

JK-5559F 侧切刀电脑高速平缝机系列

产品使用说明书

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杰克缝纫机

JACK SEWING MACHINE

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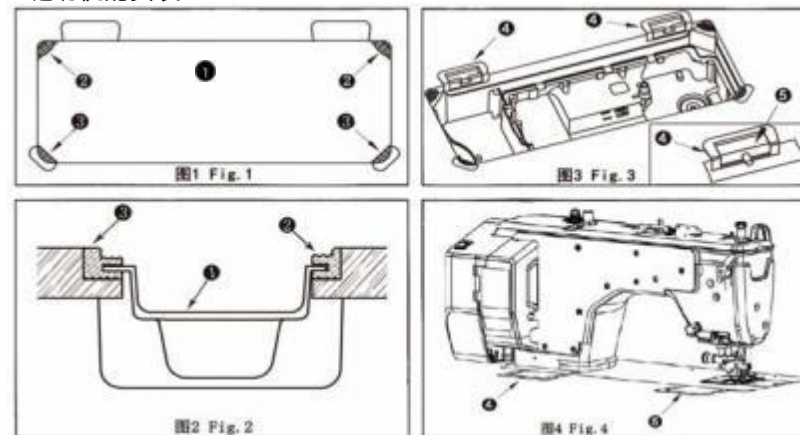
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1. 规格/SPECIFICATIONS

用途	一般布料、薄料、中厚料
缝纫速度	最高 4,000rpm
最大针脚长度	5mm
机针	DBx1 #9~#18 (14#)
压脚高度 (自动抬压脚)	9mm (标准) 10mm (最大)
使用机油	New Defrix Oil NO.10 机油

Application	General fabrica, light-weight and medium-weight materials
Sewing speed	Max. 4,000rpm
Max. Stitch length	5mm
Needle	DBx1 #9~#18 (14#)
Presser foot lift	9mm (standard) ; 10mm (Max.)
Lubricating oil	New Defrix Oil NO.10

2. 缝纫机的安装/INSTALLATION



(1) 油盘托盘安装

- 1) 先将油盘支架③和油盘座垫②分别套在油盘①的四角上, 再将油盘①安装在台板上。
- 2) 如图所示, 安装时要确保两个油盘支架①朝向操作者一边, 两个油盘座垫②是在有机头连接钩⑤的那一侧。
- 3) 先将机头连接钩座④安装在台板上, 再将机头连接钩⑤放入底板孔内, 最后将机头放置于台板上, 且机头连接钩⑤要与台板上的机头连接钩座④相嵌合。

使用说明书

Operation Manual

开车前的注意事项:

BEFORE OPERATION:

- 1.油盘内未加油绝不能开车。
- 2.机器运转时，从手轮外侧看转向应为逆时针方向。注意，不能倒转。
- 3.确认电控标识上的电压及相位是否正确。
 - 1.Never operate the machine unless its oil reservoir has been filled with oil.
 - 2.After setting up the machine,check the direction of motor rotation.To check it,turn the hand wheel by,hand to bring the needle down,and turn the power switch ON while observing the hand wheel.(The hand-wheel should turn counterclockwise as observed from the hand wheel side)
 - 3.Confirm that the voltage and phase(single or 3-phase)are correct by checking them against the ratings shown on the electronic identification.

使用注意事项:

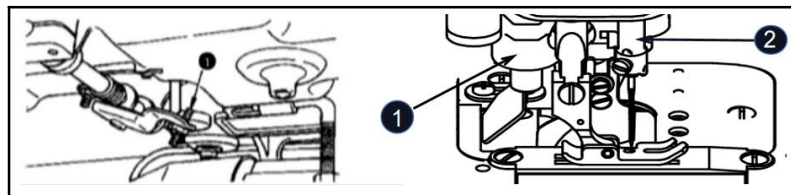
OPERATION PRECAUTIONS:

- 1.接通电源开关或机器运转时，请误将手放到针的下部。
- 2.机器运转时，请勿将手指伸入挑线杆护罩内。
- 3.机头翻倒时，一定要切断电机开关。
- 4.操作者离开机器时，必须切断电源。
- 5.机器运转期间，注意不允许任何人的头或手以及任何东西靠近绕线轮和手轮。
- 6.拆装防护罩，或者其他保护装置时，请勿开动机器。
- 7.不要用香蕉水等油漆稀释液剂擦洗机头表面。
 1. Keep your hands away from the needle when you turn the power switch ON or while the machine is operating.
 2. Do not put your finger into the thread take-up-lever while the machine is operating.
 3. Be sure to turn the power switch OFF before tilting the machine head.
 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 hands to come close to the bobbin winder or hand wheel.Also,do not piece anything close to them.Doing so may be dangerous.
 - 6.If your machine is provided with a 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)The installation of plastic reservoir

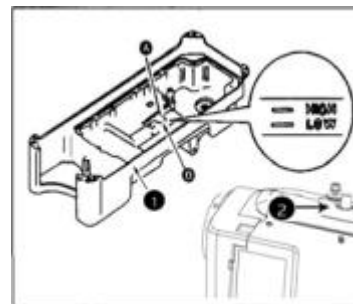
- 1)Firstly, oil pan holder ③ and Oil pan cushion ② should be set in the four corners of the oil pan ① , and then install the oil pan ① on the stand & table.
- 2)As is shown in the chart, making sure that the two oil holders ① are pointing to the operator during the installation and the two oil pan cushions ② are on the side which is with machine head connecting hook ⑤ .
- 3)Install the machine head connecting hook base ④ on the stand & table, and then put the machine head connecting hook ⑤ in the baseplate hole, at last,put the head on the stand table, making sure machine head connecting hook ⑤ is nested in the machine head connecting hook base ④ which is on the stand & table.

3.膝动提升高度的调整/ADJUSTING THE HEIGHT OF THE KNEE LIFTER



- 1) 膝动提升的标准高度为 10mm。
- 2) 调节膝动提升调节螺丝 ① 可以把压脚高度最大调整到 13mm。
- 3) 压脚提升到 10mm 以上时，请注意针杆 ② 的前端下降到最底下，不能碰到压脚 ③。
 - 1) The standard height of the presser foot lifted using the knee lifter is 10mm.
 - 2) You can adjust the presser foot lifted up to 13mm using knee lifter adjust screw ①.
 - 3) When you have adjusted the presser foot lift to over 10mm,be sure that the bottom end of needle bar ② in its lowest position does not hit presser foot ③ .

4.加油/LUBRICATION



运转缝纫机之前，请注入 375mL New Defrix No.10 机油

- 1) 请把 New Defrix No.10 机油倒进油槽 ① 里，一直加到 HIGH 标记 A 的位置。
- 2) 油槽的油面降到 LOW 标记 B 以下时，请再次补充机油。
- 3) 加油后运转缝纫机，如果润滑正常，可通过油窗 ② 看到油的流动。

※油流动量的多少，与油量的多少无关。

※新机器使用 1 个月后请更换机油，后期每六个月更换机油。



新缝纫机或较长时间没有使用的缝纫机在使用之前，应进行 10 分钟 2500-3000rpm 的磨合运转。



When you first operate your machine after seter or after an extended period of disuse, run your machine at 2,500 to 3,000 rpm .for about 10 minutes for the purpose of break-in.

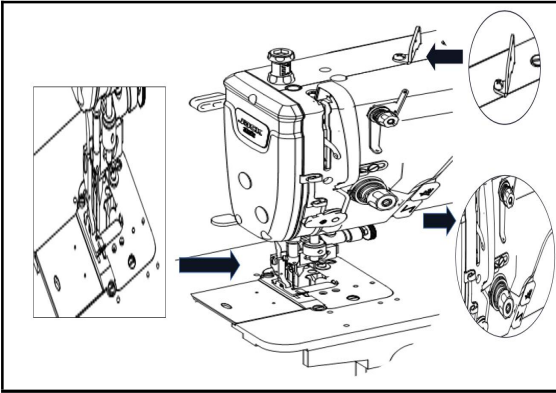
Information on lubrication

- 1) Fill oil pan ① with NEW Defrix Oil No.10 up to HIGH mark.
- 2) When the oil level lowers below LOW mark ,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.

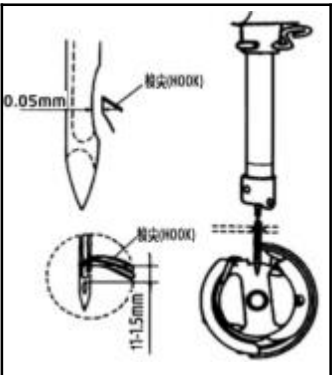
※Note that the amount of the splashing oil is unrelated to the amount of the lubricating oil .

The new machine should be replaced after 1 month, and the oil should be replaced ever y six months later.

5.上线的穿线方法/THREADING THE MACHINE HEAD



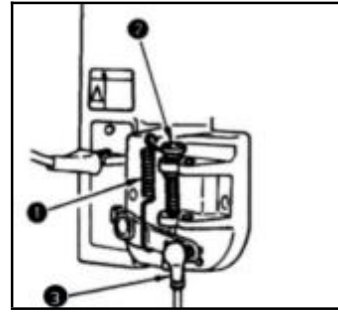
6.机针与旋梭的关系/NEEDLE-TO-HOOK RELATIONSHIP



(1) 针与旋梭的配合关系应如下:

- 1) 转动手轮, 使针杆位于最低点, 在旋松针杆连接柱定位螺钉。
- * 针杆高度的确定。
- 2) 拉动针杆, 水平透过内梭内边缘可看到针孔有 1/2 下露 (机针必须安装到位)。机针埋线槽朝左, 然后旋紧针杆连接柱螺钉。
- * 旋梭位置的确定
- 3) 先将旋梭梭尖朝上, 转动手轮, 针杆从最低点回升时, 观察旋梭与机针配合关系。当旋梭梭尖位于机针孔边上端 1-1.5mm 时且梭尖平面距机针短槽平面 0.05mm 时 (保证梭尖位于机针的中心线部位), 旋紧旋梭螺钉。

8.踏板压力和行程/PEDAL PRESSURE AND PEDAL STROKE



- (1) 踏板踩踏压力的调整
 - 1) 更换踩踏弹簧 ① 的位置, 可调整踩踏压力。
 - 2) 把弹簧挂到左侧之后, 压力变轻。
 - 3) 挂到右侧之后变重。
- (2) 踏板回踩力的调整
 - 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 pedal

- 1)This pressure can be changed by changing the mounting position of pedaling pressure adjust spring ① .
- 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.

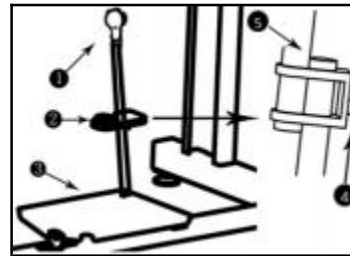
(2)Adjusting the pressure required to depress the back part of the pedal

- 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.

9. 踏板的调整/ADJUSTMENT OF THE PEDAL



(1) 连接杆的安装

- 1)向箭头方向移动踏板调节板 ③ 让连接杆球形头 ① 和连接杆 ② 成一直线。

(2) 踏板的角度

- 1)调节连杆的长度就可以自由的改变踏板的倾斜度。
- 2)拧松调节螺丝 ④, 拉出插入连接杆 ⑤ 进行调整。

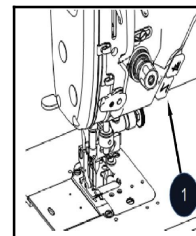
(1) Installing the connecting rod

- 1)Move pedal to the right or left as illustrated by the arrow so that spherical head and connecting rod are straightened.

(2) Adjusting the pedal angle

- 1)The pedal tilt can be freely adjusted by changing the length of the connecting rod.
- 2)Loosen adjust screw,and adjust the length of connecting rod.

10.触键手动倒缝(盒式)/ONE-TOUCH TYPE REVERSE FEED STITCHING MECHANISM



(1) 使用方法

- 1) 按下开关按钮 ①, 缝纫机立即倒缝。
- 2) 在按下的时间内进行倒缝。
- 3) 手一松开立即变为正向缝纫。

(1) Adjust the timing between the needle and the hook as follow:

- 1) Turn the hand wheel to bring the needle bar down to the lowest point of its stroke, and loosen setscrew.
- * Adjusting the needle bar height
- 2) Pull the needle bar, you can see the pinhole basset 1/2 level through edge of inside hook (needle must be position). Turn needle cover wire slot left, then tighten setscrew.
- * Adjusting position a of the hook
- 3) First move the point of hook in direction, when running strap pulley needle bar risen from the lowest, Observe cooperate relation of the hook and needle. When hook point above Pinhole about top of 1mm to 1.5mm and when plane of the hook point form plane of needle short bar 0.05mm (keep the align hook blade point with the center of needle), tighten the hook setscrews.



注意

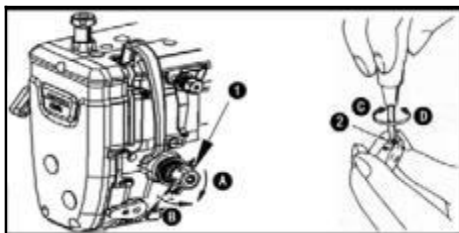
若间隙太小, 会磨损梭尖, 若间隙太大, 则会引起跳针;
 旋梭原来用的什么型号, 调换后, 也请使用原来的型号;
 更换机针后注意机针必须安装到位且类型相同, 如不同类型机针须检查配合关系。



*Precaution

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.
 After replacing the needle, the needle must be same type and install right position. If the needle is different type need check match with relation.

7. 缝线张力/THREAD TENSION



(1) 面线张力的调节:

- 1) 根据不同的缝制条件, 用螺母 来调整面线张力。
- 2) 若把螺母 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 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 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 按逆时针方向 (即 D 方向) 转动时, 面线张力将减小。

(1) Adjusting the needle thread tension

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

(2) Adjusting the bobbin thread tension

- 1) As you turn tension adjust screw 1 clockwise (in direction C), the bobbin thread tension will increase.
- 2) As you run screw 2 counterclockwise (in direction D), the bobbin thread tension will decrease.

(1) How to operate

- 1) The moment switch button 1 is pressed, the machine performs reverse feed stitching.
- 2) The machine performs reverse feed stitching as long as the switch lever is held depressed.
- 3) The machine resumes normal feed stitching the moment the switch lever is released.

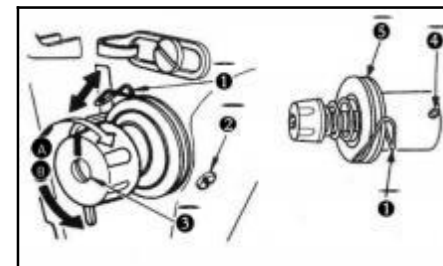
11. 挑线簧/THREAD TAKE UP SPRING

(1) 改变挑线簧 的摆动量:

- 1) 旋松定位螺钉 。
- 2) 把夹线螺钉 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 的张力:

- 1) 旋松定位螺钉 , 取出夹线器 (组件) 。
- 2) 旋松定位螺钉 , 并转动夹线螺钉 。
- 3) 把夹线螺钉 朝顺时针方向 (即 A 方向) 转动时, 挑线簧张力将增大。
- 4) 把夹线螺钉 朝逆时针方向 (即 B 方向) 转动时, 挑线簧张力将减小。



(1) Changing the stroke of thread take-up spring

- 1) Loosen setscrew .
- 2) As you turn tension post clockwise (in direction A), the stroke of 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 threads take-up spring

- 1) Loosen setscrew , and take out tension asm .
- 2) Loosen setscrew , and remove tension post .
- 3) As you turn tension post clockwise (in direction A), the pressure will be increased.
- 4) As you turn the post counterclockwise (in direction B), the pressure will be decreased.

12. 切刀调整/ADJUSTMENT OF THE KNIFE

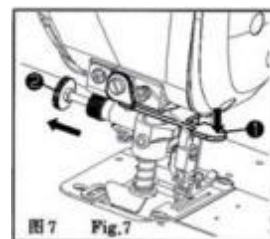


图7 Fig.7

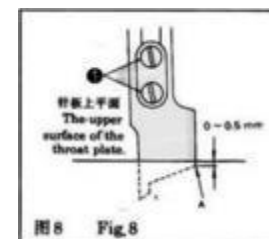


图8 Fig.8

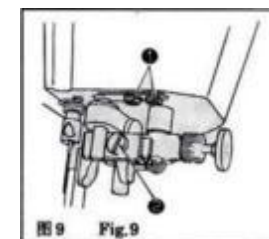


图9 Fig.9

(1) 切刀的操作:

(图 7) 当要使用切刀到时, 请按下切刀座复手柄 ①, 机器运转时就能驱动切刀运动, 要停止使用切刀换成普通平缝时, 请拉动切刀离合销旋钮 ② (按图示方向), 切刀座上弹, 切刀停止动作, 要使切刀脱离, 请在机器停止后操作。

(2) 切刀的调换:

切刀的调换方法如图 8 所示，切刀运动到最下点时，要调节切刀的 A 部至针板平面的距离为 0-0.5mm，更换刀片时，放松 2 枚切刀紧固螺钉①即可。

(3) 切缝宽度的变换：

切缝宽度由针板规格来决定，改变切缝宽度时，也要改变切刀的位置，放松切刀架螺钉②，调正切刀的刀口与针板上刀口相接触，再紧固切刀架螺钉。如果调解切刀平行度，请放松螺钉①（图 9），调节平行直至切布状况良好为止。

(1)How to use the trimmer:(Fig.7.)When the machine starts running,if the knife positioning plate(1) has been pulled down,the trimmer is to be under motion if the running of the conventional lockstitch sewing is desired,pull the knob(2)(as shown on Fig.7)in such a way that the trimmer holder ejects from the lower place to the original upper one.Thus the trimmer stops running.The trimmer won't be made to be disengaged from the working condition unless the machine stops.

(2)Mounting of the trimmer:Procedure of replacement refers to directions as shown on Fig.8.Only when it has been driven to the lower dead point can part A of the trimmer be adjusted up to the range of 0-0.5 millimetre from the upper surface of the throat plate.Loose two screws(L)in order to make replacement of the worn out trimmer.

(3)Adjustment of clearance of the trimmer:Clearance of the trimmer relies upon the specifications of the throat plate.To adjust parallel degree(s)of the excellent trimming condition of fabrics.The adjusting procedure is as follows:1)Loosen screw(2)to make the edges of the throat plate and trimmer come in contact with each other 2)Secure the screw of the trimmer in place.Specified standard of the throat plate for Model GC19-1 is 3.2mm.For the classification of the trimmer clearance of the trimmer refer to NO.22 item.

工业缝纫机安全使用注意事项：

1. 必须遵守基本措施；
2. 必须经过专业培训，对缝纫机设备性能、有所了解；
3. 使用前应检查所有安全装置；
4. 在安装机针、更换机针、压脚、针板、送布牙、弯针、旋梭或修理时，应立即关闭电源；
5. 离开缝纫机或工作场所时应关闭电源；
6. 使用离合马达时，要等待马达完全停止后再进行；
7. 缝纫机及附属装置使用的机油，润滑油等液体流入眼睛或沾到皮肤上应立即清洗；
8. 禁止用手触摸缝纫机通电时的零件或装置；
9. 有关工业用平缝机与包缝机的修理、改造、主要机构的调整由专门技术人员来进行；
10. 一般的维修保养由专人进行；
11. 在电气方面的修理应在电气技术员的监督和指导下进行；
12. 缝纫机使用期间应定期清扫；
13. 为了正常安全运转，应安装地线，同时应在不受高频焊接机等强噪声源影响的环境下使用；
14. 电源插头应由专人安装；
15. 工业用平缝机、包缝机在指定用途以外不能使用。

环保要求：

- 1、使用过程中产生的废油及其他废弃物请根据当地环保的要求进行合理的处置。
- 2、请在使用完后及时关闭电源，减少电能的消耗。
- 3、请在说明书要求的电压及环境下使用，已延长产品的使用寿命，减少废弃物的产生。
- 4、机器报废后请勿将本机器及其附件作为普通的生活垃圾处理。请遵守本设备及其附件处理的本地法令，并支持回收行动。

Notes for safe use of industrial sewing machines:


1. Basic measures must be observed.
2. Pass the specialized training and master sewing machine equipment performance.
3. All safety devices should be checked before use.
4. When installing needle, and changing needle, presser foot, plate, feed dog, bent needle, hook or repairing, the power supply should be turned off immediately.
5. Power should be turned off when leaving the sewing machine or workplace.
6. When using the clutch motor, please wait until the motor stops completely.
7. The machine oil and other liquids used in sewing machines and ancillary devices should be cleaned immediately when they are put into eyes or touch skin.
8. Do not touch the parts or devices when the machine is powered by hand.
9. The repair, renovation and adjustment of the main mechanisms of the relevant industrial sewing machines and overseers shall be carried out by specialized technicians.
10. General maintenance is carried out by specially-assigned persons.
11. Electrical repairs should be performed under the supervision and direction of the electrical technician.
12. The machine should be cleaned regularly during operation.
13. In order to operate normally and safely, ground lines should be installed, and they should be used in an environment free from strong noise sources such as high frequency welding machine.
14. Power plug should be installed by specially-assigned person.
15. Industrial lockstitch sewing machine and overlock sewing machine can not be used except the designated use.

Environmental requirements:

- 1、Please dispose the waste oil and other waste products properly according to local environmental protection requirements.
- 2、Please turn off the power after use to reduce power consumption.
- 3、Please use under the voltage and environment required in the manual to extend the service life of the product and reduce waste generation.
- 4、Do not treat the machine and its accessories as ordinary household garbage after being scrapped. Please comply with local laws governing the disposal of the equipment and its accessories and support recycling operations.

5559F Operation Manual

Safety Instruction

- Please read this manual carefully, also with related manual for the machinery before use the controller.
- For installing and operating the controller properly and safely, qualified engineers are required.
- Please stay away from arc welding equipment, in order to avoid electromagnetic interference and malfunction of the controller.
- Keep room temperature below 45°C and above 0°C
- Do not use in humidity below 30% or above 95% or dew and mist places.
- Please turn off the power and unplug the power cord, before install the control box and other components,
- To prevent interference or electric leakage accidents, please make the ground work; the power cord ground wire must be securely connected to earth by an effective way.
- All parts for the repair provided by the Company or approved before use.
- Please turn off the power and unplug the power cord before any maintenance action. There is dangerous high voltage control box, you must turn the power off after one minute before opening the control box.
- The symbol  in this manual means Safety Precautions, please pay attention to it and strictly follow it, to avoid any unnecessary damage.

1 Installation Instructions

1.1 Product specifications

Product Type	M4L-5559F	Supply Voltage	AC 220 ±20%V
Power frequency	50Hz/60Hz	Maximum output power	550W

1.2 Interface plug connections

Connecting the plugs of pedaland machine head to the corresponding sockets at the back of controller, as Figure 1-2. Please check and confirm the plug is inserted firmly.

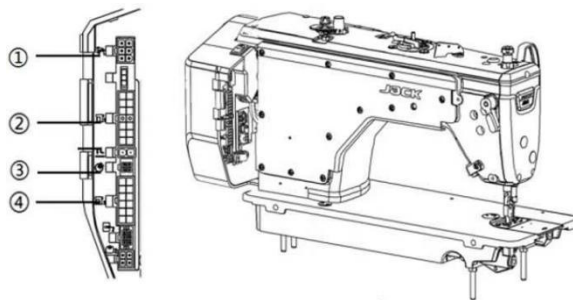



Fig.1-1 Controller Socket Diagram

① Pedal socket; ② Solenoid socket ; ③ Air suction tube socket; ④ Auxiliary Solenoid socket

: If it is difficult to insert plug into socket, please check whether they are matching with each other, or the inserting direction or needle insertion direction is correct!

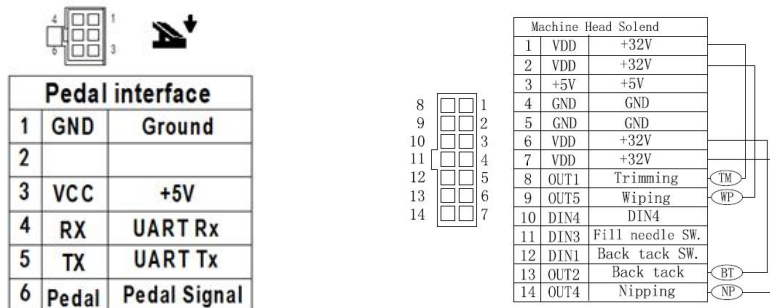



Fig.1-2 Controller Interface Definition

1.3 Wiring and Grounding

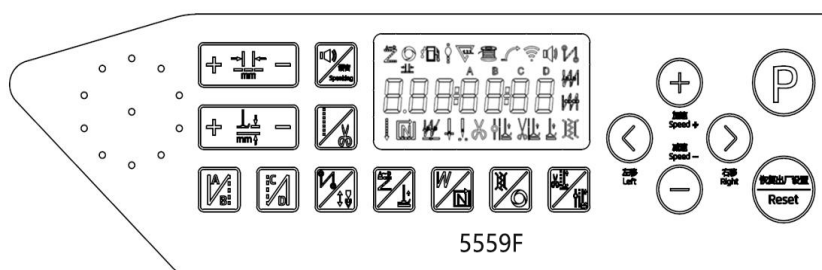
We must prepare the system grounding project, a qualified electrical engineer is requested for the construction. Product is energized and ready for use; you must ensure that the power outlet the AC input is securely grounded. The grounding wire is yellow and green lines, it must be connected to the grid and reliable security protection on the ground to ensure safe use, and prevent abnormal situation.

: All power lines, signal lines, ground lines, wiring not to be pressed into other objects or excessive distortion, to ensure safe use!

2 Operation Panel Instructions



























2.1 Operation Panel Display Instruction

According to the system working state, the LCD module of operation panel will display the current sewing mode, parameters, start / end back tacking, and presser foot, needle position, trimming, soft start sewing etc. Function mark of the operation panel is as follows:



2.2 Key FunctionsS/L mark Key Name Description

Key	Name	Description
	Parameter setting key	In the boot state, long press key to enter the parameter modes. After modify the parameters, press key to storage. Then long press key to exit this mode.
	Factory reset	Long press button for 5 seconds to restore the factory Settings.
	Stitch length adjustment key	<ol style="list-style-type: none"> Short press the "+" key, and the stitch length increases by 0.1mm each time. Long press the "+" key, and the stitch length continues to increase. Short press the "-" key, and the stitch length decreases by 0.1mm each time. Long press the "-" key, and the stitch length continues to decrease.
	Presser foot adjustment key	<ol style="list-style-type: none"> Short press the "+" key, and the press foot height increases by 0.1mm each time. Long press the "+" key, and the press foot height continues to increase. Short press the "-" key, and the press foot height decreases by 0.1mm each time. Long press the "-" key, and the press foot height continues to decrease.
	Power-on voice message and voice on/off key	<p>Without error warning:</p> <ol style="list-style-type: none"> Short press key: The power-on voice is disabled. Short press again to enable the power-on voice. Long press key: The voice function is disabled. Then, long press again to enable the voice function. <p>With error warning: Short press key to broadcast the error code solution directly.</p>
	Free sewing and trimming key	<ol style="list-style-type: none"> Short press key to select free sewing mode. Long press key, the thread trimming icon on the LCD screen lights up, and the thread trimming function is enabled. Long press key again to disable the thread trimming function.
	Front reinforcing sewing key	Front reinforcing sewing selection key. Short press it once to switch between Front Reinforcing Sewing , Front Double-reinforcing Sewing , and Off. The corresponding LCD screen icon lights up. Select the corresponding key to set the stitch count in segments A and B. The range of stitch count 1~F corresponds to 1~15 stitches.
	Rear reinforcing sewing key	Rear reinforcing sewing selection key. Short press it once to switch between Rear Reinforcing Sewing , Rear Double-reinforcing Sewing , and Off. The corresponding LCD screen icon lights up. Select the corresponding key to set the stitch count in segments C and D. The range of stitch count 1~F corresponds to 1~15 stitches.





	Condensed sewing/ Stop position key	<ol style="list-style-type: none"> 1. Short press  key: Condensed sewing selection key. Short press it once to switch between Rear Condensed Sewing, OFF, Front and Rear Condensed Sewing, and Front Condensed Sewing. The corresponding LCD screen icon lights up. 2. Long press  key: Set the upper/lower needle position.
	Pattern sewing key	<ol style="list-style-type: none"> 1. Short press to switch to Pattern Sewing Mode. 2. Long press the key, the press foot function is enabled or disabled.
	W bar tacking /Multi-section constant-stitch	<ol style="list-style-type: none"> 1. Short press  key, the icon  of LCD is lit, W seam marking function turns on. 2. Long press  key, the icon  of LCD is lit, the multi-section constant-stitch sewing function turns on.
	Tension/trigger key	<ol style="list-style-type: none"> 1. Short press  key, the thread tension icon  on the LCD screen lights up, and the thread tension function is enabled. Short press it again to disable the thread tension function. 2. Long press  key, and the trigger function is enabled. Long press it again, and the trigger function is disabled (valid in multi-segment sewing mode).
	Presser foot key	<ol style="list-style-type: none"> 1. Short press  key, the icon  of LCD is lit, the c sewing after the end of automatic trimming presser foot function turns on. 2. Long press  Key, the icon  of LCD is lit, the cycle sewing midway parking presser foot function turns on.
	Parameter increment key	<ol style="list-style-type: none"> 1. In the Home interface, press  key to increase the speed by 50 rpm each time. Long press the  key continues to increase. 2. In the Parameter Setting, parameter value increment key.
	Parameter decrement key	<ol style="list-style-type: none"> 1. In the Home interface, press  key to decrease the speed by 50rpm each time. Long press the  key, and the press foot height continues to decrease. 2. In the Parameter Setting, parameter value increment key.
	The left selection key	Parameters selection toward to left key. (In constant-stitch sewing mode, long press this key, One-shot-sewing can be turned on or turned off.)
	The right selection key	Parameters selection toward to right key.

2.3 Operation panel auxiliary functions





2.3.1 User parameter adjustment

Normal boot, press  key to enter user parameter mode. Press the Left/Right key to move the cursor and the corresponding value digit flashes, then press the Plus/Minus key to modify the value of the digit. Press  key, the parameter number flashes, and save the parameter. Press  again to exit.

2.3.2 Needle stop position setting

In the power-on state, press  +  key to enter the monitor mode (display 024 parameter interface). At this time, turn the hand wheel to the upper needle position as required. The displayed value will change with the hand wheel position. Press  +  key to "set zero" to parameter value measured after 024 in the interface, confirm the upper needle position is OK, and calculate the lower needle position automatically at the same time.

2.3.3 Parameter save setting

In the monitoring interface state (press  +  key to enter), long press  to save the current parameters. In the power-on state, long press  key to restore the saved parameters.

2.3.4 Version number query

In the power-on state, press  +  key to enter the version display interface, and switch the display of program versions by pressing the Plus/Minus key, h.**.**.* represents the panel program version; A.**.**.* represents the master control program version; V4-**** represents the recovery code.

2.3.5 Piece/stitch count setting

In the power-on state, press + key to enter piece/stitch count interface. Use the Left/Right key to switch between the piece/stitch count.

2.3.6 Step motor "Zero" calibration

In the power-on state, press key to enter the user parameter mode. Adjust the parameter to item P81, use ordinary A4 paper, and measure at the speed 4000 rpm. Adjust the parameter so that more than 10 stitches are performed by the needle in place. Press the P key to save; (if the stitch length is at forward feeds, the number decreases; if the stitch length is at reverse feeds, the number increases).

Note: Enter the P81 interface, and the stitch length will automatically become 0 to facilitate debugging. After exiting this interface, the stitch length will return to normal.

2.3.7 Stitch length adjustment setting

In the power-on state, press key to enter the user parameter mode. Adjust the stitch length to 5mm and the parameter to P82 (stitch length compensation at forward feeds). Use ordinary A4 paper, measure at the speed 200 rpm, adjust the parameter to make the stitch length 4.8-5.2mm, and press P key to save; then enter P83 (stitch length compensation at reverse feeds), use ordinary A4 paper, sew a section forward, at the speed 200 rpm, press and hold the back-tacking switch. Adjust the parameters so that the forward feeds overlap more than 11 stitches, and press P key to save.

Note: Enter the P82 and P83 interfaces, and the speed will automatically become 200 rpm to facilitate debugging. After exiting this interface, the speed will return to normal.

3 System parameters setting list

3.1 Parameter mode

1. In the standby state, press key to enter the parameter modes.
2. Press corresponding key and key to adjust the corresponding parameter.
3. When the parameter values have increased and decreased, parameter interface flash. Short press key to save the modified parameters. Long press key to exit parameter interface, return to standby model.

NO.	Range	Default	Description
P 0 1	200~5000	3500	the maximum speed of free sewing (the global maximum speed)
P 0 2	0~100	50	Start sewing slight lift force adjusting
P 0 3	0/1	0	Needle stop position selection (0:up; 1: down)
P 0 4	200~3000	1800	Start back tacking speed
P 0 5	200~3000	1800	End back tacking speed
P 0 6	200~3000	1800	Continuous back sewing speed (W sewing)
P 0 7	5~720	300	After the motor runs to the target Angle, open the clip-on electromagnet
P 0 8	0~360	27	Clamp Angle compensation
P 0 9	0~2	0	Soft start switch (0:off; 1: on)
P 0 A	0/1	0	Start sewing slight lift switch (0:off; 1: on)
P 1 0	1~9	1	Slow-start stitch count
P 1 1	100~800	150	Slow-start sewing speed
P 1 2	0~2000	600	Slow-start sewing speed gradient increase
P 1 3	200~5000	2800	Manual backstitch maximum speed limit
P 1 4	100~800	200	Stitch compensation speed
P 1 5	0~2	0	Button stitch compensation mode: 0: Press the time control; 1: Compensate for half stitch; 2: Compensate for one stitch
P 1 8	1~120	15	Stitch balance for start back tacking No.1(Pull in compensation)
P 1 9	1~120	13	Stitch balance for start back tacking No.2(Release of compensation)
P 2 0	0~3	0	Start tacking mode. 0: Press the pedal gently to start the initial backstitch automatically. 1: Controlled by the pedal, stop at will. 2: Controlled by [CT] time after the needle stops at the upper position 3: Controlled by [CT] time after the needle stops at the lower position
P 2 1	0~3	0	End tacking mode. 0: Press the pedal gently to start the initial backstitch automatically. 1: Invalid 2: Controlled by [CT] time after the needle stops at the upper position 3: Controlled by [CT] time after the needle stops at the lower position
P 2 2	0~3	0	W tacking mode. 0: Press the pedal gently to start the initial backstitch automatically. 1: Controlled by the pedal, stop at will. 2: Controlled by [CT] time after the needle stops at the upper position

			3: Controlled by [CT] time after the needle stops at the lower position
P 23	0~4	4	Type of start/end tacking mode (CD is similar to AB) 0: B->AB->ABAB->NONE; 1: B->NONE 2: B->AB->NONE 3: AB->NONE 4: AB->ABAB->NONE (Panel)
P 24	0~1024	90	Pedal trimming position
P 25	1~120	15	Stitch balance for end back tacking No.1
P 26	1~120	13	Stitch balance for end back tacking No.2
P 33	0~100	55	Duty cycle of thread clamping solenoid
P 34	0/1	0	Oil quantity detection switch (0 is on, 1 is off)
P 35	0~200	0	Bobbin thread detection switch (3 modes: digit 0-3)
P 36	200~2500	500	Bobbin thread detection mode (2 speed limit)
P 38	0/1	0	Bird's nest prevention quick switch: 0 is off, 1 is on
P 40	0~1024	280	Pedal presser foot lift position (greater than the previous parameter value in turn)
P 41	0~1024	405	Pedal back to center position (greater than the previous parameter value in turn)
P 42	0~1024	420	Pedal forward running position (greater than the previous parameter value in turn)
P 43	0~1024	495	Pedal low-speed running position (upper limit) (greater than the previous parameter value in turn)
P 44	0~1024	830	Pedal simulation maximum value (greater than the previous parameter value in turn)
P 47	200~360	360	After trimming anti pull (It realizes trimming is pulled back function)
P 49	100~500	250	Trimming speed
P 50	1~500	80	Full output time of presser foot lifting solenoid (ms)
P 51	0~100	40	Duty cycle of presser foot lifting solenoid (%)
P 52	1~800	100	Presser foot release delay time (ms)
P 53	0~111	111	Presser foot lift switch: 0: not lifted 1: lifted
P 55	1~13	9	The height of press foot after trimming
P 56	0/1	1	Searching up needle position when power on. 0: no search 1: search
P 57	0~600	100	Presser foot lifting solenoid protection time (100 ms)
P 60	200~5000	3500	Maximum fixed-length sewing speed (automatic speed test)
P 61	/	/	Motor initial angle detection quick parameter
P 62	0~1	0	Automatic test mode (0:off, 1:on)
P 63	1~10	2	Front condensed sewing stitch count
P 64	1~10	2	Short thread condensed stitch count
P 65	200~1800	1000	Front condensed sewing speed
P 66	0~30	2	2: enable the safety switch function; 0: disable
P 71	0~90	66	Slow release presser foot level adjustment.
P 72	0~359	90	Broken needle prevention (0: off, non-0: press manual backstitch to find the suction angle, open normal 90)
P 73	0/1	0	End tacking function before thread trimming halfway of fixed stitch sewing (0: off, 1: on)
P 74	0/1	0	Operation mode selection after fixed length sewing is completed 0: rear reinforcing sewing 1: end sewing and standby (stitch compensation)
P 75	0/1	0	Thread trimming switch for each segment of multi-segment sewing (0: off, 1: on)
P 77	0/1	0	Manual backstitch function mode selection 0: Juki mode. Have action during sewing or stop halfway. 1: Brother mode. Have action only during sewing.
P 78	10~359	150	Thread clamping start angle
P 79	160~359	340	Thread clamping end angle
P 81	-999~999	-50	Zero compensation
P 82	-50~50	0	Forward stitch length compensation
P 83	-50~50	0	Reverse stitch length compensation

P84	200~2500	2000	Pattern sewing speed limit
P85	0/1	0	Stitch direction
P86	-20~20	8	Front short thread stitch length
P88	-20~20	5	Rear short thread stitch length
P90	0/1	0	Lock panel stitch length: 0: off; 1: on
P97	0/1/2	0	Voice mode. 0:Power on voice and key voice , 1: Only power on voice, 2:Only key voice
P98	0~7	7	Voice volume adjustment (restore factory default without change)
P99	0/1/2	1	Language selection. 0: off, 1: Chinese, 2:English, default language 1 Chinese
PA6	1~100	1	Stitch count ratio setting
PA7	1~9999	1	Stitch count upper limit setting
PA8	0~6	0	Stitch counter mode option: 0: No counting;1: Count up according to stitch count, and recount automatically after the set value is count 2: Count down according to stitch count, and recount automatically after the set value is count 3: Count up according to stitch count, and motor stops automatically after the set value is count, restart by P button on the panel required. 4: Count down according to stitch count, and motor stops automatically after the set value is count, restart by P button on the panel required. 5: Count up according to the number of stitches. After counting up to the set value, an error is reported, and the motor does not stop. When the pedal is stepped on, the motor stops and the P key on the panel should be used to initiate the recount. 6: Count down according to the number of stitches. After counting up to the set value, an error is reported, and the motor does not stop. When the pedal is stepped backward, the motor stops and P key on the panel should be used to initiate the recount.
PA9	1~100	1	Trimming counter function ratio setting
PAA	1~9999	9999	Trimming count setting
PAB	0~6	0	Trimming counter mode option: 0: No counting;1: Count up according to Trimming count, and recount automatically after the set value is count 2: Count down according to Trimming count, and recount automatically after the set value is count 3: Count up according to Trimming count, and motor stops automatically after the set value is count, restart by P button on the panel required. 4: Count down according to Trimming count, and motor stops automatically after the set value is count, restart by P button on the panel required.

3.2 Monitor mode

No.	Description	No.	Description
010	stitch counter	023	Initial electrical angle
011	Counter for sewing pieces	024	Machine angle
020	DC voltage	025	The sampling voltage of pedal
021	Machine speed	027	The total used time(hours) of motor
022	The phase current	030-037	The history record of error codes

3.3 The warning message

Alarm code	Description	Corrective
ALA-2	Stitch counter alarm	The stitch counter reaches the limit. Press P key to cancel the alarm and reset the counter.
ALA-3	Trimming counter alarm	The trimming counter reaches the limit. Press P key to cancel the alarm and reset the counter.
OFF	Power is off alarm	Please wait for 30 seconds, then turn on the power switch
ARN UP	Safety switch alarm	Adjust the machine to the correct position.

3.4 Error mode

If the error code appears, please check the following items first: 1. Make sure the machine has been connected correctly; 2. Confirm that the control box match with the machine head. 3. Confirm factory reset is accurate

Error Code	Description	Solution
Err-01	Arm shaft motor hardware overcurrent	1. Turn off the system power, and turn it on again after 30 seconds. 2. Please enter P62 to check the initial angle of the arm shaft motor. 3. Check whether the arm shaft motor encoder and electronic control are damaged or in other poor conditions. If so, replace them in time. 4. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider.
Err-03	System undervoltage	Disconnect the power supply of the controller and check whether the input power supply voltage is lower than 176V. If so, please restart the controller after the voltage returns to normal. If the voltage returns to normal, it still does not work properly after the controller starts up. Please contact your local

		service provider.
Err-04	Overvoltage during shutdown	Disconnect the controller power and check whether the input power voltage is higher than 264V. If so, please restart the controller after the voltage returns to normal. If the voltage returns to normal, it still does not work properly after the controller starts up. Please contact your local service provider.
Err-05	Overvoltage during operation	
Err-06	Electromagnet circuit failure	<ol style="list-style-type: none"> 1. Turn off the system power, check whether the electromagnet connection is correct and whether there is any loose or damaged part. If so, replace it in time. 2. Unplug the 14-pin plug on the electric control to confirm whether the electric control is normal. If the electric control is normal, please check whether the electromagnetic circuits are damaged. 3. If the system still does not work after troubleshooting and restart. Please contact your local service provider.
Err-07	Current detection circuit failure	Turn off the system power, and turn on the power again after 30 seconds to see whether it can work properly. Try a few times again. If the fault occurs frequently, please contact your local service provider.
Err-08	Arm shaft motor stalled	<ol style="list-style-type: none"> 1. Please check whether there is any foreign object wrapped around the machine head, whether there is any thread residue stuck in the rotating shuttle, and whether the eccentric wheel of the machine is stuck. 2. Disconnect the power supply of the controller and check whether the input plug of the arm shaft motor power supply is detached, loose, or damaged. 3. Please enter P62 to check the initial angle of the arm shaft motor. 4. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider.
Err-10	Panel communication failure	<ol style="list-style-type: none"> 1. Please check whether the connection between the operation panel and the electric control is drops off, loose, or broken. 2. Please check whether the connection cable of the pedal speed controller is drops off, loose, or damaged. 3. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider.
Err-11	Head stop signal failure	<ol style="list-style-type: none"> 1. Check whether the connection between the arm shaft motor encoder and the controller is loose. 2. Replace the arm shaft motor encoder. 3. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider.
Err-12	Arm shaft motor initial angle detection failure	<ol style="list-style-type: none"> 1. Please enter P62 to check the initial angle of the arm shaft motor. 2. Please try 2-3 times again after power off. If it still fails. Please contact your local service provider.
Err-13	Arm shaft motor zero position fault	<ol style="list-style-type: none"> 1. Turn off the power of the system, check whether the arm shaft motor encoder connector is loose, or drops off. Restore it to normal and restart the system. 2. Replace the arm shaft motor encoder. 3. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider.
Err-14	Master control eeprom components read/write failure	Turn off the system power, and then turn on the power again after 30 seconds. If the controller still does not work properly, please contact your local service provider.
Err-15	Arm shaft motor overspeed protection	
Err-16	Arm shaft motor reverse	
Err-17	Master control restart failure	
Err-18	Arm shaft motor overload	Check whether the arm shaft motor is stalled. If not, please contact your local service provider.
Err-20	Alarm for oil shortage every 8 hours	Check whether the oil level of the machine is sufficient. If the problem is still not resolved after filling up the oil volume, please contact your local service provider.
Err-21	Arm shaft motor stalled	<ol style="list-style-type: none"> 1. Please check whether there is any foreign object wrapped around the machine head, whether there is any thread residue stuck in the rotating shuttle, and whether the eccentric wheel of the machine is stuck. 2. Disconnect the power supply of the controller and check whether the input plug of the arm shaft motor power supply is detached, loose, or damaged. 3. Please enter P62 to check the initial angle of the arm shaft motor. 4. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider.
Err-24	Bobbin detection alarm	Check whether the bobbin is sufficient. If the bobbin is sufficient but the error still exists, please contact your local service provider.
Err-26	Thread residue detection alarm	Restart after cleaning the yarn, if it still fails to work. Please contact your local service provider.
Err-30	Password lock shutdown alarm	The machine has reached the set time. If further use is required, please contact your local service provider.
Err-31	Backstitch step motor zero position fault	<ol style="list-style-type: none"> 1. Check whether the backstitch step motor, swing seat, and teeth are stuck. After the normal state is restored, restart the system. 2. Check whether the backstitch step encoder is damaged or in other poor conditions. If so, replace it in time. 3. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider.
Err-32	Backstitch step motor hardware overcurrent	<ol style="list-style-type: none"> 1. Turn off the system power, and then turn on the power again after 30 seconds 2. Check whether the backstitch step motor, swing seat, and teeth are stuck. After returning to the normal state, restart the system. 3. If the system still does not work properly after troubleshooting and restart. Please contact your local service provider.
Err-33	Backstitch step motor current A detection circuit failure	Turn off the system power, and then turn on the power again after 30 seconds. If the controller still does not work properly, please contact your local service provider.
Err-36	Backstitch step motor stalled	<ol style="list-style-type: none"> 1. Turn off the system power, and then turn on the power again after 30 seconds 2. Check whether the backstitch step motor, swing seat, and teeth are stuck. After returning to the normal state, restart the system. 3. Check whether the backstitch step encoder and electronic control are damaged or in other poor conditions. If so, replace them in time. 4. If the system still cannot work properly after troubleshooting and restart. Please contact your local service provider.