

## **AUTOMATIC TAPING MACHINE**

# **INSTRUCTION MANUAL**



TAIYO SEIKI CO., LTD.

## 

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### Introduction

Read this manual carefully and understand the contents thoroughly before starting installation, operations, maintenance and checkup. Complete understanding of mechanisms and safety is essentially required.

This manual must be kept always in the machine for easy reference to it.

### 1-1. Important safety notice

WARNING: To prevent damage which may result in fire or shock hazard, do not expose this machine to rain or moisture.









The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing)

#### 1-2. Precautions for use and installation

- Do not touch internal parts.
- Be sure not to touch the internal parts. That will be cause of accident.
- Should you notice any trouble.

If any trouble occurs while you are using the machine, turn off the machine and contact your dealer. If you continue to use the machine when there is something wrong with it, the trouble may become much worse.



Ensure that you plug the power cable supplied into a socket which is grounded. In the absence of grounding, a technical fault could be lethal.

Before carrying out service and maintenance on the inside mechanism, be sure to disconnect the power cord plug from the machine body.



Check the operating voltage before you switch on the machine.

The machine will be damaged if the operating voltage does not match the line voltage.

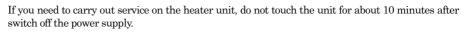


Do not touch this part while operating the machine.

The moving mechanism may cause injury and / or damage on your hand or fingers.



Heat generating unit is inside, its high temperature could cause a burn and / or injury.





Install the machine on a horizontal stable position where it has a sufficient strength for supporting the machine weight.

All service and maintenance work should only be carried by a qualified service personnel.

### 1-3. Operating conditions

- · Use the machine in places where the specified power supply with minimum fluctuation of voltage is assured.
- · Locate and clamp the machine on a rigid flat floor.
- · Clean the machine weekly. Especially the area around rollers is important.
- · Do not run the machine in a place with high temperature, high humidity, dust, etc. (Tape jamming will be caused under such conditions.)
- · The machine should be used with standard COM tapes to avoid tape sealing trouble.
- · Do not fail to turn the power switch off when finishing operations.
- This manual will be revised without prior notice due to improvement or alteration of the specifications of the machine.

## 2. Name of part

## 2-1. Machine body



#### 2-2. Controller

#### Switch box

手動 SW

テープカット SW

#### MAN/AUTO selector

MAN/AUTO mode selector

#### Tape cut switch

When this switch is pressed, the tape will be cut once and then the tape will be fed into the machine for cycling. This switch cannot work when in the AUTO mode.

(Refer to P.7 3-2 Tape setting)

#### Taping tension control knob

Taping tension can be adjusted.

(Refer to P.11 3-3 Adjustment of taping tension)

#### Run lamp

Flickering: Preparing or banding alarm ON: Machine ready to run

#### MAN switch

This switch will be used when running the machine in the manual model.

Taping will function when this switch is pressed.

This switch cannot work when in the AUTO mode.

(Refer to P.12 3-5 Taping)

#### Cam reset switch

When this switch is pressed, the mechanism will be set back to the home position (origin). When it is pressed, the alarm signal will be released if taping alarm is detected. For setting back the mechanism to the home

position, only the MAN mode can be used. For releasing the alarm signal, either the MAN or AUTO can be used.

(Refer to P.7 3-2 Tape setting) (Refer to P.13 4 Alarm signal)



Power switch



#### Tape set switch

The tape will be fed into the machine when this switch is pressed.

This switch cannot be used in the AUTO mode.

(Refer to P.7 3-2 Tape setting)

#### Tape reel release switch

Tape reel braking will be released when this switch is pressed.

This switch cannot be used in the AUTO mode.

(Refer to P. 7 3-2 Tape setting)



#### Foot switch (option)

This switch can be used in the MAN mode only.

The product in the machine will be banded when this pedal is treadled. (Refer to P.12 3-5 Taping)

## 3. How to use this machine

### 3-1. Preparation

1. Connect the power cable plug to the power plug socket.

\*For using the foot switch (option), connect the foot switch cable plug to the plug socket which is located at the left side of the machine.

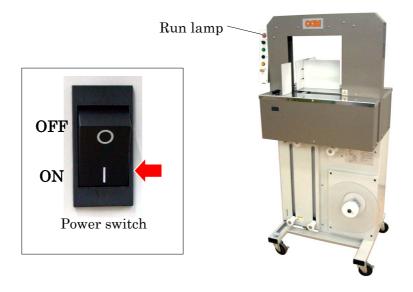


2. Set the power switch to ON.

The run lamp will flicker.

About 30 seconds after flickering of this lamp, the he

About 30 seconds after flickering of this lamp, the heater will be ready to work lighting up this lamp. Preparation is completed now and the machine is ready to run.

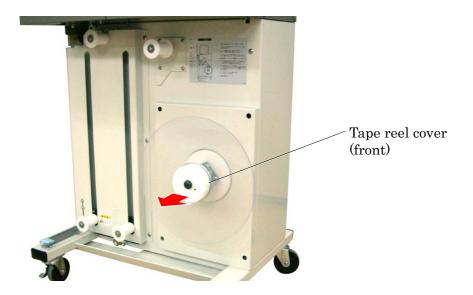


## 3-2. Tape setting

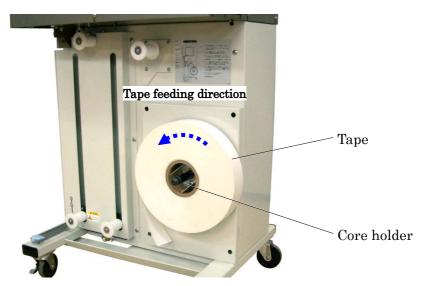
1. Set the MAN-AUTO selector to MAN.



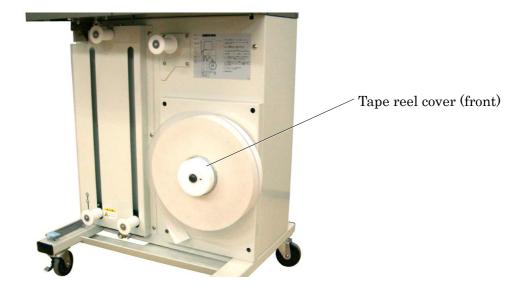
2. Pull the tape reel cover (front) toward you to dismount it away from the reel shaft.



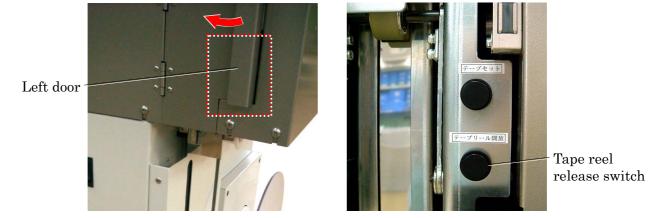
3. Set a tape reel to the core holder.\*Make sure the tape feeding direction is correct.



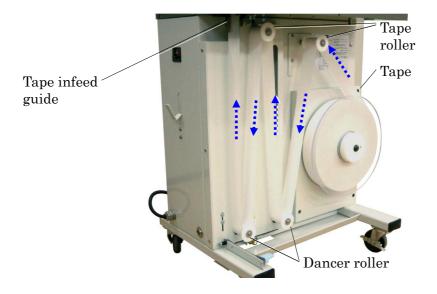
4. Remount the tape reel cover (front).



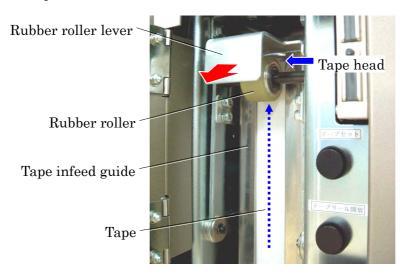
5. Open the left door and press the tape reel release switch. Tape reel braking will be released.



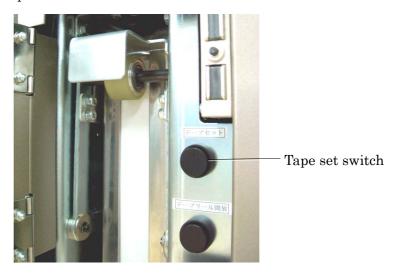
6. Remove the adhesive tape which is fixing the tape head, pull the tape long enough to infeed into the machine. Wrap the tape onto the tape rollers and dancer rollers as shown below:



7. Insert the tape into the tape infeed guide and pull the rubber roller lever. Infeed the tape until the tape passes the rubber roller position, set back the rubber roller lever, and grip the tape.

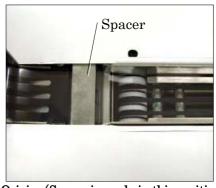


8. Press the tape set switch.
The tape will be set in position.



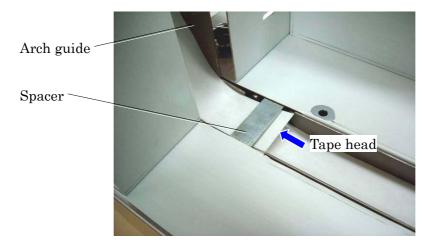
• If the tape cannot be fed out when the tape set switch is pressed, press the cam reset switch for returning the machine to the home position(origin). Then press the tape set switch again.





Origin (Spacer is ready in this position.)

9. Make sure the tape has been set in the normal position. (The tape is ready in the inner side of the arch guide, the tape passes below the spacer, and the tape head is located at the right side of the spacer) (see the photo below)



• In case that the tape has not been set in the correct way, pull the tape head and press the Tape cut switch. Then the tape will be cut and set in the machine in the fair mode.

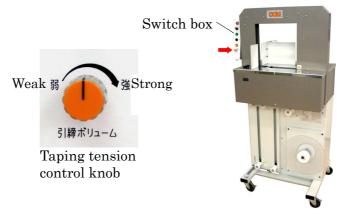


The spacer, heater assy and clamp assy are ready to operate. Carefully pull the tape so that your hand cannot be caught in these mechanisms.

The heater is hot (in a high temperature). Do not touch it so that your fingers cannot be burnt.

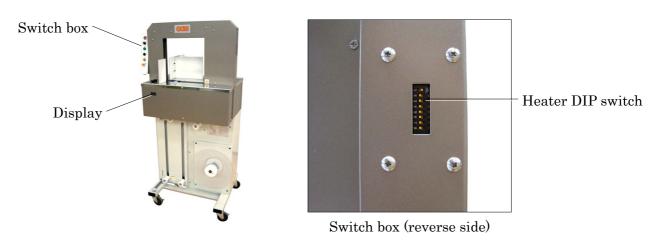
### 3-3. Adjustment of taping tension

Taping tension can be adjusted depending on the product to be banded using the control knob. Tension will increase when it is turned clockwise while it will decrease when this controller is turned counterclockwise.



### 3-4. Adjustment of heater temperature

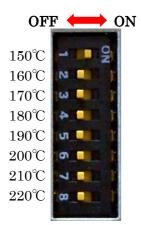
Film and paper tapes can be used. Adjust the temperature by selecting the DIP switch according to the kind of tape materials.



Heater DIP switch is on the reverse side of switch box. Turn on only one of the switches out of 1 to 8.and turn off the rest of all those switches.

Temperature set by DIP switch will be outputted onto the display.

\* When more than one switches are on, the lowest switch is on.



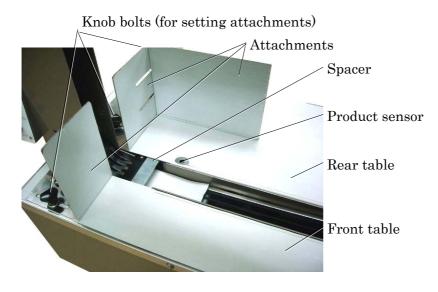
A rough guide of heater temperature

Tape type	Heater temperature	Switch No.
Film tape (OPP,40 μ )	160℃	No.2 ON
Film tape (OPP, $60\mu$ )	170℃	No.3 ON
Film tape (OPP,80 μ)	180℃	No.4 ON
Paper tape	100 C	

Heater DIP switch

### 3-5. Taping

Set the attachments (product locater) in position according to the size of product or the place to be banded. The product to be banded must be placed above the spacer and the product sensor.





#### 3-5-1.MAN mode (manual banding)

- 1. Making sure that the run lamp is lighting and tape setting has been completed, set the mode selector to MAN.
- 2. Place the product pressing it to the attachments.
- 3. Press the MAN switch or treadle the foot switch.

  The tape will be tensioned and it is cut when it is heat-sealed.
- 4. Remove the banded product. The tape will be then fed into the machine for next cycling.

#### 3-5-2.AUTO mode (automatic banding)

- 1. Making sure that the run lamp is lighting and tape setting has been completed, set the mode selector to AUTO.
- 2. Place the product pressing it to the attachments.

  The product sensor will detect the product and banding will be completed.
- 3. Remove the banded product. The tape will be then fed into the machine for next cycling.



Switch box



## 4. Alarm signal

When an alarming in the machine is detected, the alarm signal will be outputted to the display on the upper left hand corner of the front cover.

The machine cannot work unless error will be cleaned.

Alarm details are listed in the following table:





Error No.	Alarm signal	Details	
Er1	Heater temperature alarm	Heater cannot keep the preset level.	
Er2	Heater temperature setting alarm	Data of temperature is not programmed.	
Er3	Cam motor alarm	Cam motor will stop when it continues to turn for more than 5 sec. due to timer.	
Er4	Tape brake alarm	Tape brake is not fair.  *There may be a case that this signal is outputted when the tape is runout completely. Set a new tape reel after pressing the cam reset switch for clearing this alarm signal. (Refer to P.7 3-2. Tape setting)	
Er5	Roller servo motor alarm	Servo motor is not fair.	

<sup>\*</sup> If the display indicated [Er3] / [Er4] / [Er5], press the cam reset switch after restart the machine. These alarm signals will be released by pressing the cam reset switch. If the situation cannot be improved, please contact your local agent.

## 5. Specifications

	T.				
Taning anod	WAS-250-30/50	22 cycles/minute			
Taping speed	WAS-400-30/50	22 cycles/minute			
	WAS-250-30/50	W 250 × H 270(max.)			
G 1:1:4 ( )		W 50 × H 50(min.)			
Capability (mm)	WAS-400-30/50	W $400 \times H 270 \text{(max.)}$			
		W 50 × H 50(min.)			
Power supply	AC 220 V/230 V 50/60 Hz				
Power consumption	r consumption 500 W				
Ambient conditions	Room temp. 0-30 deg. C, humidity 85% RH max.				
Q 1: 4	Heater sealing				
Sealing system	(heater startup about 30 sec. after supplying power.)				
Machine	WAS-250-30/50	W 614 × D 412 × H 1292 (table height 926)			
dimensions(mm)	WAS-400-30/50	W 681 $ imes$ D 412 $ imes$ H 1292 (table height 926)			
Ma alaine a receiple 4	WAS-250-30/50	82kg			
Machine weight	WAS-400-30/50	85kg			

#### WARRANTY

Taiyo Seiki Co., Ltd. warrants its products to be free from defects in material and workmanship for a period of six months from the date of shipping invoice, provided Taiyo Seiki approves the size workpiece and application of the supplied products.

Within the warranty period, Taiyo Seiki will repair or replace such products which are returned to it with shipping charges prepaid and which are disclosed as defective upon examination by Taiyo Seiki.

This warranty will not apply to any product which has been subject to misuse, negligence or accident, or use not in accordance with Taiyo Seiki's instruction or authorized agent or employees of Taiyo Seiki. The provisions of the warranty are the sole obligations of Taiyo Seiki and exclude all other warranties expressed or implied, including any warranties of merchantability. There are no warranties which extend beyond this warranty.

Taiyo Seiki shall not be liable for any consequential damages, either in law or in equity, or for losses or expenses or claims for the same arising from the use of or inability of use, the products of Taiyo Seiki for any purpose whatsoever.

Warranty becomes void if any alteration or deletion is made on any product of Taiyo Seiki's name, trademark, patent and or serial numbers. Taiyo Seiki's continuing commitment to product improvements will make specifications subject to change without notice.

This warranty is governed by the laws of Japan.



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