

INSTRUCTION BOOK

Memory Craft
4400

JANOME

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the followings:

Read all instructions before using this appliance.

DANGER— To reduce the risk of electric shock:

1. An appliance should never be left unattended when plugged in. Always unplug this sewing machine from the electric outlet immediately after using and before cleaning.
2. Always unplug before replacing a sewing machine bulb. Replace bulb with same type rated 12 Volts, 5 Watts.

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

1. Do not allow to be used as a toy. Close attention is necessary when this sewing machine is used by or near children.
2. Use this appliance only for its intended use as described in this owner's manual.
Use only attachments recommended by the manufacturer as contained in this owner's manual.
3. Never operate this sewing 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 this sewing machine to the nearest authorized dealers or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the appliance with any air opening blocked. Keep ventilation openings of this sewing machine and foot controller free from accumulation of lint, dust and loose cloth.
5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to the off ("O") position, then remove plug from outlet.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
11. Always use the proper needle plate. The wrong plate can cause the needle to break.
12. Do not use bent needles.
13. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
14. Switch this sewing machine off ("O") when making any adjustment in the needle area, such as threading the needle, changing the needle, threading the bobbin or changing the presser foot, and the like.
15. Always unplug this sewing machine from the electrical outlet when removing covers, lubricating, or when making any other adjustments mentioned in this owner's manual.

SAVE THESE INSTRUCTIONS

IMPORTANT

Be sure to keep machine away from static electricity, heat sources, humidity, and direct sunlight. When using your sewing machine for the first few times, place a waste fabric under the presser foot and run the machine without thread for a few minutes. Wipe away any oil which may have appeared.

TABLE OF CONTENTS

SECTION I NAMES OF PARTS

Name of Parts	3
Screen Sharpness Adjusting Dial	4
Extension Table	4
Standard Accessories	5

SECTION II GETTING READY TO SEW

Connecting Machine to Power Supply	6
For Your Safety	6
Controlling Sewing Speed	6
Main Function of Buttons/Keys	7
• Up/down needle position button	7
• Auto-lock button	7
• Reverse button	7
• Mode selection key	8
• Twin needle key	8
• Editing key	8
• Stitch width selection key	8
• Stitch length selection key	8
• Message key	9
• Turn-over memory key	9
• Elongation key	9
• Stock/call key	9
• Clear key	10
• Memory key	10
• Direct pattern selection and number keys	10
• Pattern selection and screen indication	11
• Number key selection	11
Memory Mode/Buzzer Sound/Multiple Language Settings	12
To Raise or Drop the Feed Dogs	13
Pressure Lever	13
Presser Foot Lifter	13
Changing Needles	14
To Attach and Remove the Presser Foot	14
To Remove and Attach the Foot Holder	14
Selecting Needle and Thread	15
Winding the Bobbin	16
• Set the spool	16
• Removing the bobbin	16
• Winding the bobbin	17
• Inserting the bobbin	18
Threading the Machine	19
• Threading the machine	19
• Needle threader	20
• Drawing up the bobbin thread	21
Balanced Thread Tension	22
• Auto-thread tension	22

• Manual thread tension adjustment	22
--	----

SECTION III BASIC SEWING

Straight Stitch Sewing	23
• Starting to sew	23
• Changing sewing direction	23
• Finishing sewing	23
Practice Common Stitching Skills	24
Using the Seam Guides on the Needle Plate	24
Turning Square Corners	24
Using the Quilting Bar	24
Sewing on Heavy Fabrics	24
• Manual stitch length	25
• Variable needle position	25
Various Utility Stitch	26
• Basting	26
• Straight stitches	27
• Automatic reverse stitch	27
• Triple stretch stitch	27
• Auto-lock stitch	27
• Stretch stitch	28
• Saddle stitch	28
• Sculpture stitch	28
Zigzag Stitch	29
• Interfacing	29
• To change the width and length	29
Variation of Zigzag Stitches	30
• Overcasting	30
• Tricot stitch	30
• Knit stitch	31
• Overedge sewing (1)	31

SECTION IV DECORATIVE STITCHING TECHNIQUES

Overedge Sewing (2), (3)	32
Sewing Buttons	33
Sensor Buttonhole	34-37
• Automatic buttonholing	34
• Sewing preparation	35
• Starting sewing	36
Adjusting Stitch Width and Density in Buttonholes ...	37
• Sensor buttonhole 09 and 10	38
• Adjusting the stitch width and density in buttonholes 09 and 10	38
Corded Buttonholes	39
Free Size Automatic Buttonhole 20	40
Zipper Sewing	41
• Put in a zipper	41
• Attaching the zipper foot	41
• Fabric preparation	41

Zipper Sewing, cont'd	42
Darning	43
• To sew	43
• For darning less than 2 cm	43
• To memorize darning stitches	43
• Adjusting the shape of darning stitches	43
Bartacking	44
• Memorizing bartacking	44
• Adjusting the evenness of bartacking stitches	44
Rolled Hem	45
Blind Stitch Hemming	46
• How to fold the fabric	46
• How to sew	46
• Changing the needle position	46
Pintucking	47
Quilting	47
Shell Tack	48
Applique	48
Smocking	49
Fagoting	49
Scallop Stitch (A), (B)	50
Patchwork	51
Satin Stitch Sewing	51
Cross Stitch	52
Decorative Stitch	52
Cording	53
Twin Needle Stitching	54
Adjusting Pattern Balance	55
• Adjusting distorted stretch stitch patterns	55
• Adjusting distorted letters or numbers in B or C Mode	55
• Adjusting the stitch density for buttonhole 20	55
Programming Decorative Stitch Patterns 61, 58	56
• A programmed stitch sewing pattern finishing with auto-lock, stitches 61, 58, 98	56
Cycle Stitching with Mirror Image Patterns	57
Restarting Programmed Patterns	57
Elongation	58
• Sewing sample, stitch pattern 51	58
Sewing Letters in Block Style	59
Combining Letters in Script Style	60
Editing Function (1)	61
• Check and correct pattern combination before sewing	61
• Deleting a stitch pattern, letter or number by editing	61
• Adding letters or space between letters	62
Editing Function (2)	63

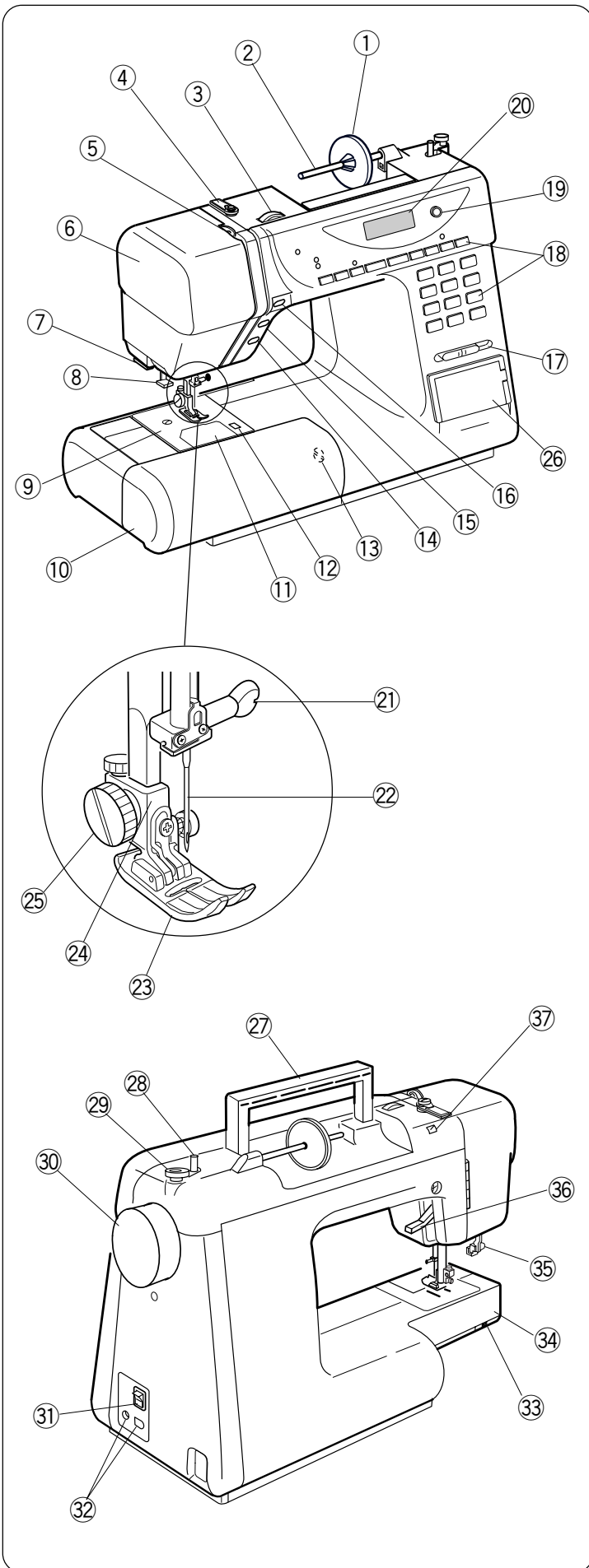
• Uniform width, length adjustment	63
Editing Function (3)	63
• Custom stitch sizing	63

SECTION V CARE OF YOUR MACHINE

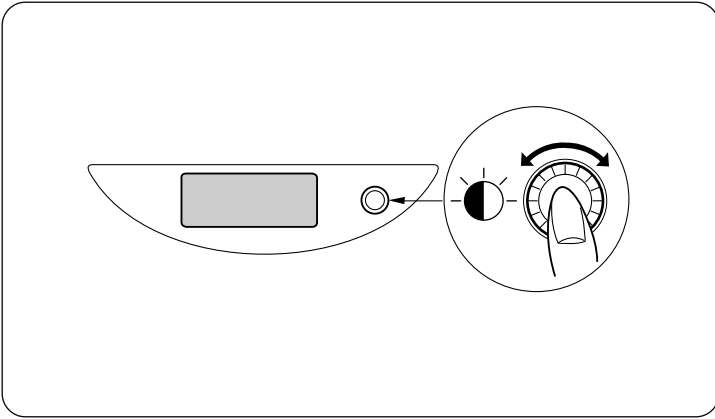
Care of Your Machine	64
Cleaning the Hook Race and Feed Dogs	64
Replacing the Bobbin Holder	64
Replacing the Light Bulb	65
• Removing light bulb	65
• Attaching light bulb	65
Troubleshooting	66, 67
• When message appears on the screen	67

SECTION I NAME OF PARTS

Names of Parts



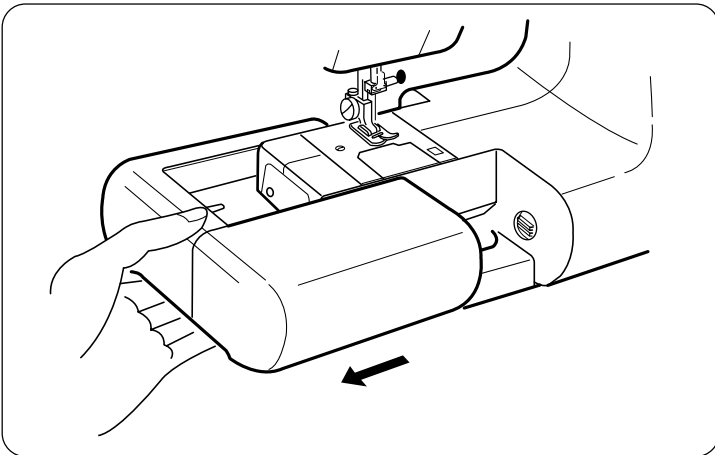
- ① Spool holder
- ② Spool pin
- ③ Auto-tension dial
- ④ Upper thread guide
- ⑤ Thread take-up lever
- ⑥ Face plate
- ⑦ Thread cutter
- ⑧ Needle threader
- ⑨ Needle plate
- ⑩ Extension table
- ⑪ Hook cover plate
- ⑫ Hook cover plate release button
- ⑬ Feed balancing dial
- ⑭ Reverse button
- ⑮ Auto-lock button
- ⑯ Up/down needle button
- ⑰ Speed setting lever
- ⑱ Keyboard
- ⑲ Screen sharpness adjustment dial
- ⑳ LCD screen
- ㉑ Needle clamp
- ㉒ Needle
- ㉓ Presser foot
- ㉔ Foot holder
- ㉕ Thumb screw
- ㉖ Pattern chart
- ㉗ Carrying handle
- ㉘ Bobbin winder spindle
- ㉙ Bobbin winder stopper
- ㉚ Handwheel
- ㉛ Power switch
- ㉜ Machine sockets
- ㉝ Drop feed lever
- ㉞ Free arm
- ㉟ Buttonhole lever
- ㊱ Presser foot lifter
- ㊲



Screen Sharpness Adjusting Dial

Use this to adjust the sharpness of the liquid crystal display.

If no indication is shown on the screen after you switch on the power, adjust the screen brightness with this dial.

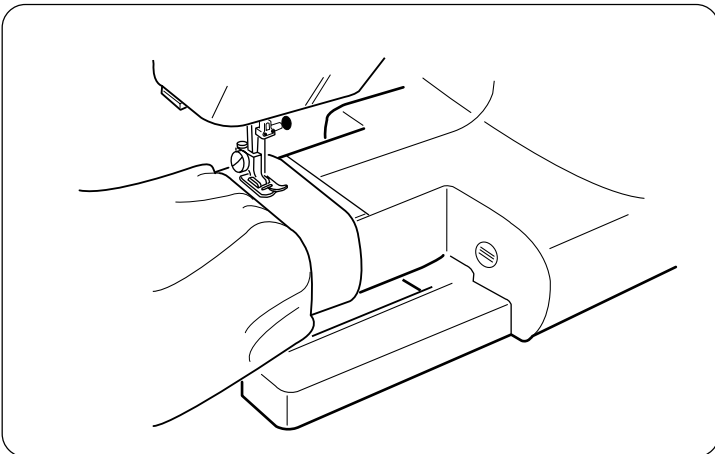


Extension Table

The extension table provides added sewing surface and can be easily removed for free arm sewing.

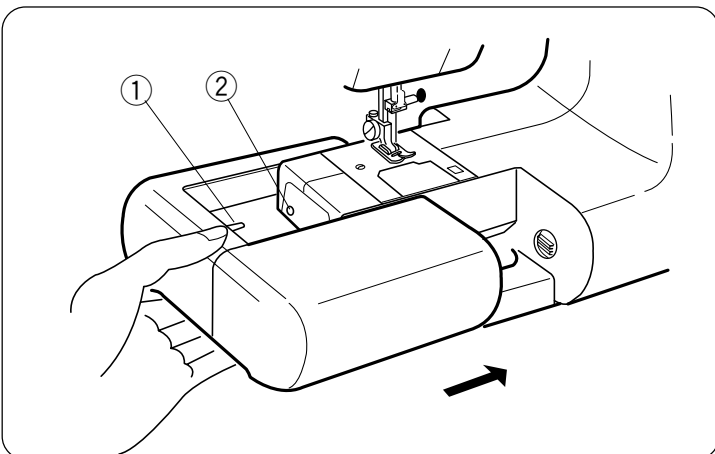
Detaching the table:

Pull the table away from the machine, as illustrated.



Free arm sewing

Free arm sewing is useful for darning socks or mending knees, elbows or areas of wear in children's cloths.



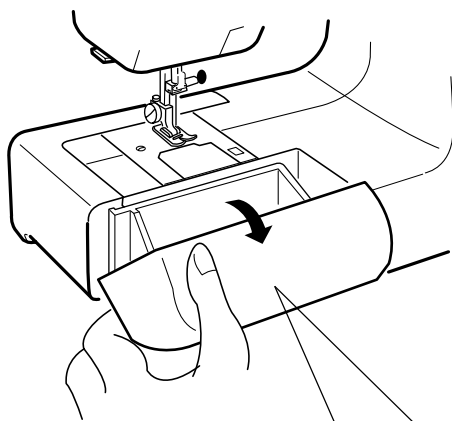
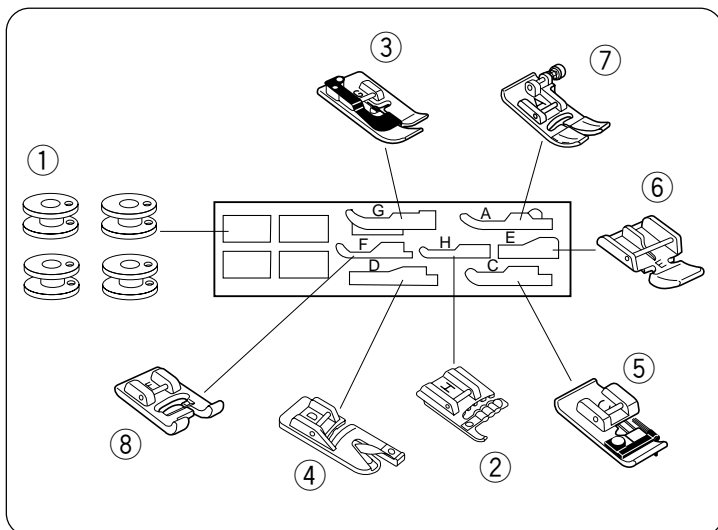
Attaching the table:

Push the extension table until it snaps into the machine.

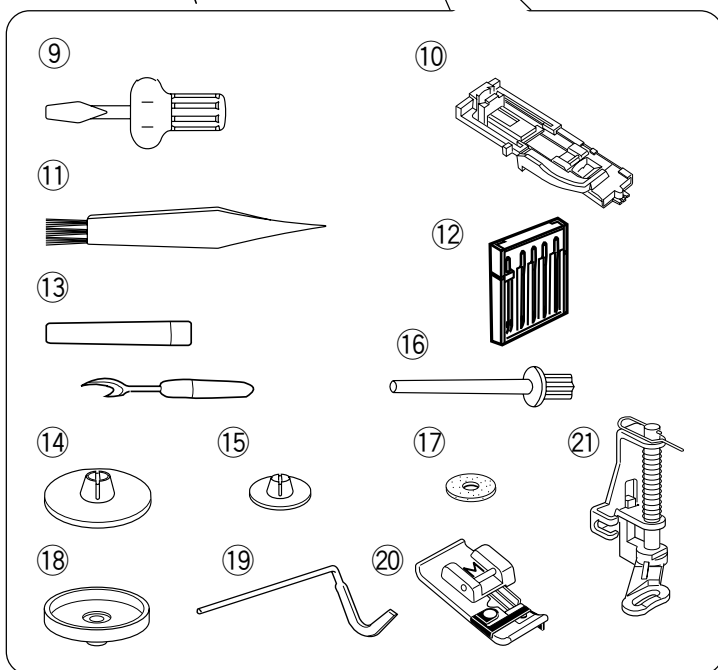
- ① Projection
- ② Hole

Standard Accessories

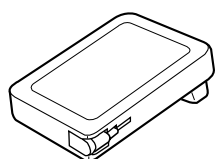
- ① Bobbins
- ② H: Cording foot
- ③ G: Blind hem foot
- ④ D: Hemmer foot
- ⑤ C: Overedge foot
- ⑥ E: Zipper foot
- ⑦ A: Zigzag foot
- * It is attached on the machine.
- ⑧ F: Satin stitch foot



- ⑨ Screwdriver
- ⑩ R: Automatic buttonhole foot
- ⑪ Lint brush
- ⑫ Set of needles
- ⑬ Seam ripper
- ⑭ Spool holder (Large)
- * It is attached on the machine.
- ⑮ Spool holder (Small)
- ⑯ Additional spool pin
- ⑰ Felt
- ⑱ Spool base
- ⑲ L: Quilting bar
- ⑳ M: Overcasting foot
- ㉑ P: Darning foot



㉒



㉓



- ㉒ Foot control
- ㉓ Power supply cord

SECTION II GETTING READY TO SEW

Connecting Machine to Power Supply

Before connecting the power supply, make sure the voltage and frequency shown on the machine conform to your electrical power.

Turn off the power switch, and insert the foot control plug ①, machine plug ②, into the machine and power supply plug ③ into the outlet in the following order.

- ① Foot control plug
- ② Machine plug
- ③ Power supply plug
- ④ Power switch
- ⑤ Power supply cord
- ⑥ Foot control

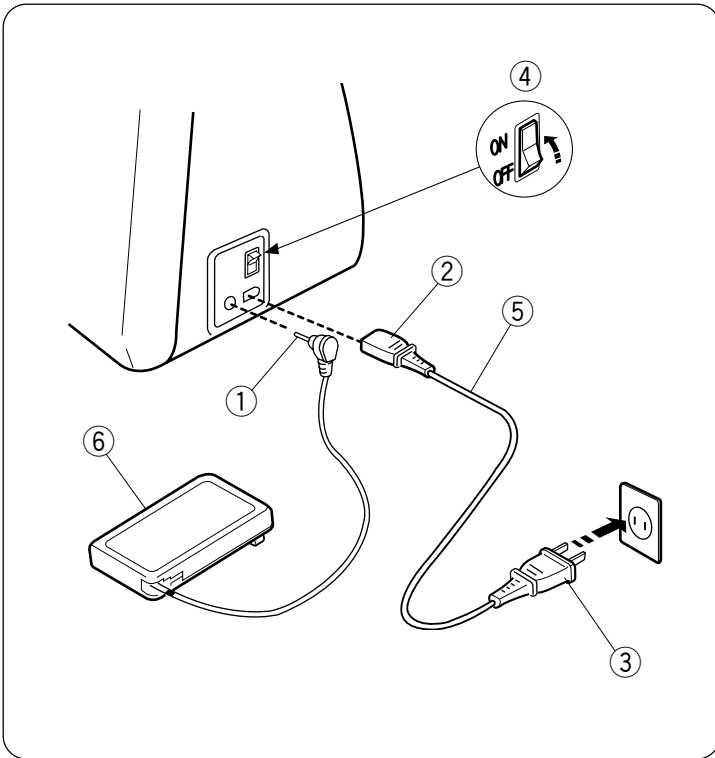
For Your Safety

- * While in operation, always keep your eyes on the sewing area. 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
- * Do not place anything on the foot control, when not sewing.

Operating instructions

“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 does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.”

Foot controller Model 21371 for use with Sewing Machine MC4400.

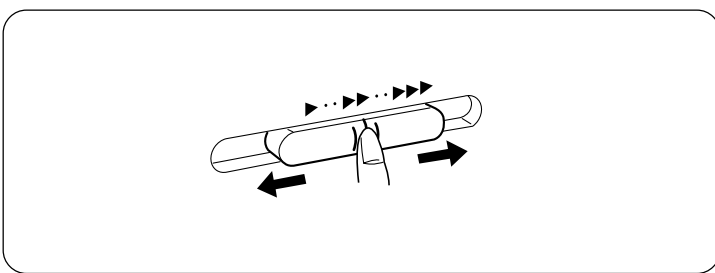


Controlling Sewing Speed

Speed setting lever

The maximum sewing speed can be controlled by the speed setting lever. To increase the speed, slide the lever to the right (toward “▶▶▶”).

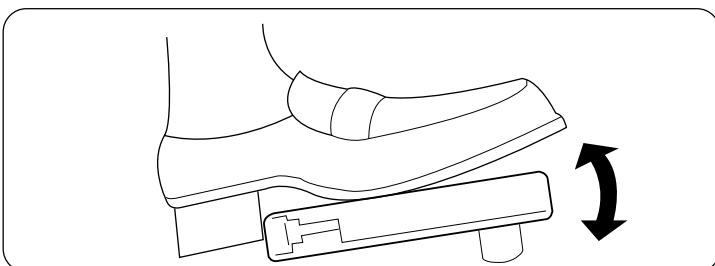
To decrease the sewing speed, slide the lever to the left (toward “▶”).

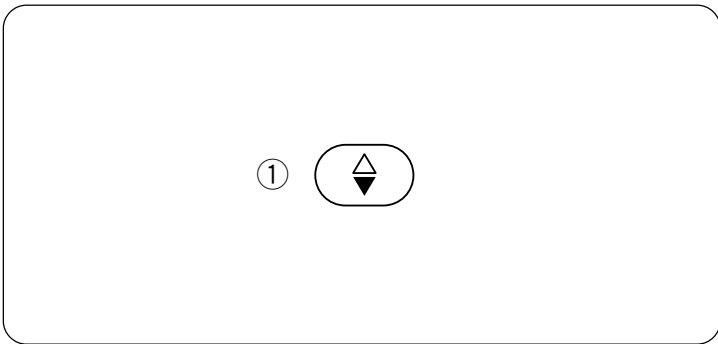
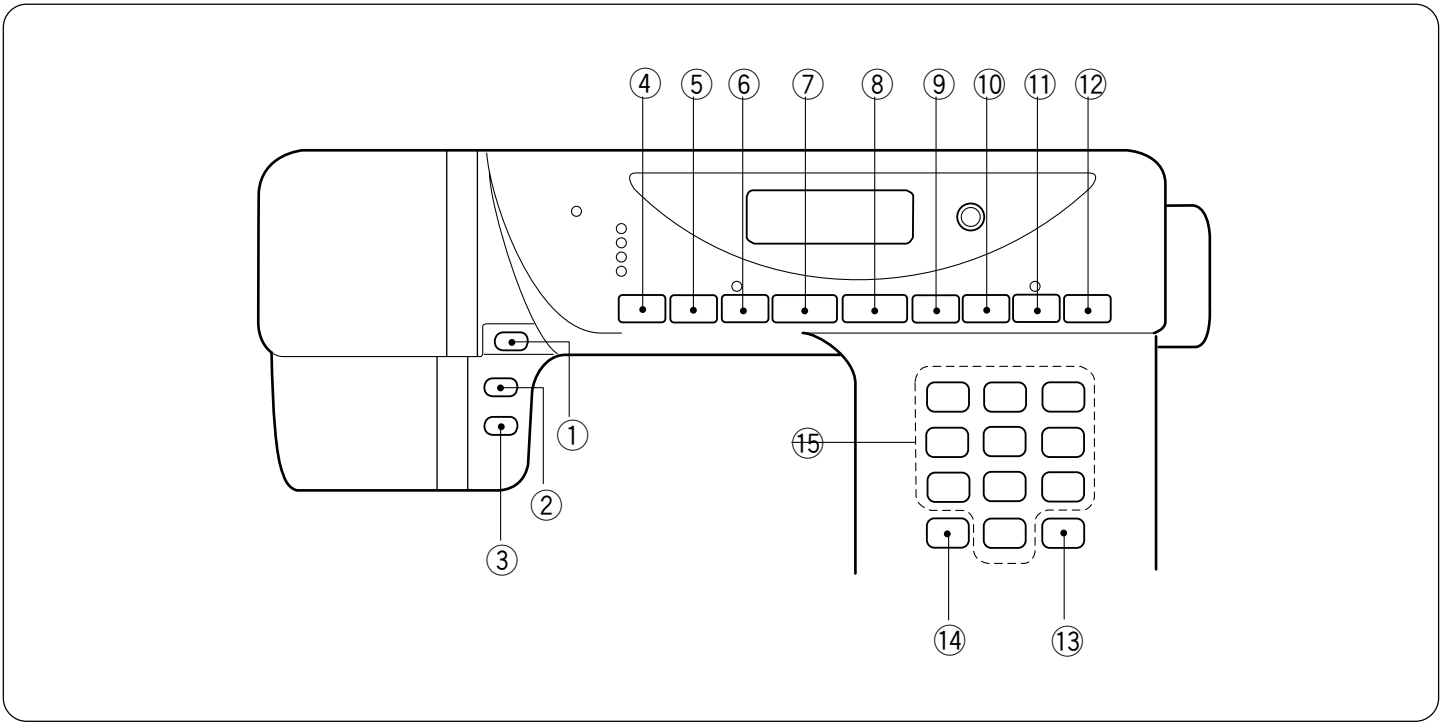


Foot control

Sewing speed can be varied by the foot control. The harder you press on the control, the faster the machine runs.

Note: The Memory Craft 4400 is equipped with a protective circuit to prevent overheating. The machine will stop automatically if it is running overloaded for a long time. In such a case, follow the message that appears on the LCD screen.



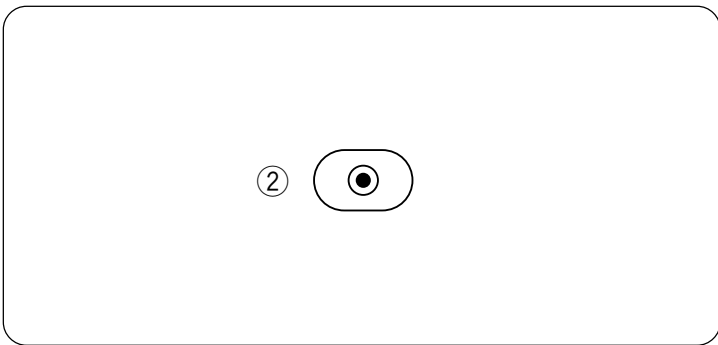


Main Function of Buttons / Keys

- Up/down needle position button

When the Up/down needle position button is pressed, the needle bar goes down and stops in the lowest position. When pressed again, the needle bar goes up and stops in the highest position.

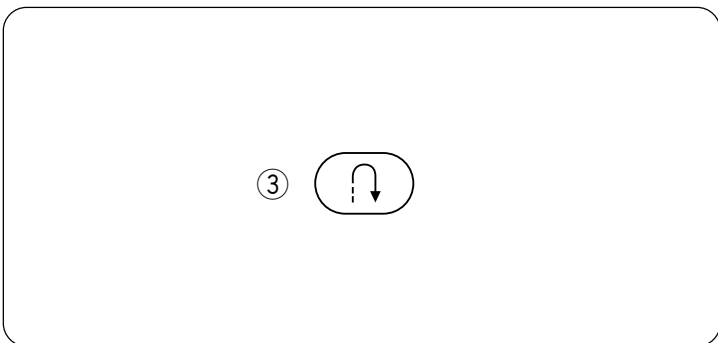
* When this button is pressed, the needle bar alternates between up and down positions when the machine stops.



- Auto-lock button

When stitches \downarrow , \downarrow , \downarrow , \downarrow , \downarrow , \downarrow , \downarrow , \downarrow are selected, the machine will immediately sew locking stitches when the auto-lock button is pressed, then automatically stop.

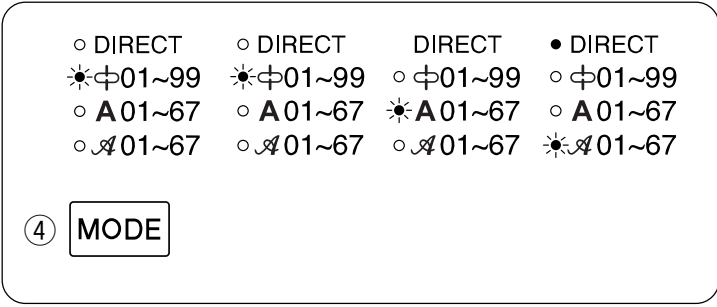
When sewing all other stitches, the machine will sew locking stitches at the end of the current pattern and automatically stop.



- Reverse button

When stitches \downarrow , \downarrow , \downarrow , \downarrow , \downarrow , \downarrow , \downarrow , \downarrow are selected, the machine will sew in reverse while the reverse button is pressed.

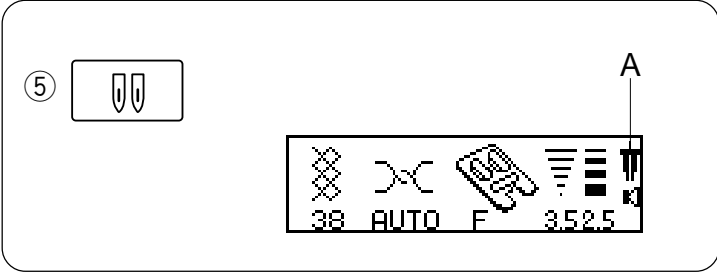
If you press the reverse button when sewing all other stitches, the machine will immediately sew locking stitches and automatically stop.



• Mode selection key

By pressing the key, LED light will move step by step to select the stitch mode, as shown.

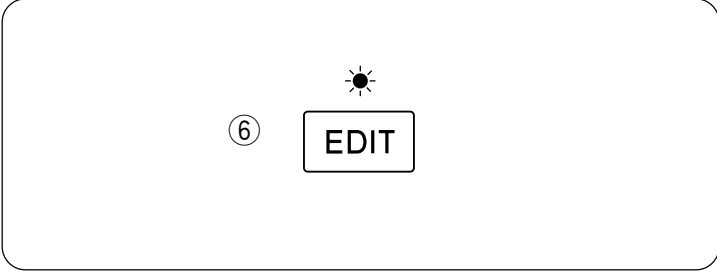
- Direct Mode: Direct mode pattern selection
- A Mode: Pattern selection using number keys (utility and decorative stitches)
- B Mode: Character selection using number keys (block type)
- C Mode: Character selection using number keys (script type)



• Twin needle key

Just press this button and “ A ” mark will appear on the display screen.

Press button again for single needle sewing.



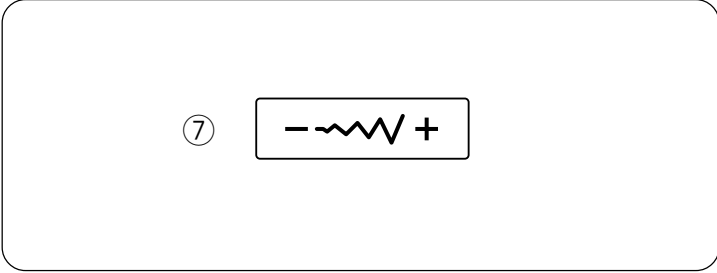
• Editing key

This button can be used for adding, deleting and changing combinations and monograms before sewing while programming stitch patterns or monograms.

For editing, use the stitch width “+” or “-” key to select editing position (see page 61, 62).

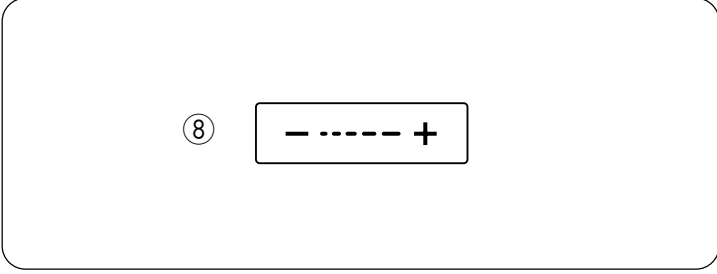
[Manual setting function of the zigzag width and stitch length for programmed patterns]

The individual programmed zigzag pattern width or stitch length can be changed (see page 63).



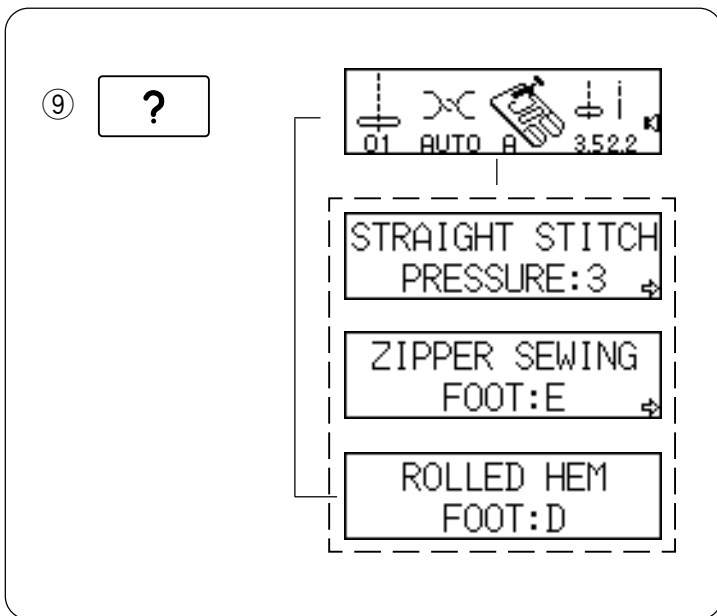
• Stitch width selection key

Press “+” or “-” to change the stitch width.



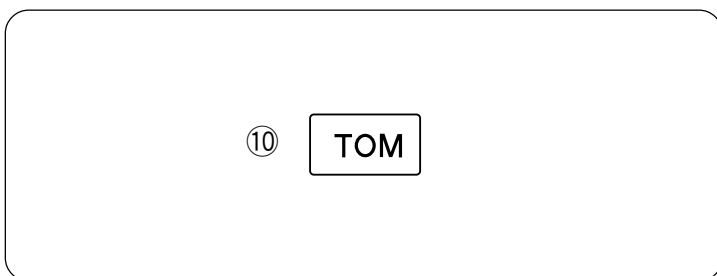
• Stitch length selection key

Press “+” or “-” to change the stitch length.



• Message key

When Message key is pressed, a detailed message will display suitable stitches, patterns and machine settings.

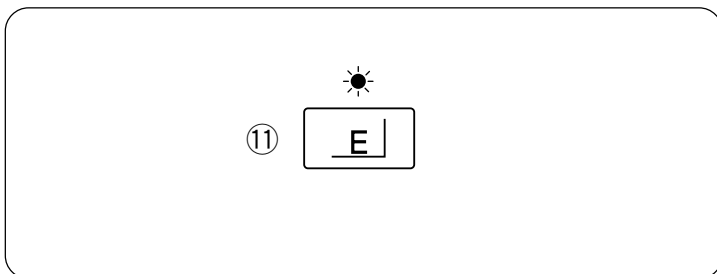


• Turn-over memory key

(To memorize the pattern in mirror image)


Select a desired pattern and press TOM key so the selected pattern's mirror image will be shown on the screen.

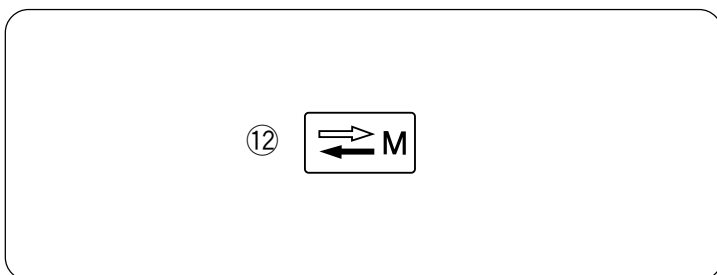
Use this key to memorize and sew patterns in a mirror image. Programmed letters or numbers will be reduced to 2/3 of their actual size when you press the TOM key.



• Elongation key

(For A Mode)

Stitches 45 to 60 () can be elongated up to five times their normal length by pressing this key.

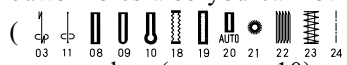


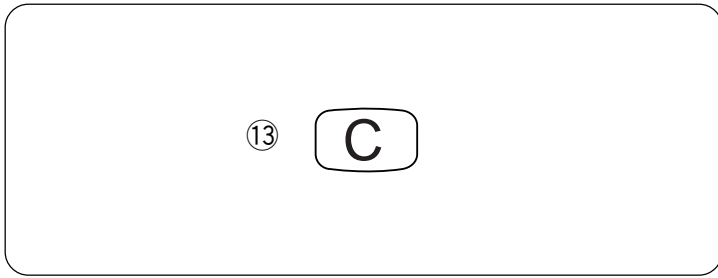
• Stock/call key

When you press the Stock/call key after memorizing a pattern or editing patterns, the currently registered patterns will be deleted and new patterns will be stored. Other than this, you can recall the stored patterns when you press the Stock/call key.

You can store a maximum of 50 programmed patterns and sew.

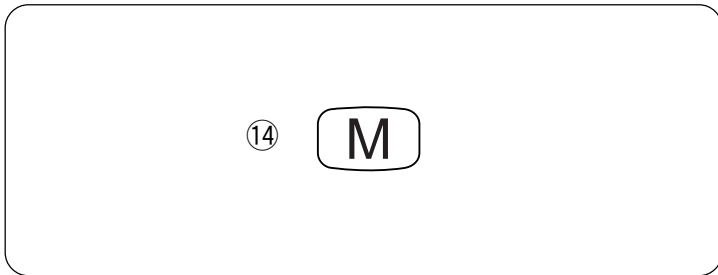
* You cannot store the Direct mode patterns and buttonholes also you cannot memorize

() patterns by using memory key (see page 10).



• Clear key

If an incorrect pattern is memorized, pressing this key will immediately clear it (like a backspace key).

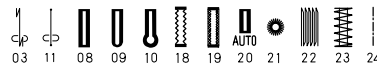


• Memory key

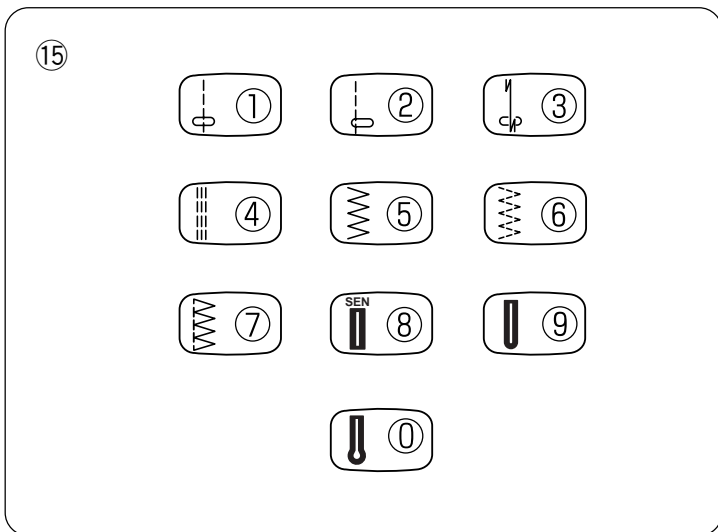
When this key is pressed after selecting a pattern, the pattern will be memorized as many times as the key is pressed. When the key is pressed after selecting another pattern, that pattern will be memorized after the previously memorized pattern.

(The maximum number of memory patterns is 50)

* The following patterns cannot be memorized.



* The Direct mode patterns and buttonholes cannot be memorized.



• Direct pattern selection and number keys

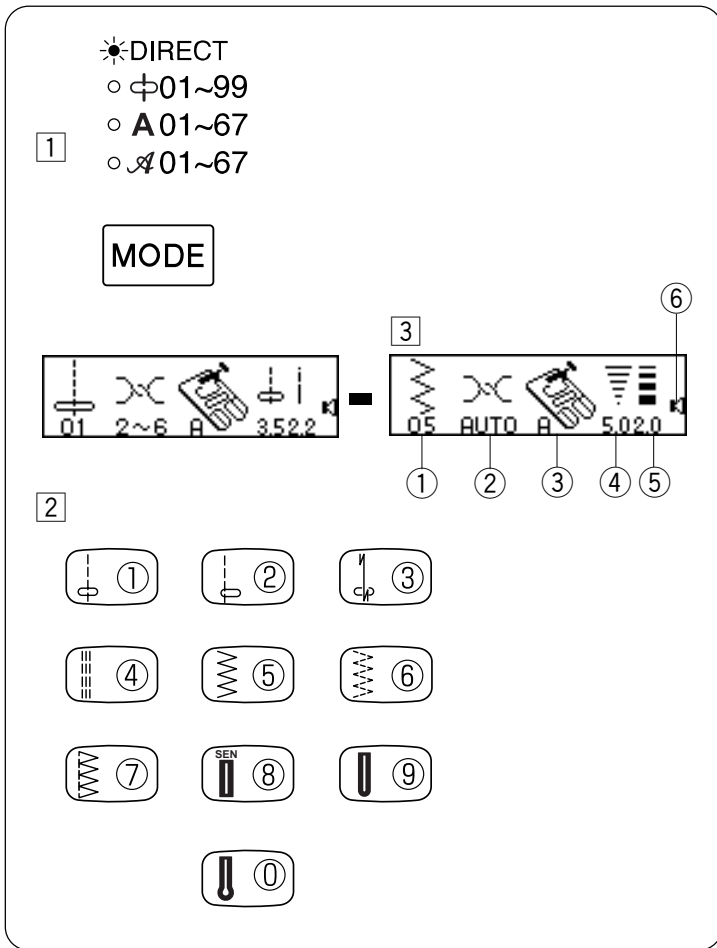
[Direct pattern selection]

You can select the patterns 1 to 10, also buttonhole stitches, square buttonhole to keyhole buttonhole when the mode key is set at the Direct mode.

In A Mode 01~96, the patterns 01 to 10 can be selected by pressing two-digit numbers.

[Number keys]

Press number keys of the pattern number to select the desired pattern.

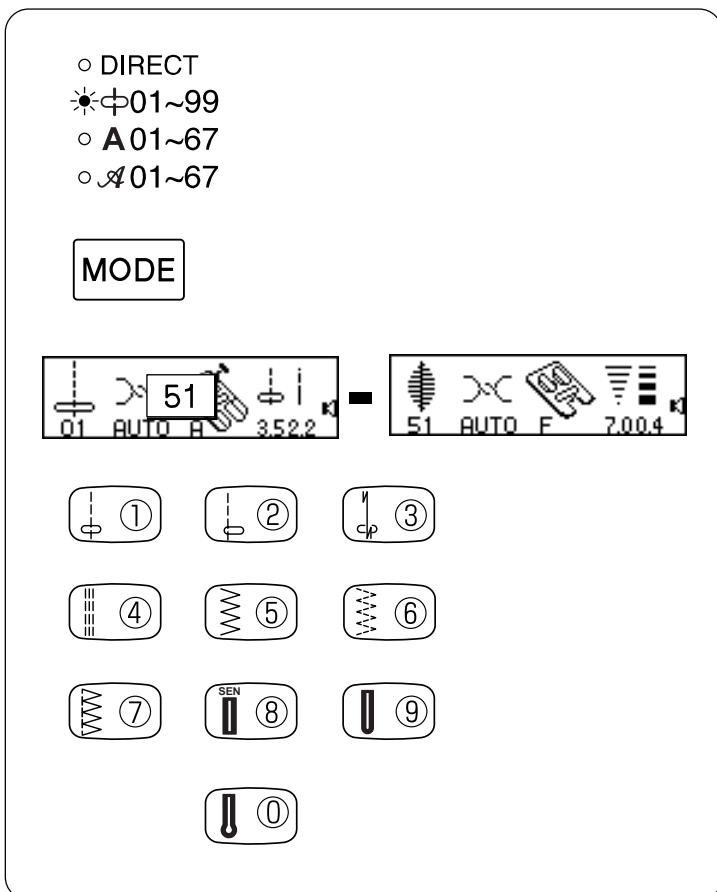


• Pattern selection and screen indication

- 1 Select the Direct mode pattern selection.
- 2 Press the pattern key on the keyboard.
Example: Pattern 05, as shown.
- 3 The display screens shows from left to right:

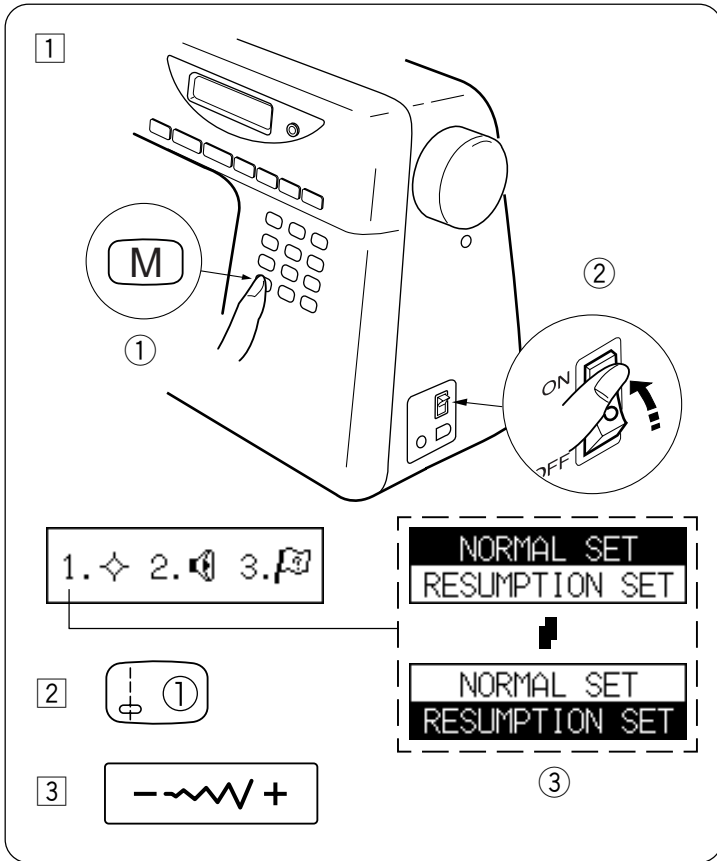
- ① Stitch pattern: 05
- ② Thread tension: AUTO
- ③ Presser foot: A
- ④ Stitch width: 5.0
- ⑤ Stitch length: 2.0
- ⑥ Buzzer sound on:

(see page 12 to mute the buzzer sound)



• Number key selection

You can select the patterns by pressing number keys.
Example: pattern number 51



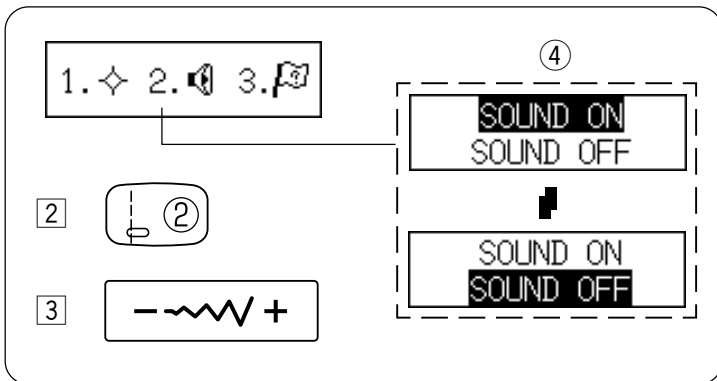
Memory Mode/Buzzer Sound/Multiple Language Settings

NORMAL / RESUMPTION Mode

- 1 Turn on the power switch while pressing the memory key.
 - ① Memory key
 - ② Power switch
- 2 Select " 1 " on the number key to access the NORMAL/RESUMPTION mode. You can select the mode by pressing the stitch width key "+" or "-".
 - * NORMAL mode – The last selected pattern setting will not be recalled when you turn on your machine. Machine turns on in straight stitch 01, Direct mode.
 - * RESUMPTION mode – The last sewn pattern setting will always be recalled when you turn on your machine. The machine will turn on in the mode of the sewn stitch pattern.
- 3 Select the desired mode: NORMAL SET or RESUMPTION SET.
- 4 Press the Memory key.

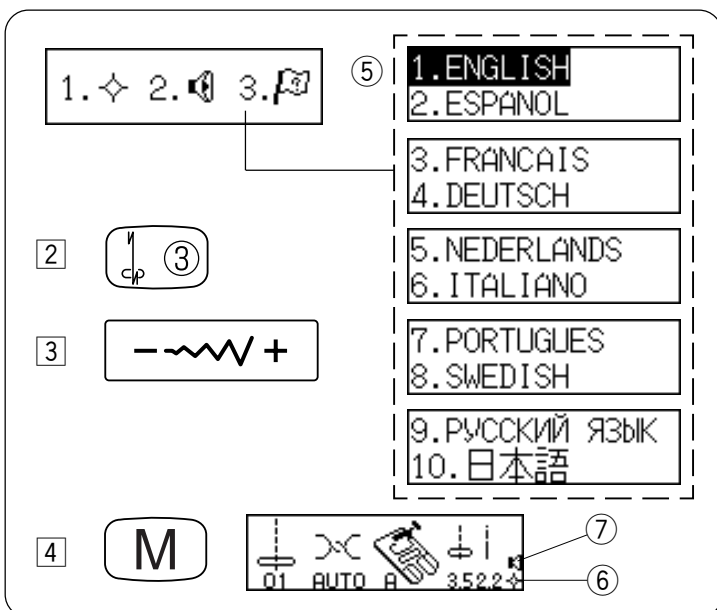
Buzzer

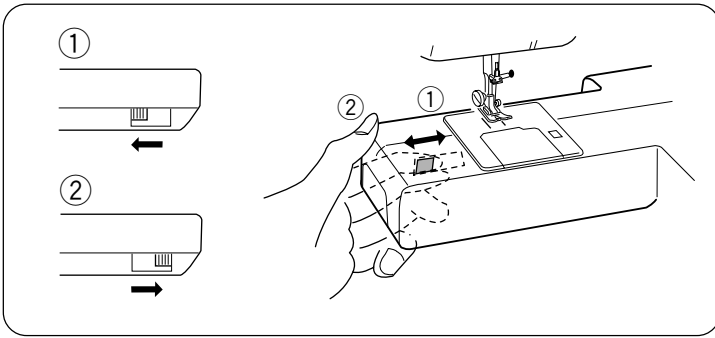
- 1 Turn on the power switch while pressing the memory key.
 - ① Memory key
 - ② Power switch
- 2 Select " 2 " by pressing the number key to access the Buzzer mode. You can select the mode by pressing the stitch width "+" or "-".
- 3 Select desired mode "-" SOUND ON or "+" SOUND OFF.
- 4 Press the memory key.
 - * The Buzzer sound setting mark will appear on the screen when you have set it .



Language selection setting

- 1 Turn on the power switch while pressing the memory key.
 - ① Memory key
 - ② Power switch
- 2 Select " 3 " by pressing the number key to access language selection settings. You can select the desired language by pressing stitch width "+" or "-".
- 3 Select the desired language.
 - ③ NORMAL / RESUMPTION
 - ④ Buzzer sound " ON " or " OFF "
 - ⑤ Multiple language
- 4 Press Memory key.
 - ⑥ NORMAL / RESUMPTION
 - ⑦ Buzzer sound setting mark



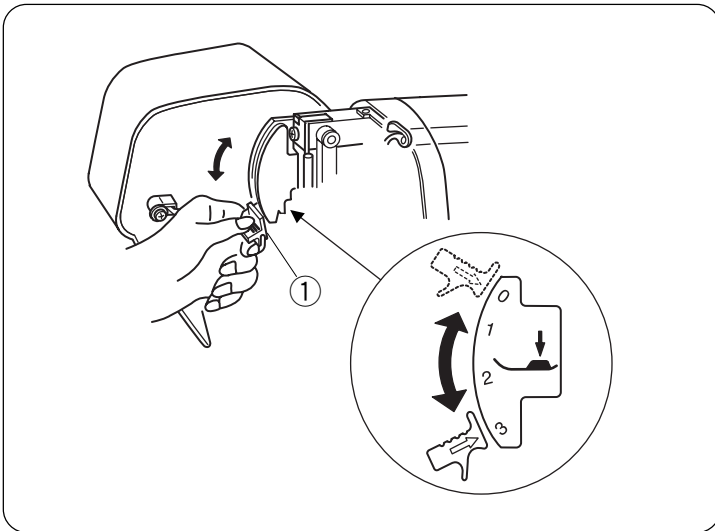


To Raise or Drop the Feed Dogs

- For button sewing etc., drop the feed dogs.
- When finished sewing, raise the feed dogs.

The feed dogs must always be up for normal sewing.

- ① Lowered position
- ② Raised position



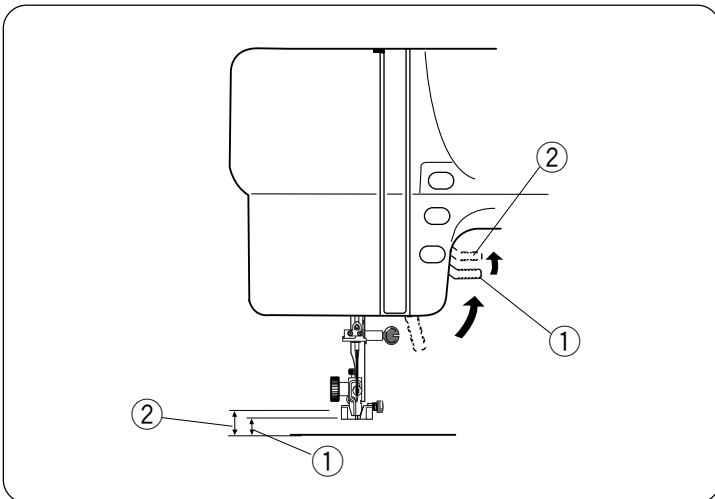
Pressure Lever

The pressure lever should be set at “ 3 ” for regular sewing. Reduce the pressure to “ 2 ” for applique, cutwork, drawn work, basting and embroidery.

Set the pressure to “ 1 ” when sewing chiffon, lace, organdy and other fine fabrics. Velour and knit with a lot of stretch may also require a “ 1 ” setting.

Align the setting mark on the lever with the desired number.

- ① Pressure lever

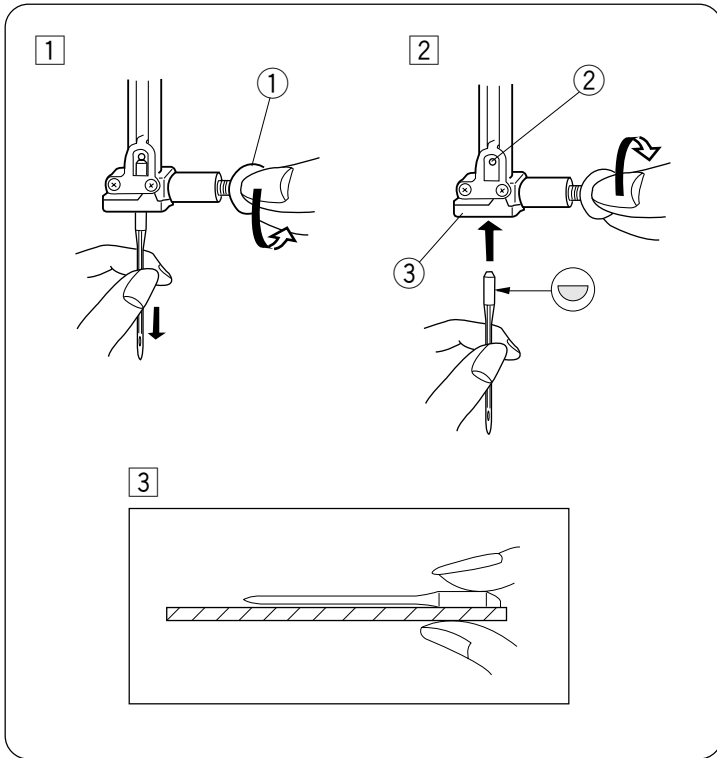


Presser Foot Lifter

The presser foot lifter raises and lowers your presser foot.

You can raise it about 0.6 cm (1/4”) higher than the normal up position for easy removal of the presser foot or to help you place heavy fabric under the foot.

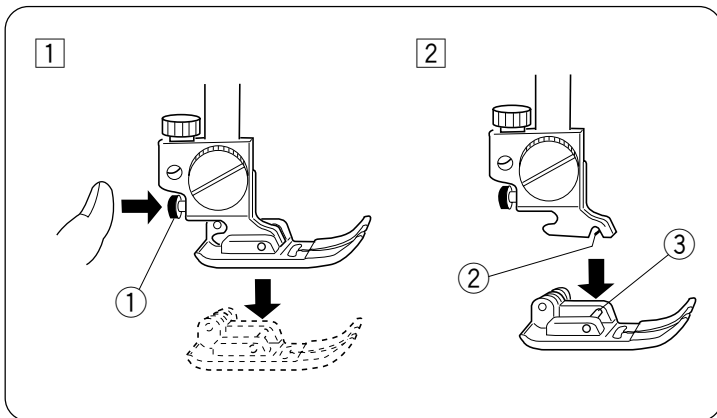
- ① Normal up position
- ② Highest position



Changing Needles

- 1 Raise the needle by pressing the Up/down needle position key and lower the presser foot. Turn off the power switch. Loosen the needle clamp screw by turning it counterclockwise. Remove the needle from the clamp.
- 2 Insert the new needle into the needle clamp with the flat side to the rear. When inserting the needle into the clamp, push it up as far as it will go. Tighten the clamp screw firmly by turning it clockwise.
- 3 To check for a good needle, put the flat side of the needle onto something flat (the needle plate, glass etc.). The gap between the needle and the flat surface should be consistent. Never use a bent or blunt needle.

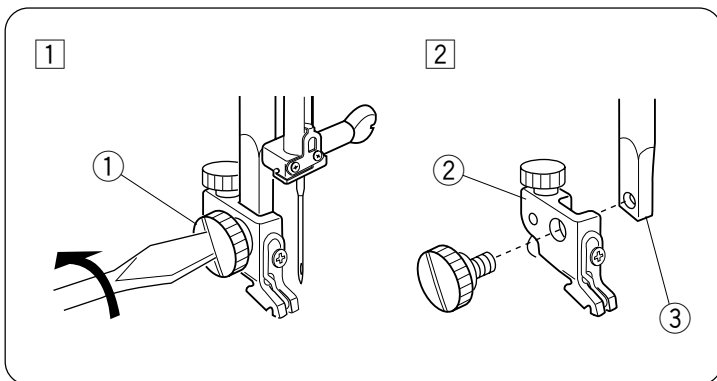
- ① Needle clamp screw
- ② Pin
- ③ Needle clamp



To Attach and Remove the Presser Foot

- 1 Press the red button on the back of the foot holder. The presser foot will drop off.
- 2 Place the selected presser foot so the pin on the foot lies just under the groove of the foot holder. Lower the presser bar to lock the foot in place.

- ① Red button
- ② Groove
- ③ Pin



To Remove and Attach the Foot Holder

- 1 To Remove:
Remove the screw by turning the screw counterclockwise with the screwdriver.
- 2 To Attach:
Match the hole in the foot holder with the threaded hole in the presser bar. Fit the screw into the hole. Tighten the screw by turning it clockwise.

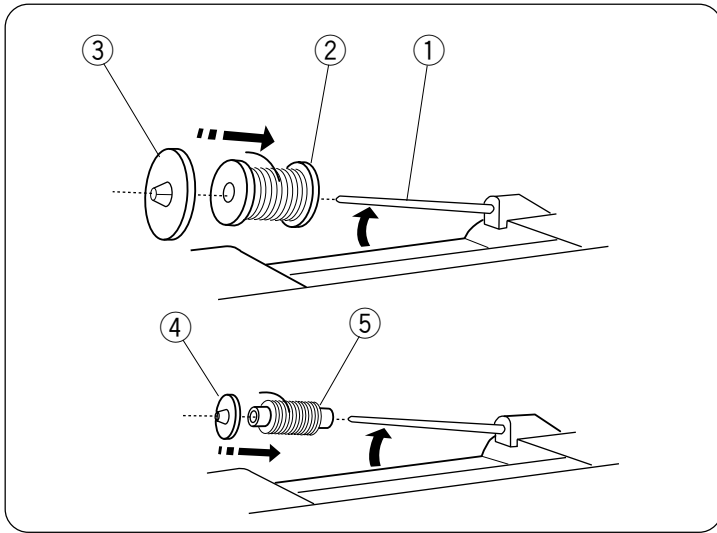
- ① Screw
- ② Foot holder
- ③ Presser bar

Selecting Needle and Thread

	FABRICS	THREADS	NEEDLE SIZE
LIGHT WEIGHT	Crepe de Chine, Voile, Lawn, Organdy, Georgette, Tricot	Fine Silk Fine Cotton Fine Synthetic Fine Cotton-covered Polyester	9 or 11
MEDIUM WEIGHT	Linens, Cotton, Pique, Serge, Double Knits, Percale	50 Silk 50 to 80 Cotton 50 to 60 Synthetic Cotton-covered Polyester	11 or 14
HEAVY WEIGHT	Denim, tweed, Gabardine, Coating, Drapery, and Upholstery Fabric	50 Silk 40 to 50 Cotton 40 to 50 Synthetic Cotton-covered Polyester	14 or 16

NOTE:

- * In general, fine threads and needles are used for sewing fine fabrics, and thicker threads and needles are used for sewing heavy fabrics.
Always test thread and needle size on a small piece of fabric which will be used for actual sewing.
- * Use the same thread for needle and bobbin.
- * When sewing stretch, very fine fabrics and synthetics, use a blue tipped needle.
The blue tipped needle effectively prevents skipped stitches.



Winding the Bobbin

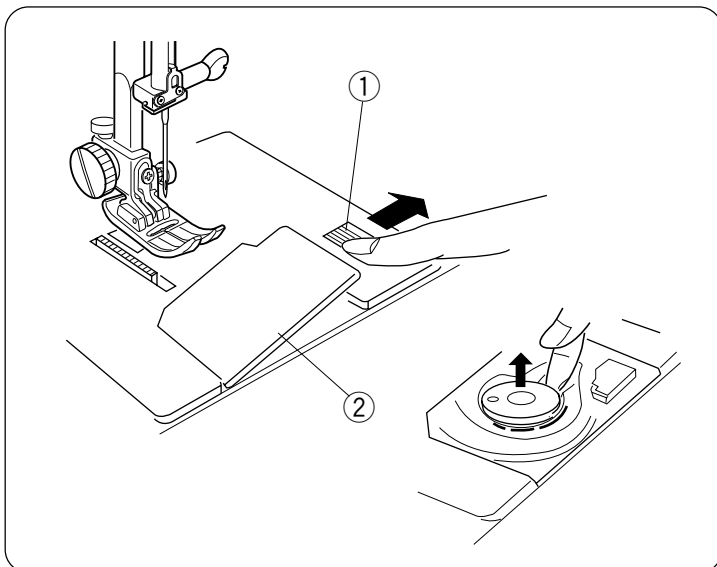
• Set the spool

Lift up the spool pin and place the spool of thread on it with the thread coming off the spool as shown.

Press the large spool holder firmly against the spool of thread.

* The small spool holder is used with a small or narrow spool of thread.

- ① Spool pin
- ② Ordinary spool
- ③ Large spool holder
- ④ Small spool holder
- ⑤ Small spool



• Removing the bobbin

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

Lift out the bobbin.

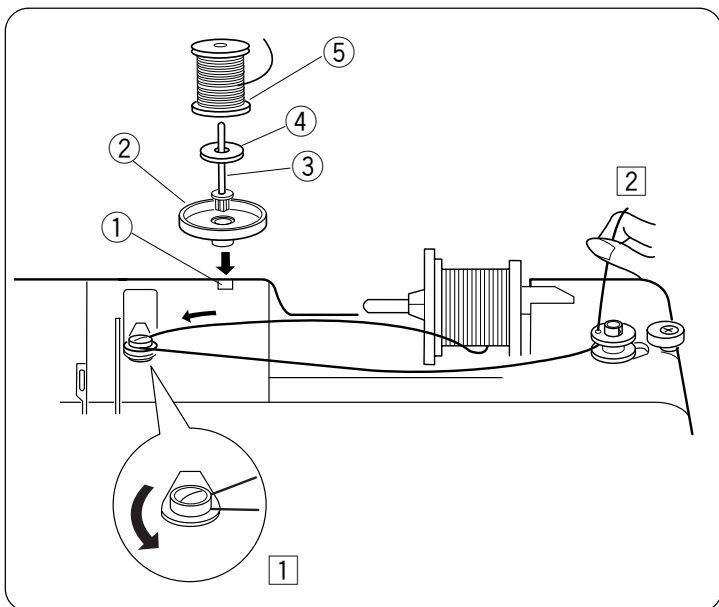
- ① Hook cover plate release button
- ② Hook cover plate

• Winding the bobbin

- 1 Guide the thread around the thread guide.
- 2 Thread through the hole in the bobbin from the inside to the outside.

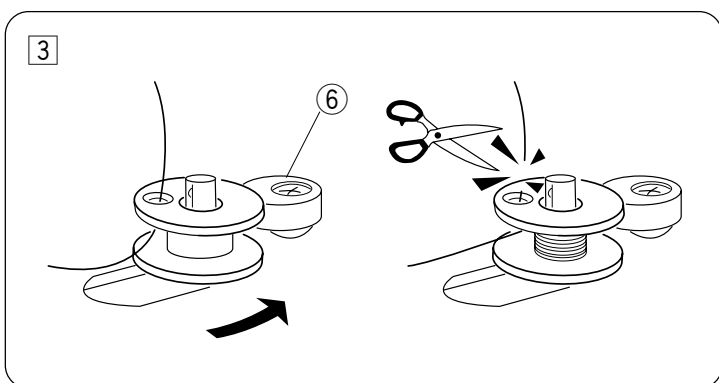
* The additional spool pin is used to wind an extra bobbin without unthreading the machine. To use, insert the spool stand and the additional spool pin in the hole. Place the felt and spool on the pin with the thread coming off the spool as shown.

- | | |
|---------------------------------|---------|
| 1 Hole for additional spool pin | 4 Felt |
| 2 Spool stand | 5 Spool |
| 3 Additional spool pin | |



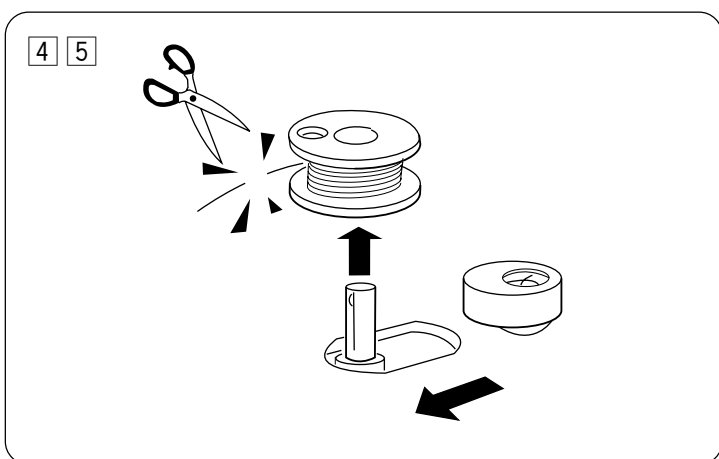
- 3 Put the bobbin on the bobbin winder spindle, and push it to the right. With the free end of the thread held in your hand, depress the foot control. Stop the machine when it has made a few turns, and cut the thread close to the hole in the bobbin.

- 6 Bobbin winder stopper



- 4 Depress the foot control again. When the bobbin is fully wound, it will stop automatically.

- 5 Return the bobbin winder to its original position by moving the spindle to the left, and cut the thread as shown.



• Inserting the bobbin

1 Place the bobbin in the bobbin holder with the thread running off counterclockwise.

① End of thread

2 Guide the thread into the notch (A) on the front side of the bobbin holder.

② Notch (A)

3 Continue to draw the thread lightly. The thread slips into notch (B).

Pull out about 15 cm (6") of thread.

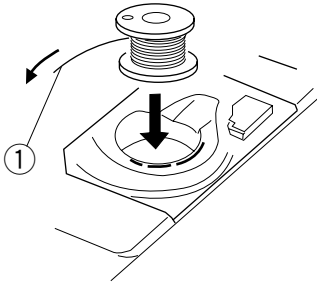
③ Notch (B)

4 Attach the hook cover plate.

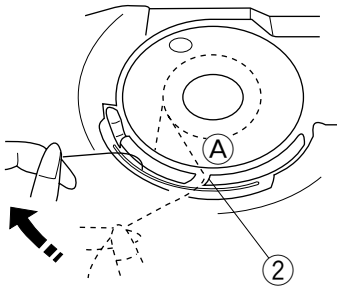
Check the threading by referring to the chart shown on the hook cover plate.

④ Threading chart

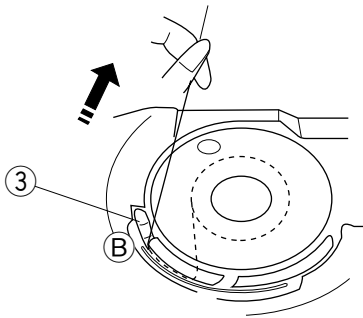
1



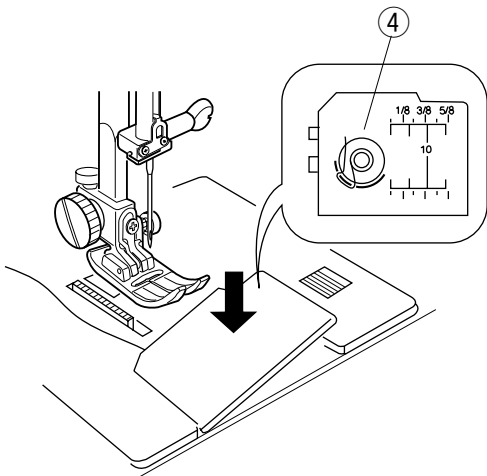
2



3

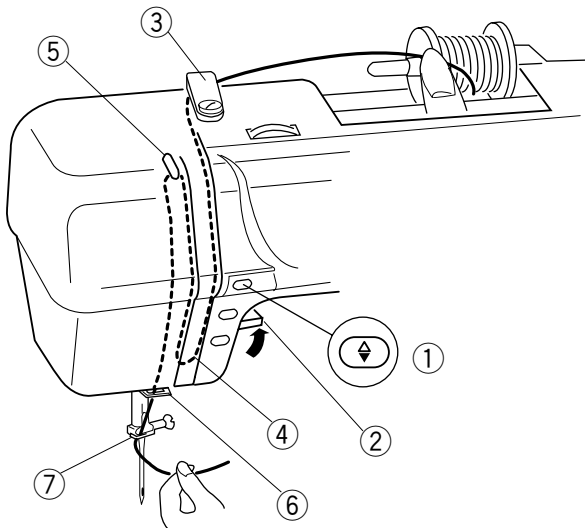


4

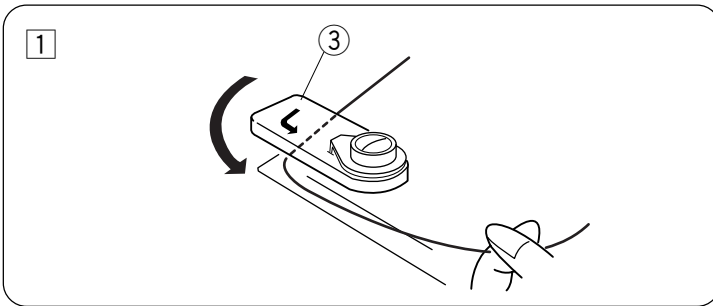


Threading the Machine

• Threading the machine

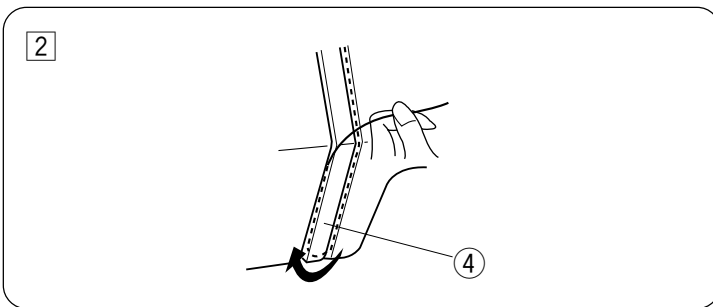


- * Raise the presser foot lifter.
 - * Press the up/down needle position key twice to raise the needle.
- ① Up/down position key
 - ② Presser foot lifter



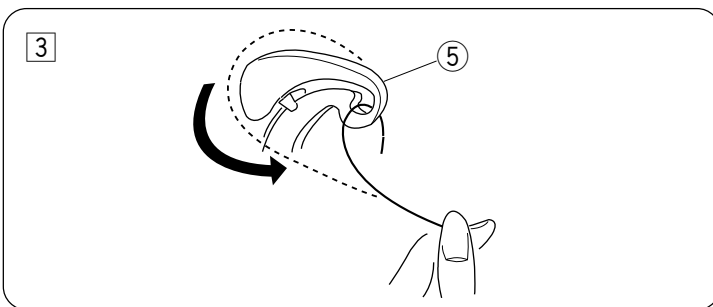
① Draw the thread around the upper thread guide.

③ Upper thread guide



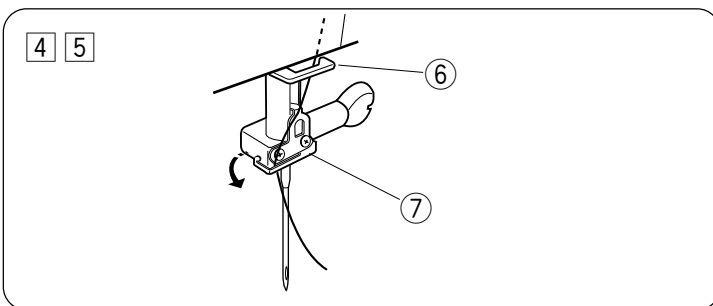
② Then, down around the check spring holder.

④ Check spring holder



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

⑤ Thread take-up lever



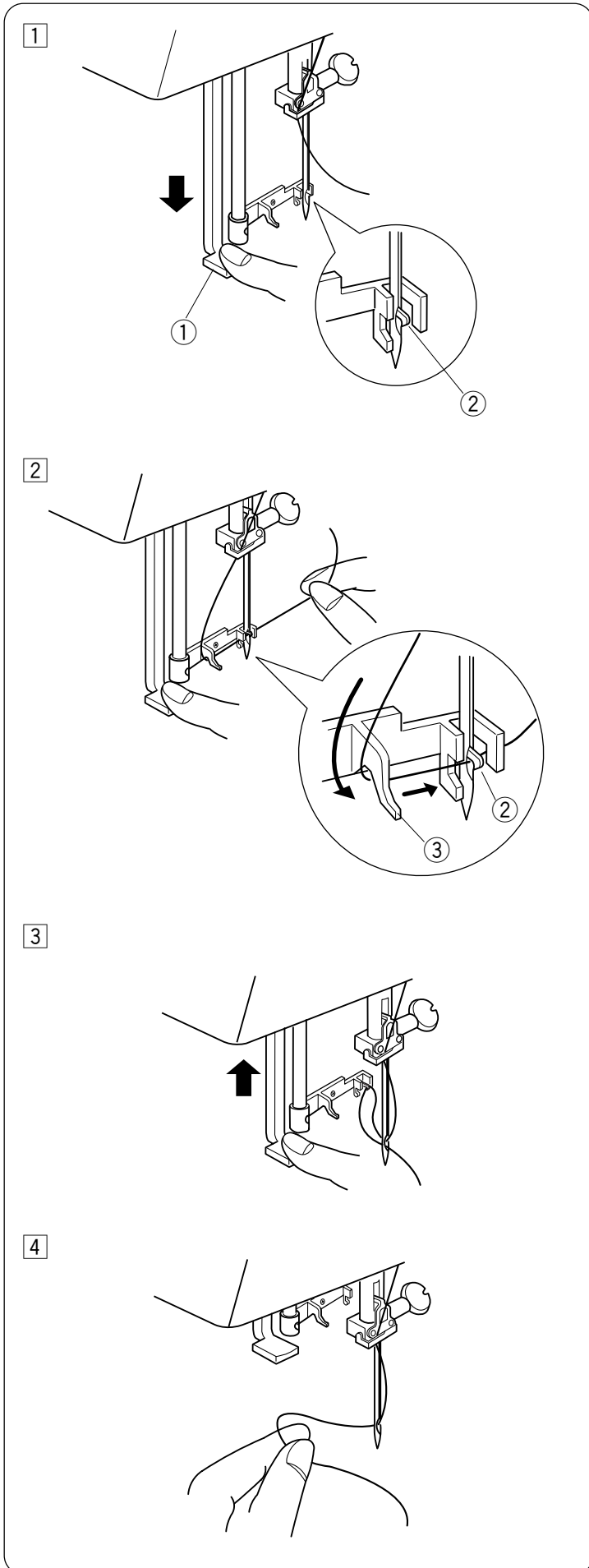
④ Then, down through the lower thread guide.

⑥ Lower thread guide

⑤ Slide the thread behind the needle bar thread guide on the left.

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

⑦ Needle bar thread guide



• Needle threader

1 Lower the presser foot. Depress the needle threader knob as far as it will go. The hook comes out through the needle eye from behind.

- ① Needle threader knob
- ② Hook

2 Draw the thread down around the threader guide and under the hook.

- ③ Threader guide

3 Release the threader knob slowly while holding the thread end with your hand. A loop of the thread is pulled up through the needle eye.

4 Remove the loop from the threader and pull out the thread end from the needle eye.

NOTE:

The needle threader works well with the threads #50-100 and needles #11-16, the blue tipped needle as well.

• Drawing up the bobbin thread

- 1 Raise the presser bar lifter, hold the end of the thread as shown.

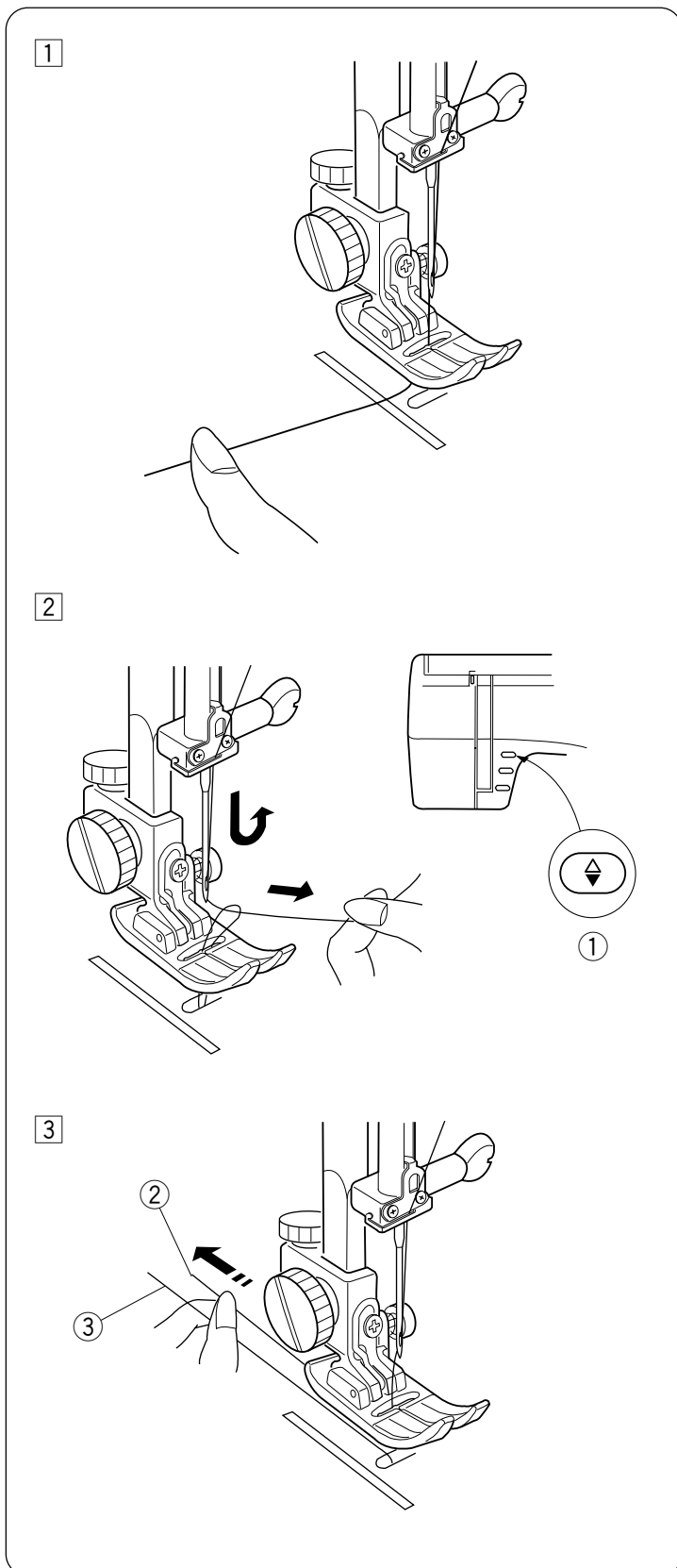
- 2 Press the Up/down needle position button twice to pick up the bobbin thread.

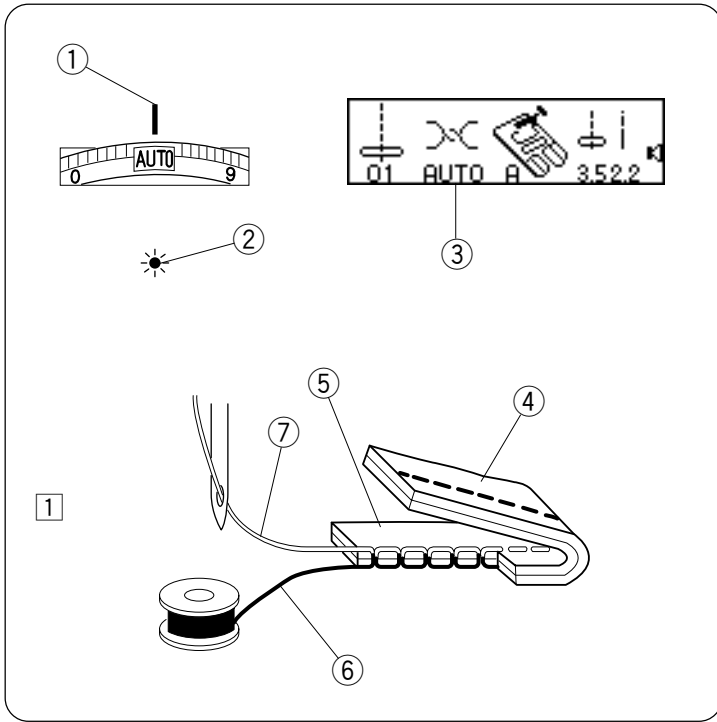
Draw up the needle thread together with a loop of bobbin thread.

- ① Up / down needle position button

- 3 Pull both threads under the presser foot and to the back of the presser foot leaving clear 10 to 15 cm (4" to 6") of the threads.

- ② Needle thread
③ Bobbin thread





Balanced Thread Tension

• Auto-thread tension

When the thread tension dial is set at “ AUTO ” for automatic thread tension, the green light will be on. The balanced thread tension is set automatically.

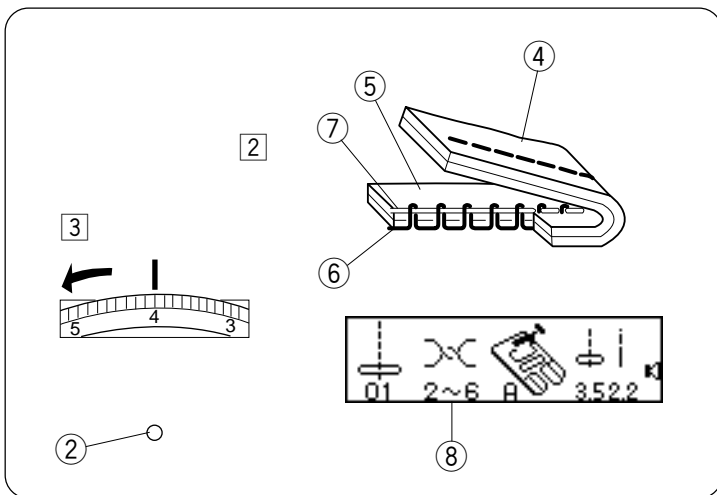
- ① Set “ AUTO ” mark of thread tension dial with the indication line.
- ② Green light on or off.
- ③ Display screen shows “ AUTO ”.

For straight stitch sewing, both needle and bobbin threads will join at the middle of the fabric.

For zigzag stitch sewing, the needle thread will appear slightly on the wrong side of the fabric.

1 Balanced thread tension:

- ④ Wrong side of fabric
- ⑤ Right side of fabric
- ⑥ Bobbin thread
- ⑦ Top thread (needle thread)

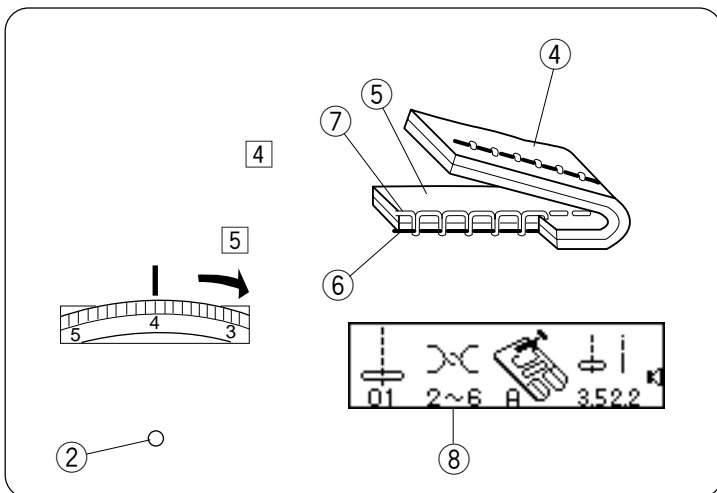


• Manual thread tension adjustment

If the thread tension doesn't balance, set the thread tension dial at 0 to 9 and green light will disappear and you can adjust the desired thread tension setting manually. The screen shows the recommended tension setting for normal sewing.

2 If the top thread is too tight, the bobbin thread appears on the right side of the fabric.

- ④ Wrong side of fabric
- ⑤ Right side of fabric
- ⑥ Bobbin thread
- ⑦ Top thread (needle thread)
- ⑧ Display screen tension setting



3 Turn the thread tension dial in the direction of the arrow to decrease the number.

4 If the top thread is too loose, the bobbin thread appears on the underside of the fabric.

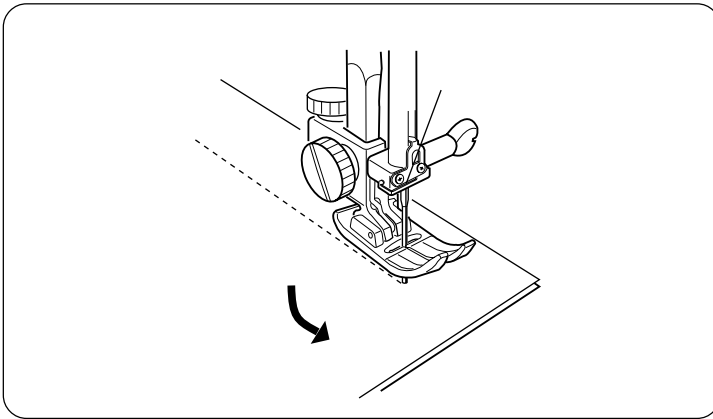
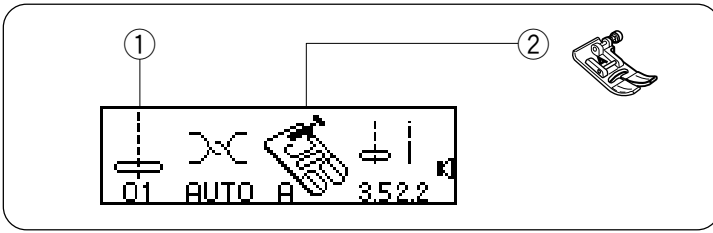
- ④ Wrong side of fabric
- ⑤ Right side of fabric
- ⑥ Bobbin thread
- ⑦ Top thread (needle thread)
- ⑧ Display screen tension setting

5 Turn the thread tension dial in the direction of the arrow to increase the number.

SECTION III BASIC SEWING

Straight Stitch Sewing

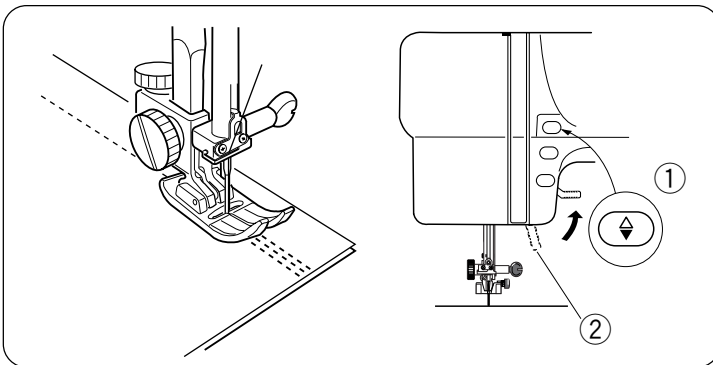
- ① Stitch pattern: 01
- ② Presser foot: Foot A or foot H



• Starting to sew

Raise the presser foot and position the fabric next to a seam guide line on the needle plate (see page 24).

Lower the needle to the point where you want to start. Lower the presser foot and pull the threads toward the back. Depress the foot control. Gently guide the fabric along a seam guide line letting the fabric feed naturally.



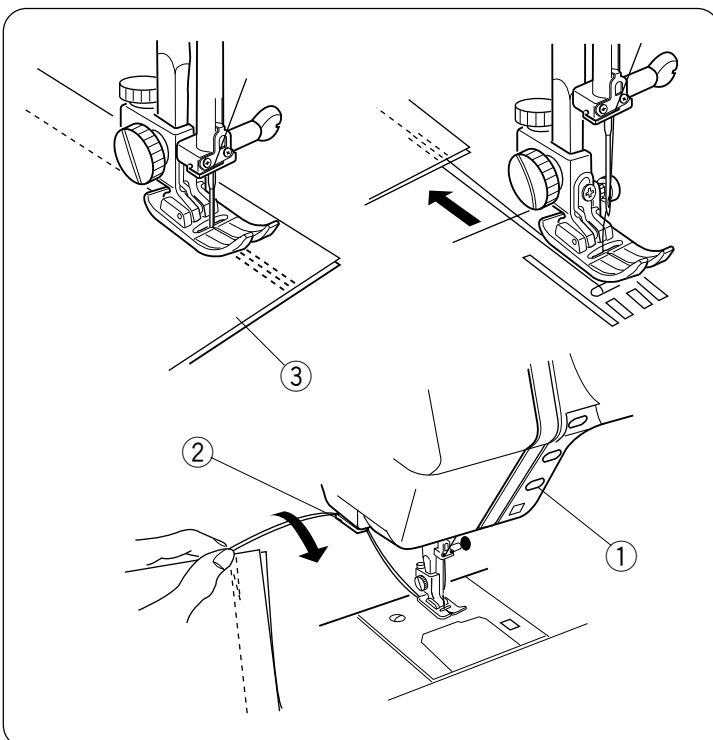
• Changing sewing direction

Stop the machine and bring the needle down into the fabric by pressing the Up/down needle position button.

Raise the presser foot.

Pivot the fabric around the needle to change sewing direction as desired. Lower the presser foot.

- ① Up/down needle position button
- ② Presser foot lifter



• Finishing sewing

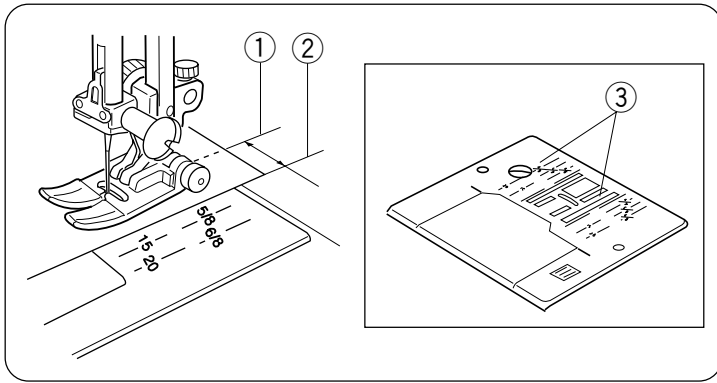
To fasten the ends of seams, press the reverse button and sew several reverse stitches.

Raise the presser foot. Remove the fabric, draw the threads to the back and cut using the thread cutter.

The threads are cut at the proper length for starting the next seam.

- When pattern $\frac{03}{03}$ is selected, reverse stitches are sewn automatically at the beginning of the seam, then sewing continue forward.
- When you reach the end edge of the fabric, press the reverse button once. The machine will sew four reverse stitches, four forward stitches then stop sewing.

- ① Reverse button
- ② Thread cutter
- ③ Fabric



Practice Common Stitching Skills

Using the Seam Guides on the Needle Plate

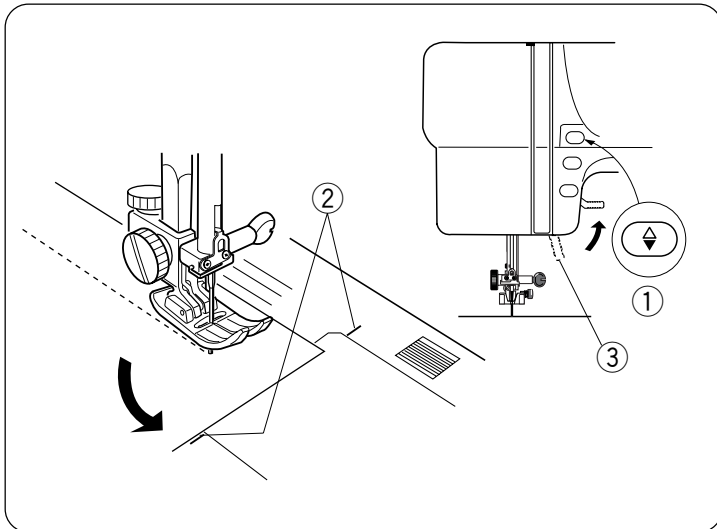
The seam guides on the needle plate are engraved to help you measure seam width.

The lines are marked as follows.

Numbers on needle plate	15	20	4/8"	5/8"	6/8"
Seam width center needle position guide line (cm)	1.5	2.0	1.3	1.6	1.9

* The numbers indicate the width from the center needle position to the edge of the fabric.

- ① Needle drop position
- ② Edge of fabric
- ③ Guide lines



Turning Square Corners

Turning a square corner 1.5 cm (5/8 ") from the fabric edge:

1. Stop stitching and lower the needle by pressing the Up/down needle position button when the fabric edge facing you lines up with the cornering guides as shown.
2. Raise the presser foot and turn the fabric to line up to the edge with the 1.5 cm (5/8 ") seam guide.
3. Lower the presser foot and begin stitching in the new direction.

- ① Up/down needle button
- ② Cornering guides
- ③ Presser bar lifter

Using the Quilting Bar

The stitch and its uses:

Quilting is stitching two layers of fabric together with batting in between to add dimension and warmth.

You can use quilting on entire garments or parts of garments, such as yokes, pockets, cuffs and collars.

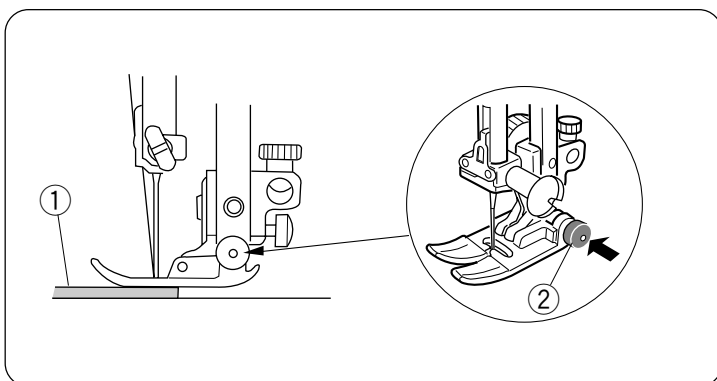
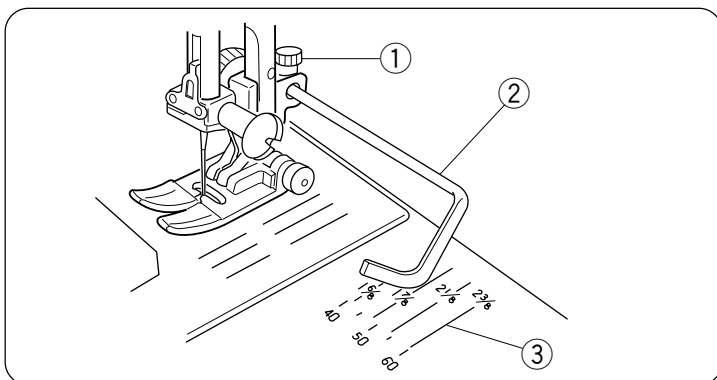
It is also popular for table fashions.

In addition to straight stitch quilting, you can quilt with decorative stitches or stitch pattern combinations.

To do quilting successfully, follow these simple steps:

1. Loosen the quilter screw (①) on the back of the presser foot holder as shown.
2. Slide the quilting bar (②) into the opening under the screw to the width of quilting stitches you desire.
3. Tighten screw.
4. See page 47 for how to operate.

- ① Screw
- ② Quilting bar
- ③ Measurement lines



Sewing on Heavy Fabrics

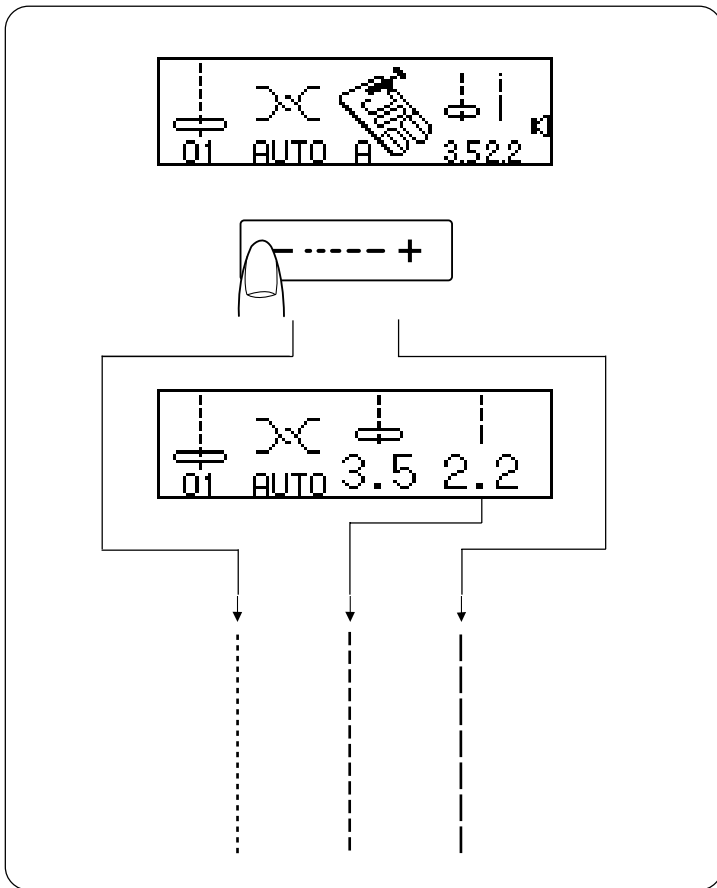
The black button on foot A will lock the foot in a horizontal position if you push it in before lowering the presser foot. This ensures even feeding at the beginning of seams and helps when sewing many layers of fabric such as sewing over welt seams when hemming jeans.

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

This button releases automatically after a few stitches.

Note: When sewing an edge, select stitch pattern 02.

- ① Fabric
- ② Black button



• Manual stitch length

Press “-” or “+” to adjust the stitch length.

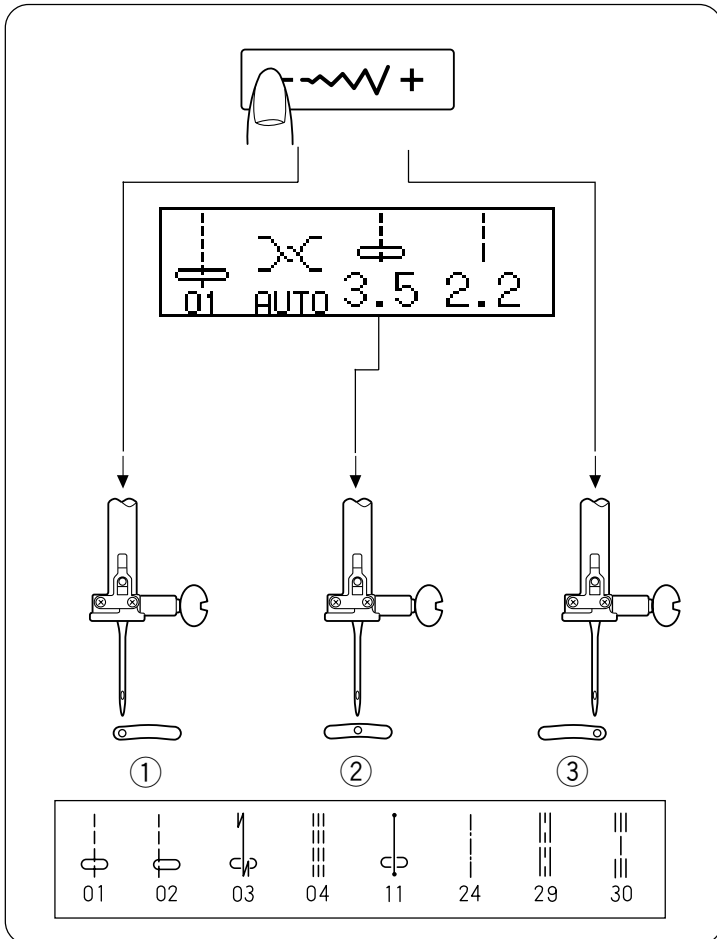
To decrease length, press “-”.

To increase length, press “+”.

The pre-programmed stitch length setting is suitable for most of your sewing needs. However, you can change these settings to accommodate different fabric characteristics or achieve a desired effect.

Hold down “-” or “+” until you reach the desired setting.

* The reverse stitch length cannot be set longer than 2.5 mm (1/8”).



• Variable needle position

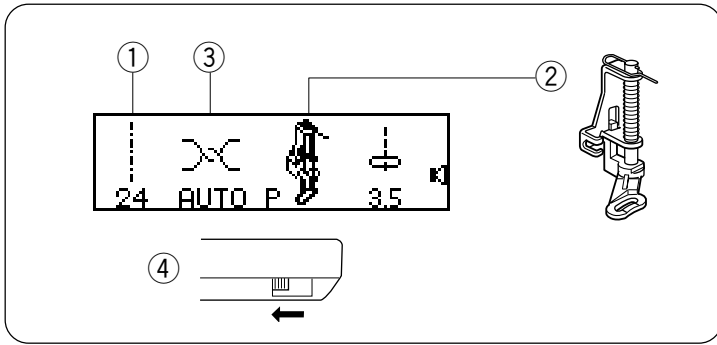
These setting apply only to “straight” stitch patterns 01 through 04, and 11, 24, 29, 30.

You can adjust needle position of stitch patterns 01 through 04 and 11, 24, 29, 30 (see bottom of box on left).

When you press “-”, the needle position will move to the left.

When you press “+”, the needle position will move to the right.

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

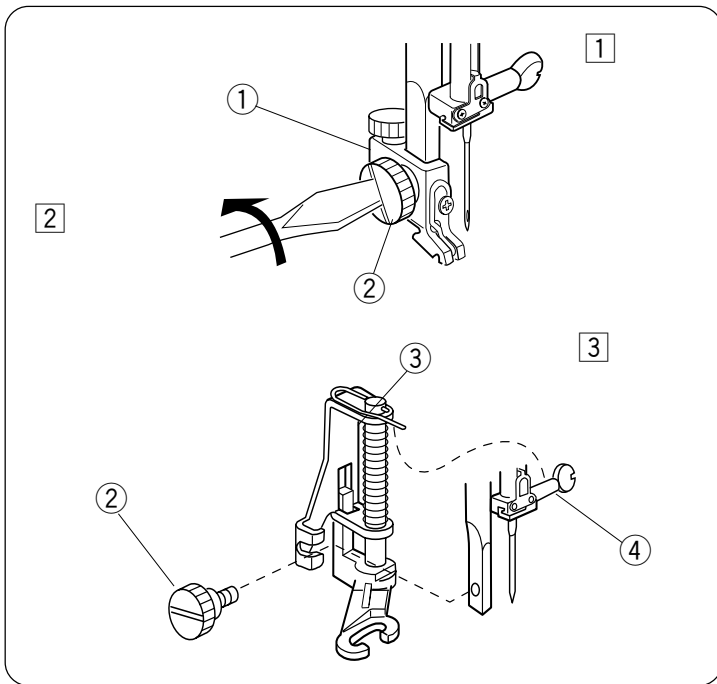


Various Utility Stitches

• Basting

- ① Stitch pattern : 24
- ② Presser foot: Darning foot P
- ③ Thread tension dial : 1 to 4
- ④ Feed dogs : Down

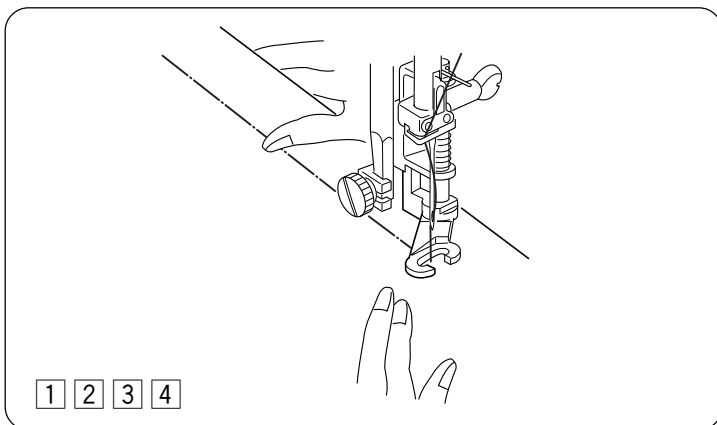
* Set the manual thread tension at “ 1 to 4 ”.



Attaching the basting foot:

- ① Raise the needle.
- ② Remove the foot holder by loosening the screw.
- ③ Attach the basting foot on the presser bar putting the pin on the needle clamp.
Tighten the screw firmly with a large screwdriver.

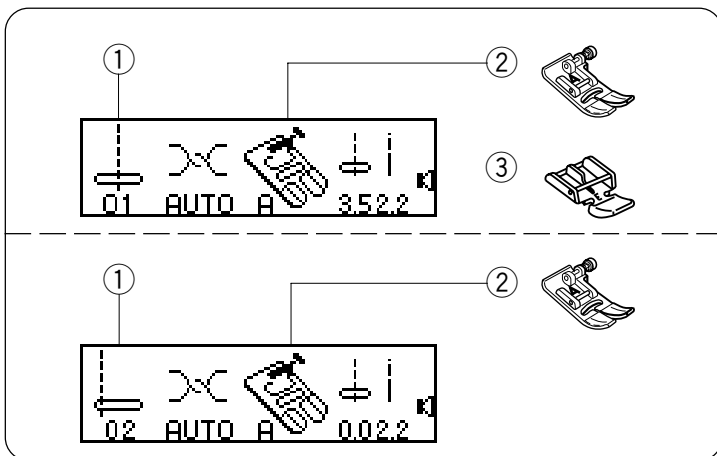
- ① Foot holder
- ② Screw
- ③ Pin
- ④ Needle clamp



How to sew

- ① Put some fabric under the foot and press the Up/down needle button twice to bring the needle thread down through the hole in the foot. Pull the fabric and thread to the rear. Lower the presser foot.
- ② While pressing down the foot control, hold the fabric taut.
- ③ When the machine is stopped after one stitch sewing, pull the fabric with the thread to the back.
- ④ Repeat steps 2 and 3 to sew. After finishing sewing, pull the threads and fabric to the back and cut the threads.

* After sewing, reset the thread tension dial at “ AUTO ” and raise the feed dogs, slide the drop feed lever to the left.



• Straight stitch

The common uses for the straight stitch are:

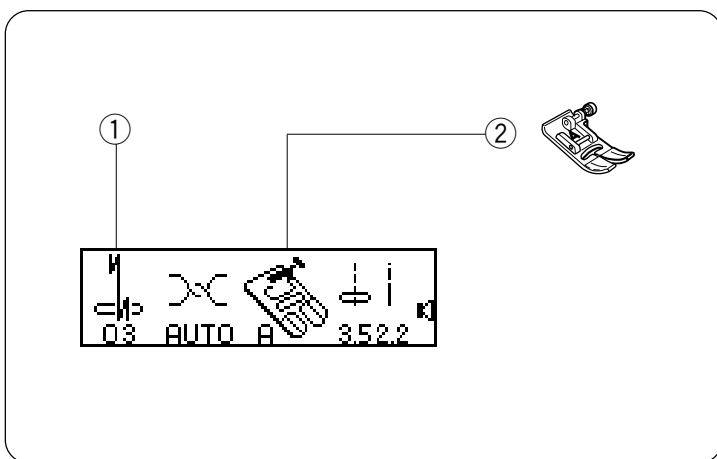
Regular seams and zippers:

- ① Stitch pattern : 01
- ② Presser foot : Foot A or zipper foot E

Edge sewing:

- ① Stitch pattern : 02
- ② Presser foot : Foot A

You can also use your basic straight stitch for pintucking and rolled hems.

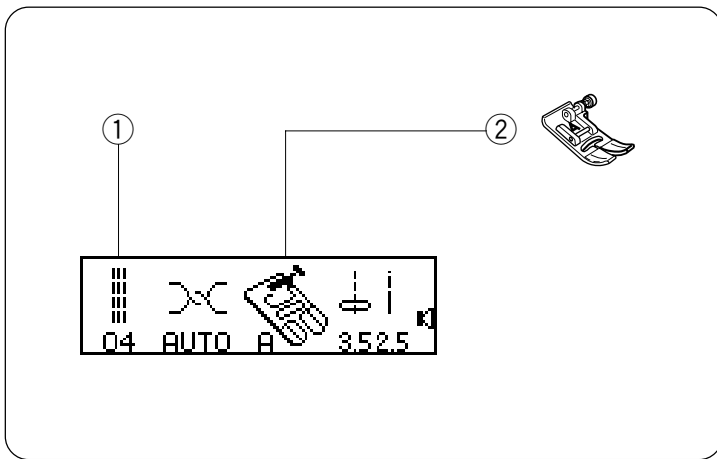


• Automatic reverse stitch

- ① Select stitch pattern : 03
- ② Presser foot : Foot A

This reverse stitch can be used for securing, mending and reinforcement stitches.

At the end of seams, press “ (↺) ” (reverse button) once, so that the machine will sew auto-lock stitch immediately and stop automatically.

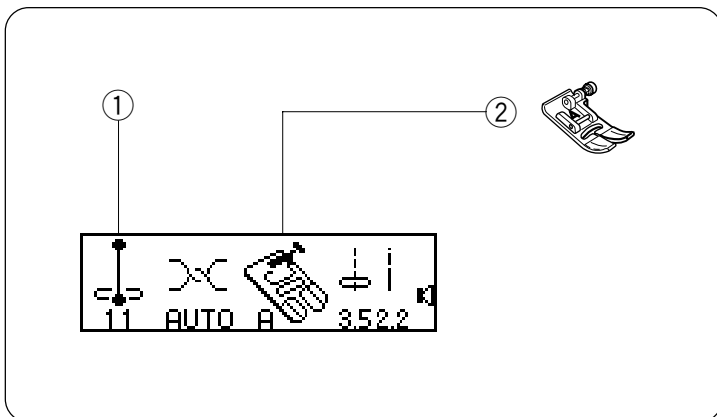


• Triple stretch stitch

- ① Stitch pattern : 04
- ② Presser foot : Foot A

This strong, durable stitch is recommended where both elasticity and strength are needed for comfort and durability.

Use it to reinforce areas such as crotch and armhole seams. Also use it when constructing items such as backpacks for extra reinforcement.

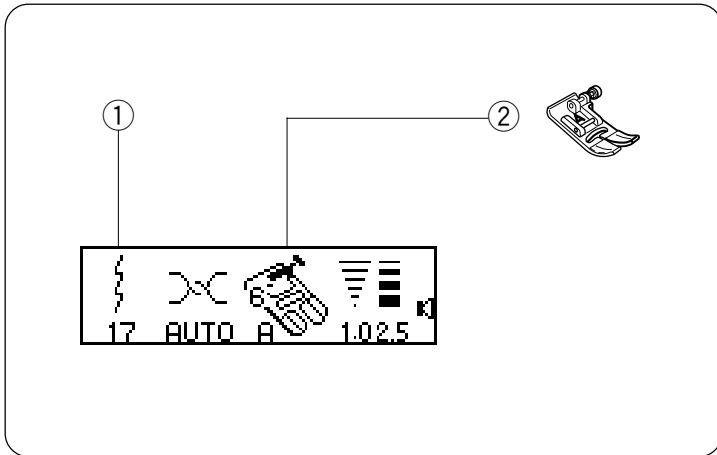


• Auto-lock stitch

- ① Stitch pattern : 11
- ② Presser foot : Foot A

Lower the needle close to the front edge of the fabric and lower the presser foot.

The machine will sew several locking stitches in place and continue sewing forward. By pressing the reverse button, the machine will sew several locking stitches in place, then stop sewing automatically.

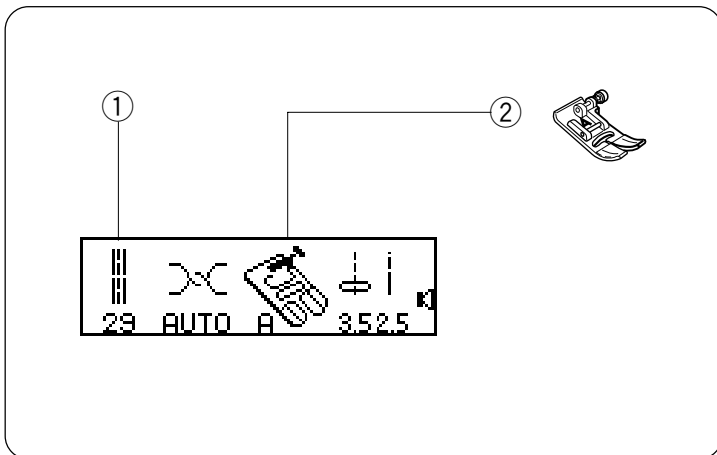


• Stretch stitch

- ① Stitch pattern : 17
- ② Presser foot : Foot A

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

The stitch can also be used to simultaneously seam and overcast when sewing on tricot and chiffon for a narrow, almost invisible seam finish.

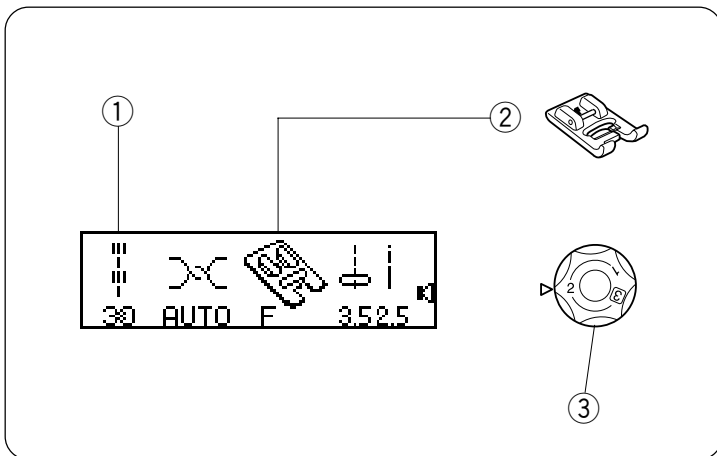


• Saddle stitch

- ① Stitch pattern : 29
- ② Presser foot : Foot A

This saddle stitch is formed with one stitch forward, two stitches backward and a fourth stitch forward.

You can achieve a lovely hand-worked look when topstitching suits, blazers, jumpers and denim outfits with the saddle stitch.



• Sculpture stitch

This stitch can be used for decorative stitches.

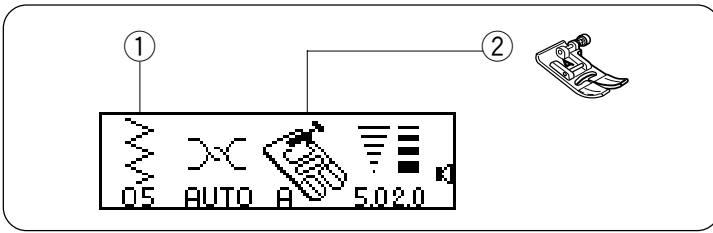
Also, this stitch is useful for making a clear outline of a design.

- ① Stitch pattern : 30
- ② Presser foot : Satin stitch foot F
- ③ Pressure dial : 2

* After sewing is finished, return the pressure dial to " 3 ".

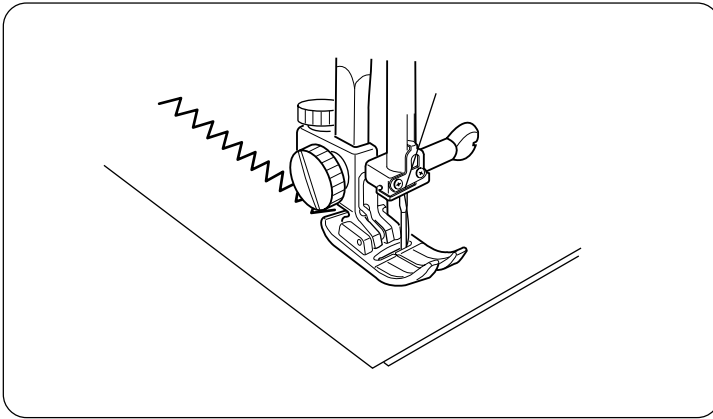
Zigzag Stitch

- ① Stitch pattern: 05
- ② Presser foot: Foot A



• Interfacing

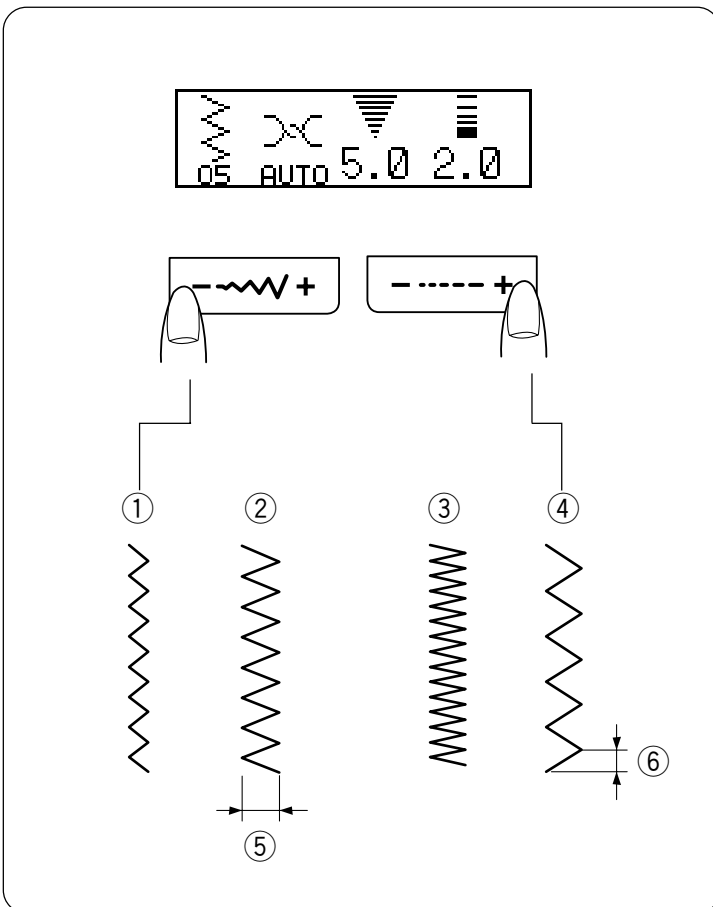
You can get better sewing results using interfacing or stabilizer on delicate or stretch fabric such as knit, jersey, tricot etc.

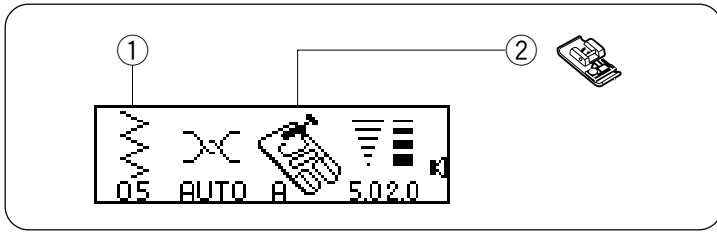


• To change the width and length

Zigzag stitch is useful for overcasting, applique, mending etc. When you change the stitch width, make sure the needle position is above the fabric.

1. Pre-programmed stitch settings will be displayed.
2. Press the stitch width key “+”, “-” or stitch length key “+”, “-” to change the stitch width and length manually.
3. When the “+” or “-” key is pressed, the width and the length will be changed accordingly.
 - ① Narrower width (smaller number)
 - ② Wider width (large number)
 - ③ Denser stitch length (smaller number)
 - ④ Coarser stitch length (larger number)
 - ⑤ Width
 - ⑥ Length

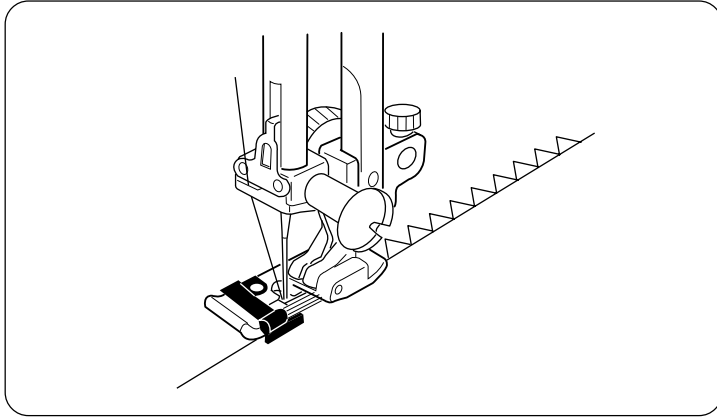




Variation of Zigzag Stitches

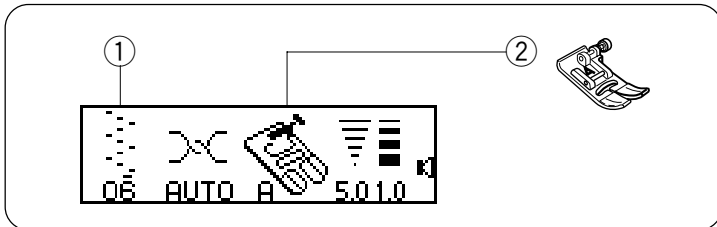
• Overcasting

- ① Stitch pattern: 05
- ② Presser foot: Overedge foot C



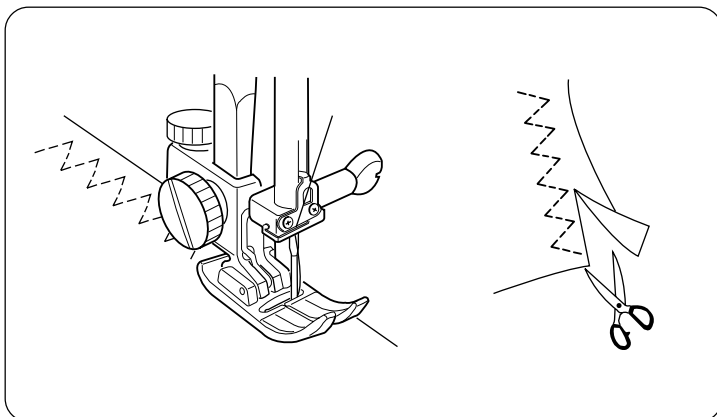
This zigzag variation is very useful in garment construction and in finishing raw edges of any sewing project.

1. The black ridge and the guide wires on the overedge foot keep the edge neat and the fabric straight.
2. Place your fabric so that the double guide wires come to the edge.
The machine will stitch over these wires. The black ridge and brush will keep the loose threads in so that the needle can stitch over them.
3. As you sew, be sure your fabric edge pushes up against the black ridge.



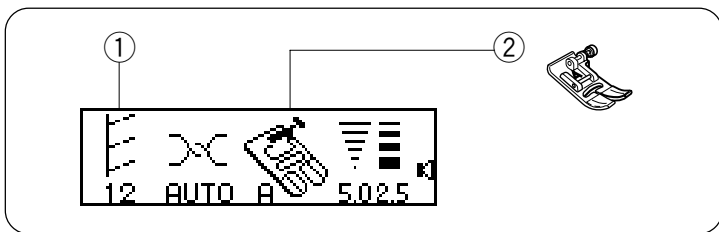
• Tricot stitch

- ① Stitch pattern: 06
- ② Presser foot: Foot A



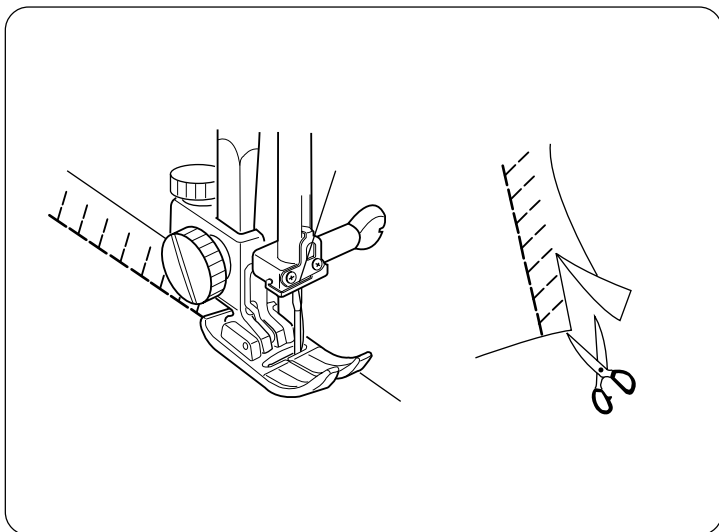
This stitch can be used to prevent stretch material edges from fraying, when sewing folded fabric.

A second method is to keep an extra space allowance from the fabric edge and after finishing the sewing, cut the extra seam allowance edge as shown.

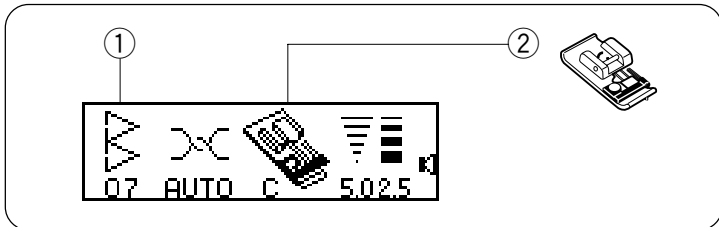


• Knit stitch

- ① Stitch pattern: 12
- ② Presser foot: Foot A

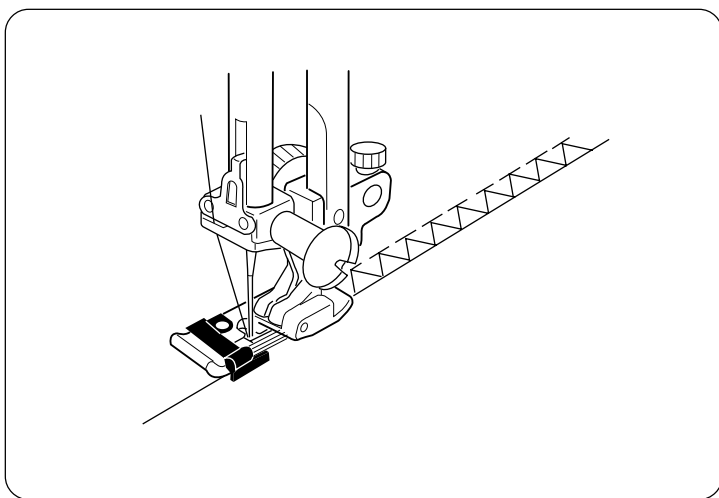


Keep an extra space allowance from the fabric edge and after finishing the sewing, cut the extra seam allowance edge as shown.



• Overedge sewing (1)

- ① Stitch pattern: 07
- ② Presser foot: Overedge foot C



This stitch pattern combines the straight and the zigzag stitches, using the overedge foot, to stitch and overcast seams in one step.

It is also a stretch stitch to provide elasticity for knits and extra strength for woven fabrics.

Use this stitch when you want a narrow seam that you do not have to press open flat.

It is ideal for 6 mm (1/4") seams on knits. (when attaching ribbing) or on medium to heavyweight woven fabrics where you want a narrow seam.

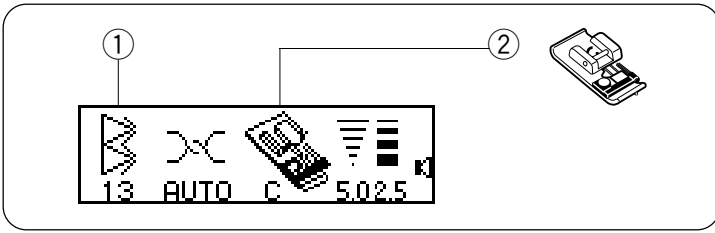
Place your fabric so that the raw edges fit under the wire guides and touch the black ridge and brush guide.

Gently guide the fabric so that the raw edges always touch the black ridge and brush guide.

Note: Stitch width should be set between 5.0 to 7.0.

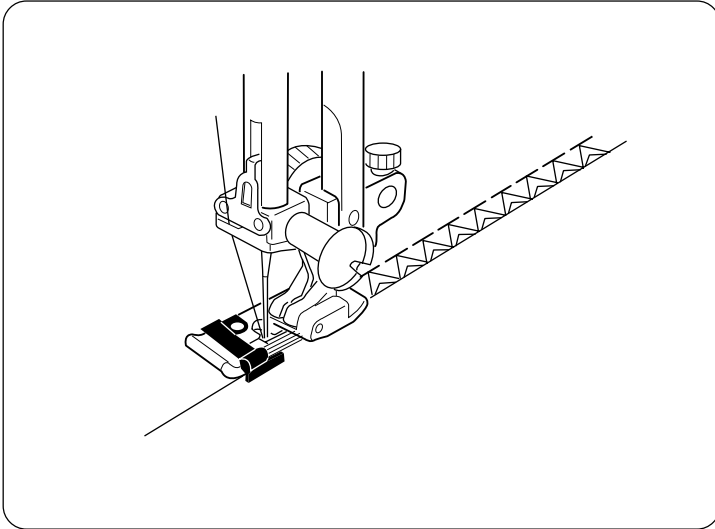
The Blue tip needle is recommended for stretch material.

SECTION IV DECORATIVE STITCHING TECHNIQUES



Overedge Sewing (2)

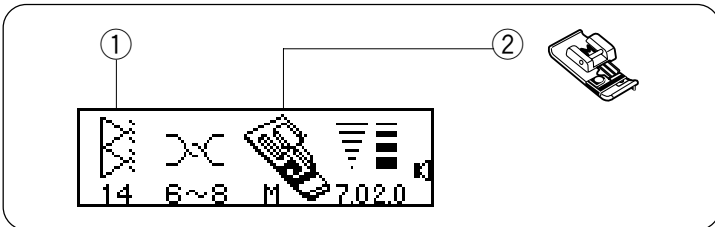
- ① Stitch pattern: 13
- ② Presser foot: Overedge foot C



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

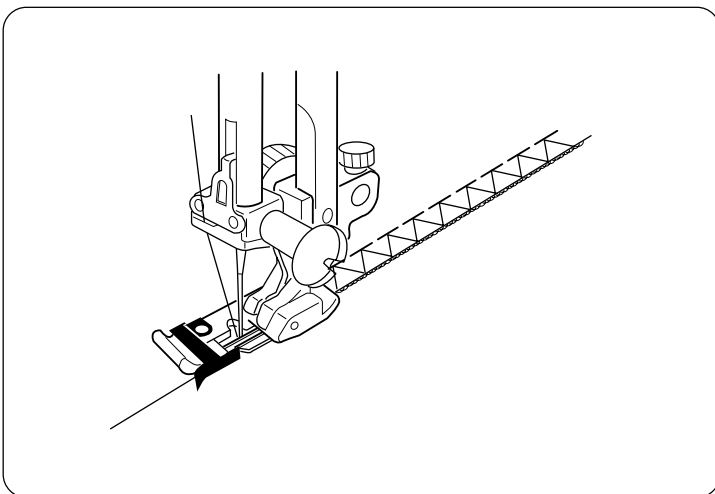
Two rows of zigzag stitches are simultaneously sewn over the edge to insure that your seams will not ravel.

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



Overedge Sewing (3)

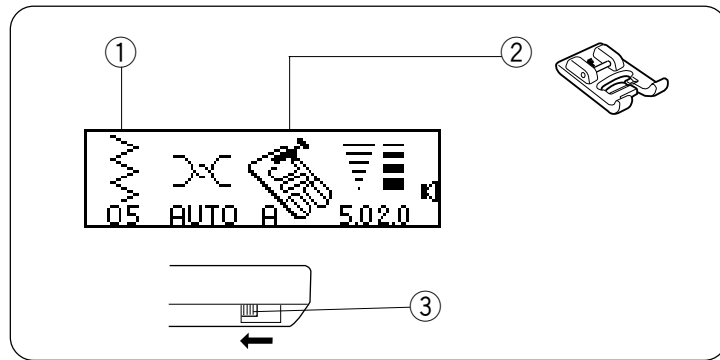
- ① Stitch pattern: 14
- ② Presser foot: Overcasting foot M
- ③ Thread tension: 6-8



This stitch is more like the overlock stitch which is very convenient to reinforce the fabric edge.

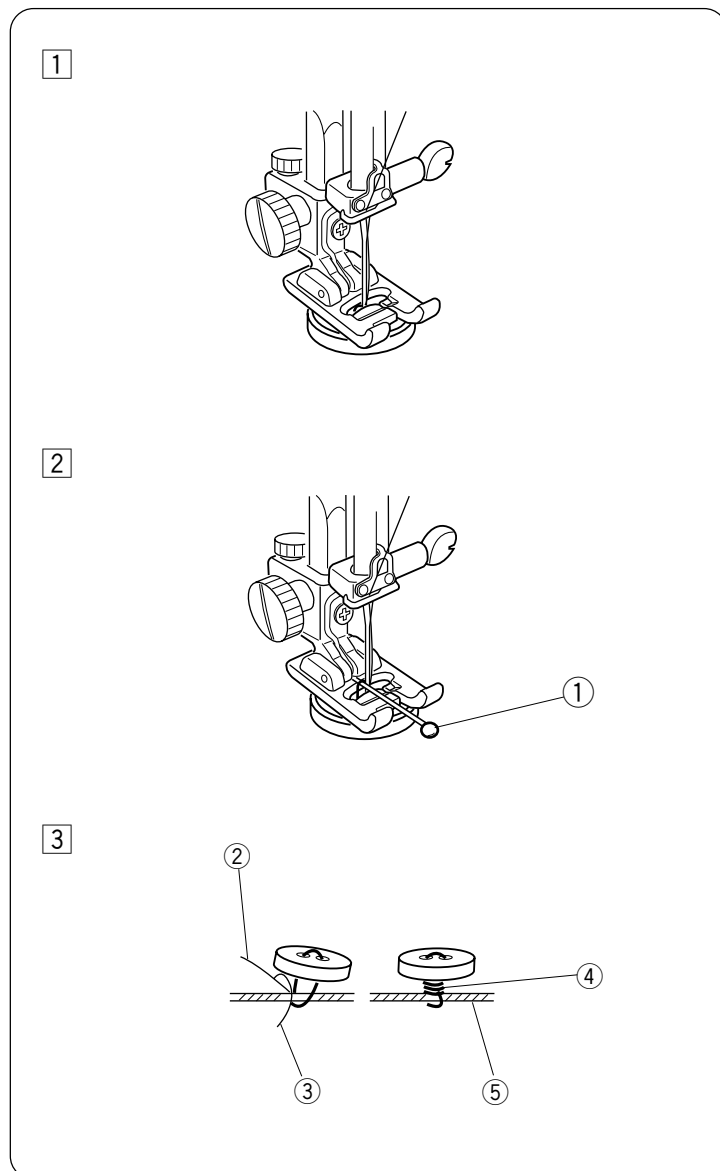
Place the fabric under the foot and guide it to the guide ridge and lower the presser foot.

* The stitch width cannot be adjusted for this stitch pattern.



Sewing Buttons

- ① Stitch pattern: 05
- ② Presser foot: Satin stitch foot F
- ③ Feed dogs: Down



- 1 Turn the handwheel by hand five times and raise the needle to the highest point.
Match the holes on the button to the horizontal slot on the presser foot.
Lower the foot to hold the button in place.
Lower the feed dogs.
Press the stitch width button “+” or “-” so the needle will enter the left hole of the button.
Turn the handwheel so the needle will enter the right hole of the button.

* Readjust the stitch width if necessary.

- 2 Place a pin on the foot and stitch ten times.
After you finish sewing, cut the thread but leave 20 cm (8 ") of thread on the wrong side of the fabric.

① Pin

- 3 Bring the needle thread between the button and the fabric through the hole in the button. Pull the needle thread to pick bobbin thread up to the right side of the fabric. Wind the threads to form a shank and knot them together.

Note: When sewing on the button is completed, raise the feed dogs.

The feed dogs must always be up for normal sewing.

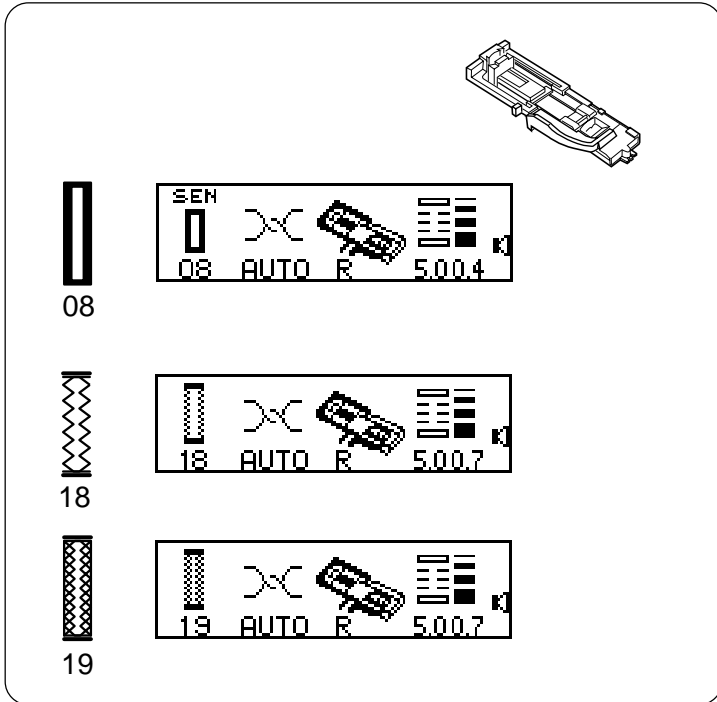
- ② Upper thread
- ③ Lower thread
- ④ Shank
- ⑤ Fabric

Sensor Buttonhole

- Automatic buttonholing

Note:

- * The size of the buttonhole is automatically set by placing the button in the buttonhole foot, as shown.
- * The button holder of the foot takes a maximum button size of up to 2.5 cm (1") in diameter.
- * Before you sew the actual buttonholes on the actual garment, make several practice buttonholes on a scrap of the same fabric.
- * Use interfacing on stretch fabrics and set the pressure dial at 1 or 2 and sew.

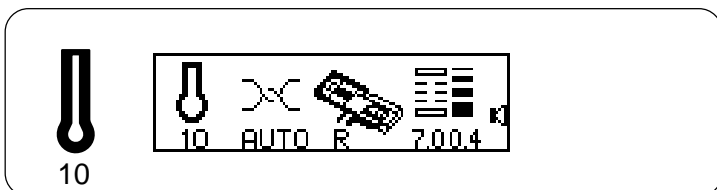


08: Square buttonhole stitch
This buttonhole can be used for shirts and blouses.

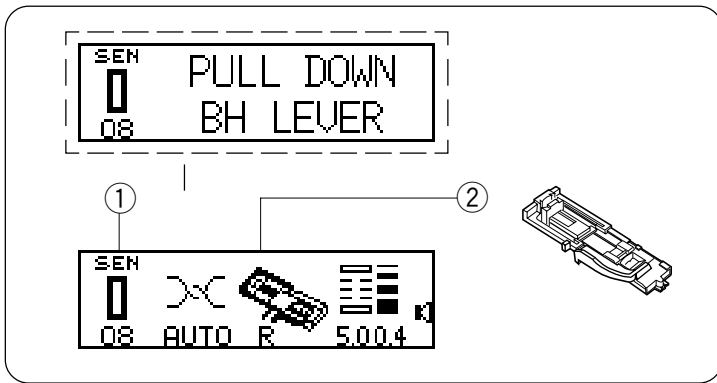
18/19: These buttonholes can be used for stretch fabrics.



09: Rounded buttonhole stitch
This buttonhole can be used for shirts and blouses of fine fabrics.

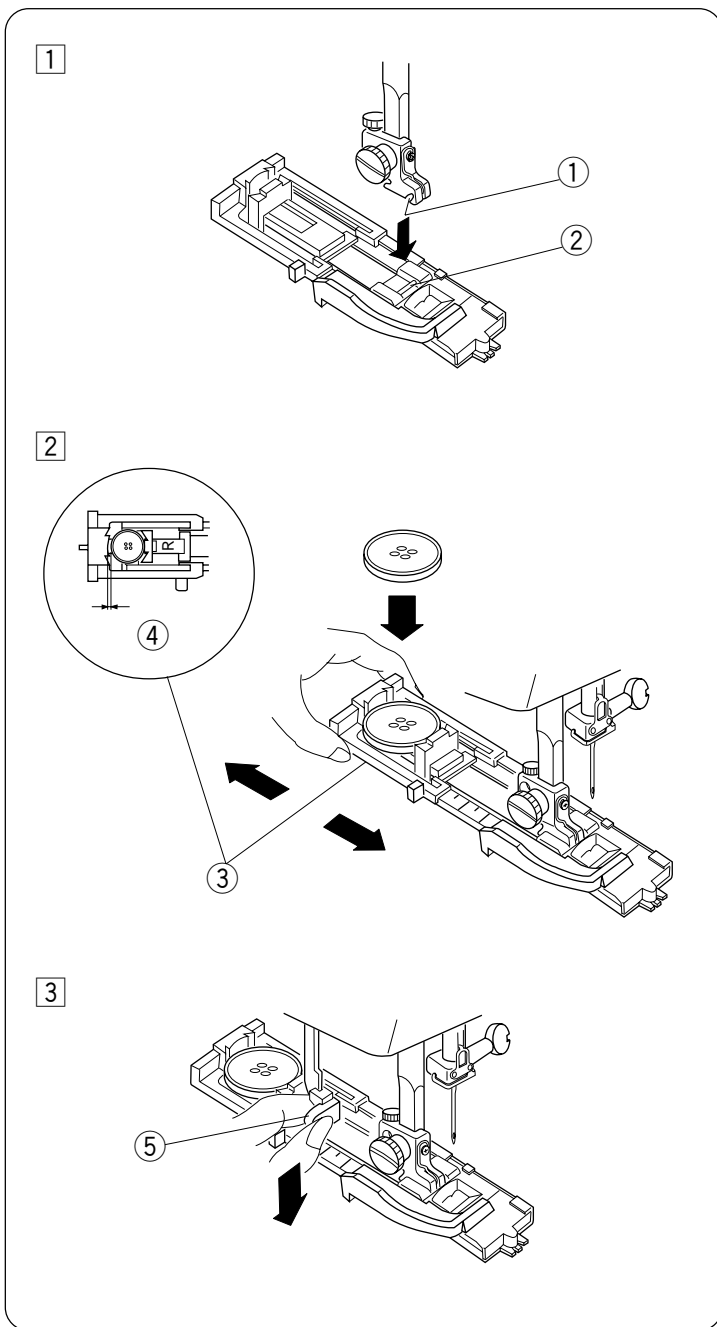


10: Keyhole buttonhole stitch
This buttonhole can be used for jackets of heavy fabrics.



• Sewing preparation

- ① Stitch pattern: 08
 - ② Presser foot: Automatic buttonhole foot R
- * When you select the buttonhole stitch, the screen indicates the message: "PULL DOWN BH (Button hole) LEVER" for a few seconds.



- 1 Attach the automatic buttonhole foot R. Make sure the groove on the holder catches the pin on the foot, when lowering the presser foot.

- ① Groove
- ② Pin

- 2 Pull the button holder to the back, and place the button in it.

Push it together tightly on the button.

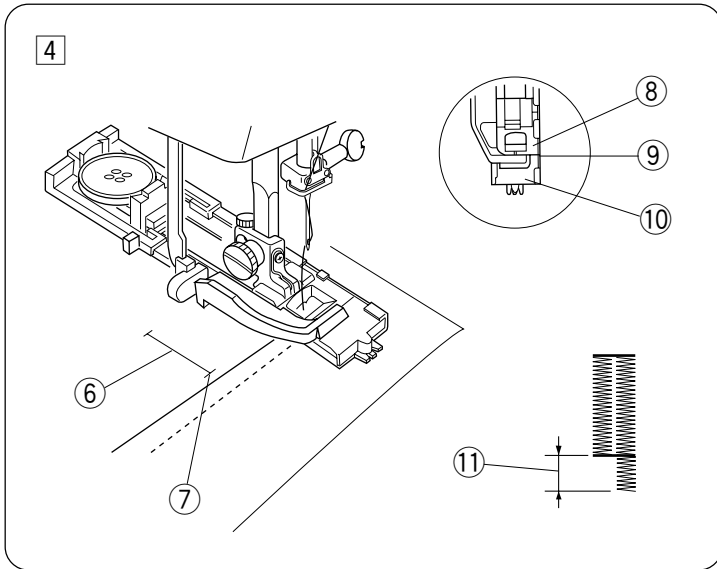
- ③ Button holder

If the button is extremely thick, make a test buttonhole. If it is difficult to fit the button through the test buttonhole, lengthen the size by pulling the button holder on the back to increase length.

- ④ Gap

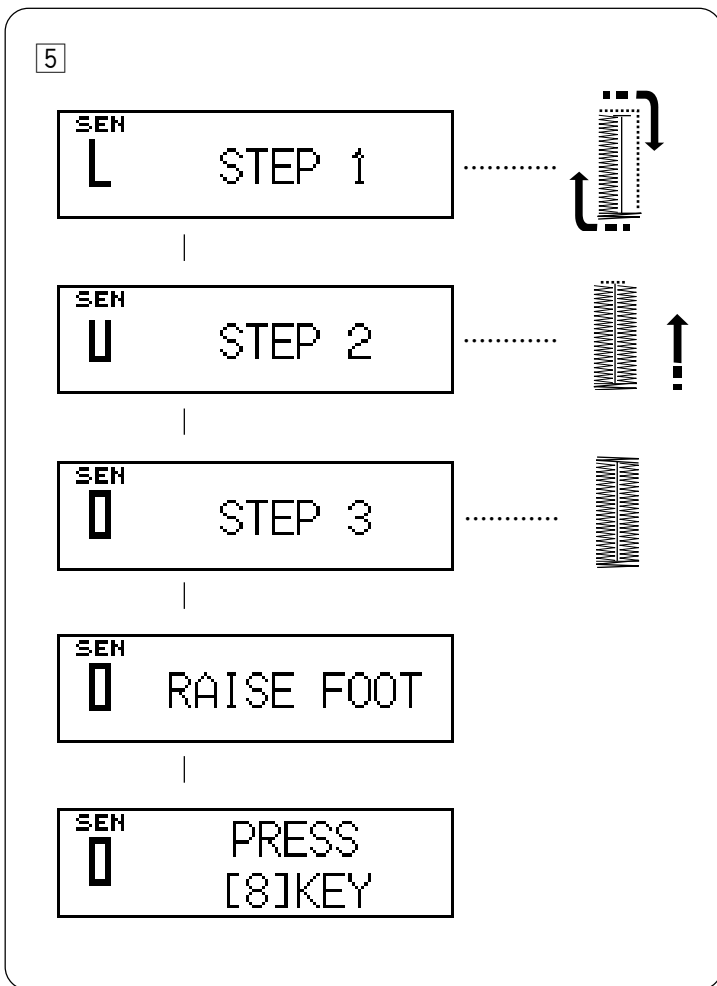
- 3 Pull the buttonhole lever down as far as it will go.

- ⑤ Buttonhole lever



4 After attaching sensor buttonhole foot, raise the foot lever once to assure spring is in proper position to avoid any gap. Insert corner of fabric under the foot. Press the Up/down needle button twice. Remove the fabric to the left to draw both threads under the foot. Insert the garment under the foot, and lower the needle at the starting point. Then lower the automatic buttonhole foot. If there is a gap, it may cause an uneven buttonhole stitch length as shown.

- ⑥ Mark
- ⑦ Starting point
- ⑧ Foot holder
- ⑨ No gap
- ⑩ Spring holder
- ⑪ Uneven stitch results



Starting sewing

5 After sewing the buttonhole stitch, the machine stops automatically.

Sewing steps:

Step 1 The buttonhole will be automatically sewn first: the front bartack and left row.

Step 2 Next, the right row.

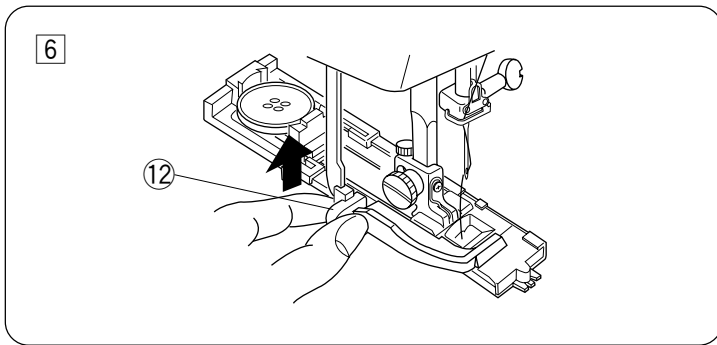
Step 3 Last the back bartack and locking stitch.

Raise the presser foot.

To sew another buttonhole, press 08 on the number key, then depress the foot control.

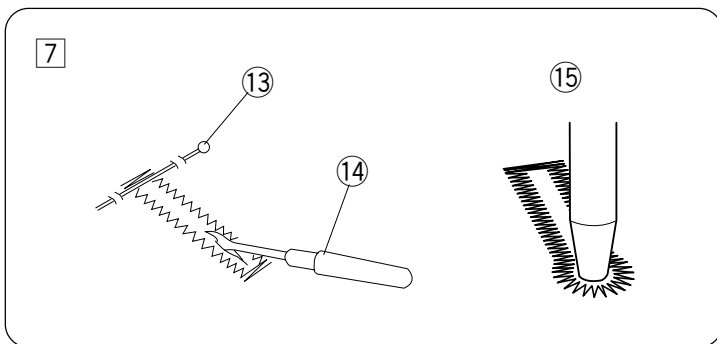
For buttonhole stitches ( ), you can repeat sewing without pressing keys.

Raise the presser foot and lower the foot again.



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

12 Buttonhole lever



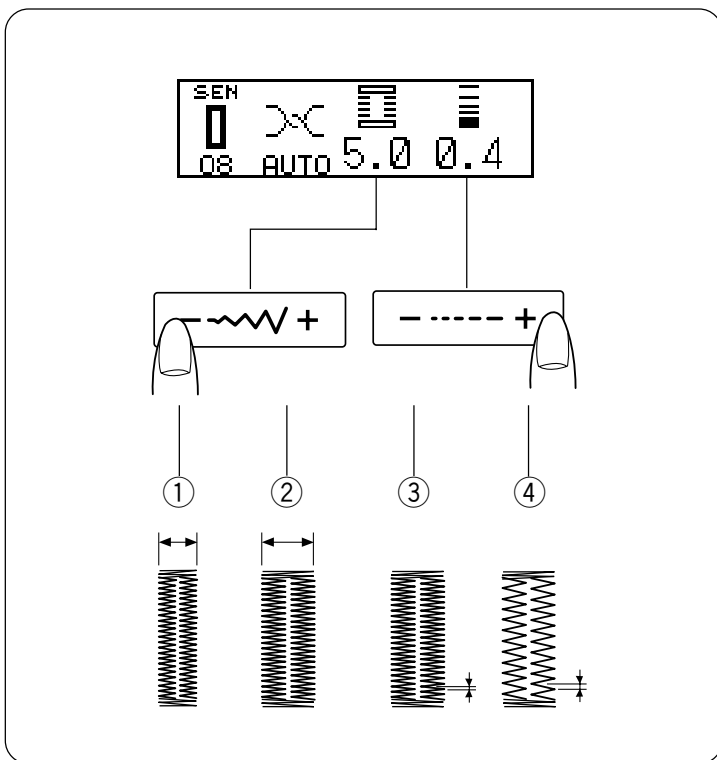
7 Place a pin on the rear side of the bartack position so that you don't need to worry about cutting the end of the buttonhole stitch.

Cut the opening with the seam ripper in your accessory box.

13 Pin

14 Seam ripper

15 Punch (use for keyhole buttonhole 10)



Adjusting Stitch Width and Density in Buttonholes

[To change the stitch width]

The stitch width key controls the stitch width.

The pre-set buttonhole widths are: square buttonhole 5.0, rounded buttonhole 4.0, keyhole buttonhole 7.0.

Press “+” or “-” to adjust the stitch width of the entire buttonhole, ranging between 2.5 to 7.0 depending on the selected buttonhole.

1 Narrower width by pressing “-”

2 Wider width by pressing “+”

[To Change Stitch Density]

The stitch length key controls the stitch density.

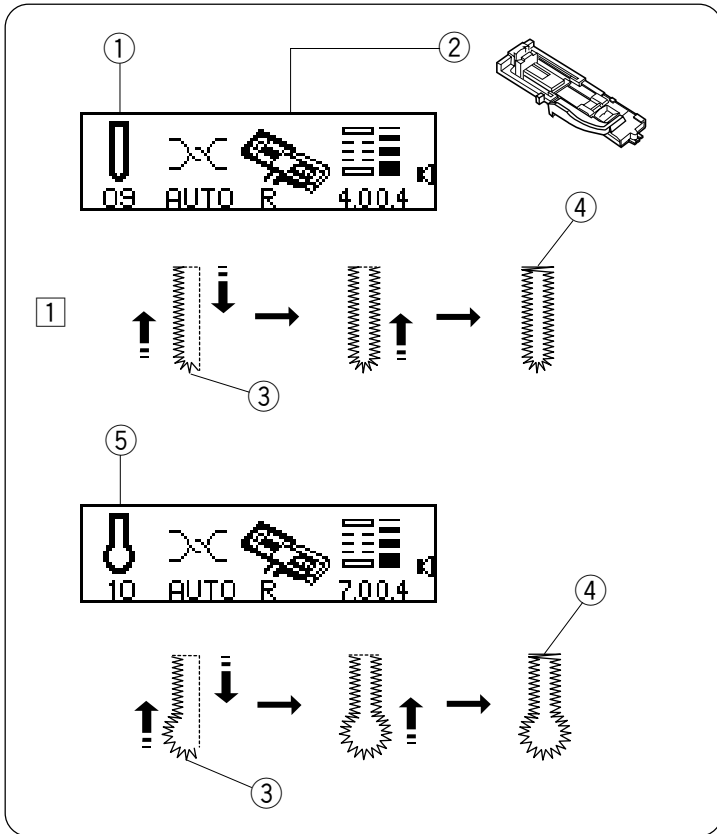
The pre-set density varies from 0.4 to 0.7 according to the buttonhole selected.

Press “+” or “-” to adjust the stitch density of the entire buttonhole between 0.2 to 1.0 depending on the selected buttonhole.

Press “+” or “-” to adjust the stitch density between 0.5 to 1.0 for the buttonhole density for .

3 Denser stitch by pressing “-”.

4 Coarser stitch by pressing “+”.



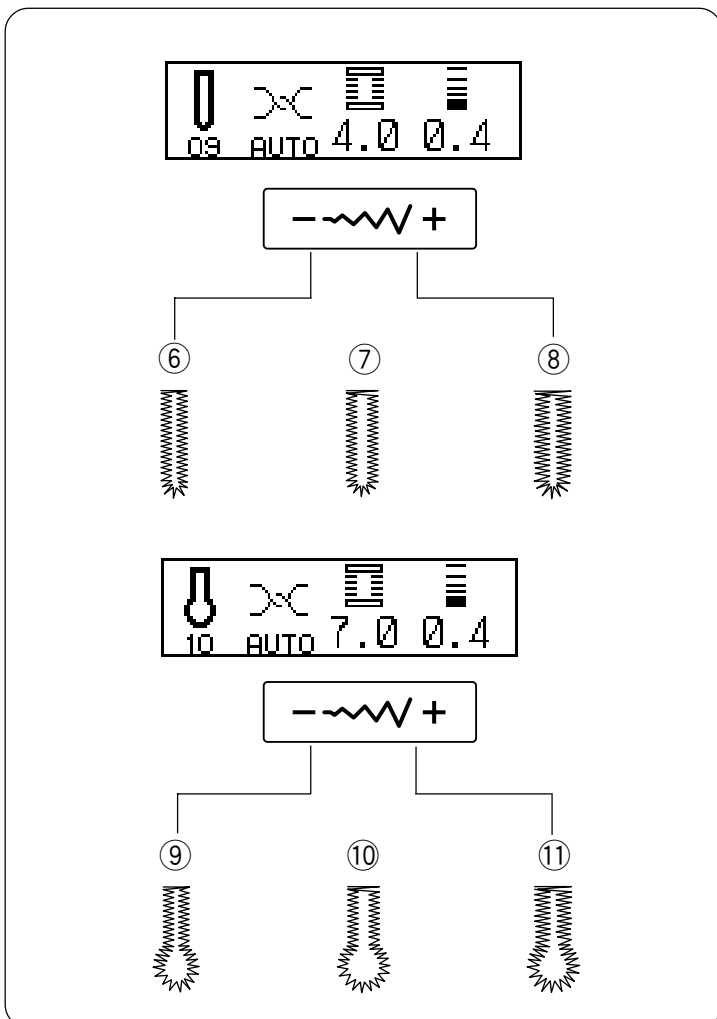
• Sensor buttonhole 09 and 10

- ① Stitch pattern: 09 or 10
- ② Presser foot: Automatic buttonhole R

* Sewing procedure is the same as 08.

① Sewing steps

- ③ Starting point
- ④ Bartacking
- ⑤ Stitch pattern 10



• Adjusting the stitch width and density in buttonholes 09 and 10

[To change the stitch density]

The adjustment of the stitch density is between 0.2 to 0.8 the same as buttonhole 08.

Adjustment of the stitch width on buttonhole 09

When you press the zigzag width key, the pre-set buttonhole width is set for the rounded buttonhole at 4.0. Press “+” or “-” to adjust the stitch width of the entire buttonhole between 2.5 to 5.5.

- ⑥ Width: 2.5
- ⑦ Width: 4.0
- ⑧ Width: 5.5

Adjustment of the stitch width on buttonhole 10

When you press the zigzag width key, the pre-set buttonhole width is set for the keyhole buttonhole at 7.0. Press “+” or “-” to adjust the stitch width of the entire buttonhole between 5.5 to 7.0

- ⑨ Width: 5.5
- ⑩ Width: 6.0
- ⑪ Width: 7.0

Corded Buttonholes

- ① Stitch pattern: 08
- ② Presser foot: Automatic buttonhole foot R

Use this procedure when you want to achieve a tailored, more attractive raised buttonhole.

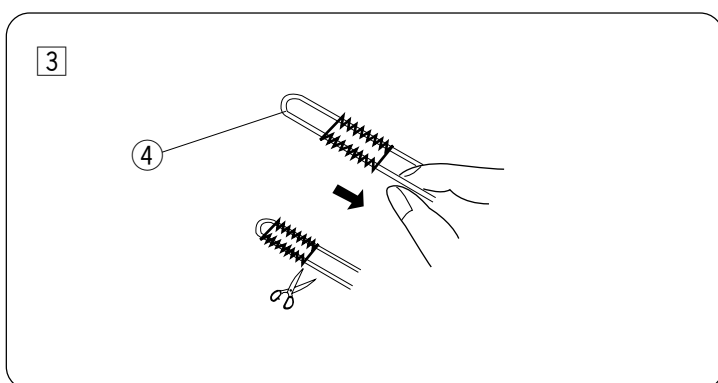
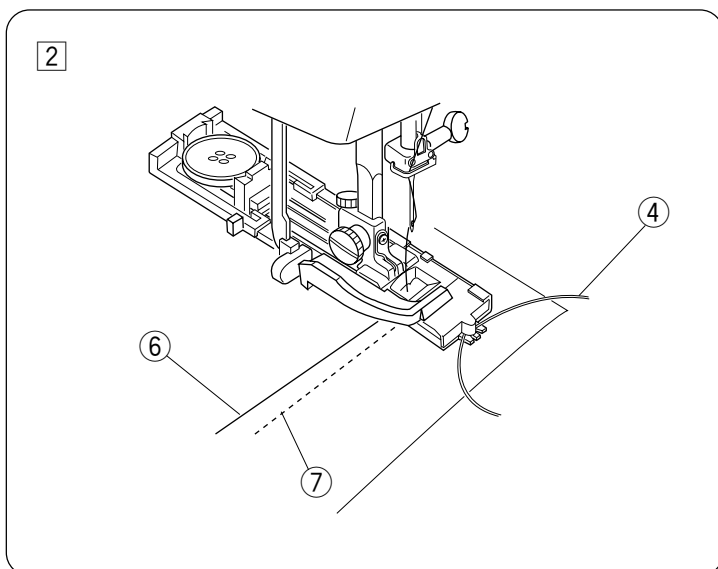
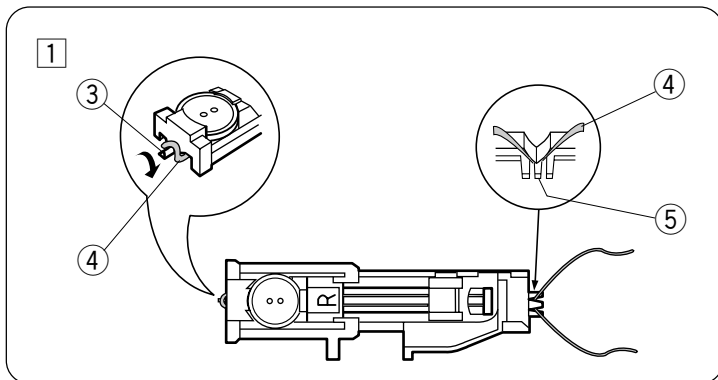
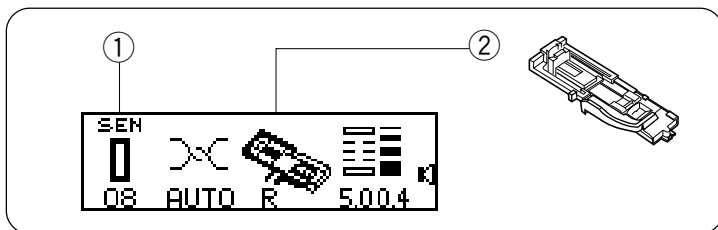
Use at least 40 cm (15") of heavy thread as filler cord.

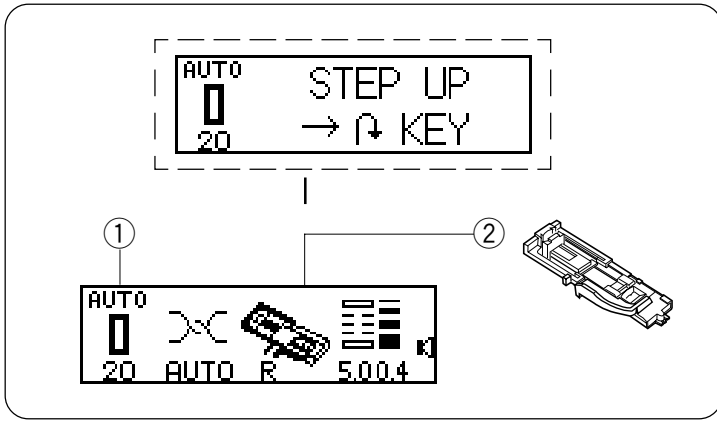
Try a practice buttonhole first.

- ① Set the automatic buttonhole foot R on the foot holder. With the buttonhole foot raised, hook the filler cord on the spur at the back of the buttonhole foot. Bring the ends toward you under the buttonhole foot until they clear the front end. Hook the filler cord into the forks on the front of foot R to hold them tight.
 - ③ Spur
 - ④ Filler cord
 - ⑤ Forks

- ② Lower the needle into the garment where the button hole will start and lower the foot. Sew the buttonhole according to the buttonhole sewing instructions on page 35. Each side of the buttonhole and the back bartack will be sewn over the filler cord. Remove the fabric from the machine and cut the sewing threads.
 - ⑥ Needle thread
 - ⑦ Bobbin thread

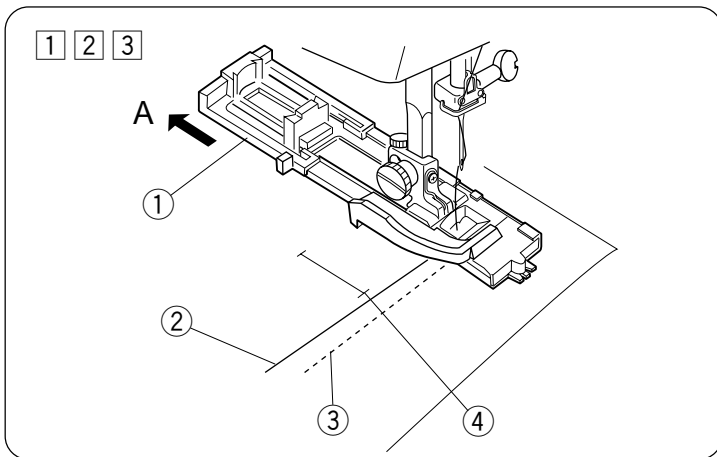
- ③ Pull the left end of the filler cord to tighten it. Thread the end through a darning needle, draw to the bottom side of the fabric and cut.
 - ④





Free Size Automatic Buttonhole 20

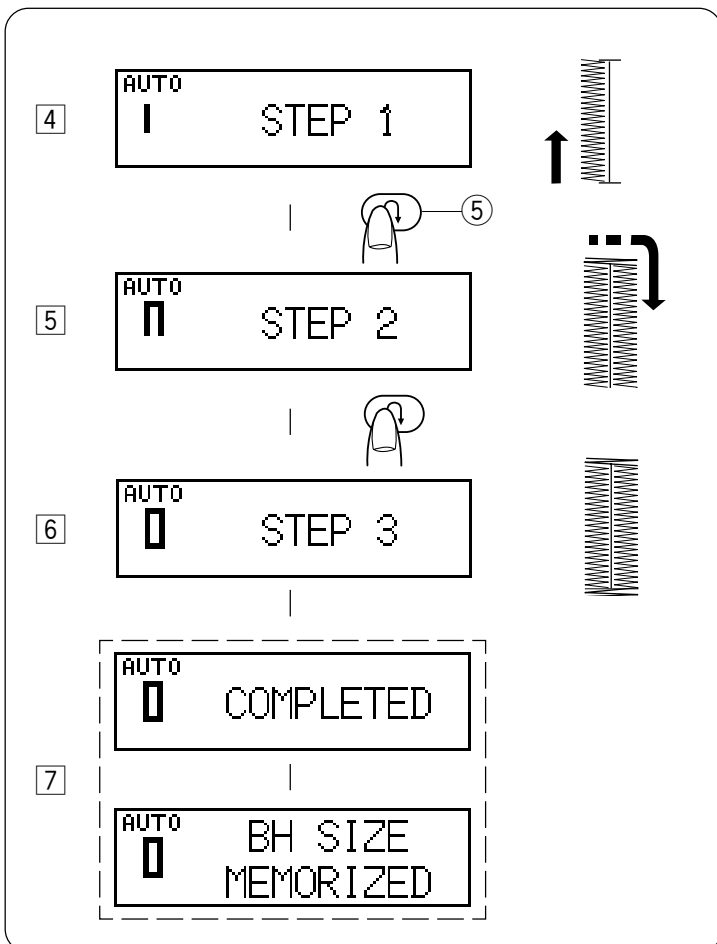
- ① Stitch pattern: 20
- ② Presser foot: Automatic buttonhole R



- 1 Pull the button holder to the back (direction A).
- 2 Insert the fabric under the foot. Press the Up/down needle button twice. Remove the fabric to the left to draw both threads under the foot.
- 3 Insert the garment under the foot, and lower the needle at the starting point.

Then lower the automatic buttonhole foot.

- ① Button holder
- ② Needle thread
- ③ Bobbin thread
- ④ Starting point



- 4 Sew down the left side stopping at the end of the buttonhole mark.
Press reverse button.
- 5 Depress the foot control.
The machine will automatically bartack and sew up the right side of the buttonhole.
Stop the machine when you are directly opposite the first stitch on the left hand side.
Press the reverse button.
- 6 Keep the foot control depressed. The machine will bartack, knot the stitches and automatically stop when the buttonhole is completed.
- 7 Raise the presser foot.

To make the next buttonhole, position the fabric and step down on the foot control.
The Memory Craft 4400 will sew another buttonhole identical to the first each time you step down on the foot control.

- * If you would like to change the buttonhole size, select buttonhole 20 again.
- * If the right and left sides of density are not matching (see page 55).

Zipper Sewing

- Put in a zipper

- ① Stitch pattern: 01
- ② Presser foot: Zipper foot E

- Attaching the zipper foot

To sew on the left side of the zipper, attach the foot holder to the right pin on the zipper foot.

To sew on the right side of the zipper, attach the foot holder to the left pin on the zipper foot.

- ① Groove
- ② Pin
- ③ To sew left side
- ④ To sew right side

- Fabric preparation

Add 1 cm to the zipper size. This is the overall opening size.

- ① Right side of fabric
- ② Opening size
- ③ Zipper size
- ④ 1 cm (3/8")
- ⑤ End of opening
- ⑥ Slider
- ⑦ Zipper teeth
- ⑧ Zipper tape

Place right sides of fabric together and sew to the end of the zipper opening. Reverse stitch to lock the stitches. Manually increase the stitch length to 4.5 and sew the zipper opening.

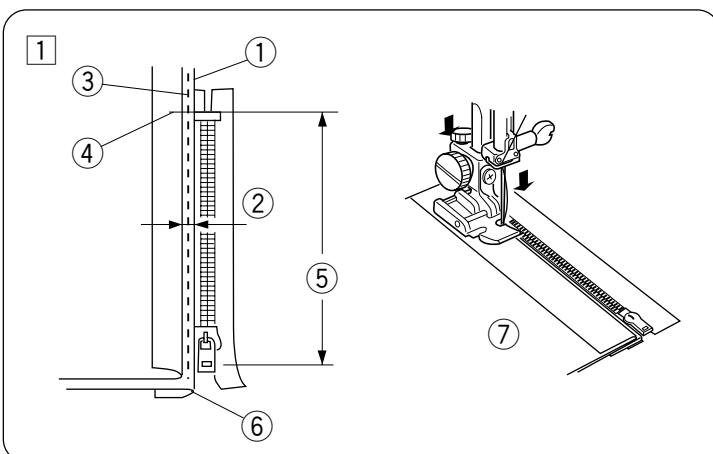
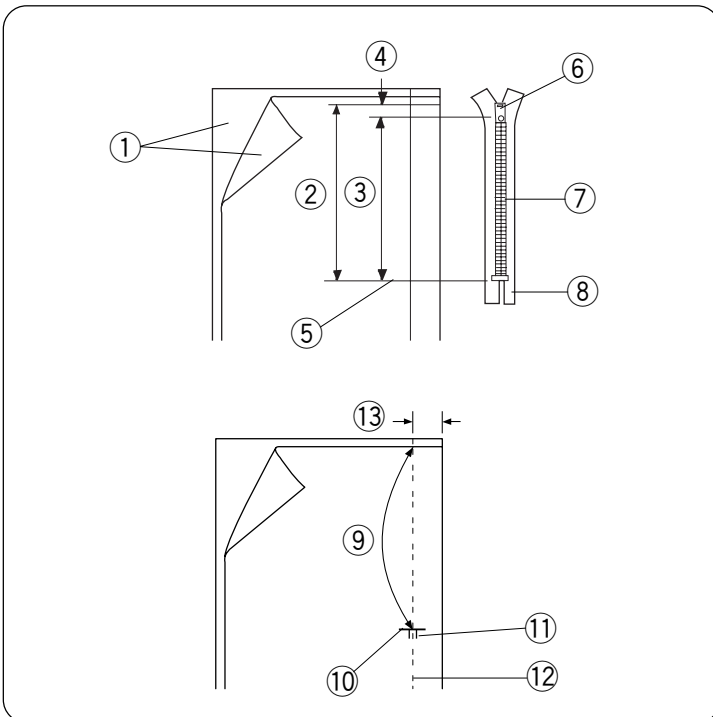
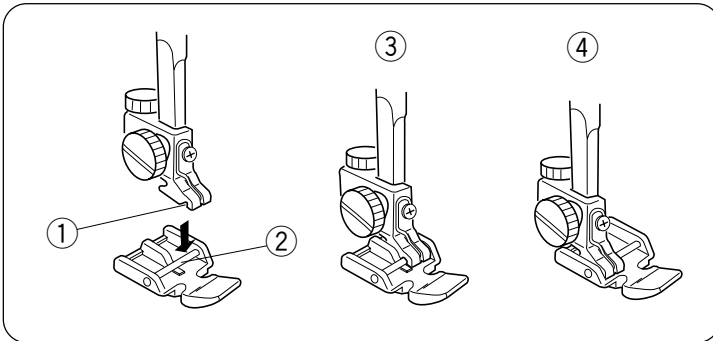
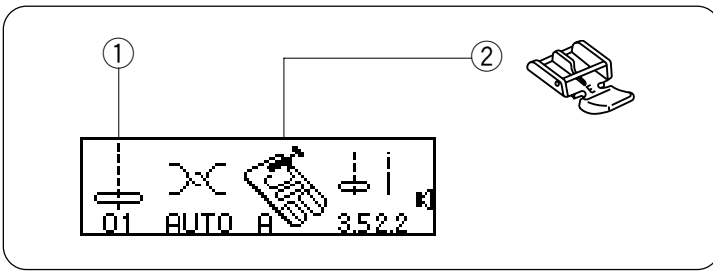
- ⑨ (4.5 stitch length)
- ⑩ End of opening
- ⑪ Reverse stitch
- ⑫ (2.2 stitch length)
- ⑬ 2 cm (3/4")

- To sew

- ① Fold back the left seam allowance. Turn under the right seam allowance to form a 0.2 to 0.3 cm (1/8") fold. Place the zipper teeth next to this fold and pin in place. Attach the zipper foot holder to the right pin on the zipper foot.

Lower the zipper foot on the top side at the bottom of the zipper so that the needle pierces the fabric next to the fold and the zipper tape.

- ① Fold
- ② 0.3 cm
- ③ Stitch line
- ④ End of opening
- ⑤ Opening size
- ⑥ Lower fabric
- ⑦ Wrong side of fabric



Zipper Sewing, cont'd

- 2 Sew through all layers next to fold. Stop 5 cm before the top of the zipper just before the zipper foot reaches the slider on the zipper tape. Lower the needle slightly into the fabric. Raise the zipper foot and open the zipper. Lower the foot and stitch the remainder of the seam.

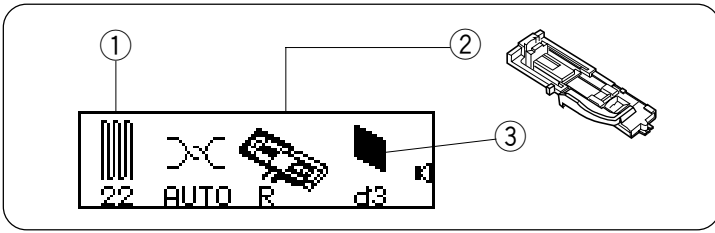
- ① Slider
- ② Stop sewing 5 cm (2") before the top of the zipper.

- 3 Close the zipper and spread the fabric flat with the right side facing up. Baste the opened fabric and zipper tape together.

- ③ Wrong side of upper fabric
- ④ Basting stitch
- ⑤ Right side of fabric
- ⑥ Zipper tape

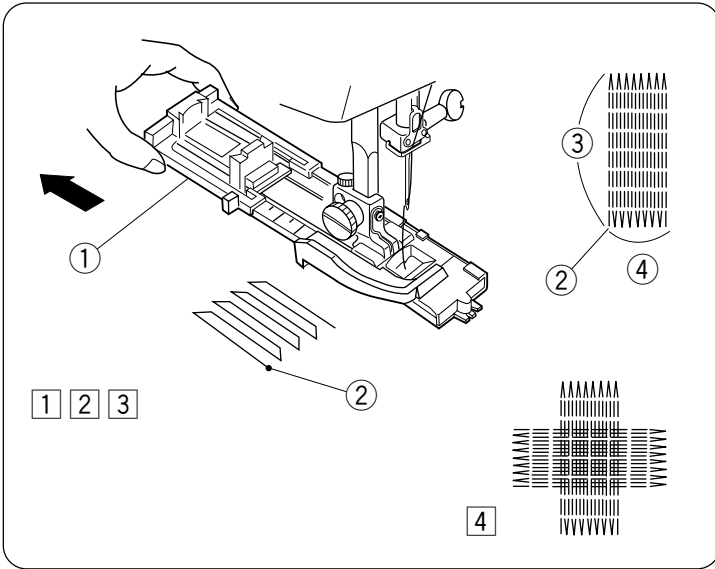
- 4 Move the zipper foot to the left pin. Guide the edge of foot along the zipper teeth and stitch through the garment and zipper tape. Stop 5 cm (2") before the top of the zipper.

- 5 Lower the needle slightly into the fabric, raise the foot, remove the basting stitches and open the zipper. Lower the foot and stitch the remainder of the seam, making sure the fold is even.



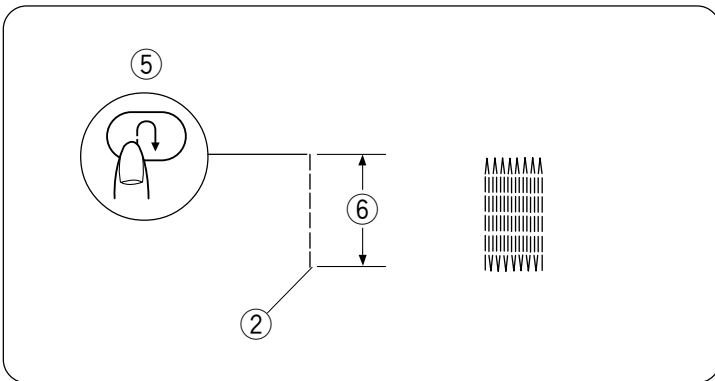
Darning

- ① Stitch pattern: 22
- ② Presser foot: Automatic buttonhole foot R
- ③ Darning shape: (See below for settings.)



• To sew:

- 1 Pull the button holder to the rear.
- 2 Place the garment under the foot. Press the Up/down needle button twice. Raise the foot. Remove the fabric to the left to draw both threads under the foot and put the fabric back under the foot.
- 3 Lower the foot. Press down the foot control. The machine will lock stitch, sew 16 rows of darning, lock stitch again and the machine will stop automatically.
 - * The size of one darn cycle is variable. However, the maximum stitch length is 2 cm (3/4") and the maximum stitch width is 7 mm (9/32").
- 4 Turn the fabric and repeat sewing for reinforcement.
 - ① Button holder
 - ② Starting point
 - ③ 2 cm (3/4")
 - ④ 0.7 cm (9/32")



• For darning less than 2 cm

Switch to "Low" speed setting. 4 lock stitches will be sewn first. Then sew to the desired length and press the reverse button. The desired length has now been determined. Continue sewing until the machine stops automatically.

- ⑤ Reverse button
- ⑥ Desired stitch length

• To memorize darning stitches

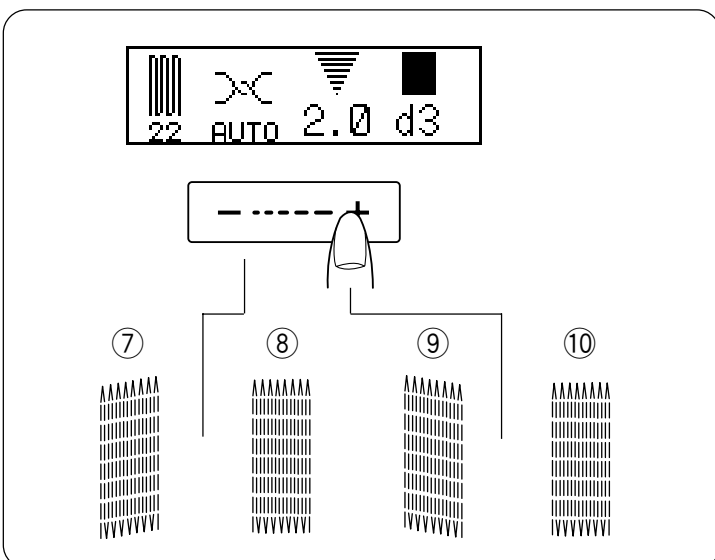
When repeatedly sewing the same-size darn to repair a side rip or belt loop, press "Memory" key and restart sewing.

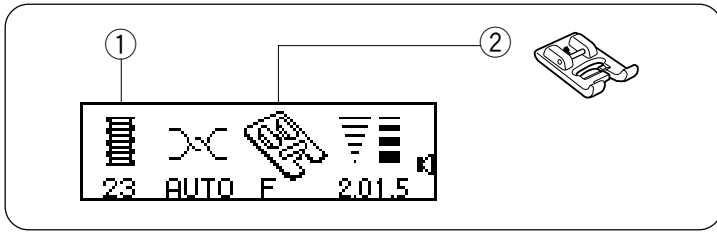
• Adjusting the shape of darning stitches

If one side of the darn is higher than the other, make them even by pressing the stitch length "+" or "-" key. When you press the "+" or "-" key, d3 will be indicated automatically.

You can adjust the shape of the darn by pressing "+" or "-" key, d1 to d5.

- ⑦ When the left side is lower
- ⑧ Select "d1" or "d2" to balance the stitches.
- ⑨ When the right side is lower.
- ⑩ Select "d4" to "d5" to balance the stitches.





Bartacking

- ① Stitch pattern: 23
- ② Presser foot: Satin stitch foot F

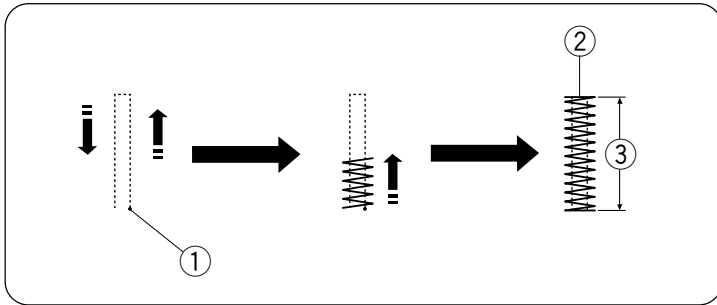
Switch to “Low” speed setting. Four lock stitches will be sewn first. Then sew to the desired length and press the reverse button.

The desired length has been now determined. Continue sewing until the machine stops automatically.

* This stitch is used for reinforcement of the heavily strengthened part of a garment.

The maximum bartack length is 1.5 cm (5/8”) dependent on fabric.

When you change the stitch length or stitch width, press width key “+” or “-”, or length key “+” or “-”.

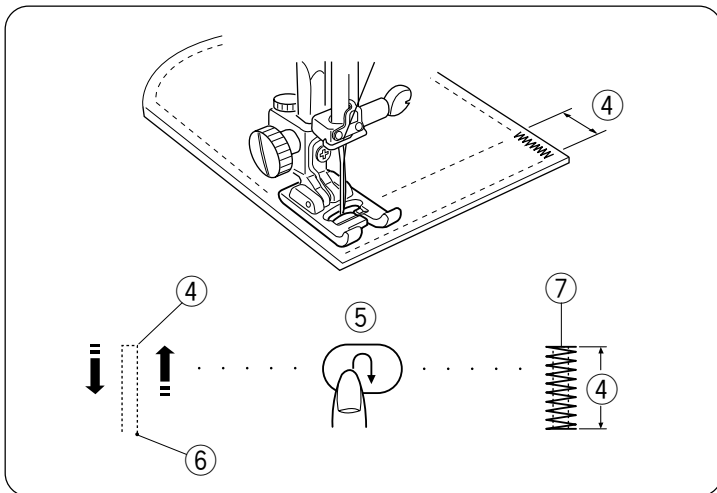


- ① Starting position
- ② Ending position
- ③ Pre-set 1.5 cm (5/8”)

To sew less than 1.5 cm (5/8”) of bartacking, sew the length required, then press the reverse button. The length is memorized. Depress the foot control until the machine stops automatically.

• Memorizing bartacking

When repeatedly sewing the same size bartack, press Memory key and restart sewing.

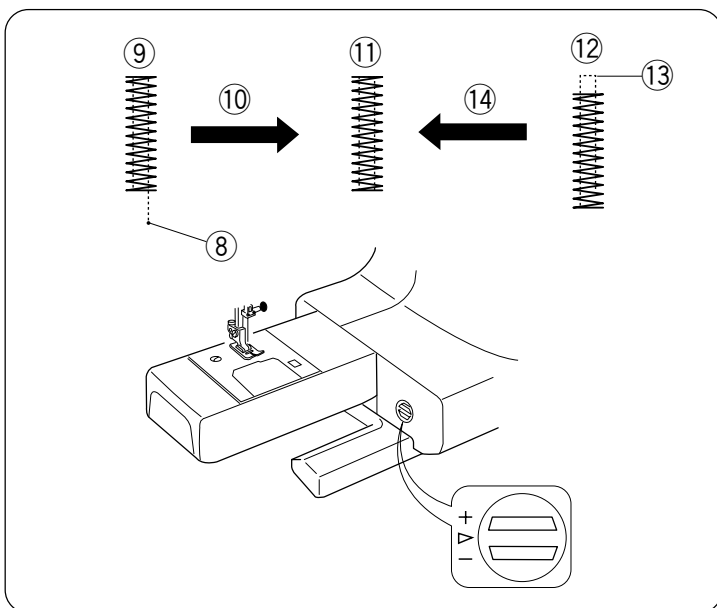


- ④ Length required
- ⑤ Reverse button
- ⑥ Starting position
- ⑦ Ending position

• Adjusting the evenness of bartacking stitches

Make a test on an extra piece of fabric to check your settings.

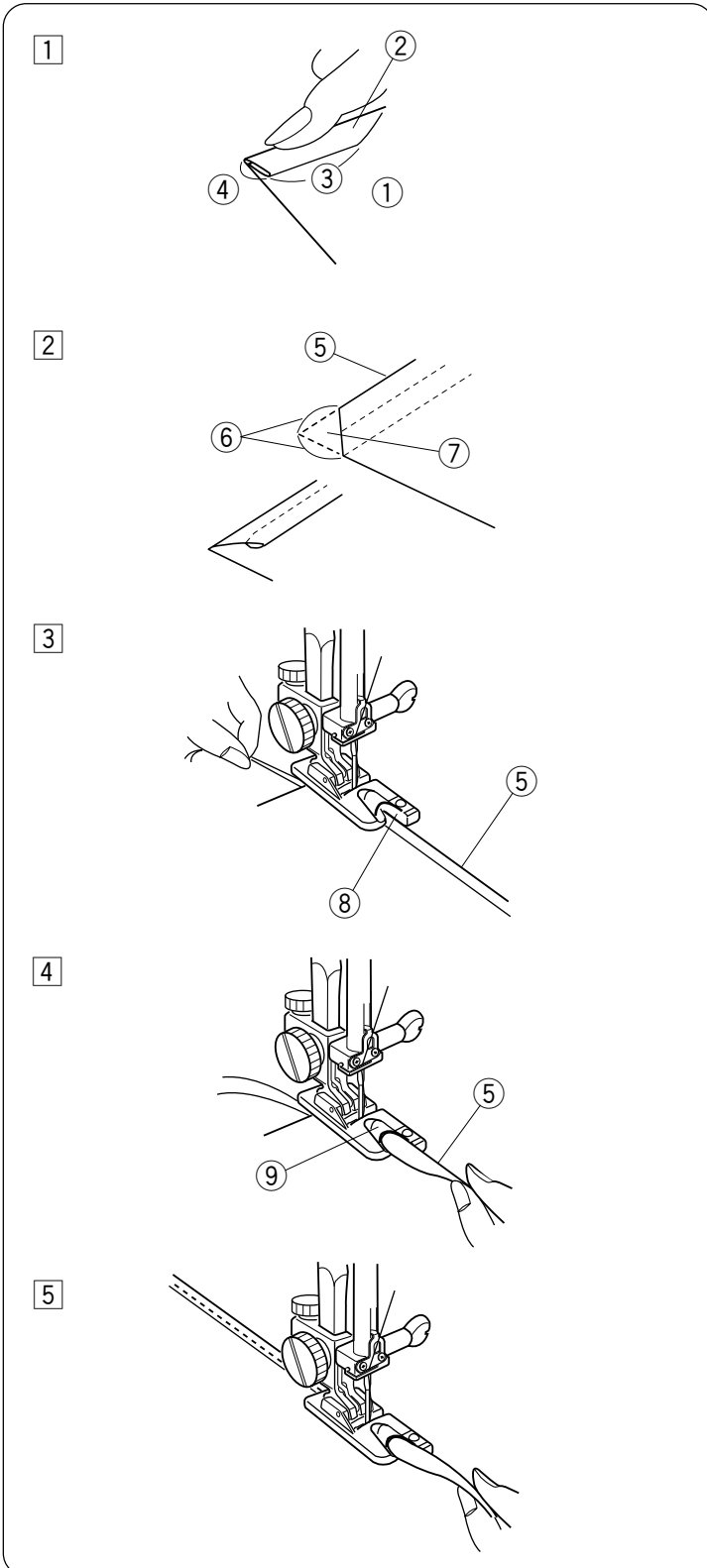
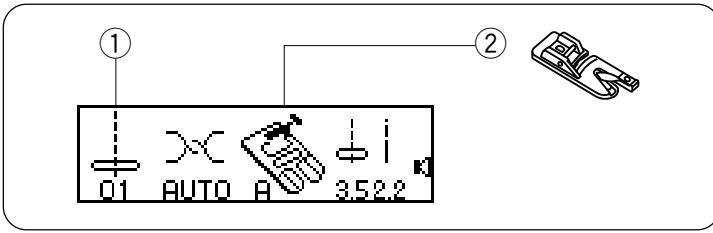
If the bartacking is uneven, adjust the stitch length by turning the feed balancing dial as shown.



- ⑧ Starting position
- ⑨ An extra length is left from the starting position.
- ⑩ Turn the feed balancing dial to “+” direction.
- ⑪ Matching the position. (Correct position)
- ⑫ An extra length is left at the returning position.
- ⑬ Returning position.
- ⑭ Turn the feed balancing dial to “-” position.

Rolled Hem

- ① Stitch pattern: 01
 ② Presser foot: Hemmer foot D



- ① Make a double 0.3 cm (1/8") fold approximately 6 cm (2") in length.

* Use iron on the folded edge so that you can guide the fabric easily.

- ① Wrong side of fabric
 ② Right side of fabric
 ③ 6 cm(2")
 ④ 0.3 cm(1/8")

- ② Trim about 0.7 cm(1/4") from corners to reduce bulk.

- ⑤ Edge of fabric
 ⑥ Approximately 0.6 cm (1/4")
 ⑦ Trimming part

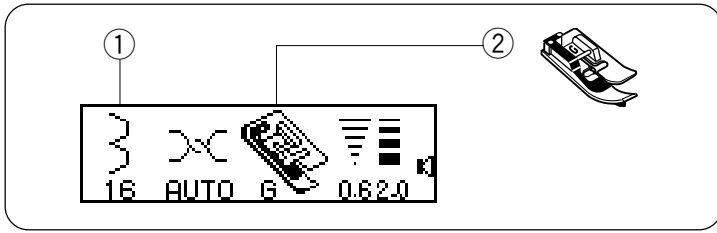
- ③ Lower the needle into the fabric at the point where sewing is to begin. Then lower the hemmer foot. Sew 3 to 4 stitches while holding the needle and bobbin threads.

- ⑤ Edge of fabric
 ⑧ Guide

- ④ Lower the needle into the fabric and lift the hemmer foot. Insert the folded portion of the fabric into the curl of the hemmer foot.

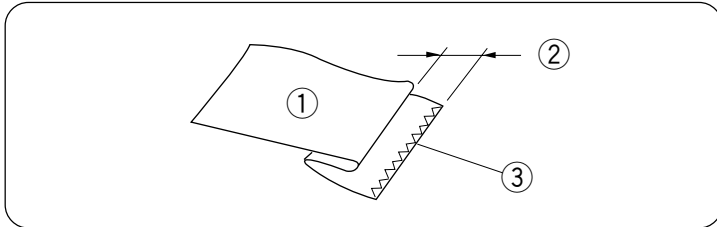
- ⑤ Edge of fabric
 ⑨ Curl of foot

- ⑤ Lower the hemmer foot, then sew by lifting up the edge of the fabric to keep it feeding smoothly and evenly.



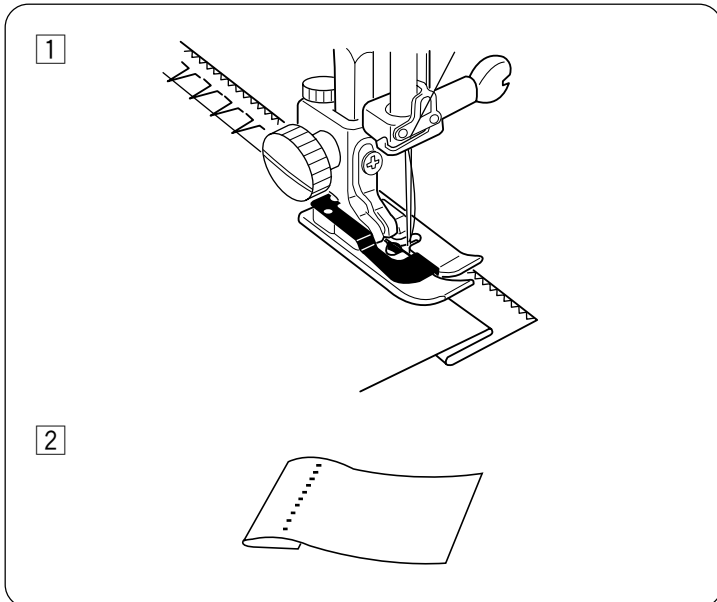
Blind Stitch Hemming

- ① Stitch pattern: 16 or 15
- ② Presser foot: Blind hem foot G



• How to fold the fabric

- ① Wrong side of fabric
- ② 0.4 to 0.7 cm (1/8" to 3/8")
- ③ Overedge stitch



• How to sew

- ① When the needle comes to the left hand side, position the fabric so that the folded edge comes to the left side of the guide. Lower the presser foot.

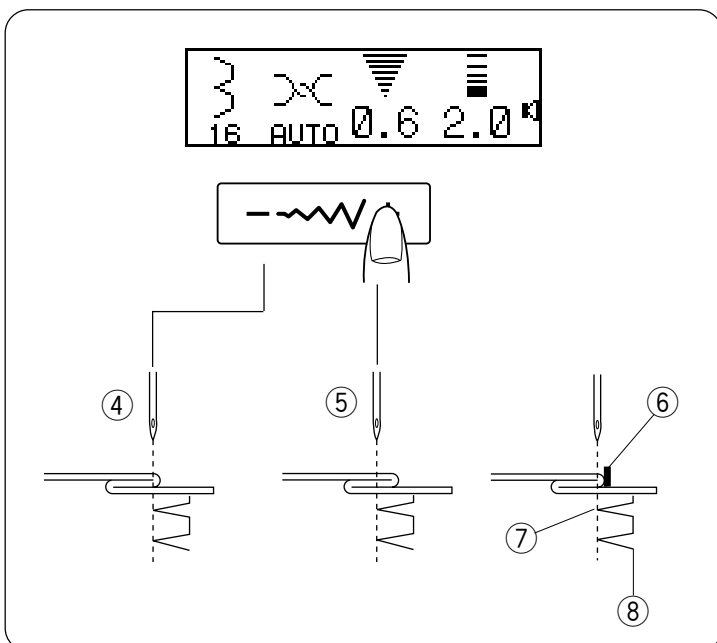
* Adjust the position of the needle swing with the stitch width key so that the needle just pierces the folded edge of the fabric when the needle comes to the left side.

Sew guiding the folded edge along the guide.

- ② Open the fabric after sewing.

* For a professional looking hem, try not to let the needle piece more than 0.2 cm (1/8") into the fold.

If the folded edge is pierced too far to left side, you can not expect a good seam on the right side of the fabric.



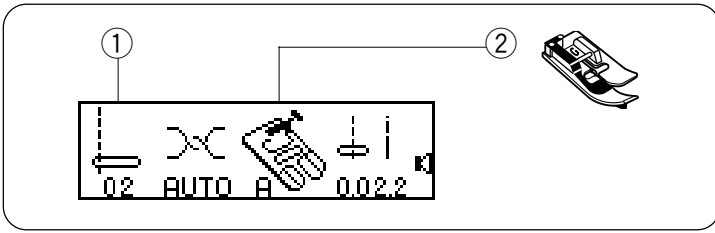
• Changing the needle position

When the zigzag width key is pressed, the pre-set needle position is shown at 0.6.

* The indication at 0.6 is the needle drop position from the presser foot guide.

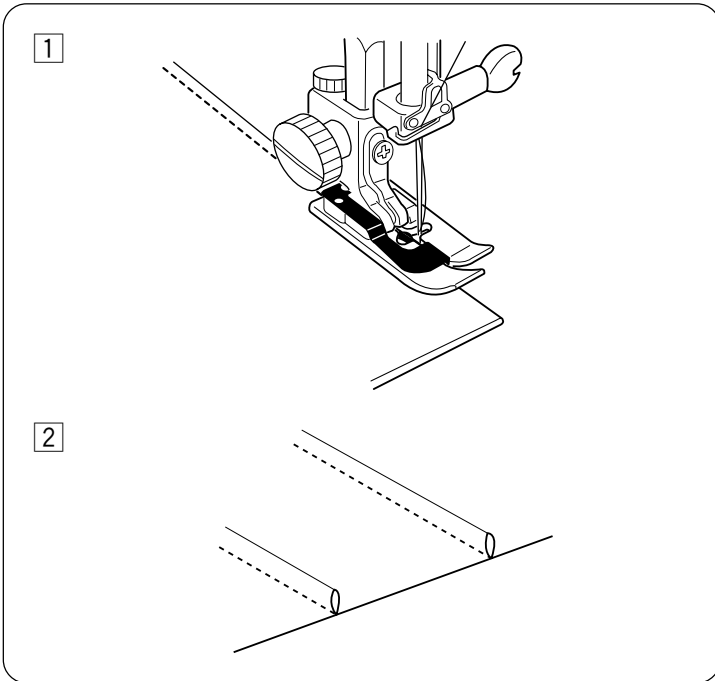
* When you select the stitch pattern 16, the stitch width will not change, but the needle drop position from the foot guide will be changed.

- ④ The needle drop position is shifted to the right side
- ⑤ The needle drop position is shifted to the left side.
- ⑥ Guide
- ⑦ When the needle comes to the left side
- ⑧ When the needle comes to the right side



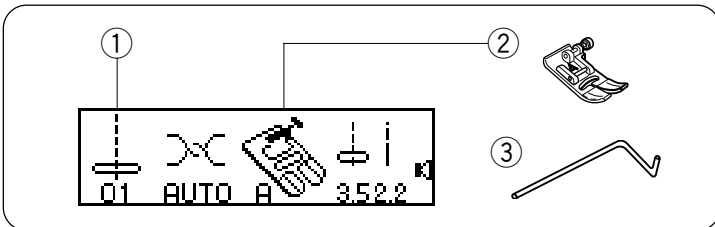
Pintucking

- ① Stitch pattern: 02
- ② Presser foot: Blind hem foot G



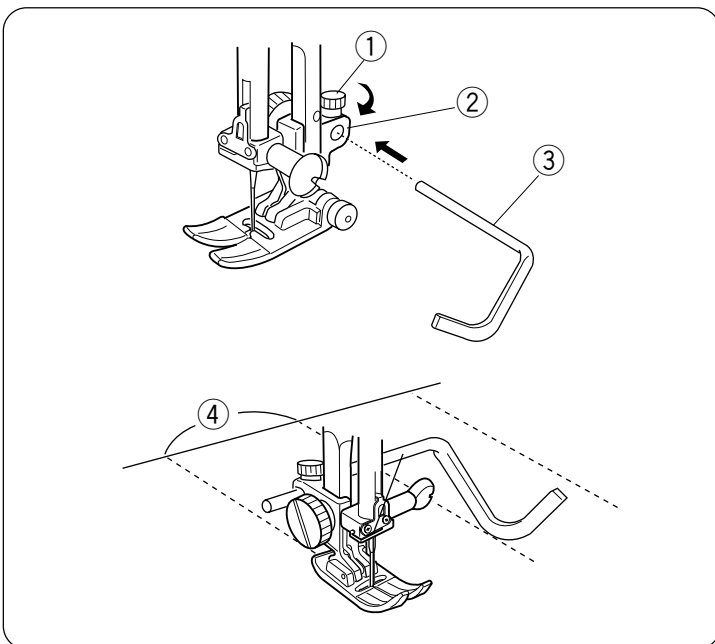
- ① Attach the blind hem stitch foot.
Place the folded fabric under the presser foot.
Position the needle 0.1 to 0.2 cm (1/16") inside from the folded edge by turning the handwheel and lower the presser foot.
Feed the folded edge smoothly against the sliding guide.

- ② After sewing is finished, use an iron to make pleats.



Quilting

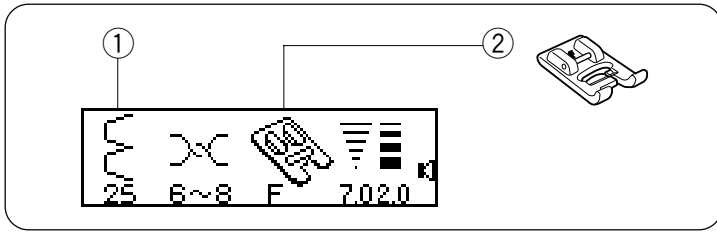
- ① Stitch pattern: 01
- ② Presser foot: Foot A
- ③ Quilting bar L



The quilting guide will help to keep the stitching lines straight.

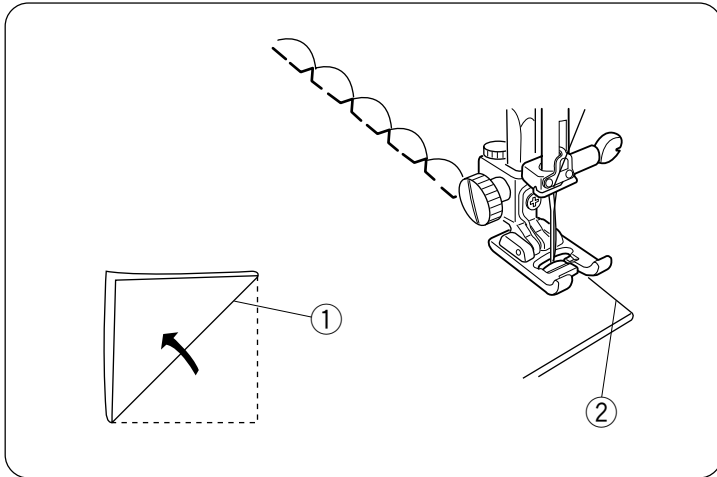
Insert the quilting bar in the opening, and slide it at the desired width.

- ① Setscrew
- ② Opening
- ③ Quilting bar
- ④ Seam spacing



Shell Tack

- ① Stitch pattern: 25
- ② Presser foot: Satin stitch foot F

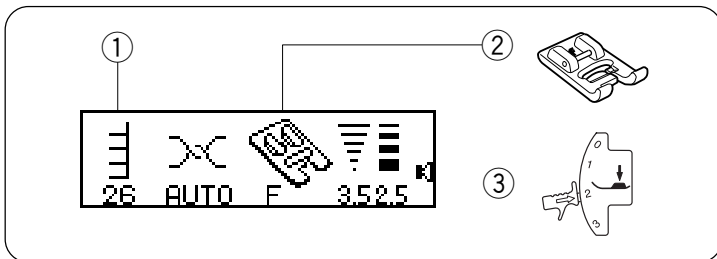


* Use a light weight fabric such as tricot.
 Fold and stitch on the bias. When the needle swings to the right, allow the needle to just clear the folded edge of the fabric.

Open the fabric and iron on one side of the fabric.

* For the shell stitch, be aware that thread tension may have to be adjusted depending on the fabric for the best sewing results.

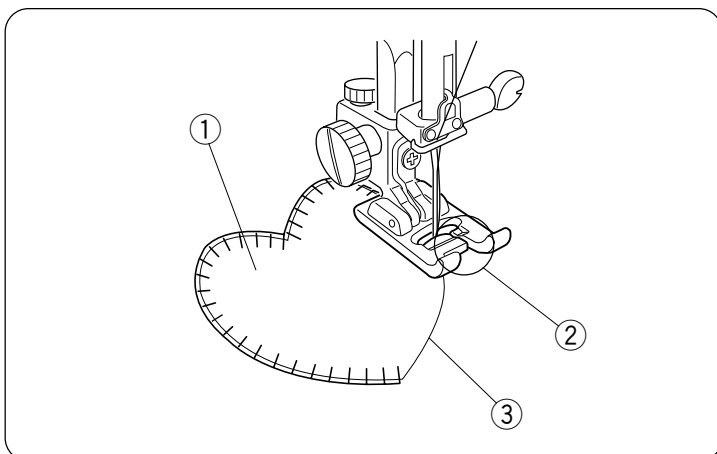
- ① Fold fabric
- ② Folded edge



Applique

- ① Stitch pattern: 26
- ② Presser foot: Satin stitch foot F
- ③ Pressure dial: 2

* Stitch patterns, (27, 28) can also be used.



Applique, a technique for stitching fabric shapes onto another fabric, opens limitless design possibilities.

Dimension and texture can be added by lightly stuffing all or part of a design. This machine has several different patterns that can be used to enhance your applique.

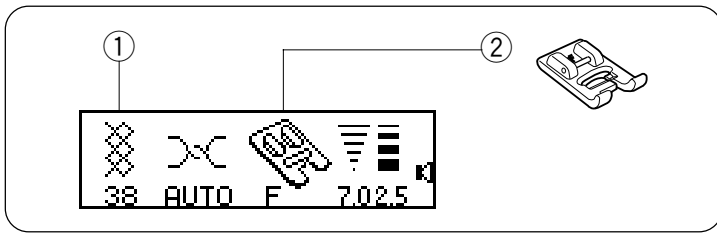
In this type of applique raw edges are folded under. To finish the raw edge, cut the applique design out of cardboard. Fuse a lightweight interfacing to the wrong side of the fabric then cut the fabric slightly larger than the cardboard.

Fold the fabric around the cardboard and press to form a perfectly shaped design.

Tape the applique in place and sew, guiding the slit on foot F next to the finished edge of the applique.

- ① Applique fabric
- ② Slit
- ③ Edge

* After sewing, return the pressure dial to 3.



Smocking

- ① Stitch pattern: 38
- ② Presser foot: Satin stitch foot F

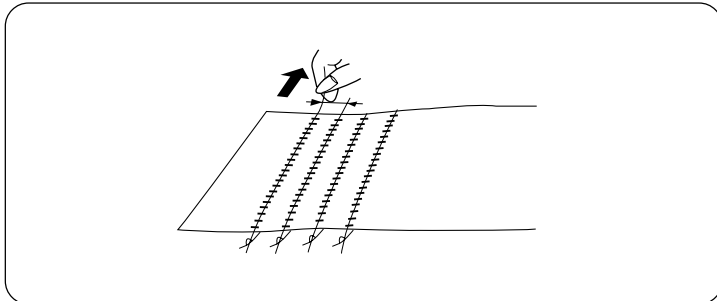
* Stitch patterns (41, 65, 66, 88) can also be used.

For a delicate, decorative treatment, smocking can be applied whenever gathers are used. Turn a child's dress into something very special or smock a yoke on a blouse. Choose a soft, lightweight fabric such as batiste, gingham or challis. Cut the fabric three times the finished width.

(Straight stitch)

With the manual stitch length at 0.3 to 0.4 cm (1/8") sew straight lines 1 cm (3/8") apart, across the area to be smocked.

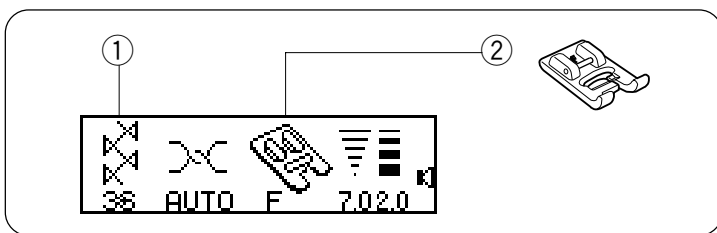
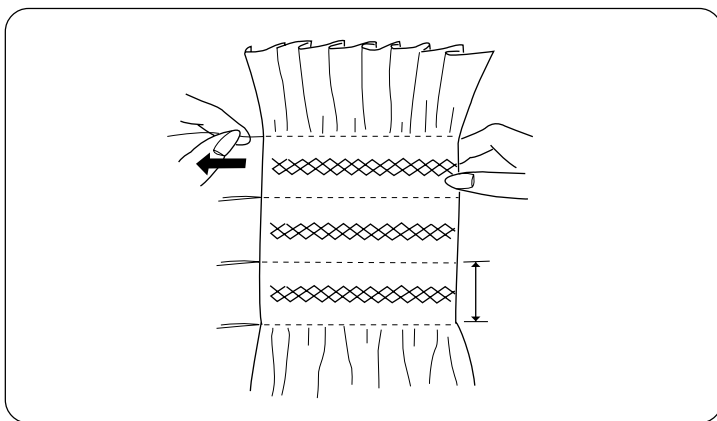
A looser needle thread tension will make gathering easier.



(Decorative sewing)

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

Reduce the tension and pressure if necessary and sew decorative pattern stitches between the straight seams. Pull out the gathering stitches.



Fagoting

- ① Stitch pattern: 36
- ② Presser foot: Satin stitch foot F

* Stitch patterns (32, 37 and 40) can also be used.

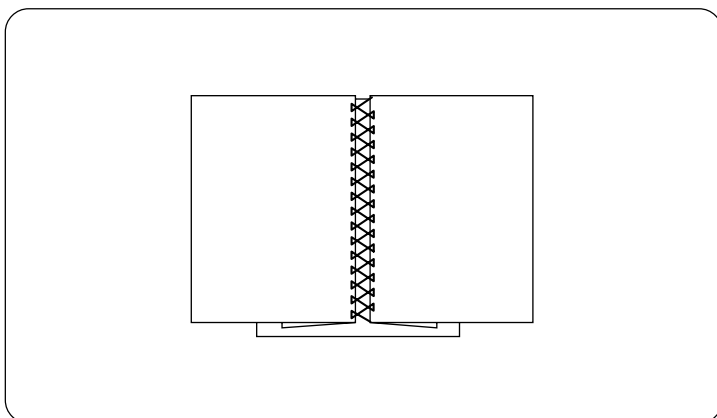
Use this stitch to join two pieces of fabric to create an open work appearance and add design interest.

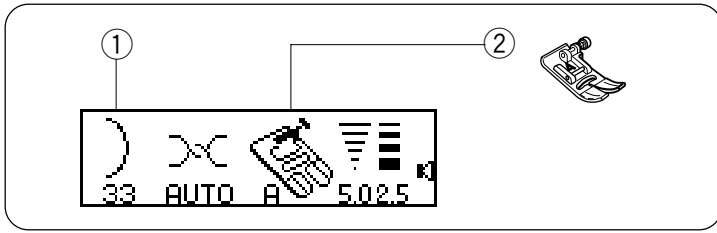
Fold under each fabric edge 1.5 cm (5/8") and press.

Pin the two edges to paper or tear away backing 0.3 cm (1/8") apart.

Sew slowly, guiding the fabric so the needle catches the folded edge on each side.

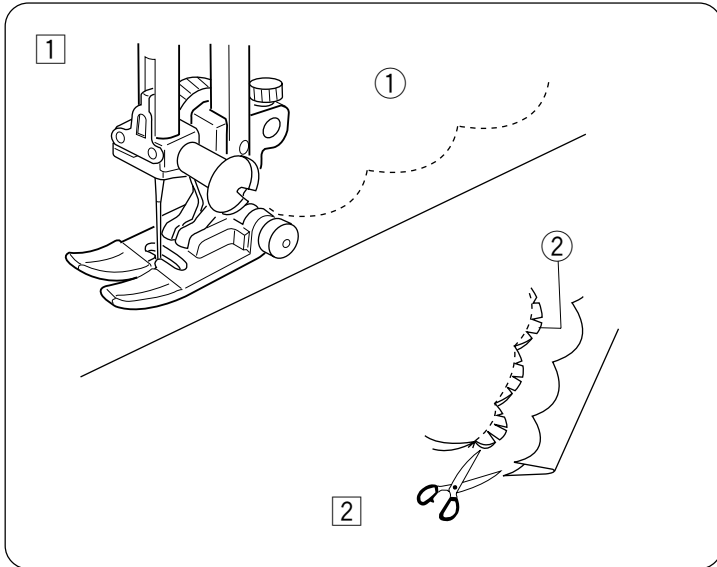
After finishing the sewing, take off the paper.



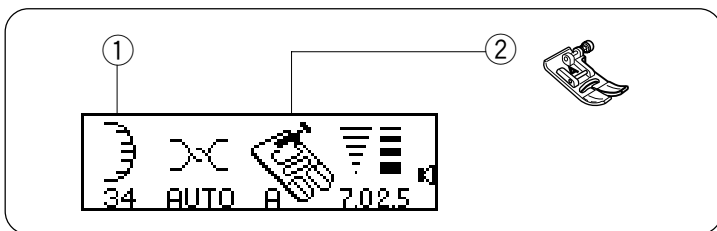


Scallop Stitch (A)

- ① Stitch pattern: 33
- ② Presser foot: Foot A



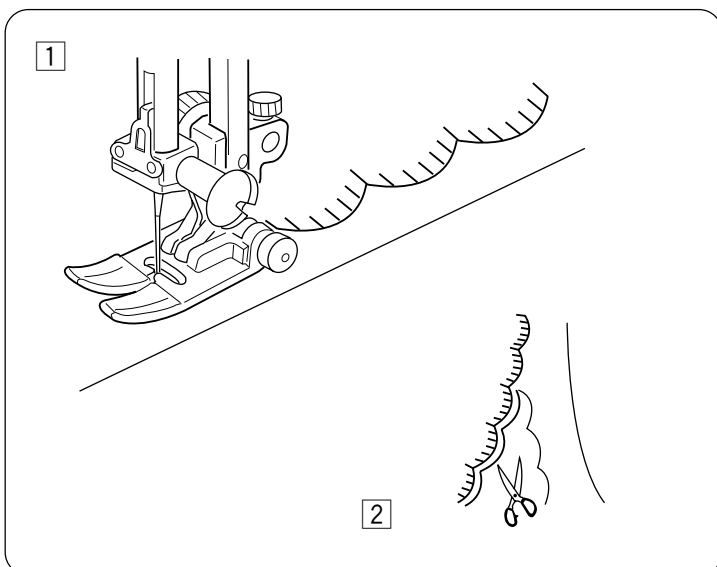
- ① Fold hem with right sides together. Sew scallops 1 cm (3/8") from folded edge.
- ② Trim close to stitching leaving 0.3 cm (1/8") seam allowance. Clip seams as shown or trim with pinking shears. Turn the hem to right side and press.



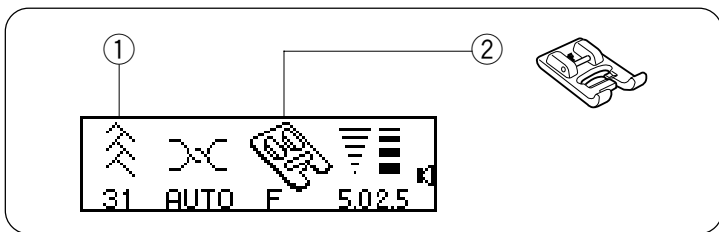
Scallop Stitch (B)

- ① Stitch pattern: 34
- ② Presser foot: Foot A

* Stitch pattern 47 can also be used.

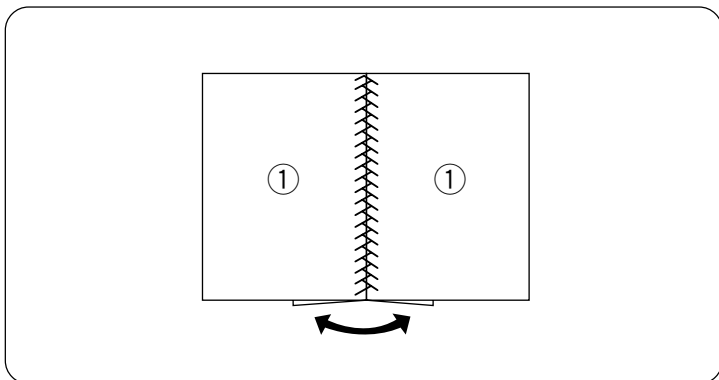


- ① Sew the stitches approximately 1 cm (3/8") inside of the edge of fabric.
- ② Trim the outside of the stitches as shown. Make sure you don't cut the thread.



Patchwork

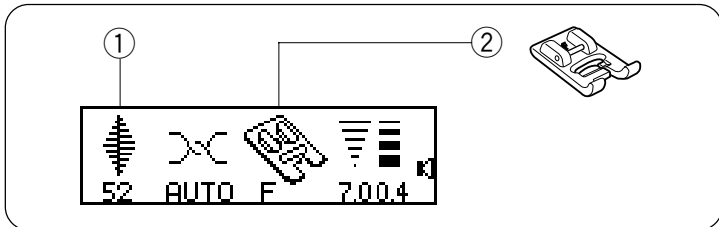
- ① Stitch pattern: 31
- ② Presser foot: Satin stitch foot F



Sew seam with straight stitch and press seam allowance to open.

Sew pattern stitch 31 on right side of garment centering over the seam line.

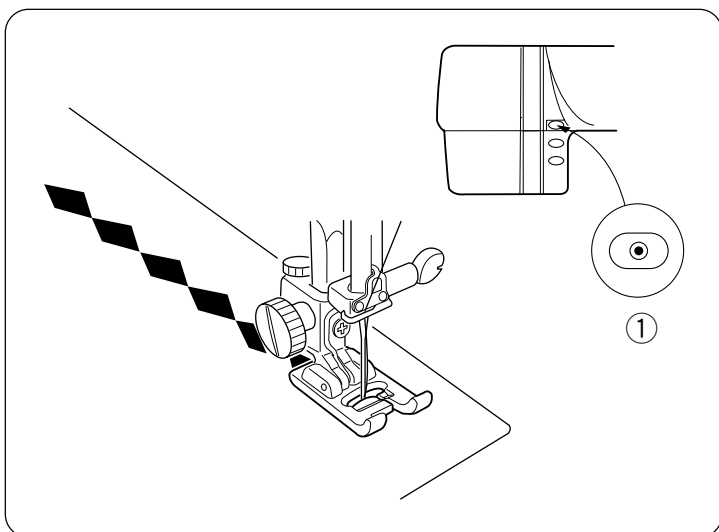
- ① Right side of fabric



Satin Stitch Sewing

- ① Stitch pattern: 52
- ② Presser foot: Satin stitch foot F

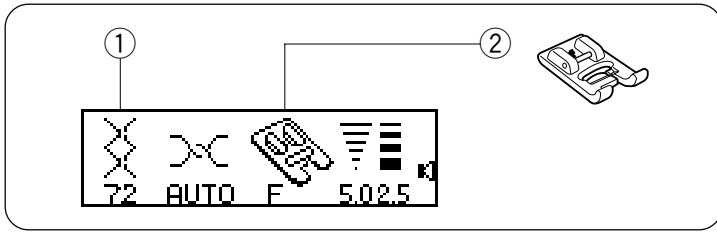
* Stitch patterns (45 to 64) can also be used.



To get fine sewing results, interfacing should be used on the wrong side of fabric when you use stretch or elastic garments.

Press Auto-lock button to finish the end of the pattern.

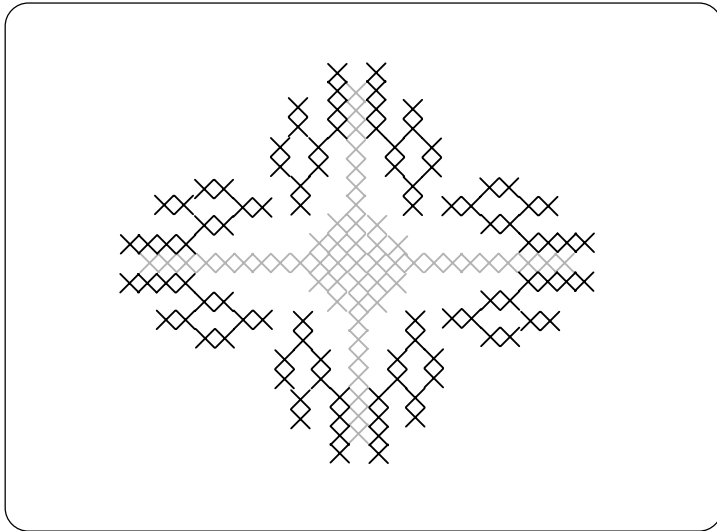
- ① Auto-lock button



Cross Stitch

- ① Stitch pattern: 72
- ② Presser foot: Satin stitch foot F

* These stitch patterns (74 to 76) can also be used.

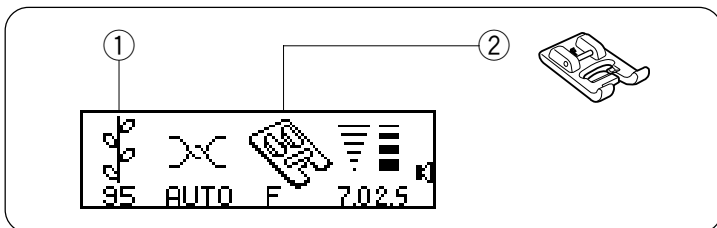


You will love the beautiful designs you can sew with this craft stitch pattern, and in half the time it would take if embroidered by hand. Cross stitches can be effectively combined with the other craft patterns for attractive samplers and other sewing projects.

A plain close weave such as linen or wool flannel make the best background fabric.

Support lightweight fabrics with a stabilizer backing.

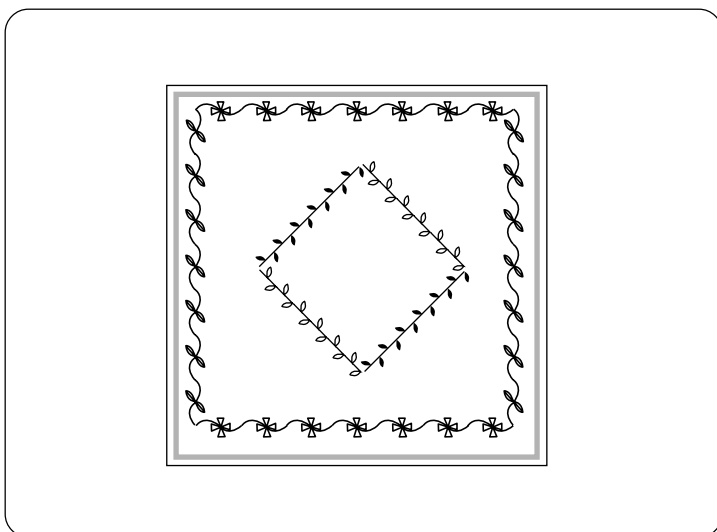
* The size of cross stitch can be adjusted by pressing the stitch width key “+” or “-”.



Decorative Stitch

- ① Stitch pattern: 95
- ② Presser foot: Satin stitch foot F

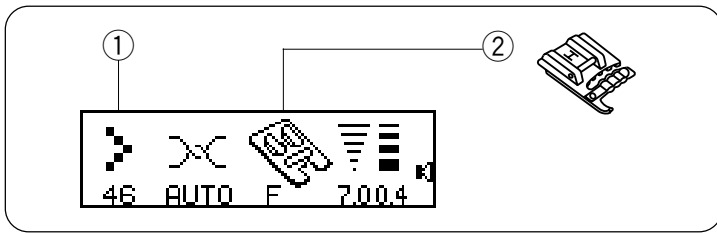
* Stitch patterns (35 to 44, 65 to 71, 77 to 97) can also be used.



The satin stitches also are used for decorative stitches on table linens, etc.

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

Use a tear-away backing if necessary.

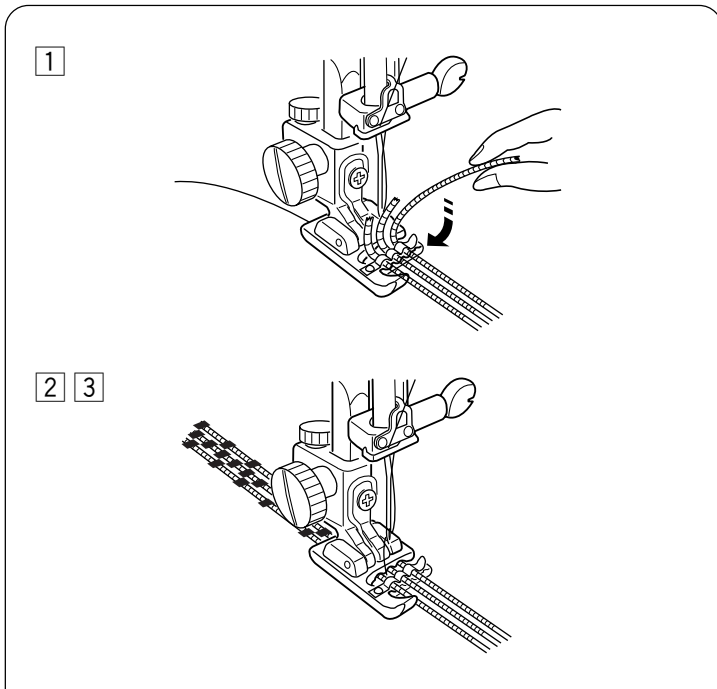


Cording

- ① Stitch pattern: 46
- ② Presser foot: Cording foot H

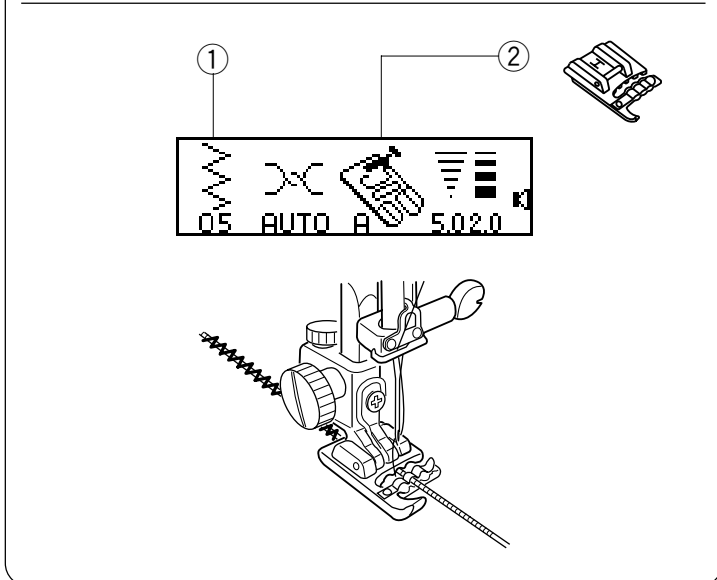
Sew over one strand of cording to create a pretty swirled design on a jacket or vest or sew over three strands of cording for border trims. Pearl cotton, knitting yarn, embroidery floss, lace thread, fine wool or lily yarn can be used for cording.

(Triple cording)



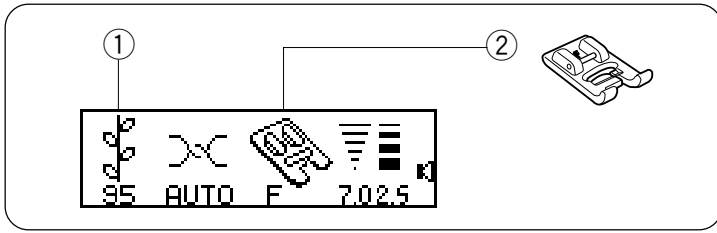
- ① Mark the design on the right side of the fabric. Slide the sewing threads to the left and insert three strands of cording into the slots of foot H with 10 cm (4") extending behind the foot.
 - ② The slot on foot H will hold the lengths of cording in place while the stitches form over the cording.
 - ③ Stitch slowly and smoothly turning the fabric as you sew while guiding the cording over the marked line.
- * You may want to reduce the pressure when sewing curves.

(Single cording)



- ① Stitch pattern: 05
- ② Presser foot: Cording foot H

Use the center groove on the foot and adjust the zigzag width to overlap the cord and sew.



Twin Needle Stitching

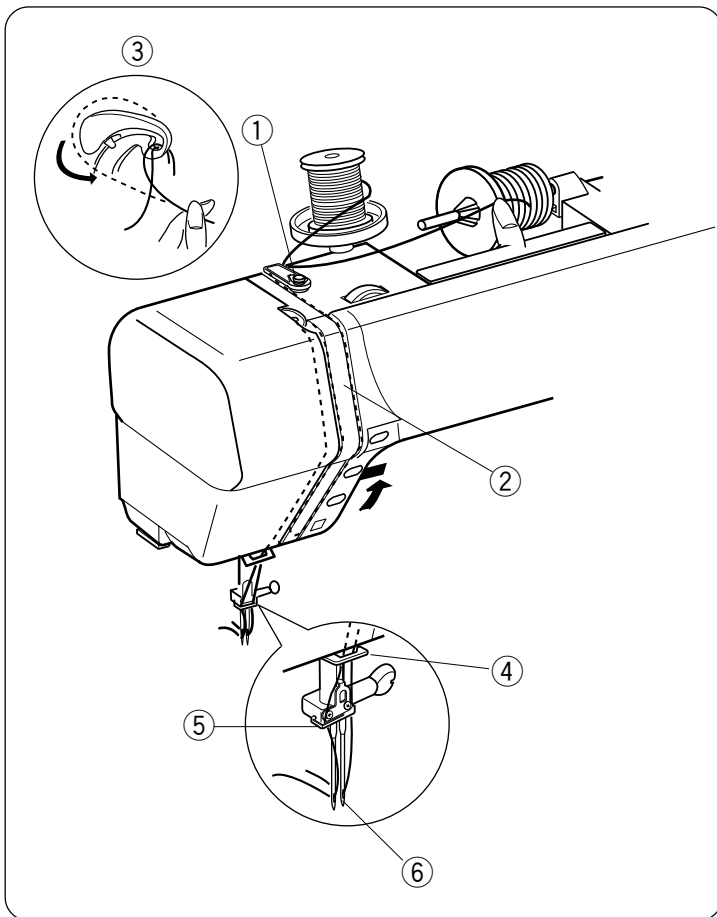
- ① Stitch pattern: 95
- ② Presser foot: Satin stitch foot F

This machine is equipped with a twin needle that can be used to sew parallel rows straight on decorative stitches adding an exquisite touch to table linens and clothing.

* Stitch patterns (01,05,31,33,34,41,45,47,56,57,59,86,95) can also be used.

Turn off and unplug the machine before changing the needle to the twin needle.

Insert the additional spool pin, and put the felt and spool on it with the thread coming off the spool as shown. (see page 17)



When threading the machine for twin needle sewing follow this chart making sure you separate the threads, placing one in each thread guide on the sides of the bar.

① – ④ Threading steps from 1 to 4 are the same as for single thread.

* The additional spool thread should roll out counterclockwise as shown.

⑤ Slide one of the threads through the needle bar thread guides, on the left and the other one on the right.

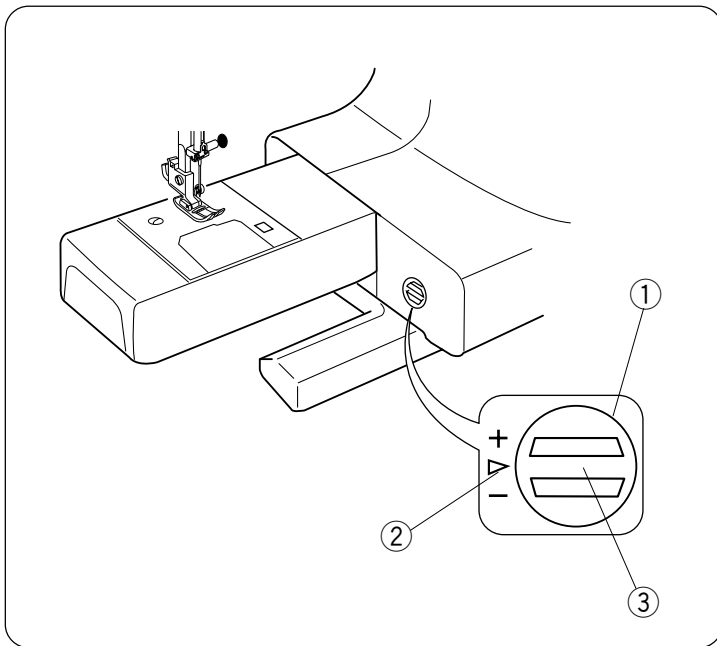
⑥ Thread the needles from front to back.

⑦ Turn the power switch on, select the stitch pattern and press the twin needle stitch key.

* At corners, raise the needle till they clear the fabric. Partially raise the presser foot and carefully pivot the fabric.

When twin needle sewing is completed, change needle and reset tension if necessary and press twin needle key to disengage twin needle function.

* The needle threader cannot be used with twin needles.

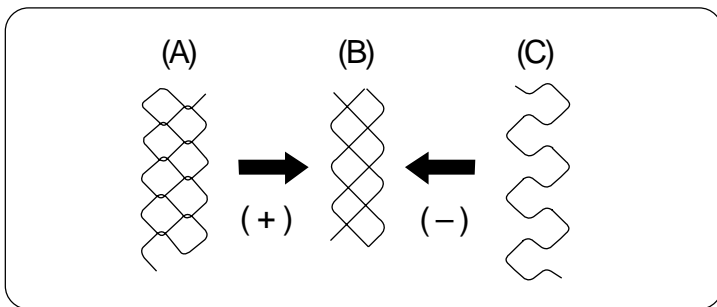


Adjusting Pattern Balance

If the decorative stitch patterns, letters, numbers or manual buttonhole stitch are uneven when you sew on a particular fabric, adjust them with the feed balancing dial.

* The machine is set with the feed balancing dial position with the setting mark as shown.

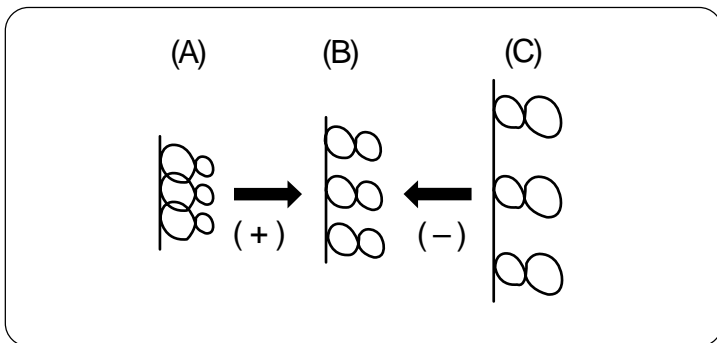
- ① Feed balancing dial
- ② Standard setting mark
- ③ Indication line



• Adjusting distorted stretch stitch patterns

If the patterns are uneven when sewing with a particular fabric, adjust them by turning the feed balancing dial with a coin.

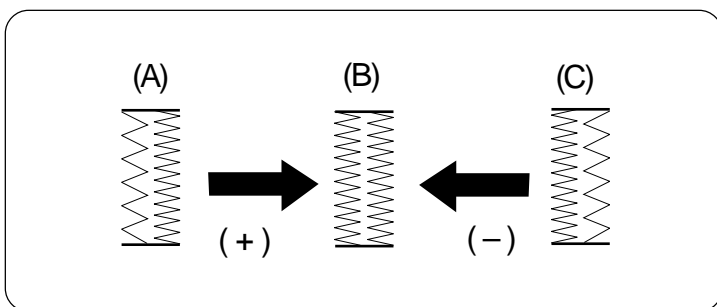
- (A) When patterns are too compressed, correct by turning the dial in the direction of “+”.
- (B) Correct setting
- (C) When patterns are too drawn out, correct by turning the dial in the direction of “-”.



• Adjusting distorted letters or numbers in B or C Mode

If letters are uneven when sewn on a particular fabric, select pattern 8 to test the stitch then turn the feed balancing dial with a coin.

- (A) When the letters or numbers overlap, turn the dial to “+”.
- (B) Correct setting
- (C) When the letters or numbers are too drawn out, turn the dial to “-”.












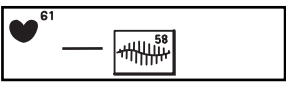

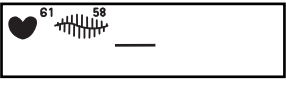
• Adjusting the stitch density for buttonhole 20


- (A) Right side is denser
- (B) Correct setting
- (C) Left side is denser

If the left side of the buttonhole (A) is coarser than the right side, turn the feed balancing dial to “+”.

If the right side of the buttonhole (B) is coarser than the left side, turn the feed balancing dial to the “-”.

○ DIRECT
 ✨ 01~99
 ○ A01~67
 ○ A01~67

- 

- 


- 

- 


- 











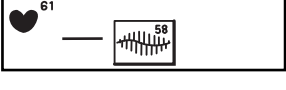

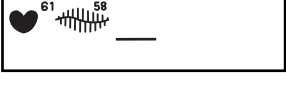


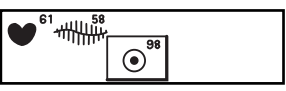





Programming Decorative Stitch Patterns 61, 58

To repeat or continue the same combination of stitches, just press the foot control.

- Press the Mode key and select A Mode.
- Select stitch pattern 61.
- Press memory key.
- Select stitch pattern 58.
- Press memory key.

○ DIRECT
 ✨ 01~99
 ○ A01~67
 ○ A01~67

- 

- 


- 

- 


- 

- 


- 


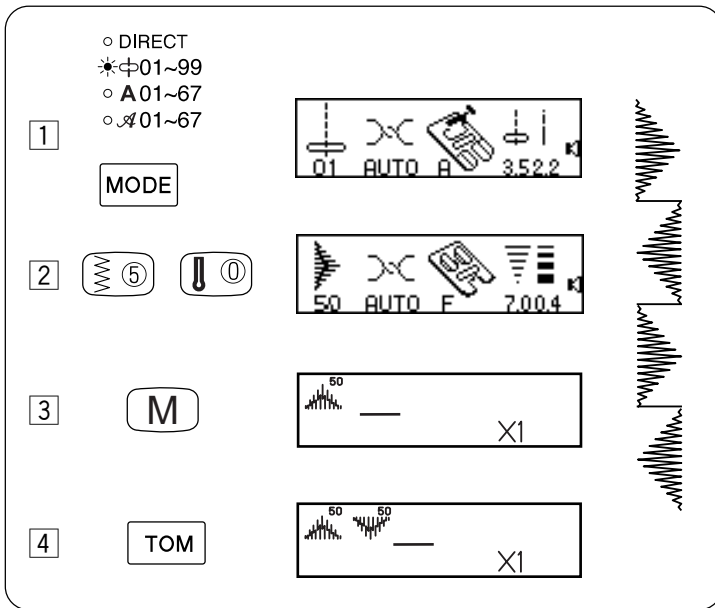


- A programmed stitch sewing pattern finishing with auto-lock, stitches 61, 58, 98

Stitch patterns: 61, 58, 98

The memorized patterns will be sewn and stop automatically.

- Press the Mode key and select A Mode.
- Select stitch pattern 61.
- Press memory key.
- Select pattern 58.
- Press memory key.
- Select stitch pattern 98.
- Press memory key.



Cycle Stitching with Mirror Image Patterns

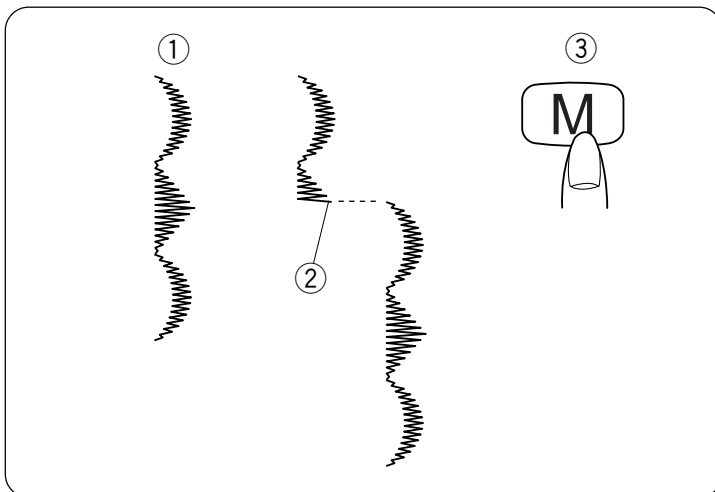
After selecting a pattern, press the Turn-over memory key. Press the Mode key and select A Mode.

1 Press Mode key and select A Mode.

2 Press stitch pattern 50.

3 Press memory key.

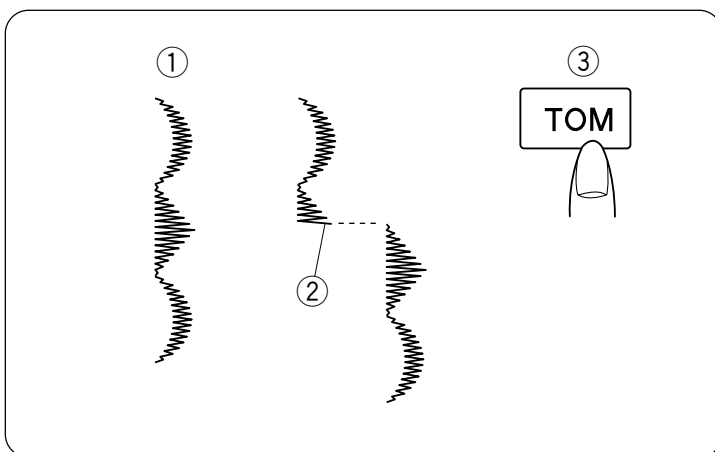
4 Press Turn-over memory (TOM) key



Restarting Programmed Patterns

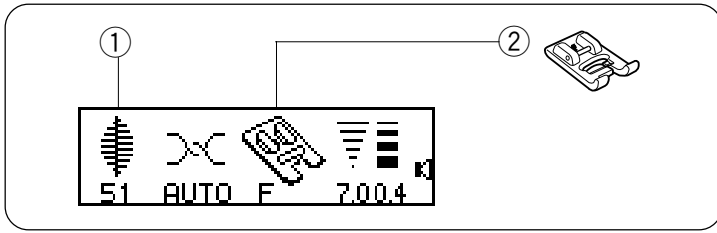
After stopping in the middle of your sewing, press memory key to return to the starting position of your programmed stitch pattern.

- 1 Contents of program.
- 2 The position where machine is stopped.
- 3 Press memory key after machine is stopped.



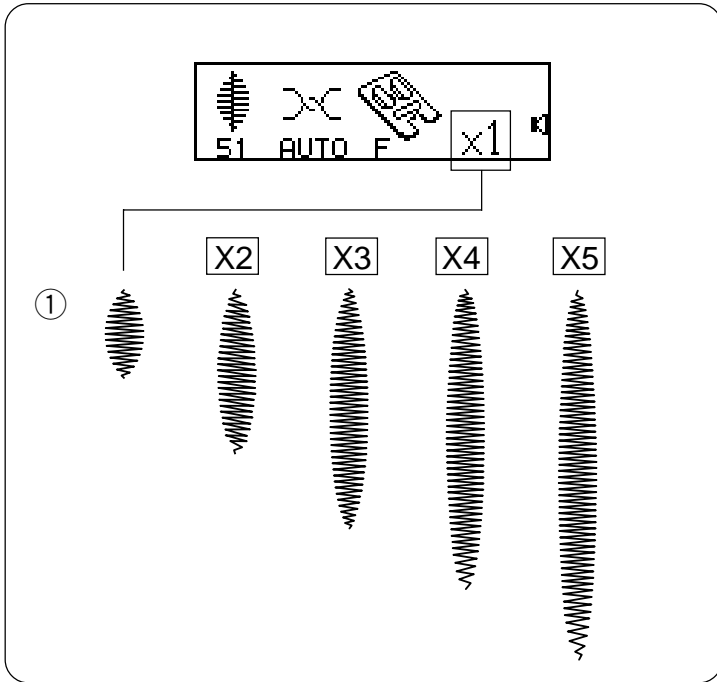
After stopping in the middle of your sewing, press Turn-over memory key to return to the beginning of the last pattern sewn.

- 1 Contents of program.
- 2 The position where machine is stopped.
- 3 Press Turn-over memory key after machine is stopped.



Elongation

- ① Stitch pattern: 51
- ② Presser foot: Satin stitch foot F

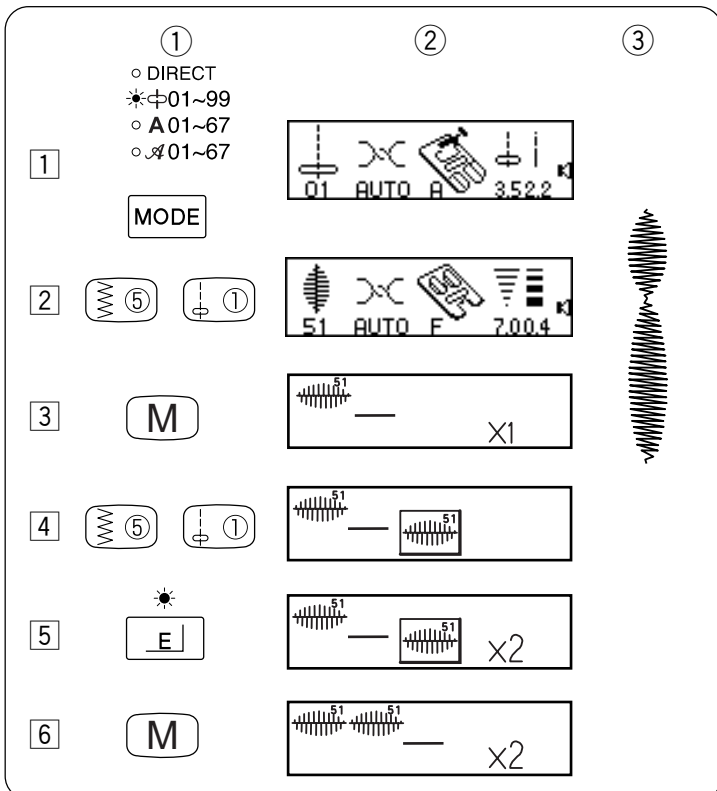


The stitch can be elongated up to five times its normal length by pressing the “ ” key.

When the width or length or stitch is changed, a greater variety of patterns are available.

Stitch patterns (45 to 60) can also be used.

- ① Elongated stitch patterns (Drawings)



• Sewing sample, stitch pattern 51

- ① A Mode
- ② LCD screen
- ③ Stitch patterns

1 Press the Mode key to select A Mode.

2 Select stitch pattern 51.

3 Press memory key.

4 Select stitch pattern 51.

5 Press elongation key twice to make the enlarged stitch length.

6 Press memory key.

①
 ○ DIRECT
 ○ 01~99
 *A01~67
 ○ 01~67

②

③

1 MODE

2 ↓ ② | | ⑨

3 M

4 ⌘ ⑤ | ⌘ ⑦

5 M

6 ⌘ ⑤ | | ⑩

7 M

8 ⌘ ④ | | ⑩

9 M

10 ↓ ③ | ⌘ ⑦

11 M

12 ⌘ ⑥ | ↓ ①

13 M

Sunday

Sewing Letters in Block Style

- ① B Mode
 - ② LCD screen
 - ③ Stitch patterns
- 1 Press the Mode key and select B Mode.
 - 2 Select stitch pattern 29.
 - 3 Press memory key.
 - 4 Select stitch pattern 57.
 - 5 Press memory key.
 - 6 Select stitch pattern 50.
 - 7 Press memory key.
 - 8 Select stitch pattern 40.
 - 9 Press memory key.
 - 10 Select stitch pattern 37.
 - 11 Press memory key.
 - 12 Select stitch pattern 61.
 - 13 Press memory key.

	①	②	③
	○ DIRECT ○ ①01~99 ○ A01~67 * ①01~67		
1	MODE		
2	① ①		
3	M		A . B . C .
4	⑥ ③		
5	M		
6	① ②		
7	M		
8	⑥ ③		
9	M		
10	① ③		
11	M		
12	⑥ ③		
13	M		

Combining Letters in Script Style

- ① C Mode
- ② LCD screen
- ③ Stitch patterns

1 Press the Mode key and select C Mode.

2 Select stitch pattern 11.

3 Press memory key.

4 Select stitch pattern 63.

5 Press memory key.

6 Select stitch pattern 12.

7 Press memory key.

8 Select stitch pattern 63.

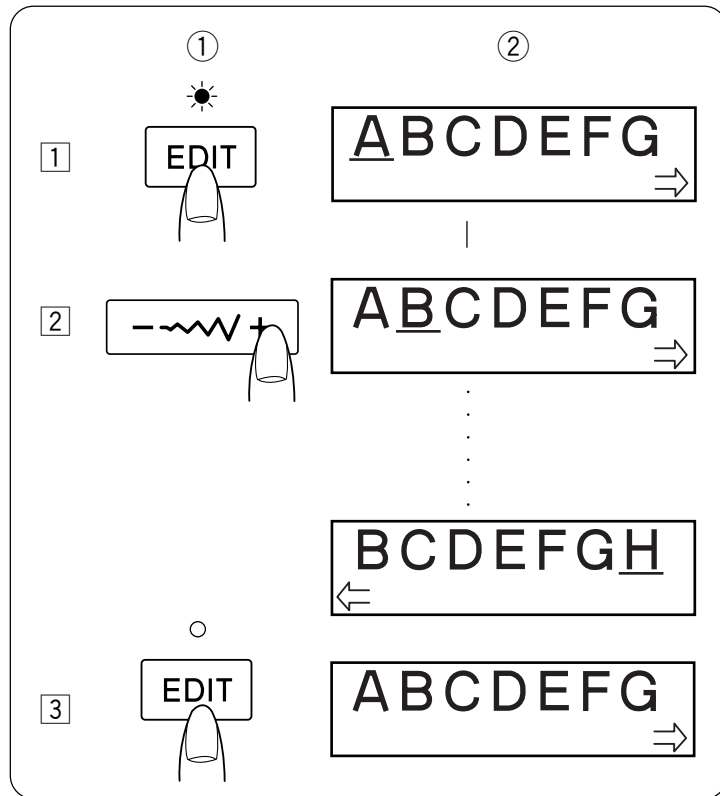
9 Press memory key.

10 Select stitch pattern 13.

11 Press memory key.

12 Select stitch pattern 63.

13 Press memory key.



Editing Function (1)

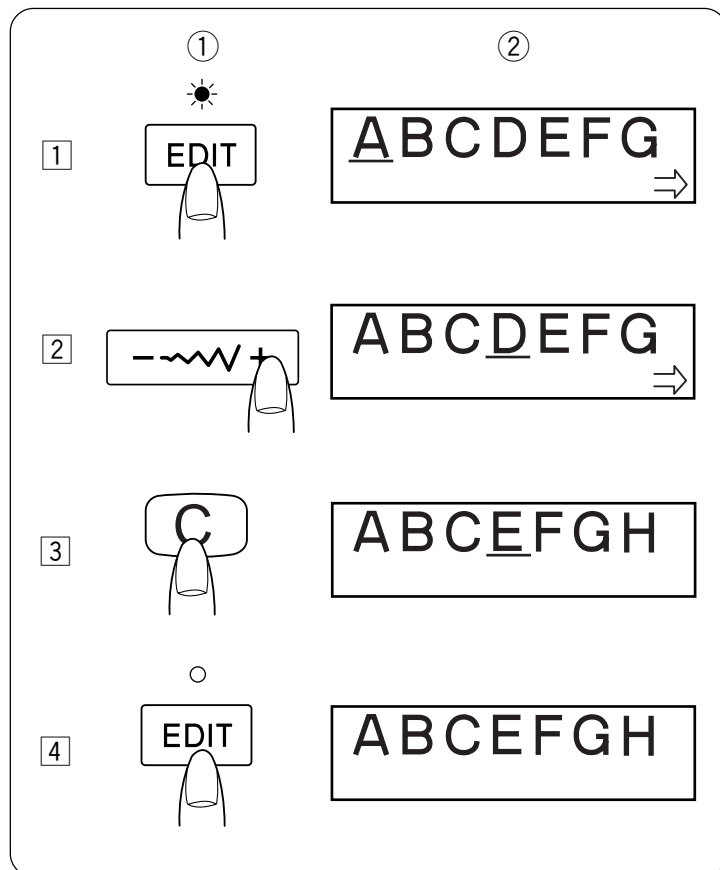
- Check and correct pattern combination before sewing

- ① Editing key
- ② LCD screen

Example: ABCDEFGH have been memorized.
Confirmation of programming.

- 1 Press “EDIT” key.
The cursor will flash under the first letter selection.
 - 2 Shift the cursor by pressing the stitch width key “+” or “-”.
- * The arrow to the right means there are some more letters after “G”, the arrow to the left means there are some letters before “B”.

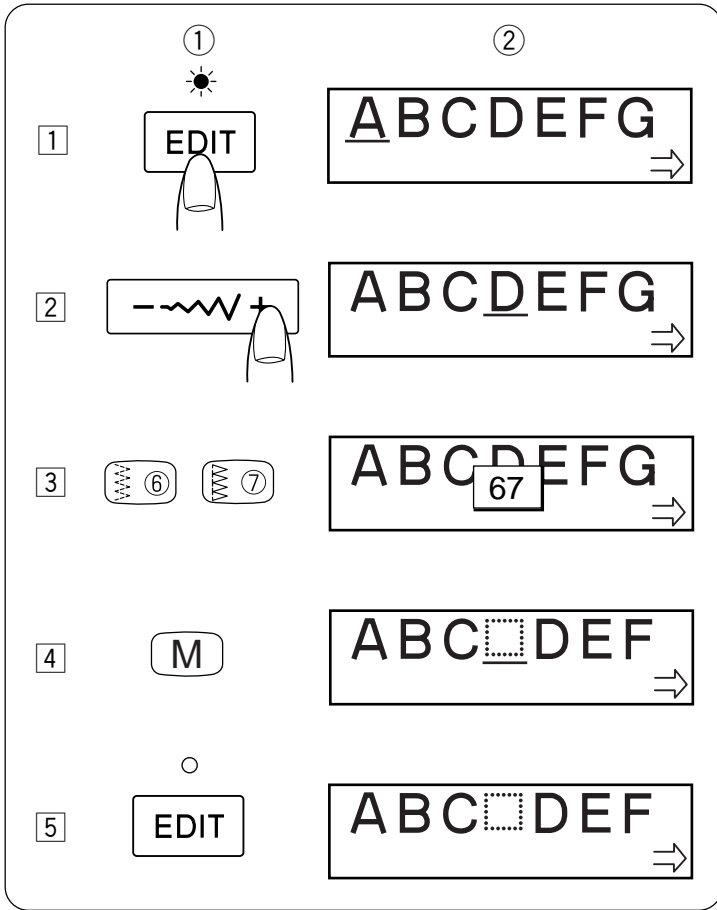
- 3 Press “EDIT” key to return to the starting position.



- Deleting a stitch pattern, letter or number by editing

- ① Editing key
- ② LCD screen

- 1 Press “EDIT” key.
- 2 Shift the cursor to letter “D” by pressing the zigzag width key “+”.
- 3 Press “Clear” key.
- 4 Press “EDIT” key.



• Adding letters or space between letters

- ① Editing key
- ② LCD screen

- 1 Press "EDIT" key.
- 2 Press the stitch width key "+" and shift the cursor past the last letter where you would like to add letters or space.
- 3 Input the stitch pattern 67 (space key).
- 4 Press memory key to input stitch pattern 67.
- 5 Press "EDIT" key.

Editing Function (2)

• Uniform width, length adjustment

- ① Stitch width key
- ② LCD screen
- ③ Stitch patterns
- ④ Pre-set stitch width before change
- ⑤ Stitch width at 5.0 after selection

The entire programmed stitch pattern is memorized as one stitch.

The stitch length, stitch width and the of the patterns can be adjusted manually as shown.

Example: To adjust the zigzag width:

- ① Press the Mode key and select A Mode
- ② Input stitch patterns 53, 51, 53.
- ③ Press stitch width key.
- ④ Press “-” key to set the stitch width at “5”.

Editing Function (3)

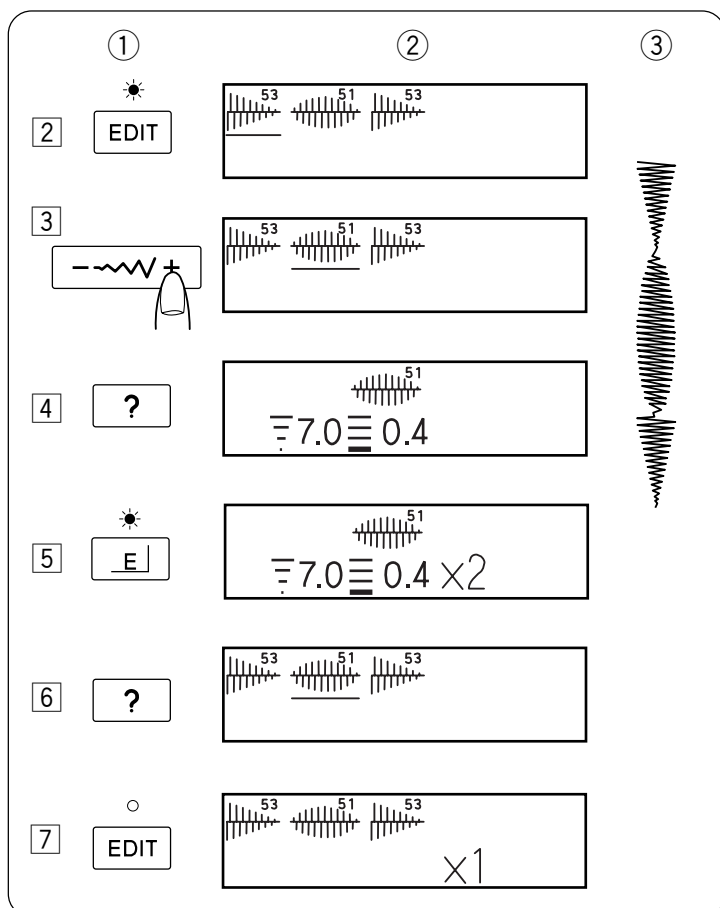
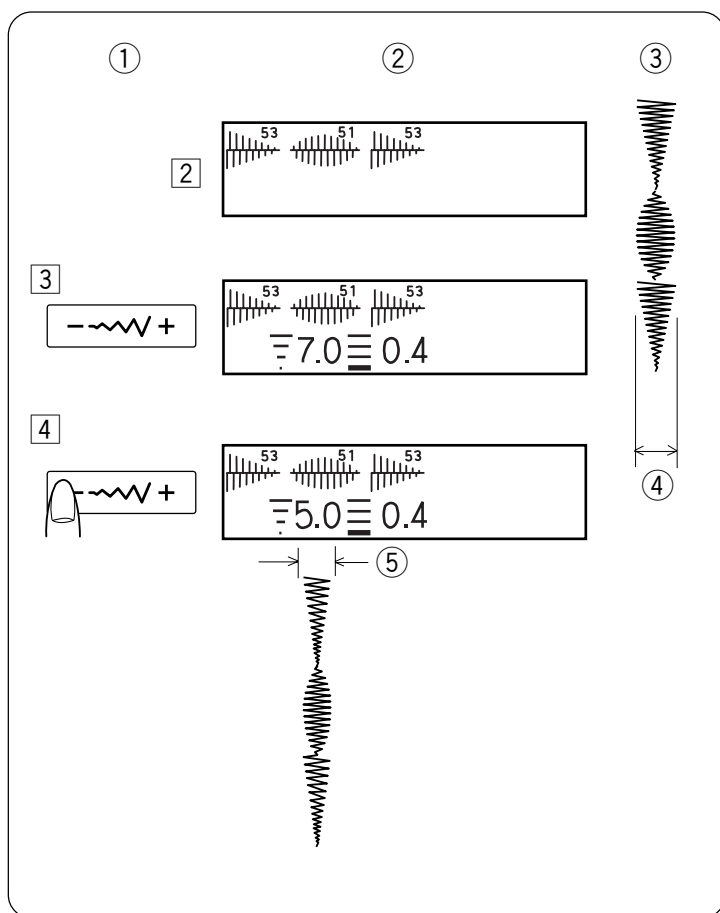
• Custom stitch sizing

- ① Editing key
- ② LCD screen
- ③ Stitch patterns

Adjust the stitch width and length of the memorized individual patterns.

(Example): To change the length and width of a particular pattern (Stitch patterns 53, 51, 53)

- ① Press the Mode key and select A Mode.
- ② Press “EDIT” key.
- ③ Press the stitch width key “+” or “-” to slide the cursor where you would like to change the stitch pattern length.
- ④ Press “?” Message key.
- ⑤ Press $\left[\begin{smallmatrix} * \\ \text{E} \end{smallmatrix} \right]$ Elongation key twice to get “x2” length.
- ⑥ Press “?” Message key.
- ⑦ Press a “EDIT” key.



SECTION V CARE OF YOUR MACHINE

Care of Your Machine

- | | |
|----------------|-------------------|
| ① Screw driver | ② Set screw |
| ③ Needle plate | ④ Bobbin holder |
| ⑤ Lint brush | ⑥ Feed dogs |
| ⑦ Hook race | ⑧ Soft, dry cloth |

Press the needle Up/down button to raise the needle and unplug the machine before cleaning.

Do not dismantle the machine other than explained on this page.

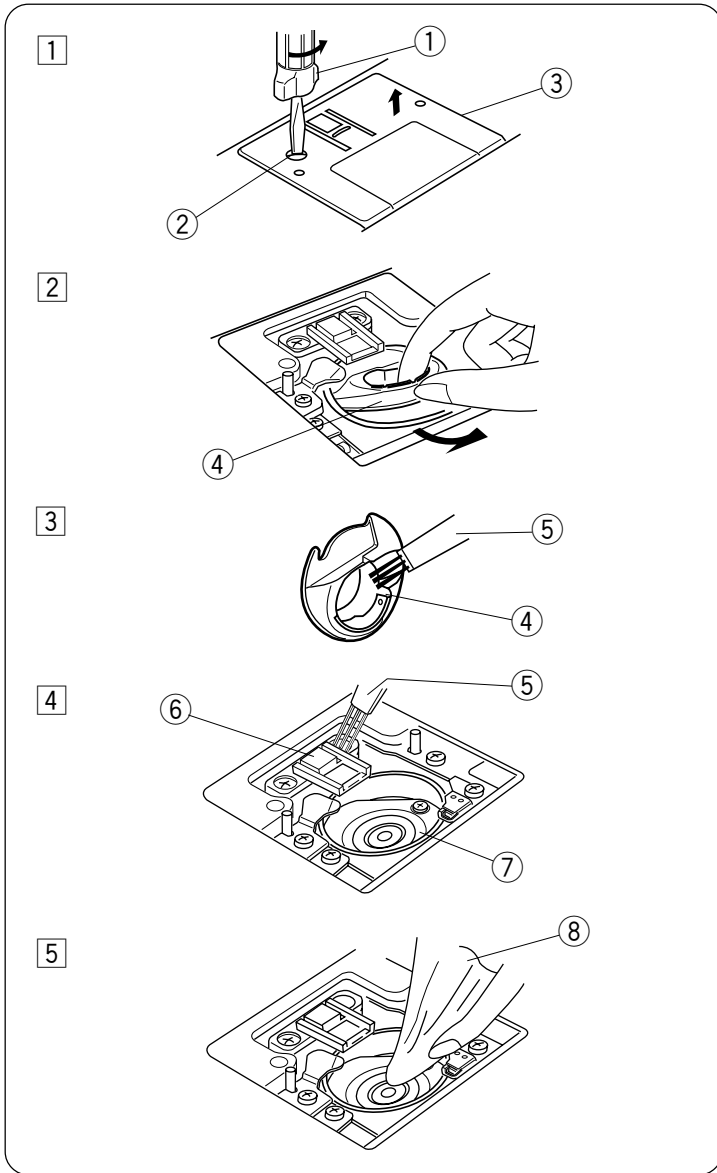
Do not store the machine in a high-humidity area, near a heat radiator or in direct sunlight.

Clean the outside of the machine with a soft cloth and neutral soap.

Cleaning the Hook Race and Feed Dogs

- 1 Remove the presser foot and needle. Remove the screw on the left side of the needle plate with the screwdriver supplied with the machine.
- 2 Remove the needle plate and take out the bobbin. Lift up the bobbin holder and remove it.
- 3 Brush out dust and lint inside the bobbin holder.
- 4 Clean the feed dogs and the hook race with the lint brush.
- 5 Clean the inside of the bobbin holder with a dry cloth or a lint brush.

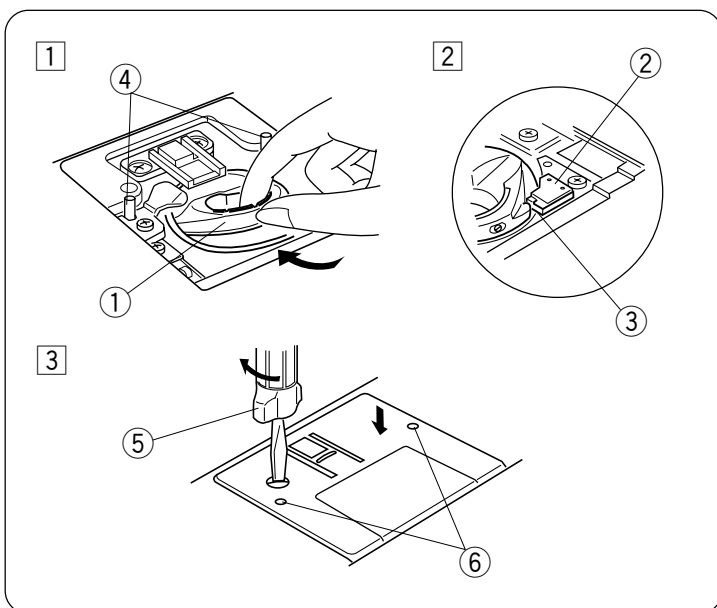
* Wipe out gently with soft, dry cloth. You may also use a vacuum cleaner.



Replacing the Bobbin Holder

- | |
|---------------------------|
| ① Bobbin holder |
| ② Stopper |
| ③ Knob |
| ④ Needle plate guide pins |
| ⑤ Screwdriver |
| ⑥ Guide holes |

- 1 Insert the bobbin holder so that the knob fits next to the stopper in the hook race.
- 2 Insert the bobbin.
- 3 Replace the needle plate, inserting the two needle plate guide pins into the holes in the needle plate. Replace the screw.



Replacing the Light Bulb

- ① Face cover plate
- ② Lamp socket
- ③ Holder
- ④ Light bulb
- ⑤ Pins

* Turn the power switch off.

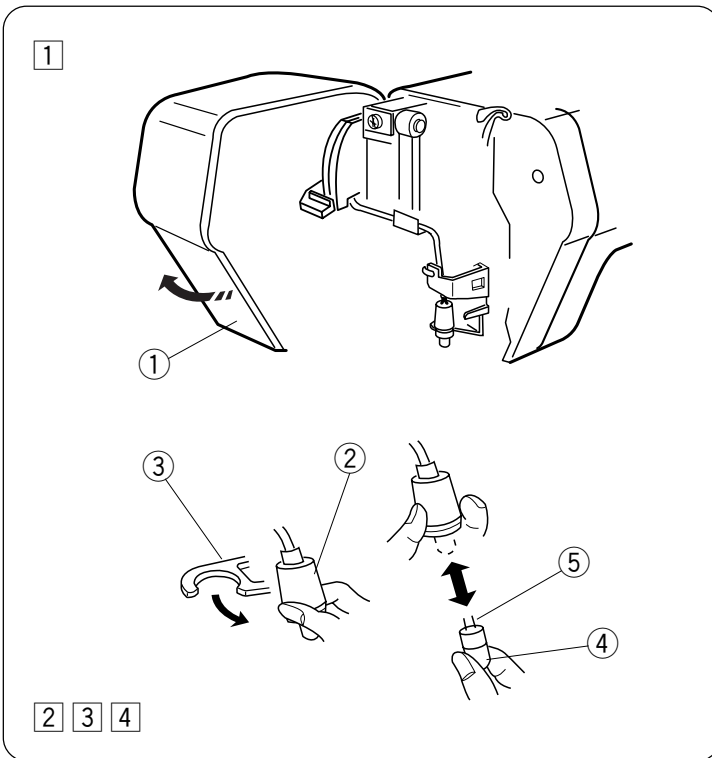
* Wait until the bulb has cooled down before touching it.

• Removing the light bulb

- ① Open face cover plate.
- ② Remove the black rubber lamp socket from the lamp holder and pull out the light bulb.

• Attaching the light bulb

- ③ To insert the light bulb in the lamp socket, match the pins on the light bulb with the lamp socket holes.
- ④ Attach the lamp socket on the holder and close face cover plate.



Troubleshooting

Condition	Cause	Reference
The needle thread breaks.	<ol style="list-style-type: none"> 1. The needle thread is not threaded properly. 2. The needle thread tension is too tight. 3. The needle is bent or blunt. 4. The needle is incorrectly inserted. 5. The needle thread and the bobbin thread are not drawn to the rear when sewing is started. 6. The fabric is not drawn to the rear when sewing is finished. 7. The thread is too heavy or too fine for the needle. 	<p>Page 19</p> <p>Page 22</p> <p>Page 14</p> <p>Page 14</p> <p>Page 21</p> <p>Page 23</p> <p>Page 15</p>
The bobbin thread breaks.	<ol style="list-style-type: none"> 1. The bobbin thread is not threaded properly in the bobbin holder. 2. Lint has collected in the bobbin holder. 3. The bobbin is damaged and doesn't turn smoothly. 	<p>Page 18</p> <p>Page 64</p> <p>Change the bobbin</p>
The needle breaks.	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The needle clamp screw is loose. 4. The needle thread tension is too tight. 5. The fabric is not drawn to the rear when sewing is finished. 6. The needle is too fine for the fabric being sewn. 	<p>Page 14</p> <p>Page 14</p> <p>Page 14</p> <p>Page 22</p> <p>Page 23</p> <p>Page 15</p>
Screen is not clear.	<ol style="list-style-type: none"> 1. The sharpness of the liquid crystal display is not adjusted properly. 	<p>Page 4</p>
Skipped stitches	<ol style="list-style-type: none"> 1. The needle is incorrectly inserted. 2. The needle is bent or blunt. 3. The needle and/or threads are not suitable for the work being sewn. 4. A blue tipped needle is not being used for sewing stretch, very fine fabrics or synthetics. 5. The needle thread is not threaded properly. 6. The presser foot pressure is not strong enough. 7. The wrong needle is being used. 	<p>Page 14</p> <p>Page 14</p> <p>Page 15</p> <p>Page 15</p> <p>Page 19</p> <p>Page 13</p> <p>Change the needle</p>
Seam puckering	<ol style="list-style-type: none"> 1. The needle thread tension is too tight. 2. The needle thread is not threaded properly. 3. The needle is too heavy for the fabric being sewn. 4. The stitch length is too long for the fabric. 5. The presser foot pressure is not correctly adjusted. 	<p>Page 22</p> <p>Page 19</p> <p>Page 15</p> <p>Make stitch denser</p> <p>Page 13</p>
The cloth is not feeding smoothly.	<ol style="list-style-type: none"> 1. The feed dog is packed with lint. 2. The presser foot pressure is too weak. 3. The stitches are too fine. 4. Feed dogs are lowered. 5. The correct presser foot is not being used. 	<p>Page 64</p> <p>Page 13</p> <p>Make stitch coarser</p> <p>Page 13</p> <p>Page 13</p>

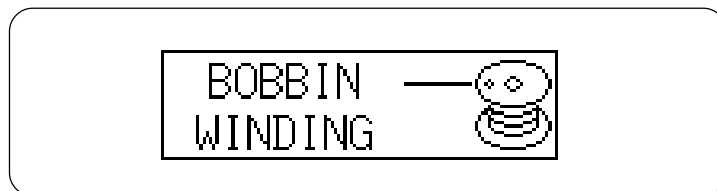
Troubleshooting, cont'd

Condition	Cause	Reference
The machine doesn't work.	<ol style="list-style-type: none"> 1. The machine is not plugged in. 2. A thread is caught in the hook race. 3. The bobbin winder spindle is still in the winding position. 	Page 6 Page 64 Page 17
Patterns are distorted.	<ol style="list-style-type: none"> 1. The correct presser foot is not used. 2. The needle thread tension is too tight. 3. The stitch length is not suitable for the fabric being sewn. 4. Feed balancing dial is not set properly. 5. Interfacing is not being used for sewing stretch and very fine fabrics. 	Page 13 Page 22 Make stitch adj. Page 55 Page 29
The automatic buttonhole stitches are not working.	<ol style="list-style-type: none"> 1. The stitch length is not suitable for the fabric being sewn. 2. The feed balancing dial is not set properly. 3. Interfacing is not used with stretch fabrics. 4. The presser foot is not the correct one. 5. The machine setting is incorrect. 	Make stitch adj. Page 55 Page 29 Page 13 Page 34
Noisy operation	<ol style="list-style-type: none"> 1. There is thread caught in the hook race. 2. Lint has built up in the bobbin holder or hook race. 3. Slight humming sound coming from internal motor. 4. The feed dogs are packed with lint. 	Page 64 Page 64 Normal Page 64
Machine stalls and the message "STOP FOR SAFETY PURPOSES" appears on the screen.	<ol style="list-style-type: none"> 1. Lint has built up in the hook race. 2. Needle or bobbin thread is not correctly threaded. 3. The fabric is too thick. 	Page 64 Page 18, 19 Page 24

• When message appears on the screen

The liquid crystal display shows "BOBBIN WINDING".

After the bobbin is wound, return the bobbin winder to its original position by moving the spindle to the left.



The message "STOP FOR SAFETY PURPOSES....." appears on the screen when the machine is overloaded.

Stop operating the machine until this message disappears (about 15 seconds).



