



缝缝机 Interlock Sewing Machine

W4系列 W4 Series

产品使用说明书 Product Users' Manual

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JACK SEWING MACHINE
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产品标准代号: Q/TK 007-2017
Standard code of the products: Q/TK 007-2017

安全须知

对于缝制机本身各种装置, 我们充分考虑到它的安全性。请遵照基本的操作方法, 安全的进行工作。
● 拆除为保证安全所设置的装置, 零件的情况下使用, 是非常危险的。请绝对不要拆除后使用。
● 缝制机在使用时, 请不要在缝制机台板上放置工具及缝制时不必要的物品。
● 在对缝制机进行检查、修理、清扫等维护作业时, 请关掉电源开关, 将电源插销从插座上拔下, 并确认跟缝制机踏板也不会转动之后, 再进行操作。

OBSEVE THESE SAFETY PRECAUTIONS

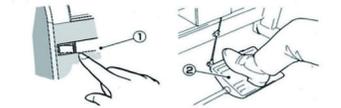
Though We takes the utmost care to produce safe sewing machines and devices, operators should follow these basic safety rules.
● To prevent accidents, do not remove safety devices or parts while operating the machine.
● Do not leave tools or other unnecessary objects on the machine table while operating the machine.
● Always turn off the power, unplug the machine and then make sure that the machine does not run by pressing the pedal before performing any maintenance, such as checking, repairing, cleaning, etc.

注意

使用离合式马达的情况下, 在关掉电源①后因惯性作用会继续旋转。这时如不注意踩动缝制机踏板②时, 缝制机会突然转动, 这是很危险的。请在关掉电源后, 仍继续踩动踏板②, 直至缝制机完全停下来为止。

Caution

A clutch motor keeps on running for a while by inertia after turning off the power① suddenly. If the machine pedal② is stepped on inadvertently, it is dangerous as the machine will start running unexpectedly. Keeping on stepping on the pedal② until the machine comes to a stop after turning off power suddenly.

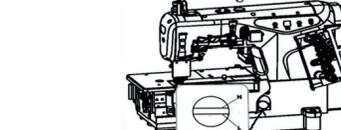


- 在离开缝制机台时, 务必关掉电源。
- 停电时也请务必关掉电源。
- 为了总是安全地, 运转良好的使用缝制机, 日常的点检是不可缺少的, 请予以注意。
- Turn off the power before leaving the machine table.
- In the event of a power failure, be sure to turn off the power.
- Check that the machine is securely grounded.

供油

加油量是使油面处于L1线与L2线之间为好。当油面低于L2线时, 就要及时补充机油。机油请使用本公司指定的[HIGH SPEED SEWING MACHINE OIL] (ISO粘度与VG22相同)。

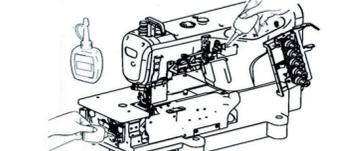
Lubrication
After filling the oil pan the oil level should lie between (H) and (L) lines. Add oil when the oil level reaches or goes below (L) line. Note: Use Jack designated oil [HIGH SPEED SEWING MACHINE OIL] (ISO VG22)



给HR装置供油

为了防止布纤维或线被切断, 请尽早给HR装置供油。
注: 硅油请使用本公司指定的冷却油。[请使用日本UNION CARBIDE(株)的UCCL-4S(10)]

Filling the HR device with silicon oil
Fill the device with oil before it is too low in order to prevent needle thread breakage and fabric damage. Note: Use recommended silicon oil [UNION CARBIDE CORPORATION] UCCL-4S(10)



穿线的方法

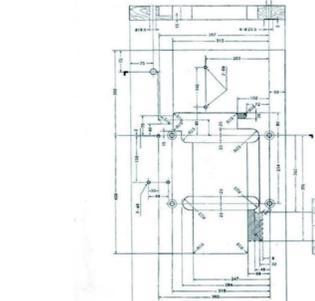
- (1) 请掀起护眼板, 打开机盖 (3处)。
- (2) 抬起弯针挑线架。
- (3) 把机上新有的线与缝线用线绑在一起。
- (4) 按下弯针挑线架, 弯针挑线架回到原位。
- (5) 针线 将针线拉到针眼前, 剪掉线头再次穿好针线。
- (6) 弯针线, 上装饰线直到拉出接头往来后, 用剪刀剪齐接头, 整齐。

Threading
(1) Open the eye guard and three covers.
(2) Take up the bracket.

台板加工图

Schematic diagram to the machine table

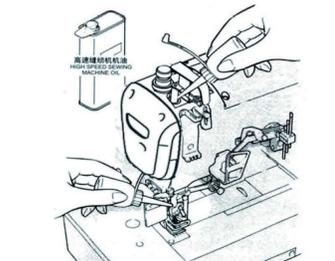
请参照下图进行台板的加工
Cut the referring the diagram



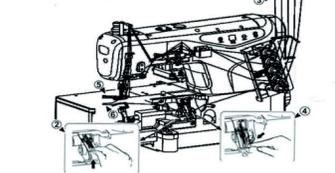
手动给油 Manual lubrication

手动给油是在缝制机最初开始使用时, 或相当一段时间重新开始使用时, 请给油2~3滴油。
机油请使用本公司指定的 [HIGH SPEED SEWING MACHINE OIL] (ISO粘度与VG22相同)。

Supply 2 or 3 drops of oil by hand when the machine is used for the first time or has been left unused for some time.
Note: Unifice [HIGH SPEED SEWING MACHINE OIL] recommended por (ISO VG22)



- (3) Knot the preset thread and the thread being used together to thread the machine.
 - (4) Press down the bracket after threading. The looper thread take-up games back.
 - (5) Needle tread Trim the knots off neatly before passing through the eye of the needle to thread.
 - (6) Looper thread , Top cover thread Trim the knots off neatly after passing through the eye of the looper.
- 若机上没有线, 请参照穿线图正确进行穿线。
Be sure to thread the machine correctly by referring to the threading diagram.

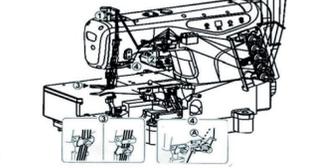


穿线图 (2针, 3针用) Threading diagram

- ① 若使用伸大的线时, 为点线A的方向。(通常为实线方向)
Broken lines(A) For more stretchable thread.
- ② 装饰线太松时, 用B; 用C; 装饰线太紧时, 用D。
If the top cover thread is too loose, use broken line(B); if the top cover thread is still too loose after thread with broken line(B), use broken(C); if the top cover thread is too tight, use broken line(D).
- ③ 穿伸大的线时 穿伸缩小的线时
For more stretchable thread For less stretchable thread
- ④ 穿伸大的线时用点线E方向
Broken lines(E) For more stretchable thread
- ⑤ 若使用伸大的线时, 为点线F方向。(通常为实线方向)
Broken lines(F) For more stretchable thread.



Solid lines for ordinary thread.

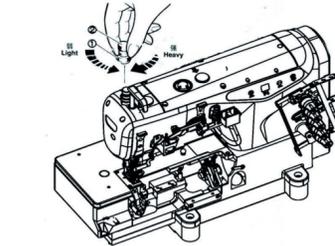


压脚压力调节

压脚压力的调节是松开螺帽①和旋转螺丝②来进行的。在能取得平稳针脚的范围内, 尽量调得松一些为好。

Adjusting the presser foot pressure

Loosen adjusting (1) nut and turn adjusting screw(2) to adjust the presser foot pressure. It should be as light as possible, yet be sufficient to obtain the proper stitch formation.

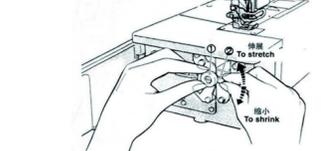


差动比的调节

差动比是通过松开螺帽①后, 把调节杆②上下移动来进行调节的, 调节后请拧紧螺帽①。

Adjusting the diff. feed ratio

Loosen nut(1) and move the lever up(2) and down to obtain the correct differential feed ratio then tighten nut (1).



针脚长度的调节

握住针距调节按钮, 旋转手轮, 针距调节按钮会陷进更深处。这时边握住针距调节按钮, 边转动手轮, 使校准标记对准所希望的数值。针脚长度调节。注: 针脚长度的调节务必请在调节差动比之后进行。

Adjusting the stitch length

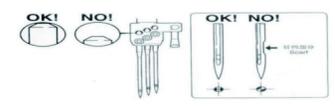
While pressing the push button, turn the handwheel to seek the position at which the push button goes further into the depth. Then keeping the button pressed, turn the handwheel and set the desired scale to the aligning mark. Note: Stitch length adjustment must only be made after the differential feed ratio has been changed.

换针

1. 准确辨对针的前后, 请将针凹向着后方, 即背向操作者进行安装。
2. 针要牢固的插到孔的最深处。

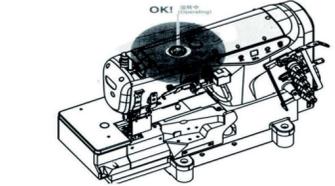
Replacing the needle

1. Check the needle carefully to see that the scarf is turned to the rear of the machine.
2. Insert the needle to the proper depth, and fasten securely.



检查机油的循环

Cleaning the oil circulation



附表: W4-D-05步进电机控制器说明书

1. 控制器结构及接口



2. 步进电机转速设置

在空闲界面 (开机后显示的界面) 且主电机停止运行, 长按 **键** 3s 将进入步进电机转速

设置界面, 按 **键** 键数码管显示的数值增加, 步进电机转速增大, 按 **键** 键数码管显示的数值减小。

步进电机转速减小, 修改完参数后短按 **键** 保存参数, 并退出到空闲界面。

3. 错误代码说明表

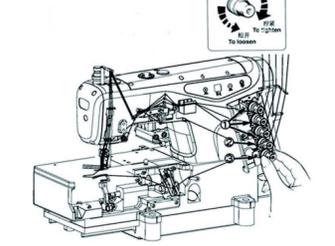
序号	内容	对策
E0	主轴电机控制器与步进电机控制器通信异常	请检查通信连接线是否松动或脱落; 请尝试将电源重启; 上述如仍无法解决请联系当地服务商或拨打 4008876858。
E1	步进电机控制器过流	请尝试将电源重启; 上述如仍无法解决请联系当地服务商或拨打 4008876858。
E2	步进电机控制器驱动电压过高	请尝试将电源重启; 上述如仍无法解决请联系当地服务商或拨打 4008876858。

线状态的调节

线状态的调节是用针线状态螺帽①, 上装饰线状态螺帽②, 下针状态螺帽③来进行调节。

Thread tension

Mack tension adjustments with the needle thread knob(1), top cover thread knob(2), and looper thread knob(3).

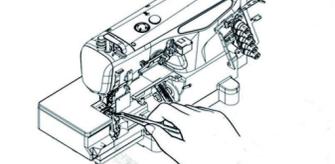


缝制机的清扫

缝制机的清扫, 以针板槽及送布牙周围为主。

Cleaning the machine

Mainly the slots of the needle plate and the feed rows should be cleaned.



油过滤器的检点与更换

- 机油过滤器, 请于每6个月来点检或更换一次。
- 检点和更换每隔6个月进行一次!

Cleaning and replace the oil filter

- Check and replace the oil filter every six months.
- Check and replace every 6 months !



换机油

机油的更换, 请在使用开始一个月后更换一次。然后, 每6个月更换一次。

Replacing the oil

Replace the oil one month after the first use and every six months thereafter.

Instructions of W4-D Interlock sewing machine panel operation

本控制器使用双位数码管显示实现参数调整。在 P 主界面, 第一个数码管显示“P”, 第二个数码管显示当前设定的停针位置, 上、下停针如图所示 (图 1)。

In P interface, the first tube display “P”, the second tube display shows the current needle position, picture 1 shows the upper and lower needle position.

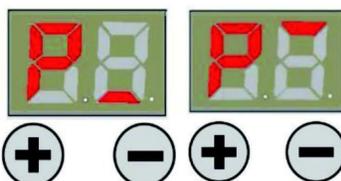


图 1 上、下停针显示界面

1. 转速的修改 Modify speed

在待机 P 界面按+键或者-键, 显示当前转速, 按+键速度递增 100RPM (数值递增 1), 按-键速度递减 100RPM (数值递减 1), 长按+键(-键)可实现快速递增(递减), 停止按+键或者-键后约 3 秒, 自动保存设定的速度参数, 并回退到 P 界面。

The panel shows “P”. Then press + or - to adjust speed up and down, short-press + or - to adjust speed up 100RPM and down 100RPM, long-press + (-) speed rapidly up (down). After 3 seconds, the parameter saved and the panel back to the “P”.

2. 停针位修改 Needle Position Adjust

在 P 界面下, 长按+键约 3 秒不松开, 可以调节上下停针位。

The panel shows “P”, press +for 3 seconds, then set the position up or down.

序号 NO.	参数定义 parameter	范围 range	默认值 Default	参数说明 Description
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在 P 界面, 长按+和一组合键 3s, 可进入技术员界面, 并显示 F
The panel shows “P”, press + and — for 3 seconds, inter engineers interface, and it shows “F”

K	机头灯亮度调节 LED light adjustment	0-3	2	0: 灭 off 1~3: 亮度 1~3 level 1~3
L	缝制限制速 Limited sewing speed	05-55	50	以 500rpm 为单位递减 Decline by 500rpm every time
M	停针位开关 Switch of needle position	0-1	1	0: 关闭 off 1: 开启 on
H	休眠时间 Dormancy time	0-6	3	0: 关闭 off unit: 10min
V	速度显示使能 Speed display	0-1	0	0: 关闭 off 1: 开启 on

在 F 界面, 长按-键 3s, 进入监控参数, 并显示 J
The panel shows “P”, press — for 3 seconds, inter monitoring parameter, and it shows “J”

J1	实时速度 Real-time Speed	显示的数×100=实际速度 the showing number multiples by 100 equal to the real speed.
J2	实时功率 Real-time Power	显示的数×10=实际功率 the showing number multiples by 10 equal to the real power.
J3	输入电压 Input Voltage	显示的数×10=实际电压 the showing number multiples by 10 equal to the real voltage.
J4	历史电压 Historical Voltage	显示历史输入最低电压和最高电压 Display the historical lowest input voltage and highest input voltage.
J5	历史错误代码 Historical Error	显示最新的 5 个错误代码 Display historical error code(only show the latest 5).
J6	累计运行时间 Cumulative Running Time	显示的数×100=实际时间 (Hour) the showing number multiples by 10 equal to the real time(hour).

3. 恢复出厂设置 Factory reset

在 P 界面, 长按-键 3 秒, 参数将恢复出厂设置。(J4、J5、J6 的监控数据除外)

4. 操作参数说明表 Parameter description

The panel shows “P”, press — for 3 seconds, the parameter will back to factory setting.

5. 错误码说明表 Error code description

错误 Error code	内容 Reasons	对策 Solutions
E1	电机堵转 Motor stuck	请转动手轮检查机头是否卡住或者干涩转动困难; 请检查电机插件是否松动或者脱落; 请检查加工物料是否过厚, 电机因扭力不足而无法贯穿; 请检查机器是否缺少润滑油。 The motor run out of load capacity, please reduce the load capacity for the motor and then restart the motor; Please check if the plug of motor loose or drop; Please check if the sewing material is too heavy; Please check if the machine needs lubrication.
E2	软件过流 software over-current	请关机后重新上电, 如果不能消除报警, 请检查: 电机负荷过大, 请减轻负荷后重启电机; Motor used too much, Restart machine after several minutes, then please check if the fabric much too heavy.
E3	参数保存异常 Parameter save abnormal	出现此种状况, 需要关闭电源, 稍后再打开电源开关即可; 恢复出厂设置 (长按-键约 3s 不松开); 若重启或者恢复出厂设置后也不能解决, 建议联系经销商解决。Restart machine after several minutes or reset machine (press —3s); If the problem unsolved, please contact dealers.
E4	电机霍尔信号异常 Hall of the motor with problem	请检查电机编码器插头连接是否可靠, 编码器信号线是否有断线, 插针是否退出或者变形。Please check if the 10Core line connect well or not, please check if the connect line of hall is well or not.
E5	定位器信号异常 The synchronizer signal	请检查定位器是否连接电控; 请检查上下定位信号是否正常。 Forget to insert the synchronizer cable before turn on the machine To check the both up needle position signal and the down needle position signal is working.
E6	调速器异常 Speed governor abnormal	请检查压脚机构是否回到正确位置, 压脚安全开关是否损坏, 插座是否正常。To check if the presser foot back to the correct position or not, to check if the safety switch button is damaged or not, the outlet is abnormal or not.
E7	电流检测电路故障 Current detection and circuit fault	请检查电路板是否干净清洁; 请检测电源电压是否正常; 请等待电源重新开启/复位 (请仔细检查电源板各项机能)。Please check whether the circuit board is clean; Please check whether the power voltage is normal; Please wait after restarting the power or reset (please carefully check each function of the power board).
EA	硬件过流 Hardware over-current	请关机后重新上电; 请检查供电电压是否正常; 请尝试恢复出厂设置。Please cut off the power and restart; Please check whether the supply voltage is normal; Please try to restore factory defaults.
Eb	系统过电压 System over-voltage	立即切断电源, 并检查供电电压是否过高, 如果是, 请调整供电电压到额定电压后再开机工作 (额定电压: 220V)。Immediately cut off the power, and check whether the supply voltage is too high, if yes, please adjust the rated voltage, then start to work (rated voltage: 220V).
EC	系统欠电压 System under-voltage	请检查供电电压是否正常; 请等待电源重新开启/复位 (请仔细检查电源板各项机能)。Mean the voltage abnormal, please check if the voltage is normal or not; Means waiting for the power, and need to restart again or recover to the factory reset.

JACK 高速缝制机相关技术参数									
高行程数据									
机型	× □ □ □								针杆行程
W4-010B/020B/06CB	356	9.7	3~3.2	9.8	9~9.3	17	6.2	0.8~1.2	33.4
	364	9.3	2.8~2.8	9.4	9~9.3	17	6.2	0.8~1.2	33.4
W4-230B	356	9.7	3~3.2	9.8	9~9.3	17	6.2	0.8~1.2	33.4
W4-230B (L)	256	9.7	9~9.2	9.8	9~9.3	17	6.2	0.8~1.2	33.4
标准行程数据									
机型	× □ □ □								针杆行程
W4-010B/020B/06CB	356	8.8	3.2~3.8	8.8	9~9.3	17	6.2	0.8~1.0	30.8
	364	8.1	2.8~3.1	8.5	9~9.3	17	6.2	0.8~1.2	30.8
W4-230B	356	9.3	2.8~3.1	8.8	9~9.3	17	6.2	0.8~1.0	30.8
W4-230B (L)	256	8.1	2.8~3.1	8.8	9~9.3	17	6.2	0.8~1.2	30.8