

1、操作面板使用说明 Operation Panel Instructions

1.1 针距修改：点按P键，针距数字闪烁，按+或-修改针距，数字越大，针脚越密；

1.1.1 Stitch modify:press "P",stitch number twinkling,press + or - to change stitch distance, the bigger number is, the shorter stitch distance is.

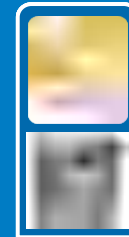
1.2 功能选择：点按P键3秒后松开，屏幕会显示P01等字样，按+或-选择功能，再次按P键进入次功能设置模式。

1.2 Function choice:press "P" for 3 seconds then release,And the words "P01" will appear on the screen,press + or - to choose function. Press "P" again to enter the secondary function setup mode.

2、参数设置说明 System parameters setting list

参数编号 NO.	参数范围 Range	出厂值 Default	参数描述 Description
P01	10-500	100	针距：数字越大，针脚越大 The bigger the number,the bigger the stitch distance is.
P02	F-1/F-2	F-1	普通和同步模式切换： F-1：普通模式 common mode Common and synchronous F-2：同步模式 (机针同步) mode switching synchronous mode(machineneedle synchronization)
P05	/	FBL	测编码器分辨率，只适用于同步模式。 Measuring encoder resolution,for synchronous mode only.
P06	yd-1/yd-2	yd-1	设置同步模式停针原点，只适用于同步模式。 Set synchronization mode stop needle origin,apply to synchronous mode only.
P07	-99-99	0	同步停针位置偏移量，正数为延缓停针。 Synchronous stop position offset,positive number is delayed stop needle.
P08	30-80	55	调整同步轨迹百分比，小范围内可以调整按牙齿同步还是落针同步，只适用于同步模式。 Adjust the percent age of synchronization tracks, a smallrange can beadjusted by tooth synchronization or drop needle synchronization,only for synchronization mode.
P12	OFF/ 0.2-5	OFF	压脚延时放下，默认OFF关闭，延时范围0.2s-5.0s。 Foot delay down,default "OFF",delay range 0.2s-5.0s.
P13	OFF/ON	OFF	倒缝时抬压脚，默认OFF不抬，ON为抬起。 Lift the foot when back stitch,the default "OFF" is not to lift,"ON" is lift.
P14	OFF/ 0.2-5	OFF	两次抬压脚之间的间隔，默认OFF关闭。 The interval between the two lift feet, the default "OFF" is off.
P15	OFF/ON	OFF	电机转动方向，默认 OFF 正转，ON 为反转。 Motor rotation direction, default "OFF" positive rotation,"ON" is for reversal.
P17	0.0-0.99	0.0	在P01的针距中加入99格微调。 Add 99 tweaks to the stitch distance of "P01".
P18	OFF/ 0.0-9.0	OFF	倒缝时针距倍率，OFF为关闭，可调范围0.1-5.0，1.0时倒缝针距数值和正缝一致，2.0时倒缝针距数值为正缝时的2倍。 When OFF is off, it can be adjusted from 0.1 to 5.0. At 1.0, the value of the inverted stitch distance is consistent with that of the normal stitch; at 2.0, the value of the inverted stitch distance is twice that of the normal stitch.
P20	OFF/ON	OFF	按+键调整至 ON，按设置键即可初始化参数。 The key "+" to adjust to on,press the set button to initialize the parameters.
P21	OFF/ON	OFF	OFF上抬压脚时，步进电机释放电流；ON，不释放电流。 OFF, When the foot is lifted up, the stepping motor releases the current; ON,Do not release current.
P23	OFF/ON	OFF	默认OFF不启用，改成ON后，在显示屏默认界面下，按减号键可以抬放压脚。抬放压脚时，针距前面会出现“—”字样，用来观察抬压脚上下限位霍尔传感器是否失灵。 he default OFF is not enabled. After changing to ON, press the "-" to up and down the foot under the default interface of the display screen.When the foot is up and down, the "—" appears in front of the needle distance to see if the Hall sensor at the upper and lower limit of the lifting foot fails.
P24	OFF/0.1-2.0	OFF	默认为OFF，单位为秒，如改为0.5，即压脚提升后0.5秒内不检测落下。 The default value is OFF, and the unit is second. If the value is set to 0.5, the fall is not detected within 0.5 seconds after the presser foot is lifted.
P25	OFF/1-9	OFF	缝机停止时，按倒缝输送带倒转。默认OFF关闭，1-9为倒转速度可调。 When the sewing machine stops, press the conveyor belt to reverse. The default value is OFF. The reverse speed is adjustable from 1 to 9.
P26	OFF/1-3	OFF	独立自锁开关功能设定：默认OFF关闭；1为手动抬压脚，2为输送带倒转，3为输送带正转。 Independent self-locking switch function setting: OFF by default; 1 is the manual lifting press foot, 2 is the conveyor belt reverse, 3 is the conveyor belt positive rotation.
P27	1-2.0	OFF	电磁铁倒缝默认都为0，只有极个别电机倒缝的机型需要改为1，例如富士H9500A，一般无需更改，特殊需要更改的机型会有安装说明文档。 The default value of electromagnet backseam is 0. Only a few motor backseam models need to be changed to 1, such as Toyama H9500A. Generally, you do not need to change the model. If you need to change the model, the installation instructions will be provided.
P29	OFF/ 1-2	OFF	可以切换编码器模式，重新开机后生效。此参数P20,P30初始化后不重置，需手工更改OFF - 正常模式 (开机H 26) 1 - 低频编码器模式 (开机HL 26) 2 - 包缝机模式 (霍尔信号) (开机Hb 26) The encoder mode can be switched, and it takes effect after the machine is restarted. This parameter P20,P30 is not reset after initialization, need to manually change the off-normal mode (boot H 26) 1 - Low frequency encoder mode (power on HL 26) 2 - Overstitching machine mode (Hall Signal) (Power on Hb 26)
P30	OFF/ON	OFF	等同于P20 Equivalent to P20

MDL双步进双驱动电子拖轮使用说明书 Operation Manual of Double-step and Double-drive Digital Puller



适用于Compatible with:

单双针平缝机、双三同步机、差动机

Single double needle sewing machine, double three-synchronous machine, differential machine and so on

运用家纺、毛毯、窗帘、帐篷等大织物缝制牵引等

Use the home textiles, blankets, curtains, tents and other large fabric sewn traction and so on

面料打滑
Fabric slip

过砍不顺
Not fluent

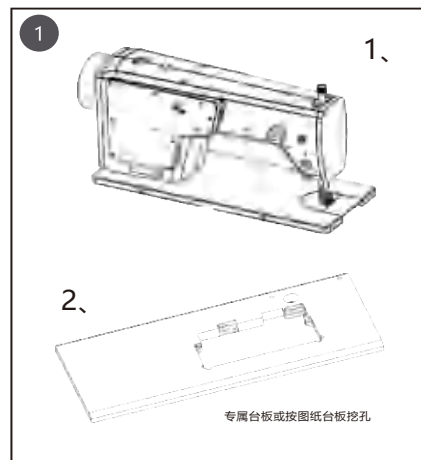
上下错层
Understanding up

面料起皱
Fabric wrinkle

电子拖轮装置/Digital Puller Device

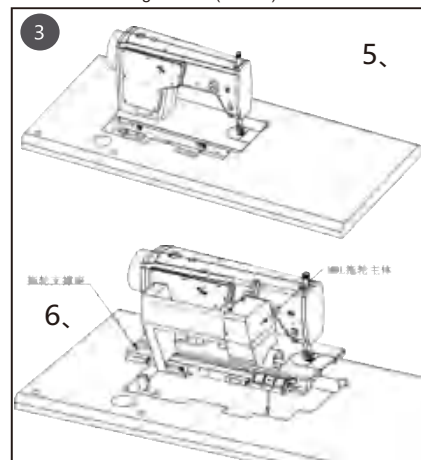
1 Installation order

安装顺序



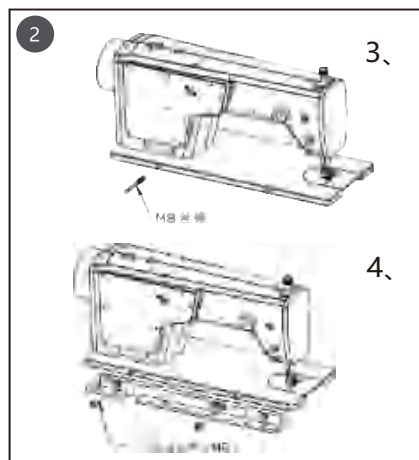
1、首先准备缝纫机头并确认单针或是双针车(图1), 然后按机型配置专属台板或按卡维提供专属图纸对应开孔(图2)。

1. First prepare the head of the sewing machine and confirm the single or double needle (FIG. 1), and then configure the special table according to the model or provide the corresponding opening according to the exclusive drawing of Carv (FIG. 2).



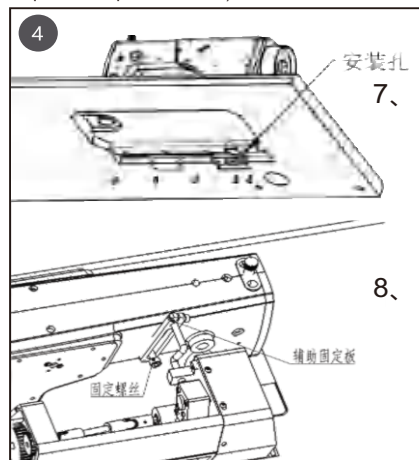
3、确认台板无误后将缝纫机头固定在台板上 (图5), 将拖轮主体和支撑座对准安装孔自上而下镶嵌在缝纫机台板内 (图6)

3. Fix the sewing machine head on the table after confirming that the table is correct (FIG. 5), and insert the main body of the puller and the support seat into the sewing machine table from top to bottom in line with the mounting hole (FIG. 6).



2、用配件包内的M8丝锥将机头后的安装孔进行攻牙(图3), 将MDL拖轮底座安装板用M8内六角圆柱螺丝固定锁紧即可 (图4)(注: 特殊机型需配置垫块)

2. Tap the mounting hole behind the head with the M8 tap in the accessories bag (FIG. 3), and fix and lock the mounting plate of the MDL puller base with the M8 hexagonal cylindrical screws (FIG. 4) (Note: Pad is required for special models)

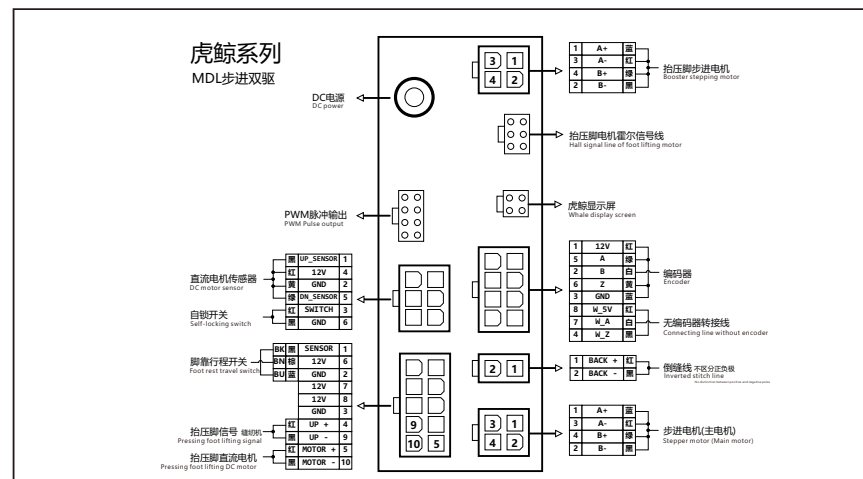


4、从台板下方用五颗M5的内六角圆柱头螺丝穿过拖轮安装座将拖轮主体和支撑座固定(图7), 调整辅助固定板的位置到安装孔上, 使用固定螺丝锁紧固定辅助固定安装板 (图8)

4. Fix the puller body and support seat with five M5 hexagonal cylindrical head screws from below the platform through the tugboat mounting seat (Figure 7), adjust the position of the auxiliary fixing plate to the mounting hole, and use the fixing screws to lock the auxiliary fixing mounting plate (Figure 8).

2 Wire-connect

接线原理



说明: 通过自攻螺钉将电控箱安装在台板下底面, 然后按照电控箱插孔依次插上相应插头。

Explain: Use self-tapping screw to install the control box under the table, and plug in correct position based on the control box socket.

! Caution

使用注意事项

- 1、拖轮电控箱与拖轮主件安装时需轻拿轻放;
- 2、本机必须接交流96-230V;
- 3、拖轮主件安装固定好, 需保证滚轮与台面的左右平整;
- 4、同步器与缝纫机连接尽可能同心, 以减少晃动;

1. The control box and the main parts should be carried lightly while installing the main parts;
2. This machine is powered operates with an AC voltage of 96-230 V;
3. The main parts should be fixed well, and the left and right leveling of the roller and the countertop should be ensured;
4. encoder and sewing machine connection as concentric as possible to reduce shloshing;

同步模式设置 (同步编码器或部分无编码器转接线才有同步功能)

Synchronization mode setting (only synchronous encoders or partially encoder free adapter cables have synchronization function)

- 1、运行模式: 设置P 02, 调整至 F-2.
Operation mode: Set P 02 and adjust to F-2
- 2、测分辨率: 设置P 05, 出现FBL, 轻踩踏板, 直到FBL字样变为针距。
Resolution measurement: Set P 05, FBL appears, lightly press the pedal until the FBL text changes to needle pitch.
- 3、停针原点: 设置P 06, 出现yd-1, 按抬压脚, 让针自动定位到上停针, 也可以手轮拨动至上停针位置, 按设置键, 出现yd-2, 然后轻踩踏板(或者匀速转动手轮), 直到yd-2字样变为针距。
Stop needle origin: Set P 06, yd-1 appears, press the lifting foot to automatically position the needle to the upper stop needle position, or turn the handwheel to the upper stop needle position, press the setting button, yd-2 appears, then lightly press the pedal (or rotate the handwheel at a constant speed) until the yd-2 symbol changes to needle spacing.
- 4、效果测试: 拿模板夹白纸实际测试效果, 同步效果满意, 则结束, 不满意可以微调同步偏移量。
Effect testing: Use a template to clip white paper and test the actual effect. If the synchronization effect is satisfactory, it ends. If not satisfied, you can adjust the synchronization offset.
- 5、同步偏移: 设置 P 07, 按可以调整偏移脉冲量, 同步模式下, 电机启动早了, 则调整为负数。电机启动晚了, 则调整为正数。
Synchronous offset: Set P 07 and press to adjust the offset pulse. In synchronous mode, if the motor starts early, adjust it to a negative value. If the motor starts late, adjust it to a positive number.