CONTROL PANEL MANUAL

WALKER 6F

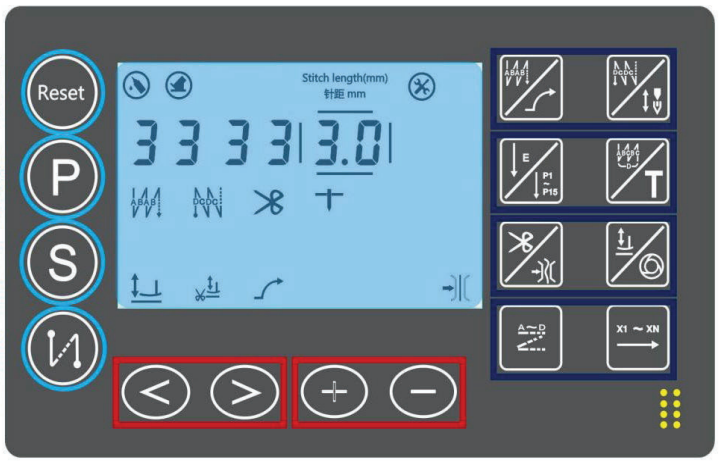
Automatic industrial lockstitch sewing machine with walking feed

HD texi

Content

1. Panel and operation introduction

Reset to factory settings		Front bartack / soft start	Rear bartack / Needle position key
Parameter setting key		One-stage sewing/ multi-stage sewing	W-sewing / trial key calibration
Parameter confirmation		Thread trimming function / thread clamping	Foot lifting / trigger button
Density function		Pattern sewing function	Segment sewing function



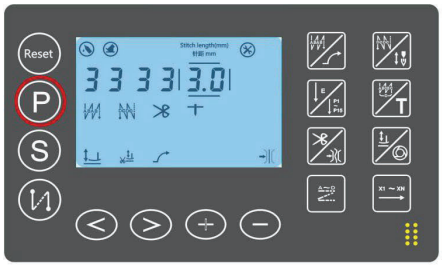
Speed adjustment / left and right cursor keys	Up and down cursor keys

2. Introduction to basic parameter functions

No.	Parameter Description
1	Parameter adjustment
2	Speed adjustment
3	Front and back seams
4	Thread trimming/clamping function
5	Presser foot lift function
6	Soft start/up and down needle position
7	Restore factory settings
8	Modification of the fastening pattern
9	Front and rear tacking pattern settings
10	A seam
11	Multi-section seam
12	Multi-segment seam test mode
13	Continuous seam
14	Self-editing mode for segment seam patterns
15	Close stitch/machine head button function
16	Adjustment of needle stop position for thread trimming
17	Monitoring/piece counting mode
18	Spindle motor angle adjustment
19	Stepper motor zero adjustment
20	How to adjust the presser foot
21	Fault Codes
22	Parameter Introduction
23	Pedal zero adjustment

2. Introduction to basic parameter functions

2.1 Parameter adjustment



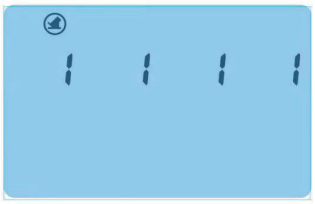
1.Normal parameters :

- Long press P key to enter parameter mode, **Press +**
- **-** key to select parameter,
- Press S key to confirm parameter

- After modifying the parameters with **the + -** key, Press
- the S key to save
- Press P to exit

2.Advanced parameters:

- Press and hold the P key for 5 seconds to enter the advanced parameters, **Enter the**
- **password 1111,**
- **press the S key to confirm.**
- **Press + -** key to select the parameter
- Press S key to confirm the parameter



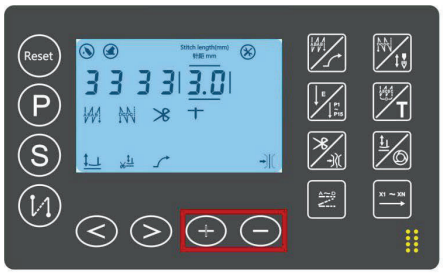
▪After modifying the parameters with the +- keys,
▪press S to save Press P to exit

Parameter adjustment

Enter different parameter levels
(parameters are divided into 2 levels)

2. Introduction to basic parameter functions

2.2. Stitch length adjustment



1.Needle length adjustment

- Normal mode
- Press + - to adjust the stitch length,
- the stitch length is 0-10mm.
- When the stitch length is increased to the maximum setting, enter the pattern sewing mode.

Note: Enter the password to enter the parameters: P-91: Stitch length is locked, the stitch length cannot be modified P-150: Maximum needle distance setting, 0-10mm At this time: set according to the factory regulations of the machine

Needle length/pattern adjustment

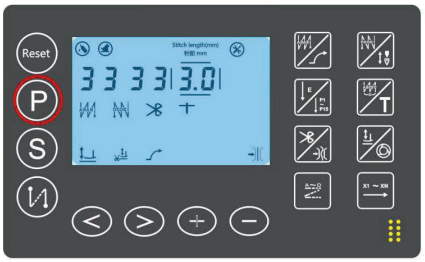
Enter different parameter levels (parameters are divided into 2 levels)

2.After the pattern

- adjustment stitch length is increased to 10mm, • continue to press the + key to select pattern d1-d9 • press the S key to confirm.

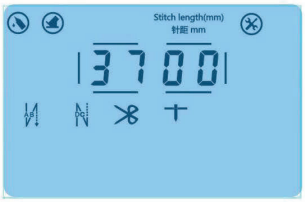
2. Introduction to basic parameter functions

2.3. Speed adjustment



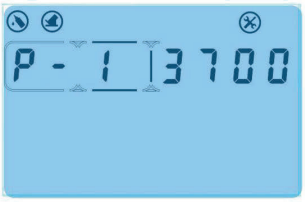
1.Speed adjustment

- Operation panel
- Press the < > key to increase or decrease the speed



2.Maximum speed setting:

- Long press the P key
- Select P-1
- Press S key to confirm
- Set the maximum speed in normal mode
- Press S to save, press P to exit



Speed adjustment

- Normal mode: Directly adjust by increasing or decreasing the speed.
- P-1 parameter: Normal mode maximum speed setting
- P-80 advanced parameters: maximum speed lock

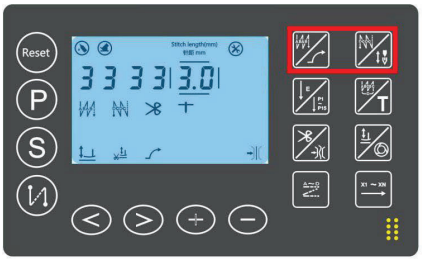
3.Maximum speed lock

- Press and hold the P key for 6 seconds
- Enter the password 1111
- Press S to confirm
- Select P-80 - maximum speed lock.
- Press S to confirm the maximum speed lock.
- Press S to save, press P to exit

Note: After modifying the P-80 speed, you need to modify the P-1 speed. Then, in the normal operation interface, press the speed key to adjust the speed.

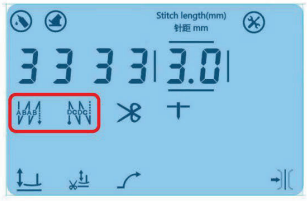
2. Introduction to basic parameter functions

2.4. Front and back seams



1.Front/rear bartacking

There are four front bartack types for front and rear fixation seam. Press bartack button to switch model



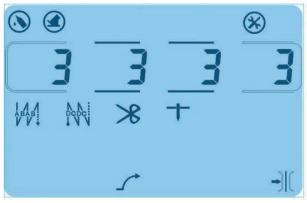
Front and back seams

1.The front and rear sewing modes can be modified, and the corresponding number of sewing stitches can be changed.

2.The stitches do not overlap. Please refer to the following page to adjust the P-8 parameter.

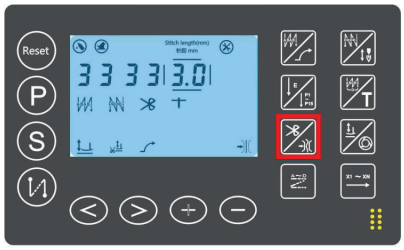
2.Setting the number of stitches for sewing

- Press the S key to enter the settings interface
- Press the < > key Select segments A, B, C and D in sequence
- Press the + - key
- Modify the number of needles in segments ABCD in sequence
- After changing, press S to return to the normal interface.



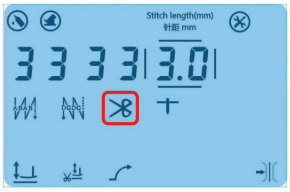
2. Introduction to basic parameter functions

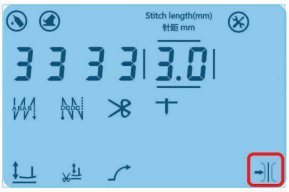
2.5. Thread trimming/clamping function



1. Thread trimming/thread clamping

- Short press to turn the thread trimming function on or off
- Long press to turn the clamp function on or off



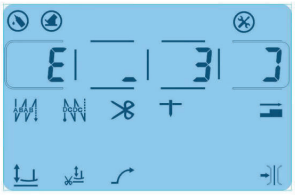


Thread trimming /thread clamping function

1. Short press: scissor function on and off
2. Long press: Turn the clamp function on and off
3. Long press the S key: Adjust the clamp strength

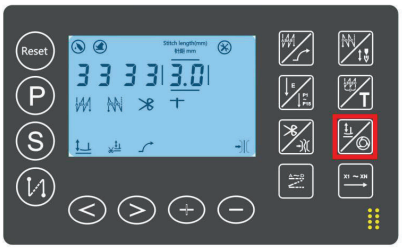
2. Adjustment of the clamping force

- For models with clamp function, long press S key to display the clamp strength 1-9.
- The larger the number, the greater the strength.
- Press S key again to exit.



2. Introduction to basic parameter functions

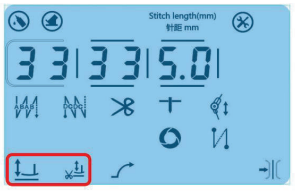
2.6. Presser foot lift function



2. Introduction to basic parameter functions

- Long press the P key
- select parameter P-25
- change parameter value to:

0: No presser foot lift
1: Presser foot lift
2: Presser foot lift is prohibited during sewing, but can be lifted when trimming



Presser foot lift function

1. Adjust the pressure of the sewing machine pressure regulating nut to obtain different
2. Short press cycle:
pause in the middle and lift the presser foot/Lift the presser foot after trimming/Lift the presser foot after trimming/Close

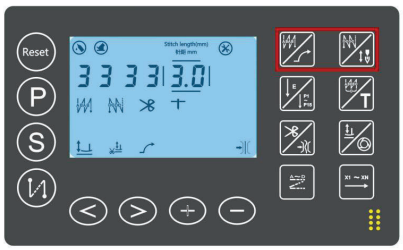
2. Introduction to basic parameter functions

Long press the P key, enter the password 1111, and select the parameters related to the presser foot adjustment:
P-12: Presser foot lifting first angle (sound adjustment)
P-13: Presser foot height adjustment
P-14: Presser foot lifting speed
P-15: Presser foot release speedP-16: The first angle of the presser foot

Note: Depending on the sewing fabric, the sound of the presser foot, the height of the presser foot, etc. can be adjusted by combining parameters.

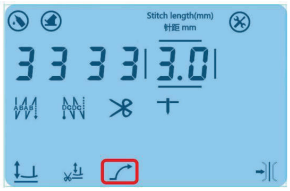
2. Introduction to basic parameter functions

2.7. Soft start/up and down needle position



1. Soft start

- Long press:
- soft start function on and off
- P-2 sets the number of soft start stitches
- P-21~23 set soft start speed

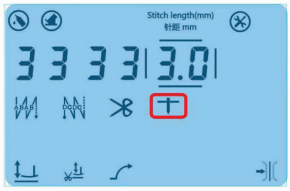


Soft start/up and down needle position

1. Turn on the soft start function to effectively avoid the thread from coming off when sewing If not needed, turn it off.
2. Try to adjust the needle stop position appropriately. Solve the problem of seam derailment

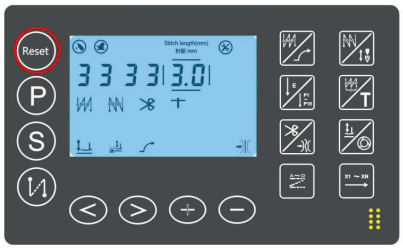
2. Upper and lower needle positions

- Long press the up/down needle stop button to select up needle stop or down needle stop
- P-69 Set the lower needle stop position



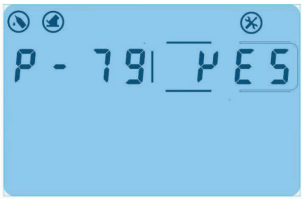
2. Introduction to basic parameter functions

2.8. Restore factory settings



1. One-click recovery

- Long press the Reset button to restore all parameters in the parameter table.



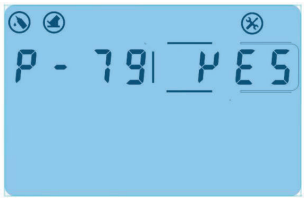
Restore factory settings

1. Fully restore the function parameters set on the operation screen and the parameters set in the parameter table

2. If you need to make all-round adjustments to the machine and confirm the best state, you can use P-131 parameter saving to restore to this state later

2. Secondary parameter recovery

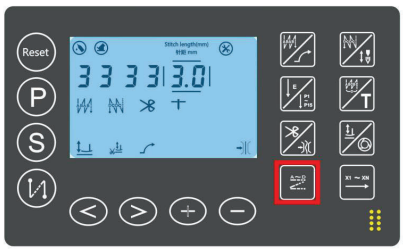
- In the normal operation interface:
- long press the P key
- enter the parameter mode, select P-79,
- Press S to confirm
- Change 0 to 8.
- When the screen displays YES, press S to confirm and P to exit.



3. Special seams and functions

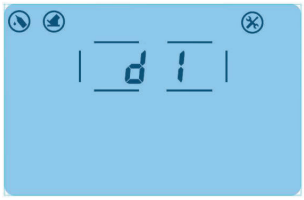
3.1. Pattern editing mode

2. Introduction to basic parameter functions



1. Pattern selection

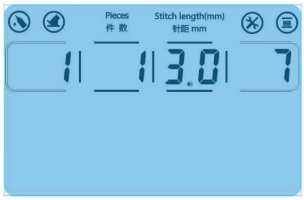
- In the normal operation interface, long press the pattern editing key
- press +-key to select the pattern you want to modify
- press S key to confirm.



2. Set the pattern parameters

From left to right:

- set the number of segments
- number of needles, stitch length
- number of repetitions.



1 = represents the number of segments
1 = represents the number of stitches
3.0 = represents the sewing stitch length
7 = repeat 7 times

Pattern Editing Mode

1. Customized modifications can be made to the factory preset H1-H9 patterns
Brief description:
① Consider each pattern first, how many stitches should be taken, reverse stitch, and how many times should be repeated back and forth?
② Normally, the number of repetitions is 3 or 5. If the pattern is not full enough, try 7, 9, 11...
If you want to go straight, you don't need to reverse stitch the pattern, and select 1 for the number of repetitions
③ Enter the appropriate stitch length for each pattern

1 represents the first sewing content
1 represents 1 stitch
3.0 represents 3mm stitch length
7 represents reverse stitching and forward stitching repeated 7 times

1 3 5 7 9

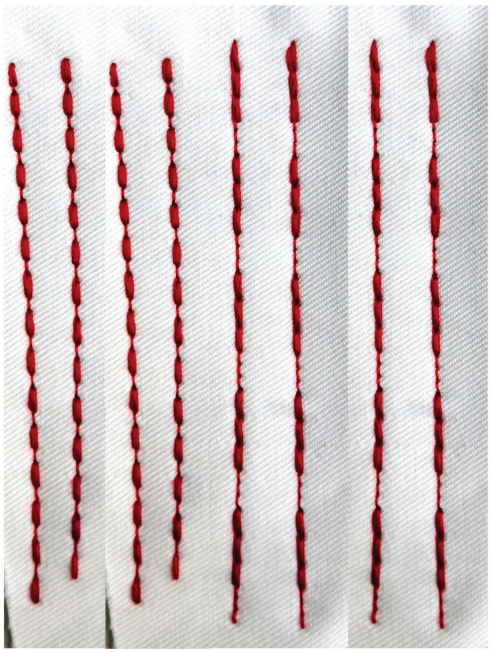
Pattern editing mode

D2 pattern before modification (left)

Segments	Stitch length	Stitches	Repeat times
1	4mm	1	7
2	2mm	1	1

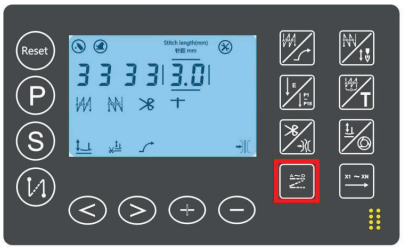
Modified D2 pattern (right)

Segments	Stitch length	Stitches	Repeat times
1	4.2mm	3	7
2	2mm	3	1



3. Special seams and functions

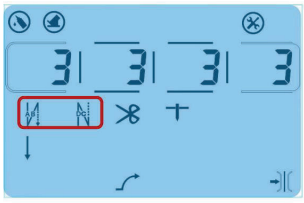
3.2. Front and rear tacking pattern settings



1. Front and rear bartacking patterns

- In the normal operation interface
- short press the tacking pattern key, and the selected pattern can be used as the front tacking and rear tacking
- Press S to enter
- < > to select front and back tacking.
- Press + - to modify the front and back tacking patterns. Press S to save after selection.
- Press S to exit.

The front tacking uses the H1 pattern and the rear tacking uses the H2 pattern

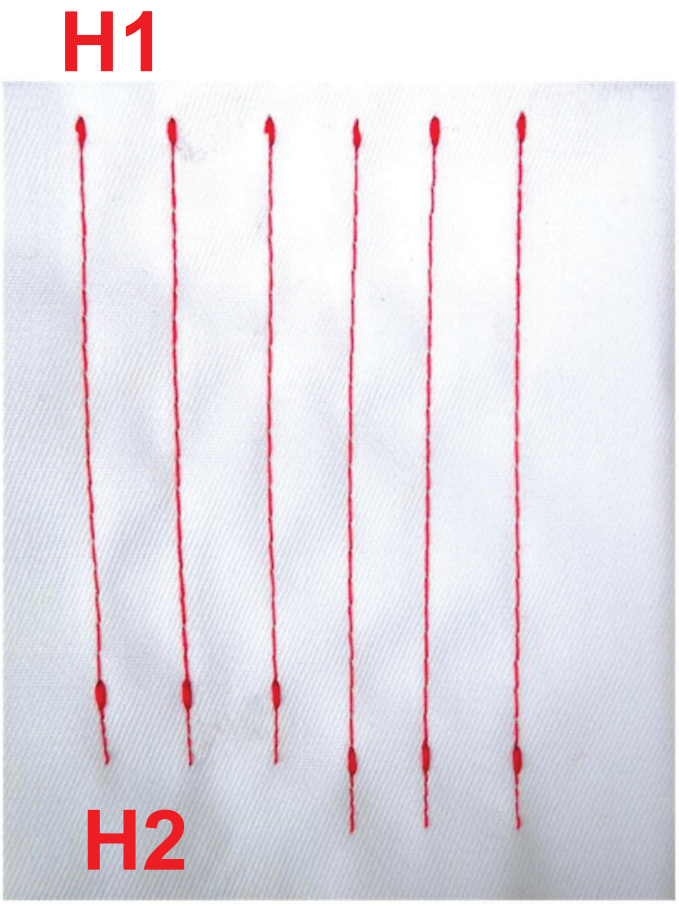


Front and rear tacking pattern settings

1. When this function is turned on, the front and back seams are sewn according to the selfedited pattern.

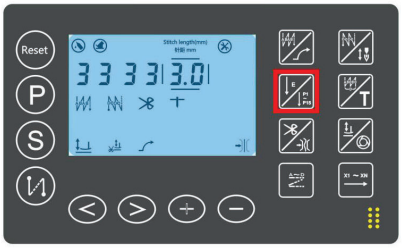
Note: 1. For front fixing, use H1 pattern (pattern sewing)

2. Use H2 pattern (pattern sewing) for rear fixing



3. Special seams and functions

3.3. One-stage sewing



One-stage sewing

Cycle: One-stage sewing/Multi-stage sewing/Free sewing

Set the number of stitches for one stage, the range can be set from 0 to 99 stitches

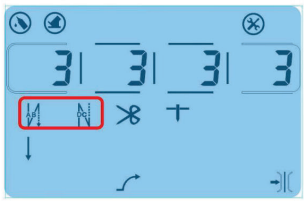
Note: Press  **to automatically sew a single stage.**

1. Needle length setting

Press the segment sewing key once to enter a segment sewing.
Use the **+ -** key to set the fixed needle distance.

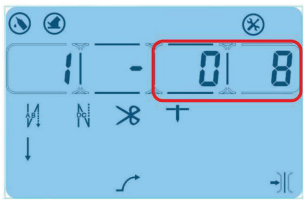
2. Backstitch stitch number setting

Press the S key to set the number of stitches for the reverse sewing in this mode.



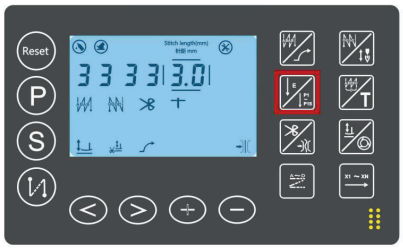
3. Setting the number of fixed needles

Press the S key to set the number of sewing stitches in this mode.



3. Special seams and functions

3.4. Multi-section seam

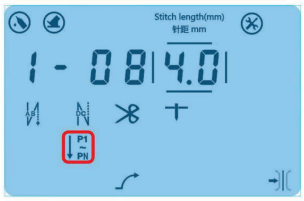


Multi-section seam

Cycle: One-stage sewing/multi-stage sewing/free sewing. Set the number of stitches for multiple stages, and set the range for each stage 0-99 stitches

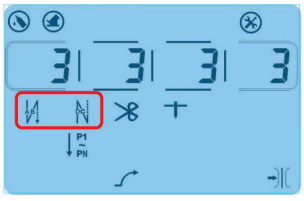
Note: Press  **button to sew automatically**

1. Needle length setting Press the segment sewing key twice to enter the multi-segment sewing mode. Use the **+ -** key to set the fixed needle length.



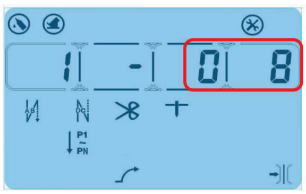
2. Backstitch stitch number setting

Press the S key to set the head-to-tail reverse sewing mode and the number of stitches in this mode.



3. Setting the number of fixed needles

Press the S key to set the number of stitches per section in this mode.

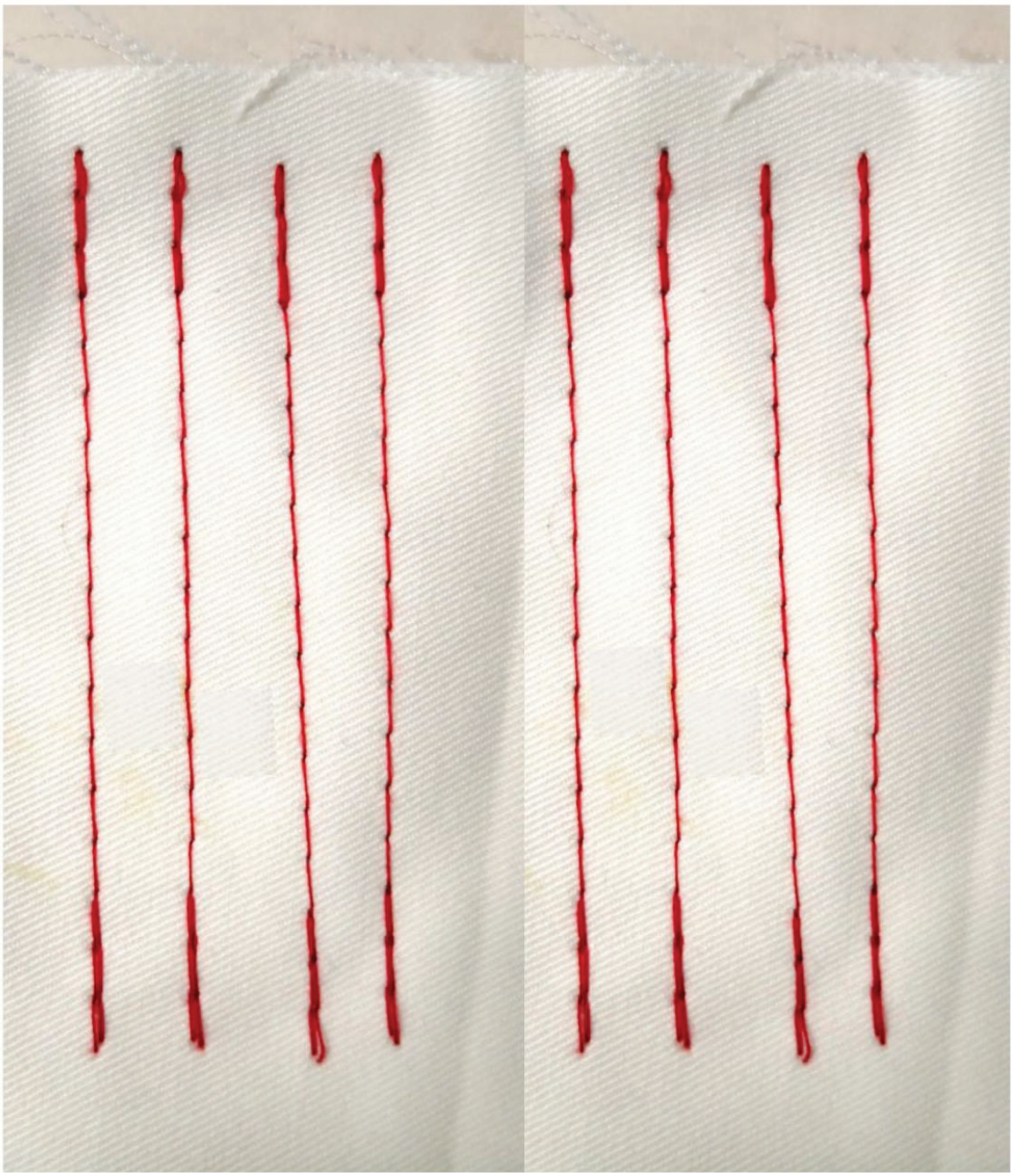


3. Special seams and functions

3.3. One-stage sewing

Note: 1) 3 stitches for front and rear bartack seams

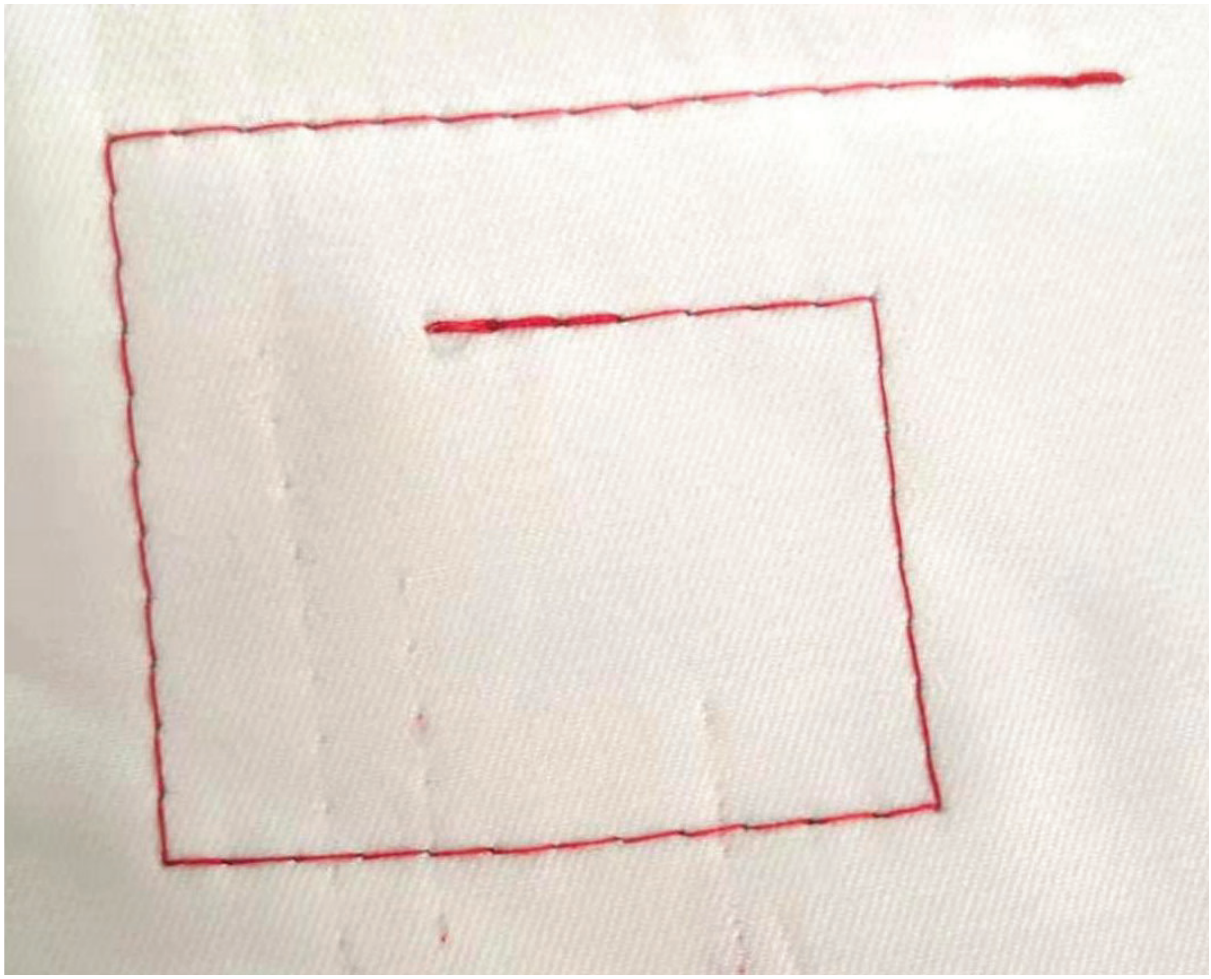
2) Fixed stitch seam 18 stitches



3. Special seams and functions

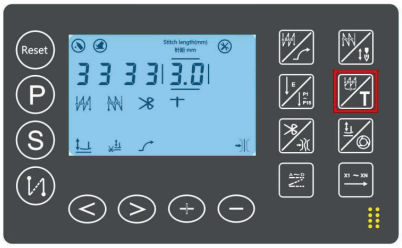
3.4. Multi-section seam

Pattern Introduction:
Section 1: Front bartack (3 stitches) + 16 stitches x 7mm
Stage 1: 11 stitches x 7mm
Stage 2: 12 stitches x7mm
Section 4: 8 stitches x 7mm
Section 5: 12 stitches x 7mm + Rear bartack (3 stitches)



3. Special seams and functions

3.5. W-seam / test mode



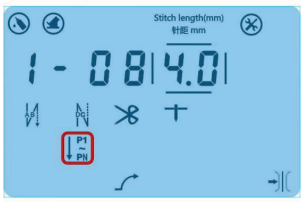
W-seam / test mode

In multi-segment mode (long press the T key),
1–15 segments can be freely set—convenient and fast.

Simple Description:
With this method, you can perform a trial sewing once, and the electronic control will automatically record the number of stitches in each segment. You don't need to count the stitches one by one after the trial and then input them manually, which greatly improves efficiency.

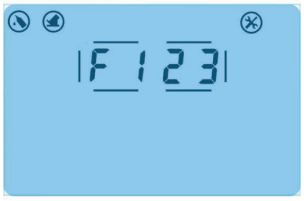
1. Trial calibration mode

In the multi-segment sewing operation interface, long press the T key to enter the trial calibration mode.



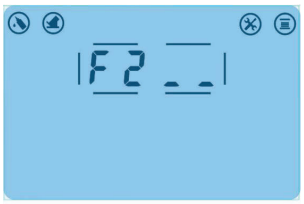
2. Test the number of stitches.

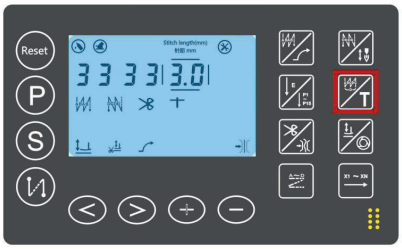
Press the pedal to run until the required stitch length. The electronic control will automatically record the number of stitches . As shown in the figure, the number of stitches recorded in F1 is 23. You can use the + - key to modify the number of stitches as needed.



3. Multi-stage test calibration

Press the **> key to set the number of needles in the T2 stage .** Set the number of needles in each stage in turn. After setting the required number of stages, press the foot pedal to trim the thread and end the test calibration mode.



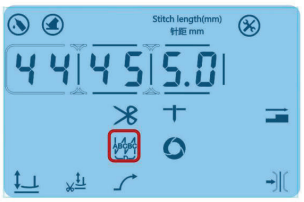


W-seam / test mode

Short press cycle: W stitch/free stitch, mostly used for sewing labels

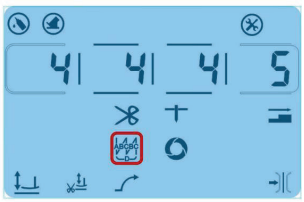
1. Stitch length for fastening

In the normal operation interface, short press the continuous sewing key + - to select the stitch length and press this key again to return to the free sewing interface.



2. Setting the number of stitches

Press the S key to switch to the adjustment of the number of stitches and the number of times of sewing. As shown in the figure, the number of stitches is 4, and the number of times of sewing is 5.

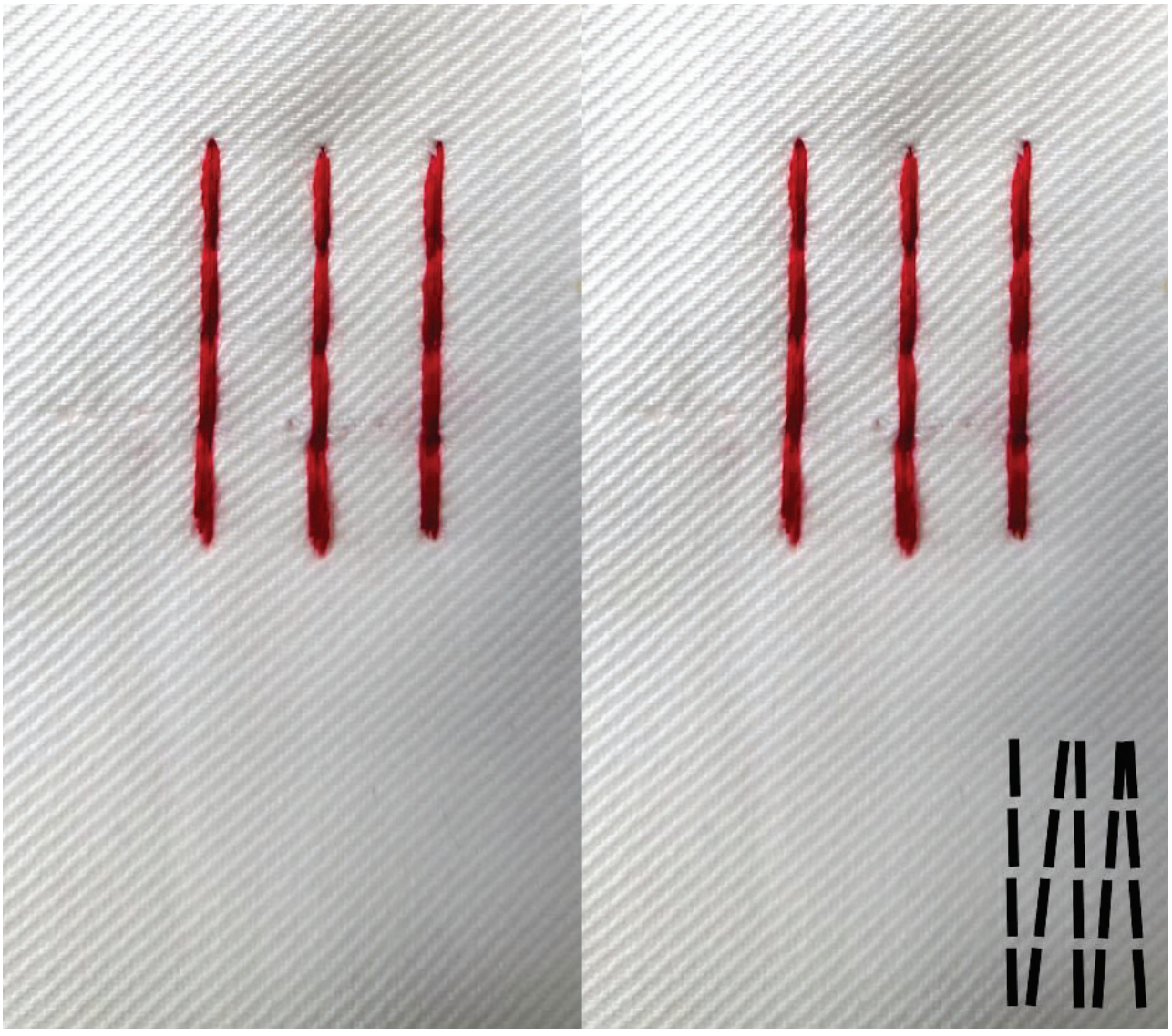


3. Special seams and functions

3.5. W-seam / test mode

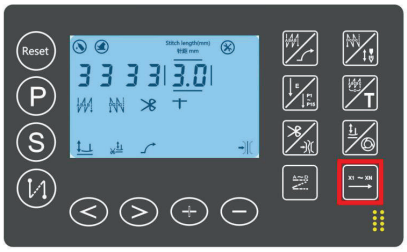
Note: 1) 4 stitches bartack

2) Go back and forth 5 times



3. Special seams and functions

3.6. Multi-section pattern seam



Multi-section pattern seam

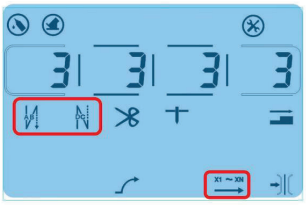
1. Cycle: multi-section self-made pattern sewing/free sewing
2. Multiple sections of sewing can be set, and each section can be set with different pattern sewing or normal stitch length sewing.

1. Pattern setting In the normal operation interface, press the segment seam pattern mode key to set the segment seam pattern.
As shown in the figure, set the first segment to pattern D1 and sew 8 segments of pattern

2. Set the number of reverse stitches

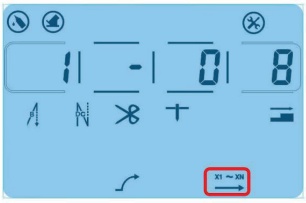
Press the S key to set the number of reverse stitches at the beginning and end of this mode.

If you do not need this function, please turn off the reverse stitching function.



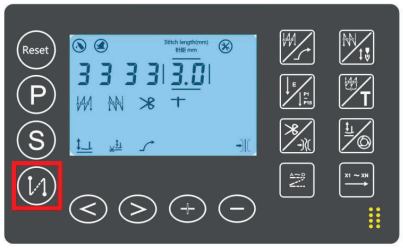
3. Setting the number of stitches for each section

Press the S key to set the number of sewing stitches for each pattern segment in this mode.



3. Special seams and functions

3.7. Dense stitch



Dense stitch/machine head button function

Front reinforcement and mid-way dense stitches, beautiful stitches;
Reinforced dense stitches at the back, thread ends are short and thread will not fall off

1. Dense stitch function

In the normal operation interface, press the Dense Stitch key to turn the Dense Stitch function on or off.

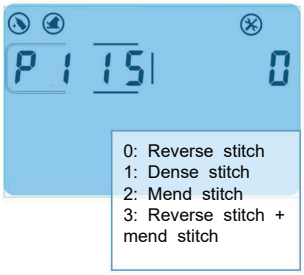
Parameter P-78 – Dense Stitch mode setting

Parameter P-118 – Dense Stitch stitch number setting

Parameter P-119 – Dense Stitch distance setting

2. Machine head button function

The machine head button can be configured as needed.
Function Parameter P-115 – Reverse stitch button function
Function Parameter P-116 – Filling needle button function setting
Function Parameter P-117 – Mid-way dense stitch distance setting
The original button can be assigned to any function.

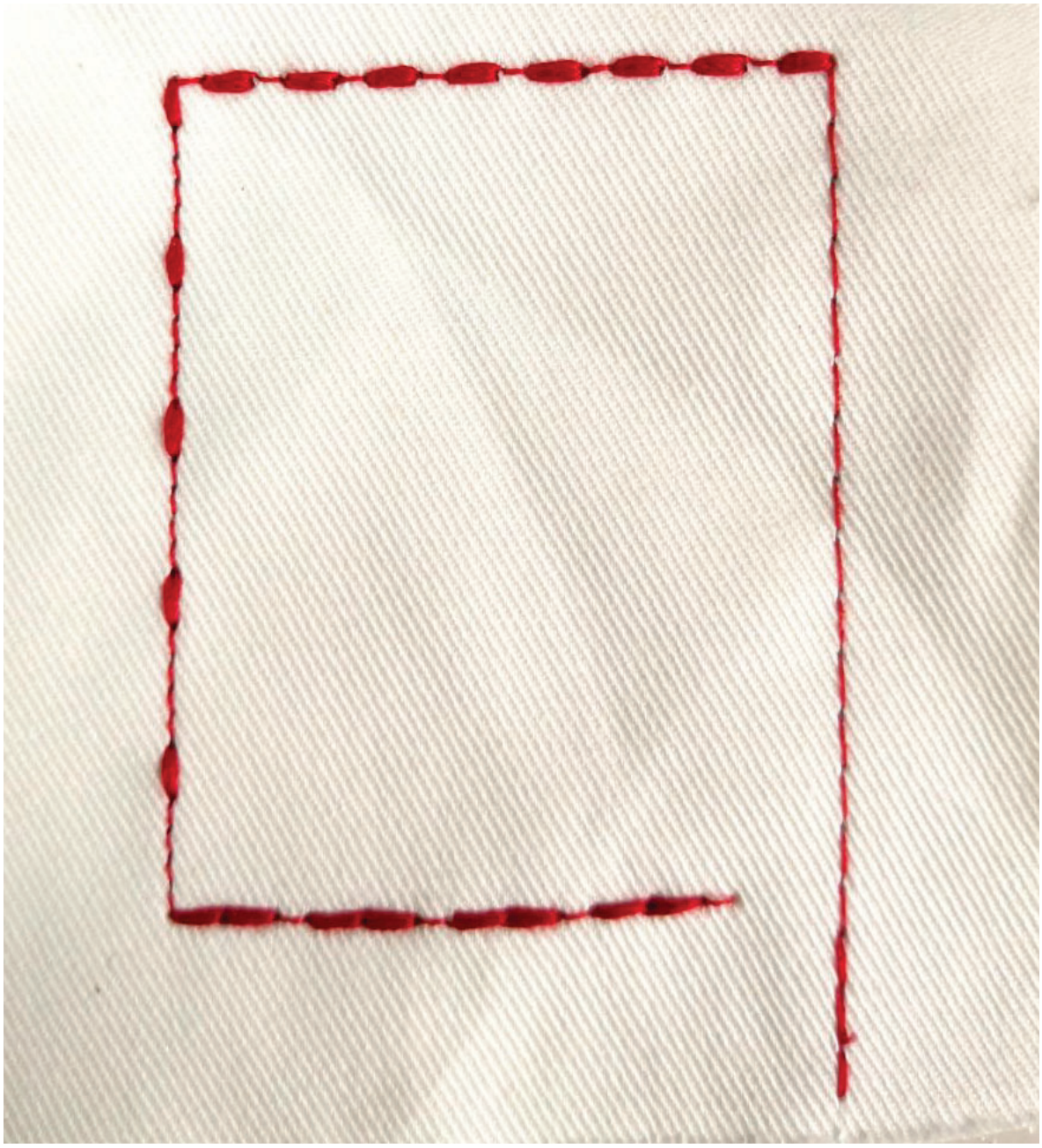


3. Special seams and functions

3.6. Multi-section pattern seam

Pattern Introduction:

Section 1: Front bartack (3 stitches) + 18 stitches x 6mm
Section 2: Pattern type D1 x8 stitches
Section 3: Pattern type D2 x5 stitches
Section 4: Pattern type D3 x4 stitches

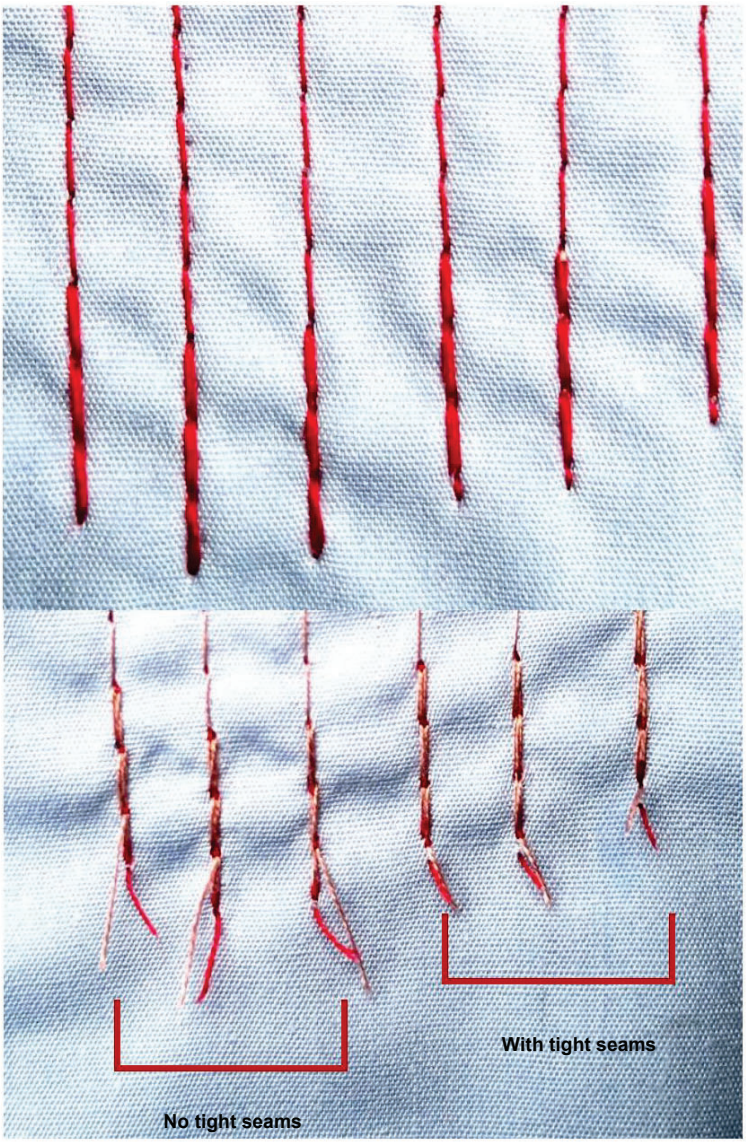


3. Special seams and functions

3.7. Dense stitch

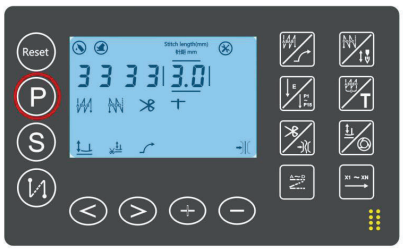
Compared to the normal sewing mode, the beautiful seam will be densely stitched after the post-fixing seam (with adjustable length between 1-1.5mm).

The thread end of the cutting line is less than 3mm



4. Main adjustments

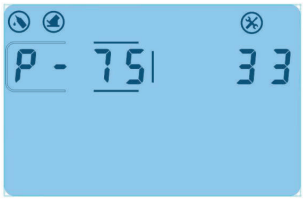
4.1. Adjustment of needle stop position for thread trimming



Adjustment of needle stop position for thread trimming
Enter debugging through parameters and adjust the needle stop position after thread trimming

1. Debugging Thread Trimming and Needle Stop Position
After completing the thread trimming action, follow these steps to enter the parameter mode and adjust the needle stop position:

1)Enter Parameter Mode:
Press and hold the P key to enter parameter mode.
Select P-75.
Press the S key to confirm.



2) Activate the Machine:
Press the pedal forward to run the machine.

3)Adjust Thread Trimming and Needle Stop Position:
Turn the handwheel for two full rotations.
Stop when the machine reaches the correct thread trimming and needle stop position:

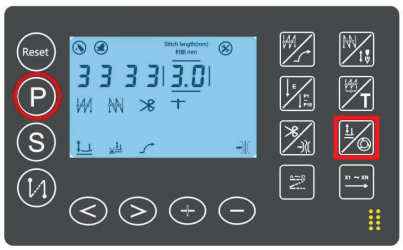
- The thread take-up lever should be at its highest position.
- Then, rotate the handwheel backward until the take-up lever drops to 1 mm below the highest point.

4)Set the Needle Tip Position (depending on material):
For thin materials (DBx1): the needle tip should be 10 mm above the needle plate.
For thick materials (DPx5): the needle tip should be 12 mm above the needle plate.

5)Save and Exit:
Press S to save the settings.
Press P to exit parameter mode.

4. Main adjustments

4.2. Monitoring/piece counting mode



Monitoring/piece counting mode

Use monitoring and piece counting through key combinations and bottom line detection mode

1. Monitoring function
Press P key + trigger key at the same time, and use the combination function to monitor the current machine usage status

2. Piece counting function
Counts the number of jobs according to the number of thread trimmings. JJ piece counting increases
JP piece counting decreases

3. Bottom line monitoring function
Sets the length of the bottom line, and alarms when the line is used up. Parameter P-30 Bottom line counting on/off parameter
P-31 Bottom line initial value setting

4. Main adjustments

4.2. Monitoring/piece counting mode

1. General monitoring items
The system will monitor the current machine usage status at any time
For the manufacturer to provide technical support
3. Bottom line detection mode

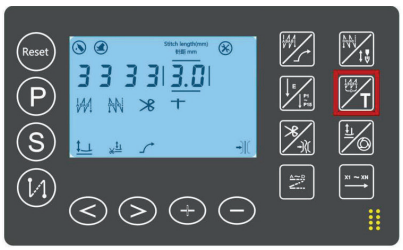
2. Select the JJ or JP function in the list
Remarks: 1. Press and hold the  key for 3 seconds to clear the piece count (valid in monitoring mode)
2. P-35 parameter piece count multiplier (based on the number of thread trimmings)
3. P-38 parameter select piece count plus JJ / piece count minus JP function
4. Piece count error: PBOB
2. Piece count mode: count plus JJ / count minus JP

3. Select the DX function in the list
Remarks: 1. Press and hold the  key for 3 seconds to clear the bottom line count (valid in monitoring mode)
2. Parameter P-30 turns on the bottom line detection function
3. Parameter P-31 sets the bottom line initial value
4. Bottom line error: LBOB

Index No.	Description	Unit
U1	Motor Speed	rpm
U2	Chip Model (Factory Use)	GD/AT
U3	Bus Voltage	V
U4	Board Voltage	0.01V
U5	Head Mechanical Angle	degree
U6	Initial Motor Angle	degree
U7	Machine Head Model	JIA
U8	DSP Version	V100
U9	DSP Model	F73
U10	Stepper Version	V1xx
U11	Stepper Foot Current	0.01A
VER	HMI Main Chip Version	V1xx
TYPE	HMI Model	C104
AD1	Knee Sensor Voltage	1mV
AD2	Foot Pressure Sensor Voltage	1mV
H1	HMI Sub-Chip Version	V1xx
H2	Model	
JJ	Stitch Count (Increase)	pcs
JP	Stitch Count (Decrease)	pcs
DX	Baseline Detectioncm	

4. Main adjustments

4.3. Spindle motor angle adjustment



Spindle motor angle adjustment

1. Replacement of the spindle motor and encoder requires a running-in angle

2. The wrong angle of the motor will affect the performance.

3. There are runaway, errors, motor heating, and impact on use

1. Run-in motor angle

In the normal operation interface, press and hold the T key to select 1-DJ running-in motor angle mode.

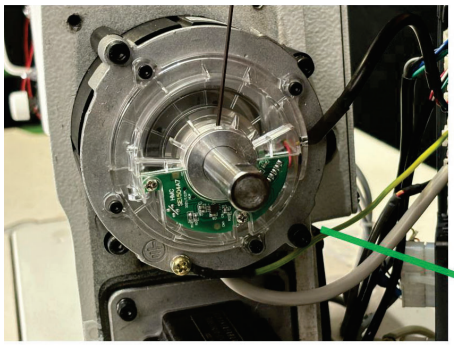
Step on the pedal to run in the motor angle.
The motor angle should be 268±5°.
After running in, press "P" to exit.

2. If the angle of the grating motor is abnormal, remove the rear cover and adjust the position of the motor grating.
Adjust it once and run it once until it reaches within the range of 268±5°.

4. Main adjustments

4.4. Main motor zero adjustment

Adjust the angle of encoder disc (grating plate) of the motor positioner



The motor angle is abnormal. Remove the rear cover and adjust the motor grating position.

Adjust once and run once until it reaches **the range of 268±5°**

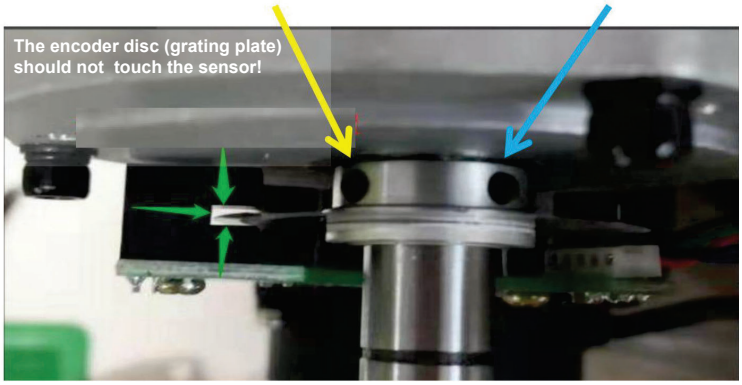
1. Step-feed zero position parameter debugging method:

Grating rotates left

Grating rotates right

Angle becomes smaller

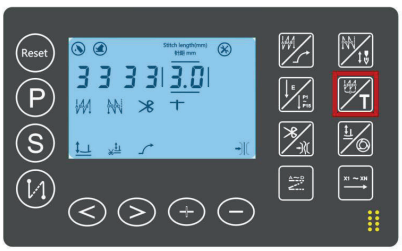
Angle becomes larger



Run-in motor angle
1. Replacement of the spindle motor encoder requires running-in angle
2. Incorrect motor angle will affect performance, occasionally causing overshoot and error, affecting use.

4. Main adjustments

4.5. Feed motor zero adjustment



Step feed zero position adjustment

1. Incorrect step feed mechanical zero position will lead to uneven overall stitch lengths, misaligned stitches, and serious impact on sewing results
2. In the actual sewing process, the stitches may be unsightly due to fabric, operating habits, mechanical adjustments, etc., and can be fine-tuned with parameters

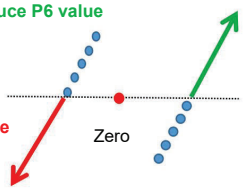
1. Step-feed zero position parameter debugging method:

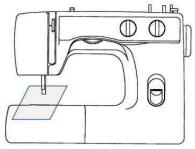
① In the normal operation interface, press and hold the T key to select 2-BJ, press the S key
② Select P-6, 0.0 means the step-feed motor is zero at this time. Is the machine zero? Need to test.
③ Take a piece of white paper, put it on the presser foot, and step lightly on the 20 needles. The needle holes must overlap.
④ The needle holes do not overlap → adjust the percentage parameters and press the S key to save
⑤ The best percentage is between 90-110

As shown in the figure:
Paper moves backward, ↑ increases the P-6 percentage
Paper moves forward, ↓ decreases the P-6 percentage

Forward - Reduce P6 value

Back - increases P-6 value





4. Main adjustments

4.5. Feed motor zero adjustment

Mechanical adjustment method for stepping feed zero position

① Select P-6, press S key, adjust the percentage to 100, press S

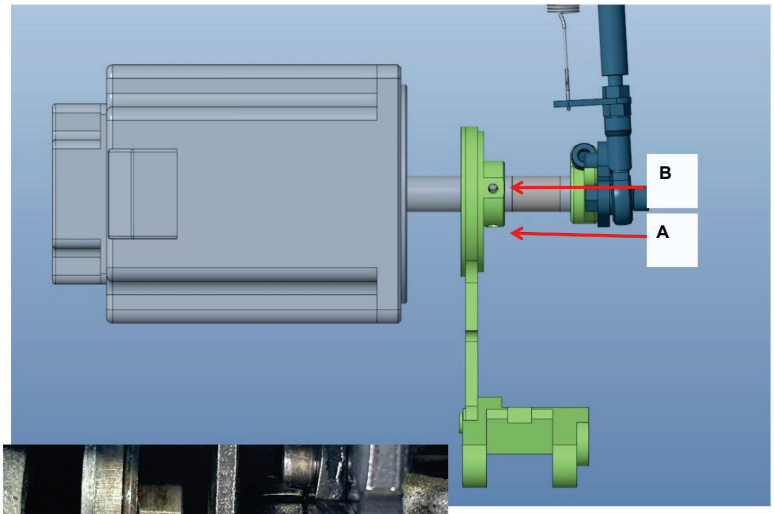
② Open the rear window, first loosen screw A, step forward on the pedal to loosen screw B, and use screw B as the zero position adjustment screw.

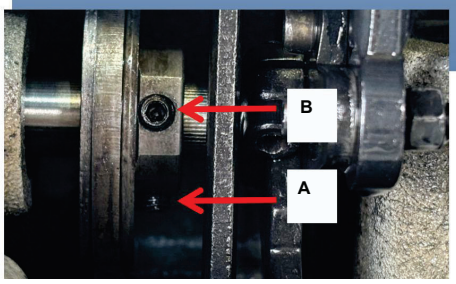
Note: Screw B has a flat surface as an adjustment screw

Move the eccentric wheel up and down, and observe the feeding situation while the pedal keeps running

③ When the feed shaft does not feed (the needle is stuck in the same hole), slightly tighten screw B and test

④ Test multiple times until the zero position is accurate, tighten screw B. In the same way, tighten screw A





Note: After completing the mechanical rough adjustment, use the P-6 parameter for fine adjustment.

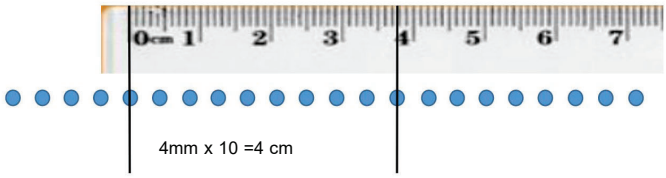
4. Main adjustments

4.6. Stitch length correction

P-7 stitch length correction value

① In the normal operation interface, press T to select 2-BJ, and press S
② Select P-7, 4.0 means the stitch length is 4mm,
③ Take a piece of white paper, put it under the presser foot, and press 20 stitches
④ Take the middle 10 sections and measure with a ruler. At this time, 4mm x 10 = 4 cm
⑤ Press S, modify the percentage, and press S to save

Forward stitch diagram



The actual test is larger than 4 cm↑, appropriately reduce the P-7 percentage

The actual test is smaller than 4 cm↓, appropriately increase the P-7 percentage

Reasonable range: 4CM~4.3CM

4. Main adjustments

4.7. Reverse stitch length correction

P-8 reverse stitch correction value.

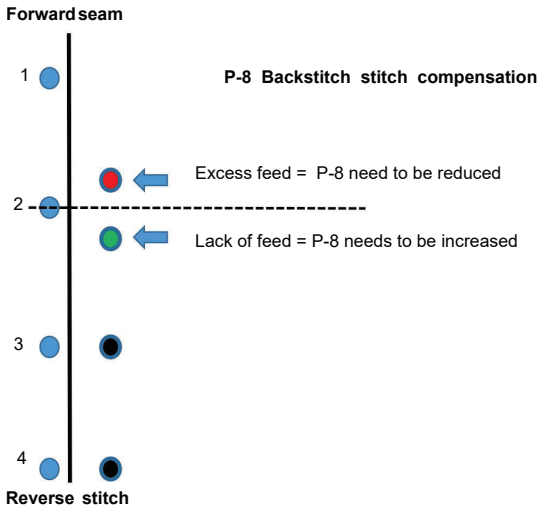
① In the normal operation interface, press the T key to select 2-BJ, and press the S key.

② Select P-8, 4.0 means the stitch length is 4mm, select the stitch length you need to correct, and use the left and right keys to modify the stitch length.

③ Take a piece of white paper, put it on the presser foot, step on 10 stitches, stop and press the reverse stitch switch, and lightly step on it.

As shown in the right figure, observe the overlap between the reverse stitch and the forward stitch. If it is fast, reduce the percentage, and if it is slow, increase the percentage.

⑤ Press the S key, modify the percentage, and press S to save.



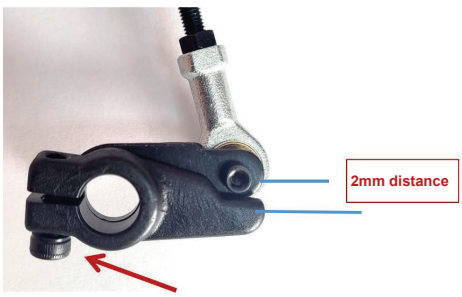
4. Main adjustments

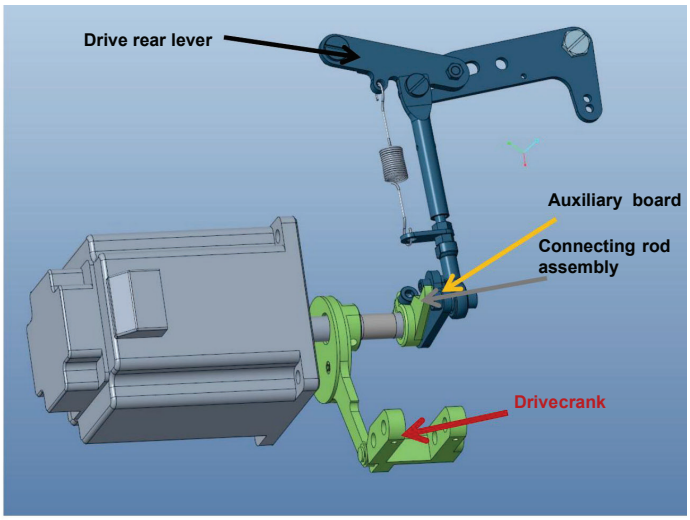
4.8. Pedal adjustment

1. Adjustment of the mechanical position of the presser foot

① Debugging method:
1: Left and right position:
The presser foot lift crank must be to the right of the presser foot auxiliary plate

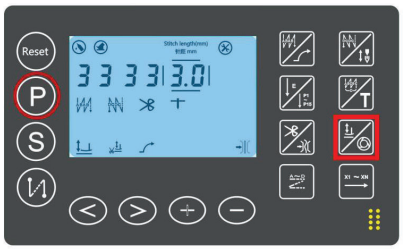
2: Up and down position:
The presser foot lift crank distance to the presser foot auxiliary plate rod is 2MM
(the distance must be maintained, the smaller the better)





4. Main adjustments

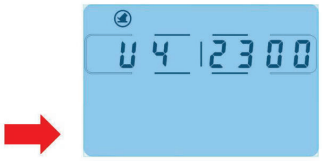
4.8. Pedal adjustment

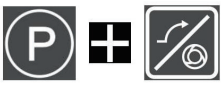


1. Pedal zero position adjustment:

Press P key + trigger key at the same time, use the combination function
Select U4 and confirm, then the pedal voltage is displayed.

The normal value of pedal voltage is - 2300±30°
If abnormal, please adjust the pedal magnet

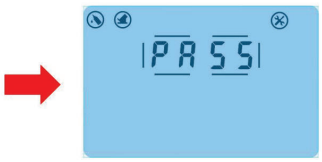


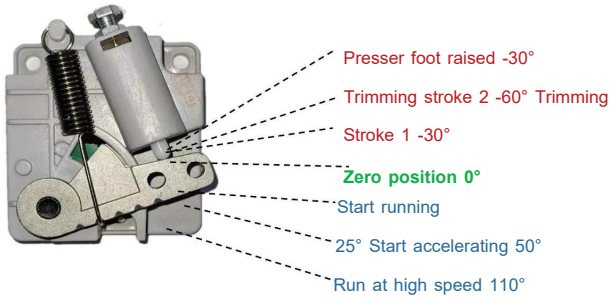


Pedal zero adjustment

1. Pedal zero position adjustment

2. Pedal zero position correction:
Press and hold T key, select parameter 3-pd, press S key to confirm, PDL is displayed, press the pedal to start correction, and PASS is displayed after correction is completed





1. Pedal travel adjustment:
In the normal operation interface, long press the P key to enter the parameter mode, press the + - key to select the parameter, and press the S key to confirm the parameter

Note: The angle of the pedal can be adjusted at different positions
to obtain different foot feel

The most popular foot feel parameters:
P-42 (modified 2), P-62 (15)
P-63 (modified 30), P-64 (modified 85)
P-68 (modified -70), P-92 (modified 300)

Experienced foot feel parameters:
P-42 (modified 2), P-62 (15)
P-63 (modified 30), P-64 (changed to 85)
P-68 (changed to -55), P-92 (changed to 200)
This set of parameters is suitable for long-piece processes (placket)

Beginner's foot feeling (feeling that the pedal is too sensitive):
P42 (changed to 1), P62 (changed to 15),
P63 (changed to 60), P64 (changed to 150)
P-68 (changed to -70), P-92 (changed to 300)

Master's foot feeling parameters:
P42 (changed to 2), P62 (changed to 15),
P63 (changed to 25), P64 (changed to 70)
P-68 (changed to -55), P-92 (changed to 150)

Pedal stroke adjustment

1. Pedal zero position - parking position
2. Start running - the position where the machine starts to move slowly
3. Start accelerating - the position where the machine starts to accelerate
4. Presser foot rise - the position where the presser foot starts to work
5. Thread trimming stroke 1 - the position where the presser foot is not raised and the thread is trimmed
6. Thread trimming stroke 2 - the position where the presser foot is raised and the thread is trimmed

Command time for presser foot lift: after the pedal is pressed, the presser foot lift function needs to wait
x milliseconds to start working

Code	Item Description	Setting Range	Default Value
P-41	Minimum Pedal Speed	100 ~ 500	200
P-63	Pedal Acceleration Curve	0: Normal 1: Slow Acceleration 2: Fast Acceleration	2
P-62	Pedal Stroke to Start Operation	10 ~ 50	25
P-63	Pedal Stroke to Start Acceleration	10 ~ 100	50
P-64	Pedal Stroke for High-Speed Operation	10 ~ 150	110
P-65	Pedal Stroke for Presser Foot Lifting	-100 ~ +100	-30
P-67	Pedal Stroke for Thread Trimming Action 1	-100 ~ +100	-60
P-68	Pedal Stroke for Thread Trimming Action 2	-100 ~ +100	-90
P-92	Pedal Press Command Hold Time	30 ~ 300	80

5. List of parameters

Code	Item	Description	Setting Range	Step	Default Value	Level
P-01	Max Pedal Speed	Set max pedal rotation speed	200–3000 (rpm)	100	2400	I
P-02	Soft Start Function	Low-speed needle entry function at seam start (1–9: soft start stitches)	0–9	1	2	I
P-04	Max Speed for Fixed Stitch	Set max fixed stitch speed	200–3000 (rpm)	100	2200	I
P-06	Zero Needle Position Correction	Adjust actual needle position to zero	50–150	1	100	I
P-07	Forward Stitch Distance Correction	Distance ratio for forward fixed stitch	50–150 (%)	1	100	I
P-08	Reverse Stitch Distance Correction	Distance ratio for reverse fixed stitch	50–150 (%)	1	100	I
P-09	Reverse Start Max Speed	Max speed when reverse starts	500–1500 (rpm)	50	1500	I
P-10	Fixed Stitch Needle Count Mode	Set fixed stitch count as numeric or pattern	0/1	1	1	I
P-12	Presser Lift Step 1 Angle	Angle of first presser foot lift	0–100	1	30	I
P-13	Max Presser Lift Height	Max lift height after cutting	0–100	1	55	II
P-14	Presser Lift Speed	Speed of stepwise presser lift	20–500 (rpm)	10	60	II
P-15	Presser Release Speed	Stepwise presser release speed	20–500 (rpm)	10	100	II
P-16	Presser Release Angle 1	Angle of first presser release	0–100	1	30	I
P-17	Thread Trimming Solenoid Duty	Solenoid duty cycle for thread trimming	0–100	1	50	II
P-106	Presser Height Sensor Zero Voltage Adjustment	Adjustment of zero voltage for presser height sensor (unit: 0.01V)	0–250	1	215	II
P-107	Thick Fabric Detection Sensitivity	Voltage setting of the presser sensor during thickness detection (unit: mV)	0–500	5	100	II
P-108	Thread Trimming Solenoid Duty	Duty ratio of thread trimming solenoid (during vacuum)	50–100	1	98	II
P-109	Presser Foot Solenoid Duty	Duty ratio of presser foot solenoid (during vacuum)	50–100	1	80	II
P-110	Fabric Thickness & Tension Control	Apply extra tension while sewing thick material	0–10	1	0	II
P-111	Thick Seam Max Speed	Speed limit for thick seam processing	500–3000 (rpm)	50	1500	II
P-112	Thick Seam Compensation Ratio	Compensation ratio for thick seam stitch length	50–150 (%)	1	120	II
P-113	Compensating Stitch Mode	0: Disabled, 1: Enabled (set by P-114)	0/1	1	0	I
P-114	Compensating Stitch Length	Set compensating stitch length (1.0–5.0mm or 1.0–7.0mm depending on model)	10–50 (70)	1	40	I
P-115	Reverse Stitch Button Function	0: Reverse stitch, 1: Bartack, 2: Compensation, 3: Reverse+Compensation	0–3	1	0	II
P-116	Compensation Button Function	0: Reverse stitch, 1: Bartack, 2: Compensation, 3: Reverse+Compensation	0–3	1	2	II
P-117	Bartack Stitch Length	Bartack stitch length set by button	50–150	1	110	II
P-118	Pre-Bartack Stitch Count	Number of stitches before bartack	1–10	1	1	II

P-119	Pre-Bartack Stitch Length	Length of stitches before bartack	50–150	1	110	II
P-121	Thread Trim Start Angle 1	Starting angle for thread trim step 1	200–300	2	230	II
P-122	Thread Trim Stroke 1	Stroke setting for thread trim step 1	0–100	1	40	II
P-123	Thread Trim Start Angle 2	Starting angle for thread trim step 2	250–360	2	330	II
P-124	Thread Trim Stroke 2	Stroke setting for thread trim step 2	0–100	1	60	II
P-125	Thread Trim During Fixed Stitch	Enable thread trim during fixed stitch	0/1	1	0	II
P-126	Initial Thread Loosening Enable	Enable thread loosening at start	0/1	1	1	II
P-127	Initial Thread Loosen Delay	Delay time before thread loosen	0–1000	10	100	II
P-128	Initial Thread Loosen Time	Thread loosen operation time	0–1000	10	200	II
P-129	LCD Backlight Brightness	Backlight brightness setting	0–10	1	5	I
P-135	Mid-Reverse Stitch Enable	0. Invalid 1. Valid	0/1	1	0	I
P-136	Mid-Reverse Stitch Count	Number of stitches for mid-reverse	1–50	1	4	I
P-137	Mid-Reverse Stitch Repeat	Number of mid-reverse repetitions	1–10	1	1	I
P-140	Anti-Bird Nest Delay (Before)	Delay before anti-bird nest thread trim	0–500 ms	5	50	II
P-141	Anti-Bird Nest Action Time	Duration of solenoid action	0–500 ms	5	50	II
P-142	Anti-Bird Nest Delay (After)	Delay after solenoid stop	0–500 ms	5	50	II
P-143	Anti-Bird Nest Duty Ratio	Solenoid action power	0–100	1	100	II
P-144	Vacuum Time	Vacuum valve activation time	0–2000 ms	10	250	II
P-145	Clamp Action Time	Clamp solenoid action time	0–500 ms	5	50	II
P-150	Max Stitch Length	Maximum stitch length	10–100 mm	1	80	II
P-151	First Stitch Anti-Unravel	0. Invalid 1. Valid	0/1	1	0	II
P-152	First Stitch Anti-Unravel Length	Set the distance setting, parameter range (1.0mm~5.0mm)	10–50	1	40	II
P-153	Button Jog Mode	0: Off, 1: Jog (click to trigger)	0/1	1	0	II
P-158	Rear Bartack Stitch Count	Rear bartack stitch number	1–10	1	1	II
P-159	Rear Bartack Stitch Length	Rear bartack stitch length	50–150	1	110	II
P-161	1/2 Compensation Button Function	0: Reverse, 1: Bartack, 2: 1/2 Compensation, 3: Foot lift	0–3	1	2	II
P-162	1/4 Compensation Button Function	0: Reverse, 1: Bartack, 2: 1/4 Compensation, 3: Foot lift	0–3	1	2	II
P-166	Front Bartack Speed	Speed setting for front bartack	200–3000	100	1500	II
P-167	Rear Bartack Speed	Speed setting for rear bartack	200–3000	100	600	II
P-169	Presser Foot Lowered Position	Adjust foot height after lowering	0–100	1	30	II
P-170	Speed Compensation Enable	=0, P171~P176 parameters are invalid; =1, P171~P176 parameters are valid	0/1	1	1	II
P-171	Forward Stitch Speed Compensation	Speed compensation coefficient (forward)	50–150	1	100	II
P-172	Reverse Stitch Speed Compensation	Speed compensation coefficient (reverse)	50–150	1	100	II
P-173	Front Bartack Forward Speed Compensation	Speed compensation coefficient	50–150	1	100	II
P-174	Front Bartack Reverse Speed Compensation	Speed compensation coefficient	50–150	1	100	II
P-175	Rear Bartack Forward Speed Compensation	Speed compensation coefficient	50–150	1	100	II
P-176	Rear Bartack Reverse Speed Compensation	Speed compensation coefficient	50–150	1	100	II
P-177	Button Compensation Mode	0: Continuous half-stitch, 1: Continuous full-stitch, 2: Half-stitch + One-stitch	0–3	1	3	I

P-178	1/2 Compensation Mode	0: Continuous half-stitch, 1: Continuous full-stitch, 2: Half-stitch + One-stitch	0–3	1	3	I
P-179	1/4 Compensation Mode	0: Continuous half-stitch, 1: Continuous full-stitch, 2: Half-stitch + One-stitch	0–3	1	3	I
P-180	Stitch Length Compensation Enable	=0, P181~P200 parameters are invalid; =1, P181~P200 parameters are valid	0/1	1	1	II
P-181	1mm Forward Stitch Compensation	1mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-182	1mm Reverse Stitch Compensation	1mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-183	2mm Forward Stitch Compensation	2mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-184	2mm Reverse Stitch Compensation	2mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-185	3mm Forward Stitch Compensation	3mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-186	3mm Reverse Stitch Compensation	3mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-187	4mm Forward Stitch Compensation	4mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-188	4mm Reverse Stitch Compensation	4mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-189	5mm Forward Stitch Compensation	5mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-190	5mm Reverse Stitch Compensation	5mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-191	6mm Forward Stitch Compensation	6mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-192	6mm Reverse Stitch Compensation	6mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-193	7mm Forward Stitch Compensation	7mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-194	7mm Reverse Stitch Compensation	7mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-195	8mm Forward Stitch Compensation	8mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-196	8mm Reverse Stitch Compensation	8mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-197	9mm Forward Stitch Compensation	9mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-198	9mm Reverse Stitch Compensation	9mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-199	10mm Forward Stitch Compensation	10mm Forward Stitch Compensation Coefficient	50–150	1	100	II
P-200	10mm Reverse Stitch Compensation	10mm Reverse Stitch Compensation Coefficient	50–150	1	100	II
P-246	Pattern Bartack Function	Pattern bartack enable setting; 0: Off, 1: On	0/1	1	0	I

6. Error codes and troubleshooting

Error Code	Description	Troubleshooting
E011/E012	Motor Signal Error	Check motor plug connection; motor signal sensor damage; is the handwheel installed properly
E021/E023	Motor Overload	Check motor plug connection; check if the head or thread trimming mechanism is stuck; check if thick fabric is used over sewing spec; is the current sensor working correctly
E022	Thread Trimmer Jammed	Check head or thread trimming motor for jamming; check trimmer sequence and position
E101	Driver Component Error	Check if current detection circuit is working; check if the driver is damaged
E111/E112	System Overvoltage	Check if system input voltage is too high; check if resistor and voltage detection circuits are normal
E121/E122	System Undervoltage	Check if system input voltage is too low; check if voltage detection circuit is normal
E131	Current Detection Circuit Error	Check if system current detection circuit is working properly
E133	OZ Circuit Error	Check OZ circuit
E134	DBFLT Error	Check DBFLT plug connection; is DBFLT component damaged
E201	Motor Overcurrent	Check current detection circuit; motor signal
E211/E212	Motor Running Abnormal	Check motor plug; motor signal mismatch
E301	Control Panel Communication Failure	Check control panel plug connection; is the control board damaged
E302	Control Panel EEPROM Error	Check if control panel board is damaged
E303	SPI Communication Error	Check main control board
E304	HMI MCU Communication Error	Check if control panel is damaged
E402	Pedal ID Error	Check pedal plug
E403	Pedal Zero Position Calibration Error	Pedal damaged or not in stop position during calibration
E501	Presser Switch Error	Check if presser foot or switch is triggered
E502	Oil Level Warning	Refill oil
E601	Hardware Overcurrent	Check current detection circuit; driver damaged
E602	Software Overcurrent	Check current detection circuit; driver damaged
E603	Current Detection Circuit Error	Check current detection circuit; driver damaged
E604	Mechanical Zero Position Search Error	Check if feed presser motor plug is connected properly
E605	Motor Stalled	Check feed presser motor plug; mechanical blockage
E606	Motor Start Circuit Error	Check current detection circuit; driver damage
E607	Hardware Overcurrent	Check current detection circuit; driver damage
E608	Software Overcurrent	Check current detection circuit; driver damage
E609	Current Detection Circuit Error	Check current detection circuit; driver damage
E610	Zero Position Signal Error	Check if thread trimming motor plug is properly connected
E611	Motor Stalled	Check trimming motor plug; mechanical blockage
E612	Motor Start Circuit Error	Check current detection circuit; driver damage
E701	Bobbin Thread Detection Warning	Replace bobbin thread sensor or check wiring
PoFF	Power Off Display	Wait and reconnect power
EvAL	Trial Protection Error	Contact supplier
L.bob	Bobbin Thread Reminder	Press S to cancel reminder
P.bob	Piece Counter Reminder	Press S to enter settings. Hold 'Bartack' key for 2s to cancel reminder. To disable this, set P35=0

NOTES

Dealer: