



Richpeace®

富怡全自动电脑单针绗缝机（升降机头）使用说明书
Richpeace Computerized Auto Single Head Quilting
Machine Operation Manual



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Original



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富怡全自动电脑单针绗缝 机（升降机头） 产品说明书 V1.0

编制：

审核：

批准：

富怡全自动电脑单针绗缝机（升降机头） 使用说明书

V1.0

- 非常感谢您选购富怡产品；

Thank you for selecting Richpeace products;

- 在使用之前请仔细阅读本说明书，正确安全的使用本产品；

Read the instruction carefully before use and use the product correctly and safely;

- 请妥善保管此说明书。

Please keep this specification safe.

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一、 Brief introduction

Computerized auto single head quilting machine is designed for the Production of high-end products designed for high-end digital home devices, which owns the full integration of operations, including material-feeding, spreading, quilting, and cutting

Main Features and Functions

1. Feeding material, spreading, quilting and cutting automatically
2. Counting duty output. Counting whole output, displaying pattern and the processing path, automatic trimmer, automatic needle-up and thread breakage detection
3. With 360° (180°) to spend an independent jump features more than 200 kinds of patterns.
4. Unlimited jump quilting for independent design
5. Thread breakage detection and back to bread point for mending
6. Adjust presser foot depending on material
7. Computer function: stitch length driving which makes the quilting more reliable and so on practical function
8. Using Japan servo motor for frame driving which makes the quilting more reliable and stable. Its maximum speed can reach 2500rpm
9. Extra jumbo Germany rotary hook to make sure low thread-breakage
10. Huge memory in computer system to enable it to quilt complex patterns, and keep the continuing quilting of the pattern even in case of intermission switch-on

一、 简介

富怡全自动电脑单针绗缝机是专为生产高档产品而设计的高端数字家纺设备，从上料、夹布、拉布、绗缝、切料全面一体化操作。

主要特色：

1. 自动送料、拉布、绗缝、裁切。
2. 当班产量计数、总产量计数，花样效果显示、加工轨迹显示、自动剪线、自动提针、断线自动停机等功能。
3. 具有 360° (180°) 独立跳花功能，可绗 200 多种花样。
4. 跨步绗缝：可进行各种跨步绗缝作业。
5. 断线检测：自动断线检测、回补断线功能。
6. 可调压脚：压脚可根据物料厚薄调高低。
7. 工艺设定：具有针步选择、角度修正、花样缩放等各种实用工艺参数的设定。
8. 采用日本伺服电机控制，精度更高，产量更多。
9. 进口特大旋梭使断线率大大降低。
10. 具有强大记忆能力的运算电脑可精确绗缝各种复杂的图形，间歇开机可以保持图案的连续绗缝操作。

11.Low-noise, precision, stable and excellent performance

12.Professional punching system is especially for designing, producing and simulating of computerized quilting patterns

13.Quilting width: 1.6—2.7m

14.Quilting thickness: Less than or equal to 50mm

15.Stitch length: 2—6mm

16.Yield : If the pattern has 2300 needles, the machine works at 2300rpm and works 8 hours a day.

Yield calculation: $2300 \div 2300 = 1$ 床/min (This type of flower type calculation does not include machine speed reduction and stride.)

$8 \times 60 \times 1 = 480$ 床/天 (Does not include the replacement of the bottom line, the broken line and the changing frame time)

11. 噪音及震动小，运行准确、平稳、可靠。

12. 电脑专用打版设计软件，可用扫描仪输入花形。

13. 绗缝宽度： 1.6-2.7m

14. 绗缝厚度： 小于等于 50mm

15. 步长： 2-6mm

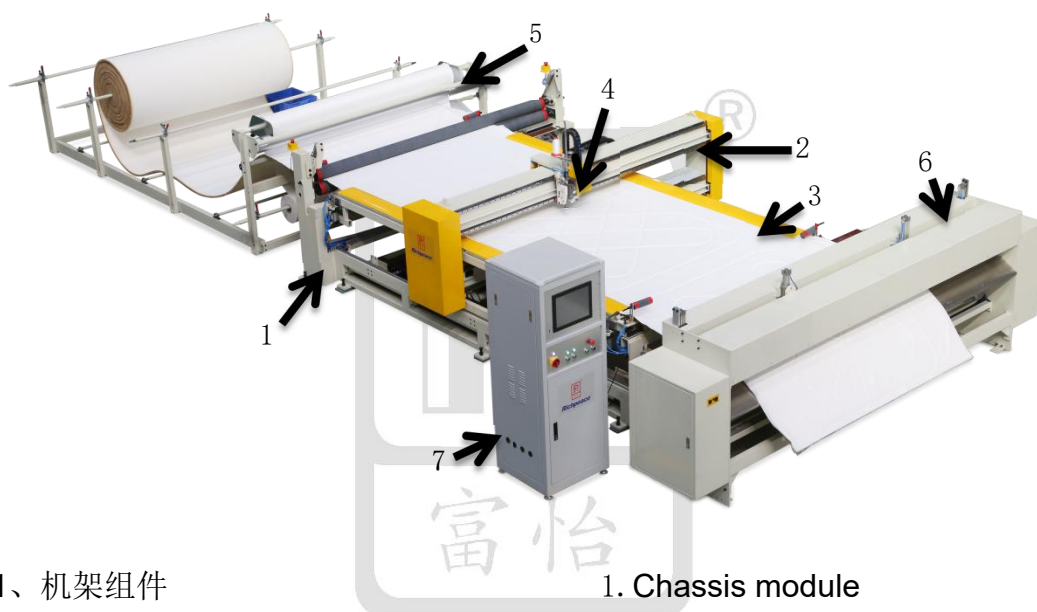
16. 产量：假如花样有 2300 针，机器工作速度为 2300rpm，一天工作 8 小时产量计算： $2300 \div 2300 = 1$ 床/min (此类型花型计算不包含机器降速及跨步) $8 \times 60 \times 1 = 480$ 床/天 (不包含更换底线，断线及换框时间)

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二、主要结构 Primary Structure

RPQSA 电脑绗缝机主要由机架组件、鞍架组件、夹料机构、绗缝机头系统、上料机构、切料机构、电脑控制系统七大部分组成。

RPQSA computer auto single head quilting machine consists of seven main function parts: Chassis module, Saddle module, Frame and clamps, Sewing head system, Material feeding assembly, Material cutting assembly, and Computer control system.



1、机架组件

1. Chassis module

2、鞍架组件

2. Saddle module

3、夹布机构

3. Frame and clamps organization

4、绗缝机头系统（包括上、下机头部分）

4. Sewing head system

5、上料机构

5. Material feeding assembly

6、切料机构

6. Material cutting assembly

7、电脑控制系统

7. Computer control system

2-1、Chassis module

The function of Chassis module is to support all modules except the computer control system, especially support the saddle by the axis linear guide rail and rack. Limit switch is installed at both ends.

2-2、Saddle module

The saddle assembly is composed of section steel and side plate and moves on the rack assembly through the gear train device at the bottom of left and right sides. A Japanese servo motor is installed in the spindle drive system at the bottom of the saddle frame assembly. Through the reduction ratio, the saddle module assembly is driven by a rack and pinion to make the saddle module assembly move in the Y direction relative to the rack assembly. Four linear guide shafts are installed in the front of the saddle assembly, and the quilting head system is driven by servo motor to make it move in X direction on the linear guide shaft track. Position sensing switches are installed on the left and right side of the saddle assembly to ensure machine limit stop.

2-1、机架组件

机架组件由高强度矩形方管组合焊接而成，在左架和右架的上部都装有直线导轨轴和齿条，便于鞍架组件在 Y 方向灵活稳定的移动。在机架组件的导轨前后位置分别装有限位感应装置。

2-2、鞍架组件

鞍架组件由型钢和侧板组合而成，通过左右两侧底部的轮系装置在机架组件上运动。鞍架组件底部的主轴驱动系统装有日本伺服电机，通过减速配比，以齿轮齿条方式驱动鞍架组件，使鞍架组件相对于机架组件作 Y 方向运动。鞍架组件前面装有四根直线导轨轴，绗缝机头系统通过伺服电机驱动使其可以在直线导轨轴轨道上作 X 方向移动。在鞍架组件左右装有位位置感应开关以保证机器限位停机。

2-3、Frame and clamps

organization

The function of frame and clamps organization is to carry and handle the cloth to quilt. Clamps on the frame are used to fix the cloth for better quilt quality. The clamps can be opened and closed to release the cloth and re-load and re-fix the cloth manually or automatically.

2-4、Sewing head system

Quilting head system is composed of upper head and lower head. The upper and lower heads are driven synchronously by a separate servo motor to realize the synchronization of the needle and the hook, and the thread is put on the bottom line to finish quilting. At the same time of quilting, the upper and lower heads move along the guide rail axis in the X direction relative to the frame. There is an induction limit device on the left side of the lower head.

Thread release mechanism and thread break detection function: when the machine head moves in X and Y direction or goes empty, the thread release cylinder pushes the presser spring of the knob assembly to avoid wrinkling quilted fabric when the moving needle pulls the thread and thread. When the thread is broken or cannot be brought to the bottom line, the yarn sensor will send a signal to the electronic control to show the thread is broken, and the machine head will be rewound to the Y side to wait for threading.

2-3、夹布机构

夹布机构由左右两侧的夹布装置和九组支撑杆构成。夹布机构完成夹布和张紧动作，支撑杆组件对布料起辅助支撑作用。

2-4、绗缝机头系统

绗缝机头系统由上机头、下机头两大部分组成。其中上、下机头通过单独的伺服电机同步带动，实现机针与旋梭的同步配合，将面线带上底线以完成绗缝工作。在绗缝作业同时，上、下机头沿导轨轴相对于机座架在 X 方向上移动。其中下机头左侧有感应限位装置。

松线机构、断线检测功能：当机头 X、Y 向移动或空走时，松线气缸将旋钮组件压线簧推开，以免在移动机针拉动面线、底线时将绗缝面料拉皱。当断线或带不上底线时，纱线感应器将信号传给电控显示断线，并将机头回退到 Y 向边位等待

2-5、Material feeding assembly.

Fabric feeding assembly is used to feed and place material. There are three rollers to put face fabric, lining and bottom material.

2-6、Material cutting assembly.

Configured material cutting assembly will cut the quilted material to the expected length. When quilting finished, the material cutting assembly will cut the quilted material automatically.

2-7、Computer control system.

See operation instructions for details.

2-5、上料机构

上料机构用于进料和放料。三个罗拉分别放置面料，衬料及底料。

2-6、切料机构

切料机构通过设置可以将绗缝好的产品切割成合适的长度。

2-7、电脑控制系统

详见操作说明。



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三、Machine Installation and Commissioning

3-1、Installation precautions

1.Install the machine on a sturdy floor

The floor where the machine is installed must be hard and strong, avoiding installation on fragile floor.If the floor is made of steel, place the machine on the beam as far as possible.

2.Avoid noise pollution

In order to avoid noise pollution, the interior walls, roofs and floors of the workshop should adopt sound insulation and sound-absorbing materials and structures as far as possible.

3.To prevent the sun

Prevent direct sunlight exposure of the machine for a long time in the sun will cause machine fade, machine oil shortage, machine performance changes, optical components such as grating misoperation and even lead to machine damage.Therefore, necessary shading measures should be taken.

4.Reserved space

Sufficient maintenance space shall be reserved for the convenience of operation and maintenance. At least 50cm of space shall be reserved around the machine.

三、机器安装与调试

3-1、安装注意事项

1、在坚固的地板上安装机器

机器安装所在地板必须坚硬强固，避免安装在脆弱的楼板上。如地板为钢板结构，尽可能将机器置于梁上。

2、避免噪音污染

为避免噪音污染，车间内部墙壁、房顶、地板尽可能采用隔音和吸音的材料和结构。

3、防止暴晒

防止阳光直射 机器长时间暴露在阳光下会引起机器掉色、机器缺油、机器性能变化，光栅等光元器件误操作等甚至导致机器损坏。因此需要采取必要的遮光措施。

4、预留空间

保留足够的维护空间为操作、维修的便利，机器的四周应预留至少50cm 的空间。

5.Environmental requirements

Relative humidity: 30-95%;

Ambient temperature: 5 - 40 °C
(work);

-19-60°C (store)

Avoid dust and moisture, which can lead to dirt, rust and power leakage.

Keep the machine in an air-conditioned room as much as possible and clean the working area regularly. Air conditioning air cannot blow directly to machine, avoid embroidery line unkempt. Installation environment must be hygienic, well-ventilated, away from heat sources, no corrosive gas indoor.

5、环境要求

相对湿度：30-95%；

环境温度：5-40°C（工作）；

-19-60°C（储存）；

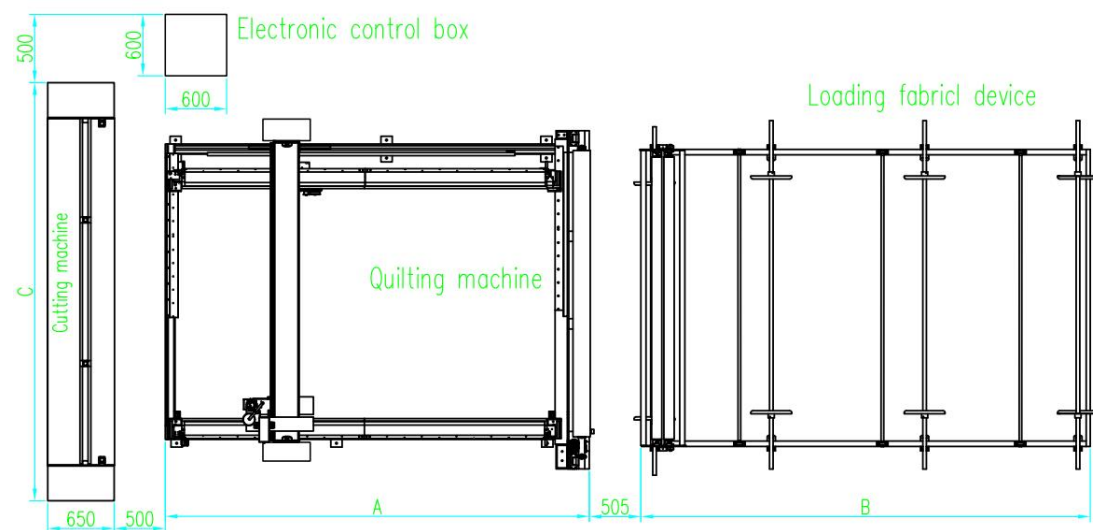
避免粉尘和湿气，粉尘和湿气会导致机器脏污、生锈和漏电，尽可能将机器置于空调房间，并定期清扫工作场地。空调风不可直接吹向机器，避免绣线蓬乱。安装环境必须为卫生、通风良好、远离热源、无腐蚀性气体的室内。



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3-2、布局与安装 Layout and Installation

1、现场平面安装示意图 Schematic diagram of site plane installation



MODEL	C	A	B
SA2325	4080	4147	4395
SA2628	4380	4447	4395
SA3232	4980	4847	4395

High :1700

单位: mm

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2.Unpacking and Checking machine parts

2.1 Unpacking

When the machine arrives at the destination, make sure the machine is not inverted and the package is in good condition.If there is any damage to the machine, please protect the site. The carrier should check the damage and take photos to inform the insurance company.

2.2 Checking machine parts

If the packing is perfect, please tear down the packing list and check the number of parts.If there is any problem, please contact the company or the company authorized installation personnel

3.Requirement of Lifting and Move

Because computer quilting equipment is a very precise computer controlled mechanical equipment, its main structure of the saddle part has high precision and technical requirements.If hoisting or handling is careless, it will lead to the decline of equipment precision, and even cause a variety of faults such as needle deviation, alignment, high breaking rate, etc. Therefore, the hoisting and handling must strictly comply with the operation specifications.

2、拆箱与核对机器零件

2.1 拆箱

当机器到达目的地，确认机器没有倒置，包装完好无误。如果发现机器有损坏时要保护现场，请承运商检查损坏的地方并且拍照，通知保险公司。

2.2 核对机器零件

如果包装完善，请撕下装箱单，核对零件数量。如果有什么问题，请联系本公司或者本公司授权的安装人员。

3、吊装和搬运要求

由于电脑绗缝设备是一种非常精密的电脑控制机械设备，其主体结构鞍架部分有很高的精度和技术要求。如果吊装或搬运不慎，会导致设备精度下降，甚至造成偏针，走位，高断线率等各种故障，故而在吊装和搬运时必须严格遵守操作规范。

3.1 Equipment shipment

Proposed more than 1.5 tons forklift

3.2 Lifting (hoisting must pay attention to safety!)

Rack part and the part of all materials not installed rings!

To prevent lifting during the course of displacement caused by linear guide shaft, thus affecting the normal operation of the machine; do not recommend lifting the rack!

the cutting mechanism after

Installation protective materials , can be hoisting.

Clip mechanism in case of shortage of manpower, after installation of protective devices can be hoisting

3.1 起运设备

建议 1.5 吨以上叉车

3.2 吊装（吊装时一定要注意安全！）

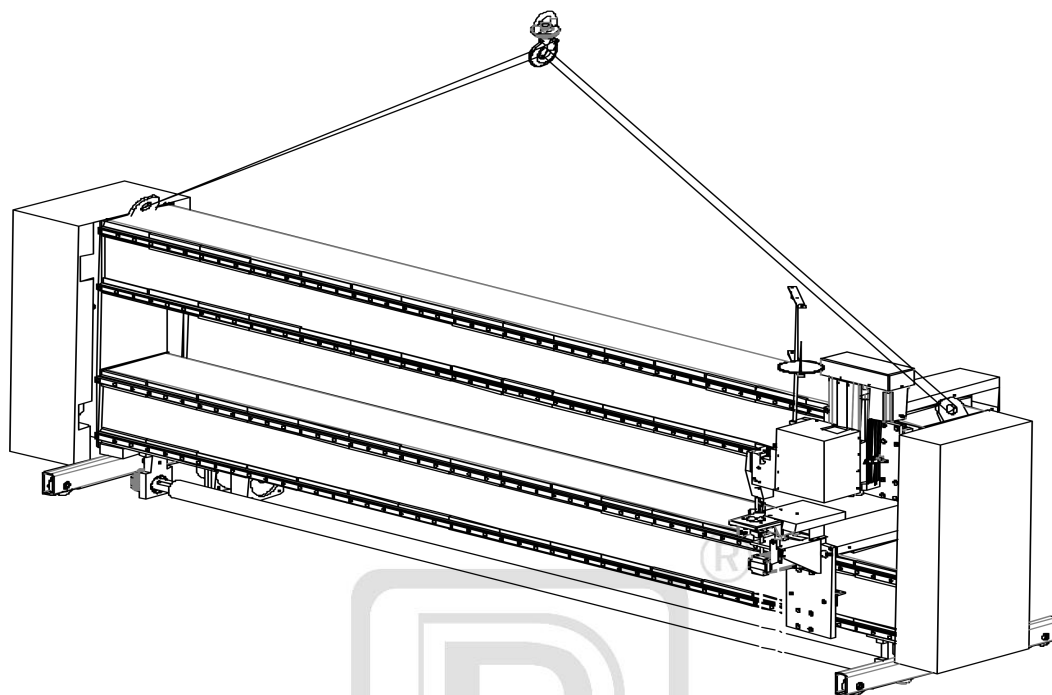
机架部分和切料部分没有安装吊环！

为防止吊装过程中对直线导轨轴造成移位，从而影响机器的正常运行；机架部分不建议吊装！

切料机构加装防护材料后，可以吊装。夹料机构人力不足时，加装防护装置可以吊装。



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3.3 叉车入叉位置（红色为叉车进入位置，黄色为鞍架安装进入方向）

Forklift entry position (red is forklift entry position, yellow is saddle installation entry direction)

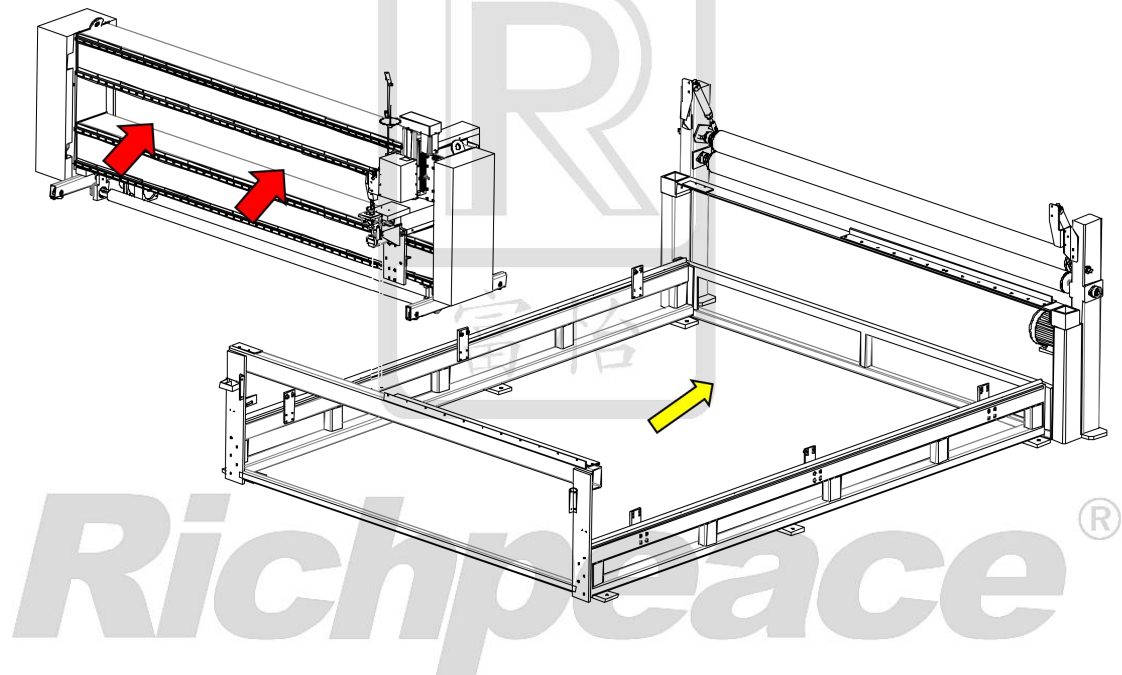
叉上架管，将鞍架机构放置在组装好的机架上！（注意鞍架机构进入的方向，如图！）

Fork up the tube and place the saddle mechanism on the assembled rack!

(note the direction the saddle mechanism enters, as shown!)

在叉车入位时，请在叉车支臂放置防护材料（防止损坏机架表面）

When the forklift is in position, please place protective materials on the arm of the forklift (to prevent damage to the surface of the frame).



4. Installation instructions

Install the chassis module first, then tight all joint screw, adjusts the frame to make the eight screw enter smoothly, then fastening connection screw.

Level adjustment. Use water pipe to look for level: The four flat surface level altitude differences must be less than 2 mm. Supporters adjustment: X and Y direction (left to right) less than 2 mm, two diagonal line: less than 5mm.

If the machine need to move, must check the y axis linear rail of level, or else do not start-up the machine to avoid level error too much, then abrasing the linear rail.

The saddles are generally transported without disassembly, and only need to be re-checked and adjusted after arriving at the site.

After the chassis moudle is fixed well, fix the saddle moudle on its linear guide (pay attention to the entering direction when the saddle is fixed), and after adjusting the rack, tighten the screws. Then assemble and fit in perfectly Y-axis driven system. Push the saddle moudle to move on the chassis moudle. Make sure of same resistance and no chattering when pushing lightly. Finally fix the cable and cable chain.

Attention: The rack must be fixed after the saddle is placed well. (The process may be adjusted according to the conditions.)

4、安装步骤

按照机器的装配关系先安装机架组件，机架位置放好后稍带紧所有的联接螺丝，调整机架使机架上的八个内螺纹圆柱销钉都能顺利穿入，紧固连接螺钉。

用水管找水平：调整地脚高低使机架垫板上平面水平四个脚高度差小于 2mm，且确保 X 向跨距两端宽度差小于 2mm，两对角线尺寸差小于 5mm。Y 方向直线导轨的前后、左右水平。

如机器需移动位置，移位后一定要检查 Y 向直线导轨上平面水平度，否则不得启动机器，以免水平差太大，磨损直线导轨。

鞍架组件总体运输，一般不拆卸，到现场后只须重新检查调整。

机架装好后，把鞍架组件装在机架的直线导轨滑动体上（鞍架安装时注意进入的方向），装上齿条调校后拧紧螺丝。而后装配及校正好 Y 方向的传动系统。用人力推动鞍架机构在机架上移动，感觉推动轻松无抖动且阻力均匀，最后装上电缆和穿电缆的拖链。

注意：齿条在鞍架放置好后安装！（该工序可以根据现场安装条件做调整）

According to the size of quilting materials, adjust the Frame and clamps organization

After computer system arrives at the installation place, users should check the power supply box carefully whether the connector assembly falls off, looses, is damaged during the transportation. If there are, they must be dealt with correctly.

根据需要，依试加工的缝料大小，调整好夹布机构。

电脑系统到安装现场后，首先要仔细检查电控柜是否由于运输过程中接插件脱落、松动；元件损坏等情况，如果有必须正确处理。



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3-3、Electrical connection

Electrical connection has pneumatic and electronic control two major parts.

Pneumatic part of the connection, pay attention to the number of the tracheal joint; After the connection is completed, manually or inching test the action of all pneumatic components; Only after the connection is correct, can the test run be started.

The cable connection of the electric control part. Considering the convenience, accuracy, reliability and avoiding wrong connection, this equipment adopts the method of intermediate connecting terminal. All the electrical components on the machine are connected to the interconnect terminal, and the connection between the interconnect terminal and the computer cabinet USES the interconnect device. In the electrical connection, the external main cable shall be connected to the corresponding socket at the bottom of the computer cabinet, and the other end shall be connected to the corresponding number of the intermediate connecting terminal; Finally, the electrical connection is completed by connecting to the power supply. For details of the electrical components on the machine and their connection in the system, refer to the external wiring diagram of the electrical control

3-3、电气联接

电气联接有气动和电控两大部分。

气动部分的联接，注意气管接口处的编号；联接完毕要手动或点动测试所有气动部件的动作；联接正确无误后，方可试运行。

电控部分的线缆联接。本设备充分考虑到方便、准确、可靠和不致发生错误联接，采用了中间转接端子的方法处理。机器上的所有电气元件的联线全部接上中间转接端子，而转接端子与电脑机柜的联接采用了接插器件。在进行电气联接的时候，先将外部主电缆线接在电脑柜底部相应插口，另一端接在中间转接端子相对应的号码上；最后接入电源就完成了电气的联接。有关机器上的电气元件的详细资料及在系统中的联接关系，请参阅电控外部接线图。

3-4、机器调试 Debug the Machine

1、安装机针：本机针请选用 130/21 机针。转动上机头，使针杆上升至最高点，旋松针夹螺钉（见图 3）将机针长槽面朝正前方，把针柄插入针孔并推至针孔底部后固定。并注意针柄未安装到位和针槽方向不对都是错误的。

Install needle: Model of needle: 130/12. Raise the needle to the peak, loose the needle clamping screw (to see Figure 4), push the needle handle insert to the pinhole and then fix the crew. Pays attention to the needle handle if it arrives at the end of hinhole and faces to the correct direction.

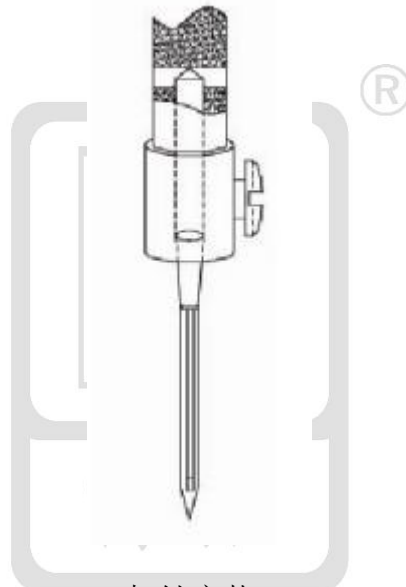


图 (Figure)3 机针安装 Install needle

2、梭壳绕线 The bobbin winds thread

3、按图示绕线，穿过簧片，走图示穿孔线道。

4、Winds thread as showed in picture, Pass the thread through threading slit in the bobbin case, and route it under tension spring. The rotary hook will hold the bobbin, and guarantee the bobbin to wind thread correctly.

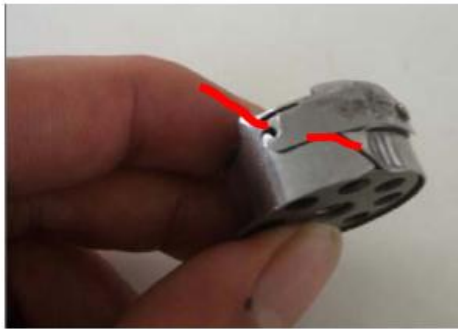


图 (Figure)4 旋梭绕线 the rotary hook winds thread

3、梭壳的安装 Install the rotary hook

将绕好线的梭芯装入梭壳，并保证梭壳绕线正确。按图示安装梭壳。

The rotary hook will hold the bobbin, and guarantee the bobbin to wind thread correctly.



图(Figure)5 准备安装梭壳 Install the rotary hook

注意：梭壳安装要对正位置锁到位；如果用手可以晃动梭壳，一定不要开车。梭壳安装不到位，会损坏机针和梭壳！

Attention: The bobbin case must be fixed and locked well. If the bobbin case can be shaken with hand, do not start-up the machine. It can cause damage to the needle and bobbin case.

4、卸下梭壳 Dismount the rotary hook

见图 6，按下图所示红色箭头处的，稍用力向外拉；即可卸下梭壳。

Dismounts the rotary hook, see Figure 6, take this red pull-tab To the outside , then dismount the rotary hook.

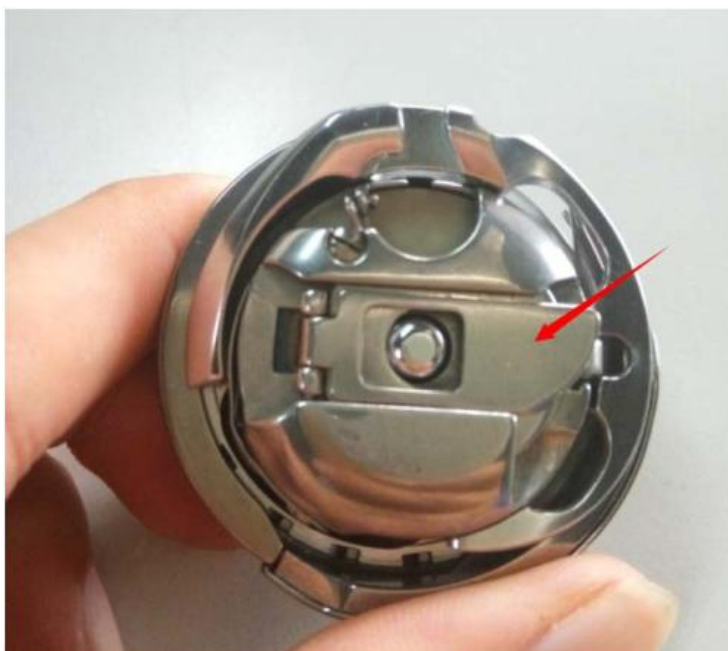
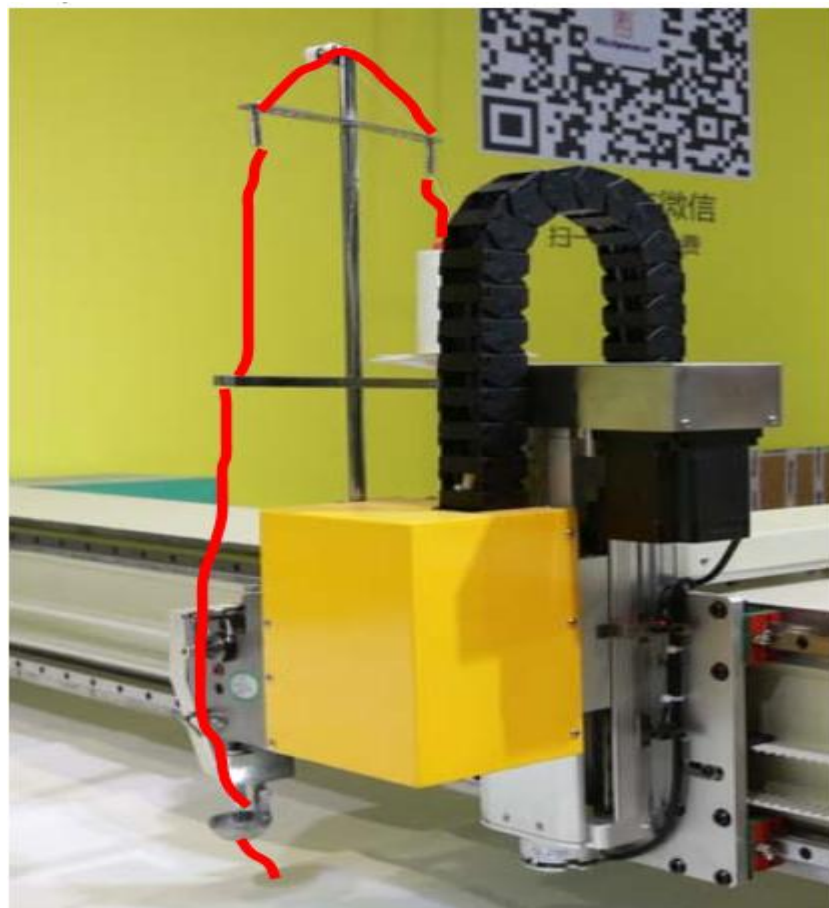


图 6

2、穿线（见图 7） Pass the thread

3、穿线轨迹如图：

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图(Figure)7 穿线 Pass the thread

底面线张力的调节：各种形状的线迹如图 8 所示，正常的线迹应如 **a**，如果线迹不正常时，就会出现缝料不平整及断线等现象。**b** 为面线太紧底线太松，应放松面线夹线器,旋紧梭心套上压簧片螺钉。**C** 为面线太松底线太紧，应与 **b** 相反方法调节。**d**、**e** 的线迹是底面线同时太松或太紧所致，可参考上述方法反复调整。

Thread tension adjustment: various kind of shape thread knot shown in Figure below. The normal thread knot should like (a), (b) means upper thread is too tight and bobbin thread is too loose, so the upper thread must be relax and tighten the bobbin thread.(C) Means the upper thread is too loose and bobbin thread is too tight. (d) & (e) both tread are too loose or too tight, adjust the tension repeatedly.

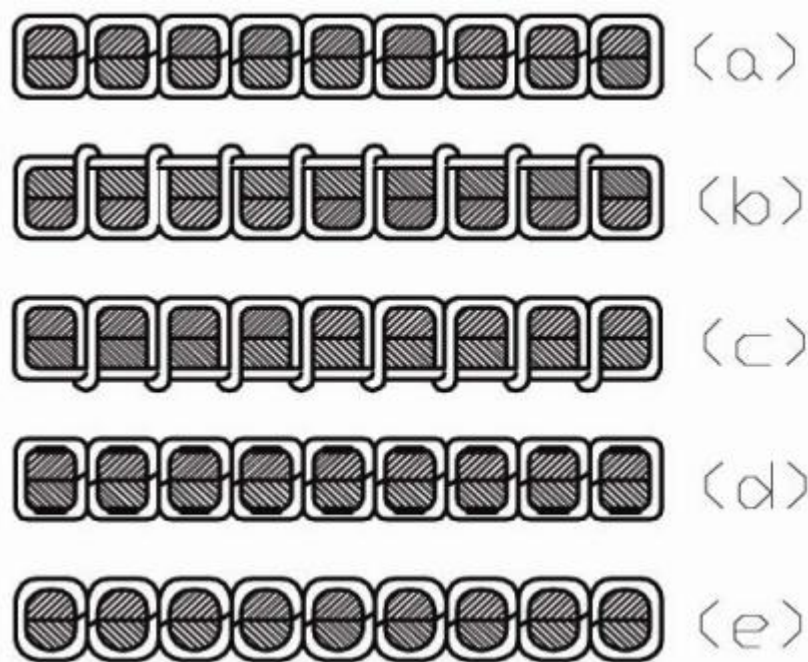


图 (Figure) 8

6、压脚的调节 Adjust the presser foot

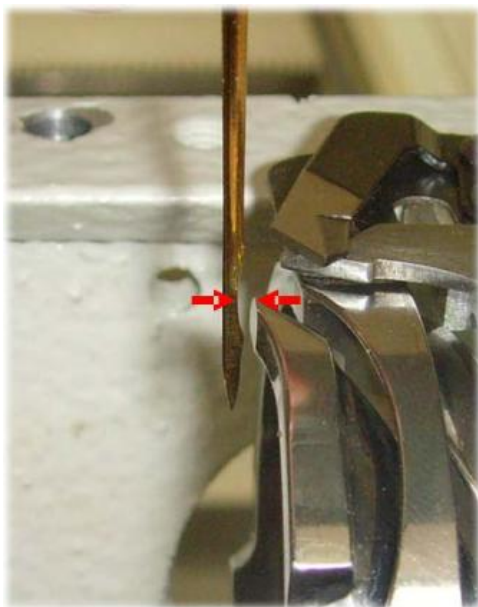
将针杆降到最低后，根据辅料的厚度将压脚紧固在压脚杆上。

Put down needle bar to bottom, According to the fabric thickness to fastening foot at foot bar.

7、针梭位置调整 Adjust the needle position

7.1 旋梭尖和机针凹槽前后间隙 0.3~0.5mm。

The gap between the rotary hook and needle groove about 0.3~0.5mm



图(Figure)9

7.2 勾线位置 Upper thread hooking position



图(Figure)10

机针下死点回程约 4.5~5mm，机针孔上沿到旋梭尖约 2mm。旋梭尖不露出机针为宜。勾线位置可以根据料的厚度适当调整旋梭和机针。

7.3 The point is about 4.5-5mm higher than the lowest point, which the needle point reaches when it come to the lowest point and then up again. The distance between the needle hole upper edge and the hook tip is about 2mm at the moment. It's suitable that the hook tip does't exceed the needle.

Hook thread position can be moved depending on the material thickness by adjusting the hook and the needle.

Rotary Hook Support adjustment (make sure that the gap between the bobbin case and the hook ranges from 0.5mm to 0.8mm)

First: The bobbin case should be fixed by the Rotary Hook Support without moving or whiffing. Measure the position dimension D showed in the figure.

Second: Loose the screw which fix Rotary Hook Support to adjust the position

dimension showing in the figure. The measurement is $d=D+(0.5\sim0.8)$.

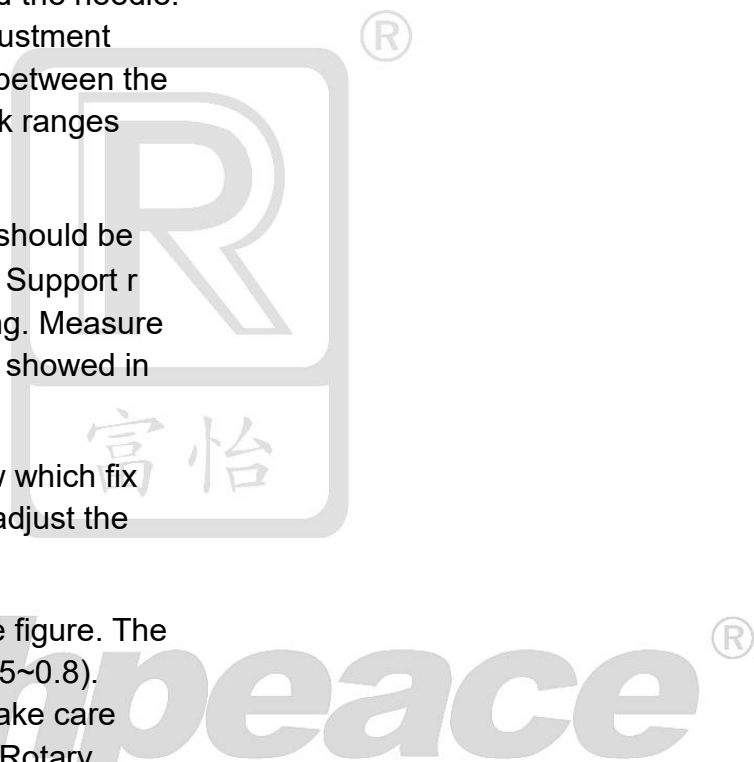
Then tighten the screw. Take care that the projection of the Rotary Hook Support is right above without deflection

7.3 定位手指调整(保证梭壳和旋梭间隙在 0.5~0.8mm)

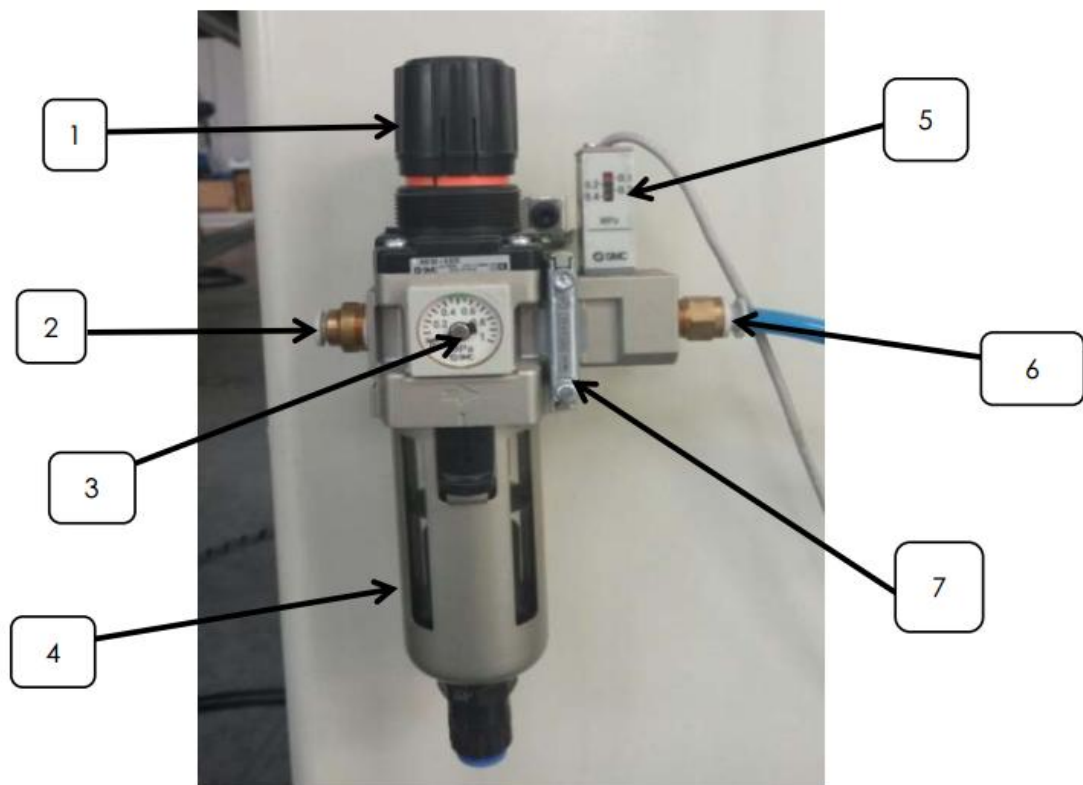
先将梭壳用定位手指扣好，梭壳不晃动；测量此时图示位置尺寸 D。

将固定定位手指的螺丝松开调整此时图示位置的尺寸 $d=D+(0.5\sim0.8)$ ；然后拧紧螺钉固定。

注意定位手指凸起部分在正上方，不要歪斜。



8、气源二联件调整 Air pressure adjustment



1、减压阀旋钮

1. Compression release valve knob

2、进气口

2. Air inlet

3、压力表

3. Pressure meter

4、滤油杯

4. Lubricate Cup

5、压力开关

5. Pressure switch

6、出气口

6. Air outlet

7、隔板

7. Partition

Air pressure adjustment for air source treatment parts: start the air compressor and connect the air pipe to the air source two parts. Pull up to relieve pressure

Turn the valve knob (1) to the pressure regulating state, rotate the knob, and observe when the barometer pointer points to the pressure 0.4~0.6mpa (0.5mpa is the best), press the pressure relief valve to the working state. The water in the oil filter cup (4) will automatically drain when there is no pressure.

Fill the oil feeder (operate after stop), press the red button and rotate in the opposite direction according to the operating direction shown in the drawing, remove the oil cup, fill the oil (it is recommended to use ISO VG32 or equivalent oil) and then tighten it.

Attention: Strictly prohibiting opening the water filter cup of compression release valve in the working state. After opening, it must be mount back to its original position! Only a little oil to exceed the bottom of the cup. Too much oil will contaminate the compressed air system.

气源处理件气压调整：启动空气压缩机，给气源二联件接好气管。向上拉出减压阀旋钮（1）至调压状态，旋转旋钮，观察气压表指针指向气压 0.4~0.6mpa 时（0.5mpa 为最佳），按下减压阀至工作状态。滤油杯（4）中的水在没有压力时会自动排放。

给油器注油（停机后操作），按下红色按钮按图示操作方向反向旋转，卸下油杯，注好油（建议用 ISO VG32 或同级用油）后旋紧。

特别注意：减压阀滤水杯严禁在工作状态下打开！打开后要保证正确安装到位！
给油器注油，油盖住底部即可；油量过大会使气动元件出现油泥（污）

四、Operation instructions

4-1、Safety precautions

For your safety, and for the safety of the machine as well as the goods that connect to it, please read the safety cautions below carefully so as to work with the machine safely.

1. Do not use the machine if it does not have ground connection. If performance reduction or malfunction occurred to the machine, ground connection can protect the user from electric shock.

2. Earth lead for ground connection should be green and yellow wire made of copper. The wire's sectional area should be no less than 1.5mm^2 . Ground loop should be very much reliable, and when tested with PELV, the test current should be 10A. The max voltage drops that measured at electric cabinet's ground terminal and that of quilting machine frame should be no more than 2.6V.

3. Please unplug the machine or cut the power supply before you open machine's boxes and cases regarding electricity, and change circuit boards in these boxes and cases.

4. When quilting machine is not used, please cut its power supply. Besides, do cut power supply after use machine or before clean it

四、操作说明

4-1、安全注意事项

为避免您受到伤害，并防止对本产品或任何与其相连接的产品造成损坏，请在使用本绗缝机之前仔细阅读以下注意事项，以确保您安全正确的使用机器进行绣作。

1、禁止未经接地使用机器。当机器性能下降以及发生故障时，接地能防止触电的危险。

2、保护接地导线应该采用黄绿组合颜色铜导线，保护导线的截面积大于等于 1.5mm^2 ；保护接地回路应该有可靠的连续性，采用 PELV（保安特低电压）电源，对应测试电流为 10A。电控箱接地端子和绗缝机机架接地端子对大地接地点的最大实测电压降应小于等于 2.6V。

3、在打开电器方面的各种盒箱时，[®]以及在更换盒箱内的电路板时请务必先从电源插座拔出电源插头或关闭外电源开关。

4、请不要给绗缝机加电而长时间放置不用。此外，在使用机器后及在清洁机器之前请务必断开机器所连接的电气系统。

5. When cleaning dust and other things of very little size on machine platform, please do not use water or air compressor. Because air from compressor could be moist and could cause short circuit on electrical system.

6. If you need to remove machine's shrouds to perform lubrication or make adjustments, please cut power supply beforehand.

7. When performing threading, needle-changing, bobbin-changing, etc that the operator should stay close to needle, please stop the machine beforehand.

8. When such situations as damages on power line and plug, machine malfunction, leakage of oil or liquid, etc, please do not start machine and ask for technicians from machine's manufacturer for help.

9. Please switch off all the switches and cut power supply, and then pull out the plug. In pulling, please do not pull wire but the plug.

10. For sound heat dissipation, please keep the area electric cabinet clear.

11. Do not make electronic control system work overtime, or work in dust, or corrosive gas, or flammable and combustible gas conditions. Or it may cause electric shock or fire.

5、在清扫机台的灰尘和杂物时，一定不要用水擦洗或是用空气压缩机的气枪来吹扫，空气压缩机压出的空气带有水雾，容易引起电路系统的短路。

6、需要拆下面罩等机械系统的罩盖进行加油或进行其它的调整时，请务必先拔出机器的电源插头或关闭外电源开关。

7、穿线、换针和改换梭心等在针的近边操作时，请务必停止绗缝状态下进行。

8、电源线和电源插头有损伤、机器不能正常动作、机器出现故障以及出现渗漏时，请勿进行作业。发生这类情况时，请委托厂家的技术人员进行检修。

9、作业结束后，请将所有开关都置于“OFF”位置，关断电源后再拔出电源插头。在拔出电源插头时请勿拉着电线拔，请务必握住插头将其拔出。

10、电控箱周围不要堆放杂物，以利于散热。

11、禁止电控设备超时工作以及工作在尘、腐蚀性气体、易燃易爆气体的场所，否则可能会引起触电或火灾。

4-2、Main features

1. 15" LCD display together with graphical user interface make it very easy for users to operate. What is more, quilting patterns can be displayed during quilting.

2. Each machine is designed to have flash disc port. Compared with floppy drive, flash disc has much higher storage capacity, faster read-write speed. It is also easier to carry around and its life span is much longer.

3. Graphic information of pattern can be previewed. You can make real-time preview of actual look of a pattern while you are selecting among patterns stored.

4. Frame inhibiting device and confirmation of pattern scope. Frame inhibiting device consists of hardware inhibiting device and software inhibiting device,

and they both can prevent needle from hitting frame. Besides, confirmation of pattern scope before quilting starts can reset a start point when such situation as pattern scope exceeds the size of frame happens. That could also prevent accidents from happening.

5. High working speed: electronic control system enables a max. working speed of 3,000 rpm.

4-2、主要功能特色

1、15 寸大屏幕真彩液晶显示，操作界面为字符与图标相配合，简单易懂，操作快捷，并且在作业过程中可实时显示绗缝花样，形象直观。

2、增加 U 盘接口，与普通软盘相比，U 盘容量大，读写速度快，携带方便，寿命长。

3、直接预览花样的图案信息。选择花样时，可以实时预览花样的实际图案，对所存储的花样一目了然。

4、框架限位装置和花样范围的确认
框架限位装置包括硬件限位和软件限位，因此可防止针落到框架上的事故发生。此外，在开始绗缝之前进行花样范围的确认可以对花样范围超过边框的花样重新定起绗点，同样可以防止事故的发生。

5、高速运转。电控支持在最高速为 3000rpm 的情况下正常工作。

6. Automatic speed changing: working speed can be adjusted automatically according to steps.

7. Idling: if idling is selected, machine then will not perform a real quilting work. Instead, it will move frame according to pattern and display stitch number. Besides, you can move frame to the position you want by inputting stitch number.

8. Power-off protection: if a power-off occurs in quilting, rather than return to the start point, machine can continue its work when power is back on.

9. Thread breakage detection: machine will stop working and LCD will display warning information when upper thread breakage is detected.

10. Statistic function: machine can automatically store working information data of a period of time for user to see finished production yield and total production yield.

6、自动变速。在绗缝中所指示的转速范围内，根据花样的针步大小自动调整到最合理的转速。

7、空走。如果指定空走，就可以不进行实际作业，只是按照绗缝针迹进行移框，并显示移动针数。另外，可以通过进框和倒框，直接输入针数把框架移动到指定的针数位置。

8、断电保护功能。如果在绗缝的中途电源断开，再接通电源可使花样在断电前的状态下继续进行作业。

9、断线检测。在绗缝过程中，当面线断线时，机器就会暂停作业，同时屏幕上就会显示相关提示的信息，帮助工人快速分析错误所在。

10、统计功能。能自动存储一段时间内的工作信息，可随时查询已绣产量和总产量。

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4-3、技术规格 Technical standard

序号 Sequence number	内容 Content	技术标准 Technical norms
1	针 排 间 距 Space between needles	单针 Single needle
2	绗缝针迹 quilting stitch type	2.0~6.0mm、 锁式 locking-type
3	显示画面 Display resolution	640×480 点阵真彩液晶触屏 LCD color touch screen
4	绗缝厚度 Max. Material thickness	≤50mm
5	系统配电 Input power	AC380V±10%/50HZ、2.5KVA 3 相 3 线制供电 3-phase 3-wire power
6	工作环境 Working environment	5-40℃（工作时 working）；-10- 60℃（存放时 storing）30-90%RH （相对湿度 relative humidity）
7	工作时间 Working time	24 小时连续工作 24 hours
8	主轴转速 Main shaft speed	500~3000rpm
9	最高产量 Max. yield	5~15m/min
10	断线自停 Thread breakage detection	有 Yes
11	磁盘阅读器 Disk reader	装备 USB 接口一个 1 USB port
12	存储器存储容量 Max. Memory storage	32MB

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4-4、Precautions when using touch screen

Please follow the precautions below when using touch screen to extend its lift span.

1.Do not press hard on touch screen, let alone pat or knock hard on it. Just touch it gently with your finger.

2.Do not poke screen with nail. Scratching with hard things are forbidden.

3.Keep screen clean because too much dust will bring down its sensitivity.

4.When operating on screen, please press gently and stay for at least 1 second.If the icon you press “jumps up” , it means the command you give is confirmed.

If you see a hand-shape icon on screen and the icon you press is “sunk” , it means your command is not confirmed and you need to press one more time.

4-4、使用触摸屏的注意事项

由于触摸屏的特殊性，因此在操作时应注意以下几点，以延长使用寿命：

1、不要用力按压触摸屏，更不要用力拍打和敲击触摸屏，用手指轻触即可；

2、不要用指甲戳屏，禁止用硬物划屏；

3、保持触摸屏的清洁，灰尘过多会影响触摸屏的灵敏度；

4、操作时用手指轻轻按住图标，停留 1 秒后在拿起，如果此图标自动弹起说明指令已被接受；如果屏幕的按键上显示有手状图标并且按键是凹下去的状态表示操作没有生效，必须再按一次；

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4-5、开关及操作界面介绍 Operation panel instruction

1、开关按钮介绍 Switches and buttons



A

B

C

富怡

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A: Red button: emergency stop.
Press it in emergency and it will cut the power. It will not bounce up after press. If you want to restart machine, please rotate it clockwise (as shown by the arrows on the button) to bounce up and perform start procedure.

B: Black button: press it shortly in quilting and machine will stop temporarily(“pause” status), frame will halt at current quilting position and main shaft halts at zero-point. Press it shortly again and working head will move to the front of machine (threading position) and you can perform threading. If you long press it, the working head will rollback at low speed, following pattern quilted. The main shaft will hold still. If you release the black button now, frame will stop the rollback sequence and halt at current quilting stitch position (for make-up quilting).

C: Green button: when electronic control system is ready, press green button shortly and machine will start quilting. If press it shortly at “pause” status, machine will continue quilting. If thread breakage occurs and working head returns to threading position, press the green button and the head will move back to thread breakage position, press it shortly again and the machine will continue quilting. Long press it and working head will follow quilting pattern and move forward at low speed.

A、红色按钮：急停开关，紧急情况按下可断电。按下后不会自动弹起，若要重新启动机器，需顺时针旋转按钮回复弹起状态后再执行开机流程。

B、黑色按钮：在绗缝过程中短按可暂停，框架停止在当前针迹，主轴停止在零点；暂停后再短按一次机头移动到机器最前面（穿线点），可进行穿线等操作；若暂停后长按黑色按钮，则机头按照花样绗缝轨迹低速回退，主轴不动此时放开黑色按钮，框架就停止回退，并停在此时针迹上（可以补绗）。

C、绿色按钮：当电控准备就绪，短按绿色按钮则开始绗缝。若在暂停情况下短按可继续绗缝。若机器断线，机头回到穿线点后按绿色按钮，机头重新回到

D、断线位置，再短按则继续绗缝，长按绿色按钮则机头按照花样轨迹低速前进。

2、操作箱面板介绍 Control panel



①触摸屏显示区；

Touch screen display

③电源（上电）；

Power switch (charge the machine)

⑤开始；

Start

⑦急停；

Emergency stop

②总电源；

Main power switch

④加气；

Air

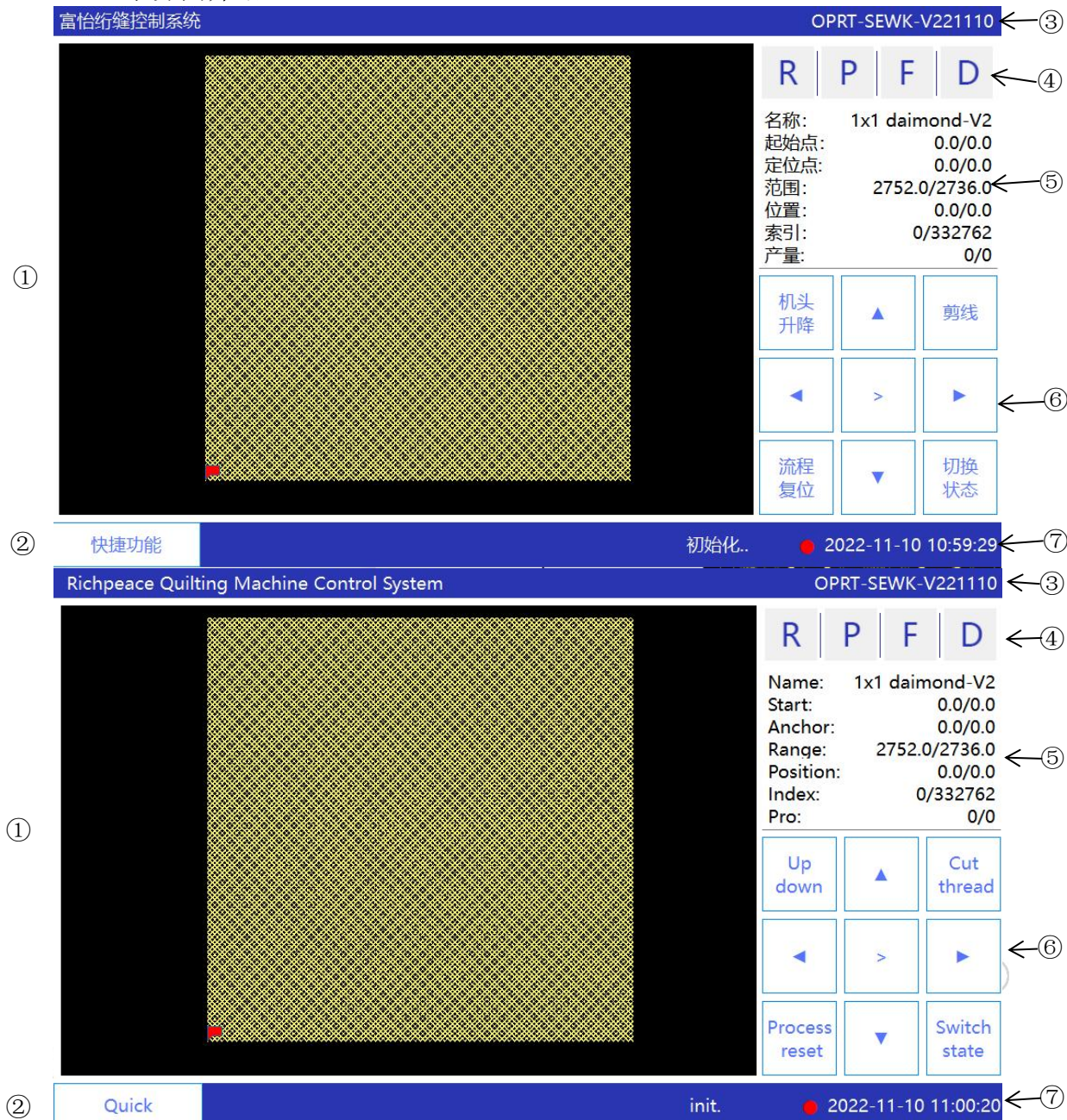
⑥停止；

Pause

⑧USB 接口

USB port

3、显示界面介绍 User interface



①、花样作业显示区：显示花样模板的外貌形状，对机器工作的路径进行实时的更新，满足客户对机器运行工作过程中的视觉效果；

Pattern operation display area: display the appearance and shape of pattern template, and update the working path of the machine in real time to meet the customer's visual effect in the process of machine operation;

②、快捷功能区：快速使用生产常用的部分功能；

Quick function area: quickly use some functions commonly used in production;

③、程序版本区：查看当前程序版本；

Program version area: view the current program version;

④、主要功能区：各种功能分布(详情请见 4-6)；

Main functional areas: distribution of various functions (see 4-6 for details);

⑤、花样信息区：

(1)名称：花样名称；

Name: Pattern name;

(2)起始点：缝纫的起始点；

Starting point: the starting point of sewing;

(3)定位点：缝纫的定位点；

Anchor point: the anchor point of sewing;

(4)范围：缝纫范围；

Range: sewing range;

(5)位置：当前的坐标位置；

Position: the current coordinate position;

(6)索引：当前已缝缝针数；

Index: finished quilting stitches;

(7)产量：当前产量信息；

Yield: current yield information;

⑥、手动控制区：

Manual control area

(1)升降：机头上升下降；

Rise and fall: Head rise and fall;

(2)剪线：手动剪线；

Cut: perform trimming manually.

(3)流程复位：将机器所有移动部位恢复到初始状态；

Process reset: restore all moving parts of the machine to the initial state;

(4)切换状态：切换机器的工作状态；

Switching status: switching the working status of the machine;

(5)方向键：调整参数数值大小，移框功能；

Direction keys: adjust values and move frame.

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4-6、功能介绍 Function introduction

1、运动控制 Motion control

点击字母 R 进入设定界面，包括回零点、回起绗点、设起绗点、手动操作、前进后退 5 大功能

Click the letter R to enter the setting interface, including five functions: return to zero point, return to starting point, set starting point, manual operation, forward and backward.

<i>R</i>	<i>P</i>	<i>F</i>	<i>D</i>	<i>R</i>	<i>P</i>	<i>F</i>	<i>D</i>
运动控制				Run control			
<i>A</i>	回零点			<i>A</i>	Back to zero		
<i>B</i>	回起绗点			<i>B</i>	Back to the sewing		
<i>C</i>	设起绗点			<i>C</i>	Set the starting point		
<i>D</i>	手动操作			<i>D</i>	Manual operation		
<i>E</i>	前进后退			<i>E</i>	Forward retreat		

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1.1 Return to zero point: click this button to automatically return the machine head to the position of the coordinate origin.

1.1 回零点: 点击此按钮后, 将机器的缝纫机头自动回到坐标原点的位置上。

1.2 Back to Quilting Point: After clicking this button, the sewing head of the machine will automatically return to the position where the starting point is set.

1.2 回起绗点: 点击此按钮后, 将机器的缝纫机头自动回到设置起绗点的位置上。

1.3 Set the starting point: click this button to set the position of the current machine head as the starting point for sewing.

1.3 设起绗点: 点击此按钮后, 将当前机器的缝纫机头的位置设置为开始缝纫的起点。®

1.4 Manual operation: refers to the shortcut of first rotary hook change, threading point, offset point, needle Zero position, rotary hook zero position, needle rotary hook reset, head up, head down, automatic bobbin change once, installing the first bobbin case, taking the rotary hook from the bobbin disc to the head, taking the rotary hook from the head to the bobbin disc, clearing the bottom thread count and clearing the output.

1.4 手动操作: 指首位换梭、穿线点、偏移点、对针零位、对梭零位、针梭复位、机头上升、机头下降、自动换梭一次、安装第一个梭壳、将旋梭从梭盘拿到机头、将旋梭从机头拿到梭盘、底线计数清零、产量清零的快捷方式。

1.5 Forward or backward: click this button to display the number of stitches that can be selected forward or backward, which can speed up the progress and progress of the current work.

1.5 前进后退: 点击此按钮后, 将显示可以选择的前进或者后退的针数, 可以加快当前工作的进度和进展。

2、参数设置 Parameter setting

点击字母 P 进入设定界面，包括工作设置、速度设置、动作设置、检测设置、位置设置、软件设置前进后退 6 大功能。

Click the letter P to enter the setting interface, including six functions: working setting, speed setting, action setting, detection setting, position setting, and software setting.



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2.1 工作设置 Parameter setting



参数设置

工作设置*

产量预设	100
循环工作允许	不允许

1/1

上一页 下一页 确定 取消

Parameter setting

Work setting*

Production preset	100
Loop work allowed	Not allow

1/1

Page up Page down Ok Cancel

(1)产量预设：预期的产量值。

Output preset: the expected output value

(2)循环工作允许：是否允许循环工作。

Circular work allowed: whether circular work is allowed

2.2 速度设置 Speed setting



参数设置

速度设置*

xy启动停止速度	10 mm/s
XY归零运行速度	100 mm/s
XY空走运行速度	500 mm/s
XY手动移动速度1	10 mm/s
XY手动移动速度2	100 mm/s
XY手动移动速度3	300 mm/s
XY最高移动速度	300 mm/s

2/2

Parameter setting

Speed setting*

XY start stop speed	10 mm/s
XY zero reset speed	100 mm/s
XY simulate running speed	500 mm/s
XY manual movement speed 1	10 mm/s
XY manual movement speed 2	100 mm/s
XY manual movement speed 3	300 mm/s
XY maximum moving speed	300 mm/s

2/2



1.Spindle sewing speed: This function key can be used to set the spindle sewing speed.

2.Air pressure detection: machine can detect whether there is enough air pressure while quilting. When pressure is low, it will stop automatically can wait for pressure coming back up to standard. When pressure comes back to standard, press the green button shortly to continue the work.

3.Spindle zeroing speed: This function key can be used to set the spindle zeroing speed. The spindle starts and stops rotating, and the spindle zeroing speed ranges from 1 to 3000, in r/min.

4.Spindle running speed: this function key can be used to set the spindle running speed. Spindle starting and stopping speed, spindle running speed, range 1 -- 3000, unit r/min.

5.Spindle running acceleration: this function key can be used to set the spindle running acceleration. The spindle running acceleration ranges from 1 to 100 in r/s.

6.Spindle brake acceleration: the spindle brake acceleration speed can be set through this function key. The spindle brake acceleration range is 1-100, in r/s.

(1) 主轴缝纫工作转速：通过此功能键可以对主轴缝纫工作转速速度进行设置。

(2) 主轴拐角转速：通过此功能键可以对主轴拐角转速进行设置，主轴拐角转速，范围 1--3000，单位 r/min。

(3) 主轴归零转速：通过此功能键可以对主轴归零转速进行设置，主轴启动停止转速，主轴归零转速，范围 1--3000，单位 r/min。

(4) 主轴运转转速：通过此功能键可以对主轴运转速度进行设置，主轴启动停止转速，主轴运转转速，范围 1--3000，单位 r/min。

(5) 主轴运转加速度：通过此功能键可以对主轴运转加速度进行设置，主轴运转加速度，范围 1--100，单位 r/ss。

(6) 主轴刹车加速度：通过此功能键可以对主轴刹车加速度速度进行设置，主轴刹车加速度，范围 1--100，单位 r/ss。

7.Spindle startup and shutdown speed: This function key can be used to set the spindle startup and shutdown speed. Spindle startup and shutdown speed range is 1 -- 300, unit: r/min.

8.Spindle thread trimming speed: This function key can be used to set the spindle thread trimming speed.

9.Spindle needle return speed: This function key can be used to set the spindle needle return speed.

10.Spindle starting slow motion speed: This function key can be used to set the spindle starting slow motion speed.

11.Number of stitches for starting slow motion: press this function key to set the number of stitches. The number of stitches required when starting the needle is 3 by default.

12.Sewing acceleration: This function key can be used to set the sewing acceleration.

13. XY start stop speed: This function key can be used to set XY start stop speed. Range: 1-1000, unit: mm/s.

14. XY zero operation speed: This function key can be used to set XY zero operation speed. Range: 1-1000, unit: mm/s.

15. XY idling running speed: XY idling running speed can be set through this function key, xy idling running speed, range: 1-1000, unit: mm/s.

(7) 主轴启动停止转速：通过此功能键可以对主轴启动停止转速进行设置，主轴启动停止转速，范围 1—300，单位 r/min。

(8) 主轴剪线转速：通过此功能键可以对主轴剪线转速进行设置。

(9) 主轴回针转速：通过此功能键可以对主轴回针转速进行设置。

(10) 主轴启动慢动转速：通过此功能键可以对主轴启动慢动转速进行设置。

(11) 起针慢动针数：按此功能键可以进行针数设置，在针起动时需要几针，默认：3 针。

(12) 缝纫加速度：通过此功能键可以对缝纫加速度进行设置。

(13) XY 启动停止速度：通过此功能键可以对 XY 启动停止速度进行设置。范围 1—1000，单位 mm/s。

(14) XY 归零运行速度：通过此功能键可以对 XY 归零运行速度进行设置。范围 1—1000，单位 mm/s。

(15) XY 空走运行速度：通过此功能键可以对 XY 空走运行速度进行设置，xy 空走运行速度，范围 1—1000，单位 mm/s。

16. XY travel acceleration: XY travel acceleration can be set through this function key. Range: 1-10,000, in mm/s².

17. XY brake acceleration: XY brake acceleration can be set through this function key, xy brake acceleration is 1-10000, in mm/s².

18. XY manual movement speed 1: XY manual movement speed 1 can be set through this function key, xy manual movement speed 1, range 1 -- 1000, unit mm/s.

19. XY manual movement speed 2: XY manual movement speed 2 can be set through this function key, xy manual movement speed 2, range 1 -- 1000, unit mm/s.

20. XY manual movement speed 3: XY manual movement speed 3 can be set through this function key, xy manual movement speed 3, range 1 -- 1000, unit mm/s.

21. XY maximum moving speed: This function key can be used to set the XY maximum moving speed.

(16) XY 行走加速度：通过此功能键可以对 XY 行走加速度进行设置。范围 1--10000，单位 mm/s²。

(17) XY 刹车加速度：通过此功能键可以 XY 刹车加速度进行设置，xy 刹车加速度 1--10000，单位 mm/s²。

(18) XY 手动移动速度 1：通过此功能键可以 XY 手动移动速度 1 进行设置，xy 手动移动速度 1，范围 1--1000，单位 mm/s。

(19) XY 手动移动速度 2：通过此功能键可以 XY 手动移动速度 2 进行设置，xy 手动移动速度 2，范围 1--1000，单位 mm/s。

(20) XY 手动移动速度 3：通过此功能键可以 XY 手动移动速度 3 进行设置，xy 手动移动速度 3，范围 1--1000，单位 mm/s。

(21) XY 最高移动速度：通过此功能键可以对 XY 最高移动转速进行设置。

2.3、动作设置 Action settings



参数设置

动作设置*

移框松线允许	不允许
缝初动框方式	XY连续动框
起针慢动针数	5 针
剪线允许	自动剪线
剪线时动作夹线允许	不允许
加油方式选择	按时间加油
自动换梭装置	无装置
加油针数间隔	0 针
加油时间间隔	50 秒
针加油持续时长	4 秒

1/2

上一页

下一页

确定

取消

Parameter setting

Action setting*

Moving basket Loose line	Not allow
Sewing frame movement mode	Xy continuous moving frame
No. of slow stitch at beginning	5 Needle
Cut thread allowed	Automatic thread trimming
Thread cut, catch upper thread allowed	Not allow
Oiling mode selection	Oiling intermittently by working hours
Automatic bobbin change device	No device
Oiling interval by needle stitch	0 Needle
Oiling interval by working time	50 s
Needle Oiling sustained time	4 s

1/2

Page up

Page down

Ok

Cancel



参数设置

动作设置*

梭加应油持续时长	6 秒
完成后停车位置选择	偏移点
缝纫回越框机头升降	不允许
剪线动框方向	不移动
降速最小偏差角度	30 deg

2/2

Parameter setting

Action setting*

Shuttle Oiling sustained time	6 s
Main shaft stop position selection after work complete	migration point
Sewing move head up down	Not allow
Trimming frame direction	No moving frame
Minimum speed deviation angle	30 deg

2/2



- 1.Allow frame moving loose wire: whether to open frame moving loose wire;
- 2.Sewing moving frame mode: select the sewing moving frame mode;
- 3.Number of stitches in slow motion: press this function key to set the number of stitches. How many stitches are needed when the needle is started. The default is 3 stitches;
- 4.Thread trimming allowed: whether the thread trimming action is automatically allowed;
- 5.Allow action clamping during thread cutting: whether action clamping is turned on during thread cutting;
- 6.Refueling mode selection: select refueling mode;
- 7Automatic Bobbin changer device : select ;
- 8.automatic Bobbin changer device Refueling needle interval: set the interval of refueling needle;
- 9.Refueling interval: refueling interval setting;
- 10.Refueling duration: refueling duration setting;
- 11.Rotary hook refueling duration: Rotary hook refueling duration setting;
- (1) 移框松线允许：移框松线是否打开；
- (2) 缝纫动框方式：缝纫动框方式选择；
- (3) 起针慢动针数：按此功能键可以进行针数设置，在针起动时需要几针，默认：3 针；
- (4) 剪线允许：剪线动作是否自动允许；
- (5) 剪线时动作夹线允许：剪线时动作夹线是否打开；
- (6) 加油方式选择：选择加油方式；
- (7) 自动换梭装置：选择自动换梭装置；
- (8) 加油针数间隔：加油针数间隔设置；
- (9) 加油时间间隔：加油时间间隔设置；
- (10) 加油持续时长：加油持续时长设置；
- (11) 梭加油持续时长：梭加油持续时长设置；

12.Parking position selection after completion: select and set the parking position after completion;

(12) 完成后停车位置选择：完成后停车位位置选择设置；

13.Cross frame head lifting in sewing: cross frame head lifting setting in sewing;

(13) 缝纫间越框机头升降：缝纫间越框机头升降设置；

14.Thread trimming moving frame direction: set the thread trimming moving frame direction;

(14) 剪线动框方向：剪线动框方向设置；

15.Deceleration minimum deviation angle: setting of deceleration minimum deviation angle;

(15) 降速最小偏差角度：降速最小偏差角度设置；



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2.4、检测设置 Detect Settings

富怡绗缝控制系统

2022-11-14 13:10:09

换梭盘状态

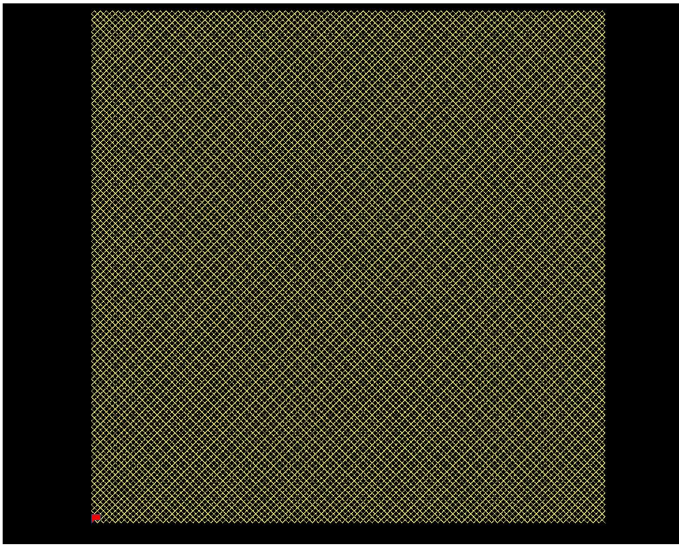
换梭一次

针梭复位

缝纫状态

首位换梭

全部归零



R

P

F

D

参数设置

G

工作设置*

H

速度设置*

I

动作设置*

J

检测设置*

K

位置设置*

L

软件设置

机头
升降

▲

剪线

◀

>

▶

流程
复位

▼

切换
状态

Richpeace Quilting Machine Control System

正常工作

已连接

2022-11-14 13:25:07

Into take platm

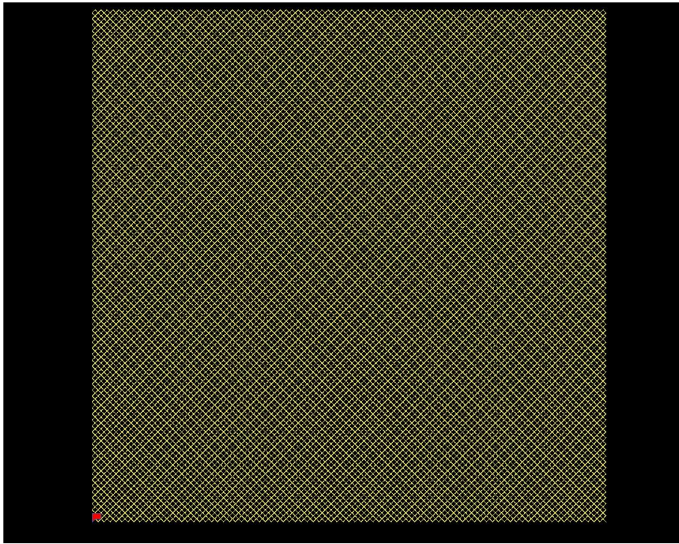
Change once

N-R reset

Quilted state

First bobbin

All zero



R

P

F

D

Parameter setting

G

Work setting*

H

Speed setting*

I

Action setting*

J

Detection setting*

K

Location setting*

L

Software settings

Up
down

▲

Cut
thread

◀

>

▶

Process
reset

▼

Switch
state

normal
working

Connected

富怡PC端控制系统

2022-11-14 13:10:30

参数设置

检测设置*

断线检测针数	5 针
换梭芯提醒功能	不启用
底线长度	493.00 mm
每针底线修正量	0.00 mm
换梭片数计数	0 次
安全输入气压允许	允许
安全输入光幕允许	不允许

1/1

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确定

取消

Richpeace Quilting Machine Control System

2022-11-14 13:25:33

Parameter setting

Detection setting*

No. of stitch detect if thread broken	5 Needle
Bobbin change reminder function	Not enabled
Bobbin thread length	493.00 mm
Bobbin thread correction per stitch	0.00 mm
Bobbin change as per sewed pieces	0 times
Safety input pressure allowed	allowed
Secure input light curtain allows	Not allow

1/1

Page up

Page down

Ok

Cancel

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1.Number of broken wire detection needles: set the number of broken wire detection needles;

2.Bobbin change reminder function: set the Bobbin change reminder function;

3.Bobbin thread length: set the bobbin thread length;

4.Bobbin thread correction per stitch: set the bobbin thread correction per stitch;

5.Count of bobbin change pieces: count the number of bobbin change pieces.

6.Safety input air pressure permission: set the safety input air pressure.

7.Safety input light curtain allow: set the safety input light curtain.

(1)断线检测针数：对断线检测针数设置。

(2)换梭芯提醒功能：对换梭芯提醒功能设置。

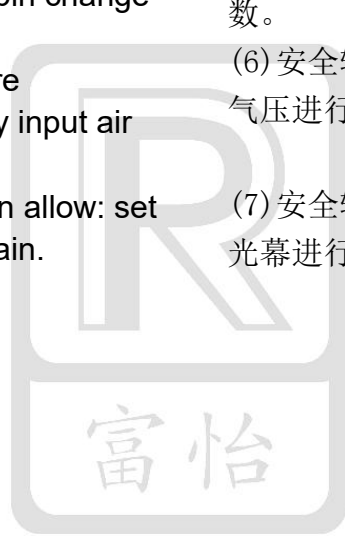
(3)底线长度：对底线长度设置。

(4)每针底线修正量：对每针底线修正量设置。

(5)换梭片数计数：对换梭片数计数。

(6)安全输入气压允许：对安全输入气压进行设置。

(7)安全输入光幕允许：对安全输入光幕进行设置。



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2.5、位置设置 Position setting



参数设置

位置设置*

偏移点坐标有效标志	XY同时有效
偏移点坐标X	500.00 mm
偏移点坐标Y	1500.00 mm
穿线点坐标有效标志	Y有效
穿线点坐标X	10.00 mm
穿线点坐标Y	0.00 mm
主轴归零补偿角度	0.00 deg
软件限位XY移动允许	关闭
X可缝纫区域负边界	0.00 mm
X可缝纫区域正边界	5000.00 mm

1/2

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确定

取消

Parameter setting

Location setting*

Migration point coordinate valid symbol	Xy is valid at the same time
Migration point coordinate in X	500.00 mm
Migration point coordinate in Y	1500.00 mm
Threading point coordinate valid symbol	y is valid
Threading point coordinates X	10.00 mm
Threading point coordinates Y	0.00 mm
Main shaft zero reset compensation angle	0.00 deg
Software limit XY move allowed	Off
X Sewing area negative boundary	0.00 mm
X Sewing area positive boundary	5000.00 mm

1/2

Page up

Page down

Ok

Cancel



参数设置

位置设置*

Y可缝纫区域负边界	-3250.00 mm
Y可缝纫区域正边界	3250.00 mm
X可移动区域负边界	-100.00 mm
X可移动区域正边界	2200.00 mm
Y可移动区域负边界	-100.00 mm
Y可移动区域正边界	5000.00 mm

2/2

Parameter setting

Location setting*

Y Sewing area negative boundary	-3250.00 mm
Y Sewing area positive boundary	3250.00 mm
X movable area negative boundary	-100.00 mm
X movable area positive boundary	2200.00 mm
Y movable area negative boundary	-100.00 mm
Y movable area positive boundary	5000.00 mm

2/2



1. Migration point coordinate valid symbol: the valid coordinate position of the migration point;

(1) 偏移点坐标有效标志: 偏移点的有效坐标位置;

2. migration point coordinate X: the X coordinate of the migration point;

(2) 偏移点坐标 X: 偏移点的 X 坐标;

3. migration point coordinate Y: the Y coordinate of the migration point;

(3) 偏移点坐标 Y: 偏移点的 Y 坐标;

4. Threading point coordinate valid symbol : the valid symbol coordinate of threading point;

(4) 穿线点坐标有效标志: 穿线点的有效坐标;

5. Threading point coordinate X: x position of threading point;

(5) 穿线点坐标 X: 穿线点的 X 坐标;

6. Threading point coordinate Y: the Y coordinate of the threading point;

(6) 穿线点坐标 Y: 穿线点的 Y 坐标;

7. Main shaft zero reset compensation angle: refers to the angle of the sensor during Main shaft zeroing compensation;

(7) 主轴归零补偿角度: 指主轴归零补偿时传感器的角度;

8. Software limit XY move allowed : indicates whether XY allows movement;

(8) XY 移动允许: 指 XY 是否允许移动;

9. X Sewing area negative boundary: the maximum boundary that can be sewn in the negative direction of X;

(9) X 可缝纫区域负边界: X 负向可以缝制的最大边界;

10. x Sewing area negative boundary : the maximum boundary of X sewing area;

(10) X 可缝纫区域正边界: X 正向可以缝制的最大边界;

11. Negative boundary of Y sewing area: the maximum boundary that can be sewn in the positive direction of Y;

(11) Y 可缝纫区域负边界: Y 正向可以缝制的最大边界;

12.Positive boundary of Y sewing area: the maximum boundary of Y sewing area;

(12) Y 可缝纫区域正边界: Y 正向可以缝制的最大边界;

13.Negative boundary of X movable area: the maximum boundary that can be moved in the negative direction of X;

(13) X 可移动区域负边界: X 负向可以移动的最大边界;

14.Positive boundary of X movable area: the maximum boundary that can be moved in the positive direction of X;

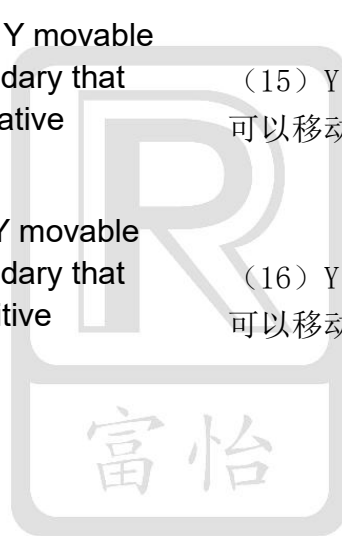
(14) X 可移动区域正边界: X 正向可以移动的最大边界;

15.Negative boundary of Y movable area: the maximum boundary that can be moved in the negative direction of Y;

(15) Y 可移动区域负边界: Y 负向可以移动的最大边界;

16.Positive boundary of Y movable area: the maximum boundary that can be moved in the positive direction of Y;

(16) Y 可移动区域正边界: Y 正向可以移动的最大边界;



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2.6 软件设置 Software Settings



参数设置

软件设置

语言设置	02/11 简体中文
主控升级*	
界面升级*	
语言升级*	
参数导入	
参数导出 *	
参数恢复 *	
软件授权码(SN)	
关于	
修改系统时间	

1/2

上一页	下一页	确定	取消
-----	-----	----	----

Parameter setting

Software settings

language settings	01/11 English
Master upgrade *	
Interface upgrade *	
Language upgrade *	
Parameter input *	
Parameter output *	
Parameter restore *	
Software authorization code	
About	
Time setting	

1/2

Page up	Page down	Ok	Cancel
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参数设置

软件设置

界面授权

选择文件方式	U盘

2/2

上一页

下一页

确定

取消

Parameter setting

Software settings

Interface authorization

Choose file method	U disk

2/2

Page up

Page down

Ok

Cancel



- | | |
|---|-------------------------------|
| 1.Language setting: Set the interface language | (1) 语言设置: 对界面语言进行设置 |
| 2.Master upgrade:Upgrades to the main control panel | (2) 主控升级: 对主控面板进行升级 |
| 3.Interface upgrade: Upgrade the interface program | (3) 界面升级: 对界面程序进行升级 |
| 4.Language upgrade: upgrade the language of the interface | (4) 语言升级: 对界面的语言进行升级 |
| 5.Import old machine parameters: Import the parameters of the old program | (5) 导入老机器参数: 导入老程序的参数 |
| 6.Parameter import: Import new parameters | (6) 参数导入: 导入新的参数 |
| 7.Parameter export: Export the parameters of this machine | (7) 参数导出: 导出本机器的参数 |
| 8.Parameter recovery: Recover the parameter data | (8) 参数恢复: 参数数据恢复 |
| 9.Software authorization code (SN): special function | (9) 软件授权码 (SN): 特殊功能 |
| 10.About: You can view the version date of the current interface program and the master program | (10) 关于: 可以查看当前界面程序和主控程序的版本日期 |
| 11.Modify system time: Modify the system time | (11) 修改系统时间: 修改系统时间 |
| 12.Interface authorization: factory personnel authorize the unlock password for interface operation | (12) 界面授权: 出厂人员对界面操作的解锁密码进行授权 |
| 13.Select File Mode: select the pattern transmission mode | (13) 选择文件方式: 进行花样传输方式的选择 |

3、文件管理 file management

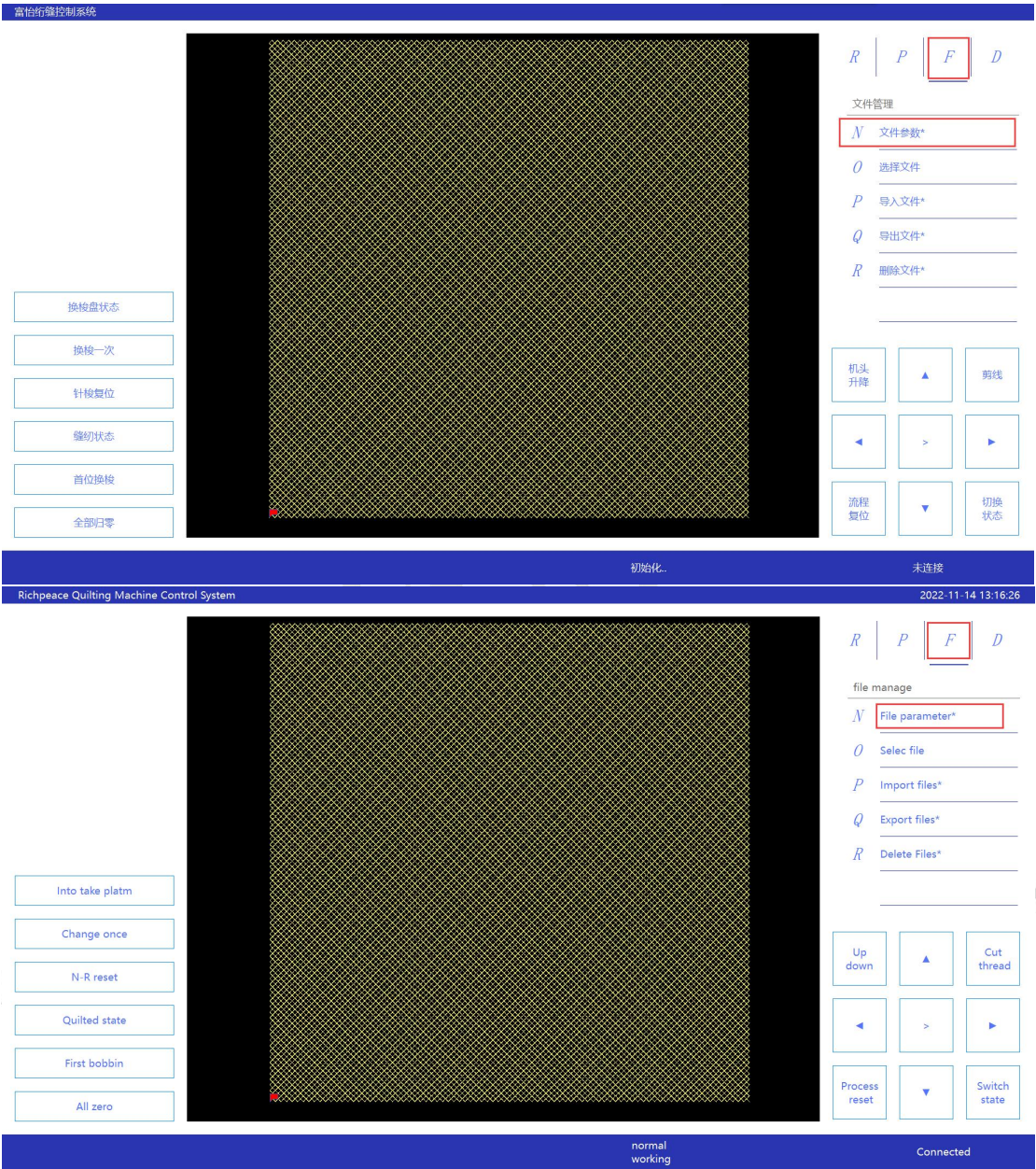
点击字母 F 进入设定界面，包括文件参数、选择文件、导入文件、导出文件、删除文件 5 大功能。这个模块中我们将介绍如何正确导入且使用花样。

Click the letter F to enter the setting interface, including five functions: file parameters, file selection, file import, file export, and file deletion. In this module, we will introduce how to import and use patterns correctly.



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3.1 文件参数 File parameters



通过这个功能可以根据需求来设计花样的详细信息，包括大小，尺寸，针步大小。
With this function, you can design the details of patterns according to your needs, including size, size, and stitch size。

Setting parameters

Set file parameters

Step size	2.0 mm
Quilting range	
> left side	0.0 mm
> front side	0.0 mm
> width(x)	2752.0 mm
> Height(y)	2736.0 mm
> Equal ratio	open
Reinforce	None
> Reinforce steps	0
> Repeat times or Dense size	0

1/2

Page up

Page down

Ok

Cancel

设置参数

设置文件参数

针步大小	2.0 mm
范围	
> 左边	0.0 mm
> 前边	0.0 mm
> 宽	2752.0 mm
> 高	2736.0 mm
> 等比缩放	打开
回针设定	无
> 加固针数	0
> 加固次数	0

1/2

上一页

下一页

确定

取消



1. Stitch step size: the distance that the head moves every step, that is, the distance between the last stitch and the next stitch;

2. Range: left: this model (single needle quilting machine) cannot be used;

3. Range: front: this model (single needle quilting machine) cannot be used;

4. Range: width: the width of the distance length in the size of pattern products, which can be set by yourself;

5. Range: height: the length of the distance in the size of pattern products, You can set it by yourself;

6. Range: Equal scaling: zoom in and out according to a certain proportion to facilitate observation of pattern details and proofing details;

7. Needle return setting: number of reinforcing stitches: reinforce in turn from the starting point, and the machine head will automatically back sew the number of reinforcing stitches set, so as to achieve the purpose of reinforcement. It is generally set between one pattern and the next;

(1) 针步大小: 机头每移动一步跨越的距离, 即是上一步针到下一步针之间的距离;

(2) 范围: 左边: 本机型 (单针绗缝机) 无法使用;

(3) 范围: 前边: 本机型 (单针绗缝机) 无法使用;

(4) 范围: 宽: 花样产品的大小中的宽的距离长度, 可以自行设定;

(5) 范围: 高: 花样产品的大小中的长的距离长度, 可以自行设定;

(6) 范围: 等比缩放: 按照一定的比例进行放大和缩小, 方便观察花样细节和打样细节;

(7) 回针设定: 加固针数: 从起始点开始依次加固, 机头会自动回缝设置的加固针数, 从而达到加固的目的, 一般设定在从一个花样至下一个花样之间;

(8) 回针设定: 加固次数: 机头在加固过程中来回缝制的次数;

8. Needle return setting: number of reinforcing stitches: number of times the machine head sews back and forth during the reinforcement process;

3.2 导入文件 Import File

我们先将 USB 插入到显示屏上的 USB 插口，然后按照以下操作。



First, insert USB into the USB socket on the display screen, and then follow the steps below.



选择你想导入的花样，点击“确定”即可。

Select the pattern you want to import and click "OK".

3.3 导出文件和删除文件 Exporting and deleting files

导出文件就是将显示屏中的花样导出到 USB 中。需要 USB 插入显示屏当中，和导入文件的操作顺序一样。

Exporting a file is to export the patterns in the display screen to USB. USB is required to be inserted into the display screen in the same order as importing files.

3.4 选择文件 Select File

可以选择显示屏中的花样文件，会直接显示到显示屏上，用于选择花样产品的生产。You can select the pattern file in the display screen, which will be directly displayed on the display screen for the production of pattern products.

4、调试工具 Debugging tools

点击字母 D 进入设定界面，包括全部归零、传感器信号、输出控制、电机控制、超级用户和关机 6 大功能。

Click the letter D to enter the setting interface, including six functions: all zeroing, sensor signal, output control, motor control, super user and shutdown.



调试工具

T 全部归零

U 传感器信号

V 输出控制*

X 电机控制*

Y 超级用户**

Z 关机



Debug tool

T All zero

U Sensor signal

V Output control *

X Motor control *

Y Super user **

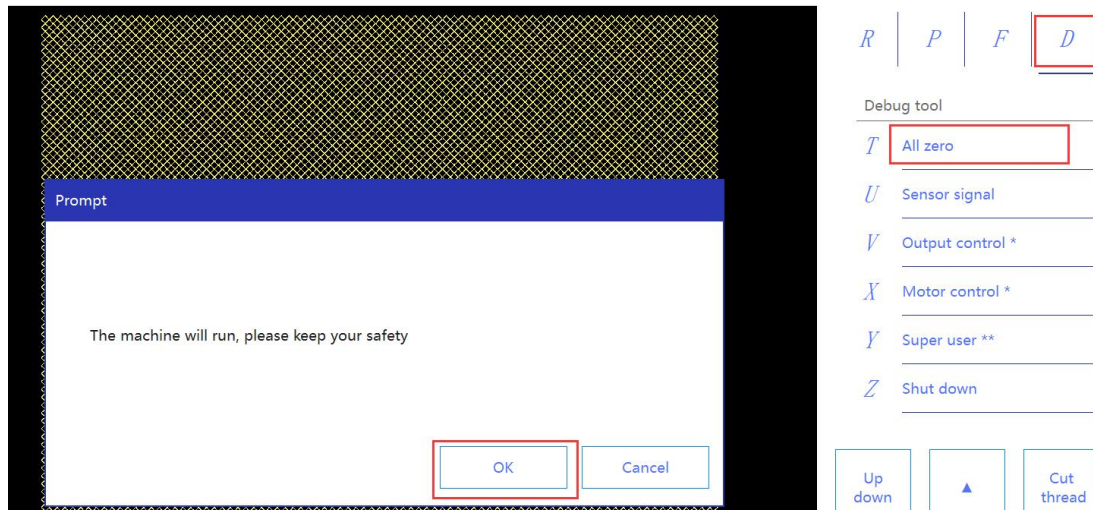
Z Shut down

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4.1 全部归零 Zero All

全部归零:点击此按钮后会提示你“机器即将运动，请注意安全”，确认安全后，点击确认，会将所有的电机回归到零位，让机器恢复到默认状态。

Return to zero: After clicking this button, you will be prompted that "the machine is about to move, please pay attention to safety". After confirming the safety, click OK, all motors will return to zero and the machine will return to the default state.



注意：操作机器的技术工程师请务必和机器保持相对的安全距离！

Note: The technical engineer who operates the machine must keep a relatively safe distance from the machine!

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此项可检查机器各个传感信号工作状态。

此项可检查机器各个传感信号工作状态。

富怡纤维控制系统 2022-11-17 13:16:08

调试工具

传感器信号

☐

启动按钮1

☐

暂停按钮1

☐

安全输入1

☐

X 限位-

☐

X 限位+

☐

缝切机头1针停车位

☐

缝切机头1面线断检

上一页

下一页

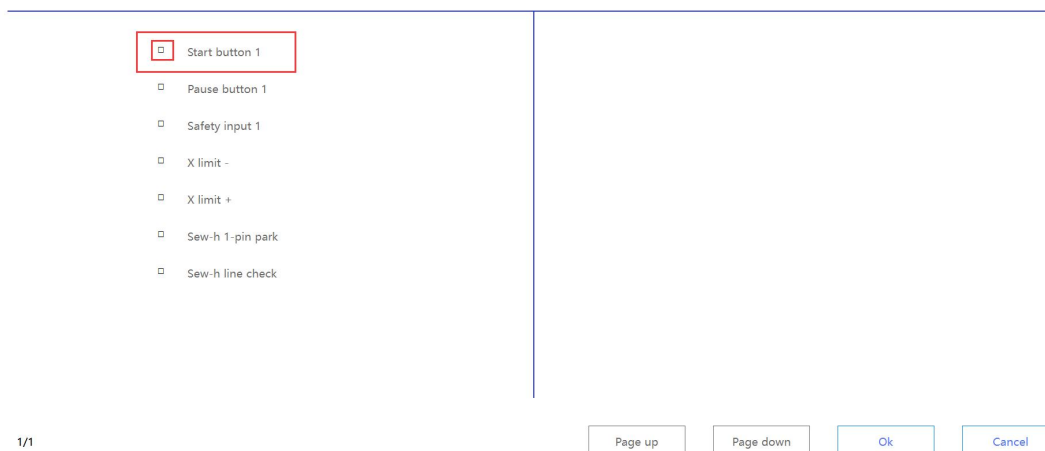
确定

取消

1/1

Debug tool

Sensor signal



如图所示图中标记红框的地方为已经触发的传感器信号，这些传感器信号用于检查工作的各个状态。

This can check the working state of each sensing signal of the machine.

举个例子，如果你触发了启动按钮，那么图中启动按钮左边的框就会变亮。

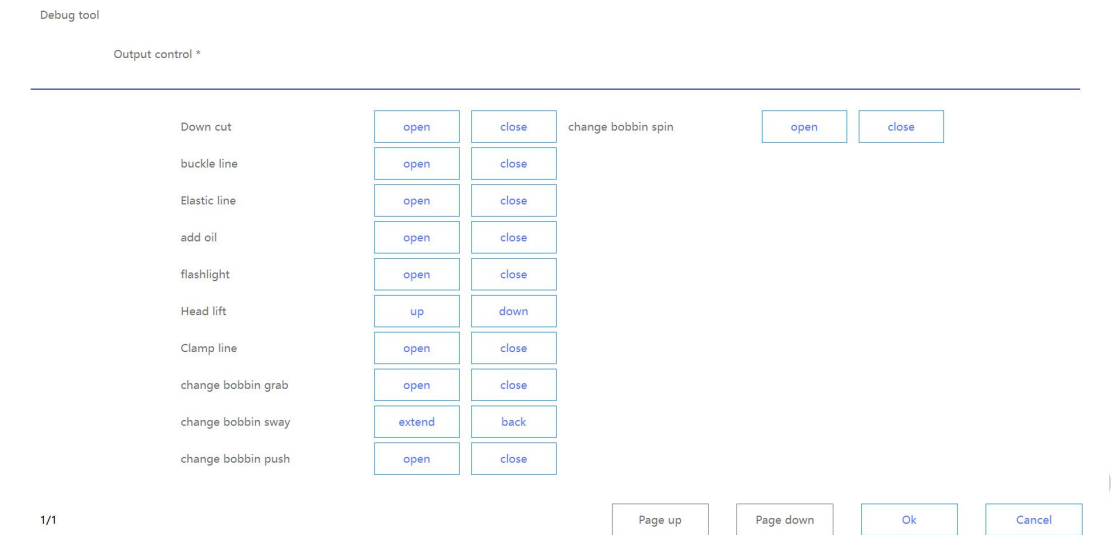
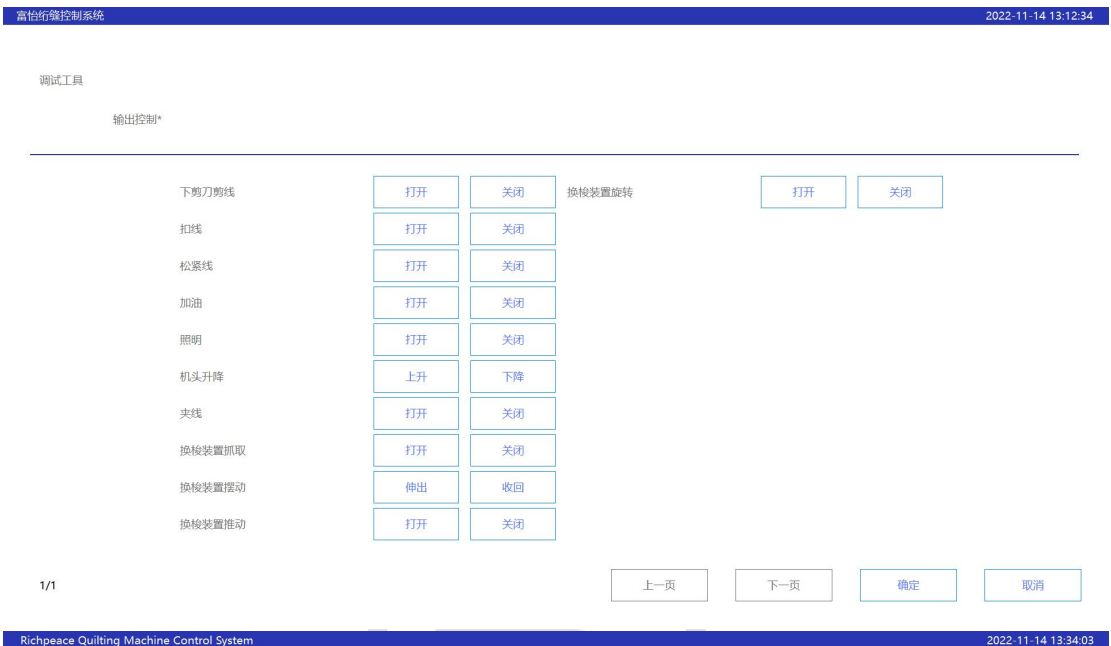
For example, if you trigger the start button, the box on the left of the start button in the figure will light up.

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4.3 输出控制 Output control

输出控制:控制气缸输出动作以及其他辅助功能的输出动作的展示和预览。
Output control: control the display and preview of the output actions of the cylinder and other auxiliary functions.





如图所示，当你点击按钮“打开”的时候，相应的机器功能就会按照你的命令打开相应的动作，点击按钮“关闭”的时候，就会关闭。这功能用于检查和确认相应功能的完整性和实施性。

As shown in the figure, when you click the "Open" button, the corresponding machine functions will open the corresponding actions according to your command, and when you click the "Close" button, they will close. This function is used to check and confirm the integrity and implementation of corresponding functions.

1.Down cut:Press this function key to set down cutting,choose to turn or turn off;

2.Buckle line: Press this function key to set the buckle line, select on or off;

3.Elastic line:Press this function key to set the loose and tight wire, select on or off;

4.Add oil: Press this function key to set the adding oil, select open or close;

5.Flash light: Press this function key to set the lighting, select on or off;

6.Head lift: Press this function key to set the head lift, select up or down;

7.Clamp line:Press this function key to set the clamping line, select on or off;

8Automatic bobbin changer device grab:Press this function key to set the automatic bobbin changer device gripping, select open or close;

9Automatic bobbin changer device sway: Press this function key to set the automatic bobbin changer device sway, choose to extend or retract;

10Automatic bobbin changer device push:Press this function key to set the automatic bobbin changer device push, select open or close.

11Automatic bobbin changer device selection: Press this function key to change the automatic bobbin changer device and select open or close.

(1)下剪刀剪线：按此功能键可以进行下剪刀剪线设置，选择打开或者关闭；

(2)扣线：按此功能键可以进行扣线设置，选择打开或者关闭；

(3)松紧线：按此功能键可以进行松紧线设置，选择打开或者关闭；

(4)加油：按此功能键可以进行加油设置，选择打开或者关闭；

(5)照明：按此功能键可以进行照明灯设置，选择打开或者关闭；

(6)机头升降：按此功能键可以进行机头升降设置，选择上升或者下降；

(7)夹线：按此功能键可以进行夹线设置，选择打开或者关闭；

(8)换梭装置抓取：按此功能键可以进行换梭装置抓取设置，选择打开或者关闭；

(9)换梭装置摆动：按此功能键可以进行换梭装置摆动设置，选择伸出或者收回；

(10)换梭装置推动：按此功能键可以进行换梭装置推动设置，选择打开或者关闭；

(11)换梭装置选择：按此功能键可以进行换梭装置，选择打开或者关闭；

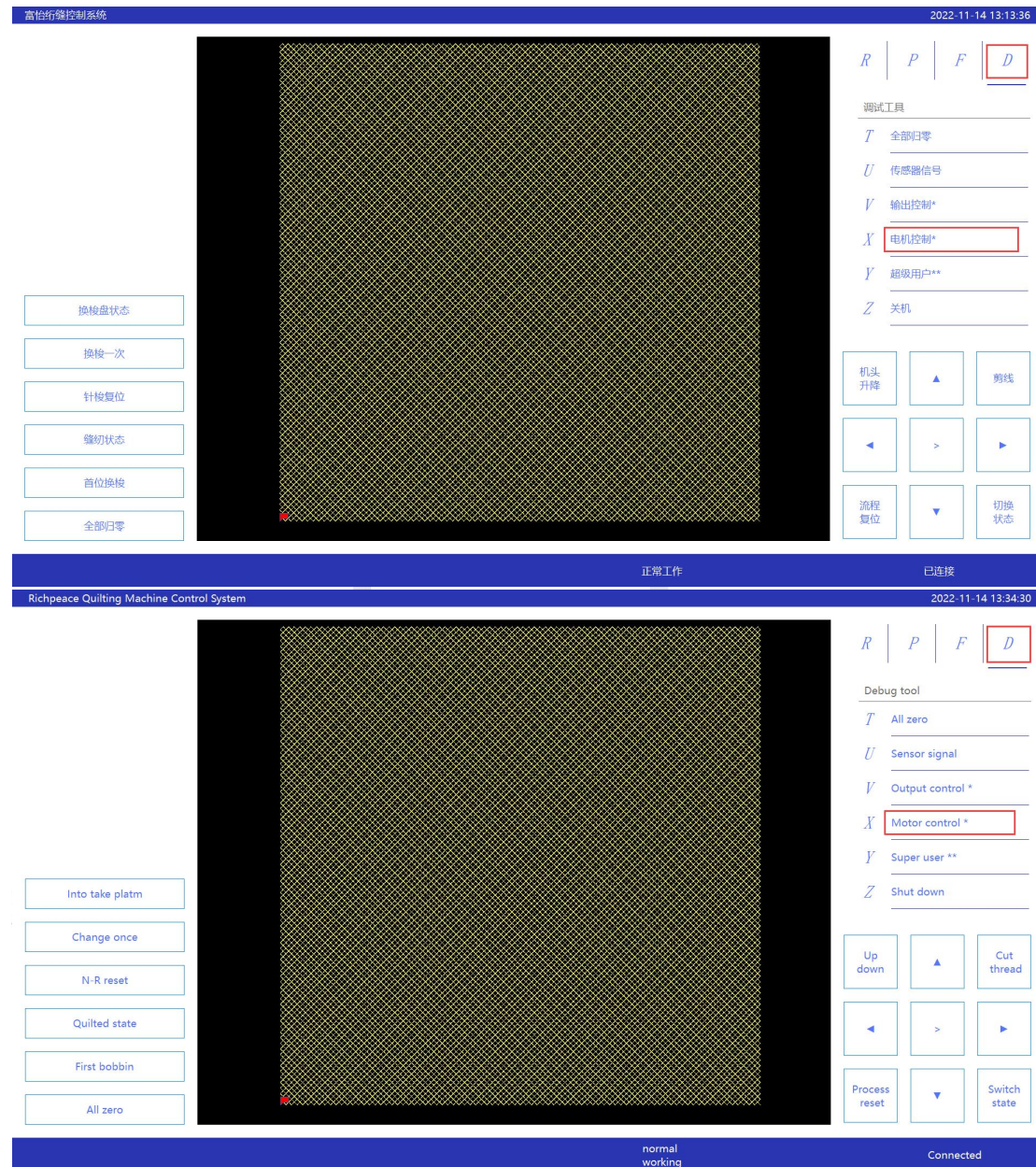
(12)安装第一梭壳：按此功能键可以进行安装第一梭壳设置，选择安装；

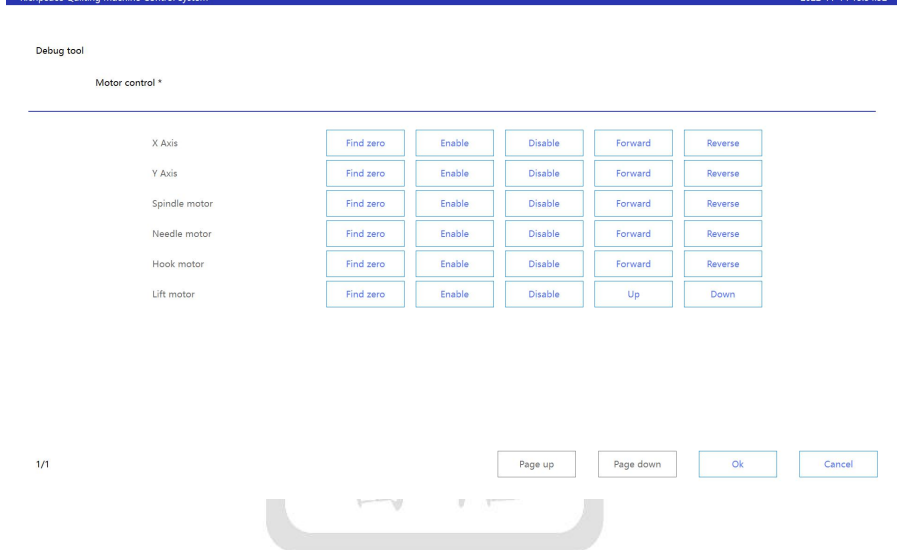
12.Install the first rotary hook shell: Press this function key to install the first rotary hook shell setting, select install.

4.4 电机控制 Motor control

电机控制:控制电机进行找零, 正转, 反转, 去使能和失能;

Motor control: control the motor to carry out zero finding, forward rotation, reverse rotation, and de enable and disable;





如图所示，在点击按钮“找零”后，电机会自动移动到可以触发零位传感器的位置。在点击按钮“使能”后，你会明显的发现电机不会自由转动，驱动器对电机发送磁信号，对电机形成保护工作状态。在点击按钮“去使能”后，电机可以自由的转动。点击按钮“正转”后，电机将会向顺时针方向不断移动。点击按钮“反转”后，电机将会向逆时针方向不断移动。

As shown in the figure, after clicking the "Zero" button, the motor will automatically move to the position where the zero position sensor can be triggered. After clicking the "Enable" button, you will obviously find that the motor will not rotate freely, and the driver will send magnetic signals to the motor to form a protective working state for the motor. After clicking the "Disable" button, the motor can rotate freely. After clicking the button "forward rotation", the motor will continuously move clockwise. After clicking the "Reverse" button, the motor will continue to move counterclockwise.

1.X Axis:Set up the X-axis motor, find zero, enable, disable, forward and reverse;

2.Y Axis:Set the Y-axis motor, find zero, enable, disable, forward and reverse;

3.Spindle motor:Set the spindle motor, find zero, enable, disable, forward and reverse;

4.Needle motor:Set the needle motor, find zero, enable, disable, forward and reverse;

5.Hook motor:Set the hook motor, find zero, enable, disable, forward and reverse;

6.Lift motor:Set the lift motor, find zero, enable, disable, forward and reverse;

(1) X 轴电机: 对 X 轴电机进行设置, 选择找零、使能、去使能、正传和反转;

(2) Y 轴电机: 对 Y 轴电机进行设置, 选择找零、使能、去使能、正传和反转;

(3) 主轴电机: 对主轴电机进行设置, 选择找零、使能、去使能、正传和反转;

(4) 针电机: 对针电机进行设置, 选择找零、使能、去使能、正传和反转;

(5) 梭电机: 对梭电机进行设置, 选择找零、使能、去使能、正传和反转;

(6) 升降电机: 对升降电机进行设置, 选择找零、使能、去使能、正传和反转;

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4.5 超级用户 Super user

超级用户:此功能只用于本公司内部人员使用，其包含很多核心功能；

Super user: This function is only used by internal personnel of the company, and contains many core functions;

4.6 关机 Super user

关机:关闭机器的显示屏并断电；

Shutdown: turn off the display of the machine and power off;



5、Quilting function

It goes automatically to the quilting function interface after system starts. There are 5 functions, which are “to start point”, “to offset point”, “set random quilting point”, “fast jump” and “finish quilting” .

5、绗缝功能

开机即进入绗缝功能界面，包括回起绗点、回偏移点、定绗缝点、前进回退、结束绗缝 5 项。



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5.1、To start point

Every pattern has its start point. This function enables working head to move to start point of a pattern. When this function is selected, the screen will display warning information as “The machine is going to actuate, be careful!” Press “confirm” button. If main shaft is at zero position, then execute returning to start point and moving frame to pattern start point and then quit the sequence. Otherwise, machine will give an alarm. Press “cancel” to quit without saving changes.

5.2、To offset point

Move frame rapidly back to offset point. This function can only be effective after offset is set. When this function is selected, the screen will display warning information as “The machine is going to actuate, be careful!” Press “confirm” button and it will quit the sequence if X frame and Y frame are at offset point. Otherwise, machine will test if main shaft is at zero position, if it is, then machine will move X frame and Y frame to offset point and quit the sequence. If main shaft is not at zero position or X frame and Y frame cannot reach offset point, machine will give an alarm. Press “cancel” to quit without saving changes.

5.1、回起绗点

每个花样都有不同的起绗点，执行该功能后机头移动并停留在花样起绗点位置。进入回起绗点功能菜单后提示“机器将会产生动作，注意安全！”警告，按确定键后，如主轴在零位就进行回起绗点操作，把框架移动到花样起绗点处退出；否则就报警。按取消键不做修改退出。

5.2、回偏移点

让绣框快速回到偏移点。只有进行过偏移设定后，此项操作功能才有效。进入该项功能菜单后提示“机器将会产生动作，注意安全！”警告，按确定键后，如 X 和 Y 框架已在偏移点就直接退出；否则就判定主轴是否在零位，如果主轴在零位就移动 X 和 Y 框架到偏移点并退出；如主轴不在零位或者移动 X 或 Y 框架到不了偏移点位就报警。按取消键不做修改退出。

5.3、Set random quilting point

This function is to move working head to positions that need make-up quilting. When this function is selected, the screen will display warning information as “Set current position as quilting point, please make sure that working head will not move out of area.” Press “confirm” to save setting and quit, restart it to start make-up quilting. Press “cancel” to quit without saving changes.

5.4、Fast jump

There are 6 “gears” for “rollback” function, and 6 for “roll forward” function. Except from the 2 gears as “to the end” and “to the start”, other gears are all measured in unit as stitches. This function is mainly used for make-up quilting. Input the stitch number that you want to rollback or roll forward and machine can find the position that needs make-up quilting. Press “confirm” to execute the command after values are set, press “cancel” to quit without saving changes.

5.5、Finish quilting

This function can finish current quilting despite it is done or not. Frame return to zero when this command is executed. Engage this function and machine displays as “The machine is going to actuate, be careful!” Press “confirm” to finish quilting, press “cancel” to quit without saving changes. You must “pause” you machine before let it execute this command.

5.3、定绗缝点

此功能用来强制设定绗缝起始点。将机头移到需要补绗的位置，进入此项功能，此时系统提示“设置当前位置为绗缝点 注意保证机头不要移出限位区域”，按确定键保存设置退出，重新启动开始补绗。按取消键不做设置退出。

5.4、前进回退

前进和后退分别有 6 个档位，除“到最后”、“到开始”两档，其他档位均以针为单位。该功能主要应用在补绣上，输入需要前进或回退的针数后，机器可以直接跳到需要补绣的点位。修改后，按确定键执行操作，按取消键不做修改退出。

5.5、结束绗缝

该项功能用来结束当前作业，不管绗缝作业是否完成，执行结束绗缝后框架归零。进入结束绗缝功能后提示“确定要结束当前花样绗缝？”警告，按确定键则结束当前作业，按取消键不做修改退出。执行此功能须先暂停机器作业。

4-7、Quilting procedure

1.How to perform the first quilting with your machine

Quilting by computerized quilting machine is determined by patterns that stored inside machine. Please follow the precautions and instructions below when conducting your first quilting with this machine.

Step 1: put patterns in flash disc into machine' s system.

Step 2: select and confirm the pattern you want to quilt.

Step 3: prepare fabric and set system parameters.

Step 4: frame check, make sure pattern' s size does not exceeds that of frame in order to prevent working head from hitting frame.

Step 5: all the work above are done, press start button and start quilting.

2.How to launch your quilting machine

Connect machine to power, and rotate the big red button to “ON” position. Press the green “POWER” button in the front of electric cabinet and the display on operation box will display contents. Press the green “AIR” button in the front of electric cabinet to enter main interface and you can start your work with it.

3.Basic procedure of quilting

If this is your first time to use our machine, please follow the instructions below to operate the machine. If this is not your first time with our machine, it is good to learn operation method again.

4-7、绗缝流程

1、如何进行第一次绗缝

电脑绗缝机的绗缝是基于其内存中存储的花样而进行的，在您第一次正式使用机器之前，应该按照如下步骤进行：

第一步：用 U 盘输入您需要绗缝的花样到系统内存中；

第二步：从内存中选择并确定绗缝花样；

第三步：准备材料，设置系统参数；

第四步：边框检查，确认花样的绗缝范围，防止作业中撞框；

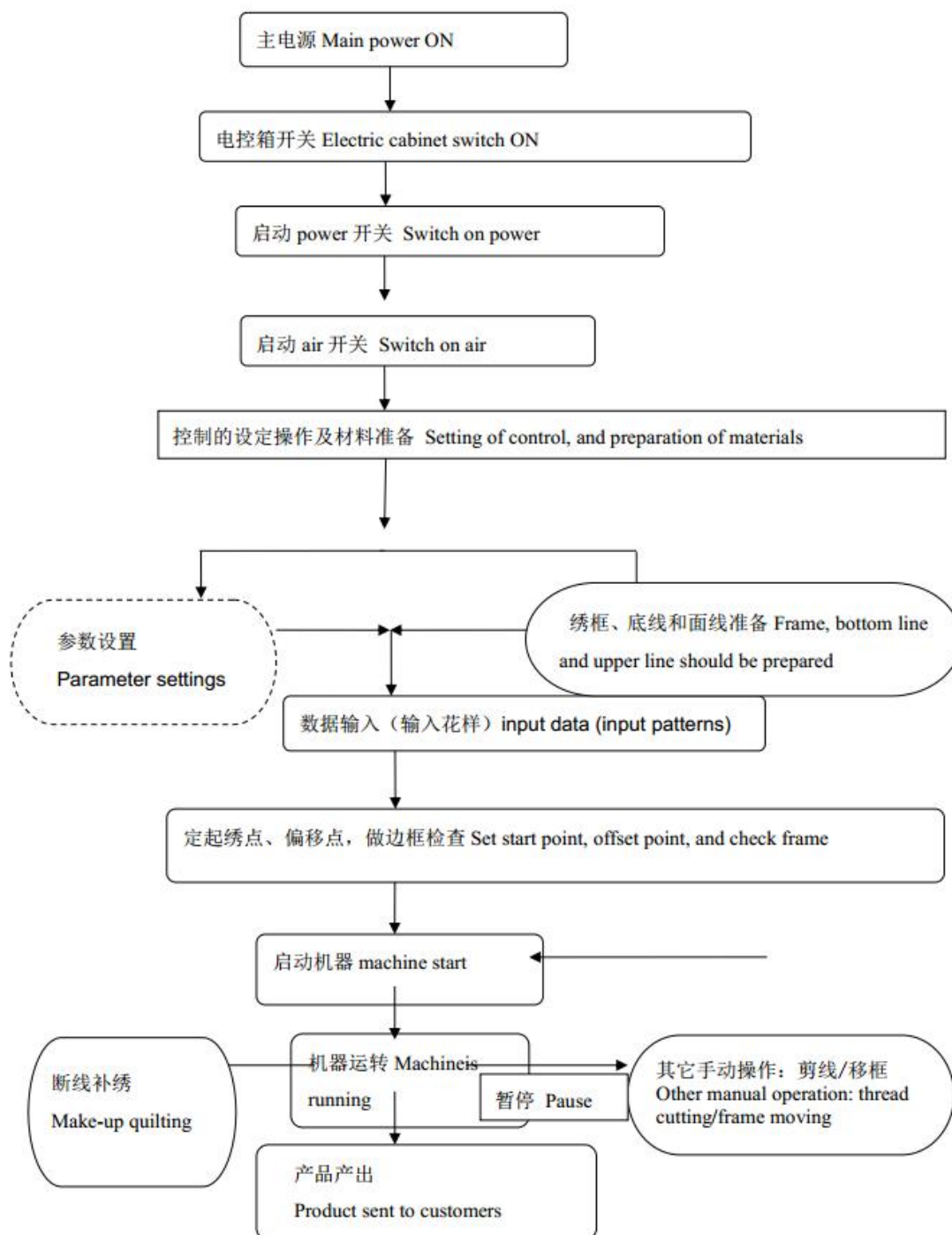
第五步：做完上面工作，按启动按钮，开始绗缝。

2、如何开机

接通电网输入到电控的主电源，然后将大红色开关旋转到 ON；按下电控箱前面的绿色 POWER 按钮，操作箱上的显示器就会开始显示，按下电控箱前面的绿色 AIR 按钮进入主界面后就可以开始操作了。

3、绗缝的基本流程

对于初次使用本机器用户，可以参照下面的操作流程指示来操作；而对于已有使用经验的用户来说，也有助于重新确认操作方法。



【说明】：1、虚线框表示不是每次都要进行的操作，可以跳过，直接进行下一步操作。一次绗缝作业结束后，系统会记住对该花样的参数设置。机器转绗缝其他花样后，再回到已绗缝花样，该花样原有参数设置不变。2、暂停后若要重新启动机器，须主屏幕显示在绗缝功能界面时按绿色启动按钮。

[Note] 1. It is not necessary to follow the instructions in dotted line boxes every time you use your machine, some of them can be skipped to next step. System will remember and store setting for a pattern after quilting, and you do not need to reset parameters again for this pattern after you made other patterns. 2. If you want to restart machine after pause, you will have to press the green button when screen is displaying quilting function interface.

五、Continuous cutting

parameter adjustment process

Note: 3~5 bed cloths are needed for parameter adjustment. The first 3 beds should be made with less elastic cloths. After the machine is calibrated, the last 2 beds should be fine-tuned with the cloths actually used by customers.

Step 1: calibrate the encoder

Place the cutting box in the desired position, parallel to the machine.
Load less elastic cloth, if load a very elastic cloth, can not be calibrated.
For frame zeroing, measure the distance (accurate to mm) from [machine head tip] to [cutting box cutter] along the cloth with a tape or soft ruler, and record and input the parameters of the operation box [zero cutting distance].

Set [cutting compensation] to 0.

Set [cutting confirmation] to off.

Choose a square pattern

The pattern size is set to 800*800

The front: 0

Right: 100

Front and back margin: 100

After entering the quilting state, manually turn the feed press roller to make the feeding end cloth in a slightly relaxed state.

Start the machine, in the automatic quilting state, wait for the machine to cut the first bed block, pause the machine.

Use a ruler to measure the size of the cut cloth in the Y direction (accurate to millimeters).

If it happens to be 1 meter, skip the rest and proceed to the next step.

五、连续切料参数调整流程

说明：调整参数大概需要 3~5 床布料，前 3 床尽量选择弹性较小的布料，将机器校准后，后 2 床使用客户实际使用的布料进行微调。

第一步，校准编码器

将切料箱摆放到需要的位置，切料箱与机器平行。

装入弹性较小的布料，如果装入弹性很大的布料，无法进行校准。

进行框架归零，用卷尺或软尺沿着布料测量从【机头针尖】到【切料箱切刀】的距离（精确到毫米），记录并输入到操作箱【零切距离】的参数中。

将【切料补偿】设置为 0。

将【切料确认】设置为关闭。

选择正方形花样

花样大小设置为 800*800

前面：0

右面：100

前后留边：100

进入绗缝状态后，手动转动进料压辊，使进料端的布料处于略微松弛的状态。

启动机器，在自动绗缝状态下，等待机器切下第一床方块后，暂停机器。

用尺子测量切下布料的 Y 方向大小（精确到毫米）。

如果刚好为 1 米，跳过余下操作，进行下一步

Cutting material compensation is defined as: how many millimeters per meter of cloth compensation. In mm/m

Cutting compensation = 1000mm - actual size

If the actual size of the cloth is 980mm, the cutting compensation is set to 20

If the actual size of the cloth is 1020mm, the cutting compensation is set to -20

Step 2: calibrate the zero tangent distance

After setting the cutting compensation, re-select the pattern.

The pattern parameters are the same as the first step.

After entering the quilting state, manually turn the feed press roller to make the feeding end cloth in a slightly relaxed state.

Start the machine, in the automatic quilting state, wait for the machine to cut the first bed block, pause the machine.

Use a ruler to measure the size of the cut cloth in the Y direction (to the nearest millimeter). At this time, the size of the cloth should be within the error range, if the error range, find other problems of the machine.

If the cutting box is parallel, the encoder is fixed firmly, the encoder coupling is loose, the speed of the front and rear rollers are the same, the fabric elasticity is too big and so on.

After finding the problem, return to the first step of the new operation, until cut out the normal size of the cloth before continuing.

切料补偿的定义为：每 1 米布料补偿多少毫米。单位 mm/m

切料补偿 = 1000mm - 实际大小

如果布料实际大小为 980mm，则切料补偿设置为 20

如果布料实际大小为 1020mm，则切料补偿设置为-20

第二步，校准零切距离

设置完切料补偿后，重新选择一遍花样，花样参数与第一步相同。

进入绗缝状态后，手动转动进料压辊，使进料端的布料处于略微松弛的状态。

启动机器，在自动绗缝状态下，等待机器切下第一床方块后，暂停机器。

用尺子测量切下布料的 Y 方向大小（精确到毫米）。此时布料大小应在误差范围之内，如果超出误差范围，查找机器的其他问题。

如切料箱是否平行、编码器是否固定牢固、编码器联轴器是否有松动，前后辊速度是否相同，布料弹性是否太大等等。

找到问题后返回第一步重新操作，直到切出正常大小的布料后再继续。

Measure the width of the fabric back and forth

So let's say I have La at the front and Lb at the back.

If La = Lb, skip this step and proceed to the next step.

If La is not equal to Lb, the zero tangent distance value needs to be fine-tuned.

Adjusted value = zero tangent distance + (la-lb) /2

For example, the current value is 1500, the actual value of the fabric's front edge is 80, and the back edge is 120

Then the adjusted value = 1500 + (80-120) / 2 = 1480

Note: in the actual situation, the sum of the left and right edges may be greater than 200, which does not affect the calibration result.

Step 3:verify the calibration results

Choose the same fabric, the same pattern, the same test method.

Then make a bed of cloth and test whether the length of the cloth is within the error range and whether the left and right edges are equal (note: it only needs to be equal, not need to be equal to 100).

If it meets the requirements for the next step, do not meet the requirements, repeat the previous method to continue to calibrate or find other problems in the machine.

测量布料的前后留边距离

这里假设前留边为 La，后留边为 Lb。

若 La = Lb 则跳过此步，进行下一步。

若 La 不等于 Lb，则需要微调零切距离的值

调整后的值 = 零切距离当前值 + (La - Lb) /2

如：当前值为 1500，布料前留边实际值为 80，后留边为 120

则调整后的值 = 1500 + (80 - 120) / 2 = 1480

注意：实际情况可能会出现 前后留边的距离之和大于 200 的情况，不影响校准结果。

第三步，验证校准结果

选择同样的布料，同样的花版，同样的测试方法。

再做一床布料，测试布料长度是否在误差范围之内，前后留边是否相等[®]

（注意：只需要相等即可，不需要必须等于 100）。

如果符合要求进行下一步，不符合要求，重复之前的方法继续校准或查找机器其他问题。

Step 4: in fact, the material calibration

Note: as long as the machine or cutting box has not been moved. In the following test and actual production. Do not change the value of zero tangent distance!

Test the square pattern with the fabric that the customer actually USES for production.

Pattern parameters are still selected: 0, left: 100, X: 800, Y: 800, front and back edge: 100

Write down the value of "cutting compensation" calibrated in the first step, and set it to 0.

Start quilting and measure the length of the first piece of cloth. Calculate the compensation amount of cutting material compensation according to the length of cloth.

After input the compensation, select the pattern again and test it again. If the cut fabric length meets the requirements, proceed to the next step.

If not, look for other problems.

If the problem cannot be found and each cutting cannot meet the requirements, it may be that the fabric elasticity of the customer is too large to carry out automatic operation. It is suggested that the customer turn on the "cutting confirmation" function.

If the function of "cutting confirmation" still fails to meet the requirements, it is recommended that the customer use manual operation to ensure the accuracy.

第四步，实际上料校准

注意：只要没有移动过机器或切料箱。在下面的测试和实际生产中。禁止更改【零切距离】的值！

使用客户实际用于生产的布料，进行正方形的花样测试。

花样参数依然选择 前：0，左：100，X：800，Y：800，前后留边：100

先将第一步校准好的【切料补偿】的值记下，然后设置为 0。

启动绗缝，测量第一块布料的长度。根据布料长度计算切料补偿的补偿量。

输入补偿后，重新选一遍花样再次测试，如果切下的布料长度符合要求进行下一步操作。

如果不符合要求，查找其他问题。

若找不到问题且每次切料都不能满足要求，可能是客户的布料弹性太大，不能进行自动操作，建议客户开启【切料确认】功能。

如果开启【切料确认】功能后仍不能满足要求，建议客户全部使用手动操作以保证精度。

Step 5: trial production and commissioning

Select the customer's actual fabric and pattern, trial production of a bed. According to the calibration results of the fourth step, the total length of the single bed cloth should meet the requirements at this time without changing the cloth. The trailing edges should be equal.

If the pattern shrinks due to fabric shrinkage and the front and rear edges increase, then increase the size of the pattern according to the actual situation and reduce the size of the front and rear edges.

Summary: zero cutting distance: the frame to zero zero distance from the actual cutting knife cloth travel distance. The parameters of the machine do not change with the change of pattern or cloth, once the calibration is qualified, do not change. Cutting compensation: the parameter used to compensate the encoder count. It needs to be calibrated according to different fabrics and stick diameters.

In theory, every bed with different elasticity needs to be recalibrated. Before recalibration, it needs to be set to 0, and then adjust the calibration value according to the actual cutting size.

第五步，试生产调试

选择客户实际的布料和实际花样，试生产一床。

根据第四步的校准结果，在不更改布料的情况下，此时单床布料的总长度应该符合要求。前后留边应该相等。

如果出现因为布料收缩造成的花样缩小，前后留边增大，则根据实际情况增大花样的大小，减小前后留边的大小。

总结：零切距离：框架归零零点距离切刀的实际布料的行进距离。是机器参数，不随花样或布料的变化而变化，一旦校准合格后，禁止更改。切料补偿：用来补偿编码器计数的参数。需要根据不同布料、不同棍子直径来校准。理论上每换过一床弹性不同的物料均需要重新校准一次，校准前需要先设置成 0，然后根据实际切料大小调整校准值。

六、一般故障分析及处理 General fault analysis and treatment

故障类型	原因分析	处理方法
断针	1、选用机针不当或机针弯曲 2、缝件过厚或夹有硬杂物 3、旋梭松动,针梭配合不当 4、压脚松动移位	调整 检查、清理 检查、清理 检查、清理
跳针	1、选用机针不当或机针弯曲 2、机针装法不当 3、机针与旋梭配合不当	调换机针 调整 调整针高低, 或针梭间隙、角度
断面线	1、穿线错误 2、面线太紧 3、面线质量差 4、机针粗糙, 针孔毛糙 5、穿线系统中有不光滑处 6、机针与旋梭配合不当	调整 调整 换线, 建议使用具 60 支 3 股涤纶线 调换修正 检查, 砂磨光洁 调整针高低, 或针梭间隙、角度
断底线	1、底线太紧 2、梭芯绕线松乱不均 3、针板孔磨损或有毛刺	调整梭芯套簧片压力 调换梭芯 调换针板或将孔砂磨光滑
线迹	1、面线松紧不当 2、底线松紧不当 3、挑线簧过松	细心调整面线 细心调整底线 调整

富怡

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fault type	reason analysis	handling method
Broken needle	1. Improper needle selection or needle bending 2. The sewing parts are too thick or clamped with hard sundries 3, loose hook, needle shuttle with improper 4. The pressure foot becomes loose and shifts	1.Adjust the 2.Inspection and cleaning 3.Inspection and cleaning 4.Inspection and cleaning
Skipping stitch	1. Improper needle selection or needle bending 2. Improper needle mounting 3. Improper matching between needle and hook	1.Change the needle 2.Adjust 3.Adjust needle height, or needle shuttle clearance, Angle
Surface line truncated	1. Wrong threading 2. The face line is too tight 3. Poor quality of surface line 4, machine needle rough, pinhole rough 5, there is no smooth in the threading system 6. Improper matching between needle and hook	1.Adjust 2.Adjust 3.For thread change, 60 3-ply polyester threads are recommended 4.Change the revision 5.Check, sanding smooth 6.Adjust needle height, or needle shuttle clearance, Angle
Bottom line truncated	1. The bottom line is too tight 2, bobbin winding loose and uneven 3, needle plate hole wear or burr	1.Adjust spring pressure of bobbin sleeve 2.Changing the bobbin 3.Replace the needle plate or sand the hole smooth
Stitch	1. Improper tightness of surface line 2. Improper tightness of the bottom line 3. Thread take-up spring is too loose	1.Carefully adjust the surface lines 2.Bottom line 3.Adjust the

6-1 Quilting quality problems and disposition methods

1. Failed stitch

Failed stitch is usually caused by mal-coordination of needle and hook, and fault adjustment of presser foot elevation. To solve this, reset the space between needle and hook, and position of thread-catching of hook (that is, to adjust the height of needle bar). Different fabrics require threads of different quality, and various presser foot elevations. Also, tension of bottom thread and that of upper thread should be coordinated. If you tried this method and failed stitch still happens, please try adjusting the position of zero position sensor of upper working head hook-tip to change return-stroke distance of needle bar.

The stroke distance ranges from 1.5 to 2.5 (Note: after you adjusted the position of zero position sensor of upper working head hook-tip, you should also change the position of zero position sensor of lower working head hook). If the both methods do not work, and fail stitch repeatedly happens on some specific position on fabric, please check guide rails in X-direction and Y-direction and drive belts and see if there are stagnation or abnormality. Or check the space between needle and hook at different position of rack and see if it is out of tolerance range, if it is, then check rack's front and rear guide rails' shafts, see if they are parallel to each other.

6-1、绗缝质量问题及解决方法

1、丢针

机器出现丢针现象，问题主要集中在针梭配合和压脚高低调节上，重新调整针梭的间隙以及梭尖勾线位置（即调节针杆高低），根据所缝布料的不同，面线质量和压脚高低也会相应改变，同时还要求底线和面线的松紧配合适当。若继续丢针则尝试调整上机头梭尖零位传感器的位置从而改变针杆的回程距离，针杆回程一般是1.5—2.5，之间。（注意梭尖零位传感器调整后，下机头梭子零位传感器位置随之改变）。如果以上方法都无效，而且丢针总发生在某些固定的位置，则查看当机头移动到该位置时，X向和Y向的导轨以及皮带等有无卡滞或异常。或者查看针梭间距在鞍架各个位置是否超出公差要求的范围，若超标则检验鞍架前、后导轨轴是否平行。

2.Thread breakage

Thread breakage can be divided as upper thread breakage and bottom thread breakage, and their causes are as below:

(1) Occasional thread jamming on route, or rough bottom thread.

Disposal: change to smooth bottom threads and keep the route clean.

(2) Too tight upper thread, rough edges on faller hole and presser foot hole, and break needle and skewing needle that causing rough edges on rotary hook. Disposal: you can use little rotary knob to ease upper thread. Rough edges can be removed with cloth strip and abrasive paper (1000cc).

(3) Thread jamming caused by too small space between positioning finger and rotary hook core.

(4) Thread picker is blocked by rotary hook core after picking. Disposal: adjust thread picker's screws.

(5) Too much or too little needle bar return stroke distance, which makes hook-tip unable to pick thread successfully. Disposal: reset return stroke distance.

2、断线

断线可分为断面线和断底线两种，一般断线可能情况有以下几种：

(1) 线路过线不顺畅偶尔卡线，或者底线不光滑有毛球，至使过线不畅快。解决方法：换成比较光滑的底线并清理线路上的杂物和障碍。

(2) 面线太紧、针板孔、压脚孔有毛刺、旋梭由于断针或挤针产生毛刺。处理方法：面线紧可以调节小旋钮，针板、压脚和旋梭的毛刺可以用布条+抛光蜡细砂纸（1000cc）等清除。

(3) 定位手指与旋梭芯的缝隙太小发生塞线；

(4) 扣线叉完成扣线动作后卡在梭芯上下不来。解决方法：重新调整扣线叉固定螺钉。

(5) 针杆回程太大或太小，使梭尖不能顺利勾线。解决方法：重新调整回程。

3. Malfunction in cutting

(1) Both upper thread and bottom thread are not break after cutting. Disposal: one possibility could be the still blade and actuating blade are too far behind, which causes the actuating blade unable to reach thread. You just need to move the blades forward, or move positioning finger a little bit left. Another possibility could be the still blade is not in the right position or it is blunt. You need to change blade and reset its position to tackle this.

(2) After cutting, upper thread loosens when quilting.

Disposal:

a、Check if presser foot is pressing fabric with right strength, if the strength is too small, it will cause loose upper thread when starting quilting.

b、If you tried step 1 and it does not work, then try descending thread picker a little bit, and the thread behind will be longer after cutting.

c、If neither of the 2 methods works, please try making little adjustment to the position of upper working head main shaft zero position sensor. By this, the position of take-up-lever could be higher when upper working head main shaft is at zero position, and when starting to quilt (the first stitch), upper thread takes up less than before and it reduces chances of thread being dragged out.

3、剪线问题

(1) 剪线动作完成后，底线面线均未剪断。

解决方法：一种情况是由于剪线定刀动刀整体偏后，造成动刀回刀时没勾住线。所以松掉剪刀固定座的螺钉，将剪刀整体向前移动即可。或者将定位手指向左移动一点，动刀也可以把线勾住；还有一种情况是由于定刀未调整好或者刀钝，造成剪线后线没有完全剪断，跨步后线依然在被子里。更换剪刀、调整定刀位置。

(2) 剪线完成，继续绗缝面线松脱。

解决方法：

a、查看压脚压料松紧是否合适，如果压料太松起绣时面线偶尔会松脱。

b、如果调整压脚后无效果，可将扣线叉安装位置向下调整这样剪线后面线会变长一点。

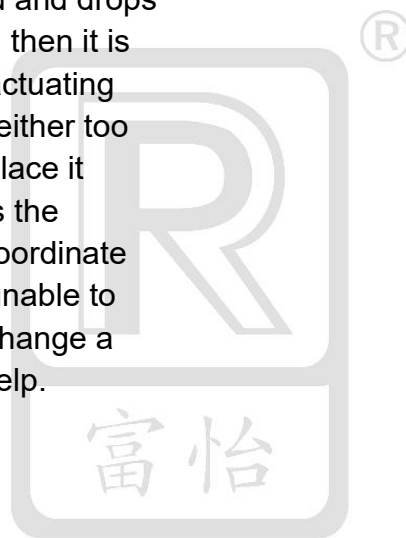
c、上述均无效果可以稍调整上机头主轴零位传感器位置，使上机头主轴零位时挑线杆位置高一点，这样起绗时（第一针）面线收线变少，很大程度上减少了脱线机率。

3. After cutting is performed, bottom thread is not clamped, or upper thread is dragged out of needle eye if quilting continues, though bottom thread is clamped.

Disposal: unclamped bottom thread after cutting is caused by the actuating blade, which moves too fast. It cuts thread before thread moves to clamping reed. You can adjust cutting air cylinder valve to make the blade move slower. If bottom thread is clamped and drops out in quilting afterwards, then it is because the position of actuating blade where it returns is either too much left or right to the place it should be at. That makes the actuating blade cannot coordinate with clamping reed and unable to clamp thread securely. Change a new clamping reed will help.

(3) 剪线后，底线未夹住或夹住后若继续绗缝面线脱出针孔。

解决方法：剪线后底线未夹住，是因为动刀回刀太快，在线进入夹线簧片之前断掉，可以适当调节剪线气缸节流阀，使回刀动作缓慢进行；若底线夹住后继续绗缝松脱，是因为动刀回刀后位置太靠里或靠外，致使动刀与夹线簧片之间配合不当夹线不牢固，更换新的夹线簧片会。



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6-2、System errors and disposition methods

1.Main shaft stays not at zero position.

(1) Main shaft sensor (main shaft zero position sensor) does not detect magnet. First of all, restore position of hook and needle, then check if the main shaft zero position sensor and hook zero position sensor light up at same time. If they do not light up, please check if magnet is close to sensor and circuits are good or not.

(2) If sensors light up, use magnet to test main shaft sensors and see if they work. If they do not work, then it means malfunction in mainboard or main shaft sensors, please change mainboard or main shaft sensor.

2.Main shaft system malfunction

(1) Check sensors for main shaft zero position, needle zero position, needle upper position, hook zero position and hook-tip zero position and see if their signals are good or not.

(2) Slave control IO program or mainboard malfunction, change another IO program or mainboard.

3.Hook stays not at zero position.

(1) Unable to perform operation on needle, then try operating on hook first.

(2) Hook sensor does not detect magnet, try checking hook zero position sensor lights up after needle and hook restoration, then check main shaft zero position circuits and wires and see if they are good or not.

6-2、系统报错及解决方法

1、主轴不在零位：

(1) 主轴传感器（即主轴零位传感器）没有感应到磁铁。先对梭、对针、针梭复位，查看主轴零位和梭子零位两个传感器是否同时变亮。若没有变亮请查看是没有对准磁铁还是有线路问题。

(2) 若传感器亮，且在传感信号测试里手动用磁钢给主轴传感器信号，检查传感器是否有效，如果无效，说明主板或主轴传感器有问题，更换主板或主轴传感器。

2、主轴系统故障：

(1) 检查主轴零位、机针零位、机针上位、梭子零位、梭尖零位传感信号是否正常；

(2) 从控 IO 程序或主板坏，更换 IO 程序或主板。

3、梭不在零位：

(1) 不能进行对针操作，先进行对梭操作；

(2) 梭子传感器没有感应到磁钢，先检查针梭复位后梭子零位传感器是否变亮，再检查主轴零位线路是否有问题；

(3) In sensor signal test, use magnet to test hook sensor and see if there is signal comes out from it. If no signal at all, it means mainboard or hook sensor malfunction, please change mainboard or main shaft sensor.

4.X left limit, X right limit: X limitation sensor detects limitation blocks. Please check if frame moving exceeds range, or wrong placement of limitation blocks.

5.Y limit: Y limitation sensor detects limitation blocks. Please check if frame moving exceeds range, or wrong placement of limitation blocks.

6.Needle stays not at zero position: before launch machine, make sure that needle is at zero position (main shaft zero position). If it is not, please perform needle and hook zeroing.

7.Needle stays not at high position: before needle and hook alignment, needle must be at high position (the light of needle high position sensor is off), or please perform needle high position operation.

8.Wrong position of working head: microswitches for working head position adjustment do not work, could be caused by wrong installation or failure.

9.Low air pressure stop: air pressure is lower than min. limit, please check air source.

10.Awaiting frame-moving overtime:When the pattern moves the frame, it exceeds the estimated time. Check whether there is something wrong with the pattern. Check whether the x-direction and y-direction motor power is connected.

(3) 在传感信号测试里手动用磁钢给梭子传感器信号，检查传感器是否有效，如果无效，说明主板或梭子传感器有问题，更换主板或主轴传感器。

4、X 左限位，X 右限位：X 限位传感器感应到了感应块。检查是否移框超出范围，或感应块放置不正确。

5、Y 架限位：Y 限位传感器感应到了感应块。检查是否移框超出范围，或感应块放置不正确。

6、针不在零位：开车前，针必须在零位（主轴零位）请先进行针梭零位操作。

7、针不在高位：对梭前，针必须在高位（即针高位传感器熄灭）请先进行针高位操作。

8、机头位置错：机头位置的微动开关没有感应，安装错误或损坏。

9、气压不足停车：气压低于设定值机器无法正常使用，请检查气源。

10、等待移框超时：花样跨步移框时超出了预计时间，检查花版是否有问题，检查 X 向，Y 向电机电源是否连通。

11.Power failure: please check the 5V and 12V switch power. If the voltage is low, please use the potentiometer to adjust. If there is no voltage, please change power source.

12.Start button malfunction: change the green start button.

13.Stop button malfunction: change the black stop button.

14.Main shaft sensor malfunction: check the types of main shaft sensors are right.

15.Pattern exceeds scope: size of pattern exceeds machine's working area.

16.Wrong pattern data: (1) Check power input. (2) Mainboard malfunctions.

17.Due date, please input password: password for installment of one period is no longer effective. Please contact us for new password.

18.Wrong installation of sensors or magnet: please check the type of sensor.

19.Thread breakage stop: caused by breakage of upper thread or bottom thread, please press the green button and continue quilting after threading.

20.Button stop: press the black button and "pause" quilting.

21.Finished production: quilting of a pattern is done.

22.End of quilting: pattern quilting is done or hit finish button manually.

11、开关电源故障：检查开关电源 5V 和 12V, 如果电压偏低可调整开关电源上的可调电位器；若无电压输出，请更换开关电源。

12、启动按钮故障：更换绿色启动开关。

13、停止按钮故障：更换黑色停止开关。

14、主轴传感器错：检查主轴传感器型号是否正确。

15、花样超限：花样大小超出范围。

16、花样数据错：（1）检查电源输入是否正常。（2）主板损坏。

17、日期已到，请输入密码：分期付款密码到期，请与厂家联系索要密码。

18、传感器或磁钢安装错误：检查传感器型号。

19、断线停车：面线或底线断掉，请穿线后按绿色开始按钮继续绗缝。®

20、按钮停车：按黑色按钮暂停。

21、完成产量：完成本花样绗缝。

22、绗缝结束：花样绗缝完毕或手动点结束。

七、Maintenance and repair

Routine maintenance: Because the machine continuous working at high speed, causes the screw, the nut, and the filling piece to become loose, operator should carry on the inspection as necessary and, prevents the breakdown loss as far as possible.

1. Listen : if there's unusual sound, shutdown and check the machine
 2. Observe: if there's machine unusual movement, shutdown and check the machine
 3. Smell: if there is unusual smell, shutdown and check the machine
 4. Check if lubrication is needed. The movement part lubrication is extremely important. In order to below guarantee, the machine long-term normal operation extension service life achieves the current maintenance.
- Grease: 2# lubricating oil, white oil: 1# sewing machine oil

七、保养和维护

日常维护：由于机器高速连续运转，使运动零件与其相关的紧固螺钉、螺母、垫片等可能松动，通过响声观察，随时进行检查，尽量预防故障减少故障损失。

- 1、检查有无异常声音，发现后停机检查。
 - 2、观察机器有无异常动作，发现后停机检查。
 - 3、检查有无异味，发现后停机检查。
 - 4、检查保养加油情况
- 日常保养：运动部件润滑是非常重要的。为保证机器长期正常运行延长使用寿命做到以下日常保养。黄油：2# 钙基润滑油。白油：1# 缝纫机油。

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加油部件	加油部位	间隔时间	备注
油杯	上机头、下机头	1周左右	加白油，保证有油！
给油器	气动元件	1个月	加缝纫机油
上下机头导轨轴	4根导轨轴	3个月	加黄油
Y向直线导轨	导轨表面，滑动体	3个月	加黄油
切料箱	直线导轨轴、链条	3个月	加黄油

Parts to lubricate	spot to lubricate	Interval	Note
Lubricate cup	Upper head ,lower head	About one week	Adds the sewing-machine oil , the attention observation
Lubricate feeder	Air operated part	One month	Adds the sewing-machine oil
Head linea rail	four linea rail axis	three months	Adds the grease
Y-axis linea rail	Linea rail ,glide part	three months	Adds the grease
	Linea rail axis , chain	three months	Adds the grease

富怡

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八、Service and Warranty period

8-1、Service

There's a worldwide response center, there are engineers on duty 24 hours/day, 7 days/week to provide support to our customer with free of charge, their service include: phone-in consulting, software upgrade, answer questions, receive and process parts order, dispatch engineer etc.

8-2、Warranty period

1. Warranty period and start time

One year warranty is provided to the machine, that is, within 12 months start from good delivered, in case of the machine has been proper used and maintained by user, Richpeace is responsible for all service parts and labor with free of charge.

2. The cost of the warranty period

Responsibility of customer:

Overseas and local transportation and accommodation of RP service engineer.

3. Disclaimer

Improper operation or failure to maintain the machine by the customer does not belong to the scope of warranty.

Consumables (such as needles, thread, bobbin, etc.) are not covered by this warranty.

八、服务和保修期

8-1、服务

富怡公司技术服务中心每周 7 天，每天 24 小时有资深工程师值班，免费在线为客户提供技术咨询，软件升级，答疑，软件纠错，备件订购，工程师派遣等服务。

8-2、保修期

1、保修期的起始时间和长度

富怡公司为产品提供 12 个月的保修期。自产品到达客户现场并完成安装调试，经客户验收后开始。

2、保修期的费用

客户担负富怡工程师赴现场维修的差旅费，住宿费，餐费等其它费用。

3、免责声明

客户不当操作或没有保养机器造成的故障不属于保修范畴。

消耗品(如针、线、梭芯等)不属于保修范畴。

九、Service life and disposal of scrapped products

9-1、Product life

10 years

9-2、End-of-life treatment

Electrical part:reasonable treatment according to local laws and regulations

Mechanical part:reasonable treatment according to local laws and regulations

十、Accessory

Maintenance drawing

九、产品使用年限和报废处理

9-1、产品使用年限

10 年

9-2、产品报废处理

电气部分： 根据当地法律法规进行合理处理

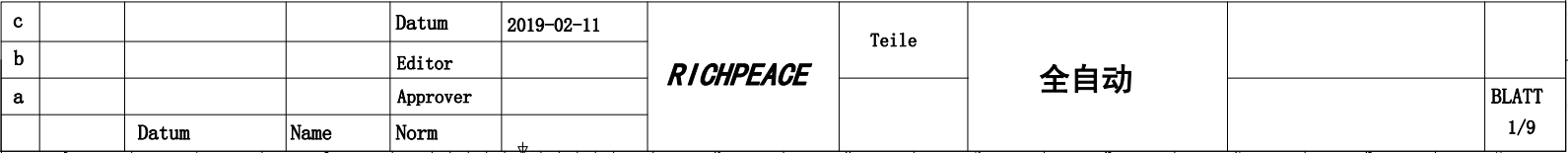
机械部分： 根据当地法律法规进行合理处理®

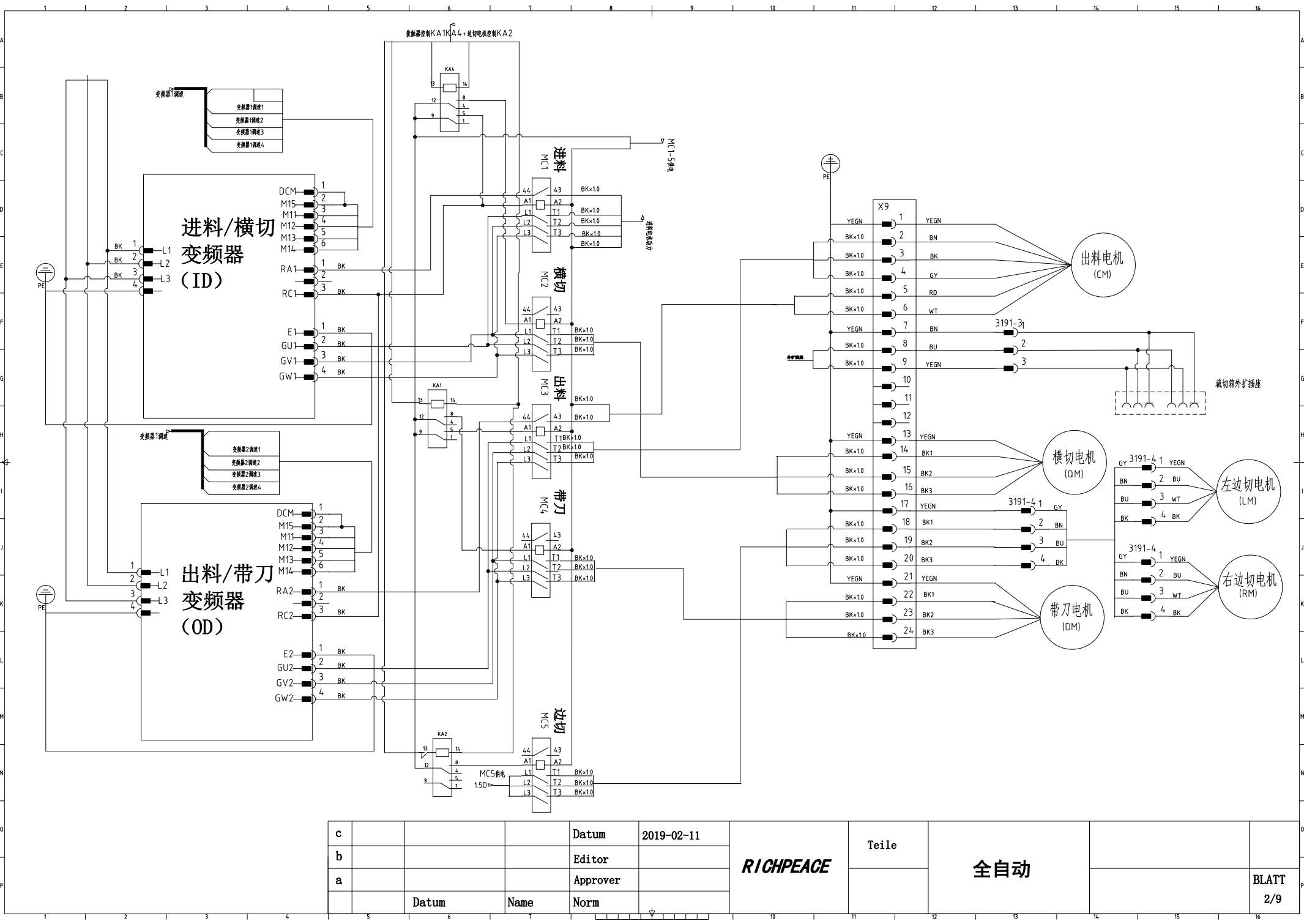
十、附件

维护检修图纸



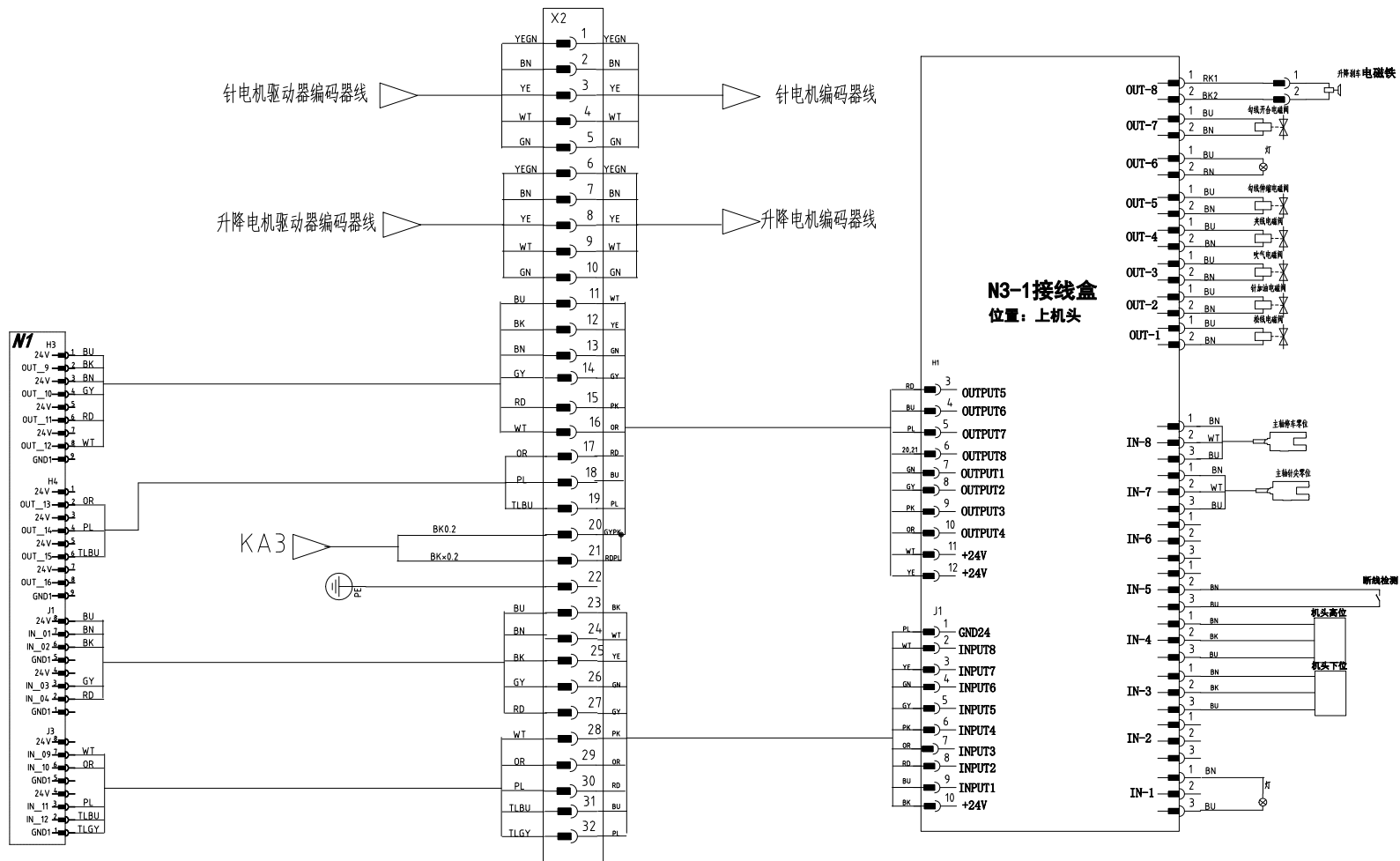
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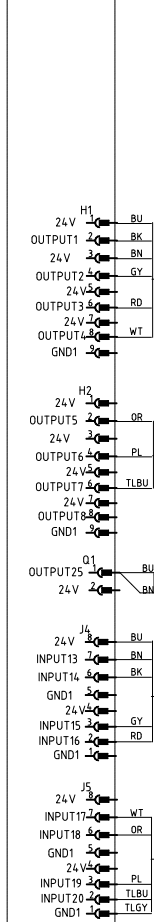
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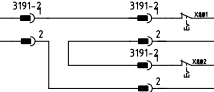
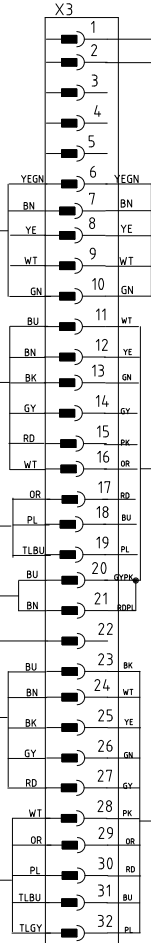


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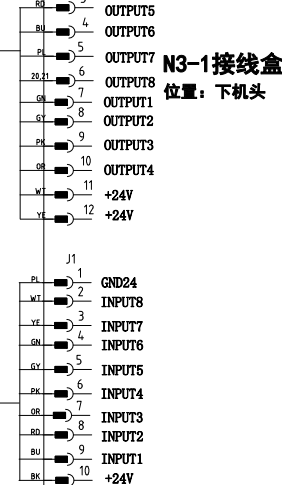
N1



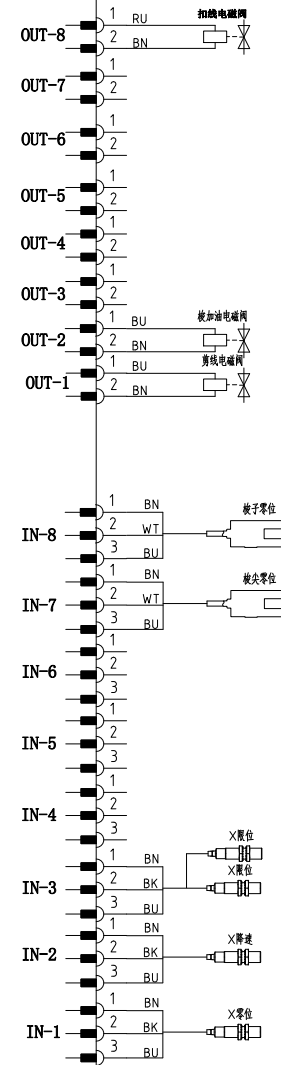
梭电机驱动器编码器线



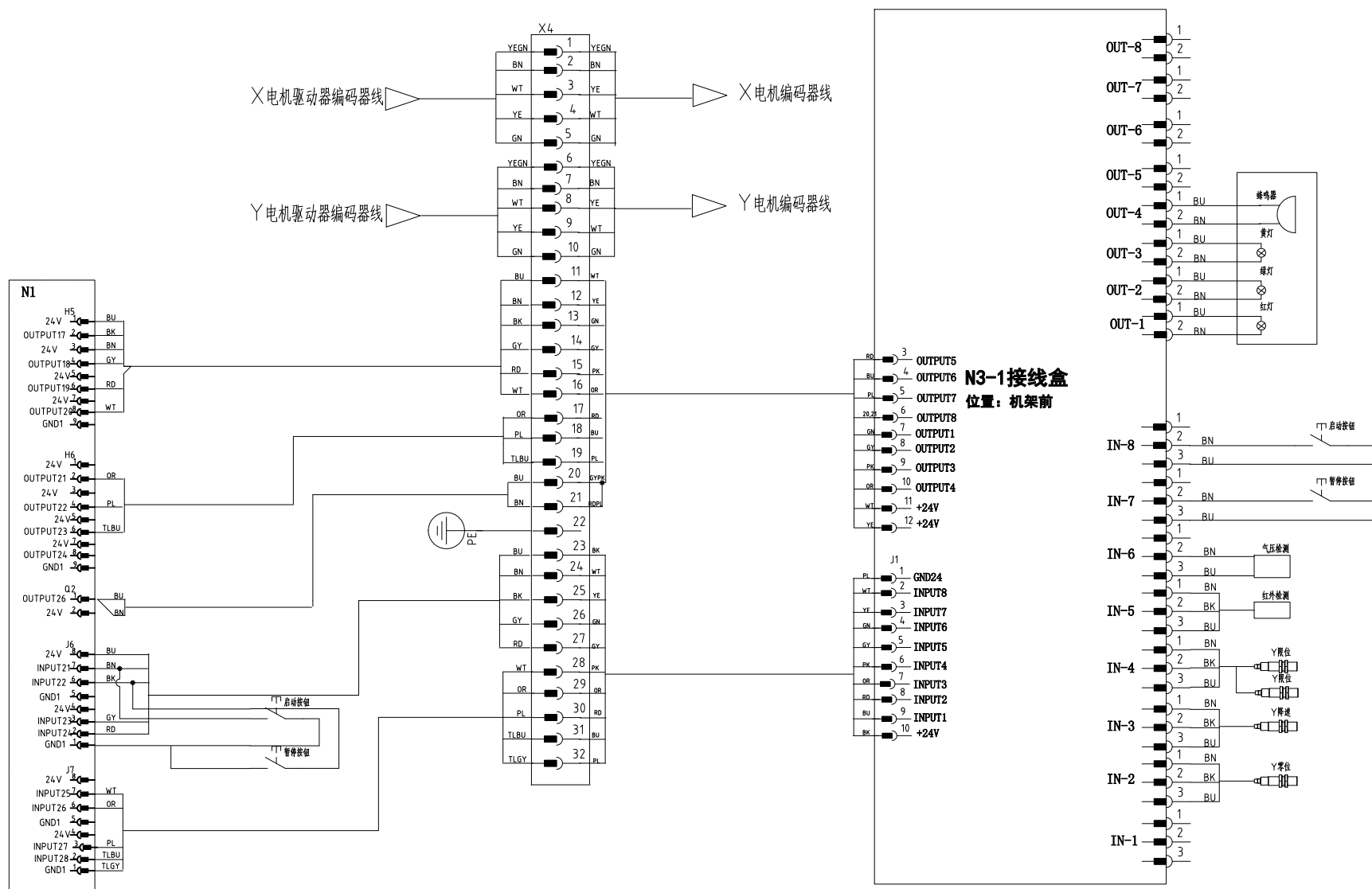
梭电机编码器线



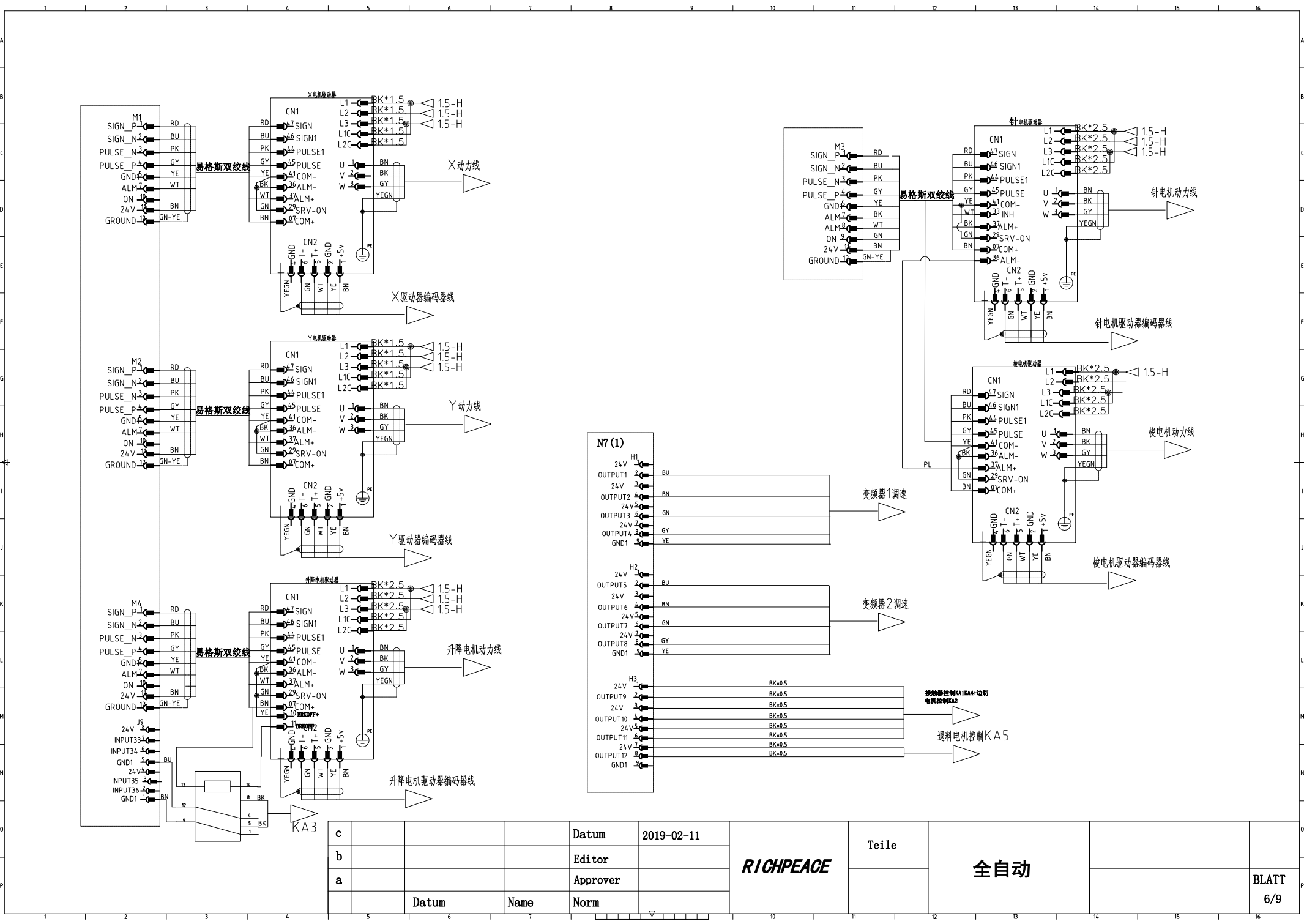
N3-1接线盒
位置: 下机头



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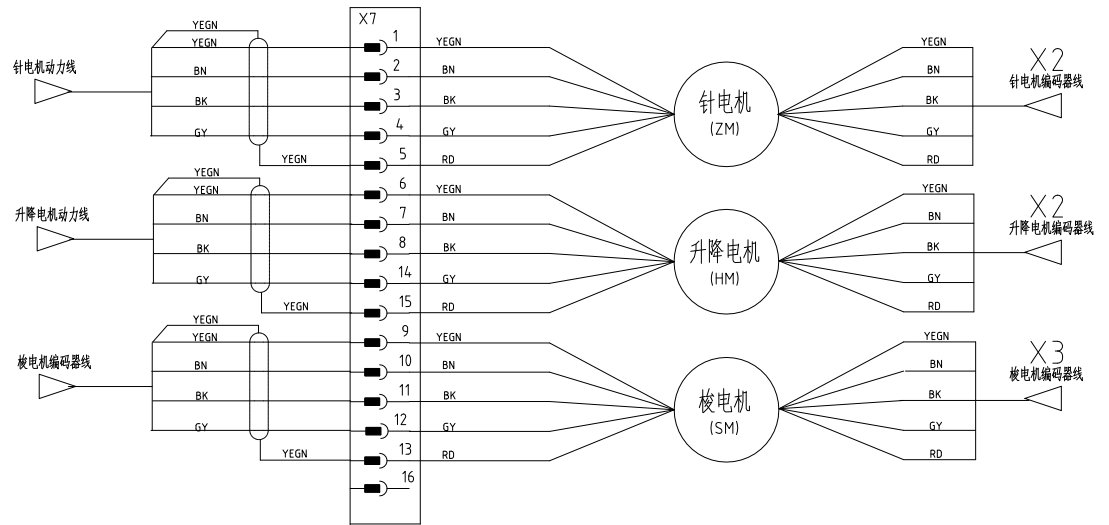
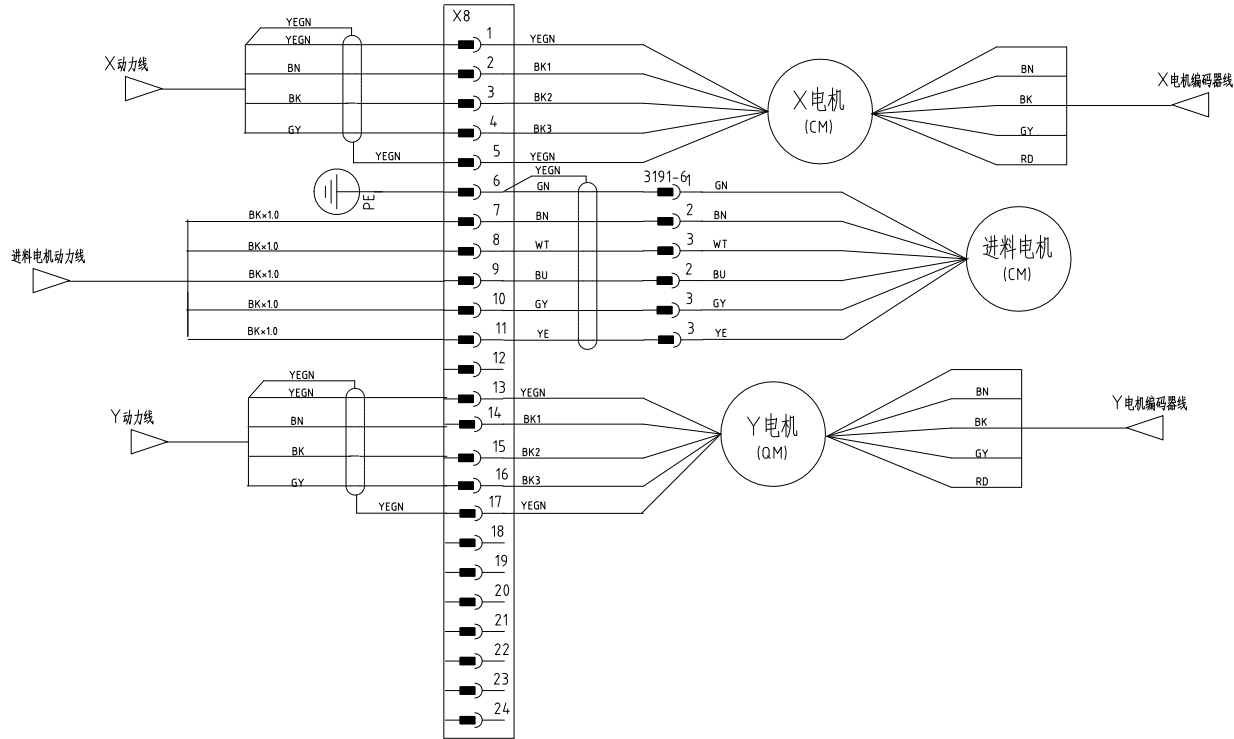
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