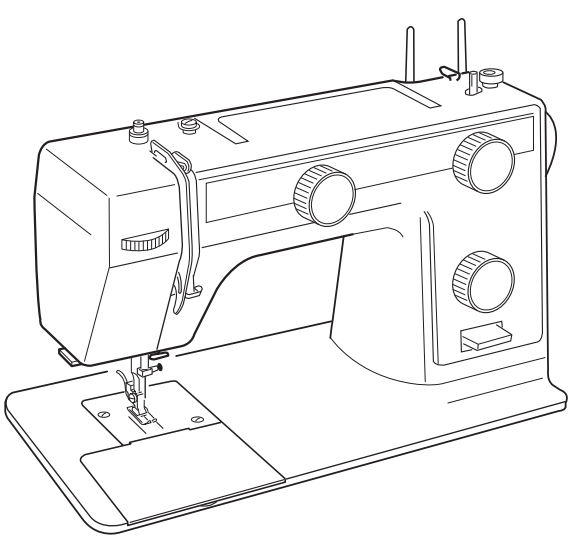
INSTRUCTION BOOK



IMPORTANT SAFETY INSTRUCTIONS

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.

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

This sewing machine is designed and manufactured for household use only.

Read all instructions before using this sewing machine.

DANGER— To reduce the risk of electric shock:

1. An appliance should never be left unattended when plugged in. Always unplug this sewing machine from the electric outlet immediately after using and before cleaning.
2. Always unplug before replacing a sewing machine bulb. Replace bulb with same type rated 15 Watts.

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 sewing 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 sewing 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 sewing 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 sewing machine and foot controller free from accumulation of lint, dust and loose cloth.
5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to the off ("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 sewing machine needle.
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 sewing machine off ("O") when making any adjustment in the needle area, such as threading the needle, changing the needle, threading the bobbin or changing the presser foot, and the like.
15. Always unplug this sewing machine from the electrical outlet when removing covers, lubricating, or when making any other adjustments mentioned in this owner's manual.

SAVE THESE INSTRUCTIONS



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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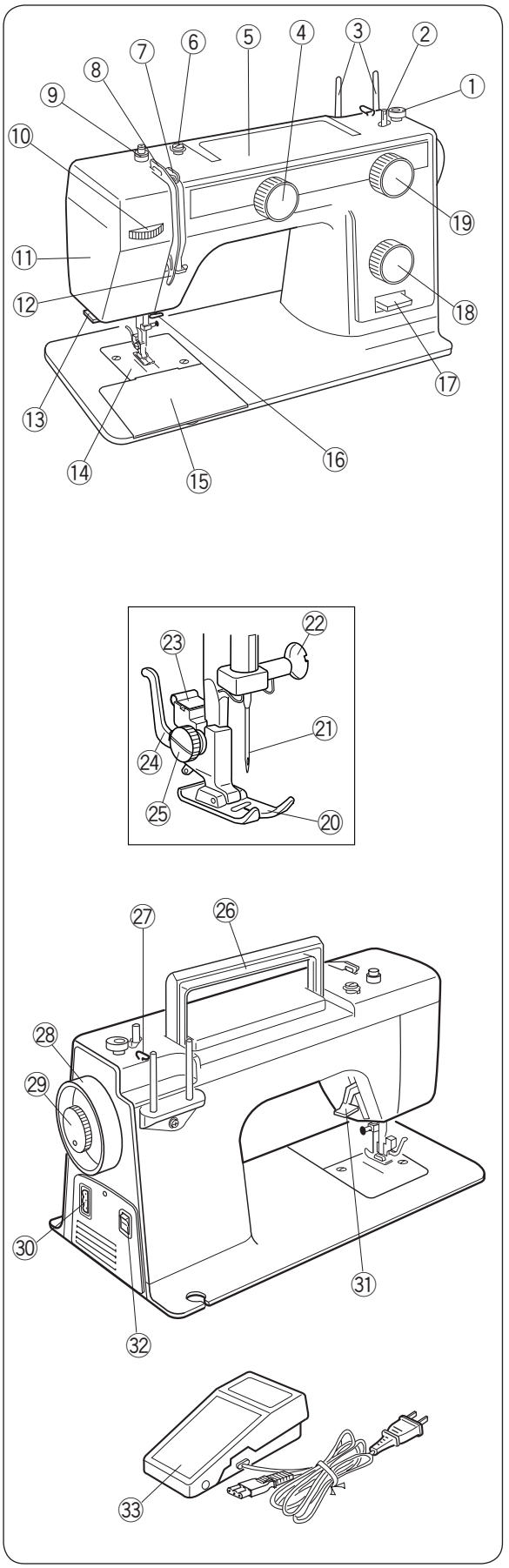
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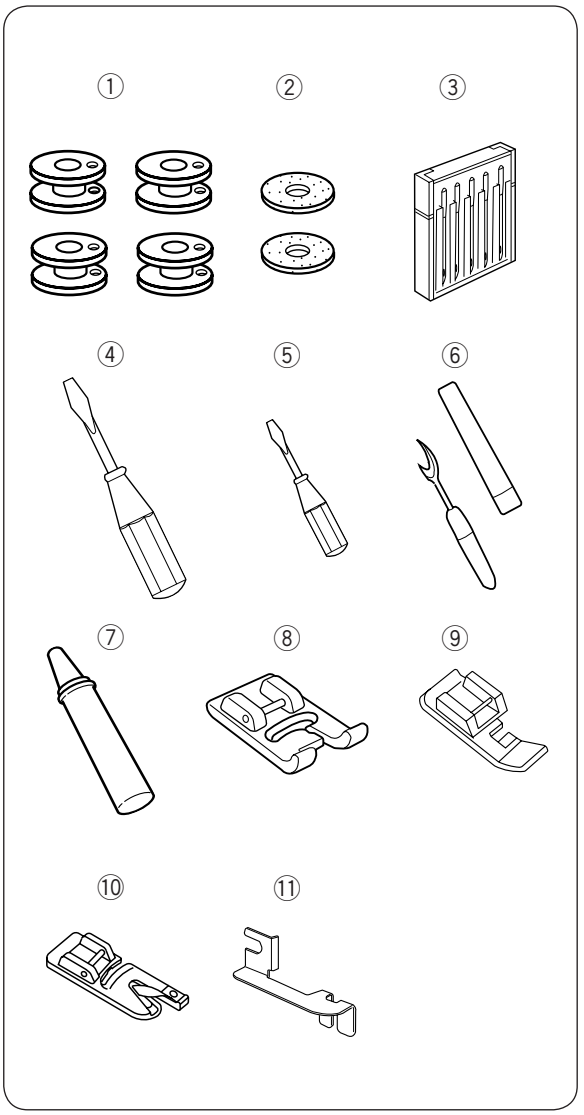
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SECTION 1. ESSENTIAL PARTS

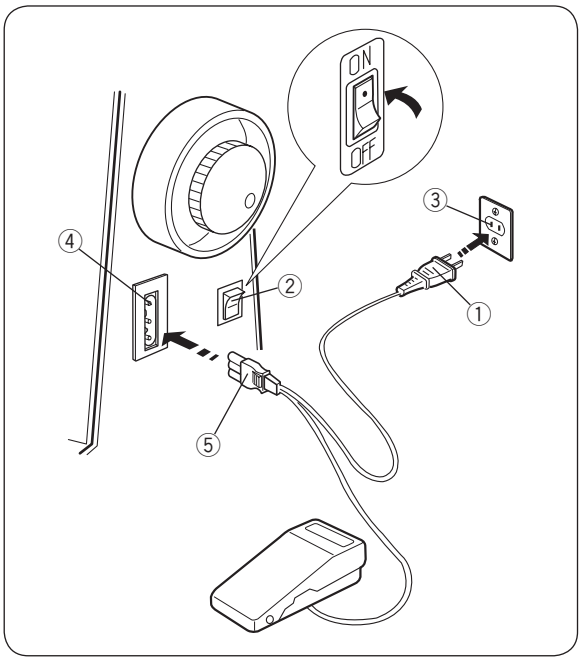
Names of Parts

① Bobbin winder stopper
② Bobbin winder spindle
③ Spool pins
④ Stitch width dial
⑤ Top cover
⑥ Bobbin winder thread guide
⑦ Thread take-up lever
⑧ Upper thread guide
⑨ Pressure regulator
⑩ Thread tension dial
⑪ Face plate
⑫ Check spring holder
⑬ Thread cutter
⑭ Needle plate
⑮ Sliding plate
⑯ Lower thread guide
⑰ Reverse stitch control
⑱ Stitch length dial
⑲ Pattern selector dial
⑳ Presser foot
㉑ Needle
㉒ Needle clamp screw
㉓ Foot holder
㉔ Lever
㉕ Thumb screw
㉖ Carrying handle
㉗ Top cover thread guide
㉘ Handwheel
㉙ Stop motion knob
㉚ Machine socket
㉛ Presser foot lifter
㉜ Power switch
㉝ Foot control



Standard Accessories

① Bobbins
② Felts
③ Needle set
④ Large screwdriver
⑤ Small screwdriver
⑥ Seam ripper/Buttonhole opener
⑦ Oil
⑧ Buttonhole foot
⑨ Zipper foot
⑩ Hemmer foot
⑪ Hem guide



SECTION II. GETTING READY TO SEW

Connecting Machine to Power Supply

① Power supply plug
② Power switch
③ Outlet
④ Machine socket
⑤ Machine plug

Before connecting the power cord, make sure the voltage and frequency shown on the machine conform to your electrical power.

1. Turn off the power switch ②.
2. Insert the machine plug t into the machine socket ④.
3. Insert the power supply plug ① into the outlet ③.
4. Turn on the power switch ② to activate the power and sewing light.

Before Using Your Sewing Machine

Before using your sewing machine for the first time, place a waste fabric under the presser foot and run the machine with thread for a few minutes. Wipe away any oil which may appear.

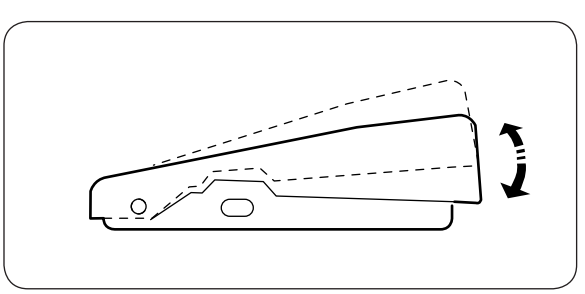
For Your Safety

* While in operation, always keep your eyes on the sewing area. Do not touch any moving parts, such as the thread take-up lever, handwheel or needle.
* Always turn off the power switch and unplug from the power supply:
  - When leaving the machine unattended
  - When attaching or removing any parts
  - When cleaning the machine
* Do not place anything on the foot control, when not sewing.

Operating Instructions:

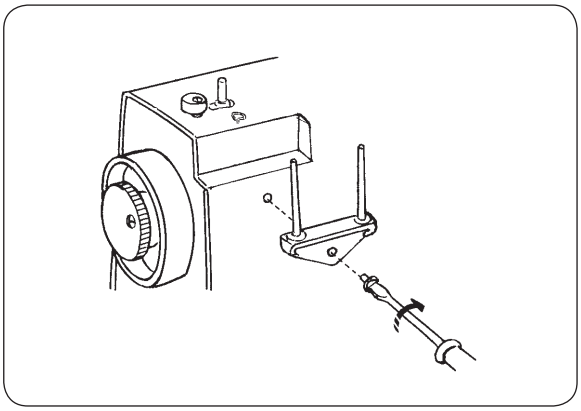
This appliance has a polarized plug (one blade wider than the other). To reduce the risk of an electric shock, this plug is intended to fit in a polarized outlet only one way. If the plug does not fit in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install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

Foot Controller Model YC-482J-EC is used with this sewing machine.



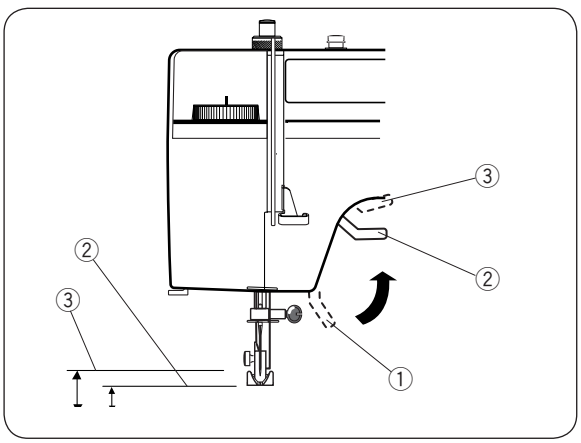
Controlling Sewing Speed

Sewing speed can be varied by the foot control. The harder you press on the foot control, the faster the machine runs.



Setting Spool Pins

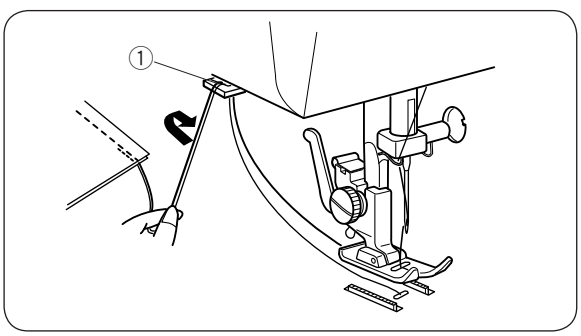
The spool pins are used for holding the spools of thread when feeding the thread to the machine.
Spool pins are separately packed to prevent any damage in transit.
Therefore, fix the holder of spool pins in place with a screwdriver, as shown in the figure.



Presser Foot Lifter

① Presser foot lifter
② Normal up position
③ Highest position

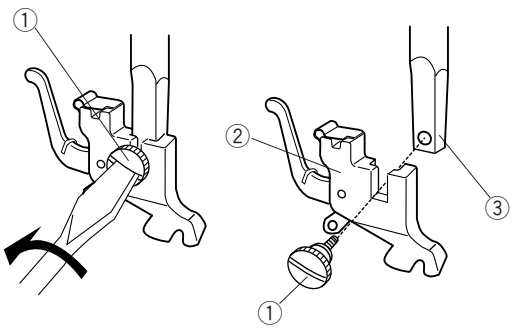
The presser foot lifter raises and lowers the presser foot.
You can raise it about 1/4″ (0.6 cm) higher than the normal up position for easy removal of the presser foot, or to help place heavy fabric under the foot.

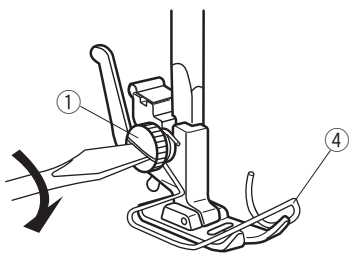


Thread Cutter

① Thread cutter

You do not need a pair of scissors to cut threads after sewing. Simply use the built-in thread cutter.





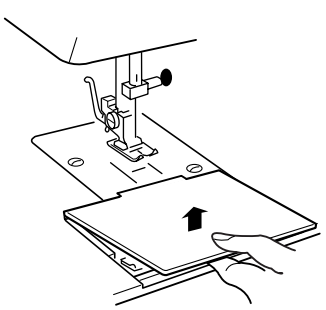
To Remove and Attach the Foot Holder

① Thumb screw
② Foot holder
③ Presser bar
④ Finger guard

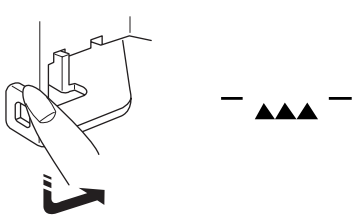
- **To remove**
  Remove the thumb screw ① by turning it counterclockwise with a screwdriver.
- **To attach**
  Match the hole in the foot holder ② with the threaded hole in the presser bar ③. Fit the thumb screw ① into the hole. Hook the finger guard ④ to the thumbscrew ① as illustrated. Tighten the screw ① by turning it clockwise with screwdriver.

NOTE:
For your safety, the machine is equipped with the finger guard. The finger guard should be always attached when sewing. The finger guard is not illustrated on other pages.

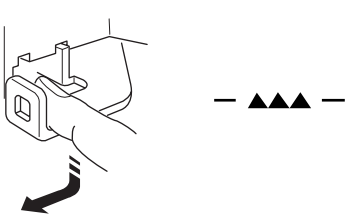
1



2



3

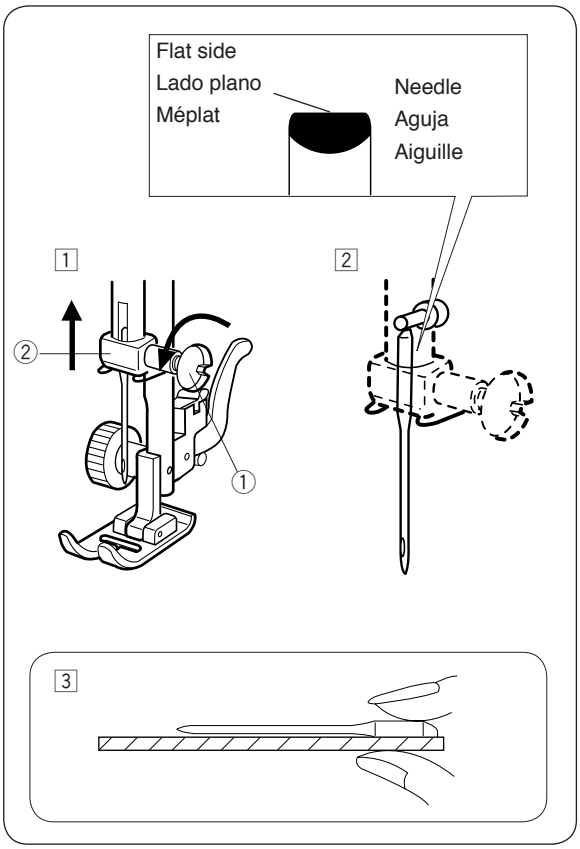


To Drop and Raise the Feed Dogs

1 Remove the sliding plate.

2 For dropping the feed dogs, press down the lever and move it to the direction of arrow as illustrated.

3 To raise the feed dogs, press down the lever and move it to the direction of arrow as illustrated.



Changing Needle

① Needle clamp screw
② Needle clamp

1 Turn off the power switch. Raise the needle to its highest position by turning the handwheel counterclockwise, toward you, and lowering the presser foot. Loosen the needle clamp screw ① by turning it counterclockwise. Remove the needle from the needle clamp ②.

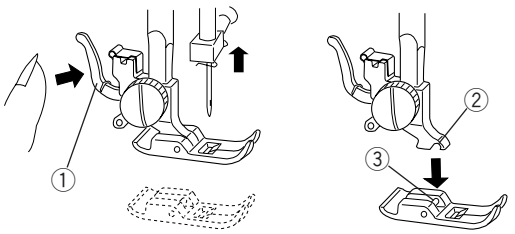
2 Insert a new needle into the needle clamp with the flat side to the rear. When inserting the needle into the needle clamp ②, push it up as far as it goes. Tighten the needle clamp screw ① firmly by turning it clockwise.

3 To see if the needle is good, place the flat side of the needle onto something flat (e.g needle plate or glass).
The gap between the needle and the flat surface should be consistent. Never use a bent or blunt needle.
A damaged needle can cause permanent snags or runs in knits, fine silks and silk-like fabrics.

* In general, fine thread and needles are used for sewing thin fabrics, and thicker threads and needles are used for sewing heavy fabrics. Always test thread and needle size on a small piece of fabric which will be used for actual sewing.
* Use the same thread for needle and bobbin.
* When sewing stretch, very fine fabrics and synthetics, use a BLUE TIPPED needle. The blue tipped needle effectively prevents skipped stitches.
* When sewing very fine fabrics, sew over a piece of paper to prevent yarn distortion.

Thread and Needle Chart

	Fabrics	Threads	Needle Size
Light weight	Crepe de Chine, Vile Lawn, Organdy, Georgette, Tricot	Fine silk Fine Cotton Fine Synthetic Fine Cotton Covered Polyester	9 or 11
Medium weight	Linens, Cotton, Pique, Serge, Double Knits, Percale	50 silk 50 to 80 Cotton 50 to 60 Synthetic Cotton Covered Polyester	11 or 14
Heaavy weight	Denim, Tweed, Gabardine, Coating, Drapery and Upholstery Fabric	50 silk 40 to 50 Cotton 40 to 50 Synthetic Cotton Covered Polyester	14 or 16



Changing Presser Foot

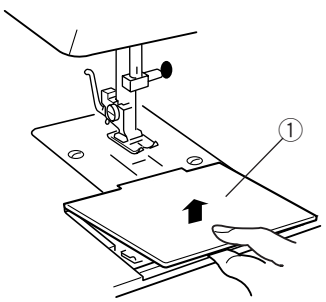
• **To remove**

Turn the handwheel toward you to raise the needle to its highest position. Press the lever ① on the back of the foot holder. The presser foot will drop off.

• **To attach**

Place the presser foot so the pin ③ on the foot lines just under the groove ② of the foot holder. Lower the foot holder to lock the foot in place.

① Lever
② Groove
③ Pin

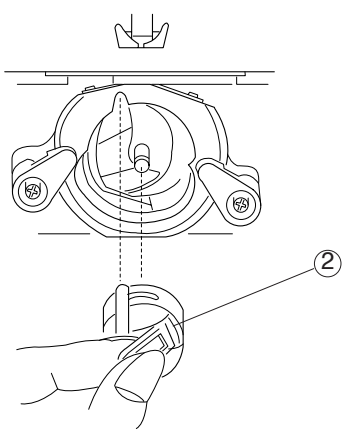


Bobbin Winding

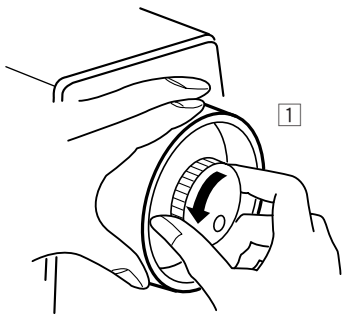
• **Removing bobbin case**

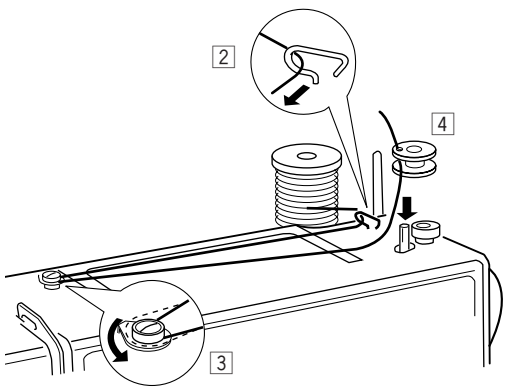
Remove the sliding plate ①.

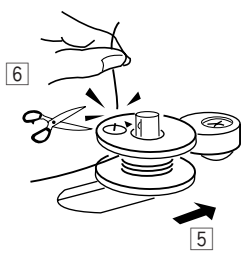
① Sliding plate
② Bobbin case

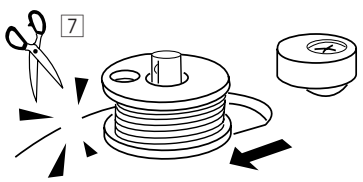


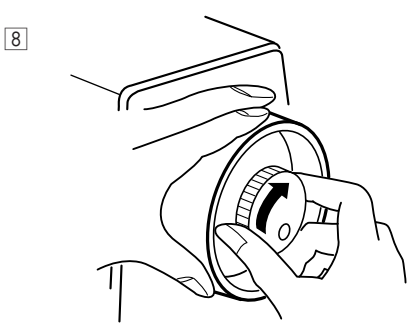
To remove the bobbin case ② from the shuttle, pull open the latch of the bobbin case. Pull the bobbin case ② straight out of the shuttle.











• Winding the Bobbin

1 While holding the handwheel with your left hand, turn the stopmotion knob in the direction of arrow.

2 Draw the thread from spool.
Pass the thread through the topcover thread guide.

3 Guide the thread around the bobbin winder thread guide.

4 Insert the thread through the hole in the bobbin from the inside to the outside.
Put the bobbin on the bobbin winder spindle.

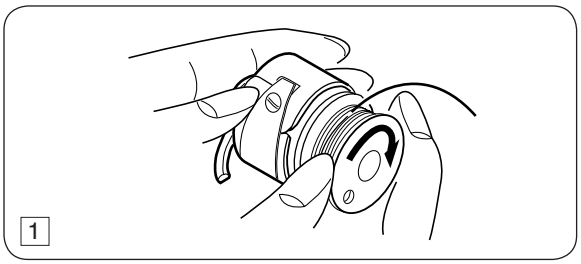
5 Push it to the right.

6 With the free end of the thread held in your hand, depress the foot control.
Stop the machine when it has made few turns, and cut the thread close to the hole in the bobbin.

7 Depress the foot control again.
When the bobbin is fully wound, stop the machine. Return the bobbin winder spindle to its original position by moving the spindle to the left, and cut the thread.

8 Tighten the stopmotion knob to engage the clutch.

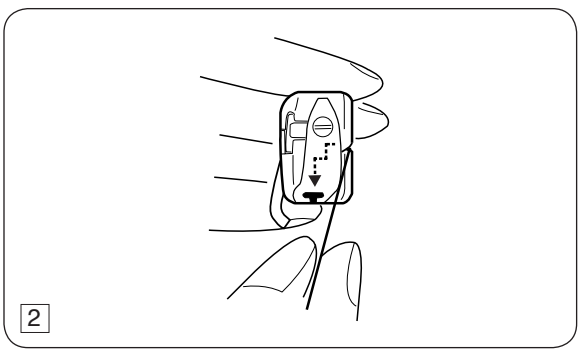
NOTE:
Return the bobbin winder spindle when the machine stops.



1

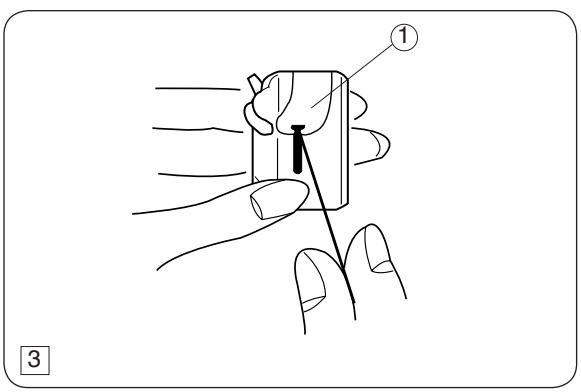
• Inserting bobbin

1 Place a bobbin in the bobbin case, making sure the thread feeds clockwise from the bobbin.



2

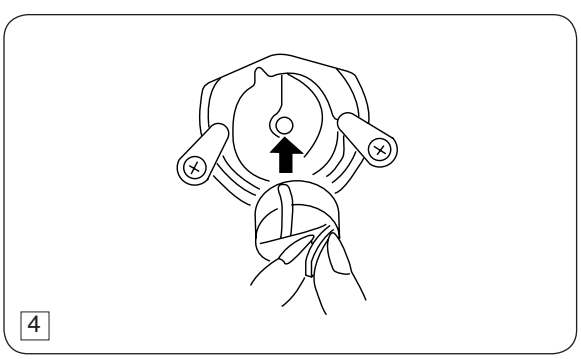
2 Draw the thread through the slot of the case.



3

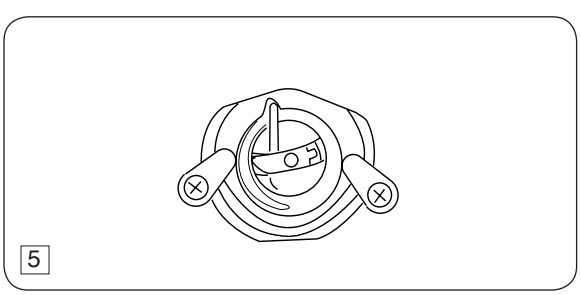
3 Continue to draw the thread under the tension spring and through the opening. Pull out about 4″ (10 cm) of thread..

① Tension spring



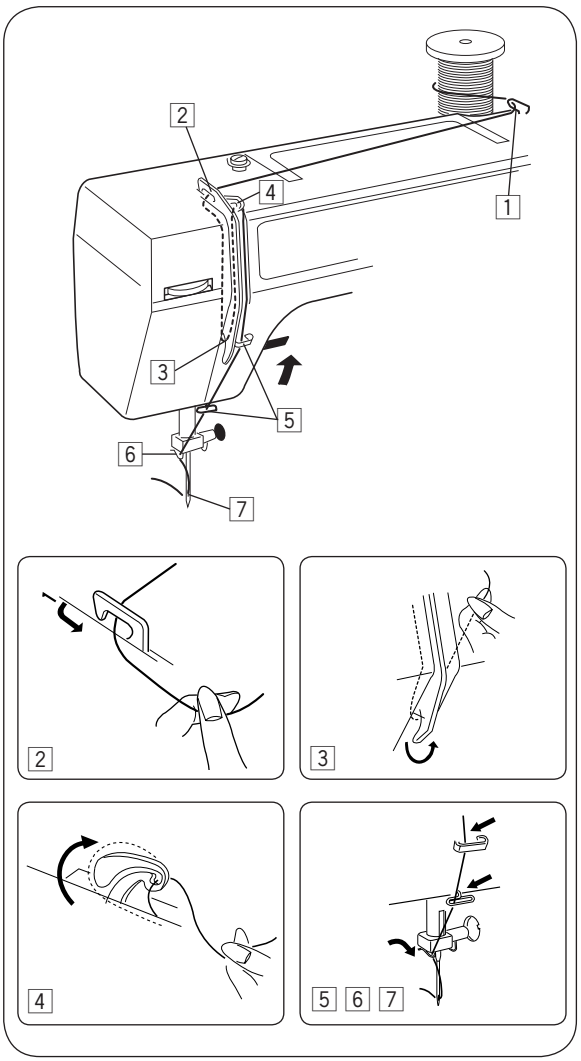
4

4 Holding the latch open, position the bobbin case into the shuttle, and then release the latch.



5

5 The case should lock into the place when the latch is released.



Threading the Machine

• **Threading the machine**

* Raise the thread take-up lever to its highest position by turning the handwheel counter clockwise.
* Raise the presser foot lifter.
* Place a spool on the spool pin, with thread coming off as shown.

1 Pass the thread through the top cover thread guide.

2 Draw the end of thread around the upper thread guide.

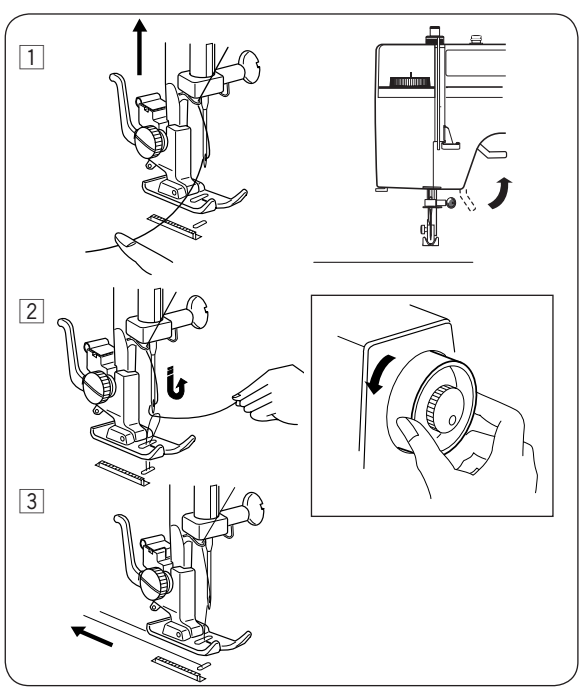
3 While holding the thread near the spool, draw the end of the thread down around the check spring holder.

4 Firmly draw the thread up and from left to right over the take-up lever then down into the take-up lever eye.

5 Then down through the lower thread guides.

6 Slide the thread behind the needle bar thread guide on the left.

7 Thread the needle from front to back.

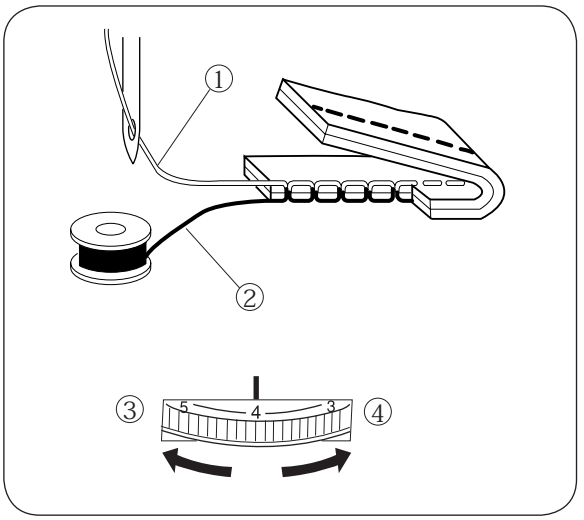


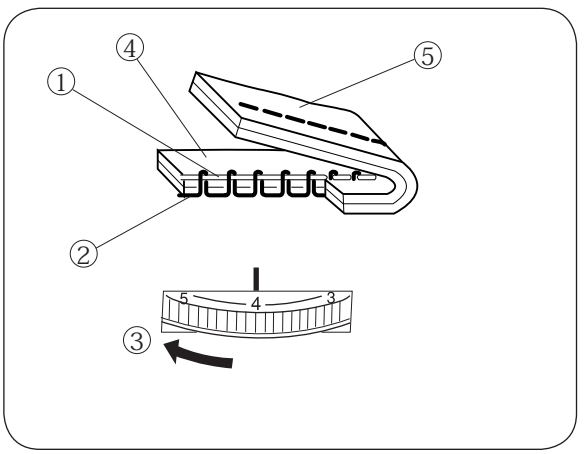
• **Drawing up bobbin thread**

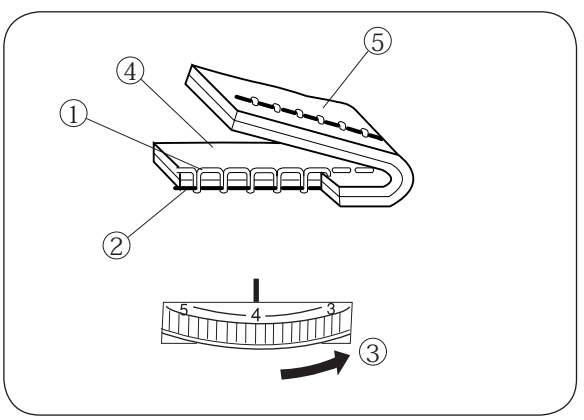
1 Raise the presser foot. Hold the needle thread lightly with your left hand.

2 Rotate the handwheel counterclockwise, toward you, for one complete turn. Bring the bobbin thread up by pulling the needle thread up.

3 Pull both threads 4″ to 6″ (10.0 to 15.0 cm) under and behind the presser foot.







Adjust the Needle Thread Tension for a Straight Stitch

- **Correct tension**

  ① Needle thread (Top thread)
  ② Bobbin thread (Bottom thread)
  ③ To loosen
  ④ To tighten

  The ideal straight stitch has threads locked between two layers of fabric, as illustrated (magnified to show detail). If you look at the top and bottom of a seam, notice that there are no gaps. Each stitch is smooth and even. When adjusting the needle thread tension, the higher the number, the tighter the needle thread tension.

  Results depend on:
  - stiffness and thickness of the fabric
  - number of fabric layers
  - type of stitch

- **Tension is too tight**

  ① Needle thread (Top thread)
  ② Bobbin thread (Bottom thread)
  ③ To loosen
  ④ Right side (Top side) of fabric
  ⑤ Wrong side (Bottom side) of fabric

  If the bobbin thread shows through on the right side (Top side) of the fabric, and the stitch feels bumpy, turn the dial to a lower tension setting number to loosen the needle thread tension.

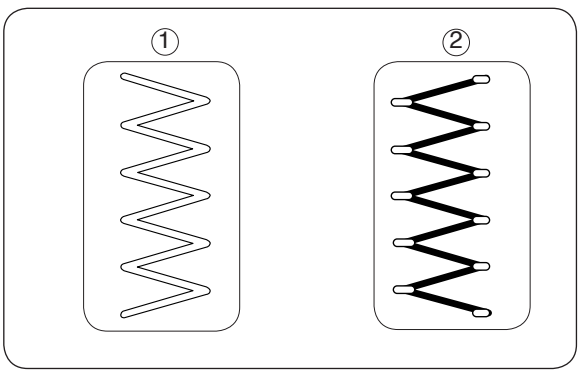
- **Tension is too loose**

  ① Needle thread (Top thread)
  ② Bobbin thread (Bottom thread)
  ③ To tighten
  ④ Right side (Top side) of fabric
  ⑤ Wrong side (Bottom side) of fabric

  If the needle thread shows through on the wrong side (Bottom side) of the fabric, and the stitch feels bumpy, turn the dial to a higher tension setting number to tighten the needle thread tension.

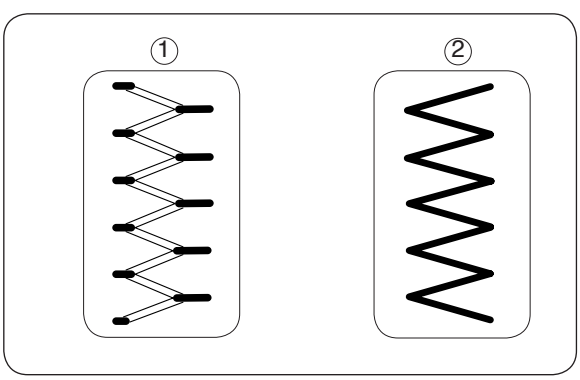
Adjust the Needle Thread Tension for a Zigzag Stitch

For an ideal zigzag stitch, the bobbin thread does not show on the right side (Top side) of the fabric and needle thread shows slightly on the wrong side (Bottom side) of the fabric.
See the illustrations for correct appearance. To match this appearance, adjust the needle tension.



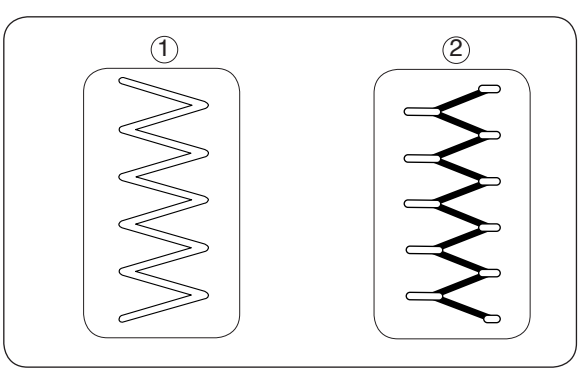
- **Correct tension**
  ① Right side (Top side) of fabric
  ② Wrong side (Bottom side) of fabric

  Minimize the amount of needle thread visible on the wrong side (Bottom side) of the fabric without causing excessive puckering or causing bobbin thread to show on the right side (Top side) of the fabric.
  Results vary with fabric, thread and sewing condition.



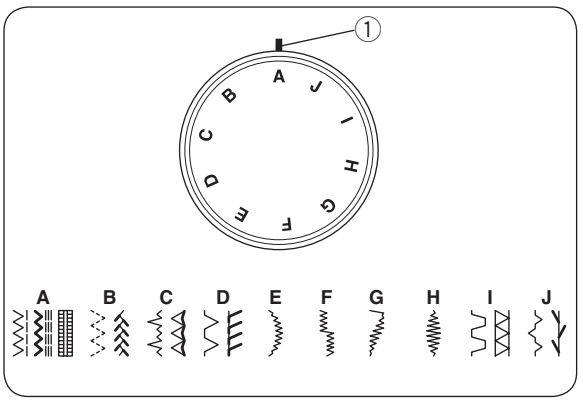
- **Tension is too tight**
  ① Right side (Top side) of fabric
  ② Wrong side (Bottom side) of fabric

  The corner of each zigzag pulls together on the right side (Top side) of fabric.



- **Tension is too loose**
  ① Right side (Top side) of fabric
  ② Wrong side (Bottom side) of fabric

  Corner of each zigzag pulls together on the wrong side (Bottom side) of fabric.

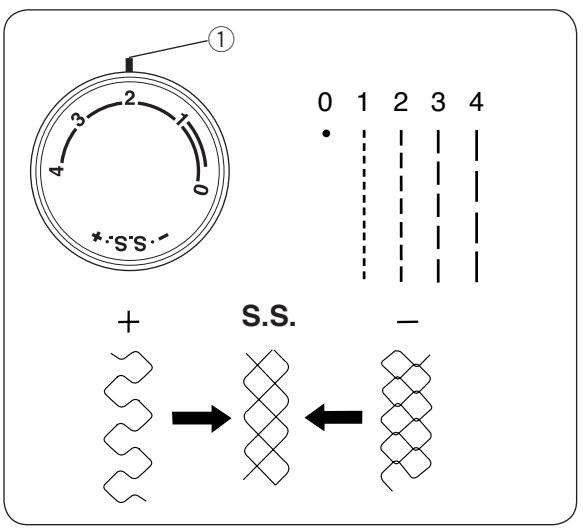


Pattern Selector Dial

Raise the needle and presser foot. Turn the pattern selector dial to set the symbol corresponding to the desired pattern at the setting mark.

① Setting mark

NOTE:
To avoid needle or fabric damage, make sure the needle is up and out of the fabric while selecting a stitch.

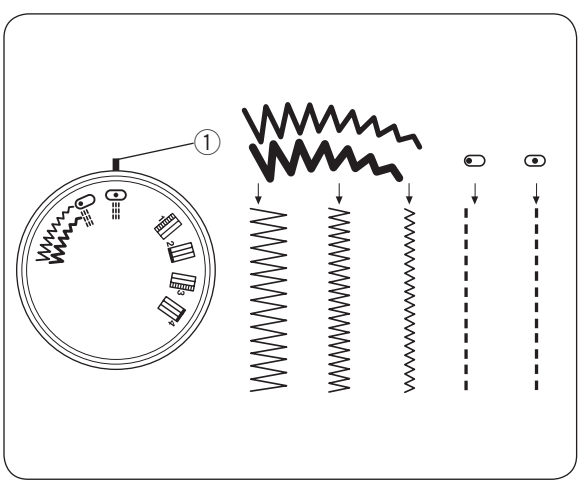


Stitch Length Dial

Turn the stitch length dial to set the desired stitch length at the setting mark.
The higher the number, the longer the stitch length.

① Setting mark

- Adjust the dial in the 0.5–4 range when you sew the zigzag stitch.
- Set the dial at “S.S.” to sew the stretch stitch pattern sewing.
- If the stretch stitch pattern is not uneven, turn the stitch length dial in the direction of “–” to compress it, or “+” to expand it.

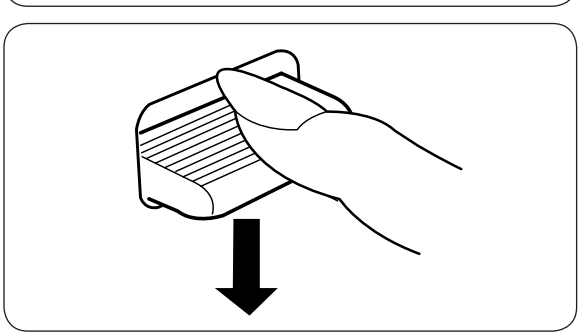


Stitch Width Dial

Turn the stitch width dial to set the desired stitch length at the setting mark.

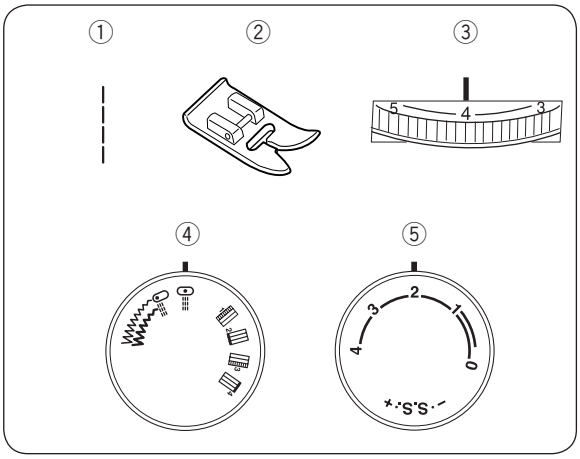
① Setting mark

NOTE:
To avoid needle or fabric damage, make sure the needle is up and out of the fabric when you turn the stitch width dial.



Reverse Stitch Control

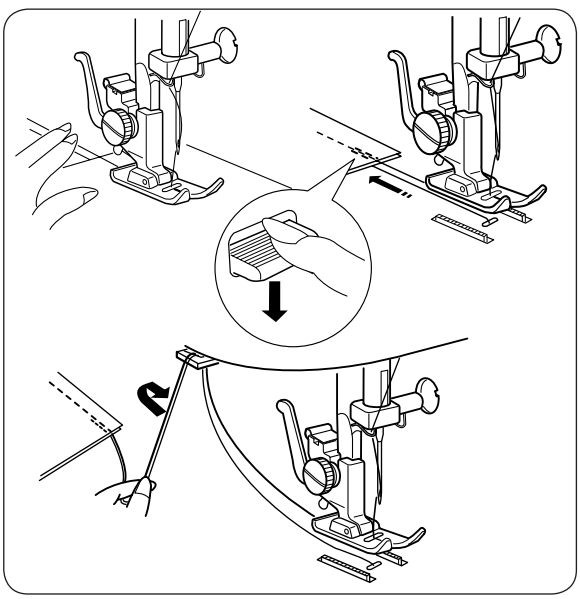
Press the stitch control to sew in reverse.



SECTION 3. BASIC SEWING

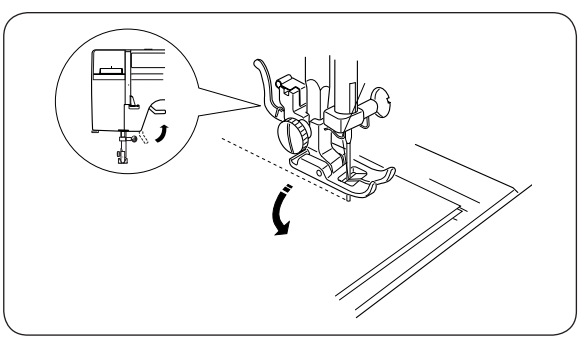
Straight Stitch Sewing

① Pattern selector: A
② Presser foot: Zigzag foot
③ Thread tension: 2–6
④ Stitch width: or
⑤ Stitch length: 1.5–4



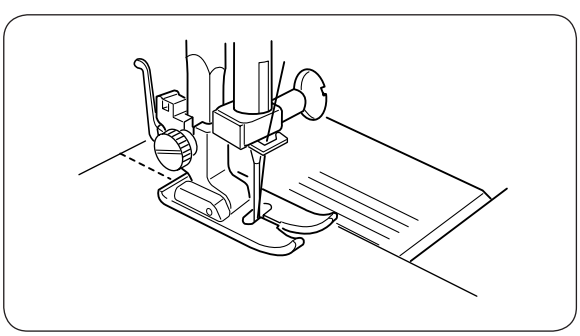
- **Starting to sew**
  Raise the presser foot and position the fabric next to a seam guide line on the needle plate (5/8″ [1.6 cm] is most common). Lower the needle to the point where you want to start. Lower the presser foot and pull the threads toward the back. Depress the foot control. Gently guide the fabric along a seam guide line letting the fabric feed naturally.
- **Finishing sewing**
  To fasten the ends of a seam, press the reverse stitch control and sew several reverse stitches. Raise the presser foot. Remove the fabric, draw the threads to the back and cut them with the thread cutter. The threads are now the proper length to begin sewing the next seam.

⚠ CAUTION:
Do not place fingers near the presser foot when guiding fabric, or the needle clamp screw may strike and injure your fingers.



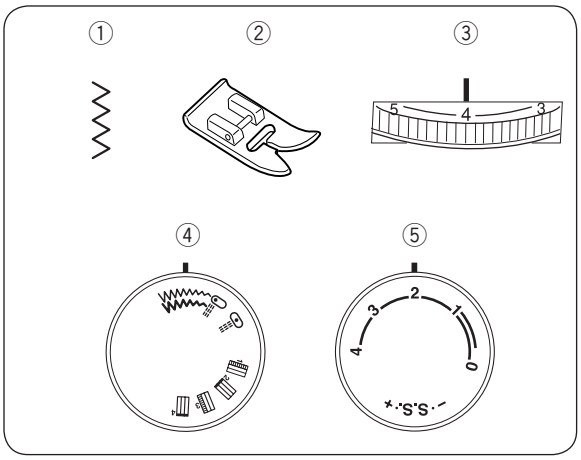
To Change Sewing Direction

Stop the machine and turn the handwheel toward you to bring the needle down into the fabric.
Raise the presser foot.
Pivot the fabric around the needle to change sewing direction as desired. Lower the presser foot and continue sewing.



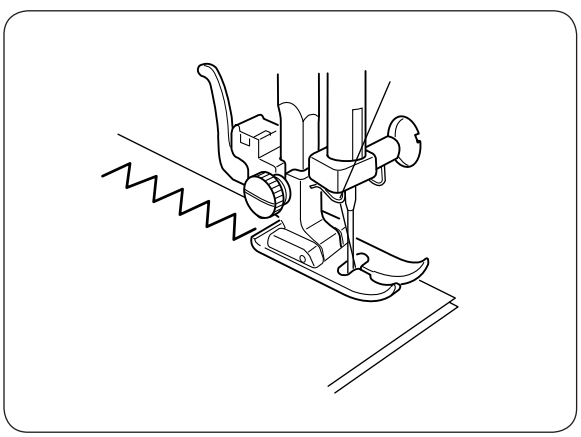
Use the Seam Guides

The seam guides on the needle plate are there to help you measure seam width. The numbers on the needle plate indicate the distance between the center needle position and the edge of the fabric. The lines are 1/8″ (0.3 cm) apart, and are engraved at 3/8″, 4/8″, 5/8″ and 6/8″. The lines in millimeters are 5 mm apart, and are engraved at 10 mm, 15 mm and 20 mm.

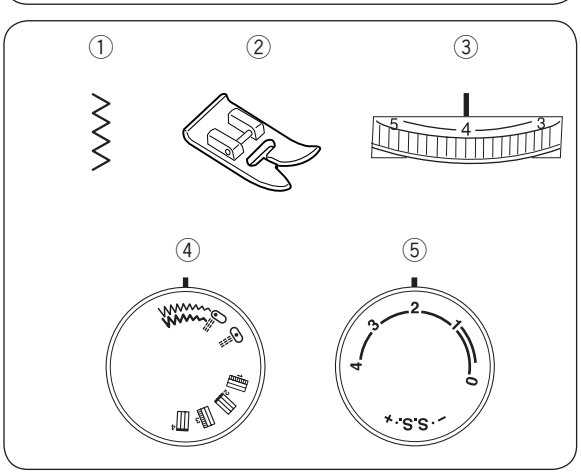


Zigzag Sewing

① Pattern selector: A
② Presser foot: Zigzag foot
③ Thread tension: 2–5
④ Stitch width:
⑤ Stitch length: 0.5–4



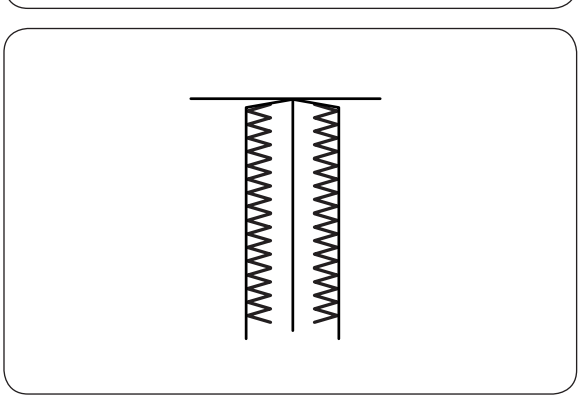
The zigzag stitch is one of the most common and versatile stitches. It can be a utility stitch for button sewing, buttonhole making, hemming, overcasting, mending and darning.
It can also be used to decorate with trims, appliques and cut work, or as a decorative stitch.



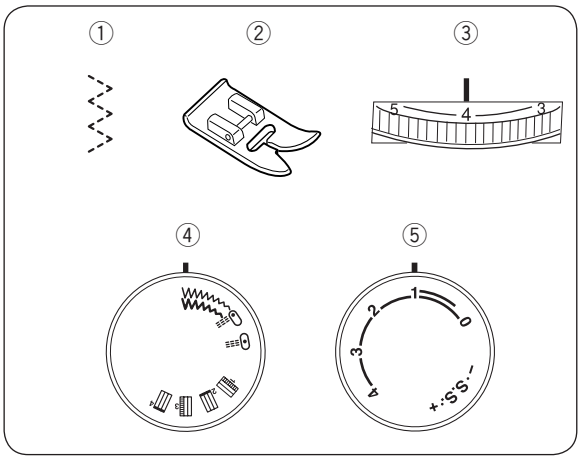
SECTION 4. UTILITY STITCHING

Overcasting

① Pattern selector: A
② Presser foot: Zigzag foot
③ Thread tension: 1–4
④ Stitch width:
⑤ Stitch length: 1–2

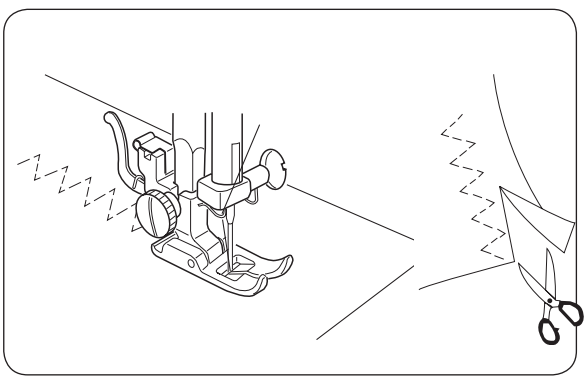


This stitch is useful in garment construction, and in finishing the raw edges of any sewing project. Start overcasting about 1/8″(0.3 cm) inside the raw corner of a fabric. The right tip of the stitch should just clear the row edge.

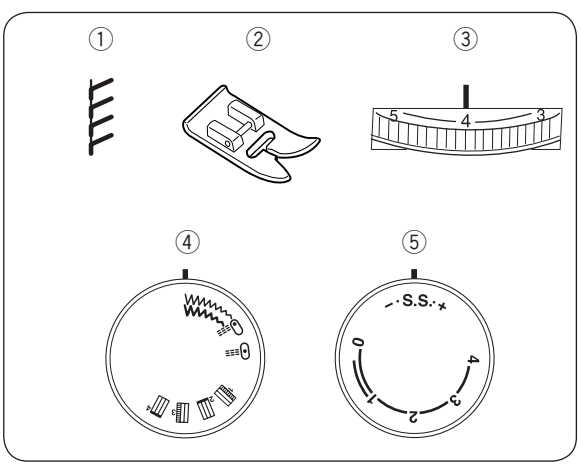


Tricot Stitch

① Pattern selector: B
② Presser foot: Zigzag foot
③ Thread tension: 1–4
④ Stitch width: (maximum stitch width)
⑤ Stitch length: 0.5–1.5

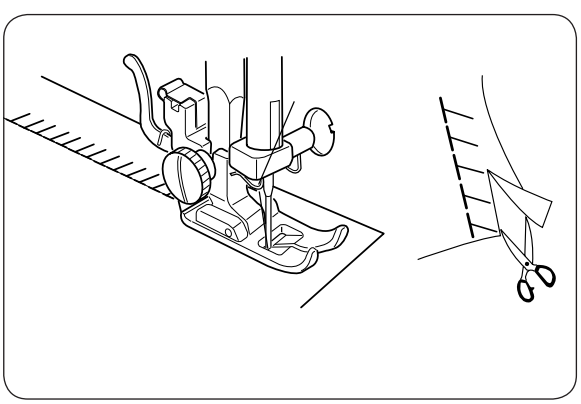


Place the fabric under the presser foot in such a manner that the edge is slightly inside the right-hand side of the presser foot. Guide the fabric so that the right hand stitches fall at the edge of the fabric.
Trim the excess close to the stitches. Be careful not to cut the stitches.



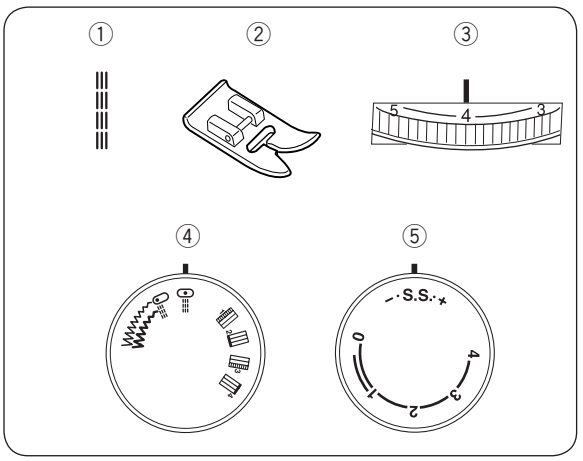
Knit Stitch

① Pattern selector: D
② Presser foot: Zigzag foot
③ Thread tension: 1–4
④ Stitch width: (maximum stitch width)
⑤ Stitch length: S.S.



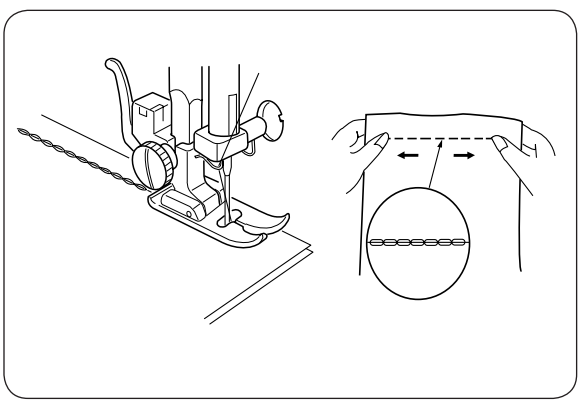
This knit stitch is ideal for sewing swimwear and stretch velour because it provides the greatest amount of elasticity and strength. Place your fabric to allow a 1.6 cm (5/8″) seam.
Trim the seam allowance after sewing.

NOTE:
Be careful not to cut the stitches.



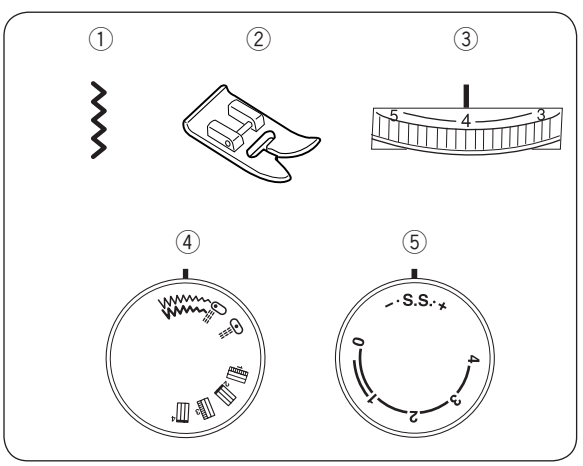
Straight Stretch

① Pattern selector: A
② Presser foot: Zigzag foot
③ Thread tension: 2–6
④ Stitch width: or
⑤ Stitch length: S.S.



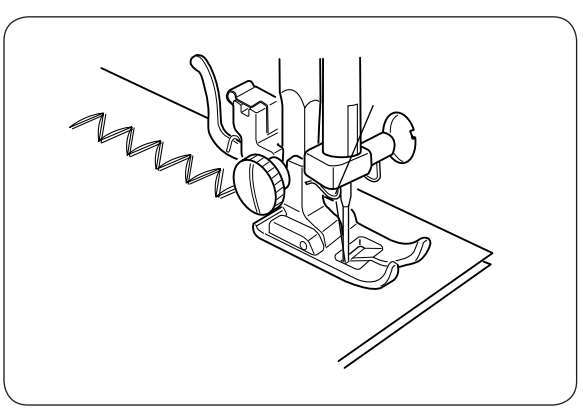
This strong, durable stitch is recommended where both elasticity and strength are necessary to ensure comfort and durability.

Use it to reinforce areas such as crotch and armhole seams as well as to eliminate puckering on knits and stretch fabrics. Also use when constructing items requiring extra strength such as backpacks.

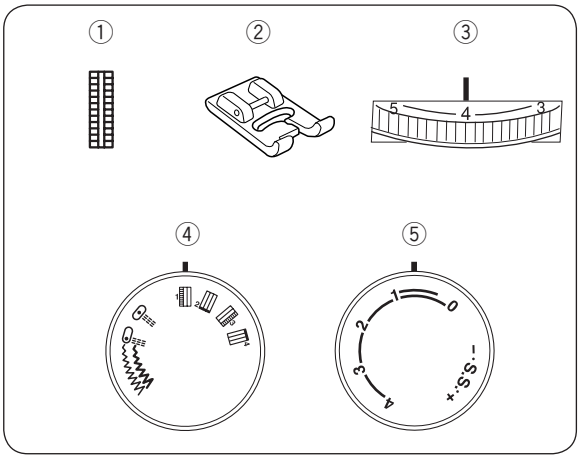


Rick-rack Stretch

① Pattern selector: C
② Presser foot: Zigzag foot
③ Thread tension: 2–6
④ Stitch width:
⑤ Stitch length: S.S.



Sew on stretch fabrics in any area that you might use a zigzag stitch. This stitch is also used as a decorative topstitch.

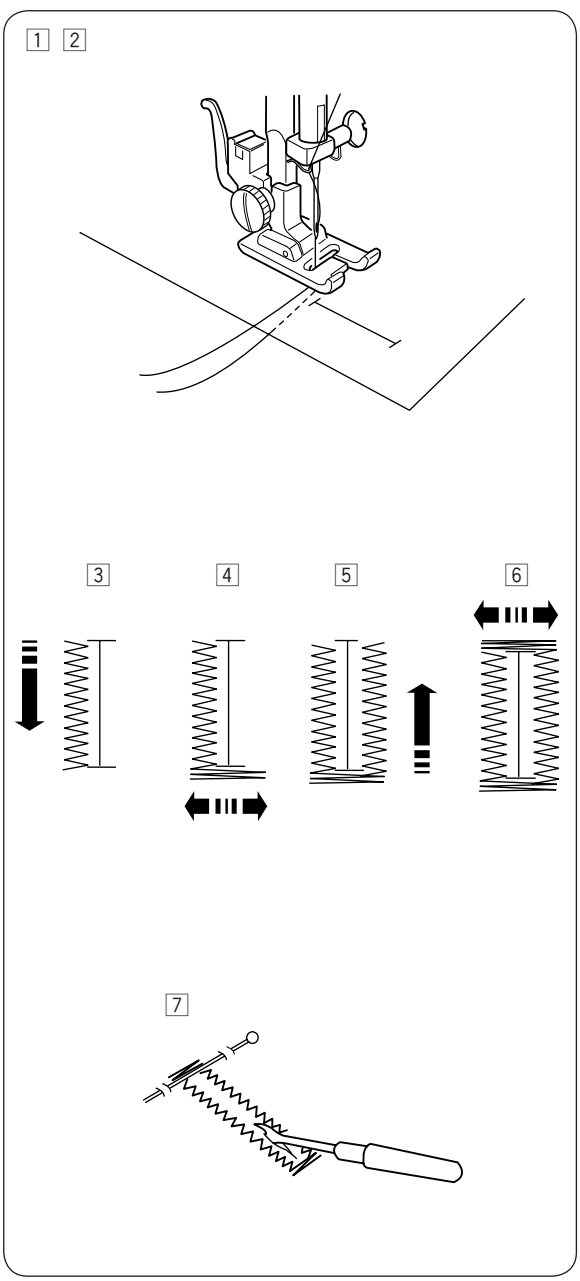


Buttonhole

① Pattern selector: A
② Presser foot: Buttonhole foot
③ Thread tension: 2–6
④ Stitch width: 1 → 2 → 3 → 4
⑤ Stitch length: 0.5-1

To adjust buttonhole stitch density:

Set the stitch length dial between 0.5 and 1.0 to adjust the buttonhole stitch density.



1 Carefully mark buttonhole length on fabric. Place the fabric under the foot with the buttonhole marking running toward you.

2 Slide both threads to the left. Line up the foot with the top mark on the fabric. Lower the needle into the fabric where the buttonhole is to start, and lower the foot.

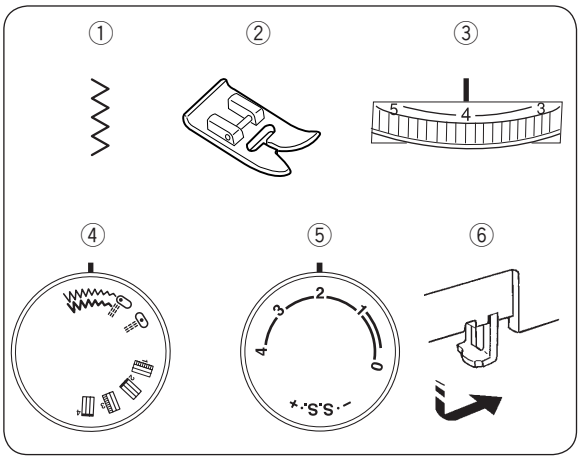
3 Set the pattern selector dial at "1". Sew forward until you reach the front marking of your buttonhole.
Stop sewing at a left stitch.

4 Set the pattern selector dial at "2". Sew 4 to 6 stitches. Stop sewing at a right stitch.

5 Set the pattern selector dial at "3".
Sew until you reach the back marking of the buttonhole. Stop sewing at a right stitch.

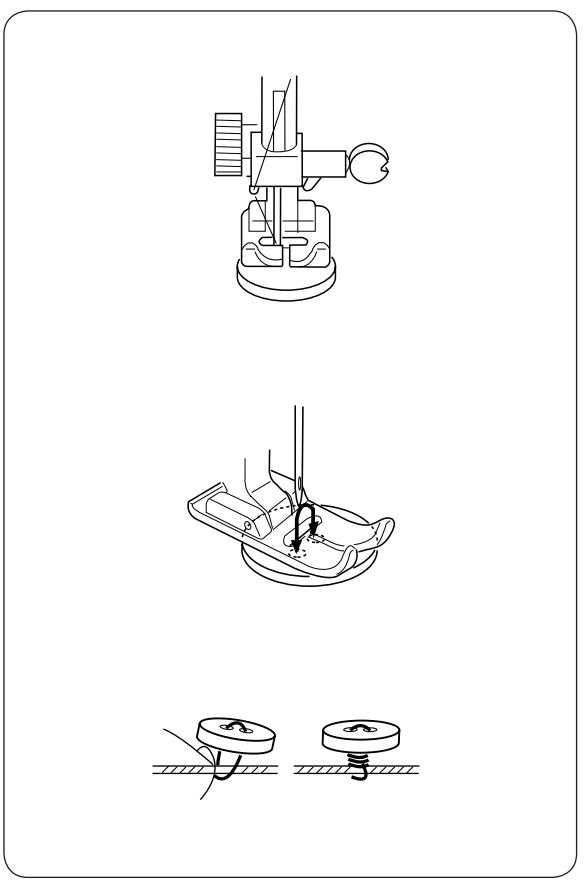
6 Set the pattern selector dial at "4".
Sew a few bartacks and raise the needle from the fabric.
Set the stitch length dial to "0" and the pattern selector dial at straight sewing.
Sew a few locking stitches.

7 Remove the fabric from the machine and cut the sewing thread. Insert a pin inside the bartack. Then cut the opening with a seam ripper. Take care not to cut the stitches.

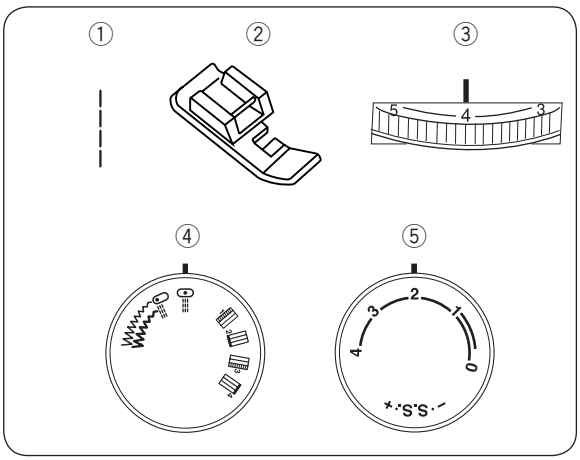


Button Sewing

① Pattern selector: A
② Presser foot: Zigzag foot
③ Thread tension: 2–6
⑤ Stitch width:
④ Stitch length: Any
⑥ Feed dog: Dropped

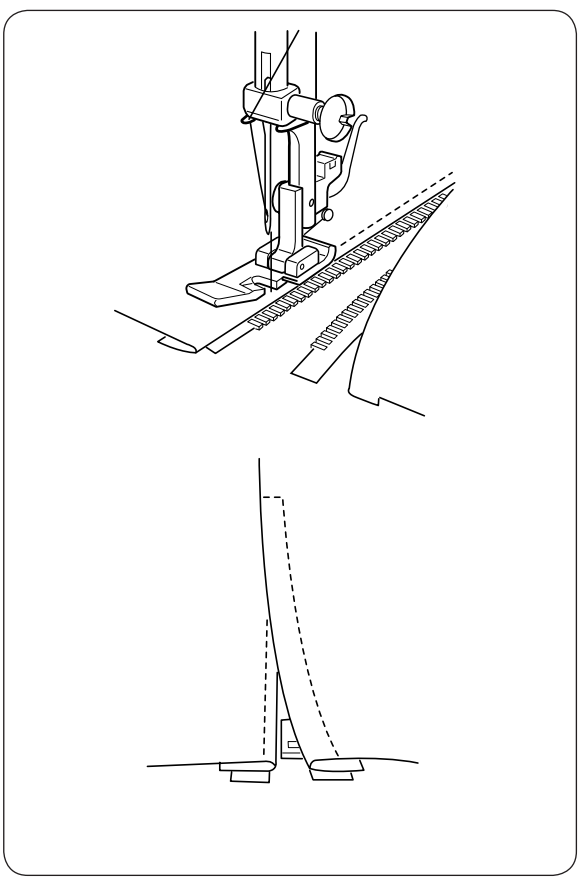


Drop the feed dogs. Match the holes in a button with the horizontal slot on the Presser foot. Adjust stitch width matching the distance of the holes on the button. Lower the foot to hold the button in place. Check to see if the needle enters into the holes on the button by turning the handwheel by hand. Sew about ten (10) stitches. To strengthen the shank, cut the threads leaving about 4.0˝ (10.0 cm). Bring the needle thread down through one of the holes on the button and wind it around the shank. Bring the needle thread to the wrong side (bottom side) and knot. After button sewing is completed, raise the feed dogs for normal sewing.

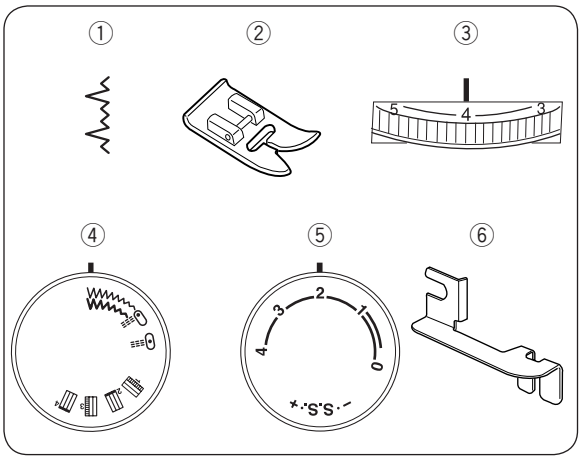


Zipper Application

① Pattern selector: A
② Presser foot: Zipper foot
③ Thread tension: 3–6
④ Stitch width:
⑤ Stitch length: 2

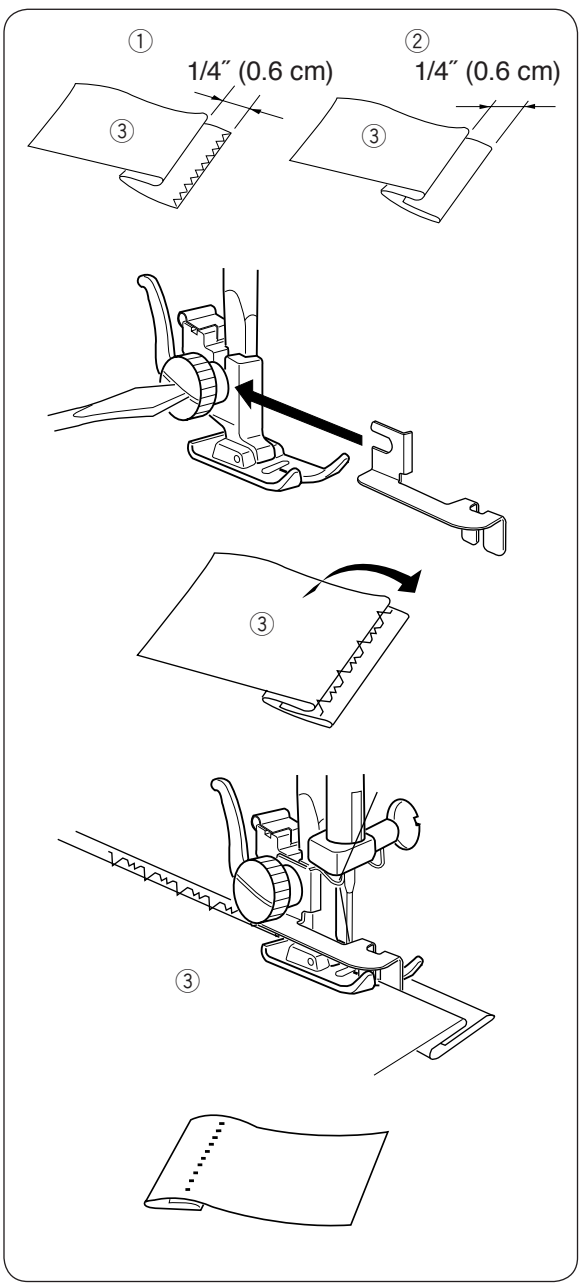


Pin or baste zipper tape to fabric and place it under the foot.
Smooth the threads toward the back and lower the foot.
To sew the left side of the zipper, guide the zipper teeth along the edge of the foot and stitch through the garment and zipper tape.
Turn the fabric and sew the other side of the zipper in the same way as you did the left side.



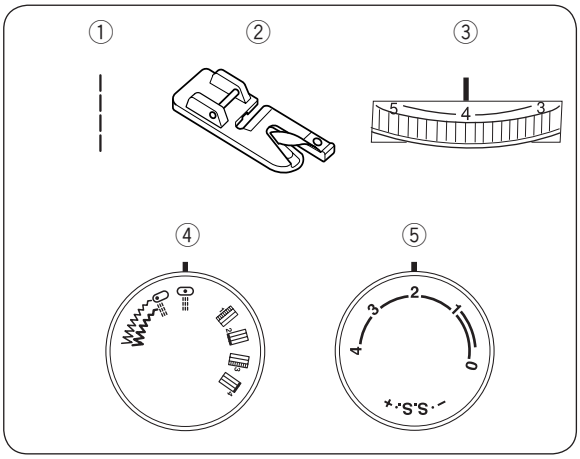
Blind Stitch Hemming

① Pattern selector: C
② Presser foot: Zigzag foot
③ Thread tension: 2 – 4
④ Stitch width: (maximum stitch width)
⑤ Stitch length: 1 – 3
⑥ Hem guide



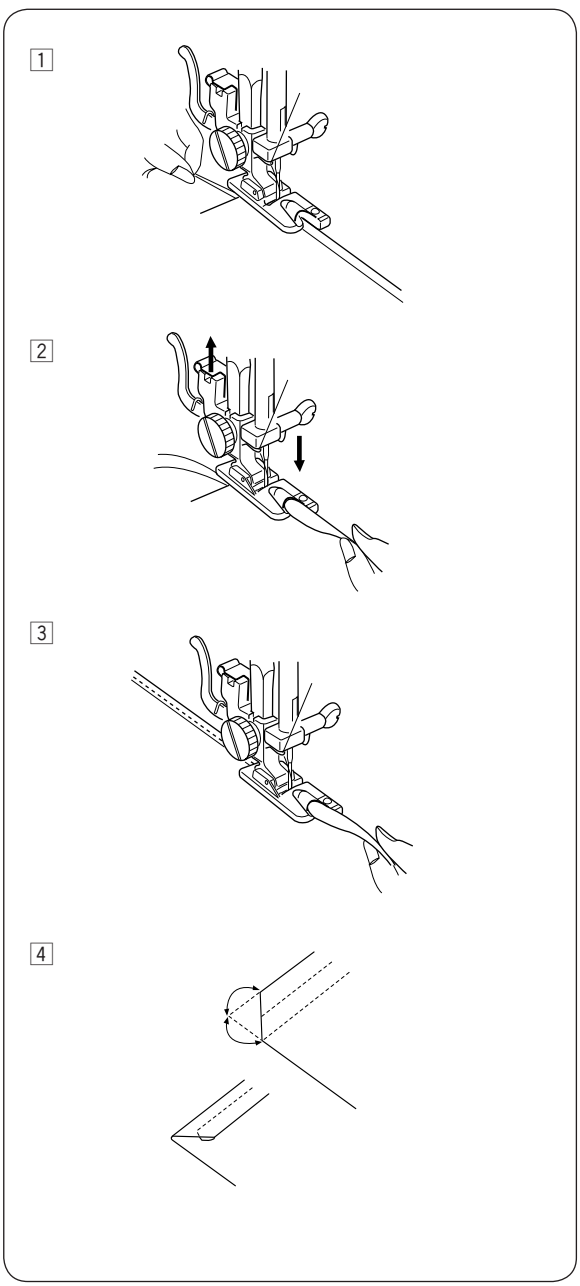
① Lightweight fabric
② Heavyweight fabric
③ Wrong side (Bottom side) of fabric

On heavyweight fabrics that ravel, the raw edge should be overcast first. Then fold the hem, as illustrated leaving 1/4″ (0.6 cm) of the hem edge showing.
Lower the presser foot, then loosen the foot holder screw to place the hem guide between the screw and the shank of foot holder.
Tighten the screw making sure the wall of hem guide is placed in the middle of the toes of the presser foot.
Raise the presser foot and place the fabric under the foot so that the fold rests against the wall of hem guide.
Lower the foot, then stitch slowly for better control so that the zigzag stitches fall on the hem allowance and pierce the fold.
While sewing, make sure the fold runs along the wall of hem guide.



Rolled Hem

① Pattern selector: A
② Presser foot: Rolled Hem foot
③ Thread tension: 2–6
④ Stitch width :
⑤ Stitch length: 1.5 – 4

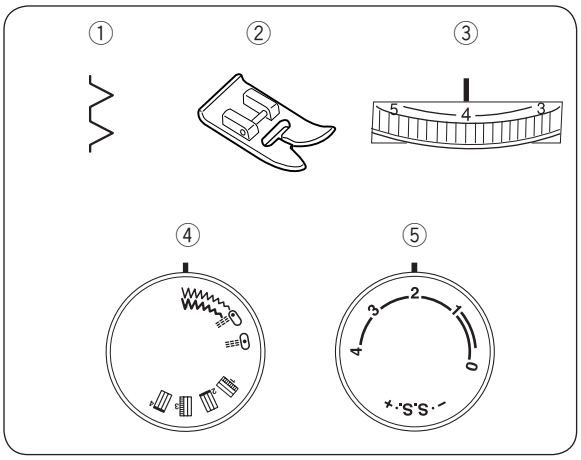


1 Lower the needle into the fabric at the point where sewing is to begin, then lower the hemmer foot. Sew 3 or 4 stitches while holding the needle and bobbin threads.

2 Lower the needle into the fabric and lift the hemmer foot. Insert the folded portion of the fabric into the curl of the hemmer foot.

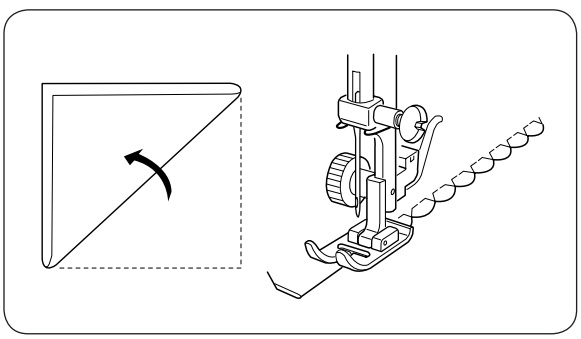
3 Lower the hemmer foot, then sew by lifting up the edge of the fabric to keep it feeding smoothly and evenly.

4 Trim about 1/4″ (0.6 cm) from corners as illustrated, to reduce bulk.

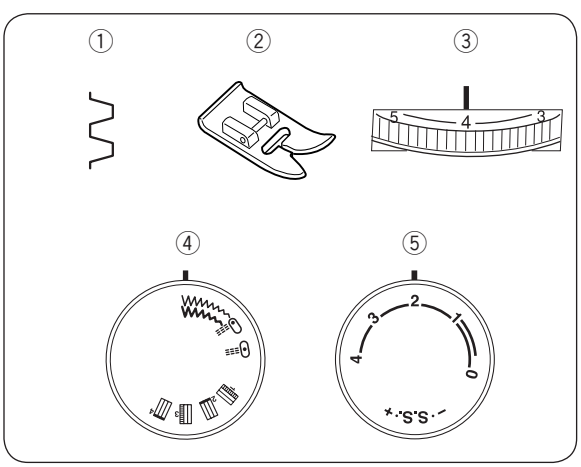


Shell Stitch

① Pattern selector: D
② Presser foot: Zigzag foot
③ Thread tension: 3 – 9
④ Stitch width: (maximum stitch width)
⑤ Stitch length: 2 – 3

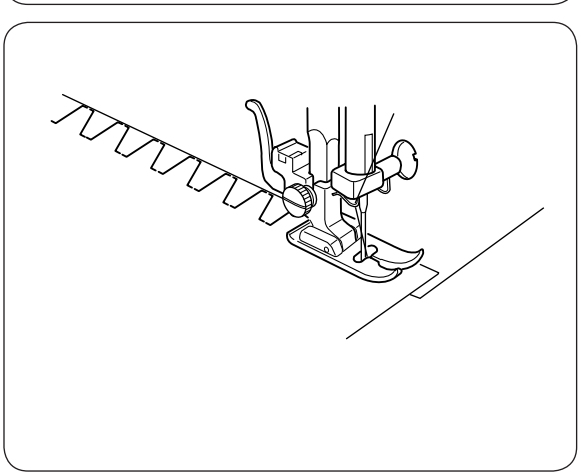


Use a lightweight fabric such as tricot. Fold the fabric and stitch on the bias. You may need to increase the needle thread tension slightly. Allow the needle to just clear the folded edge of the fabric at zigzag stitches.
If you sew rows of shell stitches, space the rows at least 5/8″ (1.5 cm) apart. You can also sew shell stitches on knits or soft silky woven fabrics in any direction.

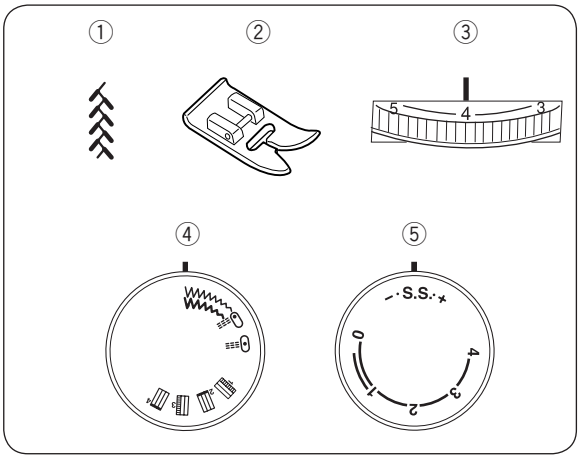


Box Stitch

① Pattern selector: I
② Presser foot: Zigzag foot
③ Thread tension: 1–4
④ Stitch width: (maximum stitch width)
⑤ Stitch length: 0.5 – 2

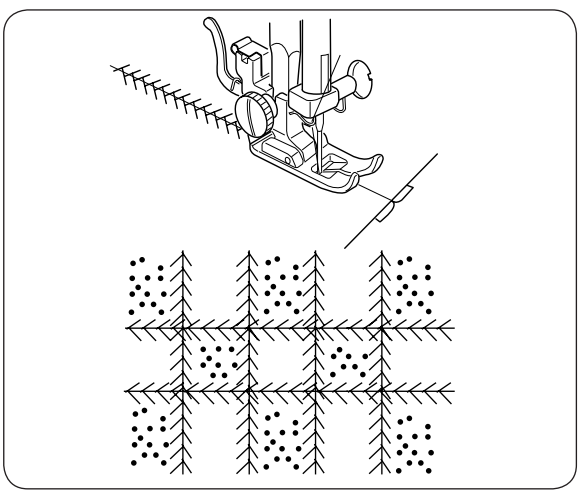


Overlap two raw edges of heavy weight interlining, and use this stitch to join them.



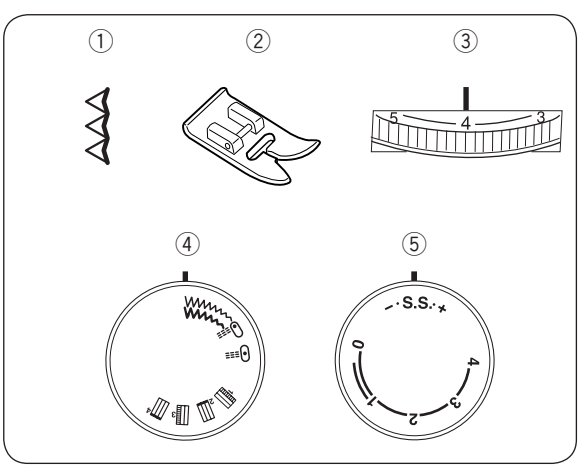
Feather Stitch

① Pattern selector: B
② Presser foot: Zigzag foot
③ Thread tension: 1–4
④ Stitch width: (maximum stitch width)
⑤ Stitch length: S.S.



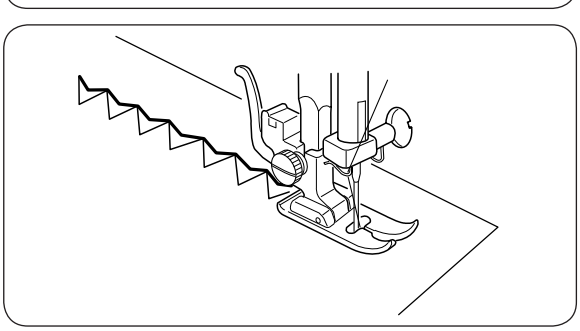
This stitch is strong, useful and decorative.
It reinforces stretch and woven fabrics. You can use it to sew spandex undergarments or decoratively hem elastic fabric.
You can also use this stitch in patchwork quilting.

Sew this pattern on a seam that is already joined and pressed flat.

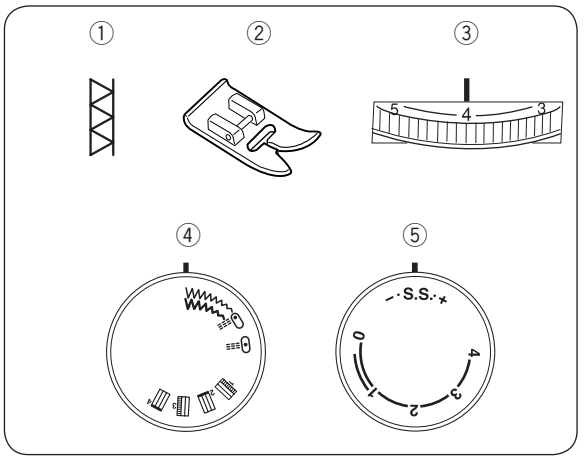


Overcast Stretch Stitch

① Pattern selector: D
② Presser foot: Zigzag foot
③ Thread tension: 2–6
④ Stitch width: (maximum stitch width)
⑤ Stitch length: S.S.

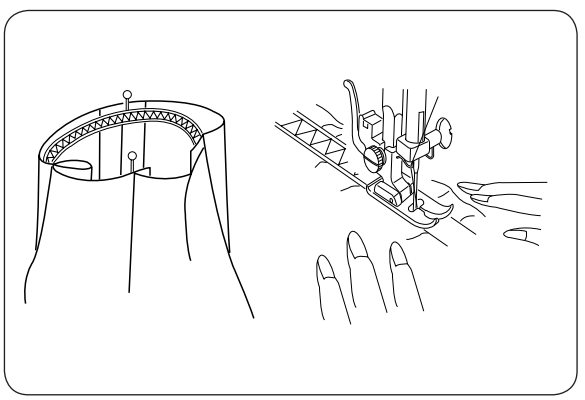


This stitch is for sewing a seam with an overcast finish. It is used when making swim wear, ski pants and other garments which require stretch.

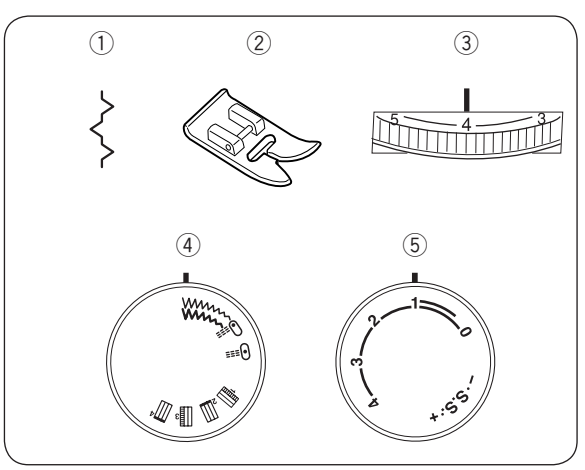


Elastic Stretch Stitch

① Pattern selector: I
② Presser foot: Zigzag foot
③ Thread tension: 1–4
④ Stitch width: (maximum stitch width)
⑤ Stitch length: S.S.

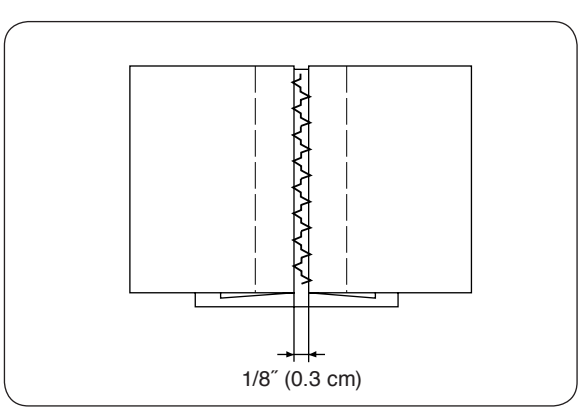


Choose this stitch to attach elastic to garments. Mark elastic into quarters and match these to the center front, center back and side seams. Place the middle of the elastic under the center of the presser foot and stitch into place, making sure the elastic is evenly distributed.

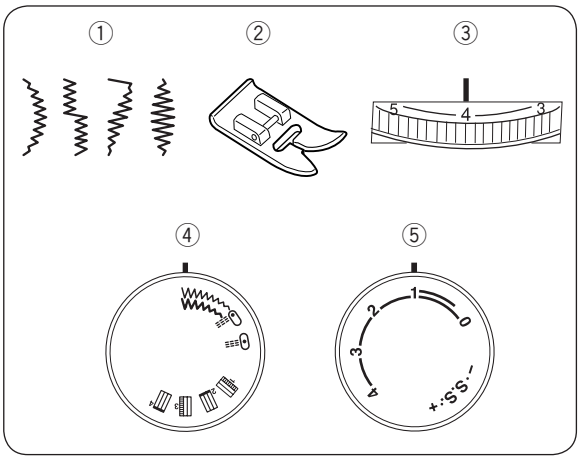


Fagoting

① Pattern selector: J
② Presser foot: Zigzag foot
③ Thread tension: 3–8
④ Stitch width: (maximum stitch width)
⑤ Stitch length: 0.2 – 2

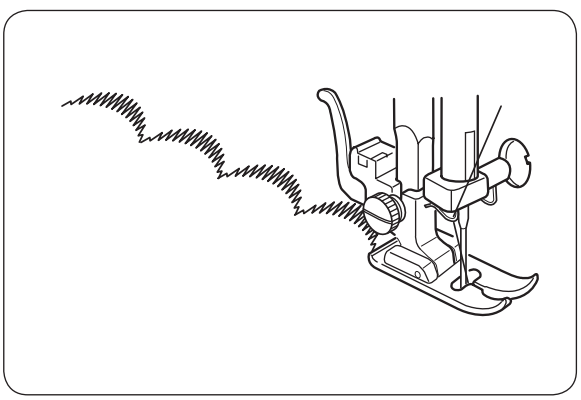


Fold under 5/8″ (1.5 cm) on each fabric edge and press.
Pin two edges to paper 1/8″ (0.3 cm) apart. Sew slowly, guiding the fabric so the needle catches the folded edge on each sice.

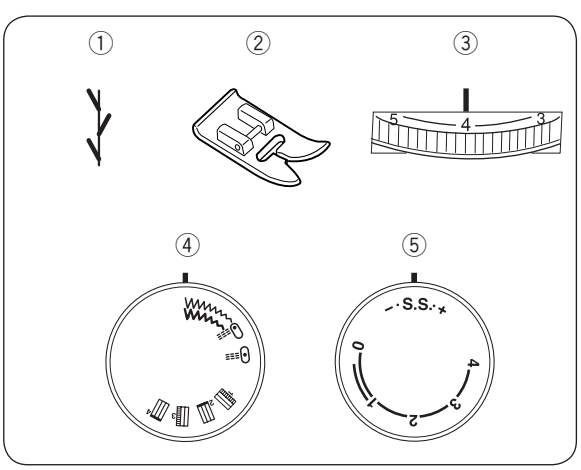


Decorative Satin Stitches

① Pattern selector: E – H
② Presser foot: Zigzag foot
③ Thread tension: 1–4
④ Stitch width: (maximum stitch width)
⑤ Stitch length: 0.5 –1

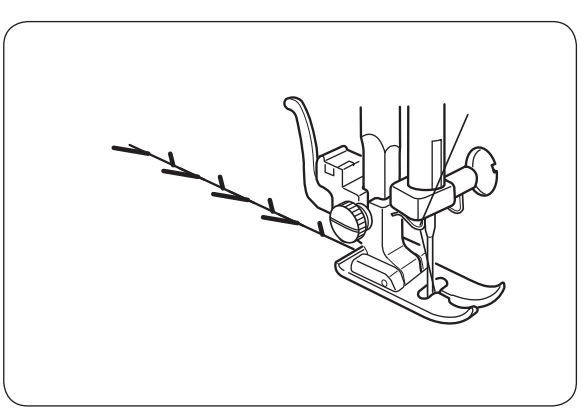


Sew a row of stitches and adjust the thread tension so the upper thread appear on the reverse side of the fabric.
Test the stitch on the actual fabric for the best result.

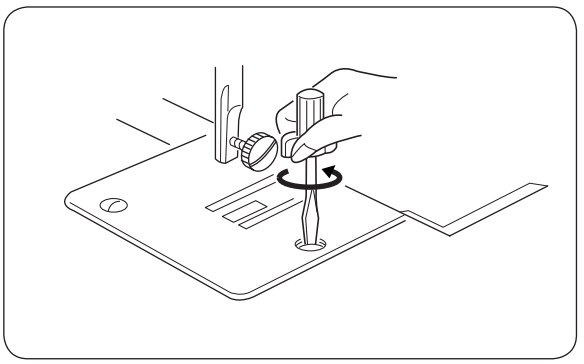


Decorative Stretch Stitch

① Pattern selector: J
② Presser foot: Zigzag foot
③ Thread tension: 1–4
④ Stitch width: (maximum stitch width)
⑤ Stitch length: S.S



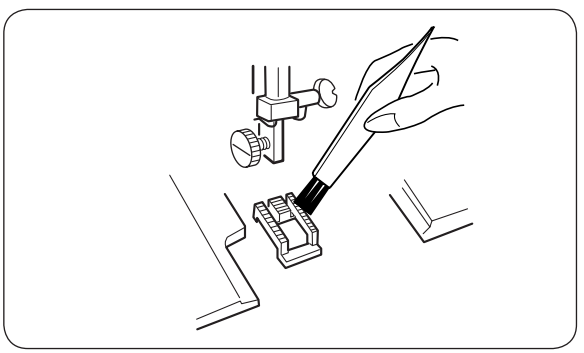
If forward and reverse feeds become unbalanced due to the type of fabric restore the balance by turning the stitch length dial as follows.
If patterns are compressed, turn the dial toward "+".
If patterns are drawn out, turn the dial toward "–".



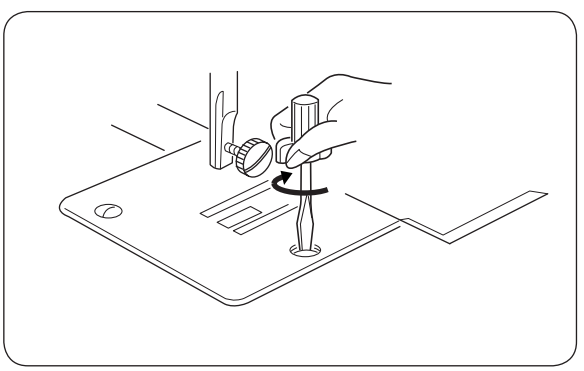
SECTION 5. CARE OF YOUR MACHINE

Cleaning the Feed Dogs

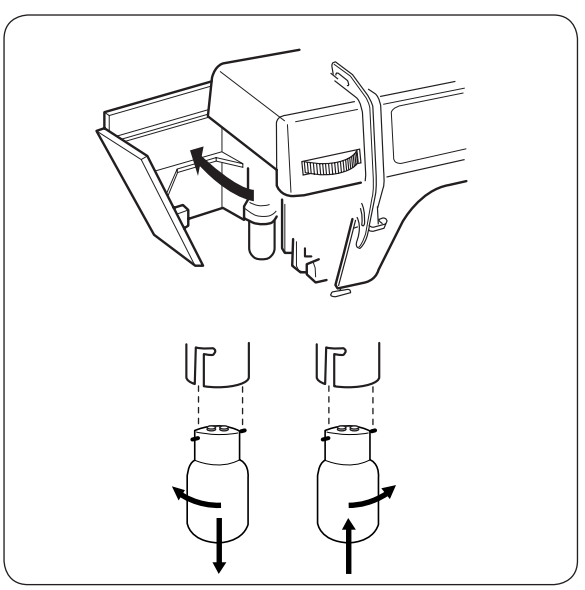
Unplug the machine and remove the presser foot, sliding plate and needle with a screwdriver. Remove the needle plate with a screwdriver.



Use a lint brush to clean the feed dogs.



Replace needle plate and tighten with a screwdriver.



Sewing Light

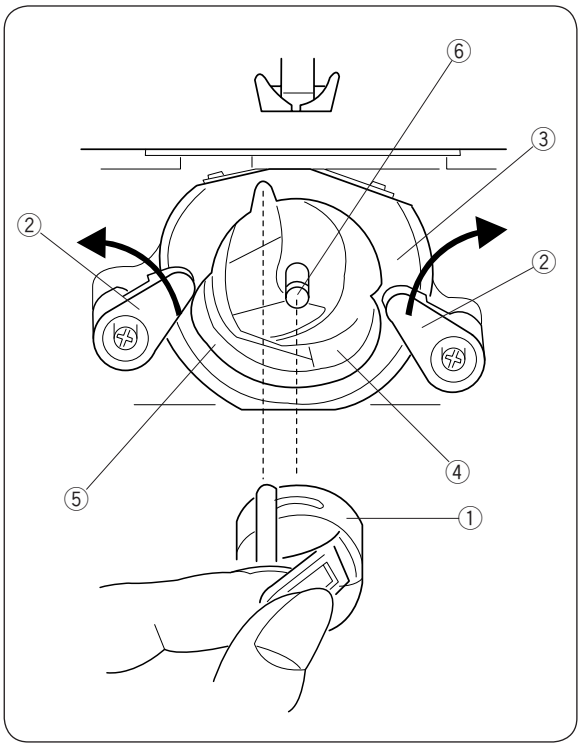
The sewing light is located behind the face plate.

To change the bulb, take the face plate off the sewing machine by removing the setscrew.

* Unplug the power supply before changing the bulb.
* Do not dismantle the machine other than explained in this manual.

• To remove .....Turn to the left.
• To replace .....Turn to the right.

WARNING:
The bulb could be HOT. Protect your fingers when handle it.

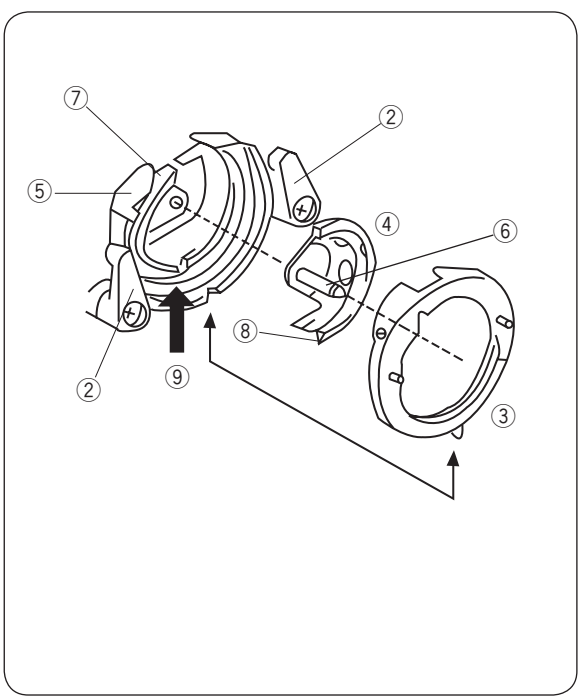


Cleaning the Shuttle Race

This area must be kept free of dust, lint and occasional tangled thread. Clean the shuttle race area about every three months.

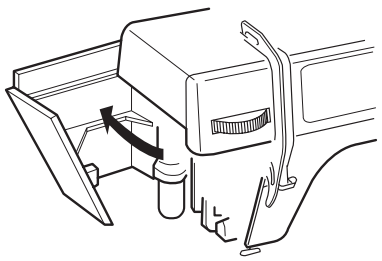
- **Cleaning the shuttle area**
  - ① Bobbin case
  - ② Levers
  - ③ Shuttle race cover
  - ④ Shuttle
  - ⑤ Shuttle race
  - ⑥ Center pin on the shuttle

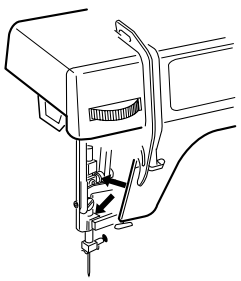
1. Raise the needle bar to its highest point and remove the bobbin case ①.
2. Push shuttle race levers ② aside. Lift shuttle race cover ③ and take shuttle ④ out.
3. Clean the shuttle race ⑤ with a lint brush.
4. Put a drop of oil on the center pin of the shuttle y and shuttle race ⑤. Do not over oil.

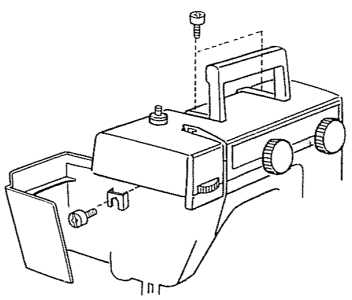


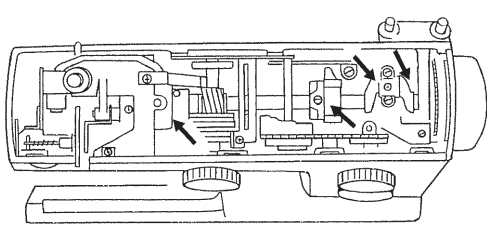
- **Replacing shuttle assembly**
  - ② Levers
  - ③ Shuttle race cover
  - ④ Shuttle
  - ⑤ Shuttle race
  - ⑥ Center pin on the shuttle
  - ⑦ Shuttle driver
  - ⑧ Pointed hook
  - ⑨ (Oil here)

1. Turn handwheel so that shuttle driver ⑦ is forming half moon on the left side of the machine.
2. Hold shuttle ④ by center pin ⑥ and position shuttle so as to form a half moon on the right side. The pointed hook will be on the bottom.
3. Place shuttle race cover ③ into place over shuttle ⑧ assembly.
4. Snap the levers ② back into the original position.









Oiling the Machine

Apply a few drops of fine quality sewing machine oil to points indicated by arrows in the illustrations. For a machine in constant use, oil two or three times a year.

- **Oiling behind the face plate**
  Remove the cap, screw and face plate.
  Oil the point indicated in the illustration.
  ① Cap
  ② Screw
  ③ Face plate

- **Oiling behind the top cover**
  Lift the carrying handle.
  Remove 3 screws and top cover
  Oil the point indicated in the illustration.

Troubleshooting

Condition	Cause	Reference
The needle thread breaks.	1. The needle thread is not threaded properly. 2. The needle thread tension is too tight. 3. The needle is bent or blunt. 4. The needle is incorrectly inserted. 5. The needle thread and the bobbin thread are not set properly under the presser foot at the beginning of sewing. 6. The fabric is not drawn to the rear when the sewing has finished. 7. The thread is too heavy or too fine for the needle.	Page 11 Pages 12, 13 Page 7 Page 7 Page 11 Page 15 Page 7
The bobbin thread breaks.	1. The bobbin thread is not threaded properly in the bobbin case and shuttle. 2. Lint has collected in the shuttle area. 3. The bobbin is damaged and doesn't turn smoothly.	Page 10 Page 29 Change the bobbin
The needle breaks.	1. The needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The needle clamp screw is loose. 4. The needle thread tension is too tight. 5. The fabric is not drawn to the rear when the sewing has finished. 6. The needle is too fine for the fabric being sewn.	Page 7 Page 7 Page 7 Pages 12, 13 Page 15 Page 7
Skipped stitches	1. The needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The needle and/or threads are not suitable for the work being sewn. 4. A blue needle is not being used for sewing stretch, very fine fabrics and synthetics. 5. The needle thread is not threaded properly. 6. The wrong needle is being used.	Page 7 Page 7 Page 7 Page 7 Page 11 Change the needle
Seam puckering	1. The needle thread tension is too tight. 2. The needle thread is not threaded properly. 3. The needle is too heavy for the fabric being sewn. 4. The stitch length is too long for the fabric.	Pages 12, 13 Page 11 Page 7 Make stitch denser
The cloth is not feeding smoothly.	1. The feed dog is packed with lint. 2. The stitches are too fine. 3. The feed dog is not raised after “drop feed” sewing.	Page 29 Make stitch coarser Page 6
The machine doesn’t work.	1. The machine is not plugged in. 2. A thread is caught in the shuttle race. 3. The clutch is disengaged.	Page 4 Page 29 Page 9
Patterns are distorted.	1. The stitch is not balanced.	Page 14
Noisy operation	1. There is thread caught in the shuttle race. 2. Lint has built up in the shuttle or the shuttle race.	Page 29 Page 29