

# mammylock

## MANUAL for Model ML-303



# MANUAL FOR MAMMYLOCK ML-303

## INTRODUCTION

We thank you very much for your buying our MAMMY-LOCK ML-303 machine.

This booklet contains some notes on the operations and maintenance of the MAMMYLOCK ML-303 machines, which should be useful to you and should help you to become familiar with the machine and to derive the best use from it.

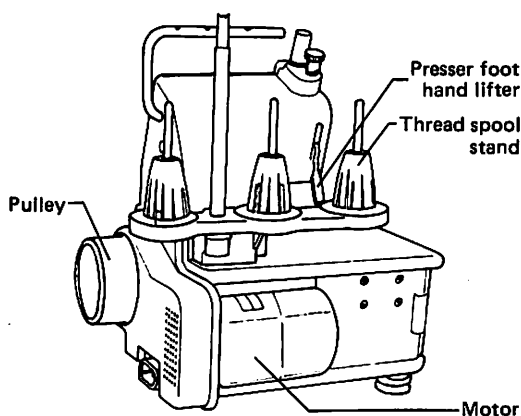
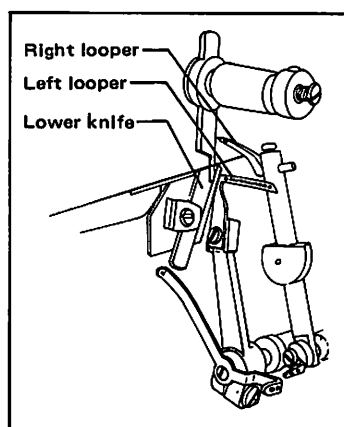
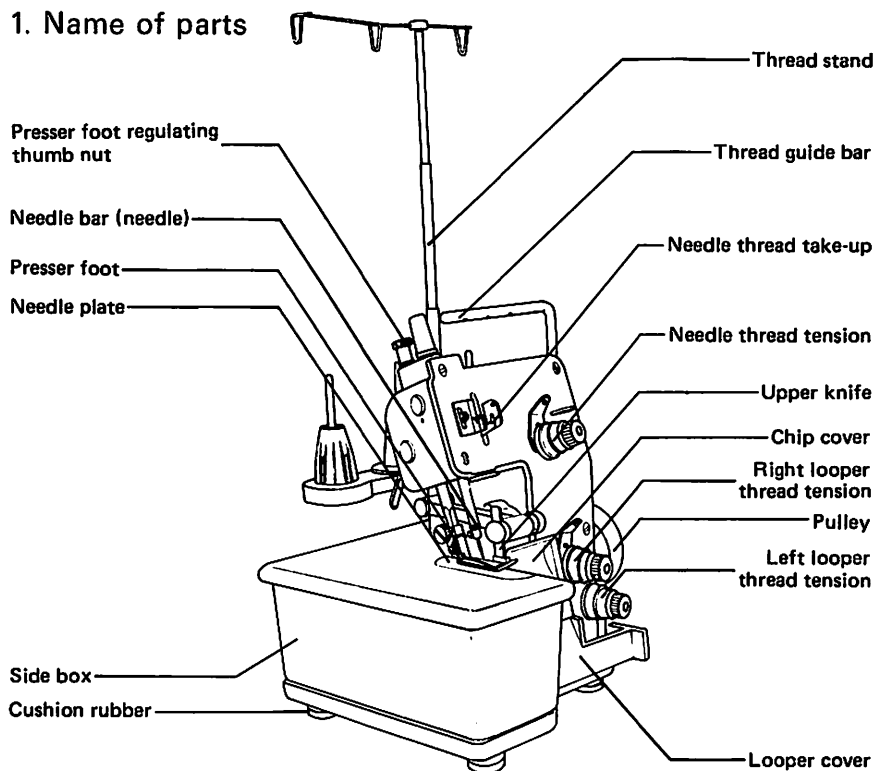
This machine is designed for sewing on various kind of materials such as light to heavy weight or woven and knit fabrics beautifully and firmly.

All machines are shipped from our factory after inspecting carefully one by one, so we hope you will use a MAMMYLOCK machine regularly and forever.

## CONTENTS

1. Name of parts .....	1
2. How to run a machine .....	2
3. Oiling .....	4
4. Threading .....	5
5. Test sewing .....	8
6. How to regulate the thread tensions .....	9
7. How to operate .....	10
8. How to regulate the stitch length and the pressure of presser foot .....	11
9. How to replace the needle .....	12
10. How to change the upper and lower knives.....	13
11. How to replace the carbon brush for the drive motor .....	15
12. How to adjust for incorrect sewing .....	16
13. The relation chart of materials and threads.....	17
14. Specifications .....	17
15. The contents of packing .....	18
16. Standard accessories .....	18

# 1. Name of parts

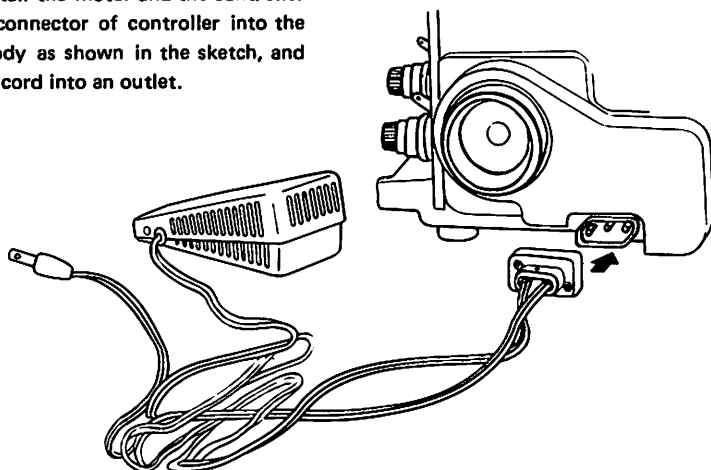


## 2. How to run a machine

### (1) Preparation

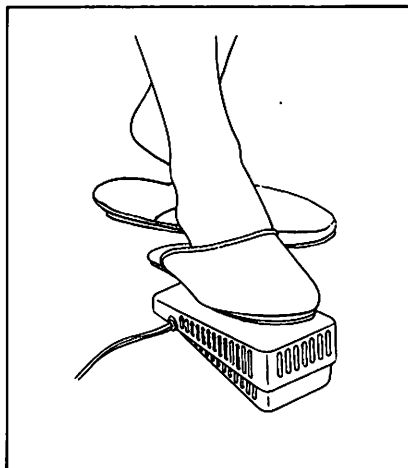
You must lay a machine flat on a desk or a machine table to use it.

(2) To install the motor and the controller  
Insert the connector of controller into the machine body as shown in the sketch, and then plug a cord into an outlet.



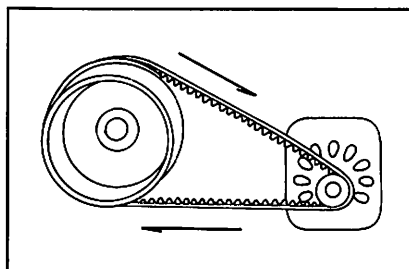
### (3) To start running a machine

Lay your foot on the controller. Press it down slightly, and a machine will start to run slowly. And press it down more strongly to run a machine at a high speed. A machine will be stopped running if you retract your foot.



**(4) The drive motor**

- The sewing speed of this machine is 1500 spm (stitches per minute), so it will run at a considerably higher speed than that of ordinary household sewing machines. This machine is designed to rotate clockwise (forward) contrary to ordinary household sewing machines.

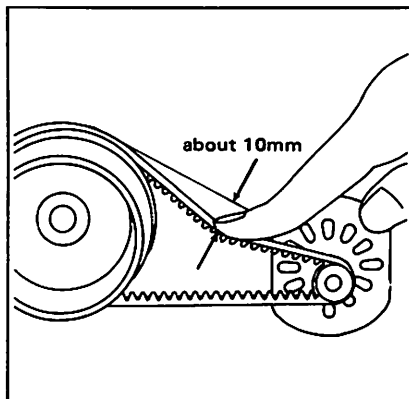


- The motor and controller may get warm a little when using a machine continuously for a long time but it will not cause any trouble on the machine.

- You may see a spark through the vent of motor blacket opposite to the pulley, which is caused by the action of rectification of the carbon brush. So please go on using the machine as it is.

**(5) To set the pulley belt correctly**

About 10mm slack of the belt should be in the center of machine and motor pulleys as shown in the sketch when pushing it by finger.

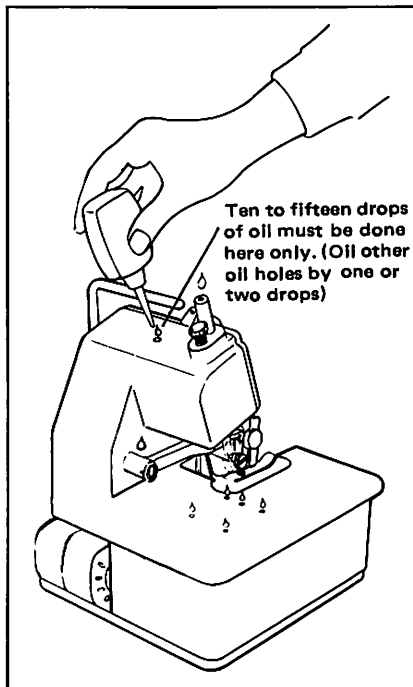


### 3. Oiling

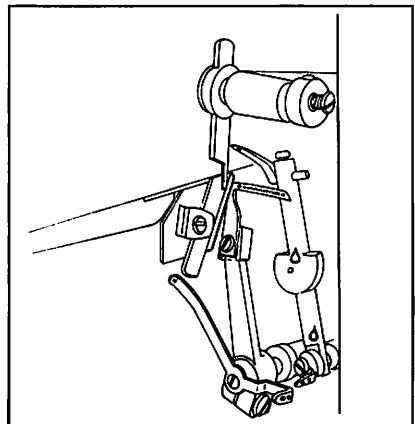
- (1) Oiling is quite important in using a machine forever. Be sure to oil the machine at specified oil holes everytime before using it.

Such important moving parts as bushing are made of special alloy and oiled sufficiently in our factory before shipping, so pour the oil supplied with machine only once or twice monthly. One or two drop of oil may be enough at a time.

#### (2) Oiling oil holes



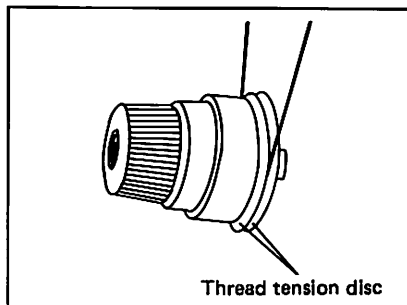
#### (3) Oiling the looper mechanism



## 4. Threading

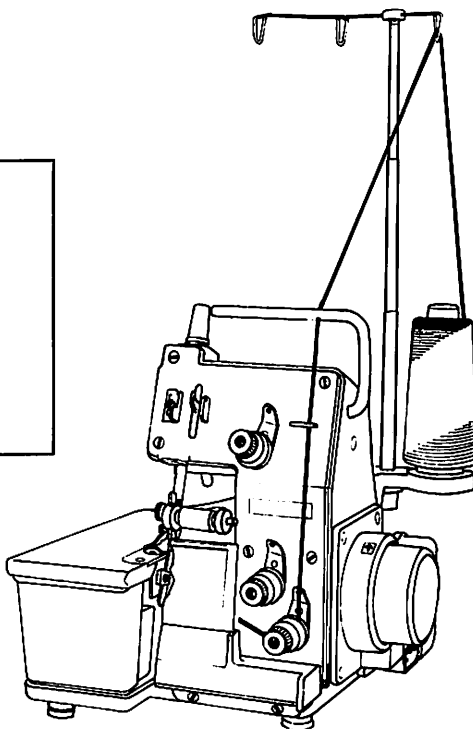
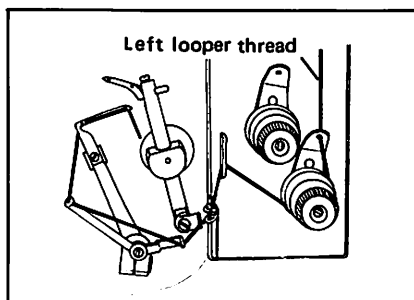
### (1) Notes

- The machine do not sew if threading incorrectly. Thread correctly as the following thread diagrams.
- First, thread left looper.
- Insert the thread between the tension discs.
- Use a pair of tweezers to thread easily.



### (2) Threading order

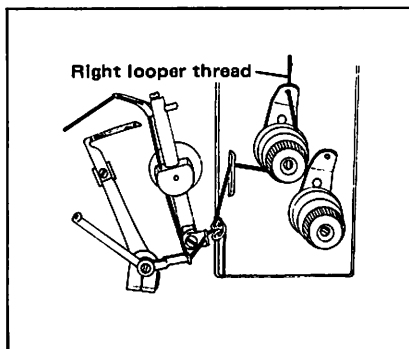
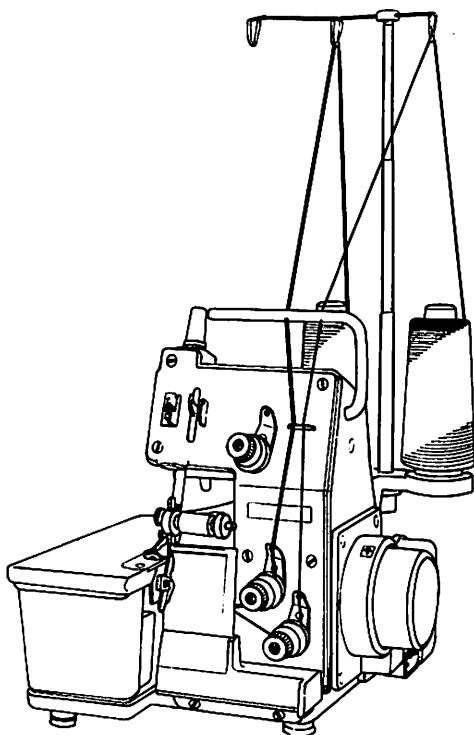
- ① Thread left looper first.



- \* Caution! Draw about two inches (50mm) of thread through the right looper eye.

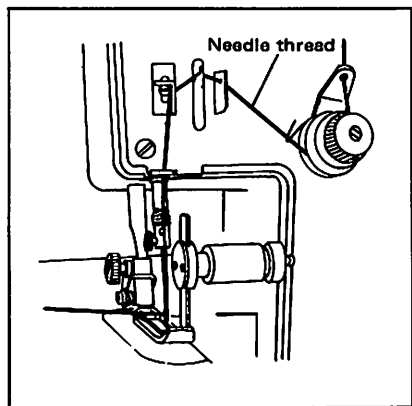


② Thread right looper secondly.

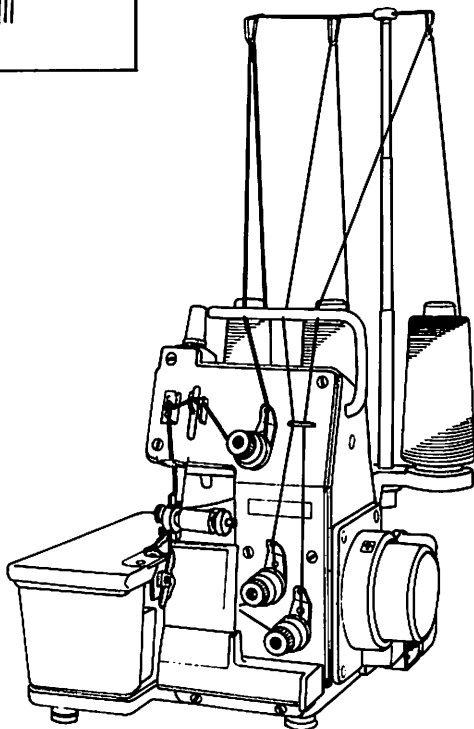


\* Caution! Draw about two inches (50mm) of thread through the left looper eye.

③ Thread needle lastly.



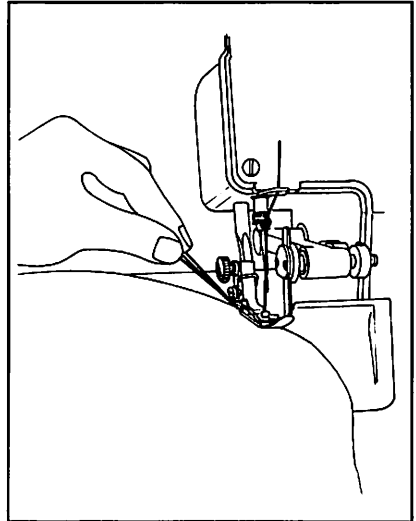
\* Caution! Draw about two inches (50mm) of thread through the needle eye.



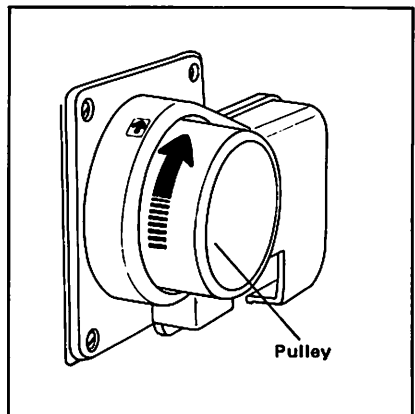
## 5. Test sewing

**Caution!** Do test-sewing after you finish to thread .

① Put a piece of cloth under the presser foot.



② Hold three threads with your fingers of left hand and turn the pulley clockwise with right hand. Start to sew slowly after you check that the correct stitch formation is obtained.

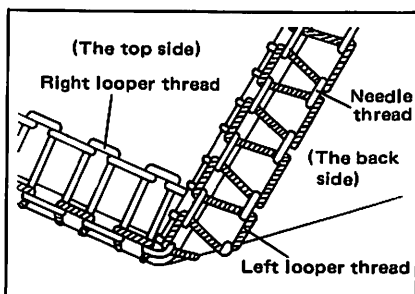


## 6. How to regulate the thread tensions

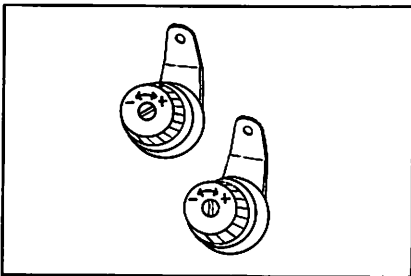
### (1) To regulate the thread tensions

The amount of tension must be regulated depending on the kind and size of materials and threads to be used. Tension on thread should be only enough to secure proper formation.

### (2) Proper stitch formation



#### ■ Thread tension

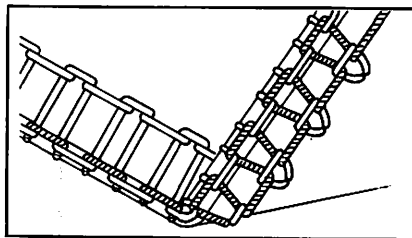


### (3) To adjust incorrect stitch formation

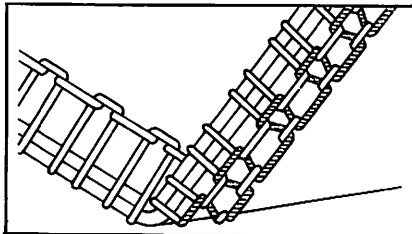
The proper stitch formation is obtained by adjusting the amount of three thread tensions.

Turn the each thread tension nut clockwise to increase the amount of tension and turn it anti-clockwise to decrease the amount of tension.

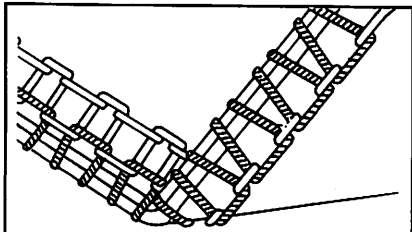
① The sketch shows the needle thread tension loosens too much.



② The sketch shows the right looper thread tension loosens too much.

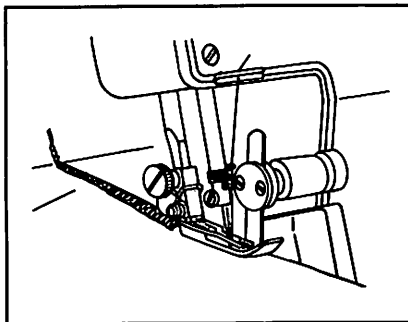


③ The sketch shows the left looper thread tension loosens too much.



## 7. How to operate

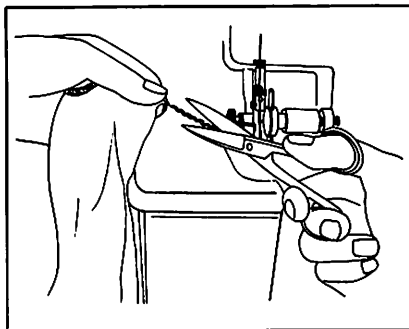
- Put the material under the presser foot securely and commence to sew.
- Sew the first and second stitches very slowly.
- Put your fingers on the material only enough to guide it as it is fed automatically.



- ① Take away the material from the machine . . . . .

Run the machine continuously at a low speed until about 5 cm of chaining thread is obtained after the material is sewn up. Then cut the chaining thread to remain 3 cm of it with the material sewn-up.

- ② When the backtack is necessary . . . . .
- Tie a chaining thread remaining with the material. In the case of sewing up knit fabrics, insert back the remained chaining thread into the stitch formation of the material by using a crochet.

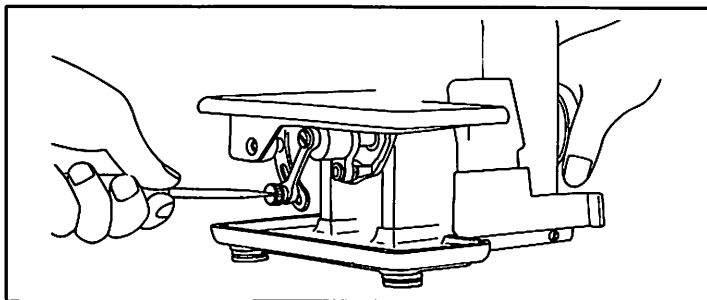


## 8. How to regulate the stitch length and the pressure of presser foot

(1) To regulate the stitch length . . . . .

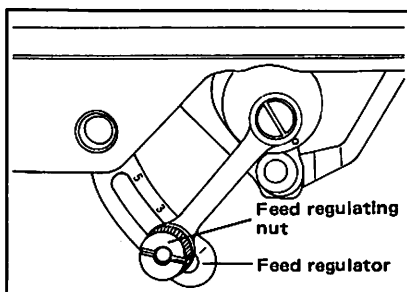
① Swing out the side cover to the left.

Hold the pulley immovably with your hand and loosen the feed regulating nut by using a screwdriver supplied with machine.



② Move the feed regulating nut in the groove of the feed regulator up and down to obtain the desired stitch length. To increase the stitch length, move the nut upward and move it downward to decrease.

③ Tighten the feed regulating nut securely after adjusting.

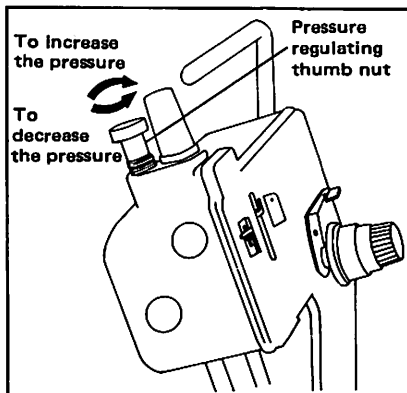


(2) To regulate the pressure of the presser foot . . . . .

This machine is adjusted for sewing on the medium weight materials in our factory. So it is necessary to readjust the pressure of the presser foot when sewing on light or heavy weight materials.

The pressure can be regulated by turning the thumb nut as shown in the sketch.

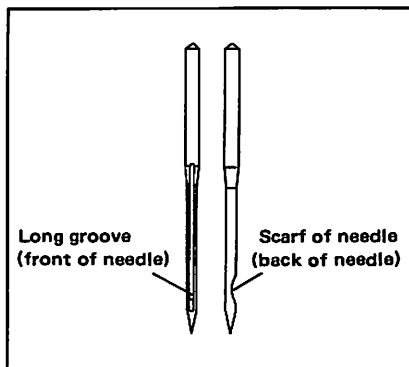
Increase the pressure for the heavy weight material and decrease it for the light weight material.



## 9. How to replace the needle

- This machine is designed to use the type DB x 1 of needle which is most popular.
- Generally the size of needle should be determined by the size of thread and thickness or weight of material to be sewn. Standard setting is No. 11 of needle and No.9 to No.16 of needles are also available.

### ■ Sketch of needle

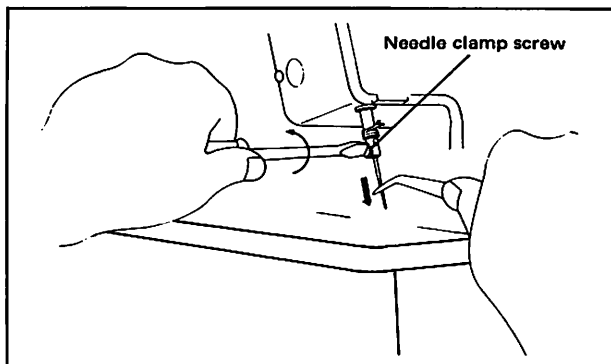


#### ① To remove the needle . . . . .

Turn pulley clockwise by hand until the needle bar is at its highest position. Loosen the needle clamp screw by using a screw-driver, and the needle will be withdrawn downward.

#### ② To set the needle . . . . .

At the needle bar being at its highest position, insert a fresh needle into the needle hole as far as it will go, with long groove of it to the front. Tighten the clamp screw in position securely.



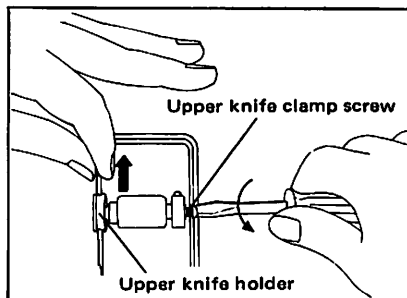
## 10. How to change the upper and lower knives

• When the cutting edge of knife becomes dull, replace with a fresh one as follows.  
Caution: Remove the plug cord from the outlet, and then commence to change the knife.

(1) To change the upper knife . . . . .

① To remove the upper knife . . . . .

Loosen the upper knife clamp screw and the upper knife guide screw, and pull the knife out upperward.

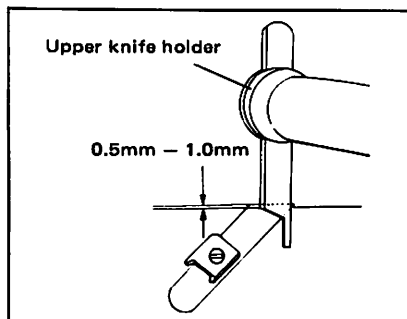
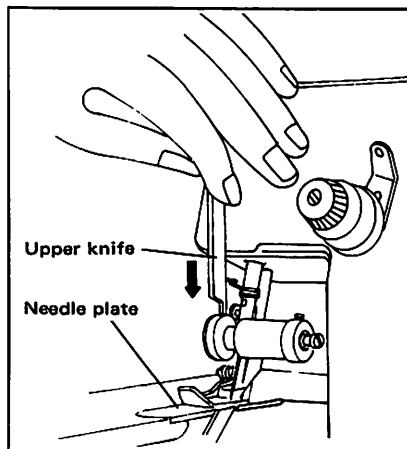


② To set the knife . . . . .

Push the upper knife holder up to its rightmost position and insert the knife into the groove of upper knife holder with cutting edge to the left. Tighten the upper knife clamp screw in position slightly.

Front cutting edge of upper knife, at its bottom of stroke, should extend not less than 0.5mm – 1.0mm as shown in the sketch. In this position, tighten the upper knife clamp screw again securely.

Lastly, when the upper knife is at its lowest position, adjust it so it crosses the surface of needle plate at right angles. Tighten the upper knife guide screw securely.

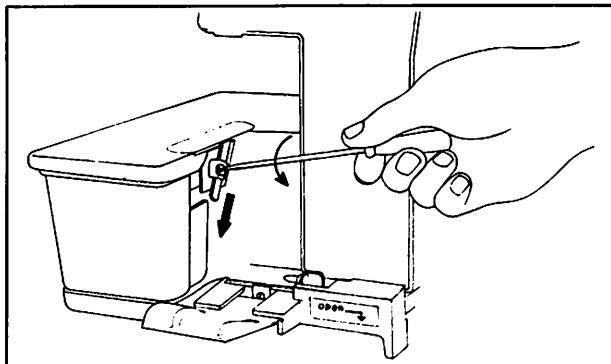




(2) To replace the lower knife

① To remove the lower knife . . . . .

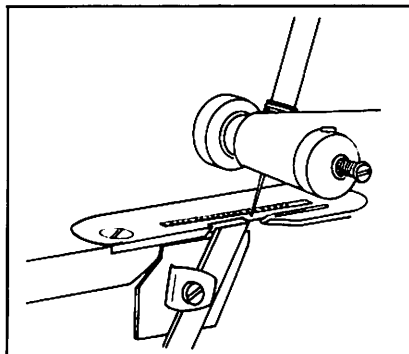
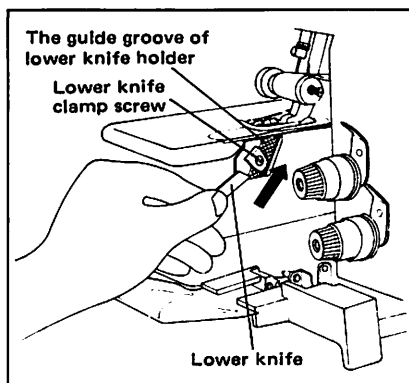
Loosen the lower knife screw by using a screwdriver, and it will be withdrawn downward.



② To set the knife . . . . .

Insert a fresh knife into the guide groove of lower knife holder from the bottom, with cutting edge to the right.

Then, set the knife so its cutting edge is even with the surface of needle plate, and tighten the lower knife clamp screw in position securely.



## 11. How to replace the carbon brush for the drive motor

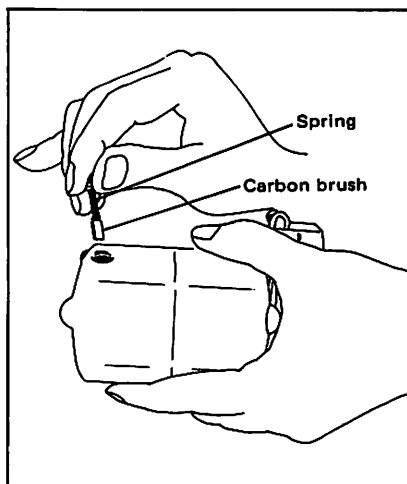
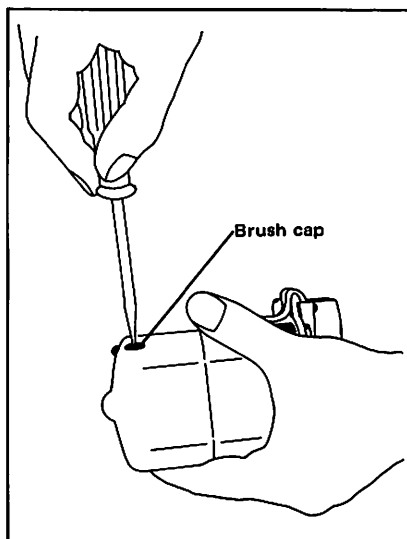
- The carbon brush is one of articles of consumption, so exchange with a new one if worn-off.

To catch the carbon brush worn-off

1. To make a noise
2. The motor will not run
3. To sparkle too much

To replace the carbon brush

1. Remove the motor from the machine body.
2. Loosen two brush caps.
3. Take out the carbon brush spring and the carbon brush.
4. Insert a new carbon brush and its spring as they were, and set the cap in position.
5. Install the motor as it was.



## 12. How to adjust for incorrect sewing

- Any difficult adjustment is not necessary for this machine. The following troubles are mainly caused by mis-adjustment fundamentally, so re-adjust according to necessities.

Trouble	Cause	Adjustment
Material is not fed smoothly	The pressure of presser foot is too weak	Turn the pressure regulating thumb nut clockwise to increase the pressure.
Needle is broken	Needle is bent or its point is damaged. Needle is set incorrectly Material is pull out strongly	To change for a fresh needle  To set needle correctly (see page 12) Do not push or pull out the material in sewing
Thread is broken	To thread incorrectly Thread is caught on any obstacle Thread tension is too strong  Needle is set incorrectly  To use any needle not to be specified	To thread again properly (see page 5 to 7) To check if thread is caught on thread stand and so on See page 9 (How to regulate the thread tension) To check if needle is set correctly (see page 11) To use type DB x 1
Skip stitch occurs	Needle is bent or its point is damaged To set needle incorrectly To use any needle no to be specified To thread incorrectly The pressure of presser foot is too weak	To change for a fresh needle  To set needle properly (see page 12) To use type DB x 1 of needle  To thread again properly (see page 5 to 7) To turn the pressure regulating thumb nut clockwise to increase the pressure
Proper stitch formation is not be obtained	Insufficient adjustment of thread tensions	To re-adjust thread tensions (see page 9)
Puckering occurs	Thread tension is too strong  To thread incorrectly to be caught on any obstacle	To loosen thread tension nuts considerably when sewing on light materials (see, page 9) To thread properly (page 5 to 7)

### 13. The relation chart of materials and threads

Material	Thread	Stitch length
<b>Light weight materials</b> Organdie, Fine toricot, Tafta, Silk, suit lining,	Cotton No.80 – 100 Silk No.80 – 100	3.0mm – 4.0mm
<b>Medium weight materials</b> Cotton, Tricot, Linen, General dress materials	Cotton No.60 – 100 Silk No.50 – 100	3.0mm – 4.0mm
<b>Heavy weight materials</b> Tweed, Coat cloth, Denim, Heavy weight cloth	Cotton No.40 – 60, Silk No.40 – 60 Polyester, Wooly nylon	3.0mm – 5.0mm
<b>Knit fabrics</b> Knit fabrics	Wooly nylon, Polyester	3.0mm – 5.0mm

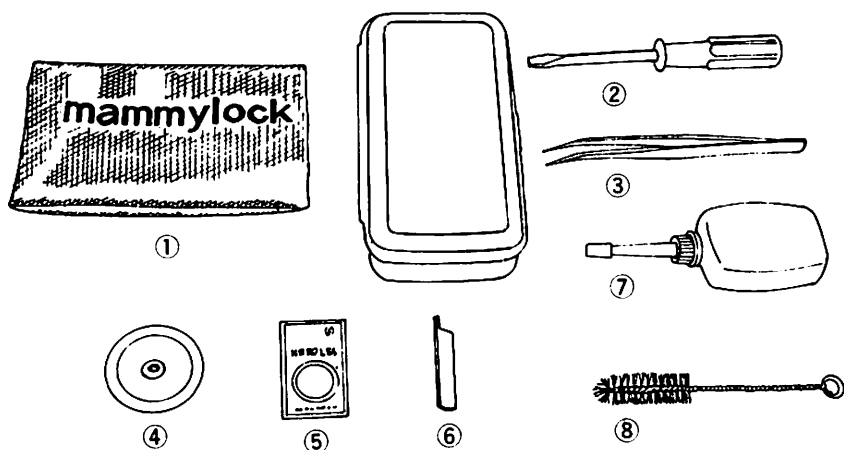
### 14. Specifications

Sewing speed .....	1,500 stitches per minute
Seam width .....	4.0mm (standard)
Stitch length .....	2.0mm – 5.0mm
Presser foot.....	Hinged
Presser foot lift .....	Up to 5.0mm
Needle .....	Type DB x 1, size No. 11 (standard) No. 9 – 16 also available
Number of thread .....	3
Oiling .....	Manual
Machine head .....	253mm x 263mm x 275mm
Net weight .....	10kg (complete set with motor)

## 15. The contents of packing

1. Machine head with motor	1
2. Foot pedal of controller	1
3. Manual for MAMMYLOCK ML-303	1
4. Standard accessories and its box	1

## 16. Standard accessories



- ① Machine head cover
- ② Screwdriver
- ③ Tweezers
- ④ Thread guide (three pieces)
- ⑤ Needle (type DB x 1, size No. 11)
- ⑥ Upper knife
- ⑦ Oiler (contained with 50cc oil)
- ⑧ Brush for dusting