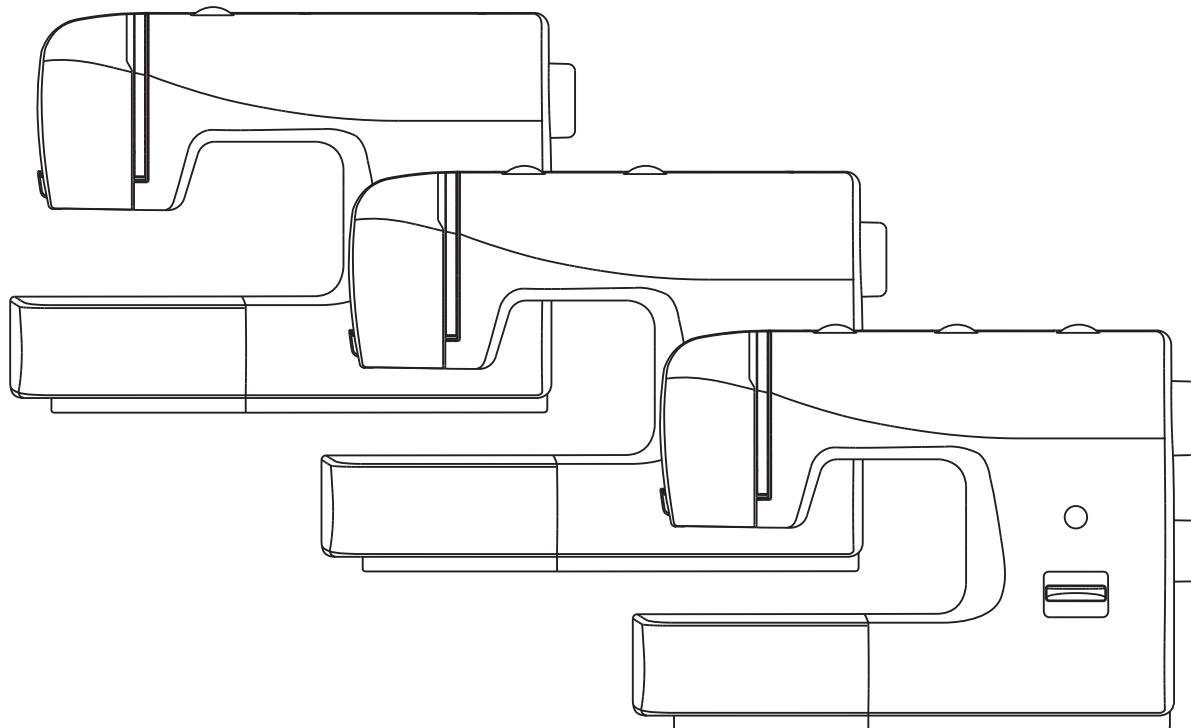


INSTRUCTION MANUAL



IMPORTANT SAFETY INSTRUCTIONS

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

DANGER - To reduce the risk of electric shock:

1. An appliance should never be left unattended when plugged in.
2. Always unplug this appliance from the electric outlet immediately after using and before cleaning.
3. 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.

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

1. Read the instruction carefully before you use the machine
2. Keep the instructions at a suitable place close to the machine and hand it over if you give the machine to a third party.
3. Use the machine only in dry locations.
4. Never leave the machine unattended with children or elderly people due to they may not be able to estimate the risk.
5. Don't let children play with the machine.
6. This appliance 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 appliance in a safe way and understand the hazards involved.
7. Children shall not play with the appliance.
8. Cleaning and user maintenance shall not be made by children without supervision.
9. Always switch off the machine if you carry out preparation for work (change the needle, feed the yarn through the machine, change the footer, etc.).

10. Always unplug the machine if you leave it unattended, to avoid injury by expeditiously switch off the machine.
11. Always unplug the machine if you change the lamp or carry out maintenance (oiling, cleaning).
12. Don't use the machine if it's wet or in humid environment.
13. Never pull at the cord, always unplug the machine by gripping the plug.
14. Never place anything on the pedal.
15. Never use the machine if the air vents are blocked, keep the air vents of the machine and the foot pedal free from dust, fusel and leftovers.
16. The machine may only be used with foot pedal type KD-1902, FC-1902(110-120V area) / KD-2902, FC-2902A, FC-2902C, FC-2902D(220-240V area) / 4C-316B(110-125V area), 4C-316C(127V area) / 4C-326C(220V area), 4C-326G(230V area), 4C-336G(240V area), 4C-336G(220-240V area).
17. The power cord of the foot controller can not be replaced. If the power cord is damaged the foot controller must be disposed.
18. The sound pressure level at normal operation is smaller than 70dB(A).
19. Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.
20. Contact your local government for information regarding the collection systems available.
21. 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.
22. When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

SAVE THESE INSTRUCTIONS

This sewing machine is intended for household use only.

Congratulations!

As the owner of a new sewing machine, you will enjoy precision quality stitching on all types of fabrics, from multiple layers of denim to delicate silks.

Your sewing machine offers the ultimate in simplicity and ease of operation. For your safety and to fully enjoy the many advantages and ease of operation of your sewing machine, we recommend that you read all the important safeguards and use and care instructions in this instruction book.

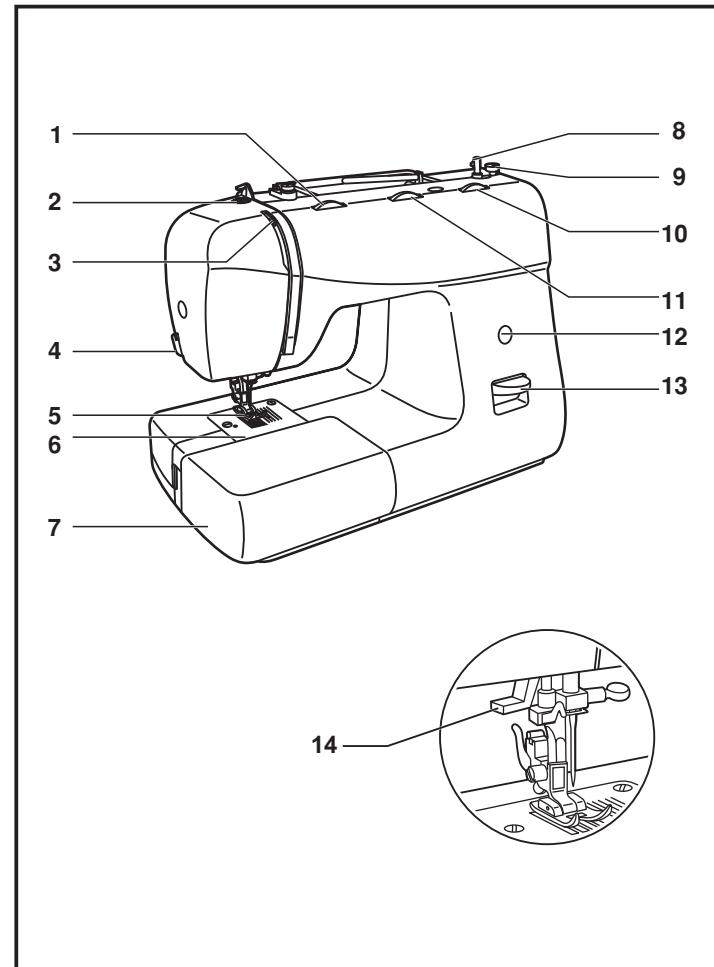
May we suggest that before you start to use your sewing machine, you discover the many features and advantages by going through this instruction book, step by step, while seated at your sewing machine.

List of contents

Details of the machine	7/8	Overlock stitches	27
Accessories	9	Sewing on buttons	28
Fitting the snap-in sewing table	10	How to sew buttonholes	29
Connecting machine to power source.....	11	Zippers and piping	30
Two-step presser foot lifter	12	Sewing with hemmer foot	31
Adjust presser foot pressure (optional).....	12	3-step zig-zag	32
Attaching the presser foot holder.....	13	Stitch selection	33
Winding the bobbin	14	Smocking stitch	34
Inserting the bobbin	15	Sewing with the cording foot.....	35
Inserting the needle	16	Darning	36
Threading the upper thread	17	Practical stitches.....	37
Automatic needle threader (optional)	18	Quilting	38
Thread tension.....	19	Gathering.....	39
Bringing up the lower thread.....	20	Patch work	40
Reverse sewing/ Remove the work/ Cutting the thread	21	Twin needle	41
Matching needle/ fabric/ thread	22	Applique.....	42
How to choose your pattern.....	23	Monogramming and embroidering with embroidery hoop* ..	43/44
Straight stitching	24	The walking foot accessory	45
Zigzag stitching.....	25	Maintenance	46
Blind hem/ lingerie stitch.....	26	Trouble shooting guide	47

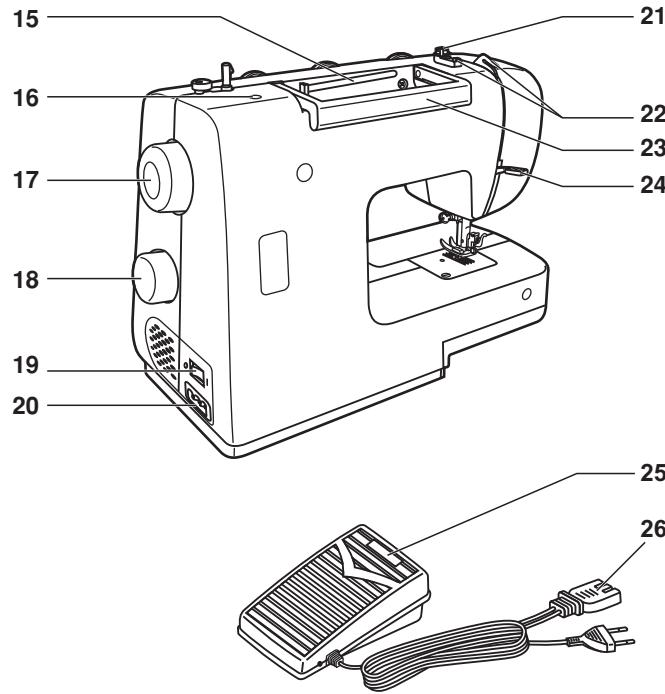
Details of the machine

1. Thread tension dial
2. Presser foot pressure (optional)
3. Thread take-up lever
4. Thread cutter
5. Presser foot
6. Needle plate
7. Sewing table and accessory box
8. Bobbin winder spindle
9. Bobbin winder stopper
10. Stitch length dial (not on all models)
11. Stitch width dial (not on all models)
12. Stitch display
13. Reverse sewing lever
14. Automatic needle threader (optional)



Details of the machine

- 15. Horizontal spool pin
- 16. Hole for second spool pin
- 17. Handwheel
- 18. Pattern selector dial
- 19. Power switch
- 20. Main plug socket
- 21. Bobbin thread guide
- 22. Upper thread guide
- 23. Handle
- 24. Presser foot lifter
- 25. Foot control
- 26. Power cord



Accessories

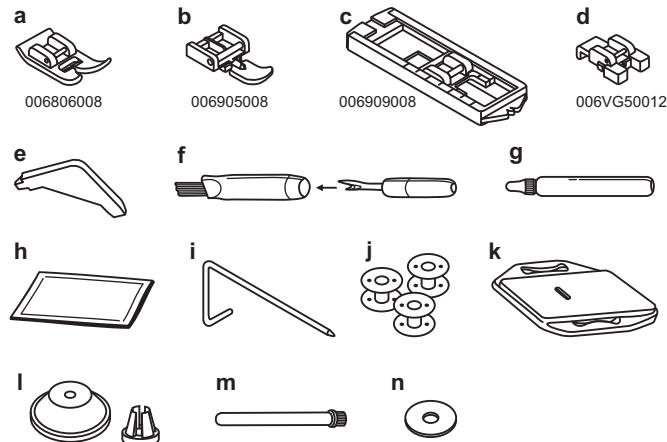
Standard accessories

- 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 needle
- i. Edge/quilting guide
- j. Bobbin (3x)
- k. Darning plate
- l. Spool holder (large&small)
- m. Second spool pin
- n. Spool pin felt

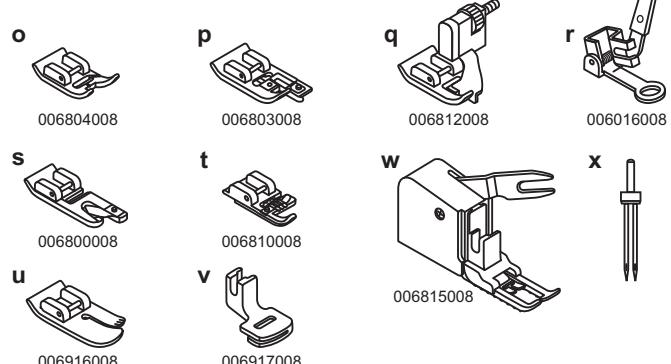
Extra accessories (optional)

- 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

Standard accessories



Extra accessories (optional)

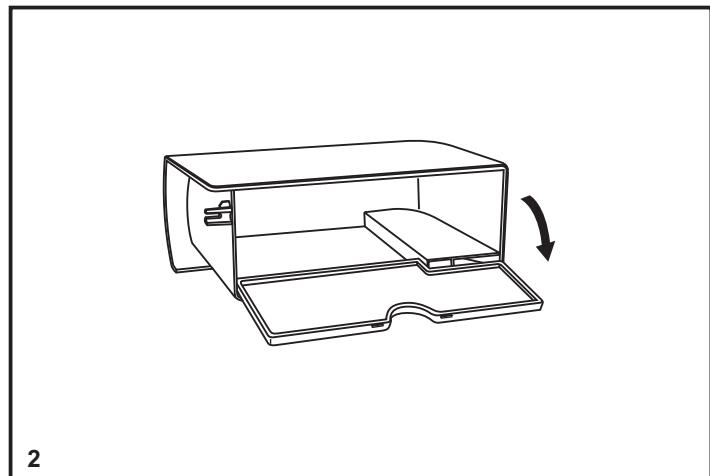
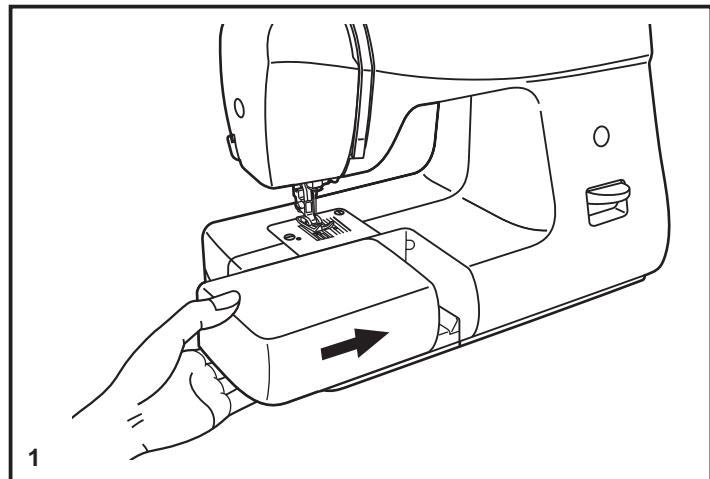


Fitting the snap-in sewing table

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)
For appliance is equipped with a polarized plug which must be used with the appropriate polarized outlet. (2)

Attention:

Unplug power cord when machine is not in use.

Foot control

Foot control regulates the sewing speed. (3)

Attention:

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

Unplug power cord when machine is not in use.

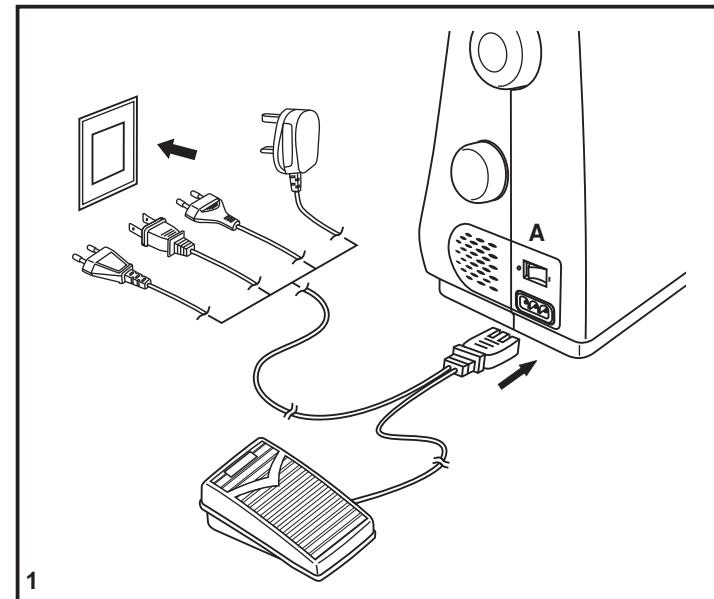
Sewing light

Press main switch (A) for power and light on. ("I")

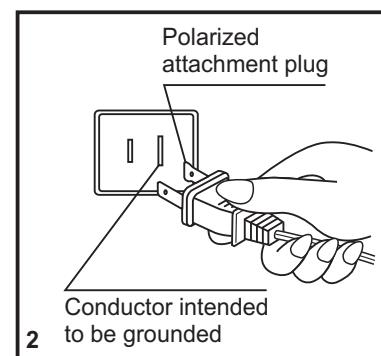
IMPORTANT NOTICE

For appliance with a polarized plug (one blade is wider than the other).

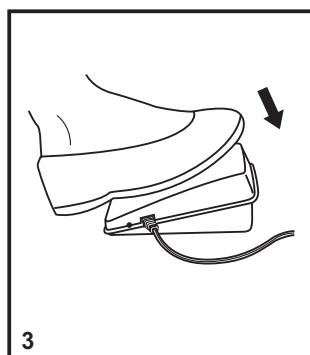
To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If it does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way. (2)



1



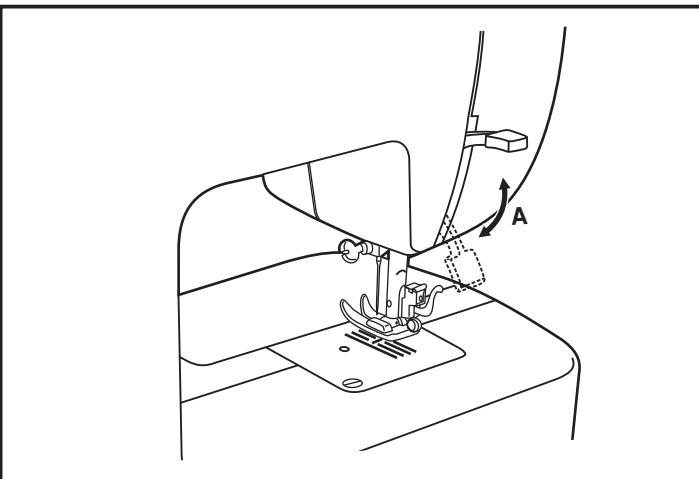
2



3

Two-step presser foot lifter

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

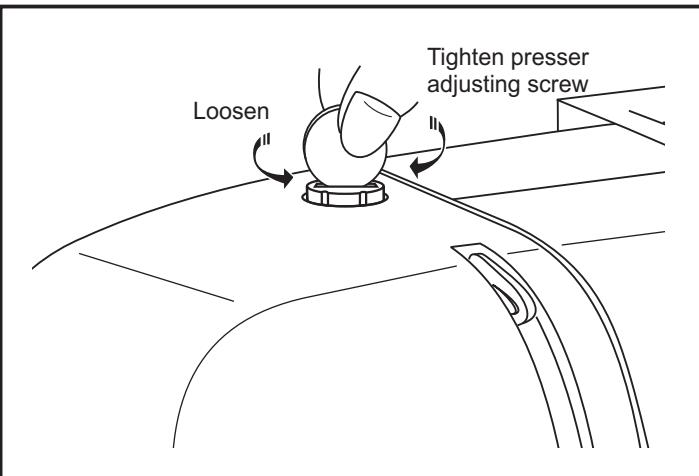


Adjust presser foot pressure (optional)

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

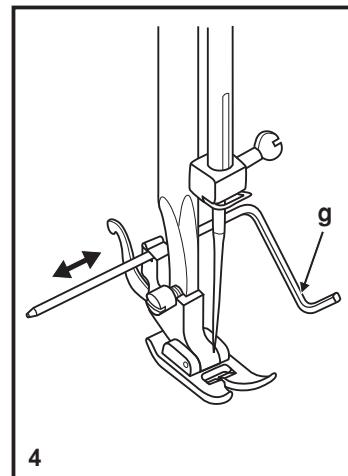
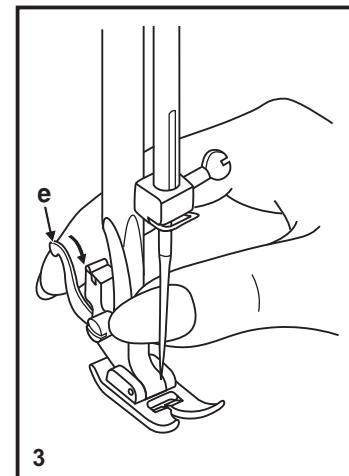
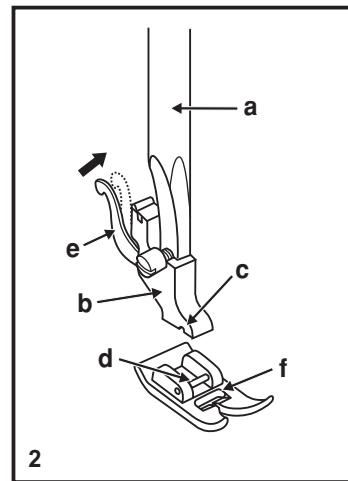
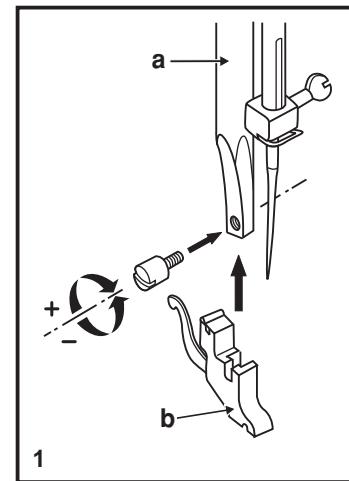
Raise the presser foot. (3)
Raise the lever (e) and the foot disengages.

Attaching the edge/quilting guide

Attach the edge/quilting guide (g) in the slot as illustrated.
Adjust according to need for hems, pleats, etc. (4)

Attention:

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



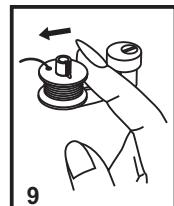
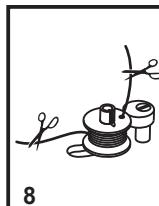
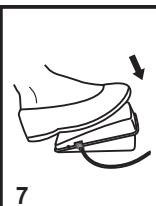
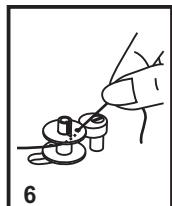
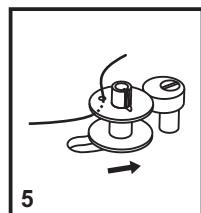
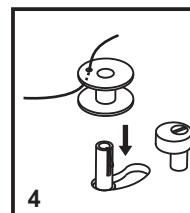
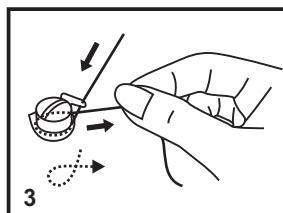
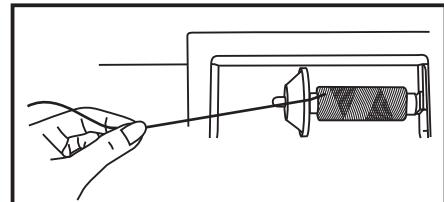
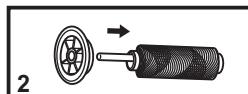
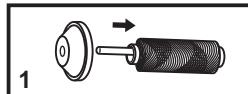
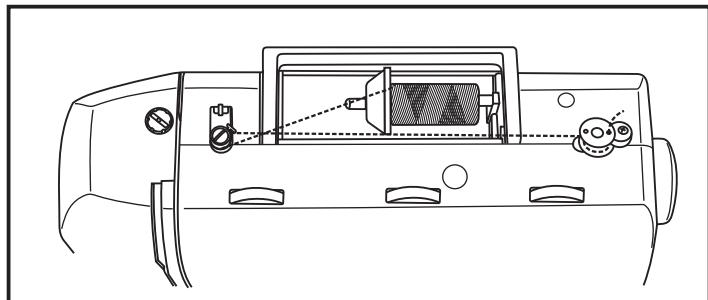
Winding the bobbin

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



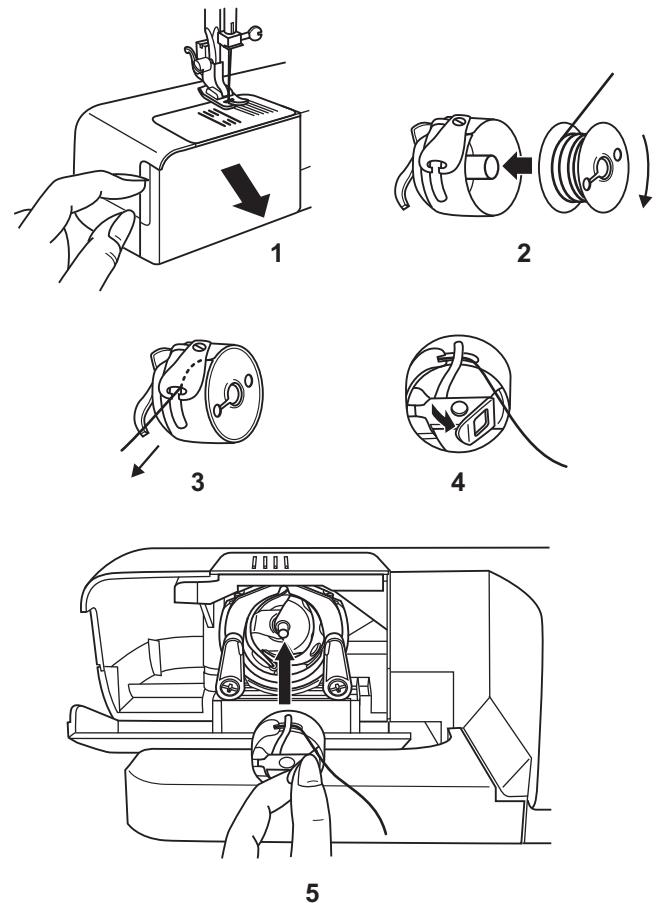
Inserting the bobbin

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

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

Attention:

Turn power switch to off ("O").



Inserting the needle

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

Insert the needle following the illustrated instructions.

- 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.

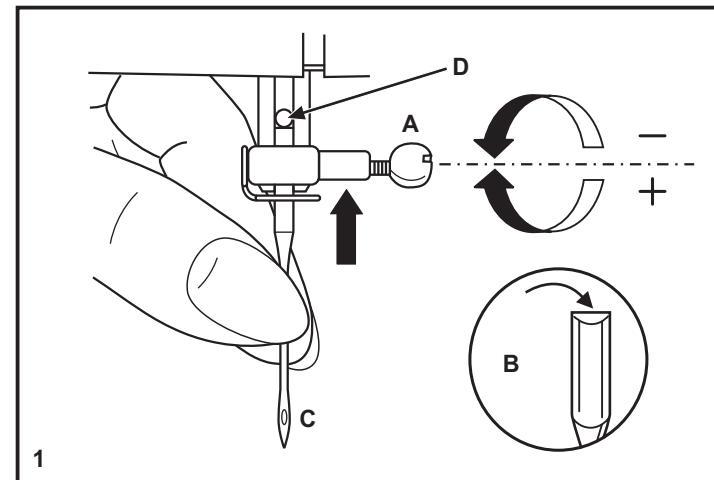
Attention:

Turn power switch to off ("O").

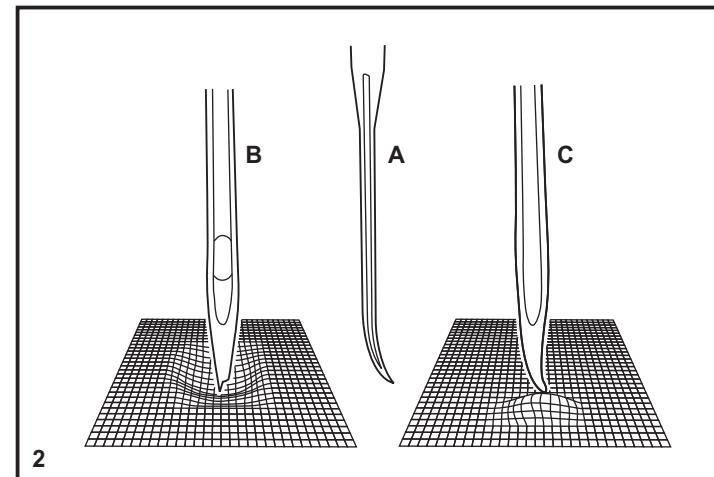
Needles must be in perfect condition. (2)

Problems can occur with:

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



1



2

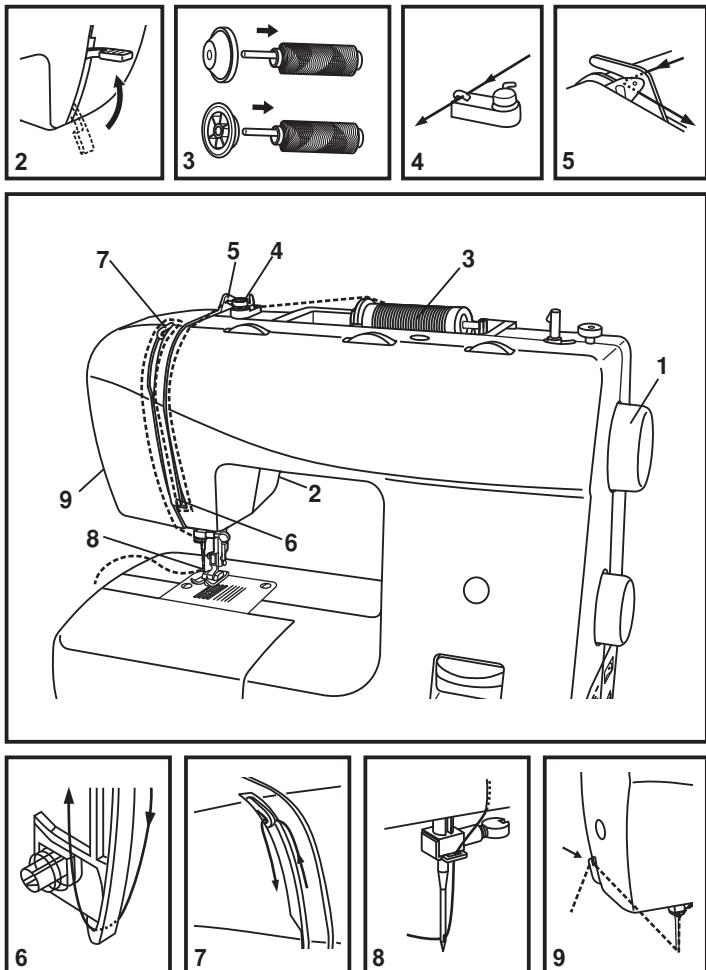
Threading the upper thread

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 (1), and also raise the presser foot to release the tension discs. (2)
- Note:** For safety, it is strongly suggested you turn off the power before threading.
- Lift up the spool pin. Place the spool of thread on the holder with the thread coming off the spool as shown. For small thread spools, place small side of spool holder next to spool. (3)
- Draw thread from spool through the upper thread guide. (4)
- Guide thread around thread guide (5) pulling thread through pre-tension spring as illustrated.
- Thread tension module by leading thread down right channel and up left channel (6). During this process it is helpful to hold the thread between the spool and thread guide (4).
- At the top of this movement pass thread from right to left through the slotted eye of the take-up lever and then downwards again. (7)
- Now pass thread behind the thin wire needle clamp guide (8) 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. Trim thread to length with built in thread cutter. (9)

Note:

If your sewing machine is equipped with the factory installed optional automatic needle threader, instructions for use can be found on page 18.

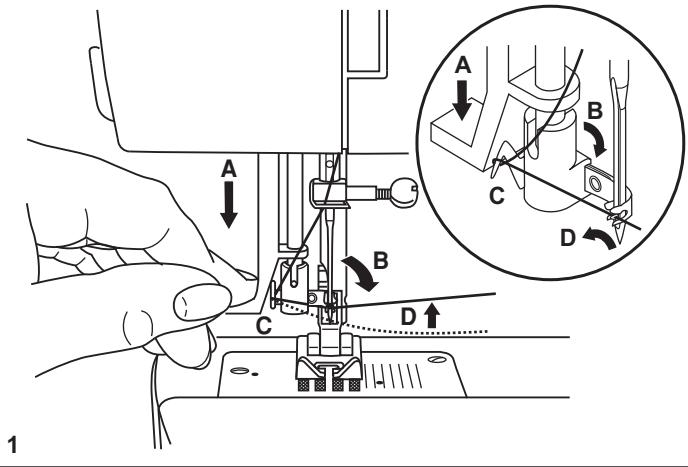


Automatic needle threader (optional)

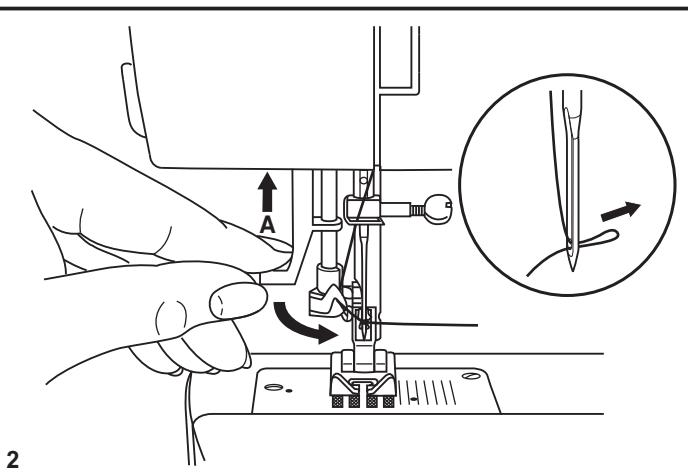
- * The automatic needle threader is a factory installed option.
If your machine has this option use the following instructions:
- Raise the needle to its highest position.
- Press lever (A) right down.
- The threader automatically swings to the threading position (B).
- Take the thread round the hook (C).
- Take the thread in front of the needle round the hook (D) from bottom to top.
- Release lever (A).
- Pull the thread through the needle eye.

Attention:

Turn power switch to off ("O")!



1



2

Thread tension

Upper thread tension (1)

Basic thread tension setting: "4"

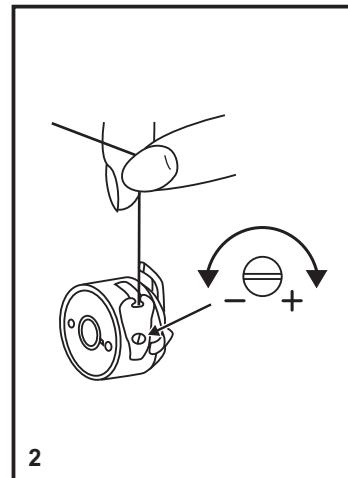
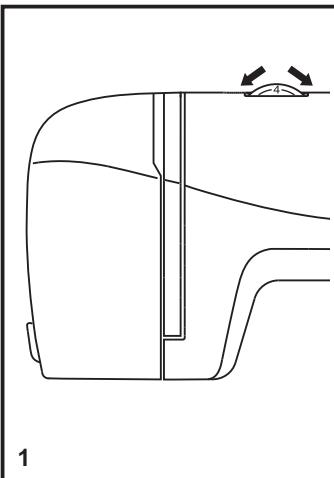
To increase the tension, turn the dial to the next number up.

To reduce the tension, turn the dial to the next number down.

A. Normal thread tension

B. Upper thread tension too loose

C. Upper thread tension too tight



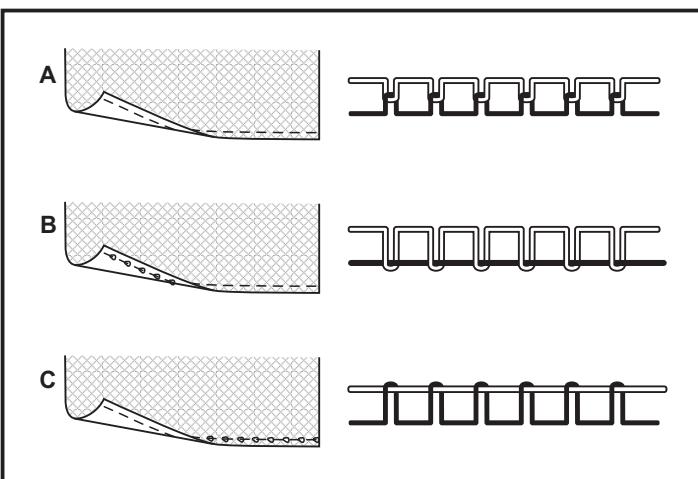
Lower thread tension (2)

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.

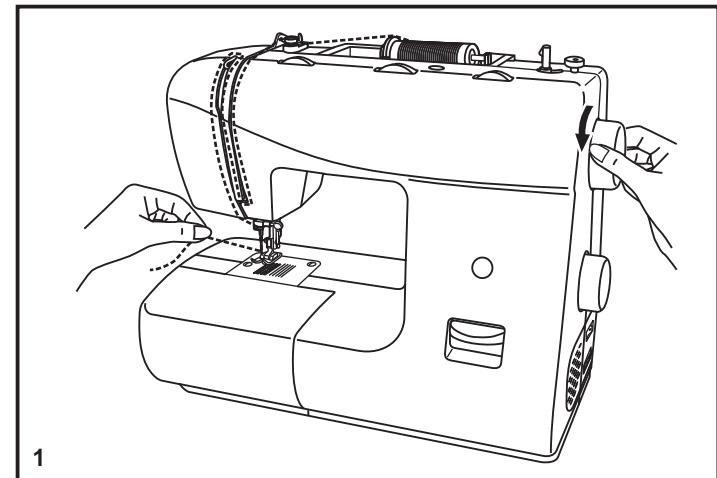
Note:

The bobbin thread tension does not normally have to be adjusted.



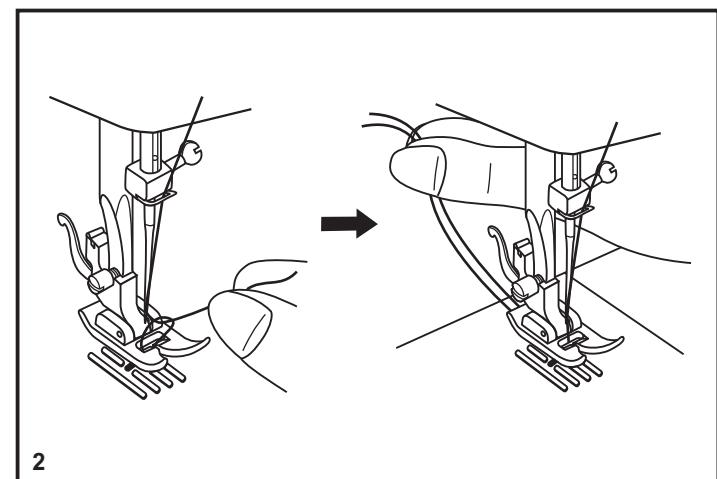
Bringing up the lower thread

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)

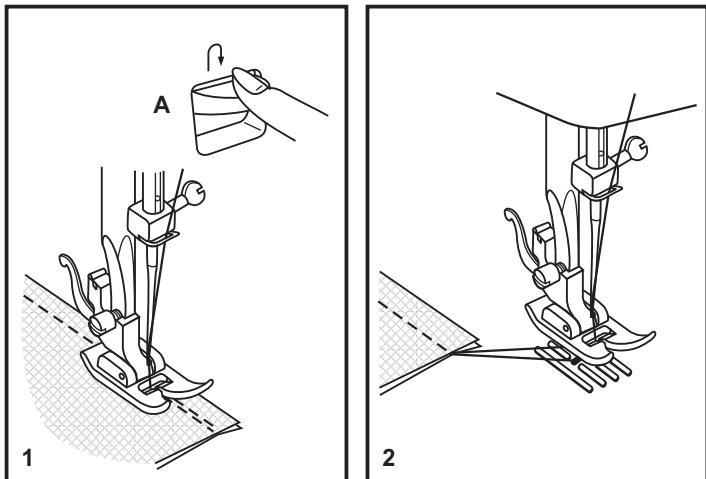


Reverse sewing

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. (1/A)

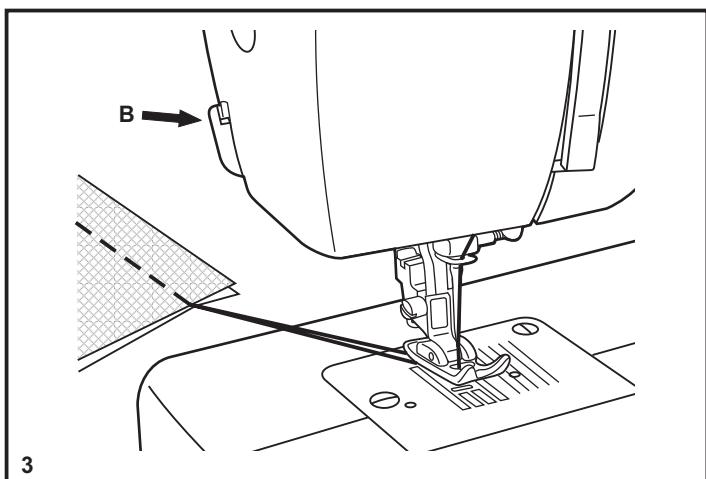
Removing the work

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. (2)



Cutting the thread

Hold the threads behind the presser foot with both hands, guide them to the slit (B) and press down. (3)



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, kettleclote, 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, woolens, outdoor tent and quilted fabrics, denims, upholstery material (light to medium).	
18(110)	Heavy woollens, overcoat fabrics, upholstery fabrics, some leathers and vinyls.	Heavy duty thread, carpet thread. (Use heavy foot pressure-large numbers.)

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 18(110)	Natural woven fabrics-wool, cotton, silk, etc. Qiana. Not recommended for double knits.
15x1/705H(SUK)	Semi-ball point needle, scarfed. 9(65) to 18(110)	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.
15x1/705H(SUK)	Full ball point needle 9(65) to 18(110)	Sweater knits, Lycra, swimsuit fabric, elastic.
130 PCL	Leather needles. 12(80) to 18(110)	Leather, vinyl, upholstery. (Leaves smaller hole than standard large needle.)

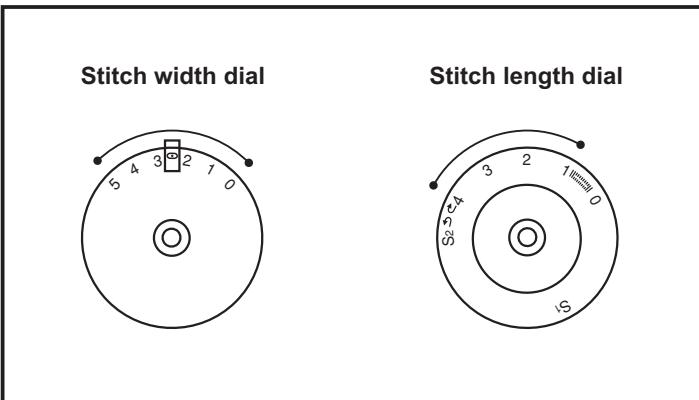
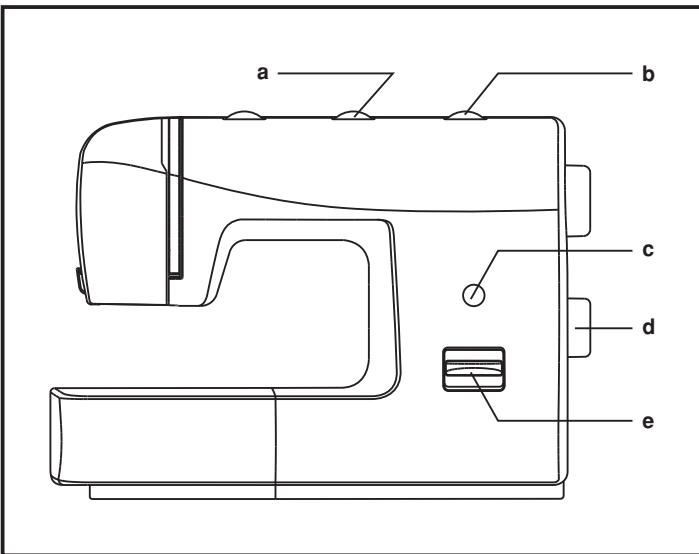
- Note:**
1. Twin needles, can be purchased for utility and decorative work.
 2. When sewing with twin needles, the stitch width dial should be set at less than "3".
 3. European needles show sizes 65, 70, 80 etc. American and Japanese needles show size 9, 11, 12 etc.
 4. Replace needle often (approximately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

How to choose your pattern

For **straight stitch**, select pattern "—" or "—" with the pattern selector dial. Adjust the stitch length with the stitch length dial. You may choose any needle position, by turning the stitch width dial (for 3-dial model).

For **zigzag stitch**, select pattern "~~~~~" or "~~~~~" with the pattern selector dial. Adjust the stitch length and stitch width according to the fabric being used.

To obtain the other patterns, turn the stitch length dial to "S1" or "S2", select the pattern desired with pattern selector dial, and adjust the stitch width with the stitch width dial (for 3-dial model).



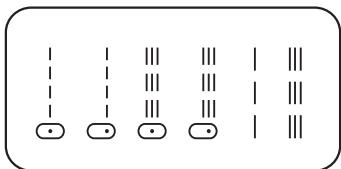
- a. Stitch width dial
- b. Stitch length dial S1-S2
- c. Stitch display
- d. Pattern selector dial
- e. Reverse sewing lever

Straight stitching

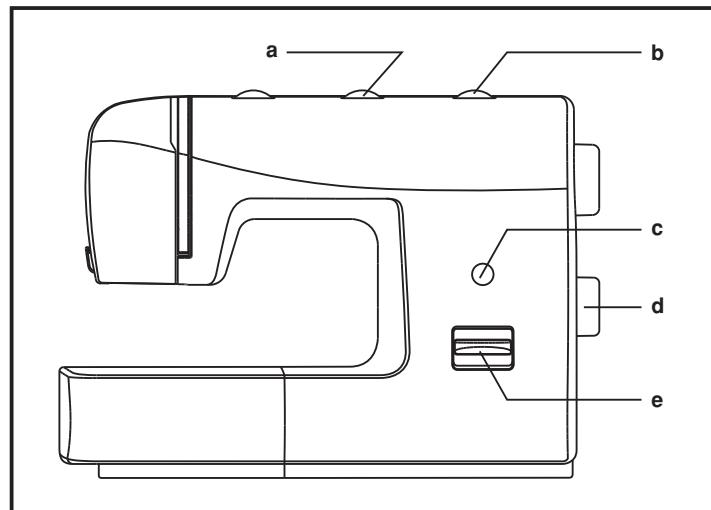
Turn the stitch selection dial so that the pointer is set to the straight stitch position.

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

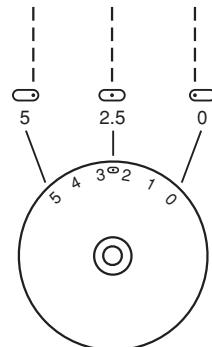
Straight stitches



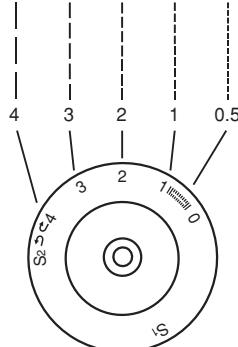
- a. Stitch width dial
- b. Stitch length dial S1-S2
- c. Stitch display
- d. Pattern selector dial
- e. Reverse sewing lever



Stitch width dial



Stitch length dial



Zigzag stitching

Turn the stitch selection dial to "~~~~~" or "~~~~~".

Function of zigzag dial

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" to "5". For twin needle sewing, never set the width wider than "3". (1)

Function of stitch length dial while zigzagging

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. (2)

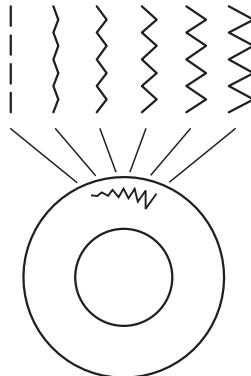
Satin stitch

When the stitch length is set between "0" - "1", the stitches are very close together producing the "satin stitch" which is used for making buttonholes and decorative stitches.

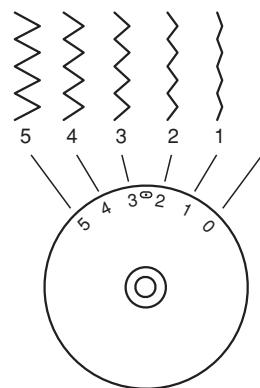
Fine fabric

When sewing on very fine fabric, place a piece of thin paper under the fabric. It is easy to tear the paper and remove the paper after you have finished your seam.

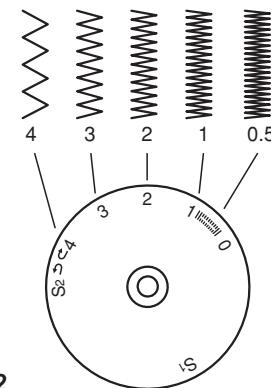
For 2-dial model



Stitch width dial



Stitch length dial



Blind hem/ lingerie stitch

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

For hems, curtains, trousers, skirts, etc.

ℳℳℳ Blind hem for stretch fabrics.

ℳℳℳ Blind hem/ lingerie for firm fabrics.

Set the machine as illustrated. (1)

Note:

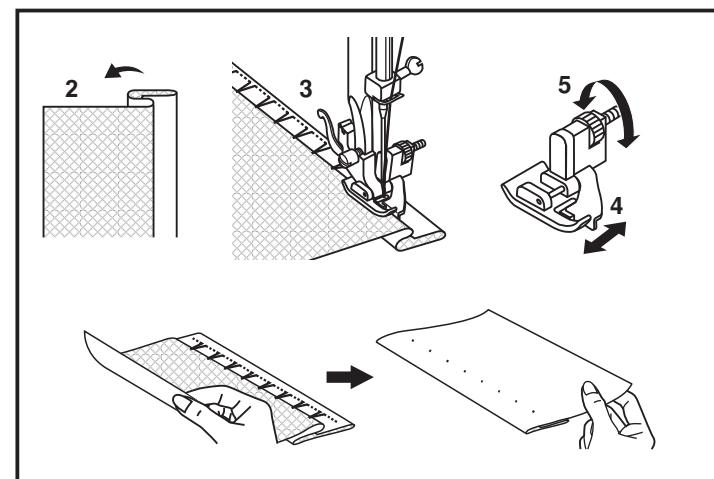
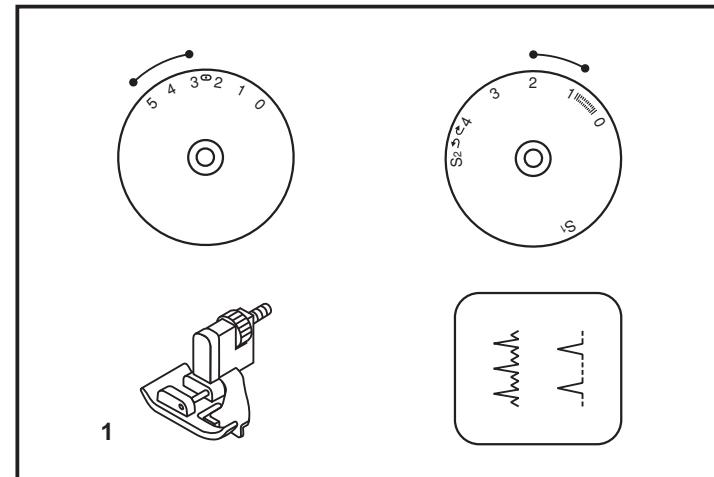
It takes practice to sew blind hems. Always make a sewing test first.

Fold the fabric as illustrated with the wrong side uppermost. (2)

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. (3)

Adjust the guide (4) by turning the knob (5) 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.



Overlock stitches

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

Seams, neatening, visible hems.

Turn stitch length dial to "S1" or "S2", The stitch width can be adjusted to suit the fabric.

Stretch overlock (A)

For fine knits, jerseys, neck edges, ribbing.

Standard overlock (B)

For fine knits, jerseys, neck edges, ribbing.

Double overlock stitch (C)

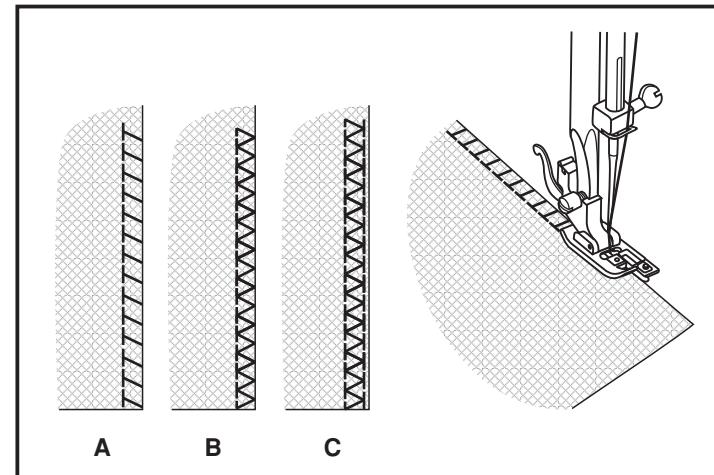
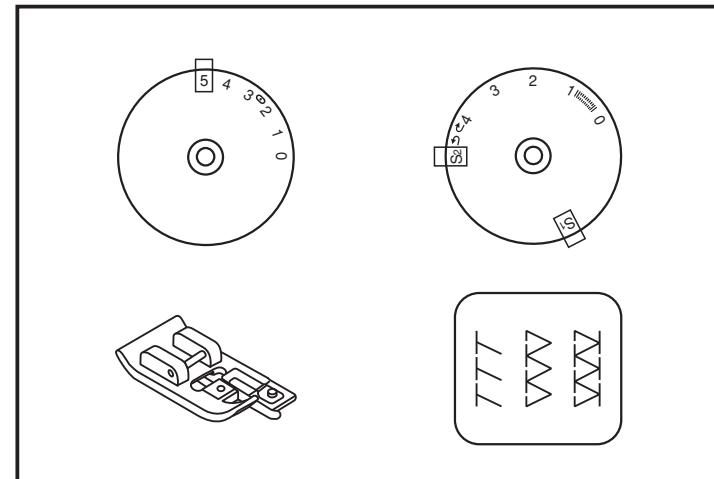
For fine knits, handknits, seams.

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

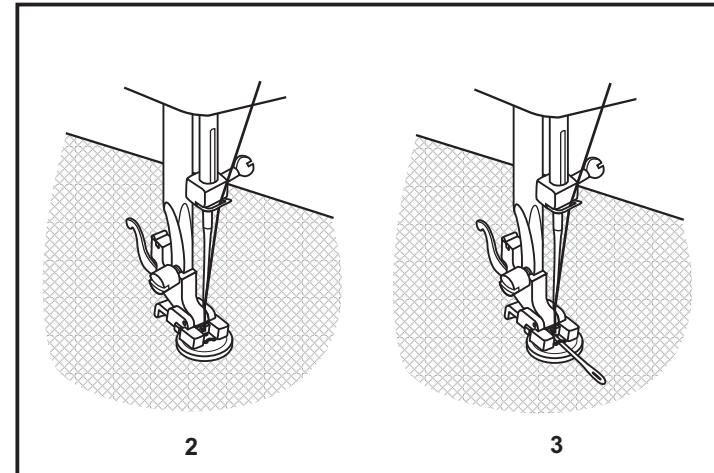
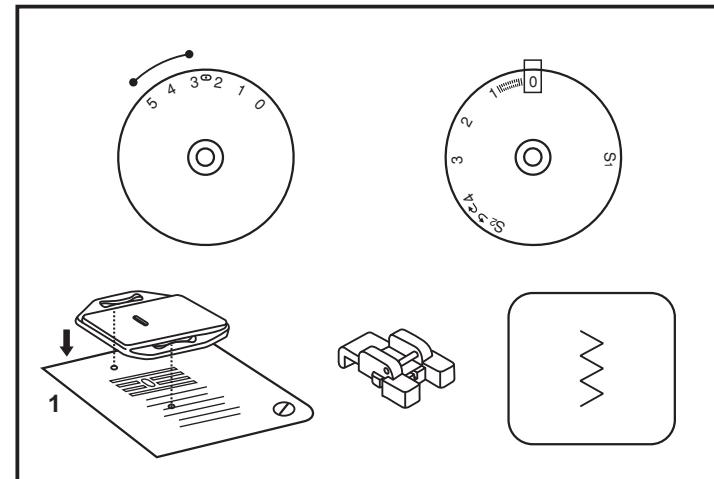
Install the darning plate. (1)

Change presser foot to button sewing foot.

Position the work under the foot. Place the button on the marked position and lower the foot. Set the pattern selector knob on "—" and sew a few securing stitches. Select the zig-zag stitch width according to the distance between the two holes of the button. Turn the handwheel to check if the needle goes into the right and the left hole of the button without any obstruction (adjust the stitch width according to the button). Slowly sew on the button with about 10 stitches. Select pattern "—" and sew a few securing stitches. (2) (for 2-dial model)

Position the work under the foot. Place the button in the desired position, lower the foot. Set the pattern selector knob on zig zag stitch "zag". Adjust the stitch width to "3" - "5" according to the distance between the two holes of the button. Turn the handwheel to check that the needle goes cleanly into the left and right holes of the button. Set the pattern selector knob on straight stitch "|", and sew a few securing stitches. Set the pattern selector knob on zig zag stitch "zag", and slowly sew on the button with about 10 stitches. Set the pattern selector knob on straight stitch "|", and sew a few securing stitches. (2) (for 3-dial model)

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.

Note: 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.

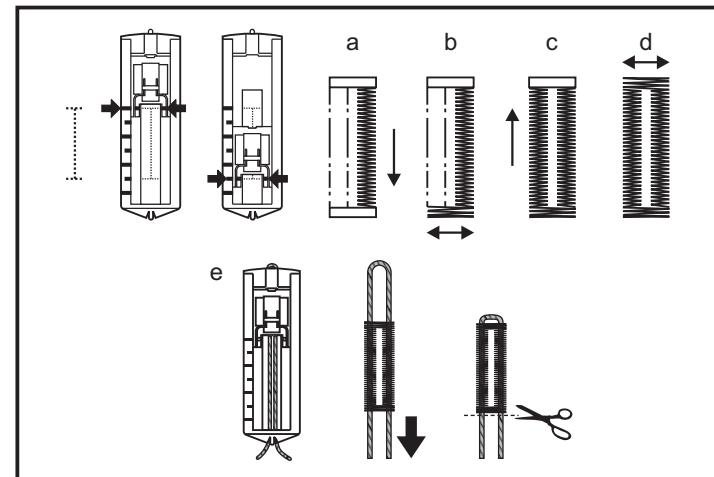
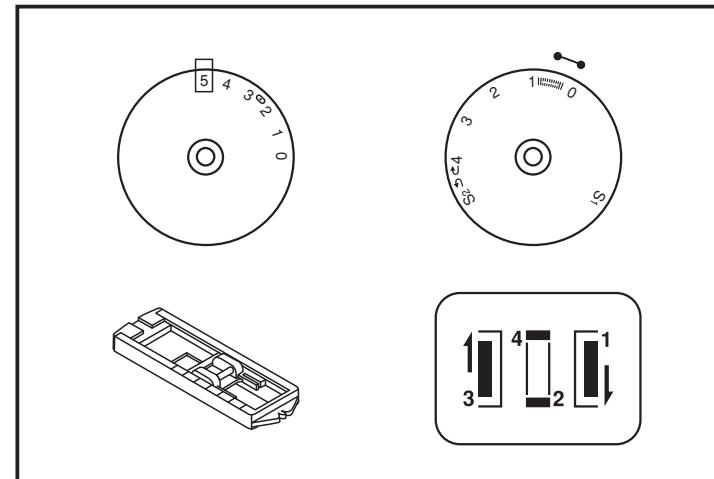
Lower the foot.

- a. Turn the pattern selector dial to "". Sew at moderate speed until you reach the end mark.
- b. Turn the pattern selector dial to "" and sew 5-6 bartack stitches.
- c. Turn the pattern selector dial to "" and sew the left side of the buttonhole to the mark at the end which is further from you.
- d. 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

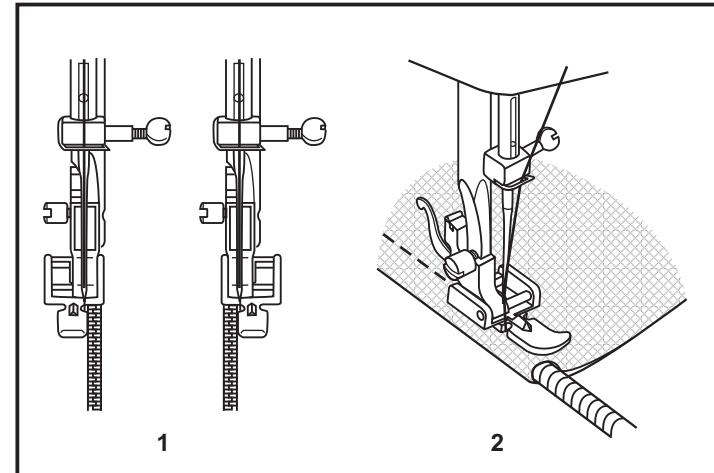
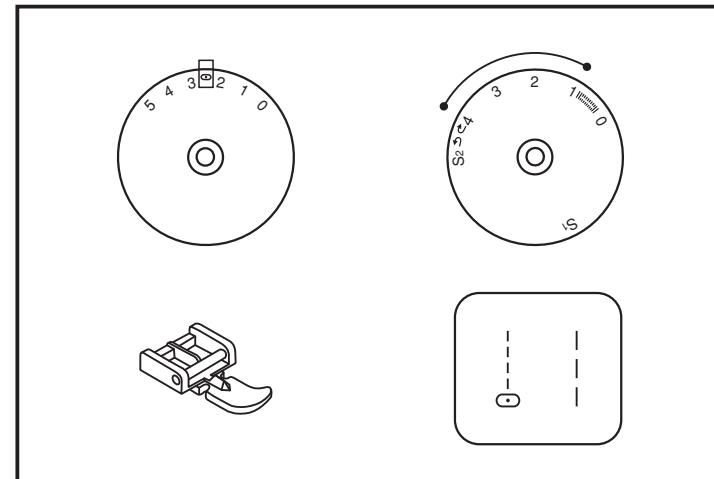
Set the machine as illustrated.

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

The zipper foot can be inserted 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)



Sewing with the hemmer foot

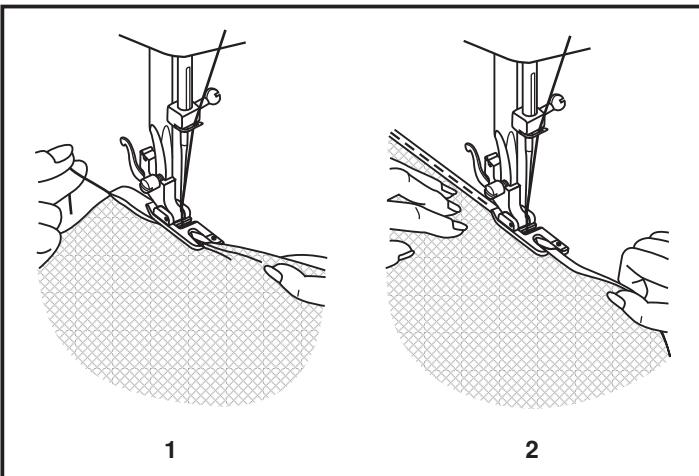
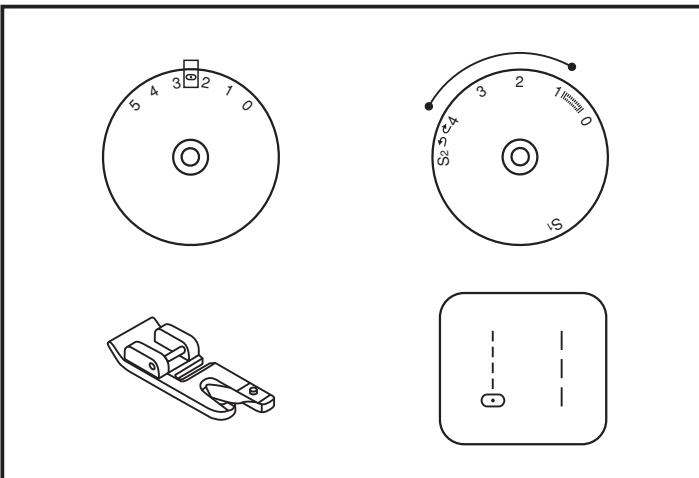
* The hemmer foot is an optional accessory not supplied with this machine.

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 3 mm (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.

Set the machine as illustrated.

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)

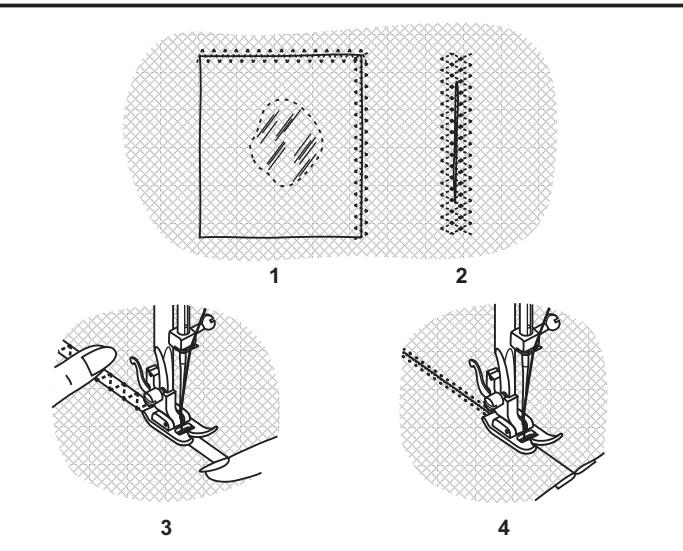
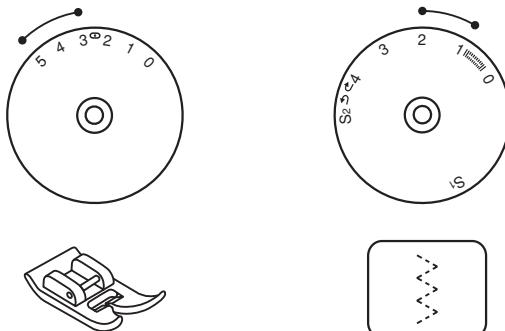
Sewing elastic

1. Place the elastic on the fabric.
2. As you sew, stretch the elastic both in the front and behind the presser foot as shown in fig. (3)

Joining fabric

The elastic stitch can be used to join two pieces of fabric together and is very effective when sewing knitted fabrics. If nylon thread is used, the stitch will not be visible.

1. Place the edges of the two pieces of fabric together and center them under the presser foot.
2. Sew them together using the elastic stitch taking care to keep the two fabric edges close together as shown in fig. (4)



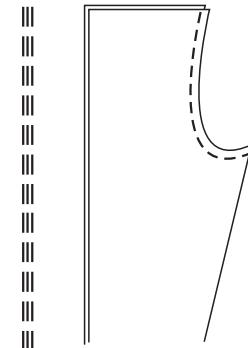
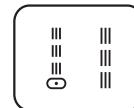
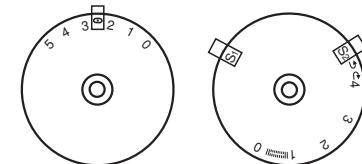
Stitch selection

Triple straight stitch: (1)

For hardwearing seams.

Turn the stitch length dial to "S1" or "S2".

The machine sews two stitches forwards and one stitch backwards. This gives triple reinforcement.



1

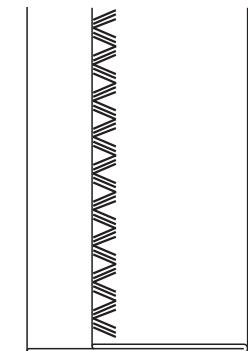
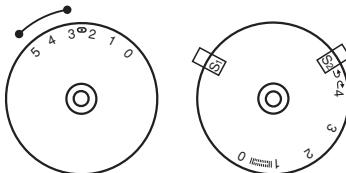
Triple zig-zag: (2)

For hardwearing seams, hems and decorative seams.

Turn the stitch length dial to "S1" or "S2".

Adjust the stitch width dial to between "3" and "5".

Triple zig-zag is suitable for firm fabrics like denim, corduroy, etc.



2

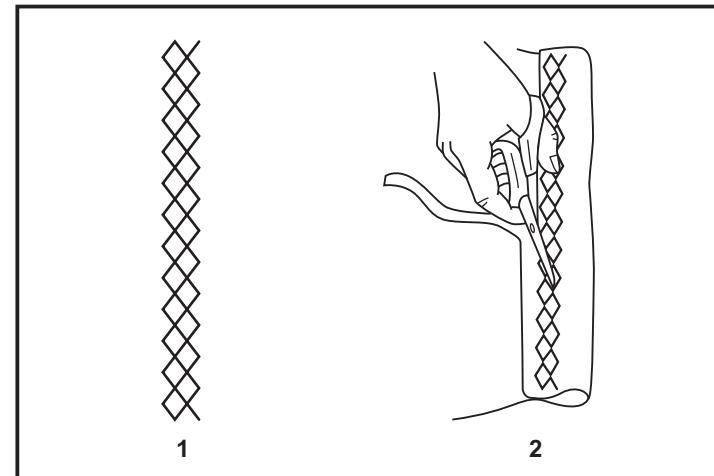
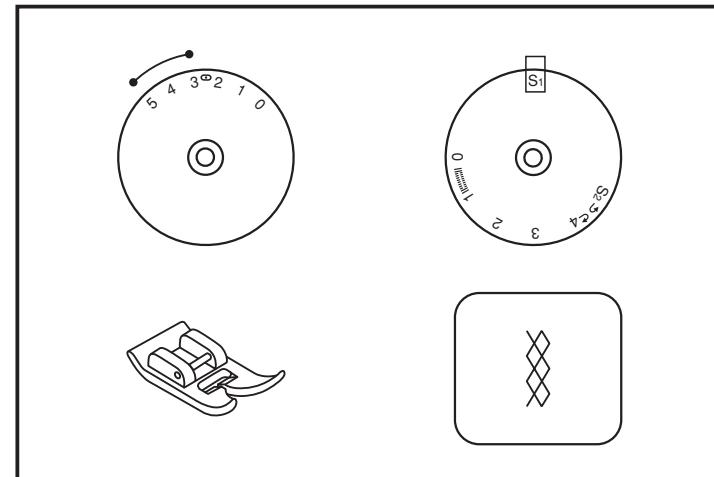
Smocking stitch

Seams, hems, T-shirts, underwear, etc.

Set the machine as illustrated.

This stitch can be used for all types of jersey as well as for woven fabrics. (1)

Sew at 1cm (1/4") from the fabric edge and trim the surplus fabric. (2)



Sewing with the cording foot

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

Decorative effects, cushions, tablecloths, etc.

Set the machine as illustrated.

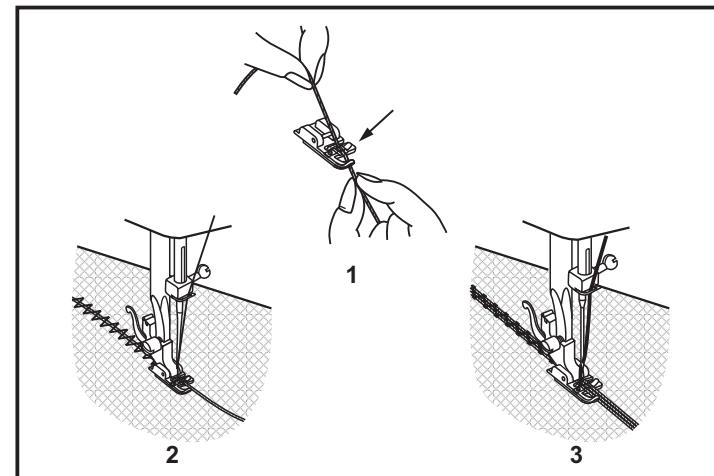
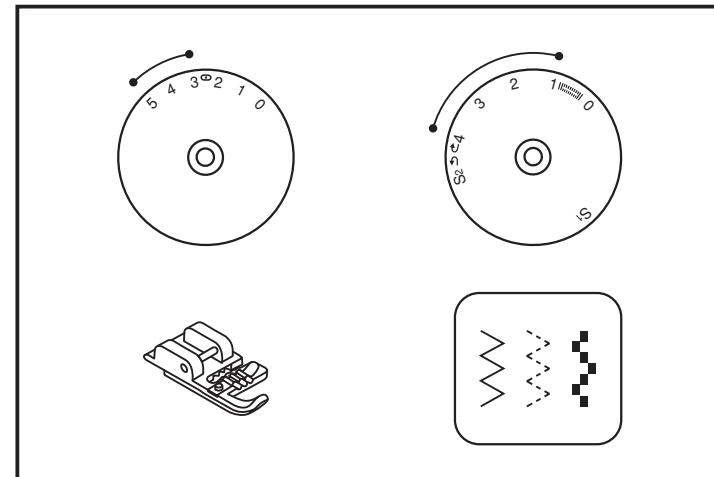
Various stitches are suitable for sewing on cord, e.g. Zig-zag, Triple zig-zag, decorative stitches.

Single cording (2)

- Set stitch width slightly greater than width of cording.
- Select desired stitch length.
- Insert the cord between the spring covering the cord groove and the foot. The cord should run in the groove. (1)
- Draw cording under foot and extend the cord 4-5 mm (3/16") behind foot.
- Lower the foot and sew slowly guiding the cords.

Triple Cording (3)

- Set stitch width at a maximum stitch width of 5 mm (3/16").
- Select desired stitch length.
- Insert the cords, one by one, from the right side of the cording foot spring into their respective guides. (1)
- Draw cording under foot and extend the cord 4-5 mm (3/16") behind foot.
- When using 2 or 3 cords, be careful to make sure that cords are not trampled under the front of foot.
- Lower the foot and sew slowly guiding the cords.



Darning

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

Set the machine as illustrated.

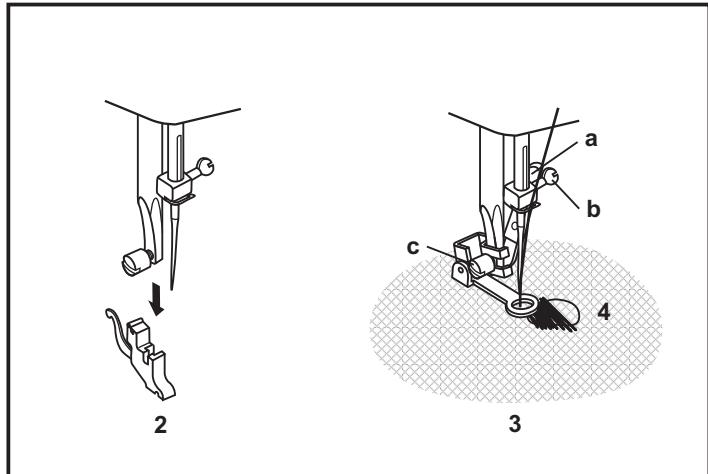
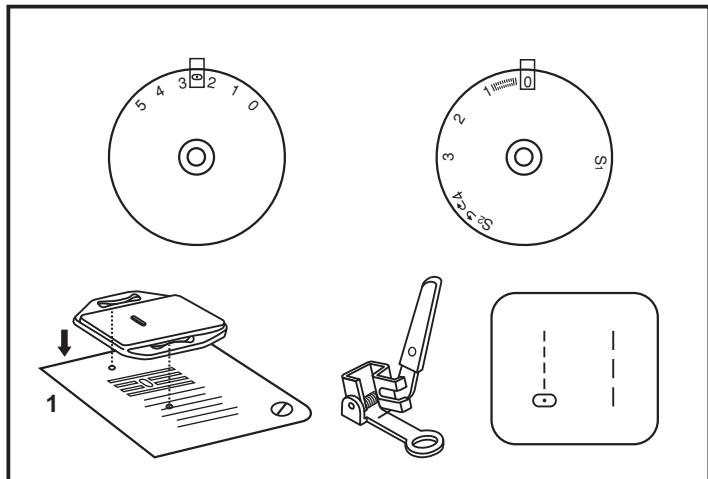
Install the darning plate. (1)

Remove the presser foot holder. (2)

Attach the darning foot to the presser foot bar. The lever (a) should be behind the needle clamp screw (b). Press the darning 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

Set the machine as illustrated.

Turn the 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.

Rampart (2)

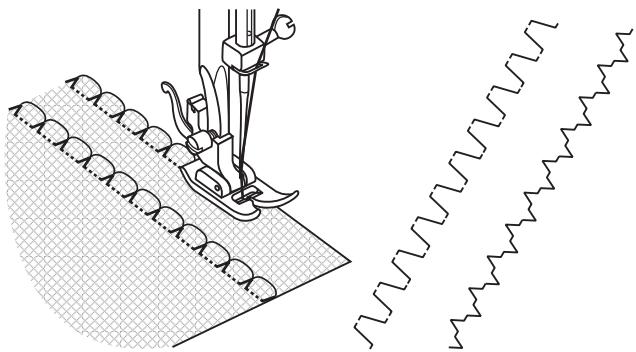
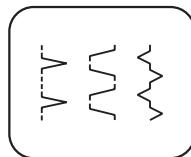
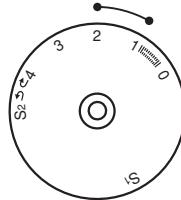
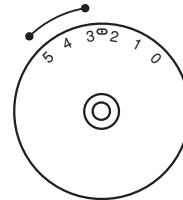
For flat joining seams, sewing on elastic, visible hems.

This stitch can be used for firm, thicker fabrics.

Bridging (3)

For seams, place mats, tablecloths.

Decorative joining seam for a fagoted effect. Gathering with cord or Shirring elastic.



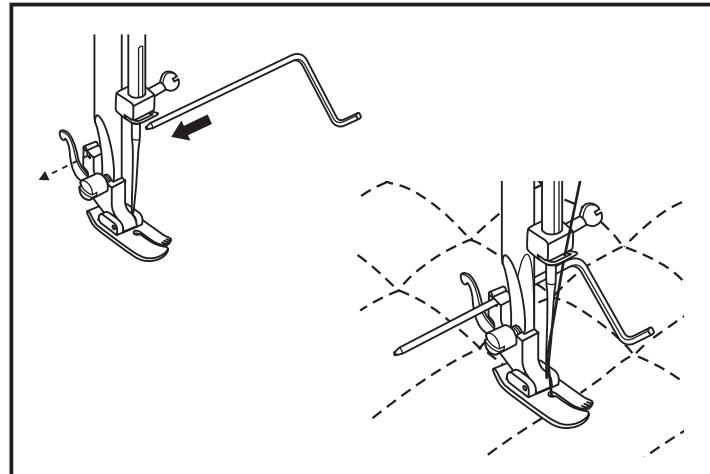
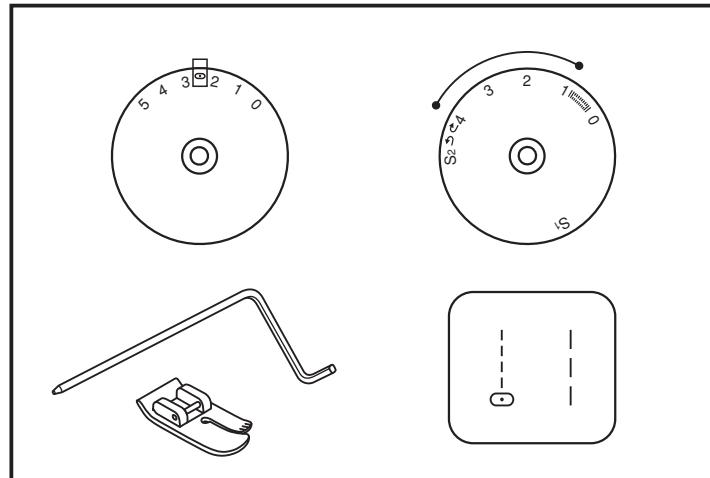
Quilting

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

Set pattern selector 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.

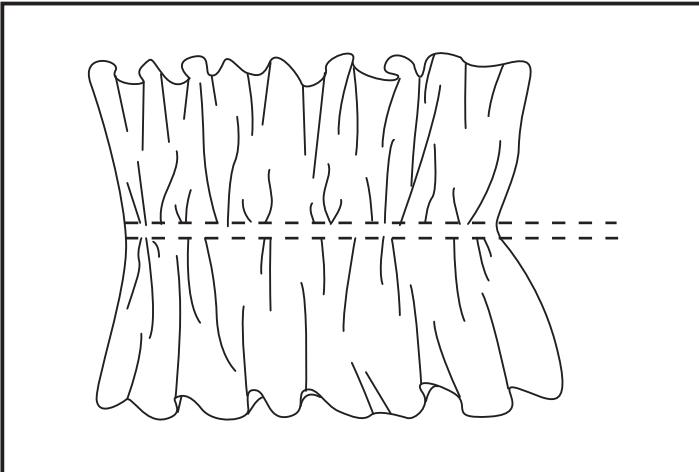
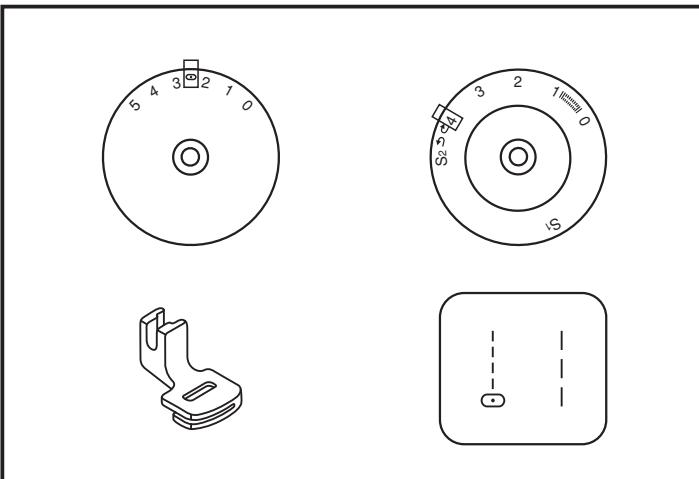


Gathering

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

Set the machine as illustrated.

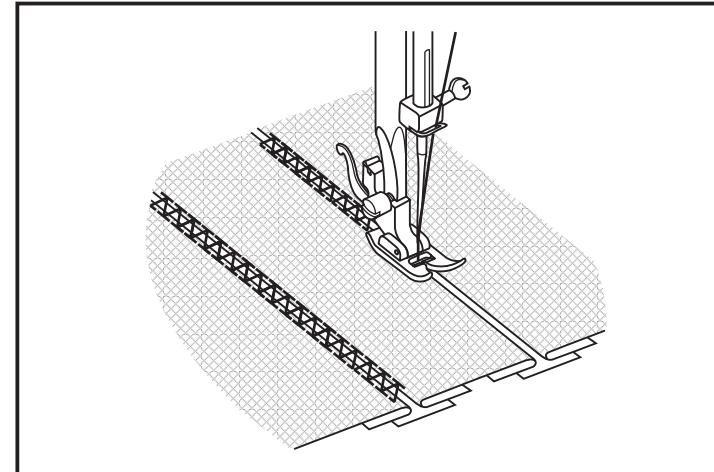
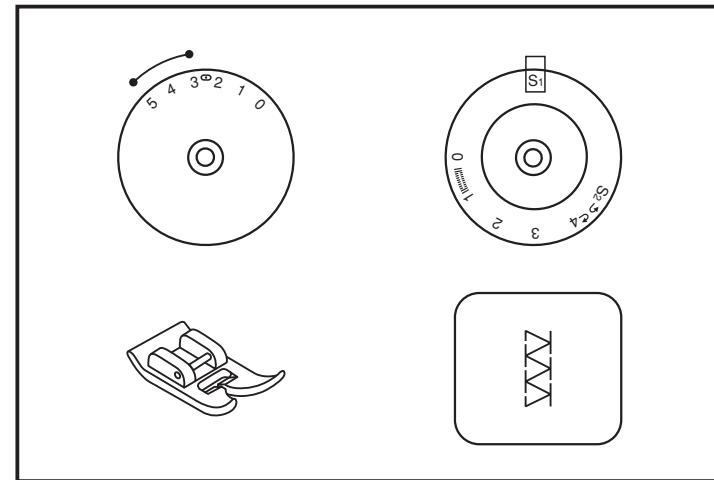
1. Attach the gathering foot.
2. Sew a single row or multiple rows of straight stitches. Pull the lower thread to gather more of the material.
3. If more gathering is required, loosen the upper thread (to about 2) so that the lower thread lies on the under side of the material.
4. Pull the lower thread to gather more of the material.



Patch work

These stitches are used to join two pieces of fabric while leaving a space between their edges.

1. Fold over the edges of the two pieces of fabric for the hem and baste the edges to a thin piece of paper leaving a small space between them.
2. Set the pattern selector on "  ". Turn the stitch length dial to "S1".
3. Stitch along the edge, pulling both threads slightly when beginning to sew.
* Use thicker than normal threads for sewing.
4. After sewing, remove the basting and the paper. Finish by tying knots on the reverse side at the beginning and the end of the seams.



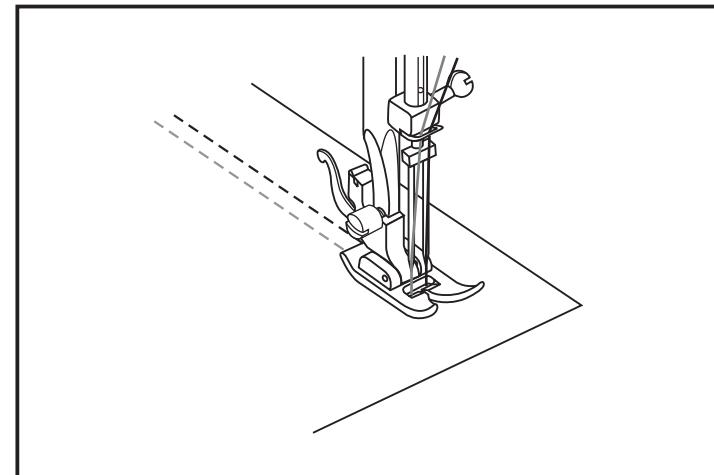
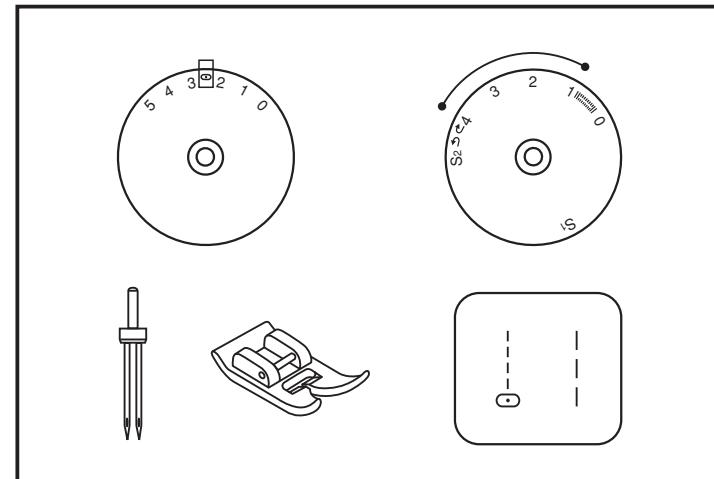
Twin needle

* The twin needle is an optional accessory not supplied with this machine.

- 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.

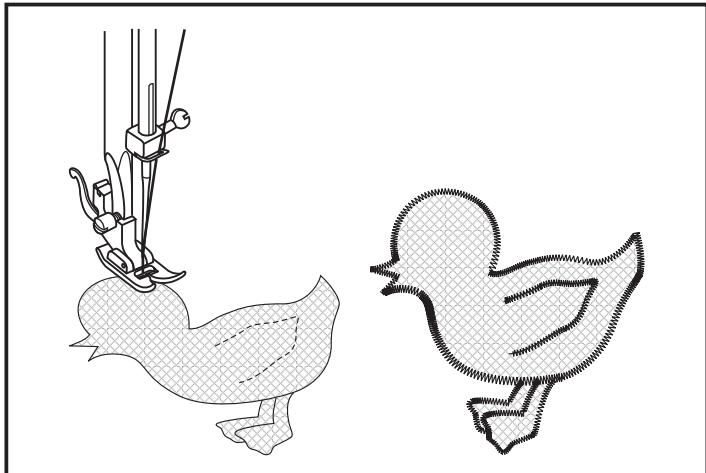
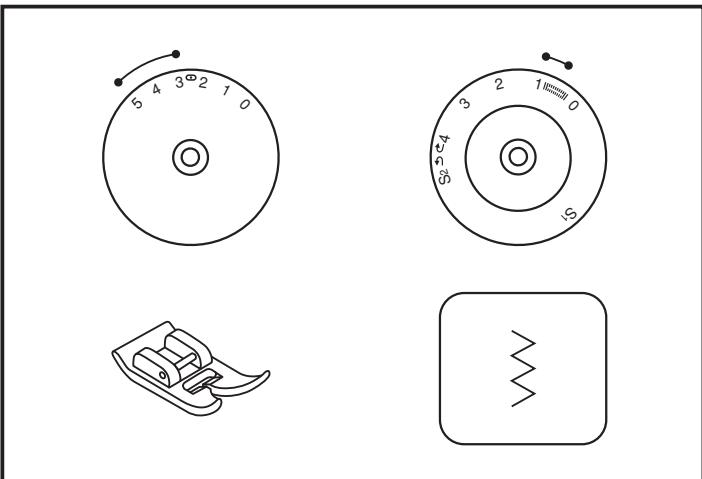
Please note:

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 "3.0". Do not use twin needle at setting above "3.0" (for 3-dial model).



Applique

- 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.



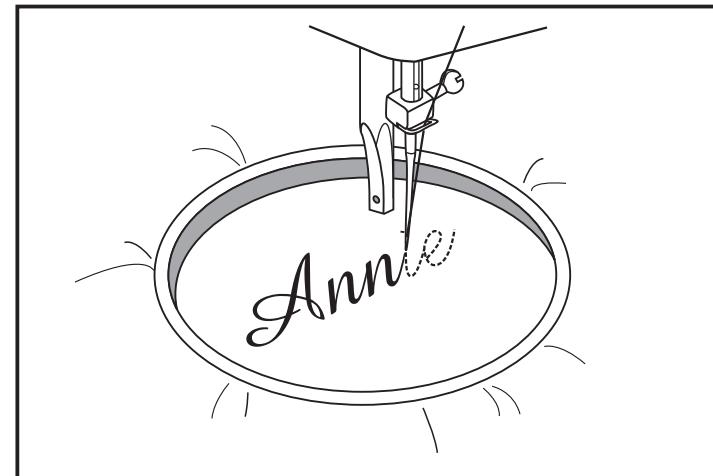
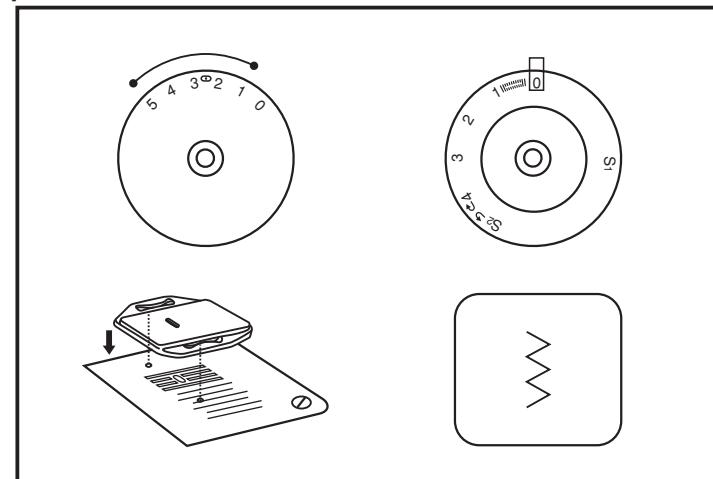
Monogramming and embroidering with embroidery hoop*

- Set the machine as illustrated above.
- 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.

* Embroidery hoop not included with machine.



Monogramming and embroidering with embroidery hoop*

Monogramming

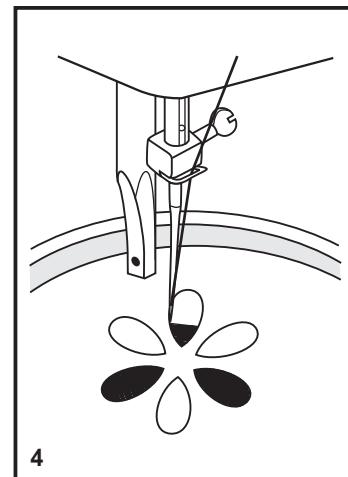
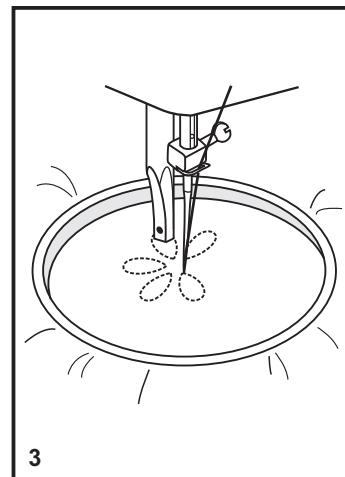
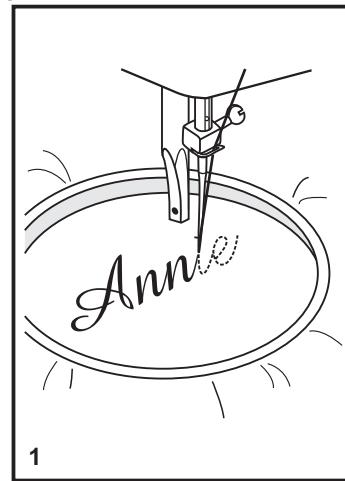
1. Sew, moving the hoop slowly along the lettering at a constant speed.
2. Secure with a few straight stitches at the end of the last letter.

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.



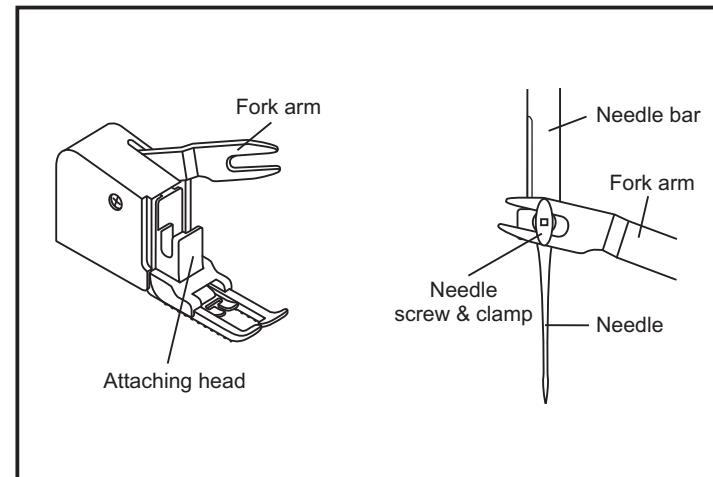
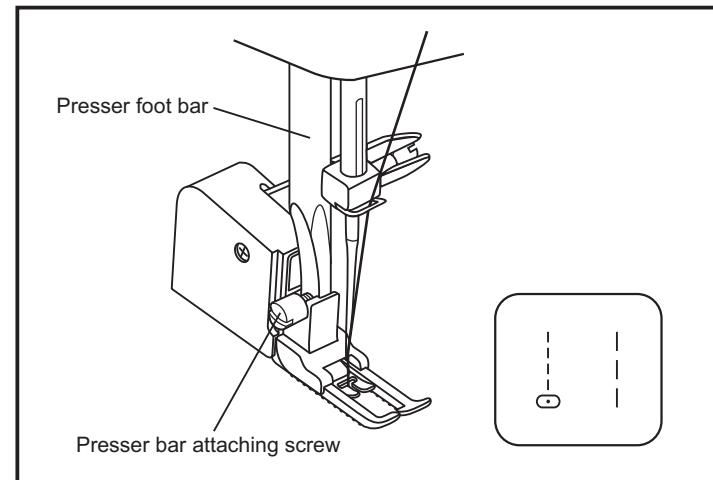
The walking foot accessory

* The walking foot accessory is an optional accessory not supplied 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. Turn stitch selector to straight stitch, center needle position.
2. Lift the presser foot bar.
3. Remove the "foot holder" by opening counter clockwise the presser bar attaching screw.
4. Attach the "walking foot" to the machine in the following way.
 - i) The fork arm should fit into the needle screw and clamp.
 - ii) Slide the plastic "attaching head" from your left to right so that it is fitted into the "presser foot bar".
 - iii) Lower the "presser foot bar".
 - iv) Replace and tighten clockwise the "presser bar attaching screw".
5. Make sure both the "needle screw" and the "presser bar attaching screw" are tightly secured.
6. 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 (1):

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

Cleaning the feed dog (2):

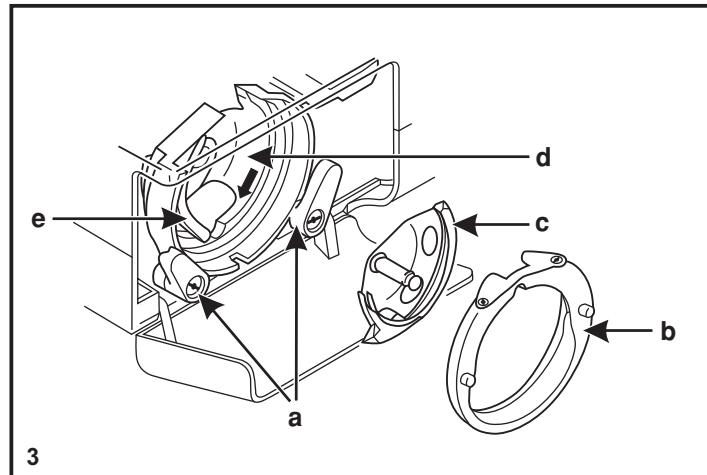
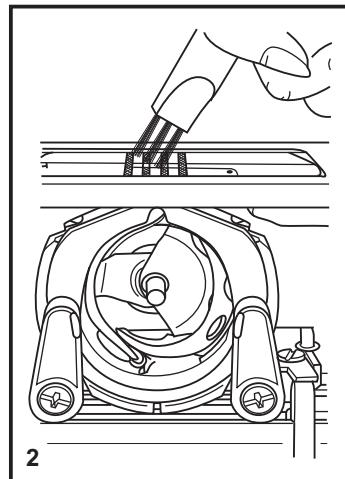
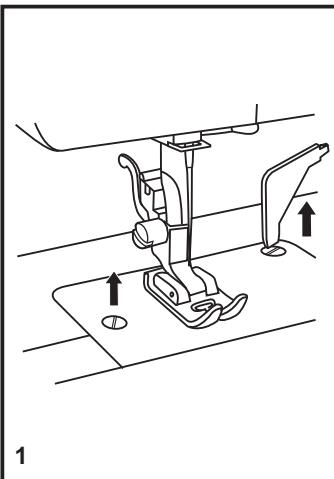
Remove the bobbin case and use the brush supplied to clean the whole area.

Cleaning and lubricating the hook (3):

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.

Important:

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	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 holder pin 6.The needle is damaged	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
Lower thread breaks	1.The bobbin case is not inserted correctly 2.The bobbin case is threaded wrongly 3.The lower thread tension is too tight	1.Remove and reinsert the bobbin case and pull on the thread. The thread should pull easily 2.Check both bobbin and bobbin case 3.Loosen lower thread tension as described
Skipped stitches	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	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	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	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	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	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	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.	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	1.Poor quality thread 2.The bobbin case is wrongly threaded 3.Fabric has been pulled	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	1.The machine must be lubricated 2.Fluff or oil have collected on the hook or needle bar 3.Poor quality oil has been used 4.The needle is damaged	1.Lubricate as described 2.Clean the hook and feed dog as described 3.Only use good quality sewing machine oil 4.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 remains. Lubricate as described



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.