

Velcro Feeding Sewing Unit

JTR-LK1900BN / VFU

INSTRUCTION MANUAL



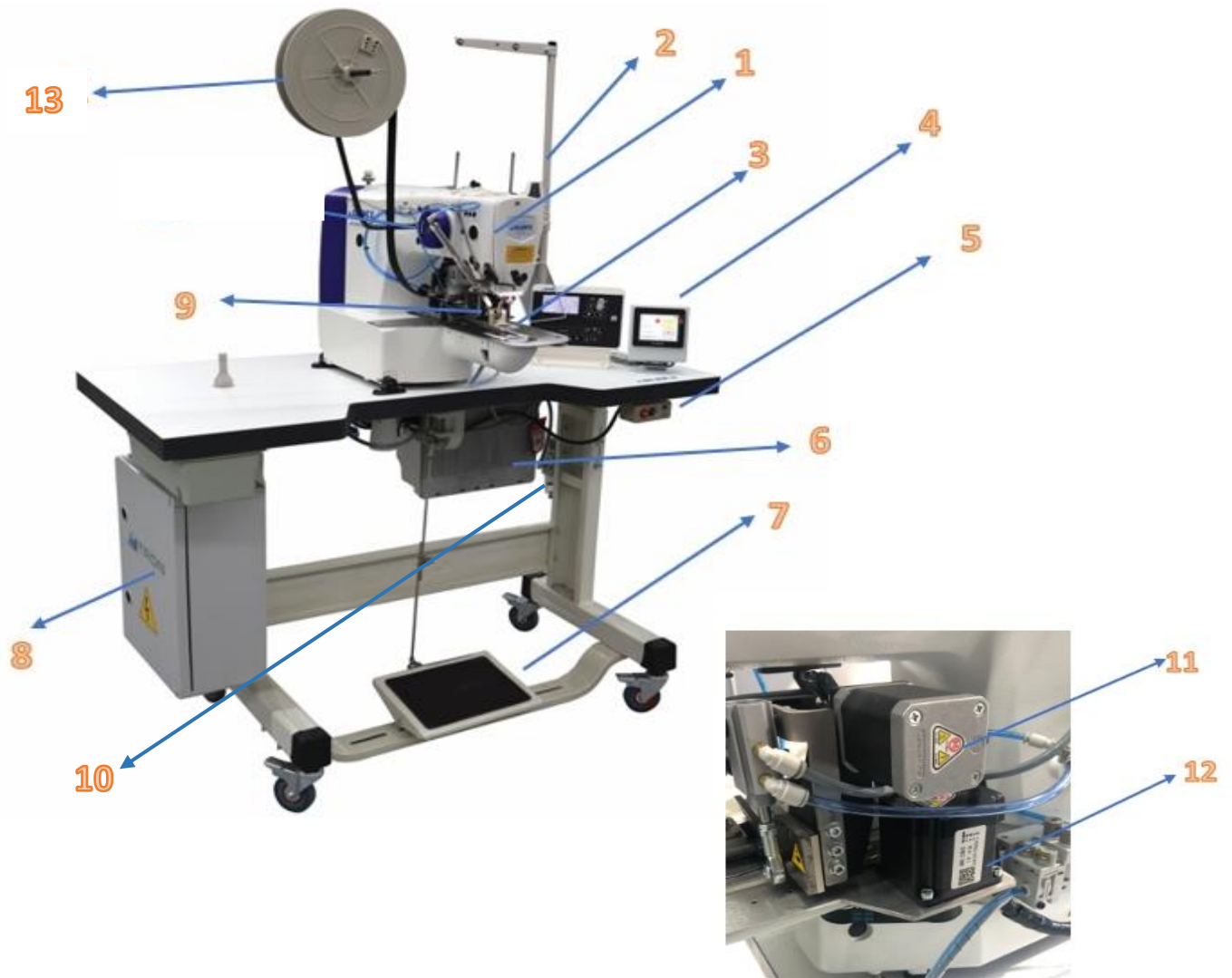
No.JTR001

LK1900VFU-TM

CONTENTS

- 1) CONFIGURATION OF THE MACHINE**
- 2) SPECIFICATION**
- 3) INSTALLATION**
- 4) PREPERATION FOR OPERATION**
- 5) PANEL**
- 6) ADJUSTMENT**
- 7) LIST OF PATTERN DATA**
- 8) CAUSES AND COUNTERMEASURES**

1) CONFIGURATION OF THE MACHINE



①	MACHINE HEAD	⑧	JTRON CONTROL BOX
②	THREAD STAND	⑨	VELCRO CANAL
③	PRESSER FOOT	⑩	AIR REGULATOR
④	PANEL	⑪	KNIFE MOTOR
⑤	MAIN SWITCH	⑫	CARRIER MOTOR
⑥	JUKI CONTROL BOX	⑬	VELCRO STAND
⑦	PEDAL		

2) SPECIFICATION

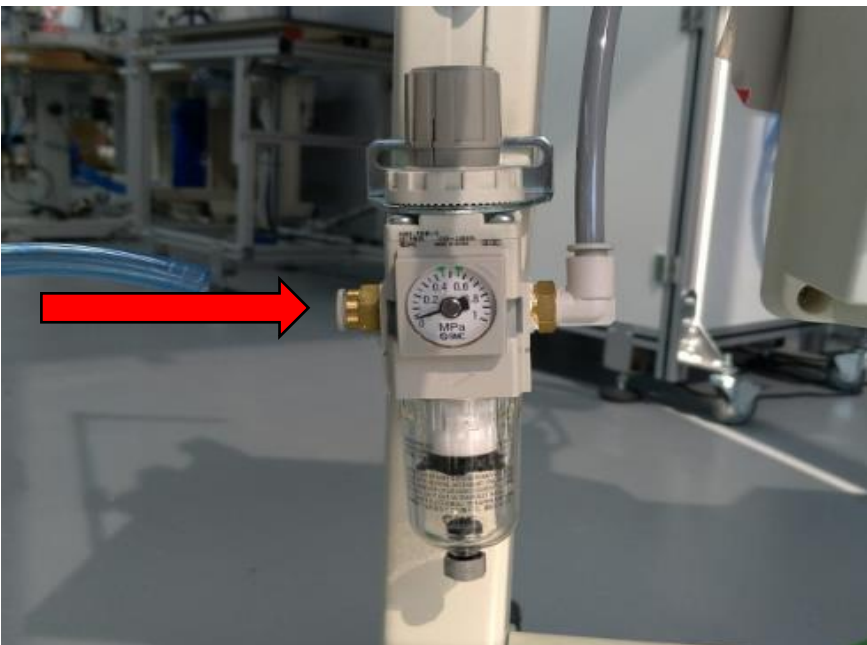
No.	Category	Description
1	MACHINE HEAD	LK-1900BN-HS
2	MODEL NAME	JTR-LK1900BN / VFU
3	MAIN MOTOR	JUKI AC SERVO MOTOR
4	MAIN MOTOR DRIVE	JUKI MC-672N
5	MAXIMUM SEWING SPEED	2500 sti/min - shipping speed: 2500sti/min
6	STITCH LENGTH	Min: 2 mm/ Max: 3.5 mm - Shipping pitch: 2.5 mm
7	NEEDLE TYPE	GB / DPX17 #18
8	GAUGE	Jtron original gauge
9	VELCRO LENGTH	30 MM (Max.)
10	VELCRO WIDTH	25 MM (Max.)
11	FABRIC CUTTING SYSTEM	PLC CONTROLLED FABRIC CUTTING SYSTEM
12	TARGET PROCESS	VELCRO STITCHING
13	AIR PRESSURE	MIN: 0.5 MPa MAX: 0.7 MPa Standard: 0.6 Mpa
14	AIR CONSUMPTION	1 L / min
15	VOLTAGE CLASSIFICATION	Single-phase 220V - 240V / 50Hz
16	CAPACITY	VELCRO STITCHING
17	DAILY PIECE COUNTER	Available
18	POWER CONSUMPTION	880 VA

3) INSTALLATION

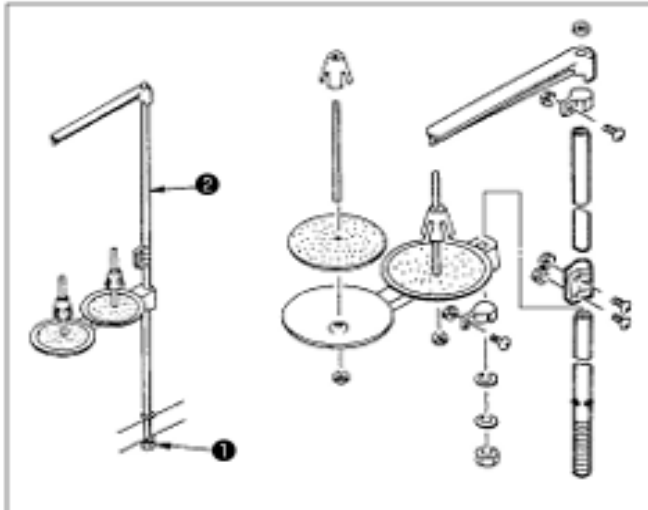
3.1) The machine is delivered as below



3.2) The supply air to the machine

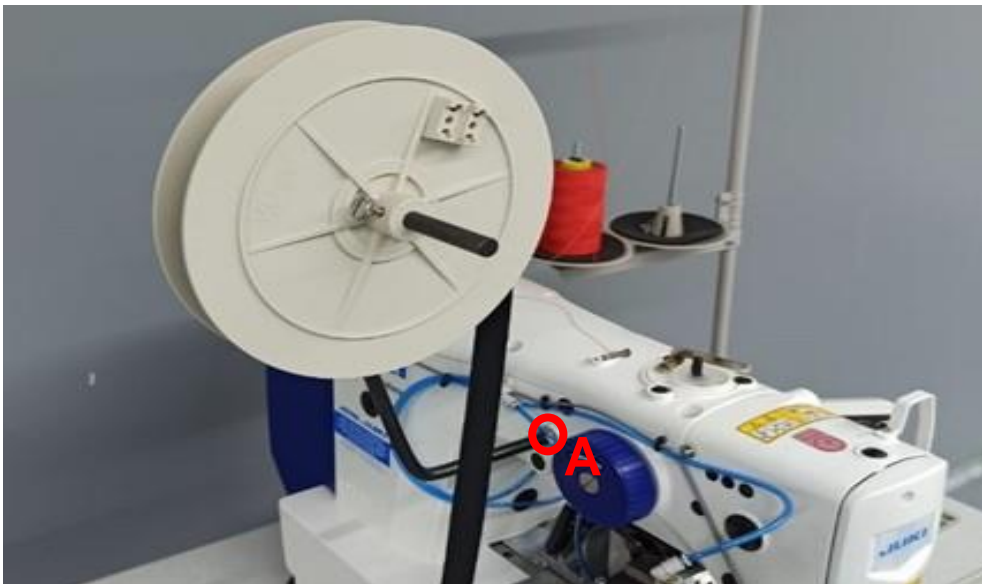


3.3) Installing the thread stand.



- 1) Assemble the thread stand unit, and insert it in the hole in the machine table.
- 2) Tighten locknut **1** to fix the thread stand.
- 3) For ceiling wiring, pass the power cord through spool rest rod **2**.

3.4) Installing the velcro stand.

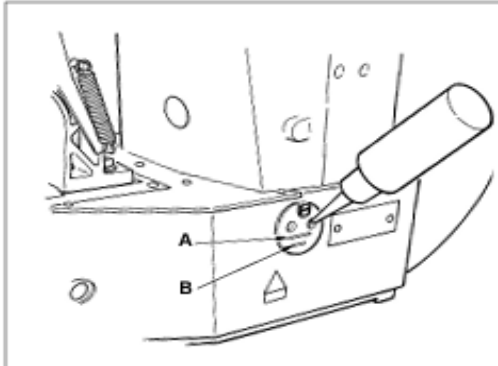


Loosen the screw(A). Place the velcro stand by turning velcro stand shaft and then tighten the screw(A).

3.5) Lubrication



WARNING :
Turn OFF the power before starting the work so as to prevent accidents caused by abrupt start of the sewing machine.



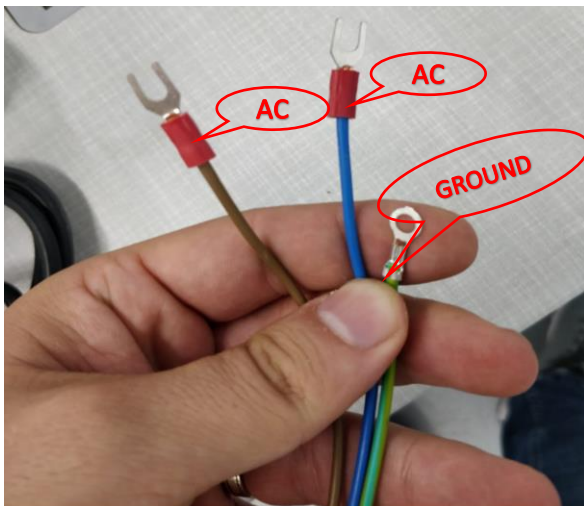
Check that the place between lower line **B** and upper line **A** is filled with oil. Fill there with oil using the oiler supplied with the machine as accessories when oil is short.

* The oil tank which is filled with oil is only for lubricating to the hook portion. It is possible to reduce the oil amount when the number of rotation used is low and the oil amount in the hook portion is excessive.

1. Do not lubricate to the places other than the oil tank and the hook of Caution 2 below. Trouble of components will be caused.
2. When using the sewing machine for the first time or after an extended period of disuse, use the machine after lubricating a small amount of oil to the hook portion.



3.6) Connecting the power supply



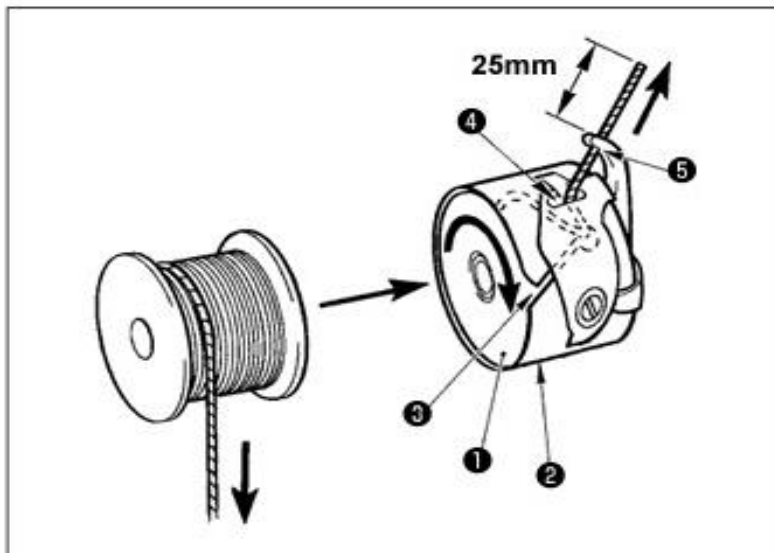
The machine is not supplied with a power plug. It is therefore necessary for you to select a plug that matches the receptacle available under a given operating environment and attach it to the power cable.

4) PREPARATION FOR OPERATION

4.1) Threading the machine. (Please refer to machine head instructions – LK9000BN)

Pull out the thread by approximately 40 mm from the needle after threading through the needle.

- Note :**
1. When the silicon oil is used, thread through thread guide for silicon ❶ (Optional).
 2. For thick thread, pass the thread through one hole only of needle bar thread guide ❷.



- 1) Set the bobbin ❶ into bobbin case ❷ in the direction shown in the figure.
- 2) Pass the thread through thread slit ❸ of bobbin case ❷, and pull the thread as it is. By so doing, the thread will pass under the tension spring and be pulled out from thread hole ❹.
- 3) Pass the thread through thread hole ❺ of the horn section, and pull out the thread by 25mm from the thread hole.

Note: If the bobbin is installed in the bobbin case orienting the reverse direction, the bobbin thread pulling out will result in an inconsistent state.

4.2) Switch on the machine.

4.3) Check the pattern number for sewing.

Check if the pattern for sewing Velcro is called on the JUKI panel.. [shipping pattern number: 80]

If the pattern for sewing Velcro is not called, call the pattern from the JUKI panel.

Note : For the operation method of the JUKI panel, refer to the instruction manual (JUKI) of the LK1900BN series.



4.4) How to install the velcro to velcro stand?



Open/close the Velcro stand cover via “Knob screw “A” and place the Velcro.

4.5) How to feed the Velcro to pressing foot ?

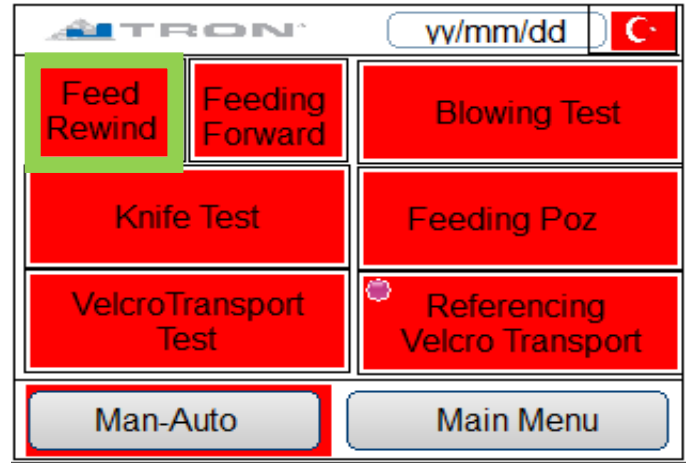


4.5.1) Insert the Velcro from the first gap as below.



4.5.2) Pull and turn the Velcro to insert it to the upper gap as shown below

4.5.3) Pull the Velcro down to the back of the Velcro gear. Push the feed rewind button on the panel and roll the velcro until it comes out from gear.

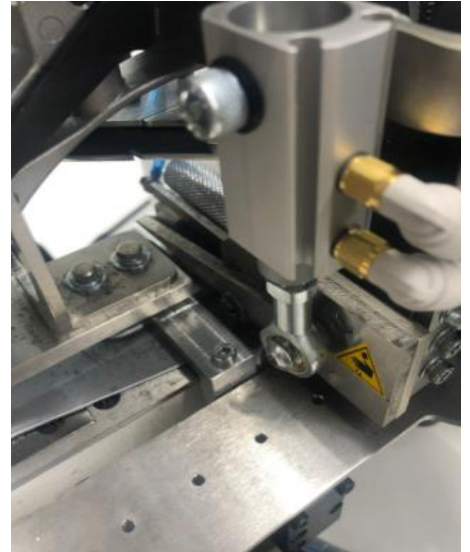
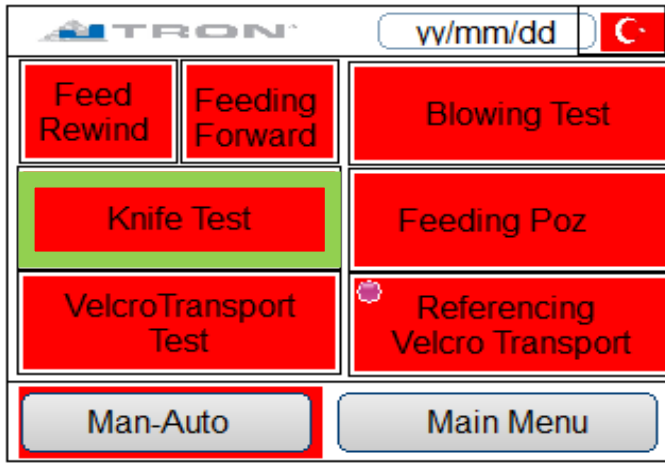


4.5.4) Feed the Velcro till it passes the presser foot as seen below.

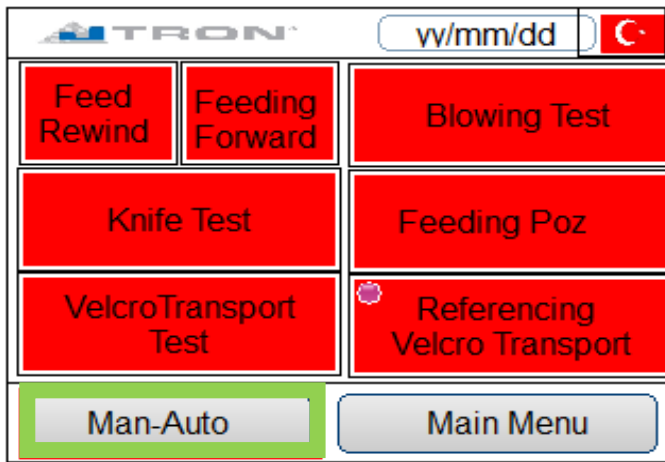


IMPORTANT NOTE! The Velcro should be fed higher than the presser foot to prevent jamming of the Velcro under the plate.

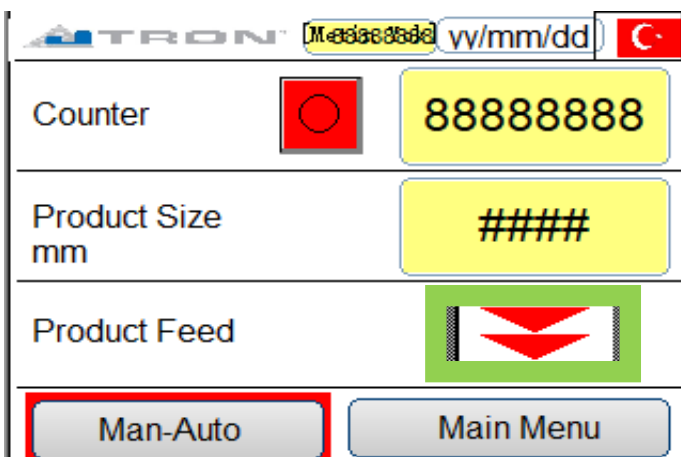
4.5.5) Cut the surplus Velcro by pressing the knife test button



4.5.6) Switching on the auto mode by pressing the “Man-Auto” button below



When this button is pressed, machine is set to the origin position automatically.



To feed the velcro to sewing position press the indicated button.

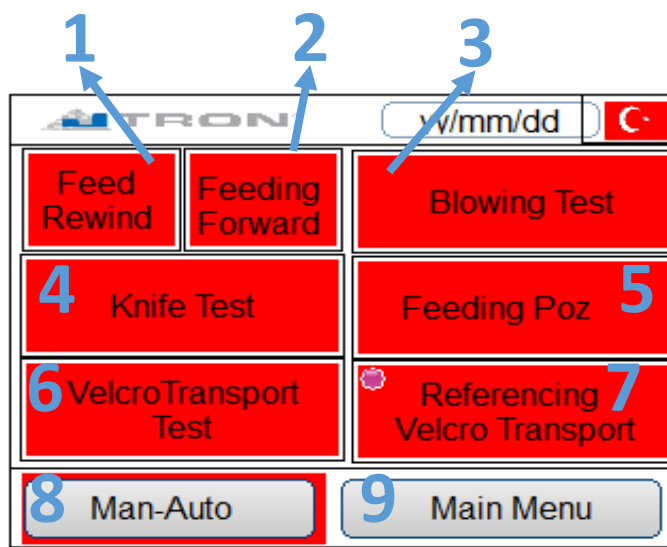
4.5.7) Start sewing by pressing the pedal.

NOTE! Please be informed that at the end of the sewing, the material should move 2 mm towards the knife via holding the fabric manually.

When the sewing is finished, remove the fabric from the presser by pulling forward.

5) PANEL

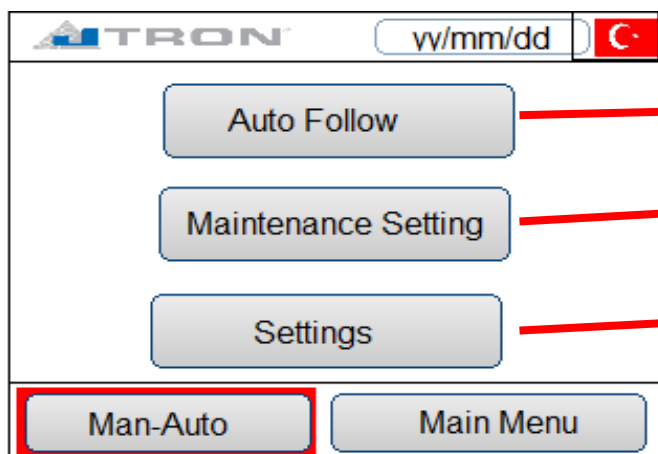
5.1) Maintenance Settings Page



No. Description

- 1) Feed roller moves towards knife
- 2) Feed roller moves towards needle
- 3) Test of the blower at the joint
- 4) Activate/ Test the knife
- 5) Feed gears feed the predetermined Velcro length set on the panel.
- 6) Carrier arm test (Up&Down)
- 7) Carrier arm moves to origin position
- 8) Activates/Deactivates the auto mode.
- 9) Takes the user to Main Page

5.2) Main Page



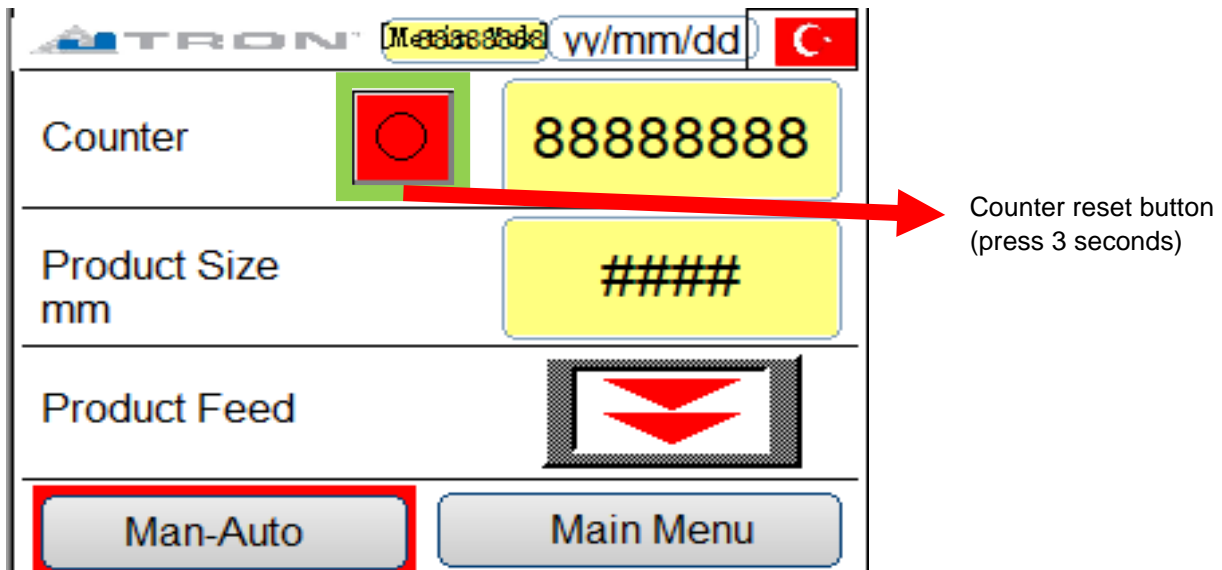
Auto Follow : Work page [Ref 5.3]]

Maintenance Setting : Maintenance Settings Page[Ref: 5.1]]

Settings : Setting Page[Ref: 6.1]]

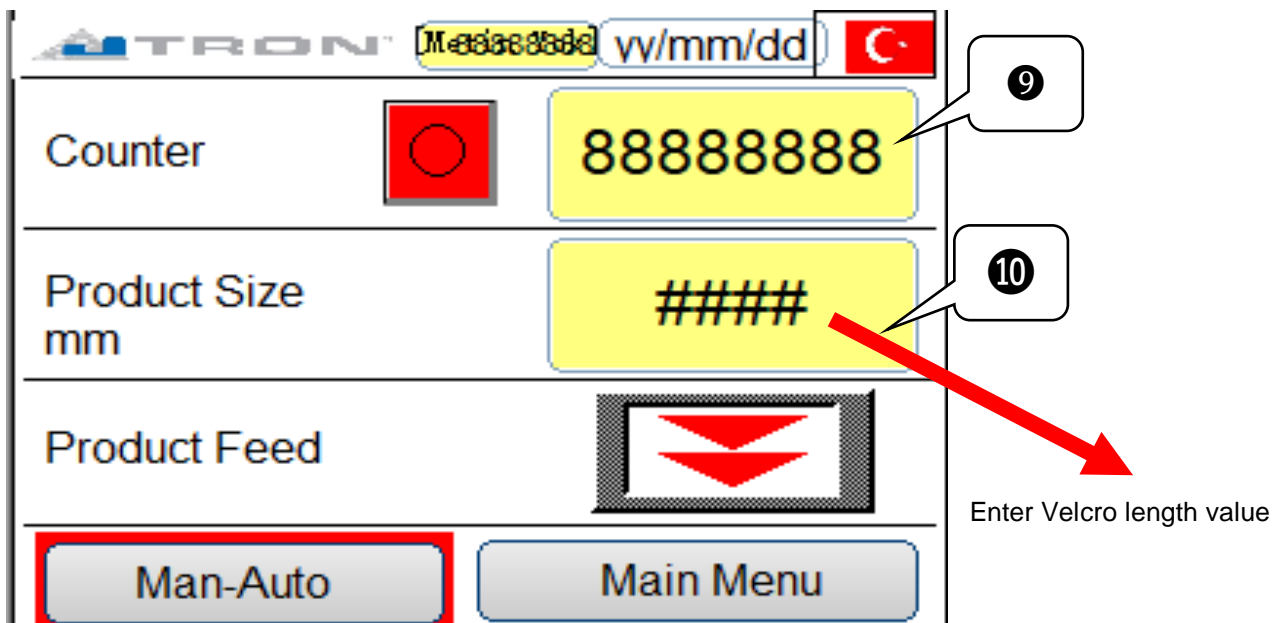
When the stated button pressed, it takes the user to pages at the end of the arrow.

5.3) Work Page





6) ADJUSTMENT

6.1) Velcro Lenght Adjustments



Note : The factory value is 34 mm, but the length is varies depending on the type of tape. In that case, adjust the product size within the range of ± 2

6.2) Carrier Length Adjustments

		vy/mm/dd	
Product Size mm		##### 1	
Product Transport	Cycle	888.88 2	
Prod. Count		88888888 3	
Count		88888888 4	
Man-Auto		Main Menu	

6.2.1) Enter Velcro length value.

NOTE: This value changes in conjunction with 10 of work Page. [Ref:6.1)]

6.2.2) You can adjust the feed length of carrier arm according to length set in product size

This value must be fine-tuned to the 'Product Size mm' so that the Velcro being conveyed stops in the middle of the hole in the pressure foot.

6.2.3) This is product counter and can be reset.

Note: This value changes in conjunction with 9 of work Page. [Ref: 6.1)]

6.2.4) This is the cumulative counter and cannot be reset.

Important Note! Machine has to be in the manual mode to use the cycle button.

If you press the Cycle button, it will be fed with the set "Carrier length".

This operation allows you to check if the "Carrier length" is appropriate.

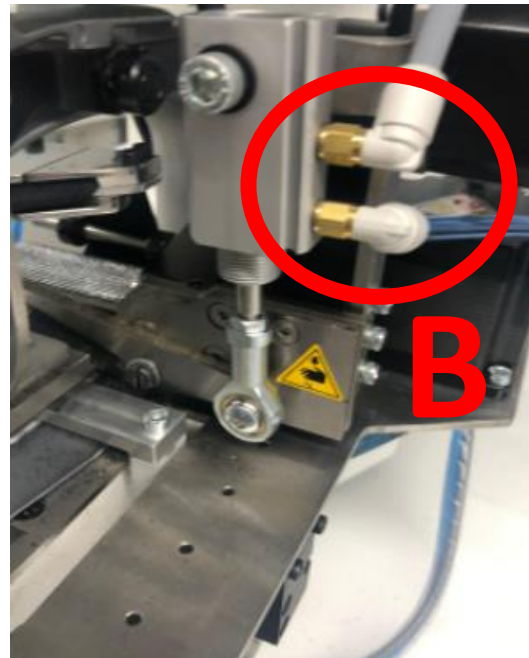
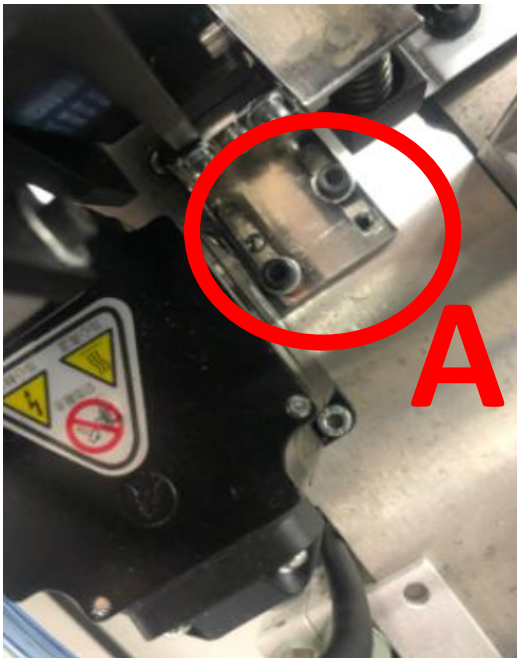
If the Velcro is stopped in the middle of the presser foot, then the "Carrier length" is determined to be appropriate. Also, the advantage of having this button on this page is that you don't have to go to the "Maintenance Settings Page" to check the "Carrier length".

6.3) Replacing the Tape Cutting Knife

6.3.1) Removing the knife

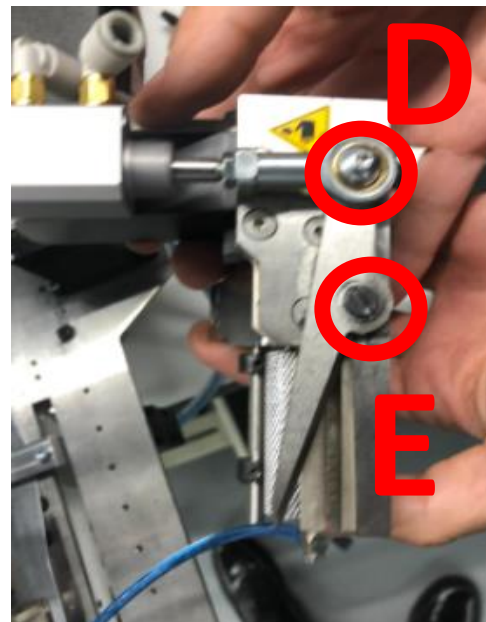
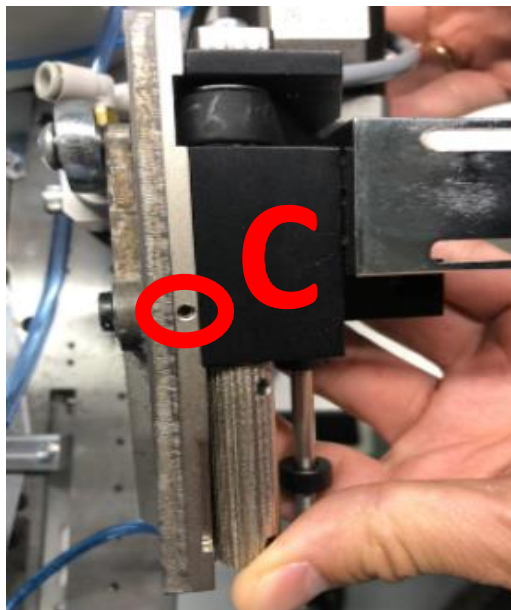
6.3.1.1) First step should be cutting air compression from the machine.

6.3.1.2) The "A" screws (two pieces) should be opened with allen driver.



6.3.1.3) Air tubes "B" should be taken out from the motor cable.

NOTE! Remove the unit with the motor cable attached from the head.



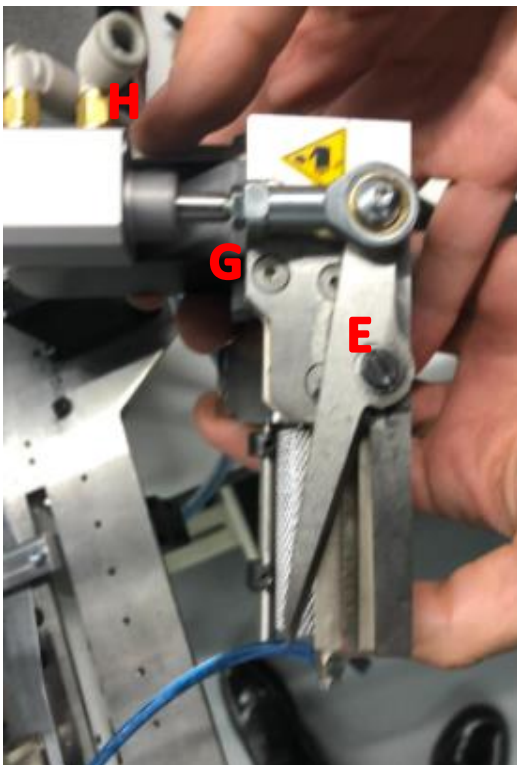
6.3.1.4) The tiny screw "C" at the bottom should be loosened.

6.3.1.5) The "D" screw should be removed and "E" screw on the scissors should be removed. Then the moving knife can be removed. After installing fixed knife to base, Tighten 4 pieces of "F" screws.



Apply grease on the knife trace amount.

6.3.1.6) Last the “F” screws “4” pieces should be removed from the scissors frame.
Then the fixed knife can be removed and install new knife..



Tighten “E” screw until the knife cuts the tape well enough.
Test the knives’ pressure by cutting velcro manually.

Please be careful do not to apply too much pressure to avoid
knives’ wearing too fast.

Tighten tiny bottom screw to stabilize the E screw.

Loosen locknut "G" and turn the rod of air cylinder "H"
to adjust the amount of overlap between the moving and fixed
knives. Check by moving the rod of the air cylinder in and out.
The overlap is 1.5 mm. Once adjusted, tighten locknut "G".

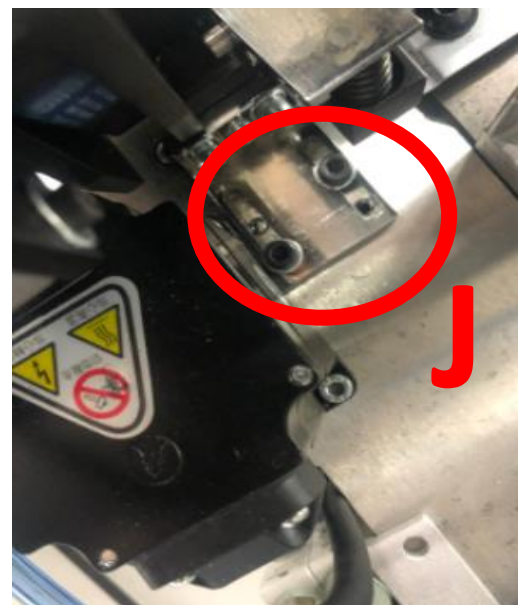


6.3.1.7) Position adjustment of knife unit

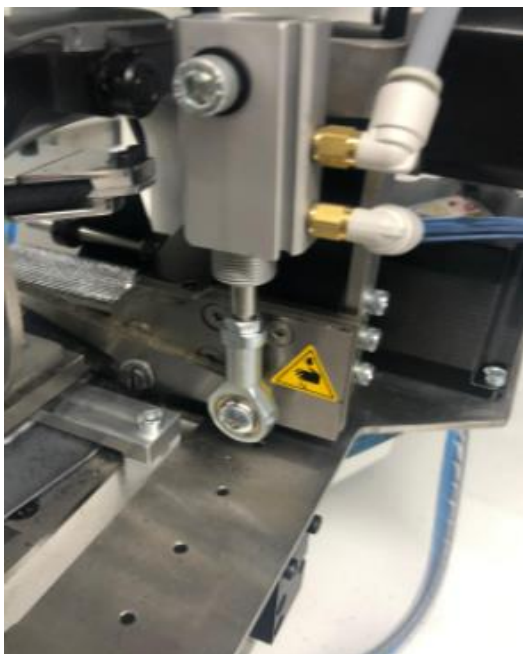
Adjust the F distance between 8 to 10 mm.

Feed enough amount of felt to slide inside to feeding canal.

Set felt tape as paralel to canals entrence and tighten the screw (J).



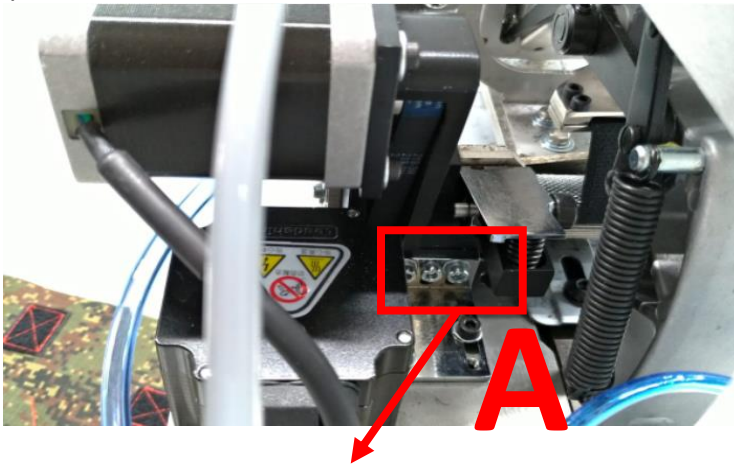
6.3.1.8) Plug the air tubes and turn on the air.



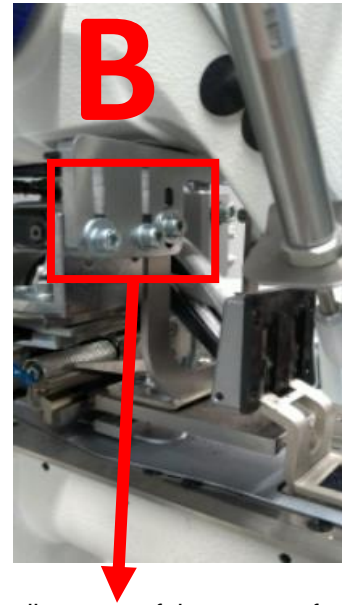
6.3.1.9) Height adjustment of the knife unit and the canal

The knife height and canal height is aligned according to presser foot.

The feed roller should be approximately 3mm higher than the canal but the canal should be same level with the presser foot.



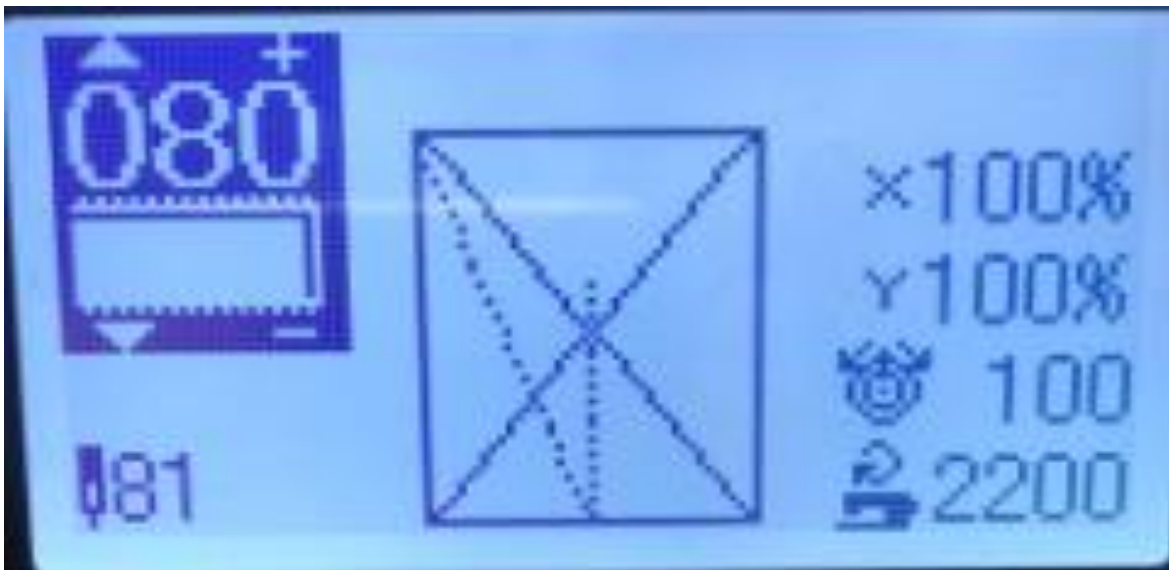
The height adjustment of the knife unit is done above Screws "A" (3 pieces)



The height adjustment of the presser foot is done with the indicated screws "B" (3 pieces)



7) LIST OF PATTERN DATA(SHIPPING VALUES)

7.1) JUKI PANEL



7.1.1) Pattern Number : 80

7.2) JTRON PANEL

		vy/mm/dd	
Product Size mm		#### 1	
Product Transport	Cycle	888.88 2	
Prod. Count		88888888 3	
Count		88888888 4	
Man-Auto		Main Menu	

7.2.1) Product Size : 34mm +/-1mm

7.2.2) Product Transport Size : 99mm +/-1mm

8) CAUSES AND COUNTERMEASURES

Q.1) Tape carriage is problematic.

A1) Check Velcro size from the panel. Check the Velcro canal. Find the Velcro size and re-feed the canal.

Q.2) Velcro size is problematic.

A2) Check the width of the tape. Feed the canal suitable tape.

Q.3) Tape gets stuck in the Velcro canal.

A3)) Check the width of the tape and check the feed adjustments such as the tape height when feeding the canal. Also feed wholes should be checked whether the tape is passing from the gaps correct sides. Re-feed the tape the canal.

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