门襟包缝机

Automatic placket serging unit

（MB3001C-PS-MX5204）

使用说明书

Instruction Manual

常州智谷机电科技有限公司

CHANGZHOU WISDOM & VALLEY ELECTRICAL TECHNOLOGY CO.,LTD

在使用本设备之前请先阅读本使用说明书.

Please read the operation manual of the touch screen interface before using the device

请将本使用说明书放在便于查阅的地方保管

Please keep this operation manual of touch screen interface in convenient place for reference

版本信息/ Version

2022.04.03

感谢购买 IMB 工业用缝纫机。
在使用此机器之前，请仔细阅读以下的说明，这样可以更好地帮到您了解此机器的相关操作。
这些说明是根据现行的条例明确阐述了正确的工作方法。
Thank you for purchasing this industrial sewing machine from IMB
Before using this automatic unit, please read the following instructions, which will help you to
understand how the machine operates.
These instructions illustrate the correct working methods to comply with current regulations.

我们将欣然接受各位提出的改进此说明书的任何建议和指示
We are happy to receive suggestions and/or indications on ways we could improve this manual.

本机介绍说明分为两部分，具体请参照《MB3001C-使用说明书》、《MB3001C-零件手册》。

The introduction of this machine is divided into two parts. For details, please refer to 《MB3001C Operation manual》 and 《MB3001C Parts Manual》

IMB®
AUTO SEWING MACHINE

ENGLISH

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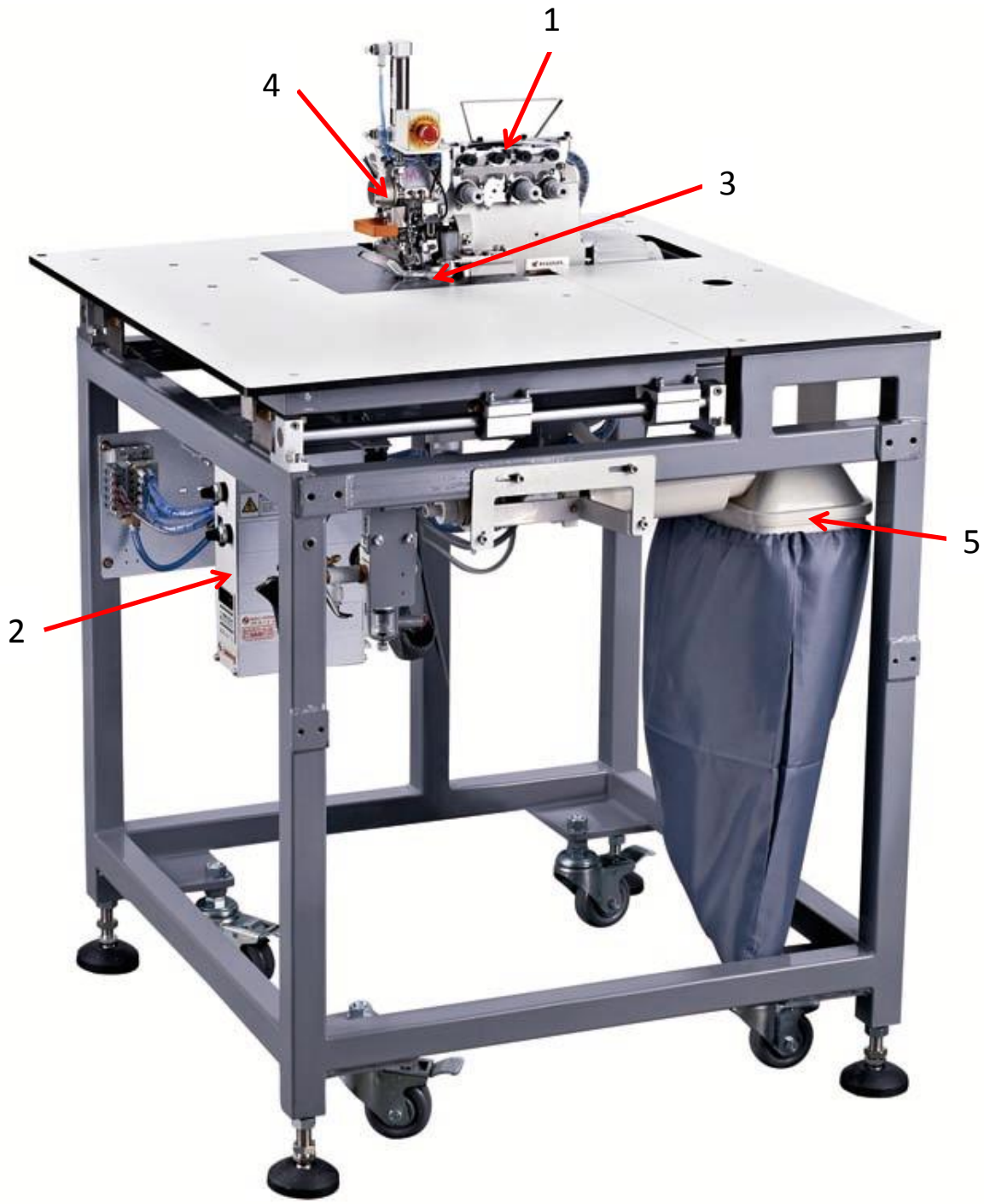
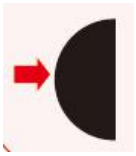
1、Basic information of the equipment



1：Machine head　　2：Control box;　　3：Guide;

4：Hammer　　5：Dust collection;

2、Technical parameters of the equipment

MB3001C Automatic placket serging unit		
1	Machine head	MX5204(P)-22Z5/213-5/KS9A/Y2159
2	Fabric thickness	Thin to medium thick
3	RPM (sti/min)	5000
4	Needle	1
5	Thread qty	3
6	Stitch width (mm)	4
7	Working voltage/V	220
8	Working pressure/Mpa	0.5
9	Size/mm	800L×800W×900H
10	Weight/kg	100
11		Semicircle
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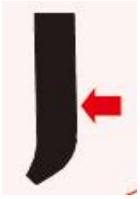
13		J shape

3、Safety precautions

Considerations for safe use of automata

 危险	1. In order to prevent accidents caused by electric shock, please do not open the cover of the electrical box of the motor or touch the parts in the electrical box when the power is connected.
 注意	1. In order to prevent personal injury, please do not operate the machine in the state of removing the belt guard, finger protector and other safety devices. 2. In order to avoid being involved in the machine's personal accident, please do not let your fingers, hair, clothes near the pulley, v-belt, motor, and do not put items on it during the operation of the sewing machine. 3. To prevent personal injury, please do not put your finger near the needle when turning on the power or running the machine. 4. In order to prevent personal injury, please do not put your fingers in the wire pole guard during the operation of the sewing machine. 5. When the machine is running, it turns at a high speed. To prevent damage to the hand, never let the hand near the cutter during operation. In addition, when changing the cable, please be sure to turn off the power. 6. In order to prevent personal injury, please be careful not to pinch your fingers when the machine moves up and down or when you return to the original position. 7. Please do not cut off the power or air supply while the machine is running. 8. In order to prevent accidents caused by sudden starting, please remove the cloth guide when the preparation work is finished and the sewing state is reached. 9. In order to prevent accidents caused by electric shock, please do not operate the sewing machine when the ground wire of the power supply is removed. 10. In order to prevent accidents caused by electric shock and damage to electrical parts, be sure to turn off the power switch before inserting or unplugging the power plug. 11. In order to prevent accidents caused by damage of electrical parts, please stop the operation for safety when it thunders and pull the power plug. 12. In order to prevent accidents caused by damage to electrical parts, condensation will occur when moving from a cold place to a warm place immediately, so please wait until the water drops dry before switching on the power. 13. As this product is a precision machine, please pay full attention to it during operation, do not splash water or oil on the machine, and do not let the machine fall and give the machine impact. This machine is A class A industrial machine. The use of this machine in the home environment may cause the phenomenon of radio interference. At this point, please take appropriate measures to solve the problem of radio interference. 15. After the power switch is turned off when the accumulator moves, the accumulator lever moves, so please be careful not to clip your finger, etc. 16. When the power switch is turned off during the foot press action, please

	be careful not to pinch your fingers. 17. During folding operation, please be careful not to clip the cylinder to your finger when putting your finger into the folding machine.

* important safety information:

√ improper operation of the machine may cause personal injury. Please read this instruction carefully and operate correctly before operation.

√Please ventilate the machine before it is officially powered on.

√ do not turn on the internal parts of the electric cabinet or touch screen while the power is on.

√ this machine should be used after receiving training or under special instruction to ensure the safety of the user.

4、key function description

4.1 . Function description of the button

(1) : Power switch - press the switch to power on。

(2) : Adjust knob 1 --- adjust the response speed of electromagnet under cyclic pressure。

(3) : Adjust knob 2 --- adjust the pressure under the electromagnet。

(4) : Operation screen - sewing machine parameter adjustment。

(5) : Emergency stop button - equipment emergency stop。

5、Operating instructions

5.1. Preparation before operation

√ The machine head shall be in the stop state when the operator checks it

√ Check whether the sewing thread has been put on correctly

√ Check whether the needle has been installed

√ Clean the sundries on the machine table to ensure that there are no sundries hindering the operation of the machine

√ Check the pressure of the air pressure gauge to make it meet the use requirements of the machine

√ Check whether the eye guard has been installed correctly

5.2. Operation process description

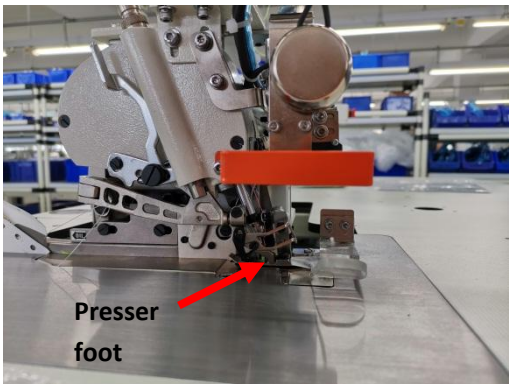
5.2.1 Boot device

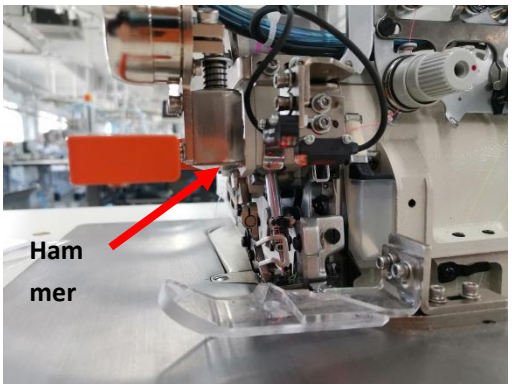
O: OFF

Press I: ON to ON

5.2.2 Reset status

Start up and reset automatically. In the start-up state, the presser foot is lifted and the hammer is lifted (see the figure below)。





5.2.3 Sewing

Push the fabric to be sewn vertically into the guide mechanism. After sensing the fabric, the induction switch will drop the hammer and press down to sew the opening seam。

5.2.4 Shutdown

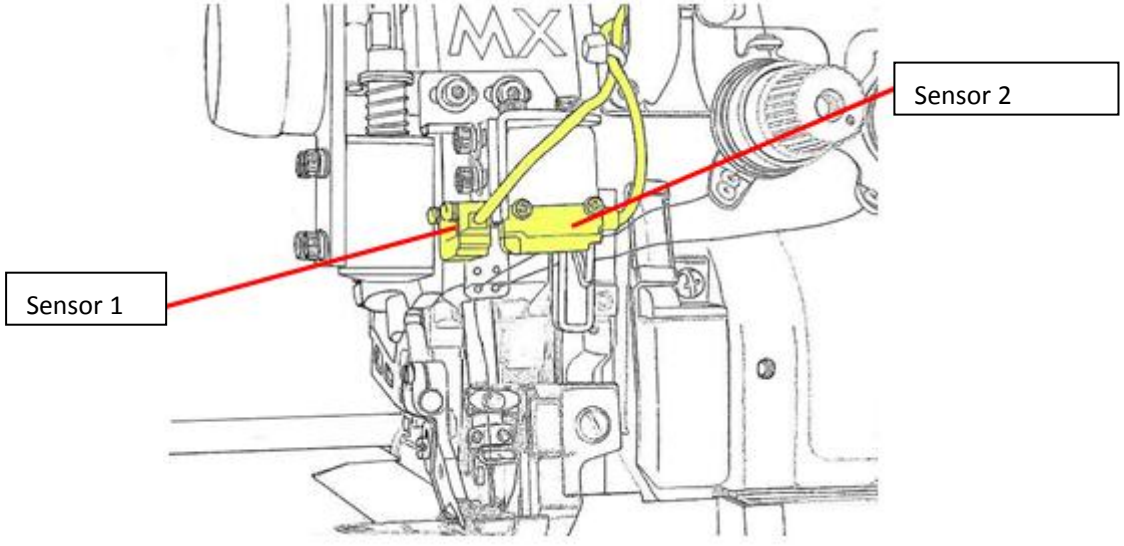
O: OFF

Press I: ON, to OFF。

6、Debugging method

6.1. Position adjustment of sensor

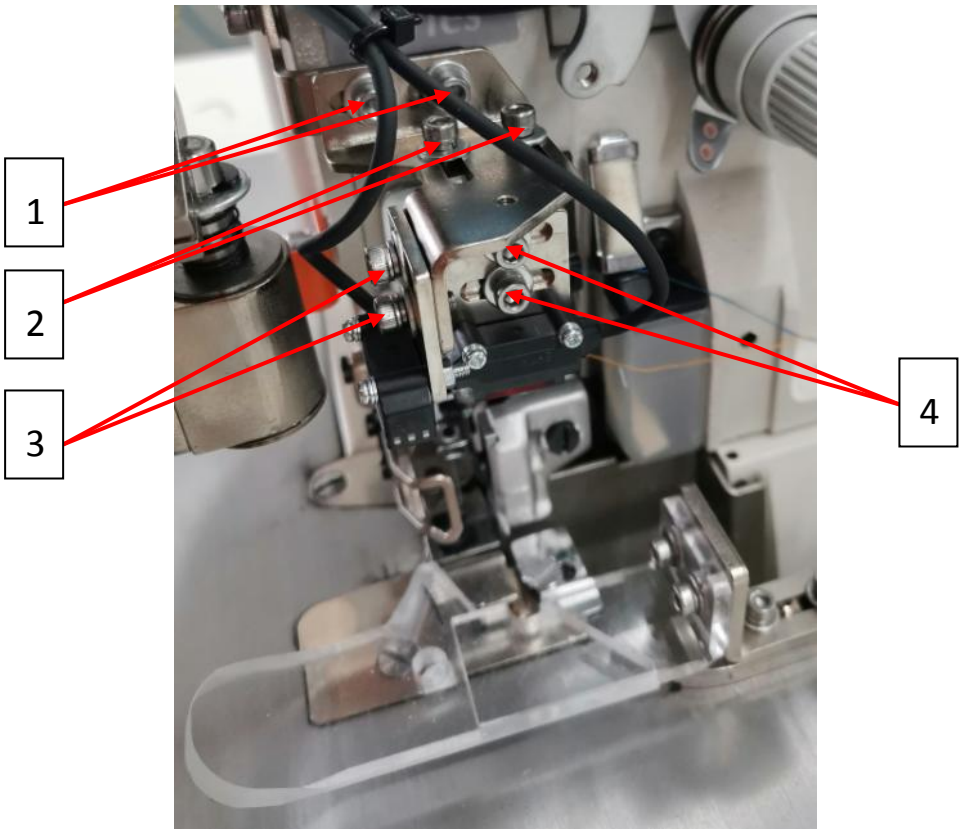
1）、Sensor function:



Sensor 1: Start sewing when fabric is detected。

Sensor 2: Drop the hammer when the cloth is not detected. In this way, the circular arc sewing of cloth can be realized. When the signal is not detected by the No.1 optical eye, the sewing stops after the cutter cuts the thread。

2）、Position adjustment of sensor:



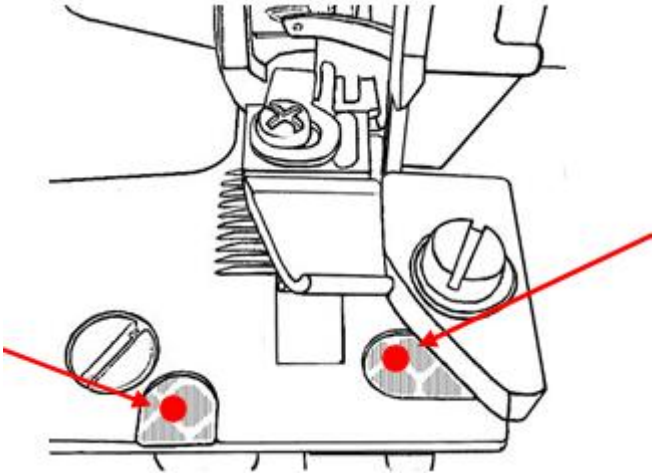
As shown above: Screw 1 adjusts the front and back positions of the sensor of the opening seam and the rotary drop hammer at the same time;

Screw 2 adjusts the left and right positions of the sensor of the rotary drop hammer separately;

Adjust the left and right positions of the sensor of the opening seam separately with screw 3;

Screw 4 adjusts the front and back position of the rotary drop hammer eyelet separately。

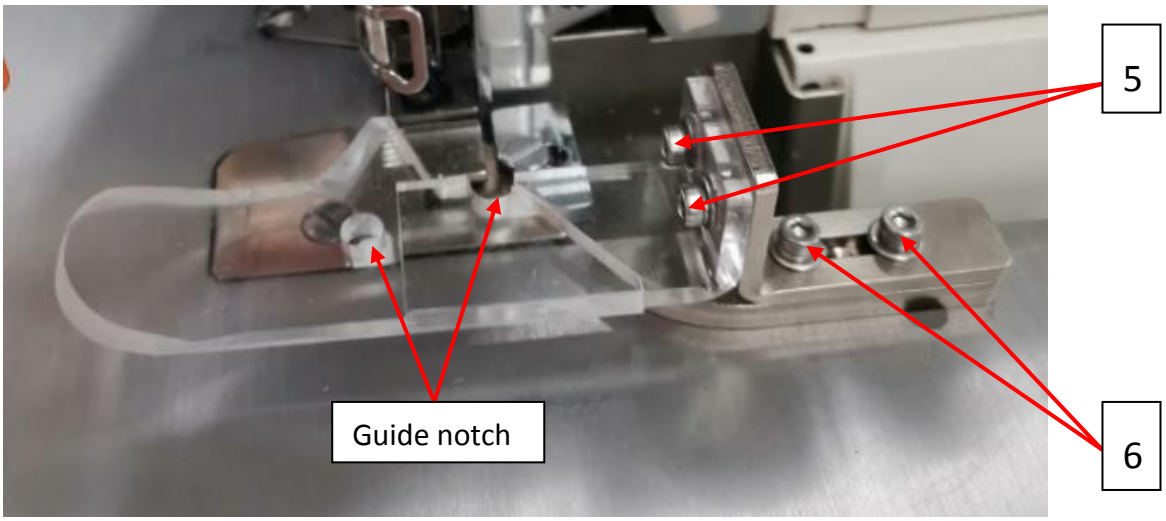
Note: adjust the position of the two corresponding eyes by adjusting the screw, so that they correspond to the red point position of the reflective paper pasted on the head (see the figure below)。



6.2. Adjustment of guide mechanism

1）、Function of guiding mechanism:

The function of fabric guide mechanism is to guide the fabric to be sewn into the machine head for sewing, so as to avoid the curling and displacement of fabric and ensure the smooth feeding of fabric. 2）、Position adjustment:



As shown above: Screw 5 adjusts the up and down position of the guide plate to make the cloth flat and smooth;

Screw 6 adjusts the front and rear position of the guide plate so that the gap of the guide plate is aligned with the reflective sticker below。

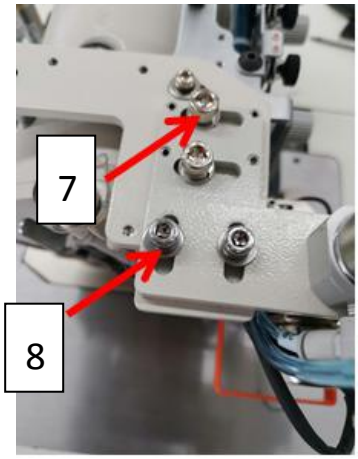
6.3. Adjustment of drop hammer

1）、Function of drop hammer device:

The circular arc of the cloth can be sewn through the intermittent pressing of the falling hammer device and the linear conveying of the teeth。

2）、Position adjustment:

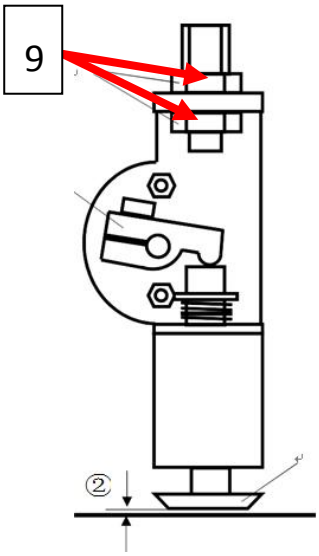
Drop weight point position adjustment:



As shown above, Screw 7 adjust the left and right position of the drop hammer point;

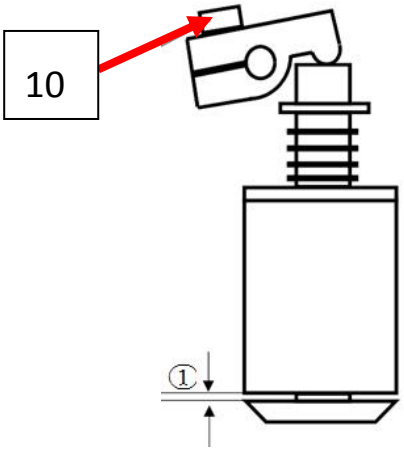
Screw 8 adjust the front and rear position of the drop hammer point;

Drop weight down height adjustment:



As shown above, Adjust the lowest position of the falling hammer device after the falling of the screw 9, so that the gap between the falling hammer and the platform plate ② is slightly smaller than the thickness of the sewn cloth;

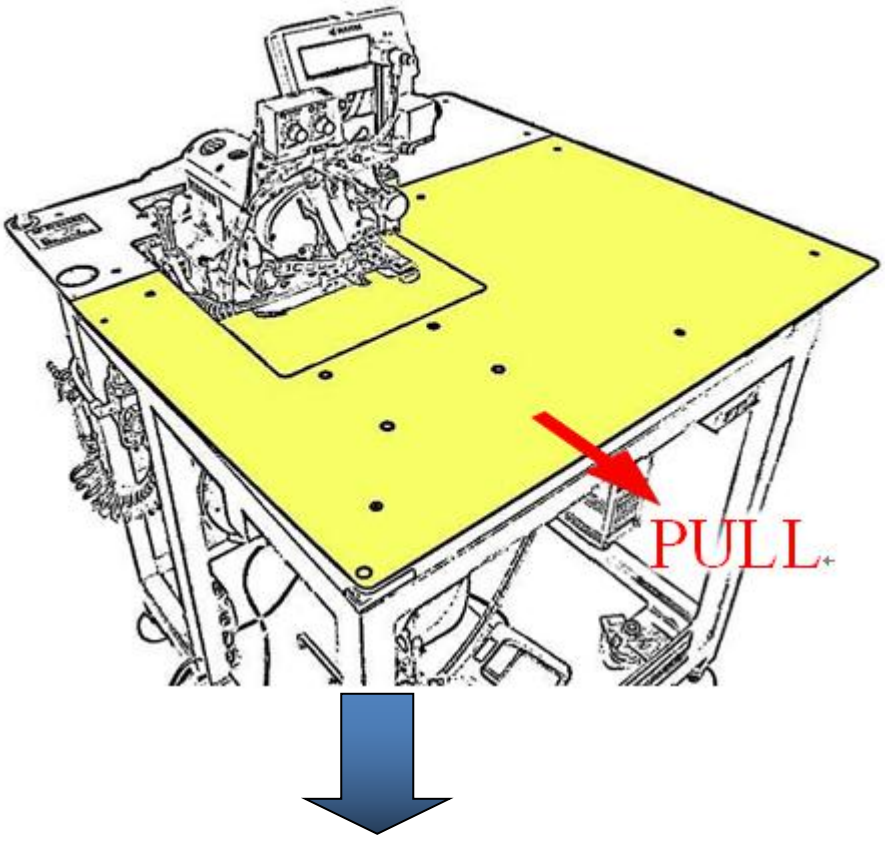
Drop weight lifting height adjustment:

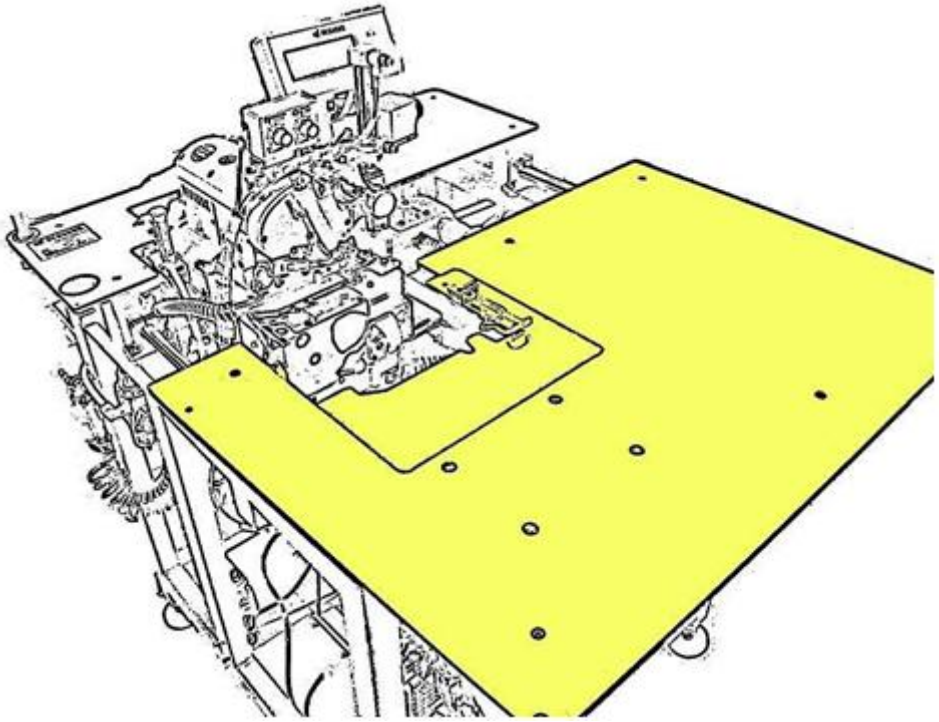


As shown above, Screw 10 adjusts the position of the falling hammer device after lifting, so that there is a certain gap between the falling hammer and the fixed block after lifting, ① to avoid collision and impact noise, and the gap is about 1mm, which is the best;

6.4. Other maintenance adjustments

During the use of the machine, there may be problems requiring maintenance and threading. The platen can be pulled out outwards and the stainless steel platen can be pulled out upward, which is convenient for maintenance and threading operation。





7、Parameter setting

7.1. Panel adjustment knob:

	Panel knob 1	Panel knob 2
Voltage	VC1(096.WN3) Delay opening time of lifting cloth hammer device	VHP(245.SFC) Hammer solenoid force percentage
4.5V以上	WN3=1600	SFC=90
4.25V	WN3=1500	SFC=85
4V	WN3=1400	
3.75V	WN3=1300	SFC=80
3.5V	WN3=1200	SFC=75
3.25V	WN3=1100	
3V	WN3=1000	SFC=70
2.75V	WN3=900	SFC=65
2.5V	WN3=800	
2.25V	WN3=700	SFC=60
2V	WN3=600	SFC=55
1.75V	WN3=500	
1.5V	WN3=400	SFC=50
1.25V	WN3=300	SFC=45
1V	WN3=200	
0.75V	WN3=100	SFC=40
0.5V以下	WN3=0	SFC=35

7.2. Operation panel:

Parameter setting description		
039.PS_P1= 13 (0~99)	Number of front cutter stitches	
039.PS_P2= 2 (0~20)	Number of front cutters	
039.PS_P3= 43 (0~99)	Number of rear cutter stitches	
039.PS_P4= 3 (0~20)	Number of rear cutters	
039.PS_P5= 10 (0~20)	Number of front loose stitches	
039.PS_P6= 16 (0~50)	Number of stitches on the back thread	
039.PS_P7= 2 (0~3)	Number of stitches to be closed before	
039.PS_P8= 11 (0~50)	Number of front suction stitches	
039.PS_P9= 26 (0~50)	Number of rear suction stitches	
039.PS_PA= 50 (0~99)	Number of stitches to close the indirect	
039.PS_PB= 100 (0~250)	Setting stop time	*PS_PB=100(×20ms)=2sec
039.PS_PC= 150 (0~250)	Stack time	*PS_PC=150(×20ms)=3sec
039.PS_PD= 10 (0~250)	Delay closing time of cloth hammer device	*PS_PD=10(×100ms)=1sec
136.TM1= 3 (1~250)	Cutter action time	
137.TM2= 5 (1~250)	Cutter interval	
198.WT2= 200 (0~990)	Start process confirmation time	
238.CK1= 100 (100~2000)	Front suction delay closing time	
239.CK2= 100 (100~2000)	Delay closing time of rear suction	
202	Drop hammer sensor, if optical fiber is used, set to off, if Omron photoelectric is used, set to on	
203	Start sensor, if optical fiber is used, set it to off, if Omron photoelectric is used, set it to	
039.PS_PD	Delay time of placing hammer	
009	Upper limit of fixed needle sewing speed	
122	Sewing speed upper limit	
001	Current sewing speed setting	
101	Modify head stop delay time	

8、Accessories box details

NO	ITEM		QTY
1	《Instruction manual》		1
2	《Parts Manual》		1
3	《Electric control description》		1
4	Slotted screwdriver	5*300mm	1
5	Wrench	1.5--6mm	1

9、Common problems and Solutions

9.1. See the table below for common problems and Solutions

9.2. For other page problems, please refer to the electronic control instruction

Phenomenon	Image	Cause Analysis	Solutions
Poor arc edge		Falling hammer response speed is too slow Too much or too little pressure under drop hammer	Adjust 4.1 (2) and 4.1 (3)knob
Too much trimming or not enough wrapping		Sensor position is different There are differences in the position of the side position	Adjust the position of sensor and side position
No action of the machine		Incorrect sensor position or dust	Adjust the position of the sensor and clean the dust

10、Daily maintenance requirements

10.1. See the following table for the list and requirements of equipment maintenance

10.2. Please refer to the machine hand manual for other maintenance requirements

NO	Project	Frequency				Requirement
		Daily	Weekly	Monthly	Half year	
1	Clean up the dust	√				Remove dust from equipment surface and parts
2	Cleaning up oil pollution		√			Clean the greasy dirt on the table , needle plate and bobbin
3	Air tube interface			√		The air tube interface is tight without air leakage
4	Oil			√		Oil volume not lower than warning line
5	Eye protector			√		Check fastening of screws
6	Sensor				√	Check if the sensitivity is accurate and if the position changes
7	Slider				√	Check slide lubrication and add lubricant if necessary
8	Electric control box				√	Cooling fan runs normally, clean up the dust in time

11、Knowledge product protection statement

MB3001C Automatic Placket serging unite was designed by Changzhou wisdom & valley Electric Technology Co., Ltd.。The intellectual property rights of this achievement belong to Changzhou wisdom & valley Electric Technology Co., Ltd. and are protected by national intellectual property laws and regulations. Without the written permission of the right holder, the patented technology of the achievement shall not be implemented, and the information related to the achievement shall not be copied, sold or disseminated through the network. For any illegal infringement, Changzhou wisdom & valley Electric Technology Co., Ltd. will pursue its legal responsibility according to law.