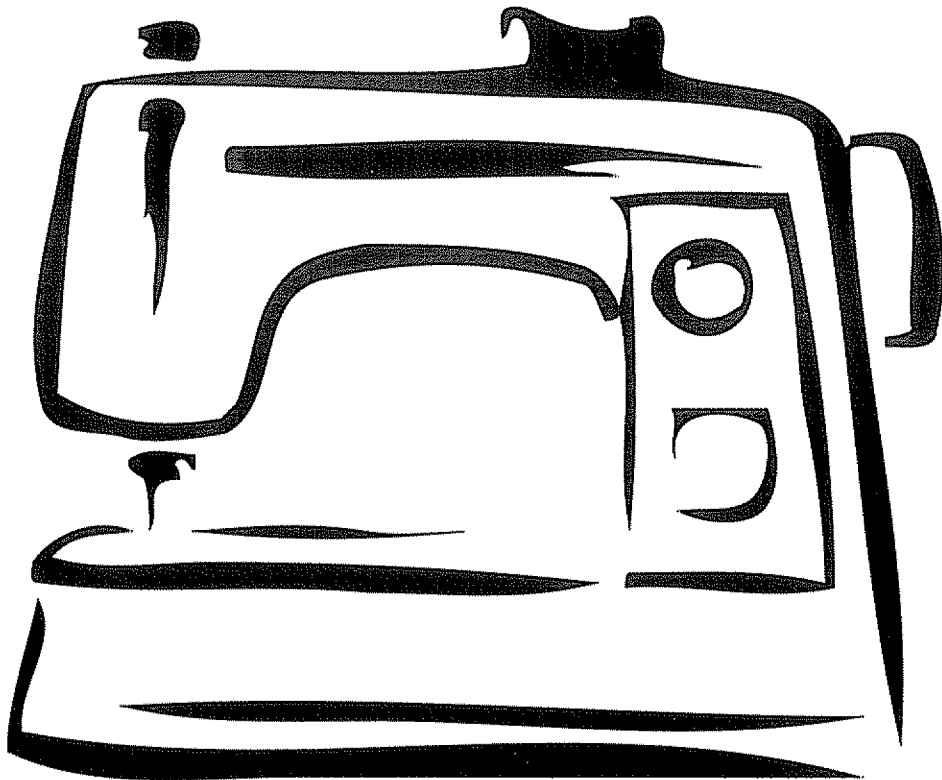


**Embroidery/Sewing Machine
Owner's Manual
Model 385.19005**



**Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.
Sears Canada Inc., Toronto, Ont., M5B 2B8**

855-803-016

www.sears.com
www.sears.ca

IMPORTANT SAFETY INSTRUCTIONS

Your sewing machine is designed and constructed only for HOUSEHOLD use.

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 12 V, 5 Watts

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

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

Designs and specifications are subject to change without prior notice.

Master Protection Agreements

Congratulations on making a smart purchase. Your new Kenmore ® product is designed and manufactured for years of dependable operation. But like all products, it may require preventive maintenance or repair from time to time. That's when having a Master Protection Agreement can save you money and aggravation.

The Master Protection Agreement also helps extend the life of your new product. Here's what the Agreement* includes:

- Parts and labor** needed to help keep products operating properly **under normal use**, not just defects. Our coverage goes **well beyond the product warranty**. No deductibles, no functional failure excluded from coverage—**real protection**.
- Expert service** by a force of more than **10,000 authorized Sears service technicians**, which means someone you can trust will be working on your product.
- Unlimited service calls and nationwide service**, as often as you want us, whenever you want us.
- "No-lemon" guarantee** – replacement of your covered product if four or more product failures occur within twelve months
- Product replacement** if your covered product can't be fixed.
- Annual Preventive Maintenance Check** at your request – no extra charge
- Fast help by phone** – we call it **Rapid Resolution** — phone support from a Sears representative on all products. Think of us as a "talking owner's manual."
- Power surge protection** against electrical damage due to power fluctuations.
- \$250 Food Loss Protection** annually for any food spoilage that is the result of mechanical failure of any covered refrigerator or freezer.
- Rental reimbursement** if repair of your covered product takes longer than promised.
- 10% discount** off the regular price of any non-covered repair service and related installed parts.

Once you purchase the Agreement, a simple phone call is all that it takes for you to schedule service. You can call anytime day or night, or schedule a service appointment online

The Master Protection Agreement is a risk free purchase. If you cancel for any reason during the product warranty period, we will provide a full refund. Or, a prorated refund anytime after the product warranty period expires. Purchase your Master Protection Agreement today!

Some limitations and exclusions apply. For prices and additional information, call 1-800-827-6655.

Sears Installation Service

For Sears professional installation of home appliances, garage door openers, water heaters, and other major home items, in the U.S.A. or Canada call **1-800-4-MY-HOME ®**.

Kenmore Sewing Machine Warranty

25 Year Limited Warranty on Sewing Machine Die-Cast Metal Internal Frame

For 25 years from the date of purchase, Sears will provide free repair for the die-cast metal internal frame of this sewing machine if it is defective in material or workmanship.

10 Year Limited Warranty on Internal Mechanical Components

For 10 years from the date of purchase, Sears will provide free repair for the internal mechanical components of this sewing machine if they are defective in material or workmanship. This 10 year warranty does not include belts, which are only included in the 90 day warranty described below.

2 Year Limited Warranty on Sewing Machine Exterior Components

For 2 years from the date of purchase, Sears will provide free repair for all components of the sewing machine exterior if they are defective in material or workmanship. This 2 year warranty does not include needle plates or accessory parts, which are only included in the 90 day warranty described below.

2 Year Limited Warranty on Electrical Equipment

For two years from the date of purchase, Sears will provide free repair for the electrical equipment of this sewing machine, if any part of it, including motor, wiring, electronic circuitry, switch and speed control, is defective in material or workmanship. This 2 year warranty does not include light bulbs, which are only included in the 90 day warranty described below.

90 Day Limited Warranty on Mechanical Adjustments and Specified Parts

For 90 days from the date of purchase, Sears will provide:

- free mechanical adjustments necessary for the proper operation of this sewing machine, except for normal machine care maintenance as described in the owner's manual
 - free replacement of belts, light bulbs, needle plates and accessory parts if defective in material or workmanship.
- This 90 day warranty does not include sewing machine needles, which are expendable parts.

Warranty Service

All warranty service is available by returning this sewing machine to the nearest Sears Parts & Repair Center.

If this sewing machine is used for other than private family purposes, all warranty service is available for only 90 days from the date of purchase.

Except for 90 Days on Mechanical Adjustments and Specified Parts (see above), all warranty service covers **only** defects in material and workmanship. Sears will **not** pay for:

1. A service technician to instruct the user in correct product installation, operation or maintenance.
2. A service technician to clean or maintain this product
3. Damage to or failure of this product if it is not installed, operated or maintained according to all instructions supplied with the product.
4. Damage to or failure of this product resulting from accident, abuse, misuse or use for other than its intended purpose.
5. Damage to or failure of this product caused by the use of detergents, cleaners, chemicals or utensils other than those recommended in all instructions supplied with the product.
6. Damage to or failure of parts or systems resulting from unauthorized modification(s) made to this product.

Disclaimer of implied warranties; limitation of remedies:

The customer's sole and exclusive remedy under this limited warranty shall be product repair as provided herein. Implied warranties, including warranties of merchantability or fitness for a particular purpose, are limited to one year or the shortest period allowed by law. Sears shall not be liable for incidental or consequential damages. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, or limitations on the duration of implied warranties of merchantability or fitness, so these exclusions or limitations may not apply to you.

All warranty coverage applies only while this appliance is used in the United States or Canada.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., D/817WA, Hoffman Estates, IL 60179

Sears Canada Inc., Toronto, Ontario, Canada M5B 2B8

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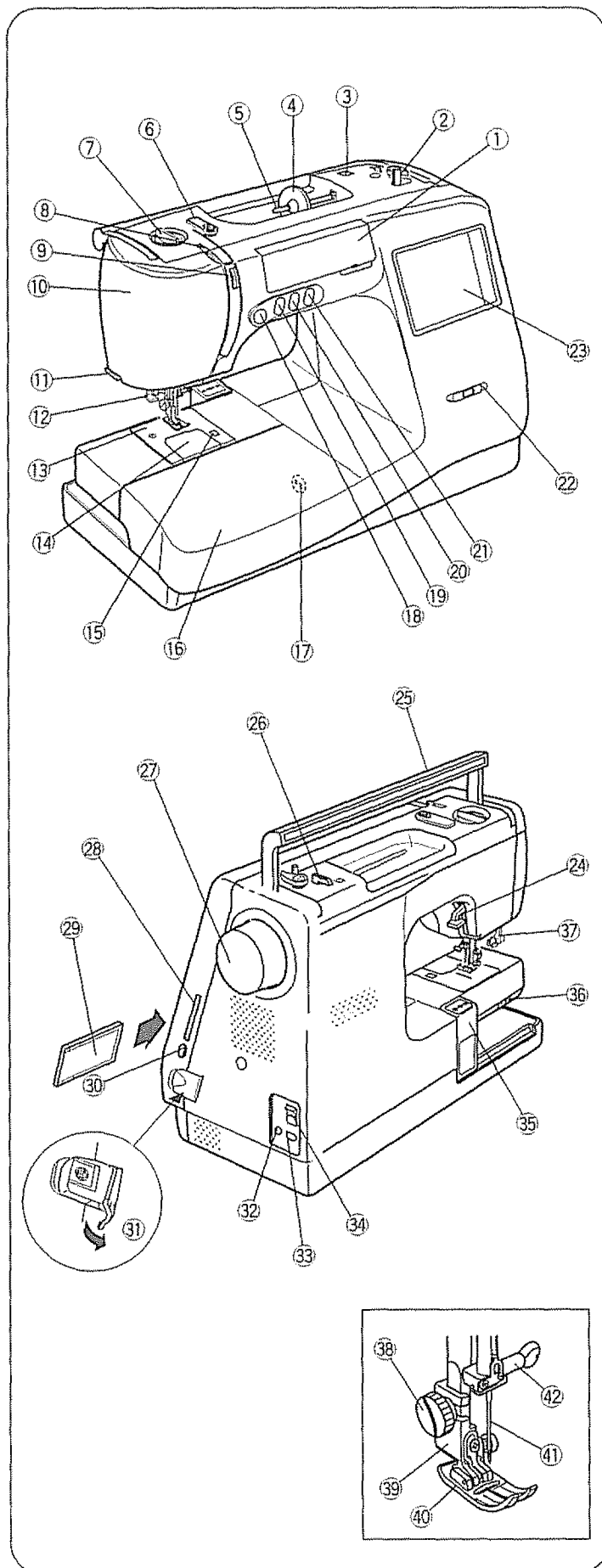
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SECTION I. NAME OF PARTS

Names of Parts

- ① Flip-top quick reference chart
- ② Bobbin winder spindle
- ③ Hole for additional spool pin
- ④ Spool holder (Large)
- ⑤ Spool pin
- ⑥ Upper thread guide
- ⑦ Pressure dial
- ⑧ Thread take-up lever
- ⑨ Thread tension dial
- ⑩ Face cover
- ⑪ Thread cutter/holder
- ⑫ Built-in needle threader
- ⑬ Needle plate
- ⑭ Hook cover plate
- ⑮ Hook cover plate release button
- ⑯ Extension table
- ⑰ Feed balancing dial
- ⑱ Start/stop button
- ⑲ Reverse button
- ⑳ Auto-lock button
- ㉑ Up/down needle button
- ㉒ Speed control lever
- ㉓ Visual touch screen
- ㉔ Presser foot lifter
- ㉕ Carrying handle
- ㉖ Thread cutter
- ㉗ Hand wheel
- ㉘ PC card slot
- ㉙ ATA PC Card (optional)
- ㉚ Card eject button
- ㉛ RS-232C port
- ㉜ Machine socket for foot control
- ㉝ Machine socket for power supply plug
- ㉞ Power switch
- ㉟ Carriage (for embroidery)
- ㊱ Drop feed dog lever
- ㊲ Buttonhole lever
- ㊳ Thumb screw
- ㊴ Foot holder
- ㊵ Presser foot
- ㊶ Needle
- ㊷ Needle clamp screw



Available Accessories and Attachments

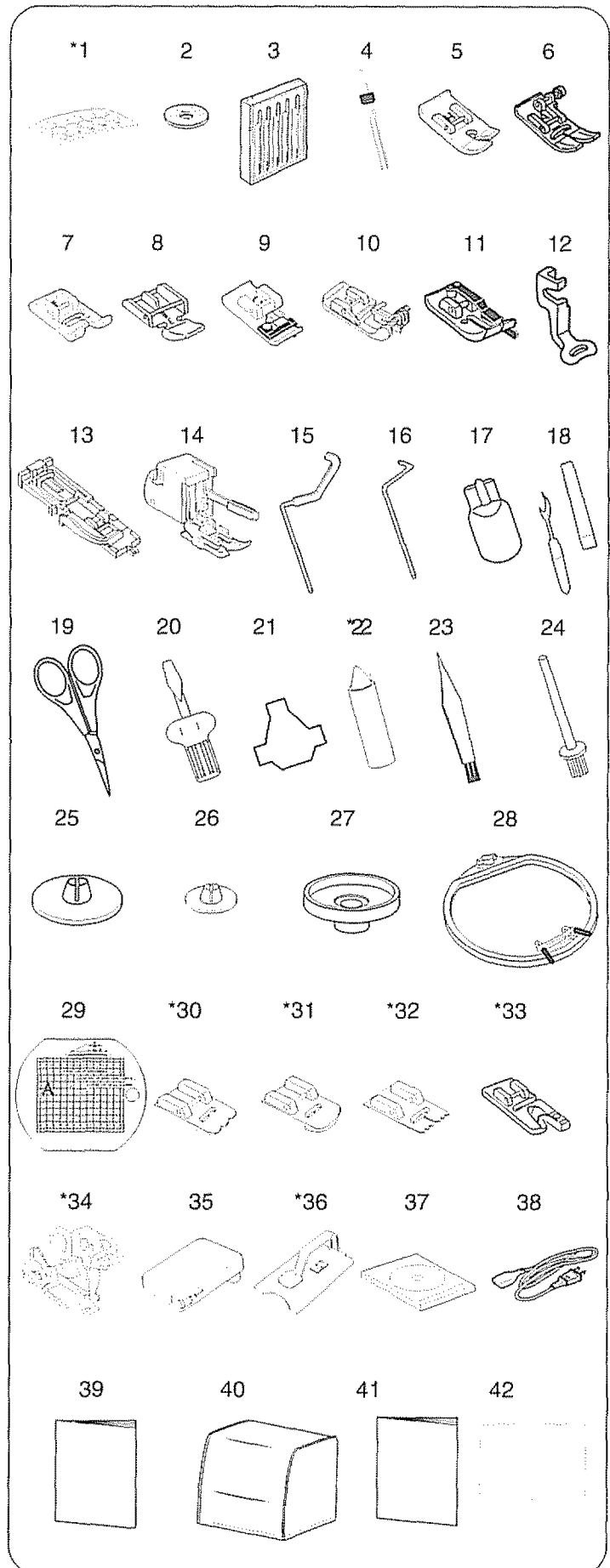
To order parts and accessories listed below, call:
1-800-4-MY-HOME® (1-800-469-4663)

When ordering parts and accessories, provide the following information:

- 1 Part Number
- 2 Part Name
- 3 Model Number of Machine

Ref No.	Part No.	Description
1	*102869107	10 x Bobbin
2	102403109	Spool pin felt
3	650807101	Assorted needle set
	*993010900	5 x No 9 needle (BROWN)
	*993001100	5 x No 11 stretch fabric needle (BLUE)
	*993011100	5 x No 11 needle (ORANGE)
	*993011400	5 x No 14 needle (RED)
	*993011600	5 x No 16 needle (PURPLE)
	*993011800	5 x No 18 needle (GREEN)
4	826615000	Twin needle
5	823801107	H: Straight stitch foot
6	832523007	A: Zigzag foot
7	822804129	F: Satin stitch foot
8	829801002	E: Zipper foot
9	822801001	C: Overedge foot
10	820817015	G: Blind hem foot
11	200008037	O: 1/4" seam foot
12	830810031	P: Embroidery foot
13	830823118	R: Automatic buttonhole foot
14	214507001	Walking foot
15	214015007	Quilter bar (for walking foot)
16	802422002	Quilter
17	000026002	Light bulb
18	560406104	Seam ripper/Buttonhole opener
19	*822814007	Scissors
20	820832005	Large screwdriver
21	653802002	Screwdriver
22	*741814003	Oil
23	802424004	Lint brush
24	625031500	Additional spool pin
25	822020503	Large spool holder
26	822019509	Small spool holder
27	829803004	Spool stand
28	851801104	F: Embroidery hoop
29	851801403	Template
30	*200002008	Piping foot
31	*200003009	Gathering foot
32	*200005001	Pin-tuck foot
33	*200013105	Hemmer foot (2mm)
34	*941620000	Ruffler
35	043271155	Foot control
36	*851401007	Clothsetter
37	855808000	Instructional DVD
38	653524007	Cord
39	855807009	Template sheet
40	852806102	Dust cover
41	855803005	Owner's manual
42	855804006	Quick reference chart

* These items are not furnished with the machine, but may be ordered per instructions above



SECTION II. GETTING READY TO SEW

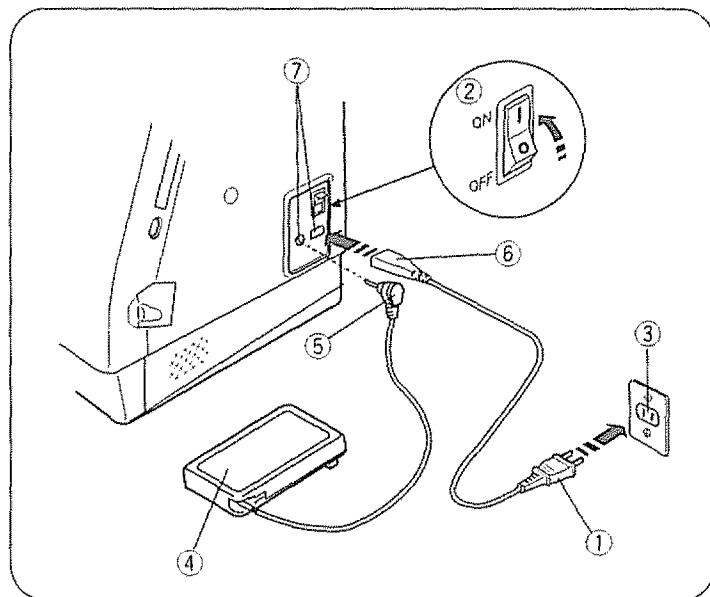
Connecting Machine to Power Supply

- ① Power supply plug
- ② Power switch
- ③ Outlet
- ④ Foot control
- ⑤ Foot control plug
- ⑥ Machine plug
- ⑦ Machine sockets

1. Turn off the power switch ②. Insert the foot control plug ⑤ and machine plug ⑥ into the machine sockets ⑦
2. Insert the power supply plug ① into the outlet ③
3. Turn the power switch ② to turn on the power and the sewing light.

Note:

- If you turn off the power switch, wait 5 seconds before turning it on again.



Before Using Your Sewing Machine

Before using your sewing machine for the first time, place a waste fabric under the presser foot and run the machine with thread for a few minutes. Wipe away any oil which may appear.

For Your Safety

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

Polarized Plug

This appliance has 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 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.

Machine Operating Buttons

Start/stop Button

① Start/stop button

Pressing the Start/Stop button will start or stop the machine in both Conventional and Embroidery sewing modes. When you press the button to start sewing in the Conventional mode, the machine will run slowly for the first few stitches, then accelerate to the speed you have set with the speed control lever. If you want the machine to run slowly for more than the first few stitches, continue to press the Start/Stop button. Once you release the button the machine will accelerate to your set speed.

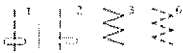
Note:

The Start/stop button cannot be used when the foot control is connected to the machine.

Reverse Button

② Reverse button

• Patterns 1, 2, 3 and 6:



The machine will sew in reverse while the reverse button is pressed.

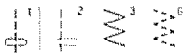
• All other patterns:

When the reverse button is pressed, the machine will sew locking stitches immediately and automatically stop.

Auto-lock Button

③ Auto-lock button

• Patterns 1, 2, 3 and 6:



When the auto-lock button is pressed, the machine will immediately sew locking stitches and automatically stop.

• All other patterns:

When the auto-lock button is pressed, the machine will sew locking stitches at the end of the current pattern and automatically stop.

Up/down Needle Button

④ Up/down needle button

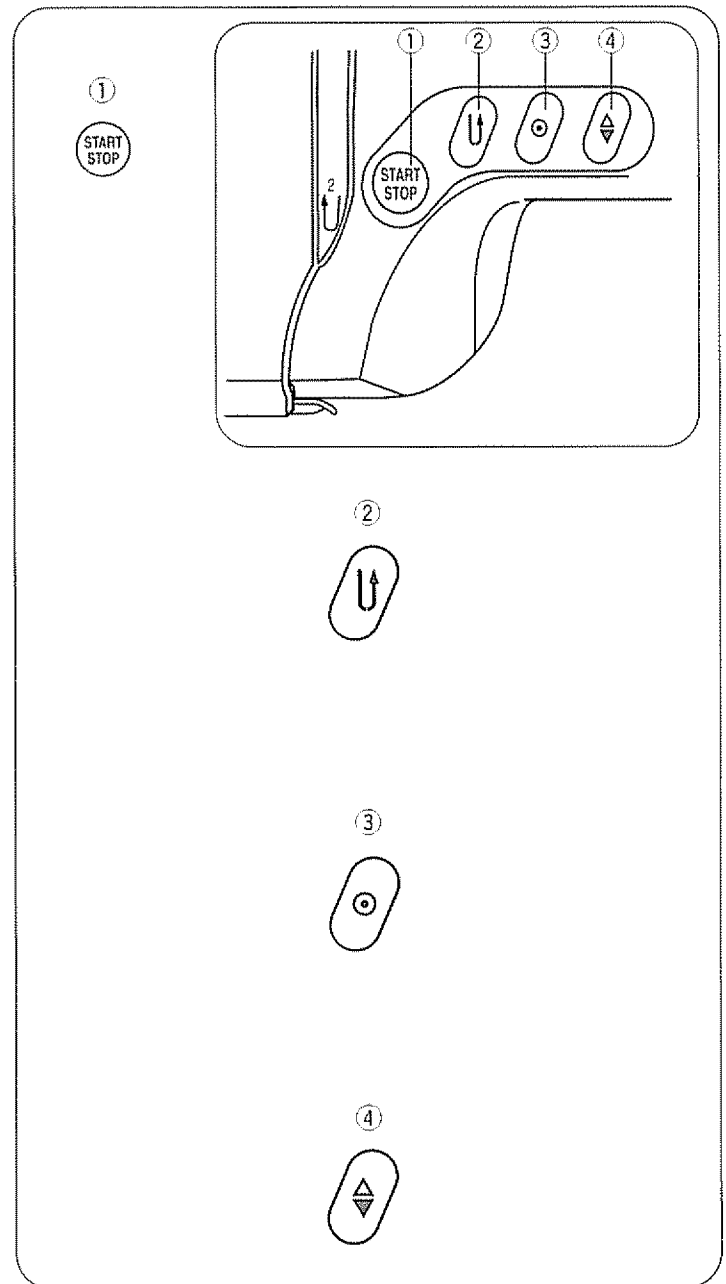
Press this button to bring the needle up or down.

Speed Control Lever

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

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

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



Foot Control

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

Note:

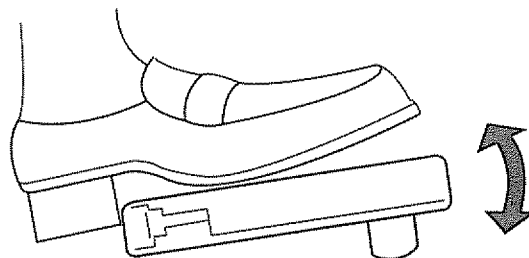
The machine runs at the maximum speed set by the speed control lever when the foot control is being fully depressed.

Operation Instructions:

Foot Controller Model 21371 is used with Sewing Machine Model 385.19005.

Note:

The Kenmore Elite sewing machine model 19005 is equipped with an automatic shutdown safety feature to prevent overheating. Follow safety instructions that appear on the visual touch screen.



Pressure Dial

The pressure dial should be set at "3" for regular sewing.

Reduce the pressure to "2" for applique, cut work, drawn work, basting and embroidery.

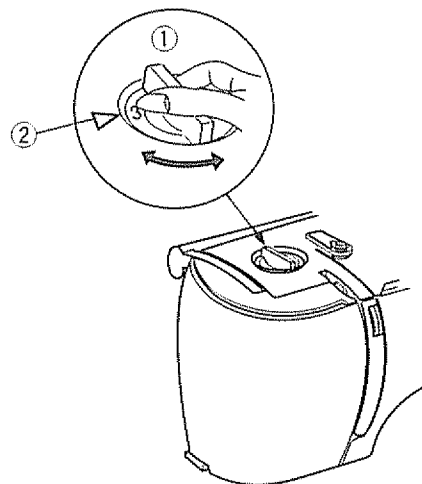
Set the pressure to "1" when sewing chiffon, lace, organdy and other fine fabrics.

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

Turn the pressure dial ① and set the desired number at the setting mark ②.

① Pressure dial

② Setting mark



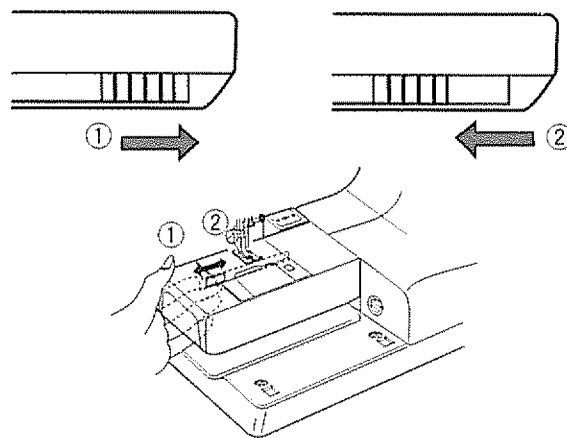
To Drop or Raise the Feed Dogs

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

- ① To drop the feed dogs, push the lever in the direction of the arrow, as illustrated.
- ② To raise the feed dogs, push the lever in the direction of the arrow, as illustrated, and turn the handwheel toward you. Feed dogs must be up for normal sewing.

Note:

The feed dogs drop automatically when embroidery mode is selected.



Extension Table

• Detaching the table

Close the accessory box, and lift out the extension table ① toward you, as illustrated, for "free-arm" sewing.

- ① Extension table

• Attaching the table

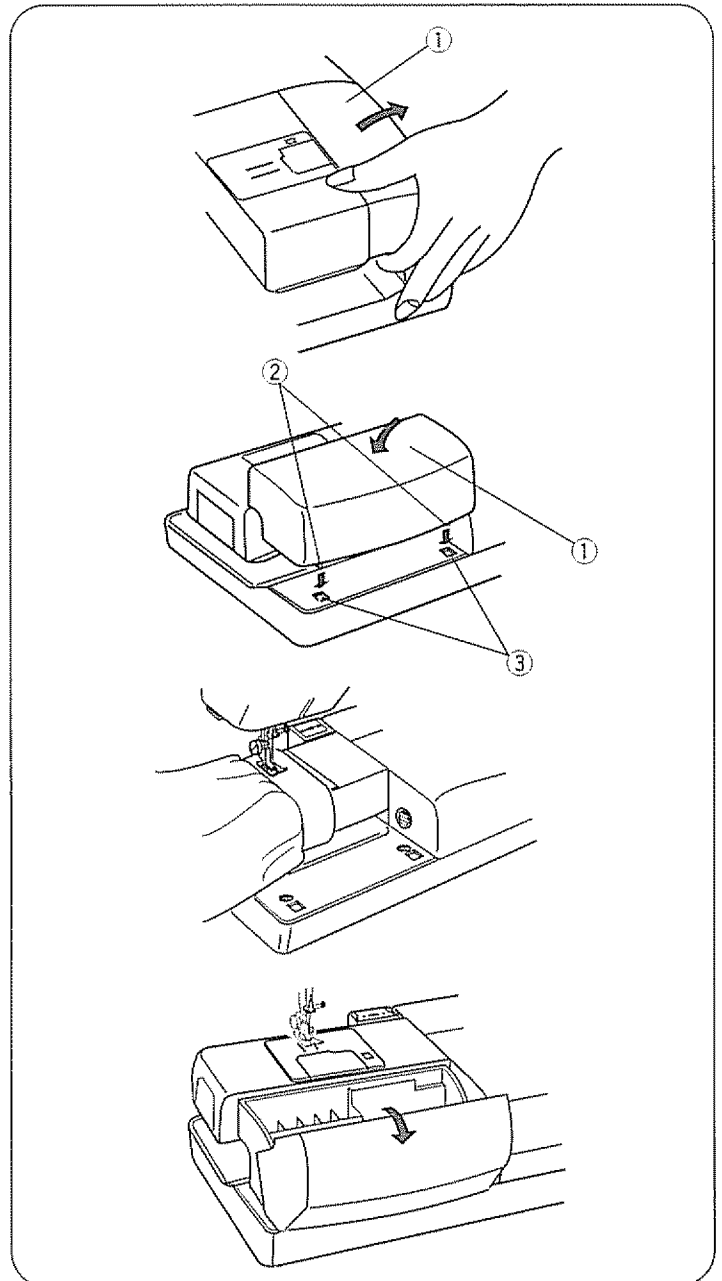
Push the extension table ① until it snaps into the machine.

- ① Extension table
- ② Tabs
- ③ Holes

Free-arm sewing can be used for:

- Stitching sleeves, waistbands, pant legs or any tubular garment area.
- Darning socks or mending knees, elbow or children's wear.

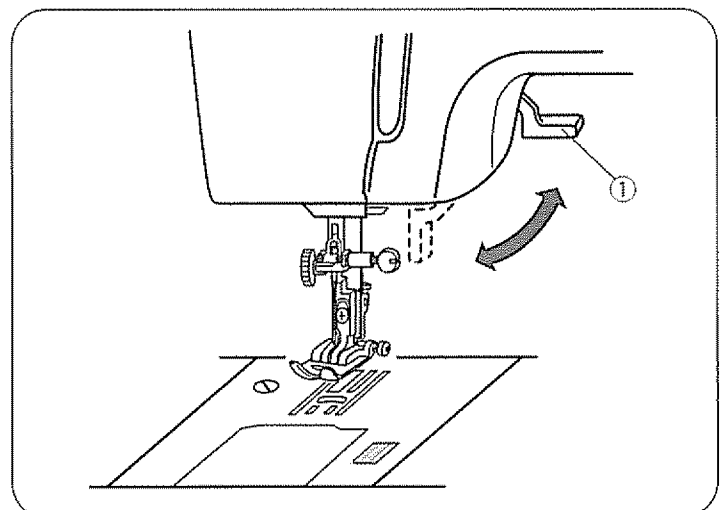
Open the lid of the extension table and you can conveniently store feet and accessories in the handy compartments.



Presser Foot Lifter

- ① Presser foot lifter

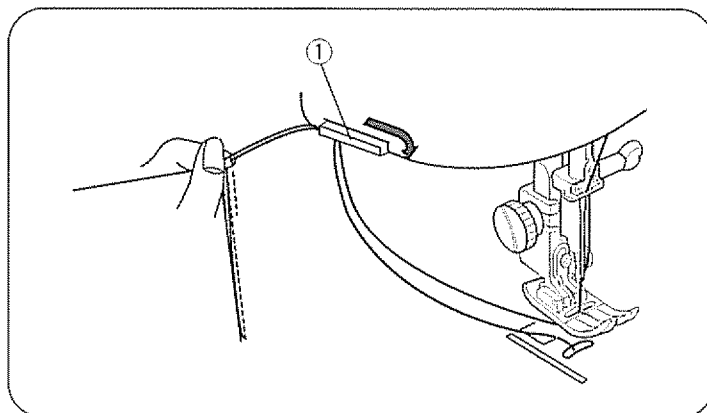
The presser foot lifter raises and lowers the presser foot. You can raise it higher than the normal up position for easy removal of the presser foot or to help you place heavy fabric under the foot.



Thread Cutter

- ① Thread cutter

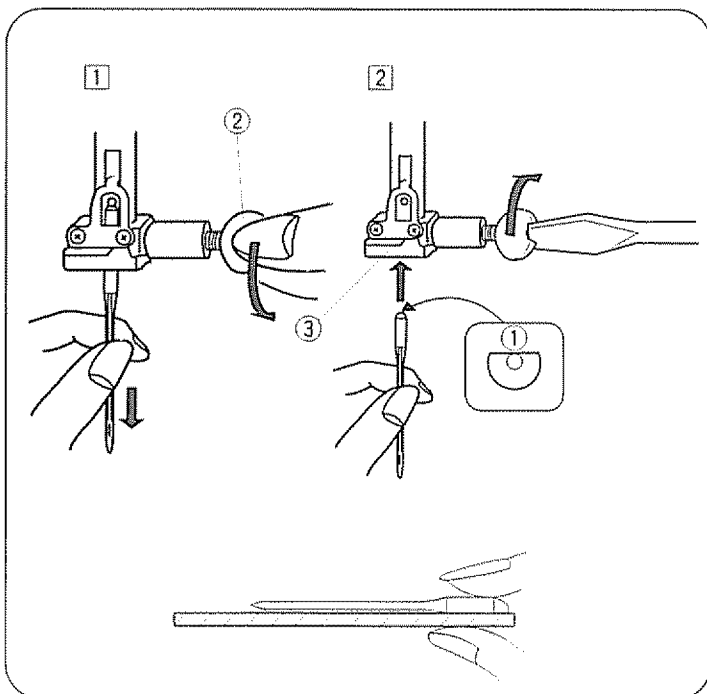
You do not need a pair of scissors to cut threads after sewing. Just use the built-in thread cutter ①.



Changing Needle

- ① Flat side
- ② Needle clamp screw
- ③ Needle clamp

- 1 Turn off the power switch.
Raise the needle to its highest position by turning the handwheel counterclockwise, toward you, and lowering the presser foot. Loosen the needle clamp screw ② by turning it counterclockwise. Remove the needle from the needle clamp ③.
- 2 Insert a new needle into the needle clamp ③ with the flat side ① to the rear. When inserting the needle into the needle clamp ③, push it up as far as it goes. Tighten the needle clamp screw ② firmly by turning it clockwise.
- 3 To check for a good needle, place the flat side of the needle onto something flat (needle plate, glass, etc.). The gap between the needle and the flat surface should be consistent. Never use a bent or blunt needle. A damaged needle can cause permanent snags or runs in knits, fine silks and silk-like fabrics.



Changing Presser Foot

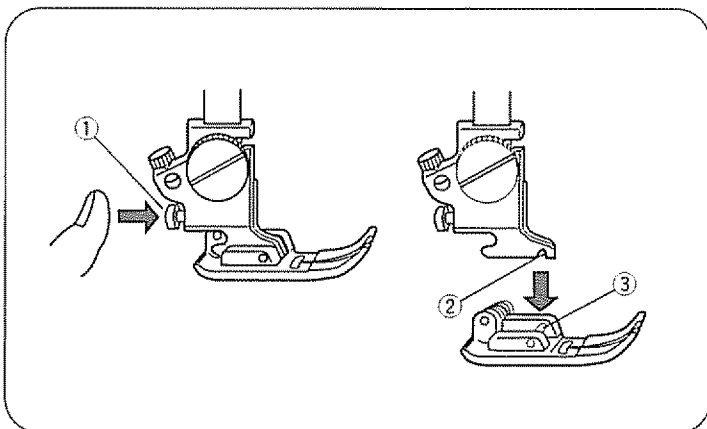
- ① Snap-on button (red button)
- ② Groove
- ③ Pin

• To remove

Raise the needle to its highest position by turning the handwheel counterclockwise. Raise the presser foot, and press the red button ① on the back of the foot holder.

• To attach

Place a selected presser foot so the pin ③ on the foot lies just under the groove ② on the foot holder. Lower the presser bar to lock the foot in place.



Correcting Distorted Stitch Patterns

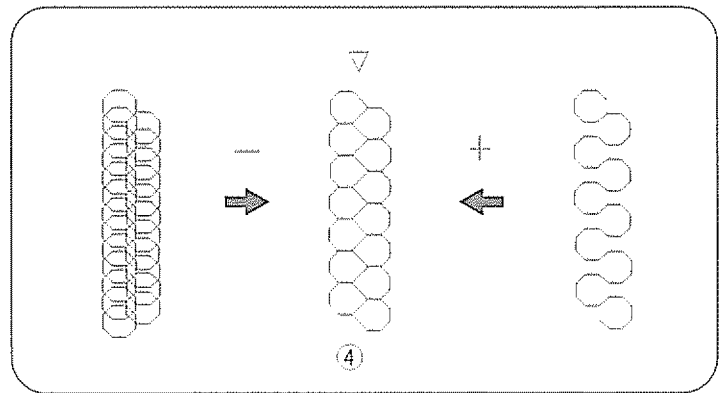
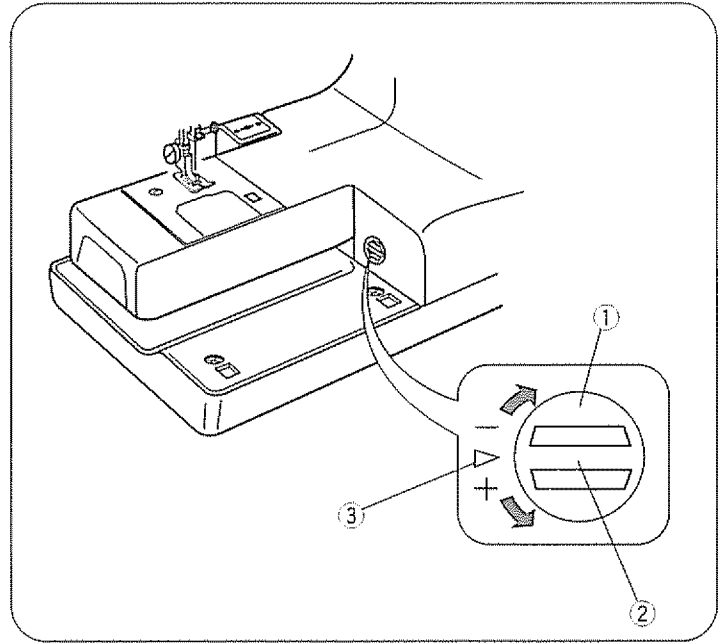
The sewing results of the stretch stitch patterns may vary depending upon the sewing conditions, such as sewing speed, type of the fabric, number of layers etc. Always make test sewing on a scrap piece of the fabric that you wish to use. If decorative stitch patterns, letters, or numbers are distorted, correct it with the feed balancing dial.

Notes:

- In normal sewing, set the feed balancing dial ① to the neutral position, i.e., the groove on the dial ② is centered with the standard setting mark ③.
 - Turn the feed balancing dial ① with a coin.
-
- If the pattern is compressed, turn the dial in the direction of “+”
 - If the pattern is drawn out, turn the dial in the direction of “-”.
- ① Feed balancing dial
 - ② Groove on the dial
 - ③ Standard setting mark
 - ④ Correct shape

Note:

Return the feed balancing dial ① to its neutral position when the sewing is finished.



Presser Foot Types

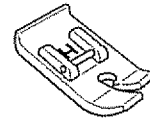
- **Zigzag foot (Foot A)**

Use this foot for both straight and zigzag stitching.



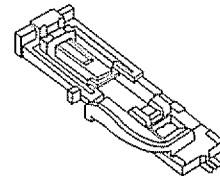
- **Straight stitch foot (Foot H)**

Use this foot for exclusively for straight stitching with center needle position.



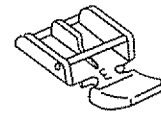
- **Automatic buttonhole foot (Foot R)**

Use this foot for one step automatic buttonhole sewing. Simply set a button on the guide of this foot and depress the foot control. You can sew exactly the same length of buttonhole as the button.



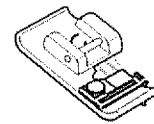
- **Zipper foot (Foot E)**

This foot can be set to sew on each side of the zipper. The edge of the foot guides the zipper and keeps the seam straight.



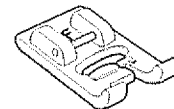
- **Overedge foot (Foot C)**

This foot is specially constructed for stitching and/or overcasting seams. The small brush and wire guides help control the fabric, hold the raw edge in place and keep it from puckering, especially when sewing on knit fabrics.



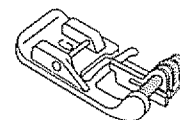
- **Satin stitch foot (Foot F)**

Use this foot for satin stitch and outlining applique.



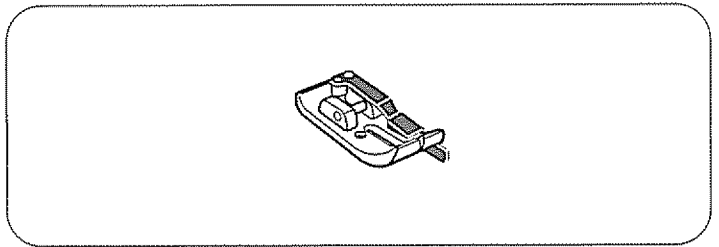
- **Blind hem stitch foot (Foot G)**

Use this foot for perfect blind hemming and topstitching. The foot has ridges on the bottom to keep the fabric from slipping and a screw on top to guide the folded edge of your hem.



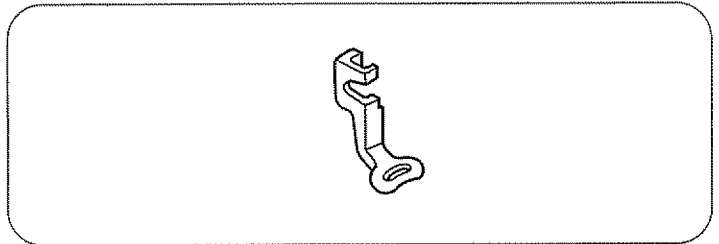
- **1/4" Seam foot (Foot O)**

This foot is useful for patchwork quilt. The guide on the foot maintains an exact 1/4" (0.7 cm) seam allowance.



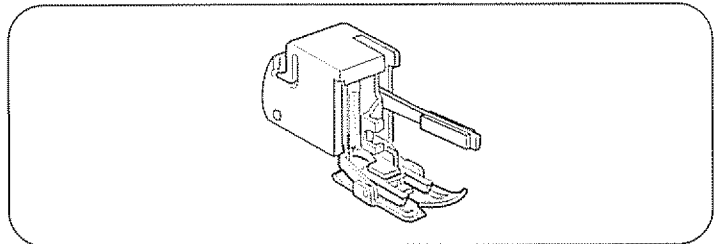
- **Embroidery foot (Foot P)**

This foot is a special attachment for professional-style embroidery.



- **Walking foot**

This is special attachment for hard-to-feed materials. This foot effectively prevents fabrics from shifting and puckering. It is great for quilting and matching plaids.



Selecting Needle and Fabric

For general sewing, use needle sizes 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 set, there is one each of sizes 11, 14, 16, and 18, and a blue needle. Use the blue needle to eliminate skipped stitches when sewing knits and synthetic fabrics.

Special needles should be used on certain fabrics. A denim needle with a sharp tip effectively pierces 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	Orange Blue	11 (75)
			11 (75)
			12 (80)
Medium	Single Knits, Jersey, Swimwear, Tricot	Blue Ball Point	11 (75) 11 (75)
	Leather, Suede	Wedge Point Leather	11 (75)
	Flannel, Velour, Velvet, Muslin, Velveteen, Poplin, Corduroy, Broadcloth, Linen, Chintz, Gabardine, Felt, Terry, Burlap, Quilted Fabrics	Red	14 (90)
Heavy	Double Knits, (synthetic and natural) Stretch Velour, Stretch Terry, Sweater Knits	Ball Point	14 (90)
	Leather, Vinyl, Suede	Wedge Point Leather	14 (90)
	Denim, Sailcloth, Ticking	Denim	16 (100)
All	Double Faced Wool, Heavy Coating, Fake Fur, Drapery Fabrics	Purple	16 (100)
	Leather, Suede	Wedge Point Leather	16 (100)
	Canvas, Duck, Upholstery Fabrics	Green	18 (110)
All	Topstitching for Special Finish	Topstitching	11 (75)
			14 (90)

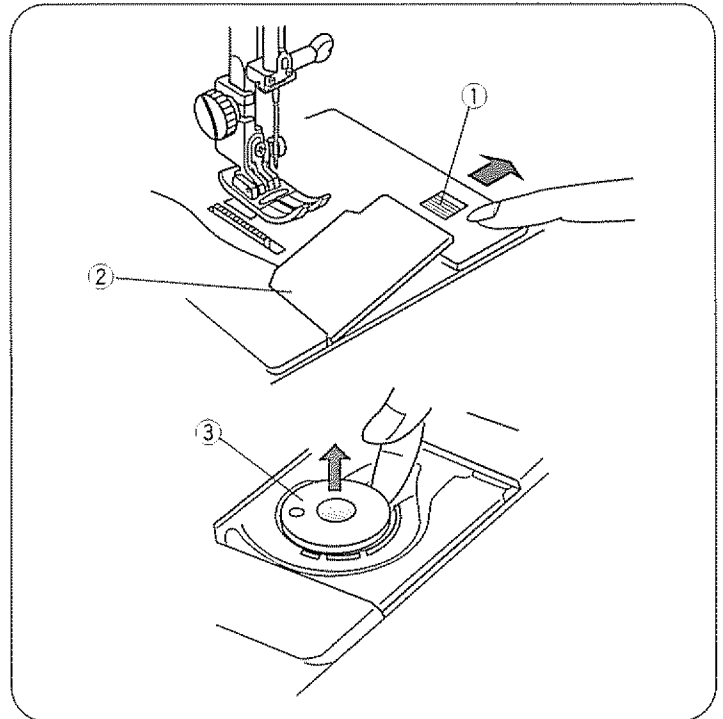
Bobbin Winding

• Removing the hook cover plate

- ① Hook cover plate release button
- ② Hook cover plate
- ③ Bobbin

Slide the hook cover plate release button ① to the right, and remove the cover plate ②.

Lift out the bobbin ③ from the bobbin holder.

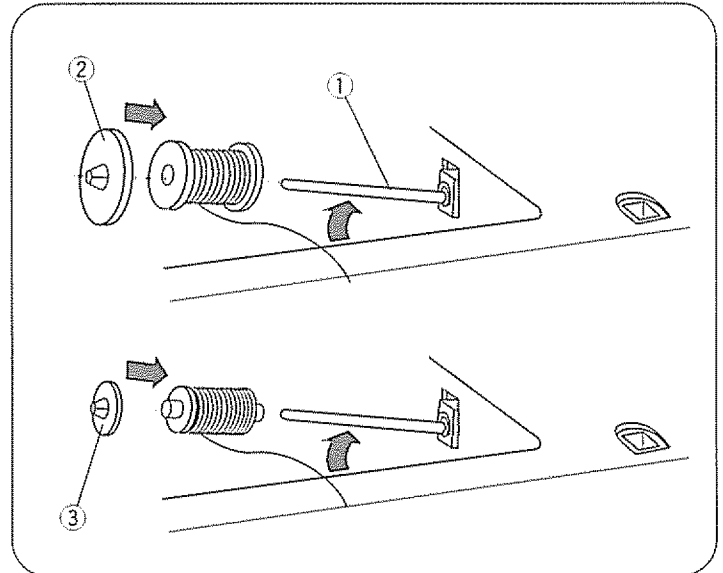


• Horizontal spool pin

- ① Spool pin
- ② Large spool holder
- ③ Small spool holder

Lift up the spool pin ①. Place a spool of thread on the spool pin with the thread coming off the spool as shown. Attach the large spool holder ②, and press it firmly against the spool of thread.

The small spool holder ③ is used with narrow or small spools of thread.

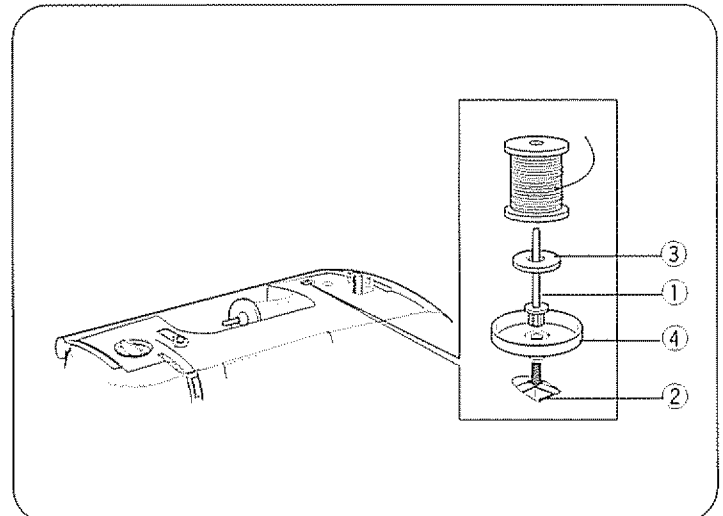


• Additional spool pin

- ① Additional spool pin
- ② Spool pin hole
- ③ Spool pin felt
- ④ Spool stand

The additional spool pin ① is for bobbin winding, without unthreading the machine, and for twin needle sewing. Insert the additional spool pin ① into spool stand ④ and the hole ②.

Place the felt ③ and a spool on the pin as illustrated.



Bobbin Winding

Note:

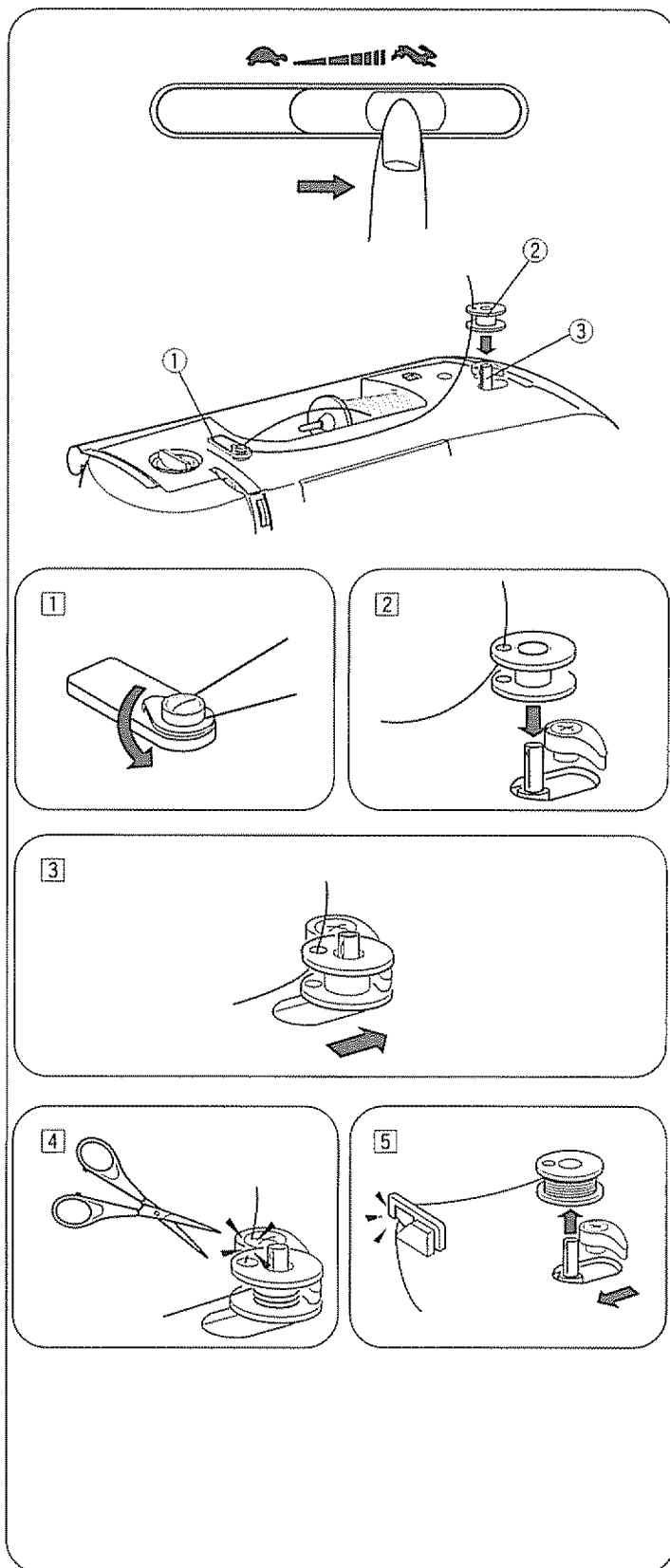
Set the speed control lever at its fastest position for bobbin winding.

- ① Upper thread guide
- ② Bobbin
- ③ Bobbin winder spindle

- 1 Guide the thread around the upper thread guide ①.
- 2 Insert the thread through the hole on the bobbin ②, threading from the inside to the outside. Put the bobbin on the bobbin winder spindle ③.
- 3 Push the bobbin winder spindle ③ to the right
- 4 With the free end of the thread held in your hand, depress the foot control. Stop the machine when the bobbin has made a few turns, and cut the thread close to the hole on the bobbin.
- 5 Depress the foot control again. When the bobbin is fully wound, release the foot control and return the bobbin to its original position by moving the spindle to the left. Cut the thread as shown.

Note:

For safety purposes, the machine will stop automatically 2 minutes after the start of bobbin winding.



• **Inserting the bobbin**

- ① End of thread
- ② Notch
- ③ Notch
- ④ Threading diagram

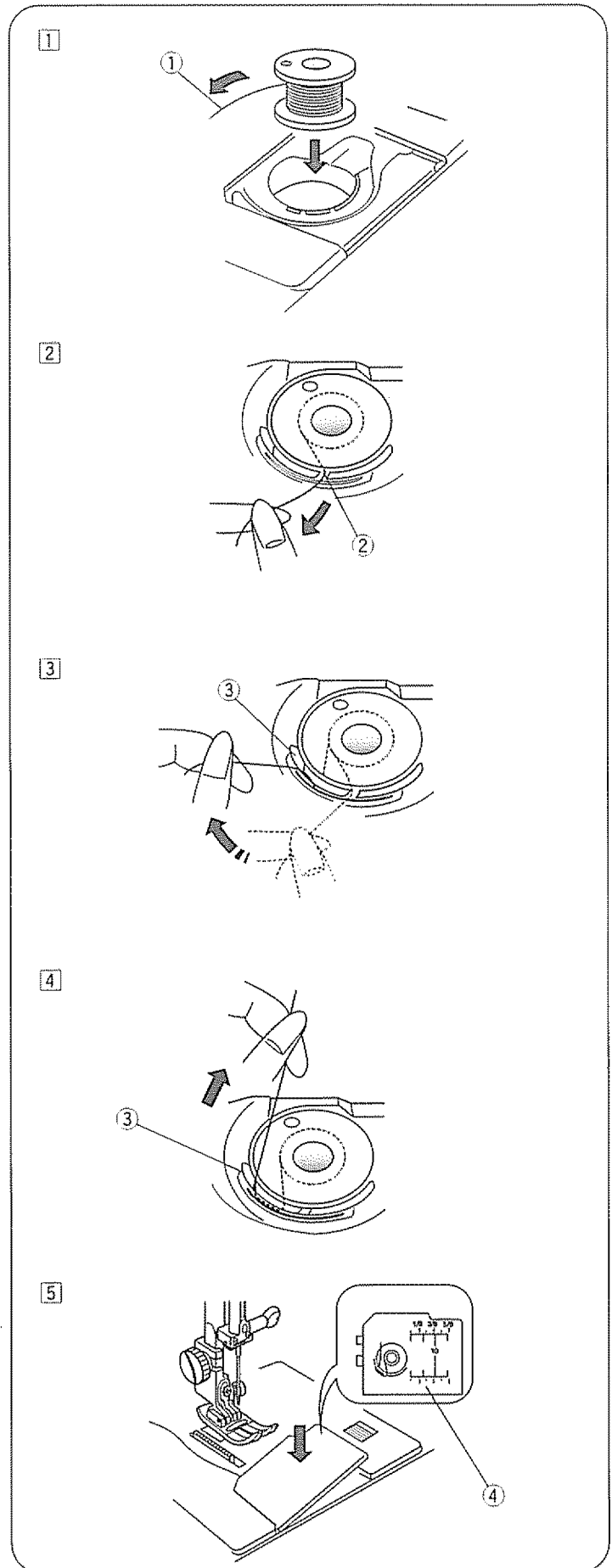
① Place a bobbin in the bobbin holder with the thread running off counterclockwise.

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

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

④ Continue to draw the thread lightly until the thread slips into notch ③. Pull out about 6" (15.0 cm) of thread.

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

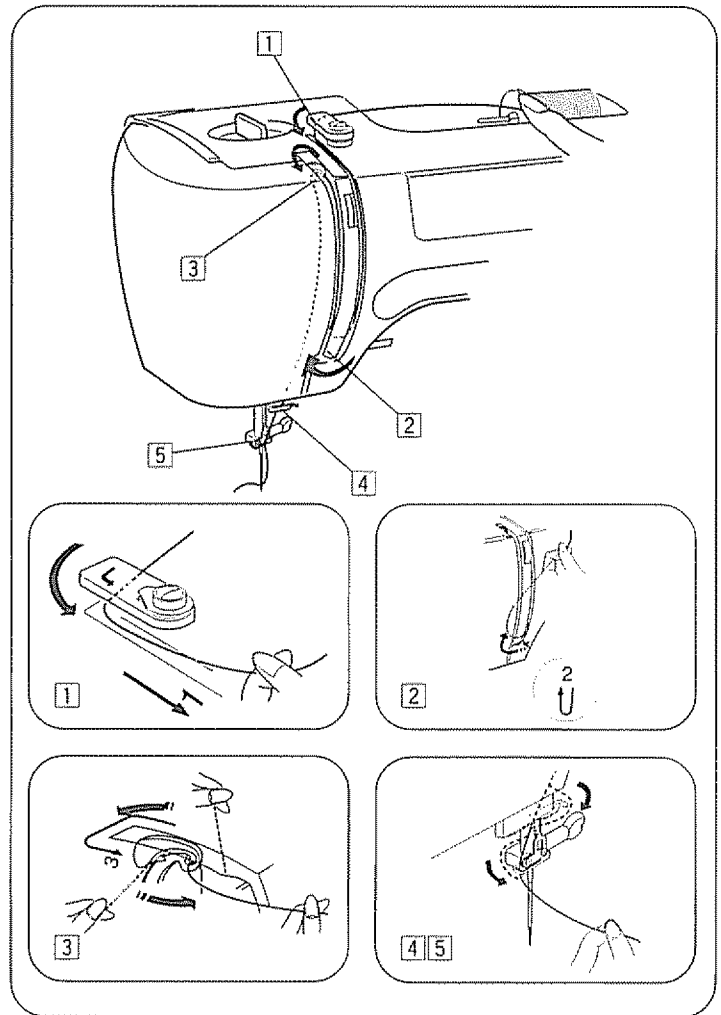


Threading the Machine

• Threading the machine

- * Raise the thread take-up lever to its highest position by turning the handwheel counterclockwise.
- * Raise the presser foot lifter.
- * Place a spool on the spool pin, with the thread coming off from the bottom toward the front of the sewing machine.

- 1 Draw the end of the thread around the upper thread guide.
- 2 While holding the thread near the spool, draw the end of the thread down around the check spring holder.
- 3 Firmly draw the thread up to the take-up lever, and down into the take-up lever eye.
- 4 Pass the thread behind the lower thread guide on the left.
- 5 Slip the thread in the needle bar thread guide on the left. Thread the needle from front to back, or use the built-in needle threader.



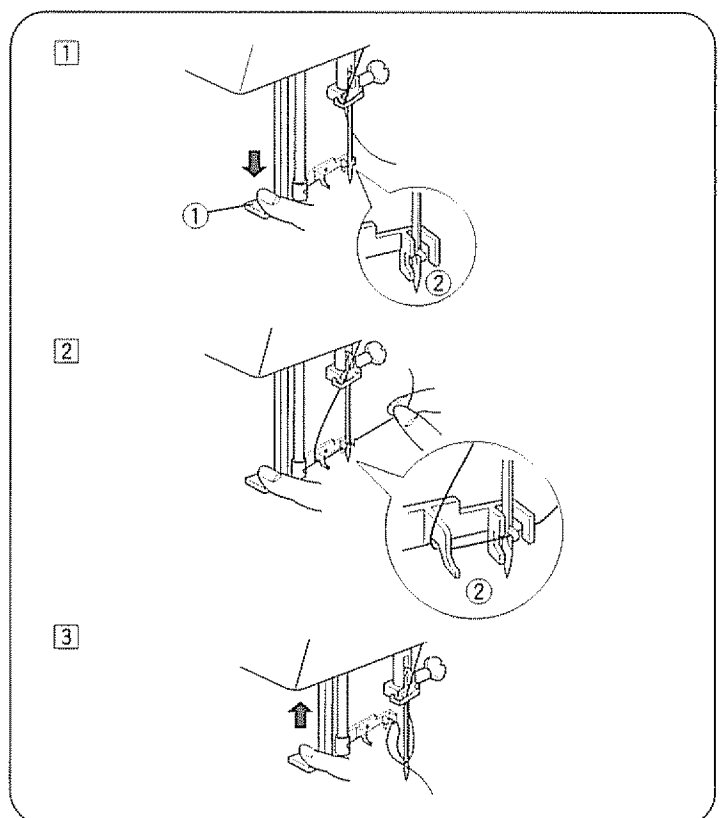
• Built-in needle threader

- 1 Knob
- 2 Hook

- 1 Raise the needle to its highest position. Push down the needle threader knob ① as far as it will go. The hook comes out through the needle eye from behind.
- 2 Paying close attention to the needle point, draw the thread around the guide and under the hook ②.
- 3 Release the knob slowly while holding the thread end with your hand. A loop of the thread is pulled up through the needle eye.

Note:

The needle threader can be used with a #11 to #16 needle, or a #11 Blue needle. Thread size 50 to 90 is recommended.



• **Drawing up bobbin thread**

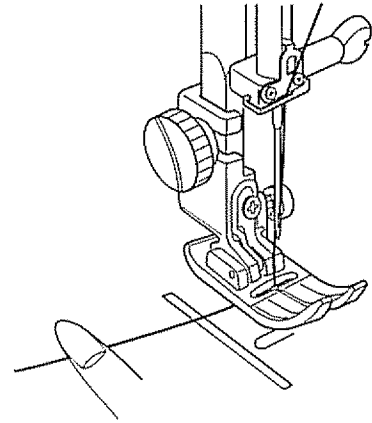
① Up/down needle button

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

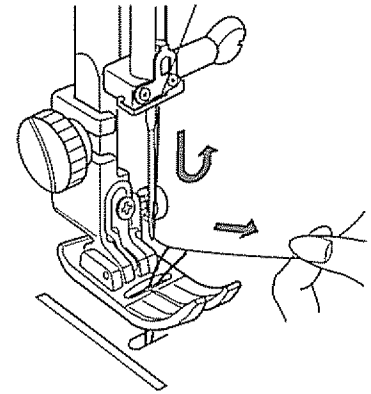
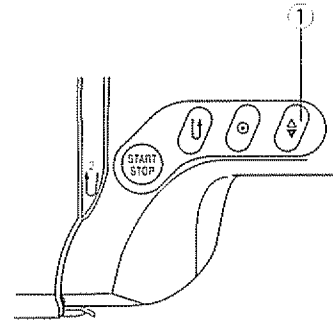
2 Press the up/down needle button ① twice to bring the bobbin thread up. Draw up the needle thread to bring up a loop of the bobbin thread.

3 Pull both threads 4" to 6" (10.0 to 15.0 cm) under and behind the presser foot

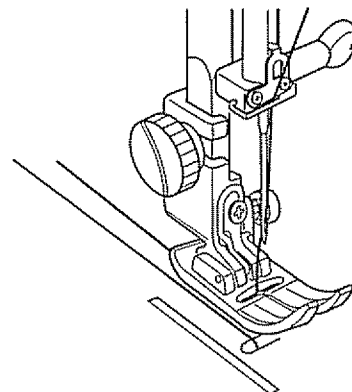
1



2



3



SECTION III. CONVENTIONAL SEWING

Visual Touch Screen

The "Kenmore Elite" display appears on the visual touch screen for a few seconds when turning the machine on, then it shows the initial screen as illustrated.

Mode Selection Keys

① Conventional sewing mode key

Press this key to enter the conventional sewing mode. The following four categories are available in this mode:

- Utility stitches
- Buttonhole stitches
- Satin stitches
- Decorative stitches

② Embroidery mode key

Press this key to enter the Embroidery mode. The following five categories are available in this mode:

- Built-in embroidery designs
- Monogramming
- PC card embroidery designs (PC card sold separately.)
- Design import via Reader 19000 (Reader 19000 sold separately.)
- Editing

③ Open file key

Press this key to open files such as programmed stitch patterns or embroidery designs you have saved.

④ My setting key

Press this key to enter My setting mode. In this mode, you can change the machine settings to your preference. The machine settings for Conventional sewing, Embroidery, Language selection and Common settings are available in this mode.

⑤ Quick help mode key

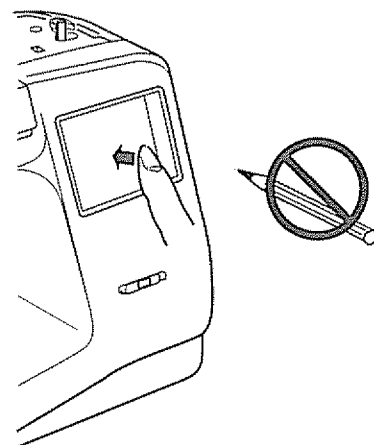
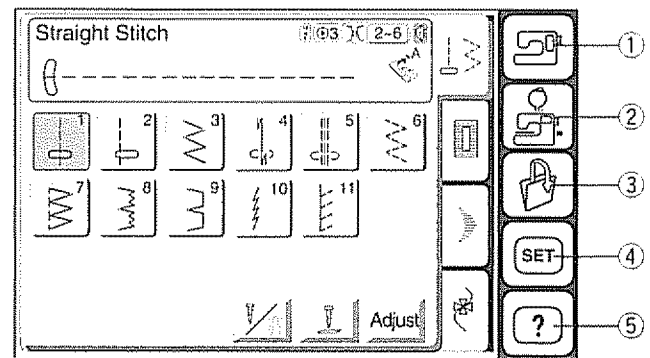
Press this key for helpful tips and general information on the machine function.

CAUTION:

Do not press the surface of the Visual Touch Screen with a hard or sharp object like pencil, screwdriver or the like.

Note:

When you select a pattern or function on the screen, it is not necessary to press hard; just touch keys with your fingertip. Use a dry soft cloth to wipe off the screen.



Conventional Sewing Mode

Press the conventional sewing mode key to enter the conventional sewing mode.

The following four categories are available in this mode:

- ① **Utility stitches**
You can select 11 types of utility stitches.
- ② **Buttonhole stitches**
You can select 5 buttonhole variations and eyelet.
- ③ **Satin stitches**
You can select the desired satin stitches, elongation patterns and also program assorted stitch combinations
- ④ **Decorative stitches**
You can select decorative stitches and also program assorted stitch combinations

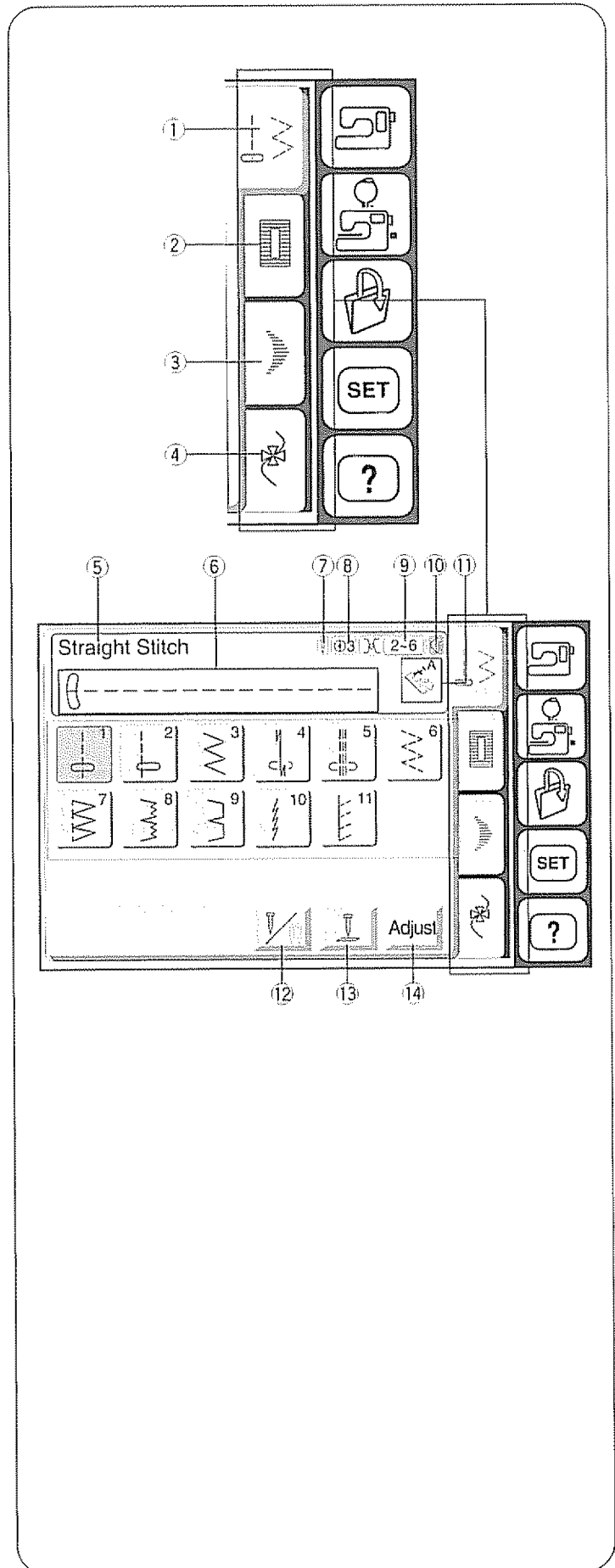
Utility Stitches

When you press the Conventional sewing mode key, the utility stitch window opens.

Pattern Selection

Press the stitch pattern indication key to select the desired stitch pattern. The following information on the selected stitch pattern is indicated in the upper window.

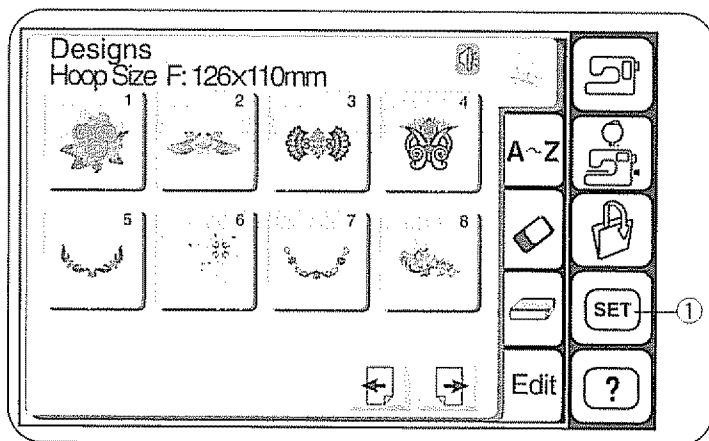
- ⑤ Name of stitch
- ⑥ Stitch image
- ⑦ Selected needle type (single or twin)
- ⑧ Recommended pressure dial number
- ⑨ Recommended thread tension number
- ⑩ Sound mark (the mark will disappear when the sound volume set to 0)
- ⑪ Recommended presser foot
- ⑫ **Twin needle key**
Press the twin needle key to enter the twin needle sewing mode.
- ⑬ **Needle up/down key**
You can set the needle position with this key to have the needle in the up or down position, when the machine stops.
- ⑭ **Adjust key**
When you press this key, the stitch adjusting window will open. You can change setting of stitch length and width by pressing the + or - key.



Machine Settings

When you press the SET key ①, the setting mode window will be displayed and you can customize settings.

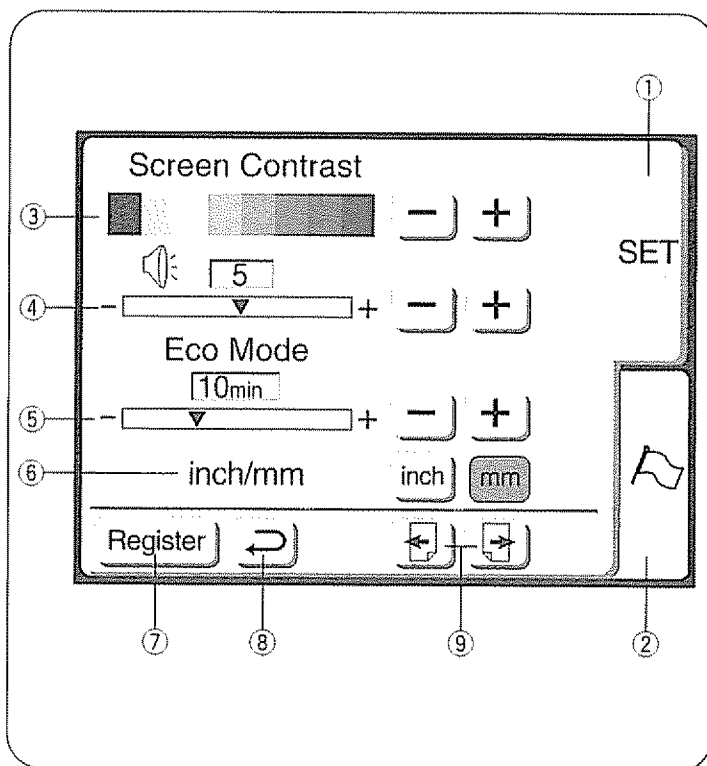
- ① SET key



Setting Mode

In this mode you can set the following machine functions, which are applicable to both embroidery and conventional sewing.

- ① **SET tab**
Press the SET tab to enter the common set mode.
- ② **Language tab**
Press the Flag tab to select the language for the screen display.
- ③ **Screen contrast**
The visual screen contrast can be adjusted. Press the + key, to sharpen the screen color contrast.
Press the - key, to fade the screen color contrast.
- ④ **Sound control**
The sound volume can be adjusted. The volume level can be set from 0 to 10. The default setting is 5.
- ⑤ **Eco mode**
After turning on the power switch, if you have not used the machine for a set period of time, the machine will enter Eco mode. The visual touch screen will go dark and the sewing lights will turn off.
Whenever you touch the screen while the machine is in Eco mode, the screen and sewing lights will turn on again.
- ⑥ **Inch/millimeter**
You can set your machine's measuring unit to either "inch" or "millimeter" depending upon your preference.
The default measuring unit setting is "inch".
Press *inch* or *mm* key to select the unit you prefer.
- ⑦ **Register key**
Press *Register* key to register the new setting and to exit the common set mode.
- ⑧ **Return key**
Press *Return* key to exit the common set mode without registering the new setting.
- ⑨ **Page key**
You can turn the pages by pressing the page key.
Press *Next* key to view the next page.
Press *Previous* key to view the previous page.



⑩ Key position adjustment

If you think the touch panel keys are out of alignment, you can correct it in the key position adjustment window. When you press the **Yes** key, window (A) will be shown. With your finger, press the black + sign as it appears in order. When you press the last black + sign, the window (B) will be shown. The window will close and go back to the original screen with the new setting being registered.

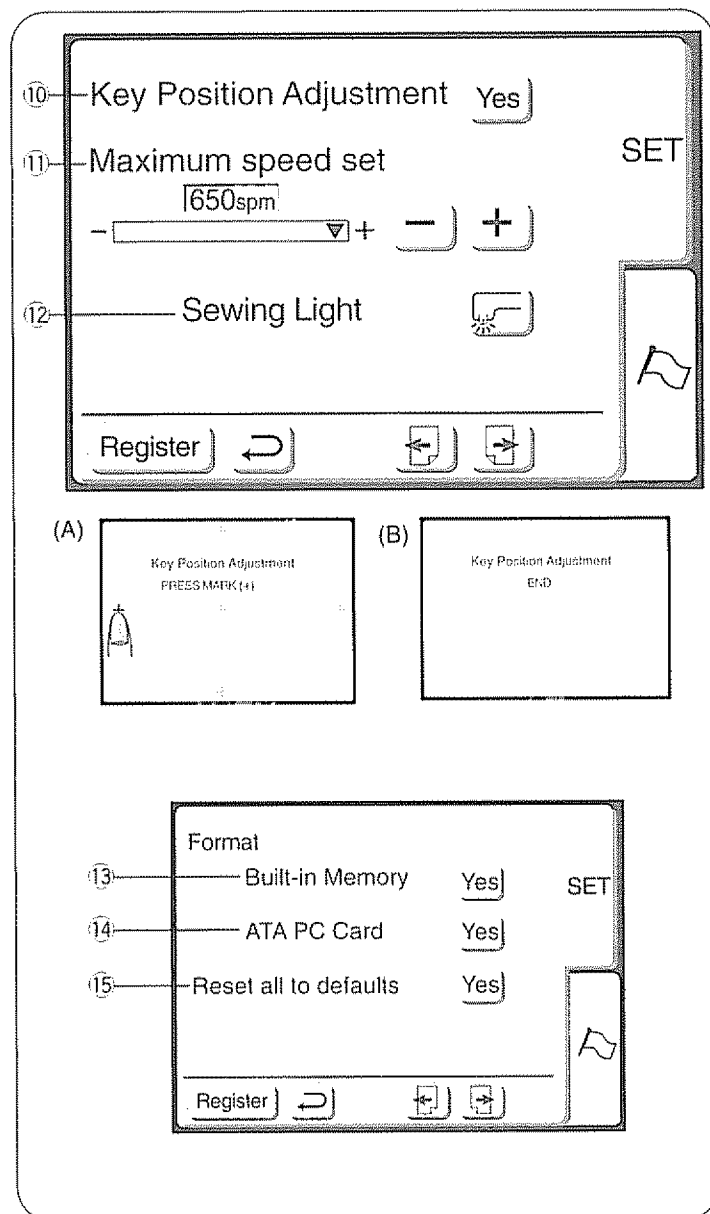
⑪ Embroidery maximum speed

The maximum sewing speed can be changed from 400 to 650 spm for embroidery sewing. The default setting is 650 spm (stitch per minute).

Press the minus **-** key to reduce the maximum sewing speed.
Press the plus **+** key to increase the maximum sewing speed.

⑫ Sewing light

You can turn the sewing light on or off by pressing the sewing light key.



Formatting the Memory

If the internal memory or ATA PC card does not function due to damage of the memory bank, you need to re-enable it by formatting the memory.

⑬ Built-in memory

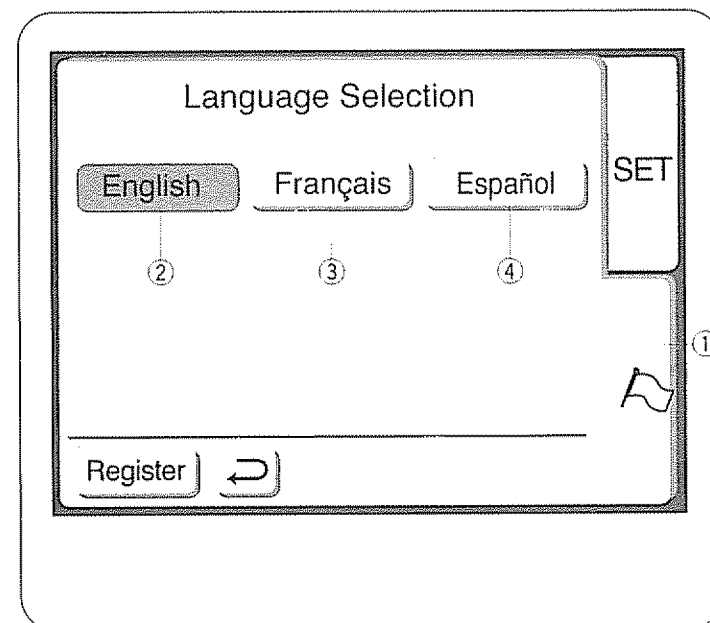
To format the internal memory, press the **Yes** key next to built-in memory.

⑭ ATA PC card

To format the ATA PC card or Compact Flash, press the **Yes** key next to ATA PC card.

⑮ Reset all to default

Pressing the **Yes** key will return all settings except for language to defaults (the same settings as when you purchased the machine).



Language Selection

You can select one of the following 3 languages by pressing the corresponding key. To enter the language selection, press the flag tab ①.

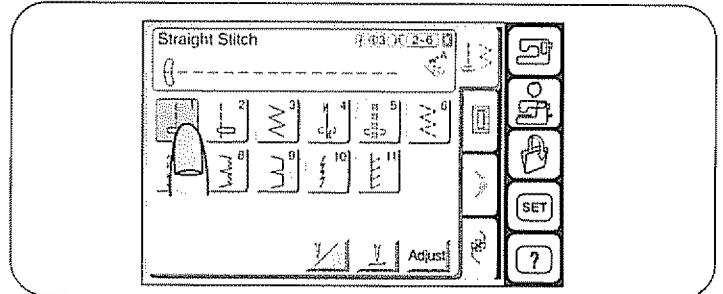
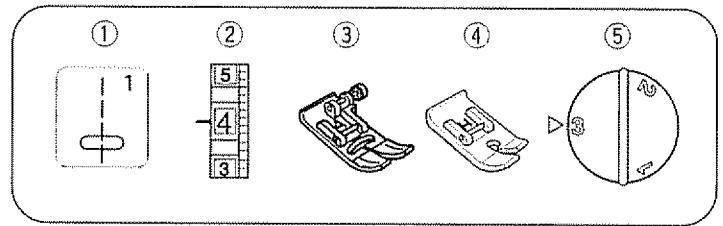
- ② English
- ③ French
- ④ Spanish

Straight Stitch

- | | |
|--------------------------|---|
| ① Stitch pattern: | 1 or 2 |
| ② Needle thread tension: | 2 to 6 |
| ③ Presser foot A: | Zigzag foot
(stitch pattern 1 or 2) |
| ④ Presser foot H: | Straight stitch foot
(stitch pattern 1 only) |
| ⑤ Pressure dial: | 3 |

CAUTION:

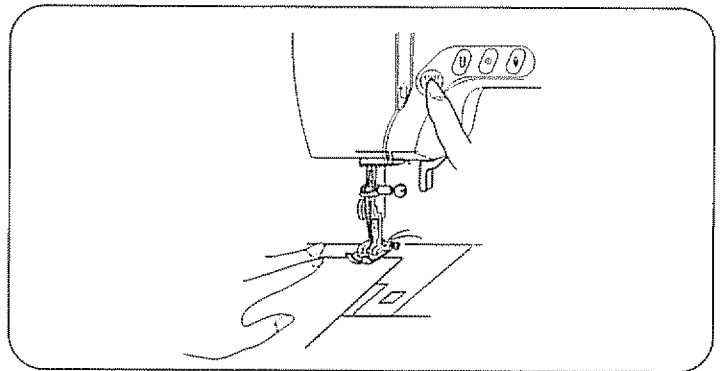
When using the straight stitch foot, make sure to select the straight stitch with the center needle drop position.



• To sew

Raise the presser foot and position the fabric next to a seam guideline on the needle plate. Lower the needle to the point where you want to start.

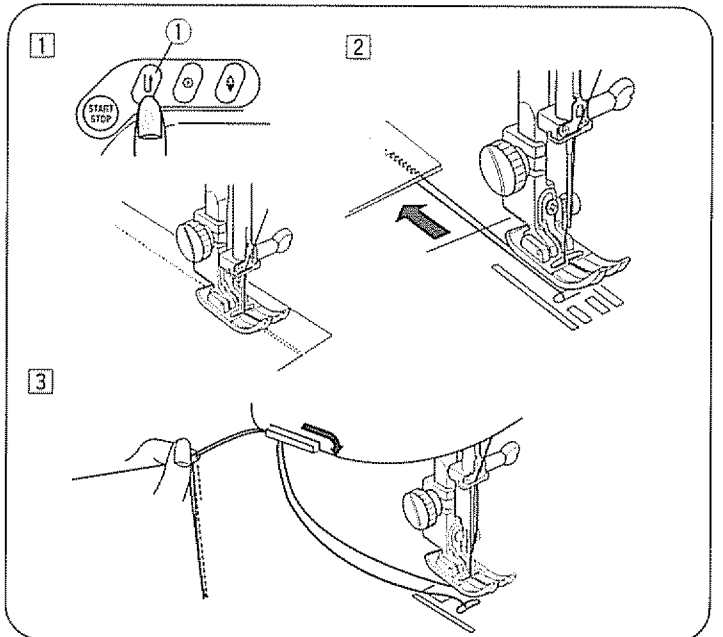
Pull the threads towards the back and lower the presser foot. Press the start/stop button or foot control, and gently guide the fabric along the seam guideline letting the fabric feed naturally.



• Securing seam

- ① Reverse button

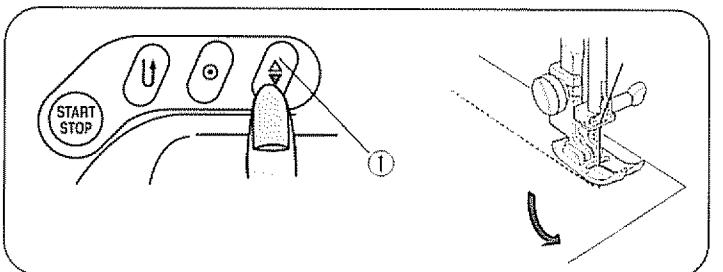
- 1 For fastening the ends of seams, press the reverse button ① and sew several reverse stitches. The machine sews reverse stitches as long as you press and hold the reverse button ①. When sewing with the lock-a-matic stitch and locking stitch, press the reverse button once, the machine will sew several reverse or locking stitches and stop automatically.
- 2 Raise the presser foot. Remove the fabric, draw it to the back.
- 3 Cut the thread by using the thread cutter. Now the threads are cut the proper length for starting the next seam.



• Changing sewing direction

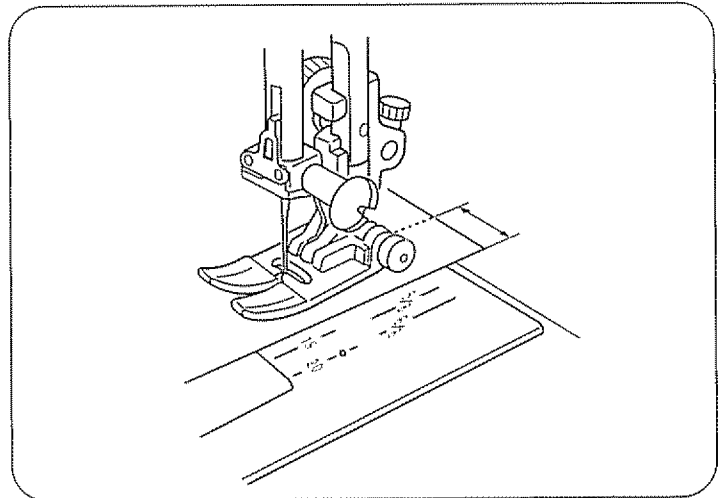
- ① Up/down needle button

Stop the machine and bring the needle down into the fabric by pressing the up/down needle button ①. Raise the presser foot. Pivot the fabric around the needle to change the sewing direction as directed. Lower the presser foot and sew in a new direction.



• **Needle plate guide line**

The seam guides on the needle plate and hook cover plate help you to measure seam allowance. The number marks on the needle plate indicate the distance between the center needle position and the edge of the fabric. There are marks for 15 mm, 20 mm, 4/8 in., 5/8 in. and 6/8 in.



• **To sew from the edge of thick fabric**

- ① Black button
- ② Thick fabrics

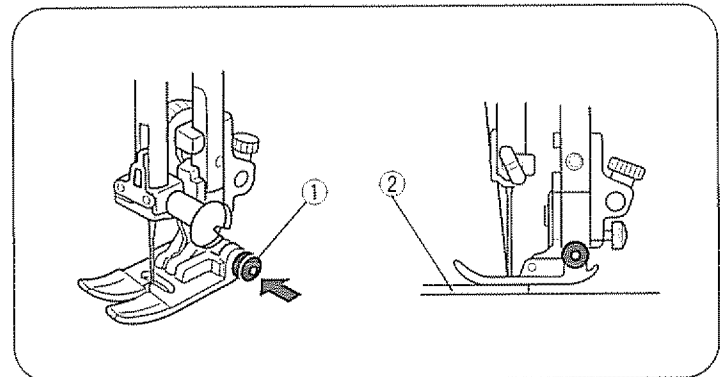
The black button ① on the zigzag foot locks the foot in the horizontal position

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

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

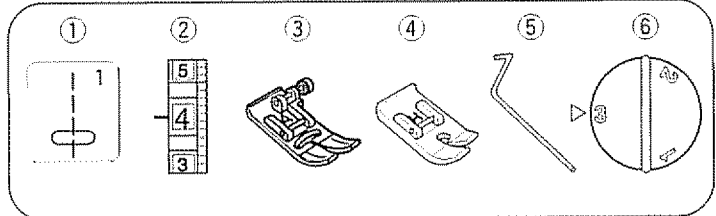
Lower the foot while pushing the black button ① in. The foot is locked in the horizontal position to avoid slipping.

The lock releases when the hem is passed.



Quilting

- ① Stitch pattern: 1
- ② Needle thread tension: 2 to 6
- ③ Presser foot A: Zigzag foot
- ④ Presser foot H: Straight stitch foot
- ⑤ Quilter
- ⑥ Pressure dial: 3

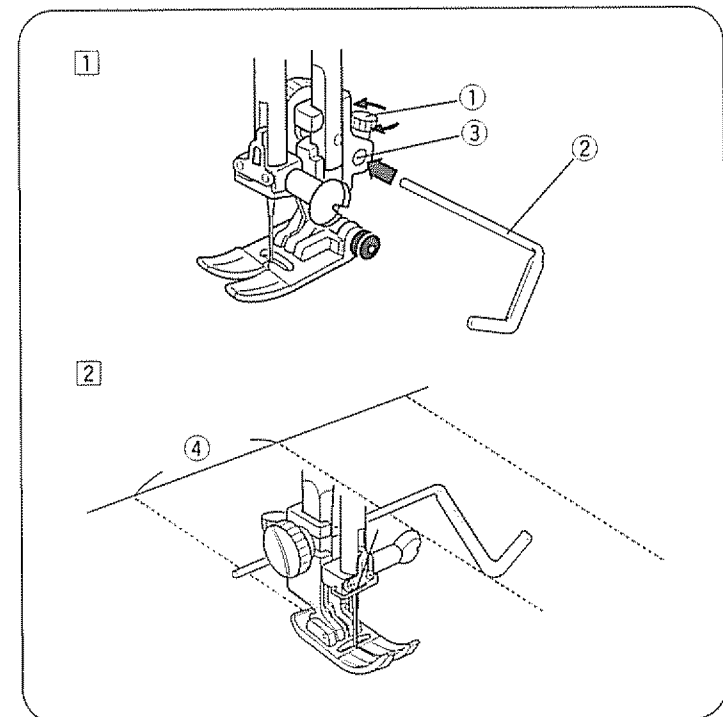


CAUTION:

When using the straight stitch foot, make sure to select the straight stitch with the center needle drop position.

Use the seam guide lines on the needle plate, or free-arm, to help determine the spacing between quilting stitches. The quilter will help keep the stitching line straight.

- ① Loosen the quilter holding screw. Slide the quilter ② in the hole ③ to the desired width and tighten the screw ①.
- ② Sew, guiding the quilter over the previous row of stitching.
 - ① Quilter holding screw
 - ② Quilter
 - ③ Hole
 - ④ Spacing



Quilting with Walking Foot

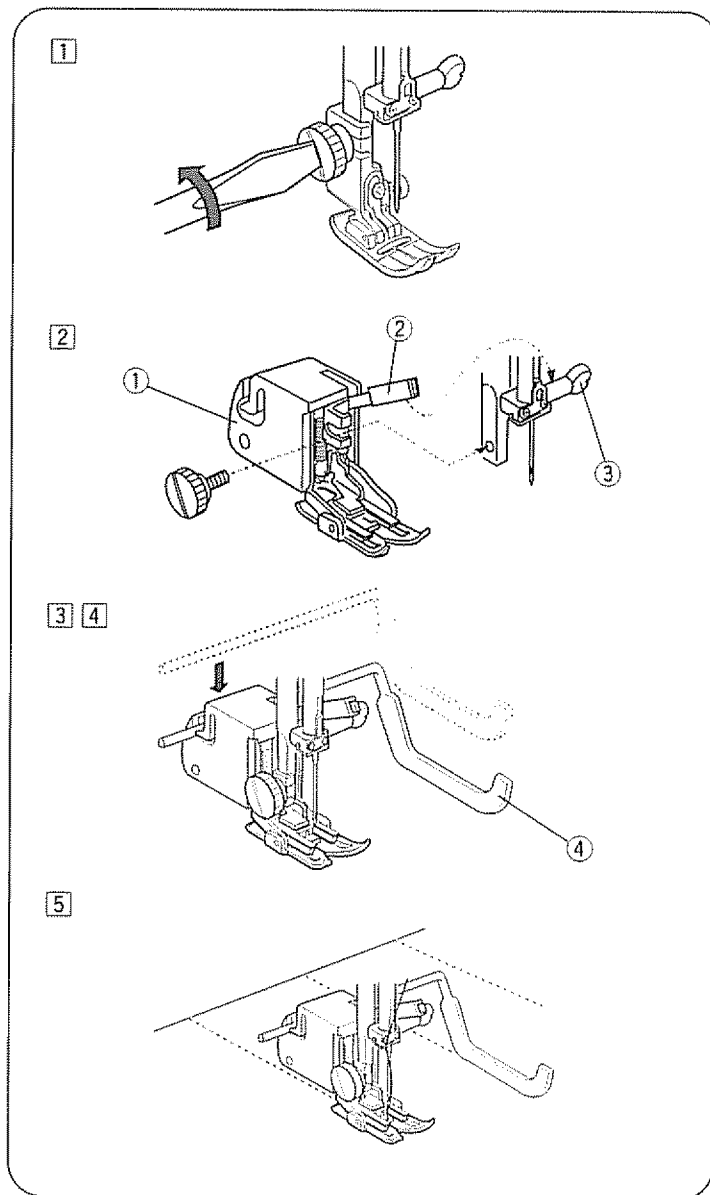
The walking foot is effective in preventing the fabric (light materials, knits, real and imitation leather etc.) from slipping or puckering, because it sandwiches the material between the upper and the lower feed dog on the machine.

The quilting bar can also be attached on the walking foot to make it easier to sew evenly spaced parallel rows of stitches.

• To attach the walking foot

- ① Walking foot
- ② Lever
- ③ Needle clamp screw
- ④ Quilting bar (for walking foot)

- ① Loosen the thumbscrew and remove the foot holder.
- ② Attach Walking foot ① to the presser bar with the lever ② over the needle clamp screw ③. Tighten the thumbscrew ③ firmly with the large screw driver.
- ③ Use quilting bar for walking foot when quilting.
- ④ Push the quilting bar ④ down into the slot on the plastic cover of the walking foot.
- ⑤ Shift the quilting bar ④ to the right or left to acquire the desired position.



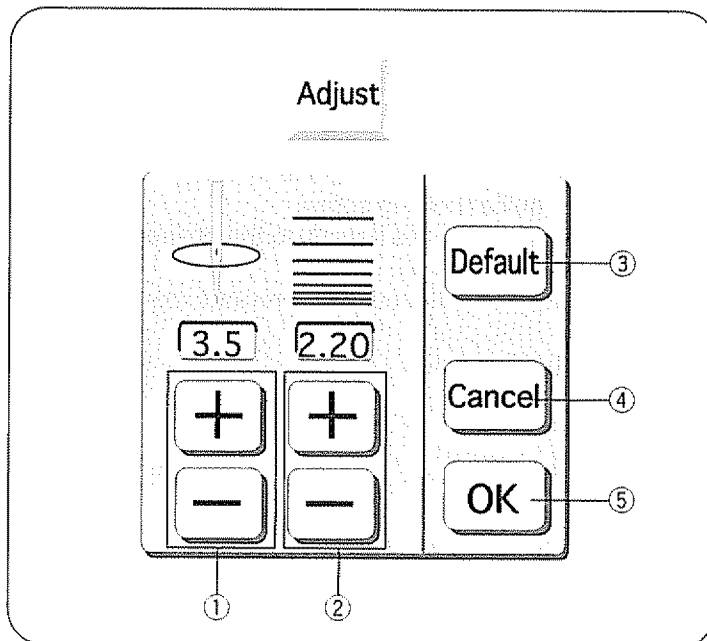
Manual Adjustment of Straight Stitches

Press the **Adjust** key.

The adjusting window displays the **+** and **-** keys for needle drop position, stitch length and thread tension adjustment.

Press the **+** or **-** key to change settings, then press the **OK** key to register the settings.

- ① **Needle drop position adjusting keys**
- ② **Stitch length adjusting keys**
- ③ **Default key:** When you press **Default** key, all settings in the adjusting window will return to their default settings (the same settings as when you purchased the machine).
- ④ **Cancel key:** When you press **Cancel** key, the adjust window will close and the setting remains unchanged.
- ⑤ **Ok key:** When you press the **OK** key, your settings are registered.



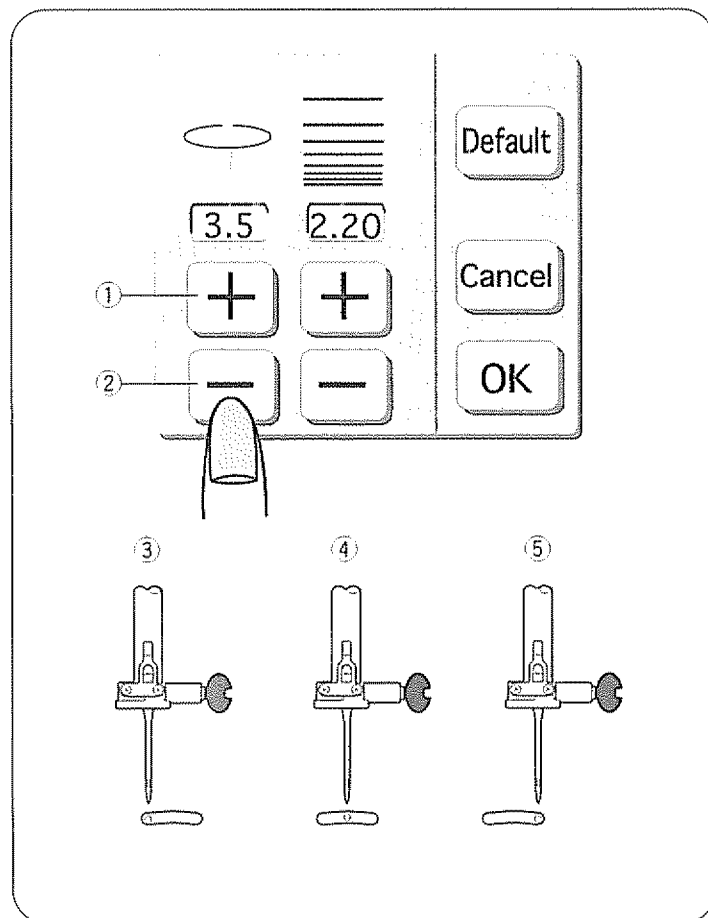
• **Changing needle drop position**

- ① + key
- ② - key
- ③ 0.0 (left position)
- ④ 3.5 (center position)
- ⑤ 7.0 (right position)

Needle drop position is adjusted with the + and - keys.

When you press the + key, the needle moves to the right ⑤.

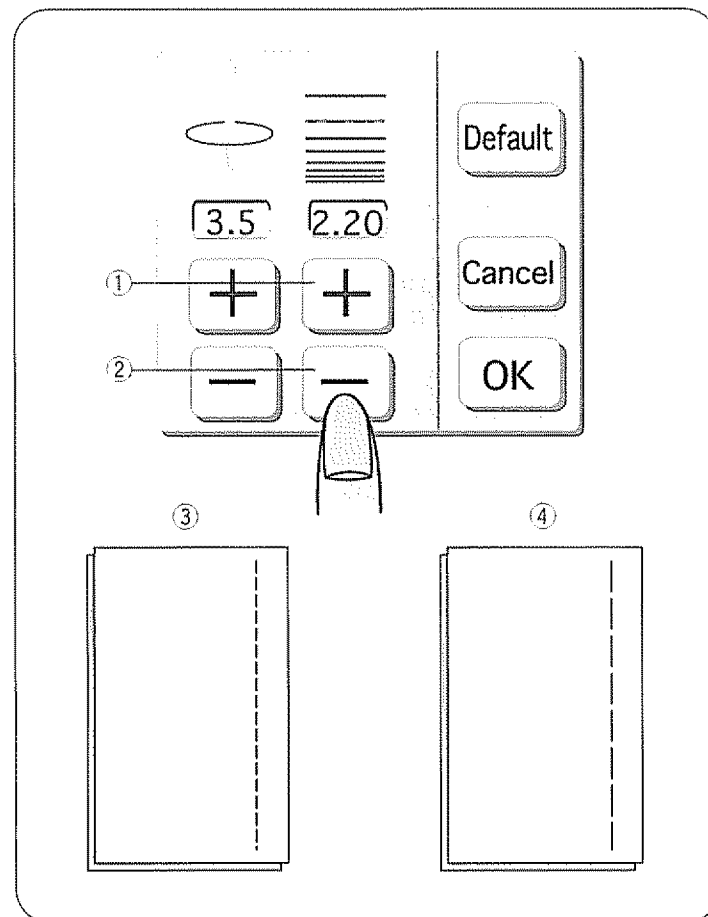
When you press the - key, the needle moves to the left ③.



• **Changing stitch length**

- ① + key
- ② - key
- ③ 1.0
- ④ 5.0

Stitch length is adjusted with the + and - keys. The larger the number, the greater the stitch length. Press the + key to increase the stitch length. Press the - key to decrease the stitch length.



Adjusting the Needle Thread Tension for Straight Stitch

• Correct tension

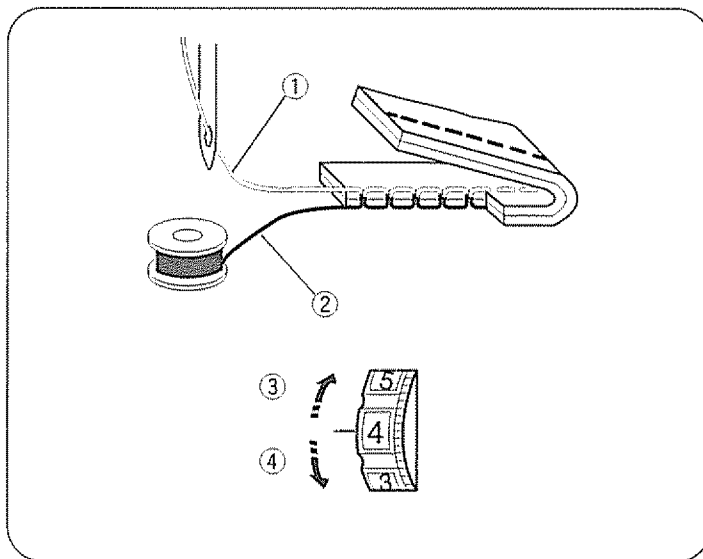
- ① Needle thread (Top thread)
- ② Bobbin thread (Bottom thread)
- ③ To loosen
- ④ To tighten

The ideal straight stitch has threads locked between two layers of fabric, as illustrated (magnified to show detail). If you look at the top and bottom of a seam, notice that the stitches are evenly balanced.

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

Results depend on:

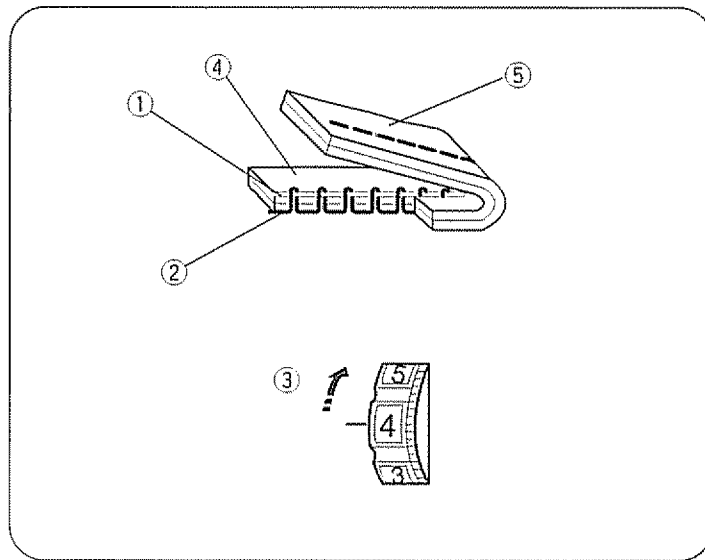
- stiffness and thickness of the fabric
- number of fabric layers
- type of stitch



• Tension is too tight

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

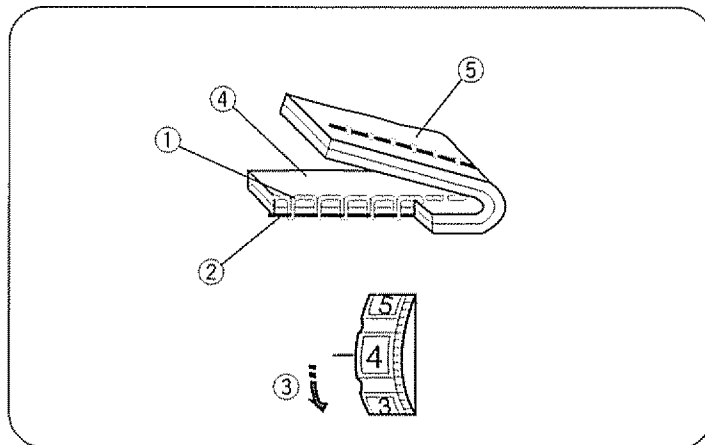
The bobbin thread shows through on the right side of the fabric, and the stitch feels bumpy. Turn the dial to a lower tension setting number to loosen the needle thread tension.



• Tension is too loose

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

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



Variety of Straight Stitches

Lock-a-matic Stitch

- ① Stitch pattern: 4
- ② Needle thread tension: 2 to 6
- ③ Presser foot A: Zigzag foot
- ④ Presser foot H: Straight stitch foot
- ⑤ Pressure dial: 3

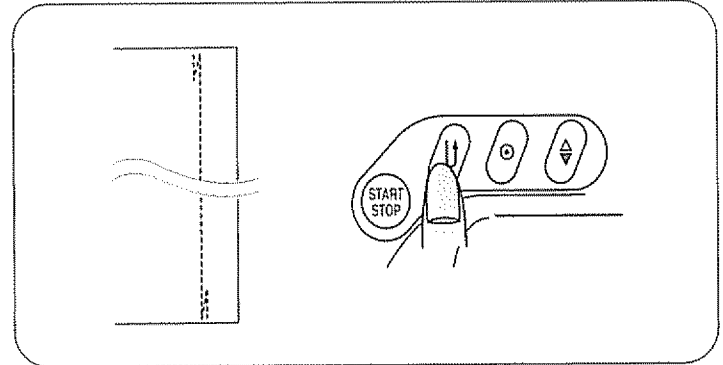
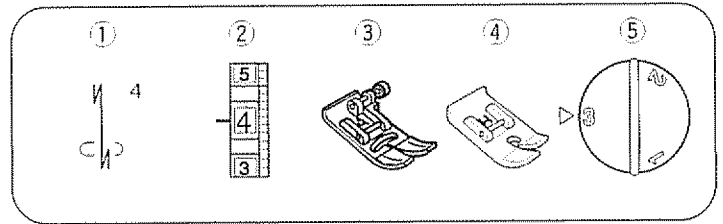
Use this stitch to secure the beginning and the end of a seam with backstitching

Press pattern 4 on the visual touch screen

When you reach the end of the seam, press the reverse button once.

CAUTION:

When using the straight stitch foot, make sure to select the straight stitch with the center needle drop position. Otherwise the needle may hit the sewing foot and possibly break.



Triple Stretch Stitch

- ① Stitch pattern: 5
- ② Needle thread tension: 2 to 6
- ③ Presser foot A: Zigzag foot
- ④ Presser foot H: Straight stitch foot
- ⑤ Pressure dial: 3

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

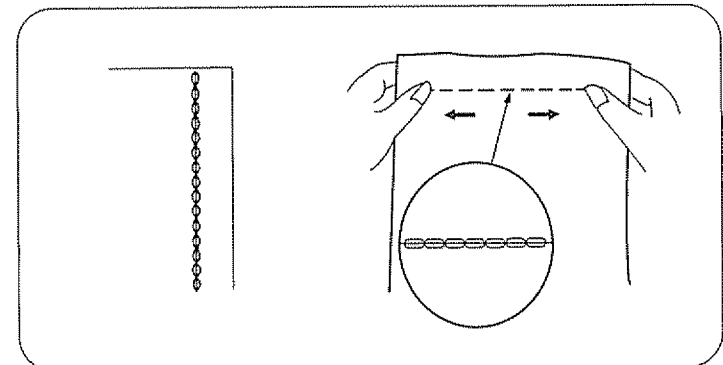
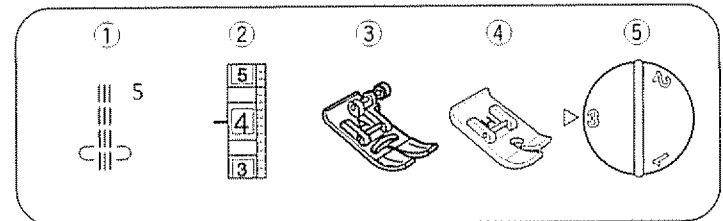
Use it to reinforce areas such as crotch and armhole seams.

Also use it when constructing items such as backpacks for extra strength.

Press pattern 5 on the visual touch screen.

CAUTION:

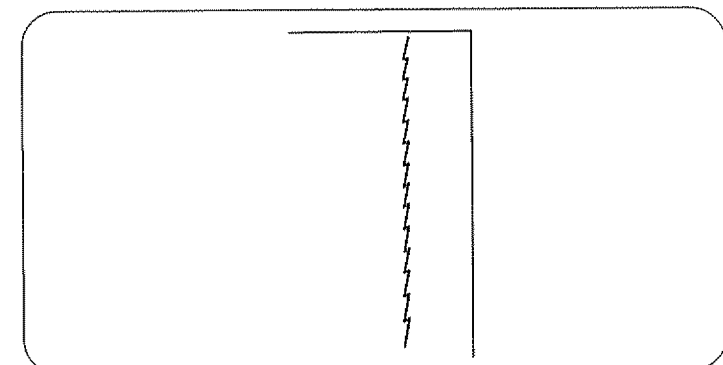
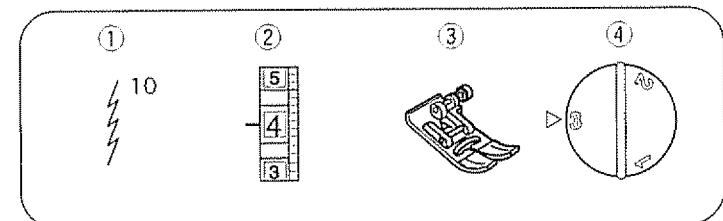
When using the straight stitch foot, make sure to select the straight stitch with the center needle drop position. Otherwise the needle may hit the sewing foot and possibly break.



Stretch Stitch

- ① Stitch pattern: 10
- ② Needle thread tension: 3 to 6
- ③ Presser foot A: Zigzag foot
- ④ Presser foot H: Straight stitch foot

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



Zipper Sewing

- ① Stitch pattern: 1
- ② Needle thread tension: 2 to 6
- ③ Presser foot E: Zipper foot
- ④ Pressure dial: 3

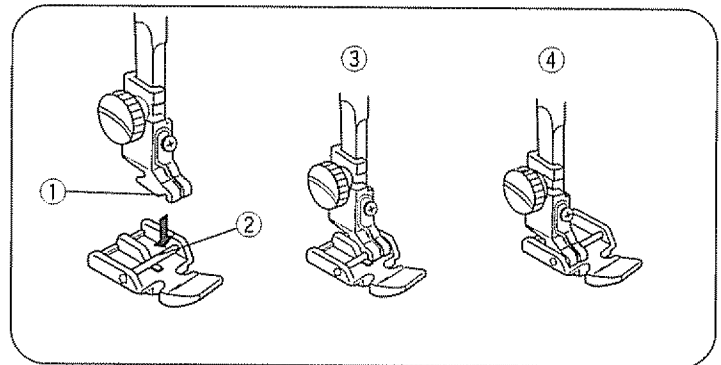
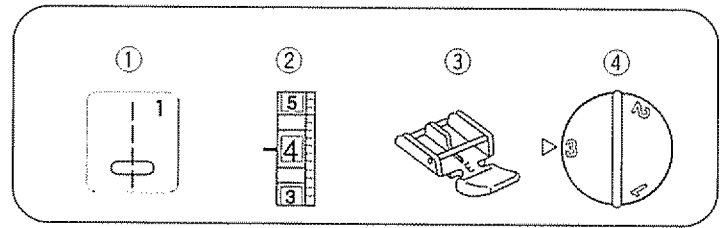
• To snap on the zipper foot

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

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

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

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

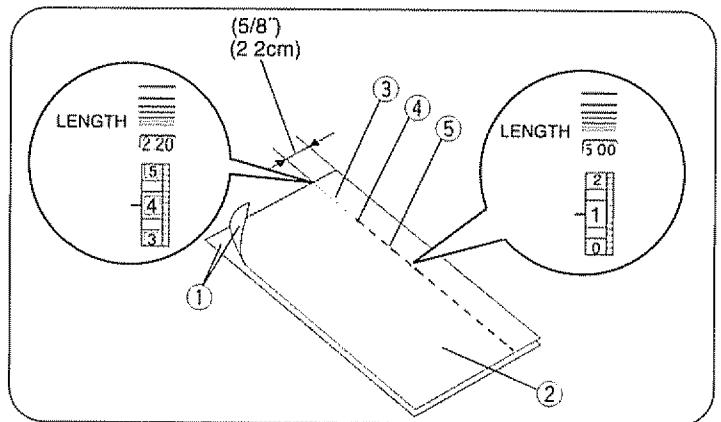


• Fabric preparation

- ① Right (top) side of fabric
- ② Wrong (bottom) side of fabric
- ③ Bottom seam
- ④ Zipper bottom stop position
- ⑤ Basting stitch

Place the right (top) sides of the fabric ① together. Set the stitch length to 2.2. Sew a bottom seam ③ 5/8" (2.2 cm) from the right edge to the estimated zipper bottom stop position ④. Sew in reverse a few stitches to lock.

Increase the stitch length to 5, set needle thread tension to 1, and sew basting stitch ⑤ the entire length of the zipper tape.



• To sew

- ① 1/8" (0.4 cm) fabric margin
- ② Zipper teeth
- ③ Zipper tape

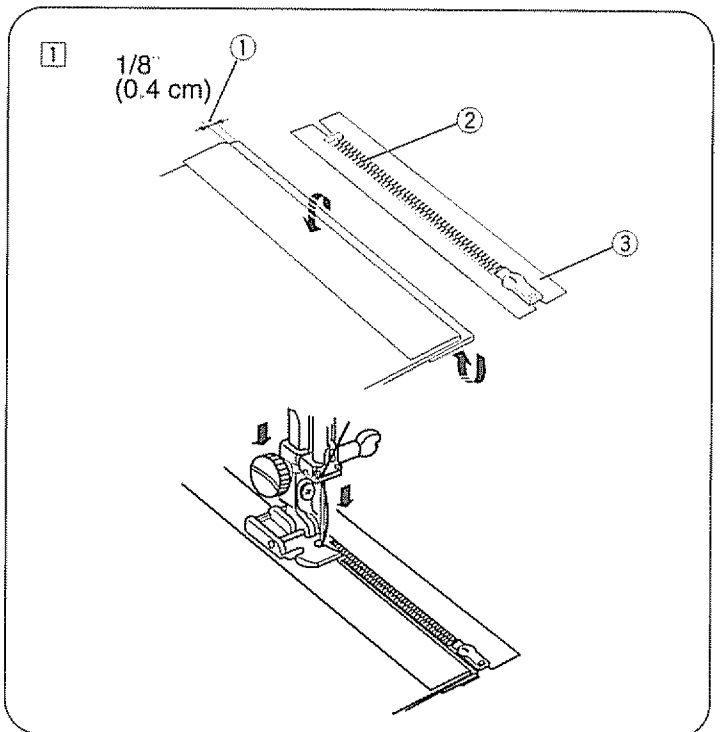
1 Attach zipper foot on right-side of pin.

Fold back the upper layer seam allowance. Fold back the lower layer seam allowance to leave a 1/8" (0.4 cm) margin of fabric ①.

Place zipper teeth next to margin edge and pin margin to zipper tape.

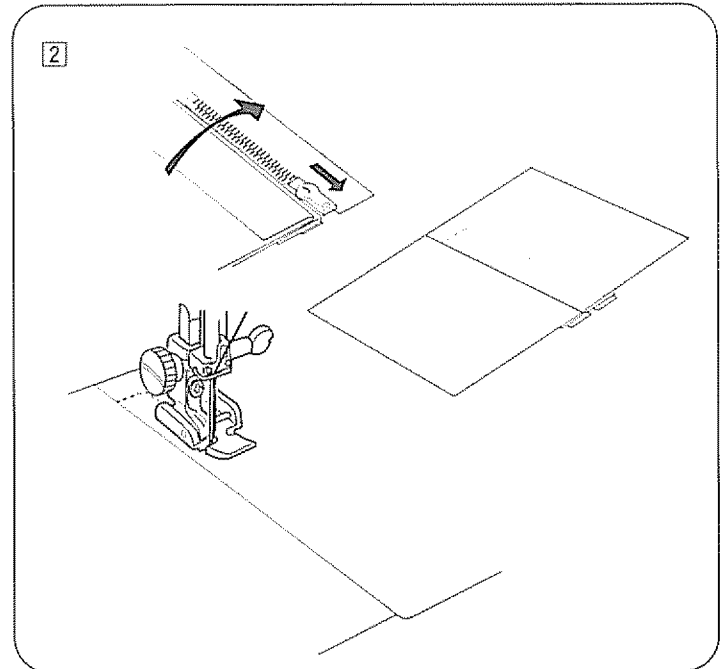
Align zipper foot with margin edge. Return thread tension and stitch length to original settings. Sew a seam the entire length of zipper tape, removing pins as you go. Before reaching pull-tab, stop the machine with needle in the fabric and raise the foot, then unzip a few inches to clear a path for the stitch.

Remove fabric and close zipper



2 Raise and release foot, and re-attach it on left-hand side of pin.

Take the upper fabric layer and lay it flat over the zipper. Starting just below zipper bottom stop, sew across fabric to about 3/8" to 1/2" distance from the basting stitch line. Turn fabric 90° and sew a seam the entire length of zipper tape. Before reaching pull-tab, stop the machine with needle in fabric and raise the foot. Use seam ripper to open a few inches of basting stitch, then unzip a few inches to clear a path for the stitch. At the end of the zipper tape, sew in reverse a few stitches to lock. Once both sides of zipper are sewn, use seam ripper to open the basting stitch.

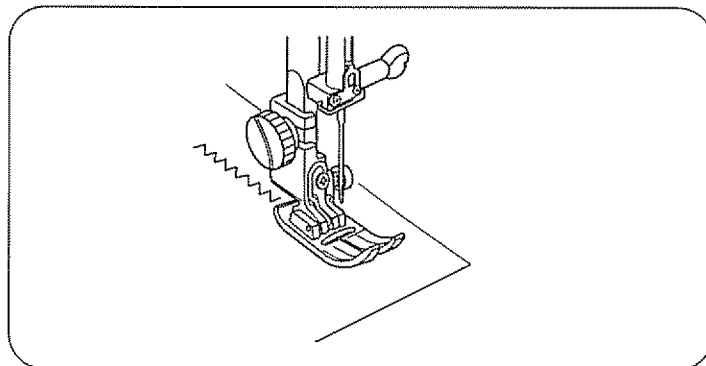
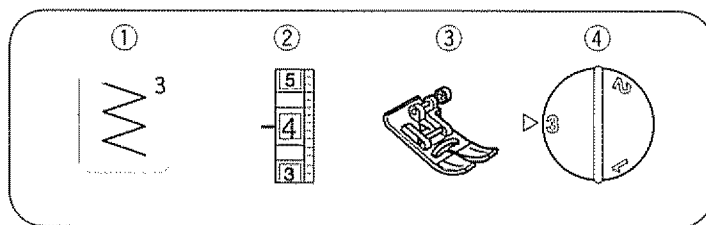


Zigzag Stitch

- | | |
|-------------------------|-------------|
| ① Stitch pattern: | 3 |
| ② Needle thread tension | 3 to 7 |
| ③ Presser foot A: | Zigzag foot |
| ④ Pressure dial | 3 |

The zigzag stitch is one of the most common and versatile stitches. It can be a utility stitch for button sewing, buttonhole making, hemming, overcasting, mending and darning.

It can also be used to decorate with trims, appliques and cut work or as a decorative stitch.



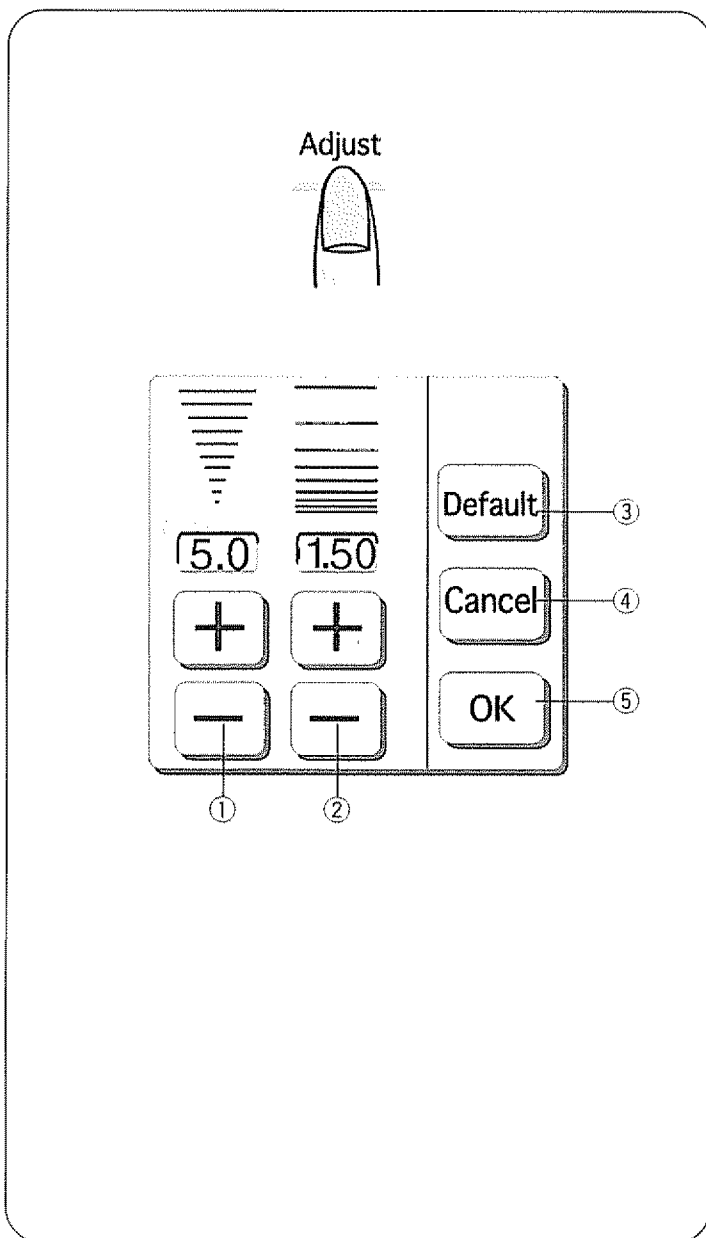
Manual Adjustment of Zigzag Stitch Width and Length

Press the **Adjust** key.

The adjusting window displays the **+** and **-** keys for stitch width and stitch length.

Press the **+** or **-** key to change settings, then press the **OK** key to register the settings.

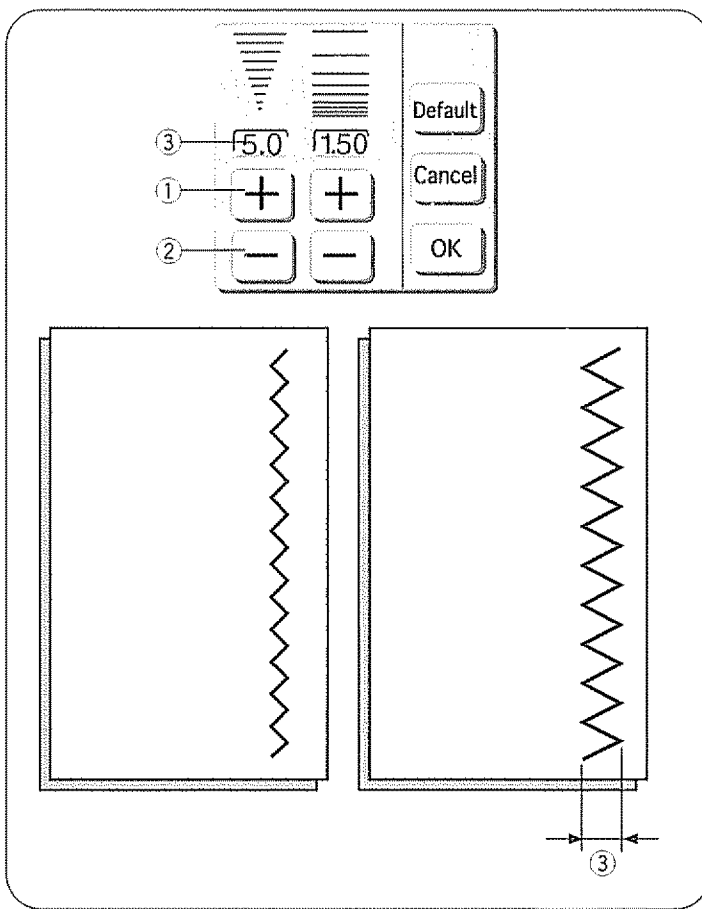
- ① **Stitch width adjusting keys**
- ② **Stitch length adjusting keys**
- ③ **Default key:** When you press **Default** key, all settings in the adjusting window will return to their default settings (the same settings as when you purchased the machine).
- ④ **Cancel key:** When you press **Cancel** key, the adjust window will close and the setting remains unchanged.
- ⑤ **OK key:** When you press the **OK** key, your settings are registered.



• **Changing stitch width**

- ① + key
- ② - key
- ③ Stitch width

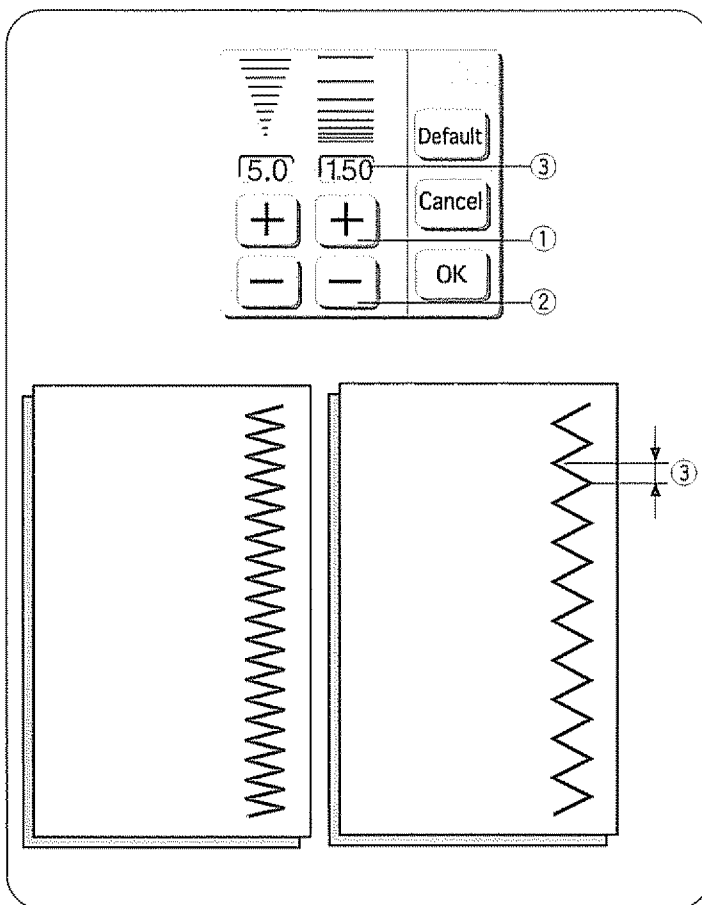
Stitch width is adjusted with the + and - keys
 The larger the number, the wider the stitch width
 Press the + key to increase the stitch width.
 Press the - key to decrease the stitch width



• **Changing stitch length**

- ① + key
- ② - key
- ③ Stitch length

Stitch length is adjusted with the + and - keys.
 The larger the number, the longer the stitch length.
 Press the + key to increase the stitch length.
 Press the - key to decrease the stitch length.



Adjusting the Needle Thread Tension for Zigzag Stitch

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

See the illustrations for the correct appearance.

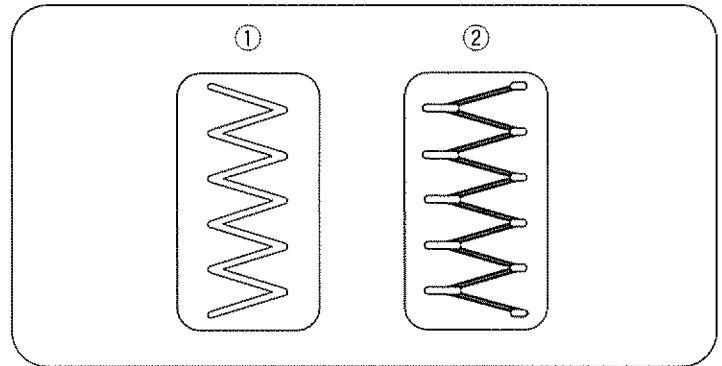
To match this appearance, adjust the needle tension.

• Correct tension

- ① Right side (Top side) of fabric
- ② Wrong side (Bottom side) of fabric

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

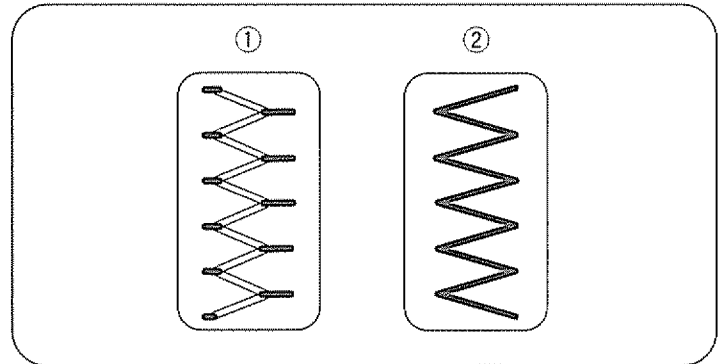
Results vary with fabric, thread and sewing conditions.



• Tension is too tight

- ① Right side (Top side) of fabric
- ② Wrong side (Bottom side) of fabric

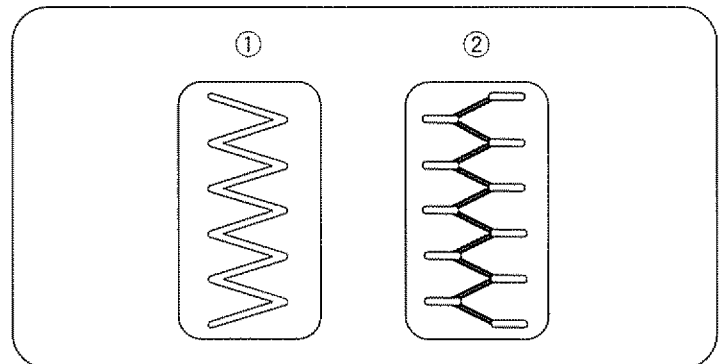
The corner of each zigzag pulls together on the right side of the fabric.



• Tension is too loose

- ① Right side (Top side) of fabric
- ② Wrong side (Bottom side) of fabric

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



Variety of Overcasting Stitches

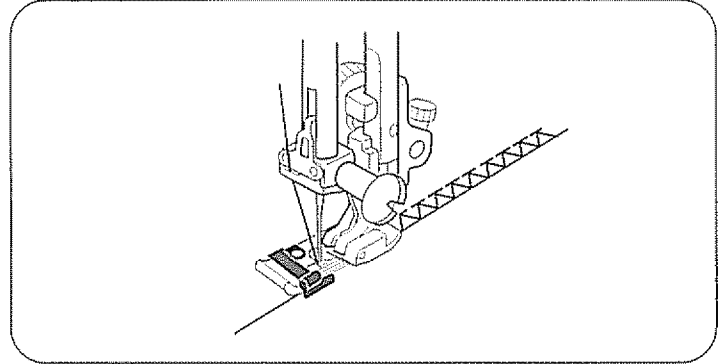
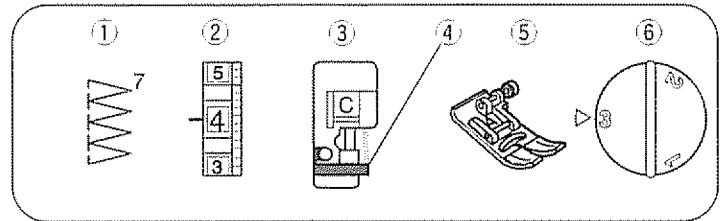
Overedge Stitch

- | | |
|---------------------------|---------------|
| ① Stitch pattern: | 7 |
| ② Needle thread tension | 3 to 7 |
| ③ Presser foot C: | Overedge foot |
| ④ Brush holder seam guide | |
| ⑤ Presser foot A: | Zigzag foot |
| ⑥ Pressure dial | 3 |

This stitch is often used as a seam finish to prevent fraying. If using a zigzag foot, start overedging with the leftmost needle position about 1/8" (0.3 cm) from the raw edge of a fabric. The right tip of the stitch should just clear the raw fabric. For lightweight fabrics, use the overedge foot. To sew, line the fabric edge up with the inner side of the brush holder seam guide ④.

CAUTION:

When using an overedge foot, make sure to set the stitch width at 5 to 7.0, otherwise the needle may hit the overedge foot.



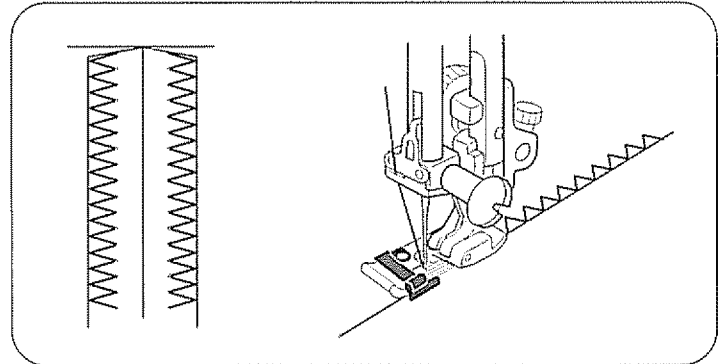
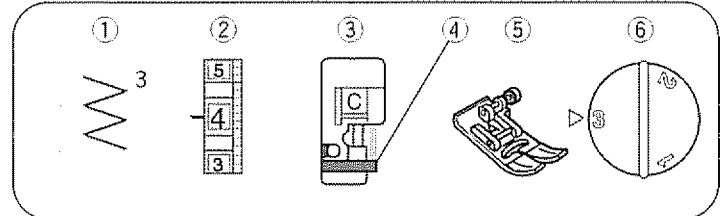
Overedge Stitch (using zigzag stitch)

- | | |
|---------------------------|---------------|
| ① Stitch pattern: | 3 |
| ② Needle thread tension | 3 to 7 |
| ③ Presser foot C: | Overedge foot |
| ④ Brush holder seam guide | |
| ⑤ Presser foot A: | Zigzag foot |
| ⑥ Pressure dial | 3 |

To prevent raw edge of fabric from raveling, overcast the edge with zigzag stitch. It is the fastest way to finish the raw edge of most woven fabrics.

CAUTION:

When using an overedge foot, make sure to set the stitch width at 5 to 7.0, otherwise the needle may hit the overedge foot.



Multiple Zigzag Stitch

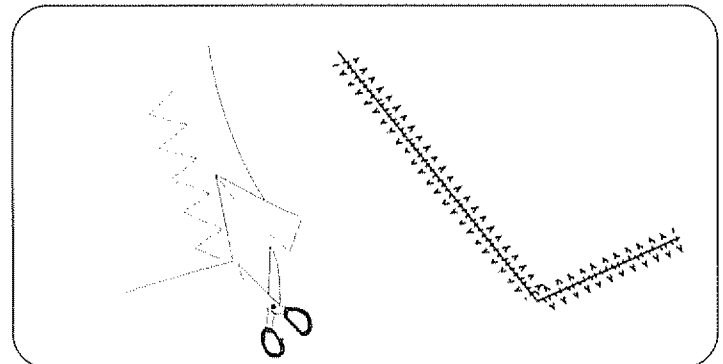
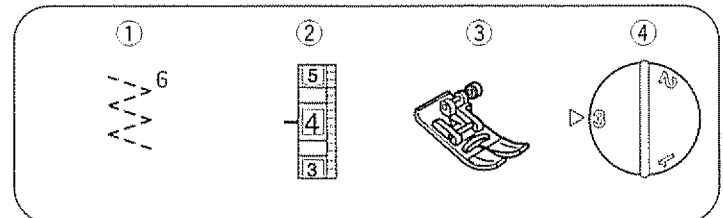
- | | |
|-------------------------|-------------|
| ① Stitch pattern: | 6 |
| ② Needle thread tension | 3 to 6 |
| ③ Presser foot A: | Zigzag foot |
| ④ Pressure dial | 3 |

• Seam finishing

This stitch is used to finish the seam allowance on synthetics and other fabrics that tend to pucker. The stitch is also excellent for darning and mending tears. Place your fabric to allow a 5/8" (1.5 cm) seam. Trim excess close to stitching. Be careful not to cut the stitches.

• Mending

Position the tear under the needle so that the stitch catches both sides.

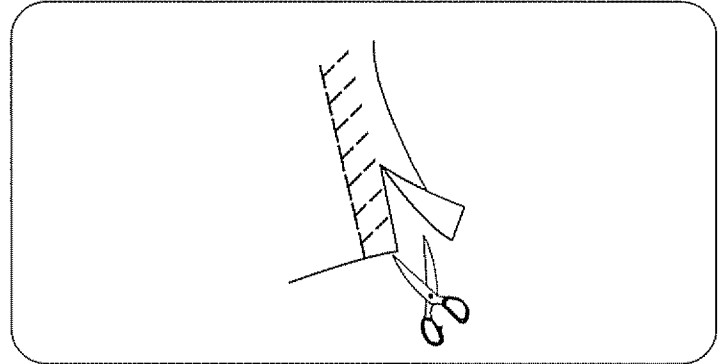
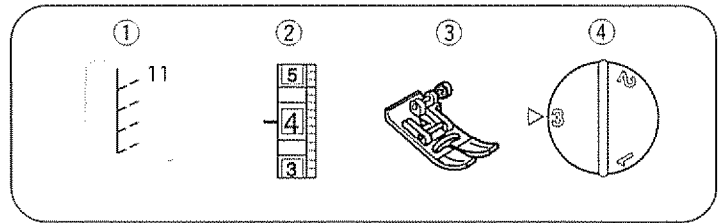


Serging

- | | |
|-------------------------|-------------|
| ① Stitch pattern: | 11 |
| ② Needle thread tension | 3 to 6 |
| ③ Presser foot A: | Zigzag foot |
| ④ Pressure dial | 3 |

This stitch is recommended for finishing edges of knit fabrics such as tricots, stretch velour etc., because it provides the greatest amount of elasticity and strength.

Sew along the fabric edge leaving a 1/4" (0.7 cm) seam allowance. After finishing the sewing, trim the extra seam allowance as shown.



Blind Hem Stitch

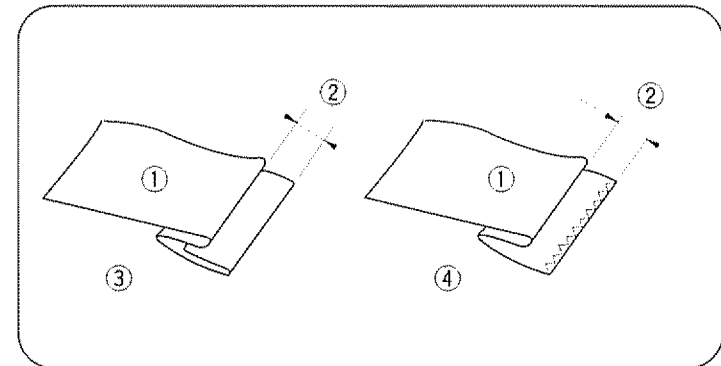
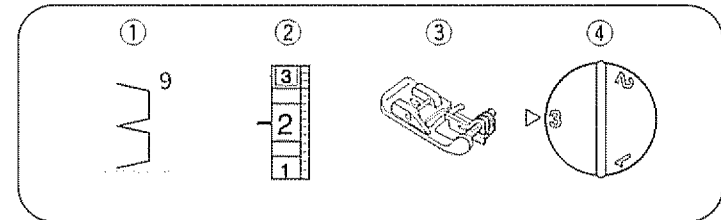
- | | |
|-------------------------|------------------------|
| ① Stitch pattern: | 8 or 9 |
| ② Needle thread tension | 1 to 4 (for pattern 9) |
| Needle thread tension | 3 to 6 (for pattern 8) |
| ③ Presser foot G: | Blind hem foot |
| ④ Pressure dial | 3 |

Use the same color thread as the fabric.

On heavy weight fabrics that ravel, the raw edge should be overcast first.

Fold the hem, as illustrated.

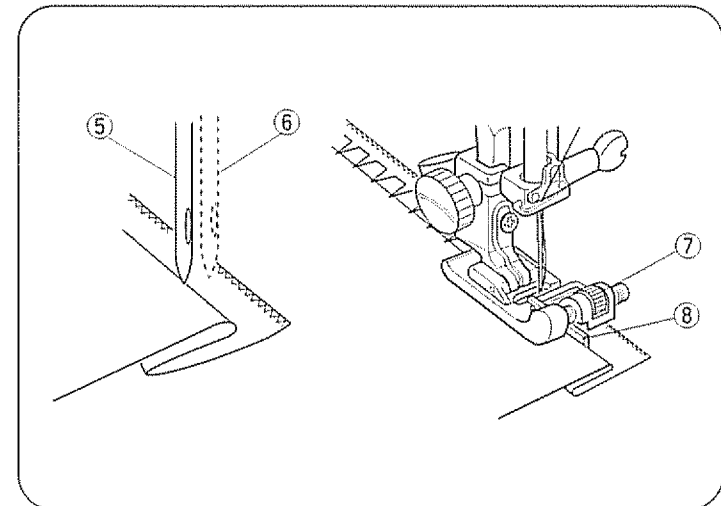
- ① Wrong side (Bottom side) of fabric
- ② 1/4" to 7/16" (0.4 to 0.7 cm)
- ③ Light weight fabric
- ④ Heavy weight fabric



• To sew

- ⑤ When the needle comes to the left
- ⑥ When the needle comes to the right
- ⑦ Guide
- ⑧ Folded edge

There is a sliding guide screw on the blind hem foot that allows you to precisely control where the needle pierces the edge of the fabric fold. Adjust the screw so that at the leftmost position of the stitch, the needle just pierces the edge of the fold. If the needle pierces too far left, the stitches will show on the right side of the fabric. Lower the presser foot. Sew, guiding the folded edge along the guide in the foot ⑦.



SECTION IV. BUTTONHOLE

Various kinds of buttonholes and their uses

Press the buttonhole tab ① to open the buttonhole stitch window.

② Square BH

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

③ Round End BH

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

④ Keyhole BH

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

⑤ Stretch BH

This buttonhole can be used on stretch fabrics. It can also be used as a decorative buttonhole.

⑥ Knit BH

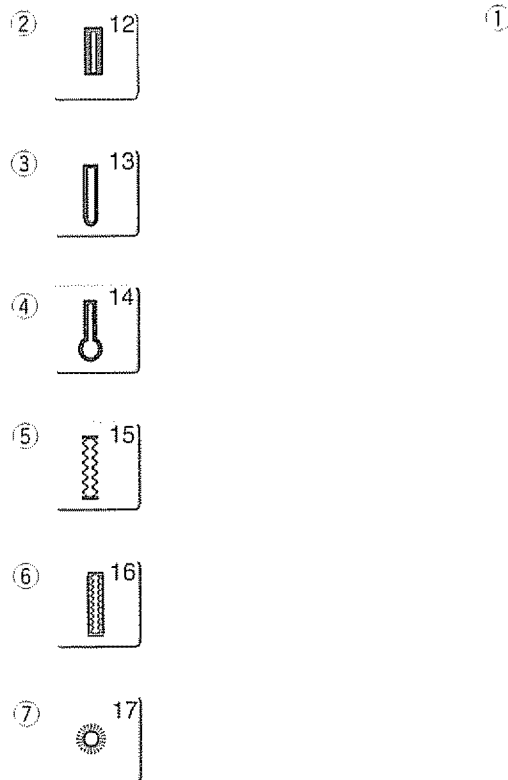
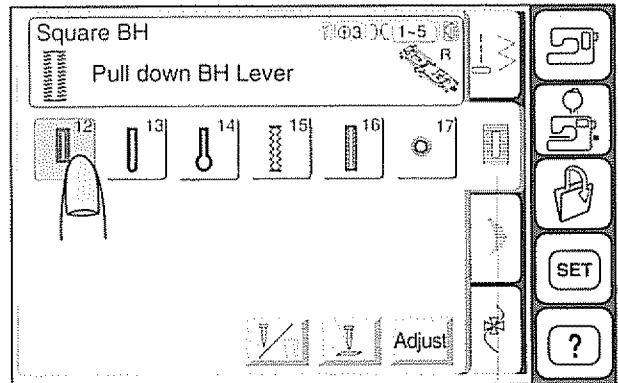
This buttonhole is suitable for knit fabrics. It can also be used as a decorative buttonhole.

⑦ Eyelet

Eyelet is used for belt holes etc.

Notes:

- To sew the buttonholes 13 to 16, follow the same procedure as Square BH (See page 36 to 37.)
- The size of a buttonhole is automatically set by placing a button in the rear of automatic buttonhole foot R.
- The buttonholder of the foot takes a button size of up to 1" (2.5 cm) in diameter.
- It is sometimes necessary to change buttonhole size to match certain heavy or specific materials and threads
- Make a test buttonhole on an extra piece of the fabric to check your setting.
- Place the button on the fabric and mark the top and bottom to determine the position of the buttonhole on the fabric.
- Use interfacing on stretch fabrics.



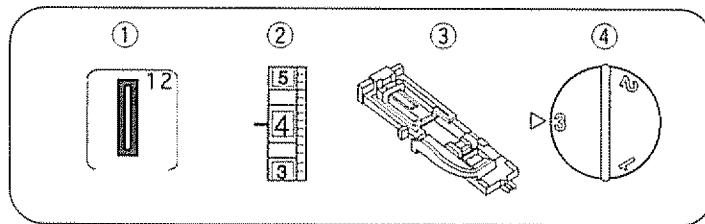
Square BH

- ① Stitch pattern: 12
- ② Needle thread tension: 1 to 5
- ③ Presser foot R: Automatic buttonhole foot
- ④ Pressure dial: 3

• Preparation for sewing

- ① Groove
- ② Pin

Press up/down needle button to raise the needle. Attach the automatic buttonhole foot R. Make sure the groove ① on the foot holder catches the pin ② on the foot when lowering the presser bar.



• To sew

- ① Button holder
- ② Buttonhole lever

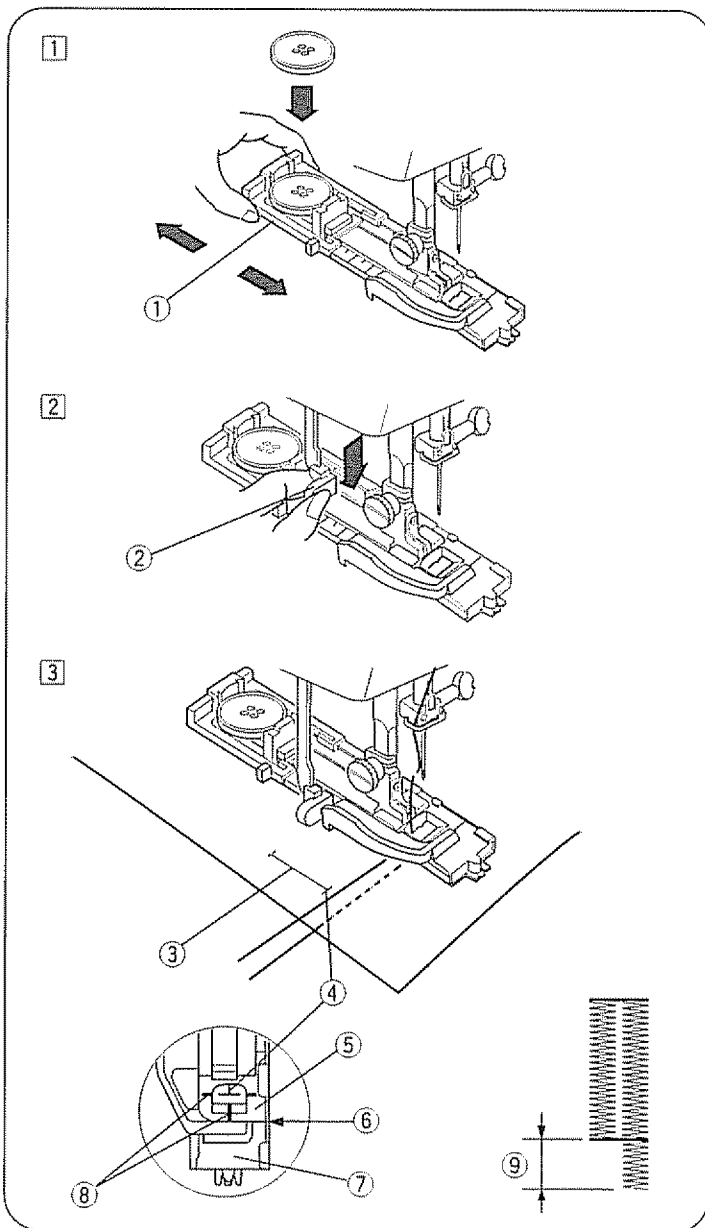
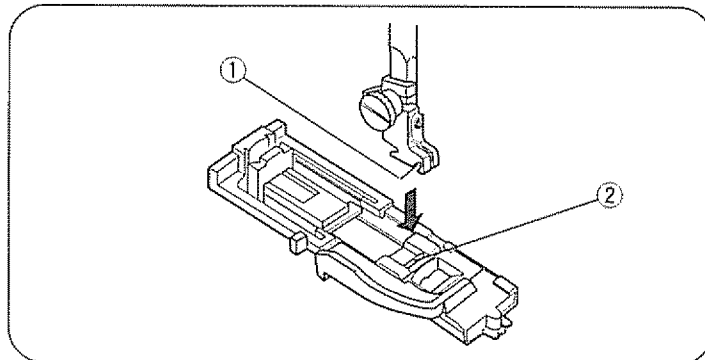
The buttonhole size is automatically set by placing the button in the rear of the automatic buttonhole foot.

The button holder on the foot takes a button up to 1.0" (2.5 cm) in diameter.

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

Use interfacing on stretch fabrics.

- 1 Pull the button holder ① to the back, and place the button in it. Push it forward tightly against the button.
- 2 Pull the buttonhole lever ② down as far as it will go.
- 3 Insert the corner of the fabric under the foot. Press the Up/down needle button twice. Remove the fabric to the left to draw both threads under the foot. Insert the garment under the foot, and lower the needle to the starting point ④ of the mark ③. Then lower the automatic buttonhole foot.
 - ③ Mark for placement of buttonhole
 - ④ Starting point
 - ⑤ Slider
 - ⑥ There should be no gap.
 - ⑦ Spring holder
 - ⑧ Start mark
 - ⑨ Difference



Note:

Make sure there is no gap between the slider ⑤ and spring holder ⑦, otherwise the left and right length of buttonhole will be different

4 Press the start/stop button to sew the buttonhole. The buttonhole will be automatically sewn.

① **Step 1:**

The machine will sew the front bartack and the left row first. Then it goes back to the starting point with straight stitch.

② **Step 2:**

The machine will sew the right row.

③ **Step 3:**

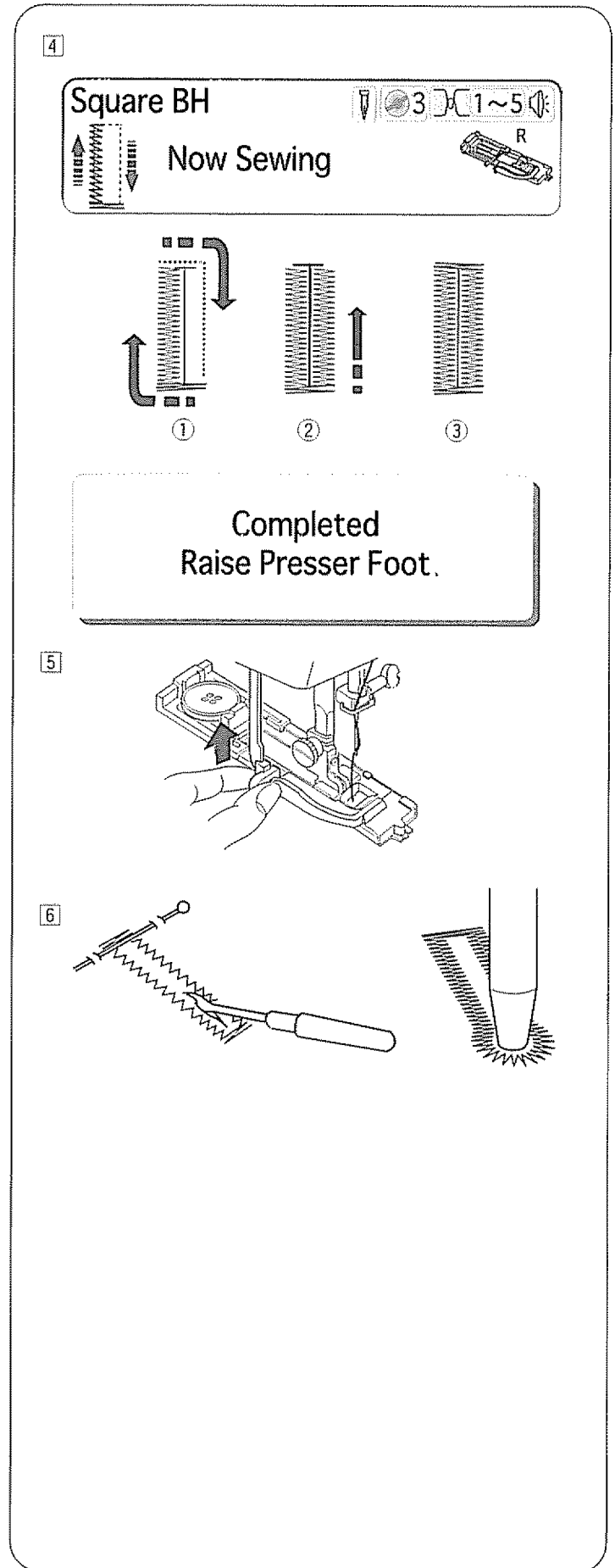
The machine will sew the back bartack, and the machine will stop automatically.

• **To repeat buttonhole sewing**

To sew another buttonhole, raise the presser foot and move the fabric to where the next buttonhole is sewn, then lower the foot and start the machine.

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

6 Remove the fabric and place a pin just below the bartack at each end to prevent accidentally cutting bartacks. Cut opening with the seam ripper. Use an eyelet puncher to open a keyhole buttonhole.

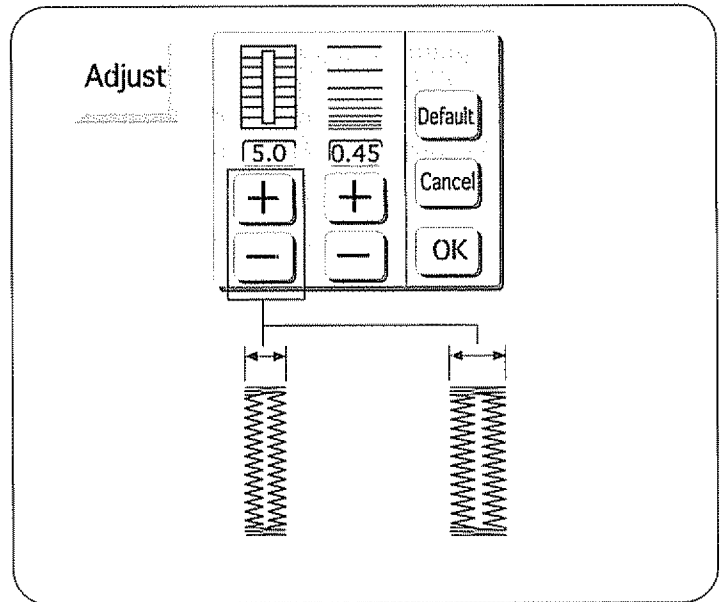


• **Changing buttonhole width**

Press the **Adjust** key. The adjusting window opens.
The adjusting window displays the **+** and **-** keys for buttonhole width adjustment

Press the **+** key to increase the buttonhole width.
Press the **-** key to decrease the buttonhole width.
Press the **OK** key to register the settings.

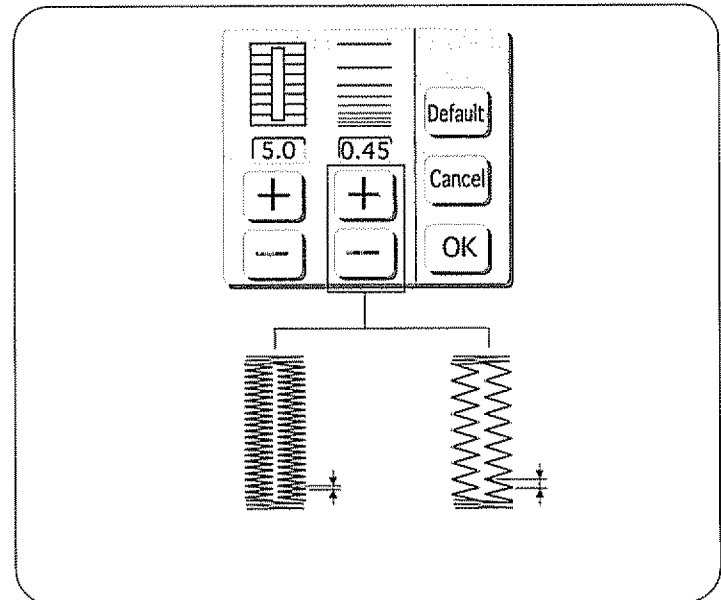
Note:
The default setting is 5.0.



• **Changing buttonhole stitch density**

Press the **+** key to make the buttonhole stitch density looser.
Press the **-** key to decrease the buttonhole stitch density tighter.
Press the **OK** key to register the settings.

Note:
The default setting is 0.45.



Corded Buttonhole

- | | |
|--------------------------|---------------------------|
| ① Stitch pattern: | 12 |
| ② Needle thread tension: | 1 to 5 |
| ③ Presser foot R: | Automatic buttonhole foot |
| ④ Pressure dial: | 3 |

Use the same procedure as the square buttonhole procedure.

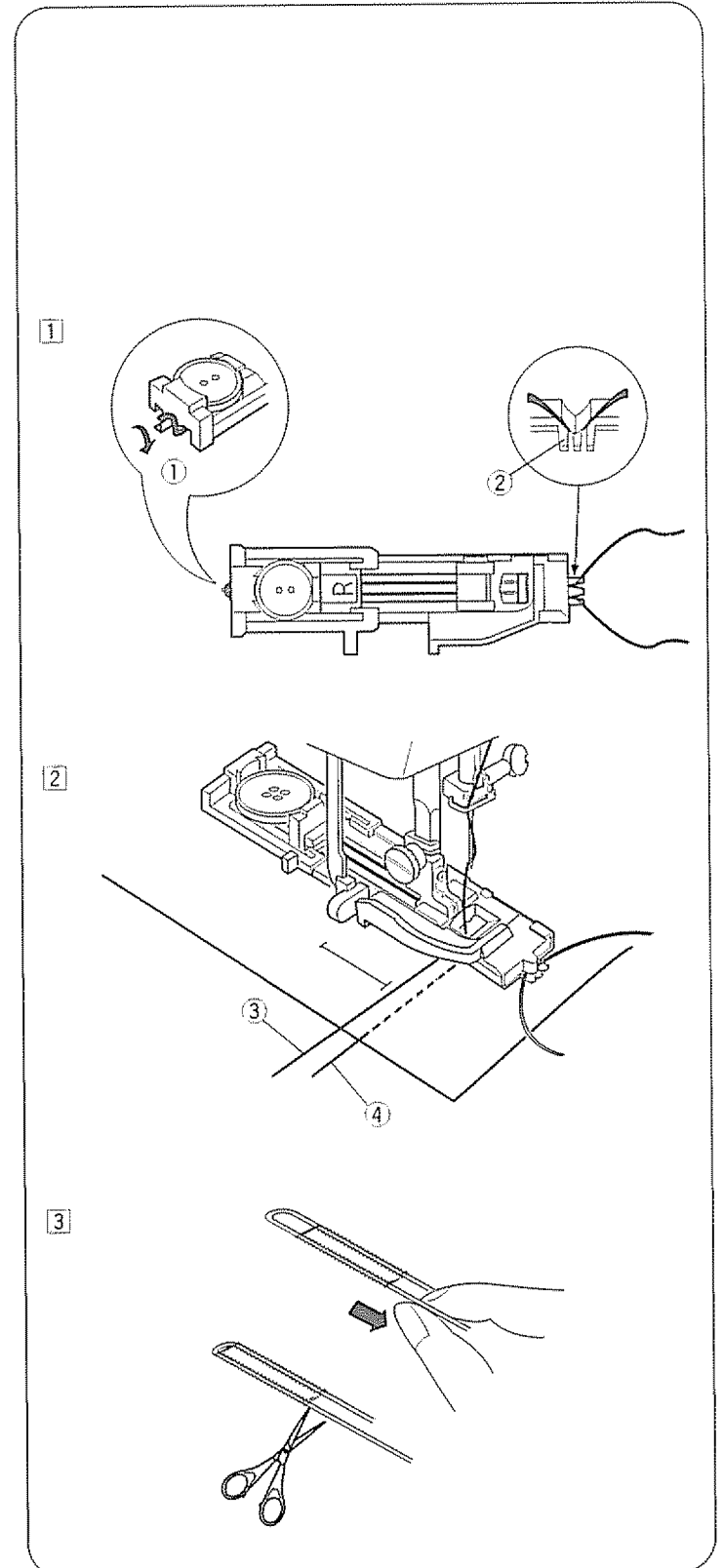
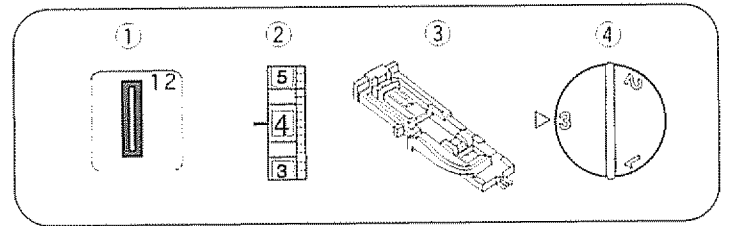
* Set the stitch width to match the thickness of the cord used.

• To sew

- ① 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 ② on the front of the automatic buttonhole foot to hold them tight. Lower the needle into the garment where the buttonhole will start, and lower the foot.
 - ① Spur
 - ② Forks

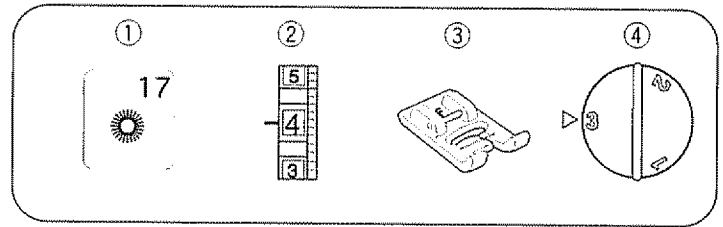
- ② Press the start/stop button and sew the buttonhole. Each side of the buttonhole and the bartacks will be sewn over the cord. Remove the fabric from the machine, and cut the sewing threads only.
 - ③ Needle thread (Top thread)
 - ④ Bobbin thread (Bottom thread)

- ③ Pull the loose ends of the filler cord to tighten it. Tie the ends in a knot, or thread them through a hand-sewing needle. Draw them to the wrong side of the fabric and knot.



Eyelet

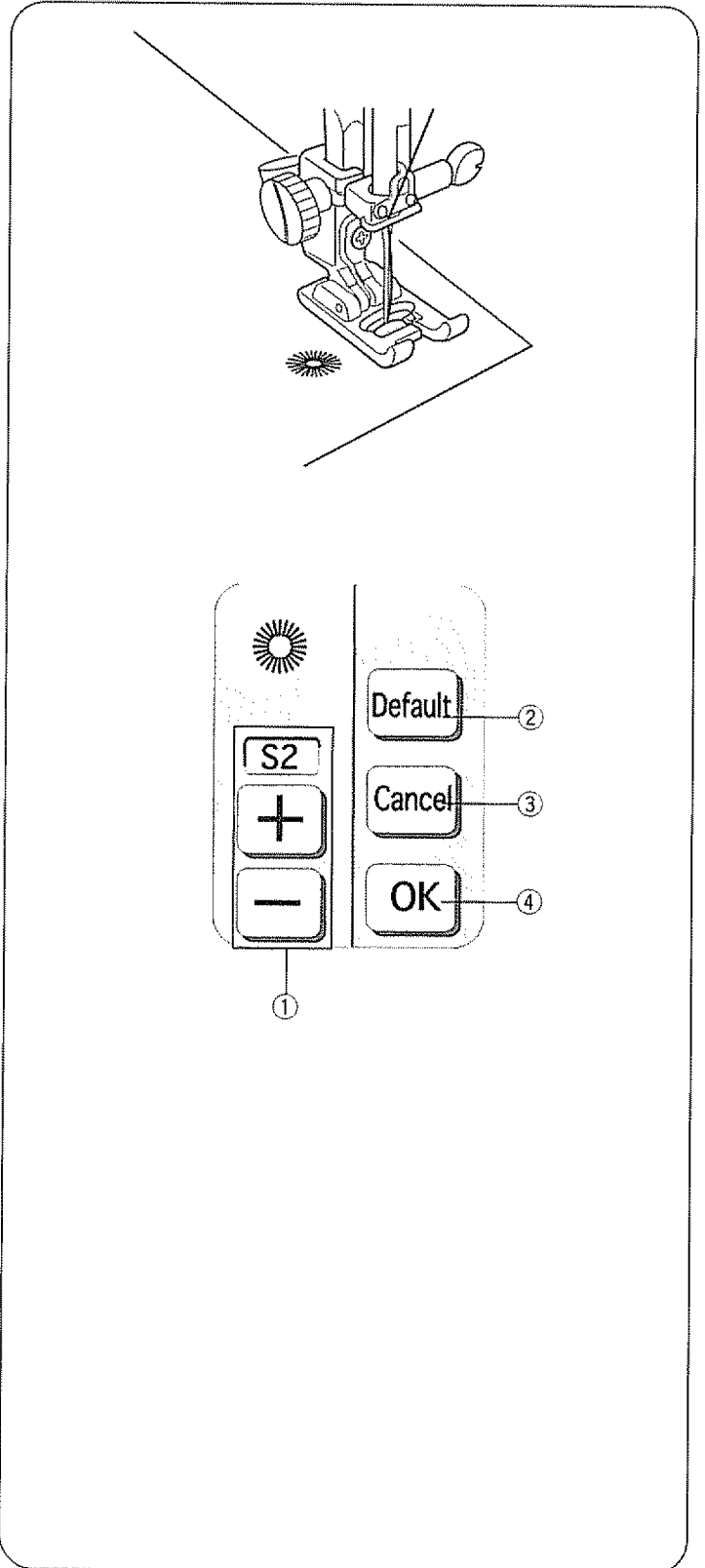
- | | |
|-------------------------|-------------------|
| ① Stitch pattern: | 17 |
| ② Needle thread tension | 1 to 4 |
| ③ Presser foot F: | Satin stitch foot |
| ④ Pressure dial | 3 |



The eyelet is used for belt holes etc.
Press pattern 17 on the visual touch screen.

• To sew

Attach the satin stitch foot F.
Depress the foot control to sew. The machine will stop automatically when completed.
Open the eyelet with an awl, punch or point scissors.



• To adjust the shape of an eyelet

By pressing the adjust key, the manual adjusting screen will appear. If the sewing result of an eyelet is compressed or drawn out, try the other types of shape.

Press the + or the - key to adjust.

- ① Shape adjust key (S1–shape1, S2–shape2, S3–shape3)

- ② Default key

When you press the **Default** key all function values on the screen will return to the default setting (the same settings as when you purchased the machine)

- ③ Cancel key

When you press the **Cancel** key, the adjust window will close and the setting remains unchanged.

- ④ OK key


When you press the **OK** key, the same window will close and go back to the original screen with the new setting being registered.

SECTION V. SATIN AND DECORATIVE STITCHES


Key Functions

Press the satin stitch tab ① to open the window for satin and decorative stitches.


② Twin needle key

Press  key to limit the stitch width for twin needle sewing.


③ Program key

Press  key to program pattern combinations. When you press this key the Cursor keys, Delete key, Vertical Mirror key, "M" key (Memory Check key) and Save File key will be displayed.



④ Needle up/down key

Press the  key to set the needle position up or down when stopping the machine



⑤ Adjust key

Press the  key to open the adjusting window.

⑥ Stitch width key

Press the stitch width  or  key to change the stitch width.


⑦ Stitch length key

Press the stitch length  or  key to change the stitch length.


⑧ Elongation key

The elongation key is used to change the elongation of decorative stitch patterns.


⑨ Default key

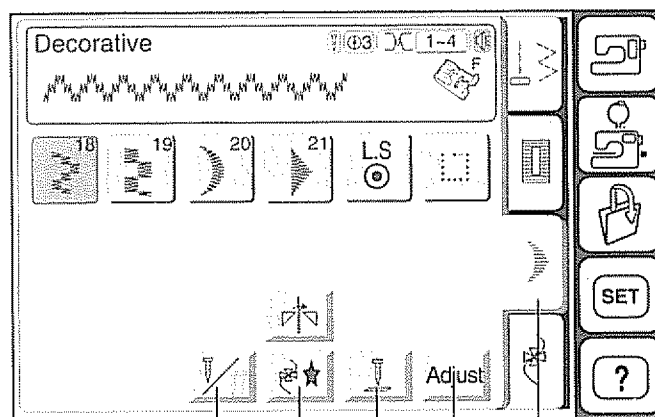
When you press the  key, all setting in the adjusting window will return to default (the same settings as when you purchased the machine)

⑩ Cancel key

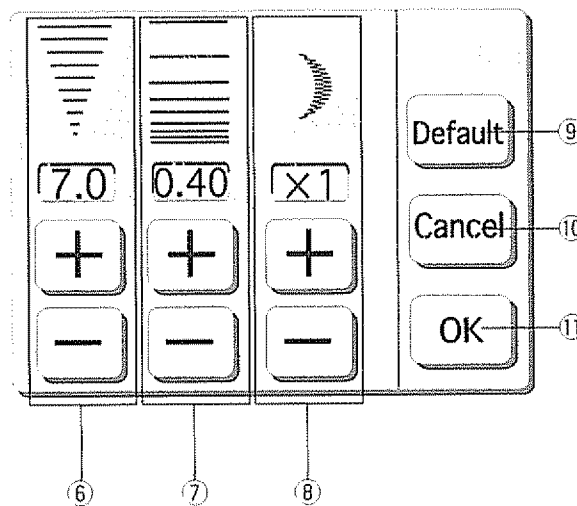
When you press the  key, the adjusting window will close and the setting remains.

⑪ OK key

Press  key. The setting is registered and the screen returns to the previous window.



② ③ ④ ⑤ ①




⑥ ⑦ ⑧


⑫ **Cursor keys**

Press the ← → keys to move the cursor to left or right. You can select a pattern to delete or select a position to insert another pattern.


⑬ **Delete key**

Press the ← → keys to move the cursor under the pattern you would like to delete. Press the  key to delete the selected pattern.




⑭ **Vertical mirror key**

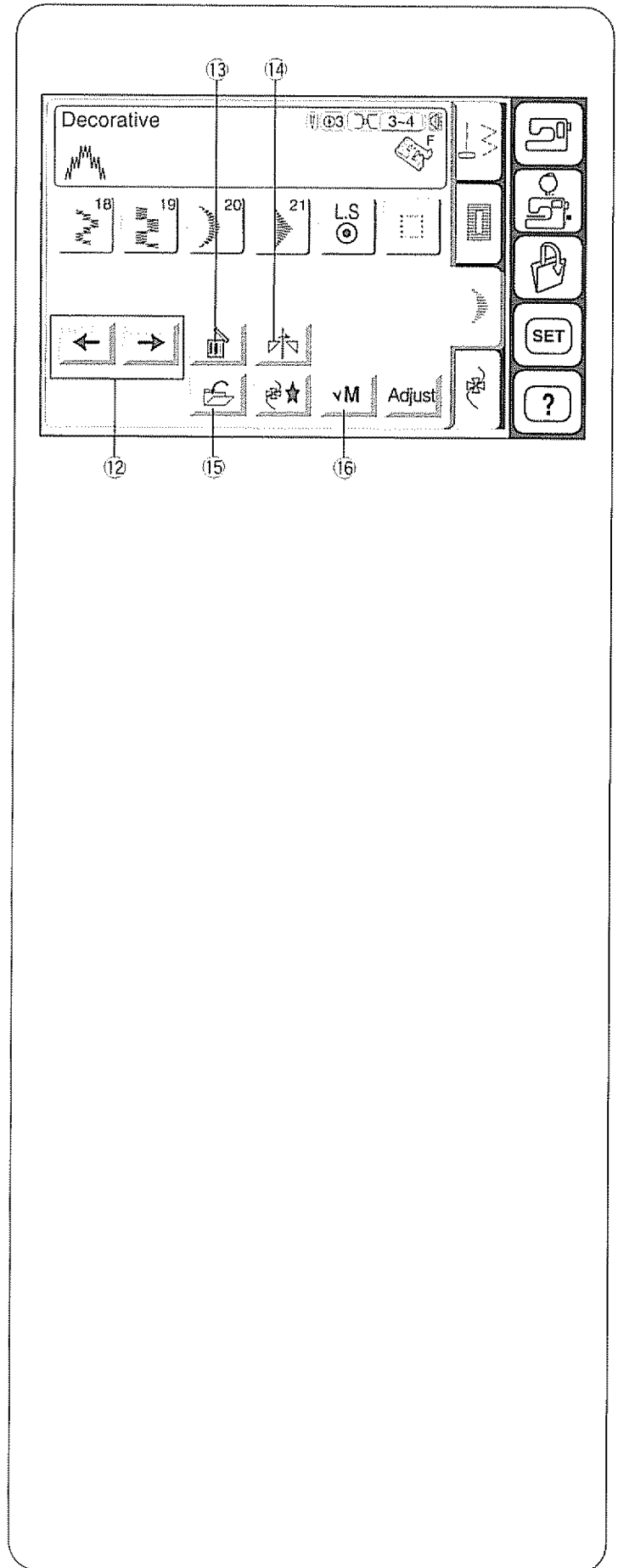
Press the  key for the mirror image of the pattern.

⑮ **Save file key**

You can memorize the program that you made with the  key. You can save up to 100 files.

⑯ **Memory check key**

Press the  key to see the entire stitch pattern combination while you are programming (see page 47). After you started sewing, the key indication will change to . You can start sewing the programmed stitch pattern combination from the beginning by pressing  key.



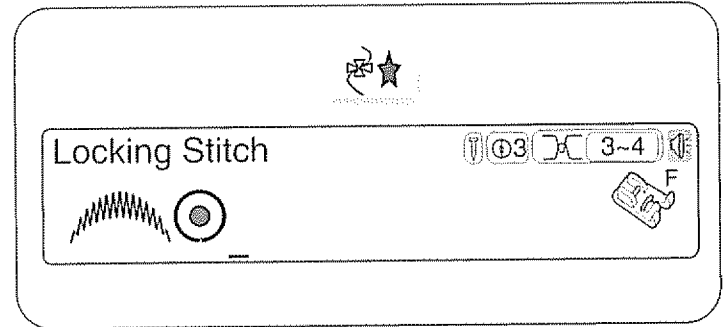
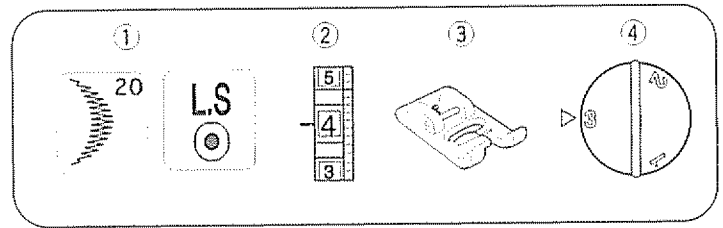
One Cycle Pattern Sewing

Example: patterns 20 and L.S

- ① Stitch pattern: 20, L.S
- ② Needle thread tension: 1 to 4
- ③ Presser foot F: Satin stitch foot
- ④ Pressure dial: 3

• To sew

- Press the key.
- Select pattern 20.
- Select pattern L.S
- Start the machine to sew.
- The machine will sew to the end of the pattern and lock the stitches, then stop automatically



Elongation Sewing

Example: pattern 20

- ① Stitch pattern: 20
- ② Needle thread tension: 1 to 4
- ③ Presser foot F: Satin stitch foot
- ④ Pressure dial: 3

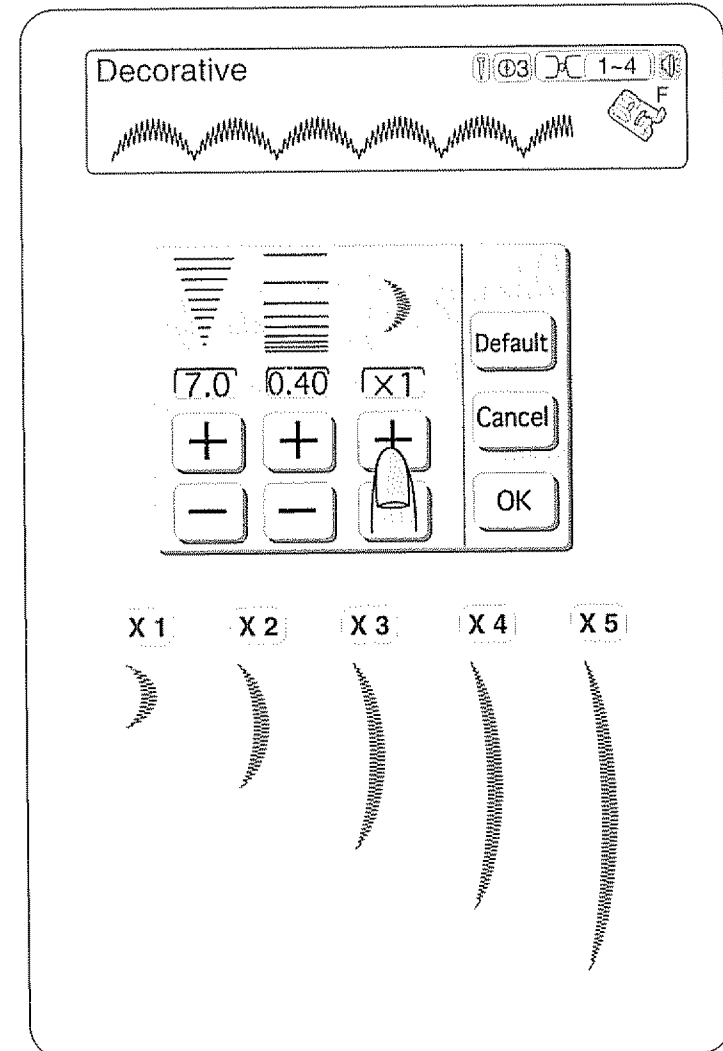
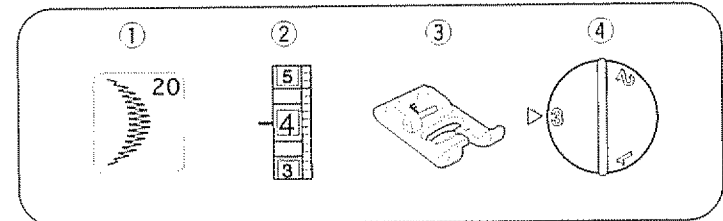
• To sew

- Select pattern 20.
- Press the adjust key
- Press elongation \pm or $-$ key to set the desired pattern length.

Note:

Elongation ratio is indicated by a multiple of the original pattern length.

- Press the key. The setting is registered and the screen returns to the previous window.
- Start to sew




Programming Pattern Combination

Example: patterns 20 and 21

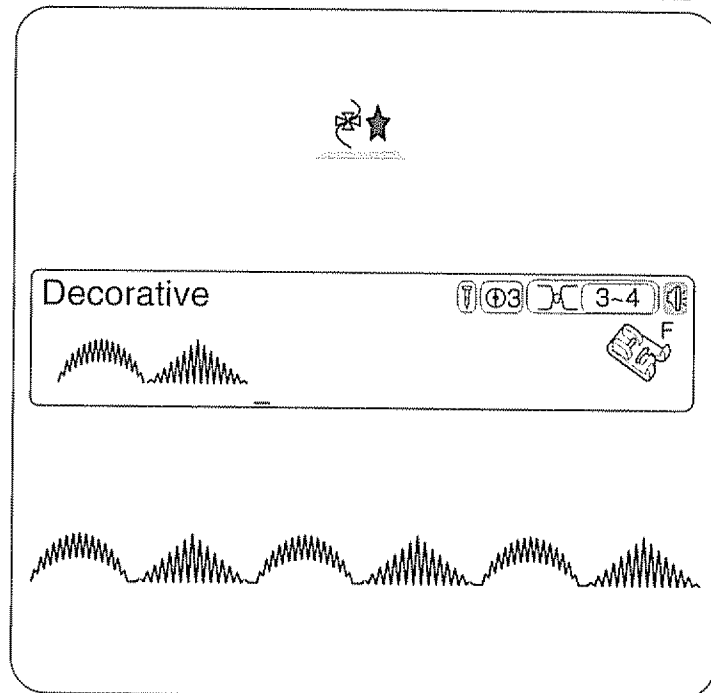
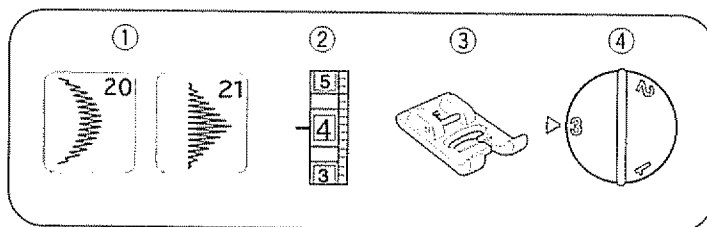
- ① Stitch pattern: 20, 21
- ② Needle thread tension: 3 to 4
- ③ Presser foot F: Satin stitch foot
- ④ Pressure dial: 3

• To sew

Press the  key.
 Select pattern 20.
 Select pattern 21.
 Start to sew. The machine will sew the pattern combination repeatedly.

Note:

If you press the auto-lock button in the middle of a programmed pattern, the machine will stop automatically after the current pattern is completed.





Programming Pattern Combination with Mirror Image

Example: pattern 20

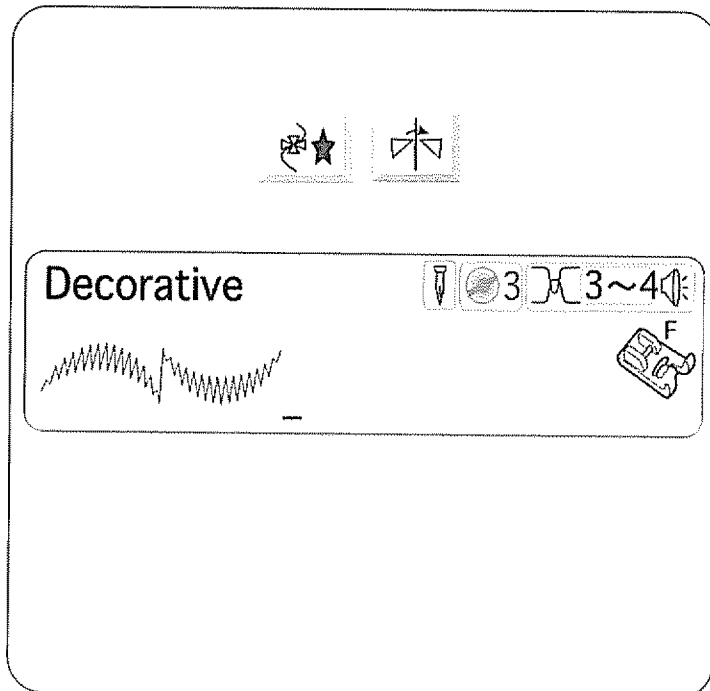
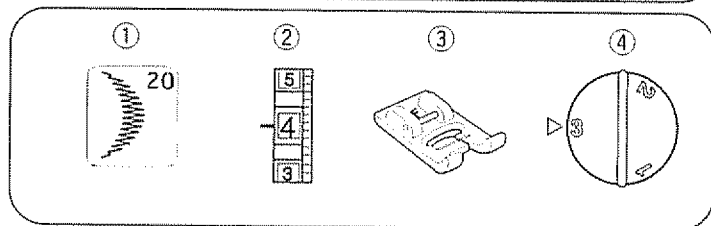
- ① Stitch pattern: 20
- ② Needle thread tension: 3 to 4
- ③ Presser foot F: Satin stitch foot
- ④ Pressure dial: 3

• To sew

Press the  key.
 Select pattern 20.
 Press the  key.
 Select pattern 20.
 Start to sew. The machine will sew the pattern combination repeatedly.

Notes:

- If you press the auto-lock button in the middle of a programmed pattern, the machine will stop automatically after the current pattern is completed.
- The stitch image on the visual touch screen may not represent the accurate sewing result in some cases



Combination of Satin Stitch and Decorative Stitch

Example: patterns 20 and 30

- ① Stitch pattern: 20, 30
- ② Needle thread tension: 3 to 4
- ③ Presser foot F: Satin stitch foot
- ④ Pressure dial: 3

• To sew

⑤ Satin stitch mode

⑥ Decorative stitch mode

Select the satin stitch mode ⑤.

Press the  key.

Select pattern 20.

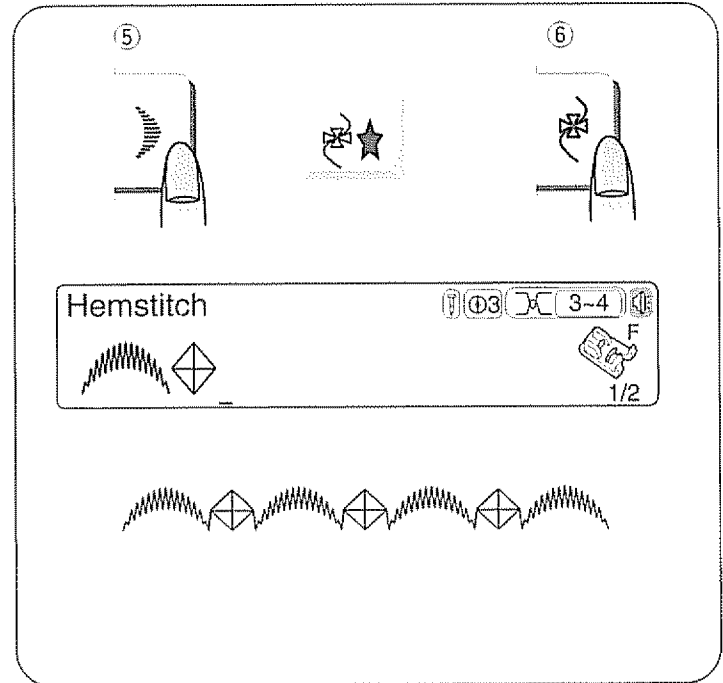
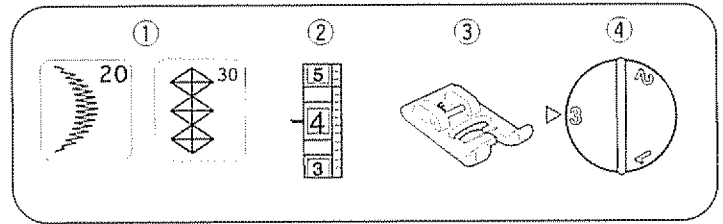
Select the decorative stitch mode ⑥.

Select pattern 30.

Start to sew. The machine will sew the pattern combination repeatedly.

Note:

If you press the auto-lock button in the middle of a programmed pattern, the machine will stop automatically after the current pattern is completed.



To Sew from the Beginning of a Combination Pattern with Beginning Key

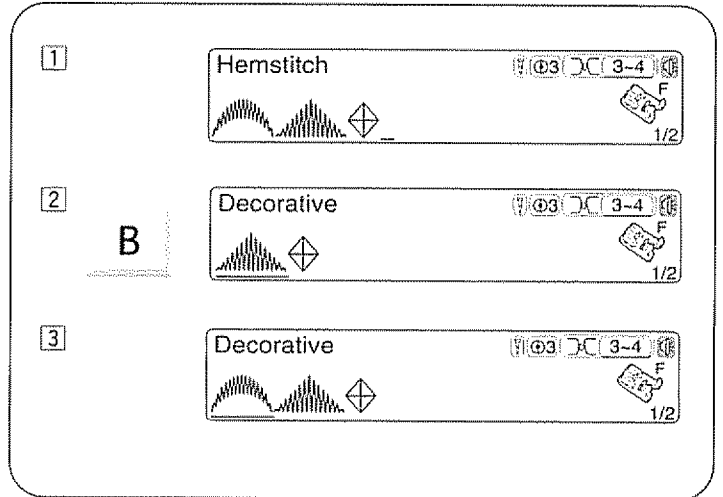
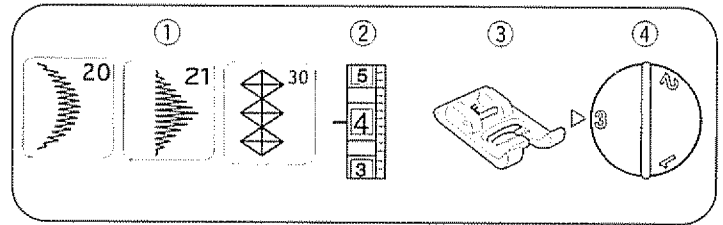
Example: patterns 20, 21 and 30

- ① Stitch pattern: 20, 21, 30
- ② Needle thread tension: 3 to 4
- ③ Presser foot F: Satin stitch foot
- ④ Pressure dial: 3

• To sew

- Press the key.
- Select pattern 20
- Select pattern 21.
- Select pattern 30.

- 1 Start to sew.
- 2 Press start/stop key in the middle of a programmed pattern
Press the **B** key.
- 3 The entire memorized pattern shows up
You can start sewing the combination pattern from the beginning.



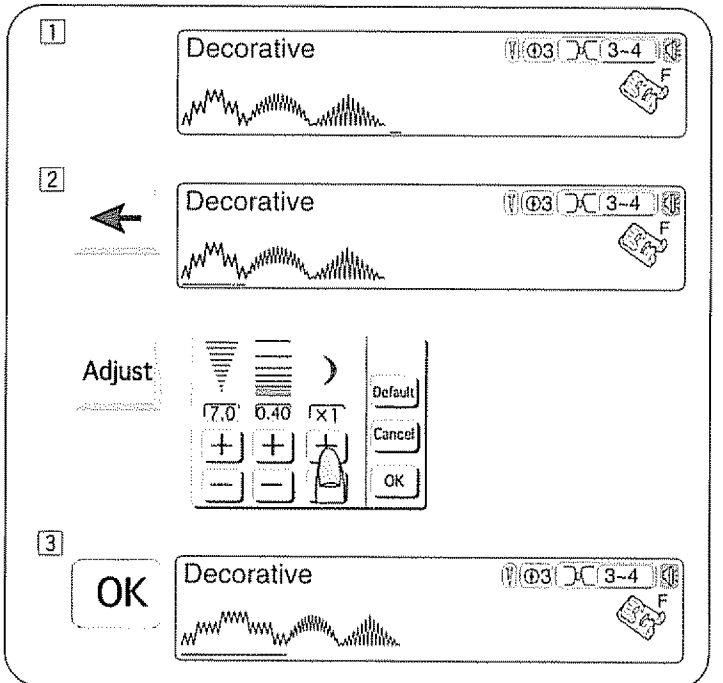
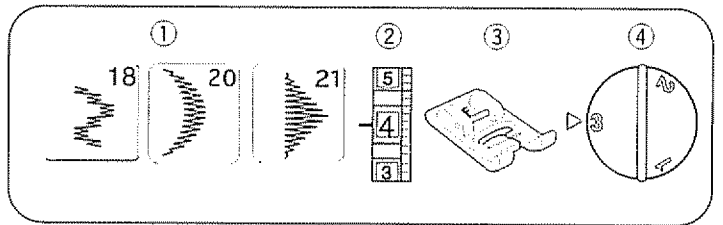
Individual Pattern Adjustment

Example: patterns 18, 20 and 21

- ① Stitch pattern: 18, 20, 21
- ② Needle thread tension: 3 to 4
- ③ Presser foot F: Satin stitch foot
- ④ Pressure dial: 3

You can adjust the stitch width, stitch length and elongation ratio of each pattern in a combination individually


- 1 Change the elongation ratio of pattern 18 in the combination of patterns 18, 20 and 21
- 2 Press the key so the cursor will go to the pattern you are going to change.
Press the key.
Change the elongation ratio by pressing the **+** or the **-** key.
- 3 Press **OK** key to register the adjustment and the screen will go back to the original window.
Start to sew.

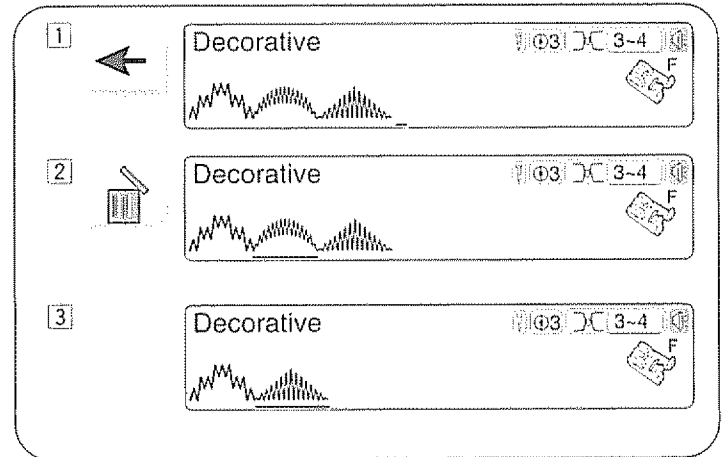


Editing Programmed Patterns

• Example:

To delete pattern 20 from the combination of patterns 18, 20 and 21

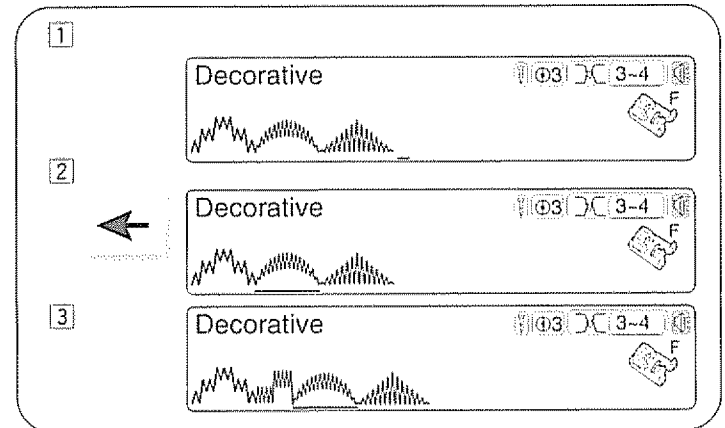
- ① Press the ← key to move the cursor under pattern 20 you would like to delete.
- ② Press the  key.
- ③ Pattern 20 is deleted.



• Example:

To insert pattern 19 between pattern 18 and 20 in the combination of patterns 18, 20 and 21

- ① Press the ← key to move the cursor under the pattern 20 you would like to insert
- ② Select pattern 19
- ③ The pattern 19 will be inserted between pattern 18 and 20.




Note:


The selected patterns on the panel and actual sewing result will possibly have slight difference.

Program Check

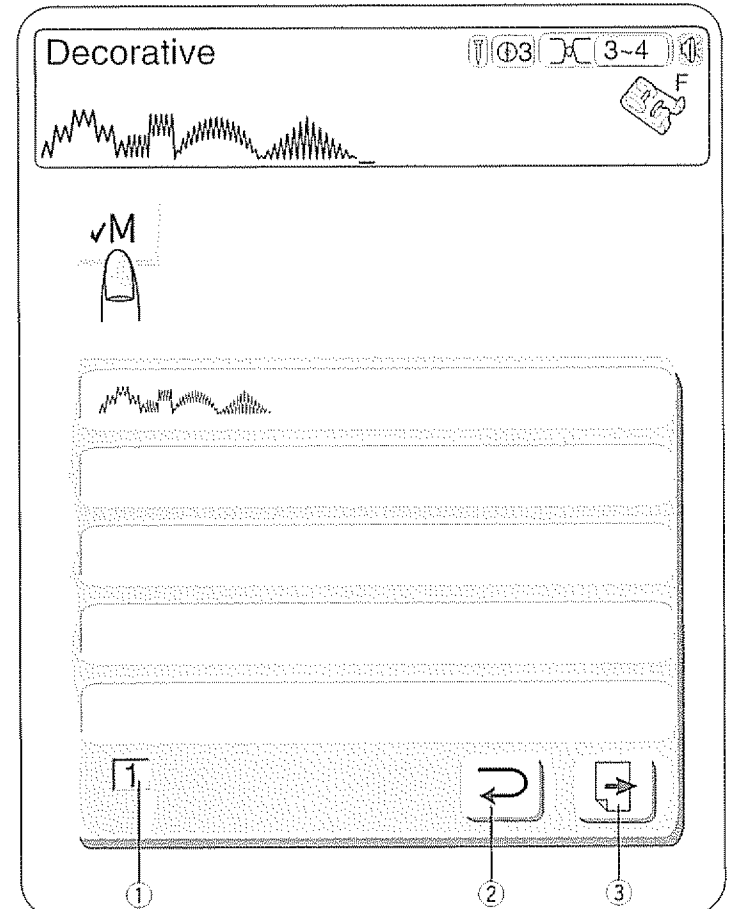
• Example:

To check the combination of patterns 18, 19, 20 and 21


When the entire pattern combination is not displayed, press the  key to view the remaining patterns in combination.

Press the  key ② to go back to the original window.

- ① Number of page
- ② Return key
- ③ Page key




Note:


The  key ③ will be grayed out if there is no other page to be displayed.



Saving and Opening a File


• Saving a file

① Save file key

When you press the  key ①, the save file window will open.

Press the  key, to select the location of either the internal memory of the sewing machine or a Compact Flash Card (adapter required).

When you press the   keys, you will be able to see the saved files in the previous and next pages.

Press  key to save the file and the screen will return to the original screen.

Note:

The file name will be automatically assigned starting from M_001 in order.


• Assigning a file name


You can assign the file name in the file name window.

Press the  key to open the file name window.

The alphabet keys are displayed in the window.



Press the  key to delete the last character.

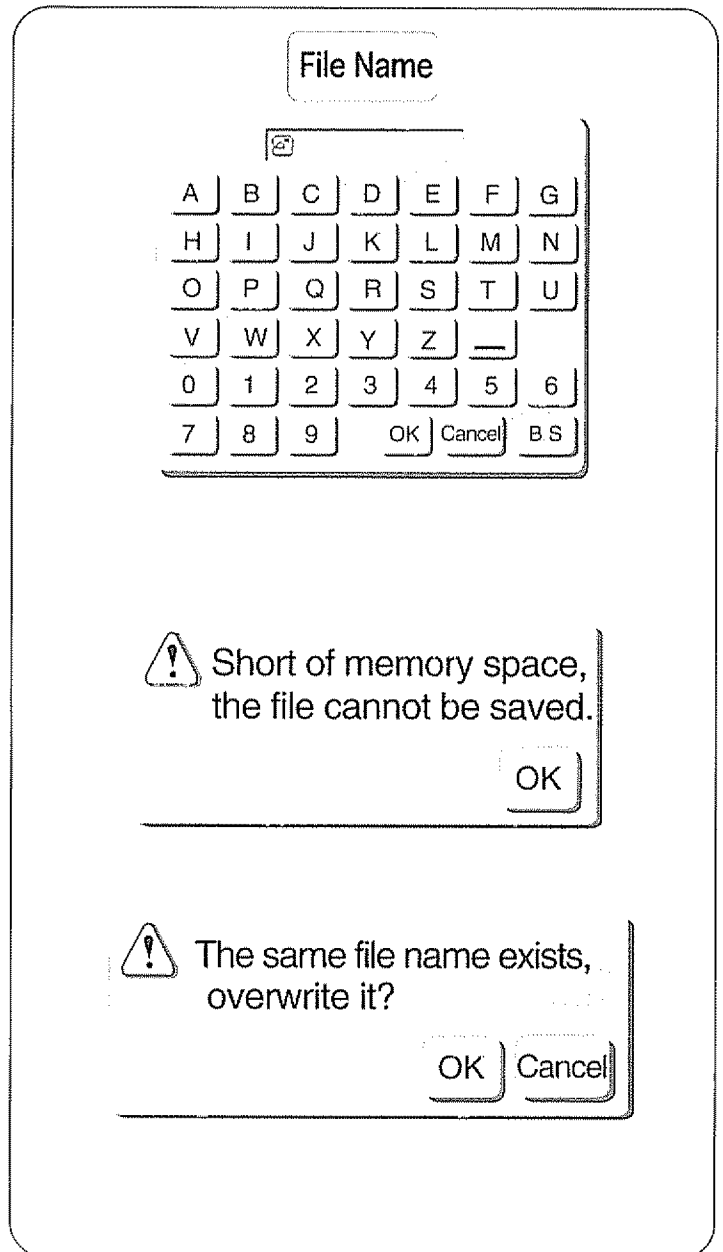
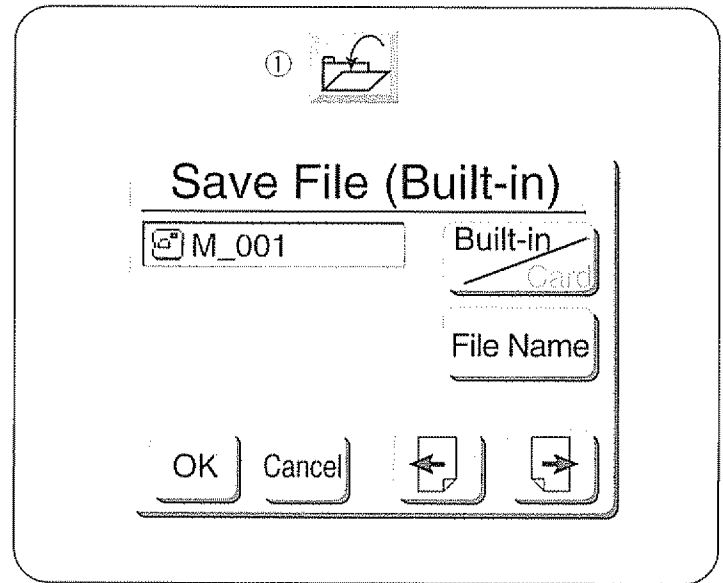
Press the  key and the screen will return to the save file screen.

Enter the file name and press the  key.

The file will be saved with the new name.


Notes:


- Only 8 characters can be entered.
- When you save the program without a name, the file name will be automatically assigned starting from M_001... in order.
- When the memory is full, you are unable to save the file. You should go to the open file window and delete the file that you do not need.
- When you save the file under the same name, you will be advised by a message, "The Same File exists, Overwrite it?". If yes, press the  key. If no, press the  key.
- When no combination patterns are entered, you are unable to save the file.





Opening a Saved File

- ① Open file key
- ② Open file window


When you press the open file key  ①, the open file window ② will appear. You can open the file to sew the programmed patterns that you have saved

Press the  key to select the location of the file directory, either in the internal memory of the machine or in the PC-Card.

Press the  keys to select the desired file to open.



Press the  key to open the selected file. The pattern combination of the file will be displayed on the screen.

Note:


When you press the  keys, you will be able to see the saved files in the next or previous page.


Deleting a Saved File

- ③ Confirmation window

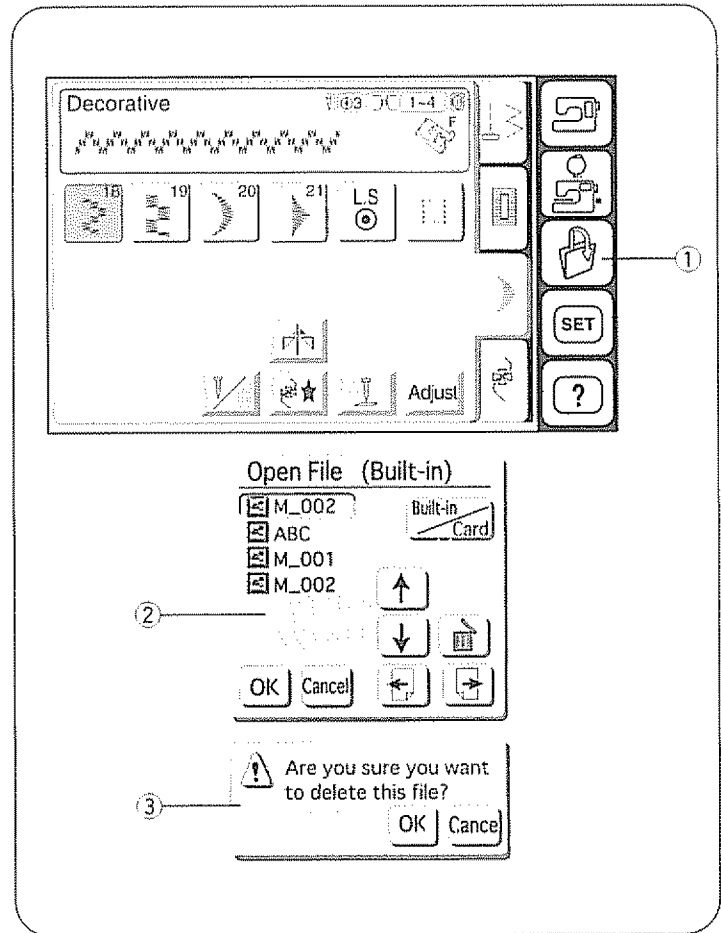
When you need to delete the saved file, select the file to delete by pressing the  keys and press the  key

The confirmation window ③ will appear

Press  key if you are sure to delete it.

When you press the  key, the file will not be deleted.

The open file window will close and it will go back to the original screen



Twin Needle Sewing

Press the twin needle key ① to enter the twin needle sewing mode. The single needle icon changes to twin needle icon.

The stitch patterns that cannot be sewn with twin needle are grayed out. The limit of stitch width for twin needle sewing will be set automatically.

Notes:

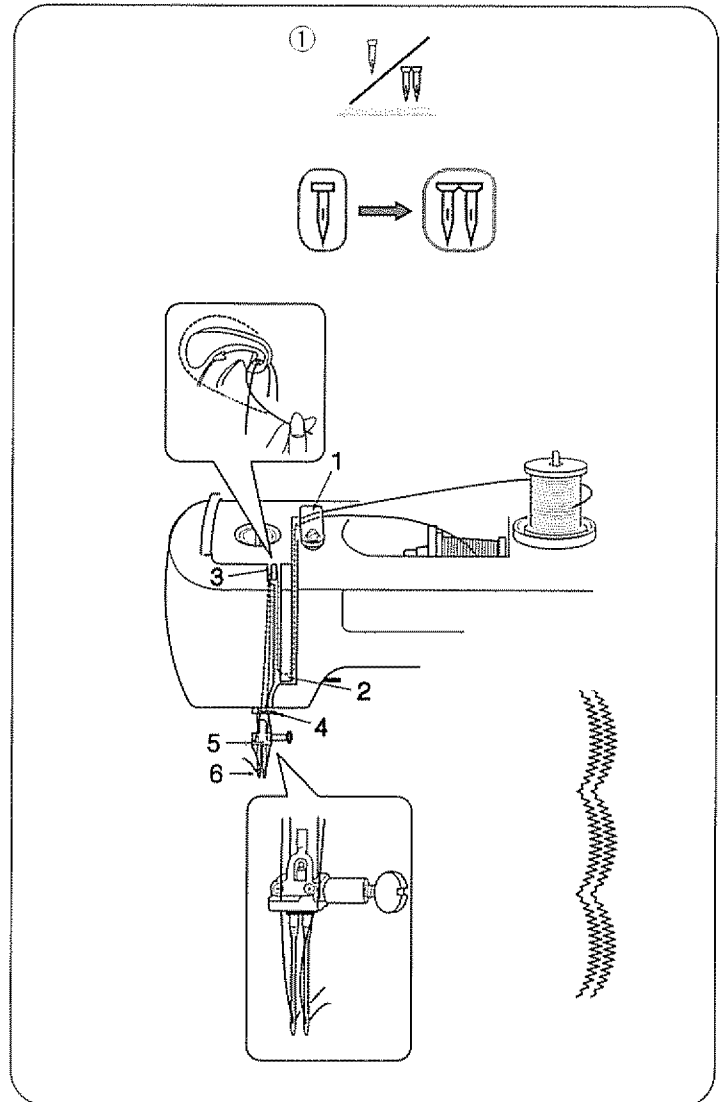
- When you sew patterns with the twin needle, test the stitches first before sewing.
Use zigzag foot or satin stitch foot for twin needle sewing. Try satin stitch foot when zigzag foot makes a wrinkled appearance and distorted pattern on the fabric.
- You can not sew the following patterns with twin needle; 4, 7, 8, 9, 12, 13, 14, 15, 16, 17, 22, 23, 24, 27, 29, 30, 31, 32, 33, 34 and 35.

• To sew

Set an additional spool pin and spool stand. Put a felt on the spool pin. Insert the another spool to the additional spool pin (see page 13). Draw both threads from the spools and pass them through the points from 1 to 4. Make sure that the two strings of thread from the spools will not get tangled. Slide one of the threads through the needle thread guide on the left, and the other one on the right. Thread the needles from the front to back. Select the desired pattern and sew.

Notes:

- Make sure each of the threads wind off from the spools as shown
- The built-in needle threader cannot be used for the twin needle.
- When changing the sewing direction, raise the needle and turn the fabric.

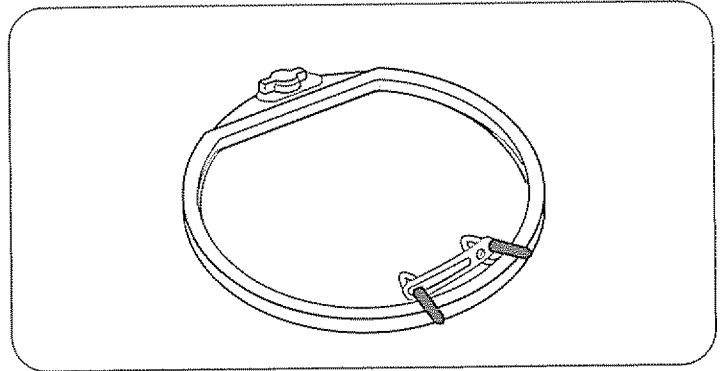


SECTION VI. EMBROIDERY

Getting Ready to Sew Embroidery

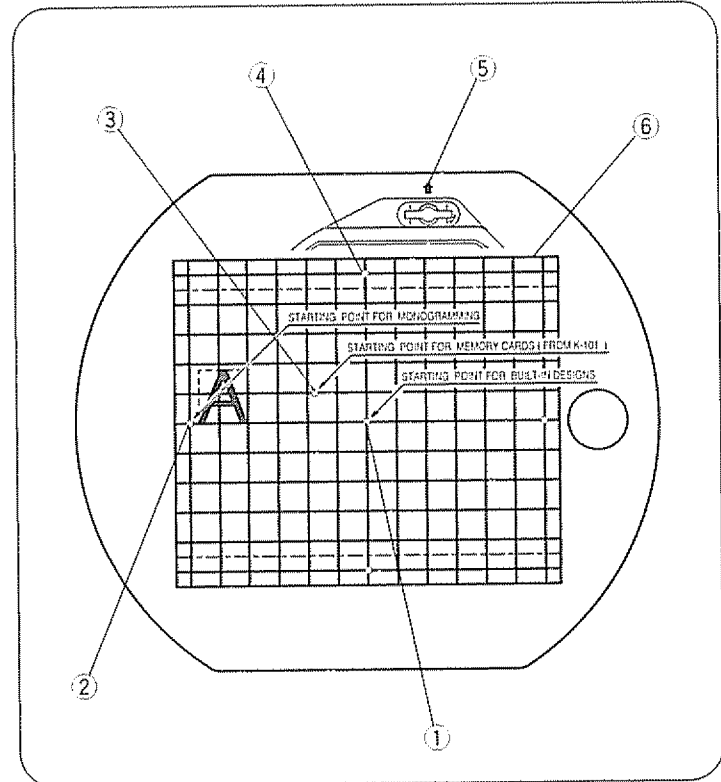
• Embroidery Hoop F

This is the standard size hoop, with 5.0" X 4.3" (126 mm X 110 mm) embroidery area for standard size embroidery designs



• Instruction for template

- ① Starting point for the built-in embroidery designs.
- ② Starting point for horizontal monogramming in the left justified placement.
- ③ Starting point for the embroidery designs from Card Reader 19000 (sold separately).
- ④ Starting point for vertical monogramming in the left justified placement.
- ⑤ Match the arrow mark with the attaching lever when placing the fabric in the hoop.
- ⑥ The solid grid indicates the sewing area for the built-in patterns/monogramming.



Stabilizer

To obtain the best quality embroidery, it is important to use stabilizers.

Types of Stabilizer

• Tear-away stabilizer

Tear-away stabilizer is made from a fiber that will tear easily. Use tear-away stabilizers for stable woven fabrics. After stitching, tear away the stabilizer so that the small portion left in the back of the stitching will not affect the wear.

• Iron-on stabilizer

Iron-on stabilizer is an adhesive type stabilizer for knits and all kinds of unstable fabrics. Fuse it to the wrong side of the fabrics with an iron.

• Cut-away stabilizer

Cut-away stabilizer is a non-woven fabric that does not tear. Cut the excess portion after stitching. Use cut-away stabilizers for knits and all kinds of unstable fabrics.

• Water soluble stabilizer

Water soluble stabilizer will dissolve in water. Use this stabilizer for cutwork or lace embroidery, and also for the right side of looped fabrics such as towel to avoid loops coming through the embroidery.

• Sticky stabilizer

Sticky stabilizer is a sticky paper used for securing a small fabric or work that cannot be secured in the hoop. It is also used for velvet and other napped fabric that would be permanently marked by the hoop.

Usage:

- The stabilizer should be attached to the wrong side of fabric.
- More than one layer may be required.
- For firm fabrics, you may place a thin paper under the fabric.
- Non-adhesive stabilizer should be used when embroidering fabric which cannot be ironed or for sections which are difficult to iron.
- Cut the stabilizer larger than the embroidery hoop and set it on the hoop so that the entire piece is fastened with the hoop to prevent looseness of the fabric.

Adhesive (iron-on) Stabilizer

Place the wrong side of fabric ① and the glossy side of the stabilizer ② together. Fold up a corner of the stabilizer ③ and fuse it with an iron.

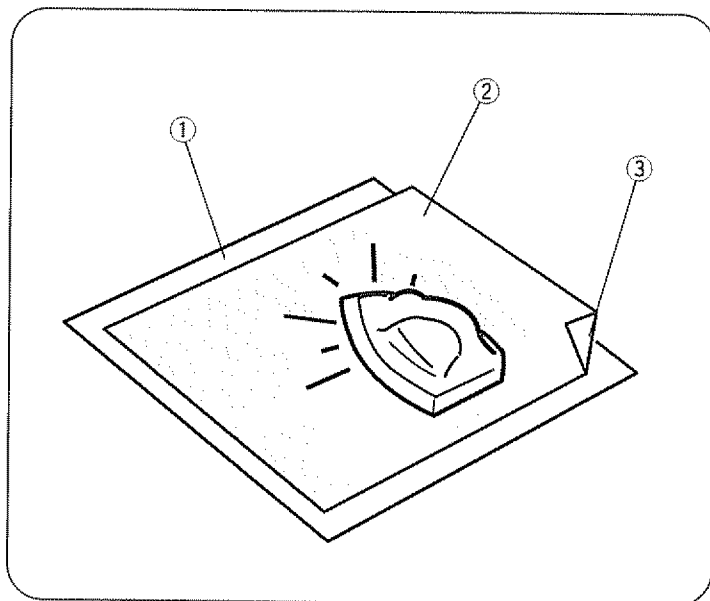
① Wrong side of fabric

② Stabilizer

③ Corner of the stabilizer

Notes:

- Fold up a corner of the stabilizer, to make it easier to peel off the excess stabilizer after stitching.
- Ironing temperatures vary depending on kind of adhesive type stabilizer.



Adjusting the Thread Tension

• Balanced thread tension

A small amount of the needle thread shows on the wrong side of the fabric.

- ① Needle thread
- ② Bobbin thread

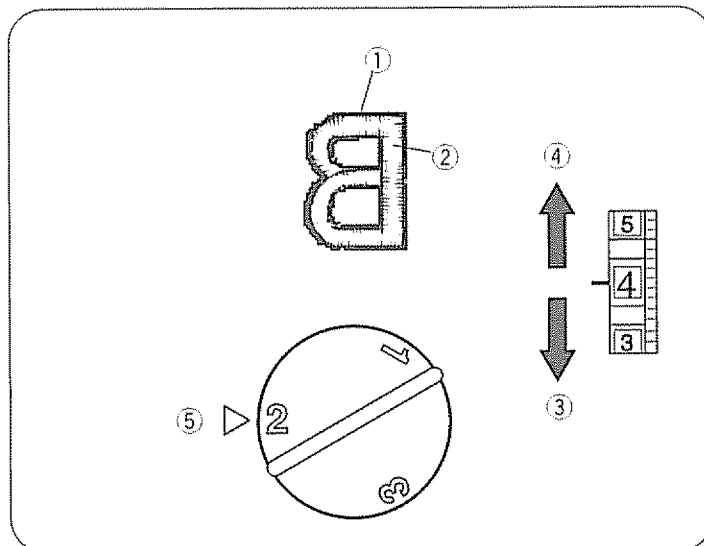
• When the needle thread tension is too tight

The bobbin thread shows on the right side of the fabric. Reduce the tension by turning the tension dial to a lower number ③.

• When the needle tension is too loose

The needle thread forms loops and the stitches look shaggy.

Increase the tension by turning the dial to a higher number ④.



Pressure Dial

For embroidery, set the Pressure Dial ⑤ at "2".

Use size 11 needles for fine fabrics.

For medium to heavy weight fabrics, use size 14 needles.

To Set the Fabric in the Embroidery Hoop

① Mark the reference lines ⑥ on the right side of the fabric where you wish to sew the design as illustrated using tailor's chalk.

⑥ Reference lines

② Place the template on the fabric by matching the reference lines on the template to the reference lines you previously marked on the fabric.

Tape the template ⑧ to the fabric as shown to hold the template in place. (Transparent tape is recommended.)

⑦ Tape

⑧ Template

③ Place the fabric with the template attached to it over the outer hoop ⑩ and push the inner hoop ⑨ into the outer hoop ⑩.

• Push the flat side of the inner hoop ⑨ into the flat side of the outer hoop ⑩.

• While squeezing the knob ⑪ together, push the round part of the inner hoop into the round part of the outer hoop so the material is secure.

⑨ Inner hoop

⑩ Outer hoop

⑪ Knob

⑫ Arrow mark

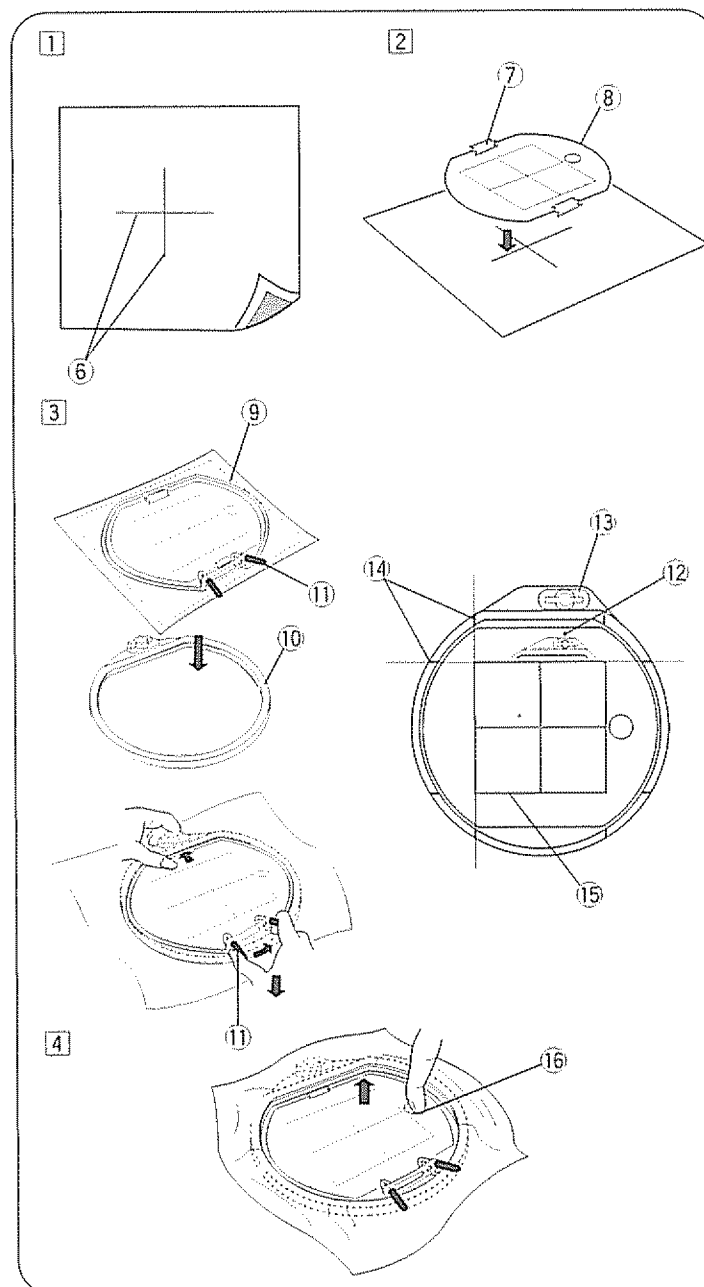
⑬ Attaching lever

⑭ Marks (8 spots)

⑮ Sewing area

④ Remove the template by putting your finger in the thumb hole ⑯ located on the template and lift up.

⑯ The hole for removing the template



To Attach the Embroidery Hoop to the Machine

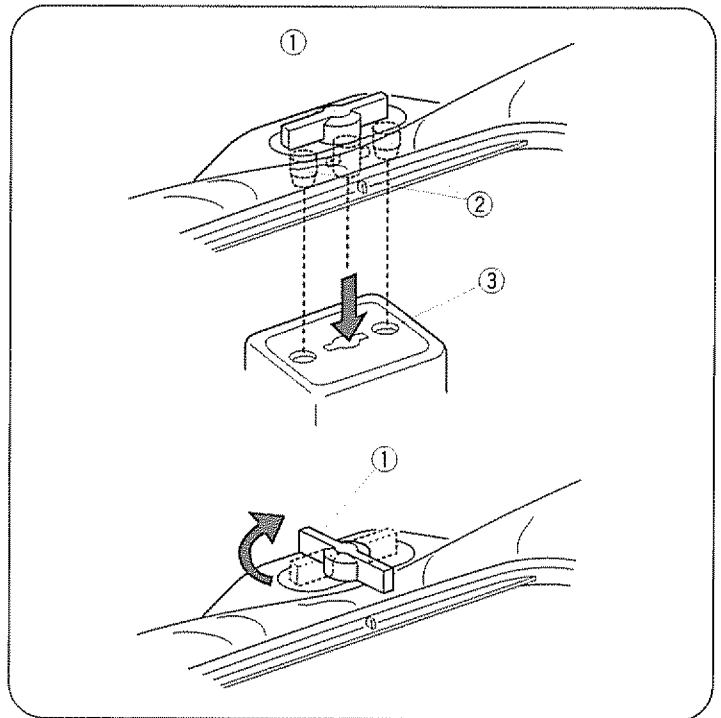
Turn the attaching knob ① so it is parallel with the hoop, and set it on the carriage

Attach the hoop by fitting the pins ② into the carriage holes ③, and turn the attaching knob ① clockwise to secure the hoop.

- ① Attaching knob
- ② Pins
- ③ Carriage holes

Caution:

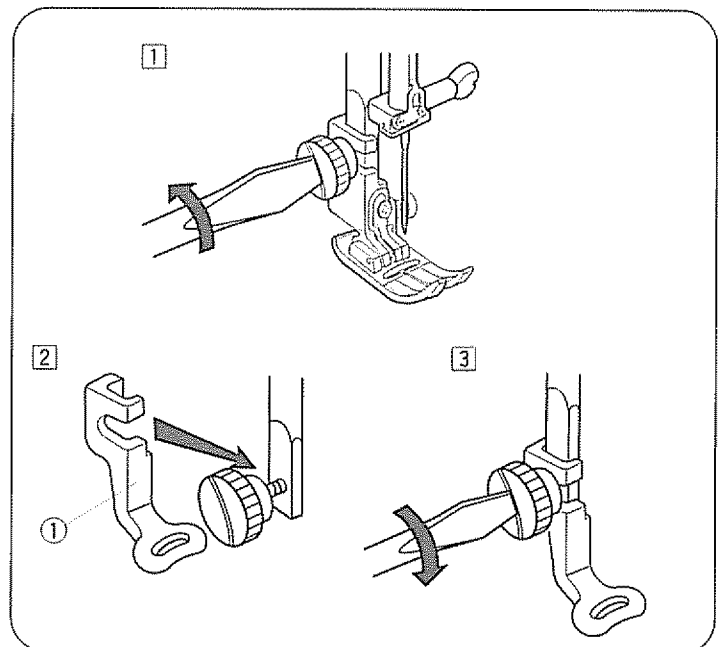
- Always provide sufficient clearance for the embroidery carriage behind your machine before embroidery sewing.
- Do not try to move the carriage by hand or touch the carriage while it is moving.
- Make sure to return the carriage to the home position before turning off the power switch (see page 57).



To Attach Embroidery Foot P

- ① Embroidery foot P

- 1 Loosen the thumbscrew and remove the foot holder to the rear.
- 2 Attach Embroidery foot P ① to the presser bar from behind.
- 3 Tighten the thumbscrew securely with the screwdriver.



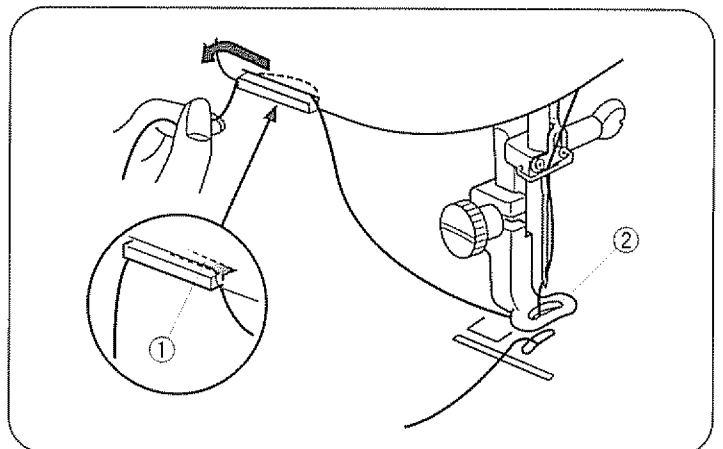
Thread Holder

To prevent the needle thread from becoming tangled, place the thread end on the thread holder ①.

Pass the needle thread through the hole on embroidery foot P and draw it up to the thread holder.

Hang about 3/4" to 1-1/2" (2 to 4 cm) of thread from front to back on the thread holder.

- ① Thread holder
- ② Hole on embroidery foot P



Mode Selection

Press the Embroidery Mode Key to enter the Embroidery Mode. The following 5 categories are available in the Embroidery Mode:

Note:

The feed dogs are dropped automatically when entering the Embroidery Mode.

① Built-in designs

The Visual Touch Screen shows the Built-in Design window when the Embroidery Mode Key is pressed. There are 32 ready to sew built-in embroidery designs available

② Monogramming

Press the Monogramming Key to open the Monogramming window. You can sew monograms in four different styles, Gothic, Script, 3-letters and 2-letters.

③ ATA PC card

You can import embroidery designs from CompactFlash (PC Card adapter required) to the sewing machine and sew.


④ Card Reader 19000


You can import embroidery designs from model 19000 series memory card library via Reader 19000 (optional item) to the sewing machine.

⑤ Edit mode

You can edit and combine the embroidery designs to create your original embroidery.

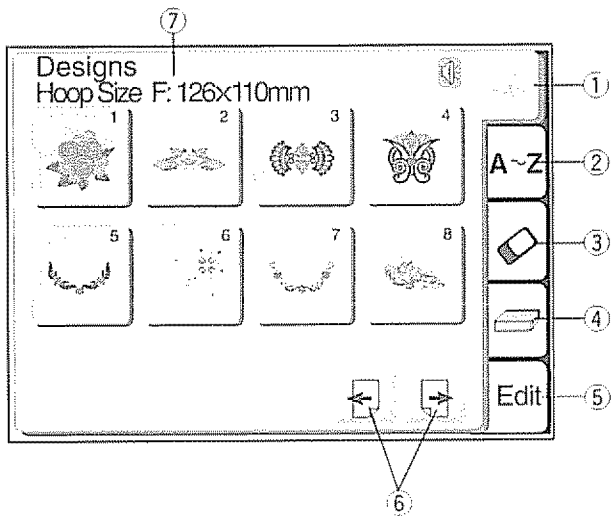
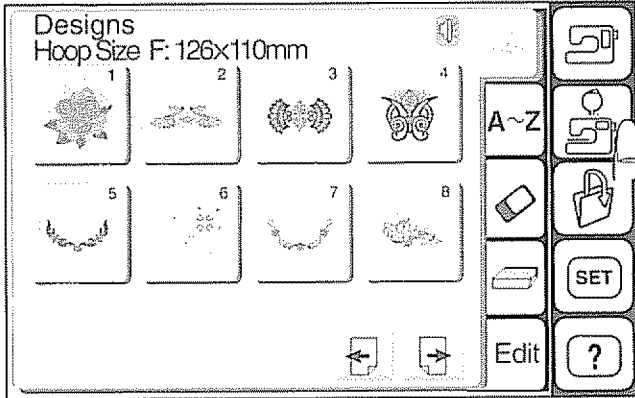
⑥ Page keys

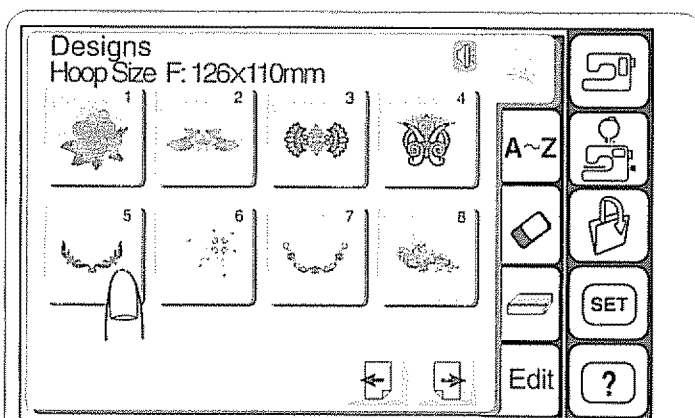
Press the  key to view the next page of pattern selections.

Press the  key to view the previous page of pattern selections.

⑦ Hoop size

The F hoop and its size are displayed on the screen.



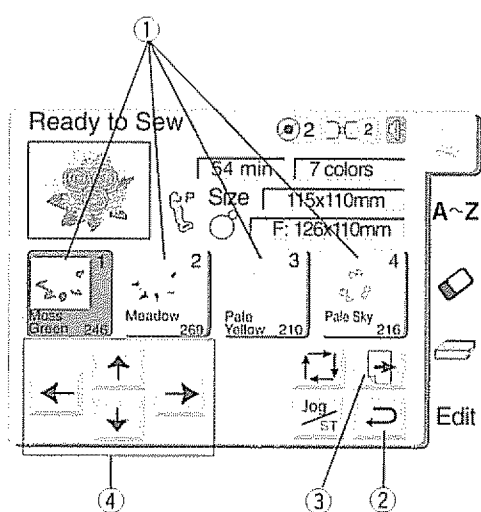


Built-in Embroidery Designs

Press the Built-in Design key.

Press the pattern selection key to select the desired pattern.

The embroidery screen will appear.



① Color/Part keys

The thread color and sewing order of each embroidery part are indicated on the key. When you start sewing, the machine will automatically stop sewing after it finishes sewing one part of the embroidery design. Change the thread and start sewing again. The color of the key will turn gray after you finish sewing that part of the embroidery design.

Sewing the specific color/part by skipping

To sew only a specific part of the design, press the color/part key immediately before it.

The part you want to sew will be highlighted on the screen.

② Return key

Press this key to return to the pattern selection window

③ Next page Key

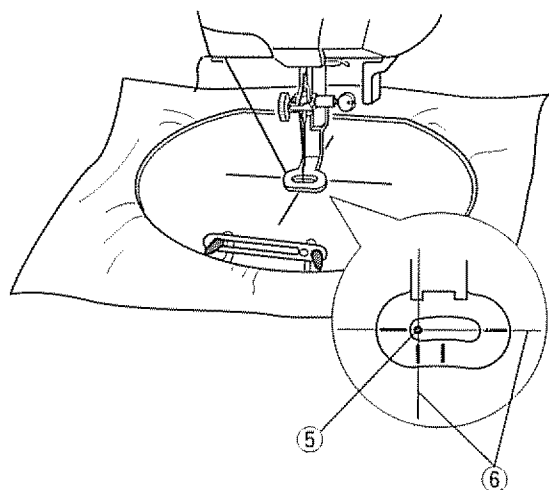
The next page key will be displayed when there are more design parts to be displayed. Press it to view the other embroidery design parts

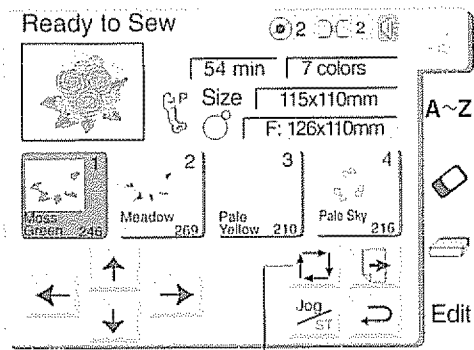
④ Jog Keys

Adjust the hoop position with the jog keys so that the needle drop position comes right above the center of the reference lines on the fabric.

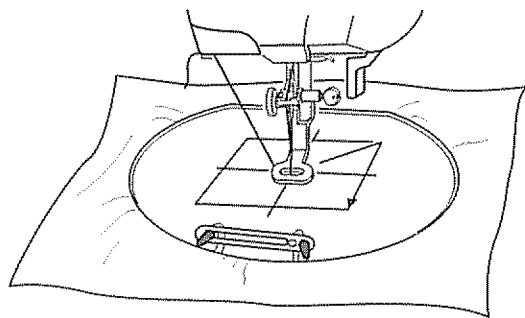
⑤ Needle drop position

⑥ Centerlines





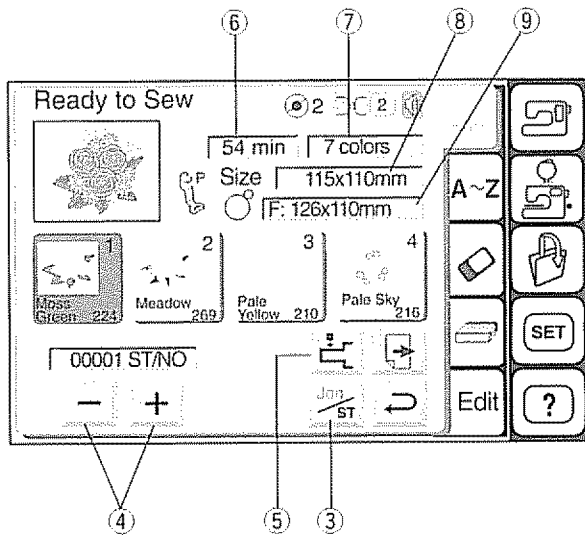
①




Trace outline

Cancel

②





① Trace key

You can check the size of the sewing area by pressing  key. The carriage traces the outline of the selected embroidery pattern without stitching. The carriage will return to the starting position after tracing.

② Cancel key


Press this key to cancel the tracing and return to the previous screen


③ Jog/ST key

Press  key to switch the jog keys to the stitch back/forward keys or vice versa. When opening the embroidery screen, the jog keys appear. When you start to embroider, the stitch back/forward keys will appear. If you want the stitch back/forward keys to appear before you start embroidery sewing, or if you want the jog keys to appear after you start sewing, press the  key and the keys will change.


④ Stitch Back/Forward keys

The stitch back/forward function is very useful when thread runs out or breaks during embroidery sewing. When embroidery sewing has started, the screen will indicate the current stitch count. The jog keys will disappear and the stitch back/forward keys will be indicated on the screen. You can use these keys to move the embroidery hoop to where the thread has broken or run out.


Press the  key to move the hoop back to a previous sewing point. The hoop will move backward 10 stitches every time you press this key.

Press the  key to move the hoop ahead. The hoop will move forward 10 stitches every time you press this key.

⑤ Return Carriage Key

Press the  key to bring the carriage back to its home position after finishing embroidery.

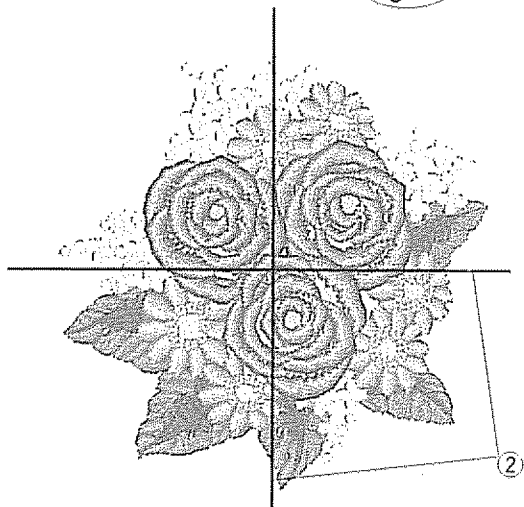
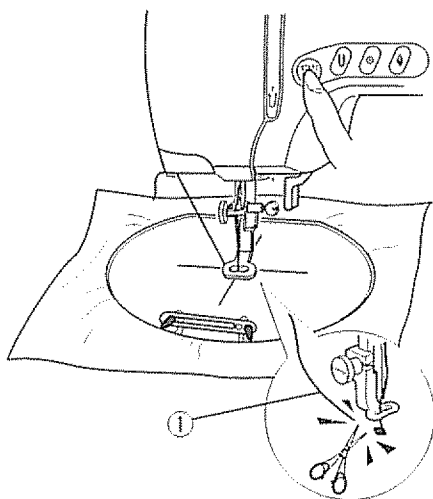
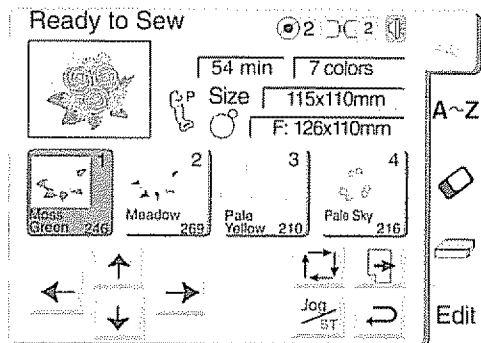
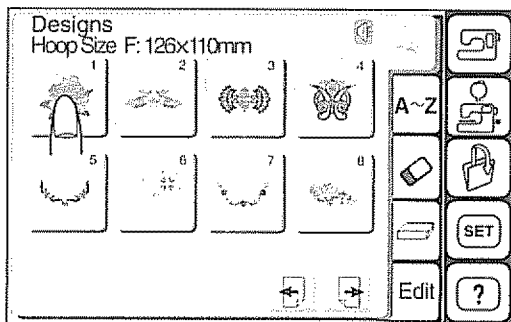
Note:

Before you turn the power switch off in Embroidery mode, always be sure to press the  key to return the carriage to its home position.

Screen Information

Beside the design image, the approximate sewing time in minutes, number of colors, design size and the hoop that should be used for the selected design are shown

- ⑥ Sewing time in minutes
- ⑦ Number of colors
- ⑧ Design size
- ⑨ Hoop



Starting to Sew Embroidery

Press the Pattern Selection key to select the desired pattern.

Lower the presser foot.

Press the Start/Stop button and sew 5 to 6 stitches

Press the Start/Stop button again to stop the machine

Raise the presser foot, cut off the loose thread ① close to the beginning of the starting point and lower the presser foot

① Loose thread

Press the start/stop button to start sewing again. The machine will stop automatically when the first color section is finished. Change the thread and sew the next part.

Sewing Results

The embroidery pattern is sewn against the centerlines on the fabric as shown.

② Centerlines on the Fabric

Note:

The embroidery stitch pattern position against the centerlines is indicated on the template sheets

Monogram Embroidery

Press the Monogram tab to open the monogram window

- ① Monogram tab

In the monogram selection window, you can program words by pressing the alphabet keys directly.

After you press an alphabet key, the letter is memorized and the cursor is moved to the right.

- ② Cursor

• Function keys

- ③ Number/Letter key

When you press key, the number and symbols will appear. To select the number or symbol, press the corresponding key.

Press key again to return to the letter selection window.

- ④ Upper/Lower case key

You can select upper or lower case letters by pressing this key

- ⑤ European accented letter key

You can select European accented letters, such as the diaeresis by pressing key.

- ⑥ Cursor keys

Slide the cursor to the left or right by pressing either of the keys. To add letters/numbers/symbols (character) into a monogram, move the cursor under a character. Press the new character key and it will be inserted before the underlined character.

- ⑦ Magnifier key

Pressing key will enlarge the letter keys to make entry easier.

- ⑧ Delete key

You can delete the underlined characters

Move the cursor under the letter, number or symbol you want to delete and press the key.

- ⑨ File Save key

You can save the monogram by pressing key. The file save window will appear.

- ⑩ Horizontal/Vertical key

You can choose the direction of the embroidery either horizontal or vertical.

- ⑪ Letter Size key

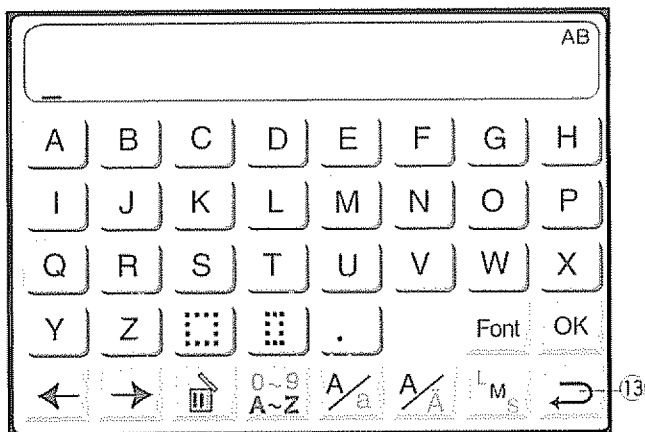
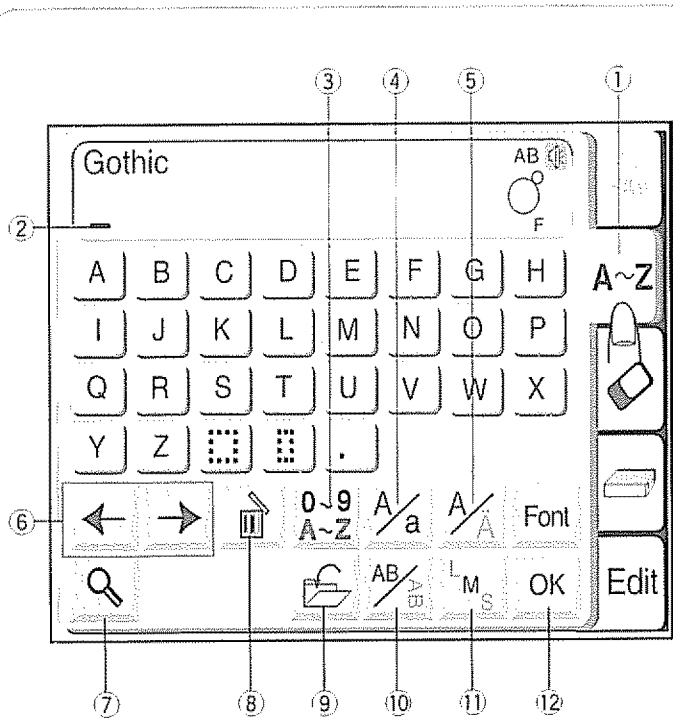
You can choose three different sizes of letters: large, medium and small. Set the size of monogram before selecting the letter.

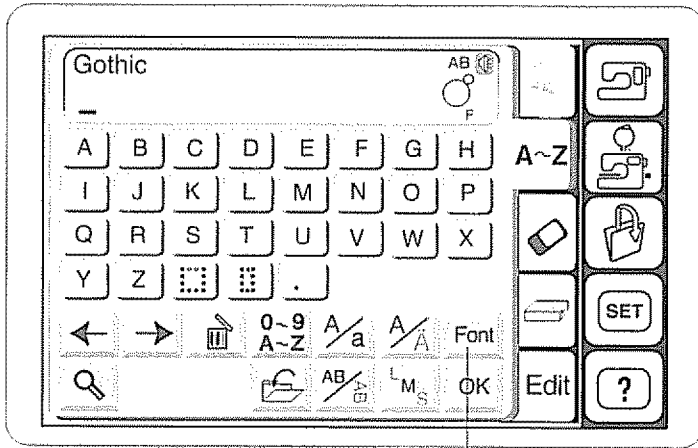
- ⑫ OK key

Pressing the key confirms your entry. After the key is pressed the screen will change to the embroidery screen.

- ⑬ Return key (The return key appears after the magnifier key is pressed)

Press key to return to the previous screen





14) Font key

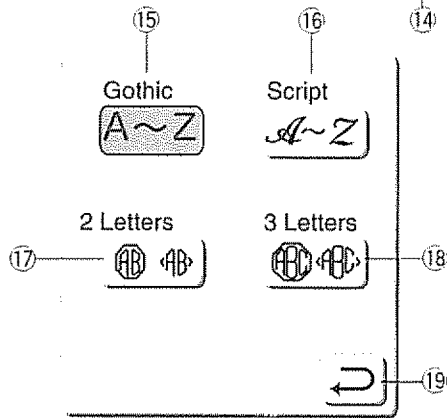
You can change the type of font for monogramming by pressing the **Font** key. The font selection window will open.

To select the desired font, press one of the following options.

- 15) Gothic font
- 16) Script font
- 17) 2-Letters
- 18) 3-Letters

When you press the **Return** key, the screen will return to the previous display.

19) Return key

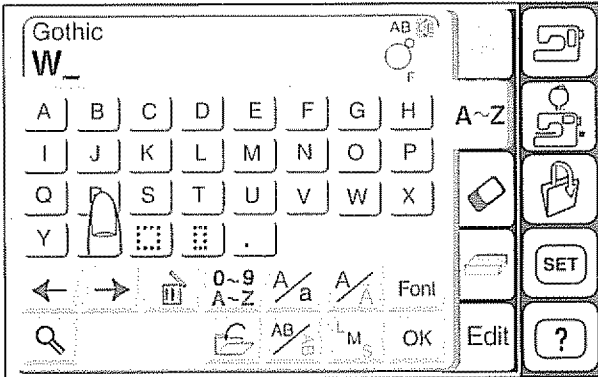


Notes:

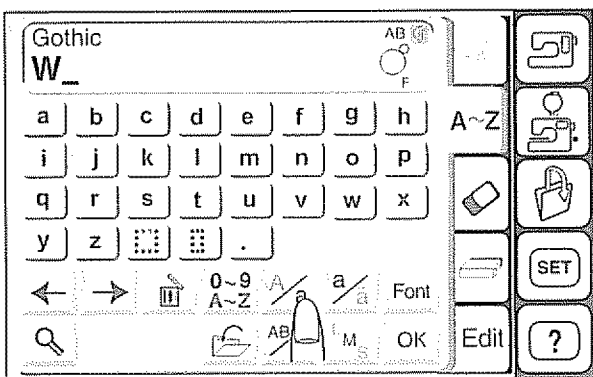
- The cursor keys do not appear while using 2-letters or 3-letters font selections.
- The maximum number of characters memorized will vary according to the font.

Monogram in Gothic Style

Press the **Font** key and select Gothic style letters
Select "W".

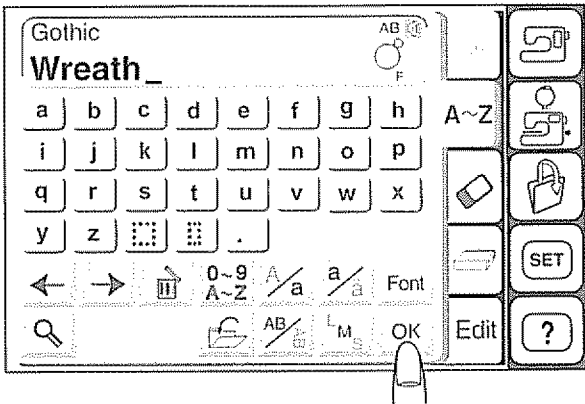


Press the **Font** key to select lowercase letters.



Select "r", "e", "a", "t" and "h".

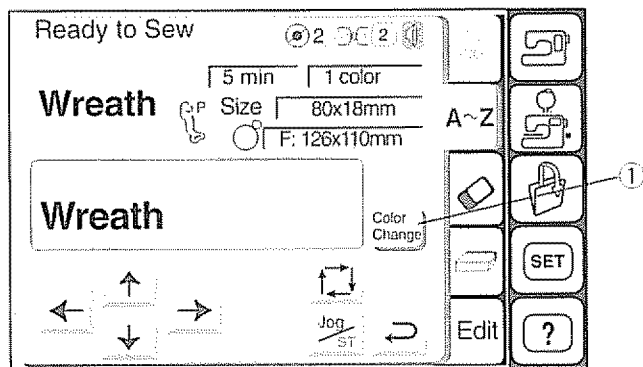
Press the OK key.

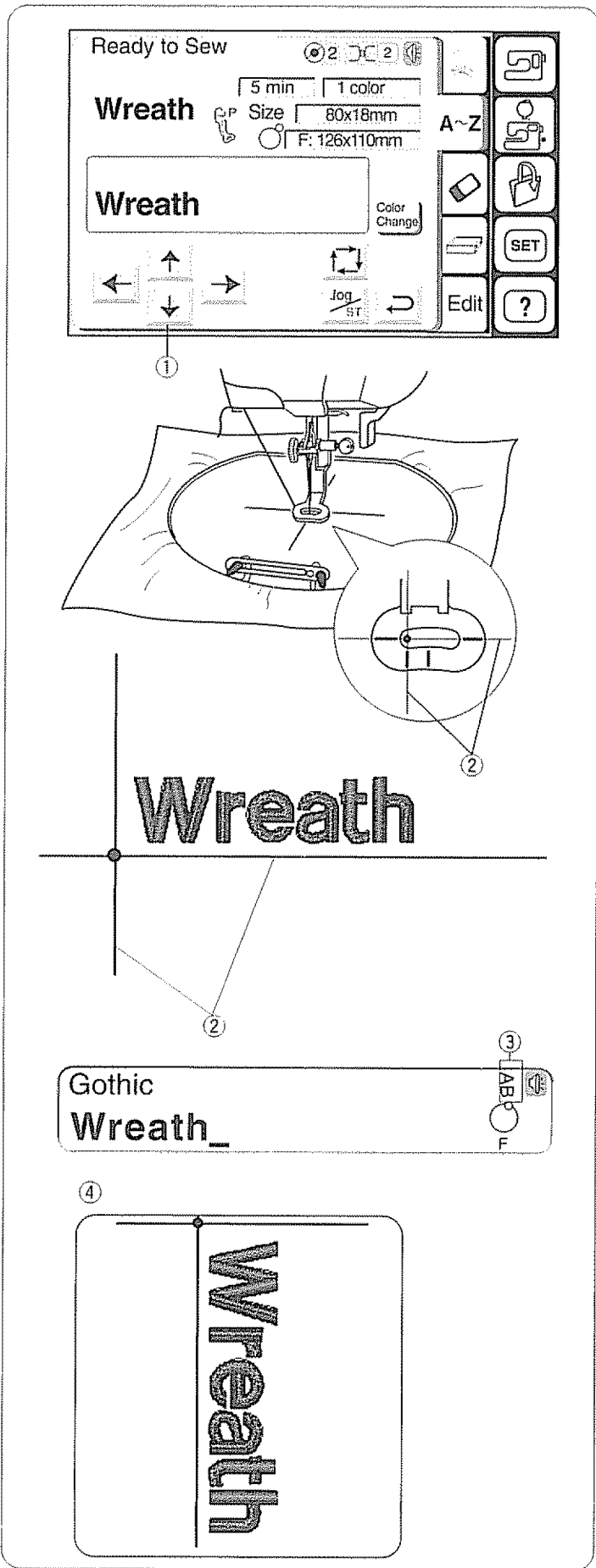


The display will change to the embroidery screen.

You can sew a multi-colored monogram by changing the thread color of each letter if you press the Color Change key before sewing
The machine will stop automatically when each letter has been sewn. Change the thread and start sewing again.

① Color Change key





Use the Jog keys to adjust the position of the hoop to match the centerlines.

- ① Jog Keys
- ② Centerlines

Lower the presser foot.




Press the start/stop button and sew 5 to 6 stitches

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

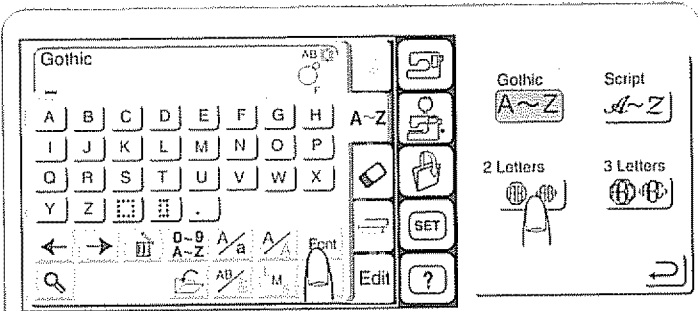
Raise the presser foot, cut off the loose thread close to the beginning of the starting point and lower the presser foot.

Press the start/stop button to start sewing again.

The machine will stop automatically when the monogram is completed.

You can sew the monogram vertically if you select a vertical orientation after entering the characters. Press  key to select a vertical orientation. The icon  on the right upper corner turns to vertical orientation. Press  key again to change the orientation to horizontal.

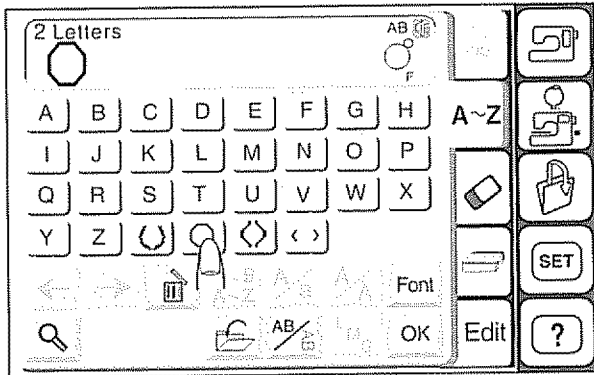
- ③ Icon
- ④ Monogram in vertical orientation



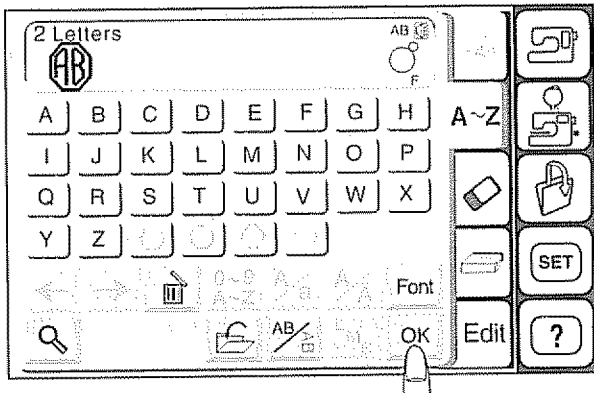
2- Letters Monogram

Example: 2-Letters with a frame

Press the Font key.
Select 2-Letters.

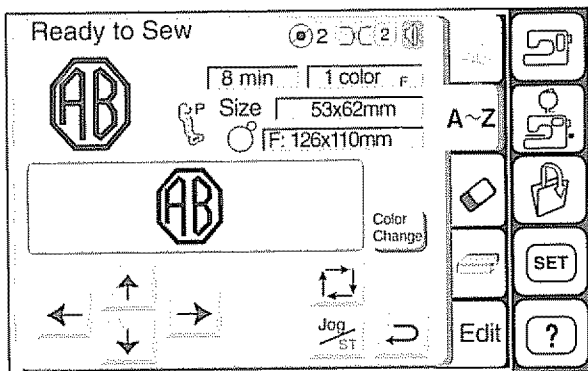


Select the Frame.
Select the letter "A".



Select the letter "B".

Press the OK key and the screen will change to the embroidery screen.



Press the Start/stop button to start sewing and the machine will stop sewing automatically.

Note:

The 3-Letters monogram will be sewn in the same way as the 2-Letters monogram.
The starting position for the 2-letters and 3-letters is in the center of the hoop.

Correcting a Monogram

- Deleting a letter

Example: To delete "E" from "BEAT"

Gothic


BEAT_



Gothic

BEAT




Press the Cursor  key to shift the cursor under the letter to delete.

Gothic

BAT



Press the Delete  key.

The letter "E" will be deleted.

Gothic

BAT_




Gothic

BAT



- Inserting a letter

Example: To insert "E" to "BAT"

Press the Cursor  key to shift the cursor under the letter before where you wish to insert a letter.

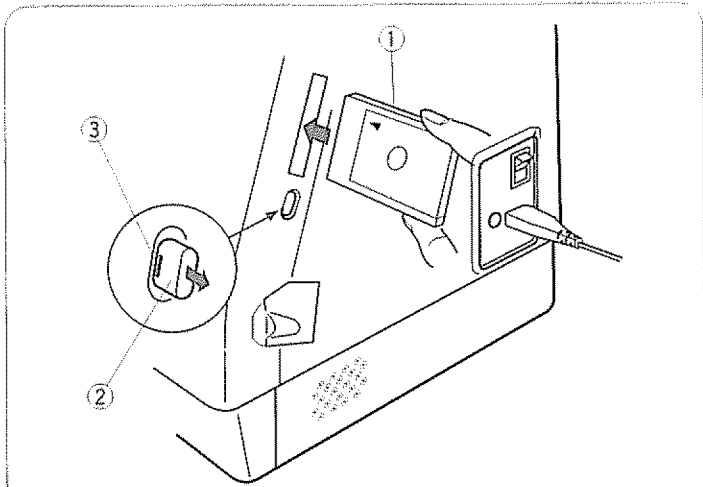
Gothic

BEAT



Select the letter "E".

The letter "E" will be inserted between "B" and "A".



ATA PC Card (Optional)

• To insert the ATA PC card

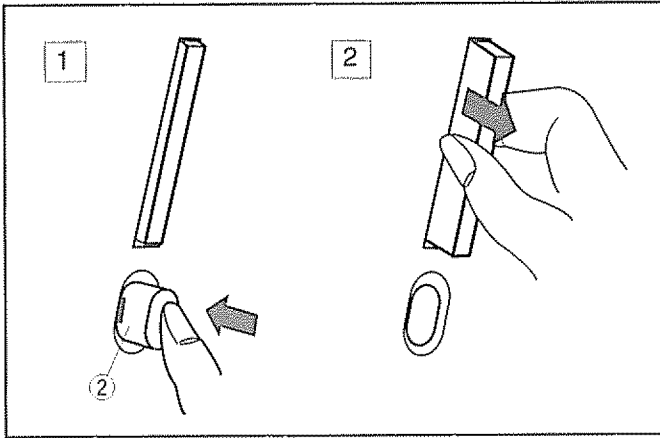
Insert the SanDisk® CompactFlash that contains saved stitch data into the SanDisk® CompactFlash PC card adapter. Then insert the adapter into the slot with the front side of card ① facing you.

Push the card until it clicks, and the eject button ② pops out.

- ① SanDisk® CompactFlash PC card

When the card is properly set, the red bar on the eject button ② will appear.

- ② Eject button
- ③ Red bar

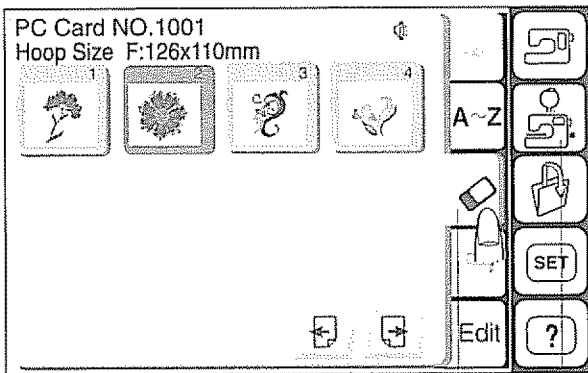


• To eject the ATA PC card

Press the eject button ② to eject the ATA PC card. Take out the ATA PC card from the machine.

Notes:

- Use only Sandisk® CompactFlash 128MB or smaller to store stitch data.
- Use only Sandisk® CompactFlash PC card adapter.



Selecting Card Designs

After inserting a card into your machine, you can view and select its designs in the embroidery mode.

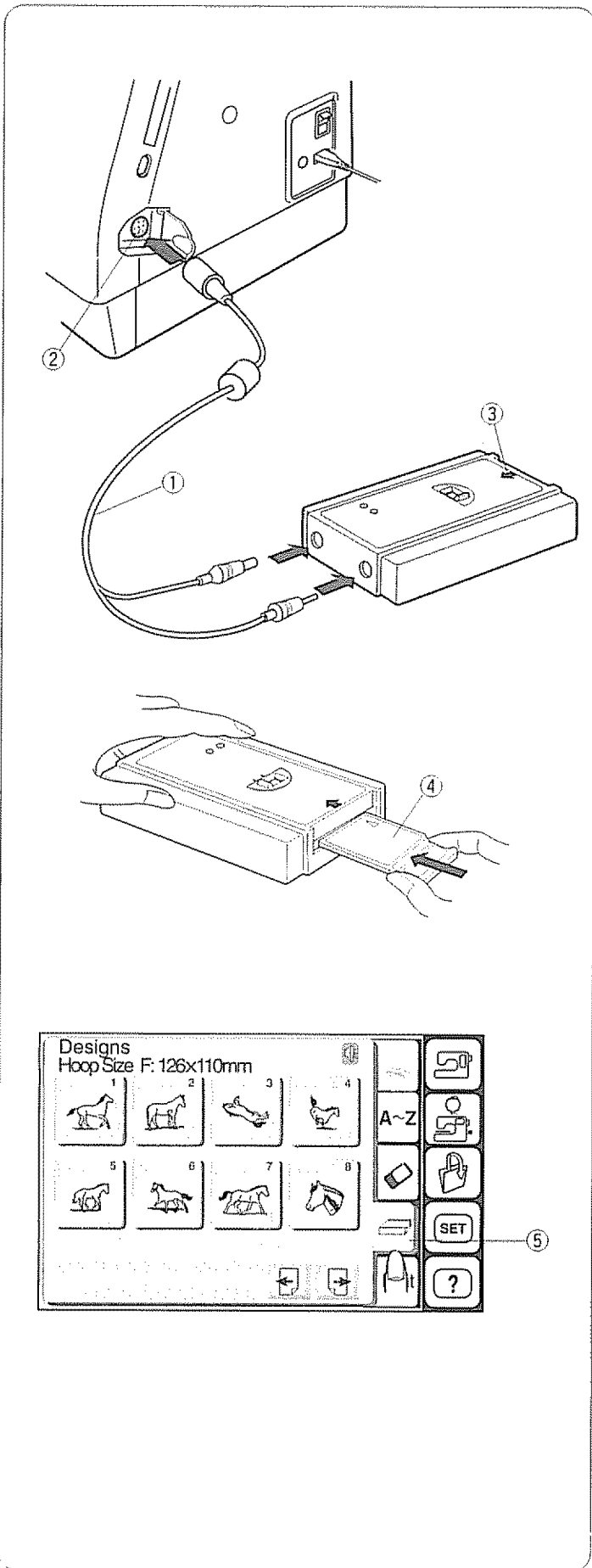
Press the embroidery mode key ① to enter the embroidery mode.

- ① Embroidery mode key
- ② ATA PC card key

Press the ATA PC card key ②. The patterns in the card are displayed in the first page.

CAUTION:

Do not turn the power off or eject the card while the warning sign ⚠ or hourglass is displayed on the visual touch screen. Otherwise, data stored in the memory may be lost or damaged.



Reader 19000

You can download embroidery designs from model 19000 series memory card library via Card Reader 19000 to your Kenmore 19005.

Note:

The Reader 19000 and RS-232C cable are sold separately.

• **Connecting Reader 19000**

Open the small cover under the PC card slot as illustrated.

Insert the RS-232C cable ① into the RS-232C connector ② of the machine.

Insert the two plugs into the card reader 19000.

- ① RS-232C cable
- ② RS-232C connector
- ③ Reader 19000

Insert a memory card from the model 19000 card library into the Card Reader 19000.

- ④ Memory card

Note:

For more details on how to use the Reader 19000, please refer to its instruction manual.

Pattern Selection Screen

After the connection has been made with Card Reader 19000 and your machine

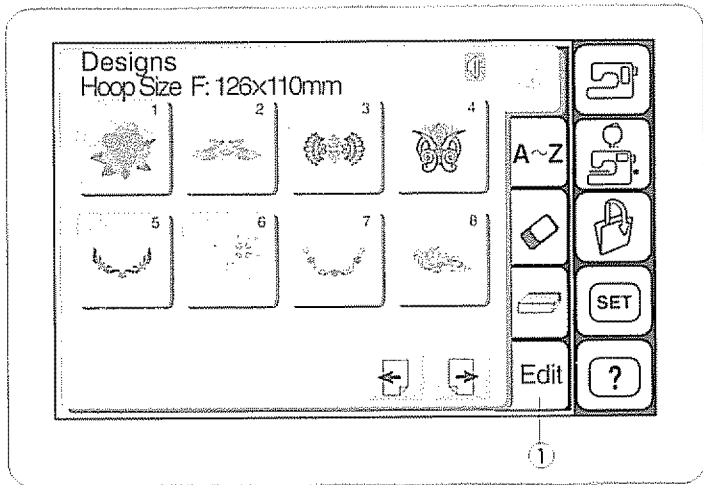
Press the card reader key ⑤.

The pattern selection key will appear.

- ⑤ Card reader key

Note:

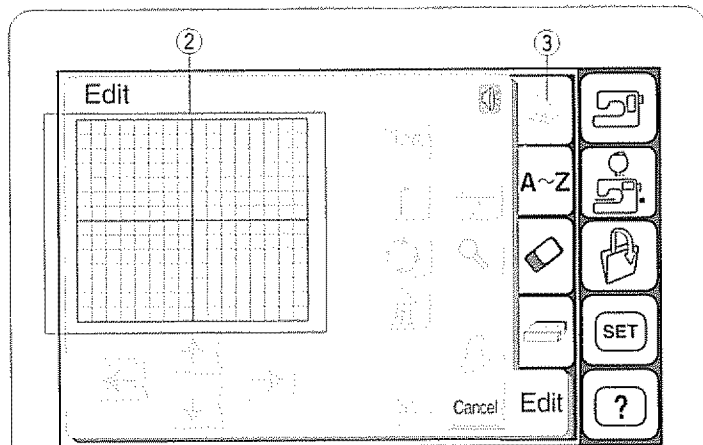
You can select, edit and sew the imported designs in the same way as the built-in embroidery patterns.



Editing Mode

Press the Edit key ① to enter Editing mode.
You can move, rotate, resize and flip the selected pattern on the Edit screen ②.

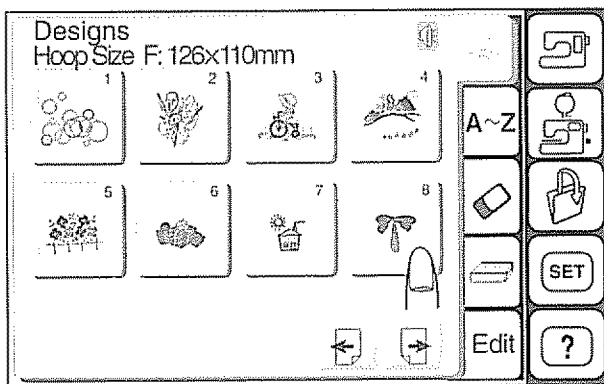
- ① Edit Key
- ② Edit screen



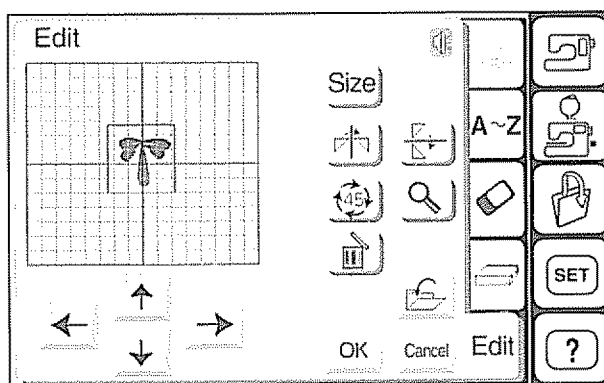
Selecting the Pattern to Edit

The Patterns from the built-in designs, monograms, PC cards and Memory Cards can be edited.
Press the pattern selection key.

- ③ Pattern selection key



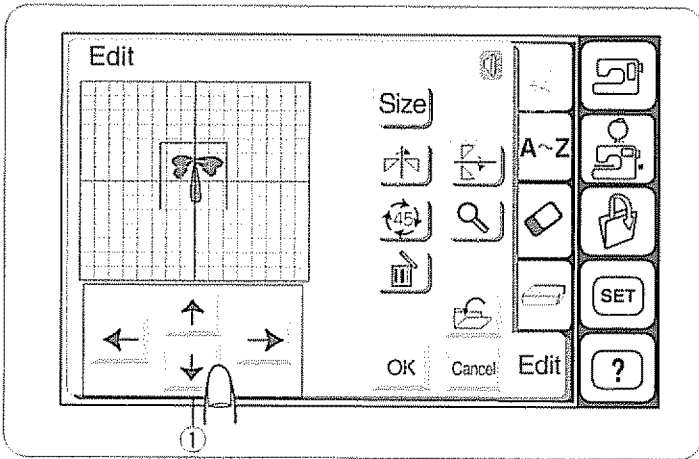
Press the desired pattern key, then press the edit key.



The selected pattern appears on the edit screen surrounded by a red frame. Press on the pattern to select it for editing.

To add another stitch pattern to the edit screen, press the pattern selection key and select the desired pattern, then add it to the edit screen by pressing the OK key.

You can add and edit as many patterns as fill the screen.



Moving a Selected Design

You can move the selected pattern by pressing layout keys ①.

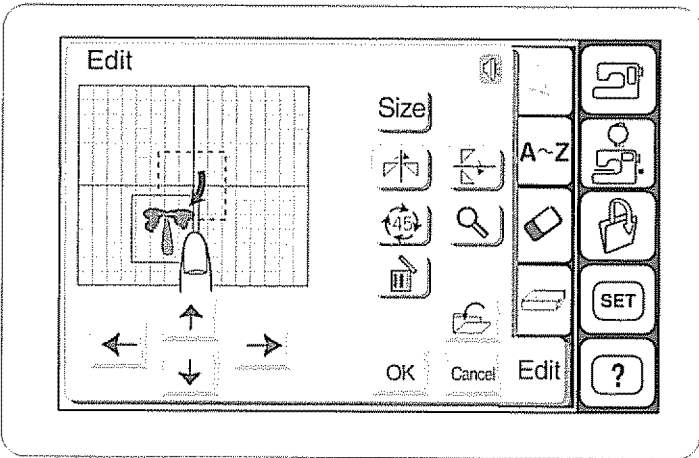
Press the layout keys ① to move the pattern to the desired position on the edit screen.

The carriage will not move when you are pressing the layout keys ① since the pattern position will move relative to the hoop, not to the machine.

① Layout keys

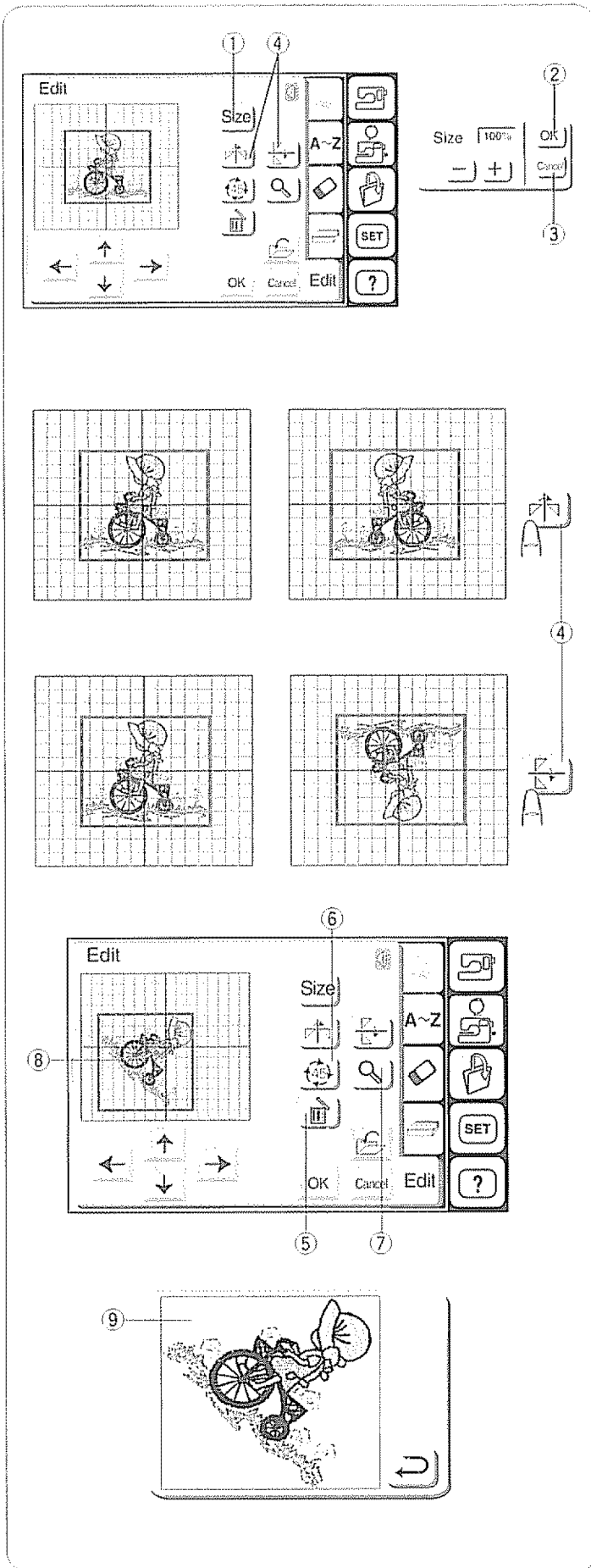
Notes:

- The appearance of the layout keys ① is the same as the jog keys but their function is different.
- Use the jog keys to move the carriage (see page 56)



You can move the pattern to the desired position on the edit screen with your fingertip.

Touch the image of the desired pattern with your fingertip and drag and drop it to the desired position.



• Resizing a Selected Pattern

When you press the size key, the size adjusting window will appear.

① Size Key

You can change the size of embroidery patterns from 90% to 120% of the original pattern size. The size will change 10% each time you press the plus or minus key.

Press the \oplus key to enlarge the size of the pattern. Press the \ominus key to reduce the size of the pattern.

When you press the OK OK key, the embroidery pattern in the new size will appear on the Edit screen.

When you press the Cancel Cancel key, the embroidery pattern size will not change and the Edit screen will reappear.

- ② OK Key
- ③ Cancel Key

Note:

Do not resize the saved pattern that has been resized previously. Repeated resizing may deteriorate stitch quality.

• Flipping a Selected Pattern

When you press the mirror image keys, you may embroider a mirror image of the pattern.

④ Mirror Image Keys

Press the H key to flip the pattern horizontally.

Press the V key to flip the pattern vertically.

• Deleting a Selected Pattern

Press the delete key to delete the selected pattern.

⑤ Delete Key

• Rotating a Selected Pattern

Press the rotate key to rotate the selected pattern. The pattern will rotate 45 degrees clockwise when pressing this key.

⑥ Rotate Key

• Magnifying a Selected Pattern Image

Press the Magnifier key to show a magnified image of the selected pattern.

Press the Return Return key to return to the previous screen.

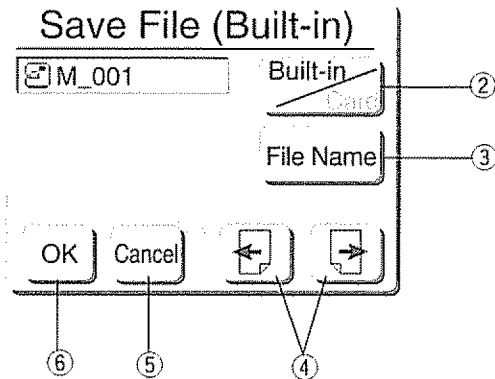
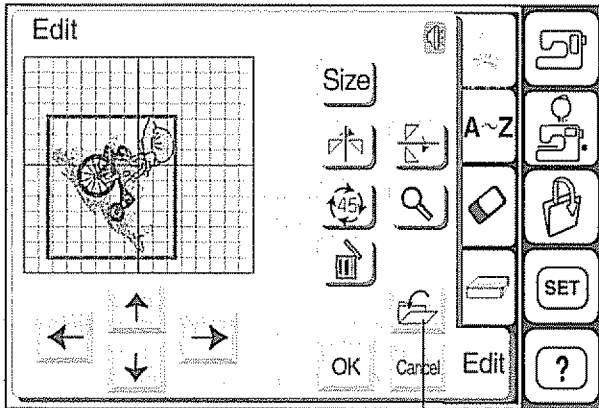
- ⑦ Magnifier Key
- ⑧ Original image
- ⑨ Magnified image

Saving a File


An original design created in the Editing Mode can be saved as a file in the internal memory or an ATA PC card.

Press the Save File key, the Save File window will open.

① Save file Key




You can select the location where you want to save the file



Press the  key, to select the location either in the internal memory of the sewing machine or an ATA PC card.

② Built-in/Card Key


The file name will be automatically assigned starting from M_001 in order.


Press the  key if you wish to assign a new name to the file.

③ File Name key

When you press the   keys, you will be able to see the saved files on the previous and next pages.

④ Page keys



Press the  key to save the file and the screen will return to the original window.

If you do not want to save the file, press the  key to return to the previous window.

⑤ Cancel Key

⑥ OK Key

CAUTION:

Do not turn the power off or eject the card when the warning sign   or hourglass is displayed on the visual touch screen. Otherwise, data stored in the memory may be lost or damaged.

Assigning a File Name

You can assign a file name in the file name window.

Press the **File Name** key to open the file name window.

The character keys are displayed in the window. Press the character keys to enter the desired name. Only 8 characters can be entered.

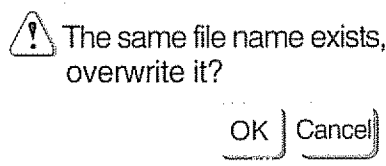
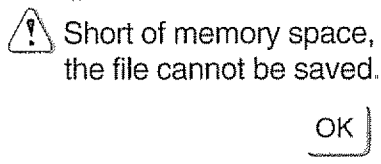
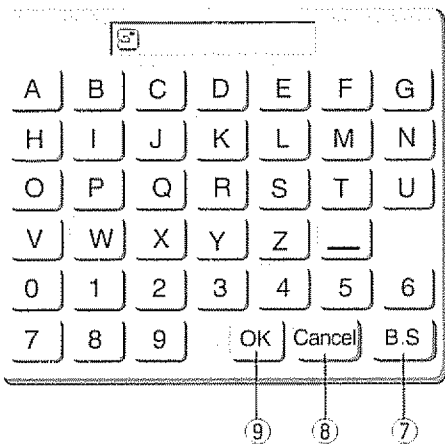
Press the **B.S** key to delete the last character

Press the **Cancel** key and the screen will return to the save file window.

Press the **OK** key to save the file under the new name.

The file will be saved with the new name.

- ⑦ B.S key (Back space key)
- ⑧ Cancel key
- ⑨ OK key



Note:
When the memory is full, a warning message will appear.

Press the **OK** key and go to the open file window then delete the file that you do not need.

When you save a file under the same name, a warning message will appear.

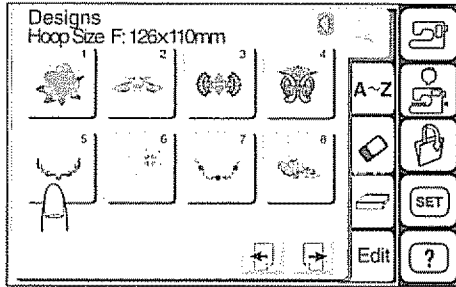
Press the **OK** key to overwrite the existing file.

Press the **Cancel** key if you do not wish to overwrite it. You may need to change the file name and save the file under the different name.

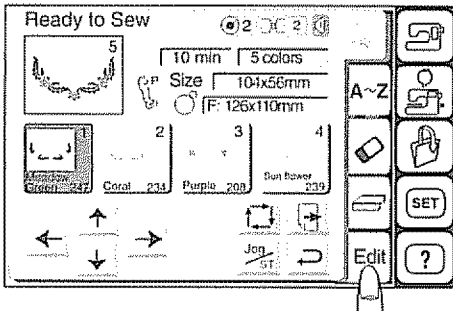
Combining a Built-in Design and Monogram

Example: To combine built-in design 5 and the word "Wreath"

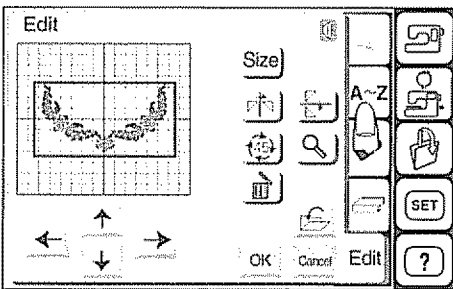
Select the pattern 5 from the built-in designs.



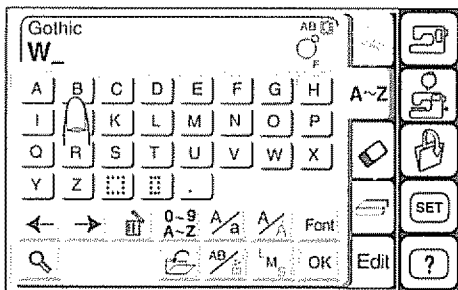
Press the Edit key.
The pattern image will appear in the editing window.



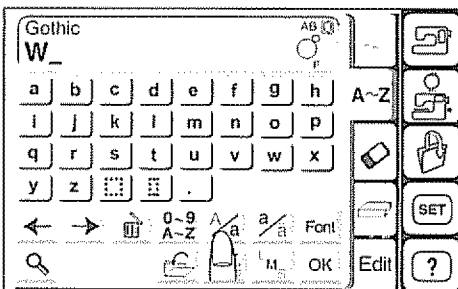
Press the Monogram key.

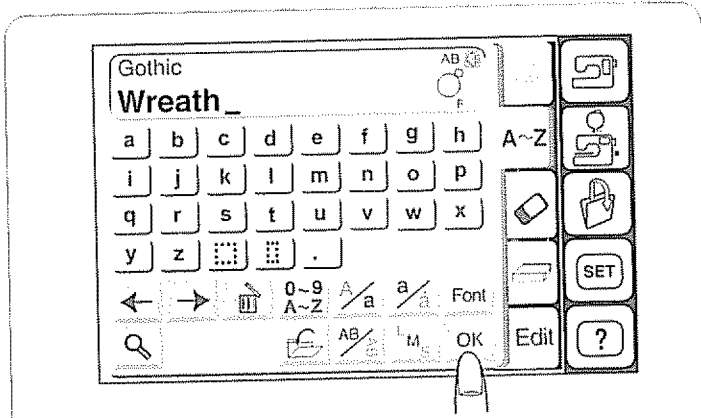


Select "W" (Upper case letter in Gothic style).



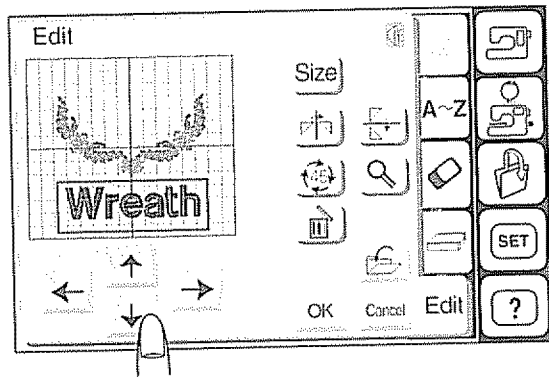
Press the Letter Case key to select lower case letters.



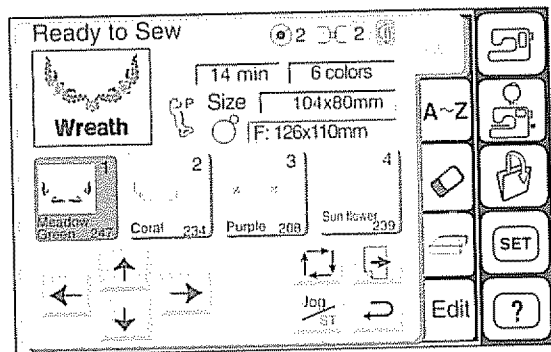


Select "r", "e", "a", "t" and "h".

Press the OK key.
The word "Wreath" will appear in the editing window.



Move the word under the pattern with the layout keys or by dragging it with your fingertip



Press the OK key and the display will change to the embroidery screen.
Start the machine to sew the combined design.



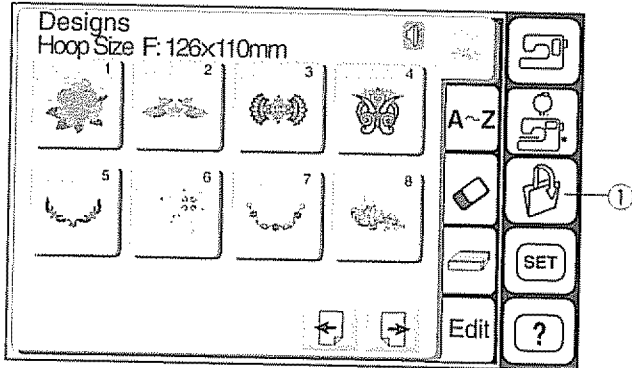
① Stitched Result of the Combined Design

Opening a Saved File

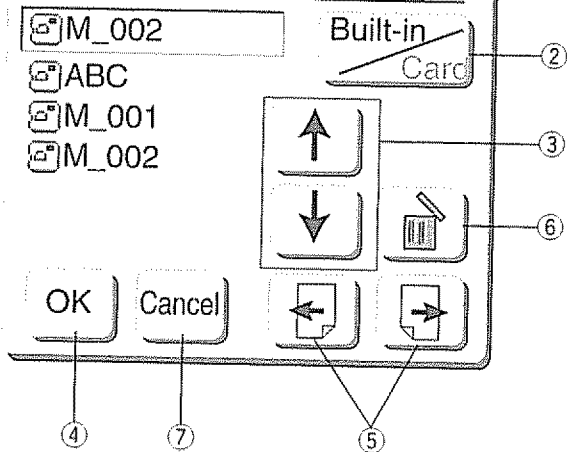
You can open a file to sew embroidery patterns that you have saved.


When you press the open file key ①, the open file window will appear.


① Open file key




Open File(Built-in)




Press the  key to select the location of the file, either in the internal memory of the machine or in an ATA PC card.

Press the  keys to select the desired file to open.

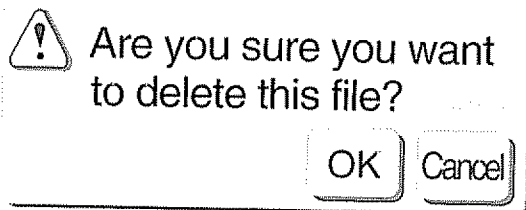
Press the  key to open the selected file.

The pattern combination of the file will be displayed on the screen.


- ② Built-in/Card Key
- ③ Arrow Keys
- ④ OK Key

Pressing the  keys will show the saved files in the next or previous page.

⑤ Page Keys





Deleting a Saved File

When you need to delete the saved file, select the file to delete then press the  key.

⑥ Delete Key

The confirmation window will appear.

Press the  key if you are sure you want to delete it.

When you press the  key, the file will not be deleted.

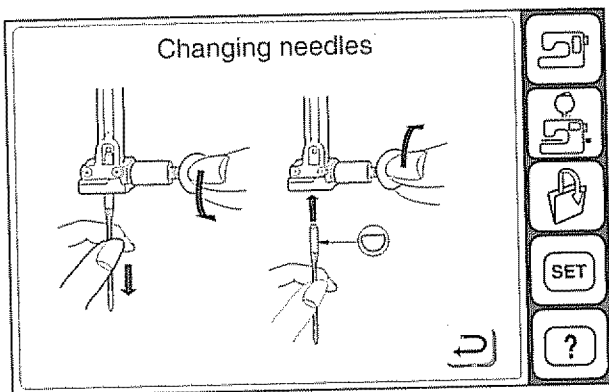
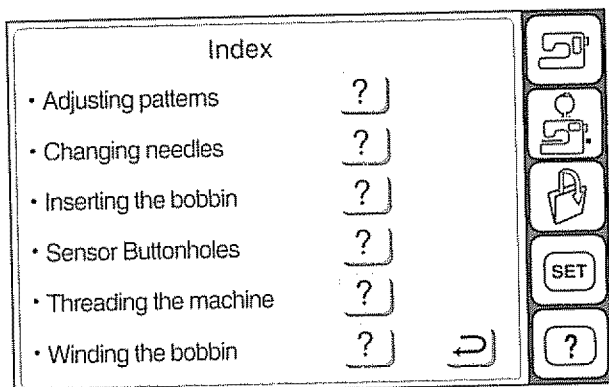
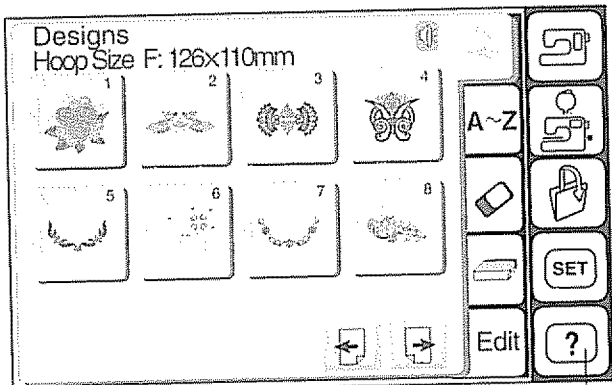
⑦ Cancel Key

On-screen Help

You can view on-screen help for the basic operations of the machine.

Press the **[?]** key.
The help index window will appear.

- ① Help key



Select a help topic by pressing one of the **[?]** keys.

The illustrated help of the selected topic will be displayed on the screen.

Note:

Press the **[>]** key to go back to the previous screen.

SECTION VII. CARE AND MAINTENANCE

WARNING:

- Turn the power switch off and unplug the machine before cleaning.
- Do not dismantle the machine other than as explained in this section.

CAUTION:

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

Note:

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

Cleaning the Hook Race and Feed Dogs

- 1 Remove the setscrew on the needle plate with the screwdriver supplied with the machine. Remove the needle plate.
- 2 Take out the bobbin. Lift up the bobbin holder and remove it.
- 3 Clean the bobbin holder with a lint brush. (You may also use a vacuum cleaner.)
- 4 Clean the feed dogs and hook race with the lint brush.
- 5 Clean the hook race with a dry cloth. (You may also use a vacuum cleaner.)

- 1 Screwdriver
- 2 Setscrew
- 3 Needle plate
- 4 Bobbin holder
- 5 Lint brush
- 6 Feed dogs
- 7 Hook race
- 8 Soft dry cloth

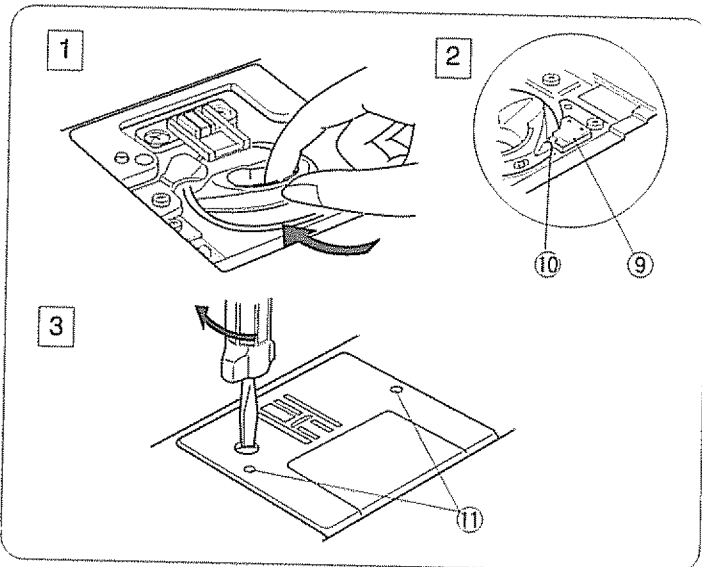
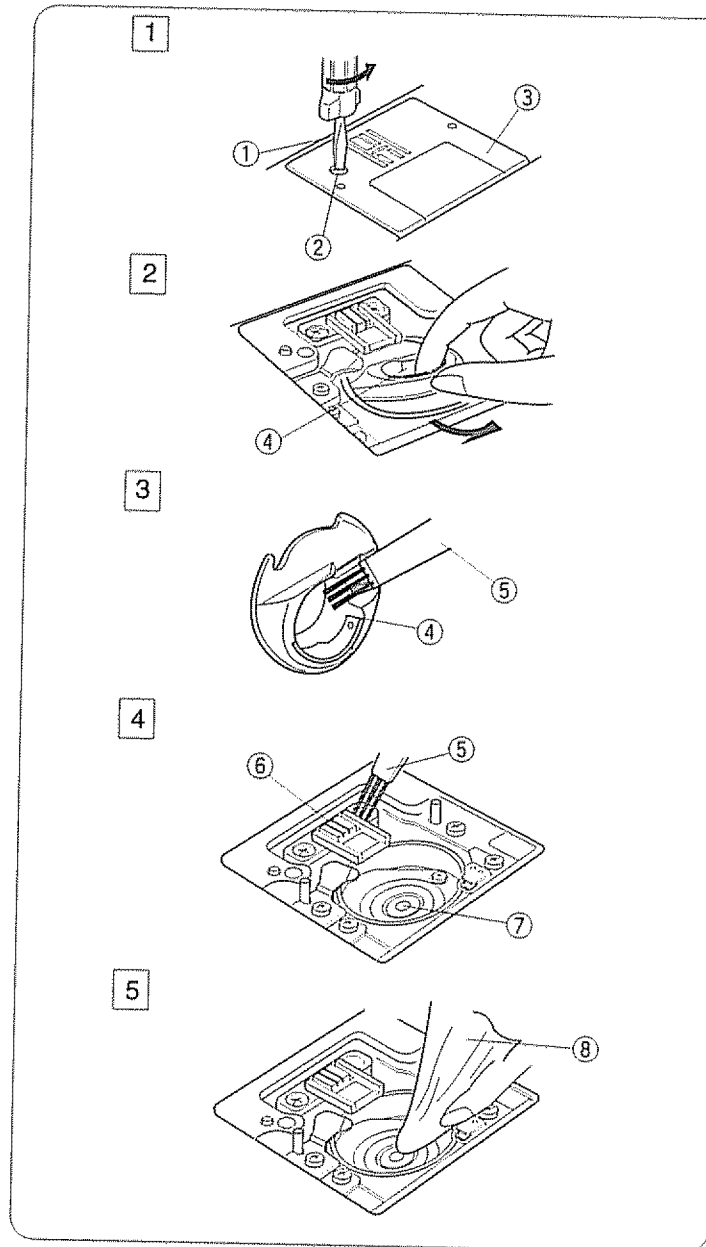
Assemble the Hook Race

- 1 Insert the bobbin holder.
- 2 The knob of the bobbin holder should fit next to the Stopper in the hook race.
- 3 Reattach the needle plate, aligning the needle plate guide pins with the guide holes on the needle plate and tighten the screw.

- 9 Stopper
- 10 Knob
- 11 Guide holes

Note:

After cleaning the machine, make sure the needle and presser foot are attached.



Replacing the Light Bulb

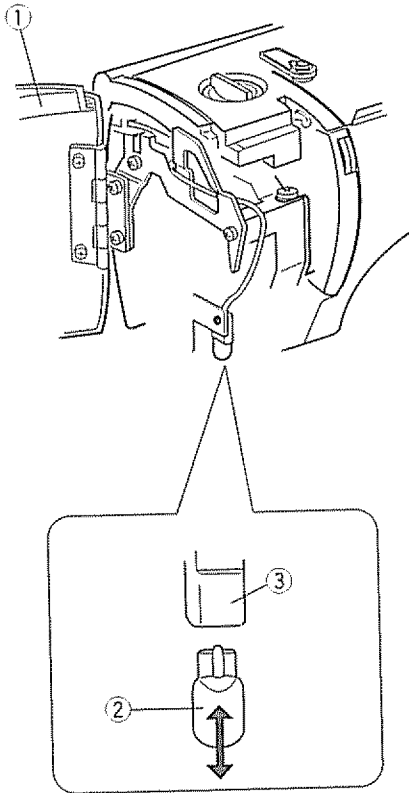
WARNING:

As the light bulb could be **HOT**, protect your fingers when you handle it.

Open the face cover ①.
Pull out the bulb ② from the socket ③.
Insert the new light bulb to the socket
Close the face cover.

- ① Face cover
- ② Light bulb
- ③ Lamp socket

Replace the bulb with the same type, rated 12V, 5W.



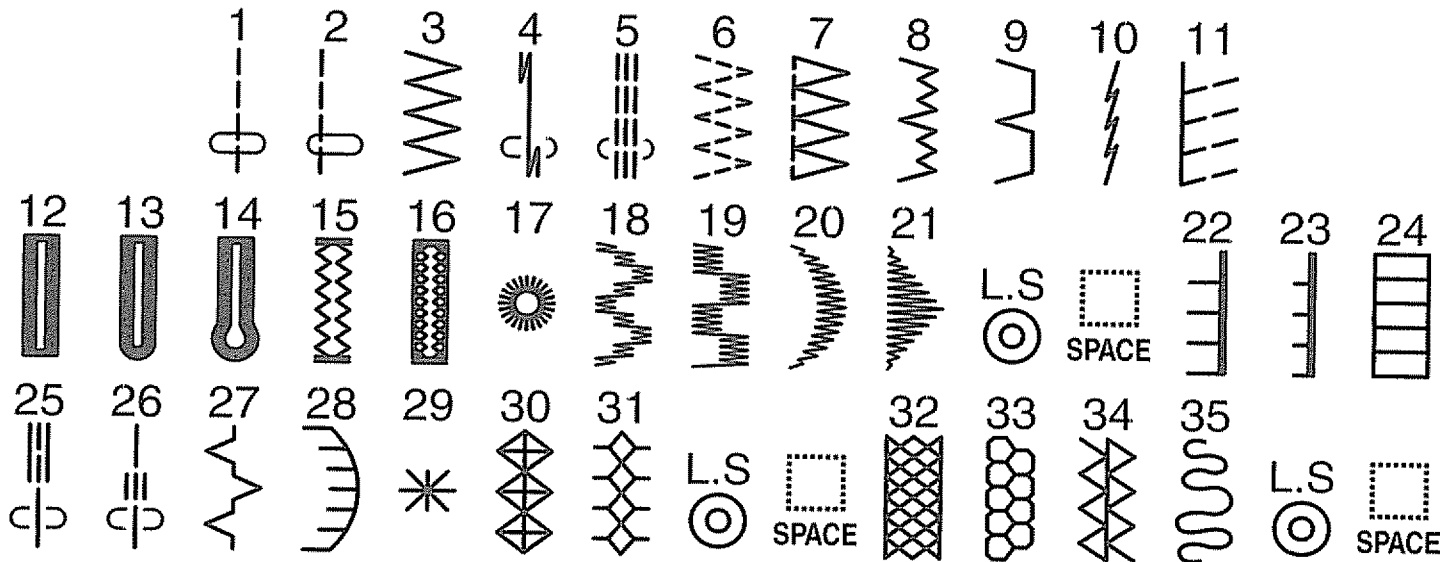
Troubleshooting

Problem	Cause	Reference
The machine is noisy.	<ol style="list-style-type: none"> 1. Threads have been caught in the hook mechanism. 2. The feed dog is packed with lint. 	<p>See page 76.</p> <p>See page 76.</p>
The needle thread breaks.	<ol style="list-style-type: none"> 1. The needle thread is not threaded properly. 2. The needle thread tension is too tight. 3. The needle is bent or blunt. 4. The needle is inserted incorrectly. 5. The thread is too heavy for the needle. 6. The needle thread is not set in the thread holder when embroidery sewing started. 	<p>See page 16.</p> <p>See page 26, 32</p> <p>See page 8.</p> <p>See page 8.</p> <p>See page 8.</p> <p>See page 54.</p>
The bobbin thread breaks.	<ol style="list-style-type: none"> 1. The bobbin thread is not threaded properly in the bobbin holder. 2. Lint has collected in the bobbin holder. 3. The bobbin is damaged and does not turn smoothly. 	<p>See page 15.</p> <p>See page 76.</p> <p>Replace the bobbin.</p>
The needle breaks.	<ol style="list-style-type: none"> 1. The needle is inserted incorrectly. 2. The needle is bent or blunt. 3. The needle clamp screw is loose. 4. The needle thread tension is too tight. 5. The fabric is not drawn to the rear when sewing is finished. 6. The needle is too fine for the fabric being sewn. 	<p>See page 8.</p> <p>See page 8.</p> <p>See page 8.</p> <p>See page 26, 32.</p> <p>See page 22.</p> <p>See page 12.</p>
Visual Touch Screen is not clear.	<ol style="list-style-type: none"> 1. The contrast of the screen is not adjusted properly. 	<p>See page 20</p>
PC Card does not work.	<ol style="list-style-type: none"> 1. The PC Card is not inserted correctly. 2. The PC Card is damaged. 	<p>See page 65.</p> <p>See page 21.</p>
Skipped stitches	<ol style="list-style-type: none"> 1. The needle is inserted incorrectly. 2. The needle is bent or blunt. 3. The needle and/or threads are not suitable for the work being sewn. 4. A BLUE TIPPED needle is not being used for sewing stretch, very fine and synthetics. 5. The needle thread is not threaded properly. 6. A defective (rusted, burred needle eye) needle is used. 7. The embroidery hoop is not set properly. 8. The fabric is not pulled tightly enough on the embroidery hoop. 	<p>See page 8.</p> <p>See page 8.</p> <p>See page 12.</p> <p>See page 12.</p> <p>See page 16.</p> <p>Change the needle.</p> <p>See page 54</p> <p>See page 53</p>
Seam puckering	<ol style="list-style-type: none"> 1. The needle tension is too tight. 2. The needle thread or the bobbin thread is not threaded correctly. 3. The needle is too heavy for the fabric being sewn. 4. The stitch length is too long for the fabric. 5. The presser foot pressure is not adjusted correctly. *When sewing extremely lightweight materials place interfacing underneath the fabric. 6. The fabric is not pulled tightly enough on the embroidery hoop. 	<p>See page 26, 32.</p> <p>See pages 15, 16.</p> <p>See page 12.</p> <p>Make stitches shorter.</p> <p>See page 6.</p> <p>See page 53.</p>

Problem	Cause	Reference
Slipping fabric	<ol style="list-style-type: none"> 1. The presser foot pressure is not adjusted correctly 2. The correct presser foot is not being used. 	<p>See page 6. See page 10–11</p>
The cloth is not feeding smoothly.	<ol style="list-style-type: none"> 1. The feed dog is packed with lint. 2. The presser foot pressure is too weak. 3. The stitches are too fine 4. The fabric is not fed when sewing is starting 5. The feed dog is lowered 6. The correct presser foot is not used. 	<p>See page 76 See page 6. Make stitches longer. See page 22. See page 6 See page 10–11.</p>
The machine does not run.	<ol style="list-style-type: none"> 1. The machine is not plugged in. 2. A thread is caught in the hook race. 3. The control circuit is not working correctly. 4. The Start/Stop button is used for ordinary sewing with foot control plugged in. 	<p>See page 4 See page 76. Turn the switch off and turn it on again. See page 5.</p>
Strange sounds occur when the machine is switched on.	<ol style="list-style-type: none"> 1. Something is caught between the carriage and the arm 2. The carriage is touching something around the machine. 	<p>Remove the object. See page 54.</p>
Patterns are distorted	<ol style="list-style-type: none"> 1. The correct presser foot is not used 2. The needle thread tension is too light. 3. The stitch length is not suitable for the fabric being sewn. 4. Feed balancing dial is not properly set. 5. Interfacing is not used for sewing stretch and very fine fabrics 6. The embroidery hoop Attaching Knob is loose. 7. The carriage is bumping into something around the machine 8. The fabric is not pulled tightly enough on the embroidery hoop 9. The fabric is caught or pulled for some reason when sewing embroidery. 	<p>See page 10–11. See page 26, 32. See pages 30, 25. See page 9. Use interfacing See page 54. See page 54 See page 53 Stop the machine and free the fabric.</p>
The automatic buttonhole stitches are not balanced	<ol style="list-style-type: none"> 1. The stitch length is not suitable for the fabric being sewn. 2. The feed balancing dial is not set properly. 3. Interfacing is not used with stretch fabric. 	<p>See pages 25, 30. See page 9. Use an interfacing.</p>
Pattern selection keys do not work	<ol style="list-style-type: none"> 1. The bobbin winder spindle is in the winding position. 2. The control circuit is not working correctly. 3. The key position is out of alignment. 	<p>See page 14. Turn the switch off and turn it on again. See page 21.</p>

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STITCH CHART



EMBROIDERY MONOGRAMMING CHART

Gothic

A	B	C	D	E	F	G	H	I	J	K	L	M	N	
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Script

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<i>O</i>	<i>P</i>	<i>Q</i>	<i>R</i>	<i>S</i>	<i>T</i>	<i>U</i>	<i>V</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	□	□	
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>	<i>k</i>	<i>l</i>	<i>m</i>	<i>n</i>	
<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>u</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	□	□	
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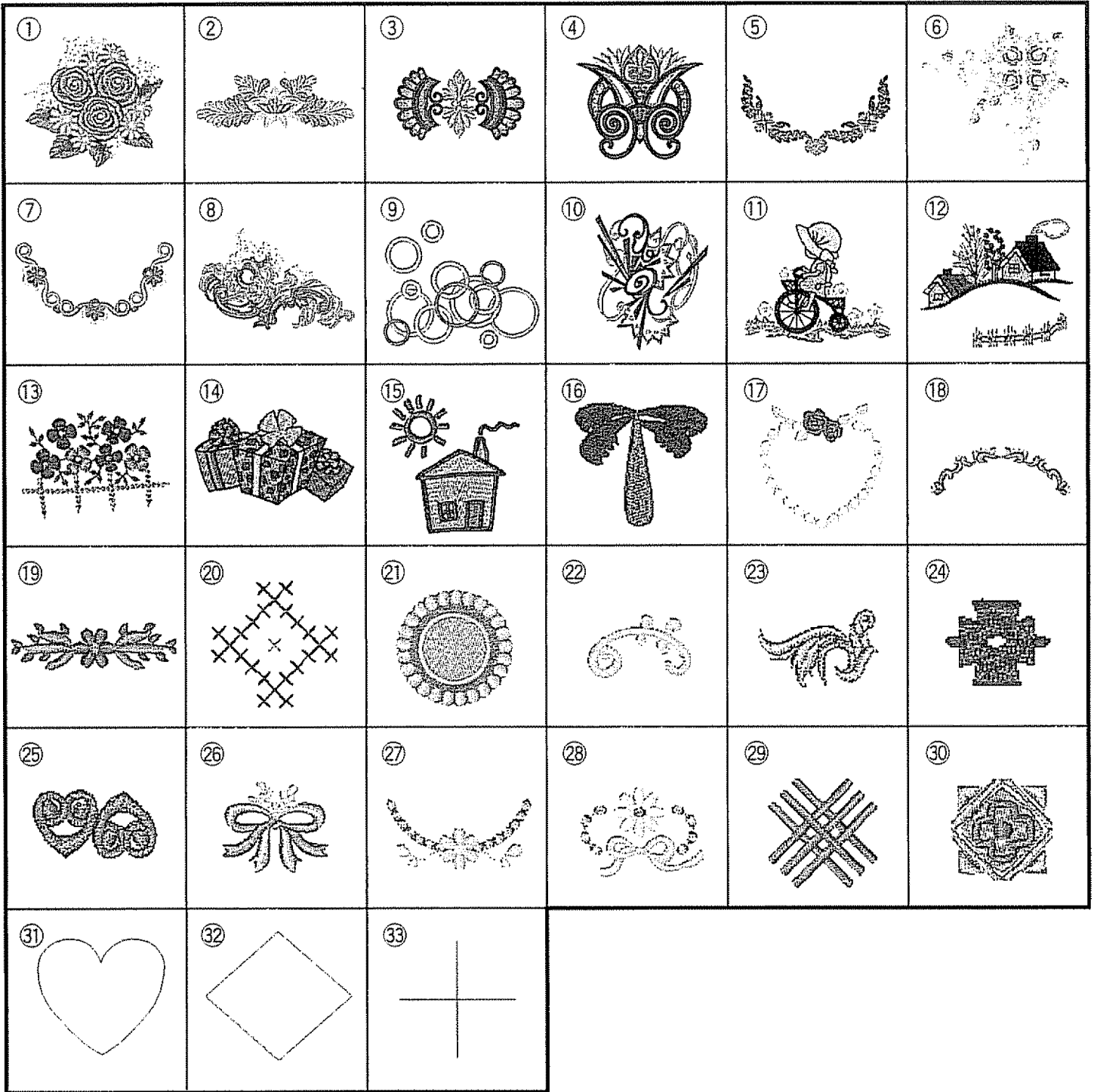
3-letters



2-letters



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* Pattern 33 is the center lines for calibration of the Clothsetter. (optional)

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