

ALL-IN-ONE AUTO TRIMMER AND SUCTION MANUAL BOOK

foreword

Preface

Welcome to use our products, the right investment choice for garment industry!

Welcome to use the our products, it is the right investment choices in garment industry!

This instruction manual is the product reference manual of the "Integrated Automatic Suction Air Shear Control Box" newly developed by our company. Please read this manual carefully to make better use of our products!

This user manual is for our newly developed "All-in-one control box" products reference manual, Please read this manual carefully, hope it can give you useful help!

Please note the following requirements before

reading this manual: **Before reading the manual, please note the following requirements: 1:**

The user must be reliably grounded before using the operation to ensure the safety of life!

The user must be grounded before operations to ensure safety 2: Non-professionals do not disassemble the control box Non-professionals do not disassemble the

control box 3: The control box and motor away from the strong magnetic high radiation environment The control box and motor away from the magnetic high radiation

environment 4: Do not work in an overheated environment Do not work in hot environment 5: Do not work in an overly humid environment Do not work in humid environments 6: 220V electric control: [When 220V is connected to the power supply, the voltage is stable at (AC200V~ 260/single phase)] 220V electronic control: [220V access to power supply voltage stability between (200V~260V)]

Power supply voltage Voltage	220V single phase 1 phase
Frequency _	50~60HZ
Motor speed Speed	200-6500RPM
Motor torque Motor torque	ÿ2.2N.M

110V electric control: [When 110V is connected to the power supply, the voltage is stable between (AC100V~130/single-phase)]

110V electronic control: [110V access to power supply voltage stability between (100V~130V)]

Power supply voltage Voltage	110V single phase 1 phase
Frequency _	50~60HZ
Motor speed Speed	200-6500RPM
Motor torque Motor torque	ÿ2.2N.M

Safety advice:

Safety requirement:

1: Do not put your feet on the pedals when the control box and motor is switched on

(boot status) when the motor control box and motor is switched on (boot status) 2: This product please professional
Professionals to install and **debug** Let professionals to install and debug this product **3: Do not open the control box and the motor cover when energized Do not open the control box and the motor cover when energized 4: Please turn off the power when changing the needle, threading or changing the bottom line turn off the power when changing the needle, threading or replacing the bottom line 5: Please unplug the power plug during installation and removal service. During installation and removal service, please turn off the power and pull the plug 6: Please turn off when turning up the sewing machine Power supply Please turn off the power when turn lift sewing machine 7: When using this product, please keep away from high-frequency electromagnetic waves and radio wave transmitters, etc., so as to prevent the generated electromagnetic waves from interfering with the servo drive and causing malfunctions.**

When use this product, please stay away from high-frequency electromagnetic waves and radio wave transmitters, etc., in case the electromagnetic waves generated interfere with the servo drive to occur wrong action .

Solemnly declare:

Solemnly Declare: 1: If you do not

follow the safety instructions and operating regulations, you will be responsible for the consequences of accidents.

Do not comply with the manual book operating regulations and the safety requirements, all accidental occurrence should be taken by yourself. 2: Do not modify the product without the authorization of the company, and the company will not be responsible for any consequences arising therefrom.

Without our authorization, please do not alter our products, our company is not liable for any consequences arising therefrom.

Warranty policy:

Warranty policy: 1: This product

is guaranteed for free for 2 years from the time of purchase , with lifetime maintenance. Any quality problems other than man-made damage during the warranty period can be repaired free of charge

Since from the purchase of this product, the free 2-year warranty, lifetime maintenance. During the warranty period, any quality problems the product will be free repaired, except artificial damage . Warranty will not be given

Without our consent disassemble or modify, the damaged will not give in warranty 3: Whenever you find the problem that cannot be solved, you can contact our company Whenever find the problem can not be solved, you can contact with our company

Contents

Electric control introduction

Servo System Introduction

1: Introduction to common operations of the display

Introduction of display screen common Operation

2: How to enter parameters and how to modify parameters

How to enter parameters and how to modify the parameters

3: Control box port description

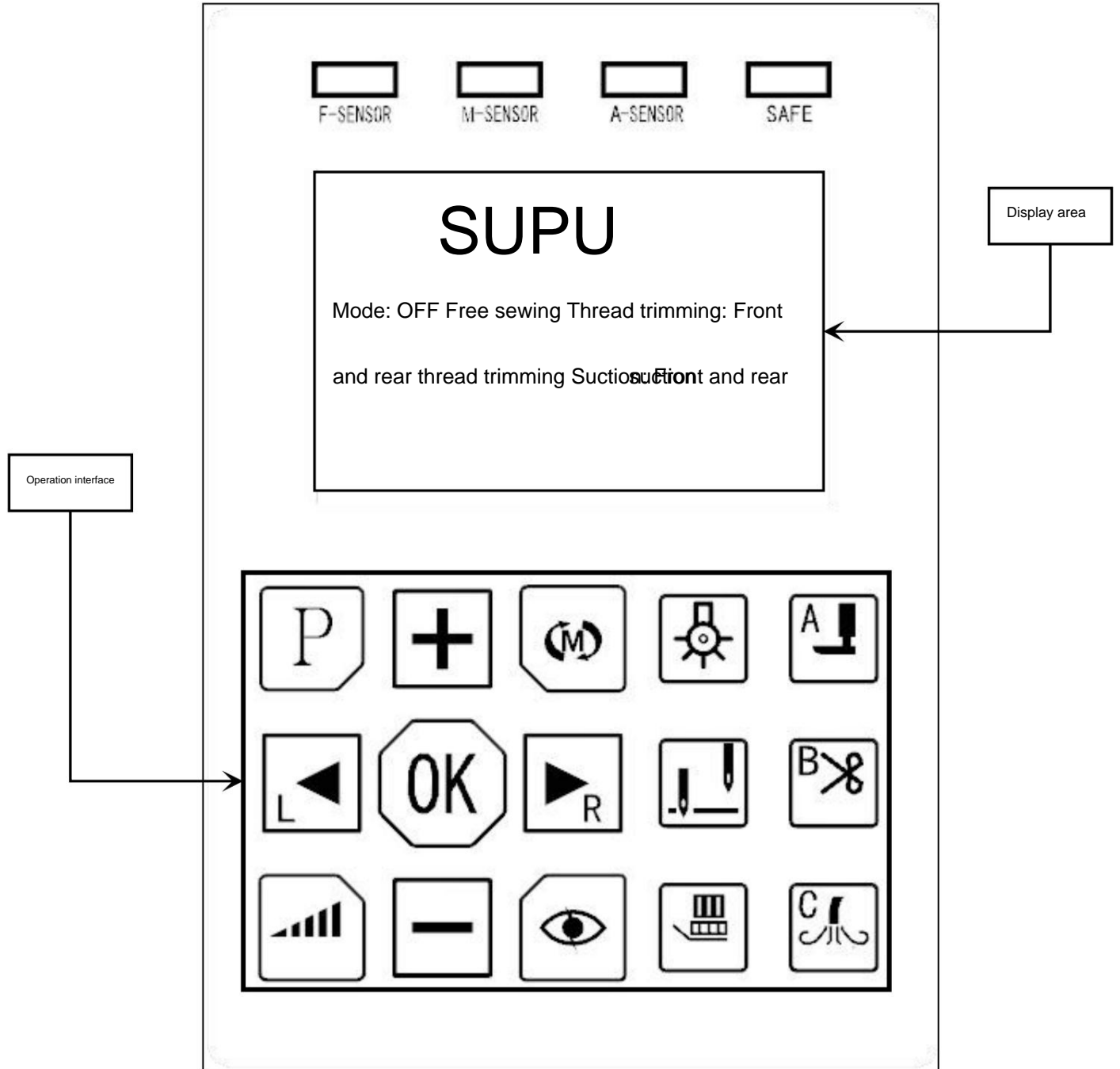
The control box Port Description

4: Error code analysis

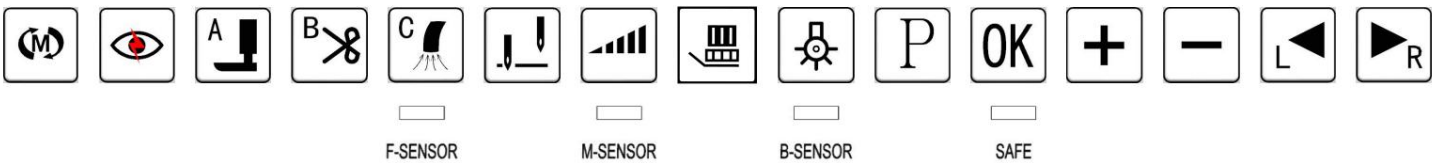
Error code analysis

1: Introduction of display screen common operation: Introduction of display screen common Operation


























1.1. Display screen introduction: it consists of two parts (operating interface, display area).





























1.2. Introduction to the function keys of the operation interface:






serial number The serial number	button icon Parameters of the code	Function description function instruction
------------------------------------	---------------------------------------	--


<p>1</p>	 <p>(mode switching key) Mode switch</p>	 <p>Jog key: <u>fully automatic</u> <u>semi-automatic</u> <u>free sewing</u> <u>full manual</u>, <u>switch among them</u>;</p> <p>Fully automatic: when the fabric covers the first light eye, the machine will automatically start working without stepping on the governor pedal; semi-automatic: the fabric covers the first light eye, and the machine can be driven by the pedal to work; free Sewing: No fabric covers the first light eye, and the pedal governor can also drive the machine to work; Full manual: thread trimming, presser foot lifting, etc., so the actions need to be completed manually; \bar{y}: Fully automatic, semi-automatic, free sewing, etc. When the safety switch is disconnected, the pedal governor cannot drive the machine to work; all manual: when the safety switch is disconnected, the pedal governor can also be used to start the machine to work).</p>  <p>Press :Auto \bar{y} Semiauto \bar{y} Free stitch \bar{y} Full manual, switch in turn</p>	
<p>2</p>	 <p>(light eye function key) (Sensor button)</p>	 <p>Enter the <u>optical eye</u> adjustment when pressing the key, and repeat the key to switch</p> <p>Change: <u>open and close the light eye</u>.</p> <p>Press  to turn on off the sensor.</p> <p>(Press  to confirm)</p>	 <p>Long press to enter photoeye sensitivity automatic</p> <p>Adjust the mode, choose the sensitivity according to your fabric</p> <p>degree adjustment:    key points</p> <p>Especially for the adjustment of sewing thick, medium and thick materials.</p> <p>Long press  to adjust</p> <p>sensor: and then press  for</p> <p>thick material  for medium</p> <p>thick material;  for thin material.</p>
<p>3</p>	 <p>(presser foot function key) (Presser foot switch)</p>	 <p>Enter <u>presser foot</u> adjustment when jog key, repeat jog to cut</p> <p>Change: <u>lift forward</u>, <u>lift back</u>, <u>lift back and forth</u>, <u>close</u>.</p> <p>Press  to switch presser foot sensor in turn :front lift, rear lift, front rear and off lift.</p>	 <p>Long press to enter presser foot parameter adjustment (requires password)</p> <p>Long press  to adjust presser foot parameters (password required)</p>
<p>4</p>	 <p>(Scissors function key) (Trimmer switch)</p>	 <p>Enter the <u>thread trimming</u> adjustment when you press the jog key, and repeat the jog to cut</p> <p>Change: <u>front cut</u>, <u>back cut</u>, <u>front and back cut</u>, <u>close</u>.</p> <p>Press  to switch cutter sensor in turn: front cutting, rear cutting, front+rear cutting and off cutting.</p>	 <p>Long press to enter trimming parameter adjustment</p> <p>Long press  to adjust trimmer parameters.</p>

<p>5</p>	 (suction function key) (Trimmer switch)	 Press the key to enter the suction adjustment, repeat the key to cut Change: front suction, back suction, front and rear suction, off,  Press to switch suction device in turn: front suction, rear suction, front and rear suction and off suction.	 Long key to enter the suction parameter adjustment  Long press to adjust parameters of suction device.
<p>6</p>	 (needle stop adjustment key) (Stop pin position adjustment button)	 Switch the upper and lower needle stop positions when the jog key is pressed  Press to switch up or down stop pin position.	 Long press to enter needle position parameter adjustment  Long press to adjust pin position parameter.
<p>7</p>	 (speed adjustment key) (Speed adjustment button)	 Press the key to enter the speed adjustment, and then pass,  Press the key to adjust the required speed, and the speed will be saved automatically. Press  to enter speed parameter and press  or  to change the speed value (value automatically saved)	 Press and hold the key to enter the speed lock (password required code)  Long press to lock speed parameter (password required)
<p>8</p>	 (thread loosening function adjustment key)	 The electric button enters the thread loosening mode adjustment, and repeats the jogging to cut Change: front thread loosening, rear thread loosening, front and rear thread loosening, thread loosening off.	
<p>9</p>	 (head light adjustment key) (Machine LED button)	 Enter the brightness adjustment of the LED light on the machine head when the button is pressed (1-5 gears) Press  button to enter into the adjustment of the LED light (1-5 degree)	
<p>10</p>	 (menu) (Menu button)	Jog to enter user parameters Press to enter user parameters	Long press to enter system parameters (password required) Long press to enter system parameters (password required)
<p>11</p>	 (Enter) (Confirm button)	parameter confirmation key Parameter confirm button	
<p>12</p>	 (value adjustment key) (Numerical adjustment key)	Up key (add when modifying data) Up key (when increasing value)	

13	 (value adjustment key) (Numerical adjustment key)	Down key (minus when modifying data) Up key (when increasing value)	
14	 (left key) (Filter key)	Left key (the cursor moves to the left when entering the parameter item) Left key (when adjusting items)	
15	 (Right shift key) (Filter key)	Right key (the cursor moves to the right when entering parameter items) Left key (when adjusting items)	
16	F-SENSOR	Front light eye indicator light Front sensor indicator	When the light eye is blocked, the light is on, and when it is not blocked, the light is on; if it is not blocked, the light is on; it is necessary to check the light eye sensitivity. When the sensor is blocked, the light will be on, when it is not blocked, the light is not on ; if it is not blocked, the light is on; the sensor sensitivity needs to be checked.
17	M-SENSOR	Mesotropic eye indicator light Medium sensor indicator	When the light eye is blocked, the light is on, and when it is not blocked, the light is on; if it is not blocked, the light is on; it is necessary to check the light eye sensitivity. When the sensor is blocked, the light will be on, when it is not blocked, the light is not on ; if it is not blocked , the light is on; the sensor sensitivity needs to be checked. This light is on, and it is not on when it is not blocked; if it is not blocked, this light is
18	B-SENSOR	Rear light eye indicator light Back sensor indicator	on; you need to check the sensitivity of the light eye. when the sensor is blocked, the light will be on, when it is not blocked, the light is not on ; if it is not blocked, the light is on; the sensor sensitivity needs to be checked. When the safety switch is off, the SAFE light is on When it starts, check
19	SAFE	security light Safety switch indicator	whether the safety switch is sensed. When the safety switch is off and the SAFE light is on, check that the safety switch is responsive.


1.3. Open mesh mode and adjust sensitivity:

1.3.1.  to enter the worker parameter list, click () or () to the **P-33** mesh mode, and press the  and  keys to

Change **0** to **1**, press the  key to save the parameter and exit the system parameter.

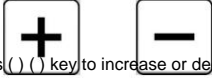
Note: The mode in the display area before the mesh mode is not turned on is: OFF The mode in the display area after the mesh mode is turned on is: ON

1.3.2. Mesh mode light eye sensitivity automatic adjustment selection:

ÿ. Long press to enter the automatic adjustment mode of optical eye sensitivity, and the key  (thin material) is automatically corrected; the sensitivity receiving value: the front, middle and back values are all 52-55 between.



ÿ. If the value is not between 52-55, it needs to be adjusted slightly; move the (L) key to select the modified parameter value, and a flash will appear in the selected place.



flashing; press () key to increase or decrease the value in the flashing area, after modifying the parameters, you need to press () key to save the parameters and exit the system parameter

number.

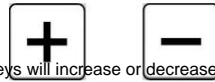
2: How to enter parameters and how to modify parameters:

How to enter parameters and how modify the parameters

The list of technician system parameters is shown in Table 1:



2.1. Press and hold the (P) button for 2 seconds to enter the "System Parameters" list (password is required to enter the adjustment). (L) (R) keys will select the modified



Whether it is a parameter value or a menu value, the selected place will flash after jogging. () () keys will increase or decrease the value in the flashing area, modify



After changing the parameters, you need to press the () key to save the parameters and exit the system parameters.

Note: The above is the entry method, and the meaning of the parameter represented by the specific parameter number is as follows:

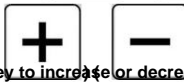
Factory default password: 2014

System parameter entering analysis:

2.1ÿLong press (P) button for 2seconds to enter "System Parameter" list (requires a password to enter the



adjustment)(L)(R) key to select to modify parameter value or menu value. Then,the selected value will be



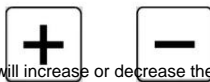
flashing () key to increase or decrease the value.After completing modification,press () save parameters and quit system parameters. ÿ Above is to (OK) button to

enter method,the details of specific parameters describe as follows: ÿ Factory default password:2014

The list of worker parameters is shown in Table 2:



2.2. Press the jog key to directly enter the parameter, and the (L) (R) key will select whether the parameter value or the menu value is to be modified. After jogging, the selected place will be



Flashes, () () keys will increase or decrease the value in the flashing area, after modifying the parameters, you need to press the () key to save the parameters and exit

System parameters.

Technician system parameter list: Technician system parameter list Table 1

serial number System parameter list	Function Description Function description	Function parameter default value Parameter default values	Function parameter range Parameter Adjustment range	Parameter Description Parameter description
S01	stitches Thread track	3	1~4	
S02	Number of pins between two sensors Stitch number between two sensors	20	1~50	Set the number of stitches between two photocells Set stitch number between two sensors
S03	Delay stitches before thread trimming Delay stitch number to cut thread after front sensors	4	0~50	The number of needles that delay trimming after being sensed by the light eye at the back Set delay stitch number after passing front sensors.Auto cut thread after stitches
S04	bifocal mode Post-trimming delay stitches Delay stitch number to cut thread after two sensors	06	0~50	The number of needles to delay thread trimming after the back light eye leaves Set delay stitch number after passing two sensors.Auto cut thread after stitches
	Triple Eye Mode Front trimming delay stitches Delay stitch number to cut thread after three sensors	0	0~50	
S05	The number of opening needles for the delay air inhalation before Delay stitch number for Number of suction needles before starting front air suction	2	1~50	Inhale from the first stitch after sensing the first light eye Set delay stitch number for starting front air suction after triggering first sensor
S06	Front suction close stitches no.	14	1~50	After opening, close the suction after counting a few stitches Account how many stitches begin to close former suction
S07	The number of stitches to open after inhalation delay air back suction start stitches no.	2	1~50	How many needles to start inhaling after leaving the posterior light eye After leaving latter photo-eye,how many stitches begin suck
S08	Post-inspiratory delay off the delay of back suction close	200	100~5000MS	After leaving the light eye, close the inhale after counting for a few milliseconds After leaving latter photo-eyes,count how many milliseconds off suction
S09	Number of stitches before thread loosening delay front thread loose delay	00		
S10	Number of front loosening stitches Front thread loose stitches	12		
S11	Number of stitches after thread loosening delay Back thread loose start	00		
S12	Number of stitches for parking delay machine stop delay stitches no.	2	1~99	How many stitches automatically stop after thread trimming How much stitches auto parking after trimmer
S13	Middle inhalation delay opening needle number middle suction start stitches no.	50	1~250	Middle suction interval stitches
S14	Medium suction needles middle suction close stitches no.	20	1~100	Medium suction needles Middle suction stitches
S15	Posterior shear eye (third eye) delayed detection	25	1~100	Three-light eye mode: After how many stitches the cloth leaves the middle light eye, the third light is not detected.

	Number of needles the needle no. of the delay of back cutting line			The three-eye signal starts to cut the thread Leave in the light eye after much after the needle cannot detect the third eye signal begins to cut the line
S16	Front Sensor Response Time front sensor respond time	40	1-100MS	The response time after the front light eye is sensed The response time when former photo-eye sense
S17	Front Sensor Sensitivity front sensor sensitivity degree	55%	20-175	Sets the emission strength of the front light eye for different cloths Setting photo-eye through the fabric strength,to adapt to different fabrics
S18	Rear sensor sensitivity Back sensor sensitivity degree	55%	20-175	Sets the emission strength of the back light eye to suit different cloths Setting photo-eye through the fabric strength,to adapt to different fabrics , the presser
S19	Forward lift presser foot retention time front foot presser lift retaining time	220	100-2000MS	foot is automatically lifted when the front eye senses the cloth, and the maintenance time is when front sensor feel the cloth, the foot presser lifter maintain time
S20	Rear presser foot lift start time back foot presser lift start time	0	0-2000MS	Response time of pedal back presser foot (milliseconds) The lift foot response time after latter foot pedal(millisecond)
S21	Presser foot lift protection time foot presser protection time	6	1-120S	How long does it take to manually lift the presser foot to automatically turn off the presser foot output (seconds) Lifter the foot presser by hand some time then Auto close foot presser output(second)
S22	Presser foot release protection time release foot presser protection time	20	20-800MS	Presser foot release protection time (milliseconds) the foot presser release protection time (millisecond)
S23	continuous cloth feeding suction trimming continue feed cloth suction cutting line	0	0-1	0: off 1: on 0:Close 1:Open
S24	Manual switch action operate during operation manual switch action	1	0-1	0: When the motor is running, the manual thread trimming will not be trimmed, 1: It can be trimmed 0:When the motor is running, tuch manual switch no cutting, 1:Have cutting
S25	Safety switch selection safe switch choice	3	0-3	0: Close the safety switch 1: Sewing table safety switch 2: Presser foot Safety switch 3: Sewing table + presser foot safety switch is on 0:off safety switch 1:Seam safety switch 2:Foot safety switch 3:
S26	Cutter retention time the knife retaining time	35	1-1000MS	Cutter action time (basically no need to adjust) Cutting action time (basically no adjustment)
S27	interface recovery time recover time	5	5-100S	How long does it take for the control panel to jump back to the main interface after entering the menu? entering the control panel ,how much time to jump back to the main menu interface
S28	Optical eye mode (quantity selection) sensor mode (number choice)	2	1-2	1: Single vision 2: Double vision ý: The third vision needs to be opened separately ýS35ý 1:single photo-eye 2:double photo-eye
S29	Front light eye polarity selection front sensor polarity	0	0-1	reflective eye Opposite polarity opposite
S30	Rear light eye polarity selection back sensor polarity presser	0	0-1	reflective eye Opposite polarity The time when the
S31	foot full power time foot presser full power time	180	10-990MS	presser foot works at full power Time of full power operation

S32	Presser foot power at full power foot presser full power	100	20-100%	Instantaneous output power when the presser foot starts to move When the foot starts to move, the instantaneous output power
S33	Presser foot holding power foot presser retaining power	25	10-90%	After the presser foot is lifted, maintain the power (cannot exceed 50) Pressure foot lift after the maintenance of the power to live (not more than 50)
S34	Rear cut photoeye sensitivity (side of scissors) third eye back cutting line sensor After the sensitivity degree ,	55	5-99%	The third sensor Emission intensity
S35	the scissor eye is turned on (on the side of the scissors) back cutting line sensor start	1	0-1	0: closed 1: open 0: closed 1: open
S36	reserved obligate	01		
S37	language selection language choice	0	0-2	0: Chinese 1: English 2: Turkish 3: Vietnamese 0: Chinese 1: English 2: English 2: Maximum adjustable speed
S38	maximum speed lock the max speed locked	4800	250-6500	limit of Turkish motor Maximum adjustable speed limit for motor
S39	parameter reset parameter reset	0	0-1	Adjust to 1 and long press the OK button to be effective Transferred to 1 long-press the OK button to effective
S40	parameter password	2014		Note: If you can't remember the password, remember not to modify it; if you forget to modify the password, It needs to be sent back to the manufacturer for re-encryption.
S41	reserve	2500	250-4500	
S42	reserve	008	1-100	
S43	Mesh stitches	06	0-15	

Workers system parameter list: The **workers system parameter list**

Table 2

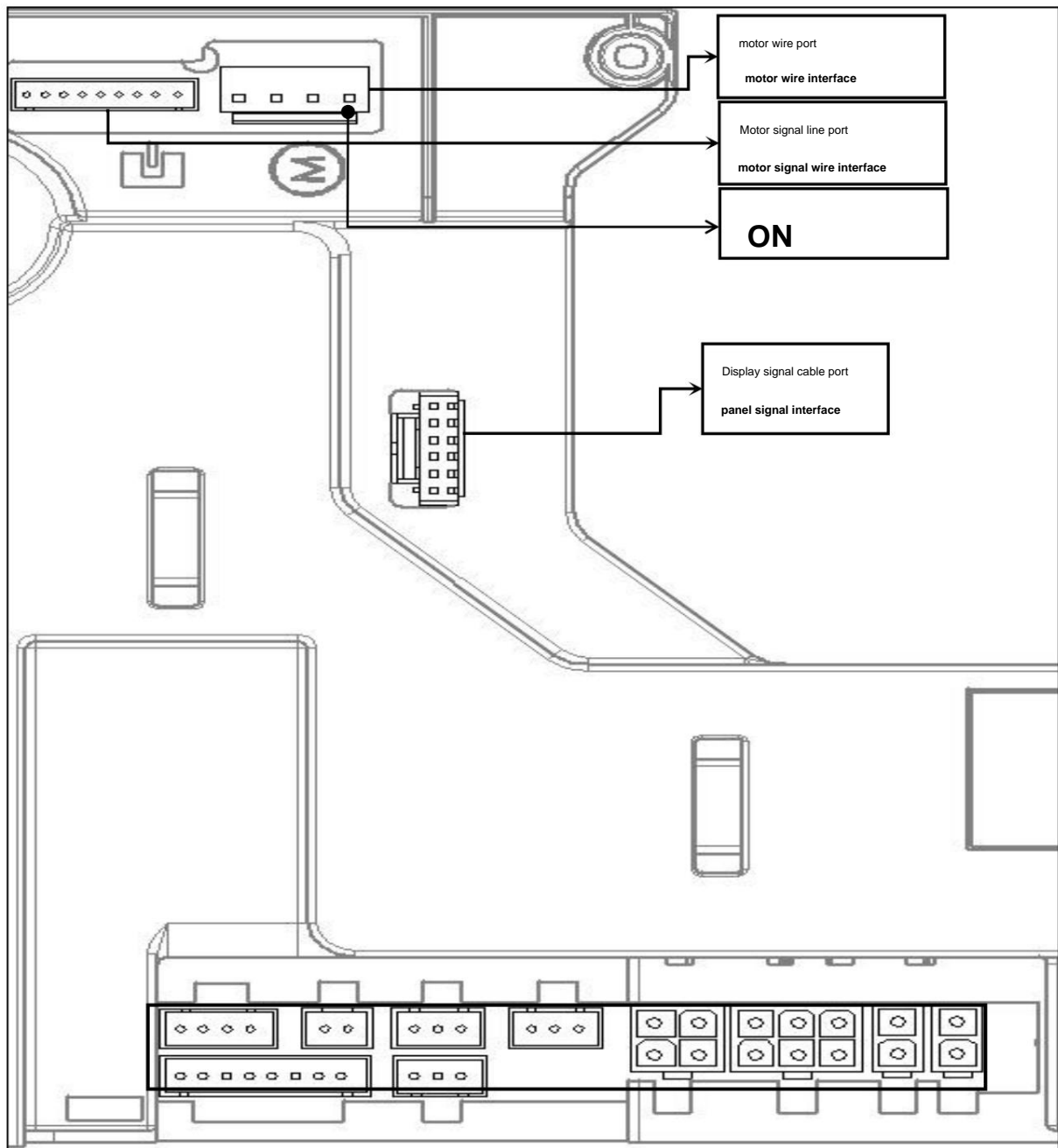
serial number System parameter list	Function Description Function description	Function parameter default value Parameter default values	Function parameter range Parameter Adjustment range	Parameter Description Parameter description
P-01	operating mode Operate mode electric	0	0-1	0: semi-automatic 1: fully automatic 0: semi automatic 1: fully automatic
P-02	eye switch sensor switch	1	0-1	0: off 1: on 0:Closed 1:Open
P-03	Trimming cutting line	3	0-3	0: Off 1: Front trimming 2: Back trimming 3: Front and rear trimming 0: close 1: before the cut line 2: after the cut line 3: before and after the shear line
P-04	inhale suction	3	0-3	0: Off 1: Front suction 2: Back suction 3: Front and rear suction 0: closed 1: before the inspiration 2: after the inspiration of 3: before and after the inspiration
P-05	Rear puller back pulley wheel	0	0-2	0: Off 1: Sewing 2: After sewing 0: close 1: sewing in 2: after sewing

P-06	<small>presser foot</small> foot presser	3	0-3	0: No presser foot lift 1: Front presser foot lift 2: Back presser foot lift <small>3: Lift the presser foot forward and backward</small> 0: no lifting of the foot 1: front lifting foot 2: after the lifting of the foot 3: before and after the lifting of the foot 0:
P-07	start speed mode start speed mode	1	0-1	automatic 1: foot pedal 0: automatic 1: pedal
P-08	Parking needle needle position	0	0-1	0: Needle up position 1: Needle down position 0:Upper pin position 1: a needle
P-09	<small>Automatic presser foot lifter when parking</small> machine stop auto foot presser lifting	0	0-1	0: off 1: on 0:Closed 1:Open
P-10	manual suction suction by hand	1	0-1	0: off 1: on 0:Closed 1:Open
P-11	Seam opening speed start sewing	4800	200-5500	
P-12	speed maximum speed Max speed	5000	200-5500	
P-13	Work Light Brightness the degree of the working LED light	4	0-5	
P-14	Backlight brightness the backlight degree	1	0-1	0: off 1: on 0:Closed 1:Open
P-15	Semi-automatic continuous sewing semi-auto continue sewing	0	0-1	0: off 1: on 0:Closed 1:Open
P-16	<small>Semi-automatic constant speed thread trimmer</small> semi-auto constant sewing	0	0-1	0: off 1: on 0:Closed 1:Open
P-17	front presser foot front foot presser lift	0	0-1	0: Automatic mode 1: Manual mode automatic mode 1: manual mode
P-18	<small>Foot control thread trimmer</small> foot controller cutting line	0	0-2	0: closed 1: manual 2: free sewing semi-automatic 0: closed 1: full manual 2: free stitch semi-automatic
P-19	inhale middle suction	1	0-1	0: off 1: on 0:Closed 1:Open 0:
P-20	half step back presser foot half back foot resser lift	0	0-1	Closed 1: Open 0:Closed 1:Open
P-21	<small>Presser foot lift after thread trimming</small> foot presser lift after cutting	0	0-1	0: off 1: on 0:Closed 1:Open
P-22	Close manual presser foot lift close manual foot presser lift free	0	0-1	0: off 1: on 0:Closed 1:Open 0:
P-23	seam opening start free sewing	0	0-1	Closed 1: Open 0:Closed 1:Open
P-24	<small>Post-trimming optical eye delay detection</small> back cutting line sensor delay check	1	0-1	0: off 1: on 0:Closed 1:Open
P-25	<small>loose thread</small> thread tension releasing	3	0-3	0: Off: 1: Front thread loosening 2: Back thread loosening 3: Front and rear thread loosening 0: close 1: front thread tension releasing 2: back thread tension releasing 3: front and back thread tension releasing
P-26	Automatic run-in operation auto running	0	0-1	0: off 1: on 0:Closed 1:Open

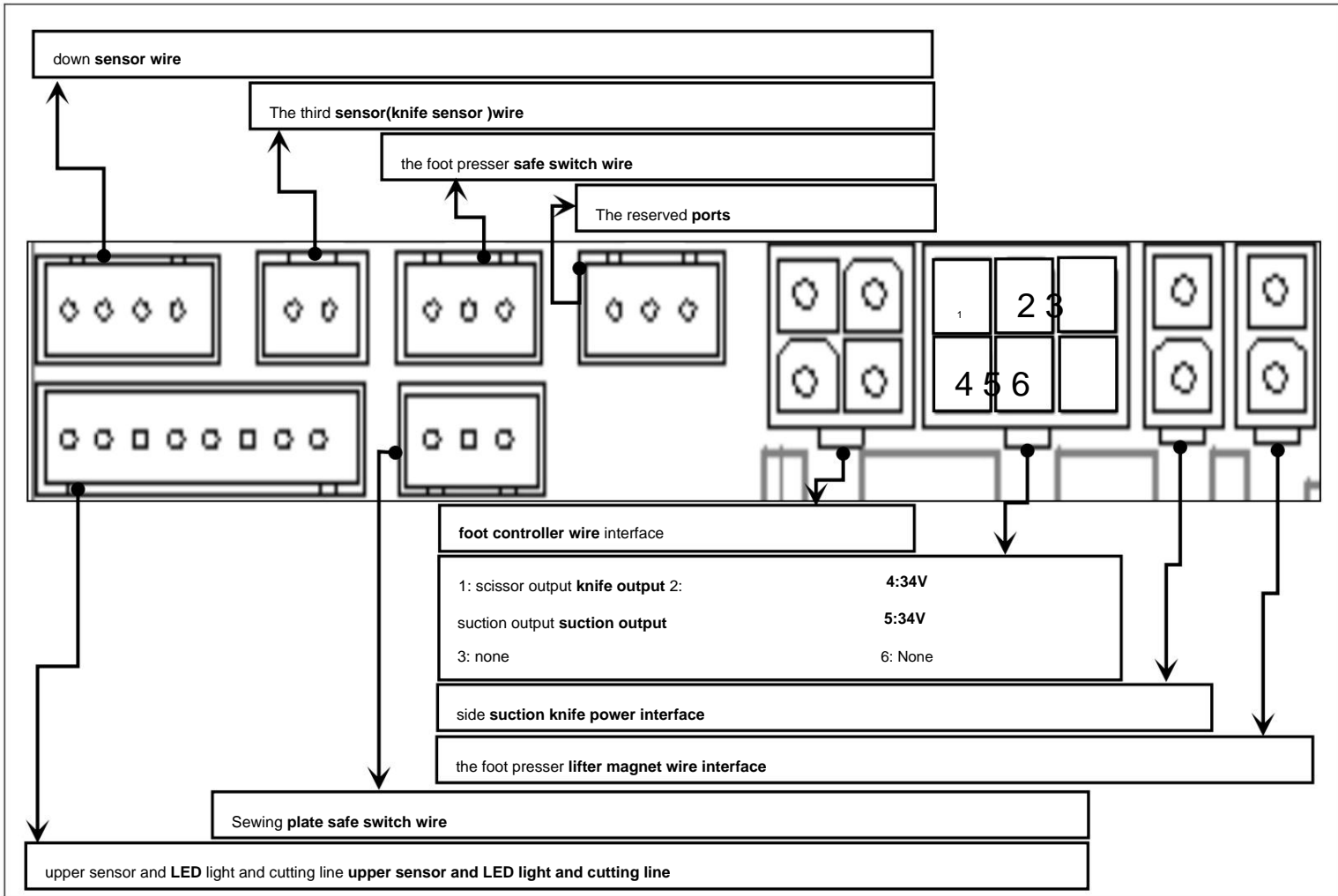
P-27	Automatic run-in running time auto runningn time	4	3~20	The time unit is: Second
P-28	automatic run-in running stop time auto running stop time	2	2~20	The time unit is: Second
P-31	Volume adjustment volume adjustment	020	025	
P-32	Turn off the startup voice close the start voice	0	0y1	0: off 1: on 0: close 1: open
P-33	mesh pattern	0	0-1	0: off 1: on 0: close 1: open
P-34	no parking	0	0-1	0: off 1: on 0: close 1: open

3: Control box port description

Control box interface instruction



3.1. Terminal socket description:



4: Fault code analysis

Error Code Resolution

error code Error Code	Fault description Error Description	Cause of failure the reason of the Error	Troubleshooting the resolution of the error
ER-01	Can't find stop position not find needle position	1: The hand wheel and the motor are not enough to advance 2: The magnetic steel on the hand wheel falls off 3: The polarity of the handwheel magnet is reversed 4: Poor contact of the nine-pin terminal 5: The Hall of the motor is damaged 1: hand wheel and motor is not enough. 2: hand wheel steel shed 3: hand wheel magnet polarity 4: bad contact terminal nine 5: motor Holzer damage 1: The	1: Check whether the motor signal wire is loose 2: Replace the handwheel 3: Replace the motor 1: check whether the motor signal line is loose 2:replace the wheel 3: replace the motor
ER-02	Governor signal error Foot controller signal error	governor is not plugged in when starting up 2: The governor is inserted in reverse 3: Governor line disconnected 4: The governor is damaged 1: start without connecting the foot controller 2: Foot controller plug back	1: Check the governor signal line 2: Replace the governor 3: Replace the controller 1: check the foot controller signal line 2: change the foot controller 3: replace the foot controller

		<p>3: the foot controller line is disconnected</p> <p>4: Foot controller damage 1: Poor</p>	
ER-03	<p>Motor phase signal error</p> <p>Motor phase signal error</p>	<p>contact of the nine-pin plug</p> <p>2: There is a large deviation between the Hall and the rotor when the motor is installed</p> <p>3: The motor Hall is broken</p> <p>1: bad contact of nine pin plug .</p> <p>2: there is a large deviation in the installation of the motor Holzer and the rotor</p> <p>3: motor Holzer bad</p>	<p>1: Open the rubber cover on the motor and look at the motor through the hole</p> <p>Whether the rotor and the stator are on the same plane to ensure the error</p> <p>No more than 1MM</p> <p>2: Replace the motor</p> <p>3: Replace the controller</p> <p>1: open the rubber cover on the motor through the hole to see whether the motor rotor and stator in the same surface to ensure the error is not more than 1MM</p> <p>2:replace the motor</p> <p>3: replace the controll box</p>
ER-04	<p>Motor stall protection</p> <p>Motor locked rotor protection</p>	<p>1: The sewing machine is too heavy or blocked</p> <p>2: Motor overload</p> <p>3: The 4 -wire drive line of the motor is not connected properly or inserted backwards</p> <p>1:sewing machine is overweight or blocked</p> <p>2: motor overload</p> <p>3: motor 4 wire drive line is not connected or inserted back</p>	<p>1: Check the motor 4P line</p> <p>2: Check whether the sewing machine is too heavy</p> <p>3: Replace the controller</p> <p>1: check motor 4P line</p> <p>2: check whether the sewing machine is too heavy</p> <p>3: replace the controller</p>
ER-05	<p>Hardware overcurrent protection</p> <p>Hardware overload protection</p>	<p>1: The sewing machine is too heavy or blocked</p> <p>2: The motor is overloaded</p> <p>3: The motor phase signal line is not connected properly</p> <p>1: sewing machine is overweight or blocked</p> <p>2: motor overload</p> <p>3: motor phase signal line is not connected</p>	
ER-07	<p>Display and motherboard communication timeout</p> <p>Serial communication timeout</p>	<p>1: The connection between the display screen and the motherboard is not good.</p> <p>2: The motherboard chip is damaged</p> <p>1: Connect error between display panel and mainboard</p> <p>2: motherboard chip damage</p>	<p>1: Check the connection between the display screen and the controller</p> <p>2: Check whether the controller is still operational, if not Running is the controller is broken</p> <p>3: Check whether there is high-frequency machine interference next to the machine</p> <p>4: Replace the display</p> <p>1:Check the connection line between the display screen and the control box.</p> <p>2: check whether the controller run well, if not, controller damage</p> <p>3: check whether there is a high frequency machine near the machine interference</p> <p>4: change the display panel</p>
ER-09	<p>bad memory</p> <p>memory error</p>	<p>1: The motherboard memory is damaged or bad</p> <p>Memory on mainboard damage or error 1: The display</p>	<p>1: Controller damage 1: control box damage</p>
ER-10	<p>Optical eye control circuit failure</p> <p>Sensor control line error</p>	<p>is connected to the light eye circuit is bad</p> <p>1:Connect error between display paneland sensor</p>	<p>1: The display screen is damaged</p> <p>2: Poor contact of the optical eye cable on the back of the display screen</p> <p>1: display panel damage</p>

			2: Connect error between display panel and sensor
ER-15	Encoder failure the motor board error		
ER-16	overvoltage Over load	<p>1: Motor drive power supply voltage is too high,</p> <p>2: The 220V power supply voltage exceeds the limit value (AC310V), or the load inertia is too large to cause the regenerative voltage to exceed the limit Fixed value (DC440V), or voltage detection circuit failure. Note: (110V control system power supply voltage exceeds the limit value (AC155V), or the load inertia is too large to cause the regenerative voltage to exceed the limit value (DC440V), or the voltage detection circuit fails.</p> <p>The generated voltage exceeds the limit value (DC220V).</p> <p>1. The motor drive power supply voltage is too high, the 220V power supply voltage exceeds the limit value(AC310V), or the load inertia is too large to the regenerative voltage exceeds the limit value(DC440V), or the voltage detection circuit fails.</p> <p>Note:(110V control system power supply voltage exceeds limit value(AC155V), or load inertia is too large to regeneration voltage exceeds limit value(DC220V).</p>	
ER-17	Phase A current detection failure A current checking error		
ER-18	Phase B current detection failure B current checking error		
ER-19	AB phase current detection fault A&B current checking error		
ER-20	Undervoltage fault Less volt error	<p>1. The motor drive power supply voltage is too low, the 220V power supply voltage is lower than the limit value (AC91V), or the motor drive power supply voltage is lower than the limit value (DC130V), or the voltage detection circuit is faulty.</p> <p>Note: (110V power supply voltage is lower than the limit value (AC45.5V),</p> <p>Or the motor drive power supply voltage is lower than the limit value (DC65V))</p> <p>1. The motor drive power supply voltage is too low, the 220V power supply voltage is lower than the limit value(AC91V), or the motor drive power supply voltage is lower than the limit value(DC130V), or the voltage detection circuit fails.</p> <p>Note:(110 V power supply voltage is below the limit(AC45.5 V), or motor drive power supply voltage is below the limit(DC 65V))</p>	