



lotus

| Instruction Manual |



IMPORTANT SAFETY INSTRUCTIONS

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

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

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

Read all instructions before using this sewing machine.

DANGER— To reduce the risk of electric shock:

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.

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

1. Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
2. Use this appliance only for its intended use as described in this owner's manual.
Use only attachments recommended by the manufacturer as contained in this owner's manual.
3. Never operate this sewing machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water.
Return this sewing machine to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the appliance with any air opening blocked. Keep ventilation openings of this sewing machine and foot controller free from accumulation of lint, dust and loose cloth.
5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to the off ("O") position, then remove plug from outlet.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
11. Always use the proper needle plate. The wrong plate can cause the needle to break.
12. Do not use bent needles.
13. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
14. Switch this sewing machine off ("O") when making any adjustment in the needle area, such as threading the needle, changing the needle, threading the bobbin or changing the presser foot, and the like.
15. Always unplug this sewing machine from the electrical outlet when removing covers, lubricating, or when making any other adjustments mentioned in this owner's manual.

SAVE THESE INSTRUCTIONS



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

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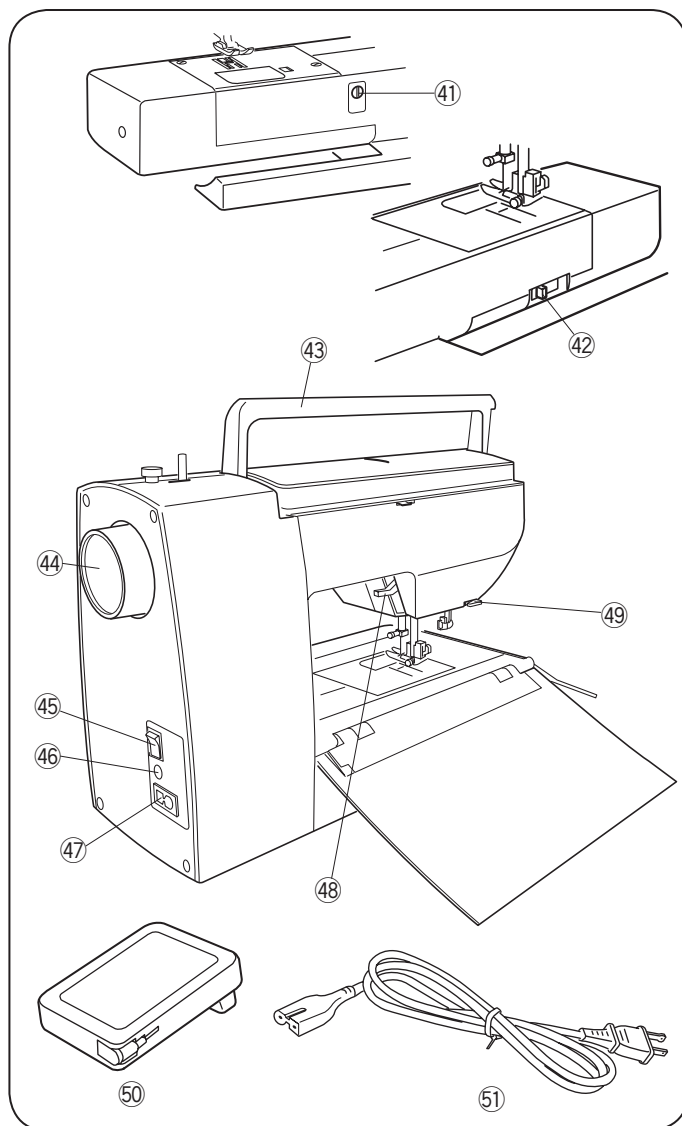
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SECTION I. NAMES OF PARTS

Names of Parts

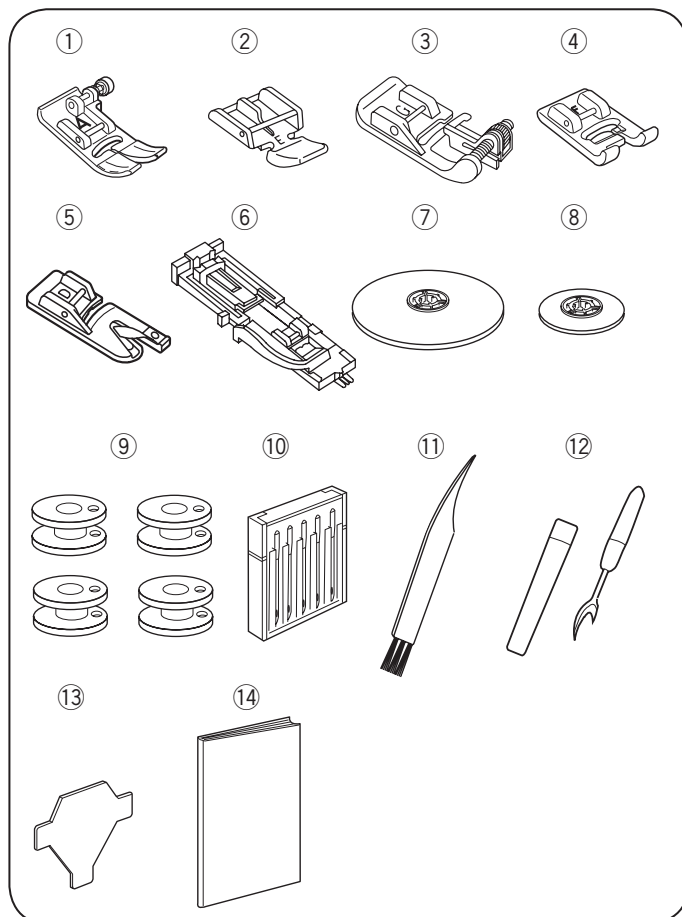
- ① LCD screen
- ② Stitch width adjusting buttons
- ③ Stitch length adjusting buttons
- ④ Start/stop button
- ⑤ Reverse stitch button
- ⑥ Auto-lock button
- ⑦ Needle up/down button
- ⑧ Thread cutter button
- ⑨ Speed control slider
- ⑩ Touch panel
- ⑪ Thread tension dial
- ⑫ Accessory drawer
- ⑬ Protection flaps unlock button
- ⑭ Protection flaps release lever
- ⑮ Bobbin winder stopper
- ⑯ Bobbin winder spindle
- ⑰ Accessory storage
- ⑱ Stitch reference chart
- ⑲ Thread take-up lever
- ⑳ Thread guide (B)
- ㉑ Bobbin winder thread guide (B)
- ㉒ Bobbin winder thread guide (A)
- ㉓ Retractable thread guide
- ㉔ Threading chart
- ㉕ Top cover
- ㉖ Thread guide (A)
- ㉗ Spool pin
- ㉘ Spool thread guide
- ㉙ Protection flaps
- ㉚ Needle thread guide
- ㉛ Needle clamp screw
- ㉜ Needle
- ㉝ Presser foot
- ㉞ Hook cover release button
- ㉟ Hook cover plate
- ㊱ Needle plate
- ㊲ Feed dog
- ㊳ Foot holder
- ㊴ Needle threader
- ㊵ Buttonhole lever



- ④① Feed adjusting screw
- ④② Drop feed lever
- ④③ Carrying handle
- ④④ Handwheel
- ④⑤ Power switch
- ④⑥ Foot control jack
- ④⑦ Machine inlet
- ④⑧ Presser foot lifter
- ④⑨ Thread cutter
- ⑤① Foot control
- ⑤① Power supply cable

NOTE:

Sewing machine design and specifications are subject to change without prior notice.



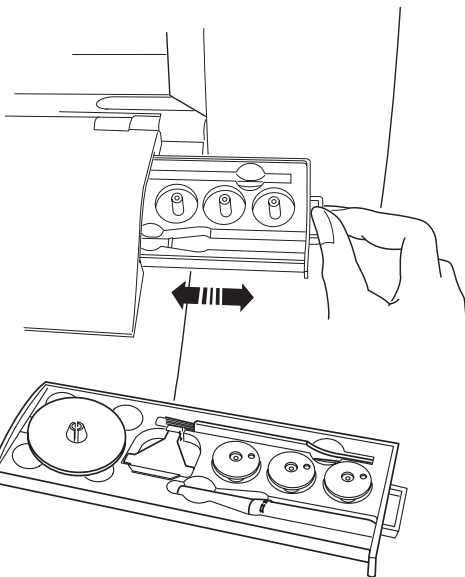
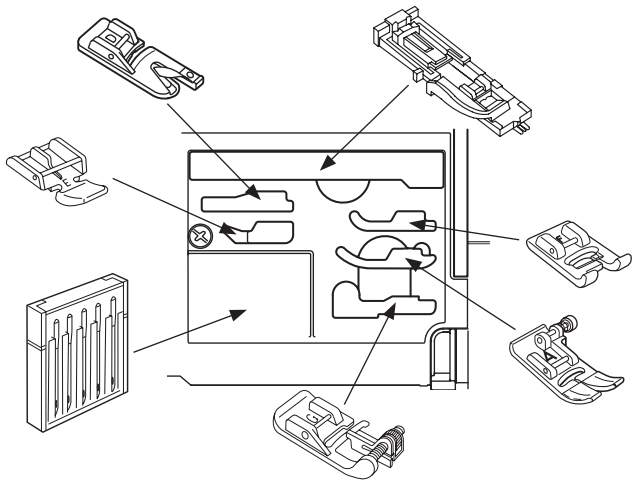
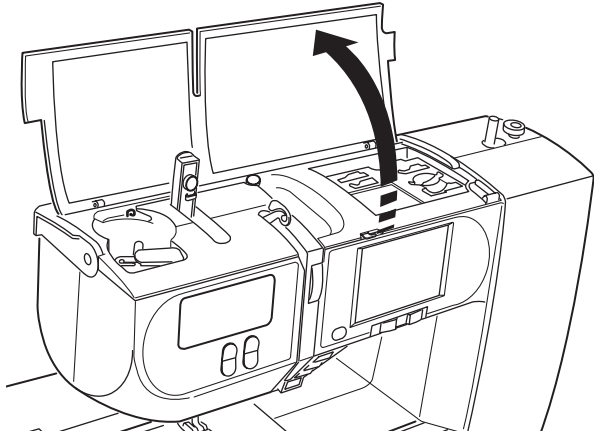
Standard Accessories

- ① Zigzag foot: A (set on the machine)
- ② Zipper foot: E
- ③ Blind hem foot: G
- ④ Satin stitch foot: F
- ⑤ Rolled hem foot: D
- ⑥ Automatic buttonhole foot: R
- ⑦ Spool holder (large) (set on the machine)
- ⑧ Spool holder (small)
- ⑨ Bobbins (X 4) (1 set on the machine)
- ⑩ Assorted needle set
- ⑪ Lint brush
- ⑫ Seam ripper (Buttonhole opener)
- ⑬ Screwdriver
- ⑭ Instruction book

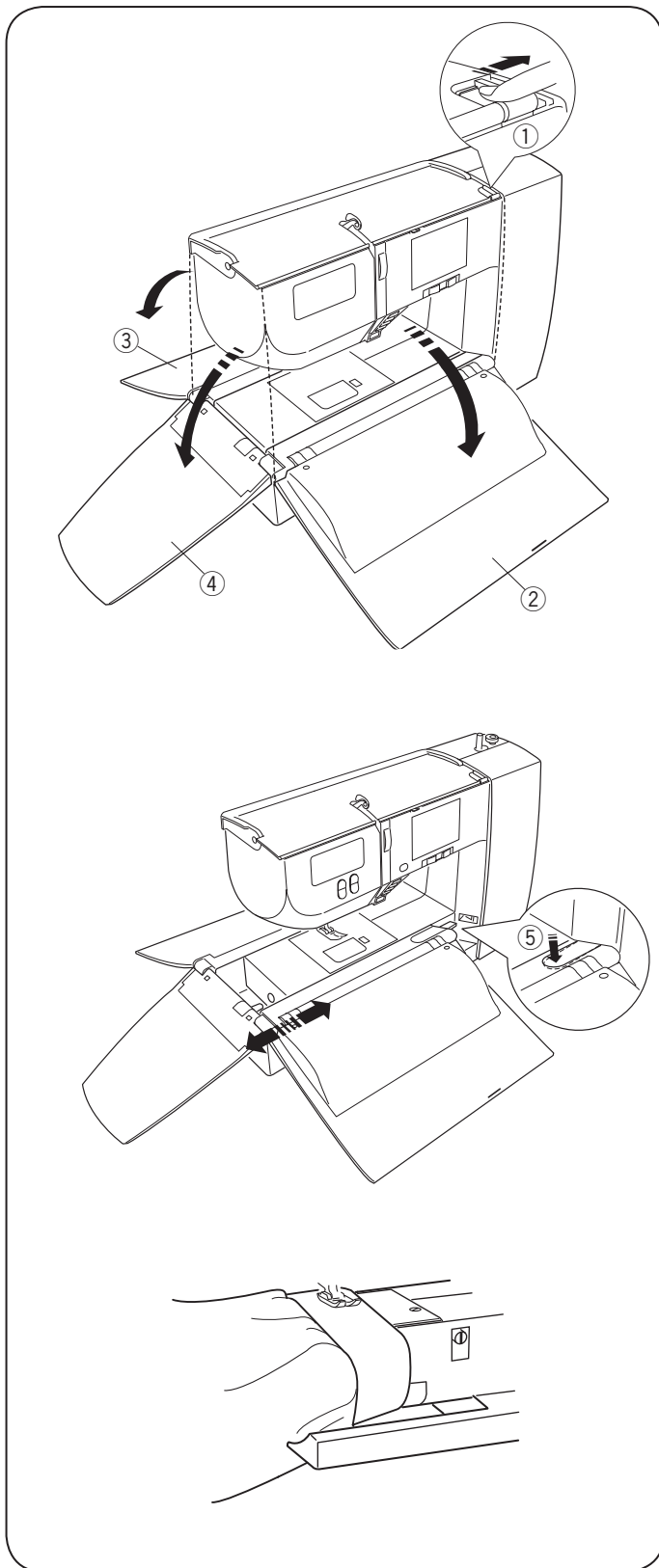
Accessory Storages

Accessories can be stored in the accessory storage and the accessory drawer.

Open the top cover to access the accessory storage.



Open the protection flap (front) and pull the tab on the right side of the flap to open the accessory drawer.



Protection Flaps

• Opening and closing protection flaps

To open the protection flaps, slide the protection flap release lever ① to the right.

To close the protection flaps, fold the rear and front flaps ② ③, then fold the left flap ④ until it snaps to the both flaps.

- ① Protection flaps release lever
- ② Protection flap (front)
- ③ Protection flap (rear)
- ④ Protection flap (left)

• Detaching the protection flaps

To detach the protection flaps, push down the protection flap unlock button, and pull the protection flaps away from the machine as illustrated.

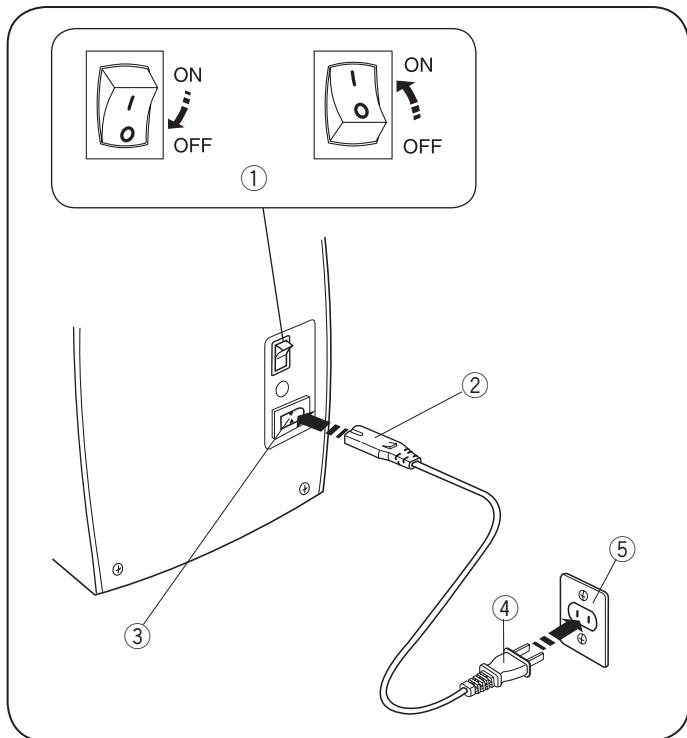
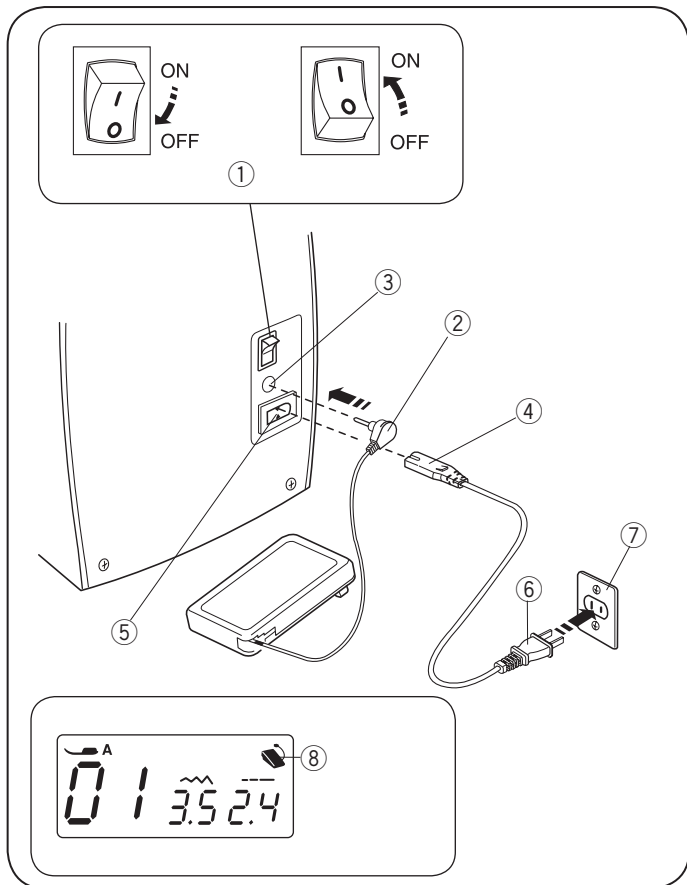
- ⑤ Protection flaps unlock button

• Attaching the protection flaps

To attach the protection flaps, push the protection flaps, inserting the hook into the hole until it snaps into the machine.

• Free-arm sewing

Free-arm sewing is useful for darning socks and mending the knee or cuff areas.



Operating Instructions:

The symbol "O" on 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 it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way (U.S.A. and Canada only).

* Foot control model 21371 is used with this sewing machine.

SECTION II. GETTING READY TO SEW

Connecting the Power Supply

• Using the foot control

Turn off the power switch ①.

Pull the foot control cord from the foot control.

Insert the foot control plug ② into the foot control jack ③.

Insert the machine plug ④ into the machine inlet ⑤.

Insert the power supply plug ⑥ into the wall outlet ⑦.

Turn on the power switch ①.

The foot control sign ⑧ will be displayed when the foot control is connected to the machine.

- ① Power switch
- ② Foot control plug
- ③ Foot control jack
- ④ Machine plug
- ⑤ Machine inlet
- ⑥ Power supply plug
- ⑦ Wall outlet
- ⑧ Foot control sign

NOTE:

Do not pull the cord of foot control beyond the red marker on the cord.

• Using the start/stop button

Turn off the power switch ①.

Insert the machine plug ② into the machine inlet ③.

Insert the power supply plug ④ into the wall outlet ⑤.

Turn on the power switch ①.

- ① Power switch
- ② Machine plug
- ③ Machine inlet
- ④ Power supply plug
- ⑤ Wall outlet

NOTES:

- The machine will be initialized when turning on the power switch. Do not touch the machine while the machine is being initialized.
- The start/stop button does not work when the foot control is connected.



WARNING:

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

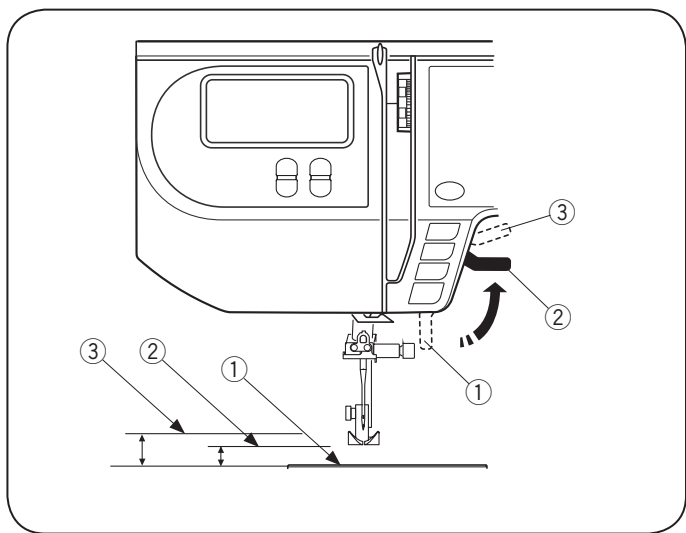
Always turn off the power switch and unplug from the power supply:

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

Do not place anything on the foot control, otherwise the machine will run inadvertently.

Before Using Your Sewing Machine

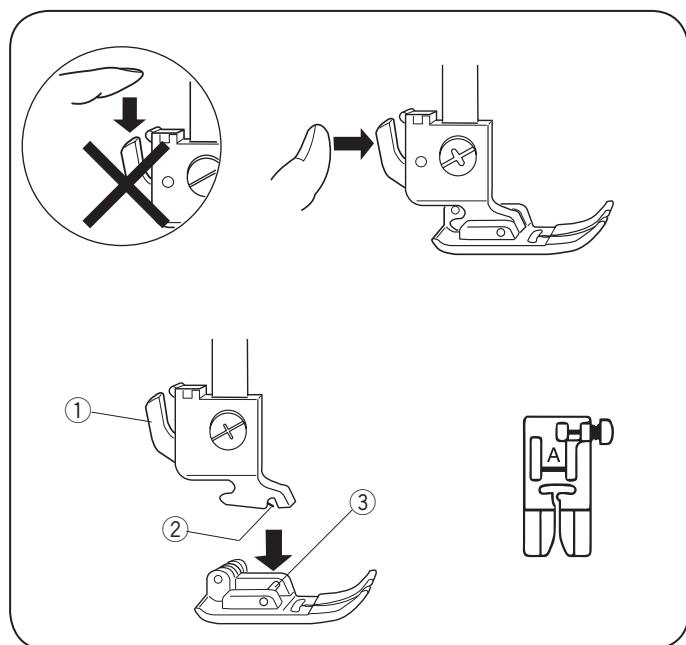
Before using your sewing machine for the first time, place a scrap of fabric under the presser foot and run the machine without thread for a few minutes. Wipe away any oil which may appear.



Presser Foot Lifter

The presser foot lifter ① raises and lowers the presser foot. You can raise the foot about 1/4" (0.6 cm) higher than the normal up position ② for easy removal of the presser foot, or to help you place thick material under the foot.

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



Changing the Presser Foot



CAUTION:

Turn OFF the power switch before changing the foot. Always use the proper foot for the selected pattern. The wrong foot can cause the needle to break.

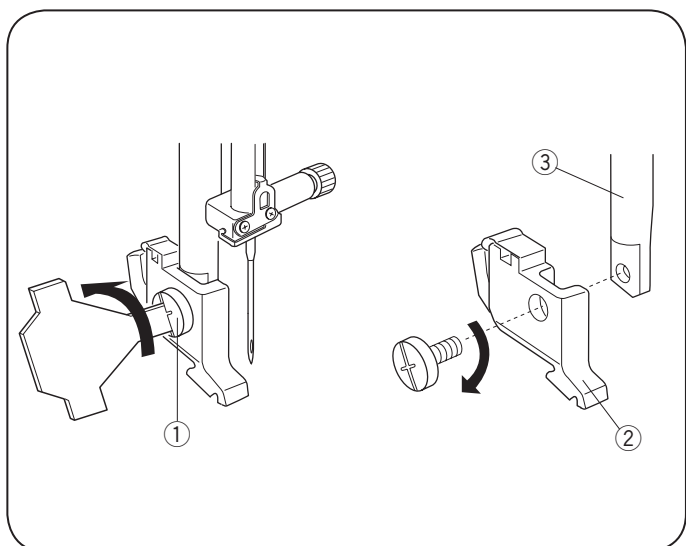
• Removing the presser foot

Raise the needle to its highest position by turning the handwheel counterclockwise. Raise the presser foot, and press the lever ① on the back of the foot holder.

• Attaching the presser foot

Place the selected presser foot so that the pin ③ on the foot lies just under the groove ② in the foot holder. Lower the presser bar to lock the foot into the place.

- ① Lever
- ② Groove
- ③ Pin



Removing and Attaching the Foot Holder



CAUTION:

Turn OFF the power switch before detaching or attaching foot holder.

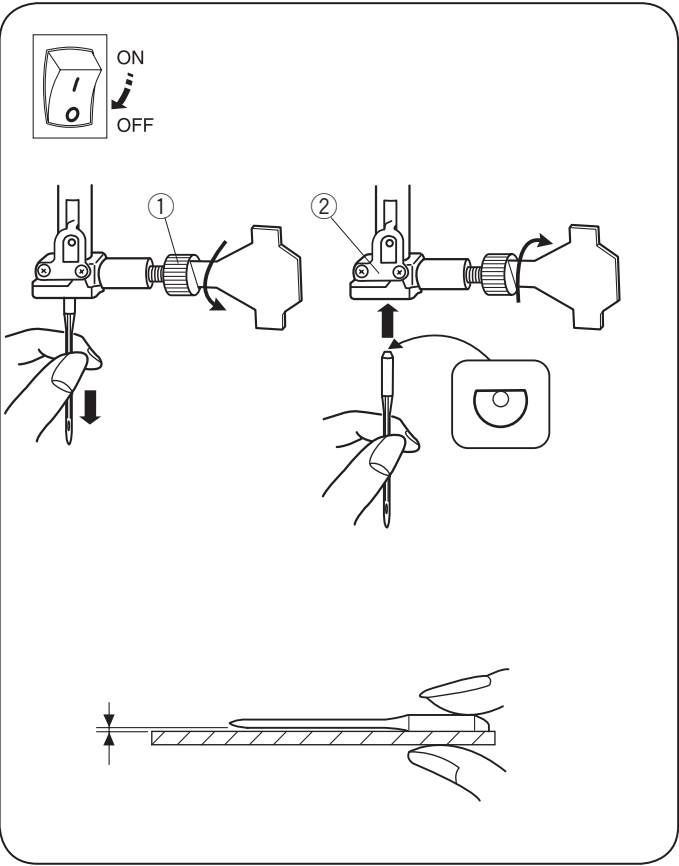
• Removing the foot holder

Remove the thumbscrew ① by turning it counterclockwise with a screwdriver.

• Attaching the foot holder

Align the hole in the foot holder ② with the threaded hole in the presser bar ③. Fit the thumbscrew ① into the hole. Tighten the thumbscrew ① by turning it clockwise with a screwdriver.

- ① Thumbscrew
- ② Foot holder
- ③ Presser bar



Changing the Needle



CAUTION:

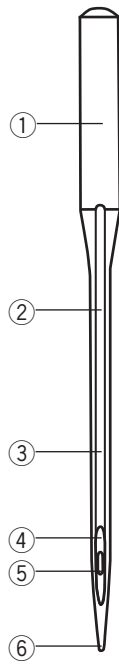
Turn OFF the power switch before changing the needle.

- 1 Turn off the power switch.
Raise the needle to its highest position by turning the handwheel counterclockwise, and lower 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 will go. Tighten the needle clamp screw ① firmly by turning it clockwise.
 - 3 To see if the needle is in good condition, place the flat side of the needle onto something flat (needle plate, glass, etc.). The gap between the needle and the flat surface should be consistent. Never use a bent or blunt needle.
A damaged needle can cause permanent snags or runs in knits, fine silks and silk-like fabrics.
- ① Needle clamp screw
② Needle clamp

Selecting Thread and Needles

For general sewing, use needle size 11/75 or 14/90. 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 needle size on a small scrap of the fabric that will be used for actual sewing. In general, use the same thread for the needle and bobbin. When sewing stretch fabrics, very fine fabrics and synthetics, use a BLUE TIPPED needle. The blue tipped needle effectively prevents skipped stitches.

Fabric		Thread	Needle
Light	Lawn	Silk #80-100	#9/65–11/75
	Georgette	Cotton #80-100	
	Tricot	Synthetic #80-100	
	Wool, Polyester		
Medium	Cotton,	Silk #50	#11/75–14/90
	Polyester	Cotton #60-80	
	Fine jersey	Synthetic #50-80	
	Wool	Cotton #50	
Heavy	Denim	Silk #50	#14/90–16/100
	Jersey	Cotton #40-50	
	Coating	Synthetic #40-50	
	Quilting	Silk #30	
		Cotton #50	#16/100



Needle Definitions

The illustration identifies the main parts of a sewing machine needle.

- ① Body
- ② Shaft
- ③ Long groove (round side of needle)
- ④ Short groove (flat side of needle)
- ⑤ Eye
- ⑥ Point

A: Universal – an all-purpose needle that handles most woven and knit fabrics.

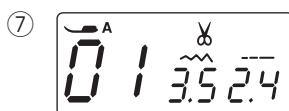
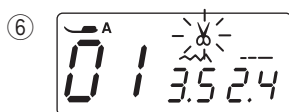
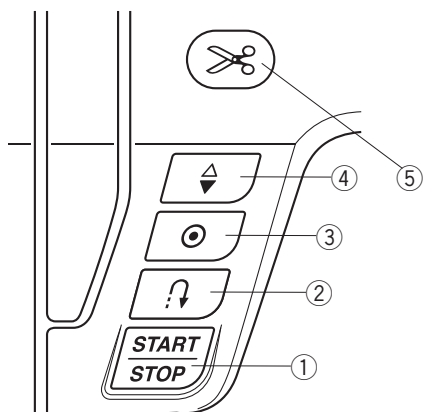
B: Ball point – the point spreads the fibers, preventing tears and is especially suited for loose knits and interlock knits. Not recommended for embroidery.

C: Denim – the sharp point effectively pierces densely woven fabrics such as denim and canvas.

D: Stretch – specially designed to prevent skipped stitches in synthetic suedes and elasticized knits (swimwear).

E: Leather – the cutting point creates small holes in leather and suede. Holes remain after stitching is removed.

F: Topstitching – the extra sharp point penetrates layers of fabrics; extra large eye and large groove accommodate heavyweight topstitching thread.



Machine Operating Buttons

① Start/Stop button

Lower the presser foot lifter.

Press the start/stop button ① to start the machine. The machine starts running slowly for the first few stitches; it then runs at the speed set by the speed control slider.

Press the start/stop button ① again to stop the machine.

NOTES:

- The machine runs slowly as long as you press and hold the start/stop button ①.
- The start/stop button ① cannot be used when the foot control is connected to the machine.

② Reverse stitch button

When stitches ① (01, 05, 06) are selected, the machine will sew in reverse while the reverse stitch button is pressed.

If you press the reverse stitch button when stitch pattern 01, 05 or 06 is selected and the foot control is not connected, the machine will sew in reverse as long as the button is pressed, and the machine will stop when the button is released.

If you press the reverse stitch button when sewing any other stitches except ② (02, 18), the machine will immediately sew locking stitches and automatically stop.

③ Auto-lock button

When stitches ① (01, 05, 06) are selected, the machine will immediately sew locking stitches and automatically stop when the auto-lock button is pressed.

If you press the auto-lock button when sewing any other stitches, the machine will sew locking stitches at the end of the current pattern and automatically stop.

④ Needle up/down button

Press this button to bring the needle up or down.

The machine will stop with the needle up or down depending on the machine setting (see page 20).

⑤ Thread Cutter Button

Press this button to trim the threads after sewing.

The thread cutter sign will blink ⑥ while the machine cuts the threads.

You can continue sewing without pulling the bobbin thread up after trimming the threads.

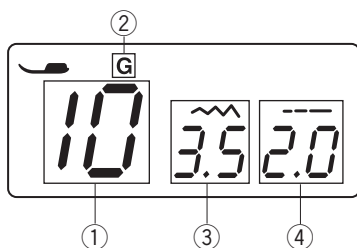
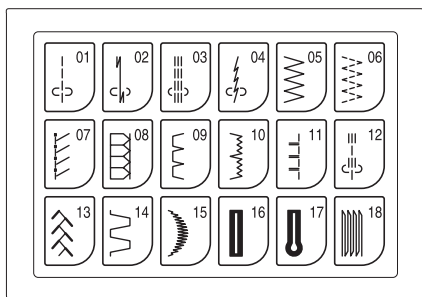
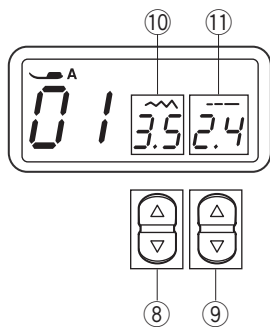
To trim the threads automatically after the sewing, select the desired stitch pattern, then press and hold the thread cutter button until the thread cutter sign appears ⑦.

The machine will automatically stop and trim the threads after locking stitches when the reverse or auto-lock button is pressed.

* To cancel the auto-thread cutting, press and hold the thread cutter button until the thread cutter sign disappears.

NOTE:

Use the thread cutter on the face cover if the thread is #30 or thicker.



⑧ Stitch width adjusting button

Press “△” or “▽” to change the stitch width or needle drop position (see pages 23 and 25).

The indicator ⑩ will show the stitch width or needle drop position.

⑨ Stitch length adjusting button

Press “△” or “▽” to change the stitch length (see pages 23 and 25).

The indicator ⑪ will show the stitch length.

Pattern Selection

You can select stitch patterns directly by pressing the pattern keys on the touch panel.

LCD Display

The LCD display shows the following information when the machine is turned on:

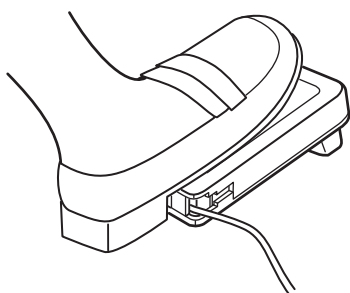
- ① Stitch pattern number
- ② Type of presser foot
- ③ Stitch width
- ④ Stitch length

Speed Control Slider

Sewing speed can be varied by the speed control slider according to your sewing needs.

To increase sewing speed, slide the slider to the right.

To decrease sewing speed, slide the slider to the left.

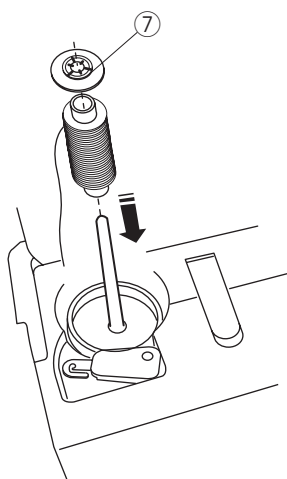
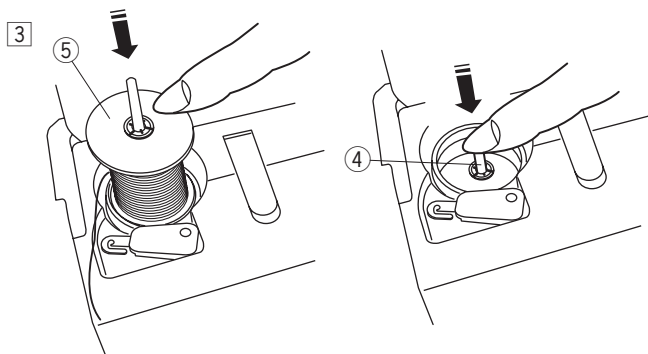
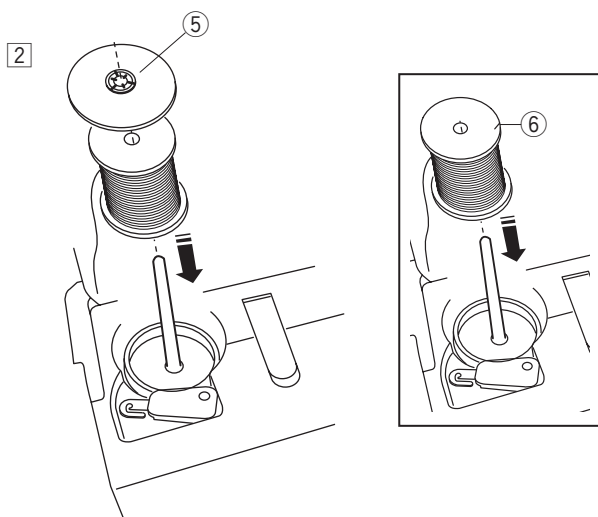
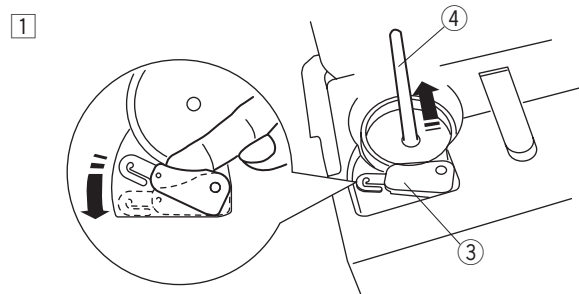
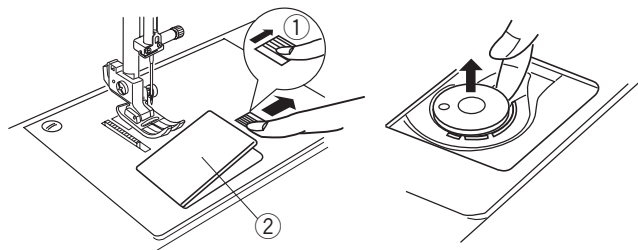


Controlling Sewing Speed

Depress the foot control to start the machine.

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

The maximum sewing speed can be varied by the speed control slider.



Bobbin Winding

• Removing the bobbin

Gently slide the hook cover release button ① to the right and remove the hook cover plate ②. Lift out the bobbin.

- ① Hook cover release button
- ② Hook cover plate

• Setting the spool

- ① Turn the spool thread guide ③ as illustrated, and the spool pin ④ will lift up.



WARNING

Do not lean over the top of spool pin when turning the spool guide. The spool pin pops up and it may strike your face.

- ③ Spool thread guide
- ④ Spool pin

- ② Place a spool of thread on the spool pin with the thread running off counterclockwise. Draw the thread from the spool about 4" (10 cm) of thread. Attach the large spool holder ⑤.

- ⑤ Large spool holder
- ⑥ Slit

NOTE:

If there is a slit ⑥ on the spool of thread, be sure to place the spool with the slit end up.

- ③ Press the spool holder ⑤ firmly against the spool of thread, and then push down the spool pin ④ to lower the spool until it is locked in the bottom.

* The small spool holder ⑦ is used with narrow or small spools of thread.

- ⑦ Small spool holder

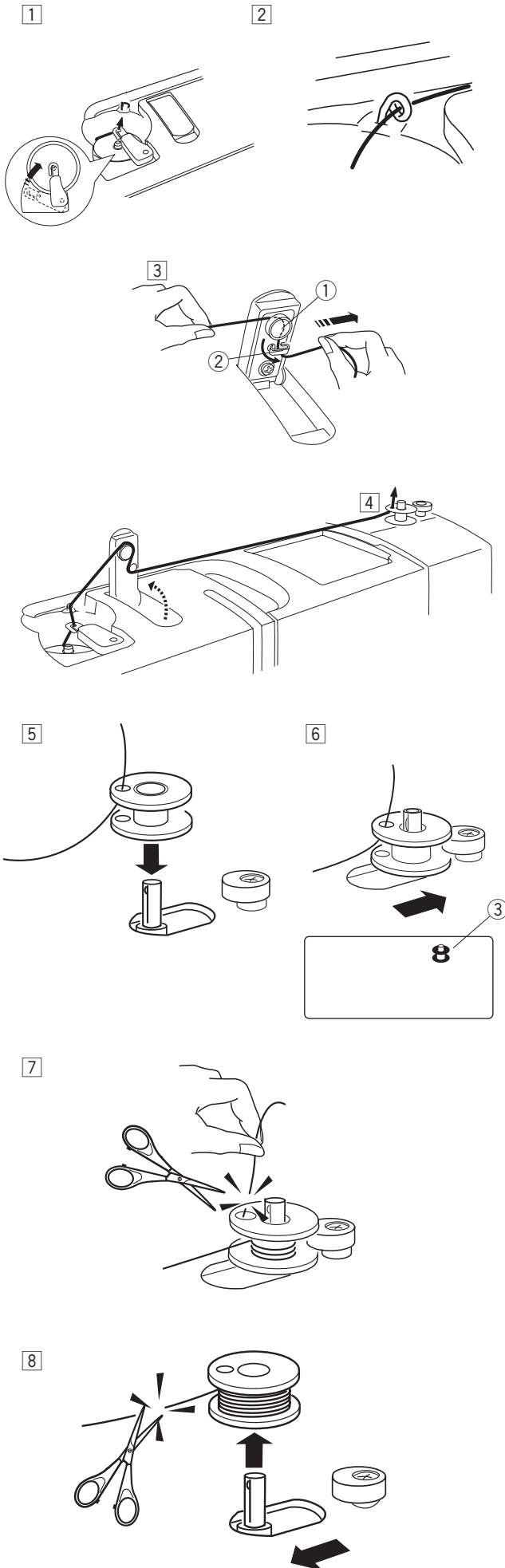
NOTE:

If a rimless spool may not let thread out smoothly, place the spool on the spool pin in up position and do not use the spool holder so the spool can rotate freely.

• Bobbin winding

NOTES:

- Set the speed control slider at its fastest position for bobbin winding.
- Close the retractable thread guide after the bobbin winding.



- 1 Turn the spool guide as illustrated. Draw the thread from the spool and pass it through the spool guide.
- 2 Pass the thread through the thread guide (A).
- 3 Raise the retractable thread guide. Guide the thread around the bobbin winder thread guide (A) ① and (B) ② as illustrated.
- 4 Pass the thread through the hole in the top of the bobbin from the inside to outside.

- 5 Put the bobbin on the bobbin winder spindle.
- 6 Push the bobbin to the right. The bobbin mark ③ appears on the LCD display.

- 7 With the free end of the thread held in your hand, start the machine. Stop the machine when bobbin has wound a few layers, and then cut the thread close to the hole in the bobbin.

- 8 Start the machine again. When the bobbin is fully wound, it will stop automatically. Stop the machine and return the bobbin winder to its original position by moving the spindle to the left. Cut the thread as shown.

• Inserting the bobbin

- 1 Place a bobbin in the bobbin holder 2 with the thread running off counterclockwise.

- ① End of thread
- ② Bobbin holder

- 2 Guide the thread into the first notch 3 on the front side of the bobbin holder.

- ③ Notch

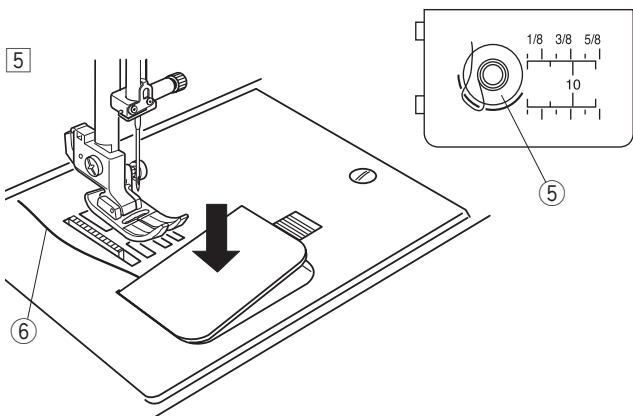
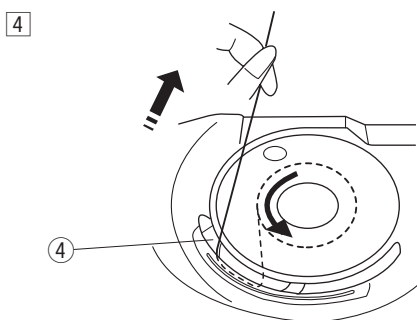
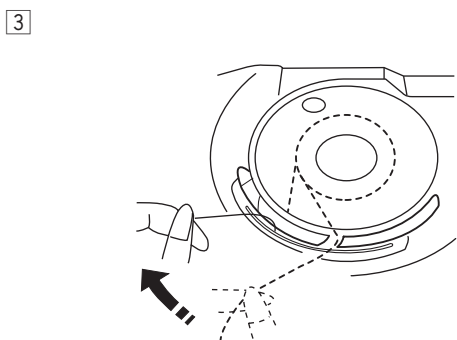
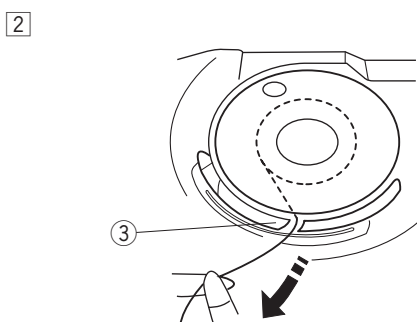
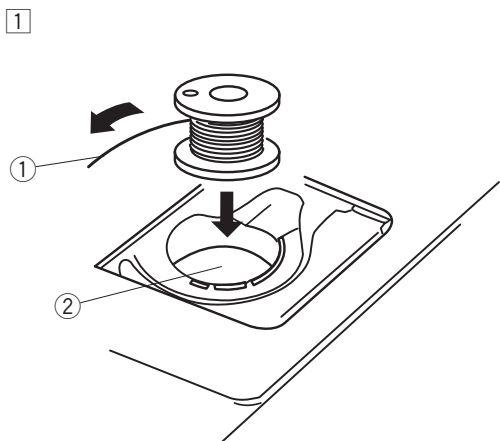
- 3 Draw the thread to the left, sliding it between the tension spring blades.

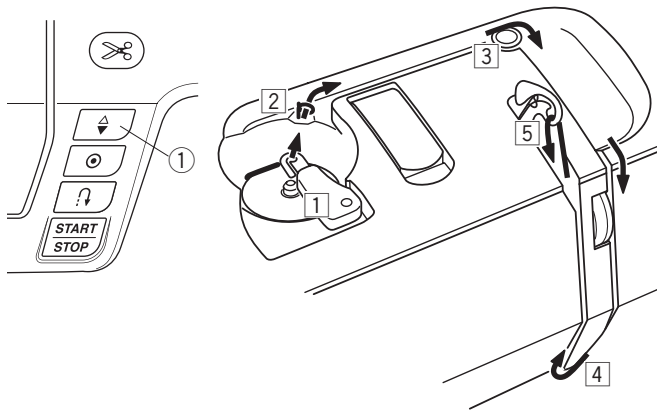
- 4 Continue to draw the thread lightly until the thread slips into the second notch 4. Pull out about 4" (10 cm) of thread.

- ④ Notch

- 5 Attach the hook cover plate. Check the threading by referring to the diagram 5 shown on the hook cover plate.

- ⑤ Threading diagram
- ⑥ End of thread





Threading the Machine

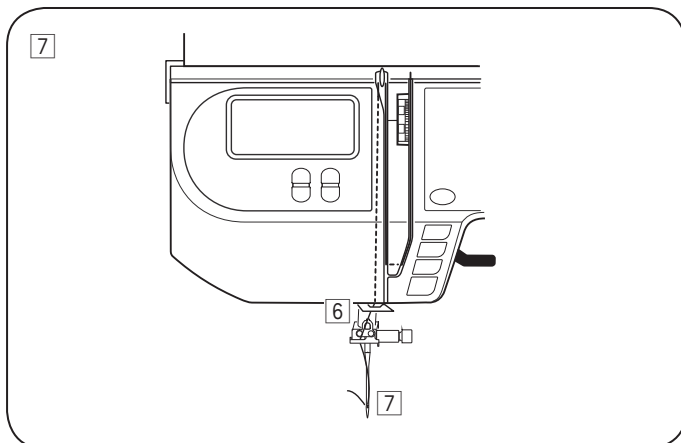
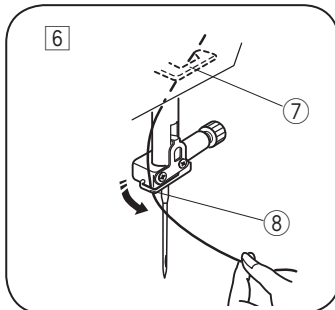
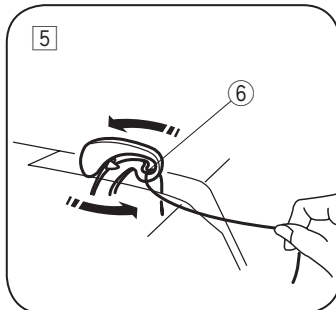
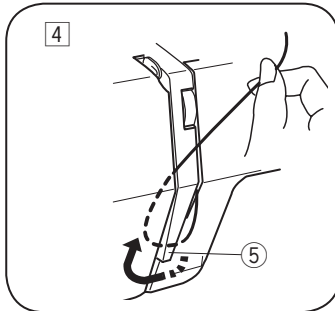
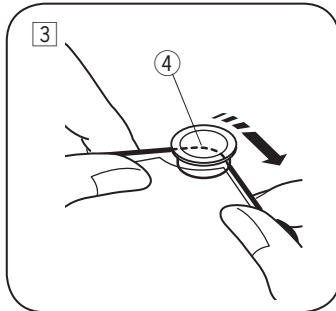
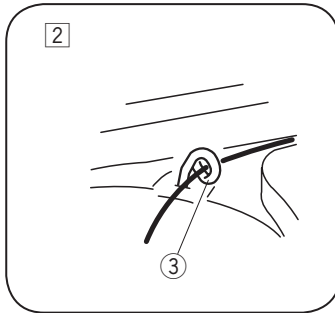
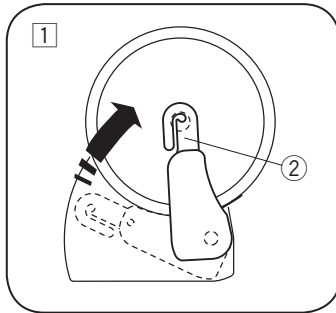
Raise the presser foot. Press the needle up/down button (1) to raise the thread take-up lever to its highest position.

(1) Needle up/down button



CAUTION:

Turn OFF the power switch before threading the machine.



• Threading the machine

(1) Turn the spool thread guide (2) in the direction of arrow as illustrated.

Pass the end of the thread through the spool thread guide (2).

(2) Pass the thread through the thread guide (A) (3).

(3) Draw the thread around the thread guide (B) (4).

(4) Draw the end of the thread down around the check spring holder (5).

(5) Check spring holder

(5) Firmly draw the thread up from right to left over the take-up lever, and down into the take-up lever eye (6).

(6) Pass the thread through the lower thread guide (7). Slide the thread behind the needle bar thread guide on the left (8).

(7) Thread the needle from front to back, or use the needle threader (see page 16).

• Needle Threader



CAUTION:

Turn OFF the power switch when using the needle threader.

- 1 Lower the presser foot. Raise the needle to its highest position. Pull down the needle threader knob ① as far as it will go. The hook comes out through the needle eye from behind.

① Knob

- 2 Draw the thread from guide (a) ③ to guide (b) ④ and under the hook ②. Draw the thread up along the right side of guide (b) ④ and slip the thread in between guide (b) and the holder plate ⑤.

② Hook

③ Guide (a)

④ Guide (b)

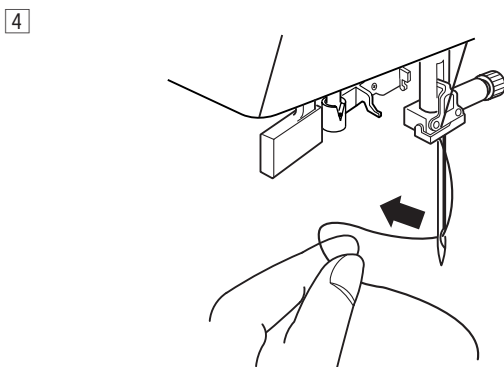
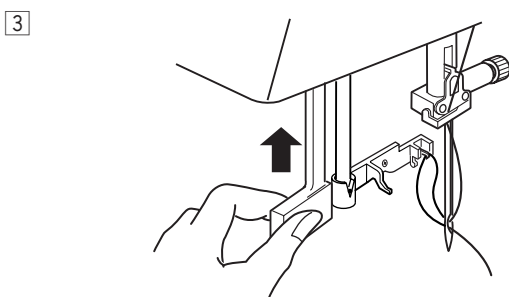
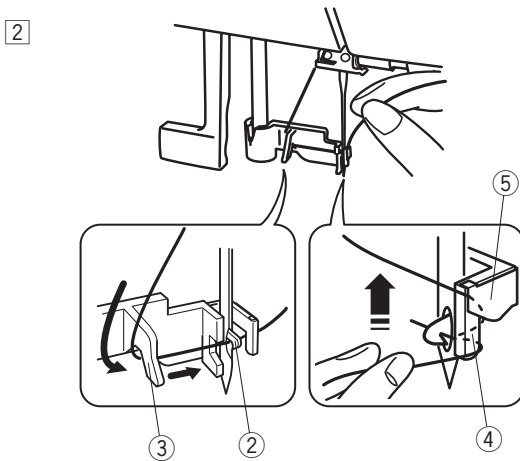
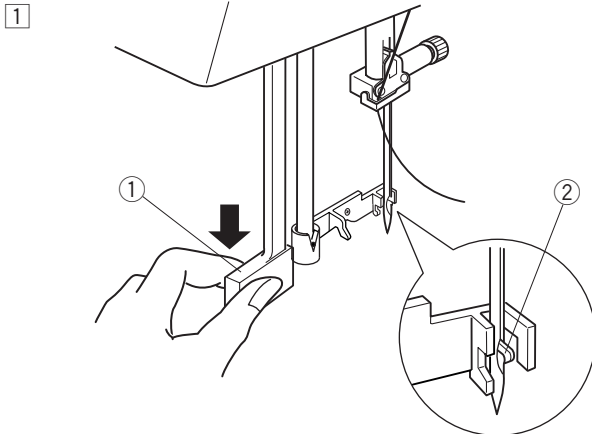
⑤ Holder plate

- 3 Raise the knob in the direction of the arrow, drawing the thread loop through the needle.

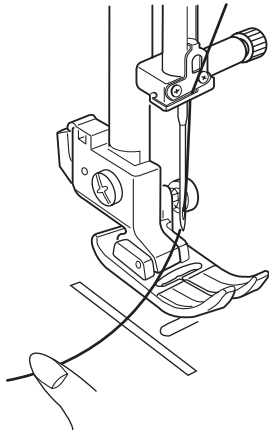
- 4 Pull the thread through the needle eye.

NOTE:

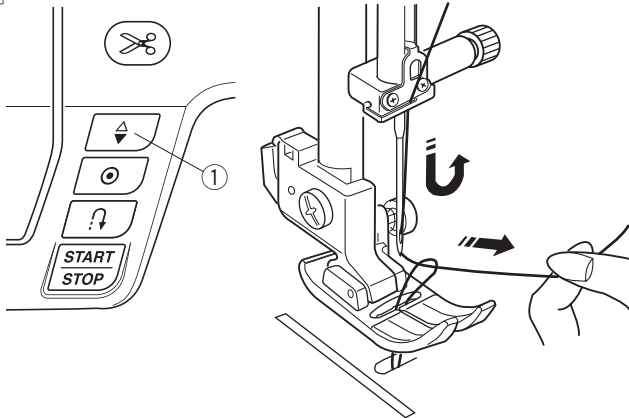
The needle threader can be used with a #11 to #16 needle or a blue tipped needle. Thread sizes 50 to 90 are recommended.



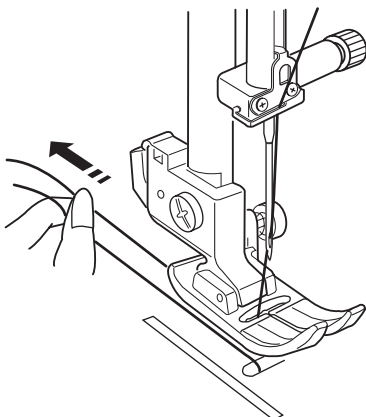
1



2



3



• Drawing up the Bobbin Thread

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

- 2 Press the needle up/down button ① twice to lower and raise the needle to pick up the bobbin thread.

① Needle up/down button

- 3 Pull both threads 4" to 6" (10 to 15 cm) under and behind the presser foot.

Adjusting the Needle Thread Tension

• 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 the seam, notice that the stitches are evenly balanced.

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.

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

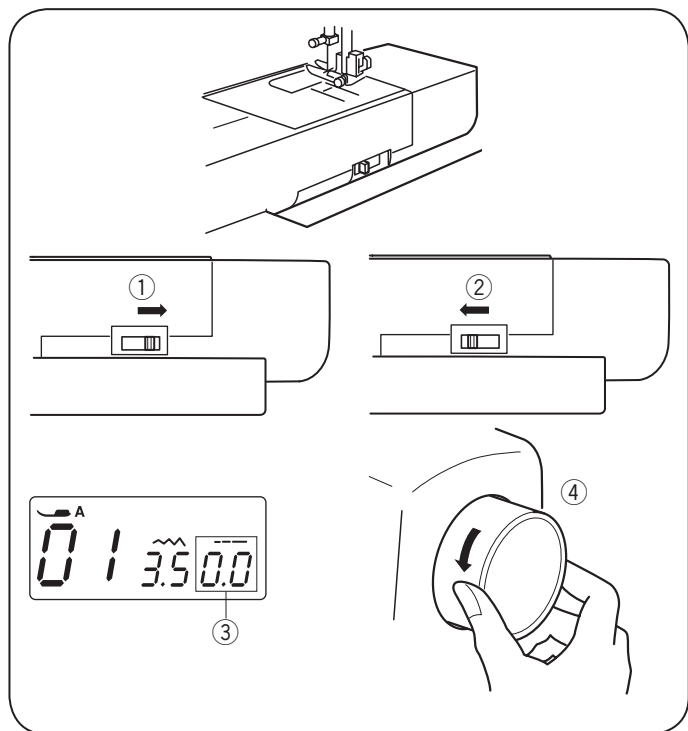
- ① Needle thread (top thread)
- ② Bobbin thread (bottom thread)
- ③ To loosen tension
- ④ Right side (top side) of fabric
- ⑤ Wrong side (bottom side) of fabric

The bobbin thread shows through on the right 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 tension
- ④ Right side (top side) of fabric
- ⑤ Wrong side (bottom side) of fabric

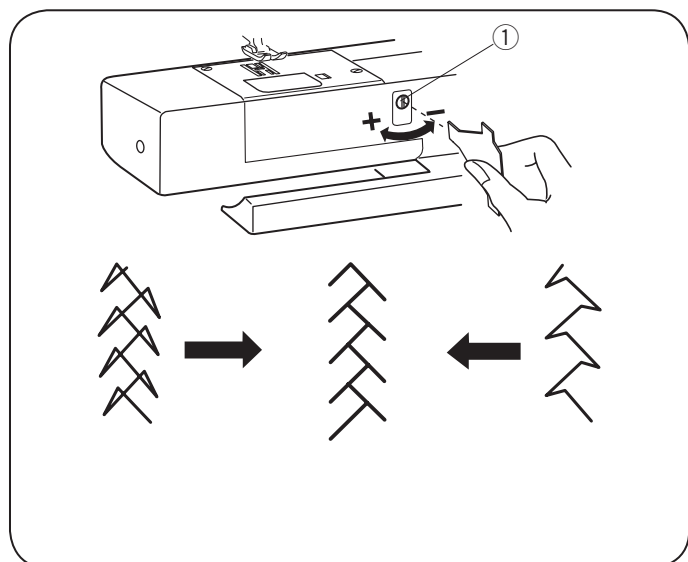
The needle thread shows through on the wrong side of the fabric, and the stitch feels bumpy. Turn the dial to a higher tension setting number to tighten the needle thread tension.



Dropping or Raising the Feed Dog

The drop feed lever is located underneath the free arm bed on the back of the machine.

- ① To drop the feed dog, push the lever in the direction of the arrow ①. Set the stitch length value at "0.0" ③.
- ② To raise the feed dog, push the lever in the direction of the arrow ②, as illustrated, and turn the handwheel ④ toward you. The feed dog must be up for normal sewing.



Correcting Distorted Stretch Stitch Patterns

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

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

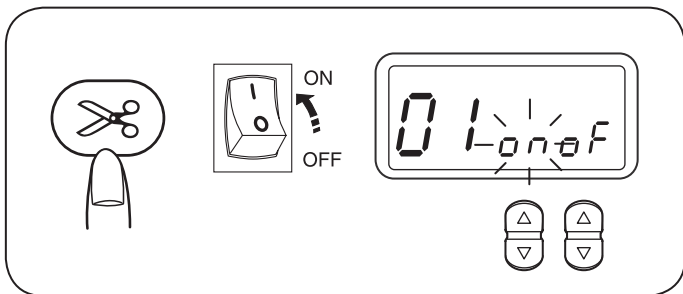
If stretch patterns are distorted, correct them with the feed adjusting screw.

- ① Feed adjusting screw

• Stretch stitch pattern (Example: stitch pattern 13)

If the pattern is compressed, turn the feed adjusting screw in the direction of "+".

If the pattern is drawn out, turn the feed adjusting screw in the direction of "-".



Setting Mode

To enter the setting mode, press and hold the thread cutter button and turn the power switch on until the setting mode screen appears. The LCD display will show "01", "on" and "oF", and the "on" mark will blink. In this mode you can set the following machine functions.

• Buzzer sound setting

The buzzer sound can be turned on or off using the buzzer sound setting.

Enter the setting mode.

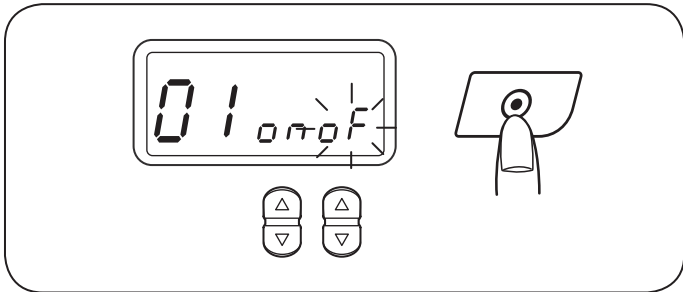
The default buzzer sound setting is "ON".

To turn the buzzer sound off, press the stitch length adjusting button "Δ", and the "oF" mark will blink.

To turn the buzzer sound on, press the stitch width adjusting button "Δ", and the "on" mark will blink.

Press the auto-lock button to apply the buzzer sound setting.

* Caution buzzer sound cannot be turned off.



• Needle stop position setting

You can set the needle position to up or down when the machine stops.

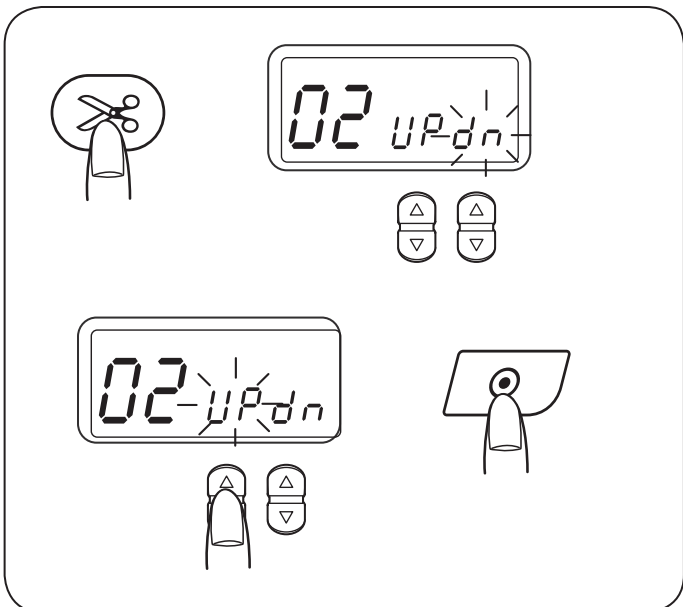
Enter the setting mode. Press the thread cutter button to enter the up/down needle position setting.

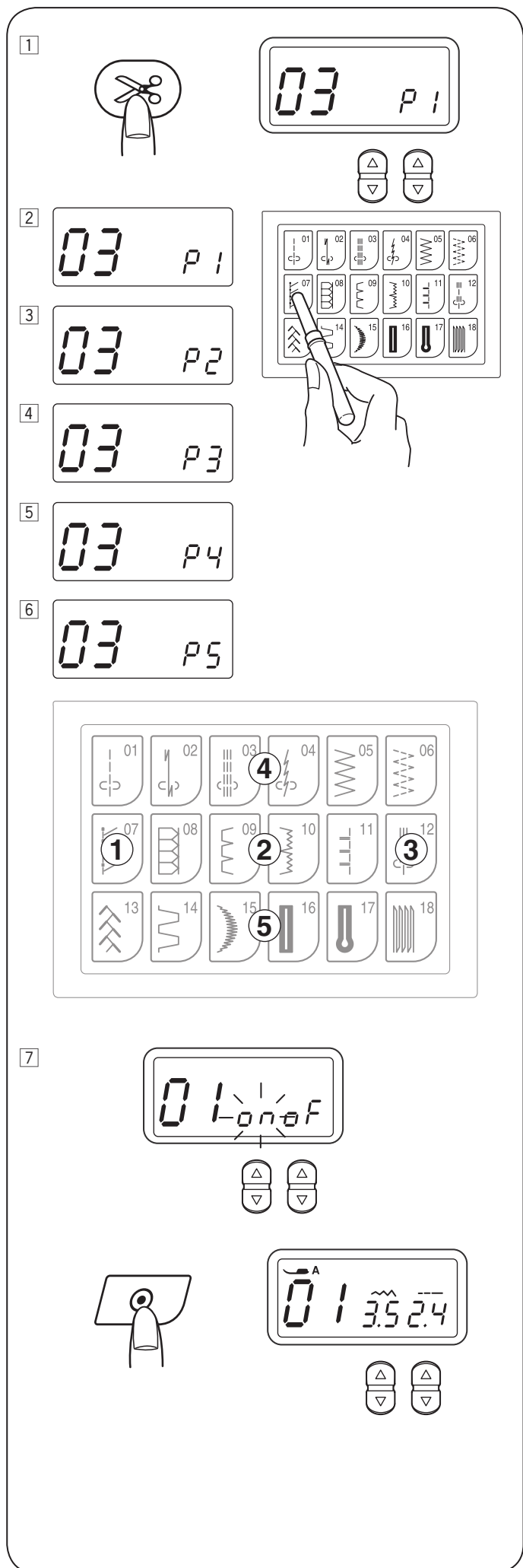
The default up/down needle position setting is "dn" (down).

To change the needle position to up, press the stitch width adjusting button "Δ" and the "UP" mark will blink.

To change the needle position to down, press the stitch length button "Δ" and the "dn" mark will blink.

Press the auto-lock button to apply the needle stop position setting.





• Key position adjustment

You can adjust the key position when you think the key sensor is off from the actual key position.

- 1 Enter the setting mode. Press the thread cutter button twice to enter the key position adjustment.
- 2 The key position adjustment screen appears and "P1" is shown on the right side of the screen. With a buttonhole opener, press ① on the touch panel of your machine.
- 3 "P2" will be shown on the LCD display. Press the ② on the touch panel.
- 4 "P3" will be shown on the LCD display. Press the ③ on the touch panel.
- 5 "P4" will be shown on the LCD display. Press the ④ on the touch panel.
- 6 "P5" will be shown on the LCD display. Press the ⑤ on the touch panel.
- 7 The screen will back to the setting screen with a buzzer sound. Press the auto-lock button to apply the adjustment.

SECTION III. BASIC SEWING

Straight Stitch Sewing

- ① Stitch pattern: 01
- ② Needle thread tension: 2 to 6
- ③ Presser foot: Zigzag foot A

• 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. Start the machine. Gently guide the fabric along a seam guide line letting the fabric feed naturally.

NOTE:

Pull the threads to the left when using Satin stitch foot F or Automatic buttonhole foot R.

• Finishing sewing

To fasten the ends of a seam, press the reverse stitch button ① and sew several reverse stitches. Press the thread cutter button ② to cut the threads.

- ① Reverse stitch button
- ② Thread cutter button

Raise the presser foot.

Use the thread cutter ③ on the face plate to cut thicker threads (#30 or thicker).

- ③ Thread cutter

• Turning square corners

To maintain a 5/8" seam allowance after turning a corner, stop the machine when the front edge of the fabric reaches the cornering guide lines ① and raise the presser foot. Turn the fabric counterclockwise 90°, lower the presser foot and begin stitching in a new direction.

- ① Cornering guide

• Sewing from the edge of thick fabric

The black button ① on the zigzag foot locks the foot in the horizontal position.

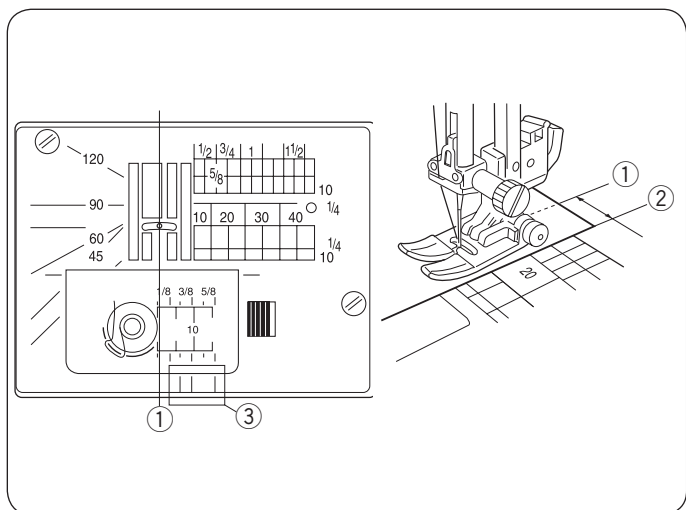
This is helpful when starting to sew from the far edge of thick fabrics ② or sewing across a hem.

Lower the needle into the fabric at the point where you wish to start sewing.

Lower the foot while pushing in the black button ①. The foot is locked in the horizontal position to avoid slipping.

The button is released automatically after sewing a few stitches.

- ① Black button
- ② Thick fabrics



• Needle Plate

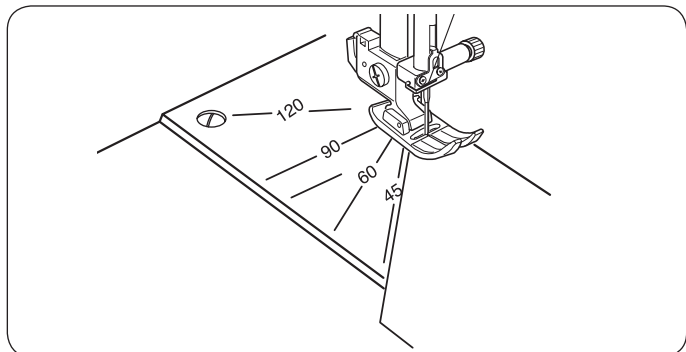
The seam guides on the needle plate and the hook cover help you to measure seam allowance. The numbers on the needle plate indicate the distance between the center needle position ① and the edge of the fabric ②.

- ① Center needle position
- ② Edge of the fabric

Number	10	20	30	40	1/2	5/8	3/4	1	1 1/2
Distance (cm)	1.0	2.0	3.0	4.0	—	—	—	—	—
Distance (inch)	—	—	—	—	1/2	5/8	3/4	1	1 1/2

The front seam guides ③ are marked at 1/4", 3/8" and 5/8" from the center needle position ①.

- ③ Front seam guides



• Angle scale on the needle plate

You can easily seam patchwork pieces at the desired angles without marking, by using the unique angle scales on the needle plate.

The angle scales are marked at 45, 60, 90 and 120 degrees.

• Adjusting the needle drop position

The needle drop position can be adjusted for straight stitch patterns 01, 02, 03 and 12.

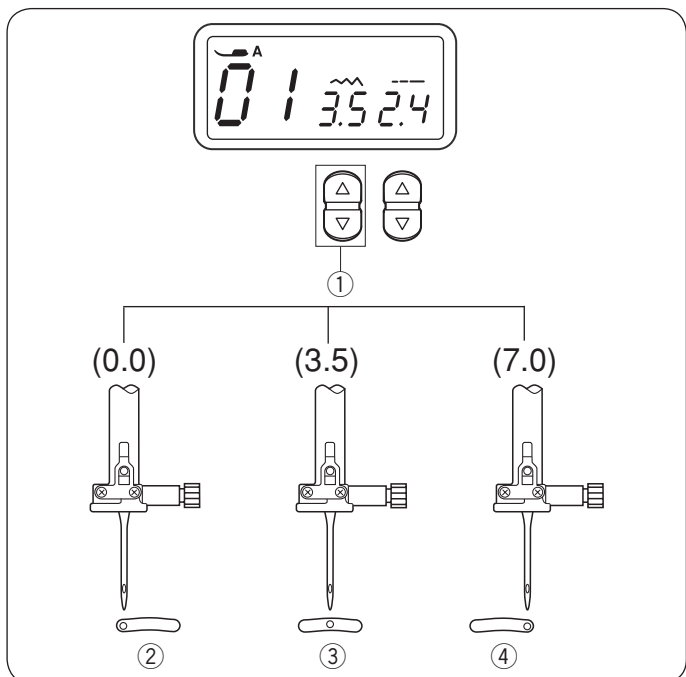


Press the stitch width adjustment button to change the needle drop position.

Press "△" to move the needle to the right ④.

Press "▽" to move the needle to the left ②.

- ② Left (0.0)
- ③ Middle (3.5)
- ④ Right (7.0)



• Adjusting the stitch length

Press the stitch length adjustment button ① to change the stitch length ②.

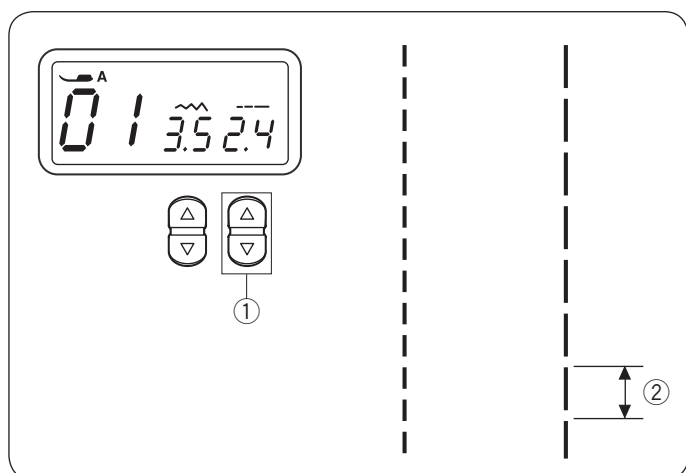
Press "▽" to decrease stitch length.

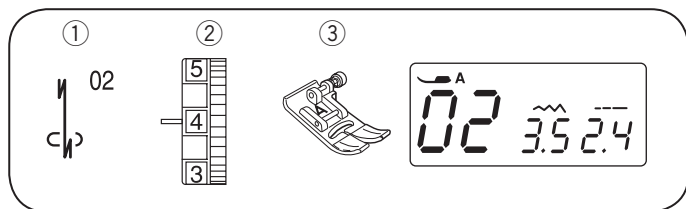
Press "△" to increase stitch length.

The stitch length can be varied from 0.0 to 5.0.

NOTE:

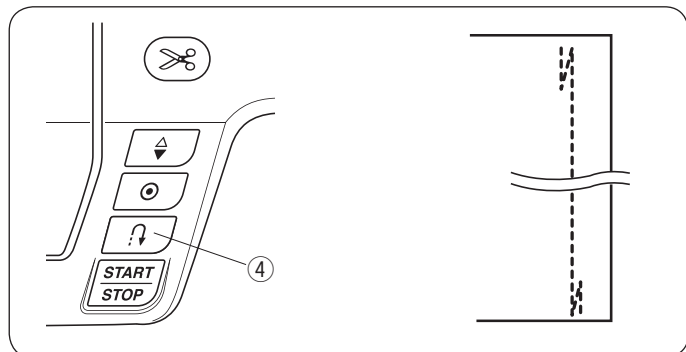
Reverse stitch length cannot be set longer than 4.0.





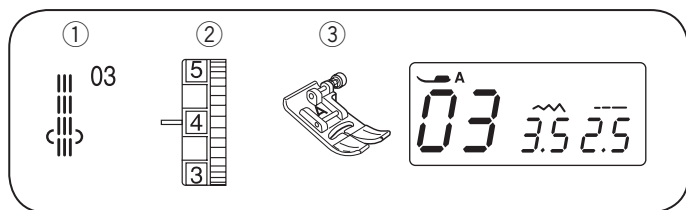
Lock-a-Matic Stitch

- ① Stitch pattern: 02
- ② Needle thread tension: 2 to 6
- ③ Presser foot: Zigzag foot A
- ④ Reverse stitch button



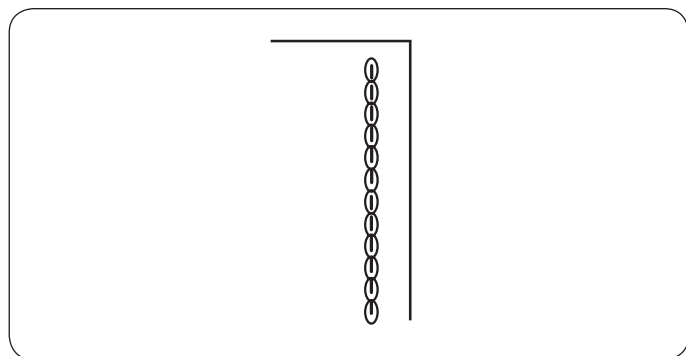
Use this stitch to secure the beginning and the end of a seam with backstitching.

When you reach the end of the seam, press the reverse stitch button ④ once. The machine will sew four reverse stitches, four forward stitches, and then stop sewing automatically.

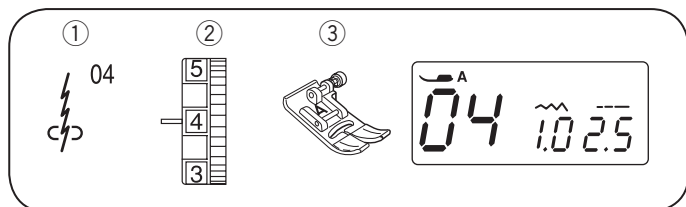


Triple Stretch Stitch

- ① Stitch pattern: 03
- ② Needle thread tension: 2 to 6
- ③ Presser foot: Zigzag foot A

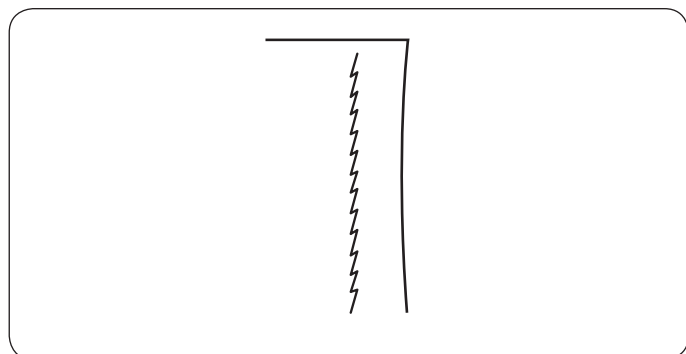


This strong, durable stitch is recommended when both elasticity and strength are necessary in order to ensure comfort and durability. Use it to reinforce areas such as crotch and armhole seams. Also use for extra reinforcement when constructing items such as backpacks.

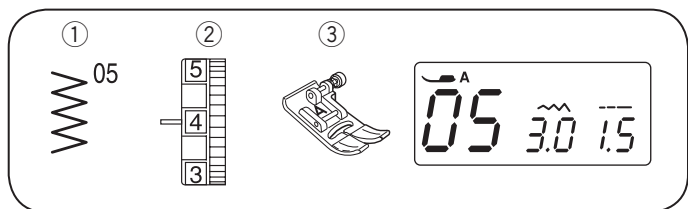


Stretch Stitch

- ① Stitch pattern: 04
- ② Needle thread tension: 3 to 6
- ③ Presser foot: Zigzag foot A

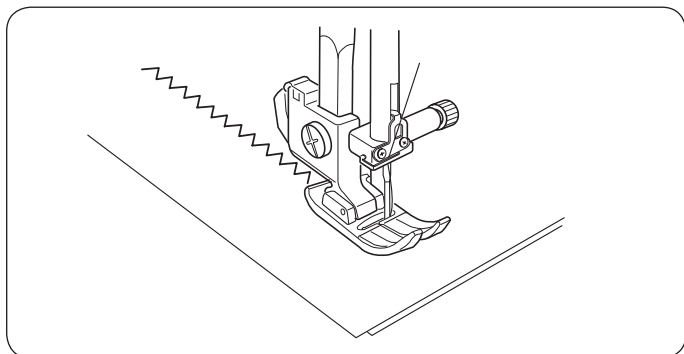


This stitch is a narrow stretch stitch designed to eliminate puckering on knit fabrics and bias seams, while permitting the seam to be pressed completely open flat.



Zigzag Stitch

- | | |
|--------------------------|---------------|
| ① Stitch pattern: | 05 |
| ② Needle thread tension: | 2 to 5 |
| ③ Presser foot: | Zigzag foot A |

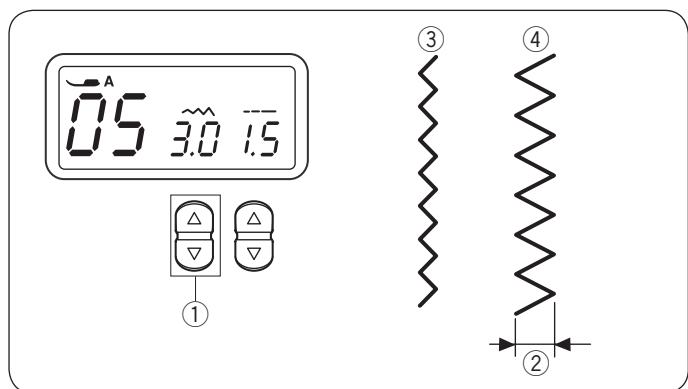


The zigzag stitch is one of the most useful and versatile stitches.

It is used for overcasting, mending, appliqué, and also used as a decorative stitch.

NOTE:

Use an interfacing when sewing on stretch fabrics such as knit, jersey or tricot.



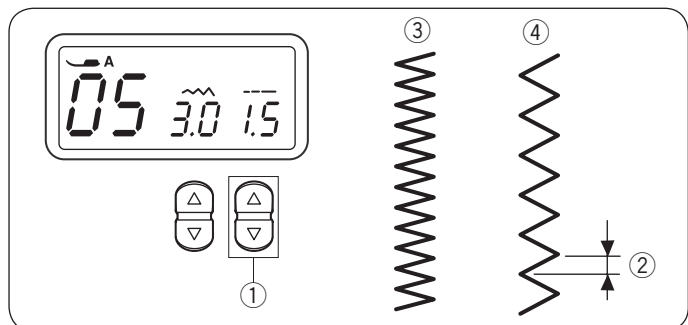
• Adjusting the stitch width

Press the stitch width adjustment button ① to change the stitch width ②.

Press “▽” to decrease stitch width ③.

Press “△” to increase stitch width ④.

The stitch width can be varied from 0.0 to 7.0.



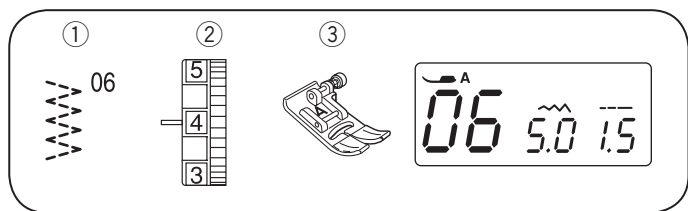
• Adjusting the stitch length

Press the stitch length adjustment button ① to change the stitch length ②.

Press “▽” to decrease stitch length ③.

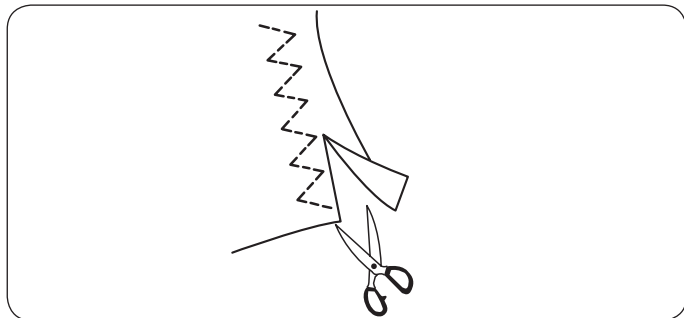
Press “△” to increase stitch length ④.

The stitch length can be varied from 0.2 to 5.0.



Multiple Zigzag

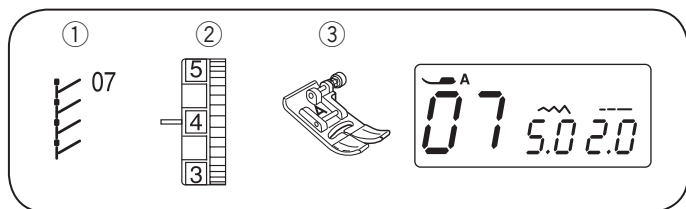
- | | |
|--------------------------|---------------|
| ① Stitch pattern: | 06 |
| ② Needle thread tension: | 3 to 6 |
| ③ Presser foot: | Zigzag foot A |



This stitch is used to finish a raw edge of synthetics and other fabrics that tend to pucker.

Place your fabric to allow a 5/8" (1.5 cm) seam. Trim the excess close to the stitching. Be careful not to cut the stitches.

The stitch is also excellent for darning and mending tears.

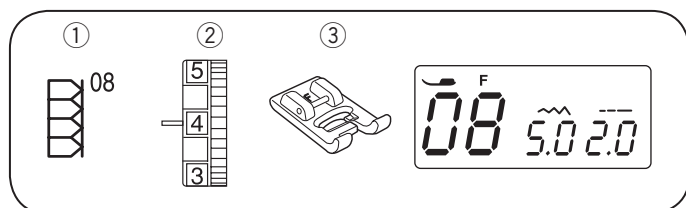
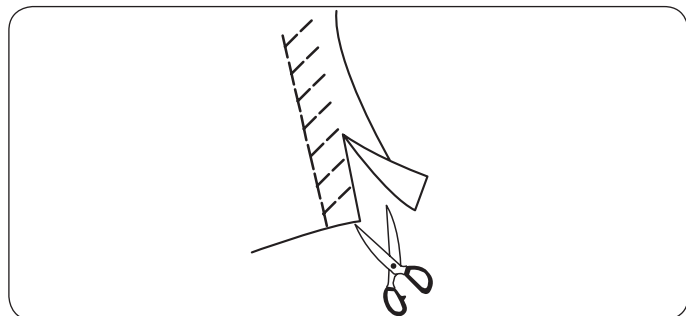


Super Stretch Stitch

- ① Stitch pattern: 07
- ② Needle thread tension: 3 to 6
- ③ Presser foot: Zigzag foot A

This stitch is recommended for sewing fabrics such as swimwear and stretch velour as it provides great stretchability and strength. Seams lie flat and do not lose their shape.

Place the fabric edges together under the presser foot. Trim away any excess seam allowance.

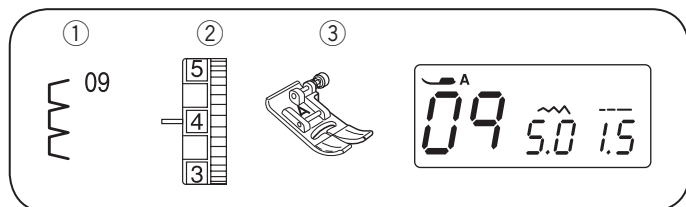
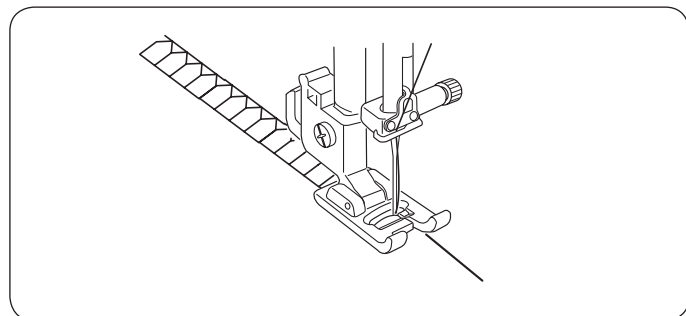


Super Overlock Stitch

- ① Stitch pattern: 08
- ② Needle thread tension: 3 to 7
- ③ Presser foot: : Satin stitch foot F

This industrial inspired overlock stitch is excellent for assembling and finishing fabrics together in one step. Apply ribbing to knits and garment retains its shape. Elna invented this stitch in 1982.

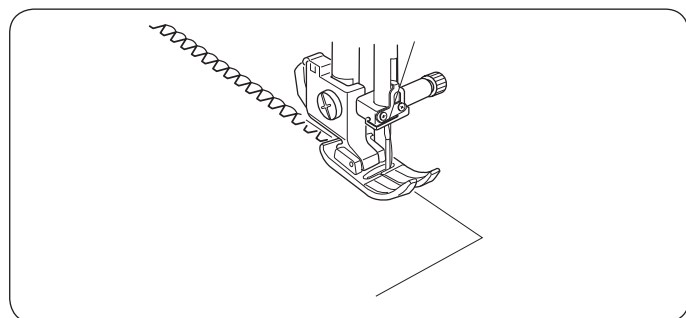
Place the fabric edges together under the presser

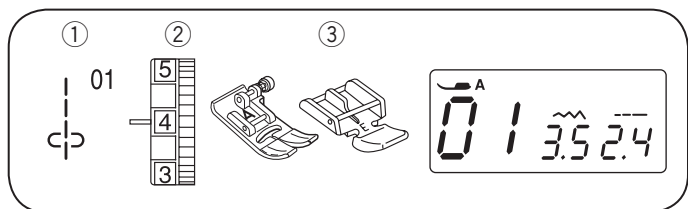


Overedge Stitch

- ① Stitch pattern: 09
- ② Thread tension dial: 3 to 7
- ③ Presser foot: : Zigzag foot A

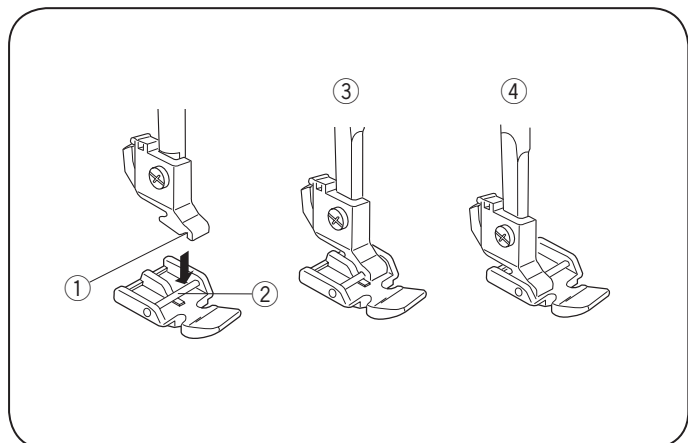
Place the fabric edges so needle just clears edge when it swings off the fabric to the right.





Zipper Sewing

- | | |
|--------------------------|--------------------------------|
| ① Stitch pattern: | 01 |
| ② Needle thread tension: | 1 to 4 |
| ③ Presser foot: | Zigzag foot A
Zipper foot E |



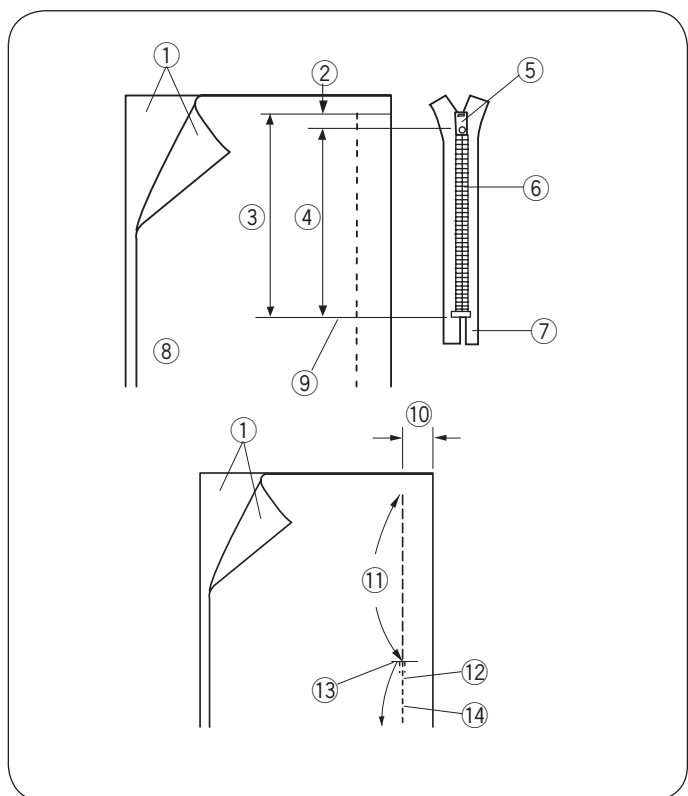
• Attaching the zipper foot

Fit the pin ② on the zipper foot into the groove ① in the foot holder.

To sew the left side of the zipper, attach the zipper foot with the right-hand side of the pin ③.

To sew the right-side of the zipper, attach the zipper foot with the left-hand side of the pin ④.

- ① Groove
- ② Pin
- ③ To sew left side
- ④ To sew right side



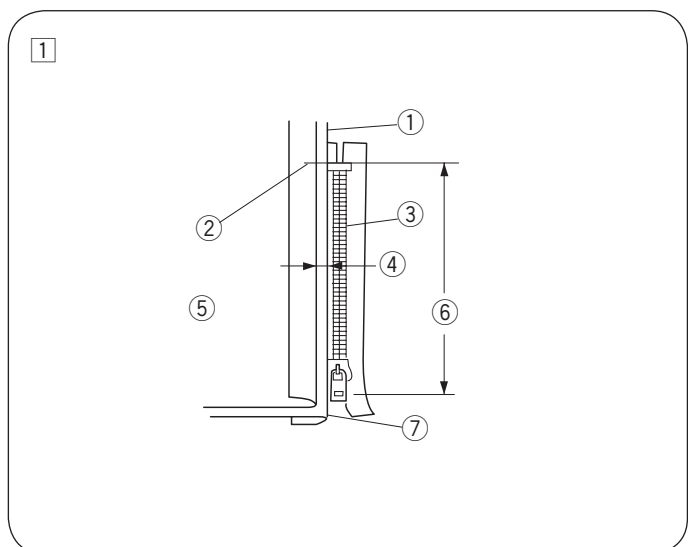
• Fabric preparation

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

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

Place the right sides of the fabric together and sew up to the end of the zipper opening, with a 13/16" (2 cm) seam allowance. Reverse the stitch to fasten the seam. Attach the zigzag foot and baste along the zipper opening with the stitch length 4.5.

- ⑩ 13/16" (2 cm)
- ⑪ Zipper opening (Basting)
- ⑫ Reverse stitches
- ⑬ End of the opening
- ⑭ Seam



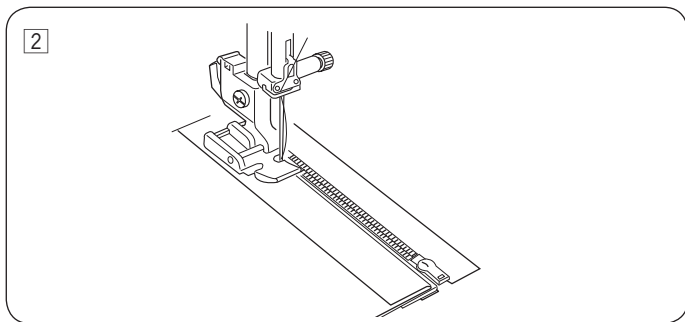
NOTE:

Loosen the thread tension to one (1) for basting.

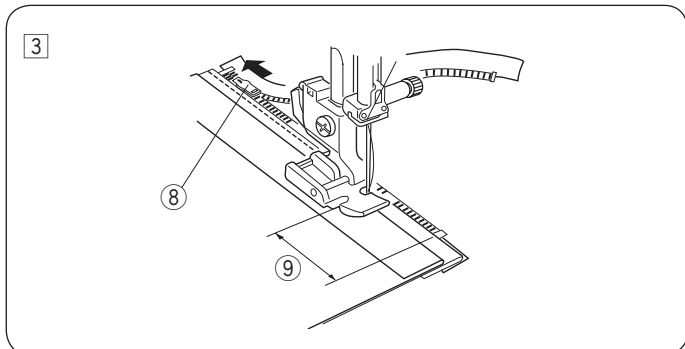
• Start sewing

- ① Fold up the upper seam allowance. Fold back the bottom seam allowance to form a 1/8" (0.3 cm) fold. Place the zipper teeth next to the fold and pin it in place.

- ① Bottom fabric
- ② End of the zipper opening
- ③ Zipper teeth
- ④ 1/8" (0.3 cm)
- ⑤ Wrong side of the upper fabric
- ⑥ Opening size
- ⑦ Fold

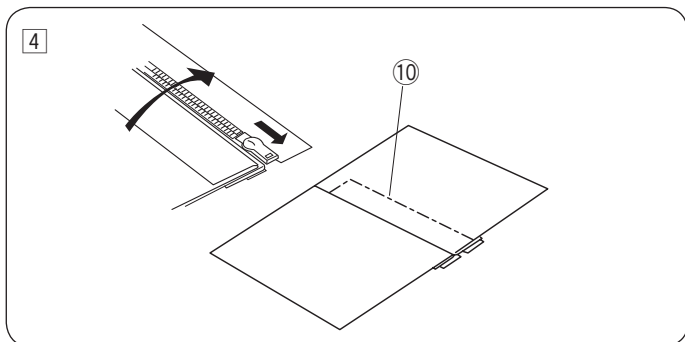


- 2 Attach the zipper foot with the pin on the right. Sew through all the layers from the end of the zipper opening, guiding the zipper teeth along the edge of the foot.



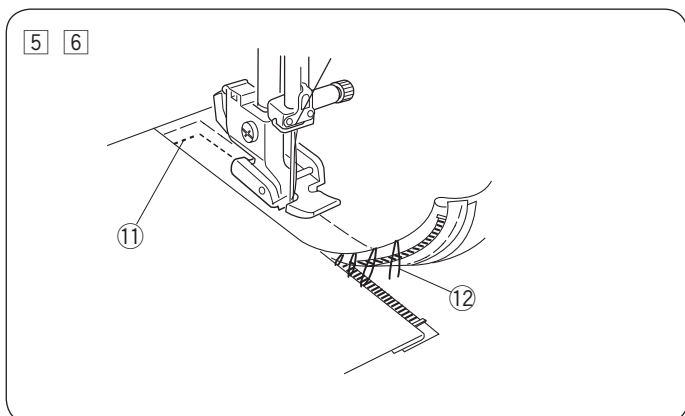
- 3 Stop the machine 2" (5 cm) before the foot reaches the slider on the zipper tape. Raise the presser foot. Open the zipper then lower the foot and stitch the remainder of the seam.

- 8 Slider
- 9 2" (5 cm)



- 4 Close the zipper and open the upper fabric flat over the zipper. Baste the upper fabric and zipper tape together.

- 10 Basting stitch

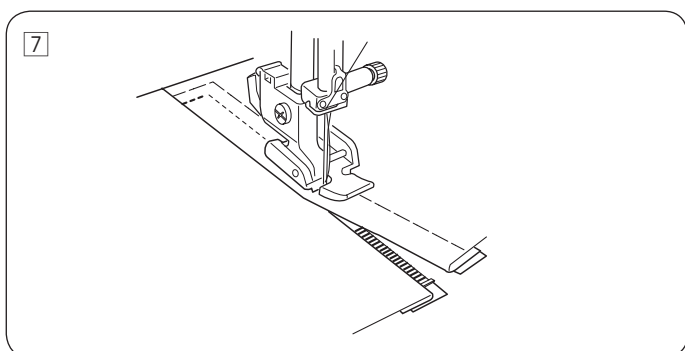


- 5 Detach the foot and attach it with the pin on the left. Backstitch across the end of the opening to 3/8" (1 cm). Turn the fabric 90 degrees and stitch through the garment and zipper tape.

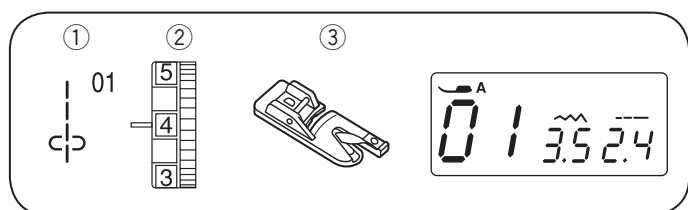
- 11 Backstitch

- 6 Stop the machine 2" (5 cm) before the foot reaches the slider on the zipper tape. Raise the presser foot. Remove the basting stitches.

- 12 Basting stitches

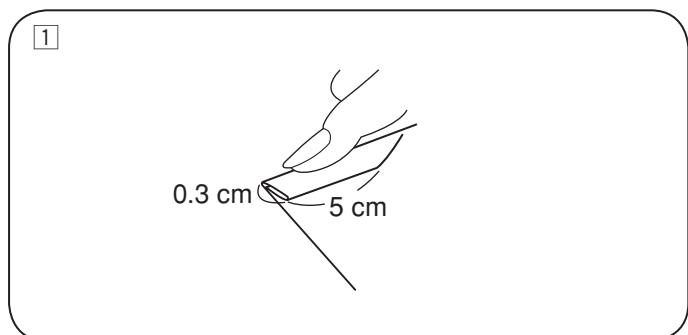


- 7 Open the zipper, then lower the foot and stitch the remainder of the seam. After finished sewing, remove the basting stitches on the upper fabric.

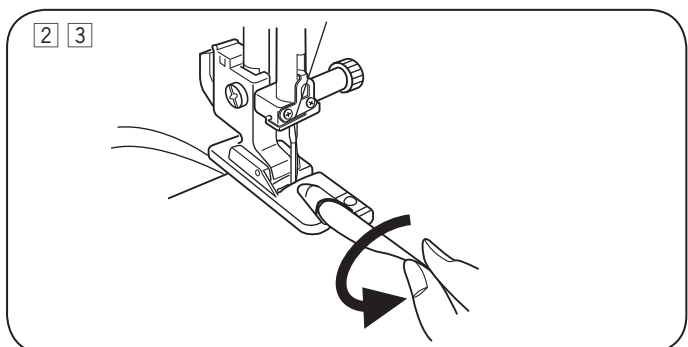


Rolled Hem

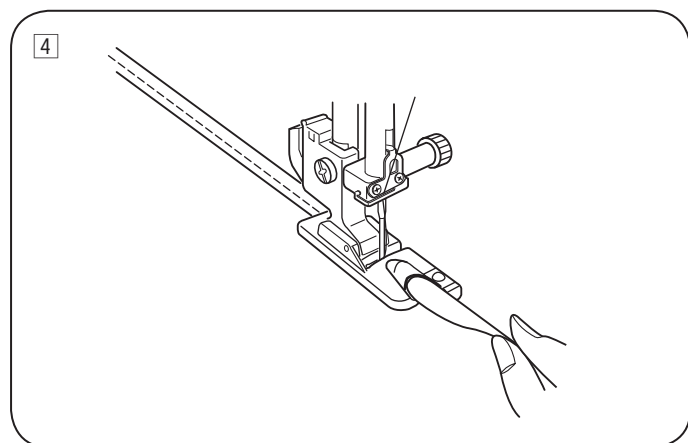
- | | |
|--------------------------|-------------------|
| ① Stitch pattern: | 01 |
| ② Needle thread tension: | 1 to 4 |
| ③ Presser foot: | Rolled hem foot D |



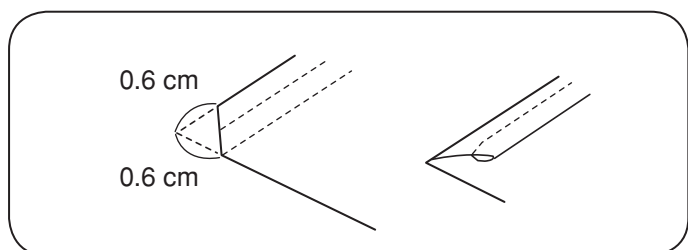
- ① Attach the rolled hem foot D.
Fold the fabric edge twice to form a hem, 0.3 cm (1/8") wide and 5 cm (2") long then press.



- ② Place the fabric aligning the hem edge with the guide of the foot. Turn the hand wheel to lower the needle to the starting point.
Lower the foot and sew several stitches slowly while pulling on the threads to assist feeding the fabric.
- ③ Stop the machine and lower the needle into the fabric. Raise the foot and insert the folded portion of the fabric into the curl of the foot.

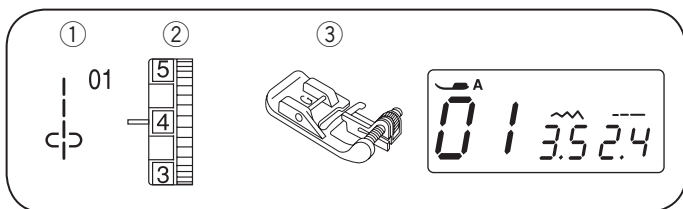


- ④ Lower the foot and sew while lifting the edge of the fabric to keep it feeding into the curl smoothly and evenly.



NOTE:

Lower the foot and sew while lifting the edge of the fabric to keep it feeding into the curl smoothly and evenly.

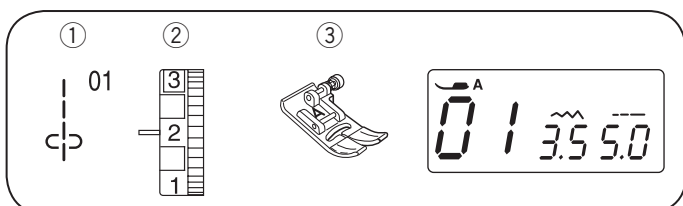
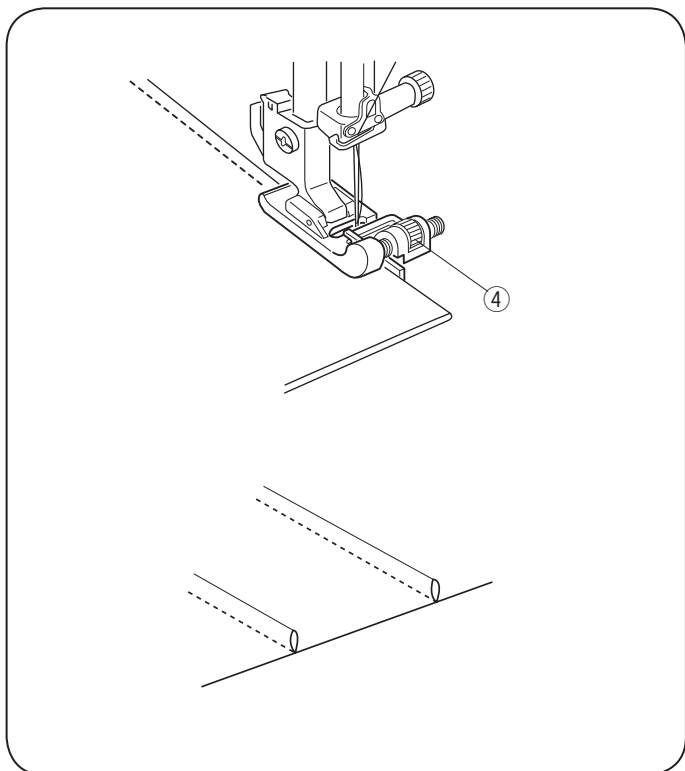


Pintuckis

- ① Stitch pattern: 01
- ② Needle thread tension: 1 to 4
- ③ Presser foot: Blind hem foot G

A beautiful accent to any project. Pintucks should be added to your fabric before cutting out the pattern piece.

Use a washable marker to draw parallel lines for pintucks on fabric right side. Fold fabric on first line with wrong sides together. Place folded edge against guide on foot. Decide how wide you want the pintucks and move the thumb nut ④ to move the guide. Sew pintuck. Sew remaining pintucks using same method. Remove marking lines. Press pintucks to one side.



Gathering

- ① Stitch pattern: 01
- ② Needle thread tension: 1 to 3
- ③ Presser foot: Zigzag foot A

Gathering/shirring evenly distributes fullness in an area with very tiny pleats. Gathering is one row or two parallel rows. Shirring is three or more parallel rows. Light to medium weight fabrics provide the best results.

Decrease needle thread tension to between 1 and 3.

Increase stitch length to 5.0.

Sew two rows of parallel stitches. Sew first row next to raw edge using foot edge as guide. Sew second row next to first row using foot edge as guide. Leave long thread tails at beginning and end of each row.

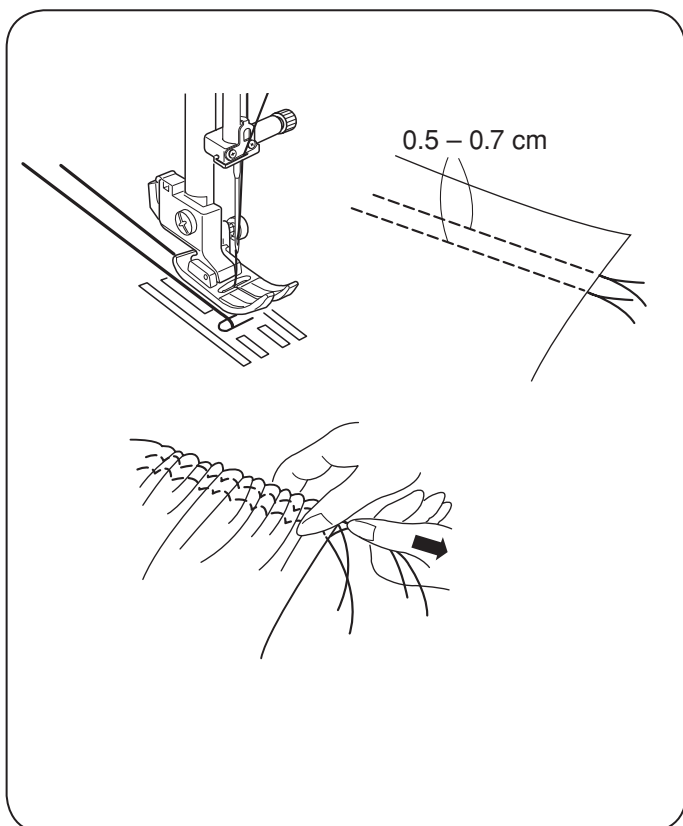
Pull the bobbin threads simultaneously from each end of the fabric until the desired amount is gathered. Knot the threads at each end and distribute the gathers evenly.

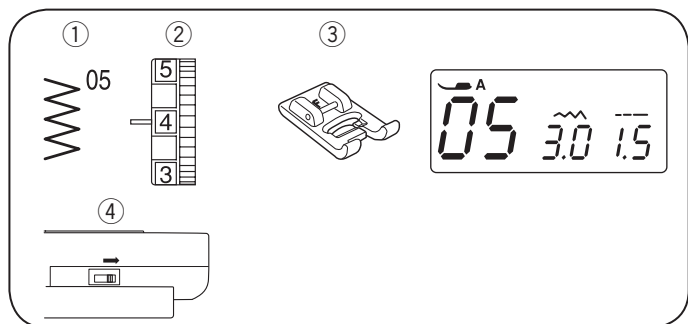
Reset needle thread tension to 4 and decrease stitch length to 2.4.

Sew between two rows of stitching to secure gathering.

OR

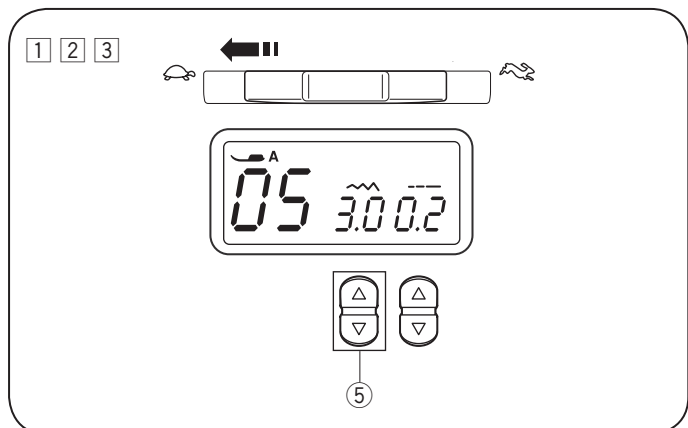
Lay gather fabric over flat fabric and sew the two fabrics together directly on the second row of gathering stitches.



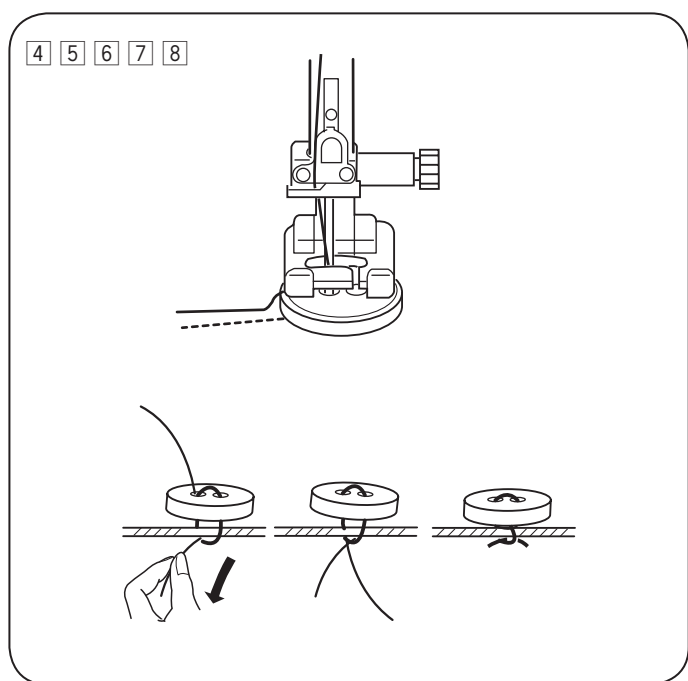


Button Sewing

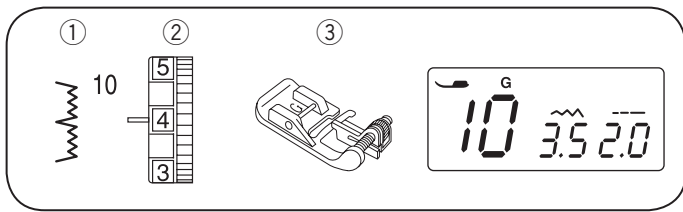
- | | |
|--------------------------|---------------------|
| ① Stitch pattern: | 05 |
| ② Needle thread tension: | 3 to 7 |
| ③ Presser foot: | Satin stitch foot F |
| ④ Feed dog: | Dropped |



- ① Lower the feed dog ④.
- ② Slide the speed control slider to the left to decrease the sewing speed.
- ③ Select stitch pattern 05.
Press the stitch length adjusting buttons to set the stitch length to "0.2".
Press the stitch width adjusting buttons ⑤ to set the stitch width according to the distance of the holes of the button.

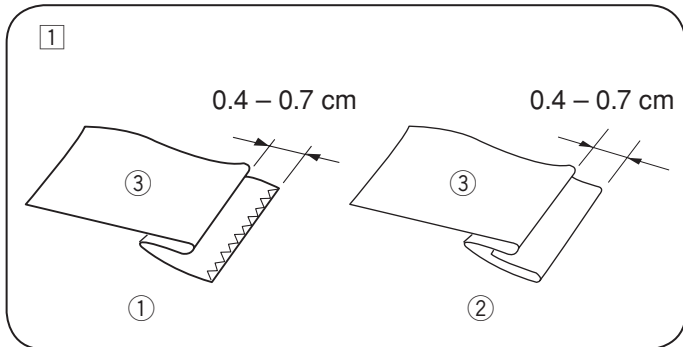


- ④ Adjust the stitch width so the needle will enter the left hole of the button.
 - ⑤ Turn the handwheel so that the needle will enter the right hole of the button. Readjust the stitch width if necessary.
 - ⑥ Stitch several times.
 - ⑦ After you finish sewing, cut the threads but leave 3" to 4" of threads at the end.
 - ⑧ With a hand sewing needle, draw the top thread to the reverse side of the fabric and knot the threads.
- * After the button sewing is completed, raise the feed dogs for normal sewing.



Blind Hem

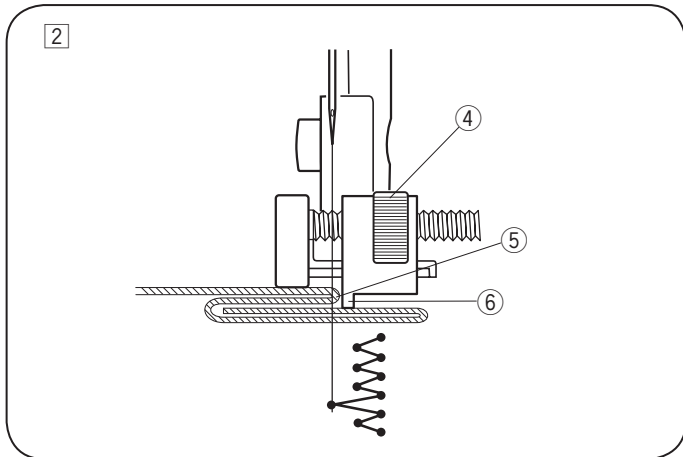
- | | |
|--------------------------|------------------|
| ① Stitch pattern: | 10 |
| ② Needle thread tension: | 1 to 4 |
| ③ Presser foot: | Blind hem foot G |



- ① Use the same color thread as the fabric.
On heavy weight fabrics that ravel, the raw edge should be overcast first.

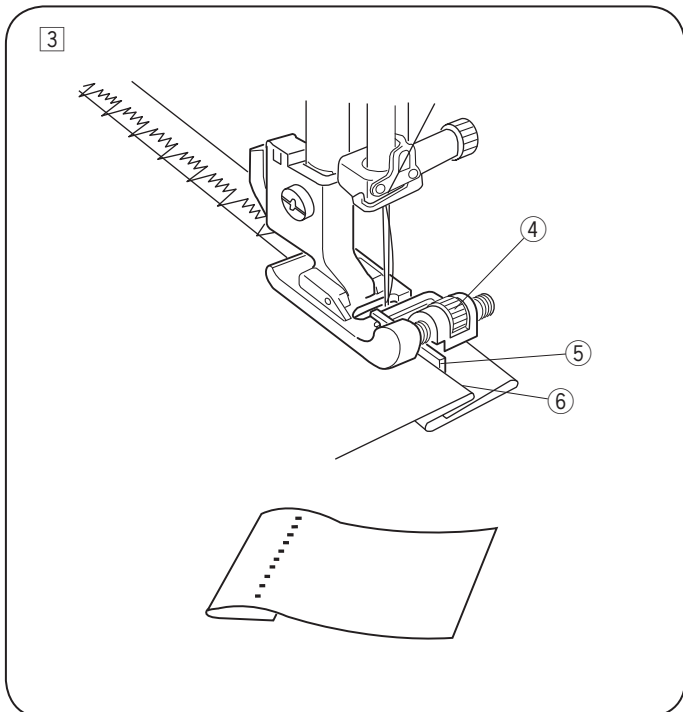
Fold the hem, as illustrated.

- ① Heavy weight fabric
- ② Light weight fabric
- ③ Wrong side of the fabric



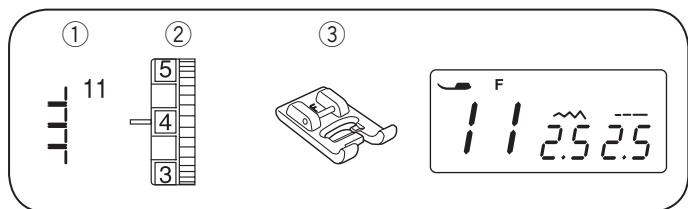
- ② There is a sliding guide screw on the blind hem foot that allows you to control where the needle pierces the edge of the fabric fold.

Adjust the screw so that at the leftmost position of the stitch, the needle just pierces the edge of the fold. If the needle pierces too far left, the stitches will show on the right side of the fabric.



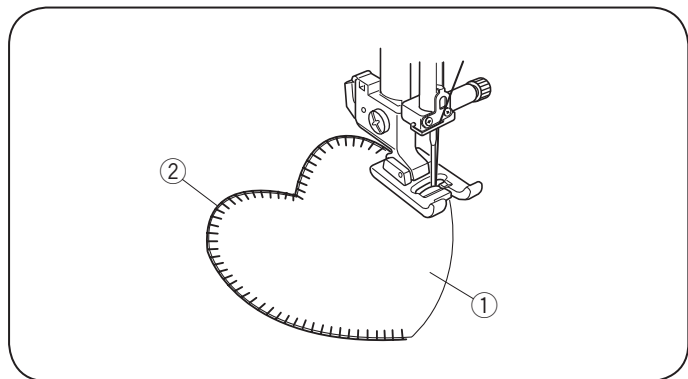
- ③ Lower the presser foot. Sew, guiding the folded edge along the guide in the foot.
Open the fabric after sewing.

- ④ Screw
- ⑤ Guide
- ⑥ Folded edge



Applique

- ① Stitch pattern: 11
- ② Needle thread tension: 1 to 4
- ③ Presser foot: Satin stitch foot F



Place an applique on the fabric and baste or pin it in place.

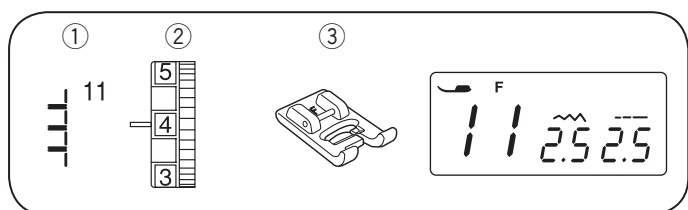
Reduce the foot pressure.

Sew while guiding the fabric so the needle falls along the outer edge of the applique.

- ① Applique
- ② Outer edge

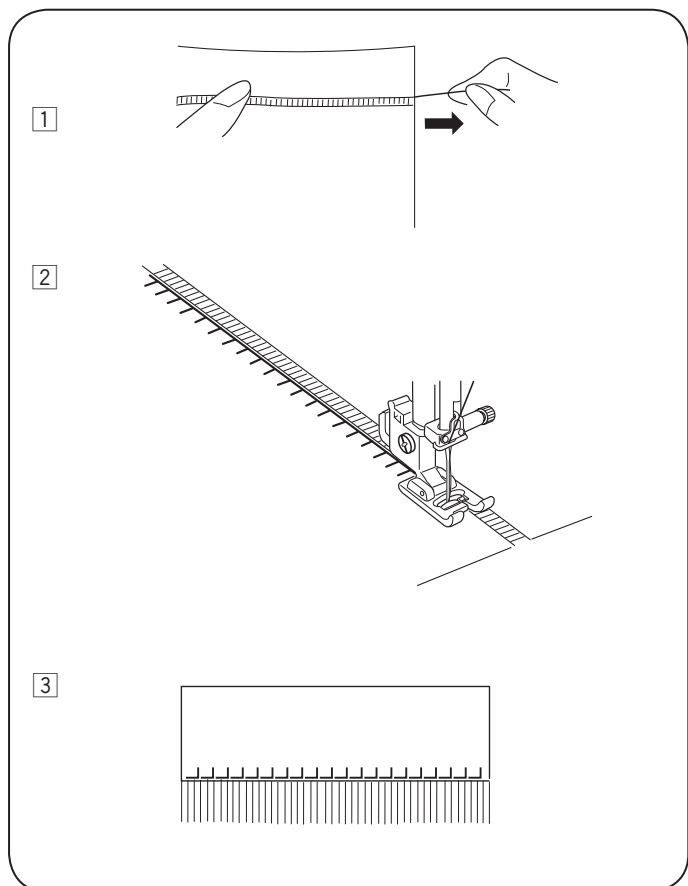
When turning around a corner, stop the machine with the needle at the outer edge of applique.

Raise the presser foot and pivot the fabric around the needle to change the sewing direction.



Fringing

- ① Stitch pattern: 11
- ② Needle thread tension: 3 to 6
- ③ Presser foot: Satin stitch foot F

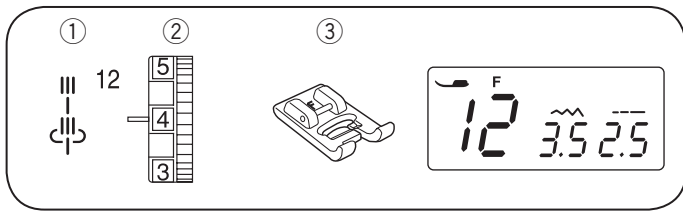


Fringing adds a special touch on table linens and shawls. Choose a firm, woven fabric like linen where threads can be removed easily.

- ① Carefully cut the fabric on the grain. Remove a single strand of yarn or thread where the fringing is to begin.

- ② Sew down the left side so the right hand stitches fall in the open space.

- ③ Remove all excess yarn located to the right of the stitching and create a fringe.

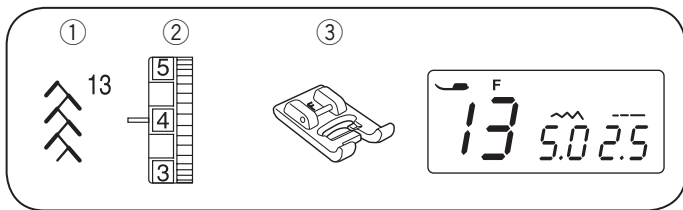


Sculpture Stitch

- ① Stitch pattern: 12
- ② Needle thread tension: 3 to 6
- ③ Presser foot: Satin stitch foot F

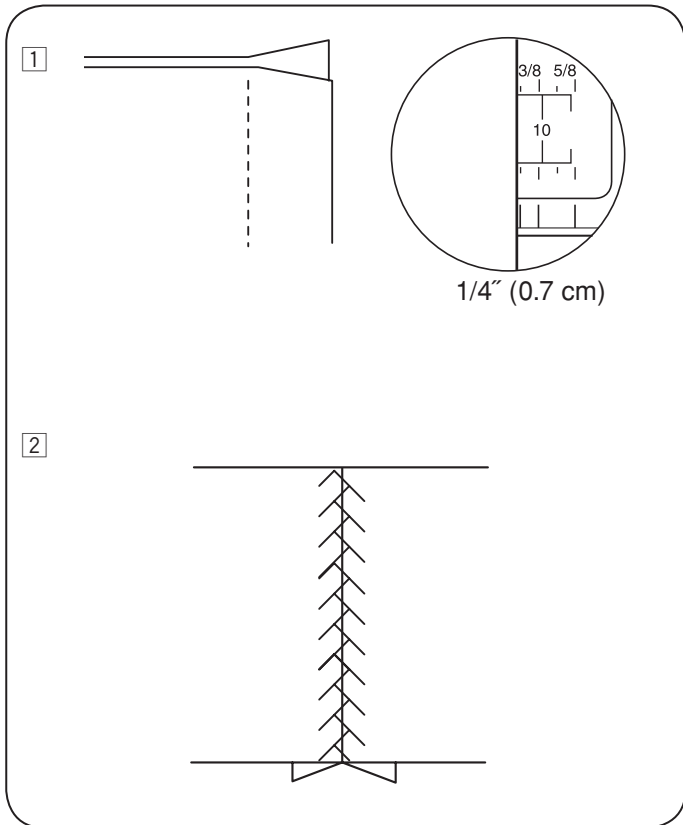


For top stitching and outlining designs.
Sew slowly at the corners.



Patchwork

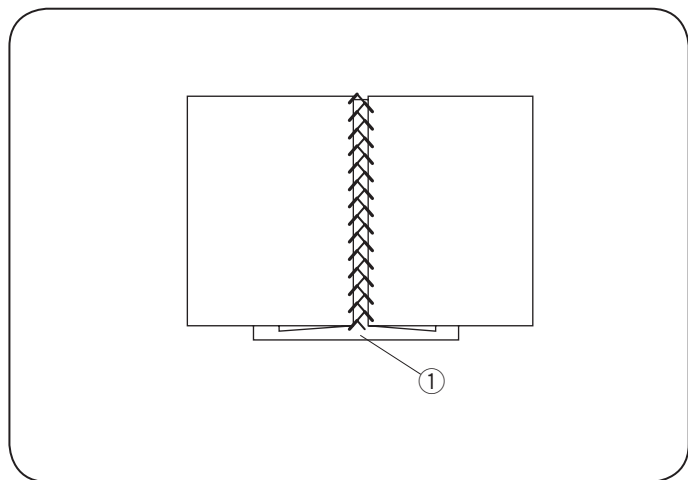
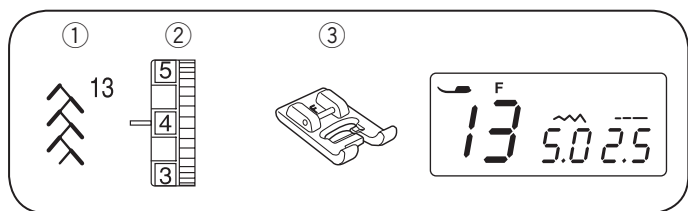
- ① Stitch pattern: 13
- ② Needle thread tension: 3 to 6
- ③ Presser foot: Satin stitch foot F



- 1 A fun method of decorating your quilt (often called "Crazy Quilting") is to sew a patchwork stitch over the opened seam.

Select 1. Attach satin stitch foot F.
Sew a 1/4" straight stitch seam and press seam allowance open.

- 2 Sew pattern #13 on the right side of garment centering over the seam line.



Bridging (Fagoting)

- ① Stitch pattern: 13
- ② Needle thread tension: 3 to 6
- ③ Presser foot: Satin stitch foot F

Two folded edges are joined together by threads over an open area. Use linen, cotton or blend of linen/cotton. Select 013.

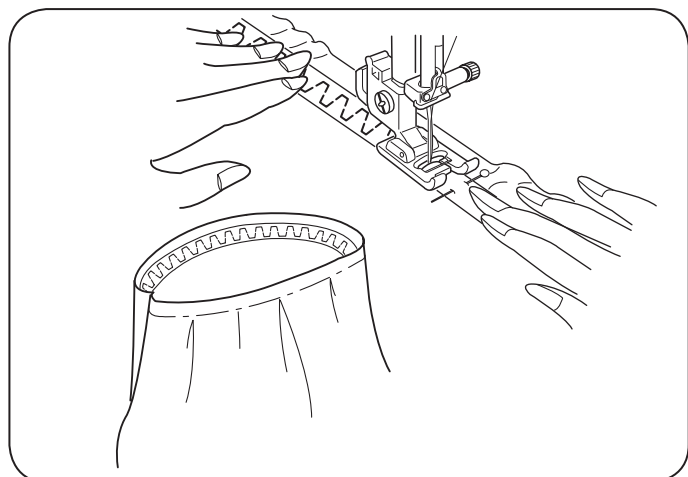
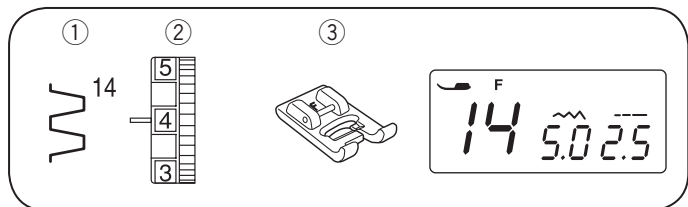
Attach satin stitch foot F.

Thread machine, needle and bobbin with fine embroidery thread (50 weight or finer).


Use spray starch to stabilize fabric.

Fold and press under seam allowance to wrong side of fabric. Baste folded edges of fabric on top of thin paper or water-soluble stabilizer ①. Center stitching over the paper/fabric. Lower the presser foot. Sew, catching the folded edges of fabric.

Remove paper or wash away stabilizer and basting stitches.

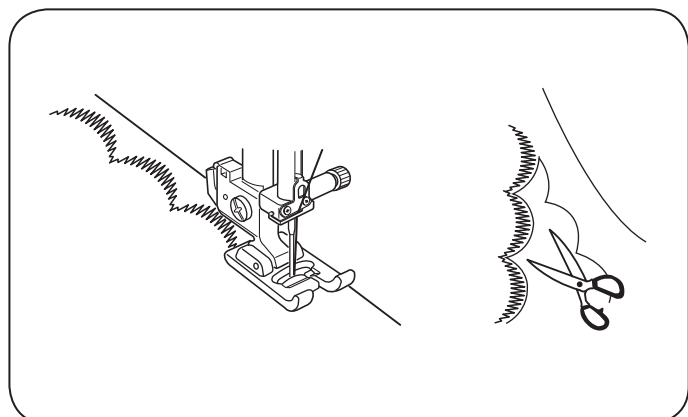
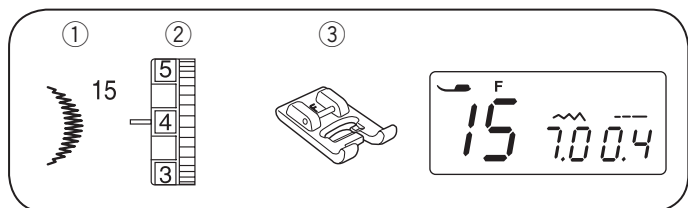


Attaching Elastic

- ① Stitch pattern: 14
- ② Needle thread tension: 3 to 7
- ③ Presser foot: Satin stitch foot F
- * Stitch pattern 06  can also be used.

Mark the elastic into quarters. Match those to the center front, center back and side seams, and pin the elastic to the fabric.

Place the elastic under the foot and stitch into place while stretch the elastic evenly.



Scallop edges

- ① Stitch pattern: 15
- ② Needle thread tension: 3 to 6
- ③ Presser foot: Satin stitch foot F

Attractively finish edges of collars, pockets and placemats. Select 15.

Attach satin stitch foot F.

To edge a collar, place interfacing/stabilizer between upper and under collar and sew scallop on seam line.

After sewing, trim fabric close to stitch taking care not to cut scallops.

Various Kinds of Buttonholes and Their Uses

16 Classic Square Buttonhole

The most common buttonhole, found on blouses, shirts, pants, etc. It consists of a bartack at each end and a compact zigzag stitch along each side.

17 Classic Keyhole Buttonhole

Accommodates the shank found on large buttons used on heavy coats and jackets.

NOTES:

- The size of a buttonhole is automatically set by placing a button in the rear of the automatic buttonhole foot R.
- The button holder of the foot takes a button size of up to 1" (2.5 cm) in diameter.
- It is sometimes necessary to change buttonhole size to match certain heavy or specific materials and threads.
- Make a test buttonhole on an extra piece of the fabric to check your setting.
- Place the button on the fabric and mark the top and bottom to determine the position of the buttonhole on the fabric.
- Use an interfacing on stretch fabrics.

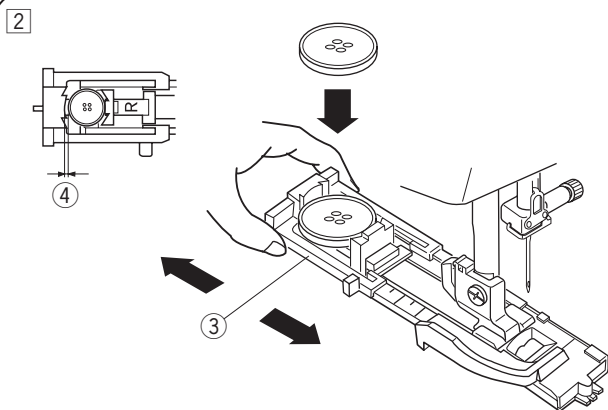
Classic Square Buttonhole

- ① Stitch pattern: 16
- ② Needle thread tension: 1 to 5
- ③ Presser foot: Automatic buttonhole foot R
- ④ Buttonhole lever sign

• To sew

- ① Press the needle up/down button to raise the needle. Attach the automatic buttonhole foot R snapping the pin ② into the groove ① of the foot holder.

- ① Groove
- ② Pin



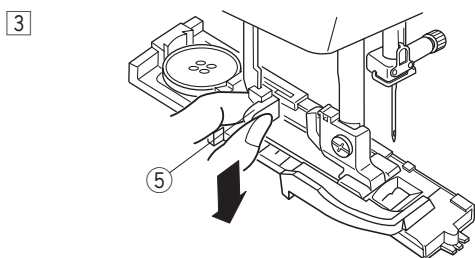
- 2 Pull the button holder (3) to the back, and place the button in it. Push it together tightly against the button.

NOTE:

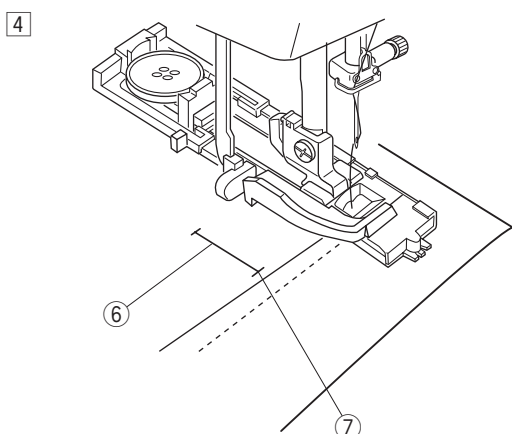
If the button is extremely thick, make a test buttonhole on an extra piece of the fabric.

If it is difficult to fit the button through the test buttonhole, you can lengthen the buttonhole by pulling the button holder back a little. The length of the buttonhole will be increased.

- 3 Button holder
- 4 Extra gap

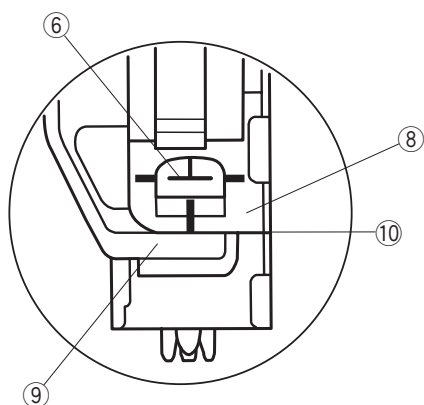


- 3 Pull the buttonhole lever (5) down as far as it will go.
- 5 Buttonhole Lever



- 4 Insert the corner of the fabric under the foot. Press the needle up/down button twice. Remove the fabric to the left to draw the needle thread through the hole of the foot. Place the fabric under the foot and lower the needle at the starting point of the buttonhole mark (6). Then lower the automatic buttonhole foot R.

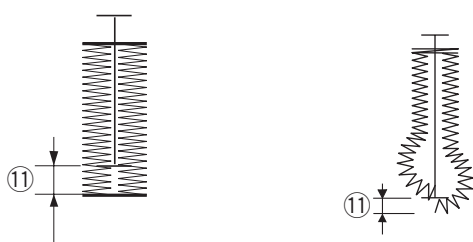
- 6 Buttonhole mark
- 7 Starting point



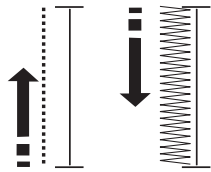
NOTE:

Make sure there is no gap (10) between the slider and stopper, otherwise the buttonhole will not be sewn in the required position.

- 8 Slider
- 9 Stopper
- 10 No gap
- 11 Sewing gap

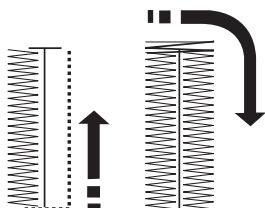


5



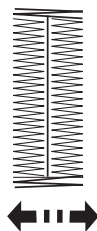
- 5 Start the machine to sew the buttonhole. The buttonhole will be automatically sewn. The machine will sew the left row first.

6

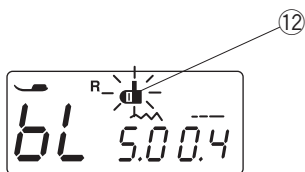


- 6 The machine will sew the back bartack and the right row.

7



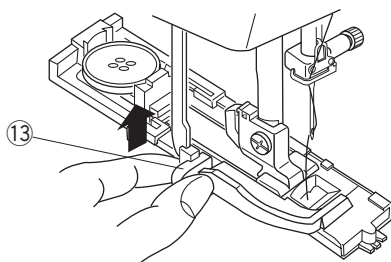
- 7 The machine will sew the front bartack, then it stops automatically with the needle in the up position. The machine will trim the threads at the end of sewing if the thread cutter sign is indicated on the LCD display.



NOTE:

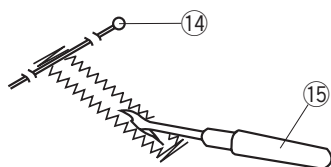
If you start sewing the buttonhole without lowering the buttonhole lever, the LCD display will show "bL" message and the buttonhole lever sign ⑫ will blink. Lower the buttonhole lever, then restart the machine.

8

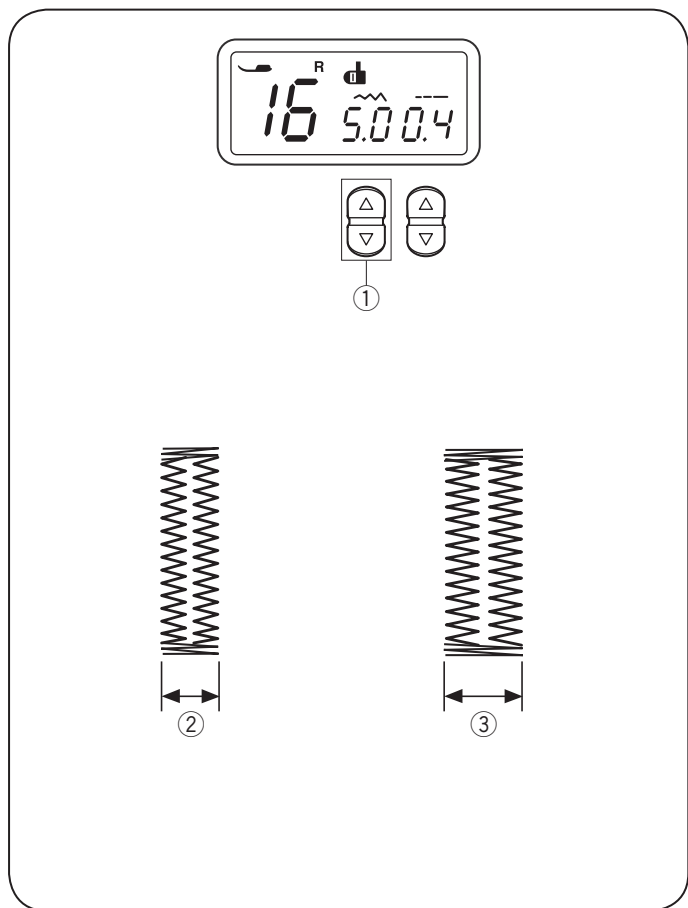


- 8 When buttonhole sewing is finished, push the buttonhole lever ⑬ upward as far as it will go.
⑬ Buttonhole lever

9



- 9 Remove the fabric and place a pin ⑭ just below the bartack to prevent accidentally cutting stitches. Cut the opening with the seam ripper ⑮.
⑭ Pin
⑮ Seam ripper



Adjusting the Stitch Width and Density for Buttonholes

• Adjusting the stitch width

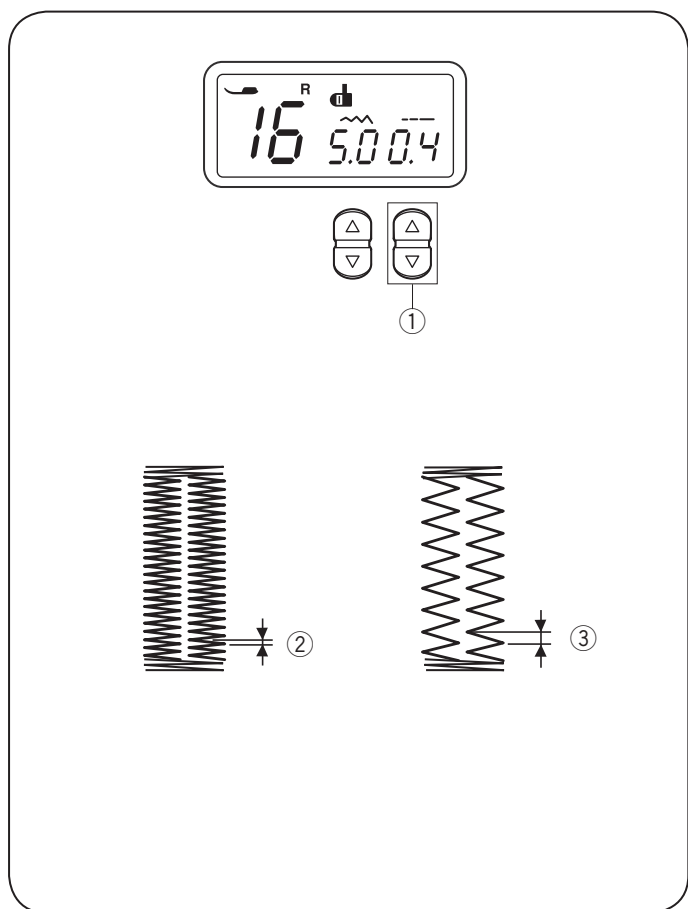
Press the stitch width adjustment key ① to change the stitch width.

Press the “▽” button to decrease buttonhole width ②.

Press the “△” button to increase buttonhole width ③.

The stitch width can be varied from 2.5 to 7.0 depending on the selected buttonhole.

The default setting is “5.0”.



• Adjusting the stitch density

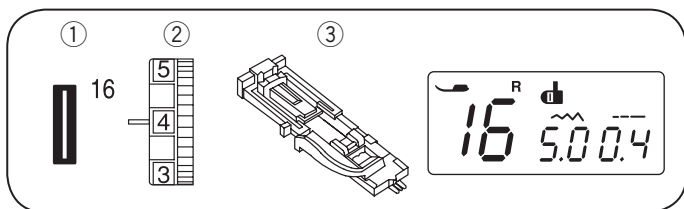
Press the stitch length adjustment button ① to change the stitch density.

Press the “▽” button to make the buttonhole stitch denser ②.

Press the “△” button to make the buttonhole stitch less dense ③.

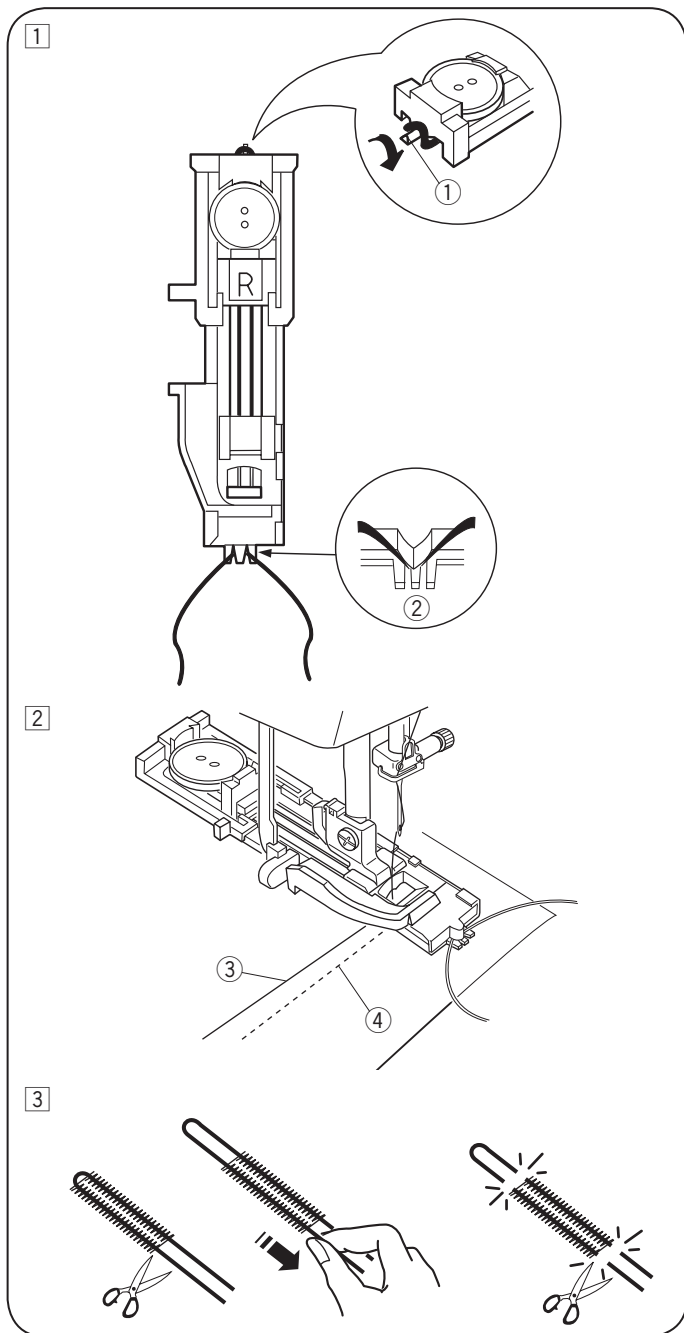
The stitch density can be varied from 0.3 to 0.8 depending on the selected buttonhole.

The default setting is “0.4”.



Corded Buttonhole

- ① Stitch pattern: 16
- ② Needle thread tension: 1 to 5
- ③ Presser foot: Automatic buttonhole foot R



- ① Use the same procedure as the square 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 ① 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 to hold them tight.

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

- ① Spur
- ② Forks

- ② Start the machine and sew the buttonhole. Each side of the buttonhole and the bartacks will be sewn over the cord.

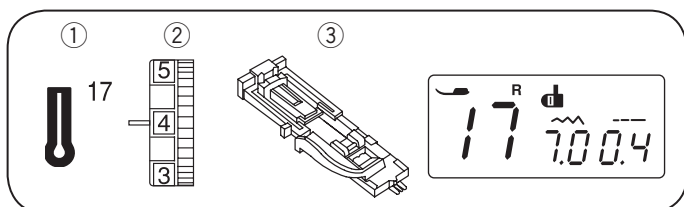
Remove the fabric from the machine, and cut the sewing threads only.

- ③ Needle thread (top thread)
- ④ Bobbin thread (bottom thread)

- ③ Pull the loose ends of the filler cord to tighten it. Thread the each end of the cord through a hand-sewing needle. Then draw the both ends to the wrong side of the fabric and knot.

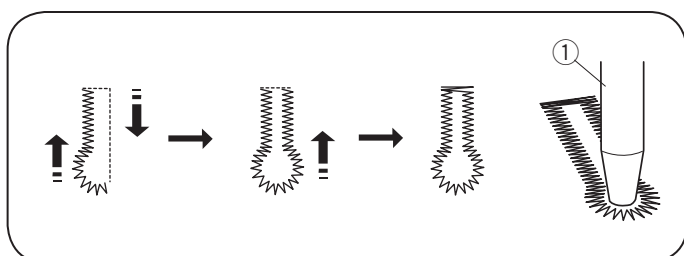
NOTE:

Cut the filler cord at both ends, if the filler cord is stitched on the fabric and cannot be pulled.



Classic Keyhole Buttonhole

- ① Stitch pattern: 17
- ② Needle thread tension: 1 to 5
- ③ Presser foot: Automatic buttonhole foot R



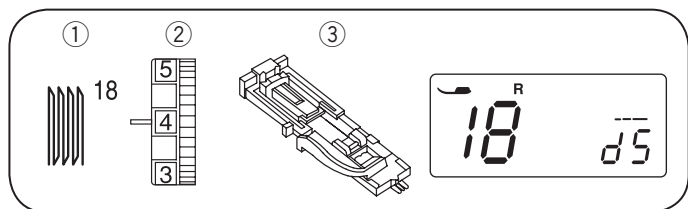
The sewing procedure is the same as the square buttonhole. Use the seam ripper and an eyelet punch ① to open the buttonhole.

- ① Eyelet punch

The stitch width can be varied from 5.5 to 7.0.

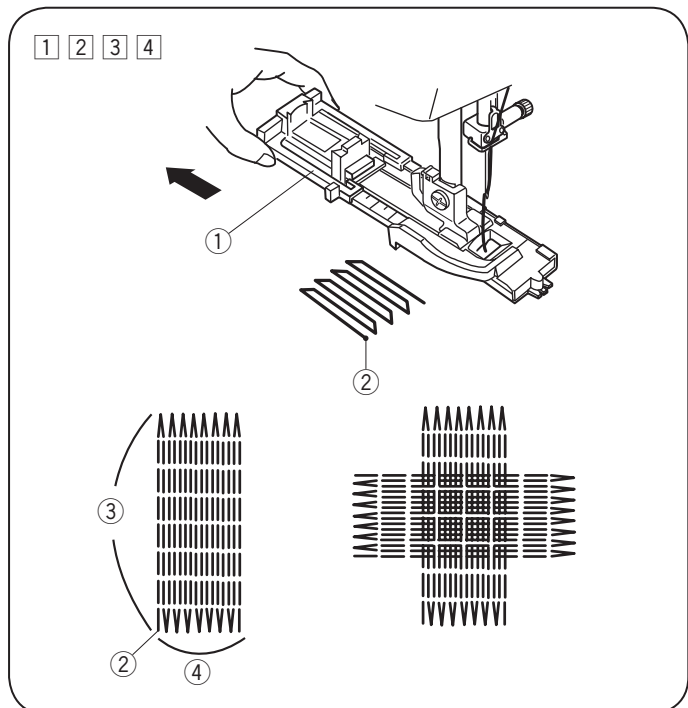
To change the stitch width or density, refer to page 39.

* An eyelet punch is an optional item.



Darning Stitch

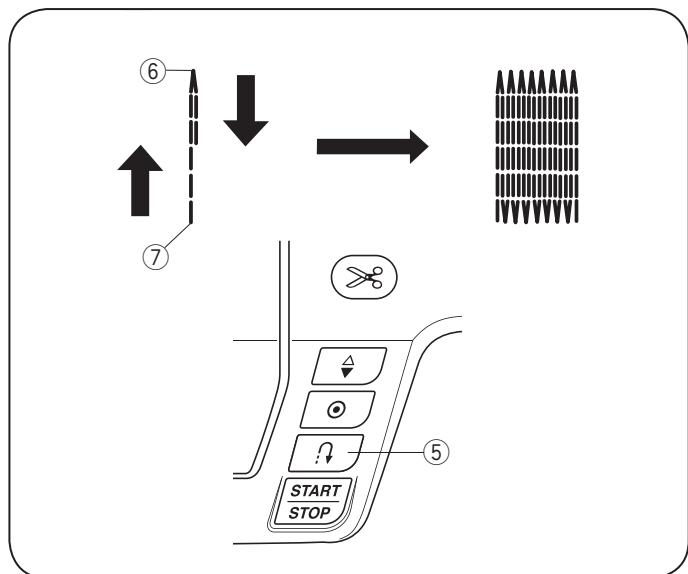
- ① Stitch pattern: 18
- ② Needle thread tension: 3 to 6
- ③ Presser foot: Automatic buttonhole foot R



• Starting to sew

- ① Pull the button holder ① to the back.
- ② Place the garment under the foot. Press the needle up/down button twice. Move the fabric to the left to draw both threads under the foot.
- ③ Lower the foot. Start the machine. The machine will sew locking stitch, 16 rows of darning, locking stitch again and stop automatically.
- ④ Turn the fabric and repeat sewing in different direction. The machine will trim the threads at the end of sewing automatically if the thread cutter sign is indicated on the LCD display (see page 10).

- ① Button holder
- ② Starting point
- ③ 3/4" (2 cm)
- ④ 9/32" (0.7 cm)



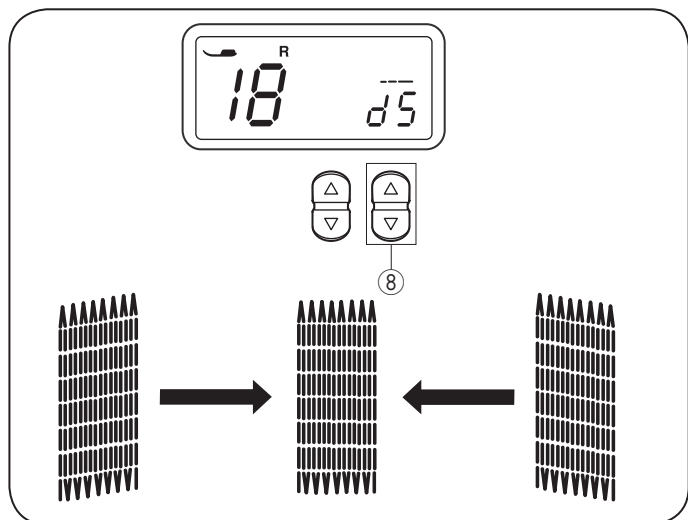
• Sewing a shorter darning

To sew a darning shorter than 3/4" (2 cm), first stop the machine after sewing the required length ⑥, then press the reverse stitch button ⑤. The required length ⑥ has been determined. Start the machine again and continue sewing until the machine stops automatically.

- ⑤ Reverse stitch button
- ⑥ Required length
- ⑦ Starting point

• Sewing a same-sized darning

Simply start the machine to sew another darning at the same size.



• Adjusting the evenness of the darning

Correct the evenness of the darning as follows: Press the stitch length adjustment button ⑧ to adjust the evenness.

When the right side of the darn is lower than the left side, press "△" to make the darn even.

When the left side of the darn is lower than the right side, press "▽" to make the darn even.

SECTION IV. CARE OF YOUR MACHINE

Cleaning the Hook Race, Feed Dog and the Thread Cutter Mechanism

WARNING:

- Turn the power switch off and unplug the machine before cleaning.
- Do not dismantle the machine other than as explained in this section.

CAUTION:

Do not store the machine in a high-humidity area, near a heat radiator, or in direct sunlight.

NOTE:

Clean the outside of the machine with a soft cloth and neutral soap.

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

Press the needle up/down button to raise the needle, then unplug the sewing machine.

Remove the needle and presser foot.

- 1 Remove the setscrews ② on the left hand side of the needle plate ③ with the screwdriver ① supplied with the machine. Remove the needle plate ③.
- 2 Remove the bobbin. Lift up the bobbin holder ⑥ and remove it.
- 3 Clean the bobbin holder ⑥ with a lint brush ④.
- 4 Clean the feed dog ⑦, thread cutter mechanism ⑤ and hook race ⑧ with the lint brush.
- 5 Clean the center of the hook race with a dry cloth.

- ① Screwdriver
- ② Setscrews
- ③ Needle plate
- ④ Lint brush
- ⑤ Thread cutter mechanism
- ⑥ Bobbin holder
- ⑦ Feed dog
- ⑧ Hook race

* You may also use a vacuum cleaner.

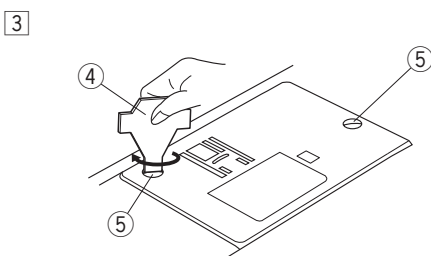
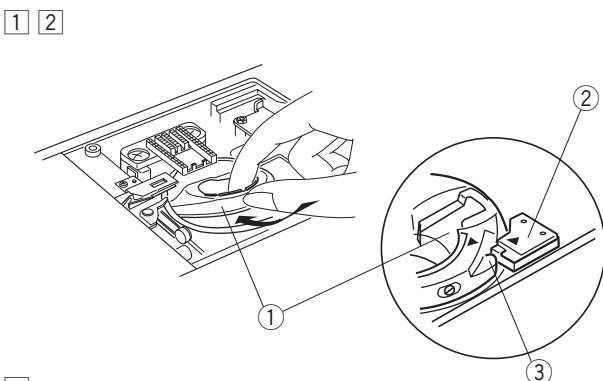
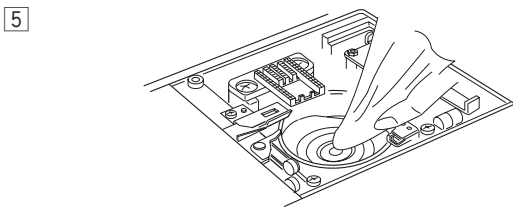
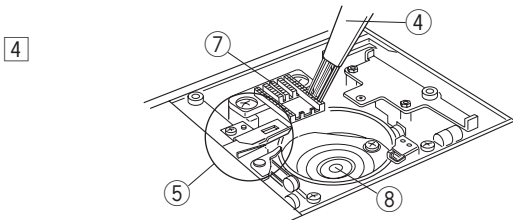
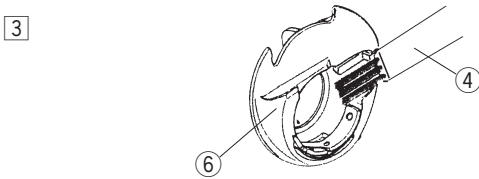
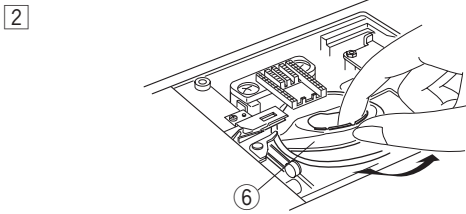
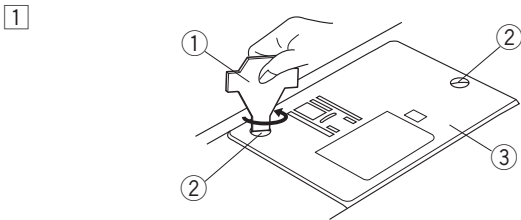
Installing the Bobbin Holder

- 1 Insert the bobbin holder ① so that the knob ③ fits next to the stopper ② on the hook race.
- 2 Insert the bobbin.
- 3 Attach the needle plate with the setscrews ⑤. After cleaning the machine, make sure the needle and presser foot are attached.

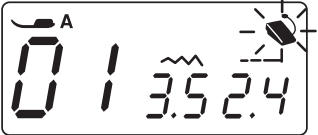
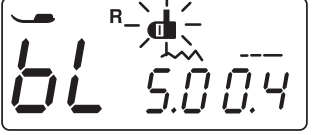



- ① Bobbin holder
- ② Stopper
- ③ Knob
- ④ Screwdriver
- ⑤ Setscrews

NOTE:

Frequent use of the machine causes lint and thread residue build up in the hard to reach part of the machine, which may cause malfunction. We recommend to clean up the inside of the machine periodically. Contact the service center or the store from where the machine was purchased.



Problems and Warning Signs

Warning sign	Cause	Try this
	The machine will not sew with the start/stop button because the foot control is connected.	Disconnect the foot control and start the machine.
	A buttonhole is sewn without lowering the buttonhole lever.	Lower the buttonhole lever and restart the machine.
	The bobbin winder spindle is moved to the right.	Move the bobbin winder spindle to the left.
	The machine is restarted too soon after it has halted due to the overload.	Wait for at least 15 seconds to restart. If threads are jamming, remove the jammed threads.
	Auto thread cutting error due to a problem in the electronic components or tangled in hook area.	Remove the jammed threads in the hook area. If the error occurs again after cleaning the hook area, contact the service center or the store from where the machine was purchased.

Audible signal	The buzzer sounds when:
Pip	Normal operation
Pip-pip-pip	Invalid operation
Pip-pip-peep	Buttonhole sewing completed
Peep	Malfunction

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 under the presser foot when start sewing. 6. The threads were not drawn to the rear after sewing. 7. The thread is either too heavy or too fine for the needle. 	<p>See page 15, 16 See page 18 See page 8 See page 8 See page 17</p> <p>See page 22 See page 8</p>
The bobbin thread breaks.	<ol style="list-style-type: none"> 1. The bobbin thread is not threaded properly in the bobbin holder. 2. Lint has collected in the bobbin holder. 3. The bobbin is damaged and doesn't turn smoothly. 4. The thread is wound loosely on a bobbin. 	<p>See page 14 See page 42 Replace the bobbin. See page 13</p>
The needle breaks.	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted. 2. The needle clamp screw is loose. 3. The threads were not drawn to the rear after sewing. 4. The needle is too fine for the fabric being used. 5. The presser foot is not appropriate for the stitch pattern being sewn. 	<p>See page 8 See page 8 See page 22 See page 8 Change the presser foot.</p>
Skipped stitches	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted, bent or blunt. 2. The needle and/or threads are not suitable for the work being sewn. 3. A Blue Tipped needle is not being used for sewing stretch, very fine fabrics and synthetics. 4. The needle thread is not threaded properly. 5. A poor quality needle is used. 	<p>See page 8 See page 8 See page 8</p> <p>See page 15, 16 Change the needle.</p>
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. 	<p>See page 18 See page 15, 16 See page 8 Make the stitches shorter.</p>
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. 	<p>See page 42 Make the stitches longer. See page 19</p>
Stitches form loops below the works.	<ol style="list-style-type: none"> 1. The needle thread tension is too loose. 2. The needle is either too heavy or too fine for the thread. 	<p>See page 18 See page 8</p>
The machine does not work.	<ol style="list-style-type: none"> 1. The machine is not plugged in. 2. Thread has been caught in the hook race. 3. The bobbin winder spindle is not returned to the left after bobbin winding. 	<p>See page 6 See page 42 See page 13</p>
Buttonhole sewing is not sewn properly.	<ol style="list-style-type: none"> 1. The stitch density is not suitable for the fabric being sewn. 2. Suitable interface material has not been used for the stretch or synthetic fabric. 	<p>See page 39 Use an interfacing.</p>
The machine does not run smoothly and is noisy.	<ol style="list-style-type: none"> 1. Thread has been caught in the hook race. 2. Lint has built up in the hook race or bobbin holder. 	<p>See page 42 See page 42</p>

