

Electric Labeling Machine

User Manual

Bilingual Edition

中英对照版



电动贴标机

使用说明

目录

一、电动贴篇	3
电动贴标机整体结构	3
电动贴标机性能指标	4
1. 物品清单	4
2. 电动贴标机打印性能	4
3. 电动贴标机贴标性能	5
4. 电动贴标机打印贴标软件	5
5. 保修条款	5
6. 需要的耗材	5
电动贴标机使用及维护	5
易损件清单	6
软件连接打印贴标机处理说明	7
硬件连接说明	13
1、 后面板接口定义	13
菜单使用说明	28
打印机程序升级	29
二、驱动安装	31
下载	31
安装驱动	32
安装 usb 驱动	32
安装网络端口驱动	36
驱动设置	40
三、Nmark 打印贴标机色带报警说明	40
1. 功能描述	40
2. 设置方法及模式介绍	41
3. 外部信号接口输出	41
4. TCP/IP 输出	41
四、Nmark 工业打印机及打印贴标机错误出纸的解决方案	42
在线打印	42
脱机模板	42
在线打印方式传感器校准方法	43
V4X0B 系列传感器校准方法	46
脱机模板方式传感器校准方法	48
五、Nmark 打印贴标机相关参数说明	49
打印参数	49

Table of Contents

1. Electric Labeling Section

Overall structure of the electric labeling machine

Performance specifications of the electric labeling machine

1. Parts list

2. Printing performance

3. Labeling performance

4. Print & apply software

5. Warranty terms

6. Required consumables

Operation and maintenance of the electric labeling machine

Wear parts list

Software connection to the print & apply system - instructions

Hardware connection instructions

1. Rear panel interface definitions

Menu instructions

Printer firmware upgrade

2. Driver installation

Download

Installing the driver

Installing the USB driver

Installing the network port driver

Driver settings

3. Nmark print & apply system ribbon alarm instructions

1. Function description

2. Setup method and modes

3. External signal interface output

4. TCP/IP output

4. Solutions for media feed errors on Nmark industrial printers and print & apply systems

Online printing

Offline template

Sensor calibration method - online printing

V4X0B series sensor calibration method

Sensor calibration method - offline template mode

5. Nmark print & apply system parameter descriptions

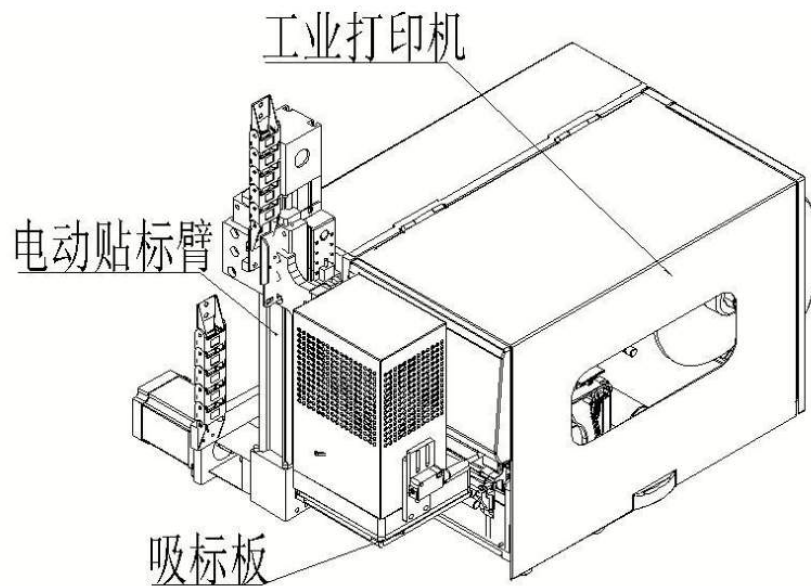
Print parameters

贴标参数	49
系统参数	50
传感器参数	51
模板打印触发模式	51
六、Nmark 打印贴标机 USB 打印对接其他专用软件指导	51
BusHound 获取参数教程	51
参数修改方法	53
安装专用软件对应打印机的驱动	54
Ptools 升级程序	54
七、触摸屏 Nmark 打印软件使用说明	57
软件介绍	57
使用步骤	58
软件更新方法	61
网络打印使用方法	61
八、Barlabel 打印模板制作与调用功能说明	62
新建模板	62
下载模板	65
调用模板	67
九、附录	68
附录一 常见问题及解决方法	68
附录二 注意事项	74
说明书名称解释	75

一、电动贴篇

电动贴标机整体结构

Labeling parameters
System parameters
Sensor parameters
Template print trigger modes
6. Guide to USB printing with third-party software on Nmark print & apply systems
BusHound parameter capture tutorial
Parameter modification method
Installing the driver for the printer used by the third-party software
PTools upgrade utility
7. Touchscreen Nmark printing software instructions
Software introduction
Usage steps
Software update method
Network printing usage
8. Barlabel print template creation and invocation
Creating a template
Downloading a template
Invoking a template
9. Appendix
Appendix 1: FAQ and troubleshooting
Appendix 2: Precautions
Terminology used in this manual
1. Electric Labeling Section
Overall structure of the electric labeling machine



电动贴标机性能指标

1. 物品清单

- 1.1 工业打印机
- 1.2 贴标臂

2. 电动贴标机打印性能

- 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
- 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

Electric labeling machine - performance specifications

1. Parts list

1.1 Industrial printer

1.2 Labeling arm

2. Printing performance

2.1 Print mode: thermal transfer / direct thermal

2.2 Resolution: 203 dpi / 306 dpi (V420BT / V430BT)

2.3 Label size: max width 110 mm, max length 300 mm

2.4 Media 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 Max print width: 104 mm

2.8 Max print height: 300 mm

3.电动贴标机贴标性能

- 3.1 贴标方式：电动贴
- 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. 电动贴标机打印贴标软件

- 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

电动贴标机使用及维护

- 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—3 打印参数—标签高度（标签宽

3. Labeling performance

3.1 Labeling method: electric

3.2 Labeling direction: horizontal

3.3 Label size: max width 110 mm, max length 300 mm

3.4 External signals:

Input 1: trigger printing | Output 1: printing completed

Input 2: trigger labeling | Output 2: labeling completed

Input 3: clear data | Output 3: fault alarm

4. Print & apply software

4.1 Label editing: NSCL command set

4.2 Communication ports: Ethernet, USB, serial

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

4.4 Printing methods: Windows driver printing / command-set printing / template printing

5. Warranty terms

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

5.2 Printer main unit and labeling body: one year

5.3 Consumables excluded

6. Required consumables

6.1 Ribbon

6.2 Labels

Electric labeling machine - operation and maintenance

1. The equipment runs on AC 220 V power.

2. First-time setup:

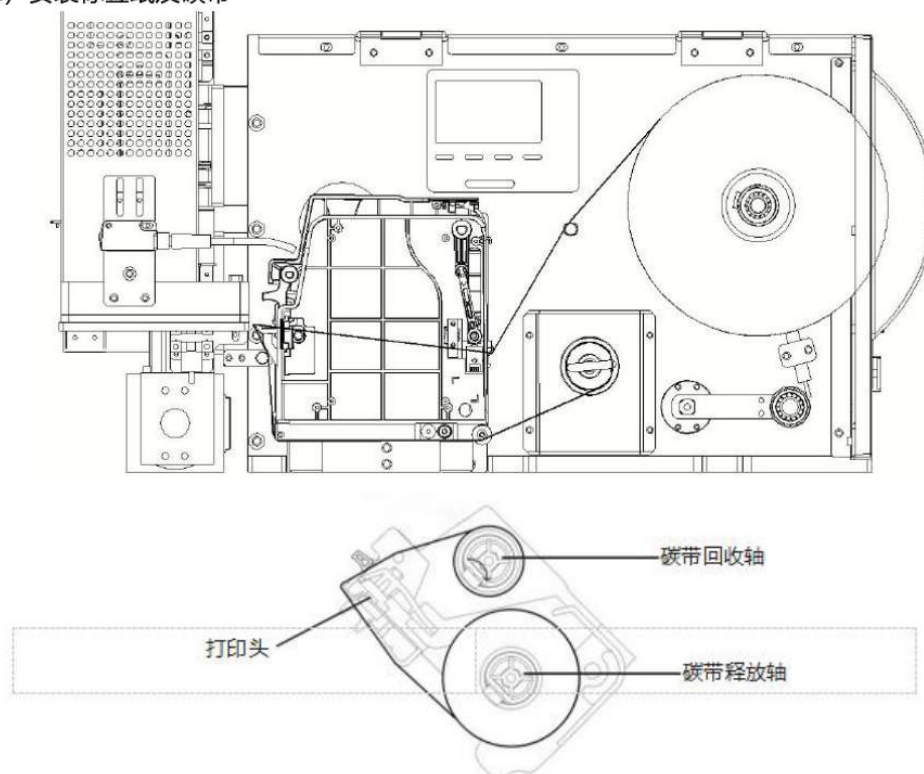
1) Set the print parameters so the label size matches the actual label (width and height): Menu - 3 Print Parameters - Label Height (Label Width)

2) Install the label stock and ribbon

3) Initial test: on power-up the labeling arm homes automatically and the suction plate stops at the label pick-up position.

Screen operation: Main menu - 8 Labeling Arm - Single-test mode; each press performs one labeling action.

度) 2) 安装标签纸及碳带



3) 初次测试：开机贴标臂自动寻位，吸标板停于待吸标位置。

显示屏操作：主菜单 - 8 贴标臂 - 单次测试模式，每按一次贴标一次。

3.常见问题说明：

1) 物体检测传感器未检测到物体，贴标臂自动下降到最底端，测试模式按菜单/确认键消除报警，数据打印模式按清除/返回键消除报警。检查并取走贴标失败标签。

2) 物体检测传感器未检测到物体，贴标臂下降到吸标板接触到物体，设备报警，电机会有异常响动 短暂停留后贴标臂返回待接标位置并报警，测试模式按菜单/确认键消除报警，数据打印模式按清除 / 返回键消除报警。检查并取走贴标失败标签。

3) 更换碳带、更换标签纸、即进行打印头抬起操作，此时会造成前两个标签打印位置不准确，打印贴标失败时要及时清理未贴标标签，并进行消错报警处理。

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. Common issues:

- 1) If the object-detection sensor does not detect an object, the labeling arm automatically lowers to the bottom limit. In test mode press Menu/Confirm to clear the alarm; in data-print mode press Clear/Return to clear the alarm. Check and remove the failed label.
- 2) If the object-detection sensor does not detect an object and the labeling arm lowers until the suction plate contacts the object, the equipment alarms; the motor emits an abnormal sound briefly, then the labeling arm returns to the label-receiving position and alarms. In test mode press Menu/Confirm to clear the alarm; in data-print mode press Clear/Return to clear the alarm. Check and remove the failed label.
- 3) When replacing the ribbon or label stock (i.e., when the printhead is lifted), the print position of the next one or two labels may be inaccurate. On a failed print/labeling operation, promptly clear the unlabeled labels and clear the error alarm.

Wear parts list

No. | Name | Model | Qty | Brand

1 | Fitting | PC4M5 | 2 | AirTAC

2 | Printhead | V4X0T-106 | 1 | NMK

3	胶辊组	D421-107	1	NMK
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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 U T F 8 格式发给打印机就可以了。数据发送后，打印机可以给用户返回成功或失败，和失败后的故障信息，故障信息按位体现到返回信息中。

2、模板打印

下载模板文件

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

调用模板打印

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

Operation and Control

Software connection to the print & apply system - instructions

1. Print command files used by the print & apply system.

The customer provides a detailed label layout, and we generate a command file (text form) that the printer can recognize. In the file, the fields the user needs to change (such as product name, part number, barcode number, etc.) are specially handled - for example, marked as 111111, 22222 ... At print time the software reads the file in advance and substitutes the variable field data. The resulting data is then sent to the printer in UTF-8 format. After the data is sent, the printer returns success or failure, along with fault information on failure; the fault information is reflected bit-by-bit in the returned message.

2. Template printing

Downloading a template file

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

Invoking 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. Printer network (Ethernet) port usage

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

Before using the network port, first ensure the print & apply system and the host computer are on the same subnet. The default factory IP is 192.168.1.69, gateway 192.168.1.1, port 9100. 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

1) Template download

Use the Barlabel label editing software to create a print template, select Network Printing as the download method, select the template file (.FRM) to download, and enter the print & apply system IP address and port; the template can then be downloaded to the print & apply system via the network port.

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

Wear parts list (cont.)

3 | Platen roller assembly | D421-107 | 1 | NMK

模板文件 (.FRM) 填写打印贴标机的 IP 地址及 IP 端口, 即可通过网口将打印模板下载到打印贴标机中。



使用 FR 指令调用打印模板时, 也可以通过网口发送 FR 指令。

2) 网络打印

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

2.1) 直接打印

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

2.2) 调用驱动打印

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

2.3) TCP MODBUS 调用方式

以 MThings 软件为例

2) Network printing

Network printing is subdivided into direct printing and driver-based printing. Direct printing sends the print content to the print & apply system as a command set over TCP/IP; the printer uses server-side persistent TCP/IP connections. Driver-based printing installs the Nmark printer driver, and the host computer sends label data to the print & apply system by invoking the printer driver.

2.1) Direct printing

For direct printing, the user can use our Barlabel label editing software to edit labels; this software can print labels without installing a driver. When printing, select Network Printing and enter the printer IP address and port to send label data directly to the printer via the network port.

2.2) Driver-based printing

For driver-based network printing, the user must install the corresponding network driver for the print & apply system on the computer (see the Nmark print & apply system driver installation guide and instructions), then send print data through the network driver.

2.3) TCP MODBUS invocation

Using the MThings software as an example

 网络参数配置
 ? ×

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

确认

取消

打印机 IP 为 192.168.1.229，端口 9400

连接成功后发送数据

新增

移除

曲线

发送

☐ 循环发送

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

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

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

10 04 B0 00 04 08 32 32 32 32 32 32 32 32 32(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：

Printer IP is 192.168.1.229, port 9400

After a successful connection, send the following data:

10 03 e8 00 03 06 31 2E 46 52 4D 00 (03 e8 = 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 (04 4C = 1100; 31...31 is the hex of "11111111")

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

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

2.4) Calling the Barlabel background printing process

1) Background printing process executable: NMKPCL_Cmd.exe

2) Command-line input for the background printing process:

1. Select print port:

```

/I=USB          //选择 usb 打印
/I=NET:192.168.1.69,9100    //选择网络打印, 设置 IP 地址和端口
2.选择打印模版文件
/F=xxx.BLX          //xxx.BLX 是通过 barlabel 制作的打印文件
3.修改模版里面的文本内容
/VT=Text0:1234      //Text0 是文本对象名称 1234 是修改后的文本内容
4.修改模版里面的条码内容
/VB=CodeBar0:1234   //CodeBar0 是条码对象名称 1234 是修改后的条码内容
5.启动打印
/P

```

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

③后台打印进程返回值说明：

- 0 : 打印进程执行成功
- 1 : 进程内核异常
- 2 : 进程内核异常
- 3 : 缺少必需的打印参数项（二.后台打印进程输入命令行说明的步骤 1,2,5 是打印不能缺少的）
- 4 : BLX 文件加载异常
- 5 : USB 端口打开异常
- 6 : 网络端口打开异常
- 7 : 网络参数格式出错误（/I=NET:192.168.1.69,9100 其中 192.168.1.69 是 IP 地址 9100 是端口，中间的 ‘:’ 和 ‘,’ 不可缺少）
- 8 : 没有选择打印端口
- 9 : 没有选择 BLX 文件
- 10 : 打印 BLX 时发生异常

范例：

C 盘根目录有一个标签文件 test.BLX

NMKPCL_Cmd.exe 文件在 D 盘 Release 文件夹中

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

执行代码如下：

```

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

```

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，

```

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

```

Note: The order of items 1 and 2 above cannot be changed and they must be the first two parameters. Items 3 and 4 are added as needed, with no limit on quantity; item 5 must be last.

3) Return values of the background printing process:

0: print process succeeded

-1: process kernel error

-2: process kernel error

-3: missing required print parameter(s) (steps 1, 2 and 5 in section 2 are mandatory for printing)

-4: BLX file load error

-5: USB port open error

-6: network port open error

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

-8: no print port selected

-9: no BLX file selected

-10: error while printing the BLX

Example:

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

NMKPCL_Cmd.exe is in the Release folder on drive D:

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

Execute 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 status of the print & apply system via port 9200. After the software connects to the printer, it sends data the printer can recognize; the printer executes the specified command or prints label data. The software can then receive the information returned by the printer,

得到打印成功或失败后的故障信息。

返回的故障信息说明

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

以上就是一个打印机打印后返回的信息（0X 表示 16 进制数据）。

各个数据说明如下：

byte0: 数据开始标志

byte1,byte2:

0XFF 0XFF 正在打印中

0XFF 0XFE 打印完成

0XFF 0XFD 贴标完成

0XFF 0XFC 打印机空闲

byte3,byte4: 打印机状态数据长度（0x00 0x04）

byte5: 分割字符

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

bit0--打印暂停

bit1--打印头抬起

bit2--缺纸

bit3--色带异常

bit4--色带缺失

bit5--黑标错误

bit6--打印头温度过高

bit7--打印头电压过低

bit8--打印数据异常

bit9--切刀异常

bit10--程序复位重启

bit11--贴标臂异常

...

bit24:打印机剩余标签个数

bit25:打印机剩余标签个数

bit26:打印机剩余标签个数

bit27:打印机剩余标签个数

bit28:打印机剩余标签个数

bit29:打印机剩余标签个数

bit30:打印机剩余标签个数

bit31:打印机剩余标签个数

byte10:数据结束标志

...

obtaining 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 a message returned by the printer after printing (0X denotes hexadecimal data).

The individual bytes are described as follows:

byte0: data start flag

byte1, byte2:

0XFF 0XFF - printing in progress

0XFF 0XFE - printing completed

0XFF 0XFD - labeling completed

0XFF 0XFC - printer idle

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

byte5: delimiter

byte6-byte9: correspond to bit31 - bit0; setting a bit to 1 indicates a different printer error state, where:

bit0 - printing paused

bit1 - printhead lifted

bit2 - out of paper

bit3 - ribbon error

bit4 - ribbon missing

bit5 - black mark error

bit6 - printhead overtemperature

bit7 - printhead voltage too low

bit8 - print data error

bit9 - cutter error

bit10 - program reset/restart

bit11 - labeling arm error

...

bit24-bit31: remaining label count

byte10: data end flag

...

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。

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

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

4) Barcode-scan printing

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

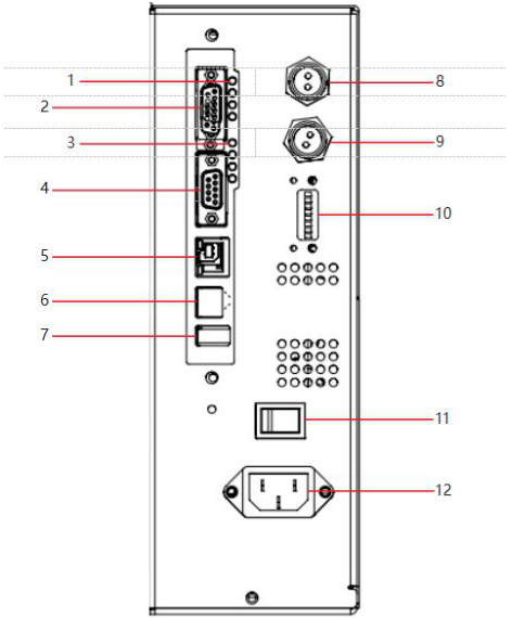
硬件连接说明

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

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

1. Rear panel interface definitions

1. Output power indicator 2. Print-complete indicator 3. Label-complete indicator 4. Alarm signal indicator

2. Signal input / signal output interface C

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

4. RS232 serial data port

5. RJ45 data network port

6. USB data interface

7. USB device interface

8. Start-print aviation plug A

9. Start-label aviation plug B

10. Sensor selection switch

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

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“0”断开位置。

1.2 传感器选择开关用法（务必关机后更改）

当打印的标签高度很小时，可以使用对射传感器，让标签走纸更精准

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

1.3“RS232 数据串口”DB9 引脚定义：

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

1.4“信号输入、信号输出接口 C” DB15 引脚定义：

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

11. Main power switch

12. Power cord inlet

1.1 Power on/off

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

Power off: press the main power 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 for more precise media feeding.

Sensor selection switch

DIP switch channels 1-4 / DIP switch channels 5-8

Select reflective sensor: ON, digit side

Select through-beam sensor: digit side, ON

1.3 RS232 serial port DB9 pin definition:

Printer serial port DB9 female

Pin | Function | Abbreviation

1 | Not connected | -

2 | Transmit data | TXD

3 | Receive data | RXD

4 | Not connected | -

5 | Signal ground | GND

6 | Not connected | -

7 | Not connected | -

8 | Not connected | -

9 | Not connected | -

1.4 Signal input / signal output interface C - DB15 pin definition:

Pin | Wire color | Definition | Abbreviation

14 | Pink | Output 24 V | 24V

10 | Blue | Print-complete output + | ENDP+

15 | Light green | Output 0 V | 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-

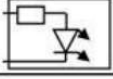
4 | Brown-white | Label-complete output + | ENDT+

13 | White | Clear-error input | CERR

5 | Red | Label-complete output - | ENDT-

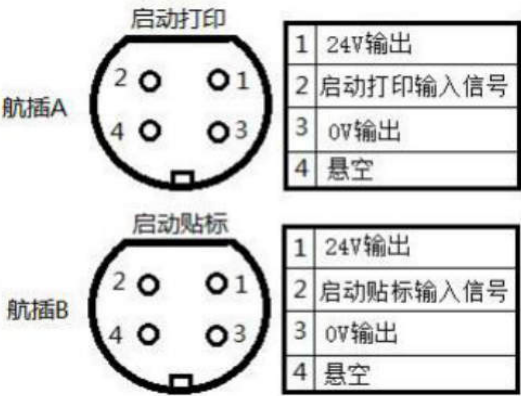
Remaining pins are not connected

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

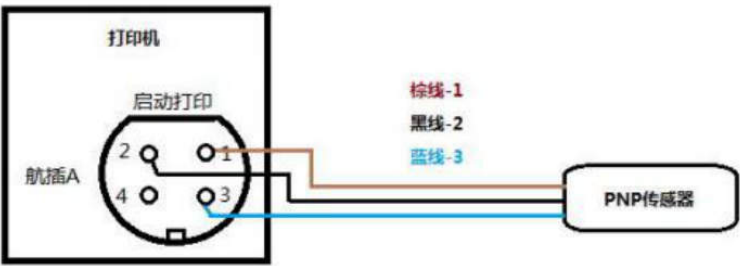
输入信号 (非隔离 PNP 型)	启动打印	输入信号为高电平有效 
	启动贴标	
	清除错误	
输入信号 (光耦隔离型)	清除数据	NPN 或 PNP 型输入  DB15.11 DB15.12
输出信号 (光耦隔离型)	打印状态	NPN 或 PNP 型输出  DB15.10/4/3 DB15.9/5/8
	贴标状态	
	报警状态	

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

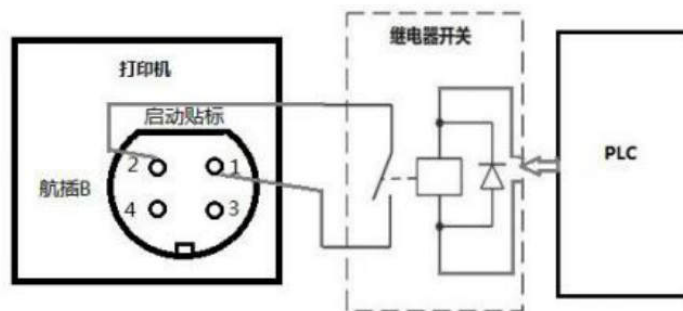
2. Wiring for start-print aviation plug A and start-label aviation plug B

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

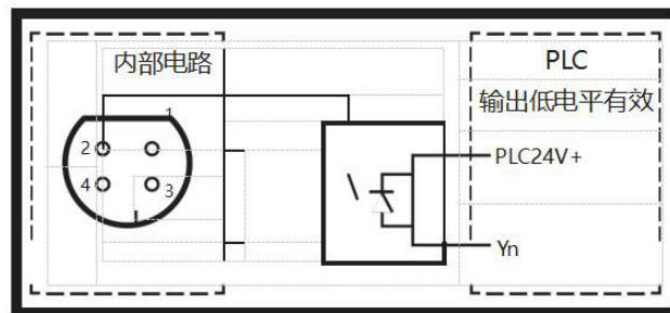
1) Must connect to a PNP photoelectric sensor

2) Method of connecting to a PLC

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



3) 经由继电器接 PLC 方法

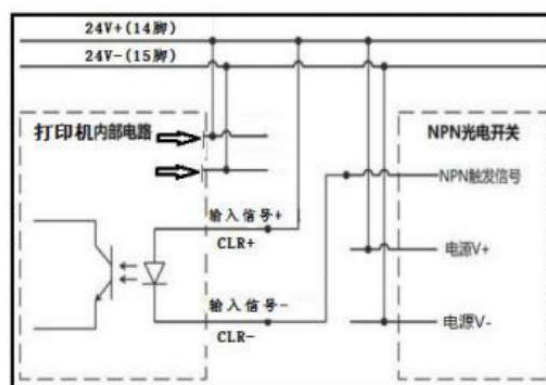


3.接口 C 接线说明 (图中 24V+为打印机输出的 24V, 24V-为打印机输出的 0V)

3.1 清除数据输入信号接法

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

1) 接 NPN 型传感器



2) 接 PNP 型传感器

3) Method of connecting to a PLC via a relay

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

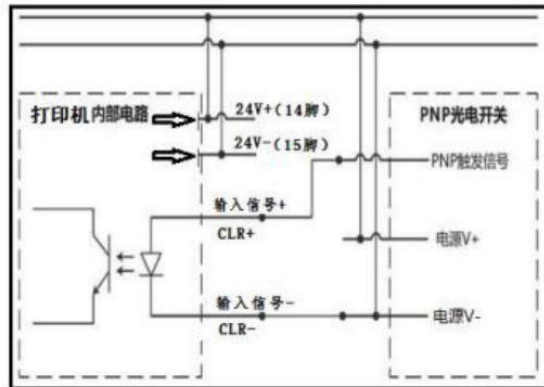
3.1 Clear-data input signal wiring

The clear-data input signal is an isolated signal. It can accept either NPN or PNP input.

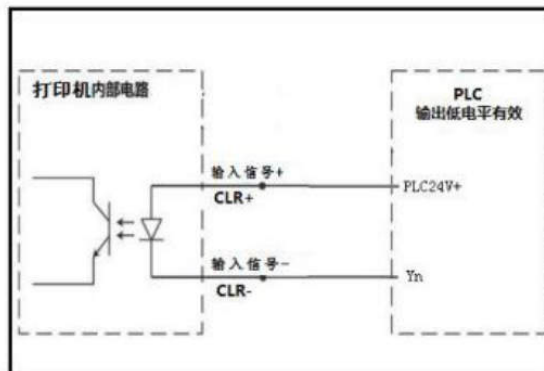
1) Connecting an NPN sensor

2) Connecting a PNP sensor

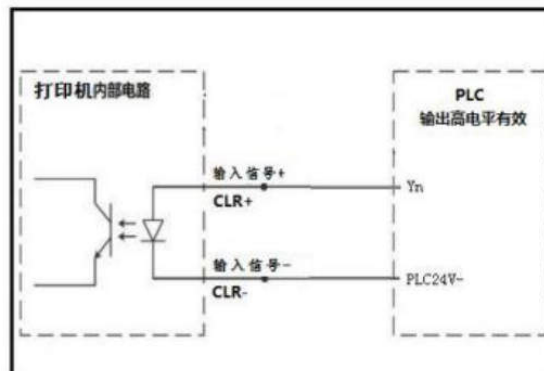
Illustration/diagram page - see the original Chinese document for the image.



3) 对接 PLC 输出有效信号为低电平的方法

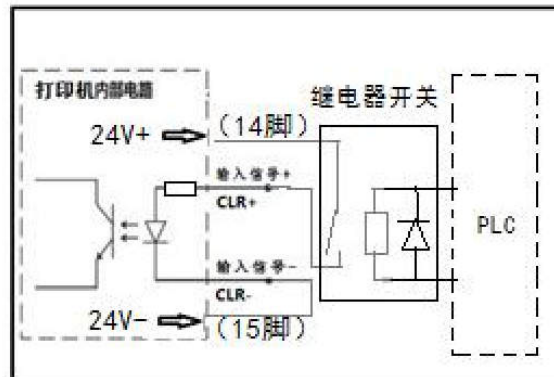


4) 对接 PLC 输出有效信号为高电平的方法



5) 清除数据输入信号经由中间继电器接 PLC 输出端方法

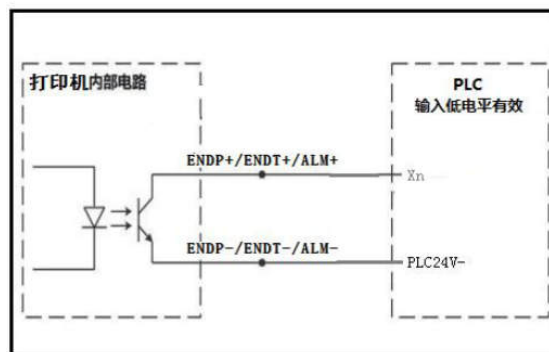
- 3) Method for connecting to a PLC output whose active signal is low level
 - 4) Method for connecting to a PLC output whose active signal is high level
 - 5) Connecting the clear-data input signal to a PLC output via an interposing relay
- Illustration/diagram page - see the original Chinese document for the image.*



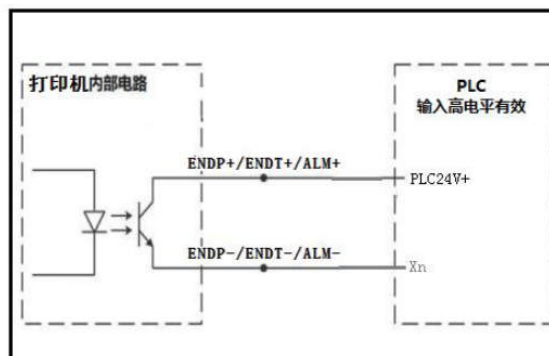
3.2 接口 C-输出信号接法 (打印完成输出、贴标完成输出、报警信号输出)

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



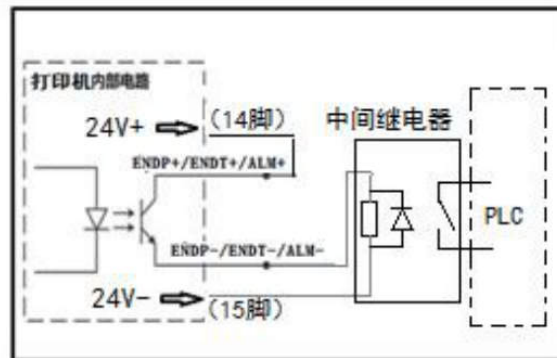
3) 接口 C 输出信号经由中间继电器接 PLC 输入端方法

3.2 Interface C output signal wiring (print-complete output, label-complete output, alarm signal output)

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

- 1) PLC input active signal is low level
- 2) PLC input active signal is high level
- 3) Connecting interface C output signals to a PLC input via an interposing relay

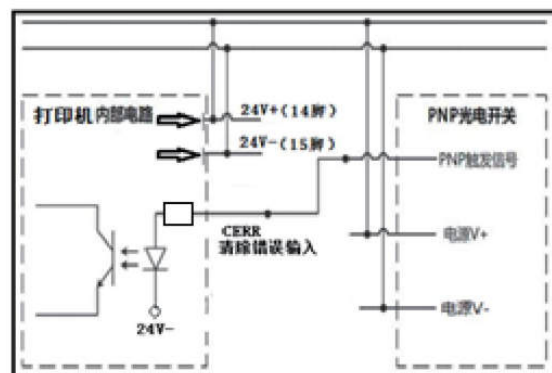
Illustration/diagram page - see the original Chinese document for the image.



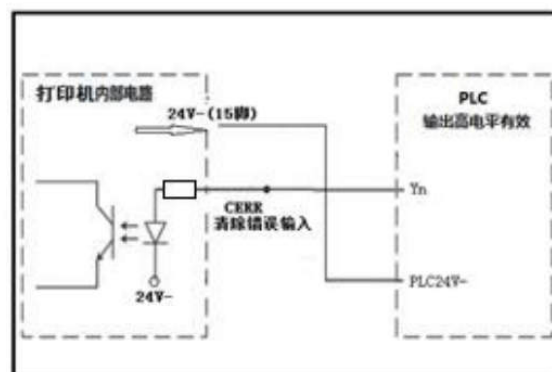
3.3 接口 C-清除错误信号

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



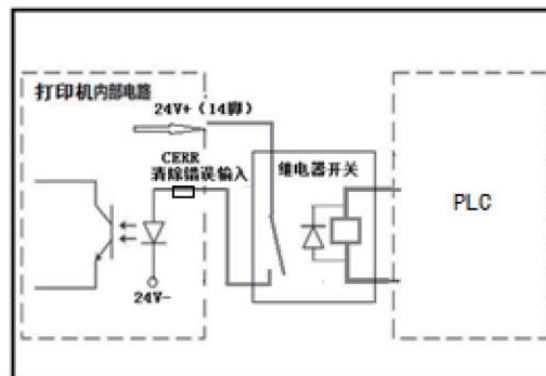
- 3) 清除错误输入信号经由中间继电器接 PLC 输出端方法

3.3 Interface C clear-error signal

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

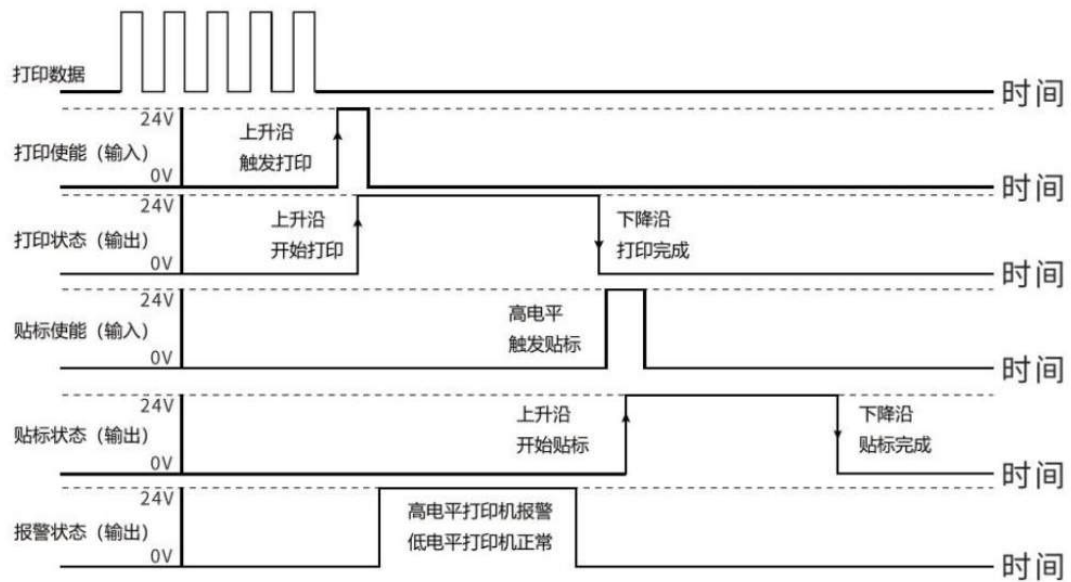
- 1) Must connect to a PNP photoelectric sensor
- 2) Method for connecting to a PLC output whose active signal is high level
- 3) Connecting the clear-error input signal to a PLC output via an interposing relay

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：

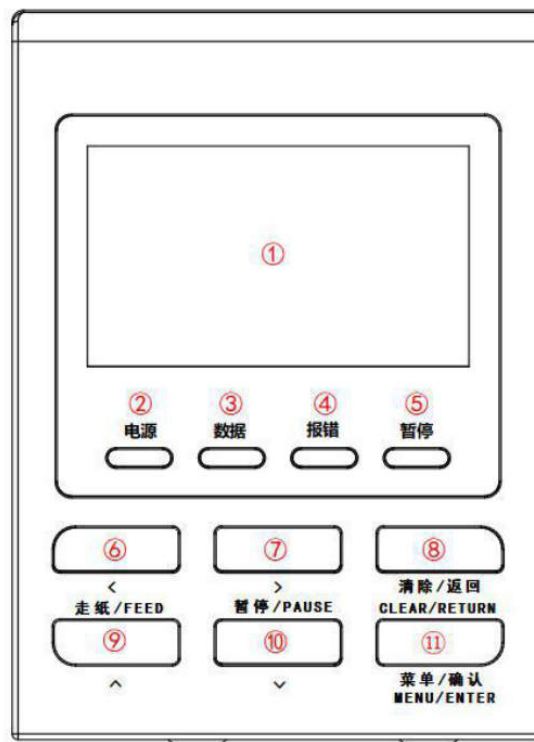


控制面板说明

4. Timing diagram

Control panel description

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



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

屏幕说明 以下是打印机开机以后屏幕显示的信息

1. Display: shows the current status of the printer
 2. Power (green indicator)
 3. Data (green indicator)
 4. Error (red indicator)
 5. Pause (red indicator)
 6. Each press of 'Feed/FEED' forces the printer to feed out one blank label. '<' left arrow key, effective only in menus
 7. Pressing 'Pause/PAUSE' pauses/resumes printing. '>' right arrow key, effective only in menus
 8. 'Clear' clears the error so the printer can print again. 'Return' goes back one level or exits the menu, effective only in menus
 9. '^' up arrow key, effective only in menus; changes parameter values, commonly used to increase a value
 10. 'v' down arrow key, effective only in menus; changes parameter values, commonly used to decrease a value
 11. 'Menu' press to enter the menu function
- 'Confirm' is effective only in menus. It selects and confirms items on the display
- Screen description - the following is the information shown on the screen after the printer starts up
- Illustration/diagram page - see the original Chinese document for the image.*



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

用户菜单 以下是打印机的用户菜单以及各菜单中显示的项目。

菜单

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

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

V4X0B-T - printer model

NSCL - command set currently used by the printer

Online - current status of the printer

Print count - 000000 is the current print count; it resets to 000000 after restarting the printer.

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

User menu - the following is the user menu of the printer and the items shown in each menu.

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. New-user wizard

1. System settings

Software settings [password: 1234]

Command set: NSCL / NTPL / NZPL

Trigger mode: continuous / single

Parameter lock

Media type

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

Media feed offset
Coordinate offset
Label size
Print method
Print speed
Print darkness
Compatibility mode: DEFAULT / TOSHIBA / ZEBRA
Start offset
Printer ID: show / hide
Re-print defective label
Media retract mode: retract before printing / retract after printing
Communication interface: USB / RS232
Baud rate
Data bits
Stop bits
Parity
Network interface: IP / subnet / gateway / port
Password settings: set password / disable password

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

Real-time clock: date / time / day of week
Alarm settings
Ribbon alarm settings
Alarm 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 method: thermal (no ribbon) / thermal transfer (ribbon printing)
Media type: continuous / black mark / gap
Print speed
Print darkness
Media feed offset
X-axis offset
Y-axis offset
Text spacing
Print count: controlled

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

uncontrolled
3. Sensor calibration
Automatic sensor detection
Reflective sensor setting
Transmission sensor setting
Update sensor information
Print sensor curve
4. Labeling arm
Parameter settings
Labeling type: industrial printer / labeling machine / scrape-labeling machine
Rewind motor: enable / disable
Print signal: pulse / level / disabled
Label signal: pulse / level / disabled
Print cycle
Labeling delay
Rewind length
Rewind speed
Rewind pause
Delayed rewind
Dropped-label detection: enable

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

disable
Media retract delay
Media retract speed
Vacuum length
Pressure filtering
In-position signal: enable / disable
Labeling completed
Label plate reset
Label plate disengage
Vacuum hold
Blow-label delay
Rewind hold
Long rewind
Short rewind
Test mode
Single labeling test
Cycle labeling test
Step labeling test
Labeling arm test
Rewind motor test
Print cycle test
Labeling mode: print & label / label without printing
Manual control
Labeling arm
Blow tube
Label suction plate

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

Relay
5. RFID
6. Template printing
Template
Variable
Mode
FR command
Protocol data
IO signal
Barcode scan
7. Configuration selection
Configuration selection
Config_1 / Config_2 / Config_3 / Config_4 / Config_5
Current config =>
Current config <=
8. Factory settings
Restore factory defaults: no / yes
System test
System configuration page
Printhead test
Label print test
Real-time monitoring
Printhead temperature
Ribbon sensor
Rewind sensor
USB communication log

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

菜单使用说明

1、贴标臂功能使用说明：

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

2、菜单设置使用说明：

菜单中参数或设置更改后需要先返回主界面，再关机重启打印机方可保存生效。

Print mileage
Debug mode
Alarm log
9. Version information

HARD:
BOOT:
SOFT:
TYPE:
SN:

10. System restart: no / yes
11. LANGUAGE: CHINESE / ENGLISH
12. New-user wizard

Print parameters
Sensor calibration
Network interface
Labeling parameters
Menu instructions

1. Labeling arm function instructions:

The printer must be powered off. Press and hold the Menu key while switching on the printer; release the key when the error indicator flashes. Enter the menu again, and the labeling arm functions can then be modified.

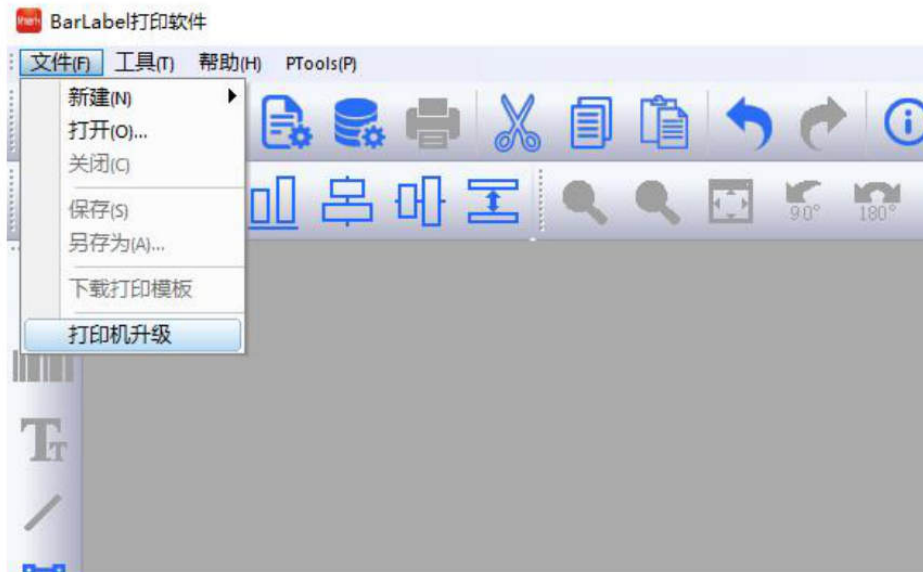
2. Menu setting instructions:

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

打印机程序升级

1. BarLabel 升级

打开 BarLabel 软件，选择“文件”--“打印机升级”



选择“本地升级”--“选择”，找到升级文件，点击升级



2. PTools 升级

Printer firmware upgrade

1. Upgrading via BarLabel

Open the BarLabel software and select "File" - "Printer Upgrade".

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

2. Upgrading via PTools

打开 PTools 软件，选择打印机，点击“连接”



点击“高级设置” -- “打印机升级”



选择“本地升级” -- “选择”找到升级文件，点击“升级”



Open the PTools software, select the printer, and click "Connect".
Click "Advanced Settings" - "Printer Upgrade".
Select "Local Upgrade" - "Select", locate the upgrade file, and click "Upgrade".
Illustration/diagram page - see the original Chinese document for the image.

3. U 盘升级

准备 U 盘，格式化，文件系统选择 FAT32

将升级文件拷贝到 U 盘中

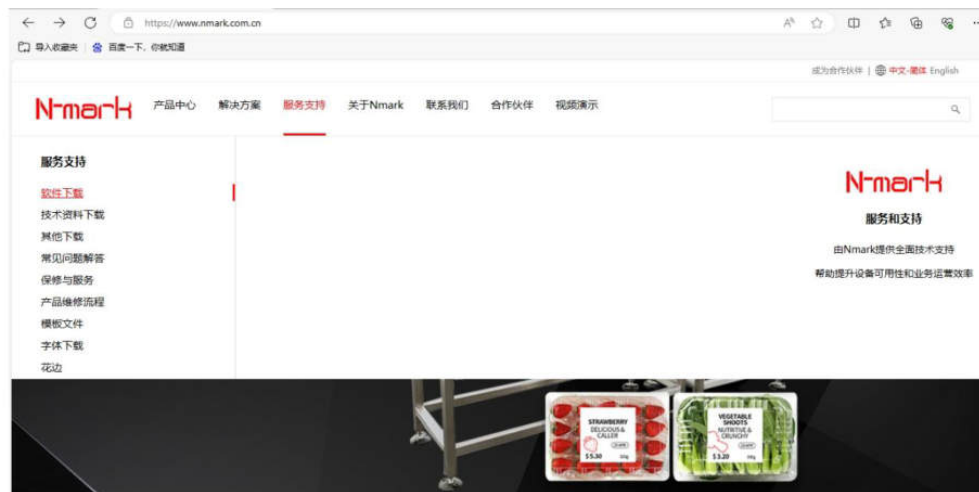
在打印机菜单上点击“菜单” -- “系统设置” -- “U 盘更新”，进入 U 盘选中升级文件，点击“确认”

打印机开始升级程序。

二、驱动安装

下载

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



2. 点击打印机驱动下载，点击下载按钮。

3. Upgrading via USB drive

Prepare a USB drive and format it with the FAT32 file system.

Copy the upgrade file to the USB drive.

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

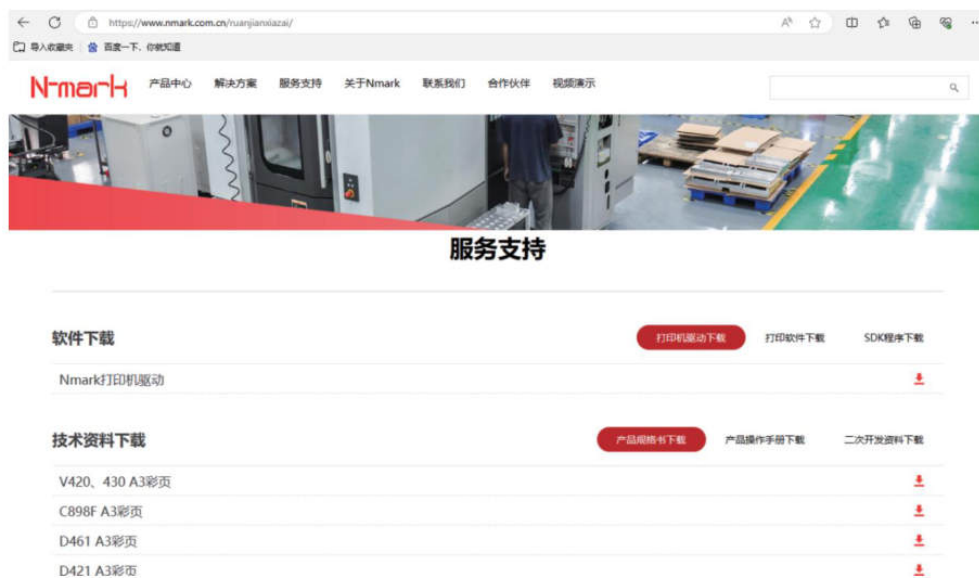
The printer begins the upgrade.

2. Driver installation

Download

1. Enter the official website www.nmark.com.cn in a computer browser, go to the home page, 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。

Installing the driver

Installing the USB driver

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



3. 点击安装驱动



4. 选择我同意许可合约的条款，点击下一步

3. Click Install Driver.
 4. Select "I accept the terms of the license agreement" and click Next.
- Illustration/diagram page - see the original Chinese document for the image.*

打印机安装向导

许可协议

安装前请仔细阅读许可协议



**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

打印机安装向导

选择端口

选择打印机已绑定的端口



→ 网络端口(T)
安装有线或无线网络打印机

→ USB端口(U)
安装USB即插即用设备

→ 其他(O)
安装串口 (COM) 或并口 (LPT)

退出 (E) < 上一步 (P) 下一步 (N) >

6.重新连接 USB 线

5. Select the USB port.

6. Reconnect the USB cable.

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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。



退出 (E)

<上一步 (P)

Next >

7. 点击安装

打印机安装向导

打印机选项

请在安装前指定打印机选项

NiceLabel

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

☐ 我要将这打印机设置为 Windows 默认打印机 (D)

退出 (E)

<上一步 (P)

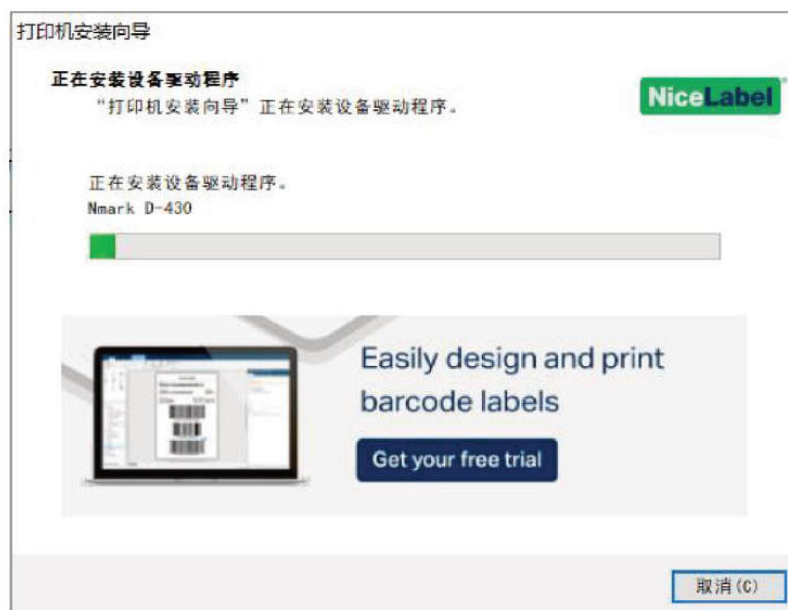
安装 (I)

8. 等待安装完成

7. Click Install.

8. Wait for the installation to finish.

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



9. 安装完成，点击退出



安装网络端口驱动

1. 重复上述步骤一到步骤四，选择网络端口

9. When installation is complete, click Exit.

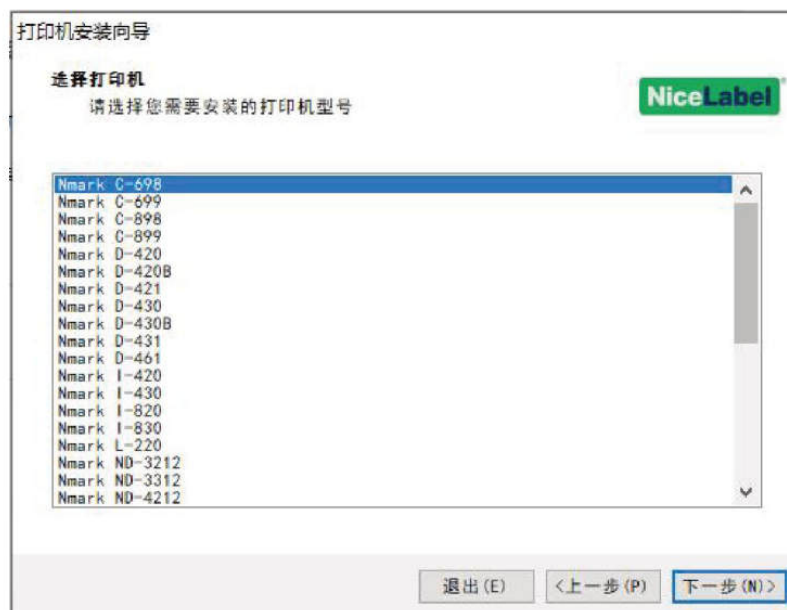
Installing the network port driver

1. Repeat steps 1 to 4 above, selecting the network port.

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



2.选择与打印机对印的驱动程序，点击下一步



3.选择创建一个新的网络端口，点击下一步

2. Select the driver that matches the printer, and click Next.

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

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

打印机安装向导

选择网络端口
选择您打印机已连接的端口

☒ 创建一个新的网络端口 (C)
☐ 使用现有端口 (U)

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

☐ 显示所有端口 (A) 配置 (0)

退出 (E)
< 上一步 (P)
下一步 (N) >

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

打印机安装向导

添加网络端口
为目标打印机配置端口

端口名:

打印机名或 IP 地址:

端口号:

退出 (E)
< 上一步 (P)
下一步 (N) >

5. 点击安装

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

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

打印机安装向导

打印机选项

请在安装前指定打印机选项

NiceLabel

Printer name: Nmark V-430

驱动程序版本: 8.0.22.17536

端口名: LAN_Nmark_V-430_(1)_(1)

选择语言: 简体中文

位置:

备注:

☐ 我要将这打印机设置为 Windows 默认打印机 (D)

退出 (E) <上一步 (P) 安装 (I)

6.等待安装完成

打印机安装向导

正在安装打印机驱动

安装向导正在安装打印机驱动。

NiceLabel

添加任意端口或语言监控器...





Easily design and print
barcode labels

Get your free trial

取消 (C)

7.安装完成，点击退出

6. Wait for the installation to finish.
7. When installation is complete, click Exit.

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



驱动设置

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

三、Nmark 打印贴标机色带报警说明

1.功能描述

色带报警功能时 Nmark 打印贴标机上一项基础功能，设置该功能可以让用户第一时间知悉色带的使用情况，提醒用户及时更换色带，提高生产效率。色带报警功能有三种表现形式，一种为屏幕显示，一种为 IO 信号输出，一种为 TCP/IP 数据输出，IO 信号输出和 TCP/IP 数据输出可利用在无人值守系统中，通过获取输出信号确定色带是否用完。

Driver settings

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

3. Nmark print & apply system ribbon alarm instructions

1. Function description

The ribbon alarm is a basic feature of the Nmark print & apply system. Enabling it lets the user learn the ribbon usage status immediately and be reminded to replace the ribbon in time, improving production efficiency. The ribbon alarm has three forms of output: 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 reading the output signal.

2. 设置方法及模式介绍

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

仅报警提示模式：

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

报警且停止打印模式：

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

3. 外部信号接口输出

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

4. TCP/IP 输出

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

返回的数据帧格式为：

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

2. Setup method and modes

Enter the printer menu, go to the System Settings submenu, and select Alarm Settings to configure the ribbon alarm mode. Two alarm modes are available: Alarm Only, and Alarm and Stop Printing.

Alarm-only mode:

When the ribbon runs out, the screen shows a ribbon error prompting the user to check whether the ribbon is used up; the signal output port outputs an error signal, and TCP/IP outputs the alarm data.

Alarm-and-stop-printing mode:

When the ribbon runs out, the screen shows a ribbon error prompting the user to check whether the ribbon is used up; the signal output port outputs an error signal, TCP/IP outputs the alarm data, and the print job is stopped.

3. External signal interface output

Different series of Nmark print & apply systems use different external interfaces. This section focuses on the alarm output; for other content, refer to the user manual for up-to-date information.

4. TCP/IP output

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

The returned data frame format is:

0X7B 0XFF 0XFF 0X00 0X04 0X7C 0X00 0X00 0X00 0X00 0X7D - 0X7B is byte0; the ribbon alarm flag is bit4 of byte9. When a ribbon alarm occurs, that bit is set to 1.

四、Nmark 工业打印机及打印贴标机错误出纸的解决方案

在线打印

在线打印模式下打印过程中出现连续两张标签，可以使用以下几个方法查看：

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

注：传感器校准方法见下方在线打印方法传感器校准方法

脱机模板

在线打印模式下打印过程中出现连续两张标签，可以使用以下几个方法查看：

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

4. Solutions for media feed errors on Nmark industrial printers and print & apply systems

Online printing

If two consecutive labels appear 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 that the media type and label size are correct.
2. If the media type is black-mark media, open the printhead and check whether the sensor position under the label stock is offset; if so, manually move it under the label stock. If the sensor surface is dirty, wipe it with alcohol.
3. Clear all print jobs, find Parameter Calibration in the printer menu, and select Automatic Sensor Detection to calibrate the sensor parameters. For V4X0B-series print & apply systems, after sensor calibration the screen shows the sensor curve; if the peak is too small or the curve is a straight line, the sensor may be damaged.
4. If changing the media type to gap media, lock the media type under System Settings - Software Settings in the printer, then calibrate the sensor parameters following step 3.
5. Appropriately increase the Labeling Delay in the labeling arm options to filter out interference signals.

Note: See the sensor calibration method for online printing below.

Offline template

If two consecutive labels appear 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 that the media type and label size are correct.
2. If the media type is black-mark media, open the printhead and check whether the sensor position under the label stock is offset; if so, manually move it under the label stock. If the sensor surface is dirty, wipe it with alcohol. See Figure 1 for the sensor picture.
3. Power 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

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

parameters. 4. Change the template trigger mode to FR command, restart the print & apply system, find Parameter Calibration in the printer menu, and select Automatic Sensor Detection to calibrate the sensor parameters. For V4X0B-series print & apply systems, after calibration the screen shows the sensor curve; if the peak is too small or the curve is a straight line, the sensor may be damaged.

6. Without changing the template trigger mode, change the media type to one other than continuous media; lock the media type under System Settings - Software Settings, then calibrate the sensor parameters following step 4.

7. Appropriately increase the Labeling Delay in the labeling arm options to filter out interference signals.

Note: See the sensor calibration method for offline template mode below.

Sensor calibration method - online printing

V4X0 series sensor calibration method

1. Enter the printer menu and select Print Parameters.

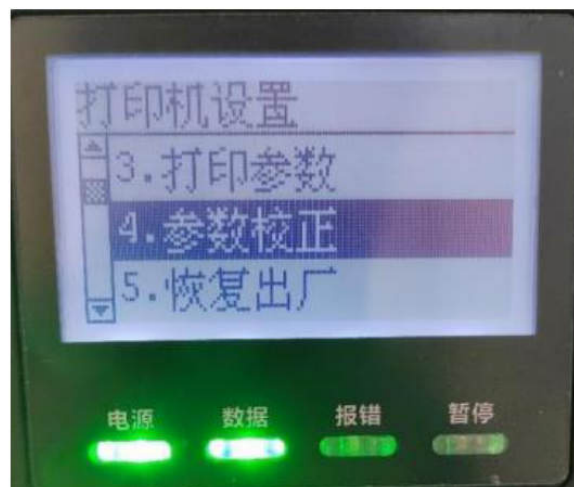


2. 进入打印参数菜单，查看纸张类型，如果纸张类型为黑标，必须确保黑标传感器位于标签纸正下方

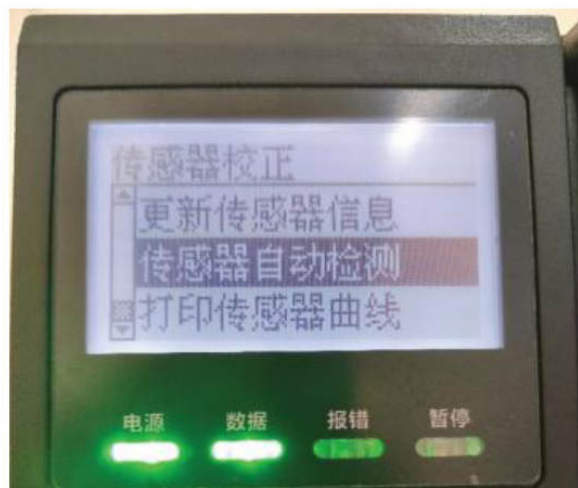


3. 返回打印机菜单界面，选择参数校正，按确认键进入

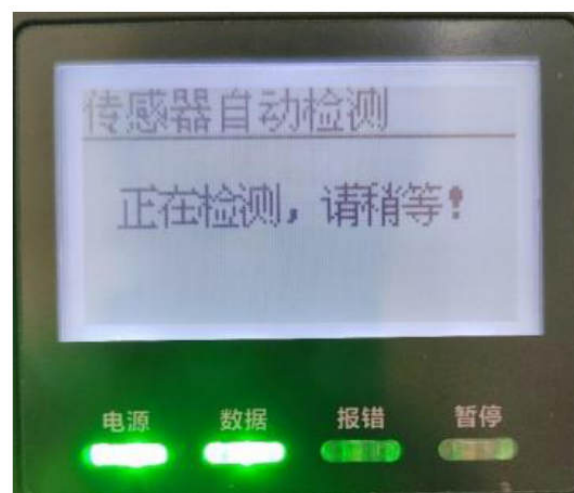
2. Enter the Print Parameters menu and check the media type. If the media type is black mark, ensure the black-mark sensor is directly under the label stock.
 3. Return to the printer menu, select Parameter Calibration, and press Confirm to enter.
- Illustration/diagram page - see the original Chinese document for the image.*



4. 选择传感器自动检测，按确认键开始进行传感器校准。



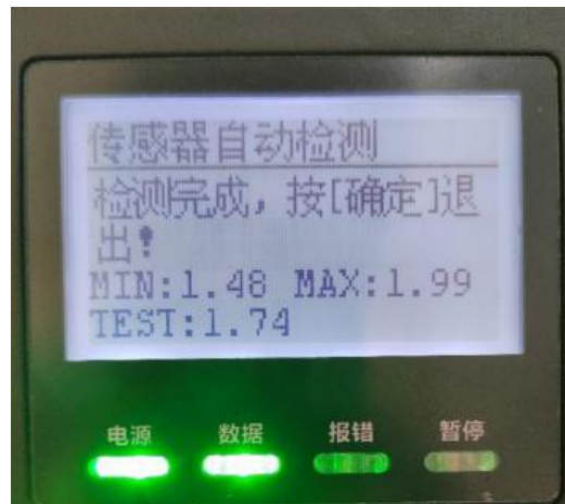
5. 等待校准完成



4. Select Automatic Sensor Detection and press Confirm to start sensor calibration.
5. Wait for calibration to finish.

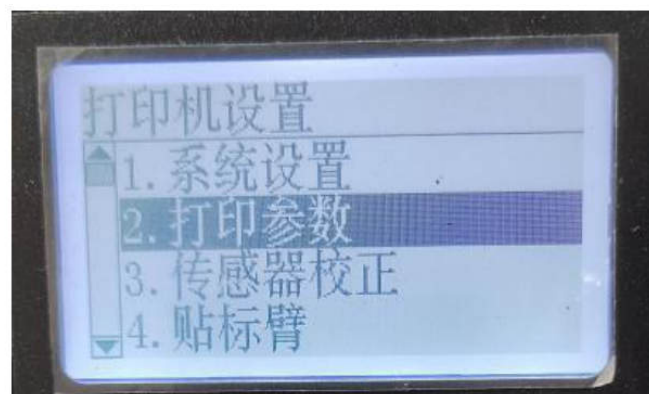
Illustration/diagram page - see the original Chinese document for the image.

6.校准完成后屏幕显示传感器最大值，最小值以及测试值



V4X0B 系列传感器校准方法

1.进入打印机菜单，选择打印参数



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

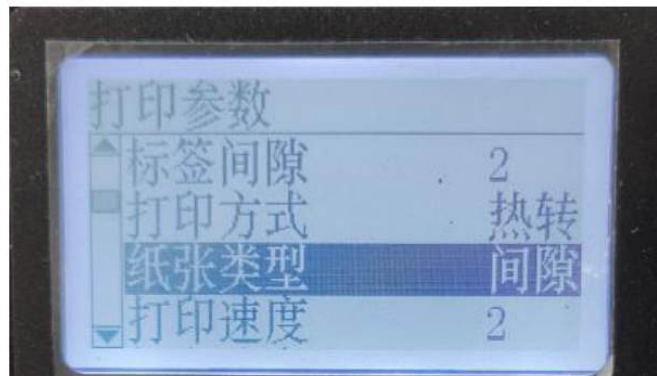
6. After calibration, the screen shows the sensor maximum, minimum, and test values.

V4X0B series sensor calibration method

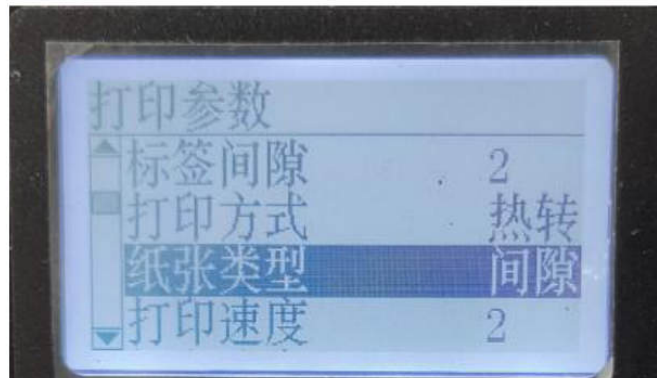
1. Enter the printer menu and select Print Parameters.

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

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



3. 返回打印机菜单界面，选择传感器校正，按确认键进入



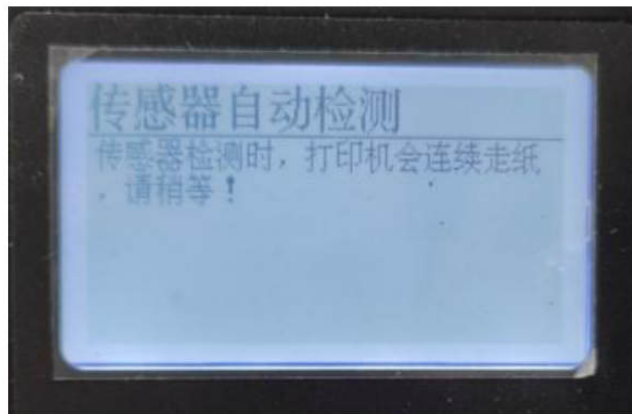
4. 选择传感器自动检测，按确认键开始进行传感器校准



5. 等待校准完成

3. Return to the printer menu, select Sensor Calibration, and press Confirm to enter.
4. Select Automatic Sensor Detection and press Confirm to start sensor calibration.
5. Wait for calibration to finish.

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



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



脱机模板方式传感器校准方法

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

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

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

Sensor calibration method - offline template mode

Method 1: Change the template trigger mode to FR command, power off the printer, press and hold the Feed key, turn on the power, and release the Feed key when the error light flashes; the printer automatically starts sensor calibration.

Method 2: Change the media type (lock the media type under System Settings - Software Settings), power off the printer, press and hold the Feed key, turn on the power, and release the Feed key when the error light flashes; the printer automatically starts 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

5. Nmark print & apply system parameter descriptions

Print parameters

Print height: the height of the label in use.

Print width: the width of the label in use.

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

Print method: use direct thermal for no ribbon; use thermal transfer when a ribbon is present.

Media type: the type of label stock in use. Changing the media type changes the sensor used: continuous media uses no sensor, black-mark media uses a reflective sensor, and gap media uses a transmission sensor.

Print darkness: higher darkness yields darker print; lower darkness yields lighter print.

Print speed: controls how fast labels are printed.

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 count: controlled or uncontrolled. Controlled means the print & apply system prints as many labels as the host computer sends; 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; it depends on 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/disabled (with pulse or level selected, an IO signal is required to trigger printing after print data is sent).
Label signal: pulse/level/disabled (with pulse or level selected, an IO signal is required to trigger labeling after printing completes).
Print cycle: the time interval between two prints.
Labeling delay: delay labeling after receiving the labeling signal.
Rewind length: the length of media the rewind motor retracts.
Rewind speed: the speed of the rewind motor.
Rewind pause: the distance at which the rewind motor pauses; it affects the gap between the label and the label plate.
Delayed rewind: the delay before the rewind restarts after the rewind pause, to ensure the label is held more firmly.
Dropped-label detection: whether to detect the presence of a label under the label plate.
Media retract delay: controls the timing of the rewind motor retraction during the downward stroke of the label plate.
Media retract speed: the retraction speed of the printer motor.
Vacuum length: controls the suction/vacuum position and size on the label plate during printing.
Pressure filtering: filters abnormal signals when the label plate begins to descend.
In-position signal: the signal triggered when the label plate contacts the labeling target.
Labeling completed: the position at which the label-complete signal is triggered.
Vacuum hold: sets how long the label plate stays in contact with the object.
Blow-label delay: the duration of label blowing (used by blow-labeling machines).
Rewind hold: rewind motor mode.
System parameters
Command set: selects the command set currently supported by the printer.
Trigger mode: the number of prints after the print signal is triggered.
Parameter lock: once 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 the presence of media; a value above this indicates no paper.

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

Transmission out-of-paper threshold: the threshold for detecting the presence of media; a value above this indicates no paper.

Template print trigger modes

FR command: FR command

Protocol data: special protocol

IO signal: requires an external IO signal

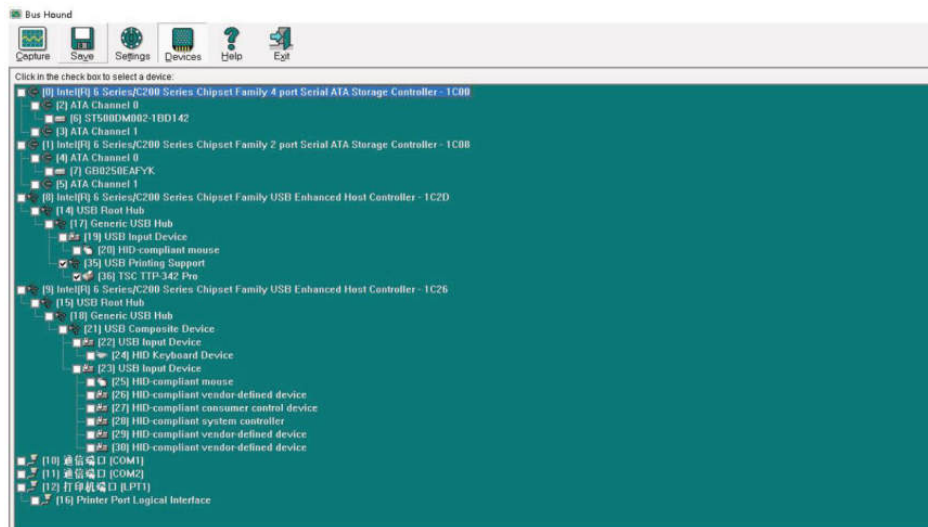
Barcode scan: connect a barcode scanner to the host USB port

6. Guide to USB printing with third-party software on Nmark print & apply systems

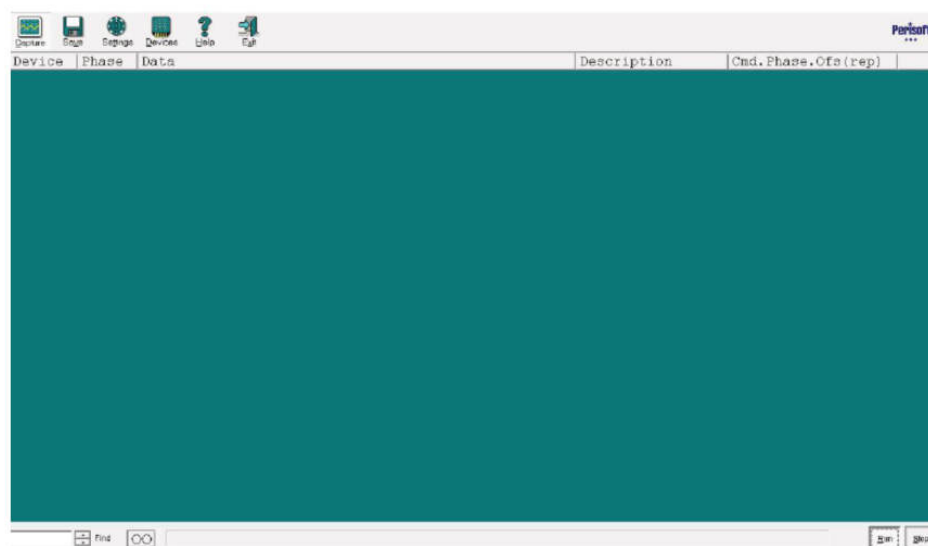
Because of the particular nature of USB communication, calling the Nmark printer driver from another vendor printer-specific software may produce errors. When third-party software must be used, the following method can resolve the inability to call the driver. First, confirm whether the printer supports the command set output by the third-party software, and find the USB parameters of a printer with the same resolution as the Nmark print & apply system that the software targets; the parameters can be captured with the BusHound software. Once the above is determined, modification can proceed.

BusHound parameter capture 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

2. Click Capture, click Stop to clear the window, then click Run to start capturing.
3. Restart the printer to capture 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 USB parameters.

The procedure is as follows:

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

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

(2) 点击 USB 参数，点击读取，此步骤需要超级用户权限



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

安装专用软件对应打印机的驱动

Ptools 升级程序

1. 解压后，双击 ptools 图标



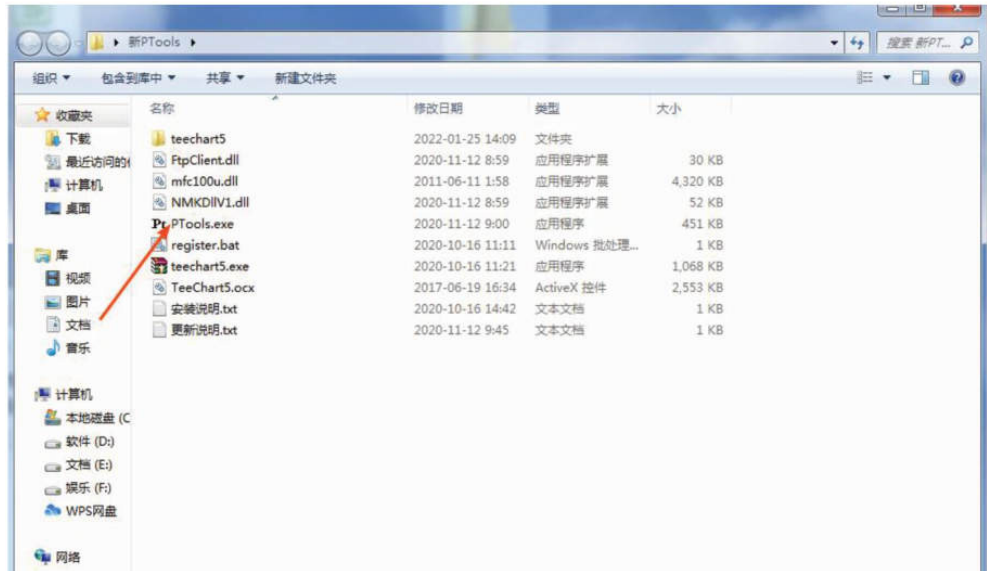
- (2) Click USB Parameters and click Read; this step requires superuser privileges.
 - (3) Change the USB parameters to those of the printer the printing software targets, click Set, and restart the printer.
- Installing the driver for the printer used by the third-party software

PTools upgrade utility

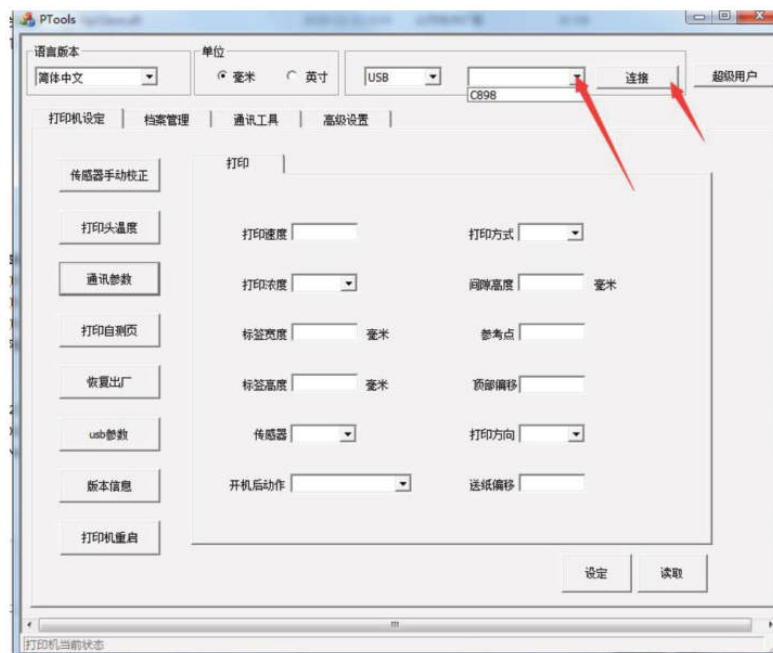
1. After extracting, double-click the PTools icon.

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

2. 双击 ptools 图标



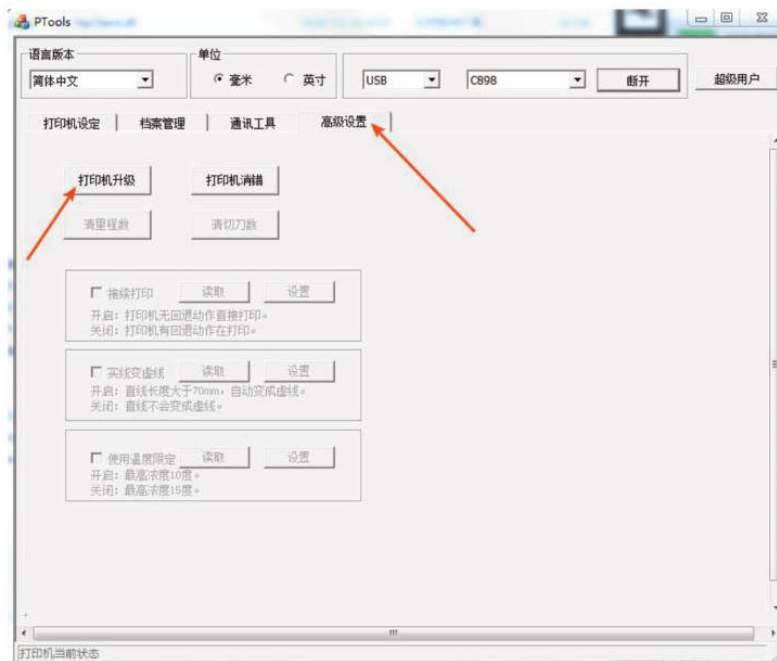
3. 连接好 usb 线，找到机器型号，选中，点连接



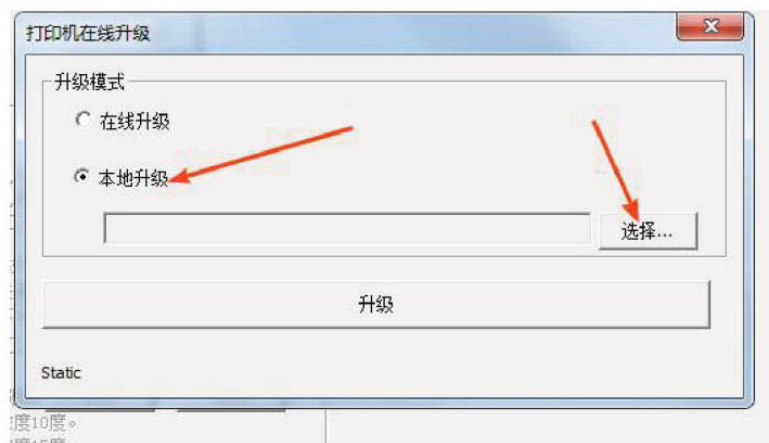
4. 点击高级设置，点击打印机升级

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

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



5. 点击本地升级，点击选择

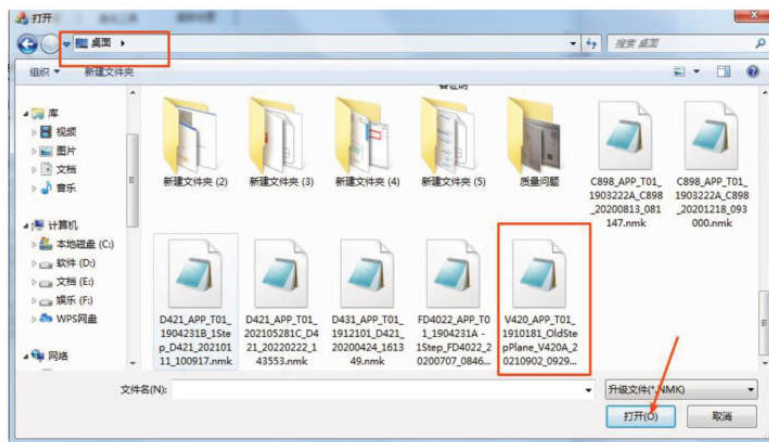


6. 找到升级文件位置，点击打开

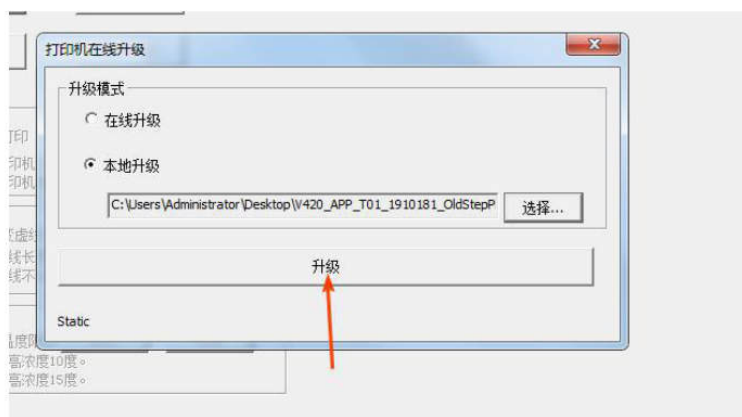
5. Click Local Upgrade, then click Select.

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.

7. Touchscreen Nmark printing software instructions

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

Software introduction

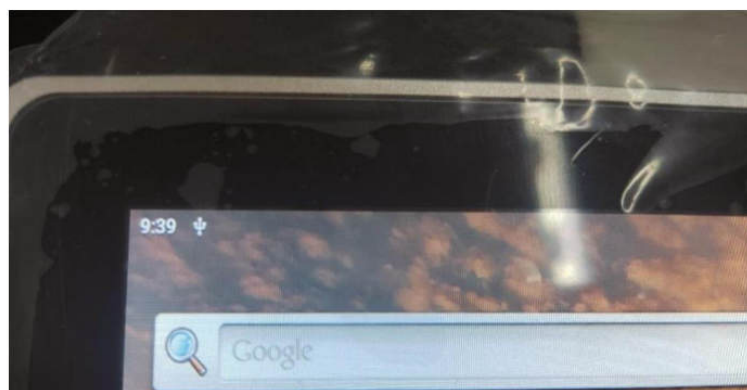
The Nmark label printing software supports two ways of printing labels: editing labels directly in the software, and invoking label files stored on a USB drive. With label editing, the user creates labels on the touchscreen without needing other software. With USB-drive invocation, the user prepares all required label files on a computer using our Barlabel label editing software, stores the .BLX files on a USB drive, and the 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。

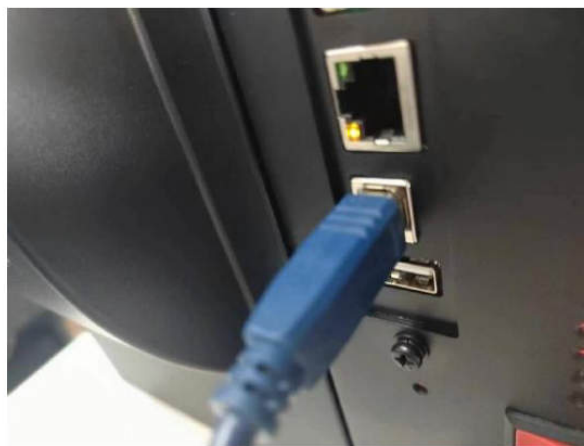


3. 用 USB 线连接触摸屏和 Nmark 打印机

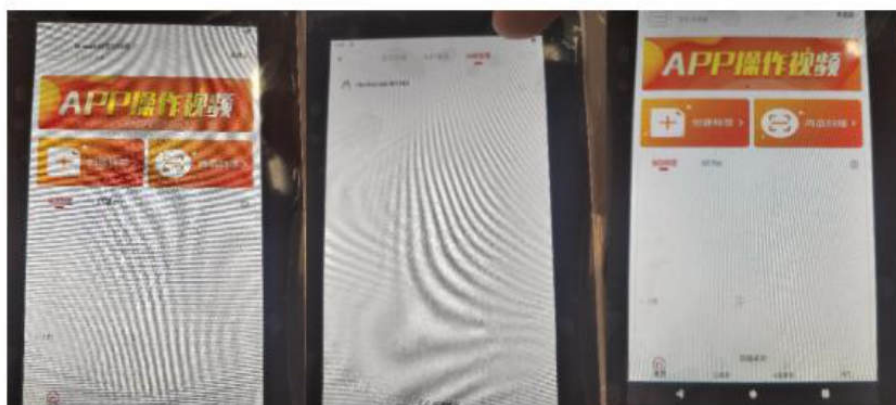
Usage steps

1. Power on the touchscreen and the Nmark printer.
2. Insert the USB drive containing the label files into any USB port below the touchscreen; a connection icon appears on the screen when connected successfully.
3. Connect the touchscreen to the Nmark printer with a USB cable.

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



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

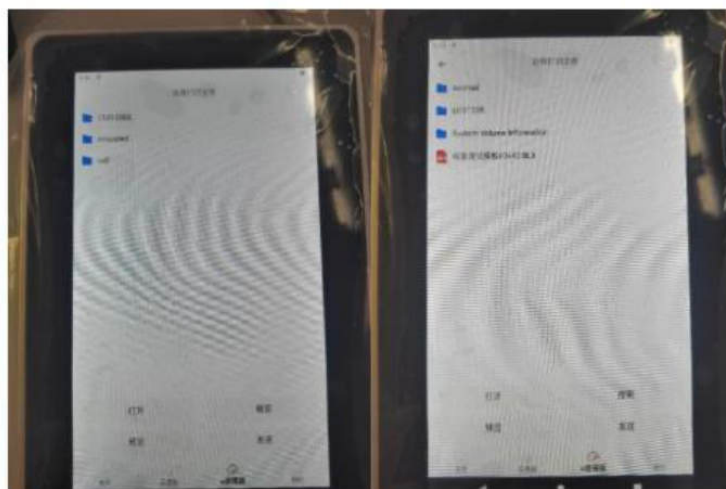


5. 选择 U 盘模板，点击名为 U 盘 id 号的文件夹，打开后即可找到存储的标签文件，选择需要打印的标签文件，点击打开，等待加载完成，点击发送打印机即可打印出需要的标签

4. Open the Nmark label printing software, tap "Not Connected" in the upper-right corner, select USB connection, choose the USB device that pops up, tap OK when the permission request appears, select the USB device again, and a "Connected" prompt appears at the bottom.

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

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



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



7.将 U 盘文件存储在触摸屏内部共有两种方法

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

6. To perform secondary editing of a label on the touchscreen, open the label file to be edited on the USB drive and tap the Edit button; the interface automatically jumps to the label editing screen. After editing, save the label file; it is automatically saved to a local directory and can be viewed from the main screen. The label files on the USB drive are not modified.

7. There are two methods for storing USB-drive files inside the touchscreen.

Method 1: In the touchscreen software, open the label file on the USB drive, tap Edit to enter the editing screen, choose whether to edit the file or not, then save it to store the file 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。



(2)触摸屏和打印机之间通过交换机或者路由器连接

Method 2: On the USB-drive template screen, select the label file to save locally, choose Copy, and select to overwrite or skip files with the same name. Then in the "My" screen of the software, open My Files to see the saved label files.

Software update method

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

Network printing usage

1. Printing via network cable

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

Open the touchscreen settings, select Network & Internet, tap Ethernet, choose Static IP mode and configure the parameters: enter 24 for the network prefix length, and set the IP address and default gateway according to the user local network. 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

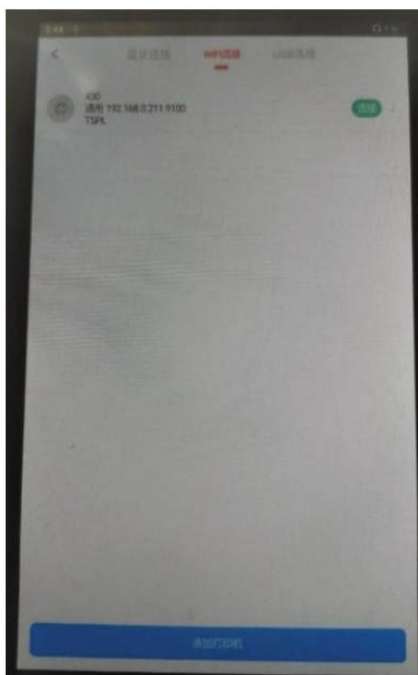
这种连接方式不需要手动配置触摸屏的 IP 地址，交换机或路由器会自动给触摸屏分配 IP 地址

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

With this connection method there is no need to manually configure the touchscreen IP address; the switch or router automatically assigns an IP address to the touchscreen.

2. Printing via Wi-Fi

Connect the printer to the router, and connect the touchscreen to that router Wi-Fi.

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

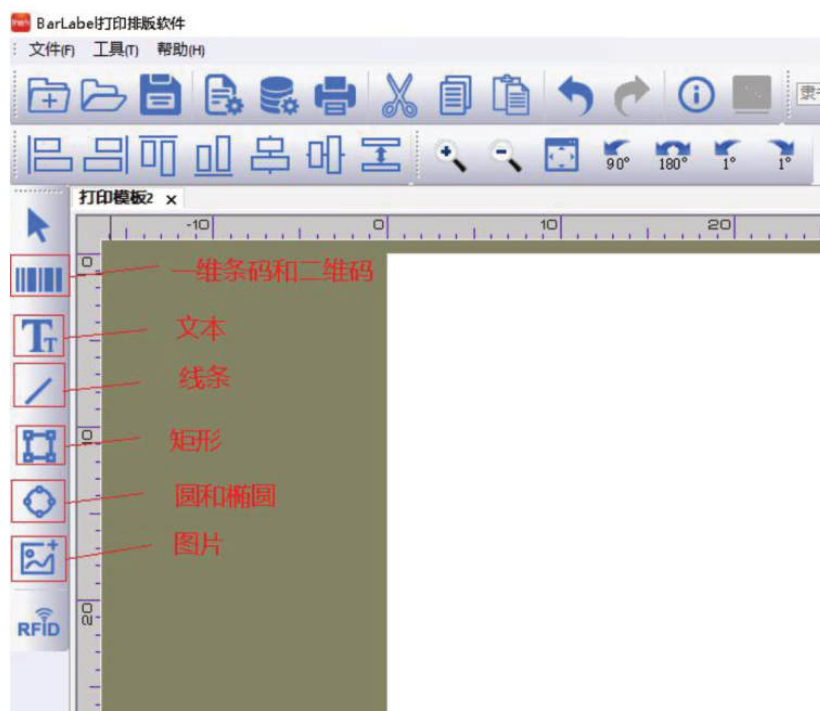
Tap Connect and wait for the software to return to the home screen.

8. Barlabel print template creation and invocation

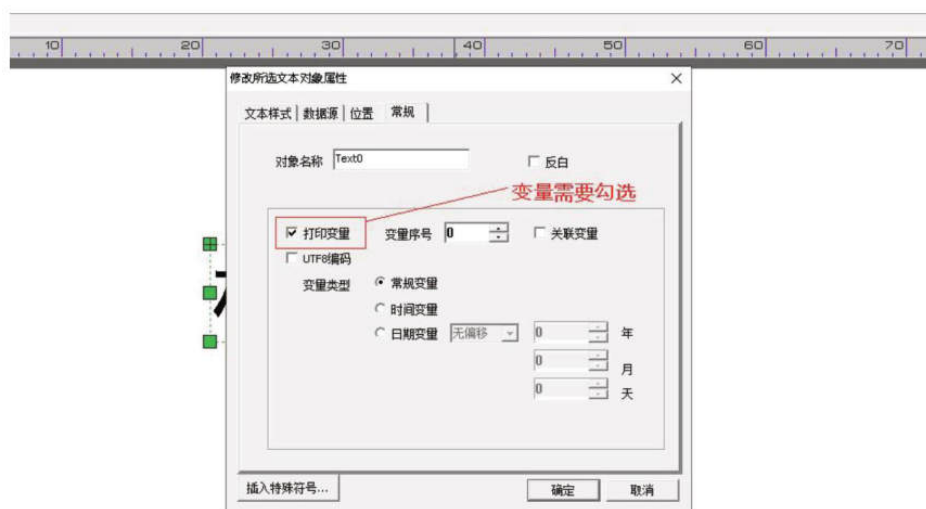
Creating a template

Open the Barlabel software and click File - New - Print Template.

Double-click the blank area to modify the template width, height, resolution, and print method.
Use the controls on the left to edit the template.
Illustration/diagram page - see the original Chinese document for the image.

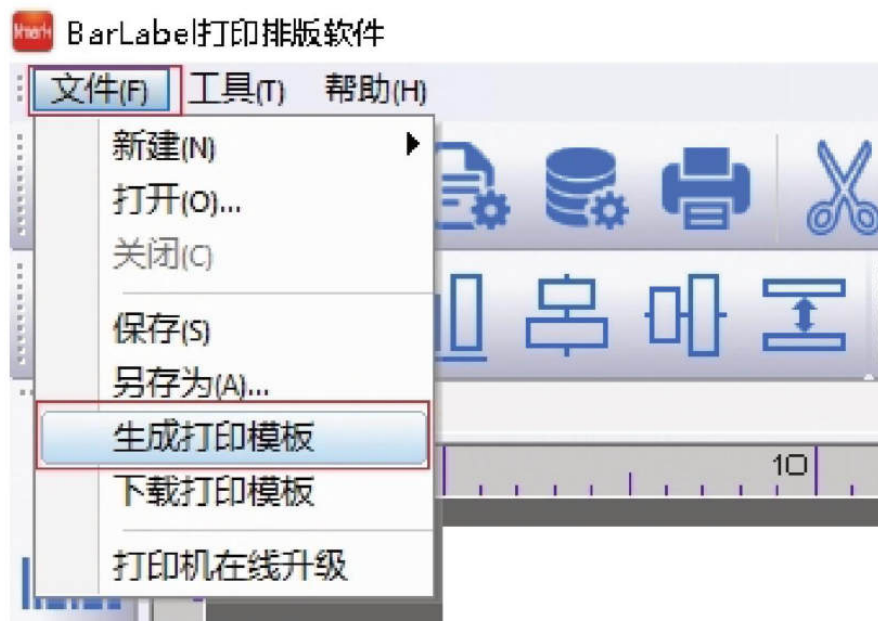


放置好内容后，可双击修改内容的具体属性，如果该项为变量，需要在常规中勾选打印变量



排版完成后点击文件，生成打印模板，编辑文件名称，保存即可

After placing the content, double-click to modify its specific properties. If the item is a variable, check Print Variable under General. When the 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



Downloading a template

Connect the printer via USB or network cable. For network download, ensure the printer and computer are on the same LAN.

Open the Barlabel software, click File - Download Print Template, select the generated FRM file with the same name, and click

Download according to your communication interface.

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

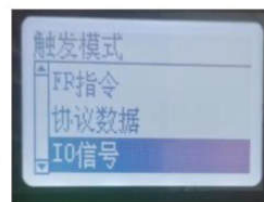


提示下载完成



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

菜单键进入打印机菜单，进入模板打印选项。



选择“模板”行，按“确认”键，可进入模板列表，选择需要脱机打印的模板。

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

A message indicates the download is complete.

After the template is downloaded, select the template to print on the printer and set the trigger mode; also set the printer trigger mode under Menu - System Settings - Software Settings. The way to select the print template is as follows.

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

Select the "Template" row and press "Confirm" to enter the template list and select the template for offline printing.

Select the "Mode" row and press "Confirm" to enter the mode list; four modes are available: 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: a proprietary command defined by our company for invoking print templates.

Protocol data: special protocol

IO signal: a 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 (online) mode, the "Mode" must be set to "FR command".

Templates can be invoked online or offline.

Online invocation sends an invocation command from the host computer; on receiving it, the printer locates the corresponding template file in its internal memory or on the USB drive connected to the rear-panel USB_HOST port (supported on some models), and assigns the content in the command to the template variables.

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

Invoking a template

1. Online invocation

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

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

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

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

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

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

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

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

2. Offline invocation

Set the template trigger mode to IO signal or barcode scan to achieve offline invocation. For offline invocation, template content can be modified using the keypad.

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 creation order; time and date variables do not participate in the sorting. After creating the template, download the template file to the printer and select the print template to use as described. In the Variable menu, enter the variable content with the keypad at the initial-value position in the order of the template variables, and select the variable type on the printer according to the template variable type.

When the template contains time and date variables, simply add them to the template variable list; no ordering is required.

3. Deleting a template

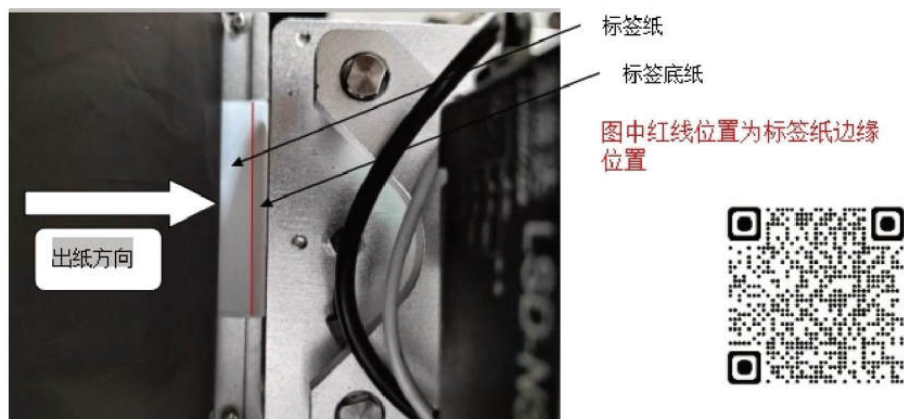
Select the "Template" row and press "Confirm" to enter the template list, select the template to delete, choose Delete, and confirm the deletion.

9. Appendix

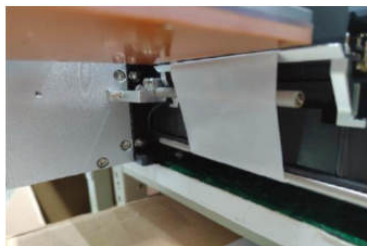
Appendix 1: FAQ and troubleshooting

1. After printing, the label does not stay on the label plate and the machine reports a label-lost alarm?

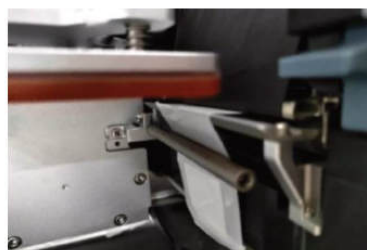
1.1 Check whether the position where the label stops is correct. The label should stop so that the edge of the next label is about 1 mm behind the peel plate. If the offset is too large, adjust the media feed offset (default 27 mm); refer to the print & apply system user manual or the video QR code for the adjustment method.



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



正确装纸：



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

1.4 通过屏幕菜单调整延时回卷的大小(部分机型为真空延时)。

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

1.6 纸张类型设置使用反射传感器。

1.7 贴标板高低不合适或不平行

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

1.2 Check whether the blow tube is blocked or the blowing angle is unsuitable. Refer to the print & apply system user manual or the video QR code for the adjustment method.

Incorrect media loading:

Correct media loading:

1.3 Check that the vacuum is sufficient and effective. If label pick-up is unstable, consider appropriately increasing or decreasing the number of air holes. If the label is too large, adjust the vacuum and reduce the vacuum area to prevent excessive suction that keeps the label from being released smoothly.

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

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

1.6 Set the media type to use a reflective sensor.

1.7 The label plate height is unsuitable or not parallel.

1.8 The peel-off is unstable or the rewind shaft rotation is unstable; the rewind shaft friction pad pressure needs to be increased, or the pad needs replacing.

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 the label plate area cannot form an effective vacuum and the label falls under gravity.
- 2. How to adjust inaccurate print content position?
 - 2.1 Use the on-screen menu to adjust the printer X-axis and Y-axis offsets. Refer to the print & apply system user manual or the video QR code.
 - 2.2 Calibrate the sensor parameters.
 - 2.3 Set the media type to reflective sensor.
 - 2.4 If the printhead was opened, feed several labels to let the printer re-adapt.
- 3. After switching to labels of a different size, the print and labeling positions are inaccurate?
 - 3.1 After changing labels, the printer cannot immediately auto-adjust the sensor threshold to the proper range; print 5-6 labels for the print & apply system to adapt, after which it works normally.
 - 3.2 The label size to print is inconsistent with the template size.
- 4. How to adjust the labeling speed?

It can be adjusted by adjusting the air intake and exhaust volume of the pneumatic cylinder. Refer to the print & apply system user manual or the video QR code.
- 5. What to do when the printer does not recognize the media and reports a black-mark error?
 - 5.1 Remove the label manually, press Clear/Return, and print a few more labels to check.
 - 5.2 There is no print media left.
 - 5.3 The label stock has gaps or missing labels.
 - 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 IO output work?
 - 6.1 After printing is triggered, printing starts and outputs 24 V high level; when printing completes, it outputs low level.
 - 6.2 After labeling is triggered, labeling starts and outputs 24 V high level; when labeling completes, it outputs low level.
 - 6.3 For details, refer to the print & apply system operation manual.
- 7. How to prevent software from changing 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?

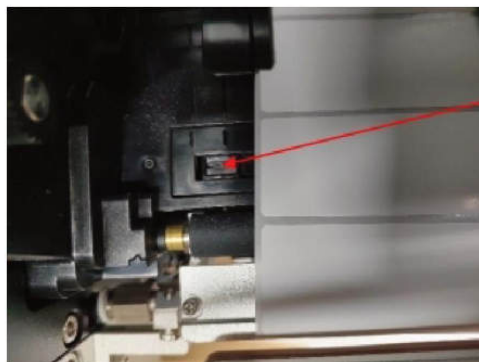
9.1 后部碳带轴管没有安装好。

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 no parameters may 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 you do not want changed under the command-set print mode.
- 8. Print data was sent, but the printer does not print?
 - 8.1 Check whether the printer screen shows "Waiting for print data"; if so, the print data has not actually arrived.
 - 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; the printer must be error-free to print normally.
 - 8.4 If a printer driver is used, check that the printer driver is installed correctly.
 - 8.4 Check whether the connection cable is faulty.
 - 8.5 If the data light flashes, the data has arrived but the printer has not parsed it; check that the currently selected command set is correct (normally NSCL).
 - 8.6 For network connections, check that the printer network port configuration is correct.
- 9. What causes a ribbon error?
 - 9.1 The rear ribbon core is not installed properly.
 - 9.2 The ribbon is used up.
 - 9.3 The ribbon was not pulled tight enough when the printhead was closed.
- 10. Out-of-paper error
 - 10.1 The sensor position is too far off; the label stock is not covering the sensor.
 - 10.2 The label stock is used up, or some labels are missing in the middle.

10.3 标签纸比较透光，需要校正传感器的参数。

11.耗材如何安装操作

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

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

12.如何安装打印机驱动？

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

13.打印机驱动如何设置？

13.1 设置打印页面，注意打印方向。

13.2 设置进纸偏移。

13.3 设置关闭双向支持。

13.4 设置直接打印选择。

14.打印机支持的编程语言是什么意思？

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

15.打印机硬件模板文件是什么？

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

16.为什么打印机软件模板文件推荐用 TPL 指令集？

10.3 The label stock is relatively transparent; the sensor parameters need to be calibrated.

11. How to install consumables

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

11.2 When replacing the label stock, first open the printhead, push the latch on the right media guide forward to separate the two side guides, remove the old media, place the new media, and use the media guides to hold the label stock in place.

12. How to install the printer driver?

You can use either the USB interface driver or the network port driver. For the USB driver, simply follow the prompts to install the printer driver we provide. The network port driver requires configuring the printer network parameters (IP address and port), which can be set via the printer keys and screen. Our printer driver is compatible with Windows 7 and Windows 10. See the QR code on the right for installation.

13. How to configure the printer driver?

13.1 Set up the print page, paying attention to the print orientation.

13.2 Set the media feed offset.

13.3 Disable bidirectional support.

13.4 Set the direct-print selection.

14. What does "programming languages supported by the printer" mean?

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

15. What is a printer hardware template file?

A printer template file is a string automatically generated from the command set for printing specific label content. The variable content cannot be an image but rather specific variable content; at the programming stage, replacing this content 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; opening such a file with some text editors can modify the data. In the TPL non-compressed mode, however, image data is described with text characters, so you can use an ordinary editor such as Notepad to view and partially modify the template.

17. What is the difference between the printing software Barlabel, NiceLabel, and BarTender, and how are they used?

17.1 Barlabel is printing software developed by Shenzhen Aiweima. With this software you do not need to install a driver; it automatically recognizes our printers and lets you directly edit and print labels.

17.2 NiceLabel is a third-party printing software vendor we cooperate with; our standard printer driver is also developed by NiceLabel. Visit the NiceLabel official website to learn more about the NiceLabel software.

17.3 BarTender is also a third-party printing software vendor; we have no direct cooperation with them. You can install our printer driver directly and then invoke it with BarTender. The network port parameters (IP address and port) of the printer can be set via the printer keys and screen. Our printer driver is compatible with Windows 7 and Windows 10.

18. What are the precautions for labeling small labels? If the air pressure is too low the label cannot be held, and labeling tends to drift. The air pressure is generally 0.4 to 0.5 MPa.

Q: The printer occasionally prints garbled characters or misbehaves? A: Check whether bidirectional support is enabled in the printer driver; if so, disable it.

Q: Changes to the printer driver do not take effect? A: Check whether there is a duplicate printer driver; if so, change the parameters of all copies.

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

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

22. What causes random media feed inaccuracy?

22.1 The media guide inside the printer is too tight, causing the label stock to feed poorly; loosen the media guide.

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

23. Occasional poor label peel-off

23.1 Replace with label stock suitable for peeling.

23.2 增加回卷轴摩擦片压力，增加标签底纸压力。

23.3 回卷轴摩擦片受损更换摩擦片

24.打印贴标机气压如何检查

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

25.打印贴标机同时出现好几张标签如何处理

25.1 检查贴标机打印参数中的纸张类型和使用的标签类型是否一致。

25.2 检查打印参数中设置的标签大小。

25.3 在打印机上进行传感器校正。

26.打印机接收数据后无任何响应

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

附录二 注意事项

- 1.在使用任何型号的打印机时，必须确保电源接地。
- 2.各种产品在使用时必须定期维护，打印头和传感器定期使用酒精擦拭，机械结构在长期使用过程中可能会出现松动，需要紧固。
- 3.贴标机在使用过程中，由于贴标板上的气孔数量按照预定时的标签大小决定，在更换小的标签纸后，可能会出现标签纸无法吸附在贴标板上，需要将多余的气孔堵住。
- 4.当打印内容偏移时，需要适当调整坐标偏移。
- 5.打印机每次设置完网络参数后，需要关机重启才能保存网络参数。
- 6.安装打印机驱动后，必须在打印机属性中将打印机端口双向支持关闭。不关闭双向支持，打印机接收打印任务后可能会报错。
- 7.修改贴标臂参数时需要先关机，按住菜单键开机，否则贴标臂参数未锁定状态无法修改。
- 8.安装标签纸时，必须确保便签纸卡在挡纸块中间，否则打印过程中标签纸会跑偏，导致打印位置偏

- 23.2 Increase the rewind shaft friction pad pressure to increase the label liner pressure.
 - 23.3 If the rewind shaft friction pad is worn, replace the friction pad.
 - 24. How to check the print & apply system air pressure
 - 24.1 When the air pressure is insufficient, the sound changes noticeably; check the position of the pressure gauge needle on the air inlet triplet (F.R.L. unit). During normal use the air pressure should reach 0.5 MPa.
 - 25. How to handle multiple labels appearing at once
 - 25.1 Check that the media type in the print parameters matches the label type in use.
 - 25.2 Check the label size set in the print parameters.
 - 25.3 Perform sensor calibration on the printer.
 - 26. Printer does not respond after receiving data
 - In Factory Settings in the menu, find Debug Mode and check whether the data received by the printer matches the data sent.
- Appendix 2: Precautions
- 1. When using any printer model, ensure the power supply is grounded.
 - 2. All products must be maintained regularly during use. Wipe the printhead and sensors with alcohol periodically; mechanical parts may loosen over long-term use and need to be tightened.
 - 3. During use, since the number of air holes on the label plate is determined by the label size at the time of order, after switching to smaller label stock the label may fail to adhere to the label plate; the surplus air holes must be blocked.
 - 4. When the print content is offset, adjust the coordinate offset appropriately.
 - 5. After setting network parameters, the printer must be powered off and restarted to save them.
 - 6. After installing the printer driver, bidirectional support for the printer port must be disabled in printer properties. If bidirectional support is not disabled, the printer may report an error after receiving a print job.
 - 7. To modify labeling arm parameters, power off first and press and hold the Menu key while powering on; otherwise the labeling arm parameters cannot be modified in the unlocked state.
 - 8. When loading label stock, ensure it is held in the middle of the media guides; 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,不然会报碳带错误。
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

Terminology used in this manual

1. Thermal (direct thermal)
2. Thermal transfer (ribbon printing)
3. Thermal label
4. Ribbon (thermal transfer ribbon)
5. Black-mark sensor (reflective sensor, black-mark sensor)
6. Transmission sensor (for labels with gaps)
7. Black-mark threshold
8. Peel-off
9. Uncontrolled / controlled print count mode
10. Template printing
11. Print resolution
 1. A printing method that uses thermal labels; the paper surface has a thermal coating that darkens when heated. This method requires no ribbon, but the print has poor durability and cannot withstand direct sunlight. When using this method, the printer must also be set to this mode, otherwise it will report a ribbon error.
 2. A printing method that requires a ribbon. The label needs no thermal coating and the printed content is durable. There are many label and ribbon materials; since our materials have passed various performance tests and meet printing and labeling requirements, we recommend using Nmark series labels and ribbons. With this method, the printer must be set to thermal transfer mode; otherwise the printer will not alarm when the ribbon is missing.
 3. A label with a thermal coating; no ribbon is needed and it can be printed directly.
 4. Used for thermal transfer printing; the printhead heats and transfers the ink from the ribbon onto the label stock. Ribbons come mainly in three types: wax, wax/resin, and resin, and Nmark has products for each material. Labels printed with a ribbon are long-lasting with clear text and graphics.
 5. Located about one centimeter behind the platen roller and can be moved left and right. This sensor must be under the label stock and is used to detect label gaps for accurate label positioning. The labeling machine generally uses this black-mark sensor; do not select other sensors.
 6. The labeling machine generally does not use this sensor.
 7. The detection voltage value the printer uses to distinguish the black-mark part from the label part; it is generally the average of the voltage values when the sensor reads the black-mark part (label gap) and the label part.
 8. Separating the label from the liner for labeling.
 9. When the number of labels the customer prints is not fixed, the printer automatically prints the previous label until the customer sends other labels. In controlled mode, the printer prints the number of labels sent by the host computer.
 10. Editing a template in advance with Nmark Barlabel software, defining the required variables, and then downloading the template to the printer.
 11. The resolution of the printhead in the printer mechanism, currently supporting 203 dpi, 306 dpi, and 600 dpi. The higher the resolution, the finer the printed content and the less likely jagged edges appear. For barcodes, a higher resolution allows a smaller total barcode length. 203 dpi and 306 dpi are generally recommended; 600 dpi resolution affects print speed and increases printer cost.
12. Printhead
13. Label plate reset sensor (S1)
14. Label presence sensor (S2)
15. Label-complete sensor (S3)
16. Label plate (suction plate)
17. Labeling arm
 12. The printhead is the core component of the printer and a wear part. It is consumed by abrasion from the label stock and must be replaced after a certain printing mileage.
 13. Located at the top of the pneumatic cylinder. After the label plate returns to its home position, this sensor lights up, and the labeling machine determines that the label plate has returned home so the printer can begin printing and peeling.
 14. Located on the label plate and used to detect whether a label is present. Normally, after peeling, the label adheres to the label plate and the sensor lights up; after labeling is complete the light should go out, otherwise the machine reports an S2 sensor error.
 15. Located in the gap of the labeling head fixing block, used to test the labeling pressure. When the labeling pressure reaches a certain value, this sensor is triggered and the labeling machine considers labeling complete.
 16. Located at the end of the labeling arm, used to pick up labels via vacuum suction.
 17. The pneumatic cylinder and guide assembly used for the labeling motion; the length can be customized.



Nmark 打印贴标机视频列表

1	拆箱	17	更换贴标头	33	设置贴标机控制模式	49	标签被吹跑的调整
2	安装碳带	18	清洁打印头	34	设置打印速度和打印浓度	50	传感器介绍
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
10	设置参数锁定	26	判断贴标是否稳定	42	设置真空保持	58	清除数据信号连接方法
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	刮贴安装标签和磁带操作视频
13	设置标签尺寸	29	拆卸标签传感器	45	调整检测物体传感器	61	打印模板制作
14	调整吹气大小和角度	30	进行远程程序升级	46	清除数据键盘操作	62	打印模板调整
15	调整贴标板高度	31	设置打印机ip地址	47	清除数据接口操作	63	缺纸后重新安装标签纸如何操作不丢失标签数据
16	调整贴标臂气缸速度	32	在驱动里面设置网口	48	校正标签停留位置	64	缺色带后重新安装色带如何操作不丢失标签数据



Nmark 打印贴标机视频列表

65	黑标错误如何操作不丢失标签数据	81		97		113	
66	启动打印启动贴标经由中间继电器接PLC演示视频	82		98		114	
67	启动打印启动贴标直连PLC演示视频	83		99		115	
68	清除错误经由中间继电器接PLC演示	84		100		116	
69	清除错误直连PLC演示	85		101		117	
70	清除数据经由中间继电器接PLC演示	86		102		118	
71	清除数据直连PLC-NPN输出演示	87		103		119	
72	清除数据直连PLC-PNP输出演示	88		104		120	
73	输出信号经由中间继电器接PLC演示	89		105		121	
74	输出信号直连PLC-NPN输入演示	90		106		122	
75	输出信号直连PLC-PNP输入演示	91		107		123	
76		92		108		124	
77		93		109		125	
78		94		110		126	
79		95		111		127	
80		96		112		128	

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

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