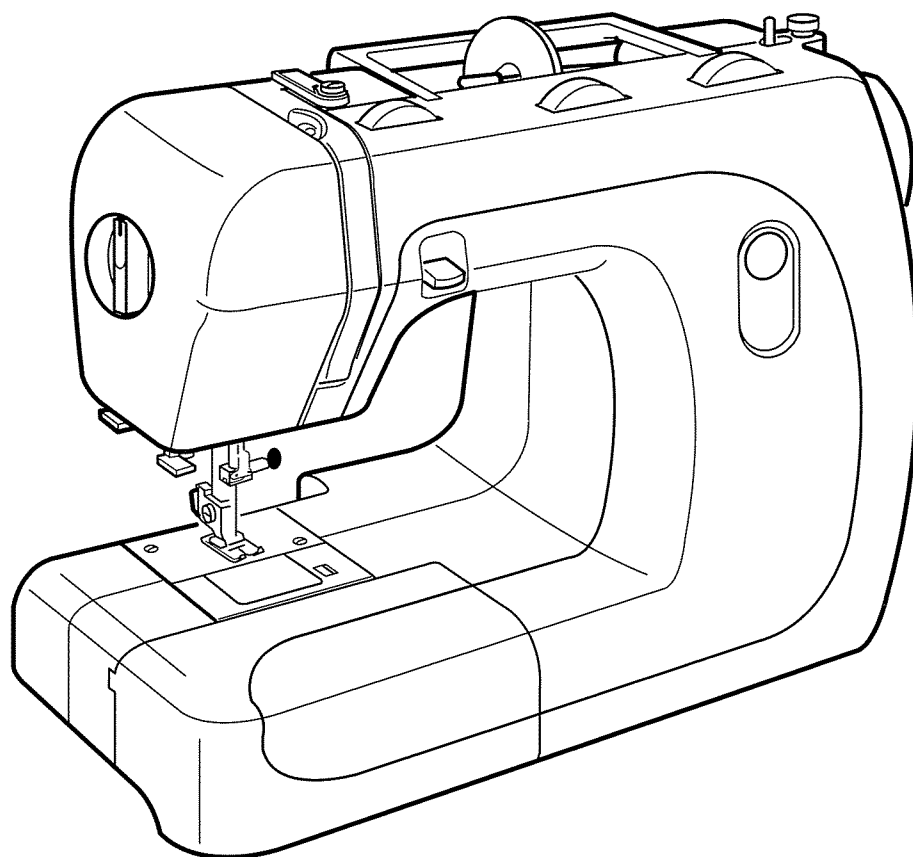


# INSTRUCTION BOOK



**MODEL 4119**

# IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the followings:  
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 this sewing machine 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 dealers 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 ("○") 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 ("○") 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**

Designs and specifications are subject to change without prior notice.

## **OPERATING INSTRUCTION:**

The symbol “ ○ ” of a switch indicates the “off” position of a switch.

“For appliances with a polarized plug (one blade wider than the other).

To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way.

If the plug does not fit fully 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 any way”.

“Foot Controller Model YC-482J or TJC-150 for use with Sewing Machine Model 4119.

### **Do's and Don'ts**

1. When using your sewing machine for the first time, place a piece of waste fabric under the presser foot and run the machine without thread for a few minutes. Wipe away any oil which may have appeared.
2. Always be aware of the up-and-down movement of the needle and do not turn your attention from the machine while it is running.
3. When leaving the sewing machine unattended, the main switch of the machine must be switched off or the plug must be removed from the socket - outlet.
4. When servicing the sewing machine, or when removing covers or changing lamps, the machine must be disconnected from the power supply by removing the plug from the socket – outlet.
5. Do not place anything on the foot control, otherwise the machine will start inadvertently.

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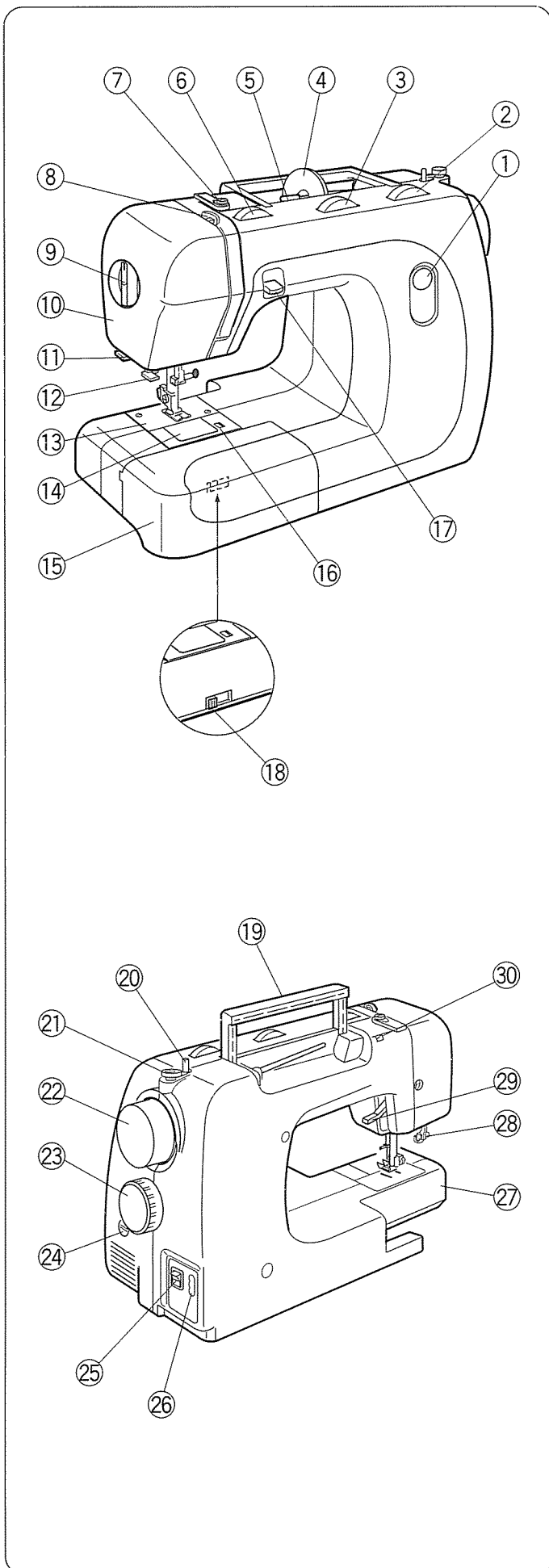
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## SECTION I. ESSENTIAL PARTS

### Names of Parts



- ① Pattern indicating window
- ② Stitch length dial
- ③ Stitch width dial
- ④ Spool holder (Large)
- ⑤ Spool pin
- ⑥ Thread tension dial
- ⑦ Bobbin winder thread guide
- ⑧ Thread take-up lever
- ⑨ Pressure adjusting dial
- ⑩ Face plate
- ⑪ Thread cutter
- ⑫ Needle threader
- ⑬ Needle plate
- ⑭ Hook cover
- ⑮ Extension table (Accessory box)
- ⑯ Hook cover plate release button
- ⑰ Reverse stitch button
- ⑱ Drop feed lever
- ⑲ Carrying handle
- ⑳ Bobbin winder spindle
- ㉑ Bobbin winder stopper
- ㉒ Handwheel
- ㉓ Pattern selector dial
- ㉔ Feed balancing dial
- ㉕ Power switch
- ㉖ Machine socket
- ㉗ Free arm
- ㉘ Buttonhole lever
- ㉙ Presser foot lifter
- ㉚ Additional spool pin hole

## Extension Table (Accessory Storage Box)

### Detaching and attaching the table

#### <Detaching the table>

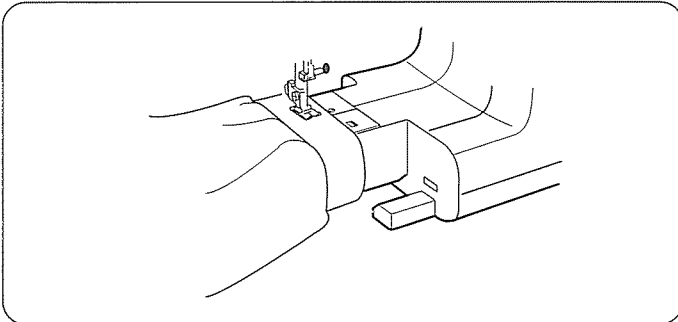
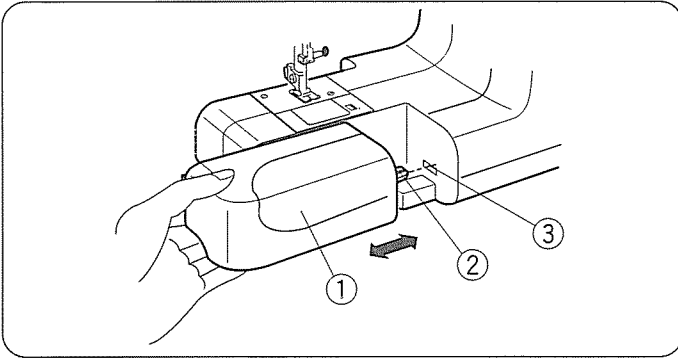
Pull the table away from the machine, as illustrated.

- ① Extension table

#### <Attaching the table>

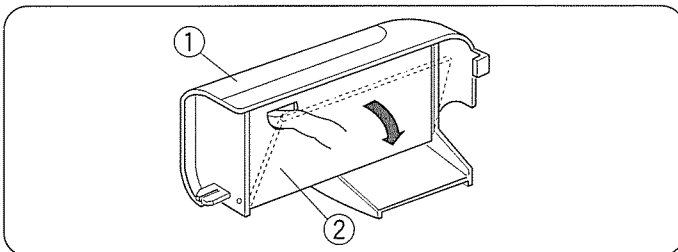
Push the extension table until it snaps into the machine.

- ② Tab  
③ Hole



### For free arm sewing

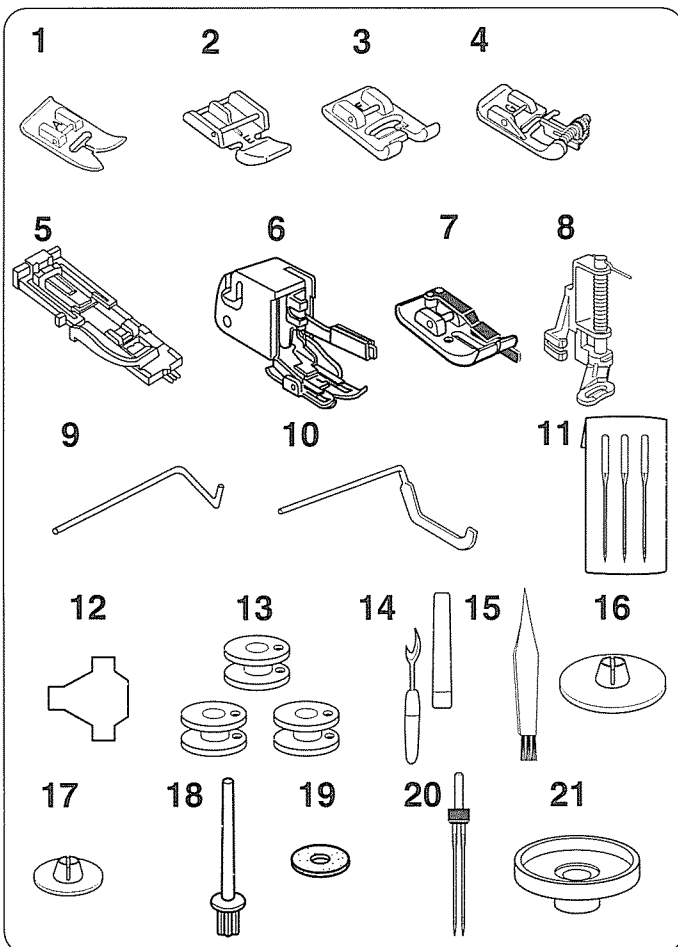
It can be used for: – stitching sleeves, waistbands, pants legs or any tubular garment area.  
– darning socks or mending knees, elbows or children's wear.



### Foot Storage Compartment

Pull out the extension table to the left and open the lid. The sewing accessories are conveniently located in the box.

- ① Extension table  
② Lid

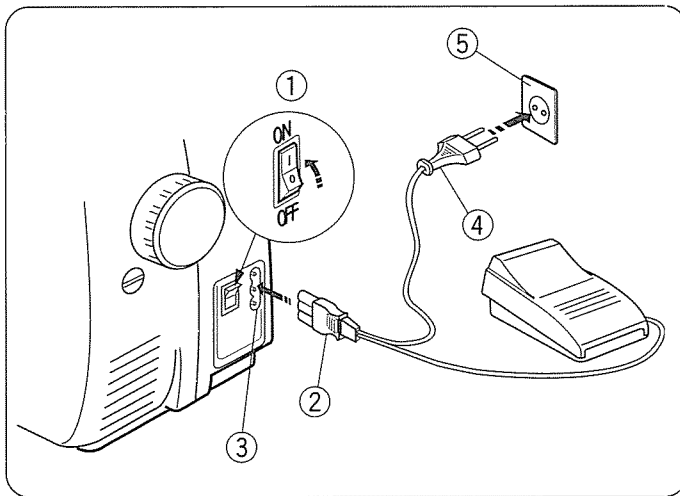


- 1 A: Zigzag foot  
2 E: Zipper foot  
3 F: Satin stitch foot  
4 G: Adjustable blind stitch foot  
5 R: Automatic buttonhole foot  
6 Even foot  
7 1/4" Seam foot  
8 Darning foot  
9 Quilting guide  
10 Quilting guide for even foot  
11 Set of needles  
12 Screwdriver  
13 Bobbins  
14 Seam ripper  
15 Lint brush  
16 Spool holder (large)  
17 Spool holder (small)  
18 Additional spool pin  
19 Felt  
20 Twin needle  
21 Spool stand

The specifications are subject to change without prior notice.

## SECTION II. GETTING READY TO SEW

### Connecting the Machine to the Power Supply

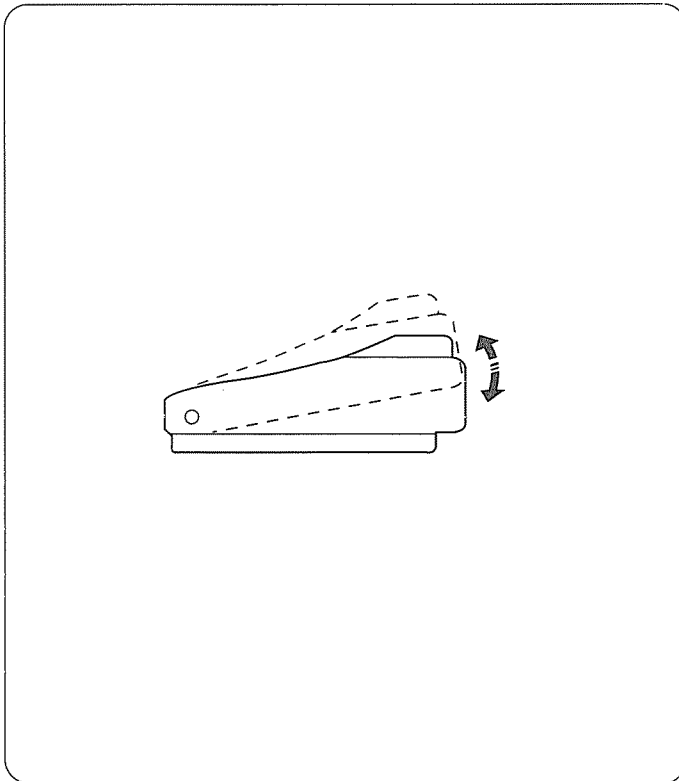


1. Turn off the power switch.
2. Insert the machine plug into the machine socket.
3. Insert the power supply plug into the outlet.
4. Turn the power switch "ON".

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

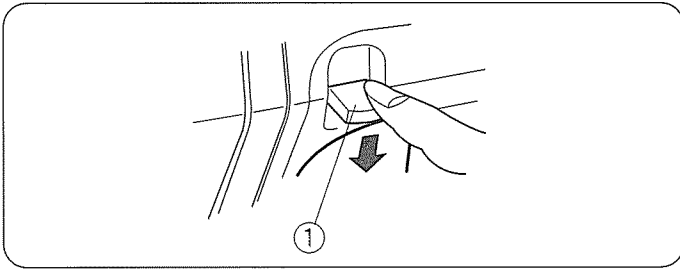
### Controlling Sewing Speed

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



### Operating Instructions

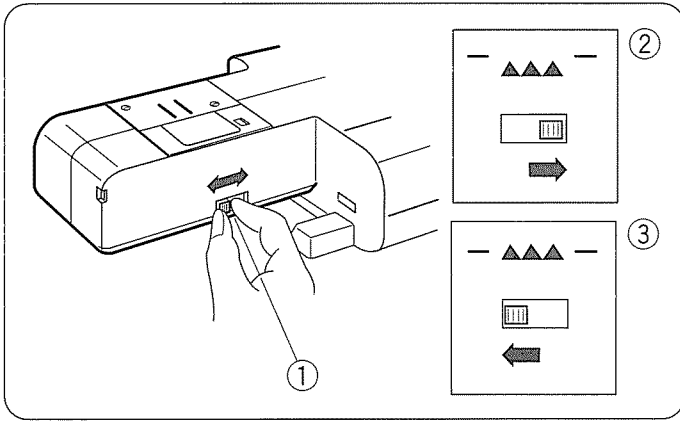
This appliance has a polarized plug (one blade wider than the other). To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If the plug does not fit in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way. Foot controller Model YC-482J-1 or TJC-150 is used with Sewing Machine Model 4119.



### Reverse Stitch Button

While the reverse stitch button is pressed, the machine sews backwards.

- ① Reverse stitch button



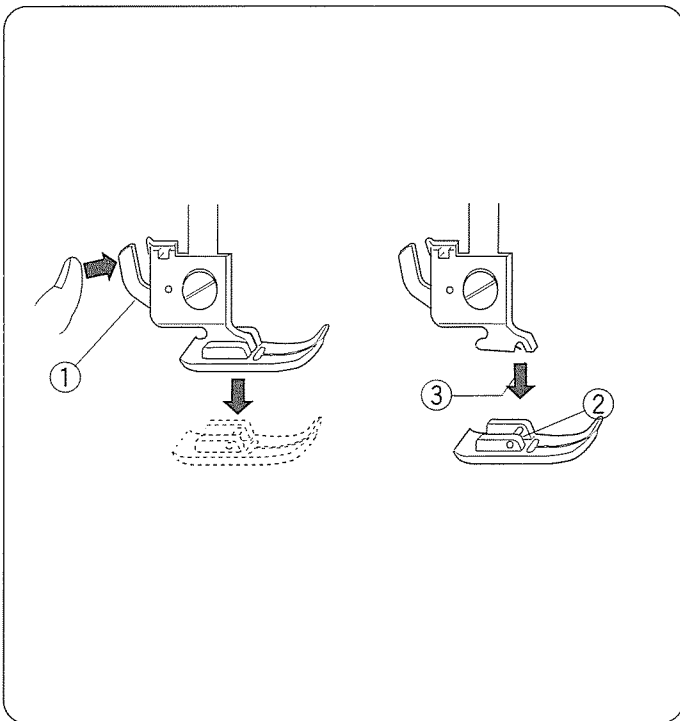
### Dropping the Feed Dogs

For dropping the feed dogs, push the lever to the right as illustrated.

\* After sewing, push the lever to the left side for up position.

The feed dogs automatically return to the up position when the machine starts running.

- ① Drop feed lever
- ② Down position
- ③ Up position



### To Snap On and Snap Off the Presser Foot

#### <To snap off>

Turn the handwheel toward you to raise the needle to its highest position.

Raise the presser foot.

Press the lever on the back of the foot holder.

The presser foot will drop off.

\* When pressing the lever, the lever should be pushed in the direction of the arrow.

Do not press it from the top.

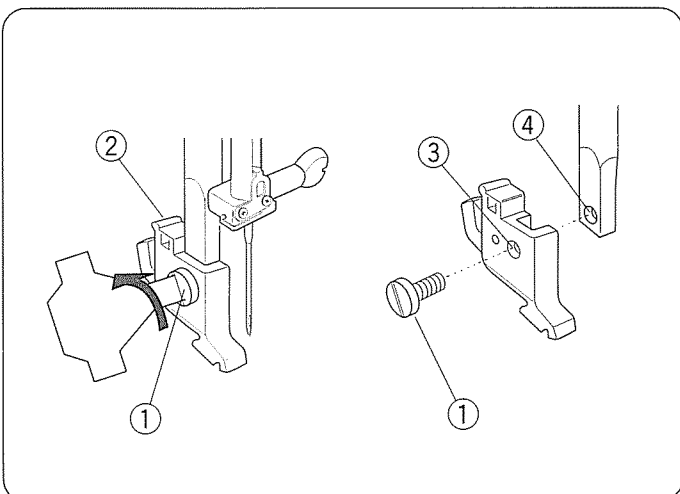
#### <To snap on>

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

Lower the foot holder to lock the foot in place.

- ① Lever
- ② Pin
- ③ Groove

\* When changing the presser foot, turn off the power switch.



### To Detach and Attach the Foot Holder

#### <To detach>

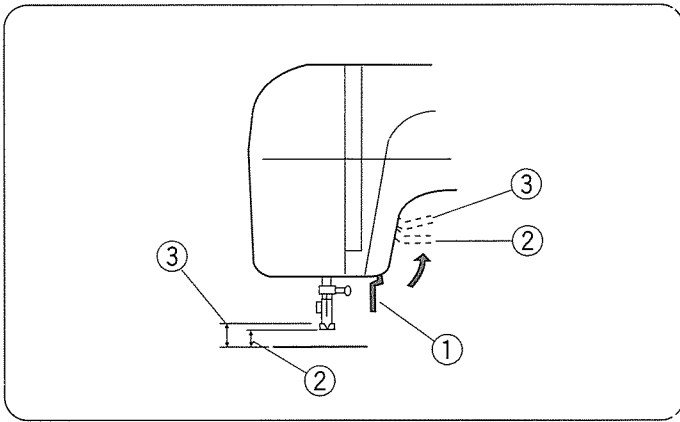
Raise the presser foot and loosen the setscrew by turning it counterclockwise.

#### <To attach>

Align the hole in the foot holder with the threaded hole in the presser foot bar and fit the setscrew into the hole. Tighten the setscrew by turning it clockwise.

- ① Setscrew
- ② Foot holder
- ③ Hole
- ④ Threaded hole



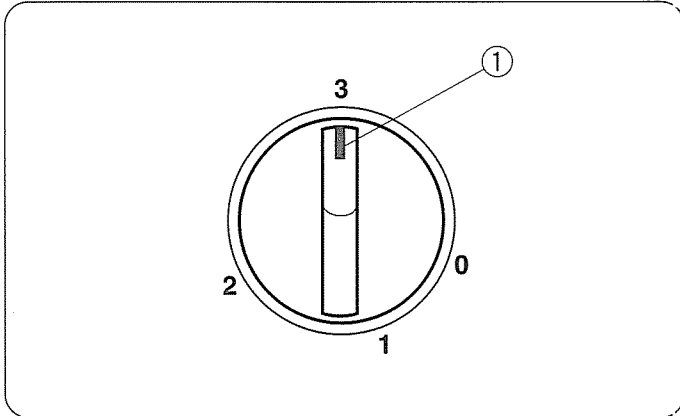


### Presser Foot Lifter

The presser foot lifter raises and lowers the presser foot.

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

- ① Lowered position
- ② Normal up position
- ③ Highest position



### Pressure Adjusting Dial

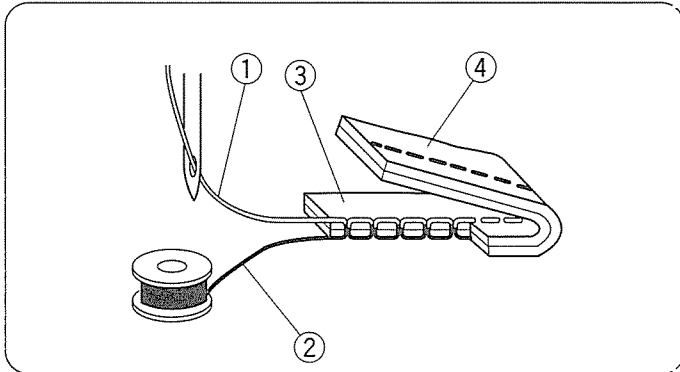
\* The pressure adjusting dial should be set at "3" for regular sewing.

\* Reduce the pressure to "2" for the applique, cutwork, drawn work and basting.

Set the pressure at "1" when sewing the chiffon, lace, organdy and other fine fabrics.

Velour and knits with a lot of stretch may also require the pressure at "1".

- ① Setting mark



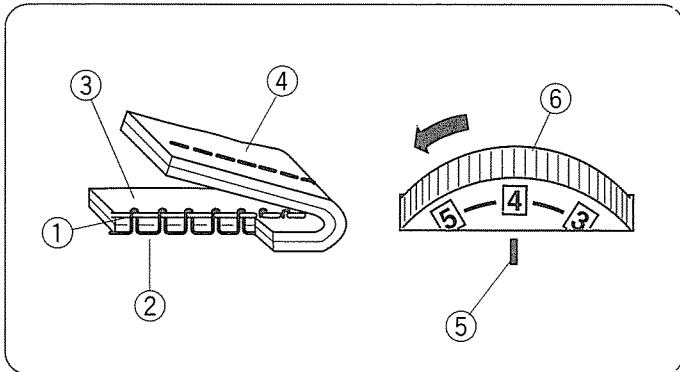
### Balancing Needle Thread Tension

#### Correct tension

The thread tension is adjusted depending on the sewing materials, layers of fabric and sewing method.

\* The ideal straight stitch has threads locked between two layers of fabric, as illustrated (magnifies to show detail).

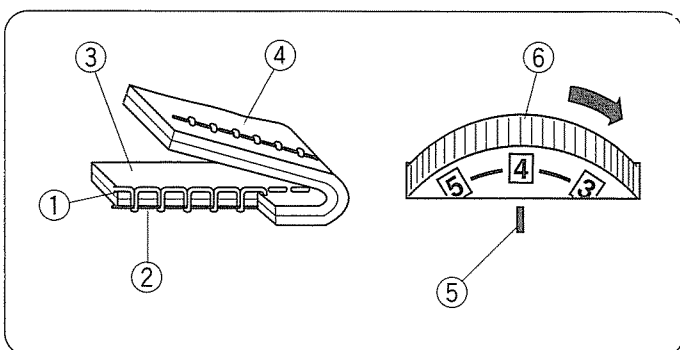
\* For an ideal zigzag stitch, the bobbin thread does not show on the right side (top side) of the fabric, and the needle thread shows slightly on the wrong side (bottom side) of the fabric.



#### Needle thread tension is too tight

The bobbin thread (bottom thread) will appear on the right side (topside) of the fabric .....

Loosen the needle thread tension by moving the dial to a lower number.

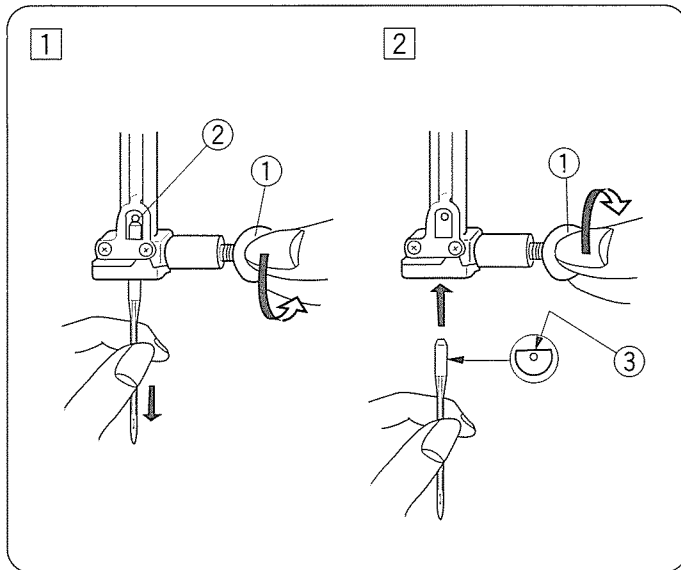


#### Needle thread tension is too loose

The needle thread (top thread) will appear on the wrong side (bottom side) of the fabric .....

Tighten the needle thread tension by moving the dial to a higher number.

- ① Needle thread (Top thread)
- ② Bobbin thread (Bottom thread)
- ③ Right side (Top side) of fabric
- ④ Wrong side (Bottom side) of fabric
- ⑤ Setting mark
- ⑥ Thread tension dial



## Changing the Needle

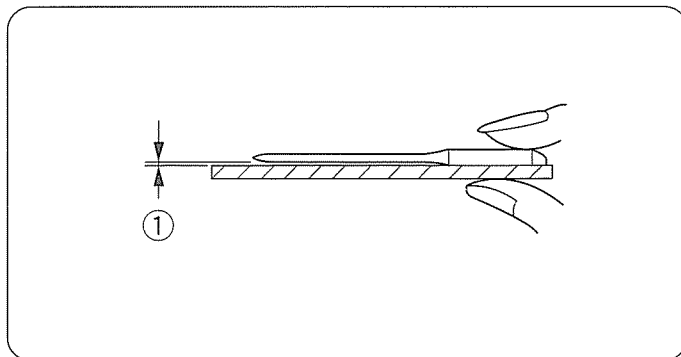
Turn off the power switch. Turn the handwheel toward you to raise the needle at its highest position. Lower the presser foot.

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

① Needle clamp

① Pin

② Flat side



## <To check the needle>

To check the needle's condition, place the flat side of the needle onto something flat (needle plate, glass etc).

The clearance 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.

① Clearance

## Selecting a Needle and Thread

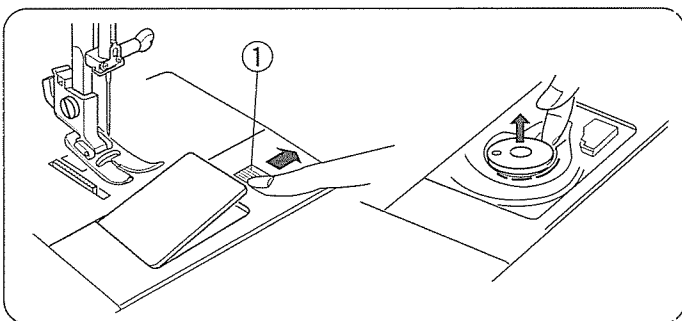
	Fabric	Thread	Needle
Light	Lawn Georgette Tricot, Wool crepe, Synthetic fabric	Silk 80 – 100	9-11
		Cotton 80 – 100	
		Synthetic 80 - 100	
Medium	Cotton, Synthetic Fine jersey Wool	Silk 50	11 - 14
		Cotton 60 – 80	
		Synthetic 50 - 80	14
Heavy	Denim Jersey Coating Quilting	Silk 50	14 - 16
		Cotton 40 – 50	
		Synthetic 40 - 50	
		Silk 30	16
Cotton 30			

\* For general sewing, use needle size 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.

Always test the thread and needle size on a small piece of fabric, which will be used for actual sewing.

\* In general, use 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.



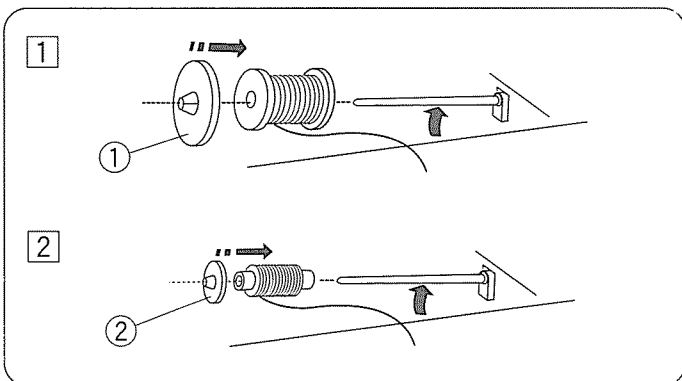
## Winding the Bobbin

### Removing the bobbin

Gently slide the hook cover plate release button to the right, and remove the cover plate.

Lift the bobbin.

- ① Hook cover plate release button

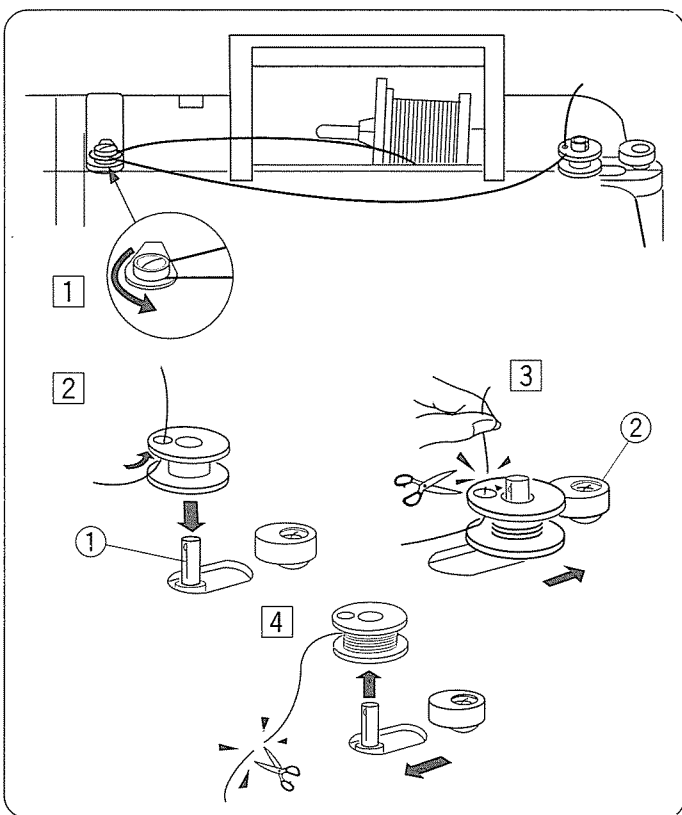


### Horizontal spool pin

Lift up the spool pin. Place the spool of thread on the spool pin with the thread coming off the spool as shown.

- ① Ordinary spool
  - ① Spool holder (Large)
- ② Small spool
  - ② Spool holder (Small)

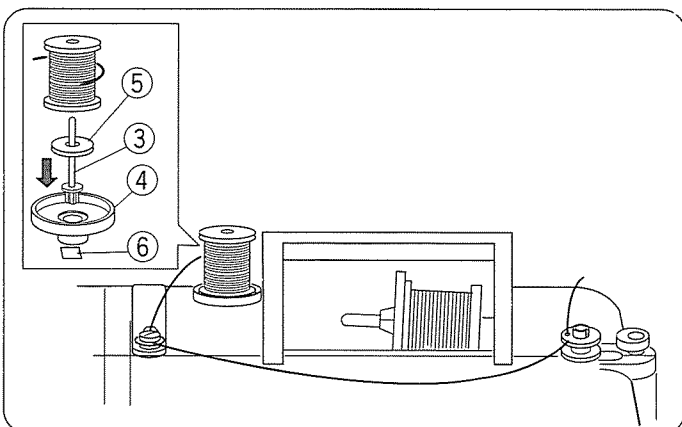
\* Use the small spool holder for narrow or small spools.



### Bobbin Winding

- ① Guide the thread around the bobbin winder thread guide.
- ② Insert the thread through the hole on the bobbin, threading from the inside to the outside. Put the bobbin on the bobbin winder spindle.
- ③ Push the bobbin winder spindle to the right. With the free end of the thread held in your hand, depress the foot control. Stop the machine when it has made a few turns, and cut the thread close to the hole on the bobbin.
- ④ Depress the foot control again. When the bobbin is fully wound, it will stop automatically. Return the bobbin winder to its original position by moving the spindle to the left, and cut the thread as shown.

\* The machine will not sew until the spindle has been returned to the left position.



### Additional spool pin

Insert the additional spool pin into the spool stand and hole.

Place a felt on the spool pin and place a spool of thread on it as shown.

- ③ Additional spool pin
- ④ Spool stand
- ⑤ Felt
- ⑥ Hole

## Inserting the Bobbin

- 1 Remove the hook cover and place the bobbin in the bobbin holder with the thread running counter-clockwise.

- 2 Guide the thread into the notch A on the front side of the bobbin holder.

Draw the thread to the left sliding it between the tension spring blades.

- 1 Notch A

- 3 Continue to draw the thread lightly until it slips into notch B.

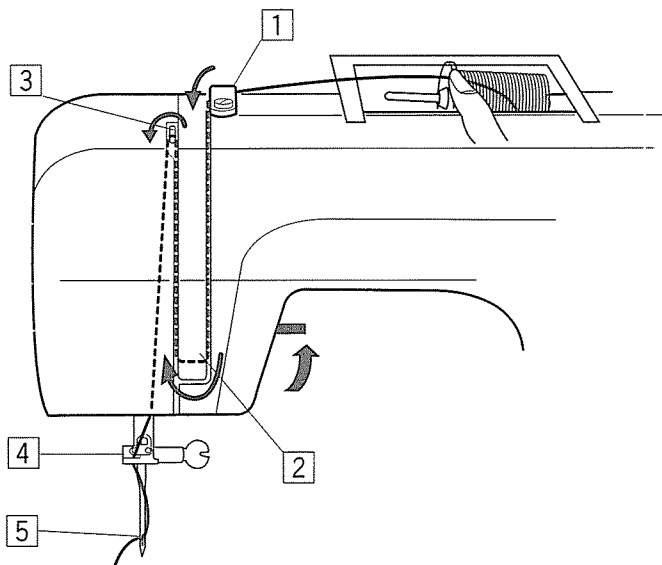
- 2 Notch B

- 4 Pull out about 10 cm (4") of thread and attach the hook cover plate.

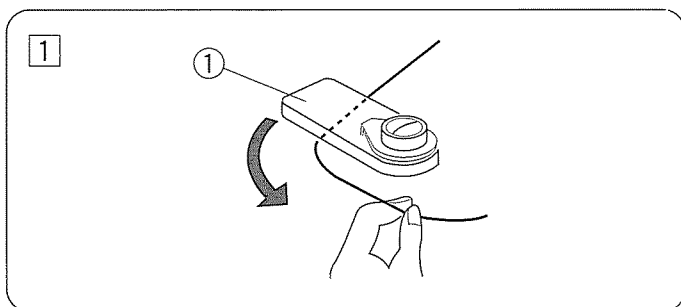
- 3 Thread diagram

## Threading the Machine

### Threading the machine

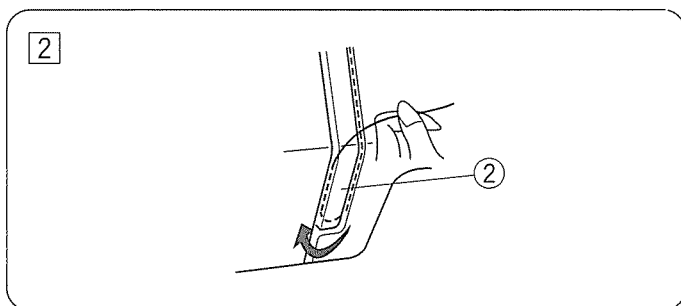


- \* Raise the presser foot lifter.
- \* Raise the thread take-up lever to its highest position by turning the handwheel counterclockwise.



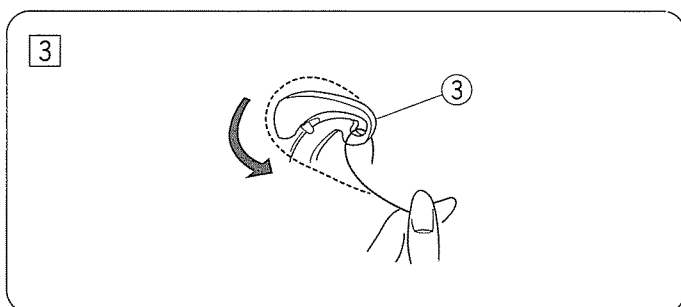
- 1 Draw the end of the thread with your left hand and hold the spool with your right hand as shown and place it around the upper thread guide.

① Thread guide



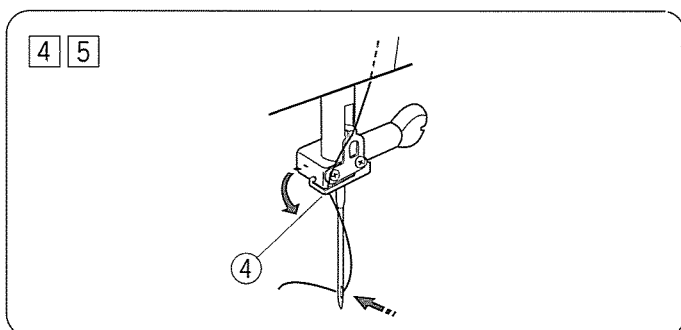
- 2 While holding the thread near the spool, draw the end of the thread down around the thread guide plate.

② Thread guide plate



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

③ Thread take-up lever



- 4 Slide the thread behind the needle bar thread guide on the left.

④ Needle bar thread guide

- 5 Thread the needle from front to back (See page 13)

## Automatic Needle Threader

- 1 Raise the needle to its highest position and push down the needle threader knob until it stops. The hook comes out through the needle eye from behind it.

- ① Needle threader knob
- ② Hook

- 2 Pull the thread down around the thread guide, then pass the thread from the right and under the hook as shown.

- ③ Thread guide

- 3 Hold the end of the thread gently, and release the needle threader knob gently so the loop of thread is pulled up.

- 4 Remove the loop of thread from the threader and pull out the end of thread from the needle eye.

\* Recommended needles and threads for the needle threader:

Threads: #50 to 100

Needles: #11 to 16 and Blue Tipped needle

## Drawing Up the Bobbin Thread

- 1 Raise the presser foot and hold the needle thread with your left hand.

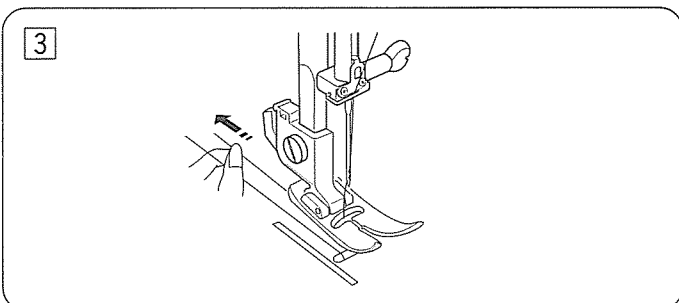
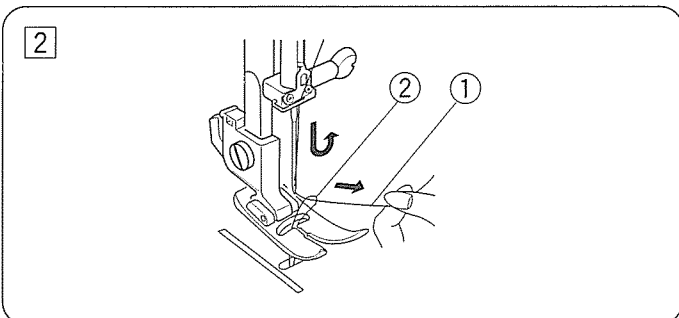
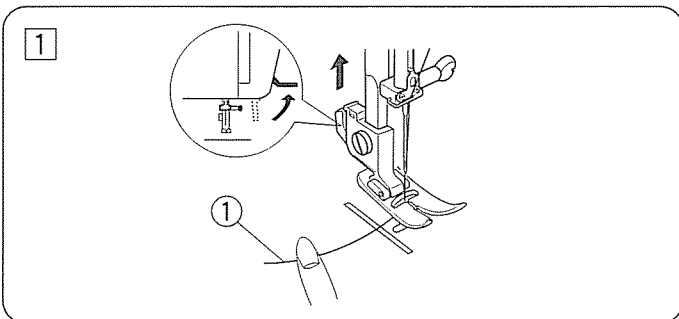
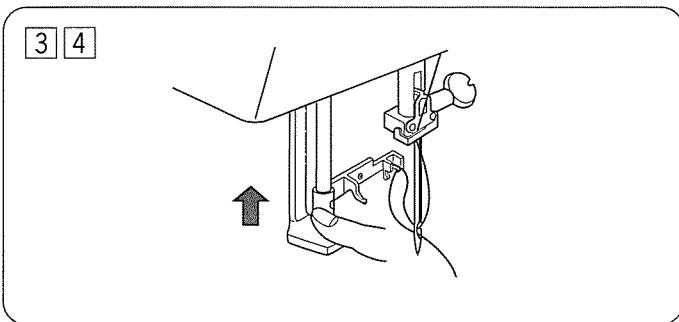
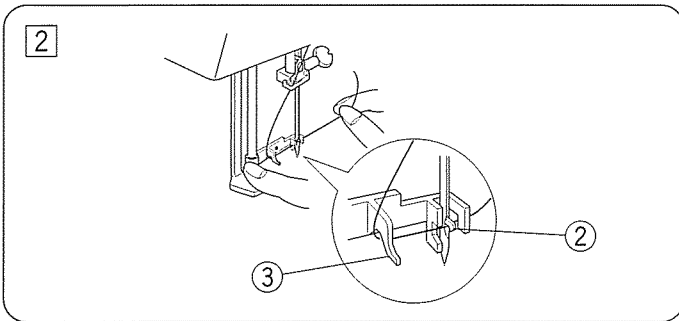
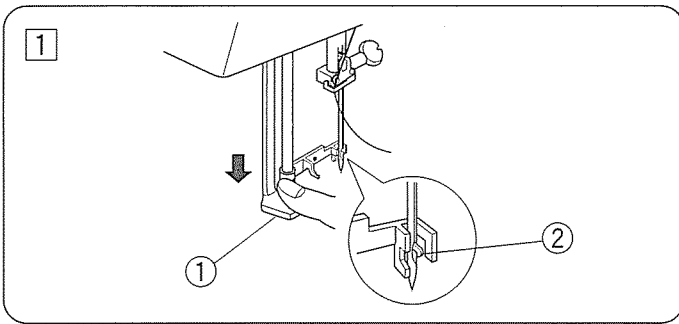
- ① Needle thread

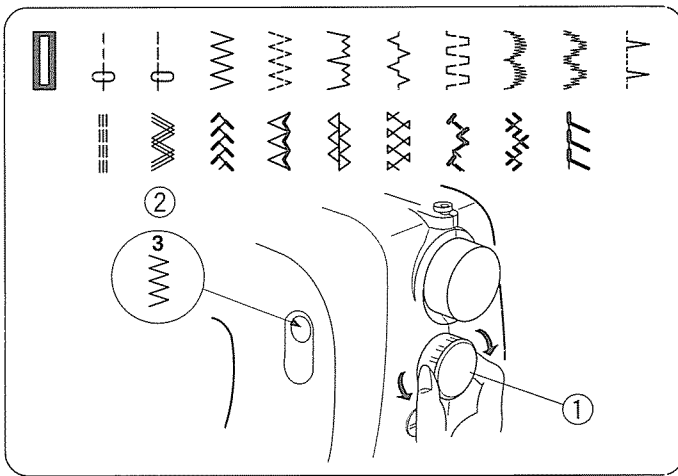
- 2 Turn the handwheel one rotation toward you to raise the needle to its highest position.

Draw up the needle thread to pick up a loop of the bobbin thread.

- ② Bobbin thread

- 3 Slide 10 cm (4") of both threads to the back under the presser foot.



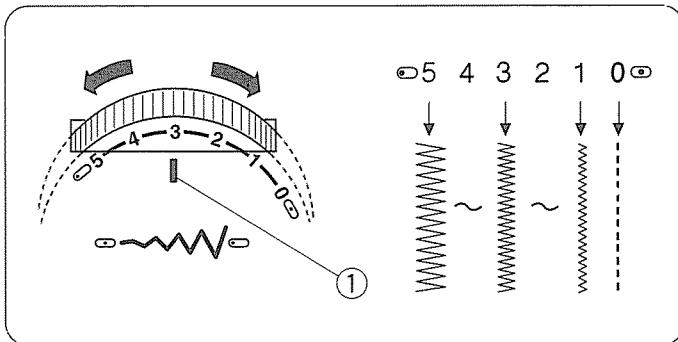


### Pattern Selector Dial

Select the pattern by turning the pattern selector dial and the selected pattern is shown in the pattern indicating window.

Raise the needle above the fabrics and raise the presser foot when you turn the pattern selector dial.

- ① Pattern selector dial
- ② Pattern indicating window

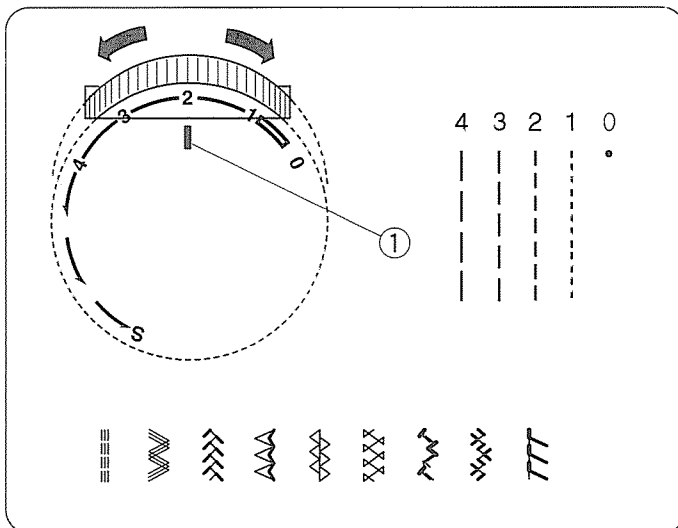


### Stitch Width Dial

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

The higher the number, the wider the stitch width

- ① Setting mark



### Stitch Length Dial

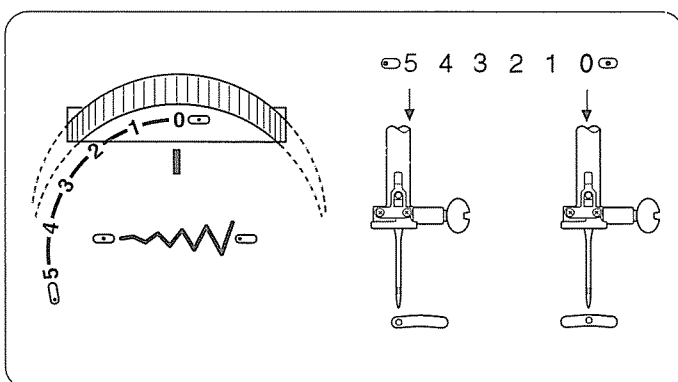
Turn the stitch length dial to set the desired stitch length at the setting mark.

The higher the number, the longer the stitch length  
You can select the suitable stitch length for fabrics that you plan to sew.

- ① Setting mark

\* This " " mark indicates the adjustable allowance for buttonhole stitch density.

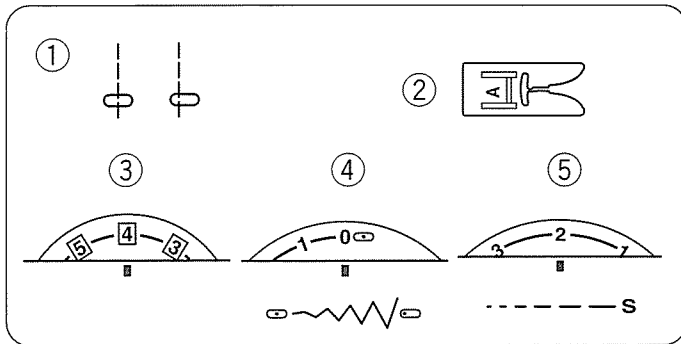
\* Stitch length of " S " is for the stretch stitch patterns.



### Variable Needle Position

When the straight stitch is selected, you can move the needle between center and left needle positions.

## SECTION III. BASIC SEWING



### Straight Stitch Sewing

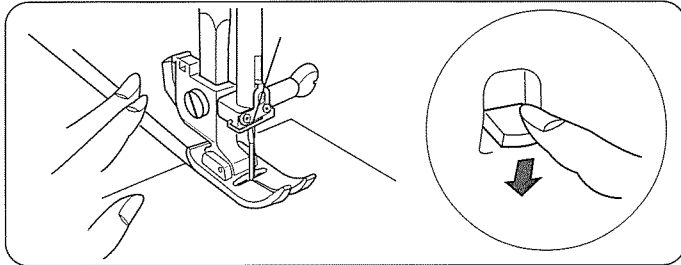
#### Machine setting

- |                        |                |
|------------------------|----------------|
| ① Stitch pattern :     |                |
| ② Presser foot:        | A: Zigzag foot |
| ③ Thread tension dial: | 2-6            |
| ④ Stitch width:        | 0 or 5         |
| ⑤ Stitch length:       | 1.5-4          |

#### Start sewing

Hold the fabric and threads with your left hand, and turn the handwheel toward you and lower the needle to pierce the fabric at the start sewing position. Lower the presser foot and start to sew.

\* To fasten the beginning of the seams, sew several reverse stitches by pressing the reverse stitch button.

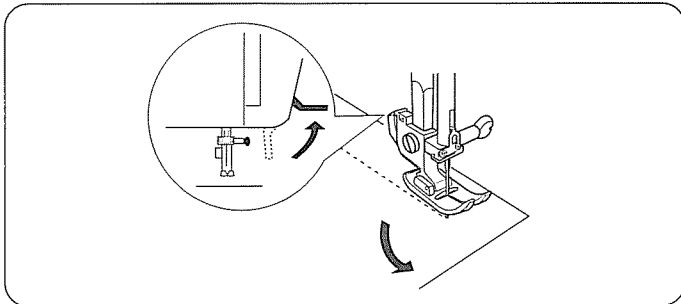


#### Changing sewing directions

Stop the machine and bring the needle down into the fabrics by turning the handwheel toward you. Raise the presser foot.

Pivot the fabric around the needle to change the sewing direction as desired.

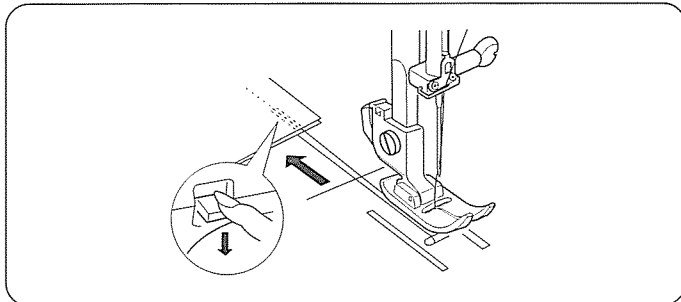
Lower the presser foot and start sewing.



#### End of sewing and cutting threads

For fastening the end of seams, press the reverse stitch button and sew several reverse stitches.

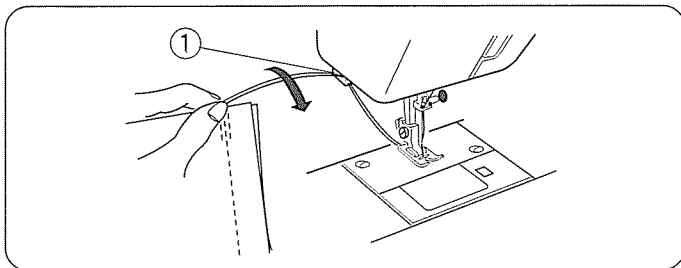
After finishing sewing, raise the presser foot and pull the fabric to the rear.



Draw both needle and bobbin threads into the thread cutter.

The threads are cut at the proper length for starting the next seam.

- ① Thread cutter



#### Needle plate guide line

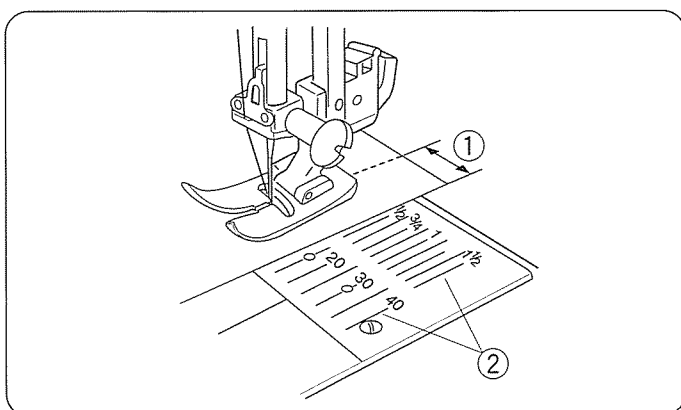
The seam guides on the needle plate and hook cover plate help you to measure seam allowance.

The numbers on the needle plate indicate the distance between the center needle position and the edge of the fabric.

Number	10	20	30	40	1/2	3/4	1	1 1/2
Space (cm)	1.0	2.0	3.0	4.0	1.3	2.1	2.5	3.8

- ① Distance between the center needle position and the edge of the fabric.

- ② Guide line




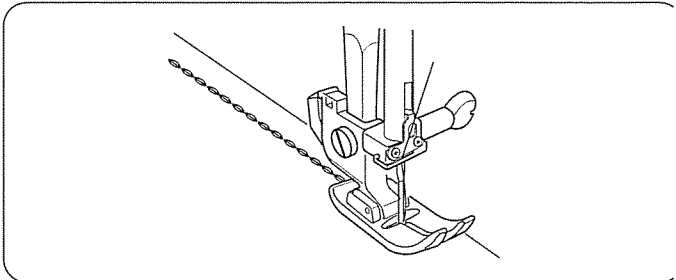
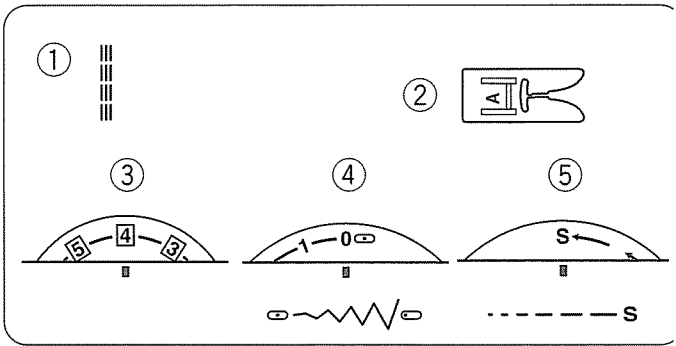


## SECTION IV UTILITY STITCHING

### Straight Stretch Stitch

#### Machine setting


- |                        |   |
|------------------------|---|
| ① Stitch pattern:      |  |
| ② Presser foot:        | A: Zigzag foot  |
| ③ Thread tension dial: | 2 – 6   |
| ④ Stitch width:        | 0 or 5  |
| ⑤ Stitch length:       | S   |

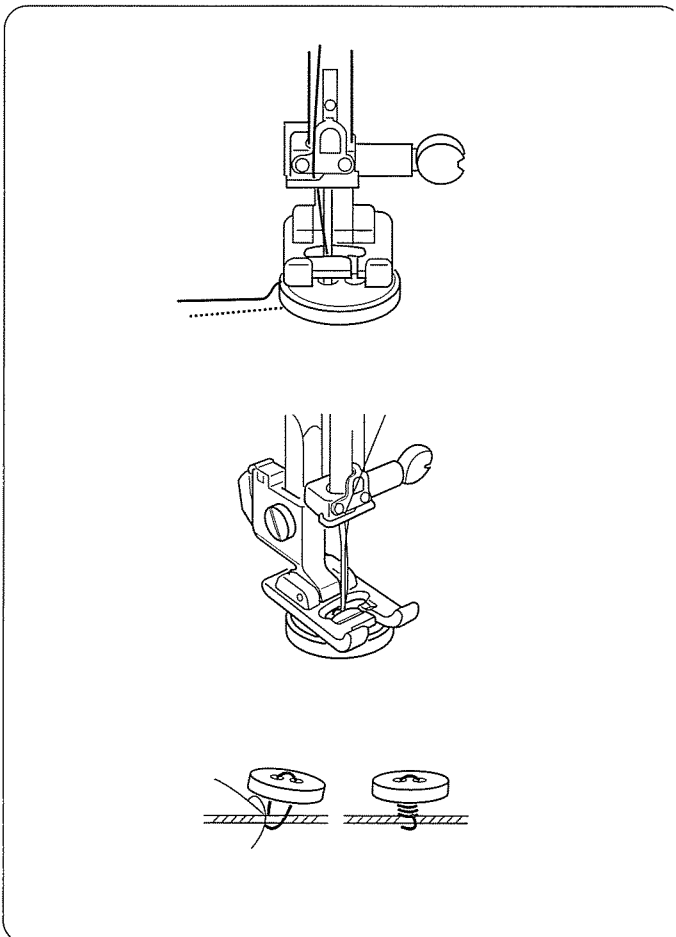
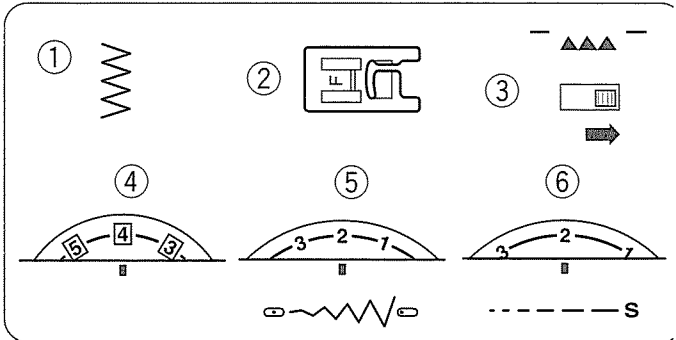


This strong, durable stitch is recommended where both elasticity and strength are needed to insure comfort and durability. Use it to reinforce areas such as crotch and armhole seams, as well as to eliminate puckering on knits and stretch fabrics. Also use when constructing items requiring extra strength such as backpacks.

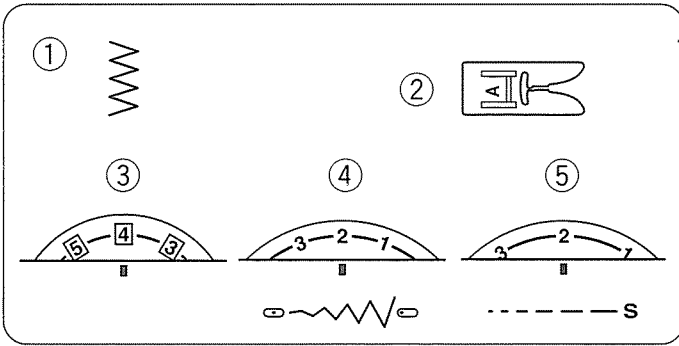
### Sewing on Buttons

#### Machine setting

- |                        |   |
|------------------------|---|
| ① Stitch pattern:      |  |
| ② Presser foot:        | F: Satin stitch foot  |
| ③ Feed dogs:           | Dropped   |
| ④ Thread tension dial: | 3 – 7   |
| ⑤ Stitch width:        | Adjust as necessary   |
| ⑥ Stitch length:       | Any   |




- 1 Turn the handwheel toward you to test the needle swing making sure the needle drops in each hole. Adjust the stitch width if necessary.
- 2 Lower the presser foot to hold the button in place.
- 3 A pin can be placed on top of the foot to form a shank. Turn the handwheel toward you to check the needle enters both left and right holes of button.  
Press the foot control to sew 10 stitches and cut the threads leaving 20 cm (8") tail.  
After sewing on button, pull the beginning of the bobbin thread to pick up the needle thread on the wrong side of the fabric and tie them together, then trim the excess threads.
- 4 Pull the end of needle thread to pick bobbin thread up between the button and fabric. Wind the threads in opposite directions around the thread shank a few times and tie them together.
- 5 When button sewing is finished, raise the feed dog.

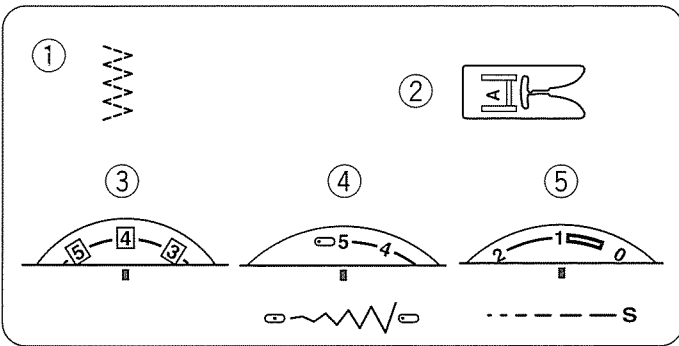
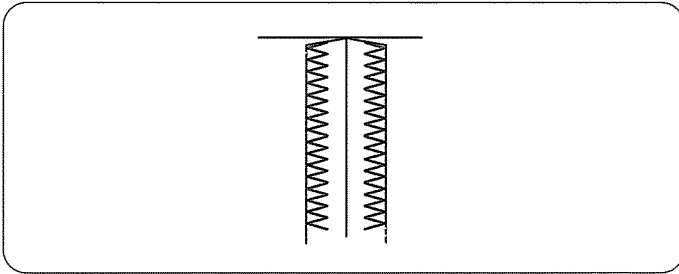


## Zigzag Stitching

### Machine setting


- |                        |   |
|------------------------|---|
| ① Stitch pattern:      |  |
| ② Presser foot:        | A: Zigzag stitch foot   |
| ③ Thread tension dial: | 2 – 5   |
| ④ Stitch width:        | 1 – 5   |
| ⑤ Stitch length:       | 0.5 – 4   |

Simple zigzag stitching is widely used for overcasting, applique, sewing on buttons etc, also preventing the fabrics from fraying at raw edges.

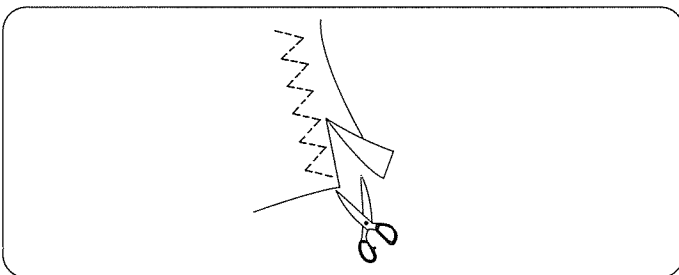


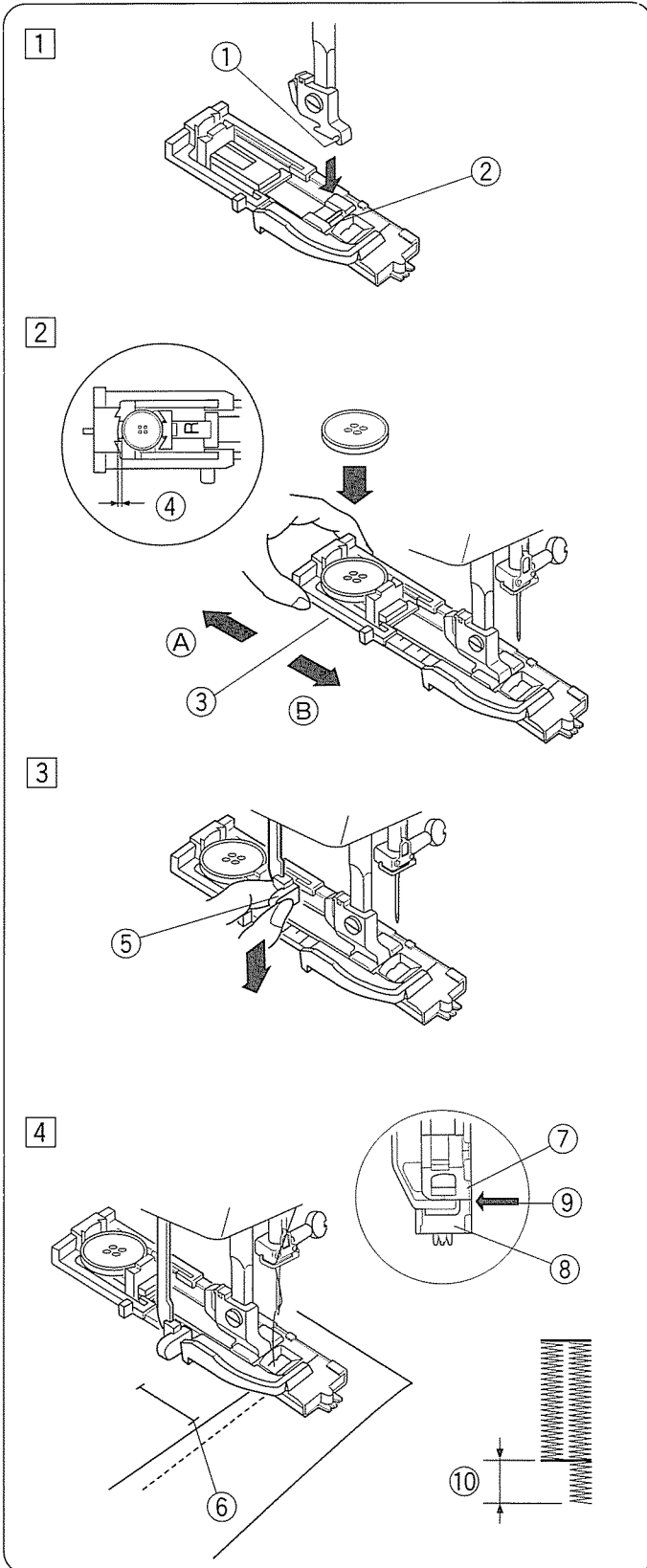
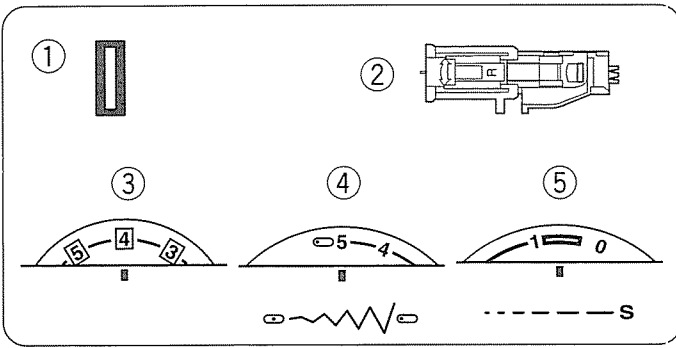
## Tricot Stitch

### Machine setting

- |                   |   |
|-------------------|---|
| ① Stitch pattern: |  |
| ② Presser foot:   | A: Zigzag stitch foot   |
| ③ Thread tension: | 3 – 6   |
| ④ Stitch width:   | 3 – 5   |
| ⑤ Stitch length:  | 0.5 – 1.5   |

This type of stitch is used on the seam allowance to prevent fabrics from fraying at raw edges. This stitch is used to finish a raw edge of synthetics and other stretch fabrics that tend to pucker. Sew along the fabric edge leaving an enough seam allowance. After sewing, trim off the seam allowance closer to the stitches as shown.





## Automatic Buttonhole

### Machine setting

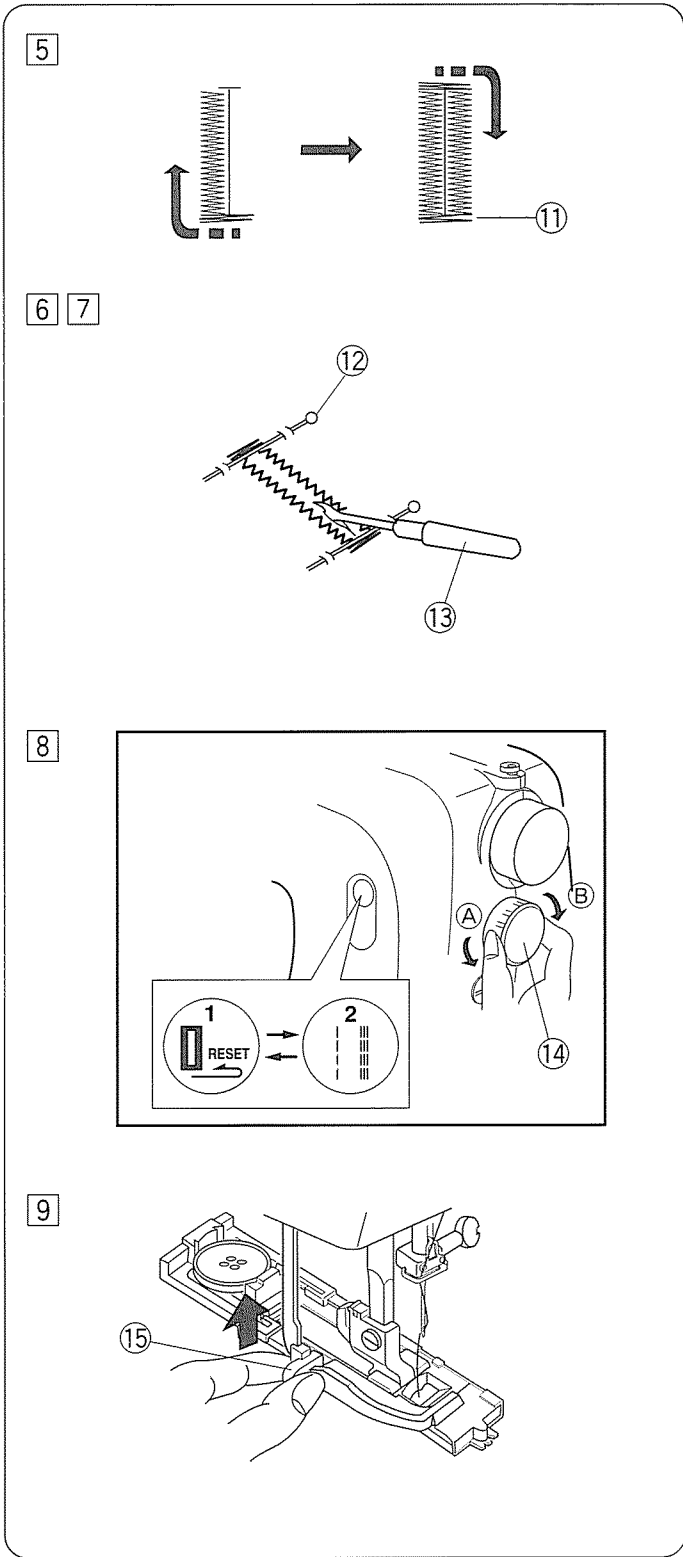
- ① Stitch pattern:
- ② Presser foot: R: Automatic buttonhole foot
- ③ Thread tension dial: 1 – 5
- ④ Stitch width: 3 – 5
- ⑤ Stitch length: 0.5 – 1

- \* The size of buttonhole is automatically set by placing the button in the rear of the automatic buttonhole foot R.
- \* The button holder of the foot takes a button size up to 2.5 cm (1") in diameter.
- \* Make a test buttonhole on an extra piece of the fabric, interfacing and seams of the actual garment.
- \* Use the interfacing on the stretch fabrics.

- 1 Raise the needle by turning the handwheel toward you.  
Raise the presser foot lifter.  
Attach the automatic buttonhole foot R.
  - ① Groove
  - ② Pin
- 2 Pull the button holder to the back (A), and place the button in it.  
Push back the button holder toward you (B) as far as it will go.
  - ③ Button holder
  - \* If the button is extremely thick, make a test buttonhole. If it is difficult to fit the button through the test buttonhole, lengthen the buttonhole by pulling the button holder back to create a gap.
    - ④ Gap
- 3 Pull the buttonhole lever downward as far as it will go.
  - ⑤ Buttonhole lever
- 4 Insert the fabric under the foot. Turn the handwheel toward you one rotation and remove the fabric to the left to draw both threads to the left. Insert the garment under the foot, and lower the needle at the starting point. Then lower the automatic buttonhole foot R.
  - ⑥ Starting point

**Note:** Make sure there is no gap between the slider and spring holder, otherwise the left and right length will be different.

  - ⑦ Slider
  - ⑧ Spring holder
  - ⑨ There should be no gap.
  - ⑩ Sewing gap



5 Depress the foot control to sew a buttonhole. The machine will sew the front bartack, left row, back bartack and right row automatically. Stop the machine at the ending point.

① Ending point

6 Raise the presser foot and cut the both needle and bobbin threads leaving 10 cm (4") thread ends.

Draw the needle thread to wrong side of the fabric by pulling the bobbin thread. Then, knot the threads.

7 Remove the fabric and place a pin just before the bartack at each end to prevent cutting bartacks. Cut the opening with the seam ripper.

⑫ Pin

⑬ Seam ripper

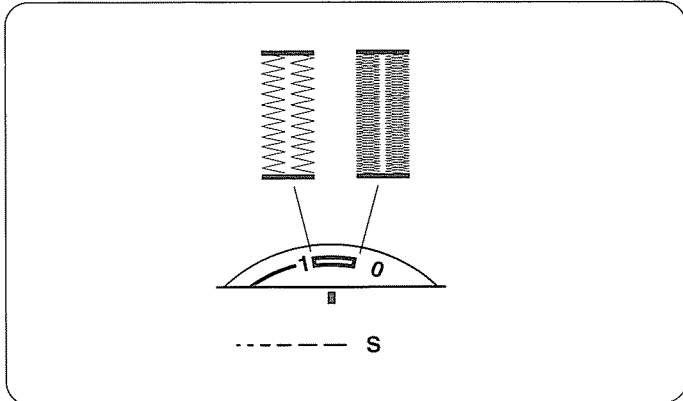
**< To repeat buttonhole sewing >**

8 After a buttonhole is sewn, move the pattern selector dial to A or B direction to select other pattern, then return to " " to reset for sewing the next buttonhole.

⑭ Pattern selector dial

9 When the buttonhole sewing is finished, push the buttonhole lever upward as far as it will go.

⑮ Buttonhole lever




**Adjusting buttonhole stitch density**

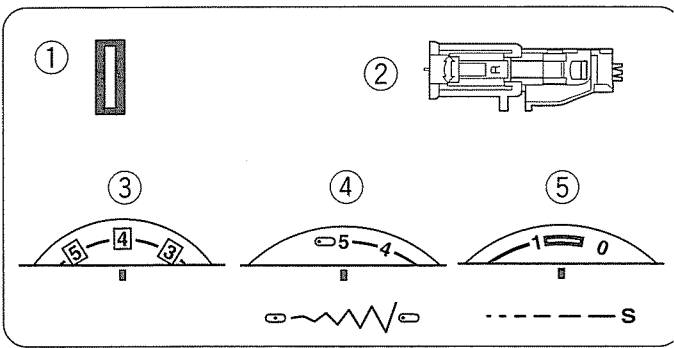
Turn the stitch length dial to the right for a coarser density.

Turn the stitch length dial to the left for a tighter density.

## Corded Buttonholes

### Machine setting

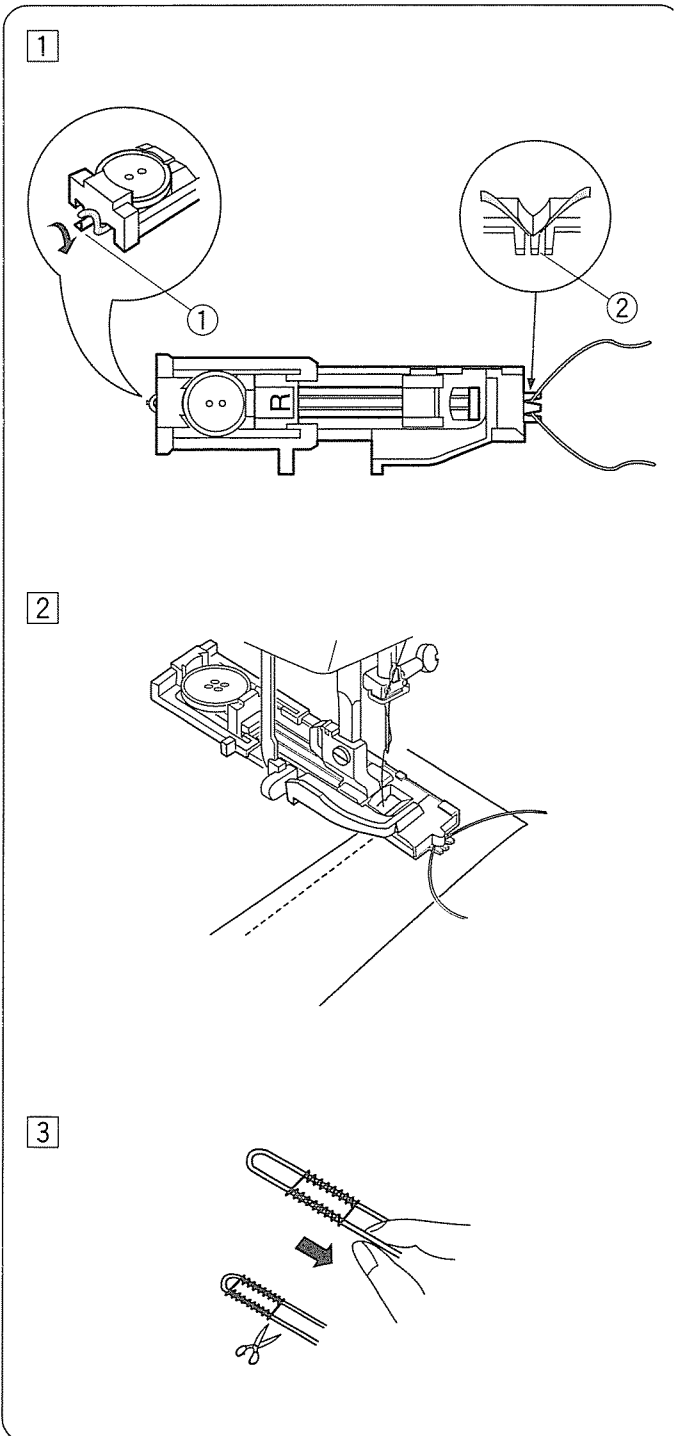
- |   |                      |   |
|---|----------------------|---|
| ① | Stitch pattern:      |  |
| ② | Presser foot:        | R: Automatic BH foot  |
| ③ | Thread tension dial: | 1 – 5   |
| ④ | Stitch width:        | 3 – 5   |
| ⑤ | Stitch length:       | 0.5 – 1   |

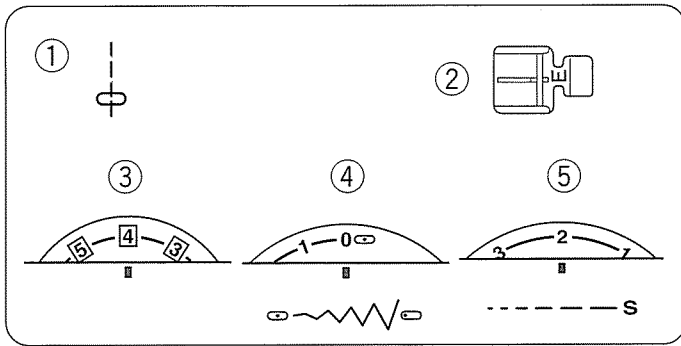


- 1 With the buttonhole foot raised, hook the filler cord on the cord spur at the back of the buttonhole foot.  
Bring the ends toward you under the buttonhole foot until they clear the front end.  
Hook the filler cord into the forks on the front of the buttonhole foot to hold them tight.

- 2 Lower the needle into the garment where the buttonhole will start and lower the foot. Depress the foot control gently and sew the buttonhole.  
Each side of the buttonhole and the bartacks will be sewn over the cord.  
\* The sewing steps are the same as the automatic buttonhole sewing.

- 3 Remove the fabric from the machine and cut the sewing threads.  
Pull the left end of the filler cord to tighten it.  
Thread the end through a darning needle, draw to the bottom side of the fabric and cut.





## Zipper Application

### Machine setting

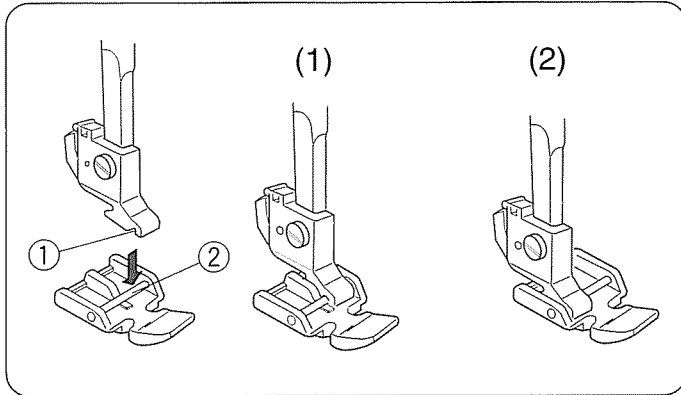
- |                        |                |
|------------------------|----------------|
| ① Stitch pattern:      |                |
| ② Presser foot:        | E: Zipper foot |
| ③ Thread tension dial: | 3 – 6          |
| ④ Stitch width:        | 0              |
| ⑤ Stitch length:       | 1.5 – 4        |

### < To attach the zipper foot >

To sew the left hand side of the zipper, attach the zipper foot with the pin on the right hand side.  
To sew the right hand side of the zipper, attach the zipper foot with the pin on the left hand side.

- ① Groove
- ② Pin

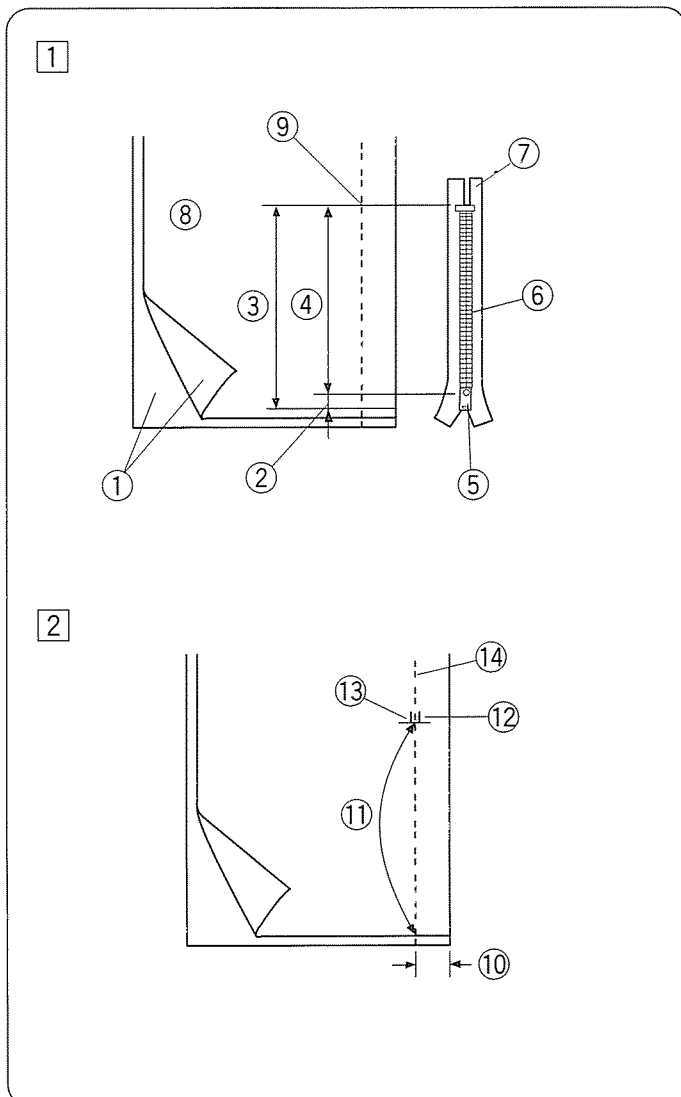
- (1) To sew left hand side
- (2) To sew right hand side



### [Fabric preparation]

- ① Add 1 cm (3/8") to the zipper size. This is the overall opening size.

- ① Right side of fabric
- ② 1 cm (3/8")
- ③ Opening size
- ④ Zipper size
- ⑤ Slider
- ⑥ Zipper teeth
- ⑦ Zipper tape
- ⑧ Wrong side of fabric
- ⑨ End of the zipper opening



- ② Place the right sides of the fabric together and sew to the end of the zipper opening with 2 cm (13/16") seam allowance.

Reverse stitch to lock the seams. Increase the stitch length to 4 (0.4 cm) and baste the zipper opening with the thread tension loosened.

- ⑩ 2 cm (3/4")
- ⑪ Zipper opening
- ⑫ Reverse stitch
- ⑬ End of the opening
- ⑭ Straight stitch

## [To sew]

- 1 Fold back the left seam allowance. Turn the right seam allowance under to form a 0.2 to 0.3 cm (1/8") fold. Place the zipper teeth next to the fold and pin it in place.

- ① Bottom side fabric
- ② End of the opening
- ③ Zipper teeth
- ④ 0.3 cm fold
- ⑤ Topside fabric (Wrong side of fabric)
- ⑥ Opening
- ⑦ Fold
- ⑧ Basting stitch

- 2 Attach the zipper foot with the pin on the right hand side. Lower the foot onto the topside at the bottom of the zipper so that the needle pierces the fabric next to the fold and the zipper tape.

Sew along the zipper guiding the zipper teeth along the bottom edge of the foot.

- 3 Sew through all layers next to the fold. Stop 5 cm (2") before zipper foot reaches the slider on the zipper tape. Lower the needle slightly into the fabric. Raise the foot and open the zipper. Lower the foot and stitch the remainder of the seam.

- ⑨ Slider
- ⑩ 5 cm (2")

- 4 Close the zipper and spread the fabric open flat with the right side of the fabric facing up. Baste the opened fabric and zipper tape together.

- ⑪ Basting
- ⑫ Zipper tape

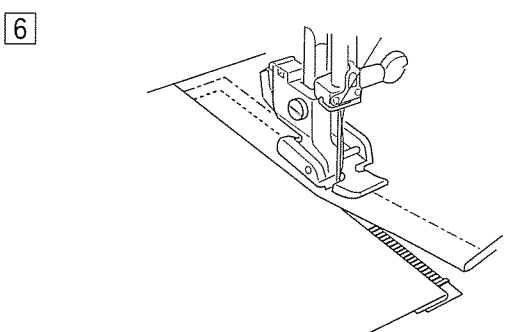
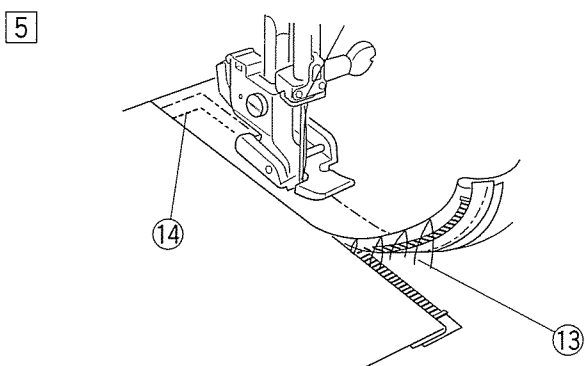
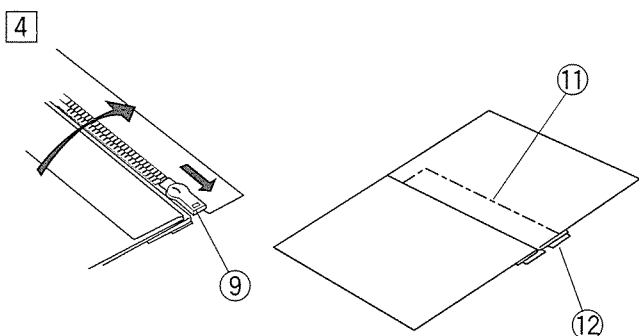
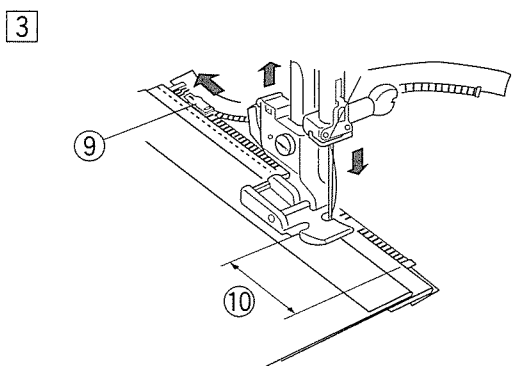
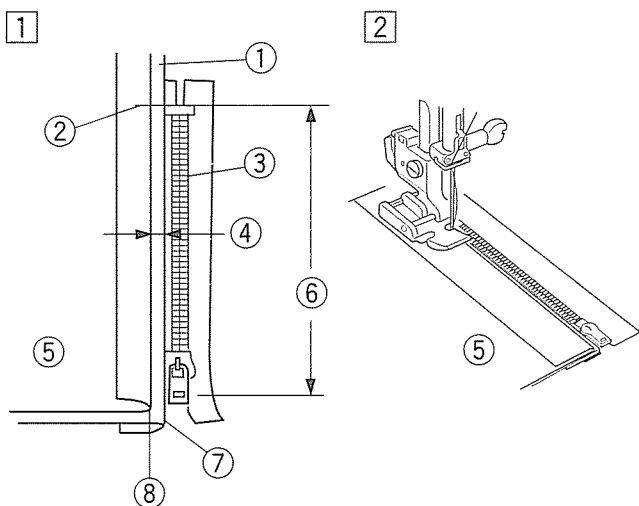
- 5 Remove the zipper foot and attach it with the pin on the left side.

Backstitch across the end of opening to 0.7 – 1 cm (3/8").

Stitch through the garment and zipper tape, guiding the zipper teeth along the bottom edge on the foot. Stop about 5 cm (2") from the top of the zipper and lower the needle into the fabric by turning the handwheel toward you, then raise the foot and remove the basting stitches (refer to the preparation step 2).


- ⑬ Remove the basting stitches
- ⑭ Reverse stitch (0.7 – 1 cm)

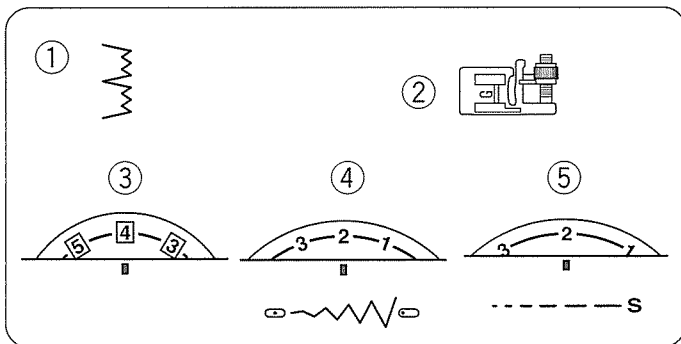
- 6 Open the zipper (moves the slider to the back) and lower the foot and stitch the remainder of the seam making sure the fold is even. Remove the basting stitches.



## Blind Hem Stitch

### Machine setting

- |                        |   |
|------------------------|---|
| ① Stitch pattern:      |  |
| ② Presser foot:        | G: Blind hem foot   |
| ③ Thread tension dial: | 1 – 4   |
| ④ Stitch width:        | 3 – 5   |
| ⑤ Stitch length:       | 1 – 3   |



- 1 Use the same color thread as the fabric.  
On heavy weight fabrics that ravel, the raw edge should be overcast first.  
Fold up the hem the desired amount and pin in place.  
Then fold the hem under the fabric as illustrated.

- ① Wrong side of fabric
- ② 0.4 – 0.7 cm

- A – Heavy weight fabric
- B – Lightweight fabric

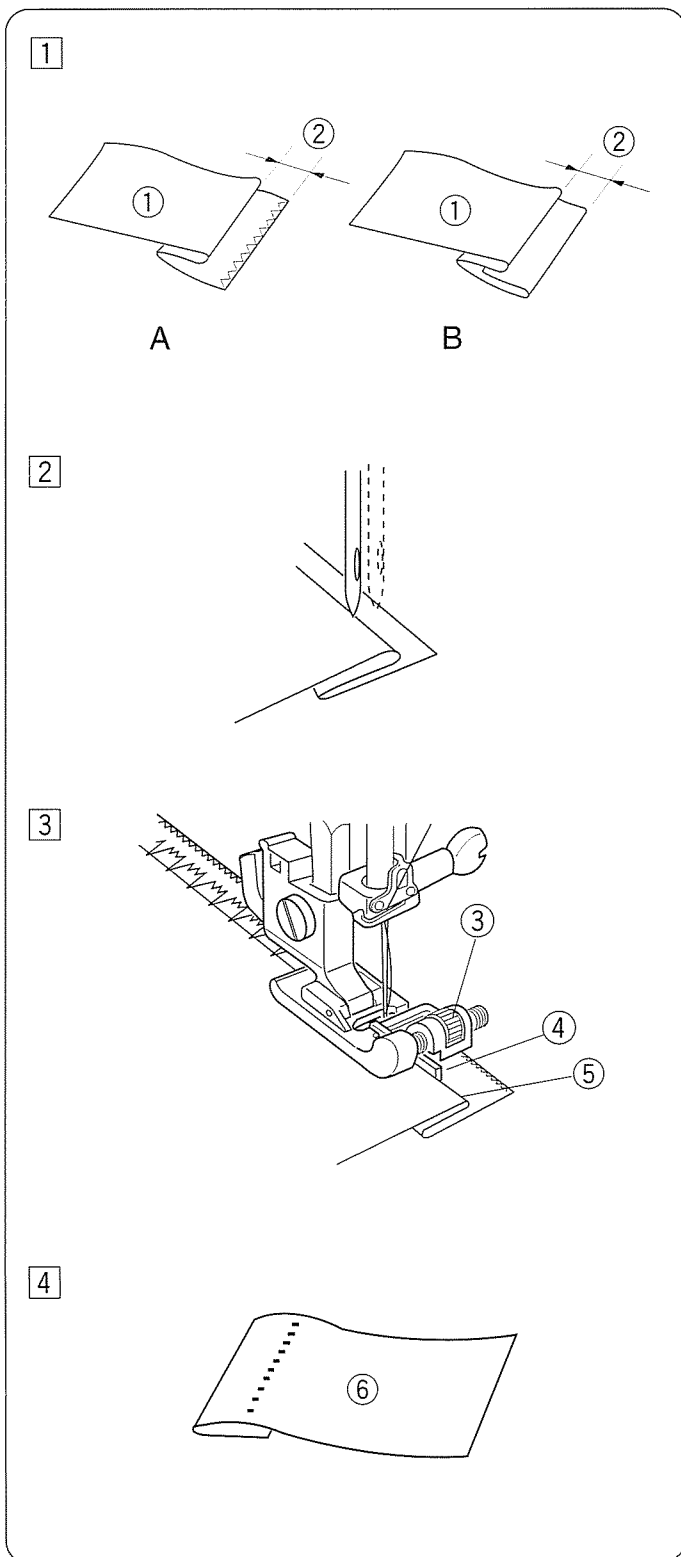
- 2 Position the fabric on the machine so that the needle just pierces the folded part of the fabric when the needle comes over the extreme left side.  
Lower the presser foot.

- 3 Turn the guide screw and move the sliding guide next to the folded edge.  
Sew guiding the folded edge along the sliding guide.

- ③ Guide screw
- ④ Guide
- ⑤ Folded edge

- 4 \* If the needle pierces too far left, the stitches will show on the right side of fabric.

- ⑥ Right side of fabric




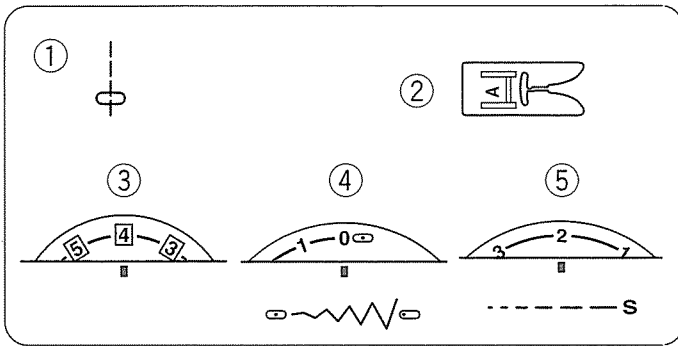


## SECTION V. DECORATIVE STITCHING

### Quilting

#### Machine setting

- |                        |   |
|------------------------|---|
| ① Stitch pattern:      |  |
| ② Presser foot:        | A: Zigzag foot  |
| ③ Thread tension dial: | 3 – 6   |
| ④ Stitch width:        | 0 or 5  |
| ⑤ Stitch length:       | 1.5 – 4   |

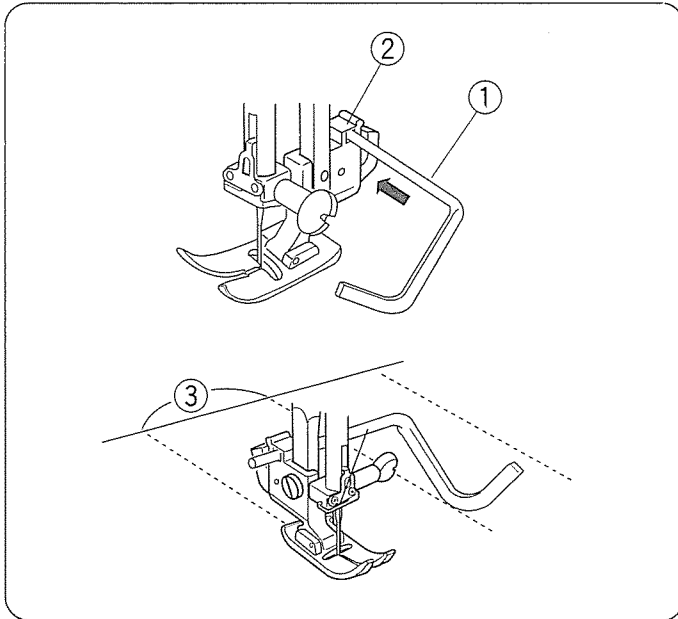


The quilting bar will help to keep the stitching lines straight.

Insert the quilting bar in the opening, and slide it at the desired width.


Sew guiding the previous row of stitching under the quilting bar.

- ① Quilting bar
- ② Hole
- ③ Seam spacing



### Applique

#### Machine setting

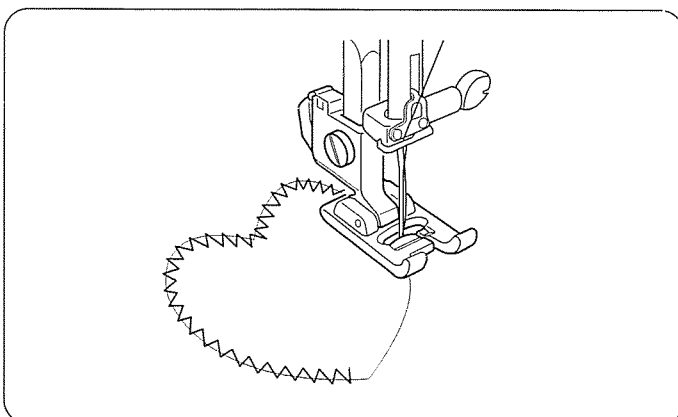
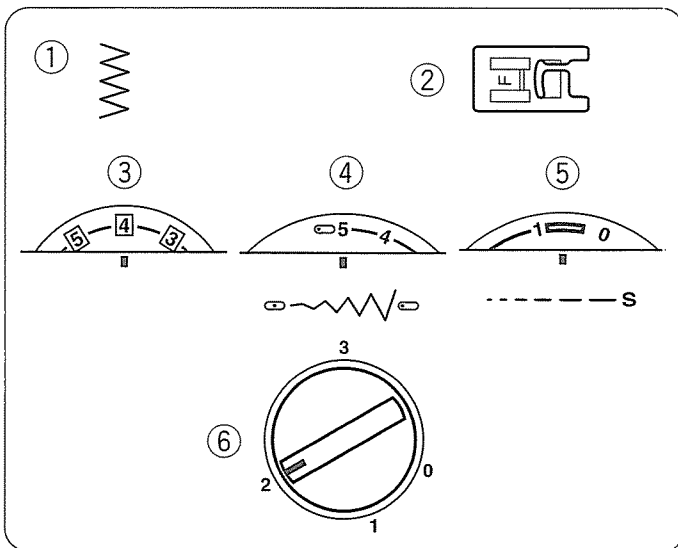
- |                        |   |
|------------------------|---|
| ① Stitch pattern:      |  |
| ② Presser foot:        | F: Satin stitch foot  |
| ③ Thread tension dial: | 1 – 4   |
| ④ Stitch width:        | 3 – 5   |
| ⑤ Stitch length:       | 0.5 – 1   |
| ⑥ Pressure dial:       | 2   |

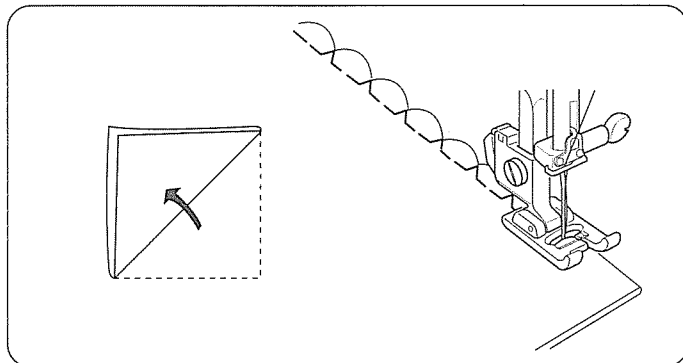
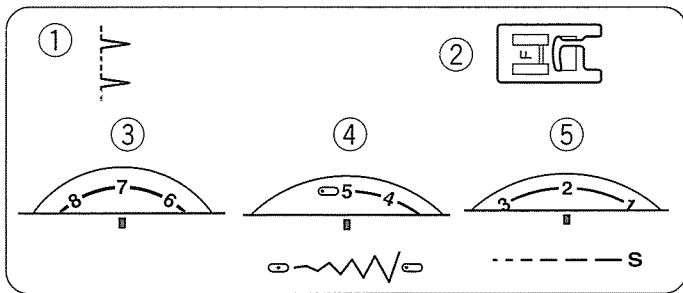
\* Baste (or fuse with iron – fabric joiner) applique pieces on the fabric.

Stitch around the applique making sure the needle falls along the outer edge of the applique.

\* When sewing corners, lower the needle down into the fabric. Raise the presser foot and pivot the fabric to the right or left.

\* When applique sewing is finished, return the pressure dial to 3.





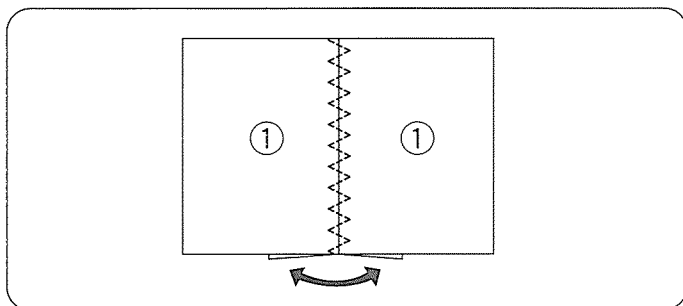
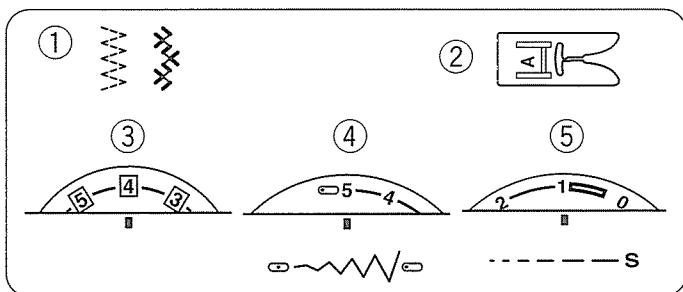
## Shell Tuck

### Machine setting

- ① Stitch pattern:
- ② Presser foot: F: Satin stitch foot
- ③ Thread tension dial: 6 – 8
- ④ Stitch width: 5
- ⑤ Stitch length: 2 – 3

\* Adjust the needle thread tension and test the stitch on the actual fabric for the best results.

Fold the fabric on a bias. Sew along the fold so that the needle on the right swing just clears the folded edge to form tucks.



## Patchwork

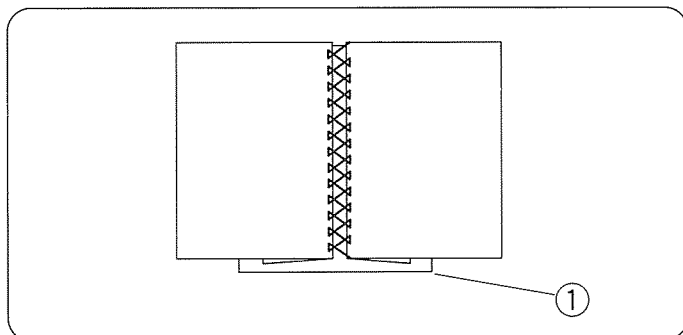
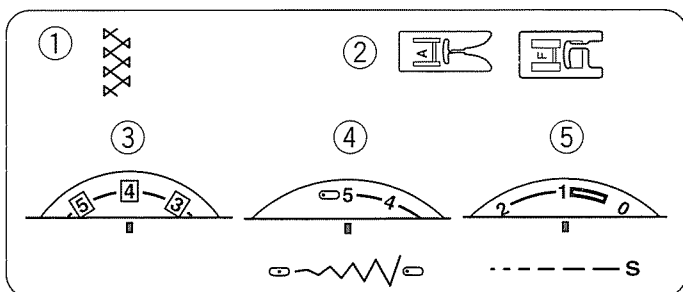
### Machine setting

- ① Stitch pattern:
- ② Presser foot: A: Zigzag foot
- ③ Thread tension dial: 2 – 6
- ④ Stitch width: 5
- ⑤ Stitch length: 0.5 – 1.5

\* Set the stitch length to “S” for “” stitch.

Sew seam and press seam allowance open. Sew pattern stitch on the right side of garment centering stitches over the seam line.

① Right side of the fabric

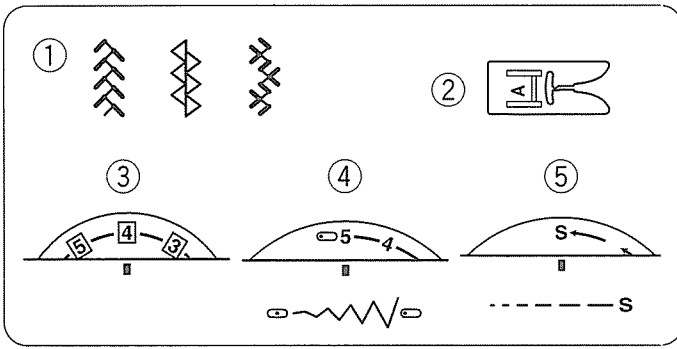


## Fagoting

### Machine setting

- ① Stitch pattern:
- ② Presser foot: A: Zigzag foot or F: Satin stitch foot
- ③ Thread tension dial: 3 – 8
- ④ Stitch width: 5
- ⑤ Stitch length: S

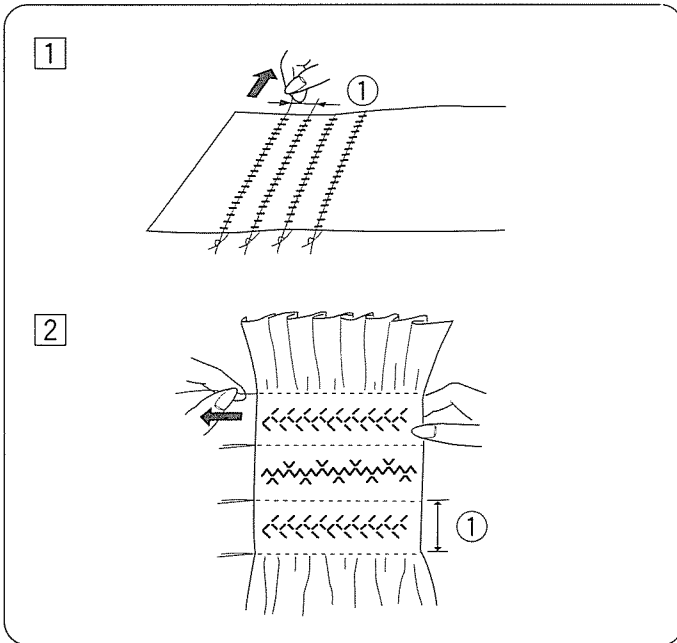
1. Fold under 1.5 cm (1/2") on each fabric edge and press. Pin the two edges to a paper 0.3 cm (1/8") apart.
  2. Sew slowly guiding the fabric so the needle catches the folded edge on each side.
  3. Peel off the paper from the wrong side of the fabric.
- ① Paper



## Smocking

### Machine setting

- |                        |                |
|------------------------|----------------|
| ① Stitch pattern:      |                |
| ② Presser foot:        | A: Zigzag foot |
| ③ Thread tension dial: | 2 – 6          |
| ④ Stitch width:        | 3 – 5          |
| ⑤ Stitch length:       | S              |



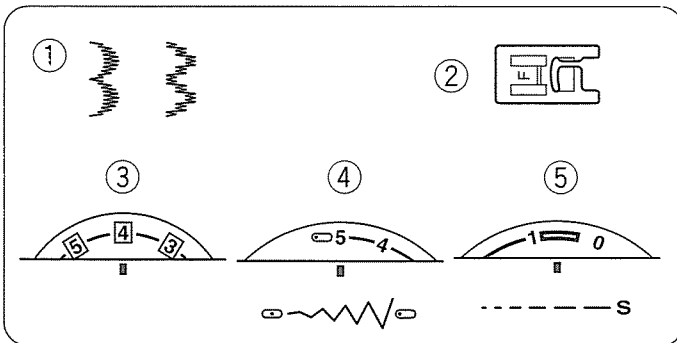
### ① Straight stitch

Set the thread tension dial at 1-3, and stitch length dial at 3-4, sew straight lines 1 cm (3/8") apart across the area to be smocked.

① 1cm (3/8")

### ② Decorative stitch

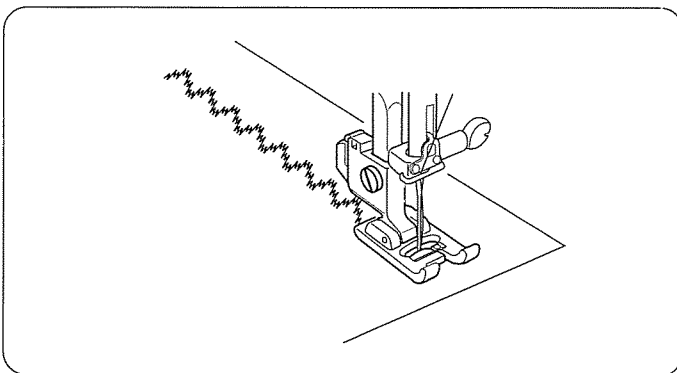
Knot the needle and bobbin threads along the edge. Pull the bobbin threads and distribute gathers evenly. Sew pattern stitches between the straight seams. Pull out the gathering stitches.



## Decorative Satin Stitch Patterns

### Machine setting

- |                        |                      |
|------------------------|----------------------|
| ① Stitch pattern:      |                      |
| ② Presser foot:        | F: Satin stitch foot |
| ③ Thread tension dial: | 2 – 6                |
| ④ Stitch width:        | 3 – 5                |
| ⑤ Stitch length:       | 0.5 – 1              |



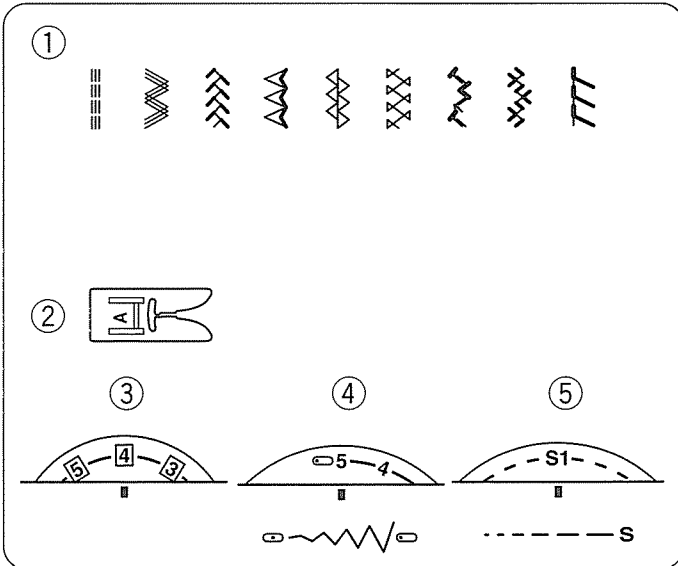
Test the stitch on the actual fabric for the desired patterns and adjust the suitable stitch density for the best sewing results.

\* For thin and stretchy fabrics use an adhesive type stabilizer or paper on the wrong side of the fabric to prevent puckering.

## Stretch Stitch Patterns

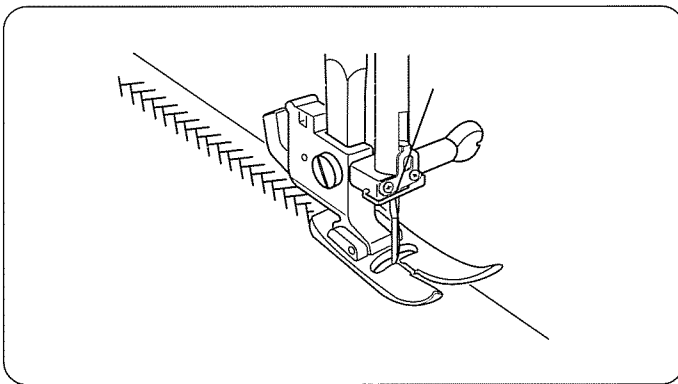
### Machine setting

- |                        |                       |
|------------------------|-----------------------|
| ① Stitch pattern:      |                       |
| ② Presser foot:        | A: Zigzag stitch foot |
| ③ Thread tension dial: | 2 – 6                 |
| ④ Stitch width:        | 3 – 5                 |
| ⑤ Stitch length:       | S                     |



The fabric moves back and forth for the stretch stitch sewing, guide the fabric gently along with the edge of the foot.

If patterns are uneven when sewing with a particular fabric, refer to the “Correcting Distorted Stitch Patterns”



## Correcting Distorted Stitch Patterns

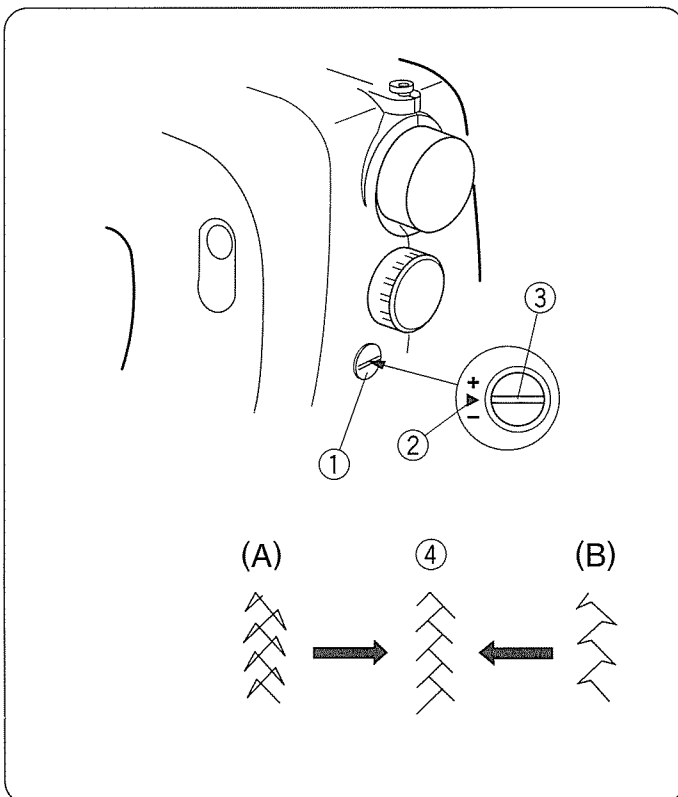
The sewing results of the stretch stitch patterns may vary depending upon the sewing conditions, such as sewing speed, type of the fabric, number of layers etc.

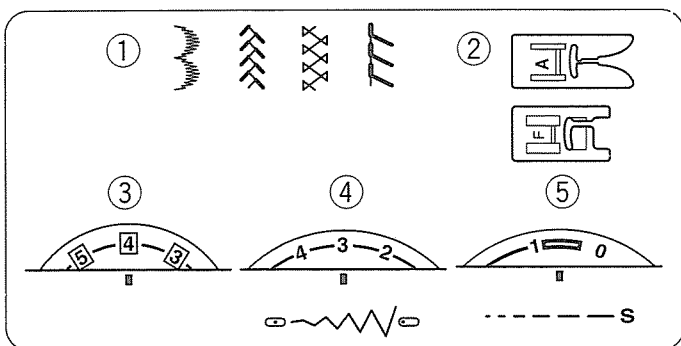
Always make test sewing on a scrap piece of the fabric that you wish to use.

If decorative stitch patterns are distorted, correct it with the feed balancing dial.

- \* In normal sewing, set the feed balancing dial to the neutral position, i.e. the groove on the dial is centered with the standard setting mark.
- \* If the pattern is compressed, turn the dial in the direction of “+”.
- \* If the pattern is drawn out, turn the dial in the direction of “-”.

- ① Feed balancing dial
- ② Standard setting mark
- ③ Groove on the dial
- ④ Correct shape

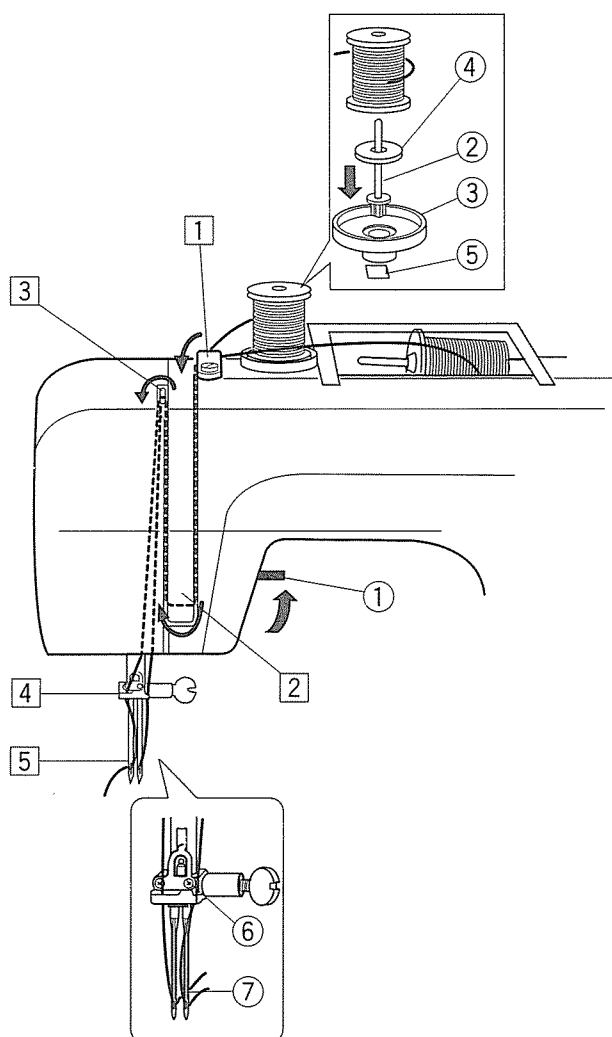




## Twin Needle Sewing

Machine setting

- ① Stitch pattern:
- ② Presser foot: A: Zigzag stitch foot or F: Satin stitch foot
- ③ Thread tension dial: 2 – 6
- ④ Stitch width: 3
- ⑤ Stitch length: 0.5–1 (for pattern )  
S (for patterns )



- \* Turn off the power switch before changing the needle.
- \* When you sew patterns with the twin needle, test the stitches first before you sew.

**Caution:** Do not set the stitch width at more than 3.0, or the needle will hit the needle plate and the needle will break.

### [Additional Spool Pin]

Insert the additional spool pin into the spool stand and hole. Place the felt on the spool pin and place a spool of thread on it as shown.

- ② Additional spool pin
- ③ Spool stand
- ④ Felt
- ⑤ Hole

1. Draw both threads from the spools and pass them through the points from ① to ⑤. Make sure that the two strings of thread from the spools will not get tangled.
- ① Presser foot lifter
2. The threading step from ① to ③ is the same as single needle threading.
3. Slide one of the threads through the needle bar thread guide on the left, and the other one on the right.
- ⑥ Needle bar thread guide
4. Thread the needles from the front to back.
- ⑦ Needle
- \* When changing the sewing direction, raise the needle and turn the fabric.

## SECTION VI. CARE OF YOUR MACHINE

### Replacing the Light Bulb

- \* Unplug the machine.
- \* Do not dismantle the machine other than as explained in this section.

#### Warning:

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

#### <Removing the light bulb>

1. Remove the set screw.
2. Remove the face plate.
3. [A] Push the bulb up and turn it counterclockwise to remove.

[B] Turn the bulb counterclockwise to remove.

- ① Setscrew
- ② Face plate
- ③ Light bulb

#### <Attaching the light bulb>

4. [A] Push up the light bulb and turn it clockwise.
- [B] Turn the light bulb clockwise.
5. Attach the face plate.
6. Tighten the screw.

### Cleaning the Hook Race and Feed Dog

#### Cleaning the bobbin holder

- Notes:**
- \* Raise the presser foot and needle, then unplug the machine.
  - \* Do not dismantle the machine other than as explained in this section.

- ① Remove the needle and presser foot.

Remove the setscrews on the needle plate and pull it up slightly with both hand, then remove it to the back.

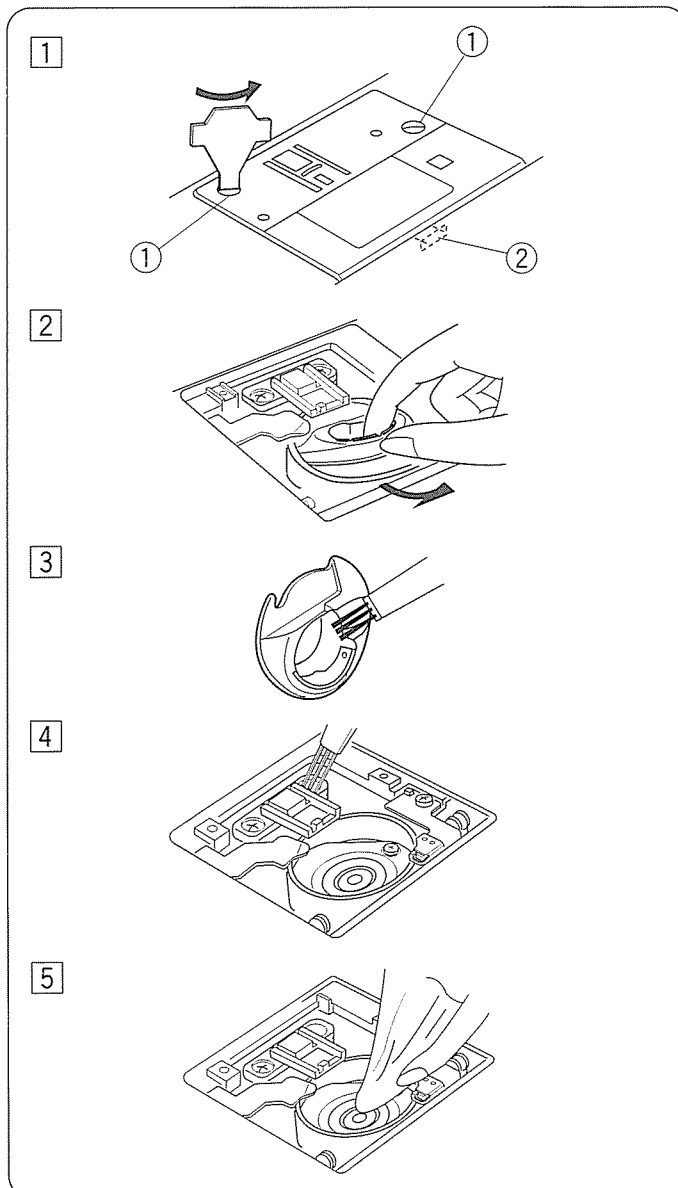
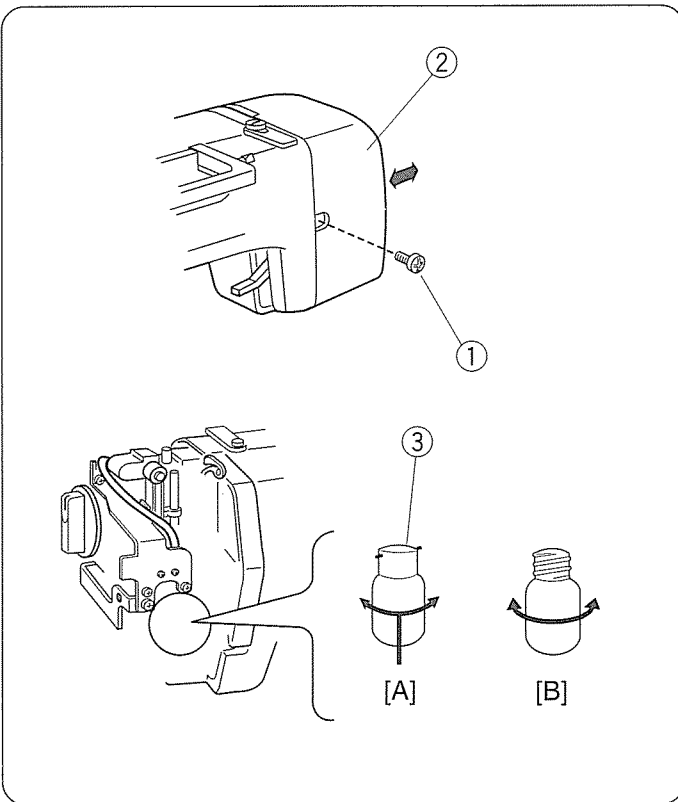
- ① Set screw
- ② Hook

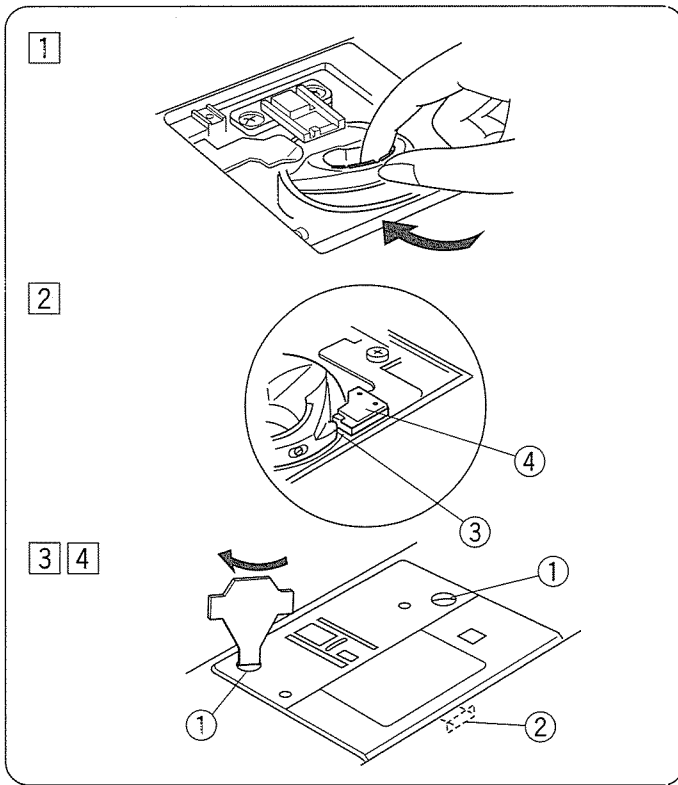
- ② Take out the bobbin. Lift up the bobbin holder and remove it.

- ③ Clean the bobbin holder with a lint brush.

- ④ Clean the feed dog and hook race with the lint brush.

- ⑤ Clean the hook race with a soft dry cloth.  
(You may also use a vacuum cleaner.)





## Assemble the bobbin holder and needle plate

1 Insert the bobbin holder

2 The knob fits next to the stopper in the hook race.

③ Knob

④ Stopper

3 Insert the bobbin. Reattach the needle plate with

the hook into the groove toward you.

② Hook

4 Tighten the setscrews.

① Setscrew

\* After cleaning the machine, make sure the needle and presser foot are attached.

## Trouble Shooting

Condition	Cause	Reference
The needle thread breaks.	<ol style="list-style-type: none"> <li>1. The needle thread is not threaded properly.</li> <li>2. The needle thread tension is too tight.</li> <li>3. The needle is bent or blunt.</li> <li>4. The needle is incorrectly inserted.</li> <li>5. The needle thread and the bobbin thread are not set properly under the presser foot at the start of sewing.</li> <li>6. The threads were not drawn to the rear after sewing.</li> <li>7. The thread is too heavy or too fine for the needle.</li> </ol>	Page 12 Page 8 Page 9 Page 9 Page 15 Page 15 Page 9
The bobbin thread breaks.	<ol style="list-style-type: none"> <li>1. The bobbin thread is not threaded properly in the bobbin holder.</li> <li>2. Lint has collected in the bobbin holder.</li> <li>3. The bobbin is damaged and doesn't turn smoothly.</li> </ol>	Page 11 Page 29 Change the bobbin
The needle breaks.	<ol style="list-style-type: none"> <li>1. The needle is incorrectly inserted.</li> <li>2. The needle clamp screw is loose.</li> <li>3. The threads were not drawn to the rear after sewing.</li> <li>4. The needle is too fine for the fabric being used.</li> </ol>	Page 9 Page 9 Page 15 Page 9
Skipped stitches	<ol style="list-style-type: none"> <li>1. The needle is incorrectly inserted, bent or blunt.</li> <li>2. The needle and/or threads are not suitable for the work being sewn.</li> <li>3. A Blue Tipped needle is not being used for sewing stretch, very fine fabrics and synthetics.</li> <li>4. The needle thread is not threaded properly.</li> <li>5. The poor quality needle is used.</li> </ol>	Page 9 Page 9 Page 9 Page 12 Change the needle
Seam puckering	<ol style="list-style-type: none"> <li>1. The needle thread tension is too tight.</li> <li>2. The needle thread is not threaded properly.</li> <li>3. The needle is too heavy for the fabric being sewn.</li> <li>4. The stitch length is too long for the fabric.</li> </ol> <p>* When sewing the fine fabric, place the interface on the wrong side of the fabric.</p>	Page 9 Page 7, 11, 12 Page 9 Make stitch shorter.
The cloth is not feeding smoothly.	<ol style="list-style-type: none"> <li>1. The feed dog is packed with lint.</li> <li>2. The stitches are too fine.</li> <li>3. The feed dog is not raised after "drop feed" sewing.</li> </ol>	Page 29 Make stitch longer. Page 7
Loops on the seams	<ol style="list-style-type: none"> <li>1. The needle thread tension is too loose.</li> <li>2. The needle is too thick or too fine for the fabric.</li> </ol>	Page 8 Page 9
The machine doesn't work.	<ol style="list-style-type: none"> <li>1. The machine is not plugged in.</li> <li>2. There is thread caught in the hook race.</li> <li>3. The bobbin winder spindle is not returned to the left after bobbin winding. (Bobbin winding condition)</li> </ol>	Page 6 Page 29 Page 10
Buttonhole sewing is not sewn properly.	<ol style="list-style-type: none"> <li>1. The stitch density is not suitable for the fabric being used.</li> <li>2. The suitable interface material has not been used for the stretch or synthetic fabric.</li> </ol>	Page 19 Page 18
Noisy operation	<ol style="list-style-type: none"> <li>1. There is thread caught in the hook race.</li> <li>2. Lint has built up in the hook race or bobbin holder.</li> </ol>	Page 29 Page 29





