

# 781D自动锁眼机说明书 781D Automatic Machine 控制箱使用手册 User Manual



为了安全的使用，请您在使用之前一定阅读本使用说明书。

Please read the manual carefully before using this unit.

另外，请您注意保管本使用说明书，以便随时查阅。

Please keep this manual handy for ready reference.

# 前言

## Foreword

欢迎使用本公司产品，制衣行的正确投资选择！

Welcome to use our products. It is the right investment choices in garment industry!

本说明书为本公司新研发的"781D自动锁眼机"产品做对照参考手册，请认真阅读此手册以便更好的运用本公司产品！

The manual is used for our new product of "781D Automatic Machine". Please read this manual carefully in order to better use the product.

阅读本说明前，请注意以下内容：

Before reading the manual, please note the following requirements:

1：用户使用作业前必须可靠接地，保证人生安全！

The user must be grounded before operations to ensure the safety!

2：非专业人士请勿拆卸控制箱。

Non-professionals do not disassemble the control box.

3：控制箱与电机远离强磁高辐射环境。

The control box and motor should away from the magnetic high radiation environment.

4：不要在过热环境中作业。

Do not work in hot environments.

5：不要在过于潮湿环境中作业。

Do not work in humid environments.

6：用户保证供电电压的稳定（210V~240V）。

Ensure the stable supply voltage (210V~240V).

### 安全叮嘱：

Safety Notes:

1：电机接通时请不要把脚放在脚踏板上

Don't put feet on the pedal when you turn on the motor.

2：本产品请专业人士安装调试

Let professionals to install and debug this product

3：严禁在通电时打开控制箱与电机端盖

Do not open the control box and the motor cover when energized.

4：换针，穿线或跟换底线时请关闭电源

Please turn off the power when changing the needle, threading or replacing the bottom line.

5：安装，拆卸维修时请关闭电源

Please turn off the power before installation, disassembly or maintenance.

6：翻抬缝纫机时请关闭电源

Please turn off the power before turning over the sewing machine

### 保修策略：

Warranty Policy:

1：本产品自购买起免费保修2年，终身维护。保修期内除人为损坏外出现任何质量问题可免费修

Since from the purchase of this product, the free two-year warranty, Lifetime Maintenance. During the warranty period, any quality problems the product will be free repaired, except artificial damage.

2：未经本公司同意自行拆卸，改装造成损坏将不给予保修

Without our consent disassemble or modify, the damaged will not give in warranty.

3：但凡出现无法解决的问题可以联系本公司

Please contact us whenever have problem.

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# 1：显示屏常用操作介绍

Introduction of display screen common Operation



显示屏(A、B、C、D、E、F)右下角小红点分别指示说明:

- 1、A、B、C 指示: 电机相位信号点。手动转动电机手轮, 指示灯循环亮起。
- 2、D 指示: 上停针信号点。上停针时亮起。
- 3、E 指示: 原始点感应信号点。收到信号时亮起。
- 4、F 指示: 压脚感应信号点。收到信号时亮起。

Display screen (A、B、C、D、E、F) respectively at the bottom right red dots instructions:

1. A、B、C、: motor phase signals. Manual rotation of the motor hand-wheel Lights cycle
2. D: The signal of upper stopped needle position. When the needle is in upper stopped position, the light will turn on.
3. E: The signal of original induction. The light will turn on with the receipt of signal.
4. F: The signal of presser foot induction. The light will turn on with the receipt of signal.

## 快捷按键功能

1		<p>1. 短按慢启动键: 关闭与开启。开启时指示灯常亮。 <b>Short press slow start key: close and open. Indicator light keeps on when open.</b></p> <p>2. 长按慢启动键: 输入密码 (XXXX) 直接进入慢启动参数调整。 进入参数后, 对当前参数进行调整。按一下 (P) 键, 按 (+)、(-) 键调整参数值, 最后(OK)键确认。 <b>Long press slow start key: Enter the password (XXXX) to access the parameter adjustment of slow start directly, then adjust current parameters. Press (P), then adjust parameters by pressing (+) or (-). Press (OK) to confirm it finally.</b></p>
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2	 Low speed	<p>1. 短按低速键：指示灯亮起时，按 ( + ) 、 ( - ) 键调整低速快慢。  <b>Short press slow start key:</b> Indicator lights up, press ( + ) or ( - ) to adjust the speed</p> <p>3. 长按低速键：输入密码 (XXXX) 按(OK)键进入锁定低速速度。  <b>Long press slow speed key:</b> Enter the password (XXXX), then press (OK) to lock in low speed.</p>
3	 High speed	<p>短按高速键：指示灯亮起时，按 ( + ) 、 ( - ) 键调整高速快慢。  <b>Short press high speed key:</b> when the indicator lights up, press ( + ) 、 ( - ) to adjust speed</p> <p>2. 长按高速键：输入密码 (XXXX) 按(OK)键进入锁定高速最大速度。  <b>Long press high speed key:</b> Enter the password (XXXX) press (OK) to lock the maximum speed</p>
4	 Presser foot	<p>长按压脚键：输入密码 (XXXX) 按(OK)键进入调整压脚电磁铁的调整参数，进入参数后，对当前参数进行调整。按一下 ( P ) 键，按 ( + ) 、 ( - ) 键调整参数值，按(OK)确认。  <b>Long press presser foot key:</b> enter the password (XXXX) press (OK) key into the adjustment, the parameters of the presser foot electromagnet after entering parameters, to adjust the current parameters. Click on the ( P ) key, press ( + ) 、 ( - ) key adjustment parameter values, press (OK) to confirm it</p>
5	 Insurance	<p>长按保险键：输入密码 (XXXX) 按(OK)键进入调整保险电磁铁参数，进入参数后，对当前参数进行调整。按一下 ( P ) 键，按 ( + ) 、 ( - ) 键调整参数值，按(OK)确认。  <b>Long press insurance key:</b> enter the password (XXXX) press (OK) key into the electromagnet parameters, the parameters of the presser foot electromagnet after entering parameters, to adjust the current parameters. Click on the ( P ) key, press ( + ) 、 ( - ) key adjustment parameter values, press the (OK) to confirm it</p>

6		机头灯开关按键：指示灯常亮，机头灯打开。 <b>Head lamp switch button: Indicator light keeps on. Turn on the head lamp.</b>
7		恢复出厂设置：按住 (  ) 键不放，再按一下 (  ) 键，显示 000，长按 (  ) 键不放 5 秒，显示屏自动跳回一个 0 在转动，恢复出厂设置成功。 <b>Restore factory settings: Holding down the (  ), then click on the (  ), show “000”, long press (  ) for 5 seconds, the display screen automatically jumps back to a “0” in the rotation, restore factory settings successfully.</b>

### 功能键说明 The description of function key

1		进入参数调整辅助键，可与 (  ) (  ) 键配合使用，不同配合将进入不同参数列表 <b>Enter into the auxiliary key of parameter adjustment. It can be used together with (  ) or (  ). Different choices, different parameter lists.</b>
2		参数确定保存键 <b>The key of confirming to save the parameters</b>
3		“+”键（修改参数时加） <b>“+” (add data when modifying)</b>
4		“-”键（修改参数时减） <b>“-” (subtract data when modifying)</b>
5		向左键（在参数列表中用来返回上一页用） <b>To the left (Go back to previous page of the parameter list)</b>
6		向右键（在参数列表中进入参数调整用） <b>To the right (Enter to modify the parameters)</b>

## 2：如何进入参数与如何修改参数

How to enter and modify the parameters

系统参数进入解析：

按住 (  ) 键不放，在按 (  ) 键将进入“系统参数”列表

表，显示屏会显示出 4 个零，输入密码 (XXXX) 后按(  )

键即可进入。进入后可看见系统参数编号，此时可以用 (  )

(  ) 键，切换系统参数编号，找到需要调整的参数时按下

(  ) 键，进入当前此项参数调整，最后按 (  ) 键，

保存退出。

**注：**以上是进入方法，具体参数号代表的参数意思详情如下：

**The analysis of entering system parameters:**

**Hold down the (  ), then press (  ) to enter the list of “System Parameters” . The display screen will show “0000”. Enter the password**

**(XXXX) and press (  ). You will see the numbers of system parameters.**

**Switch the system parameters NO. by (  ) or (  ) and find out the**

**parameters which should be modified. Press (  ) to modify the parameters.**

**At last, press (  ) to save it and quit.**

**Note: Above is the method to enter. For the meanings of the specific parameters' numbers, please check followings:**

### 3：操作参数说明表

### The Table of Operating Parameter Description

781D 系统参数列表：

#### 781D System Parameters list

菜单号 System parameter list	功能说明 Function description	功能参数默认值 Function Parameters Default Value	功能参数范围 Function parameter ranges	参数说明 Parameter description	注意事项 announcements
002	低速 Low speed	800	150~1000	开机后寻找位置的运转速度 The running speed of looking for the position after start-up.	不易太快影响安全 Can't be too fast or it will not be safe.
003	加速曲线 Acceleration curve	85	1~100		
012	慢启动针数 Slow start pin number	3	1~10		
013	慢启动速度 Slow start speed	800	500~1000		
021	还原系统密码 Reduction system password	000	000 ~ 003	此参数调到 003 长按 OK 键即可 Modify the parameter to 003 and press OK.	还原出厂密码 Restore the factory password
023	显示速度 Show speed		200 ~ 1800	按一下(P)键，显示电机转速 Press (P) then it will show the motor's speed	关闭电源重新开启即可关闭该参数 Turn off the power and restart. The parameter setting will be closed.
024	调速器检测 Speed detection	200 左右（中点值） Around 200 (mid-range)		检测脚踏板是否正常 Test whether the pedals is normal	在未复位前检测不然影响安全 Test before resetting or it will not be safe

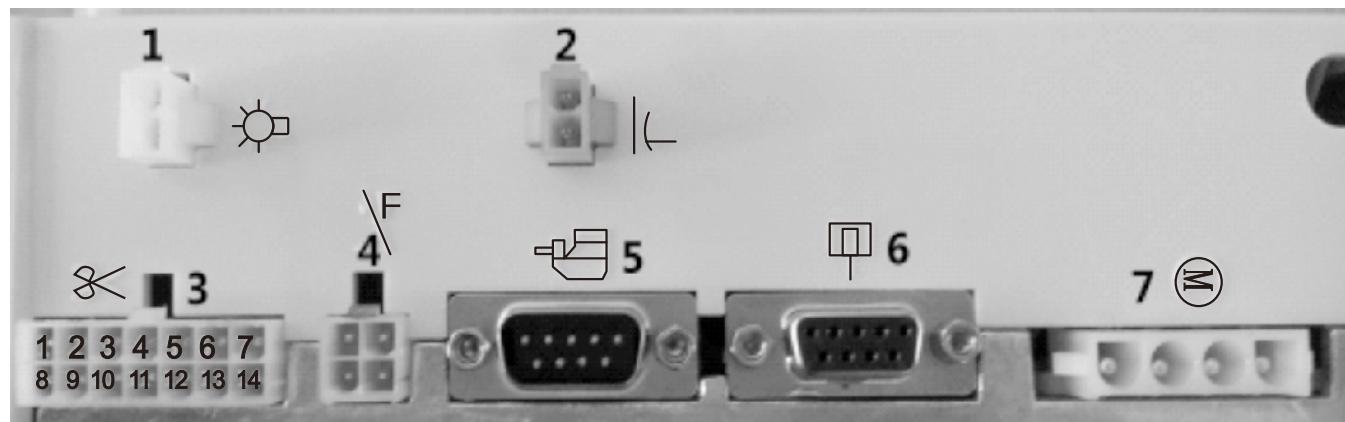
025	自动磨合 Automatic running	0	0: 关闭 1: 开启 0:close 1:open	机器磨合运行 Machine operates during break-in.	关闭电源重新开启即可关闭该参数 Turn off the power and restart. The parameter setting will be closed.
036	保险动作延时 启动时间 Insurance action delays start time	10	0~2000		毫秒 Millisecond
037	拉保险动作时间(全功率+维持功率) Insurance action time (full power + maintaining power)	110	10~2000		
038	保险全功率时间 Insurance full power time	110	10~990		
040	保险动作维持功率调整 Insurance action to maintain adjustment power	50	1~100		
041	保险动作释放保护时间 Insurance action release protection time	035			
056	压脚动作延时 启动时间 Presser foot action delays start time	010			
057	压脚动作时间 (全功率+维持功率) The action time of the presser foot (full power + maintain power)	260			

058	抬压脚全功率时间 Presser foot full power time	200	0 ~ 900		不易过大影响电磁铁使用时间 Can't be too high or it will influence the electromagnet lifetime.
060	抬压脚维持功率 Presser foot to maintain power	20%	0 ~ 100%	抬起压脚后停留时的功率 The power after lifting foot	参数不易过大，容易发热，影响使用时间 Parameter should not be too big. Otherwise it will overheat and influence the lifetime.
061	放压脚后，下机针延时 Put down the presser foot, needle delay times	2	1 ~ 900	当压脚放下时，运行电机需要的延时时间 The required delaying time of starting the motor after you put down the presser foot	当 63 号参数打开时保护开关起作用不需要延时 When open the parameters of No. 63, it won't delay because protection switch is working
062	抬压脚维持功率时间 Presser foot to maintain power Time	10	0 ~ 900	电机运行后抬起压脚停留的时间 The retention time of lifting the presser foot after motor star-up	
063	抬压脚保护机针传感器开关 The sensor switch to protect the needle when you lift or press foot	1	0: 关闭 1: 开启 0:close 1:open		当 63 号参数关闭时，需要将 61 号参数设置为 350 以上，不然容易断机针 When the parameters of No. 63 closed, the parameters of No.61 should be set to 350 or above, otherwise it easy to broken needle

064	后踏压脚模式 The pattern of pressing foot behind				
070	电机功率 Motor power	380	250~550		
071	最高运行速度 maximum running speed	3000	150 ~ 4000		

## 4: 控制箱端口说明

### The Description of Control Box's Port



端口号 Port number	端口连接的器件名称 The device name for the port connection
1	781D 钉扣机 LED 机头灯插孔 781D Button sewing machine head LED socket
2	抬压脚控制端口, 连接压脚电磁铁或电磁阀 (30V) Presser foot control port, connect the presser foot electromagnet or solenoid valve(30V)
3	14P 多功能端口 (压脚保护开关与机器启动位置传感器插口) 14P Multi-functional port( the sensor port between presser foot protection switch and machine starting position )
4	脚踏板端口, 连接调速器 Foot pedals port, connect speed controller
5	连接显示控制面板 Connect the display control panel
6	连接电机相位信号线 Connect the motor phase signal line
7	连接电机 4 线驱动线 Connect motor's 4 drive wires

# 3号 14P 多功能端口

## No.3 14P Multi-functional port

3号多功能端口标号 The 3 <sup>rd</sup> multi-functional port label	功 能 Function			
1, 8, 11	启动点感应器 The starting point sensor	1: GND	8: 信号 signal	11: 5V
2, 9, 12	压脚保护感应器 Presser foot protection sensor	2: GND	9: 信号 signal	12: 5V
3, 10	压脚电磁铁 Presser foot electromagnet	3: 压脚输出 Presser foot output		10: 30V
4, 2		4: 保护信号输入 Protection signal input	2: GND	
5		5: 大地 Ground		
6, 13		6: 拨线输出 Dial the line output	13: 30V	
7, 14	保险电磁铁 Insurance electromagnet	7: 剪刀输出 Scissors output	14: 30V	

## 5: 错误代码解析

### Error code analysis

显示的错误码 Displayed error code	错误码意思 Error code meaning	错误的产生 Various possible for the error	解决错误 Solve error
ER-01	找不到停针位 Can't find the needle	1: 手轮和电机靠的不够近 2: 手轮上磁钢脱落 3: 手轮磁铁极性装反 4: 九针端子头接触不良 5: 电机霍尔损坏，更换电机 1. The hand wheel and motor is not close 2. The hand-wheel falls off the magnet steel 3. The hand-wheel installs the reverse polarity 4. The terminal of nine needles connect badly 5. The motor is broken. Please change another one	

ER-02	脚踏板信号错误 Pedal error signal	1: 开机时没插调速器 2: 调速器插反 3: 调速器线断开 4: 调速器损坏 <b>1.Start up without inserting the speed controller</b> <b>2.Insert the inverse Speed controller</b> <b>3.The wire of speed controller disconnects</b> <b>4.Speed controller is broken</b>	
ER-03	电机相位信号错误 Motor phase signal is wrong	1: 九针插头接触不良 2: 电机安装时霍尔和转子存在大偏差 3: 电机霍尔坏 <b>1. Nine needles' plugs connect badly.</b> <b>2. There is a big deviation between HuoEr and rotor during installation.</b> <b>3.HuoEr is broken</b>	
ER-04	电机堵转保护 Locked-rotor protection	1: 缝纫机过重或堵死 2: 电机过载 3: 电机 4 线驱动线没连接好或插反 <b>1.Sewing machine is overweight or sealed off.</b> <b>2.The motor overloads.</b> <b>3.The motor's 4 drive wires connect badly or reverse.</b>	
ER-05	硬件过流保护 Hardware over-current protection	1: 缝纫机过重或堵死 2: 电机过载 3: 电机相位信号线没连接好 <b>1.Sewing machine is overweight or sealed off.</b> <b>2.The motor overloads.</b> <b>3.Motor phase signal lines don't connect well</b>	
ER-07	串口通讯超时 Serial port communication timeout	1: 显示屏连接主板线连接不良 2: 主板芯片损坏 <b>1. Display and motherboard line don't connect well.</b> <b>2. The motherboard's chip damage.</b>	

ER-09	存储器不良 Memory problem	1: 主板存储器损坏或不良 The memory of motherboard damages or is not good.	
ER-13	压脚传感器无信号 Presser foot sensor has no signal	1: 压脚传感器安装距离过远 2: 压脚传感器损坏 3: 压脚连杆上的磁铁脱落或装反 1. The presser foot sensor installs too far. 2. Presser foot sensor damages. 3. Presser foot sensor falls off the magnet or is installed reversely.	
ER - 14	启动点传感器找不到信号 Starting point sensor can't find signal	1: 转盘处感应器的传感器损坏 2: 手轮上停针磁铁脱落或装反 1. The sensor of turn-plate's inductor damages. 2. The needle on the hand-wheel falls off the magnet or is installed reversely.	
ER - 15	9700 错误信号 9700 Wrong signal	1:: 9700 编码器损坏 9700 encoder damages	

## 6: 装箱单

### Packing List

名称 Name	数量 Quantity
电机 Motor	1
电控箱 Electric control box	1
脚踏板 Foot pedals	1
拉杆 Drawbars	1
电磁铁 Electromagnet	1
螺丝包 Screw packet	1
说明书 User manual	1