和 win10。安装方法参考右侧二维码。

13.打印机驱动如何设置？

13.1 设置打印页面，注意打印方向。

13.2 设置进纸偏移。

13.3 设置关闭双向支持。

13.4 设置直接打印选择。

14.打印机支持的编程语言是什么意思？

要想让打印机完美打印您想要的图像，必须要一种描述这个图像的语言告诉打印机，这种语言就是打印 机支持的指令集，目前我们支持的打印机语言有 NSCL 和 TPL，具体内容可以找 Nmark 技术支持索取。

15.打印机硬件模板文件是什么？

打印机模板文件是根据指令集自动生成的一段打印特定标签内容的字符串，其中可变的内容，不能是图 像，而是具体的变量内容，后期在编程的时候，将这些内容替换掉，就变成了你想要打印的内容。

16.为什么打印机软件模板文件推荐用 TPL 指令集？

10.3 The label stock is translucent; calibrate the sensor parameters.

11. How to install consumables

11.1 When installing the ribbon and media roll, press the latch to open the printhead, place the label stock between the media guides, install the unused ribbon on the bottom and the used part on top.

11.2 When replacing label stock, first open the printhead, push forward the clip on the right media guide to separate the two guides, remove the old stock, place new stock, and clamp it with the guides.

12. How to install the printer driver?

You can use a USB driver or a network driver. For USB, follow the provided driver and prompts. For network, configure the printer's IP address and port via the keys and screen. Our driver supports Win7 and Win10. See the QR code for the installation method.

13. How to configure the printer driver?

13.1 Set the print page; note the print direction.

13.2 Set the feed offset.

13.3 Disable bidirectional support.

13.4 Set direct printing.

14. What does "printer-supported programming language" mean?

To print your desired image perfectly, a language describing the image must be sent to the printer; this is the printer's command set. Currently supported languages are NSCL and TPL; contact Nmark technical support for details.

15. What is a printer hardware template file?

It is a string generated from the command set for printing specific label content; the variable content (not images) is replaced later during programming to produce the desired print.

16. Why is TPL recommended for printer software template files?

NSCL 指令集在描述图像的时候是二进制数,如果用一些文本编辑工具,打开以后一些数据会被修改。而 TPL 的非压缩模式,图像数据可以用文本字符来描述,所以你可以用记事本这类普通的编辑软件,对模板进行浏览和局部修改。

17.打印软件 barlabel、nicelabel、bartender 有什么区别, 怎么使用?

17.1barlabel 是深圳艾维码自己研发的打印软件,使用该软件,你不需要安装驱动,该软件可以自动识别我们的打印机,可以直接编辑标签打印使用。

17.2nicelabel 是一个和我们合作的第三方打印软件厂商,我们的打印机标准驱动也是 nicelabel 开发的。您可以到 nicelabel 官网了解更多 nicelabel 软件的知识。

17.3bartender 也是一个第三方的打印软件厂商,和我们没有直接的合作,您可以直接安装我们的打印机驱动,然后用 bartender 来调用。有些原来调用打印机驱动打印打印机的网口参数 ip 地址和端口,这可以通过打印机按键和屏幕显示来设置。我们的打印机驱动兼容 win7 和 win10。

18.小标签贴标注意事项是什么? 气压太小吸不住,贴标的时候容易跑偏,一般是 0.4 到 0.5MP 的气压。 问题:打印机偶尔有乱码,或不正常? 答:检查打印机驱动的双向支持是否打开,如果打开请关闭。 问题:打印机驱动更改以后不起作用?

答:看看是不是有打印机驱动的副本,如果有副本,需要将参数都改掉。

20.标签识别传感器怎么设置(视频)

21.贴标臂传感器 S1 S2 S3 的作用(视频)



22.打印机走纸出现随机的不准的原因?

22.1 打印机内部的卡纸滑块太紧,导致标签纸走不顺可以放松卡纸滑块。

22.2 回卷轴拉力太大,导致标签纸被拉伸过多,可以调整回卷轴摩擦弹簧压力。

23.标签纸偶发剥离不良

23.1 更换适合剥离的标签纸

The NSCL command set describes images in binary, so some data is modified when opened with text editors. TPL's uncompressed mode describes image data as text characters, so you can browse and locally modify the template with a plain editor like Notepad.

17. Differences between Barlabel, NiceLabel, Bartender, and how to use them?

17.1 Barlabel is developed by Shenzhen Aiweima; no driver needed; it auto-recognizes our printers and can edit and print labels directly.

17.2 NiceLabel is a third-party print software vendor we partner with; our standard printer driver is also developed by NiceLabel. See the NiceLabel website for more.

17.3 Bartender is also a third-party vendor, with no direct partnership; install our driver and call it from Bartender.

18. Notes for small-label labeling?

If the air pressure is too low the label will not hold and tends to drift; generally use 0.4-0.5 MPa.

Q: the printer occasionally shows garbled text or misbehaves?

A: check whether the driver's bidirectional support is enabled; if so, disable it.

Q: driver changes do not take effect?

A: check for a duplicate driver; if present, change all its parameters.

20. How to set the label detection sensor (video)

21. Roles of labeling arm sensors S1, S2, S3 (video)

22. Cause of random inaccurate media feed?

22.1 The internal media guide slider is too tight, impeding smooth feeding; loosen it.

22.2 The rewind shaft tension is too high, stretching the media; adjust the rewind shaft friction spring pressure.

23. Occasional poor label peeling

23.1 Replace with label stock suitable for peeling.

23.2 增加回卷轴摩擦片压力，增加标签底纸压力。

23.3 回卷轴摩擦片受损更换摩擦片

24.打印贴标机气压如何检查

24.1 气压不足时声音会明显变化，检查进气三联件气表指针所指的位置，正常使用过程中气压应达到 0.5

25.打印贴标机同时出现好几张标签如何处理

25.1 检查贴标机打印参数中的纸张类型和使用的标签类型是否一致。

25.2 检查打印参数中设置的标签大小。

25.3 在打印机上进行传感器校正。

26.打印机接收数据后无任何响应

在菜单出厂设置中找到调试模式，检查打印机接收的数据是否与下发的数据是否一致。

附录二 注意事项

1.在使用任何型号的打印机时，必须确保电源接地。

2.各种产品在使用时必须定期维护，打印头和传感器定期使用酒精擦拭，机械结构在长期使用过程中可能会出现松动，需要紧固。

3.贴标机在使用过程中，由于贴标板上的气孔数量按照预定时的标签大小决定，在更换小的标签纸后，可能会出现标签纸无法吸附在贴标板上，需要将多余的气孔堵住。

4.当打印内容偏移时，需要适当调整坐标偏移。

5.打印机每次设置完网络参数后，需要关机重启才能保存网络参数。

6.安装打印机驱动后，必须在打印机属性中将打印机端口双向支持关闭。不关闭双向支持，打印机接收打印任务后可能会报错。

7.修改贴标臂参数时需要先关机，按住菜单键开机，否则贴标臂参数未锁定状态无法修改。

8.安装标签纸时，必须确保便签纸卡在挡纸块中间，否则打印过程中标签纸会跑偏，导致打印位置偏

23.2 Increase the rewind shaft friction plate pressure to increase the liner pressure.

23.3 The rewind shaft friction plate is worn; replace it.

24. How to check print & apply air pressure

24.1 When pressure is insufficient the sound changes noticeably; check the air treatment unit gauge pointer; normal operating pressure should reach 0.5.

25. Multiple labels appear at once

25.1 Check whether the media type in print parameters matches the label type used.

25.2 Check the label size set in print parameters.

25.3 Perform sensor calibration on the printer.

26. Printer has no response after receiving data

In the menu Factory Settings find Debug Mode and check whether the received data matches the sent data.

Appendix 2: Precautions

1. When using any printer model, ensure the power supply is grounded.
2. All products must be maintained regularly; clean the printhead and sensors with alcohol regularly; mechanical structures may loosen over long-term use and need tightening.
3. During labeling, since the number of air holes on the labeling plate is determined by the intended label size, after switching to smaller labels the label may not adhere to the plate; block the extra air holes.
4. When the print content is offset, adjust the coordinate offset accordingly.
5. After setting network parameters, power off and restart to save them.
6. After installing the driver, disable bidirectional support in the printer port properties; otherwise the printer may error when receiving print jobs.
7. When modifying labeling arm parameters, power off first and hold the Menu key while powering on; otherwise the locked parameters cannot be modified.
8. When installing label stock, ensure it is clamped between the media guides; otherwise it will drift during printing, causing offset or an out-of-paper alarm.

移或出现缺纸报警。

说明书名称解释

1	热敏(直热或热感)	是一种使用热敏标签打印的方式,纸张表面有热敏涂层,可以受热变黑,这种方式不需要碳带(色带),但是打印耐久性差,不能接受阳光暴晒,采用这种方式打印,打印机也要设置成这种模式,否则会报碳带错误.
2	热转印(碳带打印)	是一种需要使用碳带(色带)才能打印的方式,标签不需要热敏涂层,打印内容不易丢失,标签的材质和碳带的材质有很多,由于我们的材料经过了各种性能测试符合打印和贴标要求,推荐使用Nmark系列标签和碳带.采用这种方式,需要将打印机设置成热转印方式,否则碳带缺失的时候,打印机不会报警.
3	热敏标签	带热敏涂层的标签,不需要碳带,可以直接打印.
4	碳带(色带)	用于热转印打印,是通过打印头的加热,将碳带上的墨粉转印到标签纸上,碳带主要分腊基 混合基 树脂基 三种材质,Nmark都有对应的材质的产品,用碳带打印的标签,保存持久,字迹和图案清晰.
5	黑标传感器 (反射传感器, 黑色标记传感器)	位于打印胶辊的后面一厘米左右的位置,可以左右移动,该传感器必须位于标签纸的下方,用于检测标签间隙,实现标签的准确定位 贴标机一般选择这个黑标传感器 不要选择其他的传感器.
6	穿透传感器 (有间隙的标签)	贴标机一般不选这个传感器.
7	黑标阈值	是指打印机区分黑标部分和标签部分的检测电压值,一般是取传感器识别黑标部分(标签间隙部分)和识别标签部分电压值的两者的平均值
8	剥离	是指将标签和底纸分离开,用于贴标.
9	打印数量不受 控模式/受控模 式	客户打印的标签数量不固定时,打印机会自动打印前一个标签,一直到客户下发其他的标签为止,受控模式时,打印机打印的数量按照上位机下发的数量打印.
10	模板打印	是指预先通过Nmark的Barlabel软件编辑一个模板,并且定义好需要的变量,然后下载模板到打印机.
11	打印分辨率	打印机芯的打印头的分辨率,目前支持203dpi 306dpi 600dpi 打印分辨率越高打印的内容越细腻不容易出现锯齿),如果打印条码,条码的总长度可以更小,一般推荐203dpi和306dpi 的分辨率,600dpi分辨率会影响打印速度和增加打印机的成本.
12	打印头	打印头是打印机的核心部件,也是一个易损件,它会受标签纸的磨损而消耗,打印到一定的公里数就要更换.
13	贴标板复位传感器 S1	位于气缸的上部,贴标板回到原始位置以后,该传感器亮起,贴标机判定贴标板已经回到原始位置,打印机就可以开始打印剥离.
14	标签有无检测传感 器S2	位于贴标板上,用于测试贴标板上的标签是否存在,正常的情况,应该是标签剥离以后吸附在贴标板上,传感器应该亮起,贴标板完成贴标以后,该灯应该熄灭不然贴标机就会报错S2传感器错误.
15	贴标完成传感 S3	位于贴标头固定块的缝隙处,用于测试贴标压力,贴标压力到达一定数值,触发该传感器动作,贴标机认为已经贴标完成.
16	贴标板(吸标板)	位于贴标臂端部,用于吸取标签,有真空吸附.
17	贴标臂	用于贴标动作的气缸及导向组合件,长度可以订制

Glossary of terms

1. Thermal direct (direct thermal / thermal) - a printing method using thermal label stock; the media surface has a thermal coating that darkens with heat; no ribbon needed, but durability is poor and it cannot withstand direct sunlight. The printer must be set to this mode, otherwise it will report a ribbon error.
2. Thermal transfer (ribbon printing) - requires ribbon; labels need no thermal coating; the print is durable. Many label and ribbon materials exist; since our materials pass various performance tests for printing and labeling, Nmark series labels and ribbons are recommended. The printer must be set to thermal transfer, otherwise when the ribbon is missing the printer will not alarm.
3. Thermal label - a label with a thermal coating; no ribbon, direct printing.
4. Ribbon - used for thermal transfer; the printhead heat transfers the ribbon ink to the label. Ribbons are mainly wax, wax/resin, and resin; Nmark has products for each. Ribbon-printed labels last long with clear text and graphics.
5. Black mark sensor (reflective sensor, black mark sensor) - located about 1 cm behind the platen roller, movable left/right; must be under the label to detect the label gap for accurate positioning; labeling machines generally select this sensor, not others.
6. Through-beam sensor (labels with gaps) - labeling machines generally do not select this sensor.
7. Black mark threshold - the detection voltage distinguishing the black mark from the label; generally the average of the sensor voltages when reading the black mark (gap) and the label.
8. Peel-off - separating the label from the liner for labeling.
9. Uncontrolled/controlled print count - when the number of labels is not fixed, the printer prints the previous label until the customer sends another; in controlled mode the printer prints the number sent by the host.
10. Template printing - pre-edit a template with Nmark Barlabel, define the variables, then download the template to the printer.
11. Print resolution - the printhead resolution of the print engine; currently 203 dpi / 306 dpi / 600 dpi. Higher resolution gives finer, less jagged content; for barcodes the total length can be smaller. 203/306 dpi are generally recommended; 600 dpi affects print speed and cost.
12. Printhead - the core component and a wear item; it wears from label stock and is replaced after a certain mileage.
13. Labeling plate reset sensor S1 - located above the cylinder; when the labeling plate returns to the origin the sensor lights and the machine determines the plate has returned, so the printer can start printing/peeling.
14. Label presence sensor S2 - on the labeling plate, detects whether a label is present; normally after peeling the label adheres to the plate and the sensor lights; after labeling it should go off, otherwise the machine reports an S2 sensor error.
15. Labeling complete sensor S3 - located in the gap of the labeling head fixing block, detects labeling pressure; when pressure reaches a value the sensor triggers and the machine considers labeling complete.
16. Labeling plate (label pickup plate) - at the end of the labeling arm, uses vacuum to pick up labels.
17. Labeling arm - the cylinder and guide assembly for the labeling action; the length is customizable.



N-mark 打印贴标机视频列表

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N-mark 打印贴标机视频列表

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深圳艾维码科技有限公司

Shenzhen Aiweima Technology Co.,Ltd.

深圳市光明区公明街道西田社区展辉路 60 号蜂巢科创厂 2 栋 908

邮编：518102

电话：4006018009

网址：<http://www.n-mark.cn>

Shenzhen Aiweima Technology Co., Ltd.

Room 908, Building 2, Fengchao Innovation Factory, No. 60 Zhanhui Road, Xitian Community, Gongming Subdistrict, Guangming District, Shenzhen

Postcode: 518102

Tel: 4006018009

Website: <http://www.n-mark.cn>