

# A2高速平缝机系列 产品使用说明书

# A2 Direct Drive Power Operation Manual

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# 杰克缝纫机

JACK SEWING MACHINE HTTP://WWW.CHINAJACK.COM

# 杰克缝纫机股份有限公司

JACK SEWING MACHINE CO.,LTD.

- 公司地址 (Address of Company): 台州市椒江区机场南路十五号
- No. 15 Rd Airport South, Jiaojiang District Taizhou City, Zhejiang, P.R.C 邮编: 318000

使 用 说 明

**Operation Manual** 

2. After setting up the machine, check the direction of motor rotation. To check it,

3. Confirm that the voltage and phase (single or 3-phase) are correct by checking them

1. Keep your hands away from the needle when you turn the power switch ON

2. Do not put your fingers into the hread take-up cover while the machine is

3. Be sure to, turn the power switch OFF before tilting the machine head or

4. When an operator leaves from the machine, make sure to turn off the power.

5. During operation, be careful not to allow your or any other person's head or

do not piace anything close to them. Doing so may be dangerous. . 2 .

hands to come close to the handwheel, V belt, bobbin winder or motor, Also.

turn the handwheel by, hand to bring the needle down, and turn the power switch

ON while observing the handwheel. (The handwheel should turn counteclockwise as

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- 免费售后服务电话: 400-8876858

开车前的注意事项:

1. 油盘内未加油绝不能开车。

使用注意事项:

**BEFORE OPERATION** 

3. 确认标牌上标的电压是否正确。

observed from the handwheel side.)

**OPERATION PRECAUTIONS** 

2. 机器运转时,请勿将手指伸入挑线杆护罩内。

3. 机头翻动时,一定要切断电机开关。

4. 操作者离开机器时,必须切断电源。

against the ratings shown on the motor nameplate.

1. 接通电源开关或机器运转时,请勿将手放到针的下部。

6. 装拆防护罩或者其它保护装置时,请勿开动机器。

7. 不要用香蕉水等油漆稀释剂擦洗机头表面。

or while the machine is operating.

- http://www.chinajack.com ● 资料如有更改,恕不另行通知,以实物为准。
- You will be not informed if the file has been revised. Please set sample as standard

2. 机器运转时,从上轮外侧看转向应为逆时针方向。注意,不能倒转。

1. Never operate the machine unless its oil pan has bas been filled with oil.

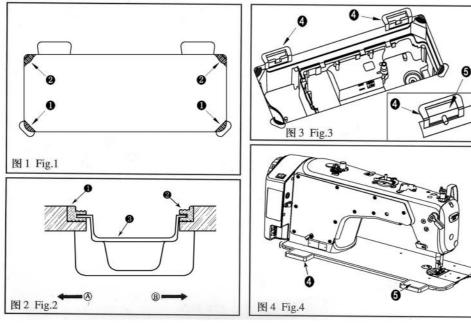
5. 机器运转期间,注意不允许将头或手以及任何东西靠近上轮、绕线轮和电动机。

## 6. If your machine is provided with a belt cover, finger guard or any other protectors, do not operate your machine with any of them removed.

- 7. Don't clean the face of machine head with thinner,
- 1. 机器的安装(图 1、图 2、图 3、图 4) 1. INSTALLATION (Fig.1, Fig.2, Fig.3, Fig.4)
- \*油盘安装:
- 1) 先将油盘支架❶和油盘座垫❷分别套在油盘❸的四角上,再将油盘❸安装在台板上。
- 2) 如图所示,安装时要确保两个油盘支架❶朝向操作者一边,两个油盘座垫❷是在有机 头连接钩6的那一侧。
- 3) 先将机头连接钩座❹安装在台板上,再将机头连接钩❺放入底板孔内,最后将机头放 置于台板上,且机头连接钩每要与台板上的机头连接钩座母相嵌合。

#### \*Installing the oil pan

- 1) Firstly, oil pan holder 1 and 0il pan cushion 2 should be set in the four corners of the oil pang, and then install the oil pangon the stand & table.
- 2) As is shown in the chart, making sure that the two oil holders are pointing to the operator during the installation and the two oil pan cushions@are on the side which is with machine head connecting hook 6.
- 3) Install the machine head connecting hook base Gon the stand & table, and then put the machine head connecting hook in the baseplate hole, at last, put the head on the stand & table, making sure machine head connecting hook 6 is nested in the machine head connecting hook base 4 which is on the stand & table.



. 3 .

# 2. 机器的润滑(图 5、图 6)

- 2. LUBRICATION (Fig.5, Fig.6)
- 1. 润滑须知: (图 5)
- \* 开车前:
- 1) 向油盘①内加缝纫机油(10号白油)至 HIGH 记号部位 A。(图 5)
- 2) 当油面低于 LOW 记号 B, 应再加油。
- 3) 加油后, 开动机器, 应看到油液飞溅到油窗②上, 说明润滑正常。
- 4) 至于飞溅的油量多少与总润滑油量多少无关。 \*注意:

使用新机器或者长期未使用过的机器时,应在每分钟 1800~2200 转的状态下使机器进行十 分钟左右的适应性运转。

1. Information on lubrication (Fig.5)

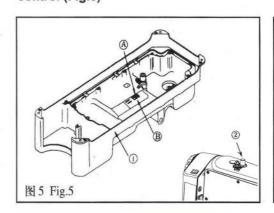
## \*Before starting the machine

- 1) Fill oil pan ① with sewing machine oil (10 white oil) up to HIGH mark A.
- 2) When the oil level lowers below LOW mark B, refill the oil pan with the specified oil.
- 3) When you operate the machine after lubrication, you will see splashing oil through oil sight window 2 if the lubrication is adequate.
- 4) Note that the amount of the splashing oil is unrelated to the amount of the

## \*Precaution

When you first operate your machine after set up or after an extended period of disuse, run your machine at 1,800 s.p.m. to 2,200 s.p.m. for about 10 minutes for the purpose of break\_in.

- 2. 面部油量采用油线渗油的方法: (图 6)
- 2. The amount of oil supplied to the face plate parts apply the plug of main shaft to control (Fig.6)



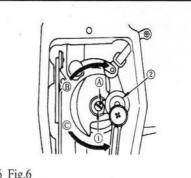
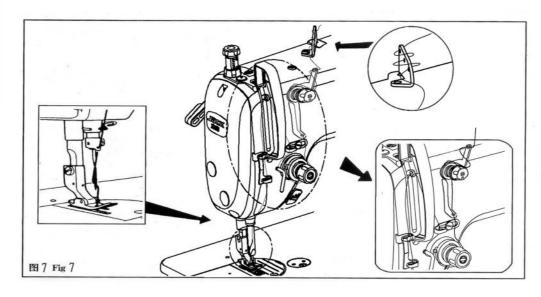


图 6 Fig.6

3. 面线的穿法(图 7)

3. THREADING THE MACHINE HEAD (Fig. 7)



- 4. 缝线张力(图 8)
- 4. THREAD TENSION (Fig. 8.)
- 1. 面线张力的调节
- 1) 根据不同的缝制条件, 用夹线螺母来调 整面线张力。
- 2) 若把螺母①按顺时针方向(即A方向) 转动时, 面线张力将增大。
- 3) 若把螺母①按逆时针方向(即B方向) 转动时, 面线张力将减小。
- 2. 底线张力的调节
- 1) 将夹线螺钉②朝顺时针方向(即C方向) 转动时,底线张力将增大。
- 2) 将夹线螺钉②朝逆时针方向(即D方向) 转动时,底线张力将减小。

# 1. Adjusting the needle thread tension

1) Adjust the needle thread tension using tension adjust nut ① according to the sewing specifications.

图 8 Fig. 8

- 2) As you turn nut ① clockwise (in direction A), the needle thread tension will increase.
- 3) As you turn nut ① counterclockwise (in direction B), the tension will decrease.

. 5 .

# 2. Adjusting the bobbin thread tension

1) As you turn tension adjust screw ② clockwise (in direction C), the bobbin thread tension will

2) As you turn screw ② counterclockwise (in direction D), the bobbin thread tension will decrease,

- 挑线簧(图 9)
- 5. THREAD TAKE UP SPRING (Fig. 9)
- 1. 改变挑线簧①的摆动量
- 1) 旋松定位螺钉②。
- 2) 把夹线螺钉③朝顺时针方向(即A方向) 转动时, 挑线簧的摆动量将增大。
- 3) 把夹线螺钉朝逆时针方向(即B方向) 转动时, 挑线簧的摆动量将减小。
- 2. 改变挑线簧①的张力:
- 1) 旋松定位螺钉②, 取出夹线器(组件)⑤。
- 2) 旋送定位螺钉④, 并转动夹线螺钉③。
- 3) 把夹线螺钉③朝顺时针方向(即A方向)转动时,挑线簧的张力将增大。
- 4) 把夹线螺钉③朝逆时针方向(即B方向)转动时,挑线簧的张力将减小。
- 1. Changing the stroke of thread take-up spring ①
- 1) Loosen setscrew (2).
- 2) As you turn tension post 3 clockwise (in direction A), the stroke of the thread take-up spring will be increased.
- 3) As you turn the knob counterclockwise (in direction B), the stroke will be decreased. 2. Changing the pressure of thresd take-up spring ①

图 9 Fig. 9

- 1) Loosen setscrew 2, and take out tension asm 3.
- 2) Loosen setscrew 4 , and remove tension post 3.
- 3) As you turn tension post 3 clockwise (in direction A), the pressure will be increased. 4) As you turn the post counterclockwise (in direction B), the pressure will be decreased.
  - 6. 针与旋梭的关系(图10)
- 6. THE RELATION BETWEEN THE NEEDLE AND THE HOOK (Fig. 10)

## 针与旋梭的关系应配合如下:

- 1) 转动上轮, 使针杆位于最低点, 再旋松针杆连接柱定位螺钉①。
- 2) 针杆高度的确定
- 使机针针眼上缘和旋梭上的定位钩槽下缘对齐,然后旋紧针杆连接柱定位螺钉①。
- 3) 旋梭位置的确定
- 旋松旋梭紧固螺钉, 让旋梭钩线尖③对准机针②的中心线, 此时转动上轮, 使旋梭钩线尖位 于针孔上缘上方 1~1.5mm 处。
- 4) 在上述状态下, 左右移动旋梭, 使机针与旋梭的横向间隙为 0~0.05mm, 然后拧紧旋梭紧固

\*注意: 若间隙太小, 会磨损梭尖, 若间隙太大, 则会引起跳针。

\*旋梭原来用什么型号,调换后,也请使用原来的型号。

#### The relation between the needle and the hook should be as follows;

1) Turn the pulley, make the needle stay the lowest point, then loosen the screw (1).

2) The height of the needle bar

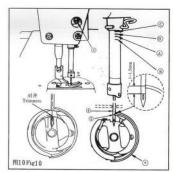
Make the needle eyelet top and the hook botton be uniform Then tighten the screw (1).

#### 3) The hook position

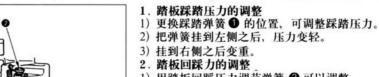
Loosen the hook and tighten the screw, make the top of the thread eyelet aim at the middle thread of the needle(2). Then turn the pulley ,make the thread eyelet top locate above the needle hole about

4) In the above situation, remove the hook left and right, make the horizontal gauge between the needle and hook about 0~0.05mm then.

If the clearance is too small, the tip of the hook will be abraded. If it is too big. it will lead to skip over. \* Note that the type of hook to be substituted for, when replacing the hook, shall be in conformity with the very type of the hook installed in the sewing machine of original assemblage.



## 7. 踏板压力和行程(图 11) 7. PEDAL PRESSURE AND PEDAL STROKE(fig.11)



- 1) 用踏板回踩压力调节弹簧 ② 可以调整。
- 2) 拧进调节螺丝则压力变大。
- 3) 拧松调节螺丝则压力变小。
- 3. 踏板踩踏行程的调整
- 1) 把连接杆 3 插到右侧的孔里之后行程变大。
- 1 Adjusting the pressure required to depress the front part of the pedal 1) This pressure can be changed by changing the mounting position of pedaling pressure adjust spring 10.
- 2) The pressure decreases when you hook the spring on the left side.
- 3) The pressure increases when you hook the spring on the right side. 2 Adjusting the pressure required to depress the back part of the pedal
- 1) This pressure can be adjusted using regulator screw 2 2) The pressure increases as you turn the regulator screw in.
- 3) The pressure decreases as you turn the screw out.
- 3 Adjusting the pedal stroke
- 1) The pedal stroke increases when you insert connecting rod 3 into the right hole

. 7 .

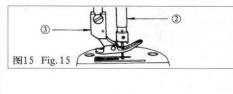
## 8. 膝提高度的调节(图14、15图)

- 8. ADJUSTING THE HEIGHT OF THE KNEE LIFTER (Fig.26, Fig.27)
- 1) 用膝提时的标准压脚高度是 10 毫米
- 2) 用膝提调整螺钉①可以调节压脚提升量至13毫米。
- 3) 当压脚提升量超过 10 毫米时,不能使处于最低位置的针杆②的底端与压脚③相碰。
- 1) The standard height of the presser foot lifted using the knee lifter is 10 mm.

end of needle bar 2 in its lowest position does not hit presser foot 3.

2) You can adjust the presser foot lift up to 13 mm using knee lifter adjust screw ①. 3) When you have adjusted the presser foot lift to over 10 mm, be sure that bottom





## 9. 规格 9. SPECIFICSTIONS

图14 Fig.14

中厚料、厚料 缝纫速度 最高4,000rpm 最高3,500rpm 最大针脚长度 机针 DBx1#11~#18(#14) DPx5 #18~#21(#21) 压脚高度(膝动提升) 10mm(标准) 13mm(最大) 10mm(标准) 13mm(最大) 使用机油 New Defrix Oil No.10 机油 根据噪声测量标准: DIN 45635-48-A-1 噪音 在转速4000 r/min时,工作场所噪音LpA ≤ 83 dB(A)

Application	General fabrica, light-weight and mdeium-weight materials	Medium-weight materials Heavy-weight materials Max. 3,500 rpm	
Sewing speed	Max. 4,000 rpm		
Max. Stitch length	5n	5mm	
Needle	DBx1 #11~#18(#14)	DPx5 #18~#21(#21)	
Presser foot lift	10 mm (standard) 10 mm (standard) 13mm (Max.) 13mm (Max.)		
Lubricating oil	New Defrix Oil No.10		
Noise	Workplace-related noise at se N=4,000 min <sup>-1</sup> : L <sub>PA</sub> < 83 dB(A Noise measurement according	A)	

#### A2电控说明书

- 安全指示
  1) 在安装或使用本产品前,使用者必须详细阅读本操作手册。
  2) 本产品须由受过正确训练的人员来安装或操作。安装作业时必须关闭所有电源,切记不可带电操作。
- 3) 所有标有 符号的指示,必须特别注意并按照说明书上的执行,以免造成不必要的损害。
- 4) 为安全起见,禁止以延长线作电源座供应二项以上的电器产品使用。
- 5) 在连接电源线时,必须确定工作电压低于 AC 250V,且符合本产品标识中规定的额定电压值。 ※注意 : 电控箱电源规格如为 AC220V 时,请勿插接至 AC380V 的电源插座上,否则将出现异常且 电机无法动作。此时请立即关闭电源开关,重新检查电源。持续供应 380V 超过五分钟以上,将可能 烧损电控箱内器件,而危及人身安全。
- 6) 请不要在日光直接照射的场所、室外及室温 45℃以上或 0℃以下的场所操作。
- 7) 请不要在暖气(电热器)旁、有露水的场所及在相对湿度10%以下或90%以上的场所操作。 8) 请不要在灰尘多的场所、具有腐蚀性物质的场所及有挥发性气体的场所操作。
- 9) 请注意所有电源线、信号线、接地线等接线时不要受压或过度扭曲,以确保使用安全。
- 10) 电源线的接地端须以适当大小的导线和接头连接到生产工厂的系统地线,此连接必须被永久固定。
- 11) 所有可转动的部分,必须以所提供的零件加以防范露出。
- 12) 在安装完成第一次开电后,先关闭切线功能以低速操作缝纫机并检查转动方向是否正确、运转是否稳
- 13) 在进行以下操作前,请先关闭所有电源: 1.在控制箱与马达上插拔任何连接插头时。
- 2.穿针线时。
- 3.翻抬缝纫机机头时。 4.修理或做任何机械上的调整时。
- 14) 修理或高层次的保养工作,仅能由受过训练的机电技师来执行。
- 所有维修用的零件,须由本公司提供认可,方可使用。 15)使用本产品请远离高频电磁波和电波发射器等,以免所产生的电磁波干扰伺服驱动装置而发生误动作。
- 16) 请不要以不适当物体来敲击或撞击本产品及各装置。

本产品保修期限为购买日期起一年内或出厂月份起两年内。

#### 保修内容

- 本产品在正常情况使用且无人为操作失误的前提下,于保修期间无偿为客户维修使能正常操作。 但以下情况于保修期间将收取维修费用:
- 1. 不当使用包括误接高压电源、将产品移做其它用途、自行拆卸、维修、更改、或不依规格范围使用、 进水进油及插入异物于本产品。
- 2. 火灾、地震、闪电、风灾、水灾、盐蚀、潮湿、异常电压及其它天灾或不当场所造成的损害。
- 3. 客户购买后捧落本产品,或客户自行运输(或托付运输公司)造成的损害。
- \* 本产品在生产及测试上皆尽最大努力和严格控制使其达到高品质及高稳定的标准,但外部的电磁或静电 干扰或不稳定的供应电源,仍可能对本产品造成影响或损害,因此操作场所的接地系统一定要确实做好, 并建议用户安装故障安全防护装置(如漏电保护器)。

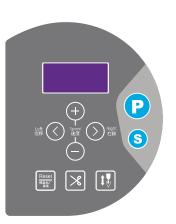
参数项 内容值名称说明与备注 中文说明 范围 初始值 C 项测试选项,设定后将按【P60. TV】 C项测试 0-1所设定之速度执行无定位动能的启动-车 绛-停车的循环 
 P64
 测试 B、C 导通时间

 P65
 测试 B、C 停车时间
 B、C 项测试中,设置导通时间 1-250 B、C 项测试中,设置停车时间 1-250 20 0: 不检测 1: 检测零信号 2: 检测 P66 机头保护开关检测 0-2正信号 P72 上停针位校正 P73 下停针位校正 P80 剪线进刀角度 剪线进刀角度设置(下定位为0°计算) 剪线进刀角度 P81 剪线加力角度 P82 剪线退刀角度 0-359 140 剪线加力角度设置(下定位为0°计算) 172 剪线退刀角度设置(下定位为0°计算) 0-359 P84 厚料开始加力角度 0-359 P85 厚料结束加力角度 0-359 9 按夹线键读取编码器起始角度,出厂已设 编码器起始角度 置,请勿随意更改(随意更改会

#### 4 错误代码表

错误码	内容	对策
E01	1) 电源 ON 时,主电压检测过高 2) 供应电源电压过高时	关闭系统电源,检测供应电源电压是否正确。(或是否超过使用规定的额定电压)。 若正确,请更换控制箱并通知厂方。
E02	1) 电源 ON 时,主电压检测过低 2) 供应电源电压过低时	关闭系统电源,检测供应电源电压是否正确。(或是否低于使用规定的额定电压)。 若正确,请更换控制箱并通知厂方。
E05	控速器接触异常	关闭系统电源,检查控速器接头是否松动或脱落,将其恢复正常后重启系统。若仍不能正常工作,请更换控速器并通知厂方。
E07	a)马达插头配线接触不良导致不转 b)车头机构死锁或马达皮带异物卷入卡死。 c)加工物过厚,马达扭力不足无法贯穿。 d 模块驱动出力异常	转动机头电机手轮观察是否卡住。如卡住则先排除机头机械故障。 如转动正常,检查电机编码器接头和电机电源线 接头是否松动。如有松动请修正。 如接触良好。检查供应电源电压是否异常或转速 设置过高。如有请调整。 如正常,请更换控制箱并通知厂方。
E10	电磁铁过流保护	关闭系统电源,检查电磁铁(电磁阀)连接线或电磁铁(电磁阀)是否损坏。
E09 E11	定位信号异常	关闭系统电源,检查电机编码器接口是否松动或 脱落,将其恢复正常后重启系统。若仍不能正常 工作,请更换电机并通知厂方。
E14	编码器信号异常	关闭系统电源,检查电机编码器接口是否松动或 脱落,将其恢复正常后重启系统。若仍不能正常

#### 2.1 按键说明示意图



2.2: 按键说明

TX MC M0.31		
进入参数区功能键	P	1、一般模式下按下P键进入用户参数设置模式 2、在关机状态,按住P开机进入技术员参数模式
参数查看保存键	数查看保存键 S 对所选参数号内容进行查看和保存:选择好修改操作,修改参数值后按此键则退出并保	
上调节键		1、参数选择区内参数项递增键 2、参数内容区内设定数值递增键
下调节键	$\bigcirc$	1、参数选择区内参数项递减键 2、参数内容区内设定数值递减键
左位移键	$\bigcirc$	在参数选择区和参数内容区内,向左位移
右位移键	$\bigcirc$	在参数选择区和参数内容区内,向右位移
上下停针	Ţ₩.	1、 第二个小数点亮表示停车时在上停针位 2、 第二个小数点灭表示停车时在下停针位
剪线开关	×	1、 长按按键, 第四个小数点亮表示剪线打开 2、 长按按键, 第四个小数点灭表示剪线关闭
恢复出厂设置键	Reset HERF	长按 3S 后恢复出厂设置

#### 3 参数说明

#### 3.1 用户参数 (开机后 长按 P 键 3 秒进入)

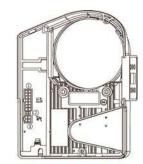
参数项	中文说明	范围	初始值	内容值名称说明与备注
P01	最高转速 (rpm)	200-5000	3500	车缝时的最高转速设定
P02	加速曲线调整(%)	10-100	80	控速器爬升斜率设定 斜率值愈大,速度愈陡;斜率值愈小,速 度愈慢

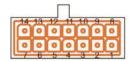
		工作,请更换电机并通知厂方。
E15	电力模块不正常过流保护	关闭系统电源,再重新开启。若仍不能正常工作, 请更换控制箱并通知厂方。
E17	机头保护开关没到正确位置	关闭系统电源,检查机头是否掀开,控制箱内滚 珠开关是否移位或损坏。
E20	开机电机启动失败	关闭系统电源,检查电机编码器接口和电机电源 接口是否松动或脱落,将其恢复正常后重启系统。若仍不能正常工作,请更换控制箱并通知厂方。

#### 5:端口示意图 5.1:各个端口说明:

① 功能端接口

② 烧录口 ③ 脚踏板接口





- ① 剪线电磁铁:1、8
- ② 衣车灯: 4、11
- ③ 手动补针:7、14

参数项 内容值名称说明与备注 P08 慢速起缝针数(针) 0-99 P14 慢速启动 0-1 0: 慢速启动功能关闭 0: 半针, 1: 一针, 2: 连续补半针; P15 补针方式 | P21 | 脚踏板前踏点电压 | 30-1000 | P22 | 脚踏板中踏点电压 | 30-1000 | 520 480 
 P23
 胸踏板平反踏点电压
 30-1000

 P24
 胸踏板反踏点电压
 30-500

 P29
 剪线后刹车力度
 1-50
 240 110 P35 计件数模式选择 P38 剪线出力功能设定 0-1 1 ON: 有剪线动作 OFF: 无剪线动作 车缝件数与针数查看 P41 0 自动累计完成件数或针数。 N01 电控版本号 N02 选针盒版本号 NO3 转速 NO4 脚踏板 AD P42 信息显示 N01 N05 上定位角度 N06 下定位角度 NO7 母线电压 AD

参数项	中文说明	范围	初始值	内容值名称说明与备注
P44	刹车力度	1-50	25	机器停车时的力度选择。
P46	剪线后,反转提针角 度的功能选择	0-1	0	ON: 切完线后,自动作反转的功能。(角度由【P47.TR8】调整决定) OFF: 无作用
P47	剪线后,反转提针角 度的调整	50-200	160	切完线后,由针上算起以反向运转作提转 的角度调整。
P48	低速(定位速度) (rpm)	100-500	210	定位速度设定
P49	剪线速度(rpm)	100-500	270	调整剪线周期时的电机速度
P54	剪线动作时间(ms)	5-990	200	剪线时序所需的动作时间
P56	开电后自动找上定位	0-2	2	0: 始终不找上定位 1: 始终找上定位 2: 若电机已经处于上定位时不再找上; 位(仅限于有磁钢电机)
P58	上定位调整	0-1799	1125	上定位调整,数值减少时会提前停针, 值增加时会延迟停针
P59	下定位调整	0-1799	225	下定位调整,数值减少时会提前停针, 值增加时会延迟停针
P60	测试速度 (r/s)	100-4000	2000	设置测试速度
P61	A 项测试	0-1	0	A 项测试选项,设定后将按【P60. TV】 所设定之速度持续运行
P62	B项测试	0-1	0	B 项测试选项,设定后将按【P60. TV】 所设定之速度执行启动-车缝-停车-剪;

#### A2-CQ Manual Book

- 1) Users are required to read the operation manual completely and carefully before installation or operation.
- 2) All the instruction marked with sign , must be observed or executed; otherwise, bodily injuries might occur.
- The product should be installed and pre-operated by well trained persons

  For perfect operation and safety, it is prohibited that using extension cable with multi-outlet for power connection
- When connecting power supply cords to power sources, it is necessary to make sure that the power voltage is lower than 250V
- AC and matches the rated voltage indicated on the motor's name plate.

  \*\*Attention: If the Control Box is AC 220V system, please don't connect the Control Box to AC 380V power outlet. Otherwise, the error will occur and motor will not work. If that happens, please turn to flick power immediately and check the power voltage. Continue supply 380V power over 5 minutes might damage the fuse F2, burst the electrolytic capacitors and the power module U14 of the main board and even might endanger the person safety.

  Please don't operate in direct sun light, outdoors area and where the room temperature is over 45 °C or below 5 °C.
- Please avoid operating near the heater at dew area or at the humidity below 30% or above 95%.
- Please don't operate in area with heavy dust, corrosive substance or volatile gas
- 8) Please don't operate in area with heavy dust, corrosive substance or volatile gas.
  9) Avoid power cord being applied by heavy objects or excessive force, or over bend.
  10) The earth wire of power cord must be connected to the system ground of the production plant by proper size of conductions and terminals. This connection should be fixed permanently.
  11) All the moving portions must be prevented to be exposed by the parts provided.
  12) Turing on the machine in the first time, operate the sewing machine at low speed and check the correct rotation direction.
  13) Turn off the power before the following operation:
  1. Connecting or disconnecting any connectors on the control box or motor.
  2. Threading needle.
  3. Raising the machine arm.
  4. Repairing or doing any mechanical adjustment.

- Repairing or doing any mechanical adjustment.
   Machine is out of work.

  A Repairing and high level maintenance work should only be done by electronic technicians with appropriate training.
- 15) All the spare parts for repairing work must be provided or approved by the manufacturer.
- 16) Don't use any objects to hit or ram the product.
- Guarantee Time

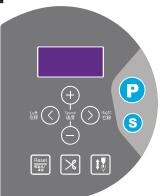
Warranty period of this product is 1 year dated from purchasing, or within 2 years from ex-factory date. Warranty Detail

- Any trouble found within warranty period under normal operation, it will be repaired free of charge.
- However, maintenance cost will be charged in the following cases even if within warranty period:
- 1. Inappropriate use, including: wrong connecting high voltage, wrong application, disassemble, repair, modification by incompetent personnel, or operation without the precaution, or operation out of its specification range, or inserting other objects or liquids into the product.
- 2. Damage by fire, Earth quake, lighting, wind, flood, salt corrosive, moisture, abnormal power voltage and any other damage cause by the natural disaster or by the inappropriate environments.
- 3. Dropping after purchasing or damage in transportation by customer himself or by customer's shipping agency

\* Note: We make our best effort to test and manufacture the product for assuring the quality. However, it is possible that this all a failsafe device (Such as residual current breaker)

No. Function parameter Range Default ): Never look for needle up position P56 0-2 1: Always look for needle up position UP position 2: If in the needle up position, do not look or the position again Needle stops ahead of time with value Up Position P58 0-1799 1125 decrease; Needle delayed stopping with value increase. Needle stops ahead of time with value Down Position P59 0-1799 225 decrease; Needle delayed stopping with value increase. P60 Testing Speed (rpm ) 100-4000 2000 Testing speed setting. After setting A, continuous running at the P61 Testing A 0-10 speed of 【P60. TV】. Option of Testing B, after setting press [p60. TV] to set the speed execute the P62 0-1 Testing B 0 cycle of Start - Sewing -Stop - Trimming Option of Testing C, after setting press [060. TV] to set the speed execute the P63 0-1Testing C cycle of Start - Sewing -Stop without positioning function Running Time of P64 1-250Setting running time of testing B and C 20 Testing B and C Stop Time of Testin P65 1-250 Setting stop time of testing B and C B and C : Disable, 1: Testing zero signal, 2 0-2 1 Switch Testing Testing positive signal UP needle posi P72 adjustment DOWN needle P73 osition adjustmen eeding angle of eding angle of thread trimming P80 0-359 18 thread tri etting(Down position as 0°) Torque angle of thread trimming Torque angle of P81 0-359 140 ing(Down position as 0°) Feeder back angle of Feeder back angle of thread trimming P82 0-359 172 thread trimming etting Down position as 0°) Starting torque angle of Thick material 0-359 machine Stopping torque angle of Thick material 0 - 35957 machine Press cramping key to read the starting angle encoder. Don't change the factory Encoder start angle ngs. Freely change will lead to the ntrol box, motor abnormal or damaged

2.1Kevs illustration diagram



2.2: Keys illustration

Enter to parameter area function key	Р	Under the normal mode press P key enter to user parameter setting mode     In the shut-off condition, press P to turn on the machine enter to the technician parameter mode.
Parameter check and save key	S	To check and save the parameter item contents: after select parameter iten then press this key can check and modify operation, after modified the parameter value press this key to exit and save the value.
Up adjustment key		In the parameter selection area parameter item increment key     In the parameter contents area setting value increment key
Down adjustment key	lacksquare	In the parameter selection area parameter item decrement key     In the parameter contents area setting value decrement key
Left key Right key		In parameter item and parameter contents, turn left moving
		In parameter item and parameter contents, turn right moving
Up/down needle position		The second decimal point LED ON indicate on the up needle position when stop machines.     The second decimal point LED OFF indicate on the down needle posion when stop machines.
Trimming switch		<ol> <li>Long press this key, the fourth decimal point LED ON indicate trimming is open</li> <li>Long press this key, the fourth decimal point LED OFF indicate trimming is off.</li> </ol>
Restore factory setting	Reset	Long press 2 sec restore factory setting

#### 3 Parameter definition

3.1 User parameter ( turn on the machine long-press P key 3 sec to enter)

	No.	Function parameter	Range	Default	Description
Г	P01	Maximum Sewing Speed	200-5000	3500	Maximum sewing speed setting

#### 3 Error Code List

No,	Problem	STATUS / MEASUREMENT
E01	Power ON, the main voltage detection is too high     When the supply voltage is too high	Turn off the system power supply, and detect whether the supply voltage is correct. (Or exceed the rated voltage specified in use.) If correct, please replace the control box and inform the factory
E02	Power ON, the main voltage detection is too low     When the supply voltage is too low	Turn off the system power supply, and detect whether the supply voltage is correct. (Or exceed the rated voltage specified in use.)  If correct, please replace the control box and inform the factory
E03	Operation panel and CPU transmission communication exception	Turn off the system power, check if the operation panel interface is loose  If contact is good, please change the operation panel.  If it is not operated, the control box is damaged, please change
E05	Abnormal contact of speed controller (pedal)	Off the system power supply, check if the connector is loos or fall off. Make the connector normal situation and restar the system. If sits lican not work normally, please replace the speed controller and notify the manufacturer
E07	a) Abnormal contact of motor plug     b) Lock head or motor belt foreign body involved in     c) The material is too thick, the motor torque is not     enough.     d) Output exception of module driven	Rotating the hand wheel of head motor and check if stuck. It it is stuck, there is no mechanical failure of motor head.  If the rotation is normal, check if the motor encode connector and motor power cable joints are loose or not.  If any connector is loose, fix it.  If connection is good ,check if the supply voltage of the power is too high. If it is too high, adjust it. If it is normal please replace the control box and notify the manufacturer.
E08	Continuous manual pour over 15 seconds	Restart the control box.
E10	Electromagnetic overcurrent protection	Power off the system. Check the solenoid (solenoid valve connection line or if the solenoid (solenoid valve) is damaged.
E09 E11	Abnormal locating signal	Power off the system. Check if the motor encoder interfact is loose or fall off. Fix it and restart system.  If it still can not work normally, please replace the moto and notify the manufacturer.
E14	Abnormal Encoder signal	Power off the system. Check if the encoder interface is loos or fall off. Fix it and restart system. If it still can not work normally, please replace the motor and notify the manufacturer.
E15	Abnormal overcurrent protection of power module	Restart system. If it still can not work normally, please replace the motor and notify the manufacturer.
E17	Error position of head protection switch	Power off the system. Check if the machine head is opened and the head protection switch is removed or damaged.

No. Function parameter Range Default Description The speed controller climbing slope setting.

The large of slope value = the fast of the Speed Curve Adjustmen P02 10-100 speed.

The small of slope value = the slow of the speed.
Same as panel shortcut function key
6: Needle Stops at Up Position
1: Needle Stops at Down Position
Soft Start Speed Adjustment Needle UP / DOWN P03 0-1 1 P07 Soft Start Speed (r/S)
P08 Stitch Numbers for Soft
Start (SLS) 800 0-99 Soft Start Stitches Setting ( one unit = half stitch) 1: Soft start function is turn on. P14 Soft Start 0-1 0: Soft start function is turn off.
0: Fill half needle, 1: Fill a needle 2: Stitch Compensation P15 0-2 Continuous half needle; The voltage of step P21 30-1000 520 prior to the pedal The voltage of half P22 30-1000 480 step prior to pedal The voltage of half P23 240 30-1000 heeling to pedal
The voltage of P24 30-500 110 reversing pedal Brake pressure after P29 1-50 trimming
Counting mode
selection Manual counting 1: Automatic P35 0-1Counting ON: Trimmer Valid Trimmer Function Selection P38 0-1 1 OFF: Trimmer Invalid P41 Display the sewing 0-9999 Counting the finished-sewing quantity finished quantity NO1 Electrically controlled version serial NO2 Selected needle cassette version NO3 Speed NO4 Pedals AD, P42 Information Display N01-N07 N01 NO5 Positioning angle NO6 Under the positioning angle NO7 Bus voltage AD N12 Knee position sensor AD

3.2 Technician parameter contents list (Press P key + S key to turn on the machine access) 
 No.
 Function parameter
 Range
 Default

 P44
 Brake efforts
 1-50
 25
 Description
Adjustment of efforts while machine stop ON: motor automatic running after Inversion of the rimming(needle angle decided by the needle angle of choice 0-1 etting of 【P47.TR8】 after trimming OFF: inaction Adjustment of reverse Reverse running is subject to the 50-200 160 angles after trimming adjustment of needle angle after trimming Low (Positioning) 210 Setting Positioning Speed Speed (rpm) Adjustment of motor running speed while P49 100-500 270 Trimming Speed trimming proceeding

Power off the system. Check if the motor encoder interface

5.1: Each port illustration

1 Functional interface (2) Programmer interface

③ Pedal interface





- ① Trimmer : 1, 8
- ② LED/5V : 4, 11
- 3 Stitch Compensation: 7, 14