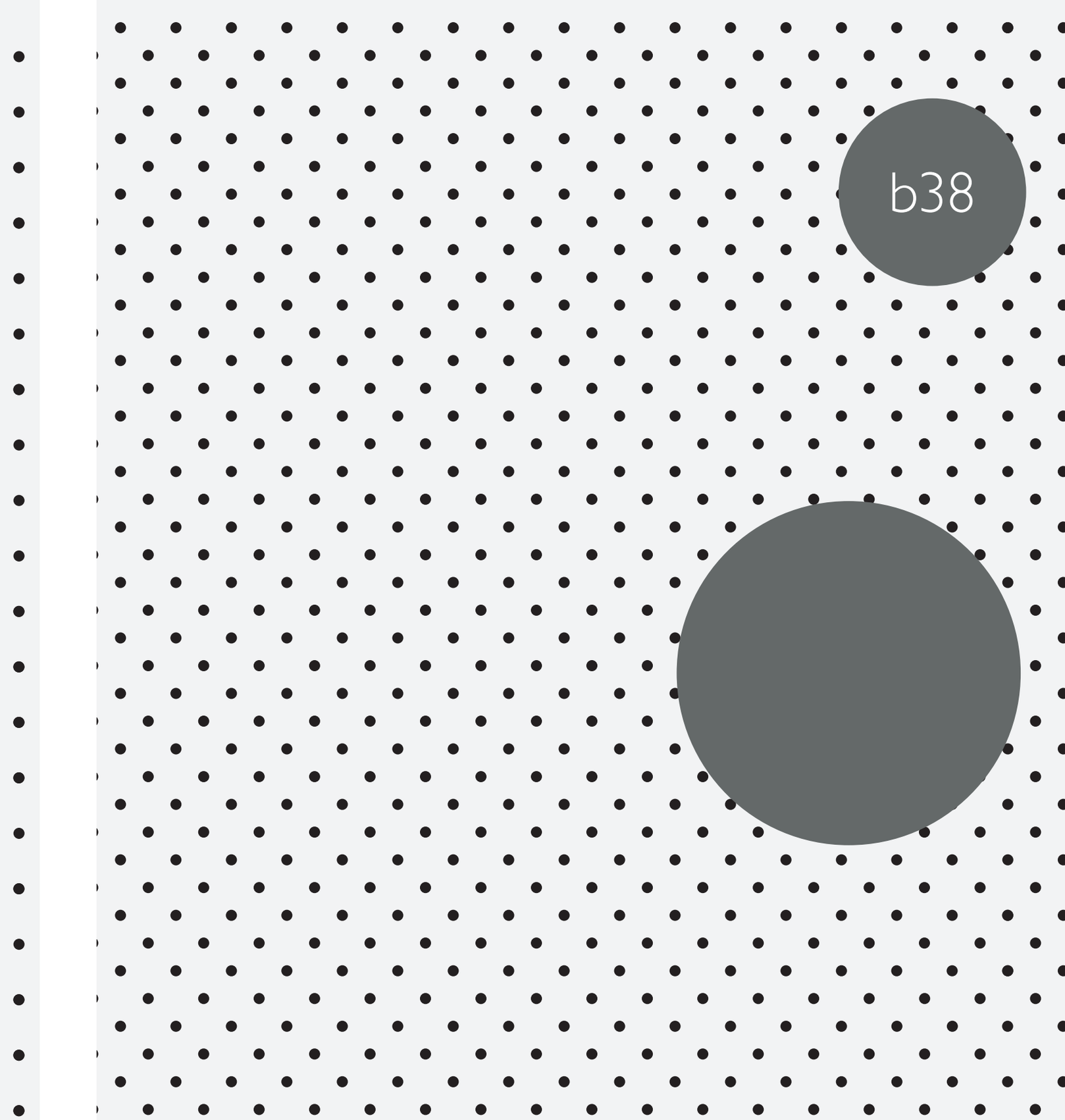

Instruction Manual

bernette
SWISS DESIGN

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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 look directly at the LED using an optical instrument.

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. Using the wrong stitch plate can result in needle breakage.
9. Do not use bent needles.
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 worksuch 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. The machine may only be used in combination with a foot control of the type YC-485-EC-1 (100-240 V area).
20. The sound pressure level during normal operation is lower than 75dB(A).
21. 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 DOUBLE-INSULATED 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 double-insulated product requires extreme care and knowledge of the system and should only be done by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product. A double insulated product is marked with the words «DOUBLE INSULATION» or «DOUBLE INSULATED».

The symbol ⧈ may also be marked on the product.

SAVE THESE INSTRUCTIONS!

All rights reserved

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.

WARNING:

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.

PLEASE NOTE:

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

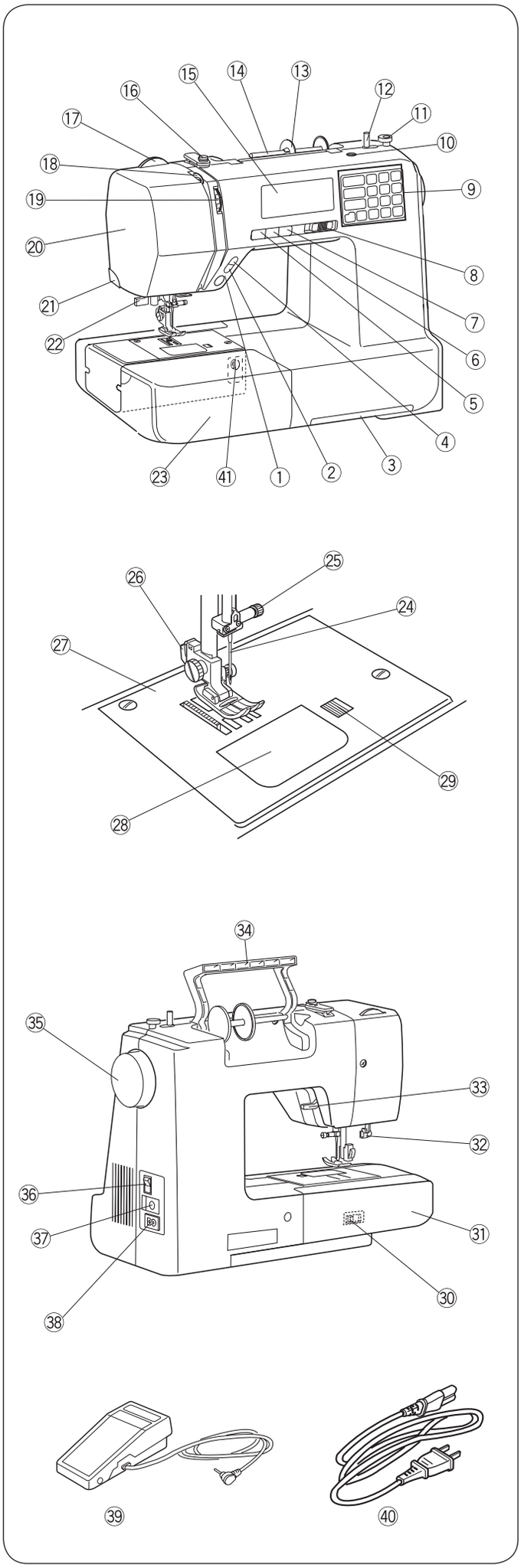
Please note that on disposal, this product must be safely recycled in accordance with relevant National legislation relating to electrical/electronic products. If in doubt please contact your retailer for guidance. (European Union only)

EUROPE ONLY:

This appliance may only be used by children over eight and by persons with reduced physical, sensory or mental capabilities or by persons who lack experience and knowledge of how to operate the machine under supervision, after instruction on how to use the equipment safely and once they have understood the potential dangers. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

OUTSIDE OF EUROPE (EXCEPT FOR THE USA AND CANADA):

This appliance may only be used by persons (including children) with reduced physical, sensory or mental capabilities or by persons who lack experience and knowledge of how to operate the machine under supervision and after instruction on how to use the equipment safely by a person responsible for their safety.
Children should be supervised to ensure that they do not play with the appliance.



NAMES OF PARTS

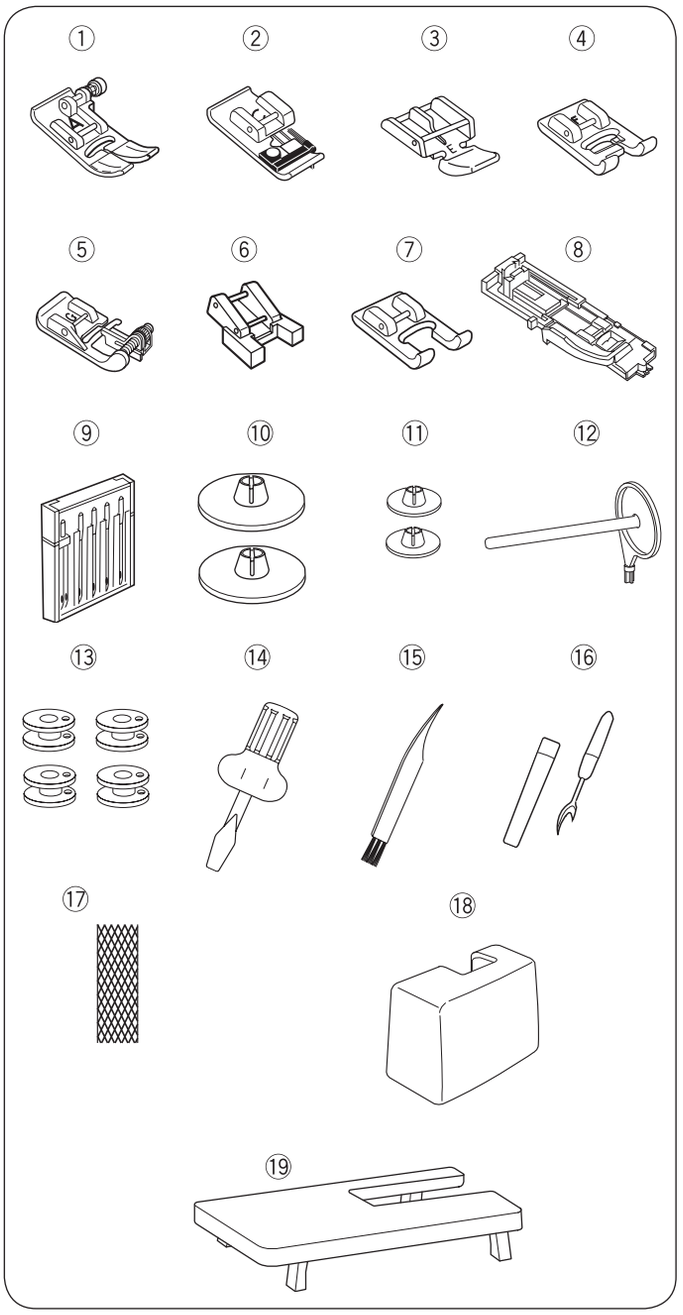
Names of Parts

① Start/stop button
② Reverse sewing button
③ Drawer for stitch overview
④ Auto-lock button
⑤ Needle stop up/down button
⑥ Thread cutter button
⑦ Twin Needle button
⑧ Slide speed control
⑨ Touch Panel
⑩ Hole for second spool pin
⑪ Bobbin winder stopper
⑫ Bobbin winder spindle
⑬ Spool disc large
⑭ Spool pin
⑮ LCD display
⑯ Upper thread guide
⑰ Presser foot pressure dial
⑱ Thread take-up lever
⑲ Thread tension dial
⑳ Head cover
㉑ Thread cutter
㉒ Needle Threader
㉓ Sewing table (accessory box)
㉔ Needle
㉕ Needle clamp screw
㉖ Presser foot holder
㉗ Stitch plate
㉘ Bobbin cover plate
㉙ Bobbin cover release button
㉚ Feed dog lever
㉛ Free arm
㉜ Buttonhole lever
㉝ Presser foot lever
㉞ Carrying handle
㉟ Handwheel
㊱ Power switch
㊲ Foot control connector
㊳ Power cable connection
㊴ Foot control
㊵ Power cable*
㊶ Balance

PLEASE NOTE:

To carry the sewing machine, hold the carrying handle with your hand, and support the sewing machine with the other hand.
Design and specifications are subject to change without prior notice.

*The power cable included may differ from the illustration.



Standard Accessories

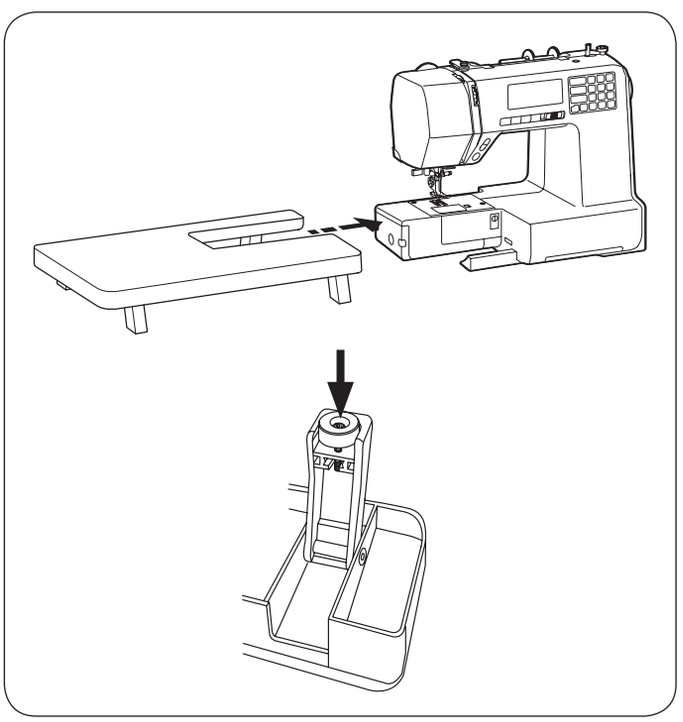
① Zigzag foot: A (set on the machine)
② Overlock foot: C
③ Zipper foot: E
④ Satin stitch foot: F
⑤ Blindstitch foot: G
⑥ Button-sew-on foot: T
⑦ Open toe foot: F2
⑧ Buttonhole foot with slide:R
⑨ Needle assortment
⑩ Spool disc (X 2) (Large)
⑪ Spool disc (X 2) (Small) (1x set on the machine)
⑫ Second spool pin
⑬ Bobbin (X 4) (1x set in the machine)
⑭ Screwdriver
⑮ Lint brush
⑯ Seam ripper (buttonhole opener)
⑰ Spool net
⑱ Hard cover
⑲ Extension table

More information on optional accessories can be found on our website:http://www.mybernette.com/accessories

- **Dust Cover**

Sewing instructions for your own personalized dust cover are available at:

www.mybernette.com/cover



Extension table

- **Attaching the table**

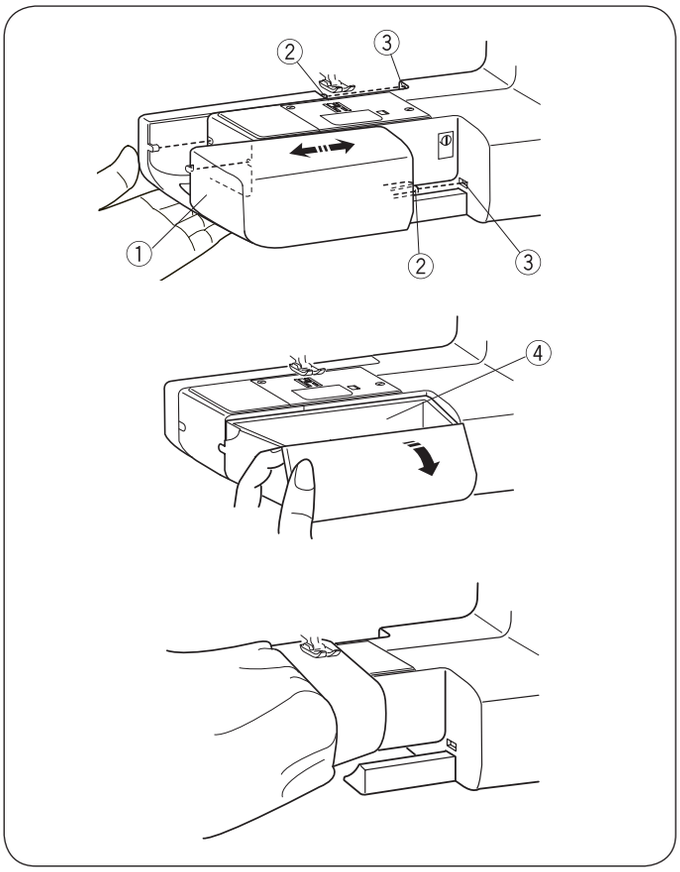
Pull the table away from the machine.

Spread the legs of extension table.

Holding the table with both hands and slide it gently to the right.

- **Adjusting the table height**

Turn setscrews of the table legs with a screwdriver (optional).



Sewing Table and Accessory box

The sewing table ① provides an extended sewing area and can be easily removed for free arm sewing.

① Sewing table
② Pin
③ Hole

- **Removing Sewing Table**

Pull the table away from the machine, as illustrated.

- **Attaching Sewing Table**

Push the sewing table, inserting the pin ② into the hole until the table snaps into the machine. Insert the second spool pin into the hole ③.

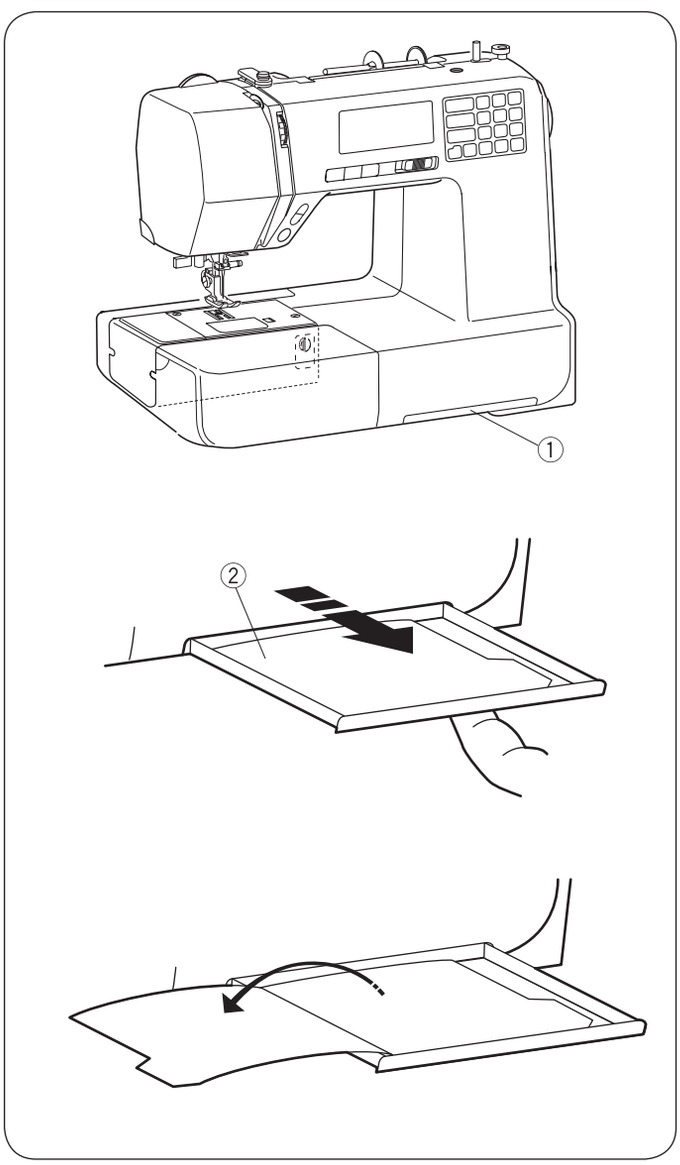
- **Accessory box**

The accessories are stored inside the sewing table. Pull the lid towards you to open the accessory box ④.

④ Accessory box

Free-arm sewing

Free-arm sewing is useful for darning socks and mending the knee or cuff areas of children's clothes.

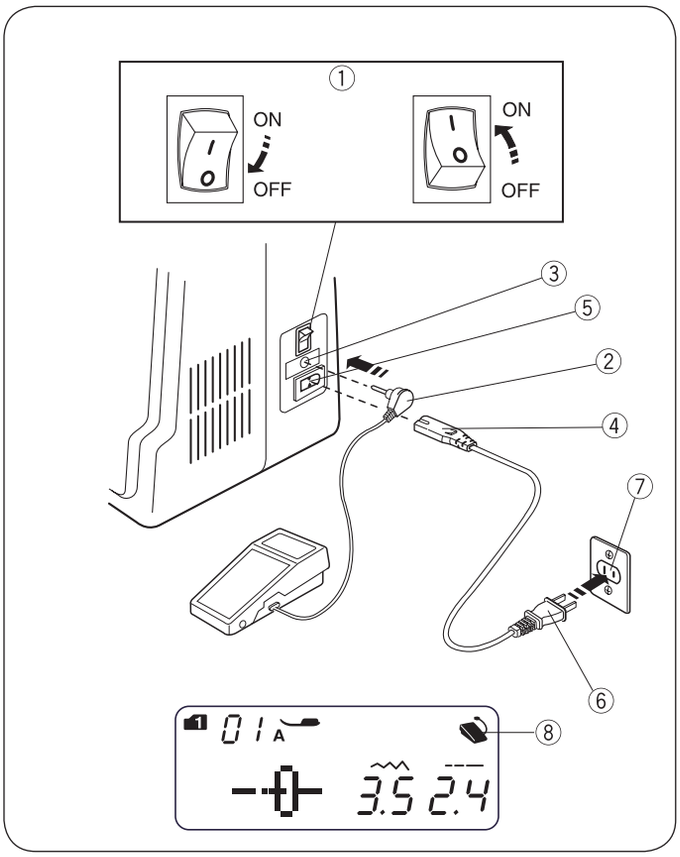


Stitch overview

The stitch overview ② is stored in the drawer ① in the lower part of the sewing machine.

① Drawer for stitch overview
② Stitch overview

Pull the drawer out with your finger as far as it will go. Turn pages to refer the stitch overview.



GETTING READY TO SEW

Connecting the Power Supply

- **Using the foot control**

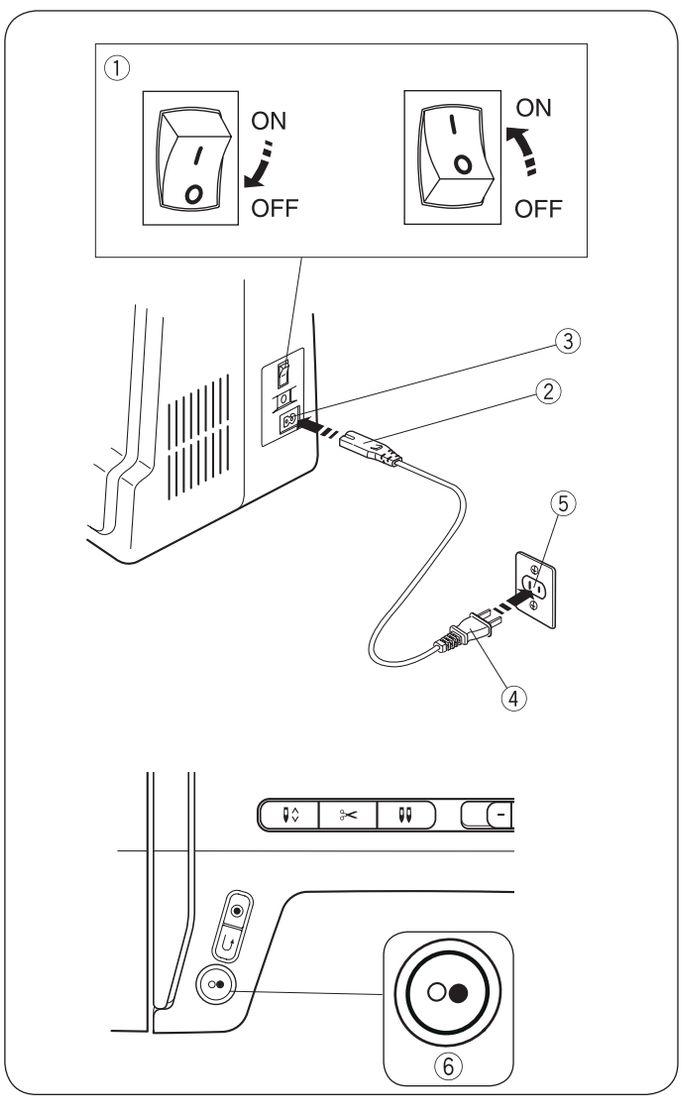
Switch off the power switch ①. Insert the foot control plug ② into the foot control jack ③. Insert the cable plug ④ into the power cable connection ⑤. Insert the power supply plug ⑥ into the wall outlet ⑦. Turn on the power switch ①. The foot control sign ⑧ will be displayed when the foot control is connected to the machine.

① Power switch
② Foot control plug
③ Foot control jack
④ Cable plug
⑤ Power cable connection
⑥ Power supply plug
⑦ Wall outlet
⑧ Foot control sign

⚠ WARNING:

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

Never place anything on the foot control.



Before Using Your Sewing Machine

Before using your sewing machine for the first time, place a scrap of fabric under the presser foot and run the machine without thread for a few minutes. Wipe away any oil which may appear.

- **Using the start/stop button**

Switch off the power switch ①.

Insert the cable plug ② into the power cable connection ③.

Insert the power supply plug ④ into the wall outlet ⑤.

Turn on the power switch ①.

① Power switch
② Cable plug
③ Power cable connection
④ Power supply plug
⑤ Wall outlet
⑥ Start/stop button

PLEASE NOTE:

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

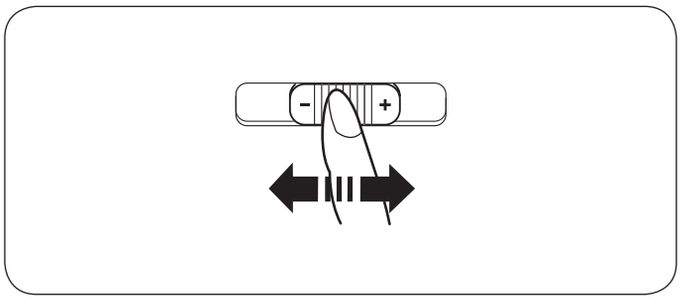
- **Operating Instructions:**

The symbol “0” on a switch indicates the “off” position of a switch.

For appliances with a polarized plug (one blade wider than the other): To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way.

If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way (U.S.A. and Canada only).

* Foot control model YC-485EC-1 is used with this sewing machine.



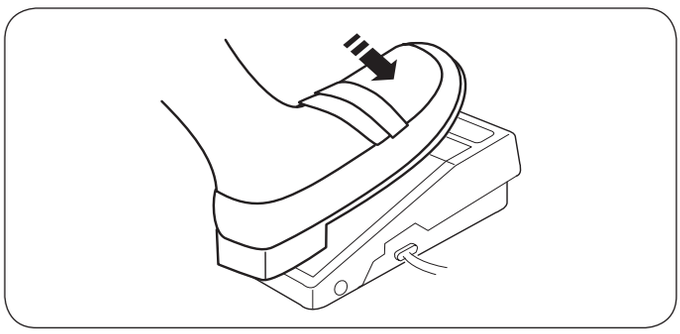
Controlling Sewing Speed

- **Slide speed control**

Sewing speed can be varied by the slide speed control according to your sewing needs.

To increase sewing speed, slide the slider to the right.

To decrease sewing speed, slide the slider to the left.



- **Foot control**

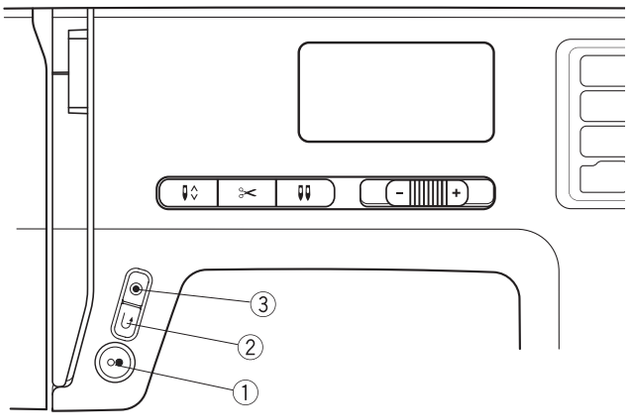
Depress the foot control to start the machine.

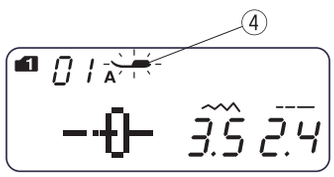
The further down you press on the foot control, the faster the machine runs.

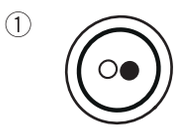
The maximum sewing speed can be varied by the slide speed control.

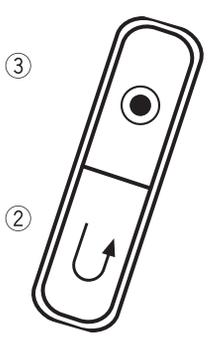
PLEASE NOTE:

The machine will not run and the presser foot mark will blink if you start the machine with the presser foot in the highest position. Lower the presser foot and press the foot control.









Machine Operating Buttons

- **Start/stop button**

Lower the presser foot lever.

Press the start/stop button ① to start the machine.

The machine will sew the left row first. The machine starts running slowly for the first few stitches, and it then runs at the speed set by the slide speed control.

Press the start/stop button again ① to stop the machine.

PLEASE NOTE:

The machine runs slowly as long as this ① button is being pressed.
The start/stop button ① cannot be used when the foot control is connected to the machine.
The machine will not run and the presser foot mark ④ will blink if you start the machine with the presser foot in the highest position. Lower the presser foot and press the start/stop button.

- **Reverse sewing button**

Mode 1	01, 02, 05, 06
Mode 2	01, 02, 05, 06, 13
Mode 3	01, 59, 60
Reverse sewing	Hold the Reverse button ② pressed.
Sewing	Release the Reverse button ②.
Reverse sewing slowly	Press the start/stop button ①, the machine stops. Hold the Reverse button ② pressed, the machine sews in reverse slowly as long the button is pressed.

Mode 1	07
Mode 2	07, 11, 28, 29
Function	Pages 30, 46, 47

Any other stitches

Press the reverse button ②, to sew a locking stitch immediately. The machine will automatically stop.

The exception is by all the eyelets and buttonholes, with which the reverse button remains without function.

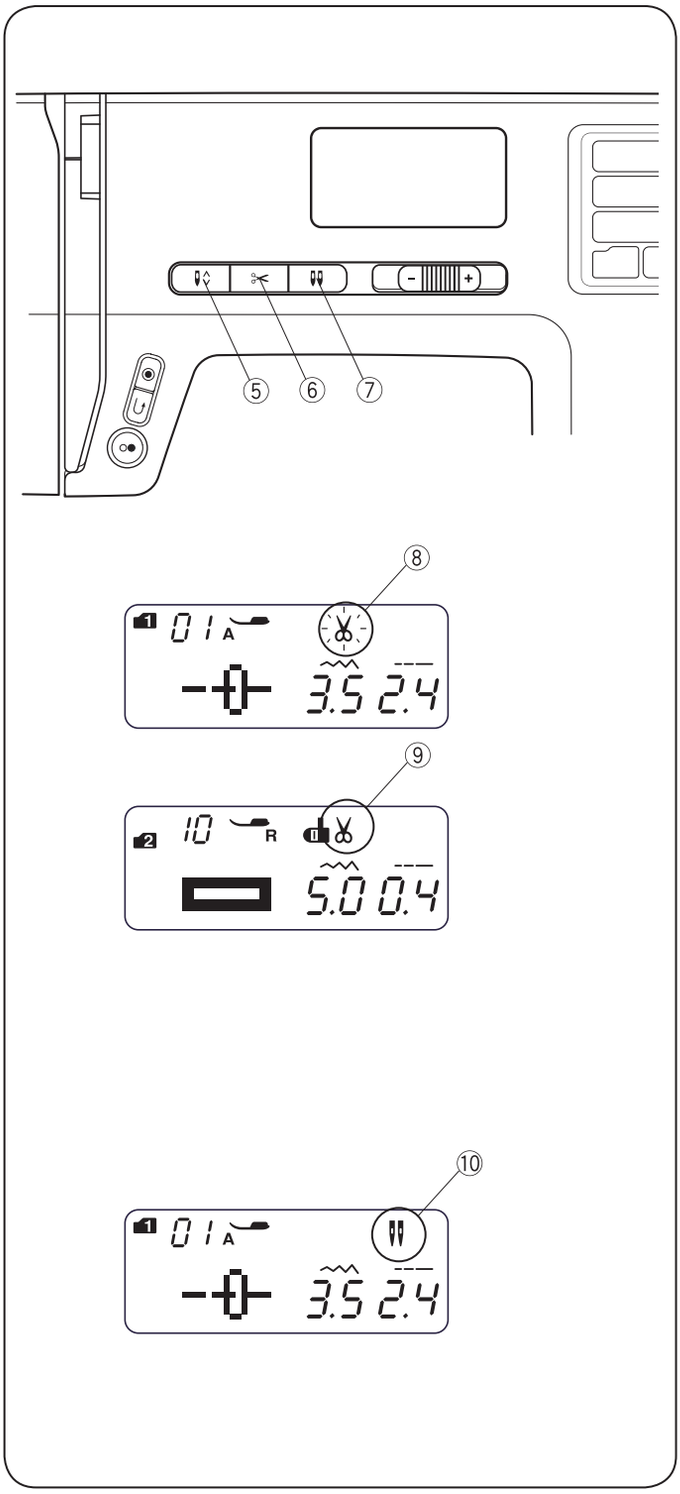
- **Auto-lock button**

Mode 1	01, 02, 05, 06
Mode 2	01, 02, 05, 06, 13,
Mode 3	01, 59, 60
Function	Press the Auto-lock button ③, to sew a locking stitch immediately. The machine will automatically stop.

- **Any other stitches**

Press the auto-lock button ③ to sew a locking stitch at the end of current pattern.

The machine will automatically stop.



- **Needle stop up/down button**

Press the needle stop up/down Button ⑤ to bring the needle up or down.

- **Thread cutter button**

Press the thread cutter button ⑥ to trim the threads after sewing.

The thread cutter mark will blink ⑧, while the machine cuts the threads.

You can continue sewing without pulling the bobbin thread up after trimming the threads.

To trim the threads automatically after sewing, select the desired stitch pattern, then press and hold the thread cutter button until the thread cutter mark appears ⑨.

The machine will trim the threads automatically after the locking stitch then stop when the Reverse sewing stitch or autolock button is pressed, or a pattern has the auto-lock stitch programmed.

PLEASE NOTE:

Use the thread cutter on the head cover if the thread is #30 or thicker.

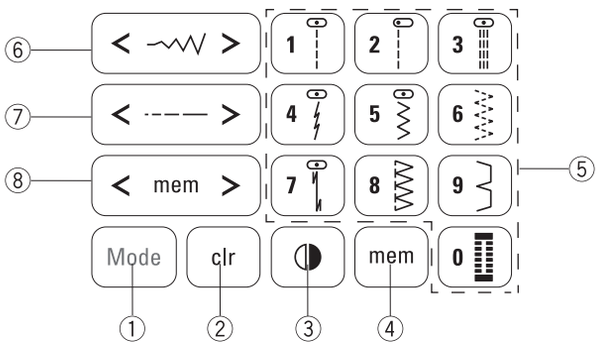
- **Twin Needle button**

Press the twin needle button ⑦ when using a twin needle. The twin needle mark ⑩ will appear when it is activated.

To cancel or finish the twin needle sewing, press the twin needle button twice.

PLEASE NOTE:

When the twin needle mark is blinking, all the other keys and buttons will not be responding. Press the twin needle button again. For twin needle sewing, please refer to page 54.



Touch Panel

① **Mode button**

When the power switch is turned on, the direct pattern selection (mode 1) is set automatically.

Press the mode button to change the mode. Refer to page 24.

② **Clear button**

Press the clear button to clear the memorized stitch pattern.

Press and hold the clear button until the buzzer beeps to clear all memorized stitch patterns. Refer to page 62.

③ **Mirror Image button**

Press the mirror image button to flip the selected stitch pattern horizontally. Refer to page 58.

④ **Memory button**

Press the memory button to memorize the selected pattern. Refer to page 56.

⑤ **Number button (Refer to page 24)**

- Direct pattern selection

You can select the stitch patterns from 01 to 10 directly in mode 1 (direct pattern selection mode).

- Numeric pattern selection

Enter a 2-digit pattern number to select the desired stitch pattern in mode 2 to 6.

⑥ **Stitch width button**

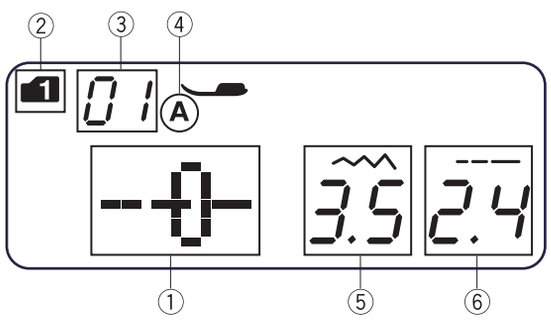
Press "<" or ">", to change the stitch width. Refer to page 29, 32.

⑦ **Stitch length button**

Press "<" or ">", to change the stitch length. Refer to page 29.

⑧ **Cursor**

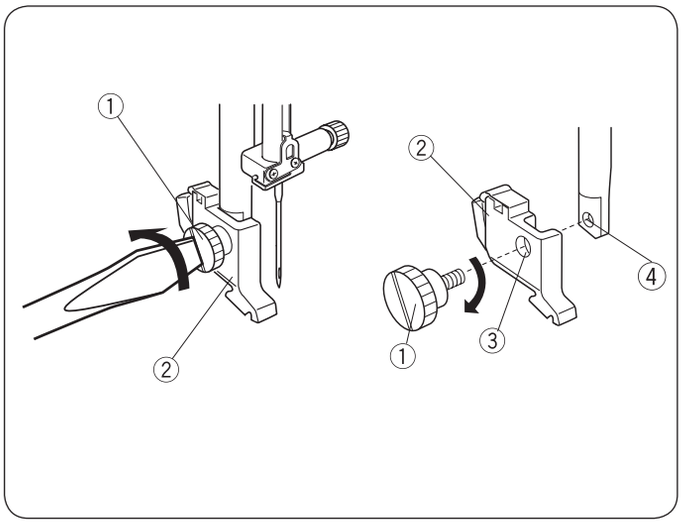
Press "<" or ">", to move the cursor to check or edit the pattern combination. Refer to page 62.



LCD Display

The LCD display shows the following information when the machine is turned on.

① Stitch pattern
② Mode
③ Stitch pattern number
④ Type of presser foot
⑤ Stitch width
⑥ Stitch length



Attaching and Removing the Presser Foot Holder

CAUTION:

Turn OFF the power switch before removing or attaching the presser foot holder.

- **Removing Presser foot holder**

Remove the setscrew by turning it counterclockwise with a screwdriver.

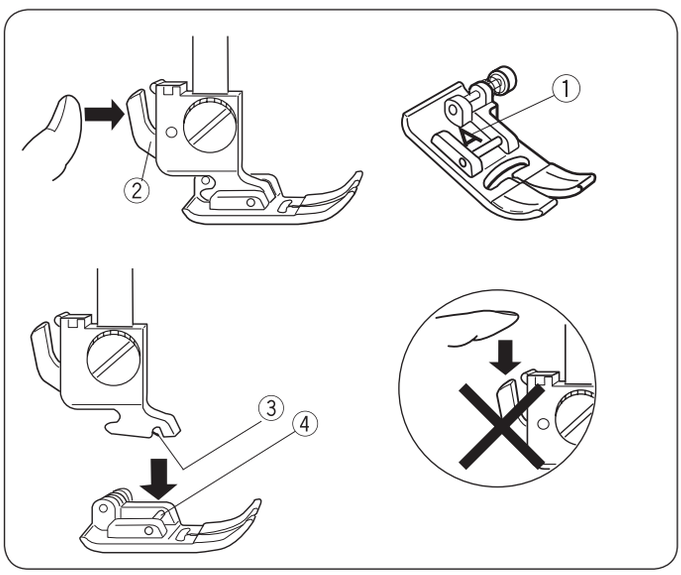
- **Attaching Presser foot holder**

Match the hole in the presser foot holder with the threaded hole in the presser bar.

Fit the setscrew into the hole.

Tighten the setscrew by turning it clockwise with the screwdriver.

① Setscrew
② Presser foot holder
③ Hole
④ Threaded hole



Changing the Presser Foot

CAUTION:

Turn OFF the power switch before changing the foot. Always use the proper foot for the selected pattern.
The wrong foot can cause the needle to break. Each foot is marked with an identification letter.

① Identification letter

- **Removing the presser foot**

Raise the needle to its highest position by turning the hand-wheel counterclockwise. Raise the presser foot, and press the lever on the back of the presser foot holder.

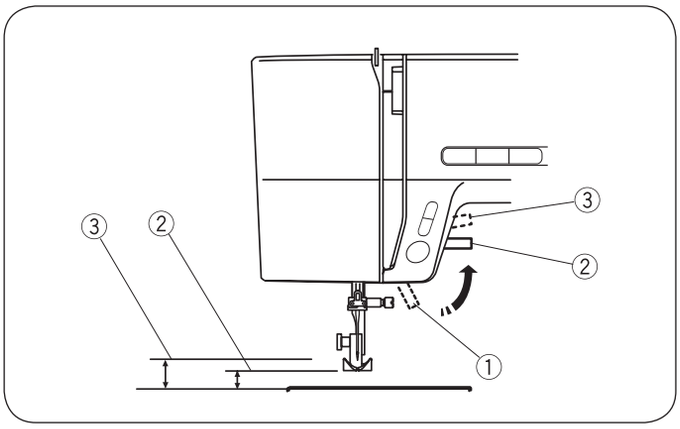
② Lever

- **Attaching the presser foot**

Place the desired presser foot, so that the pin on the foot lies just under the notch on the presser foot holder.

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

③ Notch
④ Pin

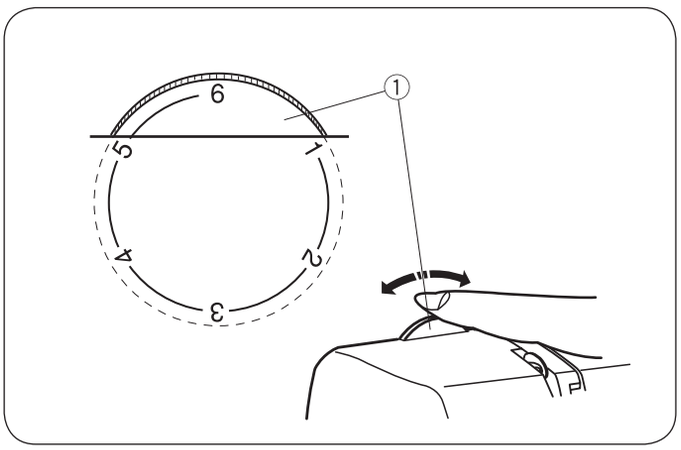


Presser Foot Lever

The presser foot lever raises and lowers the presser foot.

You can raise the foot about 1/4˝ (0.6 cm) higher than the normal up position for easy removal of the presser foot, or to help you place thick material under the foot.

① Presser foot lever
② Normal up position
③ Highest position



Presser Foot Pressure Dial

The presser foot pressure dial should be set at “6” for regular sewing.

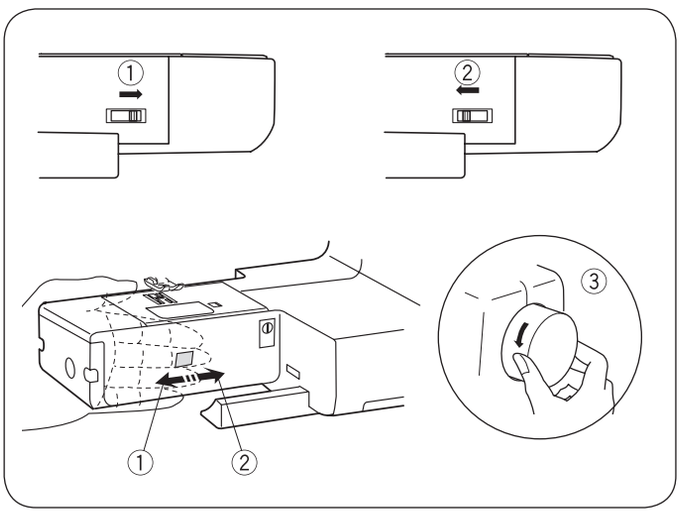
Set the pressure between “3” and “6” for appliqué, cutwork, drawn work, basting and embroidery.

Set the pressure between “1” and “3” when sewing chiffon, lace, organdy and other fine fabrics.

Velour and knits with a lot of stretch may also require a “1” setting.

Turn the presser foot pressure dial ① and set the desired number.

① Presser foot pressure dial



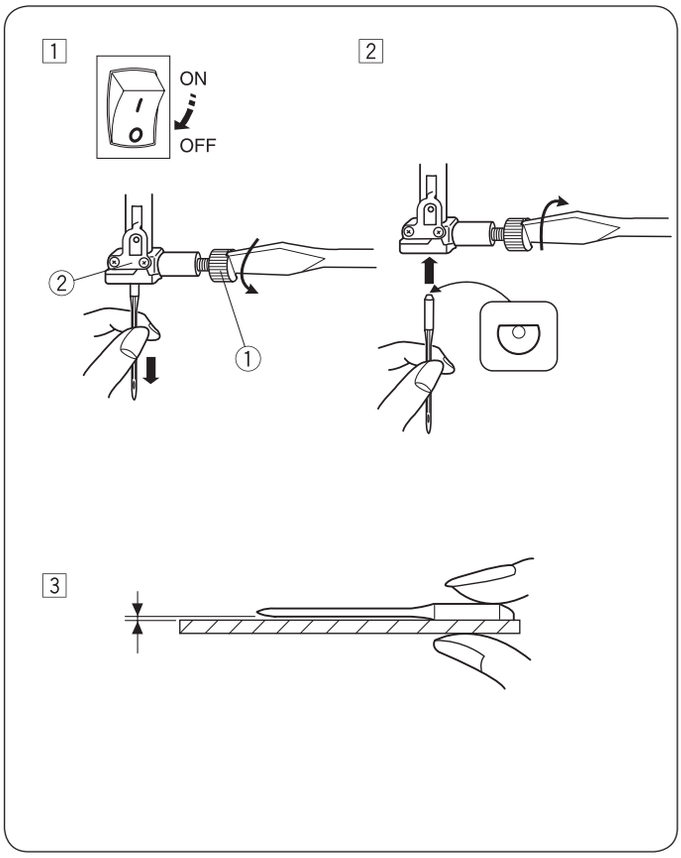
Dropping or Raising the Feed Dog

The drop feed dog lever is located underneath the free arm bed on the back of the machine.

To drop the feed dog, push the lever in the direction of the arrow ①.

To raise the feed dog, push the lever in the direction of the arrow ②, as illustrated, and turn the handwheel toward you ③.

The feed dog must be up for normal sewing.



Changing the Needle

CAUTION:

Turn OFF the power switch before changing the needle.

1 Switch off the power switch. Raise the needle to its highest position by turning the handwheel counterclockwise and lower the presser foot. Loosen the needle clamp screw ① by turning it counterclockwise. Remove the needle from the needle clamp ②.

2 Insert a new needle into the needle clamp ② with the flat side to the rear. When inserting the needle into the needle clamp ②, push it up as far as it goes. Tighten the needle clamp screw ① firmly by turning it clockwise.

3 To see if the needle is good, place the flat side of the needle onto something flat (stitch plate, glass, etc.).
The gap between the needle and the flat surface should be consistent. Never use a bent or blunt needle. A damaged needle can cause permanent snags or runs in knits, fine silks and silk-like fabrics.

① Needle clamp screw
② Needle clamp

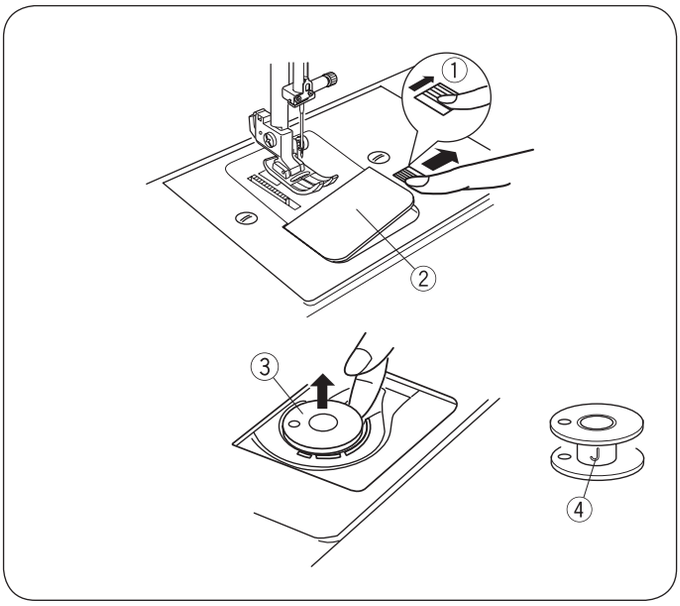
Fabric		Thread	Needle
Fine	Lawn Georgette Tricot Organza Crepe	Silk #80-100 Cotton #80-100 Synthetic #80-100	#9/65-11/75 Needle with blue shank
Medium	Sheeting Jersey Broadcloth Fleece	Silk #50 Cotton #50-80 Synthetic #50-80	#11/75-14/90
Heavy weight	Denim Tweed Coating Quilting	Silk #30-50 Cotton #40-50 Synthetic #40-50	#14/90-16/100

Fabric and Needle Chart

- Use a needle size of 11/75 or 14/90 for general sewing work.
- A fine thread and needle should be used for sewing lightweight fabrics, so the fabric will not be marred.
- Heavy fabric requires a needle large enough to pierce the fabric without the needle thread fraying.
- Always test the needle size on a small scrap of the fabric that will be used for actual sewing.
- In general, use the same thread for the needle and bobbin.
- Use a blue shank needle when sewing flexible fabrics, very fine fabrics and synthetic fabrics. The blue shank needle effectively prevents skipped stitches.

PLEASE NOTE:

1 x Twin Needle, 1 x Needle with blue shank (No. 11/75),
2 x Needle No. 11/75 and 1 x Needle No. 14/90 are in the Needle assortment included.
For optimal sewing results, we recommend using Organ needles.



Bobbin Winding and Inserting

- **Removing the bobbin**

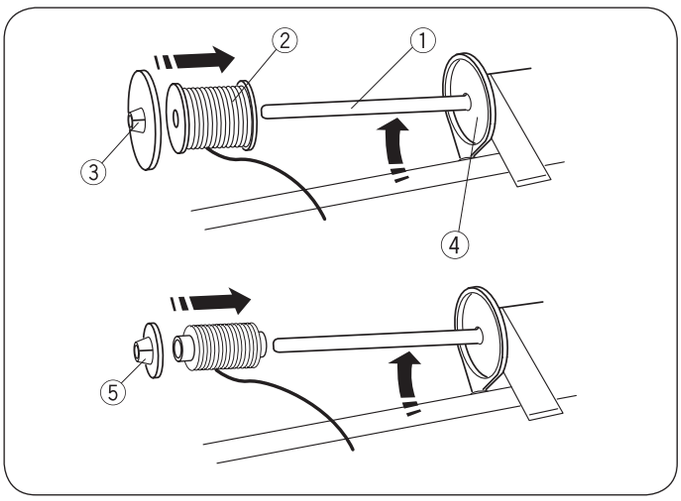
Gently slide the hook cover release button to the right and remove the hook cover plate.

Lift out the bobbin.

① Hook cover release button
② Hook cover plate
③ Bobbin

PLEASE NOTE:

Use the “J” plastic bobbins for horizontal hook (marked with “J” ④). Using other bobbins, such as pre-wound paper bobbins, may cause stitching problems and/ or damage to the bobbin holder.



- **Setting the Spool of Thread**

Horizontal spool pin

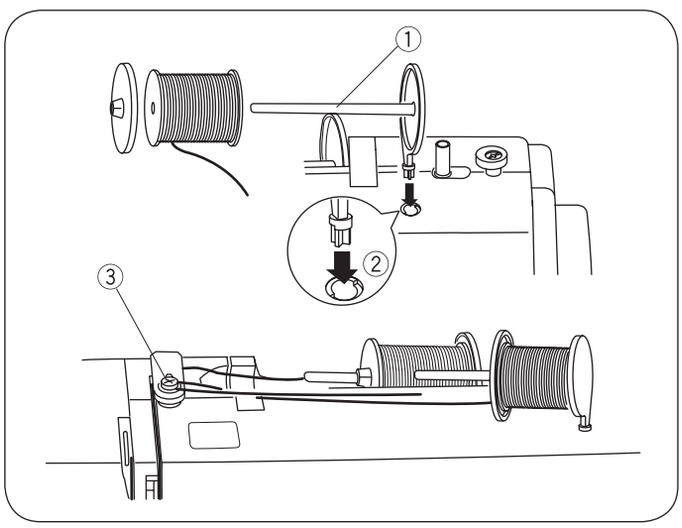
Lift up the spool pin. Place a spool of thread on the spool pin.

Attach the large spool disc, and press it firmly against the spool of thread so that the spool rests on the supporter.

① Spool pin
② Spool
③ Large spool disc
④ Supporter

The small spool disc is used with narrow or small spools of thread.

⑤ Small spool disc



Second spool pin

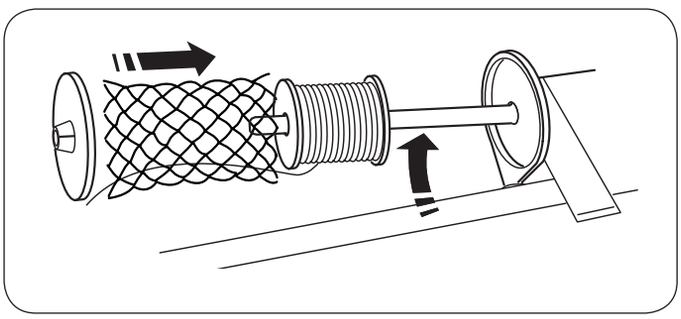
The second spool pin is for winding bobbins without unthreading the machine.

Insert the second spool pin into the hole.

The second spool pin should point to the bobbin winder tension disc.

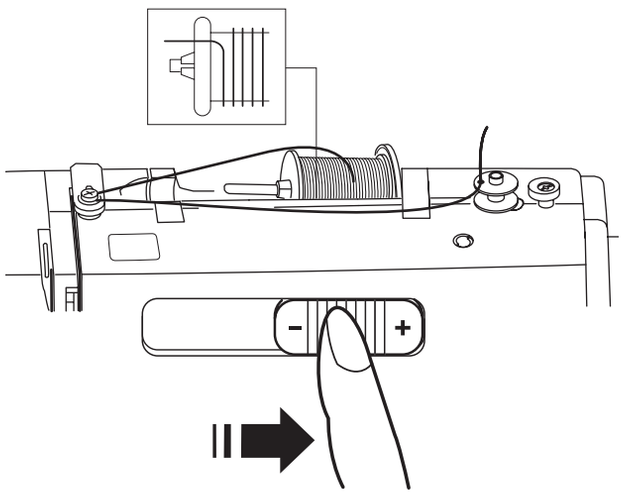
Draw the thread from the spool and pass the thread around the bobbin winding tension disc as shown.

① Second spool pin
② Hole for second spool pin
③ Bobbin winder tension disc

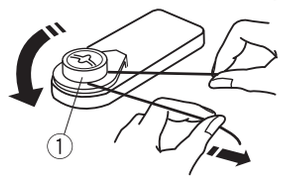


- **Spool net**

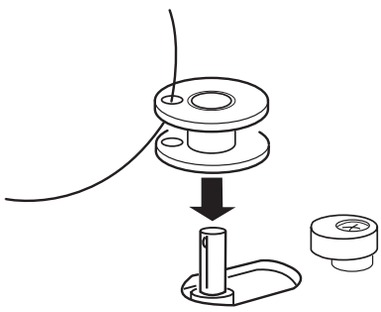
Polyester or bulky nylon threads become loose while unwinding. To keep consistent feeding of such threads, pull the spool net over the spool.



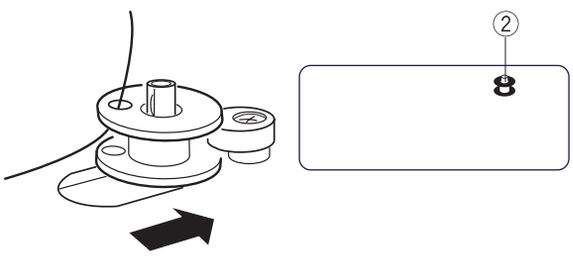
1



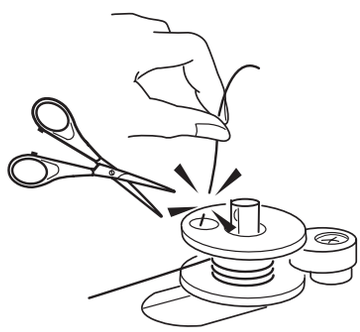
2 3



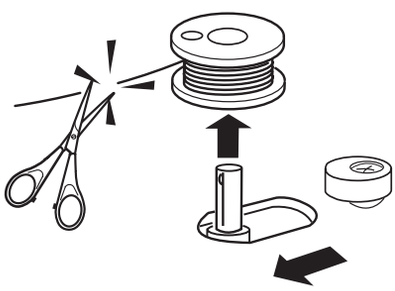
4



5



6 7



• Bobbin Winding

PLEASE NOTE:

Set the slide speed control at its fastest position for bobbin winding.

1 Draw the thread from the spool and pass the thread around the bobbin winding tension disc.

① Bobbin winder tension disc

2 Thread through the hole in the bobbin from the inside to the outside.

3 Put the bobbin on the bobbin winder spindle.

4 Push the bobbin to the right.
The bobbin icon appears on the LCD display.

② Bobbin icon

5 With the free end of the thread held in your hand, start the machine. Stop the machine when it has wound a few layers, and then cut the thread close to the hole in the bobbin.

6 Start the machine. When the bobbin is fully wound, it will stop automatically. Stop the machine and return the slide speed control position. Shift the bobbin winder spindle to the left for stitching. Cut the thread as shown.

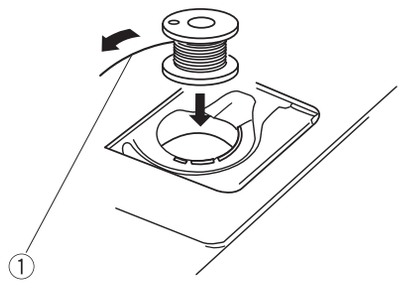
PLEASE NOTE:

For safety purposes, the machine will automatically stop 1.5 minutes after starting bobbin winding.

7 Remove the bobbin. Cut the thread as shown.
Return the slide speed control position.

• Insert the bobbin

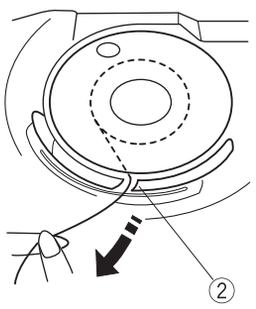
1



1 Put one bobbin on the bobbin winder spindle. Place a bobbin in the bobbin holder with the thread running off counterclockwise.

① End of thread

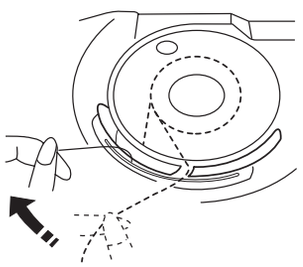
2



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

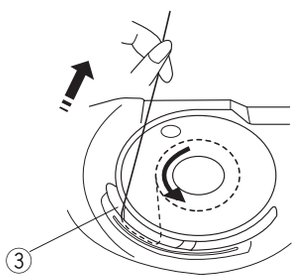
② Notch

3



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

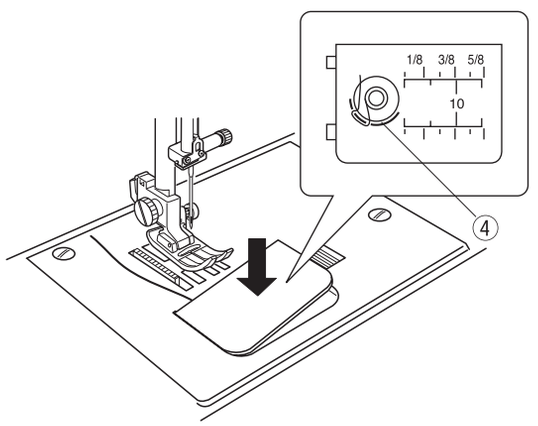
4



4 Continue to draw the thread lightly until the thread slips into the second notch ③. Pull out about 6″ (15 cm) of thread.

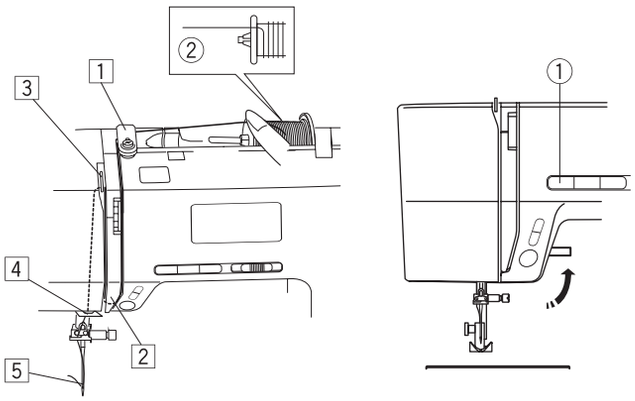
③ Notch

5



5 Attach the hook cover plate. Check the threading. Refer to the diagram ④ shown on the hook cover plate.

④ Threading diagramm



Threading the Machine

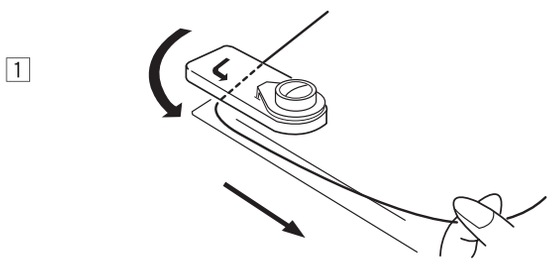
Raise the presser foot. Press the needle stop up/down button ① to raise the thread take-up lever to its highest position.

① Needle stop up/down button

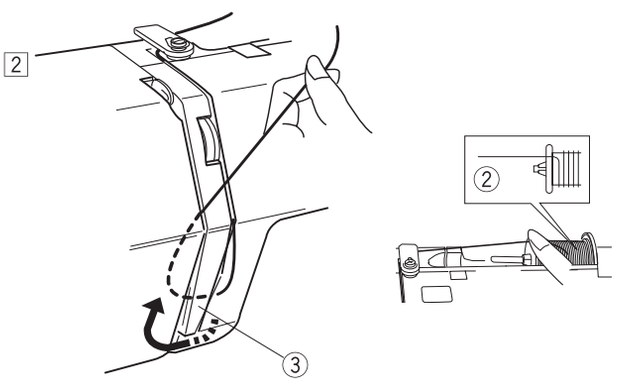
CAUTION:

Turn OFF the power switch before threading the machine.

- **Threading the Machine**

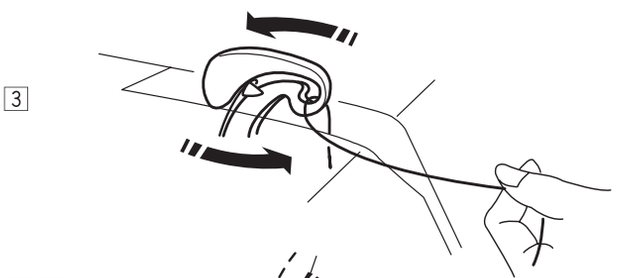


1 Draw the end of the thread around the upper thread guide.

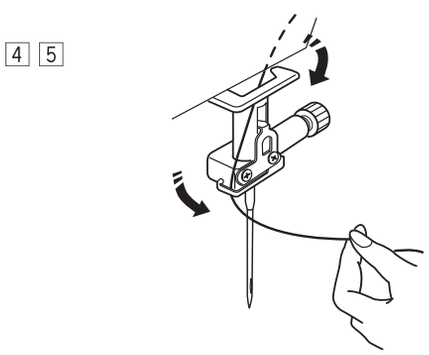


2 While holding the thread near the spool ②, draw the end of the thread down around the check spring holder ③.

② Spool
③ Check spring holder



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



4 Pass the thread through the lower thread guide. Slide the thread behind the needle bar thread guide on the left.

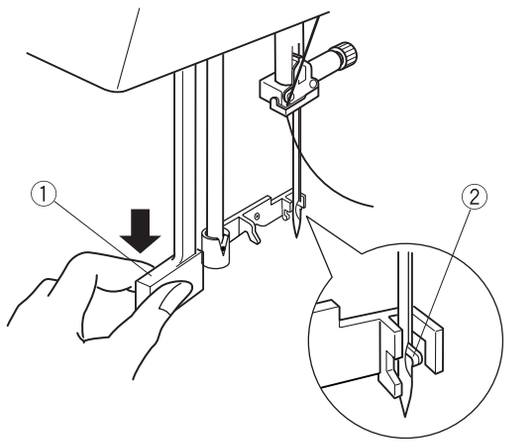
5 Thread the needle from front to back, or use the needle threader.

- **Needle threader**

⚠ CAUTION:

Turn OFF the power switch when using the needle threader.

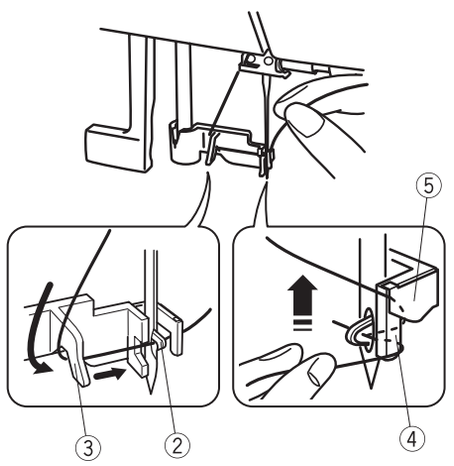
1



1 Lower the presser foot. Raise the needle to its highest position. Pull down the needle threader ① as far as it will go. The hook comes out through the needle eye from behind.

① Knob

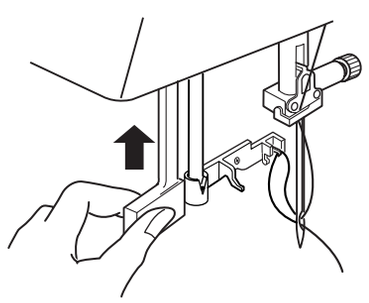
2



2 Draw the thread from guide (a) ③ to guide (b) ④ and under the hook ②. Draw the thread up along the right side of guide (b) ④ and slip the thread in between guide (b) and the holder plate ⑤.

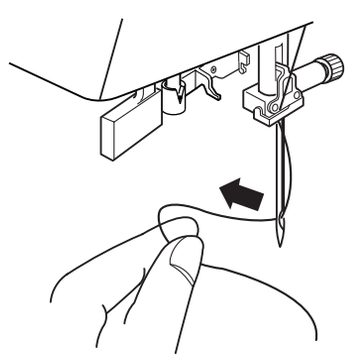
② Hook
③ Guide (a)
④ Guide (b)
⑤ Holder plate

3



3 Raise knob threader in the direction of the arrow, drawing the thread loop through the needle.

4



4 Pull the thread through the needle eye.

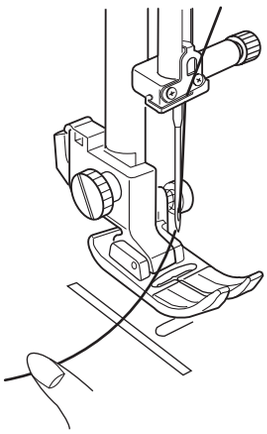
PLEASE NOTE:

The needle threader can be used with a #11 to #16 needle or a blue shank needle. Thread sizes 50 to 90 are recommended.
The threader can't be used for a twin needle.

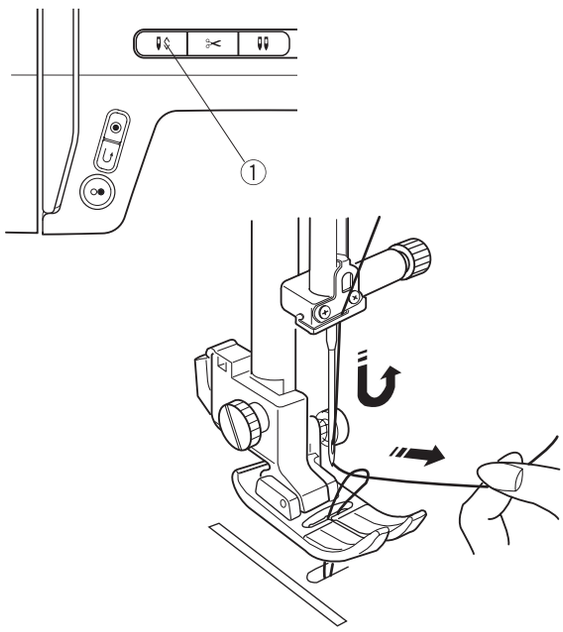
- **Drawing up the Bobbin Thread**

1 Raise the presser foot. Hold the needle thread lightly with your left hand.

1



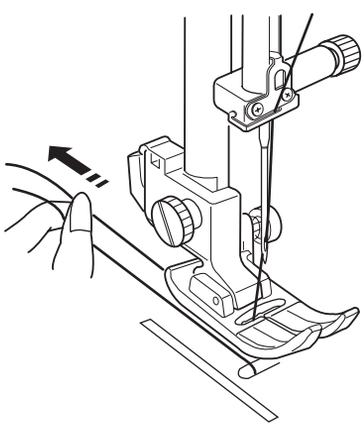
2



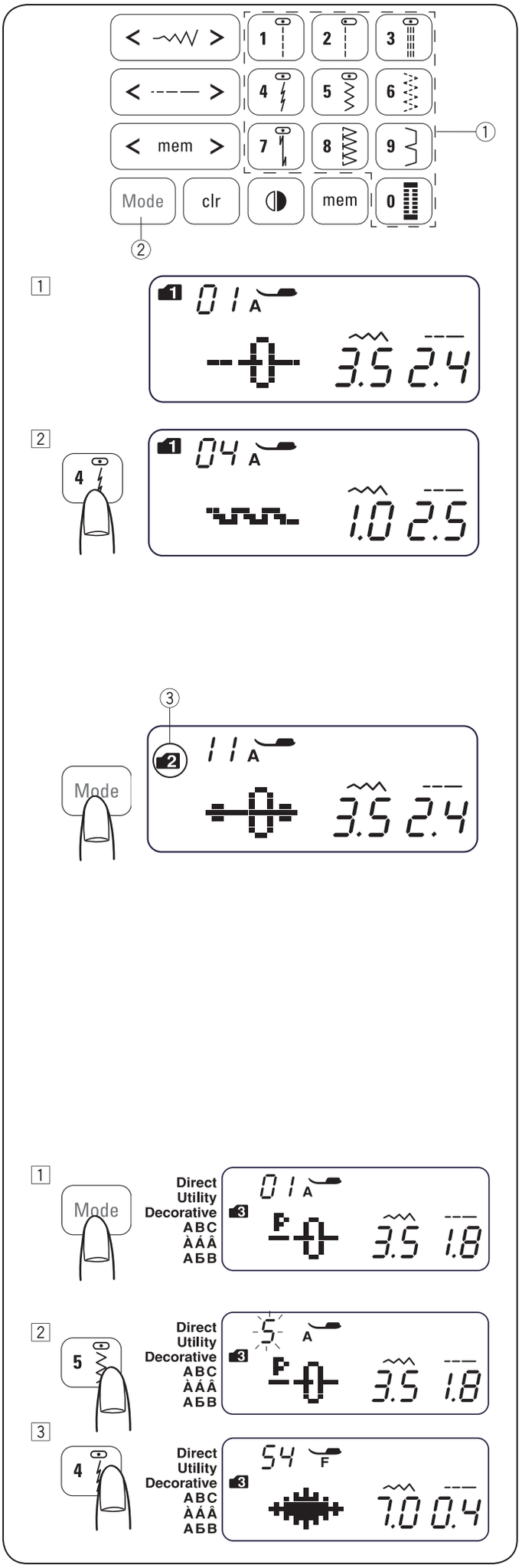
2 Press the needle stop up/down button ① twice to lower and raise the needle to pick up the bobbin thread.

① Needle stop up/down button

3



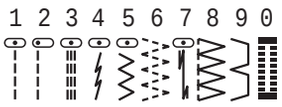
3 Pull both threads 4″ to 6″ (10 to 15 cm) under and behind the presser foot.



Pattern Selection

- **Mode 1**

You can select the following stitch patterns directly by pressing the pattern keys ①.



Example: To select stitch pattern 4 in mode 1.

1 When the power switch is turned on, the direct pattern selection (mode 1) is set automatically.

2 Press the pattern key 4 to select the stitch pattern 4.Now pattern 4 in mode 1 is selected.

- **Mode 2 – 6**

To select stitch patterns in mode 2–6, first press the mode button ② to select your desired mode. Each time you press the mode button, the folder ③ indicated on the left side of the screen will change, and the mode changes as follows:

Mode 1 : Direct pattern selection
Mode 2 : Utility stitch pattern selection
Mode 3 : Decorative stitch pattern selection
Mode 4 : Number and letter selection
Mode 5 : European accented letter selection
Mode 6 : Russian (Cyrillic) letter selection

The number on the folder ③ indicates the selected mode number. To refer to the modes and their available stitch patterns for this sewing machine, please check the Stitch overview in the drawer or stitch reference on page 70.

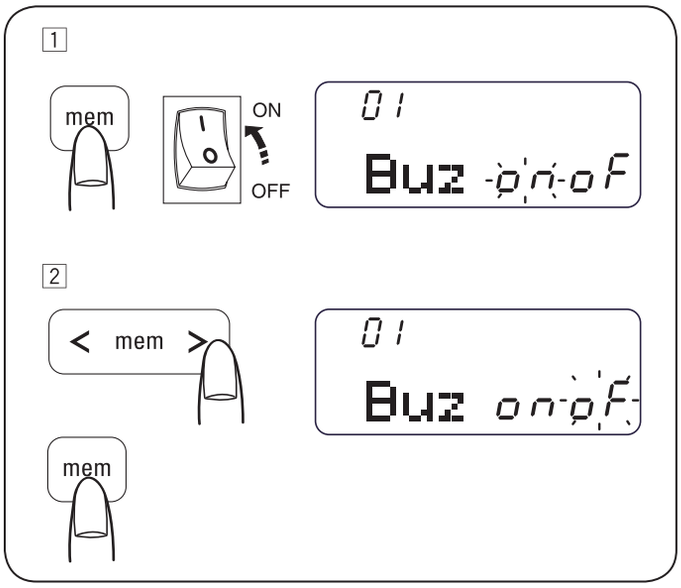
Enter the 2-digit number of the desired stitch pattern with the corresponding number button.

Example: To select stitch pattern 54 in mode 3.

1 Turn on the power switch . Turn the power switch on. Press the mode button twice to select mode 3.

2 Press the number button on the touch panel. First press key 5 and then press key 4.

3 Now pattern 54 in mode 3 is selected.



Setting Mode

To enter the setting mode, press and hold the memory button and turn the power switch on until the setting mode screen appears.

In this mode you can set the following machine functions.

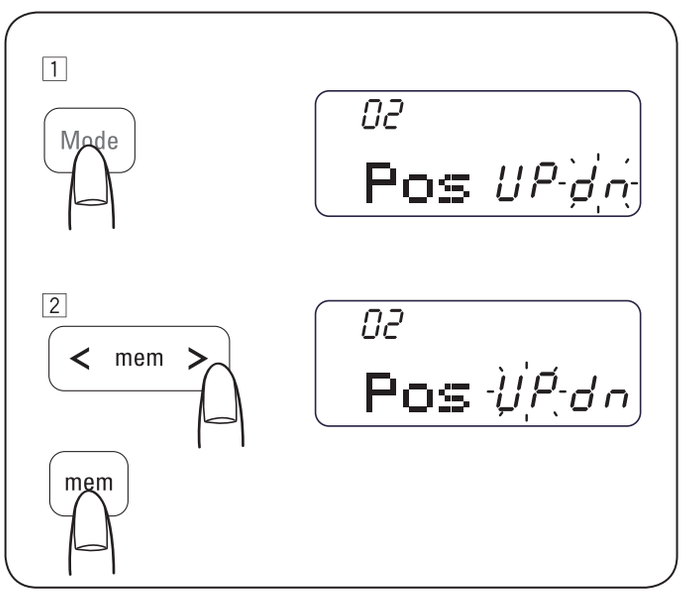
- **Buzzer sound setting**

The buzzer sound can be turned on or off using the buzzer sound setting.The default buzzer sound setting is “ON”.

1 Enter the setting mode.

2 To turn off the buzzer sound, press the cursor. The “oF”mark will blink. Press the memory button to turn the buzzer sound off.

* Caution buzzer sound cannot be turned off.

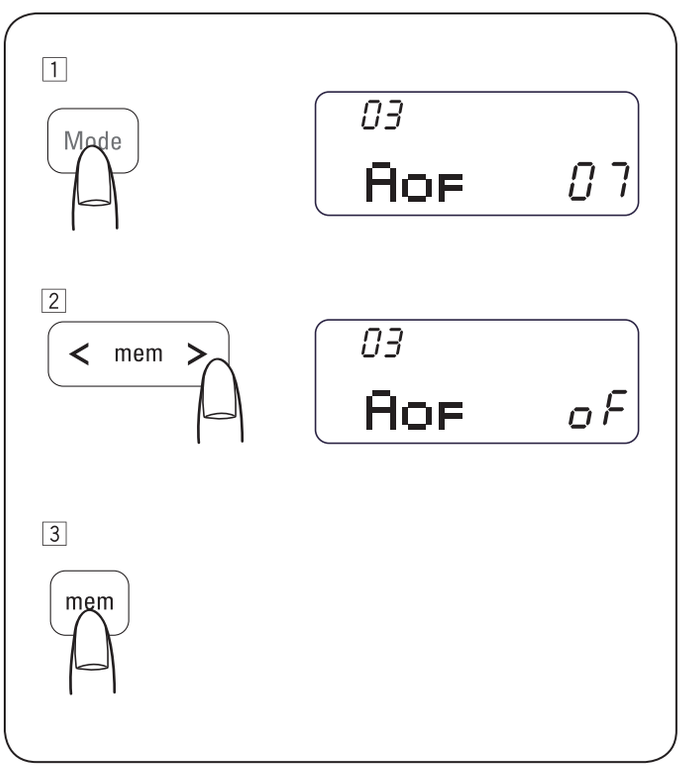


- **Permanent needle stop position setting**

You can set the needle stop position to up or down when the machine stops.

1 Enter the setting mode. Press the mode button to enter the up/down needle position setting.

2 The default up/down needle position setting is “dn”.To change the needle position, press the cursor. The “UP” mark will blink.Press the memory button to change the up/down needle position to “UP”.



- **Auto-off timer**

The machine will be turned off if you do not use the machine within the time period set by this timer.

The auto-off timer can be set from 1 to 12 hours.

The default auto-off timer setting is 7 hours and “07” sign appears on the screen.

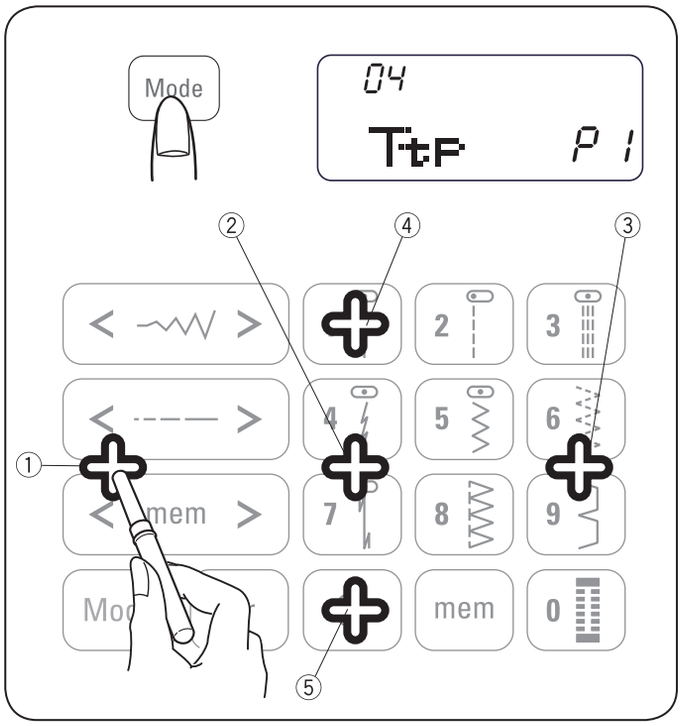
1 Enter the setting mode. Press the mode button 2 times to enter the auto-off timer setting.

2 Press cursor to increase or decrease the setting value.If you wish to turn off the timer, press and hold the cursor button until “oFF” sign appears on the screen.

3 Press the memory button to apply the setting.

PLEASE NOTE:

The auto-off timer is available in EU countries and some regions which use 200 - 240 voltage standards.

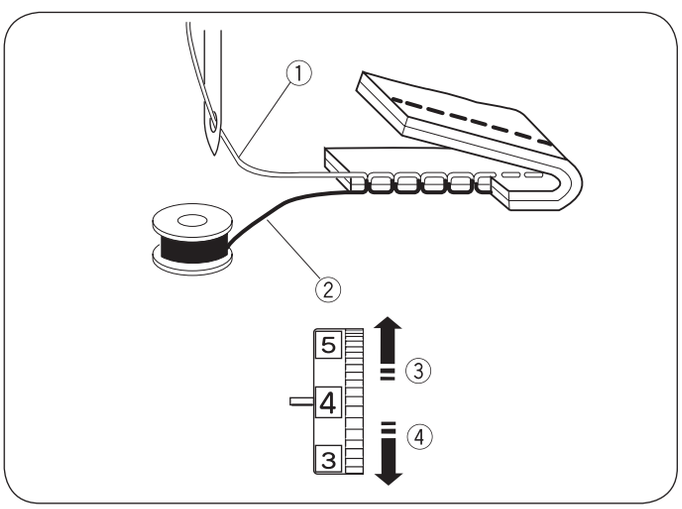


- **Key position adjustment**

You can adjust the key position when you think the key sensor is off from the actual key position.

1. Enter the setting mode. Press the mode button 2 or 3 times to enter the key position adjustment.
2. The key position adjustment screen appears."P1" is shown on the right side of the screen. With a buttonhole opener, press ① on the touch panel of your machine.
3. "P2" will be shown on the LCD display. Press the ② on the touch panel.
4. "P3" will be shown on the LCD display. Press the ③ on the touch panel.
5. "P4" will be shown on the LCD display. Press the ④ on the touch panel.
6. "P5" will be shown on the LCD display. Press the ⑤ on the touch panel.
7. The screen will back to the Buzzer sound setting screen. Press the memory button to apply the adjustment.

Adjusting the Thread Tension for a Straight Stitch



- **Correct tension**

① Needle thread (top thread)
② Bobbin thread (bottom thread)
③ To loosen tension
④ To tighten tension

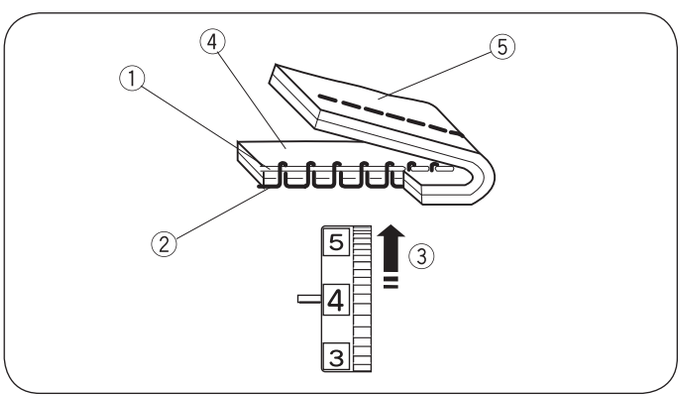
The ideal straight stitch has threads locked between two layers of fabric, as illustrated (magnified to show detail).

If you look at the top and bottom of the seam, notice that the stitches are evenly balanced.

When adjusting the thread tension, the higher the number, the tighter the needle thread tension.

Results depend on:

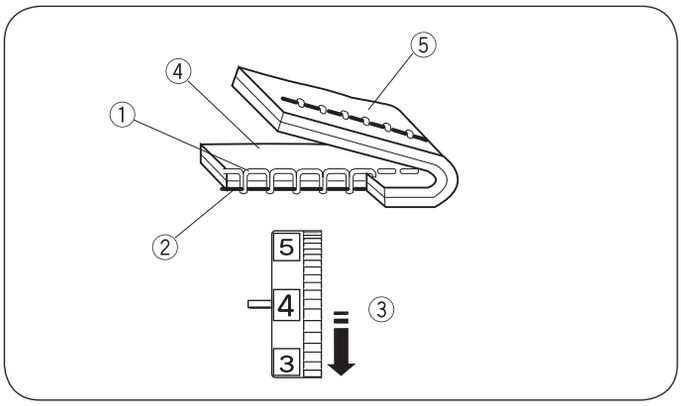
- stiffness and thickness of the fabric
- number of fabric layers
- Stichtyp



- **Tension is too tight**

① Needle thread (top thread)
② Bobbin thread (bottom thread)
③ To loosen tension
④ Right side (top side) of fabric
⑤ Wrong side (bottom side) of fabric

The bobbin thread shows through on the right side of the fabric, and the stitch feels bumpy. Turn the dial to a lower tension setting number to loosen the thread tension.



- **Tension is too loose**
  - ① Needle thread (top thread)
  - ② Bobbin thread (bottom thread)
  - ③ To tighten tension
  - ④ Right side (top side) of fabric
  - ⑤ Wrong side (bottom side) of fabric

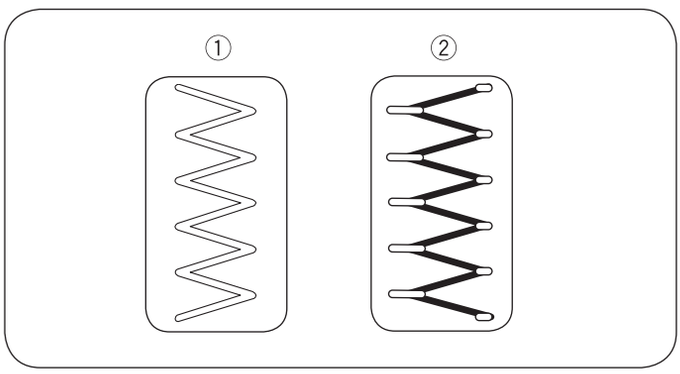
The needle thread shows through on the wrong side of the fabric, and the stitch feels bumpy. Turn the dial to a higher tension setting number to tighten the thread tension.

Adjusting the Needle Thread Tension for a Zigzag Stitch

In an ideal zigzag stitch, the bobbin thread does not show on the right side (top) of the fabric, and the needle thread shows slightly on the wrong side (bottom) of the fabric.

See the illustrations for the correct appearance.

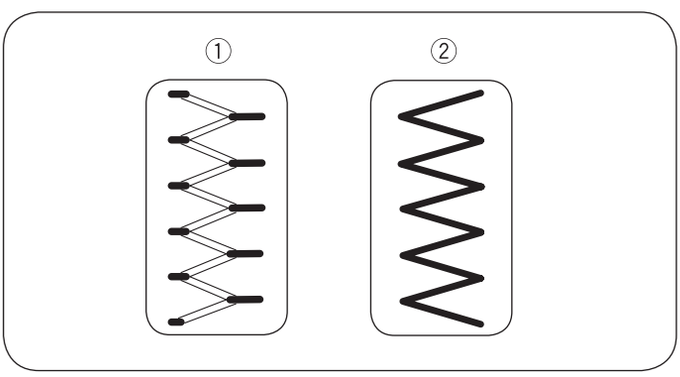
To match this appearance, adjust the needle tension as.



- **Correct tension**
  - ① Right side (top side) of fabric
  - ② Wrong side (bottom side) of fabric

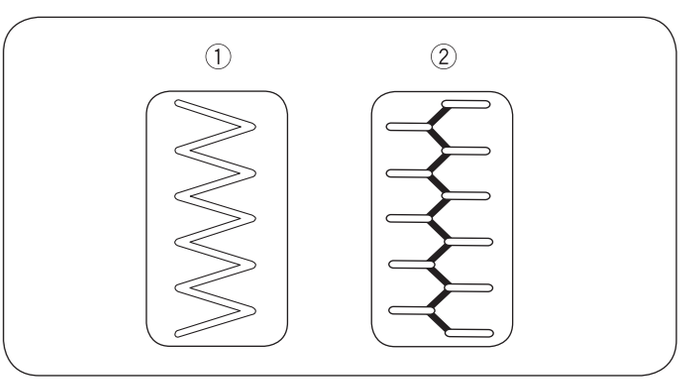
Minimize the amount of needle thread visible on the wrong side (bottom side) of the fabric without causing excessive puckering, or causing the bobbin thread to show on the right side (top side) of the fabric.

Results vary with fabric, thread and sewing conditions.



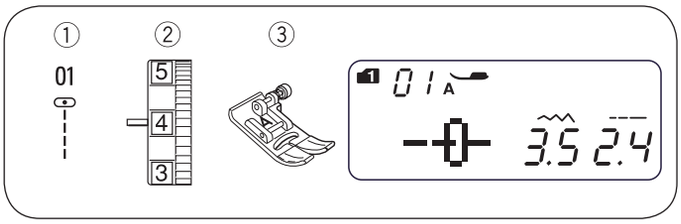
- **Tension is too tight**
  - ① Right side (top side) of fabric
  - ② Wrong side (bottom side) of fabric

The corner of each zigzag pulls together on the right side of the fabric



- **Tension is too loose**
  - ① Right side (top side) of fabric
  - ② Wrong side (bottom side) of fabric

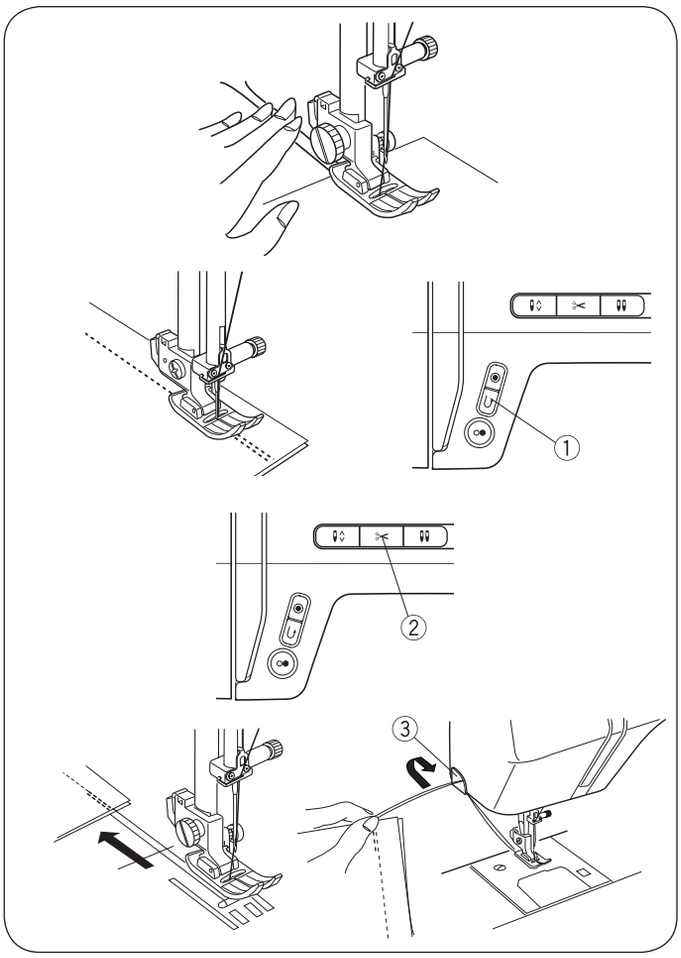
The corner of each zigzag point pulls together on the wrong side of the fabric.



BASIC SEWING

Straight Stitch sewing

① Stitch pattern: Mode 1 : 1
Mode 2 : 01
② Thread tension: 2 - 6
③ Presser foot: Zigzag foot



• Starting to sew

Raise presser foot and position the fabric next to a seam guide line on the stitch plate (5/8″ (1.6 cm) is most common). Lower the needle to the point where you want to start. Lower the presser foot and pull the threads toward the back. Start the machine. Gently guide the fabric along a seam guide line letting the fabric feed naturally.

• Finishing sewing

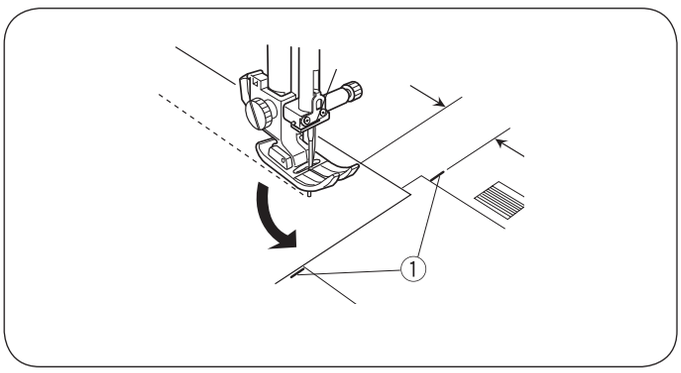
To fasten the ends of a seam, press the reverse sewing button ① and sew several Reverse sewing stitches. Press the thread cutter button ② to trim threads after sewing.

① Reverse sewing button
② Thread cutter button

Raise the presser foot.

Use the thread cutter ③ on the face plate to cut thicker threads.

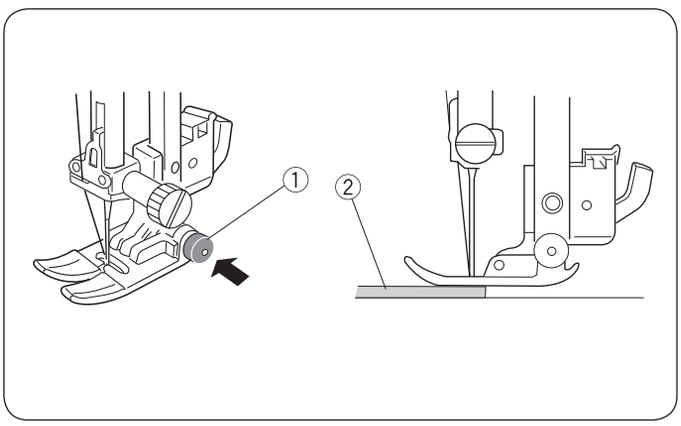
③ Thread cutter



• Turning square corners

To sew at the same distance from the edge when turning a corner with the fabric edge at the 5/8″ seam guide, stop the machine when the front edge of the fabric reaches the cornering guide lines ① and raise the presser foot. Turn the fabric counterclockwise 90°, lower the presser foot and begin stitching in a new direction.

① Cornering guide



• Sewing from the edge of thick fabric

The black button ① on the zigzag foot locks the foot in the horizontal position.

This is helpful when starting to sew from the far edge of thick fabrics ② or sewing across a hem.

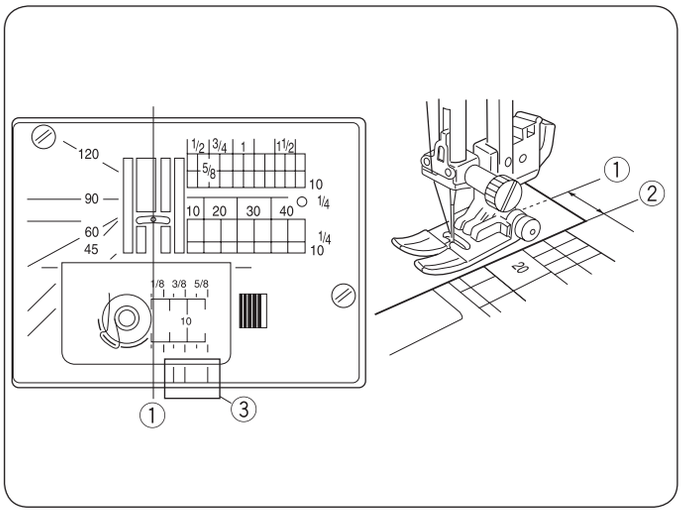
Lower the needle into the fabric at the point where you wish to start sewing.

Lower the foot while pushing in the black button ①.

The foot is locked in the horizontal position to avoid slipping.

The button is released automatically after sewing a few stitches.

① Black button
② Thick fabrics



- **Stitch plate**

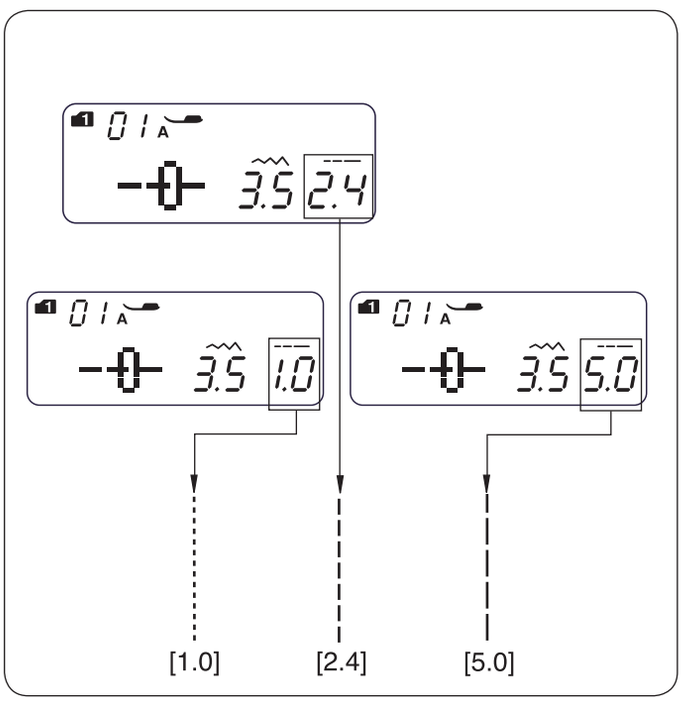
The seam guides on the stitch plate and the hook cover help you to measure seam allowance. The numbers on the stitch plate indicate the distance between the center needle position ① and the edge of the fabric ②.

① Center needle position
② Edge of the fabric

Number	10	20	30	40	1/2	5/8	3/4	1	1 1/2
Distance (cm)	1.0	2. 0	3.0	4.0	—	—	—	—	—
Distance (inch)	—	—	—	—	1/2	5/8	3/4	1	1 1/2

The front seam guides ③ are marked at 1/8″, 3/8″ and 5/8″ from the center needle position ①.

③ Front seam guides



- **Adjusting the stitch length**

Press the stitch length button < ---- > to change the stitch length.

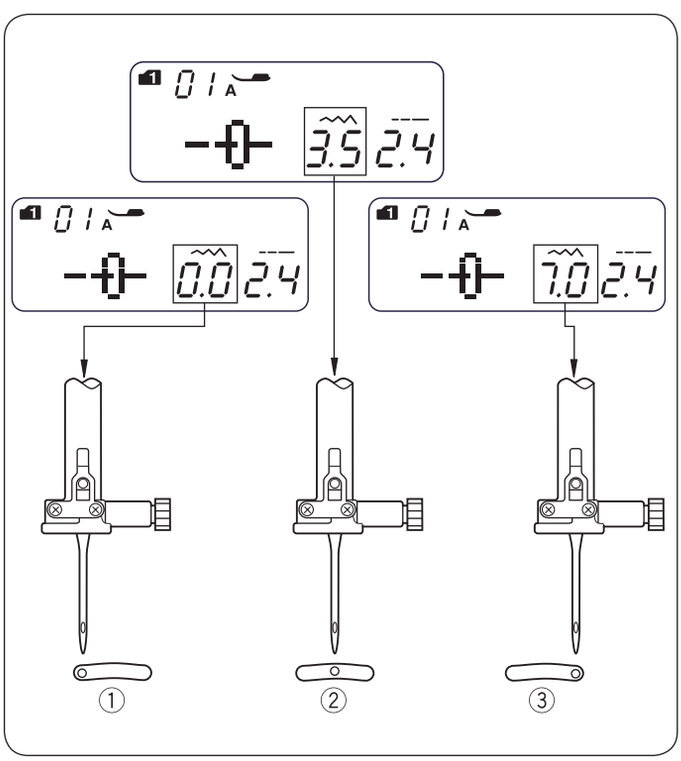
Press "<" to decrease stitch length.

Press ">" to increase stitch length.

The stitch length can be varied from 0.0 to 5.0.

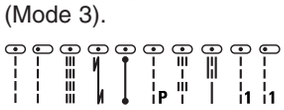
PLEASE NOTE:

Reverse stitch cannot be longer than 4.0 mm.



- **Adjusting the needle position**

The needle position can be adjusted for straight stitch patterns 01–03, 07 (Mode 1 and 2), 11 (Mode 2) and 01–03, 59–60 (Mode 3).

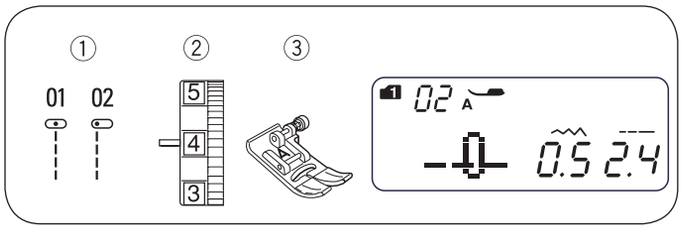


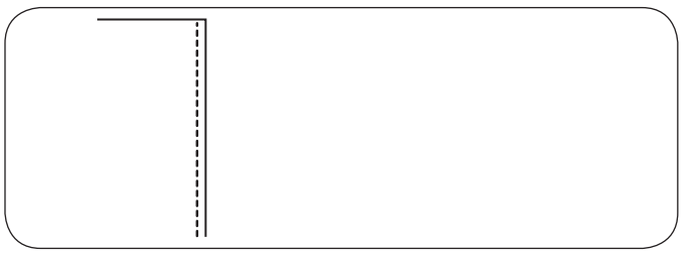
Press the stitch width button < ~W > to change the needle position.

Press ">" to move the needle to the right ③.

Press "<" to move the needle to the left ①.

① Left (0.0)
② Middle (3.5)
③ Right (7.0)



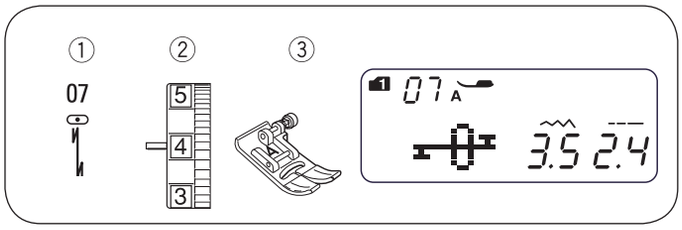


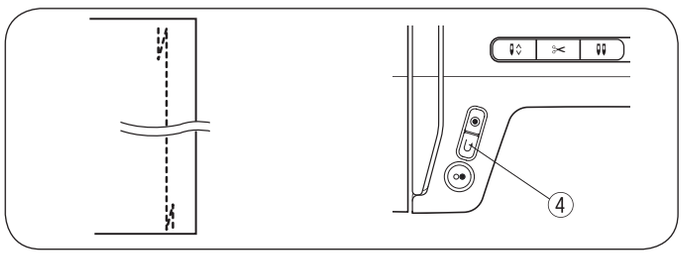
Straight Stitch

① Stitch pattern: Mode 1 : 1 or 2
Mode 2 : 01 or 02
② Thread tension: 2 - 6
③ Presser foot: Zigzag foot

For seaming garments, zipper application and more.

Pattern 02 is used for seaming fine fabrics.



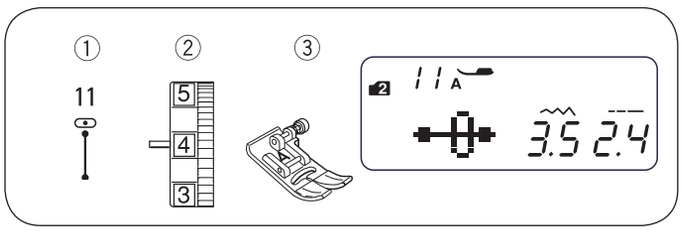


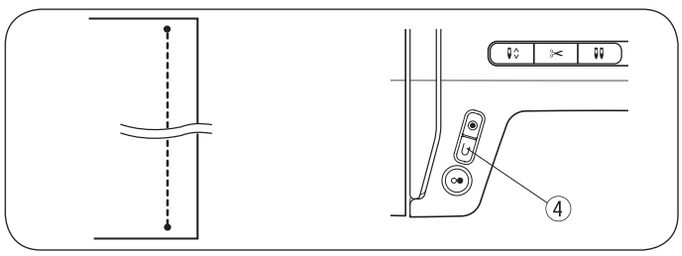
Securing Stitch

① Stitch pattern: Mode 1 : 7
Mode 2 : 07
② Thread tension: 2 - 6
③ Presser foot: Zigzag foot
④ Reverse sewing button

Use this stitch to secure the beginning and the end of a seam with backstitching.

When you reach the end of the seam, press the reverse sewing button ④ once. The machine will sew four reverse sewing stitches, four forward stitches, and then stop sewing automatically.





Locking Stitch

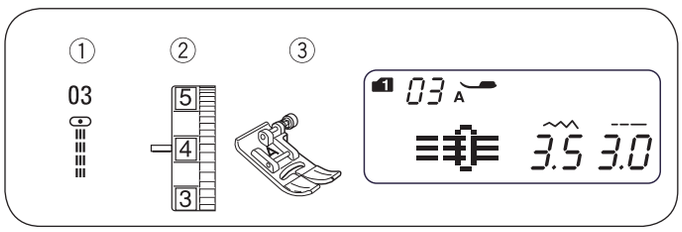
① Stitch pattern: Mode 2 : 11
② Thread tension: 2 - 6
③ Presser foot: Zigzag foot
④ Reverse sewing button

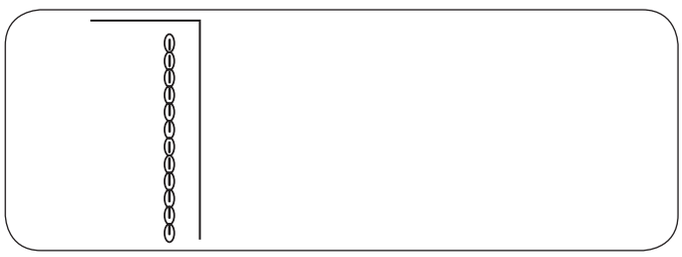
This unique stitch is used where an invisible locking stitch is needed.

Lower the needle close to the front edge of the fabric.

The machine will sew several locking stitches in place and continue sewing forward.

When you press the reverse sewing button ④ at the end of the seam, the machine will sew several locking stitches in place, then stop sewing automatically.

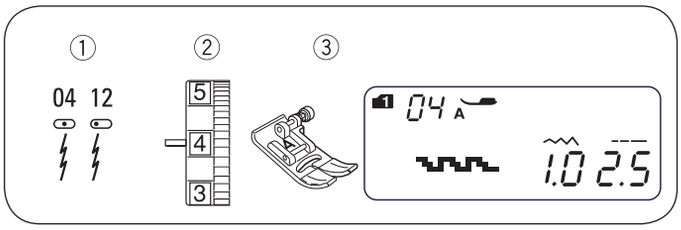


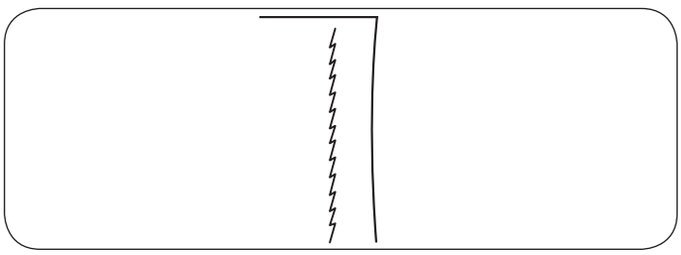


Triple Straight Stitch

① Stitch pattern: Mode 1 : 3
Mode 2 : 03
② Thread tension: 2 - 6
③ Presser foot: Zigzag foot

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

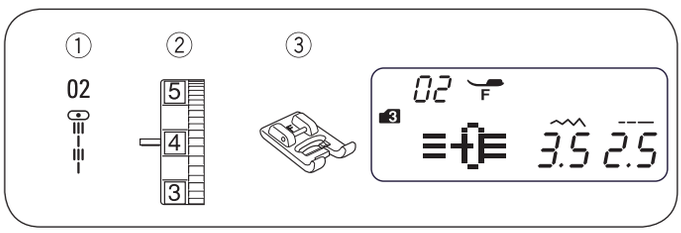


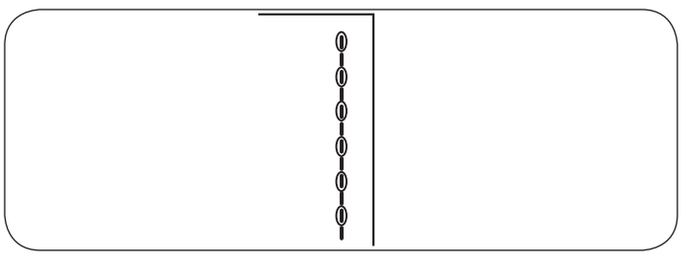


Stretch Stitch

① Stitch pattern: Mode 1 : 4
Mode 2 : 04 or 12
② Thread tension: 3 - 6
③ Presser foot: Zigzag foot

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



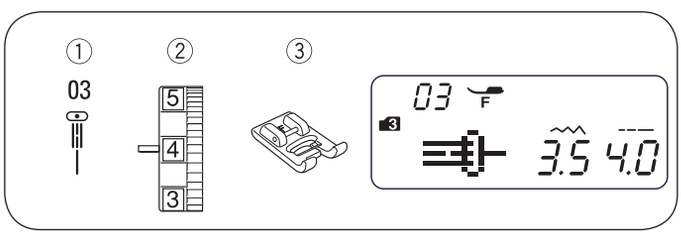


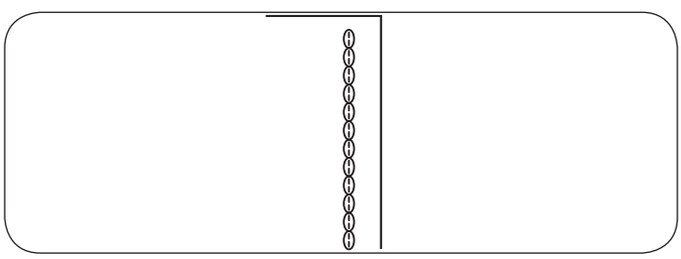
Sculpture Stitch

① Stitch pattern: Mode 3 : 02
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot

For top stitching and outlining designs.

Sew slowly at the corners.

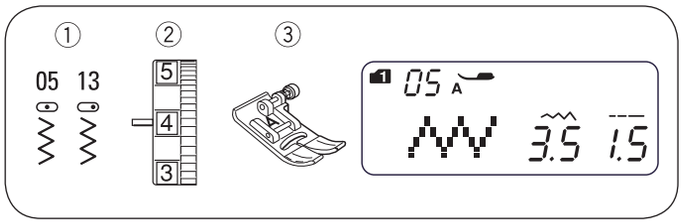




New Sculpture Stitch

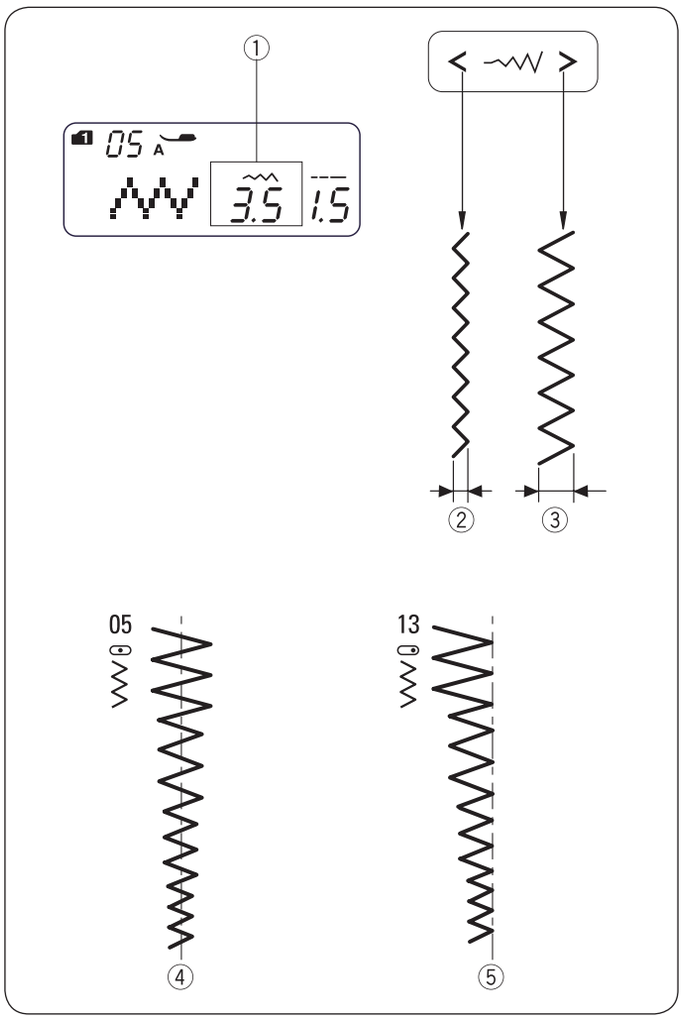
① Stitch pattern: Mode 3 : 03
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot

This stitch is used for topstitches and outline-stitches enhancing a design's appearance.



Zigzag

① Stitch pattern: Mode 1 : 5
Mode 2 : 05 or 13
② Thread tension: 2 - 6
③ Presser foot: Zigzag foot



The zigzag stitch is one of the most useful and versatile stitches.

It is used for overcasting, darning, appliqué, and also used as a decorative stitch.

PLEASE NOTE:

Use an interfacing when sewing on stretch fabrics such as knit, jersey or tricot.

- **To adjust the stitch width**

Press the stitch width < ~ > to change the stitch width ①.

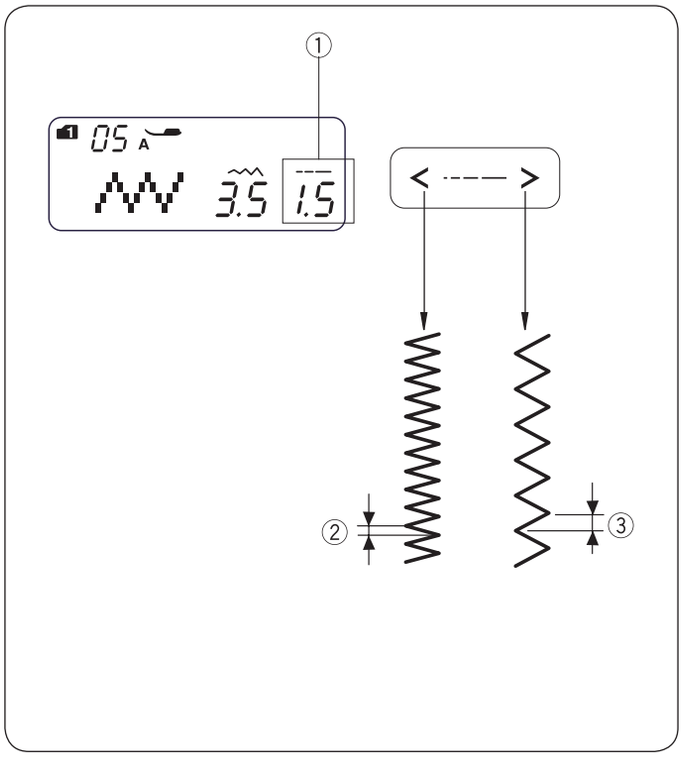
Press the "<" button to decrease stitch width ②.

Press the ">" button to increase stitch width ③.

The stitch width can be varied from 0.0 to 7.0.

④ The stitch width of pattern 05 can be changed without changing its center needle position (M).

⑤ The stitch width of pattern 13 can be changed without changing its right needle position (R).



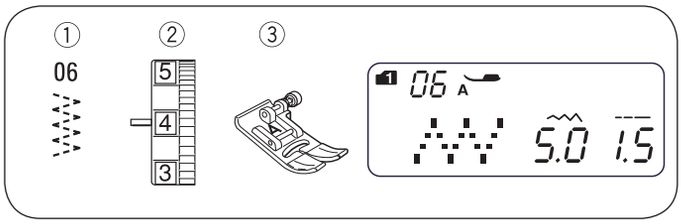
- **Adjusting the stitch length**

Press the stitch length button < ---- > to change the stitch length ①.

Press "<" to decrease stitch length ②.

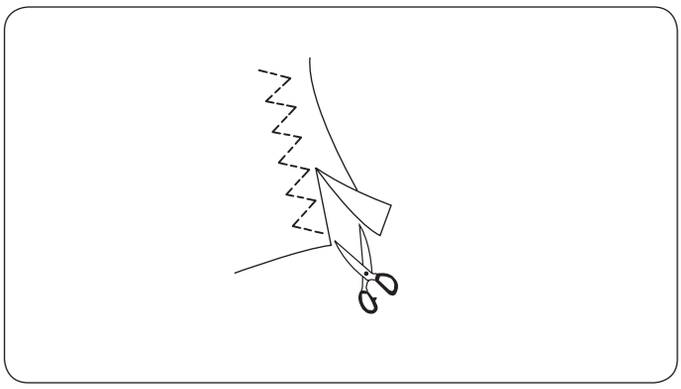
Press ">" to increase stitch length ③.

The stitch length can be varied from 0.2 to 5.0.



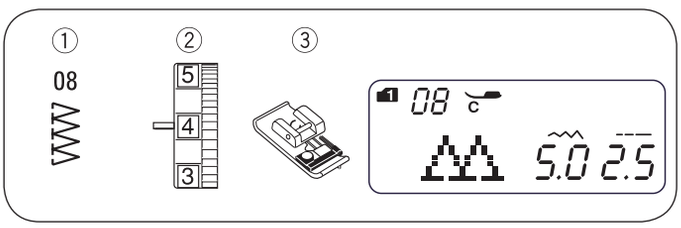
3-step zigzag

① Stitch pattern: Mode 1 : 6
Mode 2 : 06
② Thread tension: 3 - 6
③ Presser foot: Zigzag foot



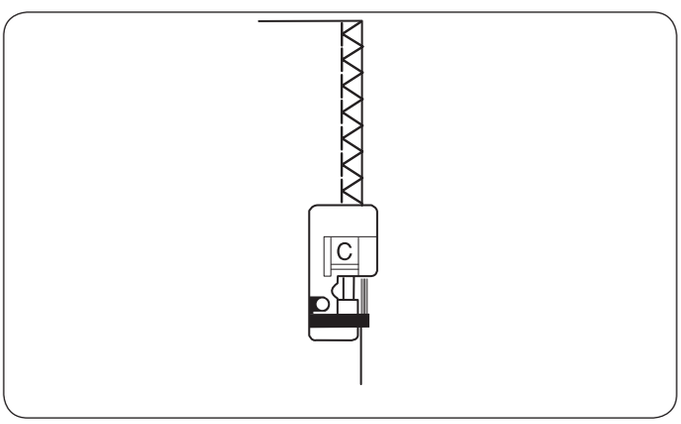
This stitch is used to finish seams on synthetics and other fabrics that tend to pucker. The stitch is also excellent for darning and mending tears.

Place your fabric to allow a 5/8˝ (1.5 cm) seam. Trim excess close to stitching. Be careful not to cut the stitches.



Overlock Stitch

① Stitch pattern: Mode 1 : 8
Mode 2 : 08
② Thread tension: 3 - 7
③ Presser foot: Overlock foot

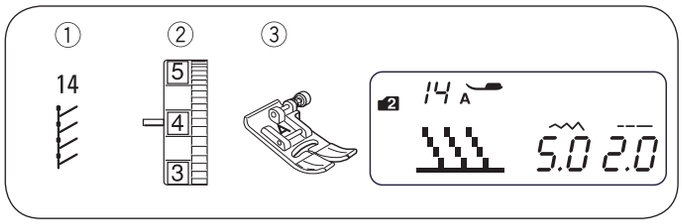


This stitch is used to simultaneously seam and overcast edges of fabrics.Use this stitch when you do not need to open seams flat.

Place the fabric edge next to the black guide and sew.

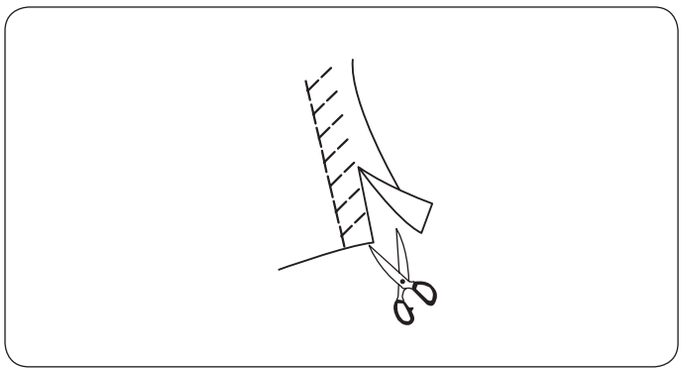
PLEASE NOTE:

Stitch width should be set between 4.5 and 7.0.
The blue shank needle is recommended for stretch materials.

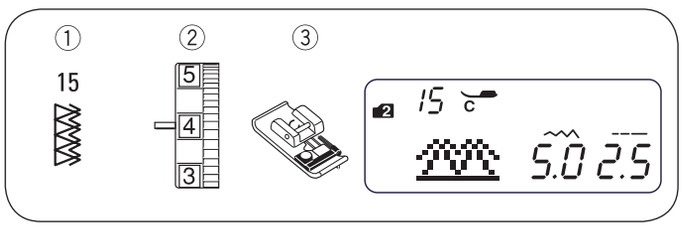


Knit Stitch

① Stitch pattern: Mode 2 : 14
② Thread tension: 3 - 6
③ Presser foot: Zigzag foot

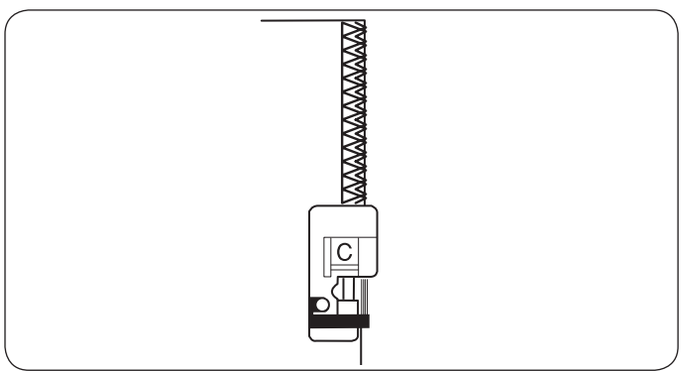


Place your fabric to allow a 5/8″ (1.5 cm) seam. Trim excess close to stitching. Be careful not to cut the stitches.



Double Overedge Stitch

① Stitch pattern: Mode 2 : 15
② Thread tension: 3 - 7
③ Presser foot: Overlock foot



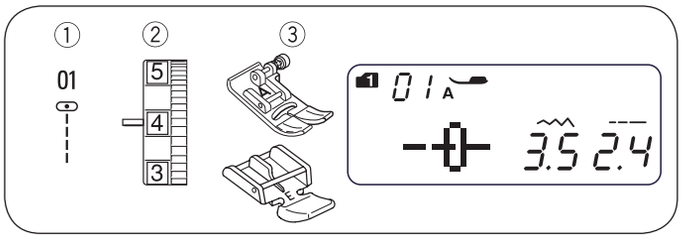
This stitch can be used for sewing fabrics that tend to fray extensively such as linens and gabardines.

Two rows of zigzag stitches are simultaneously sewn over the edge to ensure that your seams will not ravel.

Adjust the thread tension so both the needle and bobbin threads meet at the edge of the fabric.

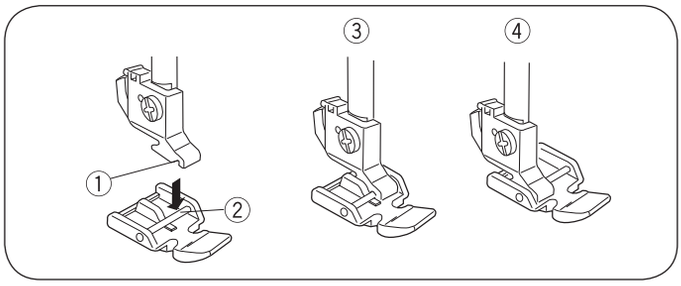
PLEASE NOTE:

Stitch width should be set between 4.5 and 7.0.
The blue shank needle is recommended for stretch materials.



Zipper Sewing

① Stitch pattern: Mode 1 : 1
② Thread tension: 1 - 4
③ Presser foot: Zigzag foot
Zipper foot E



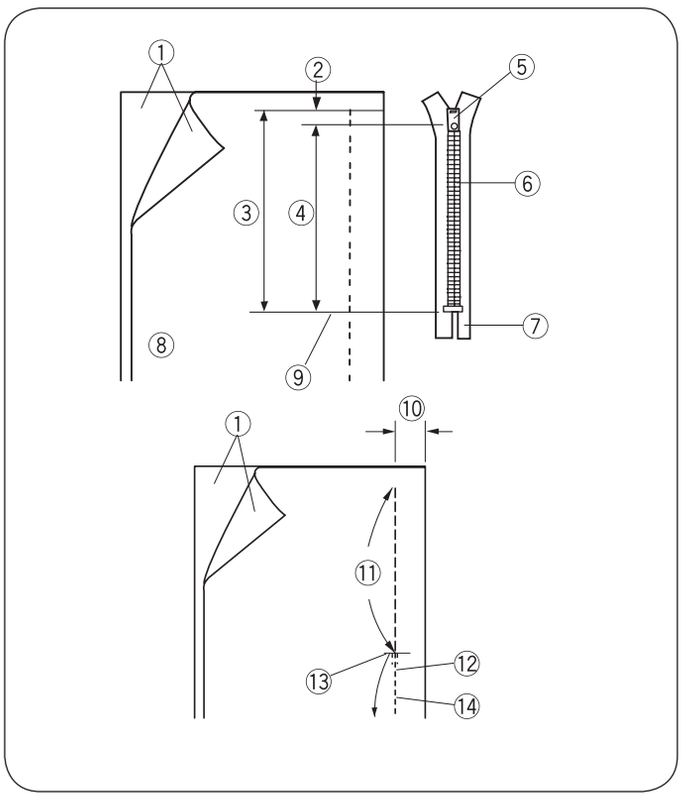
• Attaching the zipper foot

Fit the pin ② on the zipper foot into the notch ① in the presser foot holder.

To sew the left-side of the zipper, attach the zipper foot with the right-hand side of the pin ③.

To sew the right-side of the zipper, attach the zipper foot with the left-hand side of the pin ④.

① Notch
② Pin
③ To sew left side
④ To sew right side



• Fabric preparation

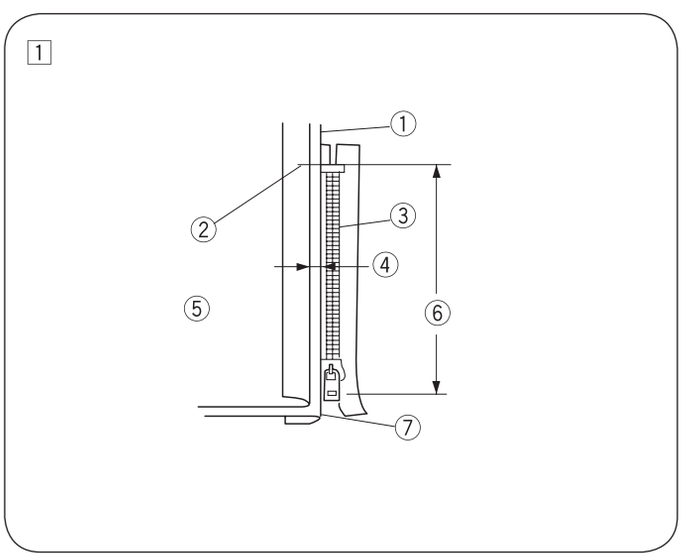
Add 3/8″ (1 cm) to the zipper length. This is the overall opening size.

① Right side of the fabric
② 3/8″ (1 cm)
③ Opening size
④ Zipper length
⑤ Slider
⑥ Zipper teeth
⑦ Zipper tape
⑧ Wrong side of the fabric
⑨ End of the opening

Lay the foreheads of the fabric together and sew until the end of the zipper opening. Taken into account in a seam allowance of 13 / 16″ (2 cm). Reverse the stitch to fasten the seam.

Attache the zigzag foot and baste along the zipper opening with the stitch length 4.5.

⑩ 13/16″ (2 cm)
⑪ Zipper opening (Basting)
⑫ Reverse sewing stitches
⑬ End of the opening
⑭ Seam



PLEASE NOTE:

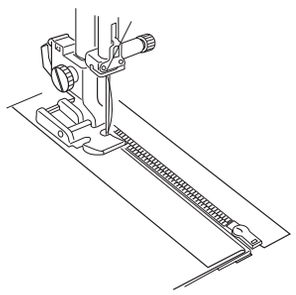
Loosen the thread tension to one (1) for basting.

• Starting to sew

1 Fold up the upper seam allowance. Fold back the bottom seam allowance to form a 1/8″ (0.3 cm) fold. Place the zipper teeth next to the fold and pin it in place.

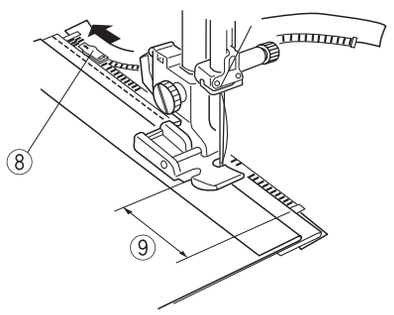
① Bottom fabric
② End of the zipper opening
③ Zipper teeth
④ 1/8″ (0,3 cm)
⑤ Wrong side of the upper fabric
⑥ Opening size
⑦ Fold

2



2 Attach the zipper foot with the pin on the right. Sew through all the layers from the end of the zipper opening, guiding the zipper teeth along the edge of the foot.

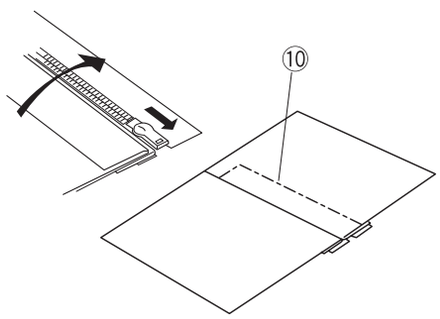
3



3 Stop the machine 2″ (5 cm) before the foot reaches the slider on the zipper tape. Raise the presser foot. Open the zipper, then lower the foot and stitch the remainder of the seam.

⑧ Slider
⑨ 2″ (5 cm)

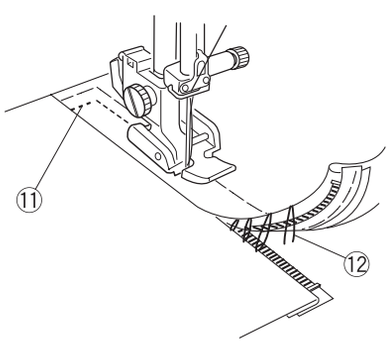
4



4 Close the zipper and open the upper fabric flat over the zipper. Baste the upper fabric and zipper tape together.

⑩ Basting stitch

5 6



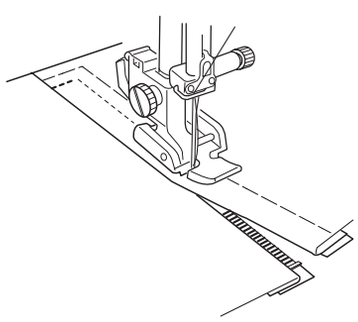
5 Attach the zipper foot with the pin on the left. Sew reverse stitches 3/8″ (1 cm) over the end of the zipper opening. Turn the fabric 90 degrees and stitch through the garment and zipper tape.

⑪ Reverse stitches

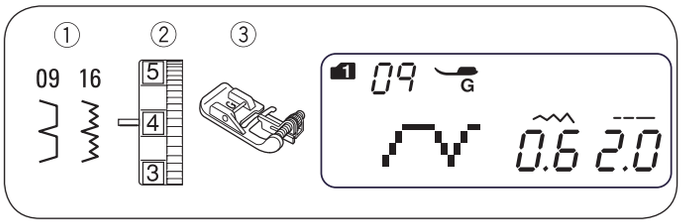
6 Stop the machine 2″ (5 cm) before the foot reaches the slider on the zipper tape. Raise the presser foot. Remove the basting stitches.

⑫ Basting stitches

7

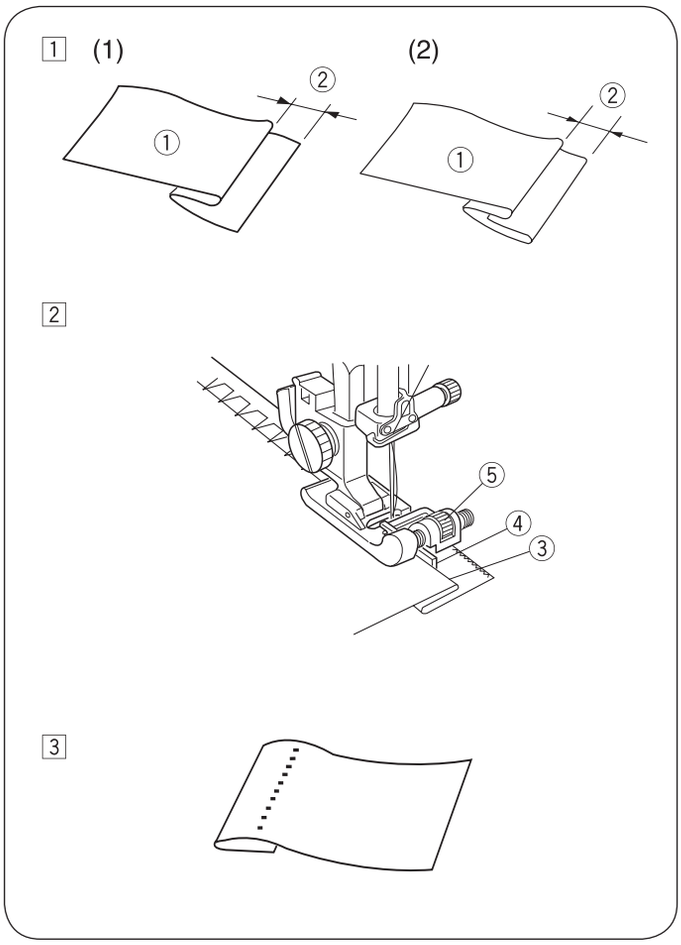


7 Open the zipper, then lower the foot and stitch the remainder of the seam. After finished sewing, remove the basting stitches on the upper fabric.



Blindstitch

① Stitch pattern: Mode 1 : 9
Mode 2 : 09 or 16
② Thread tension: 1 - 4
③ Presser foot: Blindstitch foot



1 Fold a hem with the wrong side of the fabric up to form a 1/4″ – 7/16″ (0.4 – 0.7 cm) allowance.

① Wrong side of the fabric
② 1/4″ - 7/16″ (0,4 - 0,7 cm)

(1) On heavyweight fabrics that tend to ravel, the raw edge should be overcast first.

(2) Fold the hem under the fabric for lightweight fabrics.

2 Place the fabric so that the needle just pierces the folded edge when the needle comes over the extreme left side. Lower the presser foot.

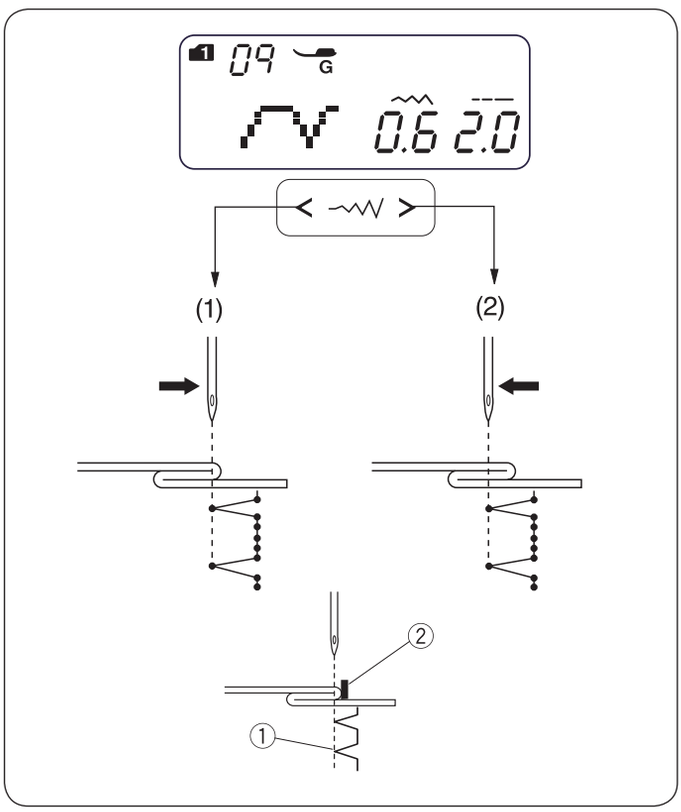
Turn the guide screw to adjust the guide aligning with the folded edge. Sew while guiding the fold along the guide.

③ Fold
④ Guide
⑤ Guide screw

3 Open the fabric after sewing is finished.

PLEASE NOTE:

If the needle pierces too far left, the stitch will show through on the right side of the fabric.



Adjusting the Needle Position

Press the stitch width button < ~W > to change the needle position.

1 Press "<" to move the needle to the right.

2 Press ">" to move the needle to the left.

The LCD display shows the distance between the guide and left needle position in millimeters.

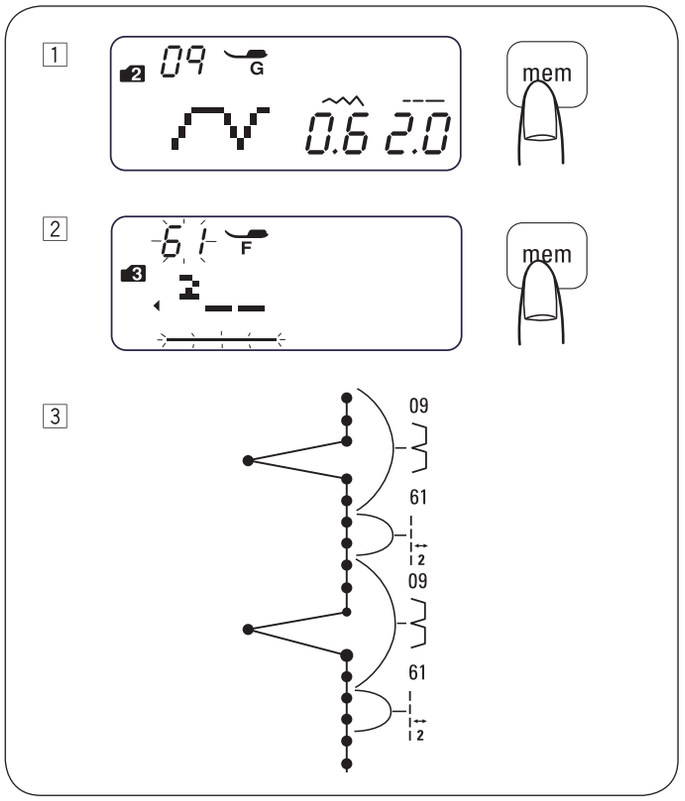
The needle position can be varied from 0.0 to 1.2.

The value indicates the distance between the left needle position and the guide.

① Left needle position
② Guide

PLEASE NOTE:

The needle position can be varied, but the stitch width will remain the same.



Bridge Stitch

Patterns #59 to #62 in mode 3 are extender stitches which are used to insert straight stitches after a stitch pattern.

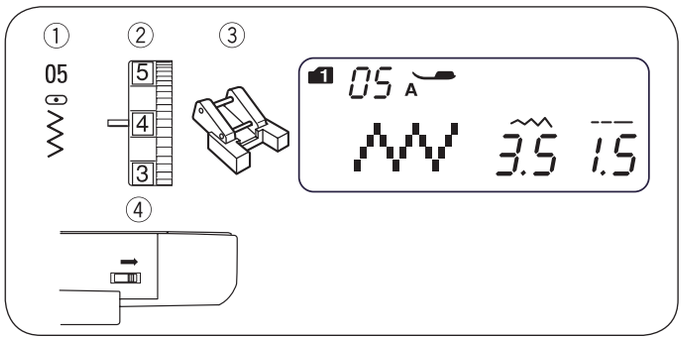
The extender stitches #61 and #62 inherit the stitch length and needle position of a previous pattern in programmed pattern combination. To see more detailed information about extender stitch, please refer to page 57.

Example: Inserting 2 counts of the straight stitch after a stitch pattern.

1 Select pattern 09 (mode 2).
Press the memory button.
Pattern 09 is memorized.

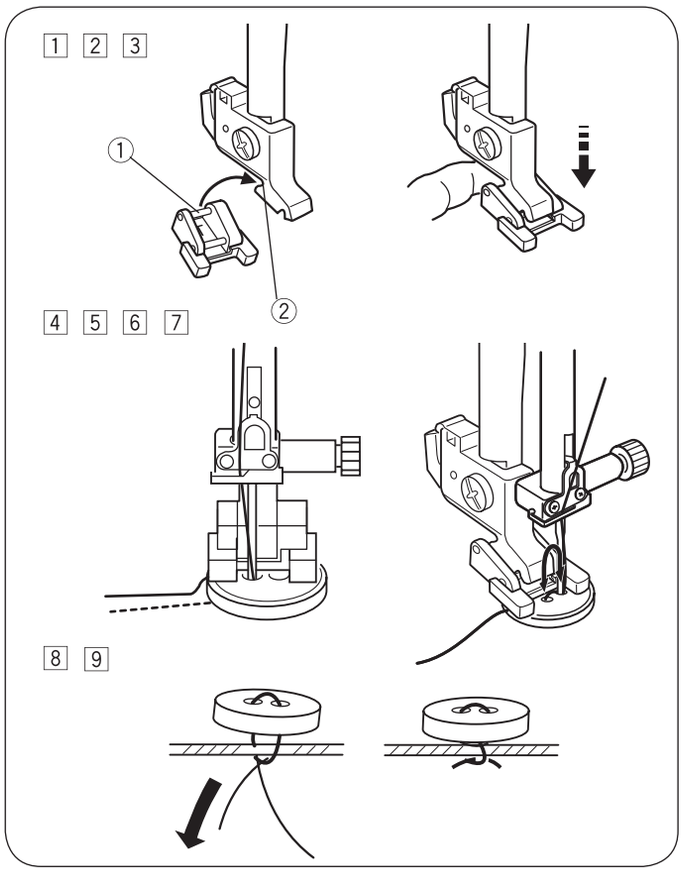
2 Select pattern 61 (mode 3).
Press the memory button.
Pattern 61 (2 counts of straight stitch) is memorized.

3 Two counts of straight stitch are inserted between blind stitches.



Button Sewing

①	Stitch pattern:	Mode 1 :	5
		Mode 2 :	05
②	Thread tension:	3 - 7	
③	Presser foot:	Button-sew-on foot	
④	Feed dog:	Lowered	



⚠ CAUTION:
Turn OFF the power switch before changing the presser foot.

1 Lower the feed dog.
Set the slide speed control at a slower speed.

2 Insert the rear pin of the foot into the rear notch of the presser foot holder.
① Back pin
② Back notch

3 Gently and slowly lower the presser foot lever while holding the foot with your finger to fit the foot.

4 Place a button on the fabric and lower the needle into the left hole of the button by turning the handwheel with your hand.

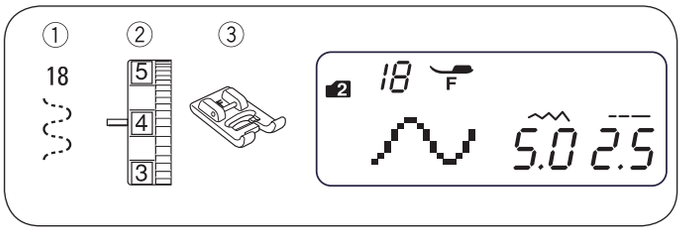
5 Lower the foot to hold the button in place, aligning the direction of the button.

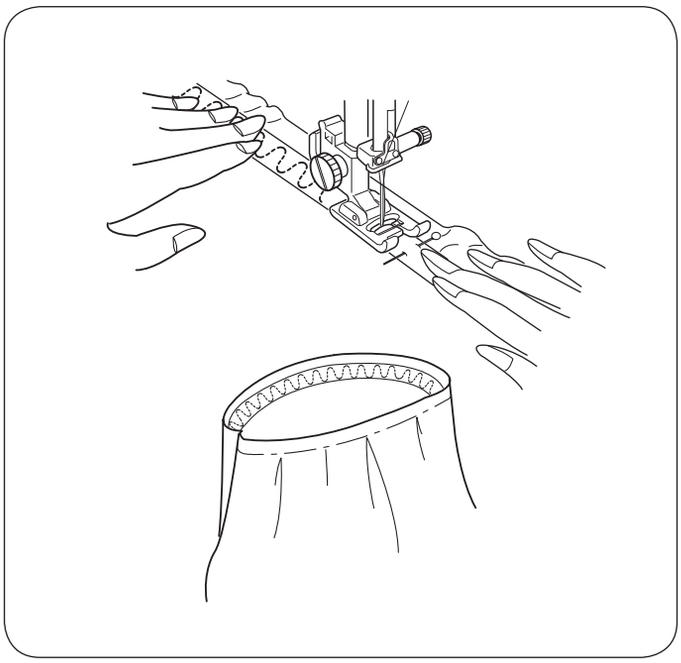
6 Turn the handwheel so that the needle will enter the right hole of the button. Readjust the stitch width if necessary.

7 Stitch several times.

8 After the sewing process has finished, cut the thread. After you finish sewing, cut the thread but leave 3˝ to 4˝ of thread at the end close to the fabric.

9 With a hand sewing needle, draw the top thread to the reverse side of the fabric and knot the threads.
After the button sewing is completed, raise the feed dog for normal sewing.





Attaching Elastic

① Stitch pattern: Mode 2 : 18
② Thread tension: 3 - 7
③ Presser foot: Satin stitch foot

* Stitch patterns 06 in mode 2 can also be used.

Mark the elastic into quarters. Match those to the center front, center back and side seams, and pin the elastic to the fabric.

Place the elastic under the foot and stitch into place while stretch the elastic evenly.

Various Kinds of Buttonholes and Their Uses

① Standard Buttenhole

This standard buttonhole is widely used on medium to heavy fabrics. The buttonhole size is automatically determined by placing a button in the buttonhole foot with slide.

② Round-End Buttonhole

This buttonhole is used on fine to medium weight fabrics, especially for blouses and children's clothes.

③ Fine fabric Buttonhole

This buttonhole is rounded at both ends and is used on fine, delicate fabrics such as fine silk.

④ Keyhole Buttonhole

The keyhole buttonhole is widely used on medium to heavy fabrics. It is also suitable for larger and thicker buttons.

⑤ Stretch Buttonhole

This buttonhole is suitable for knit fabrics. It can also be used as a decorative buttonhole.

⑥ Antique Buttonhole

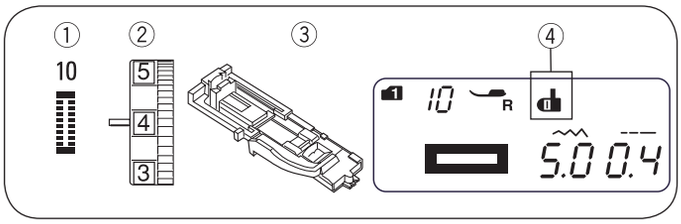
Resembles a "Hand Worked" buttonhole ideal on fine fabrics featured in Heirloom sewing or for couture fashions.

⑦ Straight Stitch buttonhole

This buttonhole is for pocket openings, reinforcing buttonholes, especially for buttonholes in leather and imitation leather.

PLEASE NOTE:

- To sew the buttonholes 22 to 27, follow the same procedure as standard buttonhole (see pages 41 to - 42).
- The size of a buttonhole is automatically set by placing a button in the rear of the buttonhole foot with slide R.
- The button holder of the foot takes a button size of up to 1˝ (2.5 cm) in diameter.
- It is sometimes necessary to change buttonhole size to match certain heavy or specific materials and threads.
- Make a test buttonhole on an extra piece of the fabric to check your setting.
- Place the button on the fabric and mark the top and bottom to determine the position of the buttonhole on the fabric.
- Use interfacing on stretch fabrics.

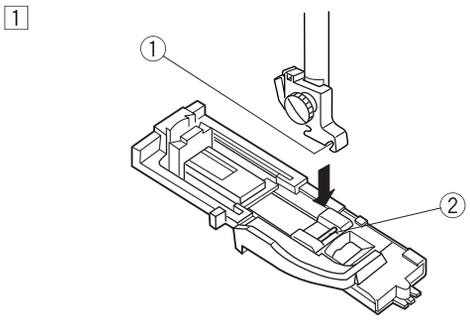


Standard Buttenhole

① Stitch pattern: Mode 1 : 0
Mode 2 : 10
② Thread tension: 1 - 5
③ Presser foot: Buttonhole foot with slide
④ Buttonhole lever sign

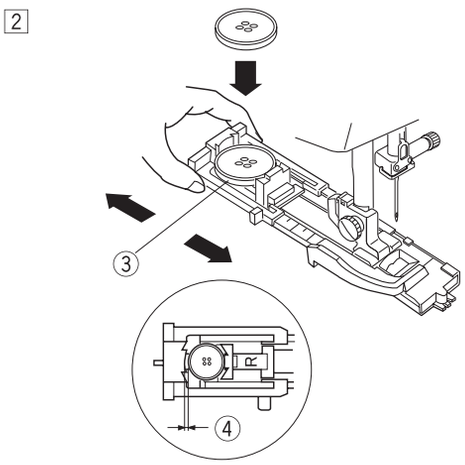
- **To sew**

1 Press the needle stop up/down button to raise the needle. Attach the buttonhole foot with slide R snapping the pin ② into the notch ① of the presser foot holder.



① Notch
② Pin

2 Pull the button holder ③ to the back, and place the button in it. Push it together tightly against the button.

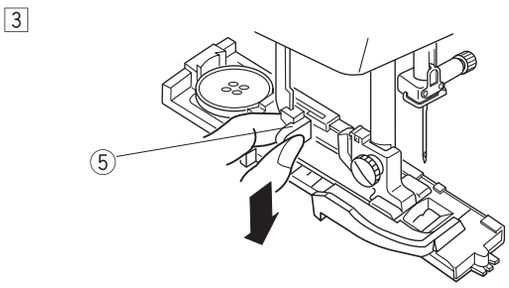


PLEASE NOTE:

If the button is extremely thick, make a test buttonhole on an extra piece of the fabric.
If it is difficult to fit the button through the test buttonhole, you can lengthen the buttonhole by pulling the button holder back a little. The length of the buttonhole will be increased.

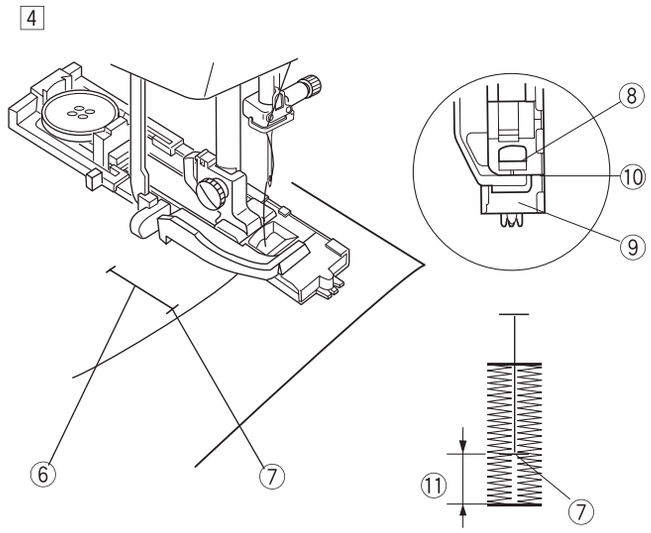
③ Button holder
④ Extra gap

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



⑤ Buttonhole lever

4 Insert the corner of the fabric under the foot. Press the needle stop up/down button twice. Remove the fabric to the left to draw the needle thread through the hole of the foot. Place the fabric under the foot, and lower the needle at the starting point of the buttonhole mark ⑥. Then lower the Buttonhole foot with slide.



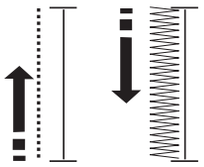
⑥ Buttonhole mark
⑦ Starting point

PLEASE NOTE:

Make sure that is no gap ⑩ between slider and stopper.Otherwise the buttonhole is not sewn properly.

⑧ Slider
⑨ Stopper
⑩ No gap
⑪ Sewing gap

5



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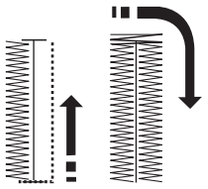

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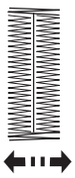

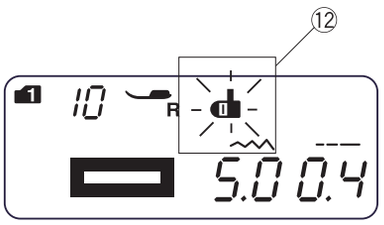

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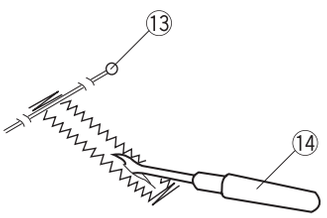

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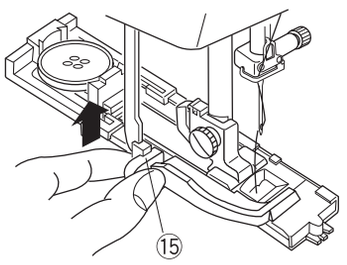


5 Start the machine to sew the buttonhole. The buttonhole will be automatically sewn. The machine will sew the left row first.

6 The machine will sew the back bartack and the right row.

7 The machine will sew the front bartack, then it stops automatically. The machine will trim the threads at the end of sewing if the thread cutter sign is indicated on the LCD display.

PLEASE NOTE:

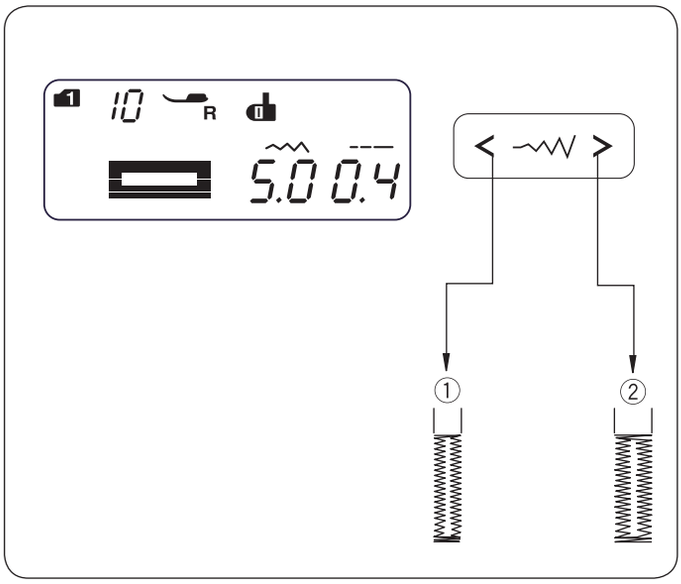
If you start sewing the buttonhole without lowering the buttonhole lever, the LCD display will show “bL” message and the buttonhole lever sign ⑫ will blink. Lower the buttonhole lever, then restart the machine.

8 Remove the fabric and place a pin ⑬ just below the bartack at each end to prevent accidentally cutting stitches. Cut the opening with the seam ripper ⑭.

⑬ Pin
⑭ Seam ripper

9 When buttonhole sewing is finished, push the buttonhole lever ⑮ upward as far as it will go.

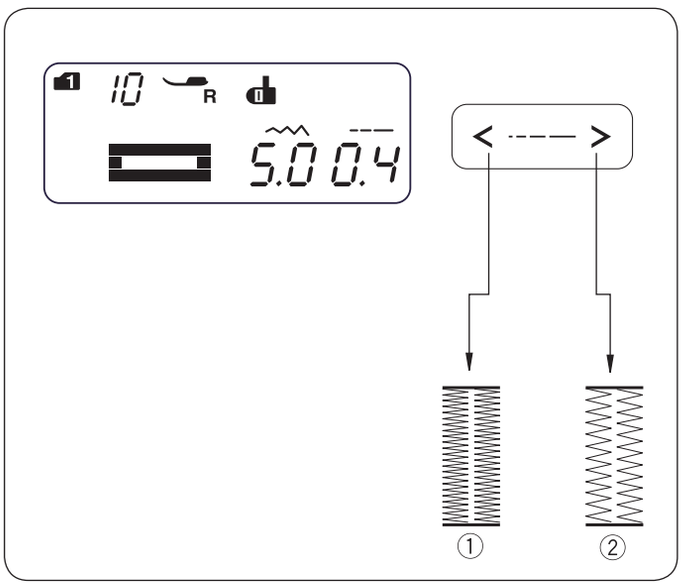
⑮ Buttonhole lever



Adjusting the Stitch Width and Density for Buttonholes

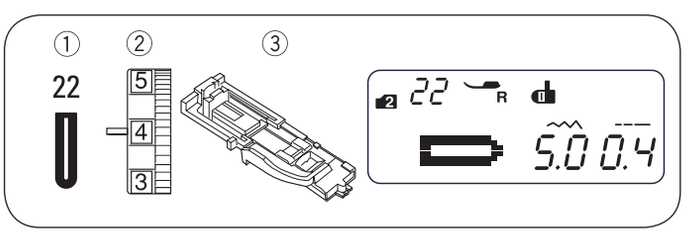
- **To adjust the stitch width**

Press the stitch width button < ~W > to change the stitch.
Press the < button to decrease stitch width ①.
Press the > button to increase ② stitch width.
The stitch width can be varied from 2.5 to 7.0 depending on the selected buttonhole.
The default setting is “5.0“.



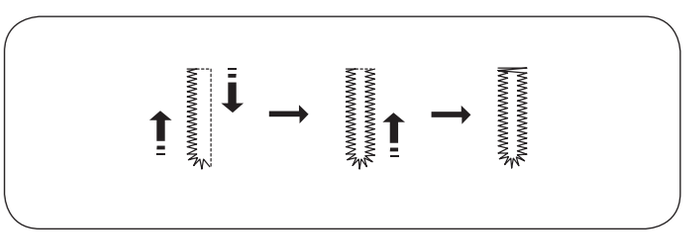
- **Adjusting the stitch density**

Press the stitch length button < ---- >, to change the stitch density.
Press the < button to make the buttonhole stitch denser ①.
Press the > button to make the buttonhole stitch less dense ②.
The stitch density can be varied from 0.2 to 0.8 depending on the selected buttonhole.
The default setting is “0.4“.

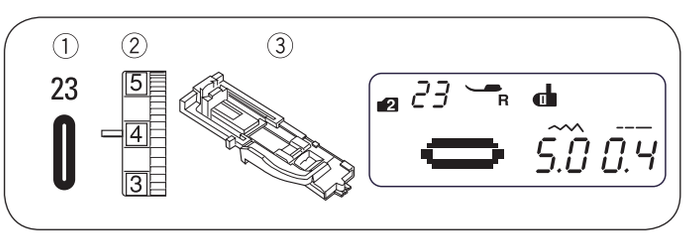


Round-End Buttonhole

① Stitch pattern: Mode 2 : 22
② Thread tension: 1 - 5
③ Presser foot: Buttonhole foot with slide



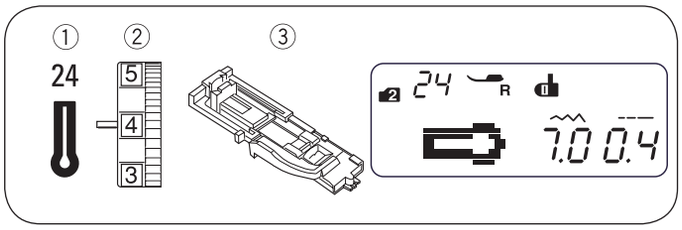
Sewing procedure is the same as standard buttonhole. The stitch width can be varied from 2.5 to 5.5.
To change the stitch width or stitch density, refer to the section above.



Fine Fabric Buttonhole

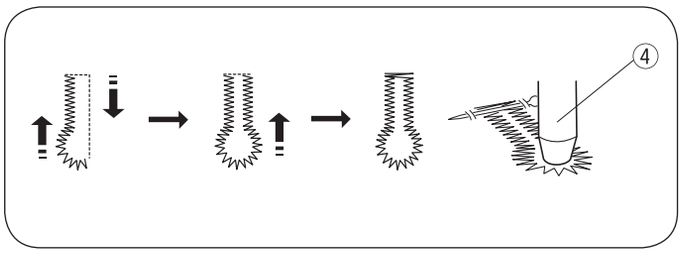
① Stitch pattern: Mode 2 : 23
② Thread tension: 1 - 5
③ Presser foot: Buttonhole foot with slide

Sewing procedure is the same as standard buttonhole. The stitch width can be varied from 2.5 to 5.5.
To change the stitch width or stitch density, refer to the section above.



Keyhole Buttonhole

① Stitch pattern: Mode 2 : 24
② Thread tension: 1 - 5
③ Presser foot: Buttonhole foot with slide



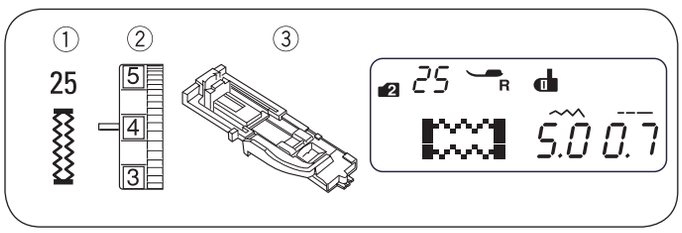
Sewing procedure is the same as standard buttonhole. Use the seam ripper and an eyelet punch ④ to open the buttonhole.

④ Eyelet punch

The stitch width can be varied from 5.5 to 7.0.

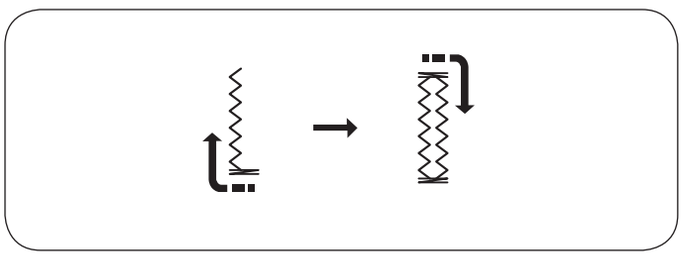
To change the stitch width or stitch density, refer to page 43.

* An eyelet punch is an optional item.



Stretch Buttonhole

① Stitch pattern: Mode 2 : 25
② Thread tension: 1 - 5
③ Presser foot: Buttonhole foot with slide



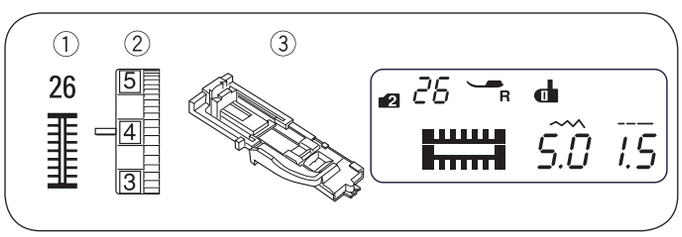
The machine will sew the front bartack and left row first.

The machine will sew the back bartack, the right row and will stop automatically.

The stitch width can be varied from 2.5 to 7.0.

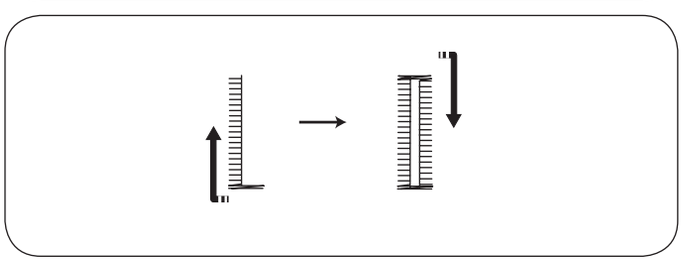
The stitch density can be varied from 0.5 to 1.0.

To change the stitch width or stitch density, refer to page 43.



Antique Buttonhole

① Stitch pattern: Mode 2 : 26
② Thread tension: 1 - 5
③ Presser foot: Buttonhole foot with slide



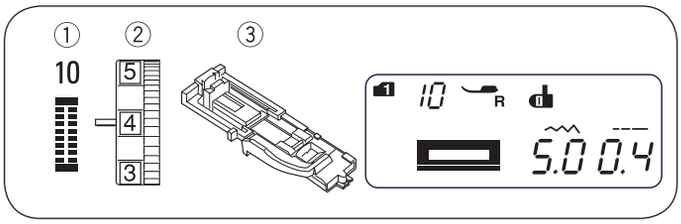
The machine will sew the front bartack and left row first.

The machine will sew the back bartack, the right row and will stop automatically.

The stitch width can be varied from 2.5 to 7.0.

The stitch density can be varied from 0.5 to 2.5.

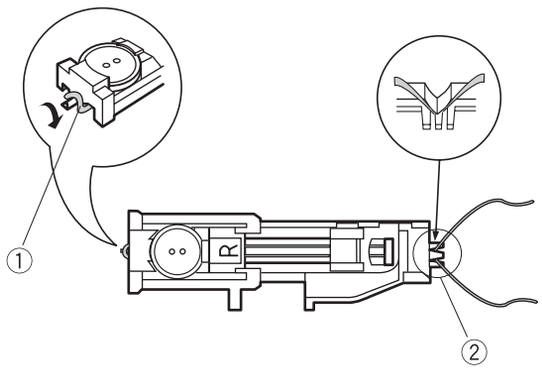
To change the stitch width or stitch density, refer to page 43.



Buttonhole with cord

① Stitch pattern: Mode 1 : 0
Mode 2 : 10
② Thread tension: 1 - 5
③ Presser foot: Buttonhole foot with slide

1



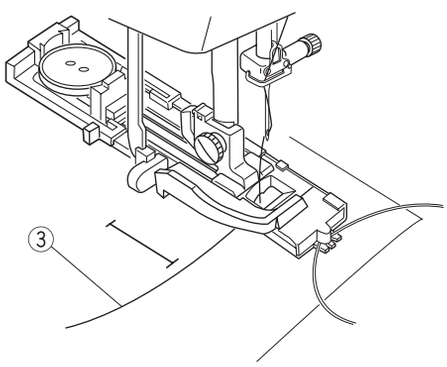
1 Use the same procedure as the standard buttonhole procedure. Set the stitch width to match the thickness of the cord used. With the buttonhole foot raised, hook the filler cord on the spur ① at the back of the buttonhole foot.

Bring the ends toward you under the buttonhole foot, clearing the front end. Hook the filler cord into the forks ② on the front of the buttonhole foot with slide to hold them tight.

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

① Spur
② Forks

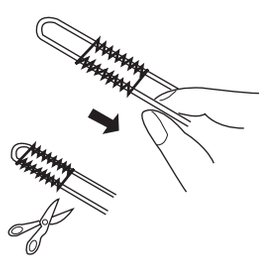
2



2 Start the machine and sew the buttonhole. Each side of the buttonhole and the bartacks will be sewn over the cord. Remove the fabric from the machine, and cut the sewing threads only.

③ Needle thread (top thread)

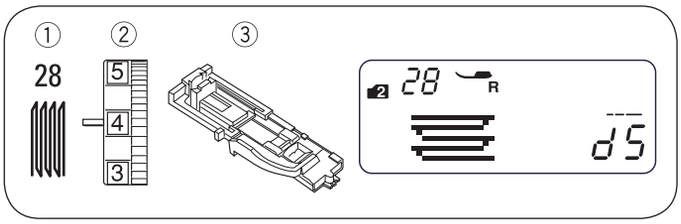
3



3 Pull the loose ends of the filler cord to tighten it. Thread the end of the cord through a hand-sewing needle. Then draw them to the wrong side of the fabric and knot.

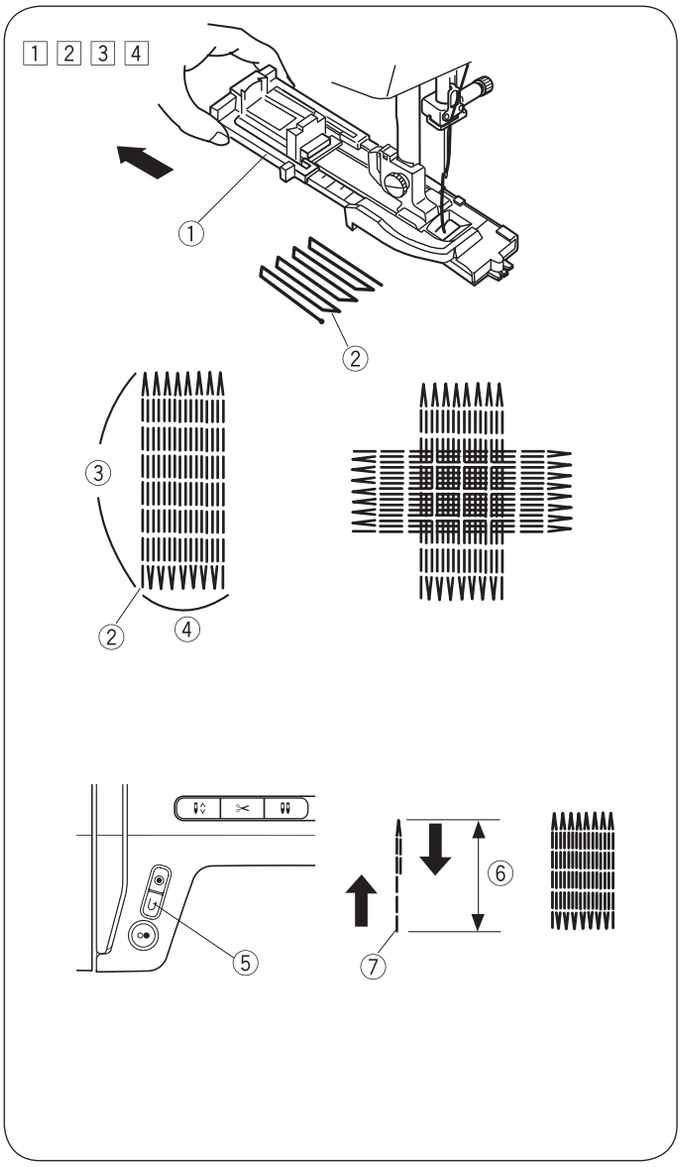
PLEASE NOTE:

Cut the filler cord at both ends, if the filler cord is stitched on the fabric and cannot be pulled.



Darning Stitch

① Stitch pattern: Mode 2 : 28
② Thread tension: 3 - 6
③ Presser foot: Buttonhole foot with slide



- **Starting to sew**

1 Pull the button holder ① to the back.

2 Place the garment under the foot. Press the needle stop up/down button twice. Move the fabric to the left to draw both threads under the foot.

3 Lower the presser foot. Start the machine. The machine will lock stitch, sew 16 rows of darning, lock stitch again and stop automatically.

4 Turn the fabric and repeat sewing in different direction.

The machine will trim the threads at the end of sewing automatically if the thread cutter sign is indicated on the LCD display (Refer to page 13).

① Button holder
② Starting point
③ 3/4″ (2 cm)
④ 9/32″ (0,7 cm)

- **Sewing a shorter darning**

To sew a darning shorter than 3/4″ (2 cm), first stop the machine after sewing the required length ⑥, then press the reverse sewing button ⑤.

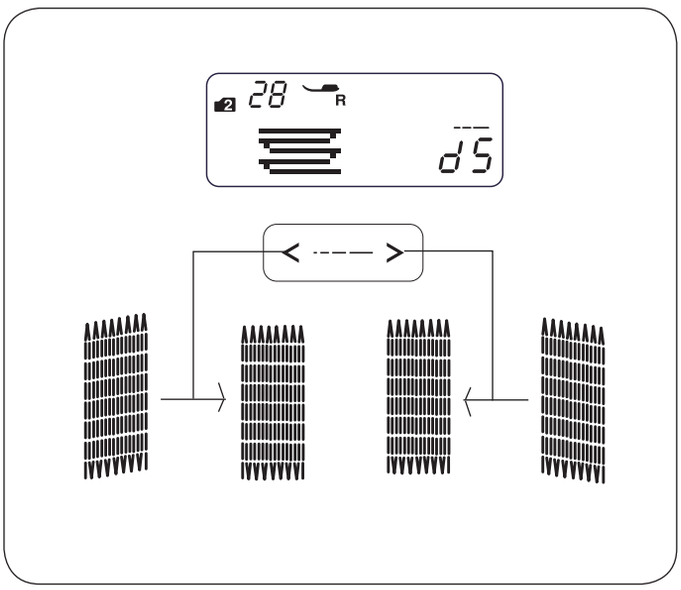
The required length ⑥ has been determined.

Start the machine again and continue sewing until the machine stops automatically.

⑤ Reverse sewing button
⑥ Required length
⑦ Starting point

- **Sewing a same-sized darning**

Simply start the machine to sew another darning at the same size.



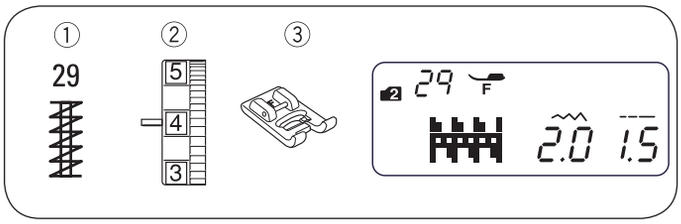
- **Adjusting the evenness of the darning**

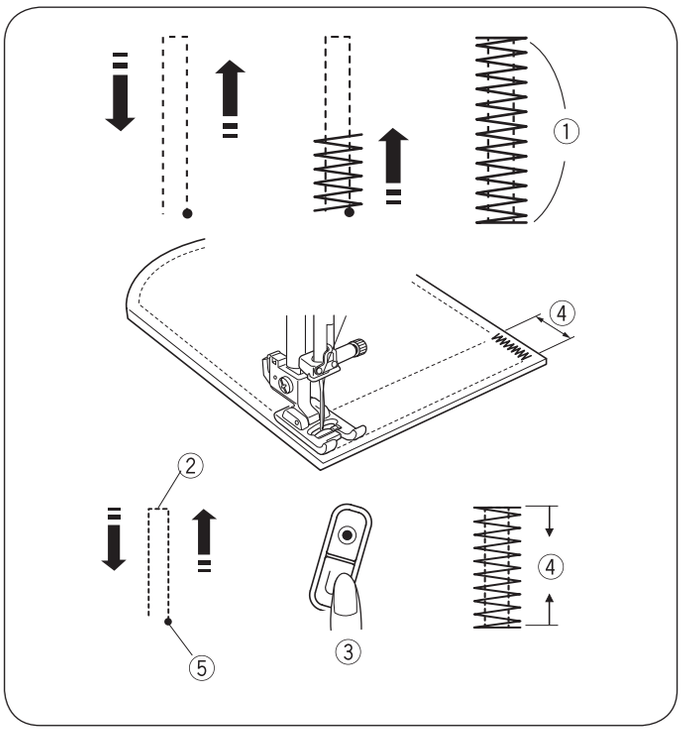
Correct the evenness of the darning as follows:

Press the stitch length button [< ---- >], to change the evenness.

If the right side of the stapler is lower than the left side, press the "**>**" button to even the darning.

If the left side of the stapler is lower than the right side, press the "**<**" button to even the darning.





Bartack

① Stitch pattern: Mode 2 : 29
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot

The bartack is used to reinforce pockets, crotches and belt carriers where extra strength is needed.

- **Starting to sew**

Start the machine and sew until the machine stops automatically. The machine will sew a bartack 5/8″ (1.5 cm) long.

① 5/8″ (1.5 cm)

The machine will trim the threads at the end of sewing automatically if the thread cutter sign is indicated on the LCD display (Refer to page 13).

- **Sewing shorter bartack**

* Set the slide speed control at low speed setting.

To sew a bartack shorter than 5/8″ (1.5 cm), first stop the machine after sewing the required length ②, then press the reverse sewing button ③.

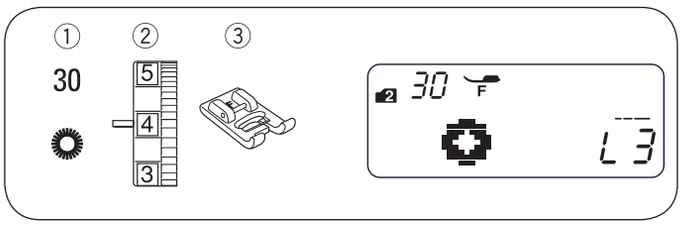
The bartack length ④ has been determined.

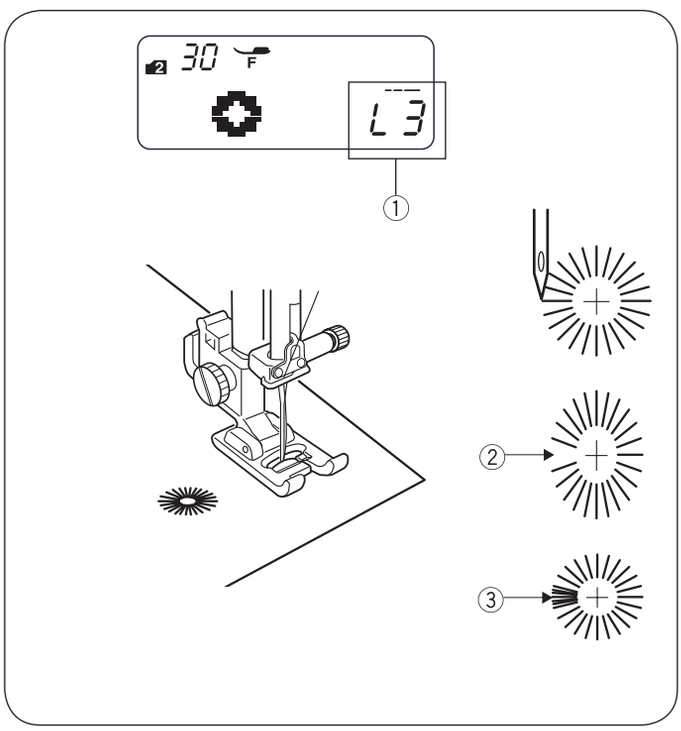
Start the machine again and continue sewing until the machine stops automatically.

② Required length
③ Reverse sewing button
④ Bartack length
⑤ Starting point

- **Sewing a same-sized bartack**

Simply start the machine to sew another bartack at the same size.





Eyelet

① Stitch pattern: Mode 2 : 30
② Thread tension: 1 - 4
③ Presser foot: Satin stitch foot

The eyelet is used for belt holes etc.

- **Starting to sew**

Attach the satin stitch foot F.

Start the machine. The machine will stop automatically when completed.

The machine will trim the threads at the end of sewing automatically if the thread cutter sign is indicated on the LCD display (Refer to page 13).

Open the eyelet with an awl, eyelet punch or pointed scissors.

- **Adjusting the shape of an eyelet**

Correct the shape of the eyelet as follows:

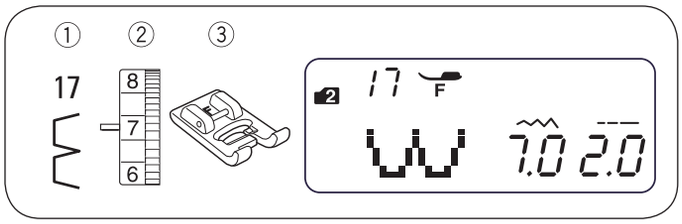
Press the stitch length button < ---- > to change the eveness.

If the eylet open ②, press the "<" button to make the darn even. (L1–L2)

If the eylet overlaps ③, press the " > " button to make the darn even. (L4–L5)

PLEASE NOTE:

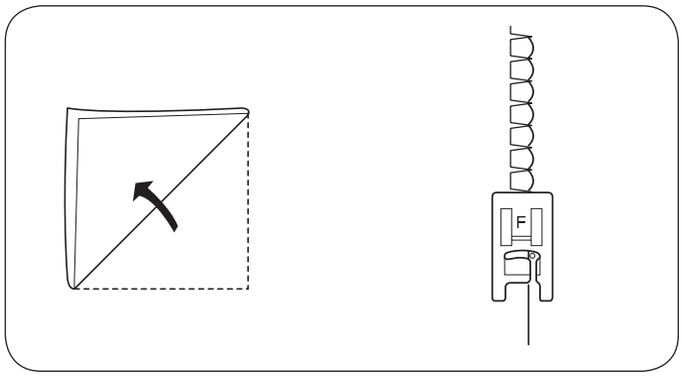
The shape can be adjusted within L1 to L5 (default setting is L3) ①.



DECORATIVE STITCHING

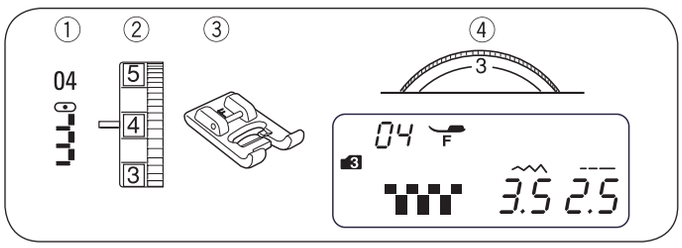
Vari-Overlock

① Stitch pattern: Mode 2 : 17
② Thread tension: 6 - 8
③ Presser foot: Satin stitch foot



Use a lightweight fabric (tricot, for example). Fold the fabric as shown and stitch on the fold. Allow the needle to just clear the folded edge to create a shelled edge. The thread tension may need to be increased slightly.

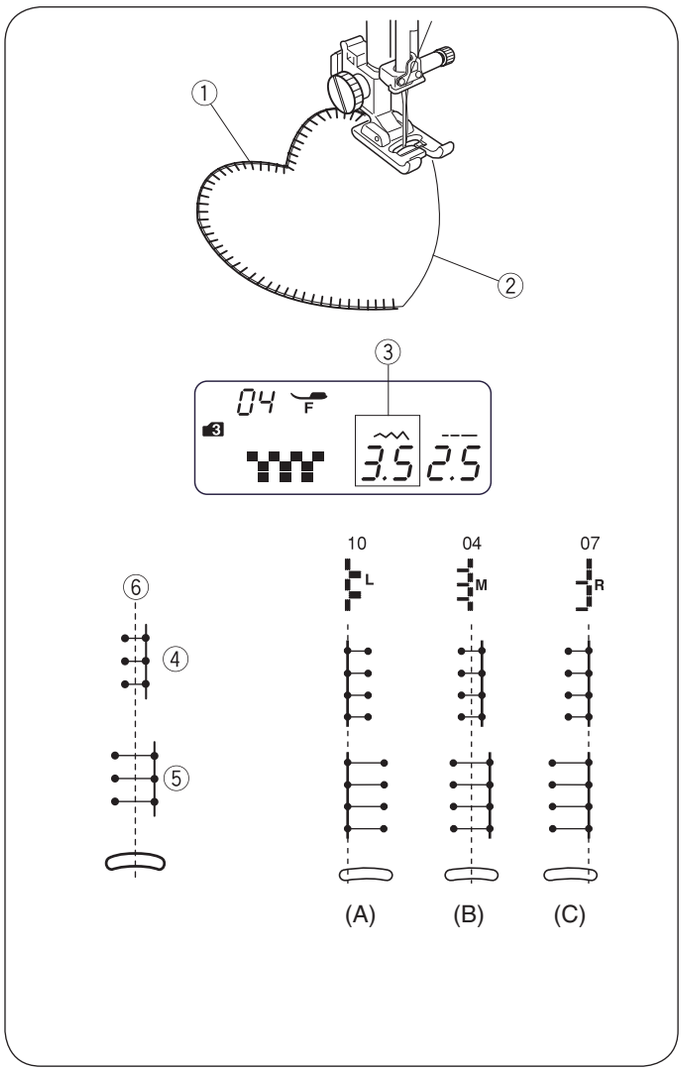
If you sew rows of shell stitches, space the rows at least 5/8˝ (1.5 cm) apart. You can also sew shell stitches on knits or soft silky woven fabrics, in any direction.



Appliqué

① Stitch pattern: Mode 3 : 04
② Thread tension: 1 - 4
③ Presser foot: Satin stitch foot
④ Presser foot pressure dial: 3

Place an appliqué on the fabric and baste or pin it in place.



- **Reduce the presser foot pressure.**

Sew while guiding the fabric so the needle falls along the outer edge of the appliqué.

① Appliqué
② Outer edge

When turning around a corner, stop the machine with the needle at the outer edge of appliqué.

Raise the presser foot and pivot the fabric around the needle to change the sewing direction.

- **To adjust the stitch width**

Select pattern 04 in mode 3.

Press the stitch width button < ~W > to change the stitch width.

Press the < to decrease stitch width ④.

Press the > to increase the stitch width ⑤.

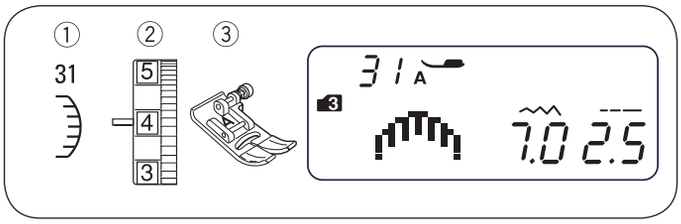
The stitch width will be varied based on the centered needle position ⑥.

③ Stitch width (3.5)
④ Stitch pattern 04 (stitch width decreased)
⑤ Stitch pattern 04 (stitch width increased)
⑥ Center needle position

(A) The stitch pattern 10 has a fixed left needle position. When you change the stitch width, the right needle position will change.

(B) The stitch patterns 04, 05 and 06 have a fixed center needle position. The stitch width changes symmetrically.

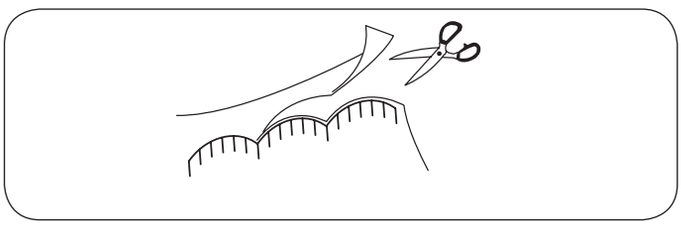
(C) The stitch patterns 07, 08 and 09 have a fixed right needle position. When you change the stitch width, the left needle position will change.



Scallop Stitch

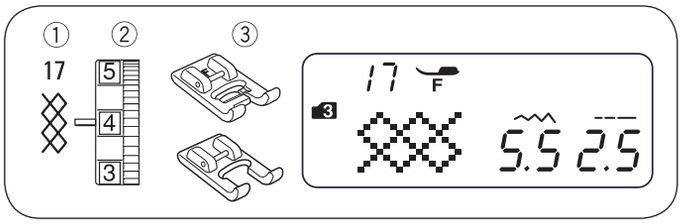
① Stitch pattern: Mode 3 : 31
② Thread tension: 3 - 6
③ Presser foot: Zigzag foot

* Stitch patterns 47 or 57 in mode 3 can also be used.



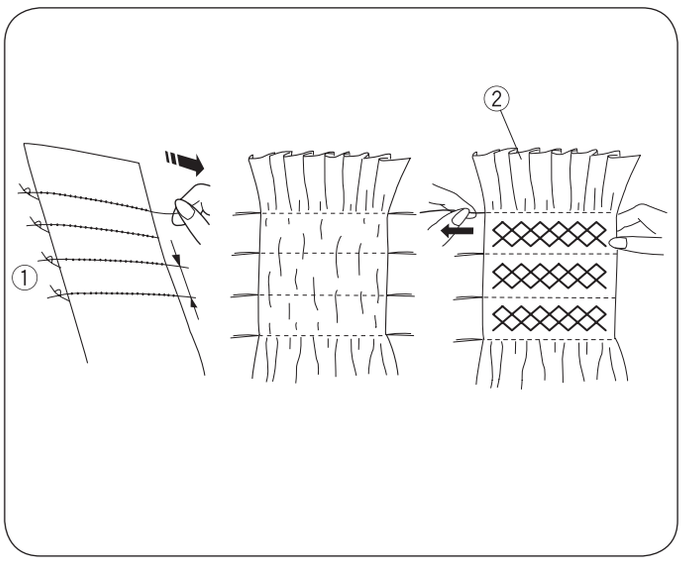
Sew the stitches approximately 3/8″ (1 cm) inside the edge of the fabric.

Trim the outside of the stitches as shown. Make sure you don't cut the thread.



Smocking

① Stitch pattern: Mode 3 : 17
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot
Open toe foot: F2



Smocking is a delicate decorative treatment used on children's clothes or women's blouses.

Choose a soft and lightweight fabric such as batiste, gingham or challis. Cut the fabric three times wider than the projected width. Set stitch length at "5.0" and sew rows of straight stitches 3/8″ (1.0 cm) apart across the area to be smocked.

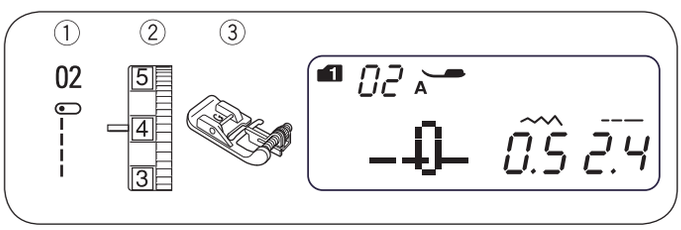
Knot the threads along one edge ①. From the other edge, pull the bobbin threads (bottom threads) to distribute the gathers ② evenly. Sew the smocking stitches between the gathered rows.

PLEASE NOTE:

Pull up the bobbin thread and draw a 4″ to 6″ thread tail to the back before start sewing.

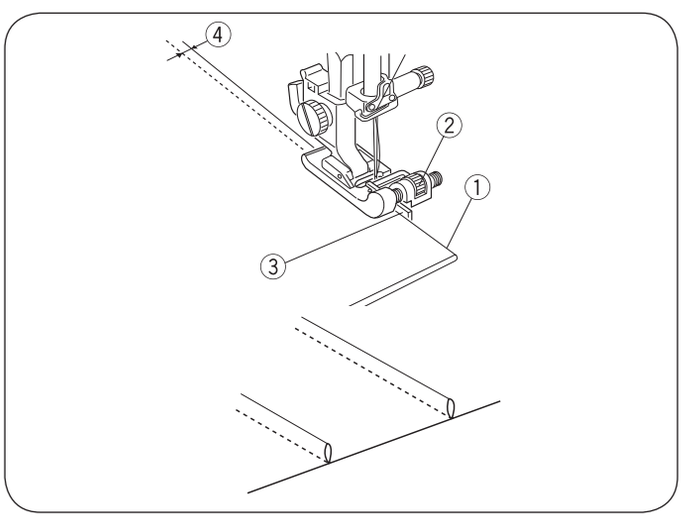
Remove the straight stitches by pulling them out.

① Knotted edge
② Gathers



Pintucking

① Stitch pattern: Mode 1 : 2
Mode 2 : 02
② Thread tension: 1 - 4
③ Presser foot: Blindstitch foot



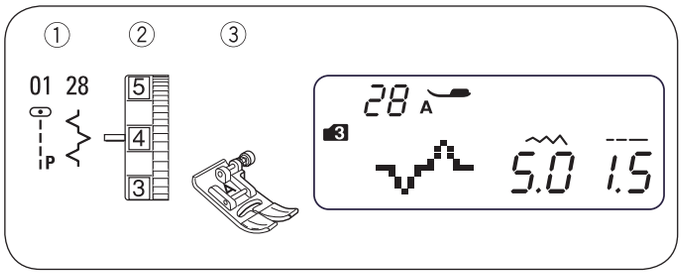
Fold the fabric with the wrong sides together.

Position the fabric so that the needle pierces 0.1 - 0.2 cm (1/16″) inside of the folded edge, and lower the foot.

Turn the guide screw and move the guide next to the fold. Sew guiding the folded edge along the guide.

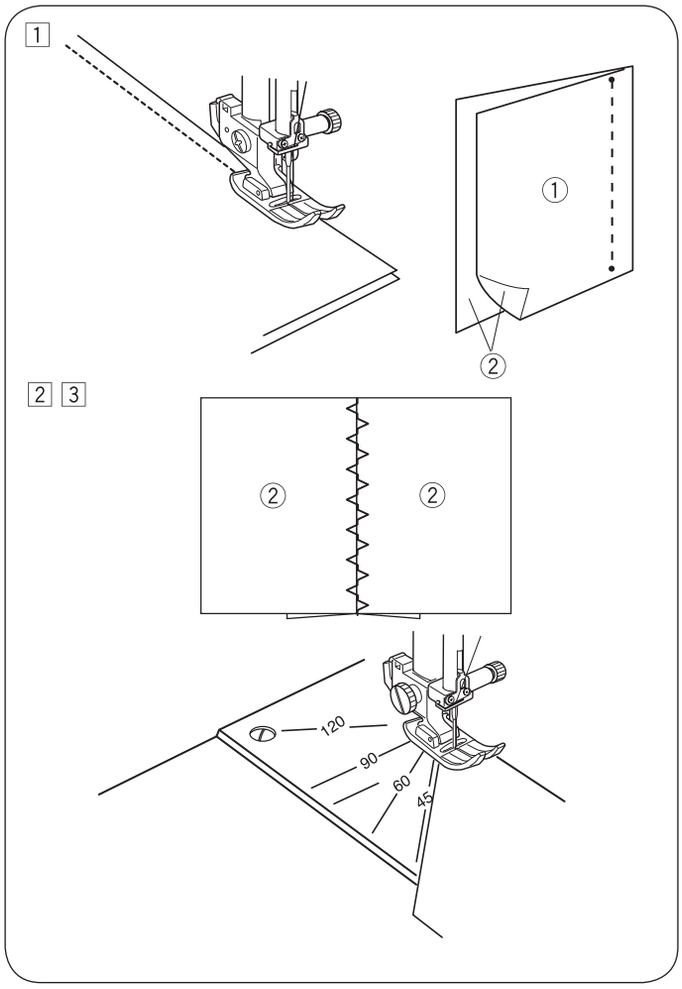
① Folded edge
② Guide screw
③ Guide
④ 0.1 - 0.2 cm

Open the fabric and press the tuck to one side.



Patchwork Piecing

① Stitch pattern: Mode 3 : 01 and 28
② Thread tension: 3 - 6
③ Presser foot: Zigzag foot



1 Place the patchwork pieces right sides together. Select pattern 01 in mode 3. Sew a precise 1/4˝ (0.6 cm) seam allowance.

① Wrong side of the fabric
② Right side of the fabric

2 Select pattern 28 in mode 3.

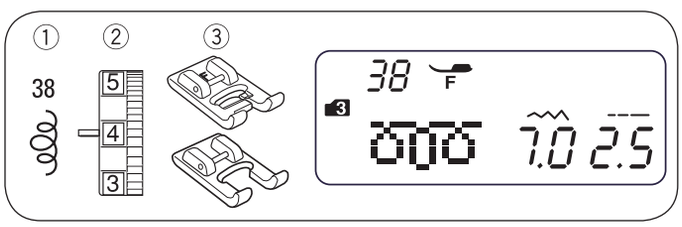
3 Press the seam allowance to open. Sew stitch pattern 28 on the right side of the garment centering over the seam line.

* Stitch patterns 40 46 or 48 in mode 3 can also be used.

Angle scale on the stitch plate.

You can easily seam patchwork pieces at the desired angles without marking, by using the unique angle scales on the stitch plate.

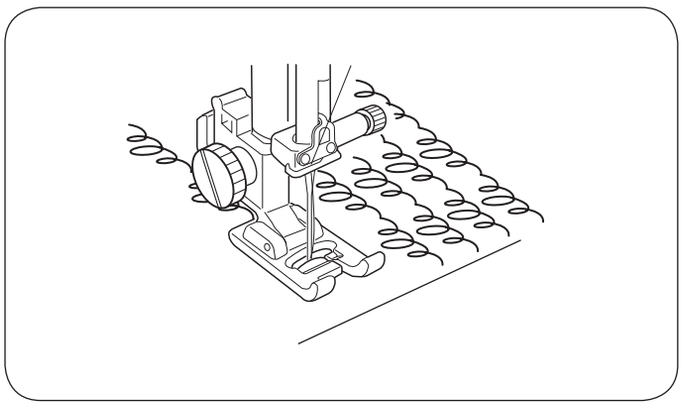
The angle scales are marked at 45, 60, 90 and 120 degrees.



Stippling Stitch

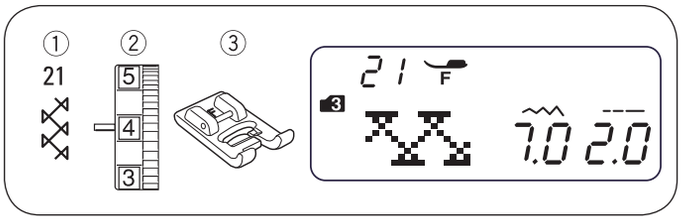
① Stitch pattern: Mode 3 : 38
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot
Open toe foot: F2

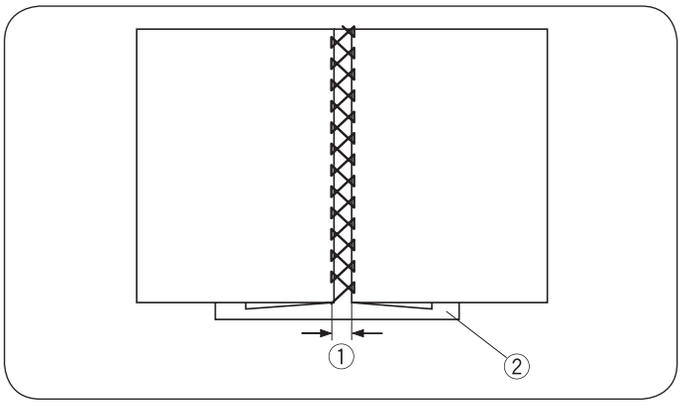
* Stitch pattern 37 in mode 3 can also be used.



A pre-programmed stippling stitch is a fast and easy method to quilt small areas.

Place a batting (wadding) between quilt top and backing fabric.





Fagoting

① Stitch pattern: Mode 3 : 21
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot

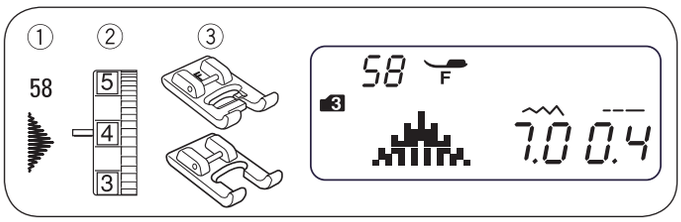
* Stitch patterns 22 or 46, 48 in mode 3 can also be used.

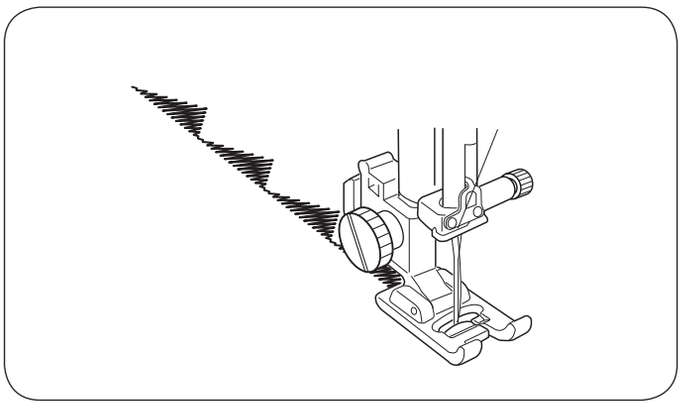
Use this stitch to join two pieces of fabric to create an open work appearance and add design interest.

Fold under each fabric edge 5/8˝ (1.5 cm) and press. Pin the two edges to paper or tear backing 0.4 1/8˝ apart. Sew slowly, guiding the fabric so the needle catches the folded edge on each side.

After finishing the sewing, take off the paper.

① 0.3 - 0.4 cm (1/8˝)
② Paper





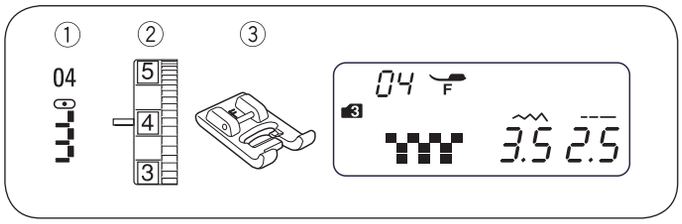
Satin Stitches

① Stitch pattern: Mode 3 : 58
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot
Open toe foot: F2

* Stitch patterns 54 or 57 in mode 3 can also be used.

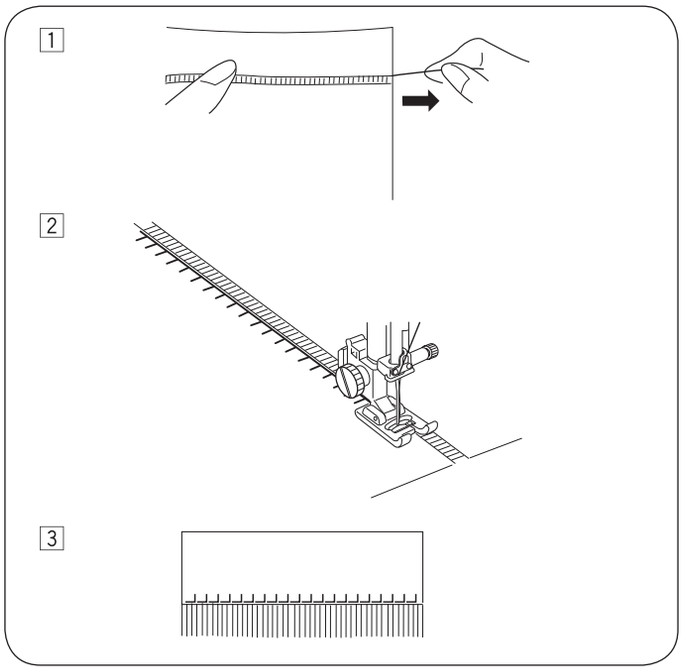
For better sewing results, interfacing should be used on the wrong side of the fabric when you use stretch or elastic fabrics.

Press the Auto-lock button, to sew a locking stitch when the stitch pattern is finished.



Fringing

① Stitch pattern: Mode 3 : 04
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot

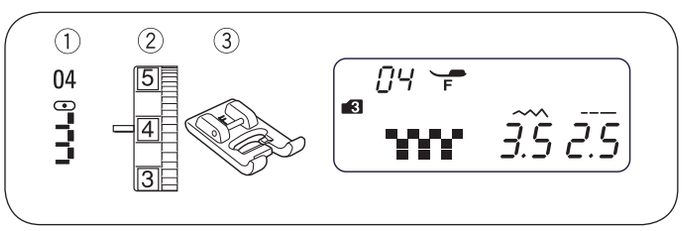


Fringing adds a special touch on table linens and shawls. Choose a firm, woven fabric like linen where threads can be removed easily.

1 Carefully cut the fabric on the grain. Remove a single strand of yarn or thread where the fringing is to begin.

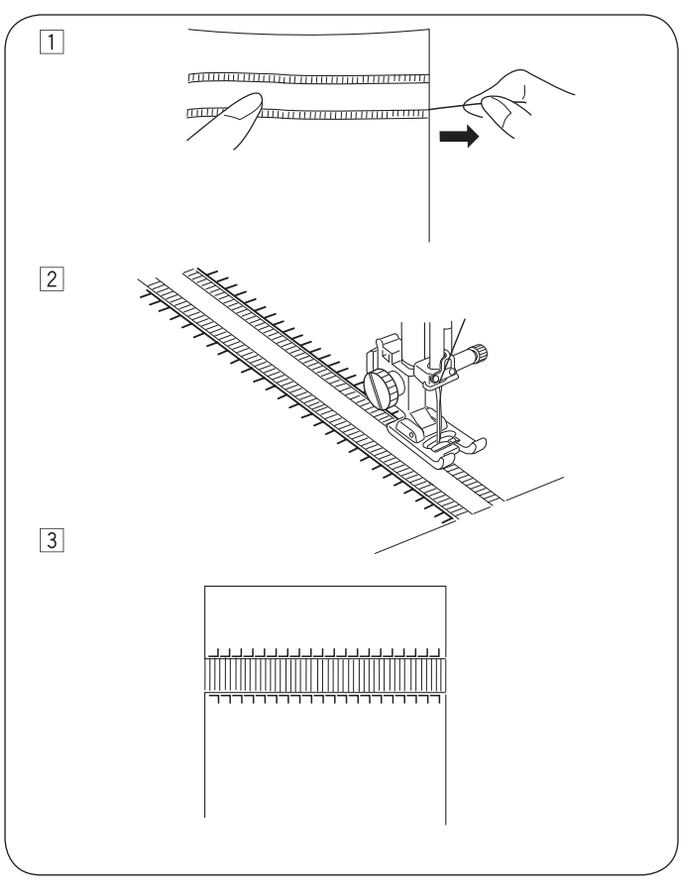
2 Sew down the left side so the right hand stitches fall in the open space.

3 Remove all excess yarn located to the right of the stitching and create a fringe.



Drawn Work

① Stitch pattern: Mode 3 : 04
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot

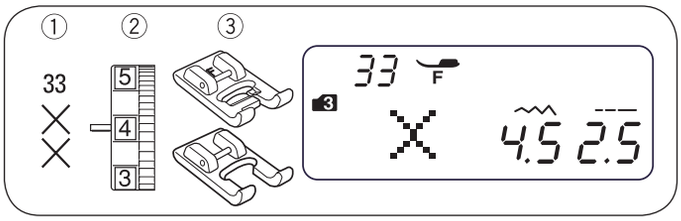


Drawn work uses the same method as fringing. Choose a firm, woven fabric like linen where threads can be removed easily.

1 Carefully cut the fabric on the grain. Determine the width of the drawn work and remove one strand of yarn or fabric thread at each end.

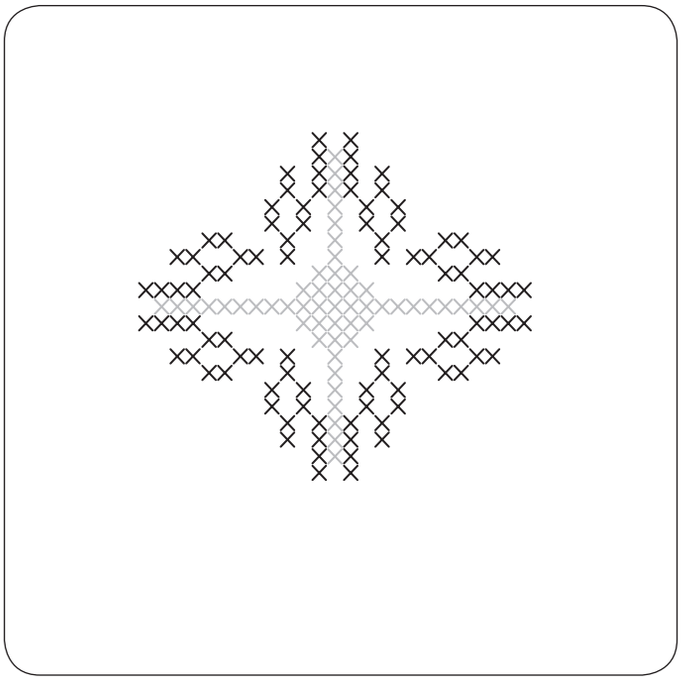
2 Sew down the left side, guiding the fabric so the right hand stitches fall in open space. After finishing the left side, turn the fabric around 180°. Sew down the other side.

3 Remove the yarn or fabric threads between the stitching.



Cross Stitch

① Stitch pattern: Mode 3 : 33
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot
Open toe foot: F2



You can make cross stitch designs with these patterns, in half the time it would take if embroidered by hand.

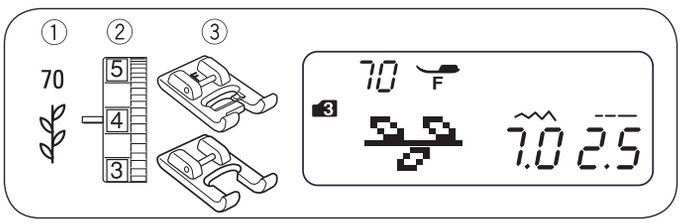
* If you press the auto-lock button before sewing, the machine will sew one unit of the cross stitch and stop automatically.

Choose a plain close weave fabric such as linen or wool flannel for the background fabric. If you choose light weight fabric, use a tear away backing for support.

Adjust the stitch width and length as you desire to match the pattern.

Find the center of the design, or if the design is a border, choose a starting point.

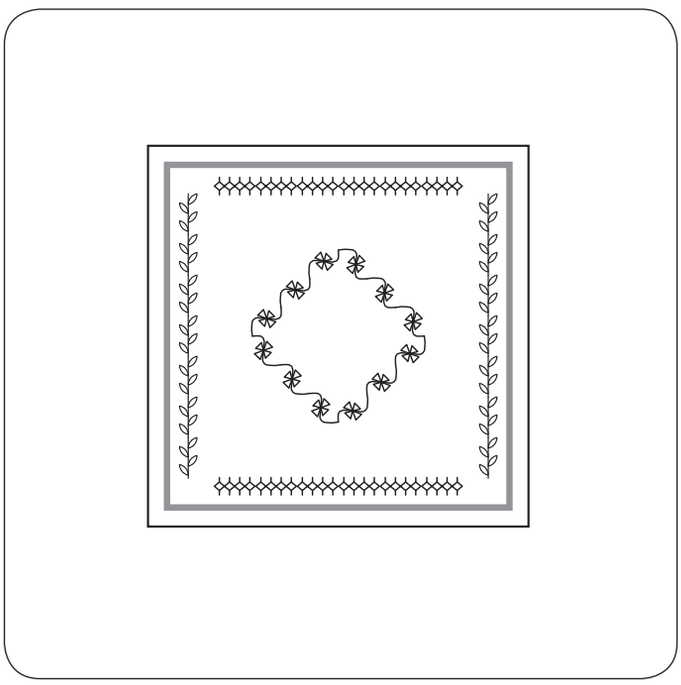
Count the cross stitches from the center up and program the number. Use auto-lock button to begin and end.



Decorative Stitches

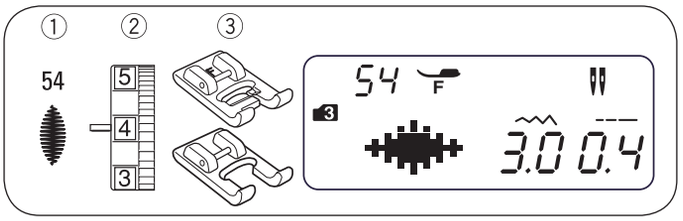
① Stitch pattern: Mode 3 : 70
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot
Open toe foot: F2

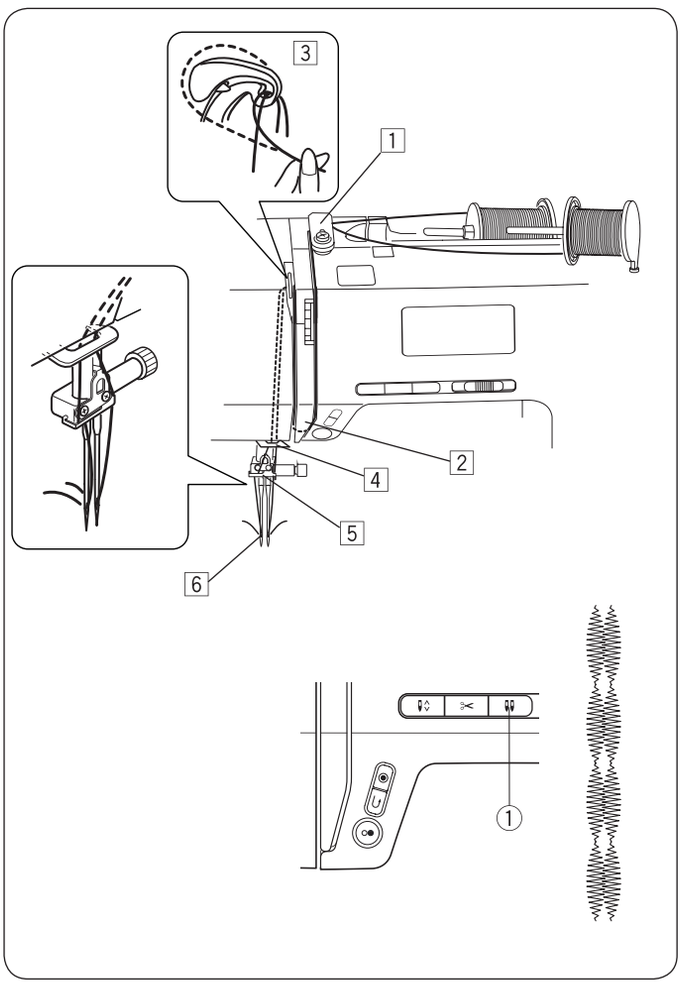
* Stitch patterns 64 or 90 in mode 3 can also be used.



For the best sewing results, carefully align and guide the fabric when you sew with decorative stitches.

Use a tear-way backing if necessary.





Twin Needle Sewing

① Stitch pattern: Mode 3 : 54 (Example)
② Thread tension: 3 - 6
③ Presser foot: Satin stitch foot
Open toe foot: F2

PLEASE NOTE:

When you sew patterns with the twin needle, test the stitches before you begin to sew.
Use Zigzag foot or Satin stitch foot for twin needle sewing.
Turn off the machine before changing the needle.
Replace the twin needle with a single needle when twin needle sewing is finished.

- **Starting to sew**

Use the second spool pin for twin needle sewing.

Place two spools of thread as shown.

Draw both threads from the spools and thread them through the points from 1 to 6 .

Make sure that the two strands of thread do not get tangled.

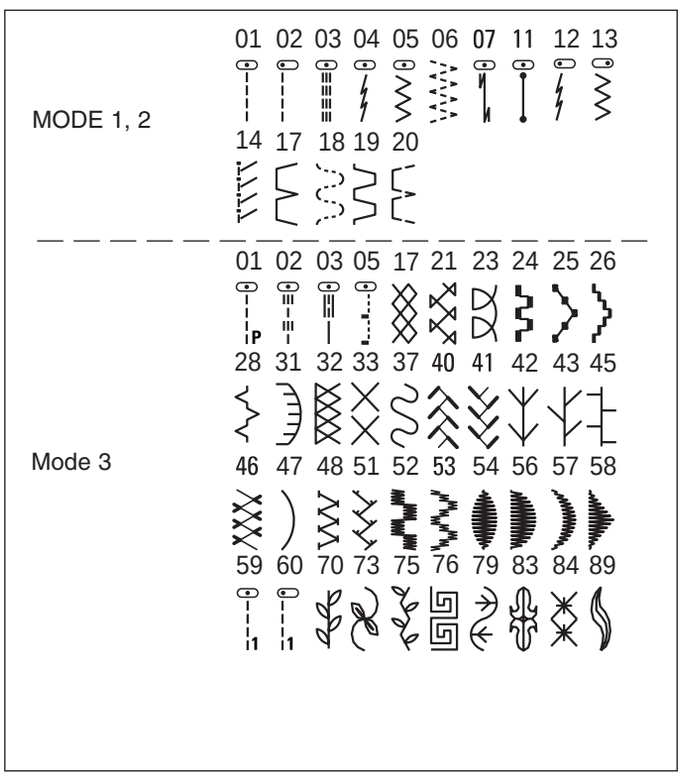
Turn the power switch on and select the desired pattern.

Press the twin needle button ①, draw the both threads to the back or left under the presser foot.

PLEASE NOTE:

When changing the sewing direction, raise the needle and turn the fabric.
When you select stitch patterns not for twin needle sewing and press the twin needle button, the twin needle mark will blink on the LCD display and the caution buzzer sound.
Stitch patterns cannot be memorized in the twin needle mode.
Use the thread cutter on the head cover when trimming threads.
Use thin threads #60 or larger number for the twin needle sewing.

Stitch Patterns for Twin Needle Sewing

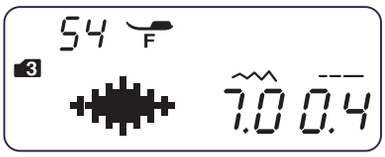


PROGRAMMING PATTERNS AND LETTERS

Programming the Auto-lock Stitch

Example: Stitch pattern 54 (mode 3)

1



2

3

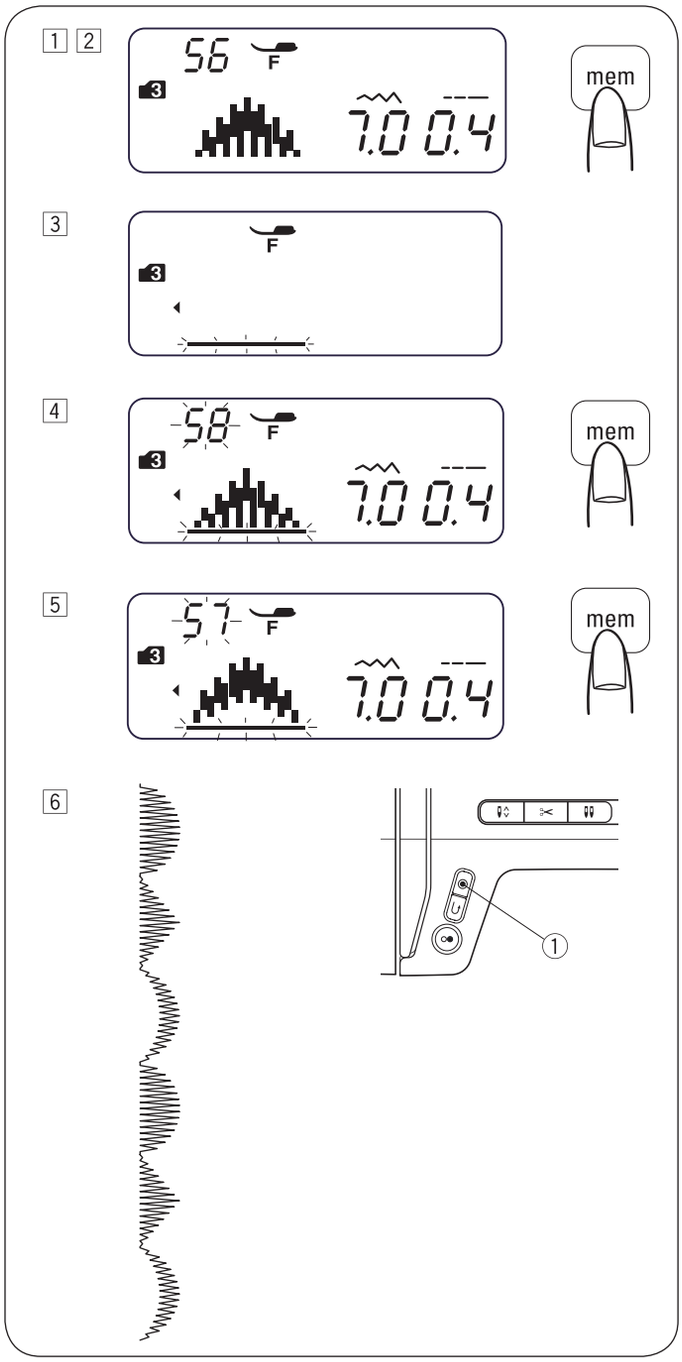
1 Select pattern 54 (mode 3).
Press the memory button.

2 Select pattern 92 (mode 3).
Press the memory button.

3 Place the fabric and sew.

The machine will sew a locking stitch, stitch pattern 54, locking stitch and stop.

Programming the Pattern Combination



Example: Stitch pattern 56, 58 and 57 (mode 3)

1 Select pattern 56 (mode 3).

2 Press the memory button, and the stitch pattern 56 is memorized.

3 The LCD display shows only 1 character at a time. The memorized stitch pattern is shifted to the left side of the display and the cursor blinks.

4 Select pattern 58 (mode 3). Press the memory button.

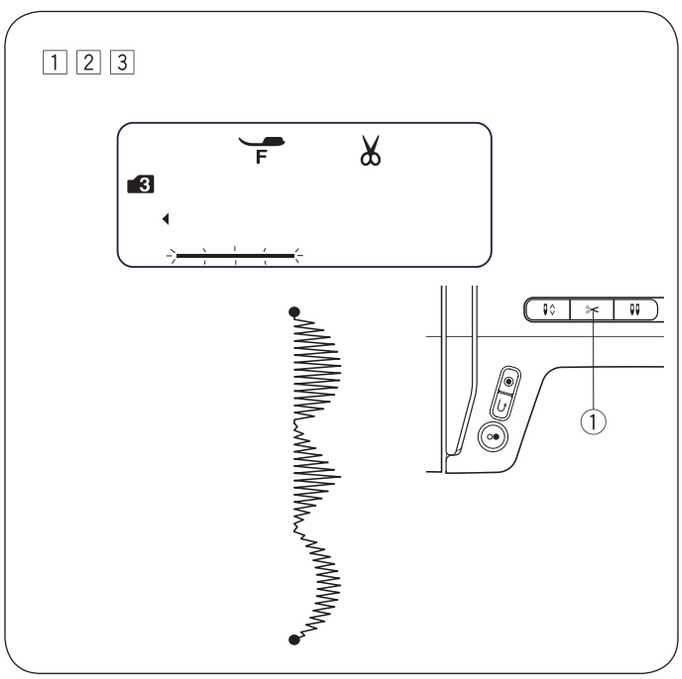
5 Select pattern 57 (mode 3). Press the memory button.

6 A pattern combination series will be sewn. If you press the auto-lock button ① while the machine is sewing, the machine will sew the current pattern and locking stitch, then stop automatically.

PLEASE NOTE:

Stitch patterns can be memorized up to 50 patterns.

Programming Auto-thread Cutting



Example: Auto-thread Cutting with Patterns 56, 58 and 57 (mode 3)

1 Refer to procedure 1 to 5 on “Programming the Pattern Combination” above to enter the stitch patterns 56, 58 and 57.

2 Press and hold the thread cutter button ① until the thread cutter mark appears on the LCD display.

3 Start to sew. A pattern combination series will be sewn and the machine will trim the threads automatically after locking stitch.

Bridge Stitches

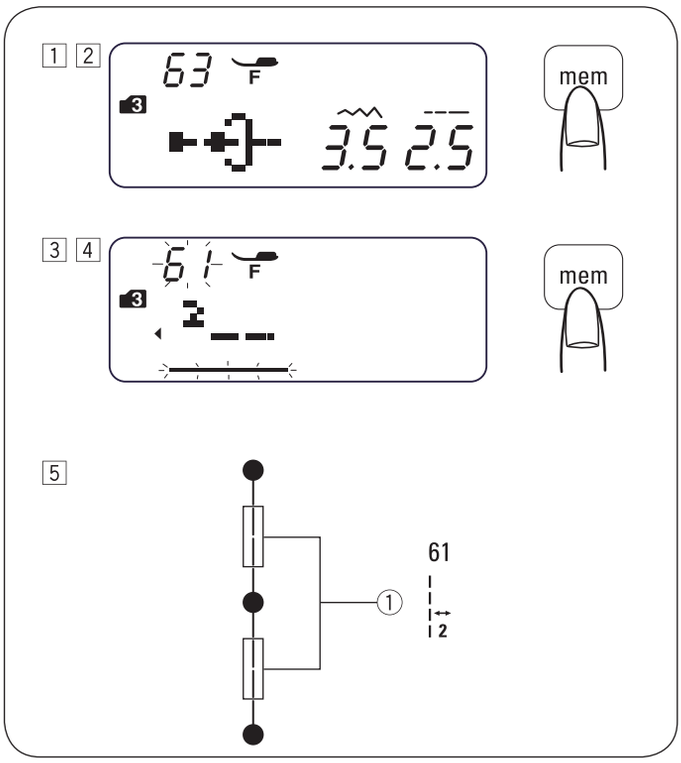
Patterns 59 to 62 (

) in mode 3 are bridge stitches which are used to insert straight stitches between stitch patterns.

The bridge stitches 61 and 62 inherit the stitch length and needle position of a previous pattern in programmed pattern combination.

The needle position and stitch length of patterns 59 (mode 3) and 60 (mode 3) can be adjusted.

However, the needle position and stitch length of patterns #61 (mode 3) and #62 (mode 3) cannot be adjusted. The needle position and stitch length remain same as the previous pattern.



PLEASE NOTE:

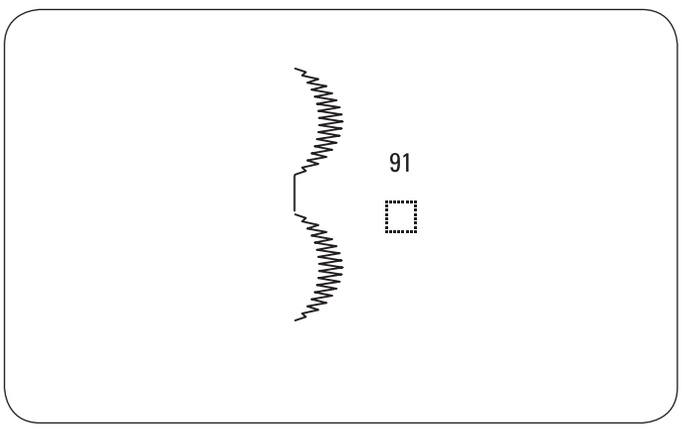
Use bridge stitch patterns 59 or 60 when the stitch length of the previous stitch pattern is too fine (such as satin stitches).

Example: Stitch pattern 61and 63 (mode 3)

1 Select pattern 63 (mode 3).
2 Press the memory button.
3 Select pattern 61 (mode 3).
4 Press the memory button.

5 Start to sew.

Two counts of straight stitch ① are inserted between stitch patterns.



- **To insert a space between patterns**

Example: Stitch pattern 57 (mode 91)

1 Select pattern 57 (mode 3).
2 Press the memory button.
3 Select pattern 91 (mode 3).
4 Press the memory button.
5 Start to sew.

An approximately 5 mm space will be inserted between the patterns.

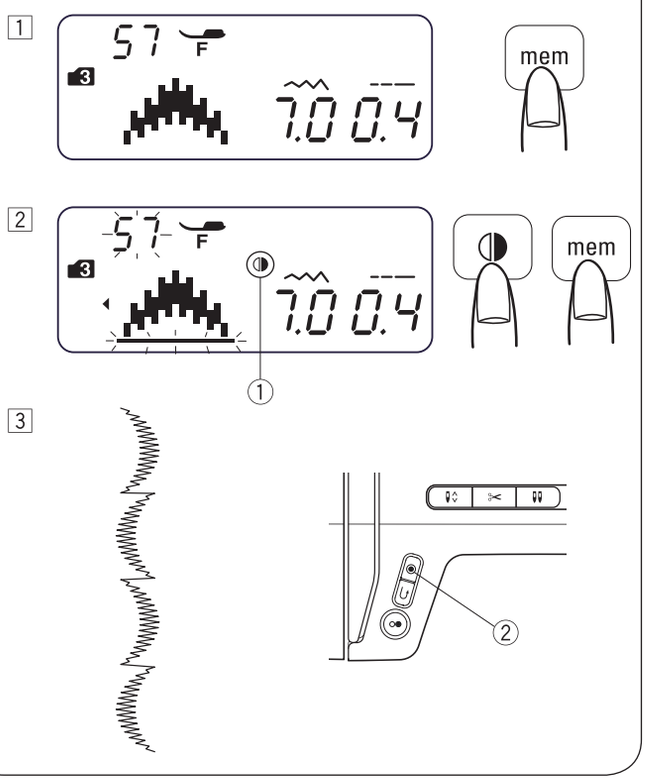
Spaces (Default stitch length)	
Stitch pattern 91 (mode 3)	5 mm
Stitch pattern 97, and 4, 5 (mode 6)	2,5 mm
Stitch pattern 98, and 4, 5 (mode 6)	3,5 mm
Stitch pattern 99, and 4, 5 (mode 6)	5 mm

PLEASE NOTE:

Spaces can be varied from 0.5 to 5.0 by adjusting its stitch length.

Programming a Mirror Image

Example: Stitch patterns 57 (Mode 3) and its mirror image



1 Select pattern 57 (mode 3). Press the memory button.

2 Select pattern 57 (mode 3).

Press the mirror image button. The mirror image ① will appear on the LCD display. Press the memory button.

3 Start to sew. A pattern combination series will be sewn.

Press the Auto-lock button ② .

The machine will sew the current pattern and stop sewing with a locking stitch.

PLEASE NOTE:

Mirror image cannot be applied to stitch patterns below:

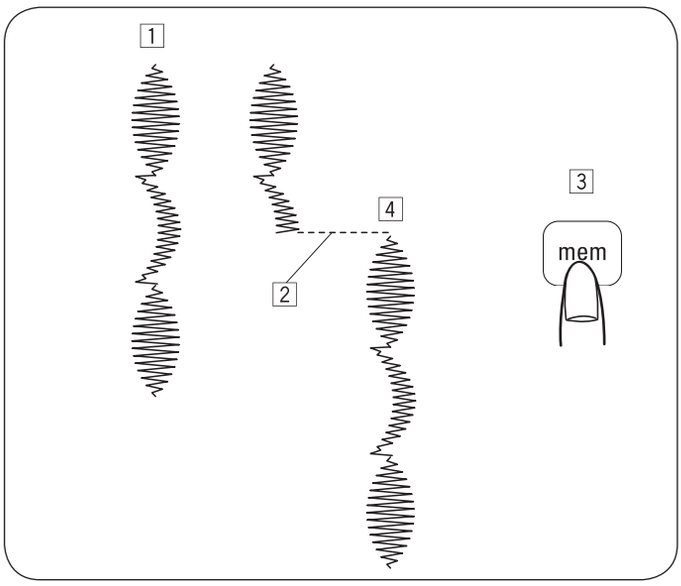
Mode 1:	Stitch patterns 1, 3, 7, 8, 9 and 0.
Mode 2:	Stitch patterns 01, 03, 07 - 11, 15 - 16 and 22 - 30.
Mode 3:	Stitch patterns 01 - 03, 59, 61 - 63, 91 and 92.
Mode 4, 5 and 6:	All stitch patterns.

Mode 2

Mode 3

Mode 4 **Mode 5** **Mode 6**

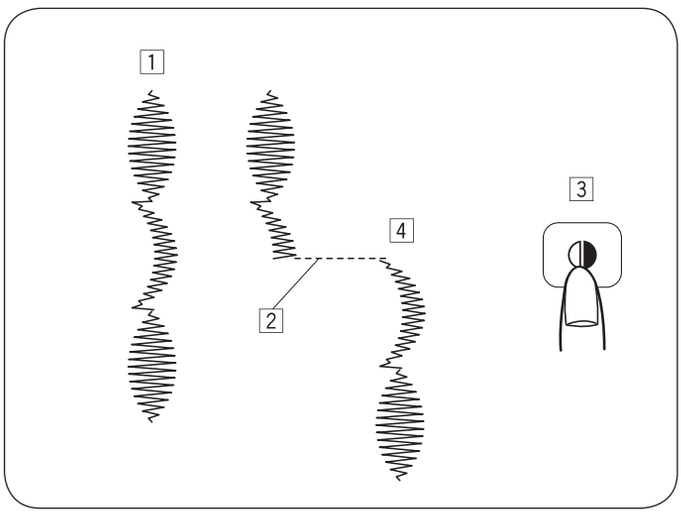
All stitch patterns.



Sewing a Pattern Combination from the Beginning

If you have to stop sewing a pattern combination and wish to sew it over again, press the memory button to sew the pattern combination from the beginning.

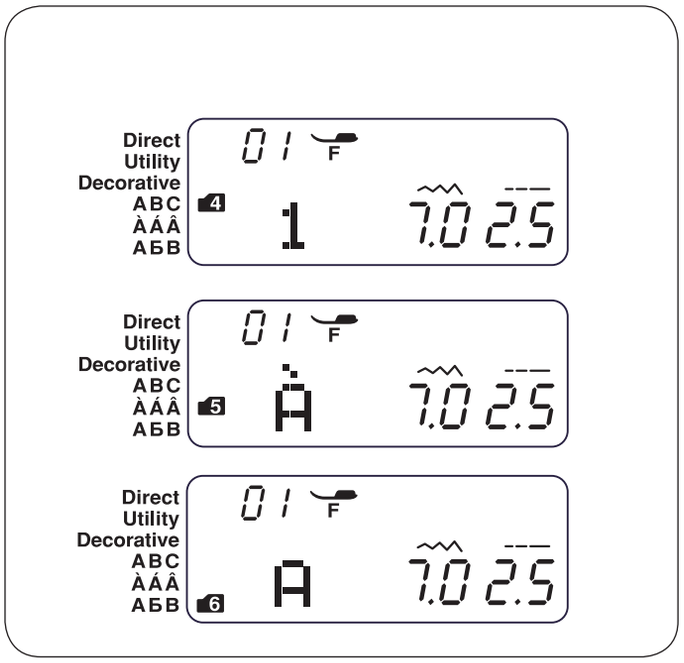
1 Programmed pattern combination.
2 Stop sewing.
3 Press the memory button.
4 Machine sews the pattern combination from the beginning.



Sewing the Current Pattern from the Beginning

If you have to stop sewing a pattern combination and wish to sew from the incomplete pattern, press the mirror image button to sew from the beginning of the pattern last sewn.

1 Programmed pattern combination.
2 Stop sewing.
3 Press the mirror image button.
4 Machine sews the pattern combination from the beginning.



Programming Letters

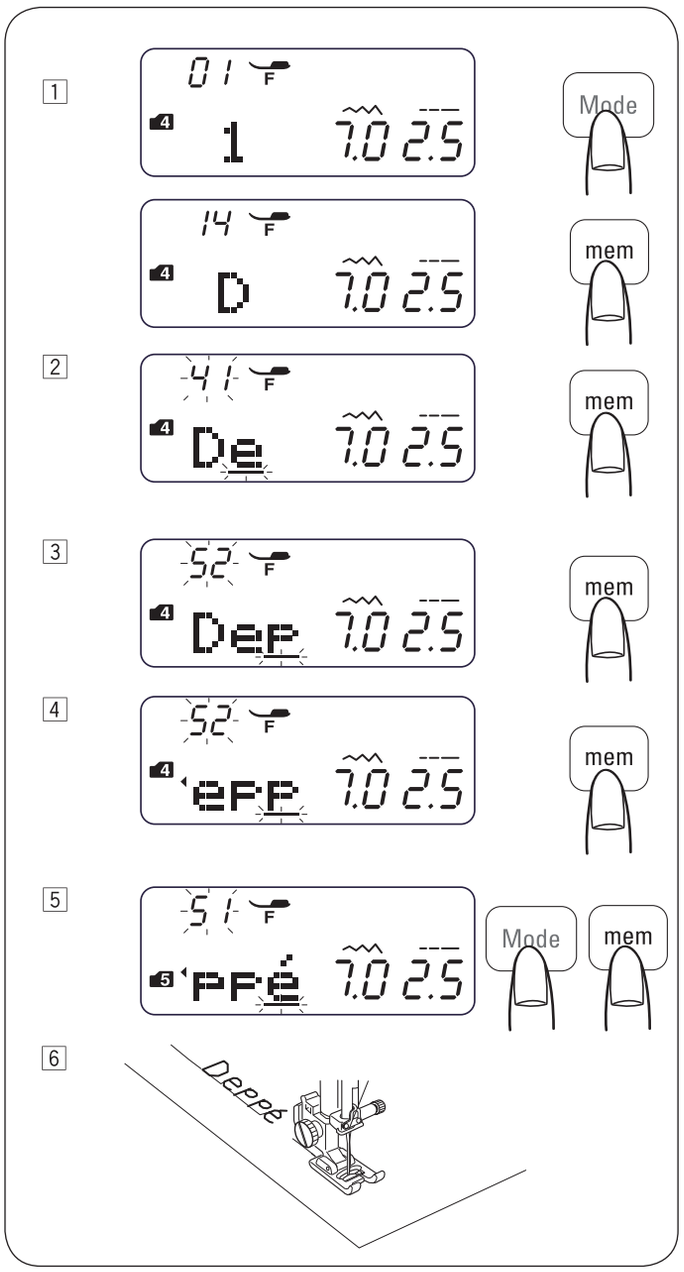
In mode 4, 5 or 6, you can program text by entering the number of alphabets.

Mode 4 : Alphabets/number/symbol

Mode 5 : European accented letters

Mode 6 : Russian (Cyrillic) letters

Example: To program “Deppé”



1 Press the mode button to enter mode 4.
Enter 14 to select upper case letter “D”.
Press the memory button.

2 Enter 41 to select lower case letter “e”.
Press the memory button.

3 Enter 52 to select lower case letter “p”.
Press the memory button.

4 Enter 52 to select lower case letter “p”.
Press the memory button.

5 Press the mode button to enter mode 5.
Enter 51 to select lower case letter “é”.
Press the memory button.

6 Start to sew.
A pattern series will be sewn.

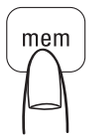
PLEASE NOTE:

The needle stop position will be at up position when a pattern series is sewn.

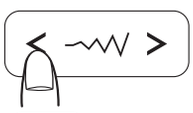
Reducing the Size of Letters

Example: To reduce the height of character " ♡ " to approximately 2/3 of its original size.

1 Press the mode button to enter mode 4.
Enter 22 to select upper case letter "L".
Press the memory button.



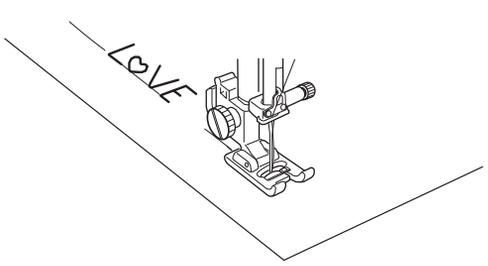
2 Enter 85 to select character "♡".
Press the stitch width adjusting key "<".
The stitch width will be changed to 5.0.
Press the memory button.



3 Enter 32 to select upper case "V".
Press the memory button.

4 Enter 15 to select upper case "E".
Press the memory button.

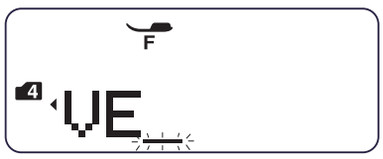
5 A pattern series will be sewn.
The size of character "♡" will be reduced to approximately 2/3 of its original size.



Viewing a Long Text

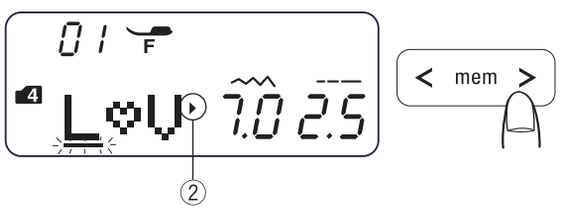
The LCD display shows up to 3 characters at a time.

If the entire text is not displayed, press the cursors to scroll the text.



1

1 Pressing the cursor shifts the cursor and scrolls the text to the left.

2 

2 Pressing the cursor shifts the cursor and scrolls the text to the right.

PLEASE NOTE:

The triangle marks ① ② indicate that there are remaining characters in that direction.

Deleting and Inserting a Letter (pattern)

Example:

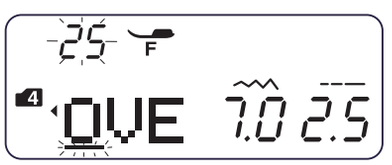
To delete "♡" from "L♡VE" and insert "O" instead of"♡"

1

1 Press the cursor to move the cursor under the letter "♡".

2

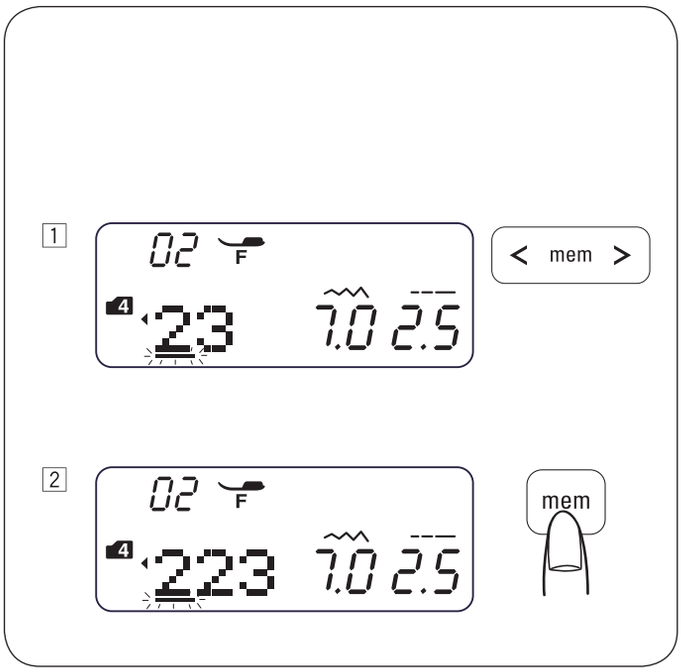
2 Press the clear button.

3 

3 Select pattern 25 "O".

4

4 Press the memory button. "O" is inserted between "L" and "V".



Duplicating a Letter (pattern)

Example:
To duplicate “2” from characters “123”

1 Move the cursor under the character “2”.

2 Press the memory button to duplicate the character “2”.

Stitch Adjustment of Programmed Patterns

The stitch width and length of the programmed stitch pattern can be altered uniformly or individually.

Example: To alter the stitch width uniformly.

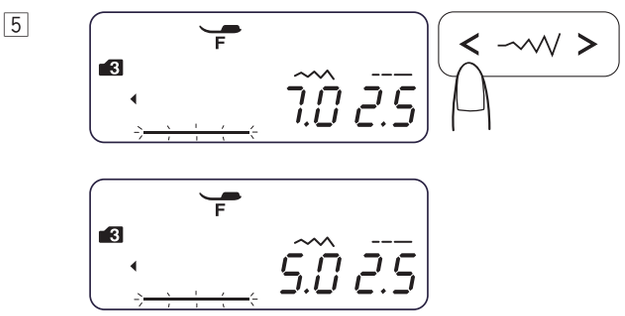
1 Enter the mode 3.

2 Select pattern 67 (67).
Press the memory button.

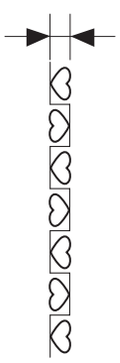
3 Select pattern 67 (67).

4 Press the mirror image button.
Press the memory button.

5 Move the cursor to the right of the last programmed pattern.
Press the stitch width button to alter the stitch width (5,0).



6 A pattern series will be sewn.
The stitch width of programmed patterns will be uniformly altered.



- **Unified needle position**

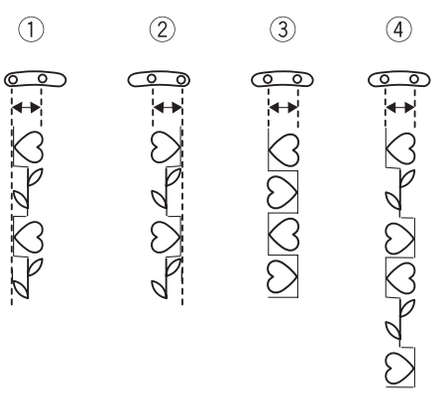
The needle position of the programmed patterns will vary depending on the combination:

① Unified to the left when combining the patterns with the left needle position (70) and the center needle position (67).

② Unified to the right when combining the patterns with the right needle position (67 flipped) and the center needle position (67).

③ Unified to the center when combining the patterns with the left needle position (70) and the right needle position (67 flipped).

④ Unified to the center when combining the patterns with the left
(70), right (67 flipped) and center needle positions (67).



Example:

To alter the stitch width individually

1 2

1 Enter the mode 3.

2 Select pattern 54 (54).
Press the memory button twice.

3

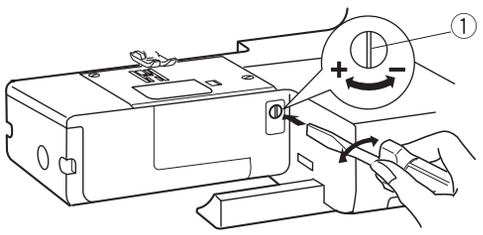
3 Move the cursor under the second stitch pattern of 54 (54).

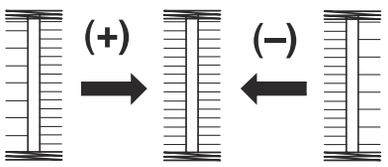
4

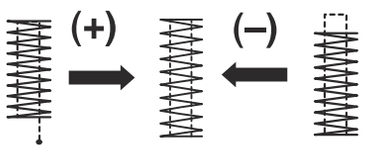
4 Press the stitch width button to alter the stitch width (3.5).

5

5 A pattern series will be sewn.
The stitch width of programmed patterns will be 7 mm and 3.5 mm.







Balance

The sewing results of the stretch patterns may vary depending upon the sewing conditions, such as sewing speed, type of the fabric, number of layers etc.

Always test sew on a scrap piece of the fabric that you wish to use.

If stretch patterns are distorted, correct it with the balance.

① Balance

Stretch stitch pattern (Example: Stitch pattern 40 in mode 3)

If the pattern is compressed, turn the balance in the direction of “+”.

If the pattern is drawn out, turn the balance in the direction of “–”.

Stitch balance of buttonhole 26.

If the right row is denser, turn the balance in the direction of “+“.

If the left row is denser, turn the balance in the direction of “-“.

- **Evenness of Bartack**

If the stitch does not meet the start position, turn the balance in the direction of “+“.

If the stitch does not meet return position, turn the balance in the direction of “–”.

CARE OF YOUR MACHINE

Cleaning the Hook Race and Feed Dog

⚠ WARNING:

Turn the power switch off and unplug the machin before cleaning.
The machine must only be disassembled as described in this section.

⚠ CAUTION:

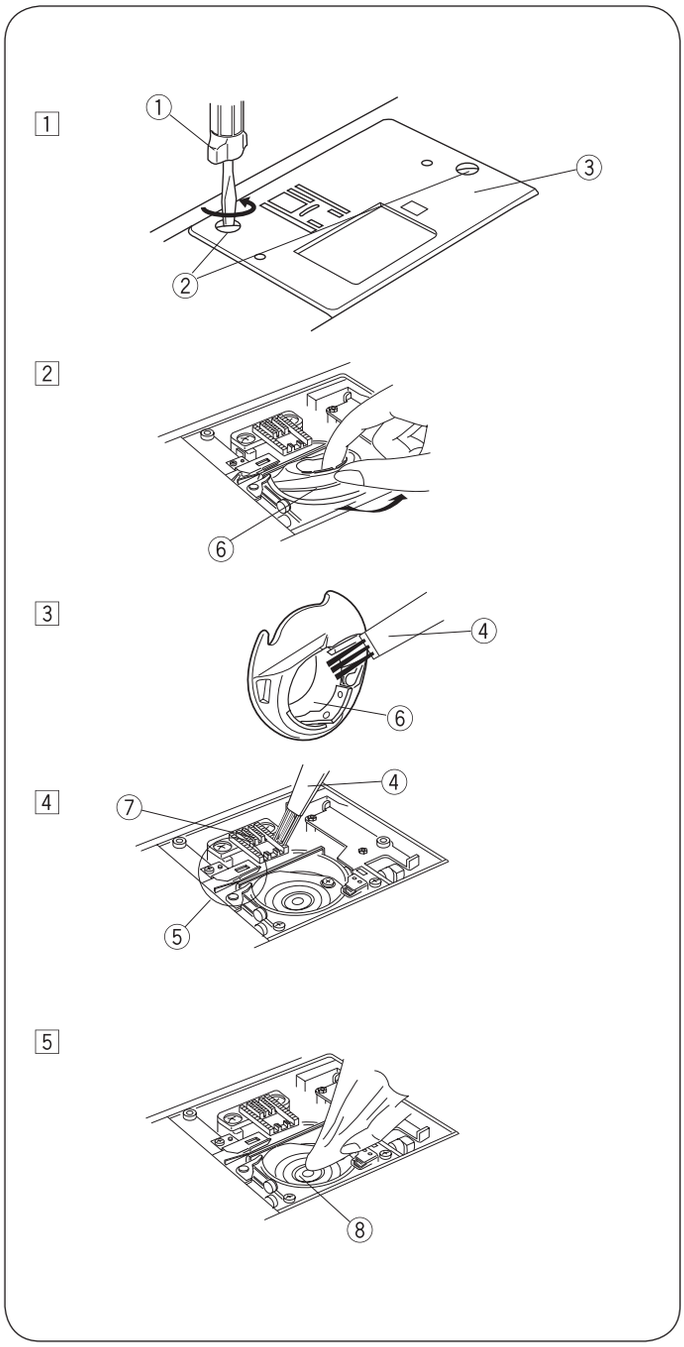
Do not store the machine in a high-humidity area, near a heat radiator, or in direct sunlight.

PLEASE NOTE:

Clean the outside of the machine with a soft cloth and soap.
After cleaning the machine, make sure the needle and presser foot are attached.

Press the needle stop up/down button to raise the needle. Turn off the power switch.

Remove the needle and presser foot.

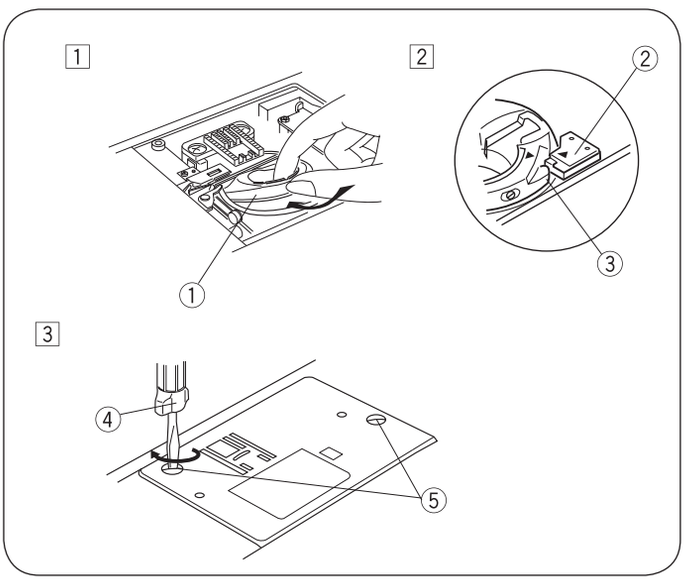


1. Remove the setscrew ② out of the left side from the stitch plate ③. Use theT screwdriver ①supplied with the machine. Remove the stitch plate ③.
2. Remove the bobbin. Lift up the bobbin holder ⑥ and remove it.
3. Clean the bobbin holder ⑥ with a lint brush ④.
4. Clean the feed dog ⑦, thread cutter mechanism ⑤ and hook race ⑧ with the lint brush.
5. Clean the center of the hook race with a dry cloth.

① Screwdriver
② Setscrews
③ Stitch plate
④ Lint brush
⑤ Thread cutter mechanism
⑥ Bobbin holder
⑦ Feed dog
⑧ Hook race

(You may also use a vacuum cleaner.).

* The machine does not require oiling.



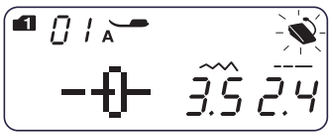
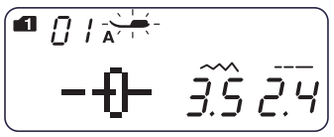
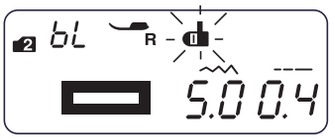
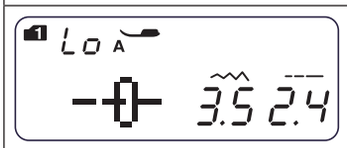
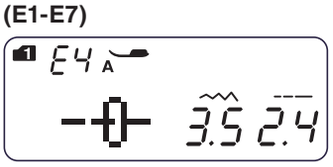
Installing the Bobbin Holder

1. Insert the bobbin holder ① so that the knob ③ fits next to the stopper ② in the hook race.
2. Insert the bobbin.
3. Attach the stitch plate with the setscrews ⑤. After cleaning the machine, make sure the needle and presser foot are attached.

① Bobbin holder
② Stopper
③ Knob
④ Screwdriver
⑤ Setscrews

Problems and Warning Signs

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

Warning sign	Cause	Try this
	1. The start/stop button is pressed with the foot control connected. 2. The foot control is out of order. (The foot control sign keeps blinking.)	Disconnect the foot control. Contact the service center or the store from whom the machine was purchased.
	The machine is started the with the presser foot raised.	Lower the presser foot and start the machine again.
	The machine will stop if the buttonhole is sewn without lowering the buttonhole lever.	Lower the buttonhole lever and start the machine again.
	The bobbin winder spindle is shifted to the right.	Shift the bobbin winder spindle to the left for stitching.
	The machine is started after halting due to overload.	Wait for at least 15 seconds to restart. Switch off the power switch. Remove tangled threads around take-up lever, hook race.
(E1-E7) 	The machine does not work properly due to a problem in the control circuit.	Contact the service center or the store from whom the machine was purchased.

Audible signal	The buzzer sounds when:
Pip	Normal operation.
Pip-pip-pip	Invalid operation or malfunction.
Peep	All memorized stitch patterns are cleared. E1-E7 error occurred.
Pip-Peep	Buttonhole is completed

It is normal that a faint humming sound comes out from inside the machine.

LCD display may get warm when the machine has been used for hours.

TROUBLESHOOTING

Condition	Cause	Remedy
The needle thread breaks	1. The thread is not threaded properly.	Page 21, 22
	2. The thread tension is too tight.	Page 26, 27
	3. The needle is bent or blunt.	Page 17
	4. The needle is incorrectly inserted.	Page 17
	5. The needle thread and the bobbin thread are not set under the presser foot when start sewing.	Page 23
	6. The threads were not drawn to the rear after sewing.	Page 28
	7. The thread is either too heavy or too fine for the needle.	Page 17
The bobbin thread breaks	1. The bobbin thread is not threaded properly in the bobbin holder.	Page 20
	2. Lint has collected in the bobbin holder.	Page 67
	3. The bobbin is damaged and doesn't turn smoothly.	Replace the bobbin.
	4. The thread is wound loosely on a bobbin.	Page 19
The needle breaks	1. The needle is incorrectly inserted.	Page 17
	2. The needle clamp screw is loose.	Page 17
	3. The threads were not drawn to the rear after sewing.	Page 28
	4. The needle is too fine for the fabric being used.	Page 17
	5. An unsuitable presser foot is used.	Use proper foot.
Skipped stitches	1. The needle is incorrectly inserted, bent or blunt.	Page 17
	2. The needle and/or threads are not suitable for the work being sewn.	Page 17
	3. A blue shank needle is not being used for sewing stretch, very fine fabrics and synthetics.	Use stretch stitch needles.
	4. Threads are not threaded properly.	Page 21, 23
	5. A poor quality needle is used.	Change the needle.
Seam puckering	1. The thread tension is too tight.	Page 26, 27
	2. The thread is not threaded properly.	Page 21, 22
	3. The needle is too heavy for the fabric being sewn.	Page 17
	4. The stitch length is too long for the fabric.	Make the stitches shorter.
	5. A stabilizer is not used when sewing very fine fabrics.	Apply a stabilizer.
The fabric is not feeding smoothly	1. The feed dog is packed with lint.	Page 67
	2. The stitches are too fine.	Make the stitches longer.
	3. The feed dog is not raised after "drop feed" sewing.	Page 16
Loops on the seams	1. The needle thread tension is too loose.	Page 26, 27
	2. The needle is too thick or to fine for the fabric being used.	Page 17
The machine does not work	1. The machine is not plugged in.	Page 10
	2. Thread has been caught in the hook race.	Page 67
	3. The bobbin winder spindle is not returned to the left after bobbin winding.	Page 19
Buttonhole sewing is not sewn properly	1. The stitch density is not suitable for the fabric being sewn.	Page 43
	2. Suitable interface material has not been used for the stretch or synthetic fabric.	Use an interfacing.
	3. The buttonhole lever is not lowered.	Page 42
The machine is noisy	1. Thread has been caught in the hook race.	Page 67
	2. Lint has built up in the hook race or bobbin holder.	Page 67

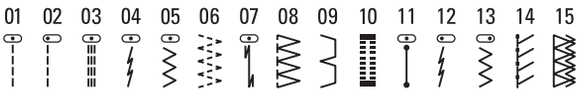
STITCH PATTERN
Overview Mode 1-6

Mode 1

1 2 3 4 5 6 7 8 9 0

Mode 2

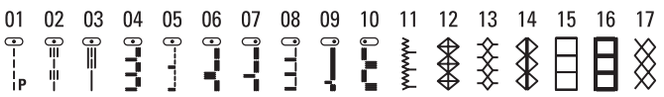
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15



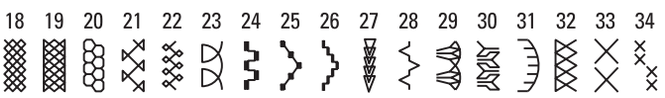
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Mode 3

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17



18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34



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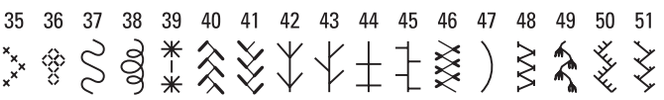

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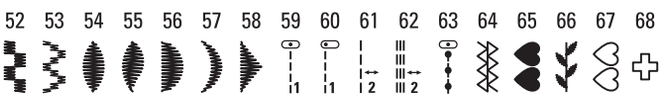

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86 87 88 89 90 91 92

Mode 4

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