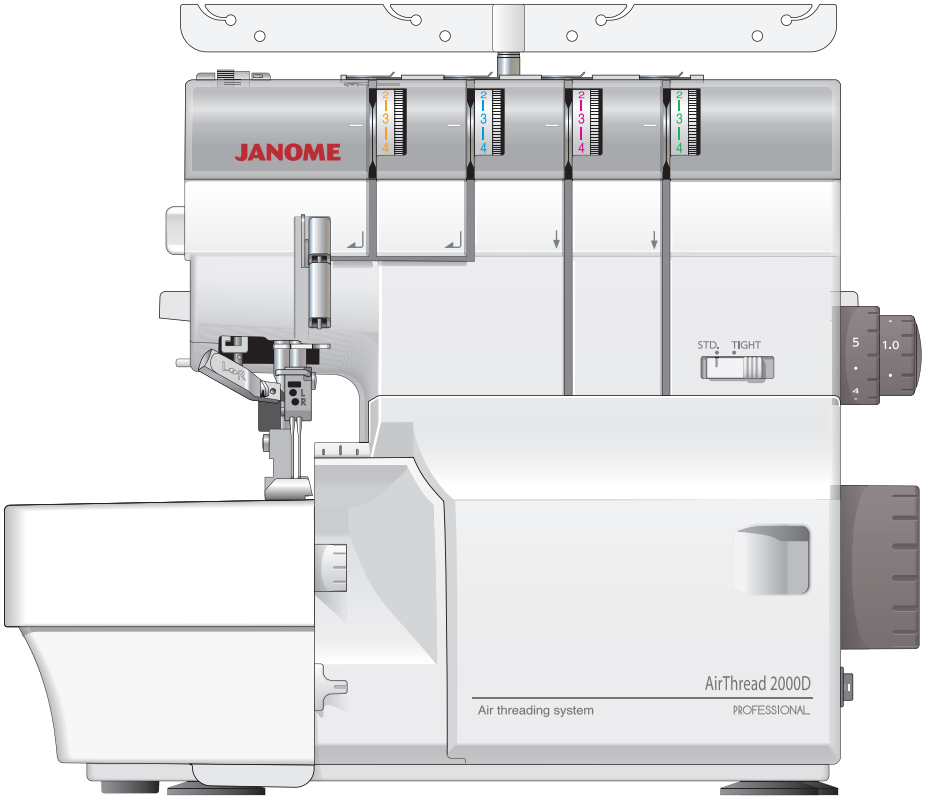
Instruction Book

AirThread 2000D Professional



IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:

This Serger/Overlocker/Overlock machine is designed and manufactured for household use only.

Read all instructions before using this Serger/Overlocker/Overlock machine.

DANGER — To reduce the risk of electric shock:

1. An appliance should never be left unattended when plugged in. Always unplug this Serger/Overlocker/Overlock machine from the electric outlet immediately after using and before cleaning.

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 Serger/Overlocker/Overlock machine is used by or near children.
2. Use this appliance only for its intended use as described in this owner's manual.
   Use only attachments recommended by the manufacturer as contained in this owner's manual.
3. Never operate this Serger/Overlocker/Overlock machine 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 this Serger/Overlocker/Overlock machine 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 this Serger/Overlocker/Overlock 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 ("O") 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 Serger/Overlocker/Overlock machine needle and/or cutting blade.
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 this Serger/Overlocker/Overlock machine off ("O") when making any adjustment in the needle area, such as threading the needle, changing the needle or changing the presser foot, and the like.
15. Always unplug this Serger/Overlocker/Overlock machine from the electrical outlet when removing covers, lubricating, or when making any other adjustments mentioned in this owner's manual.

SAVE THESE INSTRUCTIONS

For Europe only:
This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

For outside Europe (except U.S.A.):
This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
Children should be supervised to ensure that they do not play with the appliance.



Please note that on disposal, this product must be safely recycled in accordance with relevant National legislation relating to electrical/electronic products. If in doubt please contact your retailer for guidance. (European Union only)

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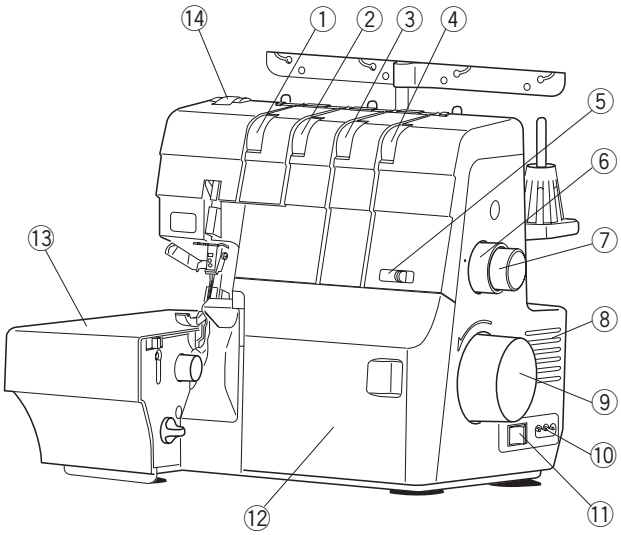
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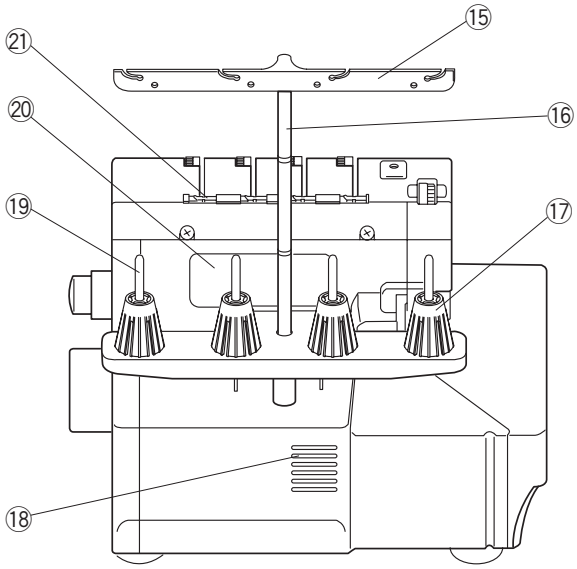
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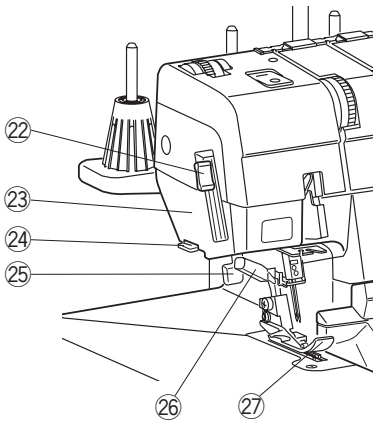
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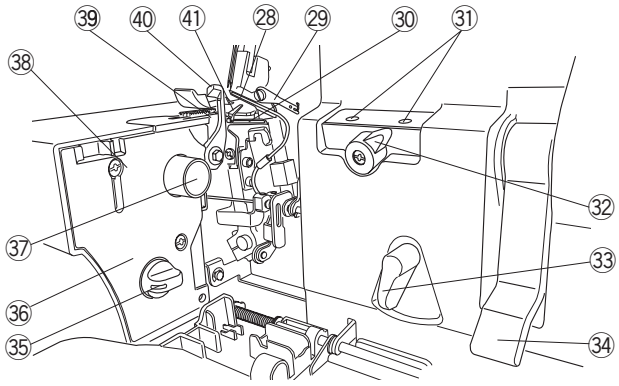
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ESSENTIAL PARTS

Names of Parts

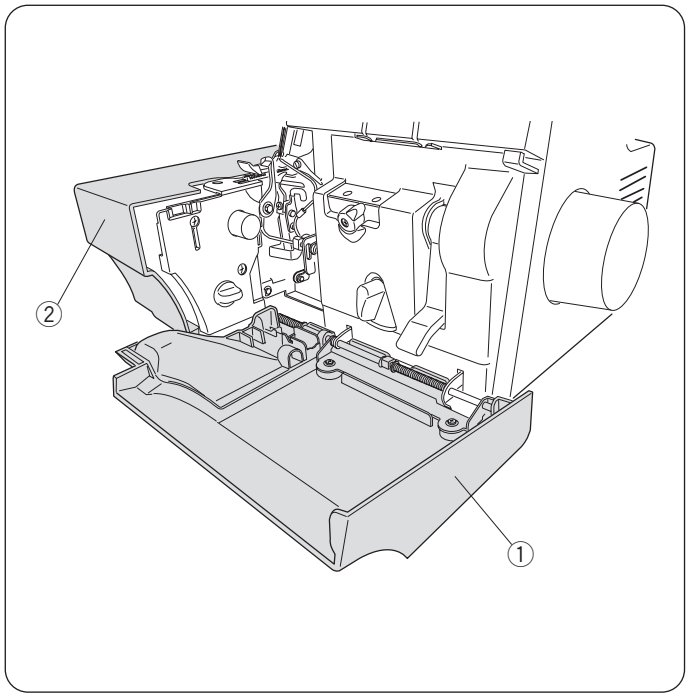
① Left needle thread tension dial
② Right needle thread tension dial
③ Upper looper thread tension dial
④ Lower looper thread tension dial
⑤ Lower looper pre-tension setting slider
⑥ Stitch length dial
⑦ Differential feed dial
⑧ Ventilation openings
⑨ Handwheel
⑩ Machine socket
⑪ Power switch
⑫ Looper cover
⑬ Side cover
⑭ Presser foot pressure dial

⑮ Thread guide
⑯ Thread guide bar
⑰ Spool holder
⑱ Ventilation openings
⑲ Spool pin
⑳ Hole of rear arm
㉑ Top cover thread guide

㉒ Needle threader lever
㉓ Face plate
㉔ Thread cutter
㉕ Presser foot lifter
㉖ Needle threader switch lever
㉗ Presser foot

㉘ Upper looper
㉙ Spreader
㉚ Lower looper
㉛ Looper threader hole
㉜ Looper selection lever
㉝ Looper threader switch lever
㉞ Looper threader lever
㉟ Upper knife release knob
㊱ Looper cover guide
㊲ Cutting width adjusting dial
㊳ Chaining finger switch knob
㊴ Lower knife
㊵ Upper knife
㊶ Chaining finger

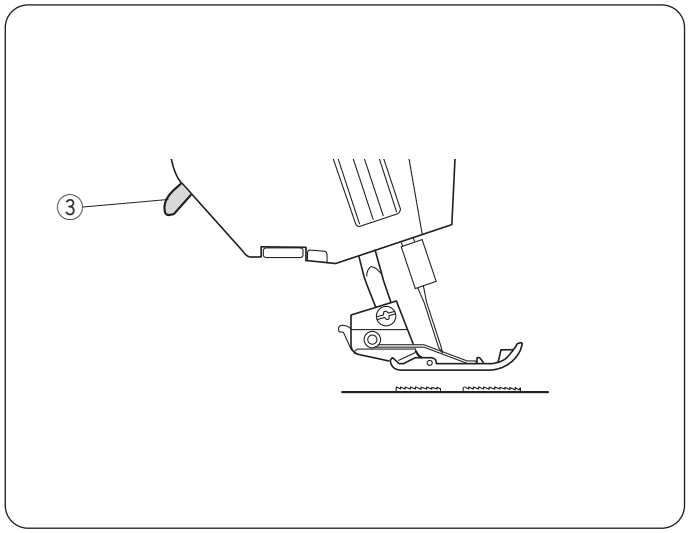
NOTE:
Serger/Overlocker/Overlock machine design and specifications are subject to change without prior notice.



Safety Device

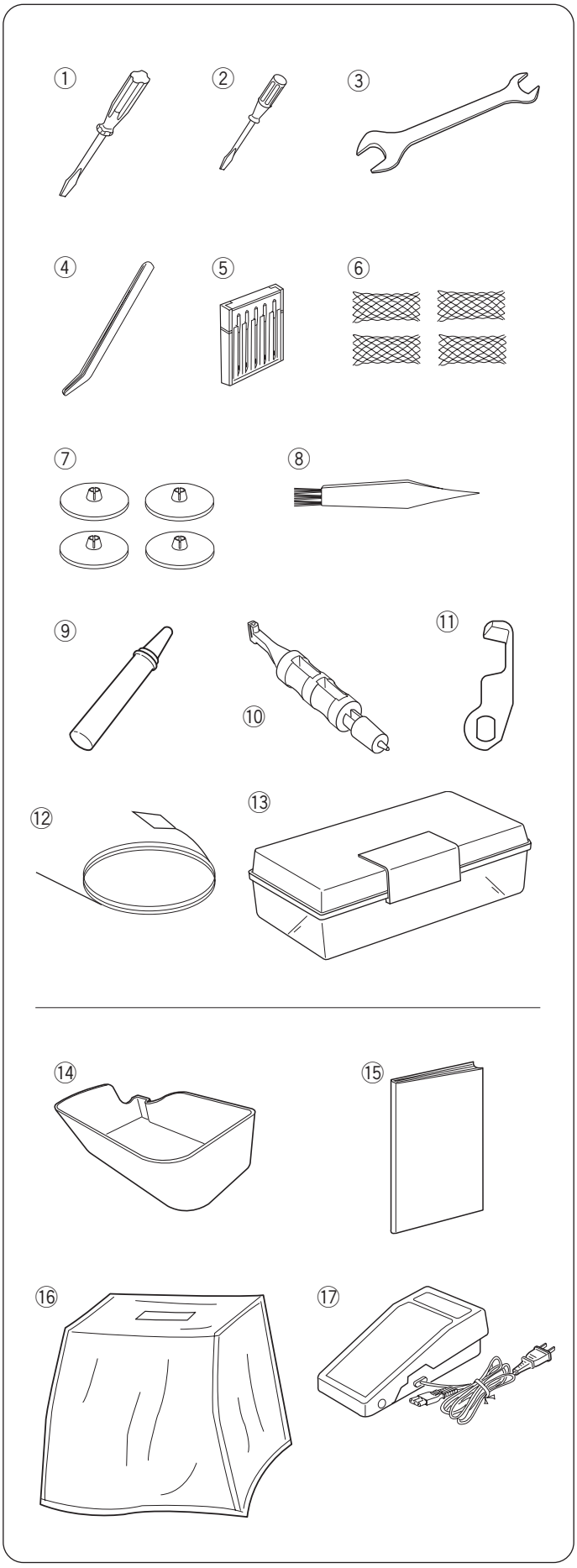
This machine is equipped with a safety device that prevents the machine from starting in the following conditions:

- **The looper cover or the side cover is open**
  ① Looper cover
  ② Side cover



- **The presser foot lifter is raised**
  ③ Presser foot lifter

Be sure to close the looper cover and the side cover, and to lower the presser foot lifter before starting the machine.



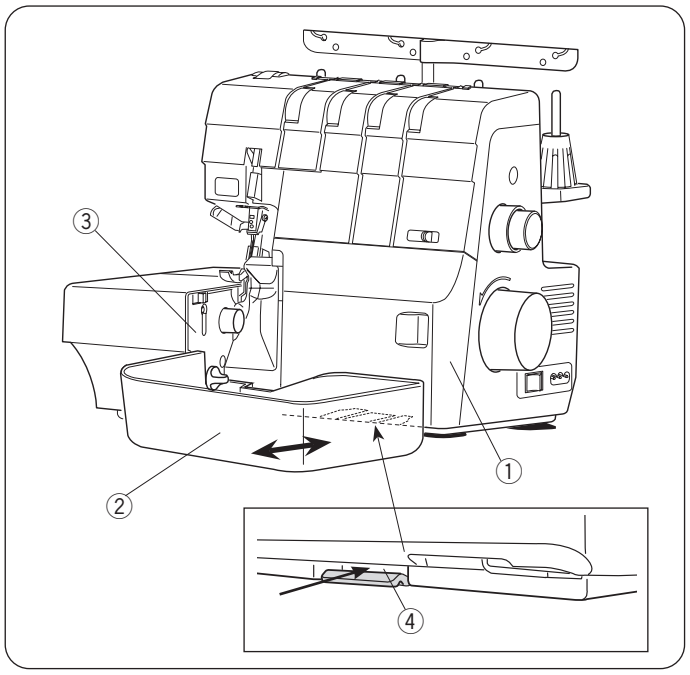
Standard Accessories

No.	Part Name		Part No.
1	Screwdriver (large)		784810002
2	Screwdriver (small)		647803004
3	Double-ended spanner		799807002
4	Tweezers		624801001
5	Needle set (HAx1 SP#11) x 2 (HAx1 SP#14) x 3		784860100
6	Net		624806006
7	Spool holder cap (Large)		822020503
8	Lint brush		802424004
9	Oil		741814003
10	Needle holder/spreader pin		799802007
11	Upper knife		799096011
12	Looper threading wire (Looper threader)		799803008
13	Accessory box		366401400
14	Waste chip box		799801A01
15	Instruction manual		799800005
16	Cover		797608005
17	Foot control*	U.S.A and Canada	C-1028
		U.K.	C-2085-1
		Australia	C-2065
		Continental Europe	C-2060

*The foot control included may differ from the illustration.

Instructional Video

https://youtube.com/
playlist?list=PLQy563Wz2acv2j-H1z4f84HRJTQTmvoTY



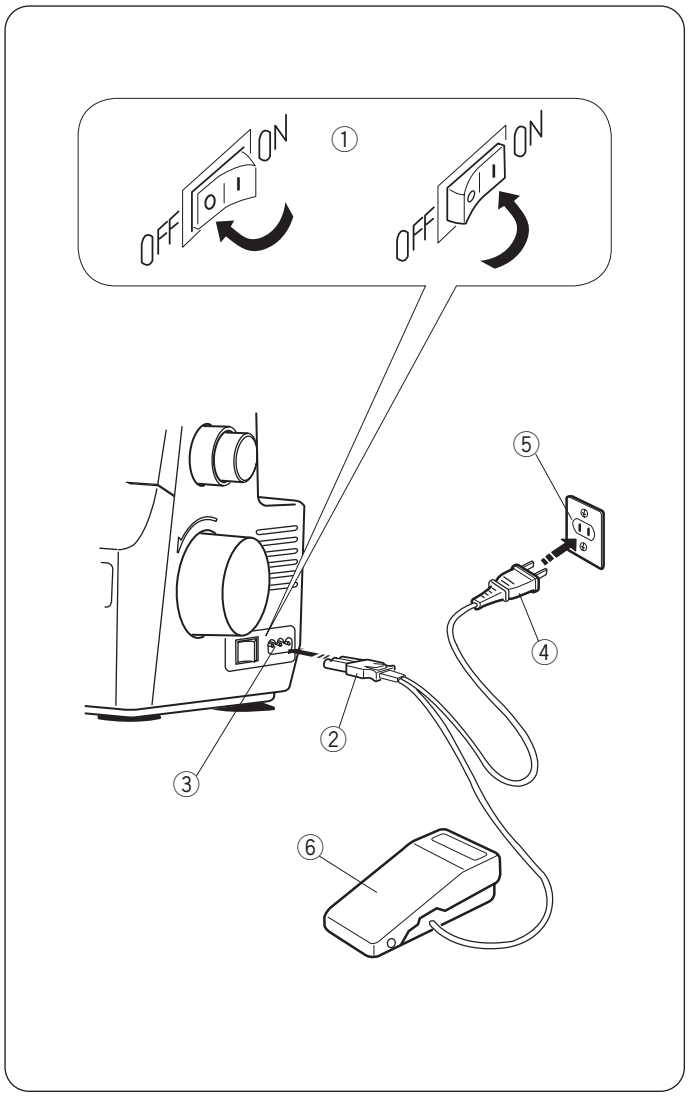
Waste Chip Box

The waste chip box collects trimmings.
Dispose trimmings after sewing.

To attach:
Sliding the waste chip box along the looper cover guide, insert the tabs into the slit under the looper cover.

① Looper cover
② Waste chip box
③ Looper cover guide
④ Slit

To remove:
Pull the waste chip box toward you.



GETTING READY TO SEW

Connecting the Power Supply

⚠ WARNING

While in operation, always keep your eyes on the sewing area, and do not touch any moving parts such as the thread take-up lever, handwheel, knives, loopers or needles.

Always turn off the power switch and unplug the machine from the power supply:

- when leaving the machine unattended.
- when attaching or removing parts.
- when cleaning the machine.

Do not place anything on the foot control.

Turn the power switch off.
Insert the machine plug into the machine socket.
Insert the power supply plug into the wall outlet.
Turn the power switch on.

① Power switch
② Machine plug
③ Machine socket
④ Power supply plug
⑤ Wall outlet
⑥ Foot control

Before Using Your Machine

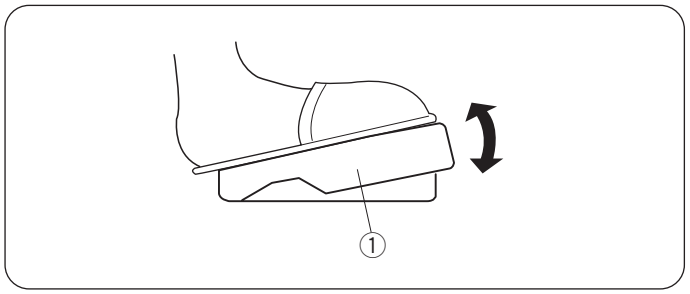
Before using your machine for the first time, place a scrap of fabric under the presser foot and run the machine without thread for a few minutes. Wipe away any oil which may appear.

Operating Instructions:

The symbol “O” on the switch indicates the “off” position of the switch.
Foot control model YC-482-J-1 (U.S.A and Canada only) is used with this machine.

For the U.S.A. and Canada only:

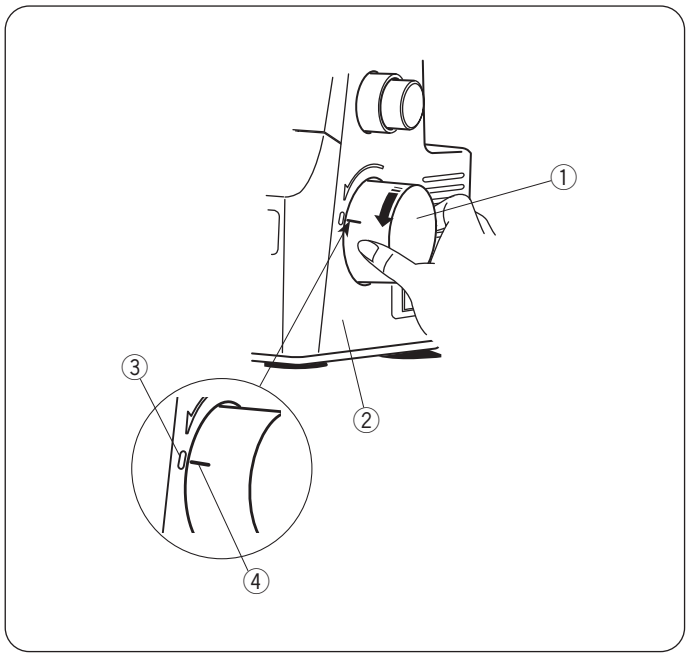
For appliances with a polarized plug (one blade wider than the other): To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.



Controlling Sewing Speed

Depress the foot control to start the machine.
The further down you press on the foot control, the faster the machine runs.

① Foot control

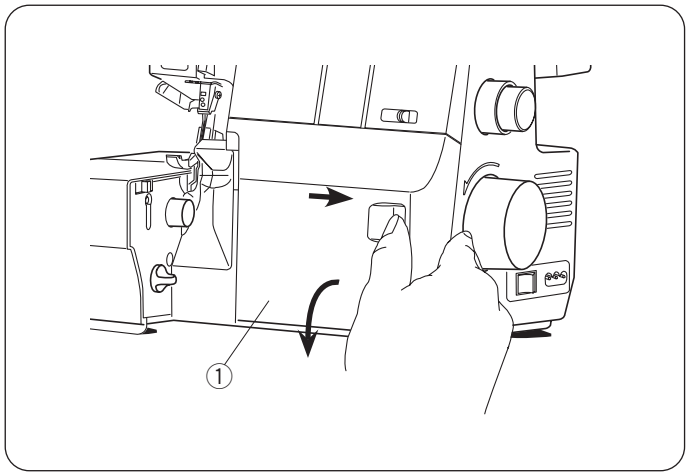


Handwheel

Match the "0" mark of the belt cover with the "–" mark of the handwheel when threading needles, adjusting the chaining finger switch knob or raising/lowering the spreader.

Always turn the handwheel toward you (counterclockwise).

① Handwheel
② Belt cover
③ "0" mark
④ "–" mark



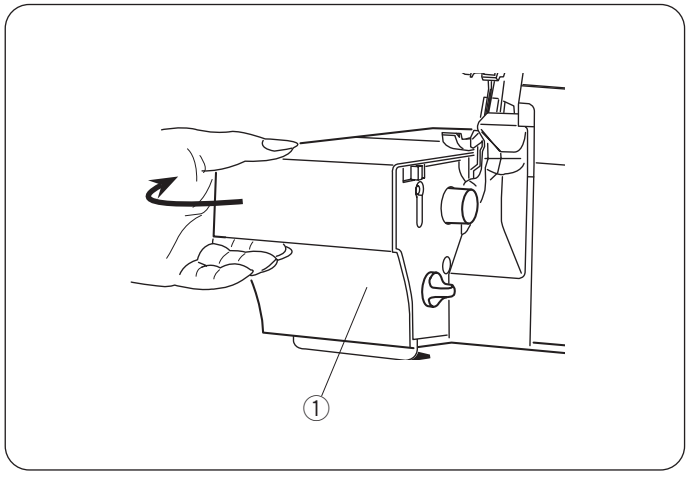
Looper Cover

To open:
Hold the looper cover as illustrated and slide it to the right as far as it will go.
Pull the looper cover toward you to open it.

① Looper cover

To close:
Push the looper cover back up. The looper cover snaps into position automatically.

NOTE:
Always close the looper cover when the machine is in use. You cannot run the machine with the looper cover open.



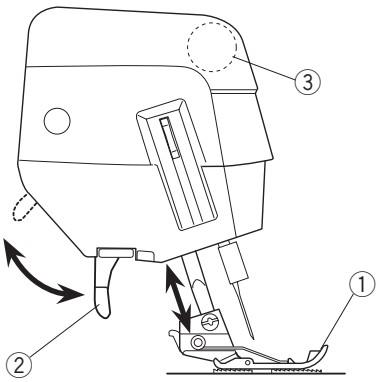
Side Cover

To open:
Pull the side cover to the left.

① Side cover

To close:
Push the side cover to the right.

NOTE:
Always close the side cover when the machine is in use. You cannot run the machine with the side cover open.



Presser Foot Lifter

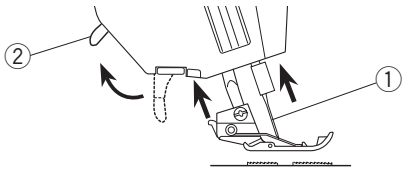
The presser foot lifter raises and lowers the presser foot. Raise the presser foot lifter before you thread the machine.
Always lower the presser foot lifer when you start sewing.

① Presser foot
② Presser foot lifter

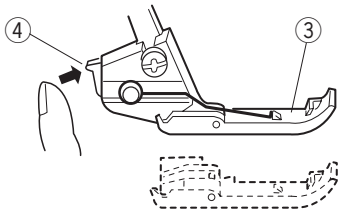
NOTE:
Tension disks open when the presser foot lifter is raised. Raise presser foot lifter when you pass the thread between the tension disks.

③ Tension disks

1 2



3



Removing or Attaching the Presser Foot

⚠ CAUTION:
Turn OFF the power switch before removing or attaching the foot.

To remove:

1 Raise the presser foot lifter.

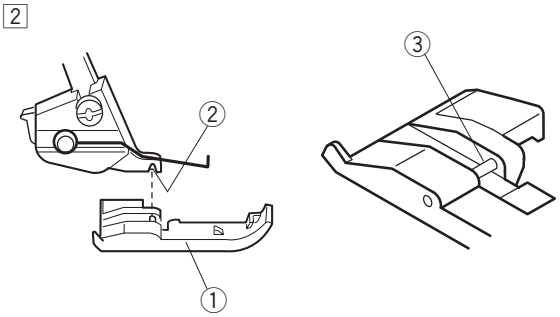
2 Raise the needle to its highest position by turning the handwheel counterclockwise.

① Needle
② Presser foot lifter

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

③ Presser foot
④ Lever

1 2

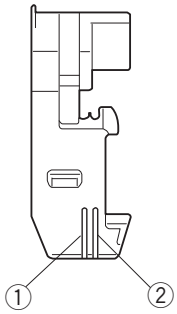


To attach:

1 Place the presser foot so that the pin on the foot is just under the groove on the foot holder.
Lower the foot holder to lock the foot into place.

2 Raise the presser foot lifter.
Make sure that the presser foot is secured.

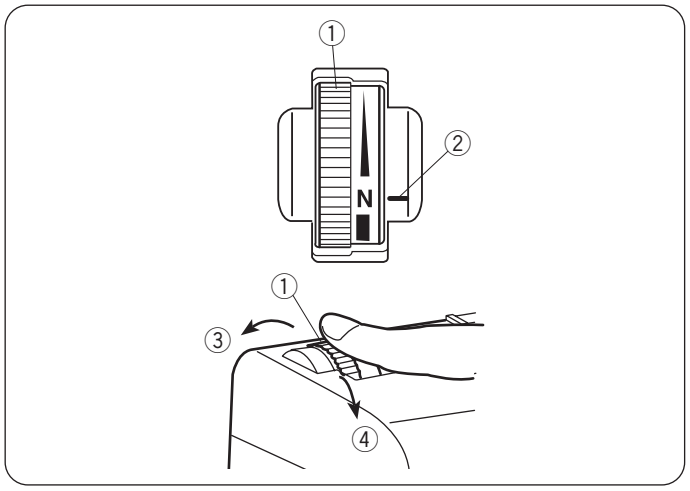
① Presser foot
② Groove
③ Pin



Presser Foot Guide Lines

The guide lines on the toe of the presser foot are marked with two needle positions.
The left guide line is marked at the left needle position.
The right guide line is marked at the right needle position.

① Left needle position
② Right needle position

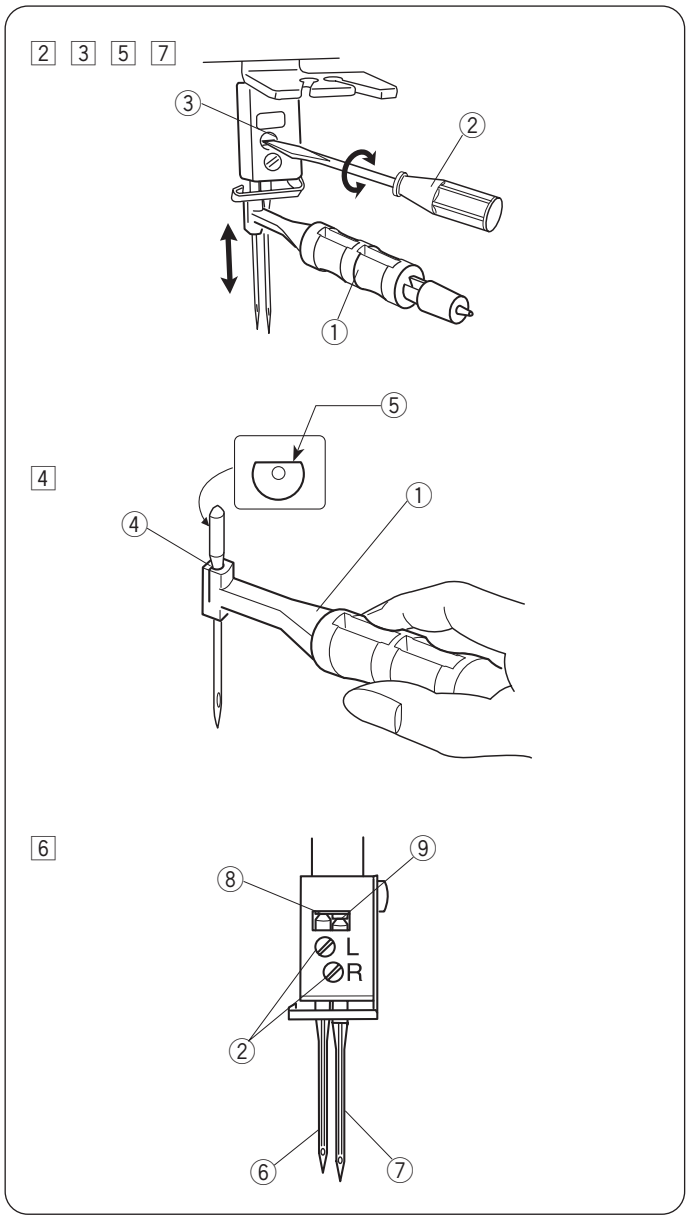


Presser Foot Pressure Dial

Foot pressure can be adjusted by turning the presser foot pressure dial.
Set the pressure to “N” for ordinary fabrics.
Turn the dial toward you for light weight fabrics .
Turn the dial away from you for heavy weight fabrics.

① Presser foot pressure dial
② Setting mark
③ To increase
④ To decrease

You do not need to adjust the presser foot pressure for normal sewng.
After making an adjustment, sew and check the pressure.



Changing the Needle

* Use an HA-1 SP #14 or #11 needle.
* An HA-1 SP #14 needle is set on the machine.

⚠CAUTION
Turn OFF the power switch before changing the needle.

1 Raise the needle to its highest position by turning the handwheel counterclockwise.

2 Insert the needle attached to the machine into the hole of the needle holder.
① Needle holder

3 Loosen the needle clamp screw with the screwdriver (small) and remove the needle.
② Small screwdriver
③ Needle clamp screw

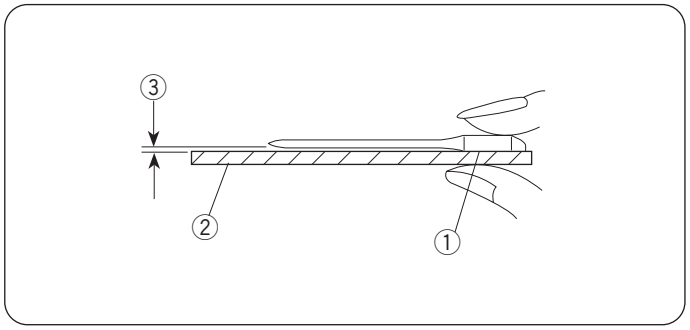
4 Insert a new needle into the needle holder with the flat side to the rear.
④ Hole of needle holder
⑤ Flat side

5 Insert the needle into the needle clamp and push it up as far as it will go.

6 The top of the right needle should touches the bottom of the needle bar and the top of the left needle should touches the edge of the needle bar.
⑥ Left needle
⑦ Right needle
⑧ Edge of needle bar
⑨ Bottom of needle bar

7 Firmly tighten the needle clamp screw with the screwdriver (small) while holding the holder in place. Pull the needle holder down to remove the needle.

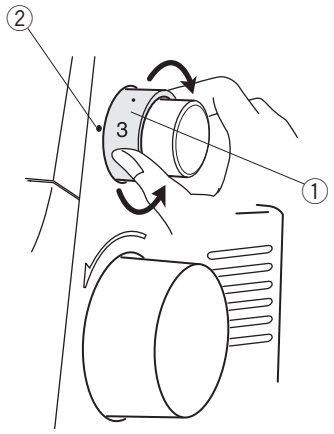
NOTE:
Partially tighten the needle clamp screw on the side that is not being used to prevent losing the screw.



Checking the needle

To see if the needle is in good condition, place the flat side of the needle onto something flat (needle plate, glass etc.). The gap between the needle and the flat surface should be consistent. Never use a bent or blunt needle.

① Flat side
② Something flat
③ Gap



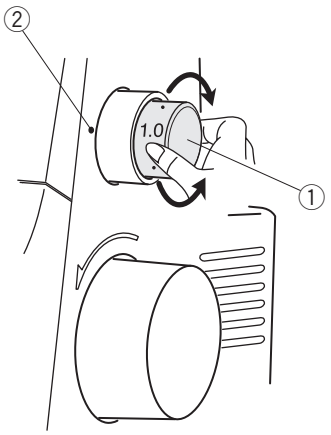
Stitch Length Adjustment

To adjust the stitch length, turn the stitch length dial.
The larger the number, the longer the stitch.

① Stitch length dial
② Setting mark

The standard stitch length setting for serging stitch is “3” (approximately 3 mm).
The dial clicks when you turn the dial to 3.
The stitch length can be adjusted while sewing.

NOTE:
- The stitch length can be adjusted from 1 to 5 mm.
- Position “R” is for rolled hemming and narrow hemming (approximately 1.5 mm).



Differential Feed Ratio Adjustment

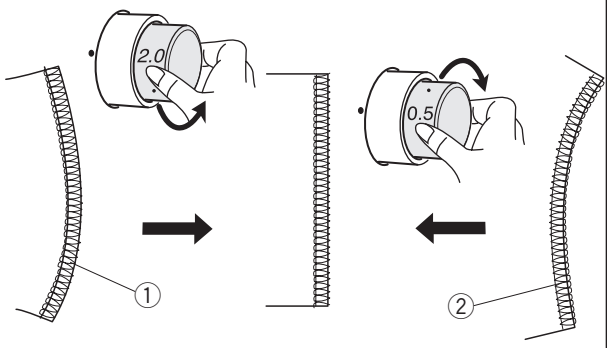
Adjust the differential feed ratio when sewing fabrics that tend to stretch or pucker.
The differential feed ratio can be altered by turning the differential feed dial.
The number on the dial indicates the ratio between the main and the sub feed motion.

① Differential feed dial
② Setting mark

The neutral position of the differential feed dial is 1.0.
The differential feed dial clicks when you turn the dial at 1.0.

Set the dial to a number larger than 1.0 to sew while gathering the fabric.

Set the dial to a number smaller than 1.0 to sew while stretching the fabric.

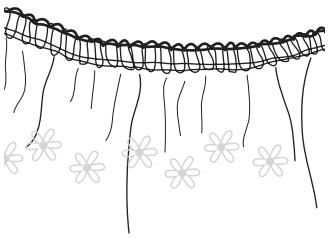


How to adjust

If the sewn fabric stretches, turn the dial counterclockwise (toward 2.0).

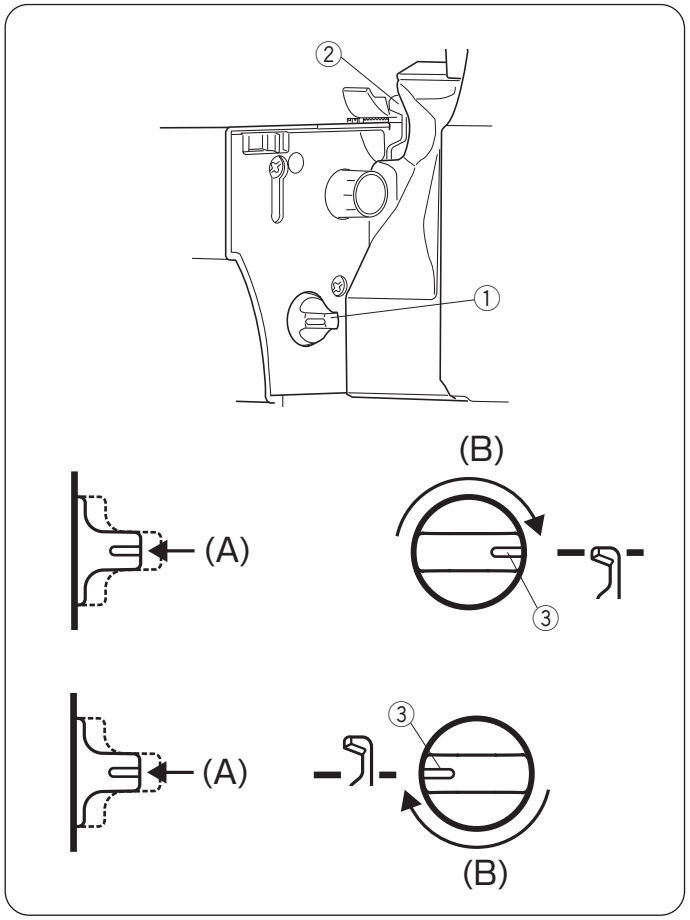
If the sewn fabric is gathered, turn the dial clockwise (toward 0.5).

① Stretched
② Gathered



Gathering

You can sew gathering with a single layer of light weight or medium weight fabric.
Set the differential feed dial to 2.0.
Set the stitch length dial to 4.



To Deactivate or Activate the Upper Knife

⚠ CAUTION

- Turn the power switch OFF before deactivating or activating the upper knife.
- Do not cut anything else with the upper knife other than fabric, causing the upper knife to break.

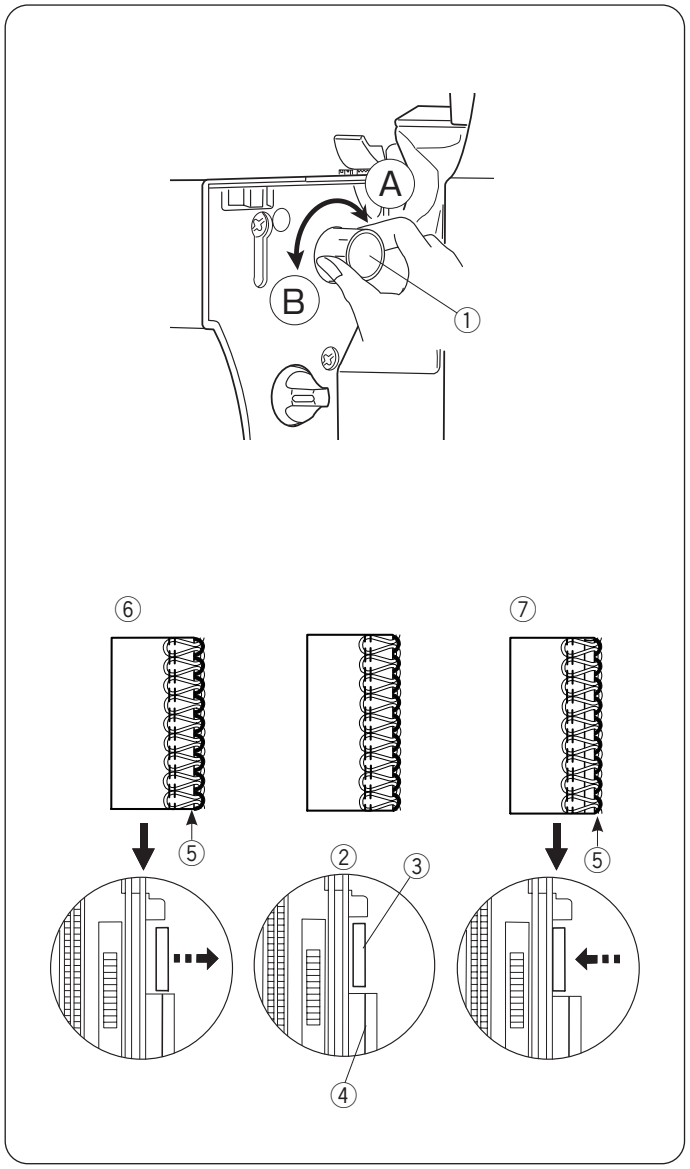
Deactivate the upper knife for flatlock, pintucking, etc.

① Upper knife release knob
② Upper knife

To deactivate:
While pressing the upper knife release knob (A), turn the knob clockwise (B) and set the setting mark to [ ].

③ Setting mark

To activate:
While pressing the upper knife release knob (A), turn the knob clockwise (B) and set the setting mark to [ ].



Cutting Width Adjustment

⚠ CAUTION

Turn the power switch OFF before adjusting the cutting width.

When the cutting width is too narrow or too wide for the seam width, adjust it by turning the cutting width adjusting dial.

① Cutting width adjusting dial

Turn the cutting width adjusting dial to get the desired position of the lower knife.

When the lower knife is set to the standard position, the right edge of the lower knife is aligned with the guide line on the needle plate.

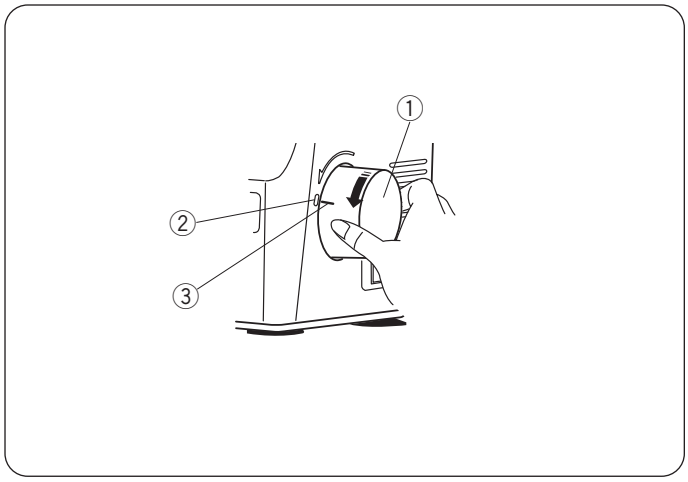
② Standard position
③ Lower knife
④ Guide on the needle plate
⑤ Edge of fabric

If the cutting width is too narrow ⑥, turn the cutting width adjusting dial clockwise (to the direction of A).
The lower knife moves to right.

If the cutting width is too wide ⑦, turn the cutting width adjusting dial counterclockwise (to the direction of B).
The lower knife moves to left.

Sew and check the cutting width.

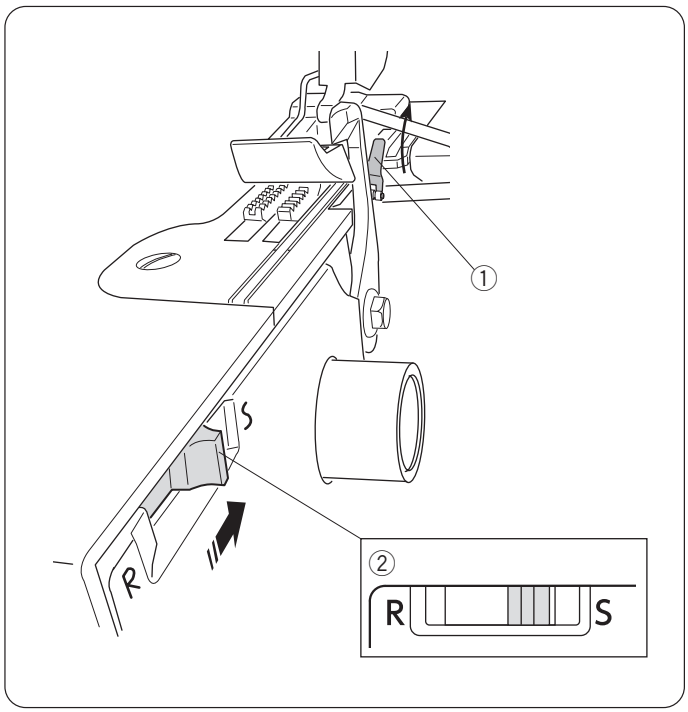
Chaining Finger Switch Knob Adjustment (Changing to Standard Serging or Rolled Hemming)



⚠ CAUTION
Turn the power switch OFF before adjusting the chaining finger switch knob.

The chaining finger switch knob is connected to the chaining finger.
The chaining finger slides back and forth when you set the chaining finger switch knob to “S” or “R”.
Turn the handwheel toward you to match the “0” mark on the belt cover with the “–” mark on the handwheel.

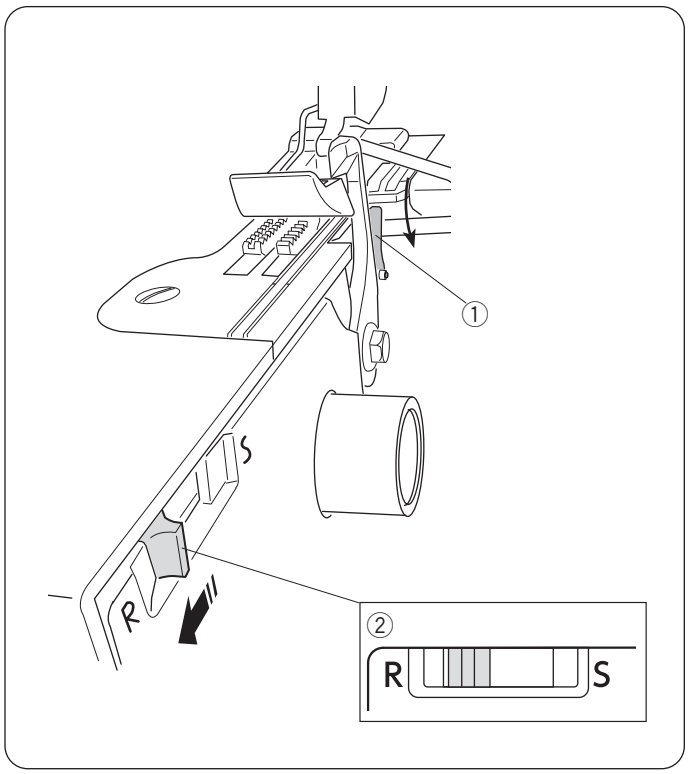
① Handwheel
② “0” mark
③ “–” mark



Standard serging

The chaining finger is located beside the needle plate.
Turn the chaining finger switch knob to “S” for standard serging.

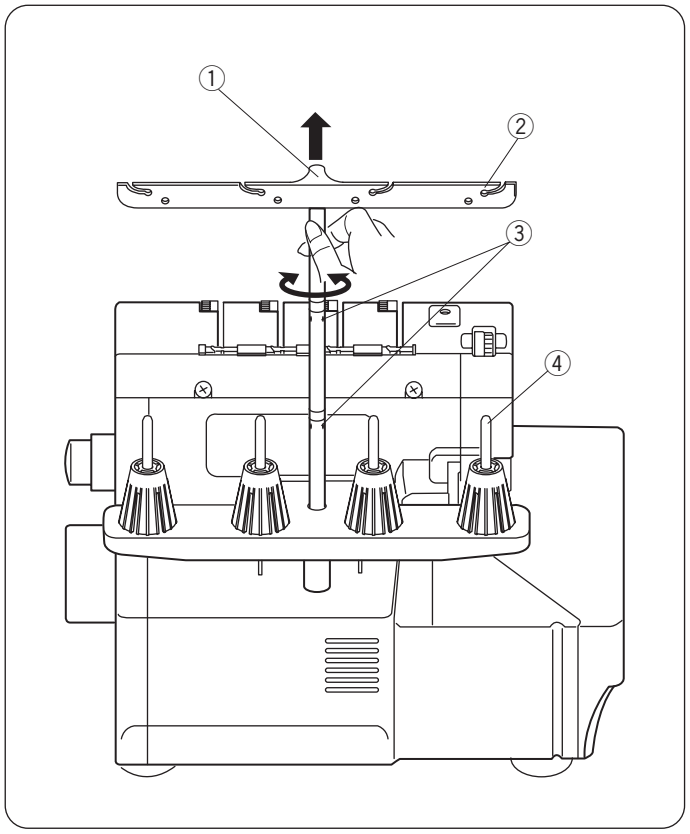
① Chaining finger
② Chaining finger switch knob



Rolled hemming

Turn the chaining finger switch knob to “R” for rolled for hemming, picot edging or narrow hemming sewing.

① Chaining finger
② Chaining finger switch knob



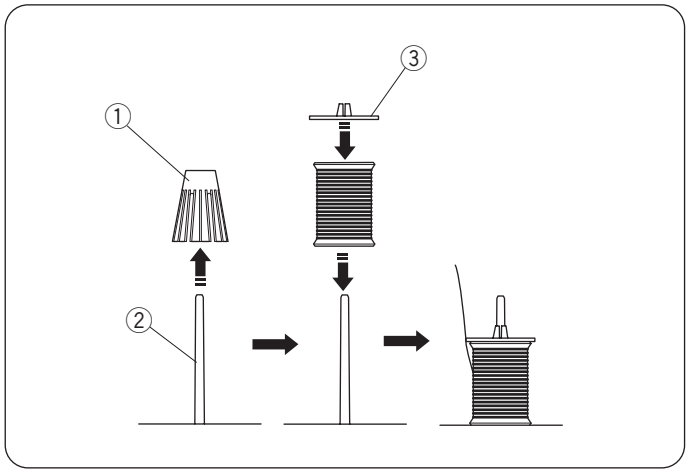
Position of Thread Guide Bar

Pull the thread guide bar up as far as it will go.

① Thread guide bar

Turn the thread guide bar until it snaps into place.
Be sure to snap both stoppers into places.
The thread guide bar is placed right above the spool pins as shown.

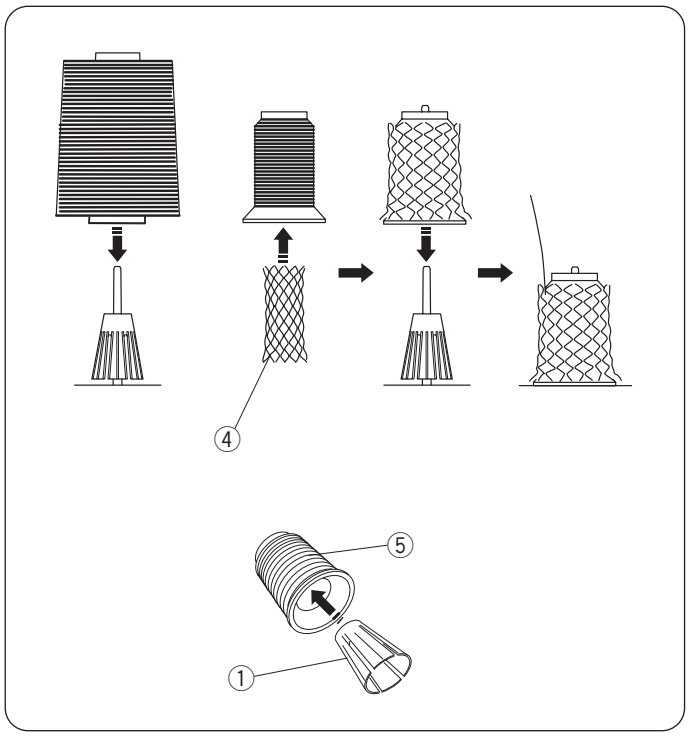
② Thread guide
③ Stopper
④ Spool pin



Attaching the Spool Holder Cap and Net

When you use a small thread spool, pull out the spool holder from the spool pin.
Place the spool with its slit side up, and put the spool holder cap on top of it.

① Spool holder
② Spool pin
③ Spool holder cap

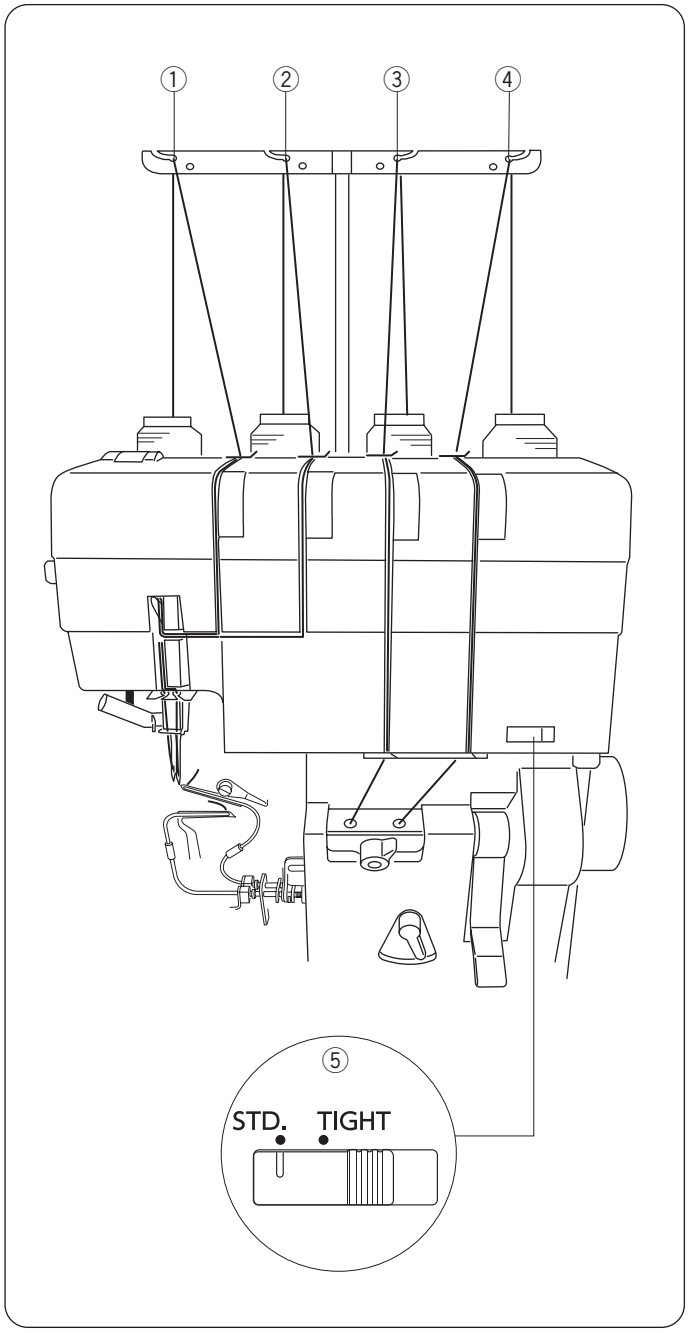


If the thread slips down from the spool during threading and/or sewing, put a net on the spool as illustrated to prevent jamming.

④ Net

* Firmly insert the spool holder into the spool.

① Spool holder
⑤ Spool



MACHINE THREADING

Threading the Machine (4 threads)

⚠ CAUTION
Turn the power switch OFF before threading the machine.

NOTE:
- The looper threader can be used with standard threads #60 - #100.
- The looper threader cannot be used with special threads, such as wooly nylon, gold thread, etc. For threading, refer to “Using the looper threading wire” (page 26) or “Using a standard thread” (page 27).
- For general sewing, standard threads #60 - #100 are used as needle thread.
- Do not use poor quality thread.

Preparation

Pull the thread guide bar up as far as it will go, and set the spools (refer to page 14).
Raise the presser foot lifter (refer to page 9).
Open the looper cover (refer to page 8).

Lower looper pre-tension setting slider

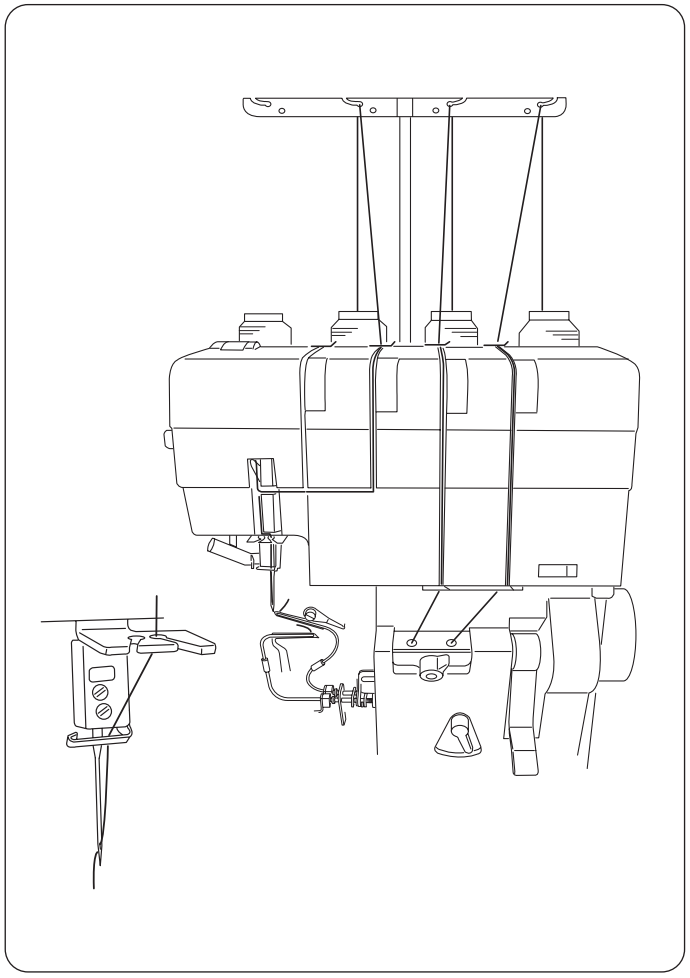
The lower looper pre-tension setting slider adjusts the lower looper tension.
Set the lower looper pre-tension setting slider to STD. to normal sewing.

⑤ Lower looper pre-tension setting slider

* Set the lower looper pre-tension setting slider to STD.when threading.

The left illustration shows the completed threading conditions.
Refer to pages 19-21 for threading the lower looper.
Refer to pages 22-24 for threading the upper looper.
Refer to pages 28-30 for threading the right needle.
Refer to pages 31-32 for threading the left needle.

① Left needle thread
② Right needle thread
③ Upper looper thread
④ Lower looper thread



Threading the Machine (3 threads)

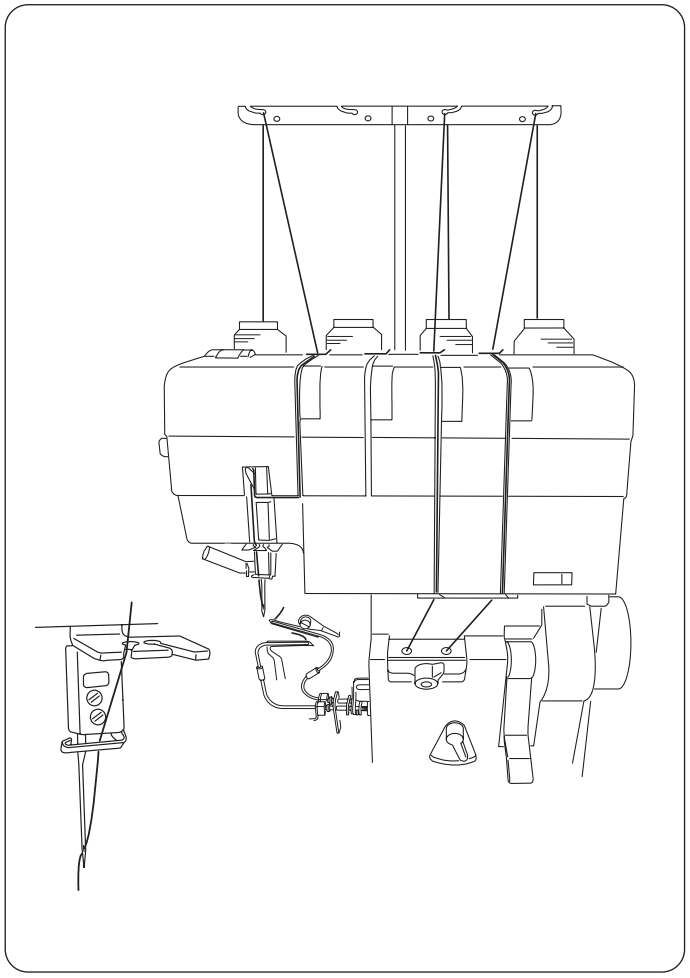
You can sew three-thread serging using the right needle or the left needle.

> **⚠ CAUTION**
> Turn the power switch OFF before threading the machine.

Using the needle on the right only (for regular three-thread serging)

When you use the right needle, the standard sewing width is 3.5 mm.
The left illustration shows the completed threading conditions.
Refer to pages 28-29 for details on how to thread the right needle and page 30 for details on how to use the needle threader.

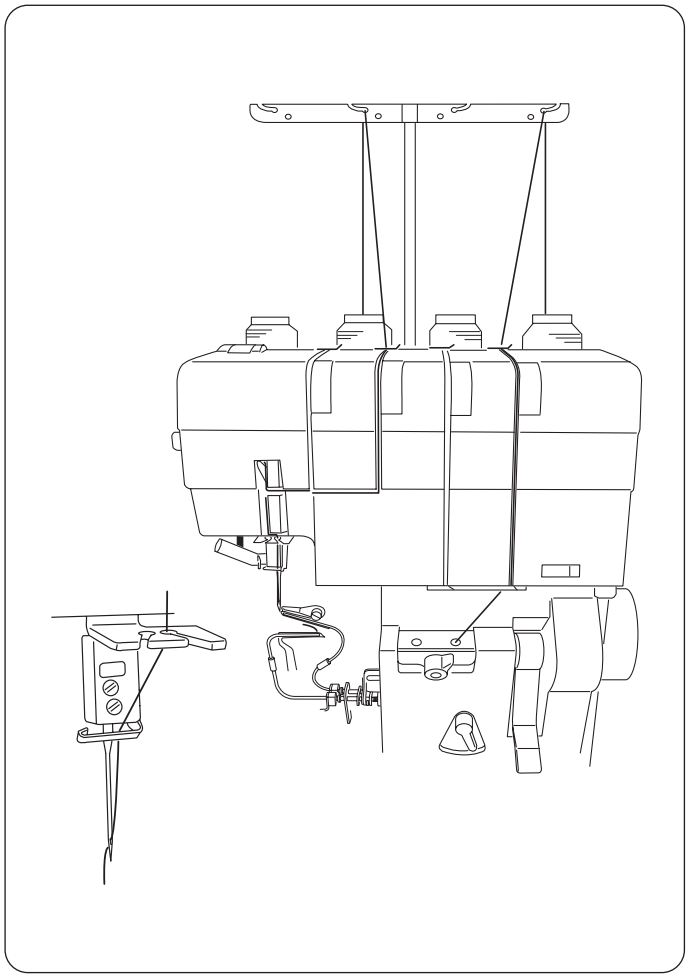
> **NOTE:**
> Partially tighten the needle clamp screw on the side that is not being used to prevent losing the screw (refer to page 10).



Using the needle on the left only (for wide three-thread serging)

When you use the left needle, the standard sewing width is 5.7 mm.
The left illustration shows the completed threading conditions.
Refer to pages 31-32 for details on how to thread the left needle and page 30 for details on how to use the needle threader.

> **NOTE:**
> Partially tighten the needle clamp screw on the side that is not being used to prevent losing the screw (refer to page 10).



Threading the Machine (2 threads)

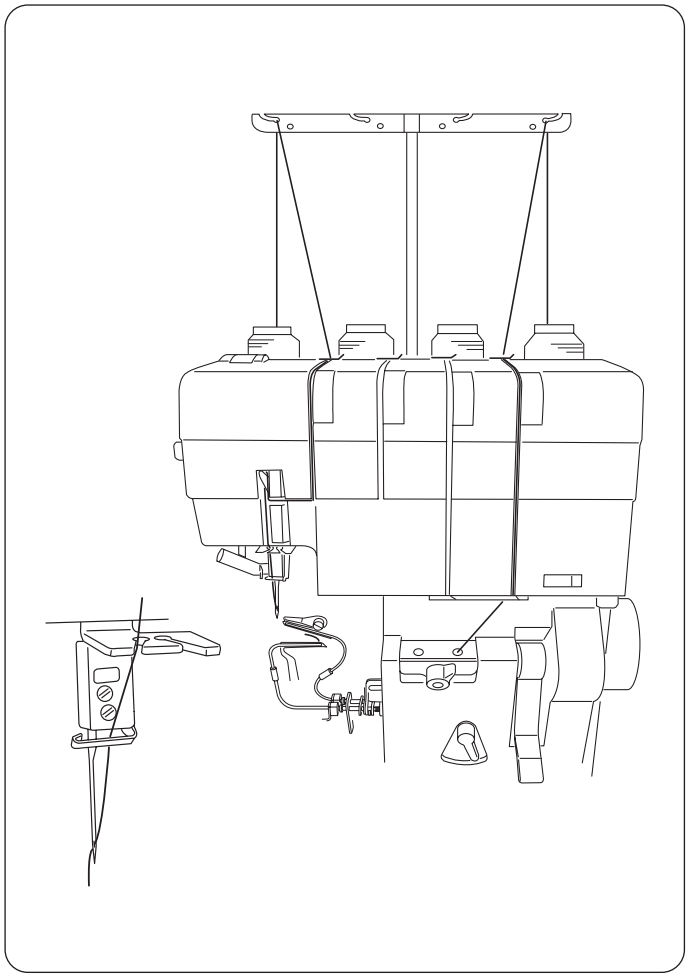
You can sew two-thread serging using the right needle or the left needle.
Use the lower looper and the spreader.
Refer to page 18 for details on how to raise and lower the spreader.

> **⚠ CAUTION**
> Turn the power switch OFF before threading the machine.

Using the needle on the right only (for regular two-thread serging)

When you use the right needle, the standard sewing width is 3.5 mm.
The left illustration shows the completed threading conditions.
Refer to pages 28-29 for details on how to thread the right needle and page 30 for details on how to use the needle threader.

> **NOTE:**
> Partially tighten the needle clamp screw on the side that is not being used to prevent losing the screw (refer to page 10).



Using the needle on the left only (for wide two-thread serging)

When you use the left needle, the standard sewing width is 5.7 mm.
The left illustration shows the completed threading conditions.
Refer to pages 31-32 for details on how to thread the left needle and page 30 for details on how to use the needle threader.

> **NOTE:**
> Partially tighten the needle clamp screw on the side that is not being used to prevent losing the screw (refer to page 10).

Using the Spreader for Two-thread Serging

Use the spreader pin (needle holder) to raise or lower the spreader.

> **⚠ CAUTION**
> Turn the power switch OFF before raising or lowering the spreader.

Raising the spreader

1 Turn the handwheel toward you to match the "0" mark on the belt cover with the "–" mark on the handwheel. Raise the needle.

① Handwheel
② "0" mark
③ "–" mark

2 Insert the spreader pin into the small hole in the spreader and turn the spreader pin counterclockwise until the hook comes to the tip of the upper looper. (Slightly turn the needle holder so that the needle holder does not touch the upper knife.)

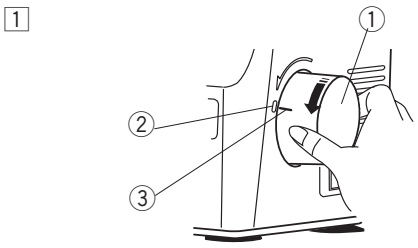
④ Spreader pin
⑤ Hook
⑥ Small hole
⑦ Spreader
⑧ Upper looper
⑨ Upper knife

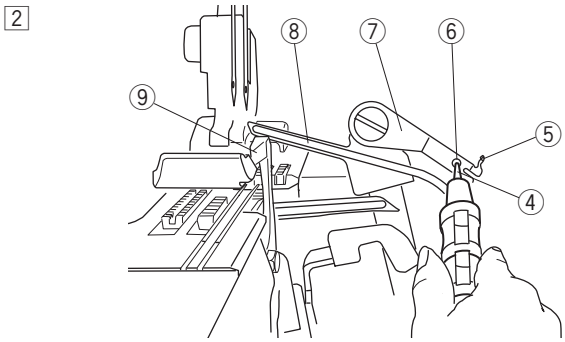
3 Slightly push the spreader pin so that the hook goes behind the bulge of the upper looper and into the hole in the upper looper.

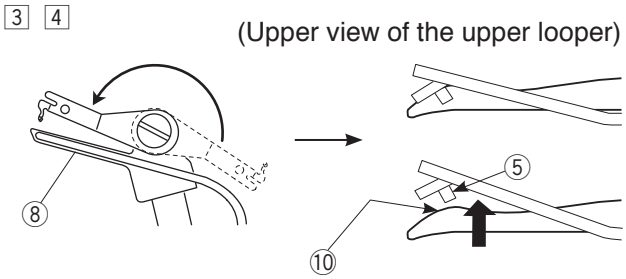
⑩ Bulge

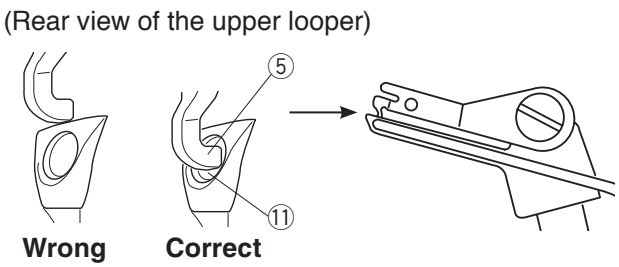
4 Remove the spreader pin from the spreader.

⑪ Hole of upper looper









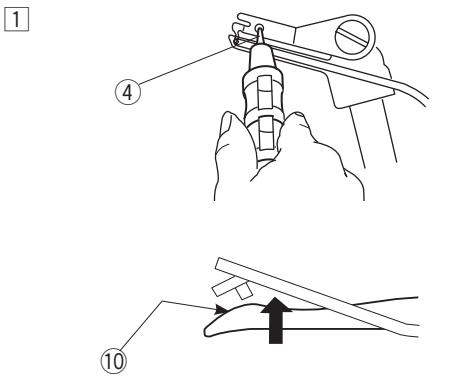
Lowering the spreader

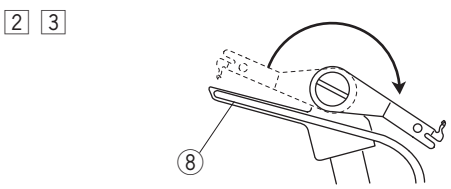
1 Insert the spreader pin into the small hole in the spreader.
Slightly push the spreader and turn it clockwise so that the hook comes over the bulge.
(Slightly turn the needle holder so that the needle holder does not touch the upper knife.)

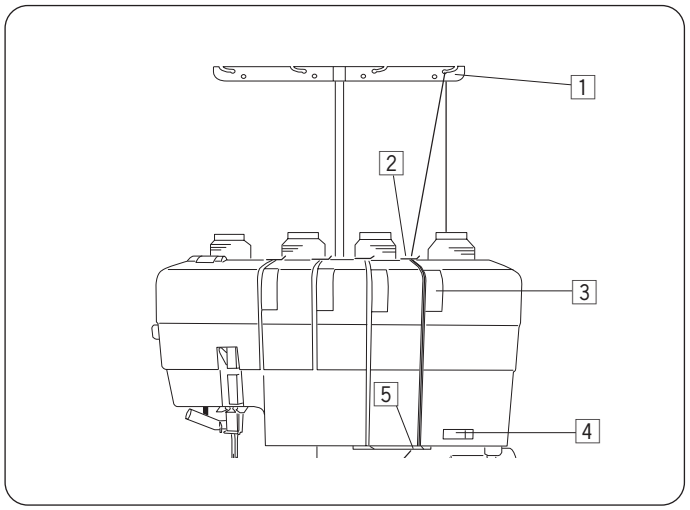
④ Spreader pin
⑧ Upper looper
⑩ Bulge

2 Turn the spreader clockwise to the original position (until the spreader clicks).

3 Remove the spreader pin from the spreader.



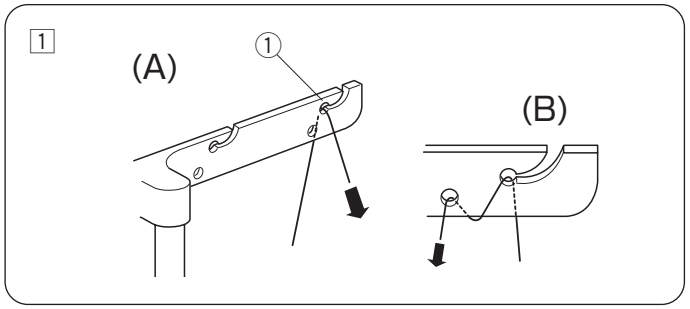




Threading the Lower Looper

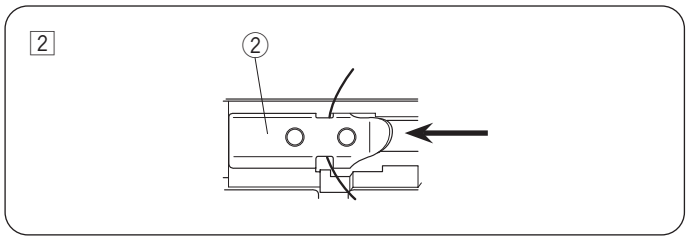
⚠ CAUTION
Turn the power switch OFF before threading the machine.

NOTE:
Raise the presser foot lifter for easier threading.

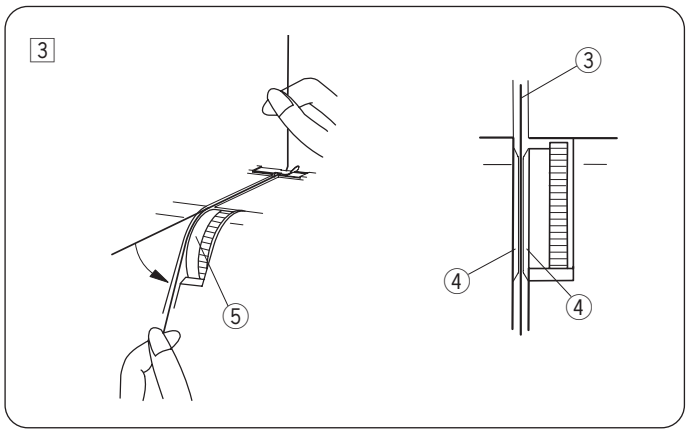


1 Draw the thread through the right side thread guide from back to front: (A)
① Thread guide

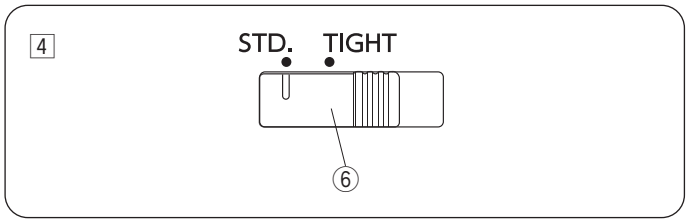
NOTE:
If the thread tends to slip away from the guide while sewing, pass the thread through both thread guide holes as shown: (B)



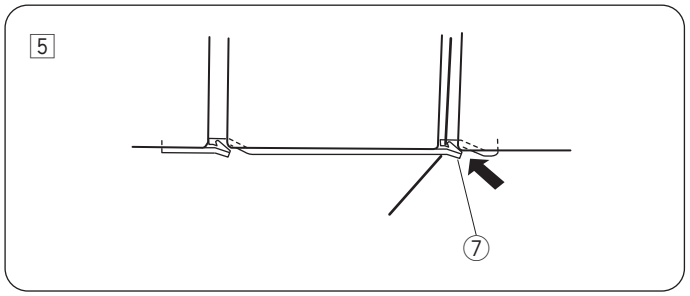
2 Slide the thread under the top cover thread guide as illustrated.
② Top cover thread guide



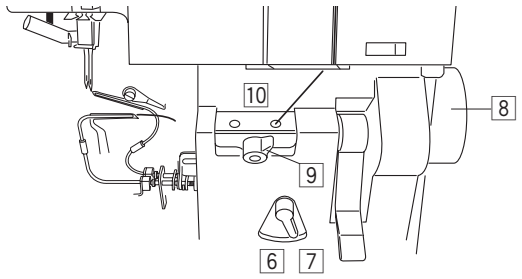
3 Pull the thread along the slit.
Using both hands, insert the thread between the tension disks of the lower looper thread tension dial.
③ Thread
④ Tension disk
⑤ Lower looper thread tension dial



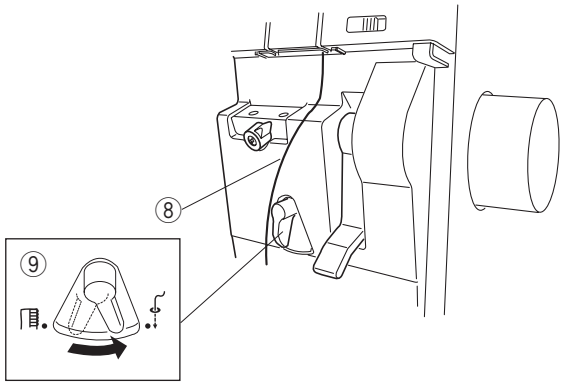
4 Set the lower looper pre-tension setting slider to STD.
⑥ Lower looper pre-tension setting slider



5 Draw the thread along the slit and pass it through the right slit of the looper thread guide.
⑦ Right slit of looper thread guide



6 7



6 Pull out approximately 12″ (30 cm) of thread. Make sure that the thread does not get tangled around the lever or the cover.

⑧ Thread

7 Set the looper threader switch lever to the “THREADING” position.

⑨ Looper threader switch lever

Adjusting the looper threader switch lever

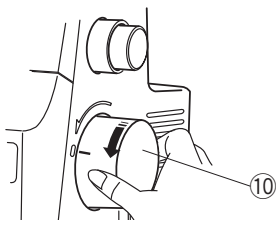
Set the looper threader lever to the “THREADING” position by turning it to the right.



Set the looper threader lever to the “SEWING” position by turning it to the left.



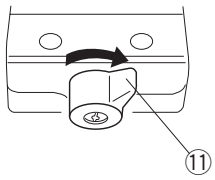
8



8 Turn the handwheel toward you slowly until it clicks. This locks the handwheel in place.

⑩ Handwheel

9

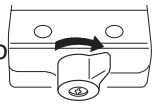


9 Turn the looper selection lever to the “LOWER LOOPER” position.

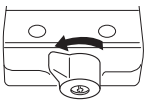
⑪ Looper selection lever

Looper selection lever

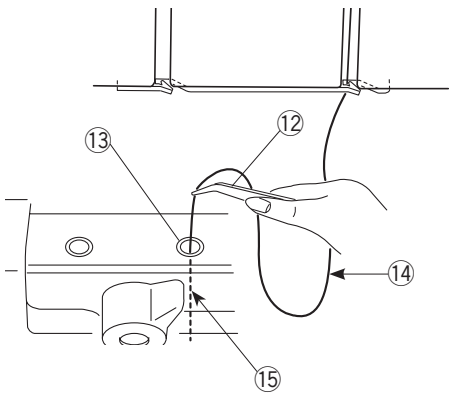
Turn the looper selection lever to the right to thread the lower looper.



Turn the looper selection lever to the left to thread the upper looper.



10

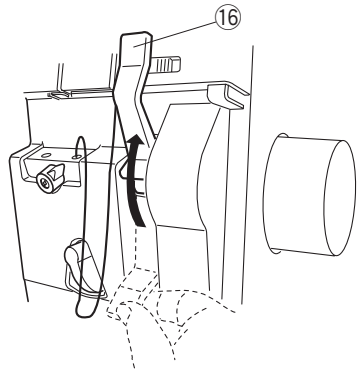


10 Using the tweezers, insert the end of the thread 2 cm or more into the threading hole on the right.

⑫ Tweezers
⑬ Threading hole on the right
⑭ Thread (30 cm or longer)
⑮ Thread end (2 cm or longer)

NOTE:
- Trim the thread end so that it can be inserted into the threading hole smoothly.
- If threading special threads, such as wooly nylon, etc., refer to pages 26 and 27.

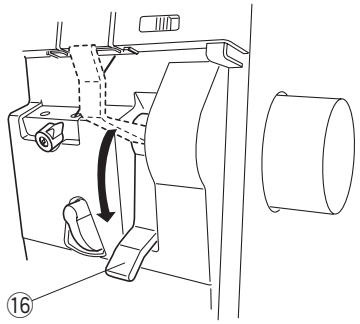
11



11 Raise the looper threader lever until it clicks into place.

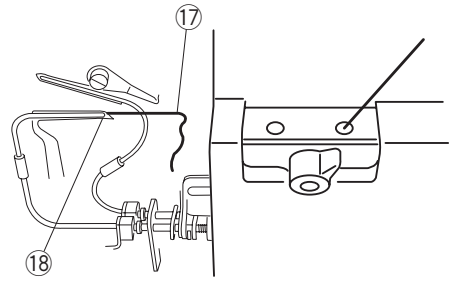
⑯ Looper threader lever

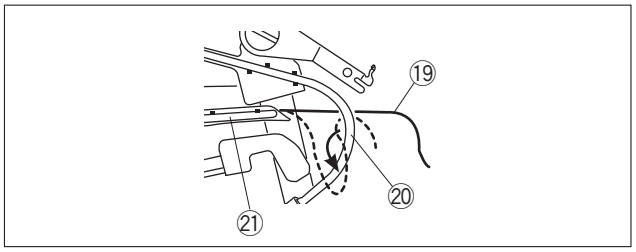
12



12 Lower the looper threader lever until it knocks into place.

13





13 Make sure that the thread comes out from the hole of the lower looper tip.

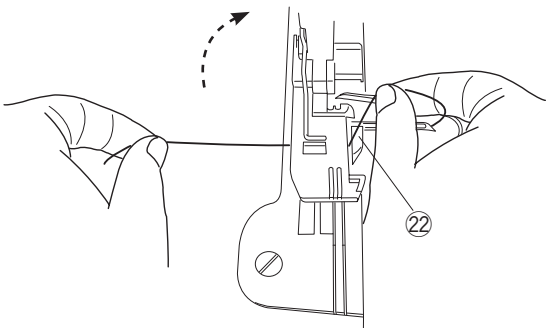
⑰ Thread end
⑱ Hole of lower looper tip

* If the thread does not come out from the hole, follow the procedure from step 11 again.

* If the thread comes out behind the pipe, use the tweezers to draw the thread toward you between the lower looper and the pipe.

⑲ Thread (behind the pipe)
⑳ Pipe
㉑ Lower looper

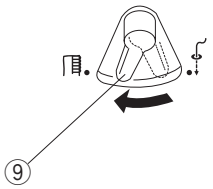
14



14 Draw 4″ (10 cm) of the thread under the toe of the foot, and pull it to the rear between the foot and the upper knife.

㉒ Upper knife

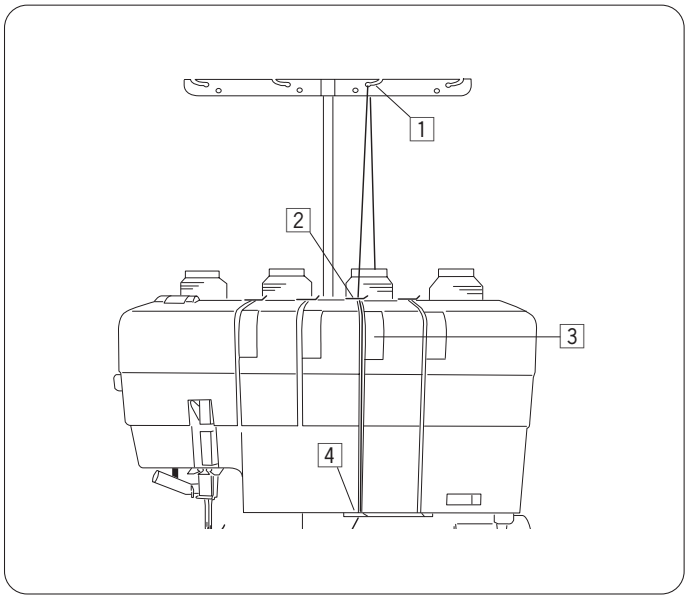
15



15 Return the lower threader switch lever to the “SEWING” position.

⑨ Lower threader switch lever

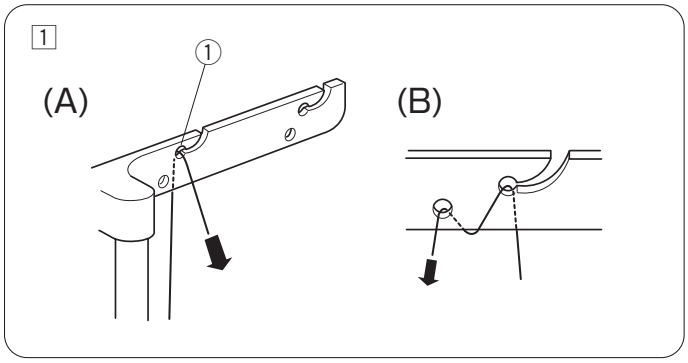
Close the looper cover and lower the presser foot lifter.



Threading the Upper Looper

⚠ CAUTION
Turn the power switch OFF before threading the machine.

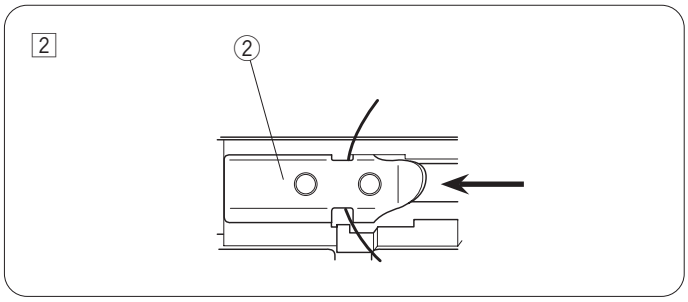
NOTE:
Raise the presser foot lifter for easier threading.



1 Draw the thread through the thread guide from back to front: (A)

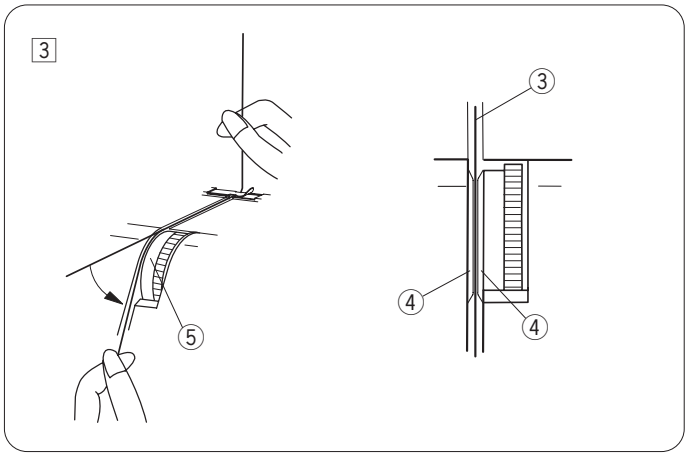
① Thread guide

NOTE:
If the thread tends to slip away from the guide while sewing, pass the thread through both thread guide holes as shown: (B)



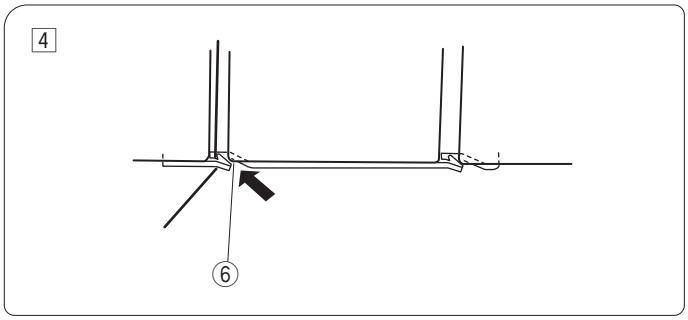
2 Slide the thread under the top cover thread guide as illustrated.

② Top cover thread guide



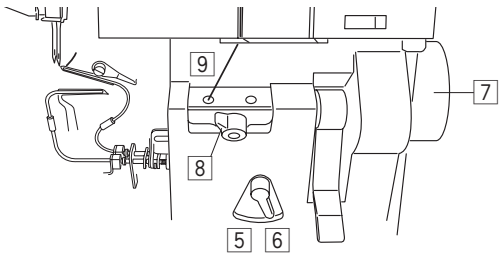
3 Pull the thread along the slit.
Using both hands, insert the thread between the tension disks of the upper looper thread tension dial.

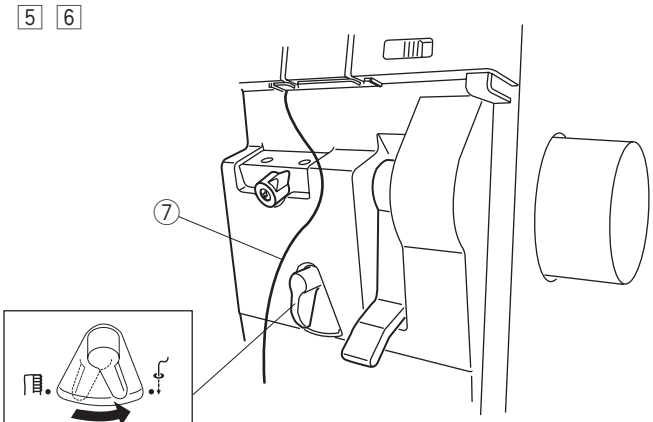
③ Thread
④ Tension disk
⑤ Upper looper thread tension dial



4 Draw the thread along the slit and pass it through the left slit of the looper thread guide.

⑥ Left slit of looper thread guide





5 Pull out approximately 12″ (30 cm) of thread. Make sure that the thread does not get tangled around the lever or the cover.

⑦ Thread

6 Set the looper threader switch lever to the “THREADING” position.

⑧ Looper threader switch lever

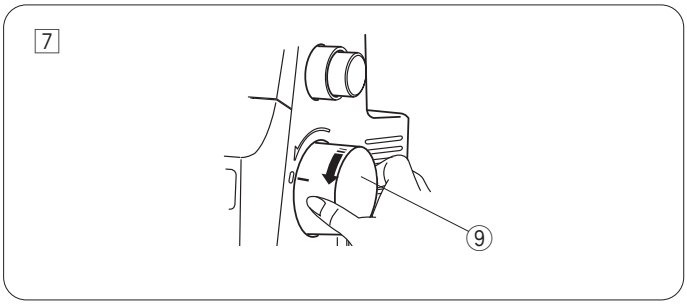
Adjusting the looper threader switch lever

Set the looper threader lever to the “THREADING” position by turning it to the right.



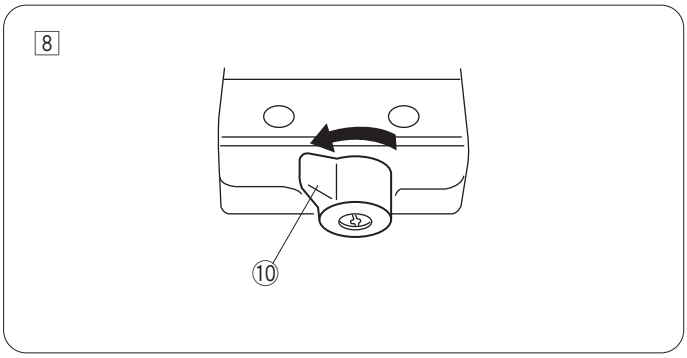
Set the looper threader lever to the “SEWING” position by turning it to the left.





7 Turn the handwheel toward you slowly until it clicks. This locks the handwheel in place.

⑨ Handwheel

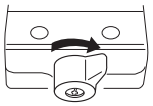


8 Turn the looper selection lever to the “UPPER LOOPER” position.

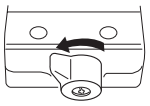
⑩ Looper selection lever

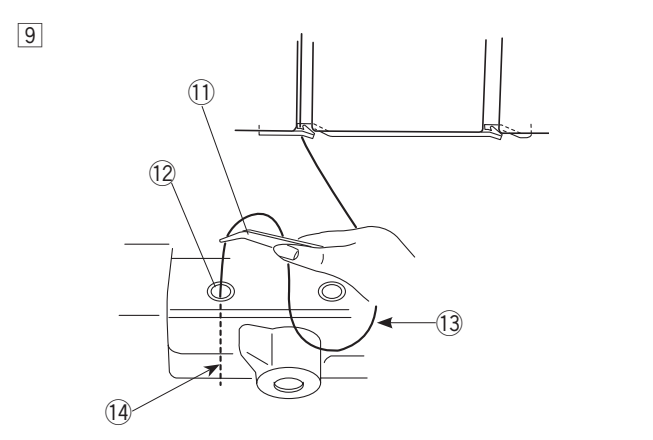
Looper selection lever

Turn the looper selection lever to the right to thread the lower looper.



Turn the looper selection lever to the left to thread the upper looper.

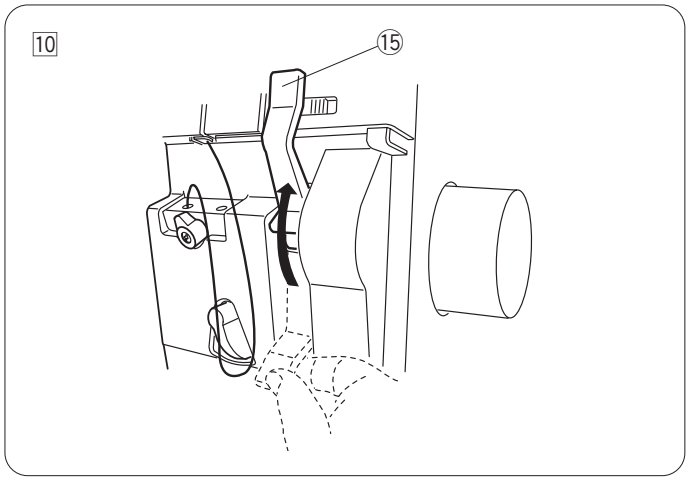




9 Using the tweezers, insert the end of the thread 1″ (2 cm) or more into the threading hole on the right.

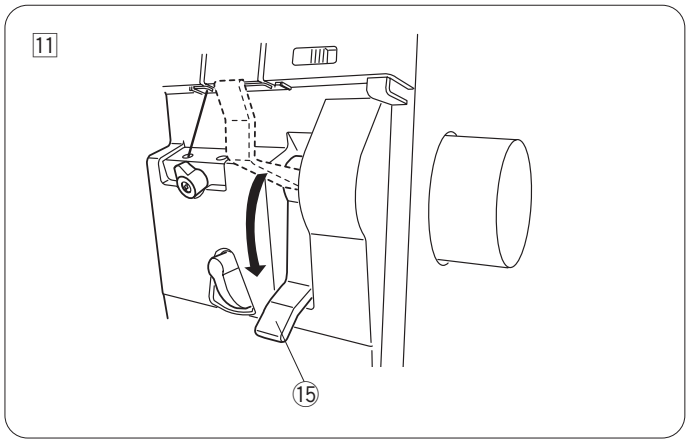
⑪ Tweezers
⑫ Threading hole on the right
⑬ Thread (12″ (30 cm) or longer)
⑭ Thread end (1″ (2 cm) or longer)

NOTE:
- Trim the thread end so that it can be inserted into the threading hole smoothly.
- If threading special threads, such as wooly nylon, etc., refer to pages 26 and 27.

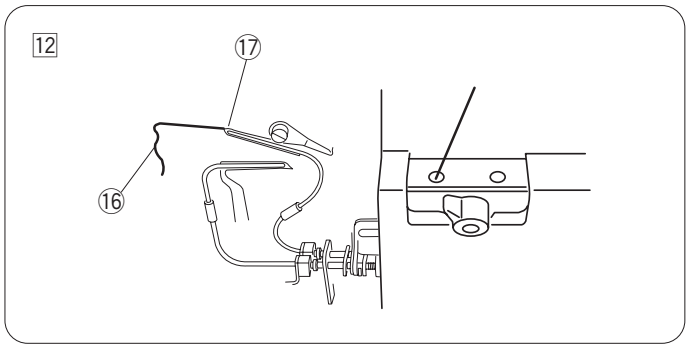


10 Raise the looper threader lever until it clicks into place.

⑮ Looper threader lever



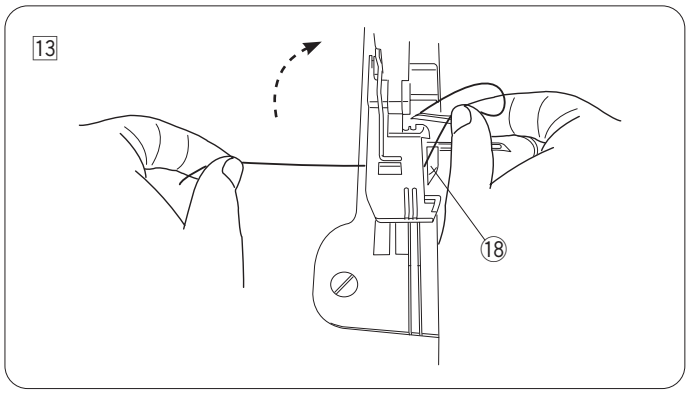
11 Lower the looper threader lever until it knocks into place.



12 Make sure that the thread comes out from the hole of the upper looper tip.

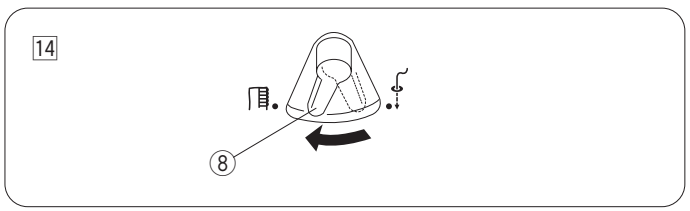
⑯ Thread end
⑰ Hole of lower looper tip

NOTE:
If the thread does not come out from the hole, follow the procedure from step 10 again.



13 Draw 4″ (10 cm) of the thread under the toe of the foot, and pull it to the rear between the foot and the upper knife.

⑱ Upper knife



14 Return the lower threader switch lever to the “SEWING” position.

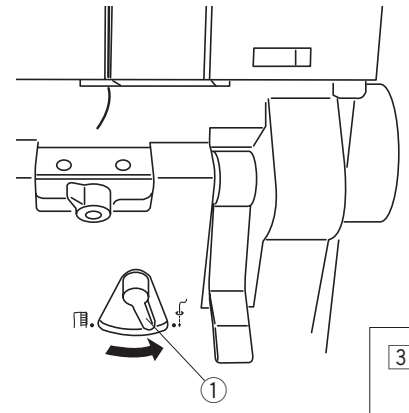
⑧ Lower threader switch lever

Close the looper cover and lower the presser foot lifter.

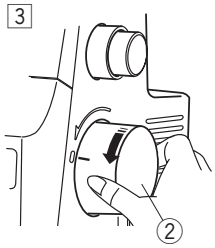
Instructions for using the looper threader

1. If either the upper or lower looper thread breaks while sewing, cut both of the upper and lower threads in front of the threading holes, and remove the thread from the holes. Rethread both of the threads.
2. When the looper threader switch lever is in the “THREADING” position, the handwheel is locked. Even if the foot control is depressed, the handwheel does not rotate.
   Do not turn the handwheel. Doing so may cause malfunction.
3. After threading loopers, lower the looper threader lever and return the looper threader switch lever to “SEWING” position. 

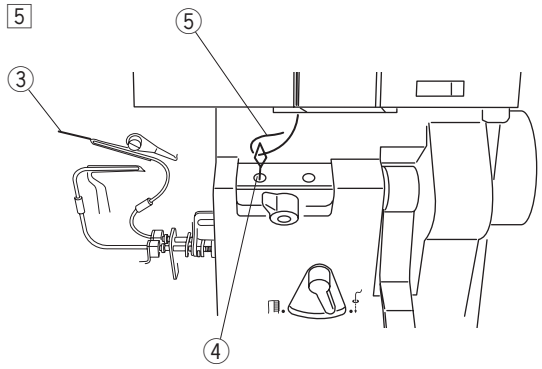
1 2



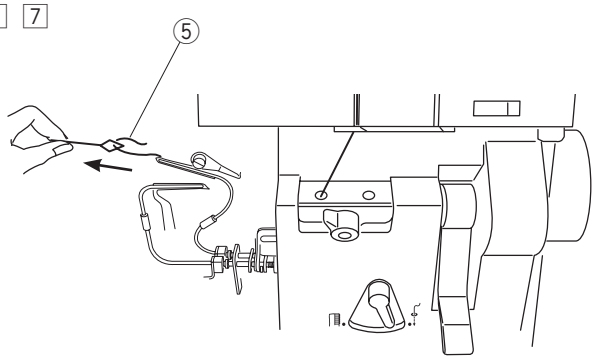
3



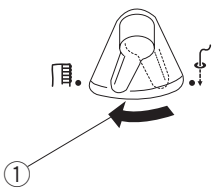
4 5



6 7



8



Threading Loopers with the Looper Threading Wire or Standard Thread

If the looper threads are made from materials that are difficult to thread, such as wooly nylon, there are 2 ways to thread the looper threads:

- Use the looper threading wire (looper threader)
- Tie the thread to standard thread, which you then use to thread.

⚠ CAUTION
Turn the power switch OFF before threading the machine.

⚠ CAUTION
Do not raise or lower the looper thread lever while threading.

Using the looper threading wire

1 Pass the thread up to the looper thread guide (before the looper threader hole).

2 Set the looper threader switch lever to the "THREADING" position.
① Looper threader switch lever

3 Turn the handwheel toward you slowly until it clicks. This locks the handwheel in place.
② Handwheel

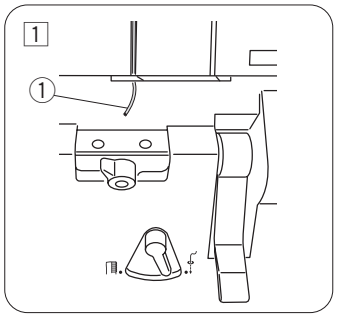
4 Pass the straight end (not the loop end) through the looper threader hole until it comes out from the the hole of the looper tip.
③ Loose end of looper threading wire
④ Looper threader hole

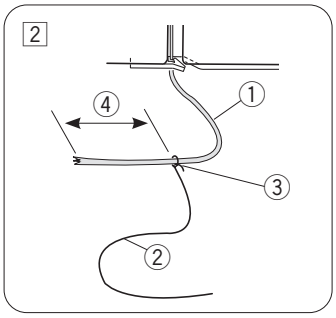
5 Pass approximately 2″ (5 cm) thread through the loop of the looper threading wire.
⑤ Thread

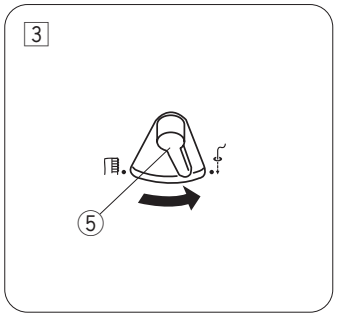
6 Pull the loose end of the looper threading wire until the thread comes out from the hole of the looper tip.

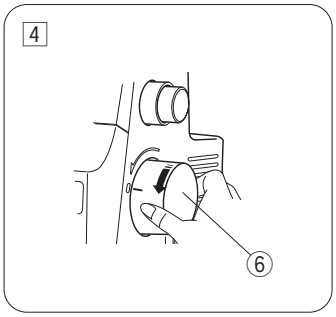
7 Remove the thread from the looper threading wire.

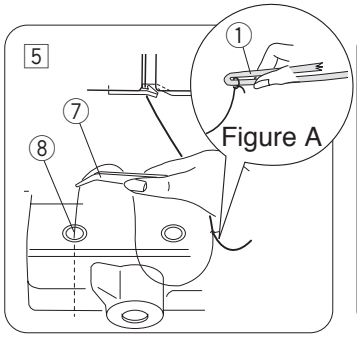
8 Return the looper threader switch lever to the "SEWING" position.

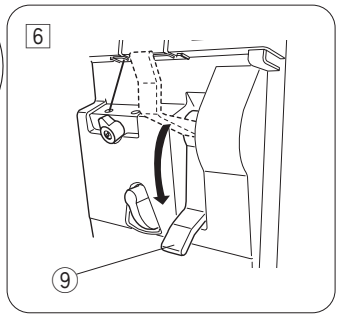


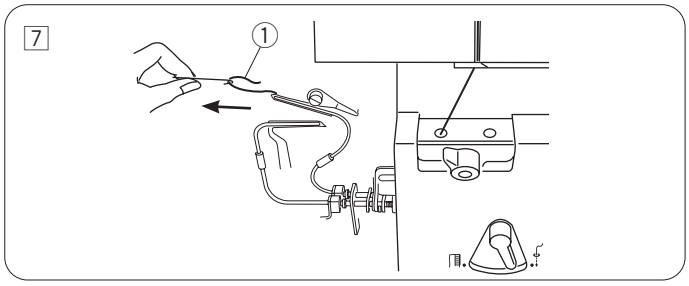


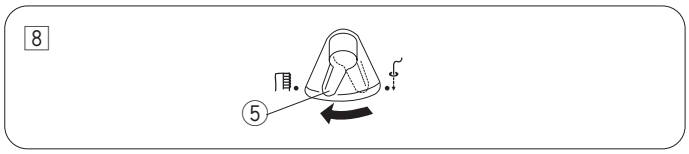


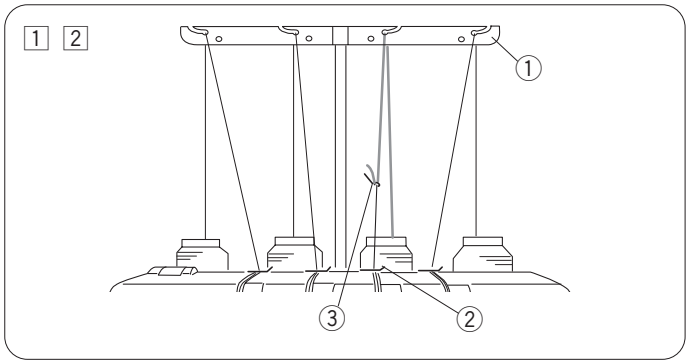


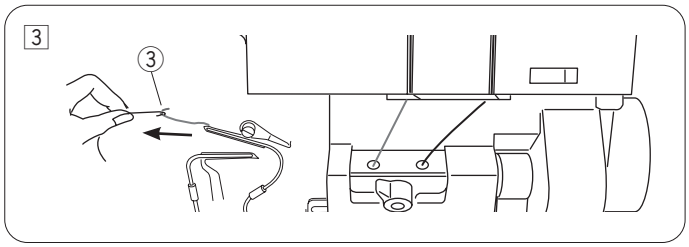












Using a standard thread

1 Pass the thread up to the looper thread guide (in front of the looper threader hole).

① Looper thread

2 Prepare 12″ (30 cm) of a standard thread and tie it 5 cm from the end of the looper thread as shown.

② Standard thread
③ Knot
④ 5 cm

NOTE:
when tying the standard thread to the looper thread, tie a knot as small as possible and cut any excess standar thread.

3 Set the looper threader switch lever to “THREADING” position.

⑤ Looper threader switch lever

4 Turn the handwheel toward you slowly until it clicks. This locks handwheel in place.

⑥ Handwheel

5 Using the tweezers, insert approximately 1″ (2 cm) of the standard thread into the threading hole.

⑦ Tweezers
⑧ Looper threader hole

6 Raise the looper threader lever until it clicks into place.
Lower the looper threader lever until it knocks into place.

⑨ Looper threader lever

7 Pull out approximately 4″ (10 cm) of the standard thread from the hole in the looper tip and trim it at the knot.

* When the knot reaches the looper threader hole, fold the loose end of the looper thread as illustrated by figure A in procedure 5.

8 Return the looper threader switch lever to the “SEWING” position.

Replacing threaded looper thread

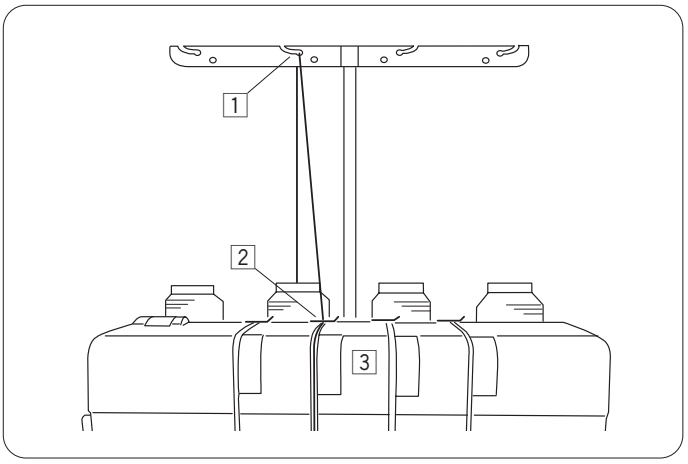
1 Cut the threaded looper thread between the thread guide and the top cover thread guide.

① Thread guide
② Top cover thread guide

2 Set a new spool of looper thread.
Pass the new looper thread through the thread guide, and tie it to the end of the threaded looper thread.
Tie a knot as small as possible.

③ Knot

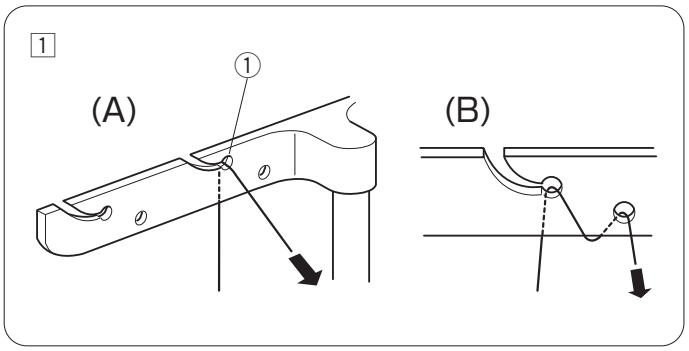
3 Slowly pull the threaded looper thread out from the hole of the looper tip until the knot comes out.



Threading the Right Needle

⚠ CAUTION
Turn the power switch OFF before threading the machine.

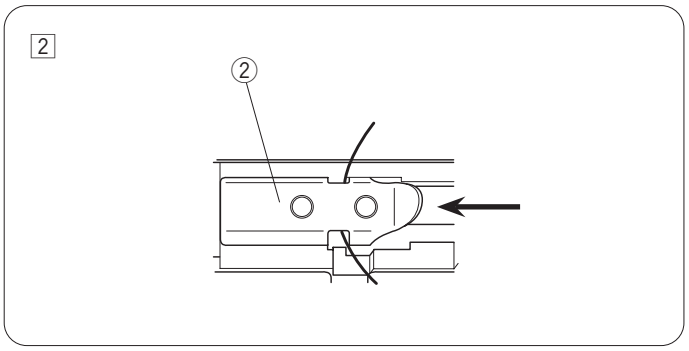
NOTE:
Raise the presser foot lifter for easier threading.



1 Draw the thread through the thread guide from back to front: (A)

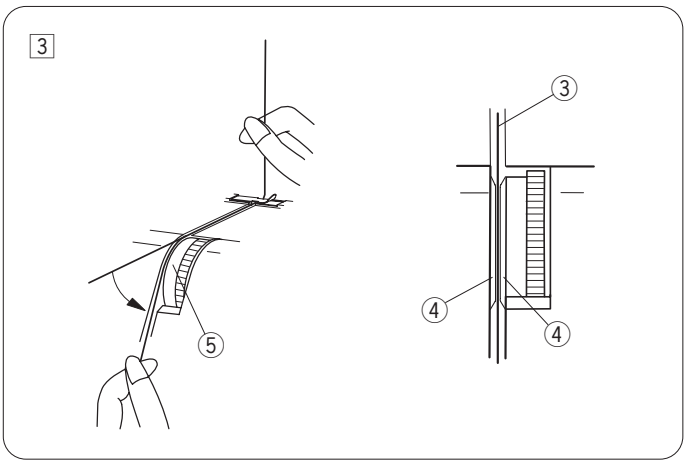
① Thread guide

NOTE:
If the thread tends to slip away from the guide while sewing, pass the thread through both thread guide holes as shown: (B)



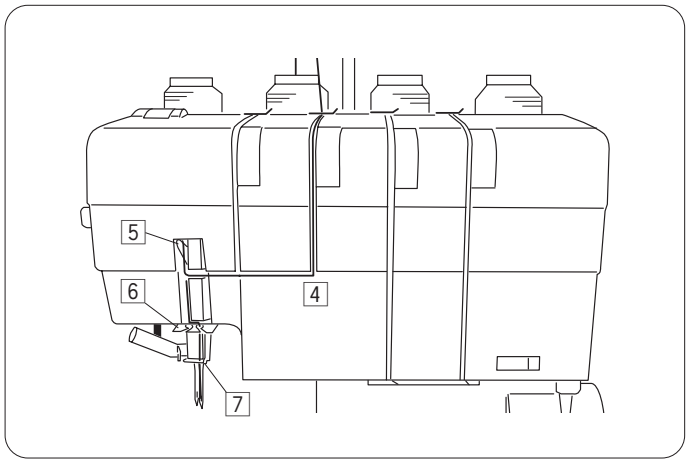
2 Slide the thread under the top cover thread guide as illustrated.

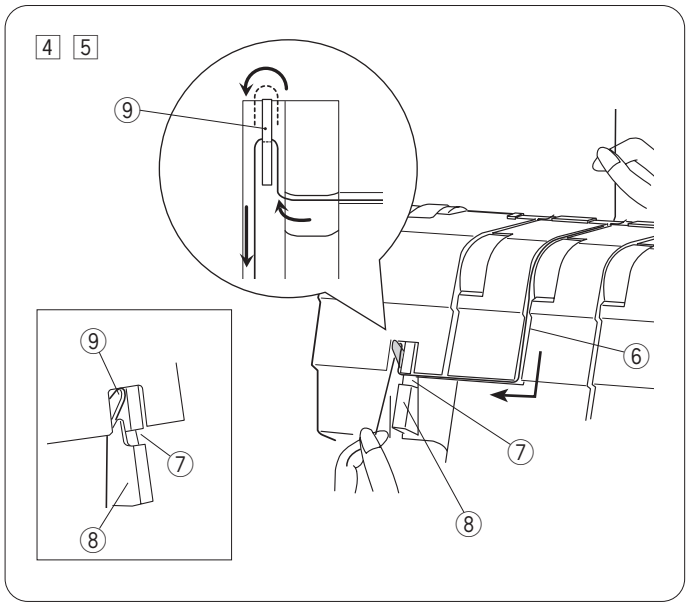
② Top cover thread guide



3 Pull the thread along the slit.
Using both hands, insert the thread between the tension disks of the right needle thread tension dial.

③ Thread
④ Tension disk
⑤ Right needle thread tension dial



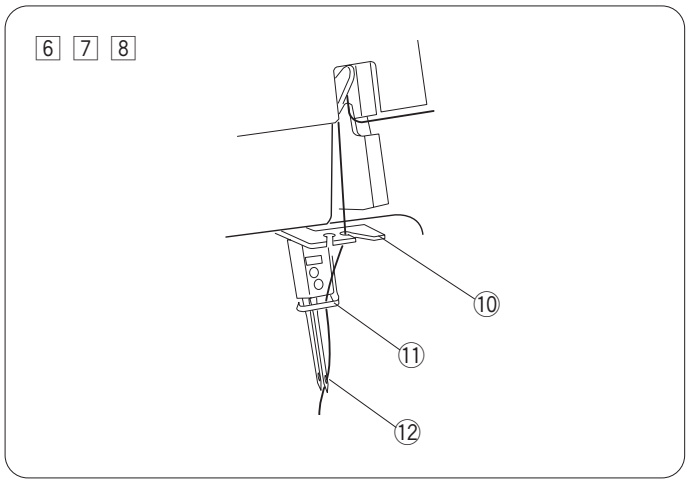


4 Pull the thread down along the slit and draw it to the left through the thread path.

⑥ Slit
⑦ Thread path

5 Pull the thread up and along the left side of the thread take-up lever cover and pass it over the take-up lever thread guide.

⑧ Thread take-up lever cover
⑨ Thread take-up lever thread guide



6 Pass the thread through the right slit of the needle thread guide.

⑩ Needle thread guide

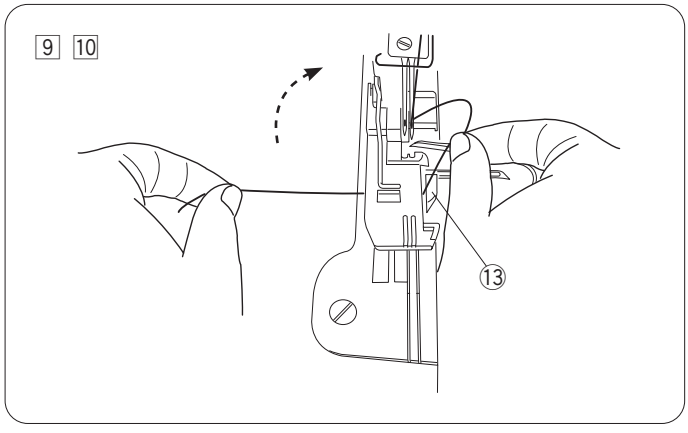
7 Pass the thread through the needle bar thread guide from left to right.

⑪ Needle bar thread guide

8 Thread the right needle from front to back.

⑫ Right needle

* Use the needle threader (refer to page 30).



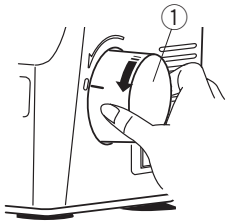
9 Pull out approximately 4″ (10 cm) of thread from the needle and slide it under the foot so that it runs in between the foot and the upper knife.

⑬ Upper knife

10 Close the looper cover and lower the presser foot lifter.

* Refer to pages 31 and 32 for details on how to thread the left needle.

1

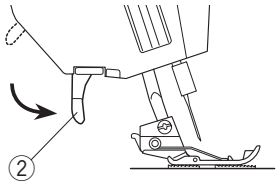


Using the needle threader

Following the procedure 7 on page 29 or page 32, thread the needles with the needle threader shown below.

⚠ CAUTION
Turn the power switch OFF before threading the machine.

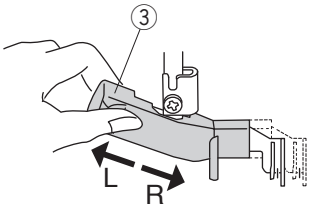
2



1 Turn the handwheel toward you to match the "0" mark on the belt cover with the "–" mark on the handwheel.
① Handwheel

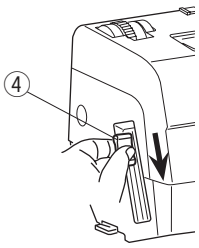
2 Lower the presser foot lifter.
② Presser foot lifter

3



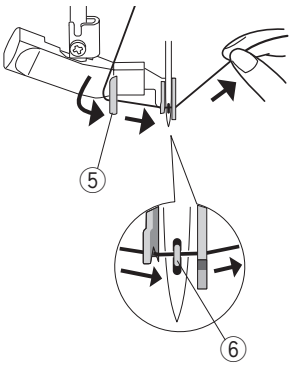
3 Set the needle threader switch lever to R when threading the right needle.
Set the needle threader switch lever to L when threading the left needle.
③ Needle threader switch lever

4



4 Pull down the needle threader lever as far as it will go.
④ Needle threader lever

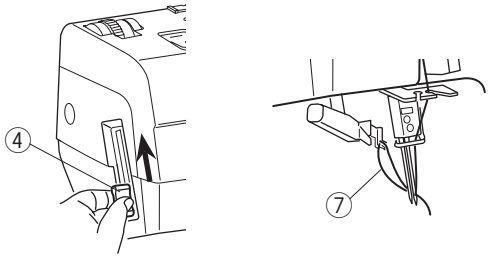
5



5 Draw the thread along the guide on the needle threader switch lever from the left and under the hook.
⑤ Guide
⑥ Hook

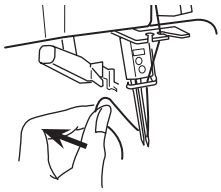
* Make sure that the thread or your finger does not touch the upper looper or the upper knife.

6

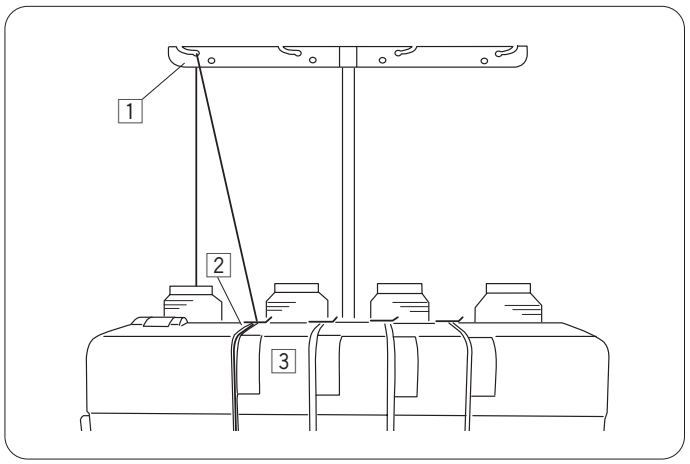


6 Slowly raise the threader lever so that a loop of the thread is pulled up through the needle.
④ Needle threader lever
⑦ Loop

7



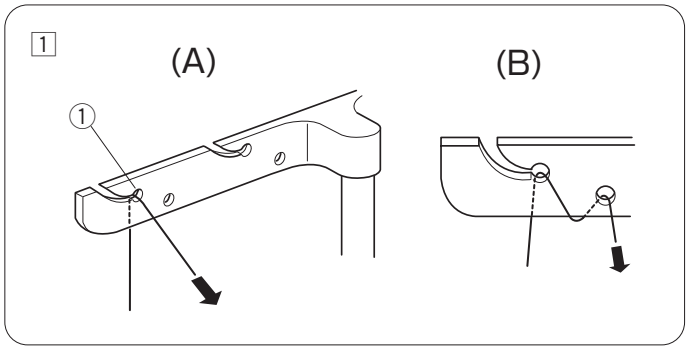
7 Pull the thread loop and draw out the thread end to the rear through the needle eye.



Threading the Left Needle

⚠ CAUTION
Turn the power switch OFF before threading the machine.

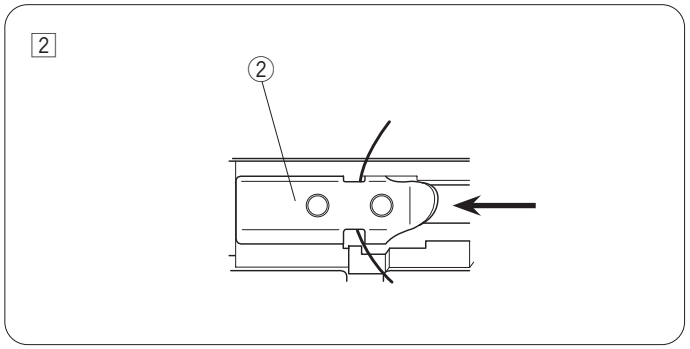
NOTE:
Raise the presser foot lifter for easier threading.



1 Draw the thread through the thread guide from back to front: (A)

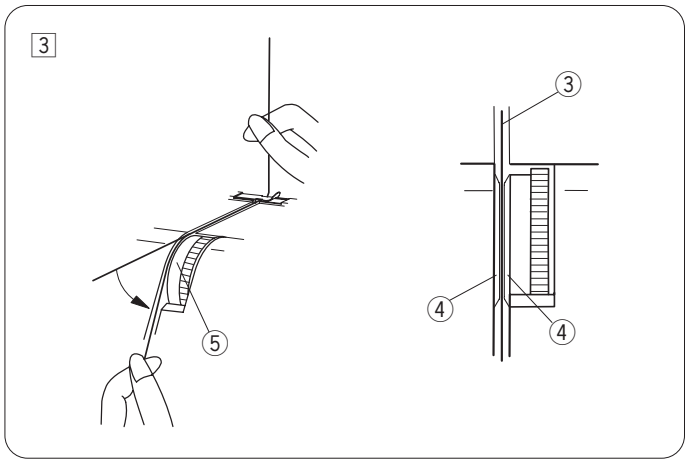
① Thread guide

NOTE:
If the thread tends to slip away from the guide while sewing, pass the thread through both thread guide holes as shown: (B)



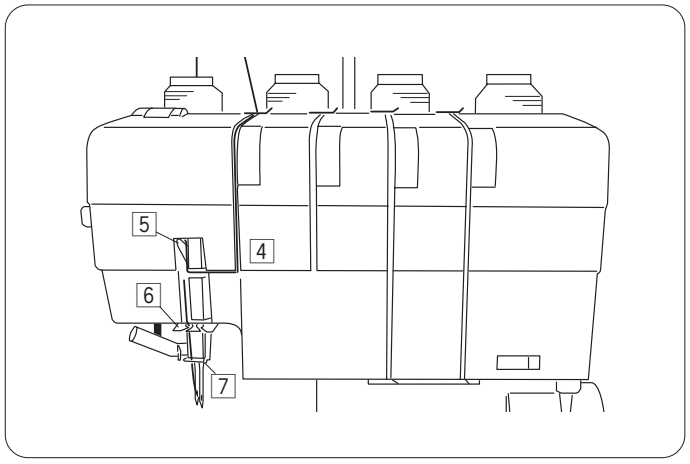
2 Slide the thread under the top cover thread guide as illustrated.

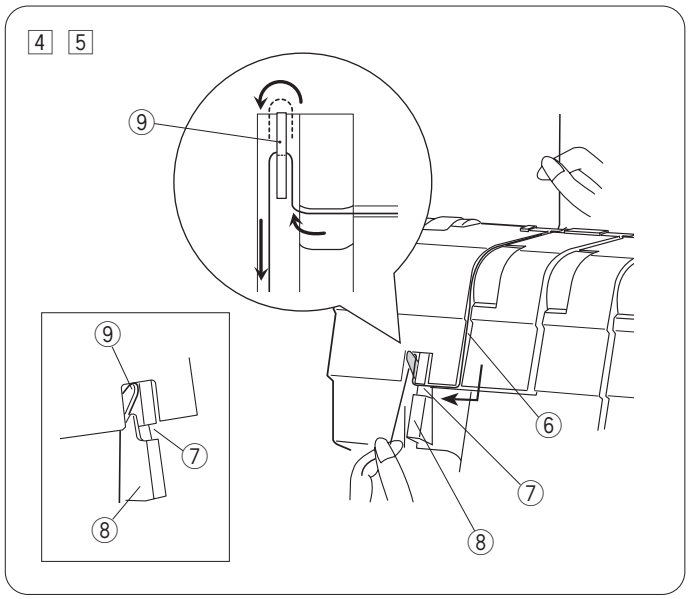
② Top cover thread guide



3 Pull the thread along the slit.
Using both hands, insert the thread between the tension disks of the left needle thread tension dial.

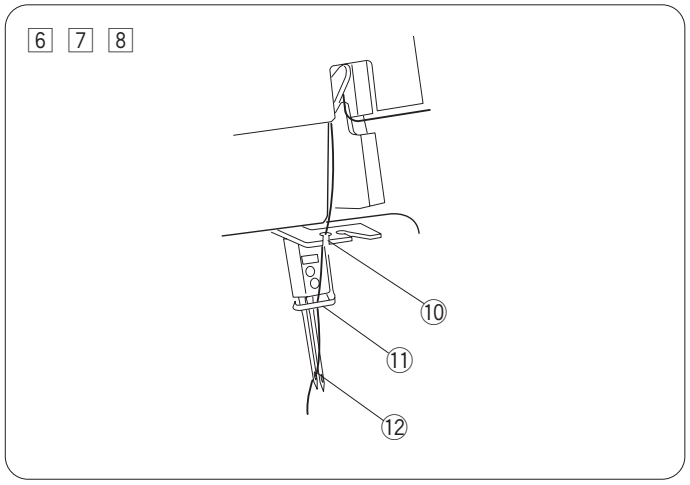
③ Thread
④ Tension disk
⑤ Left needle thread tension dial





4 Pull the thread down and along the slit and draw it to the left through the thread path.
- ⑥ Slit
- ⑦ Thread path

5 Pull the thread up and along the left side of the thread take-up lever cover and pass it over the take-up lever thread guide.
- ⑧ Thread take-up lever cover
- ⑨ Thread take-up lever thread guide

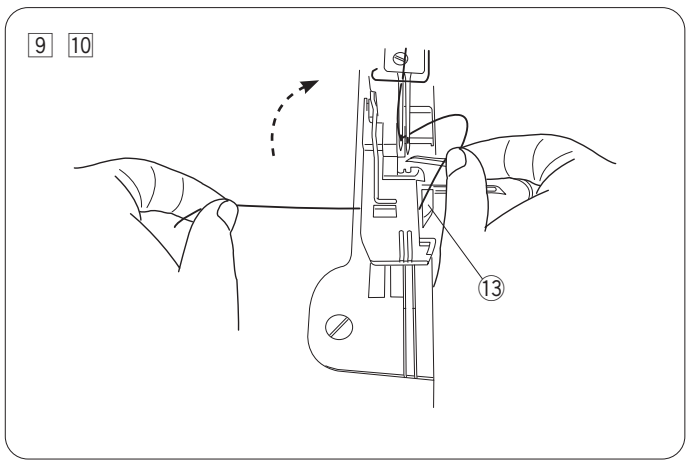


6 Pass the thread through the left slit of the needle thread guide.
- ⑩ Needle thread guide

7 Pass the thread through the needle bar thread guide from left to right.
- ⑪ Needle bar thread guide

8 Thread the left needle from front to back.
- ⑫ Left needle

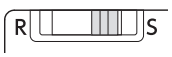
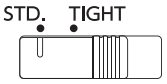
* Use the needle threader (refer to page 30).



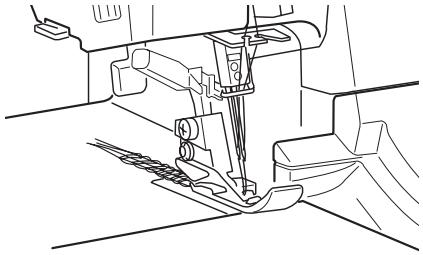
9 Pull out approximately 4″ (10 cm) of thread from the needle and slide it under the foot so that it runs in between the foot and the upper knife.
Refer to pages 28 and 29 for details on how to thread the right needle.
- ⑬ Upper knife

10 Close the looper cover and lower the presser foot lifter.

Thread and Needle Chart

Type of fabric	Thread	Needle	Stitch length dial	Differential feed dial	Chaining finger switch knob	Lower looper pre-tension setting slider	Upper knife
Light weight Organdy, Georgette, Lawn, Crepe de chine, Lining	Synthetic #80-100	HAx1SP #11-14	2.0-3.0	0.5-1.0	S 	STD. 	Activated 
Medium weight Cotton, Linen, Satin, Ordinary fabric	Synthetic #60-100	HAx1SP #14	2.5-3.5	1.0			
Heavy weight Tweed, Coating, Denim, Doeskin, Thick fabric	Synthetic #50-100	HAx1SP #14	3.0-5.0	1.0			
Knits Knitted fabric	Synthetic #60-90 Woolly nylon (for upper looper)	HAx1SP #11-14	2.5-3.5	1.0-2.0			

* For details on how to adjust the stitch length and the differential feed ratio, refer to pages 37-38 (4 threads), page 39 (3 threads) or page 40 (2 threads).
* Use wooly nylon thread as upper looper thread for rolled hemming, picot edging and narrow hemming.



TEST STITCHING

Starting Sewing

1 Close the side cover and the looper cover. Turn the power switch ON.

2 Make sure that the upper knife is activated (in the raised position).

3 Lower the presser foot lifter.

4 Draw all of the threads back under the foot. Slowly run the machine and produce a 2″ (5 cm) thread chain while gently pulling the thread chain to the back. Check the chain.

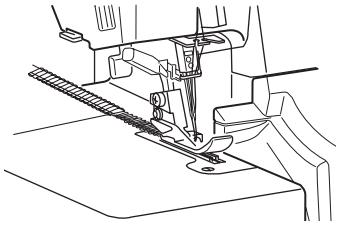
5 Insert the fabric under the toe of the foot. (You do not need to raise the foot.) Start sewing slowly. The fabric will automatically be fed. Guide the fabric in the desired direction.

* For heavyweight fabric, raise the presser foot and insert the fabric in front of the knife. Lower the foot and start to sew while guiding the fabric.

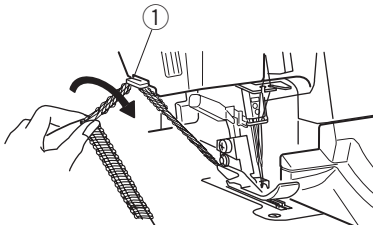
Finishing Sewing

1 After stitching is complete, continue to slowly produce approximately 5″ (12 cm) of thread chain while gently pulling the thread chain to the back.

1

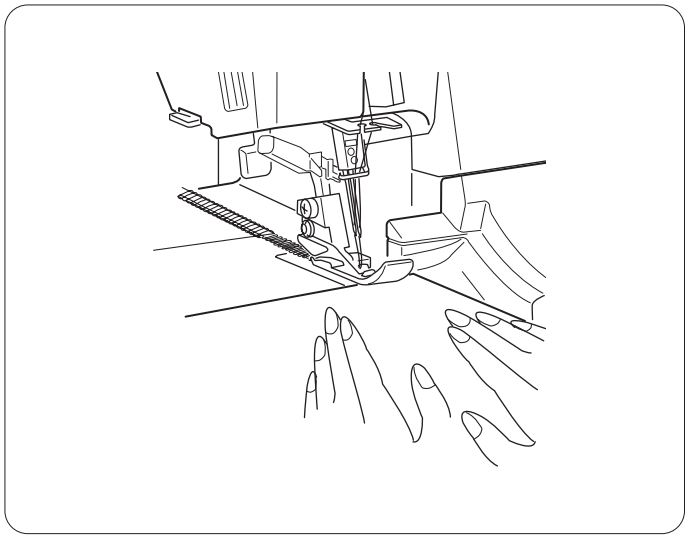


2



2 Cut the threads with the thread cutter as illustrated, leaving a thread chain approximately 2″ (5 cm) long on the end of the fabric.

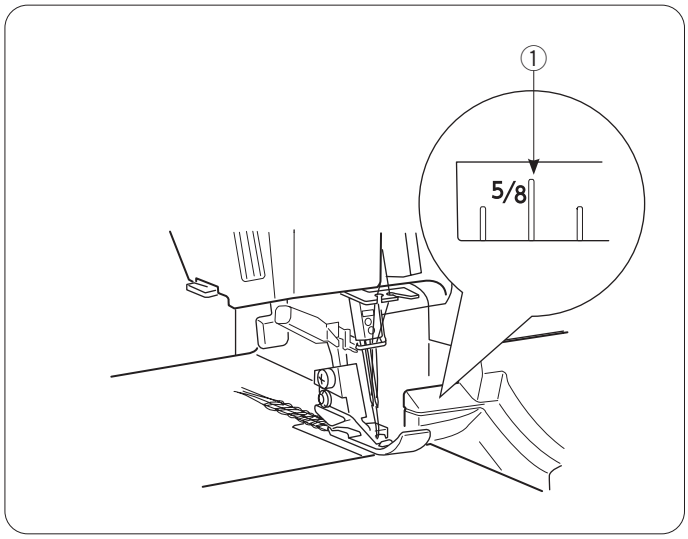
① Thread cutter



Sewing Continuously

Insert the next piece of the fabric under the toe of the foot, and start sewing. You do not need to raise the presser foot for ordinary fabric.

* For heavyweight fabric, raise the presser foot and insert the fabric in front of the knife. Lower the foot and start sewing while guiding the fabric.



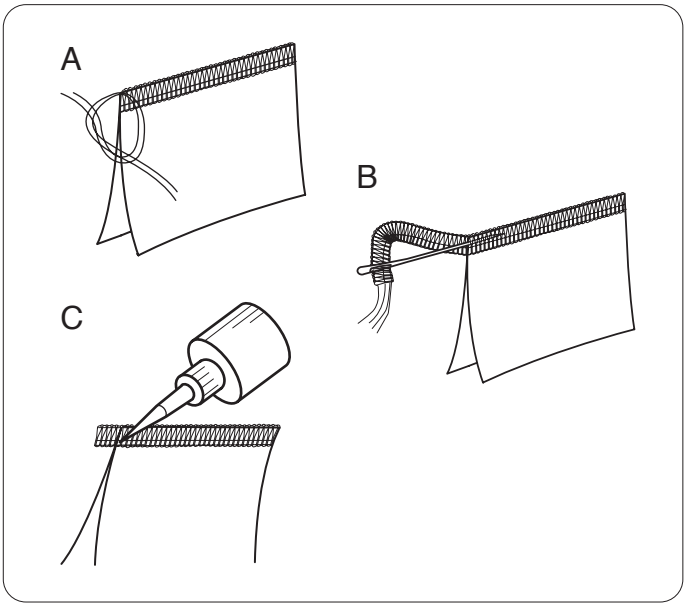
Using Guide Lines

The guide lines on the top of the looper cover help you to measure the distance from the right needle drop position.

The numbers on the top of the looper cover indicate the distance from the right needle position in inches.

① 5/8″ to the right of the right needle position

* The cutting width between the right needle position and the upper knife when in the standard position (refer to page 12) is 3.5 mm.



Securing Ends

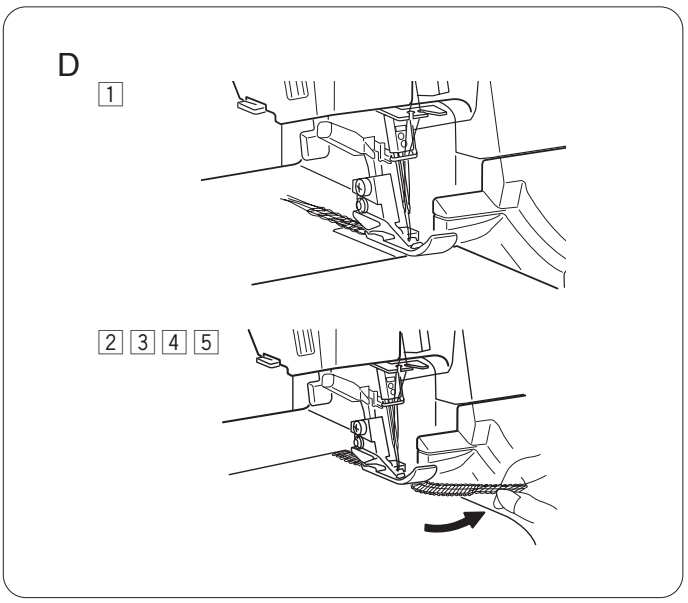
To avoid raveling, you need to leave a thread chain approximately 2″ (5 cm) long at the beginning and at the end of a seam. To secure the beginning and end of a seam, choose one of the following methods.

At the beginning of the seam

A. Separate and tie the thread ends together.

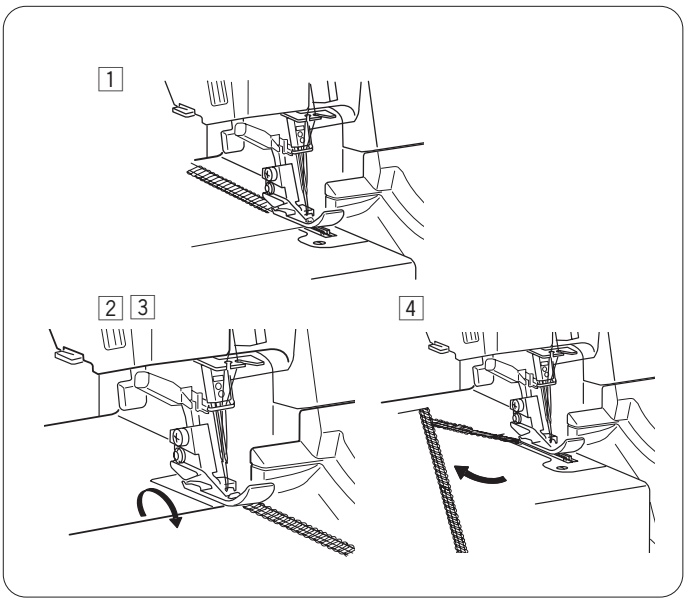
B. Thread the chain through a large eyed needle, and weave that chain through the overlock stitches on the fabric.

C. Cut the chain at the edge of the fabric, and apply a small amount of seam sealant (Fray Check™ or Fray-No-More™) to the thread ends.



D. Securing the beginning with the machine

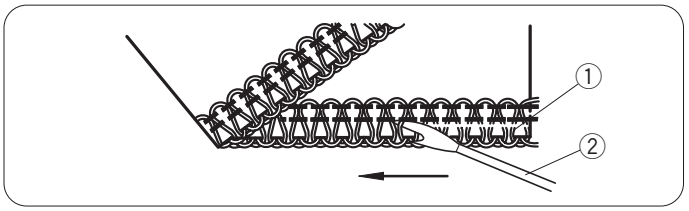
1. Before putting your fabric in the machine, sew a thread chain approximately 2″ (5 cm) long behind the needle.
2. Put your fabric on the machine. Serge a few stitches and stop.
3. Raise the presser foot and bring the thread chain to the left around and under the presser foot.
4. Place the thread chain between the presser foot and upper knife, holding it in position as you lower the presser foot to sew.
5. After sewing approximately 1″ (2.5 cm), move the chain to the right and under the upper knife, cutting the chain as you sew.



At the end of the seam

Securing the seam end with the machine

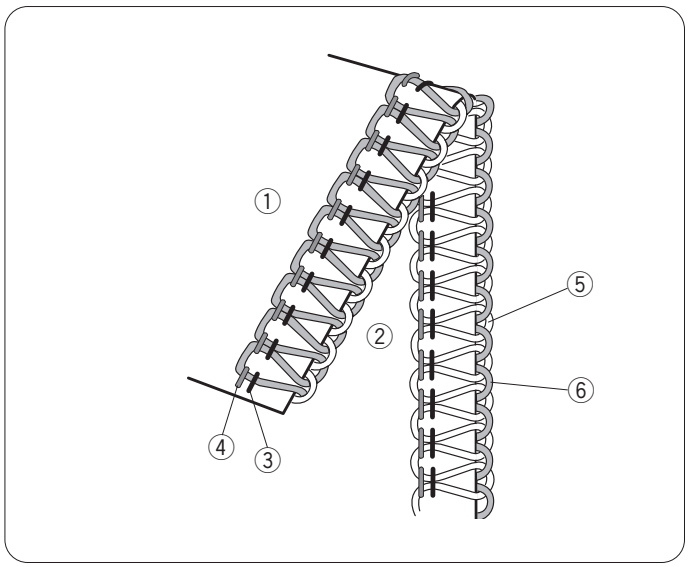
1. Serge one stitch off the end of the seam.
2. Raise the needle and presser foot, and gently pull the threads off the chaining finger.
3. Turn the fabric over so that the under side is up.
4. Serge approximately 1″ (2.5 cm) over the stitching and angle off the fabric.



Cutting the Seams

Cut the upper looper thread with a seam ripper (not included with the machine) to cut the seams.

① Upper looper thread
② Seam ripper

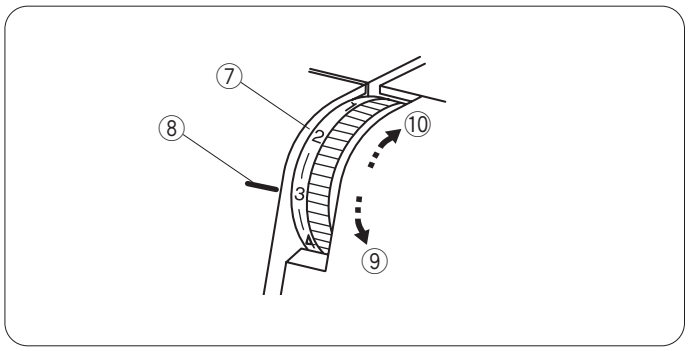


Thread Tension (4 threads)

Correct tension

The illustration to the left shows a seam sewn at the correct tension. Note that you may need to adjust the thread tension depending on the fabric and thread being used.

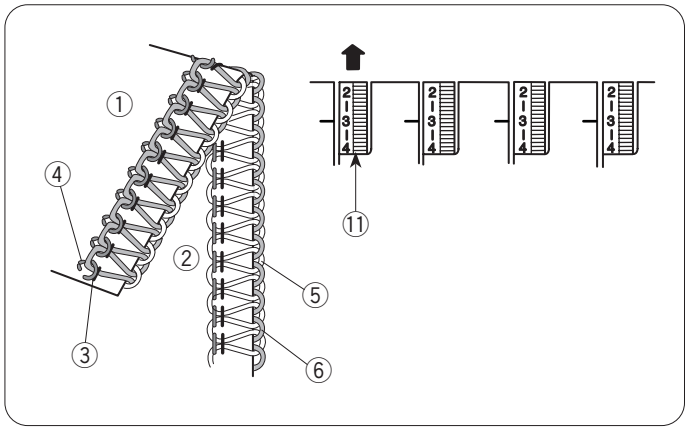
① Wrong side of fabric
② Right side of fabric
③ Right needle thread
④ Left needle thread
⑤ Upper looper thread
⑥ Lower looper thread



Thread tension adjustment

Set all four thread tension dials to “3”.
Sew and check the thread tension.
If the tension on the test piece is not satisfactory, you can adjust the thread tension with the thread tension dial.

⑦ Thread tension dial
⑧ Setting mark
⑨ Loosen
⑩ Tighten

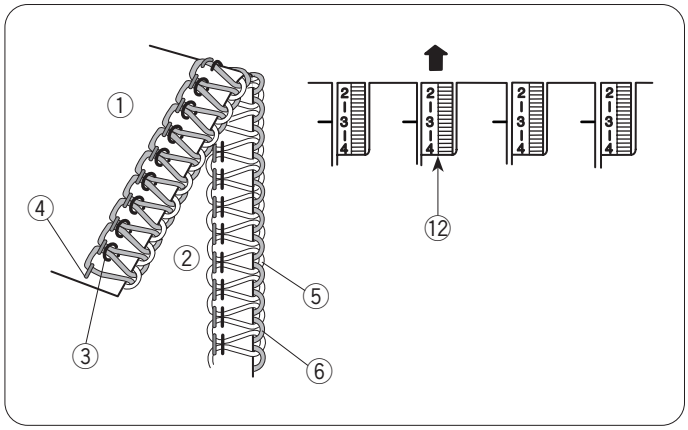


Left needle thread tension is too loose

The illustration to the left shows a seam sewn when the left needle thread tension is too loose.

Remedy:
Tighten the left needle thread tension.

⑪ Left needle tension dial

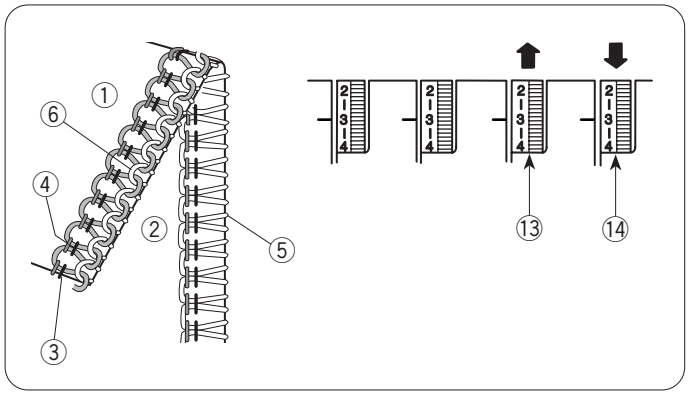


Right needle thread tension is too loose

The illustration to the left shows a seam sewn when the right needle thread tension is too loose.

Remedy:
Tighten the right needle thread tension.

⑫ Right needle tension dial

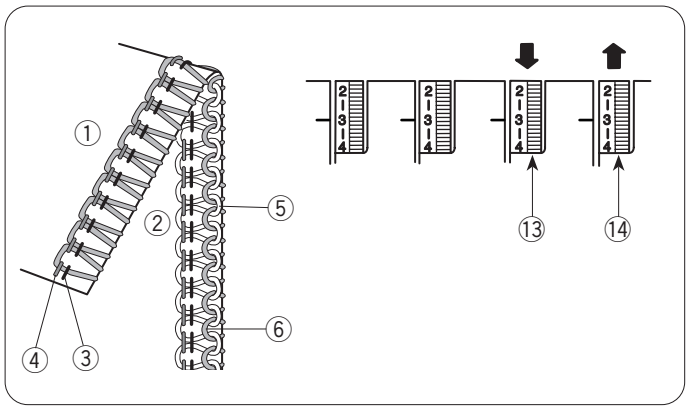


Looper thread tension is out of balance (1)

The illustration shows sewing results when the lower looper thread tension is too tight and/or upper looper thread tension is too loose.

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

① Wrong side of fabric
② Right side of fabric
③ Right needle thread
④ Left needle thread
⑤ Upper looper thread
⑥ Lower looper thread
⑬ Upper looper thread tension dial
⑭ Lower looper thread tension dial

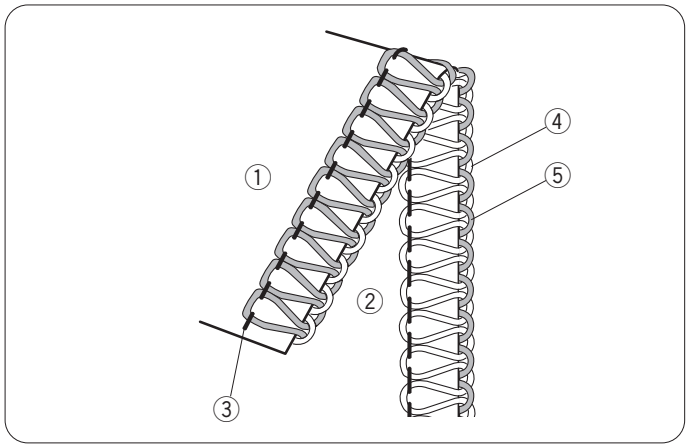


Looper thread tension is out of balance (2)

The illustration to the left shows a seam sewn when the upper looper thread tension is too tight and/or the lower looper thread tension is too loose.

Remedy:
Loosen the upper looper thread tension and/or tighten the lower looper thread tension.

⑬ Upper looper thread tension dial
⑭ Lower looper thread tension dial

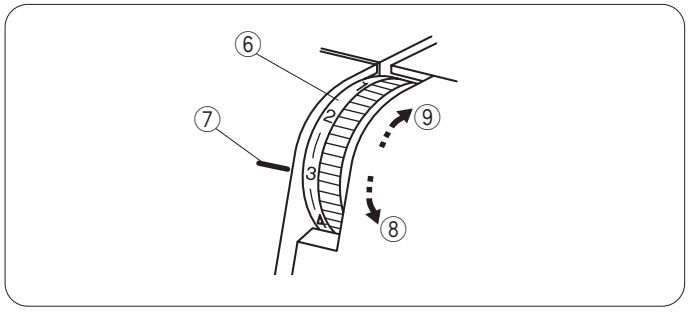


Thread Tension (3 threads)

Correct tension

The illustration to the left shows a seam sewn at the correct tension. Note that you may need to adjust the thread tension depending on the fabric and thread being used.

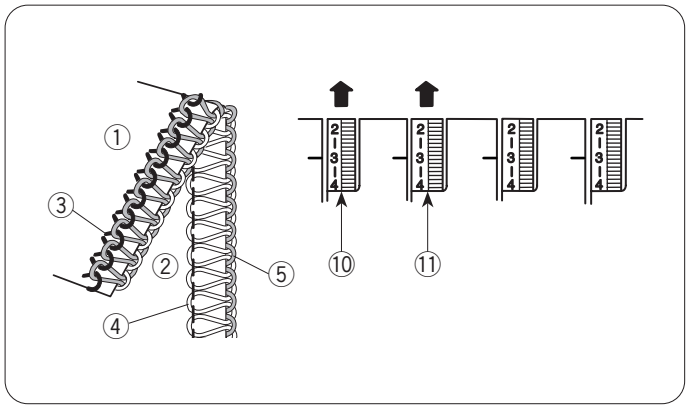
① Wrong side of fabric
② Right side of fabric
③ Right or left needle thread
④ Upper looper thread
⑤ Lower looper thread



Thread tension adjustment

Set the three thread tension dials to “3”.
Sew and check the thread tension.
If the tension on the test piece is not satisfactory, you can adjust the thread tension with the thread tension dial.

⑥ Thread tension dial
⑦ Setting mark
⑧ Loosen
⑨ Tighten

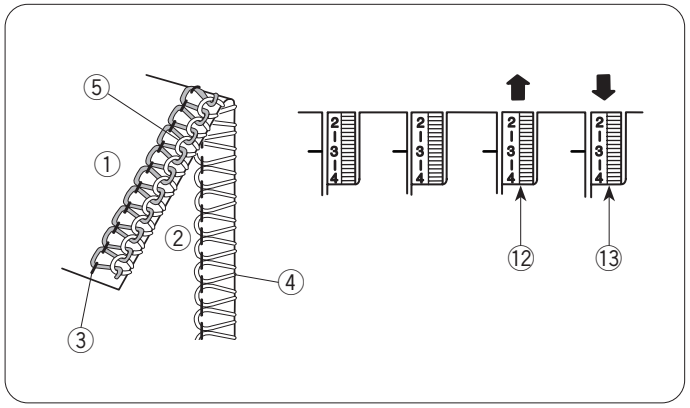


Needle thread tension is too loose

The illustration to the left shows a seam sewn when the left needle thread tension is too loose.

Remedy:
Tighten the needle thread tension.

⑩ Left needle tension dial
⑪ Right needle tension dial

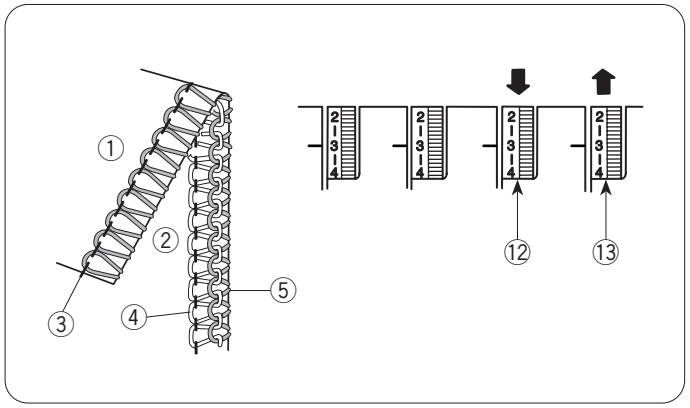


Looper thread tension is out of balance (1)

The illustration to the left shows a seam sewn when the lower looper thread tension is too tight and/or the upper looper thread tension is too loose.

Remedy:
Loosen the lower looper thread tension and/or tighten the upper looper thread tension.

⑫ Upper looper thread tension dial
⑬ Lower looper thread tension dial

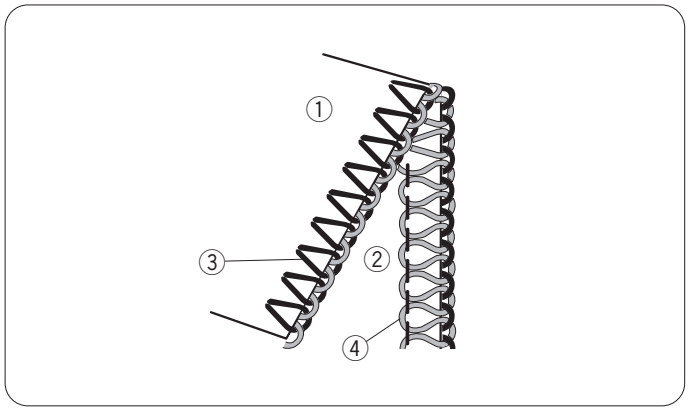


Looper thread tension is out of balance (2)

The illustration to the left shows a seam sewn when the upper looper thread tension is too tight and/or the lower looper thread tension is too loose.

Remedy:
Loosen the upper looper thread tension and/or the tighten lower looper thread tension.

⑫ Upper looper thread tension dial
⑬ Lower looper thread tension dial

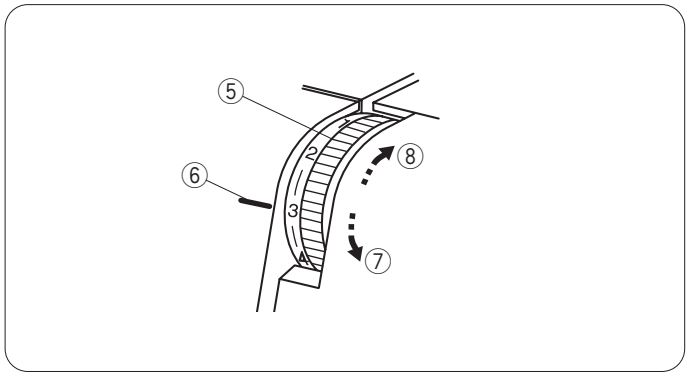


Thread Tension (2 threads)

Correct tension

The illustration to the left shows a seam sewn at the correct tension. Note that you may need to adjust the thread tension depending on the fabric and thread being used.

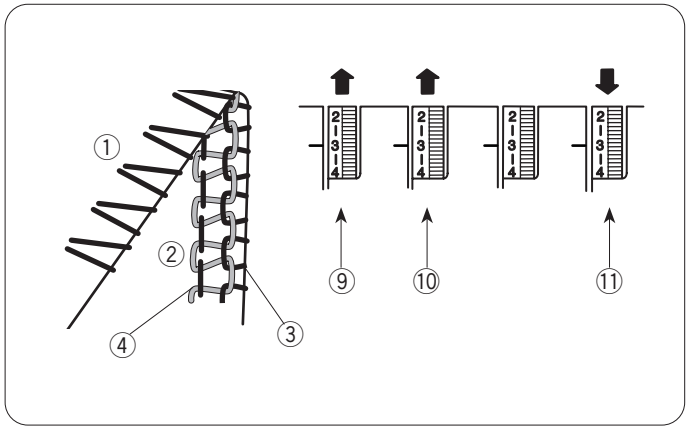
① Wrong side of fabric
② Right side of fabric
③ Right or left needle thread
④ Lower looper thread



Thread tension adjustment

Set the lower looper pre-tension setting slider to TIGHT.
Set the two thread tension dials to “3”.
Sew and check the thread tensions.
If the tension on the test piece is not satisfactory, you can adjust the thread tension with the thread tension dial.

⑤ Thread tension dial
⑥ Setting mark
⑦ Loosen
⑧ Tighten

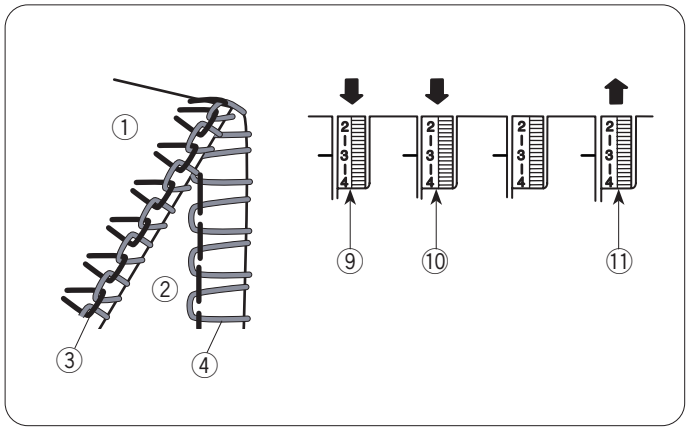


Needle/Lower looper thread tension is out of balance (1)

The illustration to the left shows a seam sewn when the lower looper thread tension is too tight and/or the needle thread tension is too loose.

Remedy:
Loosen the lower looper thread tension and/or the tighten upper looper thread tension.

⑨ Left needle thread tension dial
⑩ Right needle thread tension dial
⑪ Lower looper thread tension dial

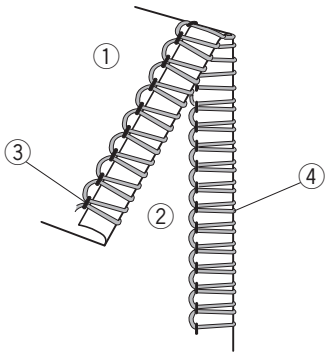


Needle/Lower looper thread tension is out of balance (2)

The illustration to the left shows a seam sewn when the needle thread tension is too tight and/or the lower looper thread tension is too loose.

Remedy:
Loosen the needle thread tension and/or tighten the lower looper thread tension.

⑨ Left needle thread tension dial
⑩ Right needle thread tension dial
⑪ Lower looper thread tension dial



Correct tension for rolled hem

The illustration to the left shows a seam sewn at the correct tension. Note that you may need to adjust the thread tension depending on the fabric and thread being used.

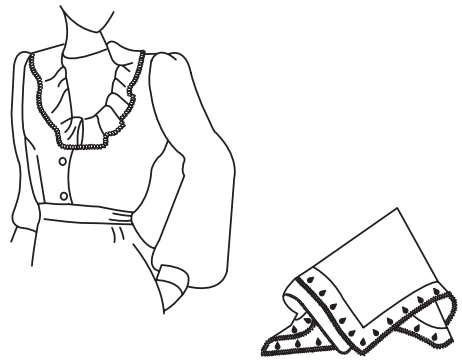
Use synthetic thread for the needle thread and woolly nylon thread for the lower looper thread.
Set the lower looper pre-tension setting slider to STD.
Other settings are same as the 3-threads rolled hem (refer to page 42).

For best results, make a test run using the fabric and threads you want to use and adjust the tension accordingly.

① Wrong side of fabric
② Right side of fabric
③ Needle thread
④ Lower looper thread

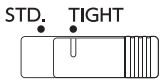
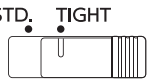
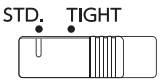
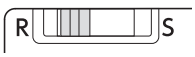
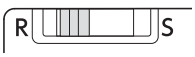
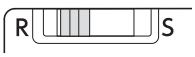
ROLLED HEMMING, PICOT EDGING AND NARROW HEMMING

Tension Dial and Machine Settings According to the Thread and Fabric

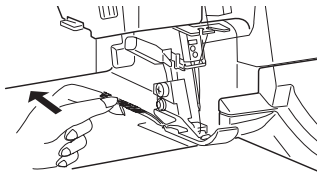


The setting of tension dials may vary depending on the type and thickness of fabric and thread being sewn.

> **⚠ CAUTION**
> Make sure to turn the power switch off before changing the needle or setting the chaining finger switch knob.

	Rolled Hemming			Picot Edging			Narrow Hemming		
Lower looper pre-tension setting slider	TIGHT  * Set the lower looper pre-tension setting slider to TIGHT after threading.			TIGHT  * Set the lower looper pre-tension setting slider to TIGHT after threading.			STD. 		
Standard setting of tension dials	Right needle	Upper looper	Lower looper	Right needle	Upper looper	Lower looper	Right needle	Upper looper	Lower looper
	(Synthetic) 3-4	(Synthetic) 3	(Synthetic) 3	(Synthetic) 2-4	(Synthetic) 3	(Synthetic) 3	(Synthetic) 4	(Synthetic) 3	(Synthetic) 3
	(Synthetic) 4	(Wooly nylon) 1	(Synthetic) 3	–	–	–	(Synthetic) 4	(Wooly nylon) 1	(Synthetic) 3
	(Synthetic) 4	(Wooly nylon) 1	(Wooly nylon) 3				(Synthetic) 4	(Wooly nylon) 1	(Wooly nylon) 3
Stitch length dial	R			3-4			R		
Differential feed dial	1.0			1.0			1.0		
Chaining finger switch knob	R 			R 			R 		
Upper knife	Activated								
Needle	Using the right needle: HA-1 SP No. 11 (Remove the left needle.)								
Needle thread	Synthetic: No. 80 - 100								
Fabric	Lightweight fabric such as organdy, crepe de chine, lawn and georgette								

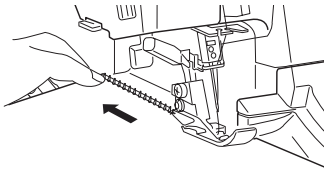
* Refer to page 10 for details on how to remove the needle.
* Refer to page 11 for details on how to adjust the stitch length.
* Refer to page 11 for details on how to adjust the difference ratio.
* Refer to page 13 for details on how to adjust the chaining finger switch knob.
* Refer to page 12 for details on how to deactivate and activate the upper knife.



For Better Results

Rolled hemming

Gently pull the end of thread chain to the back at the beginning and end of sewing.

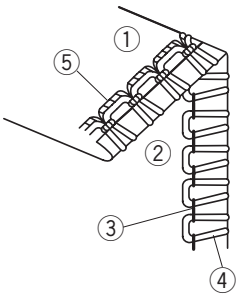


Picot edging

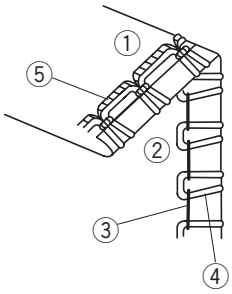
Gently pull the fabric to the back while sewing.

NOTE:
The sewing procedure of narrow hemming is the same as that for standard overedging.

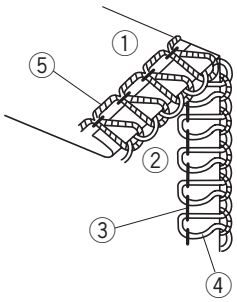
Rolled hemming



Picot edging



Narrow hemming



Thread Tension

Correct tension

The illustration to the left shows a seam sewn at the correct tension. Note that you may need to adjust the thread tension depending on the fabric and thread being used.

① Wrong side of fabric
② Right side of fabric
③ Right needle thread
④ Upper looper thread
⑤ Lower looper thread

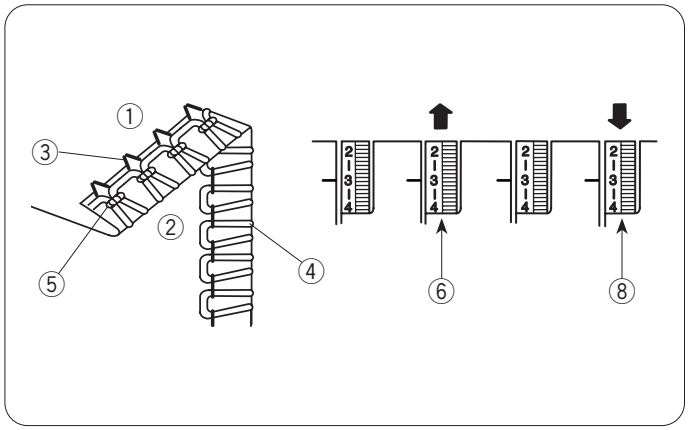
Thread tension adjustment

1. Set the tension dials as shown on page 42.
2. Sew and check the tension.
3. If the tension on the test piece is not satisfactory, you can adjust the thread tension with thread tension dial.

For rolled hemming and picot edging

* Thread tension adjustment for narrow hemming is the same as that for 3-thread overedging (refer to page 39).

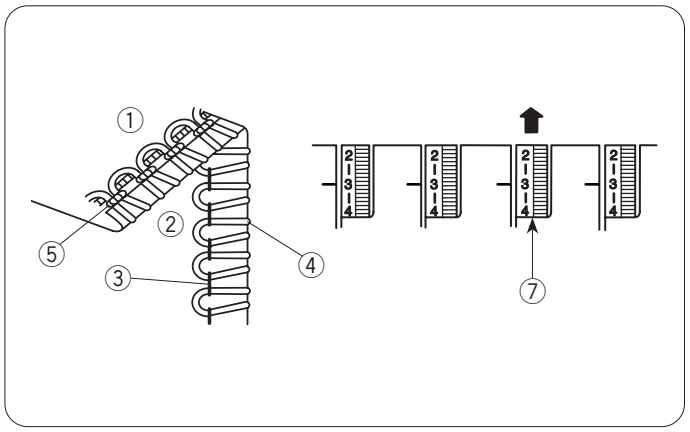
① Wrong side of fabric
② Right side of fabric
③ Right needle thread
④ Upper looper thread
⑤ Lower looper thread



The lower looper thread tension is too tight and/or the right thread tension is too loose

Remedy:
Tighten the right needle thread tension and/or loosen the lower looper thread tension.

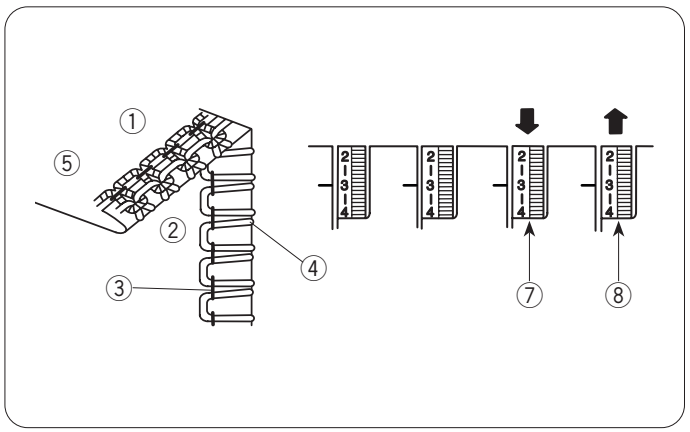
⑥ Right needle thread tension dial
⑧ Lower looper thread tension dial



The upper looper thread tension is too loose

Remedy:
Tighten the right needle thread tension.

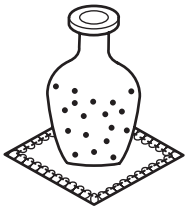
⑦ Upper looper thread tension dial

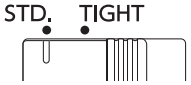


The lower looper thread tension is too loose and/or the upper looper thread tension is too tight

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

⑦ Upper looper thread tension dial
⑧ Lower looper thread tension dial



Machine Setting				
Lower looper pre-tension setting slider	STD. 			
Standard setting of tension dials	Left needle	Right needle	Upper looper	Lower looper
	5	5	1-2	6
Stitch length dial	3-4			
Differential feed dial	1.0			
Chaining finger switch knob	S 			
Upper knife	Activated 			
Needle	Use both the right and left needles: HA-1 SP No. 14			
Needle thread	Synthetic: No. 60 - 80			
Upper looper thread	Decorative thread * Use the looper threading wire or a standard thread for threading.			
Lower looper thread	Synthetic: No. 60 - 100			
Fabric	Medium weight or heavy weight			

ADVANCED TECHNIQUES

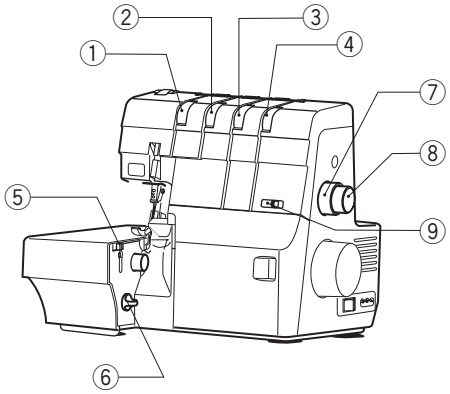
Decorative Overedging

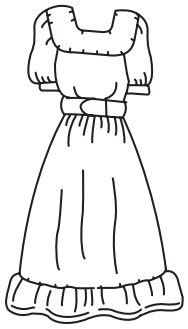
NOTE:
- You may need to adjust the thread tension.
- For best results, gently pull the thread chain to the back at the beginning and end of sewing.

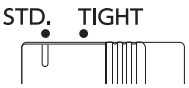
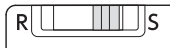
⚠ CAUTION
Make sure to turn the power switch off before changing the needle, deactivating/activating the upper knife or setting the chaining finger switch knob.

① Left needle thread tension dial
② Right needle thread tension dial
③ Upper looper thread tension dial
④ Lower looper thread tension dial
⑤ Chaining finger switch knob
⑥ Upper knife release knob
⑦ Stitch length dial
⑧ Differential feed dial
⑨ Lower looper pre-tension setting slider

* Refer to page 10 for details on how to remove the needle.
* Refer to page 11 for details on how to adjust the stitch length.
* Refer to page 11 for details on how to adjust the difference ratio.
* Refer to page 12 for details on how to deactivate/activate the upper knife.
* Refer to page 13 for details on how to adjust the chaining finger switch knob.





Machine Setting				
Lower looper pre-tension setting slider	STD. 			
Standard setting of tension dials	Left needle	Right needle	Upper looper	Lower looper
	3	3	3	3
Stitch length dial	3-4			
Differential feed dial	2.0			
Chaining finger switch knob	S 			
Upper knife	Activated 			
Needle	Use both the right and left needles: HA-1 SP No. 14 or No. 11			
Needle thread	Synthetic: No. 60 - 80			
Upper looper thread	Synthetic: No. 60 - 100			
Lower looper thread	Synthetic: No. 60 - 100			
Fabric	Medium weight, light weight			

Gathering

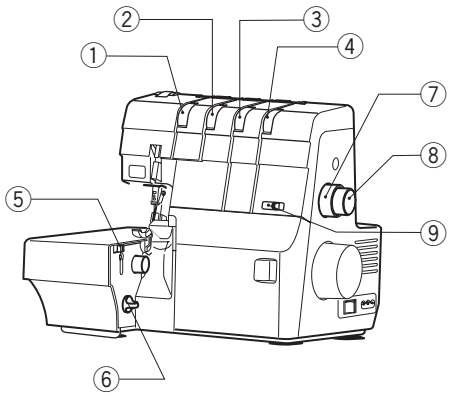
Sew and check the thread tensions.
If the tension balance on the test piece is not satisfactory, you can adjust the thread tension with the thread tension dial.

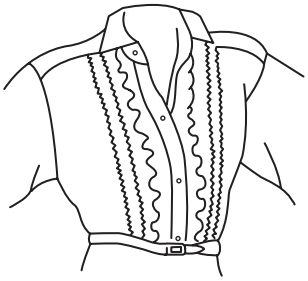
* Adjust the differential feed dial between 1.0 and 2.0 for gathering.

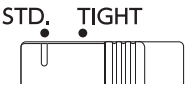
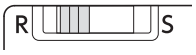
⚠ CAUTION
Make sure to turn the power switch off before changing the needle, deactivating/activating the upper knife or setting the chaining finger switch knob.

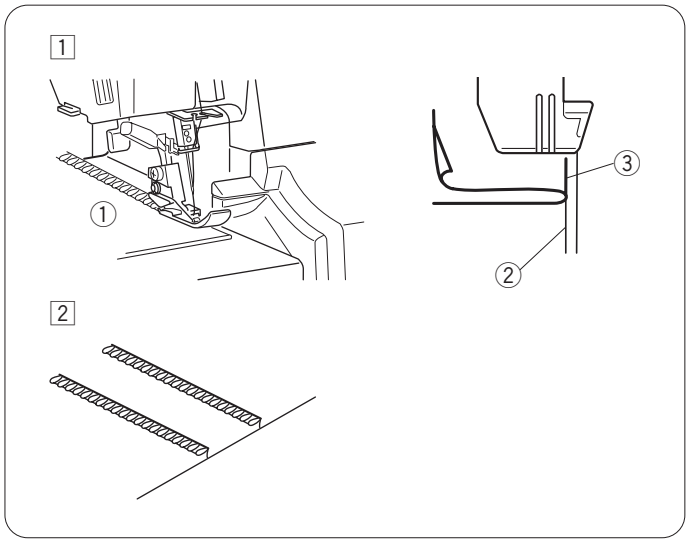
① Left needle thread tension dial
② Right needle thread tension dial
③ Upper looper thread tension dial
④ Lower looper thread tension dial
⑤ Chaining finger switch knob
⑥ Upper knife release knob
⑦ Stitch length dial
⑧ Differential feed dial
⑨ Lower looper pre-tension setting slider

* Refer to page 10 for details on how to remove the needle.
* Refer to page 11 for details on how to adjust the stitch length.
* Refer to page 11 for details on how to adjust the difference ratio.
* Refer to page 12 for details on how to deactivate/activate the upper knife.
* Refer to page 13 for details on how to adjust the chaining finger switch knob.





Machine Setting				
Lower looper pre-tension setting slider	STD. 			
Standard setting of tension dials	Left needle	Right needle	Upper looper	Lower looper
	-	4	5-7	2-4
Stitch length dial	R			
Differential feed dial	1.0			
Chaining finger switch knob	R 			
Upper knife	Deactivated 			
Needle	Use the right needle: HA-1 SP No. 14 or No. 11			
Needle thread	Synthetic: No. 80 - 100			
Upper looper thread	Synthetic: No. 80 - 100			
Lower looper thread	Synthetic: No. 80 - 100			
Fabric	Light weight, knit fabric			



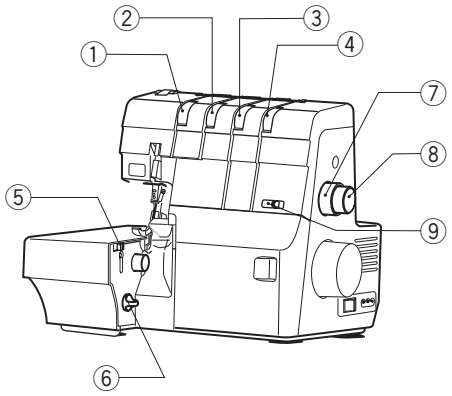
Pintucking

NOTE:
- You may need to adjust the thread tension depending on the type of fabric and thread being used.
- If the tension balance on the test piece is not satisfactory, you can adjust the thread tension with the thread tension dial.

⚠ CAUTION
Make sure to turn the power switch off before changing the needle, deactivating/activating the upper knife or setting the chaining finger switch knob.

① Left needle thread tension dial
② Right needle thread tension dial
③ Upper looper thread tension dial
④ Lower looper thread tension dial
⑤ Chaining finger switch knob
⑥ Upper knife release knob
⑦ Stitch length dial
⑧ Differential feed dial
⑨ Lower looper pre-tension setting slider

* Refer to page 10 for details on how to remove the needle.
* Refer to page 11 for details on how to adjust the stitch length.
* Refer to page 11 for details on how to adjust the difference ratio.
* Refer to page 12 for details on how to deactivate/activate the upper knife.
* Refer to page 13 for details on how to adjust the chaining finger switch knob.

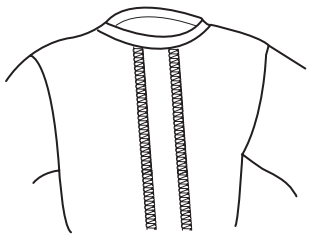


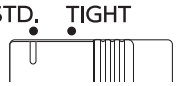
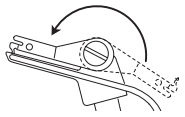
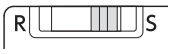
Sewing

1 Sew the folded edge while guiding it along the guide line.
① Right side of fabric
② Folded edge
③ Guide line on the needle plate

2 Open the fold flat and press the pintucks to one side.

* After you finish sewing, return the upper knife to the original position (activated).



Machine Setting				
Lower looper pre-tension setting slider	STD. 			
Standard setting of tension dials (1 needle 3 threads)	Left needle	Right needle	Upper looper	Lower looper
	0-2	-	0	6-7
Standard setting of tension dials (1 needle 2 threads)	Left needle	Right needle	Upper looper	Lower looper
	0-2	-	-	7
Spreader (1 needle 2 threads)				
Stitch length dial	3-4			
Differential feed dial	1.0			
Chaining finger switch knob	S 			
Upper knife	Deactivated 			
Needle	Use the left needle: HA-1 SP No. 14 or No. 11			
Needle thread	Synthetic: No. 60 - 100			
Upper looper thread	Left needle	Right needle	Upper looper	Lower looper
	Synthetic: No.60-100		Decorative thread	Synthetic: No.60-100
Lower looper thread	Left needle	Right needle	Upper looper	Lower looper
	Synthetic: No.60-100			Decorative thread
* Use the looper threading wire or a standard thread for threading.				
Fabric	Medium weight			

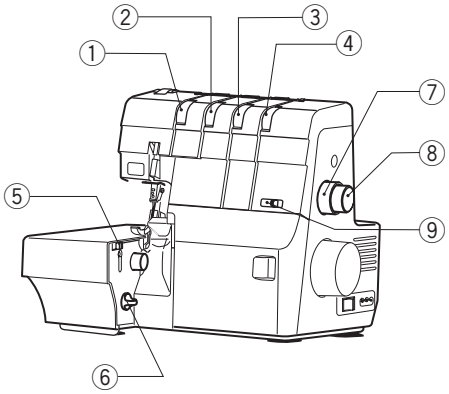
Flatlock

NOTE:
- You may need to adjust the thread tension depending on the type of fabric and thread being used.
- If the tension balance on the test piece is not satisfactory, you can adjust the thread tension with the thread tension dial.

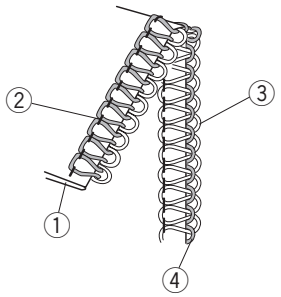
⚠ CAUTION
Make sure to turn the power switch off before changing the needle, deactivating/activating the upper knife or setting the chaining finger switch knob.

① Left needle thread tension dial
② Right needle thread tension dial
③ Upper looper thread tension dial
④ Lower looper thread tension dial
⑤ Chaining finger switch knob
⑥ Upper knife release knob
⑦ Stitch length dial
⑧ Differential feed dial
⑨ Lower looper pre-tension setting slider

* Refer to page 10 for details on how to remove the needle.
* Refer to page 11 for details on how to adjust the stitch length.
* Refer to page 11 for details on how to adjust the difference ratio.
* Refer to page 12 for details on how to deactivate/activate the upper knife.
* Refer to page 13 for details on how to adjust the chaining finger switch knob.
* Refer to page 18 for details on how to raise and lower the spreader.



1 2 3



Sewing

1 Fold the fabric wrong sides together.

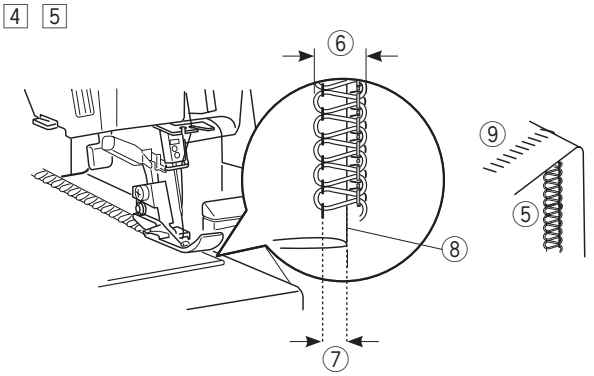
① Wrong side of fabric

2 Adjust the seam width as twice as the cutting width.

3 Sew a test piece and check the tensions.

② Needle thread
③ Upper looper thread
④ Lower looper thread

4 5



4 Deactivate the upper knife and sew.

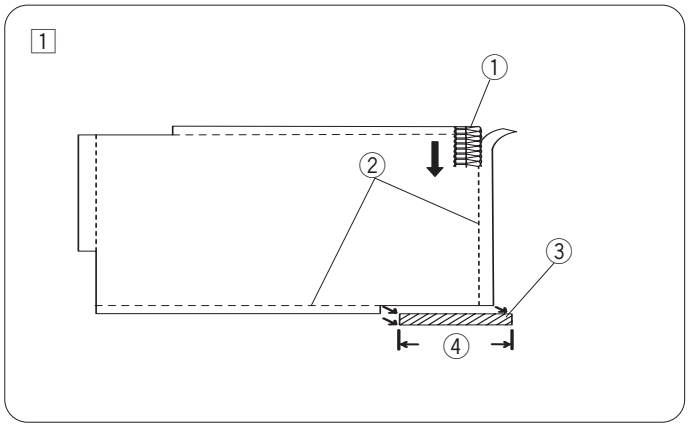
5 Open the fabric and iron the wrong side.

⑤ Right side of fabric
⑥ Seam width
⑦ Cutting width
⑧ Folded edge
⑨ Wrong side of fabric

* Adjust the seam width according to the results.

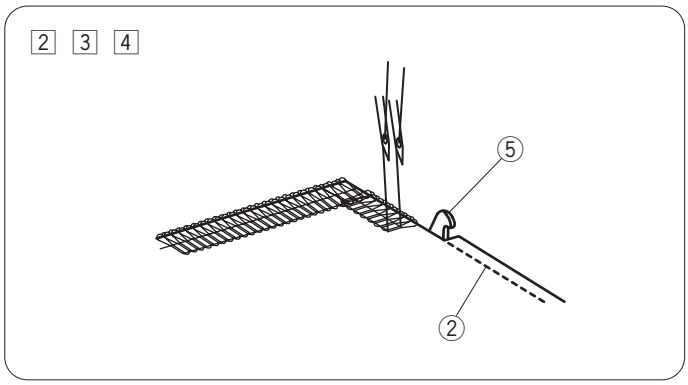
Sewing Corners

Outer corners



1 Trim three corners (other than the starting point) 3 cm as illustrated.

① Starting point
② Cutting line
③ Trimmed corner
④ 3 cm



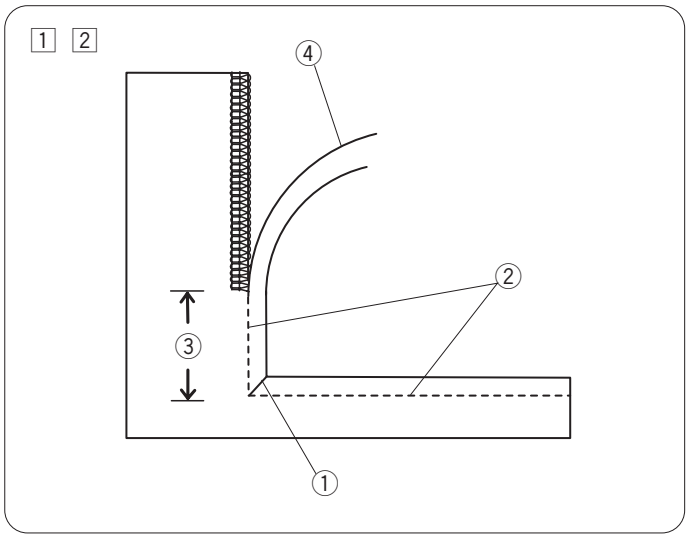
2 When you reach the next corner, stop the machine. Raise the needle and the presser foot.
Remove the threads from the chaining finger and turn the fabric.
Align the cutting line with the upper knife.

⑤ Upper knife

3 Lower the presser foot lifter.

4 Continue to sew from where the previous stitches on the corner ended.

Inner corners

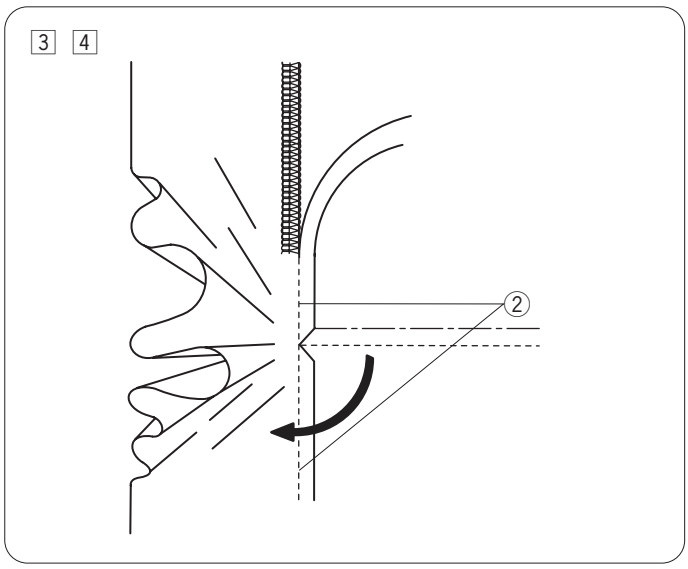


1 Cut the inner corner as illustrated.

① Inner corner

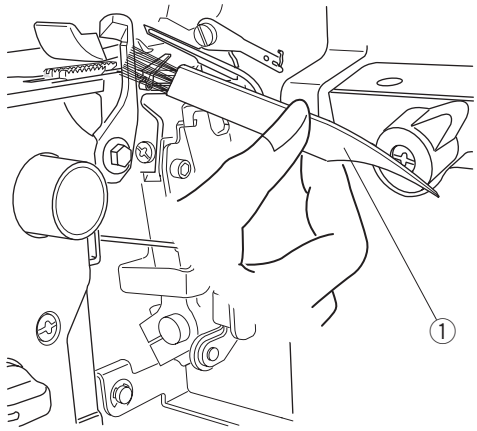
2 Sew and stop 3 cm before the inner corner.

② Cutting line
③ 3 cm
④ Cutting allowance



3 Turn the fabric so that the cutting lines are straight and insert the fabric under the foot.

4 Continue to sew.



CARE OF YOUR MACHINE

Cleaning the Upper Knife Area

⚠ CAUTION
Make sure to turn the power switch off before cleaning the machine.

Open the looper cover.
With a forward brushing movement, use the lint brush to remove any lint.

① Lint brush

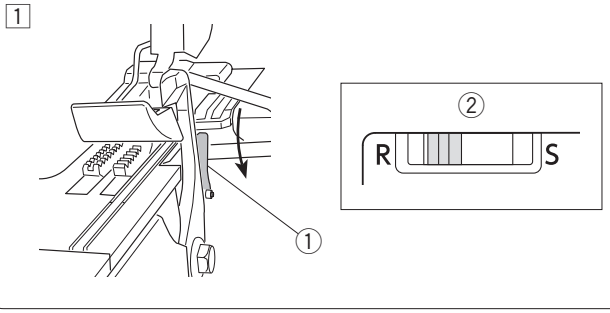
* You may use a vacuum cleaner to clean the upper knife area or feed dog.

Cleaning the Feed Dog

⚠ CAUTION
Make sure to turn the power switch off before cleaning the machine.

1 Position the chaining finger lower than the surface of the needle plate by pulling the chaning finger switch knob toward you to “R” (refer to page 13).

① Chaining finger
② Chaining finger switch knob

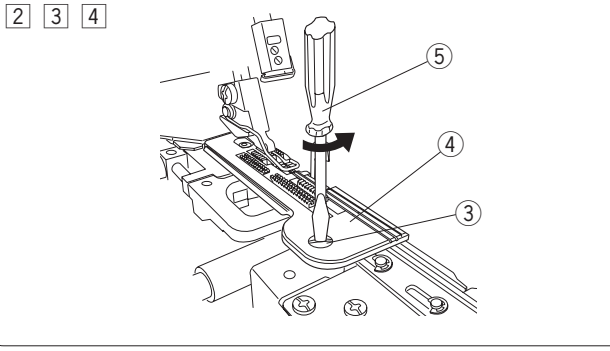


2 Open the looper cover and the side cover.

3 Remove the needle and the presser foot (refer to pages 9 and 10).

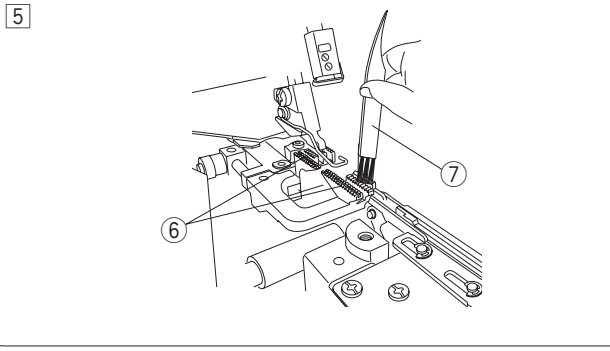
4 Remove the setscrew with the large screw driver and remove the needle plate.

③ Setscrew
④ Needle plate
⑤ Large screwdriver



5 Use the lint brush to remove any lint from around the feed dog.

⑥ Feed dog
⑦ Lint brush

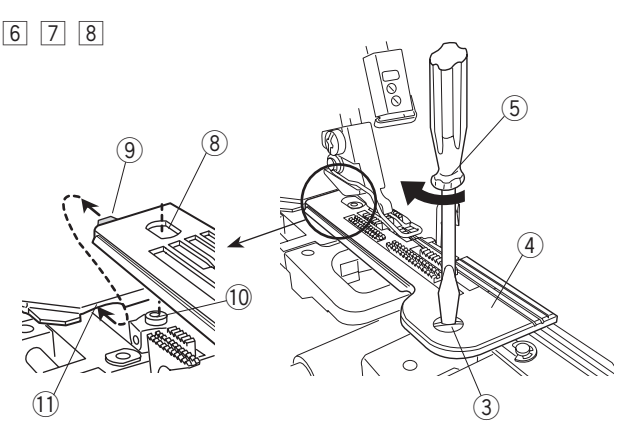


6 Attach the needle plate by inserting the rib under the edge of the rear cover and aligning the hole in the needle plate with the pin.
Tighten the setscrew with the screwdriver.

③ Setscrew
④ Needle plate
⑤ Large screwdriver
⑧ Needle plate hole
⑨ Rib
⑩ Pin
⑪ Edge of rear cover

7 Attach the needle and the presser foot.

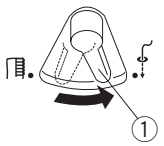
8 Close the side cover and the looper cover.



Cleaning the Looper Threader Pipe

⚠ CAUTION
Make sure to turn the power switch off before cleaning the machine.

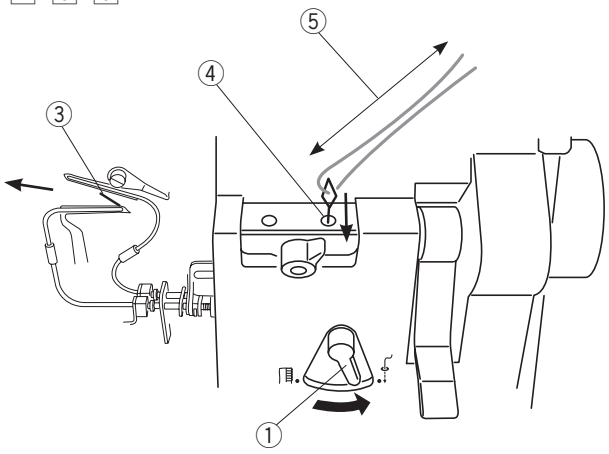
1



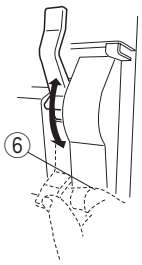
2



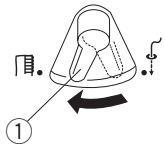
3 4 5 6



7



8



Use the looper threading wire to clean the pipe of the looper threader device.

1 Open the looper cover and set the looper threader switch lever to the "THREADING" position.
   ① Looper threader switch lever

2 Turn the handwheel toward you slowly until it clicks.
   ② Handwheel

3 Insert the straight end (not the looped end) of the looper threading wire into the hole of the looper threader until it comes out from the looper tip hole.
   ③ Straight end of the looper threading wire
   ④ Looper threader hole

4 Prepare a 60 cm length of size 60 thread and pass it halfway (30 cm) through the loop of the looper threading wire so that the both ends meet as illustrated.
   ⑤ 30 cm

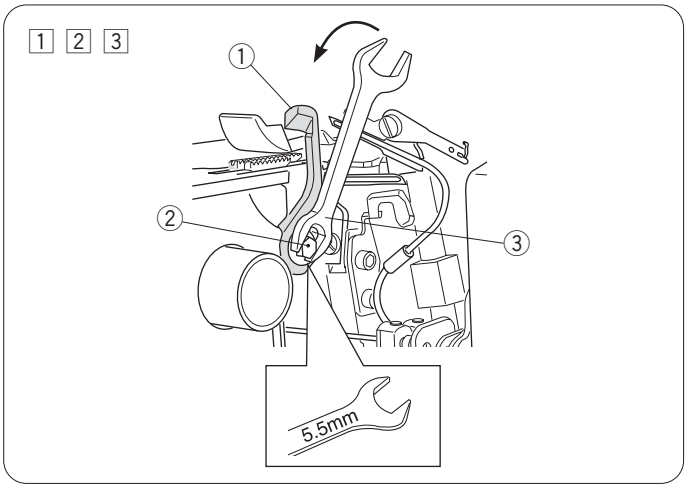
5 Pull the looper threading wire out together with the thread.

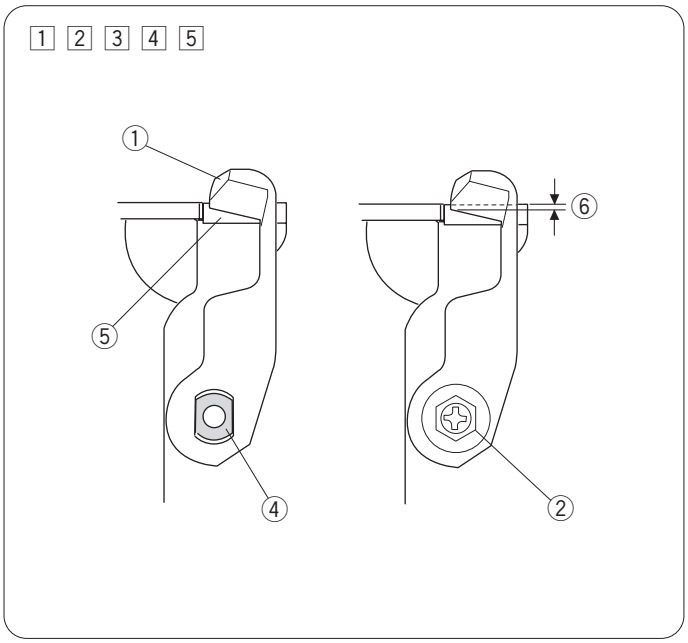
6 Repeat steps 3 – 5 two or three times.

7 With the machine unthreaded, raise and lower the looper threader lever four or five times to clean out the remaining lint.
   ⑥ Looper threader lever

8 Return the looper threader switch lever to the "SEWING" position and close the looper cover.

NOTE:
- Clean the looper threader pipe once every 10 hours of use or when the looper threader does not work well.
- You can also use an compressed air duster or camera dust blower to clean the looper threader pipe.





Replacing the Upper Knife

⚠ CAUTION
Make sure to turn the power switch off before replacing the upper knife.

To remove:

1 Open the looper cover.

2 Turn the handwheel toward you until the upper knife reaches its highest position.

3 Remove the hexagonal bolt with the double-ended spanner (use the small end) and remove the upper knife.

① Upper knife
② Hexagonal bolt
③ Double-ended spanner (small end 5.5 mm)

To attach:

1 Attach the new upper knife to the upper knife supporter and partially tighten the hexagonal bolt.

① Upper knife
② Hexagonal bolt
④ Upper knife supporter

2 Turn the handwheel toward you until the upper knife reaches its lowest position.

3 Loosen the hexagonal bolt.
Adjust the position of the upper knife so that its blade overlaps 1.0 mm to 1.2 mm (3/64″) with the edge of the lower knife as shown, and fully tighten the hexagonal bolt.

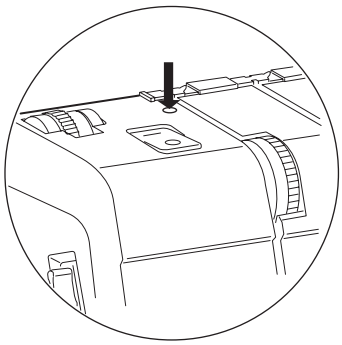
⑤ Lower knife
⑥ 1.0 – 1.2 mm (3/64″)

4 Turn the handwheel toward you several times to check the blade position.

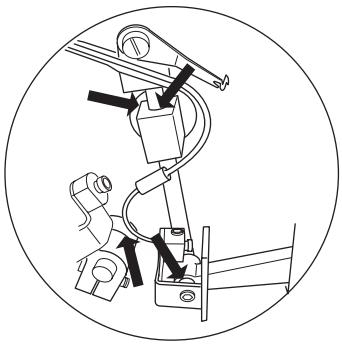
5 Close the looper cover.

1 2 3 4

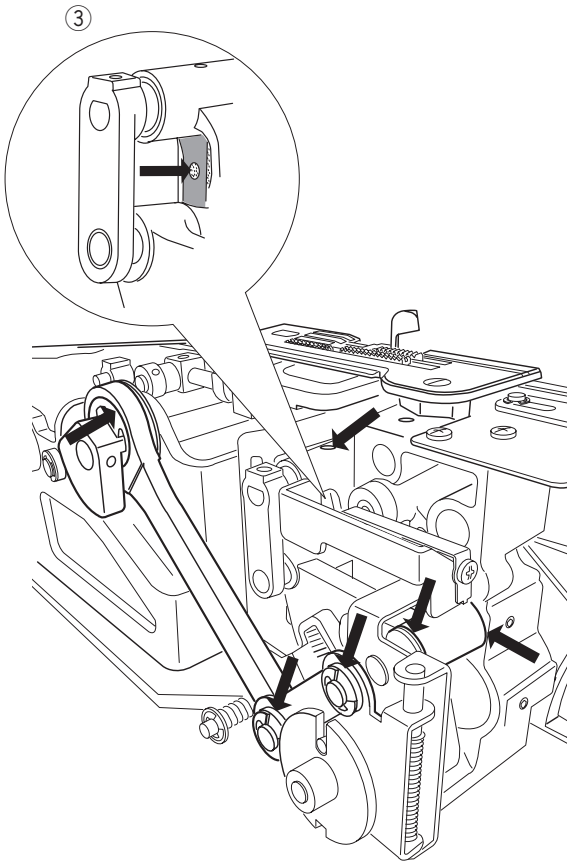
①



②



③



Oiling the Machine

⚠ CAUTION
Make sure to turn the power switch off before oiling the machine.

NOTE:
It is recommended to apply oil once a week for normal use or once every 10 hours for continuous use.

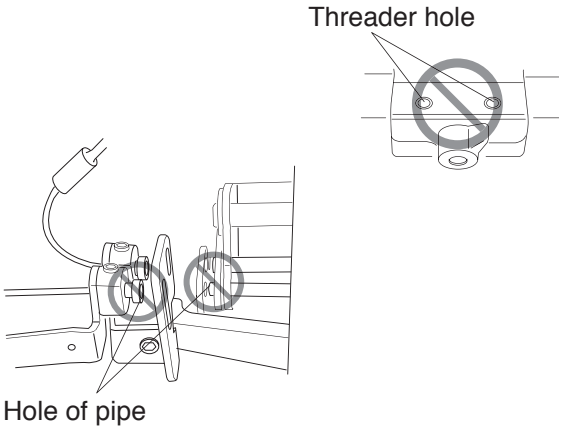
1 Apply a few drops of fine quality sewing machine oil to the parts indicated with arrows.
- ① Drip a few drops of oil into the hole in the top cover
- ② Open the lopper cover and apply oil to the moving parts of the upper looper and the lower looper.
- ③ Open the side cover and apply oil to the moving parts of the upper knife.

2 Turn the handwheel toward you several times.

3 Close the looper cover and the side cover.
With the machine unthreaded, place a scrap of fabric under the presser foot and run the machine for a few minutes.

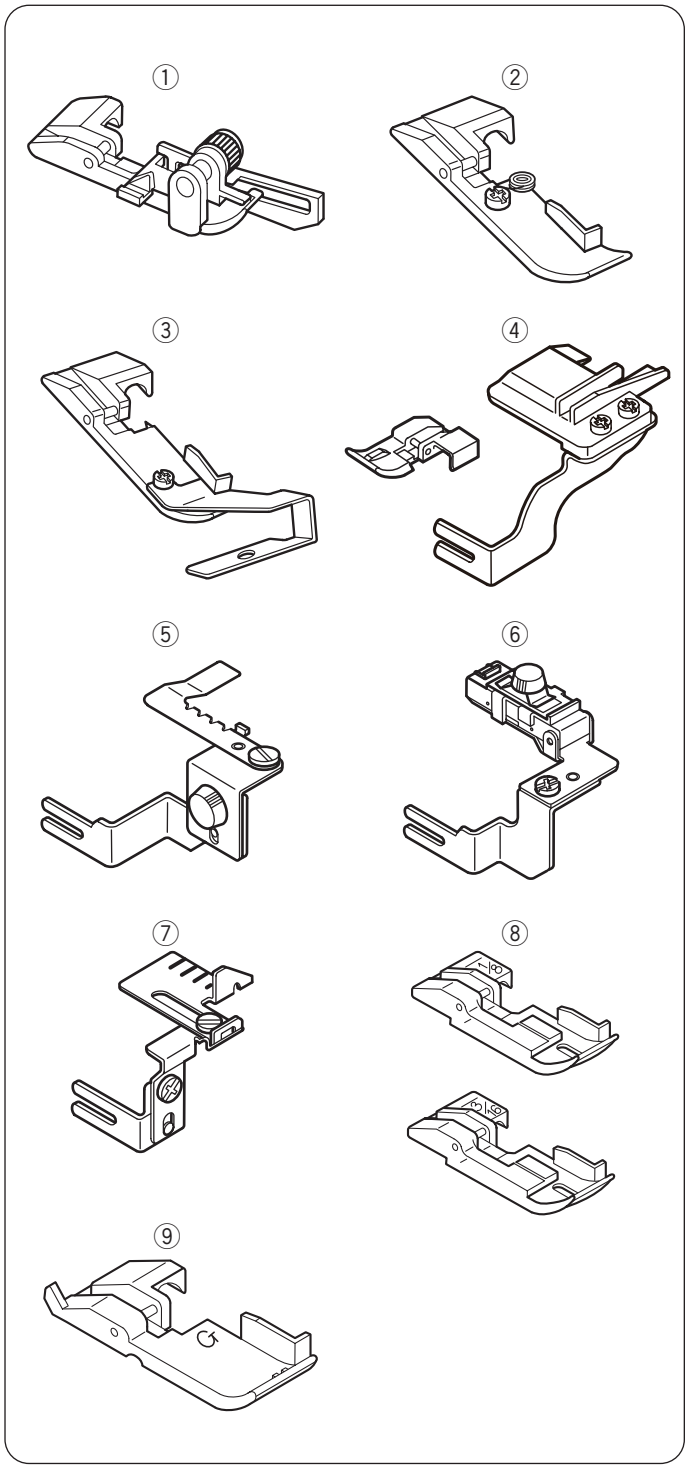
4 Wipe away any oil which appears.

⃠ CAUTION
Never inject oil into the holes for the looper threader, the upper looper tip, or the lower looper tip.



Troubleshooting

Condition	Cause	Reference
The machine does not operate.	1. The machine is not been plugged in properly. 2. The power switch is turned off. 3. The safety device is activated.	Refer to page 7. Turn the power switch ON. Refer to page 4.
The fabric is not being fed smoothly.	1. The presser foot is raised. 2. The foot pressure is too low. 3. The feed dog is packed with lint.	Lower the presser foot. Refer to page 10 Refer to page 52.
The needle breaks.	1. The wrong needle is used or the needle is incorrectly inserted. 2. The needle is bent or worn. 3. The fabric is forcibly pulled.	Refer to page 10. Refer to page 10. Pull the fabric lightly.
The thread breaks.	1. The machine is not correctly threaded or the thread is tangled. 2. The thread tension is too tight. 3. The wrong needle is used or the needle is incorrectly inserted. 4. The needle is bent or blunt. 5. A poor quality thread is used.	Refer to pages 19-32. Refer to pages 37-41 and 45. Refer to page 10. Refer to page 10. Refer to page 15.
Skipped stitches	1. The wrong needle is used or the needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The machine is not correctly threaded or the thread is tangled.	Refer to page 10. Refer to page 10. Refer to pages 19-32.
The seam is not sewn neatly.	1. The thread is not correctly inserted between the tension disks. 2. The thread tension is too strong or too loose. 3. The machine is not correctly threaded or the thread is tangled. 4. The chaining finger is not set correctly. 5. The needle and/or the thread are not suitable for the fabric being sewn.	Refer to pages 19, 22, 28 and 31 Refer to pages 37-41 and 45. Refer to pages 19-32. Refer to page 13. Refer to pages 33, 42, 46-49.
Seam puckering	1. The thread tension is too tight. 2. The machine is not correctly threaded or the thread is tangled. 3. The stitch length dial and/or the differential feed dial is not correctly adjusted. 4. The chaining finger is not set correctly.	Refer to pages 37-41 and 45. Refer to pages 19-32. Refer to pages 33, 42, 46-49. Refer to page 13.
The fabric curls.	1. The upper looper thread tension or the lower looper thread tension is too tight. 2. The chaining finger is not set correctly.	Refer to pages 38-41 and 45. Refer to page 13.
The fabric is not cut neatly.	1. The upper knife is deactivated. 2. The upper knife is dull.	Refer to page 12. Refer to page 54.
The cutting width is too narrow or too wide for the seam width.	1. The cutting width is not adjusted correctly.	Refer to page 12.
The looper threader does not work.	1. The looper threader switch lever is not set to the “THREADING” position. 2. The looper selection lever is not set correctly. 3. The thread is not inserted into the looper threader hole 2 cm or more. 4. The thread is not drawn long enough before it is inserted into the looper threader hole. 5. The thread is tangled in front of the looper threader hole. 6. The thread is wet. 7. The thread is frayed. 8. Lint is accumulated in the looper threader pipe.	Refer to pages 20, 23. Refer to pages 20, 23. Refer to pages 20, 23. Refer to pages 20, 23. Refer to pages 20, 23. Trim the wet thread end. Trim the thread end. Refer to page 53.
The needle threader does not work.	1. The “0” mark on the belt cover is not aligned with the “-” mark on the handwheel. 2. The needle threader switch lever is not set correctly. 3. The needle threader is not used correctly.	Refer to page 30. Refer to page 30. Refer to page 30.



Optional Accessories

No.	Part Name	Description	Part No.
1	Blind stitch foot	Use to blind stitch a cuff or a skirt.	202040004
2	Cording foot (1)	Use to sew decorative cording.	202034005
3	Cording foot (2)	Use to sew decorative cording.	202035006
4	Beading attachment	Use for decorative cloth, wide cord decoration, cording, etc.	202041108
5	Gathering attachment	Use when sewing sleeves, cuffs, clooars, etc.	202036100
6	Elastic gathering attachment	Use for elastic taping, decorative taping, etc.	202037008
7	Cloth guide	Use to help you create a constant-width seam allowance and when doing flatlock and pintuck sewing.	202038009
8	Piping foot (1/8″) Piping foot (3/16″)	Use to pipe the edge of a sewing article to decorate or strengthen.	202039000
9	Gathering foot	Use to sew sleeves, yokes, frills, etc.	200248101

NOTE:
Design and specifications are subject to change without prior notice.

EC DECLARATION OF CONFORMITY

Manufacturer: JANOME Corporation
Address: 1463 Hazama-machi, Hachioji, Tokyo 193-0941, Japan

This machine complies with the following regulations:

EN 60335-1: 2012; A11
EN 60335-2-28: 2003; A1
EN 62233: 2008
EN 55014-1: 2006; A1; A2
EN 55014-2: 2015
EN 61000-3-2: 2014
EN 61000-3-3: 2013

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