V-SOLDER

BON-6002

V-cut solder machine

Applicable solder wire diameter 0.6 ~ 1.6 mm

User's manual
Preparation in October 2017
The 7th edition
JAPAN BONKOTE CO., LTD.

BONKOTE®

Contents

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1. Preface

- ✧ Thank you very much for purchasing the V-cut solder machine.
- ✧ The V-cut solder machine is effective to prevent solder balls & flux scattering by making V-groove onto a solder wire.
- ✧ If your solder wire originally have solder ball prevention effect, this machine may not provide you with a sufficient effect.
- ✧ Read below " 2. Notes for safety " before use.
- ✧ Keep this manual after read.

2. Notes for safety

CAUTION !

Be sure to read this manual before use the machine.

- ✧ Never touch the power cable or plug with wet hands.
- ✧ Never dampen the machine with water or liquid.
- ✧ Keep the power cable or plug away from flammable materials.
- ✧ Do not overhaul this machine.
- ✧ For the replacement of the parts, use the genuine parts only.

3. Notes for installation and use

For safety, make sure to observe the following matters.

- This machine is designed with ground specification. For safety, be sure to use a grounded electrical outlet.
  If you do not have such outlet, install it separately.

- Do not place where the machine would be exposed such as too much moisture, direct sunshine, much dust and vibration.

- Be sure to pull out the power plug when the machine is not used.

- Be sure to grab the power plug when plugging or unplugging.

- Please check your using voltage before use.

- Before adjustment and cleaning of V-blade, Guide pulley and so on, be sure to turn the power off and pull out the power plug from the electrical outlet.

- Do not use the machine for purpose other than the original purpose.

- Never touch V-blade during operation.

- Please use single-core solder wire in order to obtain sufficient effect.

- Be sure to make V-groove just before the soldering work in order to obtain sufficient effect.

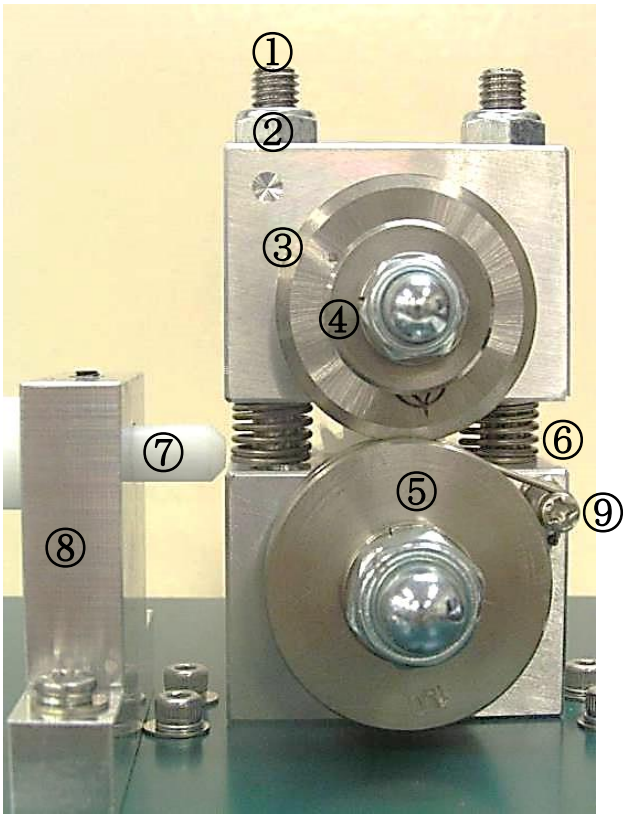
4. How to use

(A) Contents and Name

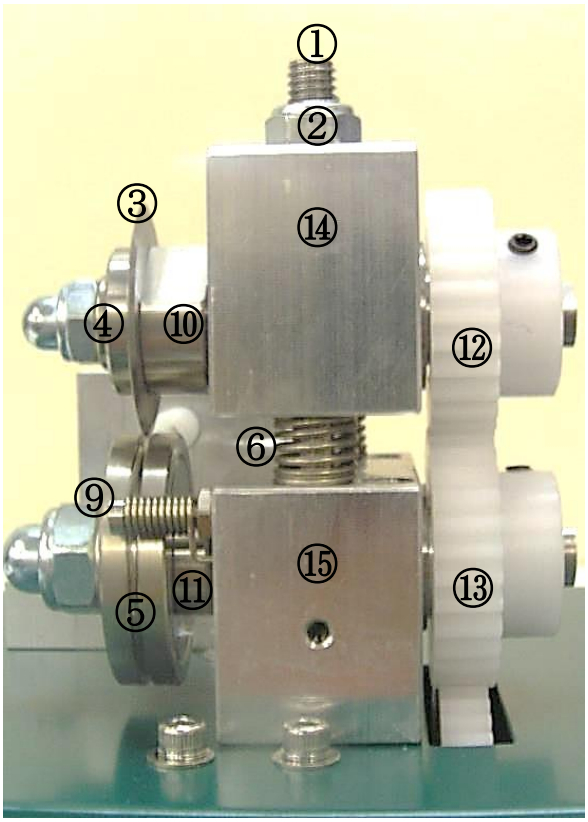
①	BON-6002 BODY
②	3PIN POWER CABLE
③	WRENCH (14 mm)
④	SOLDER REEL SHAFT
⑤	FOOT SWITCH

(B) Name of parts

SIDE

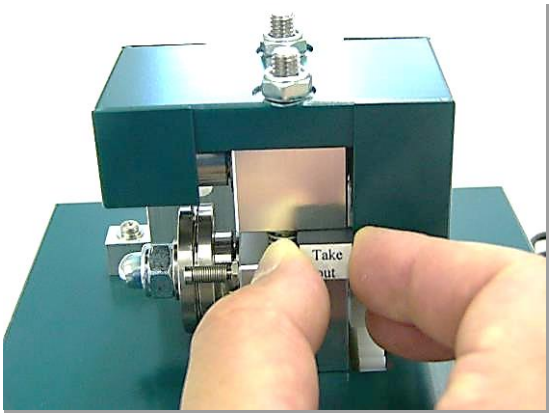


FRONT



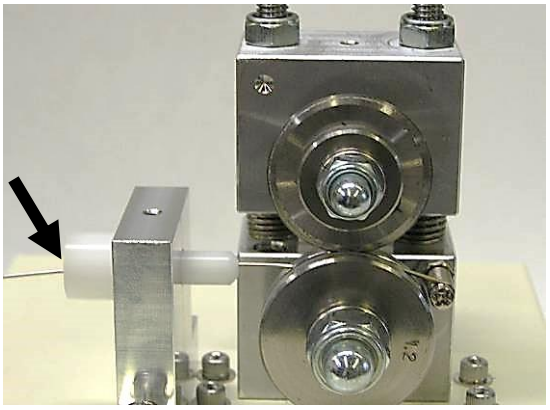
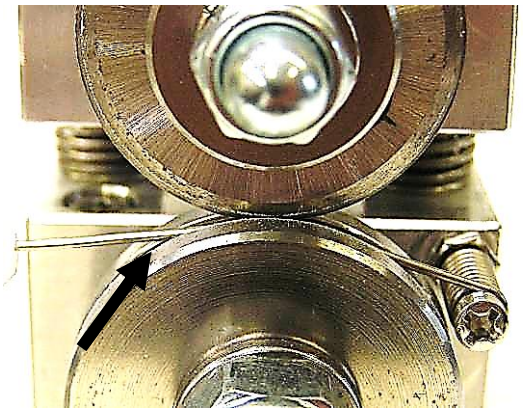
① GUIDE SHAFT	⑨ NEEDLE SHAFT SPRING
② ADJUSTER SCREW	⑩ V-BLADE SHAFT
③ V-BLADE	⑪ GUIDE PULLEY SHAFT
④ V-BLADE HOLDER	⑫ GEAR 28
⑤ GUIDE PULLEY	⑬ GEAR 30
⑥ SPRING	⑭ UPPER HOUSING
⑦ SOLDER GUIDE	⑮ LOWER HOUSING
⑧ SOLDER GUIDE HOLDER	

(C) How to set up

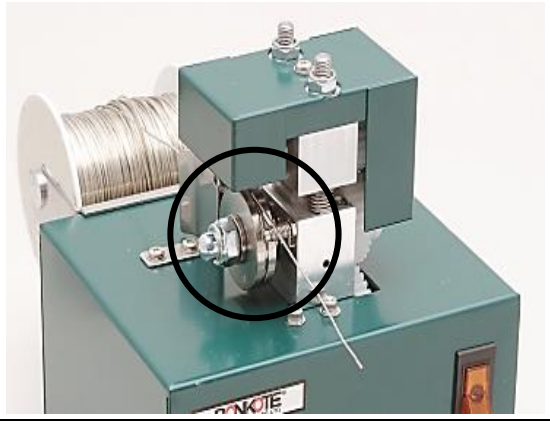
1) Connect the power cable to the V-cut solder machine.	
2) Set the solder wire reel to the reel holder. Conform each diameter of the solder wire and the guide pulley is the same.	
3) Remove a cushioning material before use .	

(D) How to use

Insert the power plug into the receptacle and turn on the switch.

1) Feed the solder wire into the solder guide.	
2) Lead the solder wire along the groove of the guide pulley and V-blade little by little by pressing the foot switch.	

Feed the solder wire by pressing the foot switch.

3) The V-grooved solder wire will come out by pressing the foot switch.	

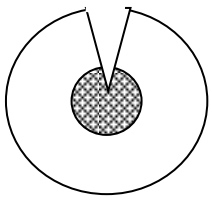
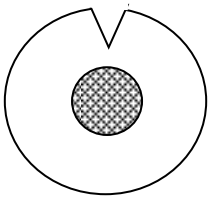
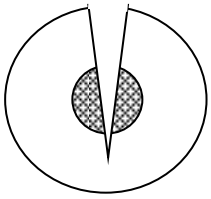
5. How to maintenance

(A) How to check Depth of V-groove

1) Cut a V-grooved solder wire vertically into 4 pieces by 2 cm intervals.
When cutting, place the V-grooved section to topside so that it will be easier to observe it..

2) Observe each cut section with a lupe whether it looks almost the same as below fig. " GOOD ".

V-groove cut section

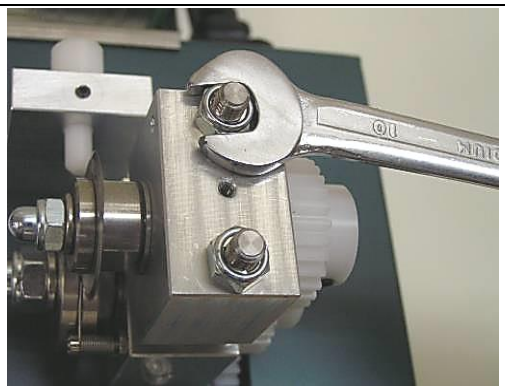
GOOD	TOO SHALLOW	TOO DEEP
		

※ Too shallow
V-groove obtain less effect of prevention of solder balls and flux scattering.

※ Too deep
It makes flux residues stick to V-blade, and then V-blade gets deteriorated easily.
In addition, solder wire may possibly twist around V-blade.
It cause the damage of both of V-blade and guide pulley.

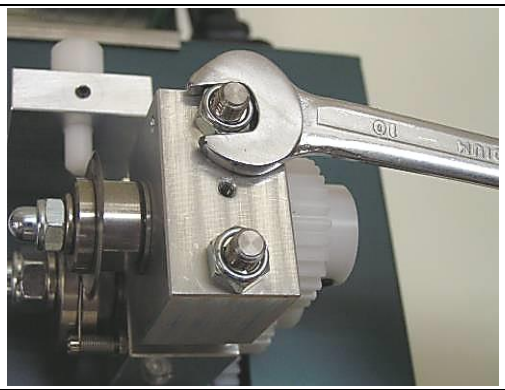
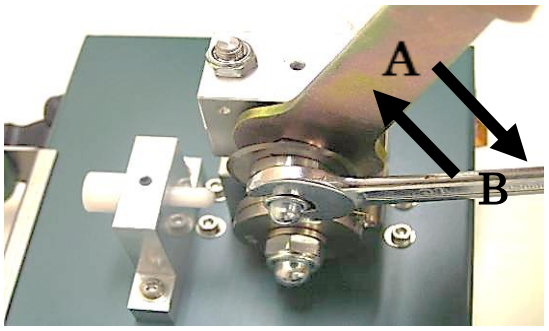
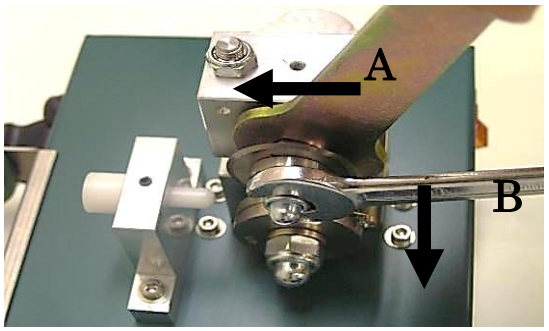
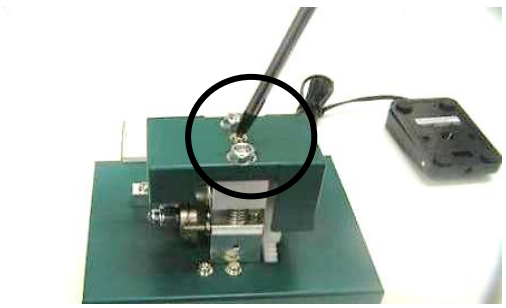
※ Please adjust depth of V-groove flexibly. Appropriate adjusting position will depend on the type of solder wire, flux size and so on.
It is better to adjust it after using with checking the solder ball scattering.

(B) How to adjust Depth of V-groove

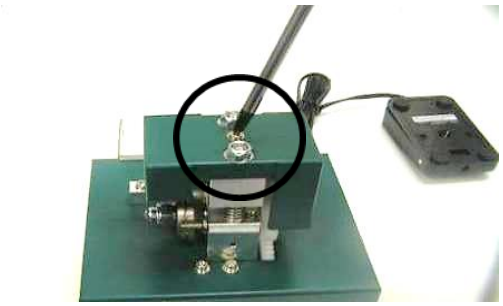
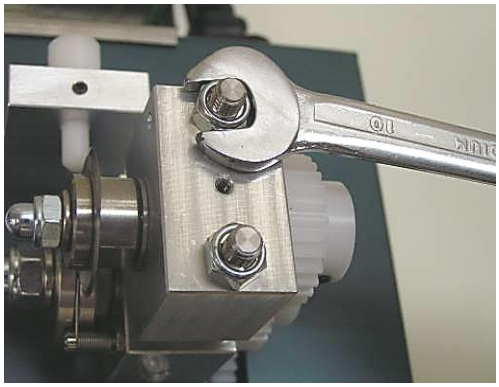
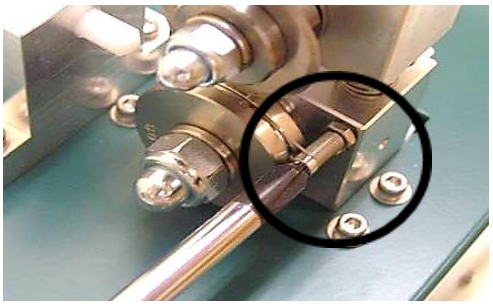
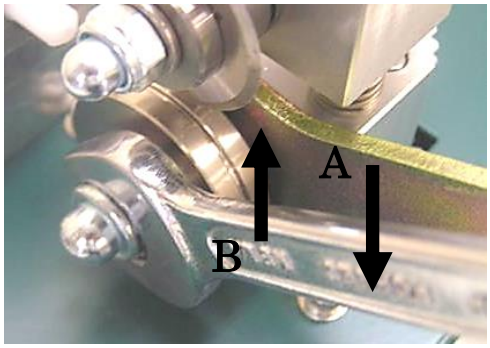
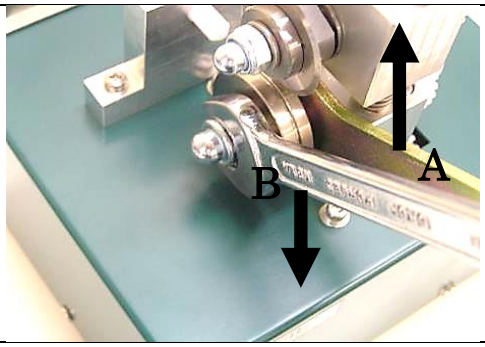
1) Remove the housing cover by loosening the screw.	
2) Adjust the upper housing position to meet below conditions: ※ V-groove is too shallow: Set the housing lower. ※ V-groove is too deep: Set the housing upper. Once the position is fixed, tighten each screw alternately	
3) Observe the cut section with a lupe.	
4) Replace the housing cover back and tighten the screw.	

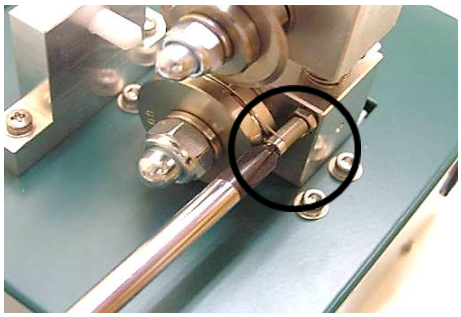
(C) Replacement parts

(C-1) V-blade

1) Remove the housing cover by loosening the screw.	
2) In order to remove the V-blade from the upper housing, loosen the adjuster screws alternately until having enough space between the V-blade and the guide pulley.	
3) Hold the V-blade shaft with a wrench A and the V-blade holder with a wrench B. Remove a cover nut of the V-blade holder while pushing each wrench in the direction of the arrows. Remove the V-blade and exchange with a new one.	
4) Fix the new V-blade firmly while pushing each wrench in the direction of the arrows.	
5) Follow the step 2) ~ 5) on the page 8.	

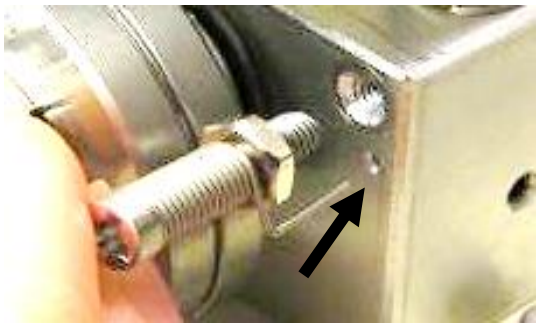
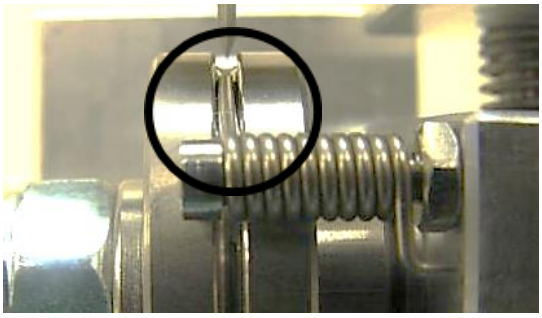
(C-2) Guide pulley

1) Remove the housing cover by loosening the screw.	
2) In order to remove the guide pulley from the lower housing, loosen the adjuster screws alternately until having enough space between the V-blade and the guide pulley.	
3) Remove the needle shaft spring first. Refer to P.11	
4) Hold the guide pulley shaft with a wrench A and the guide pulley holder with a wrench B. Remove a cover nut of the guide pulley holder while pushing each wrench in the direction of the arrows. Remove the guide pulley and exchange with a new one.	
5) Fix the new guide pulley firmly while pushing each wrench in the direction of the arrows.	

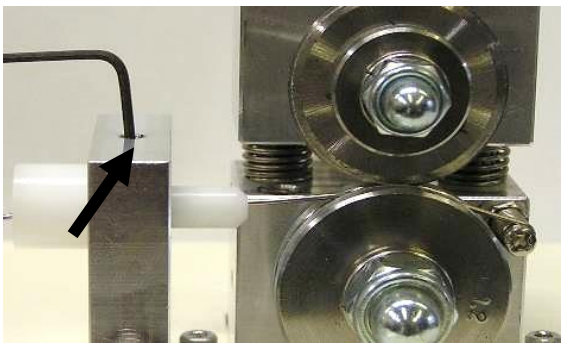
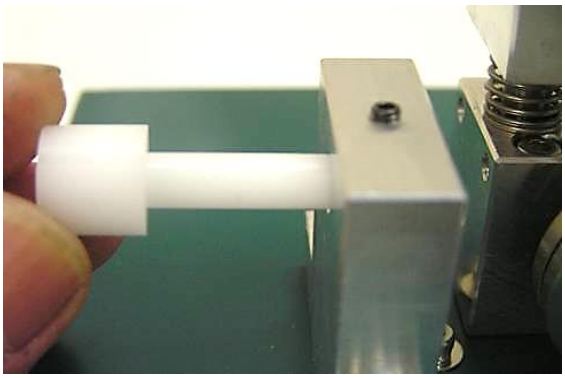
6) Put back the needle shaft spring. Refer to P.11.	
7) Follow the step 2) ~ 5) on the page 8.	

※ Each solder wire has an suitable needle shaft spring and a guide pulley by its diameter. When you exchange solder wire size, please exchange a guide pulley or a needle shaft spring accordingly.

(C-3) Needle shaft spring

1) Hold a screw of the needle shaft spring with a screw driver. Loosen a nut with a wrench and remove it from the lower housing.	
2) Attach a new needle shaft spring. Make sure to insert the edge of the spring into a small hole on the lower housing.	
3) Hold a screw of the needle shaft spring with a screw driver. Tighten a nut with a wrench firmly. Make sure that the needle must be placed into the groove of the guide pulley.	

(C-4) Solder guide

1) Loosen a screw of the solder guide holder with a hexangular wrench and remove the solder guide.	
2) Attach a new solder guide. The solder guide should be aligned to the groove. Tighten a screw of the guide holder.	

(C-5) Fuse

1) Loosen a fuse holder by hand. Replace a fuse with a new one.	

6. Consumption parts

(A)

Guide pulley Model No.	Applicable solder wire diameter	Needle shaft spring Model No.	V-blade Model No.	Solder guide Model No.
GP-06	DIA. 0.6 mm	TN-05	VE-1	HP-20
BP-065	DIA. 0.65 mm			
BP-08	DIA. 0.8 mm			
BP-10	DIA. 1.0 mm	TN-08		
BP-12	DIA. 1.2 mm			
BP-16	DIA. 1.6 mm			

(B) Fuse

Glass tube Fuse: 250V 1A (DIA.5.2 x 20 mm)

7. Specifications

Input voltage	100VAC ・ 110VAC	
Frequency	50 Hz	60 Hz
Feeding amount	40 mm/sec.	48 mm/sec.
Feeding method	Footswitch	
Applicable solder diameter	DIA. 0.6 ~ DIA. 1.6 mm	
Dimension	142W x 122D x 160H mm	
Weight	1950 g	
Power consumption	approx.. 6.0 VA	
Power cable	L= 1.6 m　3pin plug cable	
Case material	Steel : t = 1.0	
Fuse	Glass tube fuse: 250V 1A(DIA.5.2 x 20 mm)	

8. Trouble shooting

Phenomena	Possible causes	Measures	Page.
Motor does not move	Switch lamp is unable to light.		
	The Power cable is unplugged.	Insert the power plug into the receptacle firmly.	-
	The Fuse can be blown out.	Exchange the fuse with a new one	P12
	Switch lamp lights		
	The V-blade touches the Guide pulley.	Adjust the upper housing position and separate the V-blade and the Guide pulley	P8
	The Foot switch has trouble.	Contact us for repair.	-
	The Motor has trouble.	Contact us for repair	-
Solder balls increase.	The solder wire is not V-grooved properly	The V-blade is consumed. Exchange it with a new one.	P9
	Observe the depth of V-groove referring to page 7. The cut section of V-groove does not appear correctly.	Adjust the upper housing position accordingly.	P8
		The V-blade is consumed. Exchange it with a new one.	P9
		The Guide pulley is consumed, Exchange it with a new one.	P10
V-grooved solder wire is coiled around the Guide pulley.	The diameter of Solder wire and the Guide pulley is different.	Match the diameter of Solder wire and the Guide pulley.	P10
	The wrong sized Needle shaft spring is attached.	Exchange the Needle shaft spring with a correct size one.	P11
The solder wire is buried in the Guide pulley	The diameter of Solder wire and the Guide pulley is different.	Match the diameter of Solder wire and the Guide pulley.	P10
The Needle shaft spring is bended, or got rust.	The needle shaft spring is consumed.	Exchange the needle shaft spring with a new one.	P11
The Solder wire comes off from the Guide pulley	The solder guide is not aligned to the Guide pulley properly.	Adjust Solder guide and Guide pulley properly..	P12
	The Guide pulley is consumed	Exchange the Guide pulley with a new one.	P10

9. Guarantee and After sales service

(A) Guarantee

We will ship our products after severe factory tests and inspections.
However, if you find any malfunctions or defects due to problem in workmanship or transportation, please contact your dealer or us.
The guarantee period of your machine is in one year after purchased, except for replacement parts.

(B) After sales service

If the machine has trouble, please read this guide manual once again.
If the trouble is still not resolved, please contact your dealer or our service department.

NOTE:

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