

Watch pocket machine (pattern machine type)

(MB1102J)

User Manual

Instruction Manual

Please read this instruction manual before using this device.

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

Please keep this instruction manual in a place where you can easily consult it.

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

Thank you for purchasing the IMB industrial sewing machine.

**Before using this machine, please read the following instructions carefully,
which will help you better understand the relevant operations of this machine.
These instructions clearly set out the correct working methods according to
the current regulations.**

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.

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The contents of this manual may be modified without prior notice.

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The contents of this manual may be subject to change without advance notification.

**We will gladly accept any suggestions and instructions for improving this
manual.**

We are happy to receive suggestions and/or indications on ways we could improve this manual.

The introduction of this machine is divided into three parts. For details,
please refer to "MB1 1 02J-Instruction Manual", "MB1 1 02J-Parts Manual" and
"MB1 1 02J-Electronic Control System Manual".

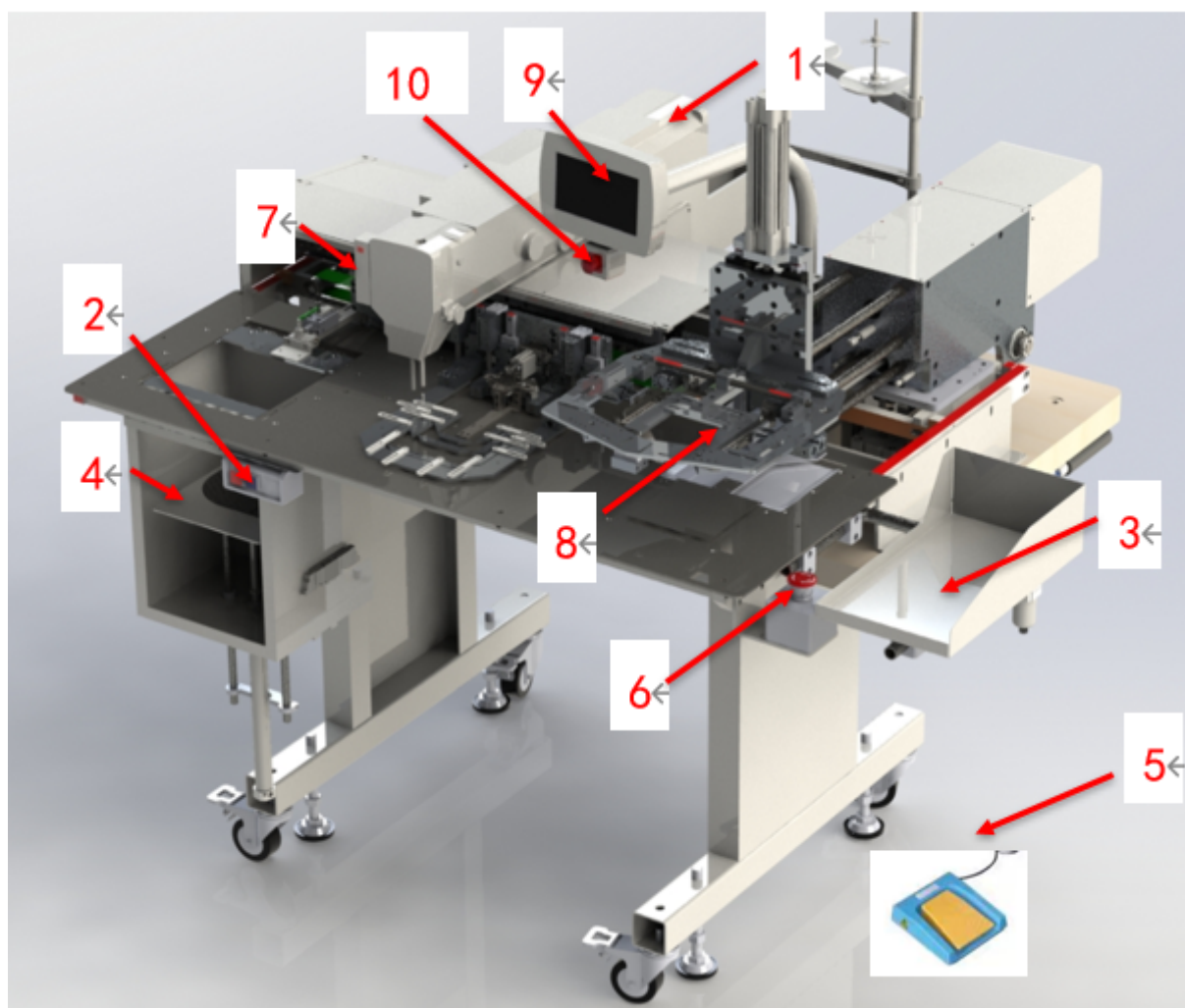
The introduction of this machine is divided into three parts. For details, please refer to 《MB1 1 02J Operation manual》 and 《MB1 1 02J Parts Manual》 《MB1 1 02J Electric control system manual》

中文

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1. Basic information of the equipment

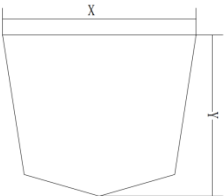
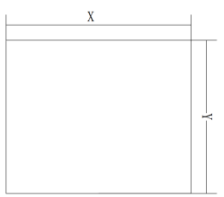
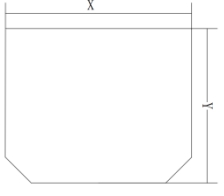
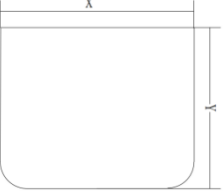


A

1: Sewing machine head; 2: Power switch; 3: Material discharge box; 4: Material collection device; 5: Foot pedal;



6: Start button; 7: Emergency stop button on the machine head side; 8: Folding machine; 9: Touch screen; 10: Emergency stop button on the folding machine side;

2. Equipment technical parameters

MB1 1 02J Watch pocket machine (pattern machine)				
1	Head configuration		IMB	
2	Fastest sewing speed/rpm		2600	
3	Working voltage/V		220	
4	Working air pressure/Mpa		0.5	
5	Spindle, X/Y control		Head servo motor, closed-loop stepper motor	
6	Sewing stitch length/mm		0.05--12.7	
7	Work efficiency		6 s/piece	
8	Mold changing method		No quick mold change	
9	Equipment size/mm		1500L × 1165W × 1400H	
10	Equipment weight/kg		150	
11	Pocket sewing range (length x width)		60×60mm~ 130 × 130mm ;	
12	Bag		size	60×60mm~ 130 × 130mm ;
				
				
				

3. Safety precautions

Precautions for safe use of automatic machines

 危険	<ol style="list-style-type: none"> 1. To prevent accidents caused by electric shock, do not open the cover of the motor electrical box or touch the parts inside the electrical box when the power is on.
 注意	<ol style="list-style-type: none"> 1. To prevent personal injury, do not operate the machine with safety devices such as belt guards and finger guards removed. 2. To prevent personal injury caused by being caught in the machine, keep your fingers, hair, and clothes away from the pulleys, V-belts, and motor while the sewing machine is running, and do not place objects on them. 3. To prevent personal injury, do not place your fingers near the needle when the power is turned on or the sewing machine is running. 4. To prevent personal injury, do not put your fingers into the thread take-up lever cover while the sewing machine is running. 5. The sewing machine rotates at high speed. To prevent injury to your hands, do not bring your hands close to the cloth cutter during operation. In addition, be sure to turn off the power when changing the machine thread. 6. To prevent personal injury, be careful not to get your fingers caught when the sewing machine moves up and down or returns to its original position. 7. Do not cut off the power supply or air supply while the sewing machine is running. 8. To prevent accidents caused by sudden starting, remove the fabric guide when the preparations are complete and the machine is ready for sewing. 9. To prevent accidents caused by electric shock, do not operate the sewing machine with the ground wire disconnected. 10. To prevent accidents caused by electric shock and damage to electrical parts, be sure to turn off the power switch before plugging or unplugging the power plug. 11. To prevent accidents caused by damage to electrical parts, please stop working and unplug the power plug for safety reasons when thunder strikes. 12. To prevent accidents caused by damage to electrical parts, condensation may occur when the device is moved immediately from a cold place to a warm place, so please wait until all water droplets have dried before turning on the power. 13. Because this product is a precision machine, please pay full attention when operating it. Do not splash water or oil on the machine, and do not drop the machine to cause impact to the machine. 14. This machine is a Class A industrial machine. If you use this machine in a home environment, radio interference may occur. In this case, the user is requested to take appropriate measures to resolve the radio interference problem. 15. When the stacker is in operation, the stacking lever will operate after the power switch is turned off, so be careful not to get your fingers caught. 16. If you turn off the power switch while the presser foot is in operation, the presser foot will continue to operate, so be careful not to get your

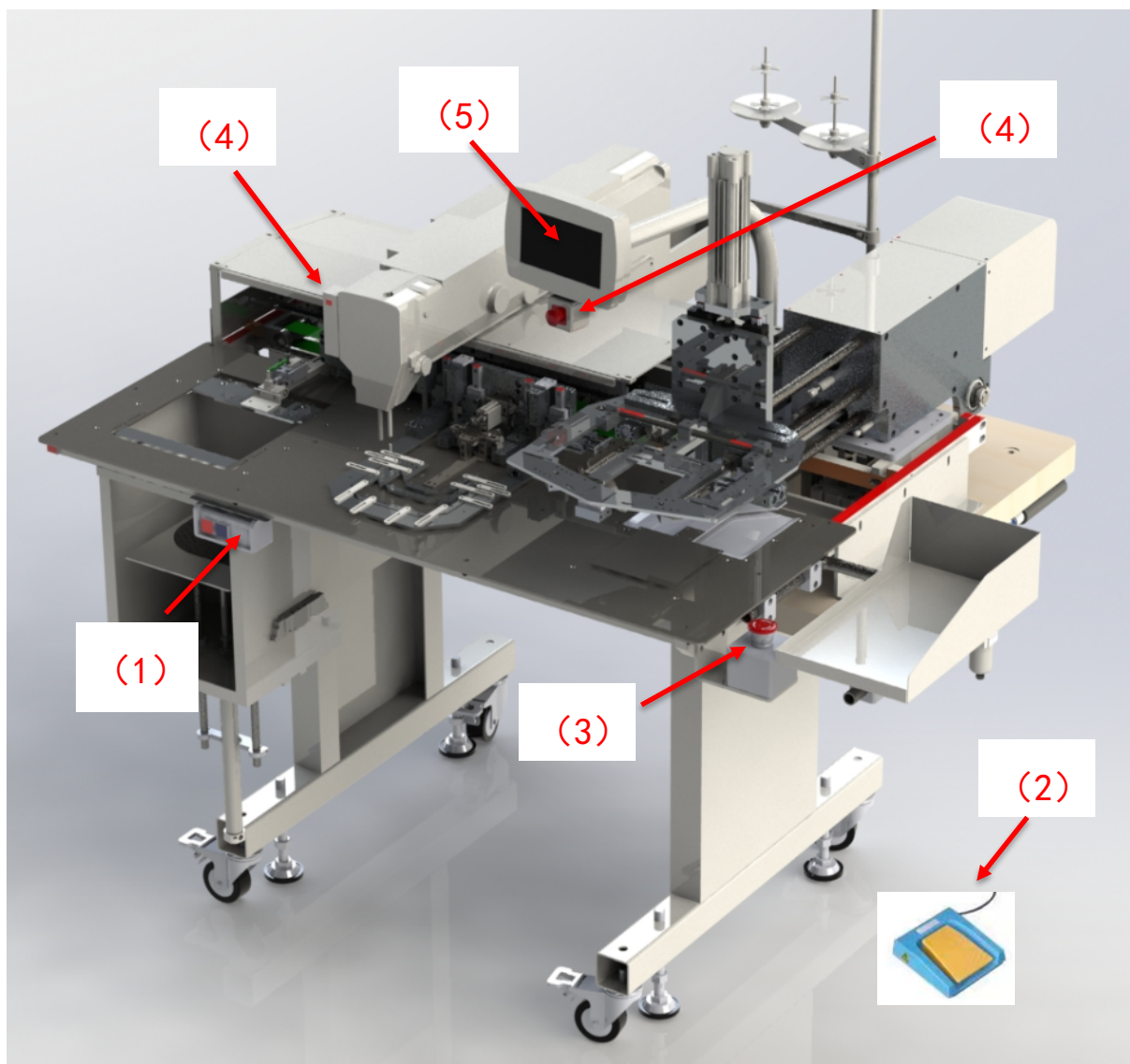
	<p>fingers caught.</p> <p>17. When putting your fingers into the folding machine while it is in operation, be careful not to let the cylinder pinch your fingers.</p>
--	---

***Important Safety Information:**

- ✓ Improper operation of the machine may cause personal injury. Please read this instruction carefully before operation and operate correctly.
- ✓ Before the machine is officially put into operation and powered on, please ventilate it first.
- ✓ It is strictly forbidden to open the internal parts of the electric control box or touch screen when the power is on.
- ✓ This machine needs to be used after training or under the guidance of a dedicated person to ensure the personal safety of the user.

4. Button Function Description

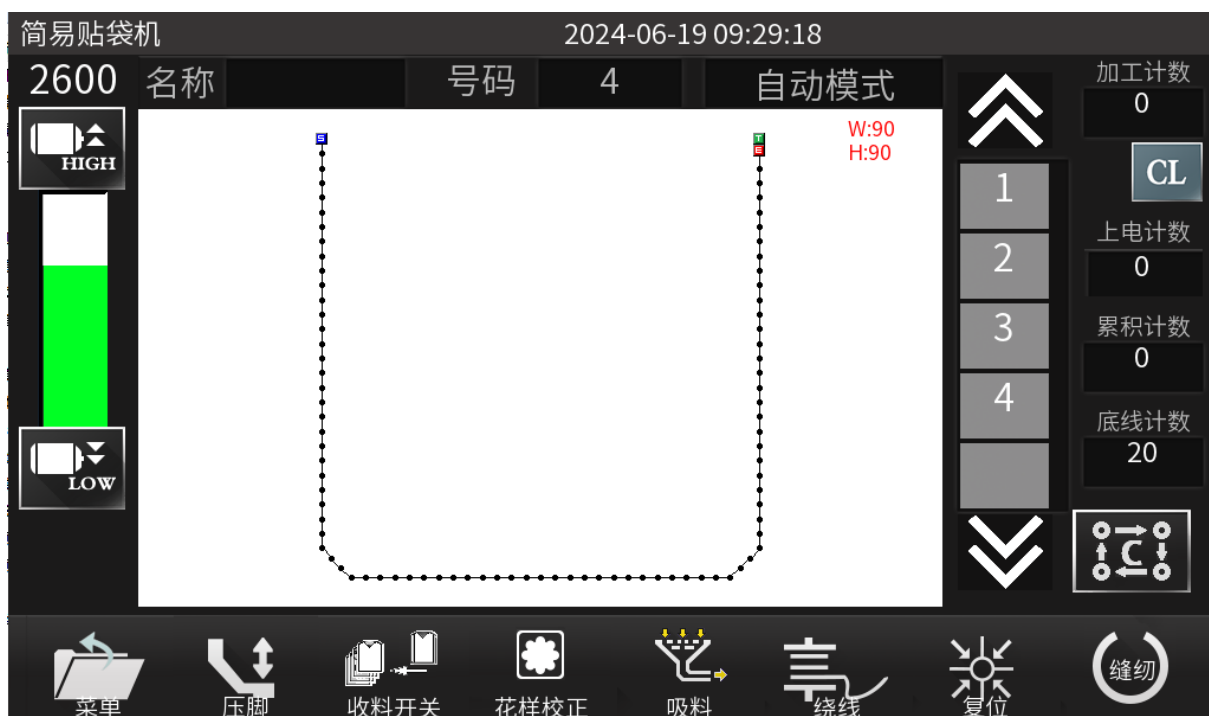
4.1. Button Function Description



B

- (1): Power switch---Press the ON button to power on and ventilate the equipment.
- (2): Foot switch---In the foot mode, the bag-shaped plate extends and retracts.
- (3): Start switch---After pressing, the device will sew automatically.
- (4): Emergency stop button (right)---Emergency stop of the folding machine.
- Emergency stop button (left)---sewing emergency stop (built-in to the machine head) .
- (5): Touch screen---see "MB1 1 02J Watch Pocket Machine (Pattern Machine Model) - Interface Description" for details.

a: Main interface





b: Sewing interface



4.2. Reset Operation Instructions

4.2.1 Power-on reset operation

step	illustrate	Key method
1	Power on	Button 4.1-(1)
2	Reset	Button 4.1-a 
3	Switch sewing mode	Button 4.1-a 

4.2.2 Emergency stop reset operation

Case 1: The folding machine stops suddenly. To reset it, turn the emergency stop switch clockwise to reset it. Rearrange the fabric. After the fabric is rearranged, press the start switch (3).

Case 2: Emergency stop during sewing. Steps for resetting: Turn the emergency stop switch clockwise to reset.

(1) Continue sewing: Press key 4.1-b  to move back to the sewing point -  continue sewing;

(2) Re-sew: Press button 4.1-b  to reset.

5. Operation Instructions

5.1. Pre-operation preparation

- ✓ The engine head must be stopped when the operator is checking.
- ✓ Check whether the pressure plate sponge is intact.
- ✓ Check whether the sewing thread has been threaded correctly
- ✓ Check whether the needle has been installed.
- ✓ Clean up the debris on the machine surface to ensure that there is no debris that hinders the operation of the machine
- ✓ Check the pressure on the barometer to make sure it meets the machine's operating requirements.
- ✓ Check whether the eye shield has been installed correctly

5.2. Operation process description

5.2.1 Start the device

Press the button ON to power on the device. If the prompt E 068 appears when the device is turned on: The pressure plate is not at the zero position, move the pressure plate position after shutting down the machine. You need to shut down the machine according to the prompt and move the pressure frame to the right, so that the distance between the pressure frame and the needle is more than 40cm , and then restart the machine.

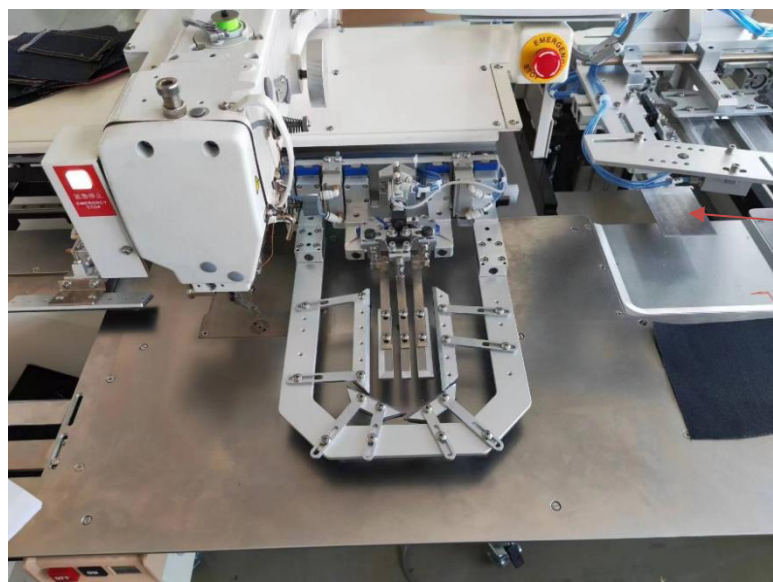


CD



5.2.2 Reset Operation

Perform the machine power-on reset operation. Please refer to: 4.2.1-2 Power-on reset operation. The following figure shows the device status after the reset is completed.



袋形板

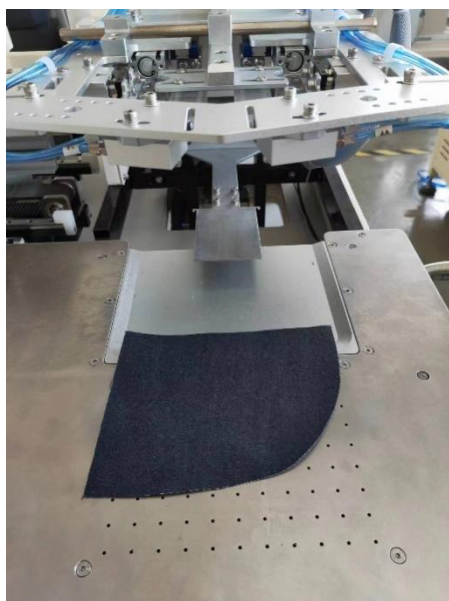
E

***Mode selection:** In pedal mode, the bag-shaped plate is retracted. Press the pedal to extend the bag-shaped plate and open the suction.

In automatic mode, the bag-shaped plate is extended and the suction is turned on.

5.2.3 Trouser placement

Place the main body of the trousers in the air intake area and align with the preset reference.

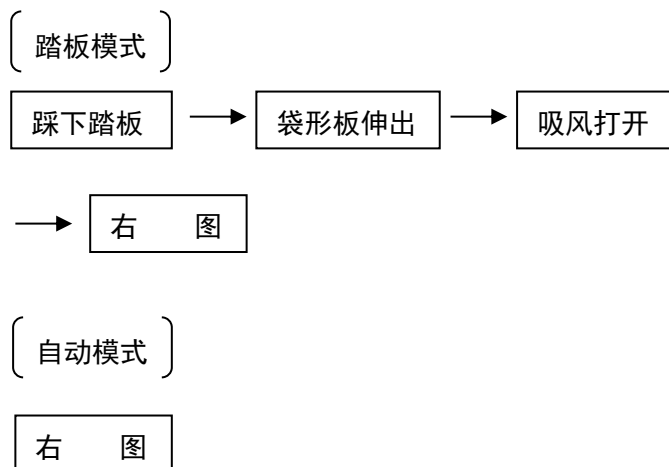


F pedal mode




G Automatic mode

5.2.4 Pocket placement



5.2.5 Automatic folding and seaming

Press the start switch on the right side,  see 4.1-(3). At this time: the folding device extends and descends, folds the edges automatically, and when the folding is completed, the telescopic pressing plate moves right to receive the material, the bag-shaped plate retracts, and the telescopic pressing plate moves left to sew automatically. When sewing is completed, the material is automatically collected.

*** Move the retractable pressing plate to the left to the sewing area, and then place the pieces, and repeat the operation in sequence.**

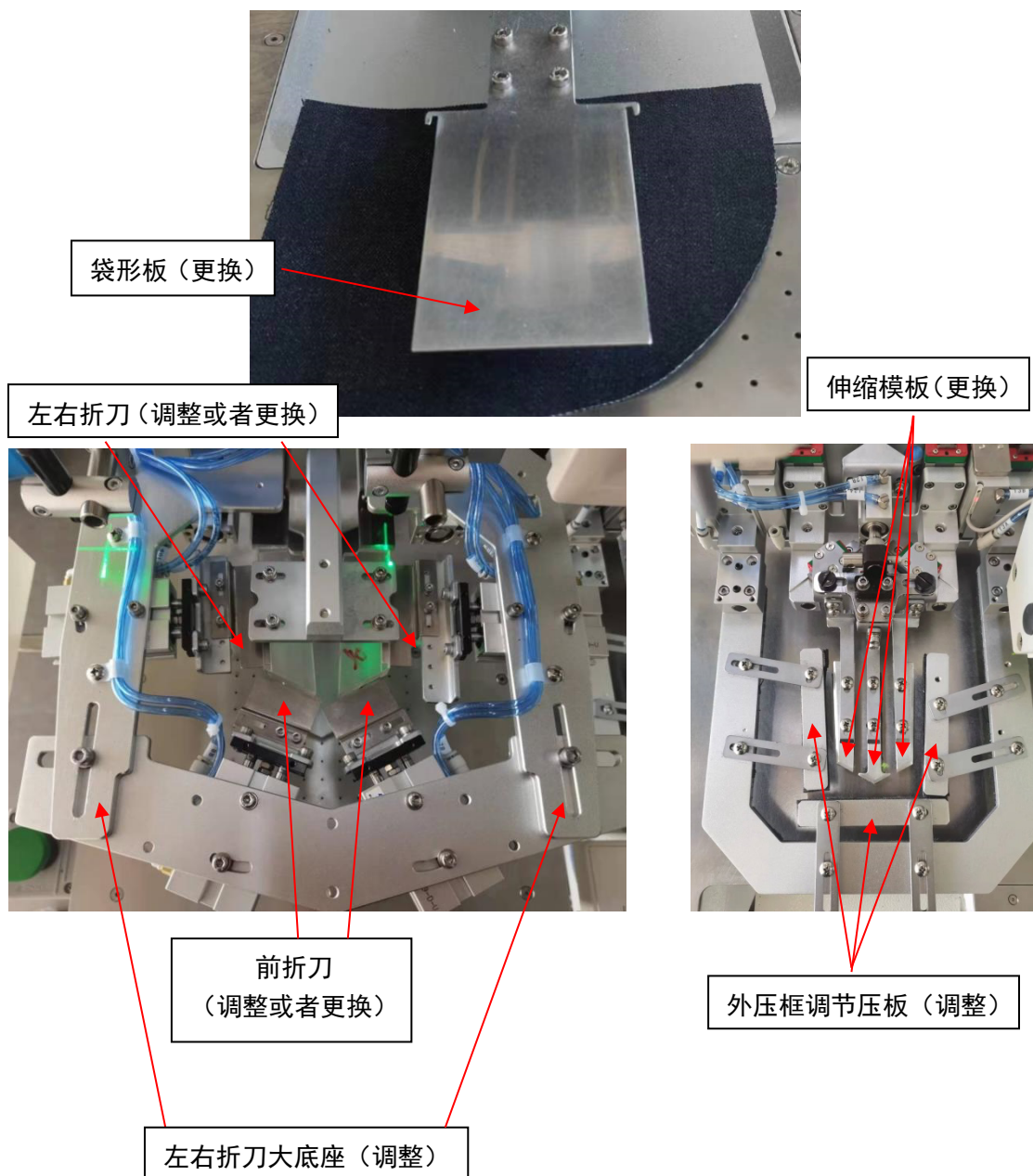
5.2.6 Shutdown

After the operation is completed, press the OFF button to shut down the device.



6. Debugging methods

6.1. Mold fine-tuning and replacement

6.1.1 Mould location

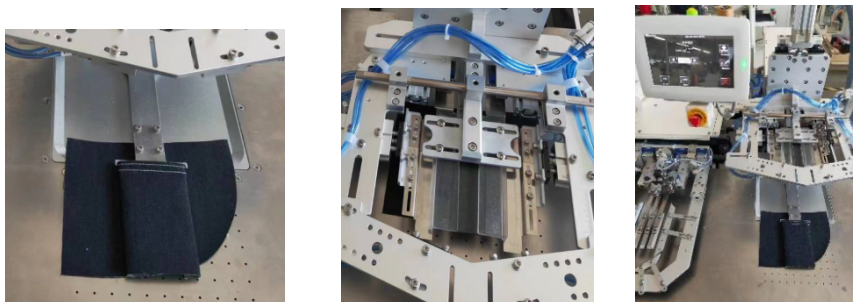


6.1.2 Material collection test

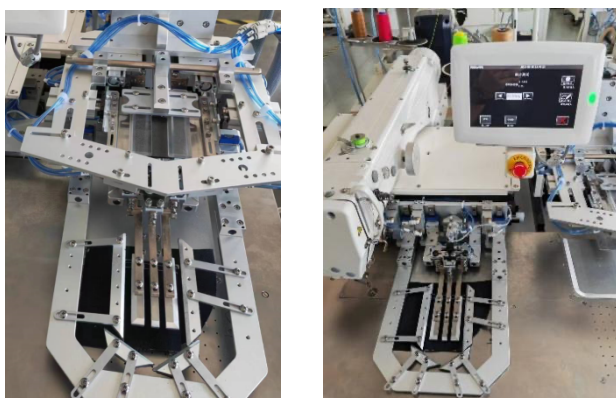
Click 4.1-a Touch screen — Main interface a  —  取料测试 and then go to the following interface:



Press "Forward" and "Backward" to check the template position and folding effect



1 Step... 3 Step... 17 Step...



触摸屏
打板画图

18 Step ... 22 Step

***18 Step: Press the "Material Correction" on the right side to adjust the upper, lower, left and right positions of the material pressing plate to align with the pocket.**



JK

***22 Step: Use the touch screen to draw pictures. For details, please refer to "MB1 102J Watch Pocket Machine (Pattern Machine Model) – Touch Screen Interface Operation Instructions"**



L



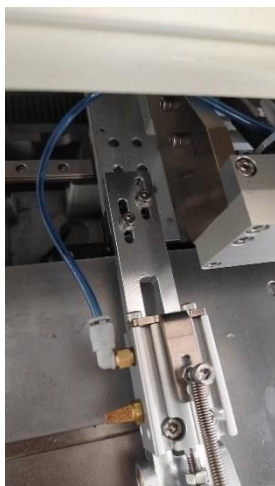
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7. Electrical wiring

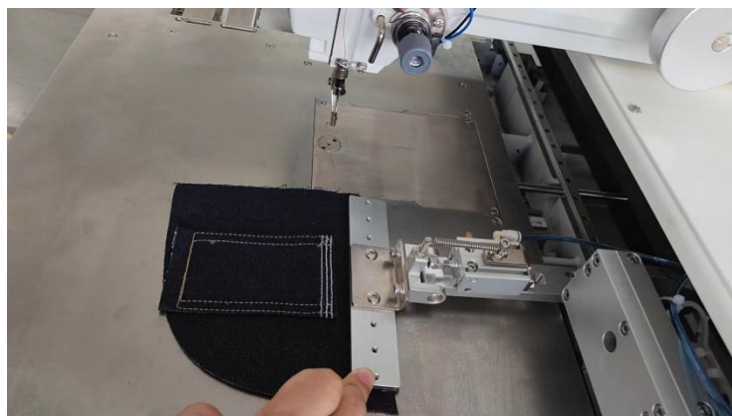
MB1102J表袋机（花样机款）IO分配表						
	输出			输入		
序号	输出名称	端口号	备注	输入名称	端口号	备注
1	托盘上	J1	2芯 DC24V	X原点	IN1	3芯 DC24V
2		J2	2芯 DC24V	Y1	IN2	3芯 DC24V
3	袋形板	J3	2芯 DC24V	Z原点	IN3	3芯 DC24V
4	折料1	J4	2芯 DC24V	袋形板里	IN4	3芯 DC24V
5	折料2	J5	2芯 DC24V	折边器下	IN5	3芯 DC24V
6	折料3	J6	2芯 DC24V	托盘上	IN6	3芯 DC24V
7		J7	2芯 DC24V	Y2	IN7	3芯 DC24V
8	小板抬放	J8	2芯 DC24V	踏板	IN8	2芯开关量
9	小板伸缩	J9	2芯 DC24V	托盘下	IN9	3芯 DC24V
10	折料4	J10	2芯 DC24V	折边器上	IN10	3芯 DC24V
11	机针冷却	J11	2芯 DC24V	折边器外	IN11	3芯 DC24V
12	整体抬放	J12	2芯 DC24V	折边器里	IN12	3芯 DC24V
13	收料3	J13	2芯 DC24V	袋形板外	IN13	3芯 DC24V
14	吸风后	J14	2芯 DC24V	压脚到位检测	IN14	3芯 DC24V
15	辅助压板	J15	2芯 DC24V	V原点	IN15	3芯 DC24V
16	折边进出	J16	2芯 DC24V	气压检测	IN16	2芯
17	小平台	J17	2芯 DC24V	折料启动	IN17	2芯开关量
18	折边抬放	J18	2芯 DC24V	大压板上	IN18	3芯 DC24V
19	吸风电机	J19	2芯 DC24V	小压板上	IN19	3芯 DC24V
20	抬机头	J20	2芯 DC24V	缩板到位	IN20	3芯 DC24V
21	托盘下	J21	2芯 DC24V	缝制急停	IN21	2芯开关量
22	收料旋转	J22	2芯 DC24V	折料急停	IN22	2芯开关量
23	收料压板	J23	2芯 DC24V		IN23	
24	收料盖板	J24	2芯 DC24V		IN24	
25	吸风	J25	2芯 DC24V		IN25	
26		J26	2芯 DC24V		IN26	
27	大压板	M1	2芯 DC24V	整体下到位	IN27	3芯 DC24V
28	下吸合	M2	2芯 DC24V	机头到位	IN28	3芯 DC24V
29	剪线	M3	2芯 DC24V	X轴报警	主板	
30	松线	M4	2芯 DC24V	Y轴报警	主板	
31	夹线纽扣	M5	2芯 DC24V	断线检测1	主板	
32		M6			主板	
33		J33			主板	

8. Material collection adjustment

8.1. Adjust the front and rear position of the presser plate so that it overlaps the pocket edge by at least 10 mm and does not collide with the needle or presser foot when moved to the left.

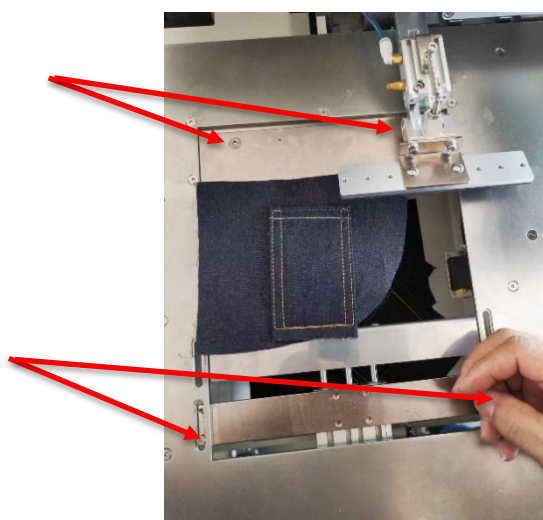


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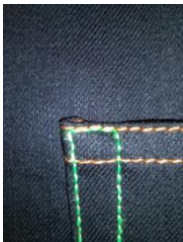
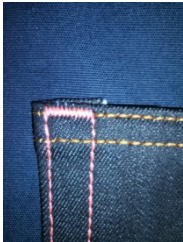
8.2 Move the pressure plate to the left, take the bag cloth as the reference, loosen and tighten the screws at the position indicated by the arrow, and adjust the position of the upper and lower support plates so that they support 10mm ~30mm respectively .



IX. Common Problems and Solutions

9.1. Common problems and solutions are detailed in the table below

9.2. For other page issues, please refer to "MB1 1 02J-Electronic Control System Manual"

Phenomenon	picture	Cause Analysis	Solution
Broken/Jumped Wires	/	1. The height of the small presser foot is too high; 2. The small presser foot touches the press frame;	1. Adjust the height of the small presser foot; 2. a. Modify the pattern; b. Adjust the pressing frame.
Poor stop size		Pattern Problem	1. Modify the pattern
Corners exposed		Fold the knife left and right	Adjust the left and right folding knives downward appropriately
Unbeveled		Angle knife position deviation	Adjust the angle knife position (up and down, left and right)

10. Daily maintenance requirements

10.1. Equipment maintenance list and requirements are detailed in the table below

Serial number	project	time				Key points
		every day	weekly	per month	Half a year	
1	Cleaning Dust	√				Remove dust from the equipment surface and parts
2	Cleaning up oil stains		√			Clean the oil stains on the table, needle plate and bobbin
3	Fan filter		√			Clean the fan filter dust
4	Pressing plate sponge		√			Check whether the sponge is worn or deformed, if damaged, replace it
5	Folding machine			√		Keep level and check the screw tightness
6	Bag-shaped board			√		Keep level and check the screw tightness
7	Frame pressing device			√		Keep level and check the screw tightness
8	Tracheal interface			√		The trachea interface is tight and leak-proof
9	Engine oil volume			√		The oil level of the engine head is not lower than the warning line
10	Bobbin			√		Check whether the machine head bobbin is scratched
11	Sensors				√	Check whether the sensitivity is accurate and whether the position changes
12	Slide				√	Check sliding parts lubrication and add lubricant if necessary
13	Electric control box				√	The cooling fan operates normally and the dust is cleaned in time.

11. Intellectual Property Protection Statement

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