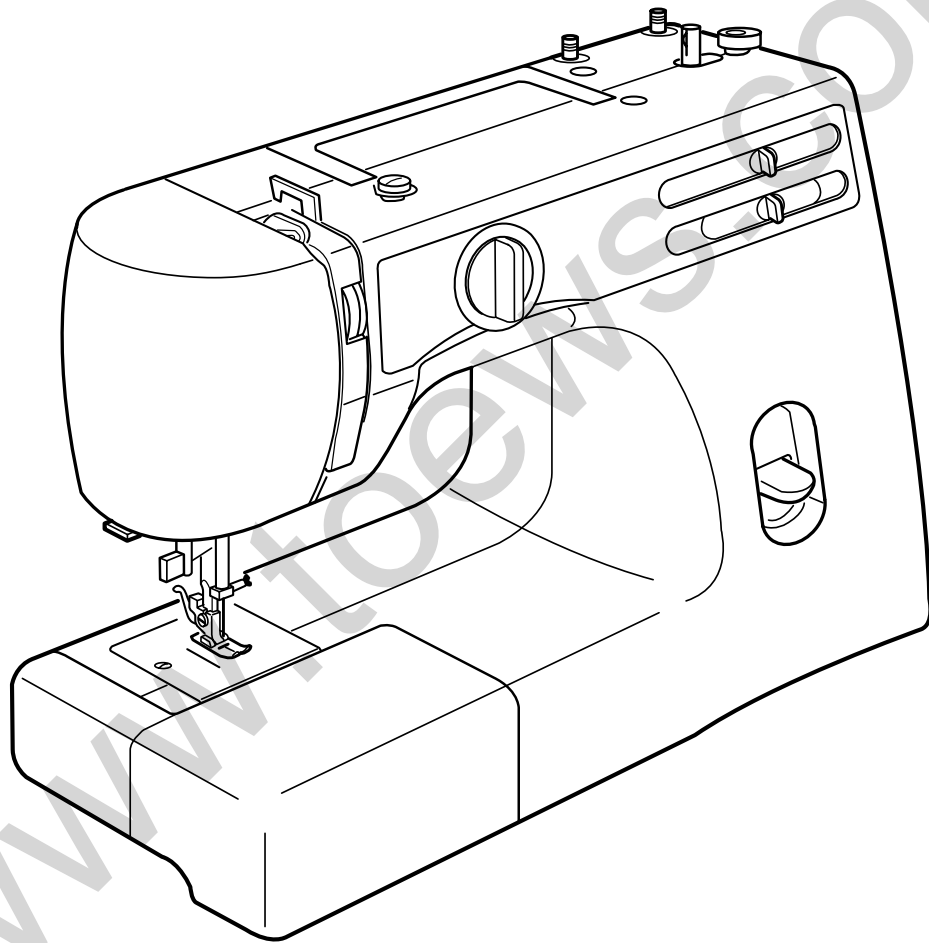


New Home 1722S Instruction Manual



NH1722S

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:
Read all instructions before using this appliance.

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, 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

Designs and specifications are subject to change without prior notice.

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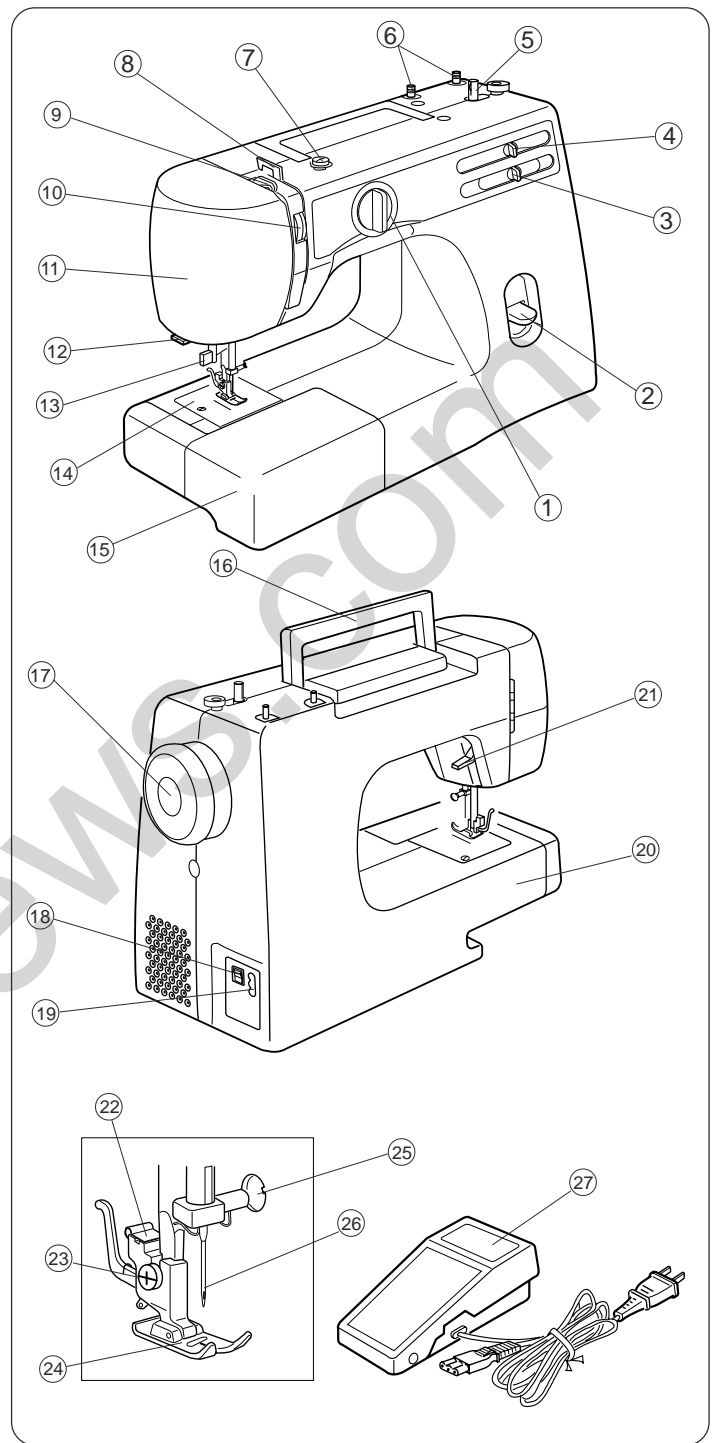
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SECTION 1. NAMES OF PARTS

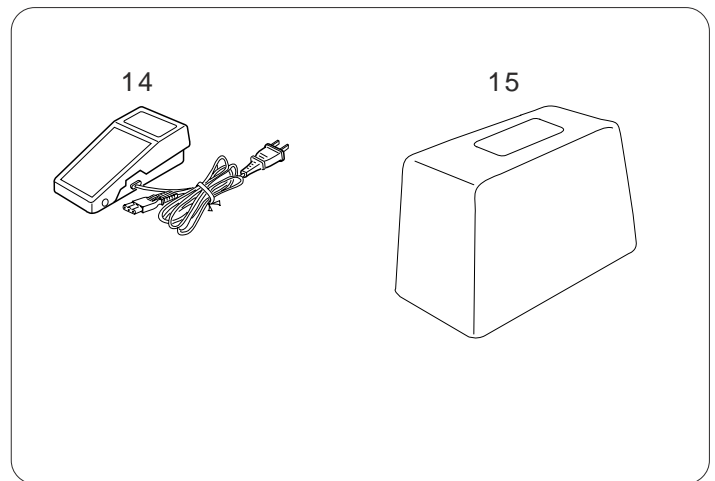
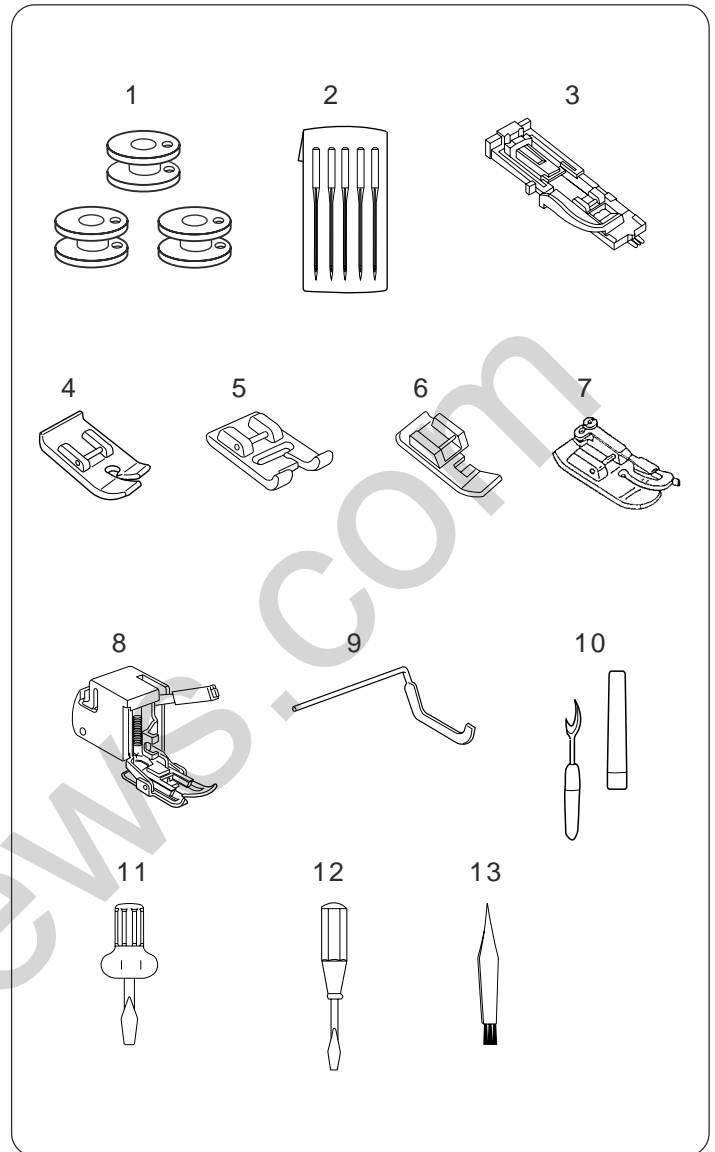
Names of Parts

- ① Stitch pattern selector
- ② Reverse stitch control
- ③ Stitch width control
- ④ Stitch length control
- ⑤ Bobbin winder spindle
- ⑥ Spool pins
- ⑦ Bobbin winding tension disc
- ⑧ Upper needle thread guide
- ⑨ Thread take-up lever
- ⑩ Thread tension dial
- ⑪ Face cover
- ⑫ Thread cutter
- ⑬ Needle threader
- ⑭ Needle plate
- ⑮ Extension table (Accessory box)
- ⑯ Carrying handle
- ⑰ Handwheel
- ⑱ Power switch
- ⑲ Machine socket
- ⑳ Free-arm
- ㉑ Presser foot lifter
- ㉒ Presser foot holder
- ㉓ Thumb screw
- ㉔ Presser foot
- ㉕ Needle clamp screw
- ㉖ Needle
- ㉗ Foot control



Standard Accessories

- 1 Bobbins
- 2 Needles
- 3 Automatic buttonhole foot
- 4 Straight stitch foot
- 5 Satin stitch foot
- 6 Zipper foot
- 7 1/4" seam foot
- 8 Even foot
- 9 Quilting guide for even foot
- 10 Seam ripper (buttonhole opener)
- 11 Screwdriver
- 13 Screwdriver
- 14 Foot control
- 15 Hard cover



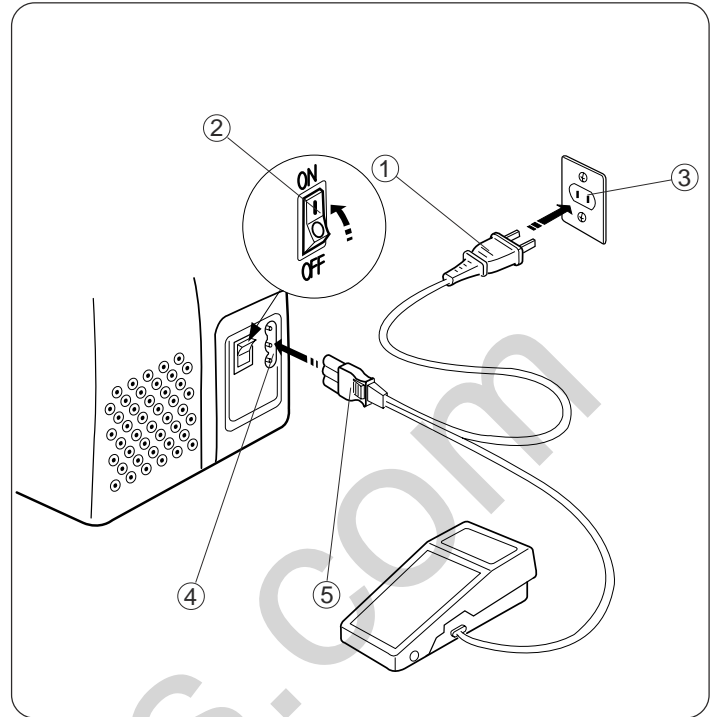
SECTION 2. GETTING READY TO SEW

Connecting Machine to Power Supply

- ① Power supply plug
- ② Power switch
- ③ Outlet
- ④ Machine socket
- ⑤ Machine plug
- ⑥ Sewing light

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 ⑤ into the machine socket ④.
3. Insert the power supply plug ① into the outlet ③.
4. Turn on the power switch ②.



Before Using Your Sewing Machine

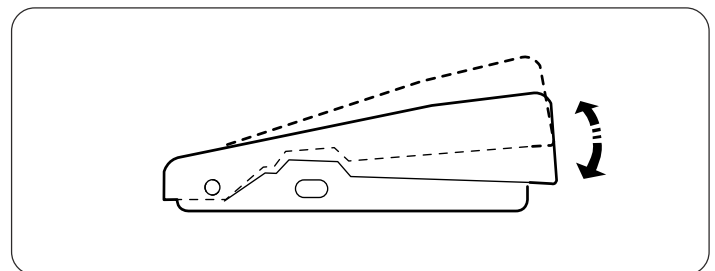
Before using your sewing machine for the first time, place a waste fabric under the presser foot and run the machine with thread for a few minutes. Wipe away any oil which may appear.

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.

Controlling Sewing Speed

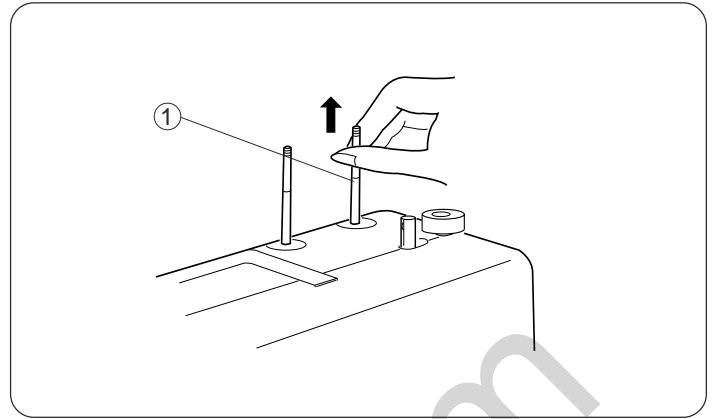
Sewing speed can be varied by the foot control. The harder you press on the foot control, the faster the machine runs.



Setting Spool Pins

① Spool pin

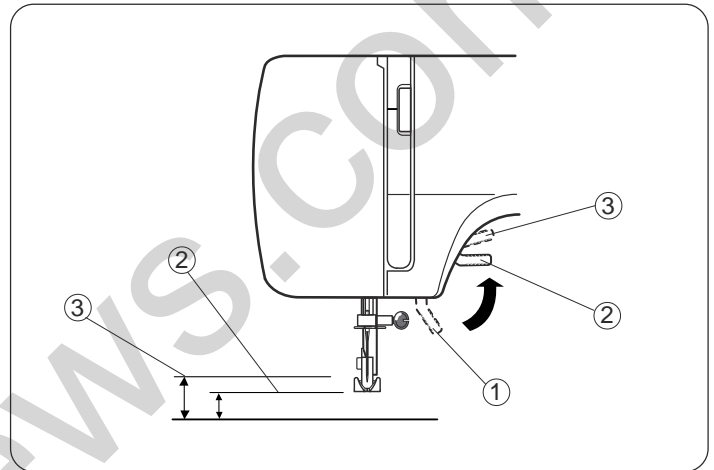
The spool pins are used for holding the spools of thread when feeding the thread to the machine.
To use, pull up the spool pins. Push down for storage.



Presser Foot Lifter

- ① Presser foot lifter
- ② Normal up position
- ③ Highest position

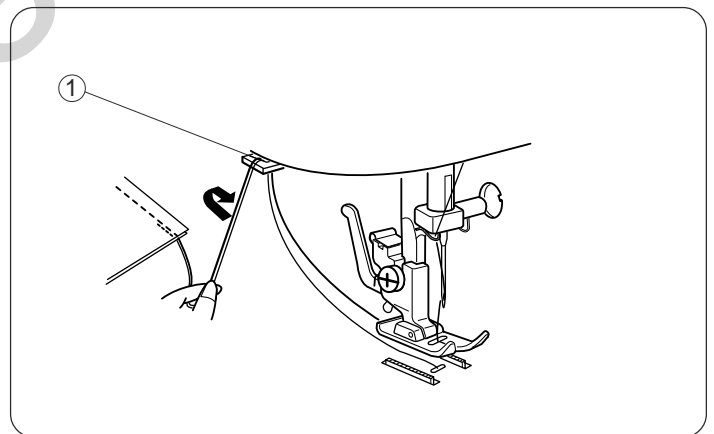
The presser foot lifter raises and lowers the presser foot.
You can raise it about 1/4" (0.6 cm) higher than the normal up position for easy removal of the presser foot, or to help place heavy fabric under the foot.



Thread Cutter

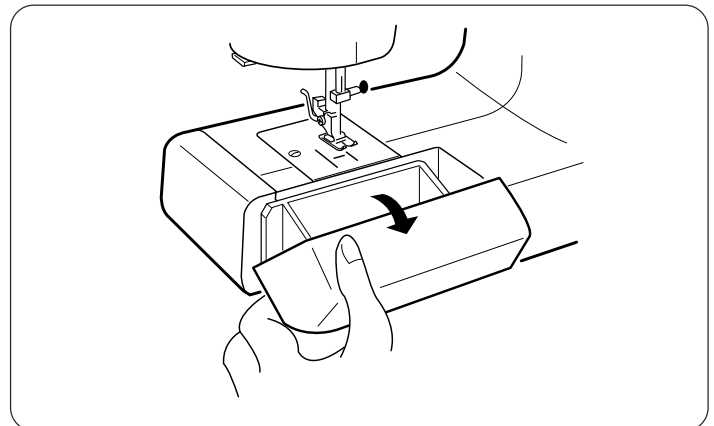
① Thread cutter

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



Accessory Box

Open the cover of the accessory box toward you. The sewing accessories are conveniently located in the box.



Extension Table

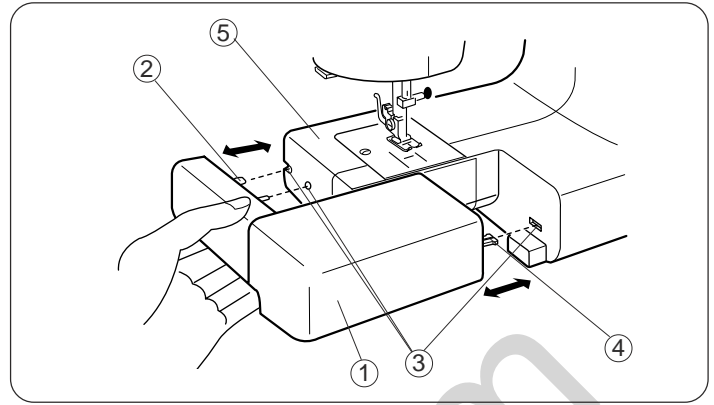
• Detaching the table

Pull the table away from the machine, as illustrated, for “free-arm” sewing of cuffs and sleeves.

• Attaching the table

Push the extension table until it snaps into the machine.

- ① Extension table
- ② Pin
- ③ Holes
- ④ Tab
- ⑤ Free-arm



Changing Needle

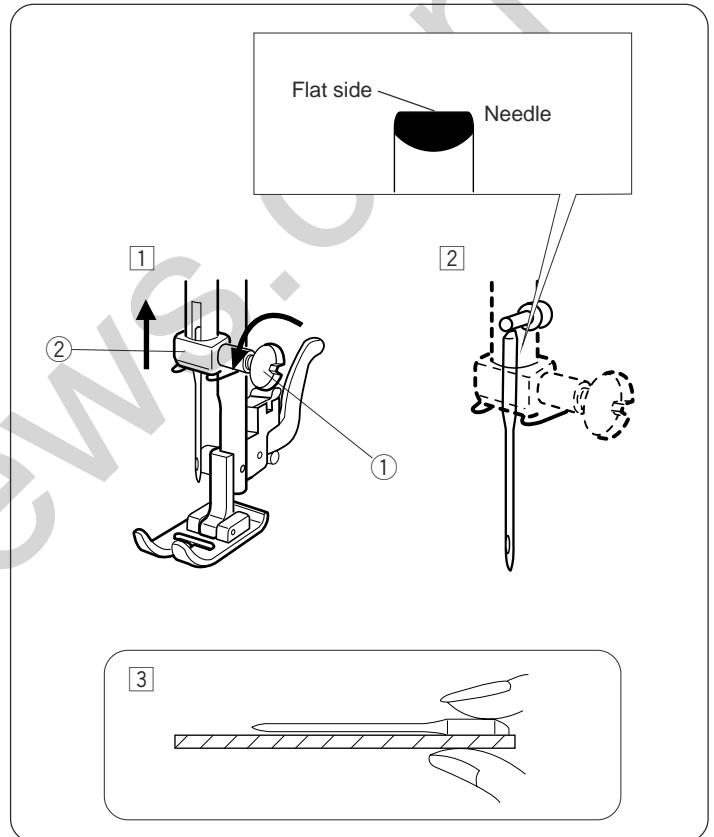
- ① Needle clamp screw
- ② Needle clamp

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 ② 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.



To Remove and Attach the Foot Holder

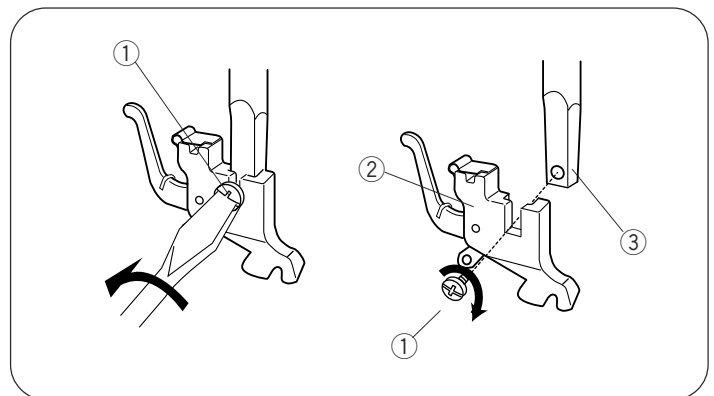
- ① Thumb screw
- ② Foot holder
- ③ Presser bar

• 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. Tighten the screw ① by turning it clockwise with screwdriver.



Changing Presser Foot

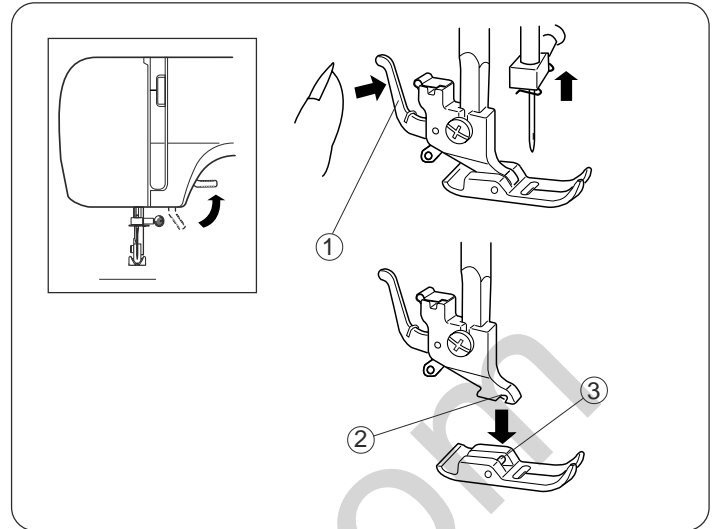
- ① Lever
- ② Groove
- ③ Pin

• To remove

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

• To attach

Place the presser foot so that the pin ③ on the foot lines up directly below the groove ② of the foot holder. Lower the foot holder to lock the foot in place.

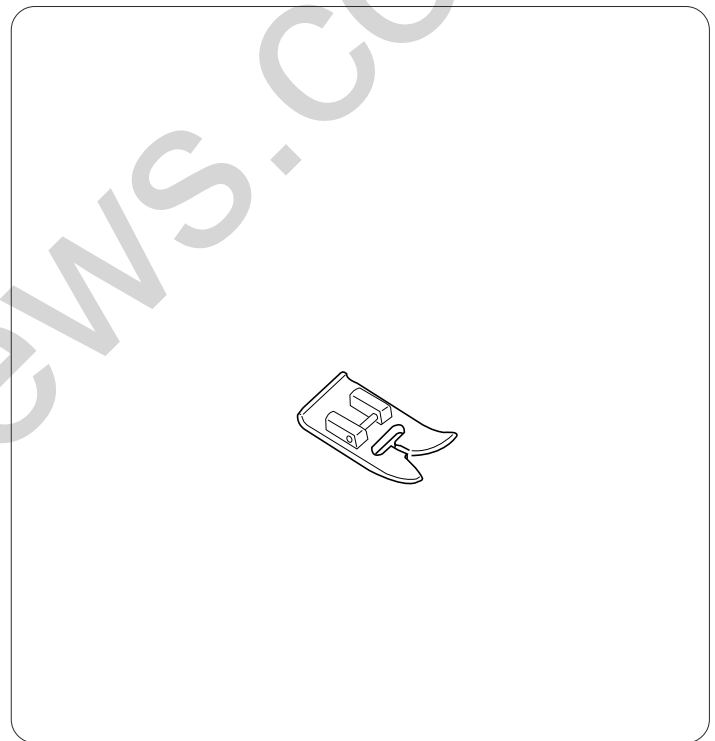


Presser Foot Types

• Zigzag foot

Use this foot for both straight and zigzag stitching.

For: Straight stitch	(page 17)
Topstitching	(page 18)
Basic zigzag	(page 21)
Button sewing	(page 23)
Overcasting stitch	(page 24)
Blind hem stitch	(page 25)
Lace work	(page 25)
Shell stitch	(page 26)
Multiple zigzag stitch	(page 26)
Box stitch	(page 27)
Decorative stitch patterns	(page 27)
Straight stretch	(page 28)
Rick-rack stretch	(page 28)
Overcast stretch stitching	(page 29)
Smocking	(page 29)
Serging	(page 30)
Elastic stretch stitch	(page 30)
Decorative stretch patterns	(page 31)

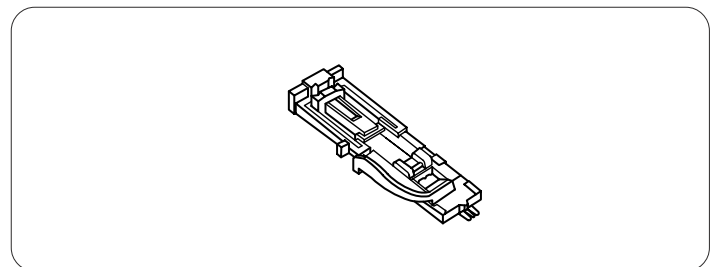


• Automatic buttonhole foot

Use this foot for one step automatic buttonholing.

Simply set a button on the guide of this foot and depress the foot control. You can sew exactly the same length of the buttonhole as the button.

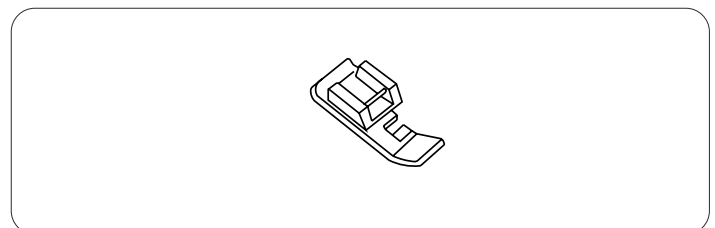
For: Automatic buttonhole	(page 32)
Corded buttonhole	(page 34)



• Zipper foot

The edge of the foot guides the zipper and keeps the seam straight.

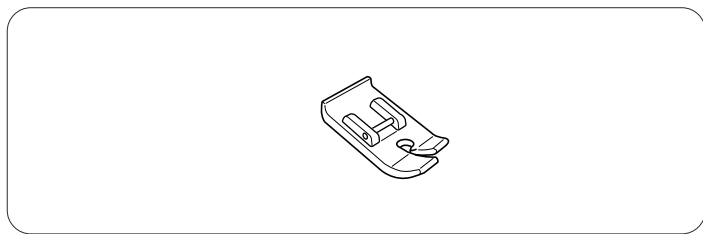
For: Zipper sewing	(page 19)
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• **Straight stitch foot**

Use this foot exclusively for straight stitching with the center needle position.

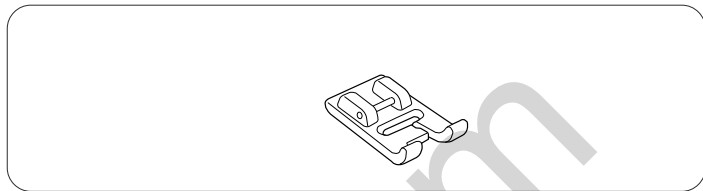
- For: Straight stitch (page 17)
- Topstitching (page 18)
- Straight stretch (page 28)



• **Satin stitch foot**

Use this foot for satin stitch and outlining applique.

- For: Satin stitching (page 21)
- Monogramming (page 22)
- Applique (page 22)
- Bar tacking (page 23)



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Selecting Needle and Fabric

For general sewing, use needle sizes 11 or 14. A fine thread and needle should be used for sewing lightweight fabrics, so the fabric will not be marred. Heavy fabrics require a needle large enough to pierce the fabric without fraying the needle thread. In the needle set, there is one each of sizes 11, 14, 16, and 18, and a blue needle. Use the blue needle to eliminate skipped stitches when sewing knits and synthetic fabrics.

Special needles should be used on certain fabrics. A denim needle with a sharp tip effectively pierces dense fabrics such as denim and canvas. For topstitching, a special topstitching needle with a larger eye, accommodates heavier weight thread. Leather needles punch small holes in leather and suede, allowing the thread to follow through the hole.

Check your needles frequently for rough or blunt tips. Snags and runs in knits, fine silks and silk-like fabrics are permanent, and are often caused by damaged needles.

Always purchase good quality thread. It should be strong, smooth and consistent in its thickness.

WEIGHT	FABRIC	TYPE OF NEEDLE	NEEDLE SIZE
Very Light	Chiffon, Georgette, Fine Lace, Organdy, Organdy Net, Tulle	Universal	9 (65)
		Ball Point	9 (65)
Light	Batiste, Voile, Lawn, Pure Silk, Crepe de Chine, Sheer Crepe, Chambray, Handkerchief Linen, Gingham, Challis, Percale, Wool Crepe, Peau de Soie, Taffeta, Satin, Silk Surah, Satin-backed Crepe, Qiana	Universal	11 (75)
		Blue	11 (75)
			12 (80)
	Single Knits, Jersey, Swimwear, Tricot	Blue Ball Point	11 (75) 11 (75)
	Leather, Suede	Wedge Point Leather	11 (75)
Medium	Flannel, Velour, Velvet, Muslin, Velveteen, Poplin, Corduroy, Broadcloth, Linen, Chintz, Gabardine, Felt, Terry, Burlap, Quilted Fabrics	Universal	14 (90)
	Double Knits, (synthetic and natural) Stretch Velour, Stretch Terry, Sweater Knits	Ball Point	14 (90)
	Leather, Vinyl, Suede	Wedge Point Leather	14 (90)
Heavy	Denim, Sailcloth, Ticking	Denim	16 (100)
	Double Faced Wool, Heavy Coating, Fake Fur, Drapery Fabrics	Universal	16 (100)
	Leather, Suede	Wedge Point Leather	16 (100)
	Canvas, Duck, Upholstery Fabrics	Universal	18 (110)
All	Topstitching for Special Finish	Topstitching	11 (75)
			14 (90)

Bobbin Winding

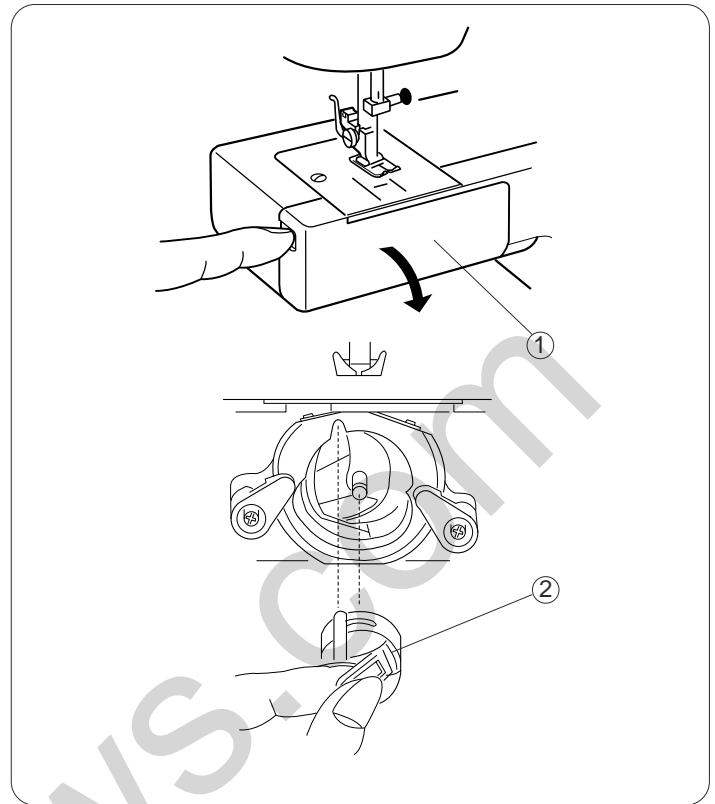
• Removing bobbin case

Remove the extension table from the machine by pulling it to the left. Open the shuttle cover ① by pulling down the embossed part on the left of the cover.

Raise the needle to its highest position by rotating the handwheel toward you.

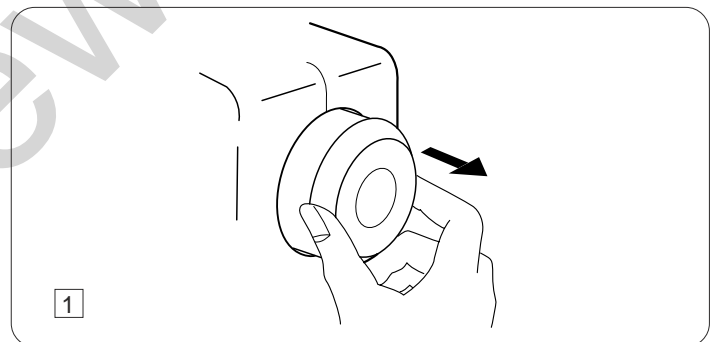
- ① Shuttle cover
- ② Bobbin case

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

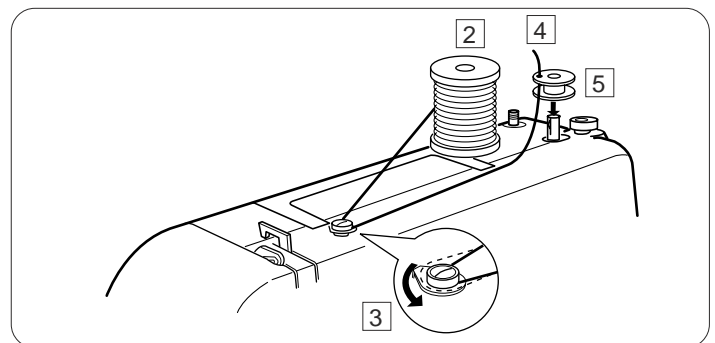


• Bobbin winding

- ① Release the clutch by pulling out the handwheel. This will stop the needle from moving while you wind the bobbin.

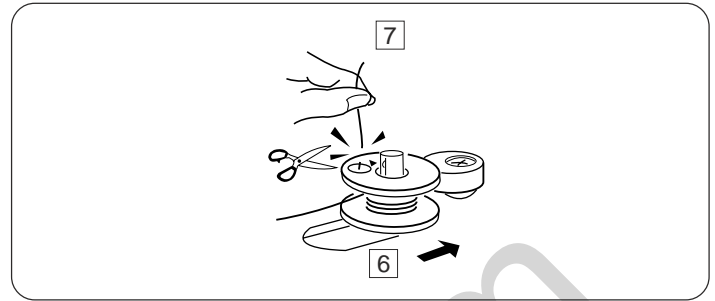


- ② Draw thread from the spool.
- ③ Guide the thread around the thread guide.
- ④ Thread through the hole in the bobbin from the inside to the outside.
- ⑤ Put the bobbin on the bobbin winder spindle.

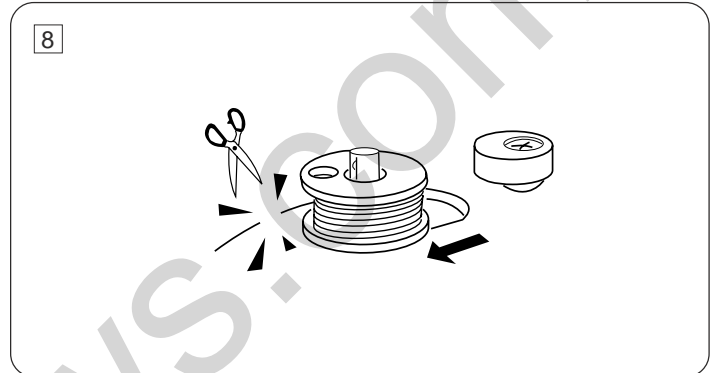


Bobbin winding (continued)

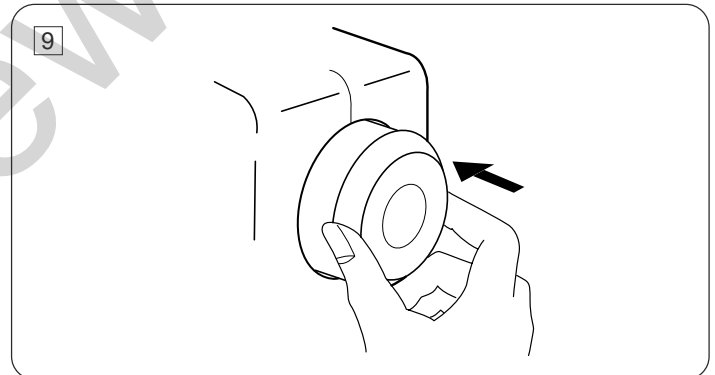
- 6 Push the bobbin to the right.
 7 With the free end of the thread held in your hand, depress the foot control. Stop the machine when the bobbin has made a few turns, and cut the thread close to the hole in the bobbin.



- 8 Depress the foot control again. When the bobbin is fully wound, it stops automatically. Return the bobbin winder to its original position by moving the spindle to the left, and cut the thread.

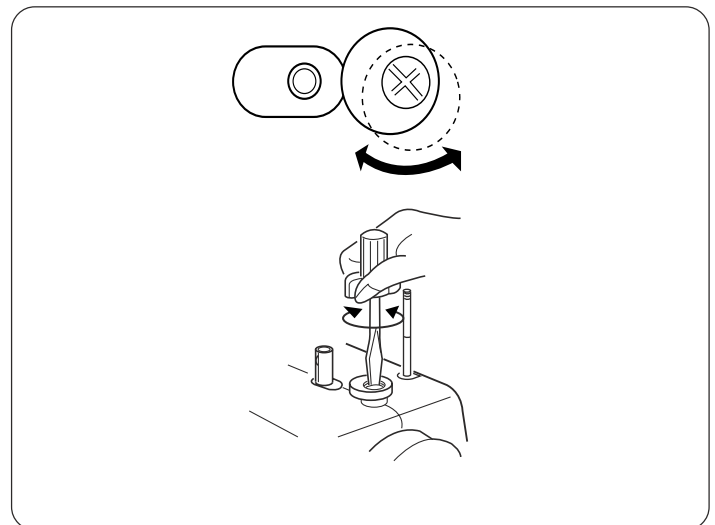


- 9 Push in the handwheel to engage the clutch.
 * The machine does not function until the clutch is engaged.



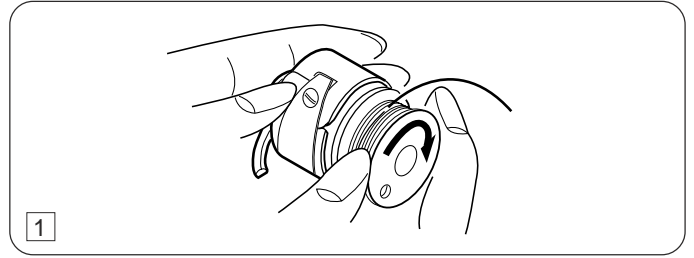
NOTE:

The position of the bobbin winder stopper is adjustable depending on required amount of thread on bobbin (i.e. 1/2 full or full). Use a screwdriver and loosen the screw one turn or less. Do not take the screw all the way out. Adjust the position of the bobbin winder stopper. Retighten the screw.

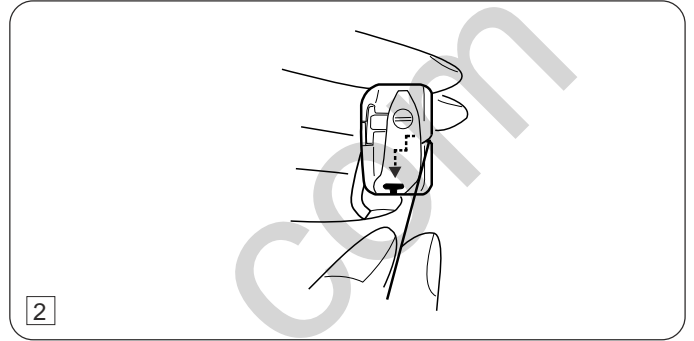


• **Inserting bobbin**

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

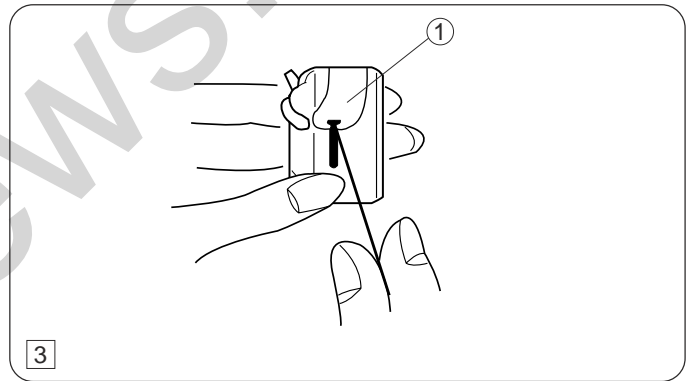


2 Draw the thread through the slot of the case.

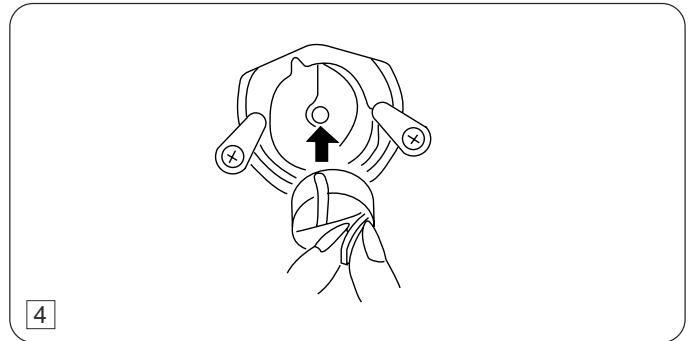


3 Continue to draw the thread under the tension spring ① and through the opening. Pull out about 4" (10 cm) of thread.

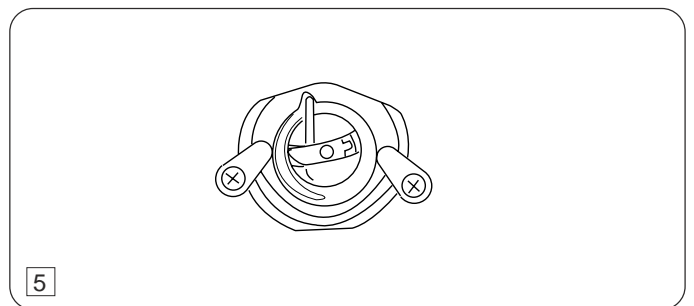
① Tension spring



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



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

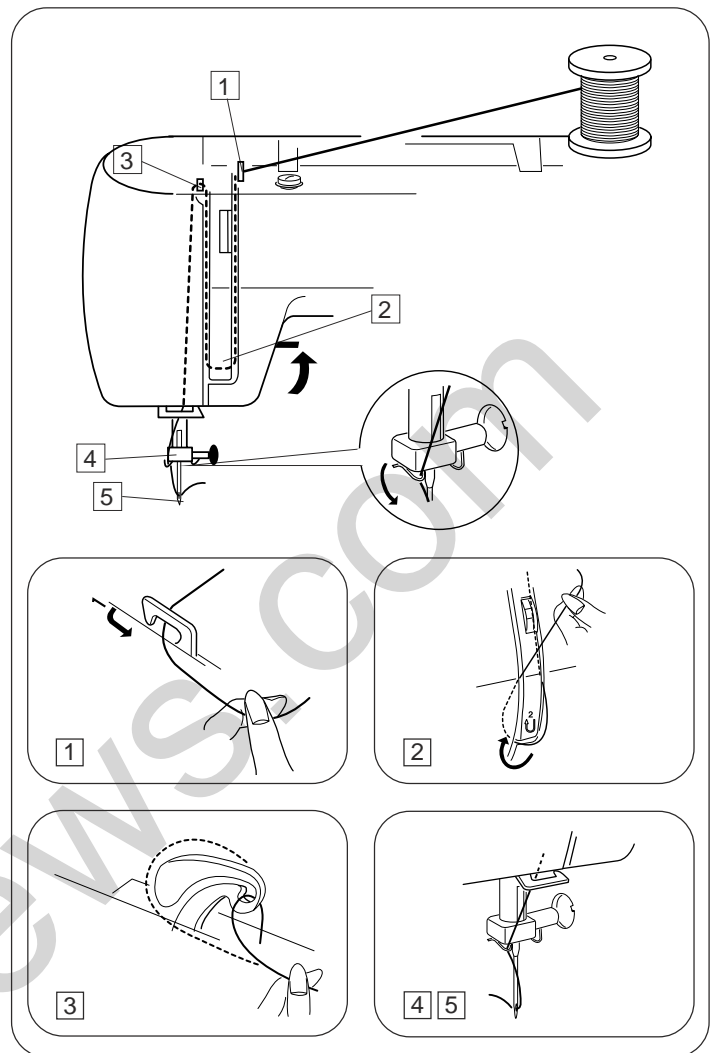


Threading the Machine

• Threading the machine

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

- 1 Draw the end of thread around the upper thread guide.
- 2 While holding the thread near the spool, draw the end of the thread down around the check spring holder.
- 3 Firmly draw the thread up and from right to left over the take-up lever then down into the take-up lever eye.
- 4 Slide the thread behind the needle bar thread guide on the left.
- 5 Thread the needle from front to back.



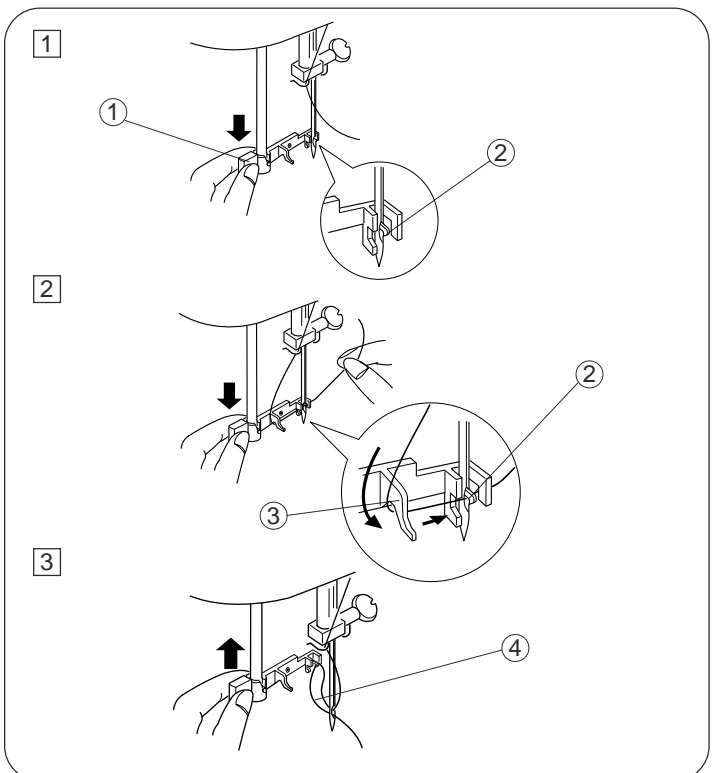
• Needle threader

- 1 Knob
- 2 Hook
- 3 Guide
- 4 Thread end

- 1 Raise the needle to its highest position. Push down the needle threader knob ① as far as it will go. The hook comes out through the needle eye from behind.
- 2 Paying close attention to the needle point, draw the thread around the guide ③ and under the hook ②.
- 3 Release the knob slowly while holding the thread end ④ with your hand. A loop of the thread is pulled up through the needle eye.

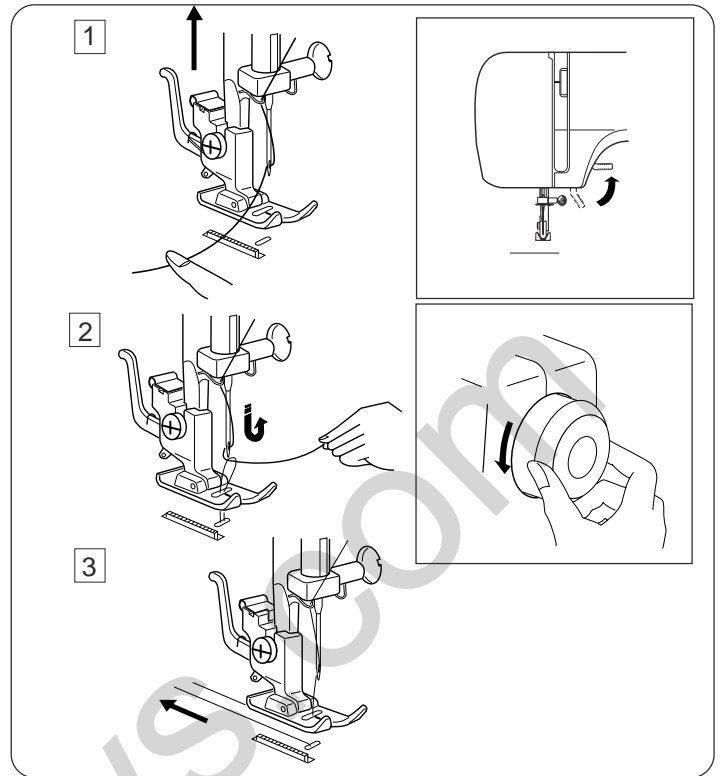
NOTE:

The needle threader can be used with a #11 to #16 needle, or a #11 Blue needle. Thread size 50 to 90 is recommended.



• **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

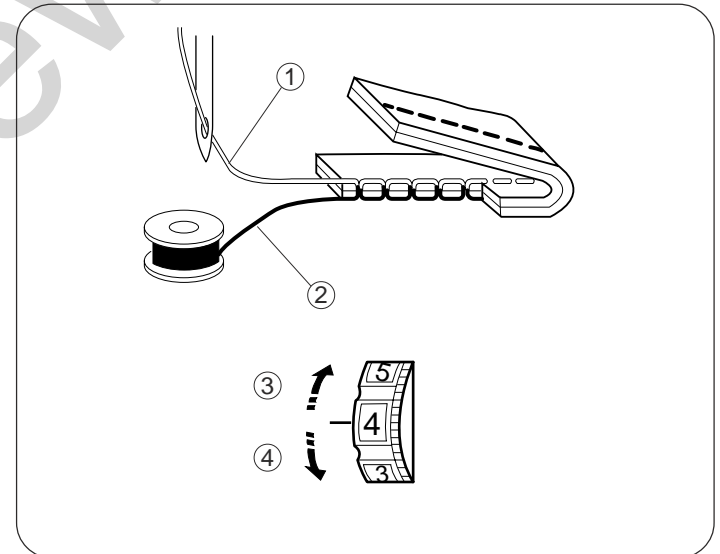
• **Correct tension**

- 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:

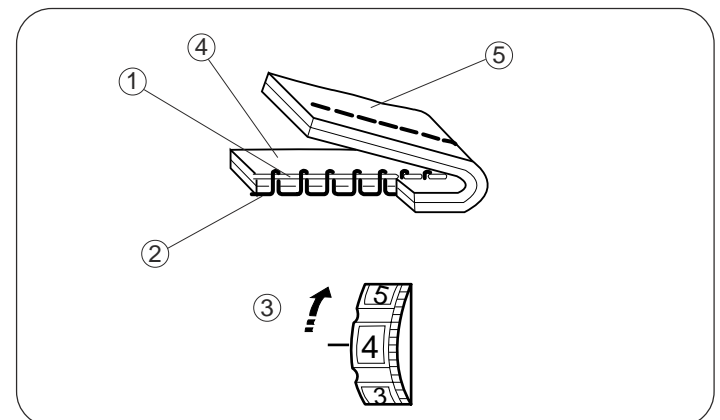
- stiffness and thickness of the fabric
- number of fabric layers
- type of stitch



• **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

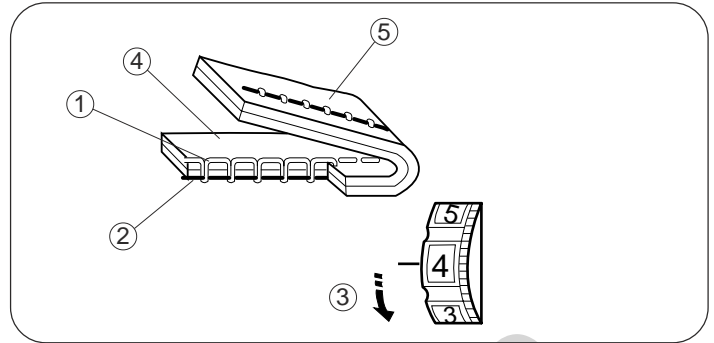
If the bobbin thread shows through on the right side (Top side) of the fabric, and the stitch feels bumpy, turn the dial to a lower tension setting number to loosen the needle thread tension.



• 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

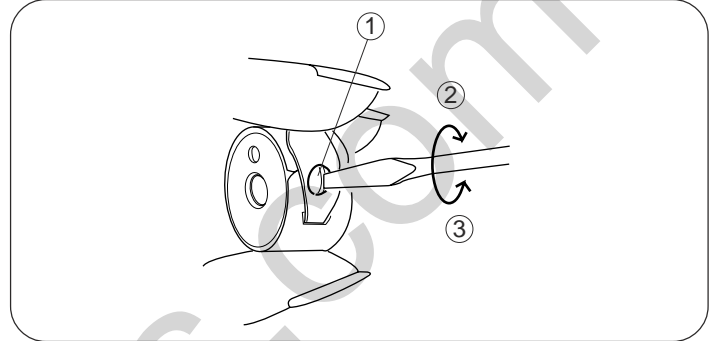
If the needle thread shows through on the wrong side (Bottom side) of the fabric, and the stitch feels bumpy, turn the dial to a higher tension setting number to tighten the needle thread tension.



• Adjust bobbin tension

- ① Adjusting screw
- ② Increase tension
- ③ Decrease tension

In some instances, you may need to adjust the bobbin thread tension. Turn the adjusting screw ① in the direction of ③ when the bobbin thread tension is too tight. Turn the adjusting screw ① in the direction of ② when the bobbin thread tension is too loose.



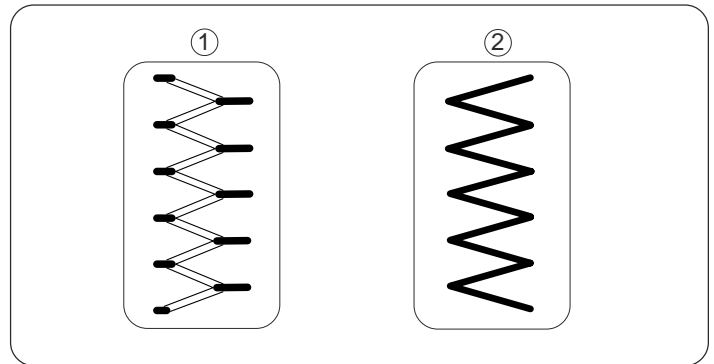
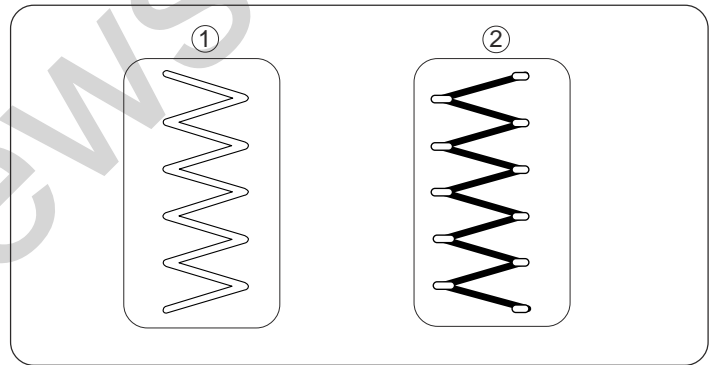
Adjust the Needle Thread Tension for a Zigzag Stitch

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

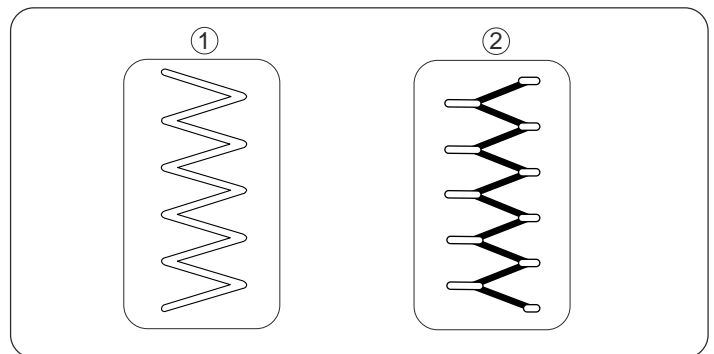
Minimize the amount of needle thread visible on the wrong side (Bottom side) of the fabric without causing excessive puckering or causing bobbin thread to show on the right side (Top side) of the fabric. Results vary with fabric, thread and sewing condition.



• 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.

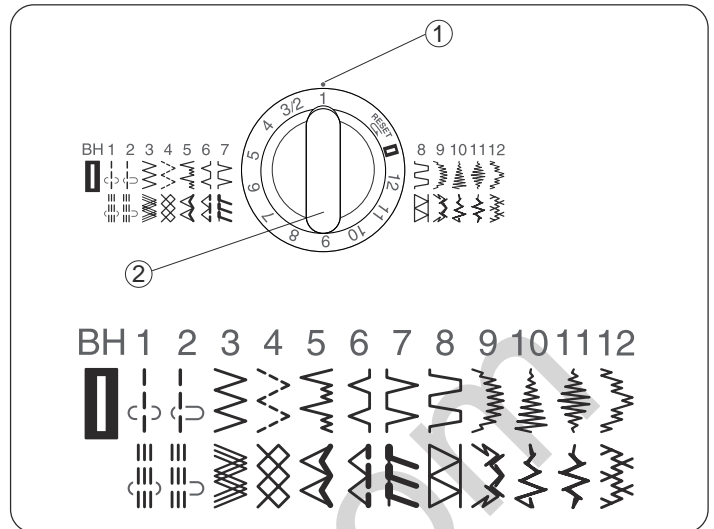
Stitch Pattern Selector

- ① Setting mark
- ② Stitch pattern selector

The stitch pattern selector determines the stitch you select.

NOTE:

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

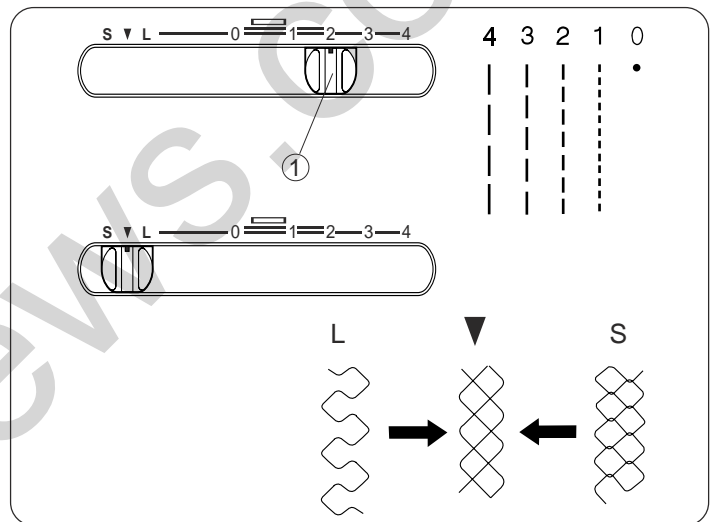


Stitch Length Control

Slide the stitch length control until the setting mark reaches the desired stitch length.

The higher the number, the longer the stitch length.

- ① Setting mark
- “ ” is the recommended setting for buttonhole stitching.
- Adjust the stitch length control in the 0.5–4 range when you sew the zigzag stitch.
- Set the stitch length control at “STRETCH” to sew the stretch stitch pattern sewing.
- If the stretch stitch pattern is uneven, turn the stitch length control in the direction of “S” to compress it, or “L” to expand it.



Stitch Width Control

Slide the stitch width control until the setting mark reaches the desired stitch width.

The higher the number, the wider the stitch width.

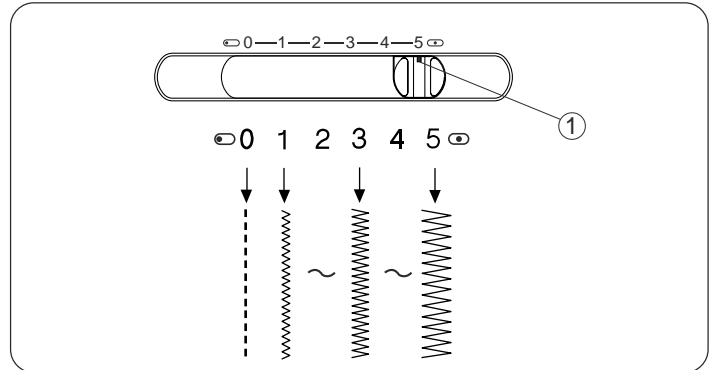
- ① Setting mark

When the stitch width is narrow, the right side of the pattern will be cut off.

Example: Pattern 5 Width [5] → Width [3]

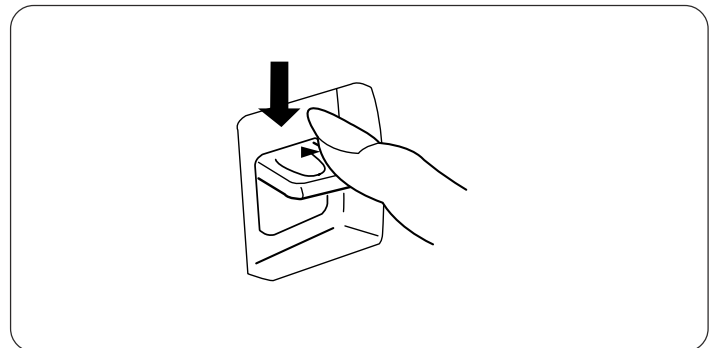
NOTE:

Before sliding the stitch width control, be sure to raise the needle above the fabric.



Reverse Stitch Control

Press the stitch control to sew in reverse.



SECTION 3. STRAIGHT STITCH SEWING

Straight Stitch

- ① Stitch pattern selector: 1 or 2
- ② Presser foot: Zigzag foot
Straight stitch foot
- ③ Needle thread tension: 2 to 6
- ④ Stitch length control: 1.5 to 4
- ⑤ Stitch width control: 0 (0) or 5 (5)

NOTE:

When using the straight stitch foot, make sure to set the needle positions selector at 0 (Center needle position) and stitch width at "5". Otherwise the needle may strike the sewing foot and could possibly break.

• **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.

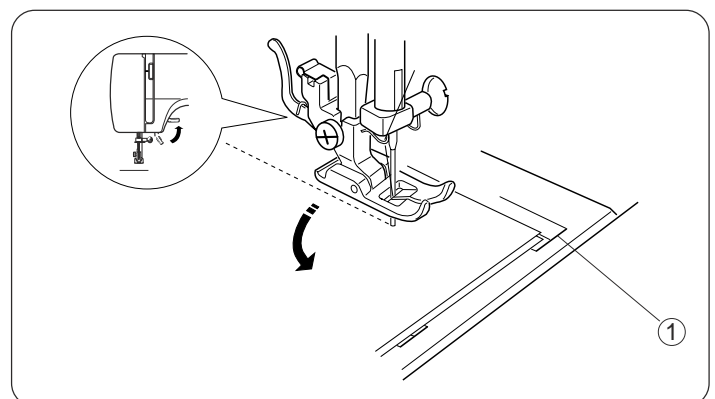
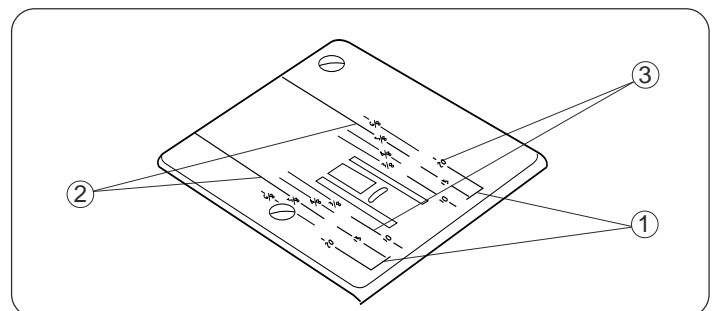
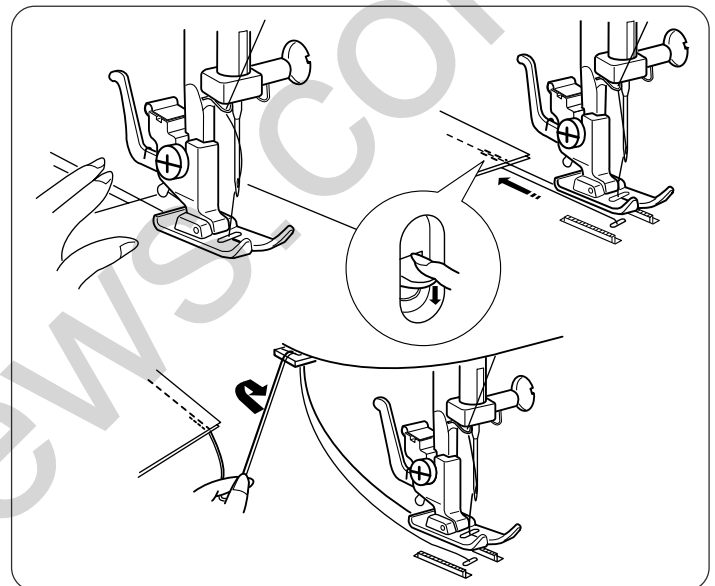
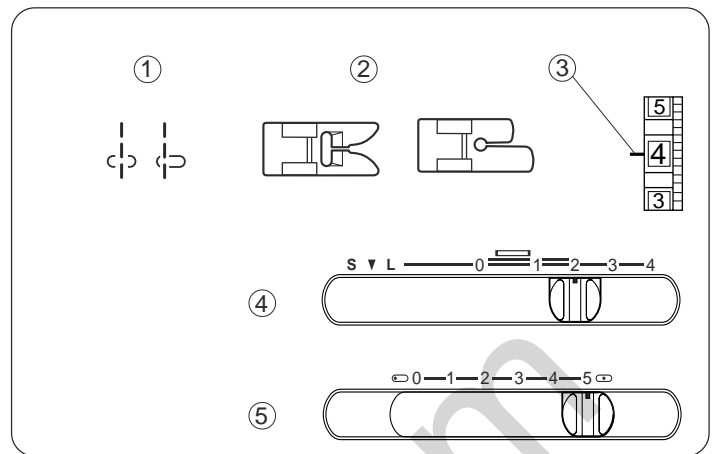
Use the Seam Guides

- ① Cornering guide
- ② Guide lines in inches
- ③ Guide lines in millimeters

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.

Turn a Square Corner

- ① Cornering guide
- When sewing with fabric edge at 5/8" seam guide, to turn a square corner so that sewing continues at the same distance from edge:
1. Stop stitching when the front edge of the fabric reaches the cornering guide lines.
 2. Lower the needle by turning the handwheel counterclockwise.
 3. Raise the presser foot and turn the fabric counterclockwise 90°.
 4. Lower the presser foot and begin stitching in the new direction.



Variable Needle Position

When the straight stitch (pattern 1) is selected, you can move the needle between center and left needle position by sliding the stitch width control.

Topstitching

- ① Stitch pattern selector: 1 or 2
- ② Presser foot: Zigzag foot
Straight stitch foot
- ③ Needle thread tension: 2 to 6
- ④ Stitch length control: 1.5 to 4
- ⑤ Stitch width control: 0 (0) or 5 (5)

NOTE:

When using the straight stitch foot, make sure to set the needle positions selector at 0 (Center needle position) and stitch width at "5". Otherwise the needle may strike the sewing foot and could possibly break.

Topstitching emphasizes lines of garments and keeps seams and edges flat and crisp. Accent suits or blouses with one or two rows of topstitching around the outer edges of cuffs, lapels or collars. Lower the presser foot and keep the edge of the fabric next to the right edge of the presser foot.

Evenly guide the fabric along the edge to produce an even row of topstitching 3/8" (1.0 cm) from the edge.

Zipper Sewing

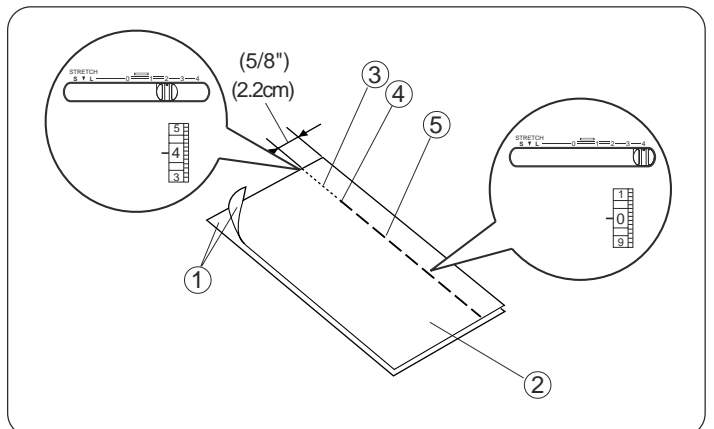
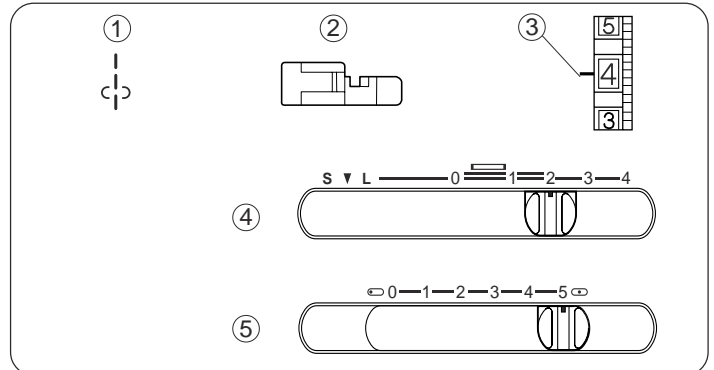
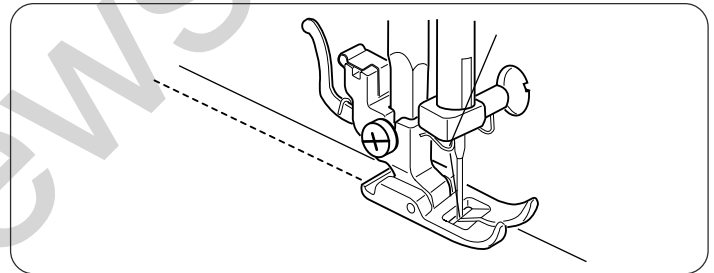
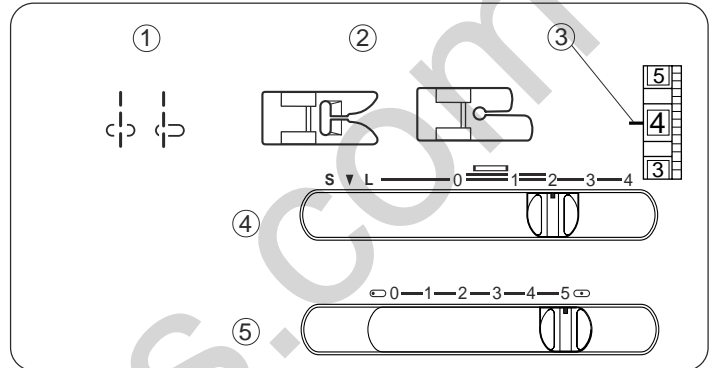
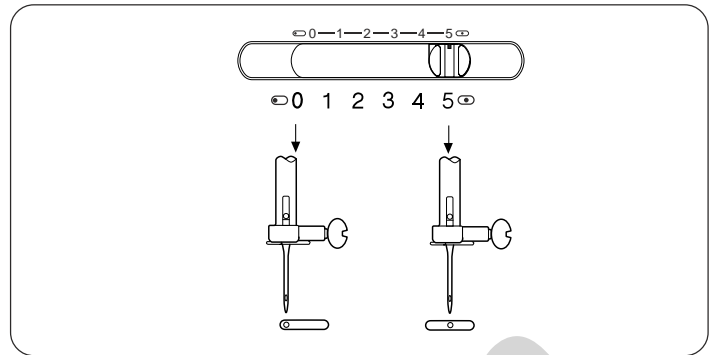
- ① Stitch selector: 1
- ② Presser foot: Zipper foot
- ③ Needle thread tension: 3 to 6
- ④ Stitch length control: 1.5 to 4
- ⑤ Stitch width control: 5

• Fabric preparation

- ① Right side (Top side) of fabric
- ② Wrong side (Bottom side) of fabric
- ③ Bottom seam
- ④ Zipper stop position
- ⑤ Basting stitch

Place the right sides (Top sides) of the fabric ① together. Sew a bottom seam 5/8" (2.2 cm) from right edge ③ to the estimated zipper bottom stop position ④. Sew in reverse a few stitches to lock.

Increase the stitch length to 4, set needle thread tension to 0, and sew a basting stitch ⑤ the entire length of the zipper opening.



Zipper Sewing (Continued)

• To sew

- ① 1/8" (0.4cm) fabric margin
- ② Zipper teeth
- ③ Zipper tape
- ④ Forward edge of zipper foot
- ⑤ Sewing direction

- 1 Fold back the upper layer seam allowance. Fold back the lower layer seam allowance to leave a 1/8" (0.4 cm) margin of fabric ①.

Place zipper teeth next to margin edge and pin margin to zipper tape.

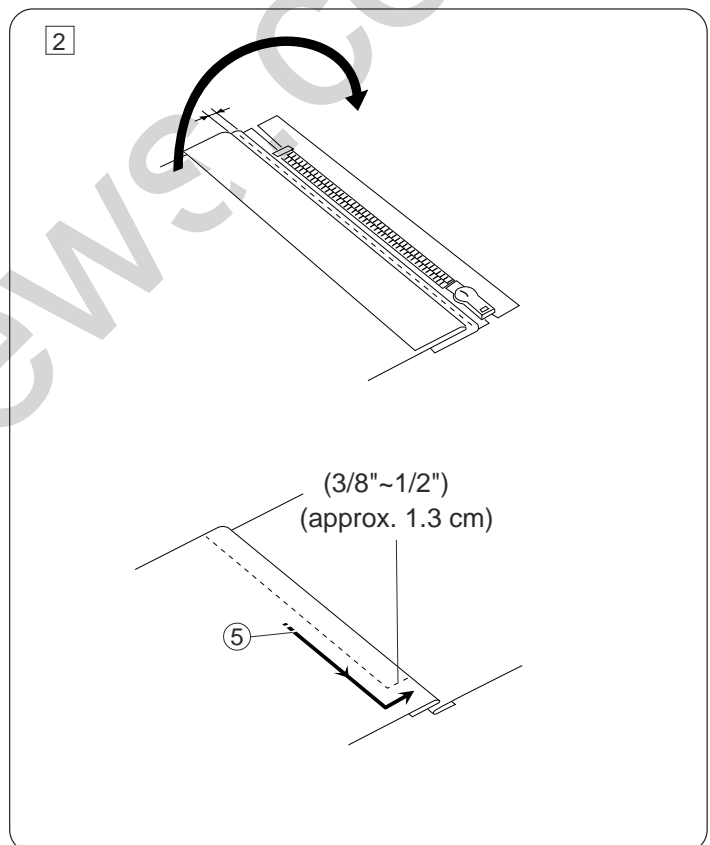
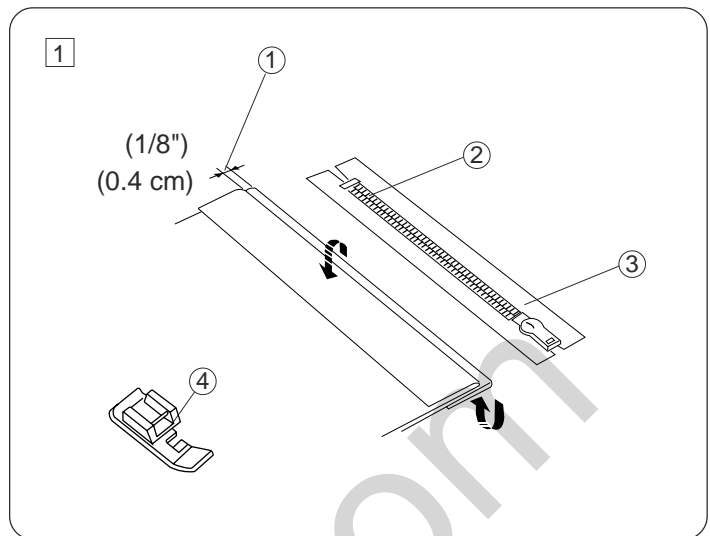
Align forward edge of zipper foot ④ with margin edge.

Return thread tension and stitch length to original settings. Sew a seam the entire length of zipper tape, removing pins as you go. Before reaching pull-tab, unzip a few inches to clear a path for the stitch. Remove fabric and close zipper.

- 2 Take the upper fabric layer and lay it flat over the zipper. Beginning above pull-tab at top of zipper tape, sew a seam about 3/8" to 1/2" (approx. 1.3 cm) distance from the basting stitches. Stop sewing at a position just below the zipper bottom stop.

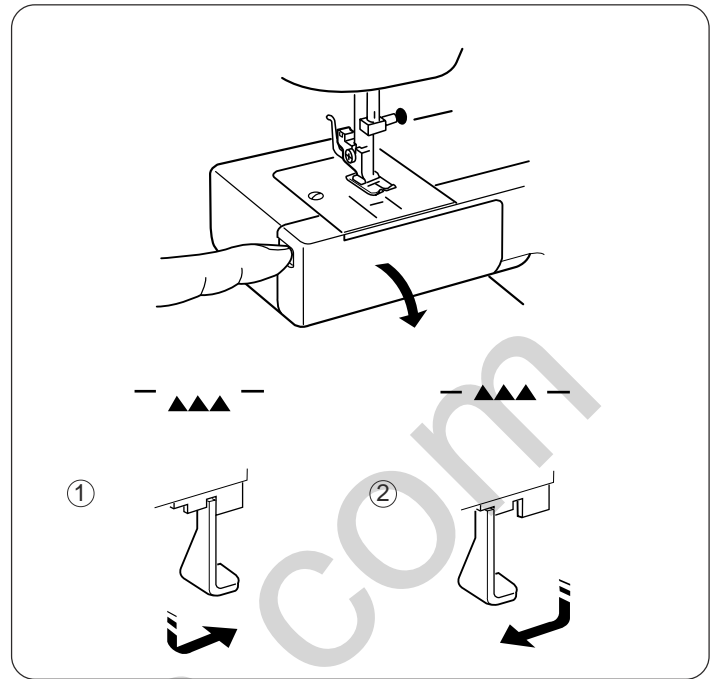
Turn fabric 90° and sew to meet the bottom seam. Sew in reverse a few stitches to lock.

Once both sides of zipper are sewn, use seam ripper to open the basting stitch.



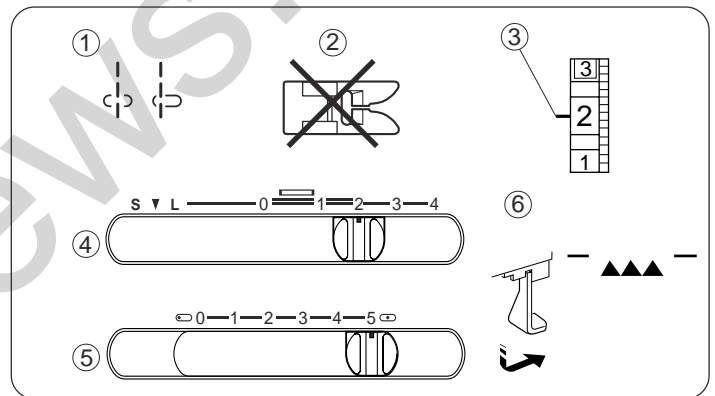
To Drop or Raise the Feed Dogs

- ① To drop the feed dogs, press the lever in the direction of the arrow, as illustrated.
- ② To raise the feed dogs, push the lever in the direction of the arrow, as illustrated, and turn handwheel towards you. Feed dogs must be up for normal sewing.

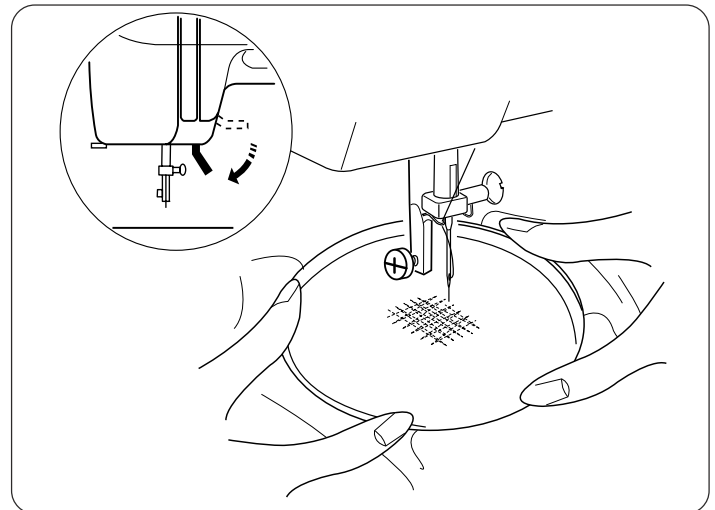


Darning

- | | |
|----------------------------|----------------|
| ① Stitch pattern selector: | 1 or 2 |
| ② Presser foot: | Removed |
| ③ Needle thread tension: | 1 to 4 |
| ④ Stitch length control: | Any |
| ⑤ Stitch width control: | 0 (0) or 5 (5) |
| ⑥ Feed dogs: | Dropped |



Drop the feed dogs (see above) and remove the presser foot. Center the hole in the fabric on an embroidery hoop, as shown. Lower the presser bar and sew at a slow speed. Move the fabric back and forth slowly until the darning area is covered. Turn the fabric a 1/4 turn (90°), and sew another layer of stitching over the first layer.



NOTE:

If the fabric is thin or badly damaged, use a separate piece of fabric under the hole to reinforce it.

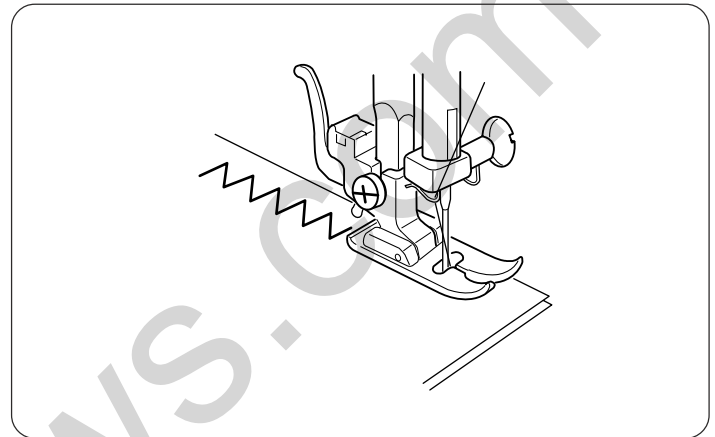
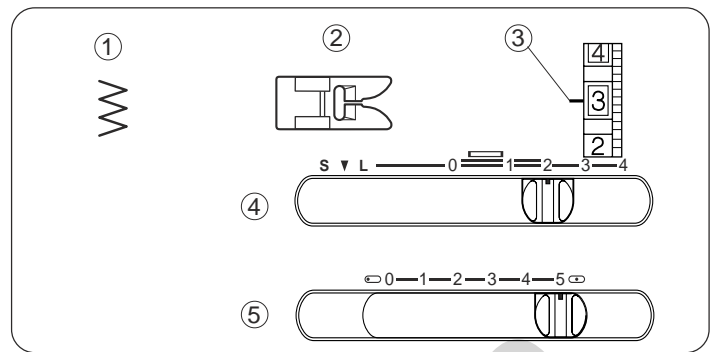
SECTION 4. ZIGZAG STITCH SEWING

Basic Zigzag

- ① Stitch pattern selector: 3
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 2 to 5
- ④ Stitch length control: 0.5 to 4
- ⑤ Stitch width control: 5

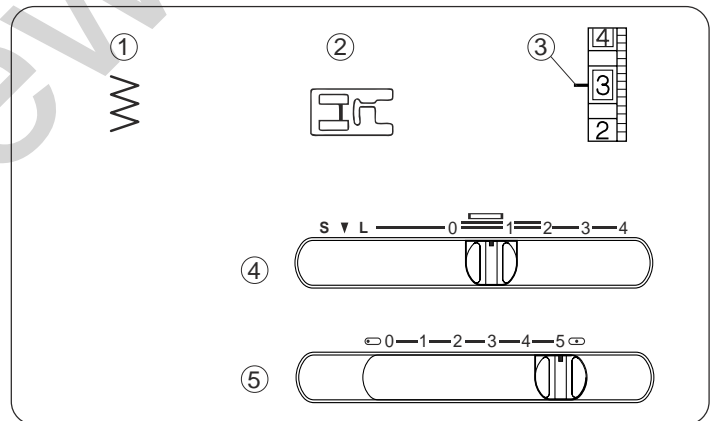
The zigzag stitch is one of the most common and versatile stitches. It can be a utility stitch for button sewing, buttonhole making, hemming, overcasting, mending and darning.

It can also be used to decorate with trims, appliques and cut work, or as a decorative stitch.



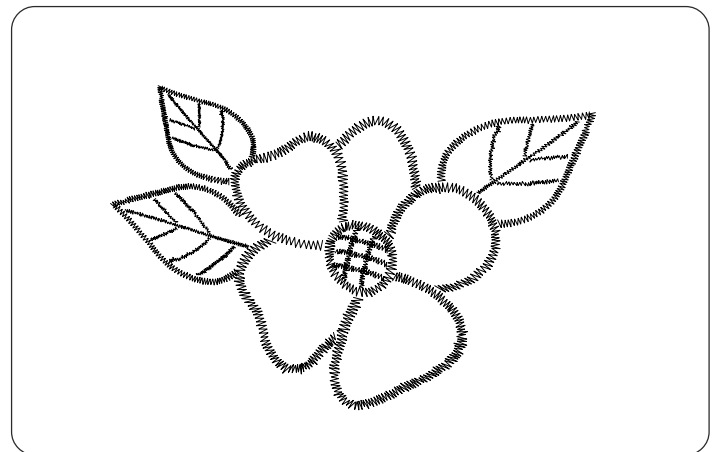
Satin Stitching

- ① Stitch pattern selector: 3
- ② Presser foot: Satin stitch foot
- ③ Needle thread tension: 1 to 5
- ④ Stitch length control: 0.5 to 1
- ⑤ Stitch width control: 5



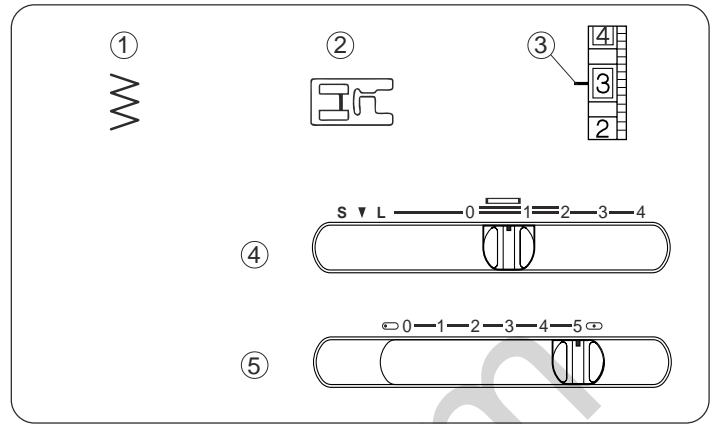
The satin stitch is often used to decorate and overcast the raw edge on blankets, linens, tablecloths and napkins. It is also attractive in applique.

Once your machine is set up to stitch, for the best result, test stitch on the fabric being used. A tight satin stitch may pucker some lightweight fabrics.



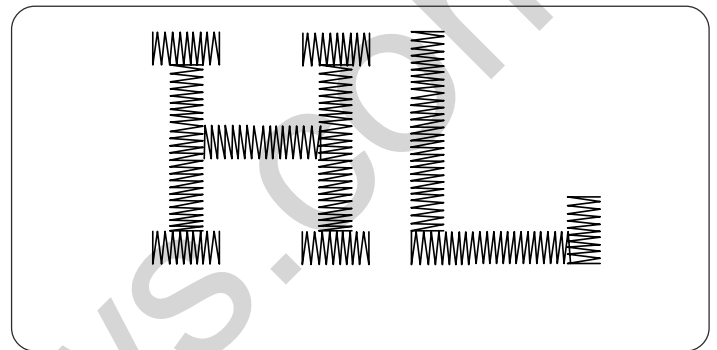
Monogramming

- | | |
|------------------------------|-------------------|
| ① Stitch pattern selector: 3 | |
| ② Presser foot: | Satin stitch foot |
| ③ Needle thread tension: | 1 to 4 |
| ④ Stitch length control: | 0.5 to 1 |
| ⑤ Stitch width control: | 5 |



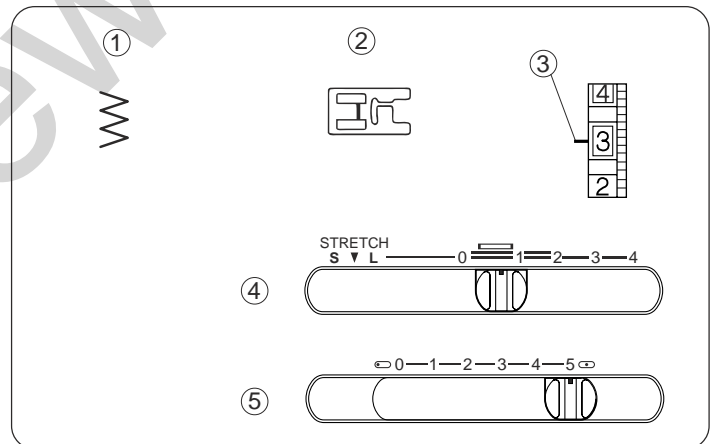
Attach a piece of stabilizer on the wrong side (Bottom side) of the fabric.

Draw letters on the fabric with tailor's chalk. Form each pattern with a satin stitch, adjusting the stitch width.

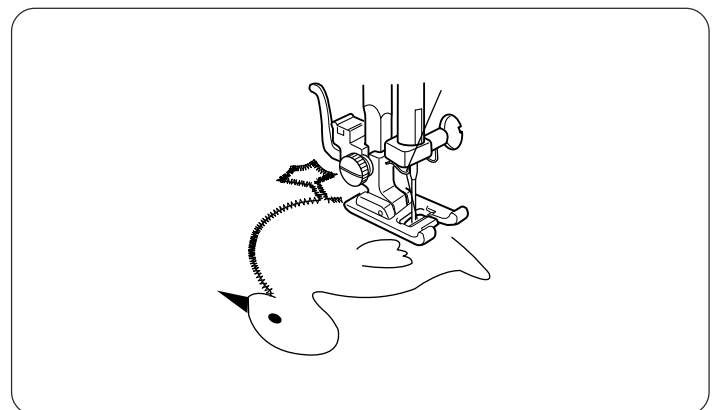


Applique

- | | |
|------------------------------|-------------------|
| ① Stitch pattern selector: 3 | |
| ② Presser foot: | Satin stitch foot |
| ③ Needle thread tension: | 1 to 4 |
| ④ Stitch length control: | 0.5 to 1 |
| ⑤ Stitch width control: | 5 |

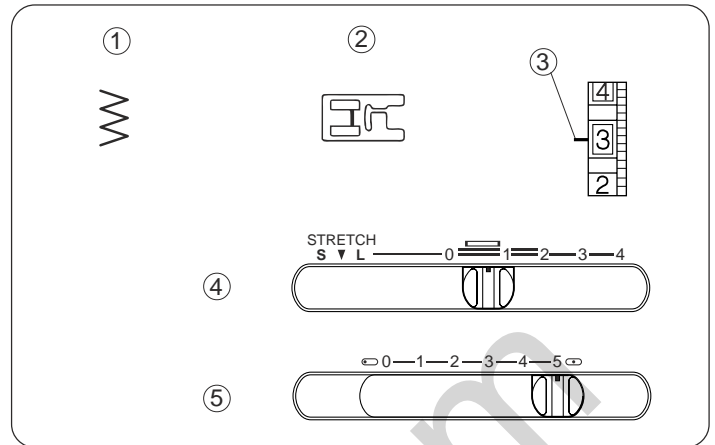


Baste applique pieces on the fabric, or fuse the applique pieces with an iron-on fabric joiner. Stitch around the applique, making sure the needle falls along the raw edge.



Bar Tacking

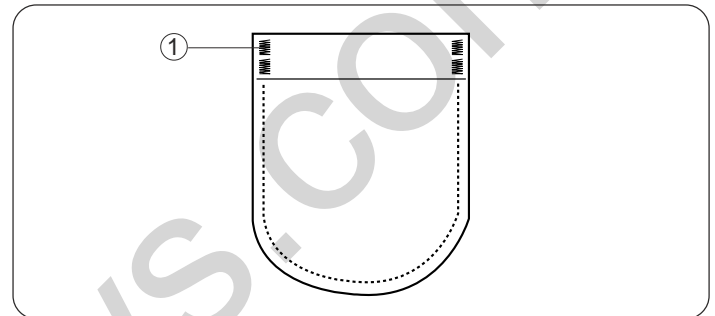
- ① Stitch pattern selector: 3
- ② Presser foot: Satin stitch foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: 0.5 to 1
- ⑤ Stitch width control: 5



This is similar to a very short satin stitch, and is used to reinforce points of strain, such as corners, pockets and straps of lingerie.

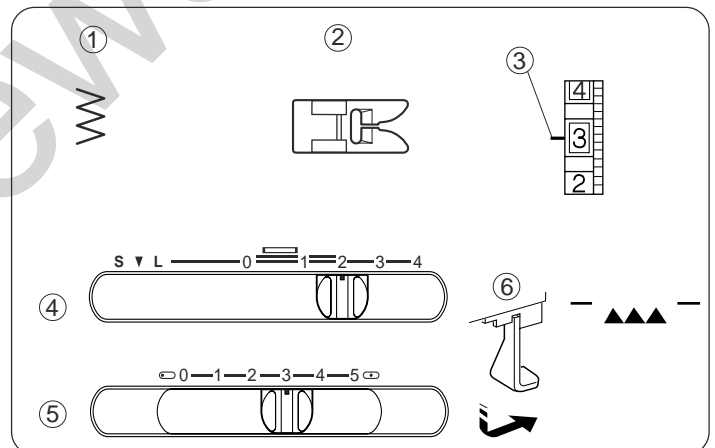
Sew four (4) to six (6) stitches.

- ① Bartacking

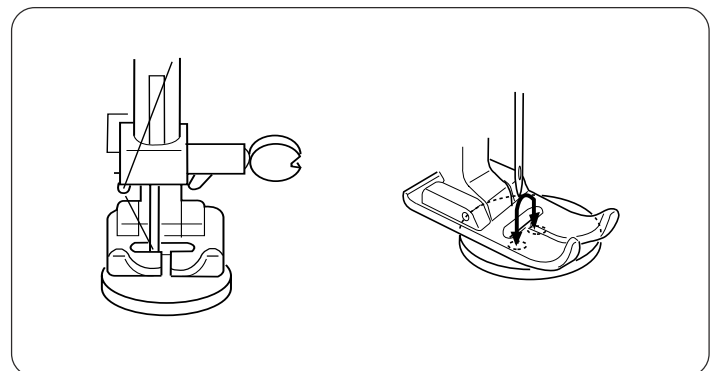


Button Sewing

- ① Stitch pattern selector: 3
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 3
- ④ Stitch length control: 0.5 to 1
- ⑤ Stitch width control: Adjust as necessary
- ⑥ Feed dog: Dropped

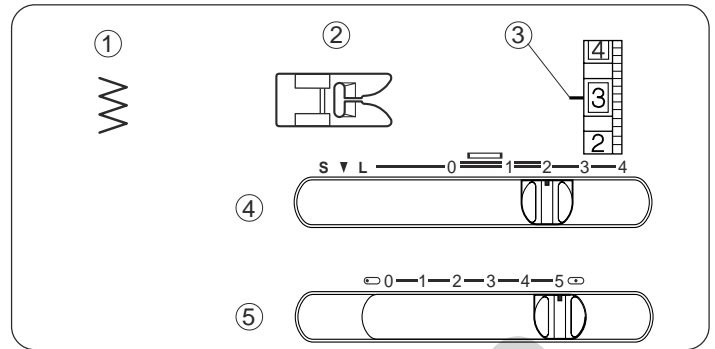


1. Drop the feed dogs. Place the button below the zigzag foot, making sure to align the holes with the horizontal slot in the foot. Lower the presser foot to hold the button in place.
2. Determine which zigzag width setting matches the distance between the button holes. The needle must go safely through each hole when sewing. Unthread the needle to help you determine the zigzag width.
3. Turn the handwheel, so that the needle is in its leftmost position, and then drop the needle through the left hole in the button. Thread the needle.
4. Press the foot control and sew about 10 stitches.
5. Sew the other row of holes (if applicable) using the steps above. Trim excess threads from both sides of the fabric.



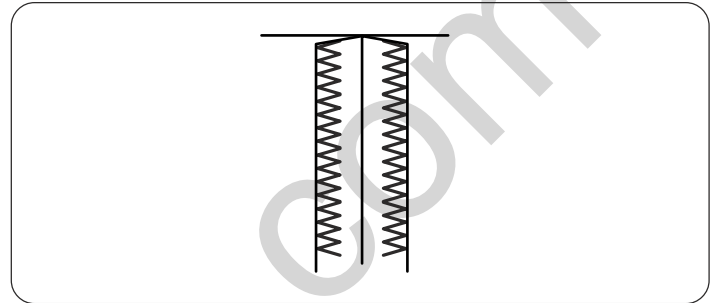
Overcasting Stitch

- ① Stitch pattern selector: 3
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: 1 to 2
- ⑤ Stitch width control: 5



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.



SECTION 5. UTILITY AND DECORATIVE STITCHES

Blind Hem Stitch

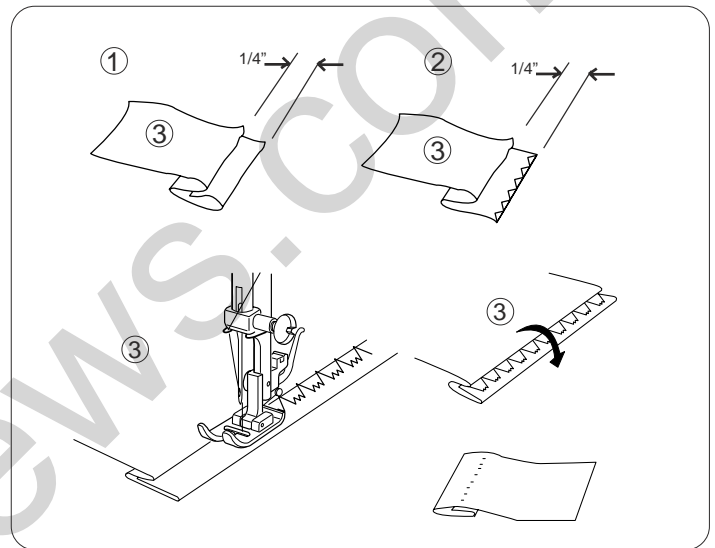
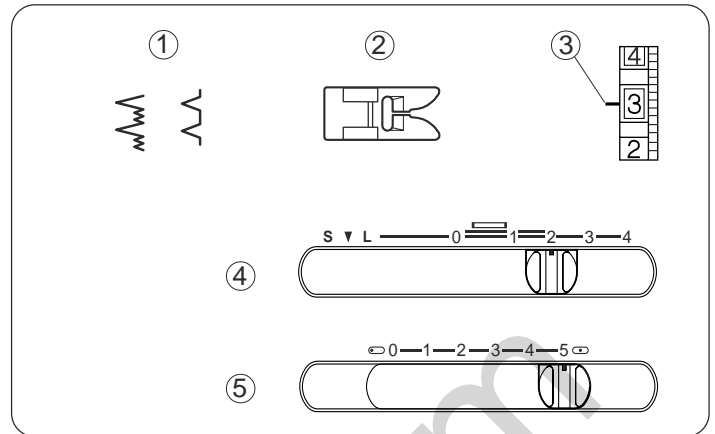
- ① Stitch pattern selector: 5 or 6
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: 1 to 3
- ⑤ Stitch width control: 5

- 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" (0.7 cm) of the hem edge showing.

Position the fabric, so that the needle at its leftmost position just pierces the edge of the fold.

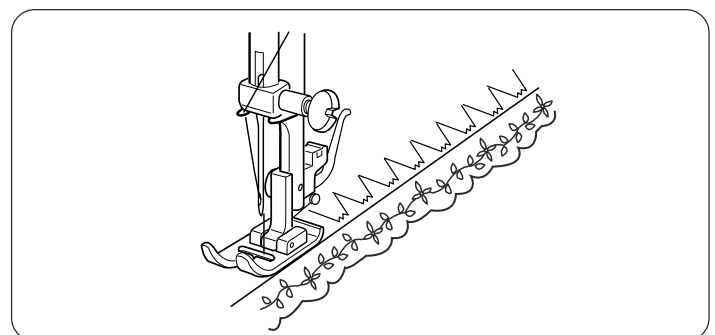
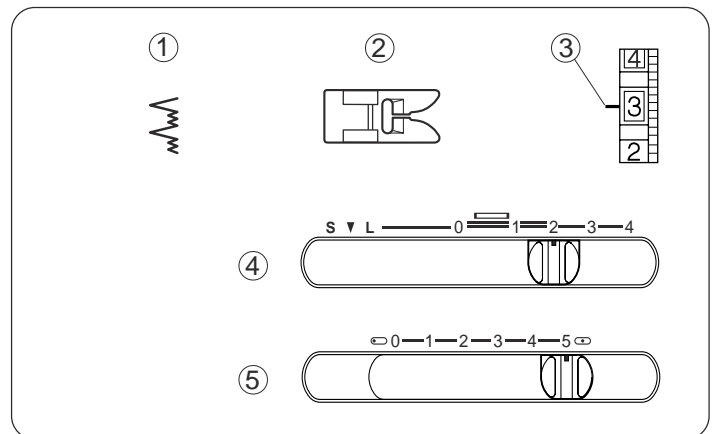
After hemming is completed, press together both sides of the finished hem. The top side of the fabric should show only the blind stitches.



Lace Work

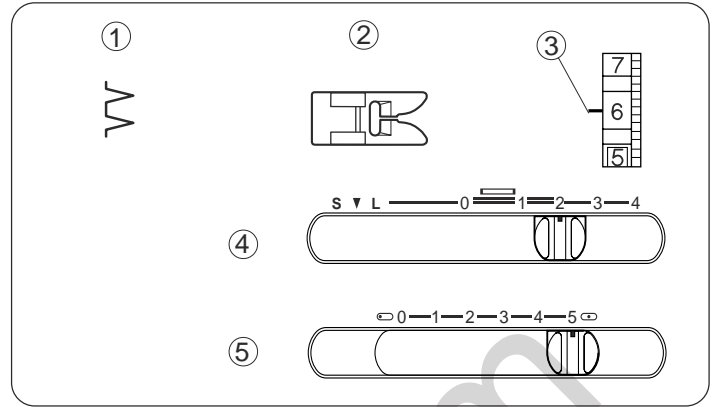
- ① Stitch pattern selector: 5
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: 1 to 3
- ⑤ Stitch width control: 5

Lace adds a fanciful, feminine touch to blouses and lingerie. Table linens and pillows become more elegant when trimmed with lace. Fold the raw edge of the fabric at least 5/8" (1.5 cm). Place lace underneath and topstitch with blind hem stitch. Trim excess fabric close to stitching.



Shell Stitch

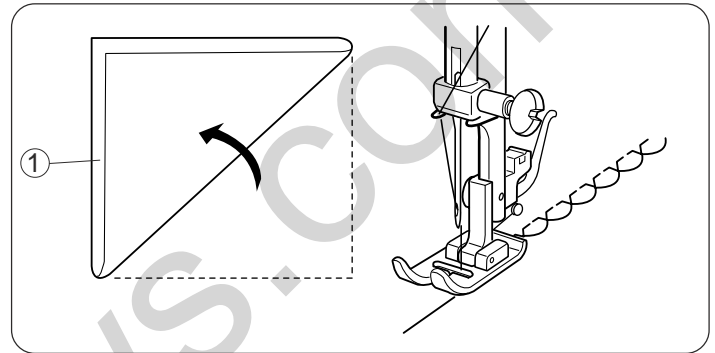
- ① Stitch pattern selector: 7
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 6 to 8
- ④ Stitch length control: 2 to 3
- ⑤ Stitch width control: 5



Use a lightweight fabric, such as tricot. Fold the fabric and stitch on the bias ①. You may need to increase the needle thread tension slightly. Allow the needle to just clear the folded edge of the fabric.

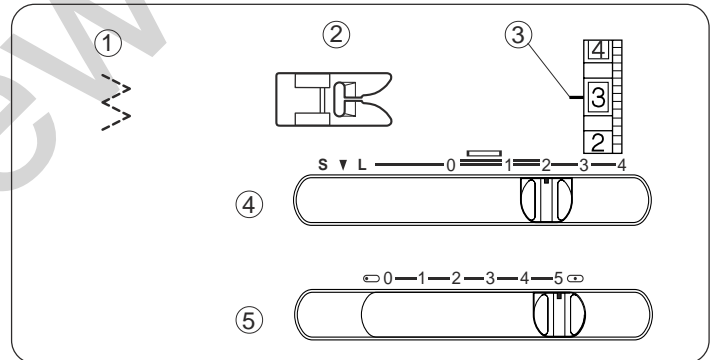
If you sew rows of shell stitches, space the rows at least 5/8" (1.5 cm) apart. You can also sew shell stitches on knits or soft silky woven fabrics in any direction.

- ① Bias



Multiple Zigzag Stitch

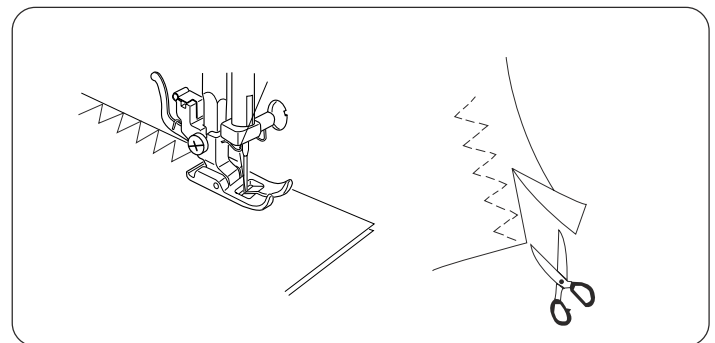
- ① Stitch pattern selector: 4
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: 1 to 4
- ⑤ Stitch width control: 5



• Seam finishing

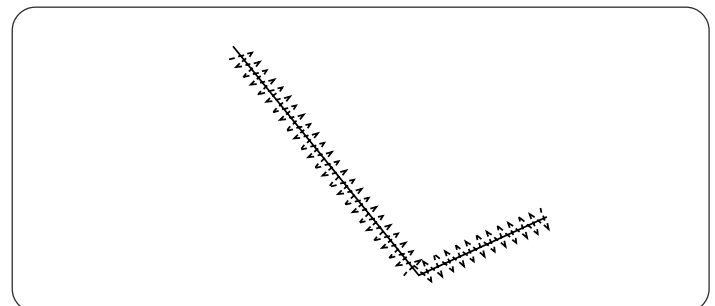
Place the fabric under the presser foot in such a manner that the edge is slightly inside the right-hand side of the presser foot. Guide the fabric so that the right hand stitches fall at the edge of the fabric.

Trim the excess close to the stitches. Be careful not to cut the stitches.



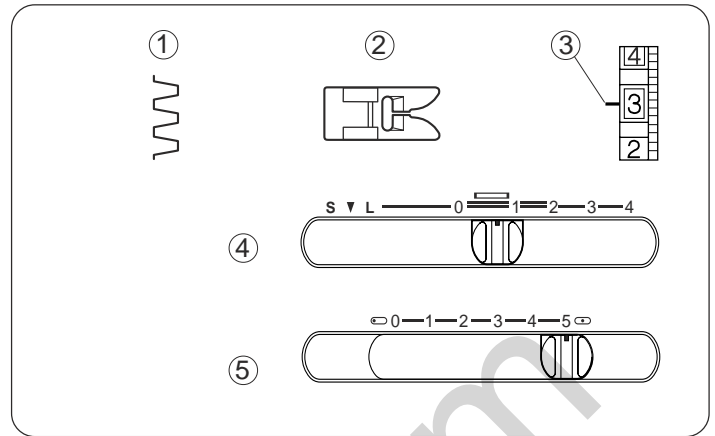
• Mending

Position the tear under the needle, so that the stitch catches both sides.

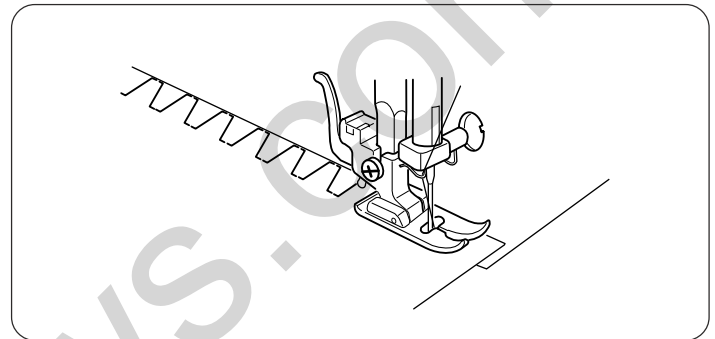


Box Stitch

- ① Stitch pattern selector: 8
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: 0.5 to 2
- ⑤ Stitch width control: 5

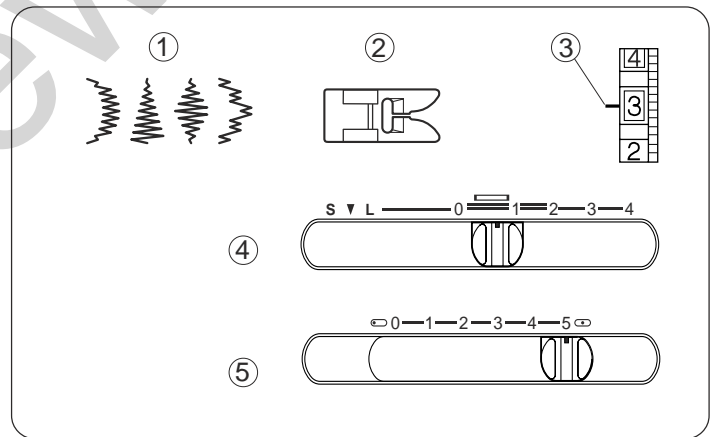


Overlap two raw edges of heavy weight interlining, and use this stitch to join them.

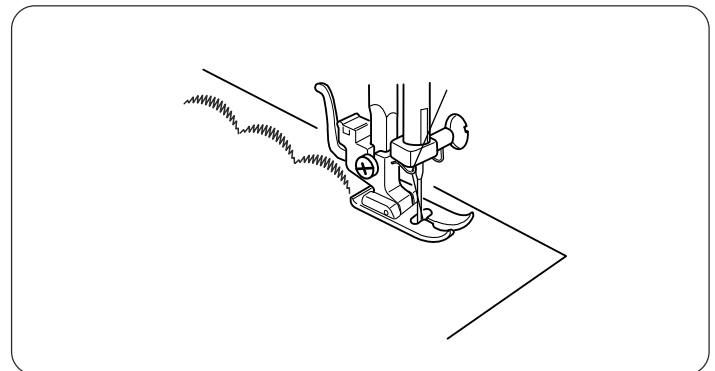


Decorative Stitch Patterns

- ① Stitch pattern selector: 9, 10, 11, 12
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: 0.5 to 1
- ⑤ Stitch width control: 5



For a delicate appearance on fabric such as chiffon, use a single layer with a tear-away backing, if necessary.




SECTION 6. STRETCH STITCHES

Straight Stretch

- ① Stitch pattern selector: 1 or 2
- ② Presser foot: Zigzag foot
Presser foot: Straight stitch foot
- ③ Needle thread tension: 2 to 6
- ④ Stitch length control: STRETCH (S ▼L)
- ⑤ Stitch width control: 0(0) or 5(5)

NOTE:

When using the straight stitch foot, make sure to set the needle positions selector at  (Center needle position) and stitch width at "5". Otherwise the needle may strike the sewing foot and could possibly break.

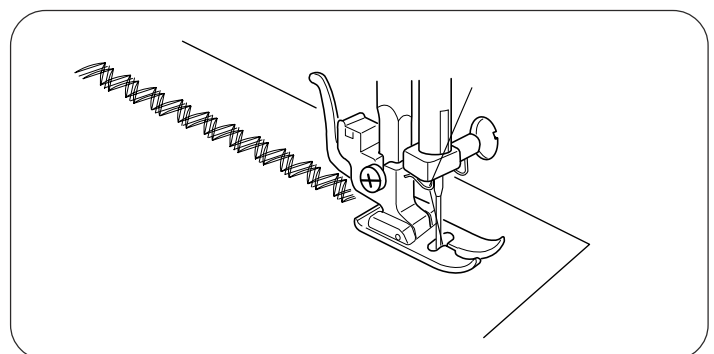
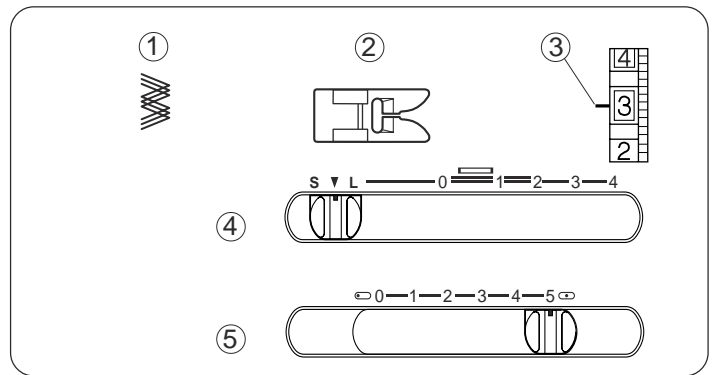
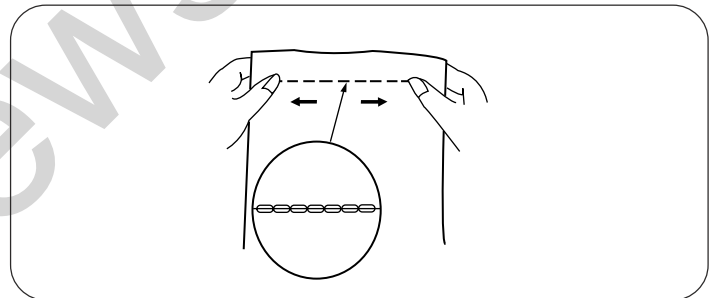
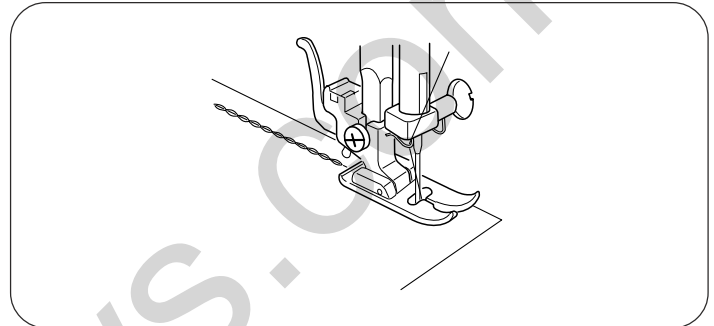
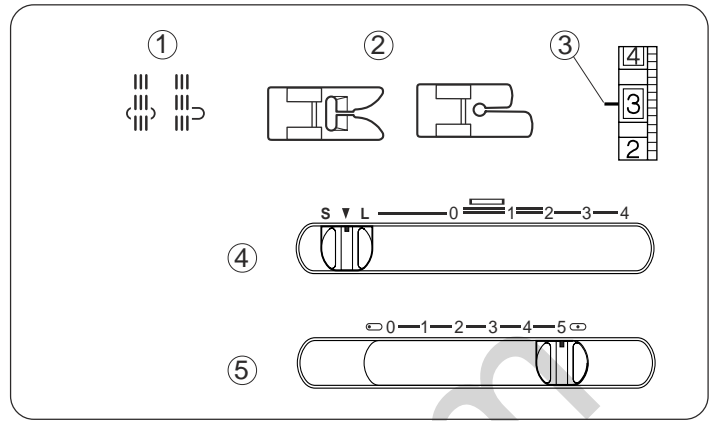
This strong, durable stitch is recommended where both elasticity and strength are necessary in order to insure comfort and durability.

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 Stitch pattern selector: 3
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: STRETCH (S ▼L)
- ⑤ Stitch width control: 5

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



Overcast Stretch Stitching

- ① Stitch pattern selector: 5 or 6
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: STRETCH (S ▼ L)
- ⑤ Stitch width control: 5

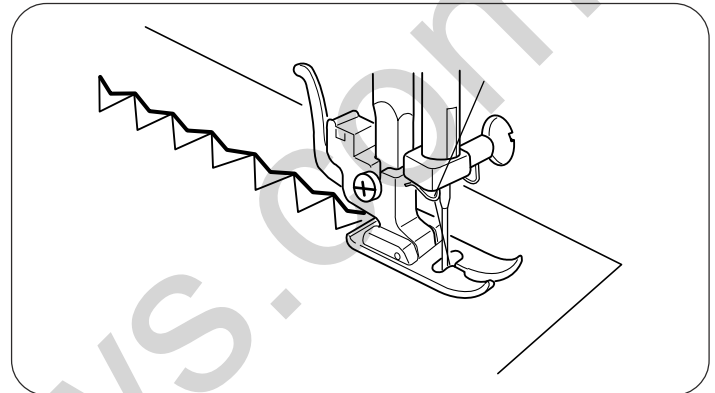
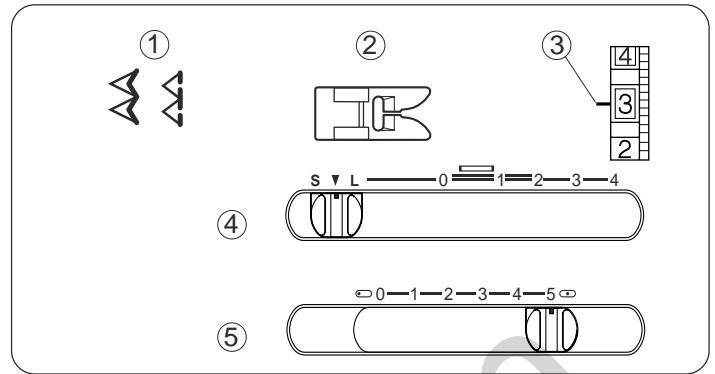
This stitch is for sewing a seam with an overcast finish. It is used when making swim wear, ski pants and other garments which require stretch.

• Starting to sew

Place raw edge of fabric to the “left” of the needle as shown. Sew in a manner so that the needle pierces the fabric very close to the outside edge. Or place the fabric to allow a 5/8” (1.6 cm) seam, then trim seam allowance.

Raw or worn edges of older garments can be overcasted to prevent further raveling.

NOTE: Use a #11 blue stretch needle, which effectively prevents skipped stitching.



Smocking

- ① Stitch pattern selector: 4
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: STRETCH (S ▼ L)
- ⑤ Stitch width control: 5

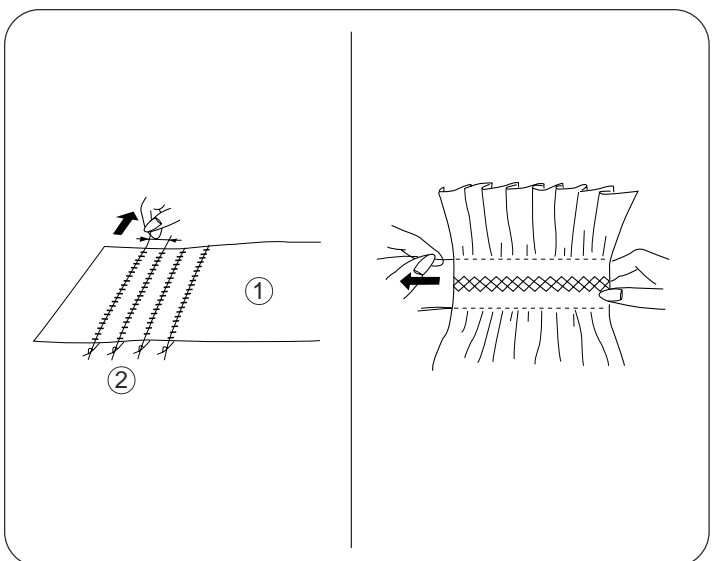
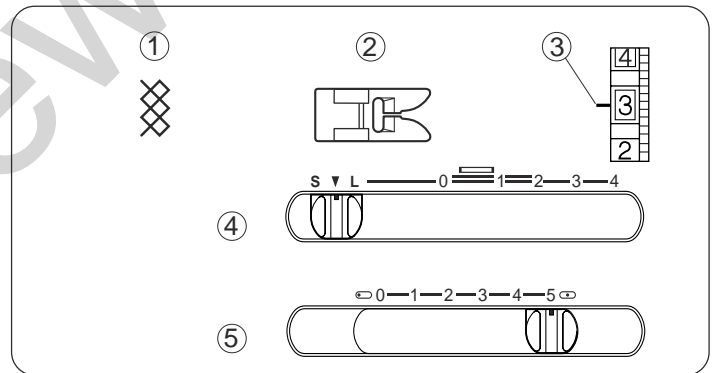
NOTE: Loosen the needle thread tension to make gathering easier.

• To sew

- ① Wrong side (Bottom side) of fabric
- ② Knotted edge

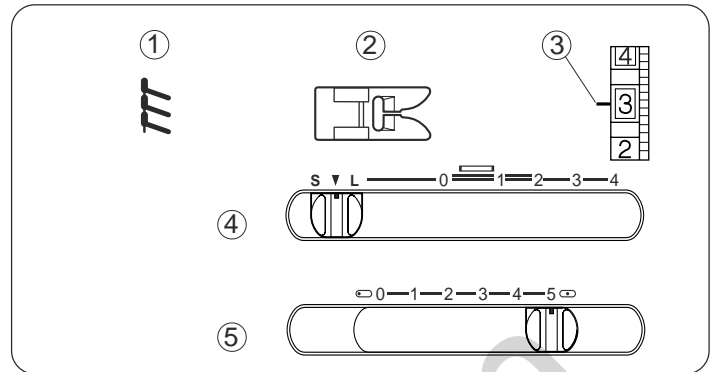
Smocking is a delicate decorative treatment used on children’s clothes or women’s blouses. Choose a soft and lightweight fabric such as batiste, gingham or challis. Cut the fabric three times wider than the projected width. Set stitch length at “4” and sew rows of straight stitches 3/8” (1.0 cm) apart across the area to be smocked.

Knot the threads along one edge ②. From the other edge, pull the bobbin threads (bottom threads) to distribute the gathers evenly and secure the threads. Sew the smocking stitches between the gathered rows. Remove the straight stitches by pulling them out.

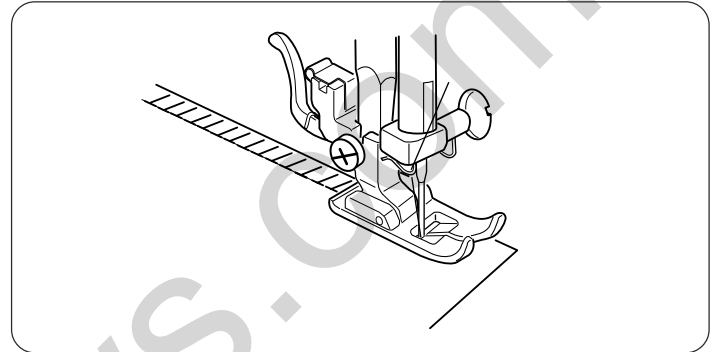


Serging

- ① Stitch pattern selector: 7
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: STRETCH (S ▼ L)
- ⑤ Stitch width control: 5

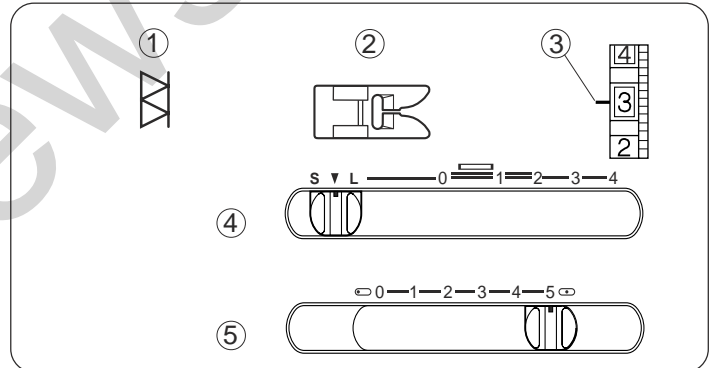


This stitch is ideal for 1/4" (0.6 cm) seams on knits or on medium to heavy weight woven fabrics where you want a narrow seam. It is also great for sewing spandex swim wear. Place the fabric under the presser foot so that the stitches are made over the raw edge.

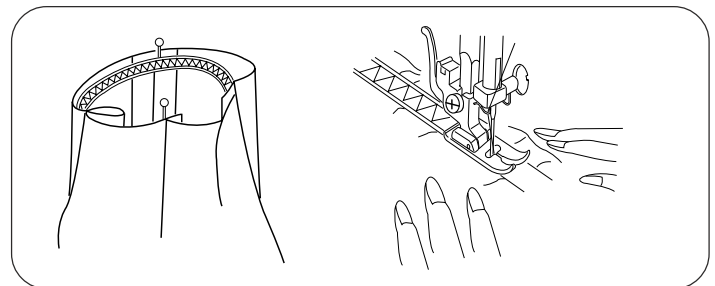


Elastic Stretch Stitch

- ① Stitch pattern selector: 8
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: STRETCH (S ▼ L)
- ⑤ Stitch width control: 5

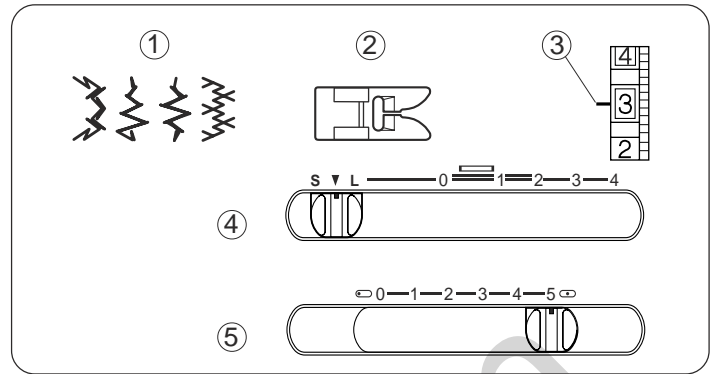


Choose this stitch to attach elastic to garments. Mark elastic into quarters and match these to the center front, center back and side seams. Place the middle of the elastic under the center of the presser foot and stitch into place, making sure the elastic is evenly distributed.

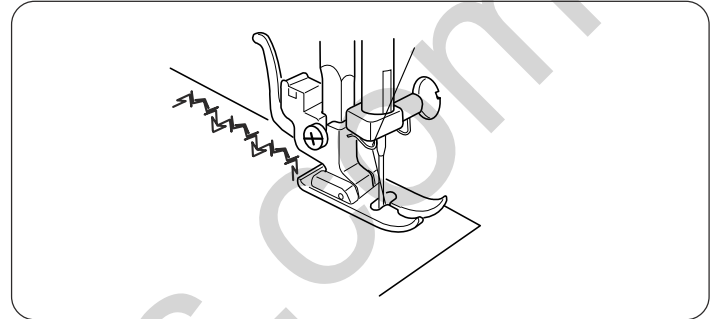


Decorative Stretch Patterns

- ① Stitch pattern selector: 9 — 12
- ② Presser foot: Zigzag foot
- ③ Needle thread tension: 1 to 4
- ④ Stitch length control: STRETCH (S ▼L)
- ⑤ Stitch width control: 5




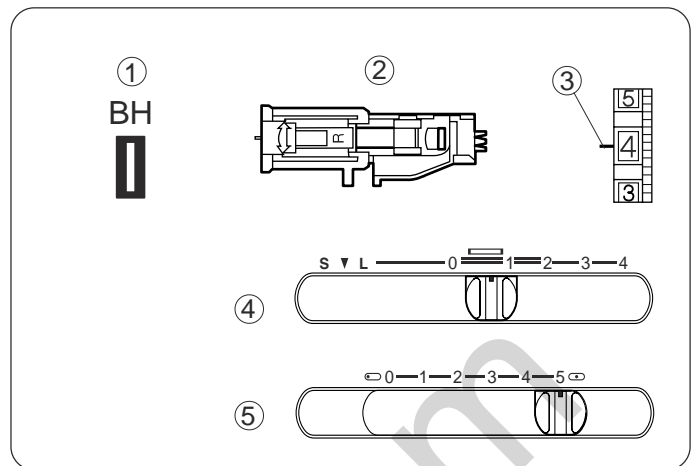
Decorative stretch patterns are used for adding a creative and personalized touch to items. You can decorate children's clothes, women's blouses, curtains, etc.



SECTION 7. BUTTONHOLE

Buttonhole

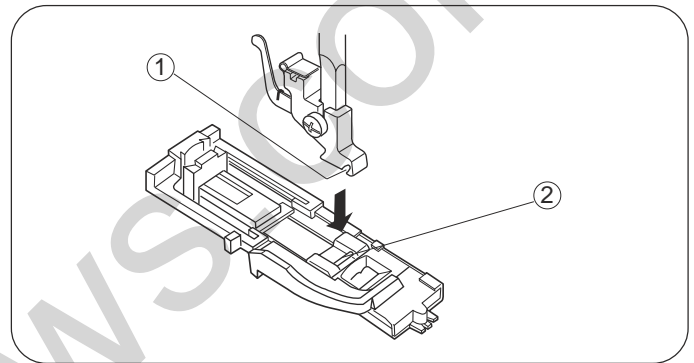
- | | |
|--------------------------|---|
| ① Pattern selector: | BH |
| ② Presser foot: | Automatic buttonhole foot |
| ③ Thread tension: | 1 to 5 |
| ④ Stitch length control: |  (0.25 to 1) |
| ⑤ Stitch width control: | 5 |



• Preparation for sewing

- ① Groove
- ② Pin

Attach the automatic buttonhole foot R. Insert needle thread through hole in foot before attaching foot to foot holder. Make sure the groove on the foot holder catches the pin on the foot when lowering the presser foot.



• To sew

- ① Button holder
- ② Buttonhole lever

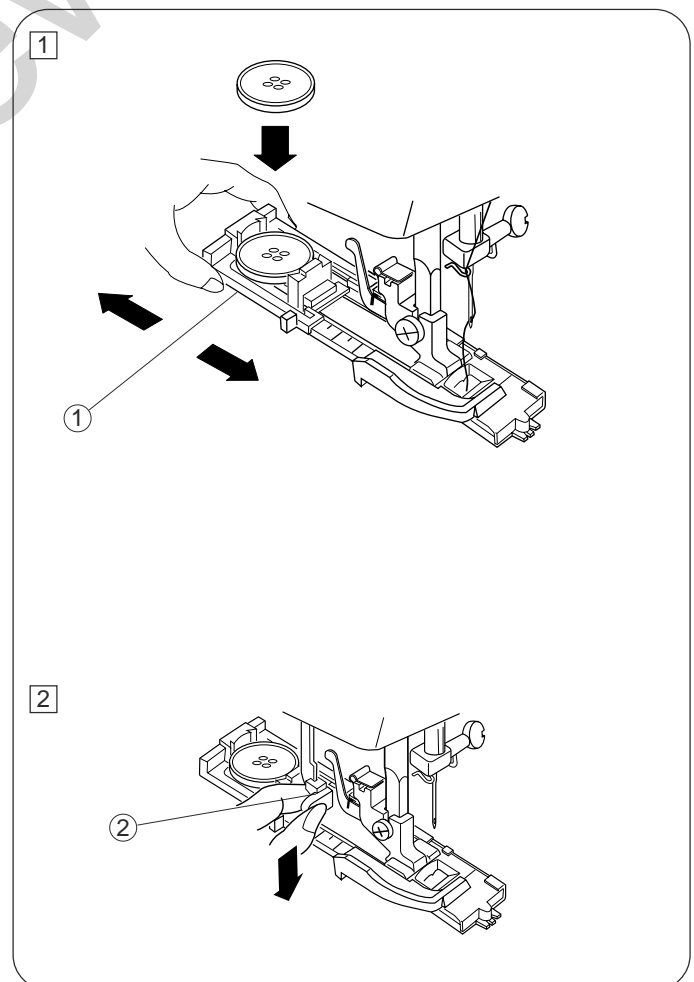
The buttonhole size is automatically set by placing the button in the rear of the automatic buttonhole foot.

The button holder on the foot takes a button up to 1.0" (2.5 cm) in diameter.

Make a test buttonhole on an extra piece of the fabric to check your settings.

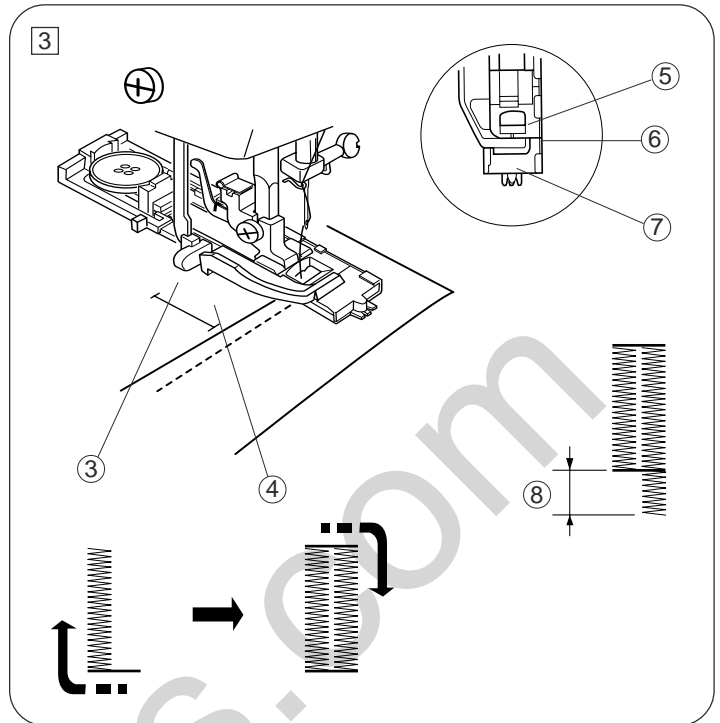
Use interfacing on stretch fabrics.

- ① Pull the button holder ① to the back, and place the button in it. Push it forward tightly against the button.
- ② Pull the buttonhole lever ② down as far as it will go.

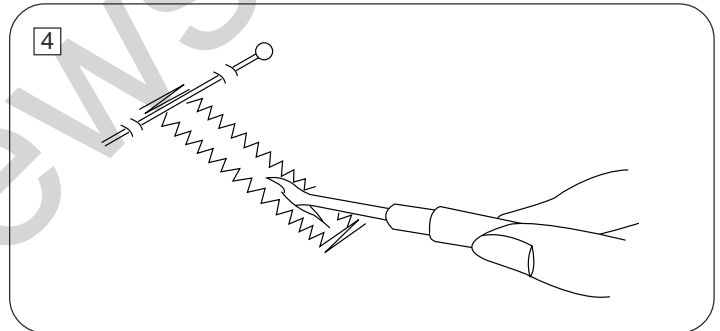




- ③ Mark for placement of buttonhole
- ④ Starting point
- ⑤ Slider
- ⑥ There should be no gap.
- ⑦ Spring holder
- ⑧ Difference

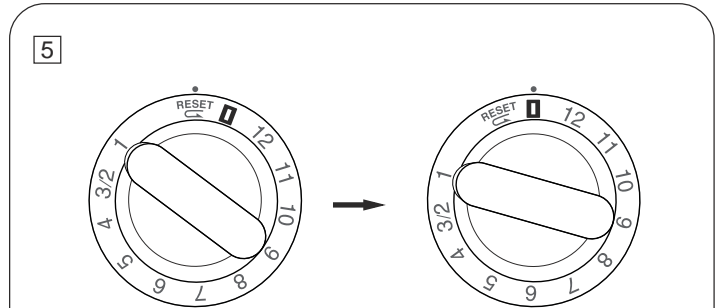
③ Draw both threads to the left under the foot.
 Insert the garment under the foot, and lower the needle into the fabric to the starting point.
 Then lower the automatic buttonhole foot.
 Depress the foot control to sew a buttonhole.



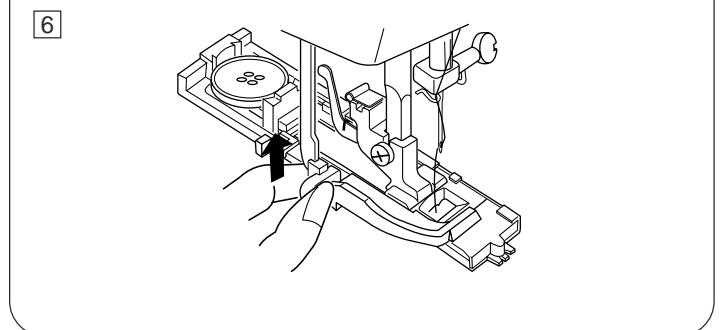
④ Remove the fabric and place a pin just before the bartack at each end, to prevent cutting bartacks. Cut the opening with the buttonhole opener.



⑤ To repeat buttonhole sewing, turn the stitch selector to , then back to  again, as shown. Now, simply step on the foot control to sew an identical buttonhole.

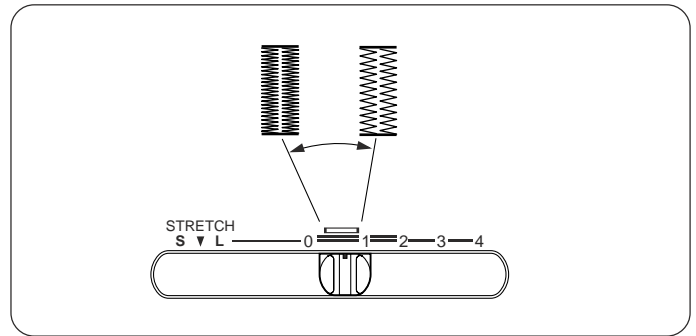


⑥ When finished, push the buttonhole lever up as far as it will go.



• **To adjust buttonhole stitch density**

Set the stitch length control between 0.25 and 1.0 to adjust the buttonhole stitch density.



Corded Buttonhole

1 Use the same procedure as the automatic buttonhole procedure.

* Set the stitch width to match the thickness of the cord used.

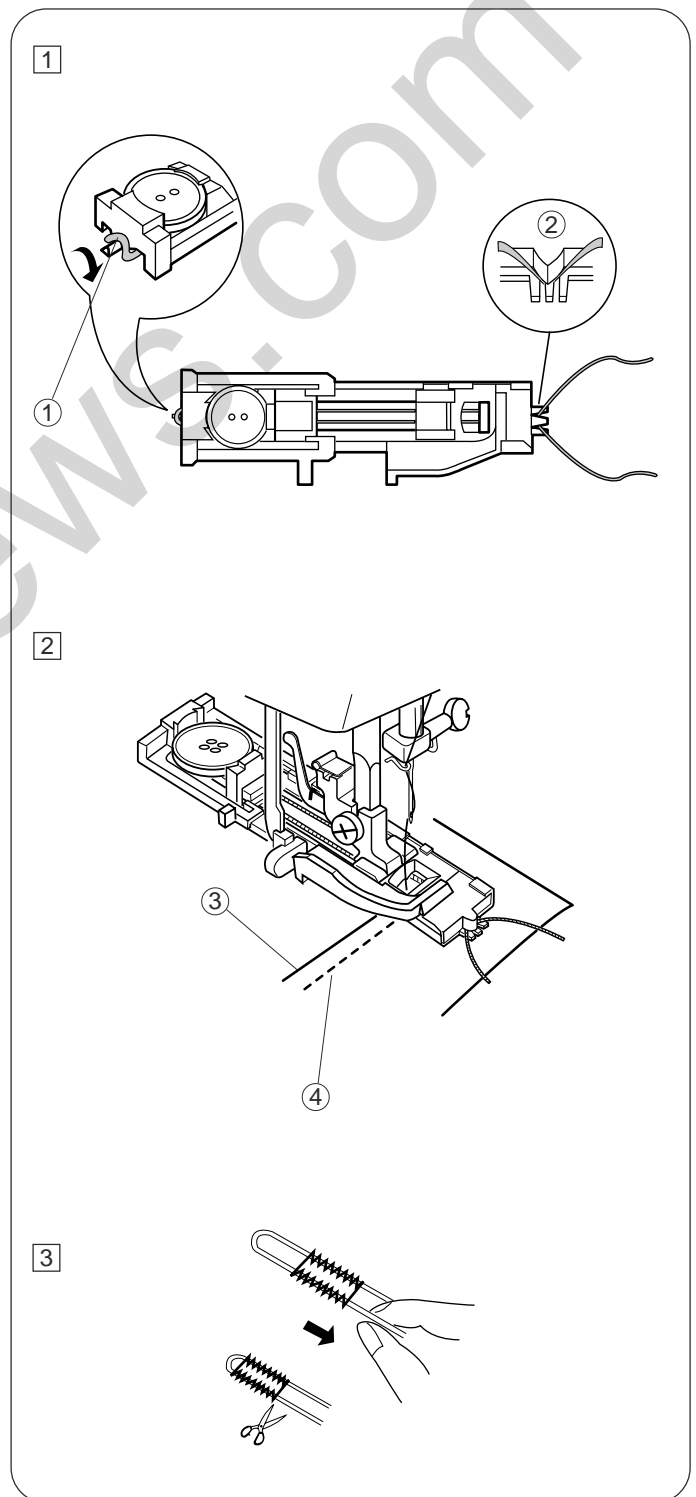
With the buttonhole foot raised, hook the filler cord on the spur at the back of the buttonhole foot.

Bring the ends toward you under the buttonhole foot, clearing the front end.

Hook the filler cord into the forks ② on the front of the automatic buttonhole foot [R] to hold them tight.

Lower the needle into the garment where the buttonhole will start, and lower the foot.

- ① Spur
- ② Forks



2 Depress the foot control gently, and sew the buttonhole. Each side of the buttonhole and the bartacks will be sewn over the cord.

Remove the fabric from the machine, and cut the sewing threads only.

- ③ Needle thread (Top thread)
- ④ Bobbin thread (Bottom thread)

3 Pull the loose ends of the filler cord to tighten it. Tie the ends in a knot, or thread them through a hand-sewing needle. Draw them to the wrong side of the fabric and knot.

SECTION 8. CARE OF YOUR MACHINE

NOTE:

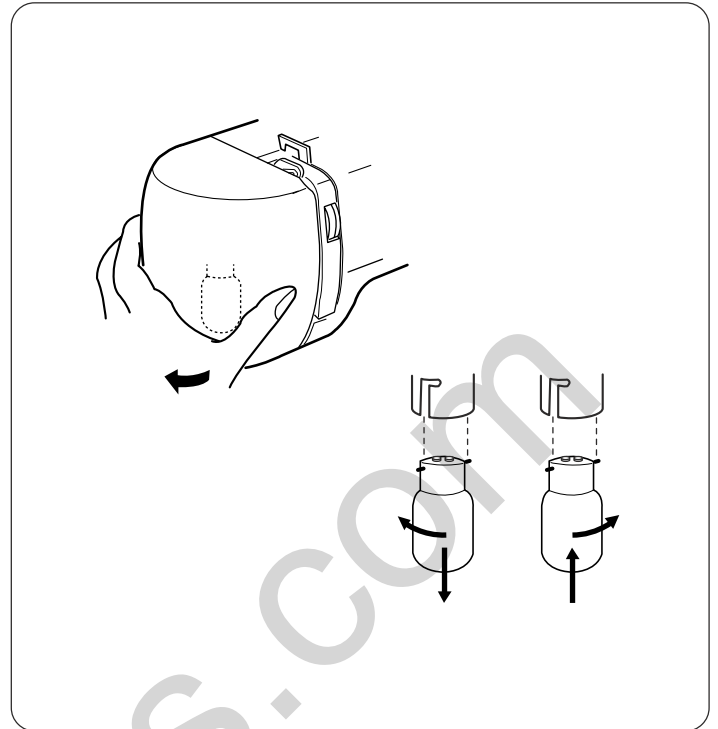
- * Unplug the machine.
- * Do not dismantle the machine other than as explained in this section.
- * Do not store the machine in a high-humidity area, near a heat radiator or in direct sunlight.
- * Clean the outside of the machine with a soft cloth and mild soap.

Replacing the Light Bulb

CAUTION:

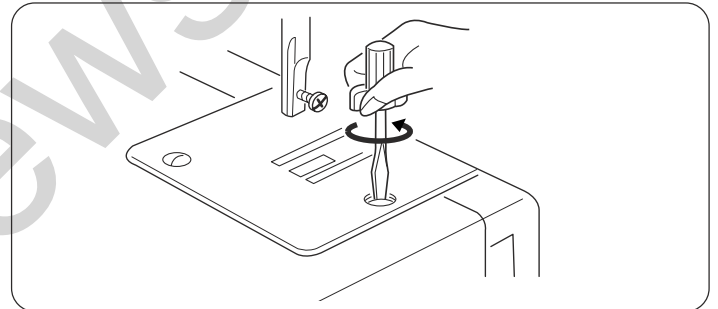
As the light bulb could be **HOT**, protect your fingers when you handle it.

Unplug the machine and open the face cover. While pushing the bulb up, turn it to the left (counterclockwise) to remove. Put in a new bulb by pushing it up and turning it to the right (clockwise).

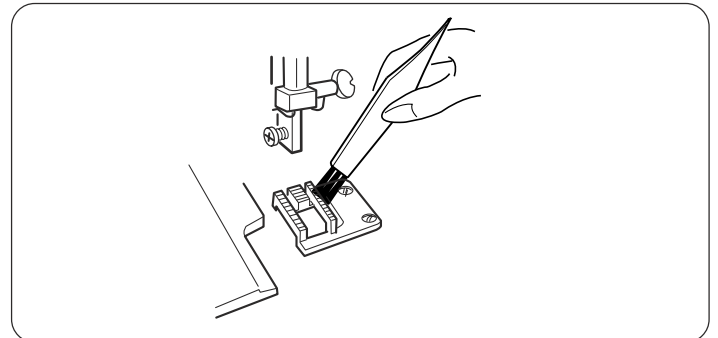


Cleaning the Feed Dogs

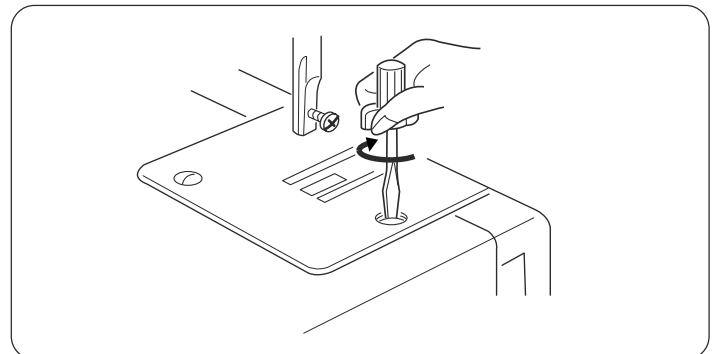
Unplug the machine, and remove the presser foot and needle. Open the face cover to allow room to remove the needle plate screw with a screwdriver.



Use a lint brush to clean the feed dogs.



Replace the needle plate and tighten it with a screwdriver.



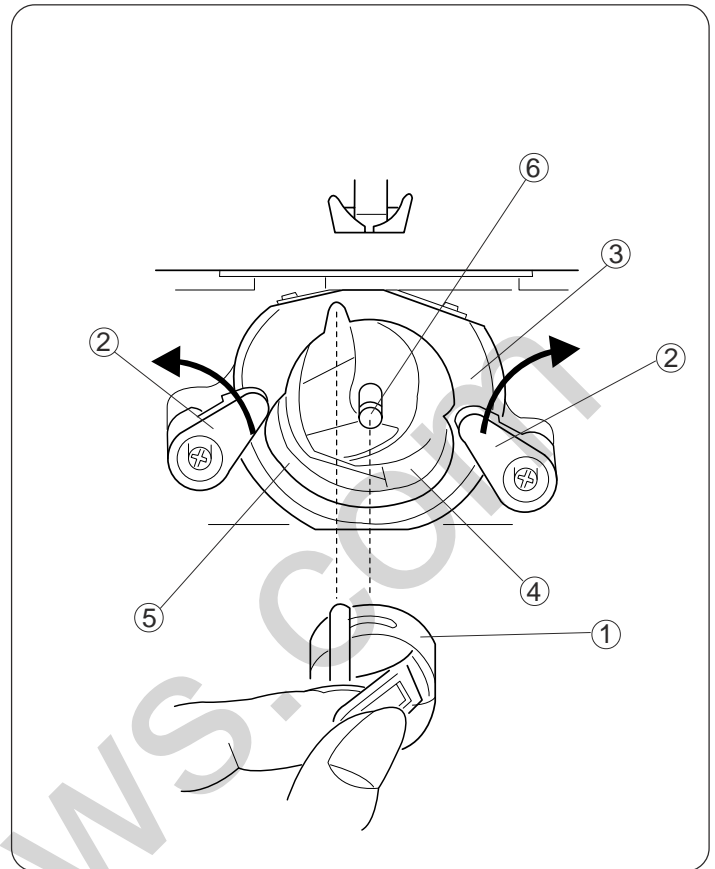
Cleaning the Shuttle Race

This area must be kept free of dust, lint and tangled thread. Clean the shuttle race area 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

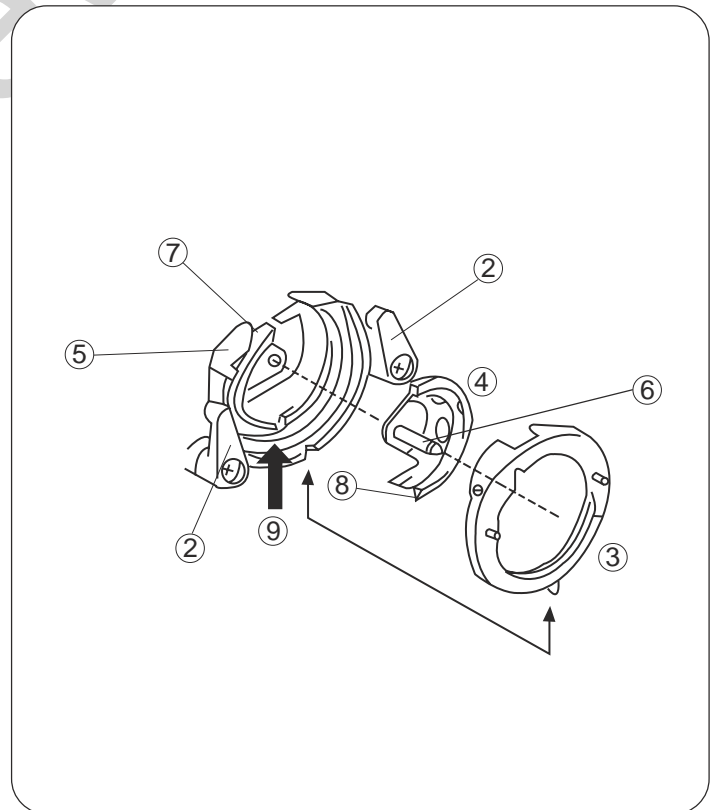
1. Raise the needle bar to its highest point, then and remove the bobbin case ①.
2. Push the shuttle race levers ② aside. Lift out the shuttle race cover ③ and take the shuttle ④ out.
3. Clean the shuttle race ⑤ with a lint brush.
4. Put a drop of oil on the center pin of the shuttle ⑥ and the shuttle 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 the handwheel so the shuttle driver ⑦ forms a half moon on the left side of the machine.
2. Hold the shuttle ④ by its center pin ⑥, and position the shuttle so it forms a half moon on the right side. The hook ⑧ will be on the bottom.
3. Put the shuttle race cover ③ back into place over the shuttle assembly.
4. Snap the levers ② back into the original position.



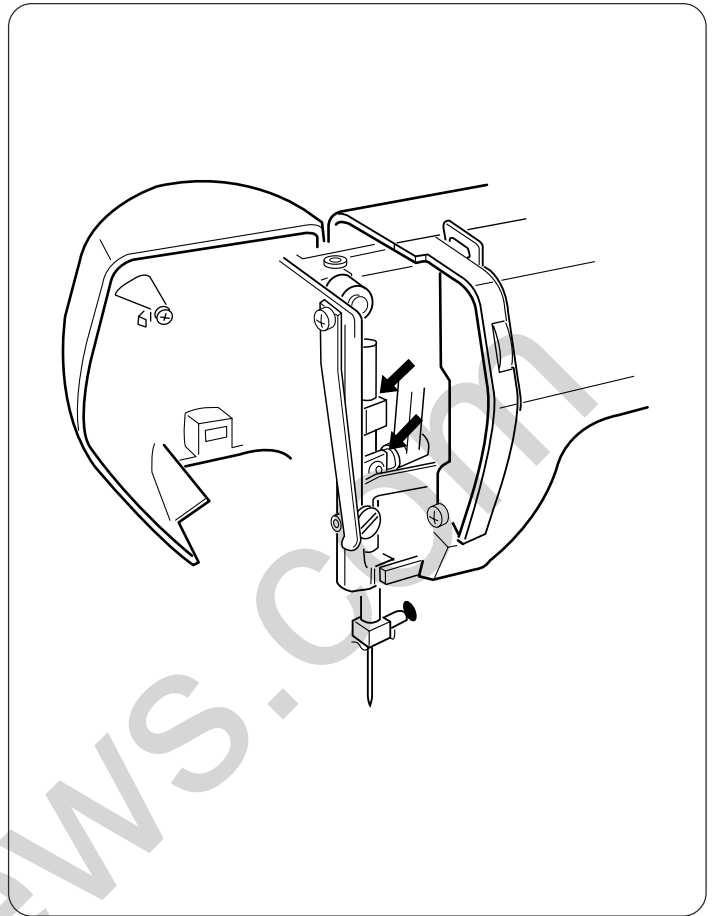
Oiling the Machine

NOTE:

Unplug the machine before oiling.

• **Oil behind the face cover**

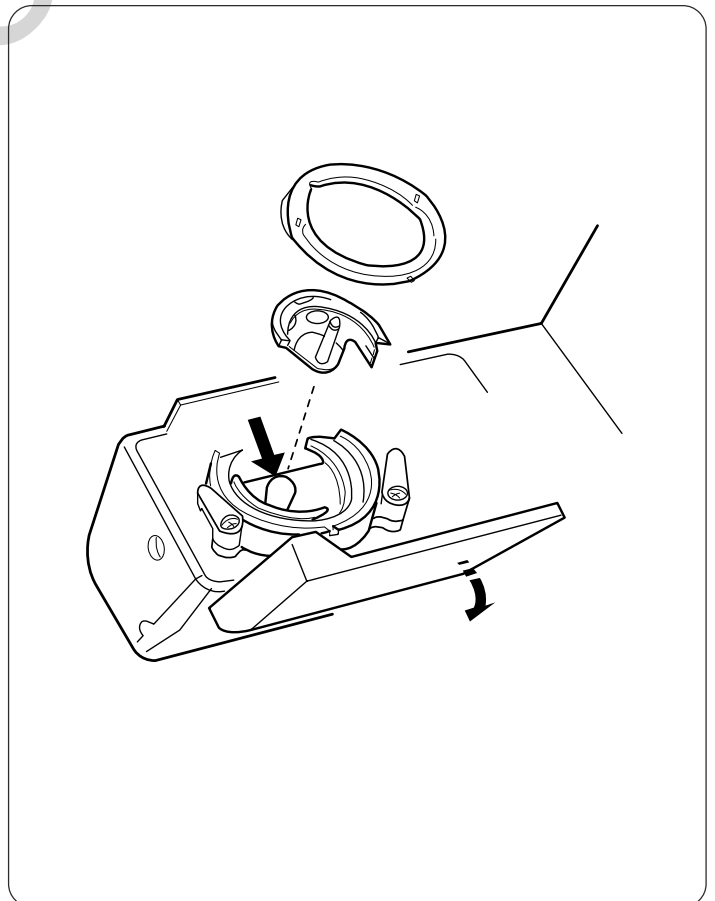
Open the face cover and oil the two points, as shown, at least once a year. One or two drops of oil is sufficient. Remove excess oil, otherwise it may stain the fabric. In case the machine has not been used for a long period, oil it before sewing. Use quality sewing machine oil.



• **Oil the shuttle area**

Open the shuttle cover by pulling down the embossed part on the left side of the cover.

Oil the point as indicated in the illustration. One or two drops of oil is sufficient.



Troubleshooting

Condition	Cause	Reference
The needle thread breaks.	<ol style="list-style-type: none"> 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 threads are not drawn to the rear after previous sewing. 7. The thread is too heavy, or too fine for the needle. 	Page 13 Pages 14, 15 Page 6 Page 6 Pages 12, 13 Page 17 Page 9
The bobbin thread breaks.	<ol style="list-style-type: none"> 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 12 Page 36 Change the bobbin
The needle breaks.	<ol style="list-style-type: none"> 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 threads are not drawn to the rear after the previous sewing. 6. The needle is too fine for the fabric being sewn. 	Page 6 Page 6 Page 6 Pages 14, 15 Page 34 Page 16
Skipped stitches	<ol style="list-style-type: none"> 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 or synthetics. 5. The needle thread is not threaded properly. 6. The wrong needle is being used. 	Page 6 Page 6 Page 9 Page 9 Page 13 Change the needle
Seam puckering	<ol style="list-style-type: none"> 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 14, 15 Page 13 Page 9 Make stitch shorter
The cloth is not feeding smoothly.	<ol style="list-style-type: none"> 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 35 Make stitch longer Page 20
The machine doesn't work.	<ol style="list-style-type: none"> 1. The machine is not plugged in. 2. A thread is caught in the shuttle race. 3. The push-clutch is disengaged. 	Page 4 Page 36 Pages 10, 11
Noisy operation	<ol style="list-style-type: none"> 1. There is thread caught in the hook race. 2. Lint has built up in the shuttle or the shuttle race. 	Page 36 Page 36

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