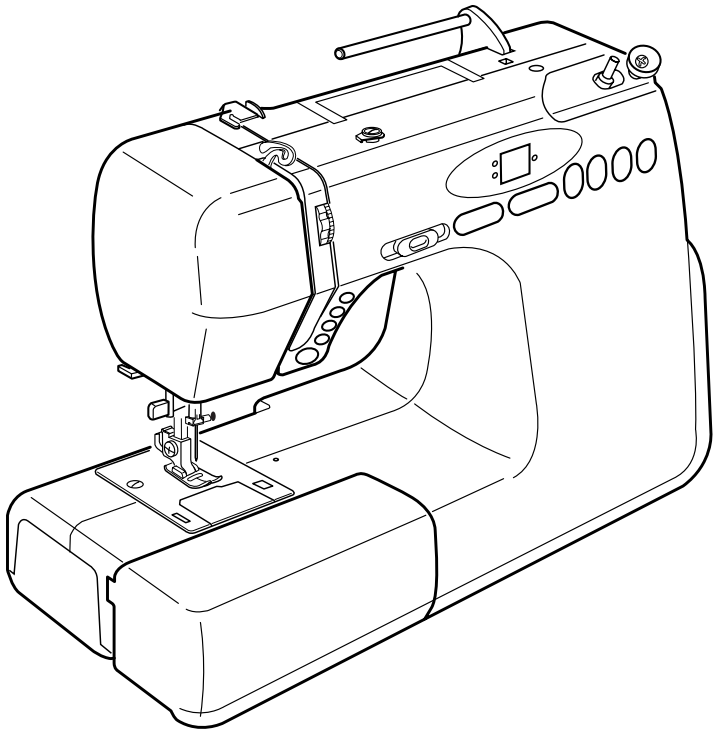
INSTRUCTION BOOK



Model JP720

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.

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

1. Do not allow children to play with the machine. The machine is not intended for use by children or infirmed persons without proper supervision.
   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 instruction book.
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

The design and specifications are subject to change without a prior notice.

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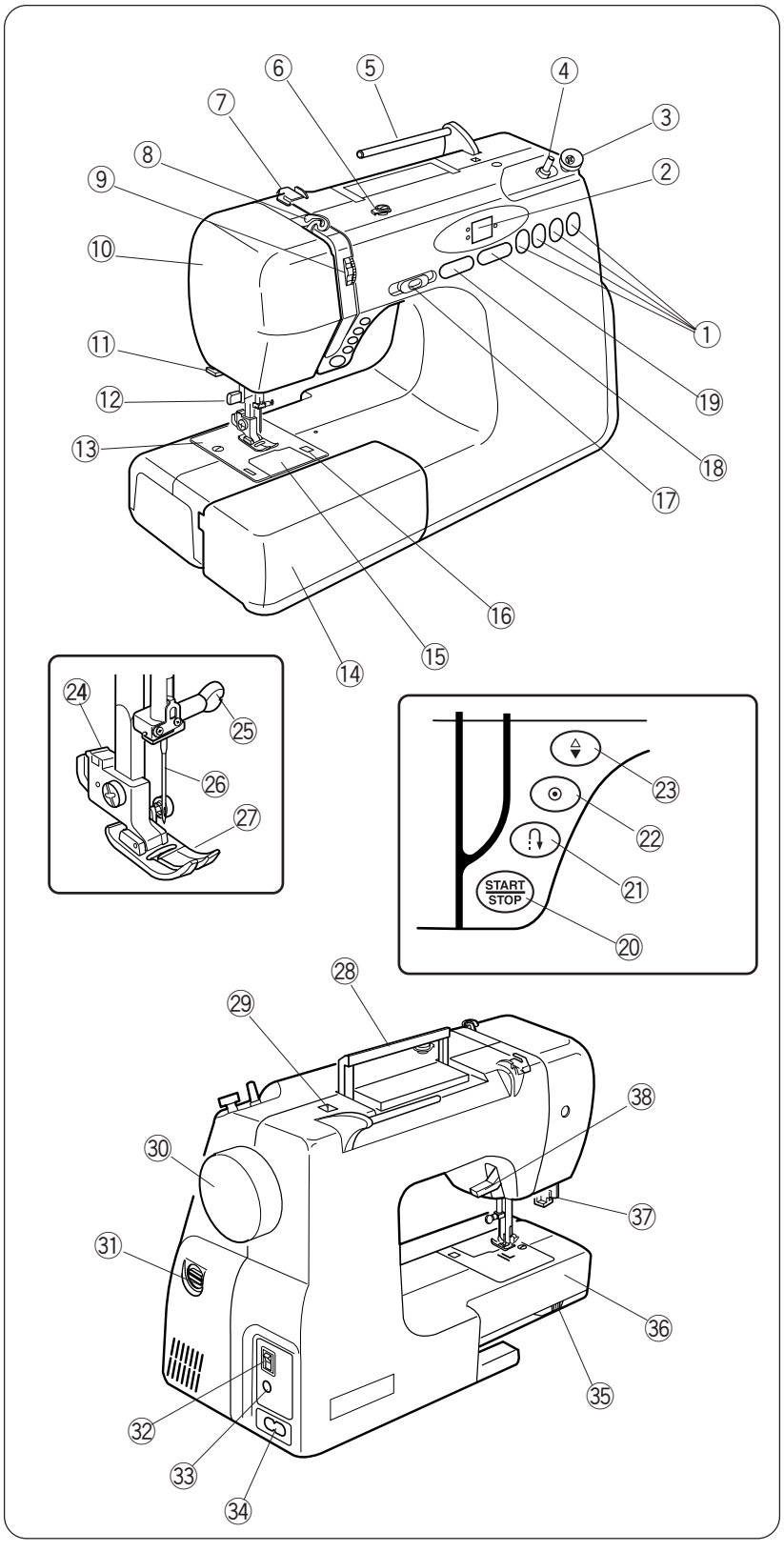
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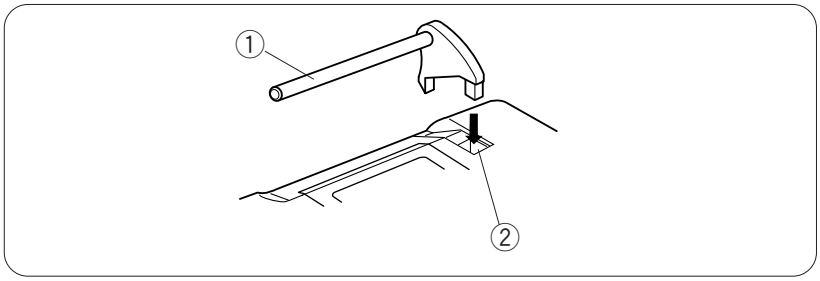
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KNOW YOUR MACHINE

Name of Parts

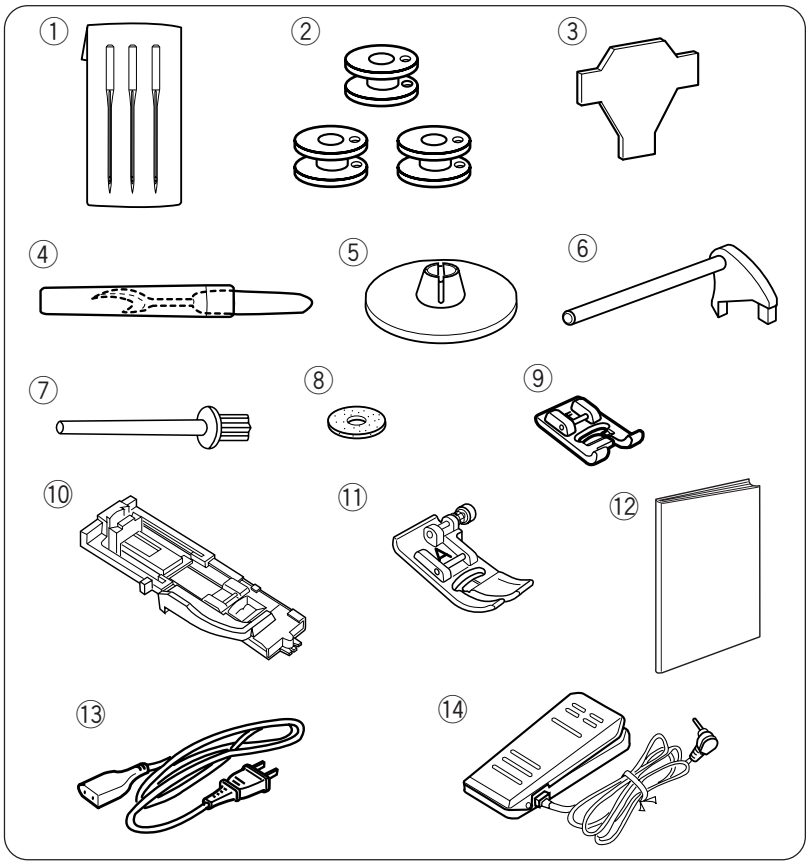
① Direct pattern selection buttons
② Indicator window
③ Bobbin winder stopper
④ Bobbin winder spindle
⑤ Spool pin (included in accessory bag)
⑥ Bobbin winding thread guide
⑦ Thread guide
⑧ Thread take-up lever
⑨ Tension regulating dial
⑩ Face plate
⑪ Thread cutter
⑫ Needle threader
⑬ Needle plate
⑭ Extension table (accessory storage)
⑮ Hook cover plate
⑯ Hook cover plate release button
⑰ Speed control slider
⑱ Stitch width adjusting button
⑲ Stitch length adjusting button
⑳ Start/stop button
㉑ Reverse button
㉒ Auto-lock button
㉓ Needle up/down button
㉔ Foot holder
㉕ Needle clamp screw
㉖ Needle
㉗ Zigzag foot A
㉘ Carrying handle
㉙ Hole for additional spool pin
㉚ Hand wheel
㉛ Stitch balance adjusting dial
㉜ Power switch
㉝ Machine socket
㉞ Power inlet
㉟ Drop-feed lever
㊱ Free arm
㊲ Buttonhole lever
㊳ Presser foot lifter



Setting the Spool Pin

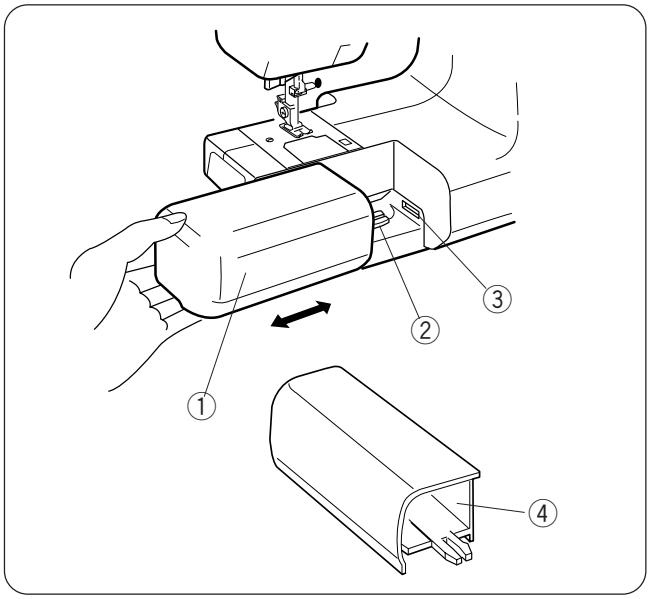
Insert the spool pin into the hole as shown.
(The spool pin is in the accessory bag.)

① Spool pin
② Setting hole



Standard Accessories

① Needles
② Bobbin
③ Screwdriver
④ Seam ripper
⑤ Spool holder
⑥ Spool pin
⑦ Additional spool pin
⑧ Felt
⑨ Satin stitch foot
⑩ Automatic buttonhole foot
⑪ Zigzag foot A (set on the machine)
⑫ Instruction book
⑬ Power supply cord
⑭ Foot control



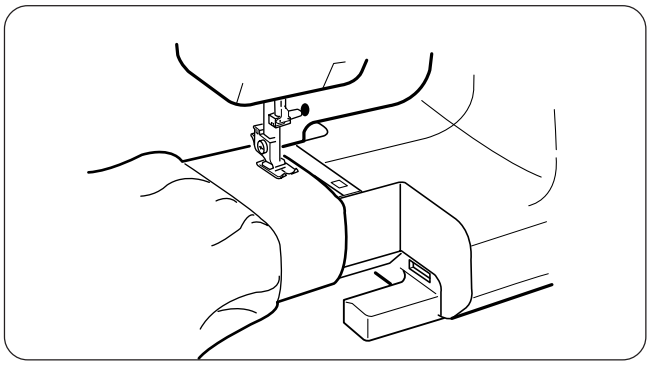
Extension Table

The extension table provides an extended sewing area and can be easily removed for free arm sewing.
The accessories can be stored in the table.

Detaching the table:
Pull the table away from the machine, as illustrated.

Attaching the table:
Push the extension table, inserting the tab into the slot until the table snaps into the machine.

① Extension table
② Tab
③ Slot
④ Accessory storage

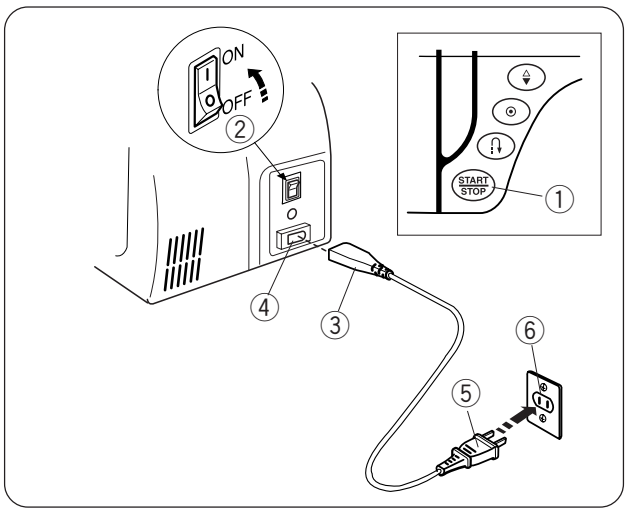


Free arm sewing
Free arm sewing is useful for darning socks or mending knees, elbows or areas of wear in children's clothes.

GETTING READY TO SEW

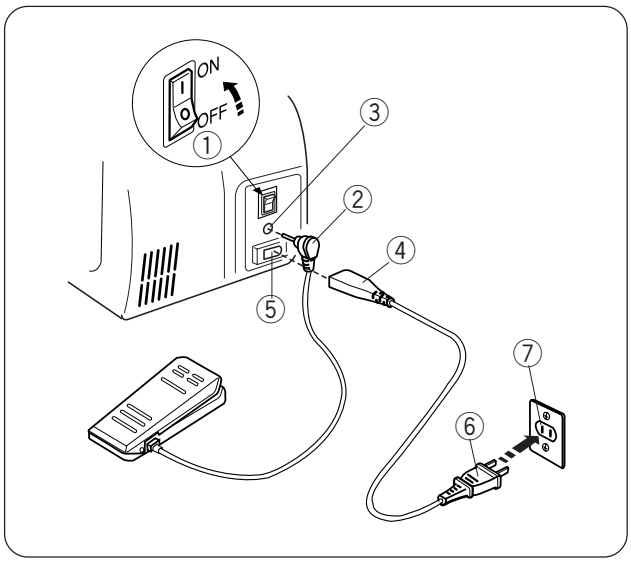
Connecting the Power Supply

NOTE:
Before connecting to the power supply, make sure the voltage shown on the machine conforms to your electrical power.



Using the start/stop button
Turn off the power switch.
Insert the machine plug into the power inlet.
Insert the power supply plug into the wall outlet.
Turn on the power switch.

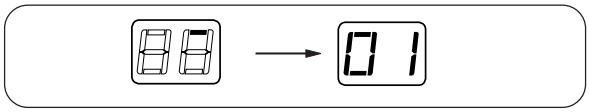
① Start/stop button
② Power switch
③ Machine plug
④ Power inlet
⑤ Power supply plug
⑥ Wall outlet



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

① Power switch
② Foot control plug
③ Machine socket
④ Machine plug
⑤ Power inlet
⑥ Power supply plug
⑦ Wall outlet

NOTE:
The start/stop button does not work when the foot control is connected.



When the power is turned on, the indicator window will show a test pattern then will indicate 01.

NOTE:
After turning off the power, wait for 3 seconds to turn it on again.

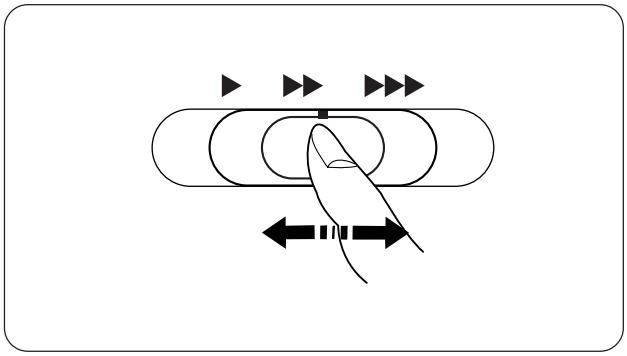
⚠ WARNING:
While in operation, always keep your eyes on the sewing area, and do not touch any moving parts such as the thread take-up lever, handwheel or needle.
Always turn off the power switch and unplug from the power supply:

- 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 intermittently.

Operating Instructions:
The symbol "O" 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 it 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 in any way.

Controlling Sewing Speed

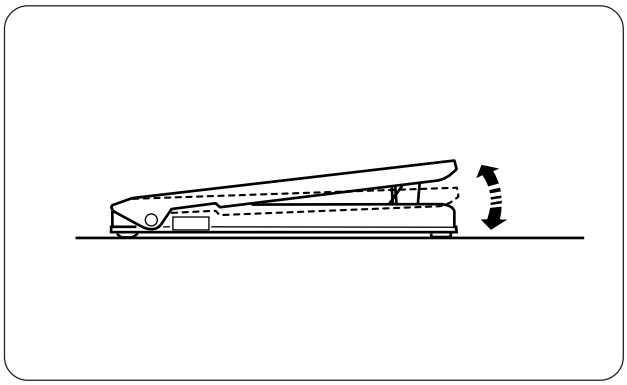


Speed control slider

You can limit the maximum sewing speed with the speed control slider according to your sewing needs.

To increase sewing speed, slide it to the right.

To decrease sewing speed, slide it to the left.

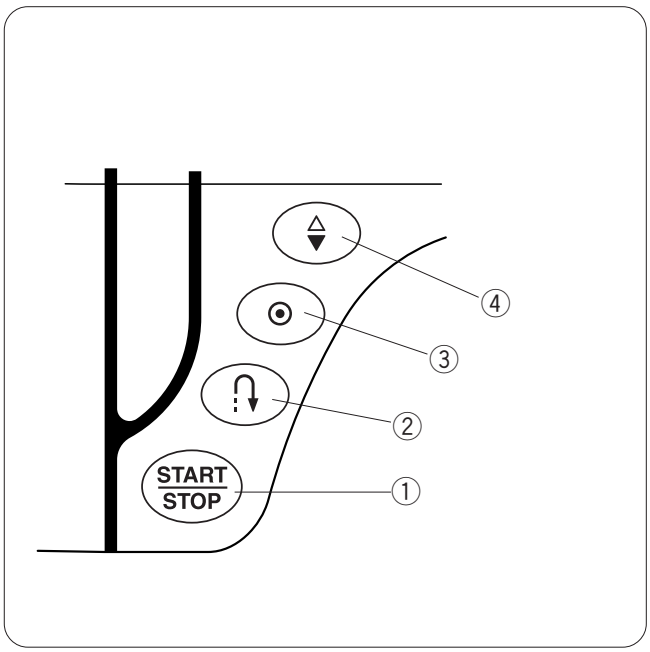


Foot control

Pressing on the foot control can vary sewing speed. The harder you press the foot control, the faster the machine runs.

NOTES:
The machine runs at the maximum speed set by the speed control slider when the foot control is fully depressed.
Keep the foot control free from accumulation of lint, dust and loose cloth.
Do not place anything on the foot control.

Operating Instructions:
Foot controller Model 21249 is for use with sewing machine model JP720.



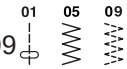
Function Buttons

① Start/stop button

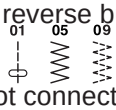
Press this button to start or to stop the machine. The machine will run slowly as long as this button is pressed, and will start running at the speed set by the speed control lever, or stop when the button is released.

NOTE:
The start/stop button does not work when the foot control is connected.

② Reverse button

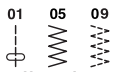
When sewing the stitch pattern #01, #05 or #09 

the machine will sew in reverse as long as the reverse button is pressed.
If you press the reverse button when sewing any other stitch, the machine will immediately sew locking stitches and automatically stop.

If you press the reverse button when stitch pattern #01, #05 or #09 

has been selected and the foot control is not connected, the machine will start sewing in reverse as long as the button is pressed and the machine will stop when the button is released.

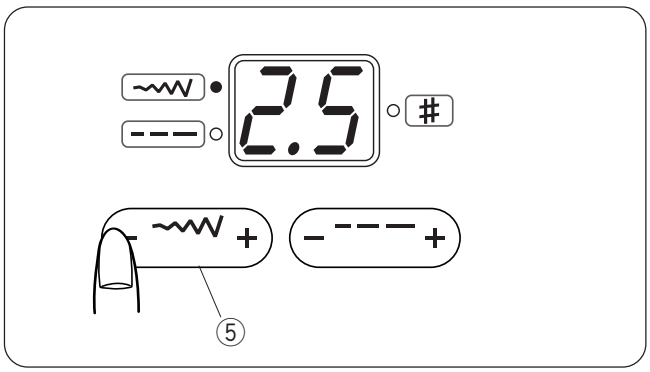
③ Auto-lock button

When stitch pattern #01, #05 or #09 

has been selected, the machine will immediately sew locking stitches and automatically stop when the auto-lock button is pressed.
When sewing any other stitches, the machine will sew locking stitch at the end of the pattern being sewn and automatically stop.

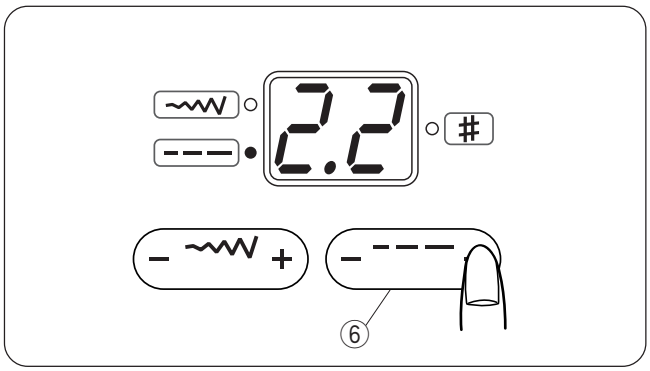
④ Needle up/down button

Press this button to bring the needle up or down. The machine will stop with the needle up or down depending on the needle position determined by this button.

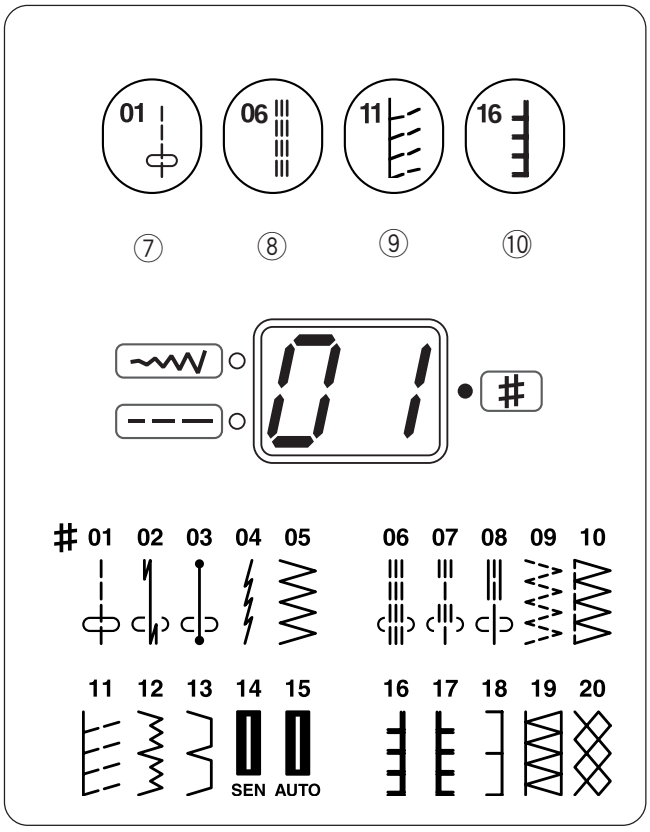


⑤ **Stitch width adjusting button**
When pressing this button,the stitch width of the selected pattern will be indicated and the green light on the top left will light up.

To alter the stitch width, press on the "+" or "–" sign. The stitch width can be altered while stitching
.



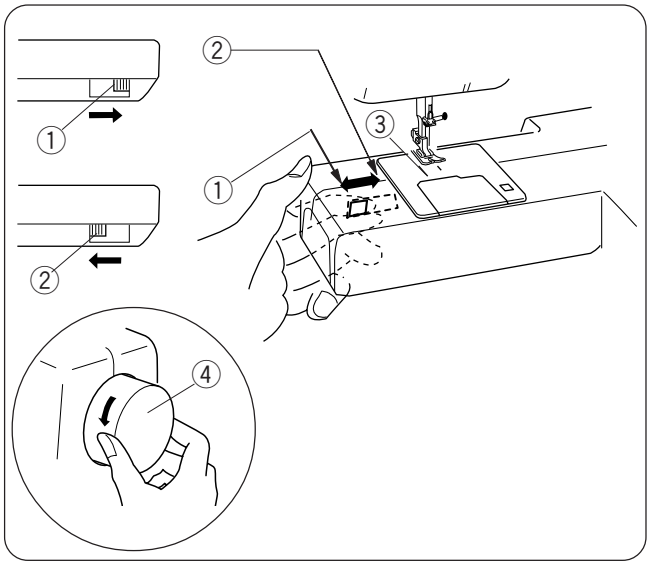
⑥ **Stitch length adjusting button**
When pressing this button,the stitch length of the selected pattern will be indicated and the green light on the bottom left will light up.
To alter the stitch length, press on the "+" or "–" sign. The stitch length can be altered while stitching.



Direct pattern selection buttons
There are 4 buttons for selecting stitch patterns.
Press one of the buttons until the pattern number of the desired stitch pattern is indicated.
⑦ Button 01 will select the patterns #01 to #05.
⑧ Button 06 will select the patterns #06 to #10.
⑨ Button 11 will select the patterns #11 to #15.
⑩ Button 16 will select the patterns #16 to #20.

NOTE:
When selecting the pattern, raise the needle to its highest position.

Dropping the Feed Dog



The feed dog can be lowered with the drop-feed lever for sewing on buttons etc.

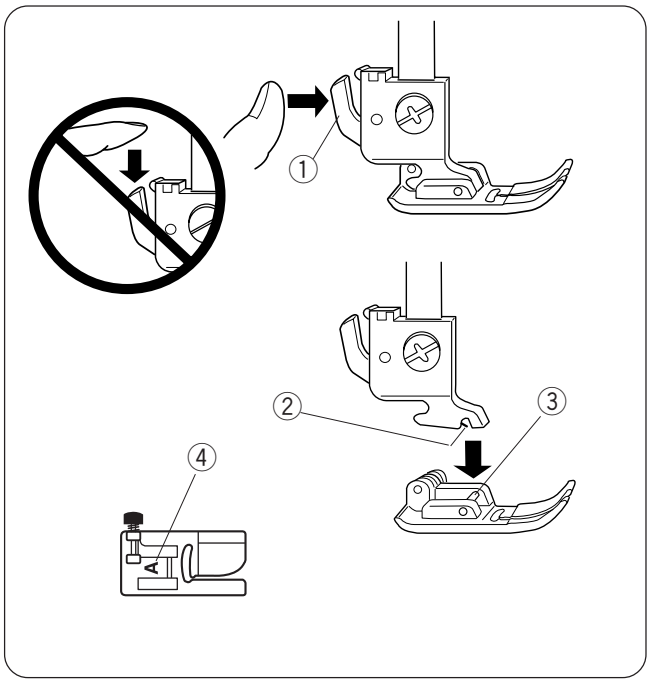
Shift the drop-feed lever to the right to lower the feed dog.

Shift the lever to the left to raise the feed dog, it will return to the up position when the machine is started.

① Up position
② Down position
③ Feed dog
④ Hand wheel

NOTE:
The feed dog should be in the up position for regular sewing. Turn the handwheel toward you to check if the feed dog comes up after setting the lever in the up 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.
Do not push the lever down to prevent it from being broken.

To snap off:
Raise the needle and presser foot.
Press the lever on the back of the foot holder and the foot will drop.

① Lever

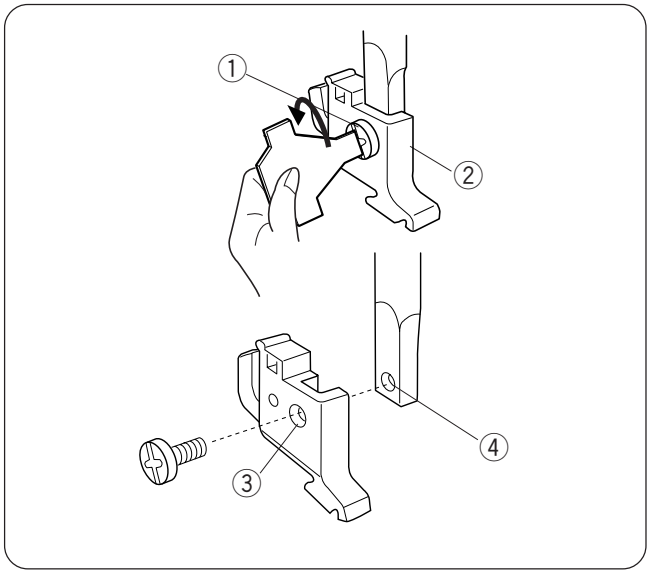
To snap on:
Place the presser foot so the pin on the foot lies just under the groove of the foot holder.
Lower the foot holder to lock the foot in place.

② Groove
③ Pin

Each foot is marked with a letter for identification.

④ Identification Letter

Detaching and Attaching the Foot Holder



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

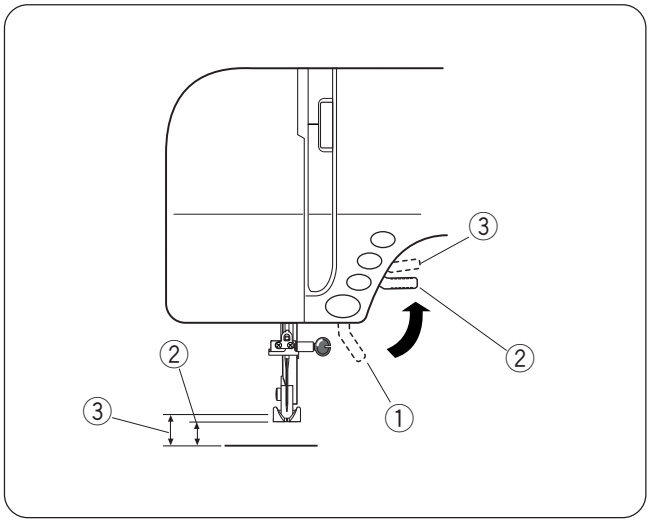
To detach:
Raise the presser bar and turn the setscrew counterclockwise to remove the foot holder.

① Setscrew
② Foot holder

To attach:
Align the hole in the foot holder with the threaded hole in the presser bar and insert the setscrew through the hole.
Tighten the setscrew by turning it clockwise.

③ Hole
④ Threaded hole

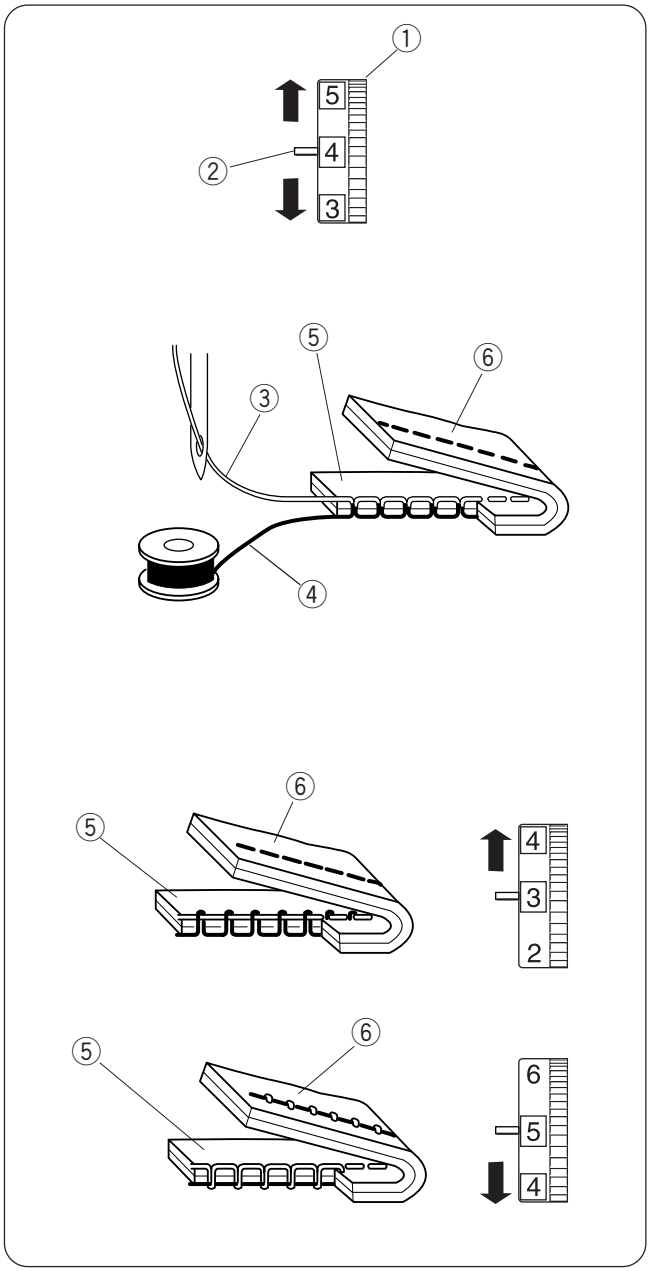
Raising and Lowering the Presser Foot



The presser foot lifter raises and lowers the presser foot.
You can raise the presser foot about 1/4" (0.6 cm) higher than the normal up position by exerting more pressure when lifting the presser foot lifter. This allows for easy removal of the presser foot and helps you to place thick fabric under the foot.

① Presser foot lifter
② Normal up position
③ Extra lift

Balancing Thread Tension



The thread tension should be adjusted depending on the sewing materials, layers of fabric and sewing method.
To adjust the thread tension, turn the tension dial.

① Tension regulating dial
② Setting mark

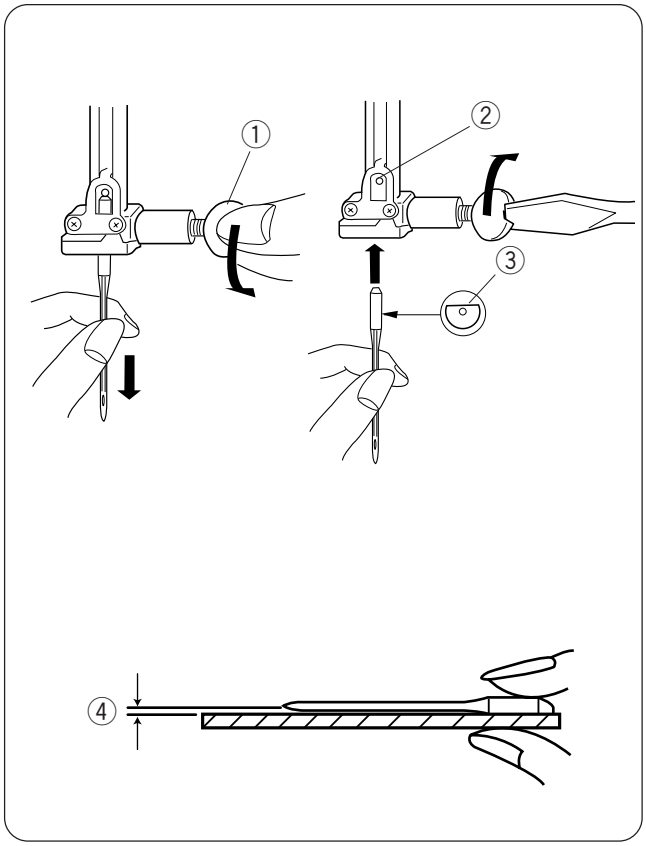
Balanced tension:
The ideal straight stitch has threads locked between two layers of fabric.
For an ideal zigzag stitch, the bobbin thread does not show on the right side of the fabric, and the needle thread shows slightly on the wrong side of the fabric.

③ Needle thread
④ Bobbin thread
⑤ Right side of the fabric
⑥ Wrong side of the fabric

Needle thread tension is too tight:
–if the bobbin thread appears on the right side of the fabric.
Loosen the needle thread tension by moving the dial to a lower number.

Needle thread tension is too loose:
–if the needle thread appears on the wrong side of the fabric.
Tighten the needle thread tension by moving the dial to a higher number.

Changing Needles



⚠ WARNING:
Always make sure to turn the power switch off and disconnect the machine from power supply before changing the needle.

Raise the needle by turning the handwheel and lower the presser foot.
Turn off the power switch.

1 Loosen the needle clamp screw by turning it counterclockwise.
Remove the needle from the clamp.
① Needle clamp screw

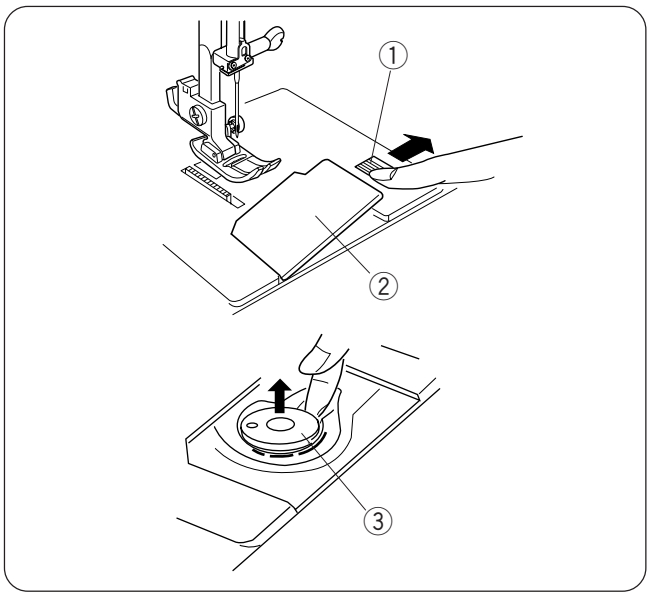
2 Insert a new needle into the needle clamp with the flat side of the needle to the rear.
When inserting the needle into the needle clamp, push it up against the stopper pin and tighten the needle clamp screw firmly.
② Stopper pin
③ Flat side

To check needle straightness, place the flat side of the needle onto something flat (a needle plate, glass etc.) The gap between the needle and the flat surface should be consistent.
Never use a blunt needle.
④ Gap

Needle and Thread Chart

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

Winding the Bobbin



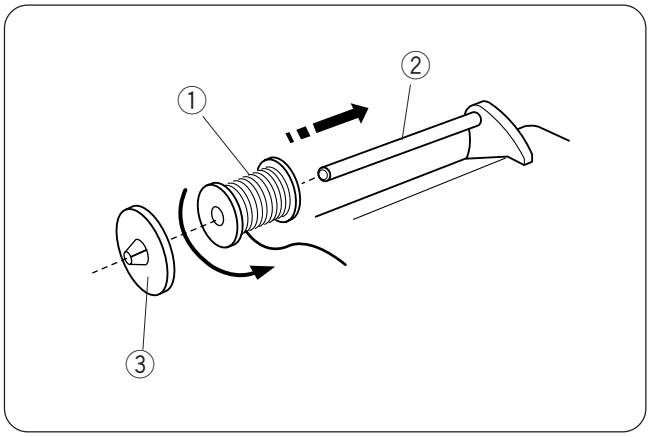
Removing the bobbin

Push the hook cover plate release button to the right and remove the cover plate.

① Hook cover plate release button
② Hook cover plate

Lift out the bobbin.

③ Bobbin



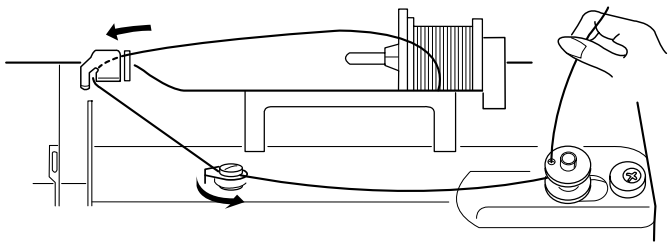
Setting the spool

Place a spool of thread on the spool pin with the thread coming off the spool as illustrated.

① Spool of thread
② Spool pin

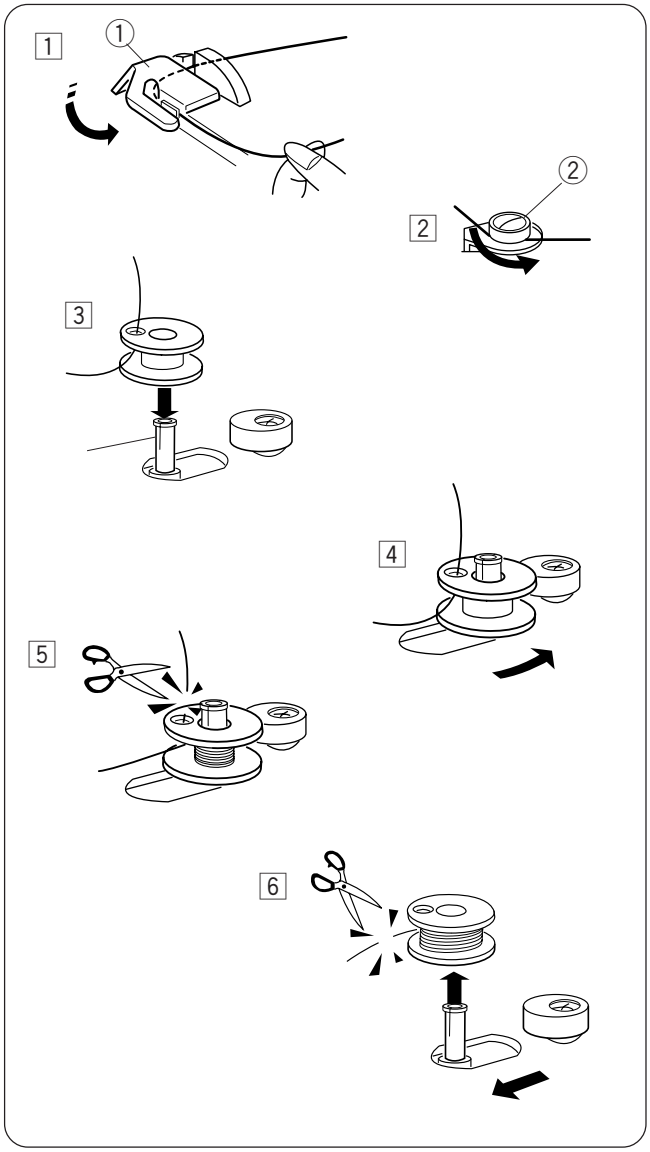
Press the spool holder firmly against the spool of thread.

③ Spool holder



Threading for bobbin winding

Set the speed control lever at ▶▶▶ .



1 Hold the thread with both hands and pass the thread under the thread guide.
① Thread guide

2 Draw the thread toward you and guide the thread around the bobbin winding thread guide.
② Bobbin winding thread guide

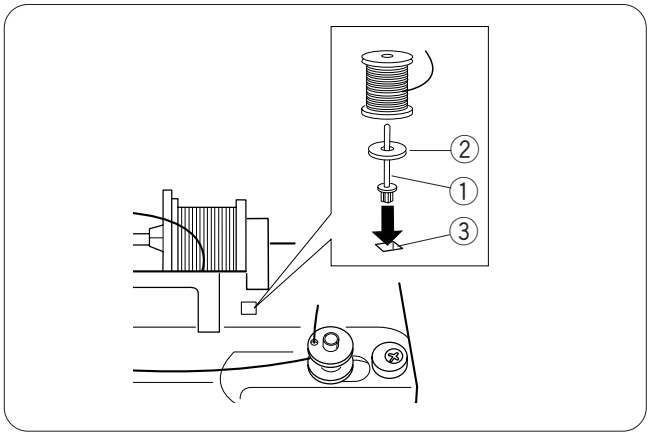
3 Pass the thread through the hole in the bobbin from the inside to the outside. Put the bobbin on the bobbin winder spindle.

4 Push the bobbin winder spindle to the right. The indicator will show SP.

5 Hold the free end of the thread in your hand and start the machine.
Stop the machine when the bobbin has been wound a few layers, and cut the thread close to the bobbin.

6 Start the machine again. When the bobbin is fully wound, it will stop automatically.
Stop the machine and return the bobbin winder spindle to its original position by moving it to the left, and cut the thread with a pair of scissors. Remove the bobbin from the bobbin winder spindle.

NOTE:
The machine will not sew until the spindle has been returned to the left.



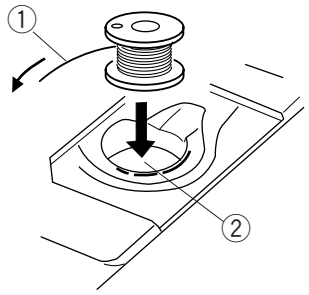
Additional spool pin

The additional spool pin is for bobbin winding without unthreading the machine.
Insert the additional spool pin into the hole.
Place the felt and a spool on the pin.

① Additional spool pin
② Spool pin felt
③ Spool pin hole

Inserting the bobbin

1

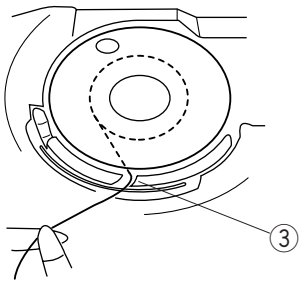


1 Place the bobbin in the bobbin holder with the thread running off counterclockwise.

① Thread

② Bobbin holder

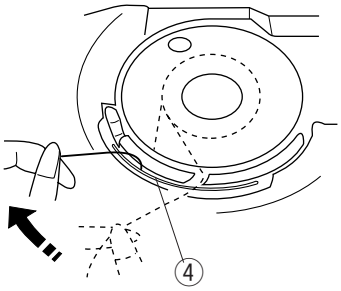
2



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

③ Notch on the front

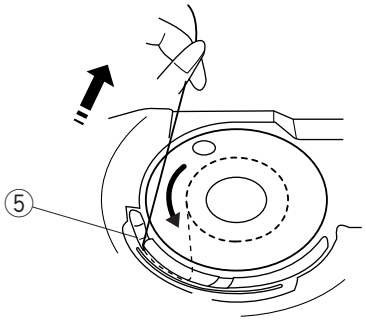
3



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

④ Spring blades

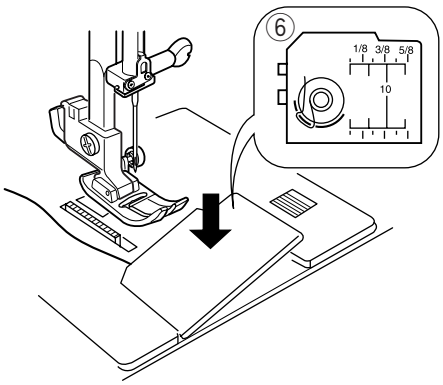
4



4 Continue to draw the thread lightly until the thread slips into the notch on the side.

⑤ Notch on the side

5

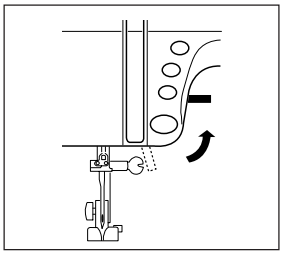


5 Pull out about 4" (10 cm) of thread to the rear. Reattach the hook cover plate.

NOTE:
A threading chart is shown on the hook cover plate for your reference.

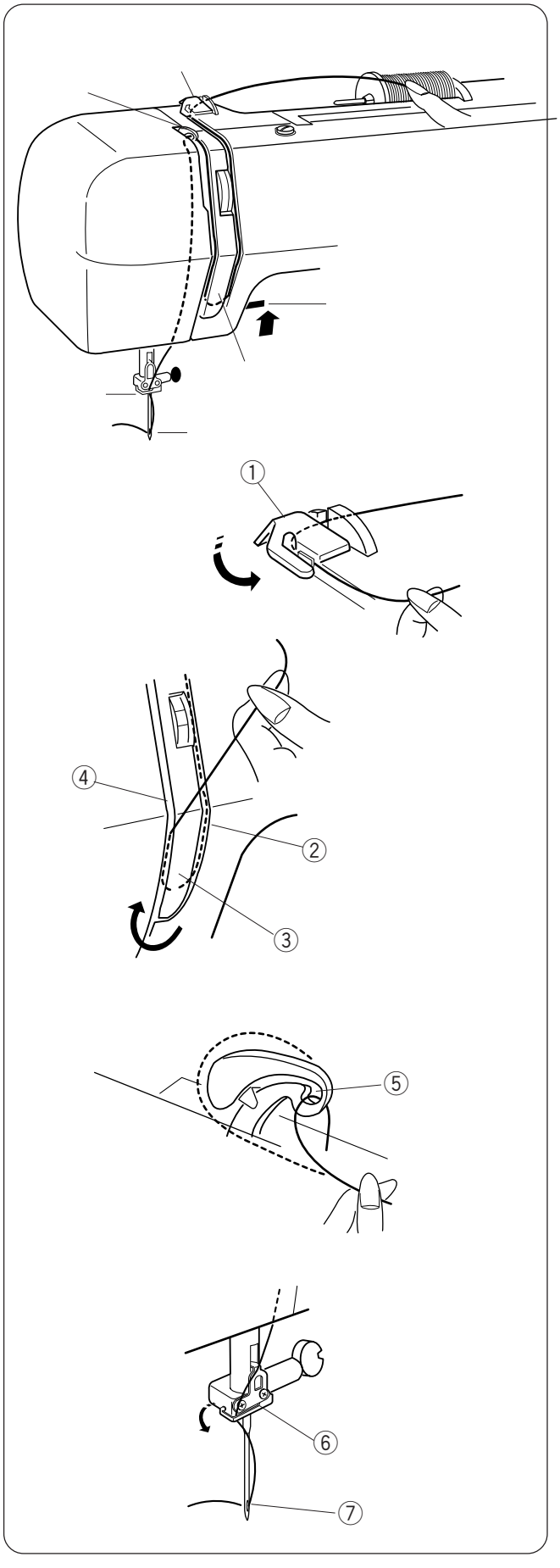
⑥ Threading chart

Threading the Machine



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

⚠ WARNING:
Turn OFF the power switch before threading the machine.



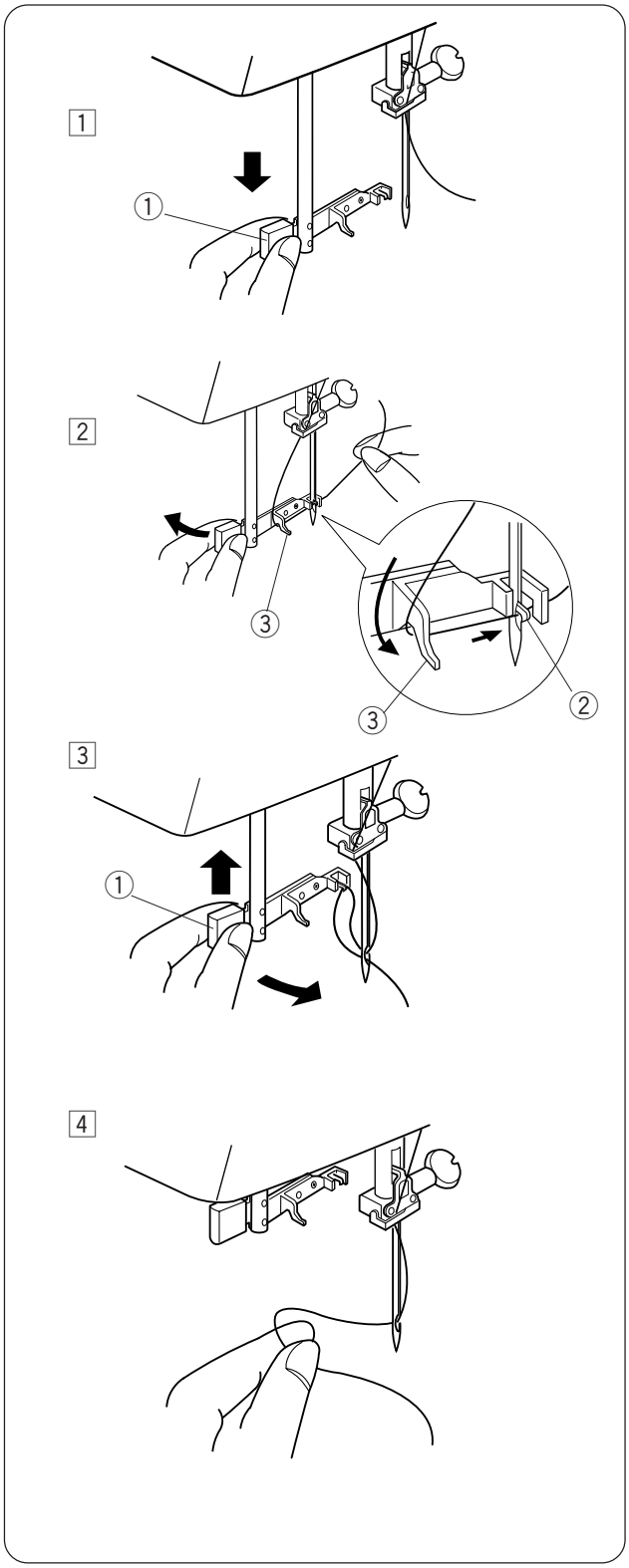
1 Draw the thread from the spool and pass it under the thread guide.
① Thread guide

2 Draw the thread down along the right channel and pull it up around the bottom of the thread guide plate.
Pull the thread up along the left channel.
② Right channel
③ Thread guide plate
④ Left channel

3 Firmly draw the thread from right to left over the thread take-up lever and down into the take-up lever eye.
⑤ Thread take-up lever

4 Draw the thread down along the left channel and slip the thread behind the needle bar thread guide from the left.
⑥ Needle bar thread guide

5 Pass the thread through the needle eye from the front.
⑦ Needle eye



Needle Threader

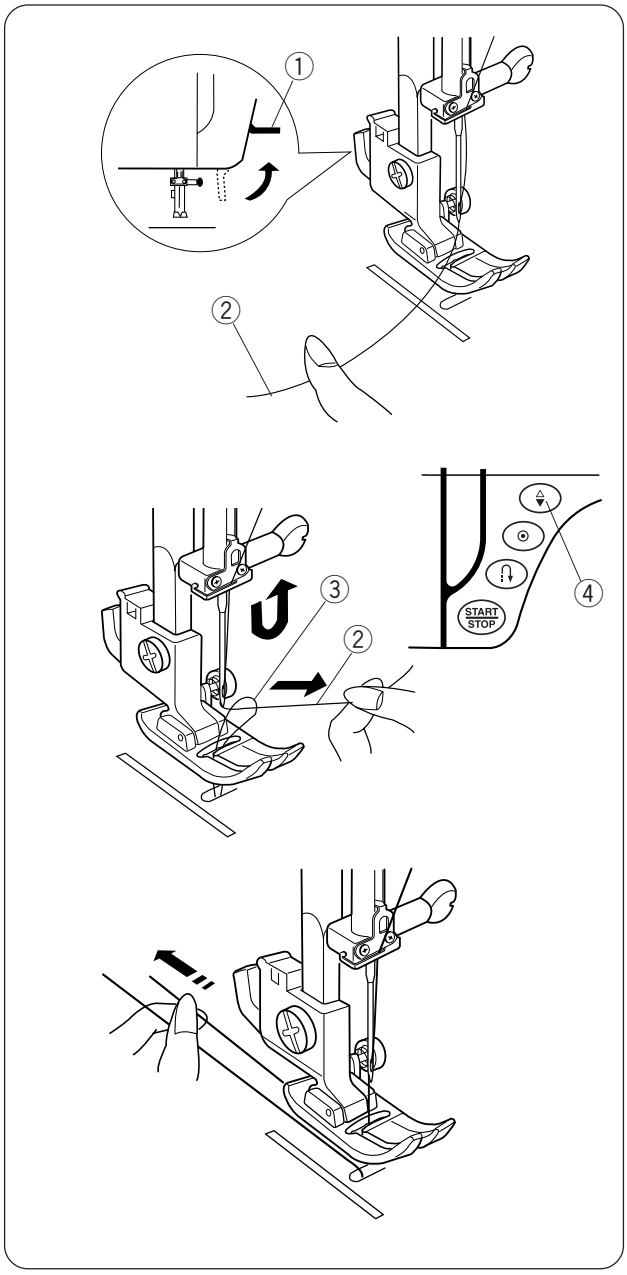
1 Raise the needle to its highest position.
Pull down the needle threader knob as far as it will go.
① Threader knob

2 Turn the knob in the direction of the arrow in the illustration, then insert hook into the needle eye.
Lead the thread around guide and under hook.
② Hook
③ Guide

3 Turn the knob in the direction of the arrow in the illustration, drawing the thread loop through the needle.
Gently let the needle threader go up to pull the thread loop up.

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 size 50 to 90 should also work well.

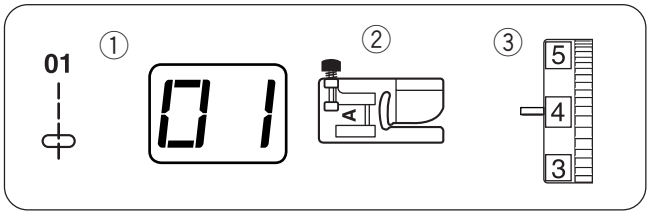


Drawing Up the Bobbin Thread

1 Raise the presser foot lifter.
Turn the power switch on.
Hold the needle thread with your finger
① Presser foot lifter
② Needle thread

2 Press the needle up/down button twice to pick up the bobbin thread.
Draw up the needle thread to bring up a loop of the bobbin thread.
③ Bobbin thread
④ Needle up/down button

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

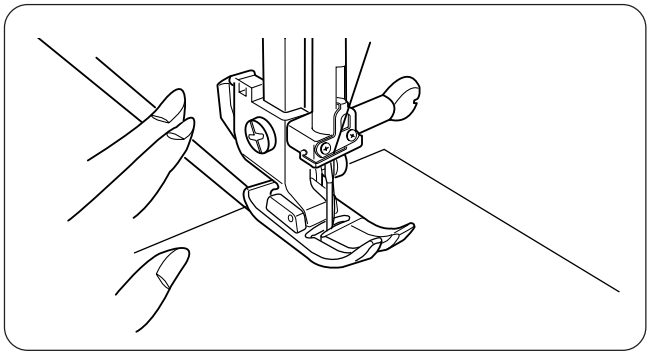


BASIC STITCHES

Straight Stitch

Machine settings

① Pattern: #01
② Presser foot: Zigzag foot A
③ Thread tension: 2 – 6

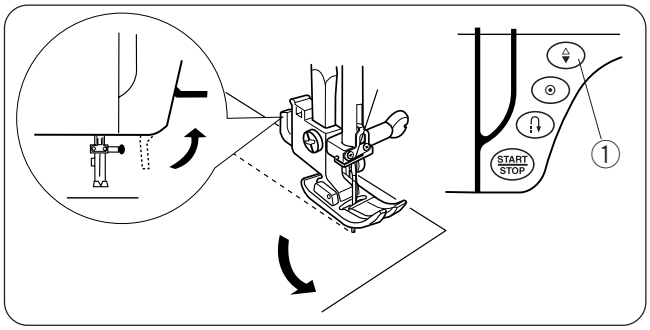


To sew

Raise the presser foot and position the fabric next to a seam guide line on the needle plate. Lower the needle into the fabric where you wish to start.

Pull the needle and bobbin threads to the back. Lower the presser foot.

Depress the foot control or press the start/stop button to start sewing. Gently guide the fabric along the seam guide line.



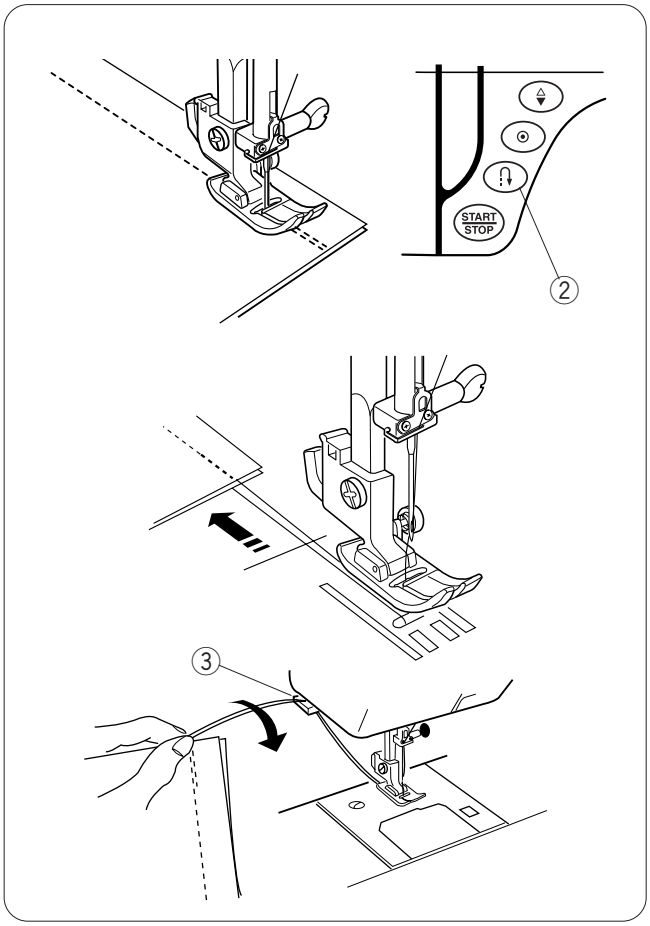
Changing sewing direction

Stop the machine a few stitches before the end of a seam. Press the needle up/down button a few times until the needle falls on the end of the seam.

① Needle up/down button

Raise the presser foot.

Pivot the fabric around the needle to change the sewing direction as desired.
Lower the presser foot and start sewing in a new direction.



Securing a seam

For fastening the beginning of a seam, press the reverse button and sew several reverse stitches. Release the reverse button to sew forward.

② Reverse button

For fastening the ends of a seam, press the reverse button at the end of the seam.
Sew a few stitches in reverse to fasten the seam.

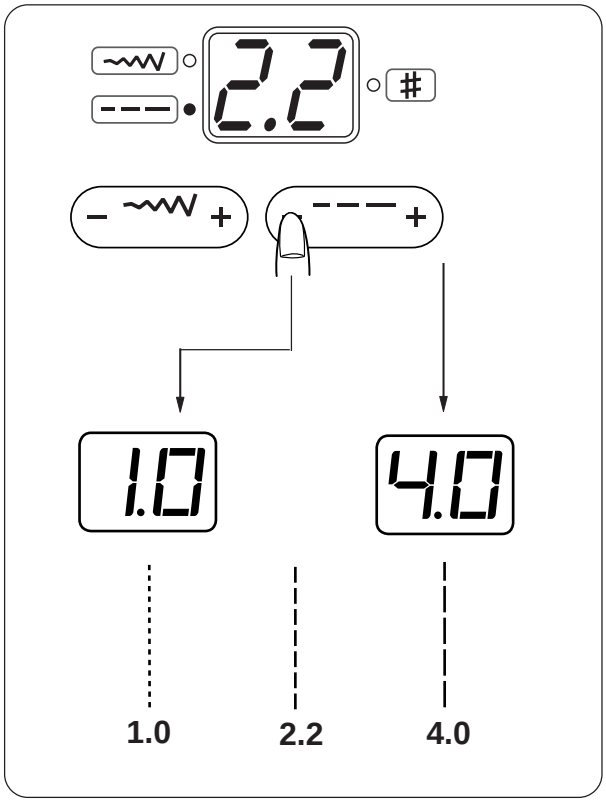
Raise the presser foot and pull the fabric to the back to remove it.

To cut the threads, pull the fabric to draw the threads up to the thread cutter as shown.
The threads are cut a proper length to start the next seam.

③ Thread cutter

When pattern #02 (lock-a-matic stitch) 02 is selected:

The machine will sew reverse stitches at the beginning of a seam automatically, and at the end of the seam by pressing the reverse button once.



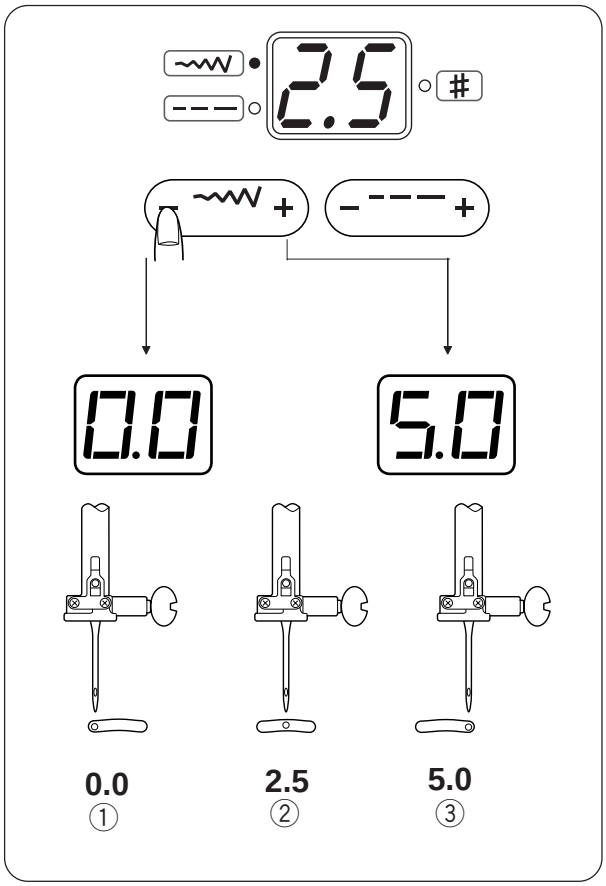
Altering the stitch length

The stitch length can be altered between 0.0 and 4.0.

Press the stitch length adjusting button to alter the stitch length. The bottom green light will light up and the preset value "2.2" will be indicated.

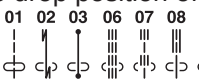
Press the "+" sign to increase the stitch length.

Press the "–" sign to decrease the stitch length.



Altering the needle drop position

The needle drop position of the following stitches can be altered:

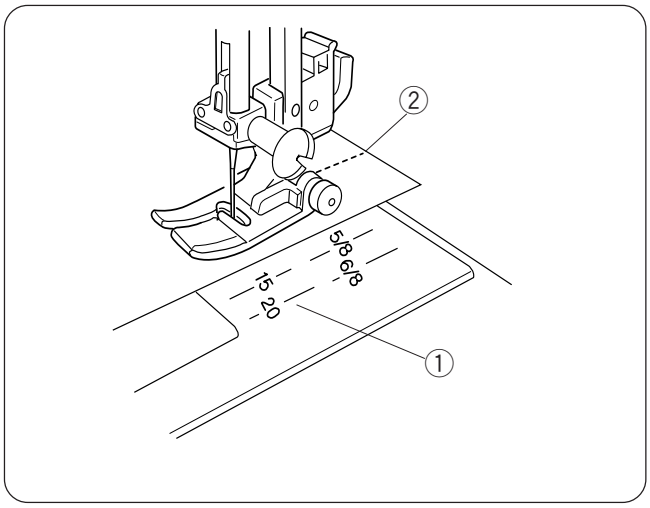


Press the stitch width adjusting button to change the needle drop position. The top green light will light up and the preset value "2.5" (center needle position) will be indicated.

Press the "+" sign to move the needle drop to the right.

Press the "–" sign to move the needle drop to the left.

① Left needle drop position
② Center needle drop position
③ Right needle drop position



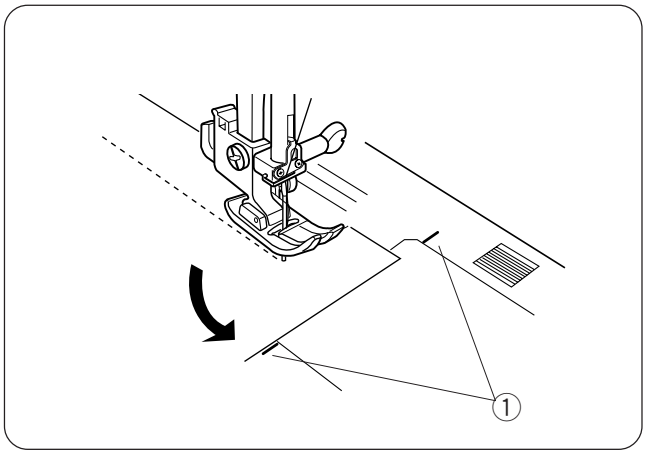
Using the seam guide lines

The seam guides on the needle plate help you to measure seam allowances.

NOTE:
The number indicates the distance from the center needle position.

① Guide lines
② Center needle position

Number	15	20	4/8	5/8	6/8
Distance (cm)	1.5	2.0	1.3	1.6	1.9
Distance (inch)	—	—	1/2	5/8	3/4



Turning square corners

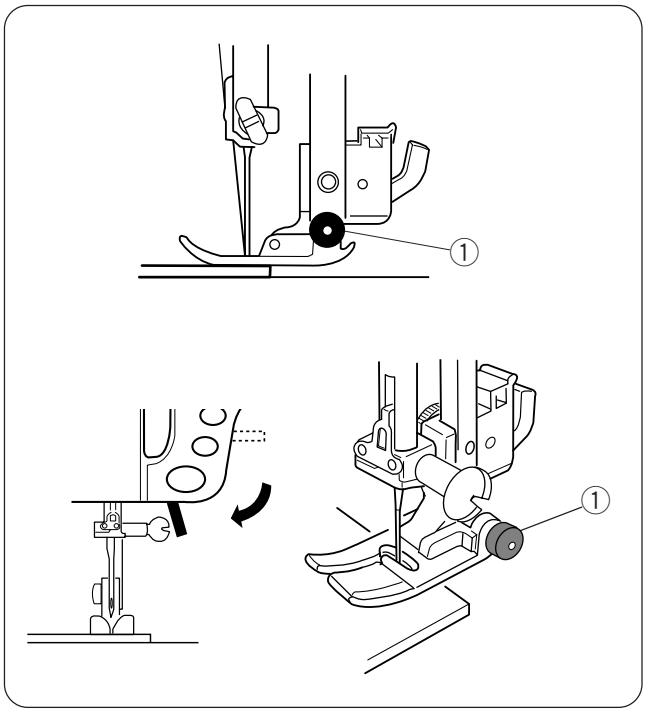
To turn a square corner 5/8" (1.6 cm) from the fabric edge:

When the fabric edge facing you lines up with the cornering guide as illustrated, stop stitching and lower the needle by turning the handwheel towards you.

Raise the presser foot and turn the fabric to line the edge with the 5/8˝ (1.6 cm) seam guide.

Lower the presser foot and begin stitching in the new direction.

① Cornering guides



Sewing from the edge of thick fabric

The black button on the zigzag foot locks the foot in the horizontal position.
This is helpful when starting sewing from the extreme edge of thick fabrics or sewing across a hem.

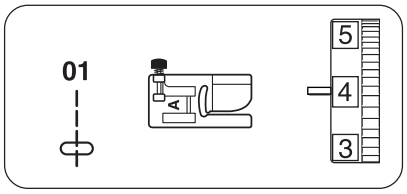
Lower the needle into the fabric at the point where you wish to start sewing.

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

The foot will be unlocked after sewing a few stitches.

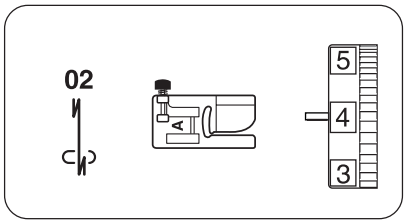
① Black button

Variety of Straight Stitches and Recommended Feet



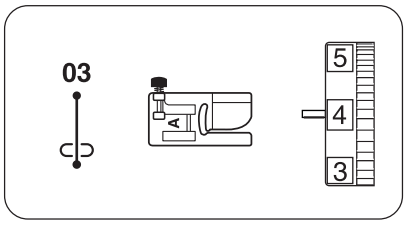
#01 Straight stitch
Presser foot: Zigzag foot A
Thread tension: 2 – 6

Use this stitch for seaming and for zipper sewing.



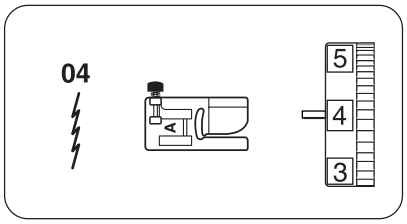
#02 Lock-a-matic stitch
Presser foot: Zigzag foot A
Thread tension: 2 – 6

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 button once. The machine will sew four reverse stitches, four forward stitches, and then stop sewing automatically.



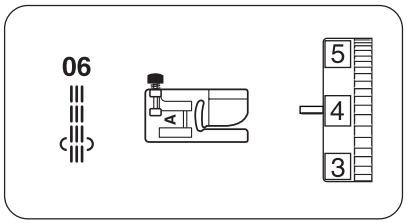
#03 Locking stitch
Presser foot: Zigzag foot A
Thread tension: 2 – 6

This unique stitch is used where an invisible locking stitch is needed.
Lower the needle close to the front edge of the fabric.
The machine will sew several locking stitches in place and continue sewing forward.
When you press the reverse button at the end of the seam, the machine will sew several locking stitches in place, then stop sewing automatically.



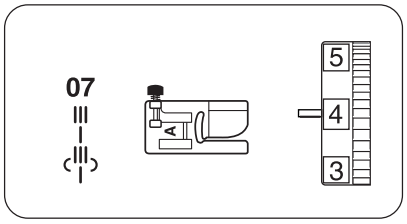
#04 Stretch stitch
Presser foot: Zigzag foot A
Thread tension: 3 – 6

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



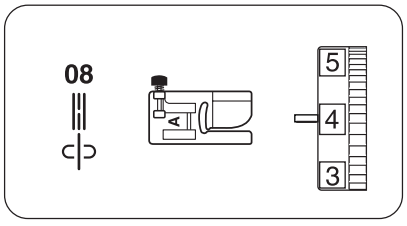
#06 Triple stretch stitch
Presser foot: Zigzag foot A
Thread tension: 2 – 6

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



#07 New sculpture stitch
Presser foot: Zigzag foot A
Thread tension: 3 – 6

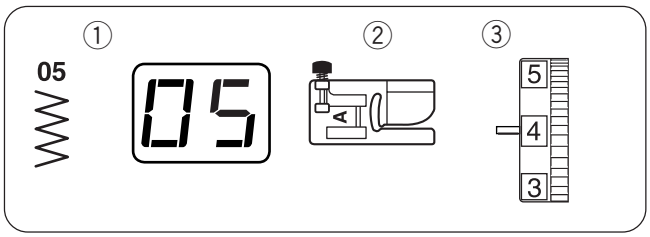
This stitch is used for topstitching and outline-stitches enhancing the design appearance.



#08 Sculpture stitch
Presser foot: Satin stitch foot F
Thread tension: 3 – 6

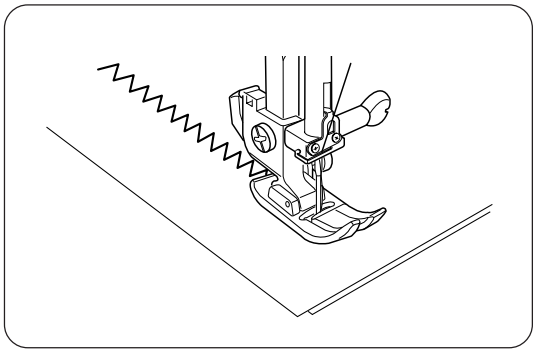
The stitch is used for topstitching and outline-stitches enhancing the design appearance.

Zigzag Stitch

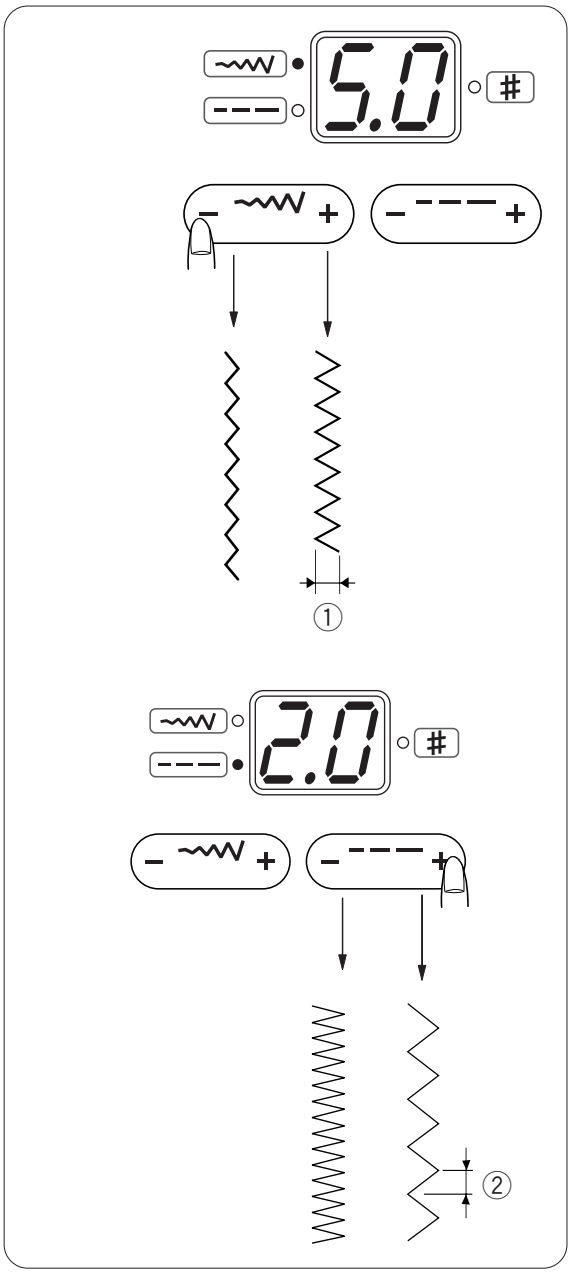


Machine settings

① Pattern: #05
② Presser foot: Zigzag foot A
③ Thread tension: 3 – 7



The zigzag stitch is used for various sewing needs including overcasting. It can be used on most woven fabrics.
A dense zigzag stitch can also be used for appliqué.



Altering the stitch width

The stitch width can be altered between 0.0 and 5.0.

Press the stitch width adjusting button to alter the stitch width. The top green light will light up and the preset value "5.0" will be indicated.

Press the "+" sign to increase the stitch width.

Press the "–" sign to decrease the stitch width.
① Stitch width

Altering the stitch length

The stitch length can be altered between 0.0 and 4.0.

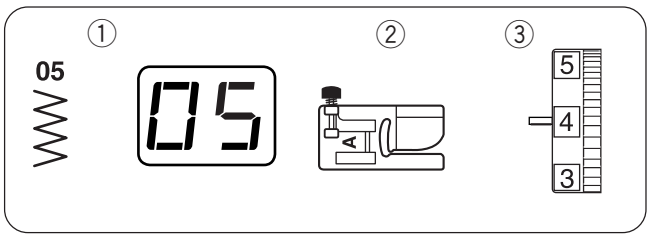
Press the stitch length adjusting button to alter the stitch length. The bottom green light will light up and the preset value "2.0" will be indicated.

Press the "+" sign to increase the stitch length.

Press the "–" sign to decrease the stitch length.
② Stitch length

NOTE:
The stitch length and width can be altered while stitching.

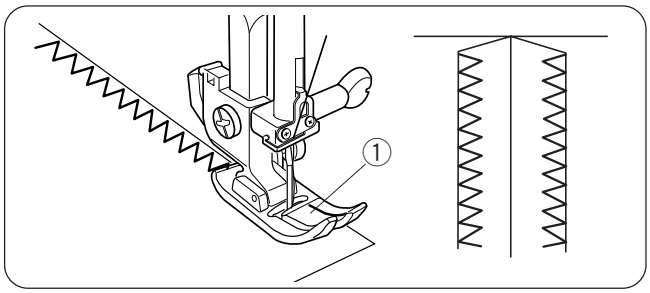
UTILITY STITCHES



Overcasting with Zigzag Stitch

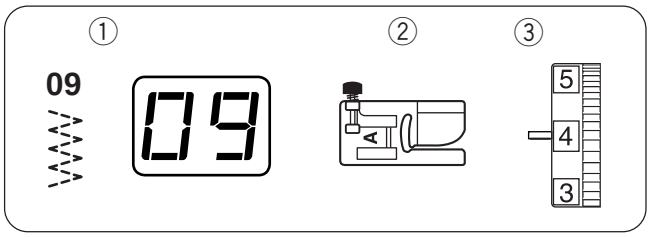
Machine settings

① Pattern: #05
② Presser foot: Zigzag foot A
③ Thread tension: 3 – 7



Place the fabric edge next to the right side of the clear window of the foot and carefully guide the fabric so the needle falls off the edge when it swings to the right.

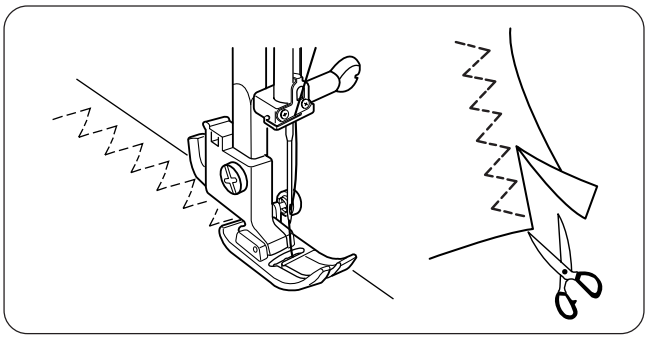
① Clear window



Multiple Zigzag Stitch (Tricot Stitch)

Machine settings

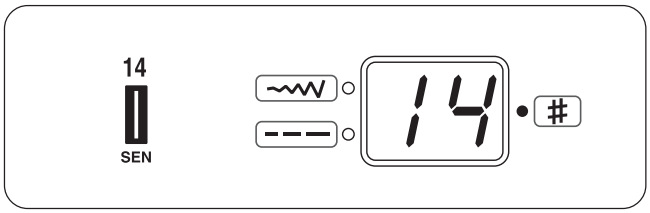
① Pattern: #09
② Presser foot: Zigzag foot A
③ Thread tension: 3 – 6



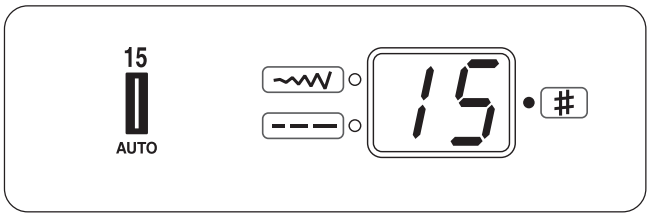
This stitch is used to finish a raw edge of synthetics and other stretch fabrics that tend to pucker.
Sew along the fabric edge leaving an adequate seam allowance.

After sewing, trim the seam allowance close to the stitches.

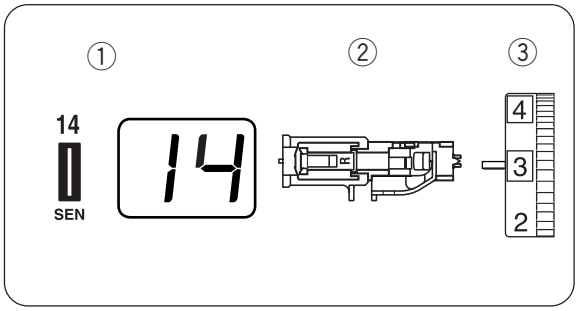
Buttonholes



#14 Square buttonhole (sensor buttonhole)
This buttonhole is widely used on medium to heavy weight fabrics.
The buttonhole size is automatically determined by placing a button in the rear of the foot.



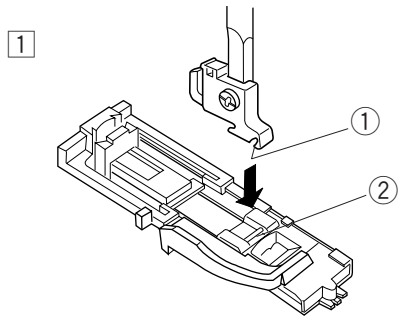
#15 Auto buttonhole
This is also a square buttonhole similar to the Sensor Square Buttonhole, but you can manually set the buttonhole size and you can memorize the size to sew buttonholes of the same size.

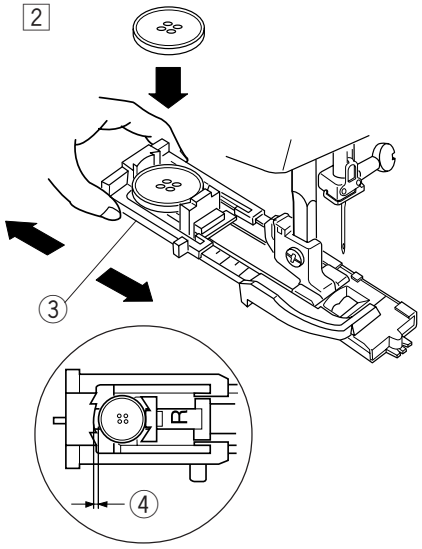


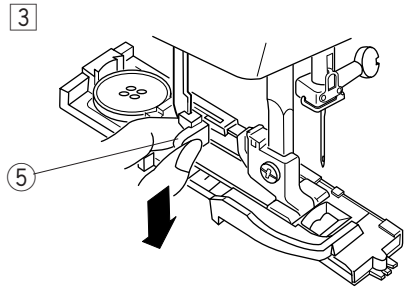
Square buttonhole

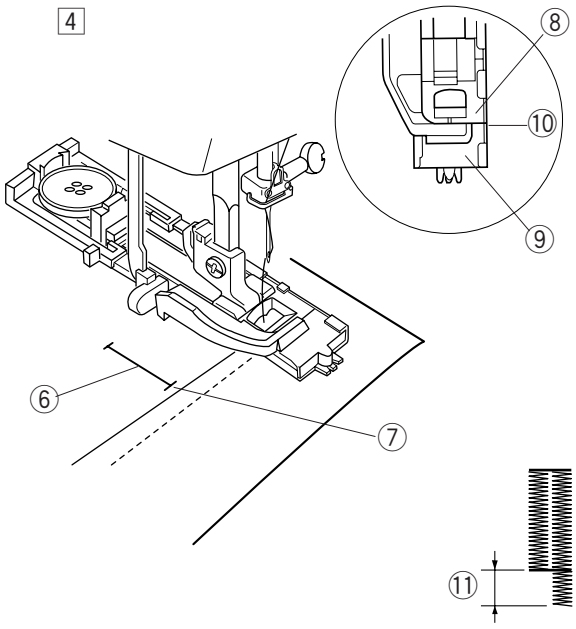
Machine Settings
① Stitch pattern: #14
② Foot: Automatic buttonhole foot R
③ Thread tension: 1 – 5

NOTES:
- The size of a buttonhole is automatically set by placing a button in the rear of automatic buttonhole foot R.
- The button holder of the foot takes a button size of 3/8" (1 cm) to 1" (2.5 cm) in diameter.
- It is sometimes necessary to change the buttonhole size to match certain heavy or specific fabrics and threads.
- Make a test buttonhole on an extra piece of the fabric to check your settings.
- The preset width of the buttonhole is suitable for ordinary buttons.
- Apply an interfacing to stretch or fine fabrics.









To sew

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

2 Pull the button holder to the back, and place the button in it. Push it together tightly to 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

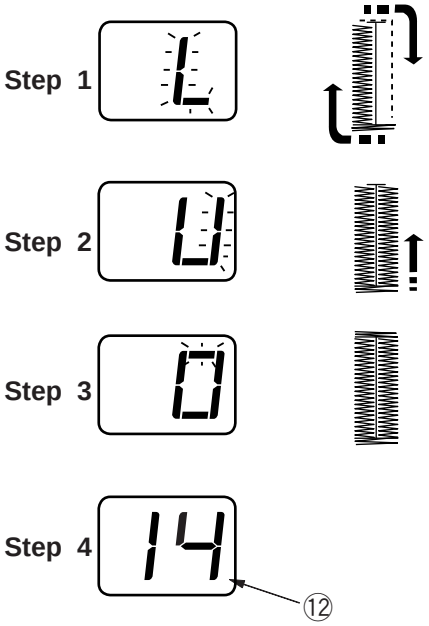
3 Pull the buttonhole lever down as far as it will go.
⑤ Buttonhole Lever

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 garment under the foot, and lower the needle at the starting point of the buttonhole mark.
Then lower the automatic buttonhole foot R.
⑥ Buttonhole Mark
⑦ Starting Point

NOTE:
Make sure there is no gap between the slider and stopper, otherwise the left and right lengths will be different.

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.

Step 1: The machine will sew the front bartack and the left row first.
Then it goes back to the starting point with straight stitch.

Step 2: The machine will sew the right row.

Step 3: The machine will sew the back bartack.

Step 4: The machine will stop automatically and a dot will blink.
⑫ Blinking dot

To sew another buttonhole, raise the presser foot. Move the fabric to where the next buttonhole is to be sewn, then lower the foot and start the machine.

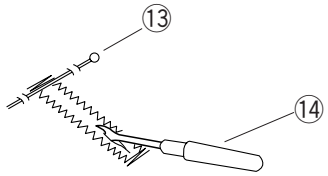


NOTE:
If you start sewing the buttonhole without lowering the buttonhole lever, the indicator will show a warning sign.
Lower the buttonhole lever, then restart the machine.



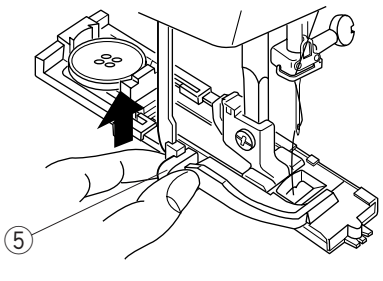
NOTE:
If you select another pattern without raising the buttonhole lever after buttonhole sewing, the indicator will show a warning sign.
Raise the buttonhole lever, then select the pattern.

6

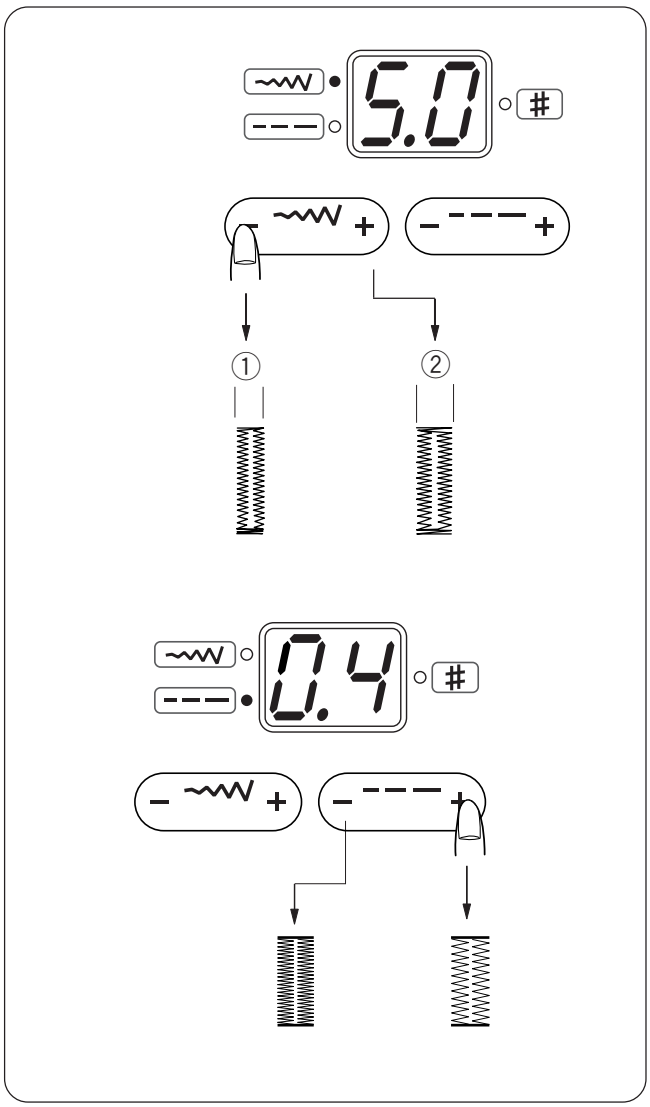


6 Remove the fabric and place a pin just below the bartack at each end to prevent accidentally cutting stitches. Cut the opening with the seam ripper. Use an eyelet punch to open a keyhole buttonhole.
⑬ Pin
⑭ Seam ripper

7



7 When buttonhole sewing is finished, push the buttonhole lever upward as far as it will go.
⑤ Buttonhole lever



Altering the buttonhole width

Press the stitch width adjusting button to change the buttonhole width.
Press the "+" sign to increase the buttonhole width.
Press the "–" sign to decrease the buttonhole width.

① Narrower buttonhole
② Wider buttonhole

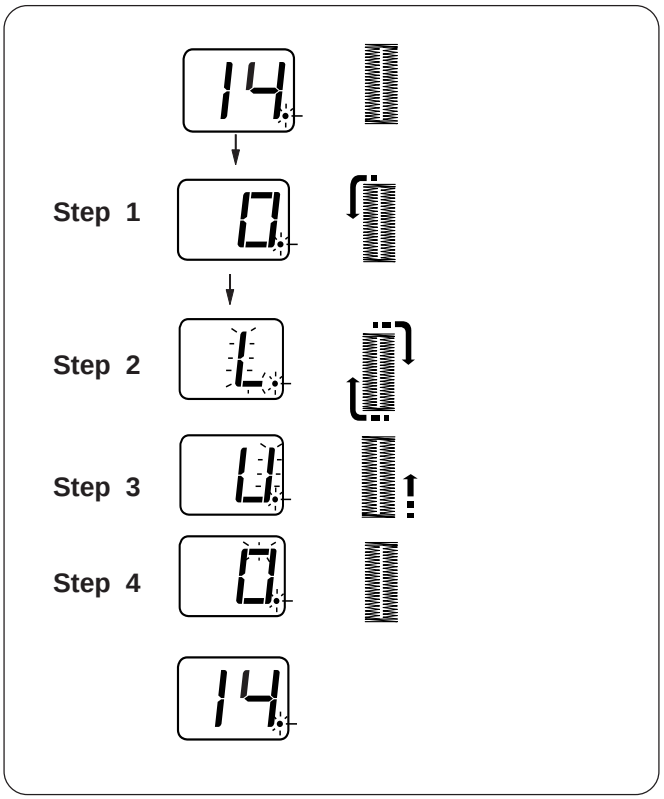
* The width can be altered between 2.5 and 7.0.

Altering the buttonhole stitch density

Press the stitch length adjusting button to change the buttonhole stitch density.
Press the "+" sign to make the stitches sparser.
Press the "–" sign to make the stitches denser.

* The stitch density can be altered between 0.2 and 0.8.

NOTE:
The indicator shows the stitch width or density while sewing. When the buttonhole is completed, the indicator will show the pattern number 14.



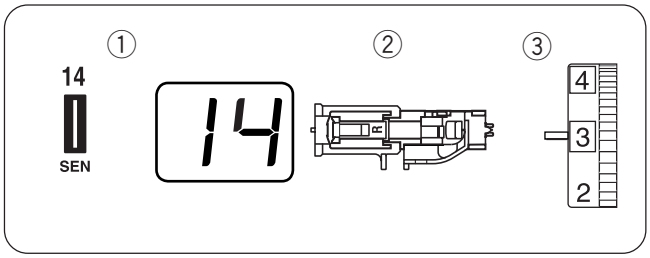
Double layer buttonhole

To make a solid and sturdy buttonhole, sew another layer of buttonhole over the previous stitches.
After the buttonhole is finished, simply start the machine again.
Do not raise the foot or buttonhole lever.

The machine will sew another buttonhole in the following order and stop automatically when it is completed:

Step 1: Straight stitching in reverse to go back to the starting point
Step 2: Front bartack and left row, then straight stitching in reverse to go back to the starting point
Step 3: Right row
Step 4: Back bartack and locking stitches at the end
The machine will stop automatically.

NOTE:
A double layer buttonhole can be sewn when the dot is blinking.

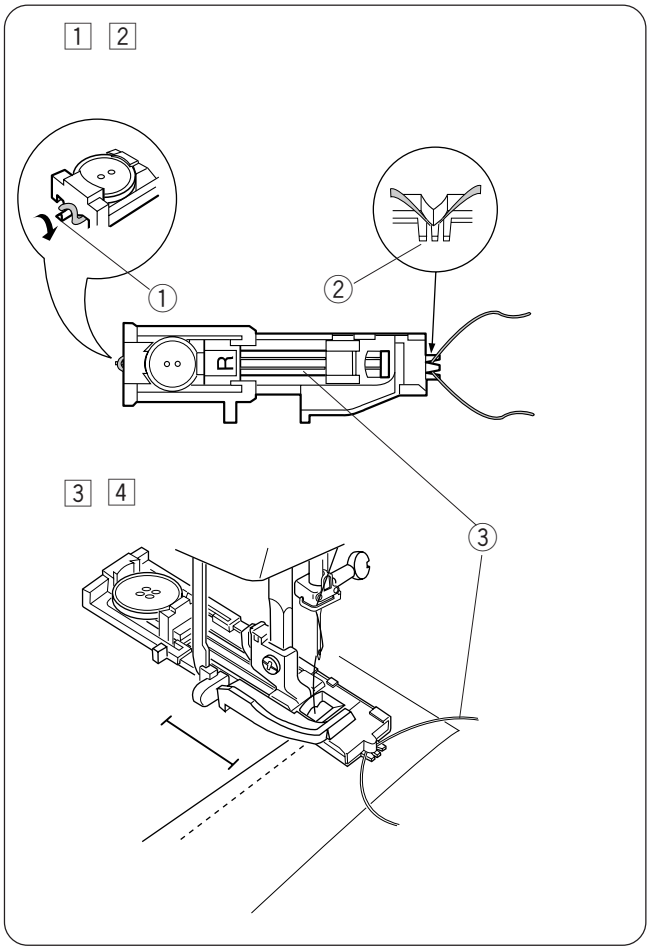


Corded buttonhole

Machine Settings

① Pattern: #14
② Presser foot: Automatic buttonhole foot R
③ Thread tension: 1 – 5

To sew a corded buttonhole, follow the same procedure as for a square buttonhole (sensor buttonhole).



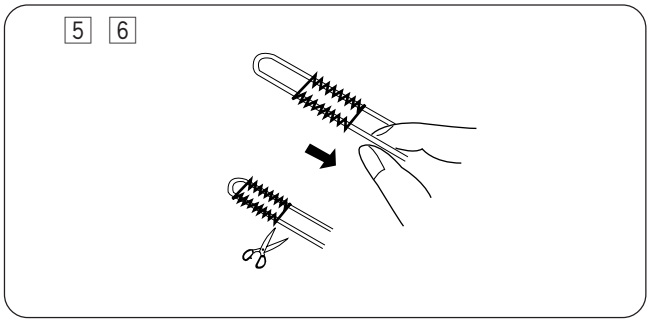
1 With the automatic buttonhole foot R raised, hook the filler cord on the spur on the back of the buttonhole foot.

2 Bring the ends of cord toward you under the buttonhole foot clearing the front end.
Hook the ends of the filler cord into the forks on the front of the buttonhole foot to hold them tight.
① Spur
② Forks
③ Cord

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

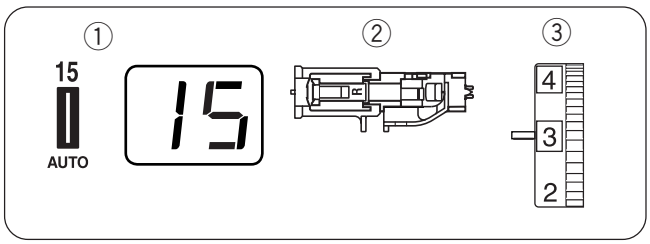
4 Lower the buttonhole lever and buttonhole foot.
Start the machine and sew the buttonhole over the filler cord.
The machine stops automatically when finished.

NOTES:
Set the stitch width in accordance with the thickness of the filler cord used.
To cut the buttonhole opening, refer to page 25.



5 Remove the fabric from the machine and cut the sewing threads.

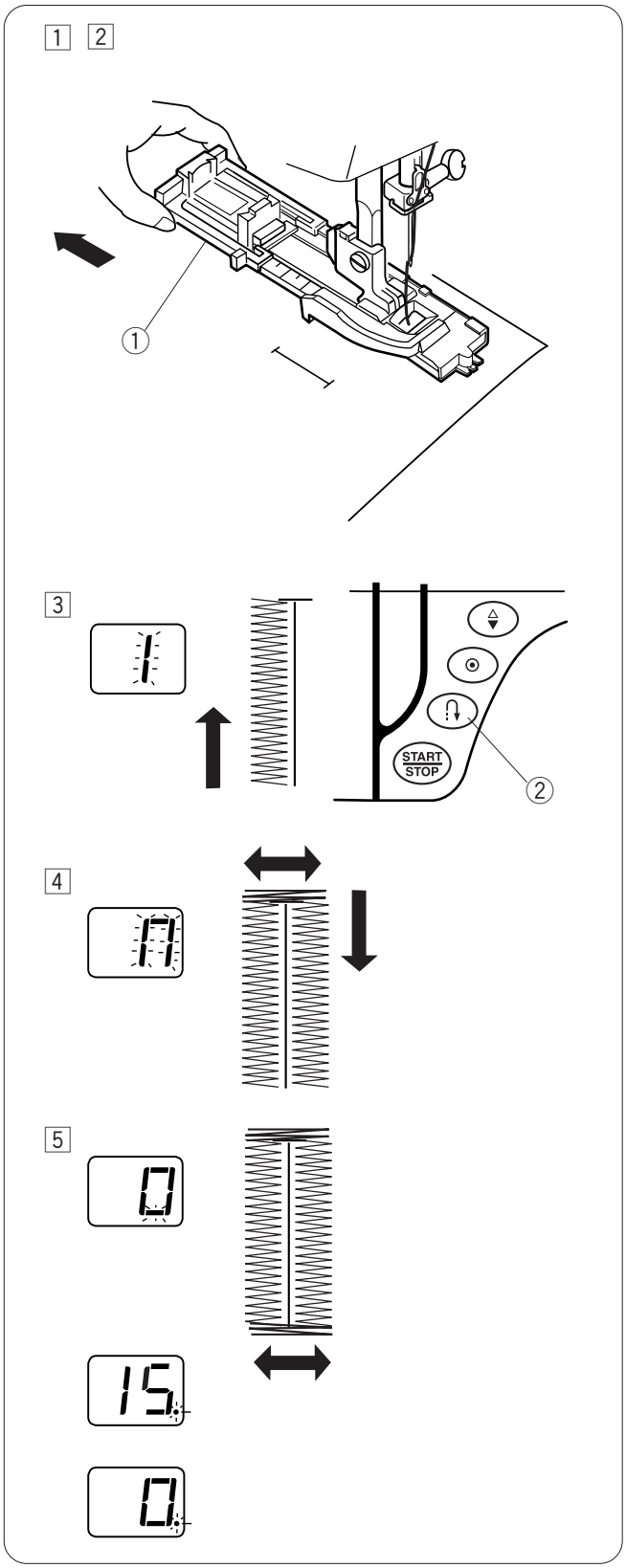
6 Pull the left end of the filler cord to tighten it.
Thread the end of the cord through a darning needle and draw it to the wrong side of the fabric and cut.



Auto buttonhole

Machine Settings

① Pattern: #15
② Presser foot: Automatic buttonhole foot R
③ Thread tension: 1 – 5



1 Pull the Button Holder all the way out.
Insert the fabric under the foot. Press the up/down needle button twice. Remove the fabric to the left to draw the needle thread through the hole of the foot.

2 Insert the garment under the foot, and lower the needle at the starting point. Then lower the Automatic buttonhole foot R.
① Button Holder

NOTE:
You do not need to pull down the buttonhole lever.

3 Sew the left row up to the required length. Then stop the machine and press the reverse button.
② Reverse button

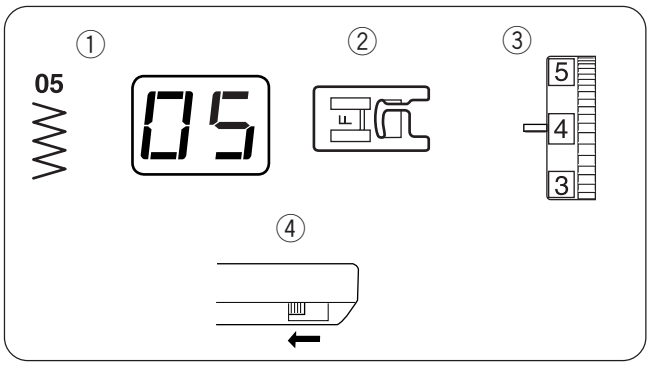
4 Start the machine again to sew the back bartack and the right row of the buttonhole.
Stop the machine when you are directly opposite the starting point.
Press the reverse button.

5 Start the machine again. The machine will sew the front bartack, lock the stitches and automatically stop when the buttonhole is completed.

NOTE:
You can sew another buttonhole identical to the first one by simply restarting the machine.
The buttonhole width and stitch density cannot be altered after the buttonhole is finished.

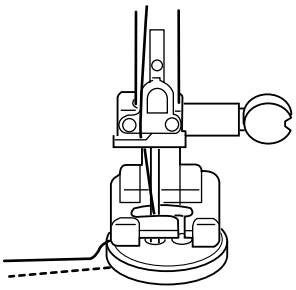
To cut the buttonhole opening, refer to page 25.

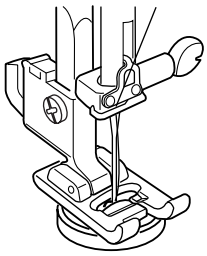
Button Sewing



Machine Settings

①	Pattern:	#05
②	Presser foot:	Satin stitch foot F
③	Thread tension:	3 – 7
③	Feed dog:	Lowered





Unthread the needle thread.

Place a button on the fabric and lower the needle by turning the handwheel, so that the needle enters into the left hole in the button.

Align the holes in the button with the slot on the foot and lower it to hold the button in place.

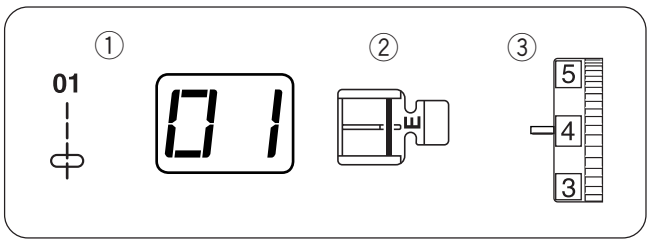
Turn the handwheel several times until the needle bar swings to the right.
Adjust the stitch width so the needle enters into the right hole in the button.
Rethread the machine and sew about 10 stitches at a slow speed.

Raise the presser foot and remove the fabric.

Trim both needle and bobbin threads at the beginning.
Cut both threads leaving 8” (20 cm) tails.

Pull the bobbin thread to bring the needle thread to the wrong side of the fabric then knot the threads.

After sewing is finished, raise the feed dog.

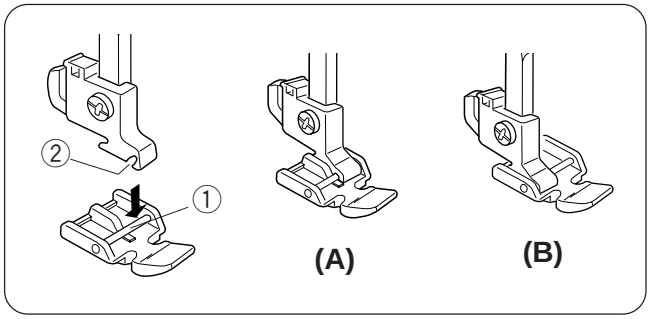


Zipper Sewing

Machine Settings

① Pattern: #01
② Presser foot: Zipper foot E (optional item)
③ Thread tension: 2 – 6

⚠ CAUTION:
When sewing with the zipper foot, make sure to use pattern #01 (straight stitch with the center needle position). Otherwise the needle may hit the foot and possibly break.



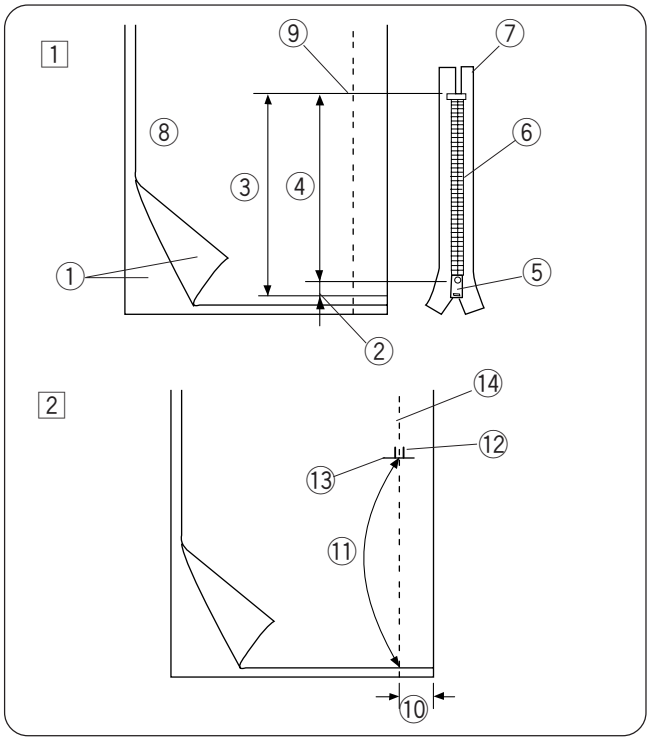
Attaching the zipper foot (optional item)

(A) Attach zipper foot E with the pin on the right-hand side to the groove to sew the left side of the zipper.

(B) Attach zipper foot E with the pin on the left-hand side to the groove to sew the right side of the zipper.

① Pin
② Groove

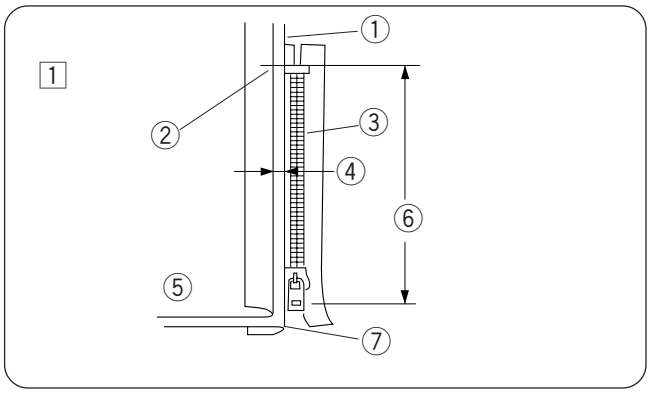
NOTE:
The zipper foot is available as an optional item.



Fabric preparation

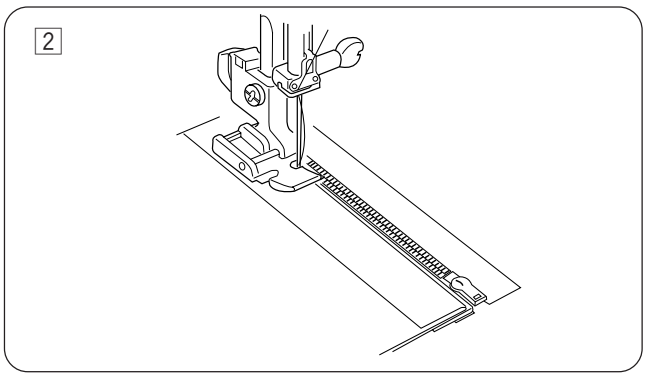
1 Add 3/8” (1 cm) to the zipper size. This is the overall opening size.
① Right side of the fabric
② 3/8” (1 cm)
③ Opening size
④ Zipper size
⑤ Slider
⑥ Zipper teeth
⑦ Zipper tape
⑧ Wrong side of the fabric
⑨ End of the opening

2 Place the right (top) sides of the fabric together. Sew a bottom seam 5/8" (2 cm) from the right edge to the zipper bottom stop position. Sew a few stitches in reverse to lock.
Increase the stitch length to “4”, set needle thread tension to “1”, and baste the remaining length of the fabric.
⑩ 5/8” (2 cm)
⑪ Basting
⑫ Reverse stitch
⑬ End of the opening
⑭ Bottom seam



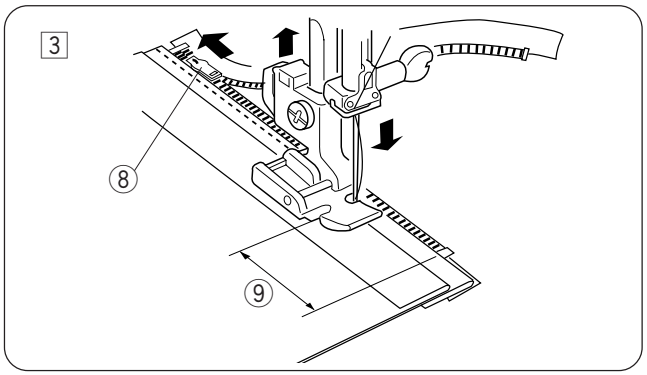
To sew

1 Attach zipper foot with the right side pin.
Fold back the upper layer seam allowance. Fold back the lower layer seam allowance to leave a 1/8" (0.4 cm) margin of fabric.
① Lower layer
② End of the opening
③ Zipper teeth
④ 1/8” (0.4 cm) margin
⑤ Upper layer
⑥ Opening size
⑦ Folded edge



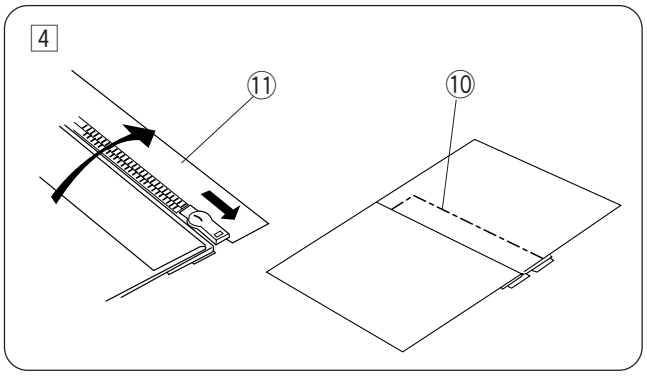
2 Place zipper teeth next to margin edge and baste the zipper tape to the lower fabric layer.
Align zipper foot with margin edge. Return thread tension and stitch length to original settings.
Sew a seam the entire length of zipper tape.

NOTE:
To secure the beginning of a seam, sew several reverse stitches.

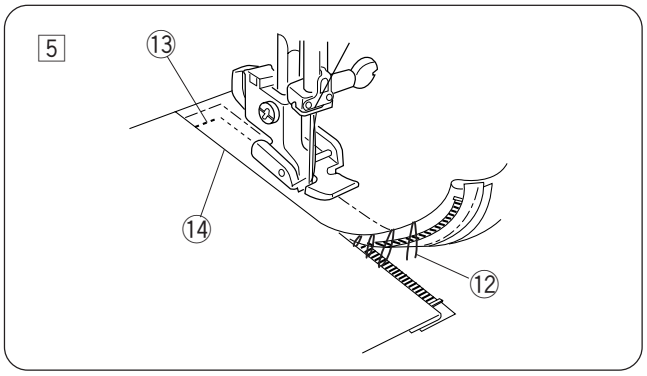


3 Stop the machine 2” (5 cm) before reaching the slider, with needle in the fabric and raise the foot, then unzip a few inches to clear a path for stitching.
⑧ Slider
⑨ 2” (5 cm)

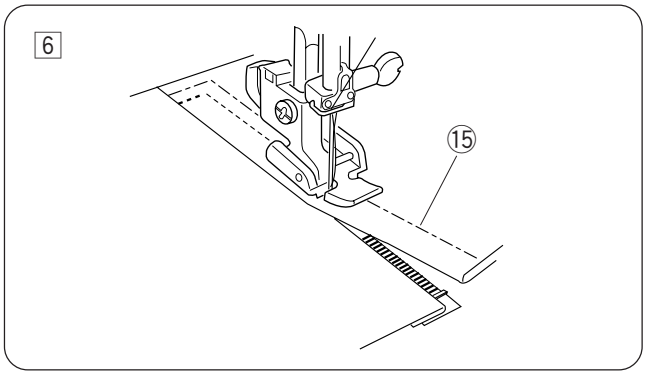
NOTE:
To secure the biginning of a seam, sew several reverse stitches.



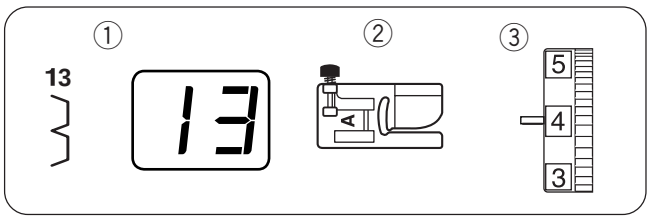
4 Remove fabric and close zipper. Take the upper fabric layer and lay it flat over the zipper.
Baste the zipper tape to the upper fabric layer.
⑩ Basting
⑪ Zipper tape



5 Raise and release the foot, and re-attach it with the left side pin.
Starting just below zipper bottom stop, sew across the fabric to about 3/8" (1 cm) distance from the basting line.
Turn fabric 90 degrees and sew a seam the entire length of the zipper tape. Before reaching the slider, stop the machine with needle in fabric and raise the foot. Use seam ripper to open a few inches of basting stitch.
⑫ Unstitch basting
⑬ 3/8" (1 cm)
⑭ Basting line



6 Unzip a few inches to clear a path for stitching. At end of seam, sew a few stitches in reverse to lock. Once both sides of zipper are sewn, use the seam ripper to open the rest of basting stitch.
⑮ Basting



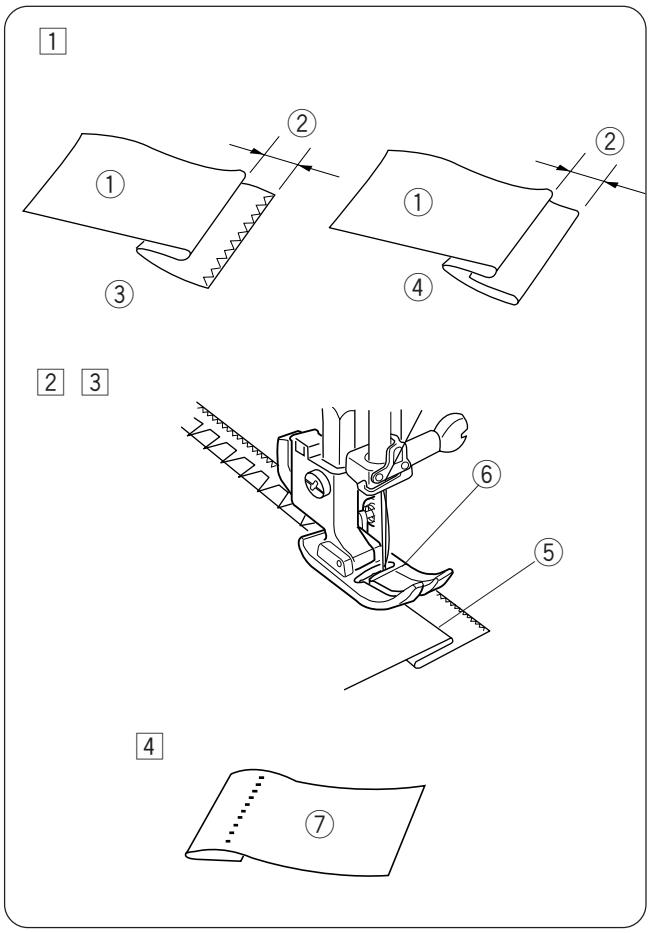
Blind Hemming

Machine setting

① Stitch pattern: #13 or #12 12

② Presser foot: Zigzag foot A

③ Thread tension: 3 – 6



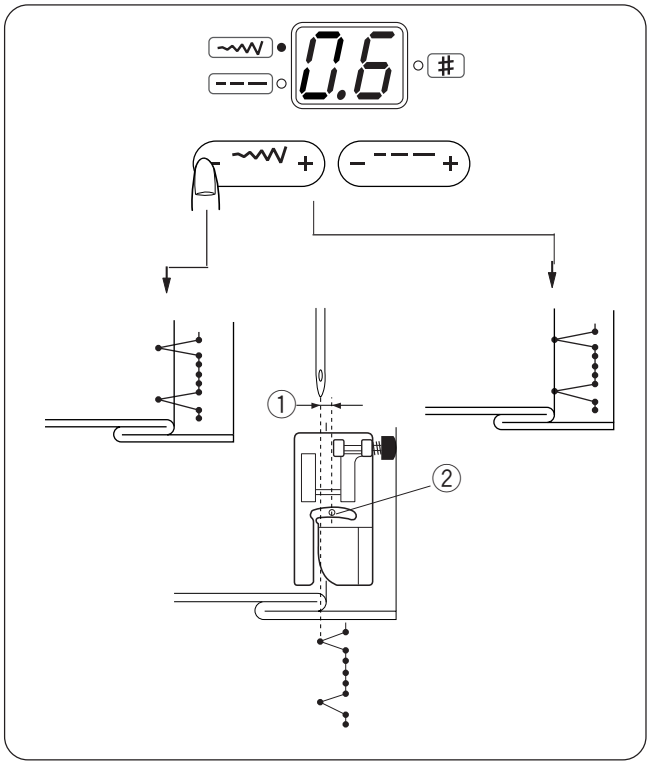
1 On heavy weight fabrics that ravel, the raw edge should be overcast first.
Fold the hem under the fabric as illustrated for fine or medium fabrics.
Fold a hem with the wrong side up forming a 3/16” (0.5 cm) allowance.
① Wrong side of the fabric
② 3/16” (0.5 cm)
③ Heavy weight fabric
④ Fine and medium weight fabric

2 Place the fabric so that the needle just pierces the folded edge when the needle comes over the extreme left side.
Lower the presser foot.
Adjust the needle drop position with the stitch width adjusting button if necessary.

3 Sew slowly while guiding the folded edge along the left side of the clear window of the foot.
⑤ Folded edge
⑥ Clear window

4 Open and press the fabric after sewing is finished.
⑦ Right side of the fabric

NOTE:
If the needle drops too far left, the stitches will be apparent on the right side of the fabric.



Adjusting the needle drop position

Press the stitch width adjusting button to adjust the needle drop position. The top green light will light up and the preset value "0.6" will be indicated.

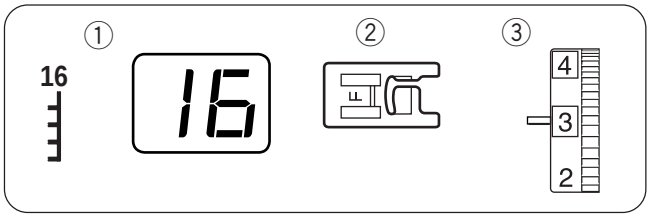
The value indicates a distance from the center needle drop position in millimeter.
① Distance
② Center needle drop position

Press the "+" sign to move the needle drop position to the right.

Press the "–" sign to move the needle drop position to the left.

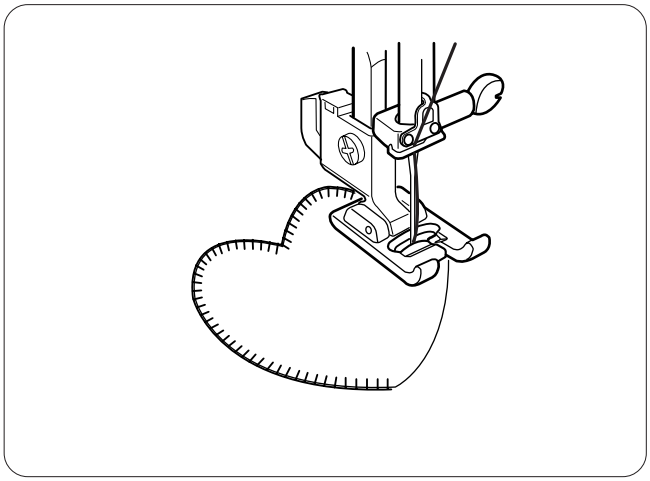
DECORATIVE SEWING

Applique



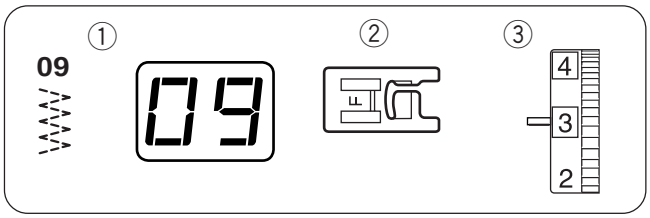
Machine setting

①	Stitch pattern:	#16, #17, #18
②	Presser foot:	Satin stitch foot F
③	Thread tension:	1 – 4



Place the applique on the fabric and baste it in place. Sew, guiding the edge of the applique along the slit on the foot, so that the needle falls off the edge of the applique when it swings to the right.

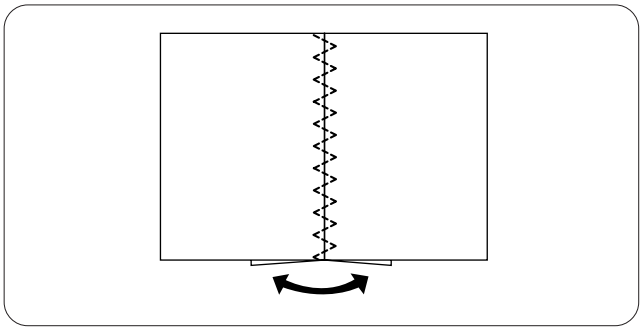
NOTE:
When changing the sewing direction at a corner or curve, lower the needle into the applique at the left swing and turn the fabric to a new direction.



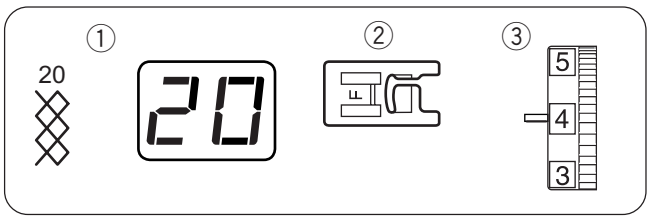
Patchwork

Machine setting

①	Stitch pattern:	#09
②	Presser foot:	Satin stitch foot F
③	Thread tension:	1 – 4



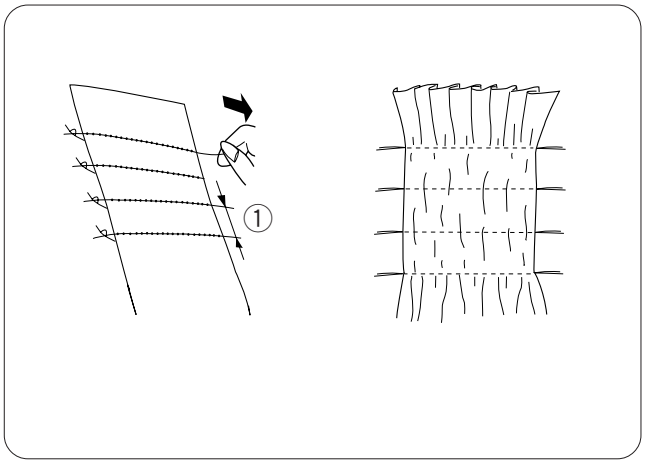
Seam the patchwork pieces with straight stitch and press seam allowance open. Sew pattern #09 on the right side of garment centering over the seam line.



Smocking

Machine setting

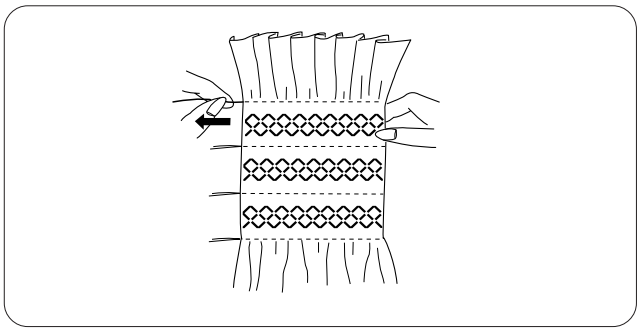
① Stitch pattern: #20
② Presser foot: Satin stitch foot F
③ Thread tension: 3 – 6



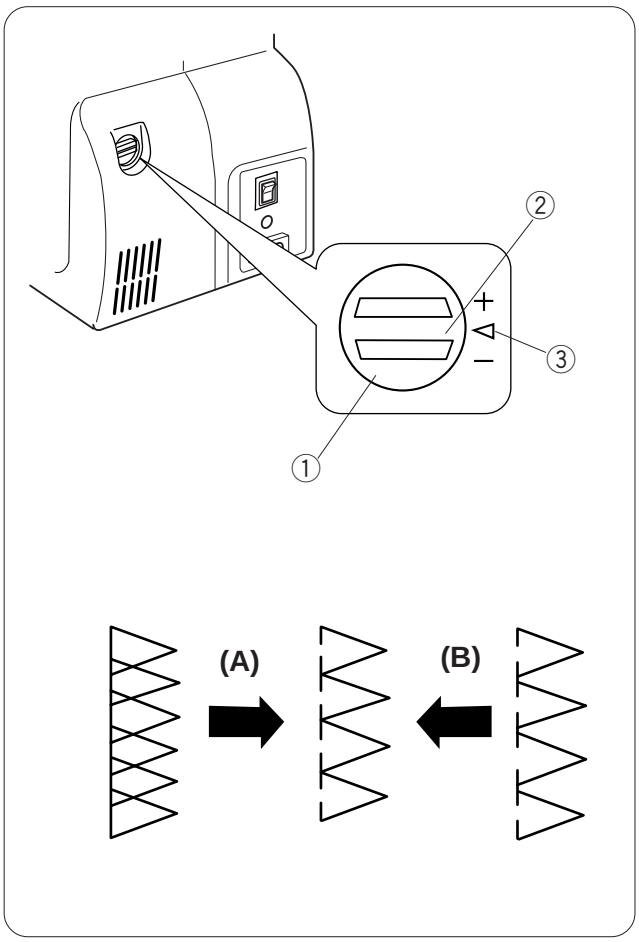
Smocking is a delicate, decorative treatment on children's clothes or women's blouses.
Choose a soft, lightweight fabric such as batiste, gingham or challis. Cut the fabric three times the projected width. Set the stitch length at 4.0 and sew straight lines 3/8"(1cm) apart across the area to be smocked.

① 3/8"(1cm)

A looser needle thread tension will make gathering easier.
Knot the threads along one edge. From the other end, pull the bobbin threads to distribute the gathers evenly. Secure the threads at the other end.



Sew the smocking stitches between the straight seams.
Remove the straight stitches by pulling them out.



Correcting Distorted Stretch Patterns

The sewing results of the stretch patterns may vary depending upon the sewing conditions, such as sewing speed, type of the fabric, number of layers etc.
Always test sew on a scrap piece of the fabric that you wish to use.

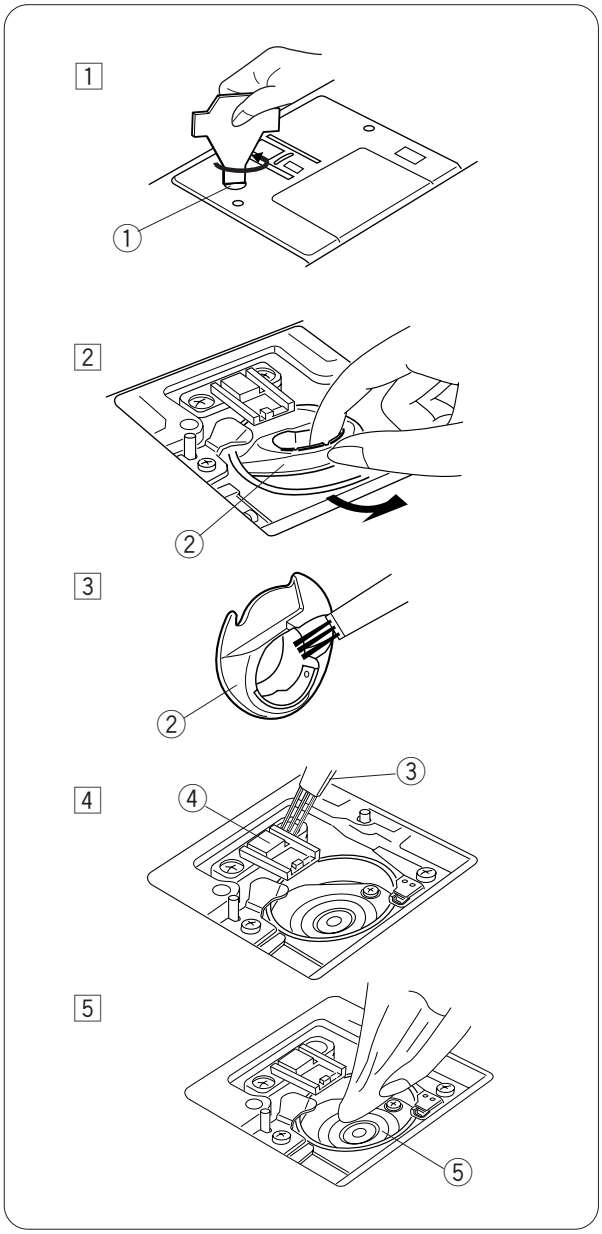
If stretch stitch patterns are distorted, correct it with the feed balancing dial.

① Feed balancing dial
② Neutral position
③ Setting mark

Example: Pattern #10

(A) If the pattern is compressed, turn the feed balancing dial in the direction of “+”.

(B) If the pattern is drawn out, turn the feed balancing dial in the direction of “—”.



CARE AND MAINTENANCE

⚠ WARNING:
Turn the power switch off and unplug the machine before cleaning.

NOTE:
Do not dismantle the machine in any way other than what is explained in this section.

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

Cleaning the Hook Race and Feed Dogs

1 Remove the presser foot and needle. Remove screw on the needle plate with the screwdriver.
Remove the needle plate and take out the bobbin.
① Screw

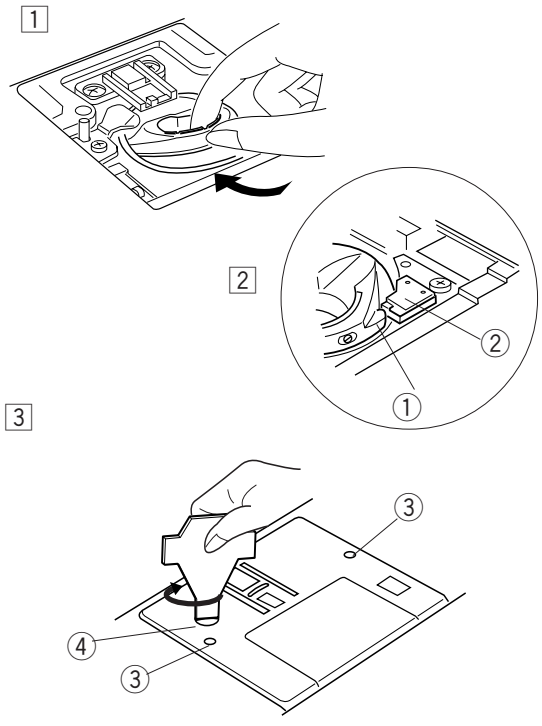
2 Lift up the bobbin holder and remove it.
② Bobbin holder

3 Brush out dust and lint. Wipe the bobbin holder with a soft, dry cloth.

4 Clean the feed dogs and hook race with the lint brush.
③ Lint brush
④ Feed dog

5 Wipe the hook race with a soft, dry cloth.
⑤ Hook race

NOTE:
You may also use a vacuum cleaner.



Replacing the Bobbin Holder

1 Insert the bobbin holder into the hook race.

2 Make sure the knob of the bobbin holder fits next to the stopper on the race.
① Knob
② Stopper

3 Replace the bobbin.
Attach the needle plate, inserting the two guide pins into the holes in the needle plate. Tighten the screw firmly with the screwdriver.
③ Guide holes
④ Screw

Problems and Warning Signals

If a buzzer sounds and the indicator shows a warning sign, follow the guidance below.

Warning signal	Problem	Try this
	The start/stop button is pressed with the foot control being connected. The foot control is connected or disconnected while sewing.	Disconnect the foot control. Turn the power switch off when connecting or disconnecting the foot control.
	The machine is re-started too soon after it has halted due to the overload.	Wait for at least 15 seconds to restart. If threads are jamming, remove jammed threads.
	The buttonhole is sewn without lowering the buttonhole lever.	Lower the buttonhole lever and restart the machine.
	Selecting a pattern after buttonhole is completed with the buttonhole lever still lowered.	Raise the buttonhole lever and re-select the pattern. Do not sew other pattern with the buttonhole foot.
	The bobbin winder spindle is shifted to the right for bobbin winding.	Return the bobbin winder spindle to the left.
 to 	The machine is malfunctioning due to a problem in the electronic components.	Contact the service center or the store from where the machine was purchased.

NOTE:
The safety device will shut the power down when the machine is locked. If the threads are jamming, remove the jammed threads and turn the power on again after 3 minutes.

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

It is not abnormal that a faint humming sound is coming from the internal motors.
This machine equipped with LED sewing light, which will not burn out and does not need to be replaced.

Troubleshooting

Condition	Cause	Reference
The needle thread breaks.	1. The needle thread is not threaded properly. 2. The needle thread tension is too tight. 3. The needle is bent or blunt. 4. The needle is incorrectly inserted. 5. The needle thread and the bobbin thread are not set properly under (drawn to the rear of) the presser foot when sewing is starting. 6. The fabric is not drawn to the rear when sewing is finished. 7. The thread is too heavy or too fine for the needle.	Page 14,15 Page 9 Page 10 Page 10 Page 17 Page 17 Page 10
The bobbin thread breaks.	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 the bobbin.	 Page 13 Page 36 Replace the bobbin Re-wind the bobbin.
The needle breaks.	1. Needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The needle clamp screw is too loose. 4. A proper foot is not used. 5. The fabric is not drawn to the rear when sewing is finished. 6. The needle is too fine for the fabric being sewn.	Page 10 Page 10 Page 10 Use proper foot. Page 17 Page 10
The needle thread loops.	1. The needle thread tension is too loose. 2. The needle size is not suitable for the thread.	Page 9 Page 10
Skipped stitches	1. The needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The needle and/or thread are not suitable for the fabric being sewn. 4. A blue needle is not being used for sewing stretch, very fine fabrics and synthetics. 5. The needle thread is not threaded properly. 6. A poor quality needle is used.	Page 10 Page 10 Page 10 Page 10 Page 14,15 Replace the needle
Seam puckering	1. The needle thread tension is too tight. 2. The needle thread is not threaded properly. 3. The needle is too heavy for the fabric being sewn. 4. The stitch length is too long for the fabric. * Use a stabilizer for very fine fabrics.	Page 9 Page 14,15 Page 10 Make stitch shorter
The cloth is not fed smoothly.	1. The feed dog is packed with lint. 2. The stitches are too fine. 3. The feed dog was not raised after being lowered.	Page 36 Make stitch longer Page 8
The machine does not work.	1. The machine is not plugged in. 2. Thread is caught in the hook race. 3. The bobbin winder spindle is still in the winding position.	Page 4 Page 36 Page 12
Patterns are distorted.	1. The stitch is not balanced.	Page 35
The buttonhole is not sewn well.	1. The stitch density is not suitable for the fabric being sewn. 2. Interfacing is not being used with stretch fabrics.	 Page 26 Page 23
Noisy operation	1. The feed dog is packed with lint. 2. Lint has collected in the bobbin holder.	Page 36 Page 36

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