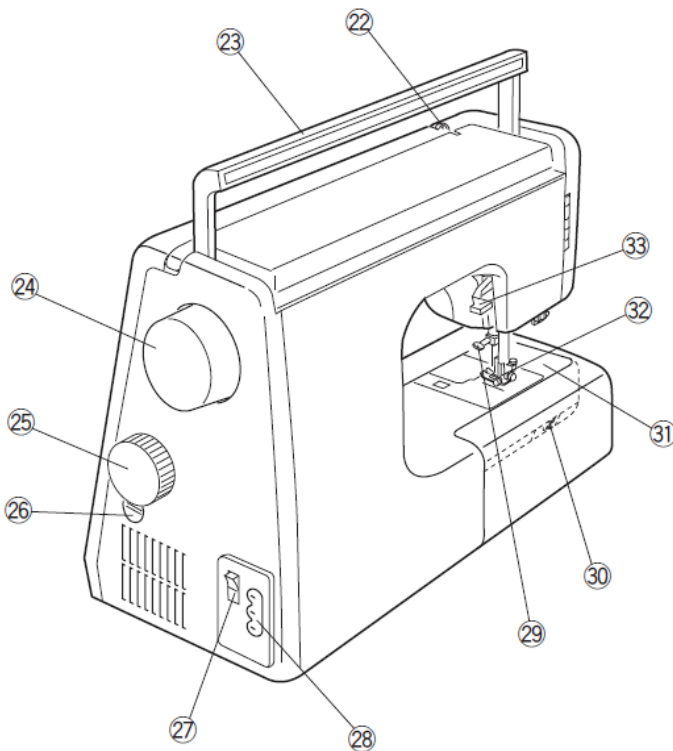
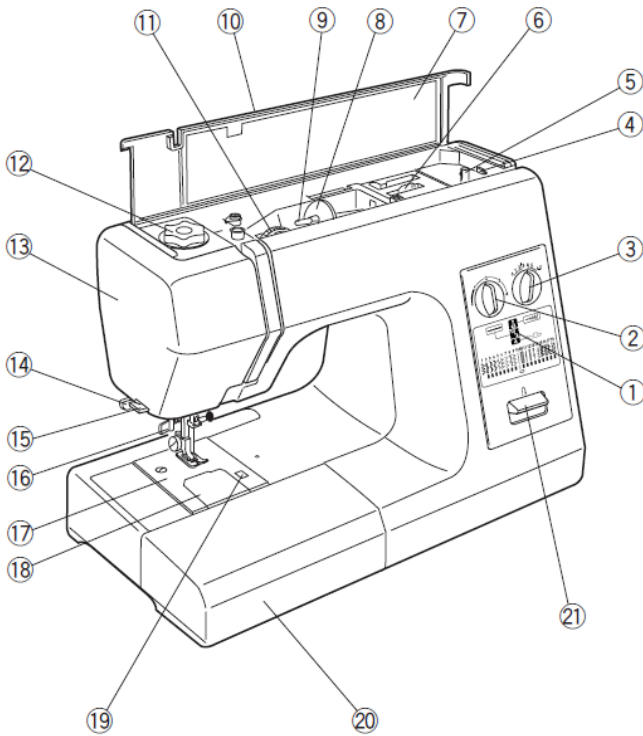
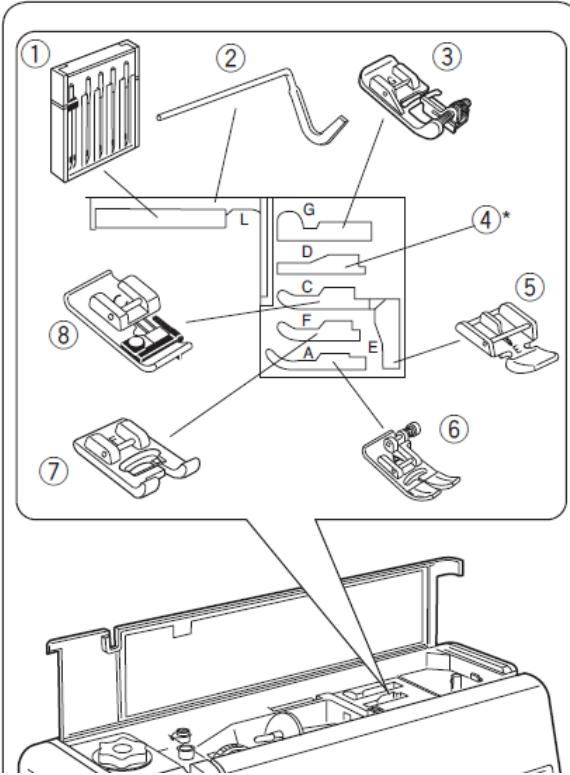


SECTION I ESSENTIAL PARTS

Part names

- 1 Guidance message window
- 2 Stitch length dial
- 3 Zigzag width dial
- 4 Bobbin winder stop
- 5 Bobbin winder spindle
- 6 Foot storage compartment
- 7 Fold-down sewing instruction panel
- 8 Spool holder (large)
- 9 Bobbin pin
- 10 Top cover
- 11 Thread tension dial
- 12 Pressure dial
- 13 Front plate
- 14 Buttonhole lever
- 15 Thread cutter
- 16 Needle threader
- 17 Needle plate
- 18 Hook cover plate
- 19 Hook cover plate release button
- 20 Extension table (accessory storage box)
- 21 Reverse stitch button
- 22 Thread puller lever
- 23 Carrying handle
- 24 Handwheel
- 25 Pattern selector dial
- 26 Feed balance dial
- 27 Power switch
- 28 Machine plug
- 29 Needle clamping screw
- 30 Feed dog lever
- 31 Free arm
- 32 Presser foot
- 33 Presser foot lifter



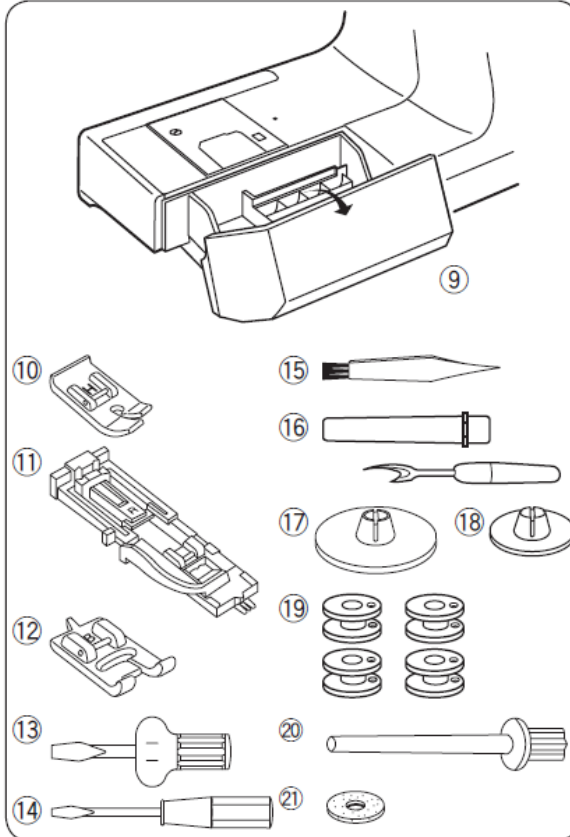


Presser foot storage compartment

Each presser foot and compartment is labelled with letters for easy identification and storage.
For best sewing results, use the recommended presser foot for each sewing technique.

- 1 Needle case
- 2 Quilting guide bar
- 3 Blind hem foot G
- 4 Rolled hem foot D*
- 5 Zipper foot E
- 6 Zigzag foot A
- 7 Satin stitch foot F
- 8 Overlock foot C

* The rolled hem foot D is an optional accessory.



Extension table (accessory storage box)

The sewing accessories are on the extendable table.

- 9 Extension table

- 10 Straight stitch foot H
- 11 Automatic buttonhole foot R
- 12 Transparent buttonhole foot B
- 13 Screwdriver (large)
- 14 Screwdriver (small)
- 15 Lint brush
- 16 Seam ripper (buttonhole opener)
- 17 Spool holder (large) (fitted to the machine)
- 18 Bobbin holder (small)
- 19 Spool pins (4 pcs.) (1 set on the machine)
- 20 Additional bobbin pin
- 21 Felt

Removable extension table

Extendable table

The extension table provides an extended sewing area and can be removed for free-arm sewing.

- 1 Extension table
- 2 Free arm

To remove:

Pull the table to the left.

To assemble:

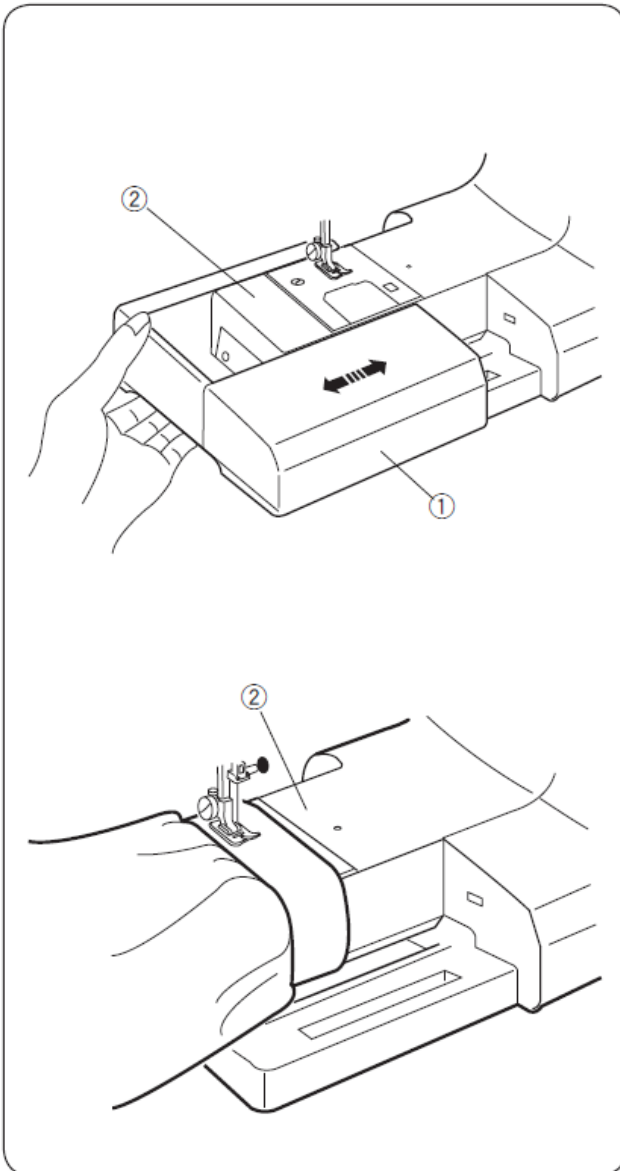
Slide the table onto the base and push the table to the right.

Free-arm sewing

Free-arm sewing is used for sewing sleeves, waistbands, trouser legs and any other type of tubular garment.

It is also useful for darning socks or elbow and knee pads.

- 2 Free arm



SECTION II PREPARING TO SEW

Connecting the machine to the mains

Before connecting to the mains, ensure that the voltage and frequency match those of the machine. Switch off the power, insert the non-reversible plug into the machine's socket and connect the machine to the mains supply.

Switch on the power.

Whilst using the machine, always keep your eyes on the sewing area and do not touch any of the moving parts, such as the thread take-up lever, the handwheel or the needle.

Always switch off the power switch and disconnect the machine from the mains:

- when leaving the machine unattended.
- when cleaning the machine.
- when cleaning the machine.

Do not place anything on the foot control, otherwise the machine may start accidentally.

Operating instructions:

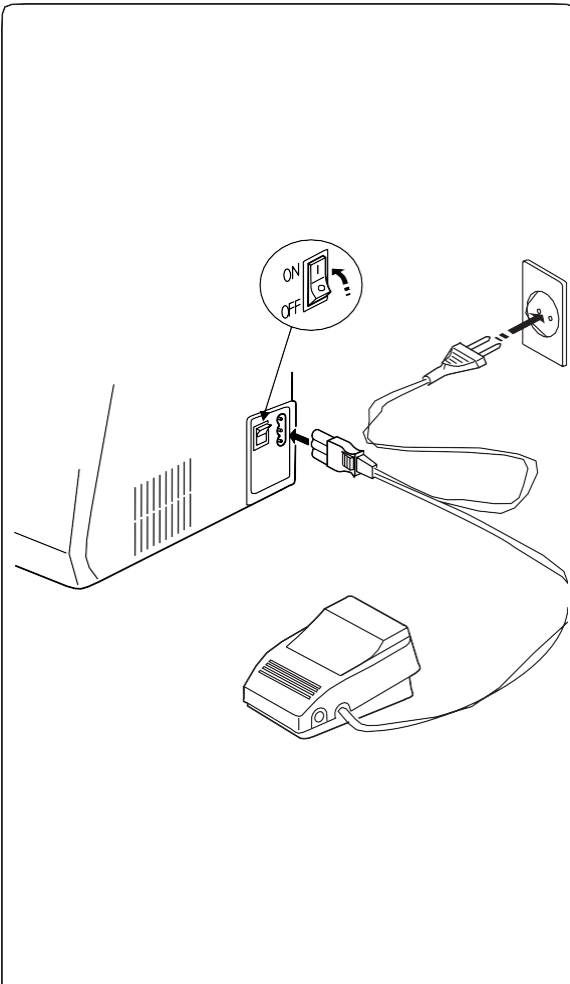
The "O" symbol on a switch indicates the "off" position of that switch.

To reduce the risk of electric shock, this plug can only be inserted into polarised sockets in one orientation.

If it does not fit securely into the socket, turn it round.

If it still does not fit, contact a qualified electrician to install a suitable socket.

Do not modify the plug.



Foot control

You can adjust the sewing speed using the foot control.

The more you press it, the faster the machine will operate.

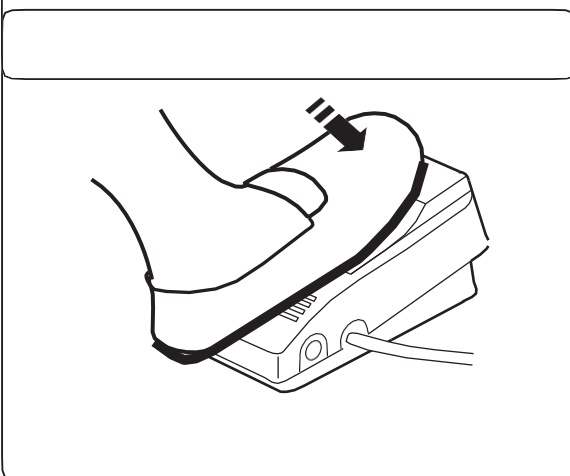
Adjusting the speed range switch

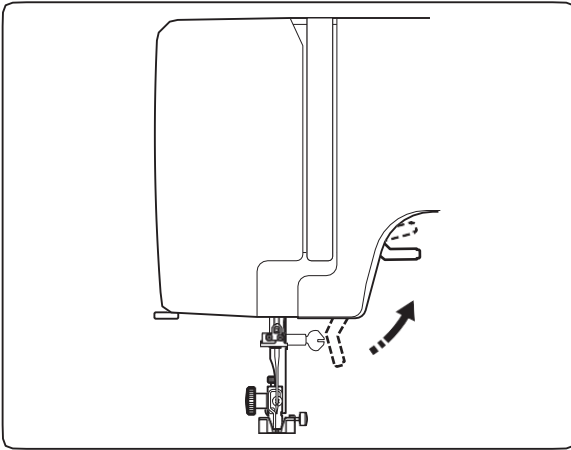
The sewing speed range can be adjusted using the control on the foot control.

For the HIGH speed range, set the switch to the "HIGH" mark.

For the LOW speed range, set the switch to the "LOW" mark.

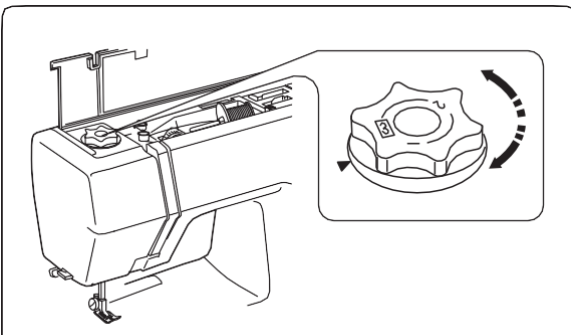
* Do not move the switch whilst the machine is running.





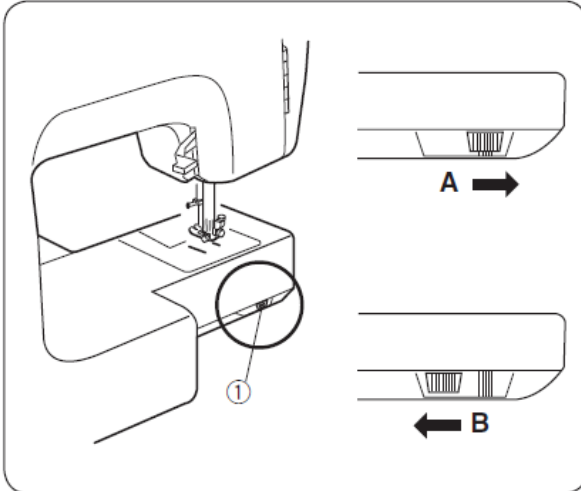
Extra space

The presser foot can be raised further to provide additional space.



Pressure dial

The pressure dial should be set to “3” for normal sewing. Reduce the pressure to “2” for appliqué work. Set the pressure to “1” when sewing chiffon, lace, organdy and any other fine fabric. Velvet and stretch knits may require a setting of “1”.



Lowering the feed dogs

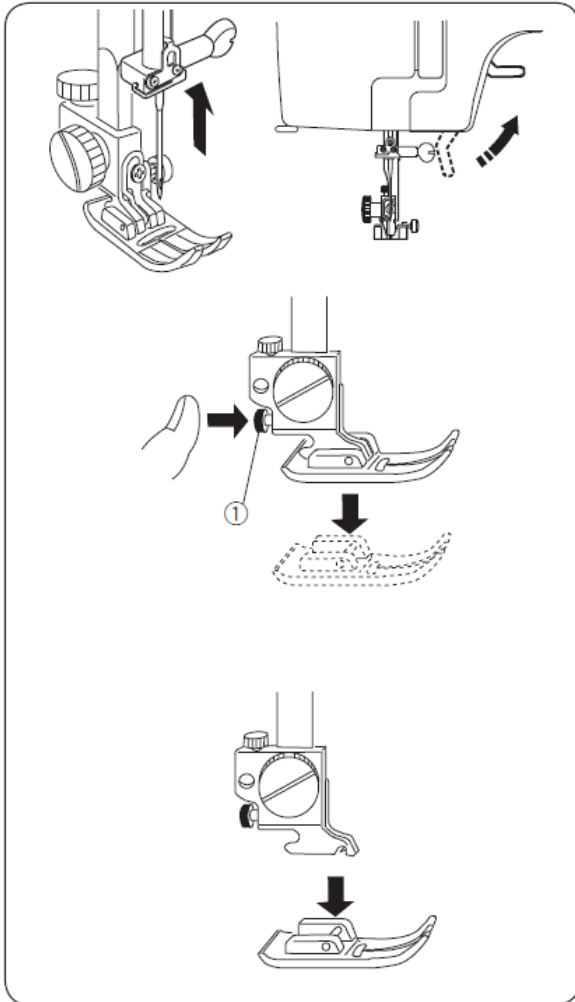
The feed dog lever is located under the free-arm housing.

1 Feed dog lever

A: To raise the feed dogs, press the lever in the direction indicated by the arrow, as shown.

B: To lower the feed dogs, press the lever in the direction indicated by the arrow, as shown.

* The feed dogs must always be raised for normal sewing.



To attach and release the presser foot



CAUTION:

Switch off the power before replacing the presser foot.

To release

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

Raise the presser foot.

Press the red button on the back of the presser foot holder.

The presser foot will detach.

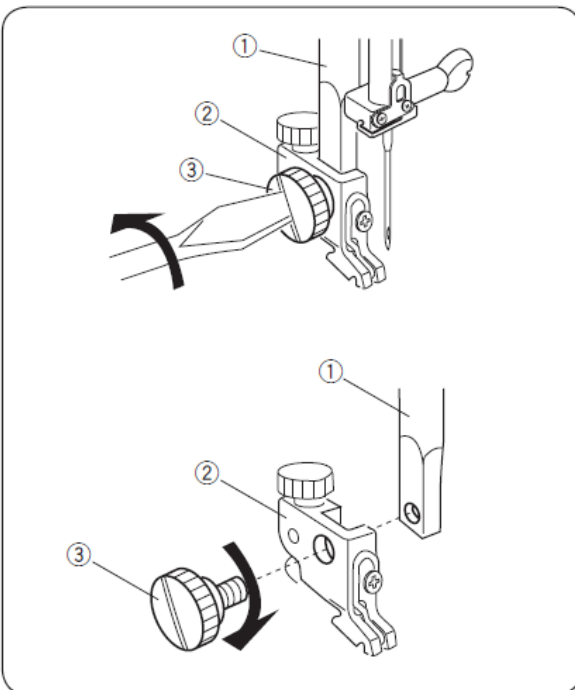
- 1 Red button

To attach

When attaching the presser foot, the pressure dial must always be set to "3".

Position the presser foot so that its pin rests just below the slot in the foot holder.

Lower the presser foot holder to lock the presser foot in place.



To remove and fit the presser foot holder

To remove

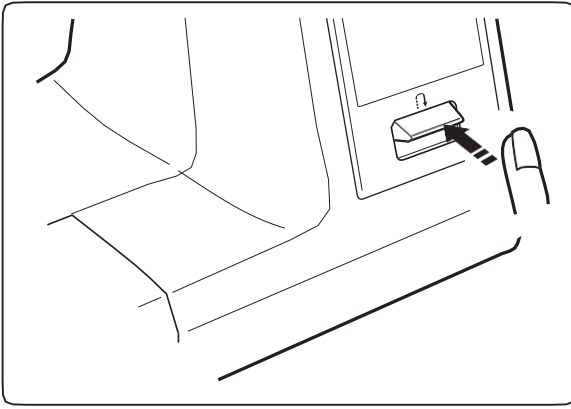
Remove the presser foot by turning it anticlockwise with the screwdriver.

- 1 Presser foot bar
- 2 Foot control
- 3 Feed dog

To assemble

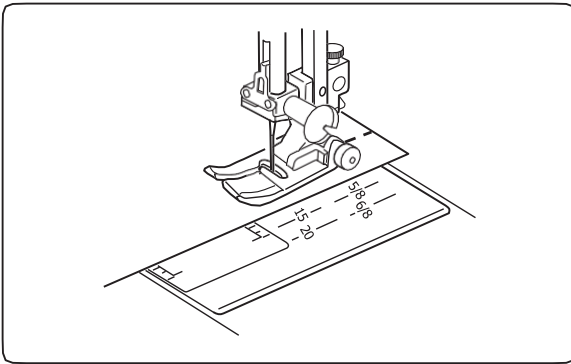
Align the hole in the foot support with the threaded hole in the presser foot bar and insert the foot support screw into the hole.

Tighten the screw by turning it clockwise.



Reverse stitch button

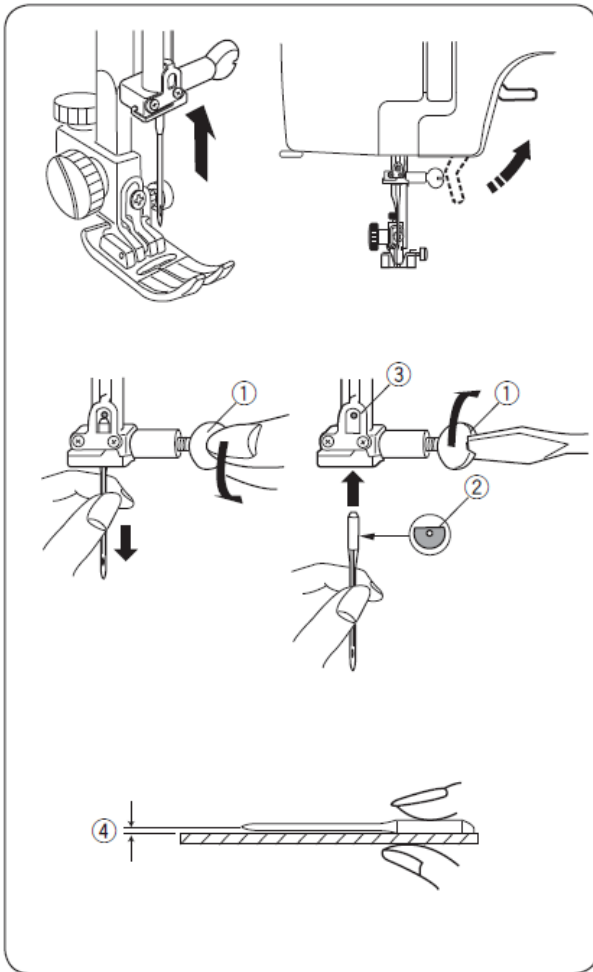
While you hold down the reverse stitch button, the machine sews backwards.



Sewing guide line

The numbers on the needle plate indicate the distance between the left needle position and the line.

The numbers on the front indicate millimetres. The numbers on the back indicate inches.



Needle change



CAUTION:

Switch off the power before replacing the needle.

Switch off the power before replacing the needle. Raise the needle by turning the handwheel towards you and lower the presser foot.

Turn off the power switch.

Loosen the needle clamp screw and remove the needle from the clamp.

1 Needle clamp screw

Insert a new needle into the clamp with the flat side of the needle facing the rear.

When inserting the needle into the holder, press it against the stop pin and tighten the needle holder screw firmly with a screwdriver.

2 Flat side

3 Stop pin

To check that the needle is straight, place the flat side of the needle on a flat surface (needle plate, glass, etc.).

The gap between the needle and the flat surface must be consistent.

Never use a needle without a tip.

4 Gauge

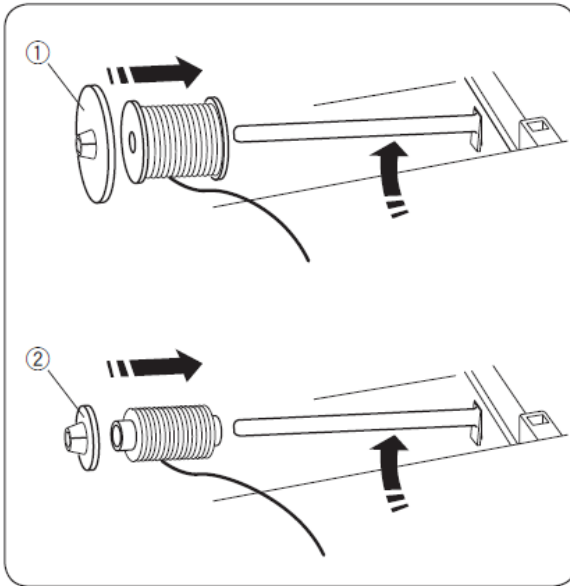
	Fabric	Thread	Needle
Fine	Linen Georgette Tricot Organza Crepe	Silk #80-100 Cotton #80-100 Synthetic #80-100	#9/65-11/75 Blue needle
Medium	Sheet fabric Jersey Wool fabric Fleece	Silk #50 Cotton #50-80 Synthetic #50-80	#11/75-14/90
Heavyweight	Denim Wool fabrics Linings Quilting	Silk #30-50 Cotton #40-50 Synthetic #40-50	#14/90-16/100

Fabric and needle chart

- Generally, use a 11/75 or 14/90 needle.
- Use a fine needle and thread when sewing lightweight fabrics: this will prevent damage.
- For thick fabrics, you need needles that are large enough to pierce the fabric without the thread fraying at the needle point.
- Always test the thread and needle size on a small piece of the same fabric you are going to sew.
- As a general rule, use the same type of thread for the needle and the bobbin.
- When sewing stretch fabrics, very fine fabrics and synthetics, use a blue needle.
- The blue needle effectively prevents loose stitches.

NOTE:

The needle box (#820827007) includes: 1 x twin needle, 1 x blue needle (#11/75), 2 x #11/75 needles and 1 x #14/90 needle.



Spooling the bobbin

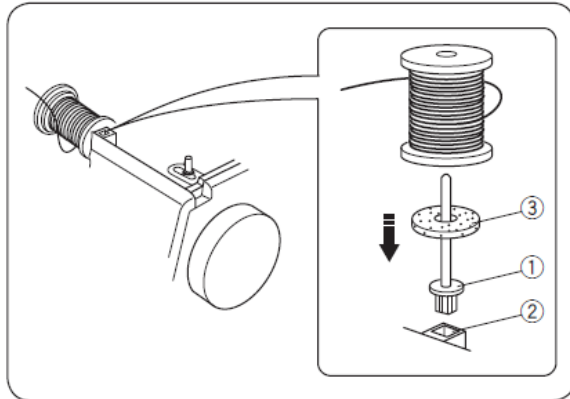
Horizontal bobbin pin

Lift the spool pin. Place the thread spool onto the spool with the thread coming out of it as shown. Fit the large bobbin holder by pressing it firmly against the thread spool.

- 1 Large bobbin holder

* The small spool holder should be used with narrow or small spools.

- 2 Small spool holder



Extra bobbin pin

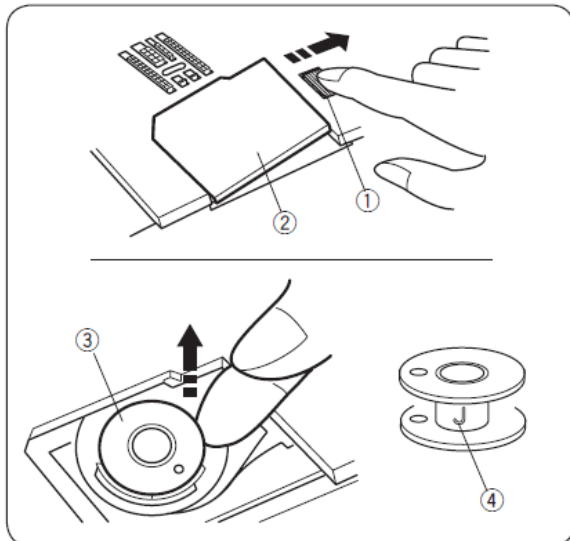
The additional bobbin pin is used to wind bobbins without unthreading the machine.

The additional bobbin pin is also used for twin-needle sewing.

To use it, insert the additional bobbin pin into the hole.

Place the felt and the bobbin onto the pin.

- 1 Additional bobbin pin
- 2 Hole
- 3 Felt



Removing the bobbin

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

Remove the spool.

- 1 Hook cover plate release button
- 2 Hook cover plate
- 3 Spool

NOTE:

Use the plastic "J" bobbins for the horizontal hook (marked "J" 4).

Using other bobbins, such as pre-wound paper bobbins, may cause stitching problems and/or damage the bobbin holder.

Threading the bobbin winder

1 Pull the thread from the spool.

2 Pass the thread around the thread guide.
1 Thread guide

3 Pass the thread around the bobbin winder's thread guide.
2 Bobbin winder thread guide

4 Thread the thread through the hole at the top of the bobbin from the inside to the outside.

5 Place the bobbin onto the bobbin winder spindle and press to the right.

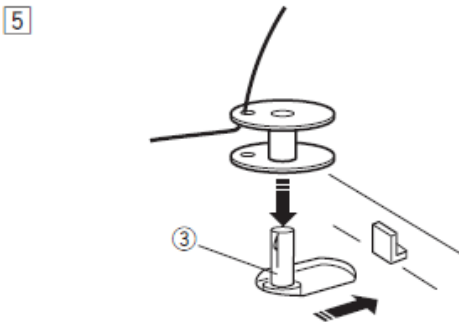
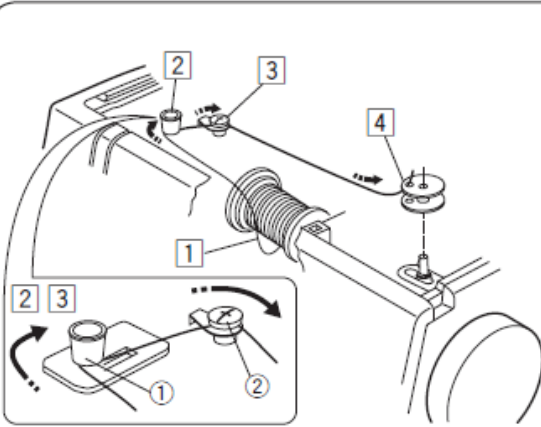
3 Bobbin winder spindle

6 While holding the loose end of the thread with your hand, press the foot control.

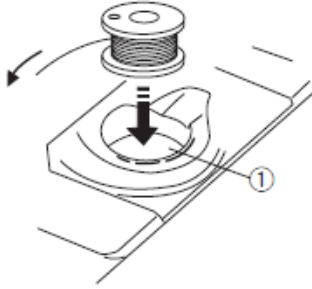
Stop the machine once it has turned several times and cut the thread close to the bobbin hole. Press the pedal again.

Once the bobbin is fully wound, it will stop automatically.

7 Return the bobbin winder to its original position by turning the spindle to the left and cutting the thread as shown.



1

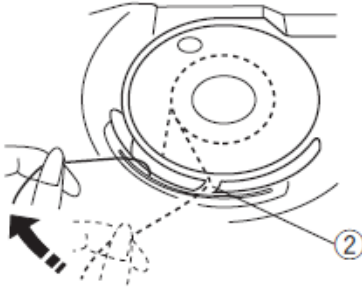


Inserting the bobbin

1 Place the bobbin in the bobbin holder with the thread running anti-clockwise.

1 Bobbin holder

2

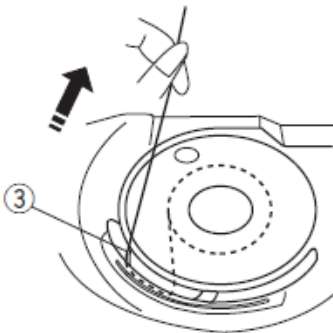


2 Guide the thread into notch A at the front of the bobbin holder.

Pull the thread to the left, sliding it between the blades of the tension spring.

2 Notch A

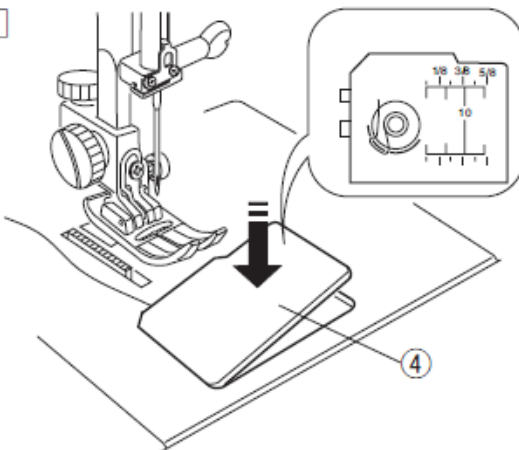
3



3 Continue pulling the thread gently until it falls into notch B.

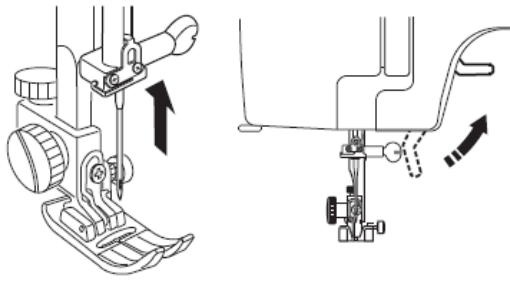
3 Notch B

4



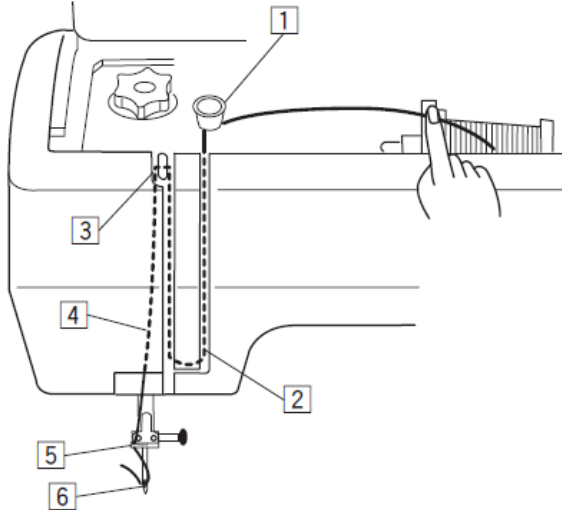
4 Pull out approximately 15 cm (6") of thread and fit the hook cover plate.

4 Hook cover plate

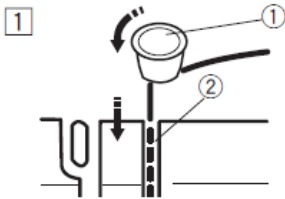


Threading the machine

Raise the thread take-up lever to its maximum position by turning the handwheel towards you.



Raise the presser foot using the presser foot lifter and thread in the order 1 to 6.

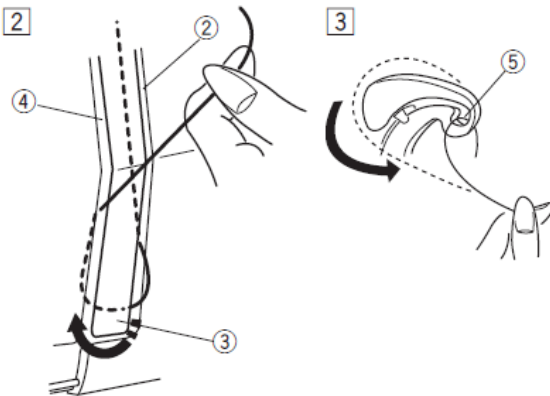


1 Guide the thread from the bobbin and pass it through the thread guide.

Next, pull it downwards along the right-hand channel.

1 Thread guide

2 Right channel



2 Pull the thread downwards along the right-hand channel and around the underside of the thread guide plate. Pull the thread upwards along the left-hand channel.

2 Right channel

3 Thread guide plate

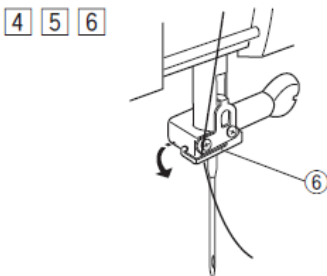
4 Left channel

3 While holding the thread on the spool, pull the thread firmly upwards and towards the back of the thread pull lever.

Pull the thread forwards to slide it into the eye of the thread pull lever.

5 Threading lever eye

4 Next, guide it downwards along the left channel.



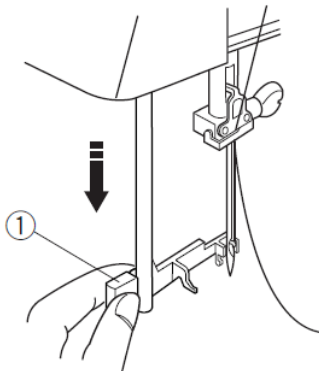
5 Slide the thread from the left side behind the needle bar thread guide.

Thread the needle.

6 Needle bar thread guide

6 Thread the needle using the needle threader (see the next page).

1



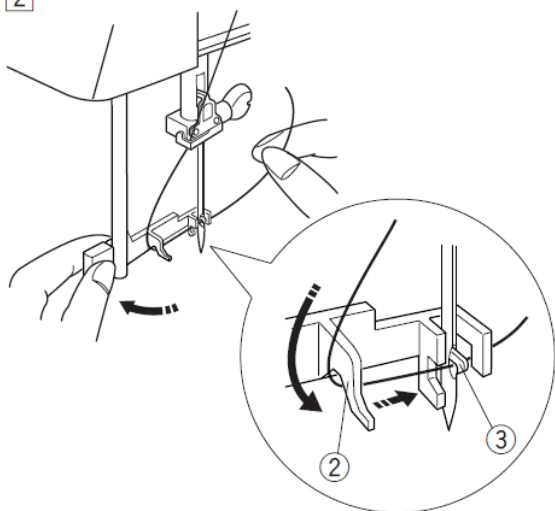
Needle threader

1 Lower the presser foot. Raise the needle to its highest position.

Press the needle threader control down as far as it will go.

1 Threading lever

2



2 Turn the control in the direction of the arrow in the illustration, then insert the hook into the eye of the needle.

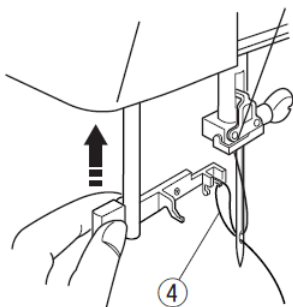
The hook comes out through the needle eye from the back.

Paying particular attention to the needle tip, pass the thread around the guide and under the hook.

2 Guide

3 Hook

3

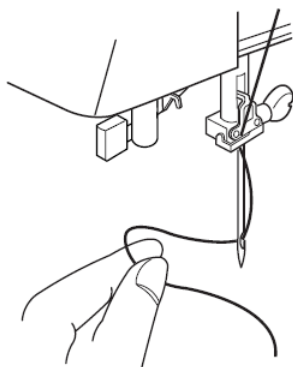


3 Turn the control in the direction indicated by the arrow in the picture, passing the thread loop through the needle.

Gently allow the threader to rise to pull the thread loop.

4 Thread loop

4



4 Pass the thread through the eye of the needle.

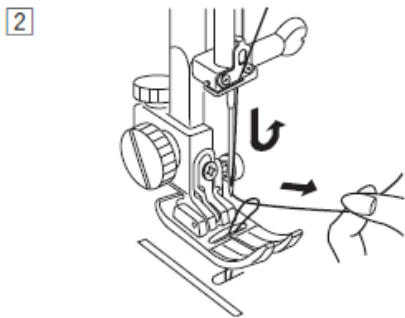
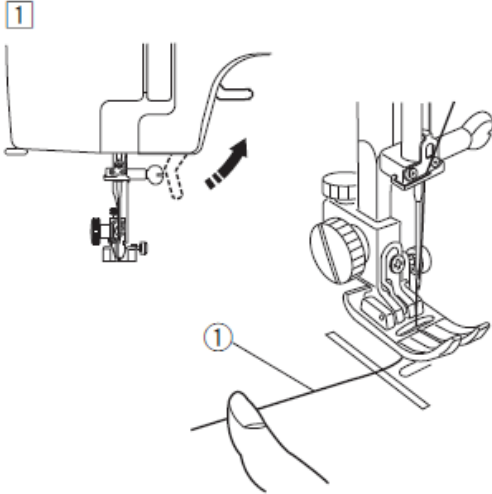
NOTE:

- The needle threader can be used with a #11 to #16 needle or a blue-tipped needle. Thread sizes 50 to 90 should also work correctly.
- The needle threader cannot be used with twin needles.

Preparing the bobbin thread

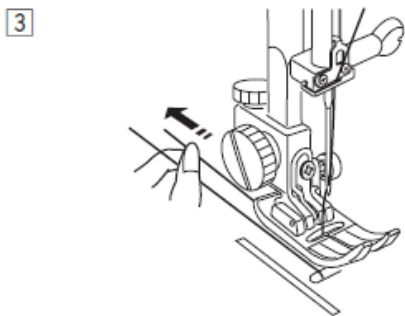
1 Raise the presser foot and carefully hold the needle thread with your left hand.

1 Needle thread

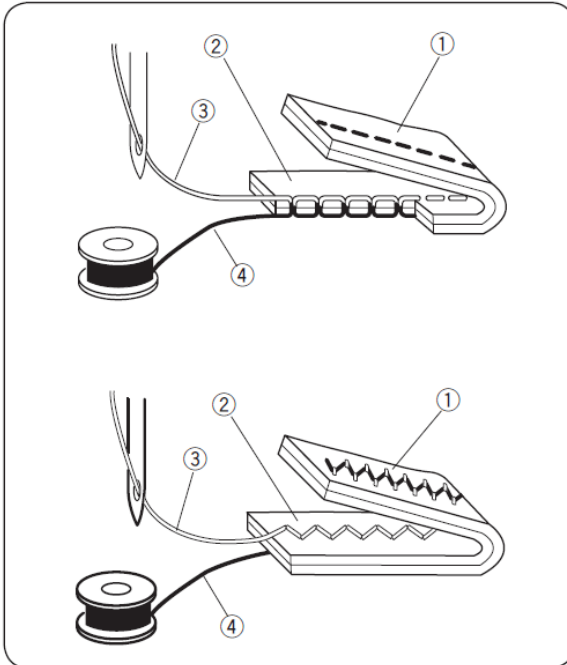


2 Slowly turn the handwheel towards you with your right hand until the needle lowers, then continue turning the handwheel until the thread take-up lever is in its highest position.

Gently pull the needle thread to form a loop with the bobbin thread.



3 Pull back 15 cm (6") of both threads and under the presser foot.



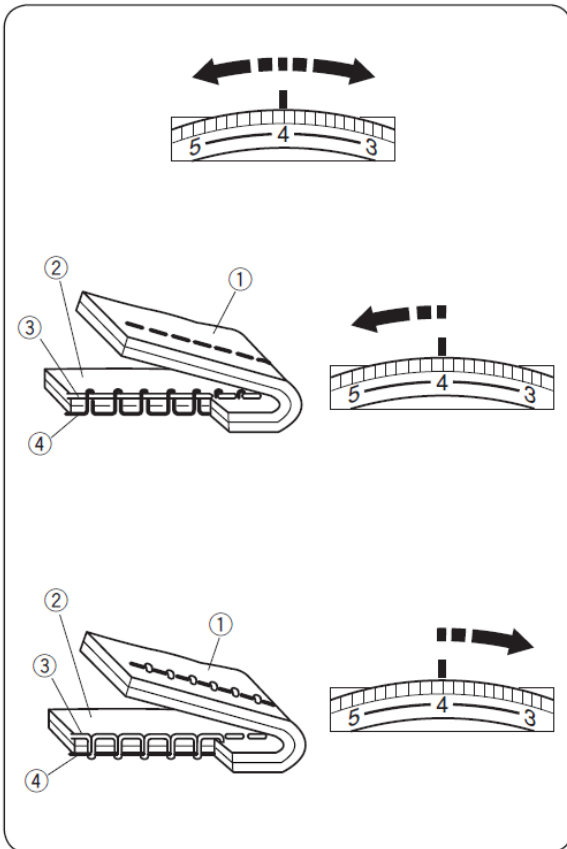
Balanced thread tension

For straight stitching, both threads (upper and lower) will meet in the middle of the fabric.

- 1 Wrong side of the fabric
- 2 Right side of the fabric
- 3 Upper thread
- 4 Bobbin thread

For better zigzag stitches, the needle thread tension should be slightly lower than for straight stitching. The needle thread should show slightly on the wrong side of the fabric.

- 1 Wrong side of the fabric
- 2 Right side of the fabric
- 3 Needle thread
- 4 Bobbin thread



Manual thread tension adjustment

Set the desired number on the thread tension dial to the adjustment mark.

It may be necessary to adjust the tension manually, depending on sewing conditions such as the type of fabric and the number of layers.

If the needle thread is too tight, the bobbin thread will show through on the right side of the fabric.

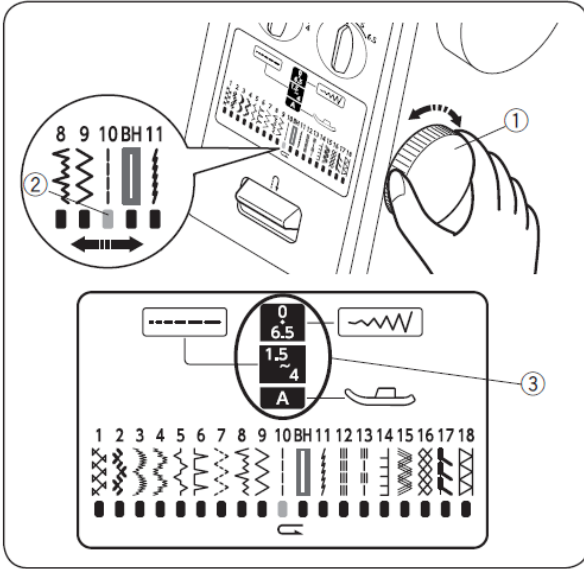
- 1 Wrong side of the fabric
- 2 Right side of the fabric
- 3 Needle thread
- 4 Bobbin thread

Turn the thread tension dial to a lower number to reduce the thread tension.

If the needle thread is too loose, it will form a loop on the underside of the fabric.

- 1 Wrong side of the fabric
- 2 Right side of the fabric
- 3 Needle thread
- 4 Bobbin thread

Turn the thread tension dial to a higher number to increase the thread tension.



Pattern selector dial

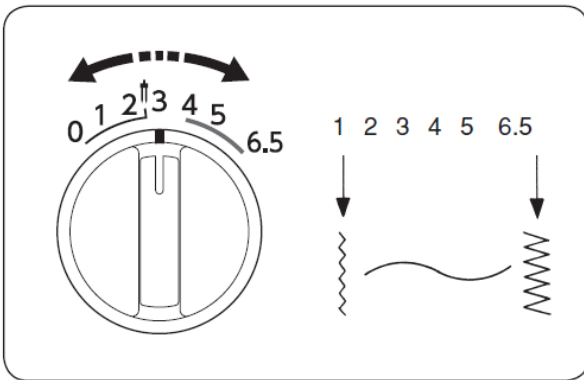
Select the pattern by turning the pattern selector dial. The red indicator shows the selected pattern.

- 1 Pattern selector dial
- 2 Red indicator

* Raise the needle above the fabric and the presser foot by turning the pattern selector dial.

The appropriate width, stitch length and presser foot are indicated in the guidance message window.

- 3 Guidance message window



Zigzag width dial

The higher the number, the wider the stitch.

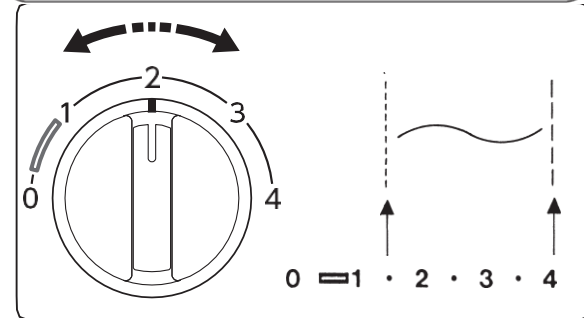
This machine will sew a maximum wide zigzag stitch of 6.5 mm (1/4").

The '↑' mark indicates the adjustment range when using the twin needle.

The red area is the suitable adjustment range for sewing buttonholes.

NOTE:

Raise the needle above the fabric when adjusting the stitch width.



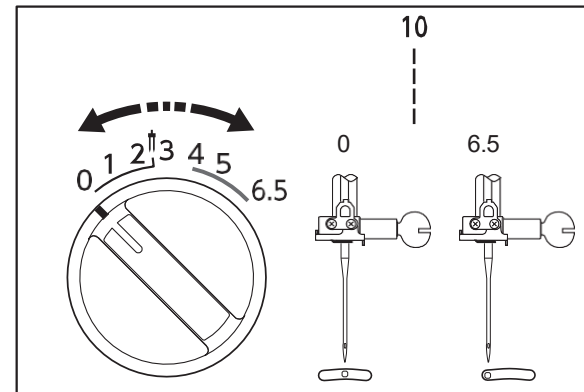
Stitch length dial

The higher the number, the longer the stitch length.

You can select the appropriate stitch length for the fabrics you are sewing.

NOTE:

The stitch length is automatically adjusted for the stretch stitch pattern in stitch numbers 14 to 18.

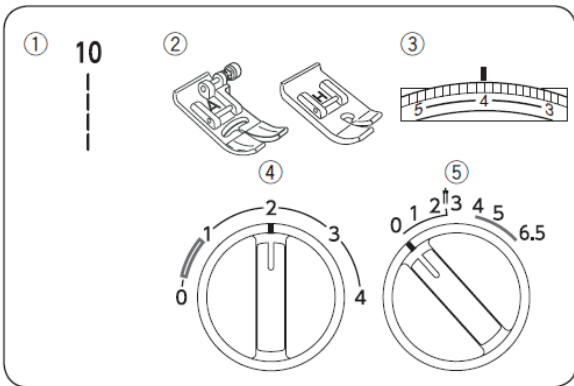


Variable needle position

When you select pattern number 10, you can move the needle between the centre and left needle positions.

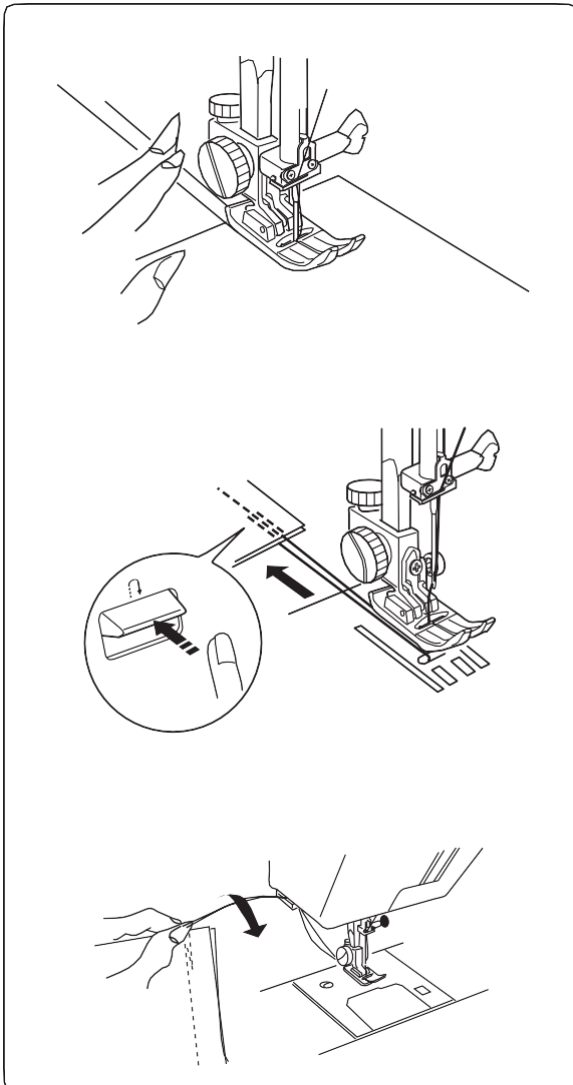
SECTION III BASIC SEWING

Straight stitch sewing



- 1 Pattern selector: 10
- 2 Presser foot: Zigzag foot A or straight stitch foot
- 3 Thread tension: 2-6
- 4 Stitch length: 1.5-4
- 5 Stitch width: 0 or 6.5

* Use the straight stitch foot only for straight stitches with the needle in the centre position.



Raise the presser foot and position the fabric next to a stitch guide line on the needle plate.

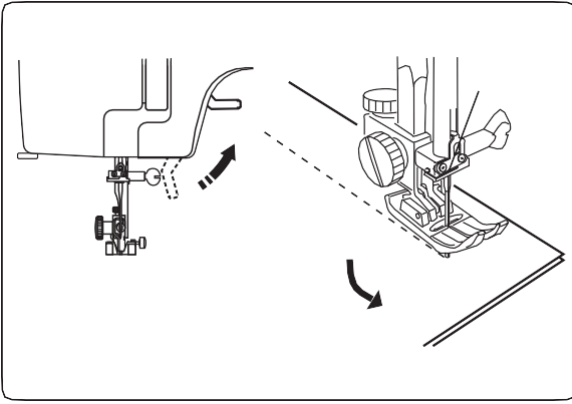
Lower the presser foot and smooth the threads back. Press the foot control.

Gently guide the fabric along the guide line, allowing the fabric to feed naturally.

To secure the ends of the seams, press the reverse stitch button and sew several reverse stitches.

Raise the presser foot and remove the fabric, pushing the threads back.

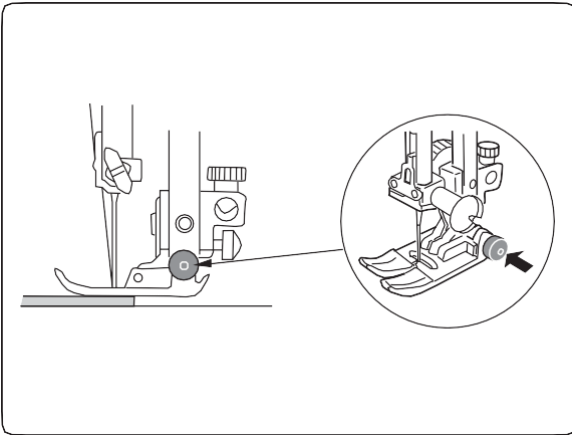
The threads are cut to the correct length for the start of the next seam.



Changing the sewing direction

Stop the machine and lower the needle onto the fabric by turning the handwheel.
Raise the presser foot.

Rotate the fabric around the needle to change the sewing direction as required.
Lower the presser foot.



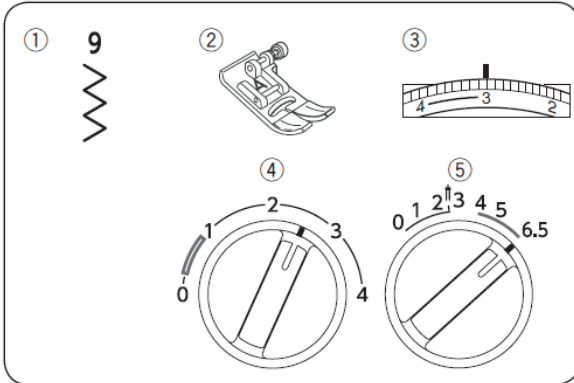
Straight stitch on thick fabrics

Lower the needle onto the fabric at the point where you wish to start sewing.
Press the small black button on the zigzag foot with your left hand to 'lock' the presser foot onto the fabric.

Lower the presser foot with your right hand, keeping pressure on the black button with your left hand.

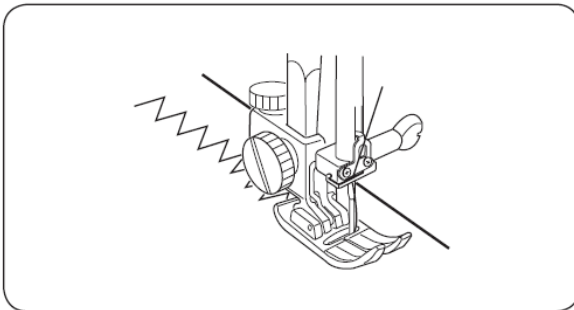
Release the black button and start sewing.

SECTION IV UTILITY STITCH

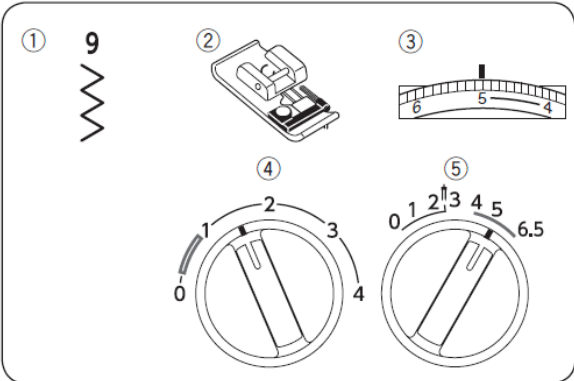


Zigzag stitch

- 1 Pattern selector: 9
- 2 Presser foot: Zigzag foot A
- 3 Thread tension: 2-5
- 4 Stitch length: 0.5-3
- 5 Stitch width: 1-6.5

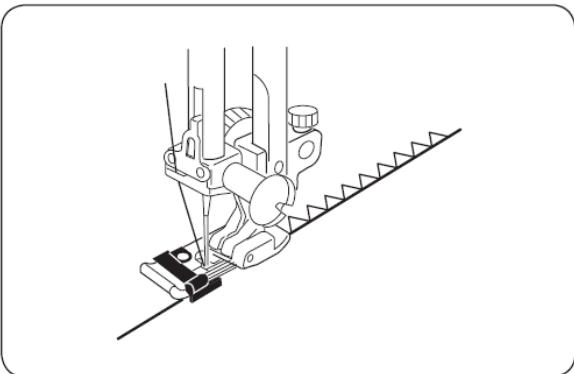


The single zigzag stitch is mainly used for overcasting, sewing on buttons and appliqué, etc.

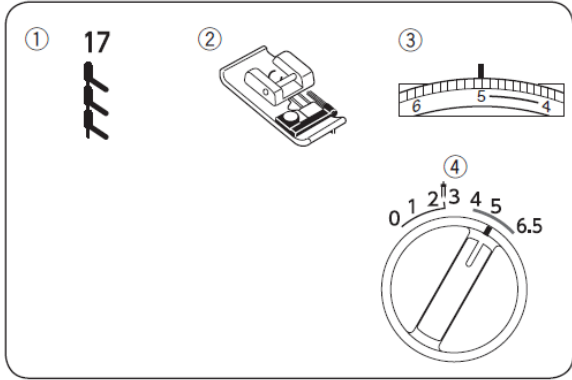


Overcasting

- 1 Pattern selector: 9
- 2 Presser foot: Overlock foot C
- 3 Thread tension: 3-7
- 4 Stitch length: 1-2
- 5 Stitch width: 5-6.5

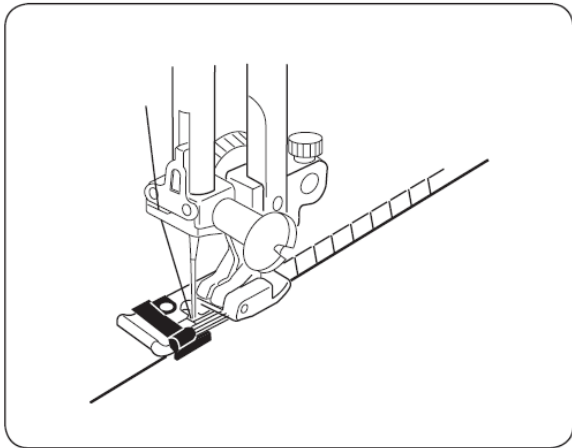


This type of stitch is used along the seam allowance to prevent the fabric from fraying at the edges. It can be used to finish a hem. Place the end of the fabric next to the black tooth on the overlocker foot C.



Overlock stitch

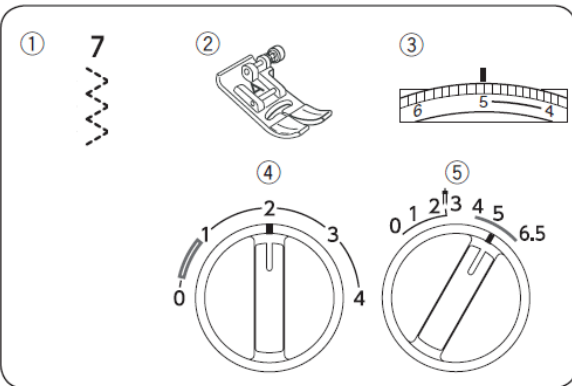
- | | |
|---------------------|---------------------|
| 1 Pattern selector: | 17 |
| 2 Presser foot: | Overlock foot C 3–7 |
| 3 Thread tension: | 7 |
| 4 Stitch width: | 5 |



Place the edge of the fabric next to the black tooth on the foot.

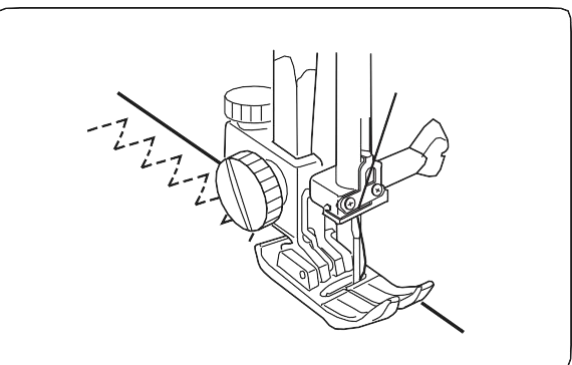
The wires on this foot prevent lightweight fabrics from curling up and forming a ridge.

The black tooth guides your stitching, so the needle exits the fabric, wrapping the threads around the edge to prevent fraying.



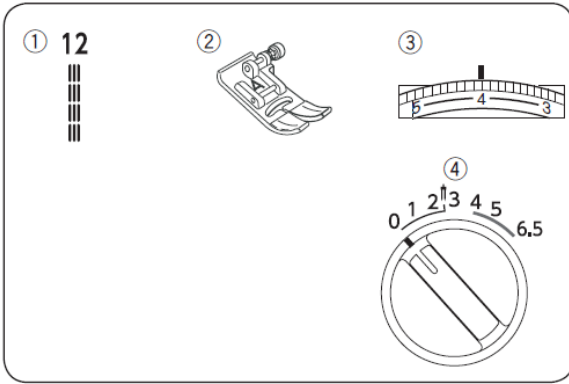
Stitch by stitch

- | | |
|------------------------|---------------|
| 1 Pattern selector: 7 | |
| 2 Presser foot: | Zigzag foot A |
| 3 Thread tension: | 3–6 |
| 4 Stitch length: 0.5–2 | |
| 5 Stitch width: 3–6.5 | |



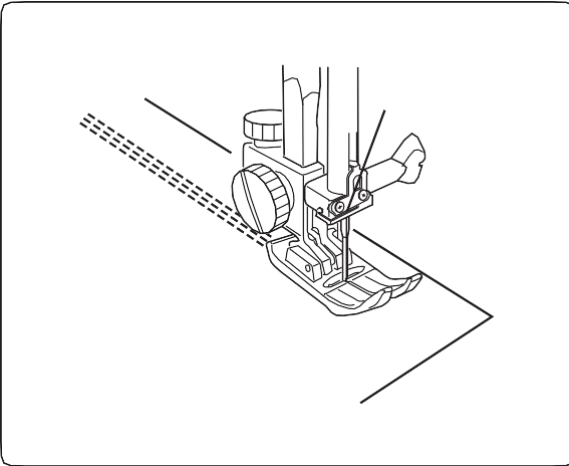
Place the fabric under the presser foot so that the edge is slightly inside the right-hand side of the presser foot.

Guide the fabric so that the straight stitches are at the edge of the fabric.



Triple-strength stitch

- 1 Pattern selector: 12
- 2 Presser foot: Zigzag foot A
- 3 Thread tension: 2-6
- 4 Stitch width: 0



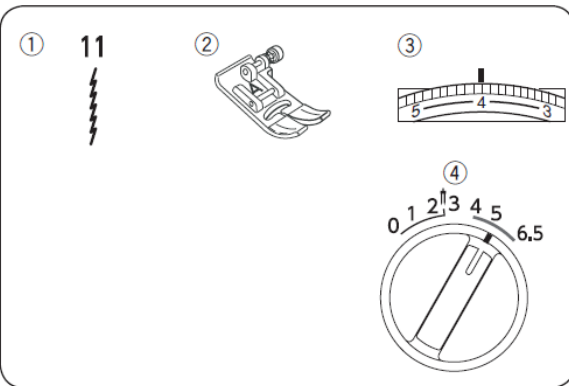
This strong, durable stitch is recommended when both elasticity and strength are required to ensure comfort and durability.

Use it to reinforce areas such as the crotch seams and armholes.

Use it too when making rucksacks to provide extra strength.

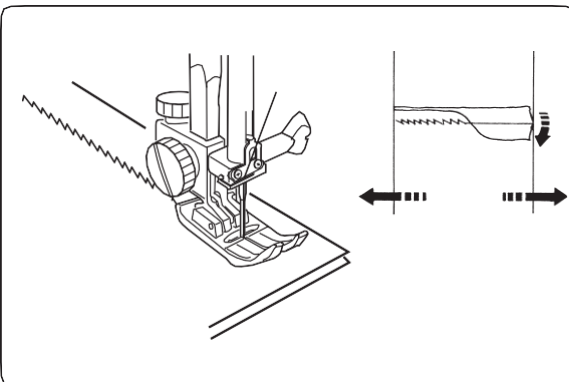
The stitch is sewn with two forward stitches and one backward stitch, forming a seam that does not tear easily.

Garments should be basted before sewing.



Knitting stitch

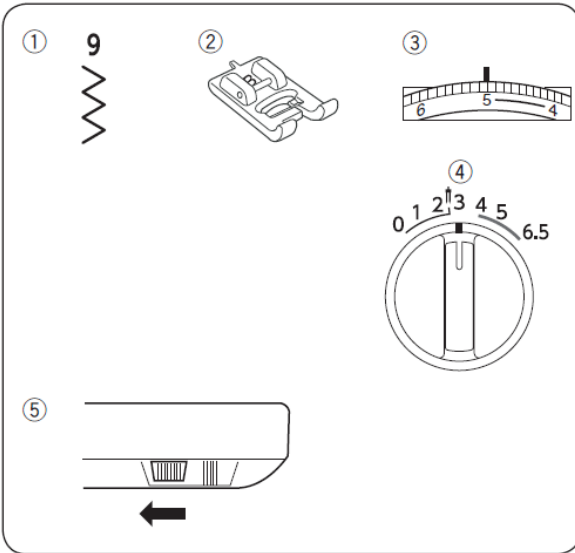
- 1 Pattern selector: 11
- 2 Presser foot: Zigzag foot A
- 3 Thread tension: 3-6
- 4 Stitch width: 5-6.5



Pattern 11 is a narrow stretch stitch designed to eliminate puckering in knitted fabrics and bias seams, whilst allowing the seam to be pressed completely flat.

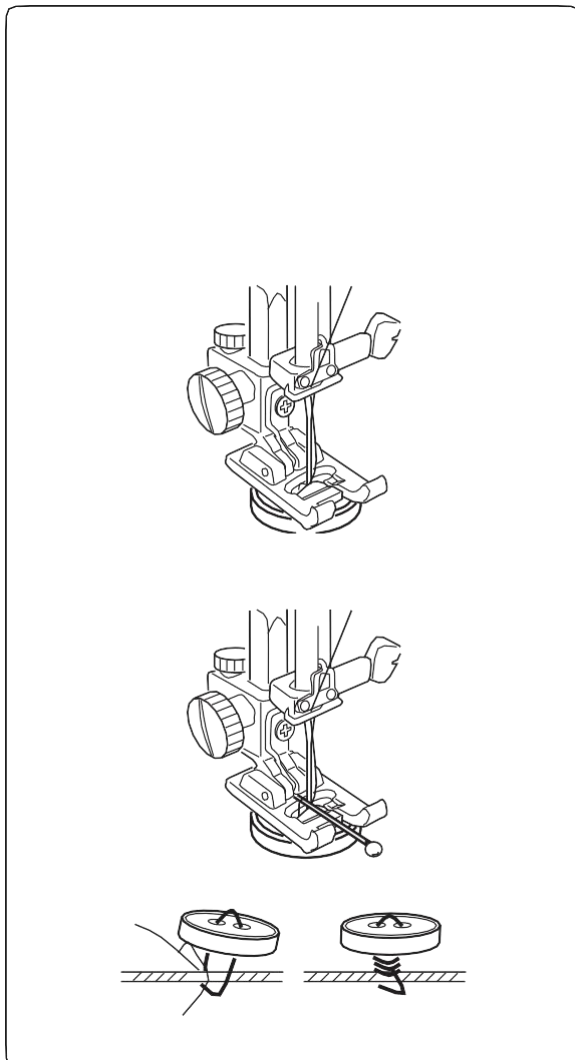
For 1.5 cm (5/8") seams, use the 2 cm (6/8") mark on the needle plate.

When sewing lightweight fabrics, set the pressure dial to "1" or "2".



Button sewing

- | | | |
|---------------------|-------|-------------------------------|
| 1 Pattern selector: | 9 | |
| 2 Presser foot: | | Transparent buttonhole foot B |
| 3 Thread tension: | | 3-7 |
| 4 Stitch width: | 3-3.5 | |
| 5 Feed dog: | | Lowered |



Secure the button with tape over the positioning mark. You can use a pin at the top of the presser foot to form a herringbone stitch.

Before lowering the presser foot, test the needle swing to ensure the needle enters each hole.

Adjust the stitch width if necessary. Lower the presser foot.

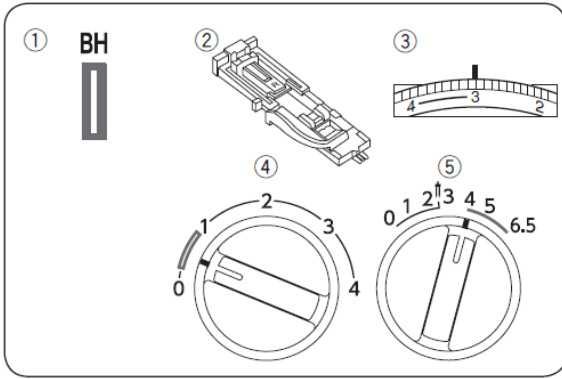
Align both buttonholes with the needle swing, lower the presser foot and press the foot control.

To strengthen the buttonhole, cut the threads leaving a 20 cm (8") tail.

Pull the thread from the needle through the buttonhole and wrap it around the bar tack.

Bring the thread to the wrong side of the fabric and tie it off.

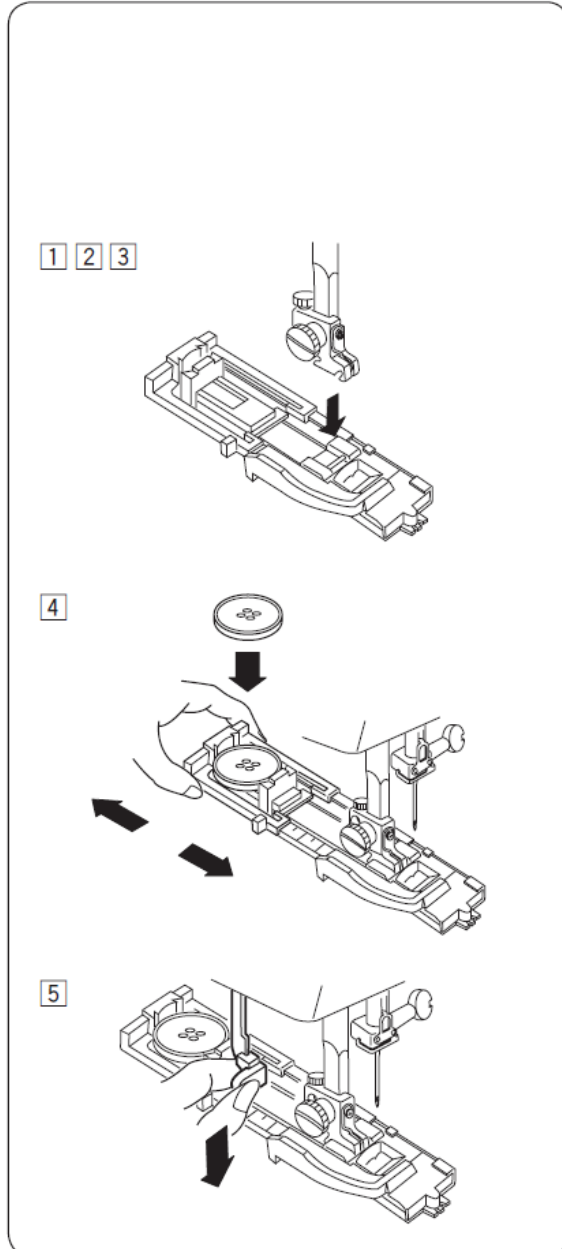
* When you have finished sewing on the button, return the feed dog lever to its original position.



Automatic buttonhole

- 1 Pattern selector: BH
- 2 Presser foot: Automatic buttonhole foot R
- 3 Thread tension: 1-5
- 4 Stitch length: 0.5-1
- 5 Stitch width: 4-6.5

- * The buttonhole size is adjusted automatically by placing the button in the automatic buttonhole foot R.
- * The button holder on the foot accommodates buttons up to 2.5 cm (1") in diameter.
- * Be sure to make a test buttonhole on a scrap of fabric similar to the fabric of the actual garment.
- * Place the button on the scrap fabric and mark the top and bottom to determine the position of the buttonhole.
- * Use interfacing on stretch fabrics.



1 Turn the handwheel towards you to raise the needle to its highest position. Raise the presser foot lifter.

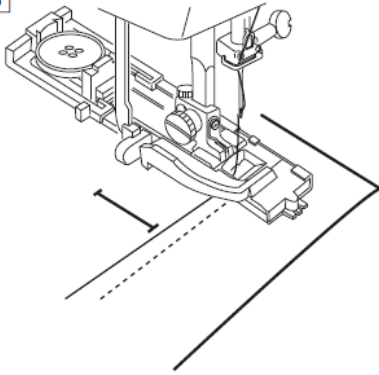
2 Set the pattern indicator to "BH" by turning the pattern selector dial.

3 Fit the automatic buttonhole foot R.

4 Pull the button holder back and place the button in it. Push the button holder towards you as far as possible.

5 Pull the buttonhole lever down as far as possible.

6 7 8

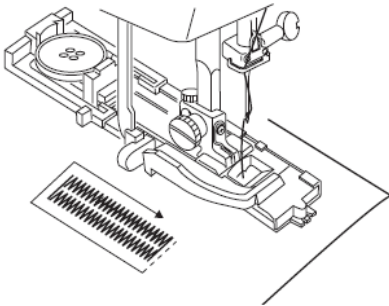


6 Place the fabric under the foot.
Turn the handwheel manually one full turn.

7 Pull the fabric to the left so that both threads are on the left.

8 Insert the garment under the foot and lower the needle at the starting point.
Next, lower the automatic buttonhole foot R.

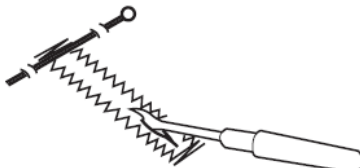
9



9 Sew slowly and stop the machine at the starting point when you have finished one buttonhole.

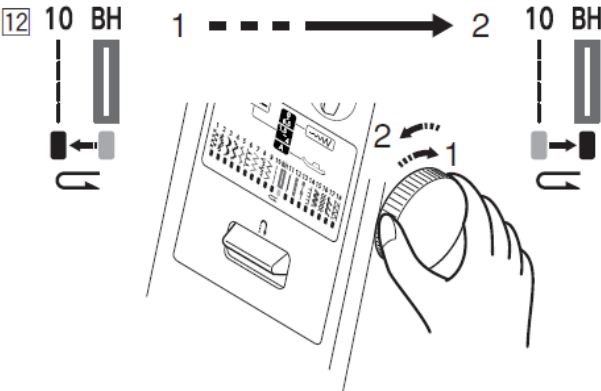
* The machine first sews the left row and the front loop, then the right row and the back loop.

10 11



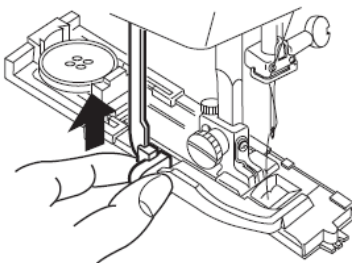
10 Cut the needle and bobbin threads, leaving 10 cm (4") ends.
Place the needle thread on the wrong side of the fabric by pulling the bobbin thread.
Then tie the threads in a knot.

11 Cut the needle and bobbin threads, leaving 10 cm (4") ends.
Place the needle thread on the wrong side of the fabric by pulling the bobbin thread.
Then tie the threads.



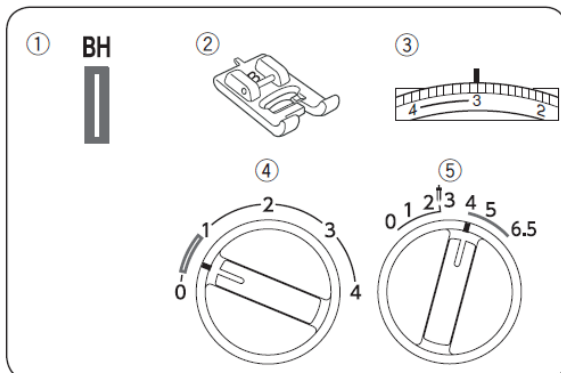
12 To repeat the buttonhole stitch.
After sewing a buttonhole, move the indicator to pattern "10" [] by turning the pattern selector dial in the direction of arrow 1, then return the indicator to "BH" by turning the dial in the direction of arrow 2 to reset for sewing the next buttonhole.

13



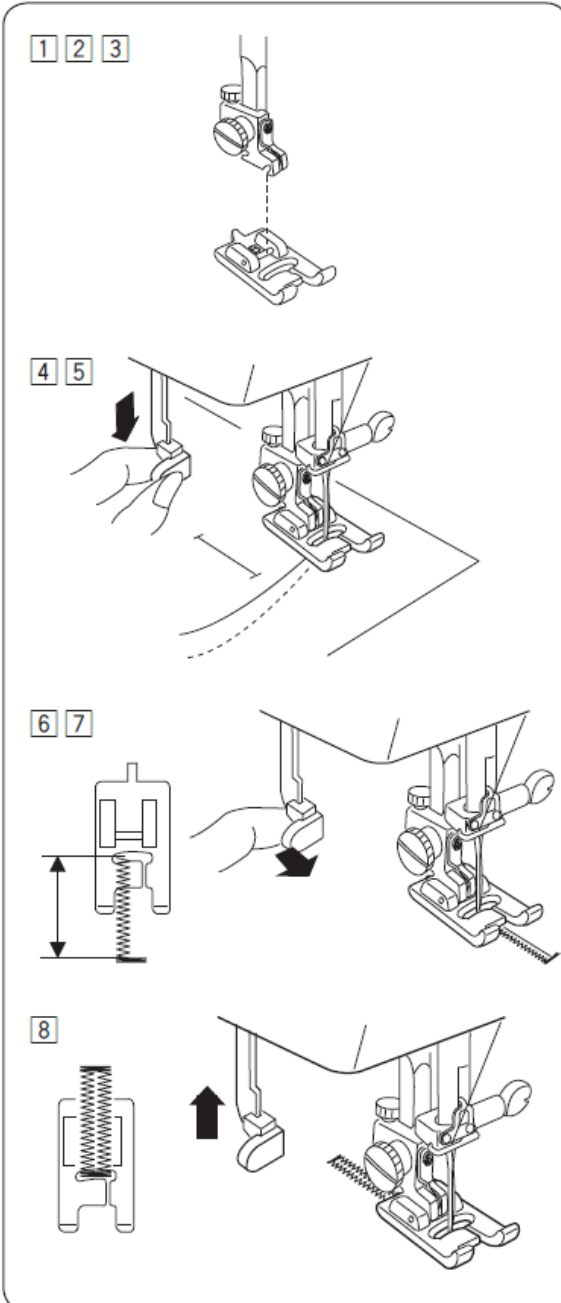
13 When you have finished sewing the buttonholes, press the buttonhole lever upwards as far as possible.

Manual buttonhole



- 1 Pattern selector: BH
- 2 Presser foot: Transparent buttonhole foot B
- 3 Thread tension: 1–5
- 4 Stitch length: 0.5–1
- 5 Stitch width: 4–6.5

If the button diameter is greater than 2.5 cm (1"), you will need to create a buttonhole manually as follows:



1 Turn the handwheel towards you to raise the needle to its highest position. Raise the presser foot lift.

2 Set the pattern indicator to "BH" by turning the pattern selector dial.

3 Fit the transparent buttonhole foot B.

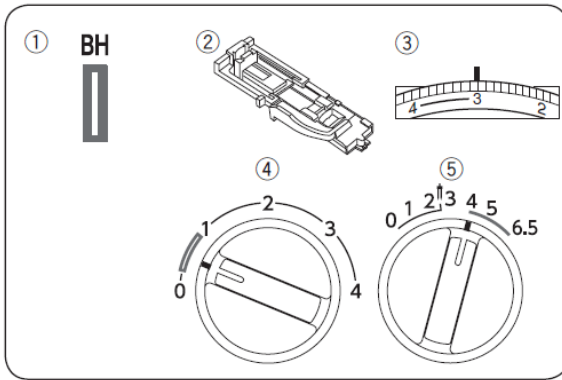
4 Pull the buttonhole lever down as far as possible.

5 Lower the needle onto the presser foot where the buttonhole is to begin, and lower the presser foot.

6 Sew the front loop and the left side, and stop the machine after sewing the full desired length of the buttonhole.

7 Pull the buttonhole lever towards you.

8 Sew the back loop and the right-hand row, and stop the machine at the starting point. To cut the opening and restart for the next buttonhole, see the instructions on page 24.

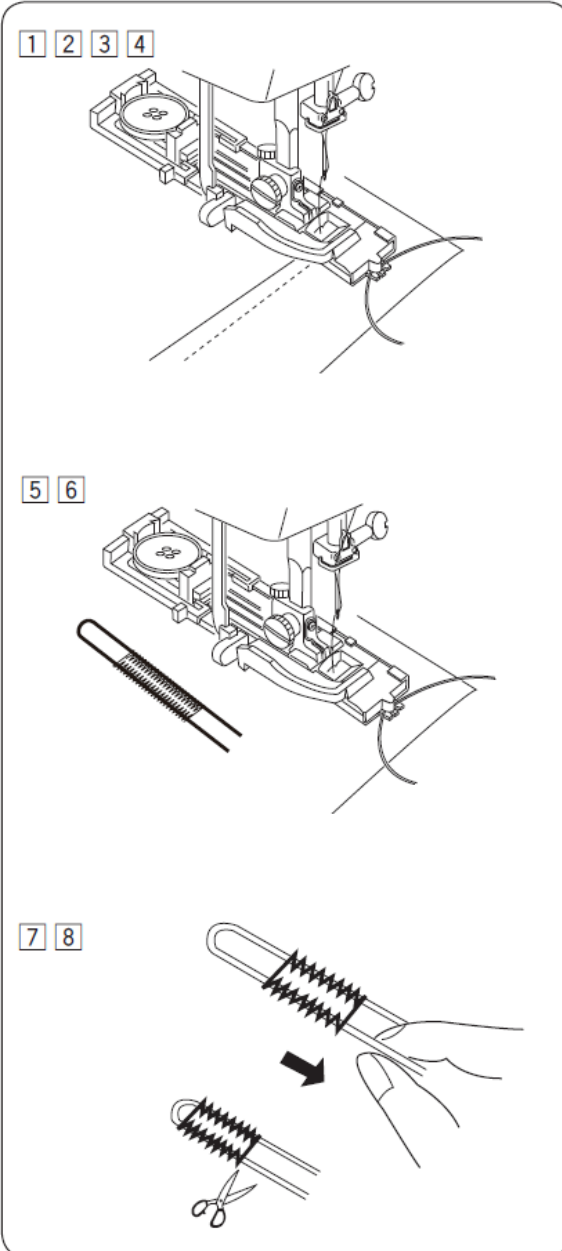


Laced buttonhole

- 1 Pattern selector: BH
- 2 Presser foot: Automatic buttonhole foot R
- 3 Thread tension: 1-5
- 4 Stitch length: 0.5-1
- 5 Stitch width: 4-6.5

* Adjust the stitch width according to the thickness of the cord used.

* To cut the opening and start again for the next buttonhole, see the instructions on page 24.



1 With the buttonhole foot raised, hook the filling cord into the cord guide at the back of the buttonhole foot.

2 Pull the ends under the buttonhole foot towards you until they are out of the front edge.

3 Hook the filling cord onto the prongs at the front of the automatic buttonhole foot R to secure them firmly.

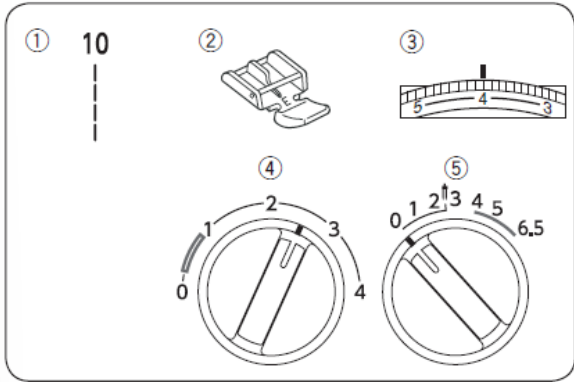
4 Lower the needle onto the garment where you want the buttonhole to start, and lower the presser foot.

5 Press the foot control lightly and sew the buttonhole. Each side of the buttonhole and the tabs will be sewn onto the cord.

6 Remove the fabric from the machine and cut the threads.

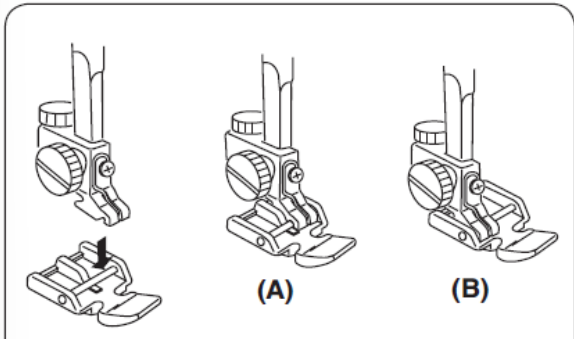
7 Pull the left end of the filling cord to tighten it.

8 Thread the end through the darning needle, guide it to the underside of the fabric and cut.



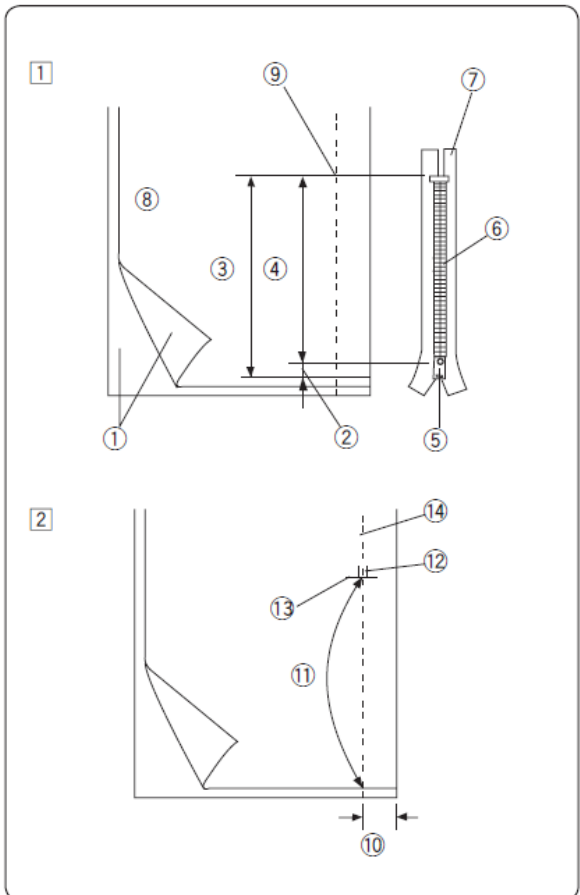
Zipper application

1 Pattern selector:	10
2 Presser foot:	Zipper foot E
3 Thread tension:	3-6
4 Stitch length:	1.5-4
5 Stitch width:	0



Fitting the zip foot

- (A) To sew the left side of the zip, attach the zip foot E to the right-hand pin.
- (B) To sew the right side of the zip, attach the E zip foot to the left-hand pin.



Preparing the fabric

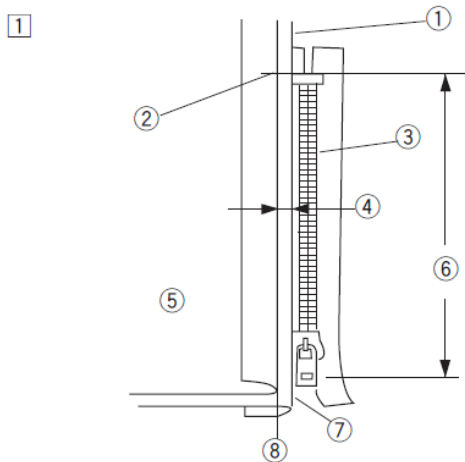
- 1 Add 1 cm (3/8") to the size of the zip.
This will be the overall opening size.

- 1 Right side of the fabric
- 2 1 cm (3/8")
- 3 Size of the opening
- 4 Zipper size
- 5 Slider
- 6 Zipper tooth
- 7 Zipper tape
- 8 Back of the fabric
- 9 End of the opening

- 2 Place the right (top) sides of the fabric together. Sew a bottom seam 2 cm (5/8") from the right-hand end of the zip's bottom stop position. Sew backstitches to secure.

Increase the stitch length to "4", set the needle thread tension to "1" and baste the entire length of the fabric.

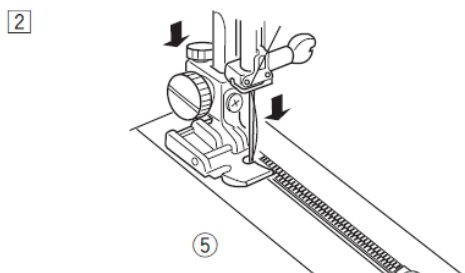
- 10 2 cm (5/8")
- 11 Basting
- 12 Reverse stitch
- 13 End of opening
- 14 Bottom seam



To sew

1 Fit the zip foot with the right-hand side pin. Fold the seam allowance of the top layer. Fold the seam allowance of the bottom layer to leave a 0.4 cm (1/8") margin of fabric.

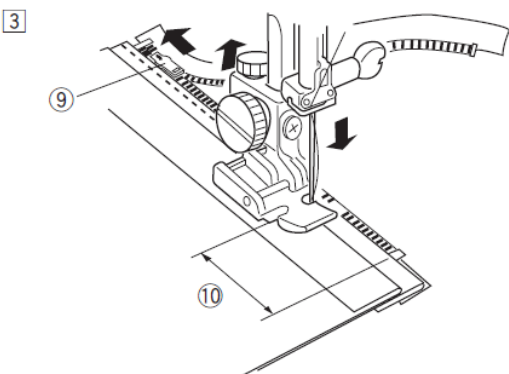
- 1 Lower layer
- 2 End of the opening
- 3 Zipper teeth
- 4 0.4 cm (1/8") seam allowance
- 5 Top layer
- 6 Opening size
- 7 Zipper foot
- 8 Basting



2 Place the teeth of the zip next to the edge of the fabric and baste the zip tape to the bottom layer of the fabric.

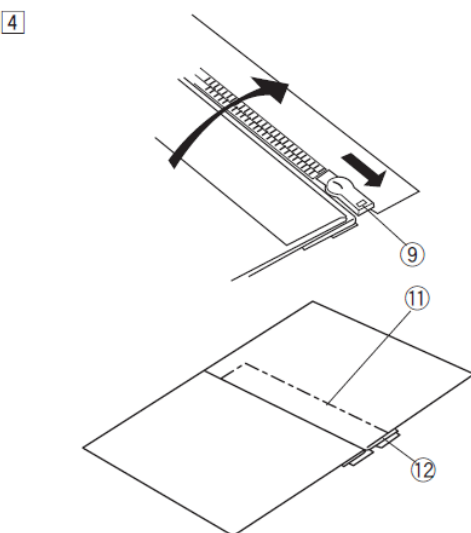
Align the zip foot with the edge of the seam allowance. Reduce the thread tension and sew the length using the original settings.

Sew a seam along the entire length of the zip tape.



3 Stop the machine 5 cm (2") before the needle reaches the slider in the fabric and raise the presser foot. Then open the zip a few inches to clear the stitching path.

- 9 Slider
- 10 5 cm (2")

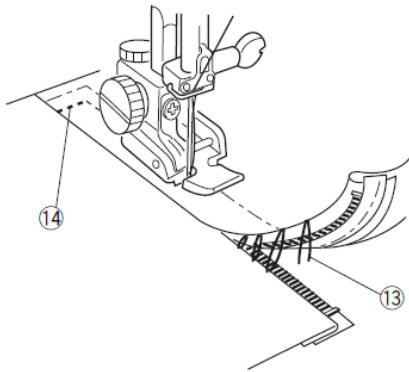


4 Remove the fabric and close the zip.

Place the top layer of fabric flat over the zip. Baste the zip tape to the top layer of fabric.

- 11 Basting
- 12 Zipper tape

5



5 Raise and release the presser foot, then reattach it using the pin on the left-hand side.

Starting just below the bottom stop of the zip, sew through the fabric approximately 1 cm (3/8") away from the basting line.

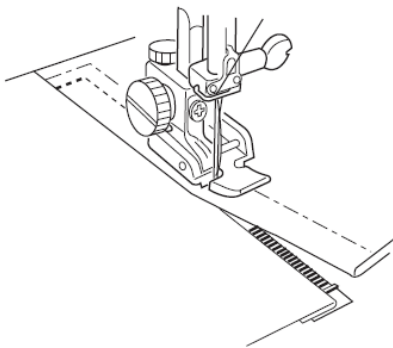
Rotate the fabric 90 degrees and sew a seam along the entire length of the zip tape.

Before reaching the slider, stop the machine with the needle in the fabric and raise the presser foot. Use a seam ripper to open the basting stitch a few inches.

13 Unpicking the basting

14 1 cm (3/8")

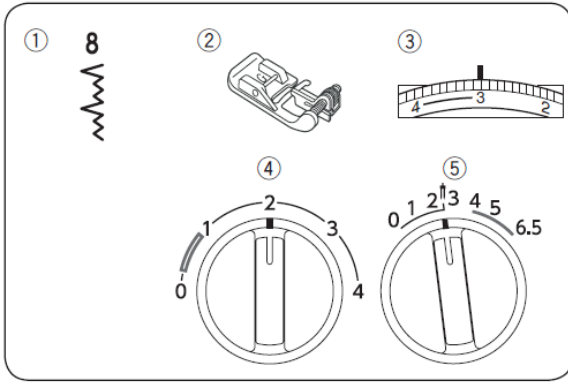
6



6 Open the zip a few inches to create a path for the stitches.

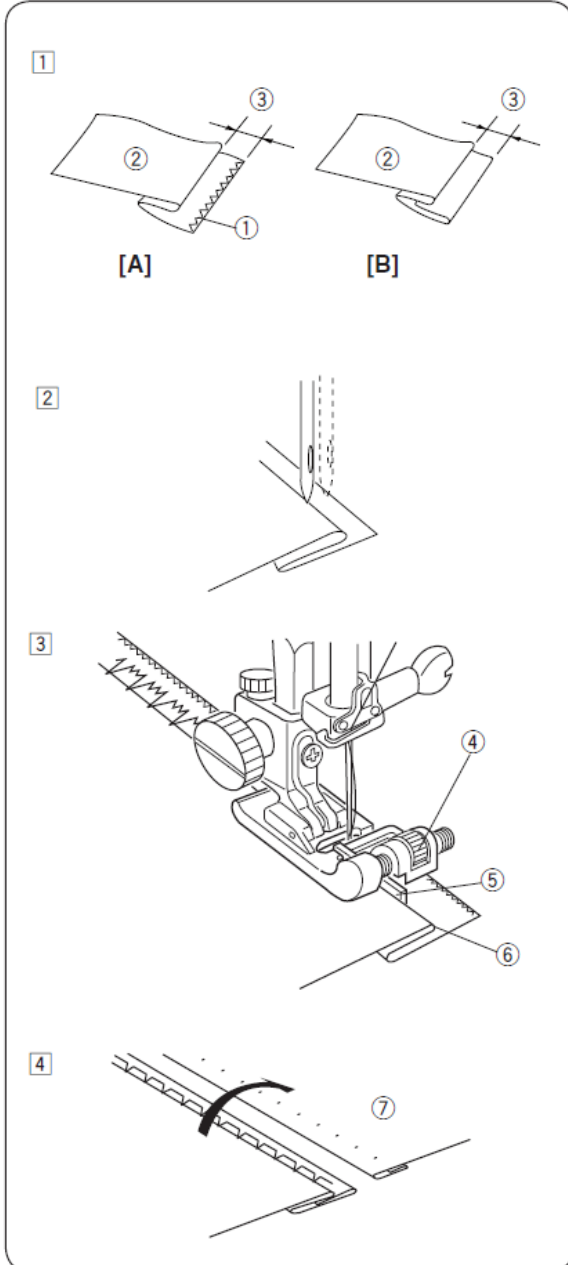
At the end of the seam, sew a few inches in reverse to secure it.

Once both ends of the zip are sewn, use the seam ripper to open the basting stitch.



Blind hem

- 1 Pattern selector: 8
- 2 Presser foot: Blind hem foot G
- 3 Thread tension: 2-4
- 4 Stitch length: 1-3
- 5 Stitch width: 2-3



- 1 On heavy fabrics that fray, the raw edge must be overlocked.
Fold the hem under the fabric, as shown, for medium-weight or fine fabrics.
Fold a hem on the wrong side with a margin of 0.4–0.7 cm (3/16"–1/4").
 - A:** Heavy fabric
 - B:** Lightweight fabric
 - 1 Overlock
 - 2 Wrong side of the fabric
 - 3 0.4–0.7 cm (3/16"–1/4")

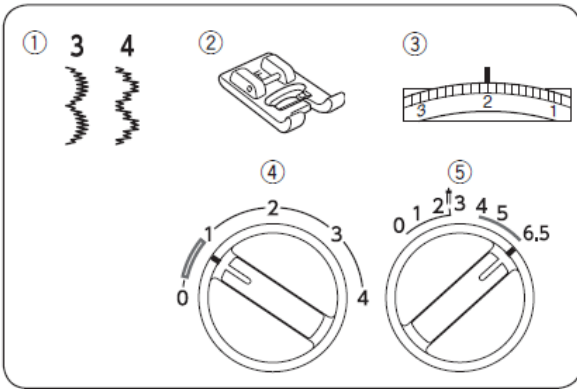
- 2 Position the fabric so that the needle only pierces the folded edge as it passes through the left-hand side.
Lower the presser foot.

- 3 Turn the screw to align the presser foot guide with the folded edge so that the needle only pierces the fold.
If the needle pierces too far to the left, move the guide slightly to the left. If the needle misses the fold, move the guide slightly to the right.
Sew slowly whilst guiding the folded edge along the guide.
 - 4 Screw
 - 5 Guide
 - 6 Folded end

- 4 Open and press the fabric once the seam is finished.
7 Right side of the fabric

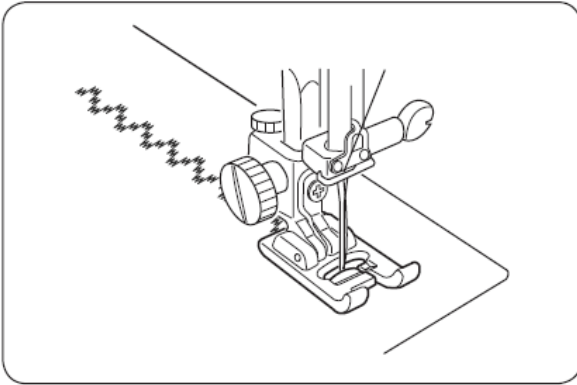
NOTE:
If the needle drops too far to the left, the stitches will be visible on the right side of the fabric.

SECTION V DECORATIVE STITCH

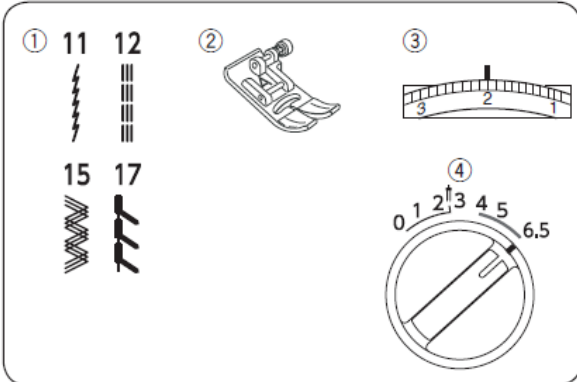


Decorative satin stitch patterns

- 1 Pattern selector: 3 or 4
- 2 Presser foot: Satin stitch foot F
- 3 Thread tension: 1-4
- 4 Stitch length: 0.5-1
- 5 Stitch width: 3-6.5

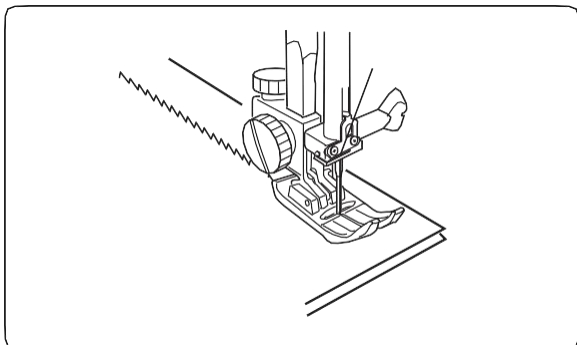


Sew a row of stitches and adjust the thread tension so that the needle thread shows through to the wrong side of the fabric.
Test the stitch on the actual fabric for best results.

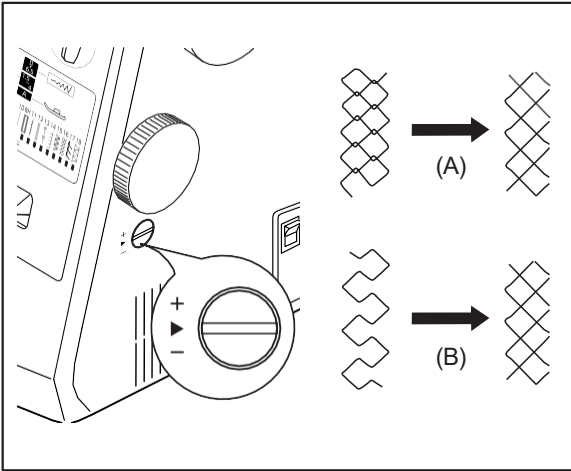


Stretch stitch patterns

- 1 Pattern selector: 11, 12, 15 or 17
- 2 Presser foot: Zigzag foot A
- 3 Thread tension: 1-4
- 4 Stitch width: 3-6.5



The stitch length for automatic patterns 11, 12, 15 or 17 is preset, so you do not need to select the stitch length for these patterns.



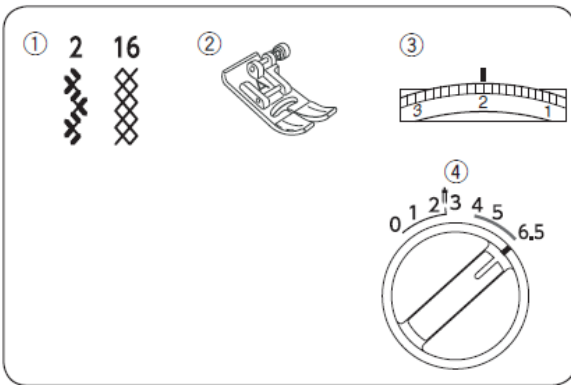
Adjusting the stretch stitch balance

If the stitching is uneven when sewing on a particular fabric, adjust it using the feed balance dial.

After sewing with a changed dial setting, you will need to reset the dial to [▶].

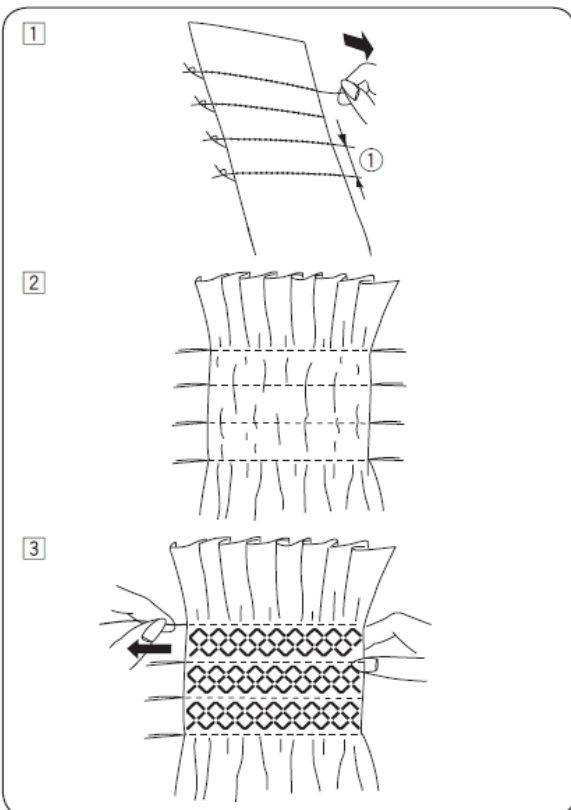
(A) If the stitches are compressed, correct them by turning the dial in the “+” direction.

(B) If the stitches are stretched, correct them by turning the dial in the “-” direction.



Gathering Embellishment

- 1 Pattern selector: 2 or 16
- 2 Presser foot: Zigzag foot A
- 3 Thread tension: 1–4
- 4 Stitch width: 3–6.5



1 Choose a soft, lightweight fabric such as batiste, guinga or challis. Cut the fabric to a width three times that of the project. Set the stitch length to “4” and reduce the thread tension to “1”.

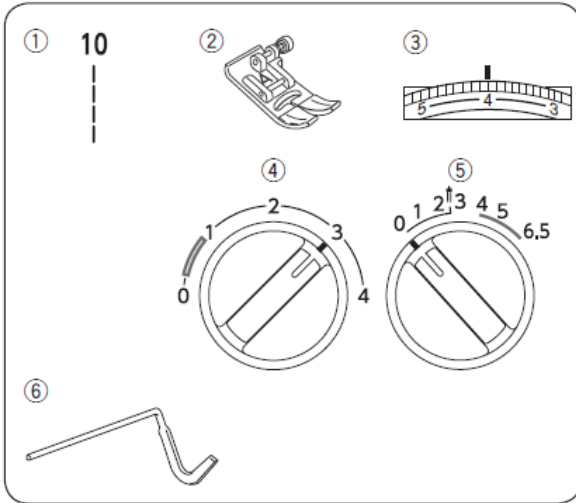
Sew rows of straight stitches 1 cm (3/8”) apart across the area to be gathered.

1 1 cm (3/8”)

2 Tie the threads at one end. From the other end, pull the bobbin threads to distribute the gathers evenly and secure the threads. Return the thread tension to its original setting.

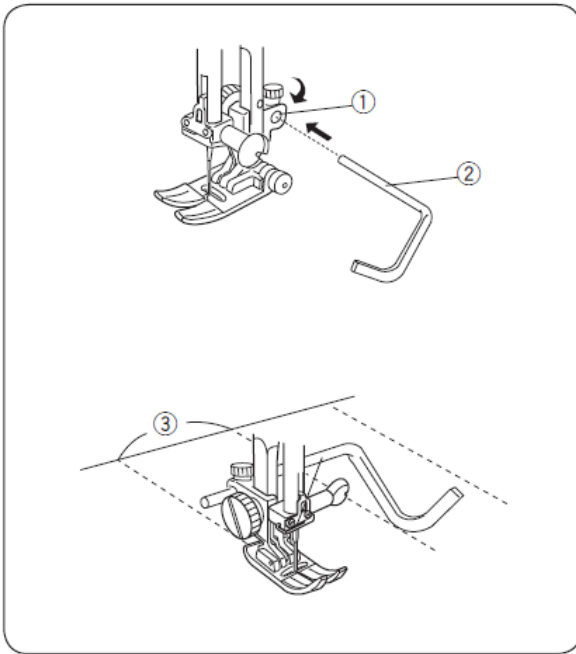
3 Sew rows of gathering stitches between the gathering stitches.

Once finished, remove the gathering stitches.



Quilting

1 Pattern selector:	10
2 Presser foot:	Zigzag foot A
3 Thread tension:	3–6
4 Stitch length:	1.5–4
5 Stitch width:	0
6 Quilting guide bar	



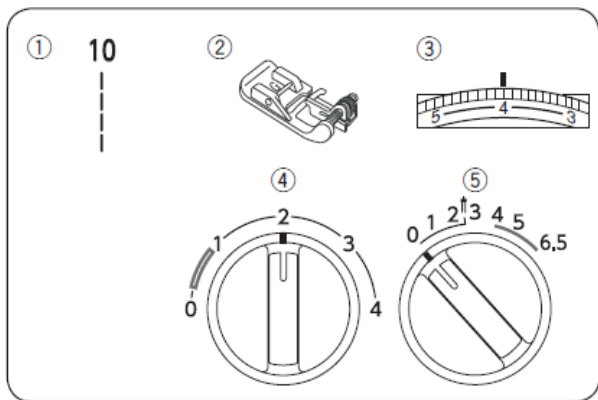
Fitting the quilting guide bar The quilting guide bar is useful for sewing evenly spaced parallel rows.

Insert the quilting guide bar into the opening and slide it into position according to the desired spacing between the stitches.

- 1 Opening in the foot holder
- 2 Quilting guide bar
- 3 Stitch spacing

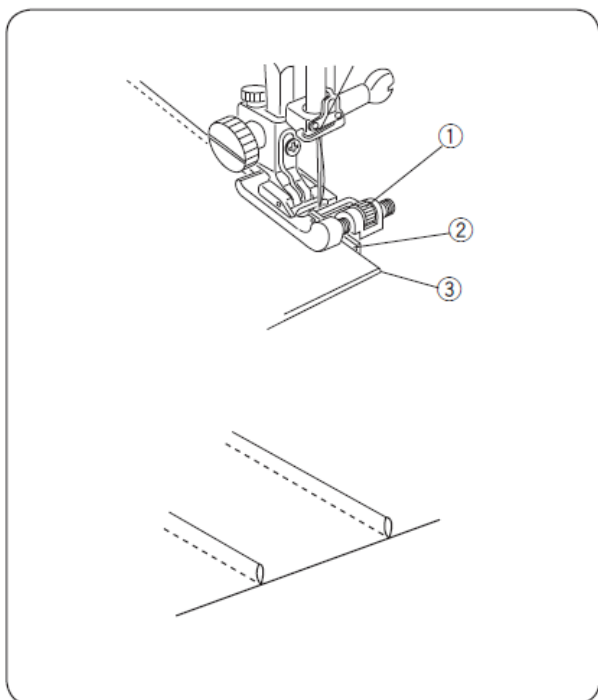
Stitch

Sew whilst tracing the previous stitch with the quilting guide bar.



Backstitch

- 1 Pattern selector: 10
- 2 Presser foot: Blind hem foot
- 3 Thread tension: G
- 4 Stitch length: 1.5–3
- 5 Stitch width: 0

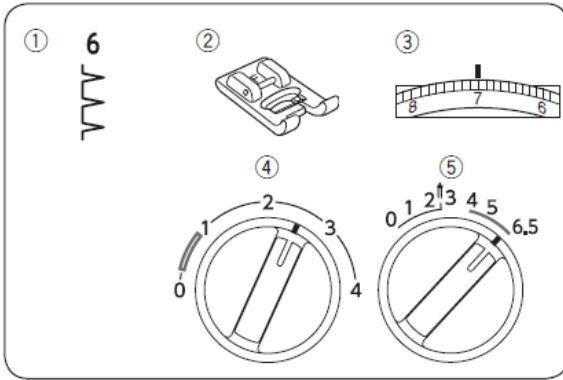


Fold the wrong side of the fabric and lower the needle onto the fabric 0.1–0.2 cm (1/16") inside the folded edge. Lower the presser foot and turn the screw to align the presser foot guide with the folded edge.

Sew slowly whilst guiding the folded edge along the guide.

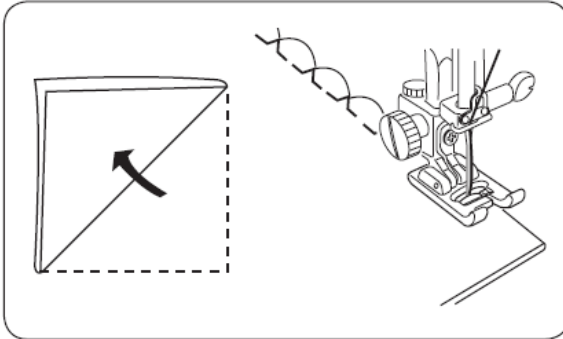
Unfold the fabric and press the pleats.

- 1 Screw
- 2 Guide
- 3 Folded edge



Shell pleat

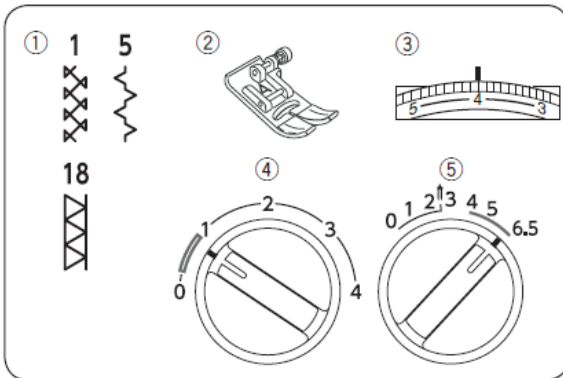
- 1 Pattern selector: 6
- 2 Presser foot: Satin stitch foot F
- 3 Thread tension: 6–8
- 4 Stitch length: 2–3
- 5 Stitch width: 5–6.5



Use a lightweight fabric (such as jersey).
 Fold and sew the bias binding.
 When the needle swings to the right, allow it to emerge from the folded edge of the fabric.
 After sewing, open out the fabric and press the pleats to one side.

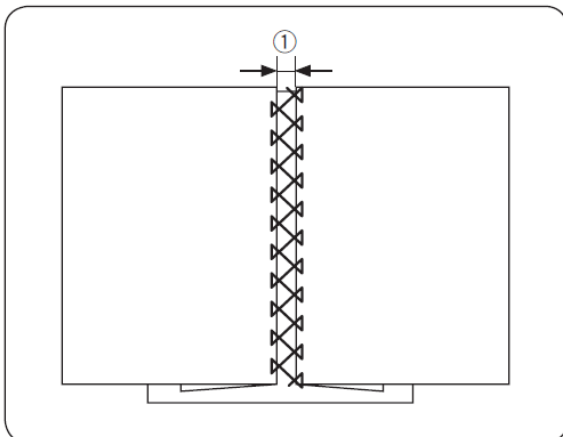
NOTE:

Increase the needle thread tension to create prominent box stitches.



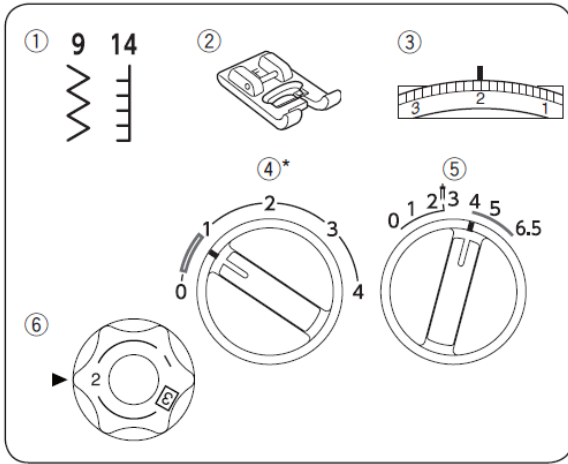
Hemming

- 1 Pattern selector: 1.5 or 18
- 2 Presser foot: Zigzag foot A
- 3 Thread tension: 3–6
- 4 Stitch length: 0.5–1
- 5 Stitch width: 5–6.5



Use this stitch to join two pieces of fabric to create an open look and add interest to the design.
 Fold 1.5 cm (5/8") under each end of the fabric and press.
 Pin both ends to a piece of paper or tear them off, leaving a 0.3 cm (1/8") gap.
 1 0.3 cm (1/8")

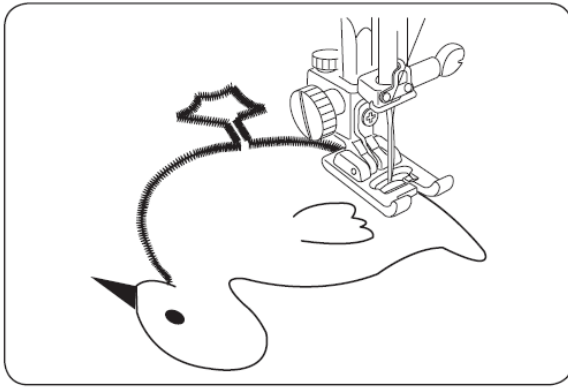
Sew slowly, guiding the fabric so that the needle catches the folded edge on each side.
 After sewing, remove the paper.



Appliqué

- 1 Pattern selector: 9 or 14*
- 2 Presser foot: Satin stitch F
- 3 Thread tension: 1-4
- 4 Stitch length: 0.5-1*
- 5 Stitch width: 3-5
- 6 Presser foot pressure: 1-2

* The stitch length is automatically adjusted for pattern number 14.

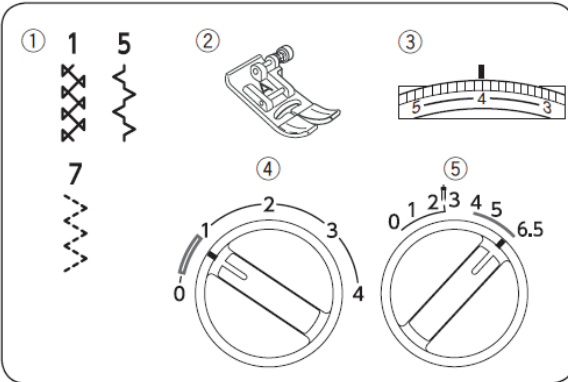


Baste (or use a press-on backing) the appliqué pieces onto the fabric.

Sew around the appliqué, ensuring that the needle comes out at the outer edge of the appliqué.

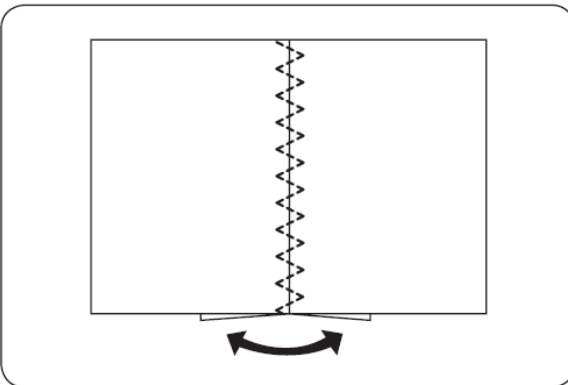
When sewing corners, lower the needle into the fabric. Raise the presser foot and turn the fabric to the right or left.

* Once you have finished sewing the appliqué, return the dial pressure to 3.

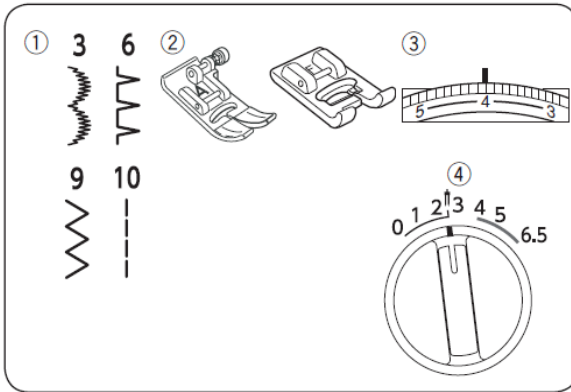


Patches

- 1 Pattern selector: 1.5 or 7
- 2 Presser foot: Zigzag foot A
- 3 Thread tension: 3-6
- 4 Stitch length: 0.5-1
- 5 Stitch width: 5-6.5



Sew a seam and press the seam allowance open. Sew the pattern stitch on the right side of the garment, centring the stitches on the seam line.



Twin needle

- 1 Pattern selector: 3, 6, 9 or 10
- 2 Presser foot: Zigzag foot A (for patterns 9 and 10) or foot F (for patterns 3 and 6)
- 3 Thread tension: 2-6
- 4 Stitch width: 0-2.5

Adjust the stitch length as indicated in the guidance message window (see page 16).

Replace the needle with the twin needle supplied with the standard accessories.

! CAUTION:

Switch off the power before changing the needle. Do not use twin needles other than those included with the standard accessories, otherwise the needle may strike the needle plate, presser foot or hook and break.

Insert the pin of the additional bobbin into the hole in the foot storage compartment. Place a thread spool onto the spare spool pin and secure the spool with the spool holder.

1 Additional bobbin pin

Pull both threads from the spools and pass them through the threading points from points 1 to 3. Make sure the two threads from the spools do not get tangled.

NOTE:

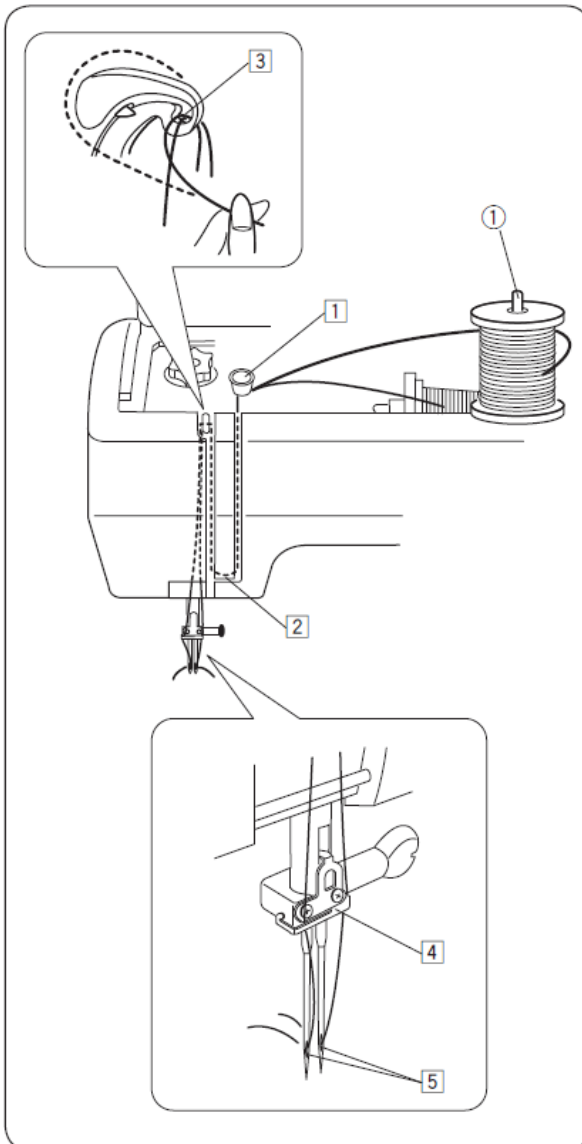
Threading from points 1 to 3 is the same as threading for a single needle (see page 12).

4 Thread one of the threads through the thread guide on the left needle bar and the other through the right.

5 Thread the needles from front to back.

NOTE:

The needle threader cannot be used with twin needles.



SECTION VI CARE AND MAINTENANCE



WARNING:

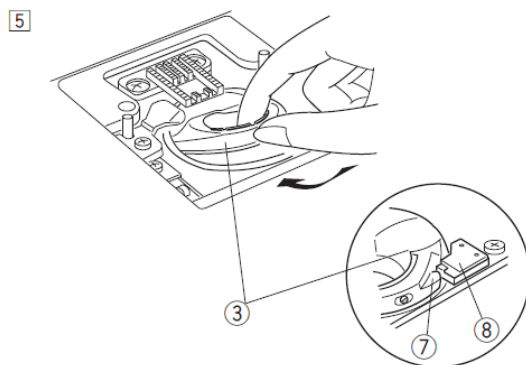
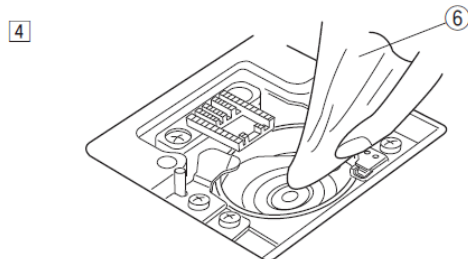
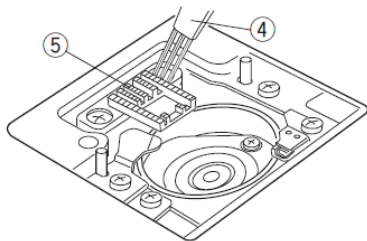
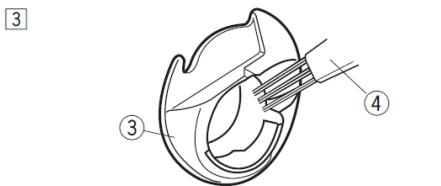
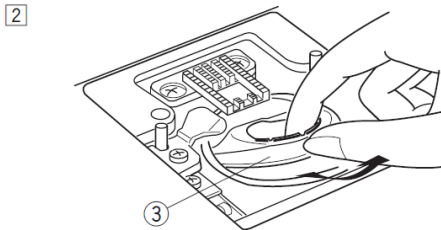
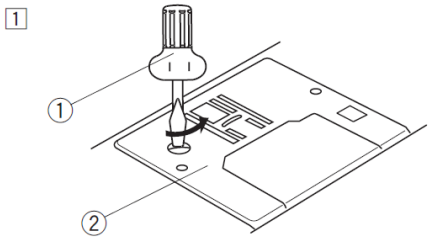
Switch off the power switch and unplug the machine before cleaning it.

Cleaning the shuttle

Clean the hook area at least once a month. Switch off the power and unplug the machine. Remove the needle and the presser foot.

NOTE:

Do not disassemble the machine in any way other than as explained in this section.



1 Remove the screw on the left-hand side of the needle plate using the screwdriver.

Remove the needle plate.

1 Screwdriver

2 Needle plate

2 Remove the bobbin and the bobbin holder.

3 Bobbin holder

3 Clean the spool holder and feed dog with the lint brush.

4 Lint brush

5 Feed dog

4 Clean the shuttle with a soft cloth.

6 Soft cloth

5 Insert the bobbin holder so that the control fits next to the stop on the shuttle.

Insert the bobbin.

Fit the needle plate, the presser foot and the needle.

7 Control

8 Stop

Troubleshooting

Status	Cause	Reference
The machine is not working properly and is noisy.	<ol style="list-style-type: none"> 1. Threads are caught in the hook mechanism. 2. The feed dog is dirty. 	<p>See page 38</p> <p>See page 38</p>
The needle thread breaks.	<ol style="list-style-type: none"> 1. The needle thread has not been threaded correctly. 2. The needle thread tension is too tight. 3. The needle is bent or blunt. 4. The needle is inserted incorrectly. 5. The fabric is not being pulled out from the back once sewing is complete. 6. The thread is too thick or too thin for the needle. 	<p>See page 12 See page 15 See page 8 See page 8 See page 17</p> <p>See page 8</p>
The bobbin thread breaks.	<ol style="list-style-type: none"> 1. The bobbin thread is not correctly threaded into the bobbin case. 2. There is lint accumulated in the bobbin case. 3. The bobbin is damaged and does not rotate properly. 	<p>See page 11</p> <p>See page 38. Replace the needle.</p>
The needle breaks.	<ol style="list-style-type: none"> 1. The needle is inserted incorrectly. 2. The needle is bent or blunt. 3. The needle clamp screw is loose. 4. The needle thread tension is too tight. 5. The fabric is not being pulled out from the back once sewing is complete. 6. The needle is too fine for the fabric being sewn. 7. The pattern selector dial has been turned whilst the needle was in the fabric. 	<p>See page 8 See page 8 See page 8 See page 15 See page 17</p> <p>See page 8 See page 16</p>
Loose stitches.	<ol style="list-style-type: none"> 1. The needle is inserted incorrectly. 2. The needle is bent or blunt. 3. The needle and/or threads are not suitable for the work you are doing. 4. You are not using a BLUE-TIPS needle when sewing on very fine, stretchy and synthetic fabrics. 5. The needle thread has not been threaded correctly. 6. The presser foot pressure is not firm enough. 	<p>See page 8 See page 8 See page 8</p> <p>See page 8</p> <p>See page 12 See page 5</p>

Condition	Cause	Reference
Gathered seams.	<ol style="list-style-type: none"> 1. The needle thread tension is too high. 2. The machine is not threaded correctly. 3. The needle size is too large for the fabric being sewn. 4. The stitches are too thick for the fabric being sewn. 5. The presser foot pressure is not set correctly. <p>* When sewing extremely light fabrics, place a sheet of paper under the fabric.</p>	<p>See page 15 See page 12 See page 8</p> <p>Make the stitches denser. See page 5</p>
The stitches form loops on the underside of the work.	<ol style="list-style-type: none"> 1. The tension of the thread on the needle is too loose. 2. The needle is too thick or too thin for the thread. 	<p>See page 15 See page 8</p>
The fabric is not feeding evenly.	<ol style="list-style-type: none"> 1. Lint has built up in the thread guide. 2. The presser foot pressure is too low. 3. The stitches are too fine. 4. The feed dogs have not been raised after being lowered. 	<p>See page 38 See page 5 Make the stitches thicker. See page 5</p>
The machine is not working.	<ol style="list-style-type: none"> 1. The machine is not plugged in. 2. A thread has become caught in the shuttle slide. 3. The winder shaft is still in the winding position. 	<p>See page 4 See page 38</p> <p>See page 10</p>
The buttonholes are not sewn properly.	<ol style="list-style-type: none"> 1. The stitch density is not suitable for the fabric used. 2. The fabric is being pulled or caught. 3. No interfacing has been used with stretch fabrics. 	<p>See pages 23, 25 and 26</p> <p>Allow the fabric to feed naturally. See page 23</p>