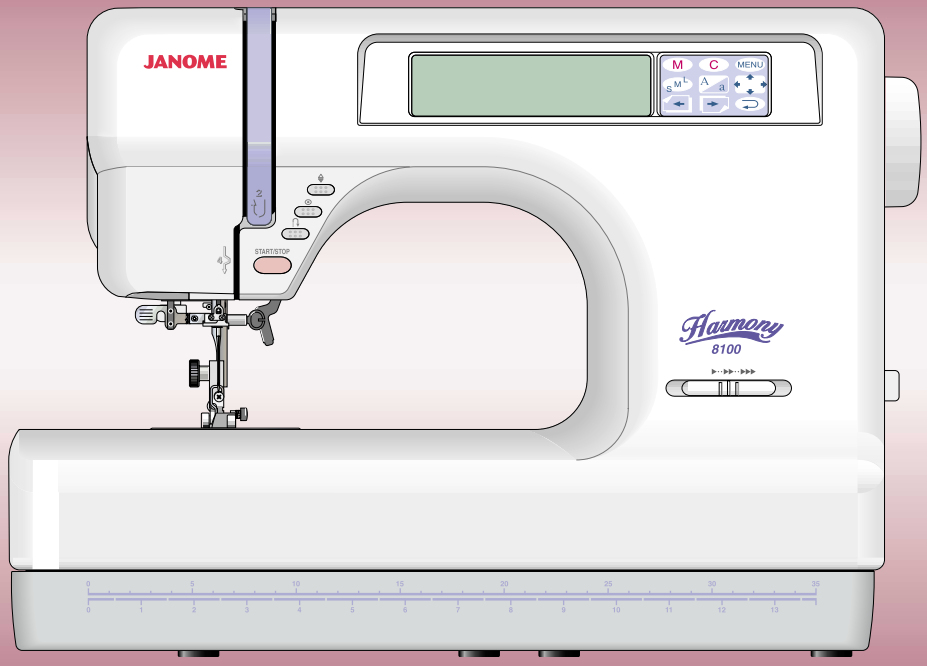
INSTRUCTION BOOK



Harmony

8100

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:
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 13.2 V d.c., 3 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 dealer 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

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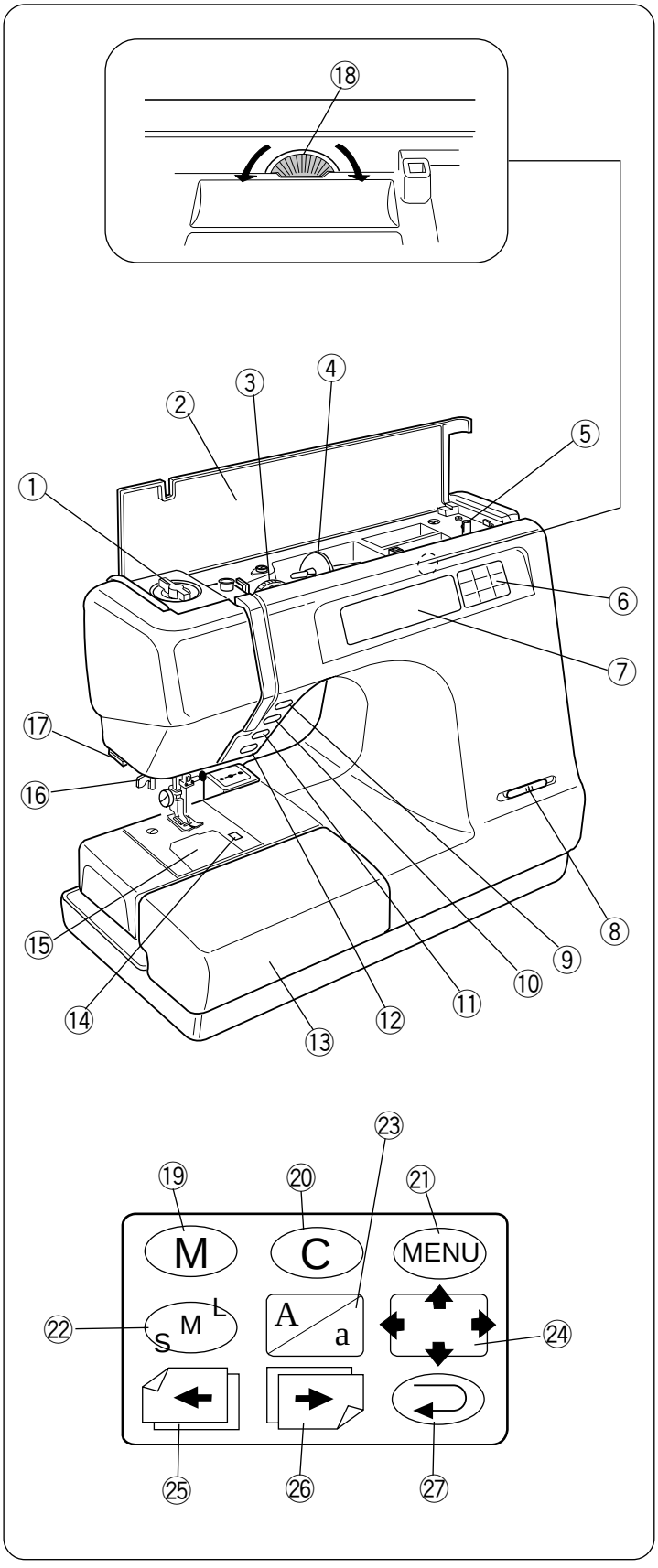
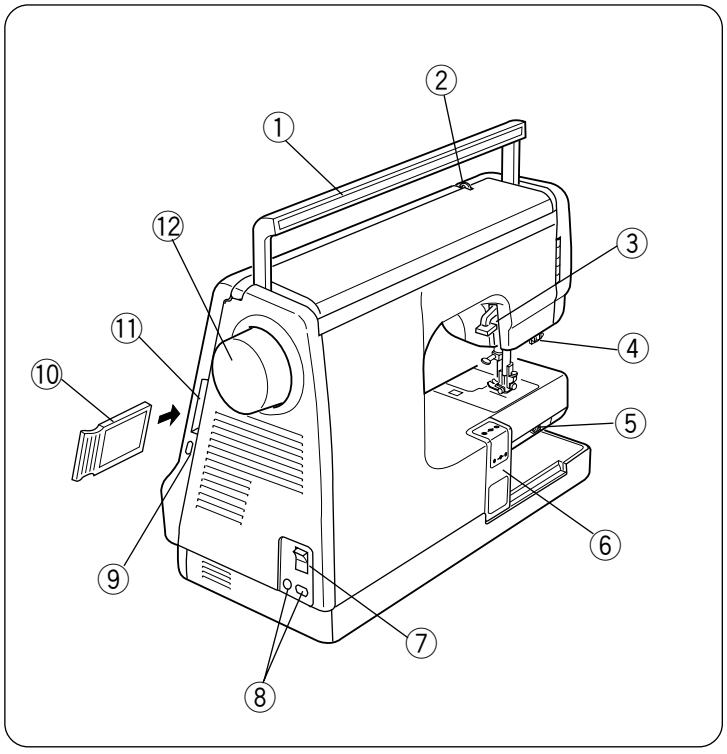


Names of Parts

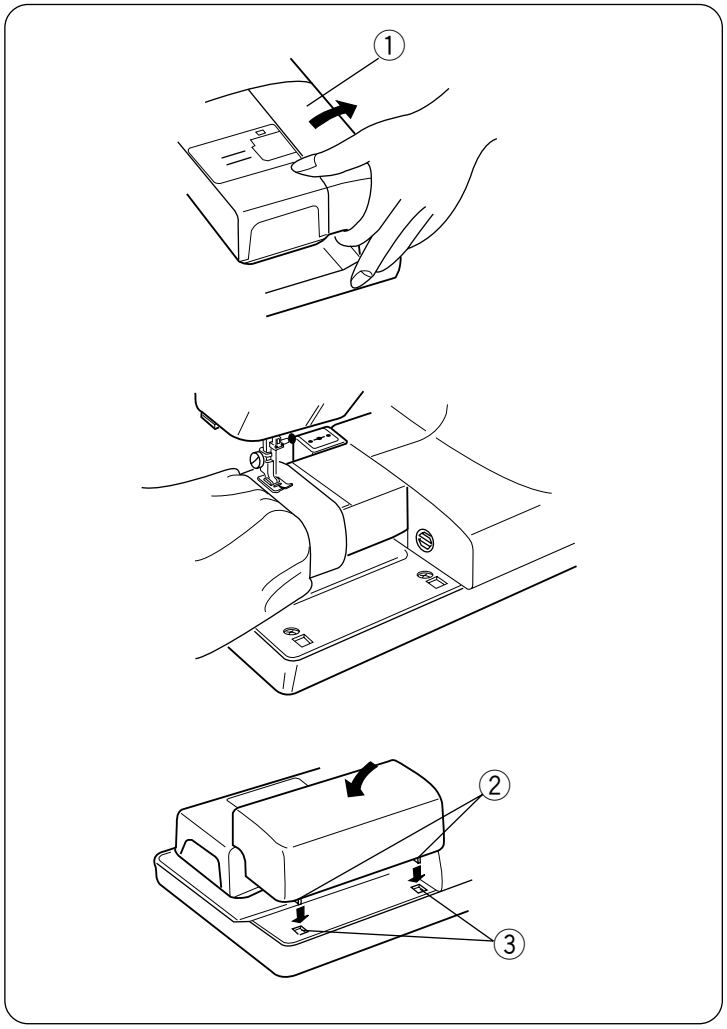
① Pressure dial
② Flip-top sewing instruction panel
③ Thread tension dial
④ Spool holder (Large)
⑤ Bobbin winder spindle
⑥ Key pad
⑦ Visual touch screen
⑧ Speed setting lever
⑨ Up/down needle button
⑩ Auto-lock button
⑪ Reverse button
⑫ Start/stop button
⑬ Extension table (Accessory box)
⑭ Hook cover plate release button
⑮ Hook cover plate
⑯ Needle threader
⑰ Thread cutter
⑱ Screen sharpness adjustment dial*
⑲ Memory key (see page 33 and 46)
⑳ Clear key (see page 46)
㉑ Menu key (see pages 15 and 42)
㉒ Letter size key (see pages 45 and 48)
㉓ Letter style key (see page 45)
㉔ Space check key (see page 48 and 49)
㉕ Previous page key (see page 15)
㉖ Next page key (see page 15)
㉗ Return key (see pages 15, 27 and 48)

* Brightness of the screen can be changed by turning the screen sharpness adjustment dial (located beneath the flip-top sewing instruction panel).



Names of Parts

① Carrying handle
② Thread take-up lever
③ Presser foot lifter
④ Buttonhole lever
⑤ Drop feed lever
⑥ Carriage
⑦ Power switch
⑧ Machine sockets
⑨ Card eject button
⑩ Memory card
⑪ Memory card slot
⑫ Handwheel



Detachable Extension Table

For Free Arm Sewing

To remove, lift out the extension table toward you as illustrated.

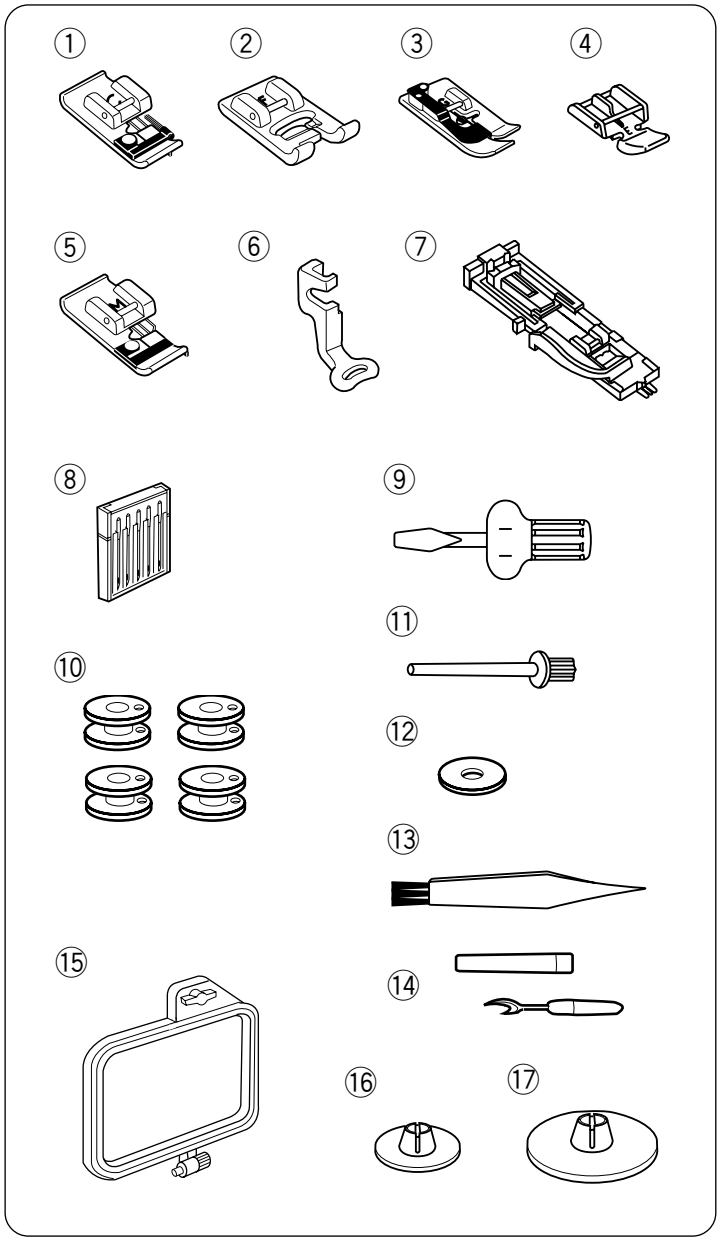
Advantages of free arm sewing:

* Avoid fabric bunching around the needle when bar tacking to reinforce pockets, plackets and waistlines.
* For stitching sleeves, waistbands, pants legs, or any circular garment area.
* For darning socks or mending knees, elbows, or areas of wear in children's clothes.

For Flat-bed Sewing

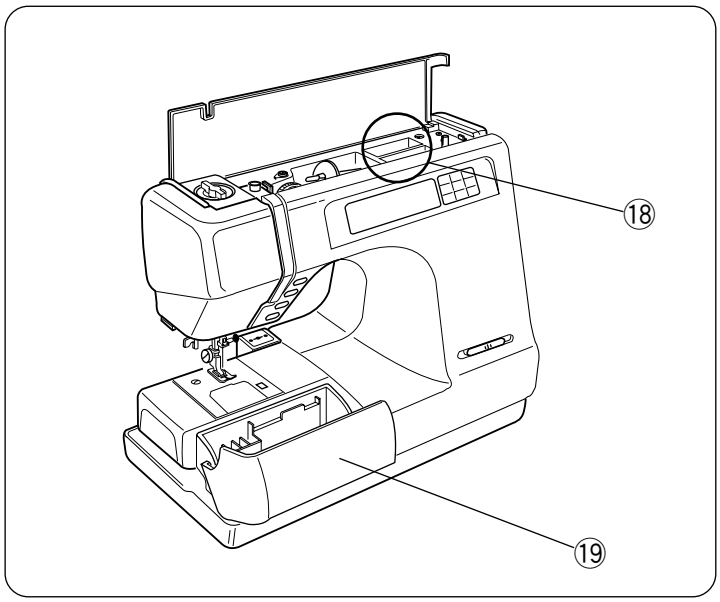
Position the tabs on the base grooves and push down gently.

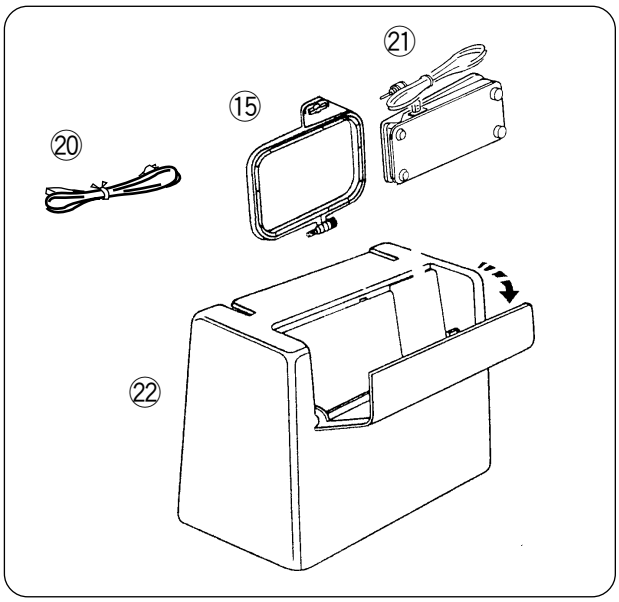
① Extension table
② Tabs
③ Base grooves

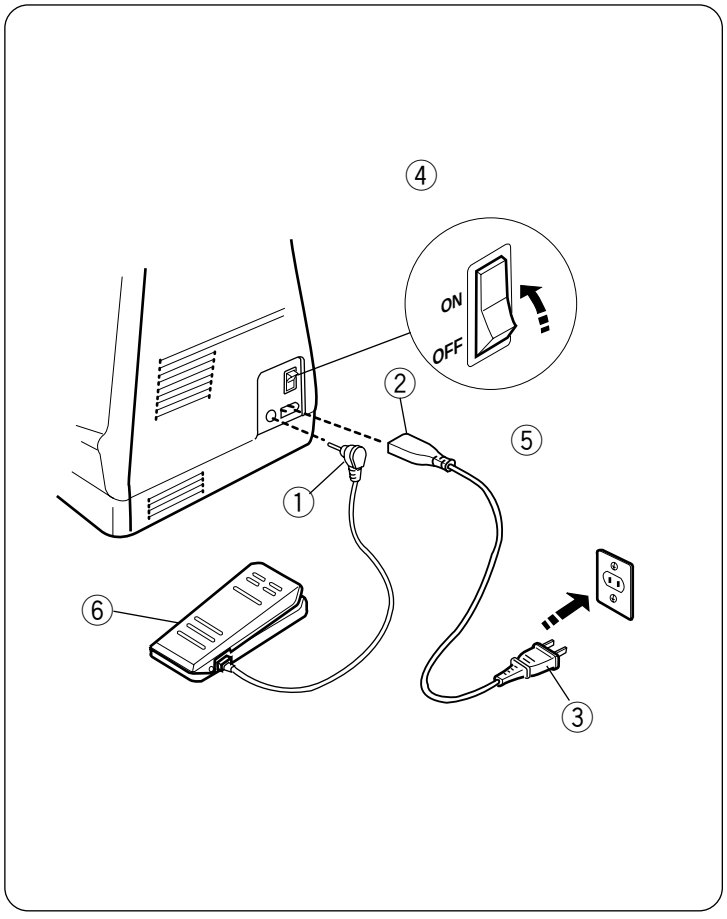


Standard Accessories

① C: Overedge foot
② F: Satin stitch foot
③ G: Blind hem foot
④ E: Zipper foot
⑤ M: Overcasting foot
⑥ P: Embroidery foot
⑦ R: Automatic buttonhole foot
⑧ Set of needles
⑨ Screwdriver
⑩ Bobbins
⑪ Additional spool pin
⑫ Spool pin felt
⑬ Lint brush
⑭ Seam ripper
⑮ Embroidery hoop No. 1
⑯ Small spool holder
⑰ Large spool holder
⑱ Foot compartment
⑲ Extension table (Accessory Box)
⑳ Power supply cord
㉑ Foot control
㉒ Carrying case







Connecting Machine to Power Supply

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

- **To sew using foot control**
  * 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 wall in this order.

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

- **To sew using start/stop button**
  * Turn off the power switch, insert only the machine plug ② into the machine and power supply plug ③ into the wall.
  * Turn on the power switch.

Note:

* The foot control cannot be used in embroidery mode.
* If you turn off the power switch, wait 5 seconds before turning it on again.
* After turning on the power it is not abnormal to hear a slight humming sound coming from the internal motor.

For Your Safety

1. While in operation, always keep your eye on the sewing area, and do not touch any moving parts such as the thread take-up lever, handwheel or needle.
2. 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.
3. Do not place anything on the foot control, except in use.

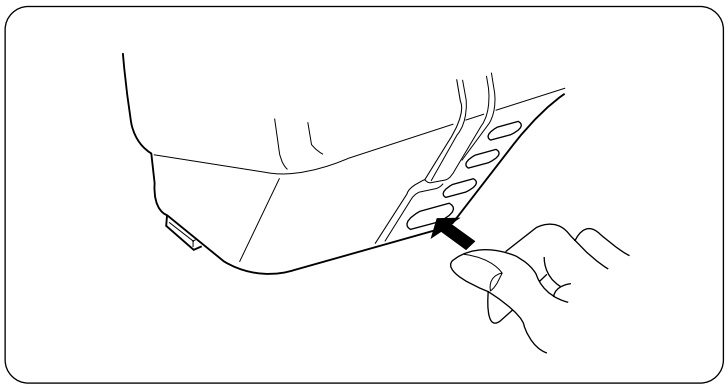
Operating Instructions:

The symbol "0" of a switch indicates the "off" position of a switch.

"For appliances with a polarized plug (one blade wider than the other).
To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way. If the plug 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 or Model 21249 for use with Sewing Machine Model 8100."
(For U.S.A. market only).

Controlling Sewing Speed

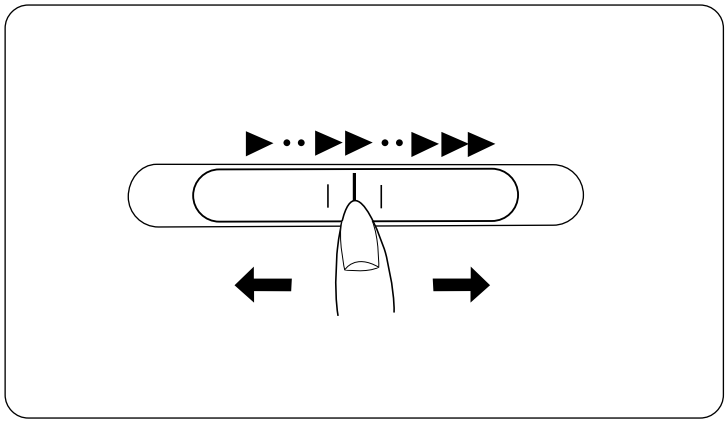


- **To Use Start/Stop Button**

To use this button you must disconnect the foot control from the machine.

This button can be used for Professional style Embroidery. It can be also be used for ordinary sewing, if you wish. The machine starts running slowly for the first few stitches, then it runs at the speed set by the speed setting lever.

* You cannot use the Start/Stop button when the foot c ontrol is connected to the sewing machine.

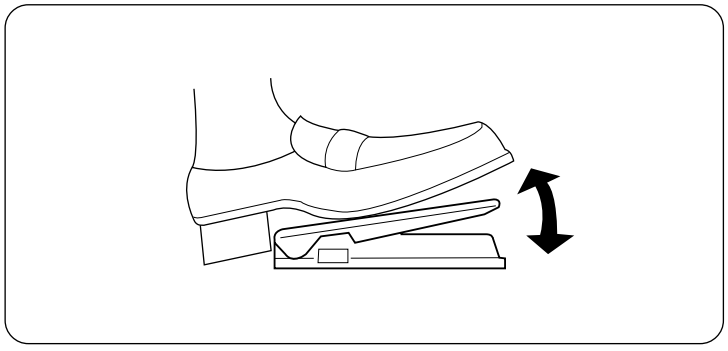


- **Speed Setting Lever**

Sewing speed can be controlled by the speed setting lever.

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

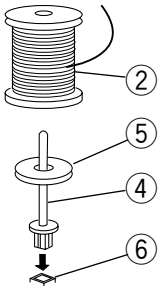
To decrease sewing speed, slide the lever to the left.

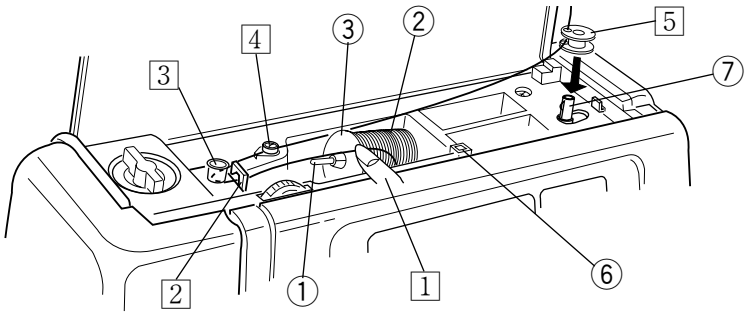


- **To Use Foot Control**

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

* To use the foot control, slide the speed setting lever to “High”.





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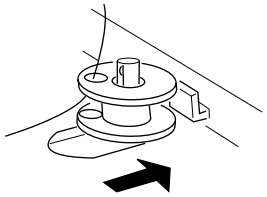

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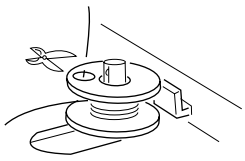

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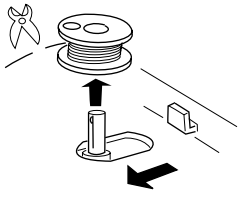


Winding the Bobbin

1 Lift up the spool pin. Place the spool of thread on the spool pin with the thread coming off the spool as shown.
Attach the large spool holder, and press it firmly against the spool of thread.
* The small spool holder is used with narrow or small spools of thread.
* To use the additional spool pin, guide the upper thread as shown in 2, 3 and then 4.

2 Pass the thread under the thread guide.

3 Guide the thread around the thread guide.

4 Pass the thread through the thread guide.

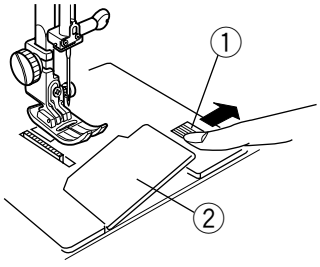
5 Thread through the hole in the bobbin from the inside to the outside. Put the bobbin on the bobbin winder spindle.

6 Push the bobbin to the right.

7 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.

8 Depress the foot control again. When the bobbin is fully wound, it will stop automatically. Return the bobbin winder to its original position by moving the spindle to the left, and cut the thread as shown.
* The machine will not sew until the spindle is in the left position.

① Spool pin ② Spool ③ Spool holder
④ Additional spool pin ⑤ Felt
⑥ Additional spool pin hole
⑦ Bobbin winder spindle



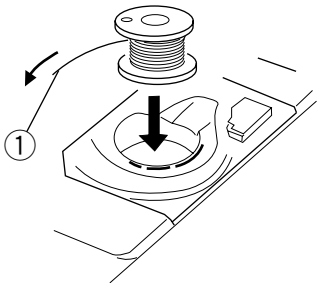
- **Removing the Bobbin**

Slide the hook cover plate release button to the right, and remove the cover plate.

① Hook cover plate release button
② Hook cover plate

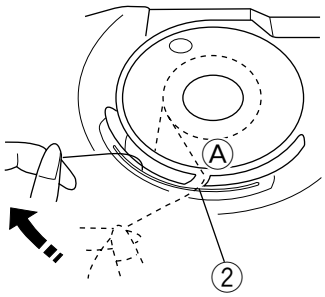
• **Inserting the Bobbin**

1



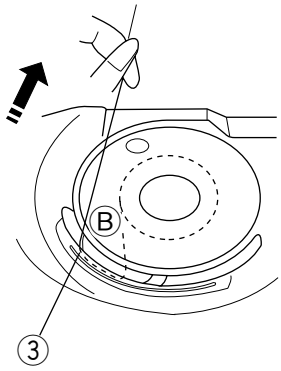
1 Place the bobbin in the bobbin holder with the thread running off in the counterclockwise direction.
① End of thread

2



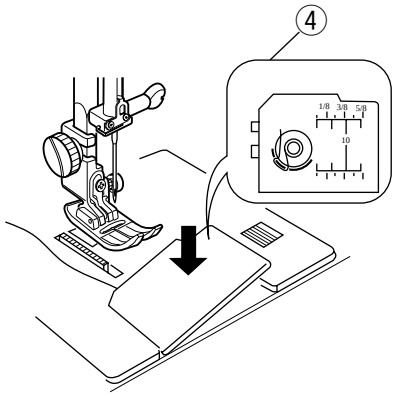
2 Guide the thread into the Notch Ⓐ on the front side of the bobbin holder.
Draw the thread to the left, sliding it between the tension spring blades.
② Notch Ⓐ

3

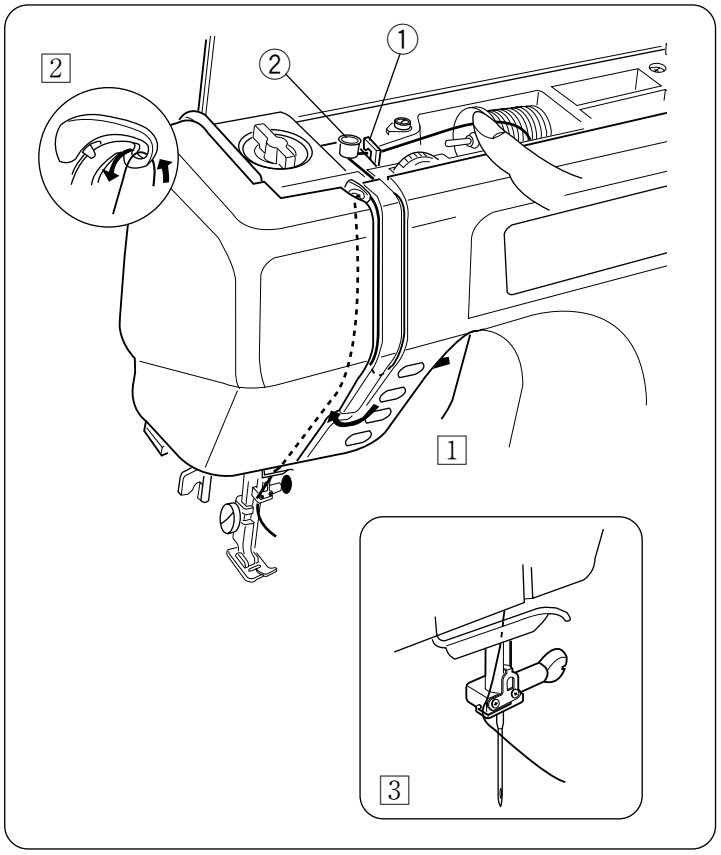


3 Continue to draw the thread lightly until the thread slips into Notch Ⓑ.
Pull out about 15 cm (6″) of thread.
③ Notch Ⓑ

4



4 Attach the hook cover plate.
Check the threading by referring to the chart shown on the hook cover plate.
④ Threading chart



Threading the Machine

- **Threading the Machine**

1 Raise the presser foot lifter. Press the up/down needle button twice to raise the needle (see page 10). Hold the upper thread as shown and pass the thread under the thread guide ①.

Guide the thread around thread guide ② as shown.

Pull the thread down and around the check spring holder from right to left, then pull up the thread.

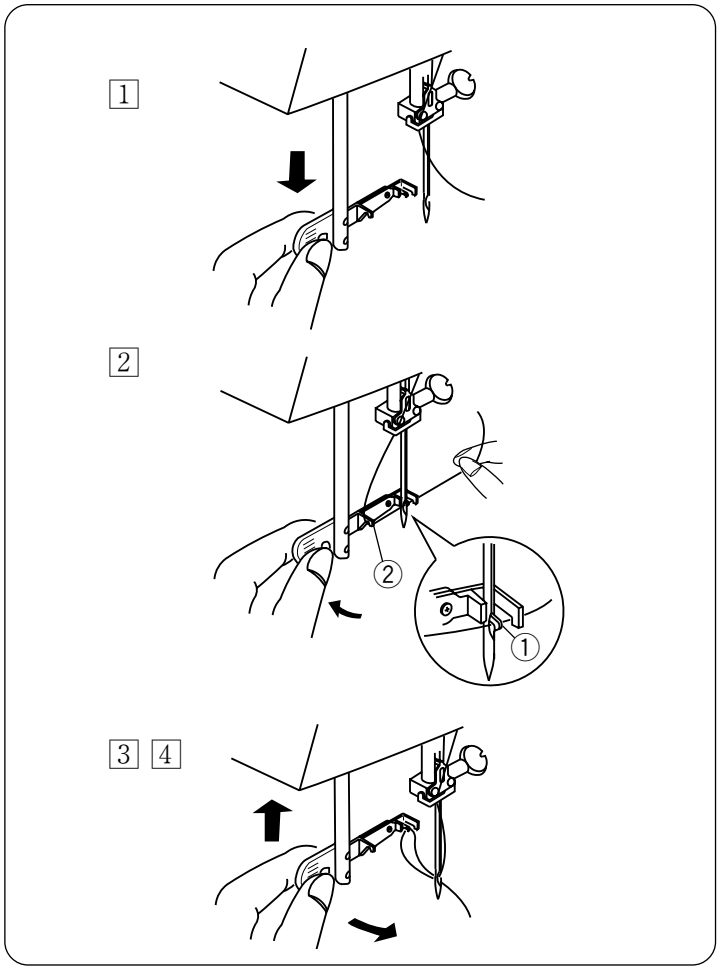
2 Firmly draw the thread from right to left into the eye of the take-up lever.

Then down through the lower thread guide.

3 Slide the thread behind the needle bar thread guide from the left.

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

① Thread guide
② Thread guide



- **Needle Threader**

1 Raise the needle to its highest position. Pull down the needle threader knob as far as it will go.

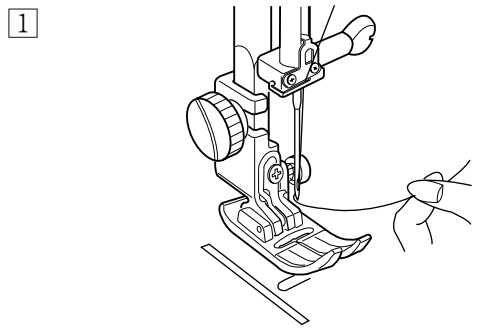
2 Turn the knob in the direction of the arrow in the illustration, then insert Hook ① into the needle eye. Lead the thread around Guide ② and under Hook ①.

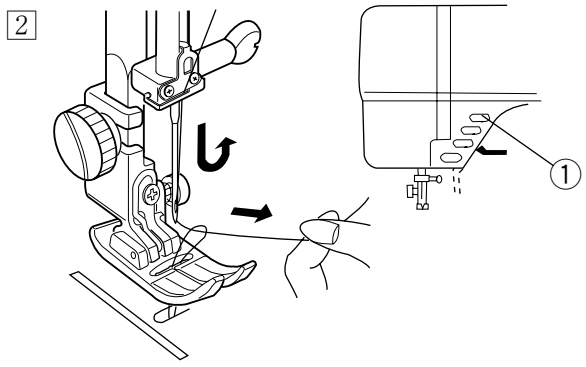
3 Turn the knob in the direction of the arrow in the illustration, drawing the thread loop through the needle.

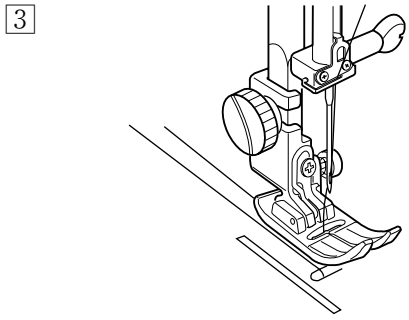
4 Pull the thread through the needle eye.

* The needle threader can be used with a #11 to #16 needle or a Janome Blue Tip needle. Thread size 50 to 100 should also work well.

① Hook
② Guide







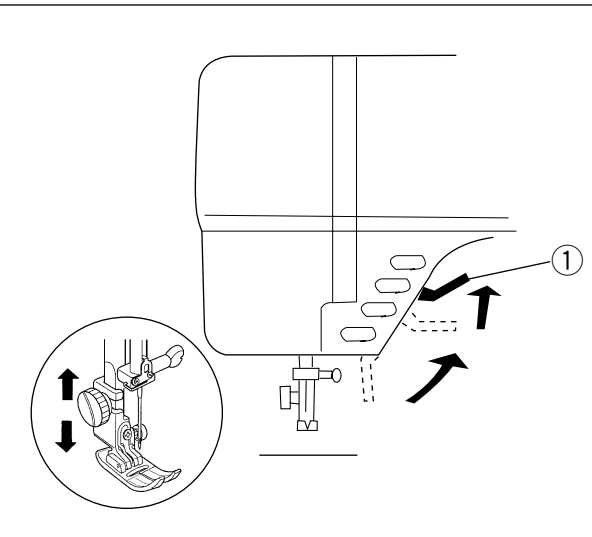
- **Drawing Up the Bobbin Thread**

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

2 Press the up/down needle button twice to pick up the bobbin thread. Draw up the needle thread together with a loop of bobbin thread.

① Up/down needle button

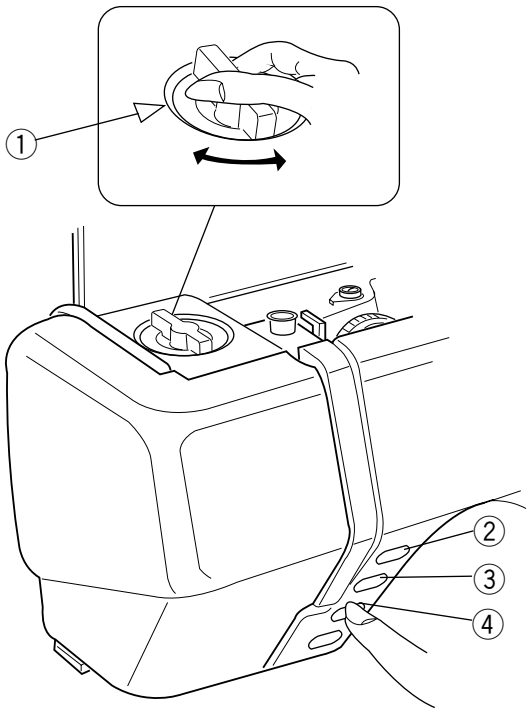
3 Slide 10 cm (4″) of both threads to the back under the presser foot.

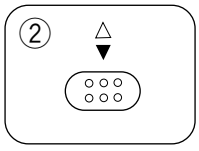


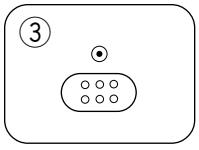
Presser Foot Lifter

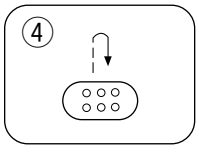
The presser foot lifter raises and lowers your presser foot. You can raise it about 1/4″ higher than the normal up position for easy removal of the presser foot or to help you place heavy fabric under it.

① Presser foot lifter









Pressure Dial

The pressure dial should be set at " 3 " for regular sewing. Reduce the pressure to " 2 " for appliqué, cut work, drawn work, basting and embroidery.
Set the pressure to " 1 " when sewing chiffon, lace, organdy and other fine fabrics. Velours and knits with a lot of stretch may also require a " 1 " setting.
Align the number on the dial with the setting mark.

① Setting mark

Up/Down Needle, Auto-Lock and Reverse Buttons

- **Up/Down Needle Button**

When this 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.

② Up/down needle button

- **Auto-Lock Button**

When stitches , , or are selected, the machine will immediately sew locking stitches and automatically stop when the auto-lock button is pressed. When sewing all other stitches, the machine will sew locking stitches at the end of the current pattern and automatically stop.

③ Auto-lock button

- **Reverse Button**

When stitches , , or 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.

④ Reverse button

Selecting Needle and Thread

For general sewing use needle size 11 or 14. A fine thread and needle should be used for sewing lightweight fabrics, so the fabric will not be marred. Heavy fabrics require a needle large enough to pierce the fabric without fraying the needle thread.

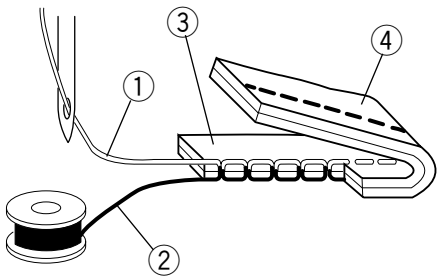
In the needle case you will find Two size 14s, two size 11s and one blue tipped needle. Use a blue tipped needle to eliminate skipped stitches when sewing knits and synthetic fabrics.

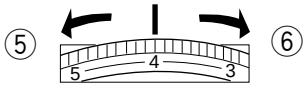
There are also specialty needles available from your sewing machine dealer. A denim needle with a sharp tip is used to effectively pierce dense fabrics such as denim and canvas. For topstitching, a special topstitching needle with a larger eye accommodates heavier weight thread. Leather needles punch small holes in leather and suede allowing the thread to follow through the hole.

Check your needles frequently for rough or blunt tips. Snags and runs in knits, fine silks and silk-like fabrics are permanent and are often caused by damaged needles.

Always purchase a good quality thread. It should be strong, smooth and consistent in thickness.

WEIGHT	FABRIC	TYPE OF NEEDLE	NEEDLE SIZE
Very Light	Chiffon, Georgette, Fine Lace, Organdy, Organdy Net, Tulle	Universal Ball Point	9 (65) 9 (65)
Light	Batiste, Voile, Lawn, Pure Silk, Crepe de Chine, Sheer Crepe, Chambray, Handkerchief Linen, Gingham, Challis, Percale, Wool Crepe, Peau de Soie, Taffeta, Satin, Silk Surah, Satin-backed Crepe, Qiana	Blue Tipped Needle Universal	11 (75) 11 (75) 12 (80)
	Single Knits, Jersey, Swimwear, Tricot	Blue Tipped Needle Ball Point	11 (75) 11 (75)
	Leather, Suede	Wedge Point Leather Needle	11 (75)
Medium	Flannel, Velour, Velvet, Muslin, Velveteen, Poplin, Corduroy, Broadcloth, Linen, Chintz, Gabardine, Felt, Terry, Burlap, Quilted Fabrics	Universal	14 (90)
	Double Knits, (synthetic and natural) Stretch Velour, Stretch Terry, Sweater Knits	Ball Point	14 (90)
	Leather, Vinyl, Suede	Wedge Point Leather Needle	14 (90)
Heavy	Denim, Sailcloth, Ticking	Denim Needle	16 (100)
	Double Faced Wool, Heavy Coating, Fake Fur, Drapery Fabrics	Universal	16 (100)
	Leather, Suede	Wedge Point Leather Needle	16 (100)
Very Heavy	Canvas, Duck, Upholstery Fabrics	Universal	18 (110)
Topstitching for Special Finish		Topstitching Needle	11 (75) 14 (90)





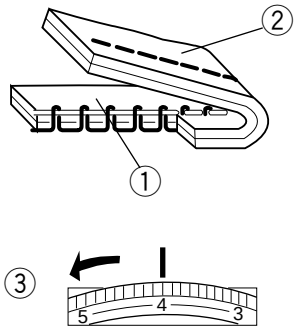
Adjust the Top Thread Tension

- **Choose the Correct Tension**

For Straight Stitch:
The ideal straight stitch will have threads locked between the two layers of fabric, as shown left (magnified to show detail).
If you look at the top and bottom of the seam, you will notice that there are no gaps; that each stitch is smooth and even.
When adjusting top thread tension, the higher the number, the tighter the top thread.
Results depend on;

* stiffness and thickness of the fabric
* number of fabric layers
* type of stitch

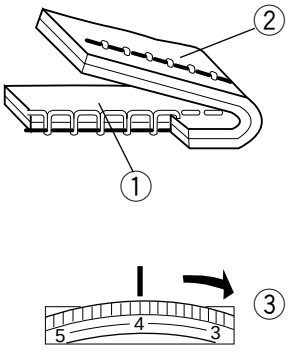
① Needle thread (Top thread)
② Bobbin thread (Bottom thread)
③ Right side of fabric
④ Wrong side of fabric
⑤ To loosen
⑥ To tighten



- **Tension is too tight**

The bobbin thread shows through on the right side of the fabric and it will feel bumpy.
Turn the dial to the left to loosen the top thread tension.

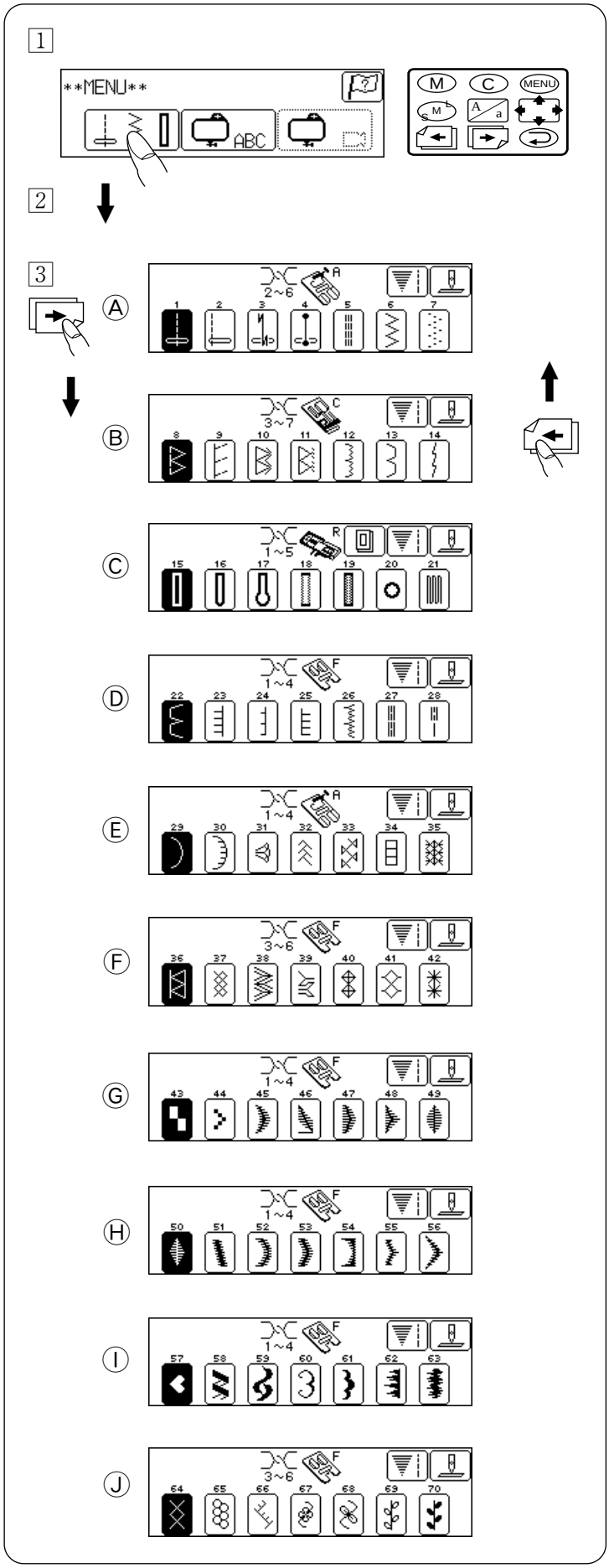
① Right side of fabric
② Wrong side of fabric
③ To loosen



- **Tension is too loose**

The top thread shows through on the wrong side of the fabric and it will feel bumpy.
Turn the dial to the right to tighten the top thread tension.

① Right side of fabric
② Wrong side of fabric
③ To tighten



Pattern Selection (Utility Stitches)

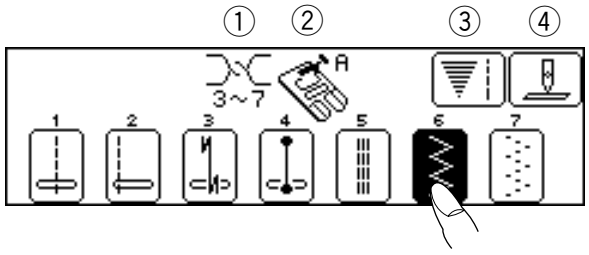
- **How to scroll the display screen**

1 When you turn the power switch the MENU screen is displayed.

2 Press key.
The display screen shows Ⓐ .

3 You can get the stitch patterns from Ⓑ to Ⓙ display screen as shown, when you turn on the power switch.
Press the key to scroll through screens Ⓑ to Ⓙ.
(To return to a previous screen, press the key.)

* Press the or MENU key to go back to the main MENU screen.



• **Selecting Patterns**

Press the center of a desired pattern on the screen.

① Appropriate top thread tension is displayed.

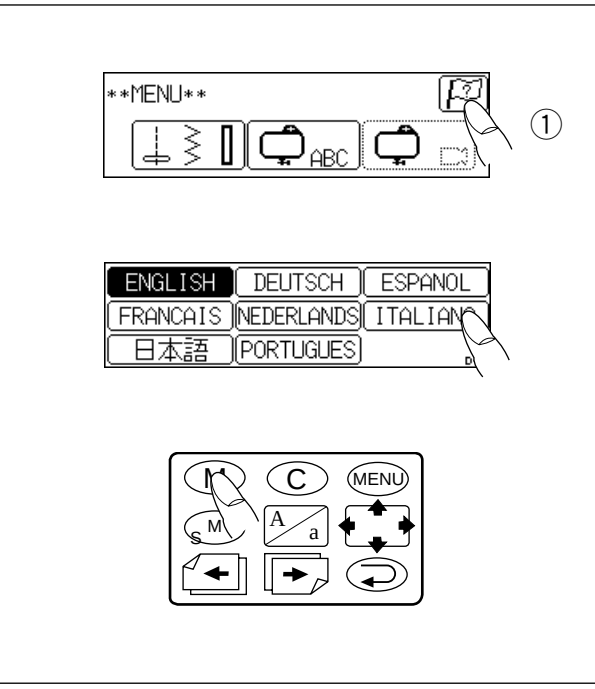
② A suitable foot is displayed.

③ **Stitch Width and Length Key :**

When the key is pressed, the stitch width and length can be adjusted (see page 22).

④ **Up/Down Needle Key :**

When this key is pressed, the needle bar alternates between up and down position (see page 17).



Language Selection Key

* Press key.

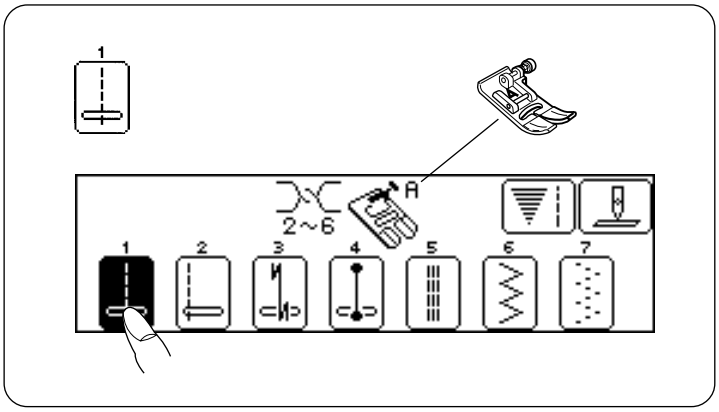
* Select the language you need.

* Press the (M) key to memorize the language selected.

The screen will automatically be returned to the main menu.

① Language selection key

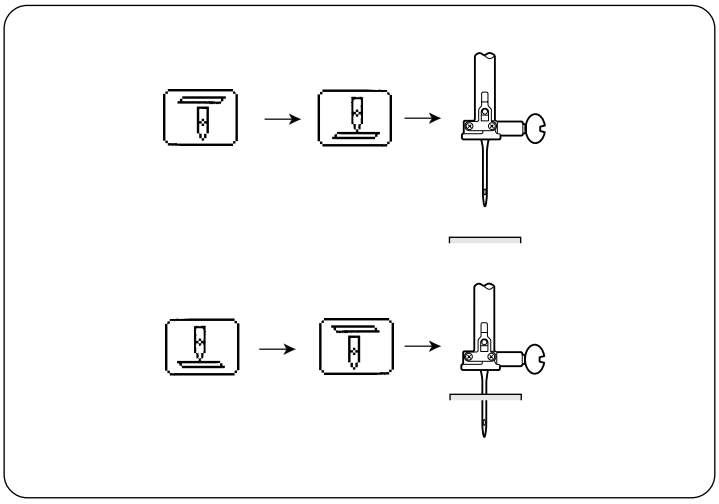
Note:
Regardless of which language is selected on the machine, any message stored in the Memory Card is shown on the visual touch screen in English only.



Straight Seam Sewing

- **Up/Down Needle Key :**

Pressing this key toggles back and forth between the needle up and needle down display.

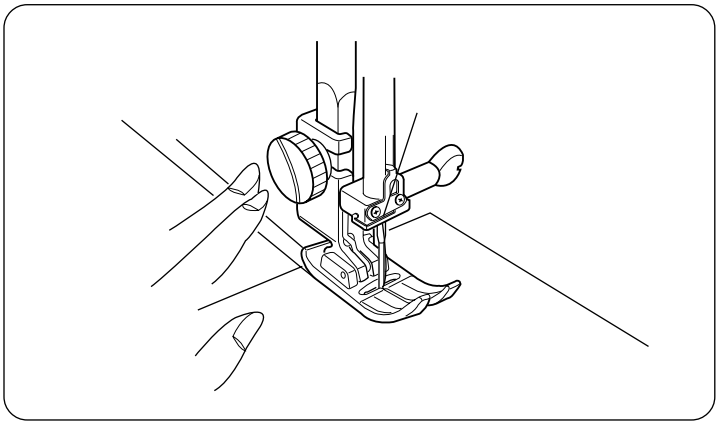


Needle Up

If you want the needle to be in the up position after sewing a seam, press this key until the needle up display appears:

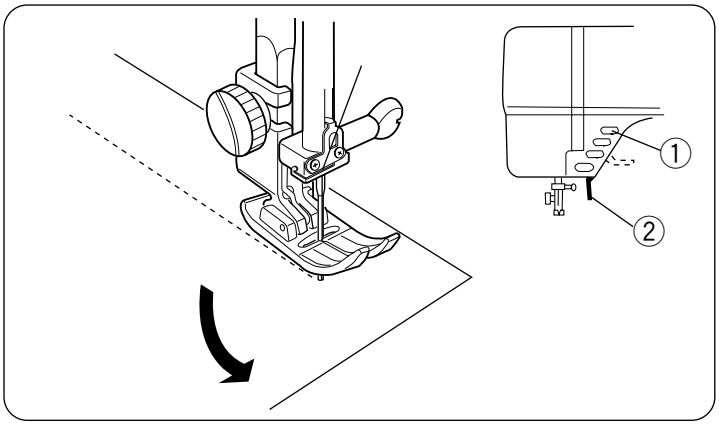
Needle Down

If you would like the needle to end in the down position after sewing a seam, press this key until the needle down display appears:



- **Starting to Sew**

Raise the presser foot and position the fabric next to a seam guide line on the needle plate (see page 19). 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 the seam guide line letting the fabric feed naturally.

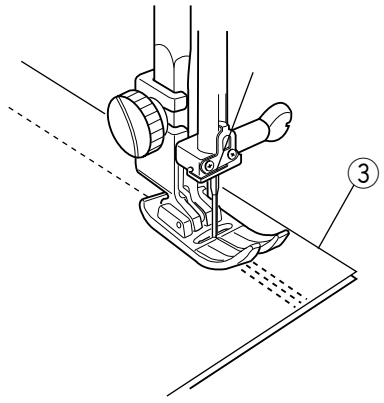


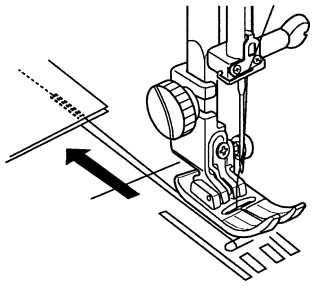
- **Changing Sewing Direction**

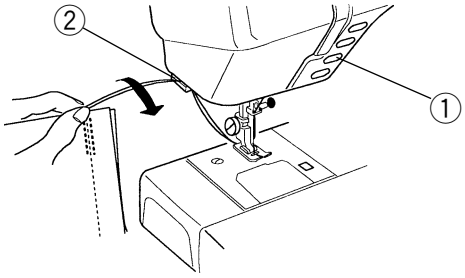
Stop the machine and bring the needle down into the fabric by pressing the up/down needle button. Raise the presser foot.
Pivot the fabric around the needle to change sewing direction as desired. Lower the presser foot.

① Up/down needle button

② Presser foot lifter





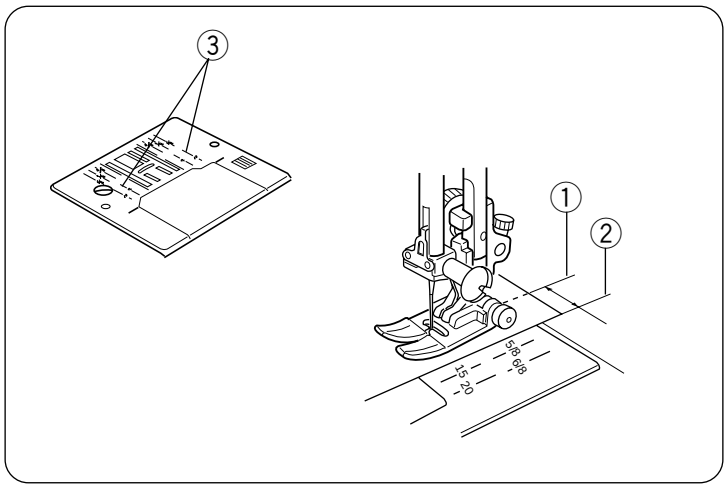


- **Finishing Sewing**

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

* When pattern is selected, reverse stitches are sewn automatically at the beginning of the seam, and forward again.
Raise the presser foot. Remove the fabric, draw the threads to the back and cut using the thread cutter. The threads are cut the proper length for starting the next seam.

① Reverse button
② Thread cutter
③ Fabric



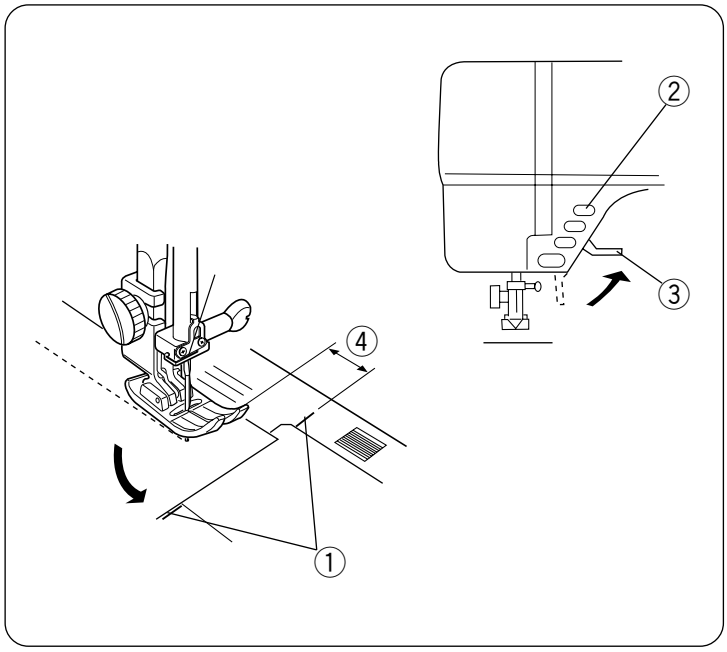
• **Seam Allowance Lines**

The seam guides on the needle plate and hook cover plate help you measure seam width.

* The number indicates the distance between the middle needle position ⊂○⊃ and the seam allowance line.

	Millimeters		Inches		
Marks on needle plate	15	20	4/8″	5/8″	6/8″

① Middle needle position ② Edge of fabric
③ Needle plate guide lines

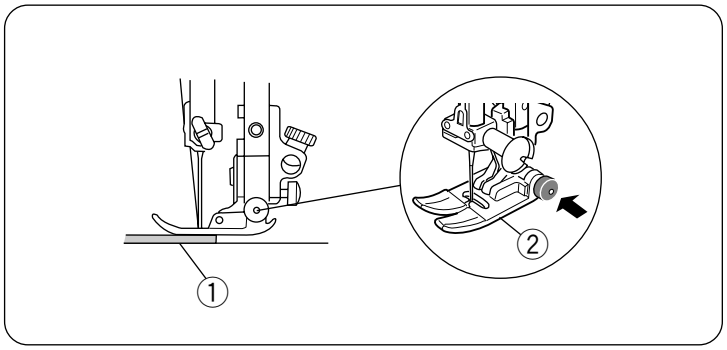


• **Turn a Square Corner**

To turn a square corner 1.6 cm aprox. (5/8″) from the fabric edge.

1. Stop stitching and lower the needle by pressing the up/down needle button when the fabric edge facing you lines up with the cornering guide as shown.
2. Raise the presser foot and turn the fabric to line the edge with the 1.6 cm (5/8″) seam guide.
3. Lower the presser foot and begin stitching in the new direction.

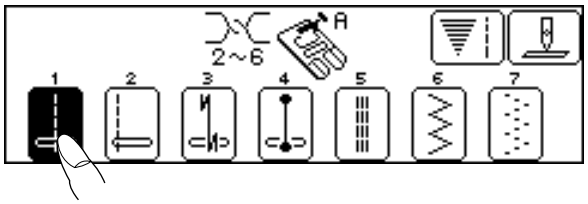
① Cornering guide
② Up/down needle button
③ Presser foot lifter

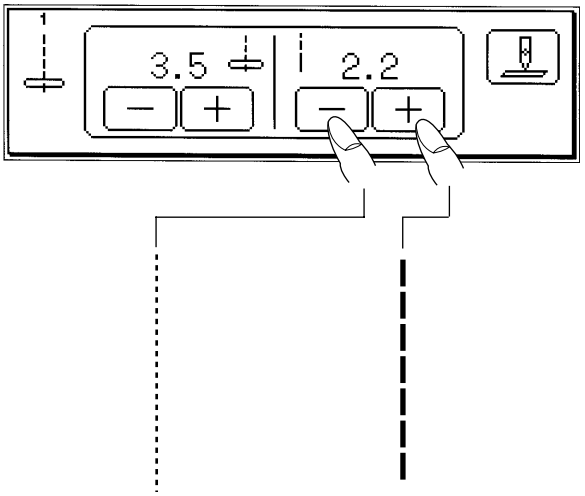


• **Sewing on Heavy Fabrics**

Pressing the black button on Foot A (before lowering) locks it in a horizontal position. This ensures even feeding at the beginning of seams and helps when sewing many layers of fabric. When you reach a point of increased thickness, lower the needle and raise the foot. Press in the black button, then lower the foot and continue sewing. It releases automatically after a few stitches.

① Fabric
② A: Zigzag foot



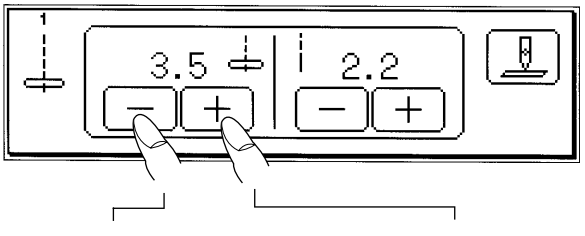


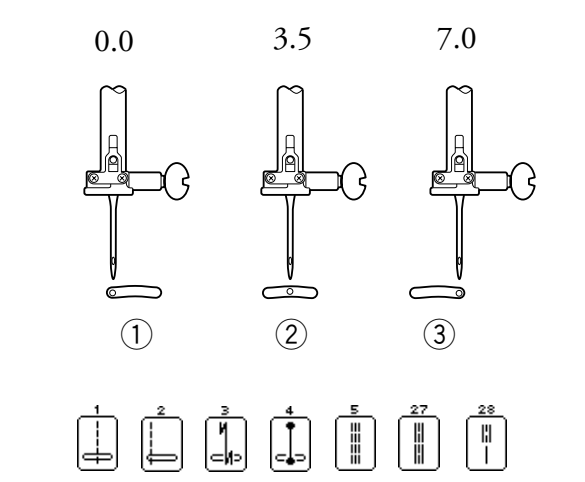
Setting Stitch Length and Left/Right Needle Position

- **Manual Stitch Length**

* These settings apply only to "straight" stitch patterns 1 through 5.
Press the key to adjust the stitch length manually. Use the [−] or [+] keys (on the right) to adjust the stitch length. To decrease, press the [−] key. To increase, press the [+] key.
The pre-programmed stitch length setting will be 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 the [−] or [+] key until you reach the setting you desire.

* The reverse stitch length cannot be set longer than 2.5 mm (3/32″).
Press the key again to return the visual touch screen to the former display.

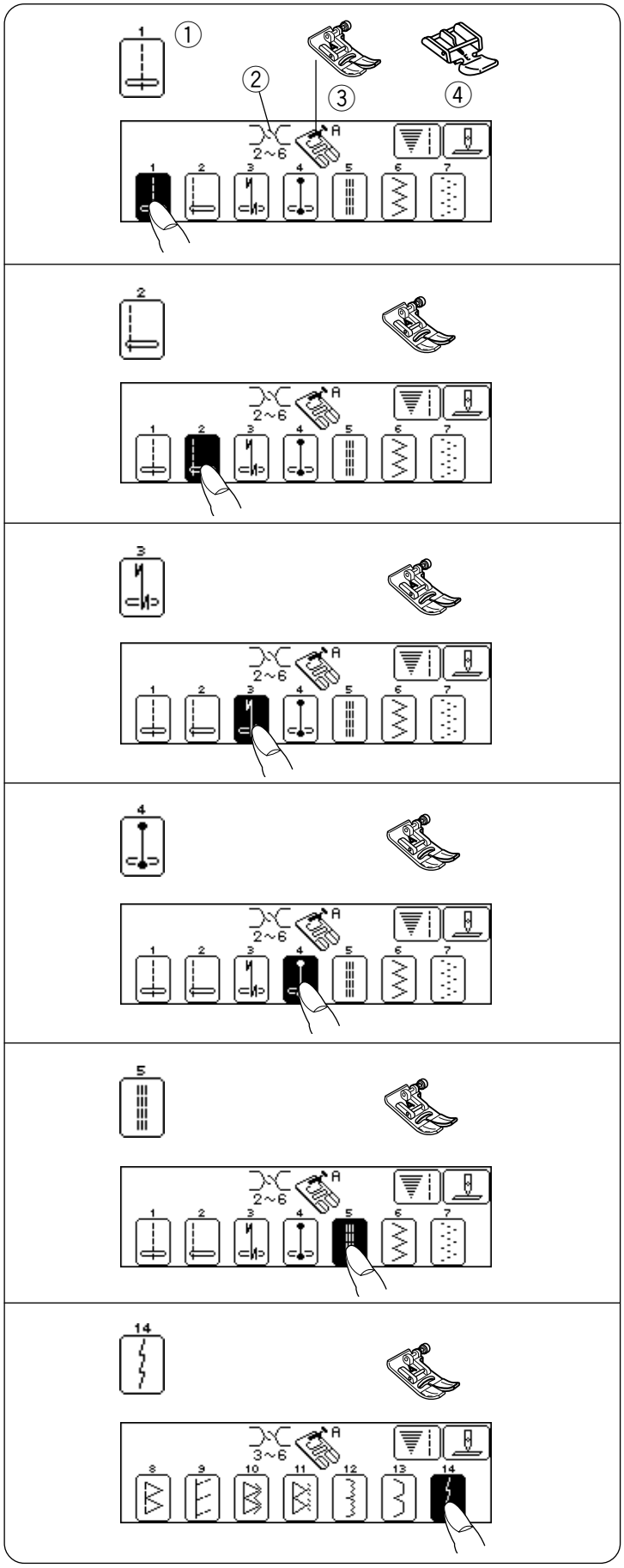




- **Variable Needle Position**

When stitch patterns 1 through 5 are selected (see bottom of box on left), you can adjust the left/right needle position. When the [−] key is pressed, the needle position will be moved to the left.
When the [+] key is pressed, the needle position will be moved to the right.

① Left
② Middle
③ Right



Straight Stitches

Basic Straight Stitch

This stitch can be used for sewing regular seams, zippers, pintucking and rolled hems.

① Selected stitch
② Thread tension
③ A: Zigsag foot
④ E: Zipper foot

Straight Stitch (Left)

This stitch can be used for regular seams, zippers, topstitching, etc.

Lock-A-Matic

The machine will automatically sew four stitches forward, four stitches in reverse, then continue sewing forward. When you reach the end of the fabric, press the reverse button once. The machine will sew four reverse stitches, four forward stitches, then stop sewing automatically.

Locking Stitch

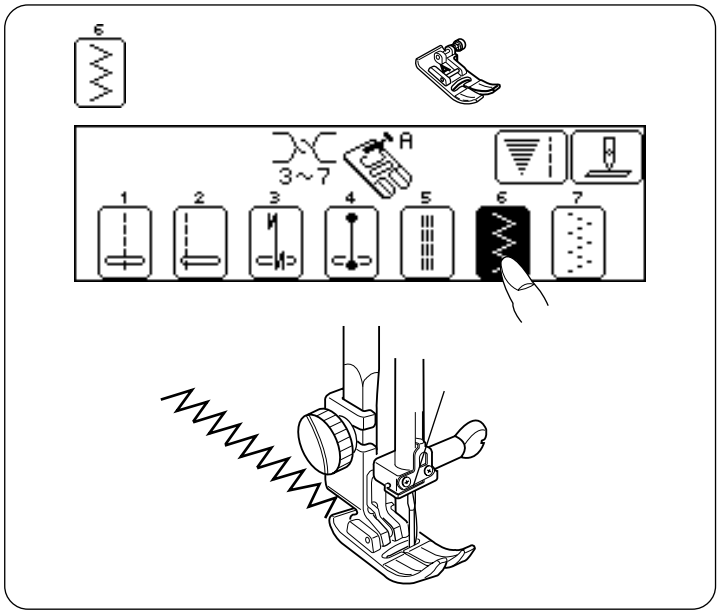
Lower the needle close to the front edge of the fabric. The machine will sew several locking stitches in place and continue sewing forward. If you press the Auto-Lock button at the end of the seam, the machine will sew several locking stitches in place, then stop sewing automatically.

Triple Stretch Stitch

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

Stretch Stitch

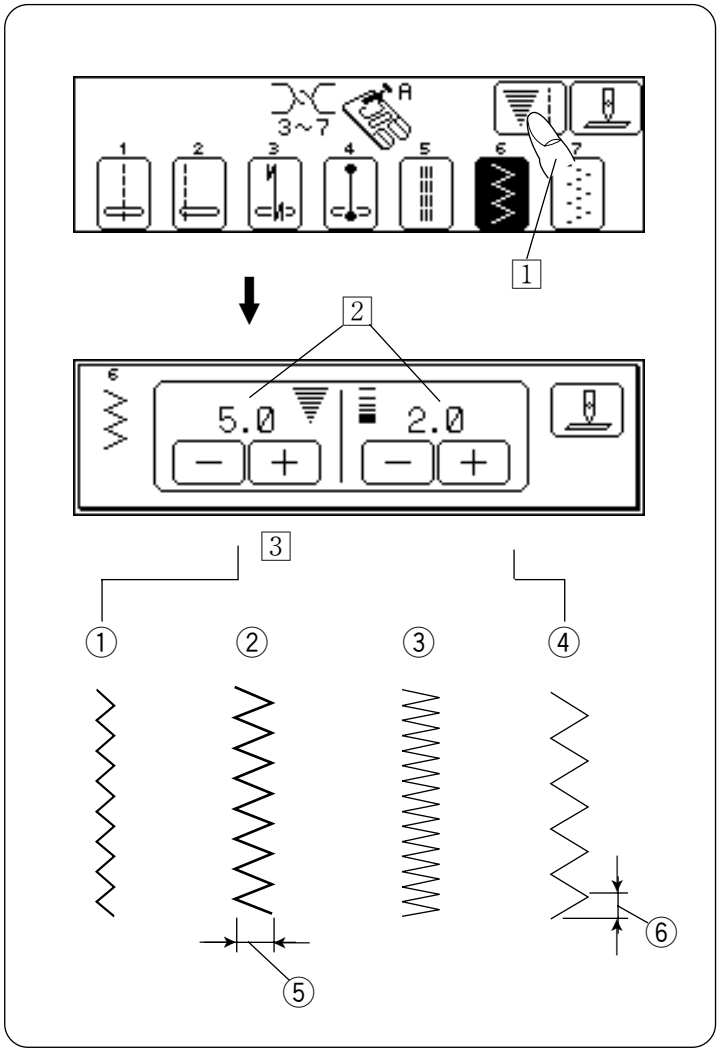
This stitch is a narrow stretch stitch designed to eliminate puckering on knit fabrics and bias seams, while permitting the seam to be pressed completely flat. The stitch can also be used to simultaneously seam and overcast when sewing on tricot and chiffons for a narrow, almost invisible seam or seam finish.



Zigzag Stitch

A simple zigzag stitch is widely used for overcasting, appliqué, etc.

* Stabilize with interfacing on stretch fabric.



- **Manual Stitch Width and Length**

1 Press the key to change the stitch width and length manually.

2 Pre-programmed stitch settings

3 When the − or + key is pressed, the width and the length will be changed accordingly.

① Narrower width (smaller number)

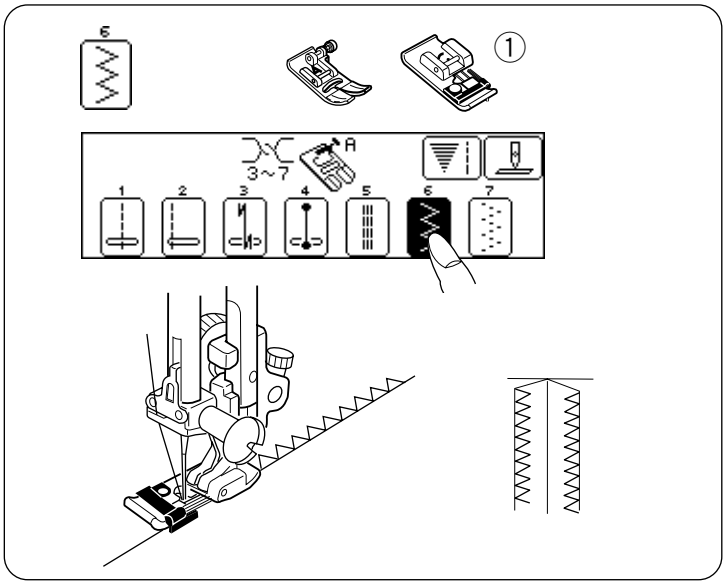
② Wider width (larger number)

③ Denser stitch (smaller number)

④ Coarser stitch (larger number)

⑤ Width

⑥ Length



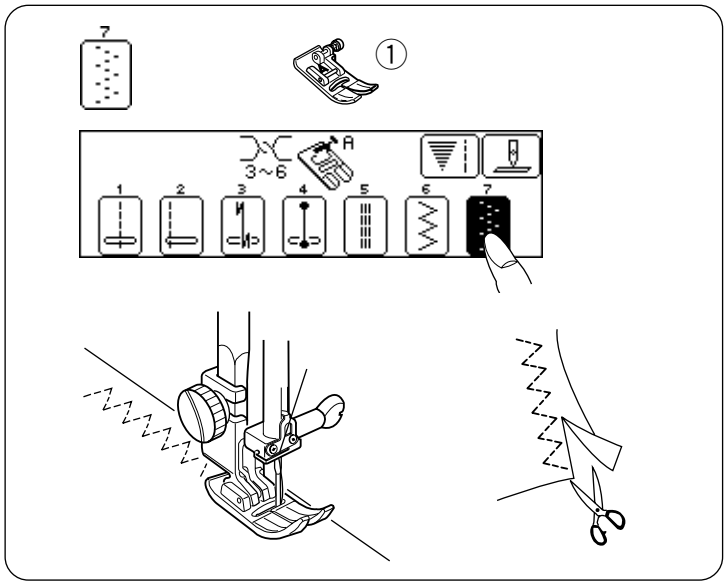
Overcasting

- **Zigzag Stitch**

This stitch can be used on most woven fabrics.
It's the fastest way to finish an edge, leaving it neat and flat.
A dense zigzag can also be used for appliqué.

① C: Overedge foot

Set the stitch width from 0.5 cm (3/16″) to 0.7cm (9/32″) when the overedge foot C is used to prevent needle breakage or damaging the foot



- **Multiple Zigzag**

This stitch is used to finish the seam allowance on synthetics and other fabrics that tend to pucker.

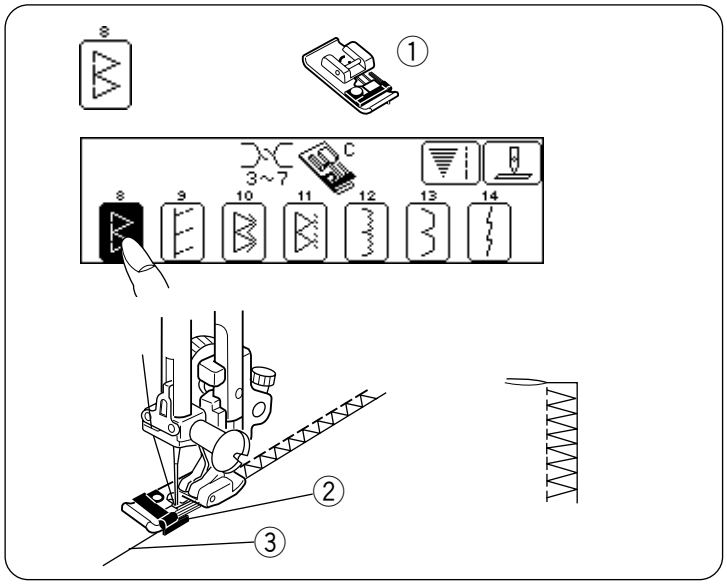
The stitch is excellent for darning and mending tears.

Place your fabric to allow a 1.5 cm (5/8″) seam.

Trim the seam allowance after sewing.

> **Note:**
> Be careful not to cut the stitches.

① A: Zigzag foot

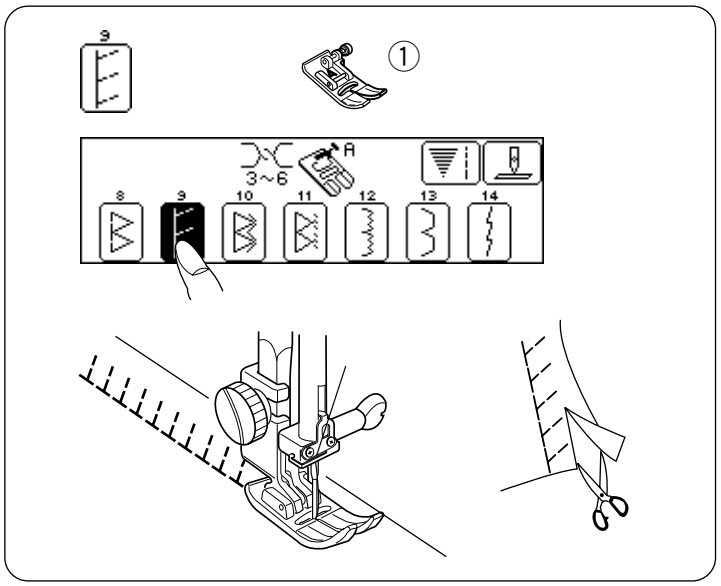


- **Overcasting**

This stitch can be used to simultaneously stitch and overcast seams in one step. Use this stitch when you do not need to press seams open flat. Test the stitch on the actual fabric for best results.

① C: Overedge foot
② Guide
③ Edge of fabric

Set the stitch width at 5.0 cm (3/16″) to 7.0 cm (9/32″) for overcasting.



- **Knit Stitch**

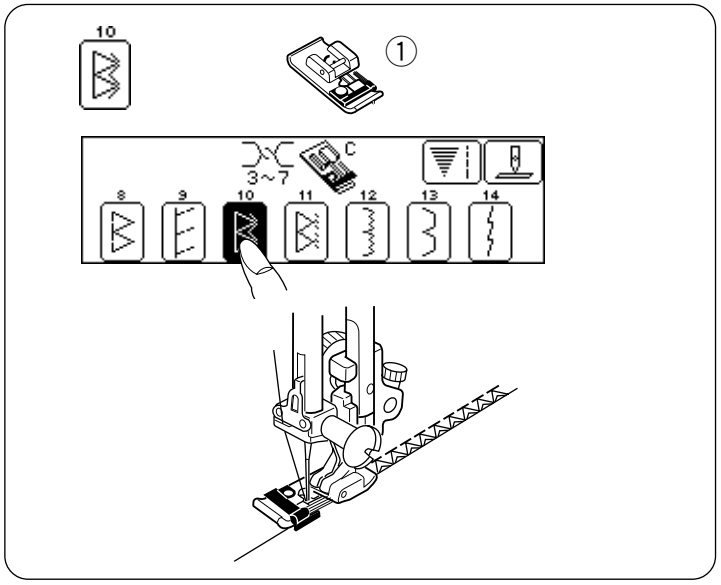
This knit stitch is ideal for sewing swimwear and stretch velour because it provides the greatest amount of elasticity and strength.

Place your fabric to allow a 1.5 cm (5/8″) seam.

Trim the seam allowance after sewing.

> **Note:**
> Be careful not to cut the stitches.

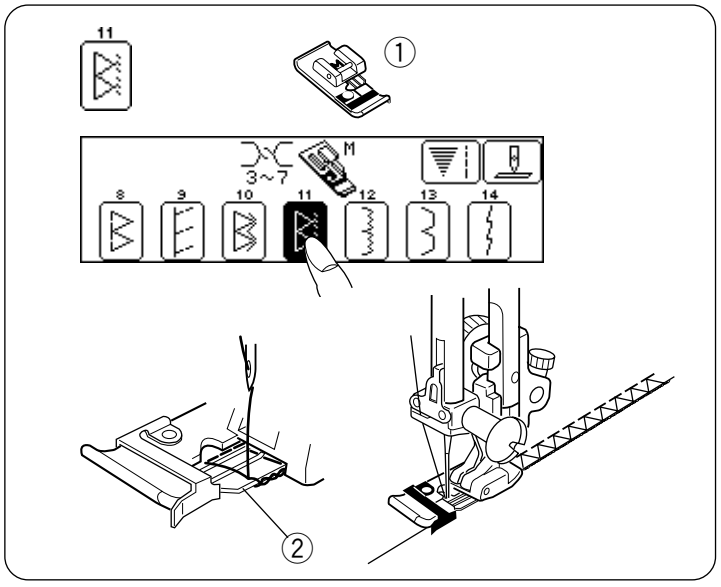
① A: Zigzag foot



- **Double Overedge Stitch**

This stitch is an excellent stitch for fabrics that tend to fray extensively such as lines and gabardines. Two rows of zigzag stitches are simultaneously sewn over the edge to insure that your seams will not ravel.

① C: Overedge foot

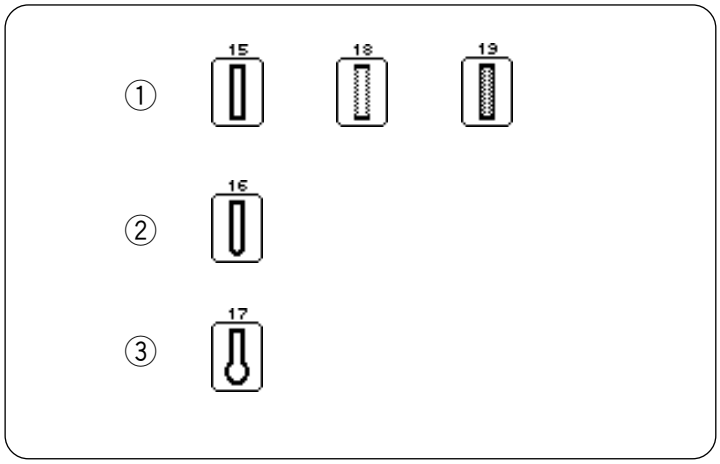


- **Overlock Stitch**

This stitch finishes the edges of your seams similar to a commercial overlocking machine for a professional look.

Ajust the thread tension dial so that the upper and lower threads meet at the edge of the fabric.

① M: Overcasting foot
② Pin



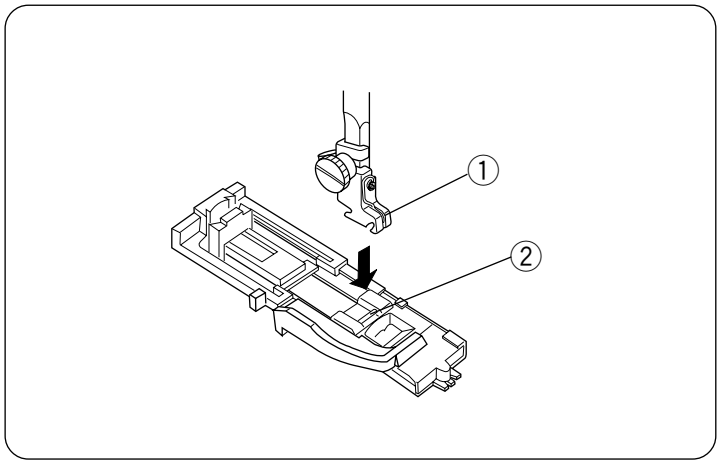
Sensor Buttonholes

- **Three types of Buttonhole**

① Square Buttonhole
For buttonholes on shirts and blouses.
Stitch patterns 18 and 19 are intended to be used on stretch fabrics.

② Rounded Buttonhole
For buttonholes on shirts and blouses made of fine fabric.

③ Keyhole Buttonhole
For buttonholes on jackets.

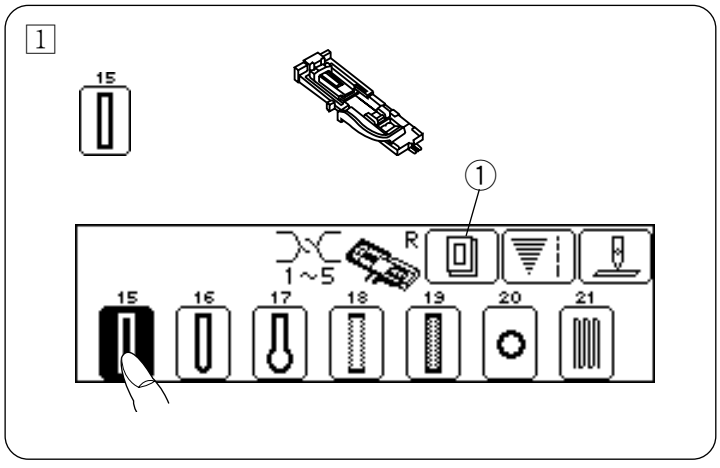


- **Preparation for Sewing**

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

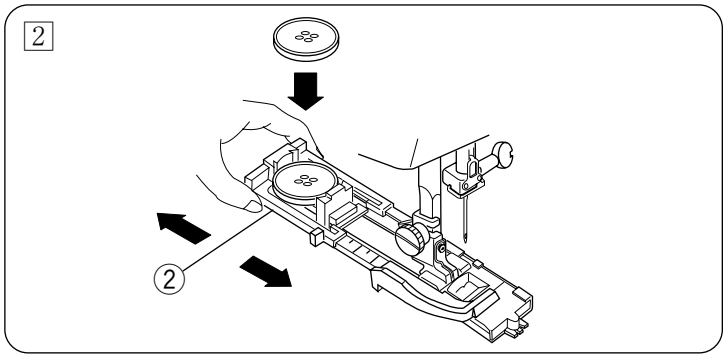


- **To Sew**

1 The size of buttonhole is automatically set by placing the button in the rear of the automatic buttonhole foot.
The button holder on the foot takes a button up to 2.5 cm (1″) in diameter.
Alter the buttonhole width to match the material and thread (see page 27).
Make a test buttonhole on an extra piece of the fabric to check your settings.
Use interfacing on stretch fabrics.

① Buttonhole double sewing key :

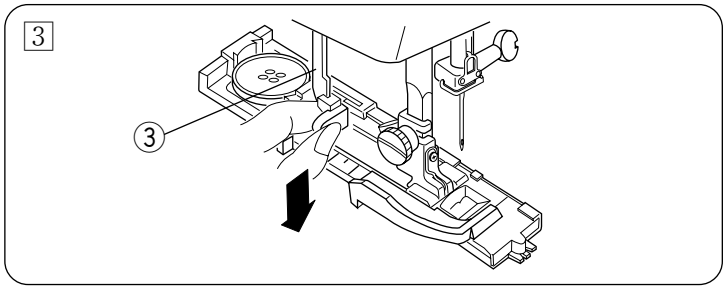
If you want to sew double the stitching on a buttonhole, press this key before selecting a buttonhole pattern.



Sensor Buttonhole, cont'd

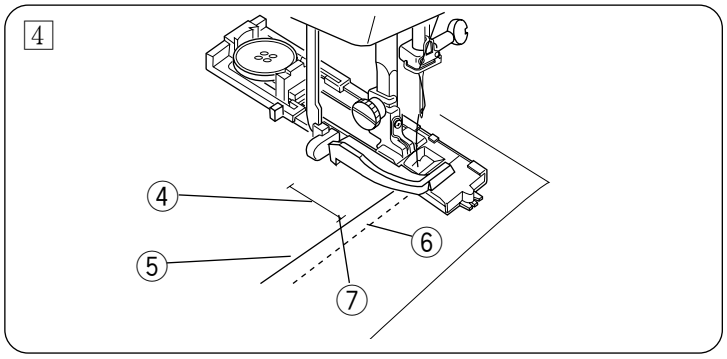
2 Pull the button holder to the back, and place the button in it. Push it together tightly on the button.

② Button holder



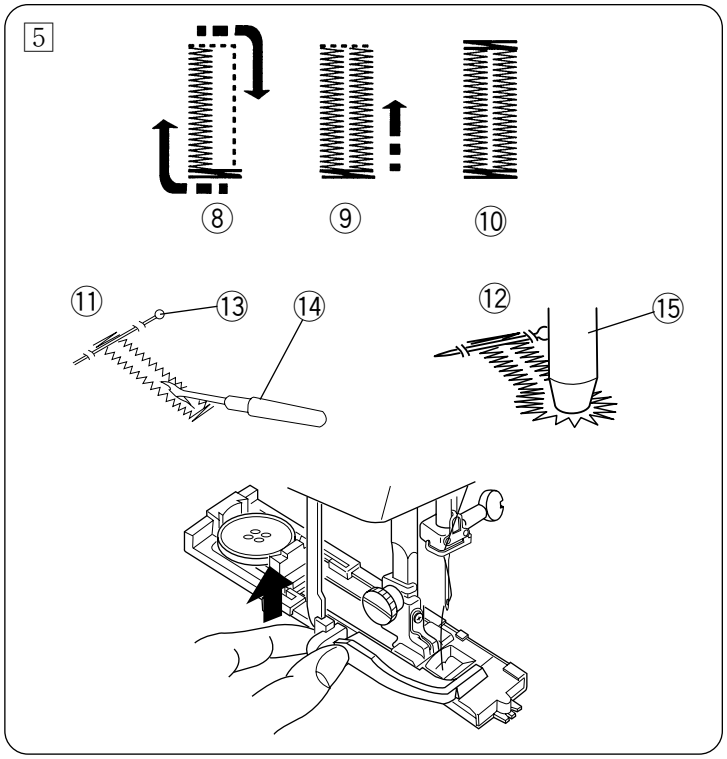
3 Pull the buttonhole lever downward as far as it will go.

③ Buttonhole lever



4 Draw both threads to the left under the foot. Insert the garment under the foot, and lower the needle at the starting point. Then lower the automatic buttonhole foot.

④ Mark
⑤ Needle thread
⑥ Bobbin thread
⑦ Starting point



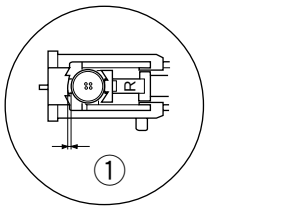
5 Depress the foot control until the machine stops by itself.

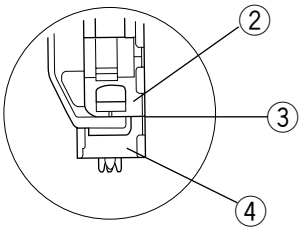
* The buttonhole will be sewn automatically; the front bartack and left row first, then the right row and back bartack. The machine will stop automatically when the buttonhole is completed.

Remove the fabric and place a pin just before the bartack at each end to prevent accidentally cutting bartacks. Cut the opening with the seam ripper.

When finished, push the buttonhole lever upward as far as it will go.

⑧ Step 1
⑨ Step 2
⑩ Step 3
⑪ Square buttonhole
⑫ Keyhole buttonhole
⑬ Pin
⑭ Seam ripper
⑮ Eyelet puncher



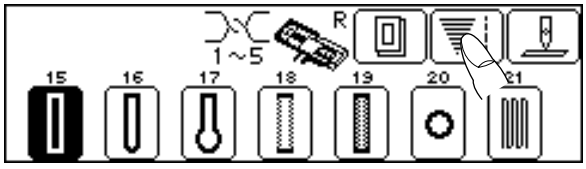


Sensor Buttonhole, cont'd

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

① Gap
② Slider
③ There shoud be no gap.
④ Spring holder

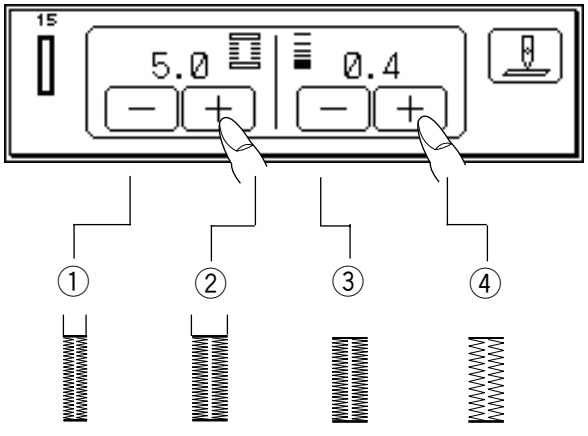
1



- **To Alter Buttonhole Stitch Width and Density**

1 Press the key.

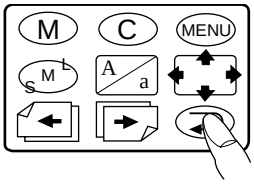
2



2 The pre-programmed stitch setting are shown on the screen.

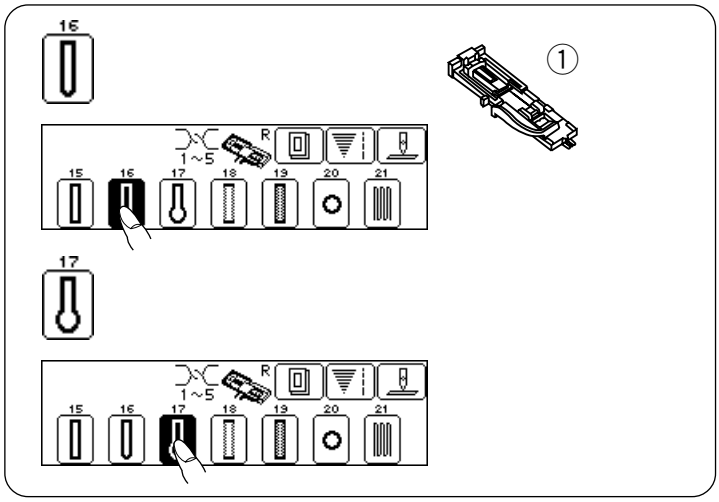
① Narrow
② Wide
③ Dense
④ Coarse

3



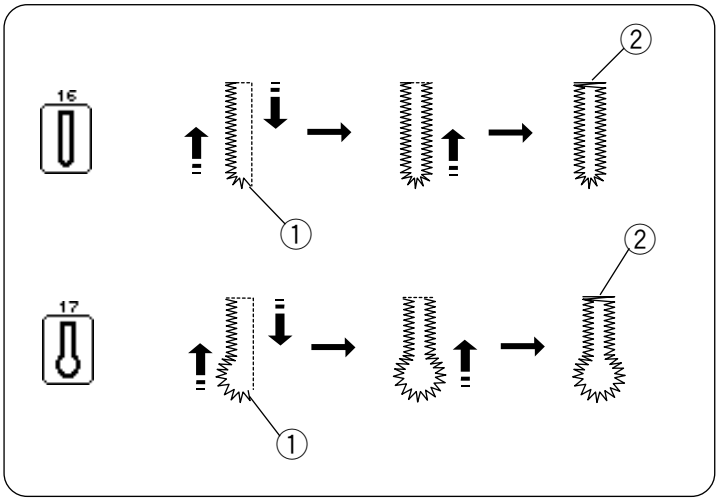
Return Key :

3 Press the key to return the display to the former one.



- **Roundend and Keyhole Buttonholes**

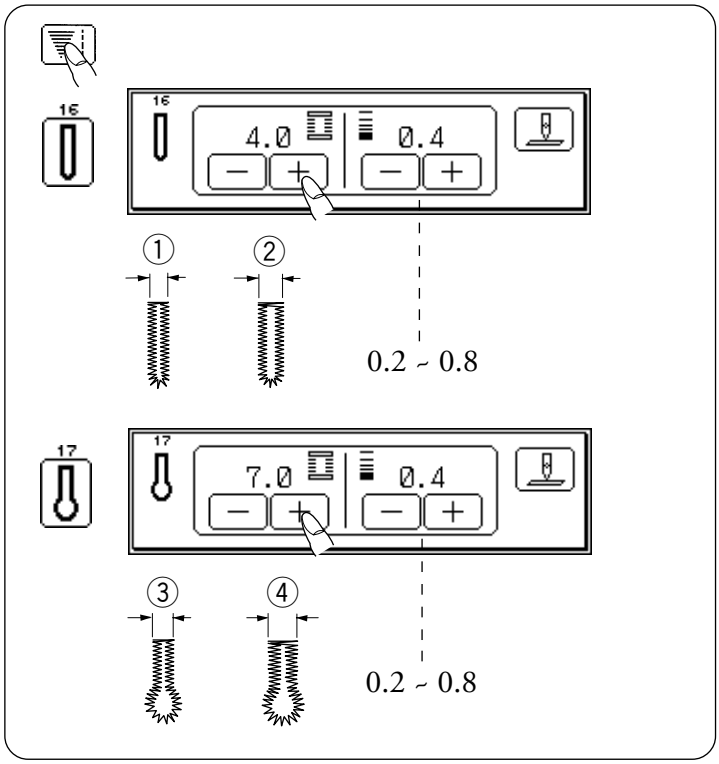
① R: Automatic buttonhole foot



- **To sew:**

For sewing, use the same procedure as Sensor Buttonhole.

① Starting point
② Bartack



- **Adjust the Stitch Width and Density:**

Each time " – " or " + " is pressed, the width and length will be changed.

① Width 2.5
② Width 5.5

You can change the stitch width between 2.5 and 5.5 and the stitch length between 0.2 and 0.8 for pattern 16.

③ Width 5.5
④ Width 7.0

You can change the stitch width between 5.5 and 7.0 and the stitch length between 0.2 and 0.8 for pattern 17.

Corded Buttonhole

1 For sewing, use the same procedure as when the pattern is selected (see pages 25 – 27).

* Set the stitch width to match the thickness of the cord used.

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, clearing the front end.

Hook the filler cord into the forks on the front of automatic buttonhole foot R to hold them tight. Lower the needle into the garment where the buttonhole will start and lower the foot.

1 Tension
2 BH foot
3 Needle thread
4 Bobbin thread

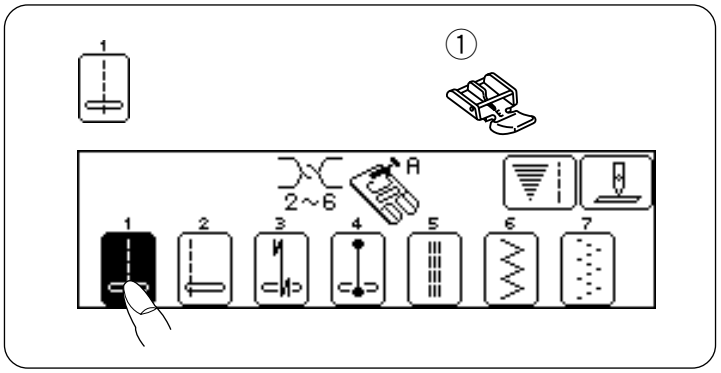
2 Depress the foot control gently and sew the buttonhole. Each side of the buttonhole and the bartacks will be sewn over the cord.

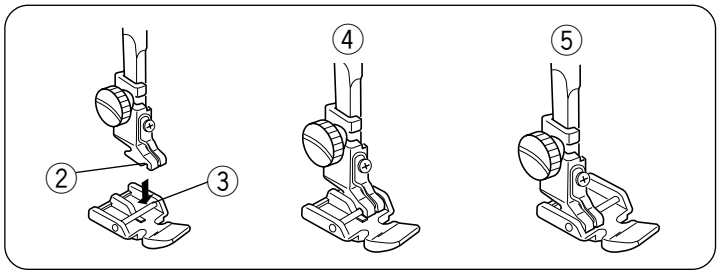
Remove the fabric from the machine and cut the sewing threads only.

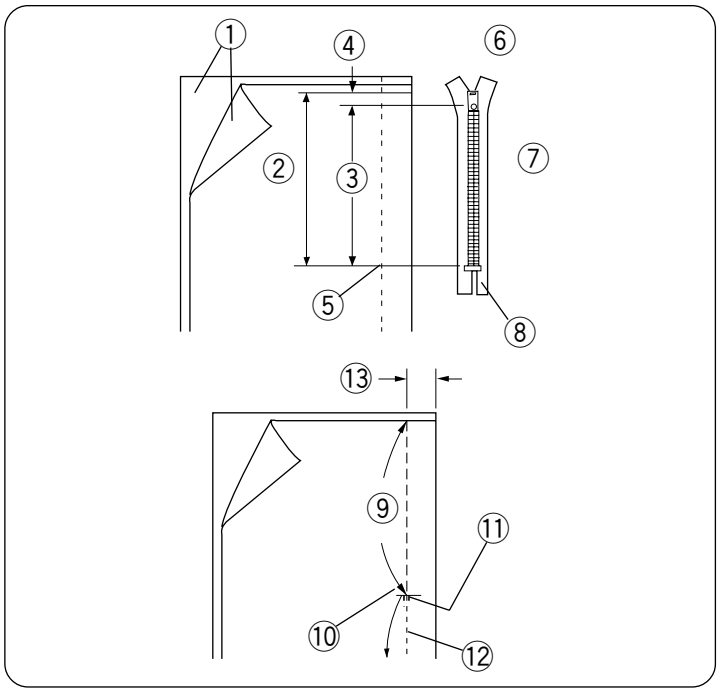
Pull the left end of the filler cord to tighten it. Thread the end through a darning needle, draw to the wrong side of the fabric and cut.

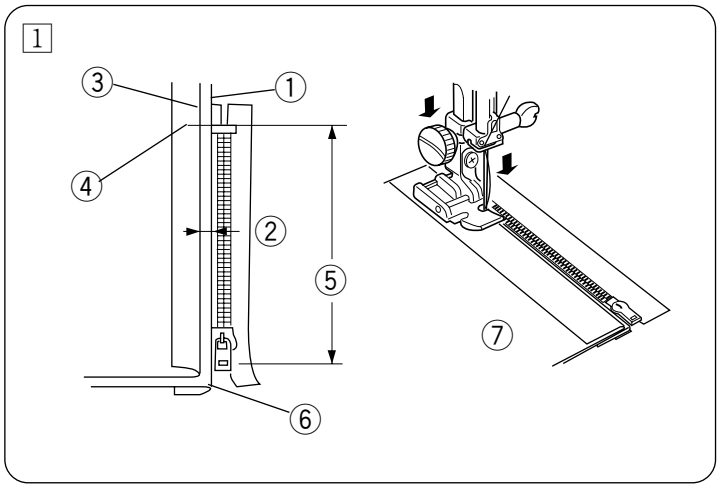
* To cut the buttonhole opening, refer to the instructions on page 26.

5 Spur









Zipper Sewing

Choose Stitch Pattern 1 and attach Foot E.

① E: Zipper foot

• To Snap On the Zipper Foot

Fit the pin on the zipper foot into the groove on the foot holder.

* To sew the left side of the zipper, attach the zipper foot on the right-hand side.
* To sew the right side of the zipper, attach the zipper foot on the left-hand side.

② Groove
③ Pin
④ When the left side is sewn.
⑤ When the right side is sewn.

• 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
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 Straight Stitch
⑬ 2 cm (3/4″)

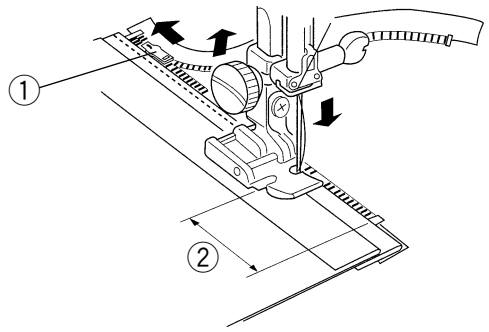
• To Sew

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 with the pin on the right hand side.
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 (1/8″)
③ Stitch line
④ End of opening
⑤ Opening size
⑥ Lower fabric
⑦ Wrong side of fabric

Zipper Sewing, cont'd

2

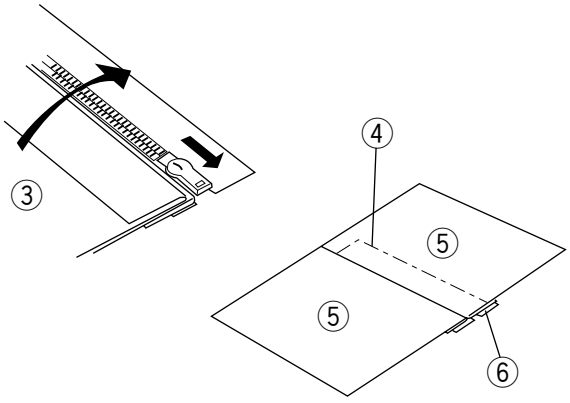


2 Sew through all layers next to fold. Stop just before the zipper foot reaches the slider on the zipper tape. Lower the needle slightly into the fabric. Raise the zipper foot and open the zipper. Lower the foot and stitch the remainder of the seam.

① Slider

② 5 cm (2″)

3



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

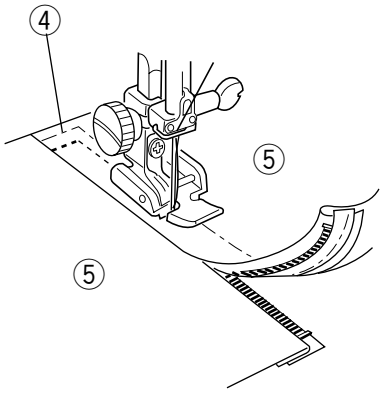
③ Wrong side of upper fabric

④ Basting stitch

⑤ Right side of fabric

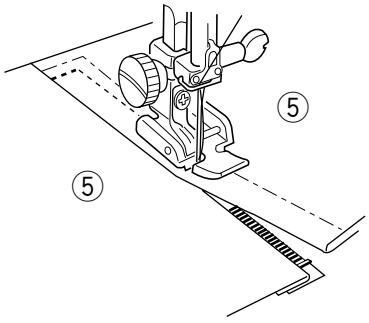
⑥ Zipper tape

4

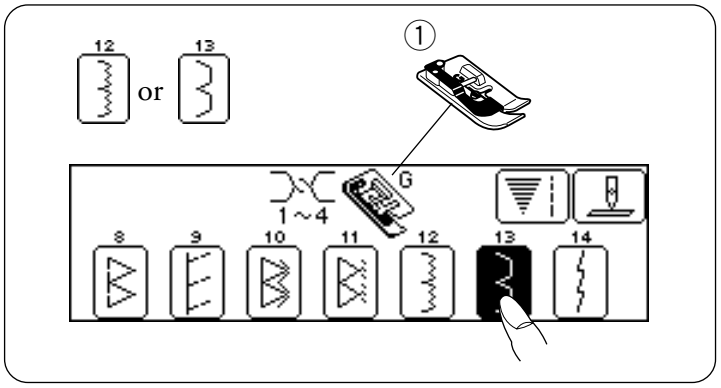


4 Move the zipper foot to the left pin.
Guide the edge of foot along the zipper teeth and stitch through the garment and zipper tape.
Stop about 5 cm (2″) from the top of the zipper.

5



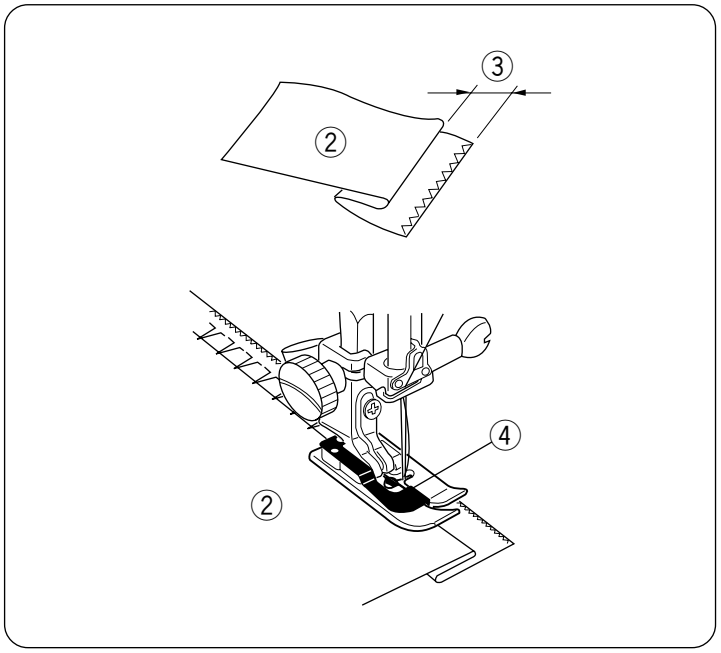
5 Lower the needle slightly into the fabric, raise the foot, remove the basting stitches and open the zipper. Lower the foot and stitch the remainder of the seam, making sure the fold is even.



Blind Stitch Hemming 13

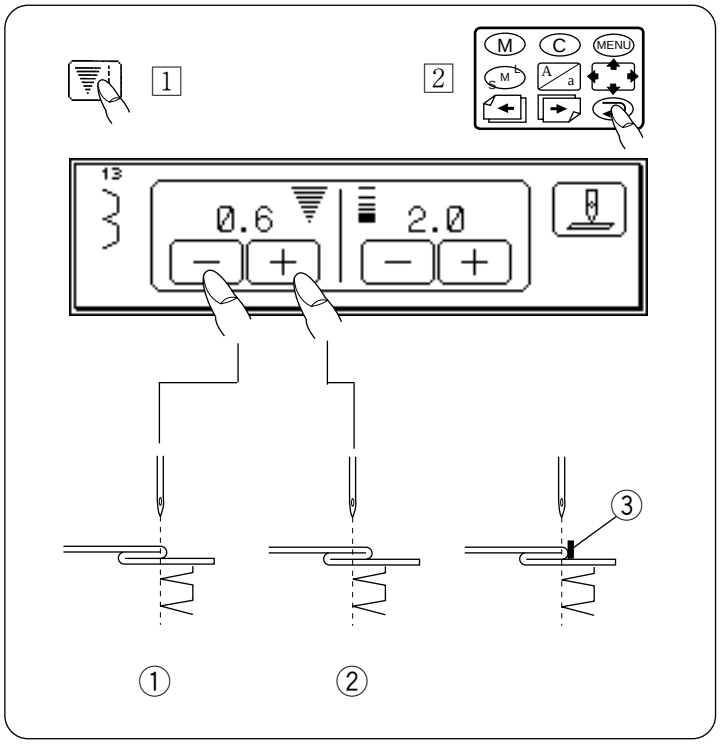
Choose Stitch Pattern 12 or 13 and attach Foot G.

① G: Blind hem foot



Position the fabric so that the folded edge comes to the left side of guide. Lower the presser foot.
Adjust the position of needle swing with the stitch width key so that the needle just pierces the folded edge of the fabric when the needle comes over to the left side.
Sew guiding the folded edge along the guide.
For a professional looking hem, fold the fabric reducing the width to about 0.2 cm(1/8″).
As you sew, the right hand stitch will fall off the fabric edge forming a chain stitch.

② Wrong side of fabric
③ 0.4–0.7 cm (5/32″–1/4″)
④ Guide



- **Changing Needle Position**

1 Press the key.

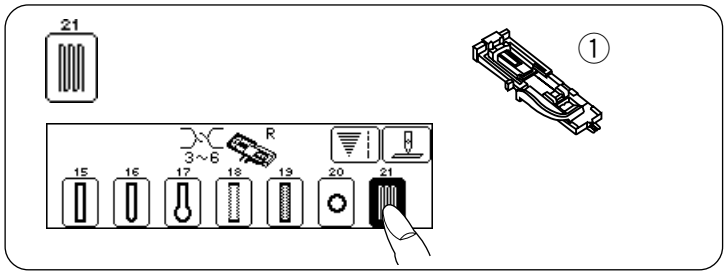
① The needle position is moved to the right.
② The needle position is moved to the left.

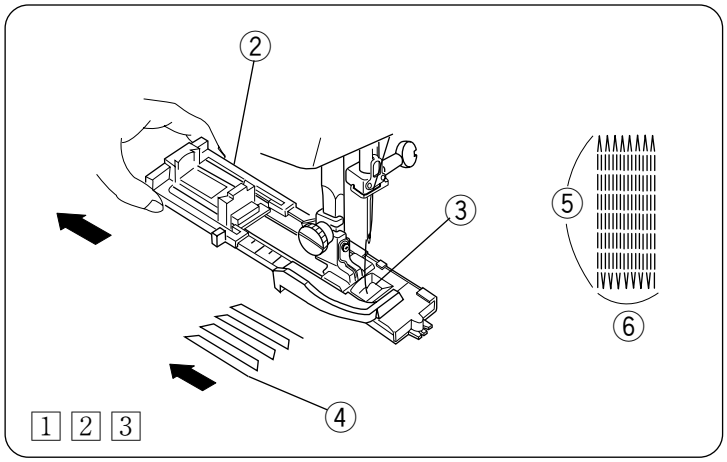
2 Press the key to return the display to the former one.

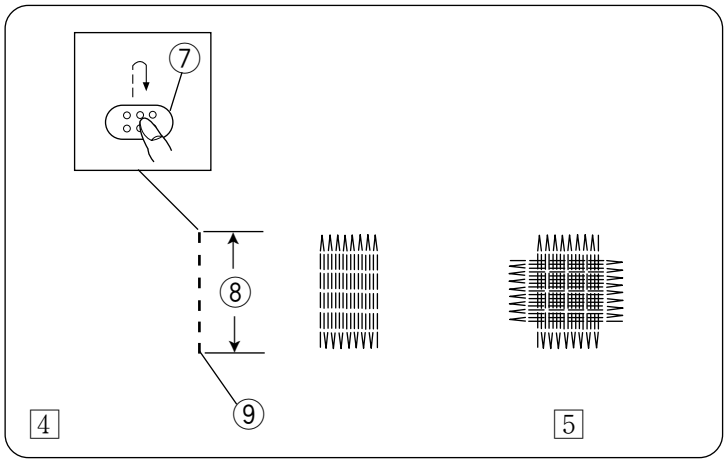
" 0.6 " on the visual touch screen indicates the distance between the guide and the needle drop point.

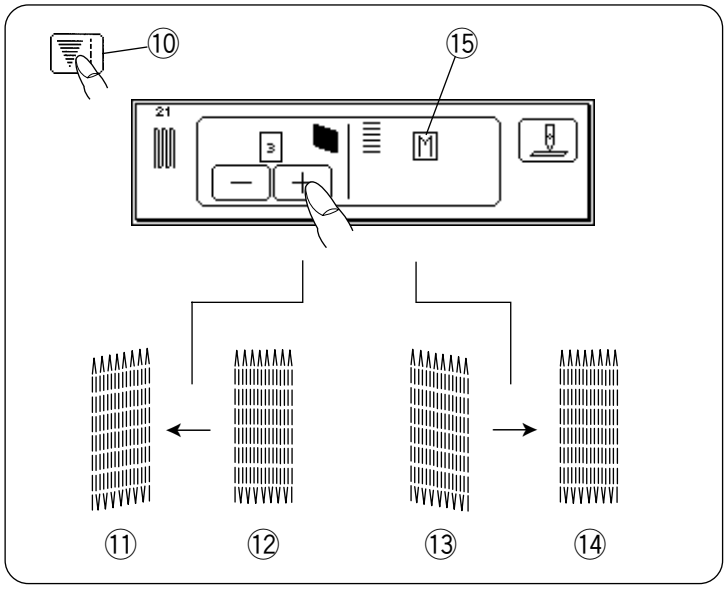
③ Guide

* When you choose patterns 12 or 13 the zigzag width cannot be changed. Instead, the needle drop position moves left and right, as shown.









Darning

① R: Automatic buttonhole foot

1 Pull the button holder to the rear.

2 Place the garment under the presser foot. Press the up/down needle button key twice to pull up the bobbin thread.
Remove the fabric to the left to draw both threads under the presser foot and put the fabric under the foot again.

3 Place the needle where you would like to sew and lower the foot. Press the foot control.
The machine will lock stitch, sew 16 rows of darning, lock stitch and stop automatically.
The machine will lock stitch, sew 16 rows of darning, lock stitch again and stop automatically.
* The size of darn cycle is variable. However, the maximum stitch length is 2 cm (3/4″) and the maximum stitch width is 0.7 cm (1/4″).

② Button holder
③ Foot hole
④ Starting point for darning
⑤ 2 cm (3/4″)
⑥ 0.7 cm (1/4″)

[For darning a length of less than 2cm (3/4″),]

4 For darning a length of less than 2 cm.
First stop the machine after sewing the desired length and then press the reverse button. The required length has now been determined. Now, restart the machine and continue sewing until the machine stops automatically.

5 Turn the fabric to change the sewing direction for repeat sewing from step 1 to 3.

⑦ Reverse key
⑧ Length required
⑨ Starting point for darning

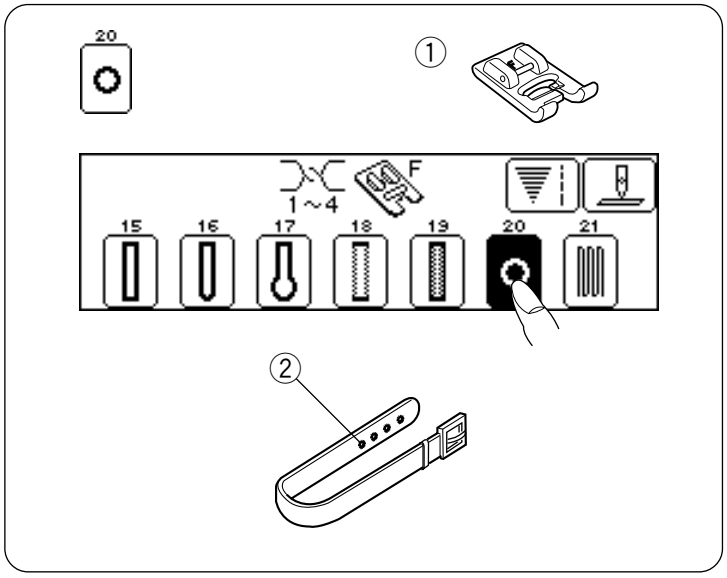
[To memorize darning stitches:]

When you press the memory key after step 3 and 4 you can repeatedly sew the samesize darn to repair a side rip.

[To adjust the balance of the darning stitches.]

If one side of the darn is higher or lower than the other, make them even by pressing the " – " or " + " key between 1 and 5.

⑩ Stitch width, Stitch length key
⑪ When the left side is lower
⑫ Select " 1 " or " 2 " to balance the stitches.
⑬ When the right side is lower
⑭ Select " 4 " or " 5 " to balance the stitches.
⑮ This indication will be shown when you press the Memory key.

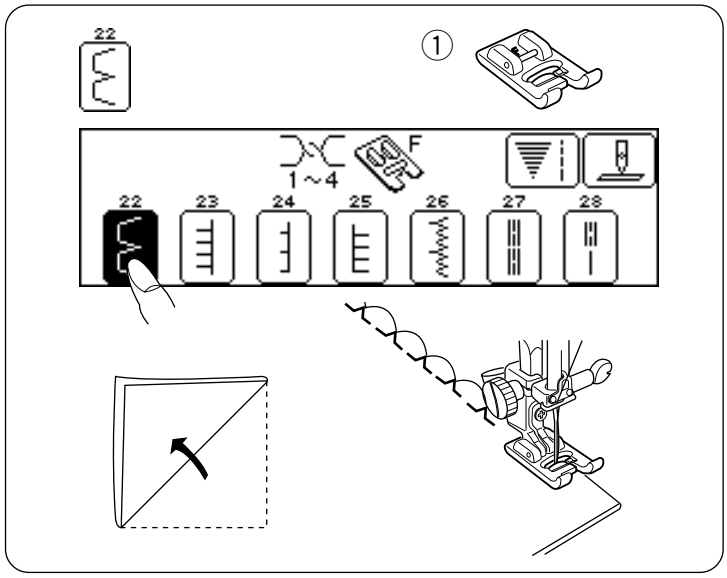


Eyelets

The pattern can be used to sew a small eyelet for belts passing cord, etc.

Remove the fabric and cut the small eye with the seam ripper, pointed scissors or awl.

① F: Satin stitch foot
② Eyelets

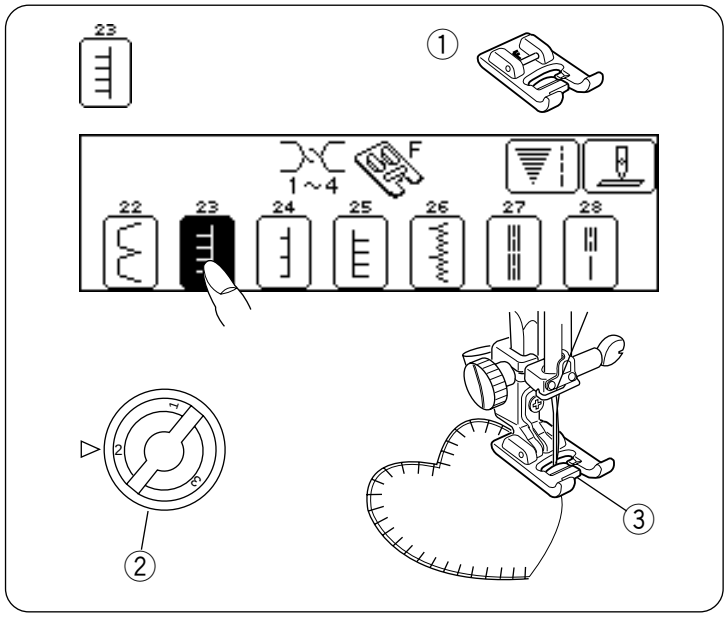


Shell Stitch

① F: Satin stitch foot

* Use a lightweight fabric such as tricot.
Fold and stitch on the bias.
Set the stitch width and length as you desire.
You may need to tighten the top thread slightly.
Allow the needle to just clear the folded edge of the fabric when it zigzags.

If you sew rows of shell stitches, space the rows 1.5 cm (5/8″) apart.
You can sew shell stitches on knits or soft silky wovens in any direction.

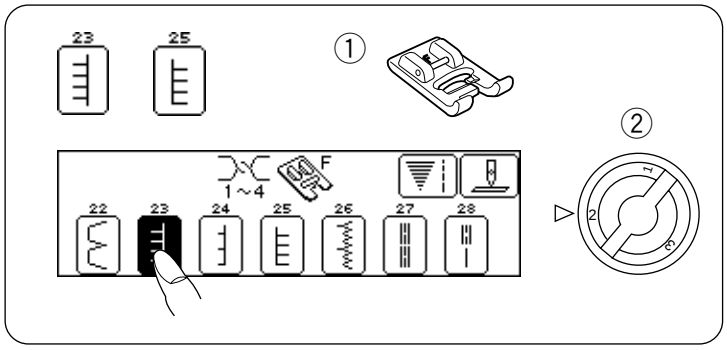


Appliqué

① F: Satin stitch foot

Stitch patterns 24, 25 and 26 can be used for appliqué.
In this type of appliqué raw edges are folded under.
To finish the raw edge, first cut the appliqué 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 appliqué in place and sew, guiding the slit on Foot F next to the finished edge of the appliqué.

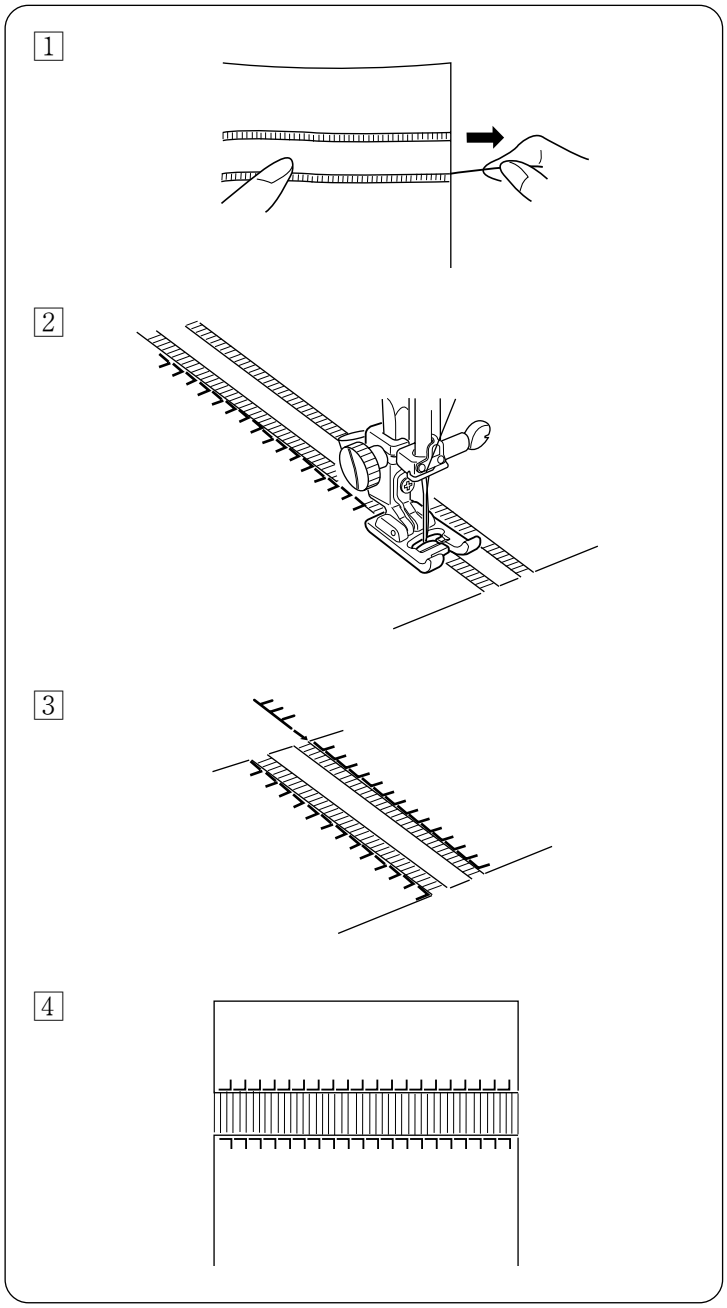
② Pressure dial
③ Slit



Drawn work 23 25

① F: Satin stitch foot
② Pressure dial " 2 "

* You can also use stitch pattern 26 .



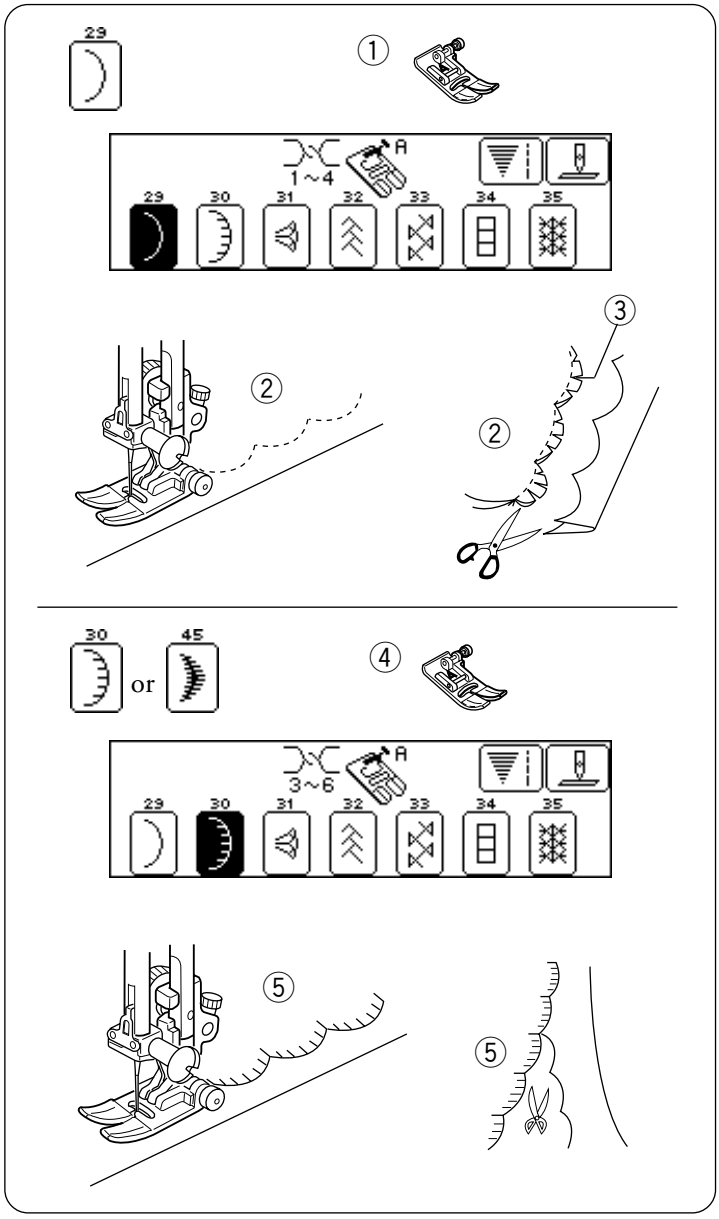
1 Pull out one or two threads beside the both sides where you would like to sew the drawn work, as shown.

2 Select the pattern 23 . Sew down the left side where you pulled out the threads.

3 Select the pattern 25 . Sew down the right side.

4 After both sides are sewn where you pulled out threads, pull out all the remaining threads from the fabric, as shown.

* After sewing, reset the pressure dial to " 3 ".



Scallop Hems

① A: Zigzag foot
② Wrong side of fabric
③ Trimming

Fold fabric with the right sides together. Sew scallops 1cm (3/8″) from folded edge.

Trim close to stitching leaving 0.3 cm (1/8″) seam allowance.

Clip seams as shown or trim with pinking shears. Turn the fabric to right side and press.

• Edging

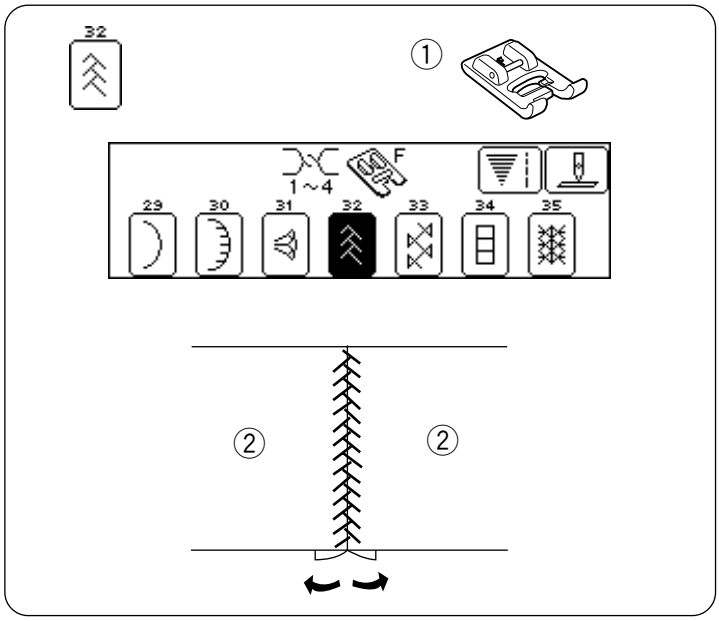
④ A: Zigzag foot

Some of the craft patterns can be used to attractively finish the edges of collars, pockets and place mats.

To edge a collar, place interfacing between upper and under collar and sew the pattern on the seam line.

After sewing, trim fabric close to stitching, taking care not to cut thread.

⑤ Right side of fabric

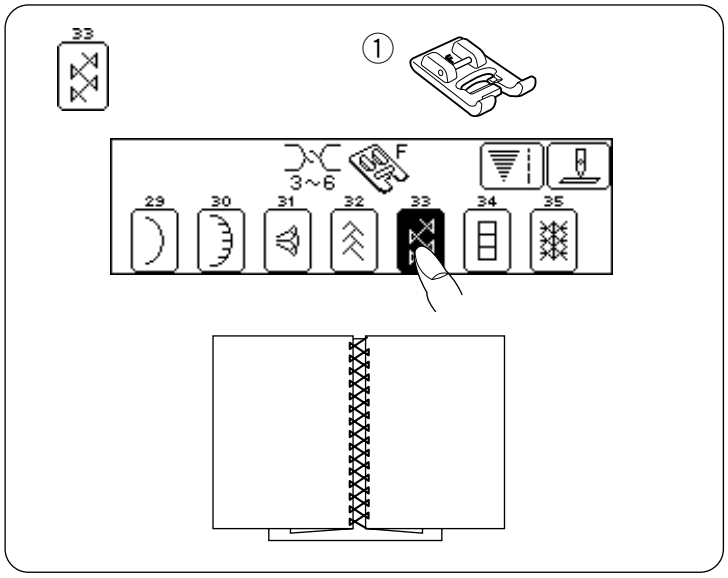


Patchwork

① F: Satin stitch foot

Sew seam and press seam allowance open. Sew pattern stitch on right side of garment centering over the seam line.

② Right side of fabric



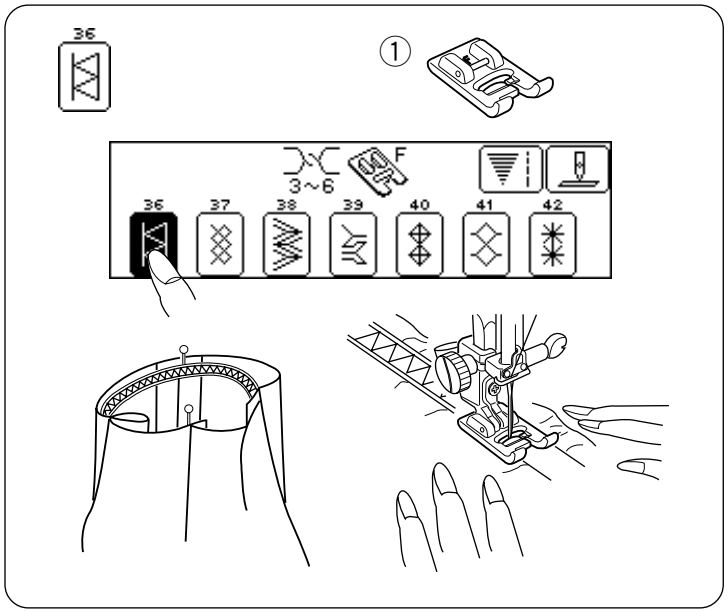
Fagoting

① F: Satin stitch foot

Fold under 1.5 cm (1/2″) on each fabric edge and press.

Pin the two edges to paper 0.3 cm (1/8″) apart.

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



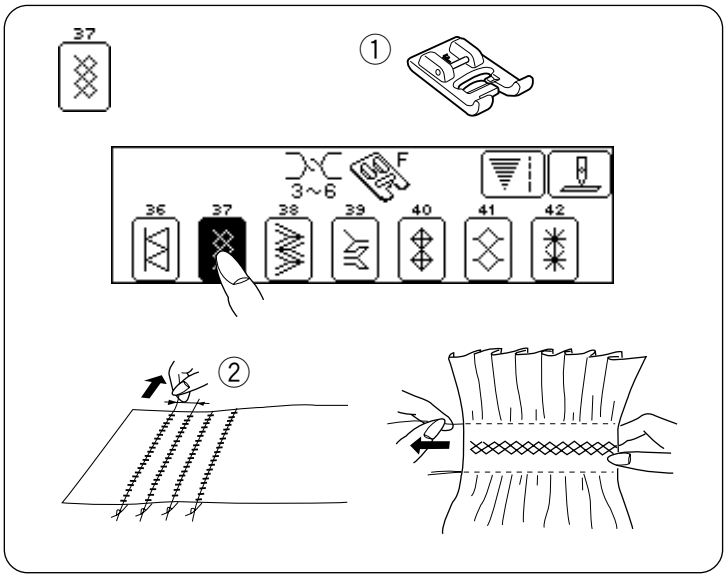
Elastic Stitch

① F: Satin stitch foot

Choose this stitch to attach elastic to garments.

Mark the elastic into quarters and match these to the center front, center back and side seams.

Place the middle of the elastic under the center of the presser foot and stitch into place, making sure the elastic is evenly distributed.



Smocking

① F: Satin stitch foot

With the manual stitch length at 4.5, sew straight lines 1 cm (3/8″) apart, across the area to be smocked.

A looser needle thread tension will make gathering easier. Knot the threads along one edge.

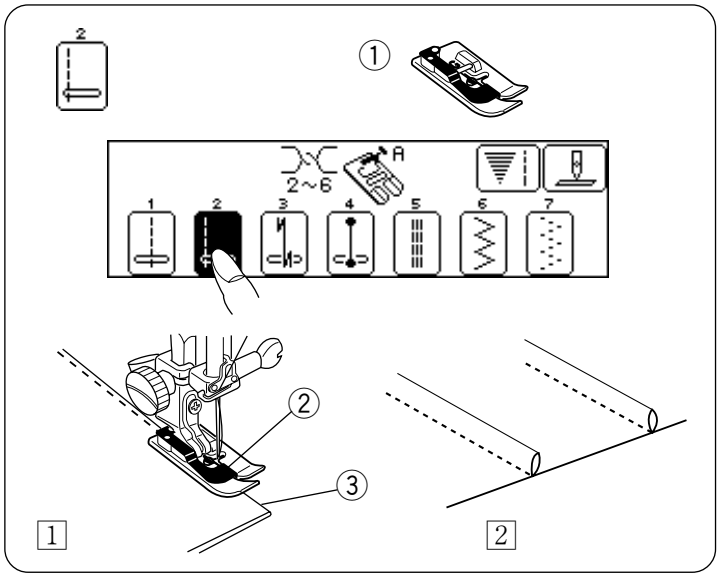
Pull the bobbin threads and distribute the gathers evenly.

Secure the threads at the other end.

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

Pull out the gathering stitches.

② 1.0 cm (3/8″)



Pintucking

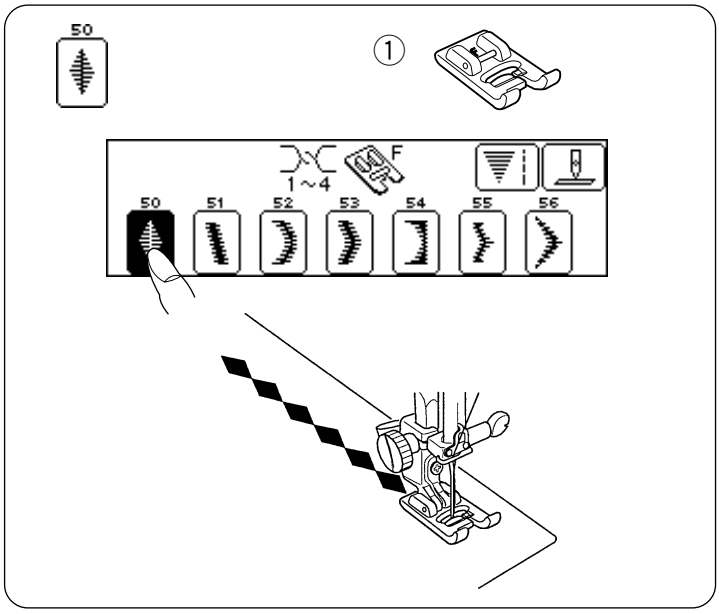
① G: Blind hem foot

1 Fold the fabric with wrong side together. Position the folded edge next to the fabric guide.

Lower the presser foot. Sew the folded edge, guiding it along the fabric guide.

2 Press the pintucks to one side.

② Guide
③ Folded fabric

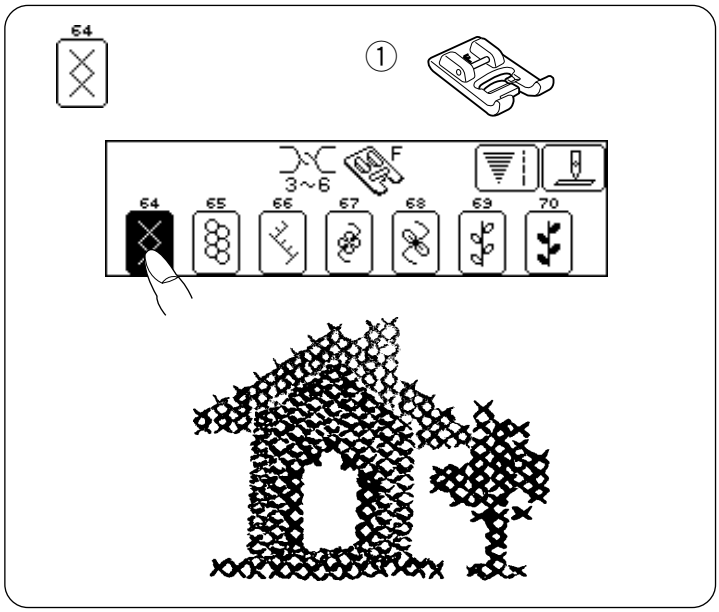


Decorative Stitch

① F: Satin stitch foot

For a delicate appearance on fabric such as chiffon, use a single layer with a teat-away backing if necessary.

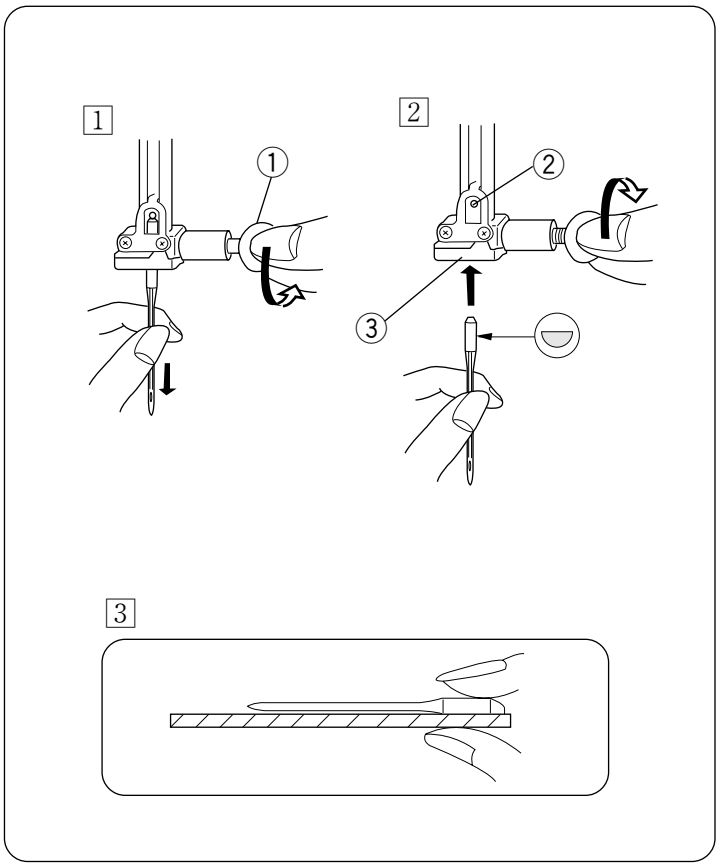
* You can use stitch patterns 43 through 63 for decorative stitching.



Cross Stitch

① F: Satin stitch foot

You'll love the beautiful designs you can sew with this craft stitch pattern, and in half the time it would take if embroidered by hand.



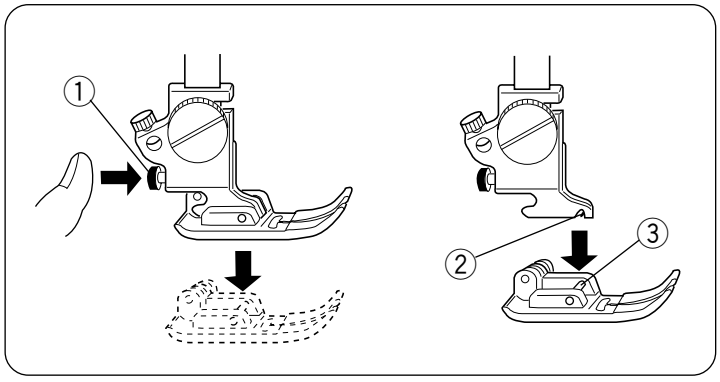
Changing Needles

1 Raise the needle by pressing the up/down needle button and lower the presser foot.
Turn off the power switch.
Loosen the needle clamp screw by turning it counterclockwise.

2 Remove the needle from the clamp.
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 and tighten the clamp screw firmly.

3 To find a good needle, put the flat side of the needle onto something flat (a needle plate, glass, etc.).
The gap between the needle and the flat surface should be consistent. Never use a bent or blunt needle.

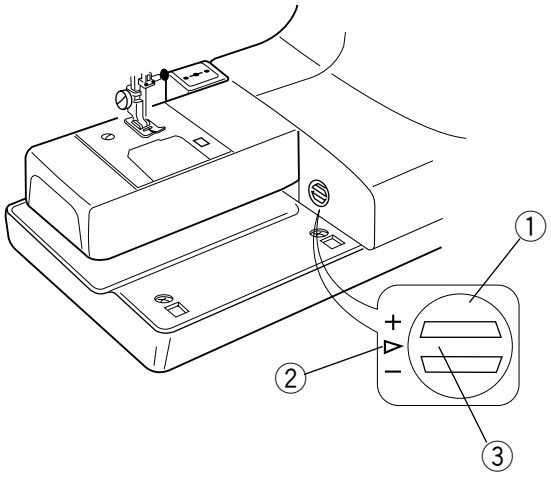
① Needle clamp screw
② Pin
③ Needle clamp

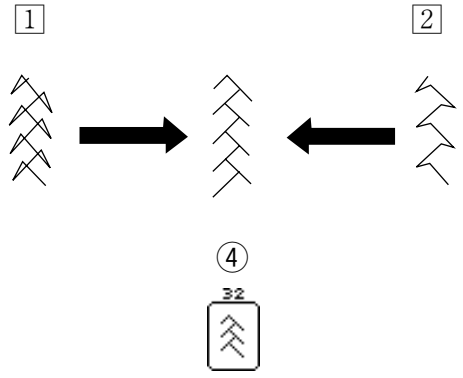


To Attach and Remove Presser Feet

Press the red button on the back of the foot holder. The presser foot will drop off.
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





Adjusting Pattern Balance

If stretch stitch patterns are uneven when you sew on a particular fabric, adjust them with the feed balancing dial.

① Feed balancing dial
② Standard mark
③ Setting mark

• To Adjust distorted patterns

1 If patterns are compressed, correct by turning the dial in the direction of " + ".

2 If patterns are drawn out, correct by turning the dial in the direction of " – ".

④ Example: Stitch pattern .

Getting Ready to Sew Professional Style Embroidery

• Interfacing

Interfacing material for embroidery is available in adhesive type (iron-on) and non-adhesive type. Interfacing should be attached to the wrong side of fabric. (More than one layer may be required).
The non-adhesive type should be used with fabric which cannot be ironed or on sections which are difficult to iron. For both types, cut the interfacing larger than the embroidery frame and set it on the frame so that the entire piece is fastened in it.

* Note that the ironing temperature varies with the kind of adhesive interfacing.

Selection of interfacing

To obtain perfectly formed letters, it is important to use the correct interfacing:

* Adhesive type (iron-on) ····Use for stretch fabric (such as knit), thin fabric and shrinkable fabric.

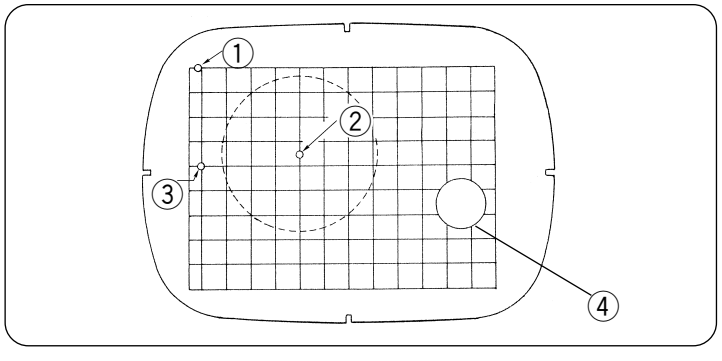
* Non-adhesive type ·····Use for firm fabrics and fabrics which cannot be ironed.

Note:
In embroidery sewing, the foot control cannot be used. Please use the start/stop button.

• Selecting Needle and Thread

WEIGHT OF FABRIC	TYPE OF THREAD	TYPE OF NEEDLE	NEEDLE SIZE
Light Medium	Size 50 Machine Embroidery Thread (Janome Embroidery Thread)	Universal Ball Point Blue Tipped Needle	11 (75)
Heavy	Size 50 to 100 Synthetic	Universal	14 (90)

* For embroidery sewing, we recommend Janome embroidery bobbin thread.

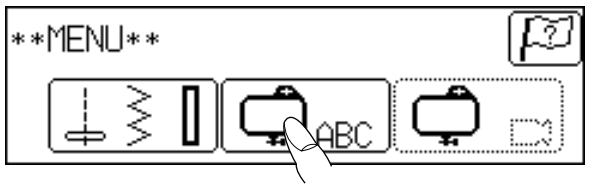


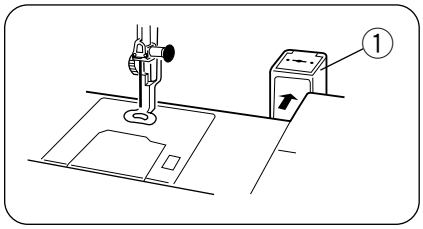
• Template

The illustration shows various strating points.

① Starting point for optional Memory Card #2, #3, etc.
② Starting point for optional Memory Card #102, #103, etc.
③ Starting point for Monogramming (see page 43).
④ Thumb hole (see page 43).

1





Using Built-in Monogramming Mode

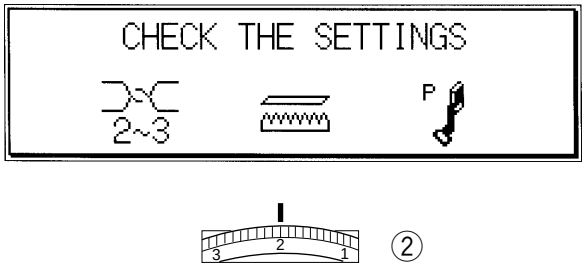
1 Turn on the power switch:

When the built-in monogramming mode key is selected, the carriage will move.

* Make sure nothing is blocking it.
* Before turning off the power switch and covering the machine, be sure to return to the first menu. This will return the carriage to its home position.
* Avoid turning the handwheel by hand while the carriage is moving.

① Carriage

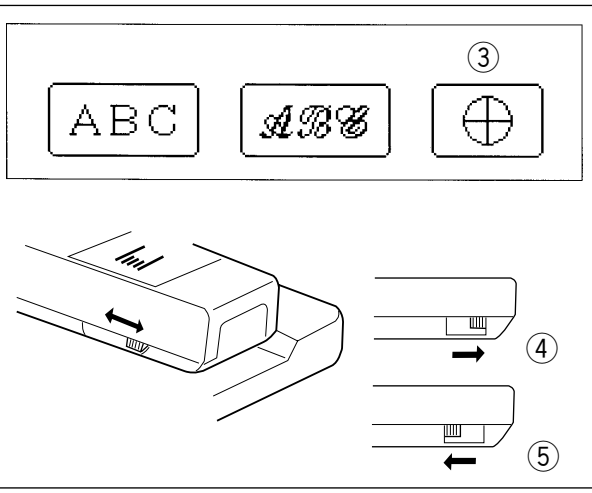
2



2 A setting reminder message is displayed for three seconds. Suitable thread tension level is indicated. Adjust the top thread tension by turning the thread tension dial, if necessary. Make sure that the feed dog is in lowered position.
Attach the embroidery foot P.

② Thread tension dial

3



Clothsetter Key ⊕

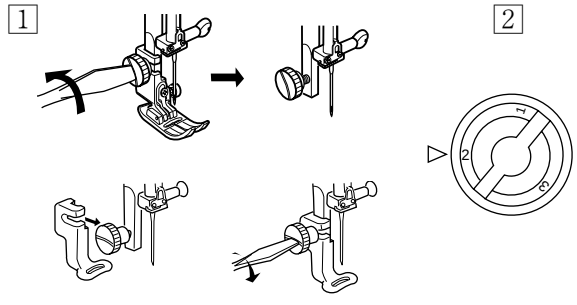
3 Alphabet (block style or script style) can be selected.

The clothsetter key ⊕ is for using the clothsetter (optional).

Press the menu key to return to the menu screen.

③ Clothsetter Key : ⊕
④ Raised position
⑤ Lowered position

1 2



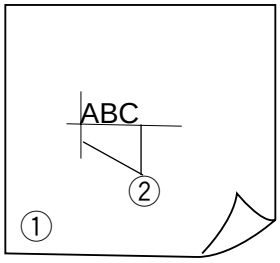
• **To Attach Embroidery Foot P**

1 Raise the presser foot lifter, loosen the screw and remove the foot holder .
Attach Embroidery Foot P and securely tighten the screw with the screwdriver.

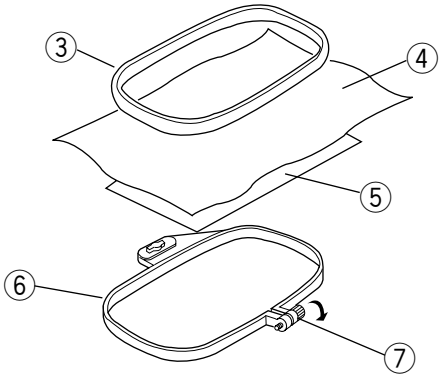
2 Set the pressure dial at “2”.

Note: After the completion of sewing, return the dial position “3”.

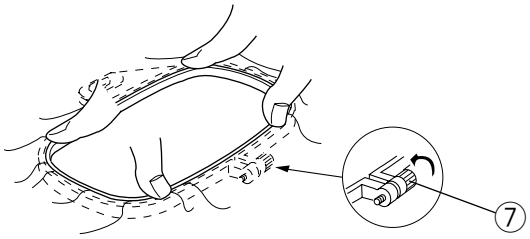
1



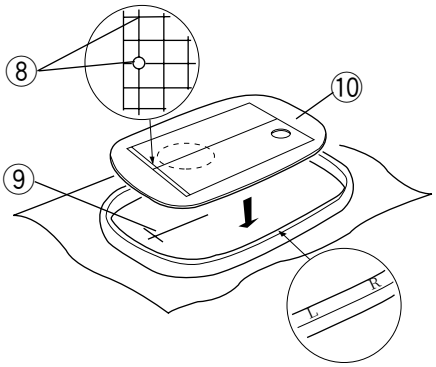
2



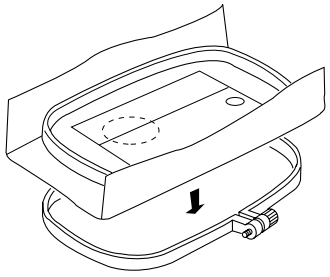
3



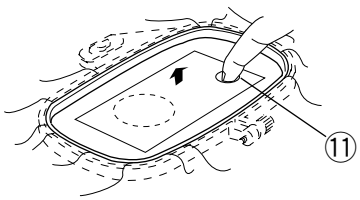
4



5



6



- **To set the Fabric in the Embroidery Hoop**

1 First, mark the embroidering position on the fabric with tailor's chalk.

① Fabric

② Reference line

2 Second, loosen the tightening screw on the outer hoop, lay the fabric on it, and press the fabric down with the inner hoop.

③ Inner hoop

④ Right side of fabric

⑤ (Interfacing)

⑥ Outer hoop

⑦ Hoop tightening screw

3 Third, tighten the hoop screw with your fingers.

4 Put the template on the fabric, and match the reference lines on the template and fabric.

⑧ Reference lines on the template

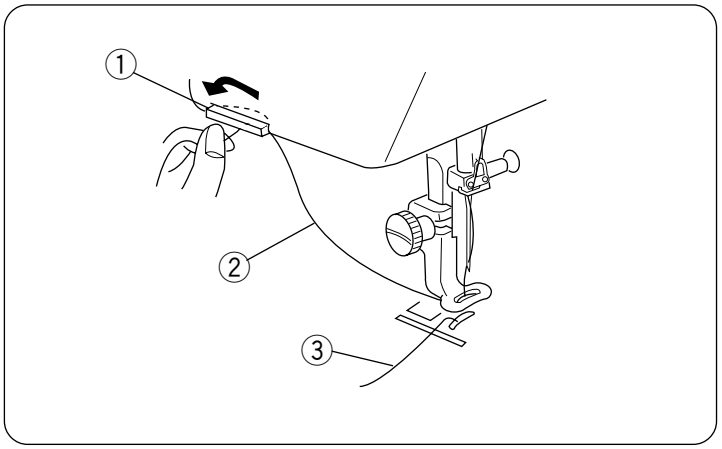
⑨ Reference line on the fabric

⑩ Template

5 Press them all into the outer hoop taking care that the reference lines on the fabric and template do not move away from each other.

6 Take out the template by putting your finger in the thumb hole.

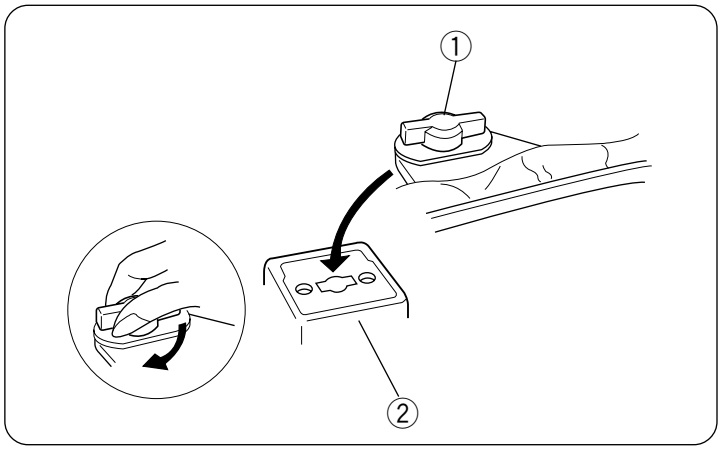
⑪ Take off hole (thumb hole)



- **Threading the Machine**

For threading, refer to the description of ordinary sewing (see page 10).
Pass the needle thread through the hole in the Embroidery Foot P in the downward direction, and guide the thread around the thread holder from the front side. (Leave 2 to 3 cm [1 ″] hanging.)

① Thread cutter
② Needle thread
③ Bobbin thread

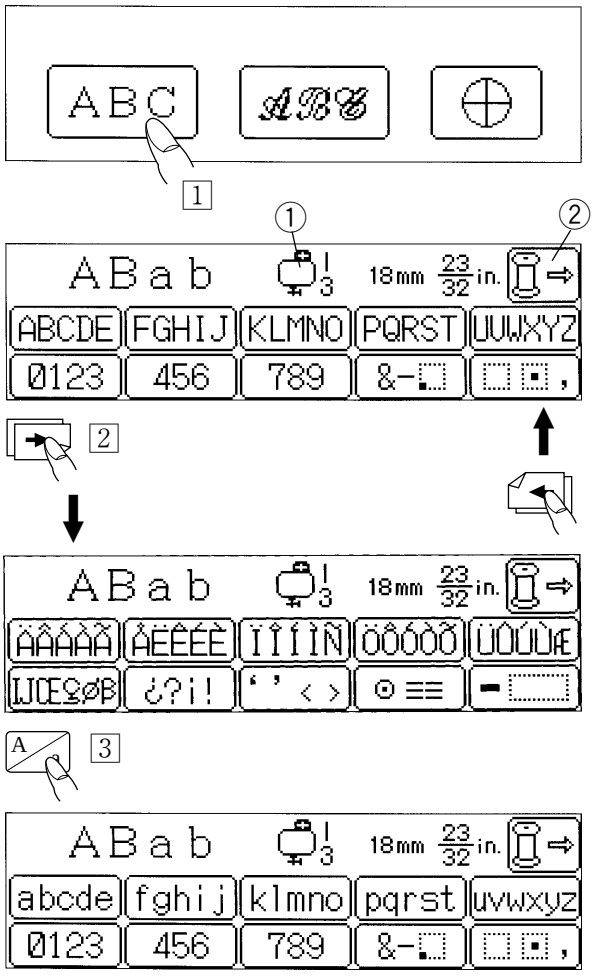


- **To Attach the Embroidery Hoop to the Machine**

Turn the knob so it is parallel with the hoop, and set it on the carriage.
Attach the outer hoop by fitting the prong into the carriage, and turning the knob clockwise.

① Knob
② Carriage

Sewing Built-in Letters and Numbers



- **To Select Letter Style (Block Style Letters)**

1 Press the ABC key to select block style letters.

① The number next to the symbol indicates which number embroidery hoop may be used. (Embroidery Hoop 3 is optional.)

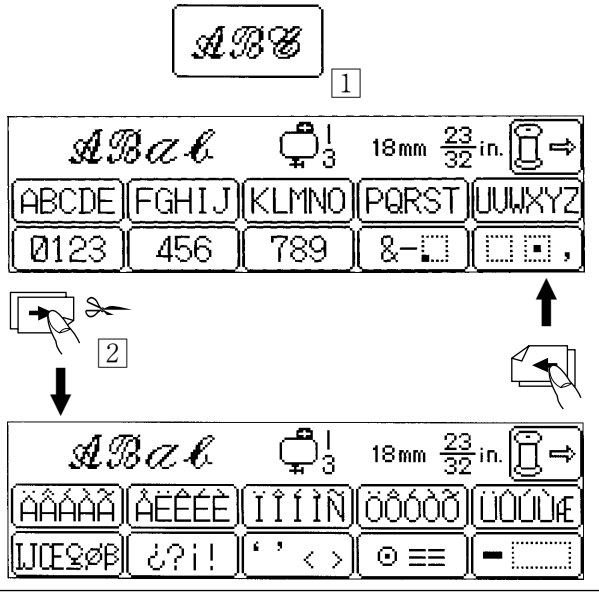
② Color select key: this (see page 47) key to change the needle thread color.

2 When the key is pressed, European letters (block style) can be selected.

The key returns to the previous screen.

Letter StyleKey : A/a

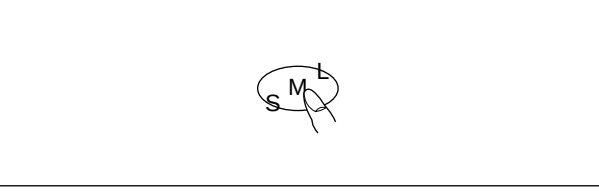
3 The A/a key alternately selects uppercase or lowercase each time pressed.



- **To Select Letter Style (Script Style Letters)**

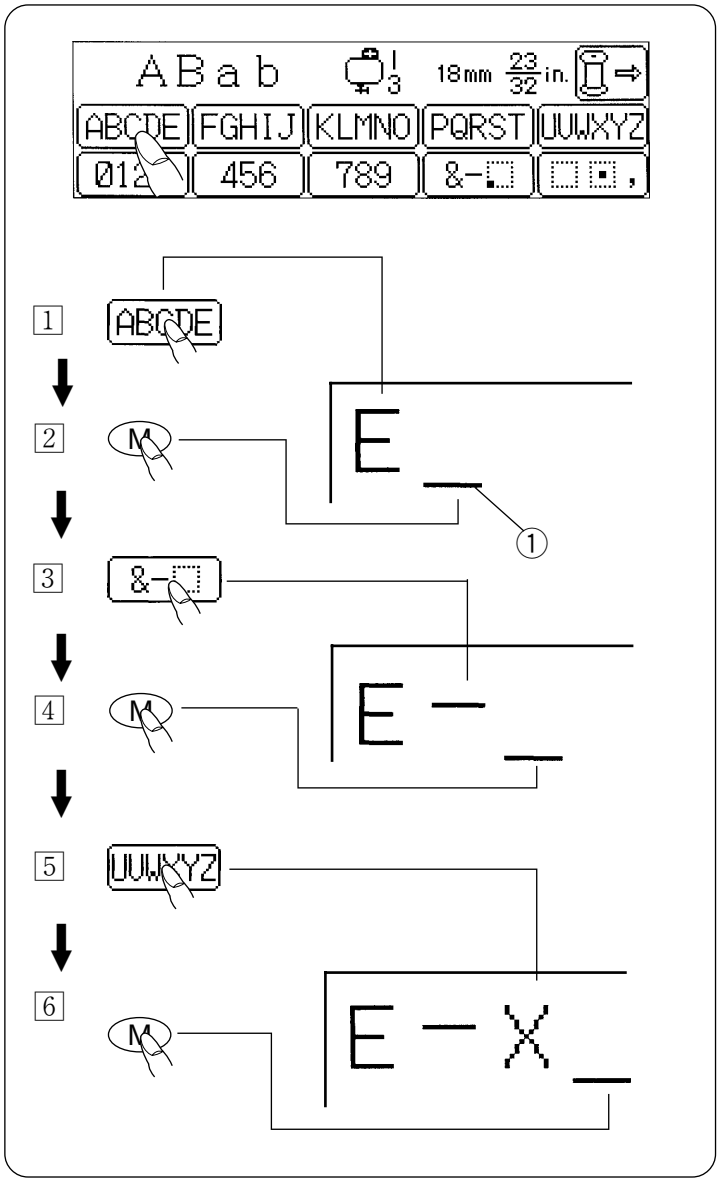
1 Press the ABC key to select script style letters.

2 When the key is pressed, European letters (script type) can be selected.



Letter Size Key : S M L

The size key S M L changes the overall size of letters and numbers each time pressed.
L–30 mm
M–18 mm
S–10 mm



- **To Compose Words, Etc.**

Example: Block Style " E-X "

1 Select " E " by pressing the ABC key 5 times.

2 Press the memory key (M) once.
" E " is memorized and the cursor moves to the next position.

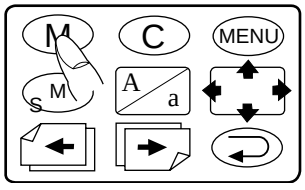
3 Select " – " by pressing the &- key twice.

4 Press the memory key (M) once.

5 Select " X " by pressing the UVWXYZ key four times.

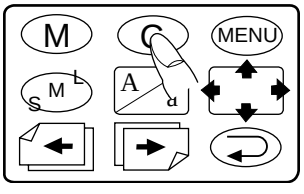
6 Press the memory key (M) once.

① Cursor



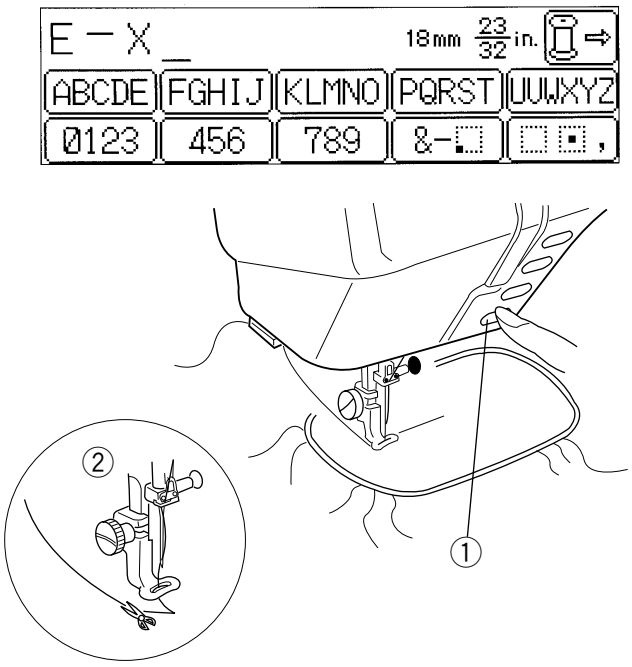
Memory Key : (M)

When this key is pressed after selecting a character, the character will be memorized as many times as the key is pressed.
When the key is pressed after selecting another character, that character will be memorized after the previous one. (Up to 20 characters can be memorized.)



Clear Key : (C)

If a wrong character is memorized, pressing this key will immediately clear it (like a " backspace " key).



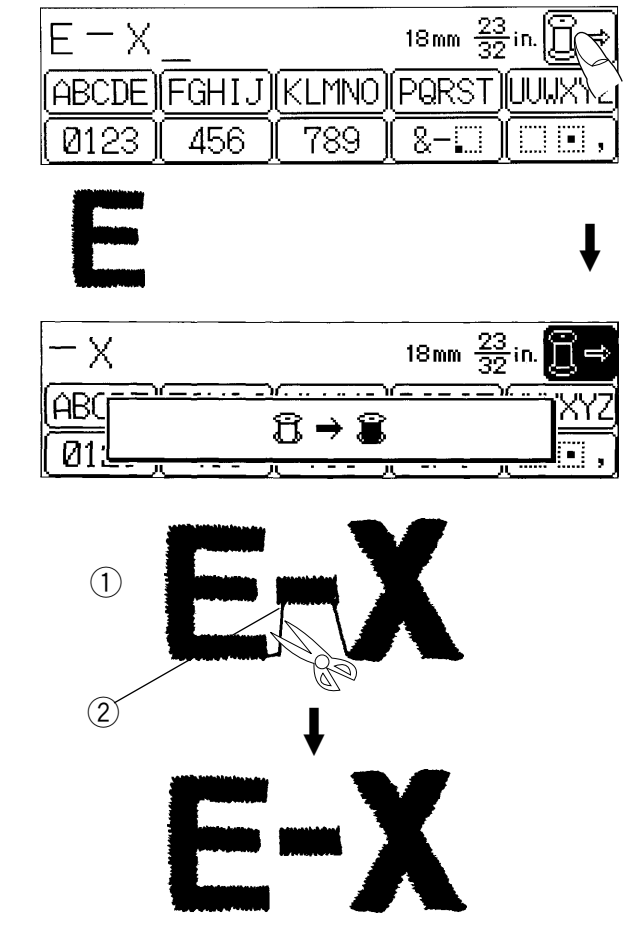
- **To Sew**

Lower the presser foot, press the start/stop button and sew 5 or 6 stitches.

Then, press the start/stop button again to stop the machine.

Raise the presser foot, cut off the extra thread at the starting point close to the beginning and lower the presser foot.

① Start/stop button
② Cut the extra thread.



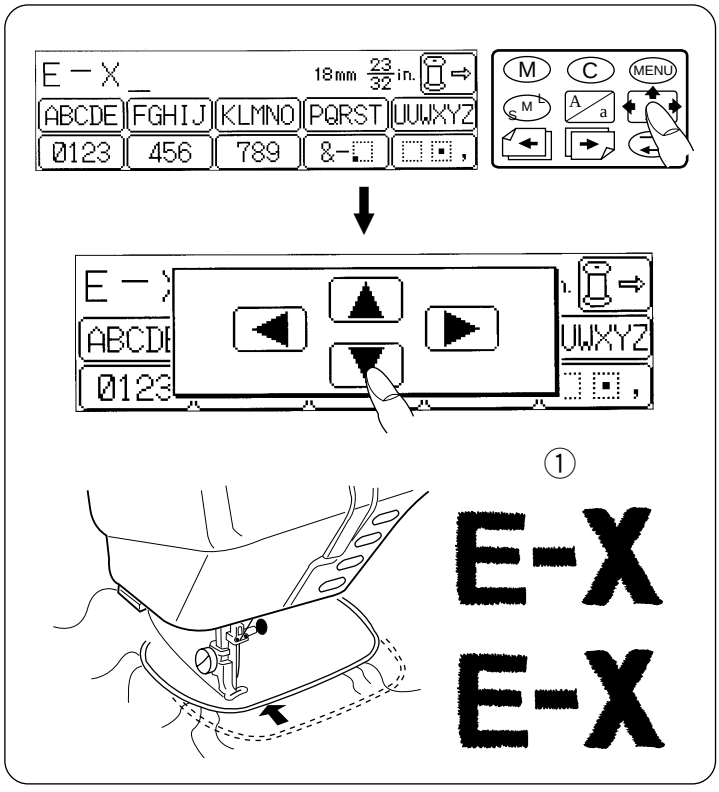
Color Select Key:

Press the key when you want to change the color of each letter.

This key is released when pressed again.

The machine stops automatically after " each letter " is sewn allowing you to replace the thread with a different colored one.

① Sewing sample
② Cut the connecting thread.



Space Check Key :

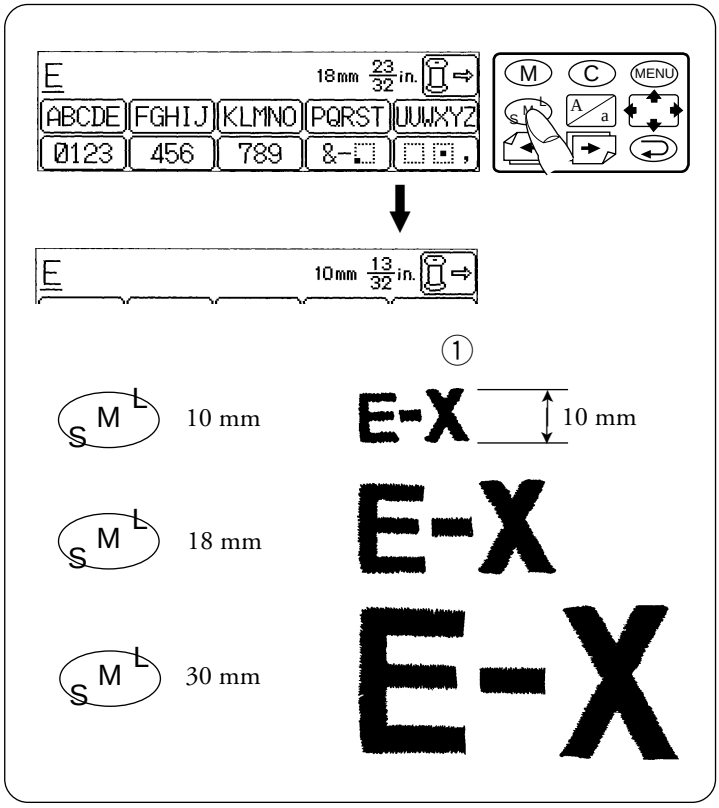
(To Sew a Second Row of Letters/Numbers)

Press the space check key .

Press one of the arrow keys to move to the desired position. The frame will move.

* Press the key to return to the previous display.
* Press the start/stop button to start sewing after setting the sewing position.
* The space check key can also be used if the needle drop position is incorrect.

① Sewing sample



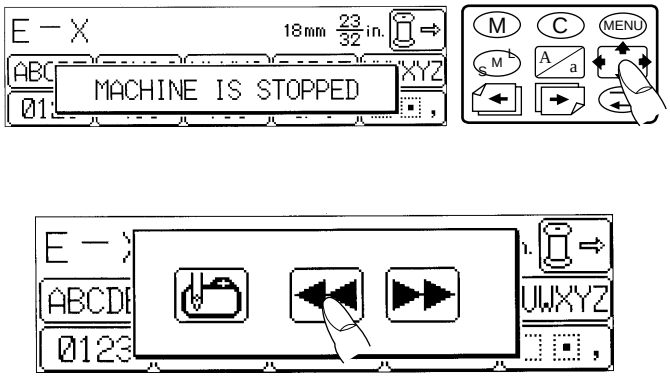
Letter Size Key :

(To Change the Size of Letters/Numbers)

Example: E-X

Press the size key before memorizing the letters and numbers. The character height is displayed in both millimeters and inches.

① Sewing sample



- **If the Thread Breaks While Embroidering**

Stop the machine by pressing the start/stop button.

Raise the presser foot.

Rethread the machine.

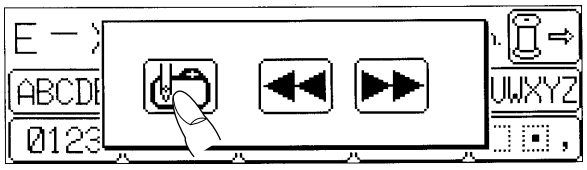
Guide the thread end around the thread holder of the thread cutter from the front side.

Press the ✥ key.

Press the ◀◀ key.

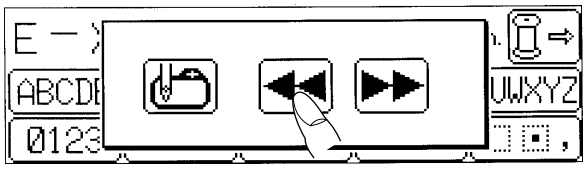
Lower the presser foot, and press the start/stop button. (Don't cut off the extra thread yet.)

Upon completion of sewing, remove the embroidery hoop and secure the loose ends of the thread tail where the break occurred.



Beginning Key : 🖐

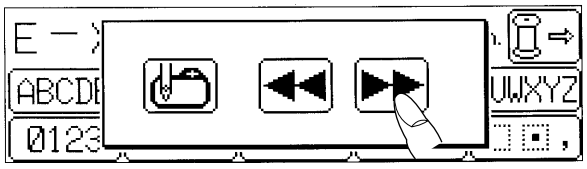
If you run out of thread in the middle of sewing a word (or some other pattern), and you want to start sewing again from the beginning, press the beginning key 🖐 .



Frame Return Key : ◀◀

This key is used to resume sewing where the thread has been broken. By pressing this key, you can move the hoop to the point where the thread broke.

* The hoop is moved backward 10 stitches each time the key is pressed.

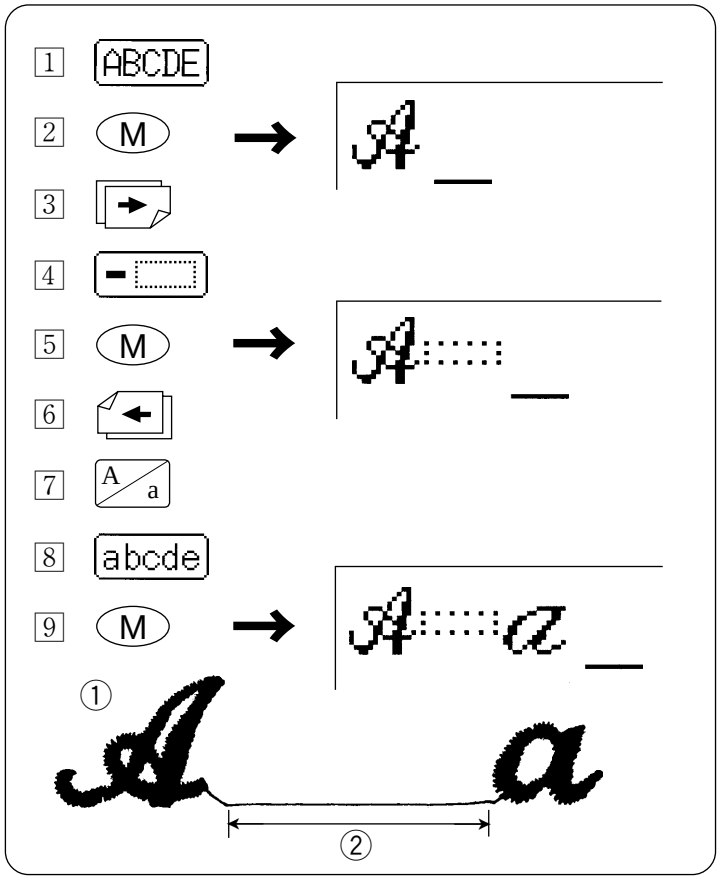


Frame Advance Key : ▶▶

Pressing this key moves the hoop forward without sewing. The key is used for correction when the hoop is returned too far.

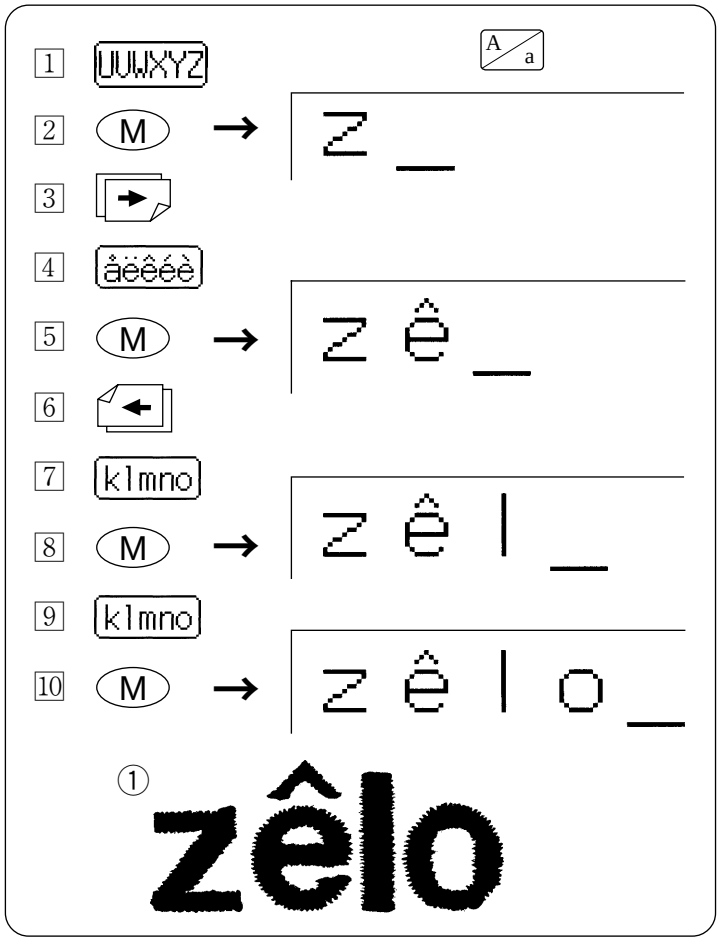
* The hoop is moved forward 10 stitches each time the key is pressed.

Note: Before pressing 🖐 ◀◀ ▶▶ keys, make sure that the needle is at its highest position.



- **Combining Letters in Script Style (Upper & Lowercase)**
  Example : A ▭ a

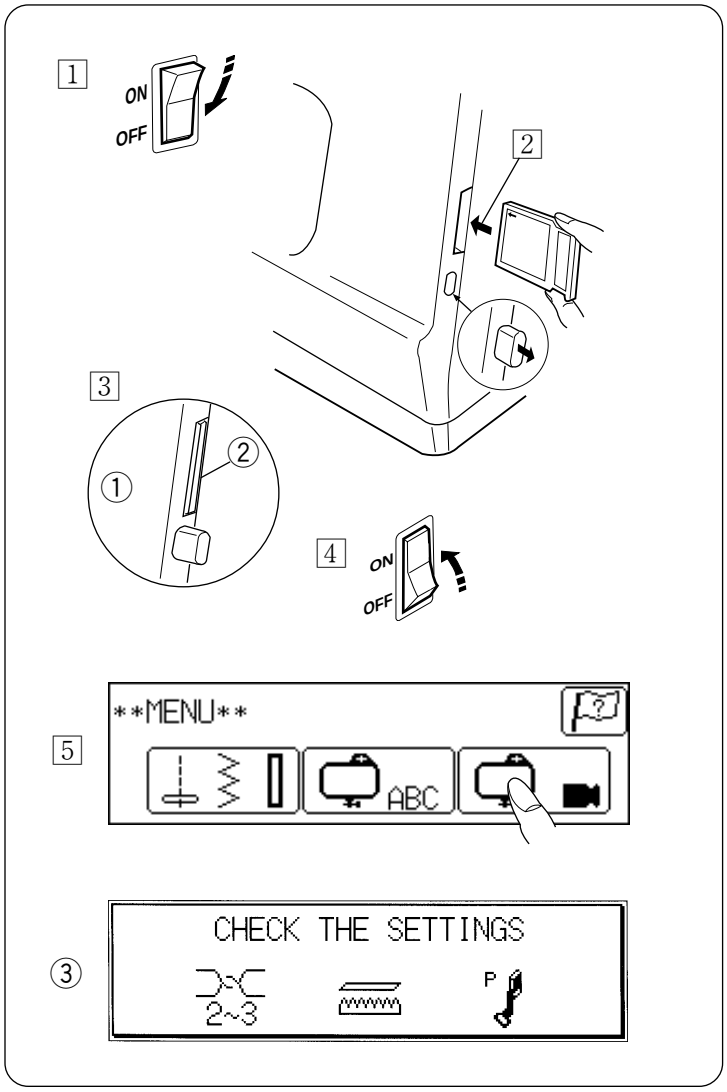
1 Select " A " by pressing the ABCDE key once.
2 Press the memory key (M) once.
3 Change the display by pressing the → key.
4 Select " ▭ " by pressing the − key twice.
5 Press the (M) key.
6 Change the display by pressing the ← key.
7 Press the A/a key.
8 Select " a " by pressing the abcde key once.
9 Press the memory key (M) once.
① Sewing sample
② Space of 35 mm



- **European (Accented) Letters in Block Style (Lowercase)**
  Example : zêlo

1 Select " z " by pressing UVWXYZ key six times.
2 Press the memory key (M) once.
3 Chang the display by pressing the → key.
4 Select " ê " by pressing the äëêéè key three times.
5 Press the memory key (M) once.
6 Chang the display by pressing the ← key.
7 Select " l " by pressing the klmno key twice.
8 Press the memory key (M) once.
9 Select " o " by pressing the klmno key three times.
10 Press the memory key (M) once.

Uppercase or lowercase can be alternately selected by pressing the upper/lowercase selection key A/a .
① Sewing sample



Embroidery with Optional Memory Cards

To Insert and Eject the Memory Card.

- **To Insert the Memory Card**

1 Turn off the power switch.

2 Insert the card making sure the arrow on the label is facing you.

3 Push the card straight in until it clicks (see illustration).

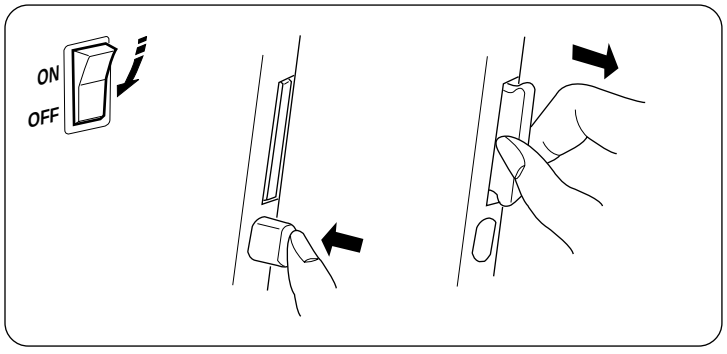
4 Turn on the power switch. The menu screen appears.

5 Select the pattern by pressing the key.

① Memory card is correctly inserted.

② Memory card sticks out about 0.2 cm (1/8″).

③ Settings reminder message is displayed for about 3 seconds.



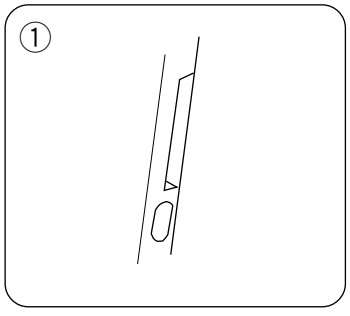
- **To Eject the Memory Card**

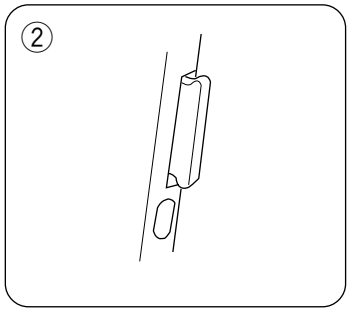
Turn off the power switch.
Upon pressing the card eject button, the memory card comes out halfway and can be taken out.

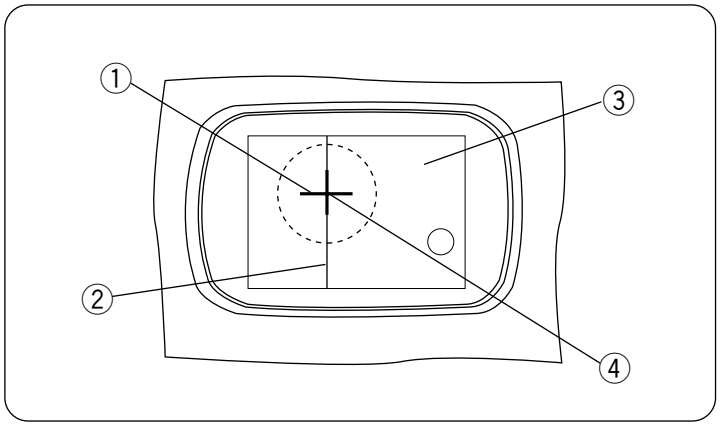
① No memory card is inserted and the eject button is not sticking out.

② Memory card is incorrectly inserted.

If the eject button is not sticking out, the memory card is not pushed in far enough.



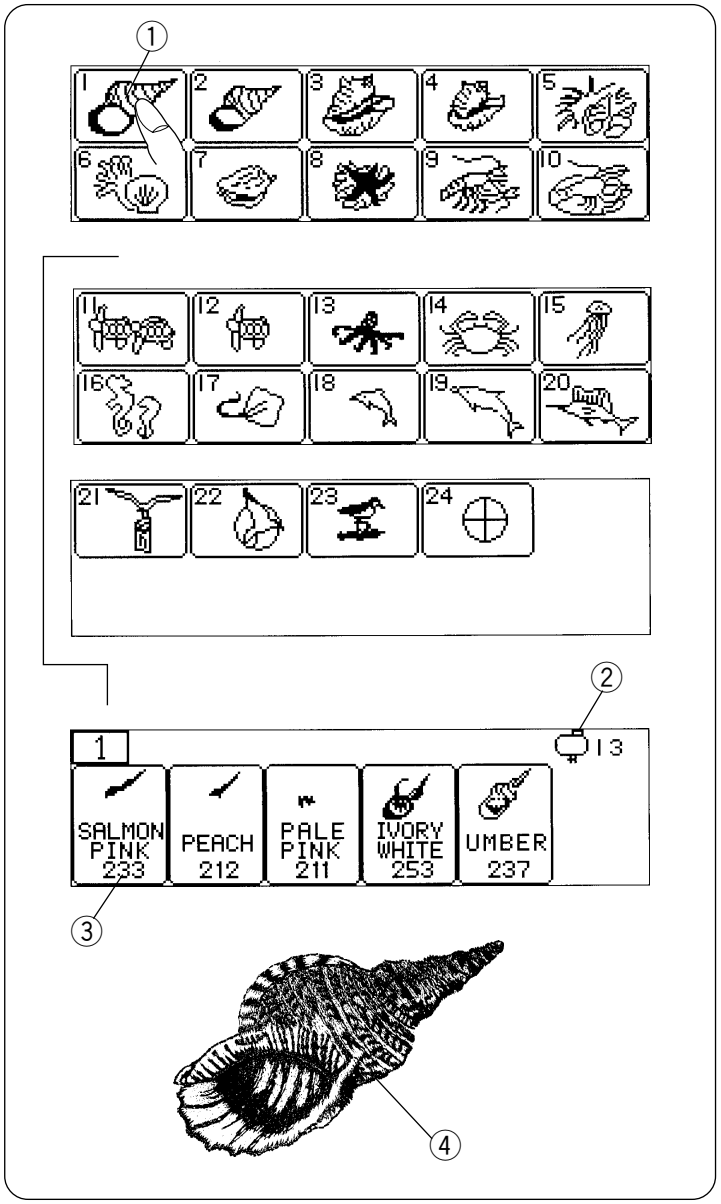




• **To set the Fabric in the Embroidery Hoop**

Mark the fabric with reference lines, match them with those on the template, and set the fabric in the embroidry hoop.
Then attach the hoop to the carriage.
The pattern can be sewn based on this starting point.

① Mark
② Reference line
③ Template
④ Starting point



• **Embroidery with Large Pattern Memory Card**

Example: Memory Card 104

The color of thread and sewing procedure are indicated.
Upon pressing the start/stop button, the machine sews the pattern in step 1 and stops automatically.
When doing multi-color embroidering, cut the connecting thread each time you change colors.

① Pattern 1

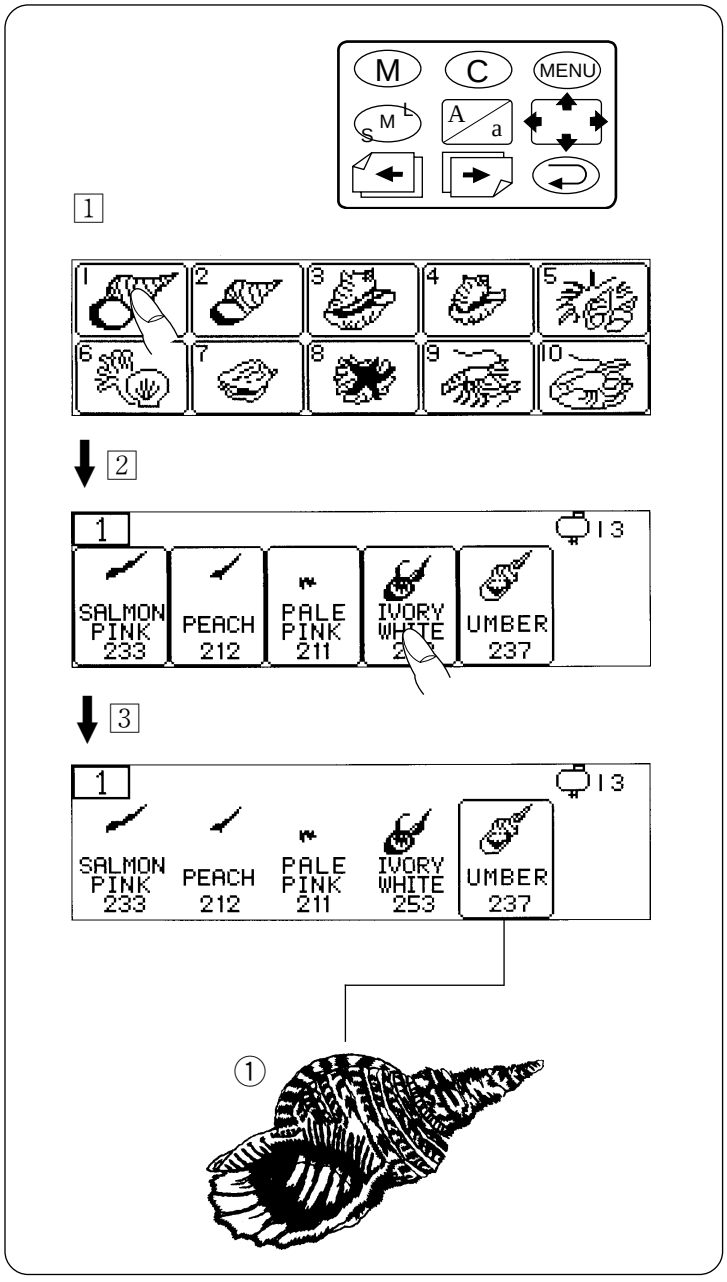
② The number next to the 13 display indicates which number embroidery hoop may be used.

③ The number shown under the thread color is the color code of Janome embroidery thread.

④ Sewing sample

* Use of the keypad is same as for embroidering letters.

Note: In embroidery sewing, do not sew the same pattern twice in the same place, as it may cause skipped stitchs.



- **Skipping**
  (Use to sew only part of a design.)
  Example : select Design 1.

1 Select design 1.

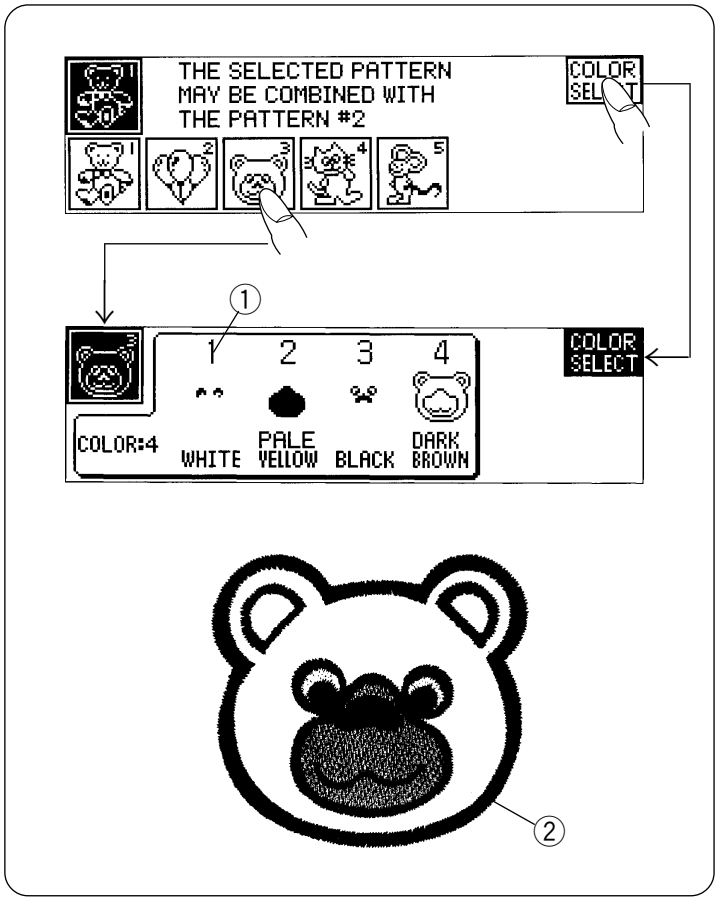
2 To sew only the fifth part of the pattern, press the key previous to it.

3 Sew the pattern until the machine stops automatically.

① Sewing sample

Note:

* When the (C) key is pressed, the screen returns to the previous screen.
  Sew the pattern until the machine stops automatically.
* To cancel Skipping, press the (↵) key.
  The screen will return to the previous display.



- **Embroidery with Large Pattern Memory Card**
  Example : Memory Card 8

Total thriteen designs are available on this card.

Select the design by pressing the display.

* The COLOR SELECT key is displayed only for the patterns which can be sewn in more than one color.

Example : Design 3

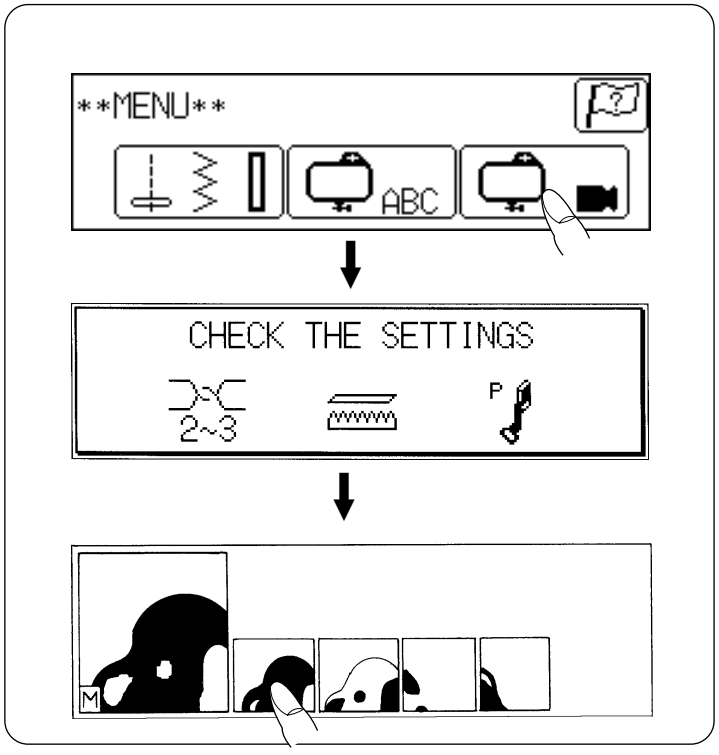
Press the COLOR SELECT key to see the suggested thread color and sewing sequence.
Press the start/stop button. The machine sews the pattern in Step 1 and stops automatically.
When doing multi-color embroidery, cut the connecting thread each time you change colors.

* When finished sewing, cut the thread at the end point.

* Cut the connecting threads on the wrong side of the fabric (leave about 5 mm).
Use of the keypad is same as for embroidering letters.

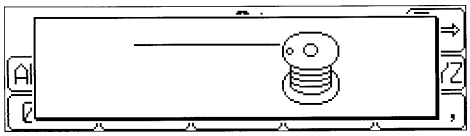
① Step 1

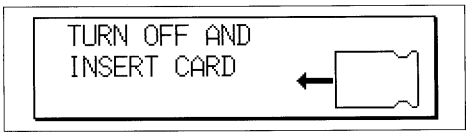
② Sewing sample

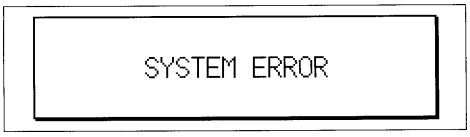


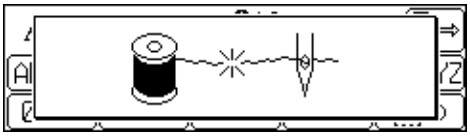
Embroidery with Blank Memory Card and Scan'n Sew, Scan'n Sew PC (Optional Accessories)

Sew patterns in the same way as for normal embroidery.









When Messages Appear on Screen

The visual touch screen shows "Bobbin winding" condition.
After the bobbin is wound, return the bobbin winder to its original position by moving the spindle to the left.

Raise the needle bar by pressing the up/down needle button.

Turn off the power switch, and insert the Memory Card again.

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

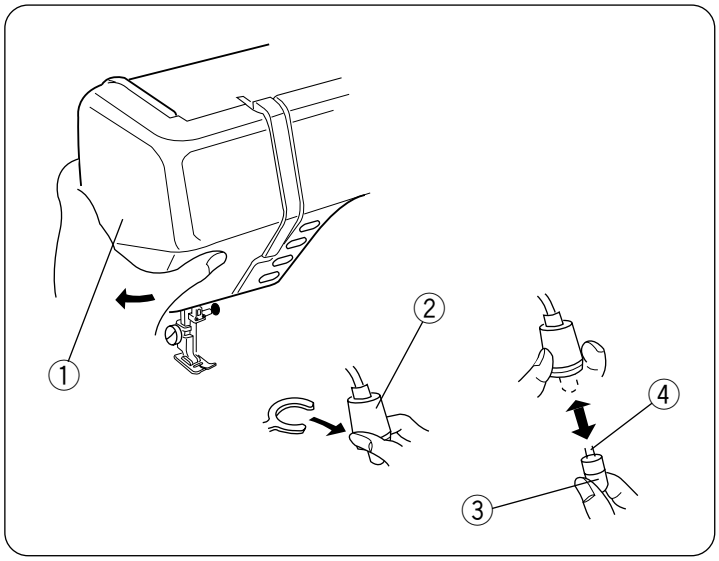
Contact your Janome outlet.

This screen indicates the needle thread has run out or has broken.
Turn off the power switch and rethread the machine.

SECTION V CARE OF YOUR MACHINE

Care of Your Machine

The Harmony 8100 has been meticulously designed and manufactured to give you a lifetime of trouble-free sewing. The machine never needs oiling but the bobbin area and hook race should be cleaned after completion of every garment. 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. Press the up/down needle button to raise the needle and unplug the machine before cleaning.



• Replacing the Light Bulb

How to remove

Open the face plate and pull out the lamp socket, then gently pull out the lamp.

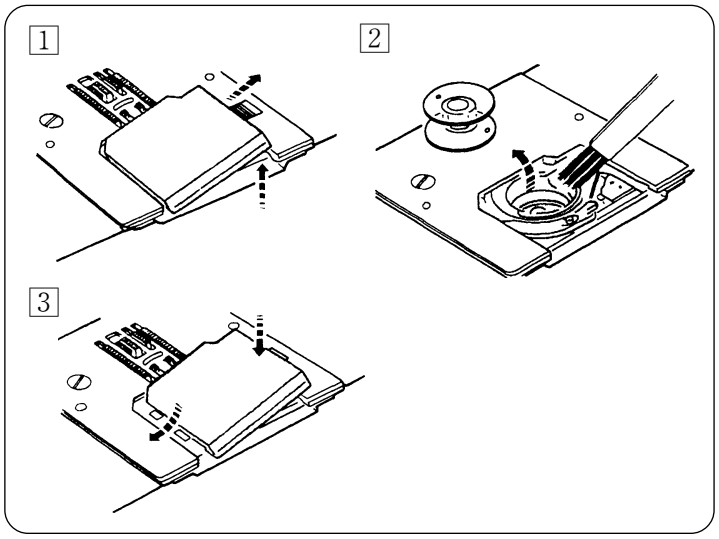
① Face plate
② Lamp socket
③ Lamp

To replace

Insert the lamp being careful to match the holes and pins. Attach the lamp socket and close the face plate.

④ Pin

> Note:
> To replace the light bulb, turn off the power supply and remove power the cord from the wall outlet. Remove the light after it has cooled down.



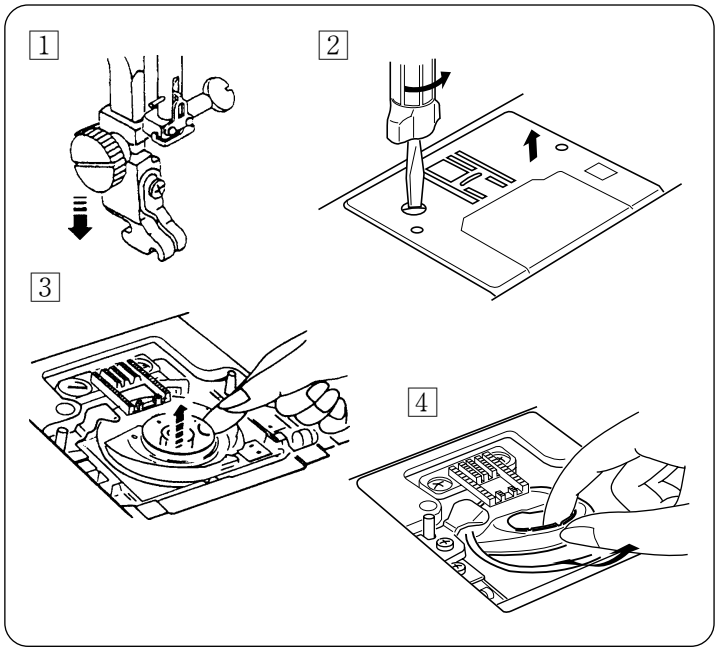
• Cleaning the Bobbin Holder

Loose threads and dust may cause puckered stitches and thread breakage during stitching. Check for lint build-up after each garment is completed.
Turn off the power switch or unplug the machine.

1 Remove the cover plate by sliding the hook cover plate release button to the right.

2 Take out the bobbin, brush out dust and lint. (You may also use a small vacuum cleaner.)

3 Insert the bobbin and attach the hook cover plate.



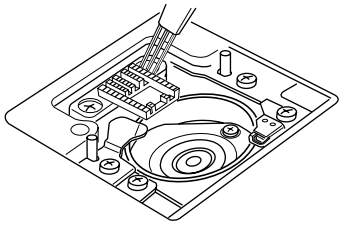
• Exposing the Hook Race

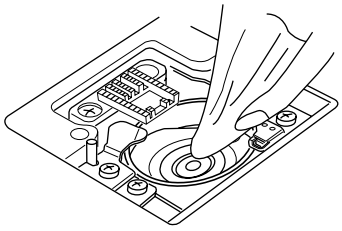
1 Unplug the machine and remove the presser foot and needle.

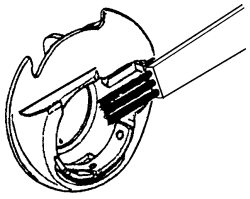
2 Remove the screw on the left side of the needle plate with the screwdriver supplied with the machine.

3 Remove the needle plate and take out the bobbin.

4 Lift up the bobbin holder and remove it.

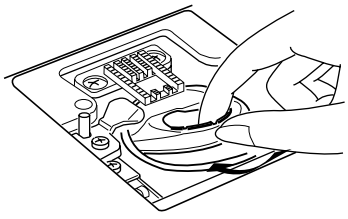




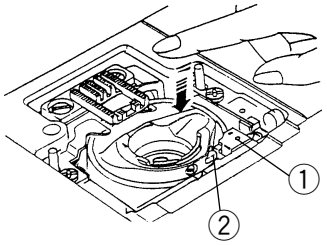


- **Cleaning the Hook Race**

Clean the feed dogs, hook race and bobbin holder with the lint brush and a soft dry cloth.



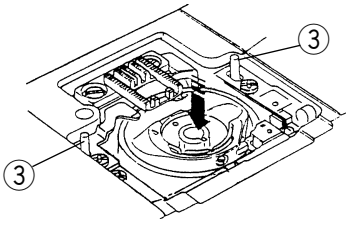
- **Replacing the Bobbin Holder**



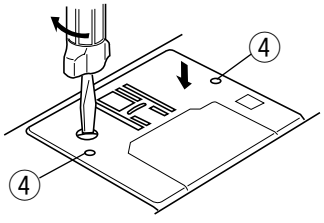
Insert the bobbin holder so that the knob fits next to the stopper in the hook race.

① Stopper

② Knob



Insert the bobbin.



Replace the needle plate, inserting the two needle plate guide pins into the holes in the needle plate.
Replace the screw.

③ Needle plate guide pin

④ Guide hole

Troubleshooting

Problem	Type of Sewing	Cause	Reference
The machine is noisy.	All	① Threads have been caught in the hook mechanism.	See pages 56,57.
	All	② The feed dog is packed with lint.	See pages 56,57.
	All	③ Slight humming sound coming from internal moter.	See page 6. Not abnormal
The needle thread breaks.	All	① The needle thread is not threaded properly.	See pages 8-11.
	All	② The needle thread tension is too tight.	See page 14.
	All	③ The needle is bent or blunt.	See page 39.
	All	④ The needle is incorrectly inserted.	See page 39.
	All	⑤ The thread is too heavy for the needle.	See page 13.
	Normal	⑥ The needle thread and the bobbin thread are not set properly under (drawn to the rear of) the presser foot when sewing is starting.	See page 11.
	Embroidery	⑦ The needle thread is not set in the thread holder when embroidery sewing is starting.	See page 44.
The bobbin thread breaks.	All	① The bobbin thread is not threaded properly in the bobbin holder.	See page 9.
	All	② Lint has collected in the bobbin holder.	See page 57.
	All	③ The bobbin is damaged and doesn't turn smoothly.	Replace bobbin.
The needle breaks.	All	① The needle is incorrectly inserted.	See page 39.
	All	② The needle is bent or blunt.	See page 39.
	All	③ The needle clamp screw is loose.	See page 39.
	All	④ The needle thread tension is too tight.	See page 14.
	All	⑤ The fabric is not drawn to the rear when sewing is finished.	See page 18.
	Normal	⑥ The needle is too fine for the fabric being sewn.	See page 13.
Visual touch screen is not clear.	All	① The sharpness of visual touch screen is not adjusted properly.	See page 3. Turn the knob to correct.
The embroidery key doesn't work.	Embroidery	① The memory card is not inserted properly.	See page 51.
Key doesn't work.	Embroidery	① The needle is in the lowered position.	See pages 12, 49. Raise the needle.

Problem	Type of Sewing	Cause	Reference
Skipped stitches	All	① The needle is incorrectly inserted.	See page 39.
	All	② The needle is bent or blunt.	See page 39.
	All	③ The needle and/or threads are not suitable for the work being sewn.	See page 13.
	All	④ A blue-tipped needle is not being used for sewing stretch, very fine fabrics and synthetics.	See page 13.
	All	⑤ The needle thread is not threaded properly.	See page 10.
	All	⑥ The wrong needle is used.	Change the needle.
	Normal	⑦ The presser foot pressure is not strong enough.	See page 12.
	Embroidery	⑧ The embroidery hoop is not set properly.	See pages 43, 44.
	Embroidery	⑨ The fabric is not tightly pulled on the embroidery hoop.	See page 43.
	All	⑩ Interfacing is not being used with stretch or fine fabrics.	See pages 25,41,43.
Seam puckering	All	① The needle thread tension is too tight.	See page 14.
	All	② The needle thread or the bobbin thread is not threaded correctly.	See pages 8-11.
	All	③ The needle is too heavy for the fabric being sewn.	See page 13.
	Normal	④ The stitch length is too long for the fabric.	Make the stitches denser.
	Normal	⑤ The presser foot pressure is not correctly adjusted. * When sewing extremely lightweight materials, place stabilizer underneath the fabric.	See page 12.
	Embroidery	⑥ The fabric is not tightly pulled on the embroidery hoop.	See page 43.
	All	⑦ Interfacing is not being used with stretch or fine fabrics.	See pages 25, 43.
Slipping fabric	Normal	① The presser foot pressure is not correctly adjusted.	See page 12.
	Normal	② The correct presser foot is not being used.	Use the correct Presser foot
The cloth is not feeding smoothly.	Normal	① The feed dog is packed with lint.	See pages 56, 57.
	Normal	② The presser foot pressure is too weak.	See page 12.
	Normal	③ The stitches are too fine.	Make the stitches coarser.
	Normal	④ The fabric is not fed when sewing is starting.	See page 19.
	Normal	⑤ The feed dog is lowered.	See page 42.
	Normal	⑥ The correct presser foot is not used.	Use the correct Presser foot

Problem	Type of Sewing	Cause	Reference
The machine doesn't run.	All	① The machine is not plugged in.	See page 6.
	All	② A thread is caught in the hook race.	See page 9.
	All	③ The control circuit is not working correctly.	Turn off the machine and turn it on again. Then set for desired pattern.
	Embroidery	④ The foot control is plugged in when sewing embroidery.	See page 41.
Strange sound occurs when the machine is switched on.	All	① Something is caught between the carriage and the arm.	Remove the object.
	All	② The carriage is rubbing against something touching the machine.	See page 42.
Patterns are distorted.	All	① The correct presser foot is not being used.	Use the correct presser foot.
	All	② The needle thread tension is too tight.	See page 14.
	Normal	③ The stitch length is not suitable for the fabric being sewn.	See page 20.
	Normal	④ The feed balancing dial is not set properly.	See page 40.
	All	⑤ Interfacing is not used for sewing stretch and very fine fabrics.	See pages 25, 41, 43.
	Embroidery	⑥ The embroidery hoop knob is loose.	See page 44.
	Embroidery	⑦ The carriage has bumped into something near the machine.	See page 42.
	Embroidery	⑧ The fabric is not pulled tightly on the embroidery hoop.	See page 43.
	Embroidery	⑨ The end of the fabric is caught or pulled for some reason when sewing embroidery.	Stop the machine and free the end of the fabric.
	Embroidery	⑩ The needle thread on the wrong side of fabric is not cut correctly.	Cut the extra needle thread on the wrong side of fabric.
The sensor buttonhole stitches are not balanced.	Normal	① The stitch length is not suitable for the fabric being sewn.	See page 27.
	Normal	② Interfacing is not used with stretch fabrics.	See page 25.
	Normal	③ The presser foot is not the correct one.	See page 25.
Pattern selection keys don't work.	All	① The bobbin winder spindle is in the winding position.	See pages 8-55.
	Embroidery	② The number of characters is beyond the capacity of memory.	See pages 46.
	All	③ The control circuit is not working correctly.	Turn off the machine and turn it on again. Then set for desired pattern.
	All	④ Ordinary sewing or embroidery modes have not been selected properly.	See pages 15, 42.

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