

HZL-180SZ

INSTRUCTION MANUAL

**Attention**

Please read this instruction manual before using the machine as it contains important operational and safety information.
Keep this manual accessible so that you may refer to it at anytime while operating the machine.

“IMPORTANT SAFETY INSTRUCTIONS”

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

“DANGER ____ To reduce the risk of electric shock:”

1. The appliance should never be left unattended when plugged in.
2. Always unplug this appliance 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 use the appliance as a toy. Caution is advised when the appliance is used by children, or near children. This sewing machine can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the sewing machine in a safe way and understand the hazards involved. Children shall not play with the sewing machine. Cleaning and user maintenance shall not be made by children without supervision.
2. Use this appliance only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
3. Never operate this appliance 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 the appliance to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the appliance with any air openings blocked. Keep ventilation openings of the sewing machine and foot control free from the accumulation of lint, dust, and loose cloth.
5. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
6. Always use the proper stitch plate. The wrong plate can cause the needle to break.
7. Do not use bent needles.
8. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
9. Switch the sewing machine off ("O") when making any adjustments in the needle area, such as threading needle, changing needle, threading bobbin, or changing presser foot.

10. Always unplug the machine from the electrical outlet when removing covers, when lubricating or when making any other user servicing adjustments mentioned in the instruction manual.
11. Never drop or insert any object into any opening.
12. Do not use outdoors.
13. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
14. To disconnect, turn all controls to the off ("O") position, then remove plug from outlet.
15. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
16. Basically, the machine should be disconnected from the electricity supply when not in use.
17. If the power cord of this appliance is damaged, it must be replaced with a special cord by your nearest authorized dealer or service center.
18. (Except USA/Canada) This machine is provided with double insulation. Use only identical replacement parts. See instructions for servicing Double-Insulated machine.
19. When you sew slowly for long time, machine will have heat or unusual smell occurs. In this case, disconnect the plug from the wall outlet and use it after a while. Contact your nearest dealer if it still occurs.
20. Don't use the machine if it's wet or in humid environment.
21. The sewing machine is equipped with a LED lamp. If the LED lamp is broken, it must be replaced by the manufacturer or its service agent in order to avoid a hazard.
22. Never place anything on the foot control.
23. The machine must only be used with foot controller type KD-2902.
24. The sound pressure level under normal operating conditions is 75dB(A).
25. Keep the instruction at a suitable place that close to the machine, and hand it over if you give the machine to a third party.

“SERVICING DOUBLE-INSULATED PRODUCTS (Except USA / Canada)”

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product nor should a means for grounding be added to the product. Servicing a double-insulated product requires extreme care and knowledge of the system and should only be done by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product. A double-insulated product is marked with the words DOUBLE INSULATION or DOUBLE INSULATED.

The symbol  may also be marked on the product.

"SAVE THESE INSTRUCTIONS"

"This sewing machine is intended for household use only."

Congratulations on your purchase of a JUKI sewing machine.



Please be sure to read safety precautions in "To use the sewing machine safely" in the Instruction Manual before use to fully understand the functions and operating procedures of the sewing machine so as to use the sewing machine for a long time.

After you have read the Instruction Manual, please be sure to keep it together with the warranty so that you can read it whenever necessary.











To use the sewing machine safely

Marks and pictographs included in the Instruction Manual and shown on the sewing machine are used so as to ensure safe operation of the sewing machine and to prevent possible risk of injury to the user and other people.

Warning marks are used for different purposes as described below.

 WARNING	Indicates that there is a possible risk of death or serious injury if this mark is ignored and the sewing machine is used in a wrong manner.
 CAUTION	Indicates the operation, etc. which can cause a possible risk of personal injury and/or physical damage if this mark is ignored and the sewing machine is used in a wrong manner.

Pictographs mean the following:

	Danger warning which is not specified		There is a risk of electrical shock		There is a risk of fire		There is a risk of injury to hands, etc.
	Prohibited matter which is not specified		Disassembly/alteration is prohibited		Do not place fingers under the needle		Do not pour oil, etc.
	Generally required behavior		Disconnect the power plug				

⚠ WARNING

For the combination of the material and the thread and needle, in particular, refer to the explanation table in "Replacement of the needle".

If the needle or thread does not match the material used such as in the case that an extra heavyweight material (e.g., denim) is sewn with a thin needle (#11 or higher), the needle can break resulting in an unexpected personal injury.

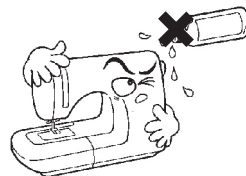
Other precautions

- Do not put the sewing machine under the direct sunlight or in a humid place.



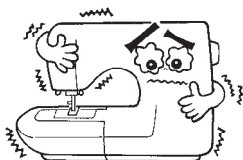
- Do not wipe the sewing machine with solvent such as thinner.

When the sewing machine is soiled, put a small quantity of neutral detergent on a piece of soft cloth and carefully wipe off the sewing machine with it.



Be aware that the following state can take place since the sewing machine incorporates semi-conductor electronic parts and precise electronic circuits.

- Be sure to use the sewing machine in the temperature range from 5°C to 40°C. If the temperature is excessively low, the machine can fail to operate normally.



* The operating temperature of the sewing machine is between 5°C and 40°C. Do not use the sewing machine under the direct sunlight, near the burning things such as a stove and candle, or in a humid place. By so doing, the temperature in the interior portion of the sewing machine can rise or the coating of the power cord can melt, causing fire or electrical shock.



Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available.

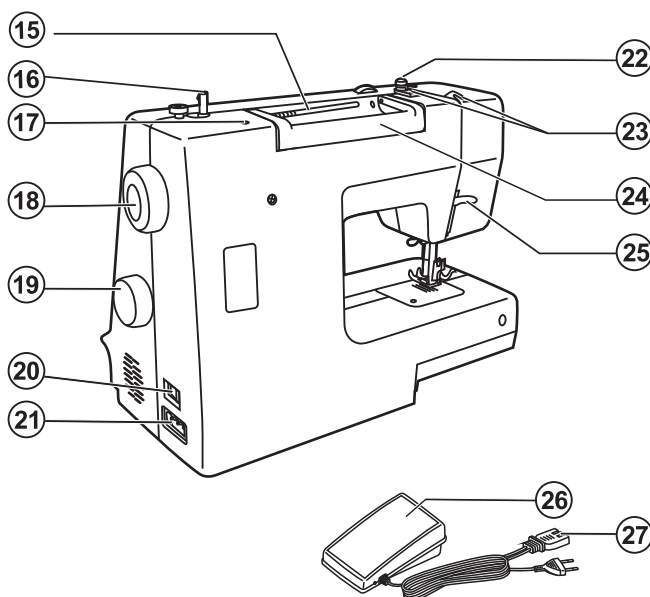
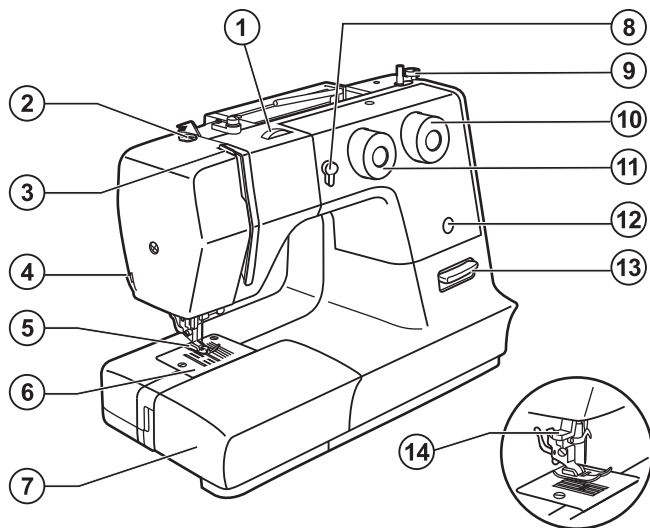
If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

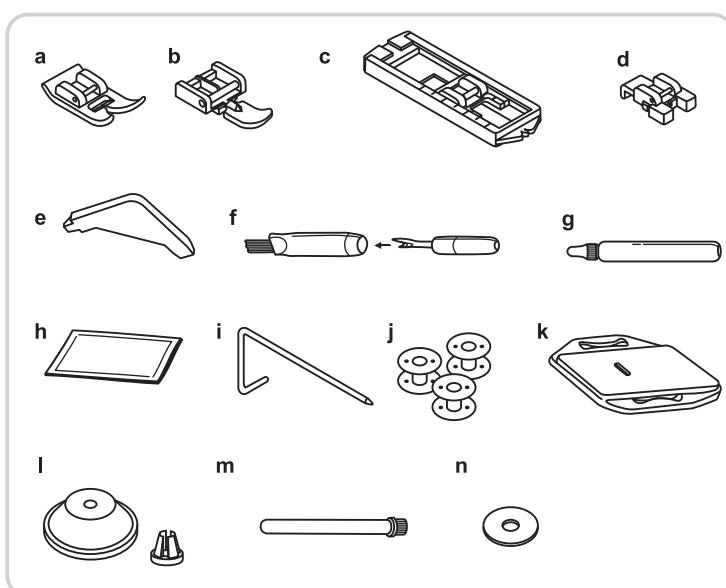
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Details of the machine



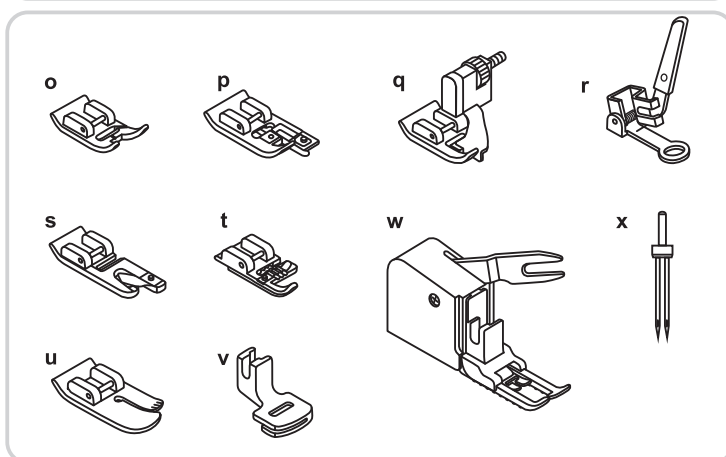
1. Thread tension dial
2. Presser foot pressure
3. Thread take-up lever
4. Thread cutter
5. Presser foot
6. Needle plate
7. Sewing table and accessory box
8. Three needle position dial
9. Bobbin stopper
10. Stitch length dial
11. Stitch width dial
12. Stitch display
13. Reverse sewing lever
14. Automatic threader
15. Spool pin
16. Bobbin winder spindle
17. Hole for second spool pin
18. Hand wheel
19. Pattern selector dial
20. Power switch
21. Main plug socket
22. Bobbin thread guide
23. Upper thread guide
24. Handle
25. Presser foot lever
26. Foot speed control
27. Power cord



Accessories

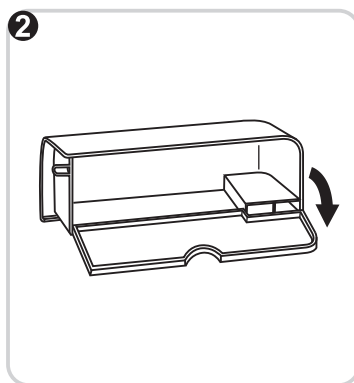
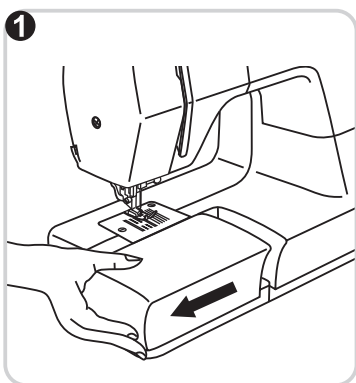
Standard accessories

- a. All purpose foot
- b. Zipper foot
- c. Buttonhole foot
- d. Button sewing foot
- e. L-screwdriver
- f. Seam ripper/ brush
- g. Oil bottle
- h. Pack of needles (3x)
- i. Edge/quilting guide
- j. Bobbin (3x)
- k. Darning plate
- l. Spool cap
- m. Second spool pin
- n. Spool pin felt



Extra accessories (optional)

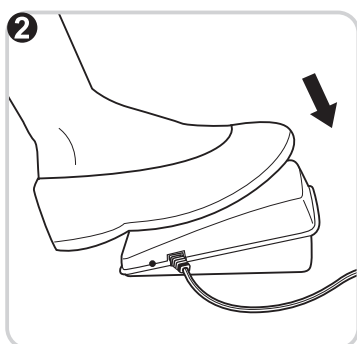
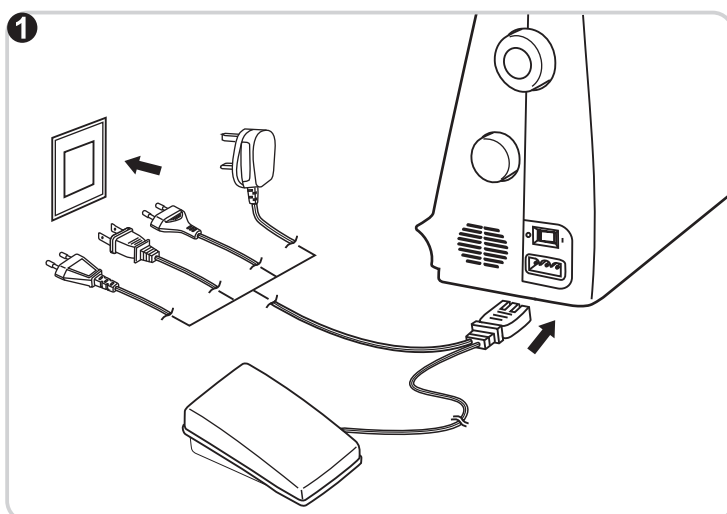
- o. Satin stitch foot
- p. Overcasting foot
- q. Blind hem foot
- r. Darning / Embroidery foot
- s. Hemmer foot
- t. Cording foot
- u. Quilting foot
- v. Gathering foot
- w. Walking foot
- x. Twin needle



Fitting the snap-in sewing table

Keep the snap-in sewing table horizontal, and push it in the direction of the arrow. (1)

The inside of the snap-in sewing table can be utilized as an accessory box. To open, flip cover down as shown. (2)



Connecting machine to power source

Connect the machine to a power source as illustrated. (1) The sewing machine is equipped with a polarized plug which must be used with an appropriate polarized outlet.

! Attention:

Unplug the power cord when machine is not in use.

Foot control

The foot control pedal regulates the sewing speed. (2)

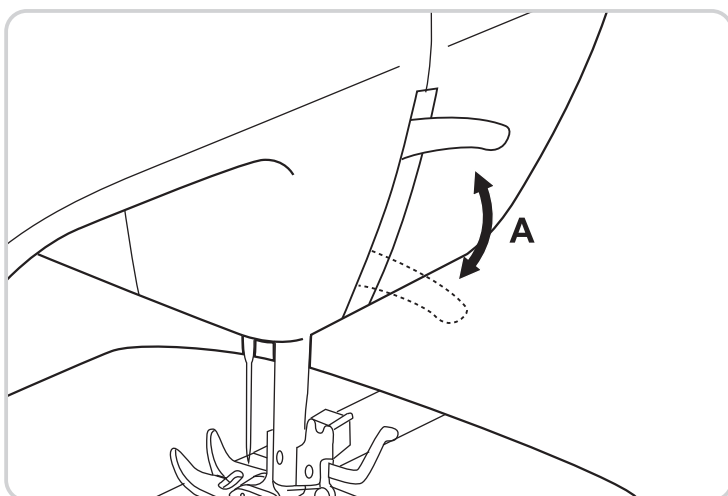
! Attention:

Consult a qualified electrician if in doubt as to connect machine to power source.

Unplug power cord when machine is not in use.

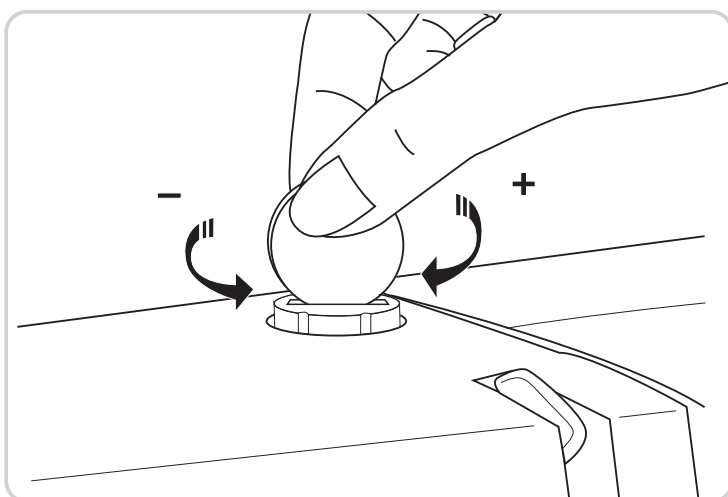
Sewing light

Press the main switch to "I" for power and light on. (1)



Two-step presser foot lever

When sewing several layers or thick fabrics, the presser foot can be raised a second stage for easy positioning of the work. (A)

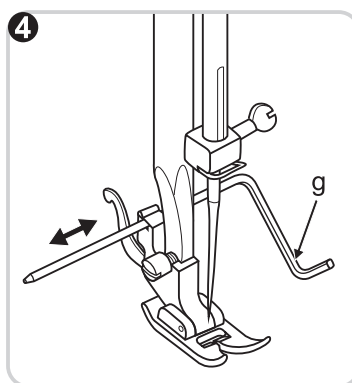
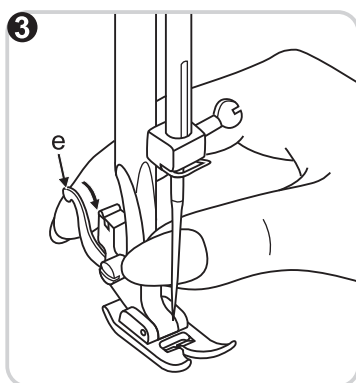
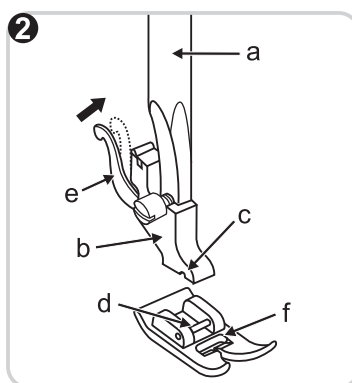
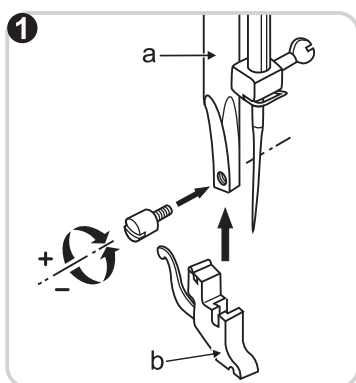


Adjusting presser foot pressure

The presser foot pressure of the machine has been pre-set and requires no particular readjustment according to the type of fabric (light-or-heavy weight).

However, if you need to adjust the presser foot pressure, turn the presser adjusting screw with a coin.

For sewing very thin fabric, loosen the pressure by turning the screw counter clockwise, and for heavy fabric, tighten by turning it clockwise.



Attaching the presser foot holder

Raise the presser foot bar (a).
(1) Attach the presser foot holder (b) as illustrated.

Attaching the presser foot

Lower the presser foot holder (b) until the cut-out (c) is directly above the pin (d). (2)
Raise the lever (e).

Lower the presser foot holder (b) and the presser foot (f) will engage automatically.

Removing the presser foot

Raise the presser foot. (3)
Raise the lever (e) and the foot disengages.

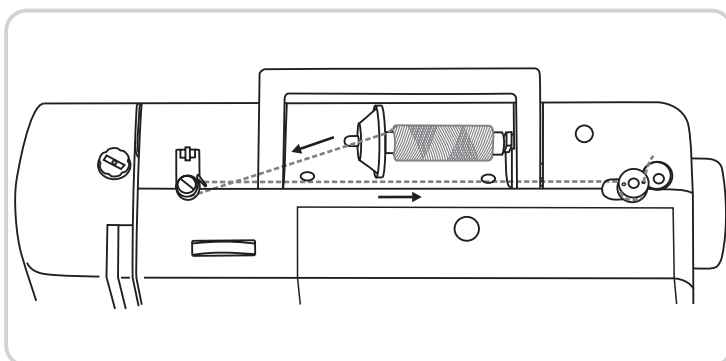
Attaching the quilt guide

Attach the quilt guide (g) in the slot as illustrated. Adjust as needed for hems, pleats, quilting, etc. (4)



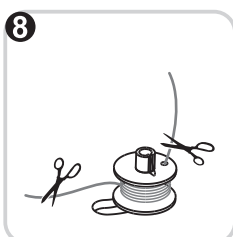
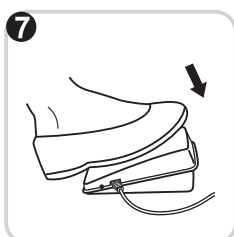
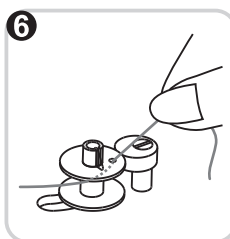
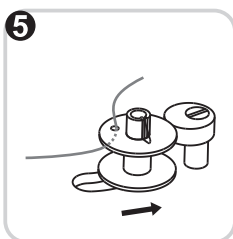
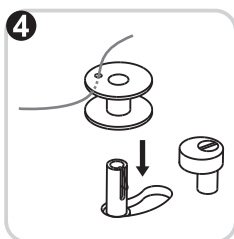
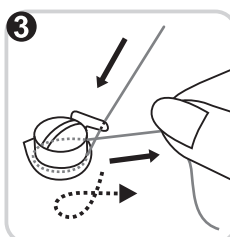
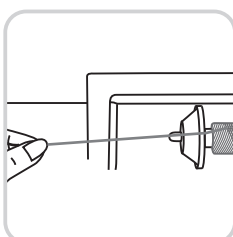
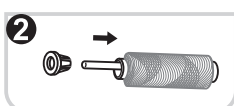
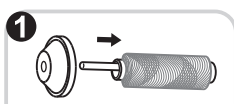
Attention:

Turn power switch to "O" when carrying out any of the above operations!

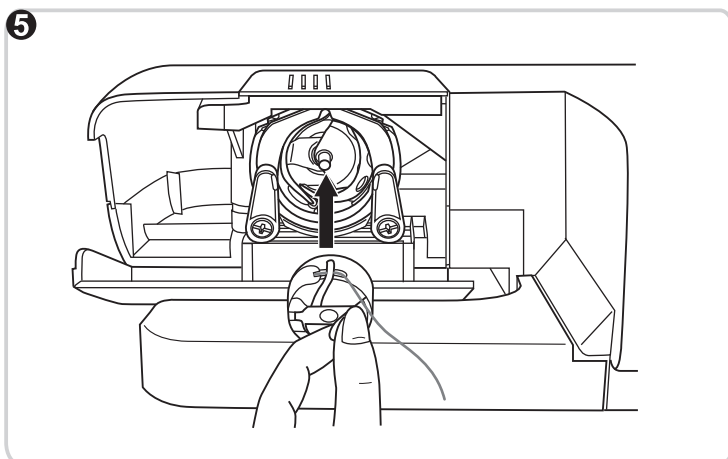
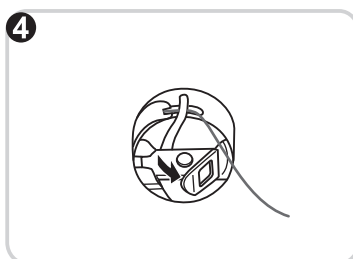
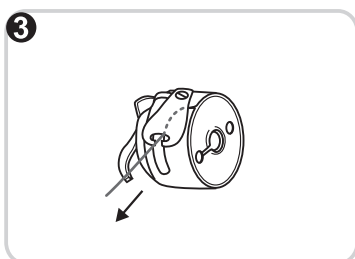
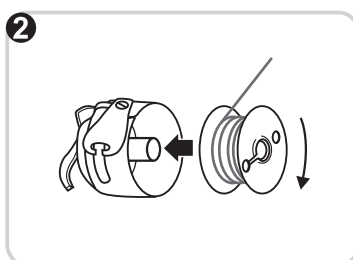
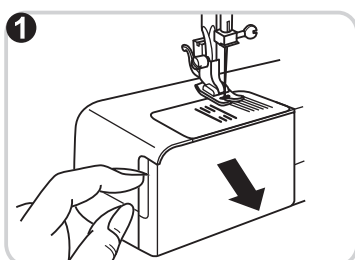


Winding the bobbin

- Place the thread and spool cap onto the spool pin.
For small thread spools, place small side of spool cap next to spool. (1/2)
- Wind thread clockwise around bobbin winder tension discs. (3)
- Thread bobbin as illustrated and place on spindle. (4)
- Push bobbin spindle to right. (5)
- Hold thread end. (6)
- Step on foot control pedal. (7)
- Cut thread. (8)
- Push bobbin spindle to left (9) and remove.



! Please Note:
When the bobbin winder spindle is in "bobbin winding" position, the machine will not sew and the hand wheel will not turn. To start sewing, push the bobbin winder spindle to the left (sewing position).

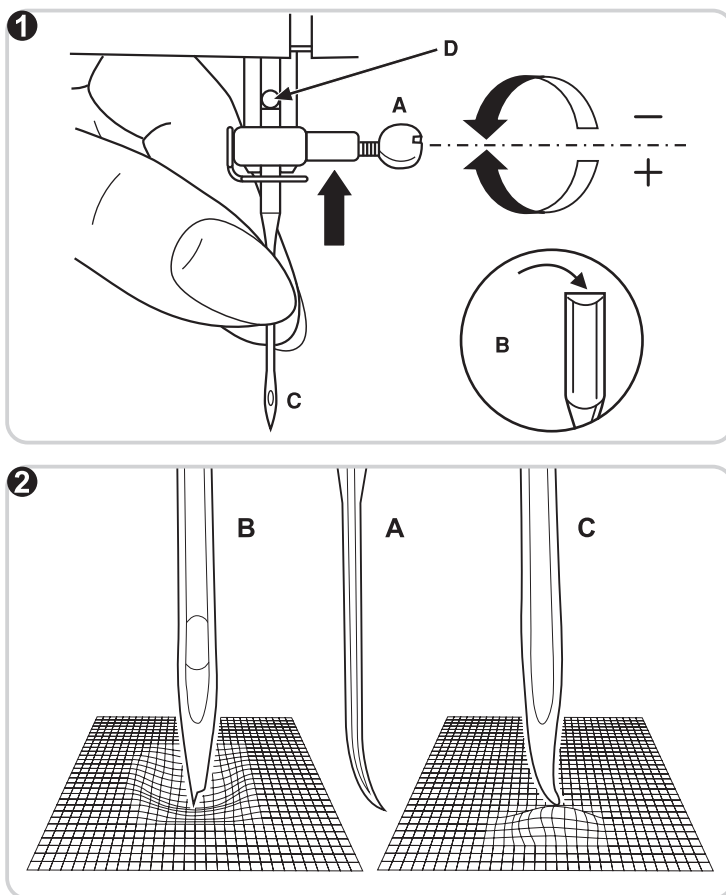


Inserting the bobbin

When inserting or removing the bobbin, the needle must be fully raised.

- Open the hinged cover. (1)
- Hold the bobbin case with one hand. Insert the bobbin so that the thread runs in a clockwise direction (arrow). (2)
- Put the thread under the tension spring. (3)
- Hold the bobbin case by the hinged latch. (4)
- Insert it into the shuttle. (5)

⚠ Attention:
Turn power switch to "O" before inserting or removing the bobbin.



Inserting the needle

Change the needle regularly, especially if it is showing signs of wear and causing problems.

Insert the needle as illustrated as follows:

- A. Loosen the needle clamp screw and tighten again after inserting the new needle. (1)
- B. The flat side of the shaft should be towards the back.
- C/D. Insert the needle as far up as it will go.



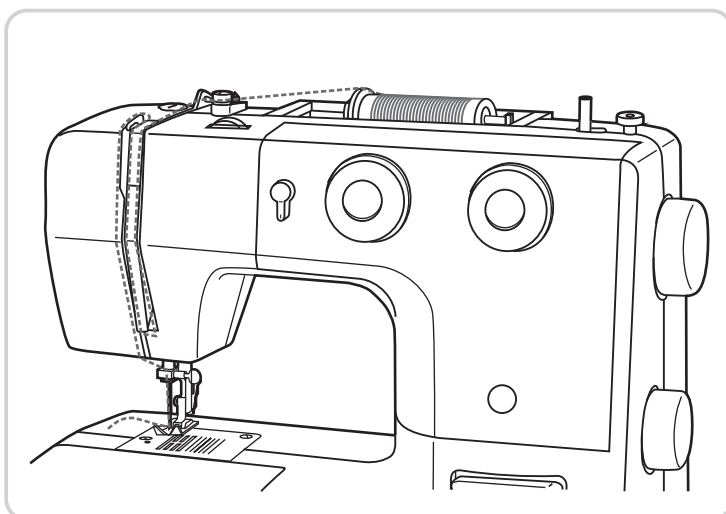
Attention:

Turn power switch to "O" before inserting or removing the needle.

Needles must be in perfect condition. (2)

Problems can occur with:

- A. Bent needles
- B. Damaged points
- C. Blunt needles



Threading the upper thread

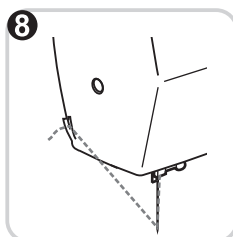
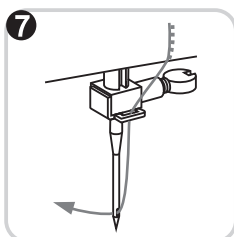
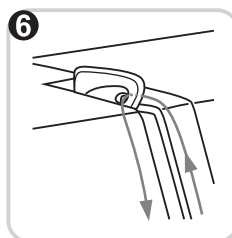
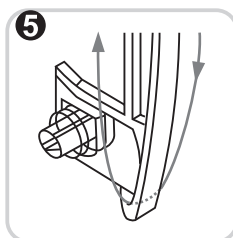
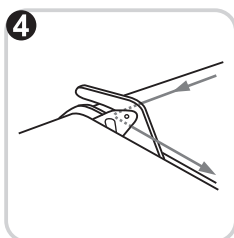
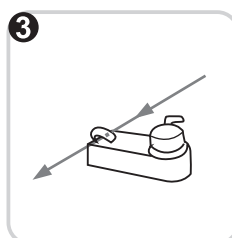
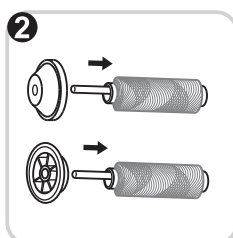
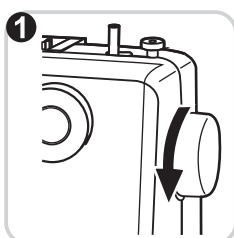


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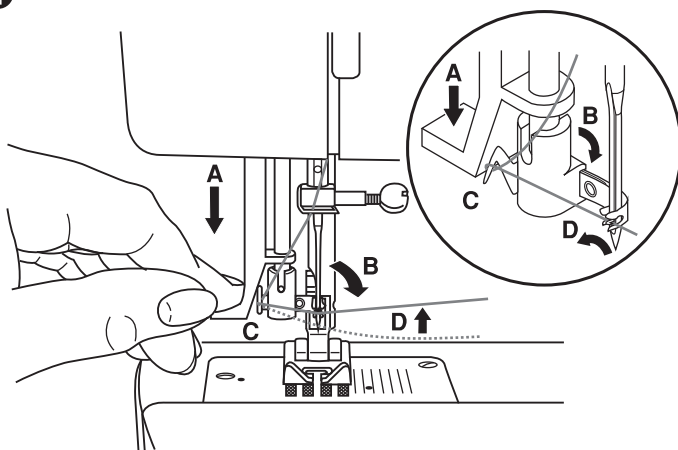
For safety, it is strongly suggested you turn off the power before threading.

This is a simple operation but it is important to carry out correctly as by not doing so several sewing problems could result.

- Start by raising the needle to its highest point, and also raise the presser foot to release the tension discs. (1)
- Lift up the spool pin. Place the thread and spool holder onto the spool pin. For small spools of thread, use the spool cap with the small end facing the spool of thread. (2)
- Draw thread from spool to the upper thread guide.(3)
- Guide thread around thread guide pulling thread through pre-tension spring as illustrated. (4)
- Continue downwards on the right side of the large verticle thread guide passing under and up on the left side allowing the thread to engage in the check spring as it passes upwards. (5)
- At the top of this movement pass it from right to left through the slotted eye of the take-up lever and then downwards again. (6)
- Pass behind the flat, horizontal thread guide.(7)
- Now take it behind the thin wire needle clamp guide and then down to the needle which should be threaded from front to back. Pull about 6-8 inches of thread to the rear beyond the needle eye. (8)



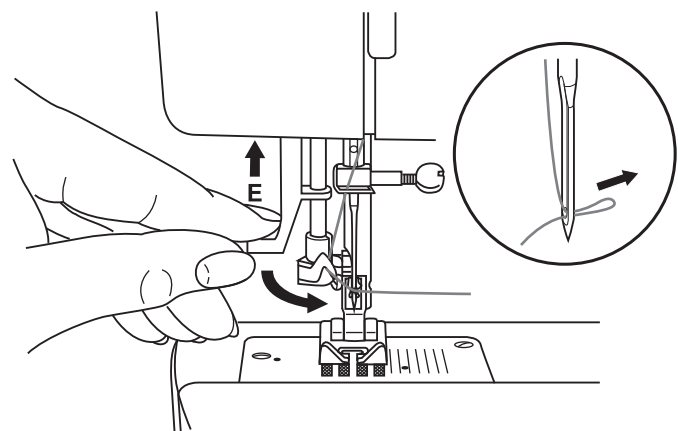
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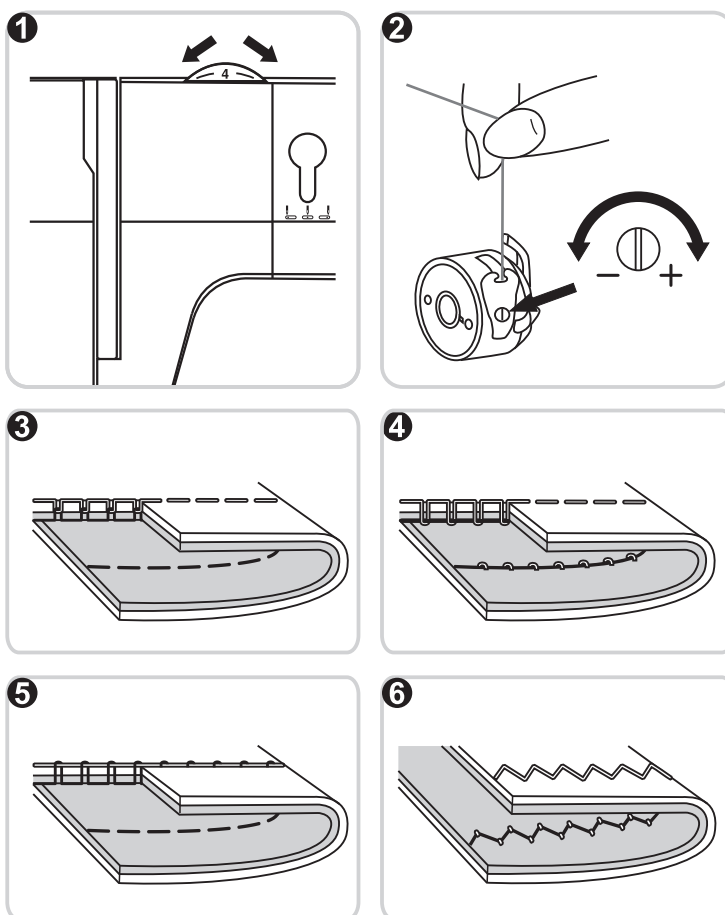
Automatic needle threader

- Raise the needle to its highest position.
- Press lever (A) right down.
- The threader automatically swings to the threading position (B).
- Take the thread round the hook (C).
- Take the thread in front of the needle so that the thread will insert into the hook (D) from bottom to top
- Release lever (E).
- Pull the thread through the needle eye.

2



⚠ Attention:
Turn power switch to "O"!



Thread tension

Upper thread tension (1)

Basic thread tension setting: "4". To increase the tension, turn the dial to the next number up. To reduce the tension, turn the dial to the next number down.

Normal thread tension for straight stitch sewing.(3)

Thread tension too loose for straight stitch sewing. Turn dial to higher number.(4)

Thread tension too tight for straight stitch sewing. Turn dial to lower number.(5)

Normal thread tension for zig zag and decorative sewing. Correct thread tension is when a small amount of the upper thread appears on the bottom side of fabric.(6)

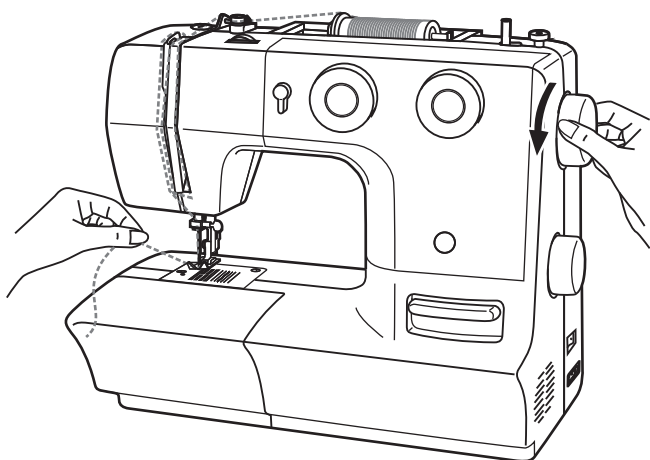
Lower thread tension (2)

To test the bobbin thread tension, remove the bobbin case and bobbin and hold it by suspending it by the thread. Jerk it once or twice. If the tension is correct, the thread will unwind by about an inch or two. If the tension is too tight, it does not unwind at all. If the tension is too loose, it will drop too much. To adjust, turn the small screw on the side of the bobbin case.

⚠ Please note:

- Proper setting of tension is important to good sewing.
- There is no single tension setting appropriate for all stitch functions, thread or fabric.
- A balanced tension (identical stitches both top and bottom) is usually only desirable for straight stitch construction sewing.
- 90% of all sewing will be between "3" and "5".
- For zig zag and decorative sewing stitch functions, thread tension should generally be less than for straight stitch sewing.
- For all decorative sewing you will always obtain a nicer stitch and less fabric puckering when the upper thread appears on the bottom side of your fabric.

1

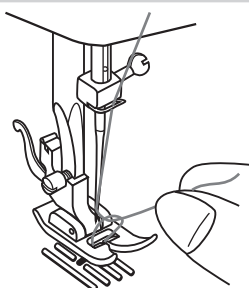


Bringing up the lower thread

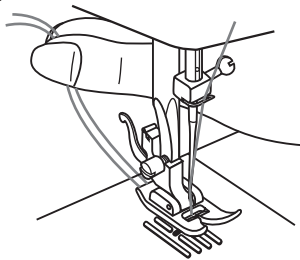
Hold the upper thread with the left hand. Turn the handwheel forwards until the needle is raised. (1)

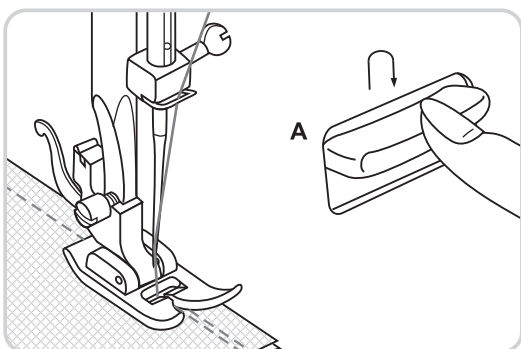
Pull on the upper thread to bring the lower thread up through the stitch plate hole. Lay both threads to the back under the presser foot. (2/3)

2



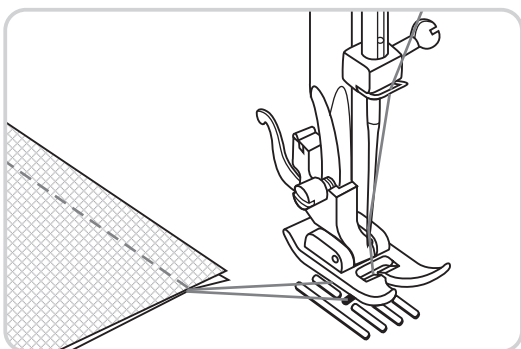
3





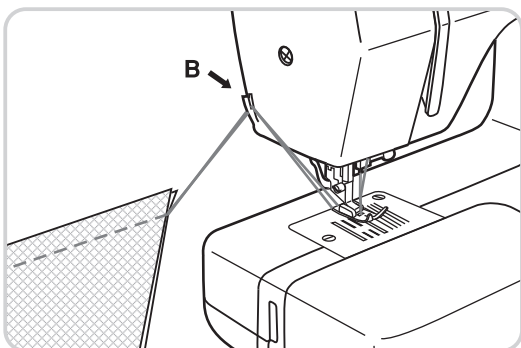
Reverse sewing

At the end of seam, press down the reverse sewing lever. Sew a few reverse stitches. Release the lever and the machine will sew forwards again. (A)



Removing the work

Turn the handwheel towards to bring the thread take up lever to its highest position, raise the presser foot and remove work towards the back.



Cutting the thread

Hold the threads behind the presser foot with both hands, guide them to the slit (B) and press down.

Matching needle / fabric / thread

NEEDLE, FABRIC, THREAD SELECTION GUIDE

NEEDLE SIZE	FABRICS	THREAD
9-11(65-75)	Lightweight fabrics-thin cottons, voile, serge, silk, muslin, Qiana, interlocks, cotton knits, tricot, jerseys, crepes, woven polyester, shirt & blouse fabrics.	Light-duty thread in cotton, nylon or polyester.
12(80)	Medium weight fabrics-cotton, satin, kettlecloth, sailcloth, double knits, lightweight woollens.	Most threads sold are medium size and suitable for these fabrics and needle sizes. Use polyester threads on synthetic materials and cotton on natural woven fabrics for best results. Always use the same thread on top and bottom.
14(90)	Medium weight fabrics-cotton duck, woolen, heavier knits, terrycloth, denims.	
16(100)	Heavyweight fabrics-canvas, woollens, outdoor tent and quilted fabrics, denims, upholstery material (light to medium).	



IMPORTANT: Match needle size to thread size and weight of fabric

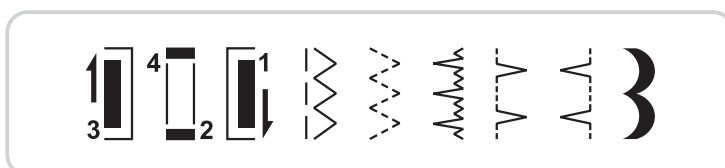
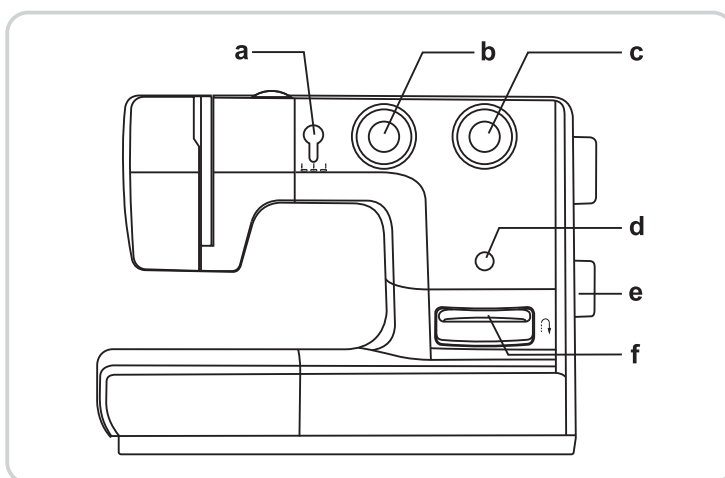
NEEDLE, FABRIC SELECTION

NEEDLES	EXPLANATION	TYPE OF FABRIC
HAx1 15x1	Standard sharp needles. Sizes range thin to large. 9 (65) to 16 (100)	Natural woven fabrics-wool, cotton, silk, etc. Qiana. Not recommended for double knits.
15x1/705H (SIN)	Semi-ball point needle, scarfed. 9 (65) to 16 (100)	Natural and synthetic woven fabrics, polyester blends. Knits-polyesters, interlocks, tricot, single and double knits. Can be used instead of 15x1 for sewing all fabrics.
15x1/705HS (SUK)	Full ball point needle 9 (65) to 16 (100)	Sweater knits, Lycra, swimsuit fabric, elastic.
130 PCL	Leather needles. 12 (80) to 16 (100)	Leather, vinyl, upholstery. (Leaves smaller hole than standard large needle.)



Note:

1. Twin needles, can be purchased for utility and decorative work.
2. When sewing with twin needles, the stitch width dial should be set at less than "4".
3. European needles show sizes 65, 70, 80 etc. American and Japanese needles show size 9, 11, 12 etc.
4. Replace needle often (approximately every other garment) and / or at first thread breakage or skipped stitches.
5. Use a backing for fine or stretchy fabrics.



How to choose your pattern

To select a stitch, simply turn the pattern selector dial. The pattern selector dial may be turned in either direction. The following page shows the recommended range of stitch lengths and widths.

Adjust the stitch length with the stitch length dial. You may choose stitch width by turning the stitch width dial.

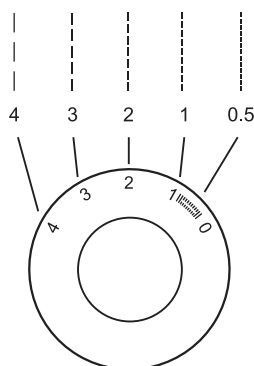
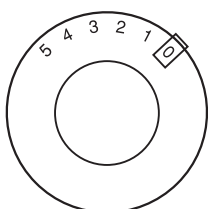
Adjust the stitch length and stitch width according to the fabric being used.

To obtain any of the other patterns shown in the upper row on the stitch selection panel, select the pattern with the pattern selector dial. Adjust the stitch length and the stitch width with the control dials according to the result desired.

To obtain any of the patterns on the second row, turn the stitch length dial to "S1", select the pattern desired with pattern selector dial, and adjust the stitch width with the stitch width dial.

To obtain any of the patterns on the third row, turn the stitch length dial to "S2", select the pattern desired with pattern selector dial, and adjust the stitch width with the stitch width dial.

- a. Three needle position dial
- b. Stitch width dial
- c. Stitch length dial
- d. Stitch display
- e. Pattern selector dial
- f. Reverse sewing lever



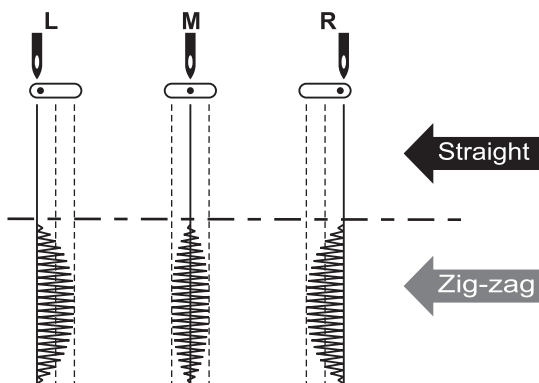
Straight stitch and twin needle

Turn the stitch selection dial so that the pointer is set to the straight stitch position.

Generally speaking, the thicker the fabric, thread and needle, the longer the stitch should be.

For a fine stitch set length at "1" or "2". For gathering set stitch length to "4".

For twin needle stitching, set needle at middle needle position. Thread left spool of thread in left needle and right spool of thread in right needle.

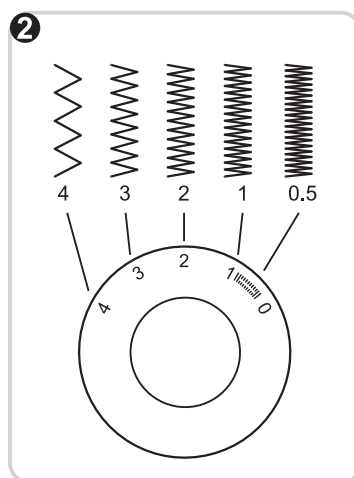
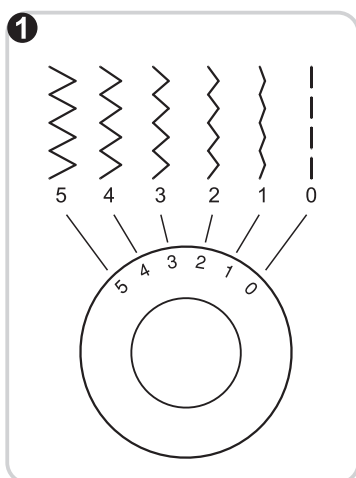


Three needle position dial

The needle position can be altered with the "Three needle position dial". For normal work, the needle position is middle. For edge stitching or sewing parallel lines of top stitch, select needle position left or right.

For twin needle stitching, needle position is middle.

L. Left needle position
M. Middle needle position
R. Right needle position



Zigzag stitching

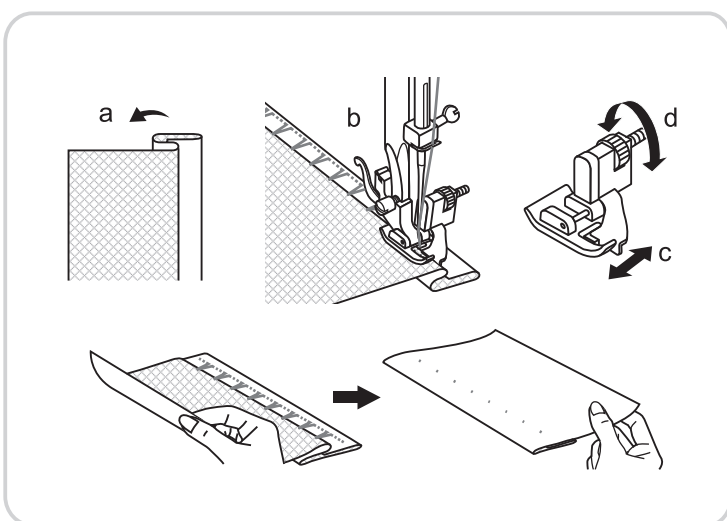
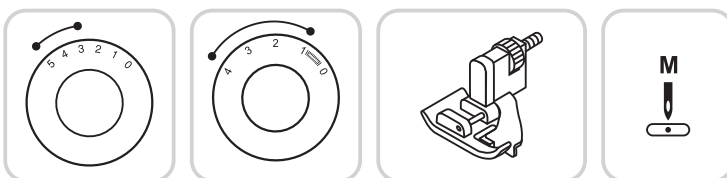
Turn the stitch selection dial to zigzag stitch.

Function of stitch width dial (1)

The maximum zigzag stitch width for zigzag stitching is "5"; however, the width can be reduced on any patterns. The width increases as you move zigzag dial from "0" - "5". For twin needle sewing, never set the width wider than "3".

Function of stitch length dial while zigzagging (2)

The density of zigzag stitches increase as the setting of stitch length dial approaches "0". Neat zigzag stitches are usually achieved at "2.5" or below.



Blind hem (optional)



Attention:

The blind hem foot is an optional accessory not supplied with your machine.

For hems, curtains, trousers, skirts, etc.



Attention:

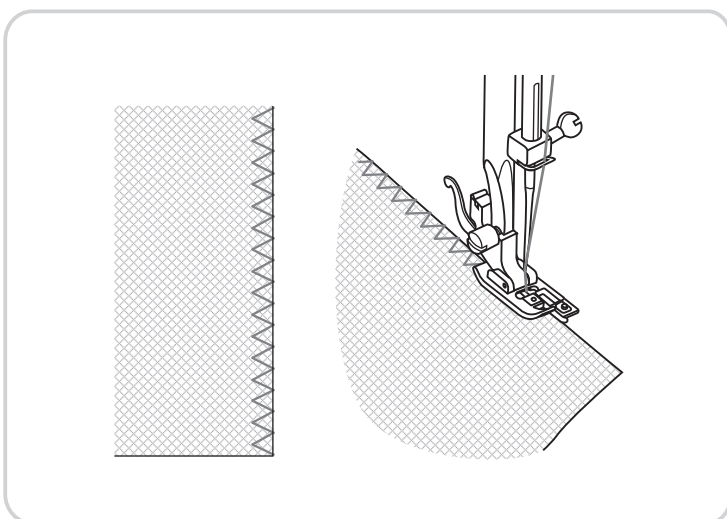
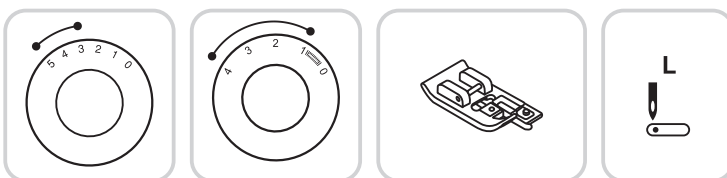
It takes practice to sew blind hems. Always make a sewing test first.

Fold the fabric as illustrated with the wrong side uppermost. (a)

Place the fabric under the foot. Turn the handwheel forwards by hand until the needle swings fully to the left. It should just pierce the fold of the fabric. If it does not, adjust the stitch width accordingly. (b)

Adjust the guide (c) by turning the knob (d) so that the guide just rests against the fold.

Sew slowly, by pressing the foot control lightly guiding the fabric along the edge of the guide. Unfold the fabric when hemming is completed and press.

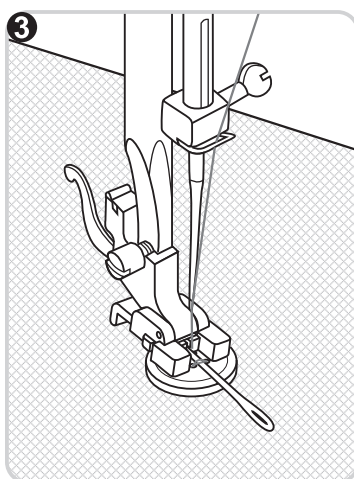
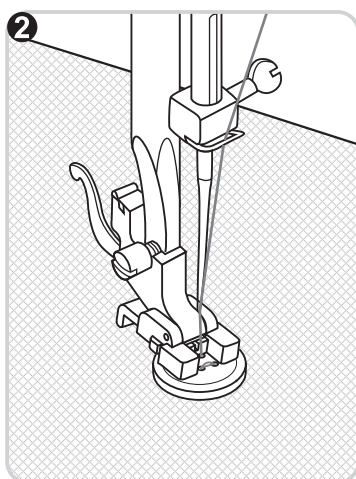
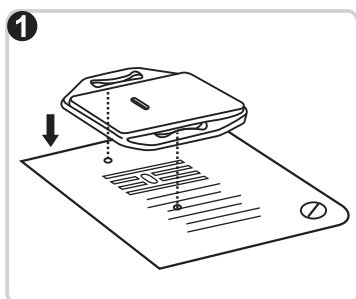
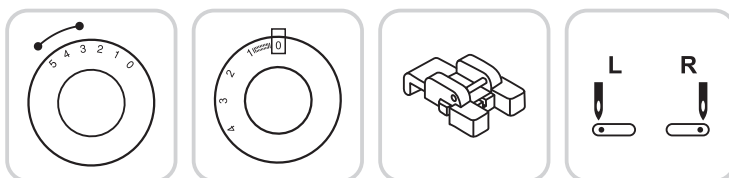


Overlock stitches (optional)

⚠ Attention:
The overlock stitches foot is an optional accessory not supplied with your machine.

All overlock stitches are suitable for sewing and neatening edges and visible seams in one operation. When neatening, the needle should just go over the edge of the fabric.

⚠ Attention:
Use new needles or ball point needles! or stretch needle!



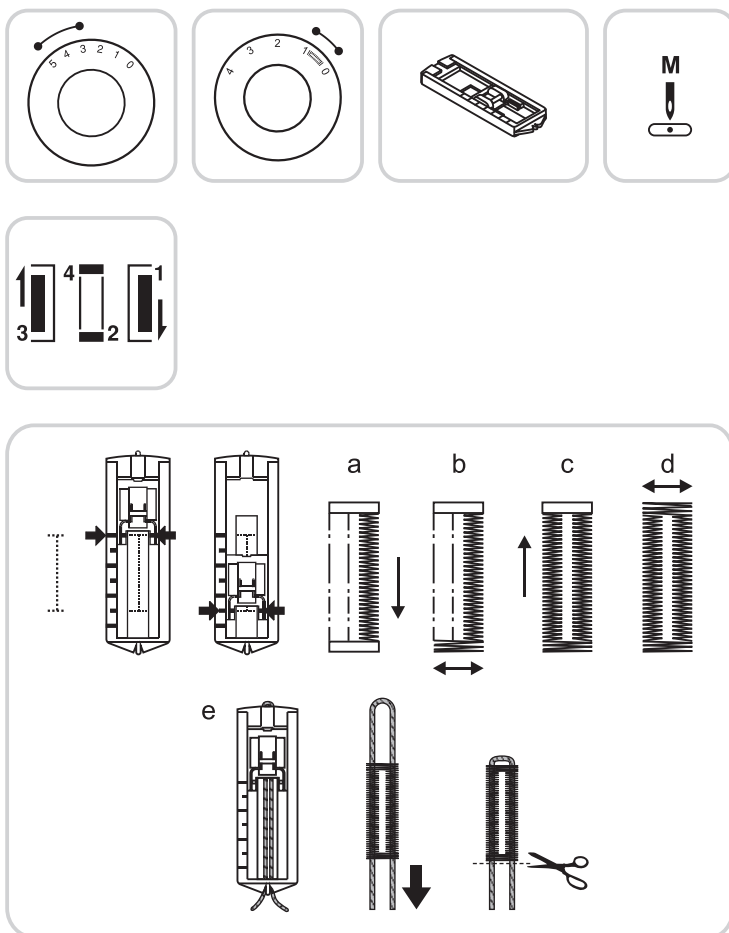
Sewing on buttons

Install the darning plate. (1)

Position the work under the foot. Place the button on the marked position, lower the foot, adjust stitch width to "0" and sew a few securing stitches. Adjust the stitch width. Turn the handwheel to check that the needle goes cleanly into the left hole of the button (adjust the stitch width according to the button), and sew on the button. Adjust the stitch width to "0" and sew a few securing stitches.

If a shank is required, place a darning needle on top of the button and sew. (3)

For buttons with 4 holes, sew through the front two holes first (2), push work forward and then sew through the back two holes as described. (3)



How to sew buttonholes

Preparation:

Remove the zigzag foot and attach the buttonhole foot.

Adjust the stitch length dial between "0.5" - "1".

The density of the stitch depends on thickness of the fabric.

! Attention:





Always test sew a buttonhole.

To prepare the fabric:

Measure the diameter of the button and add 0.3cm (1/8") for the bartacks. If you have a very thick button, add more to the diameter measurement. Mark the position and length of the buttonhole on the fabric.

Position the fabric so that the needle is on the mark that is furthest from you.

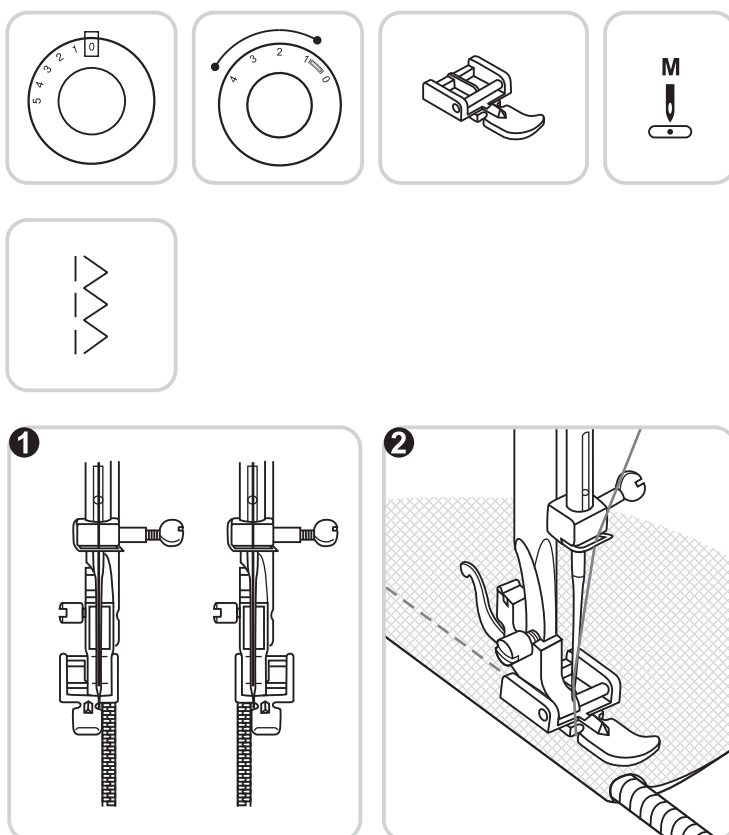
Pull the buttonhole foot towards you as far as it will go. Lower the foot.

- Turn the pattern selector dial to . Sew at moderate speed until you reach the end mark.
- Turn the pattern selector dial to  and sew 5-6 bartack stitches.
- Turn the pattern selector dial to  and sew the left side of the buttonhole to the mark at the end which is furthest from you.
- Turn the pattern selector dial to  and sew bar tack stitches.

Remove the fabric from under the foot. Draw the upper thread through the backside of the fabric and knot upper and lower threads. Cut the center of the buttonhole with the seam ripper, being careful not to cut the stitches on either side.

Tips:

- Slightly reduce upper thread tension to produce better results.
- Use backing material for fine and stretchy fabrics.
- It is advisable to use a gimp cord for stretch or knit fabrics. The zigzag should sew over the gimp. (e)



Zippers and piping

Set the machine as illustrated.

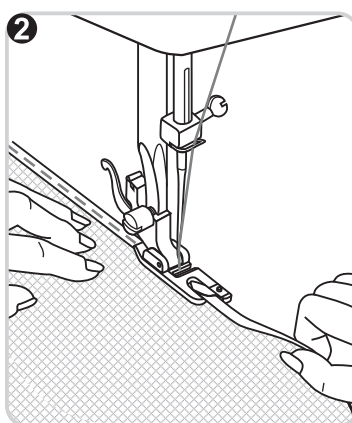
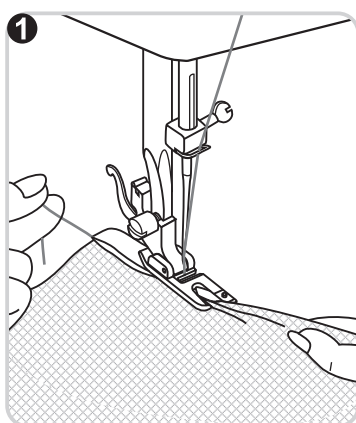
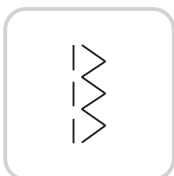
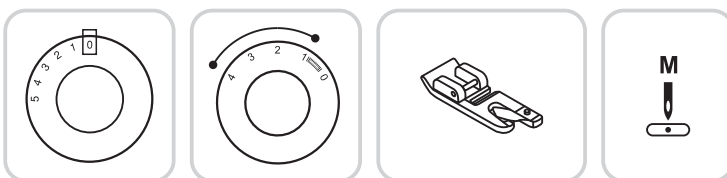
Change to zipper foot.

The zipper foot can be attached right or left depending on which side of the foot you are going to sew. (1)

To sew past the zipper pull, lower the needle into the fabric, raise the presser foot and push the zipper pull behind the presser foot. Lower the foot and continue to sew.

It is also possible to sew in a length of cord, into a bias strip to form a welt. (2)

Set stitch length control between "1" - "4" (according to thickness of fabric).



Sewing with the hemmer foot (optional)



Attention:

The hemmer foot is an optional accessory not supplied with your machine.

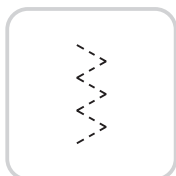
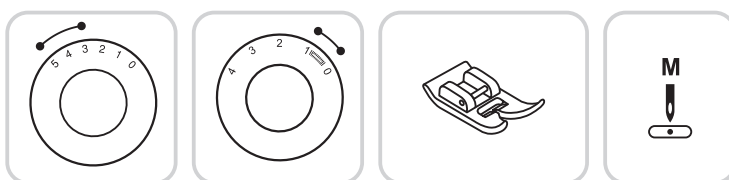
For hems in fine or sheer fabrics.

Set the machine as illustrated.

Neaten the edge of the fabric. At the beginning of the hem, turn under the edge twice by about 3mm (1/8") and sew 4-5 stitches to secure.

Pull the thread slightly towards the back. Insert the needle into the fabric, raise the presser foot and guide the fold into the scroll on the foot. (1)

Gently pull the fabric edge towards you and lower the presser foot. Begin sewing, guiding the fabric into the scroll by holding it upright and slightly to the left. (2)



3-step zig-zag

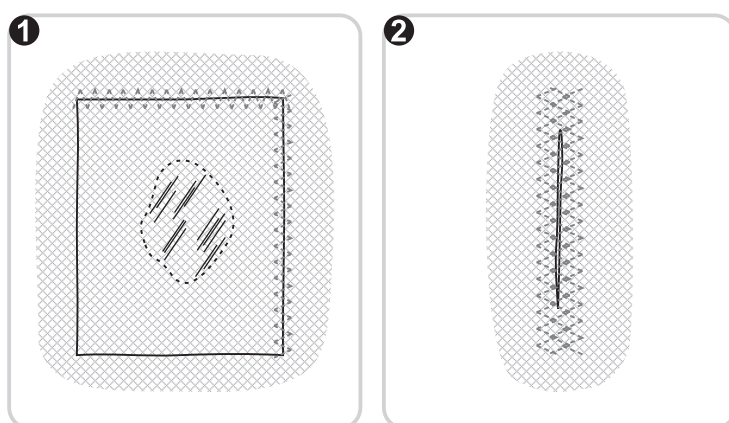
Sewing on lace and elastic, darning, mending, reinforcing edges.

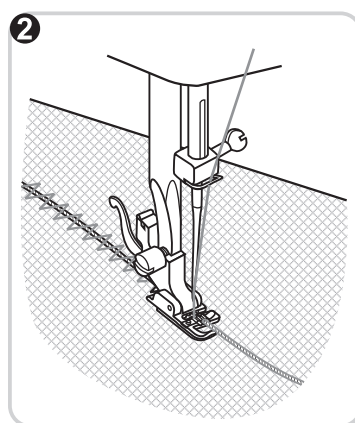
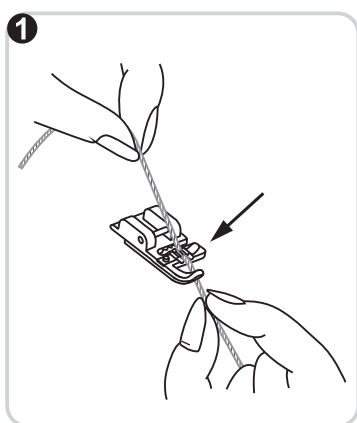
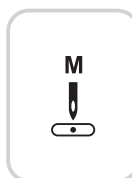
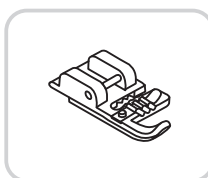
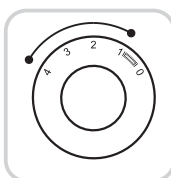
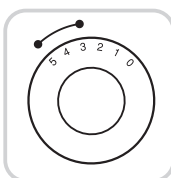
Place patch in position.

The stitch length can be shortened to produce very close stitches. (1)

When mending tears, it is advisable to use a piece of backing fabric to reinforce. The stitch density can be varied by adjusting the stitch length. First sew over the center and then overlap on both sides.

Depending on the type of fabric and damage, sew between 3 and 5 rows. (2)





Sewing with the cording foot (optional)



Attention:

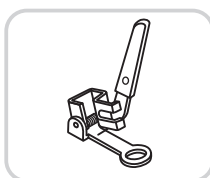
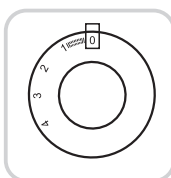
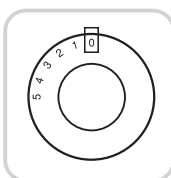
The cording foot is an optional accessory not supplied with your machine.

Decorative effects, cushions, tablecloths, etc.

Set the machine as illustrated.

Various stitches are suitable for sewing on cord, e.g. Zig-zag, Triple zig-zag, decorative stitches.

Insert the cord between the spring covering the cord groove and the foot. The cord should run in the groove. One, two or three cords can be sewn on. The stitch width is adjusted according to the number of cords and the stitch selected. (1/2)



Darning (optional)



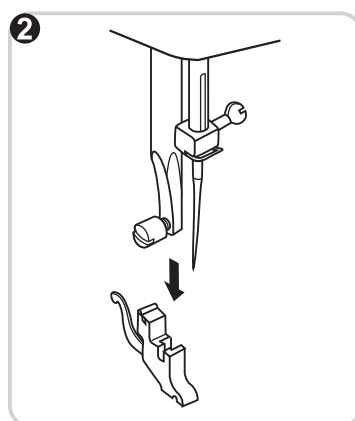
Attention:

The darning/ embroidery foot is an optional accessory not supplied with your machine.

Set the machine as illustrated.

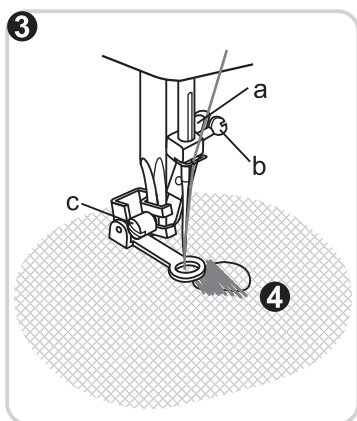
Install the darning plate. (1)

Remove the presser foot clamp. (2)

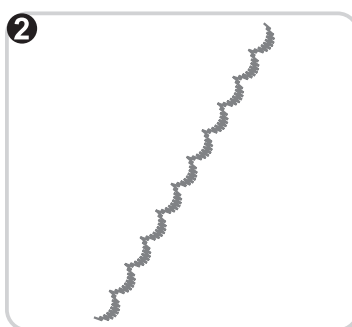
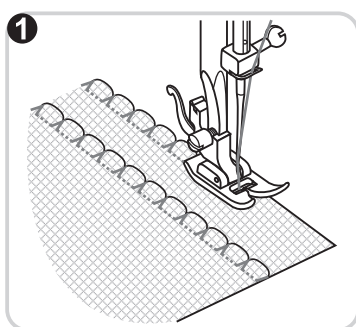
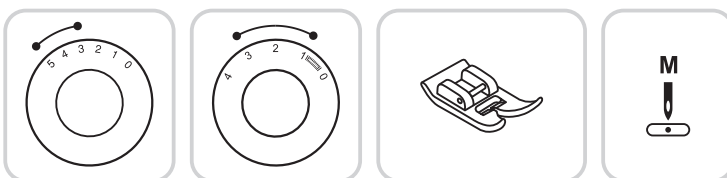


Attach the darning/ embroidery foot to the presser foot holder. The lever (a) should be behind the needle clamp screw (b). Press the darning/ embroidery foot on firmly from behind with your index finger and tighten the screw (c). (3)

First sew round the edge of the hole (to secure the threads). (4) First row: Always work from left to right. Turn work by 1/4 and oversew.



A darning ring is recommended for easier sewing and better results.



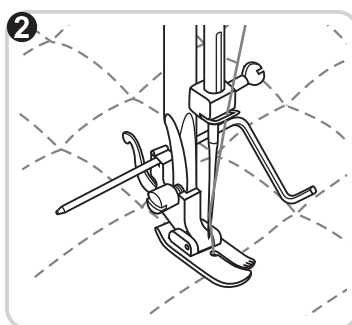
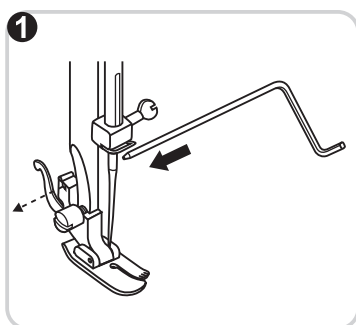
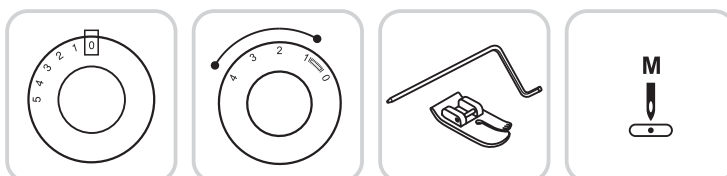
Practical stitches (optional)

Set the machine as illustrated. Turn the stitch width dial and stitch length dial to suit the fabric.

Shell hem (1)

For decorative edges. Suitable for edges on sheer, fine and stretch fabrics. The larger stitch should go just over the edge of the fabric to create the shell effect.

- This stitch requires a tighter thread tension than normal.
- Place the fabric under the presser foot so that it will be sewn along the bias with the straight stitches sewn on the seamline and the zigzag stitches sewn slightly over the folded edge.
- Sew at a slow speed.



Quilting (optional)



Attention:

The quilting foot is an optional accessory not supplied with this machine.

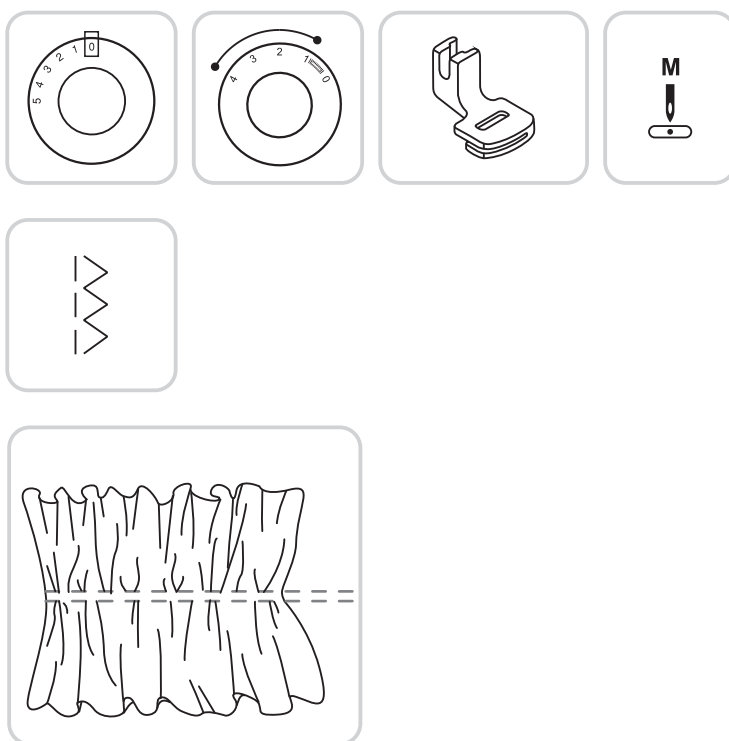
Set the machine as illustrated.

Insert the edge/quilting guide in presser foot holder and set the space as you desired.

Move the fabric over and sew successive rows with the guide riding along on the previous row of stitching.



Attention:



Gathering (optional)



Attention:

The gathering foot is an optional accessory not supplied with this machine.

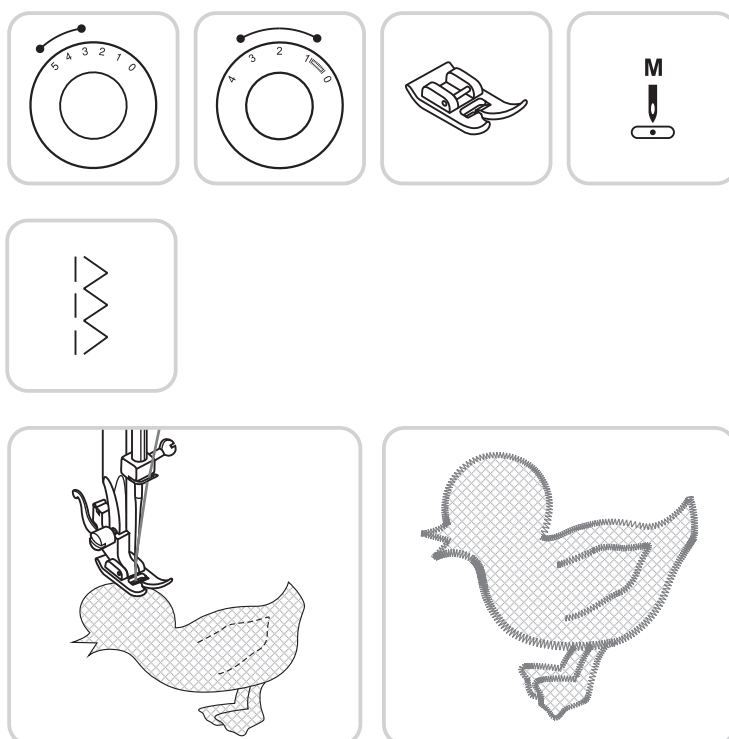
Set the machine as illustrated.

Attach the gathering foot.

Sew a single row or multiple rows of straight stitches. Pull the lower thread to gather more of the material.

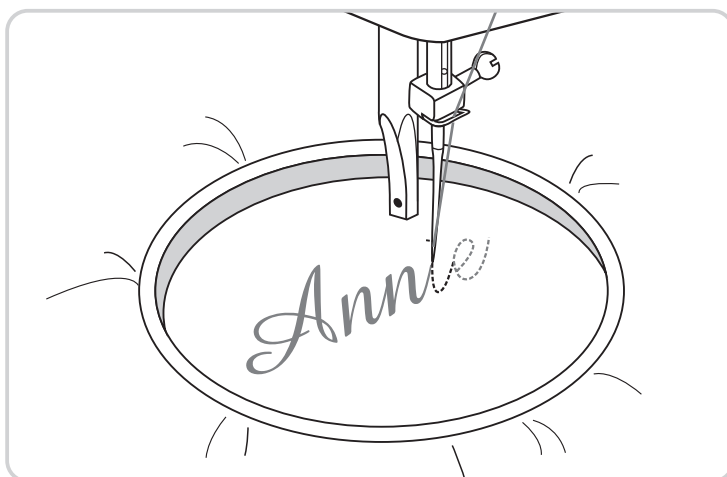
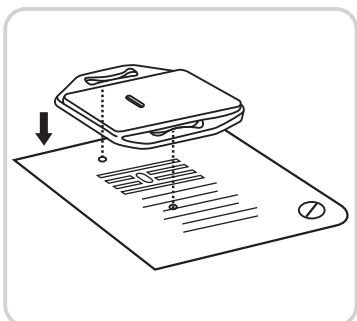
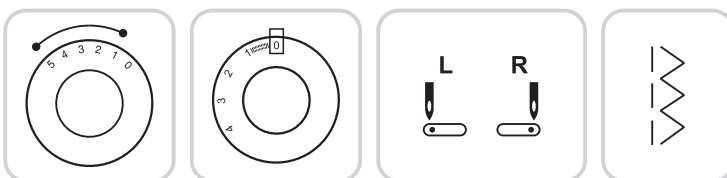
If more gathering is required, loosen the upper thread (to about 2) so that the lower thread lies on the under side of the material.

Pull the lower thread to gather more of the mater.



Applique

- Turn stitch length dial to the desired length.
- Turn pattern selector dial to small zig zag width.
- Cut out the applique design and baste it to the fabric.
- Sew slowly around the edge of the design.
- Trim excess material outside the stitching. Make sure not to cut any stitches.
- Remove the basting thread.
- Tie top and bottom thread under the applique to avoid unraveling.



Monogramming and embroidering with embroidery hoop

- Set the machine as illustrated.
- Remove the presser foot and the presser foot holder.
- Attach the darning plate.
- Lower presser foot lever before starting to sew.
- Adjust the stitch width according to the size of lettering or design.

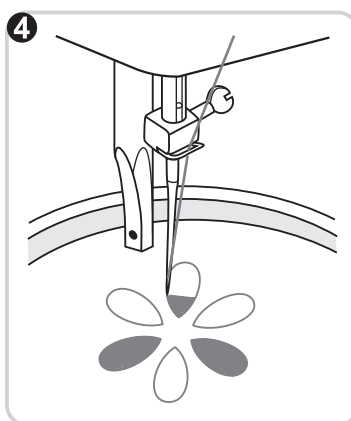
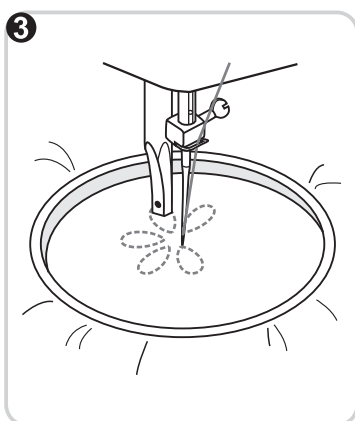
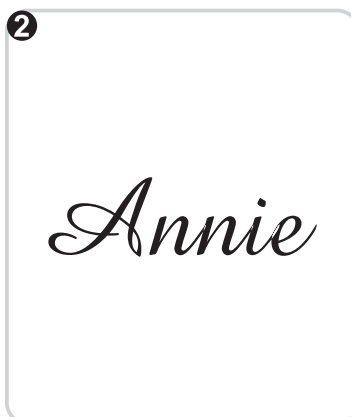
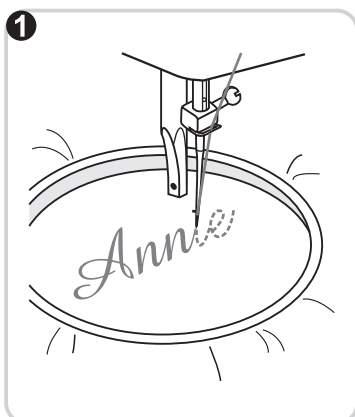
Preparation for Monogramming and Embroidering :

- Draw the desired lettering or design on the right side of the fabric.
- Stretch the fabric between embroidery hoop as firmly as possible.
- Place the fabric under the needle. Make sure the presser foot bar is down in its lowest position.
- Turn the balance wheel towards you to bring up the lower thread through the fabric. Sew a few securing stitches at the starting point.
- Hold the hoop with thumb and forefingers of both hands while pressing the material with the middle and third fingers and supporting the outside of hoop with smaller finger.



Attention:

Embroidery hoop not included with machine.



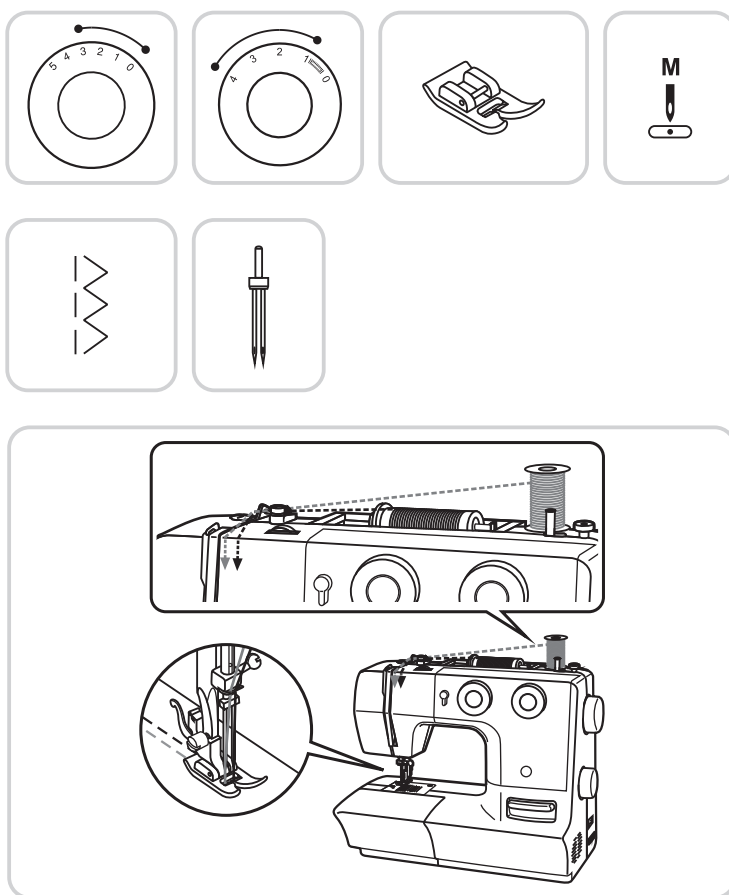
Monogramming and embroidering with embroidery hoop

Monogramming

1. Sew, moving the hoop slowly along the lettering at a constant speed.
2. Secure with a few straight stitches at the end of the last letter.

Embroidering

1. Stitch the outline of the design by moving the embroidery hoop.
2. Fill in the design working from the outline of the design to the inside and from the inside to the edge of the outline until the design is completely filled in. Keep the stitching close together.
*A long stitch is made by moving the hoop rapidly and a short stitch is made by moving it slowly.
3. Secure with a few Straight Stitches at the end of the design.



Twin needle (optional)



Attention:

Twin needle is an optional accessory not supplied with this machine.

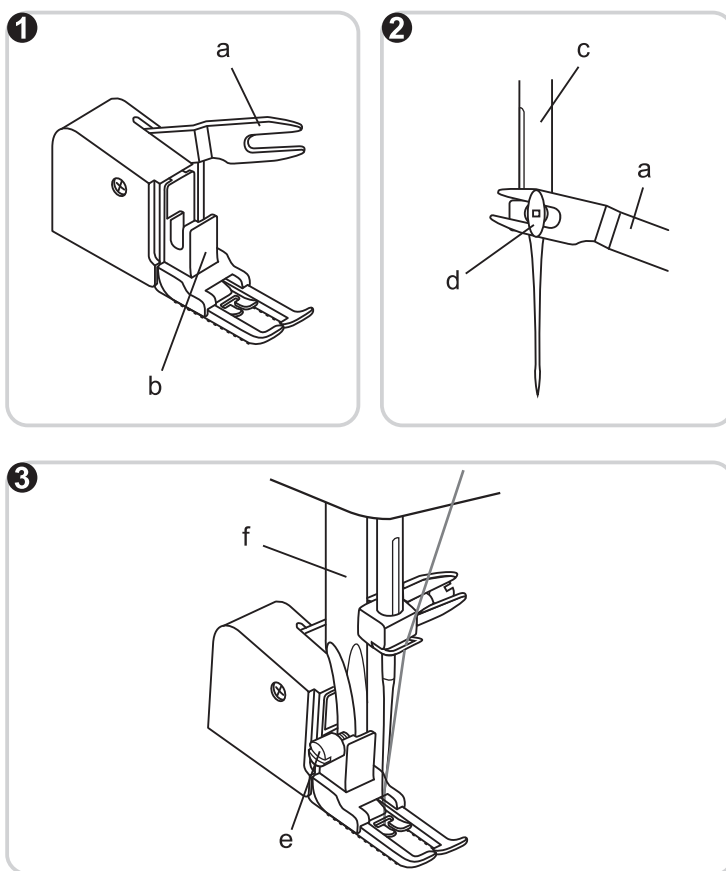
- Turn stitch length dial to the desired stitch length.
- Turn stitch selector to straight stitch, center needle position.
- For twin needle sewing, insert the extra spool pin into the hole on top of the machine.
- Make sure that the two threads used to thread the twin needle are of the same weight. You can use one or two colors.
- Insert the twin needle in the same way as single needle. Flat side of needle should face away from you.
- Follow instructions for single needle threading. Thread each needle separately.



Please note:

When sewing with twin needle, always proceed slowly, and make sure to maintain a low speed to insure quality stitching.

When using twin needle on zig-zag make sure the stitch width dial is set between "0" and "3". Do not use twin needle at setting above "3".



The walking foot accessory (optional)



Attention:

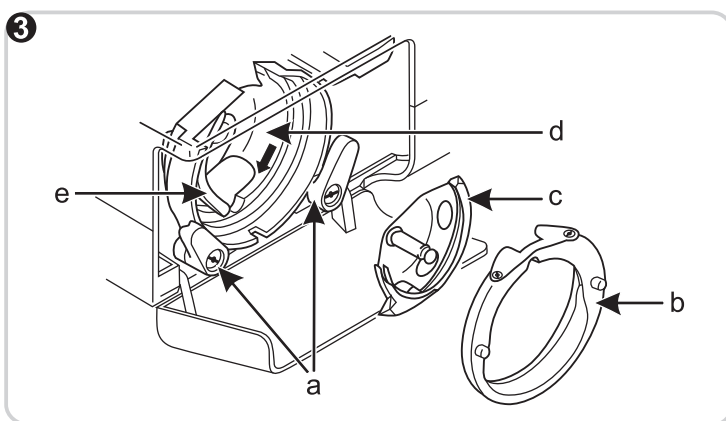
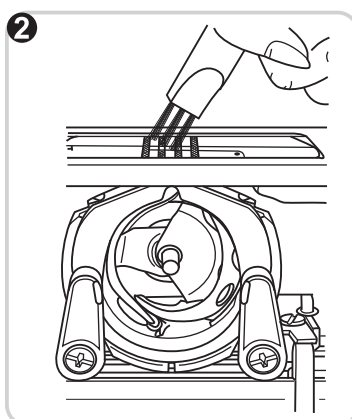
The walking foot accessory is optional. It is not included with this machine.

Always try to sew first without the walking foot accessory which should be used only when necessary.

It is easier to guide the fabric and you have a better view of the seam when using the standard, regular foot on your machine. Your sewing machine offers excellent stitch quality on a wide range of fabrics from delicate chiffons to multiple layers of denim.

The "Walking foot" accessory equalizes the feeding of the upper and lower layers of fabric and improves the matching of plaids, stripes and patterns. This foot helps to prevent uneven feeding of very difficult fabrics.

1. Lift the presser foot bar.(f)
2. Remove the "foot holder"(e) by opening counter clockwise the presser bar attaching screw. (3)
3. Attach the "walking foot" to the machine in the following way.
 - i) The fork arm should fit into the needle screw and clamp. (2)
 - ii) Slide the plastic "attaching head"(b) from your left to right so that it is fitted into the "presser foot bar" (f).
 - iii) Lower the "presser foot bar" (f).
 - iv) Replace and tighten clockwise the "presser bar attaching screw" (e).
4. Make sure both the "needle screw" (d) and the "presser bar attaching screw" (e) are tightly secured.
5. Draw the bobbin thread up and place both the bobbin thread and the needle thread behind the walking foot attachment.



Maintenance



Attention:

Disconnect the machine from the electricity supply by removing the plug from the mains socket. When cleaning the machine, it must always be disconnected from the electricity supply.

Remove the stitch plate:

Turn the handwheel until the needle is fully raised. Open the hinged front cover and unscrew the needle plate screws with the screw driver. (1)

Cleaning the feed dog:

Remove the bobbin case and use the brush supplied to clean the whole area. (2)

Cleaning and lubricating the hook:

Remove the bobbin case. Snap the two hook retaining arms (a) outwards. Remove the hook race cover (b) and the hook (c) and clean with a soft cloth. Lubricate at the point (d) (1-2 drops) with sewing machine oil. Turn the handwheel until the hook race (e) is in the left position. Replace the hook (c). Replace the hook race cover and snap back the two hook retaining arms. Insert the bobbin case and bobbin and replace the stitch plate.



Attention:

Fabric fluff and threads must be removed regularly. Your machine should be serviced at regular intervals at one of our service agencies.

Trouble shooting guide

Problem	Cause	Correction
Upper thread breaks	<ol style="list-style-type: none"> 1. The machine is not threaded correctly 2. The thread tension is too tight 3. The thread is too thick for the needle 4. The needle is not inserted correctly 5. The thread is round wound the spool pin 6. The needle is damaged 	<ol style="list-style-type: none"> 1. Rethread the machine 2. Reduce the thread tension (lower number) 3. Select a larger needle 4. Remove and reinsert the needle (flat side towards the back) 5. Remove the reel and wind thread onto reel 6. Replace the needle
Skipped stitches	<ol style="list-style-type: none"> 1. The needle is not inserted correctly 2. The needle is damaged 3. The wrong size needle has been used 4. The foot is not attached correctly 	<ol style="list-style-type: none"> 1. Remove and reinsert needle (flat side towards the back) 2. Insert a new needle 3. Choose a needle to suit the thread and fabric 4. Check and attach correctly
Needle breaks	<ol style="list-style-type: none"> 1. The needle is damaged 2. The needle is not correctly inserted 3. Wrong needle size for the fabric 4. The wrong foot is attached 	<ol style="list-style-type: none"> 1. Insert a new needle 2. Insert the needle correctly (flat side towards the back) 3. Choose a needle to suit the thread and fabric 4. Select the correct foot
Loose stitches	<ol style="list-style-type: none"> 1. The machine is not correctly threaded 2. The bobbin case is not correctly threaded 3. Needle/ fabric/ thread combination is wrong 4. Thread tension wrong 	<ol style="list-style-type: none"> 1. Check the threading 2. Thread the bobbin case as illustrated 3. The needle size must suit the fabric and thread 4. Correct the thread tension
Seams gather or pucker	<ol style="list-style-type: none"> 1. The needle is too thick for the fabric 2. The stitch length is wrongly adjusted 3. The thread tension is too tight 4. Fabric puckers 	<ol style="list-style-type: none"> 1. Select a finer needle 2. Readjust the stitch length 3. Loosen the thread tension 4. Use a backing for fine or stretchy fabrics.
Uneven stitches, uneven feed	<ol style="list-style-type: none"> 1. Poor quality thread 2. The bobbin case is wrongly threaded 3. Fabric has been pulled 	<ol style="list-style-type: none"> 1. Select a better quality thread 2. Remove bobbin case and retread and insert correctly 3. Do not pull on the fabric while sewing, let it be taken up by the machine
The machine is noisy	<ol style="list-style-type: none"> 1. Fluff or oil have collected on the hook or needle bar 2. The needle is damaged 	<ol style="list-style-type: none"> 1. Clean the hook and feed dog as described 2. Replace the needle
The machine jams	Thread is caught in the hook	Remove the upper thread and bobbin case, turn the handwheel backwards and forwards by hand and remove the thread remnants.





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