

INSTRUCTION BOOK

MY DIFFERENTIAL FEED
LOCK 134D

“IMPORTANT SAFETY INSTRUCTIONS”

“Your sewing machine is designed and constructed only for HOUSEHOLD use.”

“Read all instruction before using this sewing machine.”

“DANGER — To reduce the risk of electric shock:”

1. “An appliance should never be left unattended when plugged in. Always unplug this appliance from the electric outlet immediately after using and before cleaning.”
2. “Always unplug before relamping. Replace bulb with same type rated 15 Watts.”
3. “Do not reach for the appliance that has fallen into water. Unplug immediately .”
4. “Do not place or store appliance where it can fall or be pulled into a tub or sink. Do not place in or drop into water or other liquid.”

“WARNING — To reduce the risk of burns, fire, electric shock, or injury to persons:”

1. “Do not allow to be used as a toy. Close attention is necessary when this appliance is used by or near children.”
2. “Use this appliance only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.”
3. “Never operate this appliance if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the appliance to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.”

4. “Never operate the appliance with any air opening blocked. Keep ventilation openings of the sewing machine and foot controller free from accumulation of lint, dust, and loose cloth.”
5. “Never drop or insert any object into any opening.”
6. “Do not use outdoors.”
7. “Do not operate where aerosol (spray) products are being used or where oxygen is being administered.”
8. “To disconnect, turn all controls to the off position, then remove plug from outlet.”
9. “Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.”
10. “Keep fingers away from all moving parts. Special care is required around the sewing machine needle and knives.”
11. “Always use the proper needle plate. The wrong plate can cause the needle to break.”
12. “Do not use bent needles.”
13. “Do not pull or push fabric while stitching. It may deflect the needle causing it to break.”
14. “Switch the sewing machine off when making any adjustment in the needle area, such as threading needle, changing needle, threading loopers, or changing presser foot, and the like.”
15. “Always unplug the sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.”

“SAVE THESE INSTRUCTIONS”

Do's and Don'ts

- Disconnect the power supply plug from the wall outlet when changing needles, presser foot or needle plate, or when leaving the machine unattended.
- Do not pull the fabric while you are stitching as this may deflect the needle, causing it to break.
- Before cleaning your machine, disconnect the power supply plug from the wall outlet.
- Handle the foot control with care and avoid dropping it on the floor. Be sure not to place anything on top of it.
- Closely watch the area being sewn to avoid injuries from needles and knives.

* Specification and design subject to change without notice.

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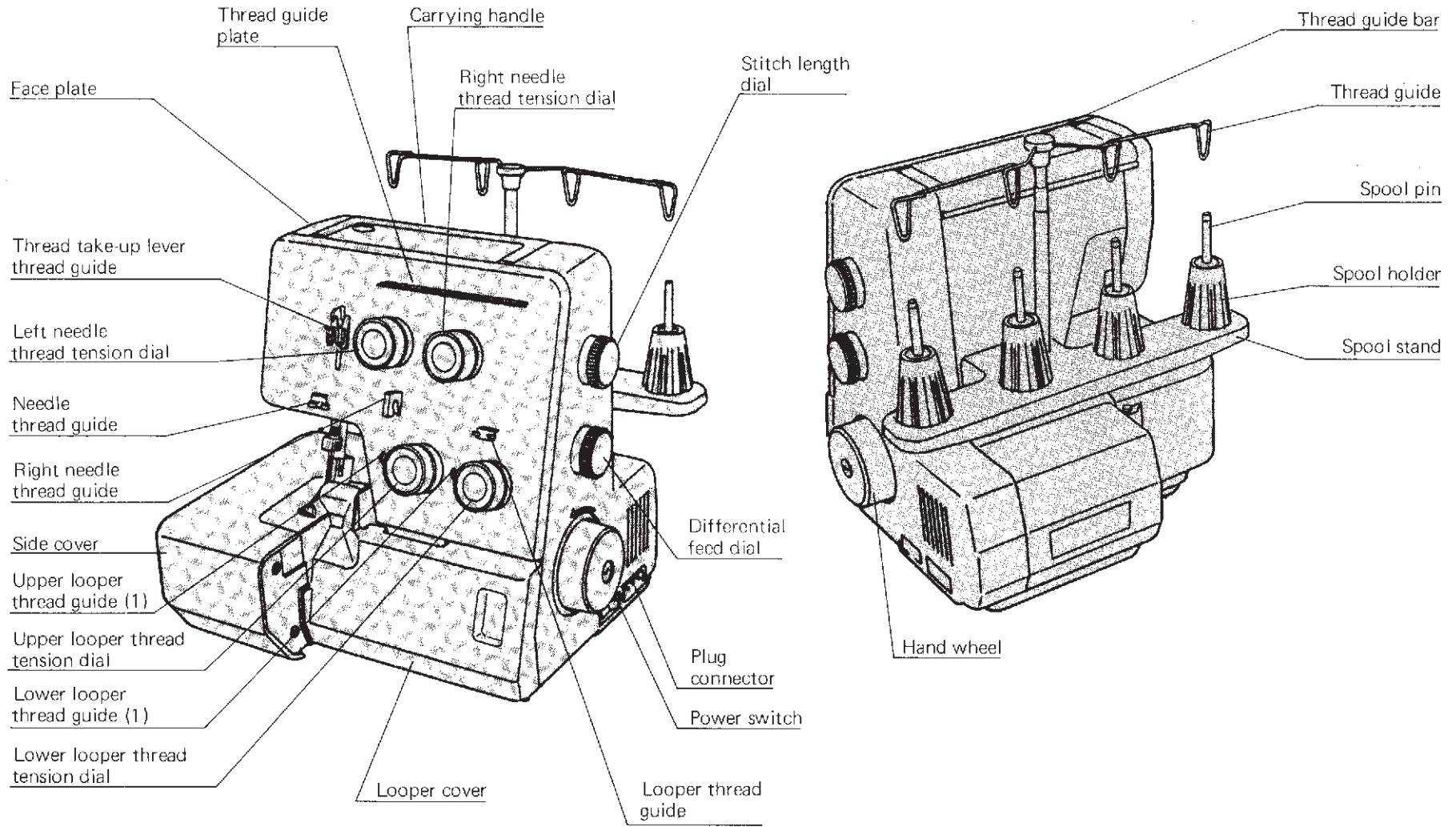
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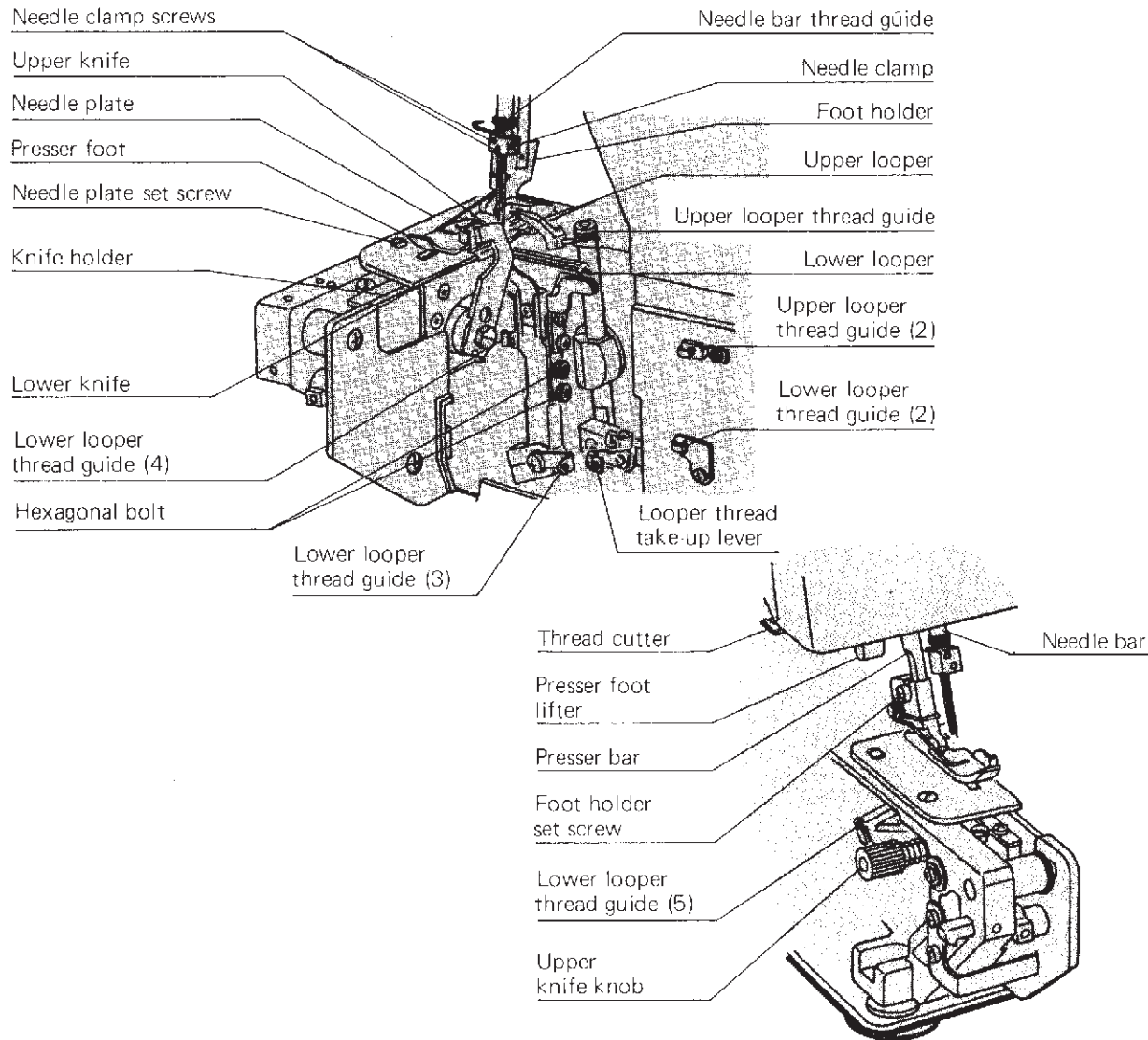
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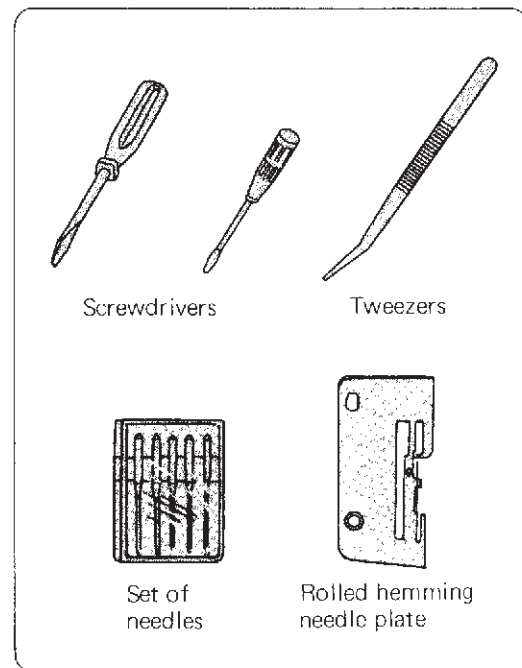
Locate and Identify the Parts



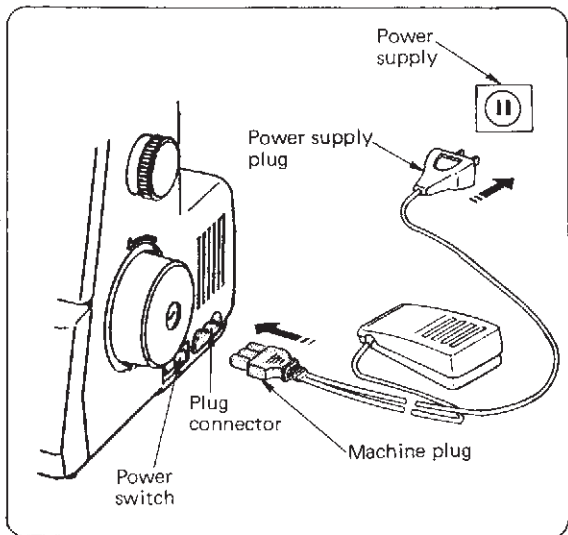
Locate and Identify the Parts (Continued)



Identify the Accessories

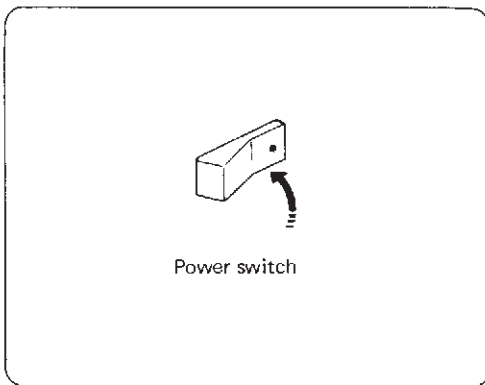


Plug in the Machine and Switch on the Power



NOTE: Before inserting the plug into your machine, be sure the power switch is OFF.

1. Insert the machine plug into the three-prong plug connector, as shown. It will only fit one way.
2. Insert the power supply plug into the wall outlet.

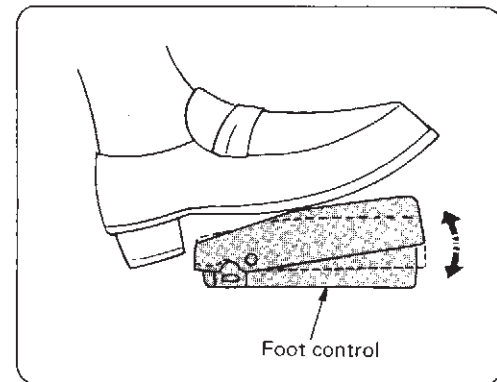


4. Push the light and power switch to turn on the power and sewing light.

SAFETY FEATURE:

Your machine will not operate unless the light/power switch is turned on. If you are interrupted or stop sewing, turn off the light/power switch to prevent injury to children.

Foot Control Use



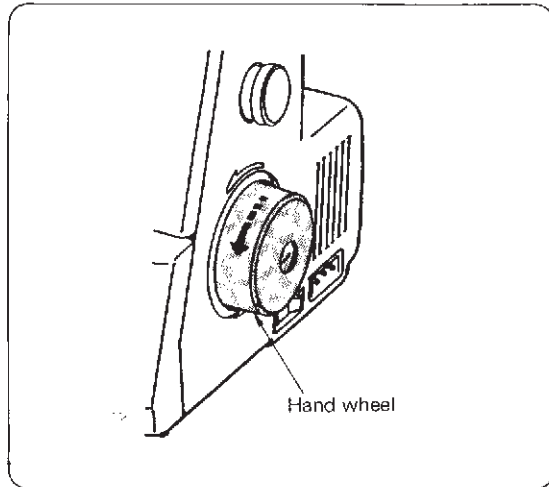
The foot control regulates the speed at which you sew.

To increase speed, gently press down with the ball of your foot.

To decrease speed, release your foot pressure slightly.

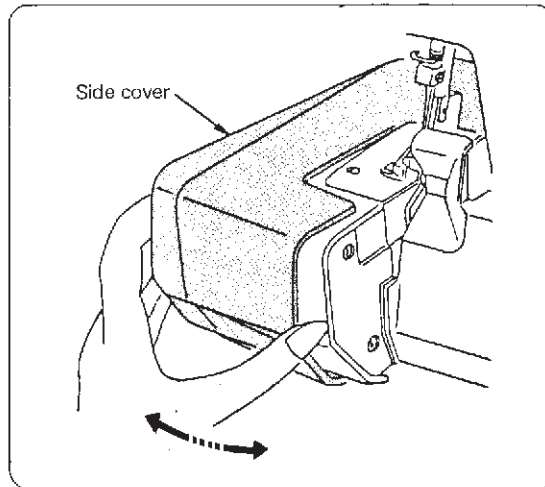
NOTE: The foot control is sensitive and will increase or decrease your sewing speed immediately. Practice on a scrap of fabric to regulate your sewing speed to your taste and needs.

How to Turn Hand Wheel



Always turn hand wheel toward you.

Opening and Closing the Side Cover



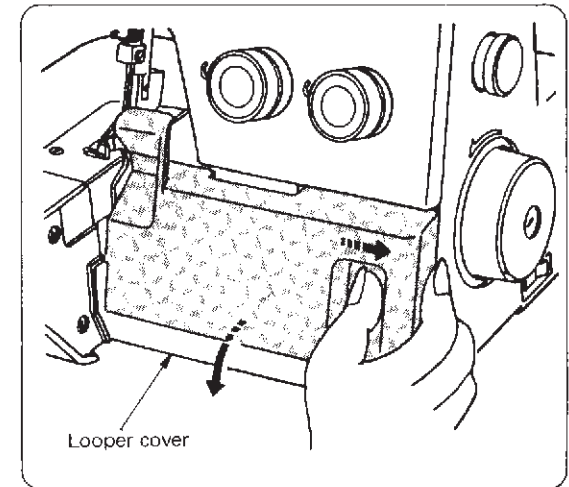
To open:

Push the side cover to the left.

To close:

Push the side cover to the right and slightly toward the machine body.

Opening and Closing the Loper Cover



To open:

While pushing with the thumb to the right as far as it will go, pull looper cover toward you.

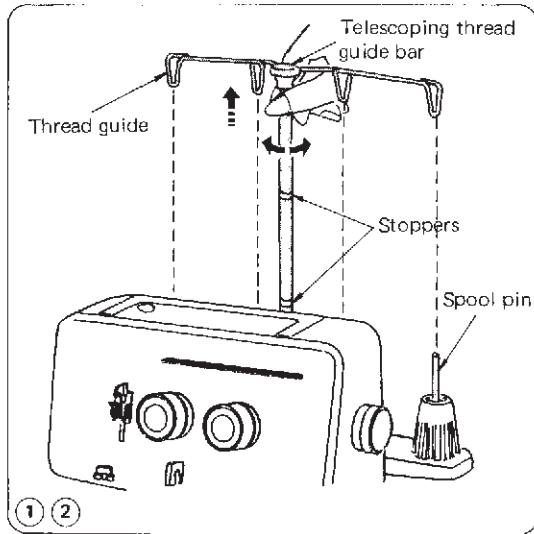
To close:

Lift looper cover and push against the machine. The looper cover snaps into the position automatically.

For Your Safety:

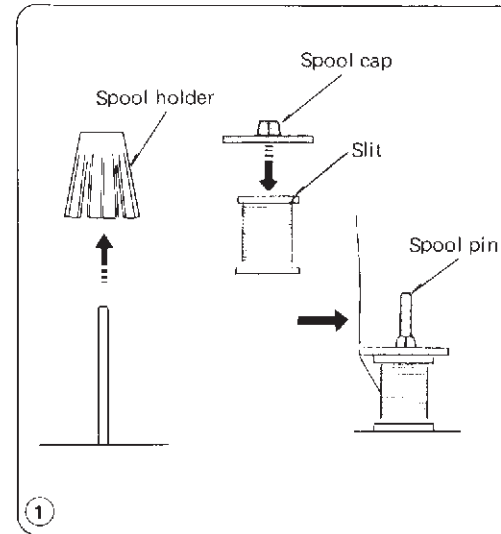
Always close both side and looper covers when the machine is in use.

The Position of Telescoping Thread Guide Bar

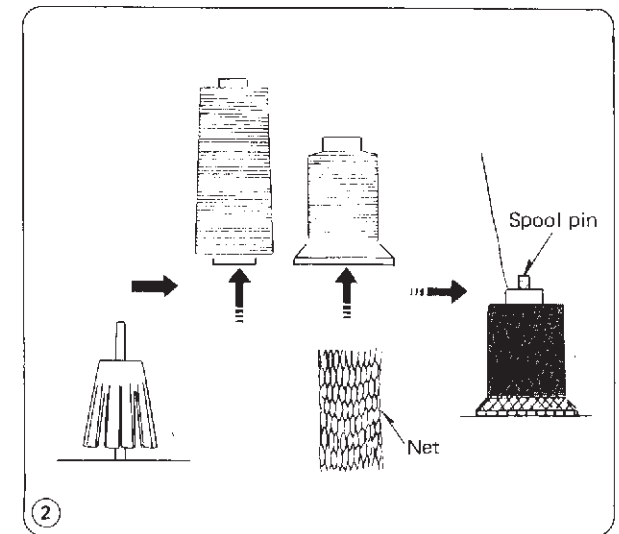


- ① Pull the telescoping thread guide bar up as far as it will go.
- ② Turn the thread guide bar until it clicks into position.
Thread guides should stop directly above the spool pins.

Attaching the Spool Cap and Net



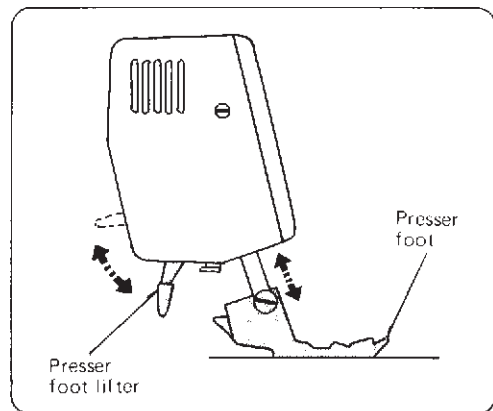
- ① When you use a small thread spool, remove the spool holder from the spool pin. Then place the spool with its slit side up, and put spool cap on top.



- ② If the thread slips down from the spool during threading and/or sewing, put a net on the spool as illustrated for preventing jamming. The nets are supplied with the machine.

* Spool cap and net are optional.

Raising or Lowering the Presser Foot

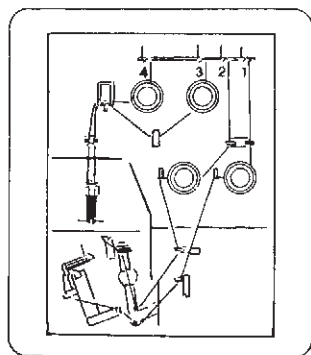
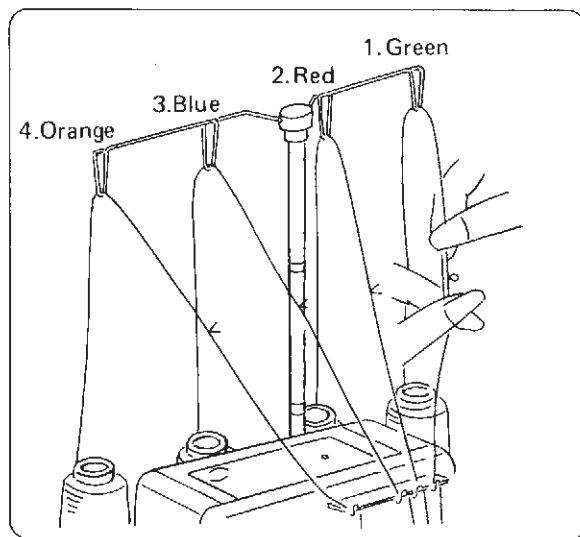


By raising or lowering the presser foot lifter, the presser foot goes up and down.

* While in operation, keep the presser foot lowered except for testing stitches, threading the machine or sewing heavy weight fabrics.

NOTE: Thread tension will not be released if the presser foot is raised.

Threading the Machine

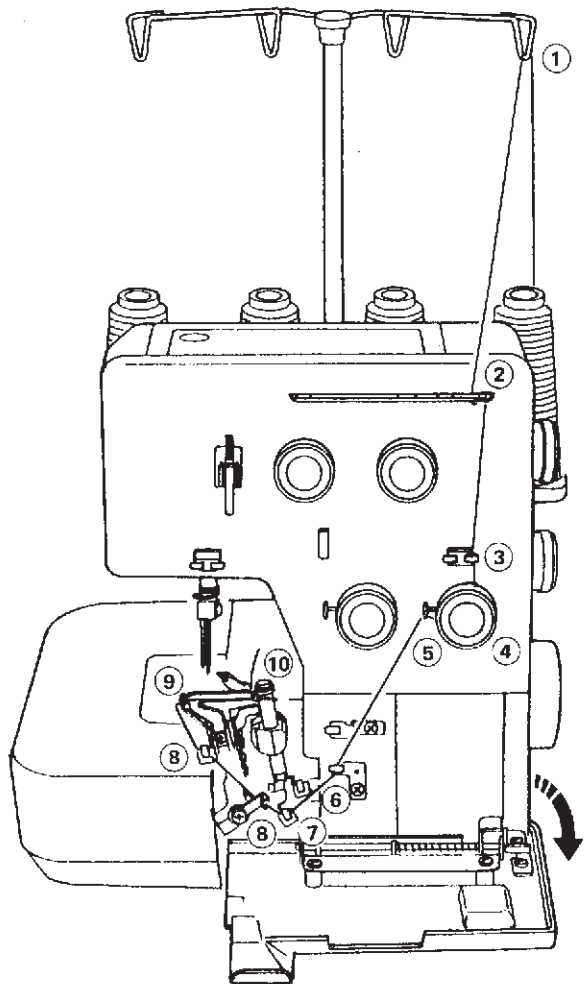


Threading Chart

(Located behind looper cover)

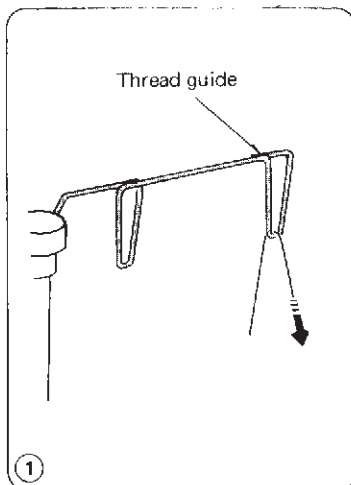
- Make sure unit is unplugged from the wall outlet and/or machine.
- Raise thread guide bar to highest position; open side cover and looper cover (Page 6).
- Untie knot holding threads together.
- Place a thread cone on far right spool holder. Securely tie end of thread from cone to thread farthest on right of thread guide bar (GREEN).
- Pull thread, guiding knot through tension disc, thread guides and lower looper.
- Place a second thread cone on second spool holder from right. Securely tie end of thread from cone to thread second from right on thread guide bar (RED).
- Pull thread, guiding knot through tension disc, thread guides and upper looper.
- Place a third thread cone on the second from left spool holder. Securely tie end of thread from cone to thread located second from left on thread guide bar (BLUE).
- Pull thread, guiding knot through tension disc and thread guides. Before reaching needle, remove presser foot (Page 27). Clip thread on both sides of knot. Pull old thread out of right needle and thread new thread through needle. Use looper threader or tweezers to make threading easier. Knife may be lowered to give you more room to work (Page 29).
- Place a fourth cone of thread on spool holder at far left. Securely tie end of thread from cone to thread on far left of thread guide bar (ORANGE).
- Pull thread, guiding knot through tension disc and thread guides. Before reaching needle, clip thread on both sides of knot. Pull old thread out of left needle and thread new thread through needle.
- Pull both sides of thread firmly between each tension disc (Pages 11, 13, 15, 17).
- Refer to threading chart behind looper cover to check threading paths.
- Gently pull all four thread ends towards back of machine.
- Replace presser foot (Page 27). Return knife to up position (Page 29). Close side cover and looper cover (Page 6).
- Turn hand wheel toward you to chain off three or four stitches.
- Place fabric under the toe of the presser foot; it is not necessary to raise the foot.

● Threading the Lower Looter

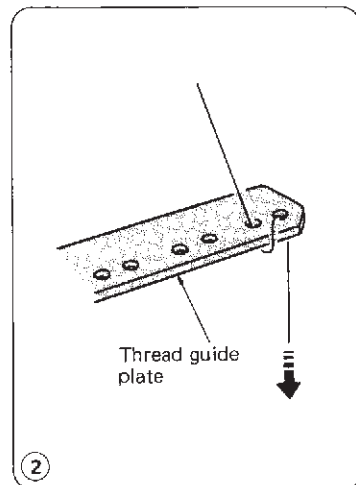


Open the looper and side covers.
 Snap off presser foot.
 Place the spool of thread on the right side spool pin.

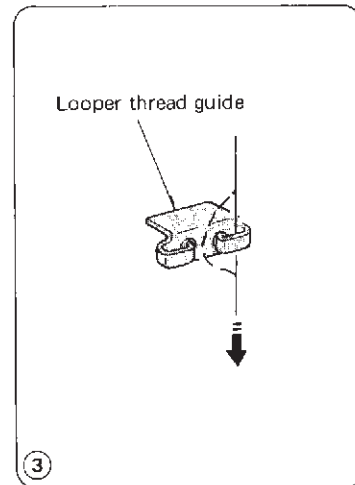
* Points to thread for lower looper are marked in green.



① Draw the thread through the right side thread guide from back to front.

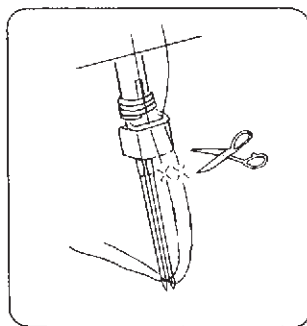


② Pass the thread through holes on the right side of thread guide plate as illustrated.



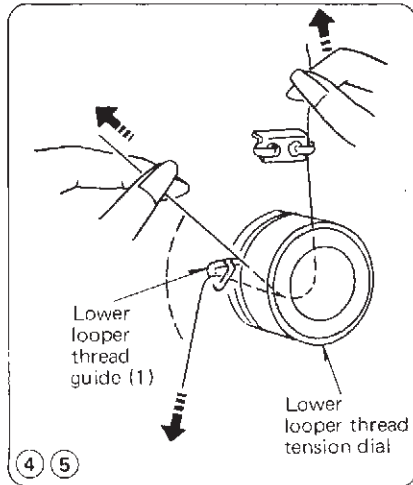
③ Pass the thread through the right side of thread guide sliding the thread from left to right.

How to Thread the Lower Looter

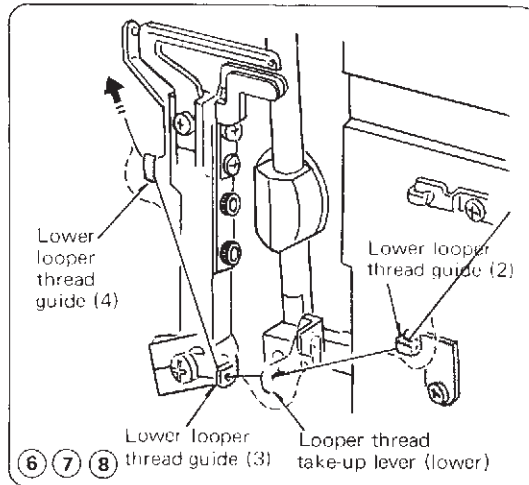


Cut both needle threads as shown in the figure and remove them from the needles.

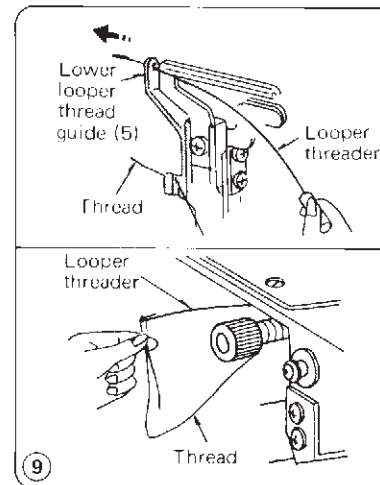
Thread the lower looper and then re-thread the needles.



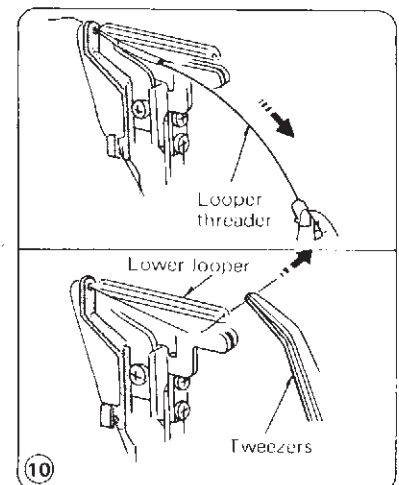
- ④ Insert the thread between tension discs from the right. Then pull both sides of the thread firmly between tension discs.
- ⑤ Pass the thread through lower looper thread guide (1).



- ⑥ Pass the thread through lower looper thread guide (2).
- ⑦ Pass the thread through the looper thread take-up lever (lower).
- ⑧ Pass the thread through lower looper thread guides (3) and (4).



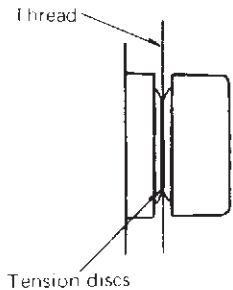
- ⑨ Turn the hand wheel toward you until the lower looper comes to the right, and pass the threader through hole on lower looper thread guide (5). Hook the end of thread on the threader. (See Note.)



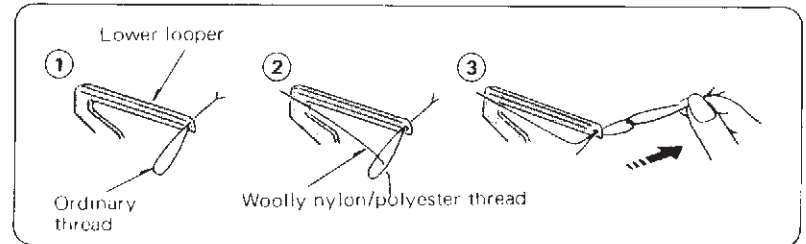
- ⑩ Pull the threader to pass the thread through the hole of lower looper thread guide (5). Remove the thread from the threader, and draw the thread through the hole on lower looper 10 cm (4") or more with a pair of tweezers.

* Looper threader is optional.

NOTE: How to Thread Woolly Nylon/Polyester Thread.



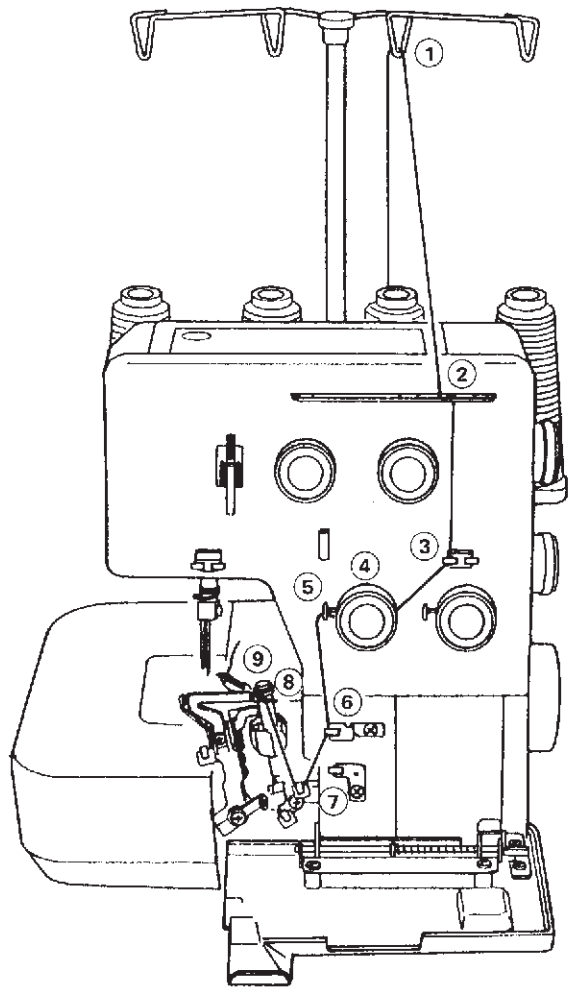
* Make sure that the thread is between the tension discs.



* Shown above is one of the easiest ways to pass woolly nylon/polyester thread through the needle.

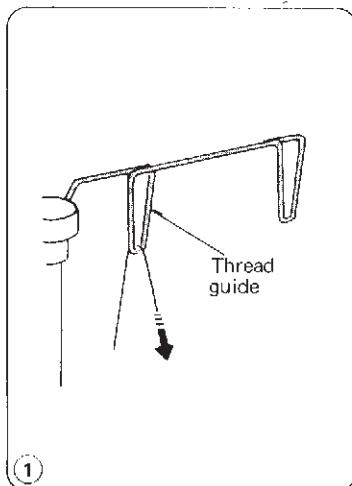
* Use the same method for the upper looper.

● Threading the Upper Looper

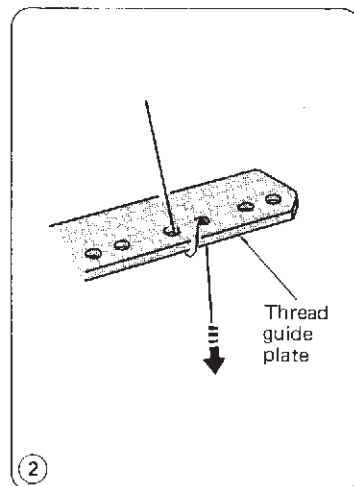


Place the spool of thread on the spool pin second from the right.

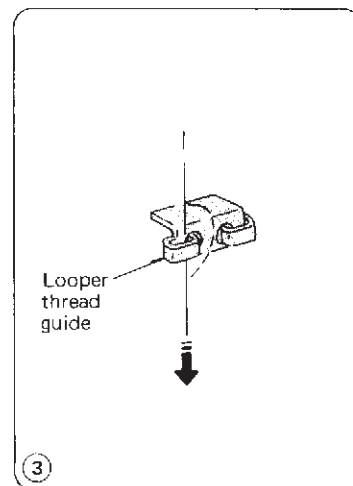
* Points to thread for upper looper are marked in red.



① Draw the thread through the thread guide second from the right from back to front.

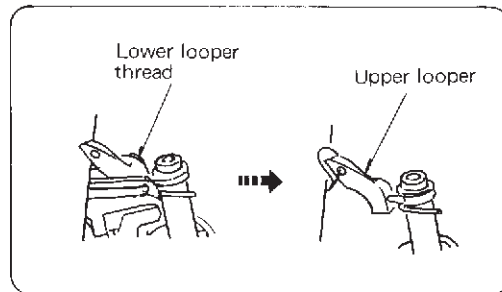


② Pass the thread through the holes in the second row from the right of thread guide plate as illustrated.



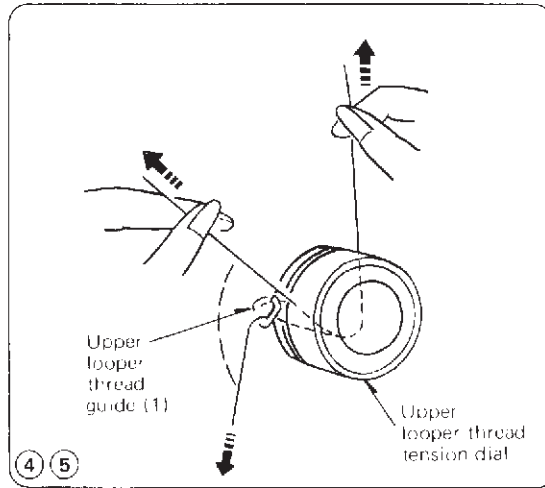
③ Pass the thread through the left side of thread guide sliding the thread from right to left.

How to Thread the Upper Looper

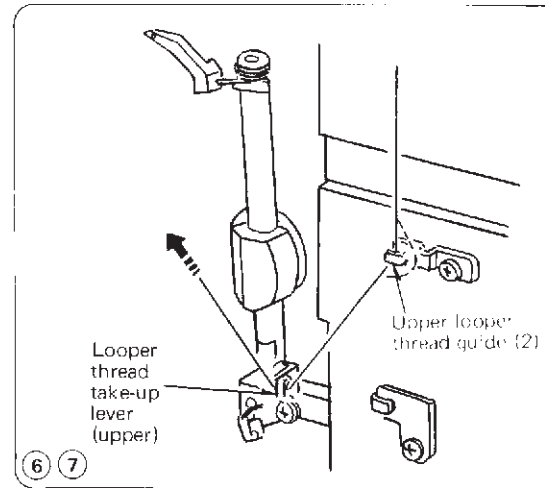


Turn the hand wheel toward you until the upper looper comes to the middle point of its travel, and unhook the thread of the lower looper from the upper looper.

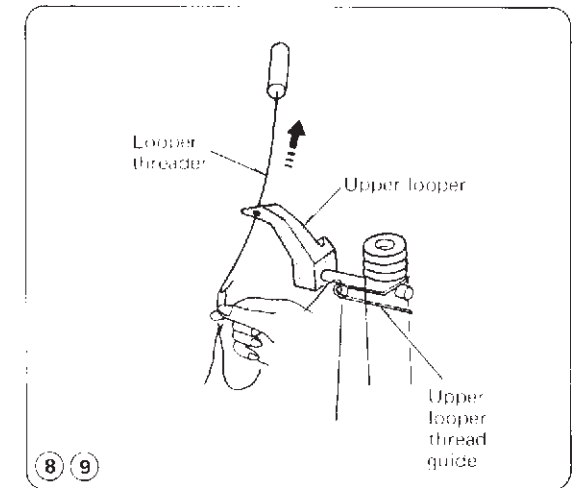
Thread the upper looper.



- ④ Insert the thread between tension discs from the right. Then pull both sides of thread.
- ⑤ Pass the thread through upper looper thread guide (1).



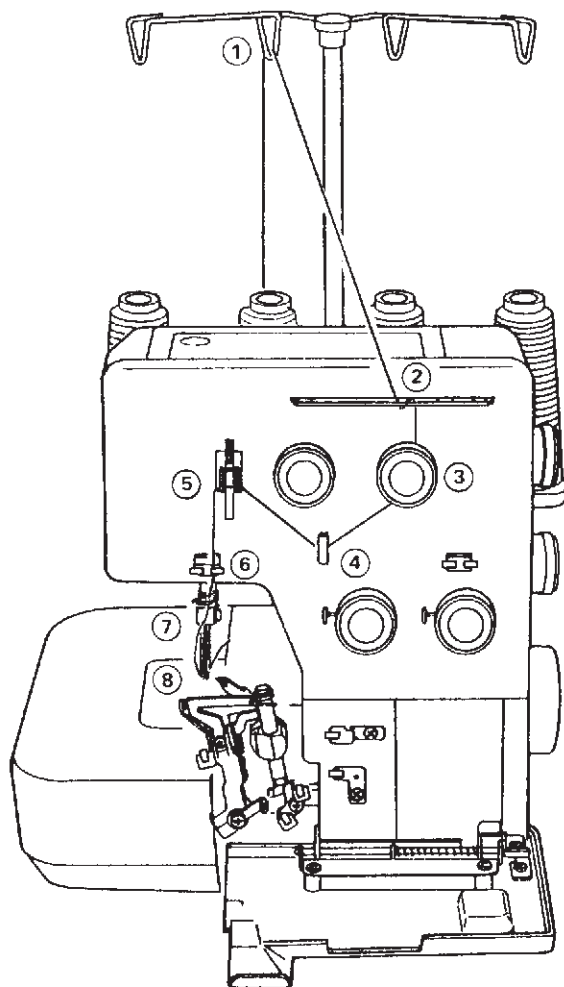
- ⑥ Pass the thread through upper looper thread guide (2).
- ⑦ Turn the hand wheel toward you until the upper looper comes to the middle position of its travel, then pass the thread through the looper thread take-up lever (upper).



- ⑧ Pass the thread through upper looper thread guide.
- ⑨ Pass the threader through the hole on the upper looper. Then hook the end of thread on the threader. Pull out the threader to pass the thread through the hole. Remove the thread from threader, and draw the free end of thread 10 cm (4") or more.

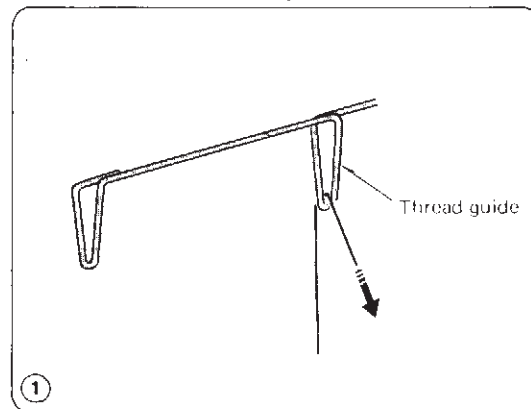
* Looper threader is optional.

• Threading the Needle on the Right

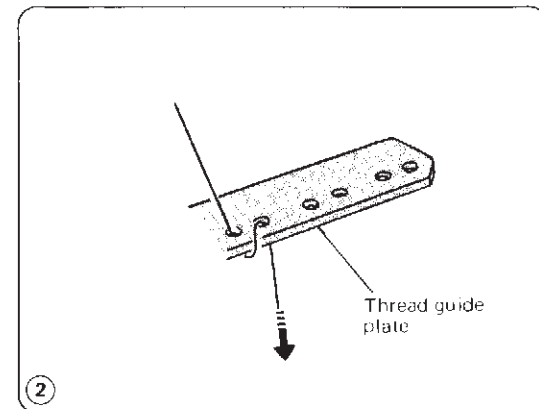


Place the spool of thread on the spool pin second from the left.

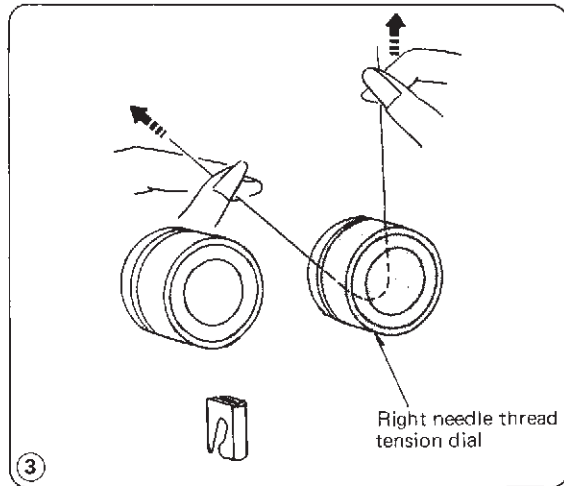
* Points to thread for needle on the right are marked in blue.



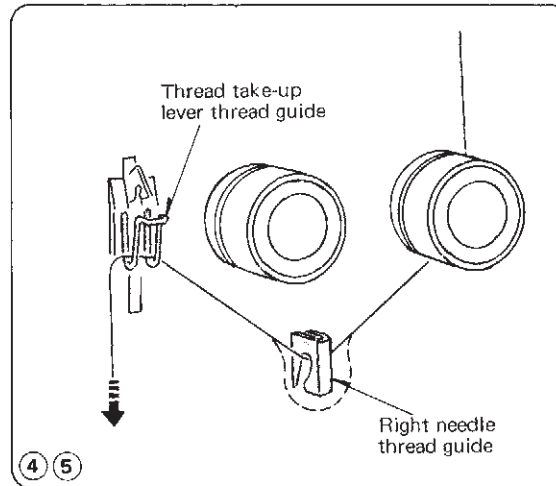
① Draw the thread through the thread guide second from the left from back to front.



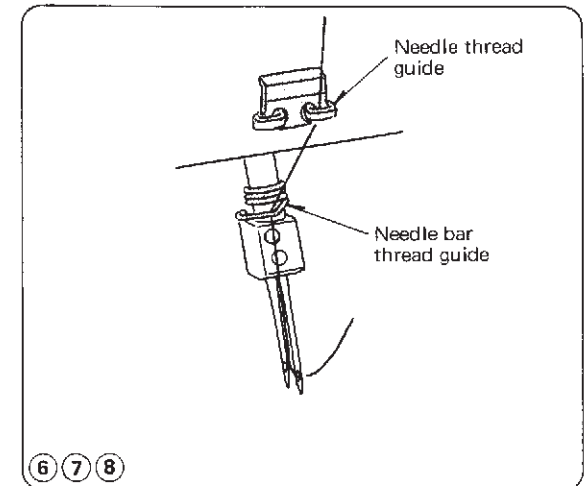
② Pass the thread through the holes in the second row from the left of thread guide plate as illustrated.



- ③ Insert the thread between tension discs from the right. Then pull both sides of thread.



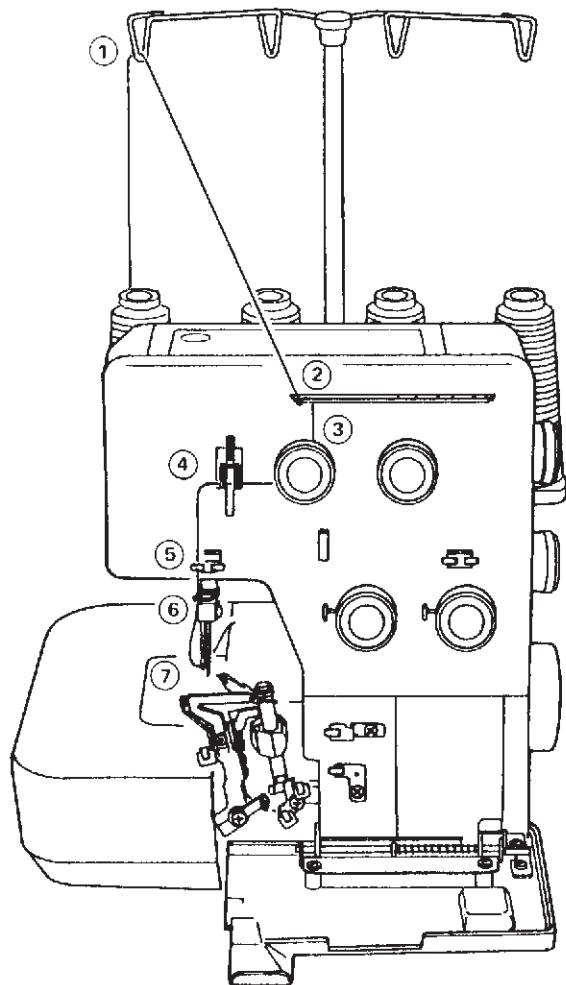
- ④ ⑤ Turn the hand wheel toward you to bring needle bar to its highest position, then pass the thread through right needle thread guide and thread take-up lever thread guide.



- ⑥ Pass the thread through needle thread guide sliding the thread from left to right.
- ⑦ Pass through needle bar thread guide from left to right.
- ⑧ Thread the right needle from the front to the back and pull the thread about 10 cm (4") from the eye of the needle to the back under the foot.

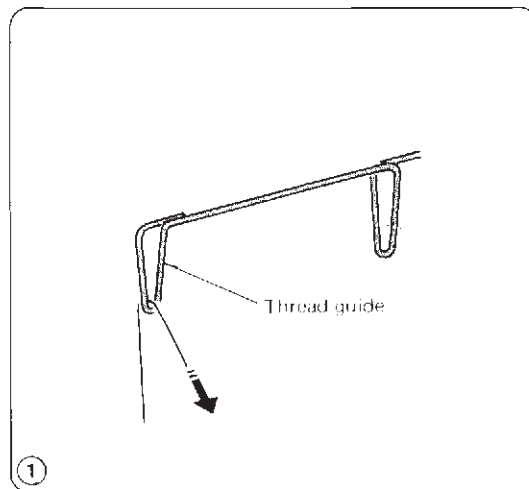
NOTE: Needle may be easier to thread if you remove presser foot (See page 27) and lower the knife (See page 29).

• Threading the Needle on the Left

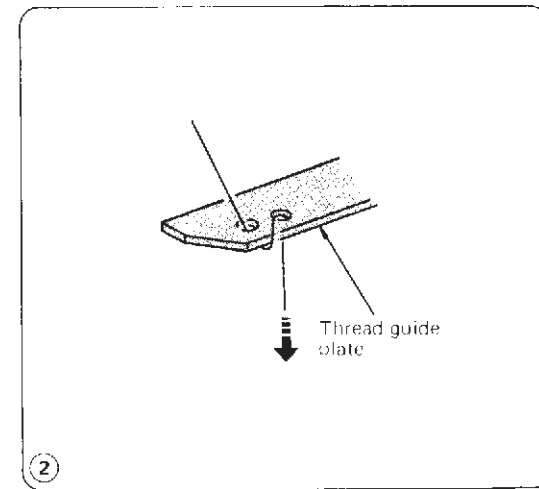


Place the spool of thread on the left side spool pin.

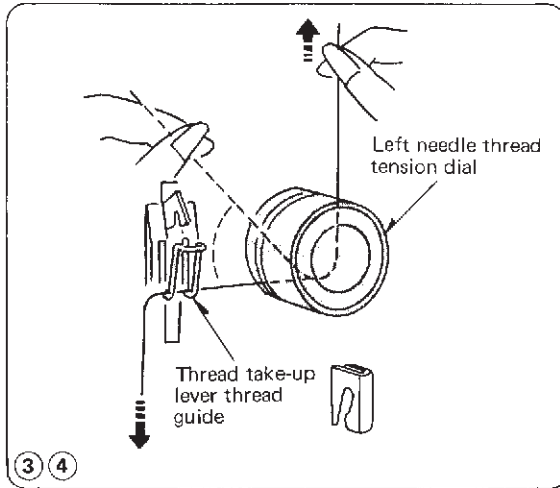
* Points to thread for needle on the left are marked in orange.



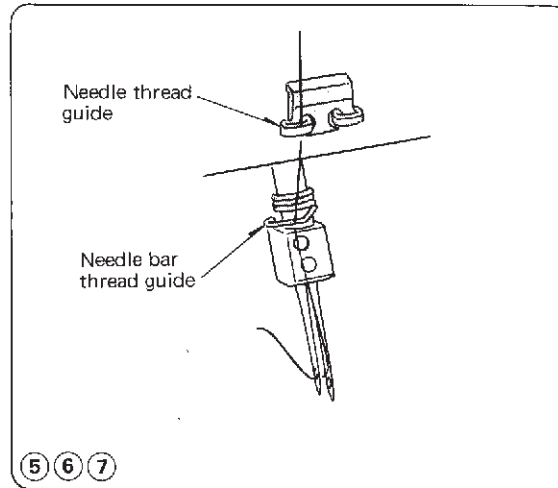
① Draw the thread through the thread guide on the left from back to front.



② Pass the thread through the holes on the left of thread guide plate as illustrated.



- ③ Insert the thread between tension discs from the right. Then pull both sides of thread.
- ④ Turn the hand wheel toward you to bring needle bar to its highest position, then pass the thread through thread take-up lever thread guide.

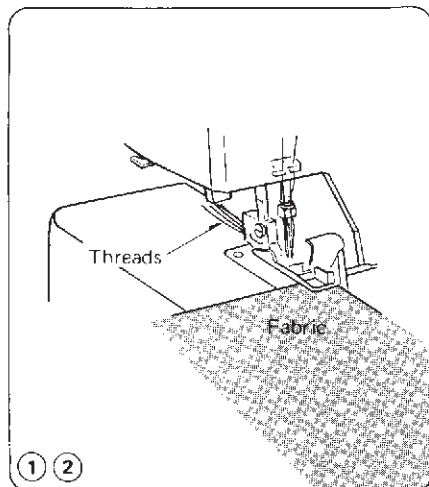


- ⑤ Pass the thread through needle thread guide sliding the thread from right to left.
- ⑥ Pass through needle bar thread guide from left to right.
- ⑦ Thread the left needle from the front to the back and pull the thread about 10 cm (4") from the eye of the needle to the back under the foot.

NOTE: Needle may be easier to thread if you remove presser foot (See page 27) and lower the knife (See page 29).

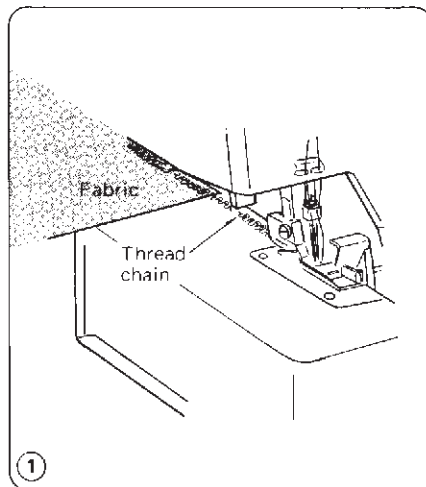
- Gently pull all four thread ends towards back of machine.
- Replace presser foot (See page 27).
- Run threads under presser foot.
- Return knife to up position (See page 29).
- Close side and looper covers.
- Turn hand wheel toward you to chain off three or four stitches.

Starting to Sew



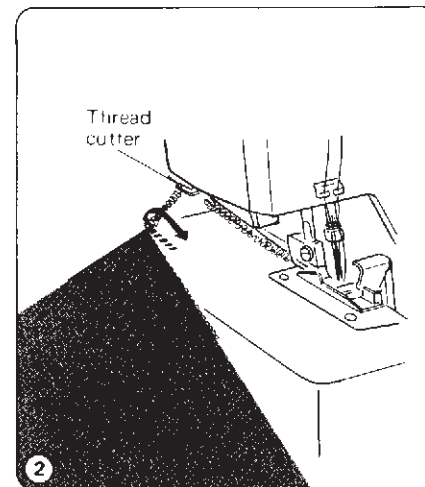
- ① Insert the fabric under the toe of the foot. (It is not necessary to raise the foot.)
- ② Turn the hand wheel gently toward you a couple of turns and check the thread chain. Then start sewing slowly. The fabric will be automatically fed. Guide the fabric in the direction desired.

Finishing to Sew

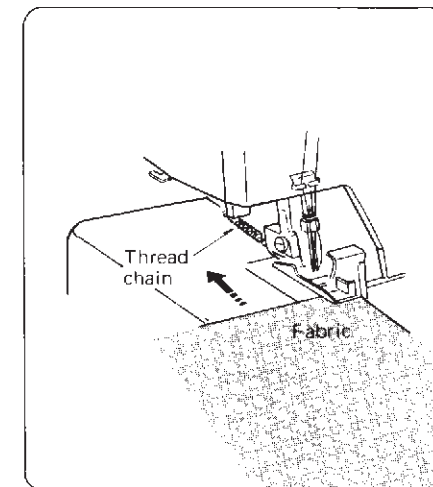


- ① When stitching is completed, continue to run the machine slowly to produce a thread chain for about 12 cm (5") while pulling the thread chain slightly to the back.

Sewing Continuously



- ② Cut the threads with the thread cutter as illustrated, leaving about 5 cm (2") thread chain from the end of fabric.

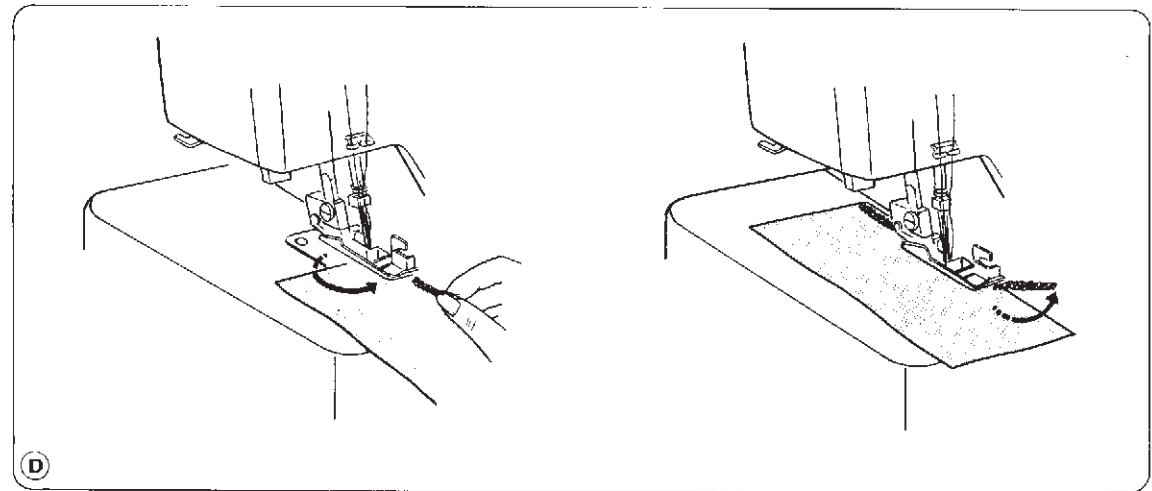
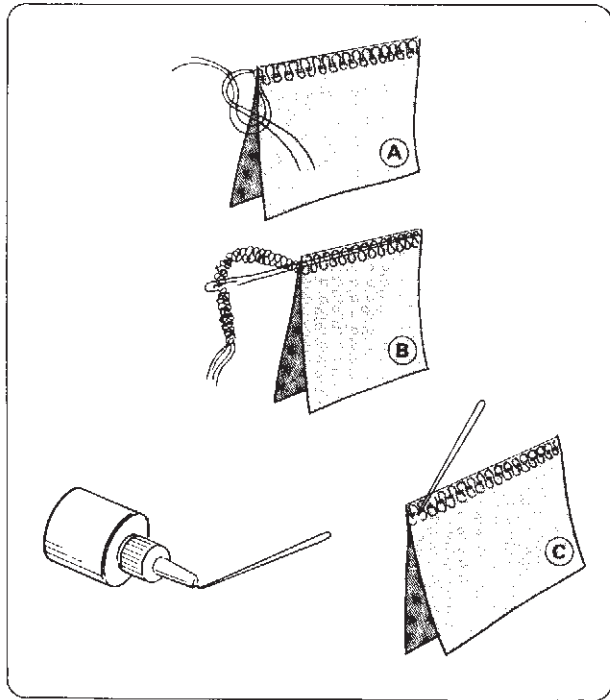


Insert next fabric under the toe of foot, then start sewing. It is not necessary to raise the presser foot for ordinary fabric.

- * For heavy weight fabric, raise the presser foot and insert the fabric in front of the knife. Then lower the foot and sew.

Securing Ends

To avoid unravelling, it is necessary to leave a thread chain about 5 cm (2") long at the beginning and end of seam. To secure the beginning and end of a seam choose one of the following methods.



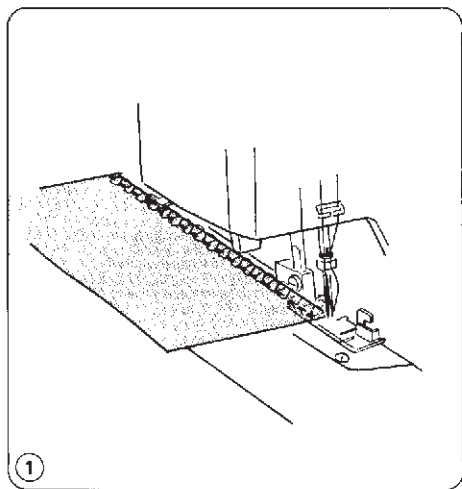
At the Beginning

- A. Separate the end of threads and knot.
- B. Thread the chain through a large eyed needle, and weave that chain through the overlock stitches on the fabric.
- C. Apply a small amount of seam sealant (Fray Check™ or Fray-No-More™) at the edge of the fabric. Cut the chain at the edge of fabric.
- D. Backstitching
 1. Before putting your fabric in the machine, sew a thread chain about 5 cm (2") long behind the needle.
 2. Put your fabric in the machine. Then serge a few stitches and stop.
 3. Raise the presser foot and bring the thread chain to the left around and under the presser foot.
 4. Place the thread chain between the presser foot and upper knife, holding it in position as you lower the presser foot to sew.
 5. After sewing about 2.5 cm (1"), move the chain to the right and under the upper knife, cutting the chain as you sew.

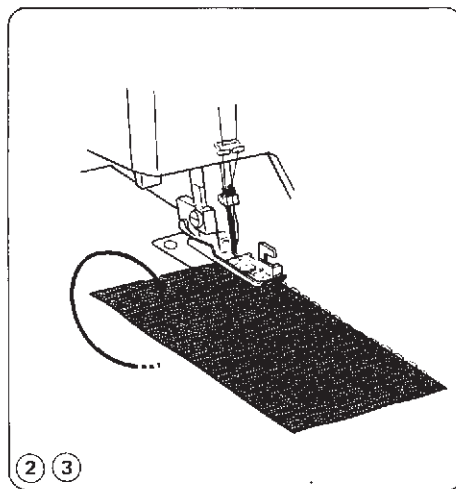
Securing Ends (continued)

At the End

You can use the same methods as at the beginning to secure the end of seam except "Backstitching", or the methods shown below.

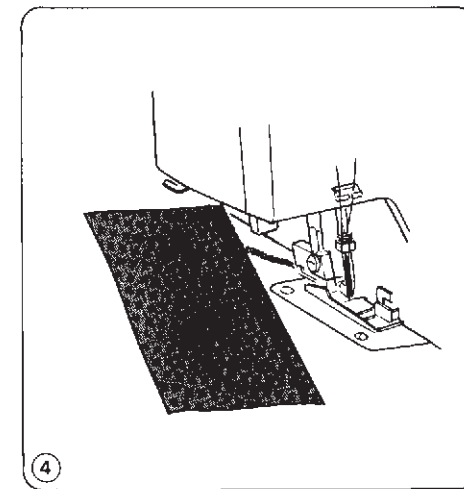


① Serge one stitch off the end of seam.



② Raise the needle and presser foot, and gently pull the threads off the prong.

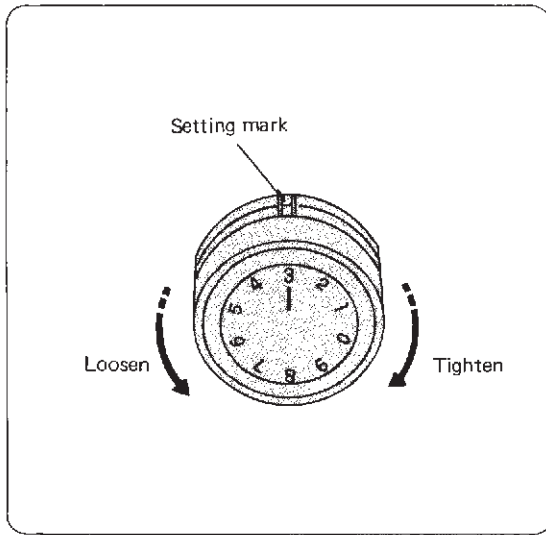
③ Turn the fabric over so that the under side is up.



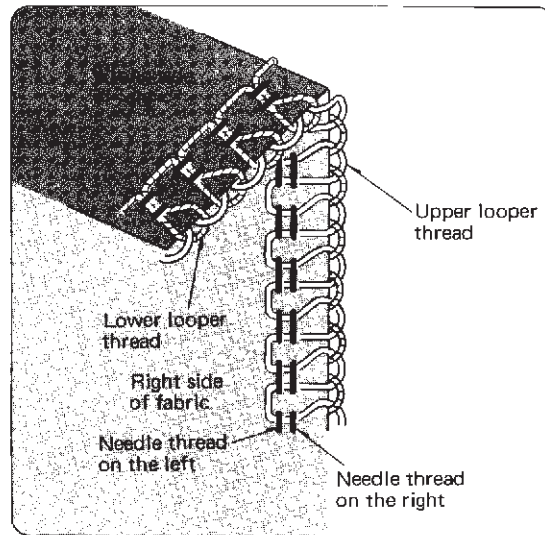
④ Serge about 2.5 cm (1") over stitching and angle off the fabric.

Thread Tension (4 threads)

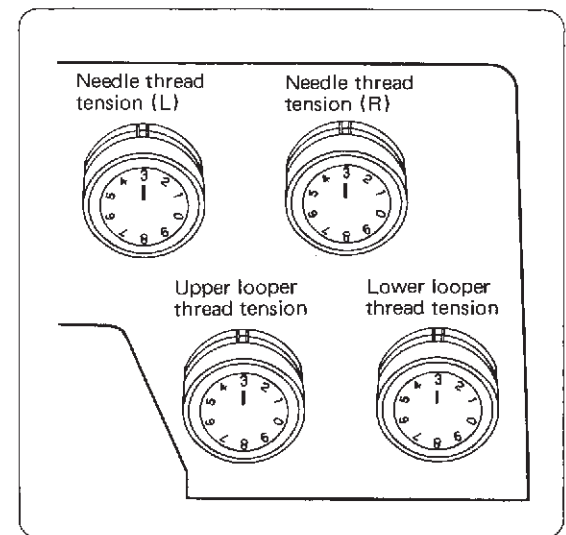
Thread Tension Dial



Correct Tension



Thread Tension



The line below the setting of 3 on each of the dials indicates normal tension for 4 threads or 3 threads serging, however, an alternate adjustment of the thread tension may be required depending on the type of fabric and thread being used.

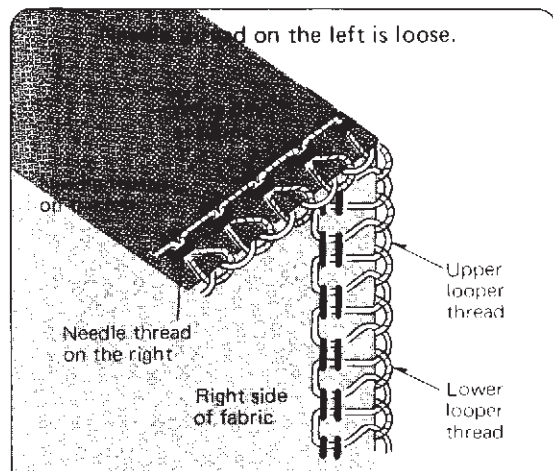
Refer to pages 22 and 23 for the adjustment.

Thread Tension (4 threads) (continued)

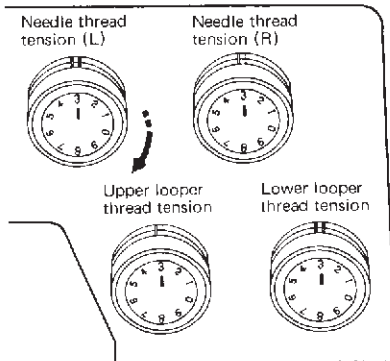
Thread Tension Adjustment

* Set all four thread tension dials at "3". Then sew, and check the thread tensions.

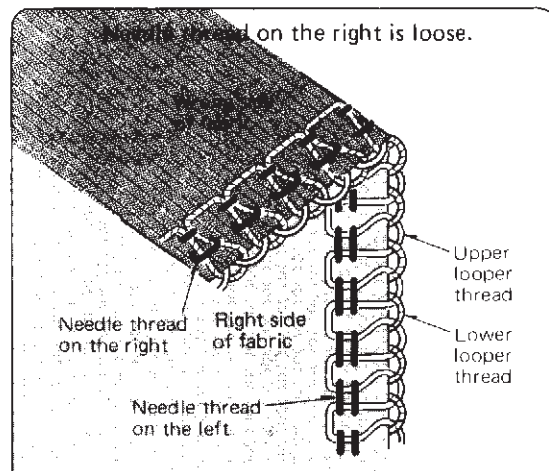
Wrong Tension



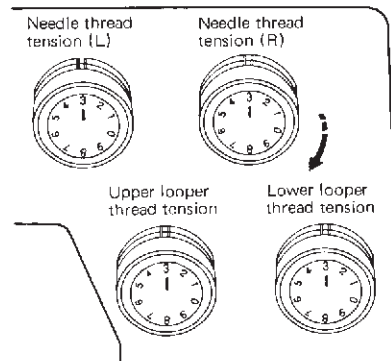
Tighten needle thread tension on the left.



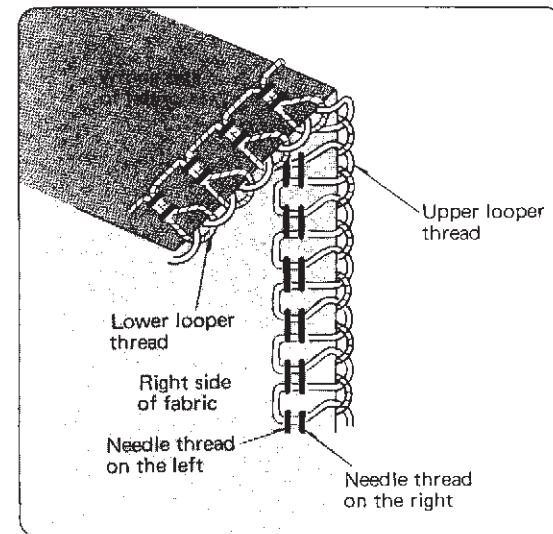
Wrong Tension



Tighten needle thread tension on the right.

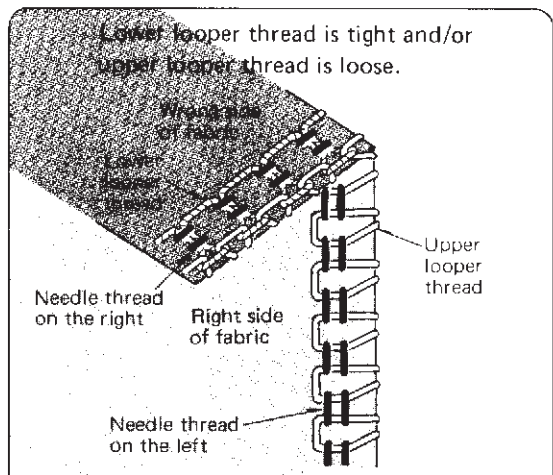


Correct Tension

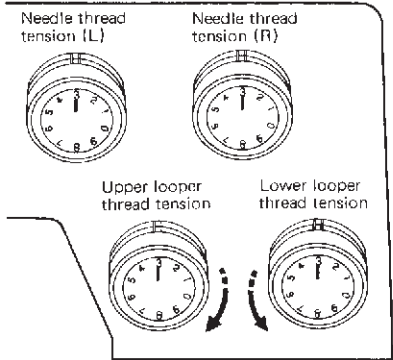


* It is easier to adjust by using 4 different colors of thread.

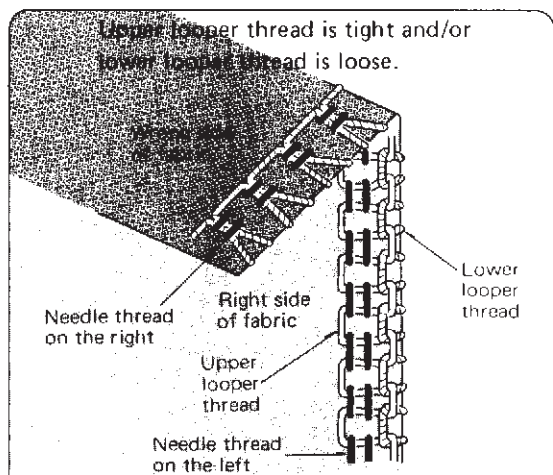
Wrong Tension



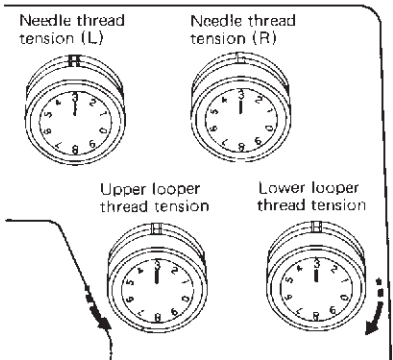
Loosen lower looper thread tension and/or tighten upper looper thread tension.



Wrong Tension

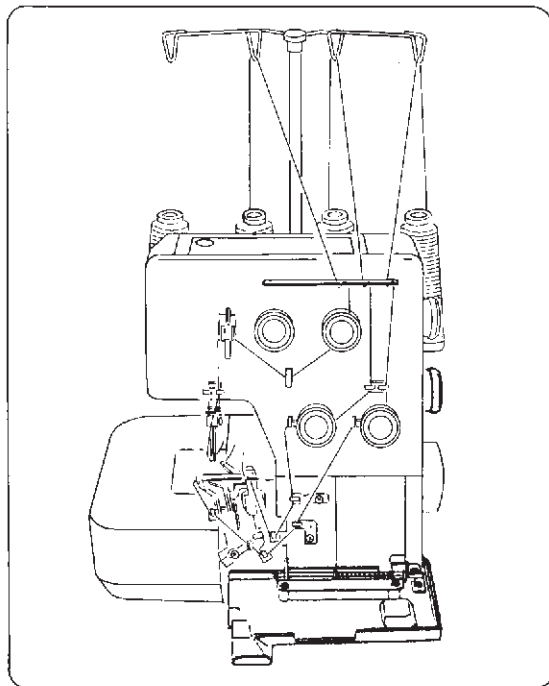


Loosen upper looper thread tension and/or tighten lower looper thread tension.



Threading the Machine (3 threads)

Using the Needle on the Right Only
(for narrow three-thread serging)

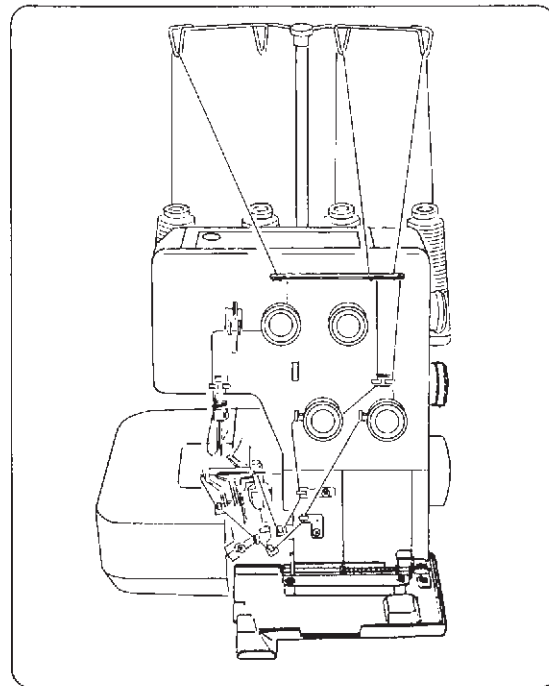


Disconnect the machine from the power supply. Remove the needle and the thread on the left. Then tighten the needle clamp screw on the left slightly to avoid losing the screw.

To change to the other needle in three-thread serging

Loosen both needle clamp screws and remove the needle. Insert the needle to be used and tighten the needle clamp screw while pushing the needle up as far as it will go. Then tighten the other needle clamp screw on the other side slightly to prevent the screw from dropping.

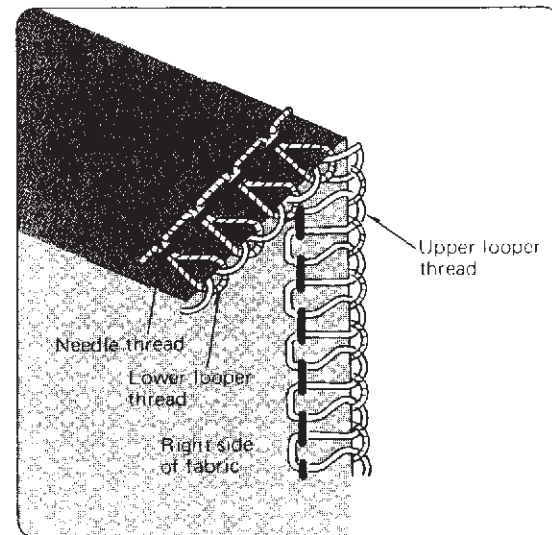
Using the Needle on the Left Only
(for wide three-thread serging)



Remove the needle and the thread on the right. Then tighten the needle clamp screw on the right slightly to avoid losing the screw.

Thread Tension (3 threads)

Correct Tension



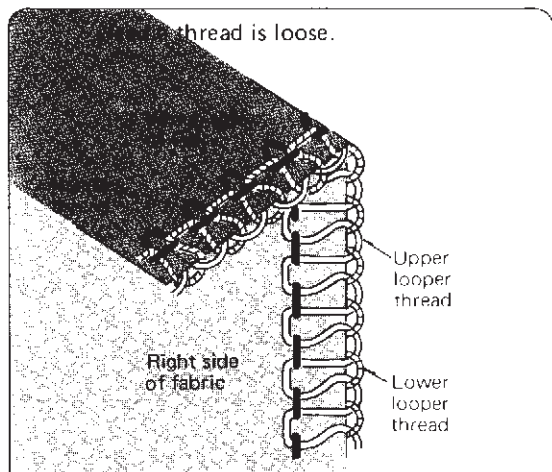
Adjusting the thread tension may be required depending on the type of fabric and thread being used.

Refer to page 25 for the adjustment.

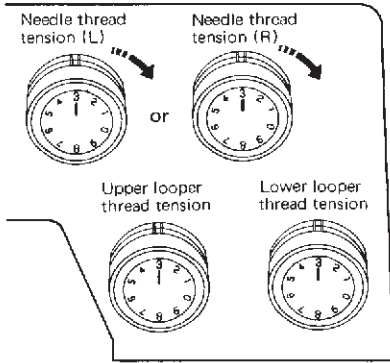
Thread Tension Adjustment

* Set all three thread tension dials at "3". Then sew, and check the thread tensions.

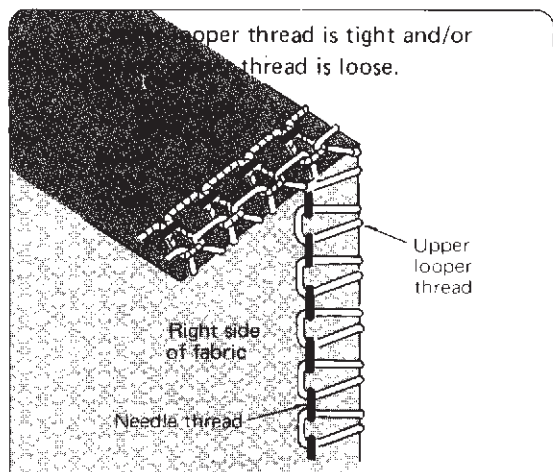
Wrong Tension



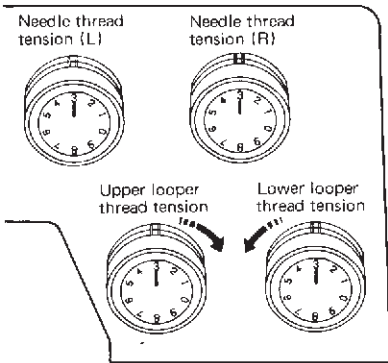
Tighten needle thread tension.



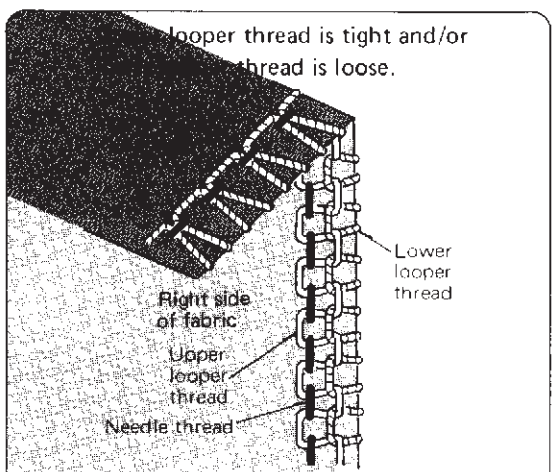
Wrong Tension



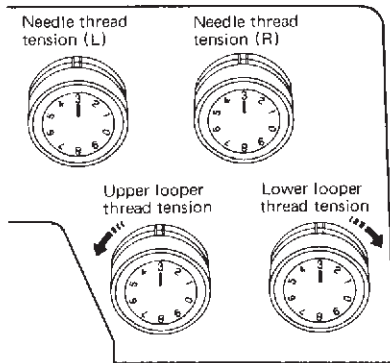
Loosen lower looper thread tension and/or tighten upper looper thread tension.



Wrong Tension

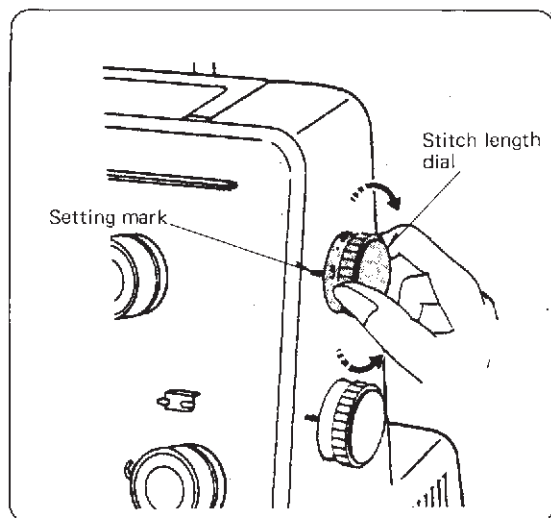


Loosen upper looper thread tension and/or tighten lower looper thread tension.



* It is easier to adjust by using 3 different colors of thread.

Adjustment of Stitch Length



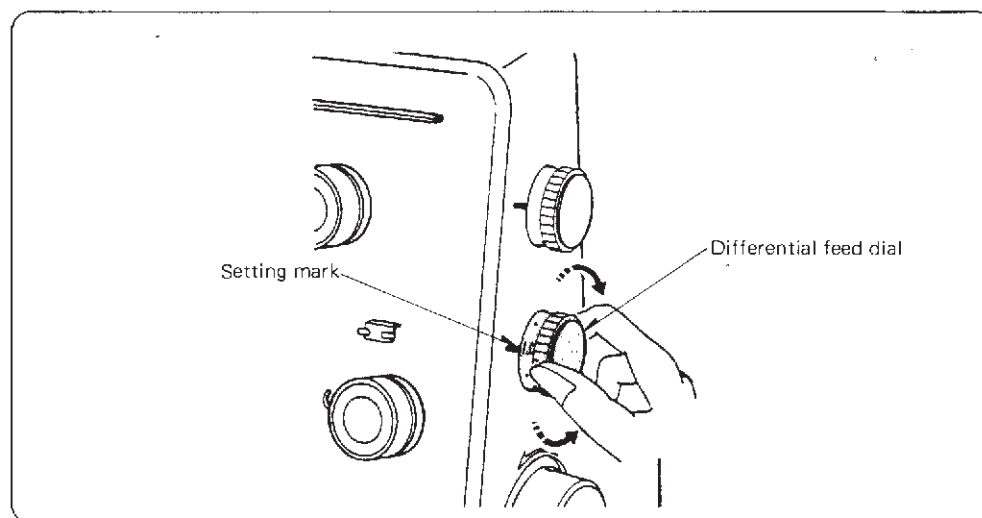
To select stitch length, turn the dial.

The larger the number, the longer the stitch.

The stitch length can be adjusted from 1 to 4 mm (approx. 1/32" to 5/32").

Position "R" is for rolled and narrow hemming.

Adjustment of Differential Feed Ratio



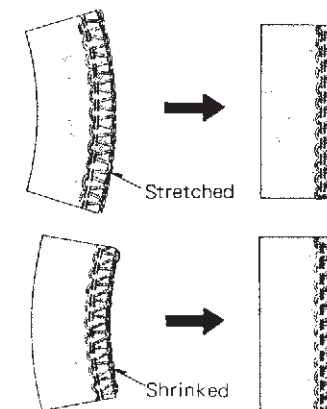
The differential feed ratio can be altered by turning the dial.

The number on the dial indicates the differential feed ratio between the main and the sub feed motion.

1.0 indicates the neutral position-no differential feed.

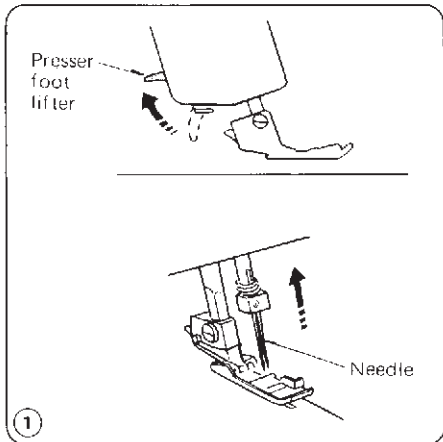
How to Adjust

- If the sewn fabric is stretched, turn the dial counter-clockwise (toward 2.0).
- If the sewn fabric is puckered, turn the dial clockwise (toward 0.7).

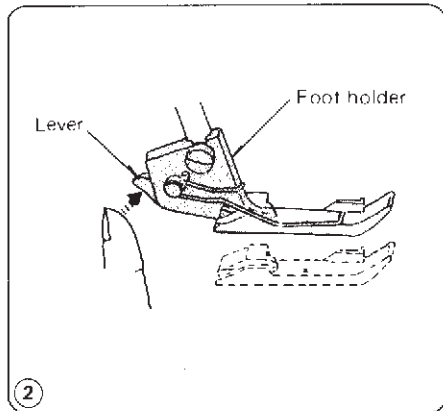


* Maximum differential feed ratio, 2.0, is effective in the range of stitch length dial at 1 to 3.3. When the stitch length dial is set between 3.3 and 4, the maximum differential feed ratio will automatically be set between 2.0 and 1.7.

Removing the Presser Foot

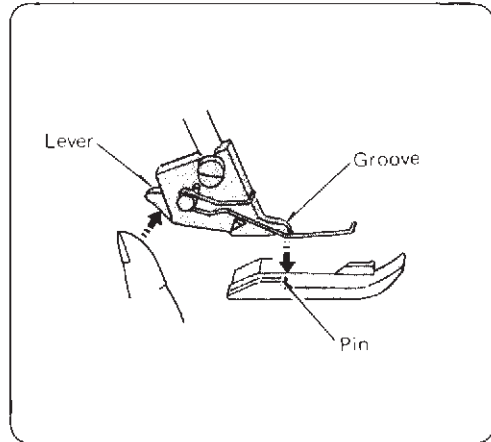


- ① Raise the needle and presser foot.



- ② Press the lever located on the back of foot holder. The presser foot will drop off.

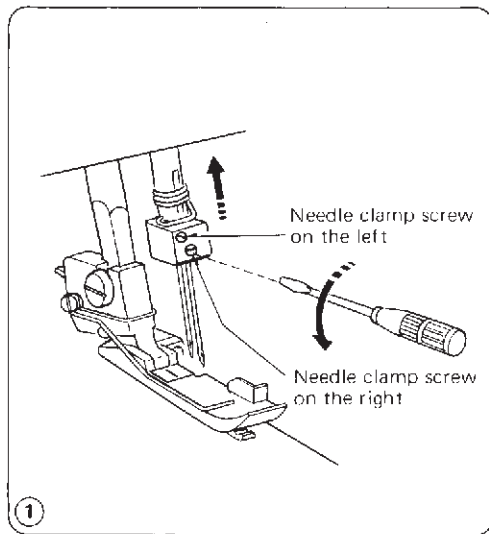
Attaching the Presser Foot



Place the presser foot so that the pin on the foot lies just under the groove of the foot holder.

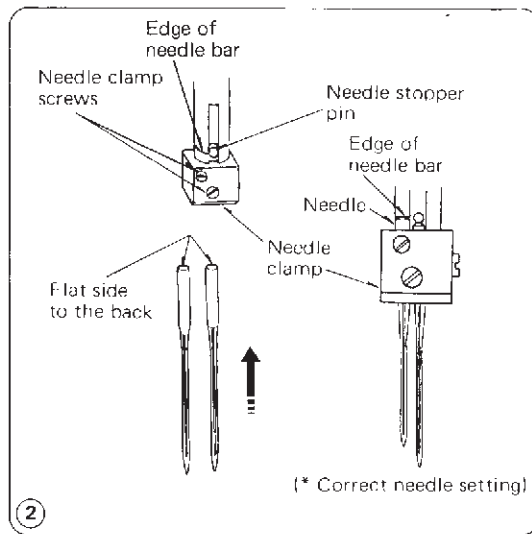
Lower the foot holder and push the lever to lock the foot in place. Raise the presser foot lifter to check that the presser foot is secure.

Changing Needle



- ① Disconnect the machine from the power supply.
 Raise the needle to its highest position. Then loosen the needle clamp screw for the needle you are going to remove.

Refer to page 24 for changing the needle for three-thread serging.



To Attach the needle on the right

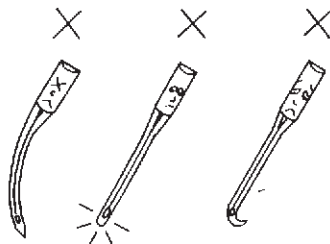
Insert new needle into the needle clamp with the flat side to the back until the top of needle touches the stopper pin, then tighten the needle clamp screw on the right.

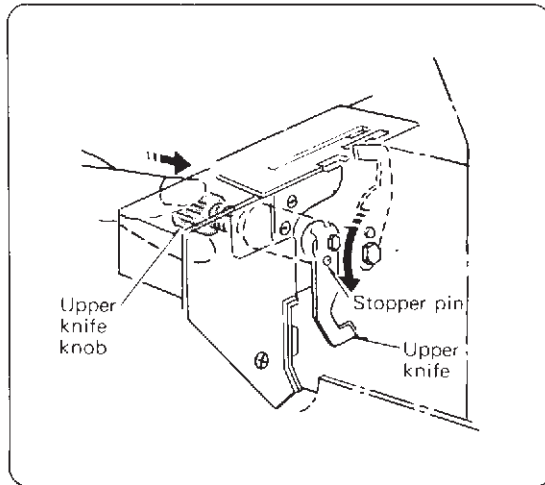
To attach the needle on the left

Insert new needle into the needle clamp with the flat side to the back until the top of needle touches the edge of needle bar, then tighten the needle clamp screw on the left.

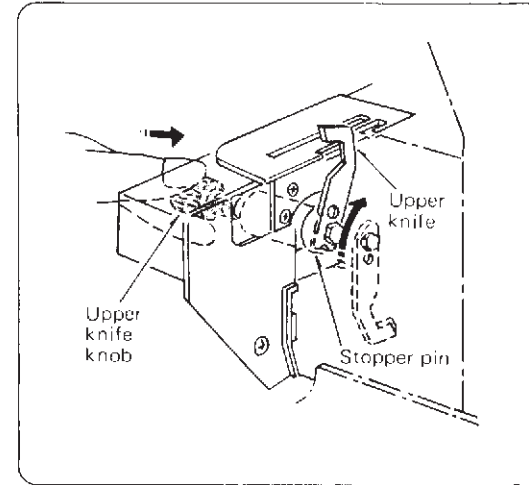
* When the needles are set correctly, the left needle is higher than the right one.

* Do not use any needle which is bent or blunt.



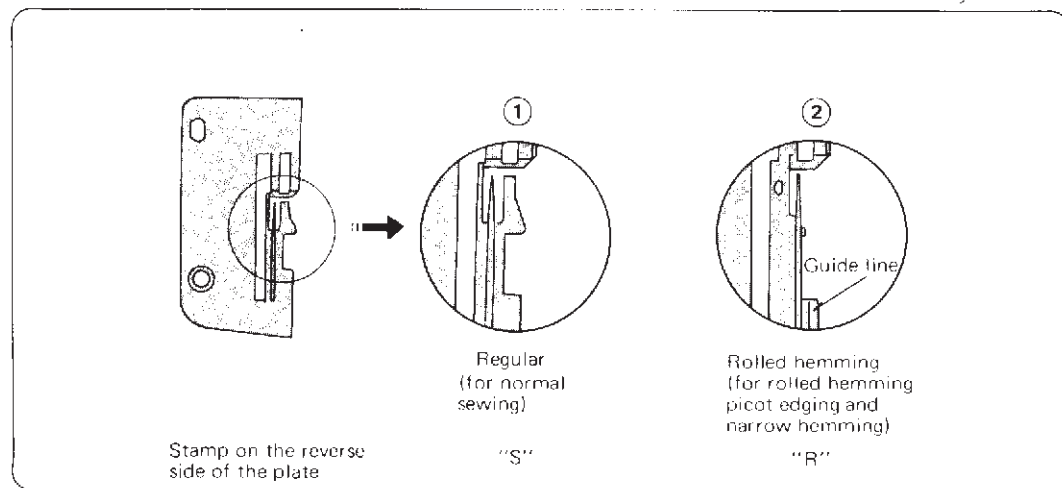
To Disengage the Upper Knife

- ① Disconnect the machine from the power supply.
- ② Open the looper and side covers.
- ③ Turn the upper knife knob toward you while pushing it in to the right, then guide the hole on upper knife to the pin to lock the upper knife in down position.
- ④ Close the looper and side covers.

To Engage the Upper Knife

- ① Disconnect the machine from the power supply.
- ② Open the looper and side covers.
- ③ Turn the upper knife knob away from you while pushing it to the right, then guide the groove on upper knife to the pin to lock upper knife in the up position.
- ④ Close the looper and side covers.

Types of Needle Plates

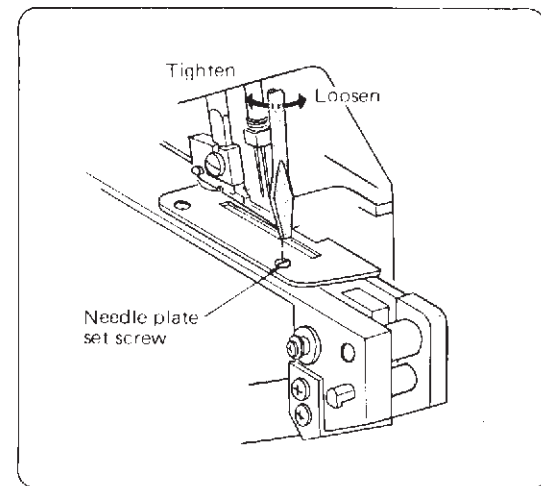


- * Select the needle plate for your sewing need.
- * Your overlock is shipped with the regular needle plate in place.

For your Safety:

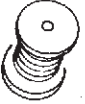


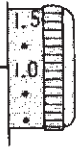
When you change the needle plate, make sure that the machine is disconnected from the power supply.

Changing the Needle Plate



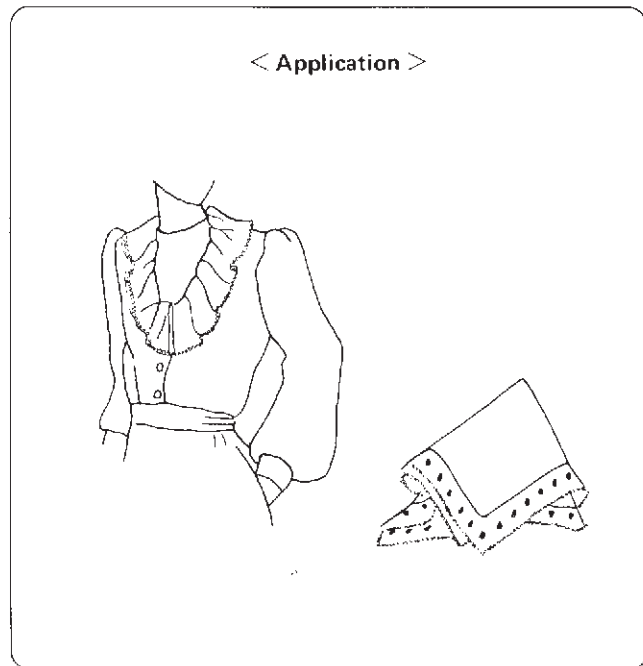
- ① Turn the hand wheel toward you until the needle comes above the needle plate. Then remove the presser foot.
- ② Open the side and looper covers. (Refer to page 6.)
- ③ Set the upper knife to down position. (Refer to page 29.)
- ④ Remove the needle plate set screw, and lift the needle plate.
- ⑤ Attach the needle plate you require with the needle plate set screw.
- ⑥ Bring the upper knife to up position. (Refer to page 29.)
- ⑦ Close the looper and side covers.
- ⑧ Attach the presser foot.

Thread and Needle Chart


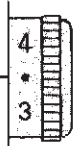

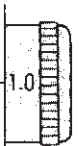
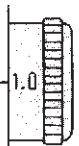
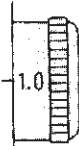
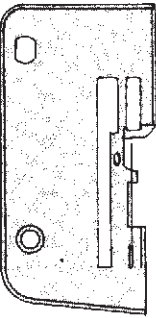
Type of Fabric		Type of Thread 	Needle 	Stitch Length 	Differential Feed Ratio 
Light weight	Organdy, Georgette, Lawn, Crepe de chine, Lining.	Cotton : No. 80 ~ 100 Silk : No. 80 ~ 100 Synthetic : No. 80 ~ 100	HA-1 SP No. 11	2.0 ~ 3.0	0.7 ~ 1.0
Medium weight	Cotton, Linen, Satin, Ordinary fabric.	Cotton : No. 60 ~ 100 Silk : No. 50 ~ 100 Synthetic : No. 60 ~ 100	HA-1 SP No. 11 ~ 14	2.5 ~ 3.5	1.0
Heavy weight	Tweed, Coating, Denim, Doeskin, Thick fabric.	Cotton : No. 50 ~ 60 Silk : No. 50 ~ 60 Synthetic : No. 50 ~ 60	HA-1 SP No. 14	3.0 ~ 4.0	1.0
Knits	Knitted fabric	Cotton : No. 60 ~ 80 Synthetic : No. 60 ~ 90 Woolly nylon (For looper thread) Woolly polyester (For looper thread)	HA-1 SP No. 11 ~ 14	2.5 ~ 3.5	1.0 ~ 2.0

* Refer to page 26 for adjusting the stitch length and differential feed ratio.

Rolled Hemming, Picot Edging and Narrow Hemming



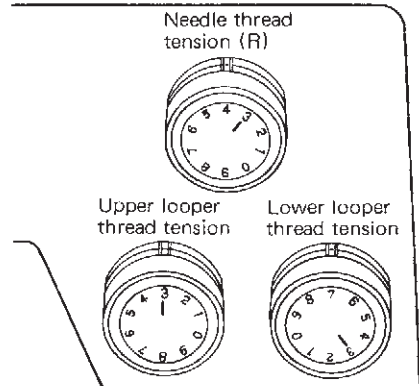
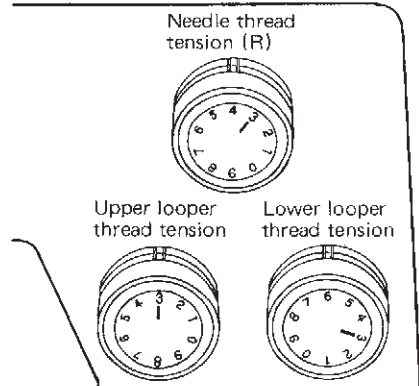
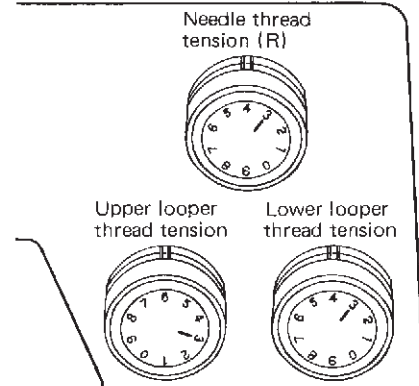
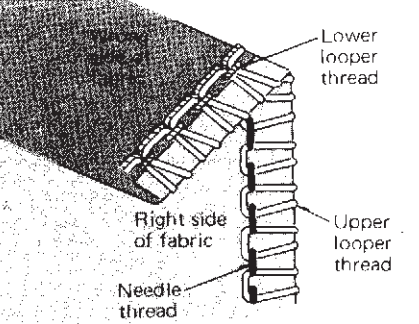
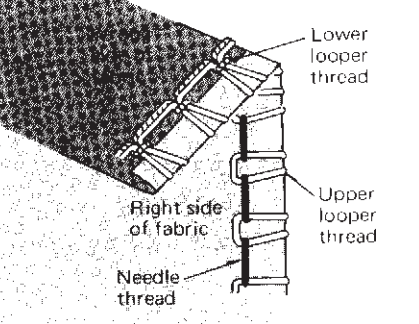
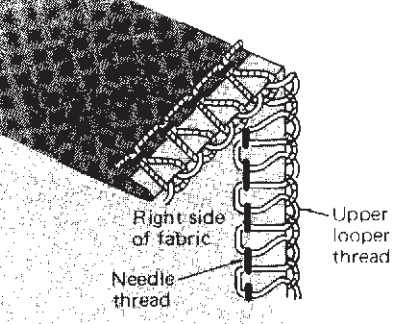
Machine Setting

	Rolled Hemming	Picot Edging	Narrow Hemming
Stitch Length	 (R)	 (3 ~ 4)	 (R)
Differential Feed Ratio	 1.0	 1.0	 1.0
Needle	Remove the left needle.		
Needle Plate	 Rolled hemming needle plate. (Marked R on reverse side.)		

* Refer to page 30 for changing the needle plate.

Thread, Fabric and Range of the Tension Dial (3 Threads)

Tension dial settings may vary depending on the type and thickness of fabric and thread being used.

Fabric		Rolled Hemming	Picot Edging	Narrow Hemming
Lightweight fabric such as organdy, crepe de chine, lawn and georgette	Needle thread	Long fiber polyester thread No. 80 ~ 100		
	Upper and lower looper threads	Woolly nylon, Woolly polyester	Synthetic : 60 ~ 100, Silk : No. 50 ~ 100	Woolly nylon, Woolly polyester
	Needle	HA-1 SP No. 11		
	Standard setting of tension dials			
Correct thread tension				

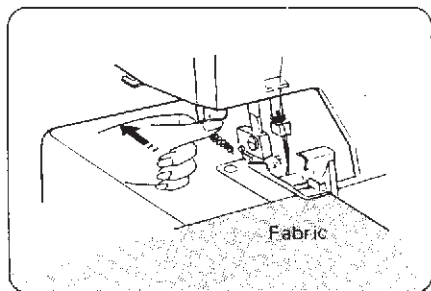
Rolled Hemming, Picot Edging and Narrow Hemming (continued)

Adjusting Thread Tension

1. Set the tension dials as shown on page 33.

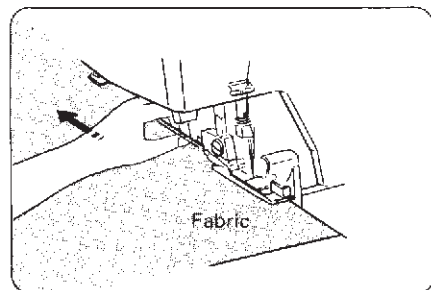
2. Sew and check the tensions.

– For better result –



Rolled Hemming

Pull the end of thread chain to the back lightly in the beginning and end of sewing.



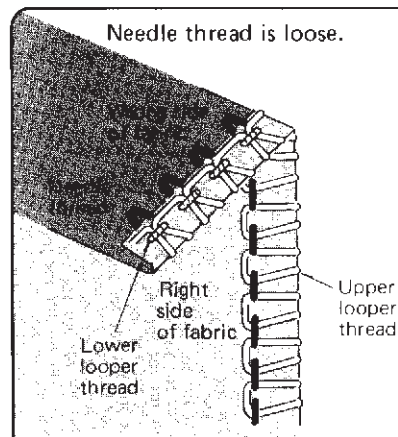
Picot Edging

Pull the fabric lightly to the back while sewing.

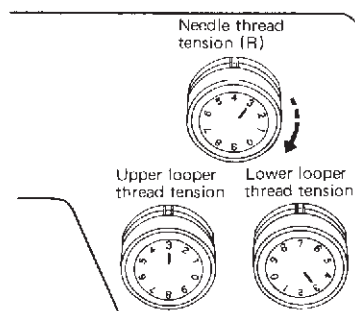
How to Adjust the Thread Tension

● For Rolled Hemming and Picot Edging

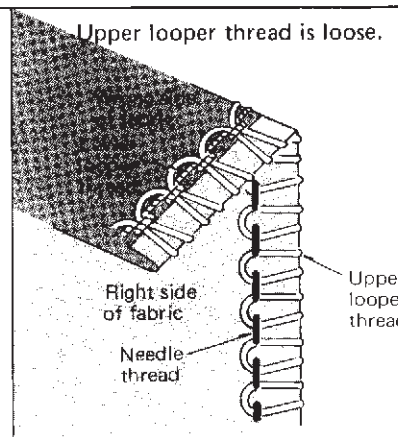
Wrong Tension



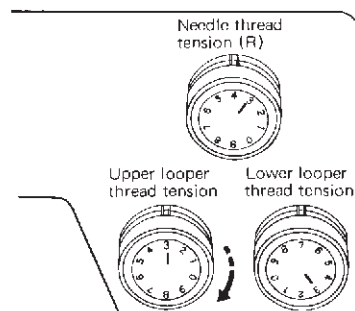
Tighten needle thread tension.



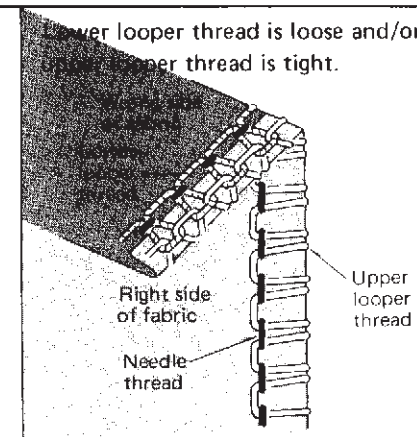
Wrong Tension



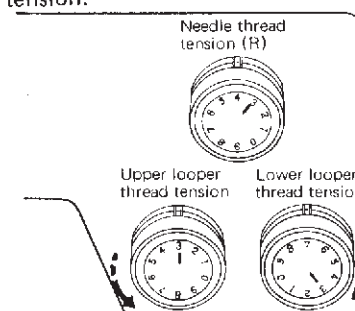
Tighten upper looper thread tension.



Wrong Tension



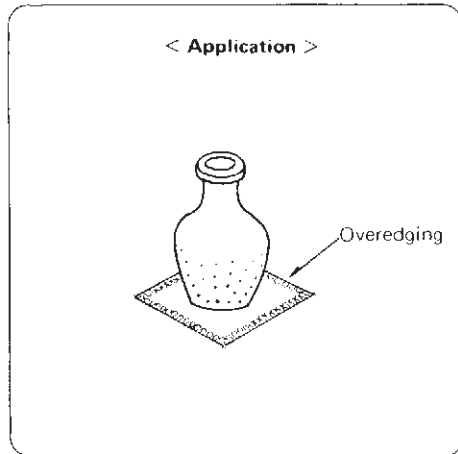
Tighten lower looper thread tension and/or loosen upper looper thread tension.



● For Narrow Hemming

Refer to page 25 for the adjustment.

Decorative Overredging



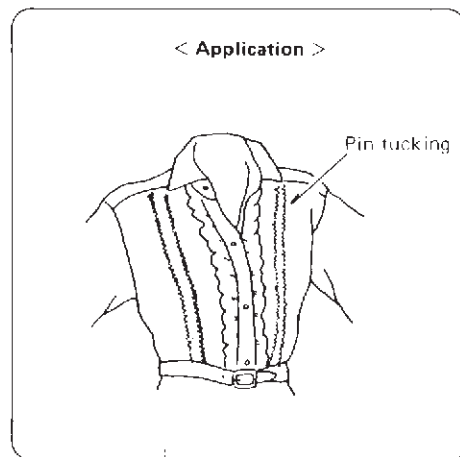
Thread, Fabric, Range of the Tension and Machine Setting

Fabric	Thread	Standard Setting
Medium to Heavy Fabric	Needle thread Synthetic : No. 60 ~ 80 Silk : No. 50 ~ 80	Needle thread tension (L) Needle thread tension (R)
	Upper looper thread Buttonhole twist Light weight wool yarn	Upper looper thread tension Lower looper thread tension
	Lower looper thread Synthetic : No. 60 ~ 80 Silk : No. 50 ~ 80	

Machine Setting	Stitch length	3 ~ 4
	Differential feed ratio	1.0
	Needle plate	Regular needle plate (Marked S on reverse side)
	Needle	HA-1 SP No. 14

- * Refer to page 21 for the correct tension.
- * To adjust the thread tension balance, set the tension dials as shown above first, then refer to pages 22 ~ 23.
- * For the best result, pull the thread chain to the back lightly at the beginning and end of sewing.
- * Remove either needle for three thread decorative overredging.

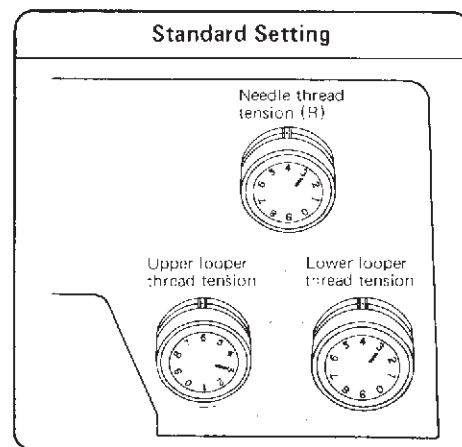
Pin Tucking



Thread, Fabric, Range of the Tension and Machine Setting

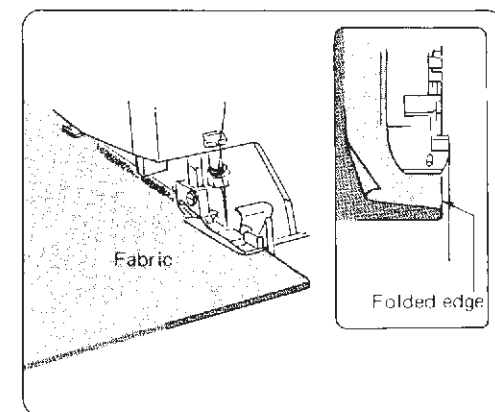
Fabric	Thread	
Light to Medium Fabric	Needle thread on the right	Synthetic : No. 60 ~ 80 Silk : No. 50 ~ 80
	Upper and lower looper threads	Synthetic : No. 60 ~ 100 Silk : No. 50 ~ 100

Machine Setting	Stitch length	R
	Differential feed ratio	1.0
	Needle plate	Rolled hemming needle plate. (Marked R on reverse side.)
	Needle	HA-1 SP No. 11

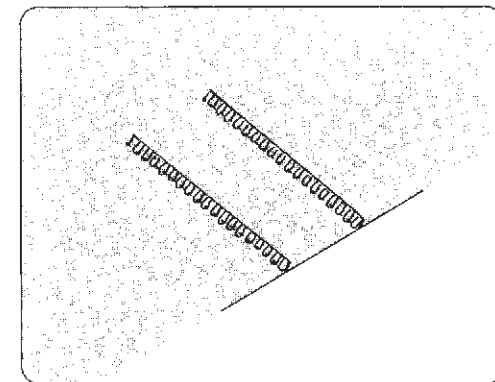


* Refer to pages 24 ~ 25 and 33 (Narrow Hemming) for thread tension balance adjustment.

Sewing



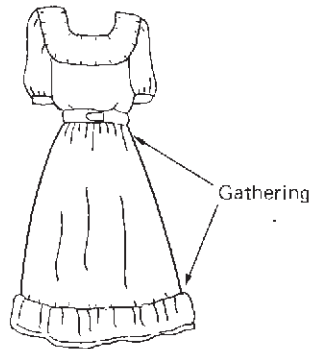
Remove the needle on the left.
Disengage the upper knife. (Refer to page 29.)
Sew the folded edge while guiding along the right side edge of lower knife.



Press the pin tucks to one side.
* Engage the upper knife. (Refer to page 29.)

Gathering

< Application >

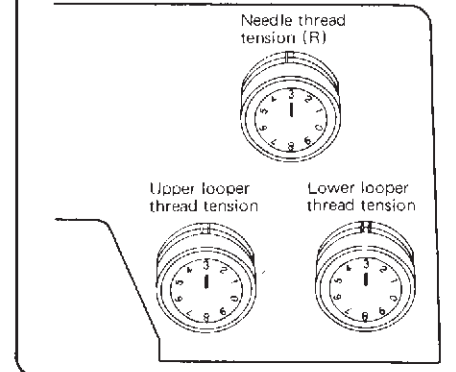


Thread, Fabric, Range of the Tension and Machine Setting

Fabric	Thread	
	Light to Medium Woven Fabric	Needle threads
Upper and lower looper threads		Synthetic : No. 60 ~ 80 Silk : No. 50 ~ 80

Machine Setting	Stitch length	3 ~ 4
	Differential feed ratio	1.0 ~ 2.0
	Needle plate	Regular needle plate (Marked S on reverse side)
	Needle	HA-1 SP No. 11 or 14

Standard Setting

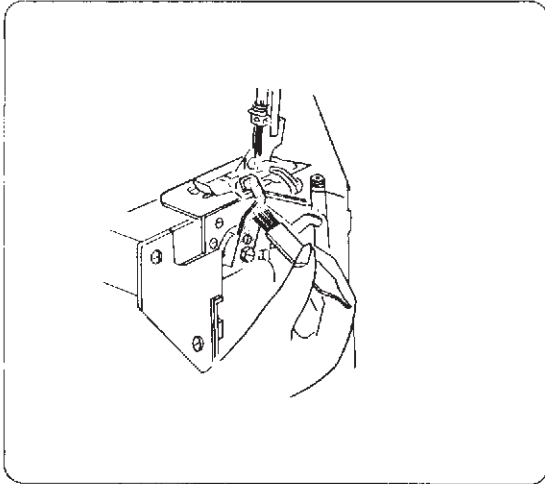


* Refer to pages 24 ~ 25 for thread tension balance adjustment.

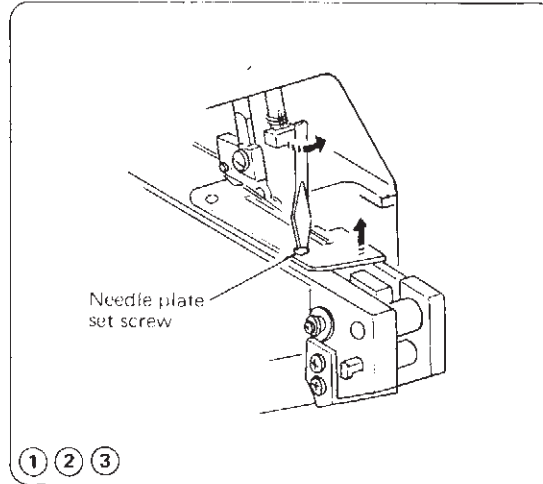
Cleaning Upper Knife Area

Cleaning the Feed Dog

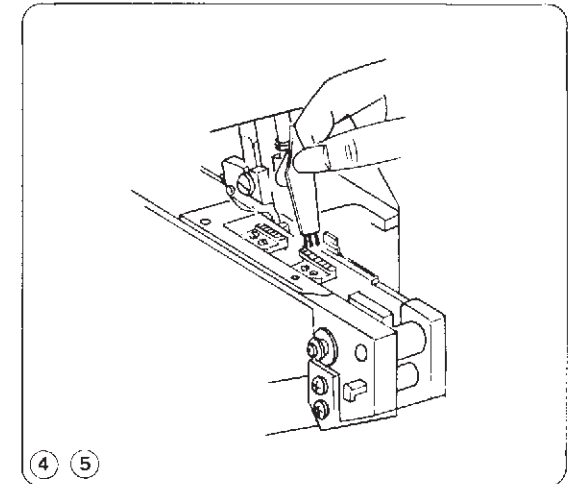
Disconnect the machine from the power supply before cleaning.



Open the looper cover.
Remove the waste materials with a lint brush.



- ① Open the looper and side covers.
- ② Remove the needles and presser foot.
- ③ Remove the needle plate set screw and needle plate.

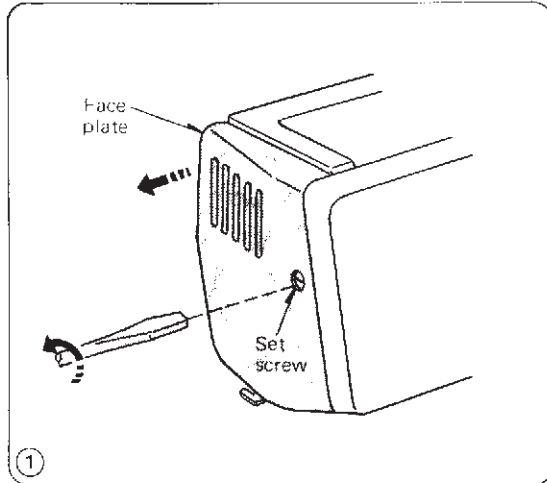


- ④ Push the lint around the feed dog to the front by using lint brush.
- ⑤ Replace needle plate, presser foot and needles.
Close the looper and side covers.

* You may use vacuum cleaner to clean the upper knife area or feed dog.

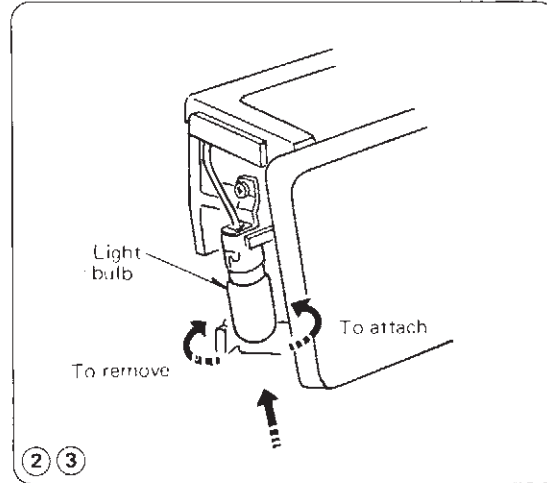
* Lint brush is optional.

Replacing the Light Bulb

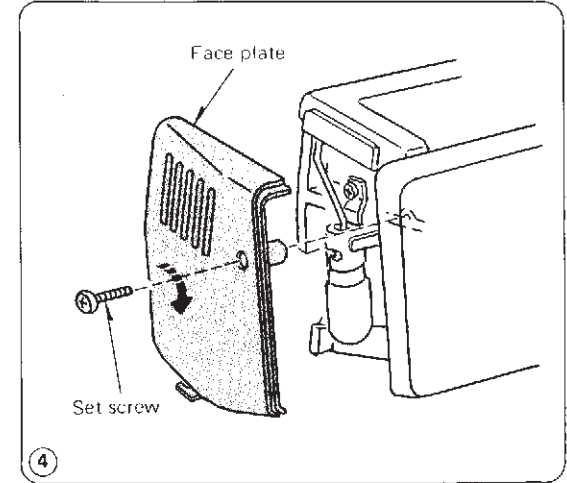


- ① Disconnect the machine from the power supply. Remove the face plate set screw, and remove the face plate.

CAUTION! The light bulb will be HOT. Protect your fingers when you handle it.



- ② Push the bulb up and turn the bulb counter-clockwise to remove it.
- ③ Put the new bulb in by pushing it up and turning it clockwise.



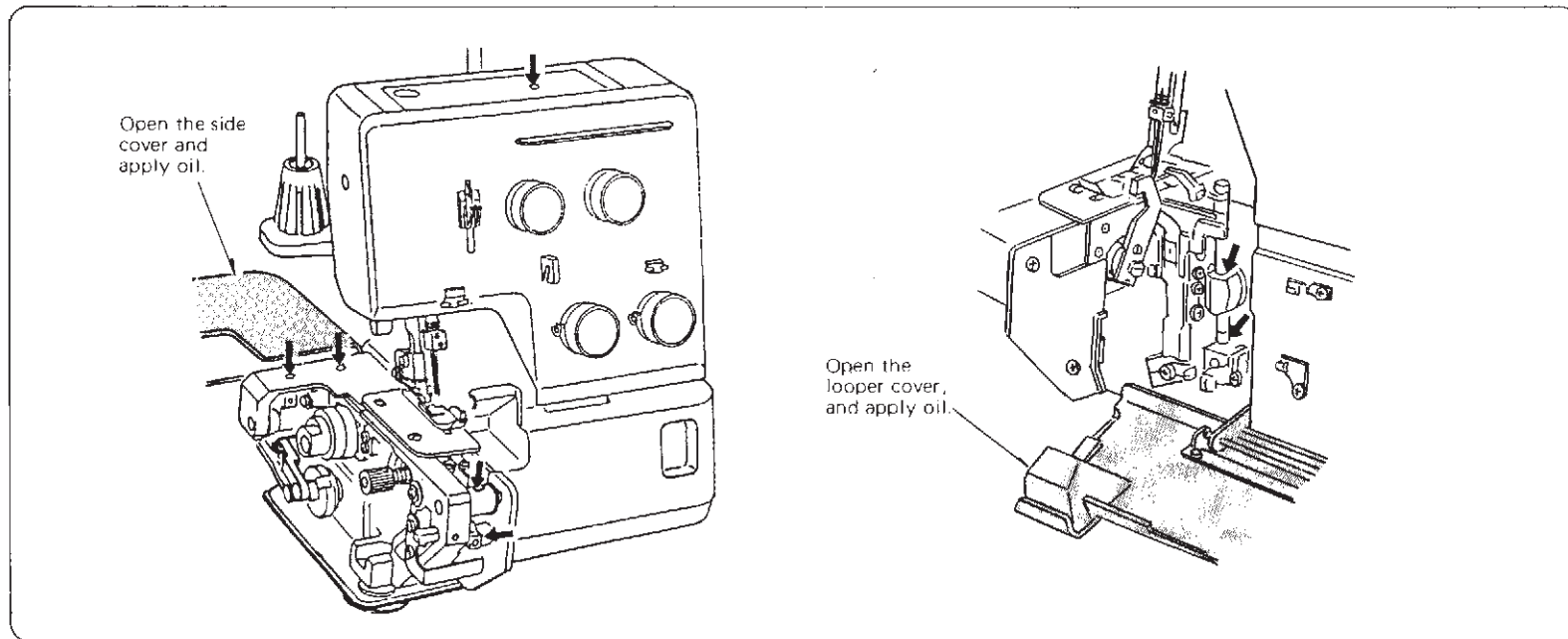
- ④ Attach the face plate, and tighten the face plate set screw.

For your safety:

- * The machine is designed to use a 15 WATT MAXIMUM LIGHT BULB.

Oiling the Machine

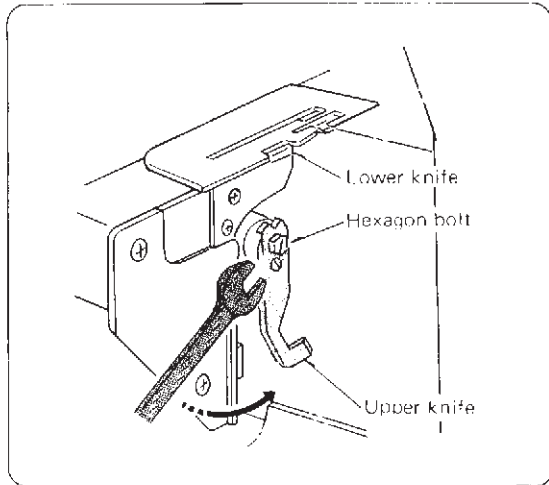
Disconnect the machine from the power supply before oiling.



Apply a few drops of fine quality sewing machine oil to the parts indicated with arrows.

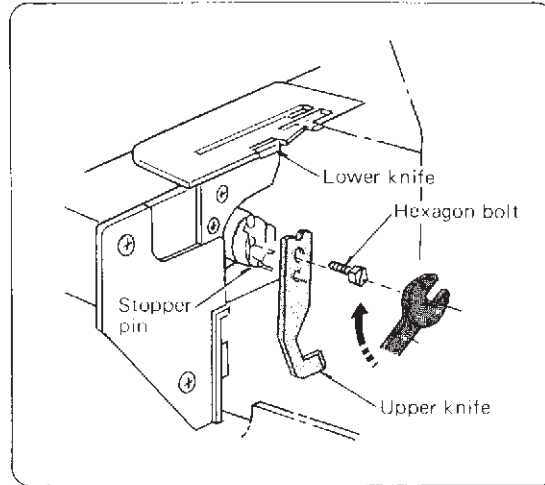
Oiling is recommended once a week in normal use, once in ten hours in continuous use.

Replacing the Upper Knife



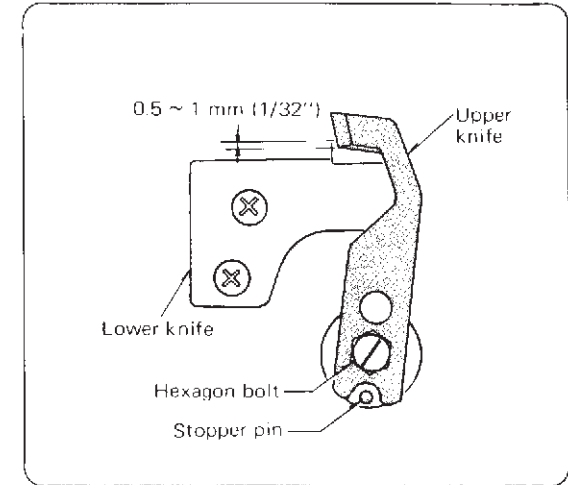
To Remove:

- ① Disconnect the machine from the power supply.
- ② Open the looper and side covers.
- ③ Disengage the upper knife.
(Refer to page 29.)
- ④ Remove the hexagon bolt, and remove the upper knife.



To Attach:

- ① Insert new upper knife into the groove of knife holder and stopper pin, then tighten the hexagon bolt slightly.



- ② Turn the upper knife holder to cutting position.
- ③ Turn the hand wheel toward you until the upper knife comes to its lowest position. Loosen the hexagon bolt, and adjust the position of upper knife so that the edge of the upper knife overlaps 0.5 to 1 mm (1/32") from the edge of lower knife as shown above. Then tighten the hexagon bolt firmly.
- ④ Close the looper and side covers.

* The lower knife will last over one year in normal use. However, if you run over a pin or a hard object, it may be required to replace both upper and lower knives at the same time.

SECTION 5. PERFORMANCE PROBLEMS CHART

What to Do When

Condition	Cause	Reference
The fabric is not being fed smoothly.	<ol style="list-style-type: none"> 1. The feed dog is packed with lint. 2. The presser foot has been raised. 	<p>See page 38. Lower the presser foot.</p>
The needle breaks.	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The fabric is forcefully pulled. 	<p>See page 28. See page 28. Pull the fabric lightly.</p>
The thread breaks.	<ol style="list-style-type: none"> 1. The machine is not correctly threaded. 2. The needle or looper thread tension is too tight. 3. The needle is incorrectly inserted. 4. The needle is bent or blunt. 	<p>See pages 9 ~ 17 and 24. See pages 21 ~ 25 and 33 ~ 37. See page 28. See page 28.</p>
Skipped stitches	<ol style="list-style-type: none"> 1. The machine is not correctly threaded. 2. The needle is bent or blunt. 	<p>See pages 9 ~ 17 and 24. See page 28.</p>
The seam is not sewn neatly.	<ol style="list-style-type: none"> 1. The needle and/or looper thread tensions are not correctly adjusted. 2. The machine is not correctly threaded. 3. The needle and/or the thread are not suitable for the fabric being sewn. 4. The thread is not between the tension discs. 	<p>See pages 21 ~ 25 and 33 ~ 37. See pages 9 ~ 17 and 24. See pages 31, 33, 35, 36 and 37. See pages 11, 13, 15 and 17.</p>
Seam puckering.	<ol style="list-style-type: none"> 1. The needle or looper thread tension is too tight. 2. The machine is not correctly threaded. 3. The needle plate is not suitable for the use. 4. The differential feed dial is not set at the proper position. 	<p>See pages 21 ~ 25 and 33 ~ 37. See pages 9 ~ 17 and 24. See page 30. See page 26.</p>
The machine does not operate.	<ol style="list-style-type: none"> 1. The machine has not been plugged in firmly. 2. The power switch is turned off. 	<p>See page 5. See page 5.</p>

Optional Parts

①	Spool cap	Used it when you use a household thread. (Refer to page 7)
②	Net	Cover spool with net when you use a thread which comes off the spool easily. (Refer to page 7)
③	Looper threader	Use to thread the upper or lower looper. (Refer to page 11, 13)
④	Needle threader	Use to thread the needle.
⑤	Lint brush	Use for cleaning around the needle plate, feed dog and knife.
⑥	Piping foot	Use to pipe the edge of a sewing article to decorate or strengthen.
⑦	Blind stitch foot	Use to blind stitch a cuff or a skirt.
⑧	Taping foot with Tape reel	Use for sewing tape on a shoulder or armpit line to protect from stretching or to decorate.
⑨		Works well with the taping foot or the cording foot.
⑩	Cording foot	Use to sew decorative cording.

