

bernette
sew&go 8



Instruction Manual



www.mybernette.com

Important safety instructions

IMPORTANT

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

Please read the instruction manual carefully before using this machine.

Keep the instruction manual at a suitable place with the machine and hand it over if you give the machine to a third party.

When the machine is not in use or left unattended, always disconnect the machine from the power supply system. Unplug it from the outlet.

DANGER!

To reduce the risk of electric shock:

1. Never leave the machine unattended when it is plugged in.
2. Always unplug this machine from the electric outlet immediately after using and before cleaning.
3. LED RADIATION: Do not view directly with optical instruments Class.

WARNING!

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


1. The machine mustn't be used by children under 8 or by people with reduced physical, sensory or mental capabilities or if there is a lack of experience and knowledge how to operate the machine. Unless they have been given instruction concerning the use of the machine and the involved risks by a person who is responsible for their safety.
2. Do not use this machine as a toy. Close attention is necessary when this machine is used by children, near children or people with reduced sensation.
3. Use this machine only for its intended use as described in this manual. Use only accessories recommended by the manufacturer.
4. Children should be supervised to ensure that they do not play with the machine.
5. Never operate this machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the machine to the nearest authorized dealer or service centre for examination, repair, electrical or mechanical adjustment.
6. Never operate the machine with any air openings blocked. Keep ventilation openings of the machine and the foot control free from accumulation of lint, dust, and loose cloth.
7. Keep fingers away from all moving parts. Special care is required around the machine needle.
8. Always use the proper stitch plate. The wrong plate can cause needle breakage.
9. Do not use bent needles.

Important safety instructions

10. Do not pull or push the fabric while sewing. This can result in needle breakage.
11. Switch the machine off ("O") when making any adjustments in the needle area, such as threading or changing the needle, threading the bobbin, or changing the presser foot, and the like.
12. Always unplug the machine when performing cleaning or maintenance work such as replacing the sewing light or when making any other user maintenance adjustments mentioned in the instruction manual (disconnect the power plug). Cleaning and maintenance work must not be carried out by children without supervision.
13. Never drop or insert any object into any openings.
14. Use this machine only in dry and protected areas. Never operate the machine in a damp or wet environment.
15. Do not operate the machine where aerosol spray products are being used or where oxygen is being administered.
16. To disconnect, turn the power switch to ("O")(off), then remove the plug from the outlet. Do not unplug by pulling the cord, instead grasp the plug to pull it from the outlet.
17. If the supply cord of the foot control is damaged, it must be replaced by the manufacturer or an appropriate service agent or a similar qualified person in order to avoid endangerment.
18. Never place anything on the foot control.
19. When replacing the light bulb, always use the same type.
20. The machine may only be used in combination with a foot control of the type C-8001.
21. The sound pressure level during normal operation is lower than 75dB(A).
22. This machine is provided with double insulation (except U.S.A/Canada). Use only identical replacement parts. See instructions for Servicing of double-insulated products.

SERVICING OF DOUBLEINSULATED PRODUCTS

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 doubleinsulated 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.

Important safety instructions

SAVE THESE INSTRUCTIONS!

Attention!

- This machine is intended for household use only. If used intensively or commercially, regular cleaning and especially attentive care is required.
 - Signs of wear and tear owing to intensive or commercial use are not covered automatically, even if they occur within the warranty period. The decision on how to deal with any such cases rests with the local authorised servicing staff.
-

Note:

If the machine is stored in a cold room, it should be brought to a warm room about one hour before use.

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For technical and product improvement reasons, the machine's features, parts and accessory are subject to unannounced changes and alterations at any time. The accessory included can differ from country to country.



Environmental protection

BERNINA is committed to the protection of the environment. We strive to minimize the environmental impact of our products by continuously improving product Design and our technology of manufacturing. Do not dispose of electrical machines as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available.

If electrical machines 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 machines with new ones, the retailer is legally obligated to take back your old machine for professional disposal free of charge.

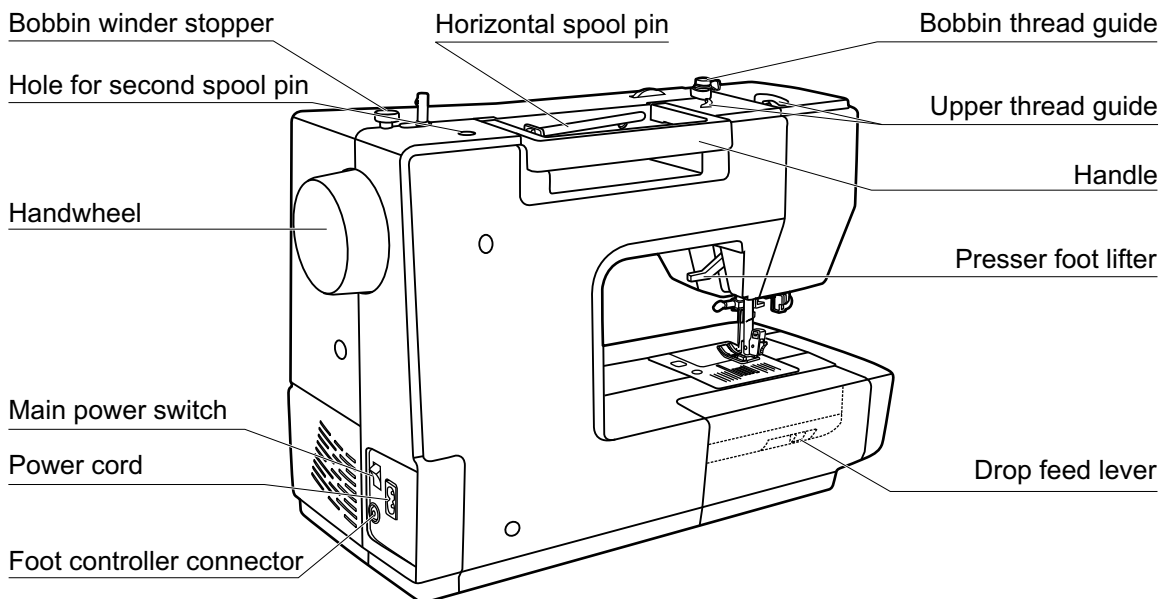
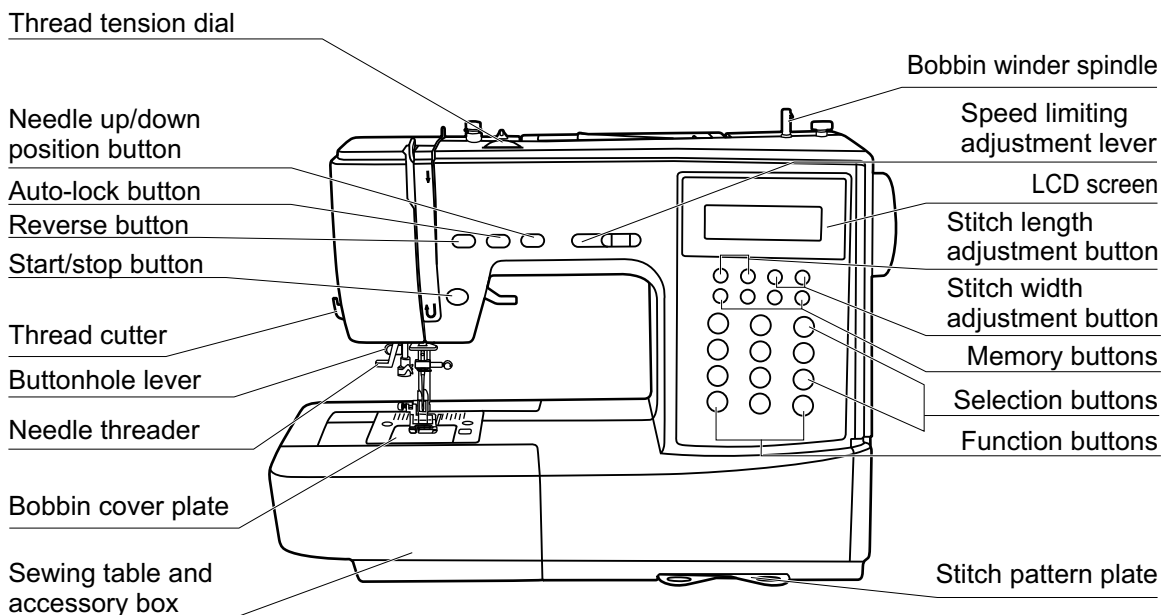
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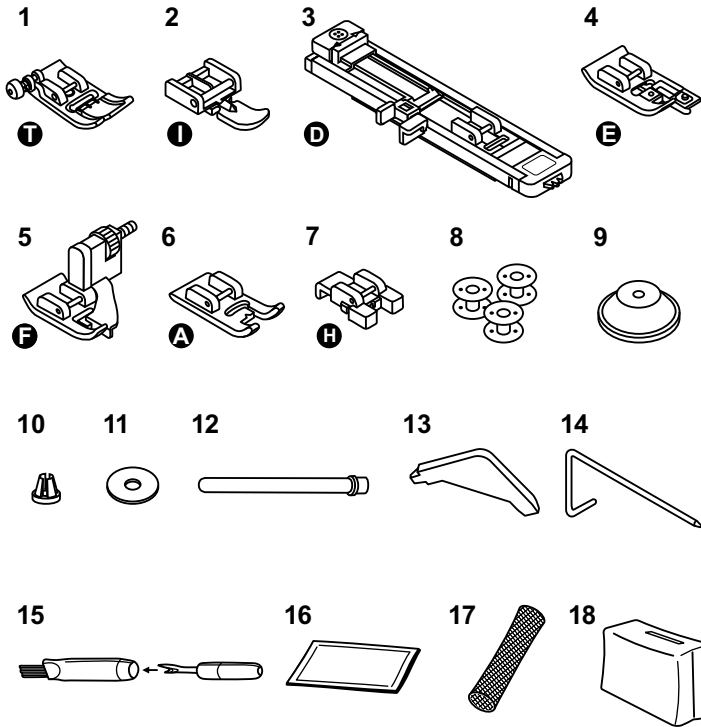
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Principal parts of the machine

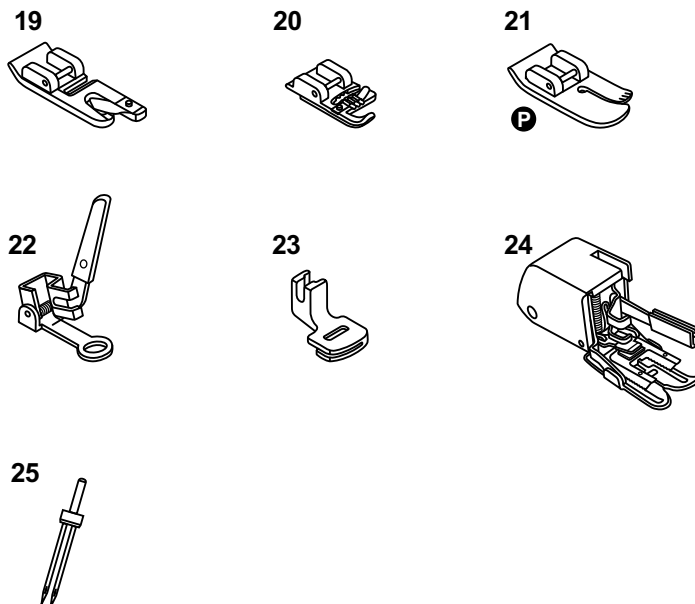


Accessories



Standard

1. Zigzag foot
2. Zipper foot
3. Buttonhole foot with slide
4. Overlock foot
5. Blindstitch foot
6. Embroidery foot
7. Button-sew-on foot
8. Bobbins
9. Spool holder (large)
10. Spool holder (small)
11. Spool pin felt
12. Spool pin long V
13. L Screwdriver
14. Right seam guide
15. Brush & seam ripper
16. Needle set
17. Spool net
18. Dust cover



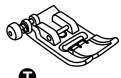










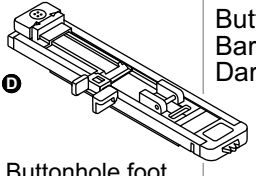
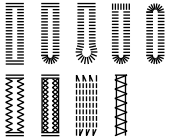

















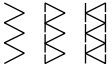

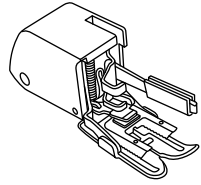


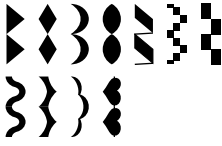

Optional

19. Hemmer foot
20. Cording foot
21. Quilting foot
22. Darning / Embroidery foot
23. Gathering foot
24. Walking foot
25. Twin needle

Note:

- Accessories are stored inside the accessory box.
- Optional accessories are not supplied with this machine; they are however available as special accessories from your local dealer.

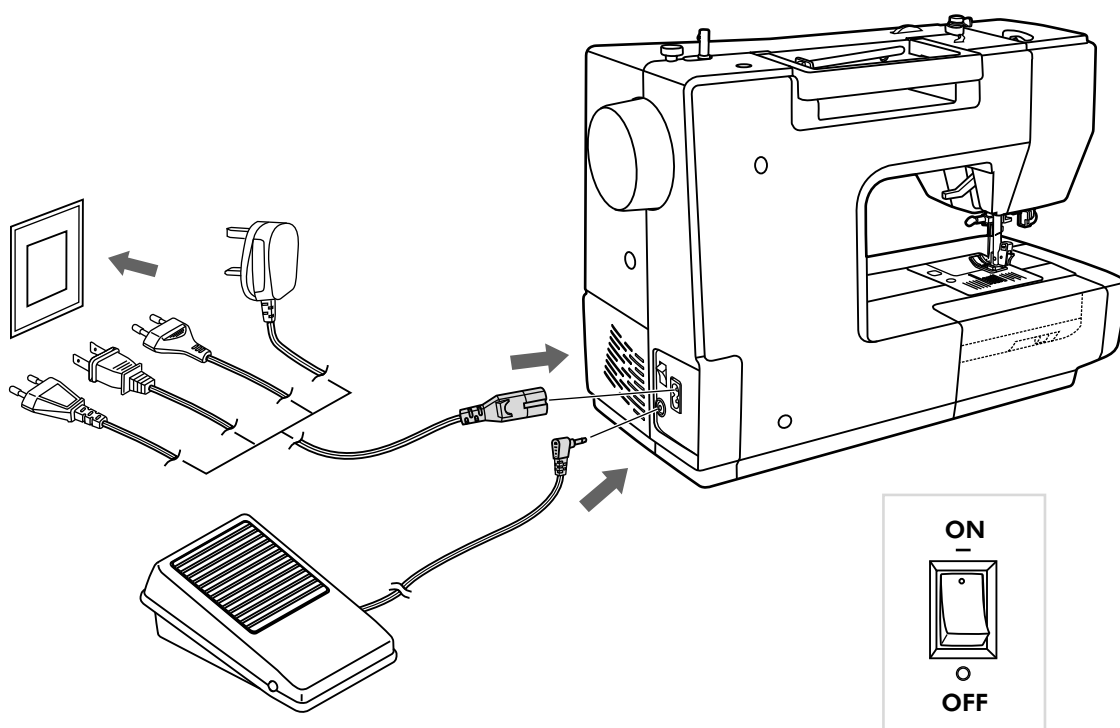
Type of presser foot chart

PRESSER FOOT	APPLICATION	NEEDLE	PRESSER FOOT	APPLICATION	NEEDLE
 <p>I Zigzag foot</p>	General sewing, Patchwork stitches, Decorative stitching, Smocking, Fagoting, etc.		 <p>Cording foot (Optional)</p>	Cording 	
 <p>I Zipper foot</p>	Inserting zippers 		 <p>Hemmer foot (Optional)</p>	Narrow hemming 	
 <p>D Buttonhole foot with slide</p>	Buttonhole sewing, Bar tack stitches, Darning stitches. 		 <p>Darning/ Embroidery foot (Optional)</p>	Darning Free embroidery Monogramming 	
 <p>H Button-sew-on foot</p>	Button sewing 		 <p>P Quilting foot (Optional)</p>	Quilting 	
 <p>F Blindstitch foot</p>	Blind hem stitching 		 <p>Gathering foot (Optional)</p>	Gathering 	
 <p>E Overlock foot</p>	Overlocking 		 <p>Walking foot (Optional)</p>	This foot helps to prevent uneven feeding of very difficult fabrics	
 <p>A Embroidery foot</p>	Satin stitch sewing 				

Connecting the machine to the power source

Caution:

Always make sure that the machine is unplugged from power source and the main switch is on ("O"). when the machine is not in use and before inserting or removing parts.



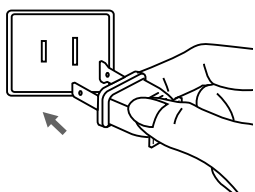
Connecting the machine

Before connecting the power supply, make sure that the voltage and frequency shown on the machine is conforming with your electrical power.

Place the machine on a stable table.

1. Connect the power line cord to the machine by inserting the 2-hole plug into the terminal box.
2. Connect the power line plug to the electric outlet.
3. Turn on the power switch.
4. The sewing lamp will light up when the switch is turned on.
5. After switching off, it will take some time to consume the residual power in the circuitry. The light does not turn off immediately after switching off the power. This is a normal phenomenon for an energy efficient appliance.

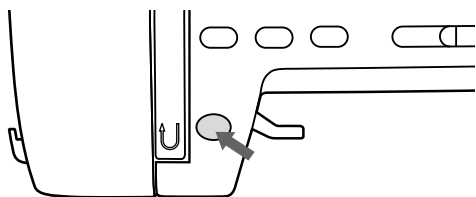
To disconnect, turn the power switch to the off position, then remove plug from outlet.



Polarized plug information

This appliance has a polarized plug (one blade wider than the other), to reduce the risk of electrical shock; this plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Do not modify the plug in any way.

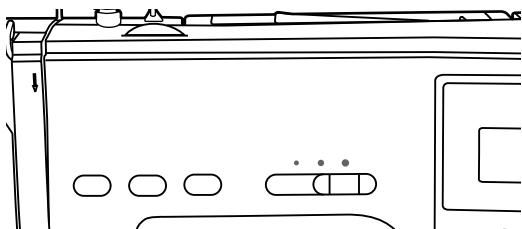
Start sewing



Start/stop button

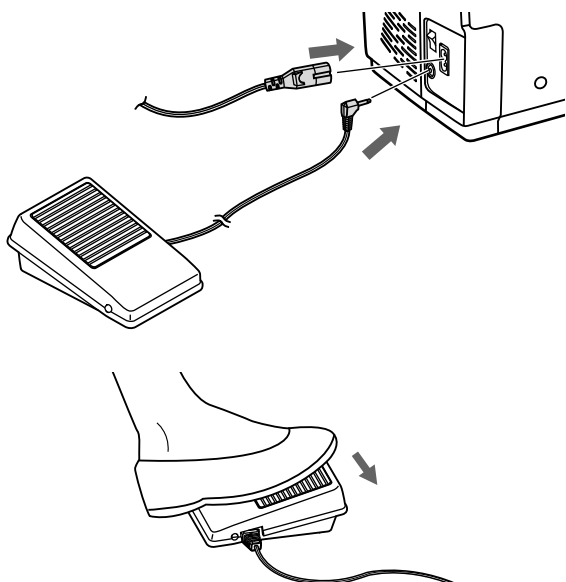
The machine will start running when Start/stop button is pressed and will stop when pressed the second time.

The machine will rotate slowly at the beginning of the sewing.



Speed adjustment lever

The speed limiting adjustment lever can control the sewing speed. To increase the speed, slide the lever to the right. To decrease the sewing speed, slide the lever to the left.



Foot control

With the sewing machine turned off, insert the foot control plug into its connector on the sewing machine.

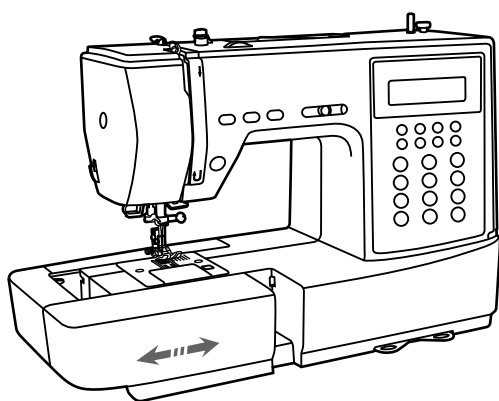
Turn on the sewing machine, and then slowly depress the foot control to start sewing.

Release the foot control to stop the sewing machine.

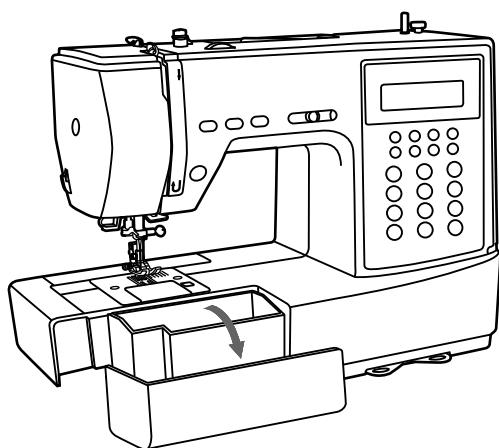
Attention:

Consult a qualified electrician if in doubt as how to connect the machine to the power source. Unplug the power cord when the machine is not in use.

Sewing table

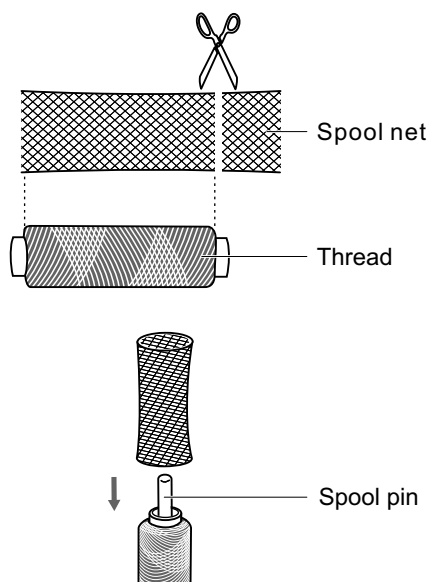


Keep the sewing table horizontal, and pull it in the direction of the arrow.



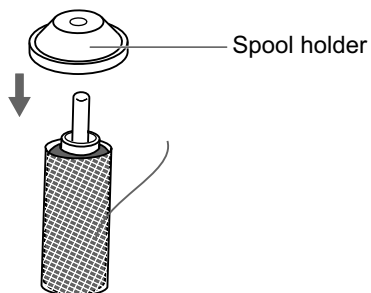
The inside of the sewing table is used as an accessory box.

Using the spool net

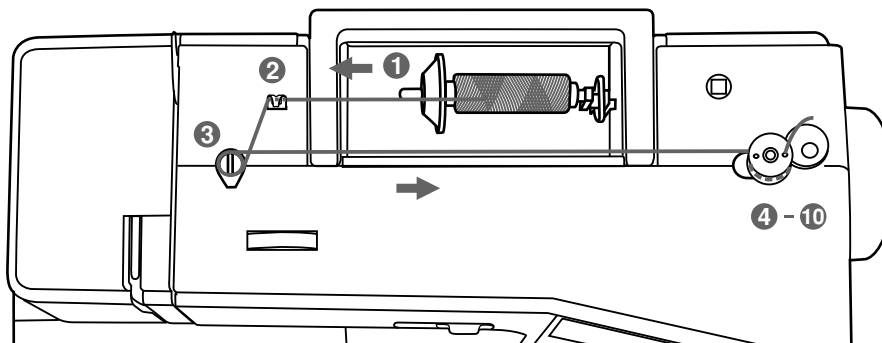


When using special threads which wind quickly off the thread spool, attach a net to the spool before using.

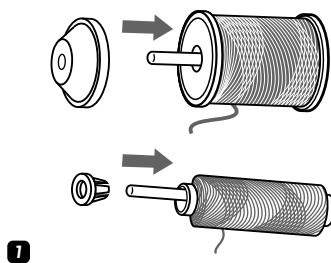
* If the net is too long, cut the net to match the size of the spool.



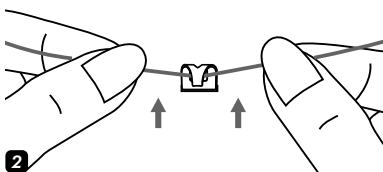
Winding the bobbin



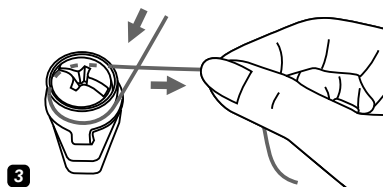
Bobbin winding



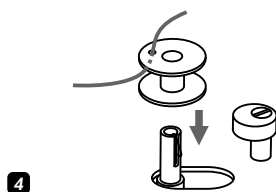
- 1** Place the thread and spool holder onto the spool pin. For smaller spools of thread, place spool holder with the small side next to the spool or use the small spool holder.



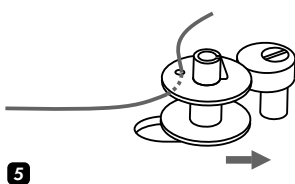
- 2** Snap the thread into the thread guide.



- 3** Wind the thread contrary clockwise around the bobbin winder tension discs.

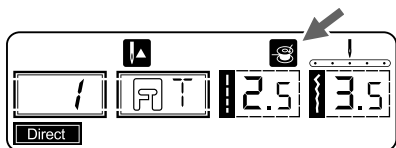


- 4** Place the thread end through one of the inner holes in the bobbin as illustrated and place empty bobbin on the spindle.

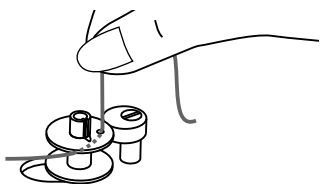


- 5** Push the bobbin to right.

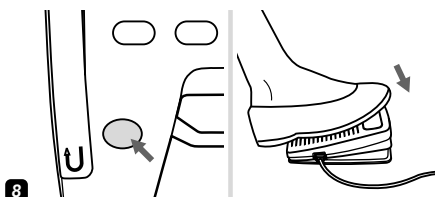
Winding the bobbin



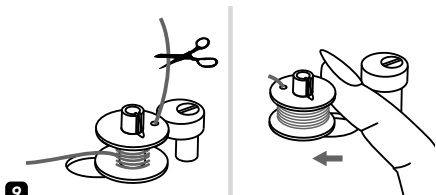
- 6** When the bobbin winder shaft is pushed to the right, The LCD will display the figure "3.5".



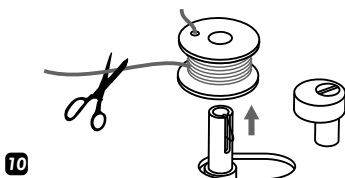
- 7** Hold the thread tail securely in one hand.



- 8** Press on the foot control or the Start/stop button to start winding the bobbin.



- 9** After the bobbin has wound a few turns stop the machine and cut the thread near the hole of the bobbin. Continue filling the bobbin until it is full. Once the spool is full, it rotates slowly. Release the pedal or stop the machine. Push the bobbin winder spindle to left.

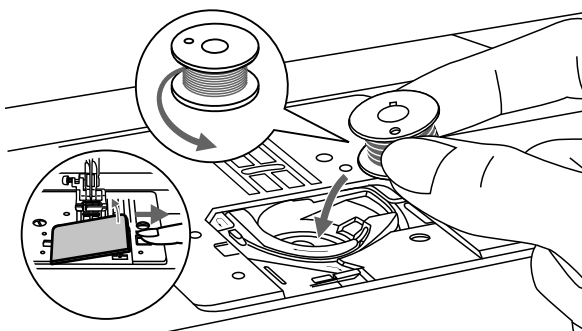


- 10** Cut the thread and then remove the bobbin.

➔ Please Note:

When the bobbin winder switch is placed on the right, "bobbin winding position", the machine will not sew and the handwheel will not turn. To start sewing, push the bobbin winder switch to the left "sewing position".

Inserting the bobbin



Attention:

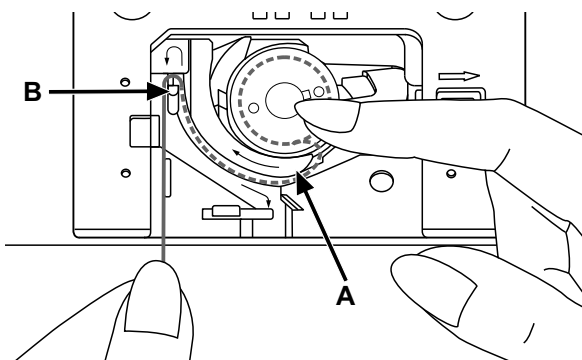
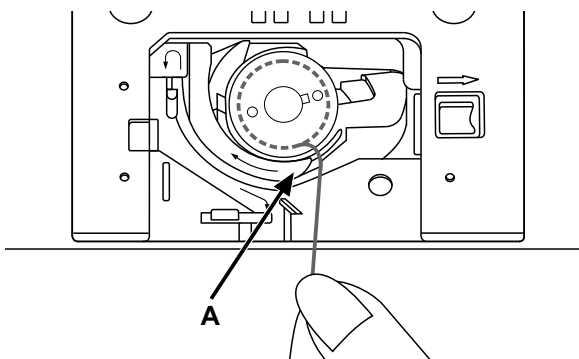
Turn power switch to off ("O") before inserting or removing the bobbin.

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

Open the bobbin cover plate.

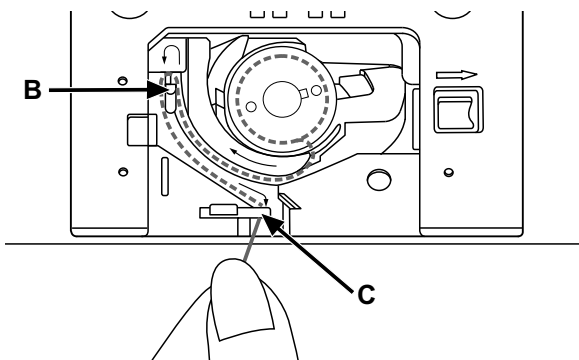
Insert the bobbin in the bobbin case with the thread running in a counterclockwise direction (arrow).

Pull the thread through the slit (A).



With a finger held gently on top of the bobbin.

Draw the thread at the arrow markings into the stitch plate thread guide from (A) to (B).

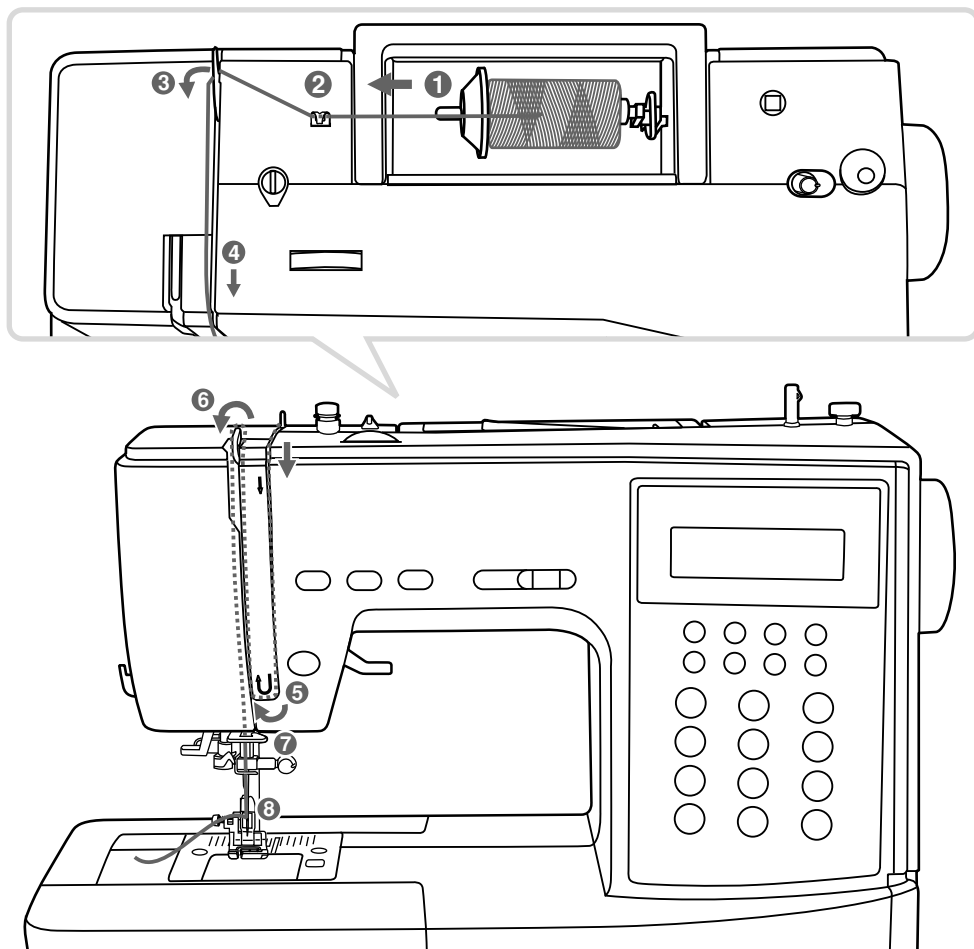


Pull the thread at the arrow markings into the stitch plate thread guide from (B) to (C).

To cut off excess thread pull thread back over the cutting off blade at point (C).

Close the bobbin cover plate.

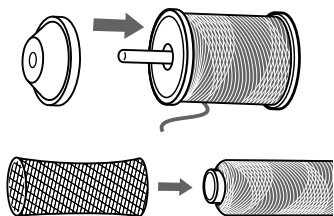
Threading the upper thread



➡ Please Note:

It is important to carry out the threading correctly as by not doing so, several sewing problems could result.

Start by raising the needle to its highest position, and also raise the presser foot to release the tension discs.

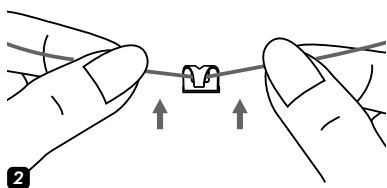


- 1** Lift up the spool pin. Place the spool of thread on the spool pin so that the thread comes from the left side of the spool, then place the spool cap at the end of the spool pin.

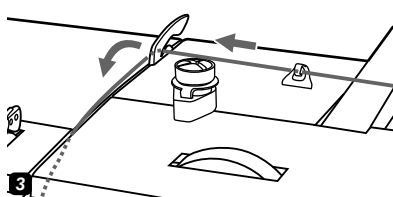
➡ Note:

In order to prevent tangling of the thread, please use a spool net. The net is especially useful to work from large or loose wound spools.

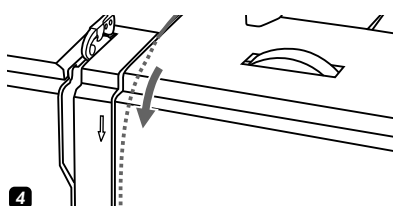
Threading the upper thread



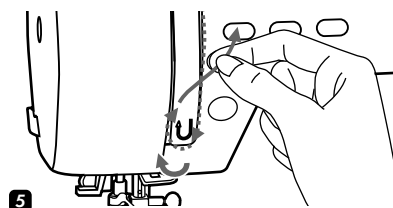
- 2** Draw the thread from the spool through the upper thread guide.



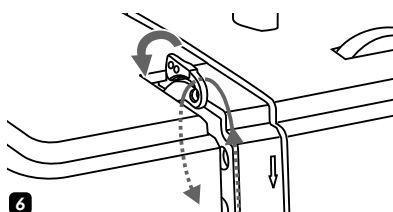
- 3** Guide the thread around the thread guide pulling the thread through the pre-tension spring as illustrated.



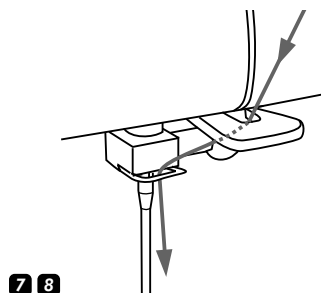
- 4** Thread the tension module by passing the thread between the silver discs.



- 5** Then, down and around the check spring holder.



- 6** At the top of this movement, pass the thread from right to the left through the slotted eye of the take-up lever and then downwards again.



- 7** Pass the thread behind the flat, horizontal thread guide. Guide the thread through the wire loop.

- 8** Pull the end of the thread through the needle from front to rear, and pull out about 10 cm of thread.

You could use the needle threader to thread the needle.
(On the next page.)

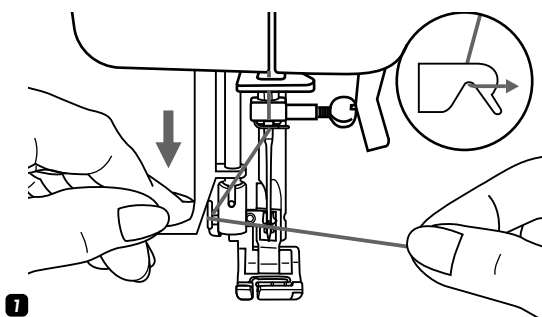
Using the needle threader



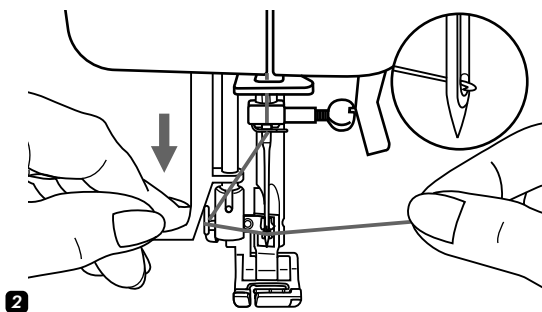
Attention:

Turn power switch to the off position ("O").

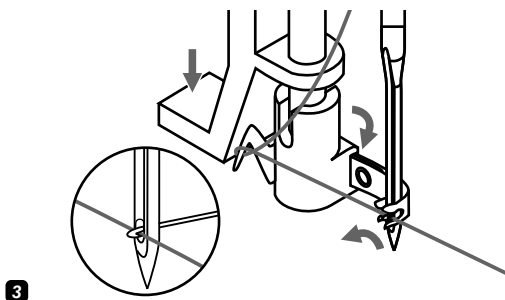
Raise the needle to its highest position and lower the presser foot.



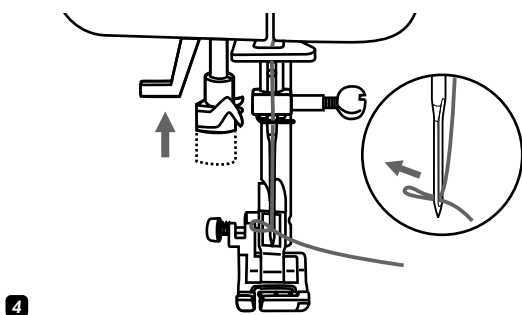
- 1** Lower the needle threader lever slowly and draw the thread through the thread guide as illustrated and then to the right.



- 2** The needle threader automatically turns to the threading position and the hook pin passes through the needle eye.



- 3** Take the thread in front of the needle.

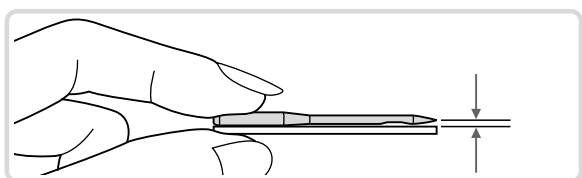
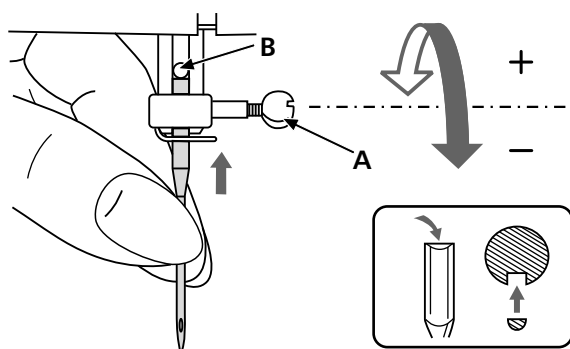


- 4** Hold the thread loosely and release the lever slowly. The hook will turn and pass the thread through the needle eye forming a loop.

Pull the thread through the needle eye.

When using thin needles the needle threader might not be applicable.

Replacing the needle



! Attention:

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

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. The flat side of the shaft should be towards the back.

B. Insert the needle as far up as it will go.

Needles must be in perfect condition.

Problems can occur with:

- Bent needles
- Blunt needles
- Damaged points

Matching needle/ fabric/ thread

NEEDLE, FABRIC, THREAD SELECTION GUIDE

NEEDLE SIZE	FABRICS	THREAD
9-11 (70-80)	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, polyester or cotton wrapped polyester.
11-14 (80-90)	Medium weight fabrics-cotton, satin, sailcloth, double knits, lightweight woollens.	Most threads sold are medium size and suitable for these fabrics and needle sizes.
14 (90)	Medium weight fabrics-cotton duck, woolen, heavier knits, terrycloth, denims.	Use polyester threads on synthetic materials and cotton on natural woven fabrics for best results.
16 (100)	Heavyweight fabrics-canvas, woollens, outdoor tent and quilted fabrics, denims, upholstery material (light to medium).	Always use the same thread on top and bottom.
18 (110)	Heavy woollens, overcoat fabrics, upholstery fabrics, some leathers and vinyls.	Heavy duty thread, carpet thread.

➡ Please Note:

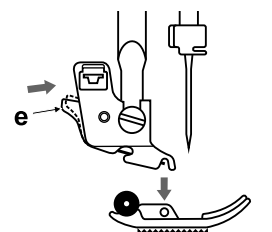
- In general, fine threads and needles are used for sewing fine fabrics, and thicker threads are used for sewing heavy fabrics.
- Always test thread and needle size on a small piece of fabric, which will be used for actual sewing project.
- Use the same thread for needle and bobbin.
- Use a stabilizer for fine or stretchy fabrics.

Changing the presser foot



Attention:

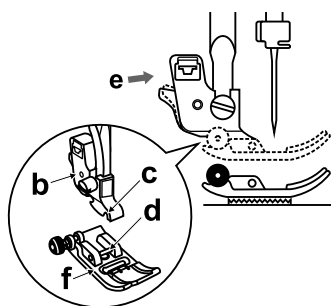
Turn power switch to off ("O") when carrying out any of the below operations!



Removing the presser foot

Raise the presser foot.

Press the black lever (e) and the foot will disengage.

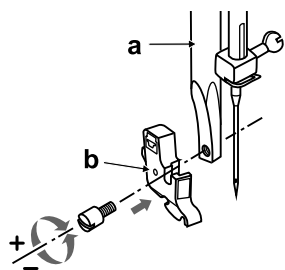


Attaching the presser foot

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

Press the black lever (e).

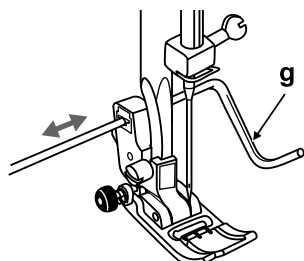
Lower the presser foot holder (b) and the presser foot (f) will engage automatically.



Removing and attaching the presser foot holder

Raise the presser foot bar (a).

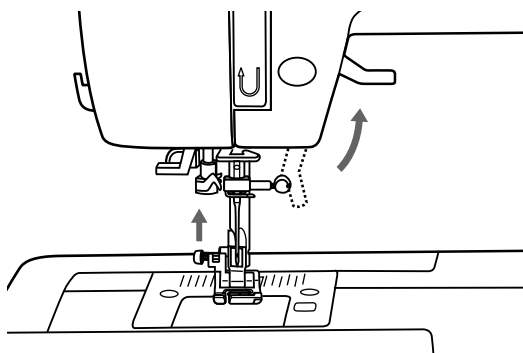
Remove and attach the presser foot holder (b) as illustrated.



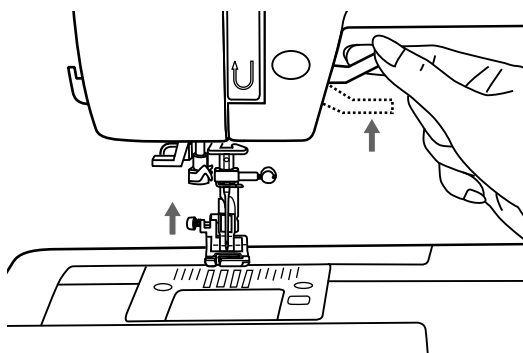
Attaching the right seam guide

Attach the right seam guide (g) in the slot as illustrated. Adjust according to need for hems, pleats, etc.

Two-step presser foot lifter



The presser foot lifter raises and lowers your presser foot.



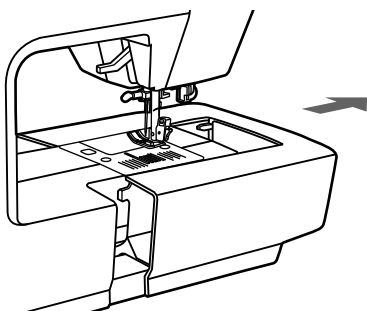
When sewing several layers or thick fabrics, the presser foot can be raised a second stage for easy positioning of the work.



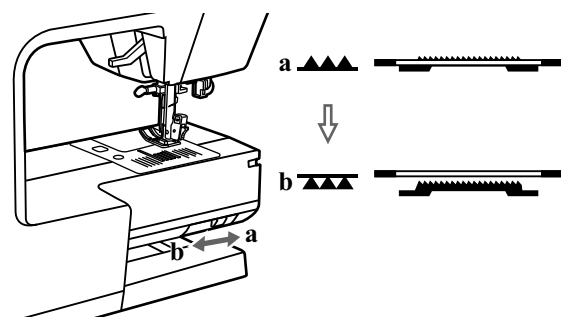
Note:

The needle must always be at the highest position.

To raise or drop the feed dog



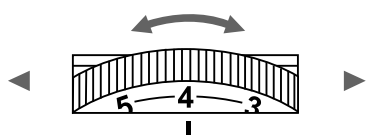
With the sewing table off the machine, the feed dog adjustment lever can be seen on the base at the rear side of the sewing machine.



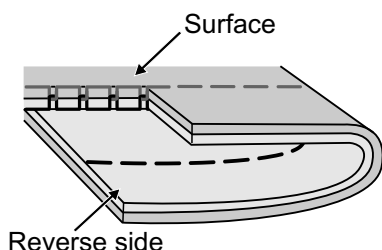
Sliding the lever to "▲▲▲" (b) will lower the feed dog, for example during button sewing or monogramming. If you wish to continue sewing normally, slide the lever to "▲▲▲" (a) in order to raise the feed dog.

The feed dog will not rise up if you do not turn the handwheel, even if the lever is slid to position (a) make a complete turn of the handwheel to raise the feed dog.

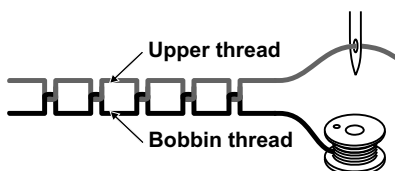
Upper thread tension



- Basic thread tension setting is: "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.
- Proper setting of tension is important to good 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.



Normal thread tension for straight stitch sewing.



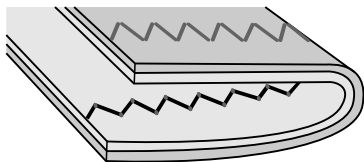
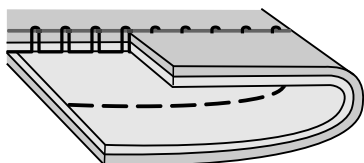
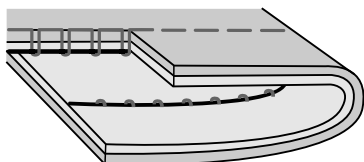
Thread tension is too loose for straight stitch sewing. Turn dial to higher number.



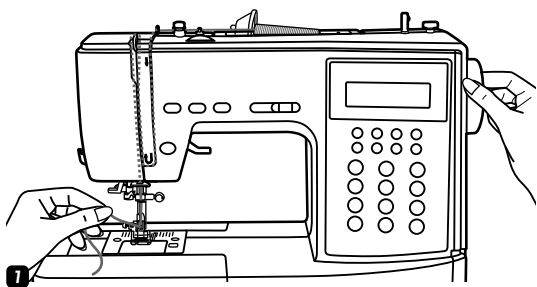
Thread tension is too tight for straight stitch sewing. Turn dial to lower number.



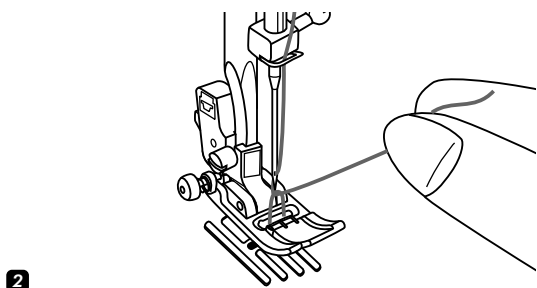
Normal thread tension for zig zag and decorative sewing.



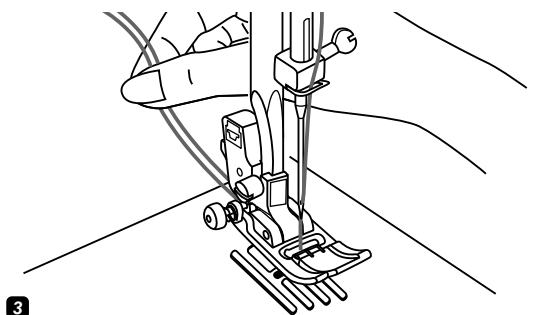
Raising up the lower thread



- 1** Hold the upper thread with the left hand. Turn the handwheel towards you (counterclockwise) lowering, then raising the needle.

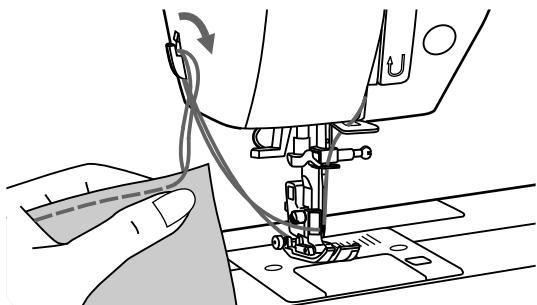


- 2** Gently pull on the upper thread to bring the bobbin thread up through the stitch plate hole. The bobbin thread will come up in a loop.



- 3** Pull both threads to the back under the presser foot.

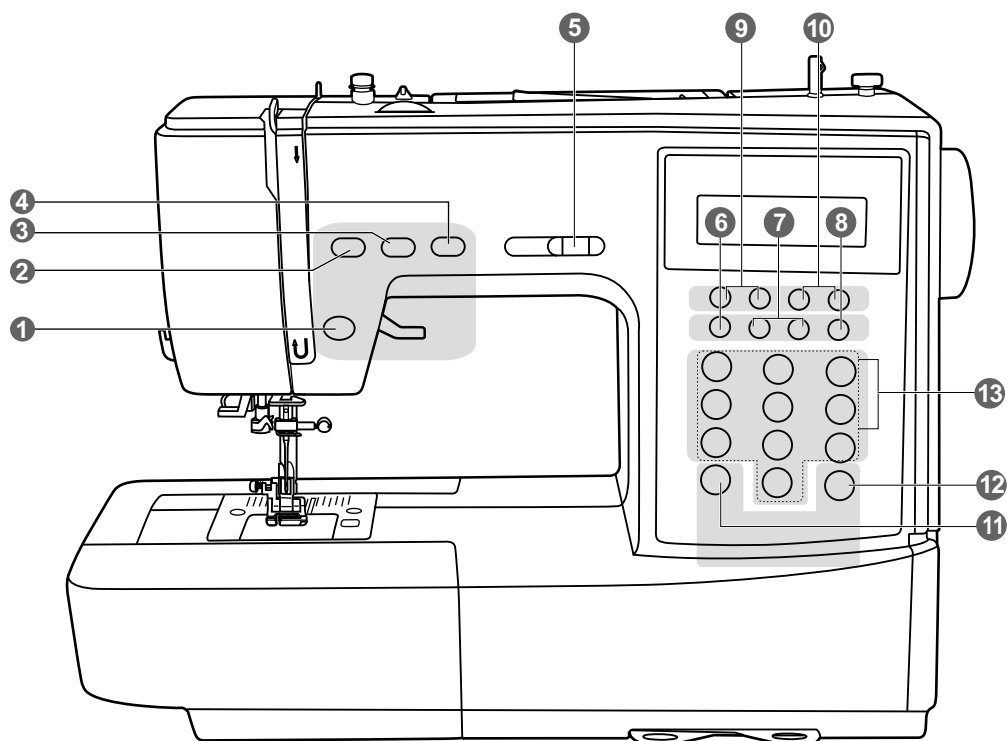
Cutting the thread



Raise the presser foot. Remove the fabric, draw the threads to the left side of the face cover and cut using the thread cutter.

The threads are cut at the proper length to start the next seam.

Buttons of the machine



Operation buttons (see page 22/23)

1. Start/stop button

Press this button to start or stop the machine.

2. Reverse button

Hold down this button to sew either backwards or a reinforcement stitch at a low speed.

3. Auto-lock button

Hold down this button to sew locking stitches immediately or at the end of the current patterns and automatically stop.

4. Needle up/down position button

Press this button to move the needle either up or down.

5. Speed limiting adjustment lever

Slide this lever to change the sewing speed.



Buttons of the machine

Memory buttons (see page 24)

6. Memory button

Press this button to enter or store the created pattern combination in the memory.

7. Arrow button

Press the "  " button or "  " button until the actual stitch number is displayed.

8. Clear button

If an incorrect stitch is selected or memorized, pressing this button will clear it.

Function buttons (see page 25/26/27)

9. Stitch length adjustment button

Press this button to adjust the length of the stitch.

10. Stitch width adjustment button

Press this button to adjust the width of the stitch.

11. Mode selection button

Press this button to select direct mode, utility and decorative pattern mode or block letter mode.

12. Mirror button

Press this button to sew a reflection pattern.

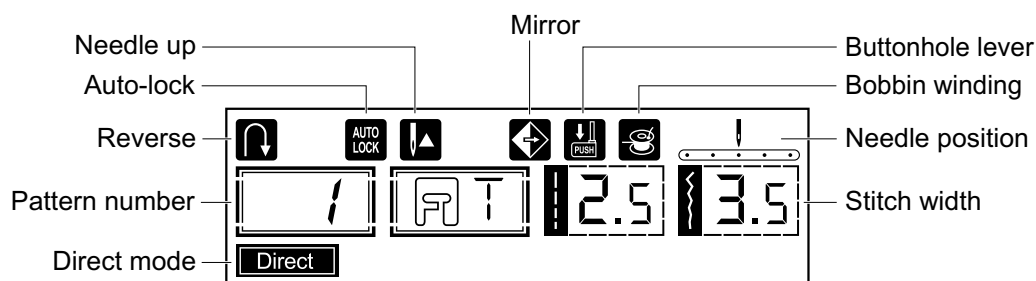
Selection buttons (see page 28)

13. Direct stitch selection and number buttons

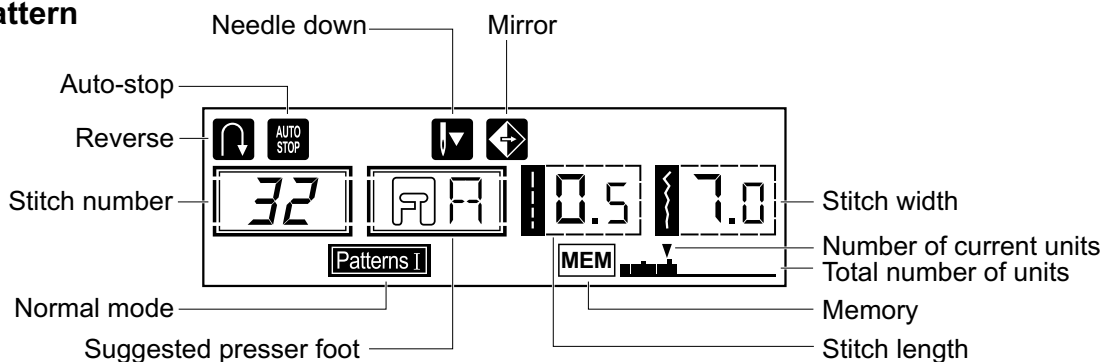
Instant access to direct stitches or press number buttons of the stitch number to select the desired stitch.

LCD screen

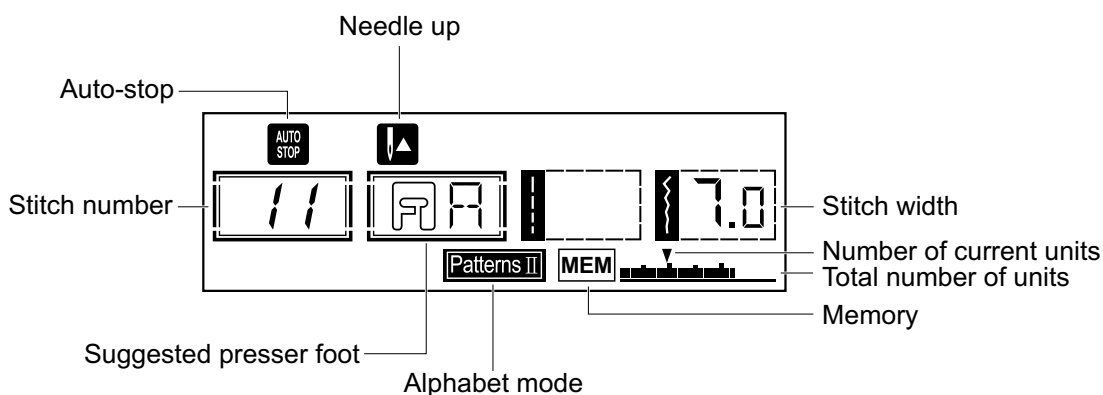
Direct Pattern



Pattern



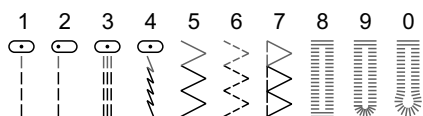
Alphabet



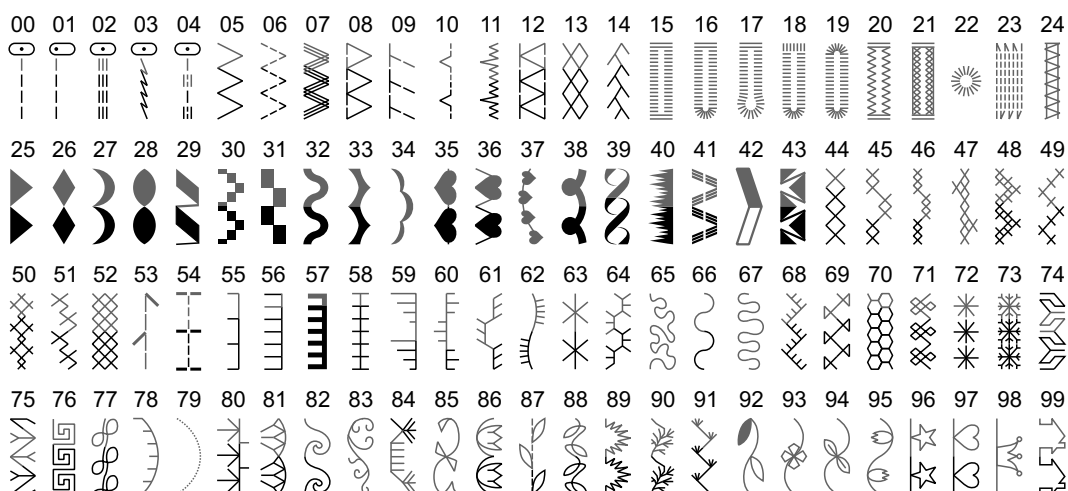
Stitch chart

The portions marked in gray (on the chart below) show the single unit of each stitch.

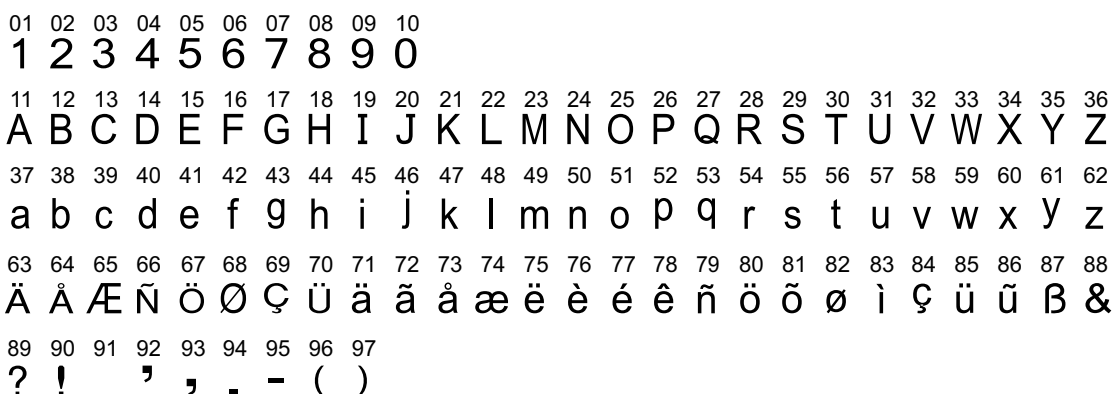
A. Direction Patterns



B. Patterns



C. Alphabets



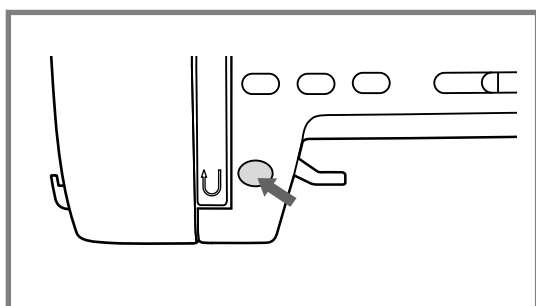
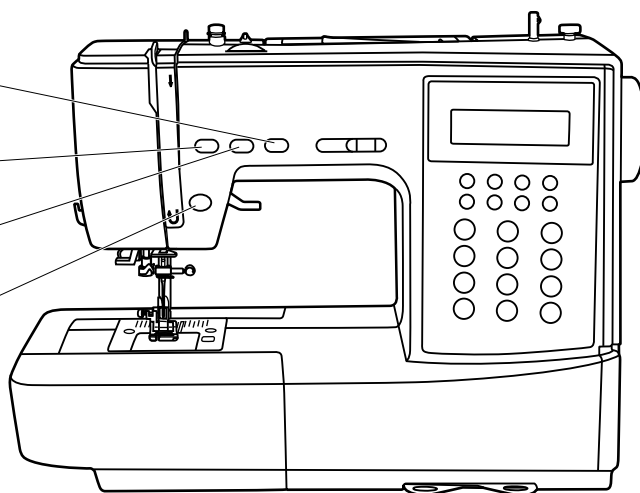
Operation buttons

Needle up/down
position button

Reverse button

Auto-lock button

Start/stop button

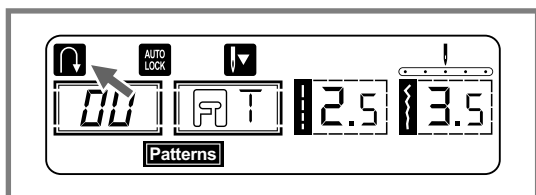


Start/stop button

The machine will start running when Start/stop button is pressed and will stop when pressed the second time. The machine will rotate slowly at the beginning of the sewing.

The sewing speed can be controlled by the speed limiting adjustment lever.

This way you may operate the machine without foot control.



Reverse button

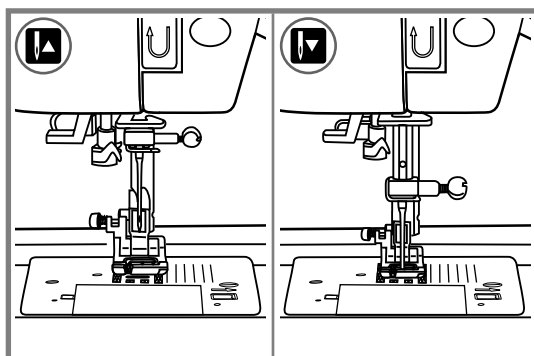
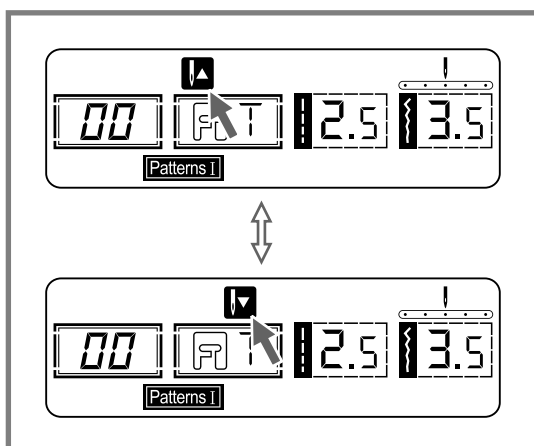
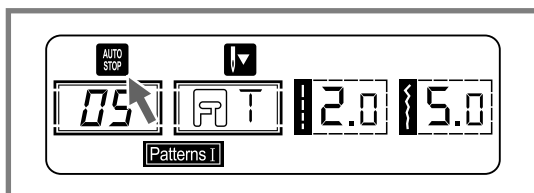
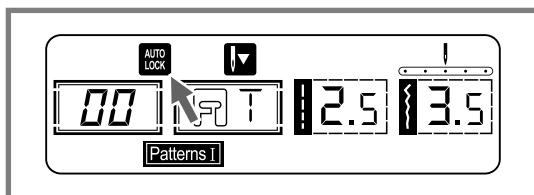
When the Direct Stitches 1-5 and Stitches 00-05 are selected.

Reverse is pressed to sew in reverse. An arrow "R" will be shown in the LCD when the function is active. If you press and hold the Reverse button the machine will sew backwards until you release the button.

The longest reverse stitch length is 3 mm.


Press the reverse button when the Direct Stitches 6-7 and Stitches 06-14, 25-99 are selected, the machine will sew a reinforcement stitch at a low speed if the Reverse button is pressed.

Operation buttons



Auto-lock button

When the Direct Stitches 1-7 and Stitches 00-14 are selected, the machine will immediately sew 3 locking stitches when the Auto-lock button is pressed, then automatically stop.

The LCD will display the figure "  " until the machine is stopped.

Please Note:



When the Direct Stitches 25-99 are selected, press the Auto-lock button, the machine will sew 3 locking stitches at the end of the current pattern and automatically stop.

Needle up/ down position button

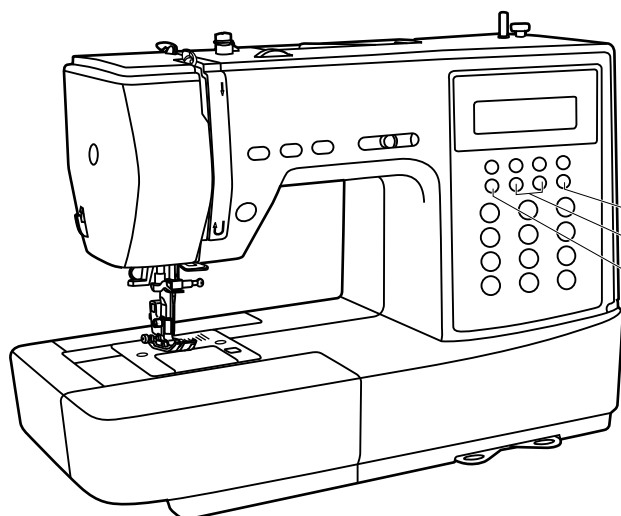
With the Needle up/ down position button, you decide whether the needle shall stop in the highest position or in the material when you stop sewing.

Please Note:

During sewing, the function of the button will not be activated.

Press the button so that the arrow, on the LCD screen, will point upward "  " and the needle will stop in the highest position. When you press the button so that the arrow points downward "  ", the machine will stop with the needle in the lowest position.

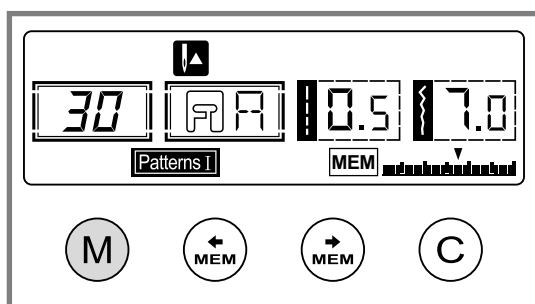
Memory buttons



Clear button

Arrow button

Memory button

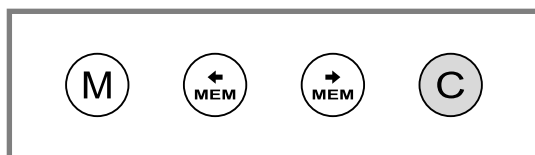


Memory button

Press the "M" button to enter the memory mode, and store the combinations of characters or decorative stitches. Press the "M" button again to leave the memory mode and return to Direct mode.

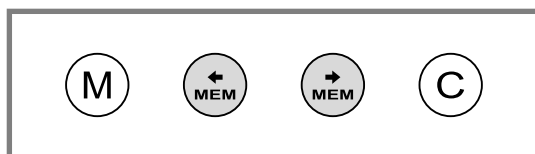
➡ Please Note:

The Direct mode stitches and buttonholes cannot be memorized.



Clear button

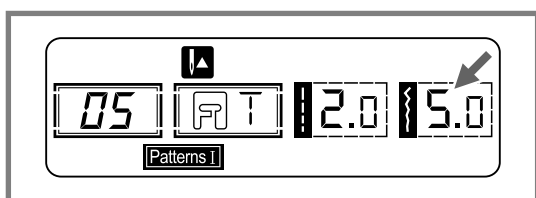
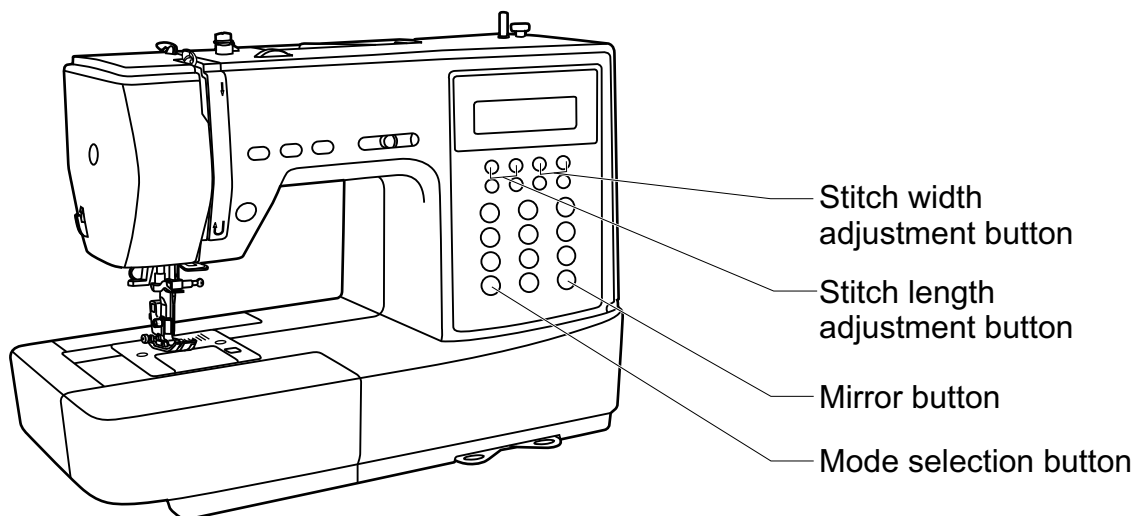
Press this button when the incorrect character is selected. Each press of this button erases one character, or press this button to remove an added stitch when sewing combinations of characters or decorative stitches.



Arrow button

Use the arrow "← MEM" or "→ MEM" button to confirm the pattern memorized by pressing this button in memory mode.

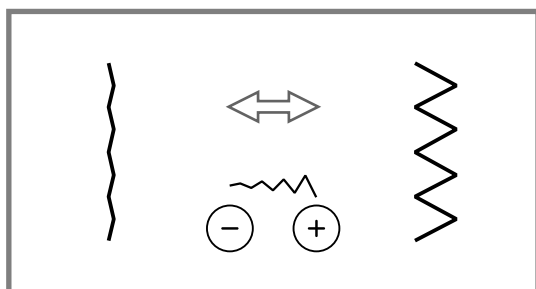
Function buttons



Stitch width adjustment button

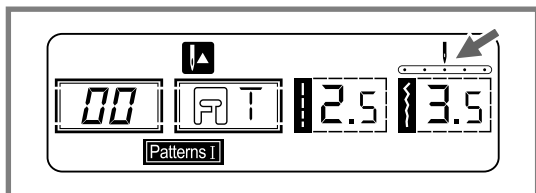
When you select a stitch, the machine will automatically set the recommended stitch width, which will be indicated by numbers on the LCD screen. The stitch width can be regulated by pressing the stitch width adjustment buttons.

Certain stitches have a limited stitch width.



For a narrower stitch, press the "-" button (left). For a wider stitch, press the "+" button (right).

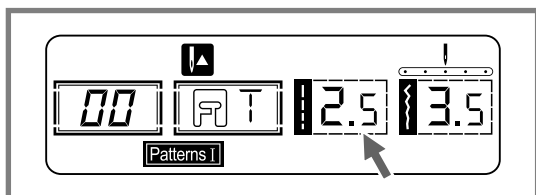
The stitch width can be adjusted between "0.0-7.0". Certain stitches have a limited stitch width.



When stitches 00-04 are selected, the needle position is regulated by the stitch width adjustment buttons. Pressing the "-" button (left), will move the needle to the left and pressing the "+" button (right), will move the needle to the right.

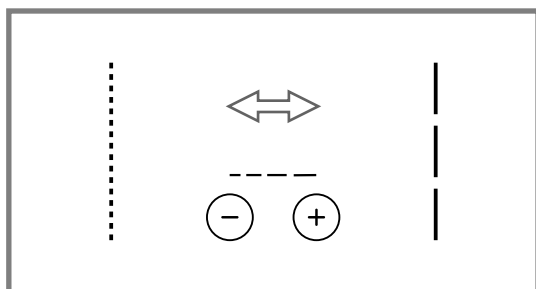
The numbers will be changed from left position "0.0" to extreme right position "7.0". The pre-set center needle position will be indicated as "3.5".

Function buttons



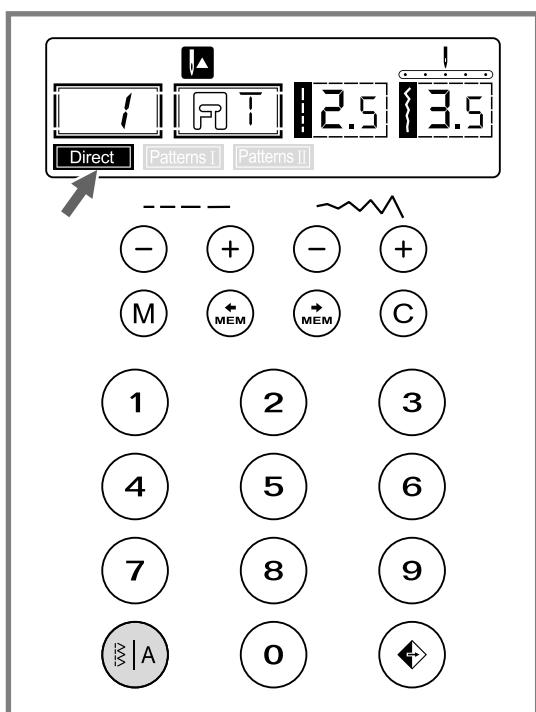
Stitch length adjustment button

When you select a stitch the machine will automatically set the recommended stitch length which will be indicated by numbers on the LCD screen. The stitch length can be adjusted by pressing the stitch length adjustment buttons.



To shorten the stitch length, press the "-" button (left). For a longer stitch length, press the "+" button (right).

The stitch length can be adjusted between "0.0-4.5". Certain stitches have a limited length.



MODE selection button

When you turn the machine "ON" the LCD screen display will be set at direct mode "Direct".

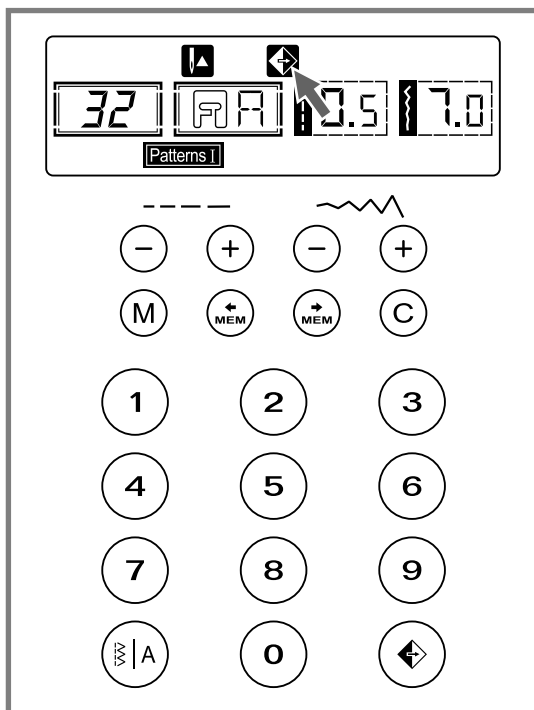
Press the "W/A" button to "Patterns I" mode, if you press the function button again, "Patterns II" will be displayed. After a third press, "Direct" is displayed again.

Direct Direct mode stitch selection.

Patterns I Utility and decorative pattern mode: Stitch selection using number buttons.

Patterns II Block letter mode: Character selection using number buttons.

Function buttons



Mirror button (see page 54)

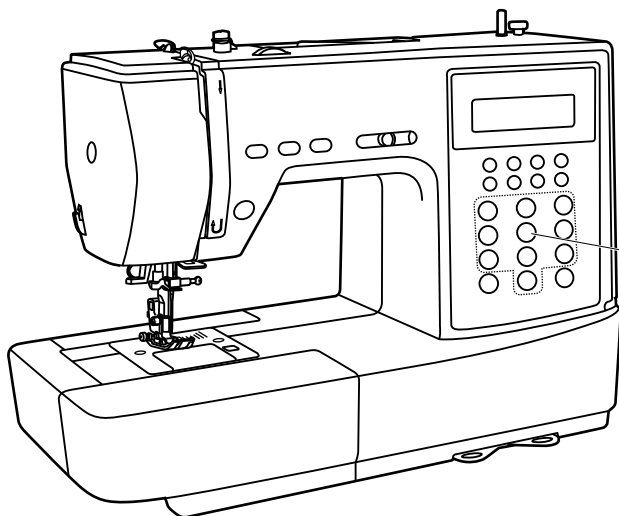
The stitches 00-14, 25-99 can be mirrored, pressing the "↔" button will sew a reflection pattern from your selected stitch.

The LCD will display the mirror function and the machine will continue to sew the reflected pattern until the mirror function is pressed again to cancel the mirror function.

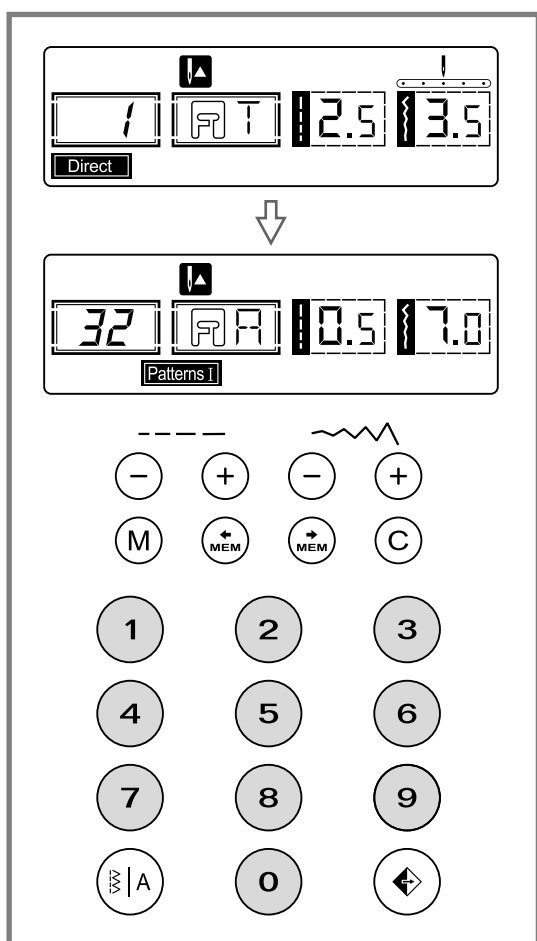
When the mirror function disappears from the LCD screen, the machine will continue to sew the normal stitch.

If you change the stitch setting, then the mirror function will be cancelled accordingly. If you need the reflection pattern, then press the mirror button again.

Selection buttons



Direct stitch selection and number buttons



Direct stitch selection and number buttons

Direct pattern selection

Press the buttons to select the utility patterns shown beside the number button when the mode button is set at the Direct mode.

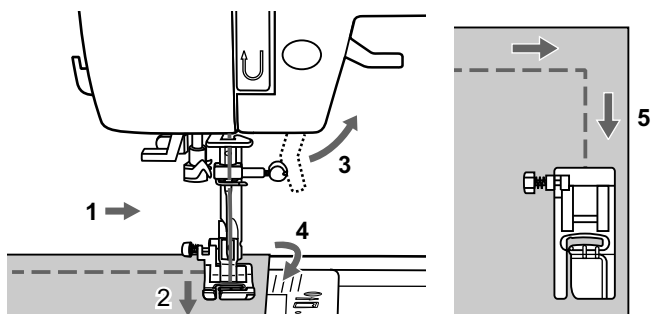
Number buttons

Press the number buttons for selecting the pattern needed.

Except the Direct stitch mode, the other mode can be selected by pressing the desired numbers.

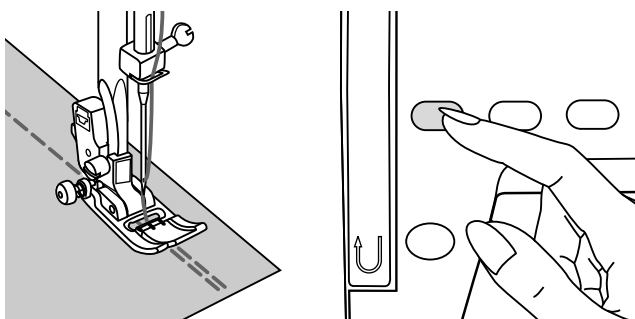
For example: stitch no. 32

Useful skills



Sewing corners

1. Stop the sewing machine when you reach a corner.
2. Lower the needle into the fabric manually or by pressing the needle up/ down button once.
3. Raise the presser foot.
4. Use the needle as a pivot and turn the fabric.
5. Lower the presser foot and resume sewing.



Reverse

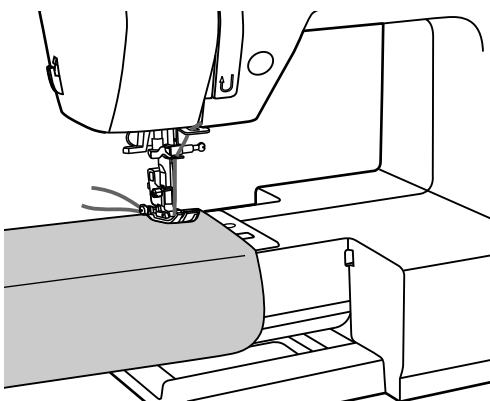
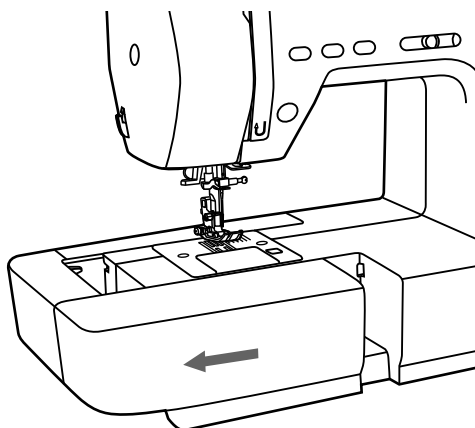
Reverse stitching is used to secure the threads at the beginning and at the end of a seam.

Press the reverse button and sew 4-5 stitches.

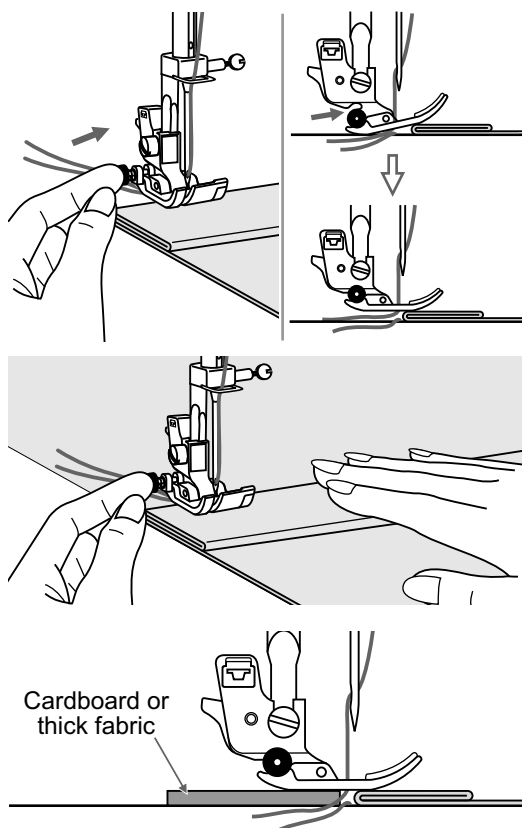
The machine will sew forward when the button is released.

Free arm

Free-arm sewing is convenient for sewing tubular fabrics such as pant hems and cuffs.



Useful skills



Sewing on heavy fabric

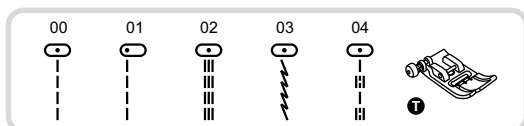
The black button on the left side of the presser foot T will lock the presser foot in a horizontal position if you push it in and hold it while lowering the presser foot. This ensures even feeding at the beginning of a seam and helps when sewing multiple layers of fabric such as sewing over higher seams when hemming jeans.

When you reach the point of an increased thickness, lower the needle and raise the presser foot. Press the toe of the foot and push in the black button, then lower the foot and continue sewing.

The black button releases automatically after sewing few stitches.

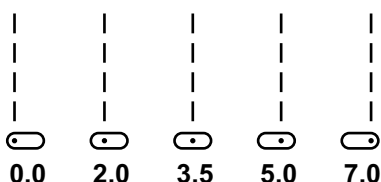
You can also place another piece of fabric with the same thickness at the back of the seam or support the presser foot while feeding by hand and sewing toward the folded side.

Straight stitches and needle position



Changing the needle position

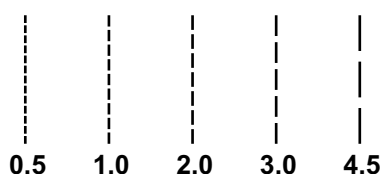
These settings apply only to stitches 00-04. The pre-set position is "3.5", center position. When you press the "-" stitch width adjustment button, the needle position will move to the left. When you press the "+" stitch width adjustment button, the needle position will move to the right.



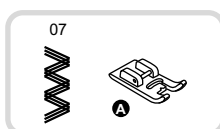
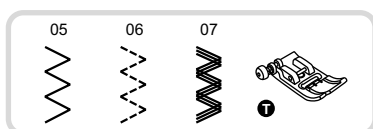
Changing the stitch length

To shorten the stitch length, press the "-" stitch length adjustment button. For a longer stitch length, press the "+" stitch length adjustment button.

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

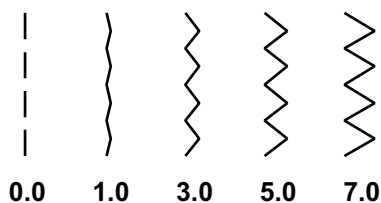


Zigzag stitches



Adjusting the stitch width

The maximum zigzag stitch width for zigzag stitching is "7.0"; however, the width can be reduced on any stitches. The width increases as you press the "+" stitch width adjustment button from "0.0-7.0".

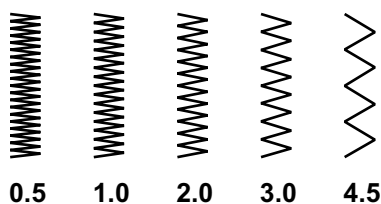


Adjusting the stitch length

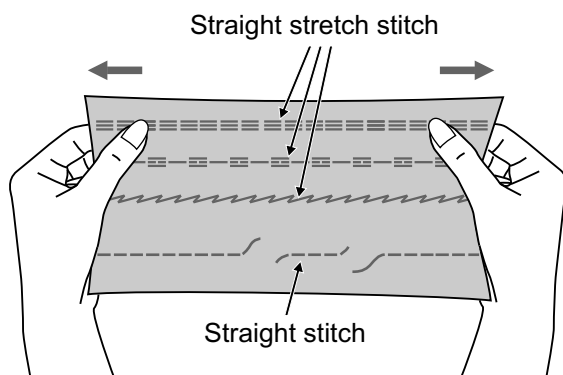
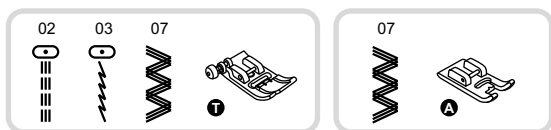
The density of zigzag stitches increase as the setting of stitch length approaches "0.3".

Neat zigzag stitches are usually achieved at "1.0-2.5".

Closed up zigzag stitches (close together) are referred to as a satin stitch.



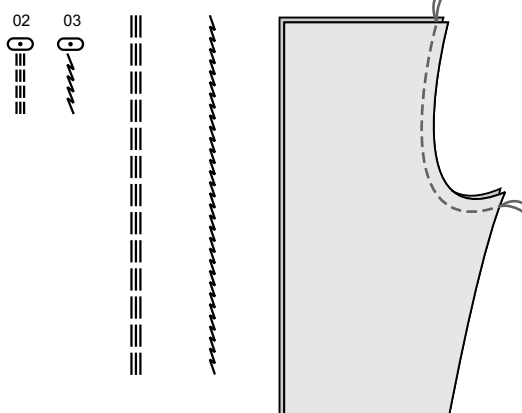
Stretch stitch



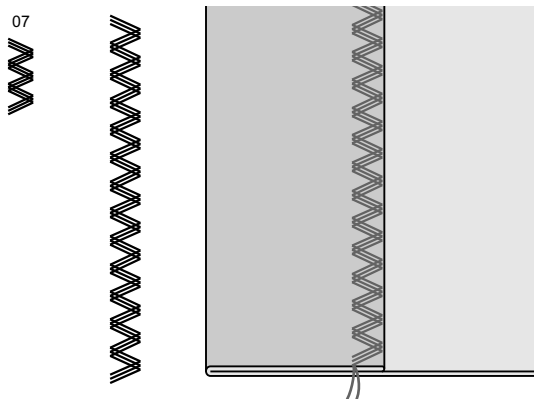
Use these stitches with knitted, tricot or other stretchy fabrics. The stitch enables your seam to stretch without breaking the thread.

It assures a stitch that is strong and flexible. It can also be used to ravel and knit fabrics. It is also good for joining durable fabric such as denims.

These stitches can also be used as a decorative top stitch.



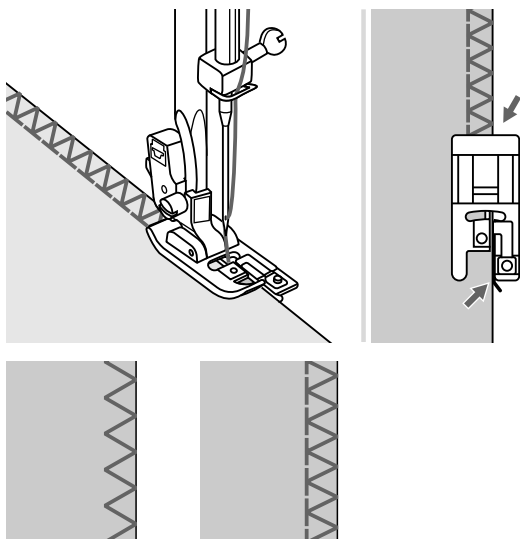
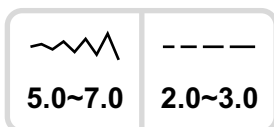
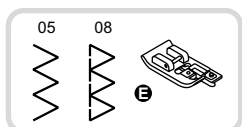
Straight stretch stitch is used to add triple reinforcement to stretch and hardwearing seams.



Triple zigzag stretch stitch is suitable for firm fabrics like denim, poplin, duck, etc.

Overlock stitches

Sew overlock stitches along the edge of fabric to prevent them from fraying.



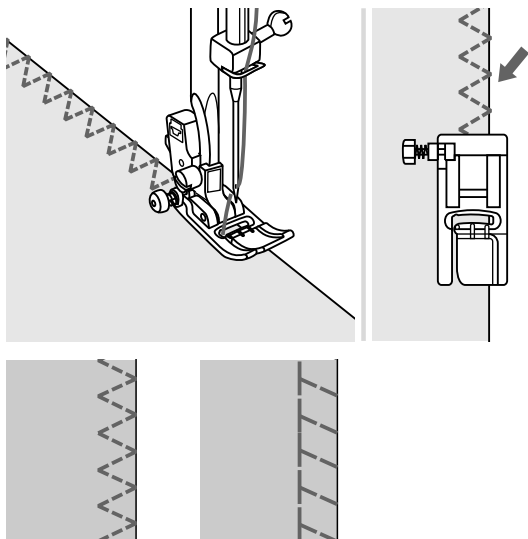
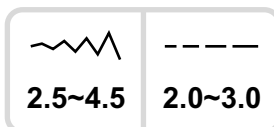
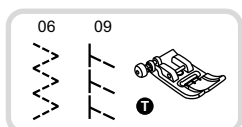
Using the overlock foot

Change the presser foot to the overlock foot (E).

Sew the fabric with the fabric edge against the guide of the overlock foot.

! Attention:

The overlock foot should be used to sew with stitches 05 and 08 only and do not set the stitch width narrower than "5.0". It is possible that needle could hit the presser foot and break when sewing other stitches and width.



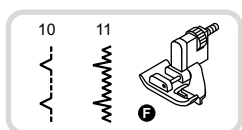
Using the zigzag foot

Change the presser foot to the zigzag foot (T).

Sew overlock stitches along the edge of the fabric so that the needle drops over the edge of the fabric on the right side.

Blind hem/ Lingerie stitch

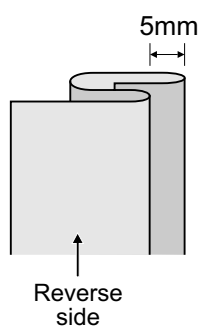
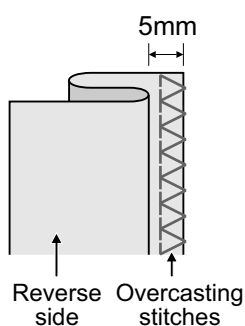
Secure the bottoms of skirts and pants with a blind hem, this stitch will sew without showing stitches on the right side of fabric.



2.5~4.0	1.0~2.0

10: Blind hem/lingerie for firm fabrics

11: Blind hem for stretch fabrics

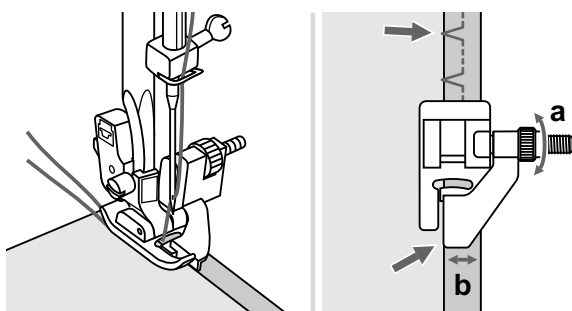


➔ Please Note:

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

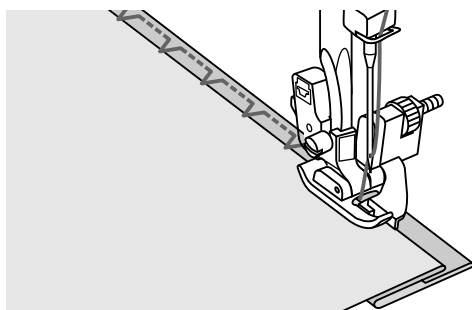
Fold the fabric as illustrated with the reverse side uppermost.

First carry out an overcasting stitch as shown in left picture. Then fold as shown in the right picture.

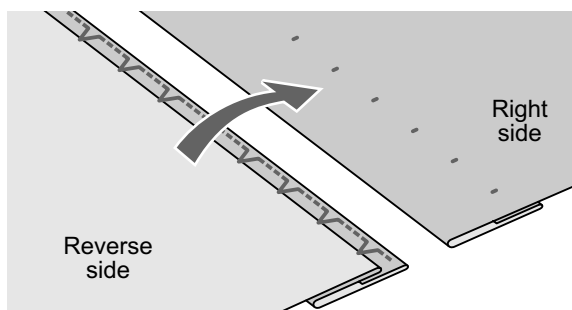


Place the fabric under the foot. Turn the handwheel forward by hand until the needle swings fully to the left. It should just pierce the fold of the fabric. If it does not, adjust the stitch width accordingly.

Adjust the guide (b) by turning the knob (a) so that the guide just rests against the fold.

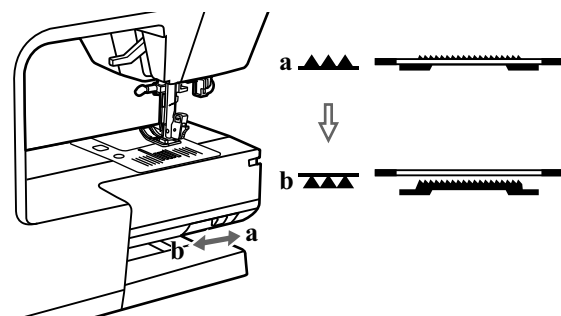
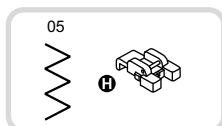


Sew slowly, guiding the fabric carefully along the edge of the guide.




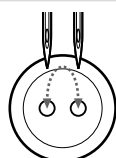
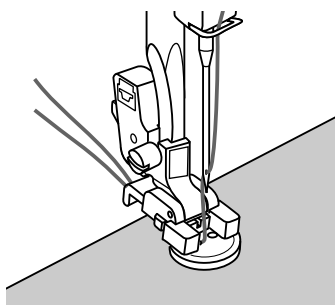
Turn over the fabric.

Button sewing



Change the presser foot to the button-sew-on foot.

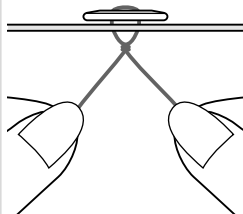
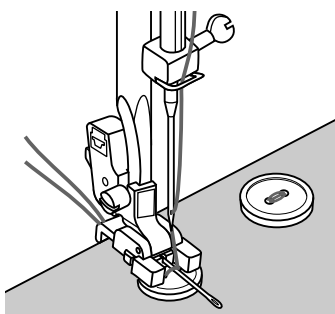
Move the drop feed control to "  " to lower the feed dog.



Position the work under the foot. Place the button in the desired position, lower the foot.

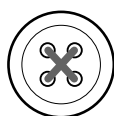
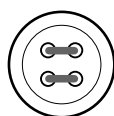
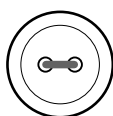
Select zig zag pattern. Adjust the stitch width to "2.5-4.5" according to the distance between the two holes of the button.

Turn the handwheel to check that the needle goes cleanly into the left and right holes of the button.




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

Pull end of the upper thread to the reverse side of the fabric, then tie it with the bobbin thread.



For buttons with 4 holes, sew through the front two holes first, push work forward and then sew through the back two holes.


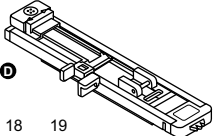
















Please Note:

When you finish the work, move the drop feed control to "  " to raise the feed dog.

Buttonhole stitching

Buttonhole sewing to match the size of the button is possible.

For stretch fabric or thin fabric, it is recommended to use a stabilizer for a better buttonhole finish.

 15		 2.5~7.0	 0.3~1.0
 16	 18	 2.5~5.5	 0.3~1.0
 19			
 17		 5.5~7.0	 0.3~1.0
 20		 3.0~7.0	 1.0~2.0
 21		 3.0~7.0	 1.0~3.0

15: For thin or medium fabric

16: For horizontal holes on blouses or shirts made from thin or medium fabric

17: For suits or overcoats

18: For horizontal buttonholes on thick fabrics

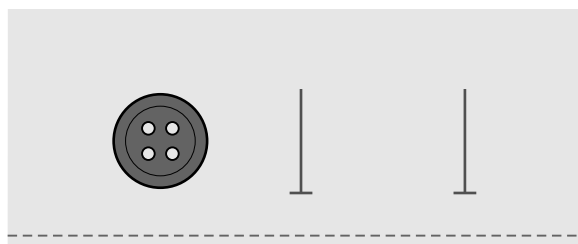
19: For thin or medium fabric

20: For jeans or stretch fabric with a coarse weave

21: For stretch fabric

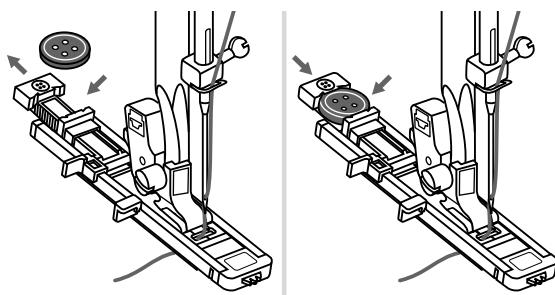
➔ Please Note:

Before sewing a buttonhole on your project, practice on a test piece of the same type of fabric.



Mark the positions of the buttonhole on the fabric.

The maximum buttonhole length is 3cm (1 3/16 inch). (Total of diameter + thickness of button.)

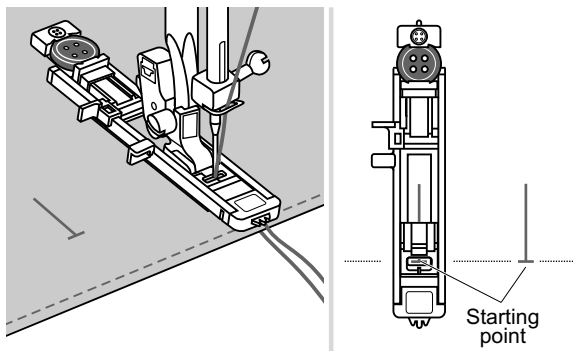


Attach the buttonhole foot, then pull out the button holder plate and insert the button.

The size of the buttonhole is determined by the button inserted in the button plate.

The thread should be passed through the hole in the presser foot, then be placed under the foot.

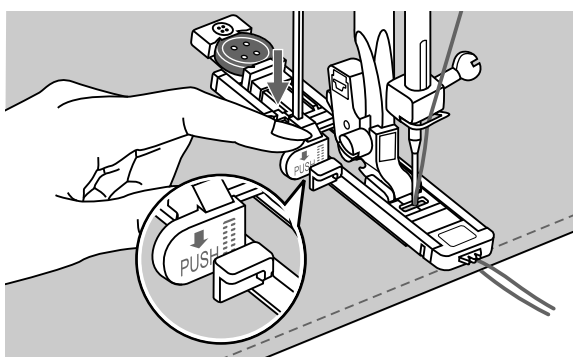
Buttonhole stitching



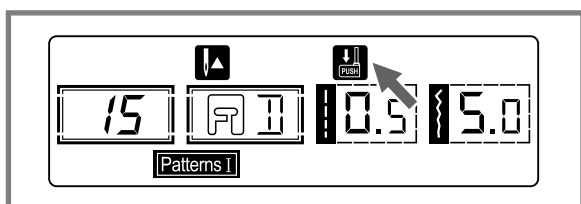
Select the buttonhole stitch.

Adjust the stitch width and the stitch length to the desired width and density.

Position the fabric under the presser foot with the front end of the buttonhole mark aligned with the center line on the buttonhole foot.

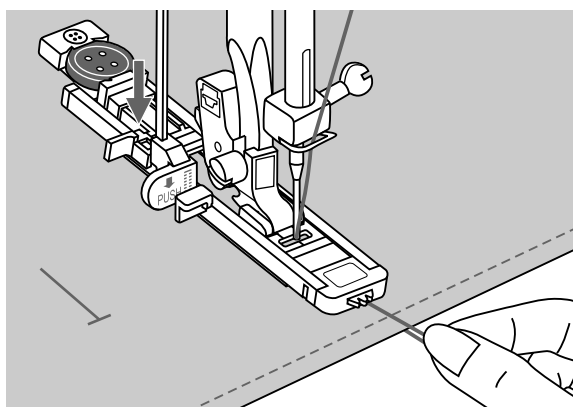


Pull the buttonhole lever all the way down and position it behind the bracket on the buttonhole foot.



➡ Please Note:

When you select any buttonhole pattern, LCD screen will be demonstrated the figure "Push", it is to remind you to lower the buttonhole lever.



Slightly hold the end of the upper thread and start sewing.

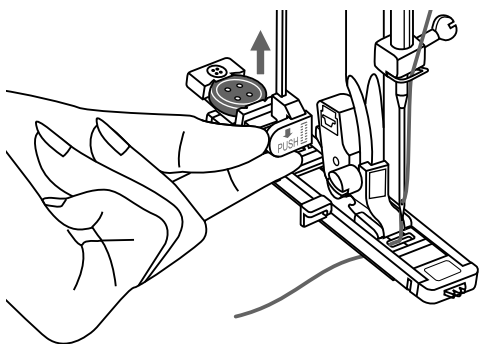
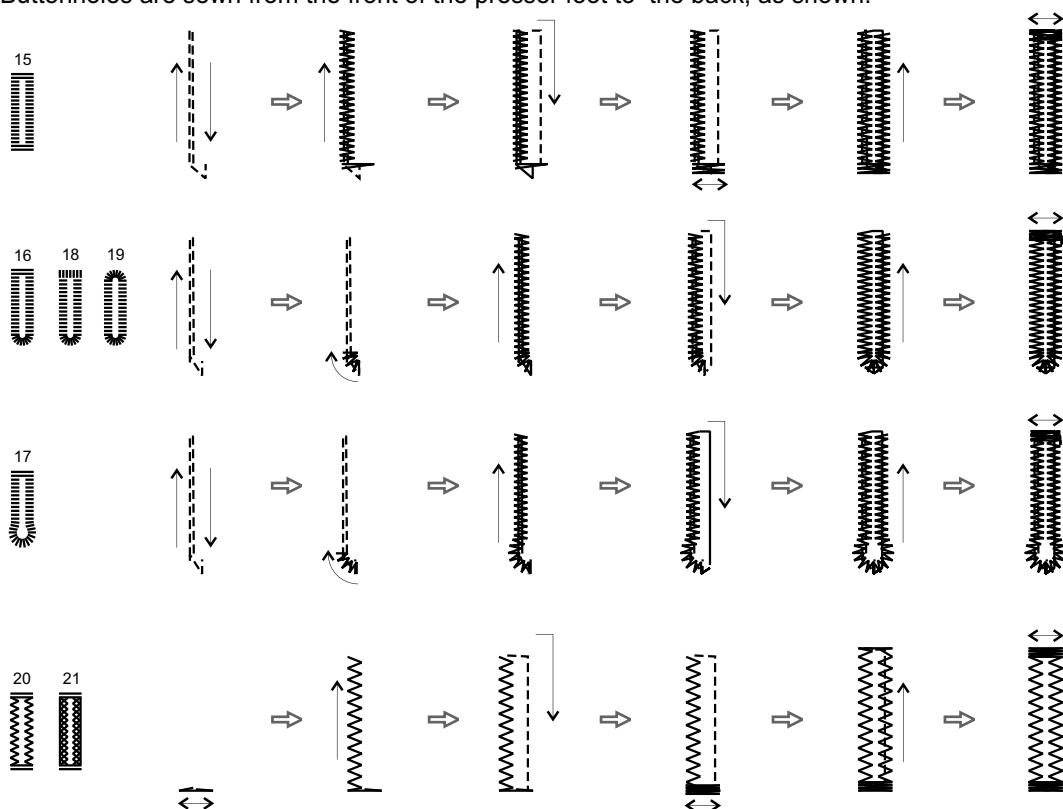
➡ Please Note:

Gently feed the fabric by hand.

Before stopping, the machine will automatically sew a reinforcement stitch after the buttonhole is sewn.

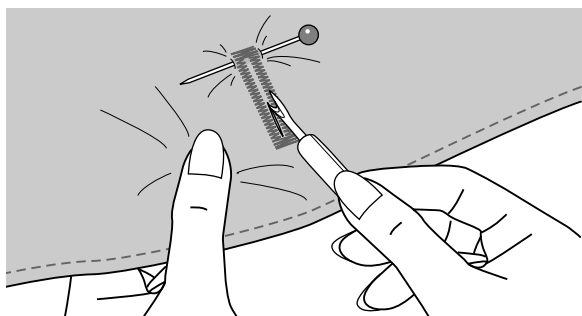
Buttonhole stitching

* Buttonholes are sewn from the front of the presser foot to the back, as shown.



Raise the presser foot and cut the thread. To sew over the same buttonhole, raise the presser foot (it will return to its original position).

After sewing the buttonhole stitch, raise the buttonhole lever until it stops.



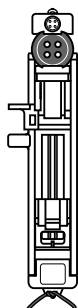
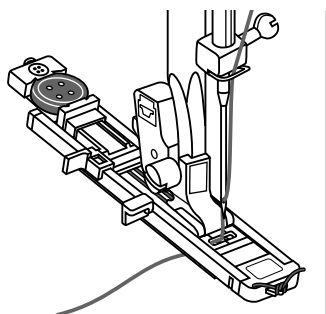
Cut the center of the buttonhole being careful not to cut any stitches on either side. Use a pin as a stopper at the bar tack so you do not cut too much.

➡ Please Note:

When cutting the buttonhole with the seam ripper, do not place your hands in the cutting direction, otherwise injuries may result.

Making a buttonhole on stretch fabrics

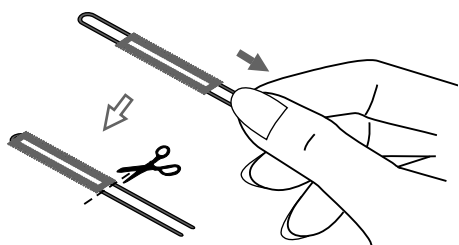
When sewing buttonholes on stretch fabric, hook heavy thread or cord under the buttonhole foot.



Attach the buttonhole foot and hook the gimp thread onto the back of the presser foot.

Bring the two gimp thread ends to the front of the foot and insert them into the grooves, then temporarily tie them there. Lower the presser foot and start sewing.

Set the stitch width to match the diameter of the gimp thread.



Once sewing is completed, pull the gimp thread gently to remove any slack, then trim off any excess.

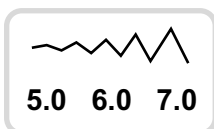


Please Note:

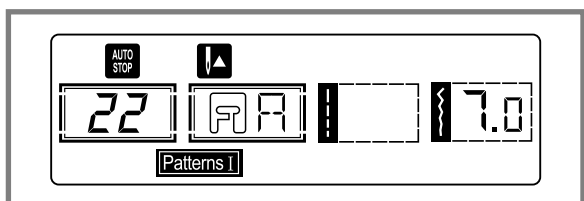
It is suggested that you use interfacing on the backside of the fabric.

Eyelet Stitch

Eyelet stitches are used for making belt holes and other similar applications.



22: Select for sewing eyelets on belts, etc



Select stitch no. 22 to get the eyelet stitch. Attach embroidery foot (A).

A



B



C



Press "-" or "+" of the stitch width adjustment buttons to select the eyelet size.

Size of eyelet.

A. Small: 5.0mm (3/16 inch).

B. Medium: 6.0mm (15/64 inch).

C. Large: 7.0mm (1/4 inch).

Lower the needle into the fabric at the beginning of the stitching, and then lower the presser foot lever.

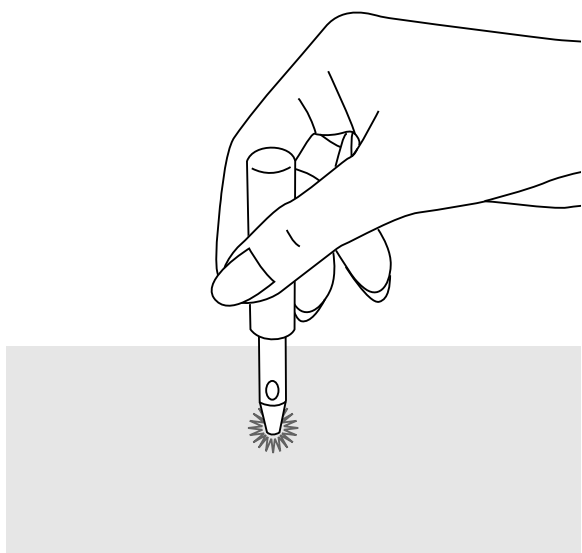
Once sewing is completed, the machine automatically sews reinforcement stitches, then stops.

Make a hole at the center using an eyelet punch.

* Eyelet punch is not included with the machine.

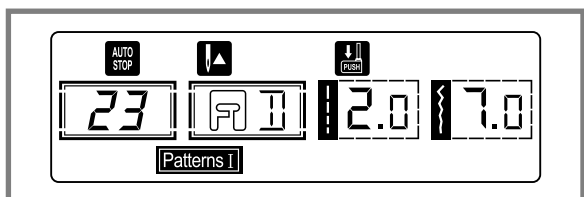
➔ Please Note:

- When using the eyelet punch, place thick paper or some other protective sheet under the fabric before punching the hole in the fabric.
- If thin thread is used, the stitching may be coarse. If this occurs, sew the eyelet twice one on top of the other.



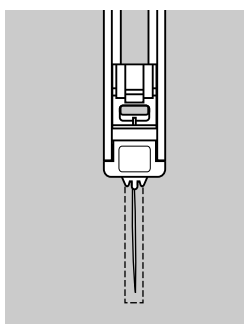
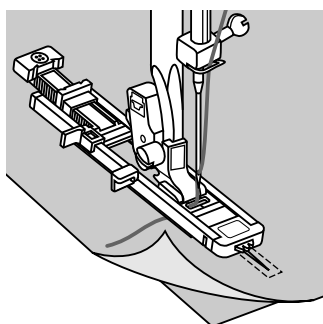
Darning stitch

Darning a small hole or a tear before it becomes larger can save a garment. Choose a fine thread in a color as close as possible to your garment.

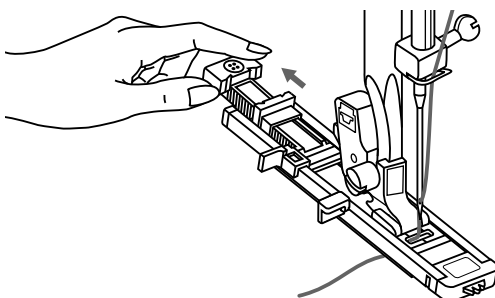


Select stitch no. 23 to get the darning stitch.

Change the presser foot to the buttonhole foot.

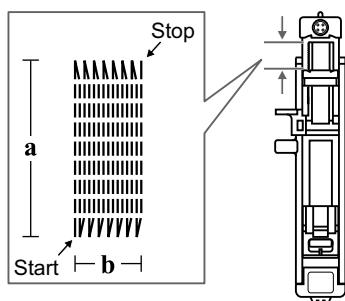


Baste the upper fabric and the under fabric together. Select the needle position. Lower the presser foot over the center of the tear.



Pull the button holder to rear.

Set the button guide plate on buttonhole foot to the desired length.



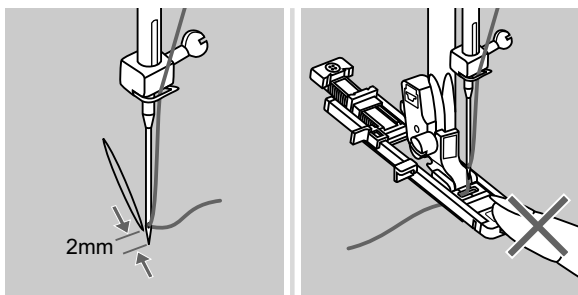
The size of one darn cycle is variable.

However, the maximum stitch length is 2.6 cm (1 inch) and the maximum stitch width is 7 mm (9/32 inch).

a. The length of sewing.

b. The width of sewing.

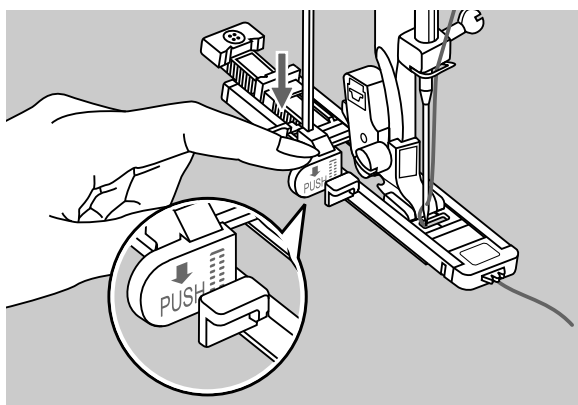
Darning stitch



Position the fabric so that the needle is 2mm (1/16 inch) in front of the area to be darned, then lower the presser foot lever.

➔ Please Note:

When lowering the presser foot, do not push in the front of the presser foot, otherwise the darning will not be sewn with the correct size.

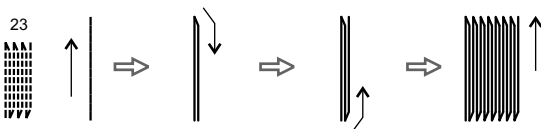


Pass the upper thread down through the hole in the presser foot.

Pull down the buttonhole lever. The buttonhole lever is positioned behind the bracket on the buttonhole foot.

Gently hold the end of the upper thread in your left hand, and then start sewing.

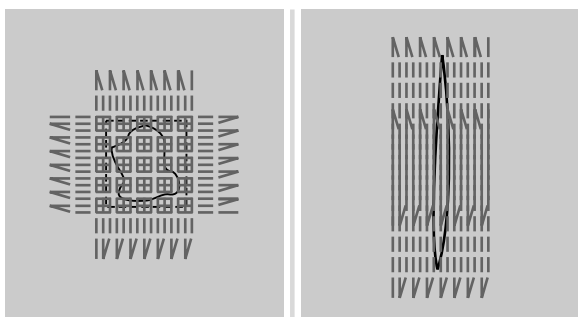
23



Darning stitches are sewn from the front of the presser foot to the back, as shown.

➔ Please Note:

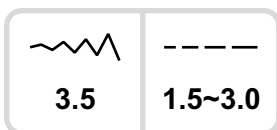
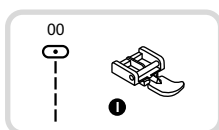
If the fabric does not feed, for example, because it is too thick, increase the stitch length.



If the sewing range is too big to sew, then we suggest you can sew several times (or cross sew) to get a better sewing result.

Zipper insertion

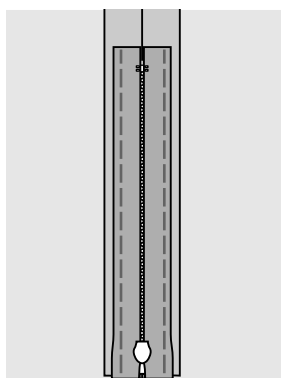
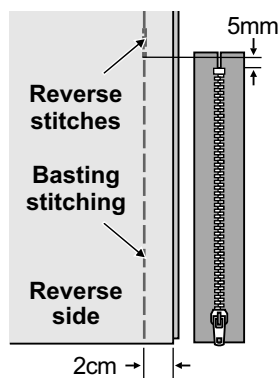
This foot can be set to sew on each side of the zipper, the edge of the foot guides the zipper to ensure straight placement.



Attention:

Zipper foot should be used for sewing straight stitch with center needle position only. It is possible that needle could hit the presser foot and break when sewing other patterns.

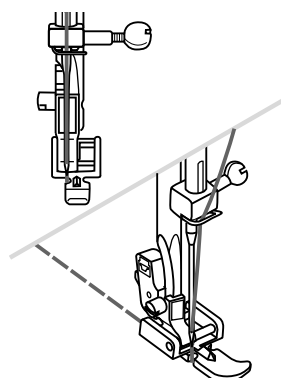
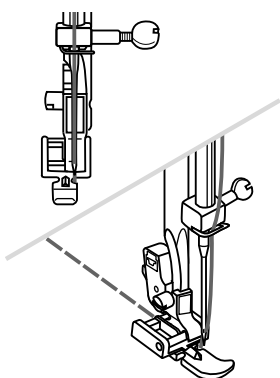
Inserting a centered zipper



- Place the right sides of the fabric together. Sew a bottom seam in the width of seam allowance from the right edge to the zipper bottom stop position. Sew a few stitches in reverse to lock. Increase the stitch length to maximum, set the tension below 2, and baste the remaining length of the fabric.

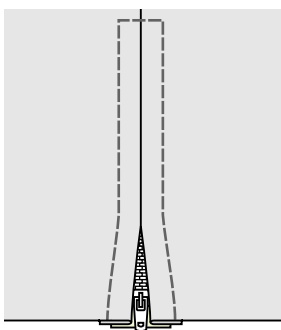
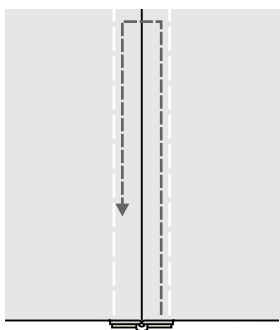
- Press open the seam allowance.

Place the zipper face down on the seam allowance with the teeth against the seam line. Baste the zipper tape.



- Attach the zipper foot. Attach the right side of the presser foot pin to the holder when sewing the left side of the zipper.

- Attach the left side of the presser foot pin to the presser foot holder when sewing the right side of the zipper.



- Stitching around the zipper.

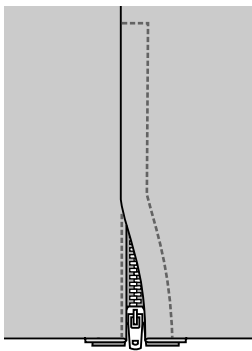
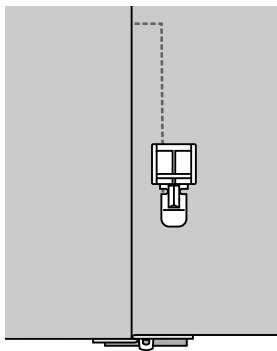
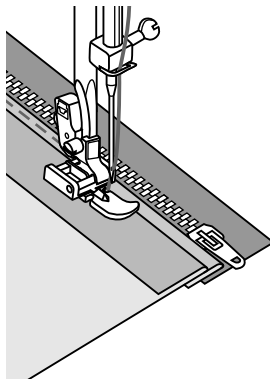
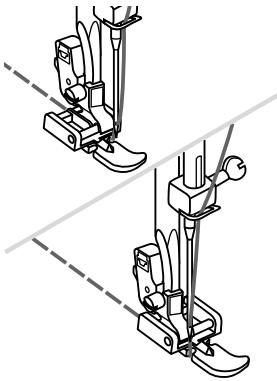
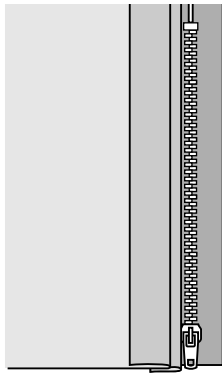
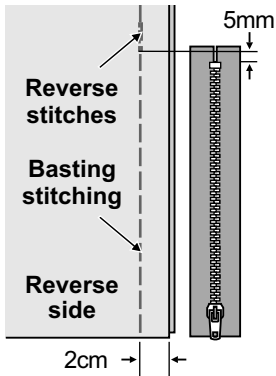


Please Note:

When sewing, be sure that the needle does not touch the zipper, otherwise the needle may bend or break.

- Remove the basting and press.

Zipper insertion

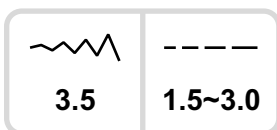
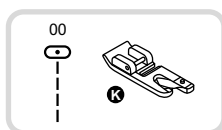


Inserting a side zipper

- Baste the zipper opening on the garment. Place the right sides of the fabric together. Sew a bottom seam the width of seam allowance from the right edge to the zipper bottom stop position. Sew a few stitches in reverse to lock. Increase the stitch length to maximum, set the tension below 2, and baste the remaining length of the fabric.
- Fold back to the left seam allowance. Turn under the right seam allowance to form 3mm (1/8 inch) fold.
- Attach the zipper foot. Attach the right side of the presser foot pin to the holder when sewing the left side of the zipper. Attach the left side of the presser foot pin to the presser foot holder when sewing the right side of the zipper.
- Stitch the left side of zipper from bottom to top.
- Turn the fabric right side out, stitch across the lower end and right side of zipper.
- Stop about 5cm (2 inches) from the top of zipper. Remove the basting and open the zipper. Stitch the remaining part of the seam.

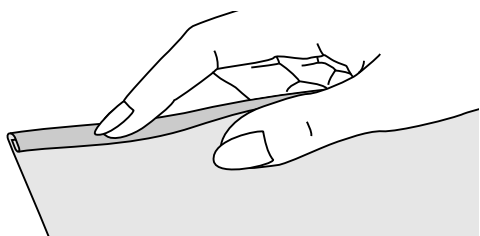
Narrow hemming

The hemmer foot is used to stitch the narrow rolled hems usually found on shirt tails, table linens and along the edge of frills.



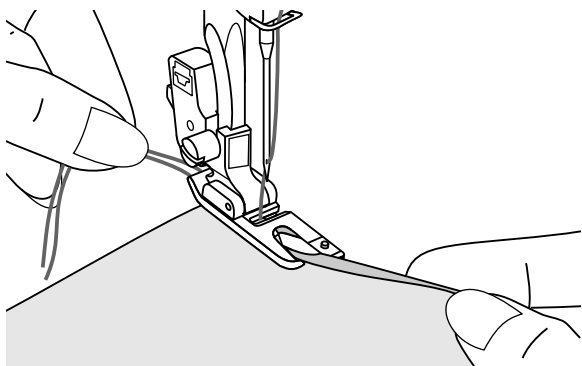
* The hemmer foot accessory is optional. It is not included with this machine.

Fold edge of fabric over about 3mm (1/8 inch), then fold it over again 3mm (1/8 inch) for about 5cm (2 inches) along the edge of the fabric.

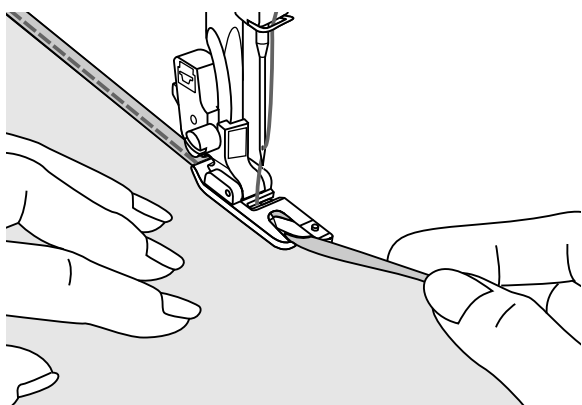


Insert the needle into the fold by rotating the handwheel toward you, and lower the presser foot. Sew several stitches and raise the presser foot.

Insert the fabric fold into the spiral opening of hemmer foot. Move fabric back and forth until the fold forms a scroll shape.



Lower the presser foot and start sewing slowly guiding the raw edge of the fabric in front of the Hemmer foot evenly into the scroll of the foot.

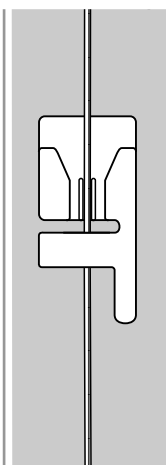
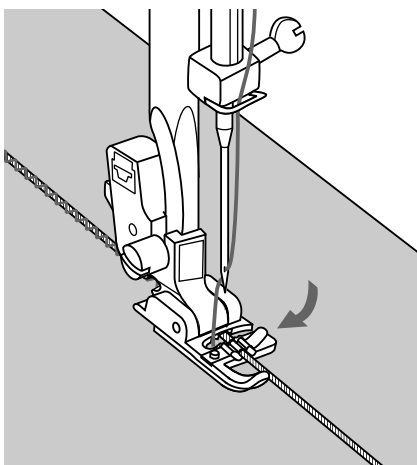
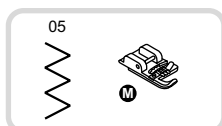


Cording

Used for embellishing 1 to 3 cords or decorative threads.

Sew over one strand of cording to create a pretty swirled design on a jacket or vest or sew over three strands of cording for border trims. Pearl cotton, knitting yarn, embroidery floss, lace thread, fine wool or lily yarn can be used for cording.

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



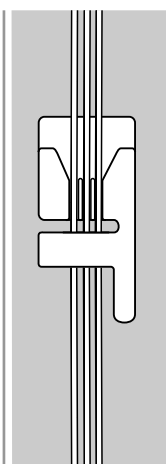
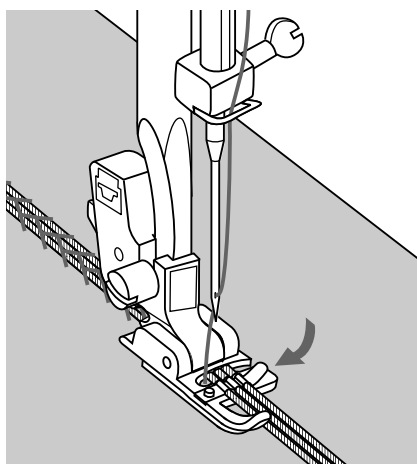
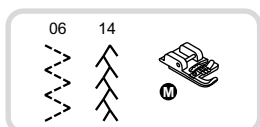
Single cording

Mark the design on the fabric. Insert the cord in the center groove of the cording foot from the right side opening. Pull the cord about 5cm (2 inches) behind the foot.

Place the cord under the grooves of the Cording foot and pull the cord about 5cm (2 inches) behind the foot.

The grooves under the foot will hold the length of the cord in place while the stitches are being formed over the cord.

Select the stitch and adjust the stitch width so that the stitches are just covering the cord. Lower the foot and sew slowly, guiding the cord over the design.



Triple cording

Mark the design on the fabric.

Insert three cords into the grooves of the foot from the right side opening.

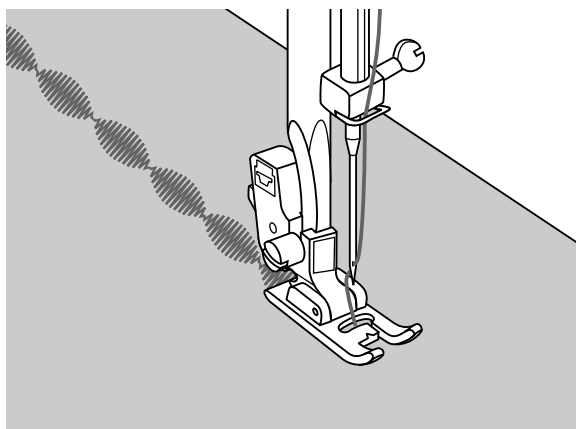
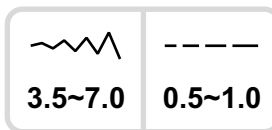
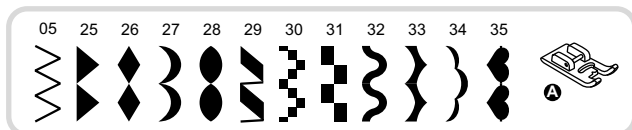
Place the cord under the grooves of the cording foot and pull the cord about 5cm (2 inches) behind the foot.

The grooves under the foot will hold the cords in place while the stitches are being formed over the cords.

Select the stitch and adjust the stitch width so that the stitches are just covering the cord.

Lower the foot and sew slowly, guiding the cord over the design.

Satin stitch sewing



Use the embroidery foot for satin stitching and sewing decorative stitches. This foot has a full indentation on the bottom side of the foot to allow easy sewing over the thickness of the already sewn stitches.

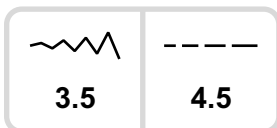
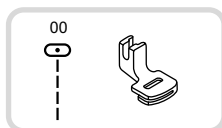
To tailor the satin or decorative stitch pattern, you may adjust the length and width of the pattern by pressing the stitch length and width adjustment buttons. Experiment with fabric scraps until you get the desired length and width.

➔ Please Note:

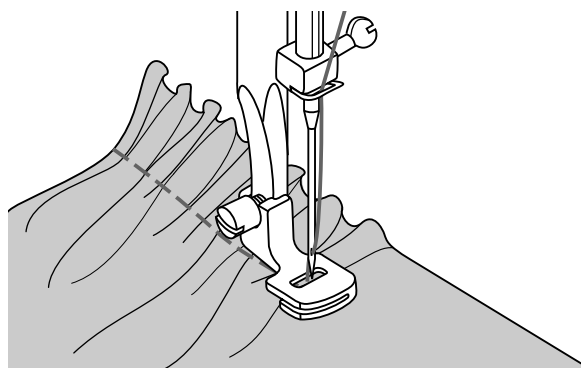
When sewing very thin fabrics, it is suggested that you use stabilizer on the backside of the fabric.

Gathering

The Gathering Foot is used for gathering fabrics. Ideal for clothing as well as home decor, works best on thin to medium weight fabrics.



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



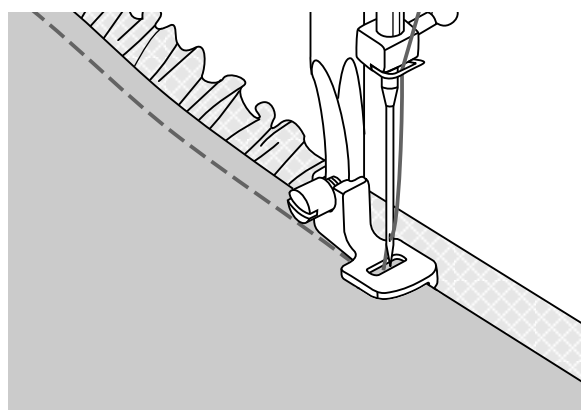
Gathered fabric

Remove the presser foot holder and attach the gathering foot, lowering the tension setting to below 2.

Place fabric to be gathered under presser foot to the right of the presser foot.

Sew a row of stitching, keeping the raw edge of fabric aligned with the right edge of foot.

The stitches automatically cause the fabric to gather. Suitable for light to medium weight fabrics. If your fabric is light, such as batiste or lace, you will have more gathers.

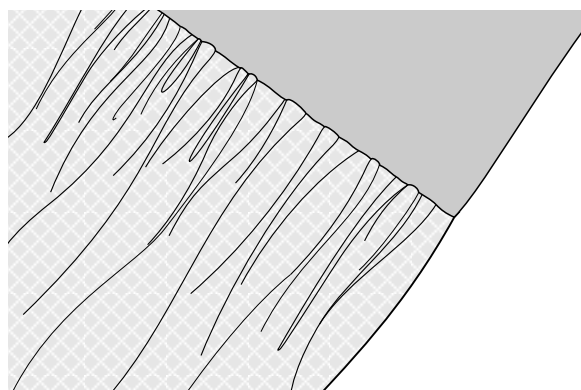


To gather and attach gathered fabric in one step

The gathering foot has a slot on the bottom.

When using the slot, you can gather the bottom layer of the fabric while attaching it to a flat top layer, such as the waistband on a project.

- Remove the presser foot holder and attach gathering foot.
- Place the fabric to be gathered with right side up under the foot.
- Place top layer of the fabric right side down in the slot.
- Guide the two layers as illustrated.

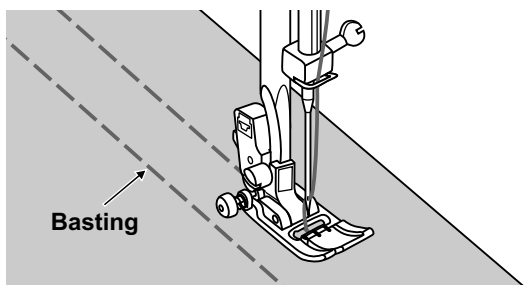
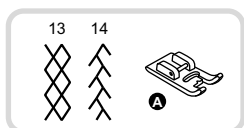


Note:

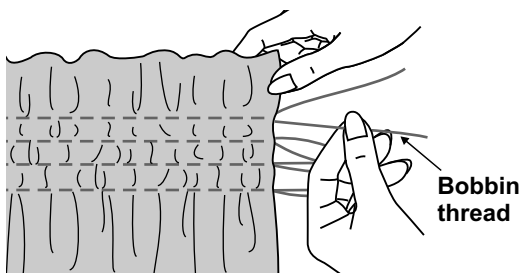
- When testing machine for adjustments to achieve desired fullness, work with 10" increments of the fabric, trims or elastic. This makes it easier to determine the adjustments and how much change is needed for your project. Always test on your project fabric and on the same grainline as will be used in your finished project.
- Sew with slow to medium speed for better fabric control.

Smocking

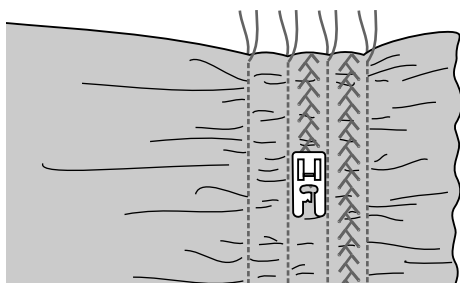
The decorative stitch created by stitching or embroidering over gathers is called "smocking". It is used to decorate the front of blouses or cuffs. The smocking stitch adds texture and elasticity to fabric.



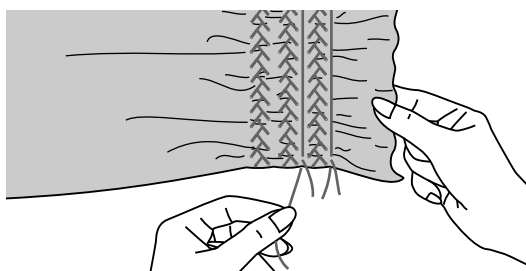
Use the zigzag foot to sew basting lines 1cm (3/8 inch) apart, across the area to be smocked.



Knot the threads along one edge.
Pull the bobbin threads and distribute the gathers evenly. Secure the threads at the other end.

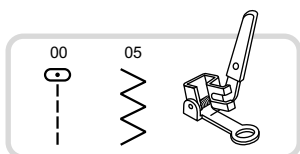


Reduce the tension, if necessary and sew decorative pattern stitches between the straight seams.

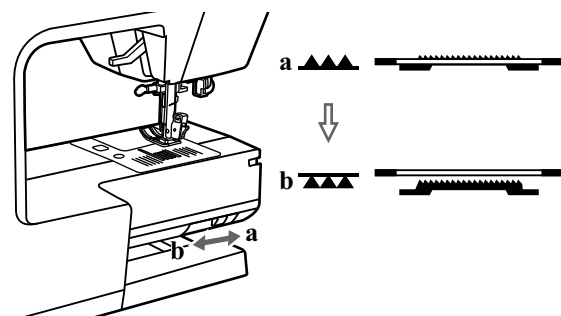


Pull out the gathering basting.

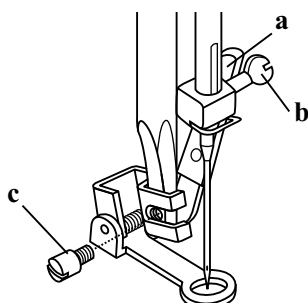
Free motion darning, embroidery and monogramming



* The darning/ embroidery foot accessory is optional. It is not included with this machine.

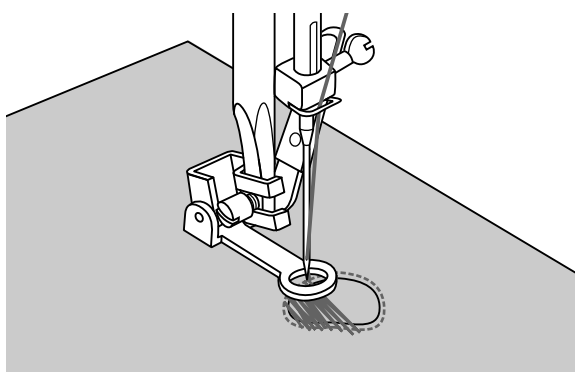


Move the drop feed control to " ▲▲▲ " to lower the feed dog.



Remove the presser foot holder, and attach the darning foot to the presser foot holder 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).



Darning

First sew around the edges of the hole (to secure the threads). Working from left to right, sew over the hole in a constant and continuous movement.

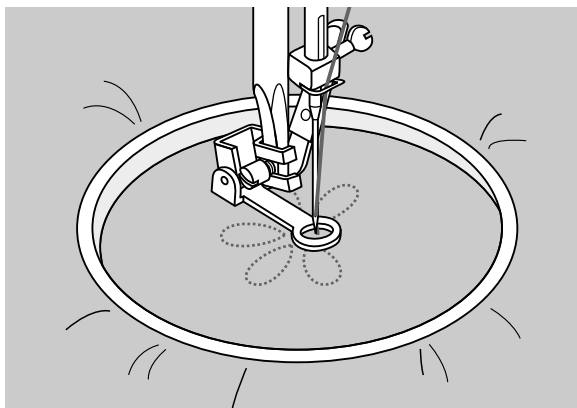
Turn the work by 1/4 and sew over the first stitching moving the work slower over the hole to separate the threads and not form big gaps between the threads.



Please Note:

Free motion darning is accomplished without the sewing machine internal feed system. Movement of the fabric is controlled by the operator. It is necessary to coordinate sewing speed and movement of fabric.

Free motion darning, embroidery and monogramming



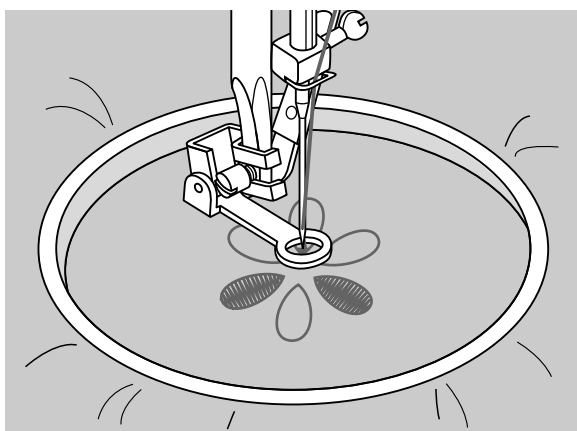
Embroidery

Select zigzag stitch and adjust the stitch width as desired.

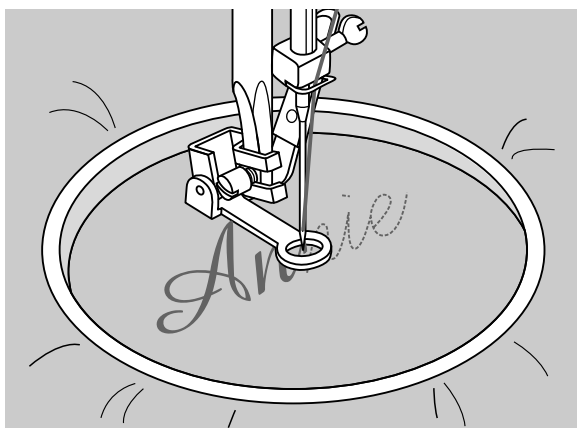
Stitch along the outline of the design by moving the embroidery hoop. Make sure to maintain a constant speed.

Fill in the design working from the outline towards the inside. Keep the stitches close together.

You will get longer stitches by moving the hoop faster and shorter stitches by moving the hoop more slowly.



Secure the work with reinforcement stitches at the end by pressing the Auto-lock button.



Monogramming

Select the zigzag stitch pattern and adjust the stitch width as desired. Sew at a constant speed, moving the hoop slowly along the lettering.

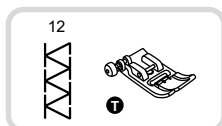
When the letter is finished. Secure the work with reinforcement stitches at the end by pressing the Auto-lock button.

* Embroidery hoop is not included with the machine.

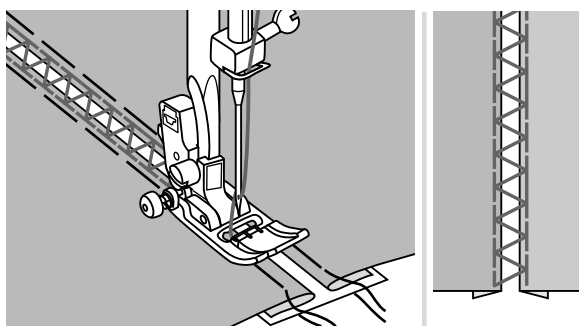
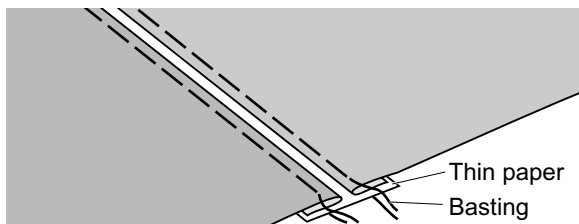
➡ Please Note:

When you finish the work, move the drop feed control to "▲▲▲" to raise the feed dog.

Fagoting



Stitching across an open seam is called "fagoting". It is used on blouses and children's clothing. This stitch is more decorative when thicker thread is used.

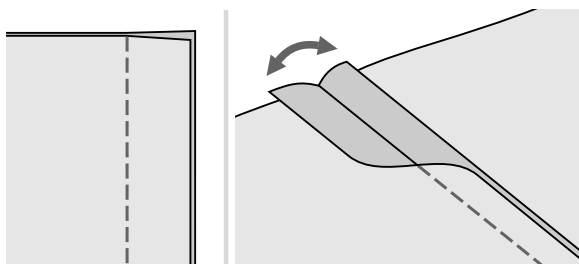
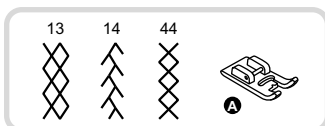
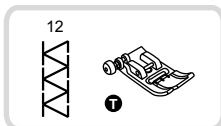


- Separate the folded edges of the fabric pieces with a gap of 4mm (1/8 inch) and baste them onto a piece of thin paper or water-soluble stabilizer sheet.

- Align the center of the presser foot with the center of the two pieces of fabric and begin sewing.

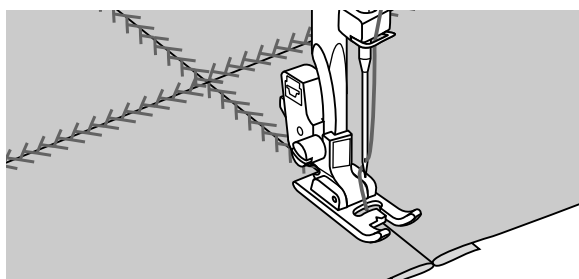
- After sewing, remove the paper.

Patchworkstich



- Place the two pieces of fabric with the right side together and sew with the straight stitch.

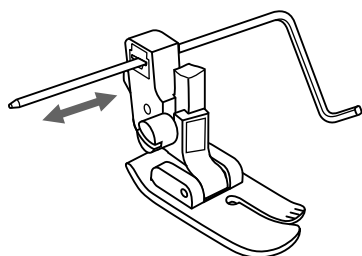
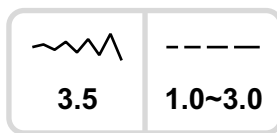
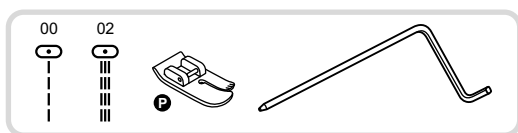
- Open the seam allowances and press it flat.



- Place the center of the presser foot on the seam line of the joined pieces of fabric and sew over the seam.

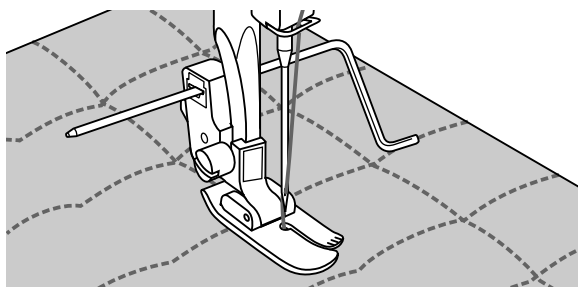
Quilting

Sandwiching batting between the top and bottom layers of fabric is called "Quilting". The top layer is usually formed by multiple geometrically shaped pieces of materials joined together.



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

Insert the right seam guide on the right in the presser foot holder as illustrated and set the space as you desire.



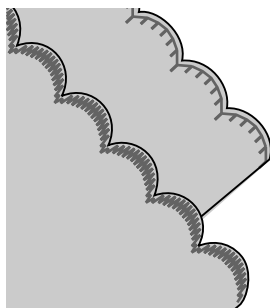
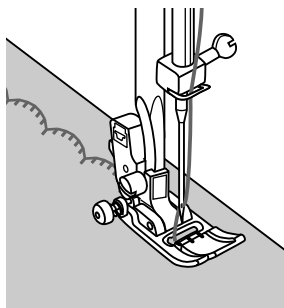
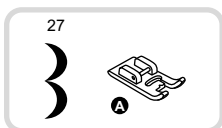
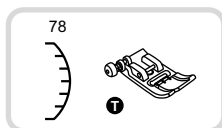
Sew the first row and move over the fabric to sew successive rows with the guide riding along the previous row of stitching.

Note:

When using the quilting foot, only use center needle position stitches to prevent machine damage.

Scallop stitch

The wave-shaped repeating stitch that looks like shells is called "scalloping". It is used on the collars of blouses and to decorate the edges of projects.



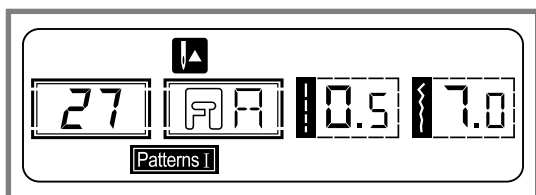
- Stitch along the edge of the fabric, making sure not to sew directly on the edge of the fabric.

* For better results, apply spray starch onto the fabric and press with a hot iron before it is sewn.

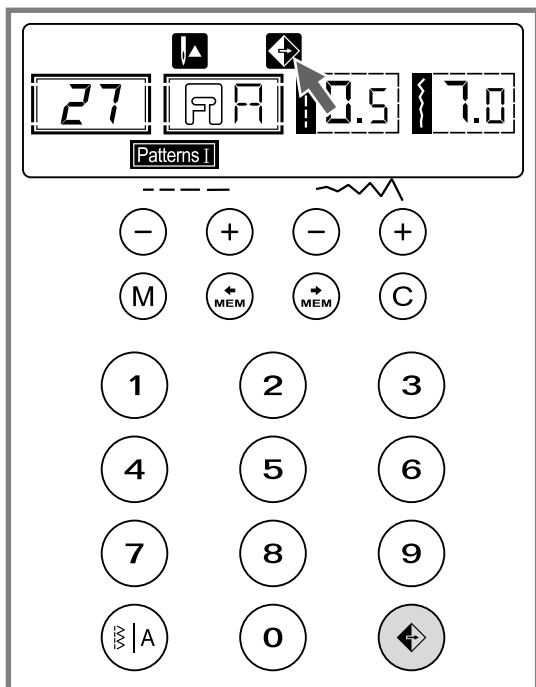
- Trim along the stitches.

* Be careful not to cut the stitches.

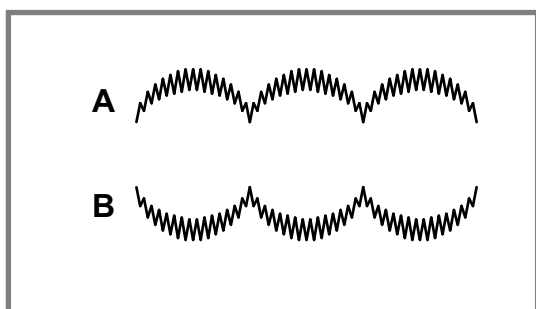
Mirror



Select the pattern.



Pressing the mirror button. LCD will display the mirror function and the machine will sew the reflected stitch until you press the mirror button again.



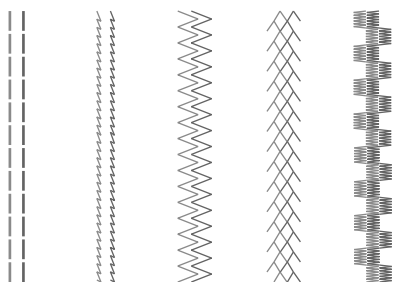
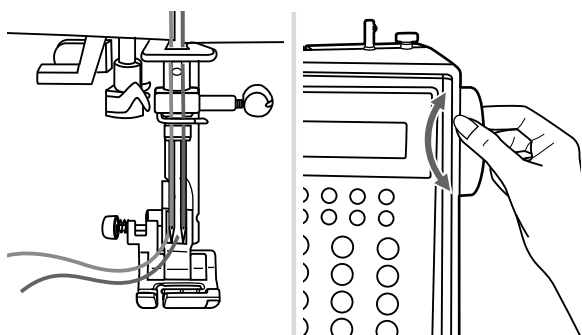
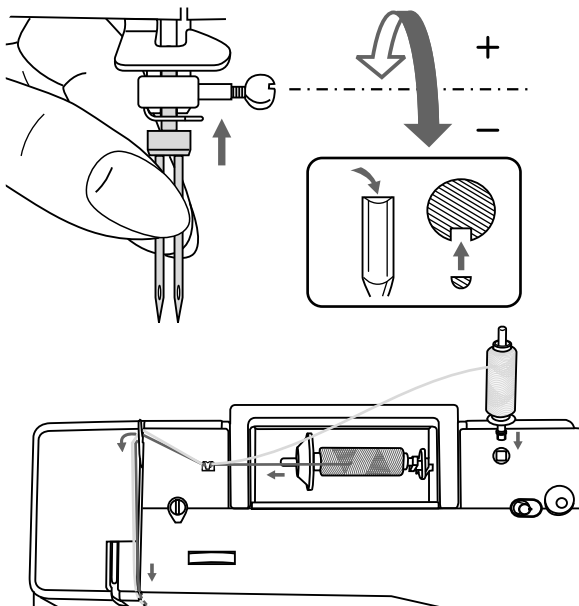
A. Normal pattern sewing.

B. Mirror pattern sewing.

➡ Please Note:

- Pattern 15-24 cannot be mirror imaged.
- Mirror imaged patterns can also be combined with other patterns.

Twin needle



* The twin needle is optional. It is not include with the accessories.

Insert the twin needle.

! Attention:

When using twin needles, use the zigzag foot (T) regardless of what kind of sewing foot will be recommended.

Use only twin needle assemblies with max. 2mm needle distance.

Follow the instructions for single-needle threading using the horizontal spool pin. Thread through the left needle.

Set the second spool pin (included with the accessories) into the hole on the top of the machine. Thread through remaining points, making certain to omit the thread guide above the right needle and pass thread through the right needle.

Thread each needle separately.

➔ Please Note:

Make sure that the two threads used to thread the twin needle are of the same weight. You can use one or two colors.

Before sewing adjust the stitch width, turn the handwheel to check the needle clearance, so that needle does not hit the stitch plate.

Select a stitch pattern and start sewing.

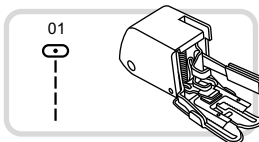
Utility and decorative patterns 00-14, 25-99 can be used.

Sewing result will be a pattern with two parallel stitch lines.

➔ Please Note:

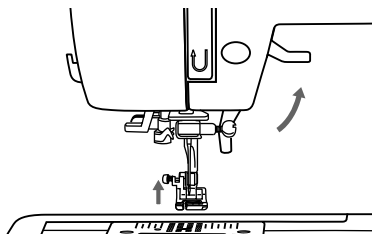
When sewing with twin needle, always proceed slowly, and make sure to maintain a low speed to insure quality stitching.

Walking foot

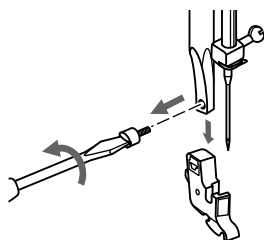


* The walking foot accessory is optional. It is not included with this machine.

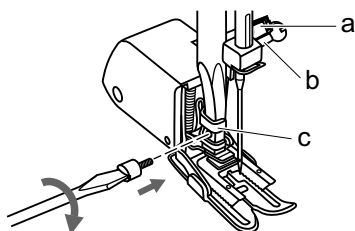
The walking foot accessory equalizes the feeding of the upper and lower layers of fabric and improves the matching of plaids, stripes and patterns. It also helps to prevent uneven feeding of very difficult fabrics.



Lift the presser foot lifter to raise the presser foot bar.

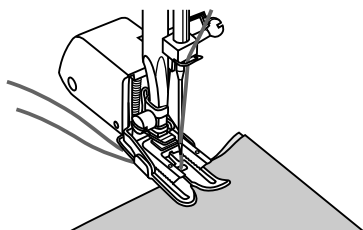


Remove the presser foot holder by unscrewing (counterclockwise) the presser bar attaching screw.



Attach the walking foot to the machine as follows:

- The arm (a) should fit into the needle screw of the needle holder clamp (b).
- Slide the plastic attaching head (c) from your left to right so that it is fitted into the presser foot bar.
- Lower the presser foot bar.
- Replace and tighten (clockwise) the presser bar attaching screw.
- Make sure both the needle screw and the presser bar attaching screw are tightly secured.



Draw the bobbin thread up and place both the bobbin thread and the needle thread behind the walking foot attachment.

Memory

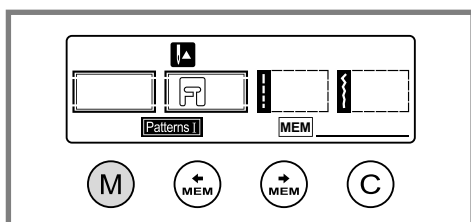
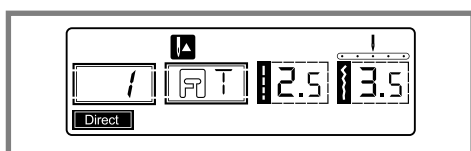
Combined patterns can be stored for later use. Since stored patterns are not lost after the sewing machine is turned off, they can be recalled at any time. This is convenient for patterns, such as names, that will be used often.

➔ Please Note:

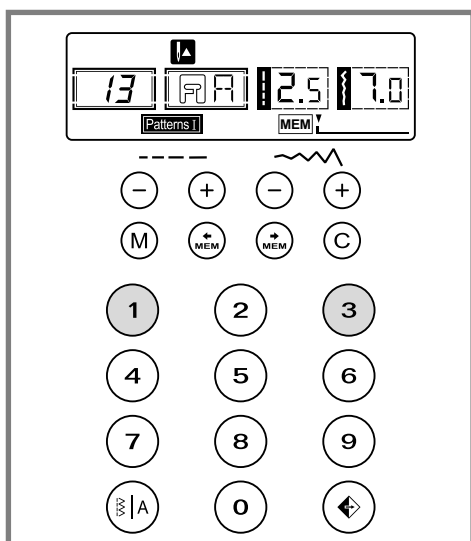
- The machine has a program memory that can retain 30 units of stitches.
- Multiple patterns selecting from pattern modes " **Patterns I** ", " **Patterns II** " can be combined and sewn together.
- All the units in the memory can be edited to set its function such as Stitch length, Stitch width, Mirror and Auto-lock.
- The Direct mode patterns and the patterns 15-24 can not be memorized.

Combining patterns or letters

When you turn the machine "ON", the LCD screen displays " **Direct** ".



Press the " **M** " button to enter the memory mode, and store the combinations of character or decorative stitches.

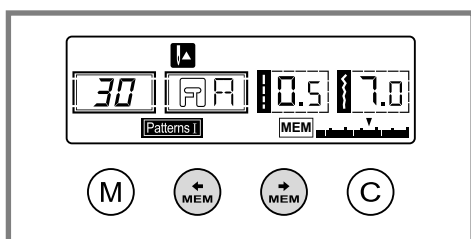


Press the " **⌂/A** " button to select any desired pattern group among " **Patterns I** " or " **Patterns II** " on the LCD screen. Then press the desired pattern number (e.g.13). (You can change the stitch length, width, or choose the Auto-stop, mirror function if desired.)

Repeat step 3 for more patterns to be stored in the memory.

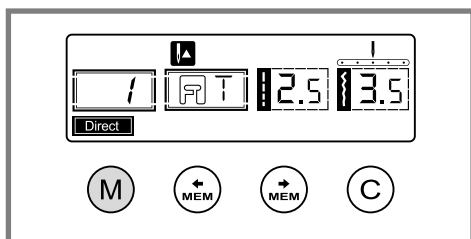
➔ Please Note:

If the full memory of 30 units of stitches is reached, the machine will signal this via beeping.



Use the arrow " **MEM** " or " **MEM** " button to check what you have programmed.

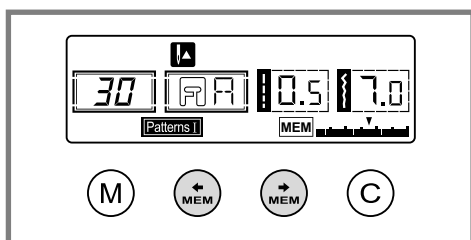
Memory



Press the "M" button to leave the memory mode and return to the Direct mode.

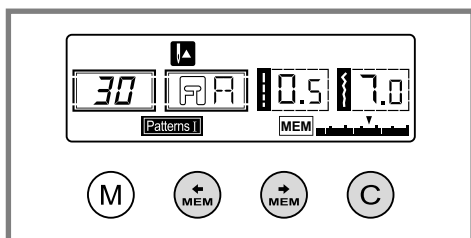
! Attention:

The selected pattern will be cleared from the memory module after closing the machine if you do not press the "M" button again when you have completed your selection.



Adding patterns or letters

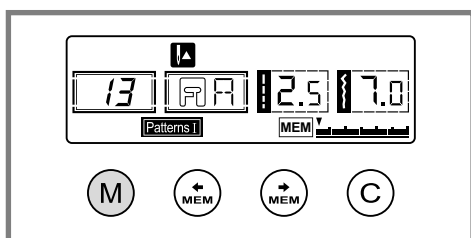
While in the memory mode, press the "MEM" button or the "MEM" button until the stitch number you have selected is displayed, then add the new stitch or change the stitch length, width, Auto-stop or mirror, if desired.



Clearing patterns or letters

If you wish to delete a certain stitch within the memory mode, use the "MEM" button or "MEM" button until the actual stitch number is displayed.

Press the "C" button to delete the selected pattern and the next pattern in the back will move forward.

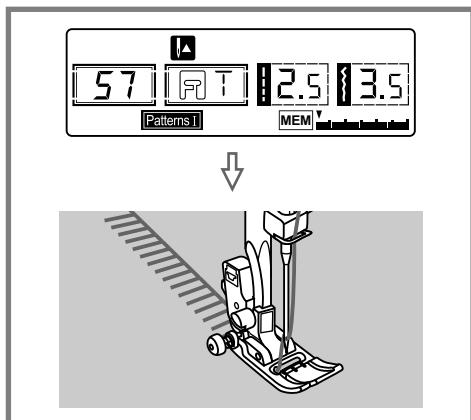


Recalling and sewing the memorized pattern

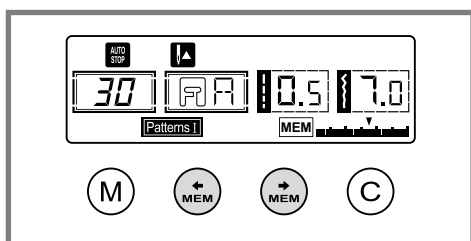
Press the "M" button to enter the memory mode.

The machine will be positioned at the first programmed stitch.

Memory



Press foot controller. The machine will start to sew from first entered pattern. On the LCD screen, sewing stitch data is indicated.



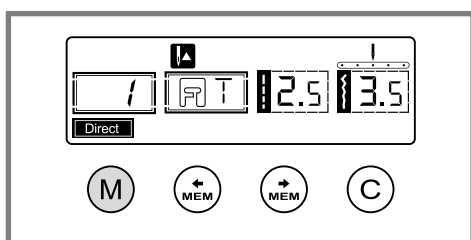
If you wish to check what is programmed or if you wish to start sewing a few stitches in the memory mode, use the "MEM" button or "MEM" button.

You can use the Auto-lock "⊙" function when the sewing machine should stop sewing after one sequence.

➔ Please Note:

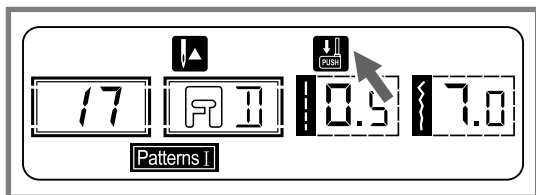
If you wish to repeat your stitch combination without having the machine stop, press the Auto-lock "⊙" button again to cancel the Auto-Stop in the memory mode.

The "Auto stop" will disappear from the LCD screen.



Press the "M" button to leave the memory mode and return to the Direct mode.

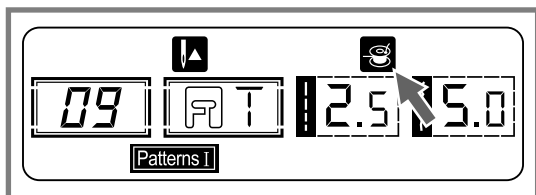
Warning Functions



Instruction message display

Lowering the buttonhole lever

When you select any buttonhole pattern or darning pattern, LCD screen will show the figure "0.5". It is to remind you to lower the buttonhole lever.



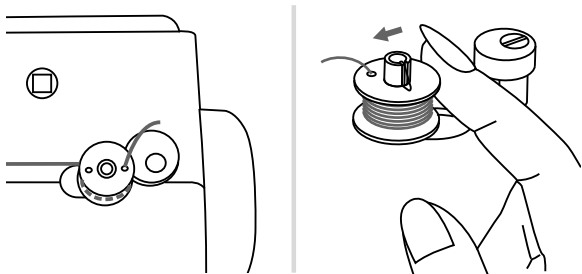
Bobbin winding

When the bobbin winder spindle is activated for bobbin winding (in the rightmost position) this figure appears on the LCD screen as a reminder.

Warning beeping sound

- When operating correctly: 1 beep
- When the memory is full 30 units of pattern: 2-short beeps
- When operating incorrectly: 3-short beeps
- When the sewing machine is in trouble and can't sew: 3-short beeps

It means that the thread is twisted or jammed and the hand wheel axle can't move. Please look through the "Trouble shooting guide" on page 63/64 to find the solution. After the problem has been solved, the machine will continue to sew.



Return bobbin winder spindle to left

If you press any button on the machine when the bobbin is full or the bobbin winder spindle is in the right position, then the machine will beep 3 times as a warning.

Return the bobbin winder spindle to the left position.

➡ Please Note:

If the problem is still not solved, please contact your local dealer.

⚠ Attention:

During the sewing, if the thread get jammed inside the hook stopping the needle from moving and you continue pressing the foot control, the security switch will stop the machine completely. In order to restart the sewing machine, you will have to turn the on/off switch to the OFF position and then ON again.

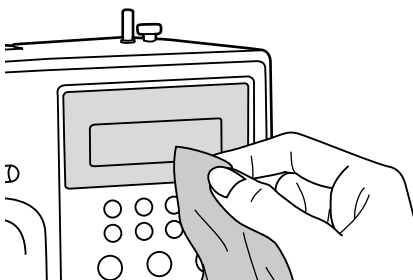
Maintenance

Attention:

Disconnect the power cord from the wall socket before cleaning the screen and sewing machine surface, otherwise injury or electrical shock may result.

Cleaning the screen

If the front panel is dirty, wipe it gently with a soft, dry cloth. Do not use any organic solvents or detergents.



Cleaning the sewing machine surface

If the surface of the sewing machine is dirty, lightly soak a cloth in mild detergent, squeeze it out firmly and then wipe the surface. After cleaning it once in this way, wipe the surface again with a dry cloth.

Attention:

This machine is equipped with a 100mW LED lamp. If lamp replacement is needed, please contact nearest authorized retailer.

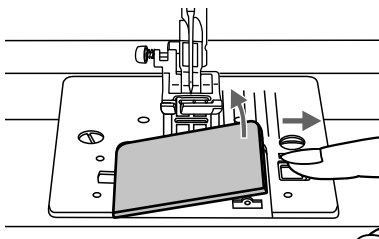
Cleaning the hook

If lint and bits of thread accumulate in the hook, this will interfere with the smooth operation of the machine. Check regularly and clean the stitching mechanism when necessary.

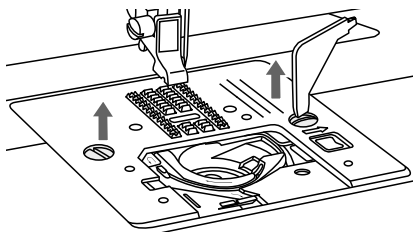
Attention:

Disconnect the machine from the wall outlet before carrying out any maintenance.

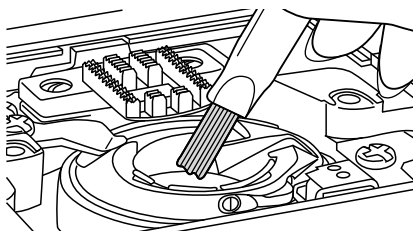
Remove the bobbin cover plate and bobbin.



Maintenance



Remove the needle, presser foot and presser foot holder.
Remove the screws holding the stitch plate and remove the stitch plate.



Clean the feed dog and bobbin case with a brush. Also clean them, using a soft, dry cloth.

Trouble shooting guide








































Before calling for service, check the following items. If the problem still persists, contact the place of purchase or your nearest authorized dealer.

Problem	Cause	Correction	Reference
Upper thread breaks	1. The machine is not threaded correctly.	1. Rethread the machine.	10
	2. The thread tension is too tight.	2. Reduce the thread tension (lower number).	16
	3. The thread is too thick for the needle.	3. Select a larger needle.	13
	4. The needle is not inserted correctly.	4. Remove and reinsert the needle (flat side towards the back).	13
	5. The thread is wound around the spool holder pin.	5. Remove the reel and wind thread onto reel.	10
	6. The needle is damaged.	6. Replace the needle.	13
Lower thread breaks	1. The bobbin case is not inserted correctly.	1. Remove and reinsert the bobbin case and pull on the thread. The thread should pull easily.	9
	2. The bobbin case is not threaded correctly.	2. Check both bobbin and bobbin case.	9
Skipped stitches	1. The needle is not inserted correctly.	1. Remove and reinsert needle (flat side towards the back).	13
	2. The needle is damaged.	2. Insert a new needle.	13
	3. The wrong size needle has been used.	3. Choose a needle to suit the thread.	13
	4. The foot is not attached correctly.	4. Check and attach correctly.	14
	5. The machine is not threaded correctly.	5. Rethread the machine.	10
Needle breaks	1. The needle is damaged.	1. Insert a new needle.	13
	2. The needle is not correctly inserted.	2. Insert the needle correctly (flat side towards the back).	13
	3. Wrong needle size for the fabric.	3. Choose a needle to suit the thread and fabric.	13
	4. The wrong foot is attached.	4. Select the correct foot.	-
	5. The needle clamp screw is loose.	5. Use the screwdriver to firmly tighten the screw.	13
	6. The presser foot that is used is not appropriate for the type of stitch that you wish to sew.	6. Attach the presser foot that is appropriate for the type of stitch that you wish to sew.	65-67
	7. The upper thread tension is too tight.	7. Loosen the upper thread tension.	16
Loose stitches	1. The machine is not correctly threaded.	1. Check the threading.	10
	2. The bobbin case is not threaded correctly.	2. Thread the bobbin case as illustrated.	9
	3. Needle/ fabric/ thread combination is wrong.	3. The needle size must suit the fabric and thread.	13
	4. Thread tension is wrong.	4. Correct the thread tension.	16
Seam gather or pucker	1. The needle is too thick for the fabric.	1. Select a finer needle.	13
	2. The stitch length is adjusted wrong.	2. Readjust the stitch length.	26
	3. The thread tension is too tight.	3. Loosen the thread tension.	16









































Trouble shooting guide

Problem	Cause	Correction	Reference
Seam puckering	1. The needle thread tension is too tight.	1. Loosen the thread tension.	16
	2. The needle thread is not threaded correctly.	2. Rethread the machine.	10
	3. The needle is too heavy for the fabric being sewn.	3. Choose a needle to suit the thread and fabric.	13
	4. The stitch length is too long for the fabric.	4. Make stitch length shorter.	26
	5. If you are sewing thin fabric.	5. Sew with stabilising material under the fabric.	13
Patterns are distorted	1. The correct presser foot is not used.	1. Select the correct presser foot.	-
	2. The needle thread tension is too tight.	2. Loosen the thread tension.	16
The machine jams	1. 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.	61
	2. The feed dog is packed with fluff.		
The machine is noisy	1. Fluff or oil have collected on the hook or needle bar.	1. Clean the hook and feed dog as described.	61
	2. The needle is damaged.	2. Replace the needle.	13
	3. Slight humming sound coming from internal motor.	3. Normal.	-
	4. 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.	61
	5. The feed dog is packed with fluff.		
Uneven stitches, uneven feed	1. Poor quality thread.	1. Select a better quality thread.	13
	2. The bobbin case is not threaded correctly.	2. Remove the bobbin case, the thread and reinsert correctly.	9
	3. Fabric has been pulled.	3. Do not pull on the fabric while sewing, let it be taken up by the machine.	7
The sewing machine doesn't operate	1. The machine is not turned on.	1. Turn on the machine.	4
	2. The presser foot lifter is raised.	2. Lower the presser foot lifter.	15
	3. The machine is not plugged in.	3. Connect the power line plug to the electric outlet.	4

Quick adjustment reference chart

Stitch Pattern		Width (mm)		Length (mm)		Presser Foot	Functions				
		Auto	Manual	Auto	Manual		Reverse	Auto-lock	Mirror/Presser foot	Twin needle	Memory
Utility stitches	00 	3.5	0.0~7.0	2.5	0.0~4.5	T	*	*	*	*	*
	01 	0.0	0.0~7.0	2.5	0.0~4.5	T	*	*	*	*	*
	02 	3.5	0.0~7.0	2.5	1.0~3.0	T	*	*	*	*	*
	03 	3.5	1.0~6.0	2.5	1.0~3.0	T	*	*	*	*	*
	04 	3.5	0.0~7.0	2.5	1.5~3.0	T	*	*	*	*	*
	05 	5.0	0.0~7.0	2.0	0.3~4.5	T	*	*	*	*	*
	06 	5.0	2.0~7.0	1.0	0.3~4.5	T	*	*	*	*	*
	07 	5.0	2.5~7.0	2.5	1.0~3.0	T	*	*	*	*	*
	08 	5.0	3.5~7.0	2.5	1.0~3.0	E	*	*	*/T	*	*
	09 	5.0	2.5~7.0	2.5	1.0~3.0	T	*	*	*	*	*
	10 	3.5	2.5~7.0	2.0	0.5~4.5	F	*	*	*/T	*	*
	11 	3.5	2.5~7.0	1.0	0.5~4.5	F	*	*	*/T	*	*
	12 	5.0	2.5~7.0	2.5	1.0~3.0	T	*	*	*	*	*
	13 	7.0	2.5~7.0	2.5	1.0~3.0	A	*	*	*	*	*
	14 	5.0	2.5~7.0	2.5	1.0~3.0	A	*	*	*	*	*
Buttonhole stitches	15 	5.0	3.0~7.0	0.5	0.3~1.0	D					
	16 	5.0	3.0~5.5	0.5	0.3~1.0	D					
	17 	7.0	5.5~7.0	0.5	0.3~1.0	D					
	18 	5.0	3.0~5.5	0.5	0.3~1.0	D					
	19 	5.0	3.0~5.5	0.5	0.3~1.0	D					
	20 	6.0	3.0~7.0	1.0	1.0~2.0	D					
	21 	6.0	3.0~7.0	1.5	1.0~3.0	D					
Eyelet stitch	22 	7.0	7.0,6.0,5.0	--	--	A					
Darning stitches	23 	7.0	3.5~7.0	2.0	1.0~2.0	D					
Bar tack stitch	24 	2.0	1.0~3.0	0.5	0.5~1.0	D					
Satin stitches	25 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	26 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	27 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	28 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	29 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	30 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	31 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	32 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	33 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	34 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	35 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
Decorative satin stitches	36 	7.0	2.5~7.0	0.5	0.3~1.0	A	*	*	*	*	*
	37 	7.0	3.5~7.0	1.5	1.0~3.0	A	*	*	*	*	*
	38 	7.0	4.0~7.0	2.5	2.5~3.0	A	*	*	*	*	*

Quick adjustment reference chart

Stitch Pattern		Width (mm)		Length (mm)		Presser Foot	Functions				
		Auto	Manual	Auto	Manual		Reverse	Auto-lock	Mirror/Presser foot	Twin needle	Memory
Decorative satin stitches	39 	7.0	2.5~7.0	0.5	0.5~1.0	A	*	*	*	*	*
	40 	7.0	5.0~7.0	0.5	0.5~1.0	A	*	*	*	*	*
	41 	7.0	4.0~7.0	0.5	0.5~1.0	A	*	*	*	*	*
	42 	7.0	2.5~7.0	0.5	0.4~1.0	A	*	*	*	*	*
	43 	7.0	2.5~7.0	1.0	1.0~2.0	A	*	*	*	*	*
Cross stitches	44 	5.0	2.5~7.0	2.5	1.0~3.0	A	*	*	*	*	*
	45 	4.0	3.0~7.0	1.0	1.0~3.0	A	*	*	*	*	*
	46 	4.0	3.0~7.0	1.0	1.0~3.0	A	*	*	*	*	*
	47 	6.0	3.0~7.0	1.5	1.0~3.0	A	*	*	*	*	*
	48 	6.0	5.0~7.0	1.5	1.0~3.0	A	*	*	*	*	*
	49 	6.0	3.0~7.0	1.0	1.0~3.0	A	*	*	*	*	*
	50 	6.0	3.0~7.0	1.0	1.0~3.0	A	*	*	*	*	*
	51 	6.0	3.0~7.0	1.0	1.0~3.0	A	*	*	*	*	*
Quilt stitches	52 	6.0	3.0~7.0	1.5	1.0~3.0	A	*	*	*	*	*
	53 	5.0	2.5~7.0	2.0	1.0~4.5	T	*	*	*	*	*
	54 	4.0	2.5~7.0	2.0	1.0~4.5	T	*	*	*	*	*
	55 	3.5	2.5~7.0	2.5	1.5~3.0	T	*	*	*	*	*
	56 	3.5	2.5~7.0	2.5	1.5~3.0	T	*	*	*	*	*
	57 	4.0	2.5~7.0	2.5	1.5~3.0	A	*	*	*	*	*
	58 	3.5	2.5~7.0	2.5	1.5~3.0	T	*	*	*	*	*
	59 	6.0	3.0~7.0	2.0	1.0~4.5	T	*	*	*	*	*
	60 	7.0	3.0~7.0	1.5	1.0~4.5	T	*	*	*	*	*
	61 	6.0	3.0~7.0	2.0	1.0~3.0	T	*	*	*	*	*
	62 	5.0	3.0~7.0	2.0	1.0~3.0	T	*	*	*	*	*
	63 	5.0	2.5~7.0	2.0	1.0~3.0	T	*	*	*	*	*
	64 	6.0	3.5~7.0	1.5	1.0~3.0	T	*	*	*	*	*
	65 	5.0	3.5~7.0	1.5	1.5~3.0	A	*	*	*	*	*
	66 	5.0	2.5~7.0	1.0	1.0~4.5	T	*	*	*	*	*
	67 	6.0	3.0~7.0	2.0	1.0~3.0	T	*	*	*	*	*
Decorative stitches	68 	7.0	2.5~7.0	1.5	1.0~3.0	A	*	*	*	*	*
	69 	5.0	2.5~7.0	2.5	1.0~3.0	A	*	*	*	*	*
	70 	7.0	3.0~7.0	2.0	1.0~3.0	A	*	*	*	*	*
	71 	6.0	4.5~7.0	1.5	1.0~3.0	A	*	*	*	*	*
	72 	5.0	3.0~7.0	3.0	1.5~3.0	A	*	*	*	*	*
	73 	7.0	4.0~7.0	3.0	2.0~3.0	A	*	*	*	*	*
	74 	7.0	2.5~7.0	2.0	1.0~3.0	T	*	*	*	*	*
	75 	7.0	2.5~7.0	2.5	1.5~3.0	T	*	*	*	*	*
	76 	5.0	2.5~7.0	2.5	1.5~3.0	T	*	*	*	*	*
	77 	7.0	4.0~7.0	2.0	2.0~3.0	A	*	*	*	*	*
	78 	7.0	2.5~7.0	2.5	1.0~4.5	T	*	*	*	*	*

Quick adjustment reference chart

Stitch Pattern		Width (mm)		Length (mm)		Presser Foot	Functions				
		Auto	Manual	Auto	Manual		Reverse	Auto-lock	Mirror/Presser foot	Twin needle	Memory
Decorative stitches	79	7.0	2.5~7.0	1.0	1.0~3.0	T	*	*	*	*	*
	80	7.0	4.0~7.0	2.5	2.0~3.0	A	*	*	*	*	*
	81	5.0	2.5~7.0	2.0	2.0~3.0	A	*	*	*	*	*
	82	7.0	3.5~7.0	1.0	1.0~3.0	A	*	*	*	*	*
	83	7.0	3.5~7.0	3.0	2.0~3.0	A	*	*	*	*	*
	84	7.0	4.0~7.0	3.0	2.0~3.0	A	*	*	*	*	*
	85	7.0	4.0~7.0	2.0	1.0~3.0	A	*	*	*	*	*
	86	7.0	3.0~7.0	3.0	1.0~3.0	A	*	*	*	*	*
	87	7.0	3.0~7.0	2.0	1.5~3.0	A	*	*	*	*	*
	88	5.0	3.5~7.0	1.0	1.0~3.0	A	*	*	*	*	*
	89	4.0	4.0~7.0	2.0	2.0~3.0	A	*	*	*	*	*
	90	7.0	3.0~7.0	2.0	1.5~3.0	A	*	*	*	*	*
	91	7.0	2.5~7.0	2.0	1.0~3.0	A	*	*	*	*	*
	92	7.0	2.5~7.0	2.5	1.5~3.0	A	*	*	*	*	*
	93	7.0	3.5~7.0	2.5	1.5~3.0	T	*	*	*	*	*
	94	7.0	3.5~7.0	2.0	1.5~3.0	T	*	*	*	*	*
	95	7.0	2.5~7.0	2.0	1.5~3.0	T	*	*	*	*	*
	96	5.0	2.5~7.0	2.0	1.0~3.0	T	*	*	*	*	*
	97	5.0	2.5~7.0	2.0	1.0~3.0	T	*	*	*	*	*
	98	5.0	3.5~7.0	2.0	1.5~3.0	T	*	*	*	*	*
	99	6.0	4.0~7.0	2.0	2.0~3.0	A	*	*	*	*	*

Quick adjustment reference chart

Stitch Pattern		Width (mm)		Length (mm)		Presser Foot	Functions				
		Auto	Manual	Auto	Manual		Reverse	Auto-stop	Mirror/Presser foot	Twin needle	Memory
Alphabet stitches	01 1	7.0	--	--	--	A		*			*
	02 2	7.0	--	--	--	A		*			*
	03 3	7.0	--	--	--	A		*			*
	04 4	7.0	--	--	--	A		*			*
	05 5	7.0	--	--	--	A		*			*
	06 6	7.0	--	--	--	A		*			*
	07 7	7.0	--	--	--	A		*			*
	08 8	7.0	--	--	--	A		*			*
	09 9	7.0	--	--	--	A		*			*
	10 0	7.0	--	--	--	A		*			*
	11 A	7.0	--	--	--	A		*			*
	12 B	7.0	--	--	--	A		*			*
	13 C	7.0	--	--	--	A		*			*
	14 D	7.0	--	--	--	A		*			*
	15 E	7.0	--	--	--	A		*			*
	16 F	7.0	--	--	--	A		*			*
	17 G	7.0	--	--	--	A		*			*
	18 H	7.0	--	--	--	A		*			*
	19 I	7.0	--	--	--	A		*			*
	20 J	7.0	--	--	--	A		*			*
	21 K	7.0	--	--	--	A		*			*
	22 L	7.0	--	--	--	A		*			*
	23 M	7.0	--	--	--	A		*			*
	24 N	7.0	--	--	--	A		*			*
	25 O	7.0	--	--	--	A		*			*
	26 P	7.0	--	--	--	A		*			*
	27 Q	7.0	--	--	--	A		*			*
	28 R	7.0	--	--	--	A		*			*
	29 S	7.0	--	--	--	A		*			*
	30 T	7.0	--	--	--	A		*			*
	31 U	7.0	--	--	--	A		*			*
	32 V	7.0	--	--	--	A		*			*
	33 W	7.0	--	--	--	A		*			*
	34 X	7.0	--	--	--	A		*			*
	35 Y	7.0	--	--	--	A		*			*
	36 Z	7.0	--	--	--	A		*			*
	37 a	7.0	--	--	--	A		*			*
	38 b	7.0	--	--	--	A		*			*
	39 c	7.0	--	--	--	A		*			*
	40 d	7.0	--	--	--	A		*			*

Quick adjustment reference chart

Stitch Pattern			Width (mm)		Length (mm)		Presser Foot	Functions				
			Auto	Manual	Auto	Manual		Reverse	Auto-stop	Mirror/Presser foot	Twin needle	Memory
Alphabet stitches	41	e	7.0	--	--	--	A		*			*
	42	f	7.0	--	--	--	A		*			*
	43	g	7.0	--	--	--	A		*			*
	44	h	7.0	--	--	--	A		*			*
	45	i	7.0	--	--	--	A		*			*
	46	j	7.0	--	--	--	A		*			*
	47	k	7.0	--	--	--	A		*			*
	48	l	7.0	--	--	--	A		*			*
	49	m	7.0	--	--	--	A		*			*
	50	n	7.0	--	--	--	A		*			*
	51	o	7.0	--	--	--	A		*			*
	52	p	7.0	--	--	--	A		*			*
	53	q	7.0	--	--	--	A		*			*
	54	r	7.0	--	--	--	A		*			*
	55	s	7.0	--	--	--	A		*			*
	56	t	7.0	--	--	--	A		*			*
	57	u	7.0	--	--	--	A		*			*
	58	v	7.0	--	--	--	A		*			*
	59	w	7.0	--	--	--	A		*			*
	60	x	7.0	--	--	--	A		*			*
	61	y	7.0	--	--	--	A		*			*
	62	z	7.0	--	--	--	A		*			*
	63	Ä	7.0	--	--	--	A		*			*
	64	Å	7.0	--	--	--	A		*			*
	65	Æ	7.0	--	--	--	A		*			*
	66	Ñ	7.0	--	--	--	A		*			*
	67	Ö	7.0	--	--	--	A		*			*
	68	Ø	7.0	--	--	--	A		*			*
	69	Ç	7.0	--	--	--	A		*			*
	70	Ü	7.0	--	--	--	A		*			*
	71	ä	7.0	--	--	--	A		*			*
	72	ã	7.0	--	--	--	A		*			*
	73	å	7.0	--	--	--	A		*			*
	74	æ	7.0	--	--	--	A		*			*
	75	ë	7.0	--	--	--	A		*			*
	76	è	7.0	--	--	--	A		*			*
	77	é	7.0	--	--	--	A		*			*
	78	ê	7.0	--	--	--	A		*			*
	79	ñ	7.0	--	--	--	A		*			*
	80	ö	7.0	--	--	--	A		*			*

Quick adjustment reference chart

Stitch Pattern		Width (mm)		Length (mm)		Presser Foot	Functions				
		Auto	Manual	Auto	Manual		Reverse	Auto-stop	Mirror/Presser foot	Twin needle	Memory
Alphabet stitches	81 Õ	7.0	--	--	--	A		*			*
	82 Ø	7.0	--	--	--	A		*			*
	83 Ì	7.0	--	--	--	A		*			*
	84 Ç	7.0	--	--	--	A		*			*
	85 Ü	7.0	--	--	--	A		*			*
	86 Û	7.0	--	--	--	A		*			*
	87 ß	7.0	--	--	--	A		*			*
	88 &	7.0	--	--	--	A		*			*
	89 ?	7.0	--	--	--	A		*			*
	90 !	7.0	--	--	--	A		*			*
	91 _	7.0	--	--	--	A		*			*
	92 ’	7.0	--	--	--	A		*			*
	93 ’	7.0	--	--	--	A		*			*
	94 ¨	7.0	--	--	--	A		*			*
	95 -	7.0	--	--	--	A		*			*
	96 (7.0	--	--	--	A		*			*
	97)	7.0	--	--	--	A		*			*

