卷下摆弧度褶度系统

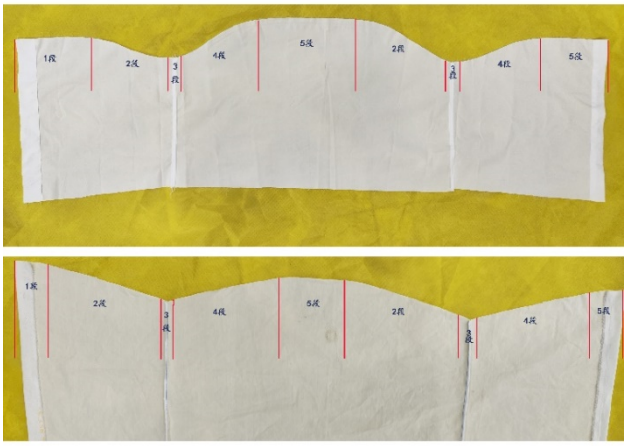
Shirts Bottom Hemming

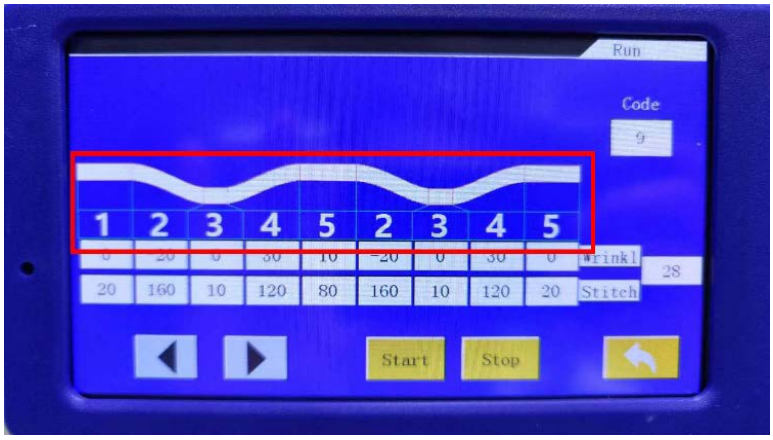
Radian&Wrinkle Control System

操作说明书

User Manual

Your smart differential machine with a programmable system to help you sewing a beautiful bottom hemming for shirt, skirt and other required garment. For your easy operation, pls do to read the User Manul carefully and make trail on your machine first before bulk production.





一、衬衫下摆的分段 Segmentation for Shirt Bottom

P 1 P 2

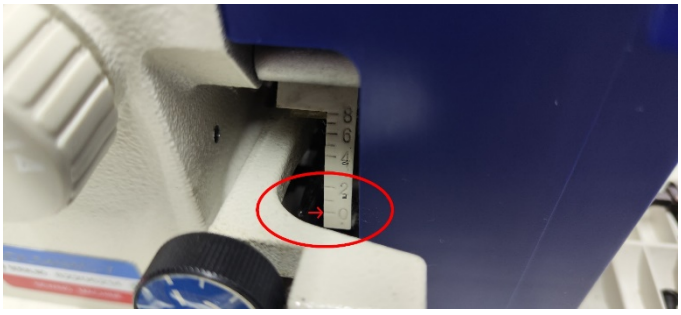
我们将衣服下摆朝上，大身朝下摆放 **(**如图 **P1** 所示**)**，下摆形状跟电控显示图像相吻合，我们将下摆分成 **9** 段，丝流相同为一小段，丝流改变则分至下一段。

Put the bottom upside on the tabe as per showing P1, the shape will be same as showing on machine touch display. We are devided the bottom as 9 segments, same cut line as one segment.

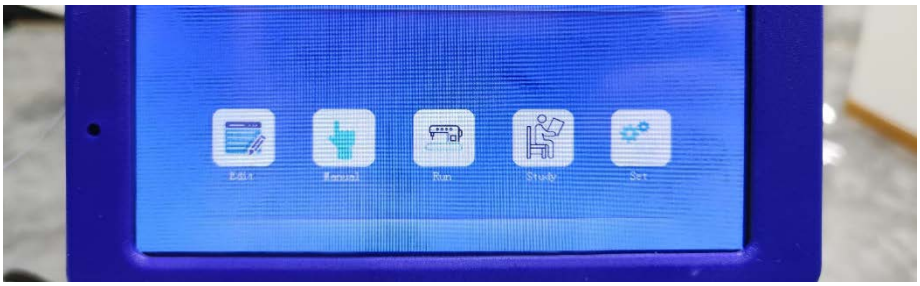
二、编辑程序 ProgramEditing

1, 在程序启动前，我们需将机械部分，上差动指针调至**"0"**位，转动倒缝扳手上的蓝色旋钮，调节上差动指针指到**"0"**（如下图所示）我们将机械部分上差动调至**"0"**，防止程序启动后，机械部分影响电控的参数。

Your machine euquiped auto differential adjustment system. Before do the program editing, pls set the mechanical differential dial to "0" as below photo P3; The reason to do this to aviod distub of the mechanism to auto system



2, 接通电源，打开电源开关，进入主界面 **Power On, Enter Main Interface**



3, 选择版本号 **Select the Program No.**

系统可以存储 **99** 个程序，编辑前，先选择一个版本号进行编辑，编辑完后该版本号对应本次编辑花样。

Press Run, Enter program selection mode, system can save up to 99 programs, enter program no, press Enter Button to select the program you want to edit. See P5

Program Code: System can save up to 99 programs, enter program no, press Enter Button to select the program you want to edit

P5

4, 点击学习模式进入学习模式

Back to Main Interface, Press “Study” Enter Study mode

Press “Study” Button, Enter Study Mode

P6

In Study mode, we are carry out trail sewing to make the system count the number of stitch for each segments. As per our segmentation of the bottom show on P1 & P2.

FOR TRAIL SEWING, NEED TO PRESS "SAVE" AT THE END OF EACH SEGMENT

P7

在学习模式中，我们重点是通过试缝来计算每一段落的针数（**stitch**），按我们衣服的对应分段，缝制到位后停顿一下点击保存按钮。

4.1 点击"启动"按钮，程序启动 **Press "Start", System start work.**

P8

P9 The Segent 1 will be highlighted

Special Reminder: DO NOT USE AUTO /MANUAL THREAD TRIMMER FUNCTION UNTIL THE END OF THE PROGRAM EDITING

P

Press foot padel to start sewing for machine study.

Do not use auto /manual thread trimmer function until the end of the program

4.2 缝制到第 **1** 段结束，松开踏板，机头停止（不要剪线脚踏板不要后踏），我们在点击液晶显示屏上保存健，保存第一段参数。

Release foot Padel to stop sewing after complete sewing of first segment, **Do not do thread trimming, Do not press back padel, Press "Save" button for saving first segment stitch qty.**
(our sample photo shows 49)

4.3 点击**"**保存**"**后，第 **1** 段实际针数，保存至第 **1** 段针数栏下，系统自动进入第 **2** 段接着缝制第 **2** 段

After Press Save, The stitch qty of first segment will save and showing at the stitch colum of 1 (Here our sample is 49). Continue for second segment sewing, Segment 2 will be highlighted.
Do not do thread trimming, Do not press back padel, Press "Save" button for saving first segment stitch qty.

4.4 继续缝制第 **2** 段，在第 **2** 段结束后，停止缝制，点击**"**保存**"** 保存后，实际针数自动计入第二段 **2** 针数栏，系统跳至第 **3** 段。

After complete the second segment sewing, press "SAVE" button, Stitch quantity will save to stitch colum of 2, system auto moving to third segment sewing (3rd segment will be highlighted)

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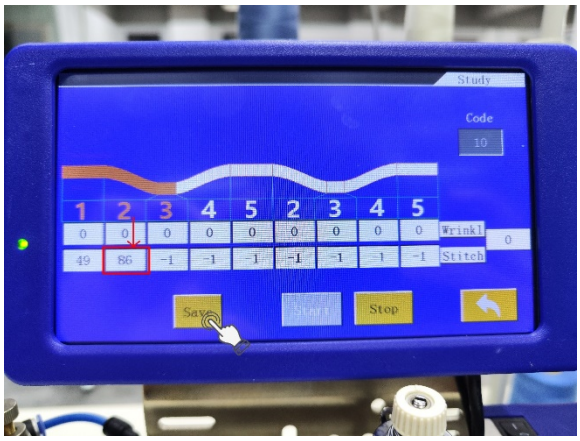
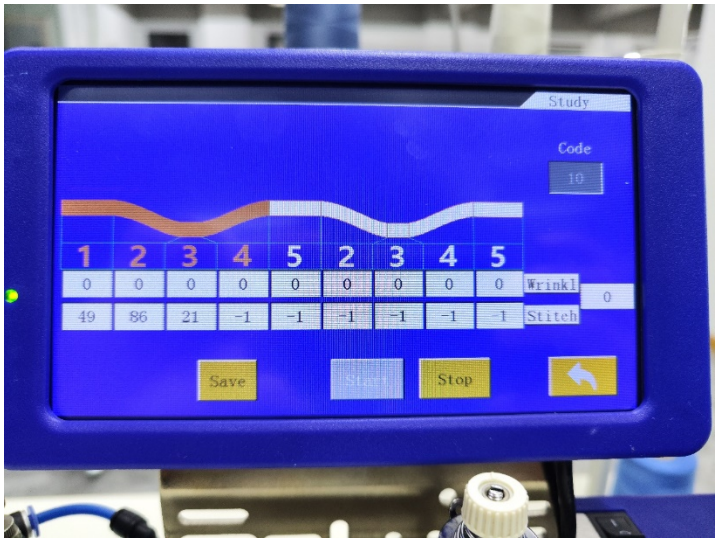


P13

Stop sewing at the end of each segment, press "SAVE" Button, Do NOT use Thread Timming.

4.5 第 **3** 段缝制结束，点击保存，继续进入第 **4** 段缝制，后续段落针数计算，按我们衬衫下摆的分段，以此类推计算针数

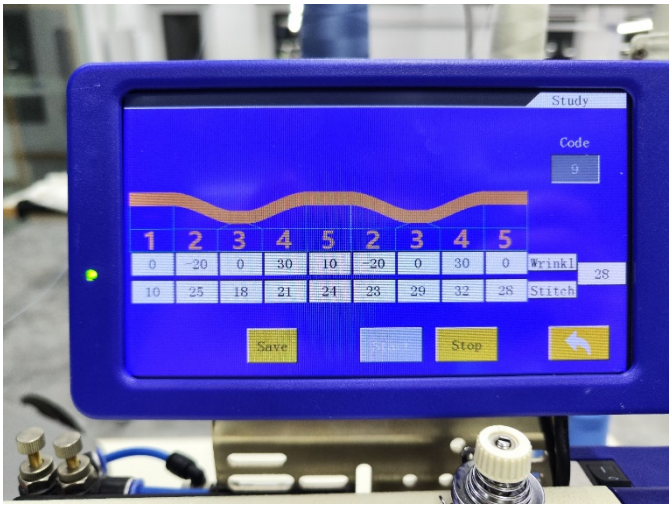
Completed third segment sewing, continue for next segment, same operations till the last segment.



P15 P16

4.6 最后我们缝制到最后段时，需注意，先点保存，再剪线。保存完最后一段，学习模式完成，系统会提示**"**学习完成**"**提示**.**到此，我们在学习模式中，需要编辑的针数，全部编辑完成，可以退出进入运行模式。

After complete the sewing of last segment, pls note FIRST PRESS "SAVE", THEN DO THREAD TRIMMING,till now, our study mode procedure is done. The display will show "Study Over" as P18, We can back to main interface and enter "Run" mode.



P17 P18

三、皱度设置（上差动量设置）Wrinkle/Differential Ratio Setting

1、 从主界面，点击“运行模式”进入 Press “Run” button enter Run Mode

Press “RUN” Button Enter Run mode

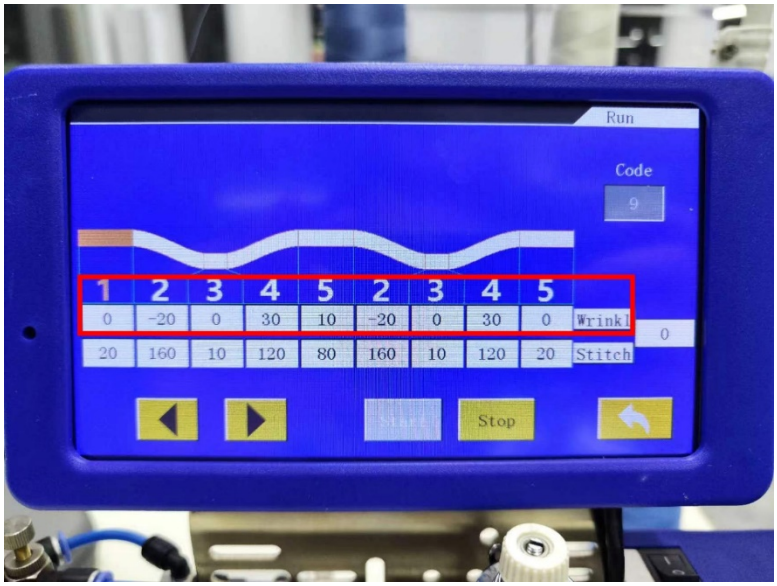
We will guide you to set Wrinkle/differential ratio of bottom hemming stitch. Press “Start” to start setting.

2，差动量的调节 Wrinkle/Top Differential Feed Ratio Setting

在运行模式中，我们可以看到每段皱度参数（上差动量）并且差动量都可更改

In “Run” model, you can see the number of wrinkle/top differential ratio for each segment, and these data

can be modified as per your requirement.



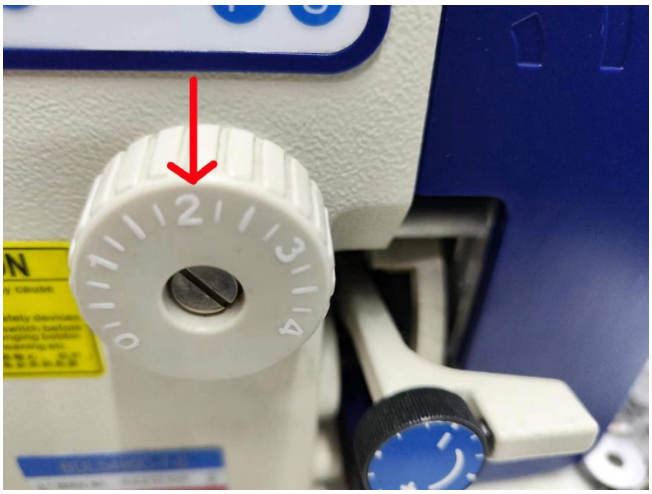
You can modify all the top differential ratio as per your requirement.

P21

2.1 先确定针码大小 **Set the stitch length first.**

针距表盘，以最高点位置为针距，正常卷下摆针距在 **1.5-2.5** 之间。Use the stitch dial to adjust the stitch length, for bottom hemming, the idea stitch length is between 1.5~2.5mm.

特别提醒：弧形弧度越大时针距越小，缝制效果越美观。



For bottom hemming, the idea stitch length is between 1.5~2.5mm. Special Note: The arc ratio of the bottom hemming is more, then the sticth length should be smaller for a better stitch output.

2.2 皱度的设置 **Wrinkle/ Top Differential Ratio Setting**

点击对应段落的皱度栏，屏幕跳出设置界面，将需要的数值修改后，点击确认按钮。

参数设置为**“-”**值时，先点击**“-”**按钮，再填写数字。

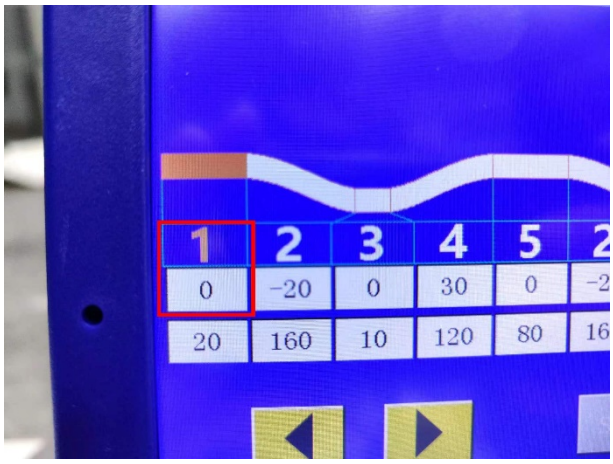
Select the Segment Wrinkle colum (P23), the setting page will display, enter the modified ratio, press “Enter” button to confirm setting; Press “-” first then enter figures if the ratio is minus. (P24)

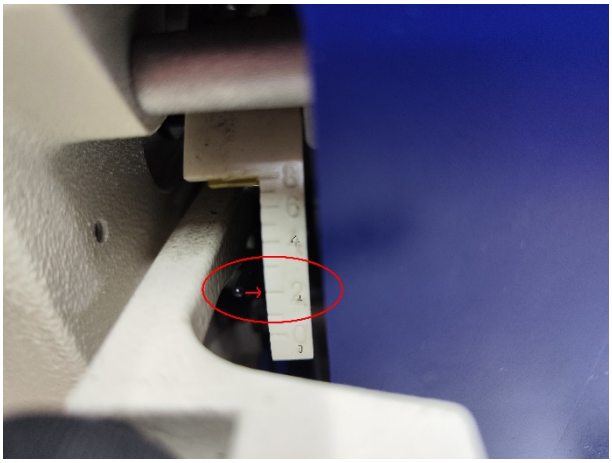
P23 P24

2.3 显示屏上皱度参数与上差动指针对应数值对比 The Comparation of of Displayed Ratio and mechanical ration dial.

皱度参数设置**“0”**上差动指针指到**“2”**，与针距设置的针码**“2”**，两数相同，此时上下送料行程相同，为同步状态。

The ratio on the display set to “0”, the mechnical differential dia set “2” (P26), stitch length set is “2”, the two figure same, the machine working as sychronising feed.





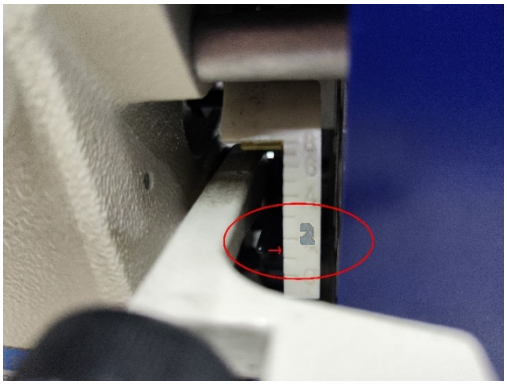
P25 P26

皱度参数设置**“-20”**上差动指针指到**“1.5”**，与针码**“2”**，形成差动，此时上差动送料偏慢，服装上简称上层推布。

The ratio on the display set to “-20”, the mechnical differential dia set “1.5” (P28), stitch length set is “2”, it is differential feed, the machine working as Top Feed Slow.

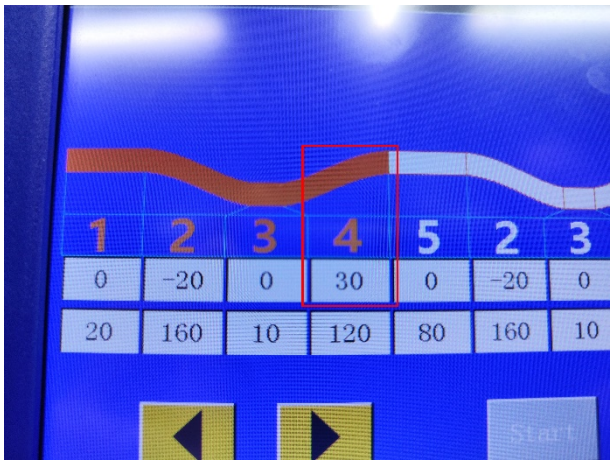
P27

P28

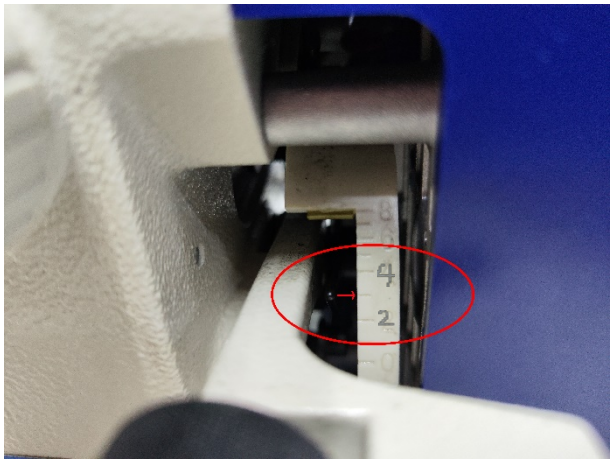


皱度参数设置**“30”**上差动指针指到**“3”**，与针码**“2”**，形成差动，此时上差动送料偏快，服装上简称上层吃布。

The ratio on the display set to “30”, the mechnical differential dia set “3” (P30), stitch length set is “2”， it is differential feed, the machine working as Top Feed Fast.



P29

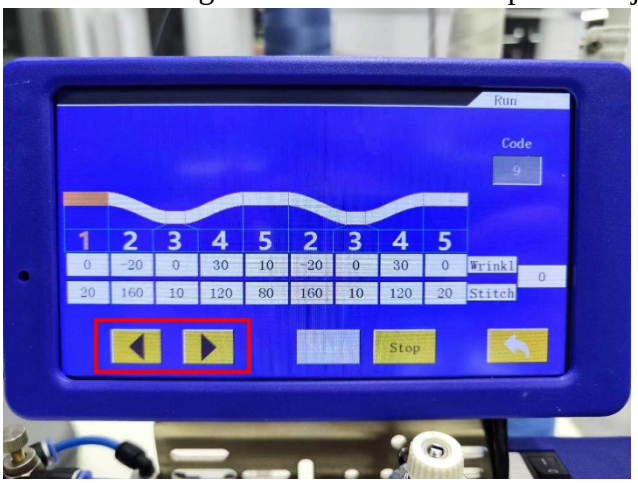


P30

2.4 段落的选择 Segment Select

在运行模式下，通过左右方向键，查看每段皱度对应的上差动量，以便更好调节皱度。

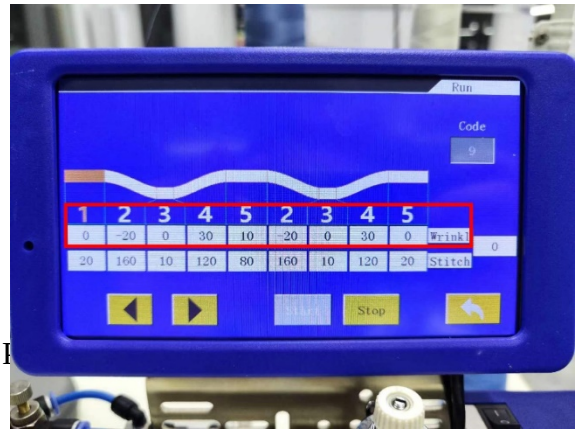
In the “RUN” mode, we can easily select the segment by Left / Right button (P31) to check the differential ratio of each segment which will be help us to adjust the ratio.



P31

By using Left & Right button, we can easily check the differential ratio of each segment, and set the ratio easily and faster.

2.5 常见皱度设置 Regular Wrinkle/Differential Feeding Ratio Setting



以衬衫工艺为例，我们设置针码为“2”

1. 1 3 5 段皱度基本保持同步状态，设置皱度“0”，如果针码加大或减小，1 3 5 段皱度需根据针码大小，加减调整同步。
2. 2 段皱度，在服装工艺上，需要上层布走慢点，将丝流往后推料，所以 2 段皱度一般都为负数，（例：-10 -20）
3. 4 段皱度，在服装工艺上，需要上层布料走快点，将丝流往前送料，所以 4 段皱度一般都为正数（例：20 30）

See P32, Take Shirt Bottom Hemming as sample, we set the stitch length as “2”mm; 1, Segment 1, 3, 5 normally use sychronising feed, means set the differential/wrinkle rate to “0”; if the stitch length change, then the wrinkle rate should to change for segment 1, 3, 5 as the same to ensure a sychronising feed; 2, Segment 2, normally the garment processing required top layer fabric feeding slower, so set the differential/wrinkle rate to “Minus” e.g: -10, -20; 3, Segment 4, normally the garment processing required top layer fabric feeding faster, so set the differential/wrinkle rate to “Positive” e.g: 20, 30;

三、运行模式应用 Application of “Run” mode

1, 自动模式（衣服尺码相同）Auto Mode (The Garment Size all same)

不同尺码的衣服，设置不同的花样，缝制时选择对应程序号，程序启动后，自动运行。Set a different program for each garment size, then select the program code while working, machine will working automatically as per the setting program.

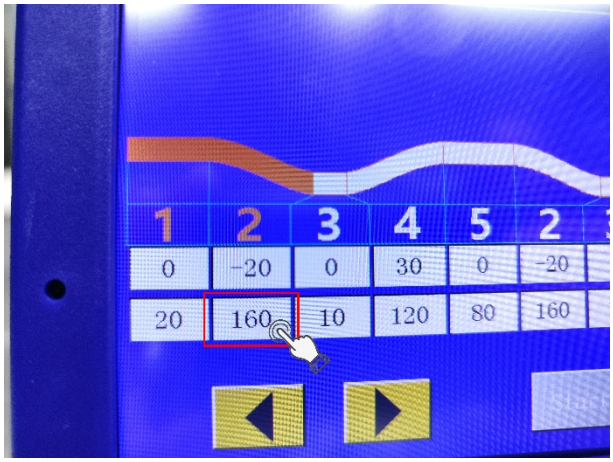
P33

2, 半自动模式（衣服尺码不相同）（运用最多的模式）

Semi Auto Mode (Garment Size are different; this is most applied mode at factory production)

我们设置时，按同款衣服，中码（**M** 码）尺寸设置参数，设置完后，将第 **2** 段针数在原参数上加 **100-200** 针，使缝制到第 **2** 段时，程序不会因为针数自动跳转针数。

While setting, we need to set the program for Middle size (M) as it will be the most quantity size; after setting done, again increase 100~200 stitches on the 2nd segment setting, so that the program will not shift segment while sewing 2nd segment. See P34, P35, P36, P37



P34

P35

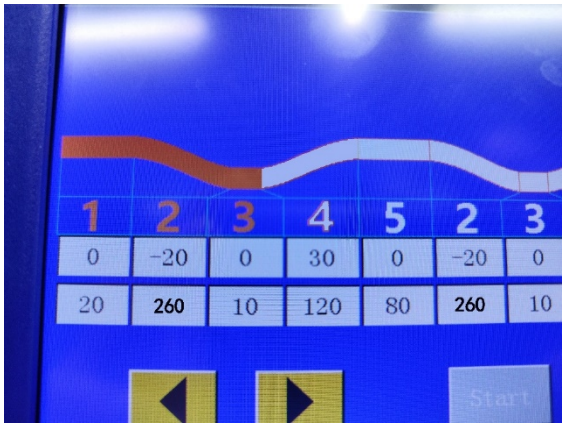
P36

P37

缝制时，我们需要配合左脚靠腿开关，来配合缝制。

缝至到侧缝前，程序当前还在走第 **2** 段，我们通过左腿靠脚，碰一下靠脚，程序直接进入第 **3** 段，进行后面的程序。

While sewing operation, we need the use lfet side knee padel for assist; when the stitches coming to the side seam, the program still runing into 2nd segment work, we use left side knee padel, the program will jump to 3rd segment sewing work; while the stitches coming to next side seam, again we use the left side knee padel to jump to next 3rd segment sewing work and continue working normally. See P38, P39



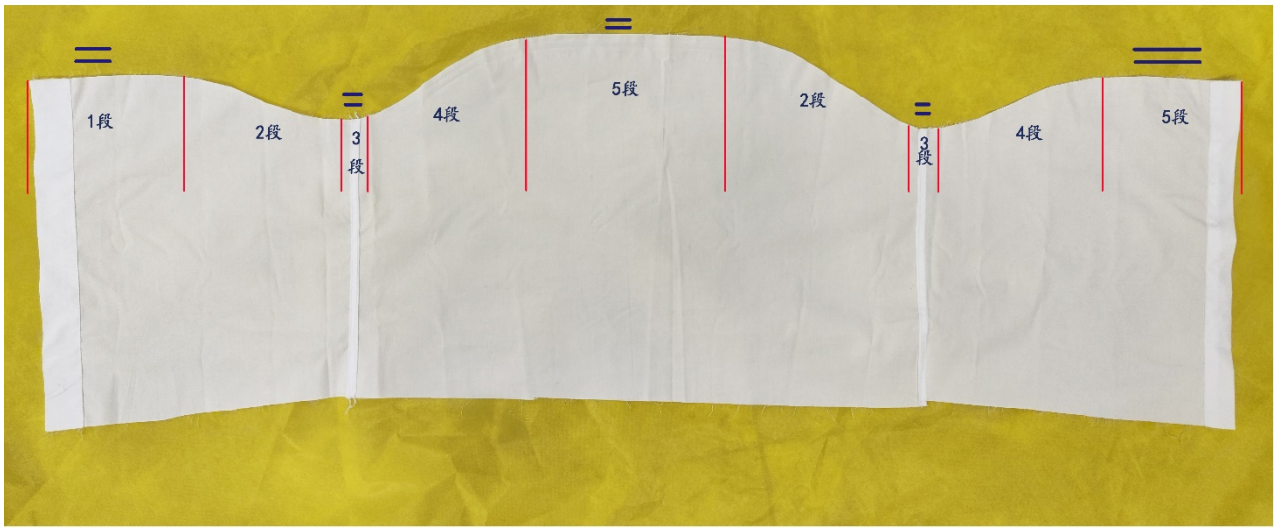
P38

By using Leftside knee padelm, program will jump to 3rd segment sewing, follow program setting will not change, so we can use one program for different size garment work and avoid frequently shift program.
One Shirt have two side seam, so we need to use left side knee padel twice to complete one garment.

P39

3, 依据缝制后衣服下摆起扭状态调节对应段落的皱度值

Minor adjustment to the Wrinkle/ Differential Feed ratio according to the finished garment



P40

We aredevidedthe shirt bottom in 9 segments. Segment 1, 3, 5 for stright; Segment 2 for downgrade, Segement 4 for upgrade.

A、平丝流段（**1 3 5** 三个段落）**Straight Segment 1, 3, 5**

1、**2**、**3** 段都是平丝流段，在针码为**“2”**时，皱度值为**“0”**（上差动是 **2**）上下送料同步。

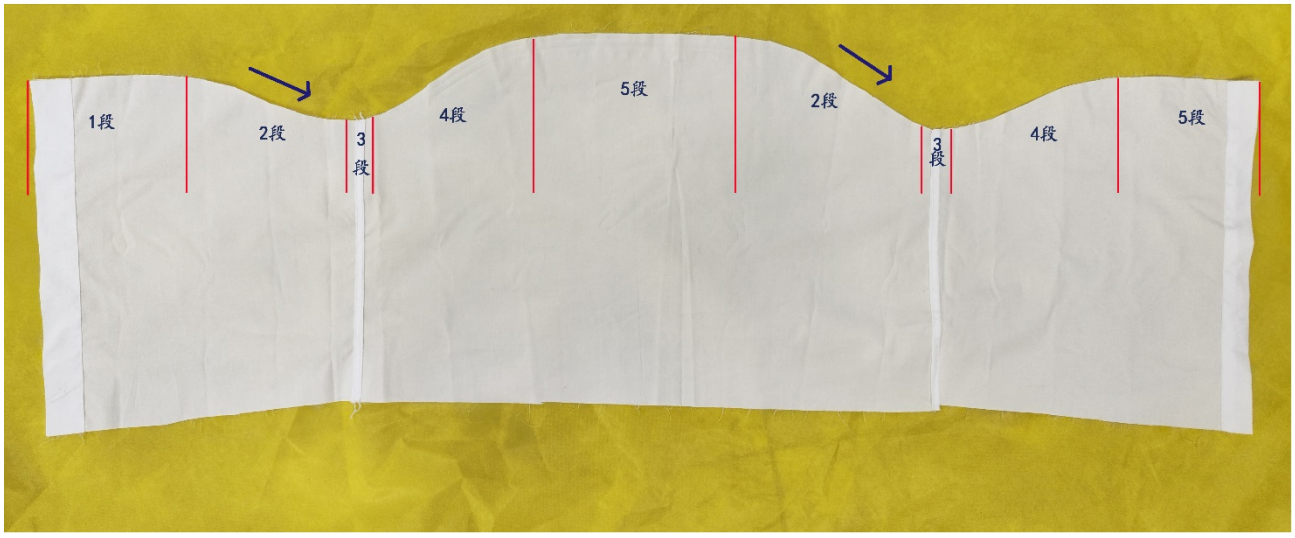
如果针码加大或减小，相应的，皱度值也要相应的增加或减小。

Segment 1, 3, 5 normally use sychronising feed, means set the differential/wrinkle rate to “0”; if the stitch length change, then the wrinkle rate should to change for segment 1, 3, 5 as the same to ensure a sychronising feed.

B、下坡段（ **2** 段）**Downgrade Segement 2**

用普通平车缝制时，下坡段（**2** 段）的下摆卷边丝流容易向左边起扭，用这款机器可以将皱度调为负数，使上差动量比下送料牙走的慢，将丝流向右改变，将下摆卷边修正

平整。举例：在针码为**“2”**时，皱度值为**“-10”**（上差动的刻度在 **1.7** 左右）即上层送料比下层面料要送得慢一点了，俗称**“推布”**，如果针码加大或减小，相应的皱度值也要相应的增加或减小。皱度值负数越大，上差动推布越多，但皱度值调整负数太大时会影响正常送料，容易出现卷边时缝不住止口，针距会变密或者下层面料起皱，所以需要调到合适的皱度。When we use drop feed lockstitch to do this segment of downgrade sewing, the hemming work will happen buckcling to the left side; while with our machine, we can set the wrinkle/differential ratio to “Minus”, so top layer fabric feed slower than bottom feed dog, making the feed little bit right to avoid buckling with a flat finishing. E.g. Set Stitch length to “2”mm, Wrinkle ratio “-10” (the mechanical dial around 1.7), then the upper layer fabric feeding is slower than bottom fabric layer; if the stitch length increase or decrease the wrinkle ratio needs to adjust accordingly. The bigger “Minus” ratio, the slower upper feeding; But too big “Minus” wrinkle rate also not accept, need to set as per actual sewing test to match requirement of garments.



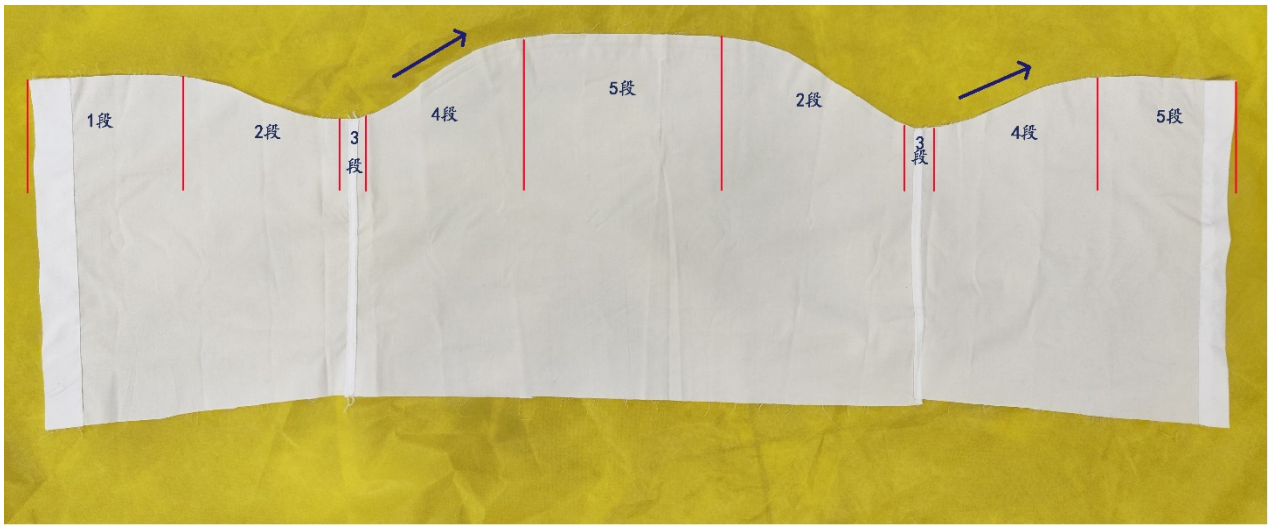
P41

C、上坡段（ **4** 段）**Upgrade Segment (Segment 4)**

如下图 **P42** 所示，用普通平车缝制时，上坡段（**4** 段）的下摆卷边丝流容易出现向右边赶布，出现多余的面料不好卷进去。用这款机器可以将皱度调为正数，使上差动量比下送料牙走的快，将丝流向左改变，将下摆卷边修正平整。缝制后出现下摆卷边向右起扭，说明上坡段（**4** 段）皱度值偏小，上差动送料偏少。出现这个情况，我们需将 **4** 段皱度值改大，举例：在针码为**“2”**时，皱度值为**“+10”**（上差动的刻度在 **2.5** 左右），如果还出现面料向右边赶，可以将皱度值改为**“+15”→“+20” →“+25”**这样调整，目测差动指针会对应指向 **2.5→3.0→3.5**，上坡段（**4** 段）也不能把上差动量调整得太大，太大后会出现卷边宽度变宽，面料向左起扭，布料打杆，与（**5** 段）衔接过渡不美观等问

题，需要调整到合适皱度。

This is shown in Figure P42 below, when we use drop feed lockstitch to do this segment of upgrade sewing, the hemming work will happen buckcling to the right side; while with our machine, we can set the wrinkle/differential ratio to “positive”, so top layer fabric feed faster than bottom feed dog, making the feed little bit left to avoid buckling to ensure a flat finishing. E.g. Set Stitch length to “2”mm, Wrinkle ratio “10” (the mechanical dial around 2.5), then the upper layer fabric feeding is faster than bottom fabric layer; if the finishing still have buckling, then need to increase the wrinkle ratio step to step from “10”- “15” - “20”- “25”, the mechanical dial around 2.5-3.0-3.5; The bigger “Positive” ratio, the faster upper feeding; But too big “Positive” wrinkle rate also not accept, need to set as per actual sewing test to match requirement of garments.



P42

皱度调整示意图 **Wrinkle Ratio Adjustment diagrammatic Drawing**

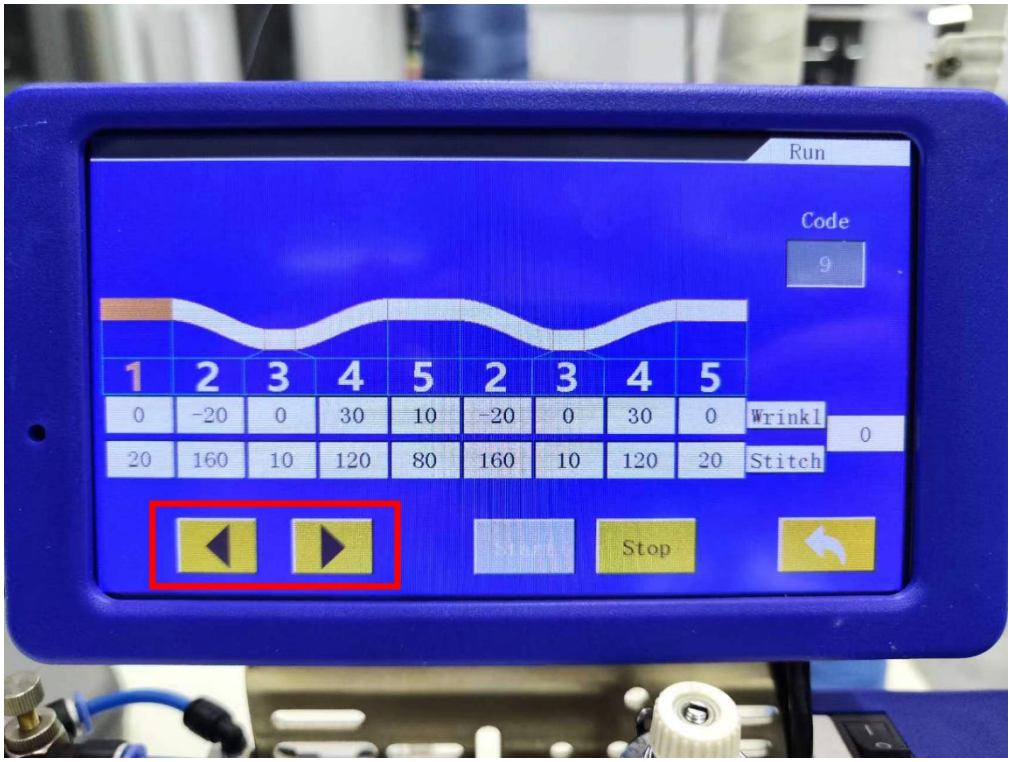
四、缝制出现的问题处理 Trouble shooting while Sew working：

A、 保持主电控中的剪线功能开启，不能关闭，否则会出现结束一个工件后不能复原做第二个工件；

Pls enable the Auto Thread Trimming Function on the sewing head control panel, otherwise the program will not start automatic for the second operation.

B、 在缝制中途，出现无底线、断线、操作失误等情况，可通过左右方向键选取需要补缝的段落，重新补缝；

During the sew working, you can use left/right button to select the segment to patch up the mistake incase of runing out of bobbin, thread breakage or mis-operations.



C、 在缝制过程中无论在哪个段落时，出现有问题时都可以反踏脚踏板做剪线动作，剪线后都会复原回到起始段落 **1**，可根据需要选择重新从段落 **1** 开始缝制，还是调整左右箭头从某上段落开始续作。

During the sew working, whenever there is a mistake need to fix, press backside of footpadel to do thread trimming, then the program will automatic back to start, i.e segment 1, then you can choose to start work from start or any segment by use left/right button

Thanks for read our User Manual, hope this will help you understand the operation of this machine and improve your productivity!