

Scrape-Apply Labeling Machine

(Print & Apply System)

User Manual

Bilingual Edition / 中英对照版

English translation of the Chinese scrape labeling machine manual
(source PDF: 06____.pdf, 77 pages)



刮贴

使用说明

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User Manual

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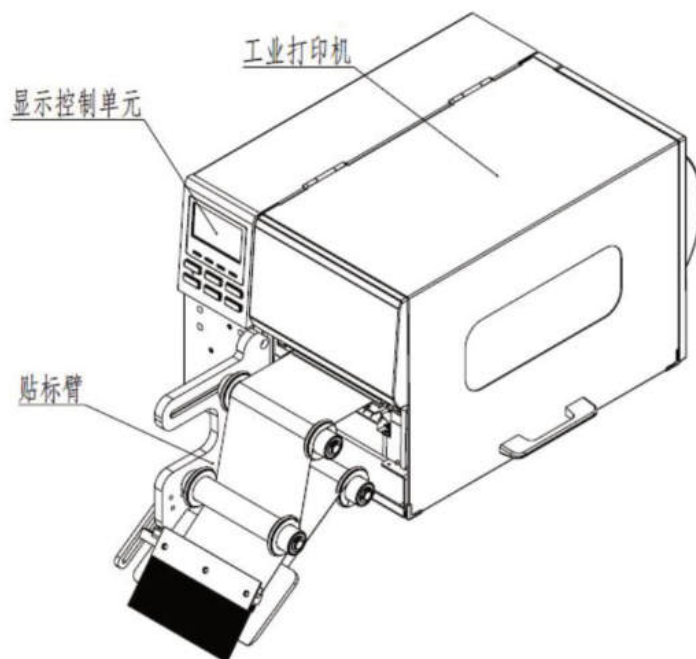
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一、刮贴篇

刮贴机整体结构



刮贴机性能指标

1. 物品清单

- 1.1 工业打印机
- 1.2 贴标臂

2. 刮贴机打印性能

- 2.1 打印模式：热转印/热感
- 2.2 分辨率：203dpi/306dpi (V420BT/V430BT)
- 2.3 标签尺寸：最大宽度 110mm 最大长度 300mm

I. Scrape Labeling Section

Overall Structure of the Scrape Labeling Machine

Scrape Labeling Machine Performance Specifications

1. Items list
 - 1.1 Industrial printer
 - 1.2 Labeling arm
2. Scrape labeling machine printing performance
 - 2.1 Print mode: Thermal transfer / Direct thermal
 - 2.2 Resolution: 203 dpi / 306 dpi (V420BT / V430BT)
 - 2.3 Label size: Maximum width 110 mm; maximum length 300 mm

- 2.4 纸卷长度：180m
- 2.5 色带长度：300m/300m (V420BT/V430BT)
- 2.6 打印速度：150mm 每秒/125mm 每秒 (V420BT/V430BT)
- 2.7 最大打印宽度：104mm
- 2.8 最大打印高度：300mm

3.刮贴机贴标性能

- 3.1 贴标方式：刮贴
- 3.2 贴标方向：水平
- 3.3 标签尺寸：最大宽度 110mm 最大长度 300mm
- 3.4 外部信号：输入 1：触发打印 输出 1：打印完成
 输入 2：触发贴标 输出 2：贴标完成
 输入 3：清除数据 输出 3：故障报警

4. 刮贴机打印贴标软件

- 4.1 标签编辑：NSCL 指令集
- 4.2 通讯端口：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.需要的耗材

- 6.1 碳带
- 6.2 标签

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2.4 Roll length: 180 m

2.5 Ribbon length: 300 m / 300 m (V420BT / V430BT)

2.6 Print speed: 150 mm/s / 125 mm/s (V420BT / V430BT)

2.7 Maximum print width: 104 mm

2.8 Maximum print height: 300 mm

3. Scrape labeling machine labeling performance

3.1 Labeling method: Scrape labeling

3.2 Labeling direction: Horizontal

3.3 Label size: Maximum width 110 mm; maximum length 300 mm

3.4 External signals:

Input 1: Trigger print; Output 1: Print complete

Input 2: Trigger labeling; Output 2: Labeling complete

Input 3: Clear data; Output 3: Fault alarm

4. Scrape labeling machine print & apply software

4.1 Label editing: NSCL command set

4.2 Communication ports: Network port input, USB input, serial input

4.3 Label printing: The user sends the label print data to the print & apply system directly

4.4 Printing methods: Windows PC driver printing; command-set control printing; template control printing

5. Warranty terms

5.1 Printhead warranty: 30 km or three months, whichever comes first

5.2 The print main unit and labeling body are warranted for one year

5.3 Consumables excluded

6. Required consumables

6.1 Thermal transfer ribbon

6.2 Labels

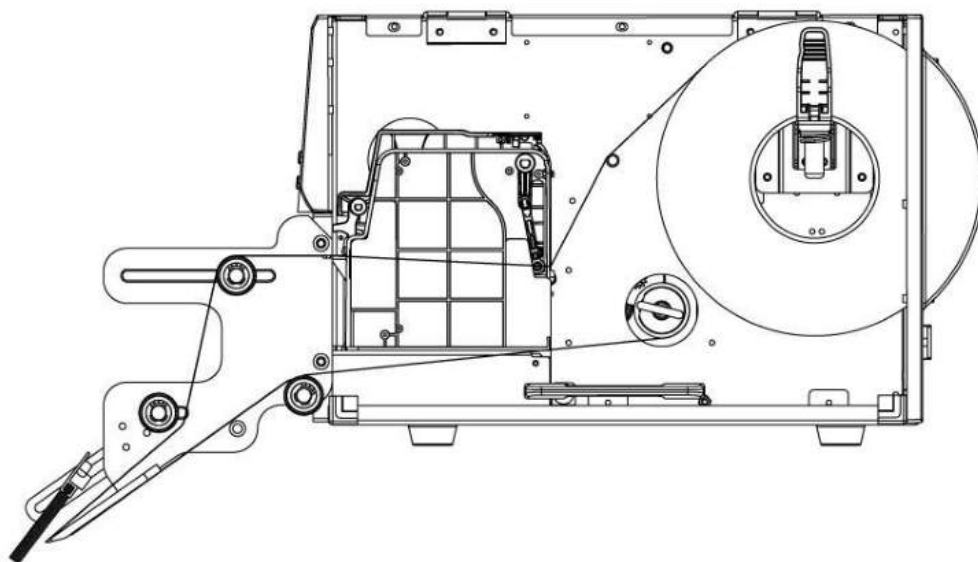
刮贴机使用及维护

1.设备使用 AC220V 电源。

2.初次使用设置：

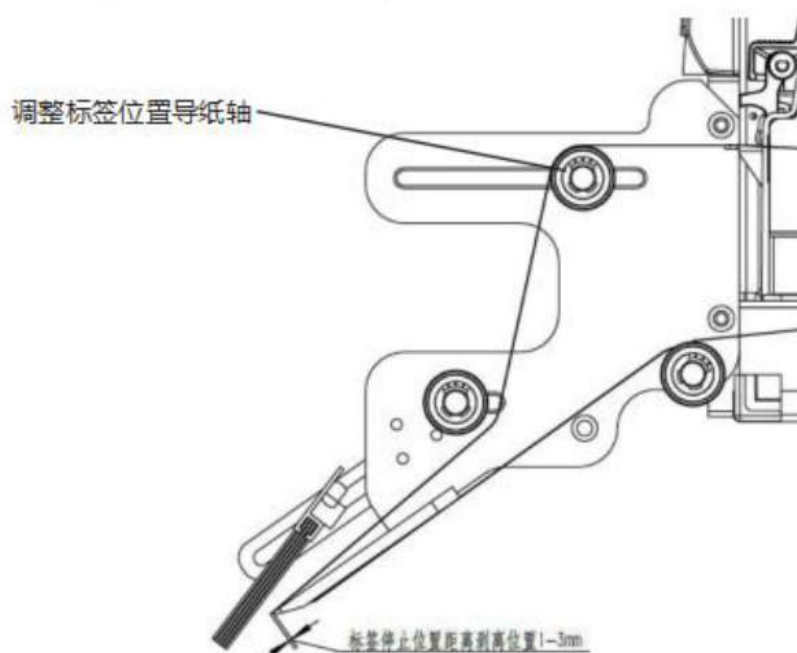
1) 设置打印参数标签大小与实际标签相符（宽度及高度）：菜单—打印参数—标签高度（标签宽度）

2) 如图安装标签纸



3) 初次测试：触发打印传感器插于后部面板打印信号接口，按键：菜单—贴标臂—参数—脱机模式(出厂默认打印使能开启)，遮挡传感器进行贴标走纸，贴几次标签，标签停留位置稳定后需进行标签停止位置调整。注意每次剥离开标签及时取走避免粘贴到其它物体上。

4) 标签停止位置调整:前后调整导纸轴使得标签停止位置距离剥离位置 1-3mm，或根据实际需要调整，剥离片下部距离被贴物体尽量近 1-5mm 为宜。

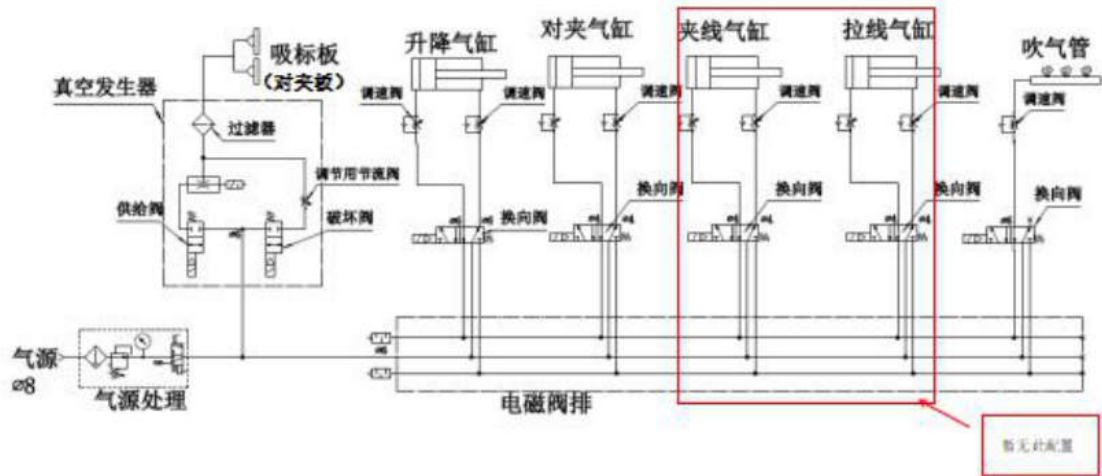


3.刮贴机配合生产线使用打印速度为 2-6 即 50-150mm/s,打印速度要大于生产线传送速度。

Scrape Labeling Machine Use and Maintenance

1. The equipment uses an AC 220 V power supply.
2. Initial setup:
 - 1) Set the print parameter label size to match the actual label (width and height): Menu > Print Parameters > Label Height (Label Width).
 - 2) Install the label stock as shown in the figure.
 - 3) Initial test: Plug the trigger print sensor into the print signal interface on the rear panel. Keys: Menu > Labeling Arm > Parameters > Offline Mode (print enable is on by factory default). Block the sensor to perform labeling and media feed; apply a few labels. Once the label stop position is stable, adjust the label stop position. Note: remove each peeled-off label promptly to avoid it sticking to other objects.
 - 4) Label stop position adjustment: Adjust the media guide shaft forward or backward so the label stop position is 1-3 mm from the peel position, or adjust as needed. The lower part of the peel plate should be as close as possible to the object being labeled, ideally 1-5 mm.
3. When the scrape labeling machine works with a production line, the print speed is 2-6, i.e. 50-150 mm/s; the print speed must be greater than the production line conveyor speed.

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

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 111111，22222。。。。，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 UTF8 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。

Pneumatic Schematic Diagram

Pneumatic schematic diagram - see the original Chinese document for the image.

Wear-Part 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

Operation and Control

Software Connection to Print & Apply System - Handling Instructions

1. About the print command file used by the print & apply system.

The customer provides the detailed label layout, and we generate a command file (text format) that the printer can recognize. In the file, the fields that the user needs to vary (such as product name, number, barcode number, etc.) are specially processed, e.g. 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 can return success or failure to the user, plus fault information after failure; the fault information is reflected bit by bit in the returned information.

2. Template printing

Download the template file

Use BarLabel software to generate the template file xxx.FRM and download it to the printer.

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
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

Invoke Template Printing

```
FR"xxx.FRM" // invoke template "xxx.FRM"  
? // parameter prompt  
1 // value of the first parameter  
Kg // value of the second parameter  
4.2 // value of the third parameter  
P1,1 // start printing
```

3. About the printer network port usage

The network port on the rear panel of the device has three uses: template download, network printing, and status feedback. Each is described below.

Before using the network port, first make sure the print & apply system and the host computer are on the same subnet. The factory default IP of the print & apply system is 192.168.1.69, the gateway is 192.168.1.1, and the port is 9100. The user can set the IP address and local port under System Settings > Communication Interface > Network Interface. The print & apply system has two network ports, 9100 and 9200. Port 9100 is used for receiving print data, downloading print templates, and receiving control commands; port 9200 is mainly used for outputting the status of the print & apply system.

Usage instructions

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) to download, and fill in the IP address and IP port of the print & apply system. The print template can then be downloaded to the print & apply system via the network port.

When using the FR command to invoke the print template, the FR command can also be sent via the network port.

2) Network printing

Network printing can be divided into direct printing and driver-invoked printing. Direct printing sends the print content to the print & apply system as a command set via the TCP/IP protocol; the printer TCP/IP connection is a server-side long connection. Driver-invoked printing means installing the Nmark printer driver; the host computer sends the label data to the print & apply system by invoking the printer driver.

2.1) Direct printing

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。

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	0	5000	0	☐	未选择
☒ 3	10 04 B0 00 04 08 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 为 11111111 的十六进制)

For direct printing, the user can edit labels with the company's Barlabel label editing software, which can print labels without installing a driver. When printing, the user selects Network Printing and fills in the printer IP address and port, and the label data can be sent directly to the printer via the network port.

2.2) Driver-invoked printing

For network driver-invoked printing, the user needs to install the network driver for the corresponding print & apply system model on the computer (refer to the Nmark print & apply system driver installation tutorial and user manual), then send the print data through the network driver.

2.3) TCP MODBUS invocation method

Taking the MThings software as an example:

Printer IP is 192.168.1.229, port 9400.

After the connection is established, send the data:

10 03 e8 00 03 06 31 2E 46 52 4D 00 (03 e8 corresponds to 1000; 31 2E 46 52 4D 00 is the hex of "1.FRM")
10 04 4C 00 04 08 31 31 31 31 31 31 31 31 31 (04 4C corresponds to 1100; 31 31 31 31 31 31 31 31 is the hex of "11111111")

10 04 B0 00 04 08 32 32 32 32 32 32 32 32(04 B0 对应 1200,32 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:

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

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10 04 B0 00 04 08 32 32 32 32 32 32 32 32 (04 B0 corresponds to 1200; 32 32 32 32 32 32 32 32 is the hex of "22222222")

10 13 88 00 01 02 00 01 (13 88 corresponds to 5000; 00 01 starts printing)

2.4) Notes on invoking the Barlabel background print process

(1) Background print process executable file: NMKPCL_Cmd.exe

(2) Description of the command line input to the background print process:

1. Select print port:

/I=USB // select USB printing

/I=NET:192.168.1.69,9100 // select network printing, set IP address and port

2. Select the print template file:

/F=xxx.BLX // xxx.BLX is the print file created with Barlabel

3. Modify the text content in the template:

/VT=Text0:1234 // Text0 is the text object name; 1234 is the modified text content

4. Modify the barcode content in the template:

/VB=CodeBar0:1234 // CodeBar0 is the barcode object name; 1234 is the modified barcode content

5. Start printing:

/P

Special note: The order of items 1 and 2 above cannot be changed; they must be placed as the first two parameters. Items 3 and 4 are added according to actual needs, with no limit on quantity, and item 5 must be placed last.

(3) Description of background print process return values:

0: Print process executed successfully

-1: Process kernel error

-2: Process kernel error

-3: Missing required print parameter items (steps 1, 2 and 5 in "II. Description of the command line input" are mandatory for printing)

-4: BLX file loading error

-5: USB port opening error

-6: Network port opening error

-7: Network parameter format error (/I=NET:192.168.1.69,9100, where 192.168.1.69 is the IP address and 9100 is the port; the "." and "," in between are required)

-8: No print port selected

-9: No BLX file selected

-10: Error occurred while printing BLX

Example: There is a label file test.BLX in the root directory of drive C.

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
```

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

The NMKPCL_Cmd.exe file is in the Release folder on drive D.

Replace the Text0 text content in the label with 1234 and CodeBar0 with 5678, and print via USB.

The execution code is as follows:

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

3) Status feedback

The user can monitor the print & apply system status via port 9200. After the software connects to the printer, it sends data that the printer can recognize; the printer executes the specified command or the label data command. The software can then receive the information returned by the printer and obtain the fault information after printing succeeds or fails.

Description of the returned fault information

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

The above is the information returned by a printer after printing (0X indicates hexadecimal data). Each data item is described as follows:

byte0: Data start flag

byte1, byte2:

0XFF 0XFF - Printing in progress

0XFF 0XFE - Print complete

0XFF 0XFD - Labeling complete

0XFF 0XFC - Printer idle

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

byte5: Separator character

byte6, byte7, byte8, byte9: Corresponding to bit31...bit0; setting the corresponding bit to 1 indicates a different error state of the printer, where:

bit0 - Print paused

bit1 - Printhead lifted

bit2 - Out of paper

bit3 - Ribbon error

bit4 - Ribbon missing

bit5 - Black mark error

bit6 - Printhead temperature too high

bit7 - Printhead voltage too low

bit8 - Print data error

bit9 - Cutter error

bit10 - Program reset / restart

bit11 - Labeling arm error

...

bit24: Remaining label count of the printer

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

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。

bit25: Remaining label count of the printer

bit26: Remaining label count of the printer

bit27: Remaining label count of the printer

bit28: Remaining label count of the printer

bit29: Remaining label count of the printer

bit30: Remaining label count of the printer

bit31: Remaining label count of the printer

byte10: Data end flag

...

During printing, the printer returns printer status data in real time.

When the printer is idle, it returns one status data record every 5 seconds.

4) Barcode-scan printing

The user can connect a network barcode scanner via the network port for barcode-scan printing. In environment deployment, the printer acts as the server and the scanner as the client using TCP/IP communication. When configuring the scanner, the server IP address is the printer IP address and the data port is 9300. This method is suitable for offline template printing; the information obtained by the scanner can be used to replace the variables in the template and trigger printing.

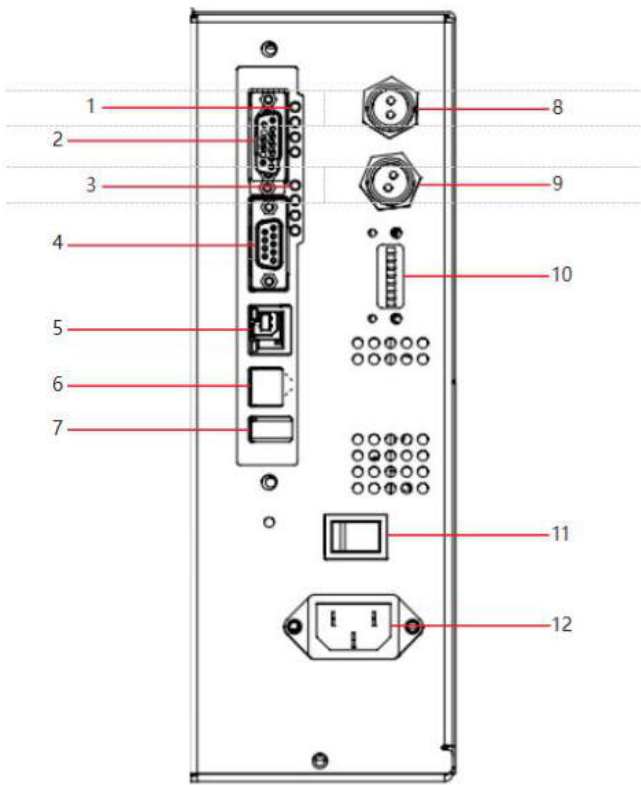
硬件连接说明

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 IO Interface Wiring Instructions

Scope of application

Version date: 2025-01-17

Scope: V4X0A-1.0BGA mainboard, V4X0B mainboard, V460A-1.0B mainboard

1. Rear Panel Interface Definitions

1 - Output power indicator; 2 - Print complete indicator; 3 - Labeling complete indicator; 4 - Alarm signal indicator

2 - Signal input / signal output interface C

3 - 5. Print enable indicator; 6. Labeling enable indicator; 7. Clear data indicator; 8. Clear error indicator

4 - RS232 data serial port

5 - RJ45 data network port

6 - USB data interface

7 - USB device interface

8 - Start printing aviation plug A

9 - Start labeling aviation plug B

10 - 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 - Power main switch

12 - Power cord interface

1.1 Power on/off method

Power on: press the "power main switch" to the "--" closed position.

Power off: press the "power main switch" to the "O" open position.

1.2 Sensor selection switch usage (change only after powering off)

When the printed label height is very small, a through-beam sensor can be used to make label media feed more accurate.

Sensor selection switch: 1-4 way DIP switch; 5-8 way DIP switch.

Select reflective sensor: ON, numeric side.

Select through-beam sensor: numeric side, ON.

1.3 "RS232 data serial port" DB9 pin definitions:

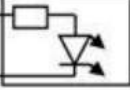
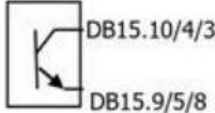
Printer serial port DB9 (female)

Pin	Function	Abbreviation
1	Floating	
2	Transmit data	TXD
3	Receive data	RXD
4	Floating	
5	Signal ground	GND
6	Floating	
7	Floating	
8	Floating	
9	Floating	

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

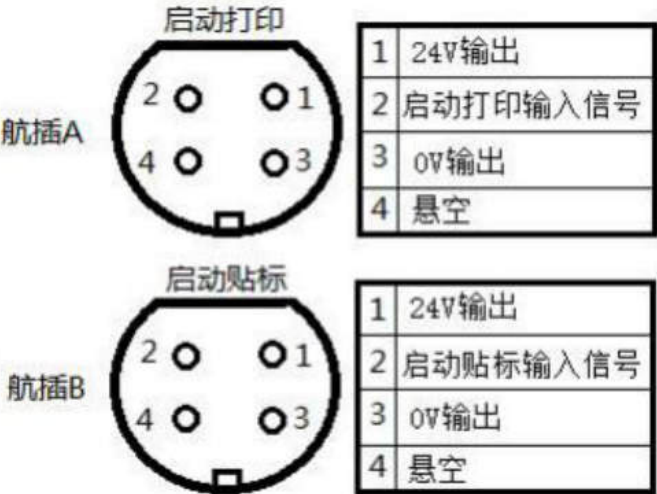
Pin	Wire color	Pin definition	Abbreviation	Pin	Wire color	Pin definition	Abbreviation
14	Pink	Output 24V	24V	10	Blue	Print complete output +	ENDP+
15	Light green	Output 0V	0V	9	Green	Print complete output -	ENDP-
3	Brown	Alarm signal output +	ALM+	11	Purple	Clear data input +	CLR+
8	Yellow	Alarm signal output -	ALM-	12	Gray	Clear data input -	CLR-
4	Brown-white	Labeling complete output +	ENDT+	13	White	Clear error input	CERR
5	Red	Labeling complete output -	ENDT-				

Remaining pins floating

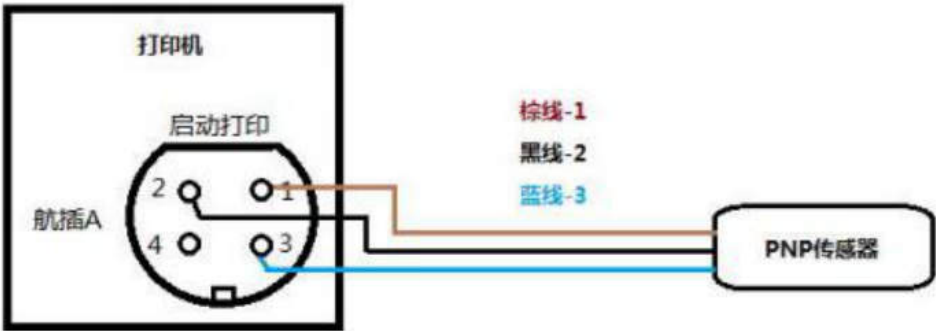
输入信号 (非隔离 PNP 型)	启动打印	输入信号为高电平有效 
	启动贴标	
	清除错误	
输入信号 (光耦隔离型)	清除数据	NPN 或 PNP 型输入 
输出信号 (光耦隔离型)	打印状态	NPN 或 PNP 型输出 
	贴标状态	
	报警状态	

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. Wiring instructions for start-printing aviation plug A and start-labeling aviation plug B

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

- 1) A PNP-type photoelectric sensor must be connected.
- 2) Method of connecting to a PLC.

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

3) Method of connecting to a PLC via a relay.

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

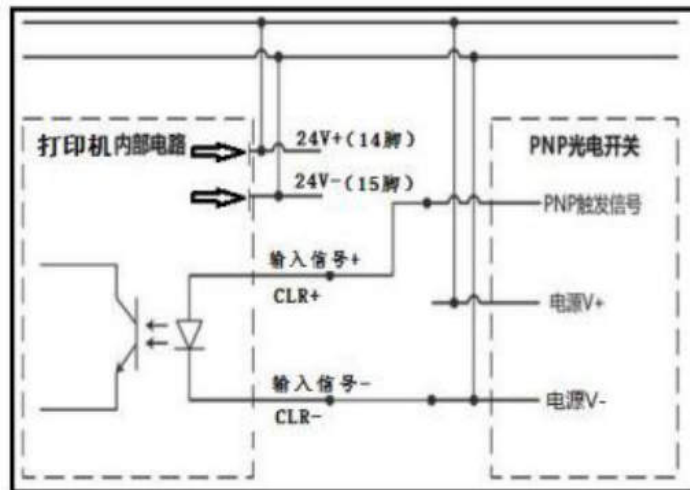
3.1 Clear-data input signal connection

The clear-data input signal is an isolated signal. It can be connected to either an NPN or a PNP input.

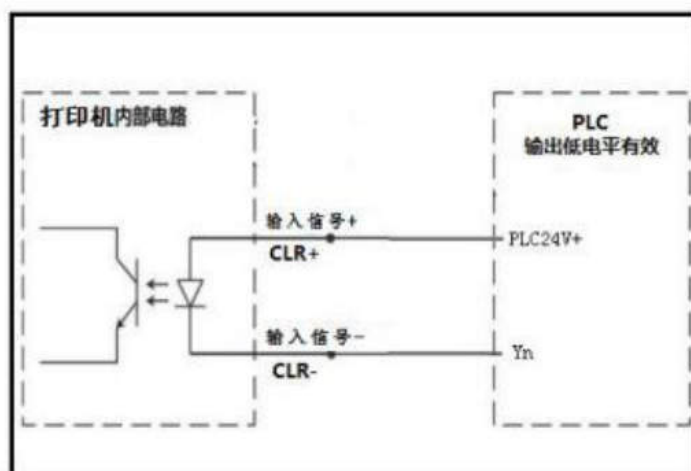
1) Connect an NPN-type sensor.

2) Connect a PNP-type sensor.

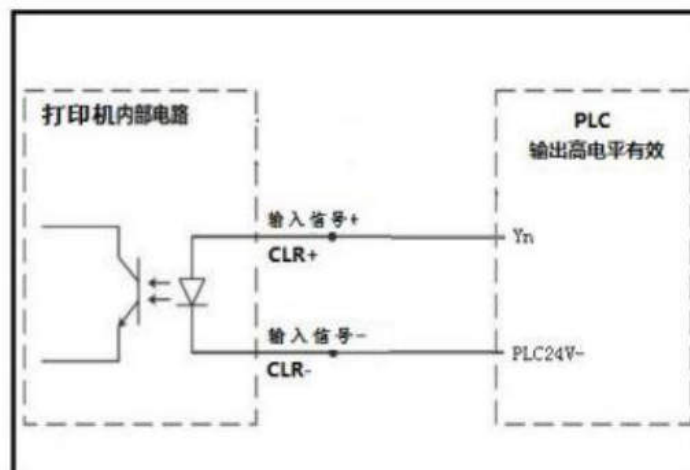
Illustration/diagram page - see the original Chinese document for the image.



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

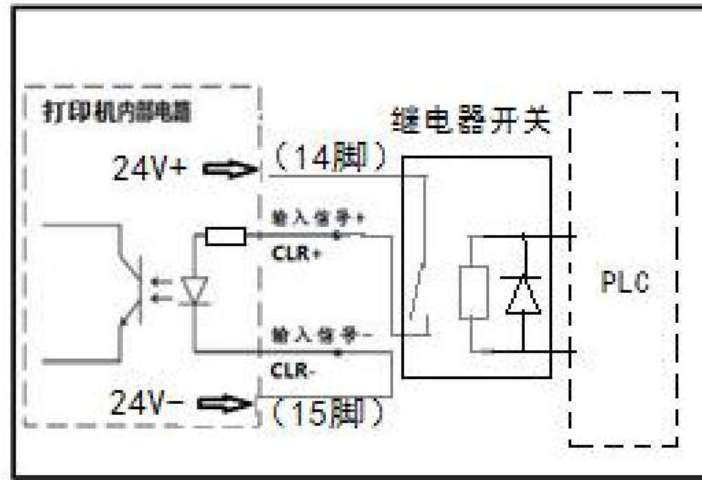


5) 清除数据输入信号经由中间继电器接 PLC 输出端方法

Source page 17 of 77

- 3) Method for interfacing a PLC whose valid output signal is low level.
- 4) Method for interfacing a PLC whose valid output signal is high level.
- 5) Method of connecting the clear-data input signal to a PLC output via an intermediate relay.

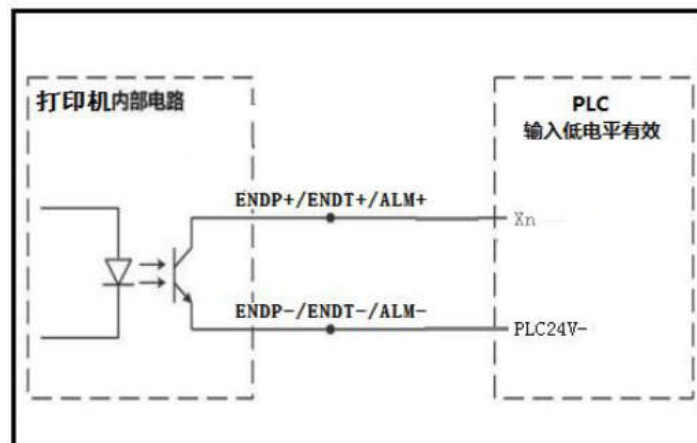
Illustration/diagram page - see the original Chinese document for the image.



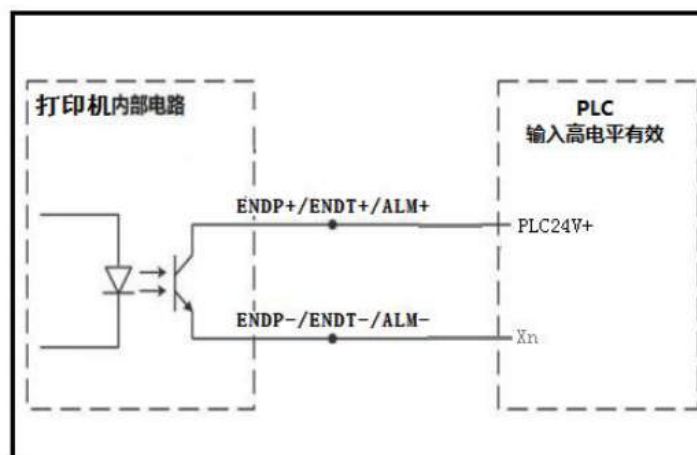
3.2 接口 C-输出信号接法 (打印完成输出、贴标完成输出、报警信号输出)

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



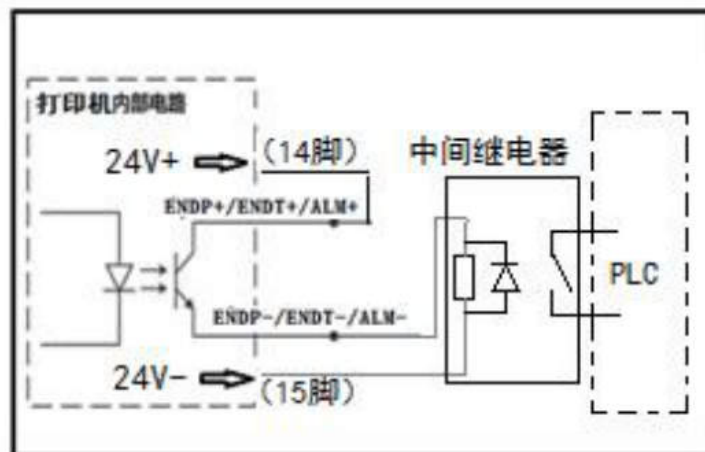
3) 接口 C 输出信号经由中间继电器接 PLC 输入端方法

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

These three output signals are isolated signals. They can be either NPN or PNP outputs.

- 1) PLC input valid signal is low level.
- 2) PLC input valid signal is high level.
- 3) Method of connecting the interface C output signal to a PLC input via an intermediate relay.

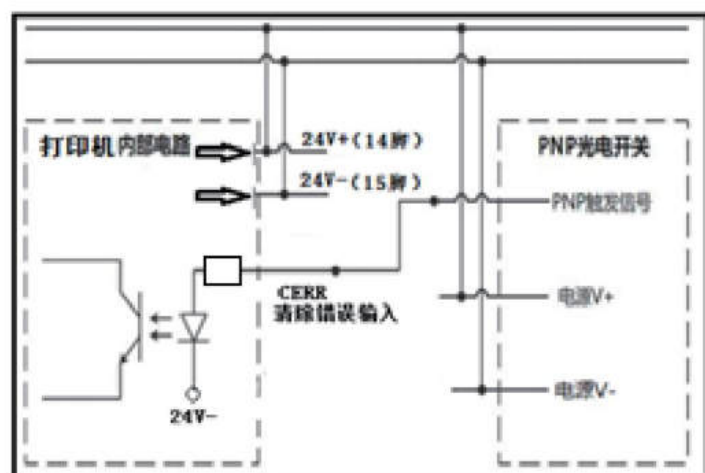
Illustration/diagram page - see the original Chinese document for the image.



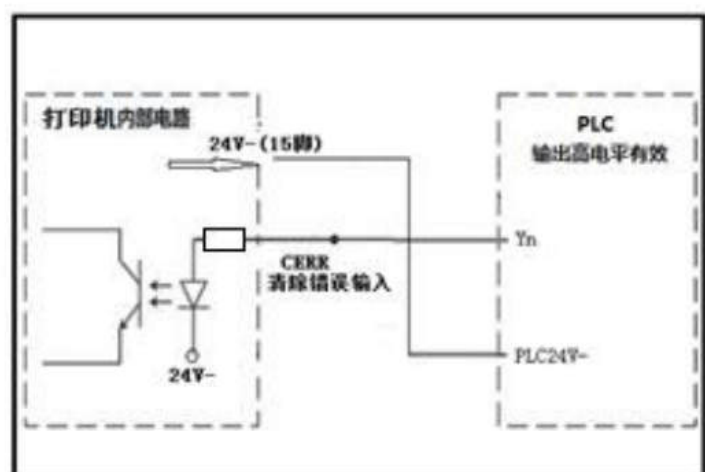
3.3 接口 C-清除错误信号

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



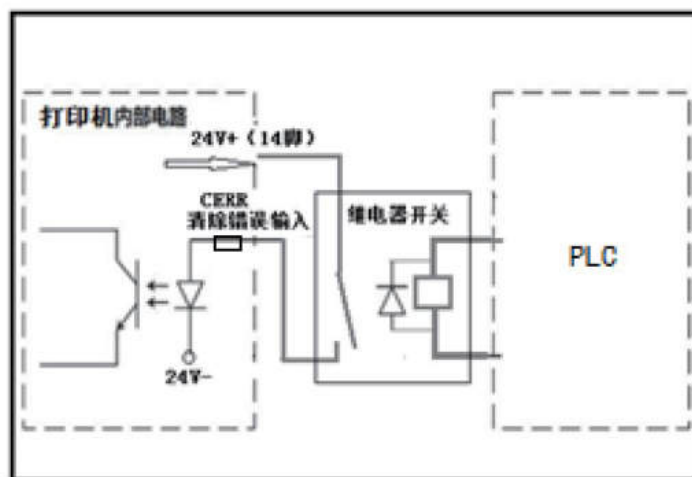
3) 清除错误输入信号经由中间继电器接 PLC 输出端方法

3.3 Interface C - clear error signal

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

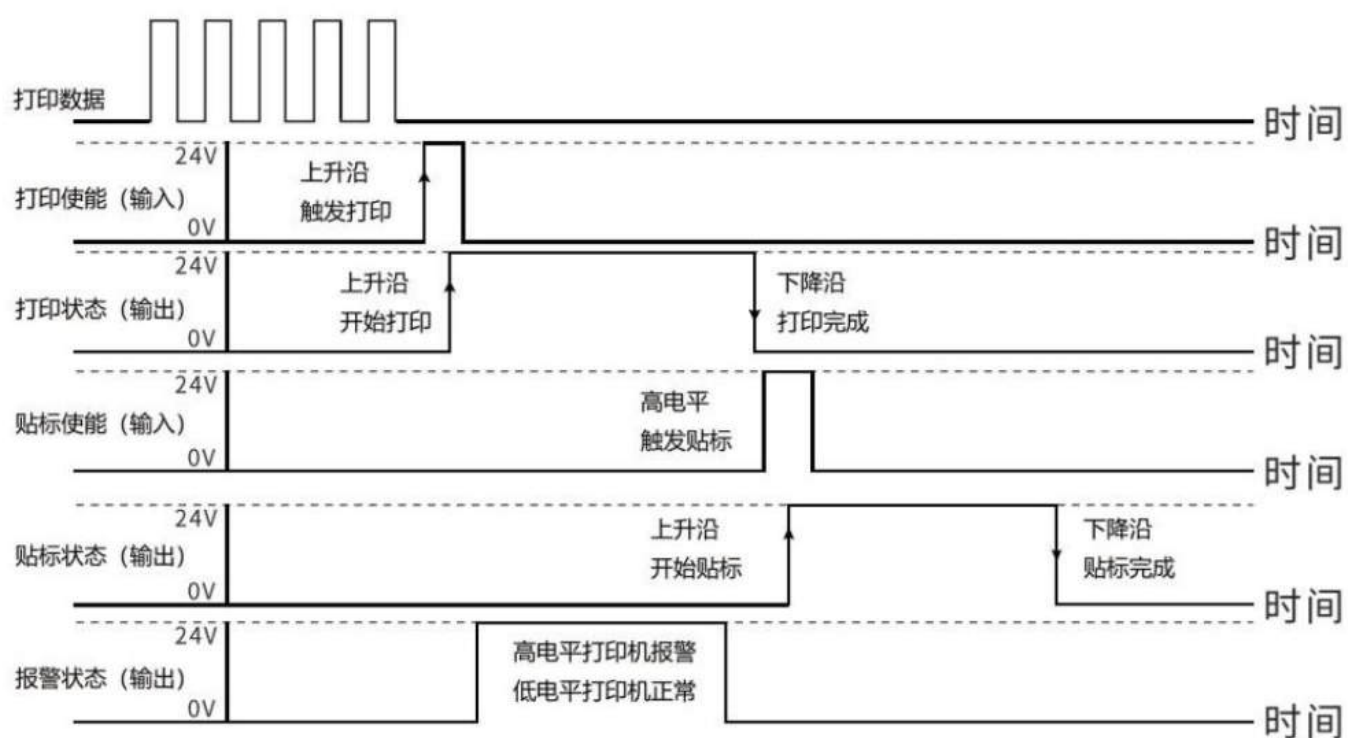
- 1) A PNP-type photoelectric sensor must be connected.
- 2) Method for interfacing a PLC whose valid output signal is high level.
- 3) Method of connecting the clear-error input signal to a PLC output via an intermediate relay.

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：

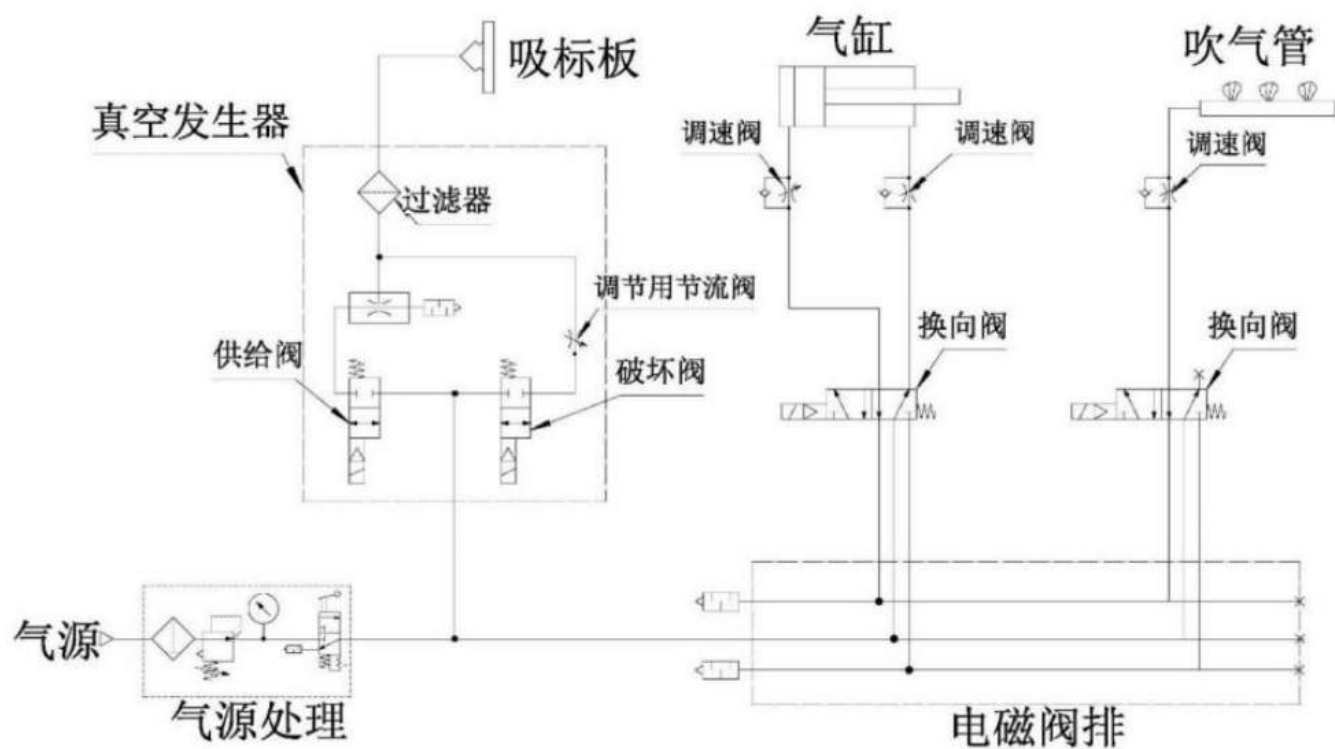


5. 气动原理图

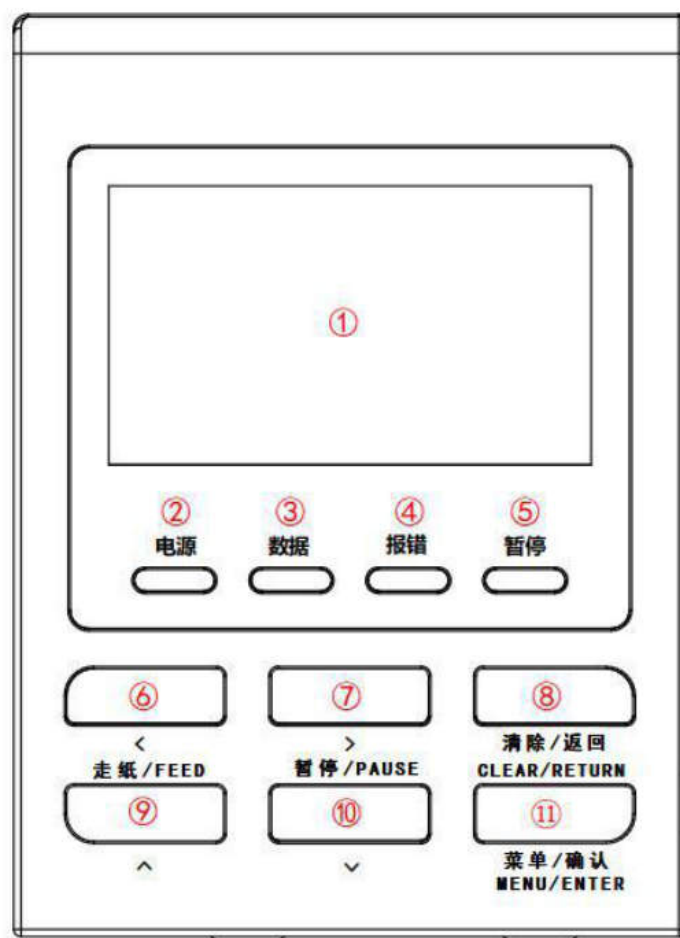
4. Timing diagram

5. Pneumatic schematic diagram

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



控制面板说明



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)

Control Panel Description

- 1 - Display screen: shows the current printer status
- 2 - Power (green indicator)
- 3 - Data (green indicator)
- 4 - Error (red indicator)

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



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

5 - Pause (red indicator)

6 - Each press of "Feed/FEED" forces the printer to feed out one blank label. "<" left arrow key, valid only in the menu.

7 - Pressing "Pause/PAUSE" pauses/resumes printer printing. ">" right arrow key, valid only in the menu.

8 - "Clear" clears errors so the printer can print again. "Back" returns to the previous level or exits the menu, valid only in the menu.

9 - "Up" arrow key, valid only in the menu, can change parameter values; commonly used to increase the option value.

10 - "Down" arrow key, valid only in the menu, can change parameter values; commonly used to decrease the option value.

11 - "Menu" press to enter the menu function.

12 - "Confirm" valid only in the menu. Can select and confirm items on the display screen.

Screen Description

The following is the information shown on the screen after the printer is powered on.

V4X0B-T - Printer model

NSCL - Command set currently used by the printer

Online - Current printer status

Print quantity - 000000 current print count; resets to 000000 after the printer restarts.

Waiting for print data - Waiting for the host computer to send print data to the printer

User Menu

The following is the printer user menu and the 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 Information

10 - System Restart

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
			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

11 - LANGUAGE

12 - Beginner Wizard

1. System Settings

Software Settings

[Password: 1234]

Command set: NSCL / NTPL / NZPL

Trigger mode: Continuous / Single

Parameter lock

Paper type

Media feed offset

Coordinate offset

Label size

Print mode

Print speed

Print darkness

Compatibility mode: DEFAULT / TOSHIBA / ZEBRA

Start offset

Printer identifier: Display / Not display

Defective label reprint

Media retract mode: Retract before printing / Retract after printing

Communication interface: USB / RS232; Baud rate; Data bits

			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	
	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	

Stop bits; Parity

Network interface: IP / Subnet / Gateway / Port

Password setting: Set password / Disable password

Real-time clock: Date / Time / Week

Alarm setting

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: Direct thermal (no ribbon) / Thermal transfer (ribbon printing)

Paper type: Continuous media / Black-mark media

		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	
		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

Source page 25 of 77

Gap media

Print speed

Print darkness

Media feed offset

X-axis offset

Y-axis offset

Text spacing

Print quantity: Controlled / Uncontrolled

3. Sensor Calibration

Sensor auto-detect

Reflective sensor setting

Through-beam sensor setting

Update sensor information

Print sensor curve

4. Labeling Arm

Parameter setting

Labeling type: Industrial machine / Labeling machine / Scrape labeling machine

Rewind motor: Enable / Disable

Print signal: Pulse / Level / Disable

Labeling signal: Pulse / Level

			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
			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	

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Disable

Print cycle

Labeling delay

Rewind length

Rewind speed

Rewind pause

Delayed rewind

Label-drop detection: Enable / Disable

Media retract delay

Media retract speed

Vacuum length

Pressure sensor filtering

In-position signal: Enable / Disable

Labeling complete

Labeling plate reset

Labeling plate disengage

Vacuum hold

Blow-label delay

Rewind hold

Long rewind

Short rewind

Test mode

Single labeling test

Cyclic labeling test

Step labeling test

		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	
		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	

Source page 27 of 77

Labeling arm test

Rewind click test

Print cycle test

Labeling method: Print-and-label / Label-only (no printing)

Manual control: Labeling arm / Air blow tube / Label suction plate / Relay

5. RFID

6. Template Printing

Template

Variable

Mode: FR command / Protocol data / IO signal / Barcode scan

7. Configuration Selection

Config_1 / Config_2 / Config_3 / Config_4 / Config_5

Current config => / Current config <=

8. Factory Settings

Restore factory: No

		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	
	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		

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Yes

System check

System configuration page

Printhead check

Label print test

Real-time check

Printhead temperature

Ribbon sensor

Rewind sensor

USB communication log

Print mileage

Debug mode

Alarm record

9. Version Information

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

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。

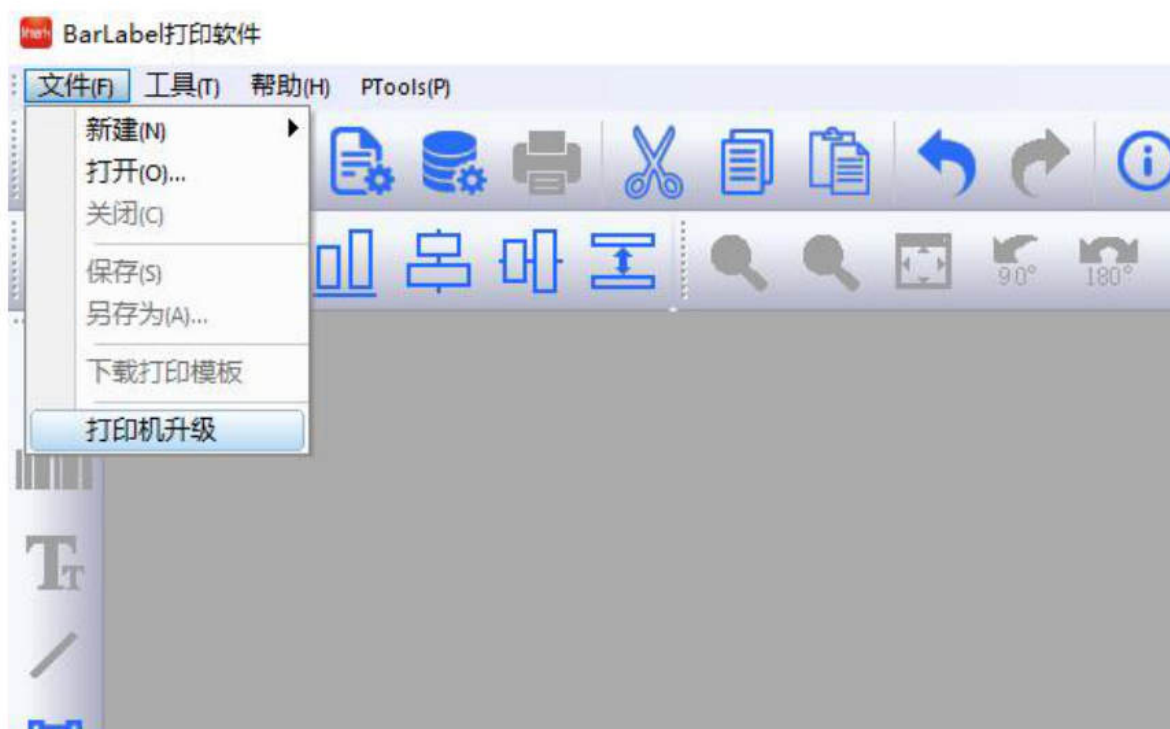
2、菜单设置使用说明：

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。

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

Menu Operation Instructions

1. Labeling arm function usage:

The printer must be powered off. Press and hold the Menu key while turning on the printer switch; when the error indicator flashes, release the key. Then re-enter the menu, and the functions in the Labeling Arm can be modified.

2. Menu setting usage:

After changing parameters or settings in the menu, first return to the main screen, then power off and restart the printer for the changes to be saved and take effect.

Printer Program Upgrade

1. BarLabel upgrade

Open BarLabel software, select "File" > "Printer Upgrade".

Select "Local Upgrade" > "Select", locate the upgrade file, and click Upgrade.



2. PTools 升级

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”

Source page 30 of 77

2. PTools upgrade

Open PTools software, select the printer, and click "Connect".

Click "Advanced Settings" > "Printer Upgrade".



选择“本地升级” -- “选择” 找到升级文件，点击“升级”



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。

Source page 31 of 77

Select "Local Upgrade" > "Select", locate the upgrade file, and click "Upgrade".

3. USB drive upgrade

Prepare a USB drive, format it, and select FAT32 as the file system.

Copy the upgrade file to the USB drive.

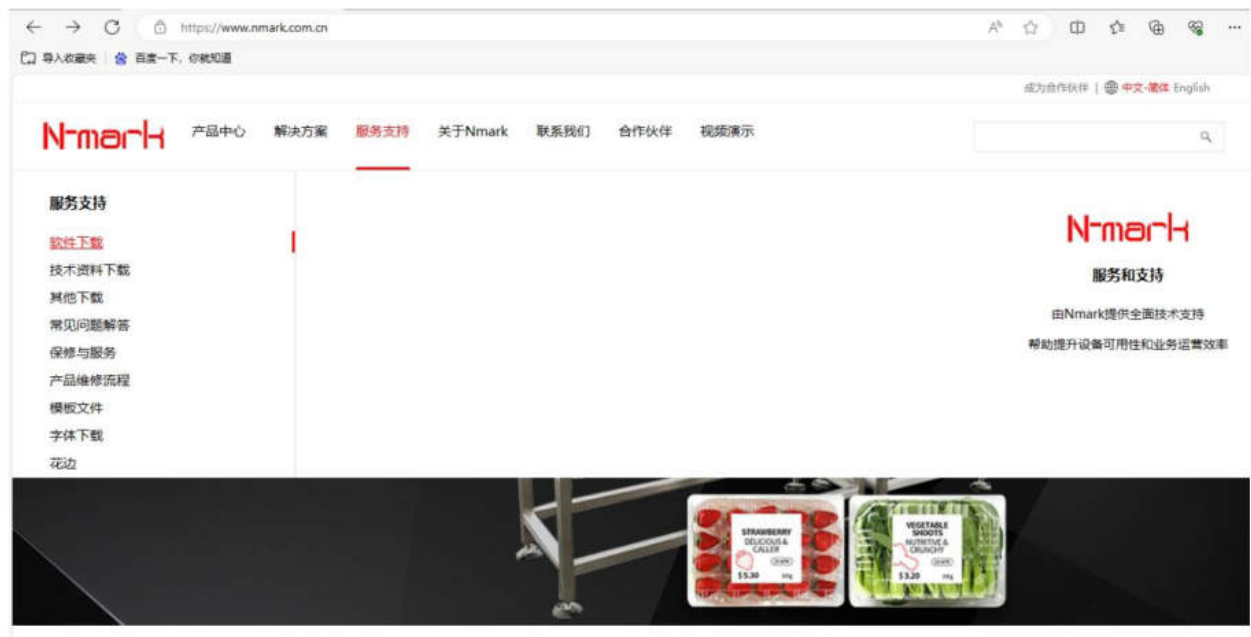
On the printer menu, click "Menu" > "System Settings" > "USB Drive Update", enter the USB drive, select the upgrade file, and click "Confirm".

The printer begins upgrading the program.

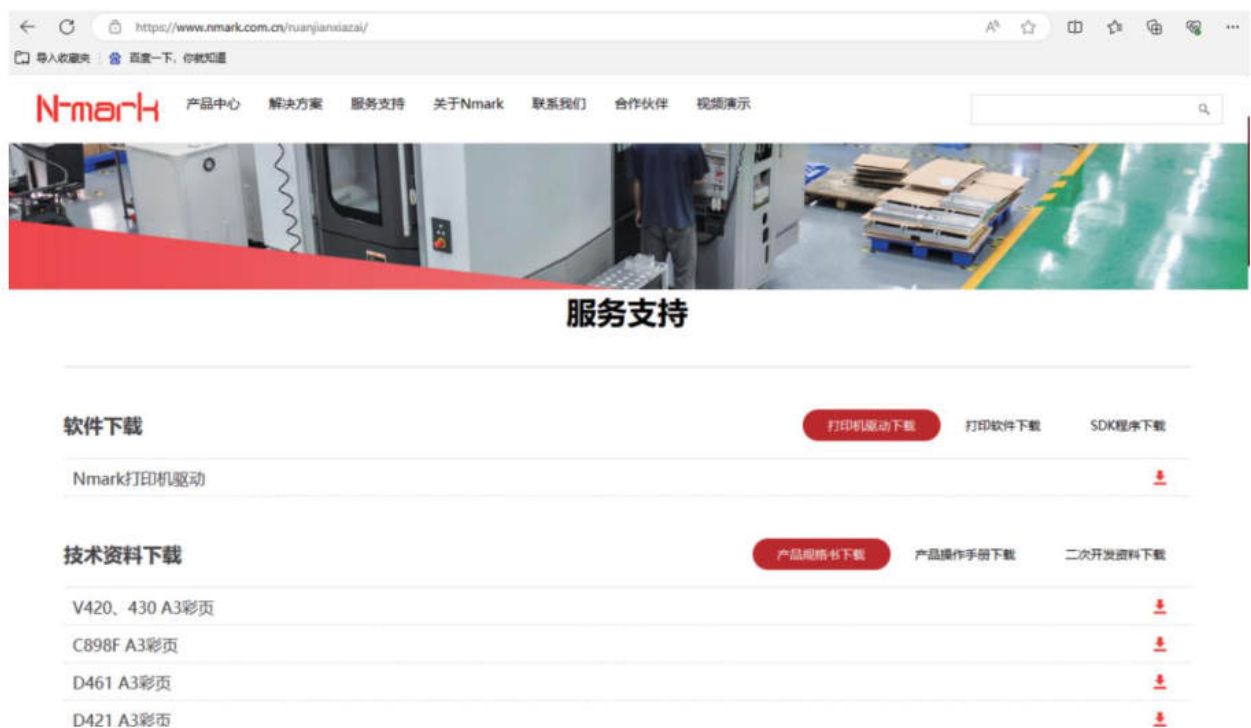
二、驱动安装

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。



II. Driver Installation

Download

1. Enter the official website www.nmark.com.cn in a computer browser, go to the official site homepage, click Service Support, and select Software Download.
2. Click Printer Driver Download, then click the Download button.

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。



3.点击安装驱动

Install Driver

Install USB driver

1. After downloading, extract and open the folder, then double-click Pnlnst.exe to run.
2. Click Next.
3. Click Install Driver.

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

打印机安装向导

安装选项

从列表中选择要安装或卸载的打印机驱动

NiceLabel

→ 安装驱动(I)
安装打印机驱动

→ 更新打印机驱动(D)
未发现合适的驱动

→ 卸载驱动(U)
卸载一个或多个打印机驱动

→ 移除预加载的驱动程序(R)
移除预加载的驱动

退出(E)

<上一步(P)

下一步(N)>

4.选择我同意许可合约的条款，点击下一步

打印机安装向导

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(D)

退出(E)

<上一步(P)

下一步(N)>

5.选择 USB 端口

Source page 34 of 77

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

5. Select the USB port.

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

打印机安装向导

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

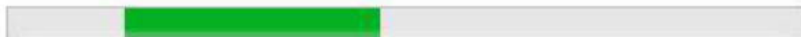
打印机安装向导

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

Source page 35 of 77

6. Reconnect the USB cable.

7. 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 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

打印机安装向导

正在安装设备驱动程序
“打印机安装向导”正在安装设备驱动程序。

NiceLabel

正在安装设备驱动程序。
Nmark D-430

正在安装设备驱动程序。
Nmark D-430

Easily design and print
barcode labels

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取消 (C)

9.安装完成，点击退出

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8. Wait for the installation to complete.

9. Installation complete; click Exit.

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 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)

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

打印机安装向导

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) >

2.选择与打印机对印的驱动程序，点击下一步

Install network port driver

1. Repeat steps 1 to 4 above, and select the network port.
2. Select the driver corresponding to the printer, and click Next.

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

打印机安装向导

选择打印机

请选择您需要安装的打印机型号

NiceLabel

Nmark C-698
Nmark C-699
Nmark C-898
Nmark C-899
Nmark D-420
Nmark D-420B
Nmark D-421
Nmark D-430
Nmark D-430B
Nmark D-431
Nmark D-461
Nmark I-420
Nmark I-430
Nmark I-820
Nmark I-830
Nmark L-220
Nmark ND-3212
Nmark ND-3312
Nmark ND-4212

退出(E) <上一步(P) 下一步(N)>

3.选择创建一个新的网络端口，点击下一步

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(O)

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

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3. Select "Create a new network port", and click Next.

4. Enter the printer IP address; the factory default IP address is 192.168.1.69. Click Next.

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

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

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)

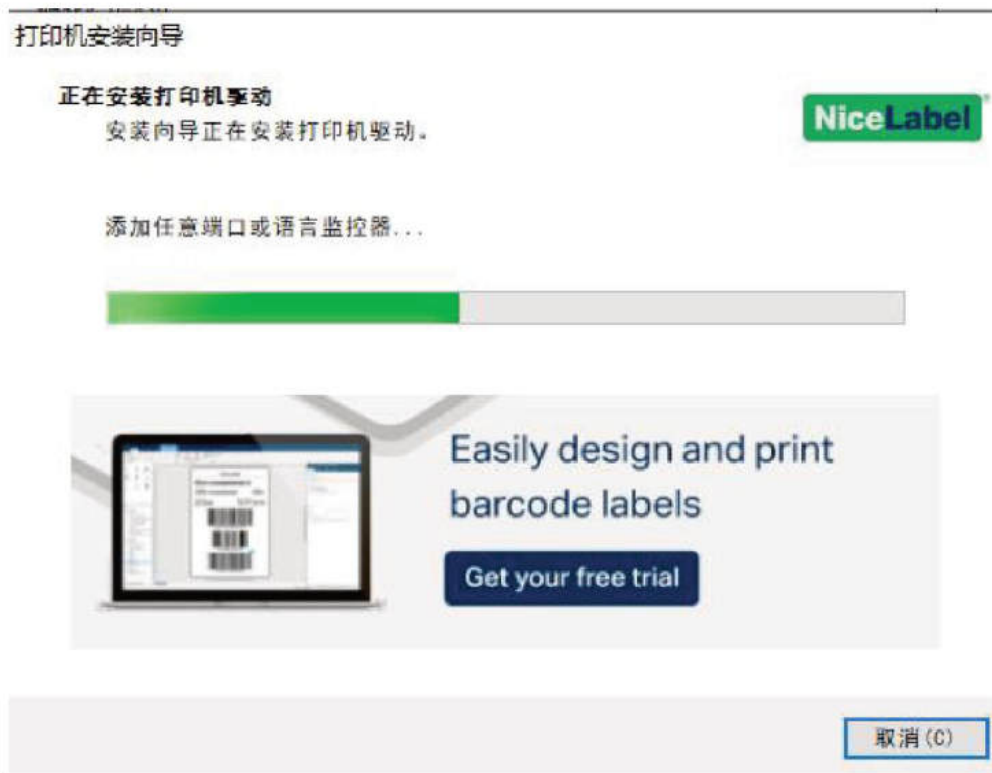
6.等待安装完成

Source page 39 of 77

5. Click Install.

6. Wait for the installation to complete.

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



7.安装完成，点击退出



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。

7. Installation complete; click Exit.

Driver Settings

After installation, go to the computer Control Panel, select Devices and Printers, right-click 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, and the IP address can be modified.

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。

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。

III. Nmark Print & Apply System Ribbon Alarm Description

1. Function description

The ribbon alarm function is a basic function of the Nmark print & apply system. Setting this function allows the user to learn the ribbon usage status immediately, reminding them to replace the ribbon in time and improving production efficiency. The ribbon alarm function has three presentation forms: screen display, IO signal output, and TCP/IP data output. The IO signal output and TCP/IP data output can be used in unattended systems to determine whether the ribbon is used up by acquiring the output signal.

2. Setting methods and mode introduction

Enter the printer menu, enter the System Settings submenu, and select Alarm Setting. The ribbon alarm mode can be set, with two alarm modes to choose from: alarm prompt only, and alarm with print stop.

Alarm-prompt-only mode:

When the ribbon is used up, the screen prompts "ribbon error, please check whether the ribbon is exhausted"; the signal output port outputs an error signal, and TCP/IP outputs the alarm data.

Alarm-with-print-stop mode:

When the ribbon is used up, the screen prompts "ribbon error, please check whether the ribbon is exhausted"; the signal output port outputs an error signal, TCP/IP outputs the alarm data, and the printer print job is stopped at the same time.

3. External signal interface output

For different series of Nmark print & apply systems, the external interfaces used are different. This description focuses on the alarm output related content; for other content, please refer to the user manual for updated information.

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。

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

4. TCP/IP output

For specific TCP/IP communication instructions, refer to the Operation and Control section of the device manual; the following focuses on the alarm output.

The format of the returned data frame is:

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

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

IV. Solution for Incorrect Media Feed on Nmark Industrial Printers and Print & Apply Systems

Online printing

If two labels appear consecutively during printing in online printing mode, the following methods can be used to check:

1. In the print menu of the print & apply system, check whether the paper type and label size are correct.
2. If the paper type is black-mark media, open the printhead and check whether the sensor position under the label stock is offset; if it is, manually move it to under the label stock. If there is dirt on the sensor surface, wipe it with alcohol.
3. Clear all print jobs, find Parameter Calibration in the printer menu, and select Sensor Auto-detect to calibrate the sensor parameters. If the print & apply system is a V4X0B series model, after sensor calibration is complete, the screen will display the sensor curve; if the curve peak is too small or the sensor curve is a straight line, the sensor may be damaged.
4. To change the paper type to gap media, lock the paper type in Printer System Settings > Software Settings, then calibrate the sensor parameters according to step 3.
5. Appropriately increase the labeling delay in the Labeling Arm option to filter out interference signals.

Note: For the sensor calibration method, see "Sensor Calibration Method for Online Printing" below.

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

Offline template

If two labels appear consecutively during printing, the following methods can be used to check:

1. In the print menu of the print & apply system, check whether the paper type and label size are correct.
2. If the paper type is black-mark media, open the printhead and check whether the sensor position under the label stock is offset; if it is, manually move it to under the label stock. If there is dirt on the sensor surface, wipe it with alcohol. See Figure 1 for the sensor image.
3. Turn off the print & apply system, press and hold the Feed key without releasing it; when the error light flashes, release the Feed key, and the print & apply system automatically calibrates the sensor parameters.
4. Change the template trigger mode to FR command, restart the print & apply system, find Parameter Calibration in the printer menu, and select Sensor Auto-detect to calibrate the sensor parameters. If the print & apply system is a V4X0B series model, after sensor calibration is complete, the screen will display the sensor curve; if the curve peak is too small or the sensor curve is a straight line, the sensor may be damaged.
6. Without changing the template trigger mode, change the paper type to a type other than continuous media; lock the paper type in Printer System Settings > Software Settings, then calibrate the sensor parameters according to step 4.
7. Appropriately increase the labeling delay in the Labeling Arm option to filter out interference signals.

Note: For the sensor calibration method, see "Sensor Calibration Method for Offline Template Mode" below.

Sensor Calibration Method for Online Printing

V4X0 Series Sensor Calibration Method

1. Enter the printer menu and select Print Parameters.



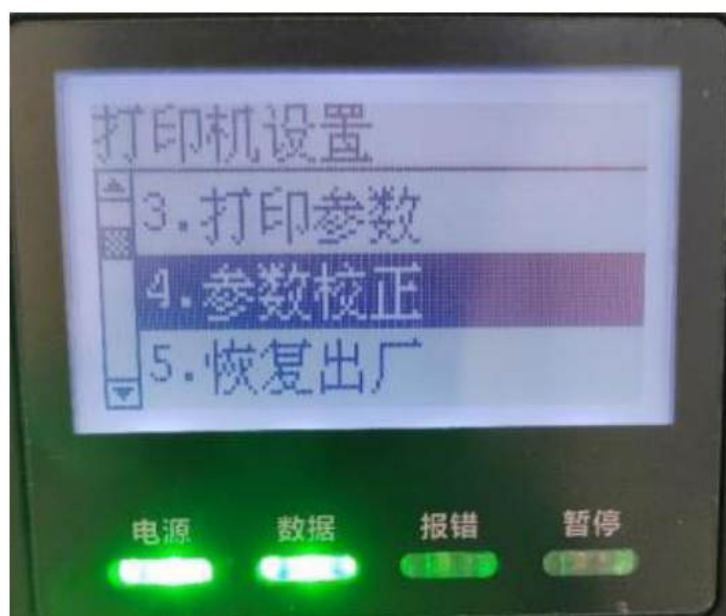
2. 进入打印参数菜单，查看纸张类型，如果纸张类型为黑标，必须确保黑标传感器位于标签纸正下方



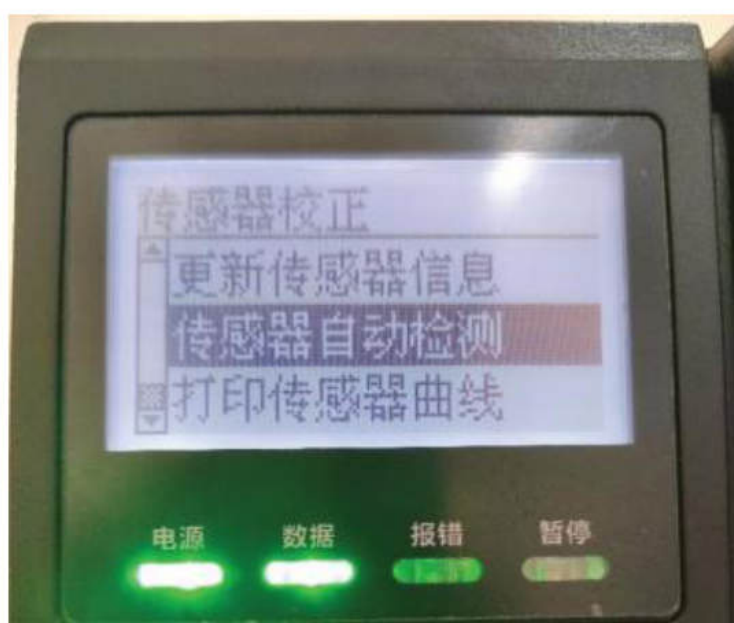
3. 返回打印机菜单界面，选择参数校正，按确认键进入

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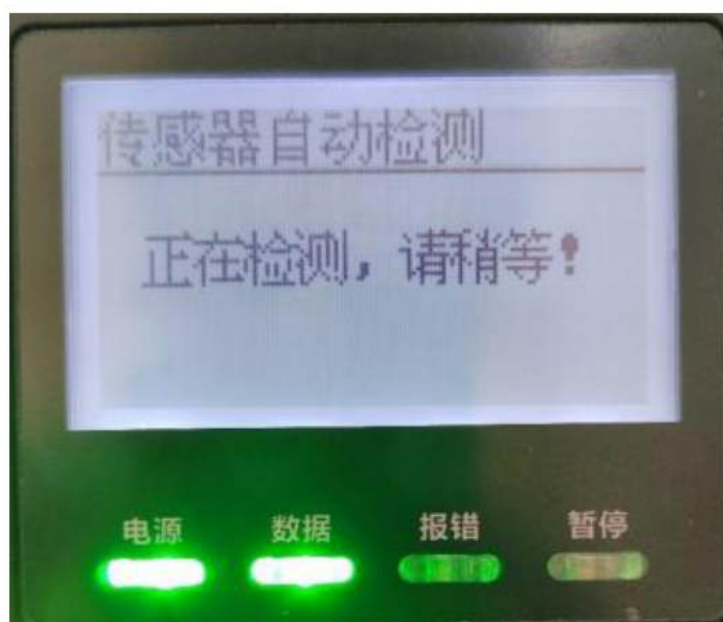
2. Enter the Print Parameters menu and check the paper type; if the paper type is black-mark, make sure the black-mark sensor is located directly under the label stock.
3. Return to the printer menu screen, select Parameter Calibration, and press the Confirm key to enter.



4.选择传感器自动检测，按确认键开始进行传感器校准。



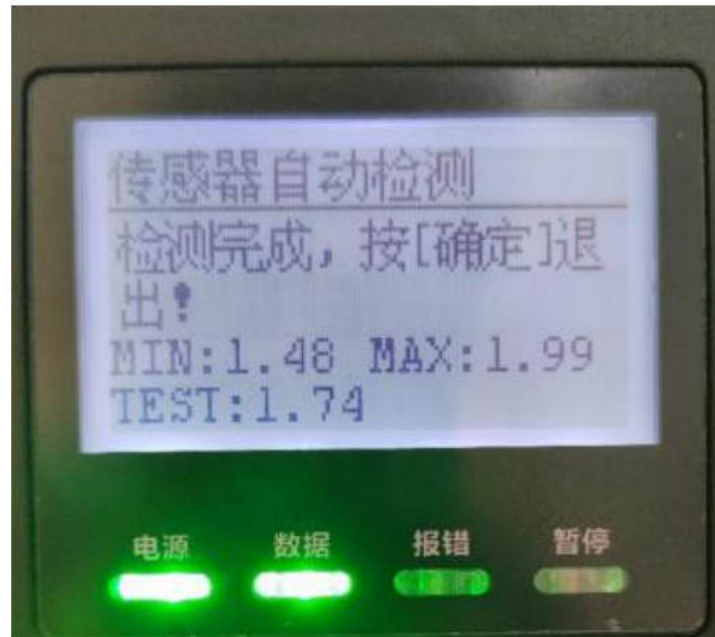
5.等待校准完成



Source page 45 of 77

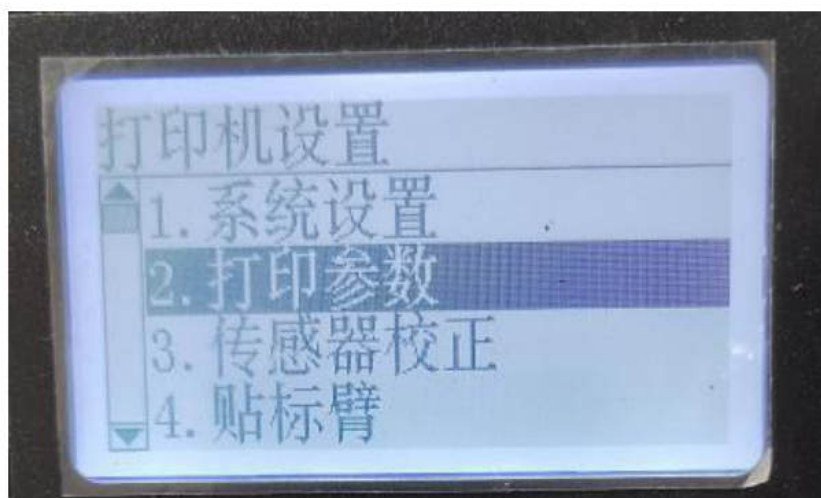
4. Select Sensor Auto-detect, and press the Confirm key to start sensor calibration.
5. Wait for calibration to complete.

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

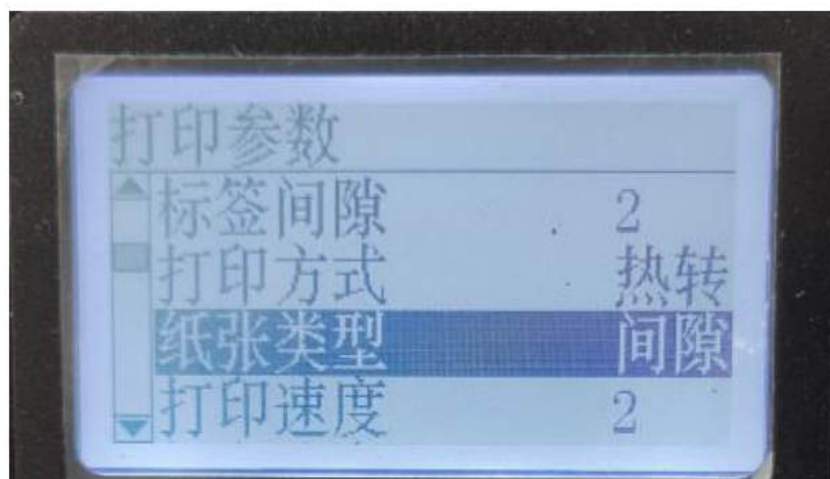


2.进入打印参数菜单，查看纸张类型，如果纸张类型为黑标，必须确保黑标传感器位于标签纸正下方

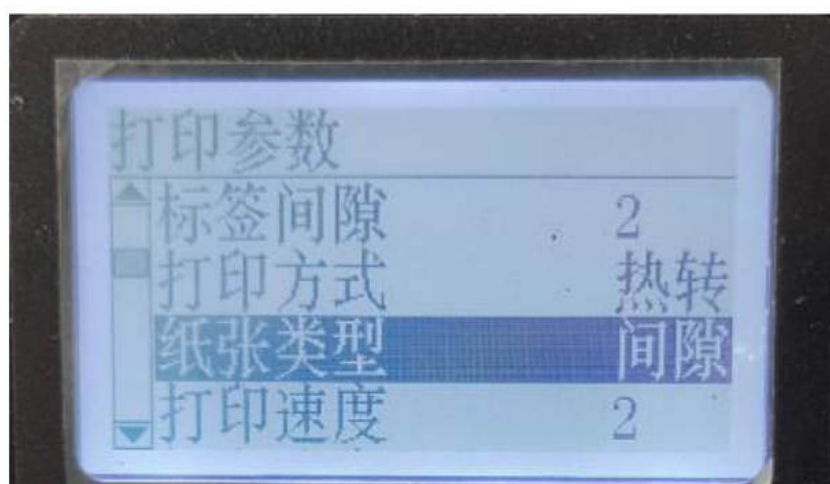
6. After calibration is complete, the screen displays the sensor maximum value, minimum value, and test value.

V4X0B Series Sensor Calibration Method

1. Enter the printer menu and select Print Parameters.
2. Enter the Print Parameters menu and check the paper type; if the paper type is black-mark, make sure the black-mark sensor is located directly under the label stock.



3. 返回打印机菜单界面，选择传感器校正，按确认键进入



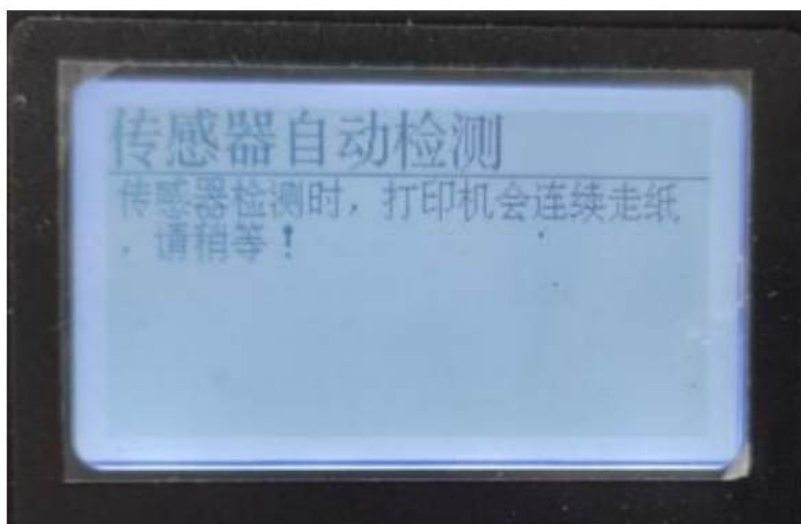
4. 选择传感器自动检测，按确认键开始进行传感器校准



5. 等待校准完成

Source page 47 of 77

3. Return to the printer menu screen, select Sensor Calibration, and press the Confirm key to enter.
4. Select Sensor Auto-detect, and press the Confirm key to start sensor calibration.
5. Wait for calibration to complete.



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 is complete, the screen displays the sensor maximum value, minimum value, and test value, and also prints the selected sensor curve on the screen.

Sensor Calibration Method for Offline Template Mode

Method 1: Change the template trigger mode to FR command, turn off the printer, press and hold the Feed key on the keypad without releasing it, turn on the power; when the error light flashes, release the Feed key, and the printer begins automatic sensor calibration.

Method 2: Change the paper type; lock the paper type in Printer System Settings > Software Settings; then turn off the printer directly, press and hold the Feed key on the keypad without releasing it, turn on the power; when the error light flashes, release the Feed key, and the printer begins automatic sensor calibration.

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

V. Nmark Print & Apply System Related Parameter Description

Print Parameters

Print height: The height of the label being used.

Print width: The width of the label being used.

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

Print mode: Use direct thermal when there is no ribbon; use thermal transfer when there is a ribbon.

Paper type: The type of label stock used. Changing the paper type changes the sensor used; continuous media does not use a sensor, black-mark media uses a reflective sensor, and gap media uses a through-beam sensor.

Print darkness: The higher the darkness, the darker the color; the lower the darkness, the lighter the color.

Print speed: Controls the speed of label printing.

Media feed offset: The position of the next label edge relative to the edge of the peel plate.

X-axis offset: The horizontal position offset of the label content on the label stock.

Y-axis offset: The vertical position offset of the label content on the label stock.

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

Print quantity: There are two modes, controlled and uncontrolled. Controlled means the labeling machine prints as many labels as the number of label data records sent by the host computer; uncontrolled means the number of labels printed is independent of the number sent by the host computer.

Labeling Parameters

Labeling type: Sets the working mode of the labeling machine, 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 (when Pulse or Level mode is selected, IO triggering is required to print after the print data is sent).

Labeling signal: Pulse / Level / Disable (when Pulse or Level mode is selected, IO triggering is required to label after printing is complete).

Print cycle: The time interval between two prints.

Labeling delay: Delay labeling after receiving the labeling signal.

Rewind length: The media retract length of the rewind motor.

Rewind speed: The speed of the rewind motor.

Rewind pause: The distance the rewind motor pauses, which affects the gap size between the label and the labeling plate.

Delayed rewind: After the rewind pause, set the delay for the rewind to restart, ensuring the label is held more firmly.

Label-drop detection: Whether to detect the presence of a label under the labeling plate.

Media retract delay: Controls the timing of the rewind motor retracting during the downward pressing of the labeling plate.

Media retract speed: The retract speed of the printer motor.

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

Pressure filtering: Filters abnormal signals when the labeling plate begins to press down.

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

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

Vacuum hold: Sets the length of time the labeling plate contacts the object.

Blow-label delay: Blow-label duration (used by blow-label machines).

Rewind hold: Rewind motor mode.

System Parameters

Command set: Selects the command set currently supported by the printer.

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

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

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: The threshold for detecting the start and end of a label.

Reflective out-of-paper threshold: The threshold for detecting whether media is present; above this value, it means no media.

Through-beam gap threshold: The threshold for detecting the start and end of a label.

Through-beam out-of-paper threshold: The threshold for detecting whether media is present; above this value, it means no media.

Template Print Trigger Mode

FR command: FR command.

Protocol data: Special protocol.

IO signal: Requires connecting an external IO signal.

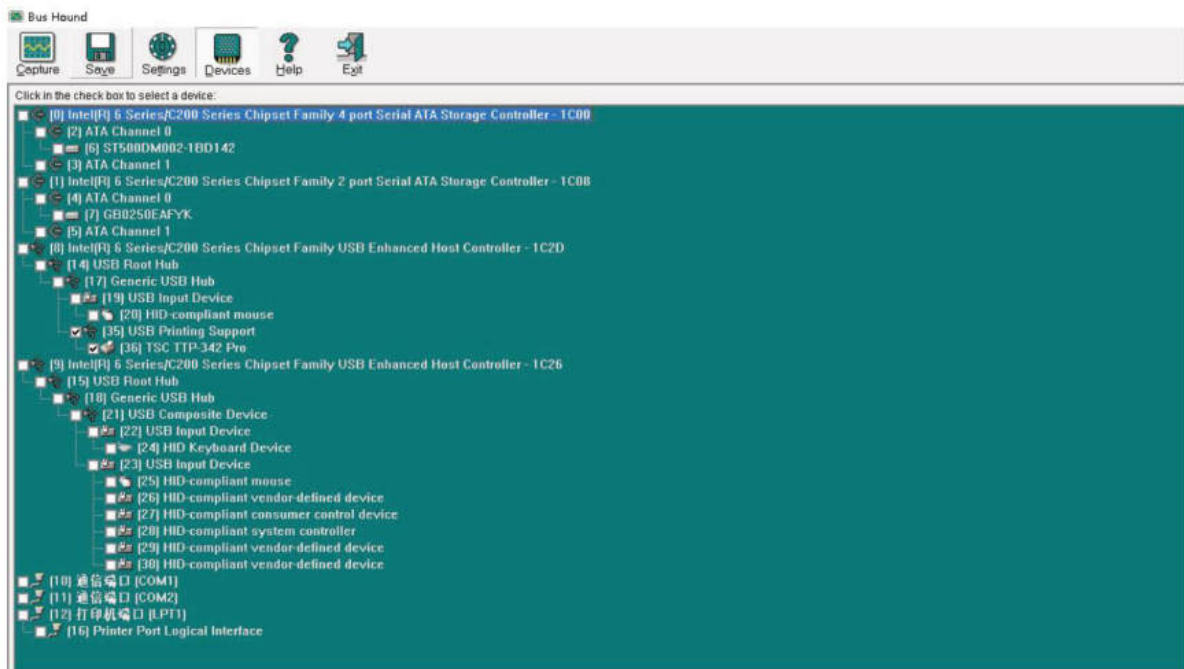
Barcode scan: The main USB port is connected to a barcode scanner.

VI. Guide for Interfacing Nmark Print & Apply System USB Printing with Other Dedicated Software

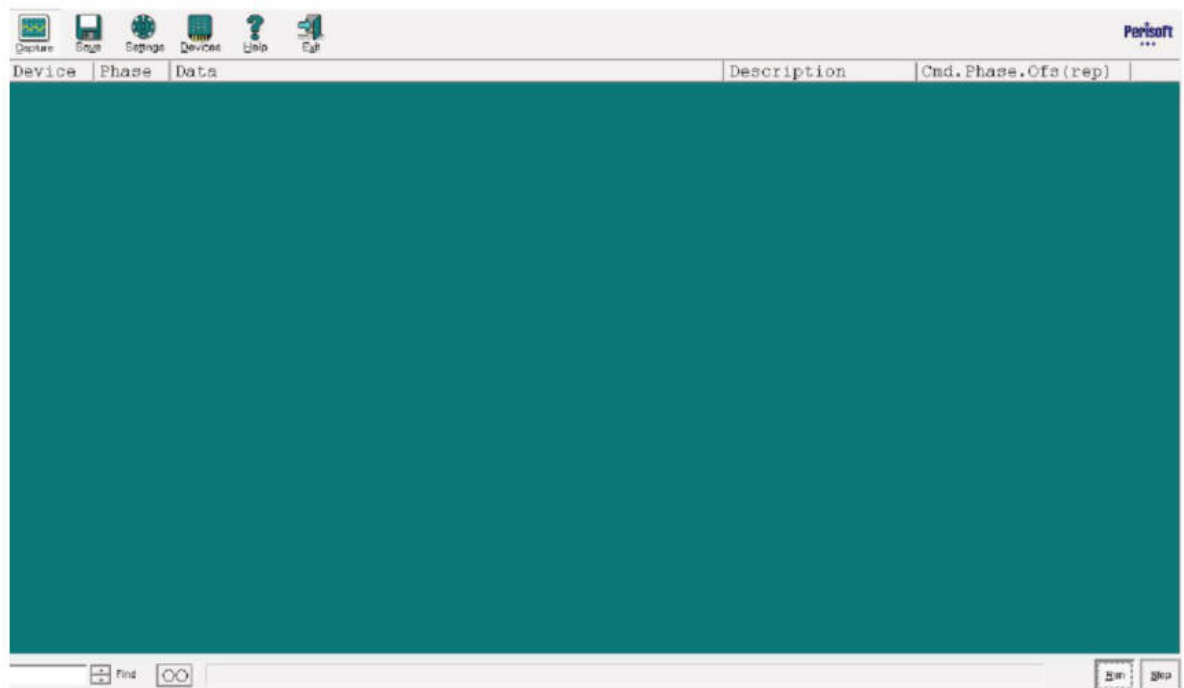
Due to the particularity of USB communication, errors occur when using other printer-dedicated software to invoke the Nmark printer driver. When other dedicated software must be used, the following method can resolve the error of being unable to invoke the driver. First, determine whether the printer supports the command set output by the dedicated software, and the USB parameters of the printer corresponding to the dedicated software that has the same resolution as the Nmark print & apply system; the parameters can be obtained using the BusHound software. After the above information is confirmed, modification can proceed.

BusHound Parameter Acquisition Tutorial

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



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

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2. Click Capture to return, click Stop to clear the window, and 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 system configuration tool to modify the Nmark print & apply system USB parameters.

The modification method is as follows:

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

(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



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

(3) Modify the USB parameters to those of the printer corresponding to the printing software, click Set, and restart the printer.

Install the Driver for the Printer Corresponding to the Dedicated Software

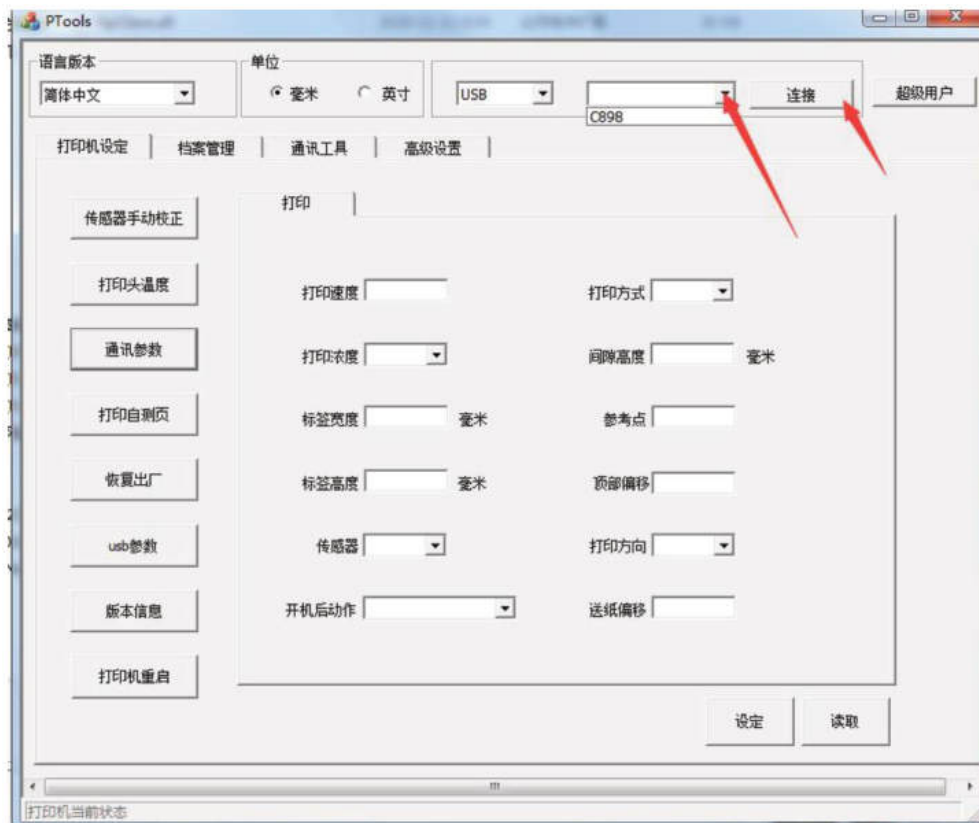
Ptools Upgrade Program

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

2.双击 ptools 图标



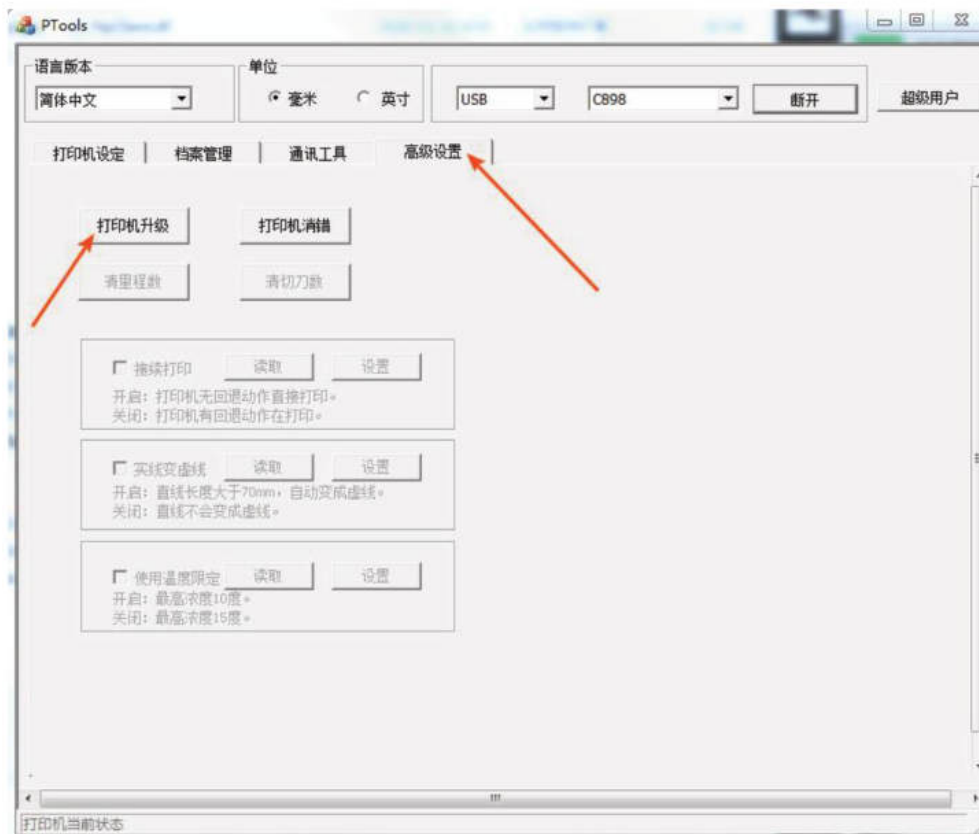
3.连接好 usb 线，找到机器型号，选中，点连接



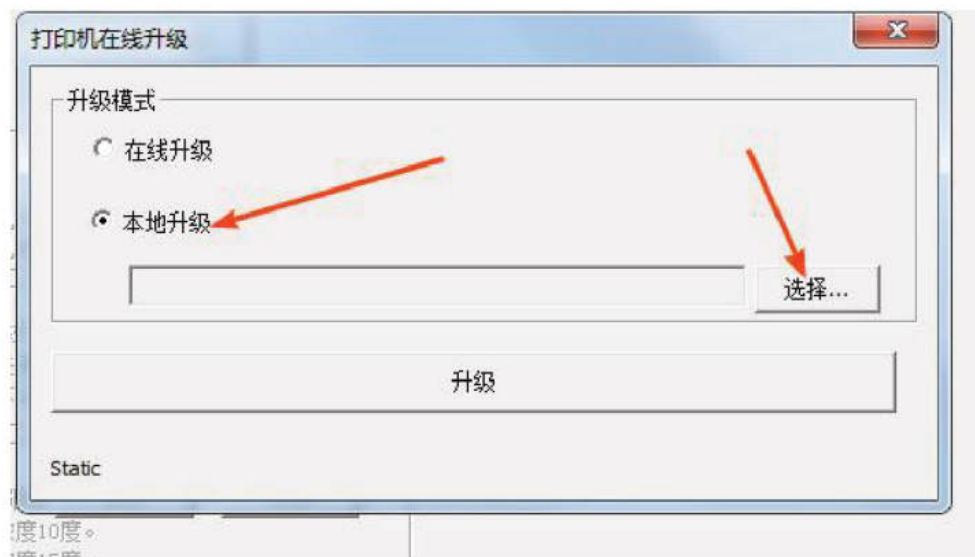
4.点击高级设置，点击打印机升级

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



5. 点击本地升级，点击选择



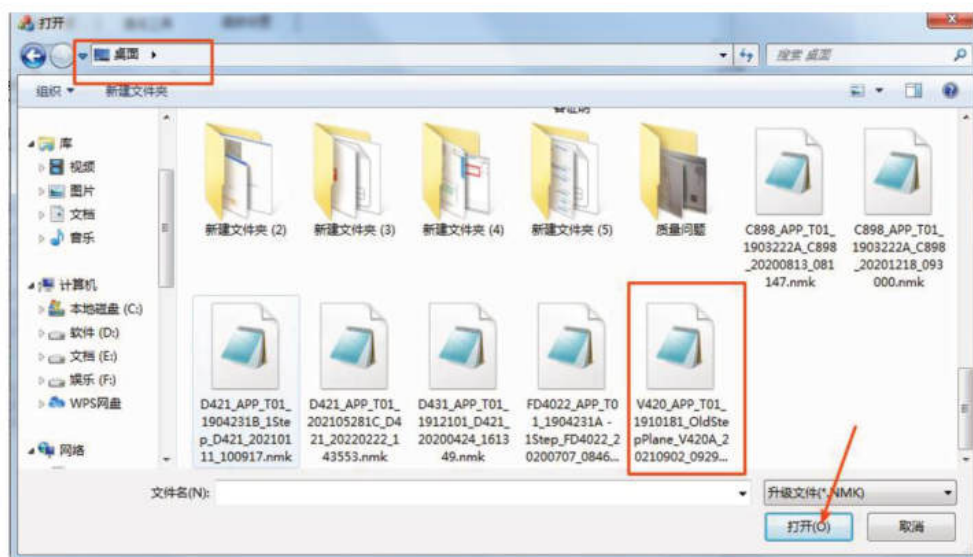
6. 找到升级文件位置，点击打开

Source page 56 of 77

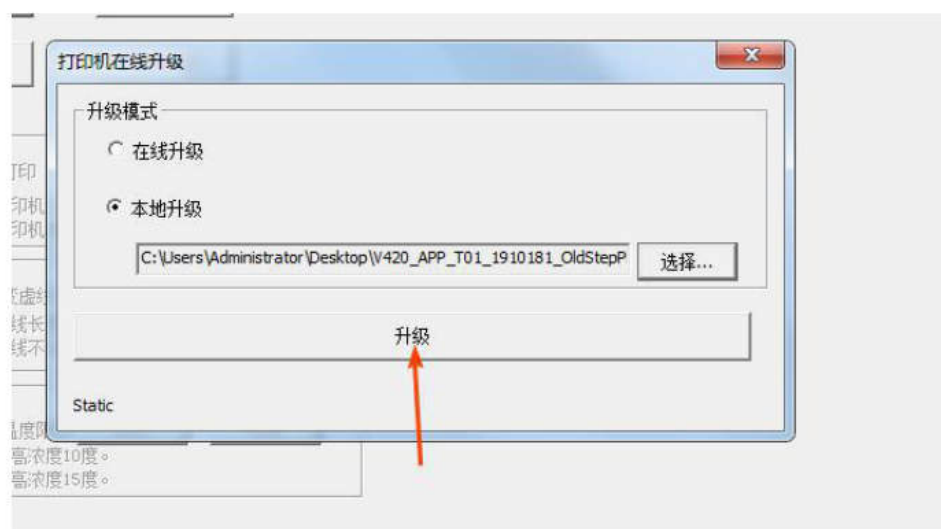
5. Click Local Upgrade, then click Select.

6. Locate the upgrade file, and 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.

VII. Touchscreen Nmark Printing Software Instructions

Note: This document focuses on printing by invoking files from a USB drive.

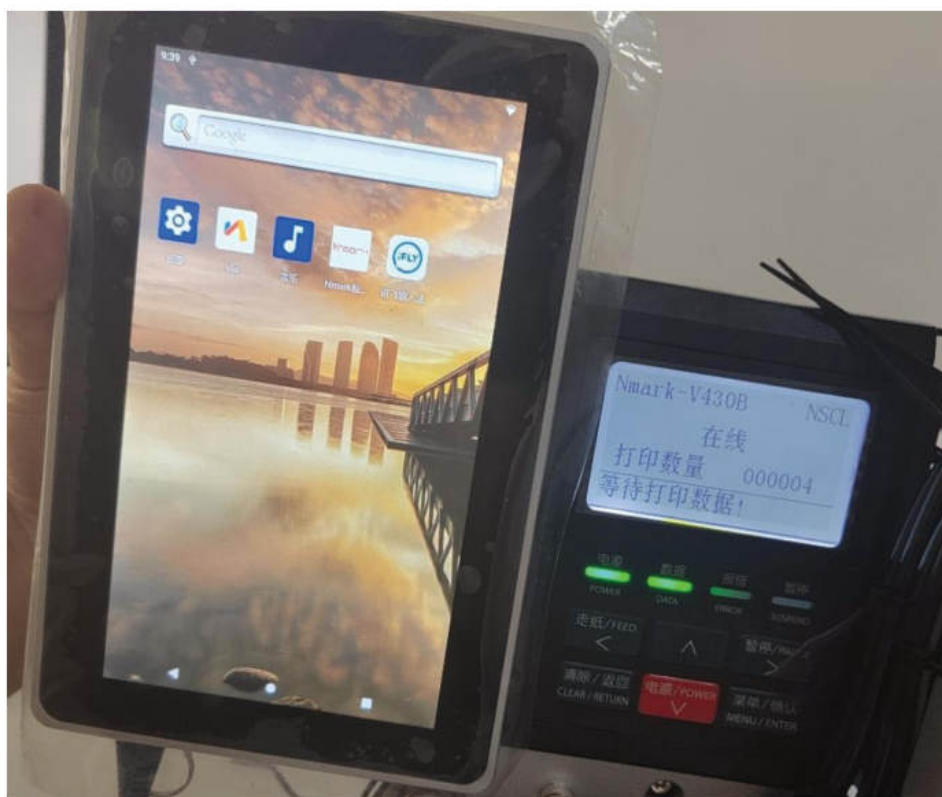
Software Introduction

Nmark label printing software can print labels in two ways: on-software label editing, and invoking label files stored on a USB drive.

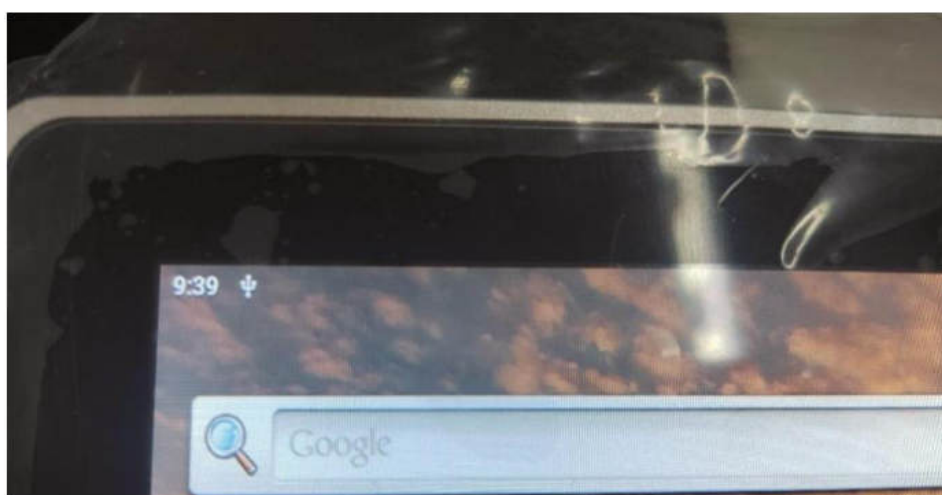
The label editing method allows the user to create labels on the touchscreen during use without other software. The USB-drive method means the user edits all the required label files on a computer with the company's Barlabel label editing software, stores the .BLX files on a USB drive, and Nmark label printing software prints by invoking the files on the USB drive.

使用步骤

1.为触摸屏和 Nmark 打印机上电。



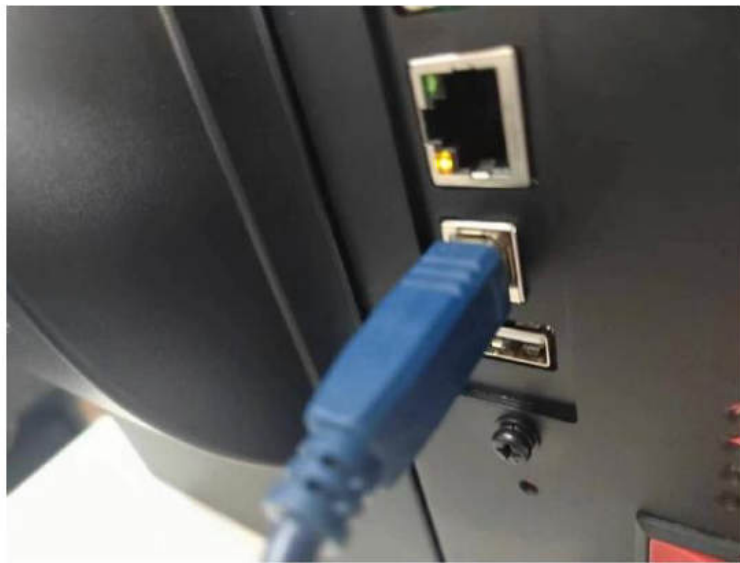
2.将已经存储了标签文件的 U 盘插在触摸屏下方的任意一个 USB 接口上,屏幕显示连接图标即为连结成功。



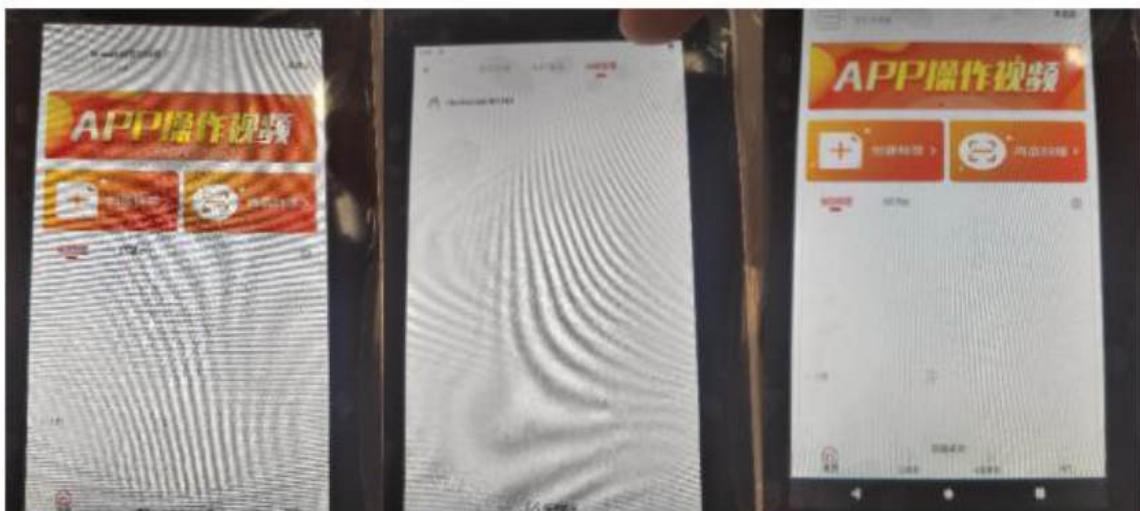
3.用 USB 线连接触摸屏和 Nmark 打印机

Usage Steps

1. Power on the touchscreen and the Nmark printer.
2. Plug the USB drive with the stored label files into any USB port below the touchscreen; when the connection icon appears on the screen, the connection is successful.
3. Connect the touchscreen and the Nmark printer with a USB cable.

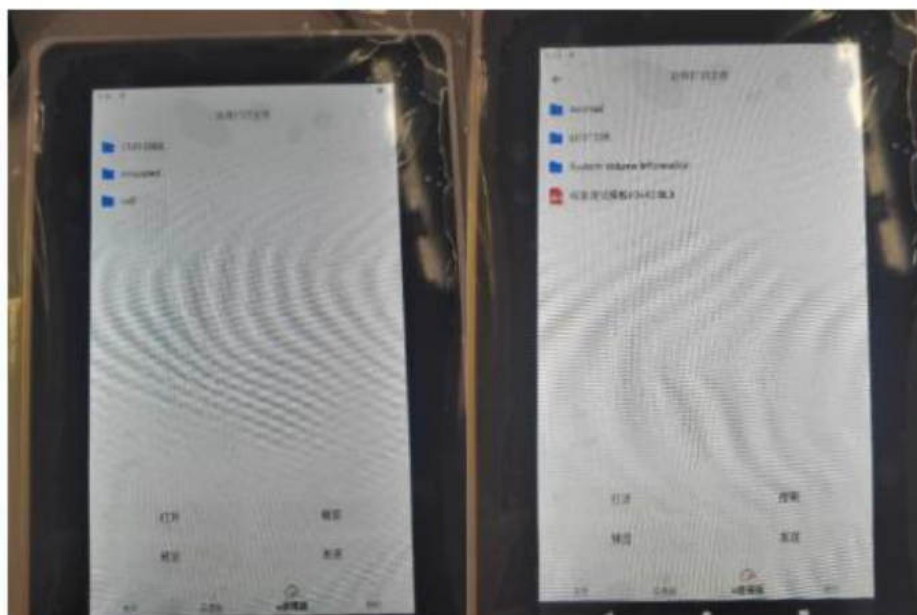


4.打开 Nmark 标签打印软件，点击右上角未连接，选择 USB 连接，选择弹出的 USB 设备，弹出权限申请时选择确定，再次选择弹出的 USB 设备，下方提示连接成功。

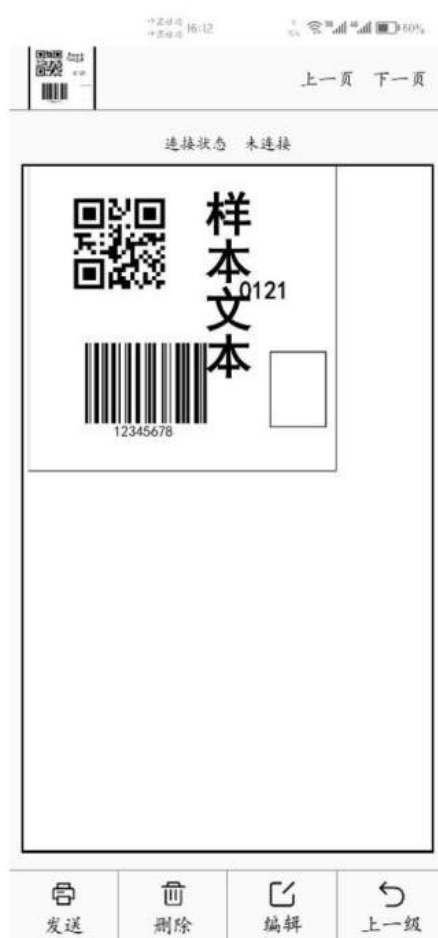


5.选择 U 盘模板，点击名为 U 盘 id 号的文件夹，打开后即可找到存储的标签文件，选择需要打印的标签文件，点击打开，等待加载完成，点击发送打印机即可打印出需要的标签

4. Open the Nmark label printing software, click "Not connected" in the upper right corner, select USB connection, select the popped-up USB device, choose OK when the permission request pops up, select the popped-up USB device again, and a "connection successful" prompt appears at the bottom.
5. Select USB-drive template, click the folder named with the USB drive ID; after opening it, the stored label files can be found. Select the label file to print, click Open, wait for loading to complete, and click Send to Printer to print the required labels.



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. Perform secondary editing of the label on the touchscreen: open the label file to edit on the USB drive, click the Edit button, and the interface automatically jumps to the label editing interface. After editing, save the label file; the file is automatically saved in the local directory. The label files on the USB drive can be viewed on the main interface and will not be modified.

7. There are two methods to store USB-drive files inside the touchscreen.

Method 1: Open the label file on the USB drive in the touchscreen software, click Edit to enter the editing interface, and choose to edit or not to edit the file, then save; the file is saved in the touchscreen.

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 two buttons: 'Cancel' (取消) and 'Confirm' (确定).

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 interface, select the label file to save locally, select Copy, and choose to overwrite or skip files with the same name; then on the "My" interface of the software, open "My Files" to see the saved label files.

Software Update Method

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

Network Printing Usage

1. Print via network cable connection

(1) Direct connection between the touchscreen and printer using a network cable.

Open the touchscreen settings, select Network & Internet, click Ethernet, select Static IP mode, and configure the relevant parameters; enter 24 for the network prefix length, and configure the IP address and default gateway according to the LAN of the user's environment. The touchscreen IP address must be on the same subnet as the printer IP address.

(2) Connection between the touchscreen and printer via a switch or router.

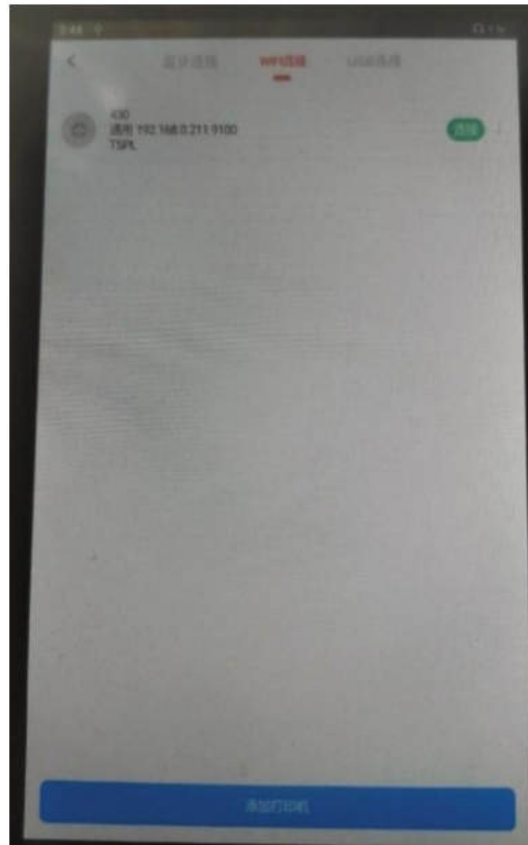
这种连接方式不需要手动配置触摸屏的 IP 地址，交换机或路由器会自动给触摸屏分配 IP 地址

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

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This connection method does not require manually configuring the touchscreen IP address; the switch or router automatically assigns an IP address to the touchscreen.

2. Print via WiFi

Connect the printer to the router, and connect the touchscreen to the router's WiFi.

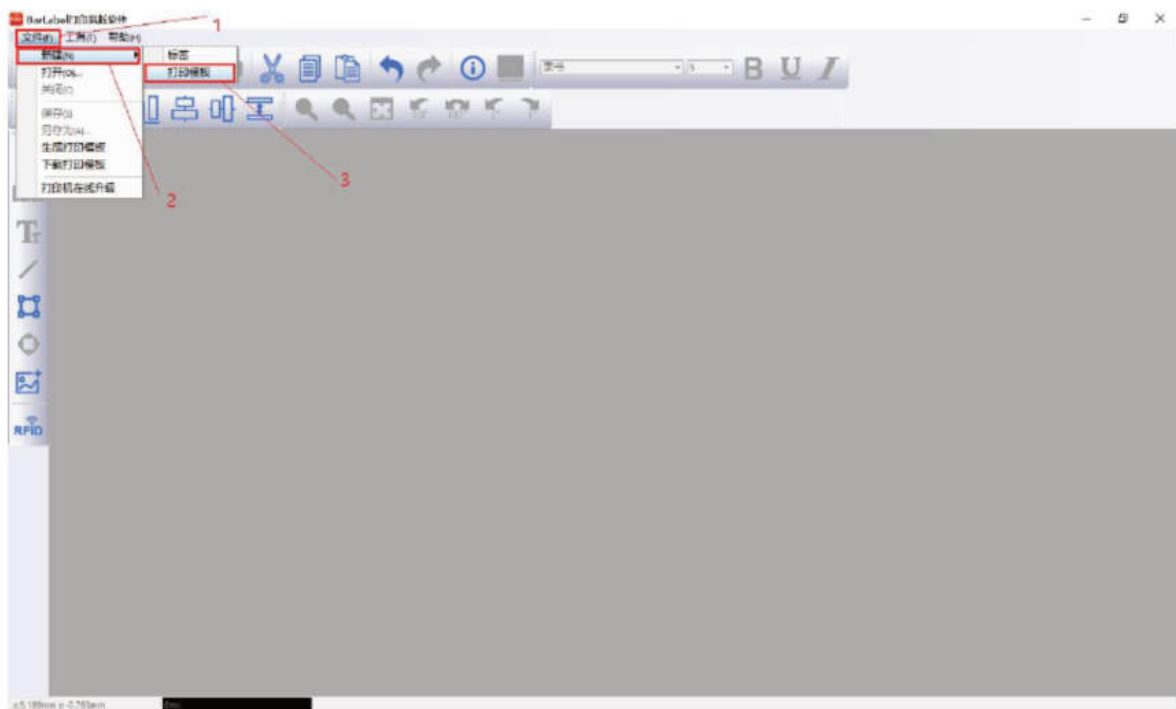
Open the Nmark label printing software, click "Not connected" in the upper right corner, click WiFi connection, add a printer, and enter the printer name, IP address, and port number (the default printer port is 9100). Click OK. The newly added printer appears in the list.

Click Connect and wait for the software to return to the home page.

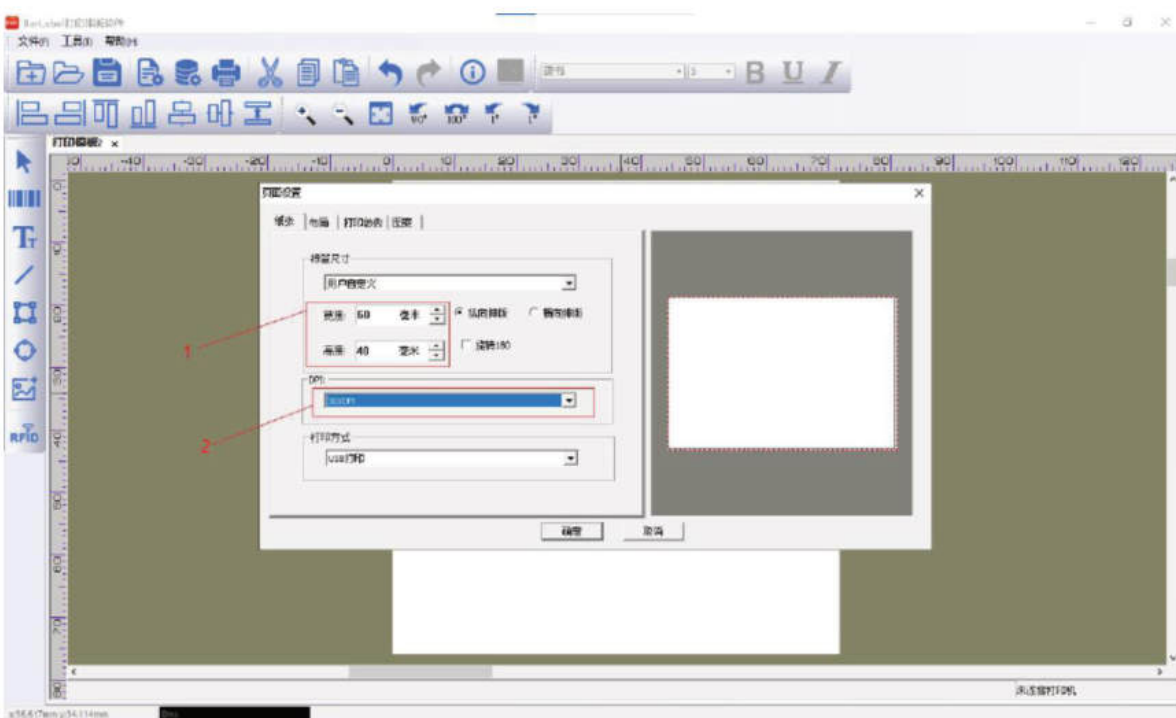
VIII. Barlabel Print Template Creation and Invocation Function Description

Create Template

Open Barlabel software, click File > New > Print Template.



双击空白区域，修改模板宽度和高度、分辨率、打印方式。



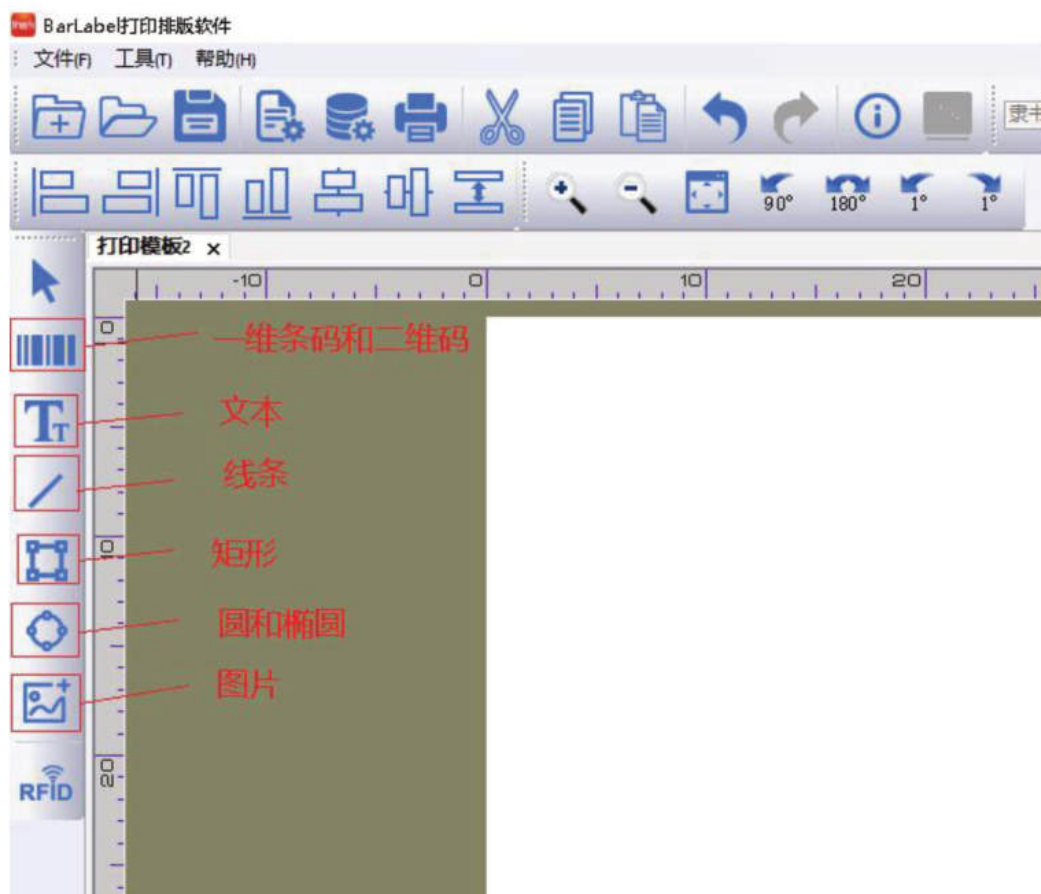
利用左边的控件进行模板编辑。

Source page 63 of 77

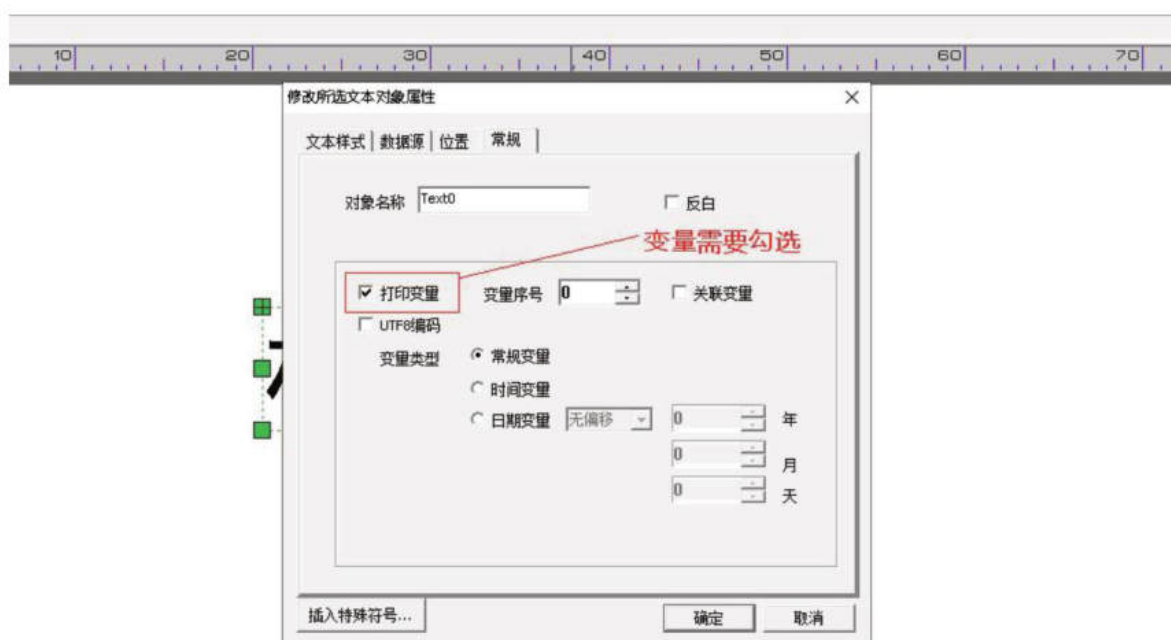
Double-click the blank area to modify the template width and height, resolution, and print mode.

Use the controls on the left for template editing.

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



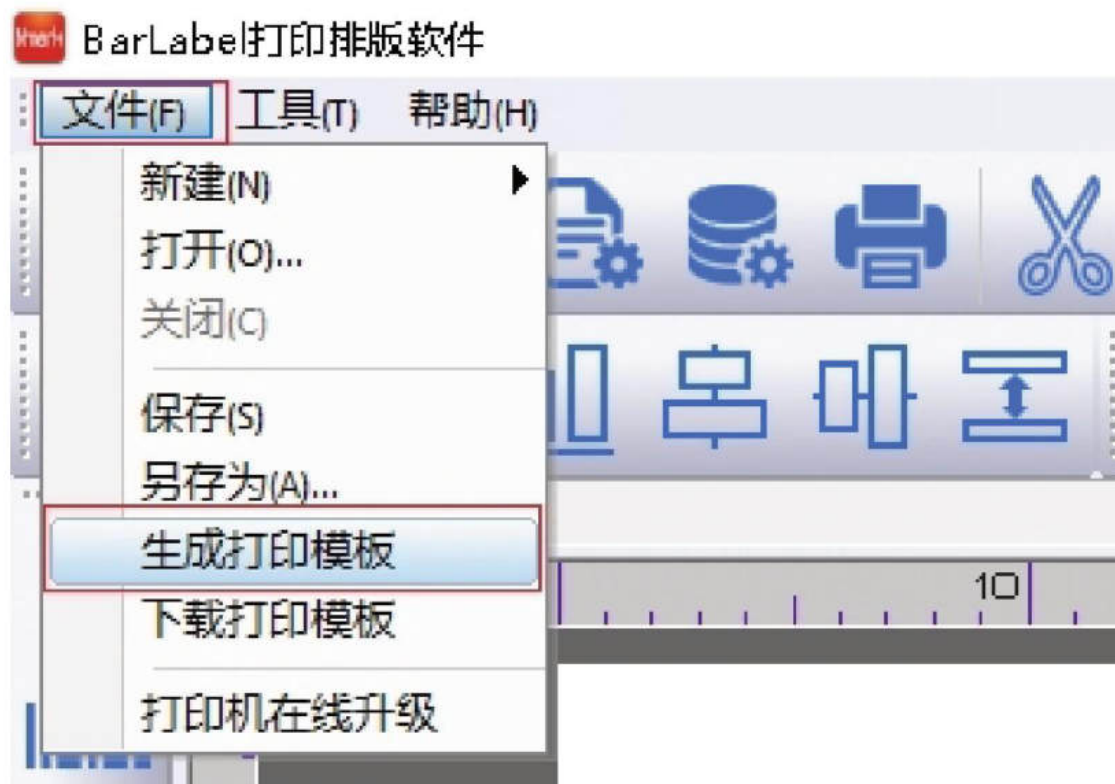
排版完成后点击文件，生成打印模板，编辑文件名称，保存即可

Source page 64 of 77

After placing the content, double-click to modify the specific properties of the content; if the item is a variable, check "Print Variable" in General.

After layout is complete, 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。

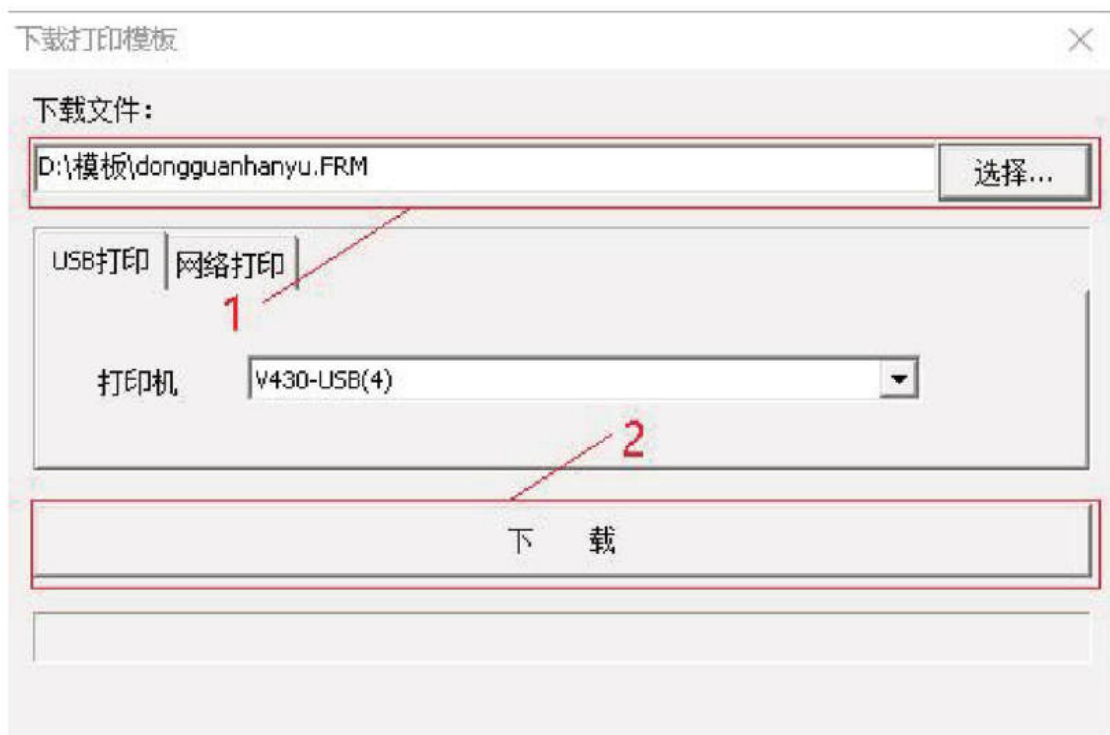
打开 Barlabel 软件,点击文件，下载打印模板，选择生成的同名 FRM 文件，根据自己的通信接口，点击下载即可



Download Template

Connect the printer via USB or a network cable; if downloading via network, make sure the printer and computer are on the same LAN.

Open Barlabel software, click File > Download Print Template, select the generated FRM file with the same name, and click Download according to your communication interface.

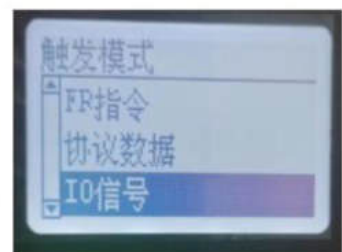
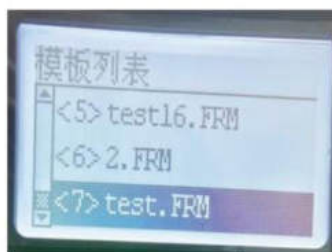


提示下载完成



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 prompt shows the download is complete.

After the template is downloaded successfully, select the template to print on the printer and set the trigger mode; also set the printer trigger mode under Printer Menu > System Settings > Software Settings. The method of selecting the print template is as follows.

Press the Menu key to enter the printer menu, and enter the Template Printing option.

Select the "Template" line and press the "Confirm" key to enter the template list, then select the template to print offline.

Select the "Mode" line and press the "Confirm" key to enter the mode list; there are 4 modes to choose from: FR command, protocol data, IO signal, and barcode scan.

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 proprietary command for invoking the print template.

Protocol data: Special protocol.

IO signal: The signal received by the external IO interface; the external interface to be used must be enabled in the Labeling Arm menu.

Barcode scan: Triggered by a USB barcode scanner connected to the rear panel of the printer.

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

Invoking templates has two methods: online invocation and offline invocation.

Online invocation sends the invoke command from the host computer; after the printer receives the command, it finds the corresponding template file inside the printer or the template file on the USB drive connected to the printer rear-panel USB_HOST interface (supported on some models), and assigns the content in the command code to the variables in the print template.

Offline invocation relies on external signals; it can be triggered by an external IO interface or a barcode scanner. Variable content can be edited using the keypad.

Invoke Template

1. Online invocation

The printer supports three communication methods: USB, TCP, and RS232. The invoke command format is as follows:

FR"TEST.FRM" // indicates the name of the template to invoke; must be followed by a carriage return and line feed ("r\n")

? // fixed format, required; must be followed by a carriage return and line feed ("r\n")

Data 1 // data of the first variable; must be followed by a carriage return and line feed ("r\n")

Data 2 // data of the second variable; must be followed by a carriage return and line feed ("r\n")

Data 3 // data of the third variable; must be followed by a carriage return and line feed ("r\n")

P1,1 // indicates start printing; fixed format, required; must be followed by a carriage return and line feed ("r\n")

Note: If the template has more variables, they can be inserted in order between the fifth and sixth lines; each variable must be followed by a carriage return and line feed ("r\n"). The "?" and the quotes in the command must be entered in the English input method.

2. Offline invocation

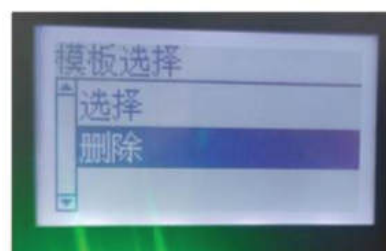
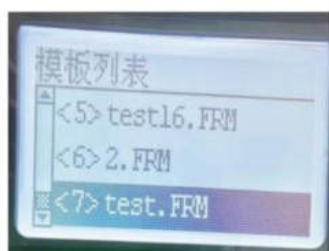
Select IO signal or barcode scan as the template trigger mode to implement offline invocation; template content can be modified using the keypad for offline invocation.

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。

When creating a print template with Barlabel, regular variables are automatically sorted in the order they are created; time and date variables do not participate in the sorting. After the template is created, download the template file to the printer, and select the print template to print as described. In the Variables menu, enter the variable content at the initial-value position using the keypad in the order of the variables in the template; the variable type can be selected in the printer according to the variable type in the template.

When the template has time and date variables, just add the time variable and date variable to the template variable list; there is no need to consider the order.

3. Delete Template

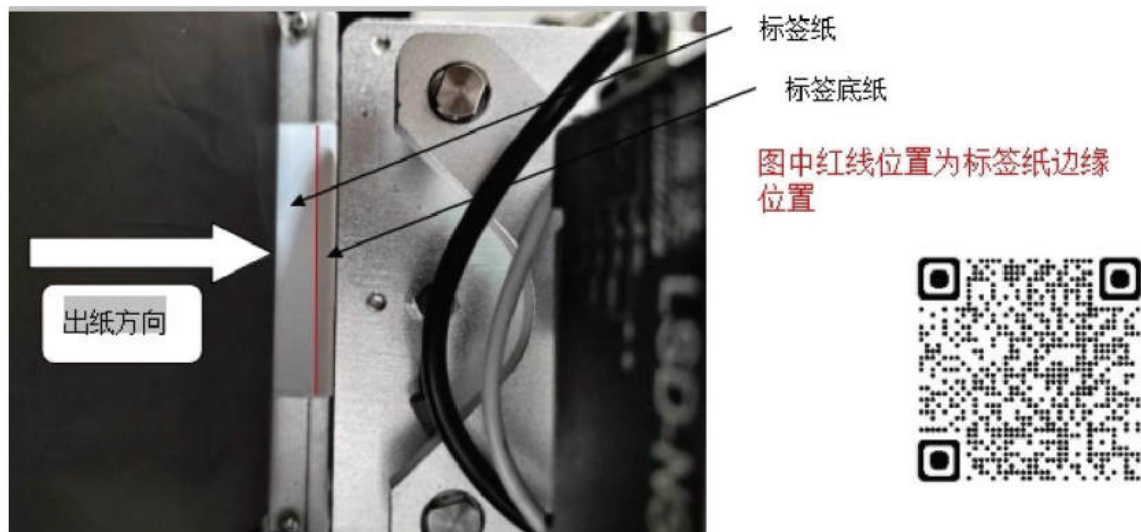
Select the "Template" line and press the "Confirm" key to enter the template list; select the print template to delete, choose Delete, and confirm the deletion.

IX. Appendix

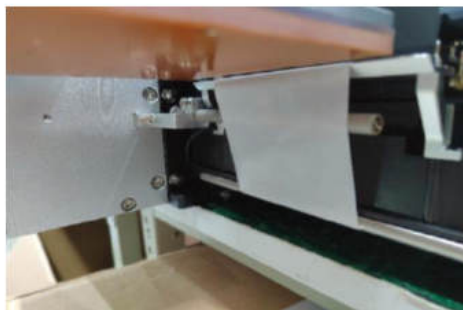
Appendix I: Common Problems and Solutions

1. After label printing is complete, the label does not stay on the labeling plate and the labeling machine reports a label-loss alarm?

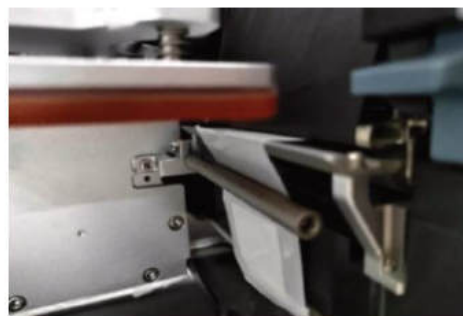
1.1 Check whether the label print stop position is correct. The label print stop position should be about 1 mm behind the edge of the next label relative to the peel plate. If the position differs too much, adjust the media feed offset (the default media feed offset is 27 mm). For the adjustment method, refer to the "Print & Apply System 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 air blow tube is blocked or the blowing angle is inappropriate. For the adjustment method, refer to the "Print & Apply System User Manual" or the video QR code.

Incorrect media loading:

Correct media loading:

1.3 Check whether the vacuum is sufficient and effective; if label suction is unstable, consider increasing or decreasing the number of air holes appropriately. If the label is too large, adjust the vacuum level and reduce the vacuum formation range to prevent excessive suction so the label can be pushed out smoothly.

1.4 Adjust the delayed rewind value via the screen menu (on some models this is vacuum delay).

1.5 Check whether the label meets the requirements; select label stock for labeling, do not damage the label liner, and the label should not be too thick.

1.6 Set the paper type to use the reflective sensor.

1.7 The labeling plate height is inappropriate or not parallel.

1.8 Peeling is unstable and the rewind shaft rotation is unstable; the friction plate pressure of the rewind shaft needs to be increased, or it needs to be replaced.

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 The air pressure is too low, so an effective vacuum cannot be formed in the labeling plate area and the label falls due to gravity.

2. How to adjust when the print content position is inaccurate?

2.1 Adjust the printer X-axis offset and Y-axis offset via the screen menu. Refer to the "Print & Apply System User Manual" or the video QR code.

2.2 Calibrate the sensor parameters.

2.3 Set the paper type to the reflective sensor.

2.4 If the printhead has been opened, feed several labels so the printer can adapt.

3. After changing to a label of a different size, the print and labeling positions are inaccurate?

3.1 After replacing the label, the printer cannot immediately auto-adjust the sensor threshold to a suitable range; it takes printing 5-6 labels for the print & apply system to adapt. After that, the print & apply system can work normally.

3.2 The label size to be printed is inconsistent with the template size.

4. How to adjust the labeling speed?

It can be adjusted by adjusting the intake and exhaust air volume of the pneumatic cylinder. Refer to the print & apply system user manual or the video QR code.

5. What to do if the printer does not recognize the media and reports a black-mark error?

5.1 Manually remove the label, then press the Clear/Back key and print a few more labels to check.

5.2 There is no printing media left.

5.3 Some label stock is missing, or the gap between the label stock is gone.

5.4 The label size is set too small.

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

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

6.1 After print is triggered, printing starts and outputs a 24V high level; when printing completes, it outputs a low level.

6.2 After labeling is triggered, labeling starts and outputs a 24V high level; when labeling completes, it outputs a low level.

6.3 For details, refer to the print & apply system operation manual.

7. What to do if you do not want the 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?

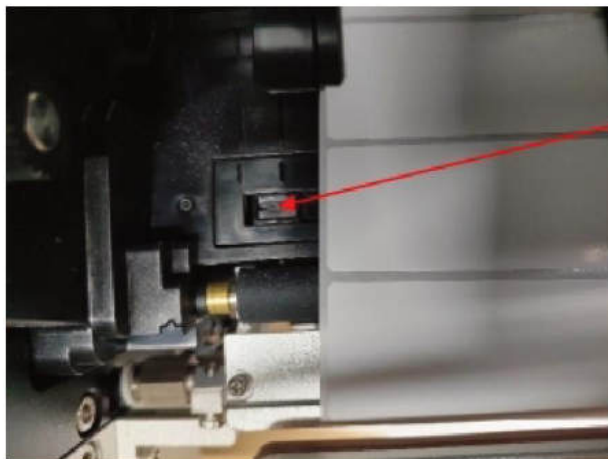
9.1 后部碳带轴管没有安装好。

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 not be modified, change the printer print mode to Printer Mode, i.e., lock all parameters on the printer.

7.2 If only some parameters must not be modified, lock the parameters that should not change in command-set print mode.

8. The print data has been sent but the printer does not print?

8.1 Check whether the printer screen shows "Waiting for print data"; if it shows "Waiting for print data", the print data has not been sent.

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

8.3 Check whether the printer screen shows an error prompt; the printer must be in an error-free state to print normally.

8.4 If a printer driver is used, check whether the printer driver is installed correctly.

8.4 Check whether the connection cable has any problem.

8.5 If the data light flashes, it means the data has arrived but the printer did not parse it; check whether the command set currently selected by the printer is correct, generally the NSCL command set is used.

8.6 If connected via the network port, check whether the printer network port configuration is correct.

9. What causes a ribbon error?

9.1 The rear ribbon shaft tube 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 stock does not cover the sensor.

10.2 The label stock is used up or some label stock is 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 relatively translucent; the sensor parameters need to be calibrated.

11. How to install consumables

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

11.2 When replacing the label stock, first open the printhead; push forward the latch on the right media guide with your hand to separate the two media guides, take out the old media, place the new media, and use the media guides to hold the label stock.

12. How to install the printer driver?

Either the USB interface driver or the network port driver can be used. For the USB driver, just follow the printer driver program we provide and install it as prompted. For the network port driver, configure the printer network port parameters (IP address and port), which can be set via the printer keys and screen display. Our printer driver is compatible with Windows 7 and Windows 10. Refer to the QR code on the right for the installation method.

13. How to configure the printer driver?

13.1 Set the print page; pay attention to the print direction.

13.2 Set the media feed offset.

13.3 Disable bidirectional support.

13.4 Set the direct-print selection.

14. What does the programming language supported by the printer mean?

To make the printer perfectly print the image you want, a language that describes the image must tell the printer; this language is the command set supported by the printer. Currently the printer languages we support are NSCL and TPL; contact Nmark technical support for specific content.

15. What is the printer hardware template file?

The printer template file is a string that is automatically generated according to the command set to print specific label content, where the variable content cannot be an image but specific variable content. Later, during programming, replacing these contents produces the content you want to print.

16. Why is the TPL command set 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; if opened with some text editing tools, some data will be modified. In TPL non-compressed mode, image data can be described with text characters, so you can use ordinary editing software such as Notepad to browse and partially modify the template.

17. What are the differences among the printing software Barlabel, NiceLabel, and BarTender, and how to use them?

17.1 Barlabel is a printing software developed by Shenzhen Aiweima itself. With this software, you do not need to install a driver; it can automatically recognize our printers and can be used to directly edit and print labels.

17.2 NiceLabel is a third-party printing software vendor that cooperates with us; our standard printer driver is also developed by NiceLabel. You can visit the NiceLabel official website to learn more about NiceLabel software.

17.3 BarTender is also a third-party printing software vendor, with no direct cooperation with us. You can directly install our printer driver and then invoke it with BarTender. Some previous cases of invoking the printer driver to print require configuring the printer network port parameters (IP address and port), which can be set via the printer keys and screen display. Our printer driver is compatible with Windows 7 and Windows 10.

18. What are the precautions for small-label labeling?

If the air pressure is too low, the label cannot be held and easily drifts during labeling; generally the air pressure is 0.4 to 0.5 MPa.

Q: The printer occasionally shows garbled characters or is abnormal? A: Check whether the printer driver bidirectional support is on; if it is on, turn it off.

Q: The printer driver changes do not take effect? A: Check whether there is a duplicate of the printer driver; if there is, all the parameters need to be changed.

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

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

22. What causes random inaccuracy in printer media feed?

22.1 The media jam slider inside the printer is too tight, causing the label stock to feed unevenly; loosen the media jam slider.

22.2 The rewind shaft pull is too strong, causing the label stock to be stretched too much; adjust the rewind shaft friction spring pressure.

23. Occasional poor peeling of the label stock

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 friction plate pressure of the rewind shaft to increase the pressure on the label liner.

23.3 If the rewind shaft friction plate is damaged, replace the friction plate.

24. How to check the air pressure of the print & apply system

24.1 When the air pressure is insufficient, the sound changes noticeably; check the position pointed by the air gauge of the intake triple unit (FRL); during normal use, the air pressure should reach 0.5 MPa.

25. What to do when several labels appear at the same time on the print & apply system

25.1 Check whether the paper type in the labeling machine print parameters is consistent with the label type being used.

25.2 Check the label size set in the print parameters.

25.3 Perform sensor calibration on the printer.

26. The printer does not respond at all after receiving data

In the menu, find Debug Mode under Factory Settings, and check whether the data received by the printer is consistent with the data sent down.

Appendix II: Precautions

1. When using any printer model, make sure the power supply is grounded.

2. All products must be regularly maintained during use; the printhead and sensors should be periodically wiped with alcohol; the mechanical structure may loosen during long-term use and needs to be tightened.

3. During use of the labeling machine, since the number of air holes on the labeling plate is determined by the pre-set label size, after switching to smaller label stock, the label stock may fail to adhere to the labeling plate; the extra air holes need to be blocked.

4. When the print content is offset, adjust the coordinate offset appropriately.

5. After each change of the printer network parameters, power off and restart to save the network parameters.

6. After installing the printer driver, bidirectional support of the printer port must be disabled in the printer properties. If bidirectional support is not disabled, the printer may report an error after receiving a print job.

7. When modifying the labeling arm parameters, power off first, then press and hold the Menu key while powering on; otherwise the labeling arm parameters cannot be modified in the unlocked state.

8. When installing the label stock, make sure the label stock is clamped in the middle of the media guide blocks; otherwise the label stock will drift during printing, causing print position 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

Manual Terminology Explanation

1. Direct thermal (direct thermal or thermal-sensitive)

A printing method using thermal-sensitive labels. The media surface has a thermal coating that turns black when heated; this method does not need a ribbon, but the print durability is poor and it cannot withstand direct sunlight. When printing with this method, the printer must also be set to this mode, otherwise it will report a ribbon error.

2. Thermal transfer (ribbon printing)

A printing method that requires a ribbon. The label does not need a thermal coating, and the printed content is not easily lost. There are many label and ribbon materials; since our materials have passed various performance tests and meet printing and labeling requirements, Nmark series labels and ribbons are recommended. With this method, the printer must be set to thermal transfer mode, otherwise the printer will not alarm when the ribbon is missing.

3. Thermal label

A label with a thermal coating; no ribbon is needed and it can be printed directly.

4. Ribbon

Used for thermal transfer printing. The printhead heats and transfers the toner on the ribbon onto the label stock. Ribbons are mainly divided into three materials: wax-based, wax/resin, and resin-based; Nmark has corresponding products for each material. Labels printed with a ribbon are durable, with clear text and patterns.

5. Black-mark sensor (reflective sensor, black mark sensor)

Located about one centimeter behind the platen roller and can move left and right; this sensor must be located under the label stock and is used to detect the label gap to achieve accurate label positioning. The labeling machine generally selects this black-mark sensor, not other sensors.

6. Through-beam sensor (labels with gaps)

The labeling machine generally does not select this sensor.

7. Black-mark threshold

Refers to the detection voltage value used by the printer to distinguish the black-mark part from the label part; it is generally the average of the voltage value when the sensor recognizes the black-mark part (label gap part) and the voltage value when it recognizes the label part.

8. Peel-off

Refers to separating the label from the liner for labeling.

9. Print quantity uncontrolled mode / controlled mode

When the number of labels the customer prints is not fixed, the printer automatically prints the previous label until the customer sends another label. In controlled mode, the printer prints the quantity according to the quantity sent by the host computer.

10. Template printing

Refers to pre-editing a template with Nmark Barlabel software, defining the required variables, and then downloading the template to the printer.

11. Print resolution

The resolution of the printhead of the printer mechanism; currently 203 dpi, 306 dpi, and 600 dpi are supported. The higher the print resolution, the finer the printed content and the less likely it is to show jagged edges. If printing barcodes, the total barcode length can be smaller. Generally 203 dpi and 306

dpi resolutions are recommended; 600 dpi resolution will affect print speed and increase printer cost.

12. Printhead

The printhead is the core component of the printer and also a wear part; it is consumed by the abrasion of the label stock and must be replaced after printing a certain mileage.

13. Labeling plate reset sensor S1

Located on the upper part of the pneumatic cylinder. After the labeling plate returns to the original position, this sensor lights up, and the labeling machine determines that the labeling plate has returned to the original position, so the printer can start printing and peeling.

14. Label presence detection sensor S2

Located on the labeling plate, used to test whether a label exists on the labeling plate. Normally, after the label is peeled it should adhere to the labeling plate and the sensor should light up; after the labeling plate completes labeling, this light should go out, otherwise the labeling machine will report an S2 sensor error.

15. Labeling complete sensor S3

Located at the gap of the labeling head fixing block, used to test the labeling pressure. When the labeling pressure reaches a certain value, it triggers the sensor, and the labeling machine considers labeling complete.

16. Labeling plate (label suction plate)

Located at the end of the labeling arm, used to pick up labels with vacuum suction.

17. Labeling arm

A combination of pneumatic cylinder and guide components for the labeling action; the length can be customized.



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N-mark 打印贴标机视频列表

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3	安装标签纸	19	清洁传感器	35	调整打印机XY轴偏移	51	S1贴标臂未复位异常处理
4	贴标机如何打印测试页	20	清洁贴标板	36	调整真空大小	52	S2贴标丢失异常处理
5	安装打印机底座	21	更换传感器	37	调整回卷暂停	53	S3贴标臂超时异常处理
6	自动校正黑标传感器	22	更换胶辊	38	调整回卷轴张力和 更换回卷轴摩擦片	54	贴标未贴异常处理
7	调整走纸偏移	23	扣合打印头	39	调整打印头压力	55	打印贴标机通断电
8	设置热敏纸感应模式	24	打开气压和调整气压	40	安装和拆卸气管	56	传感器选择开关
9	设置热转印模式	25	调整贴标板贴标传感器	41	拔插io控制头	57	启动打印和启动贴标
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11	设置贴标臂参数	27	下载和安装打印机驱动	43	贴标臂误动作屏蔽调整	59	输出信号连接方法
12	设置测试模式	28	设置打印机驱动	44	进行分步测试	60	刮贴安装标签和 碳带操作视频
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N-mark 打印贴标机视频列表

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